

# BREAUX ACT

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT TECHNICAL COMMITTEE MEETING

### AGENDA

December 2, 2009 9:30 a.m.

**Location:**

LA Department of Wildlife and Fisheries  
Louisiana Room  
2000 Quail Dr.  
Baton Rouge, La.

Documentation of Technical Committee meetings may be found at:

[http://www.mvn.usace.army.mil/pd/cwppra\\_mission.htm](http://www.mvn.usace.army.mil/pd/cwppra_mission.htm)

#### Tab Number

#### Agenda Item

1. **Meeting Initiation 9:30 a.m. to 9:40 a.m.**
  - Introduction of Technical Committee or Alternates
  - Opening remarks of Technical Committee Members
  - Request for Agenda Changes/Additional Agenda Items/Adoption of Agenda
2. **Report: Status of Breaux Act Program Funds and Projects (Gay Browning, USACE) 9:40 a.m. to 9:50 a.m.** Ms. Gay Browning will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.
3. **Report: Task Force Fax Vote Approving West Belle Pass Project Scope Change (Melanie Goodman) 9:50 a.m. to 9:55 a.m.** During the October 28, 2009 Task Force meeting, the National Marine Fisheries Service and the Louisiana Office of Coastal Protection and Restoration requested approval for a project scope change for the West Belle Pass Barrier Headland Restoration Project due to an increase in the project cost. The Task Force deferred making a decision until a final economic analysis was completed and reviewed by the Economic Workgroup. This analysis was completed and the Task Force subsequently approved the project scope change by FAX Vote.
4. **Report/Discussion: Status of the PPL 1 – West Bay Sediment Diversion Project (MR-03) (Cherie Price, USACE) 9:55 a.m. to 10:25 a.m.** Ms. Cherie Price will provide a status of the Pilottown Anchorage Area dredging and a summary of the West Bay Work Plan, 6 month effort results.
5. **Report/Discussion: Status of Technical Committee Scope of Work for Review of the CWPPRA Monitoring Program (Richard Hartman, NMFS) 10:25 a.m. to 10:45 a.m.** At their October 28, 2009 meeting, the Task Force directed the Technical Committee to develop a scope of work and schedule, to be completed by December 3, 2009, for a plan to look at the estimated life cycle cost of CRMS, and if CRMS and project specific monitoring are meeting CWPPRA Program needs in terms of being able to demonstrate if the program investment in coastal restoration projects has been successful.
6. **Report: Floating Marsh Creation Demonstration Project (LA-05) – Presentation of Major Findings. (Dr. Jenneke Visser). 10:45 a.m. to 11:00 a.m.** The LA-05 project has reached the end of its final growing season and data collection. Dr. Jenneke Visser will present the major findings from this CWPPRA demonstration project.

- 7. Report/Discussion: Status of the PPL 8 - Sabine Refuge Marsh Creation Project, Cycle II, IV, & V (CS-28-4&5) (Scott Wandell, USACE) 11:00 a.m. to 11:10 a.m.** Mr. Scott Wandell will provide a status on the construction of the permanent pipeline (Cycle II) and potential construction schedule for Cycles IV and V to meet the Calcasieu Ship Channel FY 11 maintenance cycle in winter 2010/2011.
- 8. Report/Discussion: Status of the PPL 9 – Weeks Bay MC and SP/Commercial Canal/Freshwater Redirection Project (TV-19) (Travis Creel, USACE) 11:10 a.m. to 11:25 a.m.** At the April 15, 2009 meeting, the Technical Committee granted a one-year extension on the Weeks Bay Project so Vermilion and Iberia Parishes could prepare a feasibility report using CIAP funds. Mr. Travis Creel will provide a six month progress report on Vermilion and Iberia Parishes efforts.
- 9. Report/Discussion: Status of Unconstructed Projects (Melanie Goodman, USACE) 11:25 a.m. to 11:55 a.m.** The P&E Subcommittee will report on the status of unconstructed CWPPRA projects that have been experiencing project delays, including Corps projects that have been delayed due to Cost Sharing Agreement (CSA) issues. The Corps will provide a status on their CSA negotiations with the state and report to the P&E Subcommittee in May 2010 on the progress of those efforts. The P&E will also report on milestones they established for several projects and make recommendations on potential directions to take on program procedures and/or projects as outlined below:
- a. The P&E recommends that all unconstructed pre-cash flow projects converting to cash-flow procedures due to scope changes be subject to 30% and 95% design review procedures.
  - b. The P&E recommends that deauthorization procedures be initiated for the following projects:
    1. MR-13 Benney’s Bay Sediment Diversion Project (USACE).
    2. PO-32 Lake Borgne MRGO Shoreline (USACE).
- 10. Discussion/Decision: 19<sup>th</sup> Priority Project List (Tom Holden, USACE) 11:55 a.m. to 12:55 p.m.** The Environmental Workgroup Chairman will present an overview of the ten PPL 19 candidate projects and three PPL19 candidate demonstration projects. The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 19 projects for Phase I Engineering and Design.
- 11. Discussion/Decision: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding (Tom Holden, USACE) 12:55 p.m. to 1:55 p.m.** The Technical Committee will consider requests for Phase II authorization and approval of Increment 1 funding for cash flow projects, for recommendation to the Task Force. Due to limited funding, the Technical Committee will recommend a list of projects for Task Force approval within available program construction funding limits. Each project listed in the following table will be discussed individually by its sponsoring agency. Following presentations and discussion on individual projects, the Technical Committee will rank all projects to aid in deciding which to recommend to the Task Force for Phase II authorization and funding.

Agency	Project No.	PPL	Project Name	Construct Start Date	Total Fully Funded Cost Est.	Net Benefit Acres	Total Cost per Acre
NRCS	BA-27c(4)	9	Barataria Basin Landbridge, Phase 3 - CU 8	Aug-10	\$20,498,664	107	\$191,576
NRCS	CS-49 (1)	18	Cameron-Creole Fresh Water Intro, Vegetative Plantings - CU 1	Aug-10	\$1,147,096	40	\$28,677
COE	TV-11b	9	Freshwater Bayou Canal, Freshwater Bayou Lock and Belle Isle Canal	Sep-10	\$38,065,335	241	\$157,947
NRCS	TE-43	10	GIWW Bank Restoration of Critical Areas in Terrebonne	Oct-10	\$13,022,246	65	\$200,342
EPA	TE-47	11	Ship Shoal: Whiskey West Flank Restoration	Jan-11	\$61,750,785	195	\$316,671
FWS	ME-20	11	South Grand Chenier Hydrologic Restoration	Aug-10	\$29,046,128	352	\$82,517
NMFS	TE-52	16	West Belle Pass Barrier Headland Restoration	Jun-10	\$42,250,417	305	\$138,5268

**12. Additional Agenda Items (Tom Holden, USACE) 1:55 p.m. to 2:00 p.m.**

**a. Report/Discussion: Update on a Potential Change in the Project Scope for the Bio-Engineered Oyster Reef Demonstration Project (LA-08) Due to an Estimated Budget Increase (Richard Hartman, NMFS).** Since the September Technical Committee meeting, the NMFS and OCPR have been working to modify the design for the Bio-Engineered Oyster Reef Demonstration Project. The current design is going through engineering work group review so final costs are not yet available. Dr. John Foret will make a presentation on the current status of the engineering and design and the estimated increase in project construction cost. The Technical Committee will have the opportunity to discuss and ask questions at this time. An increase in project costs and construction approval would be requested at a later date.

**13. Request for Public Comments (Tom Holden, USACE) 2:00 p.m. to 2:05 p.m.**

**14. Announcement: Priority Project List 20 Regional Planning Team Meetings (Melanie Goodman, USACE) 2:05 p.m. to 2:10 p.m.**

January 26, 2010	1:00 p.m.	Region IV Planning Team Meeting	Rockefeller Refuge
January 27, 2010	9:30 a.m.	Region III Planning Team Meeting	Houma
January 28, 2010	9:30 a.m.	Region II Planning Team Meeting	New Orleans
January 28, 2010	1:00 p.m.	Region I Planning Team Meeting	New Orleans
February 24, 2010	10:00 a.m.	RPT Voting Meeting	Baton Rouge

**15. Announcement: Date of Upcoming CWPPRA Program Meeting (Melanie Goodman, USACE) 2:10 p.m. to 2:15 p.m.** The Task Force meeting will be held January 20, 2010 at 9:30 a.m. at the U.S. Army Corps of Engineers, 7400 Leake Ave., New Orleans, Louisiana in the District Assembly Room (DARM).

**16. Announcement: Scheduled Dates of Future Program Meetings (Melanie Goodman, USACE) 2:15 p.m. to 2:30 p.m.**

**2010**

January 20, 2010	9:30 a.m.	Task Force	New Orleans
January 26, 2010	1:00 p.m.	Region IV Planning Team Meeting	Rockefeller Refuge
January 27, 2010	9:30 a.m.	Region III Planning Team Meeting	Houma
January 28, 2010	9:30 a.m.	Region II Planning Team Meeting	New Orleans
January 28, 2010	1:00 p.m.	Region I Planning Team Meeting	New Orleans
February 24, 2010	10:00 a.m.	RPT Voting Meeting	Baton Rouge
April 14, 2010	9:30 a.m.	Technical Committee	New Orleans
June 2, 2010	9:30 a.m.	Task Force	Lafayette
September 22, 2010	9:30 a.m.	Technical Committee	Baton Rouge
October 27, 2010	9:30 a.m.	Task Force	New Orleans
November 16, 2010	7:00 p.m.	PPL 20 Public Meeting	Abbeville
November 17, 2010	7:00 p.m.	PPL 20 Public Meeting	New Orleans
December 1, 2010	9:30 a.m.	Technical Committee	Baton Rouge

**17. Decision: Adjourn**

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**STATUS OF BREAUX ACT PROGRAM FUNDS AND PROJECTS**

Ms. Gay Browning will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.

Potential Construction Program Funding Requests for 2 December 2009 Tech Committee Recommendation				11 Jan 2010
	Total	TC?	Fed	Non-Fed
<b>1. Funds Available:</b>				
Funds Available, 1 Dec 2009	(\$15,743,320)		(\$15,743,311)	
FY10 Construction Program Funding [Fed + N/F]	\$93,343,320			
<b>Total</b>	<b>\$77,600,000</b>		<b>(\$15,743,311)</b>	
<b>2. Potential Project Funds to be Returned to Construction Program:</b>				
Deauthorized Projects	\$7,000,000		\$5,950,000	\$1,050,000
Projects Completed Construction	\$20,000,000		\$17,000,000	\$3,000,000
MRGO-Lake Borgne (Initial Funds Returned - in process of deauthorization)	\$250,000		\$212,500	\$37,500
			\$0	\$0
<b>Total</b>	<b>\$27,250,000</b>		<b>\$23,162,500</b>	<b>\$4,087,500</b>
<b>3. Agenda Item 10a: Dec 2009 - Request for PPL 19 Phase I Project Recommendation:</b>				
Fritchie Marsh Terracing and Marsh Creation	\$2,430,448		\$2,065,881	\$364,567
LaBranche East Marsh Creation	\$2,571,273	Y	\$2,185,582	\$385,691
Monsecour Siphon	\$1,873,637		\$1,592,591	\$281,046
Dedicated Sediment Delivery & Water Conveyance for MC Near Big Mar	\$2,143,994		\$1,822,395	\$321,599
Breton Marsh Restoration	\$1,507,397		\$1,281,287	\$226,110
Bayou Dupont to Bayou Barataria Marsh Creation	\$2,536,927		\$2,156,388	\$380,539
Cheniere Ronquille Barrier Island Restoration	\$3,419,263	Y	\$2,906,374	\$512,889
Lost Lake Marsh Creation and Hydrologic Restoraiton	\$2,320,214	Y	\$1,972,182	\$348,032
Freshwater Bayou Marsh Creation	\$2,425,997	Y	\$2,062,097	\$363,900
Cameron-Creole Watershed Grand Bayou Marsh Creation	\$2,101,653		\$1,786,405	\$315,248
<b>Total</b>	<b>\$23,330,803</b>		<b>\$19,831,183</b>	<b>\$3,499,620</b>
<b>4. Agenda Item 10b: Dec 2009 - Request for PPL 19 Demonstration Project Recommendation:</b>				
Viper Wall	\$1,427,154		\$1,213,081	\$214,073
Eco Systems Wave Attenuator	\$2,214,945		\$1,882,703	\$332,242
Bayou Backer	\$910,893		\$774,259	\$136,634
<b>Total</b>	<b>\$4,552,992</b>		<b>\$3,870,043</b>	<b>\$682,949</b>
<b>5. Agenda Item 11: Dec 2009 - Request for Phase II Authorization and Phase II Incr 1 (Construction + 3 years OM&amp;M) Recommendation:</b>				
GIWW Bank Rest of Critical Areas in Terrebonne (TE-43) [PPL 10]	\$9,522,152		\$8,093,829	\$1,428,323
Freshwater Bayou Canal (TV-11b) [PPL 9]	\$33,026,466		\$28,072,496	\$4,953,970
Ship Shoal: Whiskey Island West Flank Restoration (TE-47) [PPL 11]	\$57,851,834		\$49,174,059	\$8,677,775
Barataria Basin Landbridge, Phase 3 - CU 8 (BA-27c(4)) [PPL 9]	\$16,645,710	Y	\$14,148,854	\$2,496,857
South Grand Chenier HR (ME-20) [PPL 11] <b>SHOULD BE \$24,921,491</b>	\$24,911,754	Y	\$21,174,991	\$3,736,763
West Belle Pass Barrier Headland Restoration (TE-52) [PPL 16]	\$38,874,727	Y	\$33,043,518	\$5,831,209
Cameron-Creole FW Introduction - CU 1 (Veg Plntgs) (CS-49-1) [PPL 18]	\$990,199	Y	\$841,669	\$148,530
<b>Total</b>	<b>\$181,822,842</b>		<b>\$154,549,416</b>	<b>\$27,273,426</b>
<b>6. Agenda Item 12: Dec 2009 - Additional Agenda Items</b>				
			\$0	\$0
			\$0	\$0
<b>Total</b>	<b>\$0</b>			<b>\$0</b>
<b>(1) Funds Available for Dec 2009 Recommendations</b>				
	<b>\$77,600,000</b>			
<b>(2) Potential Funds to be Returned to Constructioin Program</b>				
	<b>\$27,250,000</b>			
<b>(3, 4, 5, 6) Proposed Dec 2009 Recommendations</b>				
	<b>\$209,706,637</b>			
<b>December 2009 Approved Recommendations</b>				
	<b>\$92,159,137</b>			
<b>Available Funds Surplus/(Shortage)</b>				
	<b>\$12,690,863</b>			

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**TASK FORCE FAX VOTE APPROVING WEST BELLE PASS PROJECT  
SCOPE CHANGE**

**For Report:**

During the October 28, 2009 Task Force meeting, the National Marine Fisheries Service and the Louisiana Office of Coastal Protection and Restoration requested approval for a project scope change for the West Belle Pass Barrier Headland Restoration Project due to an increase in project cost. The Task Force deferred making a decision until a final economic analysis was completed and the Task Force subsequently approved the project scope change by FAX Vote.



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Silver Spring, MD 20910

November 5, 2009

Colonel Alvin Lee  
Chairman  
Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Task Force  
U.S. Army Corps of Engineers  
New Orleans District  
P.O. Box 70267  
New Orleans, LA 70160

Re: Scope Change Request for West Belle Pass Barrier Headland Restoration Project (TE-52)

Dear Colonel Lee:

The NOAA National Marine Fisheries Service (NMFS) and the Louisiana Office of Coastal Protection and Restoration (OCPR) are requesting the initiation of fax vote procedures to approve a scope change for the above referenced project. Section 6.e.3 of the Standard Operating Procedures states that if a change in scope results in a 25% or greater variance from the original estimated project benefits or cost, that a report must be submitted to the Technical Committee explaining the reasons for the variance. After completing a robust engineering investigation and selecting a design alternative that best meets the project goals using a cost-based approach, the resulting construction cost is approximately 30% higher than that estimated during Phase 0. The project benefits are improved compared to that determined in Phase 0. The following table summarizes the cost and benefit information.

	Fully Funded Cost	Total AAHU's	Net Acres	Cost Effectiveness (\$/AAHU)	Percent Cost Increase from Phase 0
Phase 0	\$32,563,747	180	299	\$180,909	
Phase 1	\$42,250,417	203	305	\$208,130	30%

The initial request for a scope change was presented to the Technical Committee at their September 29, 2009 meeting. At that time, the scope change was approved based on the cost and benefit information available at the time of the meeting. At the subsequent meeting of the Task Force on October 28, 2009, the decision was made to table the request until the official cost and benefit data was finalized, at which point a fax vote could be pursued. The engineering cost estimate and revised Wetland Value Assessment have been completed and approved by the Engineering, Environmental, and Economic Work Groups that concur with the data presented in the above table.



As presented at the Technical Committee meeting, there were several unforeseeable circumstances that have contributed to the projected cost increase:

- 1) The project was conceived and originally evaluated in 2006. The survey information and hydrodynamic modeling was not as robust in the candidate phase as it has been during Phase 1. The development of restoration alternatives took into account long-term losses, subsidence, sea level rise, sediment transport, overwash, and a more recent history of hurricane impacts. The Delft3D modeling used a sophisticated approach to anticipate project performance under these scenarios. The resulting design alternatives augmented the dimensions and combination of beach, dune, and back marsh acres proposed in Phase 0 to optimize performance. Some dune acres were replaced with marsh acres, and in general the marsh platform was extended to create a wider headland. This yields more acres constructed but also an increase in fill volume. Approximately 660,000 cubic yards was added to the total project fill volume to account for both losses since the 2006 surveys as well as an increase in the total marsh acres created. This accounts for over \$3M in the cost difference. Please find attached a project map and a planform of the preferred project alternative.
- 2) The borrow site conceptually identified during Phase 0 was a back-bay shoal that had been originally investigated by the University of New Orleans. Although at the candidate stage this was a viable option, upon further investigation by the project team it was decided that this was a sub-optimal borrow source for the project. This decision was based on potential access problems, concern over sand quality, and the general location within the bay in proximity to adjacent land features. The geotechnical investigation was extended to offshore areas of interest within state waters, and ultimately selected just east of Timbalier Island. This borrow location is approximately 9 miles from the project site but has high quality sand and known volumes that can accommodate this project. The selection of an offshore borrow site with boosters and a long pump distance increased the expected mobilization costs. The Phase 0 mob estimate, in retrospect, was too low given the knowledge of subsequent bids on island projects. This, coupled with the selected borrow site, increased the mob estimate from \$1.5M to \$4M.
- 3) The unit prices used during the Phase 0 estimate reflected a reasonable knowledge of market and fuel conditions at that point in time. The original estimate did not have the benefit of very recent actual bids that were incorporated into the revised Phase 1 estimate by the project team's contractor. The revised unit prices take into account actual bids in the area for comparable work, and consulting with a sub-contractor that is extremely experienced within the dredging industry. The Phase 0 cost estimate assumed a sand fill price of \$7.50 per cubic yard; whereas, the Phase 1 cost estimate assumed a sand fill price of \$10.70 per cubic yard. The dredging costs difference accounts for approximately \$3.5M of the increased project cost.
- 4) The remainder of the cost difference is accounted for by increasing plantings immediately post construction, and the multiplier that occurs when you apply a 25% contingency on the total construction amount.

It is NMFS and OCPR's intent to request Phase 2 funds at the December 2009 Technical Committee meeting. All required items for Phase 2 approval are nearing completion, and the design items of the

project remain unchanged from Phase 0. The resultant cost increase was necessary given updated market and design information. The end result is a project that will perform better and have a greater likelihood of receiving successful bids.

The NMFS and OCPR respectfully request that the Task Force review and approve this request by fax, given the short time remaining to execute Phase 2 requests. We are anxious to submit this project for construction funds as time is of the essence along this shoreline.

Thank you in advance for your consideration of our request for a scope change. I can be reached at (301) 713-0174 X 162 should you require additional information.

Regards,

A handwritten signature in red ink that reads "Cecelia Linder". The signature is written in a cursive, flowing style.

Cecelia Linder, Program Officer

NOAA National Marine Fisheries Service

Attachments: TE-52 Project Boundary  
Planform of Preferred Alternative  
Local Sponsor Concurrence

Cc: Members of the CWPPRA Task Force  
Kenneth Bahlinger, Project Manager, OCPR  
Cheryl Brodnax, Project Manager, NOAA NMFS



Coastal Protection and  
Restoration Authority of Louisiana

# State of Louisiana

**BOBBY JINDAL**  
GOVERNOR

September 23, 2009

Cheryl Brodnax  
NOAA Restoration Center  
LSU Sea Grant Room 124 C  
Baton Rouge, LA 70803-6100

Re: 30% Design Review Concurrence for West Belle Pass Barrier  
Headland Restoration Project (TE-52)  
Statement of Local Sponsor Concurrence

Dear Ms. Brodnax:

The 30% Design Review meeting for the West Belle Pass Barrier Headland Restoration (TE-52) project was held on July 15<sup>th</sup>, 2009. Based on our review of the technical information compiled to date, the preliminary land ownership investigation, and the preliminary designs, the Office of Coastal Protection and Restoration, as the local sponsor, concurs to proceed with the design of TE-52. In accordance with the CWPPRA Standard Operating Procedures, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee and proceed towards the 95% design level with the selected alternative and revised project cost estimate. We also request that our project manager, Kenneth Bahlinger, be copied on all correspondence concerning this project.

The revised TE-52 project cost estimate reflects a change in scope resulting in a 25% or greater variance from the original project cost estimate. Therefore, OCPR concurs with your report to the Technical Committee (dated September 21, 2009) stating the resultant increase in cost is due to a justifiable increase in benefits and several deficiencies in the Phase 0 cost estimate.

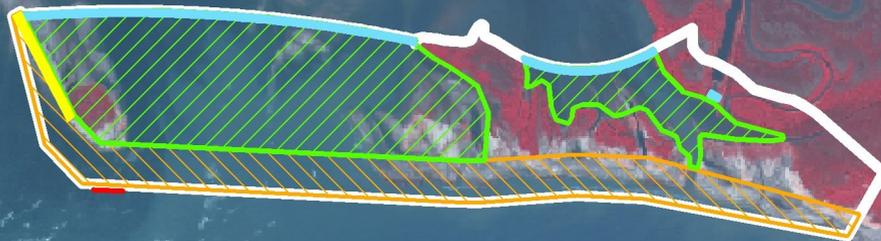
Please do not hesitate to call me if I may be of any assistance.

Sincerely,

Christopher P. Knotts, P.E.,  
OCPR Chief, Engineering and Operations Division

cc: Cecelia Linder, NOAA Fisheries  
Kenneth Bahlinger, OCPR Project Manager  
Rudy Simoneaux, P.E., OCPR Project Engineer  
TE-52 Project File

Timbalier Bay



Gulf of Mexico

## West Belle Pass Barrier Headland Restoration Project



-  Crested Dune \*
-  Containment \*
-  Breakwater \*
-  Marsh Creation \*
-  Dune/Beach Fill \*
-  Project Boundary \*

\* denotes proposed features



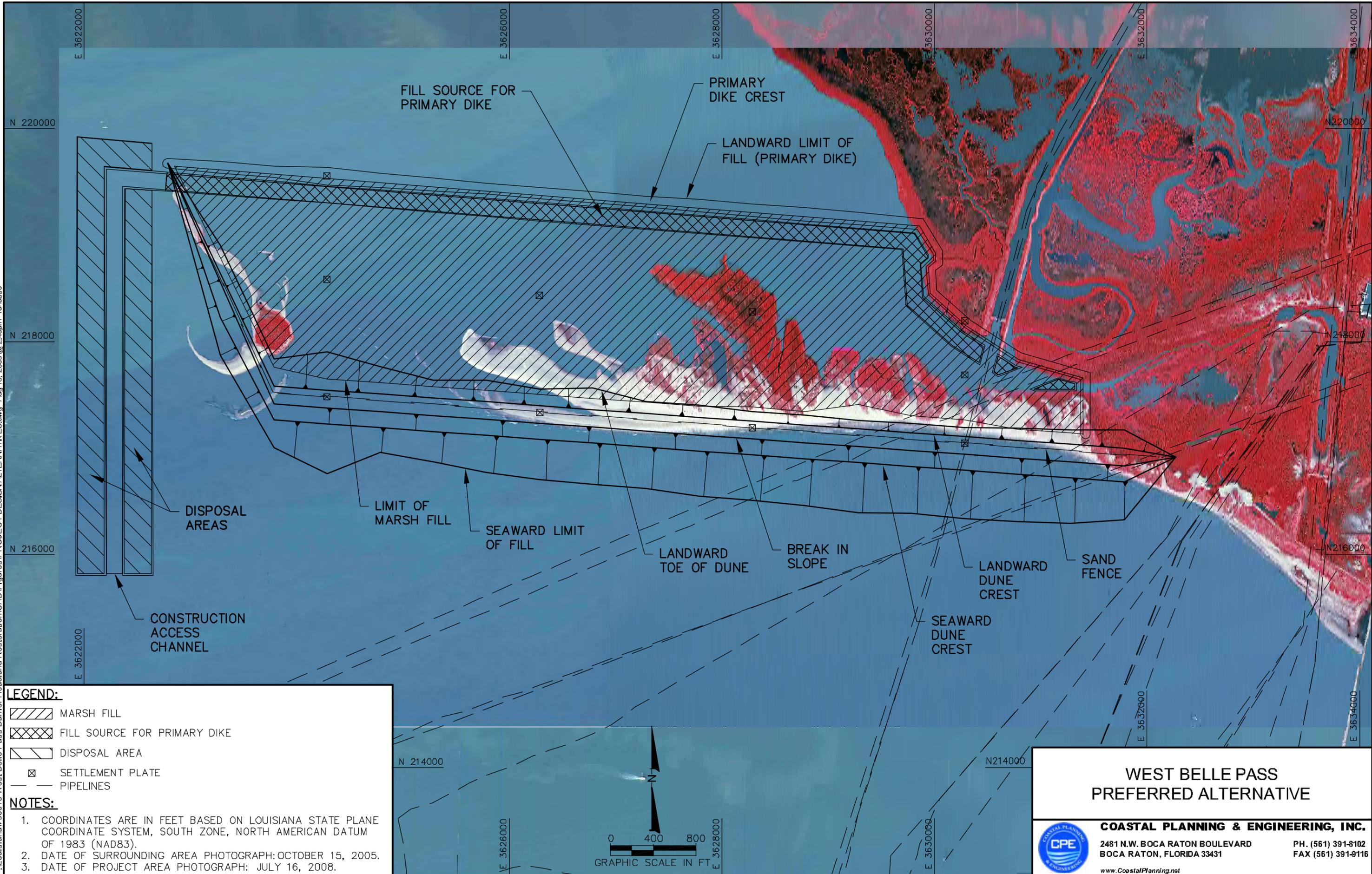
Scale 1:25,000



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

Image Source:  
 2005 Digital Orthophoto Quarter Quadrangle

P:\Louisiana\7900018 West Belle Pass Barrier Headland Restoration\CAD\Figures\PROJECT DESIGN\ALTERNATIVES.dwg - Aug 18, 2009 @ 2:40pm - rchasse

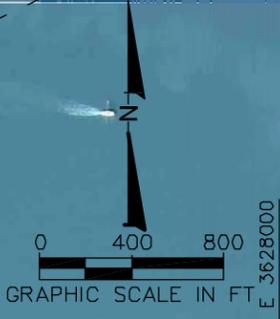


**LEGEND:**

- MARSH FILL
- FILL SOURCE FOR PRIMARY DIKE
- DISPOSAL AREA
- SETTLEMENT PLATE
- PIPELINES

**NOTES:**

1. COORDINATES ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83).
2. DATE OF SURROUNDING AREA PHOTOGRAPH: OCTOBER 15, 2005.
3. DATE OF PROJECT AREA PHOTOGRAPH: JULY 16, 2008.



**WEST BELLE PASS  
PREFERRED ALTERNATIVE**

**COASTAL PLANNING & ENGINEERING, INC.**

2481 N.W. BOCA RATON BOULEVARD  
BOCA RATON, FLORIDA 33431  
PH. (561) 391-8102  
FAX (561) 391-9116

www.CoastalPlanning.net

## Wandell, Scott F MVN

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**From:** Wandell, Scott F MVN  
**Sent:** Tuesday, November 17, 2009 12:03 PM  
**To:** 'bill honker'; 'britt.paul@la.usda.gov'; Browning, Gay B MVN; 'Cece Linder'; 'Chris Allen'; 'Chris Doley'; Constance, Troy G MVN; 'darryl\_clark@fws.gov'; 'Dr. John Foret'; 'enger.kinchen@la.gov'; 'garret graves'; Goodman, Melanie L MVN; 'gsteyer@usgs.gov'; Gunter, Jackie P MVN; Habbaz, Sandra P MVN; 'Harrel Hay'; Hawes, Suzanne R MVN; Holden, Thomas A MVN; 'Jane Watson'; 'Jerome P. Zeringue (jzee@la.gov)'; 'jim boggs'; 'kevin norton'; 'Kevin Roy'; 'Kirk Rhinehart'; Lachin, Donna A MVN; Lee, Alvin B COL MVN; Podany, Thomas J MVN; 'rick hartman'; 'Scott Wilson'; 'Sue Davis'; Wandell, Scott F MVN; Wittkamp, Carol MVN; 'Amelia\_vincent@ursCorp.com'; Hicks, Billy J MVN; 'Brad Crawford (crawford.brad@epa.gov)'; 'Bren Haase'; 'Chuck Killebrew'; 'comvss@lsu.edu'; Creel, Travis J MVN; 'Heather Finley'; Hennington, Susan M MVN; 'Jack Arnold'; Petitbon, John B MVN; 'john.jurgensen@la.usda.gov'; 'Kelley Templet'; Lachney, Fay V MVN; Miller, Gregory B MVN; 'rachel.sweeney@noaa.gov'; 'Renee Sanders'; 'David M Marks'; 'Diane Smith'; 'jenneke visser'; 'Landers.Timothy@epamail.epa.gov'; 'Manuel Ruiz'  
**Subject:** CWPPRA FAX VOTE: PPL16-West Belle Pass Barrier Headland Restoration Project (TE-52)--> DUE Friday, 20 November 2009  
**Importance:** High  
**Follow Up Flag:** Follow up  
**Flag Status:** Red  
**Attachments:** ENCL 1 (TE-52).pdf; signed memo\_TE-52.pdf; Copy of ENCL 2 (TE-52).xls



ENCL 1 (TE-52).pdf



signed  
memo\_TE-52.pdf



Copy of ENCL 2  
(TE-52).xls

Task Force Members,

Please see the attached memorandum from the Chairman of the Task Force requesting a fax vote for approval of the Technical Committee's recommendation for a change in project scope to increase the net wetland benefits from 299 acres to 305 acres, and the fully funded cost estimate from \$32,563,747 to \$42,250,417 for the PPL-16 West Belle Pass Barrier Headland Restoration Project (TE-52).

We have included a copy of correspondence and supporting information from NMFS and OCPD requesting a change in scope to address the estimated construction cost and benefit increase discovered during phase 1 analysis (Encl 1), and a Facsimile Transmittal form to submit your vote (Encl 2).

Please fax your completed form to the US Army Corps of Engineers at (504) 862-1892 or email a scanned copy to Scott Wandell (Scott.F.Wandell@usace.army.mil) and (Melanie.L.Goodman@usace.army.mil) by COB Friday, November 20, 2009.

Thanks

Scott Wandell  
CWPPRA  
USACE New Orleans  
504.862.1878



**DEPARTMENT OF THE ARMY**

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO  
ATTENTION OF:

CEMVN-PM-OR

16 NOV 2009

MEMORANDUM FOR Louisiana Coastal Wetlands Conservation and Restoration Task Force

SUBJECT: Request for Task Force Fax Vote to approve a change in project scope for the PPL16-West Belle Pass Barrier Headland Restoration Project (TE-52)

1. The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) and Louisiana Office of Coastal Protection and Restoration (OCPR) have requested a change in project scope for the PPL 16-West Belle Pass Barrier Headland Restoration Project (TE-52). The proposed change in project scope would increase the wetland benefits from 299 acres to 305 acres, and increase the estimated fully funded project cost by 29.7%, from \$32,563,747 to \$42,250,417. The Technical Committee has recommended approval of this request by email. On behalf of the NMFS and OCPR, I request a Task Force fax vote (in accordance with the Standard Operating Procedures, Revision 16, page 20) on the following motion to approve the Technical Committee's recommended change in project scope:

The CWPPRA Task Force approves the request for a change in scope for the PPL 16-West Belle Pass Barrier Headland Restoration Project (TE-52), which includes increasing the acres of wetland benefits from 299 to 305 acres, and increasing the estimated fully funded project cost from \$32,563,747 to \$42,250,417.

2. We have included a copy of correspondence from the NMFS and OCPR requesting the change in project scope (Encl 1). Please use the enclosed Facsimile Transmittal form to submit your vote (Encl 2). Please fax your completed form to the US Army Corps of Engineers at (504) 862-1892, or email a scanned copy to [Melanie.L.Goodman@mvn02.usace.army.mil](mailto:Melanie.L.Goodman@mvn02.usace.army.mil) by Friday, 13 November 2009.

3. If you have any questions concerning this request, please contact Ms. Melanie L. Goodman, CWPPRA Program Manager, at (504) 862-1940.

ALVIN B. LEE  
Colonel, EN  
Commanding

2 Encls

1. NMFS/LAOCPR Fax Vote request and supporting information
2. Fax Vote Form

CEMVN-PM-OR

SUBJECT: Recommendation to approve change in project scope for the PPL 16-West Belle Pass Barrier Headland Restoration Project (TE-52)

CF via email (w/encl):

Mr. Garret Graves, LA Office of the Governor

Mr. William Honker, U.S. Environmental Protection Agency

Mr. Jim Boggs, U.S. Fish and Wildlife Service

Mr. Kevin Norton, U.S. Natural Resources Conservation Service

Mr. Chris Doley, National Oceanic and Atmosphere Administration

Mr. Kirk Rhinehart, LA Department of Natural Resources

Mr. Brad Crawford, U.S. Environmental Protection Agency

Mr. Darryl Clark, U.S. Fish and Wildlife Service

Mr. Britt Paul, U.S. Natural Resource Conservation Service

Mr. Rick Hartman, National Marine and Fisheries Service

**FACSIMILE TRANSMITTAL HEADER SHEET**

Agency		NAME/OFFICE SYMBOL		OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM					
USEWS		Jim Baggs		337-291-3115	337-291-3139
TO					
USACE		Melanie L. Goodman CWPPRA Program Manager		(504) 862-1940	(504) 862-1892
Classification	Precedence	No. Pages Including Header	Date/time	Releaser's Signature	
		1	11/16/2009	Melanie Goodman	

REMARKS:

**The Motion:**

The CWPPRA Task Force approves the subject NMFS/LAOCPR change in project scope to increase the net wetland benefits from 299 acres to 305 acres, and the fully funded cost estimate from \$32,563,747 to \$42,250,417 for the PPL-16 West Belle Pass Barrier Headland Restoration Project (TE-52).

**Please check one of the following:**

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,  
  
 Mark Polce Member Name

11/18/09  
 Date

### FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM  EPA	Bill Honker, 6WQ	214-665-3187	214-665-7373
TO  USACE	Melanie L. Goodman CWPPRA Program Manager	(504) 862-1940	(504) 862-1892
Classification	Precedence	No. Pages Including Header  1	Date/time  11/16/2009
			Releaser's Signature  Melanie Goodman

**REMARKS:**

**The Motion:**

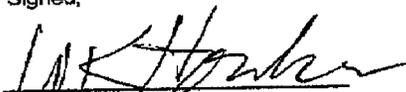
The CWPPRA Task Force approves the subject NMFS/LAOCPR change in project scope to increase the net wetland benefits from 299 acres to 305 acres, and the fully funded cost estimate from \$32,563,747 to \$42,250,417 for the PPL-16 West Belle Pass Barrier Headland Restoration Project (TE-52).

**Please check one of the following:**

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

  
William K. Honker

  
11/18/2009

### FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM NOAA NMFS	Christopher Doley	301-713-0174	301-713-0184
TO USACE	Melanie L. Goodman CWPPRA Program Manager	(504) 862-1940	(504) 862-1892
Classification	Precedence	No. Pages Including Header	Date/Time
		1	11/16/2009
			Releaser's Signature Melanie Goodman

**REMARKS:**

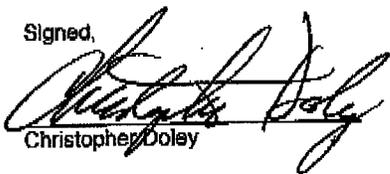
**The Motion:**

The CWPPRA Task Force approves the subject NMFS/LAOCPR change in project scope to increase the net wetland benefits from 299 acres to 305 acres, and the fully funded cost estimate from \$32,563,747 to \$42,250,417 for the PPL-16 West Belle Pass Barrier Headland Restoration Project (TE-52).

**Please check one of the following:**

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,  
  
 Christopher Doley

11-17-2009  
11/17/2009

## FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM	Agency Name	Task Force Member Name	
TO	USACE	Melanie L. Goodman CWPPRA Program Manager	(504) 862-1892
Classification	Precedence	No. Pages <i>including Header</i>	Date/time
		1	11/16/2009
			Releaser's Signature Melanie Goodman

**REMARKS:**

**The Motion:**

The CWPPRA Task Force approves the subject NMFS/LAOCPR change in project scope to increase the net wetland benefits from 299 acres to 305 acres, and the fully funded cost estimate from \$32,563,747 to \$42,250,417 for the PPL-16 West Belle Pass Barrier Headland Restoration Project (TE-52).

**Please check one of the following:**

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

  
 \_\_\_\_\_  
 Task Force Member Name

  
 \_\_\_\_\_  
 Date

## Wandell, Scott F MVN

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**From:** Garret Graves [Garret@GOV.STATE.LA.US]  
**Sent:** Wednesday, November 18, 2009 3:34 PM  
**To:** Wandell, Scott F MVN  
**Subject:** Re: CWPPRA FAX VOTE: PPL16-West Belle Pass Barrier Headland Restoration Project (TE-52)--> DUE Friday, 20 November 2009

**Follow Up Flag:** Follow up  
**Flag Status:** Red

State supports

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From: Wandell, Scott F MVN <Scott.F.Wandell@usace.army.mil>  
To: bill honker <honker.william@epa.gov>; britt.paul@la.usda.gov <britt.paul@la.usda.gov>; Browning, Gay B MVN <Gay.B.Browning@usace.army.mil>; Cece Linder <cecelia.linder@noaa.gov>; Chris Allen; Chris Doley <chris.doley@noaa.gov>; Constance, Troy G MVN <Troy.G.Constance@usace.army.mil>; darryl\_clark@fws.gov <darryl\_clark@fws.gov>; Dr. John Foret <john.foret@noaa.gov>; Enger Kinchen; Garret Graves; Goodman, Melanie L MVN <Melanie.L.Goodman@usace.army.mil>; gsteyer@usgs.gov <gsteyer@usgs.gov>; Gunter, Jackie P MVN <jackie.p.gunter@usace.army.mil>; Habbaz, Sandra P MVN <Sandra.P.Habbaz@usace.army.mil>; Harrel Hay <harrel.hay@noaa.gov>; Hawes, Suzanne R MVN <Suzanne.R.Hawes@usace.army.mil>; Holden, Thomas A MVN <Thomas.A.Holden@usace.army.mil>; Jane Watson <Watson.Jane@epamail.epa.gov>; Jerome Zeringue; jim boggs <jim\_boggs@fws.gov>; kevin norton <kevin.norton@la.usda.gov>; Kevin Roy <kevin\_roy@fws.gov>; Kirk Rhinehart; Lachin, Donna A MVN <Donna.A.Lachin@usace.army.mil>; Lee, Alvin B COL MVN <Alvin.B.Lee.Col@usace.army.mil>; Podany, Thomas J MVN <Thomas.J.Podany@usace.army.mil>; rick hartman <richard.hartman@noaa.gov>; Scott Wilson <scott\_wilson@usgs.gov>; Sue Davis <davis.suea@epa.gov>; Wandell, Scott F MVN <Scott.F.Wandell@usace.army.mil>; Wittkamp, Carol MVN <Carol.Wittkamp@usace.army.mil>; Amelia\_vincent@ursCorp.com <Amelia\_vincent@ursCorp.com>; Hicks, Billy J MVN <Billy.J.Hicks@usace.army.mil>; crawford.brad@epa.gov <crawford.brad@epa.gov>; Bren Haase; Charles Killebrew; comvss@lsu.edu <comvss@lsu.edu>; Creel, Travis J MVN <Travis.J.Creel@usace.army.mil>; Heather Finley <hfinley@wlf.louisiana.gov>; Hennington, Susan M MVN <Susan.M.Hennington@usace.army.mil>; Jack Arnold <jack\_arnold@fws.gov>; Petitbon, John B MVN <John.B.Petitbon@usace.army.mil>; john.jurgensen@la.usda.gov <john.jurgensen@la.usda.gov>; Kelley Templet; Lachney, Fay V MVN <Fay.V.Lachney@usace.army.mil>; Miller, Gregory B MVN <Gregory.B.Miller@usace.army.mil>; rachel.sweeney@noaa.gov <rachel.sweeney@noaa.gov>; Renee Sanders; David M Marks <marksd@usgs.gov>; Diane Smith (DNR); jenneke visser <jvisser@louisiana.edu>; Landers.Timothy@epamail.epa.gov <Landers.Timothy@epamail.epa.gov>; Manuel Ruiz <mruiz@wlf.louisiana.gov>  
Sent: Tue Nov 17 12:02:48 2009  
Subject: CWPPRA FAX VOTE: PPL16-West Belle Pass Barrier Headland Restoration Project (TE-52)--> DUE Friday, 20 November 2009

Task Force Members,

Please see the attached memorandum from the Chairman of the Task Force requesting a fax vote for approval of the Technical Committee's recommendation for a change in project scope to increase the net wetland benefits from 299 acres to 305 acres, and the fully funded cost estimate from \$32,563,747 to \$42,250,417 for the PPL-16 West Belle Pass Barrier Headland Restoration Project (TE-52).

We have included a copy of correspondence and supporting information from NMFS and OCPD requesting a change in scope to address the estimated construction cost and benefit increase discovered during phase 1 analysis (Encl 1), and a Facsimile Transmittal form to submit your vote (Encl 2).

Please fax your completed form to the US Army Corps of Engineers at (504) 862-1892 or email a scanned copy to Scott Wandell (Scott.F.Wandell@usace.army.mil) and (Melanie.L.Goodman@usace.army.mil) by COB Friday, November 20, 2009.

Thanks

Scott Wandell

CWPPRA

USACE New Orleans

504.862.1878 <<ENCL 1 (TE-52).pdf>> <<signed memo\_TE-52.pdf>> <<Copy of ENCL 2 (TE-52).xls>>

## Wandell, Scott F MVN

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**From:** Goodman, Melanie L MVN  
**Sent:** Thursday, November 19, 2009 9:07 AM  
**To:** (Watson.Jane@epamail.epa.gov); 'bill honker'; Browning, Gay B MVN; 'Cece Linder'; 'Chris Doley'; Constance, Troy G MVN; 'garret graves'; 'garret graves'; Habbaz, Sandra P MVN; 'Harrel Hay'; Hawes, Suzanne R MVN; 'jim boggs'; 'kevin norton'; Kinsey, Mary V MVN; Lee, Alvin B COL MVN; Podany, Thomas J MVN; 'Scott Wilson'; (Chris.Allen@LA.GOV); Bren Haas (Bren.Haase@LA.GOV); Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Cynthia.duet@gov.state.la.us; Goodman, Melanie L MVN; Jerome Zeringue (jzee@tlcd.org); John Jurgensen; Kelley.Templet@LA.GOV; Kevin\_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@la.gov; Wandell, Scott F MVN; britt.paul@la.usda.gov; Darryl Clark; Holden, Thomas A MVN; kirk.rhinehart@la.gov; Richard.Hartman@noaa.gov; Wingate, Mark R MVN  
**Cc:** 'Cheryl.Brodnax@noaa.gov'  
**Subject:** CWPPRA FAX VOTE RESULTS: PPL16-West Belle Pass Barrier Headland Restoration Project (TE-52)--> DUE Friday, 20 November 2009

Task Force and Technical Committee, we have received concurrence via fax vote from the Task Force to approve the request for scope change for the PPL 16 - West Belle Pass Barrier Headland Restoration Project (TE-52) project. The Fax Vote will be reported at the December 2, 2009 Technical Committee Meeting and January 20, 2010 Task Force Meeting. All related documentation will be included in the binders for those meetings.

We appreciate your assistance with expediting this request.

Melanie Goodman  
CWPPRA Program Manager  
US Army Corps of Engineers  
New Orleans District  
Restoration Branch

Office: 504-862-1940  
FAX: 504-862-1892

<http://www.lacoast.gov/cwppra/>  
[http://www.mvn.usace.army.mil/pd/cwppra\\_mission.htm](http://www.mvn.usace.army.mil/pd/cwppra_mission.htm)

-----Original Message-----

**From:** Wandell, Scott F MVN  
**Sent:** Tuesday, November 17, 2009 12:03 PM  
**To:** 'bill honker'; 'britt.paul@la.usda.gov'; Browning, Gay B MVN; 'Cece Linder'; 'Chris Allen'; 'Chris Doley'; Constance, Troy G MVN; 'darryl\_clark@fws.gov'; 'Dr. John Foret'; 'enger.kinchen@la.gov'; 'garret graves'; Goodman, Melanie L MVN; 'gsteyer@usgs.gov'; Gunter, Jackie P MVN; Habbaz, Sandra P MVN; 'Harrel Hay'; Hawes, Suzanne R MVN; Holden, Thomas A MVN; 'Jane Watson'; 'Jerome P. Zeringue (jzee@la.gov)'; 'jim boggs'; 'kevin norton'; 'Kevin Roy'; 'Kirk Rhinehart'; Lachin, Donna A MVN; Lee, Alvin B COL MVN; Podany, Thomas J MVN; 'rick hartman'; 'Scott Wilson'; 'Sue Davis'; Wandell, Scott F MVN; Wittkamp, Carol MVN; 'Amelia\_vincent@urscorp.com'; Hicks, Billy J MVN; 'Brad Crawford (crawford.brad@epa.gov)'; 'Bren Haase'; 'Chuck Killebrew'; 'comvss@lsu.edu'; Creel, Travis J MVN; 'Heather Finley'; Hennington, Susan M MVN; 'Jack Arnold'; Petitbon, John B MVN; 'john.jurgensen@la.usda.gov'; 'Kelley Templet'; Lachney, Fay V MVN; Miller, Gregory B MVN; 'rachel.sweeney@noaa.gov'; 'Renee Sanders'; 'David M Marks'; 'Diane Smith'; 'jenneke visser'; 'Landers.Timothy@epamail.epa.gov'; 'Manuel Ruiz'  
**Subject:** CWPPRA FAX VOTE: PPL16-West Belle Pass Barrier Headland Restoration Project (TE-52)--> DUE Friday, 20 November 2009  
**Importance:** High

Task Force Members,

Please see the attached memorandum from the Chairman of the Task Force requesting a fax vote for approval of the Technical Committee's recommendation for a change in project scope to increase the net wetland benefits from 299 acres to 305 acres, and the fully funded cost estimate from \$32,563,747 to \$42,250,417 for the PPL-16 West Belle Pass Barrier Headland Restoration Project (TE-52).

We have included a copy of correspondence and supporting information from NMFS and OCPD requesting a change in scope to address the estimated construction cost and benefit increase discovered during phase 1 analysis (Encl 1), and a Facsimile Transmittal form to submit your vote (Encl 2).

Please fax your completed form to the US Army Corps of Engineers at (504) 862-1892 or email a scanned copy to Scott Wandell (Scott.F.Wandell@usace.army.mil) and (Melanie.L.Goodman@usace.army.mil) by COB Friday, November 20, 2009.

Thanks

Scott Wandell  
CWPPRA  
USACE New Orleans  
504.862.1878

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**STATUS OF THE PPL 1 - WEST BAY SEDIMENT DIVERSION PROJECT (MR-03)**

**For Report:**

Ms. Cherie Price will provide a status of the Pilottown Anchorage Area dredging and a summary of the West Bay Work Plan, 6 month effort results.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**STATUS OF TECHNICAL COMMITTEE SCOPE OF WORK FOR REVIEW OF  
THE CWPPRA MONITORING PROGRAM**

**For Report/Discussion:**

At their October 28, 2009 meeting, the Task Force directed the Technical Committee to develop a scope and schedule to be completed by December 3, 2009 for a plan to look at the estimated life cycle cost of CRMS, and whether or not it is meeting CWPPRA Program needs in terms of being able to demonstrate if the program investment in coastal restoration projects has been successful.

# Task Force mandate

- Examine the estimated life cycle costs of CRMS in an effort to determine if there are potential cost savings
- Evaluate whether CRMS or project specific monitoring efforts are meeting CWPPRA needs in terms of being able to determine if the projects are achieving their goals
- Identify other potential CRMS cost-sharing partners

Action 1: Determine if there are potential programmatic cost savings by reducing the frequency of some monitoring efforts, reducing stations, etc.

Action 2: Evaluate alternatives to improve monitoring input into decision-making. By CWPPRA project, determine if current data collection is adequate to determine if the project has met, or is on a trajectory toward meeting, its goals so that the decision making process can be an informed one. Where data collection is inadequate for that purpose, identify and evaluate alternatives to remedy that shortcoming.

Action 3: Identify potential partners and level of support for sharing of CRMS funding responsibility.

Action 4: Evaluate existing level of use by various agencies

# Cost reduction analysis

- OCPR has provided itemized costs for various monitoring elements
- AAC and MWG will evaluate whether some items could be dropped or delayed
- USGS is undertaking coherence analyses on station pairs to determine if some stations, or monitoring elements at some stations, can be dropped

# Evaluate adequacy of monitoring in support of decision-making

- Determine what projects are lacking both CRMS and project-specific monitoring
- Evaluate adequacy of project-specific monitoring and CRMS in providing information to support decision-making (federal sponsors and OCPR)
- Where monitoring is determined to be inadequate, recommend solutions and quantify costs

# Identification of cost-sharing partners

- COE is evaluating what CRMS sites are within, or directly adjacent to, LCA project areas
- Technical Committee will identify other potential funding streams that could support CWPPRA monitoring costs

# Evaluate use by agencies

- Technical Committee will query own agencies to develop a list of existing uses
- USGS will review list and recommend additional uses/methodologies
- Training of federal and state staff in the use and manipulation of CRMS data

# Actions not being considered

- CWPPRA paying for only those CRMS sites within project areas
- CWPPRA funding only those monitoring elements useful in evaluating project success
- CWPPRA not changing random design of stations
- Project goal issues not a part of the evaluation

## CWPPRA Monitoring Program Review Scope of Work

During the Fall, 2009, Technical Committee (TC) and Task Force (TF) meetings, there was much discussion regarding the CWPPRA, Coastwide Reference Monitoring System (CRMS) effort. Concern were primarily related to: 1) the significant increase in the overall cost of the CRMS program; 2) a perception that CRMS was not providing project-specific monitoring information that would assist in the decision-making process supporting requests for operations and maintenance funding; and 3) other likely sources of funds to support CRMS were not providing such funding. As a result of that discussion, the TF passed the following motion tasking the TC to undertake an evaluation of the CWPPRA monitoring program.

Based on reading through the transcripts of the Task Force meeting, the charge to the Technical Committee is to develop a scope of work to be completed by December 3, 2009, for a plan to look at the estimated life cycle cost of CRMS in an effort to determine if there are potential cost savings, and to evaluate whether CRMS or project specific monitoring are meeting CWPPRA program needs in terms of being able to answer the question "Are our projects working to achieve their goals?"

In light of the charge from the TF to the TC, the following draft scope of work has been developed:

Action 1: Determine if there are potential programmatic cost savings by reducing the frequency of some monitoring efforts, reducing stations, etc.

- a. OCPR is providing an itemized spreadsheet showing CRMS costs broken down by monitoring item (sediment erosion table, water level recorders, maintenance of platforms, etc). This information will be broken down by the past 5 years and the expected cost for the next three will be provided. The information also should quantify the level of staffing being funded at each agency and in the consulting contract in support of the CRMS program.
- b. Technical Committee, Academic Advisory Committee and Monitoring Work Group (MWG) will review the information and evaluate if some items could be dropped or their schedules extended. The benefits in terms of cost reductions will be quantified by such efforts.
- c. USGS is undertaking hydrologic coherence and power analyses on adjacent CRMS sites to determine level of redundancy. Those that are similar can be dropped, or where specific monitoring efforts show similar results, those items will be dropped while other monitoring items at the same station will be kept.

Action 2: Evaluate alternatives to improve monitoring input into decision-making.

- a. OCPR is identifying CRMS sites located in each CWPPRA project area. OCPR is also reviewing CWPPRA projects to determine the adequacy of existing project specific and CRMS monitoring efforts. The TC and MWG will review this

information. Where it is identified that some less monitored projects consist of restoration activities that could affect functions being monitored, CRMS sites or project specific monitoring efforts will be considered for placement in those areas.

Action 3: Identify potential partners and level of support for sharing of CRMS funding responsibility.

- a. The COE will evaluate what CRMS sites are located within, or in close proximity to, Louisiana Coastal Area projects. This information will be provided to the TC for their evaluation of the potential for those projects to financially support the CRMS effort for those sites.
- b. The TC will evaluate and recommend other funding streams that should help financially support the CRMS effort.

Action 4: Evaluate existing level of use by various agencies

- a. TC members will query their agency to determine how CRMS data are currently being utilized.
- b. USGS will recommend specific uses of the CRMS data to better evaluate project benefits and successes.
- c. USGS will train staff of all agencies in the manipulation/evaluation of CRMS data for both CWPPRA and other purposes.

At the moment, the following actions are not being considered as they relate to the CRMS program.

1. CWPPRA paying only for CRMS sites within or immediately adjacent to CWPPRA project areas.
2. CWPPRA only funding those monitoring elements that can help identify project-specific success.
3. CWPPRA will not change the random design of the CRMS stations by moving sites into project areas not being sufficiently monitored
4. project goal issues will be discussed between monitoring and project managers and will not be a part of the evaluation

## Summary of November 16, 2009, meeting to discuss CWPPRA monitoring

There was some discussion on the charge to the group from the Task Force. NMFS had sent out a draft work plan and, to date, only FWS had provided any recommended revisions. NRCS and EPA staff had just received the document and would review. RH is incorporating FWS revisions and will send out a draft for use/discussion at the Dec. 2 Technical Committee (TC) meeting.

### **Action 1 discussions:**

Greg Steyer provided a powerpoint presentation summarizing the history of the CRMS efforts, a breakdown of costs by monitoring items, and future budget projections. It is his belief that costs for the CRMS program have been similar for the last two years and that major budget increases in the near future are unlikely. During discussions, it was estimated that each CRMS site costs CWPPRA approximately \$20,000 per year, but dropping a number of sites wouldn't necessarily result in a \$20,000 per site cost savings. The funding is not necessarily linear.

Contractors are visiting each site 9 times per year to download data and maintain the platforms. There was some discussion about reducing the number of trips per year to reduce costs, but there is concern that reducing them too much would result in data being lost as some equipment breaks down.

A 3-yr contract has just been issued by the state to support the CRMS program. This is a service contract based on rates. There is a cost per item of support, and therefore, if the frequency of monitoring of that item goes down, there should be reduced costs to the CWPPRA program.

USGS is just beginning to undertake coherence analysis of adjacent stations. USGS will identify station pairs for such an analysis. Not sure if it will be a worthwhile undertaking and they are still evaluating the likely benefits of the effort. The analysis will take at least 3 months to complete. Staff of OCPR said there likely was a 10-15% cost savings on the hydrography data by dropping stations. At present, those stations cost approximately \$4.6 million annually.

There was some discussion of CWPPRA dropping stations in habitats it doesn't really have projects in (swamp was mentioned). It was emphasized that such actions were not being recommended at this time, but could be identified as an alternative to reduce costs.

The Monitoring Work Group (MWG) and Academic Advisory Group (AAG) were tasked with evaluating alternatives to reduce costs. Alternatives to be evaluated include: 1) reducing the frequency of trips to the CRMS platforms; 2) collecting vegetative data every 2 or 3 years, instead of annually; 3) undertaking spatial analysis of wetland loss every 5 years instead of every 3 years; 4) using TM data for spatial analysis instead of

aerial photography; and 5) surveying to measure elevations as compared to Dokka methodology.

USGS and OCPR were also tasked with identifying cost-saving ideas. The MWG and AAG will report to the TC on all options evaluated to reduce costs. It is not the intent to reduce costs if changes made rendered the program ineffective in evaluating the program or projects. In terms of funding this effort, the agency participants are expected to use existing planning funds. The AAG may have to request additional funds if this effort involves more than a cursory review.

## **Action 2 discussions**

OCPR staff indicated they had already initiated a review of monitoring efforts for all CWPPRA projects and such a review had started before the last Technical Committee meeting. Staff indicated the intent of the review is to evaluate whether CRMS and/or project specific monitoring has the potential to provide information to assist in a determination of project performance.

Information was provided identifying CWPPRA projects with project specific monitoring and summarizing that monitoring effort, and CWPPRA projects having no CRMS sites were identified. 42 CWPPRA projects have no CRMS sites within their project boundaries.

NRCS mentioned that they thought project specific monitoring for shoreline protection projects had been programmatically discontinued. FWS indicated an agency could request project specific monitoring be undertaken for a project, if there was a good reason to do so and funds were available in the construction budget to support the effort. It just required a discussion between the federal and state sponsors and having money in the budget.

Given that approval of future O&M requests may be based on project performance, agencies are going to evaluate projects they sponsor to determine if additional monitoring may be warranted. They may request CRMS sites be added to a project area or project specific monitoring be funded. There will be no discussion of moving CRMS sites from other areas to CWPPRA project areas to provide the desired monitoring. While this may improve the decision-making on O&M issues, it was clearly recognized it would also increase the monitoring costs.

In the future, when an agency requests increases in O&M costs, as a standard practice, the federal and state sponsors will initiate evaluations of project specific and CRMS data in an effort to determine project effects.

USGS and OCPR indicated that a CRMS report card is due out this year. While that report will summarize the status of the program, it may not be able to summarize much

about projects having CRMS sites. The CWPPRA program will still continue to get project specific analyses every three years.

### **Action 3 discussions**

COE staff indicated the LCA program was unlikely to fund CRMS sites in their project areas if CWPPRA was already paying for them. There was also some concern that the CRMS sites that are in project areas may not be optimally sited to best evaluate project effectiveness. NMFS voiced the opinion that since the LCA program is based on a programmatic EIS to evaluate wetland restoration needs coast-wide, because CRMS sites in and adjacent to LCA projects help provide that information, that LCA would be an appropriate cost share for those CRMS locations.

It was also mentioned that the LCA Science and Technology office would be an appropriate entity to help financially support the CRMS program. Unfortunately, they have not received much funding in recent years and there are some issues with the signing of cost-share agreements between the State and COE that may have to be resolved before LCA could be used to fund the CRMS program.

The TC will evaluate the information provided by OCPR to identify potential cost savings to CWPPRA from LCA picking up projects in the future. Since the implementation and funding dates of those projects is not known, the dates those savings could begin can not be estimated.

### **Action 4 discussions**

TC members will query their agencies to determine how they are using CRMS data. Most are using it to get hydrography data in support of wetland value assessments. Most of the interest in this information comes from USGS to allow them to plan future training efforts to match the needs of the agencies. If some data also aren't being utilized, it may be that future evaluations will suggest dropping those efforts to save money. USGS does provide agency-wide training every six months.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**FLOATING MARSH CREATION DEMONSTRATION PROJECT (LA-05) –  
PRESENTATION OF MAJOR FINDINGS**

**For Report:**

The LA-05 project has reached the end of its final growing season and data collection. Dr. Jenneke Visser will present the major findings from this CWPPRA demonstration project.



# FLOATING MARSH CREATION DEMONSTRATION PROJECT (LA-05)

Natural Resources Conservation Service  
Louisiana Department of Natural Resources

LSU Agricultural Center: Charles Sasser, Mike Materne, and  
Jenneke Visser. Subcontractor Mark Hester



# Objective

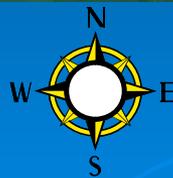
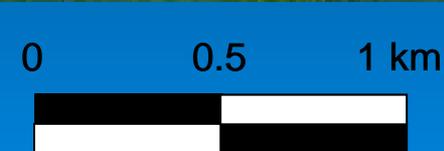
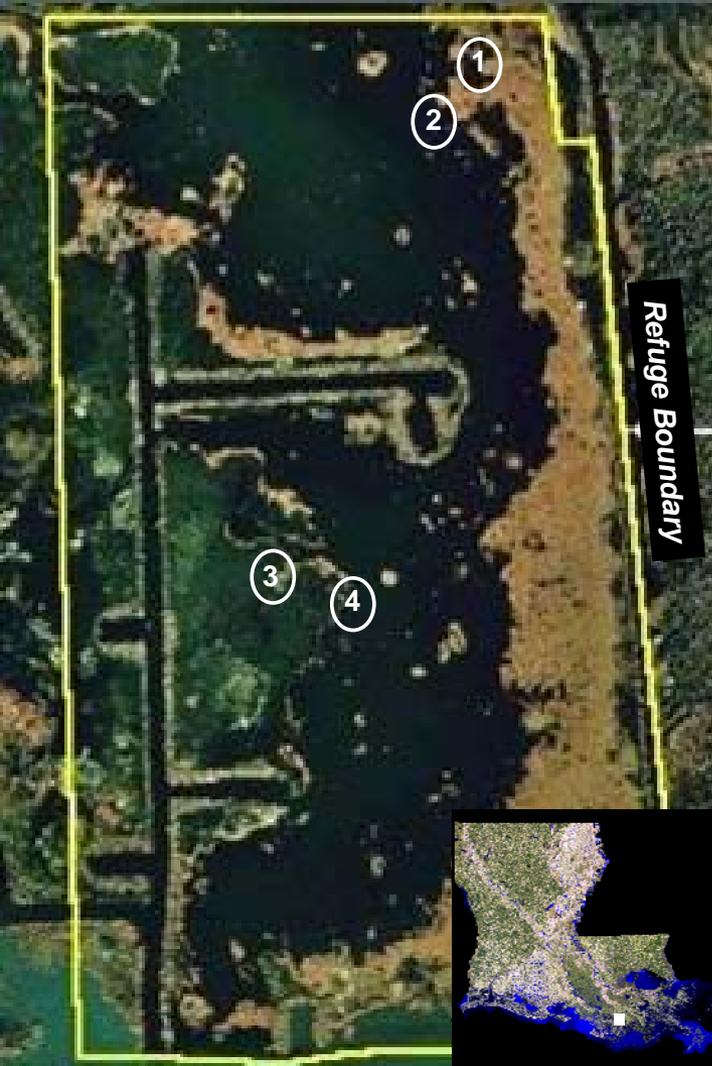
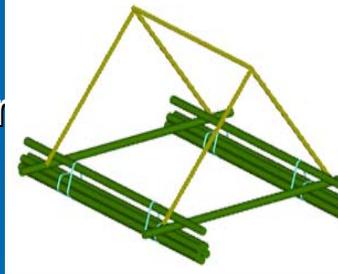
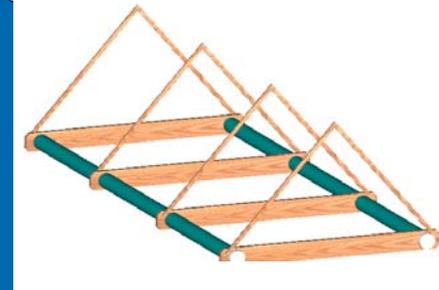
To develop methods for the restoration of open water areas within existing thin and deteriorated floating marsh habitat.



# Test Sites at Mandalay National Wildlife Refuge

Construction March through May 2006  
Treatments

- Wave Exposure
  - Open or Protected
- Structure Type
  - PVC or Bamboo
- Establishment Technique
  - Potted plants or stem material
- Grazing
  - Fenced or unfenced



# Site Layout

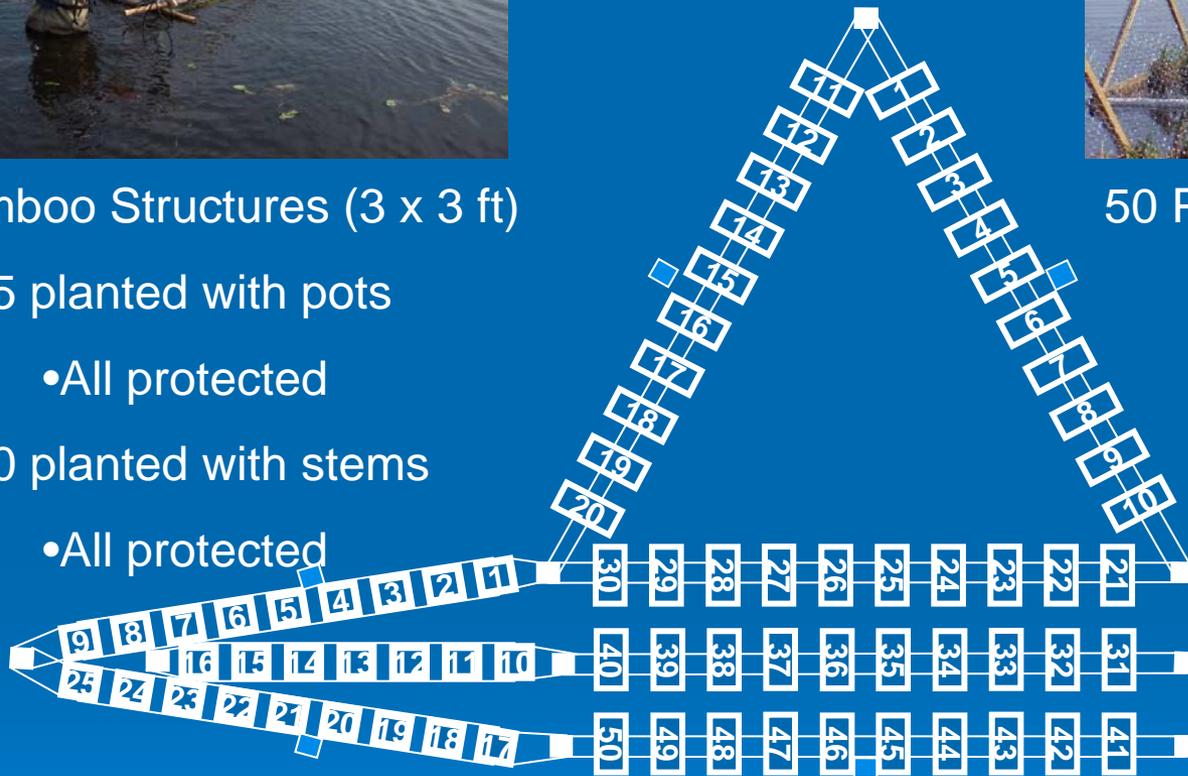


## 25 Bamboo Structures (3 x 3 ft)

- 15 planted with pots
  - All protected
- 10 planted with stems
  - All protected

## 50 PVC Structures (3 x 8 ft)

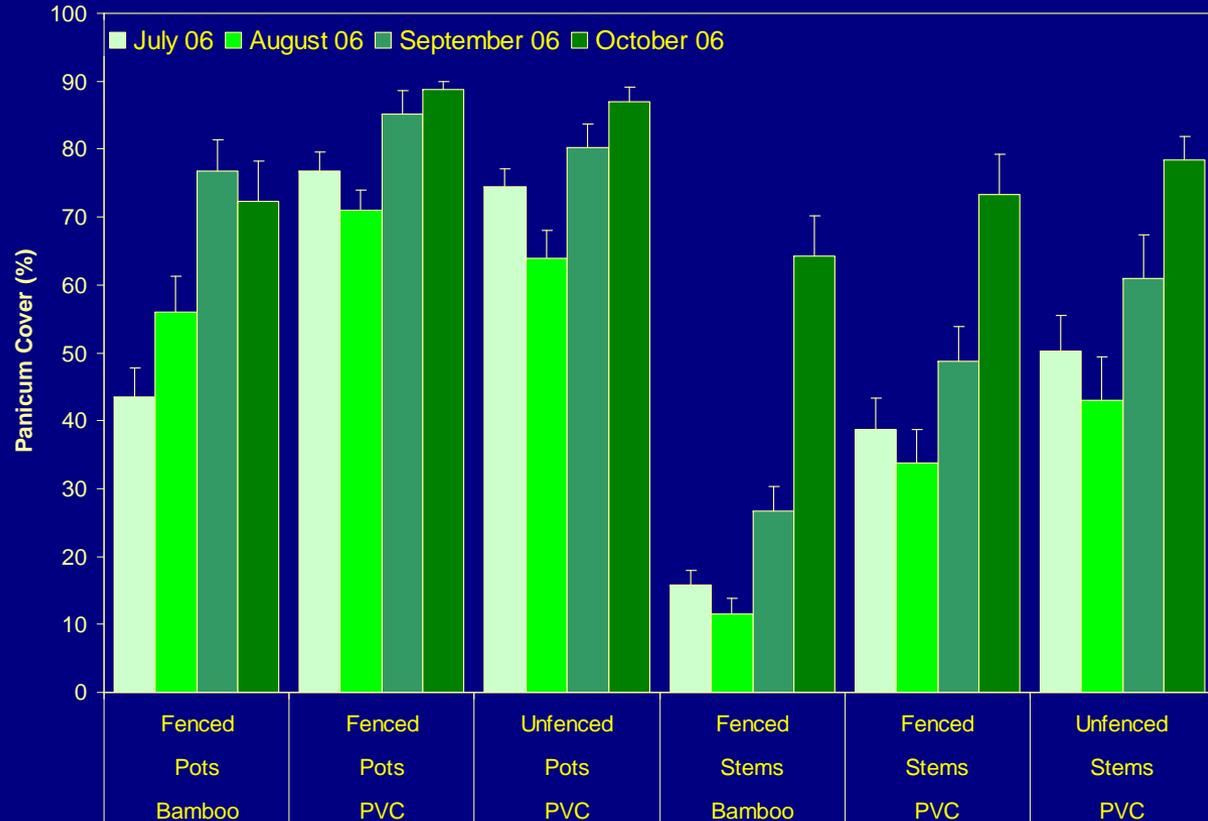
- 25 planted with pots
  - 5 grazed
  - 20 protected
- 25 planted with stems
  - 5 grazed
  - 20 protected





# *Panicum hemitomon* Growth July-October 2006

Establishment with potted plants resulted in quicker cover increases than establishment from stems. However by the end of the first growing season, differences in cover between establishment techniques were small, especially in the sites that had the longest growing season



Lost one PVC string after  
Gustav (Fall 2008)

## Site 1



All structures survived  
Gustav (Fall 2008)

## Site 2



Panicum did not survive in most structures. Salinity intrusion. Other species provide some cover.

## Site 3



## Site 4

Several bamboo structures failed due to boat hit. Outer structures *P. hemitomon* suffered from adjacent herbicide application.



# Findings

## Creation of floating marshes in open water areas can be accomplished.

- Establishment with potted plants resulted in quicker cover increases than establishment from stems. However by the end of the first growing season, differences in cover between establishment techniques were small, especially in the sites that had the longest growing season.
- *P. hemitomon* cover decreased during the third growing season as the fences that protected it from grazing rusted. However several other species\* colonized and total cover remained high. Tropical storms at the end of the 2008 growing season resulted in decreased cover at the southern sites

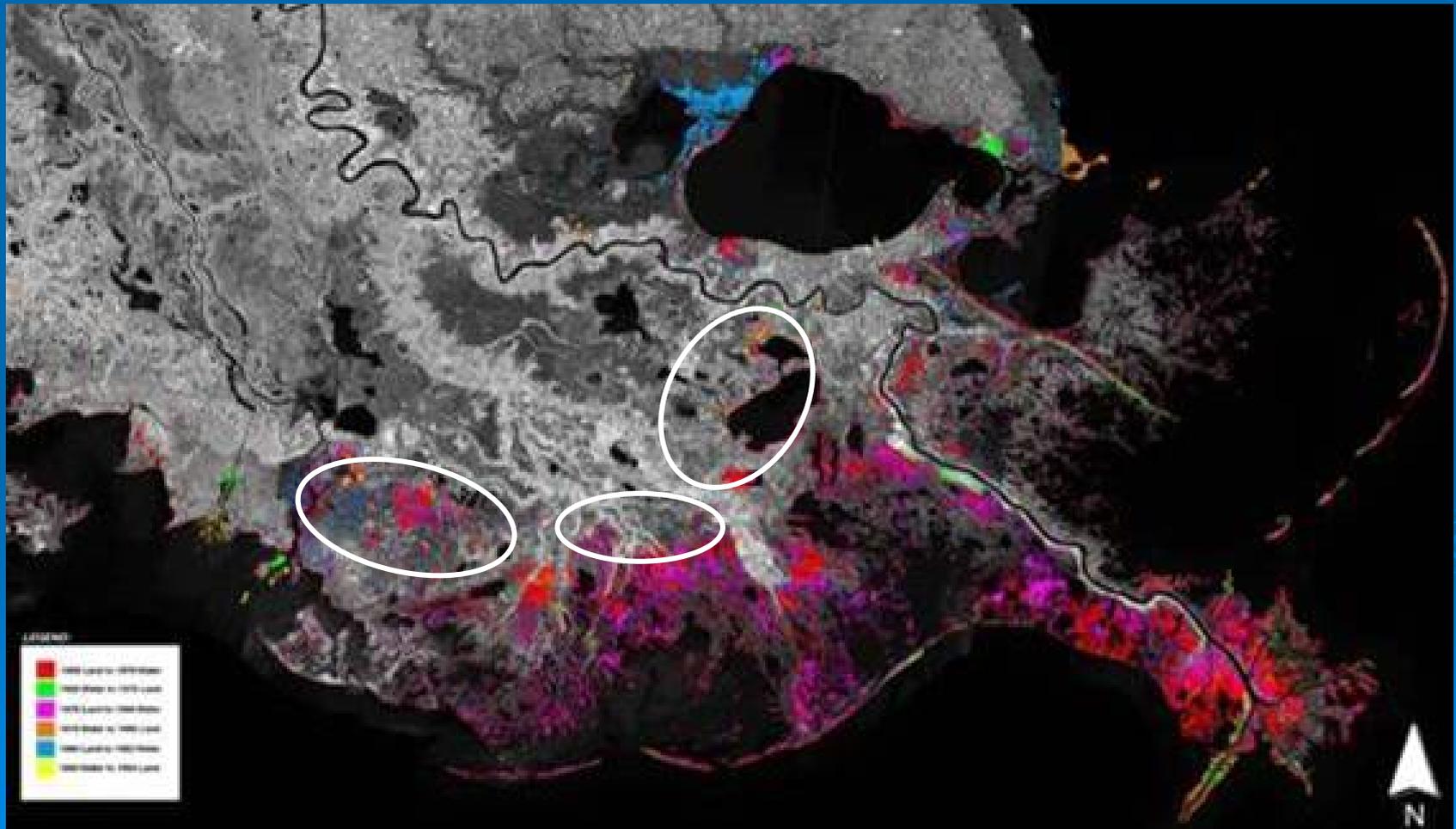
\*37 Species besides *P. hemitomon* have been documented to occur in the structures

# Findings (continued)

- All structures remained buoyant and structurally intact in the first two growing seasons. An apparent boat strike near the beginning of the third growing season affected the buoyancy and structural integrity of some of the bamboo structures at site 4, ultimately leading to the sinking of three structures. One string of ten PVC structures vanished from site 1 after Hurricane Gustav, but 81% of the monitored structures and 100% of the unmonitored remained structural intact after four growing seasons .

# Restoration Potential

33,000 ha (82,000 acres) of shallow freshwater areas.



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**STATUS OF THE PPL8 – SABINE REFUGE MARSH CREATION PROJECT, II,  
IV, & V (CS-28-4&5)**

**For Discussion:**

Mr. Scott Wandell will provide a status on the construction of the permanent pipeline (Cycle II) and potential construction schedule for Cycles IV and V to meet the Calcasieu Ship Channel FY 11 maintenance cycle in winter 2010/2011.

# Sabine Refuge Marsh Creation Project

## Status on Construction Schedules

CWPPRA Technical Committee Meeting  
December 2, 2009



Presented by:

Scott Wandell  
Project Manager, USACE

# Sabine Refuge Marsh Creation Project Background

- **Approved on PPL 8 in January 1999.**
- **Project consists of 5 marsh creation sites on the Sabine National Wildlife Refuge to create  $\approx$  1,120 acres**
- **Using dredge material from Calcasieu River Ship Channel maintenance dredging.**
- **The COE Ops Div. pays for dredging the Calcasieu River and CWPPRA only pays for the incremental cost of pumping to the Sabine Refuge.**
- **Later broken up into 5 separate cycles**

**SABINE NATIONAL WILDLIFE**

**REFUGE BOUNDARY**

RECENT CARRERA  
SITE

EXISTING DIKE

CYCLE 5  
PRIMARY SITE  
(MARSH CREATION)  
APPROX 232.1 AC

CYCLE 4  
PRIMARY SITE  
(MARSH CREATION)  
APPROX 230.5 AC

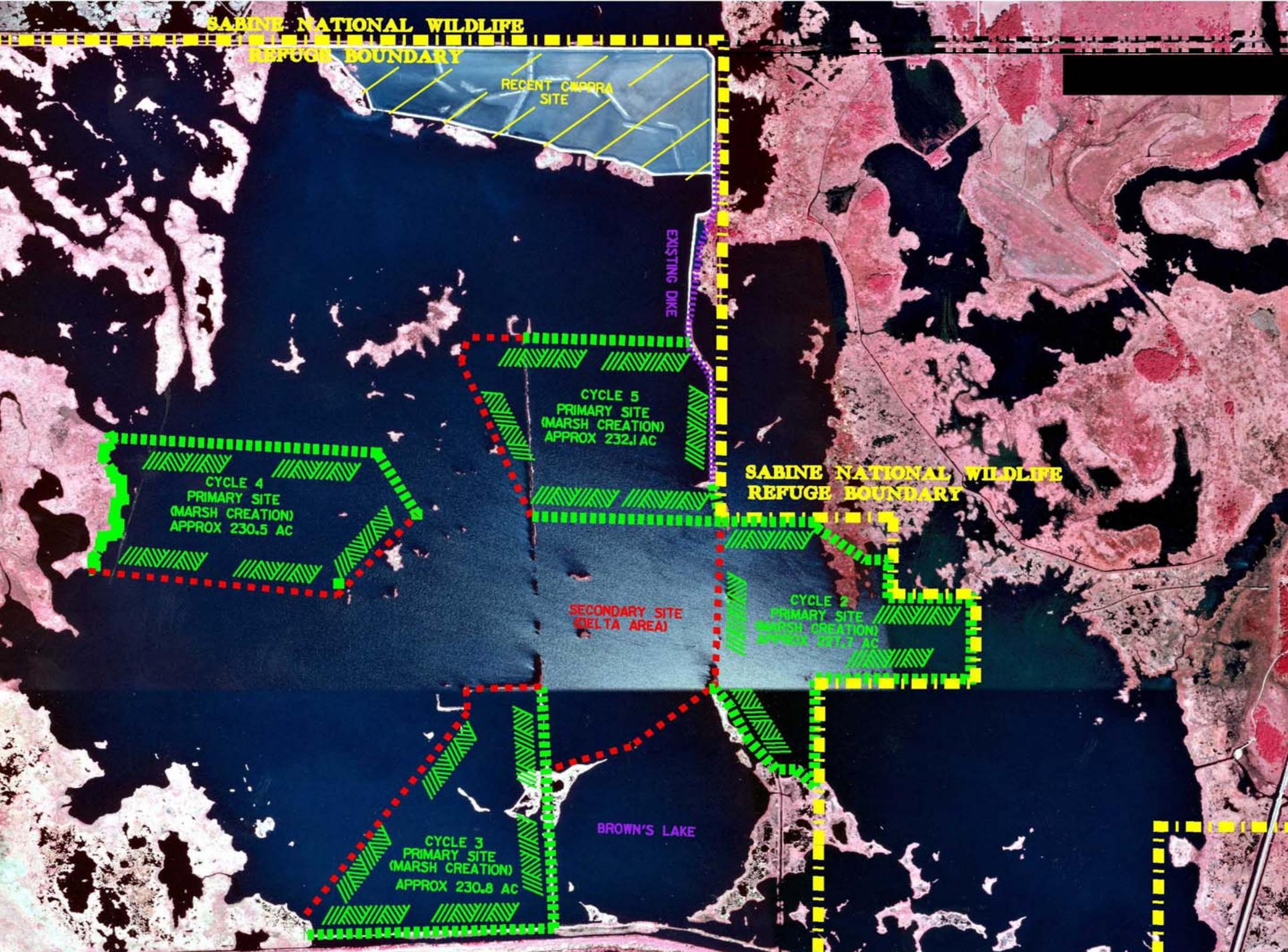
**SABINE NATIONAL WILDLIFE  
REFUGE BOUNDARY**

SECONDARY SITE  
(DELTA AREA)

CYCLE 2  
PRIMARY SITE  
(MARSH CREATION)  
APPROX 227.7 AC

CYCLE 3  
PRIMARY SITE  
(MARSH CREATION)  
APPROX 230.8 AC

BROWN'S LAKE



# Current Work Update

- Cycle 1
  - Completed Jan 2002
  - Created 200 acres marsh at a cost of \$3.4 M
- Cycle 2
  - Until recently, included a permanent pipeline feature and a marsh creation site of  $\approx 227$  acres
  - Marsh creation site was removed from Cycle 2 in 2008
    - State will pay for marsh creation component
    - Construction scheduled to start in March and should be completed by May
  - Permanent Pipeline 85% complete
  - Will be 100% complete by early January.
    - 4 months ahead of schedule
- Cycle 3
  - Initial construction completed in March 2007
  - Constructed  $\approx 230$  acres
  - COE and State currently surveying the site for gapping and degrading containment dikes around marsh creation site

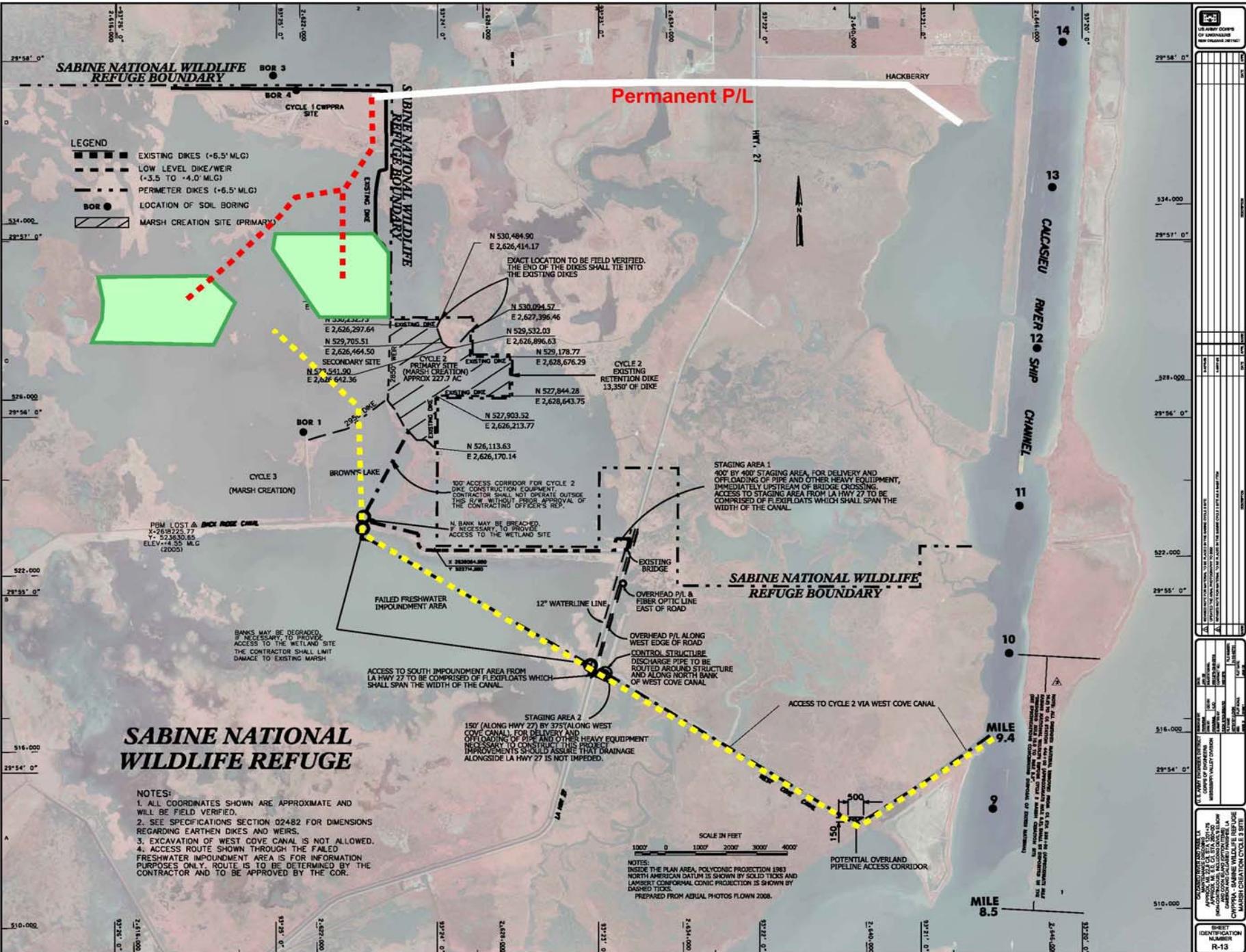
# Sabine Refuge Marsh Creation Project

## Cycles 4&5

- **Cycles 4-5 would construct 460 acres of marsh at an estimated cost of \$4-5 M**
- **2 alternative construction schedules based on 3 possible construction scenarios:**
  - **Construction Schedule 1**
    - Cycle 4 constructed in FY11 using permanent pipeline and dredge material from River Mile 14-12.5
    - Cycle 5 constructed in FY13 using permanent pipeline and dredge material from River Mile 14-12.5



US ARMY CORPS OF ENGINEERS  
NEW ORLEANS DISTRICT



### SABINE NATIONAL WILDLIFE REFUGE BOUNDARY

#### LEGEND

- EXISTING DIKES (+6.5' M.L.G)
- LOW LEVEL DIKE/WER (+3.5 TO +4.0' M.L.G)
- PERIMETER DIKES (+6.5' M.L.G)
- BOR ● LOCATION OF SOIL BORING
- MARSH CREATION SITE (PRIMARY)

Permanent P/L

## SABINE NATIONAL WILDLIFE REFUGE

#### NOTES:

1. ALL COORDINATES SHOWN ARE APPROXIMATE AND WILL BE FIELD VERIFIED.
2. SEE SPECIFICATIONS SECTION 02482 FOR DIMENSIONS REGARDING EARTHEN DIKES AND WEIRS.
3. EXCAVATION OF WEST COVE CANAL IS NOT ALLOWED.
4. ACCESS ROUTE SHOWN THROUGH THE FAILED FRESHWATER IMPOUNDMENT AREA IS FOR INFORMATION PURPOSES ONLY. ROUTE IS TO BE DETERMINED BY THE CONTRACTOR AND TO BE APPROVED BY THE COR.

SCALE IN FEET  
0 1000 2000 3000 4000

NOTES:  
INSIDE THE PLAN AREA, POLYCONIC PROJECTION 1983 NORTH AMERICAN DATUM IS SHOWN BY SOLID THICKS AND LARGEST CONFORMAL CONIC PROJECTION IS SHOWN BY DASHED THICKS.  
PREPARED FROM AERIAL PHOTOS FLOWN 2008.

NO.	DATE	DESCRIPTION	BY	CHECKED

PROJECT IDENTIFICATION NUMBER <b>R-13</b>
--

# Sabine Refuge Marsh Creation Project Cycles 4&5 (cont'd)

## – Construction Schedule 2

- Construct both Cycles 4 and 5 during next COE maintenance dredging event in FY11
- Alternative #1
  - Construct Cycles 4 and 5 using permanent pipeline and dredge material from Calcasieu River Miles 15-12
- Alternative #2
  - Construct Cycle 4 using permanent pipeline and dredge material from Calcasieu River Miles 14-12.5
  - Construct Cycle 5 using temporary pipeline via West Cove Canal Corridor and dredge material from River Miles 10-8.5

# Summary

- Will provide cost estimates for all three scenarios prior to Task Force meeting.
- Will request construction approval and funding once Cost Share Agreement is executed

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**STATUS OF THE PPL9 – WEEKS BAY MC AND SP/COMMERCIAL CANAL/  
FRESHWATER REDIRECTION PROJECT (TV-19)**

**For Report/Discussion:**

At the April 15, 2009 meeting, the Technical Committee granted a one-year extension on the Weeks Bay Project so Vermilion and Iberia Parishes could prepare a feasibility report using CIAP funds. Mr. Travis Creel will provide a six month progress report on Vermilion and Iberia Parishes efforts.

## Wandell, Scott F MVN

---

**From:** Creel, Travis J MVN  
**Sent:** Friday, November 20, 2009 1:00 PM  
**To:** Wandell, Scott F MVN  
**Cc:** 'Kelley.Templet@LA.GOV'; Goodman, Melanie L MVN  
**Subject:** FW: Weeks Bay Progress Report

**Follow Up Flag:** Follow up  
**Flag Status:** Red

Scott,  
Please add this report to the binder for Weeks Bay. This is the last report I have received.

Thanks

Travis Creel  
Project Management  
USACE New Orleans  
Office (504) 862 1071  
Cell (314)775 9481

-----Original Message-----

From: Somme, Michael [mailto:somme@csrsonline.com]  
Sent: Monday, October 19, 2009 3:16 PM  
To: Randy Moertle (rmoertle@bellsouth.net)  
Cc: Ben Malbrough (benjamin.malbrough@shawgrp.com); Chris Williams (Chris.Williams@LA.GOV); Chris Theriot (vermillionppj@yahoo.com); John Foret (john.foret@noaa.gov); Kelley Templet (kelley.templet@la.gov); Sherrill Sagrera (sherrillsagrera@bellsouth.net); W P "Judge" Edwards III ('vermilioncorporation@connections-lct.com'); jeffery.pena@shawgrp.com; Creel, Travis J MVN; Charles Stemmans (charles.stemmans@la.usda.gov); rainymanager@yahoo.com; hosborn@tabasco.com; Goodman, Melanie L MVN; Andrew.Beall@LA.GOV; Ernest Freyou (efreyou@iberiagov.net); Jim Anderson (janderson@iberiagov.net); Kevin Hagerich (khagerich@iberiagov.net); Laura Downey (ldowney@iberiagov.net); Sally Angers (sangers@iberiagov.net)  
Subject: Weeks Bay Progress Report

Randy,

Here are the recent activities that have been completed and the current status update for the Weeks Bay Project:

- Iberia Parish submitted the CIAP Grant Application for the project on October 1, 2009.
- On October 14, 2009 Iberia Parish received an email to inform them Kasey Courture and Brian Heath with MMS had been assigned as the Project Officer and Grant Officer respectively, and that they had began to review the grant application and would be providing the parish with comments to address in the near future.
- As of today, October 19, 2009, we have not received their comments.
- After, we receive their comments we will begin working to address them and submit our responses and any additional information requested by MMS as soon as possible. Once this is completed they will review our responses and either request additional information or send us an email stating that the Project Officer has deemed the grant application to be adequate, at which point it will begin to be reviewed by the Grants Officer and the process continues until the Grant Award is received. This process has been taking between 2 - 6 months or longer in some cases, so any schedule projections regarding

this task and all the tasks dependent on it are just a estimate and may vary greatly depending on the duration of this task.

- After we receive the grant award from MMS, we will begin to work with Vermilion Parish to prepare the grant application for the funds that they have allocated to the project while also beginning the first phase of the feasibility study.

I hope this answers all of the questions regarding the status of the project. I will provide updates on the progress and schedule of the project as we move forward and more accurate projections can be made. If you have any further questions, please feel free to call or email me.

Thanks,

Michael A. Somme, EI, MSM

CIAP Management Team

michael.somme@la.gov

225.202.9379

OCPR

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Baton Rouge, LA 70804

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COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**STATUS OF UNCONSTRUCTED PROJECTS**

**For Report/Discussion:**

The P&E Subcommittee will report on the status of unconstructed CWPPRA projects that have been experiencing project delays, including Corps projects that have been delayed due to Cost Sharing Agreement (CSA) issues. The Corps will provide a status on their CSA negotiations with the state and report to the P&E Subcommittee in May 2010 on the progress of those efforts. The P&E will also report on milestones they established for several projects and make recommendations on potential directions to take on program procedures and/or projects as outlined below:

- a.** The P&E recommends that all unconstructed pre-cash flow projects converting to cash-flow procedures due to scope changes be subject to 30% and 95% design review procedures.
- b.** The P&E recommends that deauthorization procedures be initiated for the following projects:
  - 1.** MR-13 Benney's Bay Sediment Diversion Project (USACE).
  - 2.** PO-32 Lake Borgne MRGO Shoreline (USACE).

Status of Unconstructed Projects  
Planning and Evaluation Subcommittee  
Established Project Specific Milestones  
November 10, 2009

The following projects milestones were established by the P&E and reported on by the lead agency in May 2010 meeting:

1. BA-34 Small Diversion NW Barataria Basin (EPA). Complete modeling and determine if project is feasible.
2. PO-29 River Reintroduction into Maurepas Swamp (EPA). Gap analysis to be completed by 1 March 2010 and completed by May 2010.
3. TV-21 East Marsh Island (NRCS). Start construction by March 2010.
4. BA-38 Barataria Barrier Pelican to Pass Chalant CU2 (NMFS). Start construction by May 2010.
5. BA-40 Riverine Sand Mining Scofield (NMFS). Conduct 30% design review meeting in Feb 2010.
6. ME-23 South Pecan Island (NMFS). Decide in January 2010 whether or not to Deauthorize due to land rights issues.
7. BA-41 South Shore of Pen (NRCS). Start construction March 2010.
8. TE-34 Penchant Basin (NRCS). Start Construction by May 2010.
9. BA-4c West Point a la Hache (NRCS). Report on 30% and 95% design status.
10. BS-10 Delta Building Fort St Philip (USACE). Complete closure plan by March 2010, and schedule 95% design review.
11. BA-42 Lake Hermitage (USFWS). Provide land rights status on pipeline corridor.
12. TE-32a North Lake Boudreaux (USFWS). Hold 95% meeting Mar 20, 2010.

PPL 1 through 15 Unconstructed Projects

Project Name	Project No.	Agency	PL	Authorized Date/Phase I Approval	Construction/Phase II Approval	30% Design Review Date*	95% Design Review Date*	Current Approved Economic Analysis Date (Budget Estimate on Books)	Construct Start*	Construct Complete*	Current Approved Funded Budget	1st cost Unexpended	Monitoring Unexpended	O&M Unexpended	TOTAL Unexpended	TOTAL Unobligated	Current Total FF Cost Est. On Books	On Sched	Proj Issue Delays	Prog Issue Delays	Deauth/Trans	> \$50 M
Sabine Refuge Marsh Creation, Cycle 4	CS-28-4	COE	8	20-Jan-99	20-Jan-11	na	na	20-Jan-99	1-Dec-10	1-Jul-11	\$0	\$0	\$0	\$0	\$0	\$0	\$3,641,208	X				
Sabine Refuge Marsh Creation, Cycle 5	CS-28-5	COE	8	20-Jan-99	20-Jan-11	na	na	21-Jan-99	1-Dec-10	1-Jul-11	\$0	\$0	\$0	\$0	\$0	\$0	\$2,143,523	X				
South Grand Chenier	ME-20	FWS	11	16-Jan-02	20-Jan-10	6-Aug-09	3-Nov-09	10-Oct-09	1-Oct-10	30-Sep-11	\$2,358,420	\$1,240,335	\$42,596		\$1,282,931	\$1,097,475	\$27,936,736	X				
Venice Ponds Marsh Creation & Crevasses	MR-15	EPA	15	08-Feb-06	20-Jan-11	1-Apr-11	1-Jul-11	8-Feb-06	10-Apr-12	24-Jun-13	\$1,074,522	\$1,025,784			\$1,025,784	\$161,184	\$8,992,955	X				
East Marsh Island Marsh Creation	TV-21	EPA/NRCS	14	17-Feb-05	21-Jan-09	21-Aug-08	5-Nov-08	21-Jan-09	22-Mar-10	18-Mar-11	\$22,611,689	\$20,466,682	\$27,307	\$1,368,446	\$21,862,435	\$21,482,665	\$23,025,451	X				
South Shore of the Pen	BA-41	NRCS	14	17-Feb-05	13-Feb-08	19-Oct-07	12-Dec-07	1-Nov-08	1-Feb-10	1-Mar-11	\$19,850,569	\$16,629,812		\$2,314,376	\$18,944,188	\$10,236,873	\$21,639,574	X				
Bayou Sale Shoreline Protection	TV-20	NRCS	13	28-Jan-04	20-Jan-11	1-Jun-10	1-Oct-10	29-Oct-03	1-Oct-11	1-Sep-12	\$2,254,912	\$1,338,670			\$1,338,670	\$462,819	\$32,103,020	X				
Grand Lake Shoreline Protection, Tebo Point	ME-21a	COE	11	16-Jan-02	15-Feb-07	11-May-04	16-Aug-04	20-Nov-06			\$4,381,643	\$2,958,588	\$14,559	\$632,613	\$3,605,760	\$3,605,760	\$4,409,519		X			
Grand Lake Shoreline Protection, O&M Only [CIAP]	ME-21b	COE	11	16-Jan-02	15-Feb-07	11-May-04	16-Aug-04	20-Nov-06	Na	na	\$5,673,973			\$5,673,973	\$5,673,973	\$5,673,973	\$8,382,494		X			
Avoca Island Diversion and Land Building	TE-49	COE	12	16-Jan-03	20-Jan-11	2-Mar-10	3-Jun-10	10-Jan-03	15-Oct-11	15-Jul-12	\$2,229,876	\$537,348	\$43,619		\$580,967	\$592,345	\$19,157,216		X			
Fort Jackson Sediment Diversion	na	COE	na	na	na	na	na	na	na	na	\$365,050	\$3,498	na	na	\$3,498	\$3,498			X			X
North Lake Boudreaux Basin Freshwater Intro and Hydro Mgt	TE-32a	FWS	6	na	na	4-Aug-09	1-Mar-10	10-Apr-07	1-Dec-10	30-Dec-12	\$12,289,133	\$7,066,174	\$239,962	\$3,245,424	\$10,551,561	\$10,324,537	\$20,470,882		X			
Lake Hermitage Marsh Creation	BA-42	FWS	15	08-Feb-06	21-Jan-09	26-Aug-08	3-Nov-08	11-Nov-08	1-Jul-10	1-Jul-11	\$37,875,710	\$37,770,881		\$23,546	\$37,794,427	\$37,796,134	\$38,040,158		X			
Small FW Diversion to the NW Barataria Basin	BA-34	EPA	10	10-Jan-01	1-Jan-12	1-May-11	1-Aug-11	10-Jan-01	1-May-12	13-May-13	\$2,362,687	\$1,735,123	\$4,109		\$1,739,232	\$228,238	\$14,777,050		X			
River Reintroduction into Maurepas Swamp	PO-29	EPA	11	07-Aug-01	1-Jan-13	4-Dec-08	1-Dec-11	3-Jun-09	1-Nov-13	1-Nov-16	\$6,780,173	\$1,782,521	\$40,740		\$1,823,261	\$139,114	\$165,975,707		X			X
White Ditch Resurrection	BS-12	NRCS	14	17-Feb-05	20-Jan-11	1-Jun-10	1-Oct-10	3-Nov-04	1-Oct-11	1-Sep-12	\$1,595,677	\$893,851			\$893,851	\$167,421	\$14,845,193		X			
West Pointe a la Hache Outfall Management	BA-04c	NRCS	3	01-Oct-93	20-Jan-11	1-Jun-10	1-Oct-10	15-Sep-08	1-Jun-11	1-Jan-12	\$5,370,526	\$2,498,833	\$1,141,624	\$1,141,777	\$4,782,234	\$3,541,290	\$5,370,526		X			
Penchant Basin Natural Resources Plan, Incr 1	TE-34	NRCS	6	24-Apr-97	na	na	na	21-Nov-06	1-Feb-10	1-Mar-11	\$17,628,814	\$12,918,727	\$272,576	\$1,855,804	\$15,047,108	\$1,899,166	\$17,628,814		X			
Little Pecan Bayou Hydrologic Restoration	ME-17	NRCS	9	11-Jan-00	20-Jan-11	1-Jun-10	1-Oct-10	13-Apr-09	1-Oct-11	1-Sep-12	\$1,556,598	\$552,276	\$78,797		\$631,073	\$172,839	\$6,836,629		X			
South Lake Decade Freshwater Introduction	TE-39	NRCS	9	11-Jan-00	13-Feb-08	19-Jul-04	2-Sep-04	1-Dec-07	1-Apr-10	1-Jun-10	\$3,710,627	\$3,104,147	\$42,140	\$21,014	\$3,167,301	\$3,113,050	\$5,223,806		X			
South Pecan Island FW Intro	ME-23	NMFS	15	08-Feb-06	20-Jan-11	24-Sep-08	31-Dec-09	22-Sep-08			\$1,102,043	\$696,553			\$696,553	\$118,352	\$4,438,695		X			
Riverine Sand Mining/Scofield Island Restoration	BA-40	NMFS	14	17-Feb-05	20-Jan-11	Jan-2010 (s)	9/1/2010 (s)	5-Nov-04	1-Mar-11		\$3,221,887	\$1,624,899	\$10,514		\$1,635,413	\$345,309	\$44,544,636		X			
Barataria Barrier Shoreline, Pelican Island to Chalard Pass (CU2)	BA-38	NMFS	11	16-Jan-02	28-Jan-04	1-Jun-03	1-Dec-03	1-May-09			\$75,569,537	\$44,324,027	\$283,276	\$242,633	\$44,849,936	\$5,128,744	\$77,109,222		X			
Delta Building Diversion North of Fort St. Philip	BS-10	COE	10	10-Jan-01	20-Jan-11	16-Aug-05	1-Nov-10	10-Jul-07	1-Apr-11		\$1,444,000	\$283,801	\$13,125		\$296,925	\$296,925	\$6,644,070			X		
Spanish Pass Diversion	MR-14	COE	13	28-Jan-04	20-Jan-12	1-Dec-10	15-Mar-10	28-Jan-04	1-Oct-12	1-Oct-13	\$1,421,680	\$1,112,214			\$1,112,214	\$1,115,214	\$14,212,169			X		
Freshwater Bayou Bank Stab - Belle Isle Canal to Lock	TV-11b	COE	9	11-Jan-00	20-Jan-10	1-Jun-02	1-Jan-04	11-Nov-08	1-Apr-10	30-Jun-11	\$1,498,967	\$283,328	\$113,801		\$397,229	\$397,229	\$38,065,335			X		
Ship Shoal: Whiskey West Flank Restoration	TE-47	EPA	11	16-Jan-02	20-Jan-10	8-Nov-04	28-Sep-05	21-Jan-09	14-Apr-10	15-Jun-11	\$3,742,053	\$1,724,737	\$18,941		\$1,743,678	\$408,354	\$61,750,784			X		X
GIWW Bank Rest of Critical Areas in Terrebonne	TE-43	NRCS	10	10-Jan-01	20-Jan-10	25-May-04	26-Aug-04	21-Jan-09	1-Oct-10	1-Sep-11	\$1,735,983	\$603,655	\$8,634		\$612,289	\$576,931	\$15,304,924			X		
Rockefeller Refuge Gulf Shoreline Stabilization	ME-18	NMFS	10	10-Jan-01				10-Jan-01			\$2,408,478	\$1,069,396	\$6,931		\$1,076,327	\$1,074,057	\$95,988,637			X		X
Lake Borgne and MRGO Shoreline Protection	PO-32	COE	12	16-Jan-03	20-Jan-11	1-Aug-04	29-Mar-05	29-Mar-05	30-Mar-11	30-Nov-11	\$1,348,345	\$235,651	\$30,397		\$266,048	\$266,048	\$25,062,946				X	
Benneys Bay Diversion	MR-13	COE	10	10-Jan-01	20-Jan-12			10-Jan-07			\$1,076,328	\$75,785	\$25,259		\$101,044	\$101,044	\$30,297,105				X	X
Weeks Bay MC/SP/Commercial Canal/FW Redirection	TV-19	COE	9	11-Jan-00	na	na	na	21-May-03			\$1,229,337	\$659,549	\$37,935		\$697,484	\$697,484	\$30,027,305				X	
Brown Lake Hydrologic Restoration (PENDING DEAUTH)	CS-09	NRCS	2	19-Oct-92	na	na	na				\$4,002,363	\$2,157,653	\$392,645	\$432,226	\$2,982,524	\$2,200,493	\$4,002,363				X	

\* Use actual or current schedule date for design review and construction schedules

na= Not applicable (Cash Flow, Complex, or PENDING DEAUTH)

Updated:

FWS
NMFS
EPA
COE
NRCS

	Current Approved Funded Budget	1st cost Unexpended	Monitoring Unexpended	O&M Unexpended	TOTAL Unexpended	TOTAL Unobligated	Current Total FF Cost Est. On Books
On Schedule	\$48,150,112	\$40,701,283	\$69,903	\$3,682,822	\$44,454,007	\$33,441,015	\$119,482,467
Project Issue Delays	\$181,713,954	\$118,467,447	\$2,171,915	\$12,836,784	\$133,476,147	\$72,849,771	\$447,210,547
Program Issue Delays	\$12,251,161	\$5,077,131	\$161,531	\$0	\$5,238,661	\$3,868,710	\$231,965,919
Deauthorize/Transfer	\$4,002,363	\$2,157,653	\$392,645	\$432,226	\$2,982,524	\$2,200,493	\$4,002,363
Over \$50 million	\$14,372,082	\$4,655,937	\$91,870	\$0	\$4,747,807	\$1,726,066	\$354,012,233

## Projects On Schedule

Project Name	Project No.	Agency	PPL	Milestones
Sabine Refuge Marsh Creation, Cycle 4	CS-28-4	COE	8	Overall project was broken into five construction units. Task Force deferred construction funding approval for Cycles IV and V until construction of cycles II and II are complete. E&D 95% complete and environmental compliance complete. Plan to request construction approval for Cycle IV to meet Calcasieu Ship Channel FY 10 maintenance cycle in winter 2010.
Sabine Refuge Marsh Creation, Cycle 5	CS-28-5	COE	8	Project was broken into five construction units. Task Force deferred construction funding approval for Cycles IV and V until construction of cycles II and II are complete. E&D 95% complete and environmental compliance complete. Plan to request construction approval for Cycle IV to meet Calcasieu Ship Channel FY 10 maintenance cycle in winter 2011.
South Grand Chenier Hydrologic Restoration	ME-20	FWS	11	Engineering and design work is nearly complete. A 95% design review meeting is scheduled for November 3, 2009. Phase 2 request is planned for the January 2010 Task Force meeting.
Venice Ponds Marsh Creation & Crevasses	MR-15	EPA	15	
East Marsh Island Marsh Creation	TV-21	EPA/NRCS	14	Project Team has sent the proposed project to DOA for bidding. It is anticipated that the pre-bid and bid will be in November 2009, and the NTP will be issued in early 2010.
South Shore of the Pen	BA-41	NRCS	14	Advertised construction contract in October 2009.
Bayou Sale Shoreline Protection	TV-20	NRCS	13	Project reduced scope eliminating 123 acres of marsh due to borrow complications. Geotechnical Investigations will begin soon. Results will determine appropriate engineering solutions for shoreline protection. Many pipelines.

## Projects Delayed by Project Delivery Team Issues

Project Name	Project No.	Agency	PPL	Project Issue Delays	Critical Milestone(s)	Current Phase
Grand Lake Shoreline Protection, O&M Only [CIAP]	ME-21b	COE	11	CSA	The actual cost estimate for the different work segments are not consistent with the way the Task Force broke the project up when approved for construction. CWPPRA invested \$6,300,000 in the first three yrs of O&M for both segments. As of Aug 09 the CIAP program has started construction on the CIAP reach. The Tebo Point portion has yet to be built. Before proceeding with the O&M event a CSA would have to be signed.	II
Grand Lake Shoreline Protection, Tebo Point	ME-21a	COE	11	CSA	<ul style="list-style-type: none"> <li>The Tebo Point portion will have to be built separately. It is highly unlikely that the CWPPRA Tebo Point portion will be under the approved \$2.7 M amount, 4 yrs later.</li> <li>Over the last two yrs Tebo Point portion has been on hold pending approval of the Cost Share Agreement, which is presently being negotiated between the State and the USACE. The CWPPRA SOP states that if a project does not go to construction in two yrs the Task Force could ask that the funds be returned to the program. The project will continue to be on hold until the CSA issue is resolved.</li> </ul>	II
Avoca Island Diversion and Land Building	TE-49	COE	12	Project features/ CSA	Potential Change in project scope for dedicated dredging marsh creation being considered. Decision to change scope and move toward 30% design review pending resolution of OCPR's geotechnical concerns and concurrence on final project features. Lack of CSA between COE and OCPR limiting progress somewhat.	I
Fort Jackson Sediment Diversion (complex project)	NA	COE			Meet with LDNR to discuss if the project is in the State's Master Plan, and if it is still a viable and fundable project in the CWPPRA program, if not the project would be closed out. The project will need to develop final fully funded cost estimate and revise WVA if the project would request Phase I funding in the future.	0
North Lake Boudreaux Basin Freshwater Intro and Hydro Mgt	TE-32a	FWS	6	Project Features	Delays due to E&D of forced drainage feature which will now be permitted with restoration measures. EA Review in Jan 2010, 95% Design Review in Mar2010, and Funding request in April 2010	N/A
Lake Hermitage Marsh Creation	BA-42	FWS	15	Landrights	Since receiving Phase 2 approval in January 2009, the project has encountered landrights problems which will prevent going to construction in 2009. At best, the project will go to construction in summer 2010.	2
Small FW Diversion to the NW Barataria Basin	BA-34	EPA	10	Modeling Results	The primary landowner is now fully supportive of the project and has given approval to continue Phase I studies. Hydrodynamic modeling results should be available soon. Upon completion of modeling results, next steps will be to confirm project viability/feasibility, revise general project features and cost estimate if necessary, and initiate E&D work.	I
River Reintroduction into Maurepas Swamp	PO-29	EPA	11	Gap Analysis	30% Design Review in July 08, 95% Design Review in Dec 11, Request Phase II in Jan 13. EPA, OCPR and COE working on details to perform "Gap Analysis" to determine what is needed should the project be moved to LCA.	
White Ditch Resurrection	BS-12	NRCS	14		2005 - 2008 – Setbacks include impacts and changes to hydrology associated with Hurricanes Katrina, Rita, and Gustav. Project Team is developing surveying, geotechnical investigations, and modeling requirements necessary to proceed to 30% design review. Project is scheduled to request Phase II funding at the January 2012 Task Force Meeting.	
West Pointe a la Hache Outfall Management	BA-04c	NRCS	3	Scope Change in Past	Surveys completed, geotechnical analysis underway. Project is scheduled to request construction approval in January 2011.	
Penchant Basin Natural Resources Plan, Incr 1	TE-34	NRCS	6	Scope Change in Past	Project is ready to be advertised for construction, pending agency authorization for new fiscal year.	
Little Pecan Bayou Hydrologic Restoration	ME-17	NRCS	9	Landowner concerns in Past	Design surveys are completed. The project will not perform geotechnical investigation as previously scheduled, instead the analysis for ME-20 will be used. Pipeline coordination ongoing. Anticipated date of 30% review is June 2010. Phase II funding request in January 2011.	I
South Lake Decade Freshwater Introduction	TE-39	NRCS	9		Project scheduled to be advertised in November 2009.	
South Pecan Island FW Intro	ME-23	NMFS	15	Landrights	The project design team is concluding the 95% Design and NEPA compliance. The projected completion for both is December 2009.	
Riverine Sand Mining/Scotfield Island Restoration	BA-40	NMFS	14	Scope Change	Preliminary Design review delayed until January/February 2010.	
Barataria Barrier Shoreline, Pelican Island to Chalard Pass (CU2)	BA-38	NMFS	11	Landrights/Oysters	Spring construction contract advertisement	

**Projects Delayed by Programmatic Issues (e.g., CSAs, Induced Shoaling, Funding Availability)**

Project Name	Project No.	Agency	PL	Issue Category	Critical Milestone(s)	Current Phase
Delta Building Diversion North of Fort St. Philip	BS-10	COE	10	Emergency Closure Plan/Induced Shoaling Issue/CSA	Corps proposed an emergency closure plan in draft O&M plan. DNR objects to this and indicated that they do not wish to move forward with completing design review requirements for the project until the overall programmatic issue on "induced shoaling" is resolved. Project otherwise ready for 95% design review.	I
Spanish Pass Diversion	MR-14	COE	13	CSA	Benefits to be realized changed from 334 to 190 acres. A smaller diversion is proposed along with dedicated dredging/marsh creation to result in an equivalent amount of acreage as originally proposed. Lack of CSA between Corps and DNR limiting project progress.	I
Freshwater Bayou Bank Stab - Belle Isle Canal to Lock	TV-11b	COE	9	CWPPRA Program Funding Limitations	2007 WRDA Authorization for 16 ft channel depth and may not include shoreline stabilization. Will seek construction authorization in January 10 from CWPPRA Task Force for the 5th time since Fall 2004.	I
Ship Shoal: Whiskey West Flank Restoration	TE-47	EPA	11	CWPPRA Program Funding Limitations	Phase 1 E&D has been completed, but the project has yet to be selected for Phase 2 construction funding. EPA & OCPR are in the process of resurveying the island to verify whether revisions are required to the current plans and specifications. The survey is planned for after the 2009 Hurricane Season. Results of the survey could determine the direction of the project. The sponsors will prepare the current project for another Phase 2 request in January 2010.	I
GIWW Bank Rest of Critical Areas in Terrebonne	TE-43	NRCS	10	CWPPRA Program Funding Limitations	Will seek construction authorization in January 10 from CWPPRA Task Force for the 4th time	I
Rockefeller Refuge Gulf Shoreline Stabilization	ME-18	NMFS	10	CWPPRA Program Funding Limitations	Prototype test sections will be conducted under CIAP. When analysis of monitoring complete in August 2010, will pursue full project implementation under CWPPRA based on results.	I

## Projects Recommended for Deauthorization or Transfer to Other Program

Project Name	Project No.	Agency	PL	Transfer or Deauthorize	Reason(s) for Potential De-authorization
Lake Borgne and MRGO Shoreline Protection	PO-32	COE	12	MRGO Rest. Plan/CSA	MVN Operations Division constructed Lake Borgne reach using 3rd supplemental funds. MRGO Deauthorization Study, Chief's Report DNR is expected to fund 100% of the O&M on this segment. With the closure of the MRGO channel, the portion along the north bank of the MRGO between Doullut's Canal and Lena Lagoon is being evaluated as a part of the MRGO Restoration Plan. The USACE recommends that this portion of the project be placed on hold until after MRGO Restoration Plan has been finalized. A determination will be made at that time on whether or not to request Phase II funding.
Benneys Bay Diversion	MR-13	COE	10	Induced Shoaling/CS A	95% Design submitted to LDNR in October 2006. Project delayed by LDNR disagreement with the overall O&M funding approach associated with induced shoaling in the Mississippi River.
Weeks Bay MC/SP/Commercial Canal/FW Redirection	TV-19	COE	9	Deauthorize	Extensive study of the area conducted under numerous authorities failed to find sufficient environmental benefits to justify the project. As a result of project cost increases, there is no longer a constructable/ cost-effective project. Task Force had given local interest until Spring 2008 to test effectiveness of HESCO baskets as shoreline protection. It was indicated that the HESCO basket demonstration failed. The Project delivery team provided local interest with all technical engineering data collected under the CWPPRA Program. Local interest decided to initiate a redesign and engineering of the project using restoration techniques addressed in the Value Engineering Study (VES) for the Weeks Bay project (TV-19). The Technical Committee has requested that the local interest provide a six month progress report at the December 2009 Technical Committee and the January 2010 Task Force meeting.
Brown Lake Hydrologic Restoration (PENDING DEAUTH)	CS-09	NRCS	2	Deauthorize	Landowners refused to accept project change from hydrologic restoration to terraces, and therefore no longer support the project. Deauthorization procedures began at October 2009 Task Force meeting.

## Projects with Phase II Estimate > \$50 Million

Project Name	Project No.	Agency	PPL	Phase I Estimate	Phase II Estimate	Total Estimate*
Benneys Bay Diversion	MR-13	COE	10	\$1,076,328	\$52,626,553	\$53,702,881
Fort Jackson Sediment Diversion (Complex Project)	NA	COE	N/A	\$7,447,505	\$101,409,795	\$108,857,300
River Reintroduction into Maurepas Swamp	PO-29	EPA	11	\$6,780,307	\$171,346,693	\$178,127,000
Ship Shoal: Whiskey West Flank Restoration	TE-47	EPA	11	\$3,114,433	\$57,142,254	\$60,256,687
Rockefeller Refuge Gulf Shoreline Stabilization	ME-18	NMFS	10	\$2,408,478	\$94,058,749	\$96,467,227
				\$20,827,051	\$476,584,044	\$497,411,095

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name (and number):** Sabine Refuge Marsh Creation, Cycle IV (CS-28-4)
- 2. PPL:** 8
- 3. Federal Agency:** U.S. Army Corps of Engineers
- 4. Date of Construction Approval / Phase Two Approval:** N/A
- 5. Approved Total Budget:** \$ 0
- 6. Fully Funded Cost Estimate:** \$2,143,523 (20-Jan-99)
- 7. Expenditures:** \$ 0
- 8. Unexpended Funds:** \$ 0
- 9. Estimate of anticipated funding increases, including O&M:** unknown
- 10. Potential changes to project benefits:** none
- 11. Brief chronology of project development and issues affecting implementation:**
  - (1999) Sabine Refuge Marsh Creation project approved
  - (2004) Additional funds and construction approval for Cycles II and III
  - (2009) Construction of Cycle 2 pipeline
- 12. Current status/remaining issues:** This project was broken into five construction cycles. Cycle IV Engineering and Design 95% is complete along with Environmental Compliance. The CWPPRA Task Force has deferred construction funding approval for Cycles IV and V until construction of pipeline is complete.
- 13. Projected schedule:** Request for construction approval for Cycle IV is planned to meet the Calcasieu River Ship Channel FY 11 maintenance dredging cycle.
- 14. Preparer:** Scott Wandell (USACE) 504-862-1878

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name (and number):** Sabine Refuge Marsh Creation, Cycle V (CS-28-5)
- 2. PPL:** 8
- 3. Federal Agency:** U.S. Army Corps of Engineers
- 4. Date of Construction Approval / Phase Two Approval:** N/A
- 5. Approved Total Budget:** \$ 0
- 6. Fully Funded Cost Estimate:** \$2,143,523 (21-Jan-99)
- 7. Expenditures:** \$ 0
- 8. Unexpended Funds:** \$ 0
- 9. Estimate of anticipated funding increases, including O&M:** unknown
- 10. Potential changes to project benefits:** none
- 11. Brief chronology of project development and issues affecting implementation:**
  - (1999) Sabine Refuge Marsh Creation project approved
  - (2004) Additional funds and construction approval for Cycles II and III
  - (2009) Construction of Cycle 2 pipeline
- 12. Current status/remaining issues:** This project was broken into five construction cycles. Cycle V Engineering and Design 95% is complete along with Environmental Compliance. The CWPPRA Task Force has deferred construction funding approval for Cycles IV and V until construction of the pipeline is complete.
- 13. Projected schedule:** Request for construction approval for Cycle V is planned to meet the Calcasieu River Ship Channel FY 13 maintenance dredging cycle.
- 14. Preparer:** Travis Creel (USACE) 504-862-1071

**Status Review - Unconstructed CWPPRA Projects  
November 18, 2009**

- 1. Project Name (and number):** South Grand Chenier Hydrologic Restoration Project (ME-20)
- 2. PPL:** 11
- 3. Federal Agency:** USFWS
- 4. Date of Construction Approval / Phase Two Approval:** Phase I – January 16, 2002
- 5. Approved Total Budget:** \$2,358,420
- 6. Fully-Funded Cost:** \$27,936,736 (October 29, 2009 economic analysis)
- 7. Expenditures:** \$1,075,489
- 8. Unexpended Funds:** \$1,282,931
- 9. Estimate of anticipated funding increases, including O&M:** Unknown at this time.
- 10. Potential changes to project benefits:** Hydrodynamic modeling indicated that Area A, north of Hog Bayou and south of Hwy 82 near Lower Mud Lake, would not receive significant project benefits and that area has been removed. A revised WVA was completed in October 2009. A scope change was approved by the Task Force.
- 11. Brief chronology of project development and issues affecting implementation:**

1/ 2002 -	Phase I E & D Task Force approval
6/ 2002 -	Hydrodynamic Modeling contract awarded
9/ 2004 -	Model calibration and validation completed
4/ 2005 -	Final modeling report completed. (The model indicated that the project would flow freshwater from the Mermentau River to marshes south of Hwy 82 without impacts.).
9/ 2005 -	Hurricane Rita heavily impacted landowners.
3/ 2006 -	Modeling results and project features landowner meeting.
12/ 2006 -	Received key landowner approval to flow water across Hwy 82 at Grand Chenier to areas B and C.
4 to 8/ 2007 -	Landowner approval for surveying and geotechnical.
8/ 2007 -	Final key Miller-property landowner surveying approval received.
9/ 2007 - 4/2008	NRCS completed major project surveying by 9/2007; additional surveys completed by 4/ 2008
10/ 2007 - 5/ 2008 -	Wave analysis report to evaluate potential Gulf borrow areas completed.
5/ 2008	Cultural Resources Assessment Received from the State Historic Preservation Officer

6/ 2008 - 12/ 2008 - Geotechnical sampling completed in marsh and Gulf borrow site.  
6/2008 - 7/ 2008 Gulf Borrow Area Magnetometer Report completed  
12/ 2008 Preliminary Design Drawings completed  
6/ 2009 - Geotechnical reports by Eustis Engineering and ERDC completed.  
8/6/ 2009 - Successful 30% Design Review Meeting completed.  
9/29/ 2009 - Scope change to increase costs 33% to \$27.9 M and remove Area A approved by the Technical Committee.  
10/28/ 2009 - Task Force approved scope change.  
11/ 3/ 2009 - 95% Design Review meeting.

Issues affecting implementation: The hydrodynamic modeling effort took almost 3 years (2002 to 2005). Hurricane Rita destroyed most homes and dislocated all area landowners. Landowner approval of fresh water flow routes across Hwy 82 was critical for project design. Delays were caused by landrights approvals for surveying and geotechnical. Project managers did not wish to begin design without assurance that landowners did not object to features necessary to flow water.

**12. Current status/remaining issues:**

A 95% Design Review meeting was held on November 3, 2009. A Phase 2 request is scheduled for the December 2, 2009 Technical Committee meeting and Task Force meeting on January 20, 2010. The project is on schedule for an August 2010 construction start.

**13. Projected schedule:**

11/ 3/ 2009 - 95% Design Review Meeting; Revised WVA, Draft EA  
11 / 2009 - Phase II checklist items completed  
11/ 2009 - Phase II construction approval request  
12/ 2009 - Request Technical Committee Phase II approval  
1/ 2010 - Task Force Phase II Construction Approval (anticipated)  
8/ 2010 - Begin Construction

**14. Preparer:** Darryl Clark, USFWS (337-291-3111)

dc 10-23-09

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name:** Venice Ponds Marsh Creation & Crevasses (MR-15)
- 2. PPL:** 15
- 3. Federal Agency:** US Environmental Protection Agency
- 4. Date of Construction Approval / Phase Two Approval:** Anticipated January 2012
- 5. Approved Total Budget:** \$1,074,522
- 6. Fully Funded Cost Estimate:** \$8,992,955 (February 8, 2006)
- 7. Expenditures:** \$48,738 (as of October 2009 Source: Gay Browning)
- 8. Unexpended Funds:** \$1,025,784 (as of October 2009 Source: Gay Browning)
- 9. Estimate of anticipated funding increases, including O&M:** No anticipated CWPPRA funding increase for Phase I work.
- 10. Potential changes to project benefits:** Unknown at this time.
- 11. Brief chronology of project development and issues affecting implementation:**  
Phase I approval was received on February 8, 2006. MOA established between USACE/EPA/OCPR to transfer project from USACE to EPA for design and construction of project. EPA cost share agreement with OCPR to perform Phase 1 E&D was completed on May 28, 2009. A project site visit was conducted on October 29, 2009.
- 12. Current status/remaining issues:** A project site visit was conducted on October 29, 2009. OCPR to commence engineering and design activities along with project surveying in November 2009.
- 13. Projected schedule:**
  - 30% Design Review: April 2011
  - 95% Design Review: July 2011
  - Design Completion: October 2011
  - Phase 2 Approval: January 2012
  - Construction Start: April 2012
- 14. Preparer:** Paul Kaspar, (214-665-7459), [kaspar.paul@epa.gov](mailto:kaspar.paul@epa.gov), and EPA PM, Minnie Rojo, (214-665-3139), [rojo.minerva@epa.gov](mailto:rojo.minerva@epa.gov)

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name (and number):** East Marsh Island Marsh Creation (TV-21)
- 2. PPL:** 14
- 3. Federal Agency:** EPA/NRCS
- 4. Date of Construction Approval / Phase Two Approval:** January 21, 2009
- 5. Approved Total Budget:** \$22,611,689
- 6. Fully Funded Cost Estimate:** \$23,025,451 (January 21, 2009)
- 7. Expenditures:** \$749,254 (as of October 2009 Source: Gay Browning)
- 8. Unexpended Funds:** \$21,862,435 (as of October 2009 Source: Gay Browning)
- 9. Estimate of anticipated funding increases, including O&M:** None anticipated at this time.
- 10. Potential changes to project benefits:** WVA was revised June 2008 as directed by P&E and Technical Committees. Results: 169 net acres after 20 years and 106 AAHUs.
- 11. Brief chronology of project development and issues affecting implementation:**  
Phase 1 approved on February 17, 2005 and was approved for Phase 2 on January 21, 2009. Project design and benefits changed somewhat from the Phase 0 project concept, mostly because of changes to the island caused by hurricanes Katrina and Rita. Changes were vetted by the work groups during project design.
- 12. Current status/remaining issues:** Project is being transferred from EPA to NRCS for project construction. Final bid documents are being prepared. Project is scheduled to be advertised for bid in late 2009.
- 13. Projected schedule:**
  - 30% Design Review: August 21, 2008
  - 95% Design Review: November 5, 2008
  - Design Completion: December 2008
  - Phase 2 Approval: January 21, 2009
  - Pre-Bid Meeting: December 1, 2009
  - Anticipated Bid Date: December 2009
  - Construction Start: March 2010

**14. Preparer:** Paul Kaspar, (214-665-7459), [kaspar.paul@epa.gov](mailto:kaspar.paul@epa.gov), EPA PM, Paul Kaspar, (214-665-7459), [kaspar.paul@epa.gov](mailto:kaspar.paul@epa.gov)

**Status Review - Unconstructed CWPPRA Projects**  
**20 Oct 2009**

- 1. Project Name (and number):** South Shore of The Pen Shoreline Protection and Marsh Creation Project (BA-41)
- 2. PPL:** 14
- 3. Federal Agency:** NRCS
- 4. Date of Construction Approval / Phase Two Approval:** Feb 2008 (SP only) and Jan 2009 (Southern MC)
- 5. Approved Total Budget:** \$21,639,575.00
- 6. Expenditures:** \$906,380.68 (as of October 2009 / Source: Mitzi Gallipeau )
- 7. Unexpended Funds:** \$20,733,194.32 (as of October 2009 / Source: Mitzi Gallipeau)
- 8. Estimate of anticipated funding increases, including O&M:** N/A at this time
- 9. Potential changes to project benefits:** None
- 10. Brief chronology of project development and issues affecting implementation:**

July 2005 --	Approved
Feb 2008 --	Phase II Approval of Shore Protection Only
Jan 2009 --	Phase II Approval of Sothern Marsh Creation
October 2009	Plan to advertise construction contract
- 11. Current status/remaining issues:** NRCS acceptance of MIPR & contract advertisement.
- 12. Projected schedule:** Advertise construction contract in October 2009.
- 13. Preparer:** Quin Kinler, NRCS, (225) 382-2047 (10/15/09)  
Review/Concurrence (10/16/09): Dustin White (225) 342-4512

**Status Review - Unconstructed CWPPRA Projects  
October 2009**

- 1. Project Name (and number):** Bayou Sale Shoreline Protection (TV-20)
- 2. PPL:** 13
- 3. Federal Agency:** NRCS
- 4. Date of Construction Approval / Phase Two Approval:** December 2010 (projected)
- 5. Approved Total Budget:** \$ 2,254,912 (Phase I)
- 6. Expenditures:** \$916,242 (as of March 2009 / Source: Mitzi Gallipeau / Gay Browning)
- 7. Unexpended Funds:** \$1,338,669 (as of March 2009 / Source: Mitzi Gallipeau / Gay Browning)
- 8. Estimate of anticipated funding increases, including O&M:** Not anticipated at this time.
- 9. Potential changes to project benefits:** Material will not be available for marsh creation because access channels will not be dredged due to the high number of utilities identified by the magnetometer survey (i.e., pipelines, flow lines, and metallic debris). Approximately 123 acres of marsh will therefore not be created. Shoreline protection benefits remain as originally anticipated.
- 10. Brief chronology of project development and issues affecting implementation:**
  - 2003 - 2004 – Approved
  - 2004 - 2005 – Project Plan of Work developed for USACE
  - 2004 - 2006 – Magnetometer & Gradiometer Survey conducted
  - 2007 - 2008 – Evaluate various shoreline protection alternatives.
  - 2009 – present – NEPA and Engineering Evaluation being performed on shoreline protection alternatives.
- 11. Current status/remaining issues:** A geotechnical investigation will begin soon. The results of the geotechnical investigation will be used to select appropriate engineering solution(s). There are many active pipelines, as well as abandoned flowlines and oil field debris, which must be addressed in the preliminary project design.
- 12. Projected schedule:** Project construction anticipated in October 2011.
- 13. Preparer:** Troy Mallach, NRCS, (337) 291-3064 (3/6/08)  
Review/Concurrence (3/7/2008): Ismail Merhi, DNR, (225) 342-4127

Updated (3/17/09): John Jurgensen, NRCS, (318) 473-7694

Updated ((10/19/2009):Michael Nichols, NRCS (318) 473-7690)

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**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name:** Grand Lake Shoreline Protection (Tebo Point) (ME-21a)  
Grand Lake Shoreline Protection O&M (ME-21b)
- 2. PPL: 11**
- 3. Federal Agency:** USACE
- 4. Date of Construction Approval / Phase Two Approval:** Feb 2007
- 5. Approved Total Budget:** Phase I (Grand Lake-ME-21) \$1,049,030  
Phase II (Grand Lake, Tebo Point): \$2,700,000  
Phase II Inc 1(Grand Lake and Tebo Point): 9,000,000
- 6. Fully Funded Cost Estimate:** \$4,409,519 Tebo Point (20-Nov-06)  
\$8,382,494 O&M Only [CIAP] (20-Nov-06)
- 7. Expenditures:** \$278,557
- 8. Unexpended Funds:** \$770,473
- 9. Estimate of anticipated funding increases, including O&M:** \$1,160,604
- 10. Potential changes to project benefits: CWPPRA can only claim the benefits from Tebo Point and the benefits for continuing O&M on the CIAP portion**
- 11. Brief chronology of project development and issues affecting implementation:**
  - At the February 2007 Task Force meeting the Task Force (TF) took the initiative to approve the Grand Lake Project in segments.
  - 90% of the project would be constructed under CIAP
  - The remaining segment of the project, Tebo Point, would be constructed under CWPPRA
  - The Task Force also took the initiative to approve the first 3 yrs of O&M for both of these segments.
  - Using the Grand Lake Cost with Tebo Point included the TF broke the project up into the following:  
  
\$2,700,000 for the construction of Tebo Point  
\$6,300,000 for the first three yr of O&M for both segments  
\$9,000,000 total
- 12. Current status/remaining issues:**

Due to Cost Share Agreements (CSA) and accounting procedures the projects should not have been broken up as listed above. The projects should have been broken up as the following and a detailed cost estimate approved by the Engineering Work Group (Eng WG) should have been provided:

## **Funding for construction and the first 3 yrs of O&M for the CWPPRA Tebo Point segment.**

### **Funding for the first 3 yrs of O&M for the CIAP Grand Lake Portion.**

The original cost estimate used a rock price of \$48.40/tn. A rock price of ~\$70/tn, should have been used for the construction of the Tebo Point segment, when the TF broke up the project (smaller rock job = higher prices).

Also the State will be conducting O&M on both segments and they have indicated that O&M projects in this portion of the state are around \$60/tn. The TF approved O&M estimate used \$48.40/tn.

Based on a draft FF est. reviewed in 2008 by the Eng WG the Tebo Point Project Construction (Phase II) should have been \$2,655,665. The TF approved \$2,700,000 for the Tebo Point Project Construction (Phase II). This would be \$44,335 within the approved budget.

As noted above, the O&M for the CIAP portion should have been separated from the O&M of the Tebo Point Portion. Based on the FF est. reviewed by the Eng WG the Tebo Point Project O&M (Inc 1) should have been \$1,343,096, and the Grand Lake Segment the total Inc 1 should have been \$6,117,508.

If combined it would equal \$7,460,604. \$1,160,604 over the TF \$6.3M approved amount for O&M.

### **13. Projected schedule:**

The CWPPRA portion has been on hold pending approval of the Cost Share Agreement, which is presently being negotiated between the State and the USACE.

As of October 2009 the State has indicated that they have started construction on the CIAP portion. CIAP is currently constructing the original length of 37,000 lf, excluding the CWPPRA Tebo Point portion.

The following issues/question has to be resolved before moving forward with both the Tebo Point project and the O&M of the Grand Lake Project:

- The CWPPRA Tebo Point portion will have to be built separately. It is highly unlikely that the CWPPRA Tebo Point portion will be under the approved \$2.7 M amount, 4 yrs later.
- The CWPPRA SOP states that if a project does not go to construction in two yrs the Task Force could ask that the funds be returned to the program. The project will continue to be on hold until the CSA issue is resolved.
- CWPPRA invested \$6,300,000 in the first three yrs of O&M for both segments. Before proceeding with the O&M event a CSA would have to be signed.

**14. Preparer: Travis Creel / 504-862-1071**

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name (and number):** Avoca Island Diversion and Land Building (TE-49)
- 2. PPL:** 12
- 3. Federal Agency:** COE
- 4. Date of Construction Approval / Phase Two Approval:** TBD (anticipated 21 Jan 11)
- 5. Approved Total Budget:** \$2,229,876
- 6. Fully Funded Cost Estimate:** \$19,157,216 (10-Jan-03)
- 7. Expenditures:** \$1,648,909
- 8. Unexpended Funds:** \$580,967
- 9. Estimate of anticipated funding increases, including O&M:** Project scope change under consideration; this change expected to increase costs and benefits.
- 10. Potential changes to project benefits:** Proposed new design calls for construction of a small freshwater diversion using two culverts plus dedicated dredging to obtain material to create approximately 340 acres of wetlands.
- 11. Brief chronology of project development and issues affecting implementation:**
  - Phase 1 approved January '03
  - Possible change in scope to include dedicated dredging/marsh creation feature
  - Geotechnical requirements increased
  - Alternative borrow sites needed investigating
  - Decision to proceed to 30% Design Review awaits resolution of OCPR geotechnical concerns & concurrence on final plan design plus a signed Cost Share Agreement with OCPR
- 12. Current status/remaining issues:** Coordination between geotech elements at OCPR and MVN is ongoing at this time, with intent to go to 30% Design Review contingent upon OCPR's concurrence with revised project design. Also, the project scope change must get approved, and a signed Cost Share Agreement signed with OCPR.
- 13. Projected schedule (provided cost share agreement resolved by June 2009):**
  - 26 Jan 10 - Announce 30% Design Review
  - 29 Mar 10 - Submit 95% to LDNR
  - 03 May 10 – Announce 95% Review

**14. Preparer:** Susan M. Hennington, USACE-MVN, (504) 862-2504

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name:** Fort Jackson Sediment Diversion (Complex Project)
- 2. PPL:** Not Authorized
- 3. Federal Agency:** USACE
- 4. Date of Construction Approval / Phase Two Approval:** N/A
- 5. Approved Total Budget:** Phase 0: \$411,750
- 6. Fully Funded Cost Estimate:** Not approved:
  - Phase I and II: \$55.1 million  
(Preliminary estimate not approved by WG,  
Also, \$47.5M removed from original est.  
due to new state oyster lease policy)
- 7. Expenditures:** \$408,252
- 8. Unexpended Funds:** \$3,498
- 9. Estimate of anticipated funding increases, including O&M:** N/A
- 10. Potential changes to project benefits:** Benefit will be updated based on current land losses and new benefit calculations.
- 11. Brief chronology of project development and issues affecting implementation:**
  - Complex project received Phase 0 funds in October 1999
  - Complex study report completed in September 2003
  - Phase I request approved by Technical Committee September 2003
  - Phase I request to Task Force tabled by LDNR during advance conference call in November 2003 due to local concerns about the design of the structure.
- 12. Current Status/remaining issues:**
  - Project was placed on Technical Committee's "Watch/Critical" list in June 2007
  - Currently LDNR and Plaquemines Parish indicate they were willing to move forward with the project by requesting Phase I funding/approval
  - Project Team agreed to develop a new revised cost estimate, and benefits.
  - Program administrator indicated that the project would have to compete with the yearly PPL projects for Phase I funding
  - Final revised cost and benefit were not developed under PPL 18.

**13. Projected schedule:**

- All work is on hold pending approval of a new Cost Share Agreement
- Meet with LDNR to discuss if the project is in the State's Master Plan, and if it is still a viable and fundable project in the CWPPRA program.
- If not close out project

**14. Preparer:** Travis Creel / 504-862-1071

**Status Review - Unconstructed CWPPRA Projects  
November 18, 2009**

**1. Project Name (and number):** North Lake Boudreaux Basin Freshwater Introduction (TE-32a)

**2. PPL:** 6

**3. Federal Agency:** USFWS

**4. Date of Construction Approval / Phase Two Approval:** NA

**5. Approved Total Budget:** \$12,289,133

**6. Fully-Funded Cost:** \$20,470,882 (10-Apr-07 economic analysis)

**7. Expenditures:** \$1,737,572

**8. Unexpended Funds:** \$10,551,561

**9. Estimate of anticipated funding increases, including O&M:** unknown

**10. Potential changes to project benefits:** Project features unchanged but volume of introduced freshwater & area benefited has increased. Use of new benefit assessment methodology (Boustany Diversion Model) yielded 537 acres protected vs 604 acres.

**11. Brief chronology of project development and issues affecting implementation:**

- Jun 2007 – all landrights obtained for construction of the conveyance channel
- Aug 2009 – 30% Engineering and Design meeting conducted
- Oct 2009 – contract for E&D of forced drainage feature issued
- Oct 2009 – Revised impacts assessment work for EA begun

**12. Current status/remaining issues:** Delay occurred associated with decision to permit the forced drainage system with restoration measures. This required Terrebonne Parish government issuance of contract to T. Baker Smith, Inc. for design of the forced drainage levee measure.

**13. Projected schedule and milestones:**

Jan 2010 – draft EA

Mar 2010 - 95% Design Review

Apr 2010 – construction funding approval request

Dec 2010 – start construction

Dec 2012 – completed construction

**14. Preparer:** Ronny Paille USFWS (337) 291-3117 Ronald\_Paille@FWS.GOV

**Status Review - Unconstructed CWPPRA Projects  
November 18, 2009**

- 1. Project Name (and number):** Lake Hermitage Marsh Creation (BA-42)
- 2. PPL:** 15
- 3. Federal Agency:** USFWS
- 4. Date of Construction Approval / Phase Two Approval:** January 21, 2009
- 5. Approved Total Budget:** \$37,875,710.
- 6. Fully-Funded Cost:** \$38,040,158 (November 11, 2008 economic analysis)
- 7. Expenditures:** \$81,283
- 8. Unexpended Funds:** \$37,794,427
- 9. Estimate of anticipated funding increases, including O&M:** Not known at this time. Project has not been advertised for bids.
- 10. Potential changes to project benefits:** None.
- 11. Brief chronology of project development and issues affecting implementation:**  
The project was approved for Phase 2 in January 2009. However, landrights issues have delayed the project going to bid. It is anticipated that bid advertisement will occur in early 2010 with construction beginning in July 2010.
- 12. Current status/remaining issues:**  
Landrights issues are currently being resolved.
- 13. Projected schedule:**

February 2010-	Bid advertisement
July 2010 -	Begin construction
- 14. Preparer:** Kevin Roy, USFWS (337-291-3120), Kevin\_Roy@fws.gov

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

**1. Project Name (and number):** Small FW Diversion into NW Barataria Basin (BA-34)

**2. PPL:** 10

**3. Federal Agency:** EPA

**4. Date of Construction Approval / Phase Two Approval:** Anticipated January 2012

**5. Approved Total Budget:** \$2,362,687

**6. Fully Funded Cost Estimate:** \$14,777,050 (January 10, 2001)

**7. Expenditures:** \$623,693 (as of October 2009 Source: Gay Browning)

**8. Unexpended Funds:** \$1,739,232 (as of October 2009 Source: Gay Browning)

**9. Estimate of anticipated funding increases, including O&M:** None anticipated at this time.

**10. Potential changes to project benefits:** Project benefits will likely need to be reevaluated based on improved knowledge of hydrology, revised diversion alignment, and possibly due to deletion of some secondary project features.

**11. Brief chronology of project development and issues affecting implementation:** Modeling results should be available soon. Once modeling results are available, we can: 1) confirm the project viability/feasibility; 2) if necessary, revise general project features and cost estimate; 3) begin engineering and design work.

**12. Current status/remaining issues:** St. James parish was/is actively negotiating the purchase of large tracts of land with CIAP funds west of LA20 and adjacent to the project area, and more importantly, relatively large swaths of land in and around the proposed diversion channel alignment. St. James parish is extremely supportive of this CWPPRA project. The primary landowner for the benefit area, is now fully in support of the project and has given OCPR approval to continue Phase I studies on his property. Modeling is nearing completion. No remaining issues, other than the fact the project was previously delayed by the prior landrights issue.

**13. Projected schedule:**

- Project Decision on Modeling: May 2010
- 30% Design Review: May 2011
- 95% Design Review: August 2011
- Design Completion: October 2011

- Phase 2 Approval: January 2012
- Construction Start: May 2012

**14. Preparer:** Paul Kaspar, (214-665-7459), [kaspar.paul@epa.gov](mailto:kaspar.paul@epa.gov), and EPA PM Kenneth Teague, EPA (214-665-6687), [teague.kenneth@epa.gov](mailto:teague.kenneth@epa.gov))

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name (and number):** River Reintroduction into Maurepas Swamp (PO-29)
- 2. PPL:** 11
- 3. Federal Agency:** US Environmental Protection Agency
- 4. Date of Construction Approval / Phase Two Approval:** Anticipated January 2013
- 5. Approved Total Budget:** \$6,780,173
- 6. Fully Funded Cost Estimate:** Estimate for Phase I Approval - \$37,531,000 (August 7, 2001), Estimate for Project Scope Change - \$165,975,707 (June 3, 2009)
- 7. Expenditures:** \$4,956,912 (as of October 2009 Source: Gay Browning)
- 8. Unexpended Funds:** \$1,823,261 (as of October 2009 Source: Gay Browning)
- 9. Estimate of anticipated funding increases, including O&M:** No anticipated CWPPRA funding increase to complete Phase I work. A revised 30% cost estimate has been developed to include OMRR&R, admin, landrights, etc. in the amount of \$178,127,000 resulting in a potential funding increase in the amount of \$26,402,000.
- 10. Potential changes to project benefits:** Unknown at this time.
- 11. Brief chronology of project development and issues affecting implementation:** 30% Design Review was held December 4, 2008. Initial responses to comments were submitted to commenting agencies. 30% Letter to Technical Committee was sent.

Meanwhile, various studies have been completed to support NEPA requirements, including fish and wildlife, water quality, HTRW, cultural resources, noise, etc. Work is ongoing to draft an Environmental Information Document (EID), which can be used later as the basis for an EIS or EA. Work is ongoing to synthesize and integrate information from various sources, including, but not limited to, reports generated specifically for this project, to meet the requirements of NEPA. We also continue, from time to time, to conduct targeted outreach efforts on the project, which are also intended to contribute to the public involvement requirements of NEPA.

Significant efforts on land rights are underway. However, land values in the area have increased greatly since we were first granted permission to acquire landrights in Phase 1 using existing funds. Sufficient funds don't exist in the project budget to acquire landrights in Phase 1. However, OCPR has signaled their intent to obtain landrights using "state-only" funds.

Over the past few months, EPA, OCPR, and COE have been developing the details and formal basis for conducting a “Gap Analysis” to determine to what extent the existing CWPPRA project might meet COE LCA requirements, in the event that the project is transferred to the COE LCA program.

**12. Current status/remaining issues:** Feasibility phase complete. Actual engineering and design work complete to 30%. 30% Design Review held December 4, 2008. Initial responses to comments forwarded to agencies. Letter to Technical Committee sent. NEPA work ongoing. OCPR to obtain landrights using state-only funds. EPA, OCPR, and COE working on details and formal agreement on “Gap Analysis” to determine what is needed should the project be moved to LCA.

**13. Projected schedule:**

- 30% Design Review: December 2008
- GAP Analysis Start: February 2010
- GAP Analysis Completion: May 2010
- 95% Design Review: December 2011
- Design Completion: March 2012
- Phase 2 Approval: January 2013
- Construction Start: November 2013

**14. Preparer:** Paul Kaspar, (214-665-7459), [kaspar.paul@epa.gov](mailto:kaspar.paul@epa.gov), and EPA PM, Kenneth Teague, EPA (214-665-6687), [teague.kenneth@epa.gov](mailto:teague.kenneth@epa.gov))

**Status Review - Unconstructed CWPPRA Projects**  
**19 Oct 09**

- 1. Project Name:** White Ditch Resurrection and Outfall Management (BS-12)
- 2. PPL:** 14 (2005)
- 3. Federal Agency:** NRCS
- 4. Date of Construction Approval / Phase Two Approval:** N/A at this time
- 5. Approved Total Budget:** \$1,595,677
- 6. Expenditures:** \$701,826 (as of Oct 16, 2009 / Source: Mitzi Gallipeau / Gay Browning)
- 7. Unexpended Funds:** Total Unexpended \$893,851 (as of Oct 16, 2009 / Source: Mitzi Gallipeau / Gay Browning).
- 8. Estimate of anticipated funding increases, including O&M:** N/A at this time
- 9. Potential changes to project benefits:** N/A at this time
- 10. Brief chronology of project development and issues affecting implementation:**
  - 2005 – Approved for engineering and design (Phase I)
  - 2006 – Project E & D
  - 2005 - 2008 – Setbacks include impacts and changes to hydrology associated with Hurricanes Katrina, Rita, and Gustav
  - 2009 – Preliminary Modeling results available in November 2009
- 11. Current Status/remaining issues:** Project is currently in the Planning and Design Phase. Project Team is developing surveying, geotechnical investigations, and modeling requirements necessary to proceed to 30% design review. Project is scheduled to request Phase II funding at the January 2012 Task Force Meeting.
- 12. Projected schedule:** Request Phase II funding at the January 2012 Task Force Meeting.
- 13. Preparer:** Troy Mallach, NRCS, (337) 291-3064 (10/19/2009)  
Review/Concurrence  
**Updated:**

**Status Review - Unconstructed CWPPRA Projects**  
**23 October 2009**

- 1. Project Name (and number):** West Pointe a la Hache Outfall Management (BA-4c)
- 2. PPL:** 3
- 3. Federal Agency:** NRCS
- 4. Date of Construction Approval / Phase Two Approval:** N/A
- 5. Approved Total Budget:** \$4,269,295
- 6. Expenditures:** \$588,282 (16 Oct 09, source: Mitzi Gallipeau)
- 7. Unexpended Funds:** \$3,681,013 (16 Oct 09, source: Mitzi Gallipeau)
- 8. Estimate of anticipated funding increases, including O&M:** N/A at this time
- 9. Potential changes to project benefits: Refer to Revised WVA approved by EnvWG and EngrWG.**
- 10. Brief chronology of project development and issues affecting implementation:**
  - 1993 – Approved
  - 1993 - 2000 Various planning and engineering tasks; increased construction budget from \$400K to about \$2M; DNR concerned about benefits
  - 2000 - 2004 -- Hydrodynamic Model predicted that siphon operation (more so than proposed outfall mgt) creates favorable conditions in project area. DNR and NRCS desire to pursue modifications to siphon to improve / extend ability to operate siphon.
  - 2005 - 2006 -- DNR “working with” Plaquemines Parish Government to establish a cooperative agreement regarding siphon operation, so as to ensure long term operation prior to designing siphon improvements.
  - Jan 2007 – DNR/PPG siphon operations agreement executed
  - Oct 2007 – EnvWG approved the use of the original project boundary for the proposed scope change.
  - Feb 2008 – NRCS revised and DNR reviewed and concurred with submittal of draft WVA to EnvWG
  - April 2008 – Revised WVA and preliminary engineering cost estimates approved by EnvWG and EngrWG.
  - January 2009 – Scope Change approved by Task Force, revised design began.
  - Current – Survey completed, geotechnical analysis ongoing. Projected request for Task Force construction approval January 2011.
- 11. Current status/remaining issues:** OCPR and NRCS are preparing plans and specifications in anticipation of January 2011 Construction Approval Request.

**12. Projected schedule:** Project construction anticipated to begin May 2011.

**13. Preparer:** Cindy Steyer, NRCS, (225) 389-0334 (10/23/09)

Review/Concurrence (10/23/09): William Feazel, OCPR, (225) 342-4641

**Updated:** John Jurgensen, NRCS, (318) 473-7694 (10/23/09)

**Status Review - Unconstructed CWPPRA Projects  
20 Oct 2009**

- 1. Project Name (and number):** Penchant Basin Natural Resources Plan (TE-34)
- 2. PPL:** 6
- 3. Federal Agency:** NRCS
- 4. Date of Construction Approval / Phase Two Approval:** N/A
- 5. Approved Total Budget:** \$17,628,814
- 6. Expenditures:** \$2,581,706.11 (as of October 19, 2009 / Source: Mitzi Gallipeau / Gay Browning)
- 7. Unexpended Funds:** \$15,047,107.89 (as of October 19, 2009 / Source: Mitzi Gallipeau / Gay Browning)
- 8. Estimate of anticipated funding increases, including O&M:** N/A at this time
- 9. Potential changes to project benefits:** Revised WVA completed October 2007; 675 net acres after 20 years; 1047 AAHUs.
- 10. Brief chronology of project development and issues affecting implementation:**
  - 1996 – 1997 – Approved
  - 1997 - 2004 - Project Planning and Hydro Model
  - 2004 - 2006 – Consideration of project alternatives and features
  - 2007 - 2008 – Revised WVA, geotechnical investigation, design surveys, plans and specifications. Received Scope Change approval.
  - 2009 - Final Design, Advertisement for Construction
- 11. Current status/remaining issues:** Advertisement pending Agency Authorization for new fiscal year.
- 12. Projected schedule:** Advertise construction contract in October 2009 .
- 13. Preparer:** Quin Kinler, NRCS, (225) 382-2047 (3/4/08)
  - Review/Concurrence (3/4/2008): Ismail Merhi, DNR, (225) 342-4127
  - Update (10/20/09): Quin Kinler, NRCS (225) 382-2047 and John Jurgensen, NRCS (318) 473-7694

**Status Review - Unconstructed CWPPRA Projects**  
**26 Oct 09**

- 1. Project Name (and number):** Little Pecan Bayou Hydrologic Restoration (ME-17)
- 2. PPL:** 9
- 3. Federal Agency:** NRCS
- 4. Date of Construction Approval / Phase Two Approval:** N/A
- 5. Approved Total Budget:** \$1,556,598
- 6. Expenditures:** \$925,524.72
- 7. Unexpended Funds:** \$631,073.28
- 8. Estimate of anticipated funding increases, including O&M:** N/A at this time
- 9. Potential changes to project benefits:** Terracing removed from project features because landowner refuses to have terraces on his/her property. Freshwater introduction south of HWY 82 is only project feature.
- 10. Brief chronology of project development and issues affecting implementation:**
  - 1999 – Approved
  - 1999 - 2005 -- Planning / modeling
  - 2006 - Delays due to landowner concerns
  - 2007 – Surveying 70% complete.
  - 2008 – Surveying completed after hurricane delays. Planning and Design began.
  - 2009 – Engineering design near 30% design. Had slight delay in obtaining geotechnical information.
- 11. Current status/remaining issues:** Design surveys are completed. Utilizing Geotechnical Report from adjacent project ME-20. Pipeline coordination ongoing. Anticipated date of 30% review is June 2010.
- 12. Projected schedule:** Anticipate a Phase II funding request in January 2011.
- 13. Preparer:** Jason Kroll, NRCS, (318) 473-7816 (10/26/09)

**Status Review - Unconstructed CWPPRA Project  
20 November 2009**

- 1. Project Name (and number):** South Pecan Island Freshwater Introduction Project, ME-23
- 2. PPL:** 15  
Phase 1 was authorized in February 2006.
- 3. Federal Agency:** NMFS
- 4. Date of Construction Approval / Phase Two Approval:** NA
- 5. Approved Total Budget:** Current funding - Phase 1 approved funding \$1,102,043
- 6. Fully Funded Cost Estimate:** \$4,438,695 (22-Sep-08)
- 7. Expenditures:** \$461,770 (September 30, 2009)
- 8. Unexpended Funds:** \$640,273 (September 30, 2009)
- 9. Estimate of anticipated funding increases, including O&M:** NA
- 10. Potential changes to project benefits:** NA
- 11. Brief chronology of project development and issues affecting implementation:**
  - February 2006 – Phase 1 Approval
  - April 2006 – Project work plan developed.
  - June 2006 – Preliminary Engineering SIQ site visit.
  - February 2007 – Site visit with selected E&D contractor CH Fenstermaker.
  - June 12, 2007 – Discuss conceptual project with Val Miller (1/8 undivided interest land owner).
  - June 18, 2007 – Discuss conceptual project with remaining Miller Estate heirs.
  - June 21, 2007 - Discuss conceptual project with Vermilion Corporation.
  - July 9, 2007 – The NMFS/OCPR host project kick-off meeting with E&D contractor.
  - July 2007 – Data acquisition begins.
  - April 2008 – Meet with OCPR Monitoring to discuss monitoring plan.
  - May 2008 – Review hydrologic modeling output.
  - June 2008 – Make final selection of conveyance channel alignment.
  - July 2008 – Present preliminary project design to landowners.
  - August 2008 – Preliminary design report submitted.
  - September 2008 – Preliminary hydrologic model was presented to landowners for review and comment.
  - September 24, 2008– 30% E&D review.

- January 2009 – Val Miller suggested that project features would have to be changed for his support of the project.
- March 2009 – Met at project sight with Val Miller to go over project features, landowner accepted some features, but wanted more changes.
- April 2009 - CH Fenstermaker submits draft 95% Design Package.
- May 2009 - The NMFS/OCPR met with remaining Miller estate heirs to discuss project features and demands by Val Miller. Remaining Miller estate in agreement with project design.
- July 2009 – The OCPR submitted a land rights agreement to Val Miller, with a deadline for his acceptance. Mr. Miller did not accept the agreement.

**12. Current status/remaining issues:**

Since July 2009, the Miller Estate has been working with Val Miller to try and work out any remaining issues as it relates to project features.

**13. Projected schedule and milestones:**

The project design team is concluding the 95% Design and NEPA compliance. The projected completion for both is December 2009. At which point, if Val Miller still has not signed the land rights agreement, it will be suggested to the CWPPRA program that this project cannot be constructed, and recommended that this project be de-authorized.

- Milestone: Conclude landrights negotiations

**14. Preparer:** John D. Foret, Ph.D., NOAA Fisheries Service, [john.foret@noaa.gov](mailto:john.foret@noaa.gov)

*Revised 20 November 2009 (RWS)*

**Status Review - Unconstructed CWPPRA Projects  
20 November 2009**

- 1. Project Name (and number):** Riverine Mining – Scofield Island Restoration (BA-40)
- 2. PPL:** 14
- 3. Federal Agency:** NOAA
- 4. Date of Construction Approval / Phase Two Approval:** N/A
- 5. Approved Total Budget:** \$3,221,887
- 6. Fully Funded Cost Estimate:** \$44,544,636 (November 5, 2004)
- 7. Expenditures:** \$1,877,158 expended; \$2,876,777 obligated
- 8. Unexpended Funds:** ± \$900,000
- 9. Estimate of anticipated funding increases, including O&M:**  
Anticipated estimated construction cost increase. Will be proposed as change in project scope subsequent to Preliminary Design Review
- 10. Potential changes to project benefits:**  
None
- 11. Brief chronology of project development and issues affecting implementation:**
  - RSIQ for engineering services advertised June 2005
  - Engineering contract awarded November 2006.
  - Geotechnical and geophysical investigations of two river sand borrow areas complete. Design surveys of island and conveyance route complete.
  - Mississippi River modeling to assess hydraulics complete.
  - Island engineering (sediment budget, cross and longshore modeling, preliminary design) complete.
  - Preliminary Design review delayed until January/February 2010.
- 12. Current status/remaining issues:**  
Additional cultural resources investigations of one River borrow area may be required.
- 13. Projected schedule:**
  - Preliminary Design review anticipated March 2010.
  - Request for change in project scope (increased construction costs) Spring 2010.

**13. Preparer:**  
Rachel Sweeney

*Revised 20 November 2009(RWS)*

**Status Review - Unconstructed CWPPRA Projects  
20 November 2009**

- 1. Project Name (and number):** Barataria Barrier Shoreline (BA-38), Construction Unit 1 (Chaland) and CU2 (Pelican)
- 2. PPL:** 11
- 3. Federal Agency:** NOAA
- 4. Date of Construction Approval / Phase Two Approval:** January 2004
- 5. Approved Total Budget:** \$75,569,537
- 6. Fully Funded Cost Estimate:** \$77,109,222 (May 2009)
- 7. Expenditures:** \$20,764,830 (estimated)
- 8. Unexpended Funds:** \$45,729,680 (estimated)
- 9. Estimate of anticipated funding increases, including O&M:**  
Funding increase authorized by Task Force in May 2009.
- 10. Potential changes to project benefits:**  
Minor decrease in CU2 benefits.
- 11. Brief chronology of project development and issues affecting implementation:**  
CU1 delayed over one year due to oyster issues, and further delayed due to access issues caused by 2005 storm impacts. CU1 complete December 2006.  
CU2 delayed since Phase 2 authorization due to oyster issues and landrights expirations.
- 12. Current status/remaining issues:**  
Updated design surveys completed and quantity and costs updated. ESA re-consultation, NEPA and amendment to MMS OCS sand mining MOA in progress.
- 13. Projected schedule:**  
May 2010 – Advertise construction contract
- 14. Preparer:**  
Rachel Sweeney

*Revised 20 November 2009 (RWS)*

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

**1. Project Name:** Delta Building Diversion North of Fort St. Phillip (BS-10)

**2. PPL:** 10

**3. Federal Agency:** USACE

**4. Date of Construction Approval / Phase Two Approval:** N/A

**5. Approved Total Budget:** \$1,444,000

**6. Fully Funded Cost Estimate:** \$6,644,070 (10-Jul-07)

**7. Expenditures:** \$ 1,147,075

**8. Unexpended Funds:** \$296,925

**9. Estimate of anticipated funding increases, including O&M:** N/A

**10. Potential changes to project benefits:** None

**11. Brief chronology of project development and issues affecting implementation:**

- Project was scheduled for a 95% design review meeting in the fall of 2007
- In developing the O&M plan for the 95% design review, comments were received from MVN OD on impacts from the diversion on navigation safety
- The MVN PDT does not anticipate that the project would adversely impact navigation. However, due to the lack of detailed modeling, the MVN PDT thought it would be prudent to include measures that could be taken in the event that unforeseen impacts did affect navigation. As such, the MVN PDT proposed an emergency closure plan in the draft O&M plan for the project.
- The emergency closure plan consisted of using the existing budgeted O&M funding available for normal O&M activities to close the structure.

**12. Current status/remaining issues:**

DNR objected to the emergency closure plan and has indicated that they do not wish to move forward with completing design review requirements for the project.

**13. Projected schedule:**

The USACE's goal is to hold meetings with LDNR to resolve the emergency closure plan issues. Complete closure plan by March 2010, schedule 95% design review.

**14. Preparer:** Travis Creel / 504-862-1071

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

**1. Project Name (and number):** Spanish Pass Diversion (MR-14)

**2. PPL:** 13

**3. Federal Agency:** COE

**4. Date of Construction Approval / Phase Two Approval:** TBD (anticipated 20 Jan 12)

**5. Approved Total Budget:** \$1,421,680

**6. Fully Funded Cost Estimate:** \$14,212,169 (28-Jan-04)

**7. Expenditures:** \$ 309,466

**8. Unexpended Funds:** \$1,112,214

**9. Estimate of anticipated funding increases, including O&M:** TBD; project scope change under consideration.

**10. Potential changes to project benefits:** Original diversion proposal estimated 334 acres of marsh to be created; subsequent evaluations have determined that only 190 acres of marsh would be created. It is proposed that a smaller diversion be constructed, and a dedicated dredging/marsh creation component be added that results in equivalent marsh acreage creation as originally proposed.

**11. Brief chronology of project development and issues affecting implementation:**

- Phase 1 approved January '04
- Work plan developed & submitted to P&E Subcommittee prior to April 30, 2004
- Gages installed in November 2004
- Surveys and hydraulic modeling completed
- Dec 2006 Progress Report indicated that project as proposed would not attain originally anticipated wetland benefits
- Various alternatives to revise the project scope are being developed in conjunction with Plaquemines Parish officials (most recent meeting with Parish reps on Feb 28, 2008; last meeting that included OCPR was on May 1, 2007)
- Current Proposed Change in Scope includes smaller diversion (less than 7,000 cfs) and dedicated dredging/marsh creation component
- Plaquemines Parish in support of project implementation
- Need OCPR on-board with developing new scope and also resolution of cost share agreement issue

**12. Current status/remaining issues:** Need consensus with OCPR and Plaquemines Parish on future project design and a cost share agreement signed.

**13. Projected schedule (provided cost share agreement resolved – resolution tentatively expected by Jan 2010):**

- 03 Nov 2010 - Announce 30% Design Review
- 22 Dec 2010 - Submit 95% to LDNR
- 15 Feb 2011 – Announce 95% Review

**14. Preparer:** Susan M. Hennington, USACE-MVN, (504) 862-2504

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

**1. Project Name:** Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock (TV-11b)

**2. PPL:** 9

**3. Federal Agency:** USACE

**4. Date of Construction Approval / Phase Two Approval:** N/A

**5. Approved Total Budget:** \$1,498,967

**6. Fully Funded Cost Estimate:** \$38,065,335 (11-Nov-08)

**7. Expenditures:** \$1,101,738

**8. Unexpended Funds:** \$397,229

**9. Estimate of anticipated funding increases, including O&M:** N/A

**10. Potential changes to project benefits:** None

**11. Brief chronology of project development and issues affecting implementation:**

- Project completed a 30% design review meeting in Jun. of 2002
- Project completed a 95% design review meeting in Jan. of 2004
- The PDT requested Phase II authorization, in the fall of 2004, 2006, and 2007
- In 2007 a 1-mile portion of CWPPRA was included in a CIAP proposed and approved project.
- 2007 WRDA authorized the deeping of the Freshwater Bayou Channel to 16 ft.
- 2009, Due to funding limitations, and a prioritization of the four CIAP reaches by Vermilion Parish, the state has indicated that the 1-mile portion of CWPPRA project that was included in a CIAP proposal is unlikely going to be built under the CIAP program.

**12. Current status/remaining issues:**

The 2007 WRDA only authorized the deeping of the Freshwater Bayou Channel. It did not provide funding for the construction of the channel. The original feasibility study included a 24 ft depth channel with shoreline stabilization. The 2007 WRDA authorized channel was changed to a 16 ft depth. This size channel may or may not include a shoreline stabilization component

**13. Projected schedule:**

The PDT will again seek construction authorization from the CWPPRA Task Force at the January 2010 meeting.

**14. Preparer: Travis Creel / 504-862-1071**

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name:** Ship Shoal: Whiskey West Flank Restoration (TE-47)
- 2. PPL:** 11
- 3. Federal Agency:** US Environmental Protection Agency
- 4. Date of Construction Approval / Phase Two Approval:** Anticipated January 2010
- 5. Approved Total Budget:** \$3,742,053
- 6. Fully Funded Cost Estimate:** \$61,750,785 (November 13, 2009)
- 7. Expenditures:** \$1,997,375 (as of October 2009 Source: Gay Browning)
- 8. Unexpended Funds:** \$1,743,678 (as of October 2009 Source: Gay Browning)
- 9. Estimate of anticipated funding increases, including O&M:** No anticipated CWPPRA funding increase for Phase I work. A revised fully funded cost estimate in the amount of \$61,750,053 was developed for the January 2010 Phase II funding request. This is \$9,609,925 increase to the prior January 2009 Phase II funding request in the amount of \$52,140,860.
- 10. Potential changes to project benefits:** N/A – Phase 1 Completed.
- 11. Brief chronology of project development and issues affecting implementation:** Phase I approval was received on January 16, 2002, 30% E&D Review on November 8, 2004, and the 95% E&D Review was held on September 28, 2005. Phase 2 approval requests were request in 2006, 2007, 2008, 2009. Project construction costs are greater than \$50M.
- 12. Current status/remaining issues:** Phase 1 E&D has been completed, but project has not been selected for Phase 2 construction funding. Sponsors are considering all available options to move the project forward including re-scoping and/or seeking alternative funding sources. Resurvey the island planned for after the 2009 Hurricane Season to verify validity of plans and specifications. Results of the survey could determine the direction of the project. The sponsors will prepare the current project for another Phase 2 request in January 2010.
- 13. Projected schedule:**
  - 30% Design Review: November 8, 2004
  - 95% Design Review: September 28, 2005
  - Design Completion: September 29, 2005

- Project Resurvey: November 2009
- Phase 2 Approval: January 2010
- Construction Start: April 2010

**14. Preparer:** Paul Kaspar, (214-665-7459), [kaspar.paul@epa.gov](mailto:kaspar.paul@epa.gov), and EPA PM, Brad Crawford, P.E., (214-665-7255), [crawford.brad@epa.gov](mailto:crawford.brad@epa.gov)

**Status Review - Unconstructed CWPPRA Projects**  
**20 October 09**

- 1. Project Name (and number):** GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)
- 2. PPL:** 10
- 3. Federal Agency:** NRCS
- 4. Date of Construction Approval / Phase Two Approval:** N/A
- 5. Approved Total Budget:** \$1,735,983
- 6. Expenditures:** \$1,123,694
- 7. Unexpended Funds:** \$631,073
- 8. Estimate of anticipated funding increases, including O&M:** N/A at this time
- 9. Potential changes to project benefits:** With the change in project scope excluding the portion of the project that was accepted for construction under CIAP, the WVA was revised to reflect the new project. The benefits attributed to the 8833 linear foot length of project shoreline protection resulted in a benefit area adjustment from 3324 acres to 355 acres and the original net benefits of 366 acres attributed to the entire project was adjusted to 65 acres to reflect the revised total length of the remaining CWPPRA project segment.
- 10. Brief chronology of project development and issues affecting implementation:**
  - 2001 – Approved (Phase I)
  - 2001 - 2004 -- Planning
  - 2004 - 1<sup>st</sup> Phase II Approval Request for full project (39,000 linear ft)
  - 2005 - 2<sup>nd</sup> Phase II Approval Request for full project
  - 2006 – Divided project into CIAP project (14,555 ft) and CWPPRA project (8,833 ft)
  - 2007 – Scope change request for revised project w/o CIAP segment.
  - 2008 – 3<sup>rd</sup> Phase II Approval Request for revised project
  - 2009 – 4<sup>th</sup> Phase II Approval Request for revised project
- 11. Current status/remaining issues:** Project is fully designed and ready for construction. NRCS is reevaluating cost feasibility of design features and preparing for Phase II request for construction funding.
- 12. Projected schedule:** Anticipate a Phase II funding request in January 2010.
- 13. Preparer:** Ron Boustany, NRCS, (337) 291-3067 (Updated 10/20/09)

**Status Review - Unconstructed CWPPRA Projects**  
**20 November 2009**

- 1. Project Name (and number):** Rockefeller Refuge Gulf Shoreline Stabilization (ME-18)
- 2. PPL:** 10 - Phase 1 was authorized in May 2001
- 3. Federal Agency:** NMFS
- 4. Date of Construction Approval / Phase Two Approval:** NA
- 5. Approved Total Budget:** \$2,408,478 (Phase 1 approved funding)
- 6. Fully Eunded Estimate:** \$95,988,700 (November 5, 2006)
- 7. Expenditures:** \$1,105,692.17 (March 13, 2009)
- 8. Unexpended Funds:** \$1,096,421.32 (March 13, 2009)
- 9. Estimate of anticipated funding increases, including O&M:** NA
- 10. Potential changes to project benefits:** NA
- 11. Brief chronology of project development and issues affecting implementation:**
  - October 2001 – Phase 1 Approval
  - September 23, 2004– 30% E&D review. Over 80 alternatives were considered based on their ability to meet project goals and objectives.
  - February 17, 2005 – The NMFS/DNR request of the Task Force a project change in scope to pursue the development of test sections was approved. Therefore, four final alternatives were selected for consideration in a prototype test program at the Refuge that would help predict their potential for success if installed for the full 9.2-mile project.
  - September 20, 2005 - 95% E&D review of four design alternatives.
  - December 7, 2005 – The NMFS/DNR sought Phase 2 funding for construction.
  - December 5, 2006 - The NMFS/DNR sought Phase 2 funding for construction.
  - November 29, 2007 – The Coastal Impact Assistance Program (CIAP) adopted the project for construction.
- 12. Current status/remaining issues:** DNR (CIAP) has received construction bids. Bid tabs are under review, construction contract award is pending
- 13. Projected schedule and milestones:** Assume that construction through CIAP starts May 2009 and takes five months to complete that puts us in October 2009 for construction completion, with a construction completion report due by December 2009. The CIAP monitoring is a one year effort, so data collection would end October 2010, estimating 2 months to complete the data analysis and write the report, so December 2010 for the completed project data from the monitoring effort. At which point, programmatic mechanisms could transition the project back to CWPPRA for evaluation of monitoring results, and eventual construction recommendations of the entire 9.2 mile Gulf shoreline.
- 13. Preparer:** John D. Foret, Ph.D., NOAA Fisheries Service, [john.foret@noaa.gov](mailto:john.foret@noaa.gov)

*Revised 20 November 2009 (RWS)*

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name:** Lake Borgne and MRGO Shoreline Protection (PO-32)
- 2. PPL:** 12
- 3. Federal Agency:** USACE
- 4. Date of Construction Approval / Phase Two Approval:** N/A
- 5. Approved Total Budget:** \$1,348,345
- 6. Fully Funded Cost Estimate:** \$25,062,946 (29-Mar-05)
- 7. Expenditures:** \$1,082,297
- 8. Unexpended Funds:** \$266,048
- 9. Estimate of anticipated funding increases, including O&M:** N/A
- 10. Potential changes to project benefits:** CWPPRA would only receive benefits for the MRGO Shoreline Protection portion
- 11. Brief chronology of project development and issues affecting implementation:**
  - Project completed a 95% design review meeting in the winter of 2004
  - In the fall of 2006 the PDT requested Phase II authorization.
  - As part of the emergency response to Hurricane Katrina, the USACE was given funds and authority (3<sup>rd</sup> Supplemental funding) to complete wetlands protection projects along the Mississippi River Gulf Outlet.
  - A decision was made by MVN to build the CWPPRA Lake Borgne portion of the project using 3<sup>rd</sup> Supplemental emergency hurricane recovery funding.
  - Construction on the breakwater reach along the Lake Borgne shoreline between Doullut's Canal and Jahncke's Ditch was completed in 2008.
- 12. Current status/remaining issues:**
  - Based on language from the Chiefs Report for the MRGO Deauthorization study, the expectation is that the state will pick up 100% of O&M on the Lake Borgne Doulluts Canal to Jahncke's Ditch portion of the CWPPRA project that is being constructed using the 3rd supplemental emergency funds.
    - Excerpt from Chiefs Report:  
“f. Operate, maintain, repair, replace and rehabilitate any measures undertaken or to be undertaken pursuant to the authorization provided under the heading "Operation and Maintenance" in Title I, Chapter 3 of

Division B of Public Law 109-148, as modified by Section 2304 in Title II, Chapter 3 of Public Law 109-234 (3rd Supplemental work) at no cost to the Federal Government in accordance with applicable Federal and State Laws and regulations and specific directions prescribed by the Federal Government.”

**13. Projected schedule:**

With the closure of the MRGO channel, the portion along the north bank of the MRGO between Doullut’s Canal and Lena Lagoon is being evaluated as a part of the MRGO Restoration Plan. The USACE recommends that this portion of the project be placed on hold until after MRGO Restoration Plan has been finalized. A determination will be made at that time on whether or not to request Phase II funding.

**14. Preparer: Travis Creel / 504-862-1071**

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name (and number):** Benneys Bay Diversion (MR-13)
- 2. PPL:** 10
- 3. Federal Agency:** USACE
- 4. Date of Construction Approval / Phase Two Approval:** NA
- 5. Approved Total Budget:** \$975,191
- 6. Fully Funded Cost Estimate:** \$30,297,105 (10-Jan-07)
- 7. Expenditures:** \$819,134.69
- 8. Unexpended Funds:** \$156,056.31
- 9. Estimate of anticipated funding increases, including O&M:** Construction estimate \$53.7 mil
- 10. Potential changes to project benefits:** N/A
- 11. Brief chronology of project development and issues affecting implementation:**

Phase I approved 10 Jan 01  
Resolve project O&M responsibility (see below)  
95% Design submitted to LDNR Oct '06

**12. Current status/remaining issues:**

The project continues to be delayed from moving to the 95% Design due to disagreement about the overall project funding for Phase II associated with project induced shoaling. USACE and LDNR previously agreed on design, anticipated benefits, and all other aspects of this project except budgetary responsibility for O&M. Diversions cause shoaling and traditionally CWPPRA paid for shoaling impacts and used the material beneficially. Because of uncertainty regarding the amount of shoaling, the State and USACE agreed to an initial O&M cost cap of \$10 million. The original construction estimate for this project was \$53.7 million. To remain within the initial \$10 million O&M cost cap only one-third of a cycle of O&M would be funded. As such, there would not be sufficient funding for the traditional 20 years of CWPPRA funded O&M, which would include 10 cycles of O&M, or one dredging event every second year. As a result of cost associated with dredging the Pilottown Anorage Area for the West Bay project induced shoaling impacts, the state and the Corps are working to develop more comprehensive model of the lower river and to resolve larger policy and law issues associated with responsibilities for offsetting induced shoaling impacts.

The cost of one dredging cycle or event was previously estimated at \$29,077,261 or \$11,539,591. Based on these earlier costs estimates, ten dredging events/cycles would cost about \$290,772,610 or \$115,395,910. However, in today's dollars, those costs could be more. The revised fully funded cost for the project, including construction, monitoring and 10 cycles of O&M was previously estimated to be \$344,472,610 or \$ 169,095,910. (Original cost + 10 dredging events) = ( \$53.7mill + 290,772,610 or 115,395,910) in today's dollars. No recent work has been conducted to update these estimates.

- 13. Projected schedule/Milestones:** Will reactivate the project and reestablish milestones when programmatic induced shoaling issues are resolved.

**14. Preparer:** Melanie Goodman

**Status Review - Unconstructed CWPPRA Projects  
November 20, 2009**

- 1. Project Name (and number):** Weeks Bay MC and SP/Commercial Canal/Freshwater Redirection (TV-19)
- 2. PPL:** 9
- 3. Federal Agency:** USACE
- 4. Date of Construction Approval / Phase Two Approval:** NA
- 5. Approved Total Budget:** \$1,229,337.00
- 6. Fully Funded Cost Estimate:** \$30,027,305 (21-May-03)
- 7. Expenditures:** \$ 531,853
- 8. Unexpended Funds:** \$697,484
- 9. Estimate of anticipated funding increases, including O&M:** None
- 10. Potential changes to project benefits:** Unknown

**11. Brief chronology of project development and issues affecting implementation:**

The original project proposed by the Natural Resources Conservation Service (NRCS) planned to reduce erosion rates along the northern shoreline of Vermilion/Weeks Bay and control salinities in the interior marshes in the vicinity of Vermilion/Weeks Bay. Protection and restoration efforts would involve an armored protection along the shoreline areas along the Weeks Bay side of the isthmus, with steel sheet piling. A low sill weir was planned across Commercial Canal near its junction with Vermilion Bay.

It was proposed that the weir, in conjunction with restoring the isthmus, would subdue interior tidal energies and divert Atchafalaya River water further west via the GIWW. The estimated fully funded cost of the project at the time of its inclusion on PPL9 was \$15 million.

The Corps of Engineers assumed sponsorship of the project because of the ongoing Section 1135 project in the same area. Section 1135 authorizes the corps to investigate modifications to existing corps projects for the purpose of environmental restoration. In this case, the corps was investigating the environmental benefits of reestablishing the bank between the Gulf Intracoastal Waterway (GIWW) and Weeks Bay. The study was terminated for failure to find sufficient environmental benefits to justify the cost. Further, hydrologic investigations performed under the 1135 study showed that salinities in the CWPPRA project targeted wetlands area are not rising. In fact, investigations of the area revealed a slight freshening trend.

Subsequent hydrologic investigation performed for the CWPPRA project, reports that “of the total freshwater influx, over 90 percent of water, flowing into the bay comes from the Lower Atchafalaya River and the Wax Lake Outlet, the remaining is from the GIWW and a series of smaller bayous and the Vermilion River. To the south of the Weeks Bay, the Southwest Pass and a wide opening between East Cote Blanche and Atchafalaya Bay connect Vermilion Bay to the Gulf of Mexico.” Thus, closing a few openings would have little effect on salinities in the bay system. Furthermore, the report concludes, “Based on the indicated findings, salinity variations in the Weeks Bay area have fluctuated neither positively nor negatively”. Benefits for the proposed CWPPRA project had been calculated on the assumption of loss of freshwater marsh due to increasing saltwater intrusion in an area adjacent to the GIWW.

Recognizing the local interest in the project due to the perception of sediments and freshwater entering the bay from the GIWW, the project was revised to include only a retention structure and marsh creation through dedicated dredging. This would create approximately 211 acres of intermediate marsh, close a 750’ opening between the GIWW and the bay, and prevent erosion from occurring along the west side of the isthmus. The fully funded cost of this project was estimated at \$31 million.

**12. Current status/remaining issues:** Extensive study of the area conducted under numerous authorities failed to find sufficient environmental benefits to justify the project as proposed under the CWPPRA program. Also because of project cost increases, the project as proposed is no longer a constructible, cost-effective project. The project ranked last in the prioritization of Breaux Act projects with a score of 30.2. The project has remained authorized because of continuing local interest. The Task Force has given the local interest until the spring of 2008, to test the effectiveness of HESCO baskets as shoreline protection. The project delivery team has also provided the local interest with all technical data collected under the CWPPRA program.

### **13. Projected schedule:**

To date the local interest has meet with the NRCS, NMFS, LSU Extension, Iberia Parish CZM, McIlhenny, Vermilion Parish CZM, J. Paul Rainey Audubon Refuge, and LDNR concerning this project. They have collectively decided to initiate a redesign and engineering of the project using proven restoration techniques addressed in the Value Engineering Study (VES) for the Weeks Bay project (TV-19). Iberia Parish and Vermilion Parish have dedicated \$100,000 of their CIAP money for the development of a coastal protection and restoration project for this area. Greg Grandy (LDNR) indicated that using the CIAP monies for the development of a new design and engineering was within proper use of CIAP monies as proposed by the Parishes. It is the local interest’s intention to use the Shaw Group (Iberia Parish CIAP engineers) or some other engineering firm to engineer the project. They are meeting to come up with a final design recommendation that will be consistent with CWPPRA guidelines for the existing Weeks Bay project without forcing them to re-nominate a project for this area in future PPLs. The are local interest are still working out the details. The 2008 hurricanes interrupted their schedule last year. The Technical Committee has requested that the

local interest provide a six month progress report at the December 2009 Technical Committee and the January 2010 Task Force meeting

**14. Preparer:** Travis Creel / 504-862-1071

**Status Review - Unconstructed CWPPRA Projects**  
**19 Oct 09**

- 1. Project Name:** Brown Lake Hydrologic Restoration (CS-09)
- 2. PPL:** 2 (1992)
- 3. Federal Agency:** NRCS
- 4. Date of Construction Approval / Phase Two Approval:** 1997
- 5. Approved Total Budget:** \$4,002,363
- 6. Expenditures:** \$956,086 (as of Feb 20, 2009 / Source: Mitzi Gallipeau / Gay Browning)
- 7. Unexpended Funds:** Total Unexpended \$3,046,277 (as of Feb 20, 2009 / Source: Mitzi Gallipeau / Gay Browning).
- 8. Estimate of anticipated funding increases, including O&M:** N/A at this time
- 9. Potential changes to project benefits:** WVA was re-done as directed by P&E and Technical Committees. Results: 167 net acres after 20 years and 2 AAHUs.
- 10. Brief chronology of project development and issues affecting implementation:**
  - 1992 – Approved
  - 1997 – Construction Approval
  - 1997 - 2000 – Setbacks include magnetometer survey, COE Disposal Areas, Hydrology questions
  - 2000 - 2002 -- Hydro Model demonstrated need to Address Crab Gully
  - 2003 - 2006 – Issues include Crab Gully fix, Amoco sale, permit transfer
  - 2007 - 2008 – Landrights were re-done with current owners; permit modified and extended; design surveys re-done; plans and specifications updated; WVA re-done.
  - 2009 – Project features revised to remove hydrologic restoration structures and extend area of terracing.
- 11. Current Status/remaining issues:** A motion was made and passed during the September 29, 2009 Technical Committee Meeting to begin the OCPR deauthorization process.
- 12. Projected schedule:** Updated P&S will be completed by July 2009.
- 13. Preparer:** Quin Kinler, NRCS, (225) 382-2047 (3/6/2008)  
Review/Concurrence (3/6/2008): Darrell Pontiff, DNR, (337) 482-0683  
**Updated:** John Jurgensen, NRCS,(318) 473-7694 (3/17/2009)

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**19<sup>th</sup> PRIORITY PROJECT LIST**

**For Discussion/Decision:**

The Environmental Workgroup Chairman will present an overview of the ten PPL 19 candidate projects and three PPL19 candidate demonstration projects. The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 19 projects for Phase I Engineering and Design.

CWPPRA PPL19 Technical Committee VOTE

2-Dec-09

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score	Phase I Fully Funded Cost	Cumulative Phase I Fully Funded Cost	Phase II Fully Funded Cost	Cumulative Phase II Fully Funded Cost	Total Fully Funded Cost
3	Lost Lake Marsh Creation and Hydrologic Restoration	2	3	2	6	6	1	6	20	\$2,320,214	\$2,320,214	\$20,623,652	\$20,623,652	\$22,943,866
4	Freshwater Bayou Marsh Creation	3	5	4		2	6	5	20	\$2,425,997	\$4,746,211	\$23,097,758	\$43,721,410	\$25,523,755
1	LaBranche East Marsh Creation	4	2	3	2		5	5	16	\$2,571,273	\$7,317,484	\$29,752,018	\$73,473,428	\$32,323,291
2	Cheniere Ronquille Barrier Island Restoration		6	5	1	4		4	16	\$3,419,263	\$10,736,747	\$40,409,022	\$113,882,450	\$43,828,285
4	Cameron-Creole Watershed Grand Bayou Marsh Creation	6	1		5	1		4	13	\$2,101,653		\$21,278,833		
1	Fritchie Marsh Terracing and Marsh Creation	1			4	5	2	4	12	\$2,430,448		\$21,843,206		
2	Monsecour Siphon			6			4	2	10	\$1,873,637		\$8,734,268		
2	Breton Marsh Restoration	5			3			2	8	\$1,507,397		\$13,092,258		
2	Bayou Dupont to Bayou Barataria Marsh Creation		4				3	2	7	\$2,536,927		\$35,094,623		
2	Dedicated Sediment Delivery and Water Conveyance for Marsh Creation Near Big Mar			1		3		2	4	\$2,143,994		\$18,299,398		
Total										\$23,330,803		\$232,225,036		

NOTES:  
 - Projects are sorted by: (1) "No. of Votes" and (2) "Sum of Point Score"

## PPL19 Candidate Project Evaluation Matrix

November 3, 2009

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Fritchie Marsh Terracing and Marsh Creation	1	St. Tammany	1,726	178	449	\$24,273,654	\$2,430,448	\$21,843,206	\$1,820,587	\$10,228	\$54,062
LaBranche East Marsh Creation	1	St. Charles	931	339	715	\$32,323,291	\$2,571,273	\$29,752,018	\$2,436,410	\$7,187	\$45,207
Monsecour Siphon	2	Plaquemines	12,255	882	990	\$10,607,905	\$1,873,637	\$8,734,268	\$756,765	\$858	\$10,715
Dedicated Sediment Delivery and Water Conveyance for Marsh Creation Near Big Mar	2	Plaquemines	6,311	408	853	\$20,443,392	\$2,143,994	\$18,299,398	\$1,491,237	\$3,655	\$23,966
Breton Marsh Restoration	2	Plaquemines	436	140	275	\$14,599,655	\$1,507,397	\$13,092,258	\$1,106,407	\$7,903	\$53,090
Bayou Dupont to Bayou Barataria Marsh Creation	2	Jefferson	530	173	292	\$37,631,550	\$2,536,927	\$35,094,623	\$2,885,713	\$16,680	\$128,875
Cheniere Ronquille Barrier Island Restoration	2	Plaquemines	408	190	234	\$43,828,285	\$3,419,263	\$40,409,022	\$3,305,651	\$17,398	\$187,300
Lost Lake Marsh Creation and Hydrologic Restoration	3	Terrebonne	7,312	281	749	\$22,943,866	\$2,320,214	\$20,623,652	\$1,683,509	\$5,991	\$30,633
Freshwater Bayou Marsh Creation	4	Vermilion	401	108	279	\$25,523,755	\$2,425,997	\$23,097,758	\$1,949,749	\$18,053	\$91,483
Cameron-Creole Watershed Grand Bayou Marsh Creation	4	Cameron	617	210	550	\$23,380,486	\$2,101,653	\$21,278,833	\$1,770,844	\$8,433	\$42,510

# PPL 19 Demonstration Project Evaluation Matrix

(Parameter grading as to effect: 1 = low; 2 = medium; 3 = high)

Demonstration Project Name	Lead Agency	Total Fully Funded Cost	Parameter (P <sub>n</sub> )						Total Score
			P <sub>1</sub> Innovativeness	P <sub>2</sub> Applicability or Transferability	P <sub>3</sub> Potential Cost Effectiveness	P <sub>4</sub> Potential Env Benefits	P <sub>5</sub> Recognized Need for Info	P <sub>6</sub> Potential for Technological Advancement	
ViperWall	NRCS	\$1,427,154	3	3	2	3	3	2	16
EcoSystems Wave Attenuator	NMFS	\$2,214,945	3	3	2	2	3	2	15
Bayou Backer	NMFS	\$910,893	3	2	3	1	2	1	12

**Demonstration Project Parameters**

(P<sub>1</sub>) *Innovativeness* - The demonstration project should contain technology that has not been fully developed for routine application in coastal Louisiana or in certain regions of the coastal zone. The technology demonstrated should be unique and not duplicative in nature to traditional methods or other previously tested techniques for which the results are known. Techniques which are similar to traditional methods or other previously tested techniques should receive lower scores than those which are truly unique and innovative.

(P<sub>2</sub>) *Applicability or Transferability* - Demonstration projects should contain technology which can be transferred to other areas of the coastal zone. However, this does not imply that the technology must be applicable to all areas of the coastal zone. Techniques, which can only be applied in certain wetland types or in certain coastal regions, are acceptable but may receive lower scores than techniques with broad applicability.

(P<sub>3</sub>) *Potential Cost Effectiveness* - The potential cost-effectiveness of the demonstration project's method of achieving project objectives should be compared to the cost-effectiveness of traditional methods. In other words, techniques which provide substantial cost savings over traditional methods should receive higher scores than those with less substantial cost savings. Those techniques which would be more costly than traditional methods, to provide the same level of benefits, should receive the lowest scores. Information supporting any claims of potential cost savings should be provided.

(P<sub>4</sub>) *Potential Environmental Benefits* - Does the demonstration project have the potential to provide environmental benefits equal to traditional methods? somewhat less than traditional methods? above and beyond traditional methods? Techniques with the potential to provide benefits above and beyond those provided by traditional techniques should receive the highest scores.

(P<sub>5</sub>) *Recognized Need for the Information to be Acquired* - Within the restoration community, is there a recognized need for information on the technique being investigated? Demonstration projects which provide information on techniques for which there is a great need should receive the highest scores.

(P<sub>6</sub>) *Potential for Technological Advancement* - Would the demonstration project significantly advance the traditional technology currently being used to achieve project objectives? Those techniques which have a high potential for completely replacing an existing technique at a lower cost and without reducing wetland benefits should receive the highest scores.

# Priority Project List Number 19

## Candidate Projects



**Public Meetings – November 2009**

**Abbeville  
November 17<sup>th</sup>**

**New Orleans  
November 18<sup>th</sup>**

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## APPENDIX A

### PRIORITY LIST 19 SELECTION PROCESS

#### **Coastal Wetlands Planning, Protection and Restoration Act Guidelines for Development of the 19<sup>th</sup> Priority Project List Final**

##### I. Development of Supporting Information

A. COE staff prepares spreadsheets indicating status of all restoration projects (CWPPRA PL 1-18; Louisiana Coastal Area (LCA) Feasibility Study, Corps of Engineers Continuing Authorities 1135, 204, 206; and State only projects). Also, indicate net acres at the end of 20 years for each CWPPRA project.

B. DNR/USGS staff prepares basin maps indicating:

- 1) Boundaries of the following projects types (PL 1-18; LCA Feasibility Study, COE 1135, 204, 206; and State only).
- 2) Locations of completed projects,
- 3) Projected land loss by 2050 with freshwater diversions at Caernarvon and Davis Pond and including all CWPPRA projects approved for construction through January 2009.
- 4) Regional boundary maps with basin boundaries and parish boundaries included.

##### II. Areas of Need and Project Nominations

A. The four Regional Planning Teams (RPTs) meet, examine basin maps, discuss areas of need and Coast 2050 strategies, and accept nomination of projects by hydrologic basin. Nominations for demonstration projects will also be accepted at the four RPT meetings. The RPTs will not vote at their individual regional meetings, rather voting will be conducted during a separate coast-wide meeting. At these initial RPT meetings, parishes will be asked to identify their official parish representative who will vote at the coast-wide RPT meeting.

B. One coast-wide RPT voting meeting will be held after the individual RPT meetings to vote for nominees (including demonstration project nominees). The RPTs will select three projects in the Terrebonne, Barataria, and Pontchartrain Basins based on the high loss rates (1985-2006) in those basins. Two projects will be selected in the Breton Sound, Teche/Vermilion, Mermentau, Calcasieu/Sabine, and Mississippi River Delta Basins. Because of low land loss rates, only one project will be selected in the Atchafalaya Basin. If only one project is presented at the Regional Planning Team Meeting for the Mississippi River Delta Basin, then an additional nominee would be selected for the Breton Sound Basin. A total of up to 20 projects could be selected as nominees. Each officially designated parish representative in the basin will have one vote and each federal agency and the State will have one vote. The RPTs will also select up to six demonstration project nominees at this coast-wide meeting. Selection of demonstration project nominees will be by consensus, if possible. If voting is required,

officially designated representatives from all coastal parishes will have one vote and each federal agency and the State will have one vote.

C. Prior to the coast-wide RPT voting meeting, the Environmental and Engineering Work Groups will screen each demonstration project nominated at the RPT meetings. Demonstration projects will be screened to ensure that each meets the qualifications for demonstration projects as set forth in Appendix E.

D. A lead Federal agency will be designated for the nominees and demonstration project nominees to assist LDNR and local governments in preparing preliminary project support information (fact sheet, maps, and potential designs and benefits). The Regional Planning Team Leaders will then transmit this information to the P&E Subcommittee, Technical Committee and members of the Regional Planning Teams.

### III. Preliminary Assessment of Nominated Projects

A. Agencies, parishes, landowners, and other individuals informally confer to further develop projects. Nominated projects should be developed to support one or more Coast 2050 strategies. The goals of each project should be consistent with those of Coast 2050.

B. Each sponsor of a nominated project will prepare a brief Project Description (no more than one page plus a map) that discusses possible features. Fact sheets will also be prepared for demonstration project nominees.

C. Engineering and Environmental Work Groups meet to review project features, discuss potential benefits, and estimate preliminary fully funded cost ranges for each project. The Work Groups will also review the nominated demonstration projects and verify that they meet the demonstration project criteria.

D. P&E Subcommittee prepares matrix of cost estimates and other pertinent information for nominees and demonstration project nominees and furnishes to Technical Committee and Coastal Protection and Restoration Authority (CPRA).

### IV. Selection of Phase 0 Candidate Projects

A. Technical Committee meets to consider the project costs and potential wetland benefits of the nominees. Technical Committee will select ten candidate projects for detailed assessment by the Environmental, Engineering, and Economic Work Groups. At this time, the Technical Committee will also select up to three demonstration project candidates for detailed assessment by the Environmental, Engineering, and Economic Work Groups. Demonstration project candidates will be evaluated as outlined in Appendix E.

B. Technical Committee assigns a Federal sponsor for each project to develop preliminary Wetland Value Assessment data and engineering cost estimates for Phase 0 as described below.

V. Phase 0 Analysis of Candidate Projects

A. Sponsoring agency coordinates site visits for each project. A site visit is vital so each agency can see the conditions in the area and estimate the project area boundary. Field trip participation should be limited to two representatives from each agency. There will be no site visits conducted for demonstration projects.

B. Environmental and Engineering Work Groups and the Academic Advisory Group meet to refine project features and develop boundaries based on site visits.

C. Sponsoring agency develops Project Information Sheets on assigned projects, using formats developed by applicable work groups; prepares preliminary draft Wetland Value Assessment Project Information Sheet; and makes Phase 1 engineering and design cost estimates and Phase 2 construction cost estimates.

D. Environmental and Engineering Work Groups evaluate all projects (excluding demos) using the WVA and review design and cost estimates.

E. Engineering Work Group reviews and approves Phase 1 and 2 cost estimates.

F. Economics Work Group reviews cost estimates and develops annualized (fully funded) costs.

G. Environmental and Engineering Work Groups apply the Prioritization Criteria and develop prioritization scores for each candidate project.

H. Corps of Engineers staff prepares information package for Technical Committee and CPRA. Packages consist of:

- 1) updated Project Information Sheets;
- 2) a matrix for each region that lists projects, fully funded cost, average annual cost, Wetland Value Assessment results in net acres and Average Annual Habitat Units (AAHUs), cost effectiveness (average annual cost/AAHU), and the prioritization score.
- 3) qualitative discussion of supporting partnerships and public support; and

I. Technical Committee hosts two public hearings to present information from H above and allows public comment.

VI. Selection of 19<sup>th</sup> Priority Project List

A. The selection of the 19<sup>th</sup> PPL will occur at the Winter Technical Committee and Task Force meetings.

B. Technical Committee meets and considers matrix, Project Information Sheets, and public comments. The Technical Committee will recommend up to four projects for

selection to the 19<sup>th</sup> PPL. The Technical Committee may also recommend demonstration projects for the 19<sup>th</sup> PPL.

C. The CWPPRA Task Force will review the TC recommendations and determine which projects will receive Phase 1 funding for the 19<sup>th</sup> PPL.

## 19<sup>th</sup> Priority List Project Development Schedule (dates subject to change)

December 2008	Distribute public announcement of PPL19 process and schedule
December 3, 2008	Winter Technical Committee Meeting, approve Phase II (Baton Rouge)
January 21, 2009	Winter Task Force Meeting (New Orleans)
January 27, 2009	Region IV Planning Team Meeting (Rockefeller Refuge)
January 28, 2009	Region III Planning Team Meeting (Morgan City)
January 29, 2009	Regions I and II Planning Team Meetings (New Orleans)
February 18, 2009	Coast-wide RPT Voting Meeting (Baton Rouge)
February 19- March 13, 2009	Agencies prepare fact sheets for RPT-nominated projects
March 24-25, 2009	Engineering/ Environmental work groups review project features, benefits & prepare preliminary cost estimates for nominated projects (Baton Rouge)
March 26, 2009	P&E Subcommittee prepares matrix of nominated projects showing initial cost estimates and benefits
April 15, 2009	Spring Technical Committee Meeting, select PPL19 candidate projects (New Orleans)
May/June/July	Candidate project site visits
June 3, 2009	Spring Task Force Meeting (Lafayette)
July/August/ September	Env/Eng/Econ work group project evaluations
September 9, 2009	Fall Technical Committee Meeting, O&M and Monitoring funding recommendations (Baton Rouge)
October 14, 2009	Fall Task Force meeting, O&M and Monitoring approvals, announce PPL 19 public meetings (New Orleans)
October 14, 2009	Economic, Engineering, and Environmental analyses completed for PPL19 candidates
November 17, 2009	PPL 19 Public Meeting (Abbeville)
November 18, 2009	PPL 19 Public Meeting (New Orleans)
December 2, 2009	Winter Technical Committee Meeting, recommend PPL19 and Phase II approvals (Baton Rouge)
January 20, 2010	Winter Task Force Meeting, select PPL19 and approve Phase II requests (New Orleans)

## **PPL19 Fritchie Marsh Terracing and Marsh Creation**

### **Coast 2050 Strategy:**

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

### **Project Location:**

Region 1, Pontchartrain Basin, St. Tammany Parish, within the Fritchie Marsh watershed bordered by Hwy 90.

### **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  $-1.31\%$ /year based on USGS data from 1985 to 2006. These marshes cannot recover without replacement of lost sediment, which is critical if the northshore marshes are to be sustained.

### **Goals:**

Project goals include 1) creating 400 acres of intermediate marsh, 2) creating 130,000 linear feet of vegetated, earthen terraces, 3) reducing wave fetch and erosion of adjacent interior marshes, and 4) improving tidal connection and ingress/egress of marine organisms within the marsh creation area.

### **Proposed Solution:**

The project will construct approximately 400 acres of marsh platform, with 270 acres being created south of Salt Bayou in the southeastern corner of the Fritchie watershed, and 130 acres being created just north of Salt Bayou adjacent to the terrace field. Additionally, 130,000 linear feet of earthen terraces occupying 1,200 acres of open water will be constructed just north of Salt Bayou. Approximately 2 million cubic yards of material will be dredged from Lake Pontchartrain to build the marsh. The containment dikes will be degraded within three years of construction to allow for tidal exchange. The terraces are proposed with ten foot crowns and +3 ft elevation. The terraces will be planted immediately following compaction of the soil.

### **Project Benefits:**

The project would benefit 1726 acres of brackish fresh marsh and open water. Approximately 449 net acres of intermediate marsh would be created/protected over the 20-year project life.

### **Project Costs:**

The total fully funded cost for the project is \$ 24,273,654.

### **Preparer(s) of Fact Sheet:**

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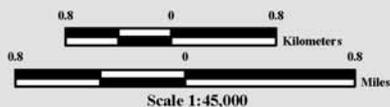


### Fritchie Marsh Terracing and Marsh Creation Project (PPL19 Candidate)



-  Marsh Creation \*
-  Culverts \*
-  Terraces \*
-  Extended Boundary

\* denotes proposed features



Map ID: USGS-NWRC 2009-11-0287  
Map Date: July 27, 2009



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

Image Source:  
2008 Digital Orthophoto Quarter Quadrangles

## **PPL19 LaBranche East Marsh Creation**

### **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, between Lake Pontchartrain and I-10, bounded to the west by the Fall Canal and the initial Bayou LaBranche Wetland Creation Project (PO-17) and to the east by a pipeline canal.

### **Problem:**

Dredging of access/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 storm buffer to 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  $\pm$  729 acres of marsh and the nourishment of  $\pm$  202 acres of existing marsh using dedicated dredging from Lake Pontchartrain. In addition, 10,000 linear ft of tidal creeks would be created by pre-dredging water bottom before dredge material is placed. 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 low level retention dikes along the edge of the project area allowing overtopping of material to nourish the marsh fringe. 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.

### **Project Benefits:**

This project would benefit 931 acres of intermediate marsh and open water. The project will result in 715 net acres of marsh over the 20-year project life.

### **Project Cost:**

The total fully funded cost for the project is \$ 32,323,291.

### **Preparer(s) of Fact Sheet:**

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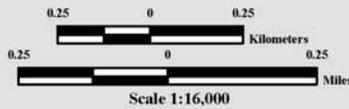
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### LaBranche East Marsh Creation (PPL19 Candidate)



-  Tidal Creek \*
  -  Marsh Creation \*
  -  Marsh Fill \*
- \* denotes proposed features



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 National Wetlands Research Center  
 Coastal Restoration Field Station  
 Baton Rouge, La  
 Image Source:  
 2008 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2009-11-0349  
 Map Date: September 18, 2009

## **PPL19 Monsecour Siphon**

### **Coast 2050 Strategy:**

Coastwide Common Strategies: Diversions and river discharge; Management of diversion outfall for wetland benefits.

Region 2 Regional Ecosystem Strategies: Restore and Sustain Marshes; Construct most effective small diversions.

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

The project goal is to reduce wetland loss rates by reintroducing an average of 1,145 cfs, and a maximum of 2,000 cfs, of Mississippi River water into the project area to increase sediment and nutrient loading.

### **Proposed Solution:**

Construct a siphon from the Mississippi River, with 2000 cfs maximum capacity (estimated average flow=1145 cfs). The project may require additional features for delivery and outfall management.

### **Project Benefits:**

The project would benefit 12,255 acres of intermediate marsh and open water. Approximately 990 net acres of intermediate and/or fresh marsh would be created/protected over the 20-year project life.

### **Project Costs:**

The total fully funded cost for the project is \$ 10,607,905.

### **Preparer(s) of Fact Sheet:**

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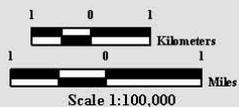


### Monsecour Siphon (PPL19 Candidate)



-  Siphon \*
-  Project Boundary

\* denotes proposed features



Map ID: USGS-NWRC 2009-11-0351  
Map Date: August 07, 2009

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U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Field Station  
Baton Rouge, La  
Image Source:  
2008 Digital Orthophoto Quarter Quadrangles

# **PPL19 Dedicated Sediment Delivery and Water Conveyance for Marsh Creation Near Big Mar**

## **Coast 2050 Strategy:**

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

## **Project Location:**

Region 2, Breton Sound Basin, Plaquemines Parish, the marsh creation is located along the western shoreline of Lake Lery and the conveyance channel is located within Big Mar.

## **Problem:**

The upper Breton Sound marshes have long been subjected to subsidence, salt water intrusion, altered hydrology, and storm damage. After the passing of Hurricane Katrina in 2005, the Breton Sound marshes were devastated and land loss rates increased in the upper sound from 0.69%/yr to 1.74%/yr (USGS). The Caernarvon Freshwater Diversion Project is helping to reverse land loss in this area; however, as Big Mar fills in, flow that used to go down Delacroix Canal and into the marshes southwest of Big Mar is now mostly taking the path of least resistance into Lake Lery. Furthermore, the shoreline of Lake Lery is almost indistinguishable where the lake is coalescing with hundreds of acres of open water. Reestablishment of the Breton Sound marshes is dependent upon the direct reconstruction of lost marsh, reestablishing the lake rim, and optimizing the flow and outfall of the Caernarvon structure.

## **Goals:**

Project goals include, 1) creating approximately 434 acres of fresh to intermediate marsh via dredging the center of Lake Lery, 2) excavating a channel 7,850 ft long, 75 ft bottom width, and 7 ft deep through the Big Mar to facilitate Caernarvon outfall to 6,300 acres of marshes west and southwest of Big Mar, and 3) reducing the loss rate of adjacent interior marshes.

## **Proposed Solution:**

Project features include approximately 434 acres of marsh creation via dredging from Lake Lery. In addition, a 7,850 ft long conveyance channel will be dredged from the northeast confluence of Caernarvon Canal and Big Mar to near the southwest corner of Big Mar where it joins with Delacroix Canal. The excavated material will be beneficially used to build marsh in the Big Mar. Construction of this channel will help redirect flow from the Caernarvon diversion to the southwest wetlands of upper Breton Sound.

## **Project Benefits:**

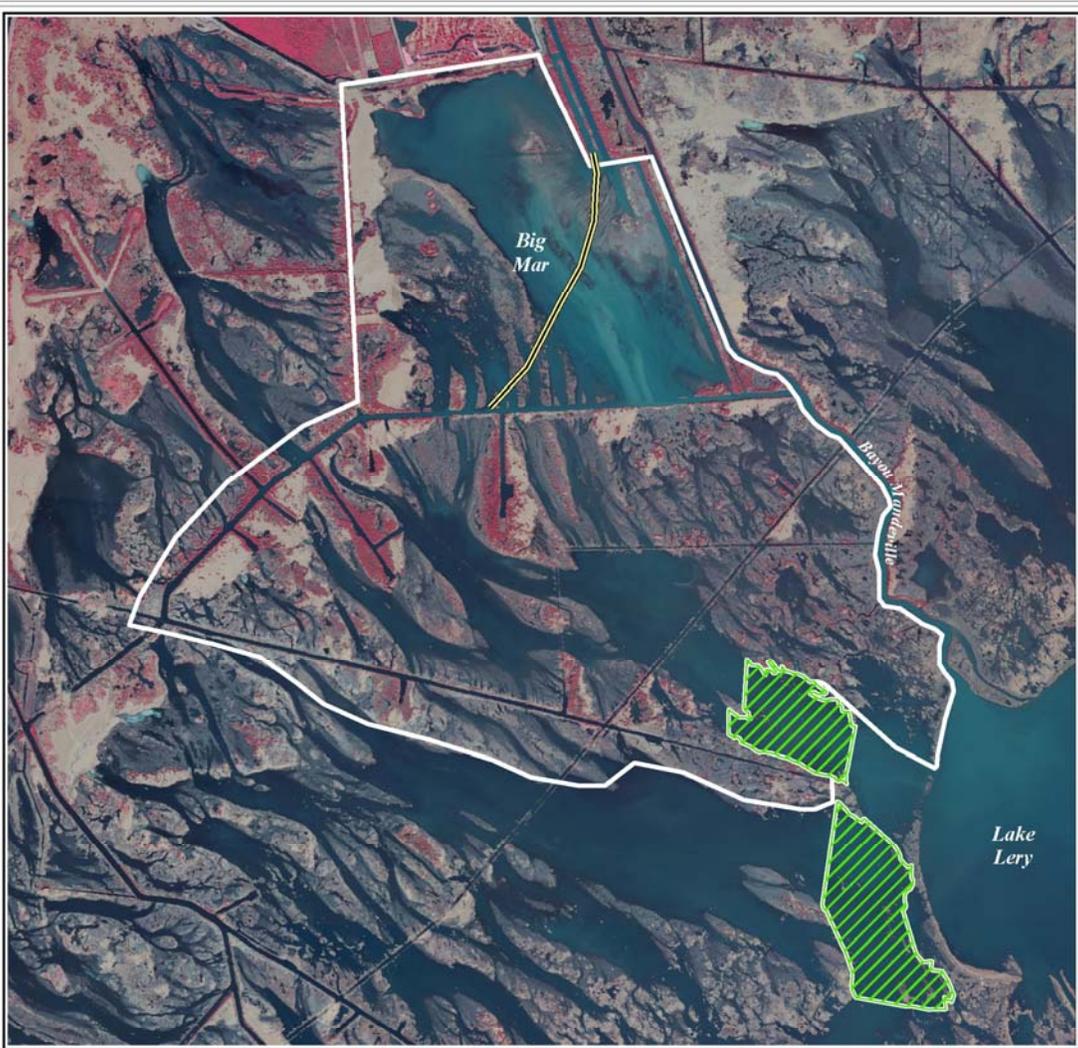
The project would benefit 6,311 acres of fresh marsh and open water. Approximately 853 net acres of marsh would be created/protected over the 20-year project life.

## **Project Costs:**

The total fully funded cost for the project is \$ 20,443,392.

## **Preparer(s) of Fact Sheet:**

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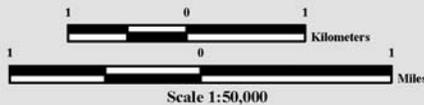


**Dedicated Sediment Delivery and Water Conveyance for Marsh Creation Near Big Mar (PPL19 Candidate)**



-  Conveyance Channel \*
-  Marsh Creation \*
-  Project Boundary

\* denotes proposed features



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 U.S. Geological Survey  
 National Wetlands Research Center  
 Coastal Restoration Field Station  
 Baton Rouge, LA

Image Source:  
 2008 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2009-11-0375  
 Map Date: July 10, 2009

## **PPL19 Breton Marsh Restoration**

### **Coast 2050 Strategy:**

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

### **Project Location:**

The project area is located in Region 2, Breton Basin, Plaquemines Parish, southeast of Delacroix, LA.

### **Problem:**

A major cause of loss in the Region 2, Caernarvon Mapping Unit has been storm related. Prior to Katrina the greatest land loss (6,560 acres) occurred from 1956-1974 and coincided with Hurricane Betsy and extensive canal building. It is estimated that 40.9 square miles of marsh were converted to open water in the Breton Sound Basin as a result of Hurricane Katrina in 2005. Land loss rates for this area are currently estimated at  $-2.5\%$ /year based on USGS data from 1985 to 2006.

### **Goals:**

The goal of this project is to restore marsh that was damaged by Hurricane Katrina in 2005. Reestablishing this marsh will help to restore the western shoreline of Bayou Gentilly and moderate the effects of the brackish waters from the Black Bay system moving north into the more intermediate marshes. Initial project construction includes the creation of 337 acres and nourishment of 99 acres of brackish marsh.

### **Proposed Solution:**

Approximately 337 acres of marsh will be restored and 99 acres of marsh will be nourished through hydraulic dredging. It is estimated that 1.6 million cubic yards of material would be dredged hydraulically from Lake Lery and pumped via pipeline to create marsh. Dredged material would be pumped into containment dikes to achieve an average height of 1.4 ft NAVD 88. Tidal creeks will be constructed prior to placement of dredge material and retention levees would be gapped for estuarine fisheries access and to achieve a functional marsh.

### **Project Benefits:**

The project would benefit 436 acres of brackish marsh and open water. Approximately 275 acres of brackish marsh would be created/protected over the 20-year project life.

### **Preliminary Construction Costs:**

The total fully-funded cost for the project is \$ 14,599,655.

### **Preparer(s) of Fact Sheet:**

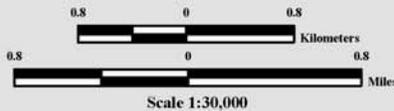
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Robert Dubois, U.S. Fish and Wildlife Service, (337) 291-3127, [Robert\\_Dubois@fws.gov](mailto:Robert_Dubois@fws.gov)



**Breton Marsh Restoration Project  
(PPL19 Candidate)**



 **Marsh Creation \***  
\* denotes proposed features



Map ID: USGS-NWRC 2010-04-0001  
Map Date: October 09, 2009

Produced by:  
U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Field Station  
Baton Rouge, La  
Image Source:  
2008 Digital Orthophoto Quarter Quadrangles

## **PPL19 Bayou Dupont to Bayou Barataria Marsh Creation**

### **Coast 2050 Strategy:**

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

### **Project Location:**

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

### **Problem:**

The marshes located between Bayou Dupont and Bayou Barataria are very deteriorated. The deteriorated marsh, along with numerous canals, allows a level of tidal exchange that is considerably greater than historic conditions.

### **Goals:**

The proposed project will re-establish a landmass between Bayou Dupont and Bayou Barataria, aid in storm surge reduction, provide bottomland hardwood habitat, and partially restore the area's hydrology.

### **Proposed Solution:**

Approximately 311 acres of marsh creation, 200 acres of marsh nourishment, and 19 acres of bottomland hardwood ridge restoration would be performed using dredged material. Target marsh creation and nourishment height is 1.4 NAVD88. Marsh creation containment dikes will be breached as needed to re-establish tidal exchange at about year 3 post construction.

The ridge perimeter containment dike will be constructed to height of 8.0 NAVD88, have a crest width of 5 feet, and outside slope of 6:1, and inside side slope of 4:1. Inside the containment dike, the ridge restoration target elevation is 6.0 NAVD88. Above 3.0 NAVD88, the ridge will be planted to bottomland hardwood tree species. The outside containment dike toe (below 3.0 NAVD88) will be planted with marsh species.

Along the east bank of the Barataria Bay Waterway, approximately 1,740 feet of rock dike bankline protection will be constructed. The rock dike will be constructed to a height of 4.0 NAVD88, with a crest width of 4 feet and side slopes of 2:1.

### **Project Benefits:**

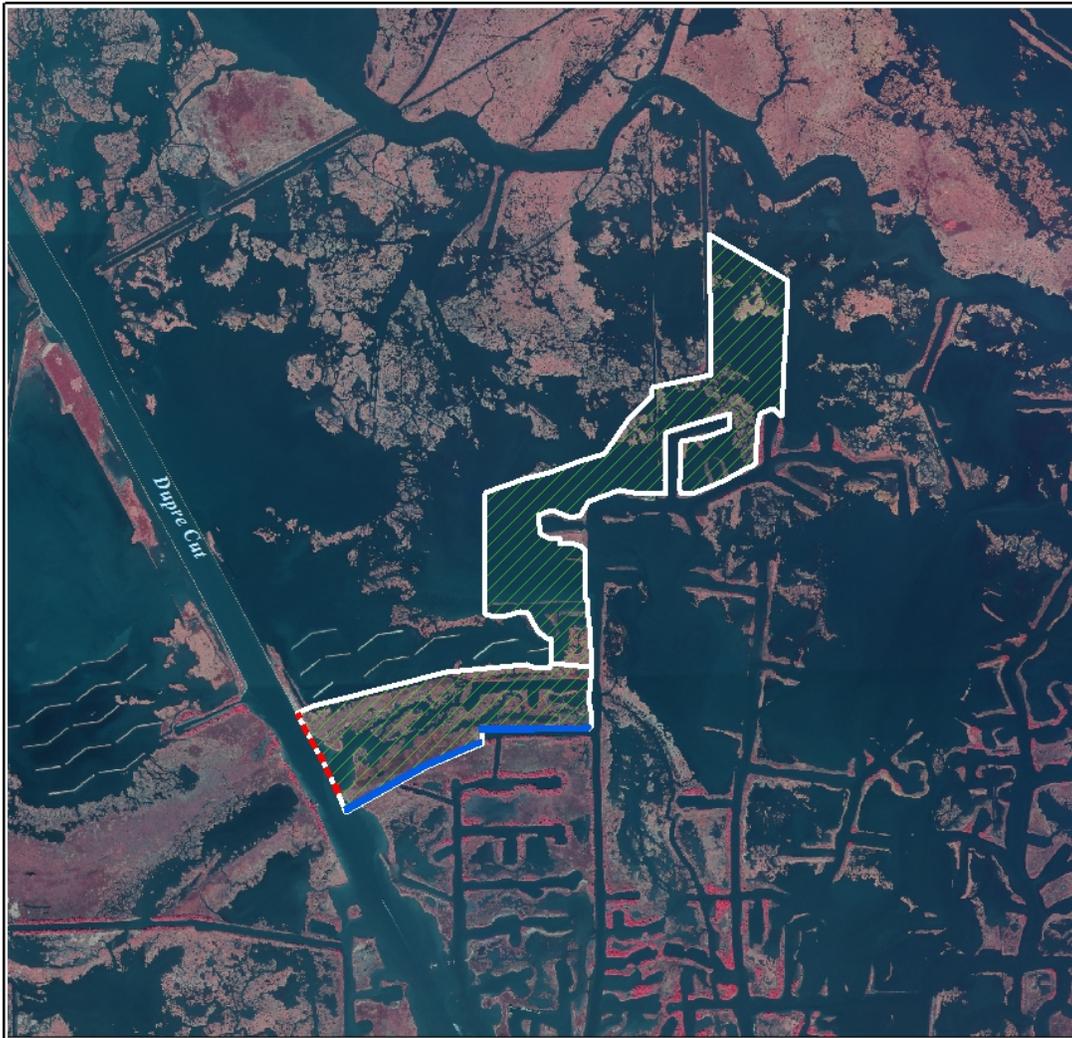
The project will result in 513 acres of created/nourished marsh and 17 acres of bottomland hardwood ridge restoration, resulting in 292 net acres over the project life.

### **Project Costs:**

The total fully funded cost for the project is \$ 37,631,550.

### **Preparer(s) of Fact Sheet:**

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**Bayou Dupont to Bayou  
Barataria Marsh Creation  
(PPL19 Candidate)**



-  Shoreline Protection \*
-  Ridge Restoration \*
-  Marsh Creation \*
-  Project Boundary

\* denotes proposed features



Scale 1:40,000



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U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Field Station  
Baton Rouge, La

Image Source:  
2008 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2010-11-0013  
Map Date: November 05, 2009

## **PPL19 Cheniere Ronquille Barrier Island Restoration**

### **Coast 2050 Strategy:**

Regional Strategy 21 – extend and maintain barrier headlands, islands, and shorelines

### **Project Location:**

Region 2, Barataria Basin, Plaquemines Parish, between Pass Ronquille and Pass Chaland

### **Problem:**

The area is undergoing shoreline erosion, interior wetland loss, overwash, and breakup. The Gulf shoreline erosion rate has increased from -14.6 ft/yr in 1988 to 2000 to -38 ft/yr in 1988 to 2006. Project area marshes also are being eroded at -11.8 ft/yr during 2003 to 2006 as well as being converted to open water from internal breakup at an estimated rate of 3.16%/yr.

### **Goals:**

The general project goal is to maintain shoreline integrity including preventing breaching/formation of tidal inlets for 20 years by repairing and reinforcing the existing shoreline with sand and marsh restoration. A minimum dune elevation of +4.0 ft NAVD 88 at the end of the 20-yr project life was selected as a design performance goal.

### **Proposed Solution:**

Cheniere Ronquille restoration would expand the Gulf shoreline structural integrity and associated protection by tying into two recently constructed projects to the east and address one of the remaining reaches of the Barataria/Plaquemines shoreline. The design includes fill for a beach and dune plus 20-years of advanced maintenance fill, as well as fill for marsh creation/nourishment. The location of the type and amount of sediment needed to construct this project already has been identified under the East Grand Terre Project that is presently under construction. Approximately 127 acres of beach/dune fill would be constructed with a dune crest at +6 feet, NAVD 88. Approximately 259 acres of marsh creation/nourishment would be constructed. Intensive dune plantings would be conducted by seeding and installing approved nursery stock. About half of the marsh platform would be planted with cordgrass and portions of the dune, swale, and marsh would be planted with appropriate woody species. Containment dikes would be breached no later than year three to allow tidal exchange with the created marsh.

### **Project Benefits:**

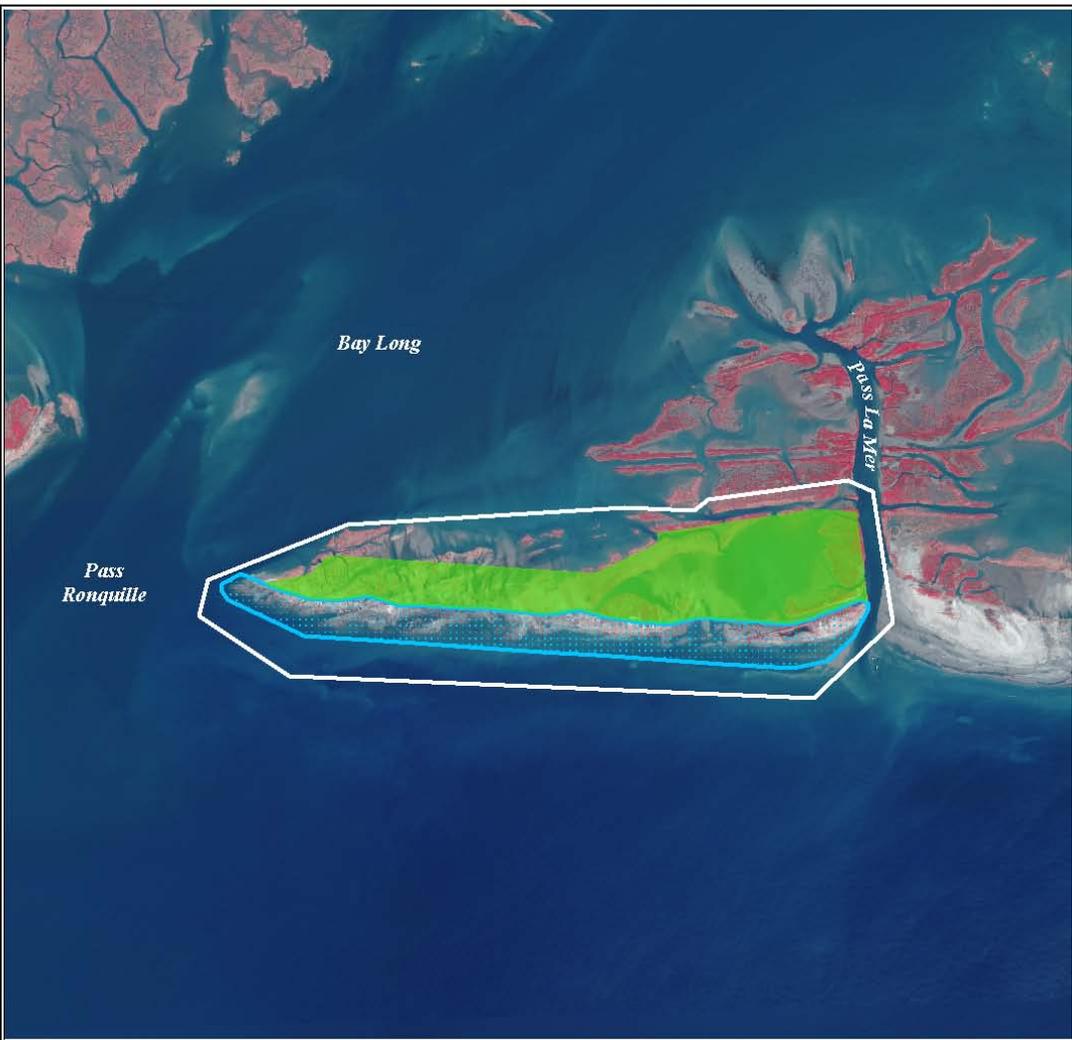
The project would benefit 408 acres of island beach/dune and back barrier marsh and adjacent open water. Approximately 234 acres of beach/dune and back barrier marsh would be created/protected over the 20-year project life.

### **Project Costs:**

The total fully funded cost for the project is \$ 43,828,285.

### **Preparer(s) of Fact Sheet:**

Patrick Williams, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 208  
[patrick.williams@noaa.gov](mailto:patrick.williams@noaa.gov)

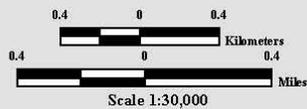


### Cheniere Ronquille Barrier Island Restoration (PPL19 Candidate)



-  Dune/Beach \*
-  Marsh Creation \*
-  Project Boundary

\* denotes proposed features



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U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Field Station  
Baton Rouge, La

Image Source:  
2008 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2009-11-0380  
Map Date: August 20, 2009

## **PPL19 Lost Lake Marsh Creation and Hydrologic Restoration**

### **Coast 2050 Strategy:**

Regional Strategy – Dedicated delivery of sediment for marsh building

Regional Strategy – Increase transfer of Atchafalaya River water to lower Penchant tidal marshes

### **Project Location:**

Region 3, Terrebonne Basin, Terrebonne Parish, near the vicinity of Lost Lake

### **Problem:**

Significant marsh loss has occurred between Lake Pagie and Bayou DeCade to the point that little structural framework remains separating those two waterbodies. Northeast of Lost Lake, interior marsh breakup has resulted in large, interior ponds where wind/wave energy continues to result in marsh loss. West of Lost Lake, interior breakup has occurred as a result of ponding and the periodic entrapment of higher salinity waters during storm events.

### **Goals:**

Project goals include 1) restore an important feature of structural framework between Lake Pagie and Bayou Decade to prevent the coalescence of those two water bodies, 2) increase the delivery of fresh water, sediments, and nutrients into marshes north and west of Lost Lake, 3) reduce fetch in open water areas via construction of a terrace field. Specific Phase 0 goals include creating approximately 465 acres of marsh, increasing the delivery of fresh water into project area marshes by replacing 6 fixed-crest weirs and two plugs with variable-crest structures, and creating approximately 26 acres of marsh via the construction of 30,000 feet of terraces.

### **Proposed Solution:**

Approximately 465 acres of marsh will be created between Lake Pagie and Bayou DeCade, north of Bayou DeCade, and along the northwestern Lost Lake shoreline. In addition, 30,000 linear feet (26 acres) of terraces will be constructed to reduce fetch in an area of deteriorated marsh.

Approximately 20,000 linear feet of tidal creeks will be constructed within the marsh creation cells. Four fixed-crest weirs and two plugs will be replaced with variable-crest structures to increase freshwater flow into surrounding marshes.

### **Project Benefits:**

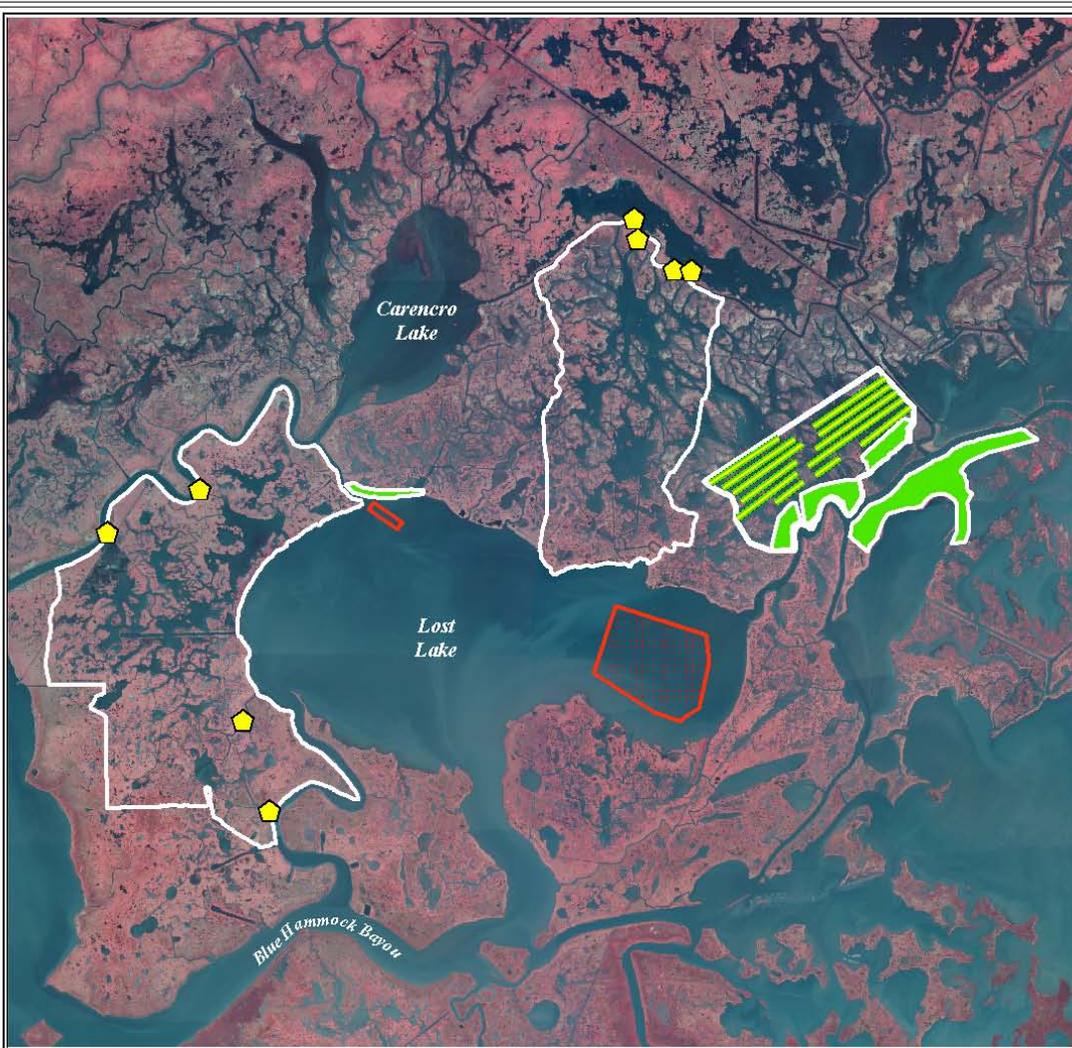
The project would benefit 7,312 acres of marsh and open water habitats. A total of 749 net acres of marsh would be protected/created over the 20-year project life.

### **Project Costs:**

The total fully-funded cost for the project is \$ 22,943,866.

### **Preparer(s) of Fact Sheet:**

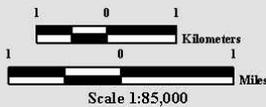
Kevin Roy, U.S. Fish and Wildlife Service, 337-291-3120, [kevin\\_roy@fws.gov](mailto:kevin_roy@fws.gov)



### Lost Lake Marsh Creation and Hydrologic Restoration (PPL19 Candidate)



- Water Control Structure \*
  - Marsh Creation \*
  - Project Boundary
  - Borrow Site \*
  - Terrace \*
- \* denotes proposed features



Map ID: USGS-NWRC 2009-11-0366  
 Map Date: August 10, 2009

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 National Wetlands Research Center  
 Coastal Restoration Field Station  
 Baton Rouge, LA  
 Image Source:  
 2008 Digital Orthophoto Quarter Quadrangles

## **PPL19 Freshwater Bayou Marsh Creation**

### **Coast 2050 Strategy:**

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

### **Project Location:**

Region 4, Mermentau Basin, Vermilion Parish, Big Marsh Mapping Unit, area west of Freshwater Bayou and north of the Freshwater Bayou lock.

### **Problem:**

This area was damaged by Hurricanes Rita, Gustav, and Ike. Currently, Freshwater Bayou threatens to breach into the large interior open water and establish a hydrologic connection that previously did not exist. This would exacerbate the environmental problems affecting marshes in this area. Additionally, interior marsh loss has increased and organic soils are being exported into Freshwater Bayou. Interior marsh loss will increase without construction of the proposed project.

### **Goals:**

The project goals include: 1) creating/nourishing marsh and associated edge habitat for aquatic species through pipeline sediment delivery via dedicated dredging from the Gulf of Mexico or beneficial use of maintenance dredging from the Freshwater Bayou Canal; 2) restoring a wetland buffer between the large open water areas in the Mermentau Basin and Freshwater Bayou.

### **Proposed Solution:**

The project would beneficially use dredge material and/or dedicated dredge material to rebuild/nourish approximately 401 acres of marsh that was damaged or converted to shallow open water by Hurricanes Rita, Gustav, and Ike. Approximately 2 million cubic yards of dredged material from the Gulf of Mexico would be dedicated to two hurricane damaged areas in the Big Marsh unit (Figure 1). If possible, material and/or equipment would be used from the maintenance dredging of Freshwater Bayou to the maximum extent practical to reduce cost during construction. However, since that material is not available every year the proposed project costs and benefits are conservatively based on dedicated dredging offshore. Approximately 162 acres of marsh would be created and 24 acres would be nourished in the North Area, and approximately 149 acres of marsh would be created and 66 acres would be nourished in the South Area. Average water depths are approximately 1.7 ft.

### **Project Benefits:**

The project would benefit approximately 401 acres of fresh/intermediate marsh. Approximately 279 net acres would be created/protected over the 20-year project life.

### **Project Costs:**

The total fully funded cost for the project is \$ 25,523,755.

### **Preparer(s) of Fact Sheet**

Troy Mallach, NRCS, (337) 291-3064, [troy.mallach@la.usda.gov](mailto:troy.mallach@la.usda.gov)

Judge Edwards, Vermilion Corporation, [vermilioncorporation@connections-lct.com](mailto:vermilioncorporation@connections-lct.com)



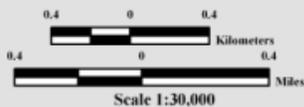
### Freshwater Bayou Marsh Creation (PPL19 Candidate)



-  Marsh Creation \*
-  Project Boundary
- \* denotes proposed features



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



Map ID: USGS-NWRC 2009-11-0276  
Map Date: July 24, 2009

Image Source:  
2008 Digital Orthophoto Quarter Quadrangles

## **PPL19 Cameron-Creole Watershed Grand Bayou Marsh Creation**

### **Coast 2050 Strategy:**

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

### **Project Location:**

Region 4, Calcasieu-Sabine Basin, Cameron Parish, 6 miles northeast from Cameron, LA, on the Cameron Prairie NWR and Miami Corporation north of Grand Bayou.

### **Problem:**

Approximately 14,390 acres (32%) of the Cameron-Creole Watershed Project (CCWP) marshes were lost from 1932 to 1990 at an average loss rate of 248 ac/year (0.55%/year) due to subsidence and saltwater intrusion from the Calcasieu Ship Channel. The CCWP was implemented by the NRCS in 1989 to reduce saltwater intrusion and stimulate restoration through revegetation. Hurricanes Rita and Ike in 2005 and 2008 breached the watershed levee scouring the marsh and allowing higher Calcasieu Lake salinities to enter the watershed causing more land loss. The Calcasieu-Sabine Basin lost 28 mi<sup>2</sup> (17,920 acres) (4.4%) as a result of Hurricane Rita (Barras et al. 2006). Land loss is estimated to be -0.87%/year based on USGS data from 1985 to 2006.

### **Goals:**

Project goals include restoring and nourishing marsh with dedicated dredged material from Calcasieu Lake to benefit fish and wildlife resources within the Cameron Prairie NWR and adjacent brackish marshes. Specific phase 0 goals include creating 604 acres brackish marsh and nourishing 13 acres of brackish marsh.

### **Proposed Solution:**

Place approximately 3 million cubic yards of material dredged from a Calcasieu Lake borrow site located approximately 2,000 feet west of Grand Bayou, away from existing oyster reefs, into two marsh creation areas north of Grand Bayou to restore 604 acres and nourish 13 acres of brackish marsh. The hurricane-scoured marsh, within the project area, is very shallow (averaging 1.2 feet deep) making it ideal for marsh restoration with sediment because more marsh per volume of dredged material could be restored. Tidal creeks will be constructed prior to placement of dredge material and retention levees would be gapped for estuarine fisheries access and to achieve a functional marsh.

### **Preliminary Project Benefits:**

The project would restore 604 acres and nourish 13 acres of brackish marsh in the 617-acre project area. Approximately 550 acres of brackish marsh would be created and protected over the 20-year project life.

### **Project Costs:**

The total fully funded cost for the project is \$ 23,380,486.

### **Preparer(s) of Fact Sheet:**

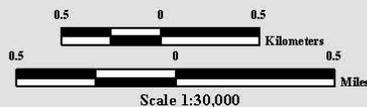
Angela Trahan, U.S. Fish and Wildlife Service, (337) 291-3137, [Angela\\_Trahan@fws.gov](mailto:Angela_Trahan@fws.gov)  
Darryl Clark, U.S. Fish and Wildlife Service, (337) 291-3111, [Darryl\\_Clark@fws.gov](mailto:Darryl_Clark@fws.gov)



**Cameron-Creole Watershed Grand Bayou Marsh Creation Project (PPL19 Candidate)**



 **Marsh Creation \***  
 \* denotes proposed features



Map ID: USGS-NWRC 2009-11-0350  
 Map Date: August 05, 2009

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 U.S. Department of the Interior  
 U.S. Geological Survey  
 National Wetlands Research Center  
 Coastal Restoration Field Station  
 Baton Rouge, La  
 Image Source:  
 2008 Digital Orthophoto Quarter Quadrangles

## DEMONSTRATION PROJECTS

Section 303(a) of the CWPPRA states that in the development of Priority Project List, “. . . [should include] due allowance for small-scale projects necessary to demonstrate the use of new techniques or materials for coastal wetlands restoration.”

The CWPPRA Task Force, on April 6, 1993, stated that: “The Task Force directs the Technical Committee to limit spending on demonstration projects to \$2,000,000 annually. The Task Force will entertain exceptions to this guidance for projects that the Technical Committee determines merit special consideration. The Task Force waives the cap on monitoring cost for demonstration projects.”

The CWPPRA Task Force, on April 12, 2006, passed a motion concerning the selection of demonstration projects. The Task Force agreed to consider funding, upon review, at least one credible demonstration project annually with estimates not to exceed \$2 million.

### What constitutes a demonstration project:

1. Demonstration projects contain technology that has not been fully developed for routine application in coastal Louisiana or in certain regions of the coastal zone.
2. Demonstration projects contain new technology, which can be transferred to other areas of the coastal zone.
3. Demonstration projects are unique and are not duplicative in nature.

### PPL 19 Demonstration Project Candidates

Demonstration projects were nominated at the 4 Regional Planning Team (RPT) meetings. Regional Planning Teams selected six (6) demonstration project nominees at the February 18, 2009 Coastwide RPT voting meeting. Demonstration project nominees were reviewed by the Environmental and Engineering Workgroups to verify that they met demonstration project criteria. On April 15, 2009 the Technical Committee selected three (3) demonstration project candidates for detailed assessments by the workgroups.

The following proposed demonstration projects were evaluated as candidates for the 19<sup>th</sup> Priority Project List:

- ViperWall Demo
- EcoSystems Wave Attenuator Demo
- Bayou Backer

## **PPL19 ViperWall Demonstration Project**

### **Coast 2050 Strategy:**

Coastwide: Maintenance of Gulf, Bay and Lake Shoreline Integrity

### **Project Location:**

Applicable Statewide

### **Problem:**

Several shoreline/bankline areas within coastal Louisiana consist of unstable soil conditions, subsurface obstructions, accessibility problems, etc., which severely limit the alternatives of shoreline protection. The adopted standard across the state, where conditions allow, is the use of rock aggregate in either a revetment or foreshore installation. The major advantages of using rock are durability, longevity, and effectiveness. However, in areas where rock is not conducive for use and site limitations exist, current “proven” alternatives that provide equivalent advantages are limited.

### **Goals:**

The goal of this demonstration project is to fund Research and Development (R&D) through a local university or ERDC to test various configurations of ViperWall technology in a scientific lab under controlled conditions. This research would result in determining the most effective and efficient manner in which to dissipate wave action, reduce shoreline erosion, and encourage the entrapment of alluvial material. If R&D results in a viable, effective product, a field trial will be conducted testing various materials under various wave climate conditions.

### **Proposed Solution:**

In Year 1 a wave tank analysis will be conducted to test effectiveness of current design. If proven effective, a field installation will take place in a low energy environment at Location 1 (TBD) and monitored for 1 year. Contingent on the results and performance at Location 1, a second installation will take place in a high energy environment at Location 2 (GOM). Each location will be inspected and surveyed bi-annually to monitor shoreline and bathymetry changes for a minimum of 2 years. A close-out report will be provided in Year 5.

### **Project Benefits:**

The primary benefit expected from this project is the finding of a product that effectively reduces or eliminates wave action in areas where current standards are either non-acceptable or not economically justified.

### **Project Costs:**

The total fully funded cost for the project is \$ 1,427,154.

### **Preparer(s) of Fact Sheet:**

Loland Broussard, USDA-NRCS, (337) 291-3060, [loland.broussard@la.usda.gov](mailto:loland.broussard@la.usda.gov)

## **PPL19 EcoSystems Wave Attenuator Demonstration Project**

### **Coast 2050 Strategy:**

Maintenance of Bay and lake Shoreline Integrity

### **Demonstration Project Location:**

Region 4, Gulf shoreline at Rockefeller Refuge

### **Problem:**

Coastal Louisiana consists of areas with unstable soil conditions, subsurface obstructions, accessibility limitations, etc. which limit the types of shoreline protection suitable to provide adequate relief of shoreline erosion. Traditional methods that have shown the most success are through the use of rock riprap. The major advantages of rock are the effectiveness and durability of protection that is provided. The disadvantages are the cost, supply, and site-specific problems with placement and handling of material. However, the same problems are also associated with other “non-rock” alternatives that have been tried as substitutes to provide equivalent protection against shoreline erosion.

### **Goals:**

The primary goal of this demonstration is to manufacture, deploy and test an alternative method of shoreline protection equivalent to traditional methods in areas where site conditions limit or preclude traditional methods.

### **Proposed Solution:**

Walter Marine has developed a method of protection against shoreline erosion using the EcoSystems Wave Attenuator. This product is a unit of EcoSystems discs mounted on piling with an innovative anchoring system, which dissipates wave action. The EcoSystems Wave Attenuator could be applicable for use as a shoreline protection or in place of a channel plug. The intent of this demonstration project is to place the EcoSystems Wave Attenuator in an area where traditional restoration strategies would have used a rock plug or sheetpile for a channel closure. As a shoreline protection feature, a double row of pilings (5' OC) would be driven and 4 foot diameter disks mounted on each piling along approximately 600 LF of shoreline. A second treatment will have a double row of pilings (7' OC) driven and disks mounted on each piling along an adjacent 730 LF of shoreline. The project will evaluate the effectiveness of reducing wave energy and shoreline erosion at the two prescribed spacing between disks.

### **Project Benefits:**

If successful the project benefits include: 1) reduction in shoreline erosion associated with wave energy; 2) information obtained would allow a comparison with riprap structures; 3) identification of other applications of EcoSystems Wave Attenuators.

### **Project Costs:**

The total fully funded cost for the project is \$ 2,214,945.

### **Preparer of Fact Sheet:**

John D. Foret. Ph.D., NOAA Fisheries Service, (337) 291-2107, [john.foret@noaa.gov](mailto:john.foret@noaa.gov).

## **PPL19 Bayou Backer Demonstration Project**

### **Coast 2050 Strategy:**

Maintenance of Bay and lake Shoreline Integrity

### **Project Location:**

Region 3, Vermilion Bay or Weeks Bay shoreline

### **Problem:**

Bayou Backer is a long lasting wave energy reducer that is suited for wetlands protection and re-vegetation. Plugs are dispensed from rolls of 3" to 6" wide plastic strip. In very loose ground plugs **up to** 12' long are pushed 3' deep. This leaves two 3' long blades above the surface. Below the surface, a 6' long loop forms the anchor. In a recent test of the product, the plastic strips were 8' long with a 4' long loop in the mud and 2' long blades within the water column. Thus, the application is adaptable to site conditions. It is expected to last several years in our waters, and assist in abating shoreline erosion to allow plants recovery and establishment time. Wave pool testing was recently performed at Louisiana State University and can be seen in photos and videos at <http://www.grastic.com/backer>

### **Goals:**

- (1) Test the effectiveness of the bio-grass to reduce shoreline erosion
- (2) Determine the applicability of the bio-grass in coastal Louisiana shores.
- (3) Test two spacing design for evaluation of shoreline protection versus cost effectiveness.
- (4) Allow existing plants recovery and establishment time.

### **Proposed Solution:**

Install triplicate plots of the following two spacing plans at two different types of shorelines; 8 rows of plugs, 1 foot spacing, or 3,000 plugs, along approximately 375 linear feet of shoreline (8 rows at 1'OC = 8 plugs/ LF of shoreline \* 375 LF of shoreline = 3,000 plugs). Each plug will be inserted up to a 16 ft depth. A second, equivalent, section of shoreline, 5 rows of plugs will be spaced 3' OC (5 rows at 3'OC = 8 plugs/3 LF of shoreline \* 375 LF of shoreline = 1,000 plugs). Total shoreline impacted is 4,500 linear feet with 24,000 plugs installed.

### **Project Benefits:**

If successful the product could be a low cost option in shoreline protection until vegetation establishes, direct creation of habitat in shallow waters where turbidity could be decreased, and used as an addition to both interior lake and exposed coastal bay shorelines and open bay waters.

### **Project Costs:**

The total fully funded cost for the project is \$ 910,893.

### **Preparer(s) of Fact Sheet:**

John D. Foret. Ph.D., NOAA Fisheries Service, (337) 291-2107, [john.foret@noaa.gov](mailto:john.foret@noaa.gov)

## PPL19 Candidate Project Evaluation Matrix

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Fritchie Marsh Terracing and Marsh Creation	1	St. Tammany	1,726	178	449	\$24,273,654	\$2,430,448	\$21,843,206	\$1,820,587	\$10,228	\$54,062
LaBranche East Marsh Creation	1	St. Charles	931	339	715	\$32,323,291	\$2,571,273	\$29,752,018	\$2,436,410	\$7,187	\$45,207
Monsecour Siphon	2	Plaquemines	12,255	882	990	\$10,607,905	\$1,873,637	\$8,734,268	\$756,765	\$858	\$10,715
Dedicated Sediment Delivery and Water Conveyance for Marsh Creation Near Big Mar	2	Plaquemines	6,311	408	853	\$20,443,392	\$2,143,994	\$18,299,398	\$1,491,237	\$3,655	\$23,966
Breton Marsh Restoration	2	Plaquemines	436	140	275	\$14,599,655	\$1,507,397	\$13,092,258	\$1,106,407	\$7,903	\$53,090
Bayou Dupont to Bayou Barataria Marsh Creation	2	Jefferson	530	173	292	\$37,631,550	\$2,536,927	\$35,094,623	\$2,885,713	\$16,680	\$128,875
Cheniere Ronquille Barrier Island Restoration	2	Plaquemines	408	190	234	\$43,828,285	\$3,419,263	\$40,409,022	\$3,305,651	\$17,398	\$187,300
Lost Lake Marsh Creation and Hydrologic Restoration	3	Terrebonne	7,312	281	749	\$22,943,866	\$2,320,214	\$20,623,652	\$1,683,509	\$5,991	\$30,633
Freshwater Bayou Marsh Creation	4	Vermilion	401	108	279	\$25,523,755	\$2,425,997	\$23,097,758	\$1,949,749	\$18,053	\$91,483
Cameron-Creole Watershed Grand Bayou Marsh Creation	4	Cameron	617	210	550	\$23,380,486	\$2,101,653	\$21,278,833	\$1,770,844	\$8,433	\$42,510

# PPL 19 Demonstration Project Evaluation Matrix

(Parameter grading as to effect: 1 = low; 2 = medium; 3 = high)

Demonstration Project Name	Lead Agency	Total Fully Funded Cost	Parameter (P <sub>n</sub> )						Total Score
			P <sub>1</sub> Innovativeness	P <sub>2</sub> Applicability or Transferability	P <sub>3</sub> Potential Cost Effectiveness	P <sub>4</sub> Potential Env Benefits	P <sub>5</sub> Recognized Need for Info	P <sub>6</sub> Potential for Technological Advancement	
ViperWall	NRCS	\$1,427,154	3	3	2	3	3	2	16
EcoSystems Wave Attenuator	NMFS	\$2,214,945	3	3	2	2	3	2	15
Bayou Backer	NMFS	\$910,893	3	2	3	1	2	1	12

## Demonstration Project Parameters

(P<sub>1</sub>) *Innovativeness* - The demonstration project should contain technology that has not been fully developed for routine application in coastal Louisiana or in certain regions of the coastal zone. The technology demonstrated should be unique and not duplicative in nature to traditional methods or other previously tested techniques for which the results are known. Techniques which are similar to traditional methods or other previously tested techniques should receive lower scores than those which are truly unique and innovative.

(P<sub>2</sub>) *Applicability or Transferability* - Demonstration projects should contain technology which can be transferred to other areas of the coastal zone. However, this does not imply that the technology must be applicable to all areas of the coastal zone. Techniques, which can only be applied in certain wetland types or in certain coastal regions, are acceptable but may receive lower scores than techniques with broad applicability.

(P<sub>3</sub>) *Potential Cost Effectiveness* - The potential cost-effectiveness of the demonstration project's method of achieving project objectives should be compared to the cost-effectiveness of traditional methods. In other words, techniques which provide substantial cost savings over traditional methods should receive higher scores than those with less substantial cost savings. Those techniques which would be more costly than traditional methods, to provide the same level of benefits, should receive the lowest scores. Information supporting any claims of potential cost savings should be provided.

(P<sub>4</sub>) *Potential Environmental Benefits* - Does the demonstration project have the potential to provide environmental benefits equal to traditional methods? somewhat less than traditional methods? above and beyond traditional methods? Techniques with the potential to provide benefits above and beyond those provided by traditional techniques should receive the highest scores.

(P<sub>5</sub>) *Recognized Need for the Information to be Acquired* - Within the restoration community, is there a recognized need for information on the technique being investigated? Demonstration projects which provide information on techniques for which there is a great need should receive the highest scores.

(P<sub>6</sub>) *Potential for Technological Advancement* - Would the demonstration project significantly advance the traditional technology currently being used to achieve project objectives? Those techniques which have a high potential for completely replacing an existing technique at a lower cost and without reducing wetland benefits should receive the highest scores.

# LETTERS OF SUPPORT

Las Conchas Partnerships  
Route 1, 15 Treasure Isle  
Slidell, Louisiana 70461

November 6, 2009

Coastal Wetlands Planning, Protection and Restoration Act Task Force  
US Army Corp of Engineers/New Orleans District  
Protection and Restoration Office  
P.O. Box 60267  
New Orleans, LA 70160-0267  
Attention: Ms. Melanie Goodman

Re: Fritchie Marsh Terracing and Marsh Creation Project

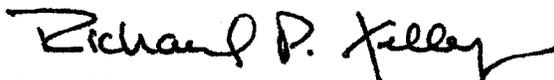
Dear Task Force,

Las Conchas Partnership, LLC is looking forward to the possibility that the Fritchie Marsh Terracing and Marsh Creation Project will be selected for implementation in the current Coastal Wetlands Planning Protection and Restoration Act priority list. This marsh has been subject to erosion and degradation for decades and recent storms have virtually destroyed what was left after years of slow land loss. We had begun to see progress and beneficial impacts from the installation of the culvert under Highway 90, with new sediment and fresh water moving through the Salt Bayou area. And the area south of the weir installed on the W-14 has remained healthy and productive, and saw very little damage from Katrina. However, our property south of Salt Bayou is now, particularly on the eastern side, virtually all open water with little emergent marsh habitat remaining.

Fritchie Marsh is critical to the Slidell area and Lake Pontchartrain. It provides protection for Slidell from storm surge and helps slow storm tides as water tries to enter Lake Pontchartrain from the open Gulf of Mexico. It also receives storm water and urban discharge from the City of Slidell, and should be as healthy as possible to treat this discharge and prevent the degradation of the water quality of Lake Pontchartrain and the Rigolets. Waterfowl and fisheries habitat is also important, and this marsh has traditionally been excellent waterfowl wintering area and provides a significant contribution to the area crabbing industry.

This property has been in our family for over 100 years. We have seen it as a remarkably healthy and productive wetland system, and we have also watched it decline into the poor health it has today. We support this group's effort to restore Louisiana's coastal wetlands and hope that you find it appropriate to select this Fritchie Marsh project for implementation this year.

Sincerely,



Mr. Richard P. Kelley, President  
Las Conchas Partnership, LLC.



## KEVIN DAVIS, PARISH PRESIDENT

ST. TAMMANY PARISH

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WEB SITE: [HTTP://STPGOV.ORG](http://STPGOV.ORG)

November 4, 2009

Coastal Wetlands Planning, Protection and Restoration Act Task Force  
US Army Corp of Engineers/New Orleans District  
Protection and Restoration Office  
Restoration Branch  
P.O. Box 60267  
New Orleans, LA 70160-0267  
Attention: Ms. Melanie Goodman

Re: Support for Fritchie Marsh Terracing and Marsh Creation Project

Dear Task Force Members,

I write to express the strong support that St. Tammany Parish Government has for the Fritchie Marsh Terracing and Marsh Creation Project being reviewed for selection under Project Priority List 19. This coastal wetland has long experienced a decline in general health with high loss rates, peaking when Hurricane Katrina wiped out many hundreds of acres overnight. This project, with its marsh building, terracing, and hydrologic restoration elements, will help restore the wetland functions of this marsh on which our community has come to rely.

Fritchie Marsh is a very important area to our north shore community and the entire basin for a number of reasons. It contributes to the seafood industry, which since Katrina has returned to Salt Bayou and grown to over its pre-storm scale. It provides surge moderation for the interior basin by acting as a northern component of the East Orleans Land Bridge. As part of the US Fish and Wildlife Service's Big Branch Marsh National Wildlife Refuge, Fritchie provides fish and wildlife habitat, and recreational opportunities to citizens of the greater metro area and all of the north shore. It also contributes to the water quality and general health of Lake Pontchartrain as do all of the fringe marshes and swamps along its shores.

This project will create over 400 acres of new emergent marsh, construct over 24 miles of emergent terraces, and re-establish natural hydrology and marine organism access to improved portions of the marsh system. A healthy marsh in this location will provide improved wildlife habitat and water quality in the basin and help protect Lake Pontchartrain Basin residents from tropical storm surges.

## Wandell, Scott F MVN

---

**From:** Goodman, Melanie L MVN  
**Sent:** Monday, November 23, 2009 1:12 PM  
**To:** Wandell, Scott F MVN  
**Subject:** FW: CWPPRA

**Follow Up Flag:** Follow up  
**Flag Status:** Red

Please include this with the rest.

Thanks,

Melanie

-----Original Message-----

**From:** John Lopez [mailto:johnlopez@pobox.com]  
**Sent:** Friday, November 20, 2009 7:48 AM  
**To:** Goodman, Melanie L MVN  
**Subject:** CWPPRA

Ms. Goodman:

Thanks for the opportunity to recommend projects for the CWPPRA PPL 19 program. CWPPRA continues to march along and do good projects for our coast.

Due to the local flood protection benefits, and to the high chance of success, we strongly recommend two projects for the Lake Pontchartrain Basin (all area east of the Mississippi River). These are:

LaBranche Marsh Creation

Fritchie Marsh Terracing and Marsh Creation

Regards

John A. Lopez, Ph.D.

Director-Coastal Sustainability Program

Lake Pontchartrain Basin Foundation

SaveOurLake.org

985 643-4589 - land line

504-421-7348 - cell

johnlopez@pobox.com



~~DC~~  
Melanie

3453 Meadowlake Lane  
Houston, TX 77027  
November 2, 2009

Colonel Alvin B. Lee  
District Commander & Chairman, CWPPRA Task Force  
U. S. Army Corps of Engineers, New Orleans District  
Executive Office  
P. O. Box 60267  
New Orleans, LA 70160-0267

RE: Landowner Support for the Revised LaBranche East Marsh Creation Habitat Enhancement Project (R1-PO-9), PPL-19 Candidate Project; St. Charles Parish, LA

Dear Colonel Lee:

As spokesman for the majority of owners of the St. Charles Land Syndicate, I am respectfully submitting this letter to reaffirm SCLS's support for the aforementioned project.

The SCLS continues to understand alterations in project features and/or construction methodologies may be required during Phase 0 CWPPRA evaluations and remains supportive of adjustments to project features that may be beneficial and/or necessary in moving the project forward.

Should you have any questions and/or need additional information, please contact Ed Fike, Coastal Environments, Inc., (225) 383-7455, ext. 128. Thank you.

Sincerely yours,



William A. Monteleone, Jr.  
St. Charles Land Syndicate

- xc: Garret Graves, State of Louisiana  
William Honker, EPA Region 6  
Jim Boggs, USDI, USFWS  
Kevin Norton, USDA, NRCS  
Christopher Doley, NOAA, NMFS  
Tom Holden, USACOE-NOD  
Troy Constance, USACOE-NOD  
Darryl Clark, USDI, USFWS  
Kirk Rhinehart, State of Louisiana  
Richard Hartman, NOAA, NMFS  
Tim Landers, EPA Region 6  
Britt Paul, USDA, NRCS

It is our hope that the CWPPRA Task Force sees the value in this project and selects it for funding and implementation under PPL-19. It is important to the people of St. Tammany Parish and all of the residents of the Pontchartrain Basin.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kevin C. Davis', with a stylized flourish at the end.

KEVIN C. DAVIS

President, St. Tammany Parish

LaBranche East Marsh Creation Habitat Enhancement Project  
St. Charles Parish, LA  
(R1-PO-9)  
PPL-19 Candidate Project  
November 18, 2009

Ed [Signature]  
11/18/09

- When nominated the project included the restoration of  $\pm 365$  ac of marsh vegetation and the creation of  $+ 165$  ac of shrub scrub wetlands and  $\pm 240$  ac of subtidal water bottoms using dredged material from Lake Pontchartrain. Because of the shallow depth of the open water to be filled, the project was revised to include the restoration of  $\pm 729$  acres of emergent wetlands and  $\pm 202$  acres of existing marsh that would be nourished. In addition, the revised project includes a 10,000 linear ft of tidal creek.
- The proposed wetland restoration in LaBranche is consistent with Louisiana's *Integrated Ecosystem Restoration and Hurricane Protection: Master Plan for a Sustainable Coast*.
- The proposed project is similar and adjacent to the LaBranche Wetland Creation Project (PO-17) where 300+ ac of marsh was restored in 1994. The initial Po-17 project is arguably one of the most successful CWPPRA projects constructed to date.
- The PO-17 project, constructed in 1994, has required zero maintenance and is poised to provide wetland habitat benefits well beyond its 20-year prescribed project life.
- Technical data collected and lessons learned from the construction of PO-17 can be applied to R1-PO-9.
- Possible re-use of the same borrow area would save time and CWPPRA funding.
- The borrow area, dredged in Lake Pontchartrain for the initial project, has filled in as the result of two openings of the Bonnet Carré Spillway and constitutes a renewable natural resource.
- There are no pipelines in the footprint of the proposed restoration area. One pipeline was previously identified within the initial borrow area in the lake. It was mapped prior to and avoided during the dredging operation.
- New marsh habitat would reduce storm surge and increase flood protection in St. Charles Parish for existing infrastructure including the Lake Pontchartrain and Vicinity Hurricane Protection Levee and assets it protects.
- The St. Charles Land Syndicate and the Pontchartrain Levee District, the two landowners of the entire R1-PO-9 project area, fully support the project.
- Unlike most CWPPRA projects that are located in more remote settings, the R1-PO-9 project area is easily observed from I-10. Its high profile location represents a unique and fabulous public relations opportunity. The most recent average daily traffic count on I-10, west of I-310 is 50,955 vehicles (2008).
- There are currently 120 daily flights with approximately 15,000 passengers flying into and out of Louis Armstrong New Orleans International Airport. Placards and/or brochures could be placed in pilots' lounges at the airport with a map and one or two sentence description, asking the pilots to advise their passengers of the work below. While less than half of the passengers would probably see the project area on any given flight, the pilot's announcement in itself would reinforce the state doing something positive about its land loss problem.



PROTECTING YOU  
AND YOUR FAMILY

# The Board of Commissioners

OF THE

## Pontchartrain Levee District

2204 ALBERT STREET • P.O. BOX 426 • LUTCHER, LA 70071

TEL: 225-869-9721 FAX: 225-869-9723 LA WATTS: 800-523-3148

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DWIGHT D. POIRRIER  
SPECIAL COUNSEL

SUSAN M. SHEETS  
BOARD SECRETARY

MONICA T. SALINS  
EXECUTIVE DIRECTOR

October 19, 2009

Colonel Alvin B. Lee  
District Commander  
Chairman, CWPPRA Task Force  
U. S. Army Corps of Engineers, New Orleans District  
Executive Office  
P. O. Box 60267  
New Orleans, LA 70160-0267

RE: LaBranche East Marsh Creation Habitat Enhancement Project (R1-PO-9), PPL-19 Candidate Project; St. Charles Parish, LA

Dear Colonel Lee:

As an affected landowner and public agency, the Pontchartrain Levee District (PLD) fully supports revisions made to the LaBranche East Marsh Creation Habitat Enhancement Project. It is our understanding that the project has been revised to include the restoration of approximately 729 acres of wetlands and the nourishment of approximately 202 acres.

Not only is this project consistent with the restoration of marsh habitat in LaBranche as described in *Integrated Ecosystem Restoration and Hurricane Protection: Master Plan for a Sustainable Coast*, but we believe it will reduce storm surge and increase flood protection in St. Charles Parish. To quote benefits cited in the project's initial CWPPRA fact sheet:

*As with the PO-17 (initial LaBranche Marsh Restoration) project, the proposed project would not only provide wildlife and fisheries and water quality benefits, but the restored wetland vegetation would buffer/weaken storm surge, providing additional protection to existing infrastructure including the Lake Pontchartrain and Vicinity Hurricane Protection Levee, I-10, the Canadian National Illinois Central Railroad embankment, aerial electrical lines, and non-essential infrastructure. The rail embankment and the two camps that are located south of PO-17 escaped significant damage from Hurricane Katrina while most of the camps and several portions of the rail embankment to the east were either lost or heavily damaged.*

THE BOARD OF COMMISSIONERS  
OF THE  
PONTCHARTRAIN LEVEE DISTRICT

As the result of Phase 0 CWPPRA evaluations, the PLD continues to understand that project features and/or construction techniques may need to be revised in order to refine and improve the project. To achieve wetland restoration within the current project scope, the PLD is supportive of adjustments to project features that may be beneficial and/or necessary in moving the project forward.

Please do not hesitate to contact me or the PLD if you need any additional information regarding this project. Thank you.

Sincerely yours,



Steve Wilson  
President

xc: Garret Graves, State of Louisiana  
Kirk Rhinehart, State of Louisiana  
Tom Holden, COE-NOD  
Troy Constance, COE-NOD  
William Honker, EPA  
Tim Landers, EPA  
Christopher Doley, NMFS  
Richard Hartman, NMFS  
Kevin Norton, NRCS  
Britt Paul, NRCS  
Jim Boggs, USFWS  
Darryl Clark, USFWS

**LABRANCHE EAST MARSH CREATION HABITAT  
ENHANCEMENT PROJECT (R1-PO-9), PPL-19 CANDIDATE PROJECT  
ST. CHARLES PARISH, LOUISIANA**

*Moved by Mr. William Addison and seconded by Mr. Jerry Savoy:*

To adopt a Resolution of Support by the Board of Commissioners of the Pontchartrain Levee District specific to the CWPPRA LaBranche East Marsh Creation Habitat Enhancement Project, PPL-19 Candidate Project, St. Charles Parish, LA to be forwarded to members of the CWPPRA Task Force and CWPPRA Technical Committee .

**RESOLUTION OF SUPPORT**

WHEREAS, approximately 100,000 vehicles travel daily along Interstate 10 through the LaBranche Wetlands in St. Charles Parish; AND

WHEREAS, because of its panoramic view and beauty, the LaBranche Wetlands are one of the most recognizable wetland areas in the State of Louisiana; AND

WHEREAS, the LaBranche Wetlands continue to provide a number of important and valuable wetland functions including, but not limited to, flood storage and storm buffer for the Greater New Orleans Metropolitan Area; AND

WHEREAS, reductions in said functions have been experienced during the past 50 years in the LaBranche Wetlands because of wetland degradation; AND

WHEREAS, the LaBranche East Marsh Creation Project has been proposed as a CWPPRA project to restore approximately 729 acres of wetlands and nourish approximately 202 acres of existing wetlands in an area that currently consists of a mostly large open water area; AND

WHEREAS, a similar CWPPRA project (PO-17), constructed in 1994 and not requiring any maintenance to date since its implementation, continues to provide important and valuable wetland functions and will continue to do so in the foreseeable future, well past its 20-year life expectancy; AND

WHEREAS, aside from providing a plethora of natural resource functions, the LaBranche East Marsh Creation Project will help attenuate the effects of severe storms and increase storm protection for Interstate 10 and the Lake Pontchartrain and Vicinity Hurricane Protection System which includes the LaBranche Wetlands Levee in St. Charles Parish and the West Return Floodwall in Jefferson and St. Charles Parishes; AND

WHEREAS, the LaBranche East Marsh Creation Project is consistent with current and ongoing federal and state coastal wetland restoration and flood prevention protection efforts; AND

BE IT FURTHER RESOLVED, the Pontchartrain Levee District formally requests support of the LaBranche East Marsh Creation Project in the form of a favorable vote from members of the CWPPRA Task Force; AND

BE IT FURTHER RESOLVED, that certified copies of this resolution shall be furnished to all members of the CWPPRA Task Force, being Colonel Alvin B. Lee, Secretary of the Army (Chairman), Governor Bobby Jindal, State of Louisiana, through Mr. Garret Graves, Senior Advisor to the Governor for Coastal Activities, Mr. William K. Honker, Administrator, Environmental Protection Agency, Mr. Jim Boggs, Secretary, Department of the Interior, Mr. Kevin Norton, Secretary, Department of Agriculture, Mr. Christopher Doley, Secretary, Department of Commerce and to all members of the CWPPRA Technical Committee, being Mr. Tom Holden (Chairman), Mr. Troy Constance (Acting Chairman), Mr. Darryl Clark, Mr. Kirk Rhinehart, Mr. Richard Hartman, Mr. Tim Landers and Mr. Britt Paul, P.E.

The foregoing resolution was read in full, the roll was called on the adoption thereof, and the resolution was adopted by the following votes:

Yeas: Mr. Addison, Mr. Poche, Mr. St. Pierre, Mr. Irving, Mr. Savoy, Mr. Delaune and Mr. Wilson

Nays: None

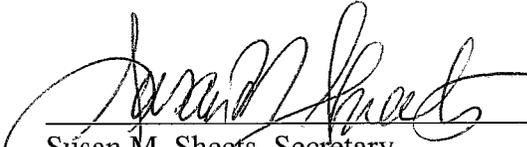
Abstain: None

Absent: None

---

I hereby certify that the foregoing is a true and exact copy of the resolution adopted at a regular meeting of the Board of Commissioners for the Pontchartrain Levee District held on Monday, October 19, 2009, at which meeting a quorum was present and voting.

St. James Parish, Litcher, Louisiana, this 19<sup>th</sup> day of October, 2009.

  
\_\_\_\_\_  
Susan M. Sheets, Secretary  
Pontchartrain Levee District



**JEFFERSON PARISH  
LOUISIANA  
MARINE FISHERIES ADVISORY BOARD**

November 19, 2009

Colonel Alvin B. Lee  
District Engineer, New Orleans  
c/o: Melanie Goodman  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160

RE: Bayou Dupont to Bayou Barataria Marsh Creation Project  
CWPPRA PPL-19 Candidate Project

Dear Colonel Lee:

The Jefferson Parish Marine Fisheries Advisory Board strongly supports the Bayou Dupont to Bayou Barataria Marsh Creation Project for CWPPRA PPL-19 Phase 1 funding. The historical forested ridges and marshes south of Bayou Dupont and east of Bayou Barataria have undergone significant land loss, and the area is quickly converting to open water. The land mass between Bayou Dupont and Bayou Barataria is so severely eroded that the historical ridges and marshes are barely recognizable. If swift action is not taken to reduce erosion south of Bayou Dupont, the remaining ridges and marshes within the area will quickly become open water, thus, allowing continued salt water intrusion and easy access for storm surge to threaten the Jean Lafitte and Barataria communities, as well as the New Orleans Metropolitan area.

Restoration of this critical habitat will serve to sustain the coastal resources which are the economic base of the fisheries and eco-tourism industries of Jefferson Parish. The seafood industry is critical to the economic vitality of Jefferson Parish, especially to the communities of Lafitte and Barataria, which are located near the proposed project. The loss of these wetlands depletes fisheries nursery grounds that are so important to the livelihood of commercial fisherman and recreational fisheries.

Thank you for this opportunity to comment on this important coastal restoration project which will restore the area's natural hydrology and provide a first line of defense from storm surge.

Sincerely,

Jason Smith, Board Coordinator  
Jefferson Parish Marine Fisheries Advisory Board

cc: Board Members



*Bayou Segnette Community and Boaters Association, Inc.*

760 Oak Avenue ■ Westwego, LA 70094 ■ (504) 236-4811

November 20, 2009

Colonel Alvin B. Lee  
District Engineer, New Orleans  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

Attention: Ms. Melanie Goodman, CWPPRA Program Manager

Subject: PPL-19 Project Selection

Dear Colonel Lee:

This letter is to express our support for the Bayou Dupont to Bayou Barataria Marsh Creation Project for CWPPRA PPL-19 Phase 1 funding. Restoring marsh from Bayou Dupont to Bayou Barataria will help to reduce rapid tidal exchange that is accelerating erosion north of the historic location of the Barataria Ridge and restore critical ridge habitat.

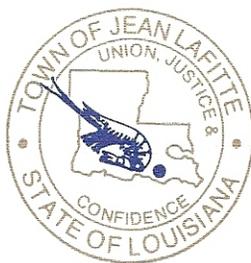
One need only look at an aerial photo of the project area to see that the scarce ridge habitat that remains is the skeletal structure of what was once a healthy and varied wetland habitat. These ridges once teemed with wildlife and were populated by hardwood trees that provided safe haven for migratory birds. Healthy marsh surrounded the ridges and narrow, winding bayous reduced the tidal prism, preventing salt water from getting to the upper basin. Working in synergy, these varied wetlands also served as a buffer to protect area communities from storm surge during tropical weather events.

Therefore, we respectfully request that you lend you support to this worthy project and thank you for the opportunity to have input into the selection process.

Sincerely,

Vickie Duffourc  
President

TOWN OF JEAN LAFITTE  
OFFICE OF THE MAYOR



TIMOTHY P. KERNER  
MAYOR

YVETTE CRAIN  
TOWN CLERK

MARY JO HARGIS  
CHIEF OF POLICE

2654 Jean Lafitte Blvd.  
Lafitte, Louisiana 70067  
Office: (504) 689-2208  
Police: (504) 689-3132  
Fax: (504) 689-7801

COUNCIL MEMBERS

SHIRLEY GUILLIE  
MAYOR PROTEM

SLOANE KERNER  
CHRISTY CREPPEL  
VERNA SMITH  
CALVIN LEBEAU

November 19, 2009

Colonel Alvin B. Lee  
District Engineer, New Orleans  
c/o: Melanie Goodman  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160

RE: Bayou Dupont to Bayou Barataria Marsh Creation Project  
Candidate for CWPPRA PPL-19

Dear Colonel Lee:

The Town of Jean Lafitte is in full support of the Bayou Dupont to Bayou Barataria Marsh Creation Project and urges the CWPPRA Task Force to select this project for PPL-19 Phase 1 funding. The marshes and historical ridges between Bayou Dupont and Bayou Barataria, components of the Barataria Landbridge, are severely deteriorated and their ability to buffer the Town of Jean Lafitte and surrounding communities from elevated storm surge has been greatly diminished. The Barataria Landbridge is an important landmass that serves as a key line of defense that not only protects the citizens in Jean Lafitte, but provides much needed protection to the New Orleans Metropolitan area.

The project is designed to mimic the historical function of the Barataria Ridge which once served as a barrier to reduce storm surge and saltwater intrusion into the upper reaches of the Barataria Basin. Saltwater intrusion has destroyed much of the coastal forests that once existed in this area. The Naomi Siphon is providing freshwater to the area, but the deteriorated condition of the marsh retards freshwater retention in the central basin. The combined benefits of reduced saltwater intrusion and increased storm surge protection make this project the number one CWPPRA PPL-19 priority for the Town of Jean Lafitte.

Thank you for allowing the Town of Jean Lafitte to comment on such a worthy project.

Sincerely,

  
Timothy Kerner

**THE LOUISIANA LAND AND EXPLORATION COMPANY**  
**806 BAYOU BLACK DRIVE**  
**HOUMA, LOUISIANA 70360**

November 23, 2009

Mr. Tom Holden, Chairman  
CWPPRA Technical Committee  
US Army Corps of Engineers – NOD  
P.O. Box 60267  
New Orleans, LA 70160-0267

RE: R2-BA-06 PPL 19 Project  
Bayou Dupont to Bayou Barataria Marsh Creation Project  
Jefferson Parish, Louisiana

---

Dear Mr. Holden,

The Louisiana Land & Exploration Company (LL&E) and ConocoPhillips is the major landowner in which the above referenced project is proposed. LL&E is in support of this project and will provide land rights as we have done on all the past CWPPRA projects.

This project will tie into and compliment the existing and proposed projects in this area. The BA-03C Naomi Outfall Management and BA-26 Barataria Bay Waterway Shoreline Protection Projects which have been completed and the BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation Project which is soon to be under construction, will all work together to protect and enhance this area.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We along with Fina-LaTerre, now Apache were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Jefferson Parish. We humbly request that the Technical Committee consider and

recommend for approval R2-BA-06 Bayou Dupont to Bayou Barataria Marsh Creation Project. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Jefferson Parish and provide protection to the Town of Jean Lafitte.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff DeBlieux". The signature is fluid and cursive, with the first name "Jeff" being particularly prominent.

Jeff Deblieux, PLS  
Supervisor Feelands

JDD/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/R2-BA-06 Bayou Dupont Project letter



# JEFFERSON PARISH LOUISIANA

OFFICE OF PARISH PRESIDENT

November 19, 2009

**Our Mission Is:**  
"Provide the services,  
leadership, and vision to  
improve the quality of life  
in Jefferson Parish."

AARON F. BROUSSARD  
PARISH PRESIDENT

Colonel Alvin B. Lee  
District Engineer, New Orleans  
c/o: Melanie Goodman  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160

RE: Bayou Dupont to Bayou Barataria Marsh Creation Project  
CWPPRA PPL-19 Candidate Project

Dear Colonel Lee:

Creating a sustainable deltaic system requires that we reestablish the processes that original created the landscape. Ridges are important natural processes that once sustained the landscape of the Barataria basin and formed the fundamental structure of the Barataria landbridge.

The Bayou Dupont to Bayou Barataria Marsh Creation Project proposed for Phase 1 CWPPRA funding on the PPL-19 list provides the opportunity to reestablish very important processes that will help sustain the Mississippi River deltaic system. The project will restore an important segment of the bottomland hardwood Barataria ridge at Dupre Cut as well as create marsh between the Barataria Waterway and Bayou Dupont, restoring a critical landbridge in an area that has experienced some of the highest land loss in the state. The historical forested ridges and marshes south of Bayou Dupont and east of Bayou Barataria have undergone significant land loss, and the area is quickly converting to open water. The land mass between Bayou Dupont and Bayou Barataria is so severely eroded that the historical ridges and marshes are barely recognizable. This area is crucial as it will stop saltwater intrusion into the fresher marshes to the north. It will also help retain sediments from the Naomi siphon in this area where it is much needed. The project will restore the natural hydrology and is synergistic with CWPPRA projects to the west and north east that together recreate an important landbridge that separates fresh water marsh from the more saline waters to the south.

Aside from the critical habitat that will be created and enhanced and its important fisheries implications, the project will serve as a speed bump – a line of defense – protecting the Jefferson Parish communities of Lafitte, Barataria, and Crown Point from storm surge. Action is needed now to provide protection to these communities, which are still recovering from the 2005 (Katrina and Rita) and 2008 (Gustav and Ike) hurricanes. These recent hurricanes have accelerated the erosion rate within the area south of Bayou Dupont and left these communities more vulnerable than ever. If swift action is not taken to reduce erosion south of Bayou Dupont, the remaining ridges and marshes within the area will quickly become open water, thus, allowing easy access for storm surge to threaten these communities, as well as the entire west bank of the metropolitan New Orleans area.

Thus, I strongly urge the CWPPRA Task Force to support the Bayou Dupont to Bayou Barataria Marsh Creation Project for PPL-19 phase 1 funding.

Thank you for this opportunity to comment on this important coastal restoration and protection project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Aaron Broussard". The signature is fluid and cursive, with a large loop at the end.

Aaron F. Broussard  
Jefferson Parish President

ARLANDA J. WILLIAMS, CHAIRWOMAN

JOHNNY PIZZOLATTO, VICE-CHAIRMAN

DISTRICT 1

ALVIN TILLMAN, SR.

DISTRICT 2

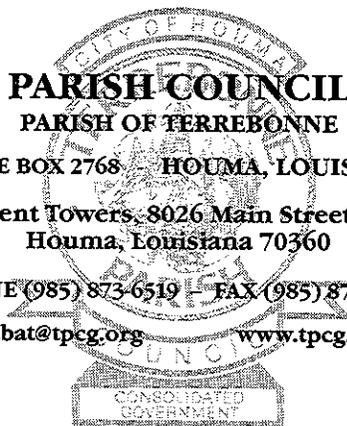
ARLANDA J. WILLIAMS

DISTRICT 3

BILLY HEBERT

DISTRICT 4

TERI CAVALIER



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Government Towers, 8026 Main Street, Suite 600  
Houma, Louisiana 70360

PHONE (985) 873-6519 FAX (985) 873-6521

plabat@tpcg.org www.tpcg.org

PAUL A. LABAT, CLERK

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JOHNNY PIZZOLATTO

DISTRICT 6

KEVIN VOISIN

DISTRICT 7

CLAYTON J. VOISIN

DISTRICT 8

JOEY GEHAN

DISTRICT 9

PETE LAMBERT

November 19, 2009

Colonel Alvin B. Lee  
Chairman, CWPPRA Task Force  
CEMVN-PM-OR  
P.O. Box 60267  
New Orleans, LA 70160-0267

RE: Lost Lake Project, Terrebonne Parish, LA

Dear Colonel Lee:

The Terrebonne Parish Council fully agrees with the Terrebonne Coastal Zone Management Committee in its decision to fully endorse and support funding for the Lost Lake Marsh Creation and Hydrologic Restoration Project. The importance of this project cannot be understated to help protect the environment and the citizens of this parish.

The Council unanimously adopted the attached resolution concurring with the CZM Advisory Committee and requesting that the CWPPRA Technical Committee consider the North Lost Lake Project as a high priority when selecting projects for Phase I (E&D) funding. As always, your favorable consideration of the Council's request will be greatly appreciated. Thank you.

Sincerely,

  
PAUL A. LABAT, Council Clerk  
Terrebonne Parish Council

PAL

Attachment

cc: Mrs. Leslie R. Suazo (with attachment)

OFFERED BY: Mr. J. Pizzolatto.  
SECONDED BY: Mr. J. Cehan.

RESOLUTION NO. 09-622

WHEREAS, the Coastal Zone Management and Restoration Advisory Committee is committed to providing aggressive leadership, direction and consonance in the development and implementation of comprehensive policies, plans and programs which encourage multiple uses of the coastal zone and achieve a proper balance between the multiple needs of coastal resources in Terrebonne Parish; and

WHEREAS Terrebonne Parish currently experiences one of the highest rates of coastal land loss in Louisiana, and is in urgent need of projects to restore and protect our fragile wetlands, and

WHEREAS, the Technical Committee of the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) has previously selected the Lost Lake Marsh Creation and Hydrologic Restoration Project as one of 10 projects for further evaluation; and

WHEREAS, Project is now a candidate for Engineering and Design funding; and

WHEREAS this project will provide synergistic benefits to the following CWPPRA projects:

- 1) Brady Canal Hydrologic Restoration (construction completed);
- 2) North Lake Mechant Land bridge Project (construction at or near completion);
- 3) Penchant Basin Project (construction start in 2010);
- 4) Central Terrebonne Freshwater Enhancement (currently in Engineering and Design) and
- 5) South Lake Decade Shoreline Protection and Marsh Creation (construction to begin in 2010) ; and

WHEREAS, the implementation of this project, as a compliment to other CWPPRA projects, will restore and protect area marshes and will also serve as a buffer zone separating the fresher marshes to the north and the more saline marshes to the south

NOW, THEREFORE BE IT RESOLVED that the Terrebonne Parish Council (Natural Resources and Coastal Restoration Committee), on behalf of the Terrebonne Parish Consolidated Government, concurs with the Coastal Zone Management and Restoration Advisory Committee and does urge and request that the CWPPRA Technical Committee consider the North Lost Lake Project and assign it a high priority when selecting projects for Phase I (E&D) funding; and,

BE IT FURTHER RESOLVED that these comments be directed to the Terrebonne Levee and Conservation District and other civic organizations as appropriate, and the Chairman of the CWPPRA Technical Committee, Mr. Tom Holden, USACOE, as well as other members of the committee, prior to its meeting on December 2, 2009.

THERE WAS RECORDED:

YEAS: T. Cavalier, J. Cehan, B. Hebert, P. Lambert, J. Pizzolatto, A. Tillman and K. Voisin.

NAYS: None.

ABSTAINING: None.

ABSENT: C. Voisin and A. Williams.

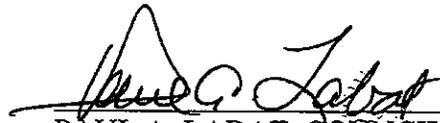
The Chairman declared the resolution adopted on this, the 16<sup>th</sup> day of November, 2009.

\*\*\*\*\*

I, PAUL A. LABAT, Clerk of the Terrebonne Parish Council, do hereby certify that the foregoing is a true and correct copy of a resolution adopted by the Natural Resources and Coastal

Restoration Committee on November 16, 2009 and subsequently ratified by the Assembled Council in Regular Session on November 18, 2009 at which meeting a quorum was present.

GIVEN UNDER MY OFFICIAL SIGNATURE AND SEAL OF OFFICE THIS 19<sup>TH</sup> DAY OF NOVEMBER, 2009.

  
\_\_\_\_\_  
PAUL A. LABAT, COUNCIL CLERK  
TERREBONNE PARISH COUNCIL





P.O. BOX 6097  
HOUMA, LOUISIANA 70361  
(985) 868-5050



P.O. BOX 2768  
HOUMA, LOUISIANA 70361  
(985) 868-3000

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT

---

### ***COASTAL ZONE MANAGEMENT & RESTORATION ADVISORY COMMITTEE***

*November 3, 2009*

OFFERED BY: Gerald Schouest

SECOND BY: Allan Gibson

WHEREAS, the Coastal Zone Management and Restoration Advisory Committee is committed to providing aggressive leadership, direction and consonance in the development and implementation of comprehensive policies, plans and programs which encourage multiple uses of the coastal zone and achieve a proper balance between the multiple needs of coastal resources in Terrebonne Parish; and

WHEREAS Terrebonne Parish currently experiences one of the highest rates of coastal land loss in Louisiana, and is in urgent need of projects to restore and protect our fragile wetlands, and

WHEREAS, the Technical Committee of the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) has previously selected the Lost Lake Marsh Creation and Hydrologic Restoration Project as one of 10 projects for further evaluation; and

WHEREAS, Project is now a candidate for Engineering and Design funding; and

WHEREAS this project will provide synergistic benefits to the following CWPPRA projects:

- 1) Brady Canal Hydrologic Restoration (construction completed);
- 2) North Lake Mechant Landbridge Project (construction at or near completion);
- 3) Penchant Basin Project (construction start in 2010);
- 4) Central Terrebonne Freshwater Enhancement (currently in Engineering and Design) and
- 5) South Lake Decade Shoreline Protection and Marsh Creation (construction to being in 2010) ; and

WHEREAS, the implementation of this project, as a compliment to other CWPPRA projects, will restore and protect area marshes and will also serve as a buffer zone separating the fresher marshes to the north and the more saline marshes to the south

THEREFORE BE IT RESOLVED that the Coastal Zone Management and Restoration Advisory Committee does urge and request that the CWPPRA Technical Committee does consider the North Lost Lake Project and assign it a high priority when selecting projects for Phase I (E&D) funding.

BE IT FURTHER RESOLVED that these comments be directed to the Parish Council for consideration and concurrence, the Terrebonne Levee and Conservation District and other civic organizations as appropriate, and the Chairman of the CWPPRA Technical Committee, Mr. Tom Holden, USACOE, as well as other members of the committee, prior to its meeting on December 2, 2009.

THERE WAS RECORDED:

YEAS: 7

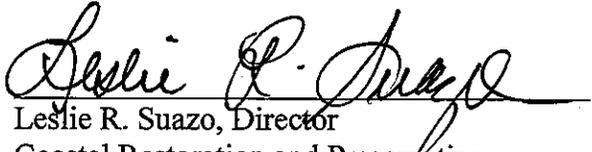
NAYS: 0

ABSTAINING: 0

ABSENT: 2

The Chairman declared the resolution adopted.

I, Leslie R. Suazo, Director of Coastal Restoration and Preservation, do hereby certify that the foregoing is a true and correct copy of a resolution adopted by the Coastal Zone Management and Restoration Advisory Committee at its regular monthly meeting on Tuesday, November 3, 2009 at which a quorum was present.

  
Leslie R. Suazo, Director  
Coastal Restoration and Preservation

## PPL19 PROJECT NOMINEE FACT SHEET

January 28, 2009

### Project Name

Lost Lake Marsh Creation and Hydrologic Restoration

### Coast 2050 Strategy

Regional Strategy – Dedicated delivery of sediment for marsh building

Regional Strategy – Increase transfer of Atchafalaya River water to lower Penchant tidal marshes

### Project Location

Region 3, Terrebonne Parish, southwestern Terrebonne Basin near Lost Lake

### Problem

Significant marsh loss has occurred between Lake Pagie and Bayou DeCade to the point that little structural framework remains separating those two waterbodies. Northeast of Lost Lake, interior marsh breakup has resulted in large, interior ponds where wind/wave energy continues to result in marsh loss. West of Lost Lake, interior breakup has occurred as a result of ponding and the periodic entrapment of higher salinity waters during storm events.

### Goals

- 1) Prevent the coalescence of Bayou DeCade and Lake Pagie and extend the landbridge function of the North Lake Mechant Landbridge Project.
- 2) Address interior marsh loss with terraces and marsh creation.
- 3) Increase fresh water and sediment delivery to marshes north and west of Lost Lake.

### Proposed Project Features

The proposed project consists of several features to protect marsh, create marsh, and extend the landbridge function of the North Lake Mechant Landbridge Project to the west. Marshes north, east, and west of Lost Lake serve an important function as an intermediate zone buffering fresh marshes to the north from the higher salinities to the south. Features include:

- 1) Marsh creation (300 acres) between Lake Pagie and Bayou DeCade to prevent the coalescence of those two waterbodies and restore/protect some key features of structural framework (i.e., lake rim and bayou bank) in the area. This feature will compliment features currently being built under the North Lake Mechant Landbridge Project. In addition, 150 acres of marsh will be created north of Bayou DeCade.
- 2) Terracing (approximately 30,000 linear feet or 16 acres) to reduce fetch in deteriorated marsh northeast of Lost Lake.
- 3) At certain times of the year, Carencro Bayou is an excellent source of fresh water and sediments from the Atchafalaya River/Four League Bay system. However, delivery of that water into the marshes west of Lost Lake is limited by a series of fixed-crest weirs which limit water exchange. An opportunity exists to increase freshwater and sediment delivery by removing some of the fixed-crest weirs and installing structures with bays/gates.
- 4) The Penchant Basin Natural Resources Plan Project will provide an additional 500 cfs of freshwater flow into Brady Canal which will increase flows into Carencro Bayou north of Lost

Lake. An opportunity exists to increase freshwater and sediment delivery south of Carencro Bayou and to take advantage of excess fresh water north of Carencro Bayou by removing some of the plugs and fixed-crest weirs and installing structures with bays/gates.

#### **Preliminary Project Benefits**

- 1) The total acreage benefited directly would be 466 acres (450 acres of marsh creation/nourishment and 16 acres of terraces). Indirect benefits would occur over approximately 9,000 additional acres of marsh as a result of increased fresh water and sediment delivery.
- 2) The total net acres protected/created over the project life would be between 400-500 acres.
- 3) Background loss rates would be reduced by 50% in the marsh creation and marsh nourishment areas. Increased fresh water and nutrients would reduce marsh loss in the areas west and north of Lost Lake. The assumed reduction in marsh loss in those areas is approximately 20%. Overall, the reduction in marsh loss across the project area would be in the range of 25% to 50%.
- 4) The project would help maintain the Lake Pagie shoreline and the southern bank of Bayou DeCade.
- 5) The project would not protect any significant infrastructure.
- 6) The project would provide a synergistic effect with the North Lake Mechant Landbridge Restoration Project located to the east. The concept of protecting this important landbridge would be extended westward. Other CWPPRA projects which protect marsh in this important area include the Brady Canal Hydrologic Restoration Project and the Penchant Basin Natural Resources Plan. This project would work synergistically with those projects to protect marsh in this portion of the western Terrebonne Basin.

#### **Identification of Potential Issues**

At this time, no significant issues have been identified for this project. Lost Lake contains no oyster leases and maintenance costs for the project would be low.

#### **Preliminary Construction Costs**

The estimated construction cost with a 25% contingency is approximately \$25,725,000.

#### **Preparer of Fact Sheet**

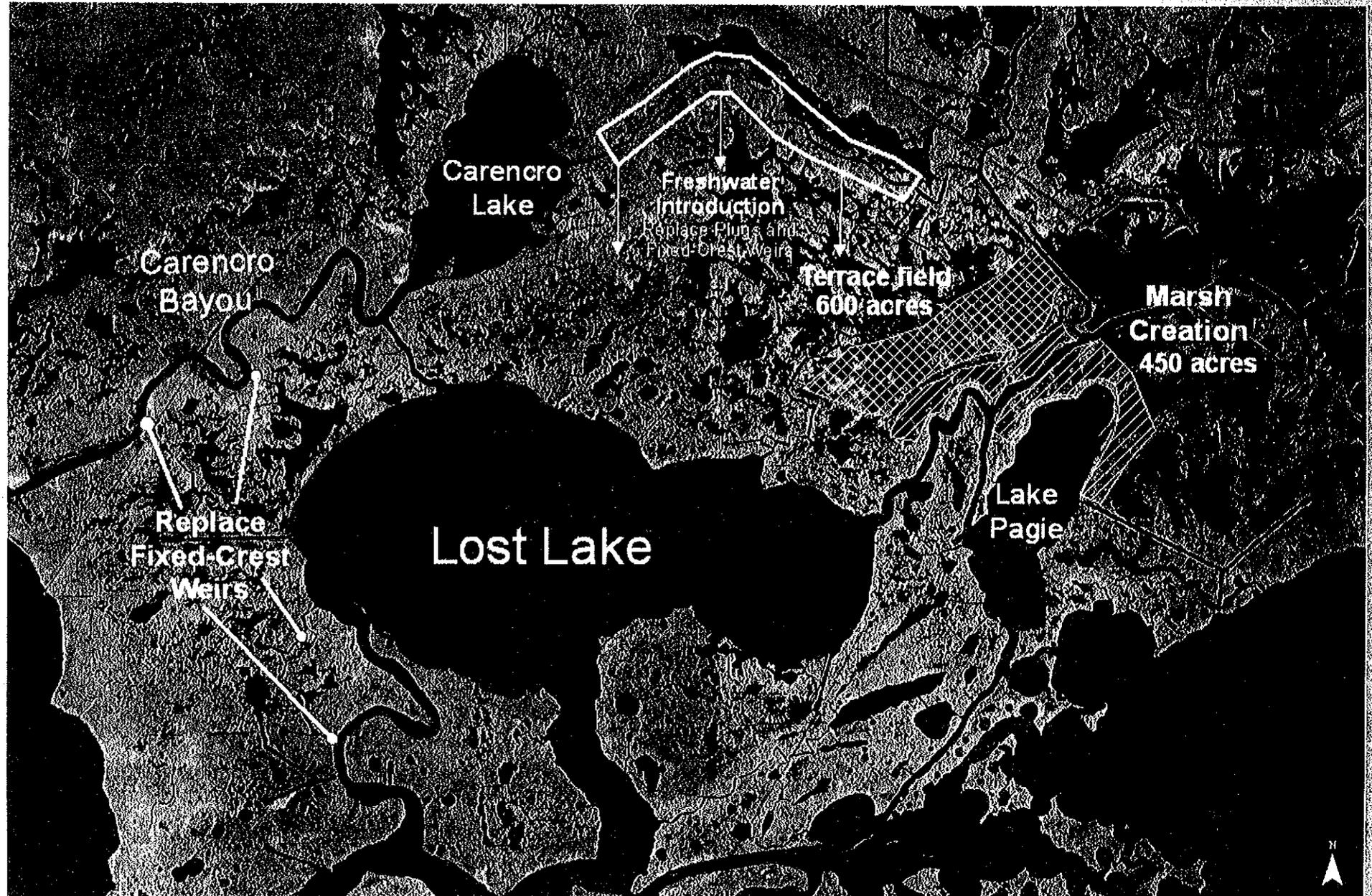
Kevin Roy, U.S. Fish and Wildlife Service, 337-291-3120 email: kevin\_roy@fws.gov



**U.S. Fish & Wildlife Service**

*Louisiana Ecological Services Field Office*

*Lost Lake Marsh Creation and Hydrologic Restoration*





# Houma-Terrebonne

CHAMBER OF COMMERCE

→ *M. Pothier*

6133 Highway 311  
Houma, Louisiana 70360

Phone: 985.876.5600  
Fax: 985.876.5611

info@houmachamber.com

www.houmachamber.com

November 16, 2009

Mr. Tom Holden  
Chairman, CWPPRA Technical Committee  
U.S. Army Corps of Engineers, New Orleans District – Office of the Chief  
P.O. Box 60267  
New Orleans, LA 70160-0267

RE: Lost Lake Marsh Creation and Hydrologic Restoration Project

Dear Mr. Holden,

The Houma-Terrebonne Chamber of Commerce represents more than 900 businesses employing more than 30,000 individuals in Terrebonne Parish and the region and has been a longtime advocate for coastal restoration and hurricane protection.

It has come to our attention that the Lost Lake Marsh Creation and Hydrologic Restoration Project is now a candidate for engineering and design funding. The Chamber requests that this project is assigned a high priority when selecting projects for Phase 1 (E&D) funding. The Lost Lake Project will restore and protect area marshes and will also serve as a buffer – separating the fresh marshes to the north and the more saline marshes to the south. The project will also benefit existing CWPPRA projects including:

- Brady Canal Hydrologic Restoration (construction completed);
- North Lake Mechant Landbridge Project (construction at or near completion);
- Penchant Basin Project (construction start in 2010);
- Central Terrebonne Freshwater Enhancement (currently in Engineering and Design) and
- South Lake Decade Shoreline Protection and Marsh Creation (construction to being in 2010)

Terrebonne Parish currently experiences one of the highest rates of coastal land loss in Louisiana and is in urgent need of projects to restore and protect our fragile wetlands. The parish has also been largely buffered from the economic downturn impacting the entire country. The added hurricane protection that marsh restoration provides will reassure the valuable economic vitality of the parish and region.

Sincerely,

Sidney Sundbery  
Chairman of the Board

Drake Pothier, IOM  
President & CEO

CC: Brad Crawford; Darryl Clark; Britt Paul, P.E.; Richard Hartman; Kirk Rhinehart; Leslie Suazo



→ Maloz

P.O. Box 2048-NSU • Thibodaux, Louisiana 70310 • (985) 448-4485 • Fax (985) 448-4486  
Email: [simone.maloz@nicholls.edu](mailto:simone.maloz@nicholls.edu) • [www.restoreorretreat.org](http://www.restoreorretreat.org)

November 13, 2009

Mr. Tom Holden  
Chairman, CWPPRA Technical Committee  
U.S. Army of Engineers, New Orleans District  
Office of the Chief  
P.O. Box 60267  
New Orleans, LA 70160-0267

**Re: Lost Lake Marsh Creation and Hydrologic Restoration Project**

Dear Mr. Holden:

Restore or Retreat, Inc. is a non-profit coastal advocacy group created by coastal Louisiana residents and stakeholders who recognize the Barataria and Terrebonne basins are the two most rapidly eroding estuaries on earth. Representing over 200 businesses and individuals, Restore or Retreat (ROR) would like to respectfully submit the following comments of support for the Lost Lake Marsh Creation and Hydrologic Restoration Project currently being considered as part of the Coastal Wetlands Planning and Protection Act's (CWPPRA) Project Priority List (PPL) 19.

This project is the sole project remaining in the PPL 19 process for Terrebonne Parish, which experiences one of the highest rates of land loss in Louisiana. The project will complement five or more existing CWPPRA projects, including the Penchant Basin Project, which is to begin construction in 2010. In addition, the project will also restore and protect area marshes and serve as a buffer zone to fresher northern marshes and more saline southern marshes.

In summary, Restore or Retreat respectfully requests your careful consideration of this project for a high priority ranking and favorable outcome to receive funding for Phase 1 Engineering and Design. Thank you for your time and consideration in this matter, and we look forward to hearing the outcome of the process. If you have any questions, please do not hesitate to call our office at (985) 448-4485.

Sincerely,  
Restore or Retreat, Inc.

A handwritten signature in black ink that reads "Simone Theriot Maloz".

Simone Theriot Maloz  
Executive Director

***Executive Committee***

Mike Plaisance, *President* (Plaisance Dragline and Dredging) • Ted Falgout, *Vice President* (Greater Lafourche Port Commission)  
Henri Boulet, *Secretary* (LA 1 Coalition, Inc.) • Robert Naquin, *Treasurer* (Capital One) • Timothy Allen (Apache Louisiana Minerals)  
Charlotte Bollinger (Bollinger Shipyards, Inc.) • C. Berwick Duval II (Duval, Funderburk, Sundberv, Lovell & Watkins) • Dr. J.J. Jones (Jones Dermatology)



## OFFICE OF THE PARISH PRESIDENT

TERREBONNE PARISH CONSOLIDATED GOVERNMENT  
P. O. Box 6097  
HOUMA, LOUISIANA 70361-6097



MICHEL H. GLAUDET  
PARISH PRESIDENT

(985) 873-6401  
FAX: (985) 873-6409  
E-MAIL: mhclaudet@tpcg.org

November 20, 2009

Colonel Alvin B. Lee, Chairman  
CWPPRA Task Force  
U.S. Army Corps of Engineers, NOD  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

**Re: Lost Lake Marsh Creation and Hydrologic Restoration Project  
Viper Wall Demonstration Project**

Dear Colonel Lee:

As you are aware, the Lost Lake marsh Creation and Hydrologic Restoration Project, located in the western portion of the Terrebonne Basin, is one of ten candidate projects for Engineering and Design (Phase I) funding on the PPL 19 of the CWPPRA program. The Technical Committee will be meeting on December 2, 2009 in Baton Rouge to discuss these ten projects and to make its recommendation for up to four projects for Phase I funding, and may also be making recommendations regarding demonstration projects.

Attached you will find a resolution passed by the Terrebonne Parish Coastal Zone Management and Restoration Advisory Committee, expressing support for the project and requesting that the Technical Committee assign the project a high priority when considering the candidate projects. The Terrebonne Parish Council concurred with this recommendation on November 16, 2009 and has also expressed its support for the project. In addition, by motion of the Council at a regular meeting on October 22, 2008, the Council expressed its support at that time for the Viper Wall Demonstration Project. The support for this project has been expressed at the planning rounds, as well as subsequent voting meetings.

As you are aware, Terrebonne Parish faces many challenges in the planning and implementation of restoration projects, and at the same time, we continue to experience one of the higher rates of average annual coastal land loss in Louisiana. As proposed, the Lost Lake Project will capitalize on benefits from adjacent CWPPRA projects in various phases of planning and implementation (see projects identified in attached resolution) and will serve to protect vulnerable habitats from the threat of increasing salinities. This project would also function synergistically with LCA projects currently being evaluated for future construction: "Stabilize Gulf Shoreline at Point-Au-Fer Island" and "maintain Landbridge between Caillou Lake and the Gulf of Mexico".

On behalf of the residents and coastal stakeholders in Terrebonne Parish, I urge you to give every favorable consideration possible to the Lost Lake Marsh Creation and Hydrologic

Restoration Project when selecting priority projects for Phase I funding for PPL 19, and assigning this project a high priority score when ranking projects for consideration.

In addition, we also request your support for the continued evaluation of the Viper Wall System, as submitted by Mr. Vincent Liner of Terrebonne Parish as a demonstration project should the Technical Committee make recommendations on demonstration projects this year.

I do hope that you will share these comments with the members of the CWPPRA Technical Committee as well as members of the Task Force. Please do not hesitate to contact me should you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Claudet', with a stylized, wavy flourish extending to the right.

Michel H. Claudet  
Parish President

Cc: Council Reading File



P.O. BOX 6097  
HOUMA, LOUISIANA 70361  
(985) 868-5050



P.O. BOX 2768  
HOUMA, LOUISIANA 70361  
(985) 868-3000

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## TERREBONNE PARISH CONSOLIDATED GOVERNMENT

---

***Office of Coastal Restoration  
and Preservation***

November 19, 2009

Mr. Tom Holden  
CWPPRA Technical Committee  
U.S. Army Corps of Engineers, NOD  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

**Re:   Lost Lake Marsh Creation and Hydrologic Restoration Project  
      Viper Wall Demonstration Project**

Dear Mr. Holden:

As you know, the Lost Lake marsh Creation and Hydrologic Restoration Project, located in the western portion of the Terrebonne Basin, is one of ten candidate projects for Engineering and Design (Phase I) funding on the PPL 19 of the CWPPRA program. The Technical Committee will be meeting on December 2, 2009 in Baton Rouge to discuss these ten projects and to make its recommendation for up to four projects for Phase I funding, and may also be making recommendations regarding demonstration projects.

Attached you will find a resolution passed by the Terrebonne Parish Coastal Zone Management and Restoration Advisory Committee, expressing support for the project and requesting that the Technical Committee assign the project a high priority when considering the candidate projects. The Terrebonne Parish Council concurred with this recommendation on November 16, 2009 and has also expressed its support for the project. By motion of the Council at a regular meeting on October 22, 2008, the Council expressed its support at that time for the Viper Wall Demonstration Project.

As you are aware, Terrebonne Parish faces many challenges in the planning and implementation of restoration projects, and at the same time, we continue to experience one of the higher rates of average annual coastal land loss in Louisiana. As proposed, the Lost Lake Project will capitalize on benefits from adjacent CWPPRA projects in various phases of planning and implementation (see projects identified in attached resolution) and will serve to protect vulnerable habitats from the threat of increasing salinities. This project would also function synergistically with LCA projects currently being evaluated for future construction: "Stabilize Gulf Shoreline at Point-Au-Fer Island" and "maintain Landbridge between Caillou Lake and the Gulf of Mexico".

On behalf of the residents and coastal stakeholders in Terrebonne Parish, I urge you to give every favorable consideration possible to the Lost Lake Marsh Creation and Hydrologic Restoration Project

when selecting priority projects for Phase I funding for PPL 19, and assigning this project a high priority score when ranking projects for consideration.

In addition, we also request your support for the continued evaluation of the Viper Wall System, as submitted by Mr. Vincent Liner of Terrebonne Parish as a demonstration project should the Technical Committee make recommendations on demonstration projects this year.

Please do not hesitate to contact me should you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Leslie R. Suazo". The signature is fluid and cursive, with the first name being the most prominent.

Leslie R. Suazo, Director

Cc: CWPPRA Technical Committee  
Michel Claudet  
Al Levron  
Council Reading File

**THE LOUISIANA LAND AND EXPLORATION COMPANY**  
**806 BAYOU BLACK DRIVE**  
**HOUMA, LOUISIANA 70360**

November 23, 2009

Mr. Tom Holden, Chairman  
CWPPRA Technical Committee  
US Army Corps of Engineers – NOD  
P.O. Box 60267  
New Orleans, LA 70160-0267

RE: R3-TE-06, PPL 19 Project  
Lost Lake Marsh Creation and Hydrologic Restoration Project  
Terrebonne Parish, Louisiana

---

Dear Mr. Holden,

The Louisiana Land & Exploration Company (LL&E) and ConocoPhillips is the major landowner in which the above referenced project is proposed. LL&E is in support of this project and will provide land rights as we have done on all the past CWPPRA projects.

This project will tie into and compliment the existing and proposed projects in this area. The TE-44 North Lake Mechant Land Bridge Project which was just recently completed, TE-28 Brady Canal Hydrologic Restoration Project completed and the soon to be under construction TE-34 Penchant Basin Natural Resources Plan will all work together to protect and enhance this area.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We along with Fina-LaTerre, now Apache were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Terrebonne Parish. We humbly request that the Technical Committee consider and

recommend for approval R3-TE-06 Lost Lake Marsh Creation and Hydrologic Restoration Project. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Terrebonne Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jeff DeBlieux".

Jeff Deblieux, PLS  
Supervisor Feelands

JDD/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/R3-TE-06 PPL19 Project letter

---

**APACHE LOUISIANA MINERALS LLC**

A Subsidiary of APACHE Corporation



POST OFFICE BOX 206 / HOUMA, LOUISIANA 70361-0206

TEL (985) 879-3528  
FAX (985) 876-5267

November 17, 2009

Tom Holden, Chairman  
CWPPRA Technical Committee  
US Army Corps of Engineers – NOD  
P.O. Box 60267  
New Orleans, LA 70160-0267

RE: Lost Lake Marsh Creation and Hydrologic  
Restoration Project, Terrebonne Parish, LA

Dear Mr. Holden:

Apache Louisiana Minerals LLC (ALM) is one of the major landowners, along with ConocoPhillips/LL&E, in the vicinity of the subject project. Over the past 40+ years, our offices have made concerted efforts in wetlands conservation by implementing restoration projects throughout our fee lands, including having also provided private funding assistance to certain State and Federal projects.

We have reviewed the subject project plan and features and are excited to see such a project being proposed to protect and enhance this area. The area north of Lost Lake has suffered from the lack of freshwater inflow. The opportunity to provide more fresh water via this project would be a positive stance in defending further land loss.

ALM stands firm in supporting such a project and strongly urge your favorable efforts to approve appropriate funding and resources to see this project through to completion. Thank you in advance for your favorable consideration of this request.

Sincerely,

APACHE LOUISIANA MINERALS LLC

A handwritten signature in blue ink, appearing to read "Timothy J. Allen".

Timothy J. Allen, PLS  
General Manager

**THE LOUISIANA LAND AND EXPLORATION COMPANY**  
**806 BAYOU BLACK DRIVE**  
**HOUMA, LOUISIANA 70360**

November 23, 2009

Mr. Tom Holden, Chairman  
CWPPRA Technical Committee  
US Army Corps of Engineers – NOD  
P.O. Box 60267  
New Orleans, LA 70160-0267

RE: R2-BA-09 PPL 19 Project  
Chenier Ronquille Barrier Shoreline Restoration  
And Marsh Creation Project  
Plaquemines Parish, Louisiana

---

Dear Mr. Holden,

The Louisiana Land & Exploration Company (LL&E) and ConocoPhillips is the major landowner in which the above referenced project is proposed. LL&E is in support of this project and will provide land rights as we have done on all the past CWPPRA projects.

This project will tie into and compliment the existing and proposed projects in this area. The BA-38 Pass LaMer to Chalant Pass Restoration Project which was just recently completed and BA-30 East Grand Terre Restoration Project presently under construction will all work together to protect and enhance this area of the Barataria Basin.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We along with Fina-LaTerre, now Apache were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Plaquemines Parish. We humbly request that the Technical Committee consider and

recommend for approval. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Plaquemines Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Deblieux". The signature is fluid and cursive, with a large initial "J" and "D".

Jeff Deblieux, PLS  
Supervisor Feelands

JDD/dbg

S:\Jeff\DNR CWPRA and Coast 2050 projects\R2-BA09 Chenier Ronquille Project letter

**THE LOUISIANA LAND AND EXPLORATION COMPANY**  
**806 BAYOU BLACK DRIVE**  
**HOUMA, LOUISIANA 70360**

November 23, 2009

Mr. Tom Holden, Chairman  
CWPPRA Technical Committee  
US Army Corps of Engineers – NOD  
P.O. Box 60267  
New Orleans, LA 70160-0267

RE: R2-BA-06 PPL 19 Project  
Bayou Dupont to Bayou Barataria Marsh Creation Project  
Jefferson Parish, Louisiana

---

Dear Mr. Holden,

The Louisiana Land & Exploration Company (LL&E) and ConocoPhillips is the major landowner in which the above referenced project is proposed. LL&E is in support of this project and will provide land rights as we have done on all the past CWPPRA projects.

This project will tie into and compliment the existing and proposed projects in this area. The BA-03C Naomi Outfall Management and BA-26 Barataria Bay Waterway Shoreline Protection Projects which have been completed and the BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation Project which is soon to be under construction, will all work together to protect and enhance this area.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We along with Fina-LaTerre, now Apache were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Jefferson Parish. We humbly request that the Technical Committee consider and

recommend for approval R2-BA-06 Bayou Dupont to Bayou Barataria Marsh Creation Project. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Jefferson Parish and provide protection to the Town of Jean Lafitte.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Deblieux". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Jeff Deblieux, PLS  
Supervisor Feelands

JDD/dbg

S:/Jeff/DNR CWPRA and Coast 2050 projects/R2-BA-06 Bayou Dupont Project letter

**THE LOUISIANA LAND AND EXPLORATION COMPANY**  
**806 BAYOU BLACK DRIVE**  
**HOUMA, LOUISIANA 70360**

November 23, 2009

Mr. Tom Holden, Chairman  
CWPPRA Technical Committee  
US Army Corps of Engineers – NOD  
P.O. Box 60267  
New Orleans, LA 70160-0267

RE: R3-TE-06, PPL 19 Project  
Lost Lake Marsh Creation and Hydrologic Restoration Project  
Terrebonne Parish, Louisiana

---

Dear Mr. Holden,

The Louisiana Land & Exploration Company (LL&E) and ConocoPhillips is the major landowner in which the above referenced project is proposed. LL&E is in support of this project and will provide land rights as we have done on all the past CWPPRA projects.

This project will tie into and compliment the existing and proposed projects in this area. The TE-44 North Lake Mechant Land Bridge Project which was just recently completed, TE-28 Brady Canal Hydrologic Restoration Project completed and the soon to be under construction TE-34 Penchant Basin Natural Resources Plan will all work together to protect and enhance this area.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We along with Fina-LaTerre, now Apache were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Terrebonne Parish. We humbly request that the Technical Committee consider and

recommend for approval R3-TE-06 Lost Lake Marsh Creation and Hydrologic Restoration Project. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Terrebonne Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff DeBlieux". The signature is fluid and cursive, with the first name "Jeff" being the most prominent.

Jeff Deblieux, PLS  
Supervisor Feelands

JDD/dbg

S:\Jeff\DNR CWPRA and Coast 2050 projects\R3-TE-06 PPL19 Project letter

## Goodman, Melanie L MVN

---

**From:** Suzette Thomas [suthomas@tpcg.org]  
**Sent:** Thursday, November 19, 2009 3:31 PM  
**To:** Goodman, Melanie L MVN  
**Subject:** Lost Lake Resolution

**Attachments:** Lost Lake Resolution.pdf



Lost Lake  
Resolution.pdf (102 .

Ms. Goodman,

Please find attached a copy of a certified resolution of the Terrebonne Parish Council endorsing and supporting funding for the Lost Lake Marsh Creation.

Should you have any questions, please feel free to contact Council Clerk Paul Labat (985-873-6518) or Mrs. Leslie Suazo (985-873-6889).

Thanks,

Suzette Thomas

Terrebonne Parish Consolidated Government

8026 Main Street, Suite 600

Houma, LA 70360

Telephone: (985) 873-6413

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**REQUEST FOR PHASE II AUTHORIZATION AND APPROVAL OF PHASE II INCREMENT I FUNDING**

**For Discussion/Decision:**

The Technical Committee will consider requests for Phase II authorization and approval of Increment 1 funding for cash flow projects, for recommendation to the Task Force. Due to limited funding, the Technical Committee will recommend a list of projects for Task Force approval within available program construction funding limits. Each project listed in the following table will be discussed individually by its sponsoring agency. Following presentations and discussion on individual projects, the Technical Committee will rank all projects to aid in deciding which to recommend to the Task Force for Phase II authorization and funding.

Agency	Project No.	PPL	Project Name	Construction Start Date	Total Fully Funded Cost Est.	Net Benefit Acres	Total Cost per Acre
NRCS	BA-27c(4)	9	Barataria Basin Landbridge, Phase 3 – CU 8	Aug-10	\$20,498,664	107	\$191,576
NRCS	CS-49 (1)	18	Cameron-Creole Freshwater Intro, Vegetative Plantings – CU 1	Aug-10	\$1,147,096	40	\$28,677
COE	TV-11b	9	Freshwater Bayou Lock and Belle Isle Canal	Sep-10	\$38,065,335	241	\$157,947
NRCS	TE-43	10	GIWW Bank Restoration of Critical Areas in Terrebonne	Oct-10	\$13,022,246	65	\$1,001,711
EPA	TE-47	11	Ship Shoal: Whiskey West Flank Restoration	Jan-11	\$61,750,785	195	\$316,671
FWS	ME-20	11	South Grand Chenier Hydro Restoration	Aug-10	\$29,046,128	352	\$82,517
NMFS	TE-52	16	West Belle Pass Barrier Headland Restoration	Jun-10	\$42,250,417	305	\$138,5268

**CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2009**

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score	Phase II, Increment 1 Funding Request	Cumulative Phase II, Increment 1 Funding	Amt Remaining
NRCS	CS-49 (1)	Cameron-Creole Fresh Water Intro, Vegetative Plantings - CU 1	2	3	1	3	1	4	6	14	\$990,199	\$990,199	\$93,123,054
NRCS	BA-27c	Barataria Basin Landbridge, Phase 3 - CU 8	1		2	1	4	2	5	10	\$16,645,710	\$17,635,909	\$76,477,344
NMFS	TE-52	West Belle Pass Barrier Headland Restoration		2	3	4		3	4	12	\$38,874,727	\$56,510,636	\$37,602,617
FWS	ME-20	South Grand Chenier Hydrologic Restoration		1	4		2	1	4	8	\$24,911,754	\$81,422,390	\$12,690,863
NRCS	TE-43	GIWW Bank Restoration of Critical Areas in Terrebonne	4				3		2	7	\$9,522,400	\$90,944,790	\$3,168,463
COE	TV-11b	Freshwater Bayou Canal, Freshwater Bayou Lock and Belle Isle Canal	3			2			2	5	\$33,411,651	\$124,356,441	-\$30,243,188
EPA	TE-47	Ship Shoal: Whiskey West Flank Restoration		4					1	4	\$57,851,781	\$182,208,222	-\$88,094,969

\$182,208,222

NOTES:

- Projects are sorted by: (1) Agency Support or "Number of Yes Votes" and (2) "Sum of Weighted Score"
- The "Number of Yes Votes" and the Sum of the Total Point Score will be used by the Technical Committee to formulate a recommendation to the Task Force within available funding limits.

RUN MACRO "sort" TO AUTOMATICALLY COMPLETE STEPS

- STEP 1: Information from "VOTE" sheet is automatically copied into "SORT-Final Vote".
- STEP 2: Sort columns A..P, descending, first by "No. of Yes Votes" (Column J) and second by "Sum of Point Score" (Column K).
- STEP 3: Once projects are sorted, add in formula to add funding requests cumulatively (Column M)

BARATARIA BASIN  
LANDBRIDGE, PHASE 3 CU8  
BA-27c(4)

*Coastal Wetlands Planning,  
Protection and Restoration Act*



**BARATARIA BASIN LANDBRIDGE  
SHORELINE PROTECTION  
PROJECT PHASE 3 (BA-27c)**

**PHASE II APPROVAL OF CU8**

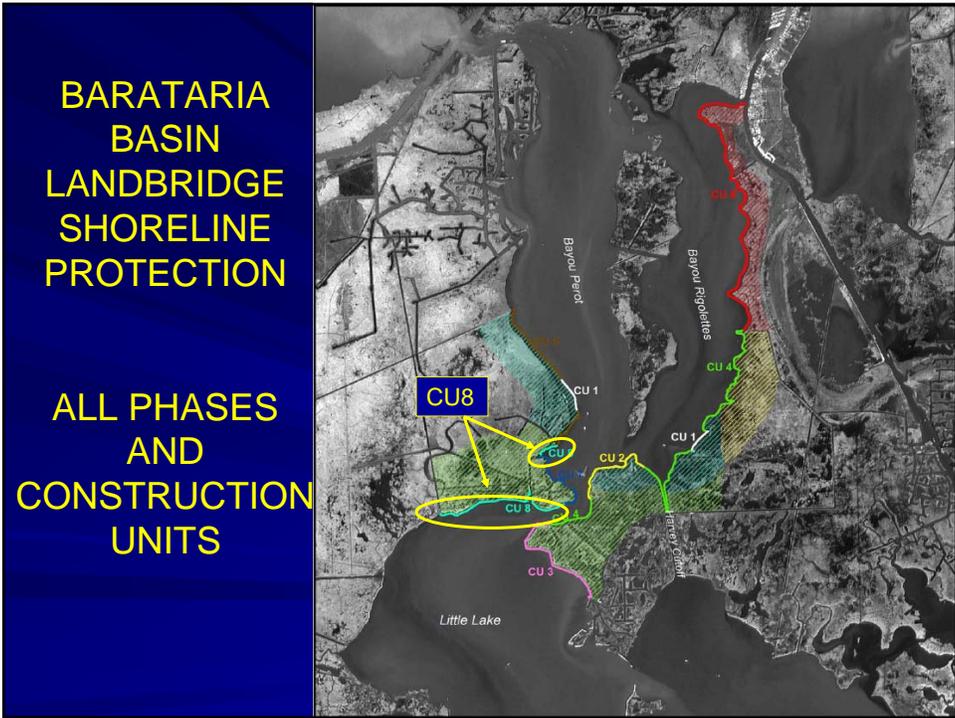
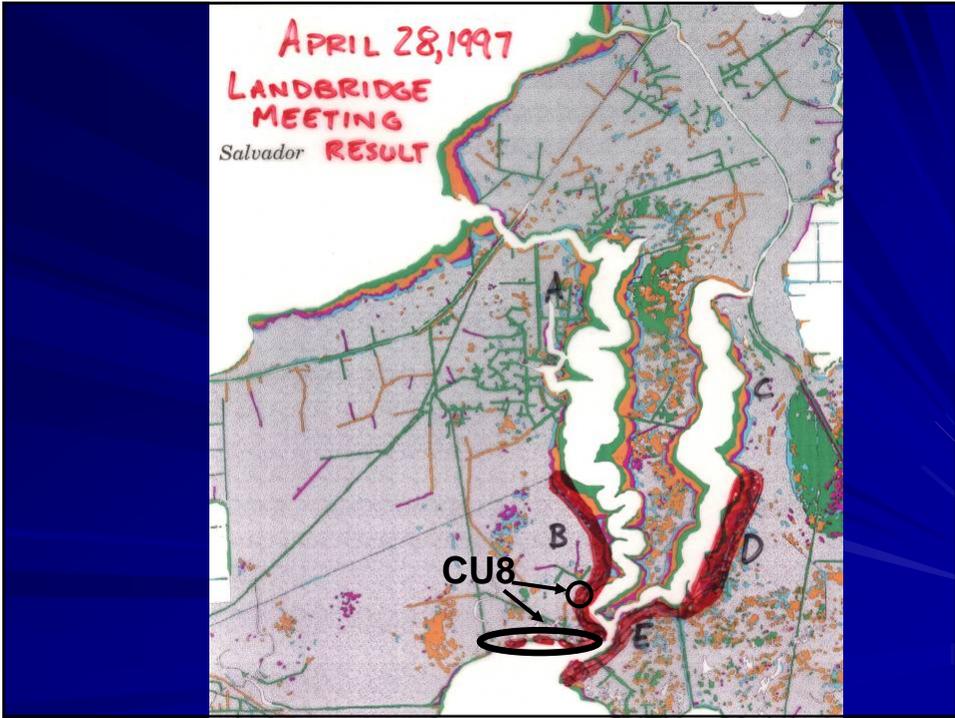
*CWPPRA Technical Committee Meeting  
December 2, 2009*

**BARATARIA BASIN LANDBRIDGE PHASE 3  
(BA-27c)  
CONSTRUCTION UNIT 8**

**Project Location:** Region 2, Barataria Basin,  
Lafourche Parish, west bank of Bayou Perot  
and north shore of Little Lake.

**Problem:** Shoreline erosion rates in this area  
vary from 5 to 15 feet per year.

**Goal:** Reduce or eliminate shoreline erosion for  
about 14,800 feet along west bank of B. Perot  
and north shore of Little Lake.



## BARATARIA BASIN LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 8



## BARATARIA BASIN LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 8

### Project Features

14,800 feet of rock dike / revetment along the along the west bank of Bayou Perot and the north shore of Little Lake.

Dike and revetment will have an elevation of 3.5 feet NAVD88, a top width of 4 feet, and side slopes of 3:1.

Four site-specific organism/drainage openings, ranging from 25 to 50 feet .

Beneficial Use of dredge material could result in creation of 38 acres of marsh.

## BARATARIA BASIN LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 8

### Benefits and Cost

Net Acres after 20 years:	107 Acres
Average Annual Habitat Units:	47.3
Fully Funded Phase II Total:	\$20,498,664
Fully Funded Phase II Increment 1:	\$16,645,710

consensus derived project

high erosion rate

ready for construction for 6 years

funding delay has already raised the cost by about 120

integral Piece of the "Barataria Basin Landbridge" that  
has been a widely touted example of how numerous small  
projects can be combined to accomplish a basin goal

America's Wetland Book

CWPPRA Education Document

December 2006 Watermarks

United States Department of Agriculture



Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

(318) 473-7751  
Fax: (318) 473-7626

November 17, 2009

Mr. Thomas Holden, Chairman  
CWPPRA Technical Committee  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

RE: Barataria Basin Landbridge Shoreline Protection Project Phase 3 (BA-27c)  
Phase Two Authorization Request for Construction Unit 8

Dear Mr. Holden:

By this letter, the Natural Resources Conservation Service and the Louisiana Office of Coastal Protection and Restoration requests Phase Two Authorization for the Barataria Basin Landbridge Shoreline Protection Project Phase 3 (BA-27c) Construction Unit 8, consisting of approximately 14,811 feet of rock shoreline protection located on the north shore of Little Lake and the west bank of Bayou Perot in Lafourche Parish, Louisiana.

Pursuant to Revision 16.0 of the CWPPRA Standard Operating Procedures, Appendix C, a document entitled "Information Required in Phase Two Authorization Request" is provided as Attachment A.

Pursuant to Revision 16.0 of the CWPPRA Standard Operating Procedures, Section 6.j.(2), a project estimate and spending schedule based on the 5 budget subcategories is provided as Attachment B.

If you or any members of the Planning and Evaluation Subcommittee, Technical Committee, or Task Force have any questions regarding this matter, please call Quin Kinler at (225) 382-2047.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Britt Paul", is written over a light blue circular stamp.

W. Britt Paul  
ASTC/WR & RC&D

Attachments

cc: (via email only):

Kirk Rhinehart, OCPD Technical Committee Member  
Darryl Clark, USFWS Technical Committee Member  
Rick Hartman, NMFS Technical Committee Member  
Brad Crawford, EPA, Technical Committee Member  
Melanie Goodman, P&E Subcommittee Chair  
Kelly Templet, OCPD P&E Subcommittee Member  
Kevin Roy, USFWS P&E Subcommittee Member

*Helping People Help the Land*

An Equal Opportunity Provider and Employer

Thomas Holden  
November 18, 2009  
Page 2

Rachel Sweeney, NMFS P&E Subcommittee Member  
John Jurgensen, NRCS P&E Subcommittee Member  
Garrett Graves, CPRA Chairman  
Travis Creel, USCOE  
Quin Kinler, Project Manager, NRCS  
Dustin White, Project Manager, OCPR  
John Boatman, DC, FO, NRCS  
Brad Sticker, DE, NRCS  
Randolph Joseph, Jr., AC, NRCS

**ATTACHMENT A**

**Information Required for Phase Two Authorization Request**

**Barataria Basin Landbridge Shoreline Protection Project Phase 3 (BA-27c)  
Construction Unit 8**

**November 10, 2009**

***Description of Phase One Project***

The Barataria Basin Landbridge Shoreline Protection Project Phase 3 (BA-27c) as selected for Phase One consisted of 9,000 feet of shoreline protection along the north shore of Little Lake; 11,000 feet along the west bank of Bayou Perot; 6,000 feet along the northeast shore of Little Lake; 9,600 feet along the east bank of Bayou Perot; 2,700 feet along the west bank of Harvey Cutoff, and 2,700 feet along the east bank of Harvey Cutoff, for a total of 41,000 feet of shoreline protection. See Figure 1. The project was envisioned to include one or more of the following techniques: a) foreshore rock dike using a construction technique where the underlying organic substrate is displaced, b) foreshore rock dike using a construction technique which attempts to retain and compact the underlying organic substrate, c) foreshore rock dike with a lightweight core material, d) rock revetment, e) steel sheetpile structure, f) concrete sheetpile structure, and/or g) PVC sheetpile structure. The objective of the project was to reduce or eliminate shoreline erosion for those areas referenced above. Secondary benefits were envisioned to include maintenance, and increase extent, of submerged aquatic vegetation on the protected side of project features, where such features form protected coves. The WVA predicted that the project would prevent the loss of 264 acres of intermediate and brackish marsh and produce 101 Average Annual Habitat Units. At the time of Phase One approval, the cost estimate was as follows:

Phase One Engineering & Design	692,131
Phase One Easements & Land Rights	76,563
Phase One S&A	254,946
Phase One Monitoring	16,955
Total Phase One	1,040,595
Phase Two Construction (includes S&H)	13,860,064
Phase Two Monitoring	76,943
Phase Two O&M	5,748,325
Phase Two Other	19,179
Total Phase Two	19,704,511
Total Fully Funded Cost	20,745,106

## ***Overview of Phase One Tasks, Process and Issues***

### **Environmental Compliance Tasks.**

The Barataria Basin Landbridge Shoreline Protection Project Phases 1, 2, and 3 (BA-27) Environmental Assessment was completed in February 2000. A Finding of No Significant Impact was published in the Federal Register on February 17, 2000.

The Section 404 permit was issued on December 10, 2002, with revised drawings being approved on February 26, 2004. CZM Consistency Determination was granted December 30, 2003. Water Quality Certification was granted January 30, 2004.

The Ecological Review for the entire Barataria Basin Landbridge Shoreline Protection Project was completed in August 2004. The reach of shoreline included in CU8 is addressed in the section referred to as CU5 because the previously defined CU5 has been split into three parts; two parts were approved for Phase Two funding as “CU5” and “CU7”, and part has been redefined as “CU8”.

### **Engineering Tasks.**

The results of the Engineering Tasks are presented in the July 2004 Design Report for Barataria Basin Landbridge Shoreline Protection Project, Construction Unit 5 which has previously been made available to all CWPPRA agencies.

This design report covers the shoreline protection reaches that has been already been approved for Phase Two funding as Construction Unit 5 (13,780 feet of concrete pile and panel wall) and Construction Unit 7 (8,000 feet of the rock revetment) and the shoreline protection reach that is now referred to as Construction Unit 8 (about 14,811 feet of rock shoreline protection). Only two elements presented in the 2004 Design Report associated with the rock shoreline protection (now CU8) have changed: 1) the engineer’s estimate has been updated; and 2) for the beneficial use areas, the maximum elevation of dredged material placement has been revised from +1.0 to +2.0 feet NAVD88.

### **Landrights Tasks.**

By letter to Don Gohmert of NRCS, dated January 11, 2006, LDNR certified that landrights are complete for CU5 and CU7, which covers the area that is now defined as CU5, CU7 and CU8.

## ***Description of the Phase Two Candidate Project***

The subject Phase Two Authorization Request is limited to about 14,811 feet of shoreline protection along the west bank of Bayou Perot and the northern shoreline of Little Lake. See Figure 2. The shoreline protection will consist of a rock dike and rock revetment, with an

elevation of 3.5 feet NAVD88, a top width of 4 feet, and side slopes of 3:1. The dike and revetment will be constructed of COE R-400 (rock specification) and will be underlain with a geotextile cloth. Five site-specific organism/drainage openings, ranging from 25 to 50 feet in width, will be incorporated; the openings will have a sill elevation of 2 feet below average tide. Approximately 28,000 feet of construction access channel, with a bottom elevation of -5.5 feet NAVD88 and bottom width of 80 feet, may be excavated. As available containment volume in existing ponds permit, excavated material will be used beneficially -- dredged material shall be placed in three shallow ponds along the north shore of Little Lake to a maximum elevation of +2.0 feet NAVD88; as much as 38 acres of marsh could be created.

The revised fully-funded cost estimate for BA-27c CU8 Phase II, generated by the Economic Work Group, is \$20,498,664. The revised fully-funded cost estimate for Phase II, Increment 1 of the BA-27c CU8 is \$16,645,710.

There has been no significant change in project scope warranting revisions to the BA-27c project boundary, map, benefits, or fact sheets for the project as a whole. However, for the CU8 portion of BA-27c, the benefits include 107 net acres over 20 years and 47.26 AAHUs.

### ***Checklist of Phase Two Requirements***

- A. List of Project Goals and Objectives. The objective of the BA-27c Construction Unit 8 is to reduce or eliminate shoreline erosion for approximately 14,811 feet of shoreline along the along the west bank of Bayou Perot and the northern shoreline of Little Lake.
- B. Cost Sharing Agreement for Phase One. The Cost Sharing Agreement for Phase One of the Barataria Landbridge Shoreline Protection Phase 3 Project (BA-27c) was executed between DNR and NRCS on July 25, 2000.
- C. Landrights Notification. By letter to Don Gohmert of NRCS, dated January 11, 2006, LDNR certified that landrights are complete for CU5 and CU7 which covers the area that is now defined as CU5, CU7 and CU8.
- D. Favorable Preliminary Design Review. A favorable 30% Design Review for the work contained in this Construction Unit was conducted on August 20, 2003, and a summary of that review was distributed to the Technical Committee on October 14, 2003.
- E. Final Project Design Review. The 95% design review was conducted on September 2, 2004, with favorable results. A summary of that review, dated October 14, 2004, has been distributed to the Technical Committee.
- F. Environmental Assessment. The Barataria Basin Landbridge Shoreline Protection Project Phases 1, 2, and 3 (BA-27) Environmental Assessment was completed in February 2000. Copies of the Environmental Assessment and FONSI have been provided to the Technical Committee.
- G. Findings of Ecological Review. The Ecological Review for the entire Barataria Basin Landbridge Shoreline Protection Project (Phases 1, 2, 3, and 4) was completed in August 2004. The reach of shoreline included in CU8 is addressed in the section referred to as CU5 because the previously defined CU5 was split into three parts; two parts were approved for Phase Two funding as "CU5" and "CU7", and part has been redefined as "CU8". The

Ecological Review recommended continued progress toward construction authorization pending a favorable 95% Design Review.

- H. Application / Public Notice for Permits. The Section 404 permit was issued on December 10, 2002, with revised drawings being approved on February 26, 2004. CZM Consistency Determination was granted December 30, 2003. Water Quality Certification was granted January 30, 2004.
- I. Field investigations by NRCS personnel and the project team have determined that an HTRW assessment is not required for this project.
- J. Section 303e Approval. Section 303e approval was granted by the Corps Real Estate Division on October 21, 2002.
- K. Overgrazing Determination. NRCS has determined that overgrazing is not, and is not anticipated to be, a problem in the project area.
- L. The revised fully-funded cost estimate for BA-27c CU8 Phase II, generated by the Economic Work Group, is \$20,498,664. The revised fully-funded cost estimate for Phase II, Increment 1 of the BA-27c CU8 is \$16,645,710. The required spreadsheet is enclosed.
- M. Wetland Value Assessment. The Wetland Value Assessment was completed in August 1999, and all Task Force agencies were provided a copy. While no significant change in project scope had occurred warranting a revised WVA, the benefits of CU8 were partitioned as of October 27, 2009. For the CU8 portion of BA-27c, the benefits include 107 net acres over 20 years and 47.26 AAHUs.

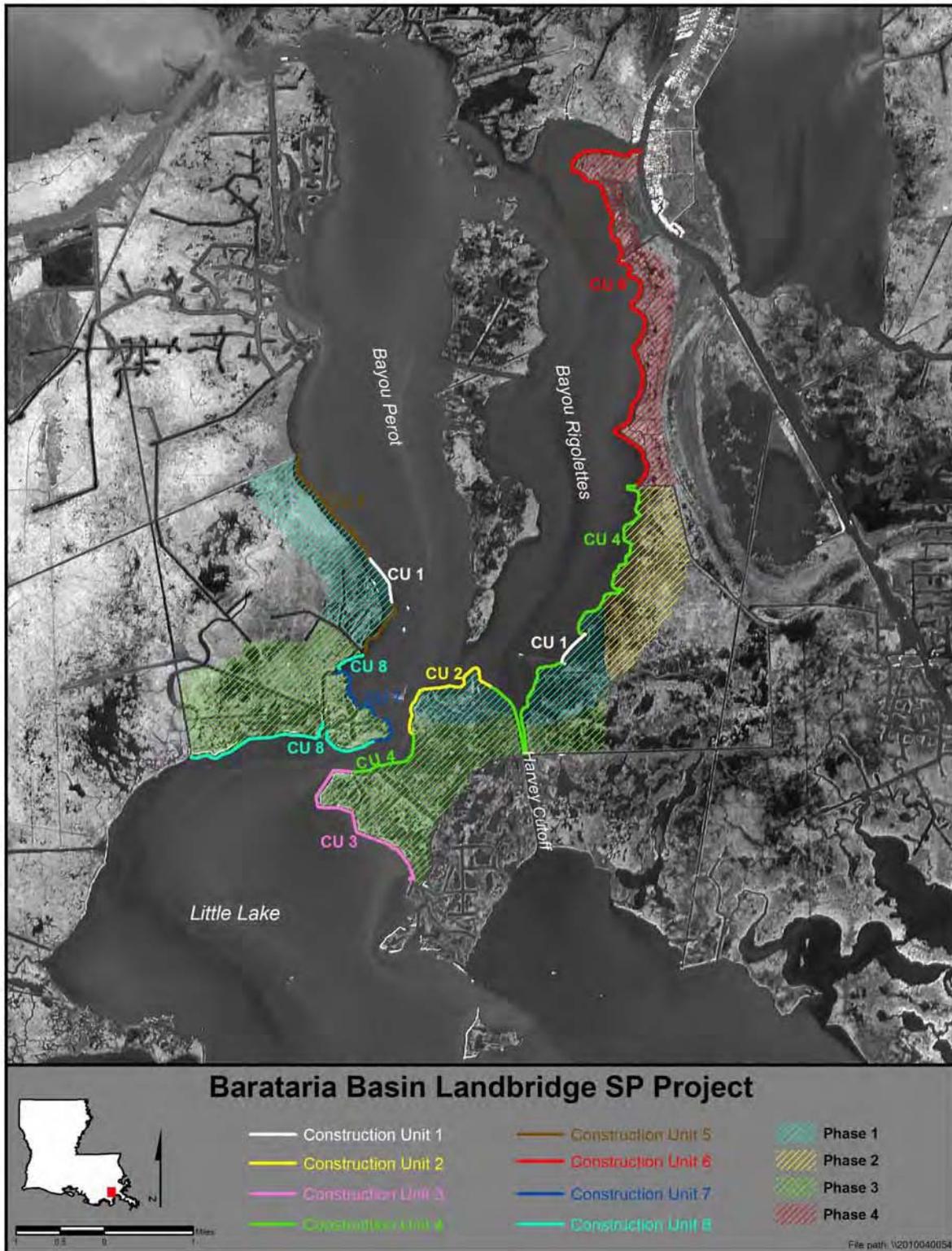


Figure 1. Map illustrating the juxtaposition of Barataria Basin Landbridge Shoreline Protection Project Phases and Construction Units.



Figure 2. Map of Barataria Basin Landbridge Shoreline Protection Project Phase 3 Construction Unit 8, Lafourche Parish.

REQUEST FOR PHASE II APPROVAL

PROJECT: Barataria Basin Landbridge, Phase 3  
 PPL: 9 Project No. BA-27c  
 Agency NRCS

	Phase I Approval Date: <u>11-Jan-00</u>		Phase II Approval Date: <u>Multiple</u>		APPROVED								REQUESTED		Total	Total	Total	Total
					Phase II Approval: <u>16-Jan-02</u>		Phase II Approval: <u>16-Jan-03</u>		Phase II Approval: <u>3-Jun-09</u>		Phase II Approval: <u>Proposed Jan 2010</u>		Total	Total	Total	Total		
					Const Start: <u>Oct-03</u>		Const Start: <u>May-04</u>		Const Start: <u>Aug-09</u>		Const Start: <u>Aug-10</u>		Phase II	Ph II Incr 1	Ph I + Ph II	Ph I + Ph II Incr 1		
	Approved Baseline Total (100% Level)	Approved Baseline Ph I + Ph II Incr 1 (100% Level)	Original Baseline Phase I (100% Level)	Original Baseline Phase II (100% Level)	Recommended Baseline Phase II - CU 3 (100% Level)	Recommended Baseline Ph II Incr 1 - CU 3 (100% Level)	Recommended Baseline Phase II - CU 4 (100% Level)	Recommended Baseline Ph II Incr 1 - CU 4 (100% Level)	Recommended Baseline Phase II - CU 7 (100% Level)	Recommended Baseline Ph II Incr 1 - CU 7 (100% Level)	Recommended Baseline Phase II - CU 8 (100% Level)	Recommended Baseline Ph II Incr 1 - CU 8 (100% Level)	Recommended Baseline Phase II only (100% Level)	Recommended Baseline Ph II Incr 1 only (100% Level)	Recommended Baseline Phase I + Ph II (100% Level)	Recommended Baseline Ph I + Ph II Incr 1 (100% Level)		
CU3+CU4+CU 7+CU8	CU3+CU4+CU 7+CU8	1/	2/	3/	4/	3/	4/	3/	4/	3/	4/							
Engr & Des	692,131	692,131	692,131															
Lands	76,563	76,563	76,563															
Fed S&A	500,165	500,165	196,842	196,842	96,622	96,622	105,739	105,739	100,962	100,962	-	-	303,323	303,323	500,165	500,165		
LDNR S&A	219,281	219,281	57,131	57,131	28,380	28,380			133,770	133,770			162,150	162,150	219,281	219,281		
COE Proj Mgmt	-	-																
Phase I	973	973	973											973	973			
Ph II Const Phase	5,384	5,384		973	973	973			2,245	2,245	2,166	2,166	5,384	5,384	5,384	5,384		
Ph II Long Term	52,414	6,934		19,179	19,179	2,909			33,235	4,025			52,414	6,934	52,414	6,934		
Const Contract	27,355,403	27,355,403		10,785,069	3,362,871	3,362,871	4,708,576	4,708,576	6,440,469	6,440,469	12,843,487	12,843,487	27,355,403	27,355,403	27,355,403	27,355,403		
Const S&I	832,178	832,178		123,782	33,400	33,400	40,880	40,880	189,347	189,347	568,551	568,551	832,178	832,178	832,178	832,178		
Contingency	6,838,851	6,838,851		2,696,267	840,718	840,718	1,177,144	1,177,144	1,610,117	1,610,117	3,210,872	3,210,872	6,838,851	6,838,851	6,838,851	6,838,851		
Monitoring	-	-																
Phase I	16,955	16,955	16,955											16,955	16,955			
Ph II Const Phase	-	-				5,541								-	5,541			
Ph II Long Term	116,565	29,806		76,943	79,481	11,760					37,084	18,046	116,565	29,806	116,565	29,806		
O & M - State	8,723,407	15,056		5,748,325	1,865,600	3,416	649,500		2,453,162	9,530	3,755,145	2,110	8,723,407	15,056	8,723,407	15,056		
O & M - Fed	249,025	10,008							167,666	9,530	81,359	478	249,025	10,008	249,025	10,008		
<b>Total</b>	<b>45,679,295</b>	<b>36,605,229</b>	<b>1,040,595</b>	<b>19,704,511</b>	<b>6,327,224</b>	<b>4,386,590</b>	<b>6,681,839</b>	<b>6,032,339</b>	<b>11,130,975</b>	<b>8,499,995</b>	<b>20,498,664</b>	<b>16,645,709</b>	<b>44,638,700</b>	<b>35,564,634</b>	<b>45,679,295</b>	<b>36,605,229</b>		
<b>Total Project (APPROVED)</b>				<b>20,745,106</b>	<b>7,367,819</b>	<b>5,427,185</b>	<b>14,049,658</b>	<b>11,459,524</b>	<b>25,180,633</b>	<b>19,959,519</b>	<b>45,679,297</b>	<b>28,105,233</b>	<b>44,638,700</b>	<b>35,564,634</b>	<b>45,679,295</b>	<b>36,605,229</b>		
Percent Over Original					36%		68%		121%		220%		227%		220%			
Maximum Project Cost	49,191,712	39,470,109	1,300,744		7,909,030	5,483,238	8,352,299	7,540,424	11,130,975	8,499,995	20,498,664	16,645,709	47,890,968	38,169,365	49,191,712	39,470,109		

Prepared By: Gay Date Prepared: 18-Jun-09

Revised Ph II Numbers By: Quin Kinler Date Revised: 10-Nov-09

NOTES: The "Current Approved Baseline" includes the approved amounts for BA-27c CU3, CU4, and CU7, plus the requested amount for CU8.

**BARATARIA LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 8**  
**Spending Schedule by Budget Subcategory**  
**10-Nov-09**

Year	Subcategory A (see Note 1) Phase One E&D (incl. Lands, S&A, Mgt., etc)	Subcategory B Phase One Pre-Constuction Monitoring	Subcategory C Phase Two Construction (incl. S&A, S&I)	Subcategory D Phase Two Post-Construction Monitoring	Subcategory E Phase Two OMR&R
2010	235,350		2,531,869		
2011			14,093,207		
2012				0	0
2013				0	0
2014				18,046	2,588
2015				0	0
2016				0	1,830,212
2017				19,038	2,730
2018				0	0
2019				0	0
2020				0	0
2021				0	2,000,973
2022				0	0
2023				0	0
2024				0	0
2025				0	0
2026				0	0
2027				0	0
2028				0	0
2029				0	0
2030				0	0
2031				0	0
<b>TOTAL</b>	<b>235,350</b>	<b>0</b>	<b>16,625,076</b>	<b>37,084</b>	<b>3,836,503</b>

## Notes

1. This value reflects the remaining balance of Subcategory A Phase 1 funds. It is anticipated that Phase 1 will be completed in 2010.

**Coastal Wetlands Conservation and Restoration Plan**  
**BA-27c Barataria Basin Land Bridge CU#8**  
**Project Priority List 9 (Phase II Request 2010) rev11/03/09**

Project Construction Years:	0	Total Project Years	20
Interest Rate	4.375%	Amortization Factor	0.07605
Fully Funded First Costs	\$16,625,076	Total Fully Funded Costs	\$20,498,664

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$17,293,614	\$1,315,105
Monitoring	\$29,304	\$2,228
State O & M Costs	\$2,481,689	\$188,722
Other Federal Costs	\$53,883	\$4,098
Average Annual Cost	\$1,510,153	\$1,510,153
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	
Total Net Acres	0	

## Coastal Wetlands Conservation and Restoration Plan

### BA-27c Barataria Basin Land Bridge CU#8

#### Project Priority List 9 (Phase II Request 2010) rev11/03/09

**Project Costs**                      \$20,498,664

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
<b>Phase I</b>											
5	2007	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
4	2008	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
3	2009	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
2	2010	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
1	2011	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
TOTAL		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Phase II</b>											
2	2010	-	\$0	\$0	\$0	\$204	\$0	\$86,590	\$489,015	\$1,956,060	\$2,531,869
1	2011	-	\$0	\$0	\$0	\$1,939	-	\$476,246	\$2,689,582	\$10,758,328	\$13,926,094
0	2012	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
-1	2013	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
-2	2014	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
TOTAL		\$0	\$0	\$0	\$0	\$2,143	\$0	\$562,836	\$3,178,597	\$12,714,387	\$16,457,963
Total First Costs		\$0	\$0	\$0	\$0	\$2,143	\$0	\$562,836	\$3,178,597	\$12,714,387	\$16,457,963

Year	FY	Monitoring	O&M & State Insp.	Corps Admin	Fed S&A & Insp
0 Discount	2012	\$0	\$0	\$0	\$0
-1 Discount	2013	\$0	\$0	\$0	\$0
-2 Discount	2014	\$16,986	\$1,986	\$0	\$450
-3 Discount	2015	\$0	\$0	\$0	\$0
-4 Discount	2016	\$0	\$1,627,460	\$0	\$34,875
-5 Discount	2017	\$16,986	\$1,986	\$0	\$450
-6 Discount	2018	\$0	\$0	\$0	\$0
-7 Discount	2019	\$0	\$0	\$0	\$0
-8 Discount	2020	\$0	\$0	\$0	\$0
-9 Discount	2021	\$0	\$1,627,464	\$0	\$34,875
-10 Discount	2022	\$0	\$0	\$0	\$0
-11 Discount	2023	\$0	\$0	\$0	\$0
-12 Discount	2024	\$0	\$0	\$0	\$0
-13 Discount	2025	\$0	\$0	\$0	\$0
-14 Discount	2026	\$0	\$0	\$0	\$0
-15 Discount	2027	\$0	\$0	\$0	\$0
-16 Discount	2028	\$0	\$0	\$0	\$0
-17 Discount	2029	\$0	\$0	\$0	\$0
-18 Discount	2030	\$0	\$0	\$0	\$0
-19 Discount	2031	\$0	\$0	\$0	\$0
Total		\$33,972	\$3,258,896	\$0	\$70,650

## Coastal Wetlands Conservation and Restoration Plan

### BA-27c Barataria Basin Land Bridge CU#8

#### Project Priority List 9 (Phase II Request 2010) rev11/03/09

Present Valued Costs		Total Discounted Costs			\$19,858,491					Amortized Costs		\$1,510,153
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
<b>Phase I</b>												
5	1.239	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	1.187	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.137	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.089	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1	1.044	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Phase II</b>												
2	1.089	2010	\$0	\$0	\$0	\$222	\$0	\$94,333	\$532,740	\$2,130,959	\$2,758,253	
1	1.044	2011	\$0	\$0	\$0	\$2,024	\$0	\$497,082	\$2,807,251	\$11,229,004	\$14,535,361	
0	1.000	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-1	0.958	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-2	0.918	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total			\$0	\$0	\$0	\$2,246	\$0	\$591,414	\$3,339,991	\$13,359,963	\$17,293,614	
Total First Cost			\$0	\$0	\$0	\$2,246	\$0	\$591,414	\$3,339,991	\$13,359,963	\$17,293,614	
Year	FY	Monitoring	O&M & State Insp.	Corps Admin	Fed S&A & Insp							
0	1.000	2012	\$0	\$0	\$0							
-1	0.958	2013	\$0	\$0	\$0							
-2	0.918	2014	\$15,592	\$1,823	\$413							
-3	0.879	2015	\$0	\$0	\$0							
-4	0.843	2016	\$0	\$1,371,274	\$29,385							
-5	0.807	2017	\$13,712	\$1,603	\$363							
-6	0.773	2018	\$0	\$0	\$0							
-7	0.741	2019	\$0	\$0	\$0							
-8	0.710	2020	\$0	\$0	\$0							
-9	0.680	2021	\$0	\$1,106,988	\$23,722							
-10	0.652	2022	\$0	\$0	\$0							
-11	0.624	2023	\$0	\$0	\$0							
-12	0.598	2024	\$0	\$0	\$0							
-13	0.573	2025	\$0	\$0	\$0							
-14	0.549	2026	\$0	\$0	\$0							
-15	0.526	2027	\$0	\$0	\$0							
-16	0.504	2028	\$0	\$0	\$0							
-17	0.483	2029	\$0	\$0	\$0							
-18	0.463	2030	\$0	\$0	\$0							
-19	0.443	2031	\$0	\$0	\$0							
Total		\$29,304	\$2,481,689	\$0	\$53,883							

## Coastal Wetlands Conservation and Restoration Plan

### BA-27c Barataria Basin Land Bridge CU#8

#### Project Priority List 9 (Phase II Request 2010) rev11/03/09

**Fully Funded Costs**                      Total Fully Funded Costs                      \$20,498,664                      Amortized Costs                      \$1,558,836

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
<b>Phase I</b>											
5	0.894	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	0.938	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	0.998	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.000	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1	1.012	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

<b>Phase II</b>											
2	1.000	2010	\$0	\$0	\$0	\$204	\$0	\$86,590	\$489,015	\$1,956,060	\$2,531,869
1	1.012	2011	\$0	\$0	\$0	\$1,962	\$0	\$481,961	\$2,721,857	\$10,887,427	\$14,093,207
0	1.026	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.044	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.062	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$0	\$2,166	\$0	\$568,551	\$3,210,872	\$12,843,487	\$16,625,076

Total Cost                      \$0                      \$0                      \$0                      \$0                      \$2,166                      \$0                      \$568,551                      \$3,210,872                      \$12,843,487                      \$16,625,076

Year	FY	Monitoring	O&M & State Insp.	Corps Admin	Fed S&A & Insp
0	1.0262	2012	\$0	\$0	\$0
-1	1.0436	2013	\$0	\$0	\$0
-2	1.0624	2014	\$18,046	\$2,110	\$478
-3	1.0815	2015	\$0	\$0	\$0
-4	1.1010	2016	\$0	\$1,791,815	\$38,397
-5	1.1208	2017	\$19,038	\$2,226	\$504
-6	1.1410	2018	\$0	\$0	\$0
-7	1.1615	2019	\$0	\$0	\$0
-8	1.1824	2020	\$0	\$0	\$0
-9	1.2037	2021	\$0	\$1,958,994	\$41,979
-10	1.2254	2022	\$0	\$0	\$0
-11	1.2474	2023	\$0	\$0	\$0
-12	1.2699	2024	\$0	\$0	\$0
-13	1.2927	2025	\$0	\$0	\$0
-14	1.3160	2026	\$0	\$0	\$0
-15	1.3397	2027	\$0	\$0	\$0
-16	1.3638	2028	\$0	\$0	\$0
-17	1.3884	2029	\$0	\$0	\$0
-18	1.4134	2030	\$0	\$0	\$0
-19	1.4134	2031	\$0	\$0	\$0
Total			\$37,084	\$3,755,145	\$81,359

**E&D and Construction Data**

ESTIMATED CONSTRUCTION COST	12,714,387
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	15,892,984

**TOTAL ESTIMATED PROJECT COSTS**

**PHASE I**

**Federal Costs**

<i>Engineering and Design</i>		\$0
Engineering	\$0	
Geotechnical Investigation	\$0	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$0	
Monitoring Plan Development	\$0	
NEPA Compliance	\$0	
0	\$0	
0	\$0	

<i>Supervision and Administration</i>		\$0
<i>Corps Administration</i>		\$0

**State Costs**

<i>Supervision and Administration (including PM, ecological review and engineering review)</i>		\$0
<i>Ecological Review Costs</i>		\$0
<i>Easements and Land Rights</i>		\$0

<i>Monitoring</i>		\$0
Monitoring Plan Development	\$0	
Monitoring Protocol Cost *	\$0	

**Total Phase I Cost Estimate** **\$0**

\* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

**PHASE II**

**Federal Costs**

<i>Estimated Construction Cost +25% Contingency</i>		\$15,892,984
Lands or Oyster Issues	0 lease acres	\$0
<i>Supervision and Inspectic</i>	356 days @ 1581 per day	\$562,836
<i>Supervision and Administration</i>		\$0
<i>Corps Administration - reconcile Project First Costs</i>		\$816

**State Costs**

<i>Supervision and Administration</i>		\$0
---------------------------------------	--	-----

**Total Phase II Cost Estimate** **\$16,456,636**

**TOTAL ESTIMATED PROJECT FIRST COST** **16,456,636**

**O&M Data**

**Annual Costs**

	<u>Federal</u>	<u>State</u>	
Annual Inspections	\$0	\$0	\$0
Annual Cost for Operations	\$0	\$0	\$0
Preventive Maintenance	\$0	\$0	\$0
0			\$0

**Specific Intermittent Costs:**

<u>Construction Items</u>	<u>Year 3</u>	<u>Year 5</u>	<u>Year 6</u>	<u>Year 10</u>	<u>Year 13</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$0	\$75,000	\$0	\$75,000	\$0	\$0
Rock Riprap	\$0	\$1,032,000	\$0	\$1,032,000	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$0</b>	<b>\$1,107,000</b>	<b>\$0</b>	<b>\$1,107,000</b>	<b>\$0</b>	<b>\$0</b>
<b>Subtotal w/ 25% contin.</b>	<b>\$0</b>	<b>\$1,383,750</b>	<b>\$0</b>	<b>\$1,383,750</b>	<b>\$0</b>	<b>\$0</b>
<b>Engineer, Design &amp; Administrative Costs</b>						
Biological Monitoring (20% of 15,000 shoreline @\$15,000/event)	\$15,000	\$0	\$15,000	\$0	\$0	\$0
Engineering and Design Cost	\$1,536	\$119,435	\$1,536	\$119,435	\$0	\$0
Administrative Cost	\$450	\$34,875	\$450	\$34,875	\$0	\$0
Eng Survey 14 days @ \$3,600 per day	\$0	\$50,400	\$0	\$50,400	\$0	\$0
Inspect 600 days @ \$65 per day	\$0	\$39,000	\$0	\$39,000	\$0	\$0
<b>Subtotal</b>	<b>\$16,986</b>	<b>\$243,710</b>	<b>\$16,986</b>	<b>\$243,710</b>	<b>\$0</b>	<b>\$0</b>
<b>Federal S&amp;A</b>						
Administrative Cost	\$450	\$34,875	\$450	\$34,875	\$0	\$0
	\$0	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$450</b>	<b>\$34,875</b>	<b>\$450</b>	<b>\$34,875</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$17,436</b>	<b>\$1,662,335</b>	<b>\$17,436</b>	<b>\$1,662,335</b>	<b>\$0</b>	<b>\$0</b>

**Annual Project Costs:**

Corps Administration	\$1,225
Monitoring	\$0

**Construction Schedule:**

		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Plan & Design Start	March-07	7	12	2	0	0	0	0	0	0	0
Plan & Design End	December-08										
Const. Start	August-10										
Const. End	September-11	0	0	0	2	11	0	0	0	0	0

CAMERON-CREOLE  
FRESHWATER INTRO,  
VEGETATIVE PLANTINGS CU1  
CS-49 (1)

*Coastal Wetlands Planning,  
Protection and Restoration Act*



**CAMERON-CREOLE FRESHWATER  
INTRODUCTION PROJECT  
(CS-49)**

**PHASE II APPROVAL OF  
VEGETATIVE PLANTING FEATURE**

*CWPPRA Technical Committee Meeting  
December 2, 2009*

**CAMERON-CREOLE FRESHWATER INTRODUCTION (CS-49)  
VEGETATIVE PLANTING FEATURE**

**Project Location:** Region 4, Cal/Sab Basin, Cameron Parish, east of Calcasieu Lake in the Cameron-Creole Watershed.

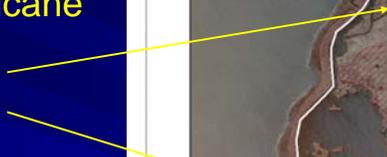
**Problem:** Persistent flooding from impacts associated with Hurricane Rita continued until April 2006. Once the storm waters receded, much of the proposed planting area appeared as mudflats that have yet to revegetate.

**Goal:** Revegetate approximately 200 acres of suitable marsh substrate by expediting vegetative plantings.

Vegetative Planting Feature



2004 DOQQ with Proposed Planting Feature Identified prior to Hurricane Rita



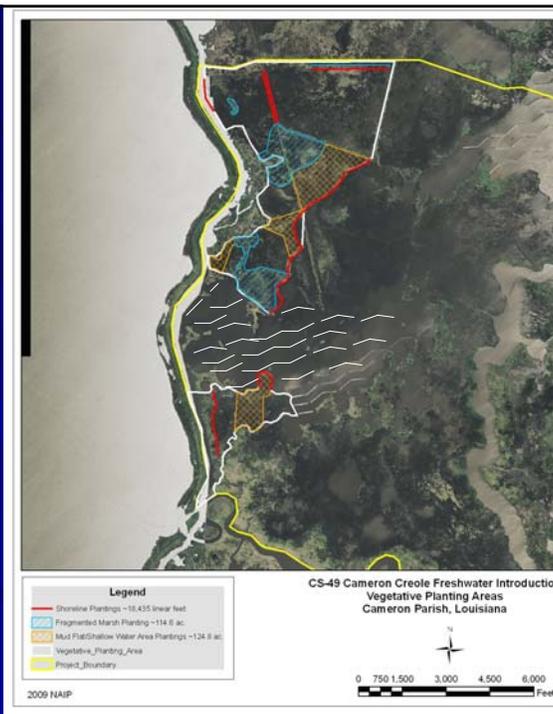
2008 DOQQ with  
Proposed Planting  
Feature Identified  
post Hurricane  
Rita

Thousands of marsh acres  
in the Cameron-Creole were  
converted to open water



Approximately 800  
acres were surveyed  
in August 2009

Those surveys  
identified  
approximately 200  
acres with elevation  
suitable for planting



CAMERON-CREOLE FRESHWATER INTRODUCTION (CS-49)  
VEGETATIVE PLANTING FEATURE

**Project Features**

Targeted plantings, in two applications, are recommended in order to accelerate the re-establishment of plant cover and prevent continued soil and elevation loss

- Application 1 will mostly consist of plugs of *Spartina alterniflora* 'Vermilion' in three areas identified as shoreline, fragmented marsh, and open water
- Application 2 is to establish vegetation in additional areas or areas that remain unvegetated via natural colonization or expansion of Application I plantings.

CAMERON-CREOLE FRESHWATER INTRODUCTION (CS-49)  
VEGETATIVE PLANTING FEATURE

Benefits and Cost

Net Acres after 20 years:	40 Acres
Fully Funded Phase II Total:	\$1,147,090
Fully Funded Phase II Increment 1:	\$990,199

## Why Fund This Project Now?

- Unlikely to revegetate naturally
- Organic soils are extremely vulnerable to erosion
- It is likely that less and less of the area will be suitable for planting with time.
- Without planting the area will almost certainly convert to permanent open water.

July 8, 2009

United States Department of Agriculture



Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

(318) 473-7751  
Fax: (318) 473-7626

November 18, 2009

Mr. Thomas Holden, Chairman  
CWPPRA Technical Committee  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

RE: Cameron Creole Freshwater Introduction CU#1 (CS-49)  
Phase II Authorization Request

Dear Mr. Holden:

The Natural Resources Conservation Service (NRCS) and Louisiana Department of Natural Resources (LDNR) request Phase II authorization for the Cameron Creole Freshwater Introduction Project Construction Unit #1 Vegetative Plantings feature (CS-49). The project was authorized for Phase I as a part of Priority Project List 18 (PPL 18) in January 2009 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force), under the authority of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures (SOP) Manual. Questions regarding this project may be referred to Troy Mallach, Project Manager, at (337) 291-3064.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Britt Paul", written over a light blue rectangular background.

W. Britt Paul  
ASTC/WR & RC&D

Attachments

cc: (via email only)

Kirk Rhinehart, OCPR Technical Committee Member  
Darryl Clark, USFWS Technical Committee Member  
Rick Hartman, NMFS Technical Committee Member  
Brad Crawford, EPA, Technical Committee Member  
Melanie Goodman, USACOE, P&E Subcommittee  
Kelly Templet, DNR P&E Subcommittee Member  
Kevin Roy, USFWS P&E Subcommittee Member  
Rachel Sweeney, NMFS P&E Subcommittee Member  
Garrett Graves, CPRA Chairman

Thomas Holden  
November 18, 2009  
Page 2

John Jurgensen, NRCS P&E Subcommittee Member  
Troy Mallach, Project Manager, NRCS  
Bill Feazel, Project Manager, OCPD  
Frank Chapman, DC, NRCS  
Brad Sticker, DE, NRCS  
Steve Cruse, AC, NRCS

# **Enclosure 1**

## **Information Required in Phase II Authorization Request**

### **Cameron-Creole Freshwater Introduction (CS-49)**

#### **Vegetative Planting Feature**

#### **Description of Phase I Project**

The CS-49 Cameron-Creole Freshwater Introduction Project was approved relative to the 18<sup>th</sup> CWPPRA Priority Project List. The Natural Resources Conservation Service (NRCS) is the federal sponsor for this project. The goal of this project is to restore the function, value, and sustainability to approximately 22,247 acres of marsh and open water by improving hydrologic conditions via freshwater input and increasing organic productivity. Three freshwater introduction structures and approximately 8,000 linear feet of shoreline protection are proposed along the southern bank of the GIWW. Additionally, approximately 65,000 linear feet of terraces are proposed in open water areas south of the GIWW. However, E & D for those features has not been completed.

An additional project feature, the Vegetation Planting Feature, is to replant approximately 200 acres of hurricane damaged marsh. Replanting those acres must be done as quickly as possible to prevent/reduce erosion of exposed soils. E & D for this feature is being completed and separate funding will be requested.

The Cameron-Creole Freshwater Introduction Project is located in Cameron Parish east of Calcasieu Lake and west of the Gibbstown Bridge at Highway 27. The specific location proposed for the structures and the shoreline protection feature is the southern bank of the GIWW originating at the Gibbstown Bridge and continuing approximately 8,000 feet westward. Tributaries that are currently being considered for the proposed freshwater introduction are the Creole, Montesano, and Hebert Precht canals. The proposed terraces would be constructed in the open water areas just south of the GIWW shoreline. Vegetated plantings are proposed for the hurricane damaged marsh east of Calcasieu Lake and their success are not contingent on the other project features (see attached map).

Virtually all of the project area marshes have experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention resulting from hydrologic changes associated with the Calcasieu Ship Channel and the GIWW. Because of man-made alterations to the hydrology, it is unlikely that those marshes will recover without comprehensive restoration efforts. The Cameron-Creole Watershed Project has successfully reduced salinities and increased marsh productivity. However, the area remains disconnected from freshwater, sediments, and nutrients available from the GIWW. In addition, thousands of acres of marsh were damaged by Hurricane Rita and again, more recently, by Hurricane Ike.

The project objectives are: 1) to use the GIWW as a conveyance channel to

direct freshwater and nutrients into the Cameron-Creole marsh; 2) to construct approximately 65,000 linear feet of terraces; 3) to stop the shoreline erosion along the remaining bank of the GIWW; and, 4) to replant approximately 200 acres of hurricane damaged marsh.

The Wetland Value Assessment (WVA) conducted for the Phase I project estimated a benefited area of 22,247 acres and the net acres created/protected/restored of 471 acres at TY20. The net acres attributed to the Vegetative Planting Feature were separated in the WVA and totaled 40 net acres at TY20.

At the time of Phase I approval, the fully-funded project cost was \$12,787,044. That figure included \$1,549,832 for Phase I and \$11,237,212 for Phase II. The original cost breakdown for Phases I and II is presented in the following table:

<b>Task Name</b>	<b>Phase I Costs</b>	<b>Phase II Costs</b>
Engineering and Design	\$1,191,838	
Land Rights	\$105,751	
DNR Administration	\$124,377	\$130,241
NRCS Administration	\$124,377	\$130,241
Monitoring		
Corps Project Management	\$3,490	\$36,887
Construction		\$5,209,628
Contingency		\$1,302,407
Supervision and Inspection		\$573,516
Operations and Maintenance		\$3,854,294
<b>Total</b>	<b>\$1,549,832</b>	<b>\$11,237,212</b>

## **Overview of Phase I Tasks, Process, and Issues**

The following tasks were completed during Phase I:

- 1) Kickoff meeting and field trip
- 2) Cost Share Agreement executed between NRCS and CPRA of Louisiana
- 3) Preliminary landrights
- 4) 30% design review of Vegetative Planting Feature only
- 5) 95% design review of Vegetative Planting Feature only
- 6) Environmental Assessment (Categorical Exclusion Vegetative Planting Feature only)
- 7) Final construction cost estimate of Vegetative Planting Feature only
- 8) Section 404 Permit Application Complete (Vegetative Planting Feature only)
- 9) Overgrazing determination of Vegetative Planting Feature from NRCS
- 10) Cultural resources clearance of Vegetative Planting Feature only

## Geologic Information

According to the Cameron Parish Soils Survey, soil types in the project area include Allemands muck in the freshwater area and Banker and Clovelly muck in the intermediate and brackish areas. Allemands soils consist of level, very poorly drained organic soils that have approximately 30 inches of very fluid muck. The next layer is very fluid mucky clay to approximately 37 inches. Banker soil is a very poorly drained mineral soil found in brackish marshes. They contain a very fluid, mucky surface layer approximately 6 inches thick. The next layer, to a depth of approximately 18 inches, is very fluid mucky clay. Clovelly soil is a very poorly, very fluid, organic soil found in brackish marshes. It contains a very fluid muck to about 24 inches. The next layer, to a depth of approximately 36 inches is very fluid mucky clay (USDA, Natural Resources Conservation Service 1995).

## Hydrology and Hydraulics

The water levels in the watershed are influenced by tides and wind. Looking at the 2008 CRMS data at Station 1743, it appears that mean high water is approximately 1.3 ft NAVD88 and the mean low water is approximately 0.70 ft NAVD88.

## Engineering and Design Tasks

The Project Marsh Planting Area is composed 135 and 650 acre areas = 785 acres total project area. The affected area was too large to cover 100% of the impacted sites cost effectively so targeted plantings, in a phased application, are recommended. The project area was evaluated and suitable elevations and appropriate species were determined for approximately 200 acres.

Engineering and Design of the structures, shoreline protection, and terrace features are ongoing and will not likely be completed until December 2011.

Design meetings for the Vegetative Planting Feature were held at the 30% (30 September 2009) and 95% (30 October 2009) levels.

## Landrights, Cultural Resources, Environmental Compliance and Other Tasks

Preliminary landrights has proceeded smoothly and no problems are anticipated in acquiring final landrights. Section 303e approval request has been initiated.

No cultural resource sites are located within the project area proposed for the Vegetative Planting Feature.

It has been determined that the Vegetative Planting Feature of this project qualifies for a categorical exclusion for the National Environmental Policy Act (NEPA). Documentation of the categorical exclusion will be included in the project files.

A Section 404 and Coastal Use permit application has been submitted. An Ecological Review will not be required for this project.

## **Description of the Phase II Candidate Project**

The final design of the project features is essentially unchanged from the original Phase I project (Figure 1). However, the CS-49 project authorized for Phase I authorization includes several features that require traditional Engineering and Design (E &D). The necessary time to complete E & D of those features will jeopardize the potential restoration of hurricane damaged marshes proposed for vegetative plantings. Ultimately, the freshwater introduction features will benefit the areas proposed for planting. However, it is essential that vegetation be established on those areas quickly to prevent additional soil loss. It is, therefore, our request that funding of the Vegetative Planting Feature be expedited and considered separately from the freshwater introduction, shoreline protection, and terrace features.

Marshes in the Cameron-Creole area experienced severe impacts in August 2005 from Hurricane Rita and again in September 2008 from Hurricane Ike that were likely intensified by the pre- and post-storm drought conditions. Prior to Rita, the mean water salinity was 8ppt in the proposed project area, which was composed of brackish marsh communities, primarily dominated by marshhay cordgrass (*Spartina patens*). The project area lies within intermediate and brackish marshes bordering the east-central and southeastern Calcasieu Lake shoreline where Barras reported that particularly persistent flooding from Rita's surge continued until April 2006 (Farris, et al. 2007). Once drained, much of the designated project areas appeared as mudflat areas that have yet to revegetate (Figures 2 – 5).

This Phase II funding request is only to expedite the Vegetative Planting Feature. There are many examples of marsh loss associated with hurricanes in this area and it is unlikely that the area proposed for plantings will recover without the proposed project. Thousands of acres of open water between Sabine and Calcasieu Lake have existed since Hurricane Audrey (1957) and Carla (1961) (Valentine 1988). Those areas remain large lakes (approximately 1 – 2 feet deep) and continue to expand as organic soils break up and are exported into Calcasieu Lake.

Success of the proposed plantings is expected to be high and is based on the Cameron-Creole Watershed Management Preliminary Report (DeLany 1988). That report quantified a 91% survival rate for *Spartina alterniflora* planted on dead *Spartina patens* root mat in the targeted area. However, it is likely that less and less of the area will be suitable for planting with time.

Targeted plantings, in two applications, are recommended in order to accelerate the re-establishment of plant cover and prevent continued soil and elevation loss. The affected area is too large to cover 100% of the impacted sites cost effectively, and conditions may still be changing. Therefore, approximately 200 acres were selected for plantings based on elevation surveys conducted August 26 – 31<sup>st</sup> (Figure 6).

Application 1 – TY0: The goal of the first planting application is to establish a sufficient amount of the desired species to serve as parent material to effectively “jump-start” regeneration of emergent marsh where elevations are sufficient. The plantings will especially target strategic areas, i.e. critical sites where loss is most imminent and would permanently eliminate recovery opportunities or allow expanded loss. This includes sites furthest away from existing natural communities, where substrate is most vulnerable to erosion, such as along newly forming or expanding drainage channels and to prevent coalescence of interior open water areas from continued substrate collapse.

The Vegetative Planting Feature will mostly consist of plugs of *Spartina alterniflora* ‘Vermilion’, commonly known as ‘Vermilion’ smooth cordgrass. This planting may also include trade-gallon sized ‘Vermilion’ smooth cordgrass. The final selection and placement of species size will depend upon existing site-specific conditions including substrate elevations and potential wave impacts.

Three types of areas have been identified for targeted planting as a result of the Phase 1 evaluation of an elevation survey of transects, aerial photography, and water level information. Actual planting density and arrangement is dependent on the specific need for each site type, as follows:

- 1) Plantings will be installed on canal banks or shorelines along stretches of vulnerable areas that are exposed to greater wave or water energy, and therefore subject to accelerated edge erosion. Plantings will be arranged in a double row configuration with 2.5-foot alternating centers to form a continuous vegetative buffer that will stabilize edges and prevent coalescence of ponds or expansion of adjacent deeper water areas. Estimated quantities and costs have been calculated for the installation of smooth cordgrass along approximately 17,500 linear feet of bank or shoreline plantings.

Vegetative plugs:

$17,500 \text{ lf} \times 2 \text{ rows} = 35,000 \text{ lf} \div 1 \text{ plt} / 2.5 \text{ lf} = 14,000 \text{ plts} \times \$5 \text{ per plt} = \$70,000$

or,

Trade gallons:

$17,500 \text{ lf} \times 2 \text{ rows} = 35,000 \text{ lf} \div 1 \text{ plt} / 4 \text{ lf} = 8,750 \times \$8 \text{ per plt} = \$70,000$

- 2) Plantings will be installed on areas where some existing emergent vegetation remains but are badly fragmented, and therefore those bare areas are subject to substrate collapse to elevations too low to be re-colonized by adjacent existing species. A combination planting will be installed that consists of a double row configuration to form a continuous vegetative perimeter along sections of the delineated boundaries (included in bank or shoreline planting footage above), and multiple rows planted with alternating centers on interior bare areas. Target planting density for these areas is approximately 50 to 100 plants per acre. Estimated quantities and costs for this site type have been calculated for the installation of approximately 100 acres of plantings of smooth cordgrass plugs

using the highest density (multiple rows arranged approximately 20 feet apart on 20-foot centers).

$$100 \text{ ac} \times 100 \text{ plts/ac} = 10,000 \text{ plts} \times \$5 \text{ per plt} = \$50,000$$

- 3) Areas where no emergent vegetation remains and that are so large that natural regeneration of cover from adjacent community spread is unlikely and therefore are subject to substrate collapse to elevations too low to be recolonized – Planting will be installed on rows with alternating centers to cover the maximum amount of bare area. Target planting density for these areas is approximately 100 to 200 plants per acre. Estimated quantities and costs for this site type have been calculated for the installation of approximately 100 acres of plantings using the highest density (multiple rows arranged approximately 15 feet apart on 15-foot centers).

$$100 \text{ ac} \times 200 \text{ plts/ac} = 20,000 \text{ plts} \times \$5 \text{ per plt} = \$100,000$$

Total Application 1 Cost - \$220,000.

Based on water level information, transplants will be installed on un-vegetated substrate at elevations no lower than 0.0 ft NAVD 88.

"NOTE: Due to the lack of predictability in exact field conditions, adjustment may be necessary to the actual planting location of some plants. Therefore, the above linear footage and acreage amounts delineated for each type of planting area are the amounts that will actually be planted within the larger areas designated on the plan map."

Application 2 – TY 1 or 2: The goal of this planting application is to establish vegetation in additional areas that remain unvegetated via natural colonization or expansion of Application I plantings. Application II plantings will also target strategic areas, i.e. critical sites where loss is most imminent and would permanently eliminate recovery opportunities or allow expanded loss.

Planting will probably consist of vegetative plugs or trade gallons of 'Vermilion' smooth cordgrass, but at this time would not eliminate the possibility of selecting from other appropriate species, such as 'Gulf Coast' marshhay cordgrass (*Spartina patens* 'Gulf Coast'), Brazoria Germplasm seashore paspalum (*Paspalum vaginatum* Brazoria Germplasm), salt grass (*Distichlis spicata*), and gulf cordgrass (*Spartina spartinae*). Developing a detailed design application based on a prediction of future conditions in two to three years is inappropriate at this time as the project planting area has continued to transition and subside from storm impacts, the large water control structures at the lake rim have only recently resumed operation, and construction of the large adjacent DU terrace field has just been completed. Decisions on design details will be based on observation of the character of future changes in site conditions and evaluation of the Application 1 planting performance over at least one growing season.

Where possible, species selection will preferably be based on the dominant species in the pre-Rita vegetation community, but the final selection and placement of species will be dependent upon existing site-specific conditions including soil type, salinity and elevations.

The planting density used to estimate costs for this project was approximately one-fourth of that typically used for brackish (i.e., 875 plants/acre) and is 220 plants per acre x \$5 per plant x 200 acres = \$220,000.

NOTE: Actual plant density and arrangement will depend on the specific need at each site – i.e. row/column configuration, slope or channel bank, pond edge, etc).

#### Updated Assessment of Benefits

The original WVA conducted for the Phase I project estimated a benefited area of 22,247 acres and the net acres created/protected/restored of 473 acres at TY20. The Phase II funding request is for the Vegetative Planting Feature only. Benefits from that feature were calculated separately in the approved WVA and the benefitted area remains 200 acres with a net acres created/protected/restored of 40 acres at TY 20.

#### Modifications to the Phase I Project

The Phase 0 approved project has not changed. The project features are essentially unchanged from the original Phase I project with the exception of timing. The proposed funding request is to expedite the Vegetative Planting Feature of the project.

#### Current Cost Estimate

The Phase I cost of the Cameron-Creole Freshwater Introduction Project (CS-49) remains unchanged at \$1,549,832. The fully-funded Phase II estimate for the Vegetative Planting Feature prepared by the CWPPRA Economic Work Group is \$1,147,096; the Phase II-Increment 1 cost for the Vegetative Planting Feature is \$990,199.

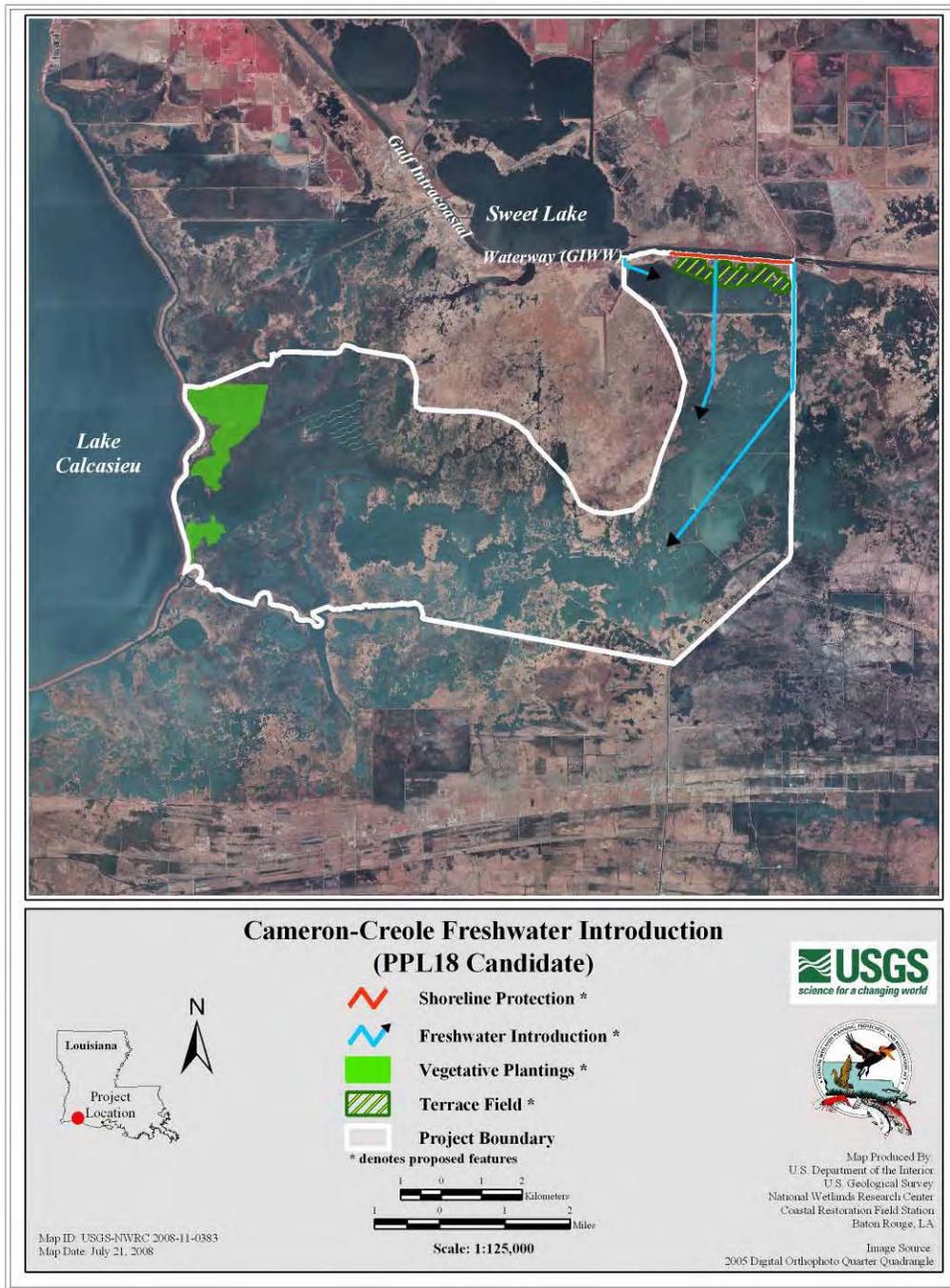


Figure 1. Approved CS-49 project map identifying the project boundaries and features including vegetative plantings.



**Figure 2. Proposed planting area damaged by Hurricane Rita (September 2005). Photo taken in November of 2007.**



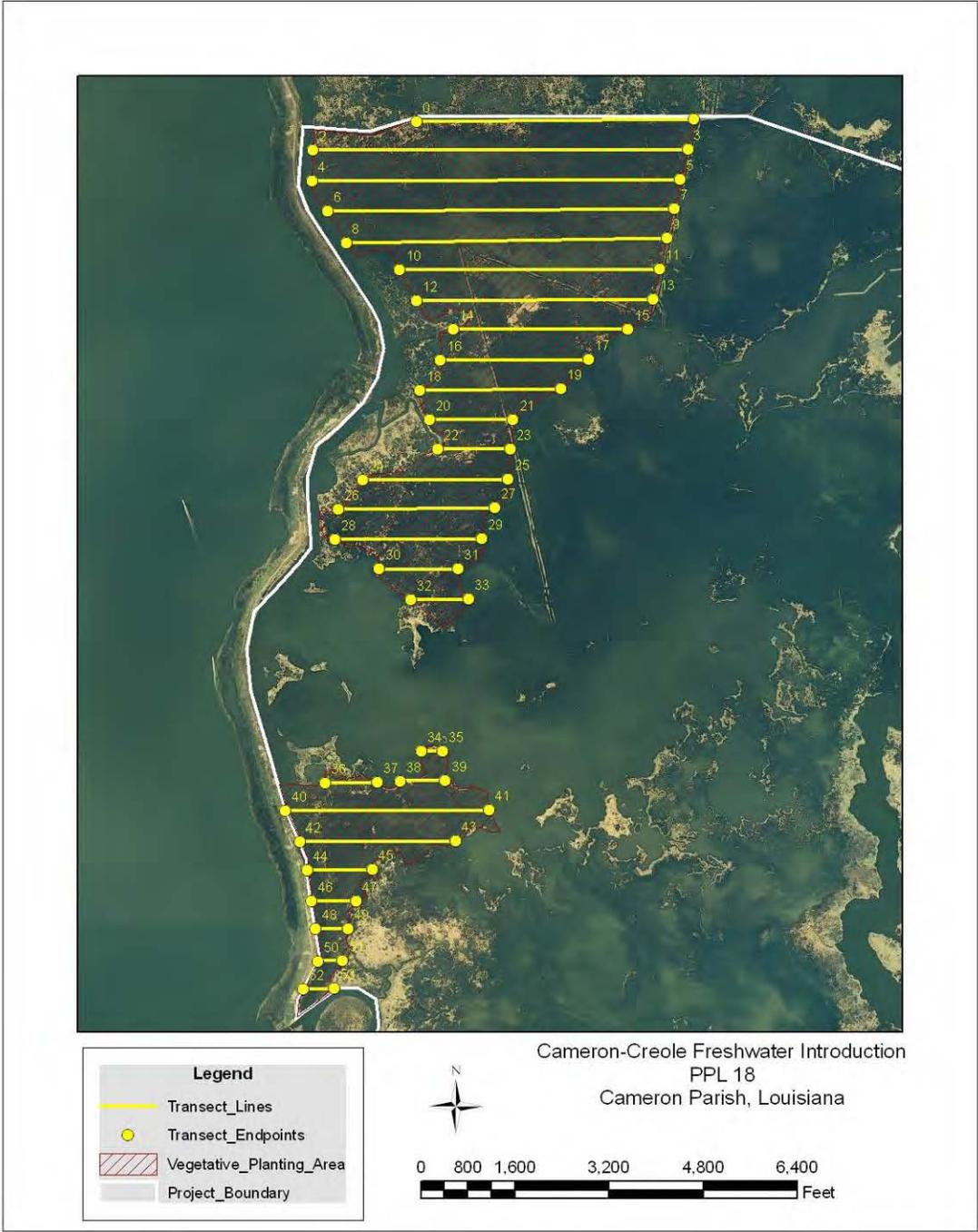
**Figure 3. Expanded view of area proposed for planting. Photo taken October 2007 (Tommy Michot)**



**Figure 4. Proposed planting area damaged by Hurricanes Rita and Ike (September 2005 and 2008). Photo taken in July of 2009.**



**Figure 5. Proposed planting area damaged by Hurricanes Rita and Ike (September 2005 and 2008). Photo taken in July of 2009.**



**Figure 6. NRCS surveys of the proposed Vegetative Planting Feature.**

## **Checklist of Phase II Requirements**

### **CS-49 Cameron-Creole Freshwater Introduction Vegetative Planting Feature**

#### **A. List of Project Goals and Strategies.**

The goal of the Vegetative Planting Feature is to quickly re-establish emergent marsh vegetation on areas damaged by Hurricanes Rita and Ike. The strategy is to replant those acres as quickly as possible to prevent/reduce erosion of exposed soils

#### **B. A Statement that the Cost Sharing Agreement between the Lead Agency and the Local Sponsor has been executed for Phase I.**

A Cost Share Agreement between the Coastal Protection and Restoration Authority (CPRA) of Louisiana and NRCS was executed on 4 May 2009. A draft amendment, authorizing construction, operation, maintenance, and monitoring, to the Cost Share Agreement has been prepared.

#### **C. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase 2 approval.**

By way of letter received (22 September 2009) OCPR stated that they anticipated no landrights acquisition problems with the project. At this time all landowners have indicated approval of project and signatures pending funding approval, and no pipeline companies would be impacted.

#### **D. A favorable Preliminary Design Review (30% Design Level). The Preliminary Design shall include completion of surveys, borings, geotechnical investigations, data analysis review, hydrologic data collection and analysis, modeling (if necessary), and development of preliminary designs.**

A 30% design review meeting was held on 30 September 2009, and resulted in favorable reviews of the project design with minor modifications. OCPR and NRCS agreed on the project design and agreed to proceed to the 95% design level and with project implementation.

#### **E. Final Project Design Review (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporate elements from the Preliminary Design and the Preliminary Design Review. Final Project Design Review (95%) must be successfully completed prior to seeking Technical Committee approval.**

A 95% design meeting was held on 30 October 2009, and resulted in favorable reviews of the project design with no modifications and few comments. OCPR and NRCS agreed on the project design and agreed to proceed with project implementation.

#### **F. A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act, must be submitted two weeks before the Technical Committee meeting at which Phase 2 approval is requested.**

It has been determined that the Vegetative Planting Feature of this project qualifies for a categorical exclusion for the National Environmental Policy Act (NEPA). Documentation of the categorical exclusion will be included in the project files.

**G. A written summary of the findings of the Ecological Review if completed (See APPENDIX B).**

OCPR and NRCS agreed that no Ecological Review would be conducted for this project.

**H. Application for and/or issuance of the public notices for permits at least two weeks before the Technical Committee meeting at which Phase 2 approval is requested.**

Section 404 Permit and Coastal Use Permit has been applied for.

**I. A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.**

Field investigations by NRCS personnel and the project team have determined that an HTRW assessment is not required for this project.

**J. Section 303(e) approval from the Corps.**

The Section 303(e) approval request has been initiated.

**K. Overgrazing determination from the NRCS (if necessary).**

NRCS has determined that overgrazing is not, and is not anticipated to be, a problem in the project area.

**L. Revised fully funded cost estimate, reviewed and approved by the Engineering Work Group prior to fully funding by the Economic Work Group, based on the revised Project design and the specific Phase 2 funding request as outlined in below spreadsheet.**

The Phase I cost of the Cameron-Creole Freshwater Introduction Project (CS-49) remains unchanged at \$1,549,832. The fully-funded Phase II estimate for the Vegetative Planting Feature prepared by the CWPPRA Economic Work Group is \$1,147,096; the Phase II-Increment 1 cost for the Vegetative Planting Feature is \$990,199.

**M. A Wetland Value Assessment, reviewed and approved by the Environmental Work Group.**

The Wetland Value Assessment (WVA) conducted for the Phase I project estimated a benefited area of 22,247 acres and the net acres created/protected/restored of 471 acres at TY20. The net acres attributed to the Vegetative Planting Feature were separated in the WVA and totaled 40 net acres at TY20.

## References

- DeLany, Billy. 1988. Cameron-Creole Watershed Management Preliminary Report *in Proc. Symp. Marsh Management in coastal Louisiana: Effects and Issues.* 1989. Duffy, W.G., and D. Clark editors.
- Valentine, Jacob. 1988. The vegetation of Units 1, 2, 3, 4, 5, and 6 on the Sabine National Wildlife Refuge, Cameron Parish, Louisiana.

**REQUEST FOR PHASE II APPROVAL**

PROJECT: Cameron Creole Freshwater Introduction (CS-49) Vegetative Planting Component  
 PPL: 18 Project No. CS-49  
 Agency: NRCS

Phase I Approval Date: 21-Jan-09  
 Phase II Approval Date: 20-Jan-10 Const Start: Aug-10

	Original Approved Baseline (100% Level) (Col 1 + Col 2)	Current Approved Baseline (Col 3 + Col 4)	Original Baseline Phase I (100% Level) 1/	Original Baseline Phase II (100% Level) 2/	Current Baseline Phase I 3/	Recommended Baseline Phase II (100% Level) 4/	Recommended Baseline Phase II Incr 1 (100% Level) 5/
Engr & Des	1,191,838	1,191,838	1,191,838		1,191,838		
Lands	105,751	105,751	105,751		105,751		
Fed S&A	254,618	136,177	124,377	130,241	124,377	11,800	11,800
LDNR S&A	254,618	132,244	124,377	130,241	124,377	7,867	7,867
COE Proj Mgmt	-	-					
Phase I	3,490	3,490	3,490		3,490		
Ph II Const Phase	1,929	1,547		1,929		1,547	1,547
Ph II Long Term	34,958	31,036		34,958		31,036	3,837
Const Contract	5,209,628	314,674		5,209,628		314,674	314,674
Const S&I	431,750	44,647		431,750		44,647	44,647
Contingency	1,302,407	78,669		1,302,407		78,669	78,669
Monitoring	-	-					
Phase I	-	-					
Ph II Const Phase	-	-					
Ph II Long Term	-	-					
O&M - State	3,854,204	576,533		3,854,204		576,533	509,621
O&M - Fed	141,786	81,323		141,786		81,323	17,537
<b>Total</b>	<b>12,787,047</b>	<b>2,696,929</b>	<b>1,549,833</b>	<b>11,237,214</b>	<b>1,549,833</b>	<b>1,147,096</b>	<b>990,199</b>
<b>Total Project</b>				<b>12,787,047</b>		<b>2,696,929</b>	<b>2,540,032</b>
Current Estimate Compared to Original		21%					

Prepared By: Quin Kinler Date Prepared: 17-Nov-09

NOTE: Recommended Phase II and Phase II Increment 1 pertains only to the Vegetative Planting Features.

**Coastal Wetlands Conservation and Restoration Plan**  
**CS-49 Cameron Creole CU#1 Veg Plantings**  
**Project Priority List 18 (ver.073008)**

Project Construction Years:	0	Total Project Years	20
Interest Rate	4.375%	Amortization Factor	0.07605
Fully Funded First Costs	\$459,205	Total Fully Funded Costs	\$1,147,097

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$481,147	\$36,589
Monitoring	\$0	\$0
State O & M Costs	\$501,490	\$38,136
Other Federal Costs	<u>\$65,824</u>	<u>\$5,006</u>
Average Annual Cost	\$79,731	\$79,731
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	
Total Net Acres	0	

**Coastal Wetlands Conservation and Restoration Plan**

**CS-49 Cameron Creole CU#1 Veg Plantings**

**Project Priority List 18 (ver.073008)**

**Project Costs** \$1,147,097

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
<b>Phase I</b>											
3	2009	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
2	2010	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
1	2011	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
0	2012	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
-1	2013	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
TOTAL		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Phase II</b>											
2	2010	-	\$0	\$3,343	\$2,229	\$204	\$0	\$12,648	\$22,286	\$89,143	\$129,852
1	2011	-	\$0	\$8,357	\$5,571	\$1,326	-	\$31,620	\$55,714	\$222,857	\$325,446
0	2012	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
-1	2013	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
-2	2014	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
TOTAL		\$0	\$0	\$11,700	\$7,800	\$1,531	\$0	\$44,268	\$78,000	\$312,000	\$455,299
Total First Costs		\$0	\$0	\$11,700	\$7,800	\$1,531	\$0	\$44,268	\$78,000	\$312,000	\$455,299

Year	FY	Monitoring	M&M & State Insp	Corps Admin	Fed S&A & Insp
0 Discount	2012	\$0	\$3,100	\$1,225	\$3,000
-1 Discount	2013	\$0	\$482,120	\$1,225	\$10,800
-2 Discount	2014	\$0	\$3,100	\$1,225	\$3,000
-3 Discount	2015	\$0	\$3,100	\$1,225	\$3,000
-4 Discount	2016	\$0	\$3,100	\$1,225	\$3,000
-5 Discount	2017	\$0	\$3,100	\$1,225	\$3,000
-6 Discount	2018	\$0	\$3,100	\$1,225	\$3,000
-7 Discount	2019	\$0	\$3,100	\$1,225	\$3,000
-8 Discount	2020	\$0	\$3,100	\$1,225	\$3,000
-9 Discount	2021	\$0	\$3,100	\$1,225	\$3,000
-10 Discount	2022	\$0	\$3,100	\$1,225	\$3,000
-11 Discount	2023	\$0	\$3,100	\$1,225	\$3,000
-12 Discount	2024	\$0	\$3,100	\$1,225	\$3,000
-13 Discount	2025	\$0	\$3,100	\$1,225	\$3,000
-14 Discount	2026	\$0	\$3,100	\$1,225	\$3,000
-15 Discount	2027	\$0	\$3,100	\$1,225	\$3,000
-16 Discount	2028	\$0	\$3,100	\$1,225	\$3,000
-17 Discount	2029	\$0	\$3,100	\$1,225	\$3,000
-18 Discount	2030	\$0	\$3,100	\$1,225	\$3,000
-19 Discount	2031	\$0	\$3,100	\$2,041	\$3,000
Total		\$0	\$541,020	\$25,316	\$67,800

**Coastal Wetlands Conservation and Restoration Plan**  
**CS-49 Cameron Creole CU#1 Veg Plantings**  
**Project Priority List 18 (ver.073008)**

<b>Present Valued Costs</b>		<b>Total Discounted Costs</b>			<b>\$1,048,461</b>				<b>Amortized Costs</b>			<b>\$79,731</b>
<b>Year</b>	<b>Fiscal Year</b>	<b>E&amp;D</b>	<b>Land Rights</b>	<b>Federal S&amp;A</b>	<b>LDNR S&amp;A</b>	<b>Corps Admin</b>	<b>Monitoring</b>	<b>S&amp;I</b>	<b>Contingency</b>	<b>Construction Costs</b>	<b>Total First Cost</b>	
<b>Phase I</b>												
3	1.137	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.089	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
1	1.044	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
0	1.000	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-1	0.958	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Total</b>			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Phase II</b>												
2	1.089	2010	\$0	\$0	\$3,642	\$2,428	\$222	\$0	\$13,779	\$24,278	\$97,113	\$141,463
1	1.044	2011	\$0	\$0	\$8,723	\$5,815	\$1,384	\$0	\$33,003	\$58,152	\$232,607	\$339,685
0	1.000	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.958	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.918	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>			\$0	\$0	\$12,365	\$8,243	\$1,607	\$0	\$46,782	\$82,430	\$329,721	\$481,147
<b>Total First Cost</b>			\$0	\$0	\$12,365	\$8,243	\$1,607	\$0	\$46,782	\$82,430	\$329,721	\$481,147
<b>Year</b>	<b>FY</b>	<b>Monitoring</b>	<b>M&amp;M &amp; State Insp</b>	<b>Corps Admin</b>	<b>Fed S&amp;A &amp; Insp</b>							
0	1.000	2012	\$0	\$3,100	\$1,225	\$3,000						
-1	0.958	2013	\$0	\$461,911	\$1,174	\$10,347						
-2	0.918	2014	\$0	\$2,846	\$1,124	\$2,754						
-3	0.879	2015	\$0	\$2,726	\$1,077	\$2,638						
-4	0.843	2016	\$0	\$2,612	\$1,032	\$2,528						
-5	0.807	2017	\$0	\$2,503	\$989	\$2,422						
-6	0.773	2018	\$0	\$2,398	\$947	\$2,320						
-7	0.741	2019	\$0	\$2,297	\$908	\$2,223						
-8	0.710	2020	\$0	\$2,201	\$870	\$2,130						
-9	0.680	2021	\$0	\$2,109	\$833	\$2,041						
-10	0.652	2022	\$0	\$2,020	\$798	\$1,955						
-11	0.624	2023	\$0	\$1,936	\$765	\$1,873						
-12	0.598	2024	\$0	\$1,854	\$733	\$1,795						
-13	0.573	2025	\$0	\$1,777	\$702	\$1,719						
-14	0.549	2026	\$0	\$1,702	\$673	\$1,647						
-15	0.526	2027	\$0	\$1,631	\$644	\$1,578						
-16	0.504	2028	\$0	\$1,562	\$617	\$1,512						
-17	0.483	2029	\$0	\$1,497	\$592	\$1,449						
-18	0.463	2030	\$0	\$1,434	\$567	\$1,388						
-19	0.443	2031	\$0	\$1,374	\$905	\$1,330						
<b>Total</b>			\$0	\$501,490	\$17,175	\$48,649						

**Coastal Wetlands Conservation and Restoration Plan**  
**CS-49 Cameron Creole CU#1 Veg Plantings**  
**Project Priority List 18 (ver.073008)**

**Fully Funded Costs**                      Total Fully Funded Costs                      \$1,147,097                      Amortized Costs                      \$87,232

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
<b>Phase I</b>											
3	0.998	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.000	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1	1.012	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	1.026	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.044	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1

<b>Phase II</b>												
2	1.000	2010	\$0	\$0	\$3,343	\$2,229	\$204	\$0	\$12,648	\$22,286	\$89,143	\$129,852
1	1.012	2011	\$0	\$0	\$8,457	\$5,638	\$1,342	\$0	\$31,999	\$56,383	\$225,531	\$329,352
0	1.026	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.044	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.062	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$11,800	\$7,867	\$1,547	\$0	\$44,647	\$78,669	\$314,674	\$459,204

Total Cost                      \$0                      \$0                      \$11,800                      \$7,867                      \$1,547                      \$0                      \$44,647                      \$78,669                      \$314,674                      \$459,205

Year	FY	Monitoring	J&M & State Insp	Corps Admin	Fed S&A & Insp	
0	1.0262	2012	\$0	\$3,181	\$1,257	\$3,079
-1	1.0436	2013	\$0	\$503,147	\$1,278	\$11,271
-2	1.0624	2014	\$0	\$3,293	\$1,301	\$3,187
-3	1.0815	2015	\$0	\$3,353	\$1,325	\$3,245
-4	1.1010	2016	\$0	\$3,413	\$1,349	\$3,303
-5	1.1208	2017	\$0	\$3,474	\$1,373	\$3,362
-6	1.1410	2018	\$0	\$3,537	\$1,398	\$3,423
-7	1.1615	2019	\$0	\$3,601	\$1,423	\$3,485
-8	1.1824	2020	\$0	\$3,666	\$1,448	\$3,547
-9	1.2037	2021	\$0	\$3,731	\$1,475	\$3,611
-10	1.2254	2022	\$0	\$3,799	\$1,501	\$3,676
-11	1.2474	2023	\$0	\$3,867	\$1,528	\$3,742
-12	1.2699	2024	\$0	\$3,937	\$1,556	\$3,810
-13	1.2927	2025	\$0	\$4,008	\$1,584	\$3,878
-14	1.3160	2026	\$0	\$4,080	\$1,612	\$3,948
-15	1.3397	2027	\$0	\$4,153	\$1,641	\$4,019
-16	1.3638	2028	\$0	\$4,228	\$1,671	\$4,091
-17	1.3884	2029	\$0	\$4,304	\$1,701	\$4,165
-18	1.4134	2030	\$0	\$4,381	\$1,731	\$4,240
-19	1.4134	2031	\$0	\$4,381	\$2,885	\$4,240
Total			\$0	\$575,533	\$31,036	\$81,323





FRESHWATER BAYOU CANAL,  
FRESHWATER BAYOU LOCK  
AND BELLE ISLE CANAL  
(TV-11b)

**Freshwater Bayou Bank Stabilization  
(Belle Isle Canal to Lock) (East) (TV-11b/XTV-27)  
Vermilion Parish, Louisiana**



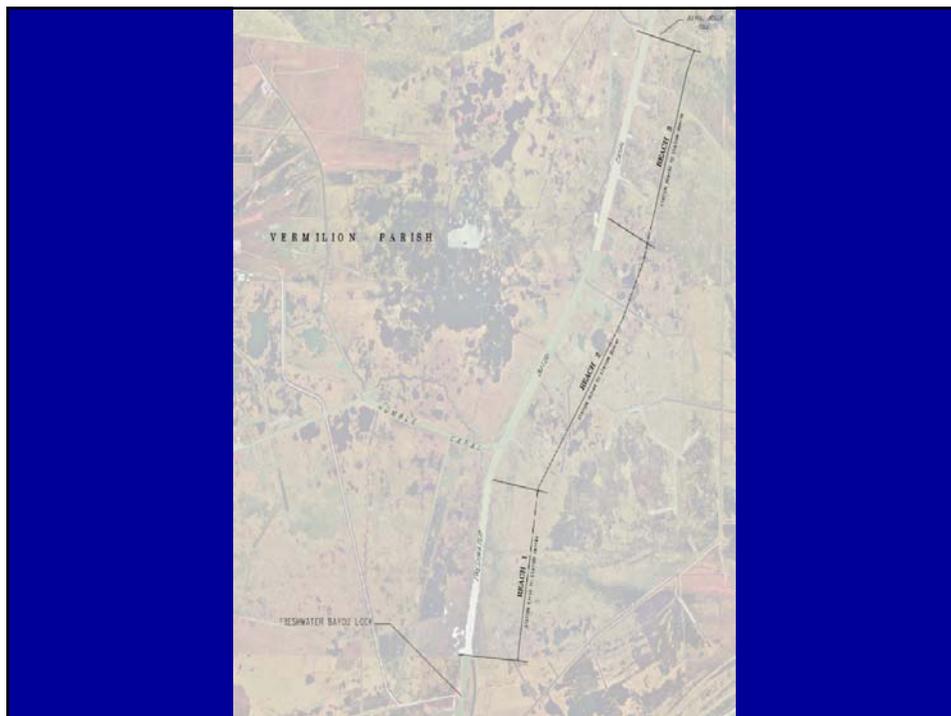
December 2009

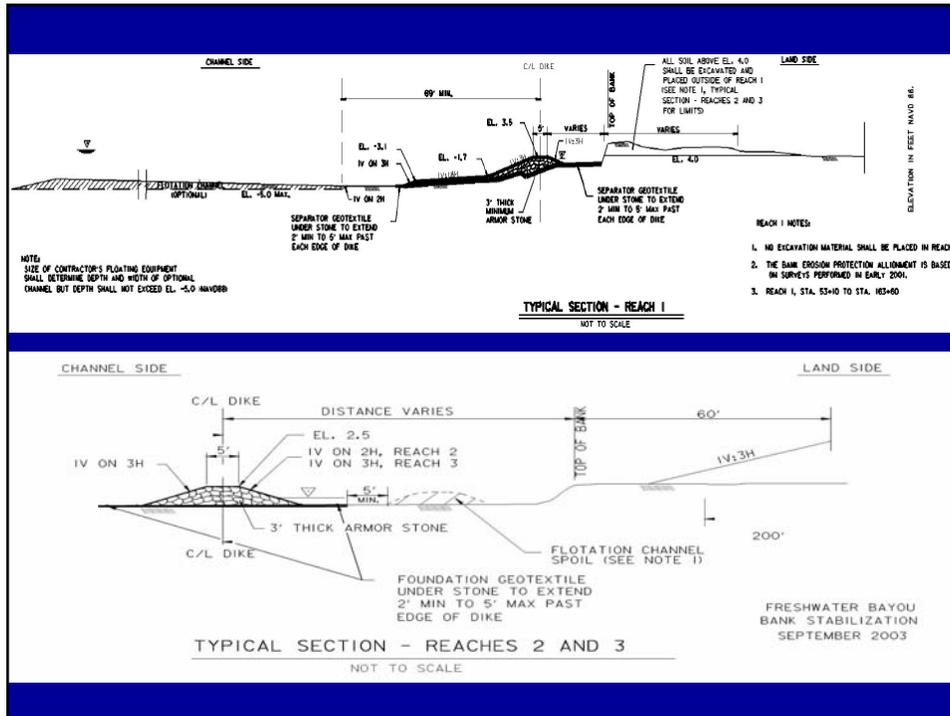
## Project Background

- Authorized in January 2000 by Breaux Act (CWPPRA) Task Force on PPL9
- ~40,000 linear feet of rock dike to stop shoreline erosion along Freshwater Bayou Canal from Belle Isle Bayou to the Lock
- Original project included hydrologic restoration features but those were dropped after initial review by the design team

## Wetlands Loss Problems

- The banks of Freshwater Bayou Canal are rapidly eroding (-10ft/yr), due mainly to boat traffic.
- Breaches in the bankline allow boat wakes to push turbid, higher salinity waters into interior wetlands, causing marsh loss and decreasing SAV coverage.
- A large area of interior marsh in the northern portion of the project area is fragmenting and turning to open water, in part due to the breaches.





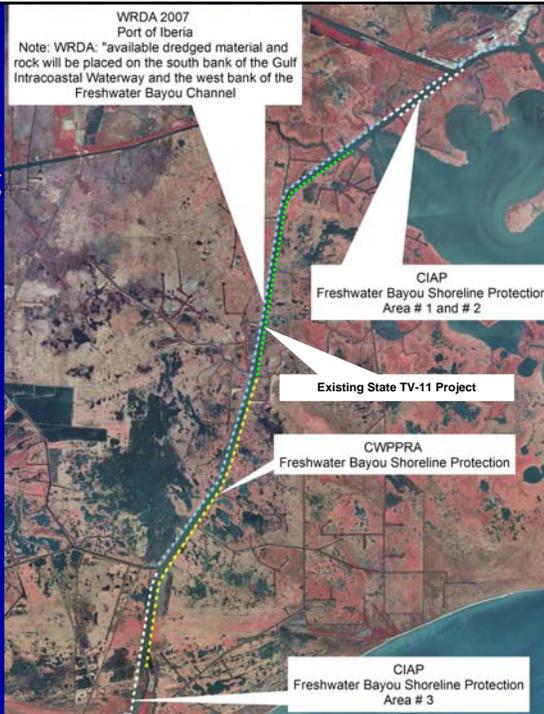
## Benefits and Costs

- Rock dike will protect and benefit 241 acres of marsh over 20-years
- Project will extend shoreline protection from the lock to a completed state-only project (TV-11)
- Fully funded cost estimate is \$38,065,335.



## Benefits

- Will be another key component in stabilizing Freshwater Bayou:
- TV-11 (State)
- CWPPRA
- CIAP (Area 1, 2, and 3)
- Port of Iberia



## Questions?





DEPARTMENT OF THE ARMY  
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 60267  
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO

ATTENTION OF:

CEMVN-PM-W (1110-2-1150a)

6 November 2009

MEMORANDUM FOR Mr. Tom Holden, Chairman, CWPPRA Technical Committee

SUBJECT: Construction Approval Request for Freshwater Bayou Bank Stabilization – Belle Isle Bayou to the Lock (TV-11b/XTV-27), Vermilion Parish, Louisiana.

1. As required by Section 6(j) of the CWPPRA Standard Operating Procedures Manual, the U.S. Army Corps of Engineers (USACE) and Louisiana Department of Natural Resources (LDNR) request approval to construct the subject project.
2. The original project approved on the 9<sup>th</sup> priority list included shoreline protection and hydrologic restoration components. The hydrologic restoration features were removed during the design phase (see item m for additional details about the removal of this feature). The following information summarizes completion of the tasks required prior to seeking authorization for project construction:

a. List of Project Goals and Strategies.

The goal of the project is to stop shoreline erosion along the east bank of Freshwater Bayou Canal between the Leland Bowman Lock and Belle Isle Bayou (approximately 40,000 feet) using a rock dike. A copy of the project goals and strategies are included in enclosure A.

b. A Statement that the Cost Sharing Agreement between the Lead Agency and the Local Sponsor has been executed for Phase I.

A USACE legal opinion indicates that execution of a cost share agreement requires prior Task Force approval of construction. In line with this requirement, the agreement will be executed following Task Force action on the project.

c. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase 2 approval.

A Real Estate Plan has been completed. The plan outlines all of the necessary real estate instruments required to construct the project and identifies affected landowners. It is estimated that all necessary real estate instruments can be obtained within 90-days of construction approval. A copy of the Draft Real Estate Plan is included in Enclosure C.

d. A favorable Preliminary Design Review (30% Design Level).

A 30% Design Review was held in Abbeville, Louisiana on June 27, 2003 and a memo documenting the completion of the design review was sent to the members of the Technical Committee. In addition, the Louisiana Department of Natural Resources provided a letter of support for proceeding with completion of the design of the project.

e. Final Project Design Review (95% Design Level).

A 95% design review was completed on 22 January 2004. The Louisiana Department of Natural Resources provided a letter of support for proceeding with Phase II of the project. A copy of the letter is included in enclosure E.

f. A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act must be submitted thirty days before the request for approval.

A Draft Environmental Assessment was released for public comment in May 2002. A Finding of No Significant Impact was signed in November 2002 completing the National Environmental Policy Act compliance requirements. A copy of the Finding of No Significant Impact letter is included in enclosure F.

g. A written summary of the findings of the Ecological Review.

A final Ecological Review was distributed at the 95% Design Review meeting. A summary of the findings is found on page 7 and page 8 of the report. A copy of the report is included in enclosure G.

h. Application for and/or issuance of the public notices for permits.

The Corps of Engineers is not required to obtain a permit to construct this project. However, an Environmental Assessment was completed in November 2002 to cover all wetlands conservation and protection issues and other environmental considerations associated with construction and maintenance of the project.

- i. A HTRW assessment, if required, has been prepared.

An HTRW assessment was included in the Environmental Assessment completed in November 2002.

- j. Section 303(e) approval from the Corps.

Section 303(e) approval was provided in February 2004.

- k. Overgrazing determination from the NRCS (if necessary).

An overgrazing determination from the NRCS was provided on 22 December 2003 and is included as part of the Real Estate Plan. The Natural Resources Conservation Service concluded that overgrazing is not a problem in the project area. A copy of the overgrazing determination letter provided by NRCS is included in enclosure G.

- l. Revised cost estimate of Phase 2 activities, based on the revised Project design.

The Economics Work Group prepared a fully funded estimate in January 2007 in the amount of \$38,559,962. The estimate was updated in November 2009 detailing a fully funded cost of \$38,065,335. A copy of the revised estimate is included in enclosure L.

- m. A revised Wetland Value Assessment must be prepared if, during the review of the preliminary NEPA documentation, three of the Task Force agencies determine that a significant change in project scope occurred.

Changes in project scope resulted in a reduction in the project area and environmental benefits. As a result, in accordance with standard operating procedures, the project development team coordinated revisions to the WVA with the Chairman of the CWPPRA Environmental Work Group. Project benefits were reduced to 74.26 Average Annual Habitat Units; a 70% reduction from the originally authorized project. However, the elimination of the water control structures also reduced the project construction costs and as a result the revised cost benefit ratio for the shoreline protection feature is not significantly different than the original estimate.

### Comparison of Original and Revised Wetland Value Assessments

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)
Candidate Project	529	252
Phase II Revised Project	241	74.26
Difference	-288	-177.74

3. If you have any questions regarding this project please call Mr. Travis Creel at (504) 862-1071.



Travis Creel  
Project Manager

# Enclosure A

Original Phase I Project  
Fact Sheet

Overview of Phase I Tasks,  
Process and Issues

Updated Phase II Project  
Fact Sheet

Project Goals and Strategies

## **Description of Original Phase I Project Freshwater Bayou Canal Bank Stabilization (Belle Isle to Lock)**

- Authority:** Coastal Wetlands Planning, Protection and Restoration Act
- Sponsors:** U.S. Army Corps of Engineers and LA Department of Natural Resources
- Location:** Vermilion Parish, LA.
- Problem:** The banks of Freshwater Bayou Canal are rapidly eroding, due mainly to boat traffic. In the project area, several breaches have developed in the bankline along the east side of the canal. These breaches allow boat wakes to push turbid, higher salinity waters into interior marsh, causing marsh loss and decreasing SAV coverage. A large area of interior marsh in the northern portion of the project area is fragmenting and turning to open water, in part due to the breaches.
- Features:** 1) A rock dike would be built along the eastern bank of Freshwater Bayou Canal, between Belle Isle Canal and Freshwater Bayou Lock, a distance of approximately 40,000-ft. The dike is designed to halt shoreline erosion along the east bank of the canal. Special features are being incorporated into the project design to allow estuarine organisms to access wetlands behind the dike. 2) Four water control structures would be built in the spoil banks of canals running along the eastern and southern boundary of the project area. The structures would be flap-gated variable crest weirs.
- Benefits:** Over 20-years, the project will benefit approximately 529 ac of wetlands.
- Cost:** The preliminary estimated cost to construct, maintain, and monitor this project is \$25.1 million.
- Contact:** For additional information contact Gregory Miller at (504) 862-2310.

## **Overview of Phase One Tasks, Process and Issues Freshwater Bayou Bank Stabilization (TV-11b)**

### Task Overview

The Corps of Engineers and the Louisiana Department of Natural Resources project delivery team developed a work plan to guide the project design efforts. The work plan called for identifying landowners in the area, obtaining right of entry permissions to conduct engineering data collection for design work including site surveys and geotechnical investigations. The engineering data was collected and analyzed to produce a recommended design template, alignment, and cost estimate for the proposed project. Environmental compliance actions were initiated in accordance with NEPA regulations and a draft Environmental Assessment was produced. A real estate plan was developed identifying project area landowners and the easements necessary for construction.

Final designs have been developed for approximately 40,000 linear feet of bank protection that is recommended for construction.

### Issues

No significant issues arose during the Phase I design process. However, an incorrect conversion of initial survey elevations to the NAVD 88 datum resulted in design modifications between the preliminary and final design reviews.

### Design Changes

A hydrologic restoration component of the project that was included in the original concept approved on the priority list has been dropped. The feature was removed because of lack of support from the local sponsor. In addition, three typical sections for rock dikes and bank paving will be used to protect the shoreline. These sections differ from the initial cross sections developed for the candidate project that was selected to the priority project list. Changing the cross sections resulted in increasing the amount of rock that will be required for construction. All of these design changes were reviewed by the Environmental Work Group and detailed in the project 30% and 95% design reviews.

**Freshwater Bayou Bank Stabilization  
(Belle Isle Canal to Lock) (East) (XTV-27)  
Vermilion Parish, Louisiana**

- Lead Agencies:** U.S. Army Corps of Engineers and State of Louisiana Department of Natural Resources
- Project Location:** This 241-acre project area is located in Vermilion Parish along the eastern shoreline of Freshwater Bayou Canal (FBC) between the Freshwater Bayou Lock and Belle Isle Canal.
- Project Purpose:** The banks of Freshwater Bayou Canal are rapidly eroding, due mainly to boat traffic. In the project area, several breaches have developed in the bankline along the east side of the canal. These breaches allow boat wakes to push turbid, higher salinity waters into interior marsh, causing marsh loss and decreasing SAV coverage. A large area of interior marsh in the northern portion of the project area is fragmenting and turning to open water, in part due to the breaches.
- Project Features:** A rock dike would be built along the eastern bank of Freshwater Bayou Canal, between Belle Isle Canal and Freshwater Bayou Lock, a distance of approximately 40,000-feet. The dike is designed to halt shoreline erosion along the east bank of the canal. Special features are being incorporated into the project design to allow estuarine organisms to access wetlands behind the rock dike. These special features will leave small gaps in the rock at infrequent intervals to allow natural water exchange behind the dike segments. Shoreline sections at the gap locations will be armored to prevent erosion into the adjacent bankline and marshes.
- Project Costs:** The estimated cost of the project, including real estate, environmental compliance, engineering and design, relocations, construction, monitoring, and O&M expenses, is \$38,065,335.
- Project Status:** The partnering agencies have completed a 30% design review and a 95% design review. The project schedule calls for seeking construction authorization from the CWPPRA Task Force at the January 2009 meeting.
- Information:** Additional information on this project is available on the LACOAST.GOV website or may be obtained by contacting Travis Creel at 504-862-1071 or via email at [Travis.J.Creel@usace.army.mil](mailto:Travis.J.Creel@usace.army.mil).



**Freshwater Bayou (Belle Isle Canal to Lock - East)  
TV-11b**



**Legend**

- Proposed Retaining Dike
- Shut-In Well
- Inactive Well
- Weir Structure



**Data Source:**  
 U.S. Department of the Interior  
 U.S. Geological Survey  
 National Wetlands Research Center  
 Coastal Restoration Field Station  
 Baton Rouge, La.

2000 SPOT Imagery  
 Map Date: May 30, 2003  
 Map ID: USGS-NWRC 2003-04-0248

Freshwater Bayou Bank Stabilization (TV-11b)

Project Goals and Strategies

Goal Statement

The overall goals of this project are to:

- Halt shoreline erosion along the east bank of the canal

Strategy Statement

The project goals will be achieved through the implementation of the following strategies/project features:

- construction a rock dike along the eastern bank of Freshwater Bayou Canal

# Enclosure C

Draft Real Estate  
Plan

# Enclosure E

95% Design Review Letter

# State of Louisiana

PM-C

KATHLEEN BABINEAUX BLANCO  
GOVERNOR



SCOTT A. ANGELLE  
SECRETARY

## DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

May 11, 2004

Mr. John Saia  
Deputy District Engineer for Project Management  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, LA 70160-0267

Re: 95% Design Review for Freshwater Bayou Canal Shoreline Protection – Belle Island  
to Lock (TV-11b)  
Statement of Successful Completion

Dear Mr. Saia:

The 95% design review meeting was successfully completed on January 22, 2004 for the Freshwater Bayou Canal Shoreline Protection – Belle Island to Lock (TV-11b) project. Based on our review of the Final Design Report, plans and specifications, the Ecological Review, and the environmental compliance documentation, as local sponsor, we concur to request permission from the Technical Committee to proceed to Phase II for this project.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward the items required in Appendix C – Information Required in Phase II Authorization Requests to the CWPPRA Technical Committee for subsequent approval by the CWPPRA Task Force. We also request that our project manager, Kenneth Duffy, be copied on this and all other correspondence concerning this project.

Please do not hesitate to call if I may be of any assistance.

Sincerely,

Handwritten signature of Christopher P. Knotts in black ink.

Christopher P. Knotts, P.E.  
Director

cc: David Burkholder, P.E., Engineer Manager  
Kenneth Duffy, Ph.D., Project Manager  
Shannon Dupont, P.E., Project Engineer

CPK:KCD:kcd

# Enclosure F

FONSI



## DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

P.O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO  
ATTENTION OF:

Planning, Programs, and  
Project Management Division  
Environmental Planning  
and Compliance Branch

### FINDING OF NO SIGNIFICANT IMPACT (FONSI)

#### FRESHWATER BAYOU BANK STABILIZATION PROJECT

#### VERMILION PARISH, LOUISIANA

#### EA #327

Description of Proposed Action. The New Orleans District, U.S. Army Corps of Engineers, proposes to construct a bankline stabilization structure. The proposed action is located along the left descending bank of the Freshwater Bayou Navigation Channel in Vermilion, Parish, Louisiana. The proposed action consists of placing approximately 240,000 tons of rock on approximately 180,000 square-yards of geotextile fabric to a crown height of +3.5 feet NGVD along the left descending bank of Freshwater Bayou benefiting approximately 285 acres of wetland habitat (see attached figure). The rock dike would extend approximately 41,000 feet from Belle Isle Bayou to the lock bypass channel adjacent to the Freshwater Bayou Lock. Rock would be placed parallel to the existing bankline, while maintaining fisheries access to aquatic habitat found behind the existing spoilbank. A floatation channel would be excavated (approx 262,000 cubic yards) in open water in Freshwater Bayou to construct the rock dike. Material excavated from the floatation channel would be placed between the rock dike and the bankline; the material would not be stockpiled and would be placed no higher than the existing bankline.

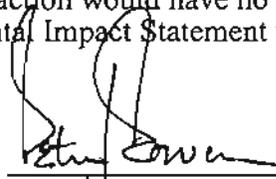
Factors Considered in Determination. This office has assessed the impacts of the proposed action on significant resources, including Freshwater Bayou, Wetlands, Fisheries, Wildlife, Essential Fish Habitat (EFH), Endangered Species, Air Quality, and Cultural Resources. It is noted herein that EFH, for pink shrimp and the Gulf stone crab, is not designated in coastal Louisiana as incorrectly listed in EA #327 (page EA - 5). No significant adverse impacts were identified for any of the significant resources. The risk of encountering HTRW is low. No impacts were identified that would require compensatory mitigation.

Environmental Design Commitments. The following commitment is an integral part of the proposed action: Design and construction of the rock dike would be done in a manner to minimize impacts to fisheries access into wetlands located behind the proposed alignment. The terminal ends of each segment of rock dike would be left open, not tied into the existing bankline, to maintain access.

Public Involvement. The proposed action has been coordinated with appropriate Federal, state, and local agencies and businesses, organizations, and individuals through distribution of Environmental Assessment #327 (EA #327) for their review and comment.

Conclusion. This office has assessed the potential environmental impacts of the proposed action. Based on this assessment, and a review of the public comments made on EA #327 a determination has been made that the proposed action would have no significant impact on the human environment. Therefore, an Environmental Impact Statement will not be prepared.

29 Oct 02  
Date

  
Peter J. Rowan  
Colonel, U.S. Army  
District Engineer

# Enclosure G

*Ecological  
Review*

# Enclosure K

*Overgrazing  
Determination*



Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

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December 22, 2003

Mr. Gregory Miller  
Project Manager/Biologist  
U.S. Army Corps of Engineers  
New Orleans District  
Coastal Restoration Branch  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

Dear Mr. Miller:

RE: Freshwater Bayou Bank Stabilization and Hydrologic Restoration-Belle Isle Canal  
To Lock TV-11b

I am in receipt of your request for an overgrazing determination for the Freshwater Bayou Bank Stabilization and Hydrologic Restoration-Belle Isle Canal to Lock TV-11b. I contacted our local district conservationist and our state resource conservationist to discuss the grazing in the project area. Currently, livestock are not grazing in the area nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion that overgrazing is not a problem in this project area. If you have any questions, please let me know.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Britt Paul".

W. Britt Paul  
Assistant State Conservationist  
For Water Resources and Rural Development

cc: Bruce Lehto, Area Conservationist, Leesville, NRCS, Louisiana  
Charles Starkovich, District Conservationist, NRCS, Lake Charles, Louisiana  
Bart Devillier, District Conservationist, NRCS, Abbeville, Louisiana

# Enclosure L

Revised Cost Estimate

## REQUEST FOR PHASE II APPROVAL

**PROJECT:** Freshwater Bayou Shoreline Stabilization (Belle Isle to Lock)

**PPL:** 9 **Project No.** TV-11b

**Agency:** COE

**Phase I Approval Date:** 11-Jan-00

**Phase II Approval Date:** 20 Jan 2010 (proposed) **Const Start:** Sep-10

	Original Approved Baseline (100% Level) (Col 1 + Col 2)	Current Approved Baseline (Col 3 + Col 4)	Original Baseline Phase I (100% Level) 1/	Original Baseline Phase II (100% Level) 2/	Current Baseline Phase I 3/	Recommended Baseline Phase II (100% Level) 4/	Recommended Baseline Phase II Incr 1 (100% Level) 5/
Engr & Des	1,029,348	1,029,348	1,029,348		1,029,348		
Lands	37,934	144,613	37,934		37,934	106,679	106,679
Fed S&A	507,568	726,495	253,784	253,784	253,784	472,711	472,711
LDNR S&A	115,834	462,348	57,917	57,917	57,917	404,431	404,431
COE Proj Mgmt	-	-					
Phase I	1,320	1,320	1,320		1,320		
Ph II Const Phase	1,320	2,168		1,320		2,168	2,168
Ph II Long Term	19,812	31,036		19,812		31,036	3,836
Const Contract	8,908,206	25,211,203		8,908,206		25,211,203	25,211,203
Const S&I	434,759	503,531		434,759		503,531	503,531
Contingency	2,227,049	6,302,801		2,227,049		6,302,801	6,302,801
Monitoring	-	-					
Phase I	118,664	118,664	118,664		118,664		
Ph II Const Phase	-	-					
Ph II Long Term	890,144	-		890,144			
O&M - State	10,779,597	3,392,291		10,779,597		3,392,291	9,709
O&M - Fed	-	139,517				139,517	9,397
<b>Total</b>	<b>25,071,555</b>	<b>38,065,335</b>	<b>1,498,967</b>	<b>23,572,588</b>	<b>1,498,967</b>	<b>36,566,368</b>	<b>33,026,466</b>
<b>Total Project</b>				<b>25,071,555</b>		<b>38,065,335</b>	<b>34,525,433</b>
<b>Percent Over Original Baseline</b>		<b>152%</b>					

**Prepared By:** Gay **Date Prepared:** 17-Nov-09

**NOTES:**

**Coastal Wetlands Conservation and Restoration Plan**  
**TV-11b Freshwater Bayou Shoreline Stabilization (Belle Isle to Lock) PPL 9**  
**Project Priority List 9**

Project Construction Years:	0	Total Project Years	20
Interest Rate	4.375%	Amortization Factor	0.07605
Fully Funded First Costs	\$34,502,491	Total Fully Funded Costs	\$38,065,335

Total Charges	Present Worth	Average Annual
First Costs	\$36,049,011	\$2,741,373
Monitoring	\$0	\$0
State O & M Costs	\$1,952,249	\$148,460
Other Federal Costs	\$96,546	\$7,342
Average Annual Cost	\$2,897,175	\$2,897,175
Average Annual Habitat Units	74	
Cost Per Habitat Unit	\$39,014	
Total Net Acres	241	

**Coastal Wetlands Conservation and Restoration Plan**  
**TV-11b Freshwater Bayou Shoreline Stabilization (Belle Isle to Lock) PPL 9**  
**Project Priority List 9**

**Project Costs** \$38,065,335

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
<b>Phase I</b>											
6	2006	\$300,227	\$11,064	\$74,020	\$16,892	\$385	\$34,610	-	\$0		\$437,199
5	2007	\$514,674	\$18,967	\$126,892	\$28,959	\$660	\$59,332	-	\$0		\$749,484
4	2008	\$214,448	\$7,903	\$52,872	\$12,066	\$275	\$24,722	-	\$0		\$312,285
3	2009	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
2	2010	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
TOTAL		\$1,029,349	\$37,934	\$253,784	\$57,917	\$1,320	\$118,664	\$0	\$0	\$0	\$1,498,967
<b>Phase II</b>											
2	2010	-	\$8,116	\$35,964	\$30,769	\$102	\$0	\$38,309	\$479,519	\$1,918,077	\$2,510,856
1	2011	-	\$97,394	\$431,568	\$369,231	\$2,041	\$0	\$459,706	\$5,754,231	\$23,016,923	\$30,131,094
0	2012	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	2013	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	2014	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL		\$0	\$105,510	\$467,532	\$400,000	\$2,143	\$0	\$498,015	\$6,233,750	\$24,935,000	\$32,641,950
Total First Costs		\$1,029,349	\$143,444	\$721,316	\$457,917	\$3,463	\$118,664	\$498,015	\$6,233,750	\$24,935,000	\$34,140,918

Year	FY	Monitoring	J&M & State Insp	Corps Admin	Fed S&A & Insp
0 Discount	2012	\$0	\$3,100	\$1,225	\$3,000
-1 Discount	2013	\$0	\$3,100	\$1,225	\$3,000
-2 Discount	2014	\$0	\$3,100	\$1,225	\$3,000
-3 Discount	2015	\$0	\$3,100	\$1,225	\$3,000
-4 Discount	2016	\$0	\$1,375,324	\$1,225	\$30,445
-5 Discount	2017	\$0	\$3,100	\$1,225	\$3,000
-6 Discount	2018	\$0	\$3,100	\$1,225	\$3,000
-7 Discount	2019	\$0	\$3,100	\$1,225	\$3,000
-8 Discount	2020	\$0	\$3,100	\$1,225	\$3,000
-9 Discount	2021	\$0	\$3,100	\$1,225	\$3,000
-10 Discount	2022	\$0	\$3,100	\$1,225	\$3,000
-11 Discount	2023	\$0	\$3,100	\$1,225	\$3,000
-12 Discount	2024	\$0	\$3,100	\$1,225	\$3,000
-13 Discount	2025	\$0	\$3,100	\$1,225	\$3,000
-14 Discount	2026	\$0	\$1,375,324	\$1,225	\$30,445
-15 Discount	2027	\$0	\$3,100	\$1,225	\$3,000
-16 Discount	2028	\$0	\$3,100	\$1,225	\$3,000
-17 Discount	2029	\$0	\$3,100	\$1,225	\$3,000
-18 Discount	2030	\$0	\$3,100	\$1,225	\$3,000
-19 Discount	2031	\$0	\$3,100	\$2,041	\$3,000
Total		\$0	\$2,806,448	\$25,316	\$114,890

**Coastal Wetlands Conservation and Restoration Plan**  
**TV-11b Freshwater Bayou Shoreline Stabilization (Belle Isle to Lock) PPL 9**  
**Project Priority List 9**

<b>Present Valued Costs</b>			<b>Total Discounted Costs</b>				<b>Amortized Costs</b>				<b>\$2,897,175</b>	
<b>Year</b>	<b>Fiscal Year</b>	<b>E&amp;D</b>	<b>Land Rights</b>	<b>Federal S&amp;A</b>	<b>LDNR S&amp;A</b>	<b>Corps Admin</b>	<b>Monitoring</b>	<b>S&amp;I</b>	<b>Contingency</b>	<b>Construction Costs</b>	<b>Total First Cost</b>	
<b>Phase I</b>												
6	1.293	2006	\$388,176	\$14,305	\$95,704	\$21,841	\$498	\$44,749	\$0	\$0	\$0	\$565,273
5	1.239	2007	\$637,551	\$23,495	\$157,187	\$35,872	\$818	\$73,497	\$0	\$0	\$0	\$928,420
4	1.187	2008	\$254,511	\$9,379	\$62,749	\$14,320	\$326	\$29,340	\$0	\$0	\$0	\$370,627
3	1.137	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.089	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>			<b>\$1,280,238</b>	<b>\$47,180</b>	<b>\$315,640</b>	<b>\$72,033</b>	<b>\$1,642</b>	<b>\$147,587</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,864,320</b>
<b>Phase II</b>												
2	1.089	2010	\$0	\$8,842	\$39,180	\$33,520	\$111	\$0	\$41,734	\$522,395	\$2,089,580	\$2,735,362
1	1.044	2011	\$0	\$101,655	\$450,449	\$385,385	\$2,130	\$0	\$479,818	\$6,005,978	\$24,023,913	\$31,449,329
0	1.000	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.958	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.918	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>			<b>\$0</b>	<b>\$110,497</b>	<b>\$489,629</b>	<b>\$418,905</b>	<b>\$2,242</b>	<b>\$0</b>	<b>\$521,552</b>	<b>\$6,528,373</b>	<b>\$26,113,493</b>	<b>\$34,184,691</b>
<b>Total First Cost</b>			<b>\$1,280,238</b>	<b>\$157,676</b>	<b>\$805,269</b>	<b>\$490,939</b>	<b>\$3,883</b>	<b>\$147,587</b>	<b>\$521,552</b>	<b>\$6,528,373</b>	<b>\$26,113,493</b>	<b>\$36,049,011</b>
<b>Year</b>	<b>FY</b>	<b>Monitoring</b>	<b>J&amp;M &amp; State Insp</b>	<b>Corps Admin</b>	<b>Fed S&amp;A &amp; Insp</b>							
0	1.000	2012	\$0	\$3,100	\$1,225	\$3,000						
-1	0.958	2013	\$0	\$2,970	\$1,174	\$2,874						
-2	0.918	2014	\$0	\$2,846	\$1,124	\$2,754						
-3	0.879	2015	\$0	\$2,726	\$1,077	\$2,638						
-4	0.843	2016	\$0	\$1,158,828	\$1,032	\$25,653						
-5	0.807	2017	\$0	\$2,503	\$989	\$2,422						
-6	0.773	2018	\$0	\$2,398	\$947	\$2,320						
-7	0.741	2019	\$0	\$2,297	\$908	\$2,223						
-8	0.710	2020	\$0	\$2,201	\$870	\$2,130						
-9	0.680	2021	\$0	\$2,109	\$833	\$2,041						
-10	0.652	2022	\$0	\$2,020	\$798	\$1,955						
-11	0.624	2023	\$0	\$1,936	\$765	\$1,873						
-12	0.598	2024	\$0	\$1,854	\$733	\$1,795						
-13	0.573	2025	\$0	\$1,777	\$702	\$1,719						
-14	0.549	2026	\$0	\$755,186	\$673	\$16,717						
-15	0.526	2027	\$0	\$1,631	\$644	\$1,578						
-16	0.504	2028	\$0	\$1,562	\$617	\$1,512						
-17	0.483	2029	\$0	\$1,497	\$592	\$1,449						
-18	0.463	2030	\$0	\$1,434	\$567	\$1,388						
-19	0.443	2031	\$0	\$1,374	\$905	\$1,330						
<b>Total</b>			<b>\$0</b>	<b>\$1,952,249</b>	<b>\$17,175</b>	<b>\$79,371</b>						

**Coastal Wetlands Conservation and Restoration Plan**  
**TV-11b Freshwater Bayou Shoreline Stabilization (Belle Isle to Lock) PPL 9**  
**Project Priority List 9**

**Fully Funded Costs**                      Total Fully Funded Costs                      \$38,065,335                      Amortized Costs                      \$2,894,706

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
<b>Phase I</b>												
6	0.848	2006	\$300,227	\$11,064	\$74,020	\$16,892	\$385	\$34,610	\$0	\$0	\$0	\$437,199
5	0.894	2007	\$514,674	\$18,967	\$126,892	\$28,959	\$660	\$59,332	\$0	\$0	\$0	\$749,484
4	0.938	2008	\$214,448	\$7,903	\$52,872	\$12,066	\$275	\$24,722	\$0	\$0	\$0	\$312,285
3	0.998	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.000	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$1,029,349	\$37,934	\$253,784	\$57,917	\$1,320	\$118,664	\$0	\$0	\$0	\$1,498,967

<b>Phase II</b>												
2	1.000	2010	\$0	\$8,116	\$35,964	\$30,769	\$102	\$0	\$38,309	\$479,519	\$1,918,077	\$2,510,856
1	1.012	2011	\$0	\$98,563	\$436,747	\$373,662	\$2,065	\$0	\$465,223	\$5,823,282	\$23,293,126	\$30,492,667
0	1.026	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.044	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.062	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$106,679	\$472,711	\$404,431	\$2,168	\$0	\$503,531	\$6,302,801	\$25,211,203	\$33,003,523

Total Cost                      \$1,029,349                      \$144,613                      \$726,495                      \$462,348                      \$3,488                      \$118,664                      \$503,531                      \$6,302,801                      \$25,211,203                      \$34,502,491

Year	FY	Monitoring	J&M & State Insp	Corps Admin	Fed S&A & Insp	
0	1.0262	2012	\$0	\$3,181	\$1,257	\$3,079
-1	1.0436	2013	\$0	\$3,235	\$1,278	\$3,131
-2	1.0624	2014	\$0	\$3,293	\$1,301	\$3,187
-3	1.0815	2015	\$0	\$3,353	\$1,325	\$3,245
-4	1.1010	2016	\$0	\$1,514,216	\$1,349	\$33,520
-5	1.1208	2017	\$0	\$3,474	\$1,373	\$3,362
-6	1.1410	2018	\$0	\$3,537	\$1,398	\$3,423
-7	1.1615	2019	\$0	\$3,601	\$1,423	\$3,485
-8	1.1824	2020	\$0	\$3,666	\$1,448	\$3,547
-9	1.2037	2021	\$0	\$3,731	\$1,475	\$3,611
-10	1.2254	2022	\$0	\$3,799	\$1,501	\$3,676
-11	1.2474	2023	\$0	\$3,867	\$1,528	\$3,742
-12	1.2699	2024	\$0	\$3,937	\$1,556	\$3,810
-13	1.2927	2025	\$0	\$4,008	\$1,584	\$3,878
-14	1.3160	2026	\$0	\$1,809,946	\$1,612	\$40,066
-15	1.3397	2027	\$0	\$4,153	\$1,641	\$4,019
-16	1.3638	2028	\$0	\$4,228	\$1,671	\$4,091
-17	1.3884	2029	\$0	\$4,304	\$1,701	\$4,165
-18	1.4134	2030	\$0	\$4,381	\$1,731	\$4,240
-19	1.4134	2031	\$0	\$4,381	\$2,885	\$4,240
Total			\$0	\$3,392,291	\$31,036	\$139,517

**E&D and Construction Data**

<b>ESTIMATED CONSTRUCTION COST</b>	<b>24,935,000</b>
<b>ESTIMATED CONSTRUCTION + 25% CONTINGENCY</b>	<b><u>31,168,750</u></b>

**TOTAL ESTIMATED PROJECT COSTS**

**PHASE I**

**Federal Costs**

<i>Engineering and Design</i>		\$1,029,348
Engineering	\$1,029,348	
Geotechnical Investigation	\$0	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Other Misc. E&D	\$0	
Monitoring Plan Development	\$0	
NEPA Compliance	\$0	
0	\$0	
0	\$0	
 <i>Supervision and Administration</i>		 \$253,784
<i>Corps Administration</i>		\$1,320

**State Costs**

 <i>Supervision and Administration</i>		 \$57,917
<i>Ecological Review Costs</i>		\$0
<i>Easements and Land Rights</i>		\$37,934
 <i>Monitoring</i>		 \$118,664
Monitoring Plan Development	\$118,664	
Monitoring Protocol Cost *	\$0	
Other Misc. Monitoring	0	
	<b>Total Phase I Cost Estimate</b>	<b>\$1,498,967</b>

\* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

**PHASE II**

**Federal Costs**

<i>Estimated Construction Cost +25% Contingency</i>		\$31,168,750
Lands or Oyster Issues	0	lease acres
		\$105,510
<i>Supervision and Inspectic</i>	315 days @	1581 per day
		\$498,015
<i>Supervision and Administration</i>		\$467,532
<i>Corps Administration - reconcile Project First Costs</i>		\$816

**State Costs**

<i>Supervision and Administration</i>		\$400,000
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Total Phase II Cost Estimate \$32,640,623

**TOTAL ESTIMATED PROJECT FIRST COST** **34,139,590**

**O&M Data**

**Annual Costs**

	<u>Federal</u>	<u>State</u>	
Annual Inspections	\$3,000	\$3,100	\$6,100
Annual Cost for Operations	\$0	\$0	\$0
Preventive Maintenance	\$0	\$0	\$0
0			\$0

**Specific Intermittent Costs:**

**Construction Items**

	<u>Year 5</u>	<u>Year 15</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Year 5 mobilization	\$100,000	\$0	\$0	\$0	\$0
Year 5 - 50% Cap Replacement (1ft)	\$871,000	\$0	\$0	\$0	\$0
Year 15 - 50% Cap Replacement (1ft)	\$0	\$871,000	\$0	\$0	\$0
Year 15 mobilization	\$0	\$100,000	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<u>\$971,000</u>	<u>\$971,000</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>Subtotal w/ 25% contin.</b>	<b>\$1,213,750</b>	<b>\$1,213,750</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Engineer, Design & Administrative Costs**

Engineering and Design Cost	\$24,275	\$24,275	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0	\$0	\$0
Engineering Monitoring	\$85,284	\$85,284	\$0	\$0	\$0
Eng Survey      7 days @      \$3,600 per day	\$25,200	\$25,200	\$0	\$0	\$0
Construction    15 days @      \$1,581 per day	\$23,715	\$23,715	\$0	\$0	\$0

**Subtotal**

<b>\$158,474</b>	<b>\$158,474</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
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**Federal S&A**

Administrative Cost	\$27,445	\$27,445	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$27,445</b>	<b>\$27,445</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total</b>	<b>\$1,399,669</b>	<b>\$1,399,669</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Annual Project Costs:**

Corps Administration	\$1,225	annually, plus	0	816 in year 20
Monitoring	\$0			

**Construction Schedule:**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Plan & Design Start	March-06	7	12	5	0	0	0	0	0	0
Plan & Design End	March-08									
Const. Start	September-10									
Const. End	September-11	0	0	0	0	1	12	0	0	0

GIWW BANK RESTORATION OF  
CRITICAL AREAS IN  
TERREBONNE (TE-43)

**CWPPRA**  
**GIWW Restoration of Critical Areas**  
**(TE-43)**  
**Phase II Request**

**Technical Committee Meeting**

December 3, 2009

New Orleans, LA

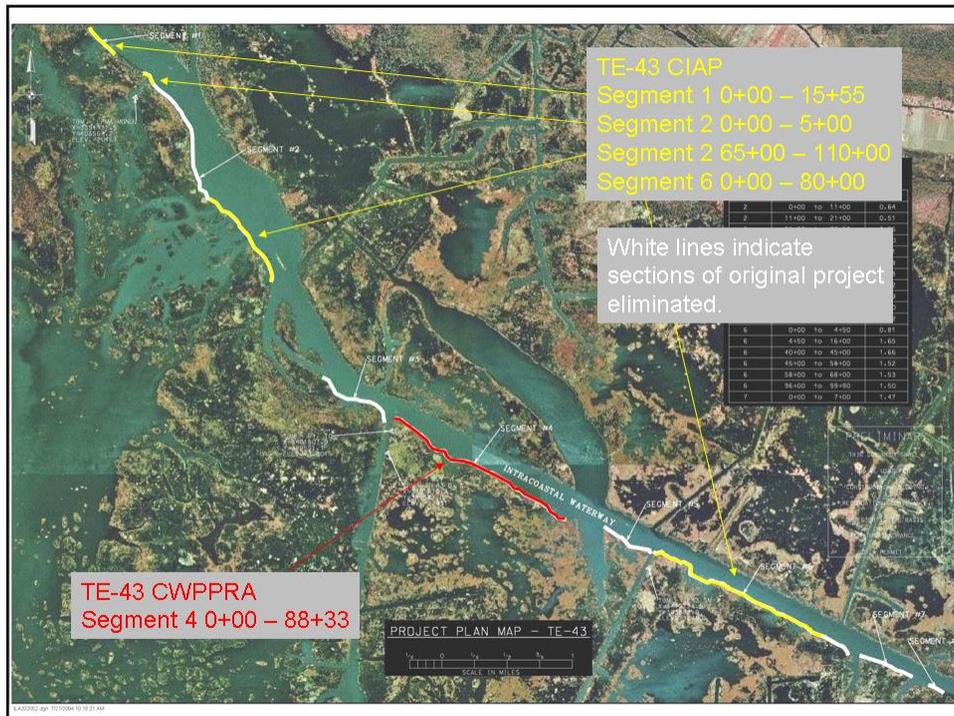
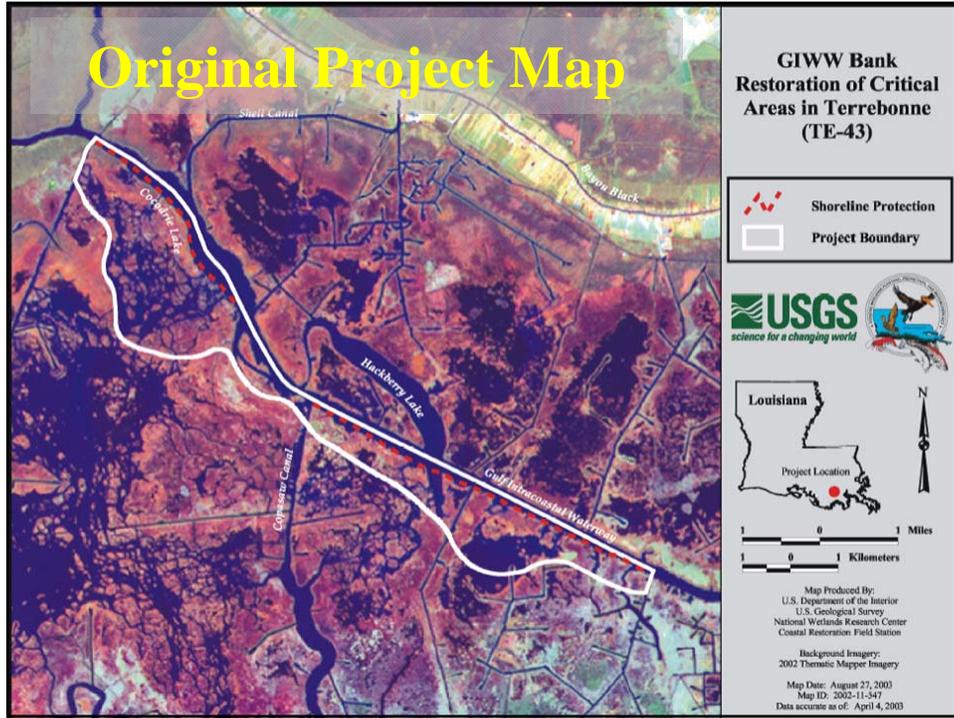
**Project Overview**

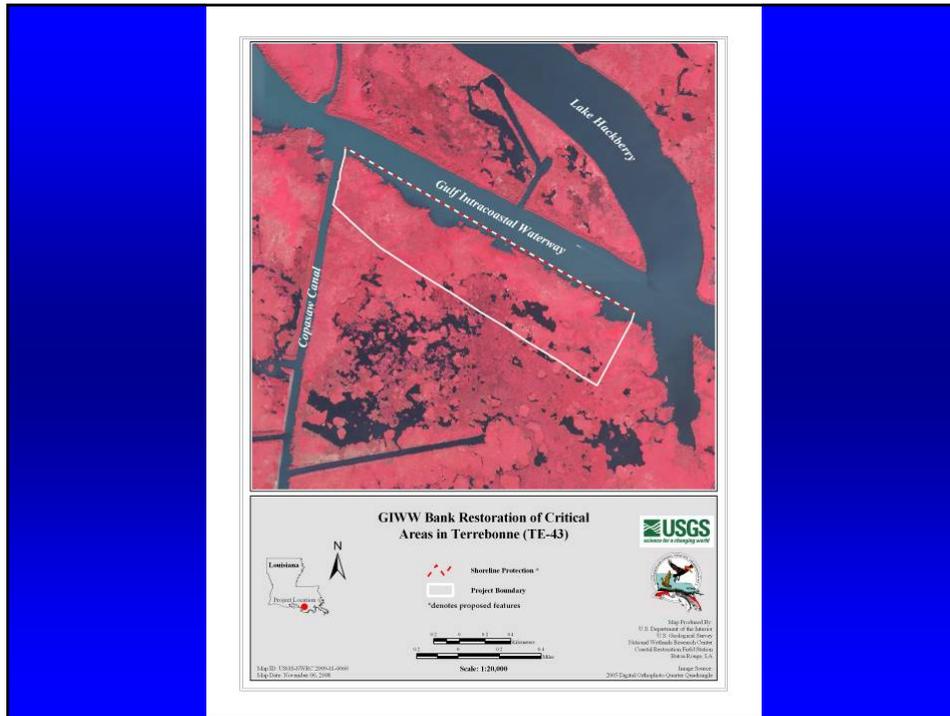
**Project Location:** Region 3, Terrebonne Basin, Terrebonne Parish, south bank of the GIWW from mile marker 80 to mile marker 70.

**Problem:** Deterioration of the southern bankline of the GIWW threatens fragile floating marshes of Penchant Basin and short-circuits freshwater conveyance to the east.

**Goals:**

- 1) Stop bankline erosion into the fragile floating marshes.
- 2) Maintain freshwater conveyance function of the GIWW.





## Project Features Overview

- Installation of approximately 8,833 lf of shoreline protection along the southern bank of the GIWW by constructing a foreshore rock rip-rap dike and in places of poor soil bearing capacities using composite rock rip-rap with lightweight core aggregate.
- The foreshore rock dike will be situated along the -1.0-ft NAVD 88 contour in approximately 2.0 ft to 3.0 ft of water, stage dependant. The dike crown will be constructed to an elevation of +3.5 NAVD88 and have a width of 3.0 ft. The dike will have front and back side-slopes of 2.5:1.

## Project Benefits & Costs

- **Total Area Benefited:** 355 acres
- **Net acres after 20 yrs:** 65 acres
- **Prioritization Score:** 34.2
- **Project Costs:**
  - **Fully Funded Phase II** \$11,258,383
  - **Phase II, Increment 1** \$9,522,400
  - **Total Fully Funded** \$13,022,246

## Project Comparison/Contrast

The Present vs. PPL # 10

- **Original Phase II Funding vs Present Request:**
  - \$17,922,015 original
  - \$11,258,383 present (reflects inflationary costs and adjustments to length and design of features)
- **Changes in Project Features**
  - 37,000 linear feet to 8,833 linear feet
- **Changes in WVA – Benefit area reduced from 3324 acres to 355 acres and the acres created/protected/restored from 366 acres to 65 acres.**

## Why Should You Fund this Project Now?

- Unique opportunity to partner with another program (CIAP)
- CWPPRA is being asked to construct only 38% of the project to complete the objective
- The project will help to accomplish the regional strategy of improving Atchafalaya River water conveyance to central and east Terrebonne marshes
- Help restore/protect Penchant Basin floating marshes

## Questions?





Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

(318) 473-7751  
Fax: (318) 473-7626

November 18, 2009

Mr. Thomas Holden, Chairman  
CWPPRA Technical Committee  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

RE: GIWW Bank Restoration of Critical Areas (TE-43)  
Phase II Authorization Request

Dear Mr. Holden:

The Natural Resources Conservation Service (NRCS) and Louisiana Department of Natural Resources (LDNR) request Phase II authorization for the GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43). The project was authorized for Phase I as a part of Priority Project List 10 (PPL 10) in January 2001 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force), under the authority of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures (SOP) Manual. Please be advised that because the Coastal Impact Assistance Program (CIAP) elected to build a portion of this project, the Task Force approved a change in scope of this project on October 25, 2007, to include only the remaining 8833 ft that was not incorporated in the CIAP plan (see Description of Phase II project in Enclosure 1 for details). Questions regarding this project may be referred to Ron Boustany, Project Manager, at (337) 291-3067.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Britt Paul".

W. Britt Paul  
ASTCWR & RC&D

Attachments

cc: (via email only)

Kirk Rhinehart, OCPD Technical Committee Member  
Darryl Clark, USFWS Technical Committee Member  
Rick Hartman, NMFS Technical Committee Member  
Brad Crawford, EPA, Technical Committee Member  
Melanie Goodman, USACOE, P&E Subcommittee  
Kelly Templet, DNR P&E Subcommittee Member  
Kevin Roy, USFWS P&E Subcommittee Member  
Rachel Sweeney, NMFS P&E Subcommittee Member  
Garrett Graves, CPRA Chairman

Thomas Holden  
November 18, 2009  
Page 2

John Jurgensen, NRCS P&E Subcommittee Member  
Ron Boustany, Project Manager, NRCS  
Dustin White, Project Manager, OCPD  
John Boatman, DC, NRCS  
Brad Sticker, DE, NRCS  
Randolph Joseph, Jr., AC, NRCS

# **Enclosure 1**

## **Information Required in Phase II Authorization Request**

### **GIWW BANK RESTORATION OF CRITICAL AREAS IN TERREBONNE (TE-43)**

#### **Description of Phase I Project**

The TE-43 GIWW Critical Areas project was approved relative to the 10<sup>th</sup> CWPPRA Priority Project List. The Natural Resources Conservation Service (NRCS) is the federal sponsor for this project. The objective of this project is to protect critically eroding portions of the southern bank of the Gulf Intracoastal Waterway (GIWW).

The Gulf Intracoastal Waterway (GIWW) Bankline Restoration Project is located in Terrebonne Parish approximately ten miles east of the Lower Atchafalaya River and ten miles southwest of Houma, Louisiana. The specific location proposed for the structures is the southern bank of the GIWW originating at a point close to mile marker 80 and terminating at a point close to mile marker 70.

In the past 20 years, as the efficiency of the Lower Atchafalaya River has decreased, Lake Verret subbasin flooding and Atchafalaya River flows via the GIWW have increased. Deterioration of fresh and intermediate wetlands, particularly the floating marsh, in the upper Penchant basin has been attributed to sustained elevated water levels. In addition, wave action from commercial and recreational traffic on the GIWW has caused floating marshes in some areas to become directly exposed to increased circulation through unnatural connections formed where channel banks have deteriorated.

The objective of the GIWW Bankline Restoration project is to protect critically eroding portions of the southern bank of the GIWW that act as an interface between the fragile fresh marshes and the turbulent high velocities that occur within the GIWW. Proposed measures include installing shoreline protection structures along the southern bank of the GIWW. The structures will provide protection to the banks of the GIWW, which have experienced severe erosion since the construction of the GIWW in the early 1950's.

The project goals are: 1) To enable the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to specific locations that would benefit from increased flows of fresh water and nutrients, and 2) To provide relief to marshes connected to the GIWW that are currently suffering from prolonged inundation and wave action while stopping shoreline erosion along the remaining bank of the GIWW.

The proposed solution is to restore critical lengths of deteriorated channel banks, and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials.

The Wetland Value Assessment (WVA) conducted for the Phase I project estimated a benefited area of 3,324 acres and the net acres created/protected/restored of 366 acres at TY20.

At the time of Phase I approval, the fully-funded project cost was \$19,657,998. That figure included \$1,735,983 for Phase I and \$17,922,015 for Phase II. The original cost breakdown for Phases I and II is presented in the following table:

<b>Task Name</b>	<b>Phase I Costs</b>	<b>Phase II Costs</b>
Engineering and Design	\$1,113,611	
Land Rights	\$52,529	
DNR Administration	\$267,256	\$279,601
NRCS Administration	\$286,282	\$299,506
Monitoring	\$14,954	\$83,493
Corps Project Management	1,351	\$20,740
Construction		\$11,981,341
Contingency		\$2,995,335
Supervision and Inspection		\$182,451
Operations and Maintenance		\$2,079,548
<b>Total</b>	<b>\$1,735,983</b>	<b>\$17,922,015</b>

The original project fact sheet and map depicting the project boundary and project features is provided below.



# GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)

## Project Status

**Approved Date:** 2001      **Project Area:** 3,324 acres  
**Approved Funds:** \$2.2 M      **Total Est. Cost:** \$19.7 M  
**Net Benefit After 20 Years:** 366 acres  
**Status:** Engineering and Design  
**Project Type:** Shoreline Protection

## Location

The project is located in the Terrebonne basin, in Terrebonne Parish, Louisiana.

## Problems

In the past 20 years, as the efficiency of the Lower Atchafalaya River has decreased, Verrett subbasin flooding and Atchafalaya River flows via the Gulf Intracoastal Waterway (GIWW) have increased. Deterioration of fresh and intermediate wetlands, particularly of the floating marshes in the upper Penchant basin, has been attributed to sustained elevated water levels. In addition, floating marshes in some areas have become directly exposed to increased circulation through unnatural connections formed where channel banks deteriorated.

Conversely, losses in the central Terrebonne Parish marshes have been attributed to the elimination of riverine inflow coupled with subsidence and altered hydrology from canal dredging that facilitated saltwater intrusion. Increased flow of the GIWW and wave pulses from navigation traffic are causing additional breakup and loss of floating marshes in unprotected areas.

## Restoration Strategy

This project will restore critical lengths of deteriorated channel banks and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials.

## Progress to Date

Geotechnical soils investigation report is complete. Soils in the area are very soft and fluid.

This project is on Priority Project List 10.



Large mats of floating freshwater marsh, such as this one, detach from their point of origin and enter the GIWW through large breaches in the existing shoreline.



Concrete "H" pile/panel structures, similar to this one, will be installed at locations within the project area where shoreline erosion is critical. Soils with high amounts of organic material, which have poor strength, necessitated the use of a structure such as this.

*For more project information, please contact:*



**Federal Sponsor:**  
 Natural Resources Conservation Service  
 Alexandria, LA  
 (318) 473-7756



**Local Sponsor:**  
 Louisiana Department of Natural Resources  
 Baton Rouge, LA  
 (225) 342-7308



## GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)

 Shoreline Protection  
 Project Boundary




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

Background Imagery:  
 2002 Thematic Mapper Imagery

Map Date: August 27, 2003  
 Map ID: 2002-11-347  
 Data accurate as of: April 4, 2003

## **Overview of Phase I Tasks, Process, and Issues**

The following tasks were completed during Phase I:

- 1) Interagency kickoff meeting and field trip
- 2) Final Cost Share Agreement executed between NRCS and DNR
- 3) Preliminary landrights
- 4) Magnetometer survey
- 6) Geotechnical investigation of the proposed alignment
- 7) 30% design review
- 8) 95% design review
- 9) Ecological Review
- 10) Environmental Assessment
- 11) Final construction cost estimate
- 12) Section 404 Permit complete
- 13) Overgrazing determination from NRCS
- 14) Cultural resources clearance

### Geologic Information

The predominant soil that occurs along the existing bankline of the GIWW is Aquents, Dredged, occasionally flooded. For the remainder of the project area, Kenner muck – very frequently flooded, makes up the majority of the soil type. Other soil types present within the project area are Fausse Clay – frequently flooded, Barbary muck – frequently flooded, Gramercy/Cancienne – silty clay loam, and Allemands muck – very frequently flooded (NRCS 2002, unpublished data).

### Hydrology and Hydraulics

The water levels in the watershed are influenced by tides and wind. The mean high water is 2.0' NAVD88. The mean low water is 0.5' NAVD88.

### Engineering and Design Tasks

The Department of Natural Resources letter “RE: Generalized Guidelines for Coastal Structures Design Parameters” dated January 07, 2000, and its attachment “Design Guidelines for CWPPRA Shoreline Protection Structures” were used to determine the wave heights used to design the rock / rock composite dike. Under the guidelines set forth in the letter a still water elevation (SWE), a wave height, the height of the structure, and the wave forces must be determined. In an effort to be conservative, the SWE was set at the storm water elevation of +2.5 NAVD88. Concurrently, the average bottom elevation was determined to be approximately -1.5 NAVD88.

Minimum and maximum design wave heights are determined according to the guidelines, where the minimum wave height is equal to 2.0 feet unless this is greater than the water

depth and the maximum wave height is 0.78 times the water depth. Therefore the minimum and maximum wave heights were set at 2.0 and 3.12 feet respectively.

A wind generated wave height was determined using a 70 mph wind. The maximum peak gust, 70 mph, was chosen out of a comparison of New Orleans, Lake Charles and Baton Rouge wind speeds, provided in NOAA's "Climatic Wind Data for the United States". The wave height for this wind speed was used as an input for the ACES program in which wind in shallow and deep open water conditions was determined. The shallow and deep open water wave conditions return wave heights of 1.44 and 1.67 feet respectively. Along with these wave heights, one other wave height was determined. This is the wave height due to boat traffic. Since most of the traffic in the GIWW is crew boats a wave height of 3.0 feet was used in accordance with the guidelines.

The minimum top elevation of the structure was determined to be 3.5 NAVD88 based on the ability of the structure to be overtopped, and the guidelines. The wave impact forces were determined by deciding if the maximum wave height is breaking or non-breaking. This is done using the Shore Protection Manual (SPM), Chapter 2, Section VI, Part 2. In this case, a wind duration of 2.0 seconds was used, which allowed for the determination of the deepwater wave steepness, 0.024. The deepwater wave steepness is used as an input into Figure 2-72 of the SPM in order to determine the breaker height index, which in turn is used to determine the breaking wave height, 3.0 feet. The breaking wave height was then used as an input in Equation 2-92 of the SPM in order to determine the depth of water that the breaking wave would break at, 4.59 feet. Since the depth of water at which the wave would break at is greater than the depth of water at the structure, the wave will break before it reaches the structure, and thus is not a concern in the design of the structure.

The geotechnical investigation provided the minimum slopes for a composite and a rock dike. With this information in combination with the settlements for each type of section, also provided in the geotechnical investigation, a determination of the most economic design method (rock / composite) was made on a per reach basis. The most economic method per reach was used as the determining factor for which sections of the dike would be composite rather than rock only. These determinations led to the specification of 2:1 (H:V) side slopes for the rock only sections and 2.5:1(H:V) side slopes for the composite sections, based on the minimum slopes provided by the geotechnical investigation.

With the maximum wave height, wave forces, and side slopes determined the size of the rock riprap was determined to be a Corps of Engineers R-1000 gradation. This was done using equation 7-117 from the SPM, with a stability coefficient of 2.2, and the two side slopes (2:1, 2.5:1) that were proposed for this structure. The top width of the structure was determined to be 3.0 feet using equation 7-120 of the SPM, with the median size of the gradation above.

A layer thickness for the composite sections of the structure had to be determined. This was accomplished using equations 7-123 and 7-124 of the SPM. The maximum

thickness from these two equations was determined to be 1.6 feet. To be conservative a 2.0 foot layer thickness has been specified for the structure design.

Design meetings were held at the 30% (May 25, 2004) and 95% (August 26, 2004) levels.

#### Landrights, Cultural Resources, Environmental Compliance and Other Tasks

Preliminary landrights has proceeded smoothly and no problems are anticipated in acquiring final landrights.

No cultural resource sites are located within the project area.

Environmental concerns were considered in the planning and design of this project. A FONSI, Environmental Assessment, and Ecological Review Report have been completed. A Section 404 permit has been approved by the USACE. A Storm Water Pollution Prevention Plan has been developed for this project since the disturbed construction site is more than one (1) acre. A permit to dredge material for construction has been obtained by the local sponsors from the U.S. Corps of Engineers and the Louisiana Department of Natural Resources, Coastal Zone Management.

A draft Ecological Review is available and a final EA dated December, 2002 was developed after receiving comments on the draft EA, which was submitted for public comment in April, 2002.

## Description of the Phase II Candidate Project

The original candidate for Phase I authorization of TE-43 involved a near complete armoring of a section of the GIWW bankline (referred to as Area G) (**Figure 1**) totaling 37,000 feet where the bankline had deteriorated significantly and at several points breached into the adjacent floating marshes of the upper Penchant Basin. The two major breach areas are located at the NW and SE extents of the project area (**Figure 2**). In Fall 2005 and Spring 2006, NRCS and LDNR with the consent of Terrebonne Parish and a major landowner reevaluated the project. Based upon new USGS data and joint NRCS and LDNR field analysis, a revised downsized project was agreed upon that removed portions of segments along intact banks and targeted only the two major breach areas within the project boundary (**Figure 3**). NRCS and LDNR criteria for downsizing required that the revised project not add any new areas to the project and would not significantly alter the overall project goals. The purposes of the downsizing were two-fold: 1) to concentrate efforts on those critical areas where the bankline had breached or were not imminently threatening to breach into adjacent fragile floating marshes, and 2) to identify a portion of the project to be proposed for Coastal Impact Assistance Program (CIAP) consideration. In 2006, CIAP elected to construct the portion of the project that was submitted for consideration. Therefore, the TE-43 project candidate for Phase II funding request currently consists of the remaining critical segment of the project area (**Figure 3**).

The final design of the project features are essentially unchanged from the original Phase I project with exception to the total length. The project contains shoreline protection by means of a hard shoreline structure. The Phase 0 approved length of the structure was approximately 37,000 ft, the CIAP project will construct 14,555 ft, the CWPPRA project will construct 8,833 ft, and the remaining 13,612 ft has been eliminated from the project.

The work to be accomplished will consist of the installation of approximately 8,833 feet of shoreline protection along the southern shoreline of the GIWW by constructing a rock rip-rap dike and in places of poor soil bearing capacities constructing a composite rock rip-rap dike with a lightweight core aggregate as seen in **Figures 4 and 5** (typical and composite rock dike sections).

Previous projects involving similar bankline structures that have been successfully constructed along the GIWW and other similar type areas include Perry Ridge Shore Protection (CS-24), GIWW-Perry Ridge West Bank Stabilization (CS-30), Cameron Prairie NWR Shoreline Protection (ME-09), Freshwater Bayou Bank Stabilization (ME-13) and Freshwater Bayou Wetland Protection (ME-04). Additionally, the analysis and results included in the geotechnical investigations support the concept that a rock/rock composite structure is capable of being constructed, and establishes the required stable side slopes as well as expected settlements.

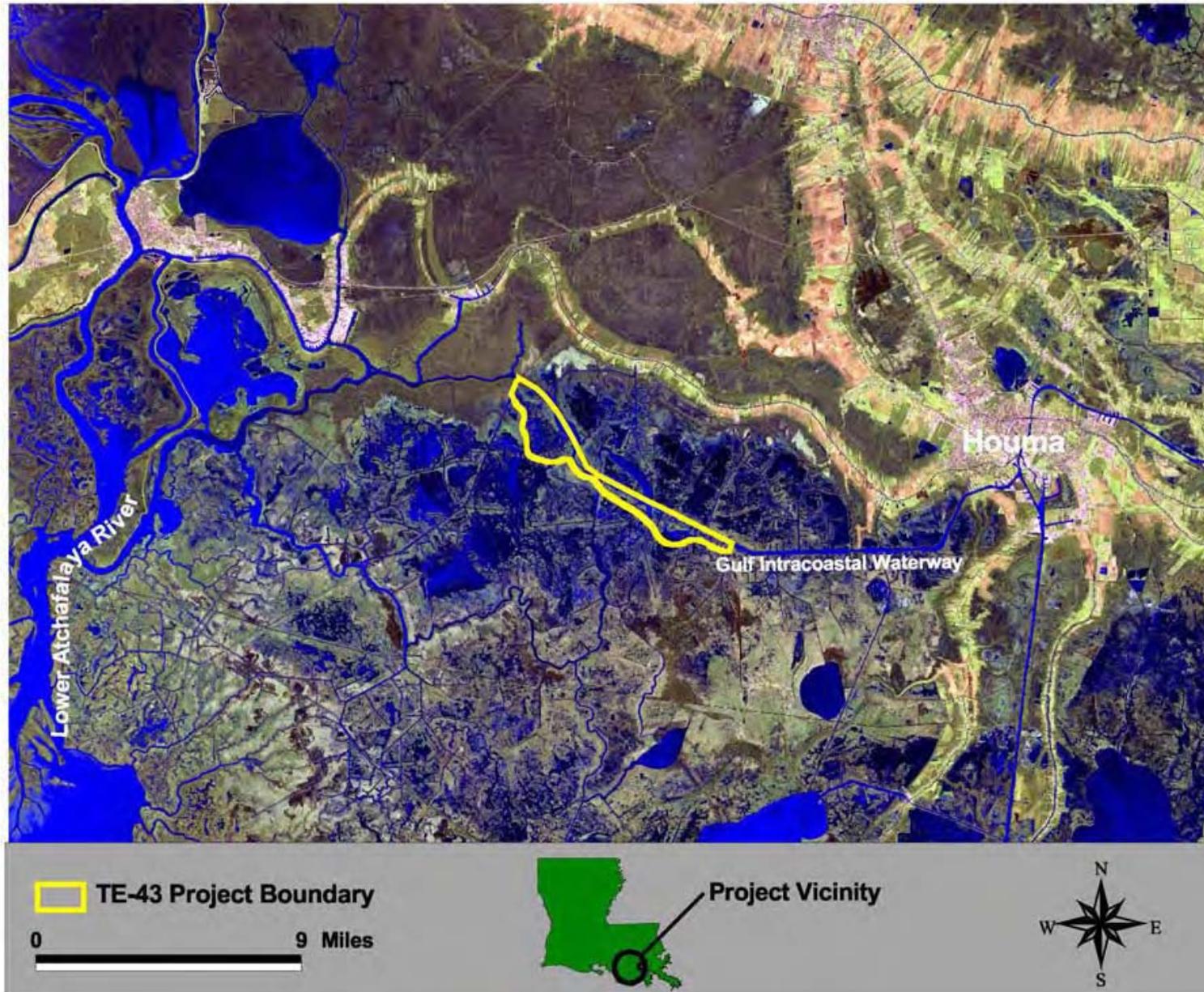


Figure 1. Vicinity map of original boundary of GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43).

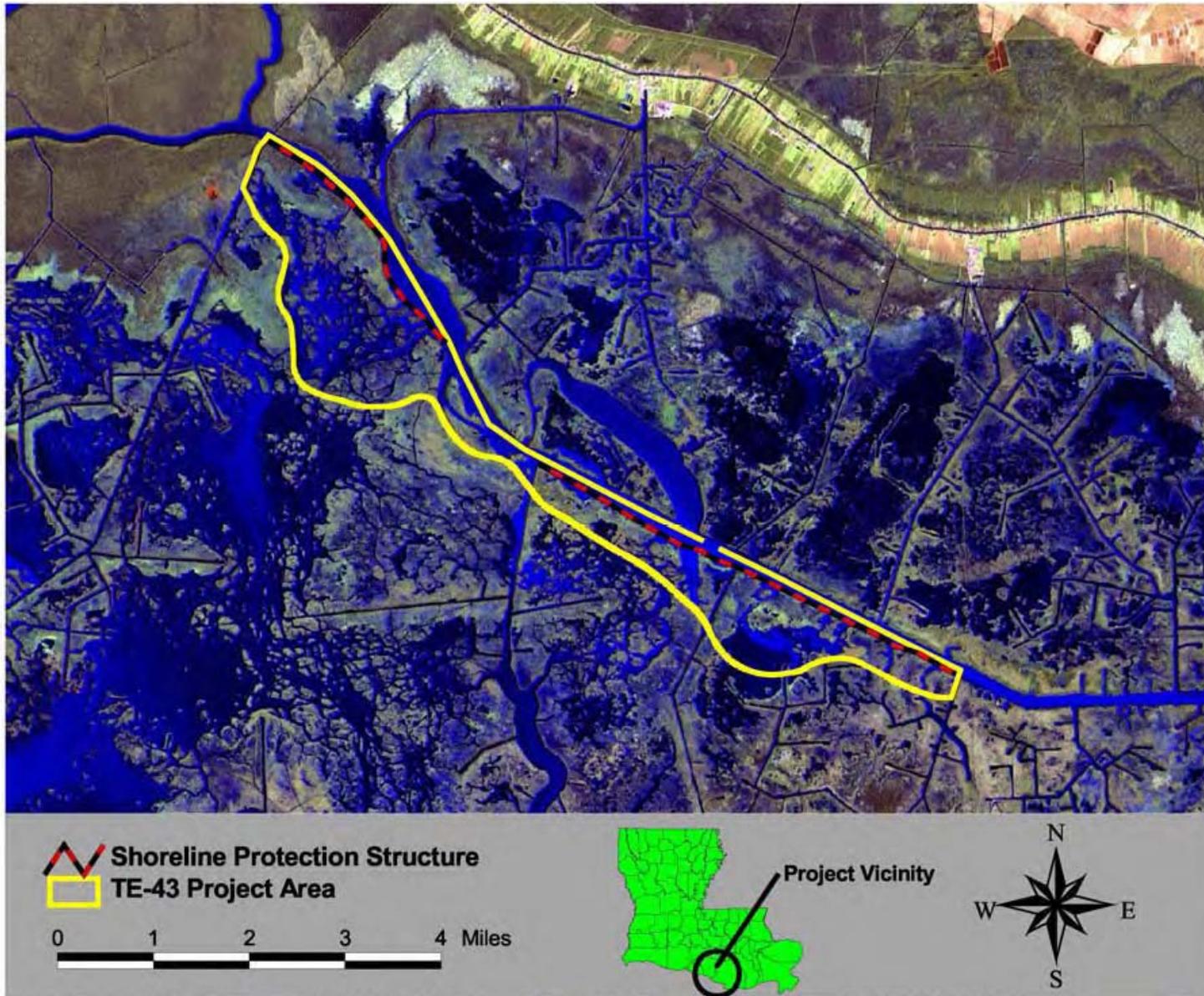


Figure 2. Expanded view of original project boundary of GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43) also indicating extent of shoreline protection coverage.

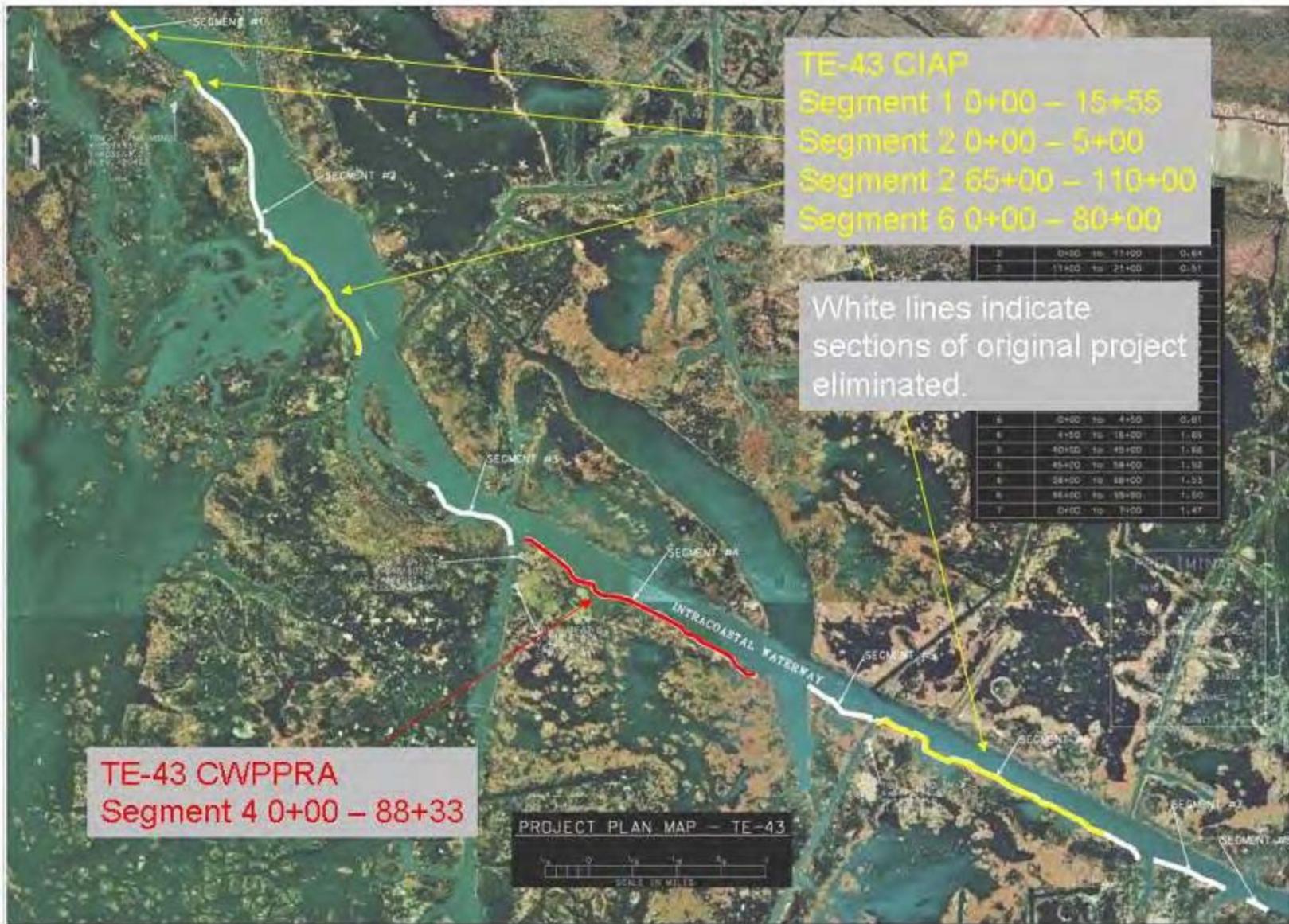


Figure 3. Map showing original TE-43 CWPPRA project with yellow lines indicating positions of CIAP sections, red lines indicating current CWPPRA TE-43 project, and white lines indicating those sections of segments eliminated from the project.

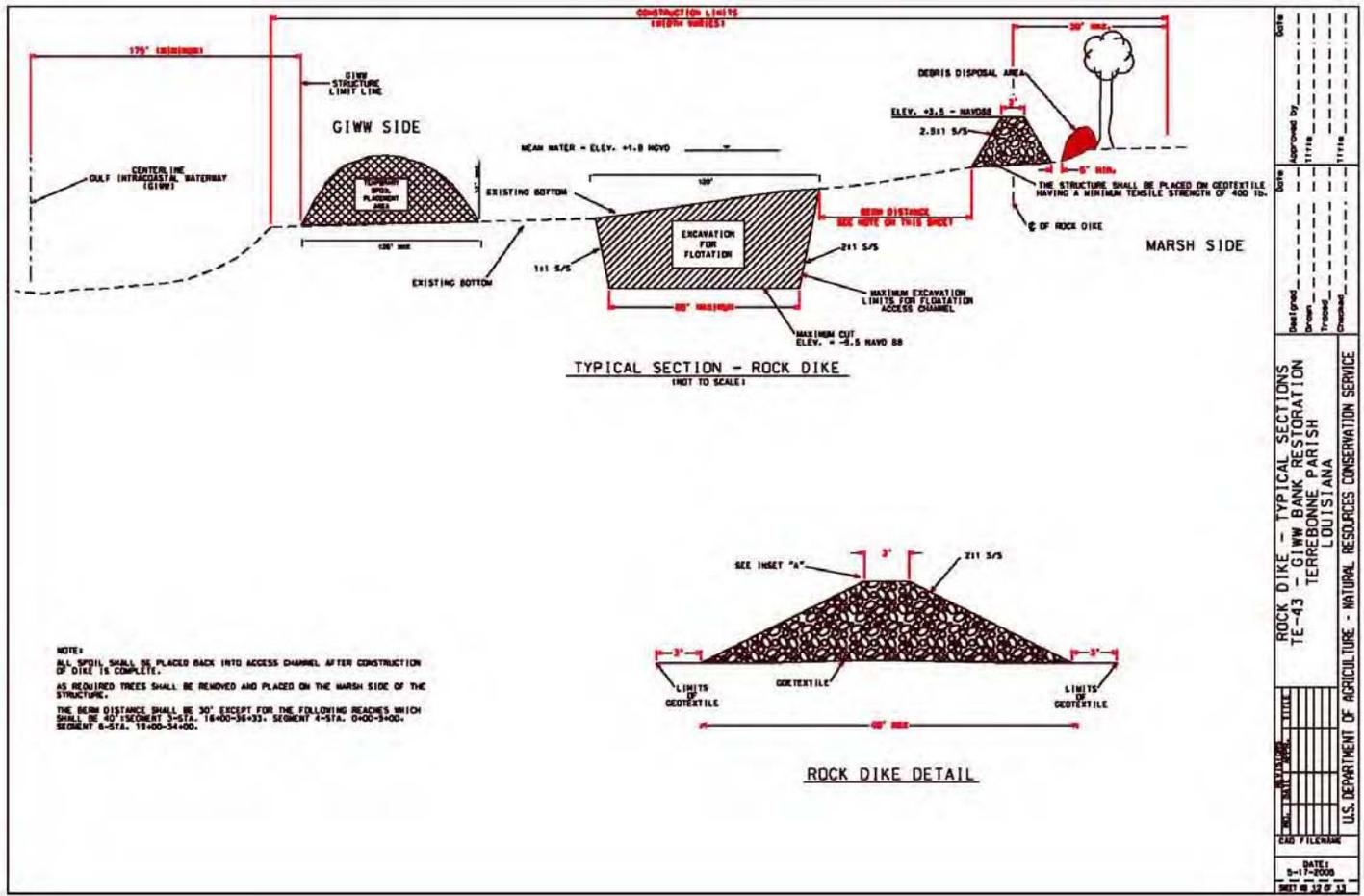
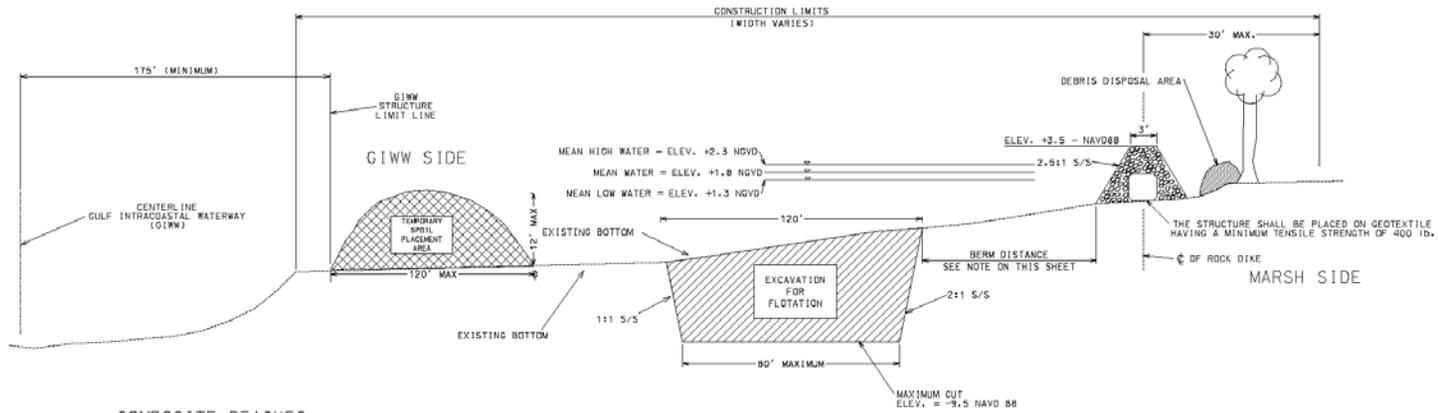


Figure 4 – Typical Rock Dike Section.

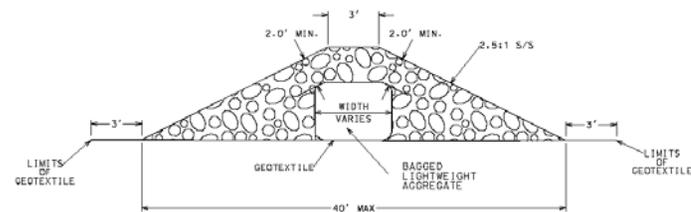


TYPICAL SECTION - COMPOSITE ROCK DIKE  
(NOT TO SCALE)

COMPOSITE REACHES  
LIGHT WEIGHT AGGREGATE

SEGMENT	REACH	CY/LF
2	0+00 TO 11+00	0.64
2	11+00 TO 21+00	0.51
2	21+00 TO 30+50	0.56
2	30+50 TO 41+00	0.50
2	41+00 TO 76+00	0.91
3	0+00 TO 13+00	0.58
4	7+00 TO 18+00	1.18
4	21+00 TO 33+50	1.02
4	33+50 TO 50+00	1.99
4	50+00 TO 59+00	1.90
5	16+00 TO 24+03	1.62
6	0+00 TO 4+50	0.81
6	4+50 TO 16+00	1.65
6	40+00 TO 45+00	1.66
6	45+00 TO 58+00	1.52
6	58+00 TO 68+00	1.53
6	96+00 TO 99+90	1.50
7	0+00 TO 7+00	1.47

NOTE:  
WIDTH AND HEIGHT OF BAGGED LIGHTWEIGHT AGGREGATE IS VARIABLE.  
A MINIMUM OF 2" OF ROCK COVERAGE SHALL BE PLACED ON SIDES AND TOP OF BAGGED AGGREGATE.  
ALL SPOIL SHALL BE PLACED BACK INTO ACCESS CHANNEL AFTER CONSTRUCTION OF DIKE IS COMPLETE.  
AS REQUIRED TREES SHALL BE REMOVED AND PLACED ON THE MARSH SIDE OF THE STRUCTURE.  
THE BERM DISTANCE SHALL BE 30' EXCEPT FOR THE FOLLOWING REACHES WHICH SHALL BE 40': SEGMENT 3-STA. 16+00-36+33, SEGMENT 4-STA. 0+00-8+00, SEGMENT 6-STA. 19+00-34+00.  
THE HEIGHT OF THE DIKE IS VARIABLE. THE DIKE IS PLANNED TO FOLLOW THE +1.0' CONTOUR. THE ACTUAL LAYOUT MAY VARY. THEREFORE THE DIKE COULD VARY IN HEIGHT FROM 4.0' TO 5.0'.  
THE DEPTH OF THE ACCESS CANAL IS ALSO VARIABLE. THIS DEPENDS ON THE TOPOGRAPHY AND HOW MUCH THE CONTRACTOR CHOOSES TO EXCAVATE.



COMPOSITE ROCK DIKE DETAIL  
(ALTERNATIVE)

PRELIMINARY  
THIS DOCUMENT SHALL  
NOT BE USED FOR  
CONSTRUCTION, BIDDING,  
RECORDATION, CONVEYANCE,  
OR SALES.

Figure 5 – Typical Composite Rock Dike Section

### Updated Assessment of Benefits

The original WVA conducted for the Phase I project estimated a benefited area of 3,324 acres and the net acres created/protected/restored of 366 acres at TY20. The downsized project benefit area is 355 acres for a net acres created/protected/restored of 65 acres at TY 20.

### Modifications to the Phase I Project

The Phase 0 approved length of the structure was approximately 37,000 feet, whereas the length of the designed project has been reduced to approximately 8,833 feet. The final design of the project structures are essentially unchanged from the original Phase I project with exception to the total bankline coverage of the project. The project contains shoreline protection by means of a hard shoreline structure.

### Current Cost Estimate

The revised total fully-funded cost prepared by the CWPPRA Economics Work Group is **\$13,022,246** (see fully funded cost spreadsheet). The Phase I cost is **\$1,735,983**. The total Phase II cost is estimated at \$13,568,940 and the Phase II-Increment 1 cost at **\$9,522,400**.

**Final Project Fact Sheet**  
November 10, 2008

**Project Name - GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)**

**Coast 2050 Strategy** – Region 3 - #6 Stabilize navigation channel banks or cross sections for water conveyance.

**Project Location** – Region 3, Terrebonne Basin, Terrebonne Parish, south shore of GIWW.

**Problem** - In the past 20 years, as the efficiency of the Lower Atchafalaya River has decreased, Lake Verret subbasin flooding and Atchafalaya River flows via the GIWW have increased. Deterioration of fresh and intermediate wetlands, particularly the floating marsh, in the upper Penchant basin has been attributed to sustained elevated water levels. In addition, wave action from commercial and recreational traffic on the GIWW has caused floating marshes in some areas to become directly exposed to increased circulation through unnatural connections formed where channel banks have deteriorated.

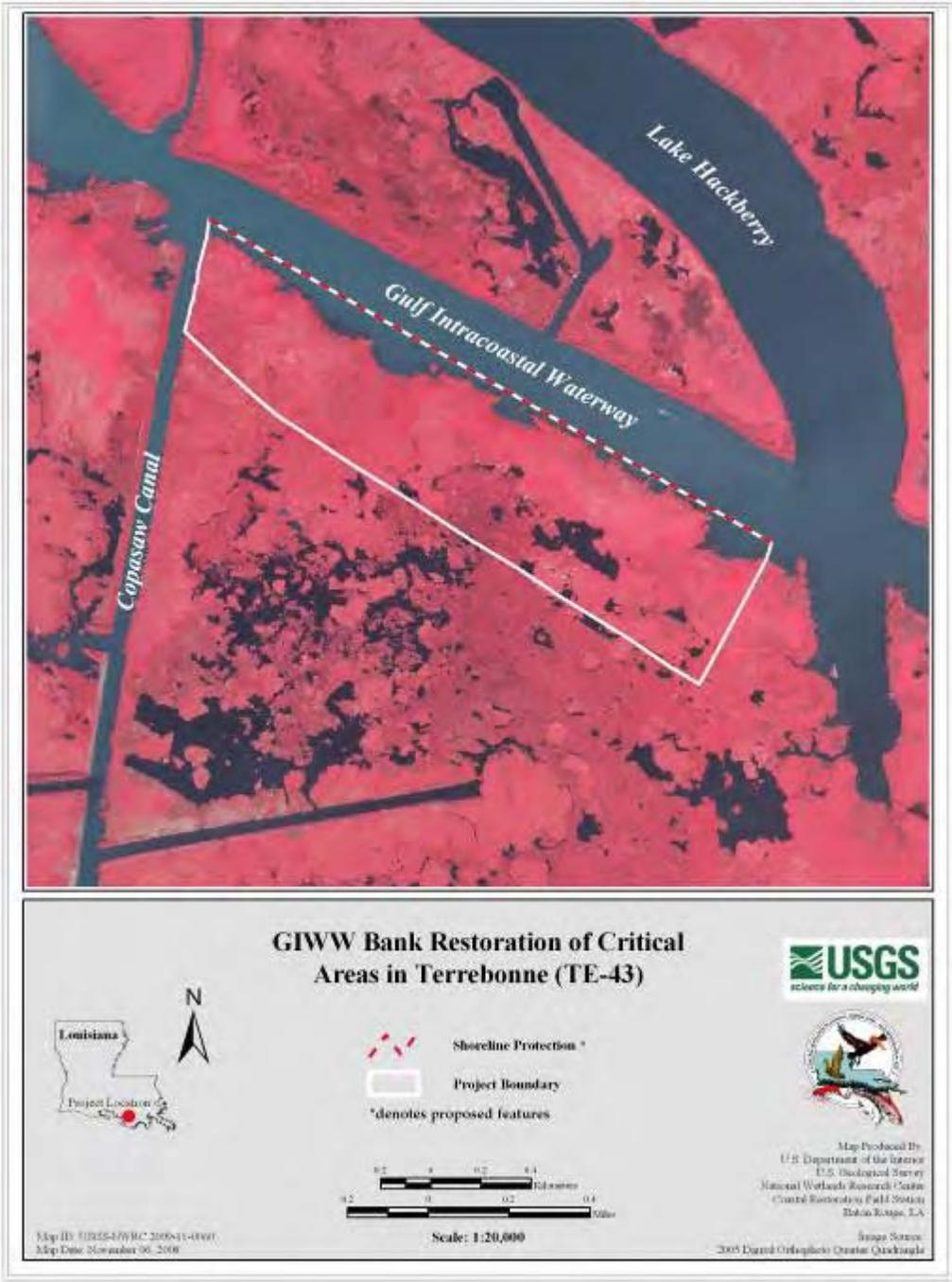
**Goals** - To enable the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to specific locations that would benefit from increased flows of fresh water and nutrients, and 2) To provide relief to marshes connected to the GIWW that are currently suffering from prolonged inundation and wave action while stopping shoreline erosion along the remaining bank of the GIWW.

**Proposed Solution** - The proposed solution is to restore critical lengths of deteriorated channel banks, and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials.

**Project Benefits** – The project would benefit approximately 355 acres adjacent to the largest floating marsh complex in coastal Louisiana and a predicted net acres created/protected/restored of 65 acres at TY20.

**Project Cost** – Total fully funded cost is \$13,022,246.

**Sponsoring Agency and Contact** – Natural Resources Conservation Service (NRCS)  
Ron Boustany, Project Manager, Lafayette, LA (337) 291-3067,  
[ron.boustany@la.usda.gov](mailto:ron.boustany@la.usda.gov)



## Enclosure 2

### Checklist of Phase II Requirements

#### TE-43 GIWW BANK RESTORATION OF CRITICAL AREAS INCREMENT 1 – AREA ‘G’

##### **A. List of Project Goals and Strategies.**

The project goals are: 1) To enable the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to specific locations that would benefit from increased flows of fresh water and nutrients, and 2) To provide relief to marshes connected to the GIWW that are currently suffering from prolonged inundation and wave action while stopping shoreline erosion along the remaining bank of the GIWW.

##### **B. A Statement that the Cost Sharing Agreement between the Lead Agency and the Local Sponsor has been executed for Phase I.**

A Cost Share Agreement between the Natural Resources Conservation Service and Louisiana Department of Natural Resources was executed on May 16, 2001. A draft amendment, authorizing construction, operation, maintenance, and monitoring, to the Cost Share Agreement has been prepared.

##### **C. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase 2 approval.**

NRCS has requested the required letter from DNR relative to landrights being finalized in a relatively short period of time after Phase 2 approval. By way of letter received September 2, 2004, DNR stated that they anticipated no landrights acquisition problems with the project. At this time all landowners have indicated approval of project and signatures pending funding approval, and all pipeline companies have given consent.

##### **D. A favorable Preliminary Design Review (30% Design Level). The Preliminary Design shall include completion of surveys, borings, geotechnical investigations, data analysis review, hydrologic data collection and analysis, modeling (if necessary), and development of preliminary designs.**

A 30% design review meeting was held on May 25, 2004, and resulted in favorable reviews of the project design with minor modifications. DNR and NRCS agreed on the project design and agreed to proceed to the 95% design level and with project implementation.

##### **E. Final Project Design Review (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporate elements from the Preliminary Design and the Preliminary Design Review. Final Project Design Review (95%) must be successfully completed prior to seeking Technical Committee approval.**

A 95% design meeting was held on August 26, 2004, and resulted in favorable reviews of the project design with no modifications and few comments. DNR and NRCS agreed on the project design and agreed to proceed with project implementation.

**F. A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act must be submitted thirty days before the request for Phase 2 approval.**

A final EA dated December, 2002 was developed after receiving comments on the draft EA, which was submitted for public comment in April, 2002.

**G. A written summary of the findings of the Ecological Review.**

A favorable 95% Design Review was conducted on August 26, 2004. The following paragraph is from the Recommendations section of the August 2004 draft Ecological Review:

*Based on information gathered from similar restoration projects, engineering designs, and related literature, the proposed strategies in the GIWW Bank Restoration of Critical Areas in Terrebonne project will likely achieve the desired goals provided Operation and Maintenance funds are available for structure rehabilitation. It is recommended that this project progress towards construction authorization pending a favorable 95% Design Review.*

**H. Application for and/or issuance of the public notices for permits. If a permit has not been received by the agency, a notice from the Corps of when the permit may be issued.**

Section 404 Permit has been received dated January 18, 2006. Water Quality Certification (LDEQ) has been granted via letter dated September 20, 2005. A letter notifying consistency with Louisiana Coastal Resources Program (LCRP) has been issued, dated December 7, 2004.

**I. A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.**

NRCS procedures do not call for an HTRW assessment on this project.

**J. Section 303(e) approval from the Corps.**

Section 303(e) approval was granted by the Corps via letter dated July 8, 2003.

**K. Overgrazing determination from the NRCS (if necessary).**

NRCS has determined that overgrazing is not, and is not anticipated to be, a problem in the project area.

**L. Revised fully funded cost estimate, approved by the Economic Work Group, based on the revised Project design and the specific Phase 2 funding request as outlined in the below spreadsheet.**

The specific Phase 2 funding request (updated construction estimate and three years of monitoring and O&M) is **\$9,522,400**. The revised total fully-funded cost of the project is **\$13,022,246**.

**REQUEST FOR PHASE II APPROVAL**

PROJECT: GIWW Bank Restoration of Critical Areas in Terrebonne Parish  
 PPL: 10 Project No. TE-43  
 Agency: NRCS

Phase I Approval Date: 10-Jan-01  
 Phase II Approval Date: 13-Feb-09 Const Start: Aug-09

	Original Approved Baseline (100% Level) (Col 1 + Col 2)	Current Approved Baseline (Col 3 + Col 4)	Original Baseline Phase I (100% Level) 1/	Original Baseline Phase II (100% Level) 2/	Current Baseline Phase I 3/	Recommended Baseline Phase II (100% Level) 4/	Recommended Baseline Phase II Incr 1 (100% Level) 5/
Engr & Des	1,113,611	1,113,611	1,113,611		1,113,611		
Lands	52,529	52,529	52,529		52,529		
Fed S&A	585,788	626,277	286,282	299,506	286,282	339,995	339,995
LDNR S&A	546,857	564,128	267,256	279,601	267,256	296,872	296,872
COE Proj Mgmt	-	-					
Phase I	1,351	1,351	1,351		1,351		
Ph II Const Phase	708	1,224		708		1,224	1,224
Ph II Long Term	20,032	30,545		20,032		30,545	4,025
Const Contract	11,981,341	5,829,284		11,981,341		5,829,284	5,829,284
Const S&I	182,451	632,400		182,451		632,400	632,400
Contingency	2,995,335	1,457,321		2,995,335		1,457,321	1,457,321
Monitoring	-	-					
Phase I	14,954	14,954	14,954		14,954		
Ph II Const Phase	3,045	-		3,045			
Ph II Long Term	80,448	-		80,448			
O&M - State	2,079,548	2,583,357		2,079,548		2,583,357	935,847
O&M - Fed	-	115,264				115,264	25,432
<b>Total</b>	<b>19,657,998</b>	<b>13,022,245</b>	<b>1,735,983</b>	<b>17,922,015</b>	<b>1,735,983</b>	<b>11,286,262</b>	<b>9,522,400</b>
<b>Total Project</b>				<b>19,657,998</b>		<b>13,022,245</b>	<b>11,258,383</b>
Current Estimate Compared to Original		66%					

Prepared By: Ron Boustany Date Prepared: 18-Nov-09

NOTES: Project reflects downsized costs from original length of 37,000 ft to 8,833 ft.

**M. A revised Wetland Value Assessment reviewed and approved by the Environmental Work Group.**

The segment lengths did not significantly alter the objectives of the project; however, the WVA was revised to reflect the change in the scope of the project with respect to the length of the project features. Therefore, the environmental benefits associated with this project are adjusted proportionally to the size. The original Phase I benefited project area was 3,324 acres and the net acres created/protected/restored at TY20 were 366 acres. The revised pro-rated benefit area is 355 acres and the net acres created/protected/restored is 65 acres.

**N. A breakdown of the Prioritization Criteria ranking score, finalized and agreed-upon by all agencies during the 95% design review.**

The following Prioritization Criteria scores were submitted for reviewed by the Engineering and Environmental Work Groups and agreed upon by all agencies:

<b>Criteria</b>	<b>Score</b>	<b>Weight</b>	<b>Final Score</b>
Cost Effectiveness	1.0	2	2
Area of Need	4.8	1.5	7.2
Implementability	10	1.5	15
Certainty of Benefits	8	1	8
Sustainability of Benefits	2	1	2
HGM – Riverine Input	0	1	0
HGM – Sediment Input	0	1	0
HGM – Landscape Features	0	1	0
<b>Total Score</b>			<b>34.2</b>

**Coastal Wetlands Conservation and Restoration Plan**  
**TE-43 GIWW Bank Restoration**  
**Project Priority List 10 (Phase II Request 2010)**

Project Construction Years:	0	Total Project Years	20
Interest Rate	4.375%	Amortization Factor	0.07605
Fully Funded First Costs	\$10,293,080	Total Fully Funded Costs	\$13,022,246

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$11,256,337	\$855,996
Monitoring	\$0	\$0
State O & M Costs	\$1,646,040	\$125,174
Other Federal Costs	<u>\$86,119</u>	<u>\$6,549</u>
Average Annual Cost	\$987,720	\$987,720
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	
Total Net Acres	0	



## Coastal Wetlands Conservation and Restoration Plan

### TE-43 GIWW Bank Restoration

#### Project Priority List 10 (Phase II Request 2010)

Present Valued Costs		Total Discounted Costs		\$12,988,496		Amortized Costs				\$987,720		
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
<b>Phase I</b>												
7	1.350	2004	\$1,229,585	\$57,999	\$316,096	\$295,089	\$1,492	\$16,511	\$0	\$0	\$0	\$1,916,772
6	1.293	2005	\$261,788	\$12,349	\$67,299	\$62,827	\$318	\$3,515	\$0	\$0	\$0	\$408,095
5	1.239	2006	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	1.187	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.137	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$1,491,373	\$70,348	\$383,395	\$357,915	\$1,809	\$20,027	\$0	\$0	\$0	\$2,324,868
<b>Phase II</b>												
1	1.044	2010	\$0	\$0	\$354,870	\$309,860	\$1,278	\$0	\$660,068	\$1,521,079	\$6,084,315	\$8,931,469
0	1.000	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.958	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.918	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-3	0.879	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$354,870	\$309,860	\$1,278	\$0	\$660,068	\$1,521,079	\$6,084,315	\$8,931,469
Total First Cost			\$1,491,373	\$70,348	\$738,265	\$667,776	\$3,087	\$20,027	\$660,068	\$1,521,079	\$6,084,315	\$11,256,337
Year	FY	Monitoring	M&M & State Insp	Corps Admin	Fed S&A & Insp							
0	1.000	2011	\$0	\$12,005	\$1,225	\$3,235						
-1	0.958	2012	\$0	\$2,970	\$1,174	\$2,874						
-2	0.918	2013	\$0	\$809,654	\$1,124	\$16,782						
-3	0.879	2014	\$0	\$2,726	\$1,077	\$2,638						
-4	0.843	2015	\$0	\$2,612	\$1,032	\$2,528						
-5	0.807	2016	\$0	\$2,503	\$989	\$2,422						
-6	0.773	2017	\$0	\$9,285	\$947	\$2,502						
-7	0.741	2018	\$0	\$2,297	\$908	\$2,223						
-8	0.710	2019	\$0	\$2,201	\$870	\$2,130						
-9	0.680	2020	\$0	\$431,244	\$833	\$9,335						
-10	0.652	2021	\$0	\$2,020	\$798	\$1,955						
-11	0.624	2022	\$0	\$1,936	\$765	\$1,873						
-12	0.598	2023	\$0	\$7,181	\$733	\$1,935						
-13	0.573	2024	\$0	\$1,777	\$702	\$1,719						
-14	0.549	2025	\$0	\$348,131	\$673	\$7,536						
-15	0.526	2026	\$0	\$1,631	\$644	\$1,578						
-16	0.504	2027	\$0	\$1,562	\$617	\$1,512						
-17	0.483	2028	\$0	\$1,497	\$592	\$1,449						
-18	0.463	2029	\$0	\$1,434	\$567	\$1,388						
-19	0.443	2030	\$0	\$1,374	\$905	\$1,330						
Total			\$0	\$1,646,040	\$17,175	\$68,943						

**Coastal Wetlands Conservation and Restoration Plan**

**TE-43 GIWW Bank Restoration**

**Project Priority List 10 (Phase II Request 2010)**

**Fully Funded Costs**                      Total Fully Funded Costs                      \$13,022,246                      Amortized Costs                      \$990,286

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
<b>Phase I</b>												
7	0.738	2004	\$911,136	\$42,978	\$234,231	\$218,664	\$1,105	\$12,235	\$0	\$0	\$0	\$1,420,349
6	0.796	2005	\$202,475	\$9,551	\$52,051	\$48,592	\$246	\$2,719	\$0	\$0	\$0	\$315,633
5	0.848	2006	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	0.894	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	0.938	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$1,113,611	\$52,529	\$286,282	\$267,256	\$1,351	\$14,954	\$0	\$0	\$0	\$1,735,983

<b>Phase II</b>												
1	1.000	2010	\$0	\$0	\$339,995	\$296,872	\$1,224	\$0	\$632,400	\$1,457,321	\$5,829,284	\$8,557,096
0	1.012	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.026	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.044	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-3	1.062	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$339,995	\$296,872	\$1,224	\$0	\$632,400	\$1,457,321	\$5,829,284	\$8,557,096

Total Cost                      \$1,113,611                      \$52,529                      \$626,277                      \$564,128                      \$2,575                      \$14,954                      \$632,400                      \$1,457,321                      \$5,829,284                      \$10,293,080

Year	FY	Monitoring	M&M & State Insp	Corps Admin	Fed S&A & Insp	
0	1.0120	2011	\$0	\$12,149	\$1,240	\$3,273
-1	1.0262	2012	\$0	\$3,181	\$1,257	\$3,079
-2	1.0436	2013	\$0	\$920,517	\$1,278	\$19,080
-3	1.0624	2014	\$0	\$3,293	\$1,301	\$3,187
-4	1.0815	2015	\$0	\$3,353	\$1,325	\$3,245
-5	1.1010	2016	\$0	\$3,413	\$1,349	\$3,303
-6	1.1208	2017	\$0	\$13,455	\$1,373	\$3,625
-7	1.1410	2018	\$0	\$3,537	\$1,398	\$3,423
-8	1.1615	2019	\$0	\$3,601	\$1,423	\$3,485
-9	1.1824	2020	\$0	\$749,662	\$1,448	\$16,228
-10	1.2037	2021	\$0	\$3,731	\$1,475	\$3,611
-11	1.2254	2022	\$0	\$3,799	\$1,501	\$3,676
-12	1.2474	2023	\$0	\$14,975	\$1,528	\$4,035
-13	1.2699	2024	\$0	\$3,937	\$1,556	\$3,810
-14	1.2927	2025	\$0	\$819,607	\$1,584	\$17,741
-15	1.3160	2026	\$0	\$4,080	\$1,612	\$3,948
-16	1.3397	2027	\$0	\$4,153	\$1,641	\$4,019
-17	1.3638	2028	\$0	\$4,228	\$1,671	\$4,091
-18	1.3884	2029	\$0	\$4,304	\$1,701	\$4,165
-19	1.4134	2030	\$0	\$4,381	\$2,885	\$4,240
Total			\$0	\$2,583,357	\$30,545	\$115,264

<b>E&amp;D and Construction Data</b>	
ESTIMATED CONSTRUCTION COST	5,829,284
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>7,286,605</u>

**TOTAL ESTIMATED PROJECT COSTS**

**PHASE I**

**Federal Costs**

<i>Engineering and Design</i>		\$1,113,611
Engineering	\$0	
Geotechnical Investigation	\$0	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$0	
Monitoring Plan Development	\$0	
NEPA Compliance	\$0	
0	\$0	
0	\$0	

<i>Supervision and Administration</i>		\$286,282
<i>Corps Administration</i>		\$1,351

**State Costs**

<i>Supervision and Administration (including PM, ecological review and engineering review)</i>		\$267,256
<i>Ecological Review Costs</i>		\$0
<i>Easements and Land Rights</i>		\$52,529
<i>Monitoring</i>		\$14,954
Monitoring Plan Development	\$14,954	
Monitoring Protocol Cost *	\$0	

**Total Phase I Cost Estimate                   \$1,735,983**

\* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

**PHASE II**

**Federal Costs**

<i>Estimated Construction Cost +25% Contingency</i>		\$7,286,605
Lands or Oyster Issues	0 lease acres	\$0
<i>Supervision and Inspectio</i>	400 days @ 1581 per day	\$632,400
<i>Supervision and Administration</i>		\$339,995
<i>Corps Administration - reconcile Project First Costs</i>		<b>\$816</b>

**State Costs**

<i>Supervision and Administration</i>		\$296,872
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**Total Phase II Cost Estimate                   \$8,556,688**

**TOTAL ESTIMATED PROJECT FIRST COST                   10,292,671**

**O&M Data**

**Annual Costs**

	<u>Federal</u>	<u>State</u>	
Annual Inspections	\$3,000	\$3,100	\$6,100
Annual Cost for Operations	\$0	\$0	\$0
Preventive Maintenance	\$0	\$0	\$0
0			\$0

**Specific Intermittent Costs:**

**Construction Items**

	<u>Year 1</u>	<u>Year 3</u>	<u>Year 7</u>	<u>Year 10</u>	<u>Year 13</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$0	\$75,000	\$0	\$75,000	\$0	\$75,000
Structural Assessment	\$6,250	\$0	\$6,250	\$0	\$6,250	\$0
Access Dredging	\$0	\$50,000	\$0	\$50,000	\$0	\$50,000
Rock Riprap (2ft cap over 8,833 lf)	\$0	\$486,312	\$0	\$0	\$0	\$0
Rock Riprap (1.5ft cap over 8,833 lf)	\$0	\$0	\$0	\$303,939	\$0	\$303,939
0	\$0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$6,250</b>	<b>\$611,312</b>	<b>\$6,250</b>	<b>\$428,939</b>	<b>\$6,250</b>	<b>\$428,939</b>
<b>Subtotal w/ 25% contin.</b>	<b>\$7,813</b>	<b>\$764,140</b>	<b>\$7,813</b>	<b>\$536,173</b>	<b>\$7,813</b>	<b>\$536,173</b>

**Engineer, Design & Administrative Costs**

Engineering and Design Cost	\$0	\$0	\$0	\$0	\$0	\$0
Administrative Cost	\$858	\$55,526	\$858	\$40,007	\$858	\$40,007
Administrative Cost	\$235	\$15,283	\$235	\$10,724	\$235	\$10,724
Eng Survey 5 days @ \$3,600 per day	\$0	\$18,000	\$0	\$18,000	\$0	\$18,000
Construction 400 days @ \$65 per day	\$0	\$26,000	\$0	\$26,000	\$0	\$26,000

Subtotal

	\$1,093	\$114,809	\$1,093	\$94,731	\$1,093	\$94,731
	\$235	\$15,283	\$235	\$10,724	\$235	\$10,724
	\$0	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>	<b>\$235</b>	<b>\$15,283</b>	<b>\$235</b>	<b>\$10,724</b>	<b>\$235</b>	<b>\$10,724</b>
<b>Total</b>	<b>\$9,140</b>	<b>\$894,232</b>	<b>\$9,140</b>	<b>\$641,627</b>	<b>\$9,140</b>	<b>\$641,627</b>

**Federal S&A**

Administrative Cost

**Annual Project Costs:**

Corps Administration	\$1,225
Monitoring	\$0

**Construction Schedule:**

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Plan & Design Start	January-04	9	2	0	0	0	0	0	0	0	0
Plan & Design End	December-08										
Const. Start	August-10										
Const. End	August-10	0	0	0	0	0	0	4	0	0	0

SHIP SHOAL: WHISKEY WEST  
FLANK RESTORATION (TE-47)

**CWPPRA**  
**Ship Shoal: Whiskey Island**  
**West Flank Restoration (TE-47)**  
**Phase II Request**

**Technical Committee Meeting**



December 2, 2009

Baton Rouge, LA



**Project Overview**

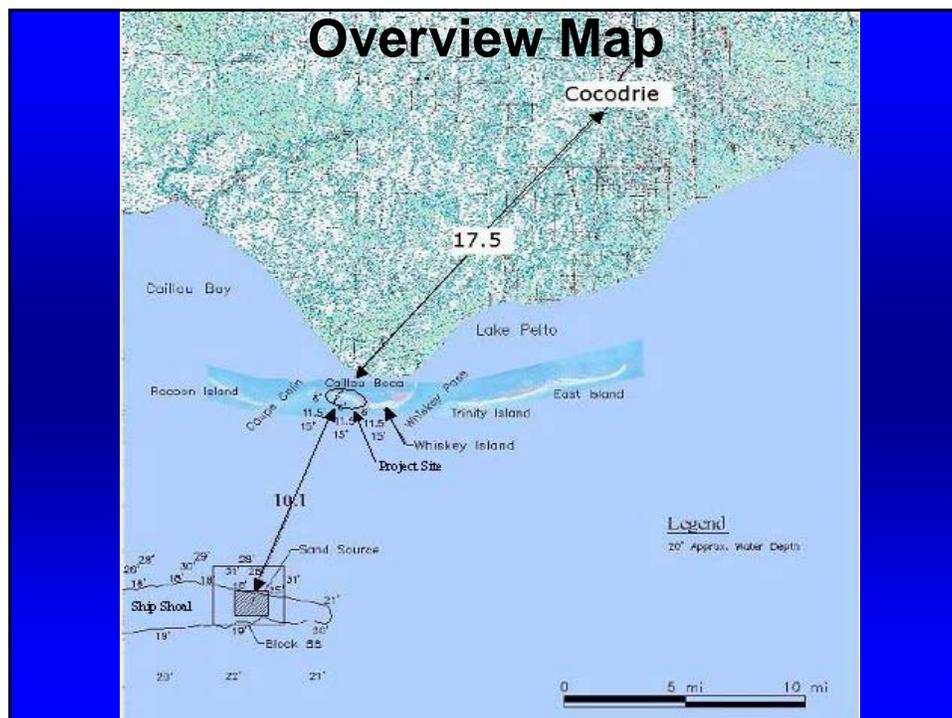
**Project Location:** Region 3 - Terrebonne Basin, Terrebonne Parish, Isles Dernieres Barrier Islands Refuge, western spit of Whiskey Island.

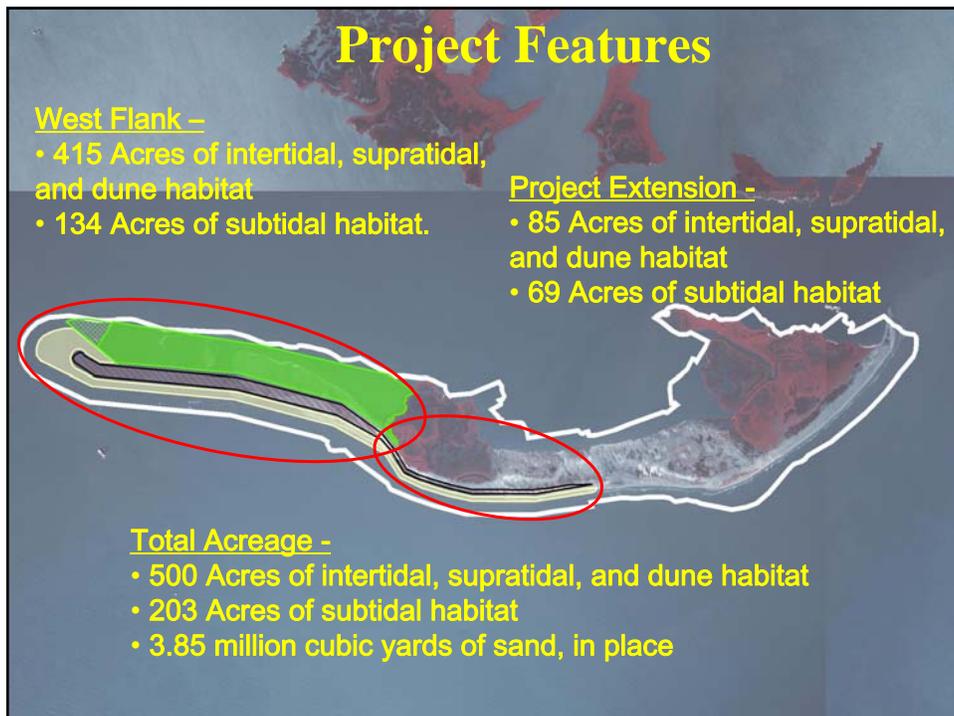
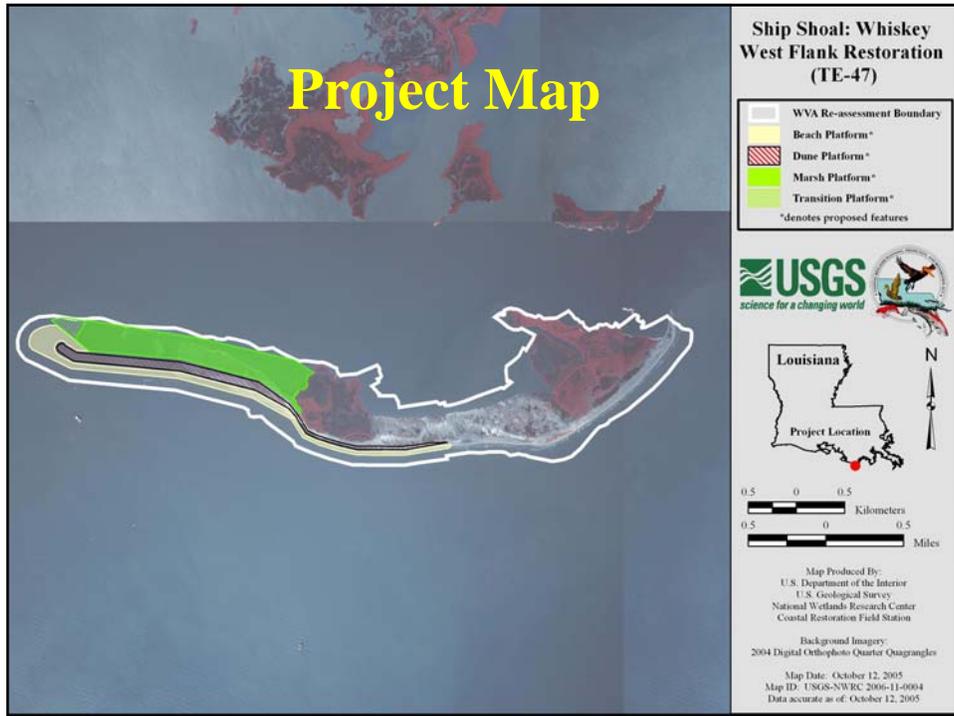
**Problem:** The Isles Dernieres, considered one of the most rapidly deteriorating barrier shorelines in the US, is losing its structural framework functions for the coastal/estuarine ecosystem including storm buffering capacity and protection for inland bays, estuaries and wetlands, human populations, and infrastructure. Island breakup is due to both storm action and loss of nourishing sediment from the natural system. Whiskey Island changes from 1978 to 1988 include loss of 31.1 acres per year.

# Project Overview

## Goals:

- Demonstrate feasibility of mining Ship Shoal
- Restore the integrity of the West Flank
- Add offshore sediment
- Rebuild the natural structural framework
- Create a continuous protective barrier
- Reduce wave energies
- Enhance long-shore sediment transport
- Provide sustainable barrier island habitat
- Restore roughly 500 acres of barrier island





## **Project Benefits & Costs**

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- **Benefits include evaluation of the feasibility of using Ship Shoal sand for coastal restoration.**
- **The project would benefit a total of 703 acres of barrier island and shallow water habitat.**
- **At the end of 20 years, there would be a net of 195 acres of island habitat over the without-project condition.**
- **Wetland Value Assessment: 269 Net AAHUs**
- **The Fully Funded Cost for the project is: \$61,750,784  
Phase 2 request is: \$57,851,781**

## **Why Should We Fund This Project Now?**

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- **Barrier Islands are first line of defense against storm surge**
- **Potential use of Ship Shoal sand for future restoration projects**
- **Infuses new sediment into system**
- **Rapidly changing shoreline of the Isles Dernieres**
- **Limited Plans and Specifications shelf life**

# Questions?



**Brad Crawford**  
US Environmental  
Protection Agency  
(214) 665 - 7255



**Brad Miller**  
LA Coastal Restoration  
and Protection Authority  
(225) 342 - 4122



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

November 18, 2009

Mr. Thomas A. Holden  
Deputy District Engineer  
U.S. Army Corps of Engineers  
New Orleans District  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

RE: Ship Shoal: Whiskey West Flank Project (TE-47)  
Request for Phase II Construction Authorization

Dear Mr. Holden;

The U.S. Environmental Protection Agency (EPA) and Louisiana Office of Coastal Restoration and Protection (OCPR), hereby request approval to begin construction of the Ship Shoal: Whiskey West Flank Project (TE-47). This project was authorized January 2002 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). This is the fifth submittal for Phase II funding for this project. This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures Manual (SOP).

Enclosed please find all of the information required for Phase II construction funding request and approval, pursuant to Appendix C of the SOP. If you have any questions or need additional information about this project, please contact Brad Crawford 214-665-7255.

Sincerely,

A handwritten signature in black ink that reads "Paul Kaspar".

Paul Kaspar  
Acting Chief  
Marine & Coastal Section

Enclosures

cc: Mr. Darryl Clark, USFWS  
Mr. Britt Paul, NRCS  
Mr. Kirk Rhinehart, CPRA  
Mr. Richard Hartman, NMFS  
Ms. Melanie Goodman, USACE

Mr. Kevin Roy, USFWS  
Mr. John Jurgensen, NRCS  
Ms. Kelley Templet, CPRA  
Ms. Rachel Sweeney, NMFS

**Ship Shoal: Whiskey West Flank Project (TE-47)**  
**Information for Phase II Funding Request**  
**November 2009**

**Phase I project description** – Phase 1 was authorized by the CWPPRA Task Force on January 16, 2002, as part of Priority Project List 11. The candidate project included mining and placing Ship Shoal sand from the Minerals Management Service (MMS) Block 88 by cutterhead or hopper dredge to rebuild the west flank of Whiskey Island, a distance of about 8-10 miles. The area to be restored included 57 acres of dunes, 7 feet high and 150 feet wide, 114 acres of supratidal habitat at 4 feet in elevation, 208 acres of intertidal habitat at a 2 foot elevation, and 8 acres of subtidal habitat from 0 to minus 1.5 feet in elevation. All areas would be planted and sand fencing placed to trap wind-blown sediment. The original Phase 1 fact sheet, map are attached. See Attachment I.

Original Estimate - Phase I:

Estimated Engineering and Design:	\$2,040,111
Estimated Easements and Land Rights:	\$10,609
Estimated Pre-Construction Monitoring:	\$24,198
Estimated Federal Supervision & Administration:	\$497,562
Estimated LDNR Supervision & Administration:	\$424,360
Corps Project Management:	\$2,120
<b>Total Estimated Phase I Costs</b>	<b>\$2,998,960</b>

Phase II :

Estimated Construction:	\$27,776,268
Contingency:	\$6,944,067
Estimated Supervision & Inspection:	\$293,259
Estimated Land Rights Coordination:	\$0
Estimated EPA Supervision & Administration:	\$520,979
Estimated LDNR Supervision & Administration:	\$444,331
Corps Project Management:	\$752
Estimated Monitoring Costs:	\$324,302
<b>Total Estimated Phase II Costs:</b>	<b>\$36,303,963</b>

<b>Total Fully Funded Phase I &amp; Phase II Cost:</b>	<b>\$39,302,923</b>
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**Overview of Phase I Tasks, Process and Issues** – LDNR contracted with the company of DMJM Harris for the Engineering and Design (E&D). DMJM Harris conducted the following tasks:

- Delineated a borrow area on Ship Shoal by conducting a geophysical investigation.
- Surveyed the project area.
- Applied the appropriate modeling to optimize the cross section and to ensure the project does not have a negative impact on adjacent areas.
- Developed project Plans, Specifications, Permit Drawings and Design Report.

Compliance with the National Environmental Policy Act (NEPA) is being addressed in two separate tracks. To address potential impacts to the dredging borrow site, the MMS completed an Environmental Assessment (EA) dated April 2004 addressing both this project and the Morganza to the Gulf Levee project. That EA included information regarding cultural resources obtained from the remote sensing survey completed by EPA in December 2003. NEPA compliance regarding the island fill site is being addressed in a separate EA developed by EPA. The Draft EA was posted along with the 95% E&D documents, and the NEPA documentation was completed with the issuance of a Finding of No Significant Impact dated December 1, 2005. LDNR and EPA investigated the potential for cultural resource areas and determined there are not any in the delineated borrow area or the project footprint.

The project site was affected by hurricanes Katrina and Rita in 2005. EPA and LDNR surveyed the island via aerial flights after each event and LDNR and EPA re-surveyed the island in August 2006. While the storms disturbed the existing sediments, the quantities were not significantly affected. However, the cost estimates based on current market conditions have been revised. The original fact sheet and project map are provided in Attachment I.

**Description of Phase II Candidate project** – The overall project objectives as enumerated in the 95% E&D report are:

- I. Demonstrate the feasibility of moving Ship Shoal sand to the Isles Dernieres for future restoration projects;
- II. Restore the integrity of the West Flank of Whiskey Island to retain its structural function;
- III. Add offshore sediment to the West Flank of Whiskey Island from Ship Shoal to increase sediment supply and strengthen island formation;
- IV. Rebuild the natural structural framework within the coastal ecosystem to provide for separation of the gulf and the estuary;
- V. Create a continuous protective barrier for back bays and inland marshes;
- VI. Reduce wave energies thereby helping to reduce land loss;
- VII. Strengthen the longshore transport system of sediment for continuous island building;
- VIII. Provide a unique and sustainable barrier island habitat for numerous biological species; and,
- IX. Restore roughly 500 acres of barrier island habitat on the island's West Flank.

The proposed restoration template would restore the west flank of Whiskey Island through the direct creation of approximately 415 acres of new intertidal, supratidal, and dune habitat plus 134 acres of subtidal habitat. Information gathered during the initial phase of this project indicated the project may concentrate over-wash toward existing marsh. Based on this information, it was decided to extend the dune feature to protect this existing marsh. The project extension to the east will create approximately 85 acres of additional new intertidal, supratidal, and dune habitat plus 69 acres of additional subtidal habitat. The preferred alternative (Alternate "B" Extended) will create 500 acres of new intertidal, supratidal, and dune habitat plus 203 acres of subtidal habitat. The estimated volume of sand needed, based on fill

volume, is 3.85 million cubic yards. A revised fact sheet and project map are included in Attachment II.

Revised Estimate - Phase I:

Estimated Engineering and Design:	\$2,550,139
Estimated Easements and Land Rights:	\$13,261
Estimated Pre-Construction Monitoring:	\$24,198
Estimated Federal Supervision & Administration:	\$621,952
Estimated LDNR Supervision & Administration:	\$530,383
Corps Admin:	\$2,120
Total Estimated Phase I Costs	\$3,742,053

Phase II:

Estimated Construction:	\$45,617,873
Contingency:	\$11,404,468
Estimated Supervision & Inspection:	\$399,993
Estimated Land Rights Coordination:	\$0
Estimated EPA Supervision & Administration:	\$202,400
Estimated LDNR Supervision & Administration:	\$202,400
Corps Project Management:	\$1,756
Estimated Monitoring Costs:	\$0
O&M	\$179,841
Total Estimated Phase II Costs:	\$

Total Fully Funded Phase I & Phase II Cost: \$61,750,785

#### 4. Checklist of Phase II Requirements:

- A. The project goals are:
- Demonstrate the feasibility of moving Ship Shoal sands to the Isles Dernieres for future restoration projects;
  - Restore the integrity of the West Flank of Whiskey Island to retain its structural function;
  - Add offshore sediment to the West Flank of Whiskey Island from Ship Shoal to increase sediment supply and strengthen island formation;
  - Rebuild the natural structural framework within the coastal ecosystem to provide for separation of the gulf and the estuary;
  - Create a continuous protective barrier for back bays and inland marshes;
  - Reduce wave energies thereby helping to reduce land loss;
  - Strengthen the longshore transport system of sediment for continuous island building;
  - Provide a unique and sustainable barrier island habitat for numerous biological species; and,
  - Restore roughly 400 acres of barrier island habitat into the island's West Flank

**B.** A cooperative agreement between EPA Region 6 and the State of Louisiana Department of Natural Resources was initially executed in January, 27, 2003, then revised February 25, 2004. The agreement remains in full force and effect.

**C.** The project property is owned by the State of Louisiana and is managed by the Louisiana Department of Wildlife and Fisheries (LDWF). A landrights agreement between the Louisiana Department of Wildlife and Fisheries and the Louisiana Department of Natural Resources was signed and approved on October 26, 2005. See Attachment III

**D.** A favorable 30% design review was held on November 8, 2004, in Baton Rouge. Attendees included representatives from state and federal CWPPRA agencies and other interested parties. All comments and questions were addressed in the 95% design report. In an email dated January 12, 2005, EPA and LNDR informed the Technical Committee of the results of the 30% E&D and our intent to move forward with this project. See Attachment IV.

**E.** A favorable 95% design review was held on September 28, 2005. Attendees included representatives from state and federal CWPPRA agencies and other interested parties. All attendee comments and questions were addressed during the meeting. See Attachment IV.

**F.** The NEPA documentation was completed with the issuance of a "Finding of No Significant Impact" dated December 1, 2005. See Attachment V.

**G.** The final ER was posted as required prior to the 95% Design review. The document stated the following:

*Based on information gathered from similar restoration projects, engineering designs and related literature, the proposed strategies in the Ship Shoal: Whiskey West Flank Restoration project will likely achieve all of the desired goals. It is therefore recommended that this project progress towards construction following a favorable 95% Design Review. However, prior to construction the following needs to be addressed.*

*It is believed that the sandy material used to create the back barrier marsh component will experience minimal settlement and consolidation over the life of the project. However, a settlement analysis may be useful to determine how long the restored area will remain at the intertidal target elevation range of 1.0-2.0 feet NAVD-88.*

1. *Answer: The marsh construction elevation ranges from +2' NAVD 88 to a +1' NAVD. Instantaneous settlement of this high quality sand will occur prior to construction being complete. If the material settles beyond the range of marsh elevation more material can be placed to offset this settlement. Other barrier island processes such as island rollover and cross shore sediment transport will far out weigh settlement of the underlying materials. The question concerning settlement was raised after the field data was collected. The design team did not feel the cost to remobilize equipment outweighed the benefits from the data. Permitting and regulations prevent LDNR from constructing marsh platforms at significantly higher elevations than +2' in the anticipation of settlement of the underlying materials. Also, with no money for maintenance or re-nourishment, settlement of the marsh can not be addressed once it settles out of the healthy marsh range. Based on the quality of material being placed, and the minimal amount of material being placed (less than 2' on average) the design team did not feel a geotechnical investigation on the marsh platform was warranted.*

**H.** A 404 permit was issued on July 18, 2007. See Attachment VI

**I.** EPA and LDEQ databases were reviewed to determine the potential for hazardous material sites within the project area. No hazardous material sites were found along the project area or alternative alignments, including the borrow area. Based on this information, EPA Region 6 has determined that a Hazardous, Toxic, and Radiological Waste (HTRW) assessment is not needed for this project.

**J.** This project is consistent with the requirements of Section 303(e) of CWPPRA. The Commander of the USACE New Orleans District granted section 303e approval on November 27, 2006. See Attachment VII.

**K.** In a letter dated August 26, 2005, NRCS concluded that overgrazing is not of concern in this area. See Attachment VIII.

**L.** A revised fully funded cost estimate of \$61,750,785 has been reviewed and approved by the economic work group. See Attachment IX. *(NOTE: OCPR has recently issued a Notice to Proceed to resurvey the project area to verify quantities. The survey was intentionally targeted for after the 2009 hurricane season to get the best information possible for the Task Force decision. The results of that survey were not available at the time the FFC estimate, however, they are expected prior to Task Force approvals scheduled for January 2010.)*

**M.** A revised WVA was completed by EPA and reviewed by the Environmental Work Group. As a result of that effort, EPA received revised benefit numbers from the chairman of the Environmental Work Group in an email dated August 25, 2005. See Attachment X

**Ship Shoal: Whiskey West Flank Restoration**

**Eleventh Priority Project List  
of the  
Coastal Wetlands Planning, Protection and Restoration Act**



**Proposed by**

**U.S. Environmental Protection Agency**

**and**

**LA Department of Natural Resources**

**Contacts:** Brad Crawford - US EPA - (214) 665-7255

Kenneth Teague - US EPA - (214) 665-6687

Brad Miller - LDNR - (225) 342-4122

**Project Name** - Ship Shoal: Whiskey West Flank Restoration

**Coast 2050 Strategy** - Regional Ecosystem Strategy #14: Restore and maintain the Isles Dernieres barrier island chain.

**Project Location** - Region 3 - Terrebonne Basin, Terrebonne Parish, west spit area Whiskey Island.

**Problem** - The Isles Dernieres Chain, which has been considered one of the most rapidly deteriorating barrier shorelines in the U.S., is losing its structural framework functions for the coastal/estuarine ecosystem including storm buffering capacity and protection for inland bays, estuary and wetlands, human populations and infrastructure. Chain break up has resulted from both major storm actions and from loss of nourishing sediment from the natural system due to human alterations. Whiskey Island changes from 1978 to 1988 include loss of 31.1 acres per year.

**Goals** - 1) Demonstrate the feasibility of moving Ship Shoal sands to the Isles Dernieres for future restoration projects; 2) Restore the integrity of the West Flank of Whiskey Island to retain its structural function; 3) Add offshore sediment to the West Flank of Whiskey Island from Ship Shoal to increase sediment supply and strengthen island formation; 4) Rebuild the natural structural framework within the coastal ecosystem to provide for separation of the gulf and the estuary; 5) Create a continuous protective barrier for back bays and inland marshes; 6) Reduce wave energies thereby helping to reduce land loss; 7) Strengthen the long shore transport system of sediment for continuous island building; 8) Provide a unique and sustainable barrier island habitat for numerous biological species; and, 9) Restore roughly 500 acres of barrier island habitat into the island's West Flank.

**Proposed Solution** - The proposed conceptual restoration template would restore the west flank of Whiskey Island through the direct creation of approximately 415 acres of new intertidal, supratidal, and dune habitat plus 134 acres of subtidal habitat. In order to control flow training effects on the western most existing marsh lobe, the project footprint includes an extension the dune feature eastward. The project extension to the east would create approximately 85 acres of additional new intertidal, supratidal, and dune habitat plus 69 acres of additional subtidal habitat. Therefore, the total acreage created for the preferred alternate (Alternate "B"-Extended) would be 500 acres of new intertidal, supratidal, and dune habitat plus 203 acres of subtidal habitat.

**Project Benefits** - Benefits include evaluation of the feasibility of using Ship Shoal sand for coastal restoration as well as, adding sediment to the longshore transport system. The project would benefit a total of 703 acres of barrier island and shallow water. At the end of 20 years, there would be a net of 195 acres of island over the without-project condition.

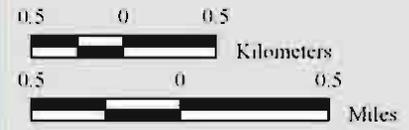
**Project Costs** - The fully funded first cost is \$51,683,571 and the total fully funded cost is \$51,853,787.

**Risk/Uncertainty and Longevity/Sustainability** - There is a moderate degree of risk associated with this project due to greater storm effects in this area of the coast and difficulty in construction. Benefits should continue for more than 20 years due to the high quality and compatibility of Ship Shoal sand.

**Sponsoring Agency/Contact Persons** - U.S. Environmental Protection Agency  
Brad Crawford, P.E., (214) 665-7255; [crawford.brad@epa.gov](mailto:crawford.brad@epa.gov)  
Kenneth Teague (214) 665-6687; [teague.kenneth@epa.gov](mailto:teague.kenneth@epa.gov)  
Brad Miller (225)342-4122

# Ship Shoal: Whiskey West Flank Restoration (TE-47)

-  WVA Re-assessment Boundary
  -  Beach Platform\*
  -  Dune Platform\*
  -  Marsh Platform\*
  -  Transition Platform\*
- \*denotes proposed features



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

Background Imagery:  
2004 Digital Orthophoto Quarter Quadrangles

Map Date: October 12, 2005  
Map ID: USGS-NWRC 2006-11-0004  
Data accurate as of: October 12, 2005



## REQUEST FOR PHASE II APPROVAL

**PROJECT:** Ship Shoal Whiskey West Flank Restoration

**PPL:** 11 **Project No.** TE-47

**Agency:** EPA

**Phase I Approval Date:** 16-Jan-02

**Phase II Approval Date:** 20 Jan 2010 (Proposed) **Const Start:** Jan-11

	Original Approved Baseline (100% Level) (Col 1 + Col 2)	Current Approved Baseline (Col 3 + Col 4)	Original Baseline Phase I (100% Level) 1/	Original Baseline Phase II (100% Level) 2/	Current Baseline Phase I (125% Level) 3/	Recommended Baseline Phase II 4/	Recommended Baseline Phase II Incr 1 (100% Level) 5/
Engr & Des	2,040,111	2,550,139	2,040,111		2,550,139		
Lands	10,609	13,261	10,609		13,261		
Fed S&A	1,018,541	824,352	497,562	520,979	621,952	202,400	202,400
LDNR S&A	868,691	732,783	424,360	444,331	530,383	202,400	202,400
COE Proj Mgmt	-	-					
Phase I	2,120	2,120	2,120		2,120		
Ph II Const Phase	752	1,756		752		1,756	1,756
Ph II Long Term	21,290	31,036		21,290		31,036	3,837
Const Contract	27,776,268	45,617,873		27,776,268		45,617,873	45,617,873
Const S&I	293,259	399,993		293,259		399,993	399,993
Contingency	6,944,067	11,404,468		6,944,067		11,404,468	11,404,468
Monitoring	-	-					
Phase I	24,198	24,198	24,198		24,198		
Ph II Const Phase	6,507	-		6,507		-	-
Ph II Long Term	171,948	-		171,948		-	-
O&M - State	124,554	75,622		124,554		75,622	9,658
O&M - Fed	-	73,183				73,183	9,397
<b>Total</b>	<b>39,302,915</b>	<b>61,750,784</b>	<b>2,998,960</b>	<b>36,303,955</b>	<b>3,742,053</b>	<b>58,008,731</b>	<b>57,851,781</b>
<b>Total Project</b>				<b>39,302,915</b>		<b>61,750,784</b>	<b>61,593,834</b>
Percent Over Original Baseline		157%					

**Prepared By:** B. Crawford **Date Prepared:** 17-Nov-09

**NOTES:**

**Coastal Wetlands Conservation and Restoration Plan**  
**Ship Shoal: Whiskey Island West Flank (TE-47)**  
**PPL 11**

Project Construction Years:	0	Total Project Years	20
Interest Rate	4.375%	Amortization Factor	0.07605
Fully Funded First Costs	\$61,570,944	Total Fully Funded Costs	\$61,750,785

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$64,993,470	\$4,942,476
Monitoring	\$0	\$0
State O & M Costs	\$42,548	\$3,236
Other Federal Costs	\$58,351	\$4,437
Average Annual Cost	\$4,950,148	\$4,950,148
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	
Total Net Acres	0	

## Coastal Wetlands Conservation and Restoration Plan

### Ship Shoal: Whiskey Island West Flank (TE-47)

PPL 11

**Project Costs**

\$61,750,785

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
<b>Phase I</b>											
10	2002	\$415,139	\$2,159	\$101,248	\$86,341	\$345	\$3,939	-	\$0		\$609,172
9	2003	\$711,667	\$3,701	\$173,568	\$148,014	\$592	\$6,753	-	\$0		\$1,044,294
8	2004	\$711,667	\$3,701	\$173,568	\$148,014	\$592	\$6,753	-	\$0		\$1,044,294
7	2005	\$711,667	\$3,701	\$173,568	\$148,014	\$592	\$6,753	-	\$0		\$1,044,294
6	2006	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
	<b>TOTAL</b>	<b>\$2,550,139</b>	<b>\$13,261</b>	<b>\$621,952</b>	<b>\$530,383</b>	<b>\$2,120</b>	<b>\$24,198</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,742,053</b>
<b>Phase II</b>											
1	2011	-	\$0	\$200,000	\$200,000	\$1,735	\$0	\$395,250	\$11,269,238	\$45,076,950	\$57,143,172
0	2012	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	2013	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	2014	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-3	2015	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<b>TOTAL</b>	<b>\$0</b>	<b>\$0</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$1,735</b>	<b>\$0</b>	<b>\$395,250</b>	<b>\$11,269,238</b>	<b>\$45,076,950</b>	<b>\$57,143,172</b>
<b>Total First Costs</b>		<b>\$2,550,139</b>	<b>\$13,261</b>	<b>\$821,952</b>	<b>\$730,383</b>	<b>\$3,855</b>	<b>\$24,198</b>	<b>\$395,250</b>	<b>\$11,269,238</b>	<b>\$45,076,950</b>	<b>\$60,885,226</b>

Year	FY	Monitoring	M&M & State Insp	Corps Admin	Fed S&A & Insp
0 Discount	2012	\$0	\$3,100	\$1,225	\$3,000
-1 Discount	2013	\$0	\$3,100	\$1,225	\$3,000
-2 Discount	2014	\$0	\$3,100	\$1,225	\$3,000
-3 Discount	2015	\$0	\$3,100	\$1,225	\$3,000
-4 Discount	2016	\$0	\$3,100	\$1,225	\$3,000
-5 Discount	2017	\$0	\$3,100	\$1,225	\$3,000
-6 Discount	2018	\$0	\$3,100	\$1,225	\$3,000
-7 Discount	2019	\$0	\$3,100	\$1,225	\$3,000
-8 Discount	2020	\$0	\$3,100	\$1,225	\$3,000
-9 Discount	2021	\$0	\$3,100	\$1,225	\$3,000
-10 Discount	2022	\$0	\$3,100	\$1,225	\$3,000
-11 Discount	2023	\$0	\$3,100	\$1,225	\$3,000
-12 Discount	2024	\$0	\$3,100	\$1,225	\$3,000
-13 Discount	2025	\$0	\$3,100	\$1,225	\$3,000
-14 Discount	2026	\$0	\$3,100	\$1,225	\$3,000
-15 Discount	2027	\$0	\$3,100	\$1,225	\$3,000
-16 Discount	2028	\$0	\$3,100	\$1,225	\$3,000
-17 Discount	2029	\$0	\$3,100	\$1,225	\$3,000
-18 Discount	2030	\$0	\$3,100	\$1,225	\$3,000
-19 Discount	2031	\$0	\$3,100	\$2,041	\$3,000
<b>Total</b>		<b>\$0</b>	<b>\$62,000</b>	<b>\$25,316</b>	<b>\$60,000</b>

## Coastal Wetlands Conservation and Restoration Plan

### Ship Shoal: Whiskey Island West Flank (TE-47)

#### PPL 11

Present Valued Costs			Total Discounted Costs		\$65,094,369		Amortized Costs				\$4,950,148	
Year	Fiscal Year		E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
<b>Phase I</b>												
10	1.534	2002	\$637,028	\$3,313	\$155,364	\$132,490	\$530	\$6,045	\$0	\$0	\$0	\$934,770
9	1.470	2003	\$1,046,273	\$5,441	\$255,175	\$217,606	\$870	\$9,928	\$0	\$0	\$0	\$1,535,292
8	1.409	2004	\$1,002,417	\$5,213	\$244,479	\$208,485	\$833	\$9,512	\$0	\$0	\$0	\$1,470,939
7	1.350	2005	\$960,400	\$4,994	\$234,231	\$199,746	\$798	\$9,113	\$0	\$0	\$0	\$1,409,283
6	1.293	2006	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$3,646,118	\$18,961	\$889,250	\$758,327	\$3,031	\$34,598	\$0	\$0	\$0	\$5,350,284
<b>Phase II</b>												
1	1.044	2011	\$0	\$0	\$208,750	\$208,750	\$1,811	\$0	\$412,542	\$11,762,267	\$47,049,067	\$59,643,186
0	1.000	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.958	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.918	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-3	0.879	2015	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$208,750	\$208,750	\$1,811	\$0	\$412,542	\$11,762,267	\$47,049,067	\$59,643,186
Total First Cost			\$3,646,118	\$18,961	\$1,098,000	\$967,077	\$4,842	\$34,598	\$412,542	\$11,762,267	\$47,049,067	\$64,993,470

Year	FY	Monitoring	M&M & State Insp	Corps Admin	Fed S&A & Insp	
0	1.000	2012	\$0	\$3,100	\$1,225	\$3,000
-1	0.958	2013	\$0	\$2,970	\$1,174	\$2,874
-2	0.918	2014	\$0	\$2,846	\$1,124	\$2,754
-3	0.879	2015	\$0	\$2,726	\$1,077	\$2,638
-4	0.843	2016	\$0	\$2,612	\$1,032	\$2,528
-5	0.807	2017	\$0	\$2,503	\$989	\$2,422
-6	0.773	2018	\$0	\$2,398	\$947	\$2,320
-7	0.741	2019	\$0	\$2,297	\$908	\$2,223
-8	0.710	2020	\$0	\$2,201	\$870	\$2,130
-9	0.680	2021	\$0	\$2,109	\$833	\$2,041
-10	0.652	2022	\$0	\$2,020	\$798	\$1,955
-11	0.624	2023	\$0	\$1,936	\$765	\$1,873
-12	0.598	2024	\$0	\$1,854	\$733	\$1,795
-13	0.573	2025	\$0	\$1,777	\$702	\$1,719
-14	0.549	2026	\$0	\$1,702	\$673	\$1,647
-15	0.526	2027	\$0	\$1,631	\$644	\$1,578
-16	0.504	2028	\$0	\$1,562	\$617	\$1,512
-17	0.483	2029	\$0	\$1,497	\$592	\$1,449
-18	0.463	2030	\$0	\$1,434	\$567	\$1,388
-19	0.443	2031	\$0	\$1,374	\$905	\$1,330
Total			\$0	\$42,548	\$17,175	\$41,176

## Coastal Wetlands Conservation and Restoration Plan

### Ship Shoal: Whiskey Island West Flank (TE-47)

#### PPL 11

Fully Funded Costs		Total Fully Funded Costs					Amortized Costs					\$4,695,883
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
<b>Phase I</b>												
10	0.701	2002	\$415,139	\$2,159	\$101,248	\$86,341	\$345	\$3,939	\$0	\$0	\$0	\$609,172
9	0.721	2003	\$711,667	\$3,701	\$173,568	\$148,014	\$592	\$6,753	\$0	\$0	\$0	\$1,044,294
8	0.738	2004	\$711,667	\$3,701	\$173,568	\$148,014	\$592	\$6,753	\$0	\$0	\$0	\$1,044,294
7	0.796	2005	\$711,667	\$3,701	\$173,568	\$148,014	\$592	\$6,753	\$0	\$0	\$0	\$1,044,294
6	0.848	2006	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$2,550,139	\$13,261	\$621,952	\$530,383	\$2,120	\$24,198	\$0	\$0	\$0	\$3,742,053
<b>Phase II</b>												
1	1.012	2011	\$0	\$0	\$202,400	\$202,400	\$1,756	\$0	\$399,993	\$11,404,468	\$45,617,873	\$57,828,890
0	1.026	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.044	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.062	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-3	1.082	2015	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$202,400	\$202,400	\$1,756	\$0	\$399,993	\$11,404,468	\$45,617,873	\$57,828,890
Total Cost			\$2,550,139	\$13,261	\$824,352	\$732,783	\$3,876	\$24,198	\$399,993	\$11,404,468	\$45,617,873	\$61,570,944
Year	FY	Monitoring	M&M & State Insp	Corps Admin	Fed S&A & Insp	Increment 1						
0	1.0262	2012	\$0	\$3,181	\$1,257	\$3,079						
-1	1.0436	2013	\$0	\$3,235	\$1,278	\$3,131	Monitoring	M&M & State Insp	Corps Admin	Fed S&A & Insp		
-2	1.0624	2014	\$0	\$3,293	\$1,301	\$3,187	\$0.00	\$9,657.51	\$3,836.92	\$9,396.54		
-3	1.0815	2015	\$0	\$3,353	\$1,325	\$3,245						
-4	1.1010	2016	\$0	\$3,413	\$1,349	\$3,303						
-5	1.1208	2017	\$0	\$3,474	\$1,373	\$3,362						
-6	1.1410	2018	\$0	\$3,537	\$1,398	\$3,423						
-7	1.1615	2019	\$0	\$3,601	\$1,423	\$3,485						
-8	1.1824	2020	\$0	\$3,666	\$1,448	\$3,547						
-9	1.2037	2021	\$0	\$3,731	\$1,475	\$3,611						
-10	1.2254	2022	\$0	\$3,799	\$1,501	\$3,676						
-11	1.2474	2023	\$0	\$3,867	\$1,528	\$3,742						
-12	1.2699	2024	\$0	\$3,937	\$1,556	\$3,810						
-13	1.2927	2025	\$0	\$4,008	\$1,584	\$3,878						
-14	1.3160	2026	\$0	\$4,080	\$1,612	\$3,948						
-15	1.3397	2027	\$0	\$4,153	\$1,641	\$4,019						
-16	1.3638	2028	\$0	\$4,228	\$1,671	\$4,091						
-17	1.3884	2029	\$0	\$4,304	\$1,701	\$4,165						
-18	1.4134	2030	\$0	\$4,381	\$1,731	\$4,240						
-19	1.4134	2031	\$0	\$4,381	\$2,885	\$4,240						
Total			\$0	\$75,622	\$31,036	\$73,183					\$179,841	\$61,750,785



**O&M Data**

*Annual Costs*

	<u>Federal</u>	<u>State</u>	
Annual Inspections	\$3,000	\$3,100	\$6,100
Annual Cost for Operations	\$0	\$0	\$0
Preventive Maintenance	\$0	\$0	\$0
0			\$0

*Specific Intermittent Costs:*

<u>Construction Items</u>				<u>Year 1</u>	<u>Year 3</u>	<u>Year 5</u>	<u>Year 20</u>	<u>\$0</u>
0				\$0	\$0	\$0	\$0	\$0
0				\$0	\$0	\$0	\$0	\$0
0				\$0	\$0	\$0	\$0	\$0
0				\$0	\$0	\$0	\$0	\$0
0				\$0	\$0	\$0	\$0	\$0
0				\$0	\$0	\$0	\$0	\$0
0				\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>				\$0	\$0	\$0	\$0	\$0
<b>Subtotal w/ 25% contin.</b>				\$0	\$0	\$0	\$0	\$0
<u>Engineer, Design &amp; Administrative Costs</u>								
Engineering and Design Cost				\$0	\$0	\$0	\$0	\$0
Administrative Cost				\$0	\$0	\$0	\$0	\$0
Engineering Monitoring				\$0	\$0	\$0	\$0	\$0
Eng Survey	0 days	@	\$0 per day	\$0	\$0	\$0	\$0	\$0
Construction	0 days	@	\$0 per day	\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>				\$0	\$0	\$0	\$0	\$0
<u>Federal S&amp;A</u>								
Administrative Cost				\$0	\$0	\$0	\$0	\$0
				\$0	\$0	\$0	\$0	\$0
				\$0	\$0	\$0	\$0	\$0
				\$0	\$0	\$0	\$0	\$0
<b>Subtotal</b>				\$0	\$0	\$0	\$0	\$0
<b>Total</b>				\$0	\$0	\$0	\$0	\$0

Annual Project Costs:

Corps Administration	\$1,225 annually, plus	0	816 in year 20
Monitoring	\$0		

Construction Schedule:

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Plan & Design Start	March-02	7	12	12	12	0	0	0	0	0
Plan & Design End	October-05									
Const. Start	January-11									
Const. End	October-11	0	0	0	0	0	0	0	0	9

SOUTH GRAND CHENIER  
HYDROLOGIC RESTORATION  
(ME-20)

# South Grand Chenier Hydrologic Restoration Project (ME-20) Phase II Construction Request

Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA)

## Project Management Team

Darryl Clark (USFWS), Andrew Beall

Rudy Simoneaux, Darrell Pontiff, David Lindquist,

V. J. Marretta, Troy Barrilleaux, & Ralph Libersat (OCPR)

Charles Slocum, Dale Garber, Ronnie Faulkner, Jason Kroll (NRCS)

Guthrie Perry, Tom Hess (LDWF), Miller Family



**South Grand Chenier Hydrologic Restoration Project (ME-20)  
Vicinity Map**

**Grand Lake**

**Upper Mud Lake**

**Lower Mud Lake  
Mermentau R. Cut Off**

**Grand Chenier**

**Project Area**

**Rockefeller Refuge**

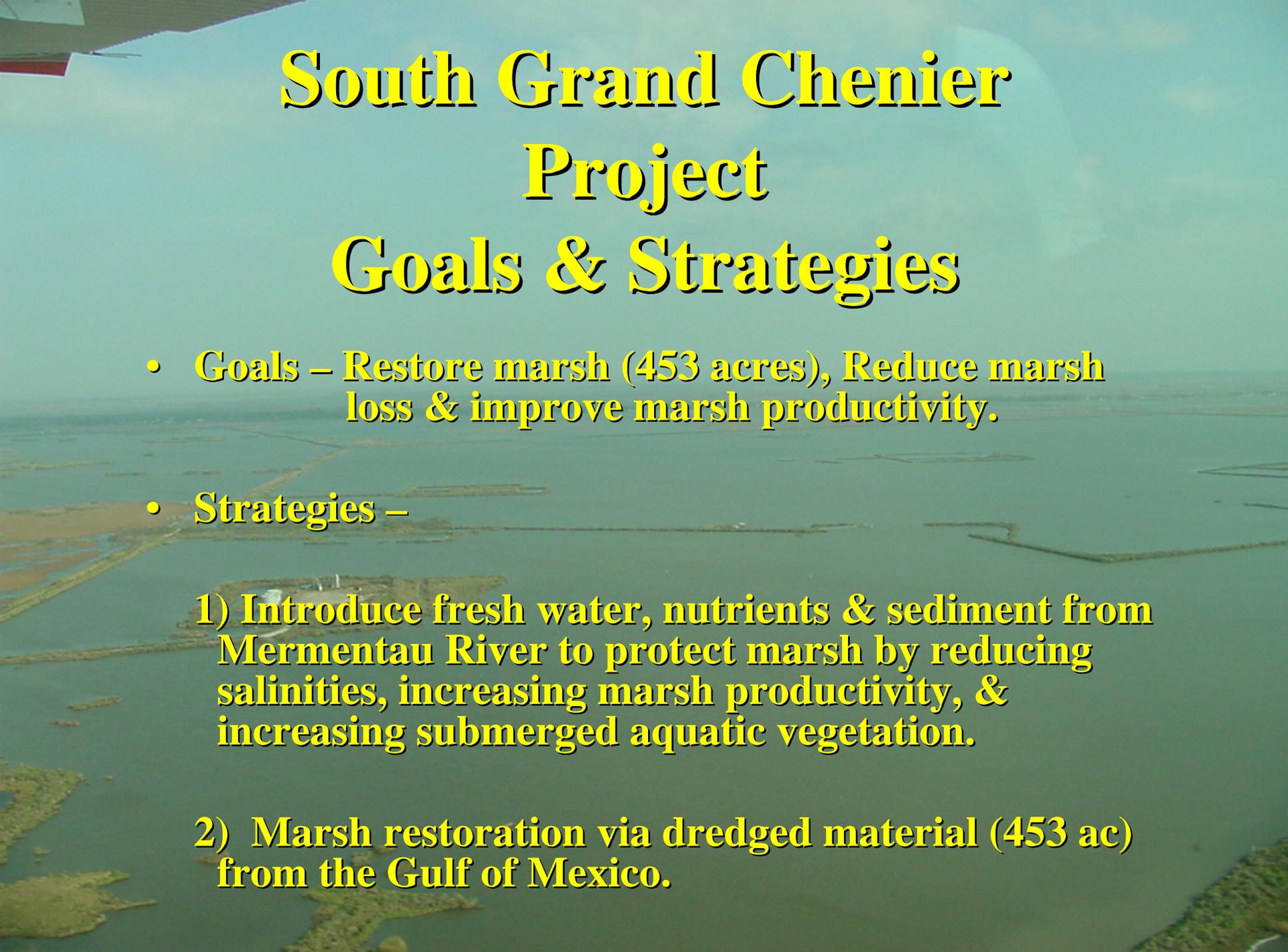
**Gulf of Mexico**

**2005 DOQQ Map**



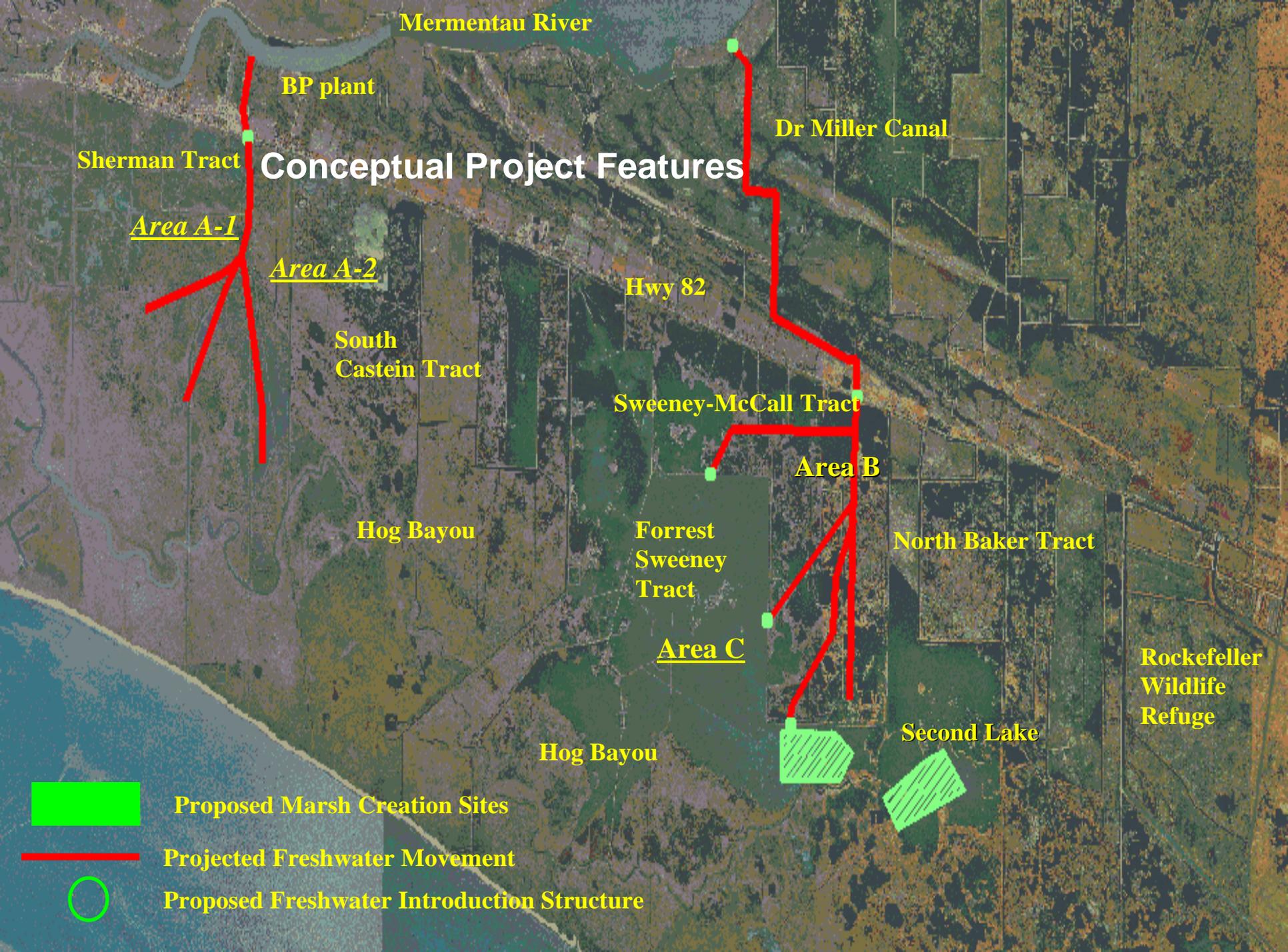
# Hog Bayou Watershed Problems

- Altered Hydrology – Saltwater intrusion, impoundment, & increased subsidence caused by channelization (Mermentau River Ship Channel), levees, & roads.
- Saltwater Intrusion Causes – Mermentau Ship Channel connected the river to the Gulf via a deeper channel 15 feet deep. (Mean salinities of 14.8 ppt in Area B & highs of 35 ppt at Hwy 82 Thibodeaux Bridge.)
- Marsh Loss – Hog Bayou Watershed (32,000 ac) - 38% marsh loss (9,222 ac) [1932 to 1990, (0.65 %/yr)].
- Project Area Marsh Loss – 4%/year (1978 to 1988); 2.45%/yr (1985-2006).
- Caused by failed agricultural impoundments increasing subsidence, saltwater intrusion, & impoundment.



# South Grand Chenier Project Goals & Strategies

- **Goals – Restore marsh (453 acres), Reduce marsh loss & improve marsh productivity.**
- **Strategies –**
  - 1) **Introduce fresh water, nutrients & sediment from Mermentau River to protect marsh by reducing salinities, increasing marsh productivity, & increasing submerged aquatic vegetation.**
  - 2) **Marsh restoration via dredged material (453 ac) from the Gulf of Mexico.**



Mermentau River

BP plant

Dr Miller Canal

Sherman Tract

# Conceptual Project Features

Area A-1

Area A-2

Hwy 82

South Castein Tract

Sweeney-McCall Tract

Area B

Hog Bayou

Forrest Sweeney Tract

North Baker Tract

Area C

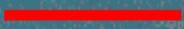
Hog Bayou

Second Lake

Rockefeller Wildlife Refuge



Proposed Marsh Creation Sites



Projected Freshwater Movement



Proposed Freshwater Introduction Structure



**South Grand Chenier Hydrologic Restoration (ME-20)**

# South Grand Chenier

## Revised Project Features

### Fresh Water Introduction Channel Improvements

- Widen, deepen, & levee the Dr. Miller Canal from Upper Mud Lake to near Hwy 82.

### Structures

- FW Intake Structure - Install 3, 48-inch diameter culverts at Dr. Miller Canal at Upper Mud Lake to flow water N. & S.
- Install plugs & culverts in a waterway & 9, 36 inch-diameter culverts adjacent to the canal to maintain area drainage.
- Install 4, 42-inch diameter culverts with flapgates under Hwy. 82.
- Place culverts in board roads & Miller-McCall levee for water flow to Areas B & C.

### Marsh Restoration

- Restore 176 acres in SE Area C, & 277 acres (total 453 acres) E of Second Lake from Gulf dredged material.

# Hydrodynamic Model Results Average Salinity Contour Map

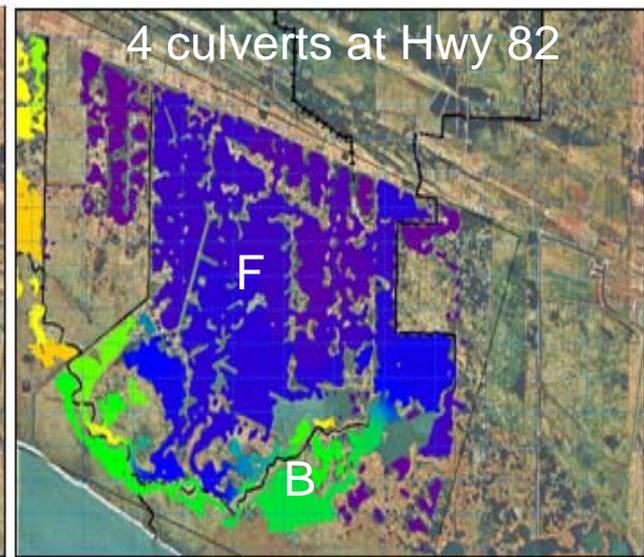
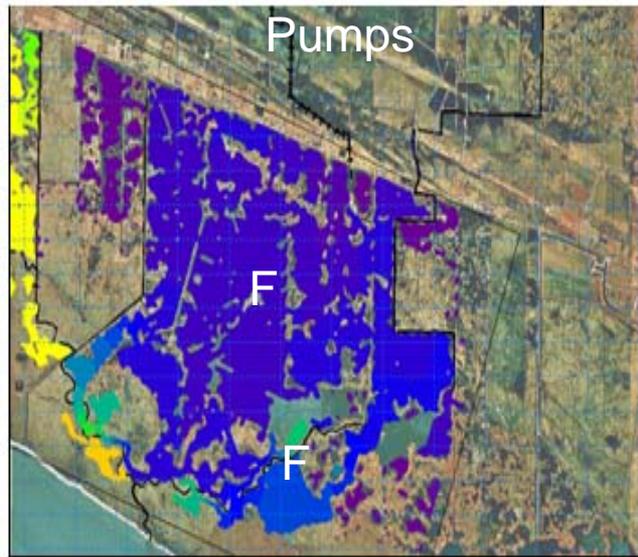
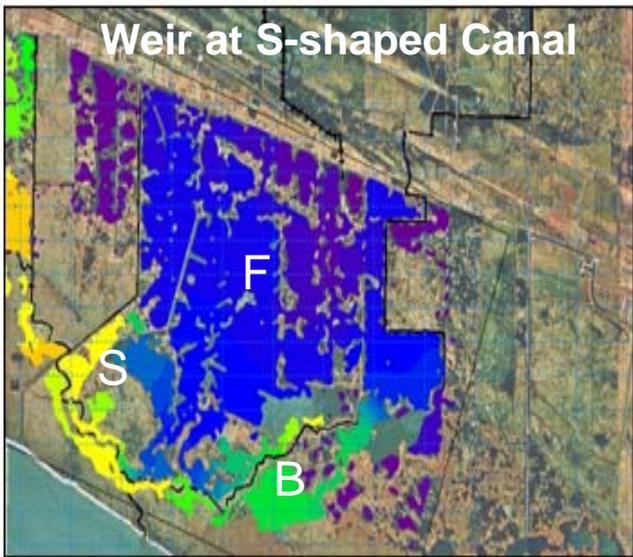
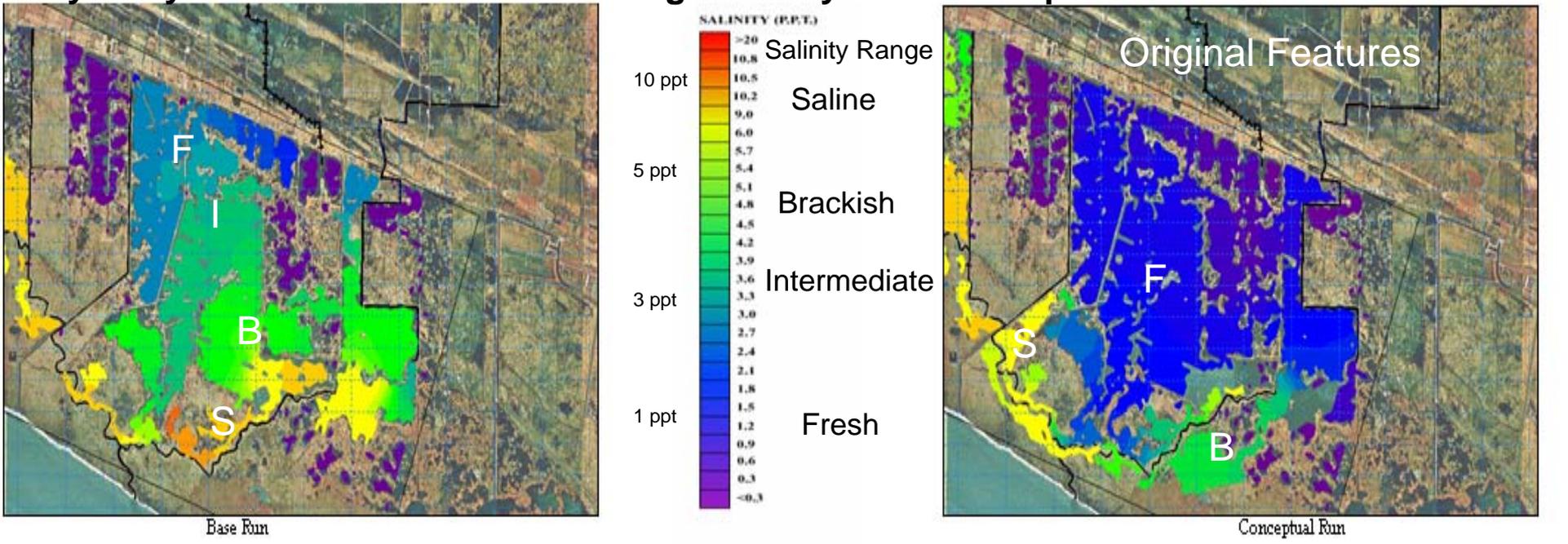


Figure A-91: Month Of March 2003 Average Salinity Contour Maps

# So. Grand Chenier Model Results

- **Dr. Miller Canal FW Intro feature reduced salinities in target marshes an average of 60% (3 ppt) (from 5 to 2 ppt).**
- **BP Plant FW Alternative (Area A) did not lower salinities.**
- **A weir at S-shaped canal was not beneficial.**
- **Dr. Miller Canal modeled water levels were + 1.0 to 2.0 ft NAVD 88 (marsh level = + 1.5 NAVD 88)**
- **Pumps delivered water faster with more control & increased water levels more, but salinity reduction was equal to or slightly greater than culverts.**
- **Increasing the capacity of Hwy 82 structures (from 2 to 4, 48" culverts) reduced salinities ~ 20% more than the conceptual run (< 1 ppt).**

# South Grand Chenier Benefits & Need

- Restores 453 acres initially; 352 over 20 yrs.
- Cost Effectiveness = \$82,517/acre; Ranks 2<sup>nd</sup> of Phase II projects; 2<sup>nd</sup> only to Cam-Creole Veg. Planting.
- Hydrologic model predicted 60% reduction in salinities.
- “Sustainable Restoration” - Diversion will sustain marshes (FW, nutrients, sediment) for project life.
- Restores & protects part of Hog B. Watershed with significant land loss (> 40% lost from 1932; 2.5% to 4%/yr loss).
- Helps mitigate Hurricanes Rita & Ike marsh damages.
- Marsh restoration retention levees degraded, tidal creeks & vegetative plantings; monitoring.
- Increases fisheries access in management area.

# South Grand Chenier Questions??



# Extra Slides

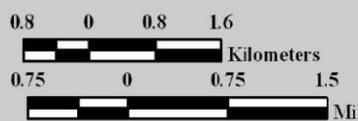
# So Grand Chenier Revised Project Features



## South Grand Chenier Hydrologic Restoration (ME-20)

-  Culvert \*
-  Freshwater Diversion \*
-  Marsh Creation \*
-  Borrow Site \*
-  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.

# Hydrodynamic Model

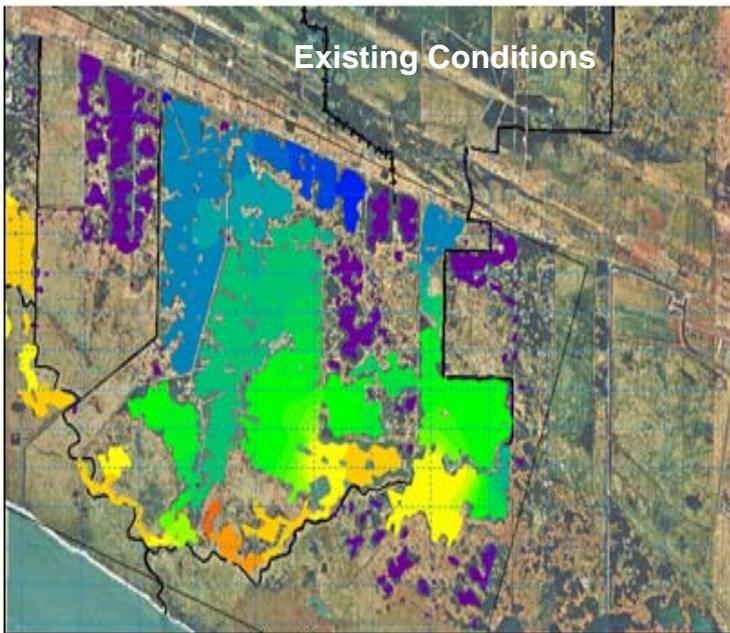
- Used a coupled 1 & 2-dimensional (MIKE FLOOD: MIKE 11 & MIKE 21) model.
- Performed a comparison of the Base Run (Existing Conditions), Conceptual Design Run (proposed project features), & added runs.
- Predicted project area salinities, water levels, velocities, & discharges.

# South Grand Chenier Modeled Features

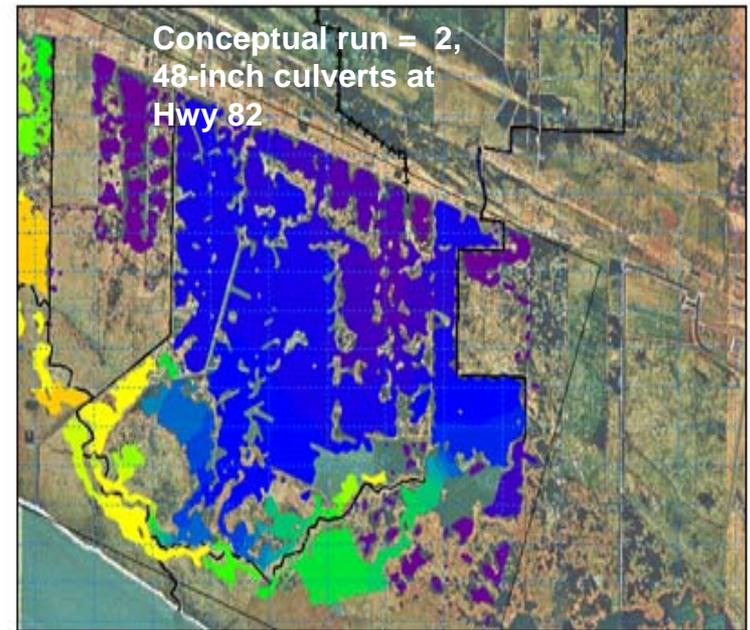
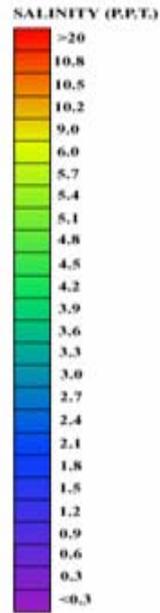
- **Diversion at the BP Plant across Hwy 82**
- **Diversion through the Dr. Miller Canal & existing canal E. to Canic Pond.**
- **2-48” flapgated culverts at Hwy. 82 for each diversion.**
- **Levees on each side of Dr. M. Canal with 24” culverts every 500 ft.**
- **Install 2, 48” culvert intake structures at U. Mud Lake/Dr. Miller & BP Plant canals to introduce “fresher” water  $\leq 5$  ppt.**
- **Culverts placed in the existing Miller-McCall Tract levees to convey freshwater southward & westward.**
- **SE Area C & Second Lake marsh restoration sites.**

# Hydrodynamic Model Runs

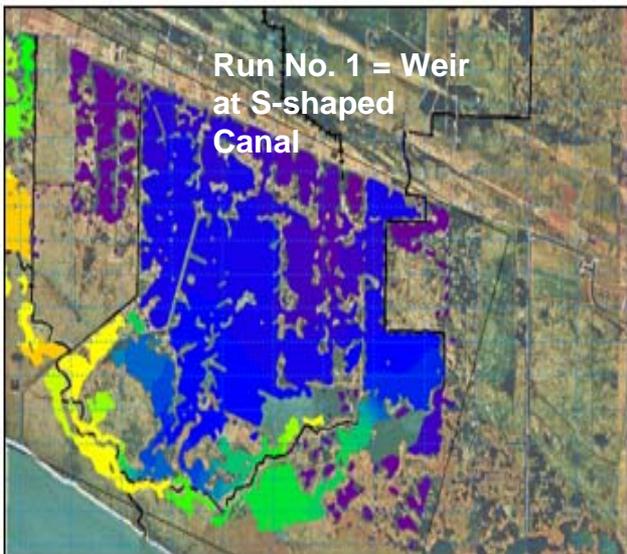
- Conceptual Run – Conceptual project features included.
- **Run No. 1 - S-Shaped Canal Weir.** - Weir with a sill at 1 ft below marsh across canal at Hog Bayou.
- **Run No. 2 - Model Run with Pumps.** - Run No. 1 with 48 diameter pumps (approximately 22,000 GPM) at the BP/Tennessee Gas Canal & Dr. Miller Canal N of Hwy. 82
- **Run No. 3 - More Hwy 82 Culverts.** - Increase Hwy. 82 structure capacity from 2, 48” to 4, 48” diameter culverts



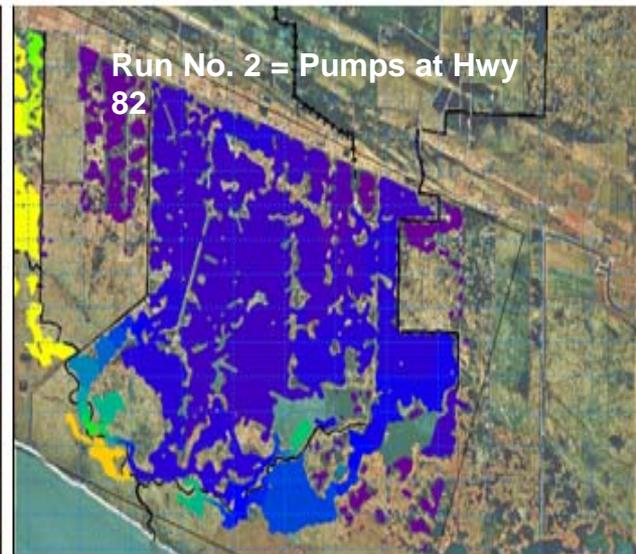
Base Run



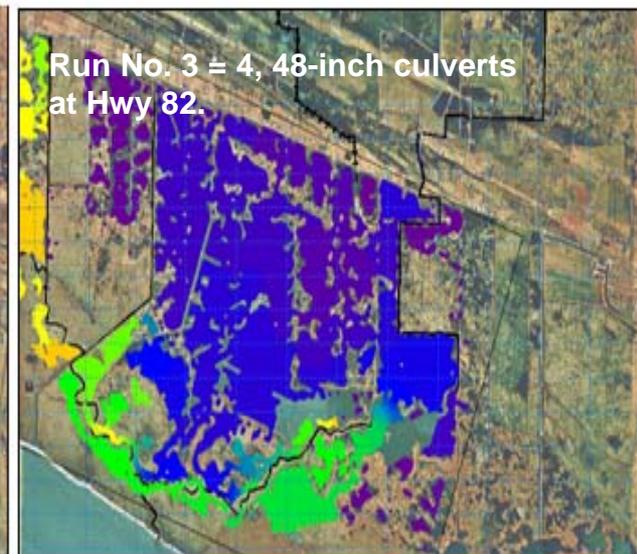
Conceptual Run



Additional Run No.1



Additional Run No.2



Additional Run No.3

Figure A-91: Month Of March 2003 Average Salinity Contour Maps

# Modeling Conclusion

*“The Dr. Miller Canal component of the project was beneficial in terms of reducing salinities in the target areas with an average salinity reduction of 3 parts per thousand (p.p.t.) (from 5 p.p.t. to 2 p.p.t., base salinity).*

*The anticipated results of providing fresh water from the Mermentau River to the open water bodies south of Hwy.82 were accomplished and the proposed control structures prevented the salinity from exceeding five parts per thousand south of LA Hwy. 82. Water levels along the length of Dr. Miller Canal was in the order of 1.0 to 2.0 ft N.A.V.D.88, which is slightly higher than the average marsh elevation in this area (average marsh = 1.5 ft N.A.V.D.88).*

*The impact of this increase in water level on the surrounding marshes should be taken into account when constructing the project features” (Meselhe et al., Fenstermaker and Associates 2005).*

An aerial photograph of a coastal region, likely a delta or estuary. The image shows a network of waterways, canals, and land parcels. A prominent feature is a long, straight canal or road that runs from the left side towards the center. In the lower-left quadrant, there is a small island or peninsula with several buildings and a paved area. The water is a dark, muted green color, and the sky is a pale, hazy blue with some light clouds. The overall scene suggests a managed waterway system, possibly for agriculture or industry.

Hwy 82 & Chenier Ridge

Area B

Area C



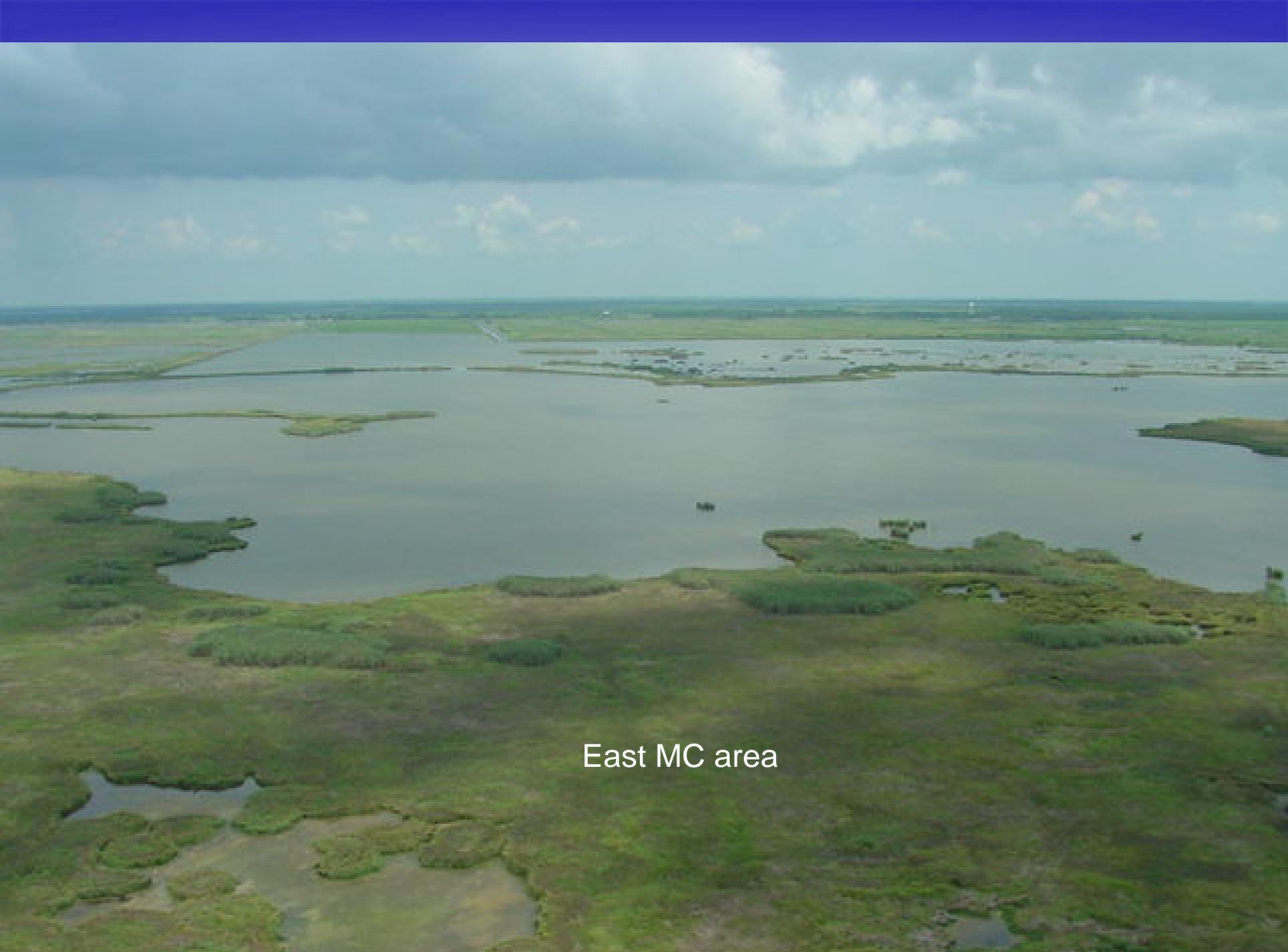
Area C looking N.

Gulf

Area C

Area B

2 10:59 AM



East MC area



From Area B to C



Area C

Area B Looking West

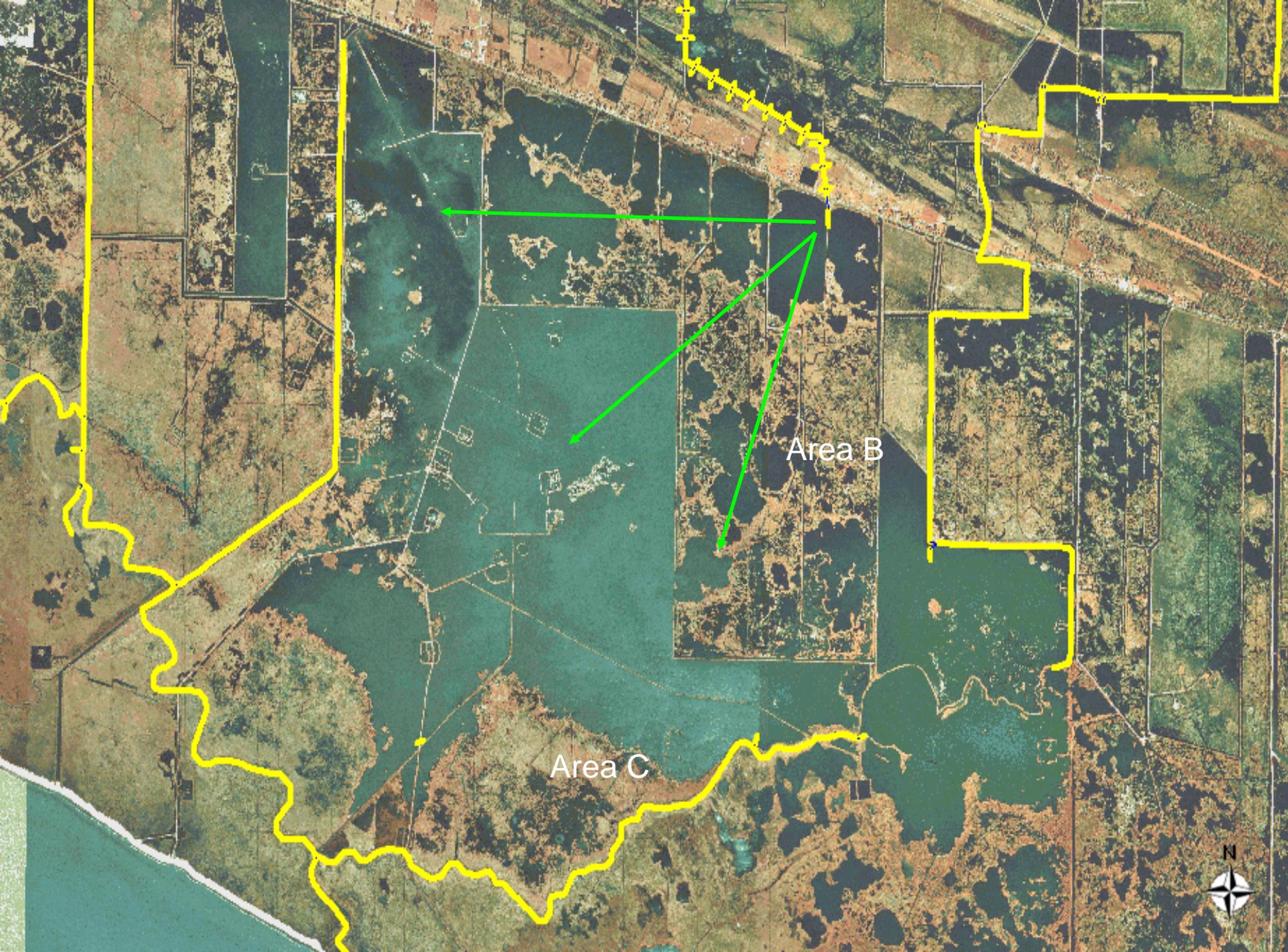
Chenier Ridge

# Hog Bayou Watershed Area & Marsh Loss

- Watershed = 23,315 acres
  - Marsh - 63% (14,780 ac) (5% fresh - 1,270 ac, 33 % brackish - 7,610 ac, & 25% saline - 5,900 ac)
  - Open Water - 34% (7,927 ac), 3% developed & agricultural
- ## Marsh Loss
- 1932 to 1990 = 38% loss, 159 ac/year (0.65 %/yr).
  - 1956 and 1974 = 225 ac/yr lost (0.94%/yr) (Marsh loss in 100 yrs)
  - 1974 to 1983 = 220 acres lost (0.13%/yr).
  - 1974 to 1990 = 111 ac/yr lost (0.55%/yr). (Marsh lost in 182 yrs)
  - 1990 to 2050 projected loss = a relatively low 20 ac/year (0.13 %/year) if CWPPRA projects constructed.

# Hog Bayou Watershed Marsh Loss

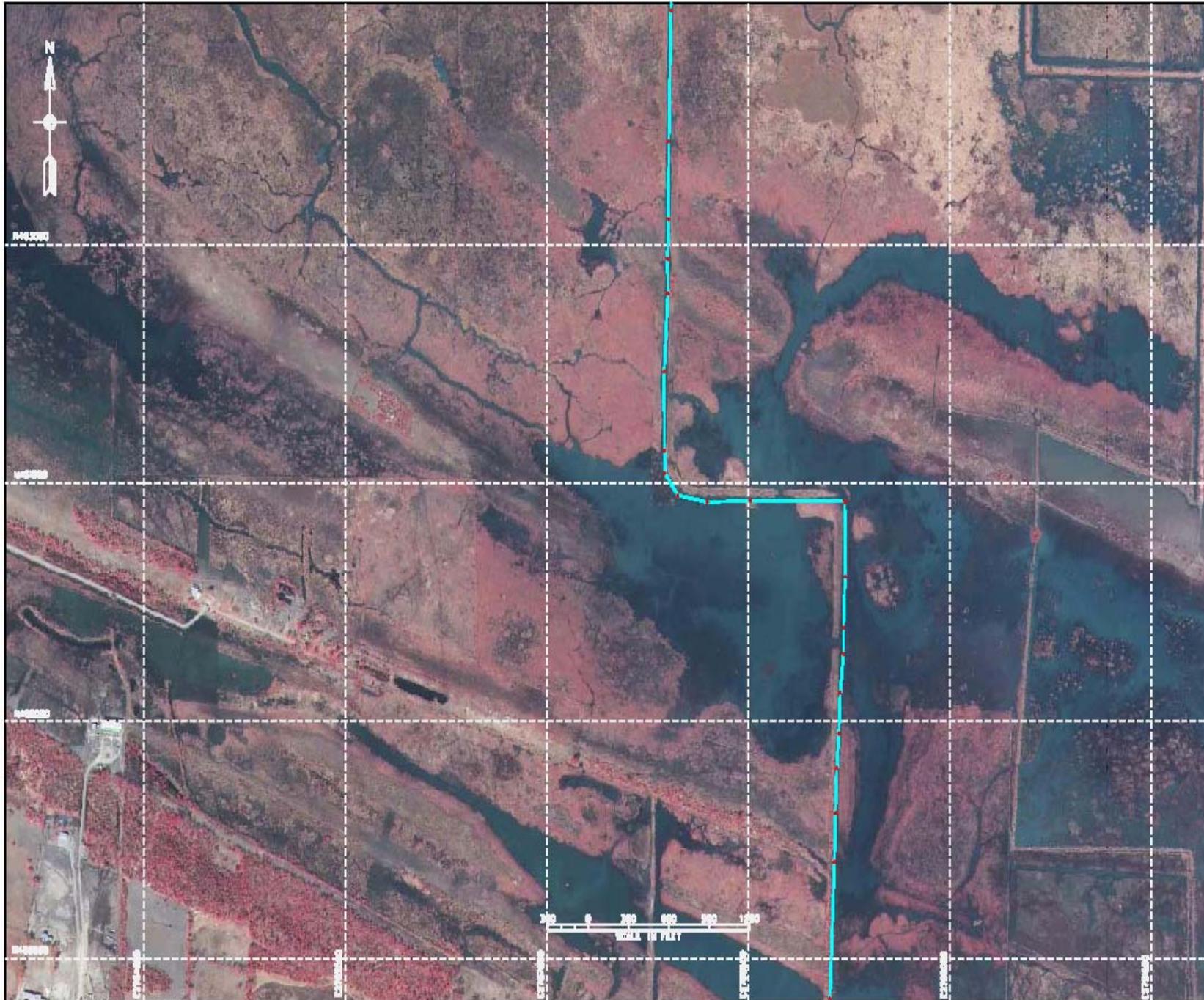
<b>Period</b>	<b>Acres/year</b>	<b>%/year</b>	<b>Years to Total Loss</b>
1932-1990	159 ac	0.65 %	154 yrs
1956-1974	225 ac	0.94 %	100 yrs
1974-1983	24 ac	0.13 %	769 yrs
1974-1990	111 ac	0.55 %	182 yrs
1990-2050 projected	20 ac	0.13 %	769 yrs



Area B

Area C



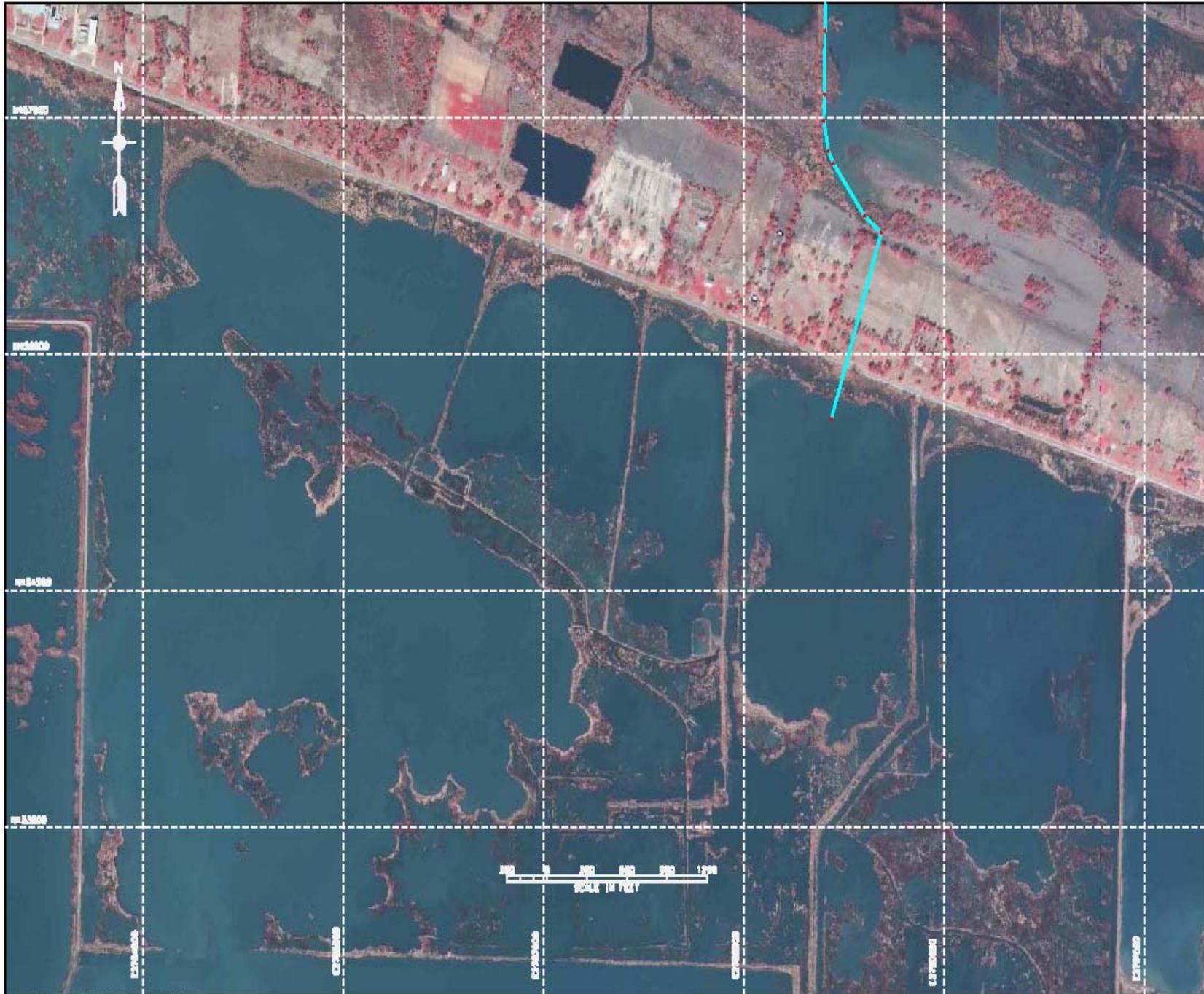


DATE	08/07
DESIGN	
DRAWN	B. ZALUBER
CHECKED	G.A. WILSON
APPROVED	

SHEET 11 - 08/2005 MAGERY  
 ME-20 SOUTH GRAND CHEMIER  
 CAMERON PARISH, LOUISIANA



PROJECT	ME-20
SHEET	11
DATE	08/07
SCALE	AS SHOWN



DATE	08/07
DESIGNED BY	B. ZALUBER
CHECKED BY	G. J. WILSON
APPROVED BY	

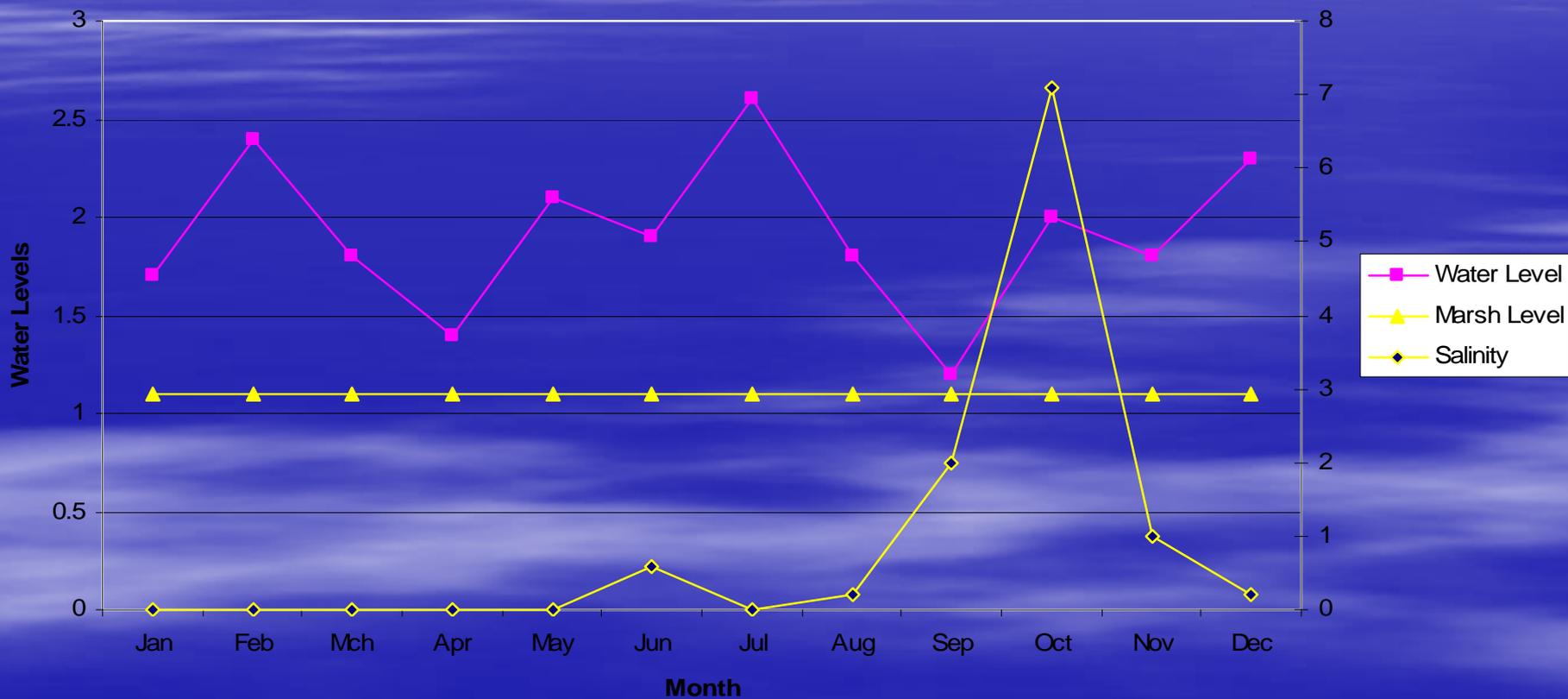
**SHEET 8 - 08/2005 IMAGERY  
ME-20 SOUTH GRAND CHEMIER  
CAMERON PARISH, LOUISIANA**



FILE NO.	
SHEET NO.	8
TOTAL SHEETS	10

# Mermentau R. Salinities & Water Levels at Catfish Point 1993 (Flow 11 Mos.)

1993 MONTHLY CATFISH PT. SALINITY AND WATER LEVELS





## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
646 Cajundome Blvd.  
Suite 400  
Lafayette, Louisiana 70506



November 17, 2009

Mr. Thomas Holden, Chairman  
CWPPRA Technical Committee  
U. S. Army Corps of Engineers  
P. O. Box 60267  
New Orleans, Louisiana 70160-0267

Dear Mr. Holden:

The U.S. Fish and Wildlife Service (Service) and the Louisiana Office of Coastal Protection and Restoration (OCPR) hereby requests Phase II approval to begin construction of the South Grand Chenier Hydrologic Restoration Project (ME-20). The project was authorized for Phase I engineering and design by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) on Priority Project List 11 on January 16, 2002. This request and required enclosures are submitted in accordance with the provisions of CWPPRA Project Standard Operating Procedures Manual.

The project received favorable 30% and 95% Design Reviews on August 6, 2009, and November 3, 2009, respectively, and is, to our knowledge, without controversy; we anticipate favorable National Environmental Policy Act reviews within 45 days. Phase II Authorization Request Information and the checklist of Phase II requirements are enclosed. Should you have any further questions, please contact Darryl Clark (337/291-3111) of this office.

Sincerely,

James F. Boggs  
Supervisor  
Louisiana Field Office

Enclosures

cc: via e-mail  
Britt Paul, NRCS, Alexandria, LA  
Melanie Goodman, Corps, New Orleans, LA  
Kirk Rhinehart, LA OCPR, Baton Rouge, LA



Brad Crawford, EPA, Dallas, TX  
Richard Hartman, NMFS, Baton Rouge, LA  
Kelley Templet, LA OCPR, Baton Rouge, LA  
Paul Kaspar, EPA, Baton Rouge, LA  
John Jurgensen, NRCS, Alexandria, LA  
Rachel Sweeney, NMFS, Baton Rouge, LA  
Kevin Roy, USFWS, Lafayette, LA  
Andrew Beall, LA OCPR, Baton Rouge, LA  
Gay Browning, Corps, New Orleans, LA  
Charles Slocum, NRCS, Alexandria, LA



# State of Louisiana

BOBBY JINDAL  
GOVERNOR

November 10, 2009

Mr. James F. Boggs  
Supervisor, Louisiana Field Office  
U.S. Fish and Wildlife Service  
646 Cajundome Boulevard, Suite 400  
Lafayette, LA 70506

Re: 95% Design Review for South Grand Chenier Hydrologic Restoration  
(ME-20) Statement of Local Sponsor Concurrence

Dear Mr. Boggs:

The 95% design review meeting was held on November 3, 2009 for the South Grand Chenier Hydrologic Restoration (ME-20). Based on our review of the technical information compiled to date, the ecological review, the land ownership investigation, and the final designs, we, as local sponsor, concur to proceed with requesting Phase II construction funding for the project.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee. We also request that our project manager, Andrew Beall, be copied on this and other correspondence concerning this project.

Please do not hesitate to call if I may be of any assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Christopher P. Knotts".

Christopher P. Knotts, P.E.  
Chief, Engineering and Operations Division

CPK:ADB:adb

cc: Darryl Clark, U.S. Fish and Wildlife Service  
Andrew Beall, Office of Coastal Protection and Restoration



# South Grand Chenier Hydrologic Restoration (ME-20)

## Project Status

**Approved Date:** 2002                      **Cost:** \$21 million  
**Project Area:** 7,496 acres                **Status:** Engineering and Design  
**Net Benefit After 20 Years:** 440 acres  
**Project Type:** Hydrologic Restoration

## Location

The project is located south of Grand Chenier in Cameron Parish, Louisiana, between Louisiana Highway 85 and Hog Bayou.

## Problems

The major problem in the Hog Bayou Unit is land loss caused by failed agricultural impoundments and pump-offs. Other problems include saltwater intrusion from the Mermentau Ship Channel construction and a gulf shoreline erosion rate of 40 feet per year. Over a period of 60 years, 9,230 acres (38% of the original marsh) was lost, with the greatest amount of land lost between 1956 and 1974.

The major contributors to land loss in the Hog Bayou Watershed are subsidence, compaction, and the oxidization of marsh soils in the former pump-offs and leveed agricultural areas between Hog Bayou and Highway 82. Large areas of marsh south of Highway 82 were "force drained" during the 1960s, 1970s, and 1980s. Many of these same areas now consist of open water with very little wetland vegetation. The largest area of current loss is in a failed impoundment in the southern portion of the project area.

## Restoration Strategy

The project's goals are to: 1) create 400 acres of emergent marsh and 2) nourish and enhance an additional 4,000 acres of emergent marsh with fresh water, nutrients, and sediments.

One approach to achieve the project's goals is to restore the Hog Bayou watershed hydrology through the use of dredged material to create two 200-acre cells that will impede water movement and saltwater intrusion in the eastern project area. Another approach the project will



Looking west along the northern levee.

take is to reduce intermediate and brackish marsh loss (and hence, protect fish and wildlife wetland habitats) by introducing fresh water, sediment, and nutrients from the Mermentau River at Upper Mud Lake at a rate of approximately 125 cubic feet per second whenever the river is fresher than the project area marshes.

## Progress to Date

This project was selected for Phase I (engineering and design) funding at the January 2002 Breaux Act Task Force meeting. It is included as part of Priority Project List 11. Hydrodynamic modeling was completed in September 2005. Surveying and engineering and design are continuing.

*For more project information, please contact:*



**Federal Sponsor:**  
U.S. Fish and Wildlife Service  
Lafayette, LA  
(337) 291-3100



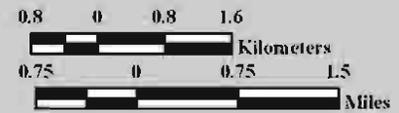
**Local Sponsor:**  
Louisiana Department of Natural Resources  
Baton Rouge, LA  
(225) 342-7308

# South Grand Chenier Hydrologic Restoration (ME-20)



-  Culvert \*
-  Freshwater Diversion \*
-  Marsh Creation \*
-  Borrow Site \*
-  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.

Background Imagery:  
 2005 Digital Orthophoto Quarter Quadrangle

Map Date: August 20, 2007  
 Map ID: USGS-NWRC 2007-11-0335  
 Data accurate as of: April 20, 2007

## **South Grand Chenier Hydrologic Restoration Project (ME-20)**

### **Phase II Authorization Request Information**

Revised November 27, 2009

#### **Phase I Project Description**

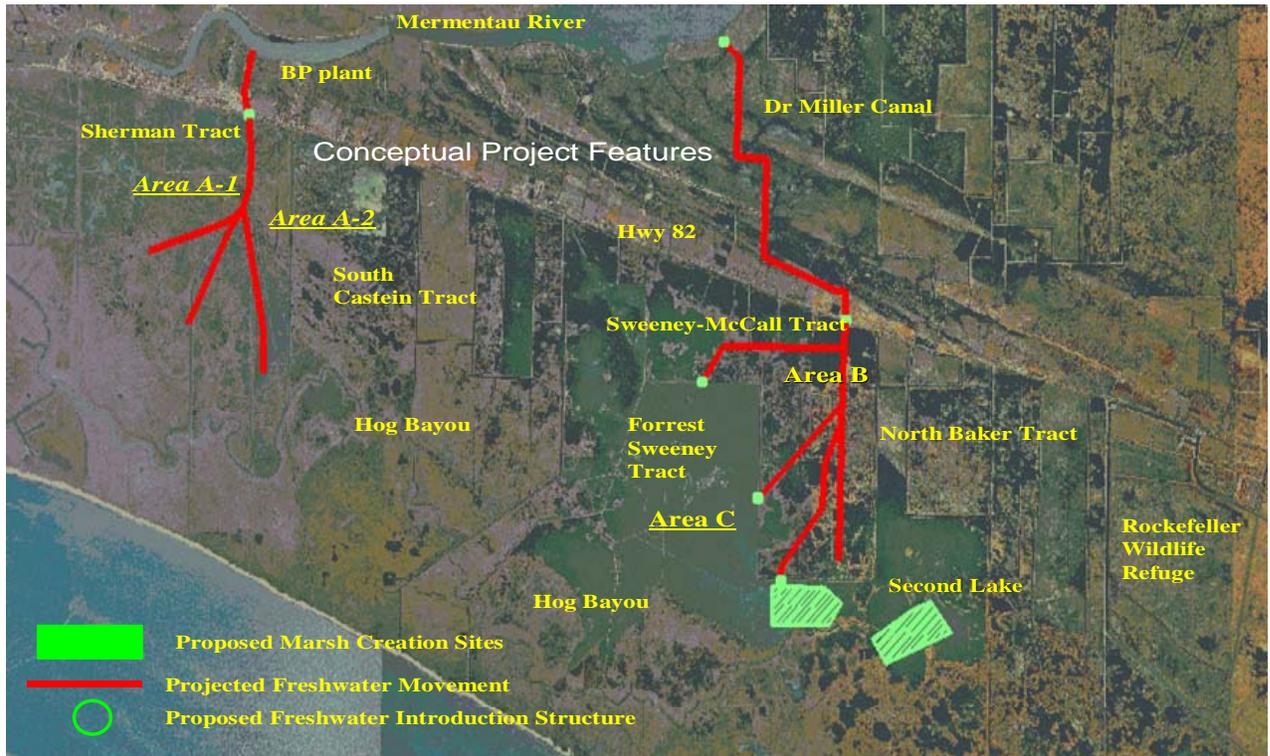
The project was approved by the Task Force on January 16, 2002, as part of Priority Project List 11. The project's goals are to, 1) nourish or enhance emergent marshes south of Highway 82 (Hwy 82) with freshwater, nutrients, and sediment via fresh water from the Mermentau River, and 2) restore marsh via dedicated dredging from the Gulf of Mexico.

The conceptual project consisted of fresh water introduction from the Mermentau River at two locations, the BP Plant and the Dr. Miller Canal, to brackish marshes south of Hwy 82 and marsh restoration using dredged material from either Gulf of Mexico or Upper Mud Lake borrow sites. That conceptual plan proposed to restore approximately 400 acres from dredged material placement and nourish or enhance an additional 4,000 acres of emergent marsh through fresh water introduction.

The original project features consisted of; 1) fresh water introduction, to brackish marshes south of Hwy 82, at the BP Plant and the Dr. Miller Canals, 2) enlarge the east-west drainage ditch east of the Dr. Miller Canal to Canic's Pond then southward across Hwy 82, 3) install 2, 48 inch-diameter culverts under Hwy 82 at both locations, and 4) marsh restoration using Gulf dredged material in two 200-acre cells totaling 400 acres (Figure 1).

The Environmental Work Group determined that the original project components would result in a net increase of 440 acres and 322 Average Annual Habitat Units (AAHUs) of intermediate and brackish marsh, as a result of reduced erosion and marsh establishment over the 20-year project life.

**Figure 1: South Grand Chenier Hydrologic Restoration Project Conceptual Features.**



The total original project budget, submitted during Phase I funding approval, at the 100 percent funding level, was as follows (See attached Request for Phase II Cost Estimate Table):

**Phase I**

Engineering and Design	\$ 1,607,535
Easements and Land Rights	\$ 108,106
Pre-Construction Monitoring	\$ 62,997
Federal Supervision & Administration	\$ 298,913
DNR Supervision & Administration	\$ 278,373
Corps Project Management	<u>\$ 2,496</u>
<b>Total Estimated Phase I Costs</b>	<b>\$ 2,358,420</b>

**Phase II**

Construction	\$12,801,378
Contingency	\$ 3,200,344
Supervision and Inspection	\$ 249,022
Land Rights Coordination	\$ 0
FWS Supervision & Administration	\$ 320,121
DNR Supervision & Administration	\$ 298,124
Corps Project Management	\$ 23,152

Monitoring Costs	\$ 1,067,605
Operation and Maintenance	\$ 679,800
<b>Total Estimated Phase II Costs</b>	<b>\$18,639,546</b>

**Total Fully Funded Phase I & II Cost**                      **\$ 20,998,000**

### **Overview of Phase I Tasks, Process and Issues**

The following tasks were completed during Phase I engineering and design: 1) Interagency kickoff meeting and field trip; 2) Final Phase I Cost Share Agreement executed between FWS and OCPR; 3) Preliminary landrights; 4) Elevation Surveys; 5) Continuous recorder sampling of salinity and water levels (July 2002 to April 2003); 6) Hydrodynamic model; 7) Magnetometer survey of Gulf borrow; 8) wave analysis of Gulf borrow; 9) ERDC dredged material model of borrow and fill sites; 10) Geotechnical investigation of project features; borrow site, and fill areas; 11) 30% design review meeting; 12) Revised Wetland Value Assessment (WVA); 13) Ecological Review; 14) Hazardous waste (HTRW) screening; 15) Draft Environmental Assessment; 16) Final fully funded cost estimate; 17) Section 303(e) review; 18) Section 404 Permit application; 19) NRCS Overgrazing determination; 20) Cultural resources clearance; and 21) 95% design review meeting. The details of those E&D tasks were presented and discussed at the 30% and 95% Design Review meetings.

The major feature change from the approved conceptual project (Phase I) was the removal of the BP Plant freshwater introduction area (Area A). The coupled one and two dimensional hydrodynamic model applied to project features concluded that the Area A “BP Canal” project component showed no salinity reduction benefits to target marshes south of Hwy 82, and in some instances, increased area salinities. Therefore project sponsors eliminated the BP Canal fresh water introduction feature. The model indicated that the Dr. Miller Canal freshwater introduction project component was beneficial in reducing salinities in target area marshes as much as 60%.

The conceptual project consisted of installing 24-inch diameter culverts every 500 feet in the Dr. Miller Canal levees (spoil banks) to provide drainage of adjacent marshes and Chenier north of Hwy 82. The revised project features consist of installing 9, 36 inch-diameter culverts placed in natural drains or low areas to provide adequate drainage. The planned two to four 48 inch-diameter culverts through the Grand Chenier ridge and under Hwy 82 were replaced with four 42 inch-diameter culverts due to the need to maintain sufficient cover between the culverts and the highway.

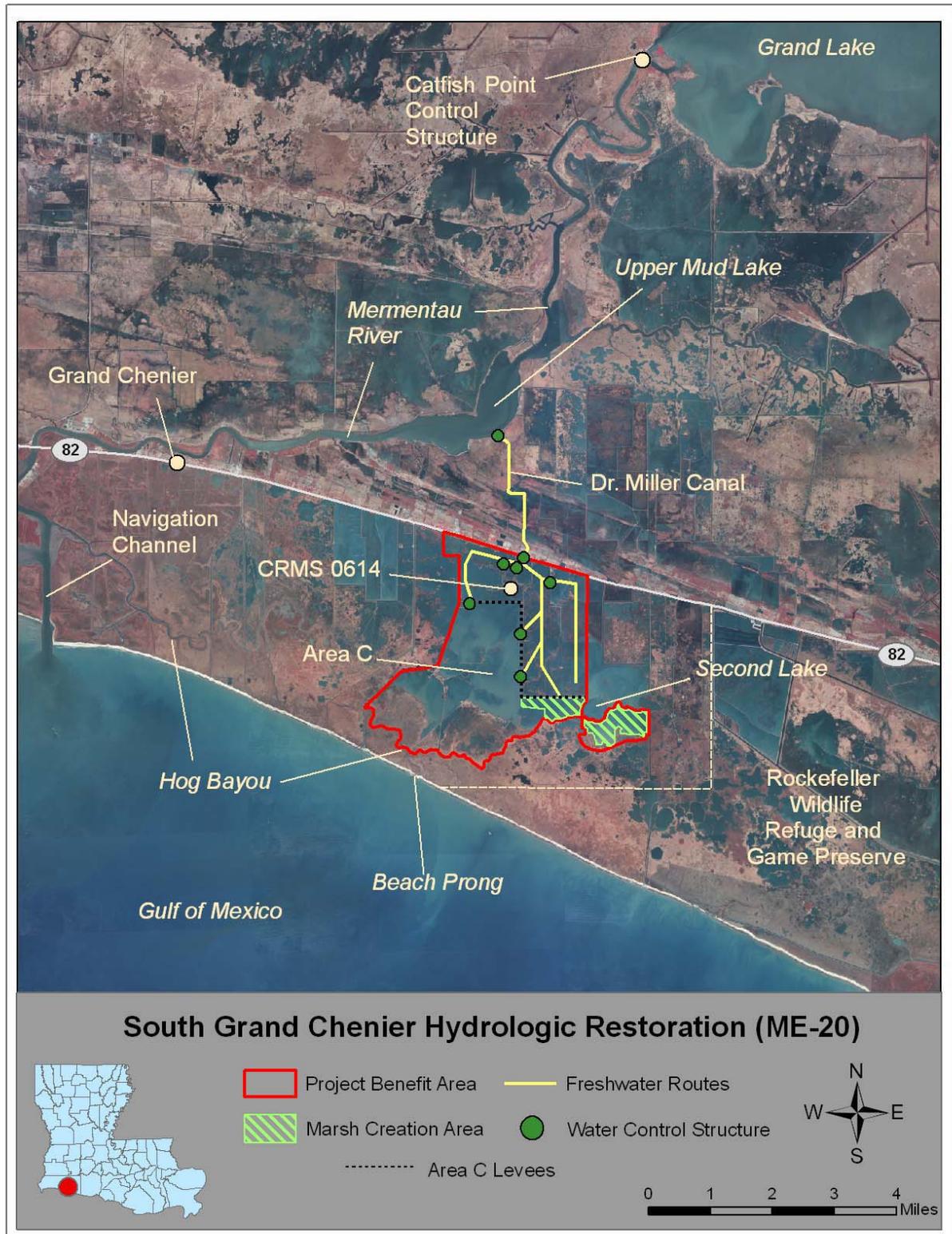
The original conceptual drainage ditch improvement route from the Dr. Miller Canal terminus 4,000 feet eastward to Canic’s Pond then southward across Hwy 82 has been removed. Instead, a more direct southerly route has been chosen consisting of extending the Dr. Miller Canal 50 to 150 feet southeastward and installing 4, 42 inch-diameter culverts southward from its terminus across Hwy 82. A Gulf of Mexico borrow area was chosen vs. an Upper Mud Lake borrow because of less distance, fewer landowners, and because it does not cross Hwy 82. Wave analyses of the proposed Gulf borrow sites indicated only moderate

impacts to the Gulf shoreline. The U. S. Army Corps of Engineers Engineer Research Development Center (ERDC) dredged material model predicted quantities and slurry heights needed for the two marsh restoration areas. Surveys indicated that one existing pipeline is crossed by the Dr. Miller Canal and two others would be crossed by the proposed fresh water introduction culverts. Negotiations with the pipeline companies yielded crossing tolerances and specifications that were included in the final designs. Geotechnical and surveying information indicated that soil conditions and water depths were favorable for construction of the project features as planned.

### **Description of the Revised (Current) Phase II Project**

The revised project features include maintaining the Dr. Miller Canal to flow fresh water from Upper Mud Lake across Hwy 82 via 4, 42 inch-diameter culverts under that highway. The project also includes the restoration of 453 acres of marsh in two cells (176 acres and 277 acres) via dedicated dredging in the Gulf of Mexico, 4 miles south of the project area. Marsh restoration retention levees will be degraded and tidal creeks constructed one year post construction to restore the area's natural hydrology and estuarine organism access (Figure 2, Table 1).

**Figure 2: South Grand Chenier Hydrologic Restoration Project Revised Features**



The existing Dr. Miller Canal fresh water introduction channel will have a 40 foot-wide bottom width, 2:1 side slopes, with the bottom elevation at - 3.0 feet NAVD 88 and be fully contained by levees east and west of the channel. Corrugated aluminum culverts will be installed at 9 natural drainage areas along the canal to provide drainage from the adjacent marsh to the freshwater introduction channel. The hydrodynamic modeling report concluded that a Dr. Miller channel bottom elevation of - 3.0 feet NAVD 88 would flow sufficient freshwater southward to reduce salinities in target marshes. That elevation was also chosen because the top of Bridgeline Holdings pipeline crosses that channel at an elevation of - 5.0 feet NAVD 88, and a minimum of 2 feet of cover must be maintained over that pipeline (Table 1).

**Table 1: South Grand Chenier Hydrologic Restoration Project Features.**

<p><u>Channel Improvements</u></p> <p>1. Widen, deepen, levee, and install 1-way flapgated drainage culverts in the Dr. Miller Canal (20 feet X 4 feet deep; - 3 feet NAVD) and install 4, 42 inch-diameter culverts under the Grand Chenier ridge and Hwy 82.</p> <p><u>Structures</u></p> <p>2. Install/replace a 3 barreled, 48-inch diameter control structure with flapgates at the Dr. Miller Canal and Upper Mud Lake to flow water north and south.</p> <p>3. Install plugs and 2, 48 inch-diameter culverts in the east-west waterway at its intersection with the Dr. Miller Canal and maintenance dredge that canal to its terminus.</p> <p>4. Install levees and 1-way flapgated 36-inch-diameter drainage culverts (at 9 natural drainage areas) on each side of the Dr. Miller Canal.</p> <p>5. Extend the Dr. Miller Canal 50 to 150 feet southeastward to enable culverts to be installed southward without bends in the pipe.</p> <p>6. Install 4, 42-inch diameter culverts with 1-way south flowing flapgates under Grand Chenier and Hwy 82.</p> <p>7. Place 48 inch-diameter culverts or openings in board roads in Area B, and flapgated culverts in the Miller-McCall levee for freshwater flow to Areas B and C south of Hwy 82.</p> <p><u>Marsh Restoration</u></p> <p>8. Restore 176 acres of marsh in southeast Area C and 277 acres of marsh (total 453 acres) east of Second Lake from Gulf dredged material.</p>
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## Project Costs and Expenditures

Below are the revised Phase II cost estimates. The revised costs represent an \$8,041,209 (38 %) increase over that estimated when Phase I approval was granted (\$20,998,000) (See attached Request for Phase II Approval Cost Estimate Table).

### Phase I Total

Engineering and Design	\$ 1,577,535
Easements and Land Rights	\$ 108,106
Pre-Construction Monitoring	\$ 62,997
Federal Supervision & Administration	\$ 328,913
OCPR Supervision & Administration	\$ 278,373
Corps Project Management	<u>\$ 2,496</u>
<b>Sub Total Estimated Phase I Costs</b>	<b>\$ 2,358,420</b>

### Phase II

Construction Costs	\$18,417,131
Contingency	\$ 4,604,283
Supervision and Inspection	\$ 478,853
Land Rights Coordination	\$ 0
Federal Administration	\$ 252,400
OCPR Administration	\$ 201,920
Corps Project Management	\$ 32,892
Monitoring	\$ 205,404
Operation & Maintenance	<u>\$ 2,494,824</u>
<b>Subtotal Estimated Phase II Costs</b>	<b>\$26,687,708</b>
<b>Total Fully Funded Revised Cost</b>	<b>\$29,046,128</b>

**Checklist of Phase II Request Requirements  
South Grand Chenier Hydrologic Restoration Project (ME-20)**

**A. A List of Project Goals and Strategies**

**Goals**

1. Restore 453 acres of marsh in shallow open water areas initially, and 352 net acres by the end of the 20-year project life.
2. Increase fresh water, nutrients, and sediment to target marshes south of Hwy 82 to protect 30 acres of brackish marsh within the 20-year project life.
3. Reduce excessive elevated salinities within Areas B and C.
4. Maintain fisheries and estuarine organism access to the marsh restoration areas.

**Objectives/Strategies**

1. Reduction in salinity in target marshes via fresh water introduction from Upper Mud Lake via the Dr. Miller Canal and culverts under Hwy 82 and other fresh water introduction features.
2. Restoration of 402 acres of brackish marsh from shallow open water and nourishment of 51 acres of marsh (total 453 acres) in two cells (176 and 277 acres) via 1.55 M cubic yards of dredged material from a Gulf of Mexico borrow site.
3. Maintain fisheries and estuarine organism access to the marsh restoration areas via the degradation of retention dikes and construction of 5 miles of tidal creeks.

The goals and objectives will be achieved by project features described above.

**Table 2. Comparison of Original and Revised Project Features (or Strategies).**

<b>Strategies/Features</b>	<b>Original Project</b>	<b>Current Revised Project</b>
<b>A. Salinity reduction, nutrient and sediment introduction</b>	1.) Fresh water introduction to target marshes via two channels, the BP Plant and the Dr. Miller Canals.	1.) Fresh water introduction from Upper Mud Lake via the Dr. Miller Canal.
<b>B. Marsh restoration via dredged material</b>	2) Construct two 200-acre marsh restoration cells (total 400 acres) from Gulf of Mexico or Upper Mud Lake borrow sites.	2.) Construct two marsh restoration cells (176 acres and 277 acres, total 453 acres) from a Gulf of Mexico borrow site.

C. Water Control Structures	<p>3) Install 2, 48-inch diameter culverts at Hwy 82 and two fresh water diversion sites.</p> <p>4) Install 24-inch diameter drainage culverts in the Dr. Miller Canal levee every 500 feet.</p>	<p>3) Install 4, 42-inch diameter culverts at Hwy 82 at the Dr. Miller Canal fresh water diversion site.</p> <p>4) Install 9, 36-inch diameter drainage culverts in the Dr. Miller Canal levee.</p>
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**B. A Statement that the Cost-Sharing Agreement Between the Lead Agency and Local Sponsor has been Executed for Phase I.**

A Cost Share Agreement between LDNR and FWS was executed on April 3, 2002.

**C. Notification from the State that Land Rights will be Finalized in a Short Period of Time after Phase II Approval.**

The Service received notification from the Louisiana Department of Natural Resources on July 18, 2002, and July 13, 2009, transmitting draft temporary easement, servitude and right-of-way agreements for CWPPRA Section 303(e) purposes. The LA OCPR has acquired landrights from many major landowners and the State Land Office (Grant of Particular Use).

The State of Louisiana, through its Office of Coastal Protection and Restoration (CPRA/OCPR) Lands Section provided a landrights report that consisted of ownership tract maps and lists of names, addresses and phone numbers of more than 100 landowners in the project area. Landowner meetings were held at Rockefeller State Refuge (2003), New Orleans (2003), and the Cameron Prairie National Wildlife Refuge (2006) to present proposed project features and access routes, and to discuss the hydrodynamic modeling results. The Service secured letter agreements from the affected landowners for surveying and geotechnical field work. It is anticipated that the majority of the landrights efforts for the ME-20 project should be completed within a reasonable time-frame. Landrights will be finalized prior to construction.

**D. A Favorable Preliminary Design Review (30 Percent Design Level)**

A 30 Percent Design Meeting was held on August 6, 2009, and resulted in favorable reviews of the project design. Responses to all meeting and post-meeting comments were submitted by September 4, 2009. The Service and LA OCPR agreed to proceed with the project. No major design issues were identified.

**E. A Favorable Final Project Design Review (95 Percent Design Level)**

A favorable 95 Percent Design Meeting was held on November 3, 2009. No major design issues were identified.

**F. A Draft of the Environmental Assessment for the Project, as Required under the National Environmental Policy Act, must be Submitted 30 days Before the Request for Phase II Approval**

The FWS submitted a draft Environmental Assessment for preliminary agency review on October 22, 2009, as part of the 95% Design Review materials. That review is expected to be completed in January 2010.

## **G. A Written Summary of the Finding of the Ecological Review**

The draft Ecological Review was completed in July 2009. A revised semi-final draft Ecological Review was distributed at the November 3, 2009, 95 Percent Design Meeting. The Ecological Review concluded that based on the evaluation of available ecological, geological, and engineering information, and a review of scientific literature and similar restoration projects, the proposed strategies of the South Grand Chenier Hydrologic Restoration (ME-20) project will likely achieve the desired ecological goals. At this time, it is recommended that this project be considered for Phase 2 authorization. However, the following recommendations should improve project success:

- The project's operational plan should be coordinated with the management plan for Area C.
- Plans should be made to further degrade containment dikes and/or reopen trenasses, if needed, to maintain hydrologic exchange to the created marshes.

## **H. Application for and/or Issuance of the Public Notices for Permits**

Application for the Corps of Engineers permit and the Louisiana Coastal Resources Program consistency determination were submitted on November 16, 2009. DNR will forward the application to the LA Department of Environmental Quality for Water Quality Certification Review.

## **I. A Statement that a Hazardous, Toxic and Radiological Waste (HTRW) Assessment has been Prepared, if Required**

Based on an initial review, the Service determined that there is not a need for a detailed HTRW project assessment. The Service's LA Field Office contaminants expert completed a Phase I preliminary contaminants screening on November 23, 2009, that included screening the project area for oil wells, hazardous waste pits, abandoned barges and pipeline crossings. That screening concluded that, "Based on the proposed locations, the implementation of the project should be able to avoid any of the know wells or associated facilities. No significant re-suspensions of contaminants from sediment disturbances are expected. Further studies are probably not warranted in consideration of the hazards information available at this time." The review indicated that no apparent contaminants hazards are located in the project area except for a few oil wells in the near vicinity.

## **J. Section 303(e) Approval from the Corps**

The project is consistent with the requirements of Section 303(e) of CWPPRA. A request for Section 303(e) approval was submitted to the Corps on July 1, 2009, and Section 303(e) certification received on October 6, 2009.

## **K. Overgrazing Determination from the NRCS**

The Service received an overgrazing determination from the NRCS on July 10, 2008. Over 70 percent of the project area consists of shallow open water with very limited to no grazing.

## **L. Revised Project Cost Estimate**

The revised total 100% budget for Phase II is \$ 29 M. This amount represents an increase of

38 percent (\$8,048,128) over the original Phase II cost estimate (\$ 20,998,000) (See attached Request of Phase II Cost Estimate Table).

**M. A Revised Wetland Value Assessment must be Prepared if, During the Review of the Preliminary NEPA Documentation, Three of the Task Force Agencies Determine that a Significant Change in the Project Scope Occurred**

A revised WVA of revised project features was submitted to and reviewed by the Environmental Working Group. The initial Wetland Value Assessment (WVA) completed in 2001 yielded 440 net acres and 322 Average Annual Habitat Units (AAHUs). The Phase II revised project scope changed from the original project by removing the BP Plant fresh water introduction component and adjacent project influence area and adding 53 acres of marsh restoration at the Second Lake site. The revised WVA yielded 352 net acres and 162 AAHUs.

Table 2: Comparison of Original and Revised Wetland Value Assessments

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)
Candidate Project	440	322
Phase II Revised Project	352	162
Difference	-88	-160

**Phase II Request**

Based on the above information, the FWS and OCPR hereby request CWPPRA Task Force Phase II funding approval for the South Grand Chenier Hydrologic Restoration Project (ME-20) in the 3-year incremental amount of **\$24,921,491**. That amount includes \$18,417,131 for construction; \$478,853 for supervision and inspection; \$4,604,283 for contingencies; \$252,400 for administration by the Federal sponsor and \$201,920 for State administration; \$27,132 for monitoring (3 years); \$927,642 for operations and maintenance (3 years); and \$5,693 for Corps project management (See attached Request for Phase II Approval Cost Estimate Table).

**REQUEST FOR PHASE II APPROVAL**

**PROJECT:** South Grand Chenier Hydrologic Restoration

**PPL:** 11 **Project No.** ME-20

**Agency:** USFWS

**Phase I Approval Date:** 16-Jan-02

**Phase II Approval Date:** 20 Jan 2010 (proposed) **Const Start:** Aug-10

	Original Approved Baseline (100% Level) (Col 1 + Col 2)	Current Approved Baseline (Col 3 + Col 4)	Original Baseline Phase I (100% Level) 1/	Original Baseline Phase II (100% Level) 2/	Current Baseline Phase I 3/	Recommended Baseline Phase II (100% Level) 4/	Recommended Baseline Phase II Incr 1 (100% Level) 5/
Engr & Des	1,607,535	1,577,535	1,607,535		1,577,535		
Lands	108,106	108,106	108,106		108,106		
Fed S&A	619,034	581,313	298,913	320,121	328,913	252,400	252,400
LDNR S&A	576,497	480,293	278,373	298,124	278,373	201,920	201,920
COE Proj Mgmt	-	-					
Phase I	2,496	2,496	2,496		2,496		
Ph II Const Phase	1,152	1,856		1,152		1,856	1,856
Ph II Long Term	21,971	31,036		21,971		31,036	3,836
Const Contract	12,801,378	18,417,131		12,801,378		18,417,131	18,417,131
Const S&I	249,022	478,853		249,022		478,853	478,853
Contingency	3,200,344	4,604,283		3,200,344		4,604,283	4,604,283
Monitoring	-	-					
Phase I	62,997	62,997	62,997		62,997		
Ph II Const Phase	79,105	-		79,105			-
Ph II Long Term	988,489	205,404		988,489		205,404	27,132
O&M - State	679,783	2,456,212		679,783		2,456,212	927,643
O&M - Fed	-	38,612				38,612	6,437
<b>Total</b>	<b>20,997,910</b>	<b>29,046,128</b>	<b>2,358,420</b>	<b>18,639,490</b>	<b>2,358,420</b>	<b>26,687,708</b>	<b>24,921,491</b>
<b>Total Project</b>				<b>20,997,910</b>		<b>29,046,128</b>	<b>27,279,911</b>
<b>Percent Over Original Baseline</b>		<b>138%</b>					

**Prepared By:** Gay Browning / Darryl Clark

**Date Prepared:** 21-Nov-09

**NOTES:**

**Coastal Wetlands Conservation and Restoration Plan**  
**South Grand Chenier Hydrologic Restoration (ME-20)**  
**Project Priority List 11**

Project Construction Years:	0	Total Project Years	20
Interest Rate	4.375%	Amortization Factor	0.07605
Fully Funded First Costs	\$26,314,864	Total Fully Funded Costs	\$29,046,128

Total Charges	Present Worth	Average Annual
First Costs	\$27,661,863	\$2,103,566
Monitoring	\$114,194	\$8,684
State O & M Costs	\$1,718,859	\$130,712
Other Federal Costs	\$39,751	\$3,023
Average Annual Cost	\$2,245,985	\$2,245,985
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	<b>Revised 11-21-2009</b>
Total Net Acres	0	

## Coastal Wetlands Conservation and Restoration Plan

### South Grand Chenier Hydrologic Restoration (ME-20)

#### Project Priority List 11

**Project Costs** \$29,046,128

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
<b>Phase I</b>											
4	2008	\$378,608	\$25,945	\$78,939	\$66,810	\$599	\$15,119	-	\$0		\$566,020
3	2009	\$757,217	\$51,891	\$157,878	\$133,619	\$1,198	\$30,239	-	\$0		\$1,132,042
2	2010	\$441,710	\$30,270	\$92,096	\$77,944	\$699	\$17,639	-	\$0		\$660,358
1	2011	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
0	2012	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
<b>TOTAL</b>		\$1,577,535	\$108,106	\$328,913	\$278,373	\$2,496	\$62,997	\$0	\$0	\$0	\$2,358,419
<b>Phase II</b>											
2	2010	-	\$0	\$50,000	\$40,000	\$204	\$0	\$94,860	\$912,100	\$3,648,402	\$4,745,566
1	2011	-	\$0	\$200,000	\$160,000	\$1,633	-	\$379,440	\$3,648,402	\$14,593,606	\$18,983,081
0	2012	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
-1	2013	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
-2	2014	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
<b>TOTAL</b>		\$0	\$0	\$250,000	\$200,000	\$1,837	\$0	\$474,300	\$4,560,502	\$18,242,008	\$23,728,647
<b>Total First Costs</b>		\$1,577,535	\$108,106	\$578,913	\$478,373	\$4,333	\$62,997	\$474,300	\$4,560,502	\$18,242,008	\$26,087,066

Year	FY	Monitoring	M&M & State Insp	Corps Admin	Fed S&A & Insp
0 Discount	2012	\$7,500	\$820,975	\$1,225	\$3,400
-1 Discount	2013	\$6,000	\$35,000	\$1,225	\$1,400
-2 Discount	2014	\$12,400	\$45,800	\$1,225	\$1,400
-3 Discount	2015	\$7,500	\$35,000	\$1,225	\$1,400
-4 Discount	2016	\$6,000	\$49,400	\$1,225	\$1,400
-5 Discount	2017	\$12,400	\$35,000	\$1,225	\$1,400
-6 Discount	2018	\$6,000	\$35,000	\$1,225	\$1,400
-7 Discount	2019	\$6,000	\$35,000	\$1,225	\$1,400
-8 Discount	2020	\$12,400	\$35,000	\$1,225	\$1,400
-9 Discount	2021	\$6,000	\$660,800	\$1,225	\$3,400
-10 Discount	2022	\$6,000	\$35,000	\$1,225	\$1,400
-11 Discount	2023	\$12,400	\$35,000	\$1,225	\$1,400
-12 Discount	2024	\$6,000	\$35,000	\$1,225	\$1,400
-13 Discount	2025	\$6,000	\$35,000	\$1,225	\$1,400
-14 Discount	2026	\$12,400	\$35,000	\$1,225	\$1,400
-15 Discount	2027	\$6,000	\$35,000	\$1,225	\$1,400
-16 Discount	2028	\$6,000	\$35,000	\$1,225	\$1,400
-17 Discount	2029	\$12,400	\$35,000	\$1,225	\$1,400
-18 Discount	2030	\$6,000	\$35,000	\$1,225	\$1,400
-19 Discount	2031	\$12,400	\$45,800	\$2,041	\$1,400
<b>Total</b>		\$167,800	\$2,147,775	\$25,316	\$32,000

30 July 2008

**Coastal Wetlands Conservation and Restoration Plan**  
**South Grand Chenier Hydrologic Restoration (ME-20)**  
**Project Priority List 11**

<b>Present Valued Costs</b>			Total Discounted Costs		\$29,534,666					Amortized Costs		\$2,245,985
Year	Fiscal Year		E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
<b>Phase I</b>												
4	1.187	2008	\$449,341	\$30,792	\$93,687	\$79,291	\$711	\$17,944	\$0	\$0	\$0	\$671,766
3	1.137	2009	\$861,013	\$59,004	\$179,520	\$151,935	\$1,362	\$34,384	\$0	\$0	\$0	\$1,287,217
2	1.089	2010	\$481,205	\$32,976	\$100,330	\$84,914	\$761	\$19,216	\$0	\$0	\$0	\$719,403
1	1.044	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	1.000	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$1,791,559	\$122,772	\$373,537	\$316,140	\$2,835	\$71,544	\$0	\$0	\$0	\$2,678,386
<b>Phase II</b>												
2	1.089	2010	\$0	\$0	\$54,471	\$43,577	\$222	\$0	\$103,342	\$993,655	\$3,974,620	\$5,169,887
1	1.044	2011	\$0	\$0	\$208,750	\$167,000	\$1,704	\$0	\$396,041	\$3,808,019	\$15,232,077	\$19,813,590
0	1.000	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.958	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.918	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$263,221	\$210,577	\$1,927	\$0	\$499,382	\$4,801,674	\$19,206,697	\$24,983,477
Total First Cost			\$1,791,559	\$122,772	\$636,757	\$526,716	\$4,761	\$71,544	\$499,382	\$4,801,674	\$19,206,697	\$27,661,863
Year	FY	Monitoring	J&M & State Insp	Corps Admin	Fed S&A & Insp							
0	1.000	2012	\$7,500	\$820,975	\$1,225	\$3,400						
-1	0.958	2013	\$5,749	\$33,533	\$1,174	\$1,341						
-2	0.918	2014	\$11,382	\$42,041	\$1,124	\$1,285						
-3	0.879	2015	\$6,596	\$30,781	\$1,077	\$1,231						
-4	0.843	2016	\$5,056	\$41,624	\$1,032	\$1,180						
-5	0.807	2017	\$10,010	\$28,254	\$989	\$1,130						
-6	0.773	2018	\$4,641	\$27,070	\$947	\$1,083						
-7	0.741	2019	\$4,446	\$25,935	\$908	\$1,037						
-8	0.710	2020	\$8,803	\$24,848	\$870	\$994						
-9	0.680	2021	\$4,081	\$449,471	\$833	\$2,313						
-10	0.652	2022	\$3,910	\$22,809	\$798	\$912						
-11	0.624	2023	\$7,742	\$21,853	\$765	\$874						
-12	0.598	2024	\$3,589	\$20,937	\$733	\$837						
-13	0.573	2025	\$3,439	\$20,059	\$702	\$802						
-14	0.549	2026	\$6,809	\$19,218	\$673	\$769						
-15	0.526	2027	\$3,156	\$18,413	\$644	\$737						
-16	0.504	2028	\$3,024	\$17,641	\$617	\$706						
-17	0.483	2029	\$5,988	\$16,902	\$592	\$676						
-18	0.463	2030	\$2,776	\$16,193	\$567	\$648						
-19	0.443	2031	\$5,497	\$20,302	\$905	\$621						
Total			\$114,194	\$1,718,859	\$17,175	\$22,576						

**Coastal Wetlands Conservation and Restoration Plan**  
**South Grand Chenier Hydrologic Restoration (ME-20)**  
**Project Priority List 11**

**Fully Funded Costs**                      Total Fully Funded Costs                      \$29,046,128    Amortized Costs                      \$2,208,834

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Admin	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
<b>Phase I</b>												
4	0.938	2008	\$378,608	\$25,945	\$78,939	\$66,810	\$599	\$15,119	\$0	\$0	\$0	\$566,020
3	0.998	2009	\$757,217	\$51,891	\$157,878	\$133,619	\$1,198	\$30,239	\$0	\$0	\$0	\$1,132,042
2	1.000	2010	\$441,710	\$30,270	\$92,096	\$77,944	\$699	\$17,639	\$0	\$0	\$0	\$660,358
1	1.012	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	1.026	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$1,577,535	\$108,106	\$328,913	\$278,373	\$2,496	\$62,997	\$0	\$0	\$0	\$2,358,420

<b>Phase II</b>												
2	1.000	2010	\$0	\$0	\$50,000	\$40,000	\$204	\$0	\$94,860	\$912,100	\$3,648,402	\$4,745,566
1	1.012	2011	\$0	\$0	\$202,400	\$161,920	\$1,652	\$0	\$383,993	\$3,692,182	\$14,768,730	\$19,210,878
0	1.026	2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.044	2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.062	2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$252,400	\$201,920	\$1,856	\$0	\$478,853	\$4,604,283	\$18,417,131	\$23,956,444

Total Cost                      \$1,577,535                      \$108,106                      \$581,313                      \$480,293                      \$4,352                      \$62,997                      \$478,853                      \$4,604,283                      \$18,417,131                      \$26,314,864

Year	FY	Monitoring	J&M & State Insp.	Corps Admin	Fed S&A & Insp	
0	1.0262	2012	\$7,696	\$842,458	\$1,257	\$3,489
-1	1.0436	2013	\$6,262	\$36,526	\$1,278	\$1,461
-2	1.0624	2014	\$13,174	\$48,658	\$1,301	\$1,487
-3	1.0815	2015	\$8,111	\$37,853	\$1,325	\$1,514
-4	1.1010	2016	\$6,606	\$54,389	\$1,349	\$1,541
-5	1.1208	2017	\$13,898	\$39,228	\$1,373	\$1,569
-6	1.1410	2018	\$6,846	\$39,934	\$1,398	\$1,597
-7	1.1615	2019	\$6,969	\$40,653	\$1,423	\$1,626
-8	1.1824	2020	\$14,662	\$41,385	\$1,448	\$1,655
-9	1.2037	2021	\$7,222	\$795,411	\$1,475	\$4,093
-10	1.2254	2022	\$7,352	\$42,888	\$1,501	\$1,716
-11	1.2474	2023	\$15,468	\$43,660	\$1,528	\$1,746
-12	1.2699	2024	\$7,619	\$44,446	\$1,556	\$1,778
-13	1.2927	2025	\$7,756	\$45,246	\$1,584	\$1,810
-14	1.3160	2026	\$16,319	\$46,060	\$1,612	\$1,842
-15	1.3397	2027	\$8,038	\$46,890	\$1,641	\$1,876
-16	1.3638	2028	\$8,183	\$47,734	\$1,671	\$1,909
-17	1.3884	2029	\$17,216	\$48,593	\$1,701	\$1,944
-18	1.4134	2030	\$8,480	\$49,467	\$1,731	\$1,979
-19	1.4134	2031	\$17,526	\$64,732	\$2,885	\$1,979
Total			\$205,404	\$2,456,212	\$31,036	\$38,612

**E&D and Construction Data**  
**ESTIMATED CONSTRUCTION COST**  
**ESTIMATED CONSTRUCTION + 25% CONTINGENCY**

18,242,008  
22,802,510

**TOTAL ESTIMATED PROJECT COSTS**

**PHASE I**

**Federal Costs**

<i>Engineering and Design</i>		\$1,577,535
Engineering	\$947,535	
Geotechnical Investigation	\$120,000	
Hydrologic Modeling	\$300,000	
Data Collection	\$200,000	
Cultural Resources	\$10,000	
Monitoring Plan Development	\$0	
NEPA Compliance	\$0	
0	\$0	
0	\$0	
 <i>Supervision and Administration</i>		 \$328,913
<i>Corps Administration</i>		\$2,496

**State Costs**

<i>Supervision and Administration</i>	\$278,373	
<i>Ecological Review Costs</i>	\$0	
<i>Easements and Land Rights</i>	\$108,106	
 <i>Monitoring</i>		 \$62,997
Monitoring Plan Development	\$62,997	
Monitoring Protocol Cost *	\$0	

**Total Phase I Cost Estimate**      **\$2,358,420**

\* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

**PHASE II**

**Federal Costs**

<i>Estimated Construction Cost +25% Contingency</i>		\$22,802,510
Lands or Oyster Issues	0      lease acres	\$0
<i>Supervision and Inspectio</i>	300 days @      1581 per day	\$474,300
<i>Supervision and Administration</i>		\$250,000
<i>Corps Administration - reconcile Project First Costs</i>		<b>\$816</b>

**State Costs**

<i>Supervision and Administration</i>	\$200,000
---------------------------------------	-----------

30 July 2008

Total Phase II Cost Estimate \$23,727,626

**TOTAL ESTIMATED PROJECT FIRST COST** **26,086,046**

**O&M Data**

**Annual Costs**

	<u>Federal</u>	<u>State</u>	
Annual Inspections	\$1,400	\$4,700	\$6,100
Annual Cost for Operations	\$0	\$0	\$0
Annual Cost for Operations (Includes Eng. Monitoring Station Maintena	\$0	\$30,300	\$30,300
Monitoring Data Analysis	\$0	\$167,800	\$167,800

**Specific Intermittent Costs:**

**Construction Items**

	<u>Year 1</u>	<u>Year 3</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 20</u>
Contractor Mobilization and Demobilization	\$40,000	\$0		\$30,000	\$0
Degrade containment dikes	\$285,780	\$0		\$0	\$0
Vegetative planting	\$197,000	\$0		\$0	\$0
trenasse construction post	\$10,000	\$0		\$0	\$0
Structure maintenance	\$0	\$0		\$235,000	\$0
Canal levee maintenance	\$0	\$0		\$135,000	\$0
0	\$0	\$0		\$0	\$0
<b>Subtotal</b>	<b>\$532,780</b>	<b>\$0</b>		<b>\$400,000</b>	<b>\$0</b>
<b>Subtotal w/ 25% contin.</b>	<b>\$665,975</b>	<b>\$0</b>		<b>\$500,000</b>	<b>\$0</b>

**Engineer, Design & Administrative Costs**

Engineering and Design Cost	\$0	\$0		\$0	\$0
Administrative Cost	\$65,485	\$0		\$65,485	\$0
Administrative Cost	\$20,000	\$0		\$15,000	\$0
Eng Survc 7 days @ \$3,600 per day	\$10,800		\$3,600	\$10,800	\$0
Inspector 30 days @ \$1,581 per day	\$23,715	\$0		\$23,715	\$0
Eng Survc 3 days @ 3600 per day	\$0	\$10,800	\$10,800	\$10,800	\$10,800
<b>Subtotal</b>	<b>\$120,000</b>	<b>\$10,800</b>	<b>\$14,400</b>	<b>\$125,800</b>	<b>\$10,800</b>

**Federal S&A**

Administrative Cost	\$2,000	\$0		\$2,000	\$0
	\$0	\$0		\$0	\$0
	\$0	\$0		\$0	\$0
	\$0	\$0		\$0	\$0
<b>Subtotal</b>	<b>\$2,000</b>	<b>\$0</b>		<b>\$2,000</b>	<b>\$0</b>
<b>Total</b>	<b>\$787,975</b>	<b>\$10,800</b>	<b>\$14,400</b>	<b>\$627,800</b>	<b>\$10,800</b>

**Annual Project Costs:**

Corps Administration \$1,225 annually, plus 816 in year 20  
 Monitoring \$0

**Construction Schedule:**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Plan & Design Start	April-08	6	12	7	0	0	0	0	0	0
Plan & Design End	May-10									
Const. Start	August-10									
Const. End	June-11	0	0	2	8	0	0	0	0	0

South Grand Chenier Hydrologic Restoration (ME-20)																										
	Price Level	2010			Nominal Budget		\$ 2,347,575																			
Instruction Contingency	25%				Fully Funded Budget		\$ 2,494,824																			
Year	Rates	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20					
Year	Rates	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031					
<b>Federal Costs</b>																										
Federal Inspection	1,400	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Annual Cost for Operations (structure operation)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Monitoring Data Analysis	-	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Federal S&A	2,000	1.00	-	-	-	-	-	-	-	-	1.00	-	-	-	-	-	-	-	-	-	-					
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
<b>State Costs</b>																										
State Annual Inspection	4,700	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Annual Cost for Operations (structure operation)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Monitoring Data Analysis	30,300	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
Engineering Monitoring	-	-	-	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Engineering and Design	65,485	1.00	-	-	-	-	-	-	-	1.00	-	-	-	-	-	-	-	-	-	-	-					
Administrative Cost	20,000	1.00	-	-	-	-	-	-	-	0.75	-	-	-	-	-	-	-	-	-	-	-					
Eng Survey	10,800	1.00	-	-	-	0.33	-	-	-	1.00	-	-	-	-	-	-	-	-	-	-	-					
Inspection	23,715	1.00	-	-	-	-	-	-	-	1.00	-	-	-	-	-	-	-	-	-	-	-					
Eng Surveys (Years 3, 5)	10,800	-	-	1.00	-	1.00	-	-	-	1.00	-	-	-	-	-	-	-	-	-	-	1.00					
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
<b>Construction Items</b>																										
Station and Demobilization	40,000	1.00	-	-	-	-	-	-	-	0.75	-	-	-	-	-	-	-	-	-	-	-					
Grade containment dikes	285,780	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Vegetative planting	197,000	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Penetration construction post	10,000	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Structure maintenance	235,000	-	-	-	-	-	-	-	-	1.00	-	-	-	-	-	-	-	-	-	-	-					
Canal levee maintenance	135,000	-	-	-	-	-	-	-	-	1.00	-	-	-	-	-	-	-	-	-	-	-					
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
<b>Federal Costs</b>																										
Federal Inspection	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400					
Annual Cost for Operations (structure operation)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Monitoring Data Analysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Federal S&A	2,000	2,000	-	-	-	-	-	-	-	2,000	-	-	-	-	-	-	-	-	-	-	-					
0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
<b>State Costs</b>																										
State Annual Inspection	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700					
Annual Cost for Operations (structure operation)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
Monitoring Data Analysis	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300	30,300					
Engineering Monitoring	-	7,500	6,000	12,400	7,500	6,000	12,400	6,000	6,000	12,400	6,000	6,000	12,400	6,000	6,000	12,400	6,000	6,000	12,400	6,000	12,400					
Engineering and Design	65,485	65,485	-	-	-	-	-	-	-	65,485	-	-	-	-	-	-	-	-	-	-	-					
Administrative Cost	20,000	20,000	-	-	-	-	-	-	-	15,000	-	-	-	-	-	-	-	-	-	-	-					
Eng Survey	10,800	10,800	-	-	-	3,600	-	-	-	10,800	-	-	-	-	-	-	-	-	-	-	-					
Inspection	23,715	23,715	-	-	-	-	-	-	-	23,715	-	-	-	-	-	-	-	-	-	-	-					
Marsh Creation Areas	10,800	-	-	10,800	-	10,800	-	-	-	10,800	-	-	-	-	-	-	-	-	-	-	10,800					
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					

<b>Construction Items</b>																					
ation and Demobilizati	40,000	50,000	-	-	-	-	-	-	-	-	37,500	-	-	-	-	-	-	-	-	-	-
grade containment dikes	285,780	357,225	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetative planting	197,000	246,250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
snasse construction post	10,000	12,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Structure maintenance	235,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canal levee maintenance	135,000	-	-	-	-	-	-	-	-	-	293,750	-	-	-	-	-	-	-	-	-	-
											168,750	-	-	-	-	-	-	-	-	-	-
State Nominal Total	<b>2,315,575</b>	828,475	41,000	58,200	42,500	55,400	47,400	41,000	41,000	47,400	666,800	41,000	47,400	41,000	41,000	47,400	41,000	41,000	47,400	41,000	58,200
Federal Nominal Total	<b>32,000</b>	3,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	3,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
<b>South Grand Chenier Hydrologic Restoration (ME-20)</b>																					
<b>Year</b>	<b>Rates</b>	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>Federal Costs</b>																					
Federal Inspection	1,400	1,437	1,461	1,487	1,514	1,541	1,569	1,597	1,626	1,655	1,685	1,716	1,746	1,778	1,810	1,842	1,876	1,909	1,944	1,979	1,979
Annual Cost for Operations (inspection, structure operation)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Federal S&A	2,000	2,052	-	-	-	-	-	-	-	-	2,407	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>State Costs</b>																					
State Annual Inspection	4,700	4,823	4,905	4,993	5,083	5,175	5,268	5,363	5,459	5,557	5,657	5,759	5,863	5,968	6,076	6,185	6,297	6,410	6,525	6,643	6,643
Annual Cost for Operations (inspection, structure operation)	30,300	31,093	31,621	32,191	32,770	33,360	33,960	34,572	35,194	35,827	36,472	37,129	37,797	38,478	39,170	39,875	40,593	41,324	42,067	42,825	42,825
Engineering Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering and Design Cost	65,485	67,199	-	-	-	-	-	-	-	-	78,825	-	-	-	-	-	-	-	-	-	-
Administrative Cost	20,000	20,523	-	-	-	-	-	-	-	-	18,056	-	-	-	-	-	-	-	-	-	-
#REF!	10,800	11,083	-	-	-	3,964	-	-	-	-	13,000	-	-	-	-	-	-	-	-	-	-
Eng Survey	23,715	24,336	-	-	-	-	-	-	-	-	28,546	-	-	-	-	-	-	-	-	-	-
= Marsh Creation Areas)	10,800	-	-	11,474	-	11,891	-	-	-	-	13,000	-	-	-	-	-	-	-	-	-	15,264
Inspection	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Construction Items</b>																					
ation and Demobilizati	40,000	51,308	-	-	-	-	-	-	-	-	45,139	-	-	-	-	-	-	-	-	-	-
grade containment dikes	285,780	366,573	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetative planting	197,000	252,694	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
snasse construction post	10,000	12,827	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Structure maintenance	235,000	-	-	-	-	-	-	-	-	-	353,590	-	-	-	-	-	-	-	-	-	-
Canal levee maintenance	135,000	-	-	-	-	-	-	-	-	-	203,126	-	-	-	-	-	-	-	-	-	-
State Fully Funded Total	<b>2,456,212</b>	842,458	36,526	48,658	37,853	54,389	39,228	39,934	40,653	41,385	795,411	42,888	43,660	44,446	45,246	46,060	46,890	47,734	48,593	49,467	64,732
Federal Fully Funded Total	<b>38,612</b>	3,489	1,461	1,487	1,514	1,541	1,569	1,597	1,626	1,655	4,093	1,716	1,746	1,778	1,810	1,842	1,876	1,909	1,944	1,979	1,979

**South Grand Chenier Hydrologic Restoration (ME-20)**

**Operation & Maintenance and Monitoring**

Project Priority List 11

**O&M Cost Considerations:**

**Annual Costs**

	<b>Federal</b>	<b>State</b>	<b>TOTAL</b>
Annual Inspections	\$1,400	\$4,700	\$6,100
Annual Cost for Operations	\$0	\$0	\$0
<b>Annual Cost for Operations (Includes Eng. Monitoring Station)</b>	<b>\$0</b>	<b>\$30,300</b>	<b>\$30,300</b>
Monitoring Data Analysis	\$0	\$167,800	\$167,800

**Specific Intermittent Costs**

<b>Construction Items</b>	<b>Quantity in Year 10</b>	<b>Unit Cost</b>	<b>Year 1</b>	<b>Year 3</b>	<b>Year 5</b>	<b>Year 10</b>	<b>Year 20</b>
Contractor Mobilization and Demobilization	1	40,000	\$40,000	\$0		\$30,000	\$0
Degrade containment dikes	23815	12	\$285,780	\$0		\$0	\$0
Vegetative planting	49268	4	\$197,000				
trenasse construction post	2	5	\$10,000	0			
Structure maintenance	1	1s				\$235,000	
Canal levee maintenance	12500	\$11	\$0			\$135,000	
<b>Subtotal</b>			<b>\$532,780</b>	<b>\$0</b>		<b>\$400,000</b>	<b>\$0</b>
<b>Subtotal w/ 25% contingency</b>			<b>\$665,975</b>	<b>\$0</b>		<b>\$500,000</b>	<b>\$0</b>

**State Costs**

Engineering Monitoring			\$0	\$0		\$0	\$0
Engineering and Design Cost			\$65,485	\$0		\$65,485	\$0
Administrative Cost			\$20,000	\$0		\$15,000	\$0
Eng Survey							
7 days @ \$3,600 per day			\$10,800		\$3,600	\$10,800	\$0
Inspection							
30 days @ \$1,581 per day			\$23,715	\$0		\$23,715	\$0
<b>Eng Surveys (Years 3, 5, 10, and 20 = Marsh Creation Areas)</b>							
3 days @ \$3,600 per day			\$0	\$10,800	\$10,800	\$10,800	\$10,800
<b>Subtotal</b>			<b>\$120,000</b>	<b>\$10,800</b>	<b>\$14,400</b>	<b>\$125,800</b>	<b>\$10,800</b>

**Federal Costs**

Administrative Cost			\$2,000	\$0		\$2,000	\$0
<b>Subtotal</b>			<b>\$2,000</b>	<b>\$0</b>		<b>\$2,000</b>	<b>\$0</b>
<b>Total</b>			<b>\$787,975</b>	<b>\$10,800</b>	<b>\$14,400</b>	<b>\$627,800</b>	<b>\$10,800</b>

**Annual Project Costs:**

Corps Administration **\$1,225 annually, plus \$816 in year 20**  
 Monitoring \* **\$0** (Dependent upon type of project)

\* Monitoring is now done through CRMS and is a line item in overall planning budget and not included in individual projects.

**Construction Schedule:**

**Planning & Design Start April-08**  
**Planning & Design End May-10**  
**Const. Start August-10**  
**Const. End June-11**

(Minimum of one year to complete this phase)

(Requires 4 months for contracting and advertising)

Check Sums						
State	\$988,775	\$45,800	\$49,400	\$660,800	\$45,800	
Federal	\$3,400	\$1,400	\$3,400	\$3,400	\$1,400	
	\$992,175	\$47,200	\$50,800	\$664,200	\$47,200	

Project:	South Grand Chenier Hydrologic Restoration (ME-20)	Date:	13-Nov-09	Revised:	13-Nov-09
Computed by:	Darryl Clark, Charles Slocum, Darrell Pontiff		Project Priority List 11		(ver.080509)
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Structure Removal	1	LS	10,000	\$10,000
2	Pollution Control	1	LS	60,000	\$60,000
3	Vegetation Seeding	1	LS	12,000	\$12,000
4	Construction Surveys	1	LS	250,000	\$250,000
5	Mobilization/Demobilization	1	LS	\$2,100,000	\$2,100,000
6	Traffic Control	1	LS	\$20,000.00	\$20,000
7	Pile, 12" Diameter	150	Each	\$1,500.00	\$225,000
8	Pressure Grouting	1	LS	\$100,000.00	\$100,000
9	Excavation, Common	15,773	CY	\$5.00	\$78,865
*10	Excavation, Marsh Creation Dredging w/ 30% added	1,555,860	CY	\$7.00	\$10,891,020
11	Earthfill, Containment Dikes Open Marsh Area	209,600 CY (34,298	CY (LF)	\$6.55/CY (\$40/LF	\$1,371,920
12	Earthfill	15,773	CY	\$5.00	\$78,865
13	42" Diameter, HDPE Culvert, SDR 21, Jacking & Boring under	400	Linear Foot	\$1,300.00	\$520,000
14	42" Diameter, HDPE Culvert, SDR 21	4,160	Linear Foot	\$200.00	\$832,000
15	48" Diameter, CAP Culvert	570	Linear Foot	\$200.00	\$114,000
16	36" Diameter, CAP Culvert	800	Linear Foot	\$160.00	\$128,000
17	Rock Riprap	1,950	Ton	\$120.00	\$234,000
18	48" Diameter, Flap Gate	13	Each	\$11,000.00	\$143,000
19	42" Diameter, Flap Gate	4	Each	\$10,000.00	\$40,000
20	36" Diameter, Flap Gate	9	Each	\$9,000.00	\$81,000
21	Timber Fabrication & Installation	1	LS	\$30,000.00	\$30,000
22	Identification Markers, Staff Gauge Units	269	Each	\$450.00	\$121,050
23	Contractor's Quality Control	1	LS	\$360,000.00	\$360,000
24	Geotextile	2,386	Square Yard	\$8.00	\$19,088
25	Channel Excavation, Dr. Miller Canal	77,000	CY	\$5.00	\$385,000
26	Real Time Monitoring Stations (sondes)	4	Each	\$9,300.00	\$37,200

ESTIMATED CONSTRUCTION COST \$18,242,008  
ESTIMATED CONSTRUCTION + 25% CONTINGENCY \$22,802,510

**TOTAL ESTIMATED PROJECT COSTS**

**PHASE I**

**Federal Costs**

Note: These are the actual Fully Funded Phase I costs. Phase I was approved on PPL 11 (2001).

*Engineering and Design:*

Engineering	\$947,535
Geotechnical Investigation	\$120,000
Hydrologic Modeling	\$300,000
Data Collection	\$200,000
Cultural Resources	\$10,000
Monitoring Plan Development	
NEPA Compliance	\$0

**SubTotal:** \$1,577,535

*Supervision and Administration*

	NMFS	NRCS	Other	USE
Supervision and Administration	\$388,999	\$338,999	\$451,998	\$328,913
Corps Administration				\$2,496

**State Costs**

*Supervision and Administration*

\$278,373

*Ecological Review Costs*

\$0

*Easements and Land Rights*

Oyster Issues (# of Leases)	0 Leases	\$0	
Land Rights		\$108,106	
<b>SubTotal:</b>			\$108,106

*Monitoring*

Monitoring Plan Development	\$62,997
Monitoring Protocol Cost *	\$0

**SubTotal:** \$62,997

\* Monitoring is now done through CRMS and is a line item in overall planning budget and not included in individual projects.

**Total Phase I Cost Estimate:** \$2,358,420

**PHASE II**

**Federal Costs**

*Estimated Construction Cost +25% Contingency*

\$22,802,510

Oyster Issues (# of Leased Acres)	0 Leased AC	\$0
Land Rights		\$0

**SubTotal:** \$22,802,510

*Inspection Surveys*

0 days @	\$0.00 per day	\$0
300 days @	\$1,581.00 per day	\$474,300

*Supervision and Inspection*

\$250,000

*Supervision and Administration*

\$816

*Corps Administration - reconcile Project First Costs*

**State Costs**

*Supervision and Administration*

\$200,000

**Total Phase II Cost Estimate:** \$23,727,626

**TOTAL ESTIMATED PROJECT FIRST COST** \$26,086,046

United States Army Corps of Engineers  
Operation and Maintenance Data for PPL-12

Year	Inflation Rate
2000	2.2%
2001	1.3%
2002	2.8%
2003	2.4%
2004	7.8%
2005	6.5%
2006	5.5%
2007	4.9%
2008	6.4%
2009	0.2%
2010	1.2%
2011	1.4%
2012	1.7%
2013	1.8%
2014	1.8%
2015	1.8%
2016	1.8%
2017	1.8%
2018	1.8%
2019	1.8%
2020	1.8%
2021	1.8%
2022	1.8%
2023	1.8%
2024	1.8%
2025	1.8%
2026	1.8%
2027	1.8%
2028	1.8%
2029	1.8%

United States Army Corps of Engineers  
Operation and Maintenance Data for PPL-12

2030 1.8%

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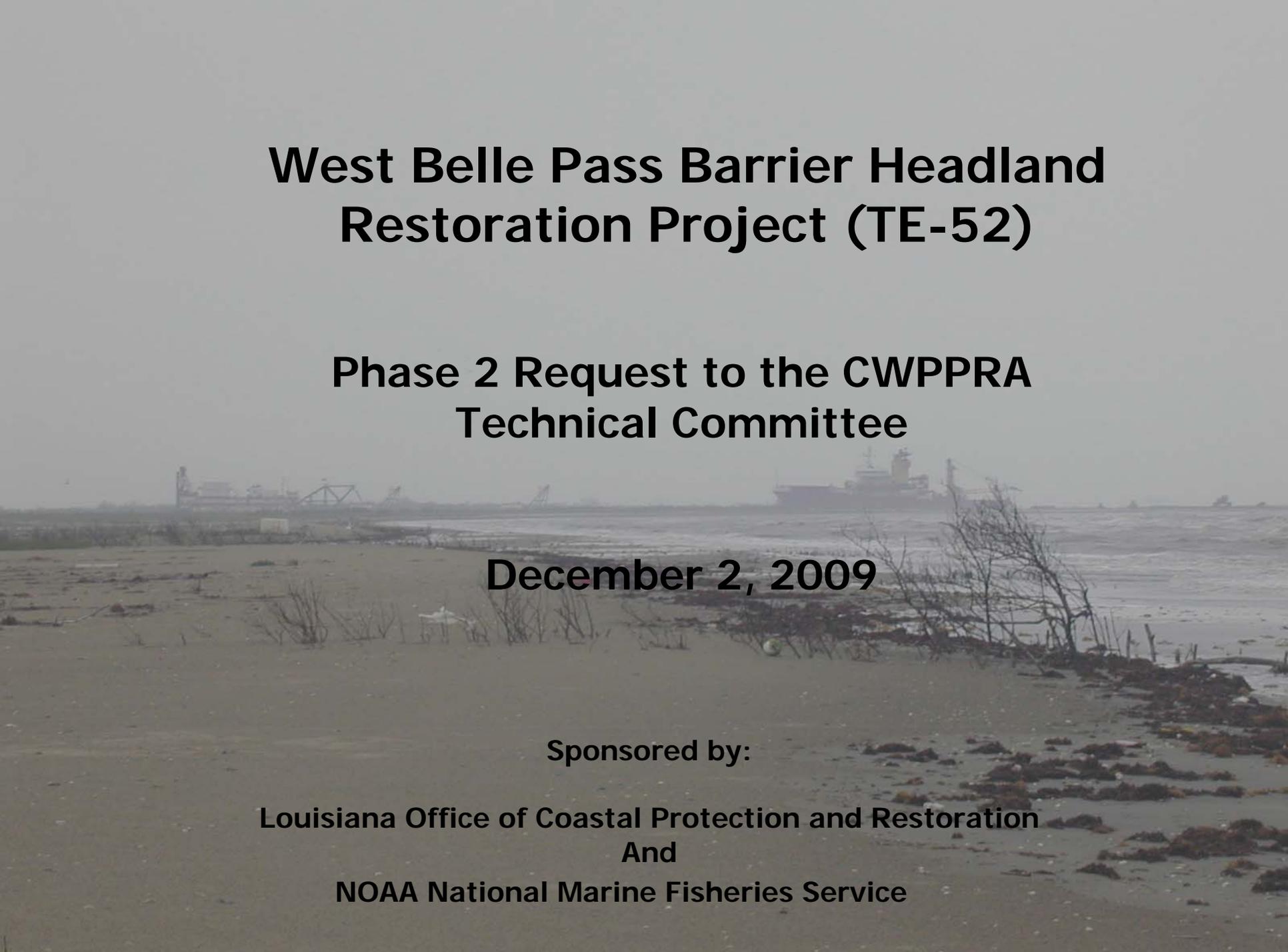
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<u>Hours/Days</u>	<u>Total</u>
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<u>Hours/Days</u>	<u>Total</u>
4	#REF!
8	#REF!
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4	#REF!
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WEST BELLE PASS BARRIER  
HEADLAND RESTORATION  
(TE-52)



# **West Belle Pass Barrier Headland Restoration Project (TE-52)**

## **Phase 2 Request to the CWPPRA Technical Committee**

**December 2, 2009**

**Sponsored by:**

**Louisiana Office of Coastal Protection and Restoration  
And  
NOAA National Marine Fisheries Service**

# Project Development Timeline

- Approved for Phase 1 funding by CWPPRA Task Force in October 2006
- CSA executed and engineering contractor selected in 2007
- Data acquisition, modeling, and project design completed over 18 months
- 30% Design Conference July 15, 2009
- 95% Design Conference November 3, 2009

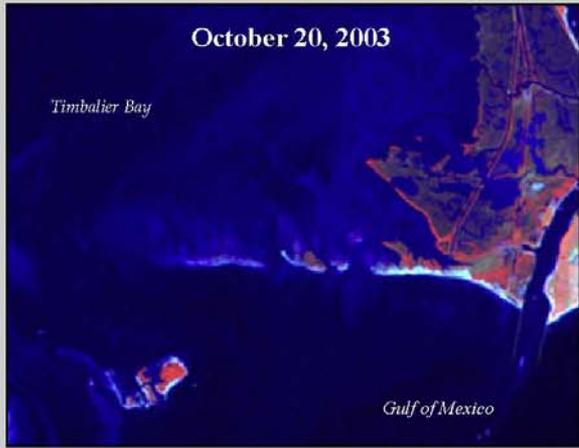




# Project Goals



- 1) To reestablish a continuous headland west of Belle Pass, which is currently eroding at 55 ft per year
- 2) To repair several tidal inlets that have formed in the headland and prevent breaching over the project life
- 3) To reestablish lost back barrier marsh
- 4) To reduce shoreline erosion along adjacent, interior marshes
- 5) To buffer adjacent major infrastructure from storms and land loss



 Proposed Marsh Creation



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

Image Sources:  
 1983 Thematic Mapper Imagery  
 1993 Thematic Mapper Imagery  
 1998 Digital Orthophoto Quarter Quadrangle  
 2003 Thematic Mapper Imagery  
 2004 Digital Orthophoto Quarter Quadrangle  
 2005 Digital Orthophoto Quarter Quadrangle  
 USGS-MW9C 2004-11-0277  
 Map Date April 20, 2008

DRAFT

## Morphology of West Belle Barrier Headland

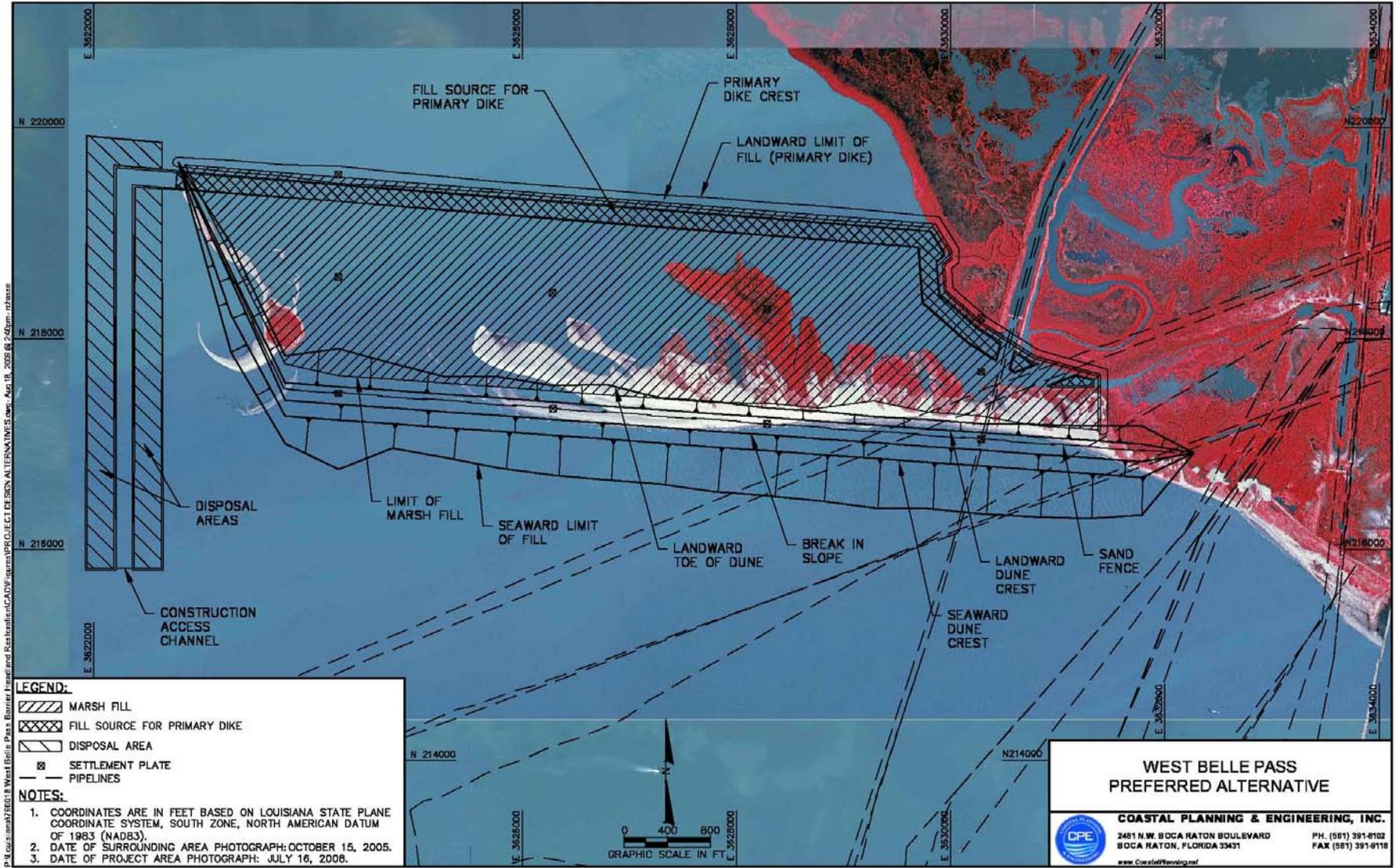
# TE-52 Project Area – 2008 Imagery



# Project Features

- Reconstruct 92 acres of beach, dune, and supratidal habitat across 8,500 linear feet of barrier headland west of Belle Pass
  - The dune will have a +6 ft elevation
  - Sand fencing and vegetative plantings will be installed after consolidation
- Reconstruct 227 acres of intertidal, back-barrier marsh
  - The marsh will have an initial fill elevation of +3 ft
  - Vegetative plantings will be installed after consolidation
  - The containment dike will be degraded and tidal creeks constructed, if necessary, post construction





P:\Projects\10000\10000 West Belle Pass Barrier Island and Escarpment\CAD\Drawings\PROJECT\DESIGN ALTERNATIVES.dwg, Apr. 19, 2009 @ 2:45pm, rjhase

- LEGEND:**
- MARSH FILL
  - FILL SOURCE FOR PRIMARY DIKE
  - DISPOSAL AREA
  - ⊠ SETTLEMENT PLATE
  - PIPELINES

- NOTES:**
1. COORDINATES ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83).
  2. DATE OF SURROUNDING AREA PHOTOGRAPH: OCTOBER 15, 2005.
  3. DATE OF PROJECT AREA PHOTOGRAPH: JULY 16, 2008.

**WEST BELLE PASS  
PREFERRED ALTERNATIVE**

**COASTAL PLANNING & ENGINEERING, INC.**



2481 N.W. BOCA RATON BOULEVARD  
BOCA RATON, FLORIDA 33431

[www.CoastalPlanning.net](http://www.CoastalPlanning.net)

PH. (561) 391-8102  
FAX (561) 391-8118

# Comparison of Phase 0 and Phase 1

- Phase 0
  - Fully Funded Cost = \$32.5 M
  - Total AAHU's = 180 AAHU's
  - Total Net Acres = 299 acres
  
- Phase 1
  - Fully Funded Cost = \$42.2 M
  - Total AAHU's = 184 AAHU's
  - Total Net Acres = 305 acres

No Major Changes in Design from Phase 0











**UNITED STATES DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

National Marine Fisheries Service/Restoration Center

1315 East-West Highway

Silver Spring, MD 20910

November 16, 2009

Mr. Thomas A. Holden  
Deputy District Engineer  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

Re: Phase 2 Construction Funds Request for West Belle Pass Barrier Headland Restoration Project (TE-52)

Dear Mr. Holden:

The NOAA National Marine Fisheries Service (NMFS) and the Louisiana Office of Coastal Protection and Restoration (OCPR) hereby request approval to begin Phase II construction of the West Belle Pass Barrier Headland Restoration Project (TE-52). This project was authorized on Priority Project List 16 in October 2006 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures Manual (SOP).

Enclosed please find the information required for Phase 2 requests and approval pursuant to Appendix C of the SOP. Should additional information be required for this project I can be reached at (301) 713-0174, ext. 162. Thank you for your consideration of this request.

Sincerely,

A handwritten signature in cursive script that reads 'Cecelia Linder'.

Cecelia Linder  
Program Officer  
NOAA National Marine Fisheries Service

Enclosures

Cc: Members of the CWPPRA Technical Committee  
Cheryl Brodnax, Project Manager, NOAA NMFS  
Kenneth Bahlinger, Project Manager, OCPR

# **West Belle Pass Barrier Headland Restoration Project (TE-52)**

## **Phase 2 Request**

**November 18, 2009**

### **I) Description of Phase 1 Project**

This project was selected by the Task Force for Phase 1 in October, 2006. The original project proposal included the restoration of the western terminus of Chenier Caminada, such that the project will result in a single, substantial headland and marsh platform over a 9,300-foot lineal distance. Specifically, the project will construct 120 acres of beach/dune habitat and 150 acres of marsh habitat. The berm/dune crest width of the constructed island is a constant 275 feet. The post construction island elevation is +6 feet NAVD. A 1V:45H construction slope has been adopted for the front and back of the beach/dune feature, which is commensurate with the anticipated natural slope obtained through hydraulic placement of fine sand. Approximately 1.6 MCY of sand material is estimated for the berm/dune component. A marsh construction elevation of +2.6 feet NAVD was assumed based on the required marsh elevations for similar projects within the Barataria basin. Approximately 850,000 CY of material is estimated for the marsh platform component. Immediately after settlement and compaction, dune, woody species, and intertidal marsh vegetation will be planted, in addition to the installation of sand fencing. A boundary map including project features is included as Figure 1.

The goals outlined at the time of Phase 1 approval were as follows:

1. Nourish the Gulf shoreline and create, after initial equilibration and settlement (i.e., at TY3) 66 acres of dune and 46 acres of supratidal habitat with sand and create 150 acres of back-barrier marsh platform settled to intertidal elevation with unrestricted tidal exchange.
2. To establish marsh vegetation (both planted and natural colonization). There would be approximately 50% vegetative planting of the total subaerial acreage at the end of TY1 and 100% at the end of TY3.
3. Fill tidal inlets and overwash breaches, restore and create dune and marsh to increase headland longevity and maintain shoreline integrity.
4. Prevent breaching defined as failure of the beach/dune resulting in an opening of the island to tidal exchange between the Gulf and the bay.
5. Prevent increase in current shoreline erosion rate along adjacent shorelines.

The WVA was finalized in the summer of 2006, and resulted in a project boundary encompassing 389 acres, with a net benefit after twenty years to 299 acres. The original project WVA totaled a benefit of 180 AAHU's. The cost estimate break-down as provided by the Economic Work Group in 2006 is as follows:

Original Cost Estimate

Phase I:

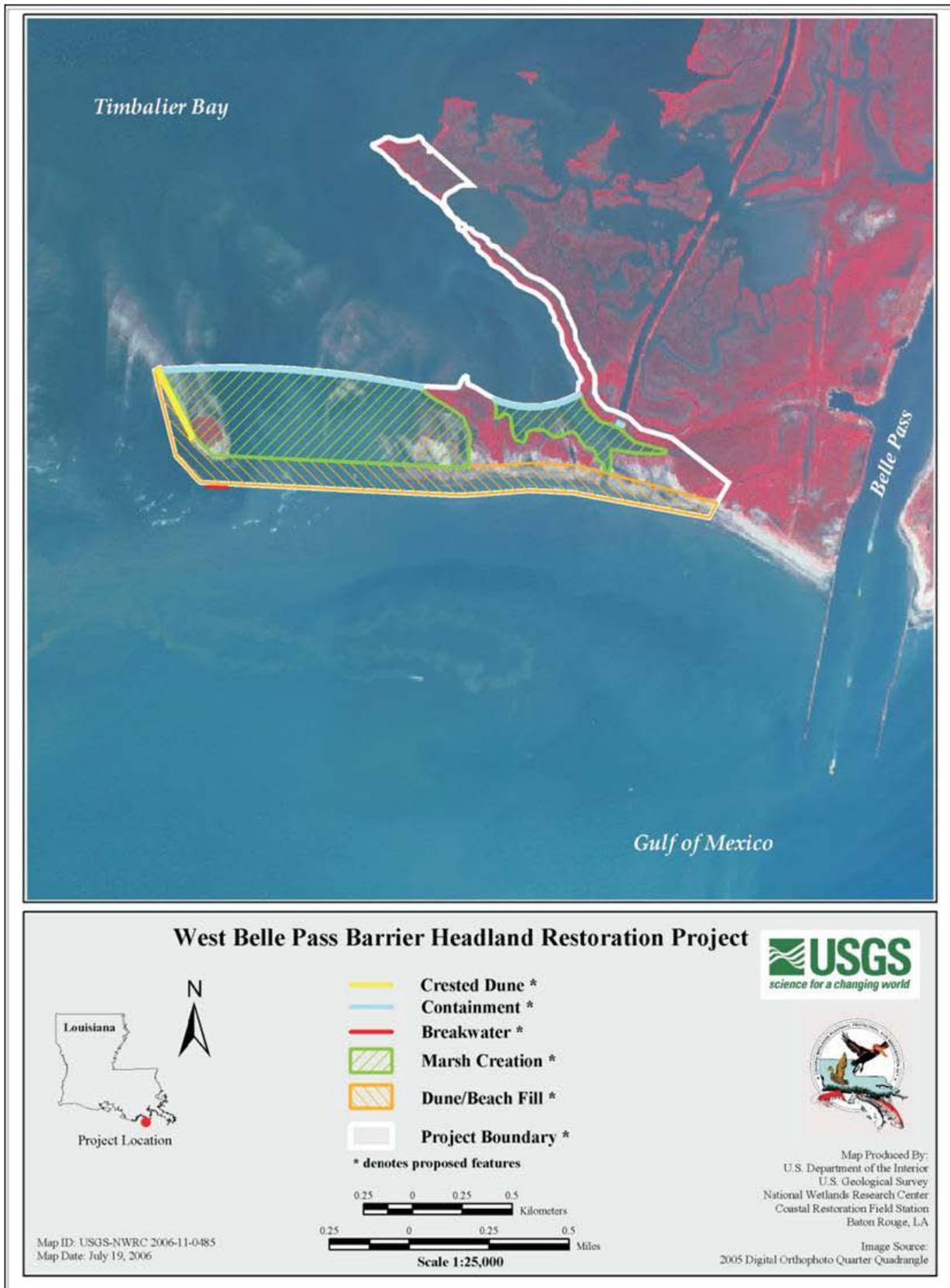
Estimated Engineering and Design:	\$1,806,661
Estimated Easements and Land Rights:	\$42,556
Estimated Pre-Construction Monitoring:	\$0
Estimated Federal Supervision & Administration:	\$420,997
Estimated OCPR Supervision & Administration:	\$420,997
Corps Project Management:	\$3,192
Total Estimated Phase I Costs	\$2,694,363

Phase II:

Estimated Construction:	\$20,486,453
Contingency:	\$5,121,613
Estimated Supervision & Inspection:	\$224,793
Estimated Land Rights Coordination:	\$0
Estimated NOAA Supervision & Administration:	\$439,681
Estimated OCPR Supervision & Administration:	\$439,681
Corps Project Management:	\$19,683
Estimated Monitoring Costs:	\$0
Estimated O&M Costs:	\$3,137,480
Total Estimated Phase II Costs:	\$29,869,384

Total Fully Funded Phase I & Phase II Cost: \$32,563,747

**Figure 1:** Original TE-52 Project Boundary as Authorized for Phase 1



## II) Overview of Phase 1 Tasks, Process, and Issues

The project received Phase 1 approval in late 2006 as part of PPL-16. Throughout 2007, the major tasks involved processing MIPR's, establishing a Cost Share Agreement between NOAA and OCP, and creating a scope of work (SOW) and Request for Statement of Interest and Qualifications (RSIQ) as part of a public solicitation for engineering services on this project. A contract was ultimately awarded to Coastal Planning and Engineering, and a project kick off meeting was held in June, 2008. Over the next 15 months, the project team has completed a suite of tasks that cover the engineering and administrative requirements of bringing this project to Phase 2-readiness. These tasks included:

- Field reconnaissance and data acquisition (hydrologic data, bathymetry surveys, and geotechnical investigations)
- Borrow site investigation and delineation
- Hydrodynamic modeling to determine fill volumes and project performance
- Alternatives analysis and ultimate design selection
- Completion of plans and specifications
- Cultural resources investigation and clearance
- Submittal of permit application
- NEPA clearance and completion of Environmental Assessment and consultations
- Completion of design conferences (30% design held July 2009, 95% design held November 2009)
- Completion of land rights
- Completion of revised project benefits and budget

Each of these tasks was completed successfully and in a timely manner in order to qualify for Phase 2 funding this year. As a result of changing market conditions and changes to fill volumes and borrow sites, a scope change was requested of the Task Force in November 2009 due to a projected 30% increase in total project cost (see table below). The full request and explanation for the cost increase can be found in the September 28, 2009 letter to the Technical Committee. Other than this projected cost increase and subsequent scope change request, the project has not had any issues impeding implementation.

Summary Table Comparing Phase 0 and Phase 1 Cost and Benefits:

	<b>Fully Funded Cost</b>	<b>Total AAHU's</b>	<b>Net Acres</b>	<b>Cost Effectiveness (\$/AAHU)</b>	<b>Percent Cost Increase from Phase 0</b>
<b>Phase 0</b>	\$32,563,747	180	299	\$180,909	
<b>Phase 1</b>	\$42,250,417	203	305	\$208,130	30%

### III) Description of the Phase 2 Candidate Project

After robust engineering and design, the preferred alternative that was selected followed a cost-based approach that streamlined the construction budget while maintaining performance to meet project goals. The preferred alternative will result in a single, substantial headland and marsh platform over an 8,500-foot lineal distance. Specifically, the project will initially construct 93 acres of dune and supratidal habitat and 227 acres of marsh habitat. The berm/dune crest width of the constructed island is a constant 125 feet. The post construction dune elevation is +6 feet NAVD. A 1V:30H construction slope has been adopted for the front and back of the dune feature, with a gulfward beach slope of 1V:60H. This slope is commensurate with the anticipated natural slope obtained through hydraulic placement of fine sand. Approximately 1.2 MCY of sand material is estimated for the berm/dune component. A marsh construction elevation of +3.0 feet NAVD has been selected, based on the required marsh elevations for similar projects within the Barataria basin and as needed to prevent breaching. Approximately 1,903,000 CY of material is estimated for the marsh platform component. Immediately after settlement and compaction, dune, woody species, and intertidal marsh vegetation will be planted, in addition to the installation of sand fencing. A revised boundary map including project features is included as Figure 2.

The goals outlined for proceeding into Phase 2 are as follows:

- Nourish the Gulf shoreline and create 42 acres of dune and 49 acres of supratidal habitat with sand, and create 363 acres of back-barrier marsh platform settled to intertidal elevation with unrestricted tidal exchange by TY3.
- To establish marsh and dune vegetation (both planted and natural colonization). There would be approximately 50% vegetative planting of the total subaerial acreage at the end of TY1 and 100% at the end of TY3.
- Fill tidal inlets and overwash breaches, restore and create dune and marsh to increase headland longevity and maintain shoreline integrity.
- Prevent breaching defined as failure of the beach/dune resulting in an opening of the island to tidal exchange between the Gulf and the bay.
- Prevent increase in current shoreline erosion rate along adjacent shorelines.

The revised WVA for Phase 2 was finalized in November 2009 by the Environmental Work Group, and resulted in a project boundary encompassing 411 acres, with a net benefit after twenty years to 305 acres. The revised project WVA totaled a benefit of 203 AAHU's. The cost estimate break-down as provided by the Economic Work Group in 2009 is as follows:

Revised Cost Estimate (finalized 10/29/09)

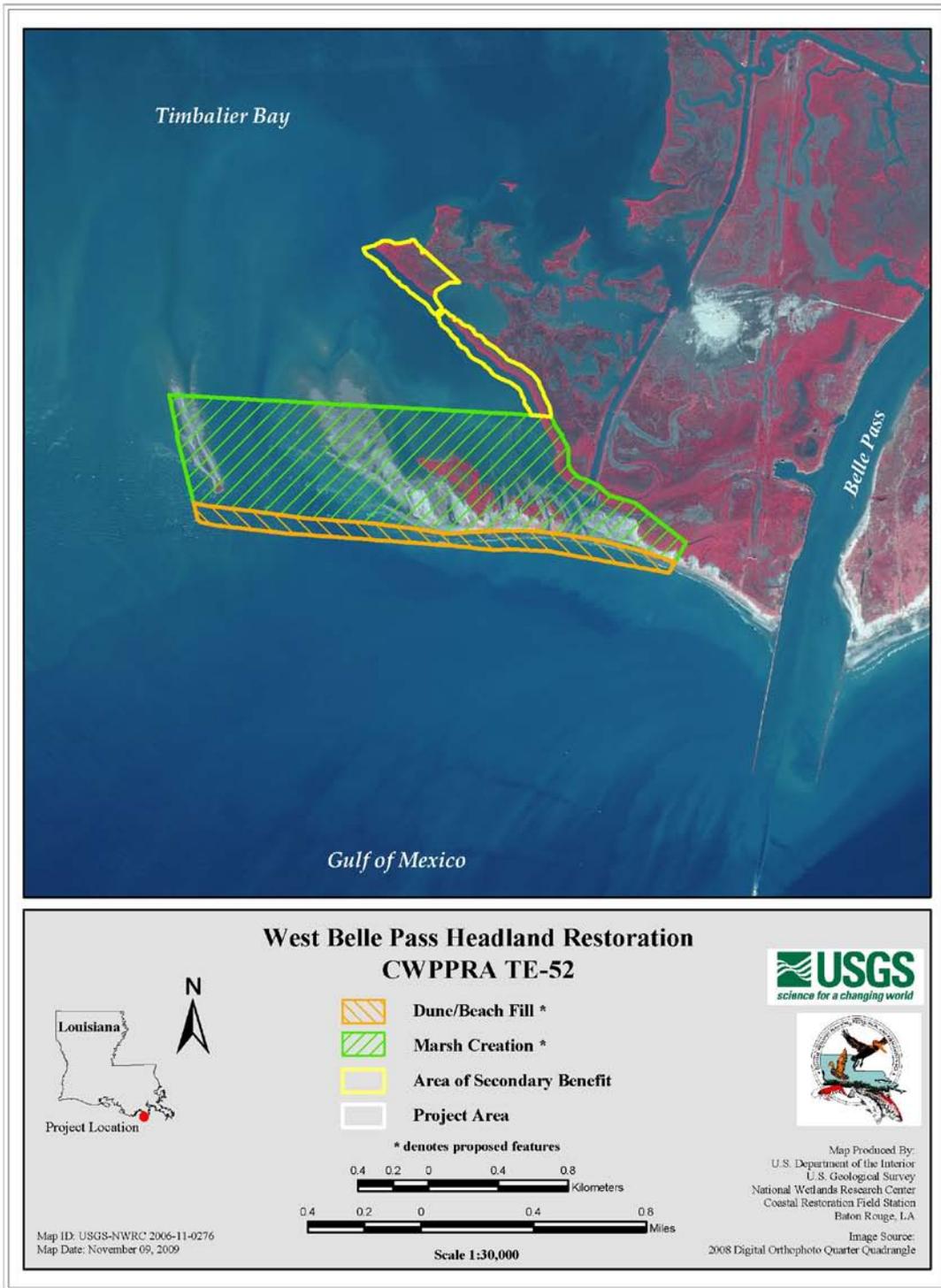
Phase I: (Actual Costs)

Estimated Engineering and Design:	\$1,806,661
Estimated Easements and Land Rights:	\$42,556
Estimated Pre-Construction Monitoring:	\$0
Estimated Federal Supervision & Administration:	\$420,977
Estimated OCPR Supervision & Administration:	\$420,977
Corps Project Management:	\$3,192
Total Estimated Phase I Costs	\$2,694,363

Phase II:	
Estimated Construction:	\$28,273,344
Contingency:	\$7,068,336
Estimated Supervision & Inspection:	\$477,715
Estimated Land Rights Coordination:	\$0
Estimated NMFS Supervision & Administration:	\$503,600
Estimated OCPR Supervision & Administration:	\$402,880
Corps Project Management:	\$32,890
Estimated Monitoring Costs:	\$134,541
Estimated O&M Costs:	\$2,662,748
Total Estimated Phase II Costs:	\$39,556,054

**Total Fully Funded Phase I & Phase II Cost: \$42,250,417**

Figure 2: Revised TE-52 Project Boundary



#### IV) Checklist of Phase 2 Requirements

##### A. List of Project Goals and Strategies

- Nourish the Gulf shoreline and create 42 acres of dune and 49 acres of supratidal habitat with sand, and create 363 acres of back-barrier marsh platform settled to intertidal elevation with unrestricted tidal exchange by TY3.
- To establish marsh and dune vegetation (both planted and natural colonization). There would be approximately 50% vegetative planting of the total subaerial acreage at the end of TY1 and 100% at the end of TY3.
- Fill tidal inlets and overwash breaches, restore and create dune and marsh to increase headland longevity and maintain shoreline integrity.
- Prevent breaching defined as failure of the beach/dune resulting in an opening of the island to tidal exchange between the Gulf and the bay.
- Prevent increase in current shoreline erosion rate along adjacent shorelines.

B. The Cost Share Agreement between NOAA and the OCPR for Phase 1 activities was executed on May 31, 2007.

##### C. Landrights

In a letter from OCPR to NOAA dated September 25, 2009, the State confirms that the requirements of Section 6(g)(2) of the SOP have been fulfilled. This letter can be found as Attachment A.

##### D. Project Design Review (30% Design Level)

A 30% design review was held on July 15, 2009. Comments and responses received at the conference, as well as a letter from the State concurring with moving to 95% design, can be found as Attachment B.

##### E. Final Project Design Review (95% Design Level).

A 95% design review was held on November 2, 2009. Comments and responses received at the conference, as well as a letter from the State concurring with moving to Phase 2, can be found as Attachment C.

##### F. NEPA

A draft Environmental Assessment for this project was submitted to the Technical Committee in September 2009. The comment period has closed, and agency responses received were incorporated into a draft final document. The final EA with FONSI and consultation letters is currently being routed for signature. Given the size of the document it is not included as an appendix in this package, but can rather be provided upon request. Consultation letters and agency responses to the EA can be found as Attachment D.

G. No Ecological Review was completed for this project.

H. The joint permit application was filed with the State on November 18, 2009.

- I. An in-house, cursory level hazardous, toxic and radiological waste (HTRW) assessment was conducted, and can be found in Attachment E. There was no data to indicate that a further HTRW investigation was warranted.
- J. A request for Section 303(e) approval was submitted to the USACE on October 13, 2009. As of November 17, 2009 the 303(e) was granted and the letter was being routed internally for signature. The request letter can be found as Attachment F.
- K. The overgrazing determination from the NRCS was completed and the letter from NRCS can be found in Attachment G.
- L. A revised fully funded cost estimate, reviewed and approved by both the Engineering and Economic Work Groups, has been completed. The specific Phase 2 funding request, as outlined in the spreadsheet labeled Attachment H, was generated using the Fully Funded Cost Estimate provided by the Economic Work Group.
- M. A revised Wetland Value Assessment was completed and approved in October 2009. Due to its size, a copy is not being attached to this request, but rather can be submitted upon request.



## State of Louisiana

BOBBY JINDAL  
GOVERNOR

September 25, 2009

Ms. Cecelia Linder  
National Marine Fisheries Service  
Office of Habitat Protection  
1315 East West Highway, Restoration Center, Room 7120  
Silver Spring, MD 20910

RE: West Belle Pass Barrier Headland Restoration Project TE-52  
CWPPRA Section 303(e) Approval

Dear Ms. Linder:

By this letter, I am transmitting to you a copy of the **Letter of No Objection** (with map labeled Exhibit A attached) from the State of Louisiana, through its Division of Administration, State Land Office (State Lands) to the Louisiana Office of Coastal Protection and Restoration (OCPR) for the West Belle Pass Barrier Headland Restoration Project TE-52 (Project). State Lands is the sole, codified landowner within the Project.

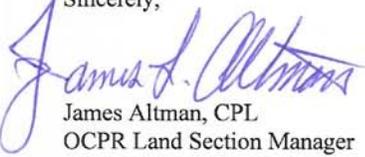
The document fulfills the requirements outlined in Section 6(g)(2) of the Standard Operating Procedures Manual for CWPPRA projects: the document is the "Language of Land Rights," and the map attached to same describes the Project, including the "Project Limits." By this letter, OCPR certifies that land rights efforts have been and will be in accordance with all applicable Federal and State laws and regulations, and all standard real estate practices have been and will be followed.

This letter and document may be forwarded under cover letter from the National Marine Fisheries Service (NMFS) to the U. S. Army Corps of Engineers (Corps) as part of your request for CWPPRA Section 303(e) approval. NMFS must also obtain an overgrazing determination from the U. S. D. A. Natural Resources Conservation Service (NRCS). These items and a letter requesting 303(e) approval may be sent to the following address:

U. S. Army Corps of Engineers  
ATTN: CEMVN-OC  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267

If you need further assistance or have any questions regarding this matter, please contact Mr. V.J. Marretta in the OCPR Land Section at (225) 342-5260. We, at the OCPR, look forward to completing the 303(e) approval process and proceeding with project construction.

Sincerely,



James Altman, CPL  
OCPR Land Section Manager

JA/VJM

Enclosure

c(no enclosure): Kenneth Bahlinger, OCPR Project Manager  
V.J. Marretta, OCPR TE-52 Landrights Manager

TE-52\TE-52 NMFS 303e Letter.doc

Appendix B: 30% Design Comments and Concurrence



Coastal Protection and  
Restoration Authority of Louisiana

# State of Louisiana

**BOBBY JINDAL**  
GOVERNOR

September 23, 2009

Cheryl Brodnax  
NOAA Restoration Center  
LSU Sea Grant Room 124 C  
Baton Rouge, LA 70803-6100

Re: 30% Design Review Concurrence for West Belle Pass Barrier  
Headland Restoration Project (TE-52)  
Statement of Local Sponsor Concurrence

Dear Ms. Brodnax:

The 30% Design Review meeting for the West Belle Pass Barrier Headland Restoration (TE-52) project was held on July 15<sup>th</sup>, 2009. Based on our review of the technical information compiled to date, the preliminary land ownership investigation, and the preliminary designs, the Office of Coastal Protection and Restoration, as the local sponsor, concurs to proceed with the design of TE-52. In accordance with the CWPPRA Standard Operating Procedures, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee and proceed towards the 95% design level with the selected alternative and revised project cost estimate. We also request that our project manager, Kenneth Bahlinger, be copied on all correspondence concerning this project.

The revised TE-52 project cost estimate reflects a change in scope resulting in a 25% or greater variance from the original project cost estimate. Therefore, OCPR concurs with your report to the Technical Committee (dated September 21, 2009) stating the resultant increase in cost is due to a justifiable increase in benefits and several deficiencies in the Phase 0 cost estimate.

Please do not hesitate to call me if I may be of any assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher P. Knotts".

Christopher P. Knotts, P.E.,  
OCPR Chief, Engineering and Operations Division

cc: Cecelia Linder, NOAA Fisheries  
Kenneth Bahlinger, OCPR Project Manager  
Rudy Simoneaux, P.E., OCPR Project Engineer  
TE-52 Project File

## Comments Submitted at 30% Design Conference: TE-52

- 1) Have breakwaters been considered as a design feature for this project?

A breakwater and terminal end structures were modeled and evaluated for this project. Although both were able to help retain sand within the project area, they were marginally cost-effective in terms of construction costs vs. cost savings from material retention. The Delft3D model showed that a single breakwater could help trap sand, but that its success was premised on the addition of beach nourishment; therefore, they could not be interchanged to meet the project's goals. As an additive feature to beach renourishment and marsh creation, breakwaters could improve performance. The decision to omit hard structures from this project was almost exclusively a matter of total project cost, as well as concern over placing hard structures along a migrating shoreline. The cost for one breakwater was estimated at a little over \$1M. With a headland that is over 9,000 lf long, the cost to build a breakwater field would exceed \$10M, not including maintenance costs.

- 2) Have you looked at the shadow of the terminal structure as to where the sand goes?

According to the models, the sand trends northwest and goes into Raccoon Pass with little bypassing. Some material goes behind the islands into the bays. After reviewing the data the State's contractor (Coastal Planning and Engineering) does not expect any downstream impacts should a terminal end structure be used.

Appendix C: 95% Design Comments and Concurrence



State of Louisiana

BOBBY JINDAL  
GOVERNOR

November 10<sup>th</sup>, 2009

Ms. Cecelia Linder  
NMFS Restoration Center, F/HC3  
1315 East West Highway  
Silver Spring, MD 20910

Re: 95% Design Review Concurrence for West Belle Pass Barrier  
Headland Restoration Project (TE-52)  
Statement of Local Sponsor Concurrence

Dear Ms. Linder:

The 95% Design Review meeting for the West Belle Pass Barrier Headland Restoration (TE-52) project was held on November 3<sup>rd</sup>, 2009. Based on our review of the technical information compiled to date, the land ownership investigation, and the final design material, the Office of Coastal Protection and Restoration, as the local sponsor, concurs to proceed with requesting Phase II construction funding.

In accordance with the CWPPRA Standard Operating Procedures, we request that you forward this letter of concurrence, along with the final project cost estimate, to the Technical Committee and the Planning and Evaluation Subcommittee. We also request that our project manager, Kenneth Bahlinger, be copied on all correspondence concerning this project.

Please do not hesitate to call me if I may be of any assistance.

Sincerely,

A handwritten signature in blue ink that reads "Christopher P. Knotts".

Christopher P. Knotts, P.E.,  
OCPR Chief, Engineering and Operations Division

CPK:ras

cc: Richard Hartman, NOAA Fisheries  
Cheryl Brodnax, NOAA Fisheries  
Chris Williams, P.E., OCPR Administrator  
Kirk Rhinehart, OCPR Administrator  
Kenneth Bahlinger, OCPR Project Manager  
Rudy Simoneaux, P.E., OCPR Project Engineer  
TE-52 Project File

WEST BELLE PASS BARRIER HEADLAND RESTORATION (TE-52)

CWPPRA 95% DESIGN MEETING COMMENTS

NOVEMBER 3, 2009

The only significant comment was brought up by Rick Smith with Weeks Marine, Inc. He stated that the dredge pipeline from the marsh and dune borrow areas will be placed over existing oil and gas pipelines. Mr. Smith was concerned that some of these pipelines may not be buried.

Pending Phase II approval, OCPR will conduct a side scan survey of the proposed pipeline corridor to see if there are any exposed pipelines. If any exposed pipelines are found, OCPR will work with the pipeline companies to see that pipelines are buried prior to construction.

## Appendix D: NEPA consultations and agency comments to EA



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Southeast Regional Office  
263 13<sup>th</sup> Avenue South  
St. Petersburg, Florida 33701

September 16, 2009 F/SER46/RS;jk  
225/389-0508

Ms. Cheryl Brodnax  
National Oceanic and Atmospheric Administration  
LSU Sea Grant Building, Room 124C  
Baton Rouge, Louisiana 70803

Dear Ms. Brodnax:

NOAA's National Marine Fisheries Service has received the draft Environmental Assessment (EA) titled "West Belle Pass Barrier Headland Restoration (TE-46)." The draft EA evaluates the potential impacts associated with restoration of 9,200 feet of beach and dune and creation of about 365 acres of saline marsh in Lafourche Parish, Louisiana. The proposed project would involve excavation from two borrow areas located in Timbalier Bay and the Gulf of Mexico to generate over three million cubic yards of dredged material required for project construction.

We offer the following general comments regarding the draft EA:

Page 15, Section 3.1.1, Geology, Soils and Topography. This section of the document does not describe existing wave conditions in the vicinity of the proposed borrow areas. Summary wave climate data would provide background for interpretation of results provided in later sections of the document. Also, potential changes in wave climate are addressed in Section 4.2.1, Impacts on Geology, Topography, and Physical Oceanographic Processes, and again in Section 4.2.4, Impacts on Water Resources. We recommend that information regarding existing conditions be incorporated into the appropriate section of the document and that the discussion regarding anticipated wave climate changes be consolidated into one part of the Environmental Consequences section.

Page 11, Table 1, and throughout. The document presents information regarding projected benefits in terms of Average Annual Habitat Units and Net Acres. Typically, these data would be generated after project review by the Environmental Work Group. We recommend that the final EA be held in abeyance until such data has been reviewed and approved by the appropriate work group.

Based on our review of the draft EA, we find that the document adequately assesses potential impacts to resources of concern. The EA also analyzes the potential effects of the proposed action on essential fish habitat (EFH). We concur with the document's conclusion that the proposed project is not likely to adversely affect EFH and furthermore, that the project should result in the creation and restoration of intertidal marsh and surf zone habitats. As such, we have no EFH Conservation Recommendations to provide and no further comments to offer on the draft EA.



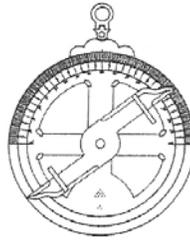
We appreciate the opportunity to review and comment on the draft EA.

Sincerely,

A handwritten signature in black ink, appearing to read "Miles M. Croom".

for Miles M. Croom  
Assistant Regional Administrator  
Habitat Conservation Division

c:  
F/SER46, Swafford  
Files



The Final Report has been reviewed and accepted.

22-3276

*Scott Hutcheson* 8/7/09

Scott Hutcheson Date  
State Historic Preservation Officer

TIDEWATER ATLANTIC RESEARCH, INC.

GORDON P. WATTS JR., DIRECTOR  
VOICE: 252.975.6659 FAX: 252.975.2828  
EMAIL: [iiimr@coastalnet.com](mailto:iiimr@coastalnet.com)

POST OFFICE BOX 2494  
WASHINGTON  
NORTH CAROLINA 27889

27 July 2009

Dr. Scott Hutcheson  
State Historic Preservation Officer  
Division of Archaeology  
1051 N. 3<sup>rd</sup> Street, Room 405  
Baton Rouge, Louisiana 70802-5239

Dear Dr. Hutcheson:

Per your request, two archival-quality final reports entitled *Phase I Remote-Sensing Submerged Cultural Resource Survey of Offshore Borrow Sites located in Lafourche and Terrebonne Parish, Louisiana in Association with the West Belle Pass Barrier Headland Restoration Project* are enclosed for the Division of Archaeology library. A CD version is attached to the back cover of both reports to facilitate reproduction.

On behalf of Tidewater Atlantic Research, we appreciate the opportunity to work with the State of Louisiana and the firm of Coastal Planning & Engineering to support this important coastal restoration project.

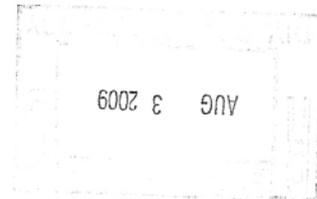
Best regards,

Robin Arnold  
Senior Historian

Enclosures-2

Copy: Jeffrey Andrews [Coastal Planning & Engineering]

cc: Cheryl Broadnax





MITCHELL J. LANDRIEU  
LIEUTENANT GOVERNOR

**State of Louisiana**  
OFFICE OF THE LIEUTENANT GOVERNOR  
DEPARTMENT OF CULTURE, RECREATION & TOURISM  
OFFICE OF CULTURAL DEVELOPMENT  
DIVISION OF ARCHAEOLOGY

PAM BREAUX  
SECRETARY  
  
SCOTT HUTCHESON  
ASSISTANT SECRETARY

June 16, 2009

Ms. Cheryl Brodnax  
Federal Project Manager  
NOAA National Marine Fisheries Service  
NOAA Restoration Center  
LSU Sea Grant Building, Room 124C  
Baton Rouge, LA 70803

Re: Draft Remote-Sensing Report  
LA Division of Archaeology Report No. 22-3276  
*Remote-Sensing Submerged Cultural Resources Survey  
of Offshore Borrow Sites Associated with the West Belle  
Pass Barrier Headland Restoration Project [Lafourche  
And Terrebonne Parishes, Louisiana]*  
Tidewater Atlantic Research, Inc.

Dear Ms. Brodnax:

We acknowledge the receipt of your letter dated May 13, 2009, and two copies of the above-referenced draft report. We have completed our review of this document and offer the following comments.

The report is concise and well written. Based on the information provided in the 1994 Report *Cultural Resources Investigation Related to the West Belle Pass Headland Restoration Project, Lafourche Parish, Louisiana* and the current remote sensing survey results along with the recommendation of avoidance of areas WBPA-5, WBPE-1, and WBPE-2, we concur that the proposed project will have no effect on historic properties.

We have provided a few technical comments for your consideration and look forward to receiving two copies of the final report for our library. If you should have any questions, please contact Stacie Palmer in the Division of Archaeology by email at [spalmer@crt.state.la.us](mailto:spalmer@crt.state.la.us) or by phone at (225) 342-5737.

Sincerely,

Scott Hutcheson  
State Historic Preservation Officer

SH:SP:s

Enclosures: as stated



# State of Louisiana

BOBBY JINDAL  
GOVERNOR

September 14, 2009

To: Cheryl Brodnax, Project Manager  
From: David Lindquist, Coastal Resources Scientist III  
RE: West Belle Pass Barrier Headland Restoration Environmental Assessment

Cheryl,

The following is a list of comments (mostly editorial) on the Environmental Assessment prepared for the West Belle Pass Barrier Headland Restoration (TE-52) project.

- Replace "Louisiana Department of Natural Resources" and the acronym "LDNR" with "Office of Coastal Protection and Restoration" and "OCPR" where appropriate.
- The word "offshore" should replace "off shore" where it occurs throughout the document.
- In several places in the first few pages of the Introduction the phrase "west of West Belle Pass" is used in descriptions of the project location. Is "West Belle Pass" an actual place-name? Also, "West Belle Pass" seems to be used interchangeably with "Belle Pass". For example, on Page 6, Section 1.4.2, the first sentence reads "Shoreline retreat rates immediately west of West Belle Pass...". Then in the next paragraph it is mentioned that "Hurricanes Katrina and Rita removed almost all the subaerial headland west of Belle Pass." I suggest that "west of West Belle Pass" be replaced with the simpler and geographically accurate "west of Belle Pass".
- Page 4, Section 1.3, Paragraph 2: I think the scientific name of black mangrove is *Avicennia germinans*. Also the phrase "Black mangrove were frozen badly..." sounds odd. I suggest this sentence be reworded to say something like: "Black mangrove (*Avicennia germinans*), the abundance of which is controlled by periodic freezing events, has proliferated since the last hard freeze in 1990 and is now common in the intertidal zone of the project site."
- Page 4, Section 1.3.1, Paragraph 1: The eastern portion of the Terrebonne Basin is hydrologically isolated from what? Freshwater input?
- Page 5, Section 1.3.2, Paragraph 4: Mention when beneficial placement of material dredged from Belle Pass began.
- Page 18, Section 3.2.2.2, Paragraph 2: "...sea turtles drift with the *Sargassum* and feed off their living organisms" sounds odd. Perhaps reword to: "sea turtles drift with the *Sargassum* and prey on biota associated with the algae."
- Page 20, Table 4: Delete the space between "*Farfante*" and "*penaeus*".
- Page 20 and 21: Spanish mackerel and gray snapper are probably more likely to occur in the project and borrow areas than their congeners king mackerel and lane snapper. Why weren't these species discussed?

#### Planning Branch

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 12<sup>th</sup> Floor Chase Tower North • Baton Rouge, Louisiana 70801  
(225) 342-7308 • Fax (225) 342-6801 • <http://www.lacpra.org/>  
An Equal Opportunity Employer



# State of Louisiana

BOBBY JINDAL  
GOVERNOR

- Page 22, blacknose shark paragraph, last sentence: Should this read “Neonates or juveniles...”?
- Page 23, Section 3.2.5, Paragraph 5: Edit the last sentence. “More importantly, barrier islands and headlands provide...”?
- Page 24, Section 3.2.6.1, Paragraph 2: What barrier island is immediately east of Belle Pass?
- Page 24, Section 3.2.6.1, Paragraph 4: Replace “samipalmated plover” with “semipalmated plover” and “hudsonian godwit” with “Hudsonian godwit”.
- Page 24, Section 3.2.6.1, Paragraph 6: Replace “savannah sparrow” with “Savannah sparrow”.
- Page 26, Section 3.2.7: You may have received different information from USFWS, but based on the LDWF’s Natural Heritage website neither sturgeon species are listed for Lafourche Parish (or Terrebonne for that matter). Also, manatees are not listed for Lafourche Parish but are for Terrebonne, although it is reasonable to assume that the odds of manatee appearing in Lafourche are the same as for Terrebonne.
- Page 39, Socioeconomics row, No Action column: Edit the last sentence.
- Page 52, Section 4.3.2, Paragraph 2: What does “re-assorting” mean? Perhaps a different word.
- Page 53, Section 4.3.2, Paragraph 4 or 5: Perhaps re-emphasize that the current benthic communities are representative of an early successional stage due to frequent perturbation, and therefore it shouldn’t take long for the post-dredging assemblages to attain pre-dredging levels.
- Page 56, Section 4.3.6, Paragraph 4, second sentence: Replace “planning vegetation” with “planting vegetation”.
- Page 57, Section 4.3.6, Paragraph 9: This paragraph (starting “Based on the long-term benefits...””) should be placed at the end of the subsection (i.e., after the subsequent paragraph about sea turtles).
- Page 58, Section 4.4.2, Paragraph 2: Edit last sentence. “There are no known, significant terrestrial cultural resources in either proposed project site.” Delete comma and replace “either” with “the”.
- Page 59, Section 4.4.4, Paragraph 2: Delete the second “long-term”.
- Page 61, Section 4.4.6, Paragraph 4: The third sentence is unclear. Please edit.
- Page 62, Section 4.5.1.1, Paragraph 1, last sentence: Replace “Bell Pass” with “Belle Pass”.

Thank you for the opportunity to review. If you have any questions please don’t hesitate to contact me.

**David Lindquist**

Coastal Resources Scientist  
Environmental Section  
Planning and Project Management Division  
Office of Coastal Protection and Restoration  
David.Lindquist@la.gov  
phone: (225) 342-9683

**Planning Branch**

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 12<sup>th</sup> Floor Chase Tower North • Baton Rouge, Louisiana 70801  
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## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
646 Cajundome Blvd.  
Suite 400  
Lafayette, Louisiana 70506



September 22, 2009

Ms. Cheryl Brodnax  
NOAA  
LSU Sea Grant Building, Room 124C  
Barton Rouge, LA 70803

Dear Ms. Brodnax:

The U.S. Fish and Wildlife Service (Service) has reviewed the National Marine Fisheries Service's (NMFS) draft Environmental Assessment (EA) for the West Belle Pass Barrier Headland Restoration Project (TE-52) located in Lafourche Parish, Louisiana. The preferred alternative plan consists of constructing a 36-acre, 169 foot by 9,200 linear foot dune 6.0 feet (NAVD 88) high with 1.18 M cubic yards of fill material, and restoring approximately 310 acres of saline marsh with 1.9 M cubic yards of material placed in an 1,880 foot-wide by 9,200 foot long area north of the dune. A total of 346 acres of dune and saline marsh will be restored immediately after construction. The Service provides the following comments in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), and the National Environmental Policy Act (83 Stat. 852, as amended; 42 U.S.C. 4321-4347).

### **General Comments**

The EA is well written, comprehensive, and generally accurate in its assessment of impacts to fish and wildlife resources. Specific comments on the EA and information regarding federally listed threatened and endangered species are provided below.

### **Specific Comments**

Page ES-2, First Paragraph – The preferred alternative should be clearly described in this paragraph. Only partial information concerning the preferred alternative's features is presented in this and the following paragraphs. Table 1 (page 11) shows more information concerning the preferred alternative features than any preceding narrative.

Page 5, Paragraph 3, Land Sentence – A borrow area located 9 miles west of the project site will increase dredging costs over that of a borrow area located closer to the project site. We assume that closer borrow sites were investigated. The reason this dune borrow site was selected over one closer should be provided.



Page 8, Figure 2 – The Service agrees that using fill from inside the marsh creation area is a better design than constructing the borrow area outside of the marsh fill area.

Page 11, Table 1 – The table should also show net dune and marsh acres restored in addition to Average Annual Habitat Unit (AAHU) benefits.

Page 18, Last Paragraph, Essential Fish Habitat – The EFH sections and table are well prepared.

Page 27, First Paragraph – We recommend that the first sentence of this paragraph be revised to state that although brown pelicans may nest on barrier islands in the vicinity of the project area, there are no known nesting colonies within 2,000 feet of the project area. We also recommend that the last sentence be revised to state that brown pelicans use the current project area for foraging and roosting only.

Page 27, Second Paragraph – We recommend that this paragraph be revised to state that bald eagles generally utilize bald cypress trees but will nest in mature trees of other species. We also recommend that the last sentence be revised to state that there are no known bald eagle nesting locations within or in the vicinity of the project area due to lack of suitable nesting habitat.

Page 32, Paragraph 3 Bullets – The items listed, except for wetland benefits and costs, are considered subjectively by CWPPRA agencies, but they are no longer included in a formal Prioritization Criteria analysis.

Page 32, Paragraph 4, Last Sentence – The “WVA Team” described consists of the combined Environmental and Engineering Work Groups.

Page 34, Table 6, Net Acres – AAHU values are shown below the column heading, “net acres benefitted”. The heading should be revised to state, “Net AAHU’s benefitted”. Another column should be added that lists net acres benefitted.

Page 38, Table 7, Threatened, Endangered, and Sensitive Species – We recommend that the rationale for impacts to the piping plover and its designated critical habitat include the following statement: “Construction of the proposed project would temporarily affect piping plover critical habitat by depositing new material in intertidal and supratidal areas, which would render those areas unsuitable for foraging until benthic prey species re-colonize the project area.”

Page 53, Paragraph 3, Sentence 2 – The sentence implies that “tidal features” would be constructed after construction, yet there is no description of those features. We would recommend construction of limited fisheries access tidal creeks post construction.

Page 62, Paragraph 6, Sentence 2 – The sentence stating that 1.5 million cubic yards of dredged material has been placed west of Belle Pass seems to contradict the last sentence of Paragraph 7 that states, “The western half of the headland does not receive any dredge disposal, . . .”.

## Endangered Species Comments

As you know, the Service and NMFS share Section 7 ESA consultation responsibilities for federally listed sea turtles and the threatened Gulf sturgeon (*Acipenser oxyrinchus desotoi*). When sea turtles leave the aquatic environment and come onshore to nest, the Service is responsible for consultation. Based upon our records and the information provided in the EA, there are no known sea turtle nesting sites within the project area; therefore, no further consultation with the Service for listed sea turtles is necessary. Based upon the critical habitat designation for Gulf sturgeon, the NMFS is responsible for its own intra-agency consultation for that species; thus, no further consultation with the Service is necessary for the Gulf sturgeon.

According to the EA and our species records, the endangered West Indian manatee (*Trichechus manatus*) rarely occurs along the Louisiana Gulf coast during summer months. In addition, as standard operating procedures, all of NMFS' contractor personnel would follow the standard manatee sighting and avoidance protocol (as described on page 57 of the EA) to further reduce the likelihood of affecting that species. Based upon that information, the Service concurs with the NMFS's determination that the proposed project is not likely to adversely affect the West Indian manatee.

Based on our records, the proposed project would not be located within 2,000 feet of any known nesting colonies of endangered brown pelicans (*Pelecanus occidentalis*). According to the EA, any pelicans foraging and/or roosting in the area would be temporarily displaced to nearby suitable habitat during project construction, but they would benefit from the newly created foraging and roosting habitat throughout the life of the project. Based upon that information, the Service also concurs with the NMFS' determination that the proposed project is not likely to adversely affect the brown pelican.

The EA also provides a discussion of potential project effects to the threatened piping plover (*Charadrius melodus*) on pages 56 and 57 of the document. That section indicates that approximately 75 acres of suitable plover habitat currently exist within the project area (based upon 2008 aerial photography). That section also indicates that human activities on the beach during construction of the dune and beach portions of the project would temporarily (approximately 5 months) displace piping plovers to nearby suitable habitat areas and placement of sand fill would smother benthic prey communities within that portion of the project area. The NMFS anticipates that benthic prey communities on the Gulf side of the project area would naturally recover while project work on the bay side of the project area would continue. Based upon their calculations, the NMFS expects that piping plovers would be able to resume foraging and roosting within that portion of the project area once the newly created dune area is planted and sand fencing is installed. Because those effects would be temporary, insignificant, and discountable, the Service concurs with the NMFS' determination that the proposed project is not likely to adversely affect the piping plover.

The EA does not, however, provide an adequate discussion of project effects to designated critical habitat for the piping plover. Although the EA states that approximately 75 acres of suitable plover habitat currently exist within the project area and that an additional 69 AAHU of

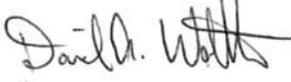
barrier headland would be created, it does not provide an analysis of project effects to the primary constituent elements of existing critical habitat and whether the proposed project is, or is not, likely to adversely affect those elements. Tables 9 and 10 discuss total project benefits in terms of acres and AAHUs, respectively; however, the Service is unable to use those numbers to determine acres of impacts and/or benefits to critical habitat because the supratidal and intertidal acreages also include marsh (which is not a primary constituent element of piping plover critical habitat). The Service, therefore, recommends that the NMFS contact this office for further consultation regarding their analysis of potential project effects to piping plover critical habitat.

### Summary Comments

The Service concurs with the EA that the preferred plan will have benefits to coastal wetlands and estuarine fish and wildlife resources by reducing shoreline erosion along the West Belle Pass Gulf shoreline and restoring eroded saline marshes. We strongly support implementation of the preferred plan as indicated in the draft EA, especially one in which tidal creeks are implemented post construction for greater fisheries access to the created marsh platform north of the restored dune.

Thank you for the opportunity to provide comments on the above-referenced EA. If your staff has any questions regarding our comments, please have them contact Mr. Darryl Clark (337/291-3111). For specific questions regarding federally listed species and/or Section 7 ESA consultation, please contact Ms. Brigitte Firmin (337/291-3108) of this office.

Sincerely,

  
James F. Boggs  
Supervisor  
Louisiana Field Office

cc: Corps of Engineers, New Orleans, LA  
NMFS, Baton Rouge, LA  
EPA, Dallas, TX  
NRCS, Alexandria, LA  
LA Office of Coastal Protection and Restoration, Baton Rouge, LA  
LA Department of Wildlife and Fisheries, Baton Rouge, LA  
LA Office of Coastal Protection and Restoration, Baton Rouge, LA  
LA Department of Natural Resources (CMD), Baton Rouge, LA

Attachment E: HTRW Review



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
LSU- Louisiana Sea Grant Building, Room 124C  
Baton Rouge, LA 70803

October 2, 2009

To: TE-52 West Belle Pass Barrier Headland Restoration Project File

Cc: Cecelia Linder, CWPPRA Program Officer, NOAA/NMFS  
Kenneth Bahlinger, State Project Manager, LOCPR

From: Cheryl Brodnax, Federal Project Manager, NOAA/NMFS **CB**

Re: Contaminants Screen for the West Belle Pass Barrier Headland Restoration Project (TE-52);  
HTRW analysis

Per Section 6.j of the CWPPRA Standard Operating Procedures, consideration should be made regarding the potential for contaminants to be located on restoration project sites prior to seeking construction funds. This assessment is not meant to be exhaustive, rather is serving as a cursory review that may trigger a more in-depth investigation should the preliminary review indicate a high risk of contaminants. This review was limited to what is available on public databases, in addition to field reconnaissance on the project site. Sample collections or in-depth literature reviews have not been made. The databases screened include:

- Superfund/CERCLIS EPA Superfund information
- Landview/U.S. Census Department
- RCRA Information System
- Toxics Release Inventory
- Emergency Response Notification System (ERNS)
- LA Office of the Governor, Oil Spill Coordinator's Office
- SONRISE database for oil and gas wells and pipelines

All searches of the above databases came up negative for known oil spills, toxic releases, or Superfund sites. Furthermore, the field reconnaissance and databases are showing no active or producing wells within the borrow area or project area.

The project site is located along an undeveloped barrier headland that is currently owned by the State of Louisiana. There are no signs of dumping or contamination, and with the absence of well heads within the project and borrow areas, there is very little likelihood of heavy metal contamination within the dredged sediments. Although there are three pipelines that traverse the project, two are long abandoned and one is located beneath a canal that is not within the excavation footprint of the project.

Considering the hazards information available at this time, and that there is no indication of present or historic contaminated sediments within the project or borrow areas, it is my opinion that further HTRW studies are not warranted.

Attachment F: 303e Approval Request and Overgrazing Determination



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Silver Spring, MD 20910

**OCT 13 2009**

Melanie Goodman  
U.S. Army Corps of Engineers  
New Orleans District Protection and  
Restoration Office, Restoration Branch  
P.O. Box 60267  
New Orleans, LA 70160-0267

Dear Ms. Goodman,

As Lead Agency for the West Belle Pass Barrier Headland Restoration Project (State Project Number TE-52), the National Marine Fisheries Service is requesting approval from the U.S. Army Corps of Engineers in accordance with Section 303(e) of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). Enclosed for your review are a letter from the State's Office of Coastal Protection and Restoration containing information for Section 303(e) approval, including a land rights determination with supporting letter from the State's Land Office and a map showing the general project limits and proximity of pipelines. In addition, we are enclosing the determination from the U.S. Natural Resources Conservation Service that overgrazing is not a problem for the project.

If you have any questions concerning this request and/or any submitted materials, please do not hesitate to contact me at (301)713-0174 X 162 or via email at [cecelia.linder@noaa.gov](mailto:cecelia.linder@noaa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Cecelia Linder".

Cecelia Linder  
NOAA Fisheries CWPPRA Program Manager

Cc: Cheryl Brodnax, NOAA Fisheries  
V.J. Marretta, OCPR  
Kenneth Bahlinger, OCPR

Attachments



Attachment G: NRCS Overgrazing Determination Letter

Oct 13 09 03:59p

NOAA DARRP BATON ROUGE

(225) 578-7926

p.1

**United States Department of Agriculture**



Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

(318) 473-7773  
Fax: (318) 473-7747

---

October 8, 2009

Ms. Cheryl Brodnax  
National Oceanic and Atmospheric Administration  
LSU Sea Grant Building  
Room 124C  
Baton Rouge, Louisiana 70803

Dear Ms. Brodnax:

RE: West Belle Pass Barrier Headland Project (TE-52)

I am in receipt of your request for an overgrazing determination for the West Belle Pass Barrier Headland Project (TE-52). I contacted our local district conservationist and our state rangeland management specialist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Britt Paul".

W. Britt Paul  
Assistant State Conservationist  
for Water Resources and Rural Development

cc: Randolph Joseph, AC, AO, NRCS, Lafayette, LA  
John Boatman, DC, FO, NRCS, Thibodaux, LA  
Johanna Pate, SRMS, SO, NRCS, Alexandria, LA  
John Jurgensen, CE, SO, NRCS, Alexandria, LA

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Attachment H: Cost Estimate Spreadsheet

REQUEST FOR PHASE II APPROVAL

PROJECT: West Belle Pass Barrier Headland Restoration

PPL: 16 Project No. TE-52

Agency: NMFS

Phase I Approval Date: 18-Oct-06

Phase II Approval Date: 20 Jan 2010 (proposed) Const Start: Jun-10

	Original Approved Baseline (100% Level) (Col 1 + Col 2)	Current Approved Baseline (Col 3 + Col 4)	Original Baseline Phase I (100% Level) 1/	Original Baseline Phase II (100% Level) 2/	Current Baseline Phase I 3/	Recommended Baseline Phase II (100% Level) 4/	Recommended Baseline Phase II Incr 1 (100% Level) 5/
Engr & Des	1,806,661	1,806,661	1,806,661		1,806,661		
Lands	42,556	42,556	42,556		42,556		
Fed S&A	860,658	924,577	420,977	439,681	420,977	503,600	503,600
LDNR S&A	860,658	823,857	420,977	439,681	420,977	402,880	402,880
COE Proj Mgmt	-	-					
Phase I	3,192	3,192	3,192		3,192		
Ph II Const Phase	194	1,854		194		1,854	1,854
Ph II Long Term	19,489	31,036		19,489		31,036	3,837
Const Contract	20,486,453	28,273,344		20,486,453		28,273,344	28,273,344
Const S&I	224,793	477,715		224,793		477,715	477,715
Contingency	5,121,613	7,068,336		5,121,613		7,068,336	7,068,336
Monitoring	-	-					
Phase I	-	-					
Ph II Const Phase	-	-					-
Ph II Long Term	-	134,541				134,541	40,145
O&M - State	3,044,502	2,541,318		3,044,502		2,541,318	2,056,214
O&M - Fed	92,978	121,430		92,978		121,430	46,802
<b>Total</b>	<b>32,563,747</b>	<b>42,250,417</b>	<b>2,694,363</b>	<b>29,869,384</b>	<b>2,694,363</b>	<b>39,556,054</b>	<b>38,874,727</b>
<b>Total Project</b>				<b>32,563,747</b>		<b>42,250,417</b>	<b>41,569,090</b>
Percent Over Original Baseline		130%					

Prepared By: Gay Browning/Cheryl Brodnax Date Prepared: 16-Nov-09

NOTES:

# LETTERS OF SUPPORT



P.O. Drawer 5548 • Thibodaux, LA 70302 • Telephone 985.446.8427  
Thibodaux 800.834.8832 Fax 985.446.8459 • Raceland 800.794.3160 Fax 985.537.7707  
www.lafourchegov.org

**Charlotte A. Randolph, Parish President**

**Department of Coastal Energy & Environment**

November 9, 2009

Mr. Tom Holden  
Coastal Wetlands Planning, Protection and Restoration Act  
Technical Committee  
7400 Leake Avenue  
P.O. Box 60267  
New Orleans, LA 70160-0267

Dear Mr. Holden:

On December 2, 2009, the CWPPRA Technical Committee will convene to discuss a number of items, one of those being Phase II Funding for the West Belle Pass Barrier Headland Restoration Project (TE-52). After entertaining a detailed presentation of the project by Cheryl Brodnax of NOAA National Marine Fisheries Service and engaging in a lengthy discussion about this project and its vital importance to our area with Mrs. Brodnax and also with Mr. Kenneth Bahlinger of the Louisiana Office of Coastal Protection and Restoration, the Lafourche Parish Coastal Zone Management Committee has decided to put its full support behind this project and its receiving Phase II Funding for its immediate construction.

The TE-52 West Belle Pass Barrier Headland Restoration Project will rebuild eight thousand, five hundred (8,500) linear feet of barrier headland along Chenier Caminada west of the Belle Pass jetties in lower Lafourche Parish. This area has long experienced heightened shoreline loss and has reached a rapidly deteriorating state due to large tidal inlets and storm damage that impacted the area in 2005 and 2008. The loss of this headland will result in fragile interior marshes becoming the new gulf shoreline, which will increase erosion within the marshes that flank Port Fourchon—an energy hub of vital importance not only to Lafourche Parish and its residents, but to the entire nation, as nearly twenty percent (20%) of the nation’s oil and natural gas comes through this facility.

The project will also build three hundred twenty (320) acres of dune, upland, and intertidal marsh that will close the tidal inlets and prevent breaching of the headland during the project life. Protection of this headland is absolutely critical for reducing the tidal exchange and wave energy that enters Timbalier Bay from the Gulf of Mexico. The loss of barrier islands and headlands reduces estuarine productivity and pushes the natural line of defense back to less stable, inland marshes. We need to restore this barrier headland before it becomes too late to make a difference in this vulnerable area.

The risk to major infrastructure, including Port Fourchon, is catastrophic if the buffering headlands and surrounding marshes are left to deteriorate. After the 2008 storm season, the timeliness and need for this project, as well as for the rest of Chenier Caminada, could not be better demonstrated.

Charlotte A. Randolph	Parish President	Matt Matherne	District 5
Jerry Jones	District 1	Lindel Toups	District 6
Michael Delatte	District 2	Phillip Gouaux	District 7
Louis Richard	District 3	Rodney Doucet	District 8
Joseph “Joe” Fertitta	District 4	Daniel Lorraine	District 9

We, therefore, on behalf of all those affected by this project, strongly urge you to, in turn, give your support to this project and suggest that the Task provide Phase II funding for the West Belle Pass Barrier Headland Restoration Project (TE-52)

Sincerely,



Nicholas P. Matherne  
Director of Coastal Energy & Environment  
Lafourche Parish Government

Ted Falgout  
Lafourche CZM Advisory Committee Chair

Vince Guillory  
Lafourche CZM Advisory Committee

Daniel Lafont  
Lafourche CZM Advisory Committee

Kerry St. Pe  
Lafourche CZM Advisory Committee

Lonnie Rouse  
Lafourche CZM Advisory Committee

Wayne Martin  
Lafourche CZM Advisory Committee

Brent Constranstich  
Lafourche CZM Advisory Committee

David Bourgeois  
Lafourche CZM Advisory Committee

Nicholas Cheramie  
Lafourche CZM Advisory Committee



# Greater Lafourche Port Commission

Port Fourchon ♦ South Lafourche Leonard Miller, Jr. Airport

*"The Gulf's Energy Connection"*

November 23, 2009

Tom Holden, Chair  
CWPPRA Technical Committee  
C/O: Melanie Goodman  
US Army Corps of Engineers  
P.O. Box 60267  
New Orleans, LA 70160

Dear Mr. Holden:

The Greater Lafourche Commission would like to express its full support for funding of the West Belle Pass Barrier Headland Restoration Project (TE-52).

As I am sure you know, this project would not only produce significant environmental benefits, but would serve to help protect a nationally significant energy asset of this country, Port Fourchon. Port Fourchon plays a key role in furnishing this nation with about 18% of its total oil supply. In addition, Belle Pass and the Port accommodate a substantial commercial and recreational fishery.

CWPPRA recognized the threat and significance of West Belle several years ago when it committed to funding the original West Belle Pass Headland Restoration project. Since that time, the project has been able to be re-nourished from maintenance dredging operations in Belle Pass, at little cost to CWPPRA, thus adding uncalculated benefits.

The restoration of the Barrier Headland offers many of the same opportunities that the original project does. The largest is the amount of sand generated by maintenance dredging of Belle Pass, which will serve to help nourish and sustain the project at no additional cost to CWPPRA.

Again, this Commission strongly encourages the funding of this much-needed project, from which multiple benefits will be derived for the region, state and nation.

Sincerely,

Ted M. Falgout  
Executive Director  
Greater Lafourche Port Commission

**Administration Office**  
16829 East Main Street  
P.O. Drawer 490  
Galliano, LA 70354  
(985) 632-6701 phone  
(985) 632-6703 fax

**Seaport Operations**  
108 A.O. Rappelet Road  
Port Fourchon, LA 70357  
(985) 396-2750 phone  
(985) 396-2596 fax

**Airport Operations**  
551 Airport Road  
Galliano, LA 70354  
(985) 632-1118 phone  
(985) 632-6703 fax

[www.portfourchon.com](http://www.portfourchon.com)

CHARLES W. BOUSTANY, JR., MD  
7TH DISTRICT, LOUISIANA



## LAFAYETTE DISTRICT OFFICE:

800 LAFAYETTE STREET  
SUITE 1400  
LAFAYETTE, LA 70501  
(337) 235-6322

## LAKE CHARLES DISTRICT OFFICE:

ONE LAKESHORE DRIVE  
SUITE 1135  
LAKE CHARLES, LA 70629  
(337) 433-1747

**Congress of the United States****House of Representatives****Washington, DC 20515-0304**

November 23, 2009

COMMITTEE ON WAYS AND MEANS  
SUBCOMMITTEES:  
OVERSIGHT, RANKING MEMBER  
INCOME SECURITY AND FAMILY SUPPORT

WASHINGTON, DC OFFICE:  
1117 LONGWORTH HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515  
(202) 225-2031

Dear Technical Committee:

As the Member of Congress representing Southwest Louisiana, I would like to offer my support for the Freshwater Bayou Marsh Creation Project proposed for PPL-19.

This area was damaged by Hurricanes Rita, Gustav and Ike. Currently, Freshwater Bayou threatens to breach into the large interior open water and establish a hydrologic connection that previously did not exist. This project is projected to benefit approximately 401 acres of fresh/intermediate marsh, create/protect 279 net acres, and aid in the preservation of the local economy.

The proposed project would greatly compliment various other coastal protection and restoration projects previously authorized in the region and I respectfully request your full support for the Freshwater Bayou Marsh Creation Project.

Sincerely,

A handwritten signature in black ink, appearing to read "C. W. Boustany, Jr." with a stylized flourish at the end.

Charles W. Boustany, Jr., MD  
Member of Congress

CWBjrm/cs

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**ADDITIONAL AGENDA ITEMS**

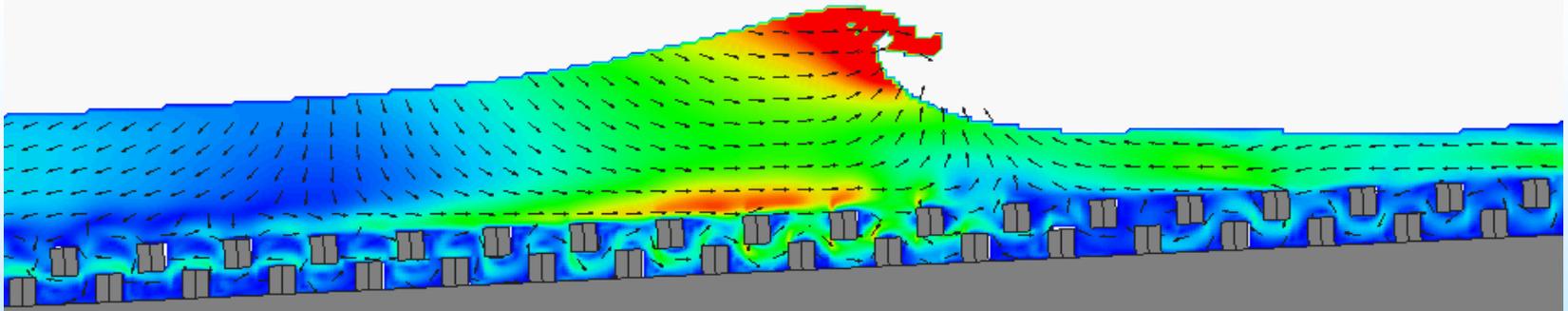
- **Report/Discussion:**

Update on a Potential Change in the Project Scope for the Bio-Engineered Oyster Reef Demonstration Project (LA-08) Due to an Estimated Budget Increase (Richard Hartman, NMFS). Since the September Technical Committee meeting, the NMFS and OCPR have been working to modify the design for the Bio-Engineered Oyster Reef Demonstration Project. The current design is going through engineering work group review so final costs are not yet available. Dr. John Foret will make a presentation on the current status of the engineering and design and the estimated increase in project construction cost. The Technical Committee will have the opportunity to discuss and ask questions at this time. An increase in project costs and construction approval would be requested at a later date.

# Bio-Engineered Oyster Reef Demonstration Project LA-08

CWPPRA Technical Committee Meeting

December 02, 2009



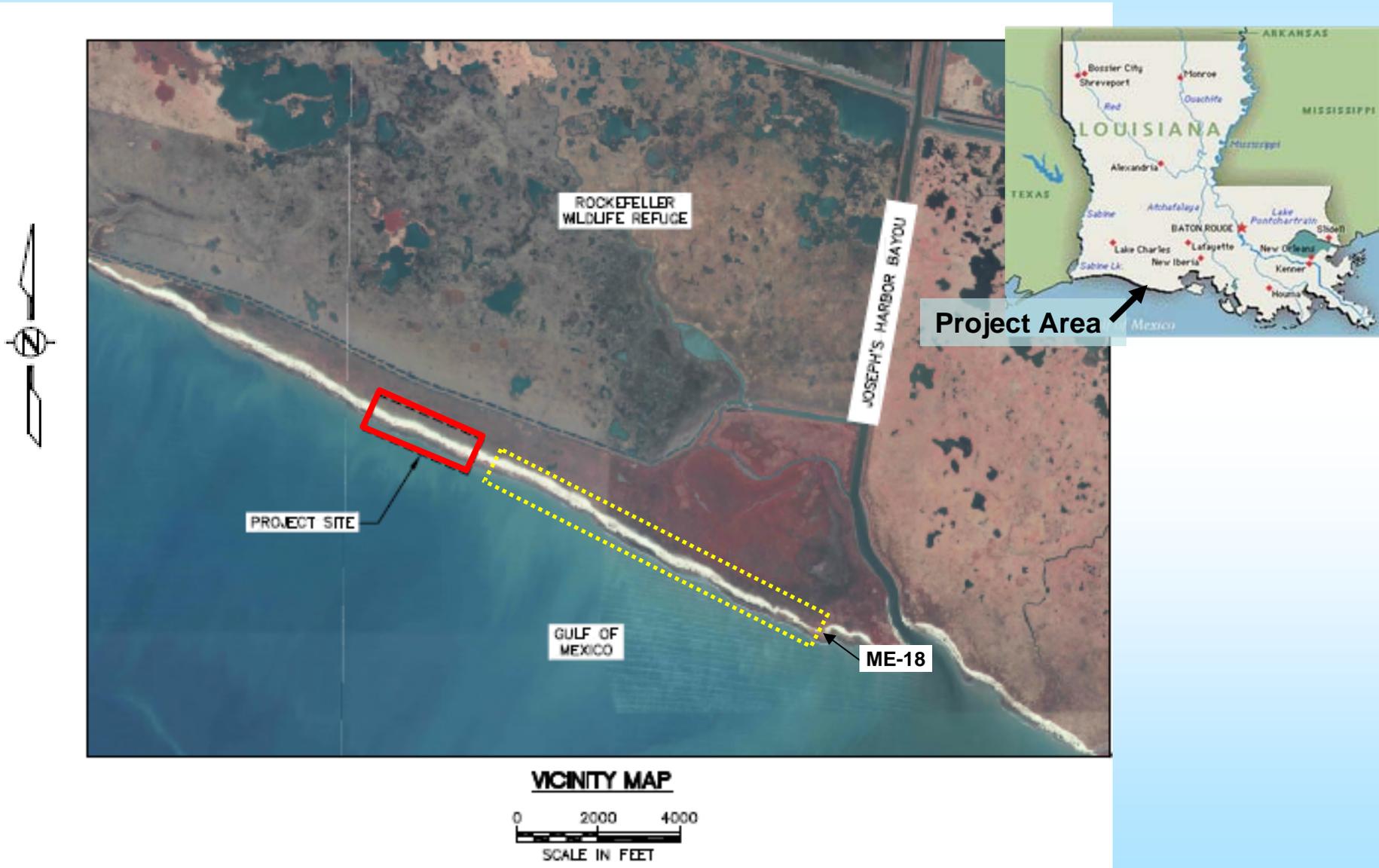
**COAST & HARBOR  
ENGINEERING**

# Project Goals

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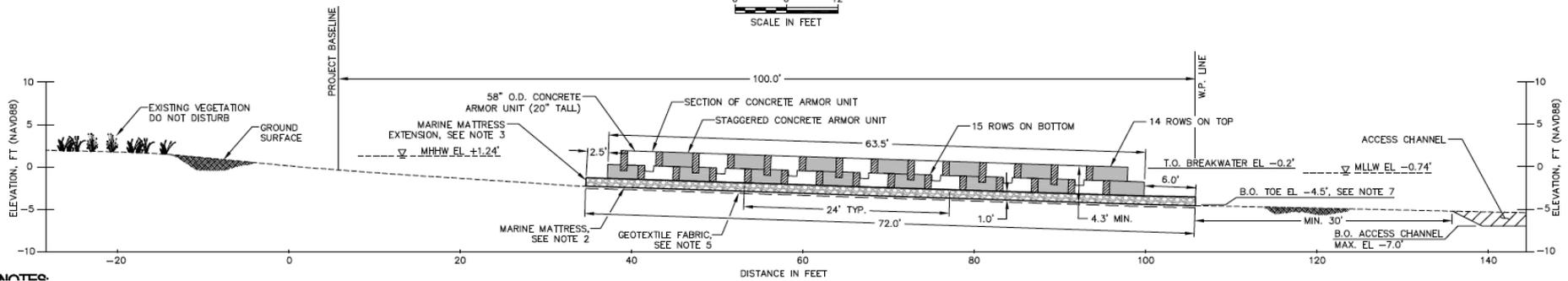
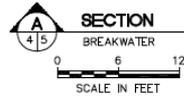
- Evaluate the Oysterbreak™ system's capability to reduce and/or prevent shoreline retreat and wetland loss on the open coast of Louisiana.
- Reduce erosion on open Gulf shorelines with weak (low bearing capacity) soils.
- Compare Oysterbreak™ with Rockefeller CIAP test structures as a restoration technique.
- The structure is designed to enhance nutrient conditions conducive to rapid oyster growth.

# Project Location Selection

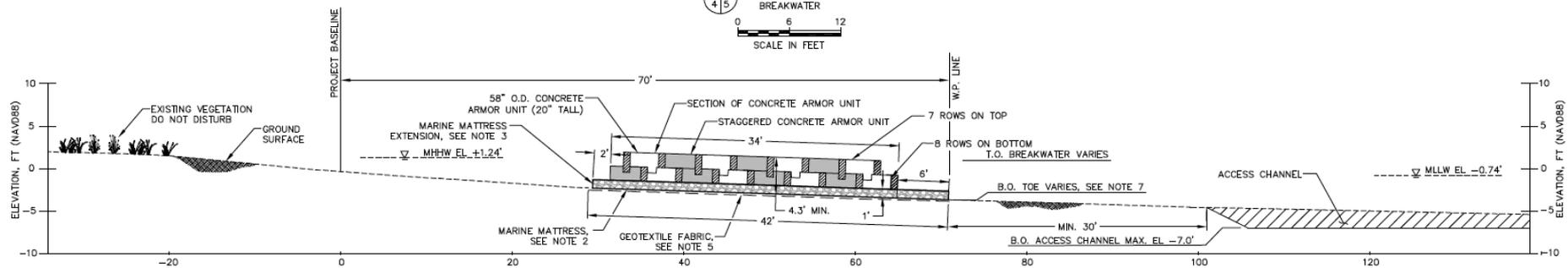
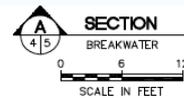


# Design Template

October 2009



December 2009



# Recommended Alternative Preliminary Design Opinion of Probable Cost

Project:	Project Name	Date:	Date	Revised:	11-Sep-09
Computed by:	John D. Foret	Project Priority List 19 <small>(ver.041409)</small>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$100,000	\$100,000
2	Construction Surveys	1	LS	\$50,000.00	\$50,000
3	20" H Oysterbreak Units	3,538	EA	\$325.00	\$1,149,850
4	Transportation of units	3,538	EA	\$60.00	\$212,280
5	Installation	3,538	EA	\$45.00	\$159,210
8	Marine Matress	43,920	SF	\$15.00	\$658,800
9	Navigation Aids	2	EA	\$12,000.00	\$24,000

October  
2009

ESTIMATED CONSTRUCTION COST

\$2,354,140

ESTIMATED CONSTRUCTION + 25% CONTINGENCY

\$2,942,675

Project:	Project Name: Bio-Engineered Oyster Reef-DEMO	Date:	12-Jun-07	Revised:	2-Nov-09
Computed by:	John D. Foret	Project Priority List 17 <small>(ver.051607)</small>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$110,000.00	\$110,000
2	20" Oysterbreak Units	1,832	EA	\$277.00	\$507,464
3	Transportation of Units	1,832	EA	\$60.00	\$109,920
4	Deployment of 1,832 concrete rings	1	LS	\$82,400.00	\$82,400
5	Navigation Aids	2	EA	\$10,000.00	\$20,000
6	Marine Matress	25,620	SF	\$15.00	\$384,300
					\$0

December  
2009

ESTIMATED CONSTRUCTION COST

\$1,214,084

ESTIMATED CONSTRUCTION + 25% CONTINGENCY

\$1,517,605

## Wandell, Scott F MVN

---

**From:** Goodman, Melanie L MVN  
**Sent:** Monday, November 23, 2009 1:15 PM  
**To:** (Cecelia.Linder@noaa.gov); britt.paul@la.usda.gov; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Darryl Clark; Goodman, Melanie L MVN; Holden, Thomas A MVN; Kaspar.Paul@epamail.epa.gov; Kinsey, Mary V MVN; kirk.rhinehart@la.gov; Richard.Hartman@noaa.gov; Teague.Kenneth@epamail.epa.gov; Wandell, Scott F MVN; Wingate, Mark R MVN; (Chris.Allen@LA.GOV); Bren Haas (Bren.Haase@LA.GOV); Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); John Jurgensen; Kelley.Templet@LA.GOV; Kevin\_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@la.gov  
**Cc:** 'John.Foret@noaa.gov'  
**Subject:** CWPPRA Technical Committee Dec 2 Meeting additional agenda item - Bio-Engineered Oyster Reef Demonstration Project

**Follow Up Flag:** Follow up  
**Flag Status:** Red

**Attachments:** LA-08 Details.doc



LA-08 Details.doc  
(92 KB)

Technical Committee, we will be adding the subject and below request report/discussion to the agenda. Please see the attached, which will be included as binder materials.

Thanks,

Melanie

-----Original Message-----

**From:** Cecelia.Linder [mailto:Cecelia.Linder@noaa.gov]  
**Sent:** Thursday, November 19, 2009 12:19 PM  
**To:** Goodman, Melanie L MVN  
**Cc:** John Foret; Richard Hartman  
**Subject:** additional agenda item

Melanie-

Can we still add this item to the agenda for the December 2 Tech Committee meeting?:

Report/Discussion: Update on a Potential Change in the Project Scope for the Bio-Engineered Oyster Reef Demonstration Project (LA-08) Due to an Estimated Budget Increase (Richard Hartman, NMFS) Since the September Technical Committee meeting, the NMFS and OCPD have been working to modify the design for the Bio-Engineered Oyster Reef Demonstration Project. The current design is going through engineering work group review so final numbers are not yet available. Dr. John Foret will make a presentation on the current status of the engineering and design and the estimated increase in project construction cost. The Technical Committee will have the opportunity to discuss and ask questions at this time. An increase in project costs and construction approval would be requested at a later date.

Also, in case people wanted something solid, the attached could be used as "binder materials" - not sure if it is formal enough but I wanted to get you something before you had to send stuff out.

Call me at (240) 535-2334 if there are any issues.

Cece

	Goals	Performance Criteria	Features	Construction Cost +25%
As Funded	Evaluate the proposed technique as a cost effective technique for protecting areas of Coastal Louisiana's Gulf of Mexico Shoreline with poor load bearing capacities.	Shoreline movement monitored for 4 years post construction.	1,000 LF, or approximately 3,600 concrete units placed at the -3' contour on geo-grid, stacked to approximately mean Gulf.	\$1,249,875
September TC	Evaluate the Oysterbreak system to reduce or prevent shoreline retreat and wetland loss on the open coast of LA Reduce erosion on Open Gulf shoreline with weak soils Compare Oyster break section to CIAP test structures.	<u>Design Criteria:</u> Survive Cat 1 (10 yr storm) with less than 10% damage. <u>Performance:</u> Provide <b>at least 50% reduction in wave height</b> at average conditions, 1-yr, and 2-yr storms. Project monitored for 5 years.	2 structures 300 ft long with 145 ft gap, or approximately 3,838 concrete rings. Each structure is <b>67.5 ft wide</b> with a crest elevation of -0.2 ft NAVD88	\$2,942,675
Final	Evaluate the Oysterbreak system to reduce or prevent shoreline retreat and wetland loss on the open coast of LA Reduce erosion on Open Gulf shoreline with weak soils Compare Oyster break section to CIAP test structures.	<u>Design Criteria:</u> Survive Cat 1 (10 yr storm) with less than 10% damage. <u>Performance:</u> Provide <b>at least 45% reduction in wave height</b> at average conditions, 1-yr, and 2-yr storms. Project monitored for 5 years.	2 structures 300 ft long with 145 ft gap, or approximately 1,832 concrete units Each structure is <b>35 ft wide</b> with a crest elevation of -0.2 ft NAVD88	\$1,555,100

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**REQUEST FOR PUBLIC COMMENTS**

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**ANNOUNCEMENT: PRIORITY PROJECT LIST 20 REGIONAL PLANNING  
TEAM MEETINGS**

January 26, 2010	1:00 p.m.	Region IV Planning Team Meeting	Rockefeller Refuge
January 27, 2010	9:30 a.m.	Region III Planning Team Meeting	Houma
January 28, 2010	9:30 a.m.	Region II Planning Team Meeting	New Orleans
January 28, 2010	1:00 p.m.	Region I Planning Team Meeting	New Orleans
February 24, 2010	10:00 a.m.	RPT Voting Meeting	Baton Rouge

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**ANNOUNCEMENT: DATE OF UPCOMING CWPPRA PROGRAM MEETING**

The Task Force meeting will be held January 20, 2010 at 9:30 a.m. at the U.S. Army Corps of Engineers, 7400 Leake Ave., New Orleans, Louisiana in the District Assembly Room (DARM).

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 2, 2009

**ANNOUNCEMENT: SCHEDULED DATES OF FUTURE PROGRAM MEETINGS**

**2010**

January 20, 2010	9:30 a.m.	Task Force	New Orleans
January 26, 2010	1:00 p.m.	Region IV Planning Team Meeting	Rockefeller Refuge
January 27, 2010	9:30 a.m.	Region III Planning Team Meeting	Houma
January 28, 2010	9:30 a.m.	Region II Planning Team Meeting	New Orleans
January 28, 2010	1:00 p.m.	Region I Planning Team Meeting	New Orleans
February 24, 2010	10:00 a.m.	RPT Voting Meeting	Baton Rouge
April 14, 2010	9:30 a.m.	Technical Committee	New Orleans
June 2, 2010	9:30 a.m.	Task Force	Lafayette
September 22, 2010	9:30 a.m.	Technical Committee	Baton Rouge
October 27, 2010	9:30 a.m.	Task Force	New Orleans
November 16, 2010	7:00 p.m.	PPL 20 Public Meeting	Abbeville
November 17, 2010	7:00 p.m.	PPL 20 Public Meeting	New Orleans
December 1, 2010	9:30 a.m.	Technical Committee	Baton Rouge