



ATTENDANCE RECORD



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|--|---|---|
| DATE(S) April 16, 2013 9:30 A.M. | SPONSORING ORGANIZATION COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT | LOCATION District Assembly Room 7400 Leake Avenue New Orleans, Louisiana |
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PURPOSE

MEETING OF THE CWPPRA TECHNICAL COMMITTEE

PARTICIPANT REGISTER*

| NAME | JOB TITLE AND ORGANIZATION | PHONE NUMBER |
|-------------------|--|-------------------|
| Scott Euskis | Coastal Wetland Specialist, Gulf Restoration Network | 504-525-1528 x212 |
| Ordie Smith | Conoco Phillips | 985-853-3018 |
| Ken Teague | EPA | 214-665-6687 |
| Jeffery Penn | CBI | 985-868-3434 |
| Hilary Thibodeaux | CBI | 985-868-3434 |
| Rick Harkman | NOAA | |
| Cece Linder | NOAA | 301-427-8675 |
| Randy Moertle | E.A. McIlhenny Enterprises | (985) 856-3630 |
| Dona Weifenbach | MPRA | 837-482-0688 |
| Anne Watkins | URS | 504-218-0923 |
| RYAN BOURRIAGUE | Cameron Parish Police Jury | 337-775-5718 |
| Rica Canik | CAMERON PARISH POLICE JURY | 331-775-5718 |
| ARCHIE CHAISSON | LAFOUCHE PARISH CIVIL | 985-446-8427 |
| Vickie Dufhem | Jefferson Parish (CBI) | 504-236-4811 |
| Amanda Penick | Lafourche Parish Civil | 985-632-4066 |
| Larelynn Perry | Science Director, CRCL | 225-767-4181 |
| Christine Kimble | Coastal Manager PPC | 504.912.5973 |
| J. Bryan L. Clark | USFWS | 337-291-3111 |
| Stratford Goins | Tidal Solutions | 601-467-3000 |
| Mauletta Greene | Madison Land | 504-454-0707 |
| Deirdre W. Smith | Madison Land | 678-403-1454 |
| Alton James Jr | USFWS NPCC | 985 752162 x 3 |

* If you wish to be furnished a copy of the attendance record, please indicate so next to your name.



ATTENDANCE RECORD



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PURPOSE MEETING OF THE CWPPRA TECHNICAL COMMITTEE

PARTICIPANT REGISTER*

| NAME | JOB TITLE AND ORGANIZATION | PHONE NUMBER |
|--------------------|--|----------------|
| Michael C. Knudsen | Special Projects, Port of New Orleans | 705 384 0850 |
| JOHN FORET | NOAA FISHERIES | 337.291.2107 |
| Phillip Parker | NOAA Fisheries | 225-578-9311 |
| Mel Landry | NOAA Restoration Center | 225-578-7667 |
| Nedra Davis | ATKINS | 225 333 8234 |
| R. H. HAN | PPG | 504-297-5631 |
| Corey Miller | CRCL | 504 494 0431 |
| Dennis Lambert | Ben C Gerwick | 504 206 7665 |
| MIKE O'SULLIVAN | BEN C. GERWICK | 510-267-7128 |
| Bryan Kemp | Gulf CCR | 225-665-2825 |
| Julie Kemp | Gulf CCR | " " " " |
| Martin O. Miller | Rellin Surface Mgt, LLC ^{Miller Estate} | (504) 616-5700 |
| JOHN PETTIBON | FOE | 504-862-2732 |
| Kelli Snyper | Nucleus Unlimited | 985-209-3270 |
| MORGAN CRUTCHER | CRCL | 504, 638-5777 |
| William McCartney | St. Bernard Parish | 504 442 2426 |
| Scott Wilson | USGS | 337 268 8644 |
| Karen McCormick | EPA | 214-665-8365 |
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* If you wish to be furnished a copy of the attendance record, please indicate so next to your name.

CWPPRA

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT TECHNICAL COMMITTEE MEETING

AGENDA

April 16, 2013, 9:30 a.m.

Location:

U.S. Army Corps of Engineers Office
District Assembly Room (DARM)
7400 Leake Avenue
New Orleans, Louisiana

Documentation of Technical Committee meetings may be found at:

<http://www.mvn.usace.army.mil/Missions/Environmental/CWPPRA.aspx>

Please note new link. Bookmarks to old link will no longer work

Tab Number

Agenda Item

- 1. Meeting Initiation 9:30 a.m. to 9:40 a.m.**
 - a. Introduction of Technical Committee or Alternates
 - b. Opening remarks of Technical Committee Members
 - c. Request for Agenda Changes/Additional Agenda Items/Adoption of Agenda
- 2. Report: Status of CWPPRA Program Funds and Projects (Susan Mabry, USACE) 9:40 a.m. to 9:55 a.m.** Ms. Susan Mabry will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.
- 3. Decision: Selection of Ten Candidate Projects and up to Three Demonstration Projects to Evaluate for PPL 23 (Kevin Roy, USFWS) 9:55 a.m. to 10:40 a.m.** The Technical Committee will consider preliminary costs and benefits of the 23rd Priority Project List (PPL) project and demonstration project nominees listed below. The Technical Committee will select 10 projects and may select up to 3 demonstration projects as PPL 23 candidates to be evaluated for Phase 0 analysis, which will be considered later for final selection of projects that will be approved for Phase I (Planning and Engineering and Design).

| Region | Basin | PPL 23 Nominees |
|--------|---------------|---|
| 1 | Pontchartrain | Shell Beach Marsh Creation |
| 1 | Pontchartrain | New Orleans Landbridge Shoreline Stabilization & Marsh Creation |
| 1 | Pontchartrain | Shell Beach Marsh Creation & Nourishment |
| 2 | Breton Sound | Marsh Creation South of Lake Lery |
| 2 | Barataria | Bayou Dupont Sediment Delivery – Marsh Creation 4 |
| 2 | Barataria | Caminada Headlands Back Barrier Marsh Creation |
| 2 | Barataria | Wilkinson Canal Marsh Creation & Nourishment |
| 2 | Barataria | Bayou Grand Cheniere Marsh & Ridge Restoration |

| | | |
|---|------------------|--|
| 3 | Terrebonne | Island Road Marsh Creation & Nourishment |
| 3 | Terrebonne | Terrebonne Bay Shoreline Protection via Oyster Reef Construction |
| 3 | Terrebonne | Grand Bayou Freshwater Enhancement |
| 3 | Terrebonne | Bayou Terrebonne Ridge Restoration & Marsh Creation |
| 3 | Teche-Vermilion | Southwest Pass Shoreline Protection |
| 3 | Teche-Vermilion | North Marsh Island Shoreline Protection |
| 4 | Calcasieu-Sabine | East Holly Beach Gulf Shoreline Protection |
| 4 | Calcasieu-Sabine | West Cove Marsh Creation & Nourishment |
| 4 | Mermentau | Southeast Pecan Island Marsh Creation & Freshwater Diversion |
| 4 | Mermentau | South Grand Chenier Marsh Creation – Baker Tract |

| PPL 23 Demonstration Project Nominees | |
|---------------------------------------|---|
| DEMO | Artificial Seagrass Bed Shoreline Protection & Sediment Trapping |
| DEMO | Use of Bioengineering Techniques to Strengthen Previously Stabilized Shorelines & Banks |
| DEMO | Stabilized Soil Shorelines |

- 4. Decision: FY14 Planning Budget Approval, including the PPL 24 Process, and Presentation of FY14 Outreach Budget (Process, Size, Funding, etc.) (Brad Inman, USACE) 10:40 a.m. to 11:00 a.m.** The P&E Subcommittee will present their recommended FY14 Planning Program Budget development, including the PPL 24 Process.
- The Technical Committee will vote on a recommendation to the Task Force to approve that the PPL 24 Process Standard Operating Procedures include selecting four nominees in the Barataria and Terrebonne Basins; three projects in the Breton Sound and Pontchartrain Basins; two nominees in the Mermentau, Calcasieu/Sabine, and Tech/Vermilion Basins; and one nominee will be selected in the Atchafalaya Basin.
 - The Technical Committee will vote on a recommendation to the Task Force to approve the FY14 Outreach Committee Budget, in the amount of \$445,800.
 - The Technical Committee will vote on a recommendation to the Task Force to approve the FY14 Planning Budget, in the amount of \$5,070,838.
- 5. Report/Decision: 20-Year Life Decision Matrix (John Jurgensen, NRCS) 11:00 a.m. to 11:15 a.m.** At the January 23, 2013 20-Year Life (20YL) Workshop, the Task Force directed the P&E Subcommittee to develop a decision matrix to assess project closeout activities. The Technical Committee and P&E Subcommittee have evaluated and discussed the first two projects nearing their 20-year lives as well as other projects to demonstrate that the matrix can be used for all four of the different 20YL options: extension of project life, close out, transfer of responsibility, and close out with removal of features. The Technical Committee will vote on a recommendation to the Task Force on the path forward for the Bayou LaBranche Wetland Creation (PO-17) and Cameron Prairie National Wildlife Refuge (ME-09) projects.
- Request for Monitoring Funding and Budget Increase (Scott Wandell, USACE)** The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the request for Bayou LaBranche Wetland Creation (PO-17), PPL-1, USACE:
 - Budget Increase Amount: \$138,227
 - Funding Amount: \$138,227

- 6. Report: Final Report on the Enhancement of Barrier Island Vegetation Demonstration (TE-53) (Dr. Mark Hester, ULL) 11:15 a.m. to 11:30 a.m.** Dr. Mark Hester will provide a final report on the Enhancement of Barrier Island Vegetation Demonstration (TE-53).
- 7. Report: Coastwide Reference Monitoring System (CRMS) Report (Dona Weifenbach, CPRA) 11:30 a.m. to 11:45 a.m.** Ms. Dona Weifenbach will provide a report on CRMS.
- 8. Decision: Request for a Change in Scope and Name for the PPL 10 – Mississippi River Reintroduction Into Northwestern Barataria Basin Project (BA-34) (Ken Teague, EPA) 11:45 a.m. to 12:00 p.m.** The Environmental Protection Agency (EPA) and the Coastal Protection and Restoration Authority (CPRA) request approval for a change in project scope and name for the Mississippi River Reintroduction Into Northwestern Barataria Basin project (BA-34). We propose to change the scope of the project by eliminating the siphon, due to limited ability to reintroduce Mississippi River water at reasonable cost (i.e. high cost, small flows). Instead, we propose focusing on restoring hydrology within part of the original approved project area (impounded) by gapping spoil banks and installing culverts, which would be highly cost-effective. We propose to change the project name to Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp (BA-34-2). The Technical Committee will vote on a recommendation to the Task Force to approve the scope and name change.
- 9. Decision: Request for a Change in Scope for the PPL 10 – Rockefeller Refuge Gulf Shoreline Stabilization Project (ME-18) (John Foret, NMFS) 12:00 p.m. to 12:15 p.m.** The National Marine Fisheries Service (NMFS) and CPRA request a project scope change to proceed with the design to 30% and 95% for the Rockefeller Refuge Gulf Shoreline Stabilization project (ME-18). The NMFS and CPRA are proposing to scale down the project from 9.2 miles to 2.0 miles. The net acres protected are estimated as 198 acres, while the original concept was targeting 920 net acres protected. The NMFS and CPRA also request a fully funded cost estimate decrease from the original \$95,988,680 to an estimated \$28,082,507. In 2009, the NMFS de-obligated \$877,476 Phase 1 funds. If the change of scope is approved by the Technical Committee and the Task Force, the NMFS and CPRA are requesting that \$502,842 of the project's de-obligated funds be returned to complete the project design.
- 10. Decision: Request for Approval for Final Deauthorization on the PPL 9 – Weeks Bay Marsh Creation/Shoreline Protection/Commercial Canal/Freshwater Redirection Project (TV-19) (Stuart Brown, CPRA; Hilary Thibodeaux, CB&I) 12:15 p.m. to 12:30 p.m.** The USACE and CPRA are requesting approval for final deauthorization procedures on the Weeks Bay Marsh Creation/Shoreline Protection/Commercial Canal/Freshwater Redirection project (TV-19). The Task Force voted to initiate deauthorization at the October 11, 2012 meeting, allowing the project team to give a presentation about the project changes at the January 24, 2013 meeting, and making a final decision at the June meeting. Mr. Stuart Brown will provide a presentation on Weeks Bay, followed by a presentation by Mr. Hilary Thibodeaux. The Technical Committee will vote on a recommendation to the Task Force to approve the final deauthorization of the Weeks Bay Project.

11. Decision: Request for Approval for Final Deauthorization on six projects (Bren Haase, CPRA) 12:30 p.m. to 12:40 p.m. CPRA is requesting approval for final deauthorization procedures on the six projects listed below. These projects face technical implementation issues, have an unfavorable benefit-to-cost ratio, or have languished for an extended period. The Technical Committee will vote on a recommendation to the Task Force to approve the final deauthorization of the following six projects:

- a. Freshwater Bayou Bank Stabilization (TV-11b), PPL 9, USACE
- b. Delta Building Diversion North of Fort St. Philip (BS-10), PPL 10, USACE
- c. Avoca Island Diversion and Land Building (TE-49), PPL 12, USACE
- d. Spanish Pass Diversion (MR-14), PPL 13, USACE
- e. White Ditch Resurrection (BS-12), PPL 14, NRCS
- f. Bohemia Mississippi River Reintroduction (BS-15), PPL 17, EPA

12. Additional Agenda Items (Brad Inman, USACE) 12:40 p.m. to 12:45 p.m.

13. Request for Public Comments (Brad Inman, USACE) 12:45 p.m. to 12:50 p.m.

14. Announcement: Date of Upcoming CWPPRA Program Meeting (Brad Inman, USACE) 12:50 p.m. to 12:55 p.m. The Task Force meeting will be held June 4, 2013 at 9:30 a.m. at the Estuarine Fisheries and Habitat Center, 646 Cajundome Blvd., Lafayette, Louisiana.

15. Announcement: Scheduled Dates of Future Program Meetings (Brad Inman, USACE) 12:55 p.m. to 1:00 p.m.

2013

| | | | |
|--------------------|-----------|-------------------------------|-------------|
| June 4, 2013 | 9:30 a.m. | Task Force | Lafayette |
| September 11, 2013 | 9:30 a.m. | Technical Committee | Baton Rouge |
| October 10, 2013 | 9:30 a.m. | Task Force | New Orleans |
| November 13, 2013 | 7:00 p.m. | PPL 23 Public Comment Meeting | Baton Rouge |
| December 12, 2013 | 9:30 a.m. | Technical Committee Meeting | Baton Rouge |

16. Decision: Adjourn

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

MEETING INITIATION

- a. Introduction of Technical Committee or Alternates
- b. Opening remarks of Technical Committee Members
- c. Request for Agenda Changes/Additional Agenda Items/Adoption of Agenda

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

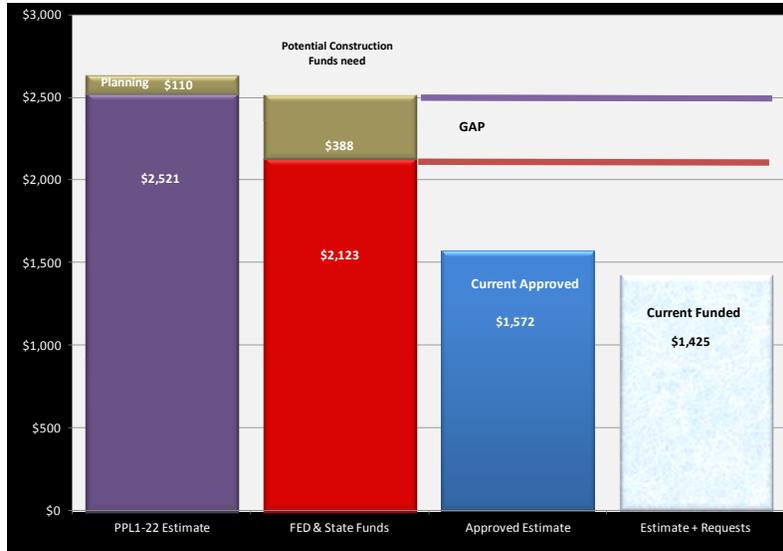
APRIL 16, 2013

STATUS OF CWPPRA PROGRAM FUNDS AND PROJECTS

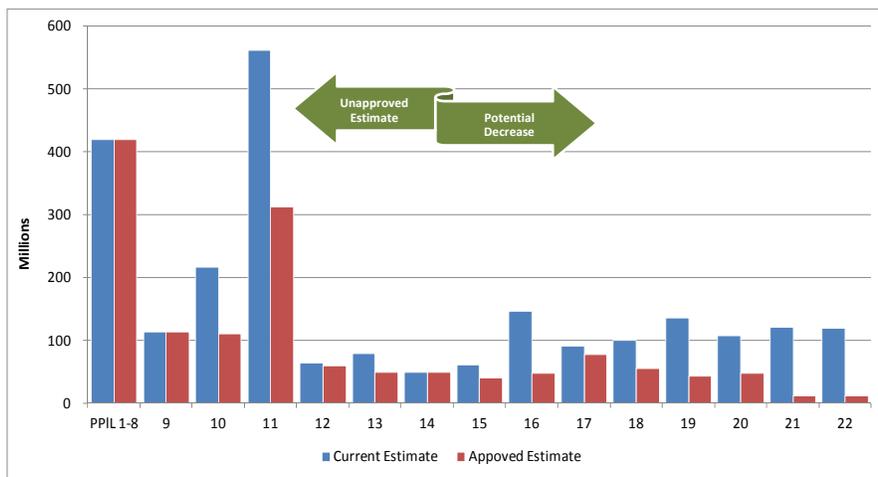
For Report:

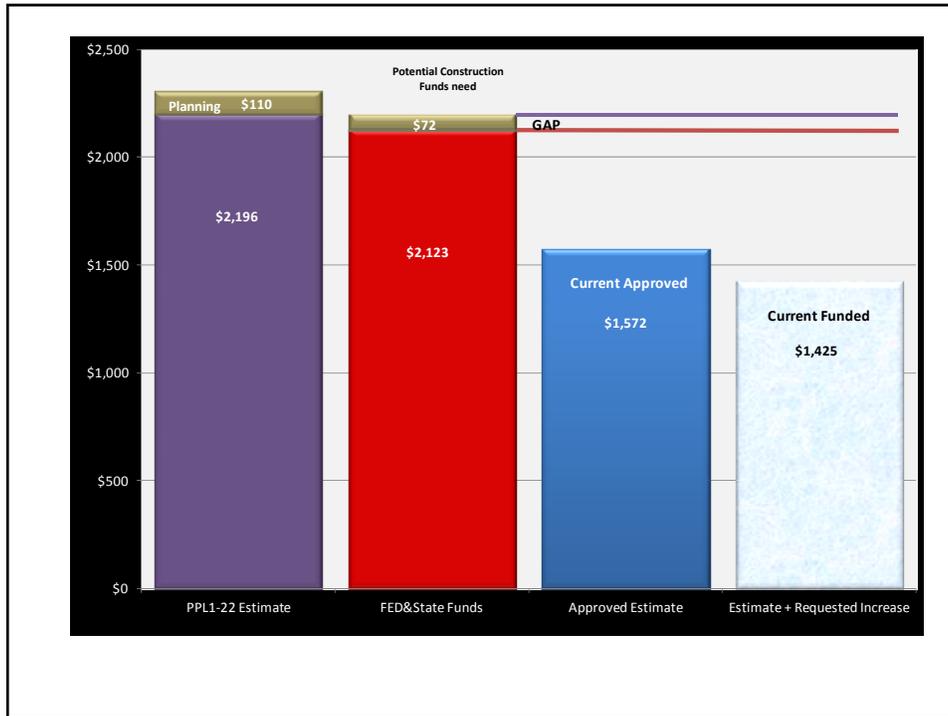
Ms. Susan Mabry will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.

CONSTRUCTION PROGRAM



Potential Program Cleanup





| Construction Program Funding Requests for 16 April 2013 Tech Committee Recommendation | | | | | | 4/16/2013 |
|--|------------------------------|---------------------------|-----|-----------------------|--|----------------------|
| | FY13 Estimate Program Status | CURRENT FUNDING & Request | Fed | Non-Fed | | |
| | TC1 | TC1 | | | | |
| 1. Funds Available: | | | | | | |
| Funds Available as of January 2013 were \$0,390,423 | | | | | | |
| Estimated amount to return to program reported was \$16,553,065 | | | | | | |
| After further review, ACTUAL amount to return to the program is \$7,653,237, with the difference being \$8,720,328 making available funds \$874,365 shown here | | | | | | |
| Requestation adjustment to FY13 FEDERAL DOI allocations (4% of the President's budget) | \$2,621,003,415 | (\$74,365) | | (\$573,210) | | (\$101,155) |
| After further review it was found that some funding requests were not recorded and were not accounted for in January. (Data entry error) | | (\$4,149,100) | | (\$4,149,100) | | \$0 |
| | | (\$900,821) | | (\$8,466,701) | | (\$1,494,124) |
| Total | \$2,621,003,415 | (\$14,774,295) | | (\$13,189,611) | | (\$1,685,279) |
| 2. Agenda Item 8: April 2013 - Request for a Change in Scope and Name: | | | | | | |
| MS River Remediation into NW Barataria Basin (BA-34) PPL 10 EPA | \$0 | \$0 | | \$0 | | \$0 |
| Total | \$0 | \$0 | | \$0 | | \$0 |
| 3. Agenda Item 9: April 2013 - Request for a Change in Scope: | | | | | | |
| Rocketfeller Refuge Gulf Shoreline Stabilization Project (ME-18) NMFS | (\$67,073,000) | \$0 | | \$0 | | \$0 |
| Total | (\$67,073,000) | \$0 | | \$0 | | \$0 |
| 4. Agenda Item 10: April 2013 - Request Approval for Final Deauthorization: | | | | | | |
| Woods Bay Marsh Creation (TV-10) PPL 9 COE | (\$1,229,337) | \$0 | | \$0 | | \$0 |
| Total | (\$1,229,337) | \$0 | | \$0 | | \$0 |
| 5. Agenda Item 11: April 2013 - Request for Approval for Final Deauthorization: | | | | | | |
| Freshwater Bayou Bank Stabilization (TY-11a) PPL 9 USACE | \$0 | \$0 | | \$0 | | \$0 |
| Accounted for and financially closed in Dec. 2012 | | | | | | |
| Delta Building Diversion North of Fort St. Philip (DS-10) PPL 10 USACE | \$0 | \$0 | | \$0 | | \$0 |
| Accounted for and financially closed in Dec. 2012 | | | | | | |
| Avoca Island Diversion and Land Building (TE-49) PPL 12 USACE | \$0 | \$0 | | \$0 | | \$0 |
| Accounted for and financially closed in Dec. 2012 | | | | | | |
| Spanish Pass Diversion (MR-14) PPL 13 USACE | \$0 | \$0 | | \$0 | | \$0 |
| Accounted for and financially closed in Dec. 2012 | | | | | | |
| Whip Ditch Resurrection (BS-12) PPL 14 NRC-S | (\$657,847) | (\$67,847) | | (\$550,170) | | (\$98,077) |
| Stennis Mississippi River Remediation (BS-15) PPL 17 EPA | (\$1,183,313) | (\$1,183,313) | | (\$1,005,610) | | (\$177,497) |
| Total | (\$1,841,160) | (\$1,841,160) | | (\$1,555,780) | | (\$276,174) |
| (1) Funds Available for Recommendations | | | | | | |
| | \$2,621,003,415 | (\$14,774,295) | | | | |
| (8, 9 & 11) Proposed | (\$68,915,083) | (\$1,841,160) | | | | |
| Total Proposed Estimate | \$2,452,088,332 | (\$12,843,135) | | | | |
| Approved Recommendations | \$0 | \$0 | | | | |
| Available Funds Surplus/(Shortage) | \$2,452,088,332 | (\$14,774,295) | | | | |

| FY14 Planning Program Budget Recommendation for 4 June 2013 Task Force Approval | | |
|--|----------------------|------------|
| | Total Request | TC? |
| Funds Available: | | |
| Funds Available January 2013: | \$390,025 | |
| FY14 Planning Program Funding | \$5,000,000 | |
| Funds Available: | \$5,390,025 | |
| Agenda Item 4: FY14 - Planning Budget (and Outreach Budget) Request Approval: | | |
| Technical Committee Recommended FY14 Planning Budget | \$4,618,438 | |
| Outreach Committee Recommended FY14 Budget | \$445,800 | |
| | | |
| Total | \$5,064,238 | |
| Total Remaining Funds in CWPPRA Planning Program | | |
| | \$325,787 | |

Construction Program Funding Requests for 16 April 2013 Tech Committee Recommendation

4/15/2013

| | FY13 Estimate Program Status | TC? | CURRENT FUNDING & Request | TC? | Fed | Non-Fed |
|--|---------------------------------|-----|---------------------------------|-----|-----------------------|----------------------|
| 1. Funds Available: | | | | | | |
| Funds Available as of January 2013 were \$8,055,423. Estimated amount to return to program reported was \$16,553,065. After further review, ACTUAL amount to return to the program is \$7,823,277, with the difference being \$8,729,788 making available funds (\$674,365) shown here. | \$2,521,003,415 | | (674,365) | | (\$573,210) | (\$101,155) |
| Sequestration adjustment to FY13 FEDERAL DOI allocations (4.9% of the President's budget.) | | | (4,149,105) | | (\$4,149,105) | \$0 |
| After further review it was found that some funding requests were not recorded and were not accounted for in January. (Data entry error) | | | (9,960,825) | | (\$8,466,701) | (\$1,494,124) |
| Total | \$2,521,003,415 | | (\$14,784,295) | | (\$13,189,017) | (\$1,595,279) |
| 2. Agenda Item 8: April 2013 - Request for a Change in Scope and Name: | | | | | | |
| MS River Reintroduction Into NW Barataria Basin (BA-34) PPL 10 EPA | \$0 | | \$0 | | \$0 | \$0 |
| Total | \$0 | | \$0 | | \$0 | \$0 |
| 3. Agenda Item 9: April 2013 - Request for a Change in Scope: | | | | | | |
| Rockefeller Refuge Gulf Shoreline Stabilization Project (ME-18) NMFS | (\$67,073,923) | | \$0 | | \$0 | \$0 |
| Total | (\$67,073,923) | | \$0 | | \$0 | \$0 |
| 4. Agenda Item 10: April 2013 - Request Approval for Final Deauthorization: | | | | | | |
| Weeks Bay Marsh Creation (TV-19) PPL 9 COE | (\$1,229,337) | | \$0 | | \$0 | \$0 |
| Total | (\$1,229,337) | | \$0 | | \$0 | \$0 |
| 5. Agenda Item 11: April 2013 - Request for Approval for Final Deauthorization: | | | | | | |
| Freshwater Bayou Bank Stabilization (TV-11b) PPL 9 USACE Accounted for and financially closed in Dec. 2012. | \$0 | | \$0 | | \$0 | \$0 |
| Delta Building Diversion North of Fort St. Philip (BS-10) PPL 10 USACE Accounted for and financially closed in Dec. 2012. | \$0 | | \$0 | | \$0 | \$0 |
| Avoca Island Diversion and Land Building (TE-49) PPL 12 USACE Accounted for and financially closed in Dec. 2012. | \$0 | | \$0 | | \$0 | \$0 |
| Spanish Pass Diversion (MR-14) PPL 13 USACE Accounted for and financially closed in Dec. 2012 | \$0 | | \$0 | | \$0 | \$0 |
| White Ditch Resurrection (BS-12) PPL 14 NRCS | (\$657,847) | | (657,847) | | (\$559,170) | (\$98,677) |
| Bohemia Mississippi River Reintroduction (BS-15) PPL 17 EPA | (\$1,183,313) | | (1,183,313) | | (\$1,005,816) | (\$177,497) |
| Total | (\$1,841,160) | | (\$1,841,160) | | (\$1,564,986) | (\$276,174) |
| (1) Funds Available for Recommendations | | | | | | |
| | \$2,521,003,415 | | (\$14,784,295) | | | |
| (8, 9 & 11) Proposed | | | | | | |
| | (\$68,915,083) | | (\$1,841,160) | | | |
| Total Proposed Estimate | | | | | | |
| | \$2,452,088,332 | | (\$12,943,135) | | | |
| Approved Recommendations | | | | | | |
| | \$0 | | \$0 | | | |
| Available Funds Surplus/(Shortage) | | | | | | |
| | \$2,452,088,332 | | (\$14,784,295) | | | |

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

SELECTION OF TEN CANDIDATE PROJECTS AND UP TO THREE DEMONSTRATION PROJECTS TO EVALUATE FOR PPL 23

For Decision:

The Technical Committee will consider preliminary costs and benefits of the 23rd Priority Project List (PPL) project and demonstration project nominees listed below. The Technical Committee will select 10 projects and may select up to 3 demonstration projects as PPL 23 candidates to be evaluated for Phase 0 analysis, which will be considered later for final selection of projects that will be approved for Phase I (Planning and Engineering and Design).

| Region | Basin | PPL 23 Nominees |
|--------|------------------|--|
| 1 | Pontchartrain | Shell Beach Marsh Creation |
| 1 | Pontchartrain | New Orleans Landbridge Shoreline Stabilization & Marsh Creation |
| 1 | Pontchartrain | Shell Beach Marsh Creation & Nourishment |
| 2 | Breton Sound | Marsh Creation South of Lake Lery |
| 2 | Barataria | Bayou Dupont Sediment Delivery – Marsh Creation 4 |
| 2 | Barataria | Caminada Headlands Back Barrier Marsh Creation |
| 2 | Barataria | Wilkinson Canal Marsh Creation & Nourishment |
| 2 | Barataria | Bayou Grand Cheniere Marsh & Ridge Restoration |
| 3 | Terrebonne | Island Road Marsh Creation & Nourishment |
| 3 | Terrebonne | Terrebonne Bay Shoreline Protection via Oyster Reef Construction |
| 3 | Terrebonne | Grand Bayou Freshwater Enhancement |
| 3 | Terrebonne | Bayou Terrebonne Ridge Restoration & Marsh Creation |
| 3 | Teche-Vermilion | Southwest Pass Shoreline Protection |
| 3 | Teche-Vermilion | North Marsh Island Shoreline Protection |
| 4 | Calcasieu-Sabine | East Holly Beach Gulf Shoreline Protection |
| 4 | Calcasieu-Sabine | West Cove Marsh Creation & Nourishment |
| 4 | Mermentau | Southeast Pecan Island Marsh Creation & Freshwater Diversion |
| 4 | Mermentau | South Grand Chenier Marsh Creation – Baker Tract |

| PPL 23 Demonstration Project Nominees | |
|---------------------------------------|---|
| DEMO | Artificial Seagrass Bed Shoreline Protection & Sediment Trapping |
| DEMO | Use of Bioengineering Techniques to Strengthen Previously Stabilized Shorelines & Banks |
| DEMO | Stabilized Soil Shorelines |

CWPPRA PPL 23 Candidate Vote - Technical Committee

16-Apr-13

| Region | Basin | Type | Project | COE | EPA | FWS | NMFS | NRCS | State | No. of votes | Sum of Point Score |
|--------|-------|-------|--|-----|-----|-----|------|------|-------|--------------|--------------------|
| 2 | BA | MC | Bayou Grand Cheniere Marsh & Ridge Restoration | 7 | 7 | 8 | 7 | 5 | | 5 | 34 |
| 3 | TE | FD/MC | Grand Bayou Freshwater Enhancement | | 4 | 7 | 6 | 9 | 1 | 5 | 27 |
| 4 | CS | MC | West Cove Marsh Creation & Nourishment | 10 | 6 | 4 | 5 | | 2 | 5 | 27 |
| 4 | ME | MC/FD | Southeast Pecan Island Marsh Creation & Freshwater Diversion | 5 | | 1 | 2 | 7 | 5 | 5 | 20 |
| 2 | BA | MC | Caminada Headlands Back Barrier Marsh Creation | | 10 | 6 | 9 | | 10 | 4 | 35 |
| 2 | BA | MC | Wilkinson Canal Marsh Creation & Nourishment | 4 | 8 | | 8 | | 9 | 4 | 29 |
| 1 | PO | MC/SP | New Orleans Landbridge Shoreline Stabilization & Marsh Creation | 8 | 5 | 9 | | 2 | | 4 | 24 |
| 3 | TE | MC | Island Road Marsh Creation & Nourishment | 1 | | 5 | 10 | | 7 | 4 | 23 |
| 4 | ME | MC | South Grand Chenier Marsh Creation - Baker Tract | 6 | | 3 | 1 | 10 | | 4 | 20 |
| 3 | TV | SP | Southwest Pass Shoreline Protection | 3 | 3 | | | 3 | 3 | 4 | 12 |
| 1 | PO | MC | Shell Beach Marsh Creation & Nourishment | 9 | | 2 | 4 | | | 3 | 15 |
| 3 | TE | MC | Bayou Terrebonne Ridge Restoration & Marsh Creation | 2 | 2 | | | | 6 | 3 | 10 |
| 1 | PO | MC | Shell Beach Marsh Creation | | 1 | | 3 | | 4 | 3 | 8 |
| 4 | CS | SP | East Holly Beach Gulf Shoreline Protection | | | | | 8 | 8 | 2 | 16 |
| 2 | BA | MC | Bayou Dupont Sediment Delivery -- Marsh Creation 4 | | 9 | | | 6 | | 2 | 15 |
| 2 | BS | MC | Marsh Creation South of Lake Lery | | | 10 | | 1 | | 2 | 11 |
| 3 | TV | SP | North Marsh Island Shoreline Protection | | | | | 4 | | 1 | 4 |
| 3 | TE | SP | Terrebonne Bay Shoreline Protection via Oyster Reef Construction | | | | | | | 0 | 0 |

NOTES:

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

| Region | Basin | Type | Project | COE | EPA | FWS | NMFS | NRCS | State | No. of votes | Sum of Point Score |
|--------|-------|-------|--|-----|-----|-----|------|------|-------|--------------|--------------------|
| 1 | PO | MC | Shell Beach Marsh Creation | | | | | | | 0 | 0 |
| 1 | PO | MC/SP | New Orleans Landbridge Shoreline Stabilization & Marsh Creation | 8 | | | | | | 0 | 0 |
| 1 | PO | MC | Shell Beach Marsh Creation & Nourishment | 9 | | | | | | 0 | 0 |
| 2 | BS | MC | Marsh Creation South of Lake Lery | | | | | | | 0 | 0 |
| 2 | BA | MC | Bayou Dupont Sediment Delivery -- Marsh Creation 4 | | | | | | | 0 | 0 |
| 2 | BA | MC | Caminada Headlands Back Barrier Marsh Creation | | | | | | | 0 | 0 |
| 2 | BA | MC | Wilkinson Canal Marsh Creation & Nourishment | 4 | | | | | | 0 | 0 |
| 2 | BA | MC | Bayou Grand Cheniere Marsh & Ridge Restoration | 7 | | | | | | 0 | 0 |
| 3 | TE | MC | Island Road Marsh Creation & Nourishment | 1 | | | | | | 0 | 0 |
| 3 | TE | SP | Terrebonne Bay Shoreline Protection via Oyster Reef Construction | | | | | | | 0 | 0 |
| 3 | TE | FD/MC | Grand Bayou Freshwater Enhancement | | | | | | | 0 | 0 |
| 3 | TE | MC | Bayou Terrebonne Ridge Restoration & Marsh Creation | 2 | | | | | | 0 | 0 |
| 3 | TV | SP | Southwest Pass Shoreline Protection | 3 | | | | | | 0 | 0 |
| 3 | TV | SP | North Marsh Island Shoreline Protection | | | | | | | 0 | 0 |
| 4 | ME | MC/FD | Southeast Pecan Island Marsh Creation & Freshwater Diversion | 5 | | | | | | 0 | 0 |
| 4 | ME | MC | South Grand Chenier Marsh Creation - Baker Tract | 6 | | | | | | 0 | 0 |
| 4 | CS | SP | East Holly Beach Gulf Shoreline Protection | | | | | | | 0 | 0 |
| 4 | CS | MC | West Cove Marsh Creation & Nourishment | 10 | | | | | | 0 | 0 |

check 0 0 0 0 0 0 0 0 0 0 0

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X B L 2.9

| Region | Basin | Type | Project | COE | EPA | FWS | NMFS | NRCS | State | No. of votes | Sum of Point Score |
|--------|-------|-------|--|-------|-----|-----|------|------|-------|--------------|--------------------|
| 1 | PO | MC | Shell Beach Marsh Creation | | 1 | | | | | 0 | 0 |
| 1 | PO | MC/SP | New Orleans Landbridge Shoreline Stabilization & Marsh Creation | | 5 | | | | | 0 | 0 |
| 1 | PO | MC | Shell Beach Marsh Creation & Nourishment | | | | | | | 0 | 0 |
| 2 | BS | MC | Marsh Creation South of Lake Lery | | | | | | | 0 | 0 |
| 2 | BA | MC | Bayou Dupont Sediment Delivery -- Marsh Creation 4 | | 9 | | | | | 0 | 0 |
| 2 | BA | MC | Caminada Headlands Back Barrier Marsh Creation | | 10 | | | | | 0 | 0 |
| 2 | BA | MC | Wilkinson Canal Marsh Creation & Nourishment | | 8 | | | | | 0 | 0 |
| 2 | BA | MC | Bayou Grand Cheniere Marsh & Ridge Restoration | | 7 | | | | | 0 | 0 |
| 3 | TE | MC | Island Road Marsh Creation & Nourishment | | | | | | | 0 | 0 |
| 3 | TE | SP | Terrebonne Bay Shoreline Protection via Oyster Reef Construction | | | | | | | 0 | 0 |
| 3 | TE | FD/MC | Grand Bayou Freshwater Enhancement | | 4 | | | | | 0 | 0 |
| 3 | TE | MC | Bayou Terrebonne Ridge Restoration & Marsh Creation | | 2 | | | | | 0 | 0 |
| 3 | TV | SP | Southwest Pass Shoreline Protection | | 3 | | | | | 0 | 0 |
| 3 | TV | SP | North Marsh Island Shoreline Protection | | | | | | | 0 | 0 |
| 4 | ME | MC/FD | Southeast Pecan Island Marsh Creation & Freshwater Diversion | | | | | | | 0 | 0 |
| 4 | ME | MC | South Grand Chenier Marsh Creation - Baker Tract | | | | | | | 0 | 0 |
| 4 | CS | SP | East Holly Beach Gulf Shoreline Protection | | | | | | | 0 | 0 |
| 4 | CS | MC | West Cove Marsh Creation & Nourishment | | 6 | | | | | 0 | 0 |
| | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | check | 55 | 55 | 55 | 55 | 55 | 60 | 330 |

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X  4/16/13

| Region | Basin | Type | Project | COE | EPA | FWS | NMFS | NRCS | State | No. of votes | Sum of Point Score | |
|--------|-------|-------|--|-------|-----|-----|------|------|-------|--------------|--------------------|-----|
| 1 | PO | MC | Shell Beach Marsh Creation | | | | | | | 0 | 0 | |
| 1 | PO | MC/SP | New Orleans Landbridge Shoreline Stabilization & Marsh Creation | | | 9 | | | | 0 | 0 | |
| 1 | PO | MC | Shell Beach Marsh Creation & Nourishment | | | 2 | | | | 0 | 0 | |
| 2 | BS | MC | Marsh Creation South of Lake Lery | | | 10 | | | | 0 | 0 | |
| 2 | BA | MC | Bayou Dupont Sediment Delivery -- Marsh Creation 4 | | | | | | | 0 | 0 | |
| 2 | BA | MC | Caminada Headlands Back Barrier Marsh Creation | | | 6 | | | | 0 | 0 | |
| 2 | BA | MC | Wilkinson Canal Marsh Creation & Nourishment | | | | | | | 0 | 0 | |
| 2 | BA | MC | Bayou Grand Cheniere Marsh & Ridge Restoration | | | 8 | | | | 0 | 0 | |
| 3 | TE | MC | Island Road Marsh Creation & Nourishment | | | 5 | | | | 0 | 0 | |
| 3 | TE | SP | Terrebonne Bay Shoreline Protection via Oyster Reef Construction | | | | | | | 0 | 0 | |
| 3 | TE | FD/MC | Grand Bayou Freshwater Enhancement | | | 7 | | | | 0 | 0 | |
| 3 | TE | MC | Bayou Terrebonne Ridge Restoration & Marsh Creation | | | | | | | 0 | 0 | |
| 3 | TV | SP | Southwest Pass Shoreline Protection | | | | | | | 0 | 0 | |
| 3 | TV | SP | North Marsh Island Shoreline Protection | | | | | | | 0 | 0 | |
| 4 | ME | MC/FD | Southeast Pecan Island Marsh Creation & Freshwater Diversion | | | 1 | | | | 0 | 0 | |
| 4 | ME | MC | South Grand Chenier Marsh Creation - Baker Tract | | | 3 | | | | 0 | 0 | |
| 4 | CS | SP | East Holly Beach Gulf Shoreline Protection | | | | | | | 0 | 0 | |
| 4 | CS | MC | West Cove Marsh Creation & Nourishment | | | 4 | | | | 0 | 0 | |
| | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | | | check | 55 | 55 | 55 | 55 | 55 | 55 | 60 | 330 |

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XD [Signature]

CWPPRA PPL 23 Candidate Vote - Technical Committee

Keely W
16-Apr-13

| Region | Basin | Type | Project | COE | EPA | FWS | NMFS | NRCS | State | No. of votes | Sum of Point Score |
|--------|-------|-------|--|-----|-----|-----|------|------|-------|--------------|--------------------|
| 1 | PO | MC | Shell Beach Marsh Creation | | | | 3 | | | 0 | 0 |
| 1 | PO | MC/SP | New Orleans Landbridge Shoreline Stabilization & Marsh Creation | | | | 1 | | | 0 | 0 |
| 1 | PO | MC | Shell Beach Marsh Creation & Nourishment | | | | 4 | | | 0 | 0 |
| 2 | BS | MC | Marsh Creation South of Lake Lery | | | | | | | 0 | 0 |
| 2 | BA | MC | Bayou Dupont Sediment Delivery -- Marsh Creation 4 | | | | | | | 0 | 0 |
| 2 | BA | MC | Caminada Headlands Back Barrier Marsh Creation | | | | 9 | | | 0 | 0 |
| 2 | BA | MC | Wilkinson Canal Marsh Creation & Nourishment | | | | 8 | | | 0 | 0 |
| 2 | BA | MC | Bayou Grand Cheniere Marsh & Ridge Restoration | | | | 7 | | | 0 | 0 |
| 3 | TE | MC | Island Road Marsh Creation & Nourishment | | | | 10 | | | 0 | 0 |
| 3 | TE | SP | Terrebonne Bay Shoreline Protection via Oyster Reef Construction | | | | | | | 0 | 0 |
| 3 | TE | FD/MC | Grand Bayou Freshwater Enhancement | | | | 6 | | | 0 | 0 |
| 3 | TE | MC | Bayou Terrebonne Ridge Restoration & Marsh Creation | | | | | | | 0 | 0 |
| 3 | TV | SP | Southwest Pass Shoreline Protection | | | | | | | 0 | 0 |
| 3 | TV | SP | North Marsh Island Shoreline Protection | | | | | | | 0 | 0 |
| 4 | ME | MC/FD | Southeast Pecan Island Marsh Creation & Freshwater Diversion | | | | 2 | | | 0 | 0 |
| 4 | ME | MC | South Grand Chenier Marsh Creation - Baker Tract | | | | 1 | | | 0 | 0 |
| 4 | CS | SP | East Holly Beach Gulf Shoreline Protection | | | | | | | 0 | 0 |
| 4 | CS | MC | West Cove Marsh Creation & Nourishment | | | | 5 | | | 0 | 0 |

check 55 55 55 55 55 55 60 330

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X _____

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|--------|-------|-------|--|-----|-----|-----|------|------|-------|--------------|--------------------|
| 1 | PO | MC | Shell Beach Marsh Creation | | | | | | | 0 | 0 |
| 1 | PO | MC/SP | New Orleans Landbridge Shoreline Stabilization & Marsh Creation | | | | | 2 | | 0 | 0 |
| 1 | PO | MC | Shell Beach Marsh Creation & Nourishment | | | | | | | 0 | 0 |
| 2 | BS | MC | Marsh Creation South of Lake Lery | | | | | 1 | | 0 | 0 |
| 2 | BA | MC | Bayou Dupont Sediment Delivery -- Marsh Creation 4 | | | | | 6 | | 0 | 0 |
| 2 | BA | MC | Caminada Headlands Back Barrier Marsh Creation | | | | | | | 0 | 0 |
| 2 | BA | MC | Wilkinson Canal Marsh Creation & Nourishment | | | | | | | 0 | 0 |
| 2 | BA | MC | Bayou Grand Cheniere Marsh & Ridge Restoration | | | | | 5 | | 0 | 0 |
| 3 | TE | MC | Island Road Marsh Creation & Nourishment | | | | | | | 0 | 0 |
| 3 | TE | SP | Terrebonne Bay Shoreline Protection via Oyster Reef Construction | | | | | | | 0 | 0 |
| 3 | TE | FD/MC | Grand Bayou Freshwater Enhancement | | | | | 9 | | 0 | 0 |
| 3 | TE | MC | Bayou Terrebonne Ridge Restoration & Marsh Creation | | | | | | | 0 | 0 |
| 3 | TV | SP | Southwest Pass Shoreline Protection | | | | | 3 | | 0 | 0 |
| 3 | TV | SP | North Marsh Island Shoreline Protection | | | | | 4 | | 0 | 0 |
| 4 | ME | MC/FD | Southeast Pecan Island Marsh Creation & Freshwater Diversion | | | | | 7 | | 0 | 0 |
| 4 | ME | MC | South Grand Chenier Marsh Creation - Baker Tract | | | | | 10 | | 0 | 0 |
| 4 | CS | SP | East Holly Beach Gulf Shoreline Protection | | | | | 8 | | 0 | 0 |
| 4 | CS | MC | West Cove Marsh Creation & Nourishment | | | | | | | 0 | 0 |

0 0 0 0 0 0 0 0
 check 55 55 55 55 55 55 60 330

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X 

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|--------|-------|-------|--|-----|-----|-----|------|------|-------|--------------|--------------------|
| 1 | PO | MC | Shell Beach Marsh Creation | | | | | | 4 | 0 | 0 |
| 1 | PO | MC/SP | New Orleans Landbridge Shoreline Stabilization & Marsh Creation | | | | | | | 0 | 0 |
| 1 | PO | MC | Shell Beach Marsh Creation & Nourishment | | | | | | | 0 | 0 |
| 2 | BS | MC | Marsh Creation South of Lake Lery | | | | | | | 0 | 0 |
| 2 | BA | MC | Bayou Dupont Sediment Delivery -- Marsh Creation 4 | | | | | | | 0 | 0 |
| 2 | BA | MC | Caminada Headlands Back Barrier Marsh Creation | | | | | | 10 | 0 | 0 |
| 2 | BA | MC | Wilkinson Canal Marsh Creation & Nourishment | | | | | | 9 | 0 | 0 |
| 2 | BA | MC | Bayou Grand Cheniere Marsh & Ridge Restoration | | | | | | | 0 | 0 |
| 3 | TE | MC | Island Road Marsh Creation & Nourishment | | | | | | 7 | 0 | 0 |
| 3 | TE | SP | Terrebonne Bay Shoreline Protection via Oyster Reef Construction | | | | | | | 0 | 0 |
| 3 | TE | FD/MC | Grand Bayou Freshwater Enhancement | | | | | | 1 | 0 | 0 |
| 3 | TE | MC | Bayou Terrebonne Ridge Restoration & Marsh Creation | | | | | | 6 | 0 | 0 |
| 3 | TV | SP | Southwest Pass Shoreline Protection | | | | | | 3 | 0 | 0 |
| 3 | TV | SP | North Marsh Island Shoreline Protection | | | | | | | 0 | 0 |
| 4 | ME | MC/FD | Southeast Pecan Island Marsh Creation & Freshwater Diversion | | | | | | 5 | 0 | 0 |
| 4 | ME | MC | South Grand Chenier Marsh Creation - Baker Tract | | | | | | | 0 | 0 |
| 4 | CS | SP | East Holly Beach Gulf Shoreline Protection | | | | | | 8 | 0 | 0 |
| 4 | CS | MC | West Cove Marsh Creation & Nourishment | | | | | | 2 | 0 | 0 |

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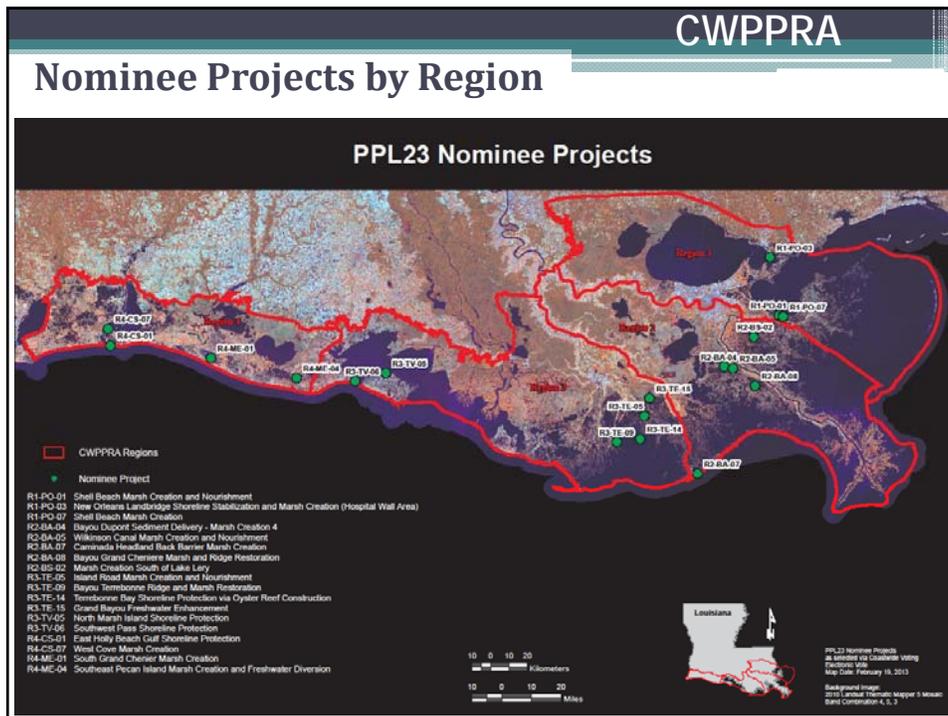
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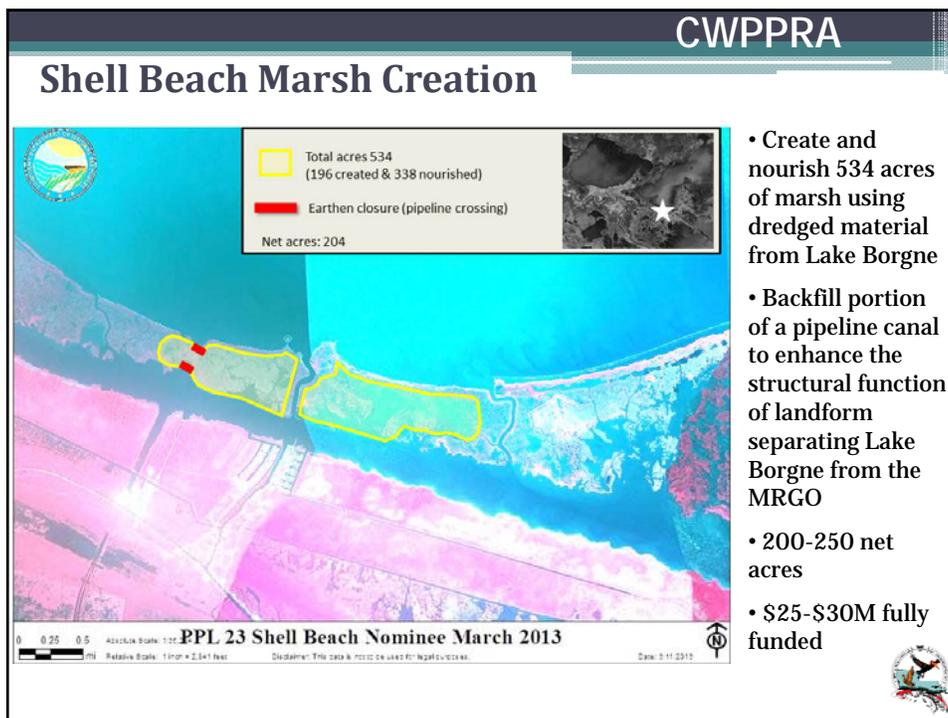
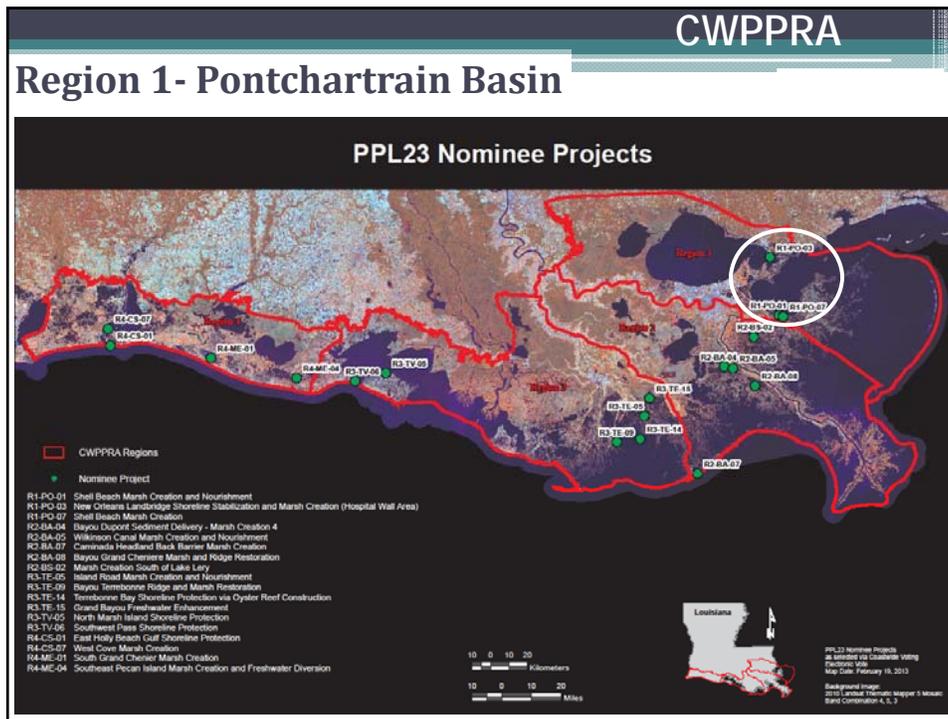
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CWPPRA PPL 23 Nominees Technical Committee Meeting



New Orleans, LA
April 16, 2013





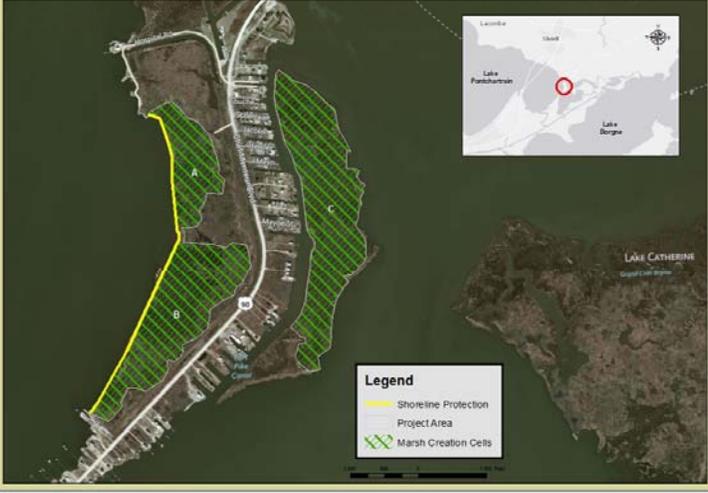
CWPPRA

New Orleans Landbridge Shoreline Stabilization & Marsh Creation



U.S. Fish & Wildlife Service
Louisiana Ecological Services Field Office
New Orleans Landbridge Shoreline Stabilization & Marsh Creation Project (Hospital Wall Area)

- Create & nourish 244 acres of marsh using dredged material from Lake St. Catherine or Lake Pontchartrain
- Install 6,349 linear ft of rock along Lake Pontchartrain shoreline
- 100-150 net acres
- \$20-\$25M fully-funded





CWPPRA

Shell Beach Marsh Creation & Nourishment



PPL 23 SHELL BEACH MARSH CREATION AND NOURISHMENT

LAKE BORGNE

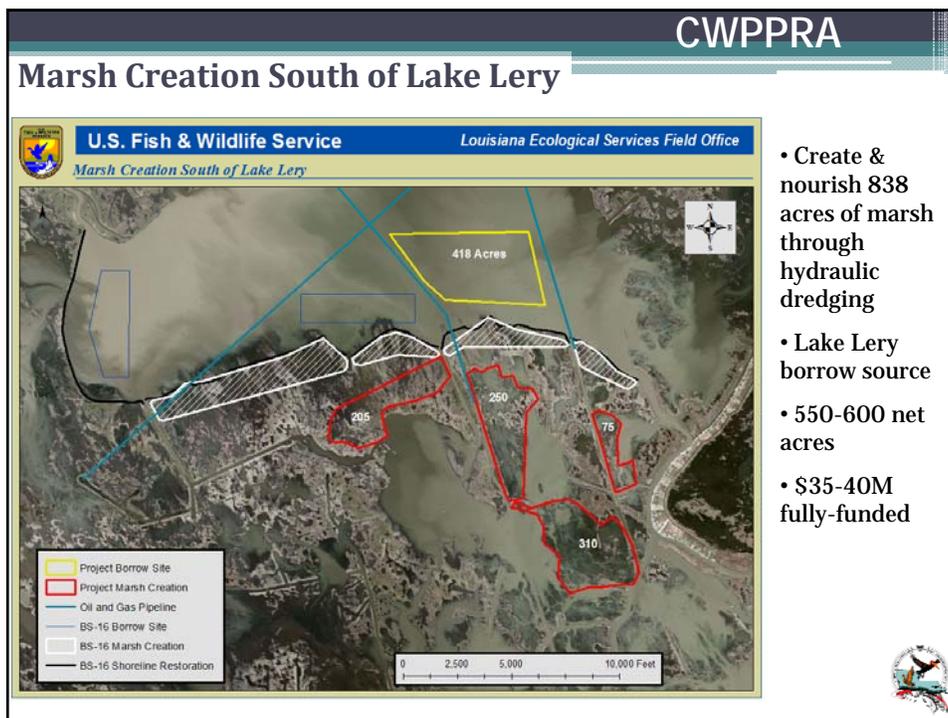
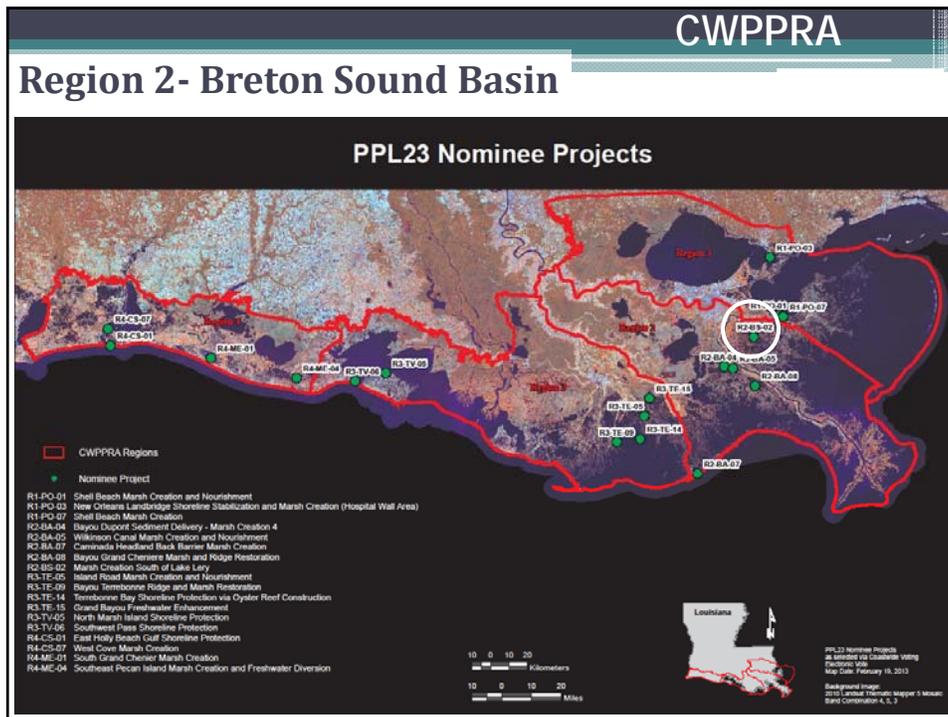
MRGO

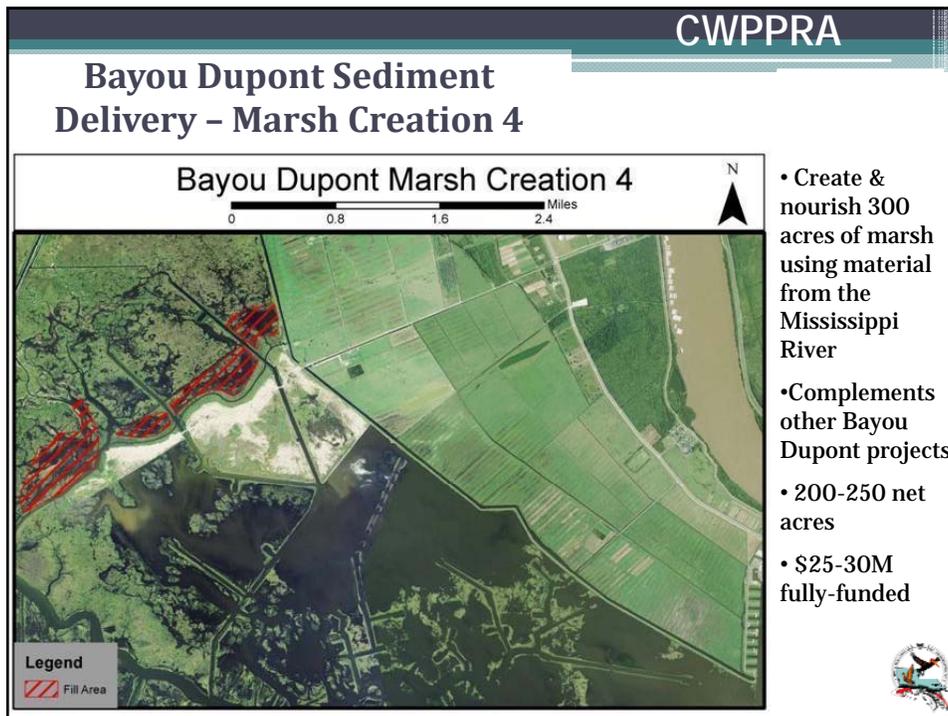
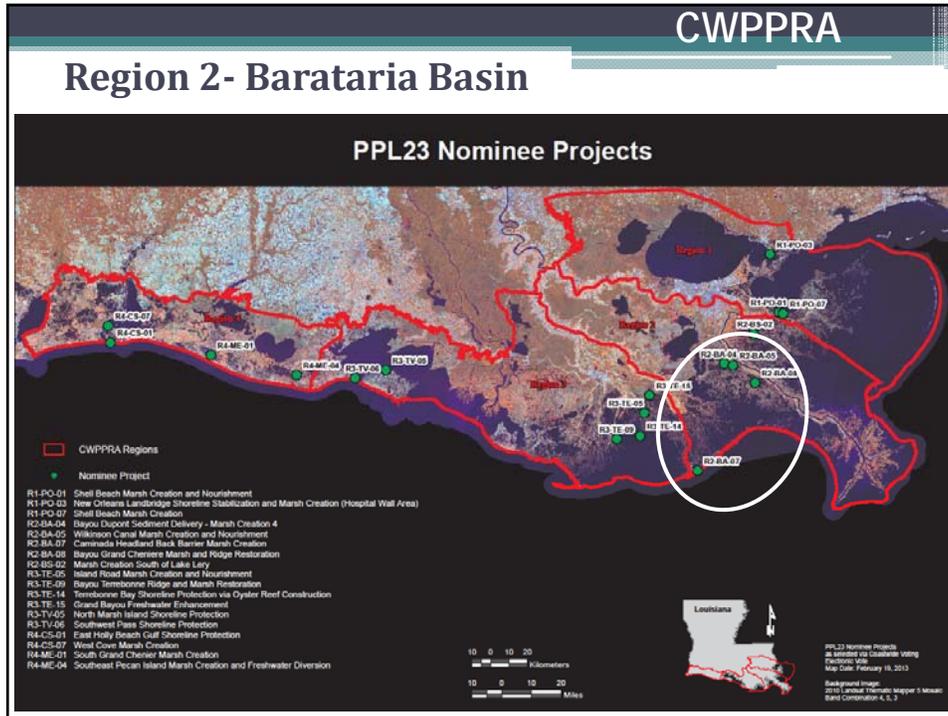
Sites 1, 2, 3, 4, 5

SHORELINE PROTECTION

- Create & nourish 457 acres in 5 existing open water areas, to stabilize the landbridge b/n Lake Borgne and MRGO
- Dredging from southern lobe of Lake Borgne
- 250-300 net acres
- \$20-\$25M fully-funded







CWPPRA

Caminada Headlands Back Barrier Marsh Creation

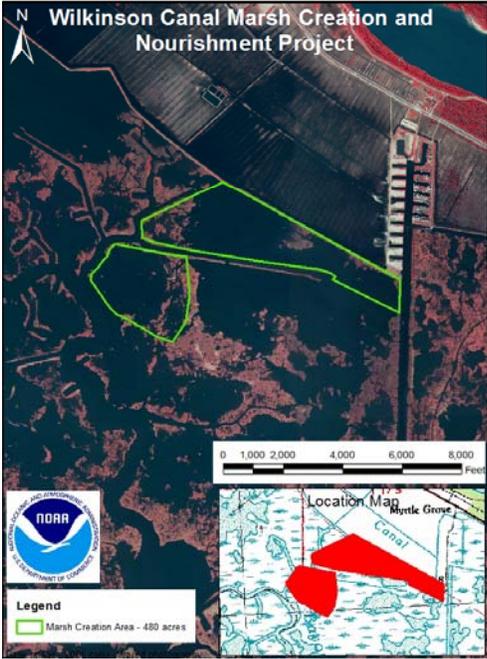


- Create & nourish 610 acres of marsh using dredged material from the Gulf of Mexico
- Create a platform upon which the headland can migrate, improving the longevity of the barrier shoreline
- 350-400 net acres
- \$35-40M fully-funded



CWPPRA

Wilkinson Canal Marsh Creation & Nourishment



- Create & nourish 480 acres of marsh, utilizing a borrow source in the Mississippi River (near Myrtle Grove area)
- Help re-establish the banks of Bayou Dupont
- 400-450 net acres
- \$35-40M fully-funded



CWPPRA

Bayou Grand Cheniere Marsh & Ridge Restoration

- Create 381 acres of marsh and ridge habitat
- Riverine sediments will be hydraulically dredged and pumped via pipeline
- 11,200 ft of ridge along the eastern side of Bayou Grand Cheniere
- 200-250 net acres
- \$30-35M fully-funded

U.S. Fish & Wildlife Service

Louisiana Ecological Services Field Office

Bayou Grande Cheniere Marsh and Ridge Restoration

CWPPRA

Region 3- Terrebonne Basin

PPL23 Nominee Projects

CWPPRA Regions

● Nominee Project

- R1-PO-01 Shell Beach Marsh Creation and Nourishment
- R1-PO-03 New Orleans Landridge Shoreline Stabilization and Marsh Creation (Hospital Wall Area)
- R1-PO-07 Shell Beach Marsh Creation
- R2-BA-04 Bayou Duport Sediment Delivery - Marsh Creation 4
- R2-BA-05 Wilkinson Canal Marsh Creation and Nourishment
- R2-BA-07 Camille Headland Back Barrier Marsh Creation
- R2-BA-08 Bayou Grand Cheniere Marsh and Ridge Restoration
- R2-BA-09 Marsh Creation South of Lake Lory
- R2-BA-02 Marsh Creation North of Lake Lory
- R2-BA-03 Island Road Marsh Creation and Nourishment
- R3-TE-09 Bayou Terrebonne Ridge and Marsh Restoration
- R3-TE-14 Terrebonne Bay Shoreline Protection via Oyster Reef Construction
- R3-TE-15 Grand Bayou Freshwater Enhancement
- R3-TV-05 North Marsh Island Shoreline Protection
- R3-TV-06 Southwest Pass Shoreline Protection
- R4-CS-01 East Holly Beach Gulf Shoreline Protection
- R4-CS-07 West Cove Marsh Creation
- R4-MC-01 South Grand Chenier Marsh Creation
- R4-MC-04 Southeast Pecan Island Marsh Creation and Freshwater Diversion

PPL23 Nominee Projects
as approved by Louisiana Voting
Electronic System
Map Date: February 18, 2013

Background Image:
2013 Aerial, Terracon Support © Mecon
Bathy Corporation 4.3.2

CWPPRA

Island Road Marsh Creation and Nourishment Project

Island Road Marsh Creation & Nourishment

- Create & nourish 428 acres of marsh, utilizing a borrow source near Lake Felicity
- Forms a landbridge along the perimeter of Cutoff Canal and the twin pipelines
- 350-400 net acres
- \$35-40M fully-funded

CWPPRA

Terrebonne Bay Shoreline Protection via Oyster Reef

U.S. Fish and Wildlife Service - Louisiana Ecological Services Field Office
PPL23 - Terrebonne Bay Shoreline Protection with Oyster Reef

- Protect 26,641 linear feet of Terrebonne Bay shoreline utilizing gabion mats to establish oyster reefs
- 100-150 net acres
- \$30-35M fully-funded

CWPPRA

Grand Bayou Freshwater Enhancement

U.S. Fish & Wildlife Service
Grand Bayou Freshwater Enhancement

Louisiana Ecological Services Field Office

- Increase flows from the GIWW from 600 cfs to 1,600 cfs
- Redirect fresh water from Grand Bayou Canal into the marshes east & west
- Create & nourish 176 acres of marsh
- 550-600 net acres
- \$20-25M fully-funded

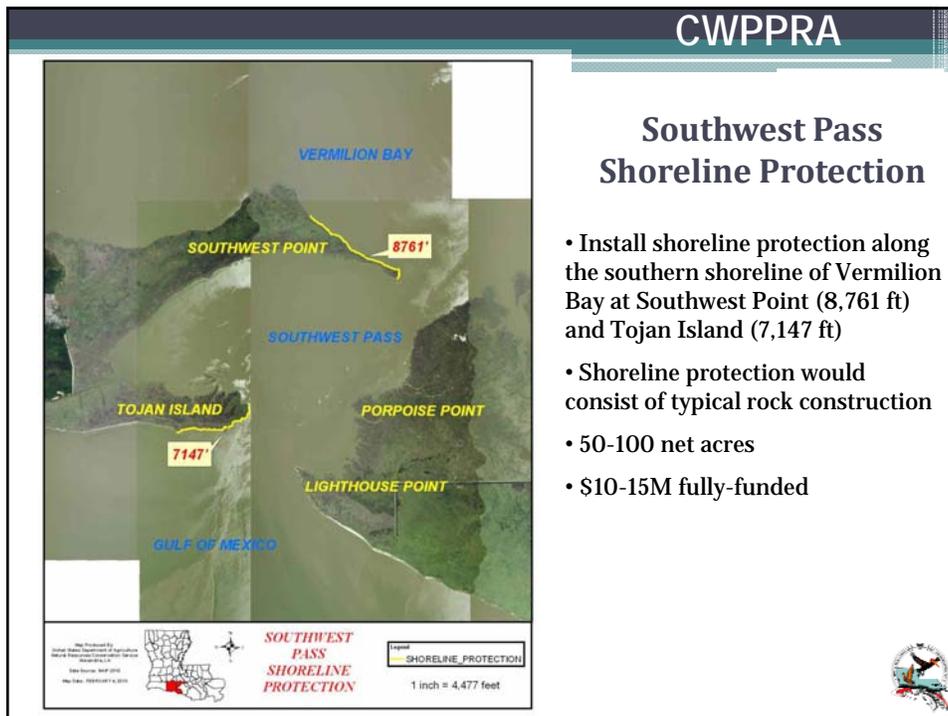
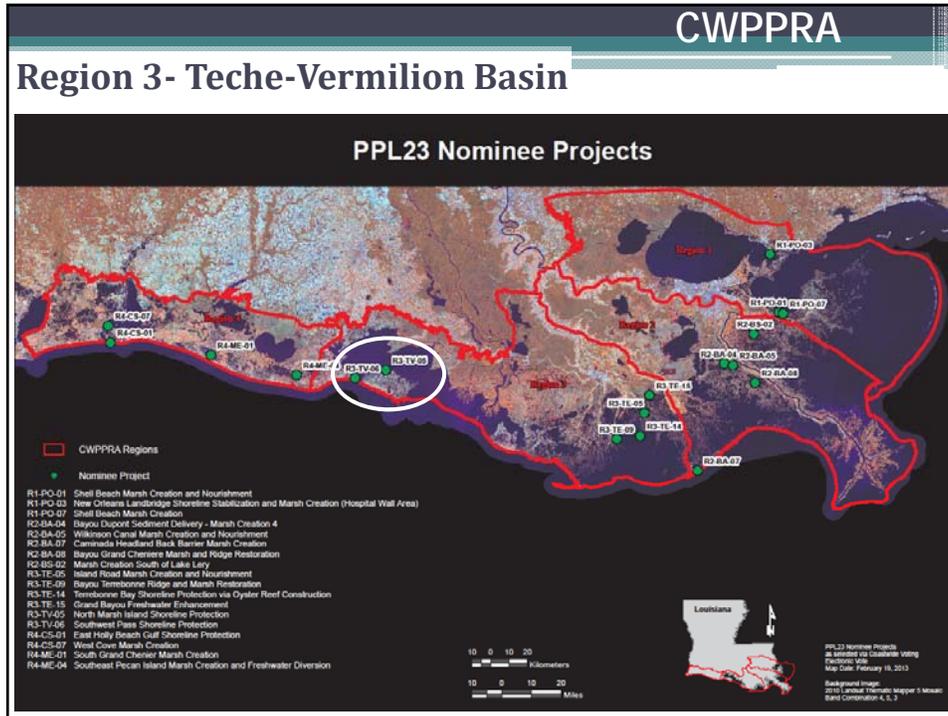
CWPPRA

Bayou Terrebonne Ridge Restoration & Marsh Creation

U.S. Fish & Wildlife Service
Bayou Terrebonne Ridge Restoration & Marsh Creation

Louisiana Ecological Services Field Office

- Create 20,461 feet of ridge along the eastern bank of Bayou Terrebonne
- Create & nourish 221 acres of marsh using borrow material from Terrebonne Bay
- 150-200 net acres
- \$20-25M fully-funded



- Install shoreline protection along the southern shoreline of Vermilion Bay at Southwest Point (8,761 ft) and Tojan Island (7,147 ft)
- Shoreline protection would consist of typical rock construction
- 50-100 net acres
- \$10-15M fully-funded

CWPPRA



Map Provided by
Marsh Restoration Center of the United States
© 2012 USACE
Map Name: MAP_20120327_011616_001
Map Date: 03/27/12

**NORTH MARSH ISLAND
SHORELINE PROTECTION**

Legend
— SHORELINE PROTECTION

Scale
Feet
0 4,000 8,000

North Marsh Island Shoreline Protection

- Construct 30,100 linear ft of low reef shoreline protection that mimics the configuration of the natural shell reefs found nearby at Southwest Pass
- The structure will be set at +1.8 ft (or marsh height) with a crown width of 10-12 ft along the northern shoreline of Marsh Island
- 150-200 net acres
- \$30-35M fully-funded



CWPPRA

Region 4- Mermentau Basin

PPL23 Nominee Projects



■ CWPPRA Regions
● Nominee Project

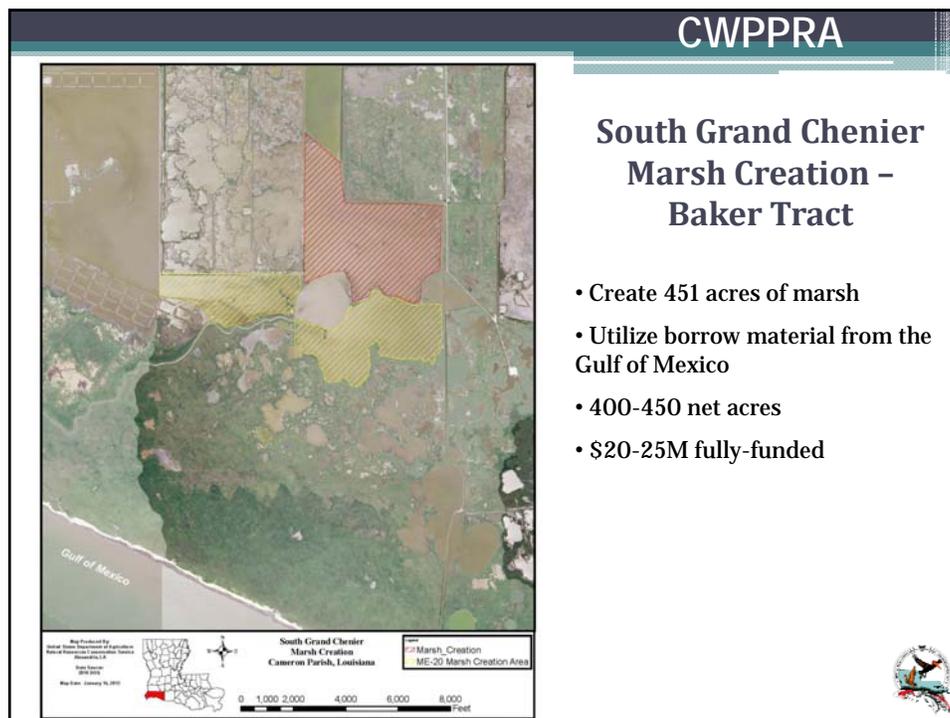
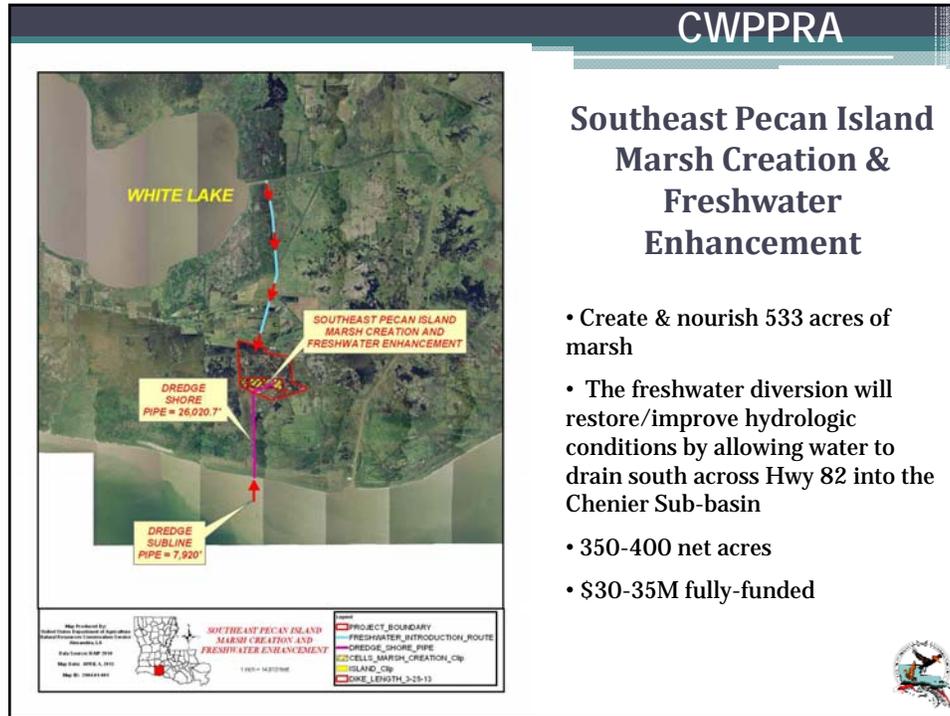
R1-PO-01 Shell Beach Marsh Creation and Nourishment
R1-PO-03 New Orleans Landridge Shoreline Stabilization and Marsh Creation (Hospital Wall Area)
R1-PO-07 Shell Beach Marsh Creation
R2-BA-04 Bayou Dupont Sediment Delivery - Marsh Creation 4
R2-BA-05 Wilkinson Canal Marsh Creation and Nourishment
R2-BA-07 Camille Headland Back Barrier Marsh Creation
R2-BA-08 Bayou Grand Cheniere Marsh and Ridge Restoration
R2-BA-09 Marsh Creation South of Lake Lery
R2-TE-05 Island Road Marsh Creation and Nourishment
R3-TE-09 Bayou Terrebonne Ridge and Marsh Restoration
R3-TE-14 Terrebonne Bay Shoreline Protection via Oyster Reef Construction
R3-TE-15 Grand Bayou Freshwater Enhancement
R3-TV-05 North Marsh Island Shoreline Protection
R3-TV-06 Southwest Pass Shoreline Protection
R4-CS-01 East Holly Beach Gulf Shoreline Protection
R4-CS-07 West Cove Marsh Creation
R4-ME-01 South Grand Chenier Marsh Creation
R4-ME-04 Southeast Pecan Island Marsh Creation and Freshwater Diversion

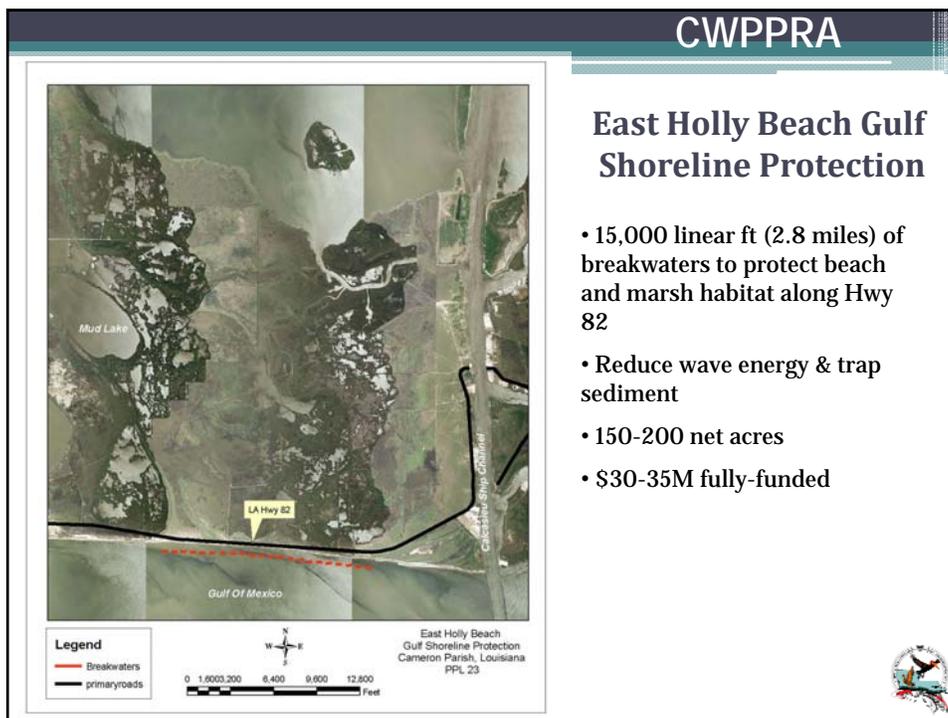
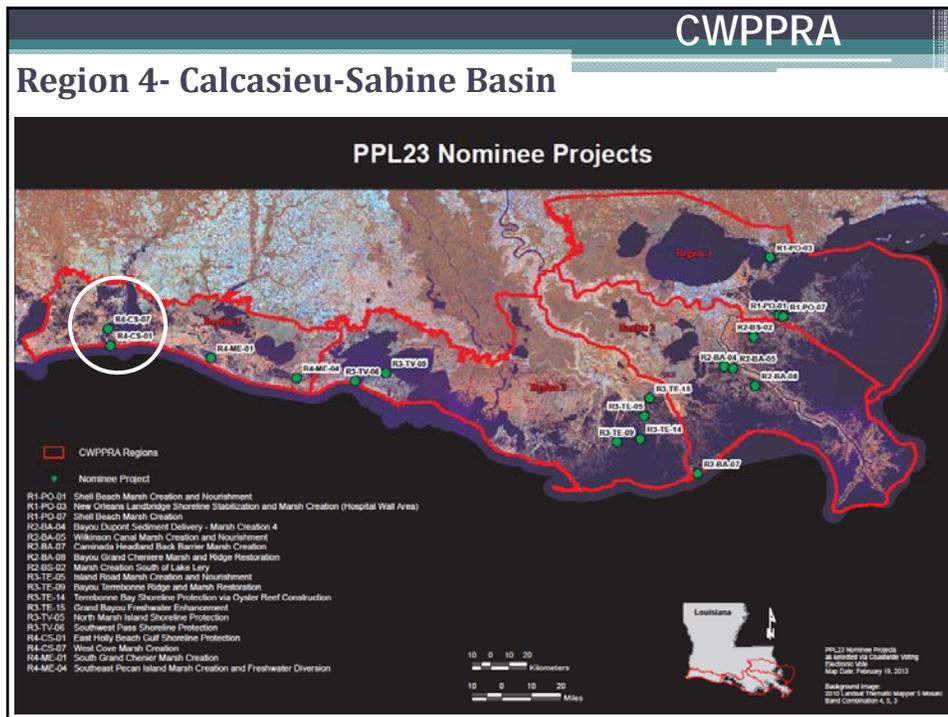
Louisiana



PPL23 Nominee Projects
 as Approved by Louisiana Voting
 Electronic 999
 Map Date: February 18, 2013
 Background Image:
 2012 Aerial, Terracon Support © Mecon;
 Bathy Contourline 4, 5, 7

Scale
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 Kilometers
 0 10 20
 Miles

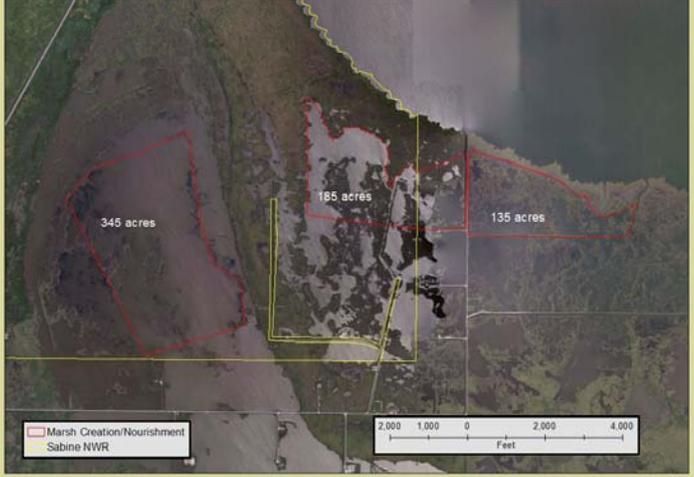




CWPPRA

West Cove Marsh Creation & Nourishment

West Cove Marsh Creation and Nourishment



- Create & nourish 665 acres of marsh using sediment dredged from the Calcasieu Ship Channel
- Restore the integrity of the West Cove rim
- 450-500 net acres
- \$25-30M fully-funded

CWPPRA PPL 23

Demonstration Project Nominees



CWPPRA

Artificial Seagrass Bed Shoreline Protection & Sediment Trapping

- This project will evaluate a technique that seeks to reduce shoreline erosion via the installation of plastic strips that mimic submerged aquatic vegetation.
- Technique could serve as a low-cost alternative to rock and vegetative plantings in low wave energy environments.
- Project Cost + 25% Contingency: \$877,560



CWPPRA

Use of Bioengineering Techniques to Strengthen Previously Stabilized Shorelines & Banks

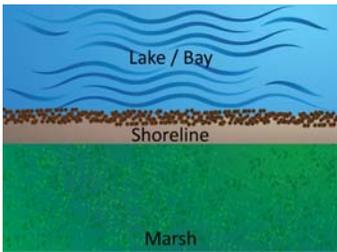
- Stabilize existing shorelines, attenuate shoreline retreat, & provide a natural substrate for plant propagation & accretion of sediment
- Initiate the native woody plant community with root systems that can form the webbing that can strengthen rock stabilized shorelines
- Project Costs + 25% Contingency: \$508,388



CWPPRA

Stabilized Soil Shorelines

- This technique seeks to stabilize and protect eroding interior marsh shorelines along bays and lakes. The technique involves two methods:
 - Placing stabilized soil material along the shoreline using a barge and long-reach excavator
 - Placing stabilized soil material into a trench which would be excavated along an eroding marsh shoreline
- Project cost + 25% contingency: \$2,000,000



CWPPRA

Nominee Projects Per Region

PPL23 Nominee Projects



Legend:

- CWPPRA Regions
- Nominee Project

Project List:

- R1-PO-01 Shell Beach Marsh Creation and Nourishment
- R1-PO-03 New Orleans Landridge Shoreline Stabilization and Marsh Creation (Hospital Wall Area)
- R1-PO-07 Shell Beach Marsh Creation
- R2-BA-04 Bayou Dupont Sediment Delivery - Marsh Creation 4
- R2-BA-05 Wilkinson Canal Marsh Creation and Nourishment
- R2-BA-07 Camille Headland Bank Barrier Marsh Creation
- R2-BA-08 Bayou Grand Cheniere Marsh and Ridge Restoration
- R2-BA-09 Marsh Creation South of Lake Lory
- R2-BA-02 Island Road Marsh Creation and Nourishment
- R3-TE-09 Bayou Terrebonne Ridge and Marsh Restoration
- R3-TE-14 Terrebonne Bay Shoreline Protection via Oyster Reef Construction
- R3-TE-15 Grand Bayou Freshwater Enhancement
- R3-TV-05 North Marsh Island Shoreline Protection
- R3-TV-06 Southwest Pass Shoreline Protection
- R4-CS-01 East Holly Beach Gulf Shoreline Protection
- R4-CS-07 West Cove Marsh Creation
- R4-ME-01 South Grand Chenier Marsh Creation
- R4-ME-04 Southeast Pecan Island Marsh Creation and Freshwater Diversion

Scale: 0 10 20 Kilometers / 0 10 20 Miles

Inset Map: Louisiana

Footnote: PPL23 Nominee Projects as Approved for Consideration Voting Electronic Web Map Date: February 18, 2013
Background Image: 2013 Aerial, Terracon Support © Mecon; Bathy Corporation A.S. 2

**PPL23 Nominee Demonstration Project Evaluation
Conducted by the CWPPRA Environmental and Engineering Work Groups
March 20, 2013**

The Environmental and Engineering Work Groups (EnvWG-EngWG) were tasked by the Planning and Evaluation Subcommittee to review the three nominee demonstration projects and provide comments on their technical merit.

Artificial Seagrass

The overall consensus of the work groups was that this demonstration project lacks sufficient merit for further investigation.

This project seeks to slow shoreline erosion via installing plastic strips to mimic submerged aquatic vegetation (SAV), which is well known to reduce mild wave energy. The technique is unlikely to be successful for the following reasons: (1) Submergence, rather than erosion, is the main cause of wetland loss in coastal Louisiana. Where erosion does cause rapid wetland loss, the wave energies that cause the erosion are greater than the wave energies that would be affected by this product; and (2) Even if the plastic SAV reduced those wave energies, the plastic SAV would not remain anchored during tropical storms and winter storms (leading to loss of wave-dampening effectiveness and contributing to a marine debris problem).

This concept was previously evaluated as a candidate demonstration project on PPL19 as the Bayou Backer Demonstration Project. The Bayou Backer product is essentially the same concept as the project nominated for PPL23. The Bayou Backer Demonstration Project was not approved on PPL19 and was the lowest scoring of the three demo projects evaluated that year. The product/concept has been previously tested in several applications in Florida and all were determined to be failures (see attachment).

Concerns were also raised over the feasibility of installing large quantities of this product. Several work group members were also concerned about the placement of large quantities of plastic in the coastal environment and the hazards that might develop. There has been very little demand for such a technique in the program history.

Stabilized Soil Shorelines

The overall consensus of the work groups was that this demonstration project lacks sufficient merit for further investigation.

This project seeks to stabilize and protect eroding interior marsh shorelines along bays and lakes. The technique involves two methods; 1) placing stabilized soil material along the shoreline using a barge and long-reach excavator and 2) placing stabilized soil material into a trench which would be excavated along an eroding marsh shoreline.

One of the concerns expressed by work group members was the potential for low cost effectiveness of this technique. The off-site preparation of the stabilized soil material, delivery by truck to a barge, then barge shipment to the project site followed by placement, could result in poor cost effectiveness. However, it is acknowledged that insufficient information is currently available to accurately determine the cost effectiveness of this technique.

There were also concerns expressed over the potential toxicity of this material. More information on the chemical makeup of this material would be necessary if further evaluated.

The trenching technique was also concerning because it would involve the removal of marsh soils followed by replacement with the stabilized soil material. This construction technique could result in significant impacts as equipment used for the trenching might impact surrounding marsh (e.g., tracking to the project site with marshbuggy backhoes).

Bioengineering Techniques to Strengthen Previously Stabilized Shoreline and Banks

The overall consensus of the work groups was that this demonstration project lacks sufficient merit for further investigation.

This project seeks to increase the longevity of rock-stabilized shorelines and banks. The technique would involve the use of *Salix nigra* (black willow), or other woody species, which would be planted into the joints of an existing rock shoreline structure. It is anticipated that the root structure of the planted vegetation would assist in stabilizing the structure as well as provide fish and wildlife habitat.

Although this technique may be suited to some coastal shorelines, it was the general consensus that this technique may be better suited to streambank restoration where vegetative re-establishment is the primary goal and not in a situation where protection from erosive wave energy is the primary goal. Planting rock dikes with woody vegetation may actually compromise structural integrity by causing the rock to loosen or shift from the original design profile. In addition, the establishment of woody vegetation on rock structures could make the placement of additional rock during maintenance events very difficult.

Species availability could also pose a problem for implementation on a large-scale project. More information is needed on that issue. Some of the proposed species (i.e., black willow, wax myrtle, buttonbush, baldcypress) would only be applicable in fresh to intermediate environments, which would somewhat limit use of the technique. However, there are many areas of eroding marsh in fresh/intermediate environments within the coastal zone.

CWPPRA PPL 23 Project Nominees

| <u>Region</u> | <u>Basin</u> | <u>Project Nominees</u> |
|---------------|------------------|--|
| 1 | Pontchartrain | Shell Beach Marsh Creation |
| 1 | Pontchartrain | New Orleans Landbridge Shoreline Stabilization & Marsh Creation |
| 1 | Pontchartrain | Shell Beach Marsh Creation & Nourishment |
| 2 | Breton Sound | Marsh Creation South of Lake Lery |
| 2 | Barataria | Bayou Dupont Sediment Delivery – Marsh Creation 4 |
| 2 | Barataria | Caminada Headlands Back Barrier Marsh Creation |
| 2 | Barataria | Wilkinson Canal Marsh Creation & Nourishment |
| 2 | Barataria | Bayou Grand Cheniere Marsh & Ridge Restoration |
| 3 | Terrebonne | Island Road Marsh Creation & Nourishment |
| 3 | Terrebonne | Terrebonne Bay Shoreline Protection via Oyster Reef Construction |
| 3 | Terrebonne | Grand Bayou Freshwater Enhancement |
| 3 | Terrebonne | Bayou Terrebonne Ridge Restoration & Marsh Creation |
| 3 | Teche-Vermilion | Southwest Pass Shoreline Protection |
| 3 | Teche-Vermilion | North Marsh Island Shoreline Protection |
| 4 | Calcasieu-Sabine | East Holly Beach Gulf Shoreline Protection |
| 4 | Calcasieu-Sabine | West Cove Marsh Creation & Nourishment |
| 4 | Mermentau | Southeast Pecan Island Marsh Creation & Freshwater Diversion |
| 4 | Mermentau | South Grand Chenier Marsh Creation – Baker Tract |

| Region | Basin | Type | Project | Considerations | | | | | | | Comments / Other |
|--------|------------------|-------|---|-------------------------------------|--|---------|-------------|---------------------|-----|------------|--|
| | | | | Preliminary Fully Funded Cost Range | Preliminary Benefits (Net Acres Range) | Oysters | Land Rights | Pipelines/Utilities | O&M | Other ---> | |
| 1 | Pontchartrain | MC | Shell Beach Marsh Creation | \$25M - \$30M | 200-250 | X | | X | | X | Gulf sturgeon critical habitat |
| 1 | Pontchartrain | MC/SP | New Orleans Landbridge Shoreline Stabilization & Marsh Creation | \$20M - \$25M | 100-150 | | | X | X | X | Gulf sturgeon critical habitat |
| 1 | Pontchartrain | MC | Shell Beach Marsh Creation & Nourishment | \$20M - \$25M | 250-300 | X | | X | | X | Gulf sturgeon critical habitat |
| 2 | Breton Sound | MC | Marsh Creation South of Lake Lery | \$35M - \$40M | 500-600 | | | X | | | |
| | Breton Sound | | No other projects consistent with State Master Plan | | | | | | | | |
| | Breton Sound | | No other projects consistent with State Master Plan | | | | | | | | |
| 2 | Barataria | MC | Bayou Dupont Sediment Delivery - Marsh Creation 4 | \$25M - \$30M | 200-250 | | | X | | X | Sediment availability |
| 2 | Barataria | MC | Caminada Headlands Back Barrier Marsh Creation | \$35M - \$40M | 350-400 | X | | X | | | |
| 2 | Barataria | MC | Wilkinson Canal Marsh Creation & Nourishment | \$35M - \$40M | 400-450 | | | X | | | |
| 2 | Barataria | MC | Bayou Grand Cheniere Marsh & Ridge Restoration | \$30M - \$35M | 200-250 | | | X | | | |
| 3 | Terbonne | MC | Island Road Marsh Creation & Nourishment | \$35M - \$40M | 350-400 | X | | X | | | |
| 3 | Terbonne | SP | Terbonne Bay Shoreline Protection via Oyster Reef Construction | \$30M - \$35M | 100-150 | X | | X | X | | |
| 3 | Terbonne | FD/MC | Grand Bayou Freshwater Enhancement | \$20M - \$25M | 500-600 | | | X | X | X | Bridge construction |
| 3 | Terbonne | MC | Bayou Terrebonne Ridge Restoration & Marsh Creation | \$20M - \$25M | 150-200 | X | | X | | | |
| | Atchafalaya | | No projects nominated for this basin | | | | | | | | |
| 3 | Teche-Vermilion | SP | Southwest Pass Shoreline Protection | \$10M - \$15M | 50-100 | X | | | X | | |
| 3 | Teche-Vermilion | SP | North Marsh Island Shoreline Protection | \$30M - \$35M | 150-200 | X | | | X | | |
| 4 | Mermentau | MC/FD | Southeast Pecan Island Marsh Creation & FW Diversion | \$30M - \$35M | 350-400 | | X | X | X | | |
| 4 | Mermentau | MC | South Grand Chenier Marsh Creation | \$20M - \$25M | 400-450 | | | X | | | |
| 4 | Calcasieu-Sabine | SP | East Holly Beach Gulf Shoreline Protection | \$30M - \$35M | 150-200 | | | | X | X | Piping plover critical habitat |
| 4 | Calcasieu-Sabine | MC | West Cove Marsh Creation & Nourishment | \$25M - \$30M | 450-500 | | | X | | X | Sediment availability; Corps maintenance dredging budget |

| | | | | | | | | | | | |
|--|-----------|--|------|--|--|--|--|--|--|--|--|
| | CoastWide | | NONE | | | | | | | | |
|--|-----------|--|------|--|--|--|--|--|--|--|--|

PPL23 PROJECT NOMINEE FACT SHEET
29 March 2013

Project Name

Shell Beach Marsh Creation

Project Location

Region 1, Pontchartrain Basin, South Lake Borgne Mapping Unit, St. Bernard Parish, north bank of the MRGO in the vicinity of Shell Beach

Problem

The marsh boundary separating Lake Borgne and the MRGO has undergone both interior and shoreline wetland losses due to subsidence, impacts related to construction and use of the MRGO (i.e., deep draft vessel traffic), and wind driven waves. Although much of the project area is protected from edge erosion by shoreline protection measures, interior wetland loss due to subsidence continues to cause marsh fragmentation and pond enlargement. Wetland loss rates in the applicable mapping unit are estimated to be -0.49%/year (1985 – 2009 LCA loss rate).

Proposed Solution

The proposed project's primary feature is to create and nourish 534 acres of marsh by dredging about 3.2 Mcy of sediment from Lake Borgne. Existing high shoreline along Lake Borgne and remnants of previous containment dikes would be used for containment to the extent practical. Constructed containment dikes would be breached/gapped as needed to provide tidal exchange after fill materials settle and consolidate. A closure structure (probably earthen) would be evaluated at the twin pipeline crossing in the northern cell. The project would create 196 acres of marsh and nourish at least 338 acres of existing fragmented marsh. A target fill elevation of +1.5 feet is envisioned to enhance longevity of this land form. Due to the presence of existing banklines, it is envisioned that dredged slurry overflow could potentially be discharged immediately adjacent to the project area polygons which could result in nourishment of additional areas.

Goals

The project would create and nourish 534 acres of emergent brackish marsh and backfill a portion of a pipeline canal to enhance the structural function of landform separating Lake Borgne from the MRGO.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total project area is approximately 534 acres.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Assuming a 50% reduction in the background loss rate of -0.49%/year, the marsh creation and nourishment would result in 204 net acres after 20 years.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?*
A 50% loss rate reduction is assumed for both marsh creation and nourishment.

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

The project would maintain the narrow landform between the shallow waters of Lake Borgne and the deeper MRGO as well as provide benefits to the Lake Borgne shoreline.

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

The proposed project would provide benefits to the community of Shell Beach which will be increasingly exposed as loss of the landform continues through subsidence and interior marsh loss. The project would also provide positive impacts to non-critical (i.e., minor oil and gas facilities) infrastructure. Targa and Tennessee Gas both have facilities located in Shell Beach that receive, process and distribute natural gas.

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

The project would be synergistic with shoreline protection projects implemented under the CWPPRA program as well as other authorities.

Identification of Potential Issues

The proposed project has potential Gulf Sturgeon critical habitat and pipeline issues.

Preliminary Construction Costs

The estimated construction cost (including 25% contingency) is approximately \$20,806,537.

The fully funded cost range is \$25 - \$30 M.

Preparer(s) of Fact Sheet:

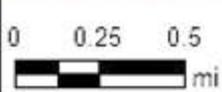
Rachel Sweeney, NOAA Fisheries, 225.389.0508 (ext. 206), rachel.sweeney@noaa.gov



 Total acres 534
(196 created & 338 nourished)

 Earthen closure (pipeline crossing)

Net acres: 204



Absolute Scale: 1:25,000

Relative Scale: 1 inch = 2,041 feet

PPL 23 Shell Beach Nominee March 2013

Disclaimer: This data is not to be used for legal purposes.

Date: 3/11/2013



PPL 23 PROJECT NOMINEE FACT SHEET

March 29, 2013

Project Name

New Orleans Landbridge Shoreline Stabilization & Marsh Creation Project (Hospital Wall Area)

Project Location

Region 1, Pontchartrain Basin, Orleans Parish, along the east portion of Lake Pontchartrain on both sides of Hwy 90 between Hospital Road and Greens Ditch

Problem

Since 1956, the project area has lost more than 110 acres of wetlands along the east shore of Lake Pontchartrain between Hospital Road and the Greens Ditch area. The shoreline in the Hospital Wall Area has retreated approximately 450 feet since 1956. Wetland losses were accelerated by winds and storm surge caused by Hurricanes Katrina and Rita. Within the project area, these storms alone converted approximately 70 acres of interior marsh to open water. Flooding of nearby communities during strong northwest winds may be partially attributed to these high wetland losses. Stabilizing the shoreline and protecting the remaining marsh would protect natural coastal resources, communities and infrastructure.

The average shoreline retreat along the Lake Pontchartrain shoreline in the project area has been estimated to be approximately 5 ft. per year (retreat was measured via Google Earth imagery from 1989 to 2009). Some areas have a shoreline retreat as great as 15 ft. year and have broken into the interior marsh. The continued loss of wetlands has the potential to breach this land bridge into Lake St. Catherine if no action is taken. The 1985 to 2009 East Orleans Land Bridge subunit loss rate is -0.34% per year.

Goals

The project goal is to restore and enhance 244 acres of brackish marsh and to protect 6,349 linear feet of shoreline.

Proposed Solution

1. Install approximately 6,349 linear feet of rock along the northwestern shoreline of Lake Pontchartrain along the New Orleans Landbridge to protect wetlands.
2. Create/restore/nourish approximately 242 acres of wetlands using approximately 1.4 million cubic yards of dredged material from either Lake St. Catherine or Lake Pontchartrain (dependent on coordination regarding Gulf sturgeon critical habitat).

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
Marsh creation and nourishment totals 242 acres. The shoreline protection would benefit 15 acres of marsh, of which thirteen acres are a part of the marsh creation and nourishment areas. Therefore 2 additional acres of existing marsh would be benefited by the shoreline protection with a total of 244 acres of the project area being benefited both directly and indirectly.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 140 net acres of brackish marsh habitat will be protected/created over the project life.

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated land loss rate reduction will be a 50% reduction in loss rates to approximately 242 acres resulting from marsh creation and a 75% reduction in loss rates to 15 acres resulting from shoreline protection over the project life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project protects the East Orleans Landbridge and maintains a portion of the lake rims of Lake Pontchartrain and Lake St. Catherine, which are structural components of the coastal ecosystem and provide one of the last lines of defense against storm surge coming into the Lake Pontchartrain system.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would have a net positive impact to critical infrastructure which consists of U.S. Highway 90, a major hurricane evacuation route for the Greater New Orleans area, and residences along the East Orleans Land Bridge due to reducing the rate or frequency of flooding from south/southeast winds and tidal surge.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have synergistic effects with flood protection and restoration efforts within the Lake Pontchartrain Basin including the Greater New Orleans Hurricane and Storm Damage Risk Reduction System, the Bayou Chevee Shoreline Protection Project (PO-22), the Alligator Bend Marsh Restoration and Shoreline Protection Project (PO-34), as well as several marsh mitigation projects being designed and implemented in the area.

Identification of Potential Issues

The proposed project has potential borrow source, O&M, pipeline, and Gulf sturgeon critical habitat issues.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$14,633,218. The fully-funded cost range is \$20M-\$25M.

Preparers of Fact Sheet

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PPL23 PROJECT NOMINEE FACT SHEET
March 29, 2013

Project Name

Shell Beach Marsh Creation and Nourishment Project

Project Location

The project is located in Region 1, in the Pontchartrain Basin. The project site is located between south shore of Lake Borgne and north bank of the MRGO channel in the vicinity of Yscloskey and Fort Beauregard in St. Bernard Parish, Louisiana.

Problem

Due to subsidence, wind driven wave erosion, and salt water intrusion, the project area, which consists of approximately 1,270 acres of broken marsh, including, around 500 acres of shallow open water. Critical breaches in the shoreline are impacting interior wetland habitat including shallow water ponds and vegetated marshes and are contributing to the interior marsh loss. Lost marsh areas and subsiding marsh needs to be maintained. Stabilizing the landbridge with new emergent marsh would prevent coalescence of Lake Borgne with the Mississippi River Gulf Outlet and protect local communities and infrastructure.

Goals

The project goal is to restore approximately 457 acres by creating 296 ac of new marsh and nourishing 161 ac of existing marsh, to maintain the landbridge separating Lake Borgne from the MRGO.

Proposed Solution

The proposed solution for this area is: Marsh creation in five existing open water areas and marsh nourishment in the immediate proximity of the marsh creation sites. The proposed marsh restoration through dedicated dredging from the southern lobe of Lake Borgne will also require the construction of sacrificial earthen retention dikes. The existing earthen ridge along the south shore of Lake Borgne will be used to the maximum extent possible for dredged material slurry retention. Approximately 2,700,000 cubic yards of borrow would be required to construct the five proposed sites. Borrow material would be obtained from NEPA cleared sites approximately 1 mile off the Lake Borgne shoreline.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is 457 ac.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 289 acres of brackish habitat will be protected/created over the project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the project life.

- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
Marsh Creation/nourishment area lies between shoreline protection features of existing projects.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would provide additional protection to communities of Shell Beach and Ycloskey, as well as oil and gas infrastructure located in the vicinity.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
There are various existing shoreline protection projects lining both the Lake Borgne and MRGO shorelines adjacent to the project area that would provide protection to emergent marsh in a FWP condition. Project will have a synergistic effect with existing CWPPRA project PO-30 along Lake Borgne shoreline.

Identification of Potential Issues

The proposed project has potential oyster lease issues.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$18,460,204. The fully funded cost range is \$20M-\$25M.

Preparer(s) of Fact Sheet:

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PPL 23 SHELL BEACH MARSH CREATION AND NOURISHMENT

LAKE BORGNE

BORROW PIT

BORROW PIT

BORROW PIT

EXISTING SHORELINE PROTECTION

DOGWOOD DAM

Site 1

Site 2

Site 3

Site 4

Site 5

FORT BAYOU

BAYOU YSCLOSKEY

SHELL BEACH

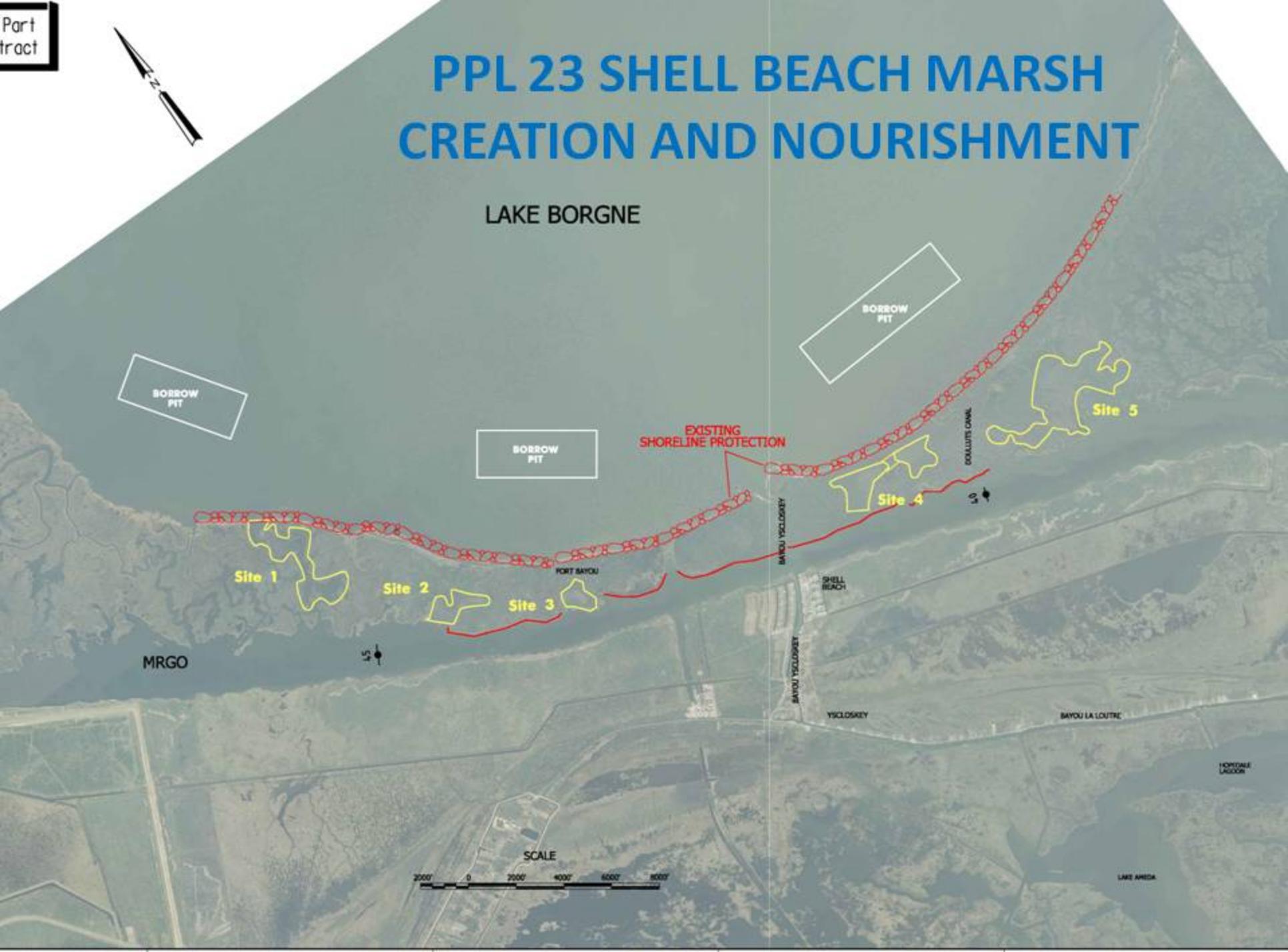
MRGO

YSLOSKEY

BAYOU LA LOUISE

HORTALE LAGOON

LAKE AMICA



PPL23 PROJECT NOMINEE FACT SHEET
April 16, 2013

Project Name

Marsh Creation South of Lake Lery

Project Location

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

Problem

According to USGS-NWRC mapping, much of the wetlands surrounding Lake Lery were heavily damaged along with the Lake Lery shoreline due to Hurricane Katrina. Since 2005 this area has been hit with 4 Hurricanes (Gustav, Ike, Ida, Issac) and at least 1 Tropical Storm (Lee). The marshes in the area have never had time to completely heal before the next major storm hit. Wind induced waves are now damaging the interior marshes between Lake Lery and Lost Lake causing accelerated interior marsh loss. Currently marsh habitat located between Lost Lake and Lake Lery is almost completely gone, so much so that you can now drive an outboard motorboat from one lake to the other. Because of the severe damage from Hurricane Katrina and the repeated damages from the other storms, it is highly unlikely that this area will recover without immediate restoration efforts. Interior loss rate from USGS 1985-2009 Caernarvon Outfall LCA polygon is 0.93%/yr.

Goals

Create 614 acres and nourish 224 acres of interior marsh through hydraulic dredging.

Proposed Solution

This project would create 614 acres and restore approximately 224 acres of intermediate to low salinity brackish marsh south of Lake Lery. The borrow source would be material hydraulically dredged from Lake Lery and placed in marsh creation cells contained by earthen containment dikes. Some of the containment dikes would be constructed in a more robust manner along several of the smaller lake shorelines to reduce shoreline erosion. These would not be gapped, but any historic trenasses or bayous would be opened after construction. All other containment dikes would be gapped within 3 years of construction.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is 838 ac.

- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 578 acres of intertidal marsh habitat will be protected/created over the project life.

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the projects life.

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

The project will help maintain the Lost Lake shoreline and a portion of the Bayou Lery bankline.

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

The project would have moderate net positive impact to critical infrastructures which consists of some oil and gas facilities and also the town of Delacroix.

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

The project will have a synergistic effect with South Lake Lery Shoreline and Marsh Restoration (BS-16), Marsh Creation South of Big Mar and Caernarvon Freshwater Diversion.

Identification of Potential Issues

Potential project issues include the following: pipelines.

Preliminary Construction Costs

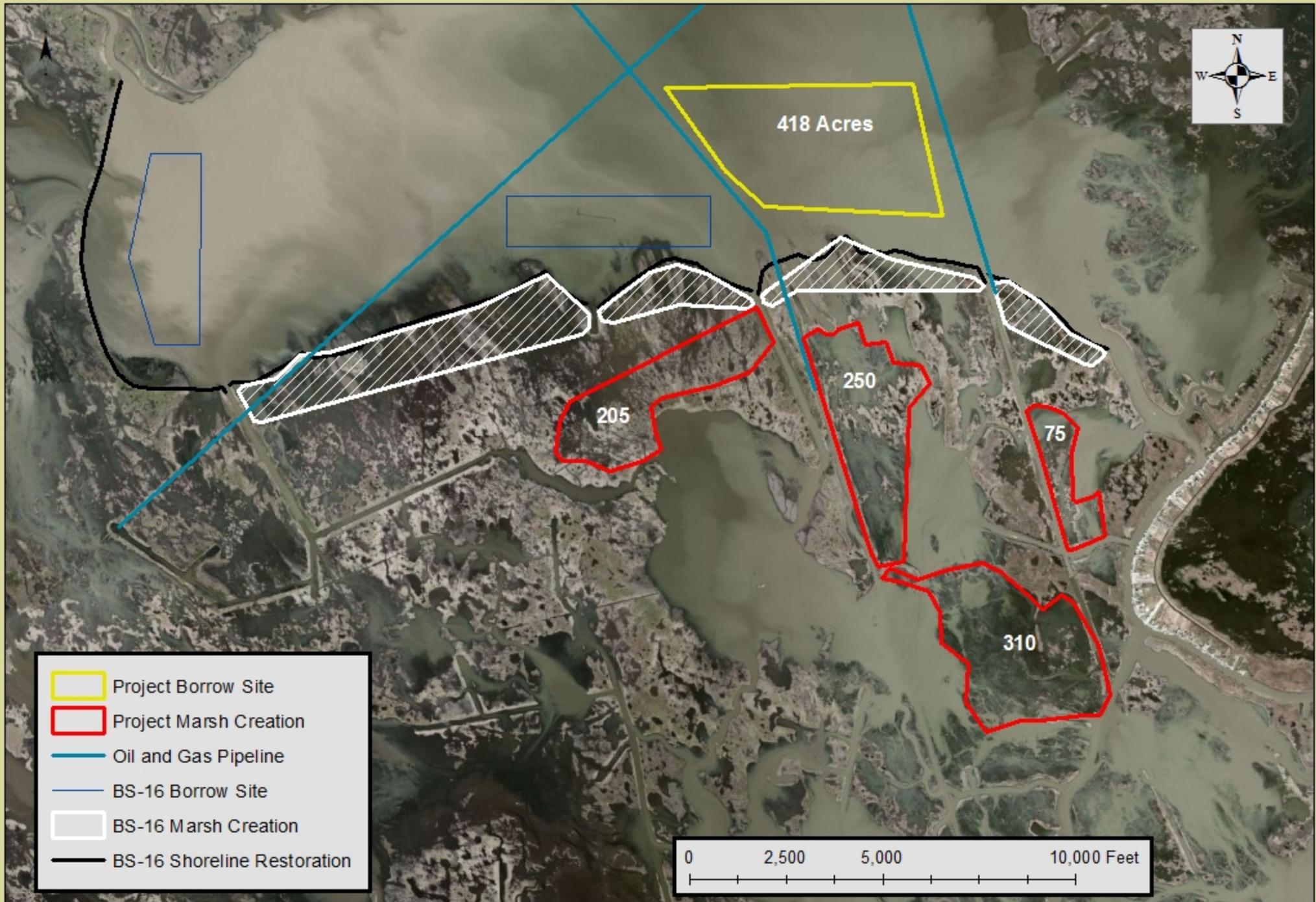
The estimated construction cost including 25% contingency is \$29,096,523. The fully funded cost range is \$35M-\$40M.

Preparer(s) of Fact Sheet:

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



Marsh Creation South of Lake Lery



PPL23 PROJECT NOMINEE FACT SHEET

March 29, 2013

Project Name:

Bayou Dupont Sediment Delivery – Marsh Creation 4

Project Location

Region 2, Barataria Basin, Plaquemines and Jefferson Parishes.

Problem

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

Goals

The primary goal of this project is to create/nourish approximately 300 ac of emergent intermediate marsh (250 acres marsh creation, 50 acres nourishment) using sediment from the Mississippi River. This project would tie in to the previously constructed BA-39 project and the recently approved PPL22 Bayou Dupont #3 project. The project will also complement the BA-48 project and the State's Long Distance Sediment Pipeline Project.

Proposed Solution

The project will create approximately 250 acres and nourish approximately 50 acres of emergent intermediate marsh by hydraulically pumping sediment from the Mississippi River via pipeline. The preliminary target elevation for the marsh platform is +1.3' NAVD88 to be achieved early in the project life. It is anticipated that construction can be performed with limited confinement. However, if containment is required, dike degradation and/or gapping will be performed post-construction. Additionally, tidal creeks are included as a post-construction feature in the project concept. Planting of appropriate marsh vegetation for 50% of the created marsh acres (125 ac) is included to help promote vegetation of the constructed marsh platform.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total project area is 300 acres.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 241 net acres of wetlands will be protected/created over the 20-year project life. This estimate is based on the assumption that 250 acres will be created and 50 acres will be nourished.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50% over the projects life.

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

The project will reinforce and restore the Chenier Traverse Bayou Ridge.

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

The project may provide additional protection to the Plaquemines Parish levee system.

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

This project will be built adjacent to the original Bayou Dupont marsh creation project and near the Bayou Dupont #2, Bayou Dupont #3 and the LDSP projects. These projects work synergistically with one another by rebuilding a relatively large area of wetlands that have been lost.

Identification of Potential Issues

The proposed project has potential borrow source and pipeline crossing issues. However, the project team does not feel the borrow source will be an issue as other nearby borrow sources will be evaluated during the engineering and design phase for the PPL22 Dupont #3 project.

Preliminary Project Costs

The estimated construction cost including 25% contingency is \$20,037,512. The fully-funded cost range is \$25M - \$30M.

Preparer of Fact Sheet

Chris Llewellyn, EPA, (214) 665-7239; llewellyn.chris@epa.gov

Bayou Dupont Marsh Creation 4

0 0.8 1.6 2.4 Miles

N



Legend

 Fill Area

PPL 23 PROJECT NOMINEE FACT SHEET
April 2, 2013

Project Name

Caminada Headlands Back Barrier Marsh Creation

Project Location

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

Problem

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

Goals

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

Proposed Solution

This project would create 355 acres of marsh and nourish 255 acres of emergent marsh, behind 3.75 miles of Caminada beach, using material dredged from the Gulf of Mexico.

Preliminary Project Benefits

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

- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 351 acres of marsh habitat will remain at TY20.

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

- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will serve to increase the longevity of Caminada Headland. The back barrier marsh will decrease the likelihood of breaches in the shoreline, and will serve as a platform upon which overwashed sediment can be captured.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
Caminada Headland serves as a critical barrier between the gulf and lower Lafourche and Jefferson Parishes. The project helps protect infrastructure in the immediate area such as LA-1 and parts of Port Fourchon.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a synergistic effect with Caminada 1 project being constructed under CIAP. The Caminada 1 project only addresses the beach and dune components of barrier headland restoration. This project would increase the longevity of those features by decreasing the likelihood of breaches, and capturing overwashed sediment.

Identification of Potential Issues

Pipelines: at least two pipelines bisect the project.

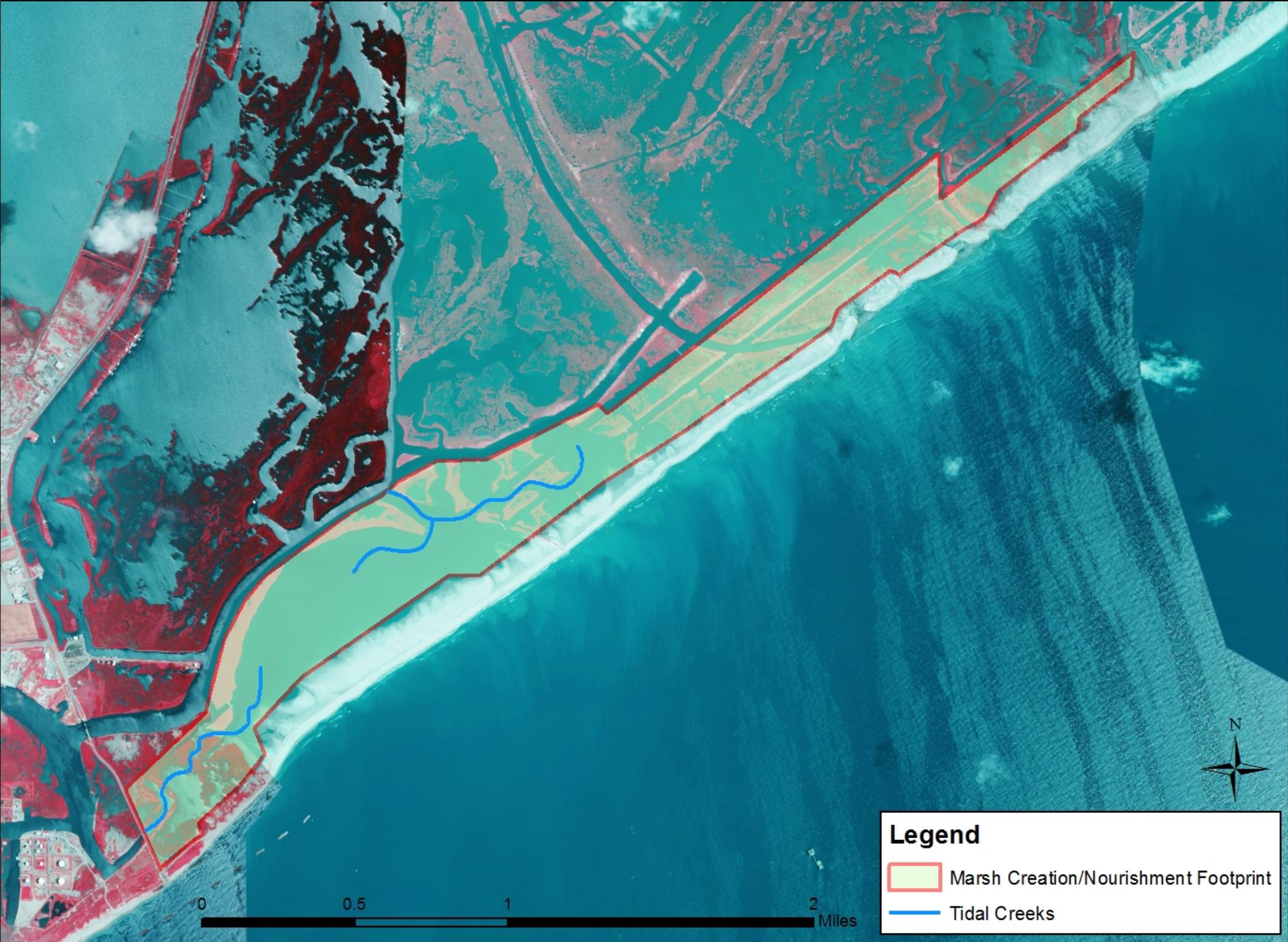
Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$29,016,058. The fully-funded cost range is \$35M - \$40M.

Preparer of Fact Sheet

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

Caminada Back-Barrier Marsh Creation and Nourishment



PPL23 PROJECT NOMINEE FACT SHEET
March 20, 2013

Project Name

Wilkinson Canal Marsh Creation and Nourishment Project

Project Location

Region 2, Barataria Basin, Plaquemines Parish

Problem

There is widespread historic and continued rapid land loss within the project site and surrounding areas resulting from subsidence, wind erosion, storms, and altered hydrology. The wetland loss rate for the Lake Laurier subunit is -0.43%/year based on USGS data from 1985 to 2009.

Furthermore, the natural limits of Bayou Dupont are difficult to determine in some areas because land loss is causing the coalescence of the bayou with adjacent water bodies. Natural tidal flow and drainage patterns that once existed through the bayou are currently circumvented by the increasing area of open water. Data suggests that from 1932 to 1990, the basin lost over 245,000 ac of marsh, and from 1978 to 1990, Barataria Basin experienced the highest rate of wetland loss along the entire coast.

Goals

The project goal is to create and/or nourish up to 480 acres (432 of marsh creation and 48 acres of marsh nourishment) of emergent brackish marsh.

Proposed Solution

The proposed project's primary feature is to create and/or nourish existing marsh. In order to achieve this, sediment will be hydraulically pumped from a borrow source in the Mississippi River (near the Myrtle Grove area). Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. No later than three years post construction, the containment dikes will be degraded and/or gapped. Additionally, half of the newly constructed marsh (216 acres) will be planted following construction to stabilize the platform and reduce time for full vegetation.

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

Preliminary Project Benefits

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

This total project area is 480 acres (432 of marsh creation and 48 acres of marsh nourishment).

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

Assuming a 50% reduction in the background loss rate of -0.43%/year, the marsh creation and nourishment would result in 416 net acres after 20 years (assuming 432 of marsh creation and 48 acres of marsh nourishment at construction).

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
A 50% loss rate reduction is assumed for the marsh creation, and marsh nourishment. (from -0.43%/year to -0.22%/year).
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help provide restore a portion of Bayou Dupont while also providing protection to the flood protection levee.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will provide protection to the flood protection levee. Minor oil and gas facilities and pipelines in the area would benefit from an increase in marsh acreage.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project may have direct synergy with the Bayou Dupont Sediment Delivery System (BA-39), Bayou Dupont Marsh and Ridge Creation (BA-48), Mississippi River Long Distance Sediment Pipeline (BA-43EB), and Bayou Dupont Sediment Delivery System – Marsh Creation 3 projects.

Identification of Potential Issues

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

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$29,976,974. The fully-funded cost range is \$35M - \$40M.

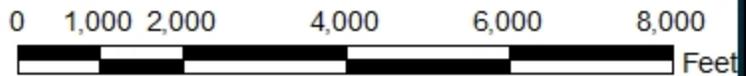
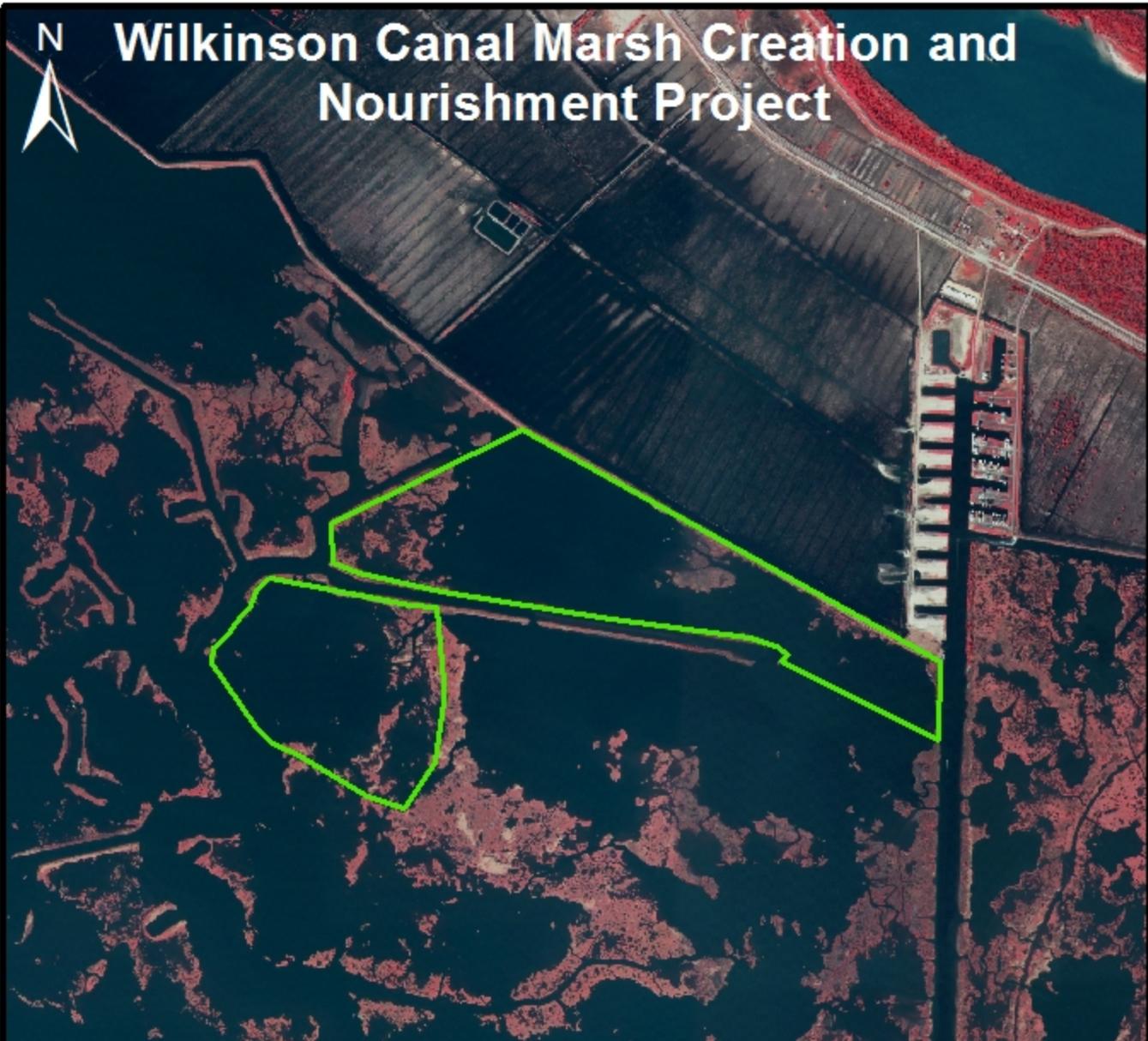
Preparer(s) of Fact Sheet:

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

Patrick Williams, NOAA Fisheries, 225-389-0508, ext 208, patrick.williams@noaa.gov



Wilkinson Canal Marsh Creation and Nourishment Project



Legend

 Marsh Creation Area - 480 acres



Base image - 2005 color infrared photography

PPL23 PROJECT NOMINEE FACT SHEET
March 21, 2013

Project Name

Bayou Grande Cheniere Marsh and Ridge Restoration

Project Location

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

Problem

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

Goals

The primary goal is to restore marsh and ridge habitat along the eastern side of Bayou Grande Cheniere. Historically, a natural levee ridge existed along Bayou Grande Cheniere as it was once a distributary of the Mississippi River.

Proposed Solution

1. Riverine sediments will be hydraulically dredged and pumped via pipeline to create/nourish approximately 367 acres of marsh. The marsh creation cells total 365 acres. Ridge construction results in 2 additional acres of marsh.
2. Approximately 11,200 feet of ridge (14 acres) will be constructed along the eastern side of Bayou Grande Cheniere. Riverine sediments will be used for ridge construction.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?* Approximately 381 acres would be benefited directly and indirectly (367 acres of marsh creation/nourishment, 14 acres of ridge restoration).
- 2) *How many acres of wetlands will be protected/created over the project life?* The total net acres protected/created over the project life is approximately 217 acres.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?* The anticipated loss rate reduction throughout the area of direct benefit is estimated to be 50%.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.*
Yes, the project would restore 11,200 feet (14 acres) of natural levee ridge habitat along Bayou Grande Cheniere.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?* The project would not protect any infrastructure.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* The project would provide a synergistic effect with the Lake Hermitage Marsh Creation Project (BA-42), the West Pointe a la Hache Marsh Creation Project (BA-47), and the West Pointe a la Hache Siphon Enhancement Project (BA-04). All of these projects would work in conjunction to restore wetlands within the West Pointe a la Hache Mapping Unit.

Identification of Potential Issues

The only potential issues identified for this project are oil and gas pipelines.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$24,056,344. The fully-funded cost range is \$30M-\$35M.

Preparer of Fact Sheet

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



PPL23 PROJECT NOMINEE FACT SHEET
March 20, 2013

Project Name

Island Road Marsh Creation and Nourishment Project

Project Location

Region 3, Terrebonne Basin, Terrebonne Parish

Problem

The Terrebonne Basin is an abandoned delta complex, characterized by a thick section of unconsolidated sediments that are undergoing dewatering and compaction, contributing to high subsidence, and a network of old distributary ridges extending southward from Houma. Historically, subsidence and numerous oil and gas canals and pipelines in the area have contributed significantly to wetland losses. Since 1932, the Terrebonne Basin has lost approximately 20% of its wetlands. Current loss rates range from approximately 4,500 to 6,500 acres/year. This loss amounts to up to 130,000 acres during the next 20 years. One-third of the Terrebonne Basin's remaining wetlands would be lost to open water by the year 2040. The wetland loss rate for the Wonder Lake subunit is -0.87%/year based on USGS data from 1985 to 2009.

There has been a significant reduction in the marsh platform in the vicinity of Island Road that has provided some historical wave energy protection. Island Road is the only land access to the Isle of Jean Charles located west of Pointe Aux Chenes which serves a unique community comprised of 46% Native American Indian and 90% minority which have historically relied on fishing for their livelihood

Goals

The project goal is to create and/or nourish up to 428 acres (397 acres of marsh creation and 31 acres of marsh nourishment) of emergent brackish marsh.

Proposed Solution

The proposed project's primary feature is to create and/or nourish existing marsh. In order to achieve this, sediment will be hydraulically pumped from a borrow source near Lake Felicity. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. No later than three years post construction, the containment dikes will be degraded and/or gapped. Additionally, half of the newly constructed marsh (199 acres) will be planted following construction to stabilize the platform and reduce time for full vegetation.

The restoration concept provides for the creation and/or nourishment of approximately 428 acres that will form a land bridge along the perimeter along Cutoff Canal and the twin pipelines. This concept allows for future restoration projects between Island Road and the newly constructed marsh platform providing further benefit to the area. Ducks Unlimited has already expressed interested in complementary restoration projects within the area.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is approximately 428 acres (397 acres of marsh creation and 31 acres of marsh nourishment).
- 2) *How many acres of wetlands will be protected/created over the project life?*
Assuming a 50% reduction in the background loss rate of -0.87%/year, the marsh creation and nourishment would result in 367 net acres after 20 years (assuming 397 of marsh creation and 31 acres of marsh nourishment at construction).
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
A 50% loss rate reduction is assumed for the marsh creation, and marsh nourishment. (from -0.87%/year to -0.44%/year).
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help provide restore a portion of Cutoff Canal and Bayou Jean LaCroix and help maintain Island Road.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will provide protection to Island Road that provides access to the residents of Isle of Jean Charles. The project would also provide positive impacts to non-critical (i.e., minor oil and gas facilities) infrastructure. Minor oil and gas facilities and pipelines in the area would benefit from an increase in marsh acreage. The loss of wetlands in this area increases the vulnerability of infrastructure to wave energy.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project may have indirect synergy with the Madison Bay Marsh Creation and Terracing (TE-51) project and the Ducks Unlimited marsh management unit on Point aux Chien Wildlife Management Area.

Identification of Potential Issues

The proposed project has potential utility/pipeline issues.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$28,274,668. The fully-funded cost range is \$35M - \$40M.

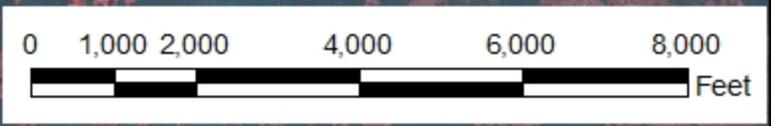
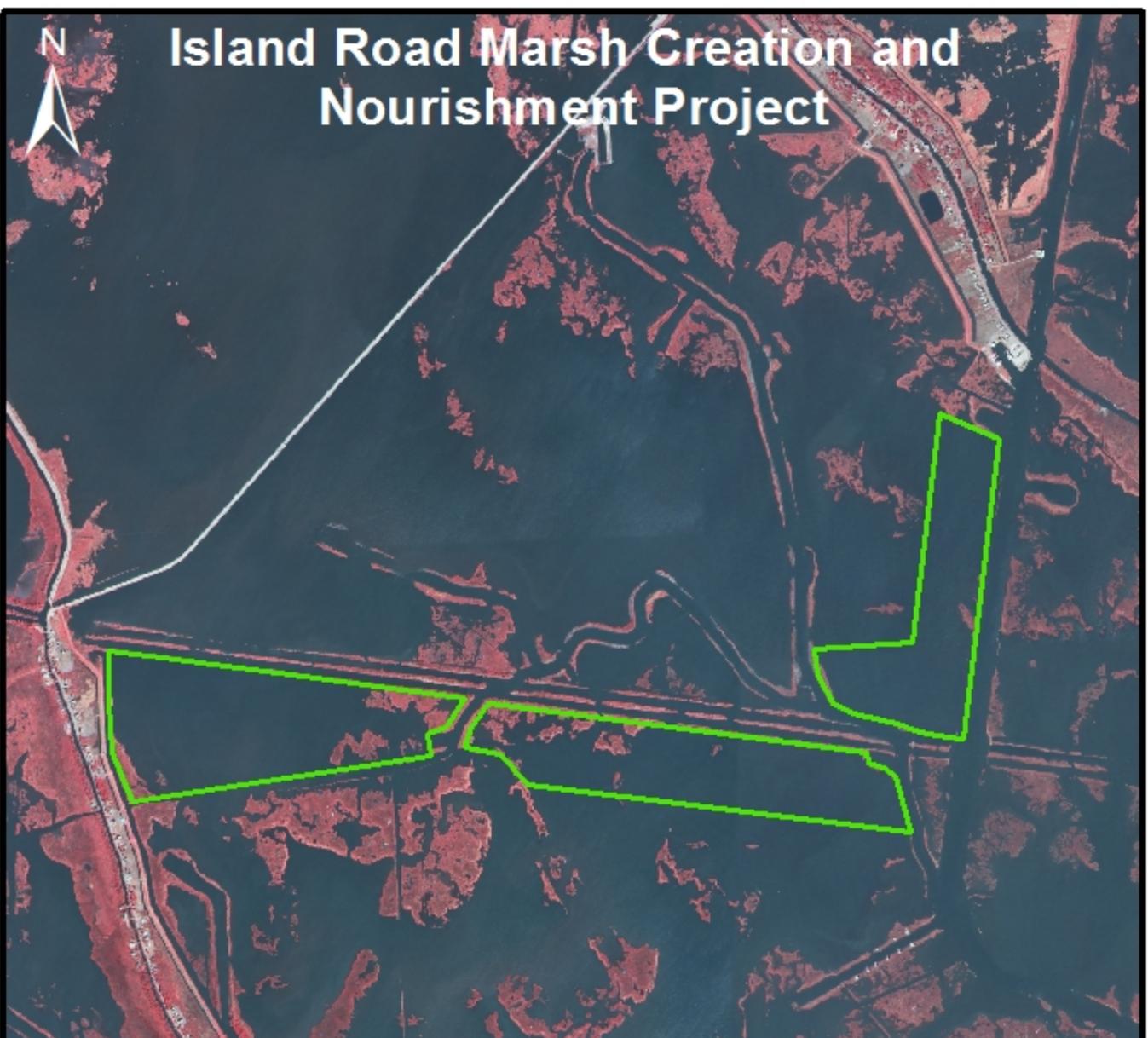
Preparer(s) of Fact Sheet:

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Patrick Williams, NOAA Fisheries, 225-389-0508, ext 208, patrick.williams@noaa.gov



Island Road Marsh Creation and Nourishment Project



Legend

 Marsh Creation and Nourishment - 428 acres



Base image - 2005 color infrared photography

PPL23 PROJECT NOMINEE FACT SHEET
April 16, 2013

Project Name

Terrebonne Bay Shoreline Protection with Oyster Reefs

Project Location

Region 3, Terrebonne Basin, Terrebonne Parish, Terrebonne Bay

Problem

Marshes north of Terrebonne Bay have a high marsh loss rate, estimated to be 0.34%/yr (USGS-1985-2009). The shoreline erosion rate in some areas along the northern Terrebonne Bay shoreline has been shown to be 8 to 34 ft/yr (TE-45 Demo Project). Other estimates (FWS – Ronnie Paille) are as high as 30 ft/yr. The reasons for these high erosion rates include subsidence, a lack of sediment input and a limited supply of freshwater, and a dramatically increased tidal prism north of Terrebonne Bay. The increase in the tidal prism directly contributes to the increasing flooding problems of many communities along Bayou Terrebonne including the town of Montegut. As emergent marshes in this area convert to open water, tidal surges will continue to increase thus increasing the flooding north of the bay.

Goals

The goals of the project are to reduce shoreline erosion along 26,641 linear feet of Terrebonne Bay shoreline and to prevent the bay shoreline from breaking into interior marsh ponds.

Proposed Solution

This project would protect approximately 26,641 linear feet of Terrebonne Bay shoreline through the construction of habitats suitable for the establishment of oyster reefs. This would be done by installing rock-filled gabion mats along the shoreline and “A-Jax”-like structures across any open water areas. This would promote the creation of oyster reefs which would reduce the shoreline erosion rates with little to no maintenance. Shoreline loss rates associated with this proposed project would be 13 ft/yr. This project should reduce area loss rates by over 95%. This equates to protecting approximately 132 acres of emergent marsh throughout the 20 project life.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is 159 ac.

- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 132 acres of intertidal marsh habitat will be protected/created over the project life.

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 95% over the projects life.

- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help maintain the Terrebonne Bay shoreline.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would have moderate net positive impact to non-critical infrastructures which consists of some oil and gas facilities and camps.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a synergistic effect with Terrebonne Bay Oyster Demo (TE-45) and Terrebonne Bay Marsh Creation Project (TE-83).

Identification of Potential Issues

This area has many oyster leases, but through the light loading of material and shallow draft equipment the impacts to the leases should be small. Potential issues include the following: Oysters, pipelines, and O&M.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$21,841,782. The fully funded cost range is \$30M-\$35M.

Preparer(s) of Fact Sheet:

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

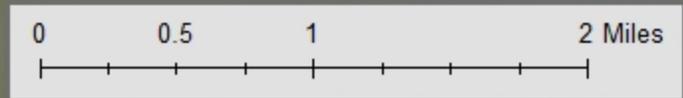


U.S Fish and Wildlife Service - Louisiana Ecological Services Field Office

PPL23 - Terrebonne Bay Shoreline Protection with Oyster Reef



- Marsh Lost TY 20
- TE 45 Constructed Oyster Reef
- Proposed Oyster Reef Protection



PPL23 PROJECT NOMINEE FACT SHEET
April 16, 2013

Project Name

Grand Bayou Freshwater Enhancement

Project Location

Region 3, Terrebonne Basin, Lafourche Parish

Problem

Project area salinities are increasing due to the loss of marshes south of the project area. Freshwater inflows into this area originate from the GIWW along the northern project boundary. The freshwater inflow from the GIWW is restricted by small channel cross-sections along the northern section of Grand Bayou Canal (GBC). Margaret's Bayou is also plugged keeping fresh water from moving east from GBC into those broken marshes. The project area encompasses 26,533 acres of which 10,018 acres were marsh and the remaining 16,515 acres were open water as of 2010. Land loss rates (USGS 1984-2011 linear regression of percent land values) west of GBC are estimated at -0.328 percent/year and -0.583 percent/year east of GBC.

Goals

The overall goals of this project are to increase the flow of fresh water down GBC from the GIWW and create/nourish marsh using material dredged from the enlargement of GBC. Specific project goals include: (1) increase the flow of fresh water from the GIWW from approximately 600 cfs to 1,600 cfs; (2) redirect much of the fresh water from GBC into the marshes east and west; (3) Create 135 acres and nourish 41 acres of intermediate marsh.

Proposed Solution

Enlarge the cross-sectional area of GBC by hydraulically dredging and placing approximately 612,674 cubic yards of sediments into an open water area to create/nourish 176 acres of intermediate marsh. The enlargement of GBC would increase the flow of fresh water down GBC from approximately 600 cfs to 1,600 cfs. A fixed crest weir (with barge bay) would be constructed within GBC south of Margaret's Bayou to raise the head of the water in GBC. Reconnect Margaret's Bayou with GBC and enlarge Margaret's Bayou. Replace a rock plug along GBC with a water control structure.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is 26,533 ac.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 566 acres of intertidal marsh habitat will be protected/created over the project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the projects life.

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

No.

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

The project would have moderate net positive impact to critical infrastructures which consists of Larose to Golden Meadow Levee, oil and gas infrastructure, and businesses near Hwy. 24.

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

The project will have a synergistic effect with several Ducks Unlimited projects, Bayou Point aux Chenes WMA management units, and several mitigation projects within the area.

Identification of Potential Issues

The proposed project has the following potential issues to consider – pipelines/utilities, O&M, and DOTD bridge replacement.

Preliminary Construction Costs

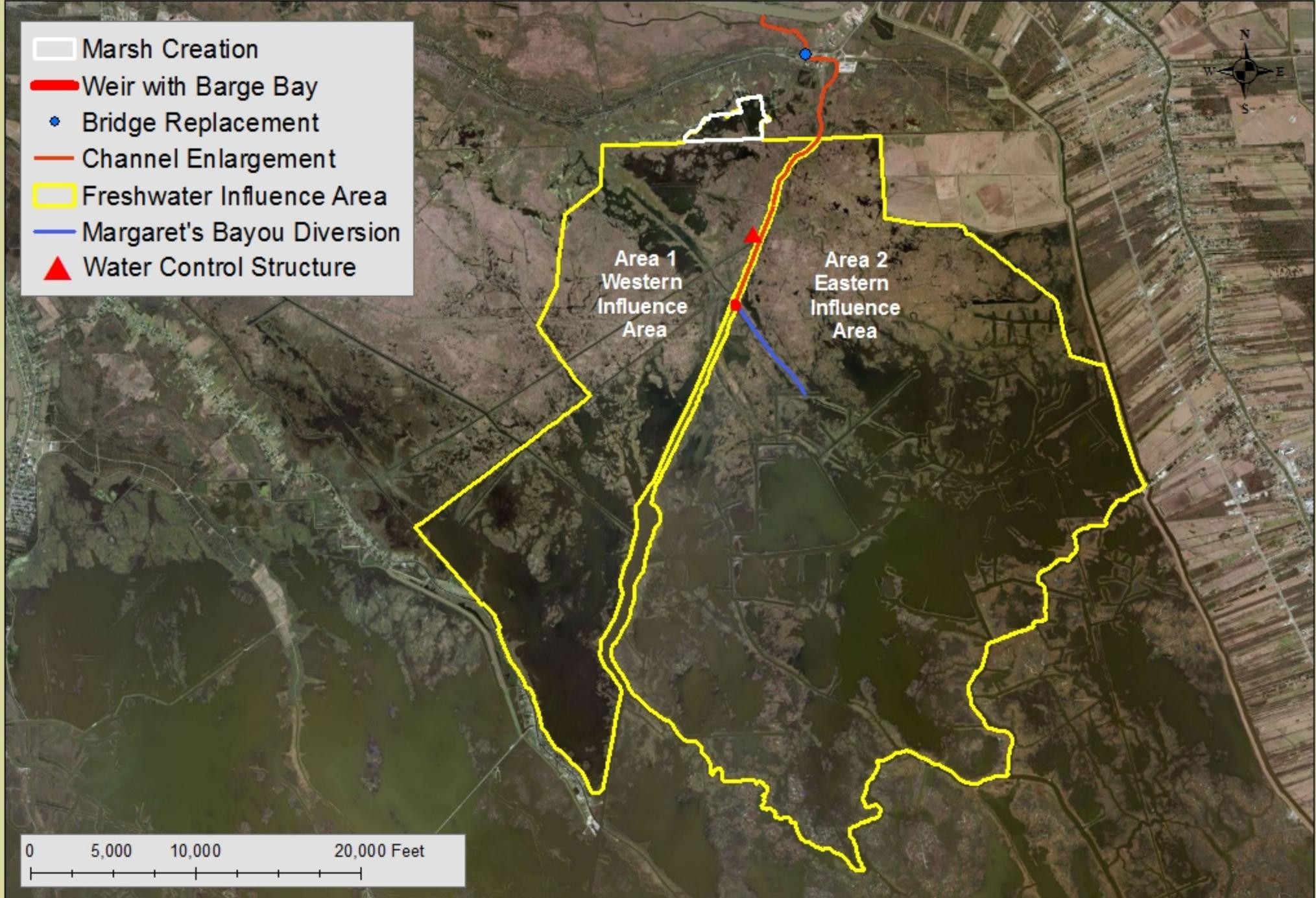
The estimated construction cost including 25% contingency is \$14,478,486. The fully-funded cost range is \$20M-\$25M.

Preparer(s) of Fact Sheet:

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



Grand Bayou Freshwater Enhancement



PPL 23 PROJECT NOMINEE FACT SHEET
March 27, 2013

Project Name

Bayou Terrebonne Ridge Restoration and Marsh Creation

Master Plan Strategy:

- 03a.RC.05 – Bayou Terrebonne Ridge Restoration

Project Location

The project is located directly along Bayou Terrebonne, northwest of Cocodrie, in Terrebonne Parish, Louisiana.

Problem

Terrebonne basin was historically structured by a series of north-south ridges—remnants of the many distributaries of Bayou Lafourche. Much of the habitat function of these ridges has been lost over the last half-century to erosion, subsidence, and development. Land loss projections predict that the ridge and surrounding marshes will be converted to open water by 2050.

Goals

- 1) Restore both the structural and habitat functions of 3.9 miles of Bayou Terrebonne Ridge.
- 2) Create and nourish 221 acres of marsh habitat.

Proposed Project Features

Create a 20,461 foot ridge along the east bank of Bayou Terrebonne. The ridge will have a +5.2 ft settled top height, a 15-foot top width, and 1:7 side slopes. The ridge feature would result in 7 acres of marsh and 24 acres of ridge habitat (Figure 2). Ridge material will come from Bayou Terrebonne. The borrow sites will be noncontiguous, as not to facilitate the northward flow of saltwater. The project will also include 214 acres of marsh creation and nourishment adjacent to the ridge component. Borrow for the marsh creation component will come from Terrebonne Bay.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
246 acres
- 2) *How many acres of wetlands will be protected/created over the project life?*
This project will create a net benefit of 185 acres of marsh and ridge habitats over the 20-year project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50% for the MC feature and 50% for the ridge feature over the projects life.

- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help restore nearly 4 miles of the natural ridge habitat along the east bank of Bayou Terrebonne. The project also helps maintain the Bayou Terrebonne bank line, keeping the bayou from coalescing with Lake Barre.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would help maintain Bayou Terrebonne which sees heavy commercial and recreational boat traffic. The ridge may offer some protection to infrastructure (LA-56) and communities to the west and north of the project.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a synergistic effect with other efforts to protect and restore Terrebonne Bay rim, including Terrebonne Bay Shore Protection Demonstration (TE-45), and Terrebonne Bay Marsh Creation and Nourishment Project (TE-83).

Identification of Potential Issues

Oyster leases.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$16,792,929.

The fully-funded cost range is \$20M - \$25M.

Preparer of Fact Sheet

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

Bayou Terrebonne Ridge Restoration and Marsh Creation



PPL23 PROJECT NOMINEE FACT SHEET
March 29, 2013

Project Name

Southwest Pass Shoreline Protection

Project Location

The project is located in the Region 3, Teche/Vermilion Basin, between the Marsh Island Wildlife Refuge in Iberia Parish and Paul J. Rainey Wildlife Sanctuary in Vermilion Parish.

Problem

Erosion of peninsulas in the project area is reducing the effectiveness of the landmass as a mainland barrier to gulf storm surge, wave energy and tidal flux reduction. Average losses of 8.4 ft/yr at Southwest Point and 10 ft/yr at Tojan Island were measured from 1998 to 2010. The project area interior marsh loss rate is estimated at -0.19%/y. Southwest point is only about 240 ft wide at its thinnest location and the gulf shoreline on Tojan Point is within less than 500 ft from interior tidal creeks leading to the interior.

Goals

The project goal is to protect and stabilize critical points within Southwest Pass. The current width and subsequent flow pattern will be maintained by installing armor protection around the perimeter of Tojan Island and Southwest Point. The rock protection will prevent tidal currents from circumventing the restriction at the pass and breaching into adjacent marsh areas.

Proposed Solution

Proposed is the installation of armored shoreline protection along the south shoreline of Vermilion Bay at Southwest Point for approximately 8,761 linear feet and along the north shoreline of the Gulf of Mexico at Tojan Island for approximately 7,147 linear ft. Shoreline protection would consist of typical rock construction.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The project would significantly reduce marsh losses through shoreline protection. The shoreline protection features would maintain approximately 67 acres of the Gulf shoreline along a barrier island and peninsula that will in turn help maintain a landmass that plays a significant role in regulating the hydrology of the Vermilion Bay system.
The total project area is approximately 67 acres.
- 2) *How many acres of wetlands will be protected/created over the project life?*
The project would protect approximately 64 net acres from shoreline erosion.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated loss rate reduction is 100% of shoreline erosion and interior loss would remain at the background loss rate of -0.19 %/y.

- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help maintain the Gulf beach rim and Vermilion Bay rim as well as maintain the integrity of a significant tidal exchange point between the Gulf and Vermilion Bay.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
There is no immediate infrastructure in the project area.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project has no immediate synergies with other projects in the region.

Identification of Potential Issues

There is a potential for oyster lease issues and disturbance of existing oyster seed grounds. The project would also require operation and maintenance (O&M).

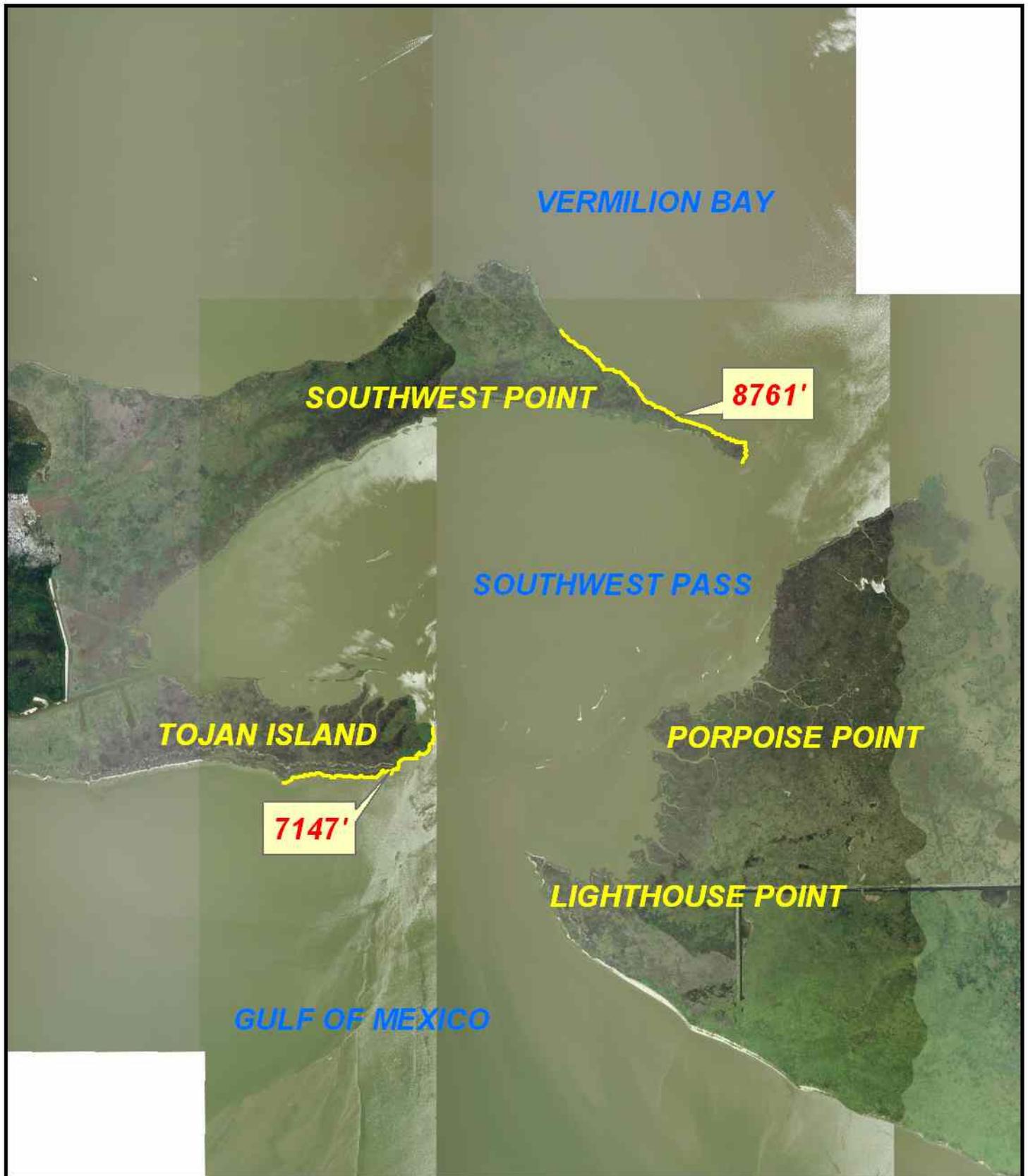
Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$7,729,790. The fully-funded cost range is \$10M to \$15M.

Preparer(s) of Fact Sheet:

Ron Boustany, NRCS, 337-291-3067, ron.boustany@la.usda.gov

John Jurgensen, NRCS, 318-473-7694, john.jurgensen@la.usda.gov



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

Data Source: NAIP 2010

Map Date: FEBRUARY 4, 2013



**SOUTHWEST
 PASS
 SHORELINE
 PROTECTION**

Legend
 SHORELINE_PROTECTION

1 inch = 4,477 feet

PPL23 PROJECT NOMINEE FACT SHEET
March 29, 2013

Project Name

North Marsh Island Shoreline Protection

Project Location

Region 3, Teche/Vermilion Basin, Iberia Parish, Marsh Island Refuge (LDWF)

Problem

Vermilion Bay historically contained numerous shell reefs that have largely been mined over the past several decades. These hard shallow reefs have been attributed in part to providing stability and protection to marsh shorelines along the periphery of the bay. Consequently, much of the bay's shorelines have experienced moderate to severe erosion. The north shore of Marsh Island has experienced average shoreline erosion of 12 ft per year from 1998 to 2005 and the estimated land loss rate for the region is -0.17%/y. Reestablishing the physical structure of historic reefs in areas of chronic erosion along with vegetative plantings will greatly reduce the vulnerability of the shoreline while allowing substrate for redevelopment of oyster populations.

Goals

The goals of the project are to mimic shell reef shoreline protection of 30,100 linear feet of shoreline from bank erosion and provide substrate to promote oyster development.

Proposed Solution

The project will construct 30,100 linear feet of a low reef shoreline protection set approximately 50 ft from shore with a design based on the configuration of natural shell reefs found nearby in Southwest Pass. The structure will consist of a low rock structure set at a height +1.8 ft (or marsh height) and crown width of 10-12 ft along the north shore of Marsh Island. The shoreline will be planted with smooth cordgrass.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is 201 acres including the reef, open water behind reef and 20 year estimated shoreline position.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Although the project will plant the shoreline behind the reef structure and potentially expand, it is anticipated that the project will stop shoreline erosion for a net acre benefit of 160 acres.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
Although it is anticipated that the project will stop shoreline loss by 100%, the area will continue interior loss at the background rate of -0.17%/y.

- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help maintain a barrier island and interior bay rim of Vermilion Bay.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
There is minimal infrastructure in the project area.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
None identified.

Identification of Potential Issues

The area may designated as oyster seed ground but would offset habitat destruction by creating artificial reef along the shoreline. The project would require operation and maintenance (O&M) within the 20 year life.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$20,663,097. The fully funded cost range is \$30M to 35M

Preparer(s) of Fact Sheet:

Ron Boustany, NRCS, (337) 291-3067, ron.boustany@la.usda.gov

Cassidy Lejeune, (337) 373-0032, clejeune@wlf.la.gov



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

Data Source: NAIP 2010 BEST AVAILABLE

Map Date: MARCH 5, 2013

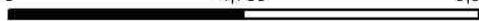


NORTH MARSH ISLAND SHORELINE PROTECTION

Legend

 SHORELINE_PROTECTION

0 Feet 4,750 9,500



PPL23 PROJECT NOMINEE FACT SHEET
March 21, 2013

Project Name

East Holly Beach Gulf Shoreline Protection

Master Plan Strategy

Calcasieu-Sabine Shoreline Protection-Component A: Shoreline protection through rock breakwaters of approximately 38,000 feet of Gulf shoreline - 004.BS.04a

Project Location

Region 4, Calcasieu-Sabine Basin, Cameron Parish, South of State Highway 82, west of the Calcasieu Ship Channel.

Problem

The project will be designed to reduce erosion of the Gulf Shoreline and protect the State's Beach Nourishment project (CS-33 SF). Recent loss rates (1998-2008) were calculated from aerial photography at 26.5 ft/yr. In some of the areas proposed for protection, less than 25 feet of shoreline remains between Louisiana State Highway 82 and the Gulf of Mexico.

Goals

The project is designed to reduce wave energies on the gulf shoreline west of the Calcasieu Ship Channel and trap sediment between the breakwaters and shoreline. The total area benefited is approximately 267 acres of beach, dune, and supratidal habitat created by (CS-33 SF) the state surplus project. The proposed project maintains a beach rim component of the coastal ecosystem and has a positive net impact on critical infrastructure (Highway 82). The project would also protect and restore critical habitat for the piping plover, a threatened/endangered species.

Proposed Project Features

The project proposes approximately 15,000 linear feet (2.8 miles) of breakwaters similar to the Holly Beach Breakwater Project (CS- 01) to protect the most critical shoreline area along Highway 82. Breakwaters will be designed on the CS-01 template, using all the lessons learned from the Holly Beach Breakwater Enhancement and Sand Management Project (CS-31). Approximately 40 round rubble breakwaters (ranging from 220 – 250 ft with 150 ft gaps), placed 300 feet offshore and built to 3.8 ft NGVD will be created. This project will protect approximately 267 acres of beach created by the CS-33SF project using approximately 2 million cubic yards of sand from an offshore borrow site.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?* The total area benefitted is estimated at 267 acres.

2) *How many acres of wetlands will be protected/created over the project life?* The project would protect approximately **175 net acres** (75% of the 233 acres projected to be lost without project).

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

4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.* The proposed project would maintain a beach rim component of the coastal ecosystem.

5) *What is the net impact of the project on critical and non-critical infrastructure?* The proposed project would provide protection to Louisiana Highway 82 and the Gulf shoreline.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* The proposed project is synergistic with the Holly Beach Breakwater Project (CS- 01), Holly Beach Breakwater Enhancement and Sand Management Project (CS-31), and a proposed state surplus project (CS-33 SF) that will create/nourish this area using sand from offshore borrow sites.

Identification of Potential Issues

There are no issues identified at this time.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$15,411,894. The fully-funded cost range is \$30M-\$35M.

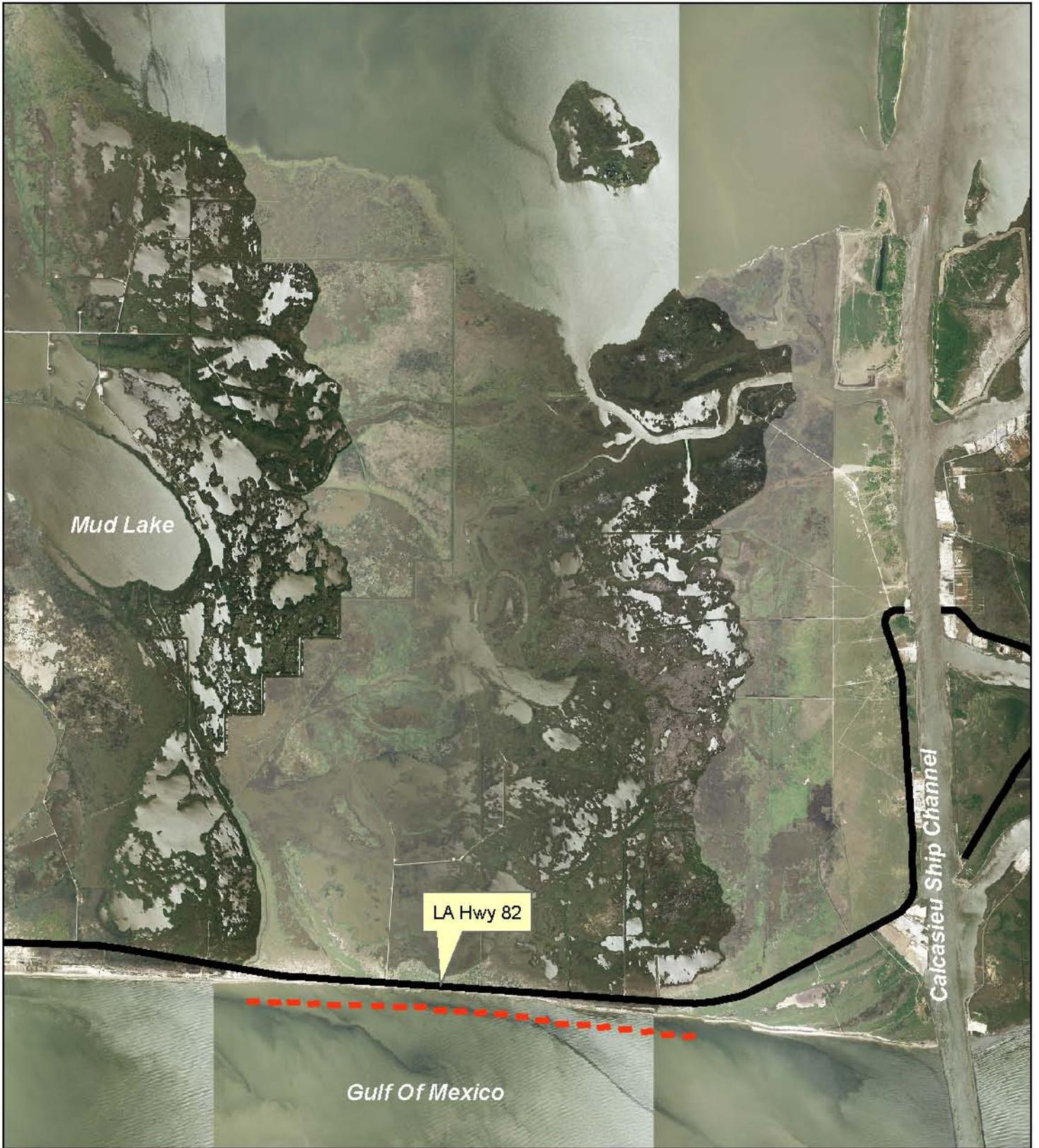
Preparers of Fact Sheet

Troy Mallach, NRCS

troy.mallach@la.usda.gov

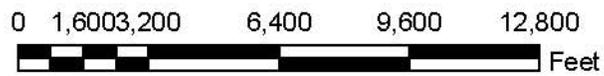
John Jurgensen, NRCS

john.jurgensen@la.usda.gov



Legend

-  Breakwaters
-  primaryroads



East Holly Beach
Gulf Shoreline Protection
Cameron Parish, Louisiana
PPL 23

PPL23 PROJECT NOMINEE FACT SHEET
April 16, 2013

Project Name

West Cove Marsh Creation and Nourishment

Project Location

Region 4, Calcasieu-Sabine Basin, Cameron Parish. Within the Sabine National Wildlife Refuge, east of Hwy. 27 and north of Mudd Lake.

Problem

The Calcasieu Ship Channel, immediately east of the project area, provides an avenue for the rapid movement of high-salinity water into the marshes around Mud Lake. Also, these marshes located between Mud Lake and West Cove were severely impacted by Hurricanes Rita (2005) and Ike (2008). With the recent increase in area salinities coupled with hurricane impacts, much of the marsh vegetation in the area has been stressed and in many cases lost. Land loss rates within the project area are estimated to be -0.36%/yr as seen in the Mud Lake Polygon within the Louisiana Land Change Trends 1985-2009 USGS final regression document. If not addressed through some type of restoration, wind generated waves within the open water areas can cause an increase in shoreline erosion.

Goals

The project goal is to create and/or nourish approximately 665 acres of emergent brackish marsh (462 acres created and 203 acres nourish) using sediment dredged from the Calcasieu Ship Channel.

Proposed Solution

This project will create and/or nourish 665 acres of emergent brackish marsh with material hydraulically pumped from the Calcasieu Ship Channel and placed into shallow open water sites within the project area. Those sites would have constructed earthen dikes that will be used to contain dredged material on site. Material would be pumped to a healthy marsh elevation as deemed by healthy marsh survey. Once material is in place and adequately dewatered, containment dikes will be adequately gapped to allow tidal exchange of nutrients and aquatic organisms with the marsh. A series of trenasses would also be constructed within the constructed marsh if deemed necessary.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is 665 ac.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Based on a 50% rate reduction to the projected -0.36%/yr land loss rate, marsh creation and nourishment in the project area would yield 453 net acres within the 20 year project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*

The anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the projects life.

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

Yes, helps to restore the integrity of West Cove rim (west side of Calcasieu Lake) and prevent coalescence of Lake Calcasieu with Mud Lake.

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

No major impacts to critical infrastructure. Oil and gas facilities in area would be benefited by the project acreage created.

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

This project would have a synergistic effect with previously constructed CWPPRA project CS-20, East Mud Lake Marsh Management, which was completed in 1997.

Identification of Potential Issues

Potential issues concerning this project are as follows: Pipelines and Sediment Availability (Corps budget for maintenance dredging)

Preliminary Construction Costs

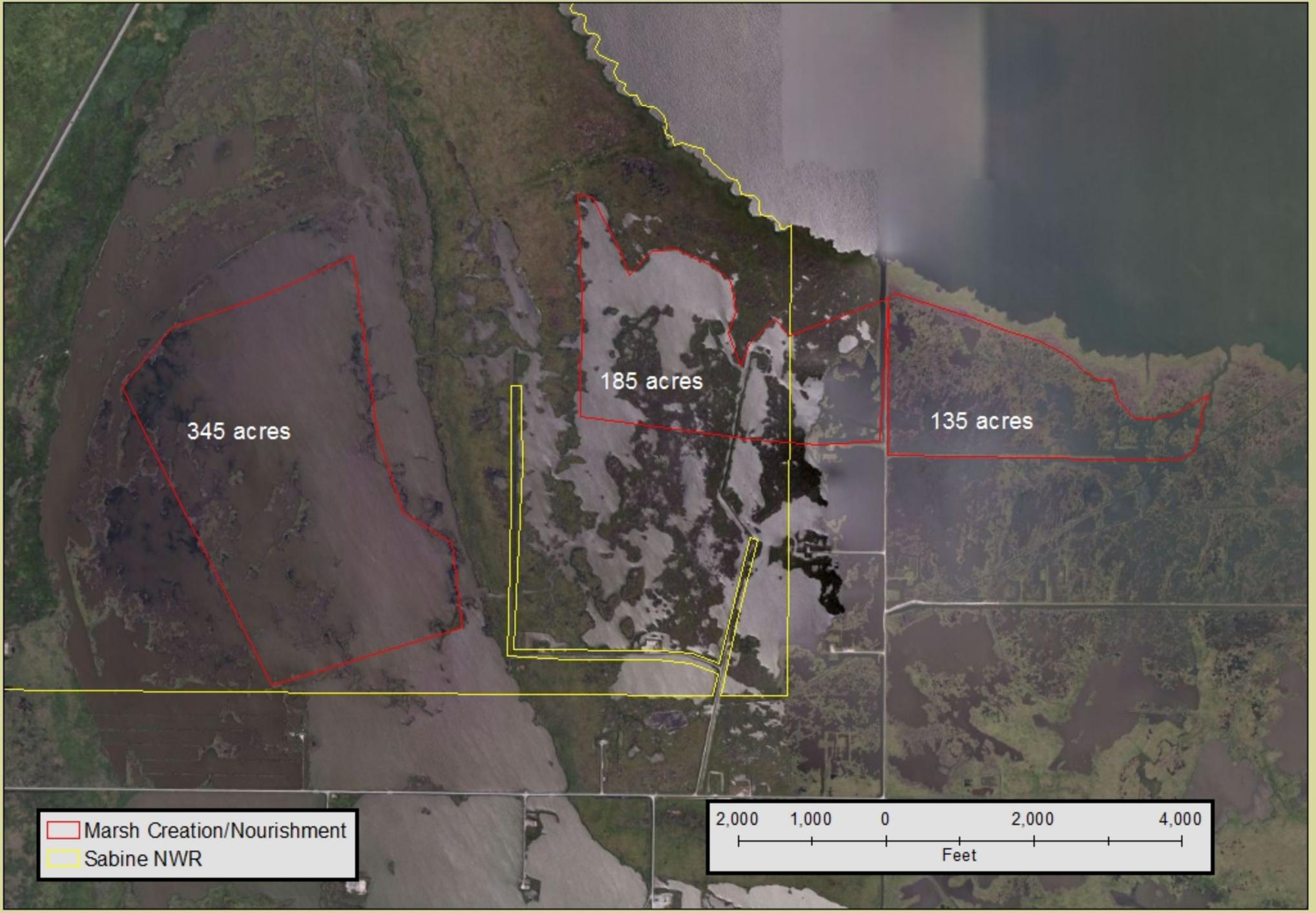
With beneficial use of dredge material from the Calcasieu Ship Channel, the estimated construction cost including 25% contingency is \$21,292,161. The fully funded cost range is \$25M-\$30M.

Preparer(s) of Fact Sheet:

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Scott Wandell, USACE, 504-862-1878 Scott.F.Wandell@usace.army.mil

West Cove Marsh Creation and Nourishment



PPL23 PROJECT NOMINEE FACT SHEET

April 2, 2013

Project Name

Southeast Pecan Island Marsh Creation and Freshwater Enhancement

Project Location

Region 4, Mermentau Basin, Vermilion Parish, east of Pecan Island and south of Highway 82.

Problem

Virtually all of the project area marshes have experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention associated with the Freshwater Bayou Canal and Humble Canal. Highway 82 traverses cheniers wherever possible, however, low spots between cheniers historically allowed drainage from the Lakes Subbasin south into the Chenier Subbasin. Currently, Highway 82 forms a hydrologic barrier that isolates those sub basins from freshwater runoff.

Goals

The project goals are to restore/improve hydrologic conditions and promote the expansion of emergent marsh vegetation throughout the project area. The proposed freshwater introduction feature would restore/improve hydrologic conditions by allowing water from the Lakes Subbasin to drain south across Highway 82 into the Chenier Subbasin. The marsh creation feature would create new wetland habitat, restore degraded marsh, and reduce wave erosion.

Proposed Solution

The project proposes approximately 360 acres of marsh creation and 173 acres of marsh nourishment. The majority of the necessary freshwater introduction infrastructure exists and would require minimal improvement/cleanout and the construction of an outlet structure at Front Ridge.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?* The total area benefitted is approximately 4,083 acres.

2) *How many acres of wetlands will be protected/created over the project life?* The project would protect/create approximately 382 net acres (349 MC + 33 FWI).

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

4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.* The project would protect the Front Ridge Chenier.

5) *What is the net impact of the project on critical and non-critical infrastructure?* The project would help protect Louisiana Highway 82.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* The project would provide protection for the constructed Pecan Island Terracing project (ME-14).

Identification of Potential Issues

There are no issues identified at this time.

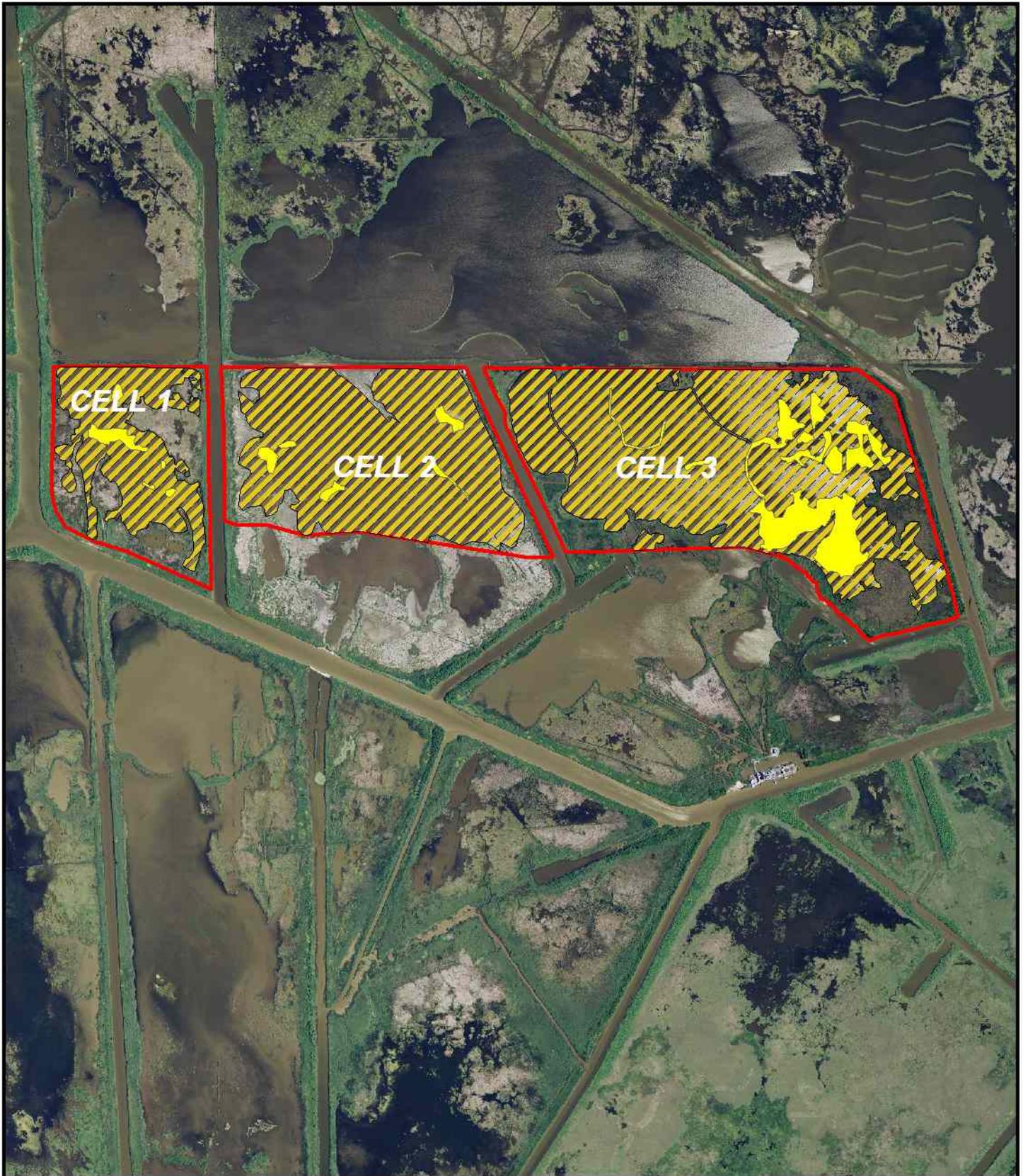
Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$25,171,691. The fully-funded cost range is \$30M-\$35M.

Preparer of Fact Sheet

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

Judge Edwards, Vermilion Corps, (337) 893-0268, vermilioncorporation@connections-lct.com



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

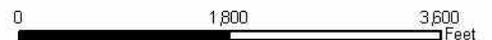
Data Source: NAIP 2010

Map Date: MARCH 25, 2013



**SOUTHEAST PECAN ISLAND
 MARSH CREATION AND
 FRESHWATER ENHANCEMENT**

| Legend | |
|--------|---------------------------|
| | ISLAND_Clip |
| | CELLS_MARSH_CREATION_Clip |
| | DIKE_LENGTH_3-25-13 |



PPL23 PROJECT NOMINEE FACT SHEET
March 21, 2013

Project Name

South Grand Chenier Marsh Creation – Baker Tract

Master Plan Strategy

South Grand Chenier Marsh Creation – 004.MC.01

Project Location

The project is located in Region 4, Mermentau Basin, south of Grand Chenier in Cameron Parish, Louisiana, between Highway 82 and Hog Bayou.

Problem

Marshes within the Hog Bayou Unit are stressed due to limited freshwater input and seasonal salinity spikes exacerbated by construction of the Mermentau Ship Channel. Other contributors to land loss in the area are subsidence, compaction, and erosion of organic soils. Currently, the project area is characterized as large open water with degraded areas of wetland vegetation and low organic production.

Goals

The project goal is to create new wetland habitat, restore degraded marsh, and reduce wave erosion. The project would promote the expansion of emergent marsh and submerged aquatic vegetation throughout the project area.

Proposed Project Features

The project proposes approximately 451 acres of marsh creation.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?* The total area benefitted is approximately 451 acres.

2) *How many acres of wetlands will be protected/created over the project life?* The project would protect/create approximately **442 net acres**

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

4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.* The project would protect the Grand Chenier ridge.

5) *What is the net impact of the project on critical and non-critical infrastructure?* The project would help protect Louisiana Highway 82.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* The project would provide a synergistic effect with the South Grand Chenier Hydrologic Restoration and Marsh Creation project (ME-20) by restoring the north bank of Hog Bayou.

Identification of Potential Issues

There are no issues identified at this time.

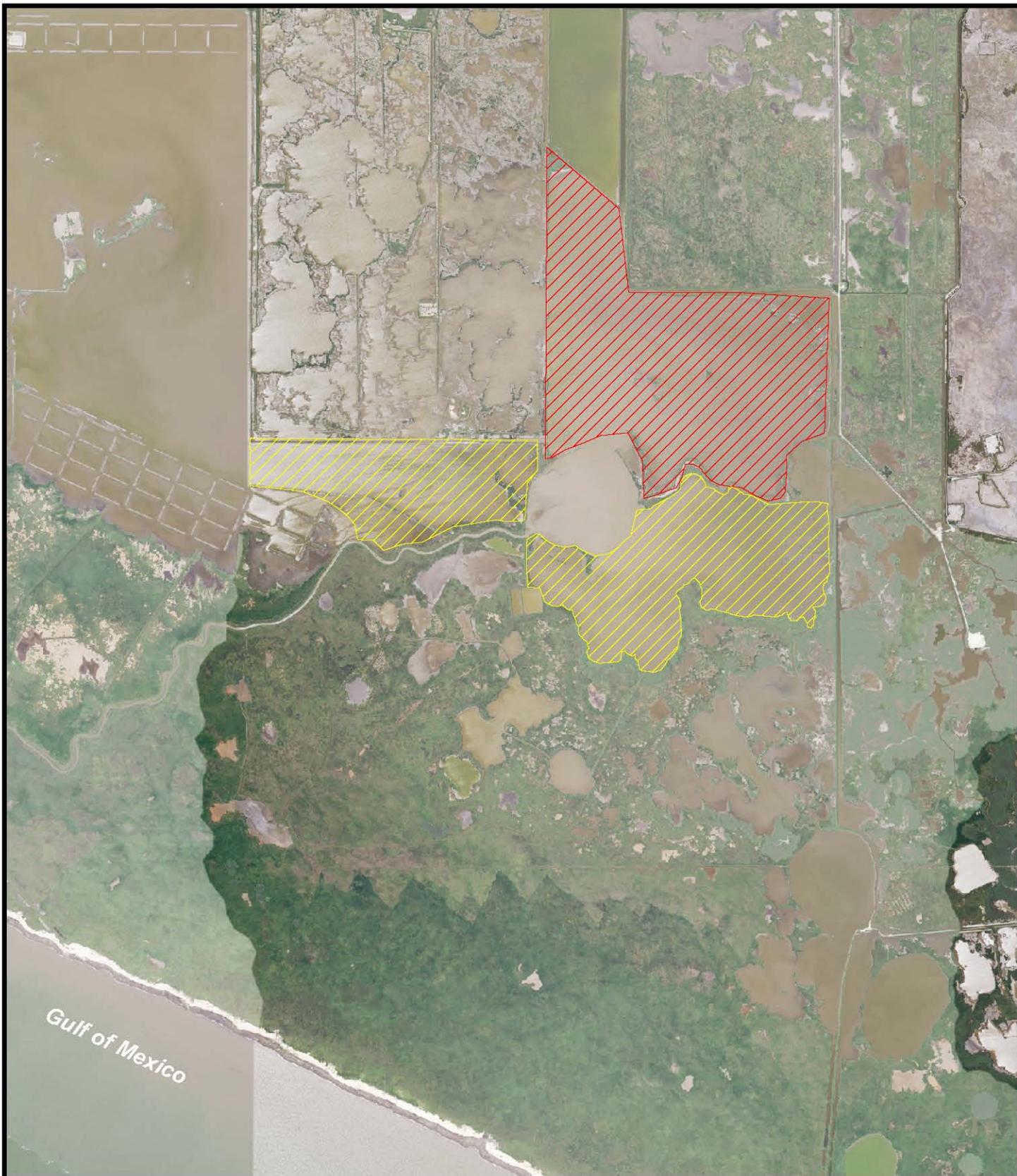
Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$17,289,145. The fully-funded cost range is \$20M-\$25M.

Preparer of Fact Sheet

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

Martin Miller, Rellim Surface Management, (504) 616-5700, rellimsm@rellimco.com



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

Data Source:
2010 DOQ

Map Date: January 16, 2013



South Grand Chenier Marsh Creation Cameron Parish, Louisiana

Legend

-  Marsh_Creation
-  ME-20 Marsh Creation Area

0 1,000 2,000 4,000 6,000 8,000
Feet

CWPPRA PPL 23 Demonstration Project Nominees

| | | |
|-----------|------|---|
| Coastwide | DEMO | Artificial Seagrass Bed Shoreline Protection & Sediment Trapping |
| Coastwide | DEMO | Use of Bioengineering Techniques to Strengthen Previously Stabilized Shorelines & Banks |
| Coastwide | DEMO | Stabilized Soil Shorelines |

CWPPRA PPL 23 Nominee Demonstration Projects

| Demonstration Project Name | Meets Demonstration Project Criteria? | Lead Agency | Estimated Cost plus 25% contingency ** | Technique Demonstrated |
|---|---------------------------------------|-------------|--|---|
| Artificial Seagrass Bed Shoreline Protection & Sediment* | Yes | | \$713,819 | This project seeks to slow shoreline erosion via installing plastic strips to mimic submerged aquatic vegetation, which is well known to reduce mild wave energy. |
| Use of Bioengineering Techniques to Strengthen Previously Stabilized Shorelines & Banks | Yes | EPA | \$508,388 | This project seeks to increase the longevity of rock-stabilized shorelines and banks. The technique would involve the use of <i>Salix nigra</i> (black willow), or other woody species, which would be planted into the joints of an existing rock shoreline structure. It is anticipated that the root structure of the planted vegetation would assist in stabilizing the structure as well as provide fish and wildlife habitat. |
| Stabilized Soil Shorelines | Yes | | \$2,000,000 | This project seeks to stabilize and protect eroding interior marsh shorelines along bays and lakes. The technique involves two methods; 1) placing stabilized soil material along the shoreline using a barge and long-reach excavator and 2) placing stabilized soil material into a trench which would be excavated along an eroding marsh shoreline. |

04/04/13

* Cost based on PPL19 Bayou Backer demonstration project Fact Sheet

** Costs do NOT include a monitoring program and are NOT fully funded.

PPL23 DEMONSTRATION PROJECT NOMINEE FACT SHEET

April 3, 2013

Demonstration Project Name:

Bayou Backer Demo

Potential Demonstration Project Location(s):

Coastwide

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. The product is a low cost alternative to rock, dirt, and vegetative plantings, as it can be easily transported and installed compared with these other methods. 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, for initial terrace or marsh creation erosion control 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 + 25% Contingency:

\$713,819 + \$163,741 (monitoring) = **\$877,560**

Preparer of Fact Sheet:

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

NOTE: The Bayou Backer Demonstration Project was evaluated during PPL19. A similar demonstration project (i.e., artificial seagrass) was nominated for PPL23 at the Region 3 meeting. However, no fact sheet or other information was made available for the PPL23 nominee. The Environmental and Engineering Work Groups determined that the previously evaluated Bayou Backer demo project closely resembles the artificial seagrass concept presented for PPL23. Therefore, information for the Bayou Backer demo project is provided.

PPL23 DEMONSTRATION PROJECT NOMINEE FACT SHEET

March 20, 2013

Demonstration Project Name:

Use of Bioengineering Techniques to Strengthen Previously Stabilized Shorelines and Banks

Potential Demonstration Project Location(s):

Coastwide

Problem:

What problem will the demonstration project try to solve?

The most common method of shoreline protection projects built by CWPPRA involves the construction of “hard structure” wave barriers using rock, sheet pile or concrete structures. The problem with this type of construction project is that it requires long term maintenance to ensure that the shoreline protection structure performs its designed function. With a coastline that is subsiding, and with soils that are organic, fine-grained, or fluid, maintenance lifts of hard structures are often a necessary, and costly, task in order to maintain the shoreline protection project. This demonstration project seeks to find another solution by replacing or improving these hard structures with natural and living materials planted in existing structures and possibly to eliminate the need for these structures in other locations.

The demonstration project will use natural materials to enhance the ability of protected and natural shoreline to absorb wave energy and attempt to maintain and protect existing shoreline features. The demonstration project will help reduce shoreline retreat along shorelines moderate erosion rates.

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

Louisiana’s coastal shorelines have experienced high levels of retreat and land loss. The approach to protecting these areas has utilized heavy, hard structure construction methods that eventually settle into the substrate. This results in project failure and can even present additional navigation hazards. Protection of these areas using living materials will encourage self-repair of exposed, eroding shorelines, with the goal of enhancing the native plant community on the shoreline. Shoreline erosion rates have been measured in excess of 30 feet per year in areas across the Louisiana coast, although the vast majority of shorelines are eroding at much lower rates

Goals:

What does the demonstration project hope to accomplish?

The proposed demonstration project would stabilize existing shorelines, attenuate shoreline retreat, and provide a natural substrate for plant propagation and accretion of sediment. The project will initiate the native woody plant community with root systems that can form the webbing that can strengthen rock stabilized banks and shorelines and provide additional habitat. In addition, surface portions of the plants absorb wave energy that would otherwise impact surface soils. Finally, we hope to create a list of species project sponsors could utilize for future projects.

Proposed Solution:

Describe demonstration project features in as much detail as possible.

The project is a multi-faceted shoreline protection and restoration demonstration effort to provide a shoreline protection, restoration, and habitat enhancement system that will absorb and deflect

wave energy, protect and allow for creation of emergent marsh and woody shrub/forested wetlands on shorelines, and provide habitat for aquatic and terrestrial species.

1. The species and forms of woody plants used as stabilization and protection materials have a variety of application possibilities that can be adjusted to best suit the problem area to restore and enhance the strength of shorelines in different types of coastal environments.
2. We will establish slopes with a few identified fast-growing species, and then within 2 years, live stake areas of the bank with other species where the first attempt was not successful, or where there is an opportunity to introduce diversity in the plant community. After a slope is covered by fast growing woody vegetation, like *Salix nigra* (black willow) we will go back to re-vegetate with a more slow growing species, like *Taxodium* or *Cephalanthus* or other appropriate species with characteristics that would favor strong and extensive rooting ability in that particular hydrologic setting. When used as a method of shoreline enhancement; it is cheaper than rock and could be considered a compromise between “hard” and “soft” shoreline protection methods.
3. A staggered terrace-like orientation can break up wave action, reduce turbidity and potentially increase accreting.
4. The use of native woody materials obtained from naturally growing vegetation close to the restoration site allows the use of native plants and provides a relatively inexpensive source of plant materials.
5. We anticipate using existing rock protection structures and unprotected shorelines to plant with woody plant cuttings (stakes, whips, poles, matting) and compare these to structures and shorelines without plantings.

The demonstration would include the selection of 4 treatment sites (rock with plantings, rock without plantings, natural soils with plantings, natural soils without plantings). Each treatment type will consist of 500-foot sections. Each treatment will be replicated 3 times. Total project installation is 3,000 linear feet, but the project will monitor 6,000 linear feet (e.g. control sections). Project effectiveness will be monitored and evaluated after construction.

Preliminary Project Benefits:

Describe demonstration project benefits in as much detail as possible.

1. Absorb and deflect wave and precipitation energy;
2. Strengthen rock protected slopes and shorelines;
3. Protect and enhance existing or planted shoreline vegetation;
4. Allow ingress and egress of aquatic species;
5. Allow sediment deposition by slowing water flow.

Project Costs:

The estimated construction cost including 25% contingency is \$508,388.

Preparer(s) of Fact Sheet:

Chris Llewellyn, EPA, (214) 665-7239; llewellyn.chris@epa.gov

Jane O. Rowan, Normandeau Associates, Inc, (610) 635-9359; jrowan@normandeau.com

Figure:

(a) Completed installation of joint planting; (b) Early in first growing season (*Photo courtesy of Robbin B. Sotir & Associates, Inc.*). 210-VI-NEH, August 2007.

(a)



(b)



Proposed layout of Bayou Backer Demonstration Project.

Treatments represent either 1' on center, or 3' on center installation of Bayou Backer plugs at each of two shoreline types.

| Treatment | Gap | Treatment | Gap | Treatment | Gap | Treatment | Gap | Treatment | Gap | Treatment |
|---|------|---|------|---|------|---|------|---|------|---|
|  | |  | |  | |  | |  | |  |
| 375' | 300' | 375' | 300' | 375' | 300' | 375' | 300' | 375' | 300' | 375' |

Proposed wave test
for Bayou Backer
erosion control.

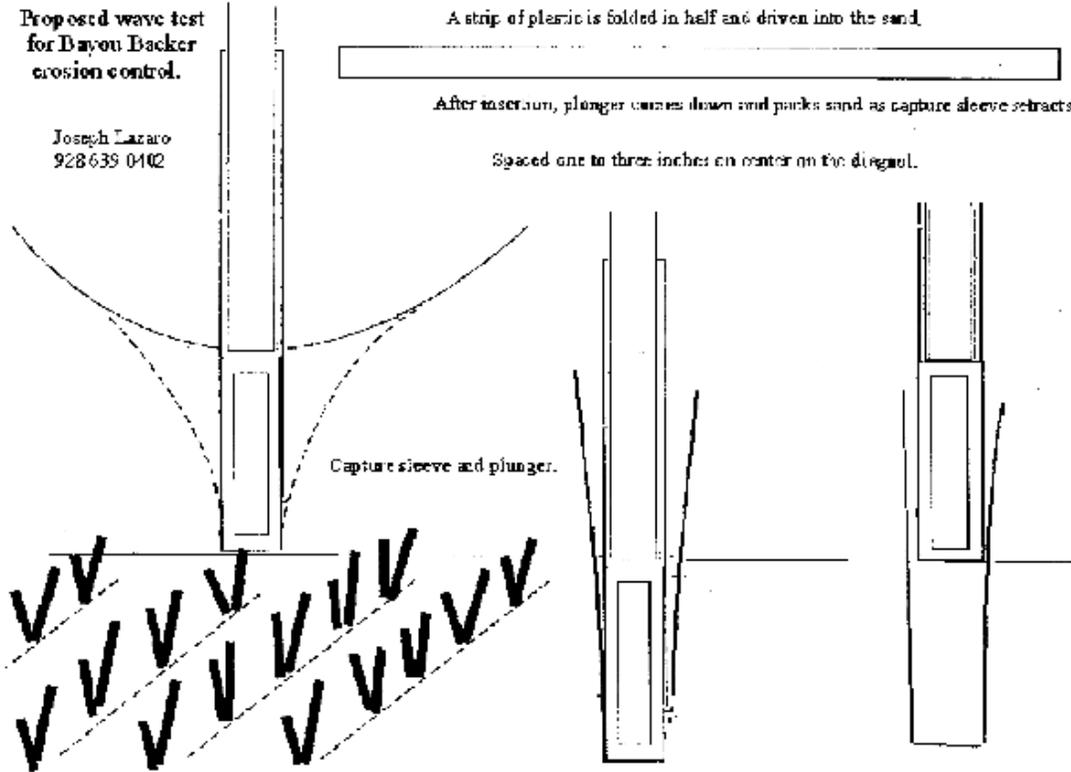
Joseph Lazaro
928 639 0402

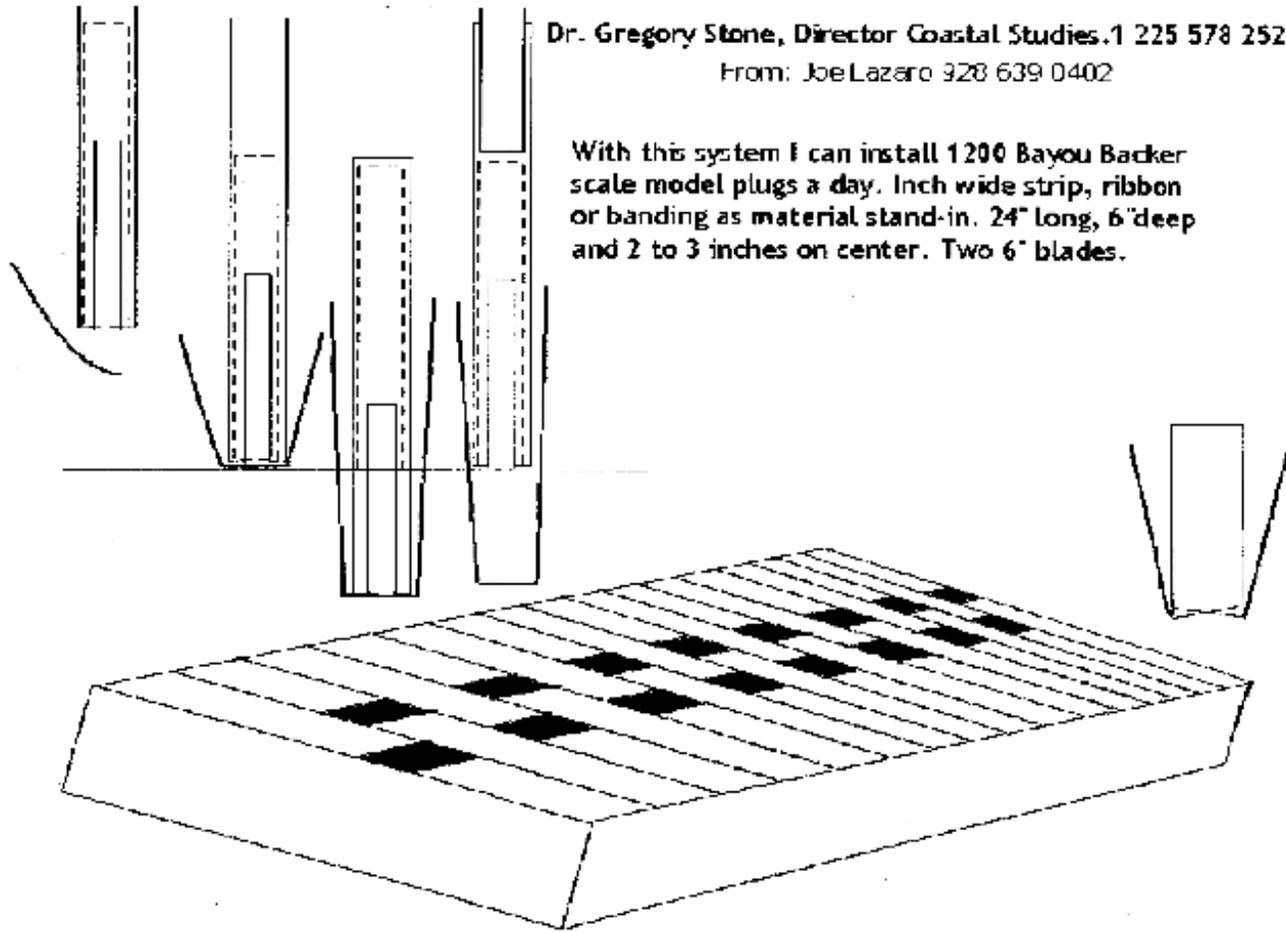
A strip of plastic is folded in half and driven into the sand.



After insertion, plunger comes down and packs sand as capture sleeve retracts.

Spaced one to three inches on center on the dikeaul.





PPL23 DEMONSTRATION PROJECT

January 31, 2013

Demonstration Project Name: Stabilized Soil Shorelines

Coast 2050 Strategy(ies):

Maintain Gulf, Bay and Lake shorelines.

Potential Demonstration Project Location(s):

Region 2 (or Coastwide)

Problem:

Excessive erosion of Gulf, bay and lake shorelines expose thousands of acres of interior marshes to increased erosion rates and severe ecological change. In addition, the loss of wetlands resulting from the direct effects of wave action is magnified over open bodies of water where distances are great. Highly organic interior marshes have limited options for restoration because of poor soil conditions.

Shoreline erosion rates have been measured in excess of 30 feet per year in areas across the Louisiana coast. A large portion of coastline will not support rip-rap and require non-rock shoreline protection. The need for stabilization in critical areas was noted in all four Coast 2050 regions.

Goals:

The proposed demonstration project would greatly minimize or prevent continued erosion, enhance interior marsh shorelines and maintain exchange and interface with estuarine systems. Additionally, some accretion may likely occur and build emergent marsh.

Proposed Solution:

Stabilization may take place in-situ by blending in reagents that create mineral growth that is not susceptible to rehydration, or if the shoreline soils consist mainly of organic matter such as root matter and peat, importing lightweight, non-rock pre-stabilized materials, such as dredge spoils, would be distributed along eroding shorelines. The stabilized materials will not rehydrate and change back to an unstable, low-strength state. If wave action, similar to that along the Gulf, is causing stabilization along the shoreline to be counter-productive, or if sloughing is a deterrent due to a steep grade, then it may be more beneficial to excavate a trench along the shoreline and fill the trench with a lightweight stabilized material. In the latter case, shoreline between the stabilized material filled trench and open water will eventually erode away, exposing the trench-filled stabilized material that would serve to protect the remaining coastline.

Generally, placing stabilized dredge spoils along a bay or lake shoreline can take place from a deck barge with bin walls. First, a dredge spoil disposal area or excessively wet clay soil must be amended using a reagent blend that promotes structural mineral growth. Once the stabilized product has fully cured, it will be excavated similar to a borrow pit and loaded into dump trucks. The dump trucks would travel to the dock, back onto the barge via a ramp, and then dump the material on the back end of the barge to the front. It is highly recommended that stabilized material remain in the largest size possible without breaking the material up any more than the excavator did loading it. Stabilized material would likely vary in particle size from 2', down to fines. The fines would serve useful in filling the voids of the larger stabilized particle sizes. A low-draft tug boat is recommended to push the barge to the shoreline requiring protection, and a long-reach excavator positioned on the barge would be used to off-load material. This method of

shoreline protection is the least invasive to wetlands since most all of the protection is along the eroding face of the shoreline and weighs much less than rip-rap rock.

If deemed necessary due to extreme wave action or steep banks, trenches can be excavated on the bank of the shoreline adjacent and parallel to the open water using marsh excavators. Stabilized dredge spoils can be deposited in the trench and trench spoils can then be deposited back over the stabilized dredge spoils to fill any remaining voids and to allow re-establishment of vegetative growth. If shoreline soils are not too organic, rooted or peaty in nature, it is possible that reagents can be injected in-situ to structurally improve the native soils. In the event shorelines contain mainly organic, rooted matter caused by previous erosion, then a dry blend of reagents that consumes vast amounts of water can be injected in a saltwater-filled trench until the reagent forms a self-hardening solidified mass that is lightweight, yet reach compressive strengths of over 4.5 tons per square foot within a few days. This structural material would withstand the constant beating of wave action or periodic storm surge much like the stabilized dikes that surround and protect a multi-billion dollar LNG facility has proven so in Cameron Parish, Louisiana.

Various reagent blends that create sustainable mineral growth that are not susceptible to rehydration should be demonstrated in separate reaches in order to provide multiple solutions to shoreline protection.

Project Benefits:

The proposed project would:

1. Meet EPA Green Initiatives;
2. Have a cost benefit over other non-rock erosion control technologies;
3. Absorb and deflect wave energy;
4. Protect and enhance existing or planted shoreline vegetation;
5. Allow ingress and egress of aquatic species;
6. Trap sediment while reducing wave energy; and
7. Reduce interior marsh loss.

Project Costs:

The cost to perform at least four (4) options of shoreline protection using stabilized or pre-stabilized materials is \$2,000,000; approximately \$500,000 per reach.

Preparer(s) of documents:

Karl Peckhaus 281-664-1125 karl.peckhaus@reconservices.com

Monty Martin 281-664-1167 monty.martin@reconservices.com

Cameron Parish School Board

*Ms. Marsha Trahan, President, District 1; Dwayne Sanner, Dist. 2; R. Scott Nunez, Dist. 3;
Ms. Dot Theriot, Dist. 4; Tracy Carter, Dist. 5; James Boudreaux, Dist. 6;
Ms. Karen Nunez, Vice-President, Dist. 7*

Stephanie Rodrigue, Superintendent

*510 Marshall Street, Cameron, LA 70631
Phone 337.775.5784 Fax 337.775.5097*

April 9, 2013

CWPPRA Technical Committee
Thomas A. Holden, Chairman
U. S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA)
Project Priority List 23-East Holly Beach Gulf Shoreline Protection Project

Dear Chairman Holden:

The parish of Cameron is the fortunate beneficiary of a 2007 direct allocation of \$45,000,000.00 in State Surplus funds from 2007 to fund a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach, Louisiana. The project will mine 1,930,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and construct new dunes and a new beach for a five mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach, a community that has risen splendidly from the devastation rendered by Hurricanes Rita and Ike.

The incursion of Hurricanes Rita (2005) and Ike (2008) exacerbated the existing shoreline land loss rates in this area. Currently, Highway 27/82 is a mere eighty feet away from being encapsulated by the waters of the Gulf of Mexico. The benefits of this vital sand nourishment project will be short lived if no other protection is provided to this area. With that in mind, the Cameron Parish School Board would like to formally provide this letter of support for the upcoming CWPPRA Technical Committee vote concerning PPL 23 projects

Cameron Parish School Board is well aware that similar projects in Cameron Parish have had significant success in reducing land loss rates along our coastline. Previous breakwater projects to the west of Holly Beach show sediment captured behind the breakwaters. It is clear that the accretion of sediment in relation to the breakwaters has increased the footprint of the shoreline and thus provided more of a barrier for storms and sustainability of Highway 82. Also, it should be noted that the area to be protected by this project has been designated as critical habitat for the endangered Piping Plover. With birding as a significant tourist/recreational activity, this habitat is very important to our coastal communities.

Therefore, through this correspondence, Cameron Parish School Board would like to formally request the CWPPRA Technical Committee's support of this worthwhile project that will

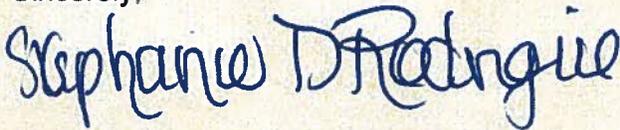
CWPPRA Technical Committee
Thomas A. Holden, Chairmen
April 9, 2013
Page 2

expound on the successes of similar projects for the Parish (Holly Beach Breakwater Project (CS-01) & Holly Beach Breakwater Enhancement and Sand Management Project (CS-31)).

The public entities, concerned citizens, and tax-payers/property owners stand together as a unified group in fully supporting this project. As landowners and stakeholders for Cameron Parish, we realize the importance of this project and request the Task Force's consideration of supporting this project.

Thank you for your assistance with this matter and please do not hesitate to contact me for any additional discussion.

Sincerely,

A handwritten signature in blue ink that reads "Stephanie D. Rodrigue". The signature is written in a cursive, flowing style.

Stephanie Rodrigue, Superintendent

Cc: Darryl Clark, US Fish & Wildlife
Kirk Rhinehart, State CPRA
Karen McCormick, EPA
Rick Hartman, National Marine & Fisheries
Britt Paul, NRCS

LOUISIANA HOUSE OF REPRESENTATIVES

407 Charity Street, Suite 102
Abbeville, LA 70510
Email: hensgensb@legis.state.la.us
Phone: 337.893.5035
Toll Free: 800.259.5035
Fax: 337.898.1160



Agriculture, Forestry, Aquaculture,
and Rural Development
Commerce
Health and Welfare

BOB HENSGENS State Representative ~ District 47

March 27, 2013

CWPPRA Technical Committee
Thomas A. Holden, Chairman
U. S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA)
Project Priority List 23-East Holly Beach Gulf Shoreline Protection Project

Dear Chairman Holden:

As you may know, Cameron Parish was the fortunate beneficiary of a direct allocation of \$45,000,000.00 in State Surplus funds from 2007 to fund a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach. The project will mine 1,930,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and construct new dunes and a new beach for a five mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community.

The incursion of two major storms in Rita (2005) and Ike (2008) exacerbated the existing shoreline land loss rates in this area. Currently, Highway 27/82 is a mere eighty feet away from being encapsulated by the waters of the Gulf of Mexico. The benefits of this vital sand nourishment project will be short lived if no other protection is provided to this area. In that vein, as State Representative of this area, I would like to formally provide this letter of support for the upcoming CWPPRA Technical Committee vote concerning PPL 23 projects

I am aware that similar projects in Cameron Parish have had significant success in reducing land loss rates along our coastline. Previous breakwater projects to the west of Holly Beach show sediment captured behind the breakwaters. It is clear that the accretion of sediment in relation to the breakwaters has increased the footprint of the shoreline and thus provided more of a barrier for storms and sustainability of Highway 82. Also, it should be noted that the area to be protected by this project has been designated as critical habitat for the endangered Piping Plover.

Therefore, through this correspondence, I formally request the CWPPRA Technical Committee's support of this worthwhile project that will expound on the successes of similar

projects for the Parish (Holly Beach Breakwater Project (CS-01) & Holly Beach Breakwater Enhancement and Sand Management Project (CS-31)).

We stand together as a unified group in fully supporting this project. As State Representative of the landowners and stakeholders for Cameron Parish, we realize the importance of this project and request the Task Force's consideration of supporting this project.

Thank you for your assistance with this matter and please contact me with any questions or comments you may have on this issue.

Sincerely,



Bob Hensgens
Louisiana State Representative
District 47

Cc: Darryl Clark, US Fish & Wildlife
Kirk Rhinehart, State CPRA
Karen McCormick, EPA
Rick Hartman, National Marine & Fisheries
Britt Paul, NRCS



SENATE
STATE OF LOUISIANA

DAN "BLADE" MORRISH

State Senator
District 25

119 W. Nazpique Street
Jennings, LA 70546
Phone: (337) 824-3979
Fax: (337) 824-5898
April 1, 2013

COMMITTEES:
Insurance, Chairman
Environmental Quality
Natural Resources
Finance, Interim Member
Select Committee on Coastal Restoration
and Flood Control
Select Committee on Hurricane Recovery

CWPPRA Technical Committee
Thomas A. Holden, Chairman
U. S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA)
Project Priority List 23-East Holly Beach Gulf Shoreline Protection Project

Dear Chairman Holden:

As you may know, Cameron Parish was the fortunate beneficiary of a direct allocation of \$45,000,000.00 in State Surplus funds from 2007 to fund a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach. The project will mine 1,930,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and construct new dunes and a new beach for a five mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community.

The incursion of two major storms in Rita (2005) and Ike (2008) exacerbated the existing shoreline land loss rates in this area. Currently, Highway 27/82 is a mere eighty feet away from being encapsulated by the waters of the Gulf of Mexico. The benefits of this vital sand nourishment project will be short lived if no other protection is provided to this area. In that vein, the Senator Dan Morrish would like to formally provide this letter of support for the upcoming CWPPRA Technical Committee vote concerning PPL 23 projects

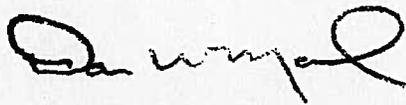
Senator Dan Morrish is aware that similar projects in Cameron Parish have had significant success in reducing land loss rates along our coastline. Previous breakwater projects to the west of Holly Beach show sediment captured behind the breakwaters. It is clear that the accretion of sediment in relation to the breakwaters has increased the footprint of the shoreline and thus provided more of a barrier for storms and sustainability of Highway 82. Also, it should be noted that the area to be protected by this project has been designated as critical habitat for the endangered Piping Plover.

Therefore, through this correspondence, Senator Dan Morrish would like to formally request the CWPPRA Technical Committee's support of this worthwhile project that will expound on the successes of similar projects for the Parish (Holly Beach Breakwater Project (CS-01) & Holly Beach Breakwater Enhancement and Sand Management Project (CS-31)).

We stand together as a unified group in fully supporting this project. As landowners and stakeholders for Cameron Parish, we realize the importance of this project and request the Task Force's consideration of supporting this project.

Thank you for your assistance with this matter and we will entertain any questions or comments you may have on this issue.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Morrish". The signature is fluid and cursive, with a large initial "D" and a long, sweeping underline.

Senator Dan Morrish
District 25

Cc: Darryl Clark, US Fish & Wildlife
Kirk Rhinehart, State CPRA
Karen McCormick, EPA
Rick Hartman, National Marine & Fisheries
Britt Paul, NRCS

MIAMI CORPORATION

309 LA RUE FRANCE

SUITE 201

LAFAYETTE, LOUISIANA 70508

TELEPHONE (337) 264-1695

FAX NO. (337) 264-9499

CWPPRA Technical Committee
Thomas A. Holden, Chairman
U. S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

March 27, 2013

RE: Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA)
Project Priority List 23-East Holly Beach Gulf Shoreline Protection Project

Dear Chairman Holden:

As you may know, Cameron Parish is set to realize the benefits of a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach. The project will mine 1,930,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and construct new dunes and beach for a five mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community.

Currently, Highway 27/82 is a mere eighty feet away from being encapsulated by the waters of the Gulf of Mexico. The benefits of this vital sand nourishment project will be short lived if no other protection is provided to this area. In that vein, Miami Corporation, as a member of the Cameron Parish Coastal Advisory Committee, would like to formally provide this letter of support for the above noted project at the upcoming CWPPRA Technical Committee vote concerning PPL 23 projects.

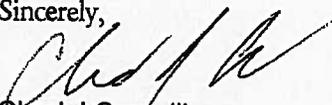
Miami Corporation is aware that similar projects in Cameron Parish have had significant success in reducing land loss rates along our coastline. Previous breakwater projects to the west of Holly Beach show sediment captured behind the breakwaters. It is clear that the accretion of sediment in relation to the breakwaters has increased the footprint of the shoreline and thus provided more of a barrier for storms and sustainability of Highway 82.

Therefore, through this correspondence, Miami Corporation would like to formally request each member of the CWPPRA Technical Committee's support for the *East Holly Beach Gulf Shoreline Protection Project*.

We stand together as a unified group in fully supporting this project. As landowners and stakeholders for Cameron Parish, we realize the importance of this project and request the Task Force's consideration of supporting this project.

Thank you for your assistance with this matter and we will entertain any questions or comments you may have on this issue.

Sincerely,



Chad J Courville

Cc: Darryl Clark, US Fish & Wildlife
Kirk Rhinehart, State CPRA
Karen McCormick, EPA
Rick Hartman, National Marine & Fisheries
Britt Paul, NRCS

DORE PARTNERS, LTD
120 W. Pujoe Street, Suite 300
Lake Charles, LA 70601
Tel: (337) 502-5224; Fax: (337) 502-5229

March 26, 2013

VIA FACSIMILE: (202) 224-9735

The Honorable Mary Landrieu
U.S. Senate
703 Hart
Senate Office Building
Washington, DC 20510

RE: Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Project Priority List 23 (PPL-23) – East Holly Beach Shoreline Protection Project

Dear Senator Landrieu:

As an owner of a coastal wetland tract in Cameron Parish, Doré Partners, Ltd. (DPL) is writing this letter in support of the aforementioned project. It is our understanding that the beach nourishment project, designated as CS-33 and previously funded by the Louisiana Legislature, will enable five miles of beach between Holly Beach and the Cameron jetties to be restored with beach and dune habitat. The CS-33 project would be greatly enhanced with foreshore protection as proposed in the East Holly Beach Shoreline Protection Project, a current CWPPRA PPL-23 project nominee.

The visible as well as measurable success of the existing shoreline protection project that stretches from Holly Beach west to Johnsons Bayou is testimony to good planning and the effectiveness of gulf shoreline protection. The proposed East Holly Beach Shoreline Protection Project is an eastward extension of the initial project which would provide added protection to the community of Holly Beach and LA HWY 82. Said state highway is the most critical east-west transportation route in the southernmost portion of Cameron Parish; one which DPL utilizes on nearly a daily basis while traveling to our property to the west. The location of LA HWY 82 is perilously close to the northern edge of the gulf, making it vulnerable to tropical cyclones, associated damage and disruptions of serviceable use.

DPL would appreciate your support for this important project.

Sincerely yours,



William J. Doré
General Partner

cc: Senator Landrieu's New Orleans Office
Cameron Parish Police Jury

Sweet Lake Land and Oil Company, LLC
7777 Nelson Road
Lake Charles, LA 70605
(337) 439-4041

April 2, 2013

CWPPRA Technical Committee
Thomas A. Holden, Chairman
U. S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA)
Project Priority List 23-East Holly Beach Gulf Shoreline Protection Project

Dear Chairman Holden:

As you may know, Cameron Parish was the fortunate beneficiary of a direct allocation of \$45,000,000.00 in State Surplus funds from 2007 to fund a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach. The project will mine 1,930,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and construct new dunes and a new beach for a five mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community.

The incursion of two major storms in Rita (2005) and Ike (2008) exacerbated the existing shoreline land loss rates in this area. Currently, Highway 27/82 is a mere eighty feet away from being encapsulated by the waters of the Gulf of Mexico. The benefits of this vital sand nourishment project will be short lived if no other protection is provided to this area. In that vein, the Sweet Lake Land and Oil Company would like to formally provide this letter of support for the upcoming CWPPRA Technical Committee vote concerning PPL 23 projects

Sweet Lake Land and Oil Company is aware that similar projects in Cameron Parish have had significant success in reducing land loss rates along our coastline. Previous breakwater projects to the west of Holly Beach show sediment captured behind the breakwaters. It is clear that the accretion of sediment in relation to the breakwaters has increased the footprint of the shoreline and thus provided more of a barrier for storms and sustainability of Highway 82. Also, it should be noted that the area to be protected by this project has been designated as critical habitat for the endangered Piping Plover.

Therefore, through this correspondence, Sweet Lake Land and Oil Company would like to formally request the CWPPRA Technical Committee's support of this worthwhile project that will

expound on the successes of similar projects for the Parish (Holly Beach Breakwater Project (CS-01) & Holly Beach Breakwater Enhancement and Sand Management Project (CS-31)).

We stand together as a unified group in fully supporting this project. As landowners and stakeholders for Cameron Parish, we realize the importance of this project and request the Task Force's consideration of supporting this project.

Thank you for your assistance with this matter and we will entertain any questions or comments you may have on this issue.

Sincerely,

A handwritten signature in blue ink that reads "Doug Miller". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Doug Miller
Field Operations Manager
Sweet Lake Land and Oil Company, LLC
(337) 540-0839

Cc: Darryl Clark, US Fish & Wildlife
Kirk Rhinehart, State CPRA
Karen McCormick, EPA
Rick Hartman, National Marine & Fisheries
Britt Paul, NRCS



Crain Brothers, Inc.

April 8, 2013

CWPPRA Technical Committee
Thomas A. Holden, Chairman
U. S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA)
Project Priority List 23-East Holly Beach Gulf Shoreline Protection Project

Dear Chairman Holden:

As you may know, Cameron Parish was the fortunate beneficiary of a direct allocation of \$45,000,000.00 in State Surplus funds from 2007 to fund a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach. The project will mine 1,930,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and construct new dunes and a new beach for a five mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community.

The incursion of two major storms in Rita (2005) and Ike (2008) exacerbated the existing shoreline land loss rates in this area. Currently, Highway 27/82 is a mere eighty feet away from being encapsulated by the waters of the Gulf of Mexico. The benefits of this vital sand nourishment project will be short lived if no other protection is provided to this area. In that vein, Crain Brothers, Inc. would like to formally provide this letter of support for the upcoming CWPPRA Technical Committee vote concerning PPL 23 projects

Crain Brothers, Inc. is aware that similar projects in Cameron Parish have had significant success in reducing land loss rates along our coastline. Previous breakwater projects to the west of Holly Beach show sediment captured behind the breakwaters. It is clear that the accretion of sediment in relation to the breakwaters has increased the footprint of the shoreline and thus provided more of a barrier for storms and sustainability of Highway 82. Also, it should be noted that the area to be protected by this project has been designated as critical habitat for the endangered Piping Plover.

Therefore, through this correspondence, Crain Brothers, Inc. would like to formally request the CWPPRA Technical Committee's support of this worthwhile project that will expound on the successes of similar projects for the Parish (Holly Beach Breakwater Project (CS-01) & Holly Beach Breakwater Enhancement and Sand Management Project (CS-31)).

Page 2

CWPPRA Technical Committee

We stand together as a unified group in fully supporting this project. As landowners and stakeholders for Cameron Parish, we realize the importance of this project and request the Task Force's consideration of supporting this project.

Thank you for your assistance with this matter and we will entertain any questions or comments you may have on this issue.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bryon K. Richard".

Bryon K. Richard
Executive Vice President

Cc: Darryl Clark, US Fish & Wildlife
Kirk Rhinehart, State CPRA
Karen McCormick, EPA
Rick Hartman, National Marine & Fisheries
Britt Paul, NRCS



CALCASIEU PARISH POLICE JURY
GOVERNING AUTHORITY OF CALCASIEU PARISH, LOUISIANA

P.O. Drawer 3287 • 1015 Pithon Street • Lake Charles, Louisiana 70602-3287
337/721-3500 • Fax 337/437-3399
www.cppj.net

Shannon Spell
President

James L. Mayo
Vice President

Bryan C. Beam
Parish Administrator

Shannon Spell
District 1

James L. Mayo
District 2

Elizabeth Conway Griffin
District 3

Tony Guillory
District 4

Nic Hunter
District 5

Dennis Scott
District 6

Chris E. Landry
District 7

Guy Brame
District 8

Kevin Guidry
District 9

Tony Stelly
District 10

Sandy Treme
District 11

Ray Taylor
District 12

Francis Andrepont
District 13

Hal McMillin
District 14

Les Farnum
District 15

April 4, 2013

CWPPRA Technical Committee
Thomas A. Holden, Chairman
U. S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA)
Project Priority List 23-East Holly Beach Gulf Shoreline Protection Project

Dear Chairman Holden:

As you are aware, Cameron Parish was the fortunate beneficiary of a direct allocation of \$45,000,000.00 in State Surplus funds from 2007 to fund a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach. The project will mine 1,930,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and construct new dunes and a new beach for a five mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community.

The incursion of two major storms in Rita (2005) and Ike (2008) exacerbated the existing shoreline land loss rates in this area. Currently, Highway 27/82 is only eighty feet away from being encapsulated by the waters of the Gulf of Mexico. The benefits of this vital sand nourishment project will be short lived if no other protection is provided to this area.

In response to this issue, the Calcasieu Parish Police Jury would like to provide this letter of support for the upcoming CWPPRA Technical Committee vote concerning PPL 23 projects. I am aware that similar projects in Cameron Parish have had significant success in reducing land loss rates along our coastline. Previous breakwater projects to the west of Holly Beach show sediment captured behind the breakwaters. With successful implementation of this project, our coastline's footprint and overall sustainability will be strengthened for the future.

Therefore, through this correspondence, I would like to formally request the CWPPRA Technical Committee's support of this worthwhile project that will expound on the successes of similar projects for the Parish (Holly Beach Breakwater Project (CS-01) & Holly Beach Breakwater Enhancement and Sand Management Project (CS-31).

LETTER - Thomas A. Holden

April 4, 2013

Page Two

Southwest Louisiana continues to stand together as a unified group concerning important issues related to our coastline. I realize the vital importance of this project and respectfully request consideration of support from the Task Force.

Thank you for your assistance with this matter and would be happy to answer any questions or comments you may have.

Sincerely,

A handwritten signature in blue ink that reads "Shannon Spell". The signature is stylized with a large initial 'S' and a long horizontal stroke.

Shannon Spell, President

Cc: Darryl Clark, US Fish & Wildlife
Kirk Rhinehart, State CPRA
Karen McCormick, EPA
Rick Hartman, National Marine & Fisheries
Britt Paul, NRCS



VERMILION SOIL & WATER CONSERVATION DISTRICT
3221 Veterans Memorial Drive Suite H
Abbeville, LA 70510
Phone: (337) 893-7772 Ext. 3
Fax: (337) 893-9225
Website: www.vermilionswcd.weebly.com

April 12, 2013

**Vermilion
SWCD Board**

Chairman
Ernest Girouard

Vice Chairman
Sherrill Sagrera

**Secretary-
Treasurer**
Patrick Hebert

Board Member
Christian Richard

Board Member
Dale Vidrine

**Associate Board
Member**
Don Menard

**Associate Board
Member**
Don Vallot

OCPR
Garrett Graves
1051 North 3rd Street
Suite 138
Baton Rouge, LA 70802

Dear Mr. Graves,

The Vermilion Soil and Water Conservation District (SWCD) has received word of the possible deauthorization of the Weeks Bay Marsh Creation Shoreline Protection/Commercial Canal/Freshwater Redirection TV19. This has brought concern to our board and parish.

Our board of supervisors would like to voice our support of this project, and request your consideration in leaving this project as an authorized project. We understand funding may not currently be available, but leaving the project as an authorized project will assist Vermilion Parish in our continued promotion to find funding.

On behalf of our board of supervisors, please leave the Weeks Bay Marsh Creation Shoreline Protection/Commercial Canal/Freshwater Redirection TV19 as an authorized project.

Regards,

Ernest Girouard
SWCD Chairman

md

cc: Brad Inman, Vermilion Parish Police Jury, Sen. Johnathon Perry, Rep. Bob Hensgens, Rep. Simone Champagne, Gulf Coast SWCD, Iberia SWCD, St. Mary SWCD

DAVID VITTER
LOUISIANA

DEPUTY WHIP

Environment and Public Works
Top-Ranking Republican

Armed Services

Banking, Housing, and Urban Affairs

Small Business and Entrepreneurship

United States Senate

WASHINGTON, DC 20510

April 15, 2013

WASHINGTON, D.C.
HART SENATE OFFICE BUILDING
SUITE SH-516
WASHINGTON, DC 20510
(202) 224-4623
FAX: (202) 228-5661

BATON ROUGE
858 CONVENTION STREET
BATON ROUGE, LA 70802
(225) 383-0331
FAX: (225) 383-0952

Website with E-Mail Access:
vitter.senate.gov

CWPPRA Technical Committee
Mr. Thomas A. Holden Jr., Chairman
U. S. Army Corps of Engineers
P. O Box 60267
New Orleans, LA 70160

Dear Mr. Holden,

It has been brought to my attention that the Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA) Technical Committee will soon vote concerning the *Project Priority List 23*, which includes the *East Holly Beach Gulf Shoreline Protection Project*.

As you may know, Cameron Parish was the fortunate beneficiary of a direct allocation of \$45 million in State Surplus funds from 2007 to fund a *Sand Nourishment Project (CS-33)* for a stretch of beach east of Holly Beach. The project will mine 1,930,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and construct new dunes and a new beach for a five-mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community.

The incursion of two major storms in Rita (2005) and Ike (2008) exacerbated the existing shoreline land loss rates in this area. Currently, Highway 27/82 is a mere eighty feet away from being encapsulated by the waters of the Gulf of Mexico. The benefits of this vital sand nourishment project will be short lived if no other protection is provided to this area. The *East Holly Beach Gulf Shoreline Protection Project* would expound of the success of this project, as well as on the successes of similar projects for the Parish, including *Holly Beach Breakwater Project (CS-01)* and *Holly Beach Breakwater Enhancement and Sand Management Project (CS-31)*.

I am told that similar projects in Cameron Parish have had significant success in reducing land loss rates along our coastline. Previous breakwater projects to the west of Holly Beach show sediment captured behind the breakwaters. It is clear that the accretion of sediment in relation to the breakwaters has increased the footprint of the shoreline and thus provided more of a barrier for storms and sustainability of Highway 82. It should be noted that the area to be protected by this project has been designated as critical habitat for the endangered Piping Plover.

I commend these efforts to reduce land loss rates along our coastline and ask that you give your full consideration to the above referenced project. A report of the final decision would be helpful and appreciated. Please contact me through Ms. Brenda Moore in my Metairie office with any questions. Thank you for your time and attention.

Sincerely,



David Vitter
United States Senate

| ACADIANA | CENTRAL LOUISIANA | NORTHEAST LOUISIANA | NORTHWEST LOUISIANA | SOUTHEAST LOUISIANA | SOUTHWEST LOUISIANA |
|---|---|--|--|---|---|
| 2201 KALISTE SALOOM ROAD SUITE 201 LAFAYETTE, LA 70508 (337) 993-9502 FAX: (337) 993-9567 | 6501 COLISEUM BOULEVARD SUITE 700-A ALEXANDRIA, LA 71303 (318) 448-0169 FAX: (318) 448-0189 | 1651 LOUISVILLE AVENUE SUITE 148 MONROE, LA 71201 (318) 325-8120 FAX: (318) 325-9165 | 920 PIERRE MONT ROAD SUITE 113 SHREVEPORT, LA 71106 (318) 861-0437 FAX: (318) 861-4865 | 2800 VETERANS BOULEVARD SUITE 201 METAIRIE, LA 70002 (504) 589-2753 FAX: (504) 589-2607 | 949 RYAN STREET SUITE E LAKE CHARLES, LA 70601 (337) 436-0453 FAX: (337) 436-3163 |

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

FY14 PLANNING BUDGET APPROVAL, INCLUDING THE PPL 24 PROCESS, AND PRESENTATION OF FY14 OUTREACH BUDGET (PROCESS, SIZE, FUNDING, ETC.)

For Decision:

The P&E Subcommittee will present their recommended FY14 Planning Program Budget development, including the PPL 24 Process.

- a. The Technical Committee will vote on a recommendation to the Task Force to approve that the PPL 24 Process Standard Operating Procedures include selecting four nominees in the Barataria and Terrebonne Basins; three projects in the Breton Sound and Pontchartrain Basins; two nominees in the Mermentau, Calcasieu/Sabine, and Tech/Vermilion Basins; and one nominee will be selected in the Atchafalaya Basin.
- b. The Technical Committee will vote on a recommendation to the Task Force to approve the FY14 Outreach Committee Budget, in the amount of \$452,400.
- c. The Technical Committee will vote on a recommendation to the Task Force to approve the FY14 Planning Budget, in the amount of \$5,070,838.

APPENDIX A

PRIORITY PROJECT LIST 24 SELECTION PROCESS

Coastal Wetlands Planning, Protection and Restoration Act Guidelines for Development of the 24th Priority Project List

Draft

I. Development of Supporting Information

A. COE staff prepares spreadsheets indicating status of all restoration projects (CWPPRA Priority Project Lists (PPL) 1-23; Louisiana Coastal Area (LCA) program, 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. CPRA/USGS staff prepare basin maps indicating:

- 1) Boundaries of the following projects types (PPLs 1-23; LCA program, COE 1135, 204, 206; and State only).
- 2) Locations of completed projects.
- 3) Projected land loss by 2050 including all CWPPRA projects approved for construction through January 2014.
- 4) Regional boundary maps with basin boundaries and parish boundaries included.

II. Project Nominations

A. The four Regional Planning Teams (RPTs) will meet individually to examine basin maps, discuss areas of need, discuss strategies within Louisiana's Comprehensive Master Plan for a Sustainable Coast (State Master Plan), and accept project nominations by hydrologic basin. Project nominations will be accepted in the following hydrologic basins – Pontchartrain, Breton Sound, Barataria, Terrebonne, Atchafalaya, Teche/Vermilion, Mermentau, and Calcasieu/Sabine. Project nominations will not be accepted in the Mississippi River Delta Basin as strategies for this basin are not included within the State Master Plan. Project nominations that provide benefits or construct features in more than one basin shall be presented in the basin receiving the majority of the project's benefits. The RPT leaders, in coordination with the project proponents and the P&E Subcommittee, will determine which basin to place multi-basin projects. Alternatively, multi-basin projects can be broken into multiple projects to be considered individually in the basins which they occur. Project nominations that are legitimate coast-wide applications will be accepted separate from the eight basins at any of the four RPT meetings.

Proposed project nominees shall be consistent with the State Master Plan. Those projects determined to be inconsistent with the State Master Plan will be removed from consideration as PPL24 nominees. - Representatives of the State will be present at the RPT meetings to provide guidance on the consistency of project nominations. Nominations for demonstration projects will also be accepted at any of the four RPT meetings. Those wishing to propose projects are encouraged to work with representatives of the State prior to the RPT meetings to develop projects that are consistent with the State Master Plan

In the event that similar projects are proposed within the same area, the RPT representatives will determine if those projects are sufficiently different to allow each of them to move forward. If not sufficiently different, such projects will be combined into one project nominee.

▲ The RPTs will not vote to select nominee projects at the individual regional meetings. Rather, voting will be conducted after the individual regional meetings via email or fax. All CWPPRA agencies and parishes will be required to provide the name and contact information during the RPT meetings for the official representative who will vote to select nominee projects.

B. Voting for project nominees (including basin, coast-wide and demonstration project nominees) will be conducted after the individual RPT meetings (date to be determined). The RPTs will select four projects in the Barataria and Terrebonne Basins and three projects in the Breton Sound and Pontchartrain Basins based on the high loss rates (1985-2010) in those basins. Two projects will be selected in the Mermentau, Calcasieu/Sabine, and Teche/Vermilion Basins. Because the Atchafalaya Basin is currently in a land gain situation, only one project will be selected in that basin.

A total of up to 21 basin projects could be selected as nominees. Each officially designated parish representative in the basin will have one vote and each federal CWPPRA agency and the State will have one vote. If coast-wide projects have been presented, the RPTs will select one coast-wide project nominee to compete with the 21 basin nominees for candidate project selection. Selection of a coast-wide project nominee will be by consensus, if possible. If voting is required, officially designated representatives from all coastal parishes will have one vote and each federal CWPPRA 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 CWPPRA agency and the State will have one vote.

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C. Prior to voting on project nominees, the Environmental and Engineering Work Groups will screen each coast-wide project nominated at the RPT meetings to ensure that each qualifies as a legitimate coast-wide application. Should any of those projects not qualify as a coast-wide application, ~~then~~ the RPT leaders, in coordination with the project proponents and the P&E Subcommittee, will determine which basin the project should be placed in.

Also, prior to voting on project nominees, 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 the CWPPRA Standard Operating Procedures (SOP), Appendix E.

D. A lead Federal agency will be designated for the nominees and demonstration project nominees to prepare preliminary project support information (fact sheet, maps, and potential designs and benefits). The RPT Leaders will then transmit this information to the P&E Subcommittee, Technical Committee and other RPT members.

III. Preliminary Assessment of Nominated Projects

A. Agencies, parishes, landowners, and other individuals informally confer to further develop projects. Nominated projects shall be developed to support the strategies and goals of the State Master Plan. [For help in the development of projects that are consistent with the State Master Plan, please contact State CWPPRA representatives.](#)

B. The lead agency designated for each nominated project will prepare a brief Project Description 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 [and that they represent potentially viable restoration techniques. If it is determined that a demonstration project is unlikely to be utilized in restoration or has been evaluated previously, the Engineering and Environmental Work Groups may recommend to the Technical Committee that these projects not move forward.](#)

D. P&E Subcommittee prepares matrix of cost estimates and other pertinent information for nominees and demonstration project nominees and furnishes to Technical Committee.

IV. Selection of Phase 0 Candidate Projects

Comment [EJG1]: If we intend to move forward with officially changing the demo process, this will probably need to be addressed in the SOP

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 ~~may will also~~ select up to three demonstration project candidates for detailed assessment by the Environmental, Engineering, and Economic Work Groups.

B. Technical Committee assigns a Federal sponsor for each project to develop preliminary Wetland Value Assessment (WVA) 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. 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.

Comment [EJG2]: This should be revised to reflect the boundaries being developed prior to the site visits

C. Sponsoring agency develops a draft WVA and prepares Phase 1 engineering and design cost estimates and Phase 2 construction cost estimates. Sponsoring agency should use formats approved by the applicable work group.

D. Environmental Work Group reviews and approves all draft WVAs. Demonstration project candidates will be evaluated as outlined in Appendix E of the CWPPRA SOP.

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

- 1) updated Project Fact 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), and cost effectiveness (average annual cost/AAHU); and
- 3) a qualitative discussion of supporting partnerships and public support.

H. Technical Committee will host a public hearing to present the results from the candidate project evaluations. Public comments will be accepted during the meeting and in writing.

VI. Selection of 24th Priority Project List

A. The selection of the 24th PPL will occur at the Winter Technical Committee and Task Force meetings.

B. Technical Committee meets and considers matrix, Project Fact Sheets, and public comments. The Technical Committee will recommend up to four projects for selection to the 24th PPL. The Technical Committee may also recommend demonstration projects for the 24th PPL.

C. The CWPPRA Task Force will review the Technical Committee recommendations and determine which projects will receive Phase 1 funding for the 24th PPL.

Revision to the PPL24 Process - Modernizing the CWPPRA Demonstration Project Program

Background

At CWPPRA's authorization in 1990, coastal restoration science was in its infancy, and there was desire to ensure that novel techniques would be considered within the emerging program. The CWPPRA statute provides that the PPLs be developed with "due allowance for small-scale projects necessary to demonstrate the use of new techniques or materials for coastal wetlands."

Over the last 25 years, the "state of the art" of coastal restoration has vastly improved. Today, based in large part on CWPPRA's implementation of over 150 projects and the wealth of information that resulted, the science of restoration techniques has been significantly advanced and continues to be explored both within the CWPPRA program and through a wide variety of other programs. In addition to on-going federal efforts, the Water Institute of the Gulf's commitment to strengthen independent science and engineering is reflected in its Innovative Engineering Program and Louisiana Coastal Innovation Partnership Program.

Current Problem

The CWPPRA program has faced increasing challenges in development of demonstration projects that are technically feasible, genuinely innovative, have potential widespread application, and meet the cost parameters of the program. Concurrently, other governmental and private programs have increased investments in coastal restoration science and engineering. At this time, the P&E Subcommittee believes that the CWPPRA demonstration project program should be re-assessed, and we have identified several options for the Technical Committee's consideration in development of the PPL24 process.

Options

1. The Priority List process could be revised to *suspend mandatory* annual consideration of demonstration projects. Any emerging demonstration concepts could always be considered on a case-by-case basis. Option 1 could reduce planning staff time investment by about 100 to 120 hours annually. This alternative has been intermittently discussed over the past few years but has not moved forward due to concerns raised by a one or two program advocates. In the event that the TC would like to pursue this option, the P&E recommends reaching out to demonstration program advocates to further investigate their concerns.
2. Streamline the annual review process for demonstration projects to reduce workload. Demonstration projects could still be nominated at RPT meetings, but the PPL process would be revised to include early screening at the nominee stage. This review could be accomplished by the Engineering and Environmental Workgroups at the joint workgroup nominee review meeting to inform a recommendation regarding the merits of further review. This option would reduce the workload by about 50% but would continue to foster a public expectation for demonstration project authorization.
3. Conduct an "industry day" inviting public, non-profit, and private sectors to propose projects and allow for technical CWPPRA staff to evaluate applicability, feasibility, potential benefits, and likely costs through direct engagement with project proponents. This alternative would still require investment by CWPPRA staff, but may avoid the current process of extensive and detailed project review.
4. Partner with other programs exploring novel restoration techniques.

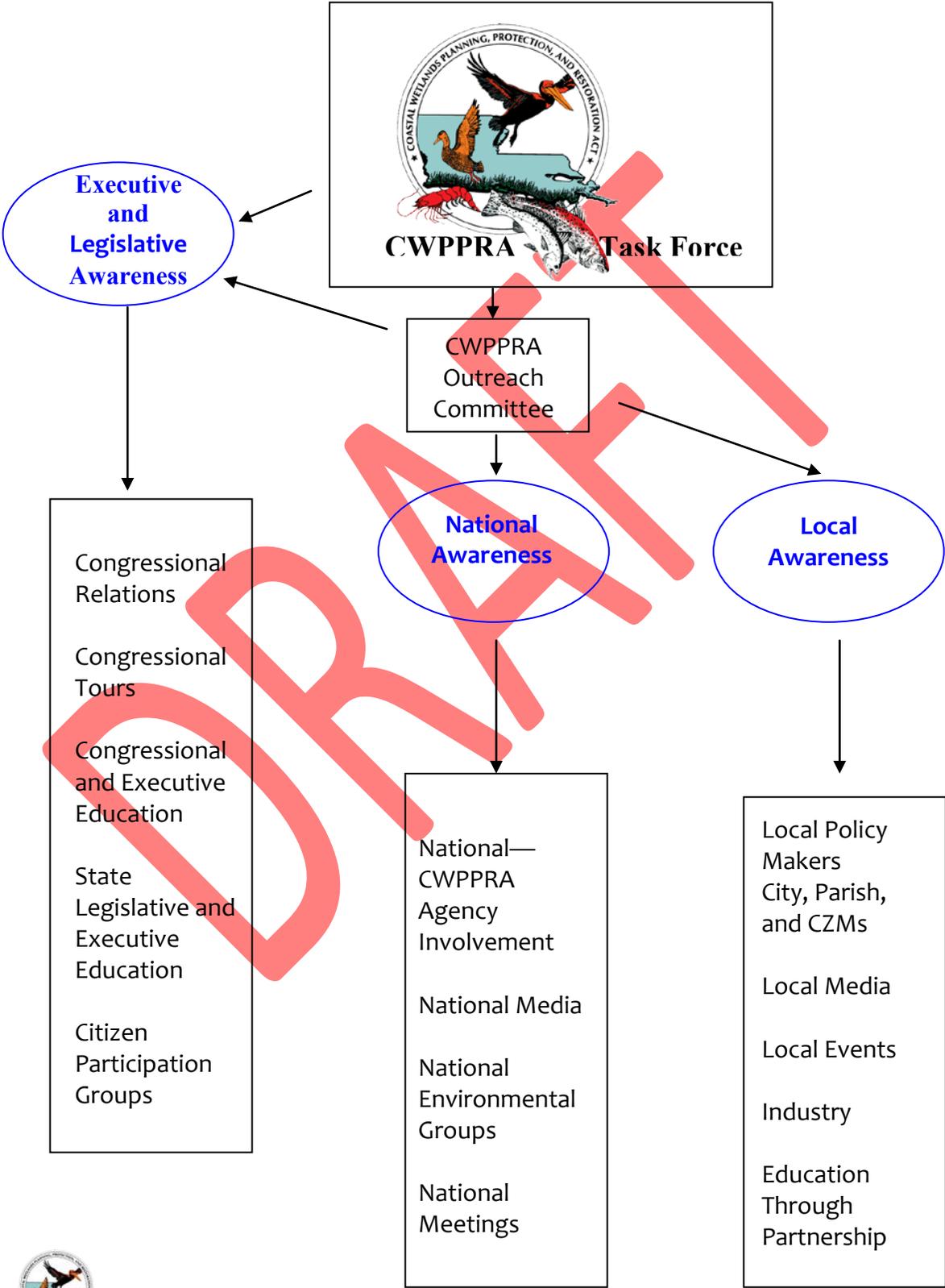
CWPPRA FY 2014 Public Outreach Budget DRAFT



Includes:
CWPPRA Audience Chart
Line Items of Budget – One per page
CWPPRA 2014 Public Outreach Budget Summary Sheet



CWPPRA Audiences



Line Item: CWPPRA Web site –www.LACoast.gov

CWPPRA Funding Request: \$0 requested from Outreach budget-funding from construction budget (Identical to last year)

Web Application Developer / Applications Security Services and Web Server Hardware and Software Maintenance

Time Line: October 1, 2013 – September 30, 2014

Brief Description:

This includes the web server hardware and software, system management, backup and recovery maintenance, and ongoing programming efforts for the www.LaCoast.gov web site. This site currently provides a continuous online presence for federal/state partners and the general public to access the latest information on CWPPRA, its projects, partners, and other pertinent information related to Louisiana's coastal wetlands conservation and restoration. This funding also includes the cost related to storing and distributing WaterMarks, fact sheets, videos, legislative links, educational materials, social media, and CWPPRA Newsflash. It includes daily maintenance and update of text and links. The LaCoast.gov web site is an interface between the public and the program.

Goal:

- Maintain the LaCoast.gov Web site on CWPPRA projects and activities
- Maintain the Social Media Outreach tools including Facebook, YouTube, Picasa

Objectives:

- Provide the public with research-based information about CWPPRA and CWPPRA projects.
- Provide a digital copy of information that highlights the programs successes and activities
- Provide a tool to share information with others about CWPPRA activities
- Provide a resource for a variety of audiences including media, federal agencies, legislative audiences, educators, and general public
- Provide current and historic information related to CWPPRA and wetland loss and restoration

Deliverables:

- Active and updated CWPPRA Web site, CWPPRA Newsflash, CWPPRA Calendar, CWPPRA Facebook page, and YouTube site maintained on a daily or as needed basis
- Summary of CWPPRA Web site activities (Three times per year-at Task Force Meetings)



Line Item: CWPPRA Dedication Ceremony

CWPPRA Funding Request: \$ 4,000 (agency TBA)

Time Line: October 1, 2013 - September 30, 2014

Brief Description:

This amount includes costs associated with the planning and coordination of one CWPPRA Dedication Ceremony. It includes amounts related to the printing of invitations, posters, programs and the production of photographs that record the event.

Goal:

- Annually host one CWPPRA dedication to provide a variety of audiences a chance to have a hands-on experience with CWPPRA.

Objectives:

- Provide the public, media, legislative delegates, federal agency staff, and CWPPRA agency staff with an opportunity to visit a CWPPRA project, meet CWPPRA project managers and scientists, and learn more about CWPPRA activities

Deliverables:

- Digital and hard copy of invitations
- Digital and hard copy of posters related to CWPPRA projects being highlighted
- Digital and hard copy of the programs for the dedication
- Digital photographs that record the event



Line Item: Federal and State Legislative Education

CWPPRA Funding Request: §0 CWPPRA Outreach Staff Time and Local Travel Only
Time Line: October 1, 2013 - September 30, 2014

Brief Description:

This includes preparing an organized approach to meeting and educating several of the Nation's and Louisiana's legislative delegates in their home offices outside of the annual session or during session upon request.

Targeted delegates include those working on one or more of the following committees:

Natural Resource Committee – Senate
Select Committee on Coastal Restoration and Flood Control – Senate
Environment Quality-Senate
Natural Resources and the Environment – House
Joint Legislative Committee on the Budget

Materials that will be prepared for the federal legislative audience will also be used with Louisiana state delegates.

Goal:

- To reach the legislative audience in a concentrated and targeted approach to education on land loss, the restoration and preservation of Louisiana wetlands, and CWPPRA's role in restoration for the last 20 years
- To explain the organizational and fiscal structure of CWPPRA
- To explain the citizen involvement role in coastal restoration

Objectives:

- To provide contemporary delegates with current up to date information about CWPPRA and the CWPPRA program activities and projects
- To create effective CWPPRA briefing packets
- Create appropriate digital and hard copies of materials
- To deliver materials to state legislative delegates in a face to face meeting
- Create a resource for legislative delegates

Deliverables:

- Digital copy of materials created
- Digital copy of briefing packets
- Digital copy of list of meeting that CWPPRA outreach staff and agency partners participate in



Line Item: Meeting Attendance, Exhibits, and Travel

CWPPRA Funding Request: \$ 24,000 (USGS)

Time Line: October 1, 2013 - September 30, 2014

Brief Description:

This amount includes costs associated with support of at least one national discussion and up to two state symposia to be identified by the CWPPRA Task Force in conjunction with the CWPPRA Public Outreach Committee. Exhibits and presentations provide excellent venues for CWPPRA public outreach efforts to reach a concentrated, target audience that is highly involved in the preservation and restoration of America's coastal lands as well as to provide CWPPRA with an opportunity to reach out to other people inside the CWPPRA managing federal agencies in attendance. Support from CWPPRA for past sessions have led to many partnerships with entities that have helped with collaborative outreach efforts. This amount includes all cost associated with meetings, exhibition, and symposium participation. It includes the cost for registration, exhibit space, display shipping and handling, and any other fees associated with regional events.

Goal:

- To reach a concentrated and target audience that specific interest in the restoration and preservation of Louisiana wetlands
- To reach a audiences including partner agency personnel that are unaware of CWPPRA and the restoration and preservation of Louisiana wetlands
- Provide hard copies of materials to various audiences including industry, the general public, NGOs, and CWPPRA partnering agency staff unfamiliar with the CWPPRA program

Objectives:

- Provide the scientifically accurate information about CWPPRA in a meeting setting preferably one national and one state meeting
- Exhibit and present where appropriate in order to provide accurate information about CWPPRA

Deliverables:

- Digital and hard copy of list of meetings, exhibits, and presentations



Line Item: CWPPRA Product Creation and Reproduction

CWPPRA Funding Request: \$25,000 (USDA NRCS)

Time Line: October 1, 2013 - September 30, 2014

Brief Description:

This includes all cost associated with production, or reproduction, of materials and products used for CWPPRA education and public outreach efforts. The amount is used to produce: Videos, CD-ROMS, Fact Sheets, Slide Shows, PowerPoint Presentations, Posters, Brochures, etc. These funds go through USDA NRCS to a GPO contractor

Goal:

- To reach a concentrated and target audience that specific interest in the restoration and preservation of Louisiana wetlands
- To reach a audiences that are unaware of CWPPRA and the restoration and preservation of Louisiana wetlands

Objectives:

- Provide hard copies of materials to various audiences

Deliverables:

- Digital and hard copy of list of Meeting, exhibits, and presentations etc.
- Digital and hard copy of list of materials printed

Examples of possible materials to be printed:

Additional "Partners in Restoration" documents
2013 Report to Congress
CWPPRA Fact Sheets
Turning the Tide Curriculum document
I Remember... Louisiana Reflections and Stories of the Past.



Photo and Video Acquisition

CWPPRA Funding Request: \$10,300 (LUMCON)

Time Line: October 1, 2013 – September 30, 2014

Brief Description:

Goal:

- To provide a realistic look at the people engaged in coastal restoration activities performed by CWPPRA and the value of those projects to the nation.

Objectives:

- Provide digital copies of photos and videos for various audiences

Deliverables:

- Digital and hard copy of list of photos and videos
- Digital copy of photos and videos



Line Item: Articles for Print - Writing/Public Publications

CWPPRA Funding Request: \$2,700 (USGS)

Time Line: October 1, 2013 – September 30, 2014

Brief Description:

Work with professional writer to create articles of interest for publications such as Louisiana Sportsman magazine. Providing funding for the annual outdoor writers awards event.

Goal:

- To provide the public with a lay person’s view of coastal restoration activities performed by CWPPRA and their value to the nation.

Objectives:

- Provide digital copies of photos and videos for various audiences

Deliverables:

- Digital copy of list of articles
- Digital and hard copy of the articles



Line Item: CWPPRA Fact Sheets

CWPPRA Funding Request: \$0 Part of printing budget and CWPPRA Staff salaries
Time Line: October 1, 2013– September 30, 2014

Brief Description:

This includes: the creation and update of the CWPPRA fact sheet, posting fact sheets to the Web and printing fact sheets.

Goal:

- To reach a concentrated and target audience that specific interest in the restoration and preservation of Louisiana wetlands
- To reach a audiences that are unaware of CWPPRA and the restoration and preservation of Louisiana wetlands

Objectives:

- Provide digital and hard copies of fact sheets to various audiences

Deliverables:

- Digital and hard copy of fact sheets



Line Item: WaterMarks

CWPPRA Funding Request: \$ 80,000
(\$60,000 –USDA NRCS - Development and Printing)
(\$20,000- USACE -Mailing and Distribution)

Time Line: October 1, 2013 - September30, 2014

Brief Description:

This includes all cost associated with the current approved contract for the production of CWPPRA’s “WaterMarks.” The cost includes writing, layout and design, printing and mailing. The publishing is managed by USDA NRCS, and the amount includes all fees associated with the printing of the publication through the US Government Printing Office and the contract to Koupal Communications - currently responsible for the: planning, information gathering and research, detailed content outline, writing, editing, submission of material, graphic design services, editorial and graphics standards, and pre-flight file. All cost associated with the mail-out preparation and distribution of the WaterMarks publication is currently managed by the USACE with the database of over 7,500 addresses that receive each published newsletter by mail.

Goal:

- Create two full color, 16-page informational magazine per year. These magazines can be used in a variety of venues and for a variety of audiences.

Objectives:

- Provide the public with research-based information about CWPPRA and CWPPRA projects.
- Provide a hard copy of information that highlights the programs successes
- Provide a tool to share information with others

Deliverables:

- **2 issues of WaterMarks per calendar year**
- **13,500 copies or a total of 27,000 copies per year distributed to various users**
That works out to \$2.96 or almost \$3 per issue.

The WaterMarks are distributed as follows: USACE receives 8,500 directly. Of those 8,000, about 7,000 are mailed out directly by the USACE to members of the public who are on the mailing list. OCPH receives 1,000 copies. USDA NRCS receives 1,000 copies

CWPPRA Outreach Staff receives 3,000 copies and they are mailed out or brought to various partners including: NOAA, USFWS, CRCL, LSU Ag Center, EPA, BTNEP, LA Sea Grant, LSU Ed. Theory Dept., UNO PIES, CCA, Audubon Zoo, USGS NWRC, LDWF, and Lafourche Parish Tourist Commission.



Line Item: CWPPRA Student Worker

CWPPRA Funding Request: \$23,000 (USGS)

Time Line: October 1, 2013 - September 30, 2014

Brief Description:

This amount includes all cost associated with the salary, and management over-head rates for one part-time student worker; and the mailing of materials requested through CWPPRA’s public outreach office. The student worker provides support and assistance to the Outreach Coordinator and Media Specialist by monitoring media clips, responding to material requests, and conducting any other administrative tasks that may help improve outreach efforts. The amount also includes costs allocated to mail materials to the public, managing agencies, partners and anyone else who requests information on CWPPRA.

Goal:

- To provide support to CWPPRA program for outreach activities

Objectives:

- Provide quick responses to requests for materials
- Provide support for preparation of outreach activities

Deliverables:

- List of mail outs organized by student worker
- Digital and hard copy of timesheet for student worker
- Quarterly report of student activities



Line Item: CWPPRA Public Outreach Staff

CWPPRA Funding Request: \$ 226,000 (USGS)
Time Line: October 1, 2013 – September 30, 2014

Brief Description:

Organizes outreach activities through the CWPPRA Public Outreach Committee and CWPPRA Task Force. Position is housed at the National Wetlands Research Center (NWRC) in Lafayette, LA. Responsible for the management of all day-to-day public outreach committee efforts, and acts as the liaison between the public, parish governments, and the various Federal agencies and partners associated with CWPPRA. Provides support for creating outreach/education materials that are distributed and used by a variety of audiences. Providing guidance, expertise, and support in communicating CWPPRA strategies and progress with the public

Works to reach three target audiences: 1) executive and legislative; 2) national leaders and partners; and 3) local leaders, partners and individuals. Audiences include policy-makers, environmental managers, or opinion-leaders, coastal zone environmental managers, civic leaders, educators, state legislators, statewide and national media, our national congressional delegation, CWPPRA committees, national environmental managers, environmental scientists, and energy, navigation, agriculture and tourism leaders.

Provides support for conducting educational and information workshops for teachers and the public. Participate and present at regional and national environmental workshops. Update CWPPRA outreach materials in order to reach target audience. Develop curricula and new outreach material. Update CWPPRA on-line calendar, develop and deliver the Breaux Act Newsflash. Respond to information requests. Work with microcomputer specialist to update current website and electronic educational material. Perform duties associated with outreach coordinator and media specialist.

This includes one full time outreach coordinator, one full time outreach assistant/media specialist, and part time for support of fact sheet development and activities related to text updates and changes.

Deliverable:

- Summary of CWPPRA Web site activities (Three times per year-at Task Force Meetings)
- BA Newsflash activity
- WaterMarks activities
- Requests for information
- List of media that mentions CWPPRA press releases and other publicity
- Major accomplishments, list of activities, and list of meetings
- Lists of exhibits, presentations, field trips and Meeting



Line Item: CWPPRA Public Outreach Committee Personnel by Agency

| | |
|-------------------------|----------|
| CWPPRA Funding Request: | \$57,400 |
| NMFS | \$6,600 |
| USDA NRCS | \$6,600 |
| EPA | \$6,600 |
| CPRA | \$6,600 |
| GOCA | \$6,600 |
| USFWS | \$3,300 |
| USACE | \$6,600 |
| NWRC | \$14,500 |

Time Line: October 1, 2013 - September 30, 2014

Brief Description:

Each agency of the CWPPRA team is represented on the CWPPRA Public Outreach Committee by a member of each of the agencies' staff. The funds identified are used by outreach committee members to attend meetings and review CWPPRA materials. Many CWPPRA Public Outreach Committee members also participate in a variety of outreach events.

Deliverable:

- Minutes from CWPPRA Public Outreach Committee Meetings
- List of deliverables that have been reviewed by the committee members



CWPPRA 2014 Public Outreach Budget Summary

Recommendation to the CWPPRA Task Force

Operations

| <u>Description</u> | <u>Agency</u> | <u>FY2014</u> | |
|--|---------------|----------------|-----------------|
| CWPPRA Web site -LACoast.gov (construction budget; identical to last year) | | | |
| CWPPRA Annual Dedication Ceremony | | 4,000 | |
| Meeting Attendance, Exhibits, and Related Travel | USGS | 24,000 | |
| CWPPRA Product Creation and Reproduction | USDA NRCS | 25,000 | |
| Photo and Video Acquisition | LUMCON/USGS | 10,300 | |
| Articles for Print - Writing and Public Publications | USGS | 2,700 | |
| CWPPRA Fact Sheets | | | |
| WaterMarks Development and Printing | USDA NRCS | 60,000 | |
| WaterMarks Mailing and Distribution | USACE | 20,000 | |
| CWPPRA Student Worker and Mail Out Support | USGS/ ULL | 23,000 | |
| CWPPRA Public Outreach Staff | USGS | <u>226,000</u> | |
| CWPPRA Federal Public Outreach Committee Members | | | 395,000 |
| NFMS | | 6,600 | |
| USDA NRCS | | 6,600 | |
| EPA | | 6,600 | |
| GOCA | | 6,600 | |
| CPRA | | 6,600 | |
| USFWS | | 3,300 | |
| USACE | | 6,600 | |
| NWRC | | <u>14,500</u> | |
| | | | + <u>57,400</u> |
| Total Budget | | | 452,400 |



**Coastal Wetlands Planning, Protection, and Restoration Act
Fiscal Year 2014 Planning Schedule and Budget
P&E Committee Recommendation,
Tech Committee Recommendation,
Task Force Approval,**

4/5/2013

| | |
|-------------------------|------------------|
| Carry Over Funds | \$319,186 |
|-------------------------|------------------|

| CWPRA COSTS | | | | | | | | | | | | | | | | |
|-----------------------------------|--------------|---|------------|----------|-----------------|------------------------|----------|----------|--------------------|--------------|--------------|--------------|---------------------------|------------------------|----------|----------------|
| TASK | | | Duration | | Dept of Defense | Department of Interior | | | State of Louisiana | | | EPA | Department of Agriculture | Department of Commerce | | |
| Task Category | Task No. | Description | Start Date | End Date | USACE | USFWS | NWRC | USGS BR | OCPR | LDWF | GOCA | EPA | NRCS | NMFS | Other | Total |
| PPL 24 TASKS | | | | | | | | | | | | | | | | |
| PL | 22485 | P&E holds 1 Public Meeting | 11/17/13 | 11/18/13 | 5,415 | 2,053 | | | 2,377 | 2,253 | | 1,548 | 2,787 | 1,031 | | 17,464 |
| PL | 22490 | TC Recommendation for Project Selection and Funding | 12/1/13 | 12/1/13 | 2,879 | 6,717 | | | 1,829 | 2,253 | | 2,952 | 4,159 | 3,225 | | 24,013 |
| PL | 22600 | TF Selection and Funding of the 23rd PPL (1 meeting) | 1/17/14 | 1/17/14 | 5,583 | 9,679 | | | 3,702 | 1,502 | 2,000 | 4,632 | 5,218 | 10,402 | | 42,718 |
| PL | 22700 | PPL 24 Report Development | 2/17/14 | 7/29/14 | 47,759 | 2,687 | | | 1,862 | | | | 383 | 608 | | 53,300 |
| PL | 22800 | Corps Upward Submittal of the PPL 24 Report | 8/1/14 | 8/1/14 | 1,318 | | | | | | | | | | | 1,318 |
| PL | 22900 | Corps Congressional Submission of the PPL 24 Report | 8/31/14 | 8/31/14 | 1,148 | | | | | | | | | | | 1,148 |
| FY14 Subtotal PPL 24 Tasks | | | | | 64,103 | 21,136 | 0 | 0 | 9,770 | 6,008 | 2,000 | 9,132 | 12,547 | 15,266 | 0 | 139,961 |
| PPL 24 TASKS | | | | | | | | | | | | | | | | |
| PL | 23200 | Development and Nomination of Projects | | | | | | | | | | | | | | |
| PL | 23210 | DNR/USGS prepares base maps of project areas, location of completed projects and projected loss by 2050. Develop a comprehensive coastal LA map showing all water resource and restoration projects (CWPPRA, state, WRDA projects, etc.) NWRC costs captured under SPE 23400. | 10/12/13 | 1/4/14 | 1,038 | | | | 4,067 | | | | 383 | | | 5,488 |
| PL | 23220 | Sponsoring agencies prepare fact sheets (for projects and demos) and maps prior to and following RPT nomination meetings. | 10/12/13 | 2/14/14 | 65,118 | 33,584 | | | 9,652 | | | 36,520 | 95,340 | 23,749 | | 263,963 |
| PL | 23230 | RPT's meet to formulate and combine projects. | 1/26/14 | 1/28/14 | 21,068 | 14,926 | | | 10,548 | 4,506 | | 8,928 | 12,743 | 12,800 | | 85,519 |
| PL | 23240 | Face-to-Face RPT Voting meeting (20 nominees and up to 6 demos) | 2/16/14 | 2/16/14 | | | | | | | | | | | | 0 |

**Coastal Wetlands Planning, Protection, and Restoration Act
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P&E Committee Recommendation,
Tech Committee Recommendation,
Task Force Approval,**

4/5/2013

| | |
|-------------------------|------------------|
| Carry Over Funds | \$319,186 |
|-------------------------|------------------|

| CWPRA COSTS | | | | | | | | | | | | | | | | |
|-----------------------------------|--------------|---|------------|----------|-----------------|------------------------|----------|----------|--------------------|---------------|----------|----------------|---------------------------|------------------------|----------|------------------|
| TASK | | | Duration | | Dept of Defense | Department of Interior | | | State of Louisiana | | | EPA | Department of Agriculture | Department of Commerce | | |
| Task Category | Task No. | Description | Start Date | End Date | USACE | USFWS | NWRC | USGS BR | OCPR | LDWF | GOCA | EPA | NRCS | NMFS | Other | Total |
| PL | 23300 | Ranking of Nominated Projects | | | | | | | | | | | | | | |
| PL | 23320 | Engr Work Group prepares preliminary fully funded cost ranges for nominees. | 3/4/14 | 3/21/14 | 1,217 | 2,687 | | | 4,437 | | | 4,928 | 7,108 | 5,310 | | 25,687 |
| PL | 23330 | Environ/Engr Work Groups review nominees | 4/1/14 | 4/1/14 | 1,376 | 8,359 | | | 4,212 | 2,253 | | 3,952 | 5,882 | 5,310 | | 31,344 |
| PL | 23340 | WGs develop and P&E distributes project matrix | 3/31/14 | 3/31/14 | 1,427 | 3,188 | | | 2,658 | | | 3,520 | 209 | 3,256 | | 14,258 |
| PL | 23350 | TC selection of PPL 24 candidates (10) and demo candidates (up to 3) | 4/14/14 | 4/14/14 | 2,491 | 3,687 | | | 2,847 | 2,253 | | 3,916 | 3,589 | 7,964 | | 26,747 |
| PL | 23400 | Analysis of Candidates | | | | | | | | | | | | | | |
| PL | 23410 | Sponsoring agencies coordinate site visits for all projects | 5/2/14 | 7/14/14 | 38,057 | 28,437 | | | 17,391 | 15,019 | | 35,244 | 41,287 | 32,340 | | 207,774 |
| PL | 23420 | Engr/Environ Work Group refine project features and determine boundaries | 5/2/14 | 9/29/14 | 8,902 | 16,792 | | | 9,321 | 15,019 | | 5,904 | 8,052 | 12,800 | | 76,790 |
| PL | 23430 | Sponsoring agencies develop project information for WVVA; develop designs and cost estimates (projects and demos) | 5/2/14 | 9/29/14 | 39,683 | 42,149 | | | 37,992 | | | 40,684 | 61,943 | 56,804 | | 279,255 |
| PL | 23440 | Environ/Engr Work Groups project-wetland benefits (with WVVA) | 5/2/14 | 9/29/14 | 28,655 | 26,867 | | | 15,402 | 6,759 | | 18,464 | 10,282 | 39,798 | | 146,227 |
| PL | 23450 | Engr Work Group reviews/approves Ph 1 and Ph 2 cost estimates from sponsoring agencies, incl cost estimates for demos | 5/2/14 | 9/29/13 | 15,560 | 6,427 | | | 8,179 | | | 11,408 | 4,282 | 15,929 | | 61,785 |
| PL | 23460 | Economic Work Group reviews cost estimates, adds monitoring, O&M, etc., and develops annualized costs | 5/2/14 | 10/14/14 | 17,264 | 1,717 | | | 1,630 | | | | 7,963 | 5,310 | | 33,884 |
| PL | 23480 | Prepare project information packages for P&E. | 5/2/14 | 11/9/14 | 8,298 | 7,836 | | | 2,483 | | | 1,968 | 189 | 5,310 | | 26,085 |
| FY14 Subtotal PPL 24 Tasks | | | | | 250,154 | 196,656 | 0 | 0 | 130,819 | 45,809 | 0 | 175,436 | 259,253 | 226,679 | 0 | 1,284,807 |

**Coastal Wetlands Planning, Protection, and Restoration Act
Fiscal Year 2014 Planning Schedule and Budget
P&E Committee Recommendation,
Tech Committee Recommendation,
Task Force Approval,**

4/5/2013

| | |
|-------------------------|------------------|
| Carry Over Funds | \$319,186 |
|-------------------------|------------------|

| CWPRA COSTS | | | | | | | | | | | | | | | | |
|---|----------|--|------------|----------|------------------|------------------------|---------------|----------|--------------------|---------------|---------------|----------------|---------------------------|------------------------|----------|------------------|
| TASK | | | Duration | | Dept of Defense | Department of Interior | | | State of Louisiana | | | EPA | Department of Agriculture | Department of Commerce | | |
| Task Category | Task No. | Description | Start Date | End Date | USACE | USFWS | NWRC | USGS BR | OCPR | LDWF | GOCA | EPA | NRCS | NMFS | Other | Total |
| Project and Program Management Tasks | | | | | | | | | | | | | | | | |
| PM | 23100 | Program Management--Coordination | 10/1/13 | 9/30/14 | 509,758 | 99,520 | 25,747 | | 66,994 | 8,261 | 40,000 | 105,422 | 115,914 | 107,851 | | 1,079,467 |
| PM | 23110 | Program Management--Correspondence | 10/1/13 | 9/30/14 | 64,026 | 27,921 | 7,110 | | 25,138 | 2,253 | | 34,153 | 45,990 | 44,979 | | 251,571 |
| PM | 23120 | Prog Mgmt--Budget Development and Oversight | 10/1/13 | 9/30/14 | 70,175 | 16,792 | 6,711 | | 10,973 | 2,253 | 2,000 | 111,134 | 51,095 | 50,840 | | 321,974 |
| PM | 23130 | Program and Project Management--Financial Management of Non-Cash Flow Projects | 10/1/13 | 9/30/14 | 66,767 | 10,821 | | | 17,718 | | | | 19,182 | 24,750 | | 139,238 |
| PM | 23200 | P&E Meetings (3 meetings preparation and attendance) | 10/1/13 | 9/30/14 | 23,427 | 9,679 | 2,895 | | 5,291 | 4,506 | | 11,616 | 13,836 | 15,057 | | 86,308 |
| PM | 23210 | Tech Com Mtngs (4 mtngs including three public and one off-site; prep and attend) | 10/1/13 | 9/30/14 | 140,318 | 29,852 | 4,825 | | 17,303 | 11,265 | | 12,352 | 17,719 | 26,840 | | 260,475 |
| PM | 23220 | Task Force mtngs (4 mtngs, including three public and one executive session; prep and attend) | 10/1/13 | 9/30/14 | 154,073 | 33,584 | 8,619 | | 24,151 | 9,012 | 10,000 | 20,528 | 31,715 | 43,218 | | 334,900 |
| PM | 23400 | Agency Participation, Review 30% and 95% Design for Phase 1 Projects | 10/1/13 | 9/30/14 | 59,982 | 11,941 | | | 10,347 | | | 14,784 | 6,172 | 12,800 | | 116,026 |
| PM | 23410 | Engineering & Environmental Work Groups review Phase II funding of approved Phase I projects (Needed for adequate review of Phase I.) [Assume 8 projects requesting Ph II funding in FY14. Assume 3 will require Eng or Env WG review; 2 labor days for each.] | 10/1/13 | 9/30/14 | 12,761 | 11,941 | | | 5,956 | 10,512 | | 3,937 | 6,769 | 12,800 | | 64,676 |
| PM | 23500 | Helicopter Support: Helicopter usage for the PPL process. | 10/1/13 | 9/30/14 | | | | | | | | | 0 | | | 0 |
| PM | 23600 | Miscellaneous Technical Support | 10/1/13 | 9/30/14 | 52,953 | 10,075 | | | 81,406 | | | 35,000 | 50,107 | 40,000 | | 269,541 |
| FY14 Subtotal Project Management Tasks | | | | | 1,154,240 | 262,126 | 55,907 | 0 | 265,277 | 48,062 | 52,000 | 348,926 | 358,501 | 379,136 | 0 | 2,924,175 |
| FY14 Total for PPL Tasks | | | | | 1,468,497 | 479,918 | 55,907 | 0 | 405,866 | 99,879 | 54,000 | 533,495 | 630,301 | 621,080 | 0 | 4,348,943 |

**Coastal Wetlands Planning, Protection, and Restoration Act
Fiscal Year 2014 Planning Schedule and Budget
P&E Committee Recommendation,
Tech Committee Recommendation,
Task Force Approval,**

4/5/2013

| | |
|-------------------------|------------------|
| Carry Over Funds | \$319,186 |
|-------------------------|------------------|

| CWPBRA COSTS | | | | | | | | | | | | | | | | |
|--|----------|--|------------|----------|------------------|------------------------|----------------|----------|--------------------|---------------|---------------|----------------|---------------------------|------------------------|----------------|------------------|
| TASK | | | Duration | | Dept of Defense | Department of Interior | | | State of Louisiana | | | EPA | Department of Agriculture | Department of Commerce | | |
| Task Category | Task No. | Description | Start Date | End Date | USACE | USFWS | NWRC | USGS BR | OCPR | LDWF | GOCA | EPA | NRCS | NMFS | Other | Total |
| SUPPLEMENTAL PLANNING AND EVALUATION TASKS | | | | | | | | | | | | | | | | |
| SPE | 23100 | Academic Advisory Group [NOTE: New MOA between USGS and LUMCON] [Prospectus, pg 5-7] | 10/1/13 | 9/30/14 | | | | | | | | | | | 112,200 | 112,200 |
| SPE | 23400 | Core GIS Support for CWPBRA Task Force Planning Activities. [NWRC Prospectus, pg 8-9] [LDNR Prospectus, pg 10] | 10/1/13 | 9/30/14 | | | 146,340 | | 10,955 | | | | | | | 157,295 |
| SPE | | PLACE HOLDER FOR 2015 BUDGET: Prepare 2015 Evaluation Report (Report to Congress) [Prospectus, pg_] | | | | | | | | | | | | | | 0 |
| FY14 Total Supplemental Planning & Evaluation Tasks | | | | | 0 | 0 | 146,340 | 0 | 10,955 | 0 | 0 | 0 | 0 | 0 | 112,200 | 269,495 |
| FY14 Agency Tasks Grand Total | | | | | 1,468,497 | 479,918 | 202,247 | 0 | 416,821 | 99,879 | 54,000 | 533,495 | 630,301 | 621,080 | 112,200 | 4,618,438 |
| Otrch | 23100 | Outreach - Committee Funding | 10/1/13 | 9/30/14 | | | | | | | | | | | 395,000 | 395,000 |
| Otrch | 23200 | Outreach - Agency | 10/1/13 | 9/30/14 | 6,600 | 3,300 | 14,500 | | 6,600 | | 6,600 | 6,600 | 6,600 | 6,600 | | 57,400 |
| FY14 Total Outreach | | | | | 6,600 | 3,300 | 14,500 | 0 | 6,600 | 0 | 6,600 | 6,600 | 6,600 | 6,600 | 395,000 | 452,400 |
| Grand Total FY14 | | | | | 1,475,097 | 483,218 | 216,747 | 0 | 423,421 | 99,879 | 60,600 | 540,095 | 636,901 | 627,680 | 507,200 | 5,070,838 |

Coastal Wetlands Planning, Protection and Restoration Act Fiscal Year 2014 Budget Summary

P&E Committee Recommendation, Technical Committee Recommendation, Task Force Approval,

| | FY2010 Amount (\$) | FY2011 Amount (\$) | FY2012 Amount (\$) | FY2013 Amount (\$) | FY2014 Amount (\$) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| General Planning & Program Participation [Supplemental Tasks Not Included] | | | | | |
| State of Louisiana | | | | | |
| OCPR (formerly DNR) | 406,866 | 405,866 | 405,866 | 405,866 | 405,866 |
| LDWF | 96,879 | 99,879 | 99,879 | 99,879 | 99,879 |
| Gov's Ofc | 94,800 | 54,000 | 54,000 | 54,000 | 54,000 |
| Total State | 598,545 | 559,745 | 559,745 | 559,745 | 559,745 |
| EPA | 505,297 | 505,297 | 505,297 | 533,495 | 533,495 |
| Dept of the Interior | | | | | |
| USFWS | 496,918 | 479,918 | 479,918 | 479,918 | 479,918 |
| NWRC | 63,656 | 55,907 | 55,907 | 55,907 | 55,907 |
| USGS Reston Nat'l Park Service | | | | | |
| Total Interior | 560,574 | 535,825 | 535,825 | 535,825 | 535,825 |
| Dept of Agriculture | 630,302 | 630,302 | 630,302 | 630,301 | 630,301 |
| Dept of Commerce | 621,080 | 621,081 | 621,081 | 621,080 | 621,080 |
| Dept of the Army | 1,471,688 | 1,468,497 | 1,468,497 | 1,468,497 | 1,468,497 |
| Agencies Total | \$4,387,486 | \$4,320,746 | \$4,320,747 | \$4,348,943 | \$4,348,943 |
| Outreach | | | | | |
| Outreach | 487,148 | 452,400 | 452,400 | 452,400 | 452,400 |
| Supplemental Tasks | | | | | |
| Academic Advisory Group | 133,650 | 112,200 | 112,200 | 112,200 | 112,200 |
| Database & Web Page Link Maintenance | 64,153 | | | | |
| Linkage of CWPPRA & LCA | | | | | |
| Core GIS Support for Planning Activities | 307,249 | 167,327 | 157,295 | 157,295 | 157,295 |
| Evaluation Report to Congress | | | 110,000 | | |
| Workshop Construction Projects | | | | | |
| Total Supplemental | \$505,052 | \$279,527 | \$379,495 | \$269,495 | \$269,495 |
| Total Allocated | \$5,379,686 | \$5,052,672 | \$5,152,642 | \$5,070,838 | \$5,070,838 |
| Unallocated Balance | | | | | |
| Total Unallocated | \$319,186 | | | | |



United States Department of the Interior
U.S. GEOLOGICAL SURVEY
BIOLOGICAL RESOURCES DIVISION

National Wetlands Research Center

April 2, 2014

Scope of Work

Technical Services to the CWPPRA Program

Accurate and timely information is critical to large, interagency programs such as CWPPRA for project planning and interacting with the general public. Due to the spatial extent of the CWPPRA program, the number of stakeholders involved, and the amount of Federal and State dollars associated with the program, the continued maintenance of project, GIS, and website data are necessary to ensure the most up to date and accurate data are available. It is the goal of USGS to provide the CWPPRA partners and the public with timely and accurate information about the program and the constructed projects, as well as, aid project managers during project reevaluation.

Project Information Database Maintenance Task Description:

NWRC has created and maintains a real-time, interactive, internet-based data management system, which provides consistent, current programmatic information. This system comprised of several synchronized database components deployed in various locations which serve specific tasks at their respective location ranging from tracking project costs to progress milestones. This information system is currently working with several CWPPRA databases including: Outreach Committee's standardized public project fact sheets, CWPPRA budget analyst reports and databases, the WVA working group spreadsheets, and the USGS CWPPRA project mapping effort. Additionally, the presence of this system allows staff to "database enable" the CWPPRA fact sheets thus allowing the inclusion of real-time information which directly addresses the conflicting information problem.

As security requirements governing federal systems change, there is a need to ensure that the CWPPRA project information database complies with current with information exchange policies wherever a database component is deployed.

As the primary mechanism for integrating databases across the five Task Force agencies and the State of Louisiana, this system is critical to ensure consistent, accurate information exchange and dissemination between the many moving parts of CWPPRA and ensures resources are available to address any problems or user needs in a timely manner.

CWPPRA Website (www.LACoast.gov) Maintenance Task Description:

The CWPPRA website currently provides a continuous online presence for federal/state partners and the general public to access the latest information on CWPPRA, its projects, partners, and other pertinent information related to Louisiana's coastal wetlands conservation and restoration. The LaCoast.gov website is an interface between the public and the program. NWRC utilizes web server hardware and software, and performs system management, backup and recovery

maintenance, and programming efforts for the www.LaCoast.gov website. This task includes storing and distributing WaterMarks, fact sheets, videos, legislative links, and educational materials, as well as, daily maintenance and update of text and links.

GIS Task Description:

During Phase I of a CWPPRA project, it may be necessary to reevaluate that project to facilitate a scope change. NWRC provides the project manager with GIS support that consists of spatial data analyses, maps, graphics, and technical support utilizing the most recent spatial data sets available. Providing these products and services to CWPPRA agencies requires a standardized GIS data management environment and a good deal of coordination with those project managers.

Technical Services for FY14

| Description | Cost |
|---|-----------|
| Project Information Database Maintenance - USGS | \$41,710 |
| CWPPRA Website (www.LaCoast.gov) Maintenance | \$55,000 |
| GIS Support for CWPPRA Constructed Project Activities | \$74,700 |
| TOTAL | \$171,410 |

Deliverables:

Project Information Database Maintenance Task

- Programming and database administration
- Data enabling fact sheets
- Federal security review

CWPPRA Website Maintenance Task

- Active and updated CWPPRA website maintained on daily basis
- Summary of CWPPRA website activities (Three times per year at Task Force meetings)

GIS Task

- Updated WVA analysis for In Phase projects
- Fact Sheet maps for In Phase and newly selected PPL projects
- Miscellaneous requests for CWPPRA agencies

Points of Contact:

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United States Department of the Interior
U.S. GEOLOGICAL SURVEY
BIOLOGICAL RESOURCES DIVISION

National Wetlands Research Center

April 2, 2014

Scope of Work

CWPPRA Reoccurring Planning Task: SPE 24400 *Core GIS Support for CWPPRA Task Force Planning Activities – Continuation for FY14*

Description:

The NWRC has provided the Task Force with GIS planning support since 1992. The scope and complexity of this support has increased over the past 17 years and has resulted in the development of a comprehensive GIS that provides the Task Force with annual planning deliverables that include spatial data sets, spatial data analyses, maps, graphics, and technical support. Providing these products and services to the Task Force requires a standardized GIS data management environment and a good deal of coordination with Task Force and Work Group members. The GIS products and technical services provided by the NWRC for CWPPRA Planning are, for the most part “reusable”, designed to support multi-scale applications, and form the core of the GIS data sets used to support CWPPRA monitoring, land rights, and engineering activities. The system that we have today represents 23 years of the Task Force’s investment in GIS technology, data development, and skilled staff. The NWRC continues to incorporate updated data sets and spatial analytical techniques to support the task force on an annual basis. The existing GIS datasets provide enhanced spatial data development, analyses, and products. The NWRC has continued to incorporate updated techniques and spatial data into the PPL process and will continue to incorporate new data as required to assist the Task Force.

The NWRC requests reauthorization of the Core GIS Support Task for FY14.

CORE NWRC GIS Support for FY14

| Task | Description | Cost |
|-------------|--|-------------|
| SPE 24400 | Continuation of Core GIS Support for CWPPRA Task Force Planning Activities | \$146,340 |

Benefits:

- Identifies core CWPPRA Planning GIS support as one reoccurring item, rather than splitting support among various technology or map initiatives introduced on an annual basis.
- Insures continued spatial data maintenance, management, and coordination for Task Force.
- Insures incorporation of new spatial data sets and technologies for Task Force.
 - Examples
 - Provide more detailed PPL project analyses incorporating a wider variety of data types.
 - Provide interactive GIS support at pertinent meetings.

Deliverables: Annual continued core CWPPRA Planning GIS support and products (data, technical support, data coordination, data distribution, and hard copy products) at present levels.

- Regional Planning Team meeting technical support – Region and Basin Maps depicting selected State and CWPPRA projects, on site GIS support for meetings, nominee project analysis as requested by agencies.
- Coastwide voting meeting technical support – Nominee project maps by Region, as well as, for the coast.
- Boundary meeting support – On site GIS support and delineations of project and extended boundaries.
- WVA meeting support – Shoreline and habitat analysis of Candidate projects, an excel workbook containing area numbers by available dataset with supporting trend analyses for updated In Phase and PPL candidate projects, and on site GIS support for meetings.
- Digital maps of the units, including habitat types, land/water boundaries, shoreline analysis, etc. suitable for inclusion based on the WVA template.
- Updated Selected Coastal Restoration Projects map based on new PPL selections.
- Maps for PPL Report to the CWPPRA Task Force.

Point of Contact:

Michelle Fischer, Geographer
USGS – National Wetlands Research Center, Coastal Restoration Field Station
c/o Livestock Show Office, Parker Coliseum, LSU
Baton Rouge, LA 70803
Ph: 225-578-7483
Email: fischerm@usgs.gov

SCOPE OF SERVICES

University scientists assistance to the Louisiana Coastal Conservation and Restoration Task Force (PPL24) Louisiana Universities Marine Consortium, Cocodrie, Louisiana

1. Project Management

The Project Manager for this project is Dr. Charles E. Sasser, who will be subcontracted through Louisiana State University. The Project Manager's duties have been divided over the following subtasks:

1a. Day-to-day operation

The Project Manager will facilitate execution of the main contract; draft subcontracts to Louisiana universities for implementation by LUMCON Grants and Contracts personnel; approve all spending, including subcontract invoices; and act as a single point of contact for the Task Force, the Scientific Steering Committee, subcontractors, and the broader academic community.

1b. Participation in Task Force activities

The Project Manager will attend all Task Force, Technical Committee, and Planning and Evaluation Subcommittee meetings.

1c. Solicitation of Interest

If necessary due to resignation of existing AAG group members, a solicitation will be developed by the Project Manager and approved by the CWPPRA Academic Assistance Subcommittee. It will describe the types of activities in which university scientist participation is expected (e.g. Regional Planning Teams or Environmental Workgroup). The solicitation will describe the selection process, including the minimum selection criteria for each task, and contracting arrangement. To ensure that those from the university community involved in the CWPPRA process are active wetland scientists aware of contemporary research in their field, the Scientific Steering Committee has developed the following selection criteria. Selected scientists should have a Ph.D. or MSc. and five years of research experience in wetlands/river/coastal-related issues and at least one of the following:

- at least two peer-reviewed publications on wetlands/river/coastal-related issues within the last five years
- at least four presentations at national or international meetings on wetlands/river/coastal-related issues within the last five years
- current grants and/or contracts to conduct research on wetlands/river/coastal-related issues which have been awarded through a peer-review process

The solicitation will include an information sheet. This information sheet will be used to indicate the activities that a scientist wants to participate in and the nature of their

availability. A two page CV for each interested scientist will be requested in the solicitation. The solicitation will be sent to all scientists currently in the Academic Assistance database, as well as heads of all biology, geology, and civil engineering departments at Louisiana state universities. A copy of the solicitation will also be provided to all members of the Planning and Evaluation Subcommittee and Technical Committee who may distribute it to any Louisiana state university scientists they wish to ensure are contacted. The deadline for response will be at least two weeks after mailing.

1d. Selection of participating scientists

The Project manager will conduct a preliminary screening of the responses to determine which respondents are currently available for consideration. If sufficient qualified scientists can be identified, the Project Manager will provide the Academic Assistance Subcommittee with a list for consideration which exceeds the number of scientists required by no more than 50%. The Academic Assistance Subcommittee will make the final selection of scientists.

2. Regional Planning Team Assistance

There are four regional planning teams (RPT). These RPTs select projects for nomination on the priority project list. One selected scientist, who has broad familiarity with the region, will be assigned to each RPT. RPT meetings will also be attended by the Project Manager or a designated replacement to provide consistency in assistance to all four regions. The role of the selected ecologist and the Project Manager are to provide the RPTs with the scientific background for any planning activities within the region. The AAG members of the RPTs will review all nominated projects and provide this review to the Technical Committee at least two days prior to the coast-wide voting meeting.

Appropriate Fields of Expertise: Wetland Ecology.

3. Environmental Work Group Assistance

Three scientists will be selected for this task. The role of the selected scientists is to provide advice and assistance to the Task Force personnel and become part of the Wetland Value Assessment (WVA) team. The WVA team will visit each site in the field. Task Force agencies will generally provide boat transportation to field sites. Aspects of the projects will be discussed in the field, and a formal WVA analysis will be conducted by the team after the field visits.

Appropriate Fields of Expertise: Wetland Ecology, Coastal Geomorphology, and Wetland Hydrology.

Current Active Members of the Academic Advisory Group:

| | |
|--------------------------|---|
| Project Management: | Dr. Charles Sasser, Louisiana State University |
| Regional Planning Team 1 | Dr. Gary Shaffer, Southeastern Louisiana University |
| Regional Planning Team 2 | Dr. Sam Bentley, Louisiana State University |
| Regional Planning Team 3 | Dr. Mark Hester, University of Louisiana at Lafayette |
| Regional Planning Team 4 | Mr. Erick Swenson, Louisiana State University |
| Environmental Workgroup | Dr. Larry Rouse, Louisiana State University |
| | Dr. Andy Nyman, Louisiana State University |
| | Mr. Erick Swenson, Louisiana State University |

Academic Advisory Group Budget

| | |
|------------------------------------|---------------|
| Project Management | 27,000 |
| Regional Planning Team Assistance | 15,000 |
| Environmental Workgroup Assistance | 60,000 |
| Subtotal | 102,000 |
| <u>LUMCON overhead (10%)</u> | <u>10,200</u> |
| Total | 112,200 |

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

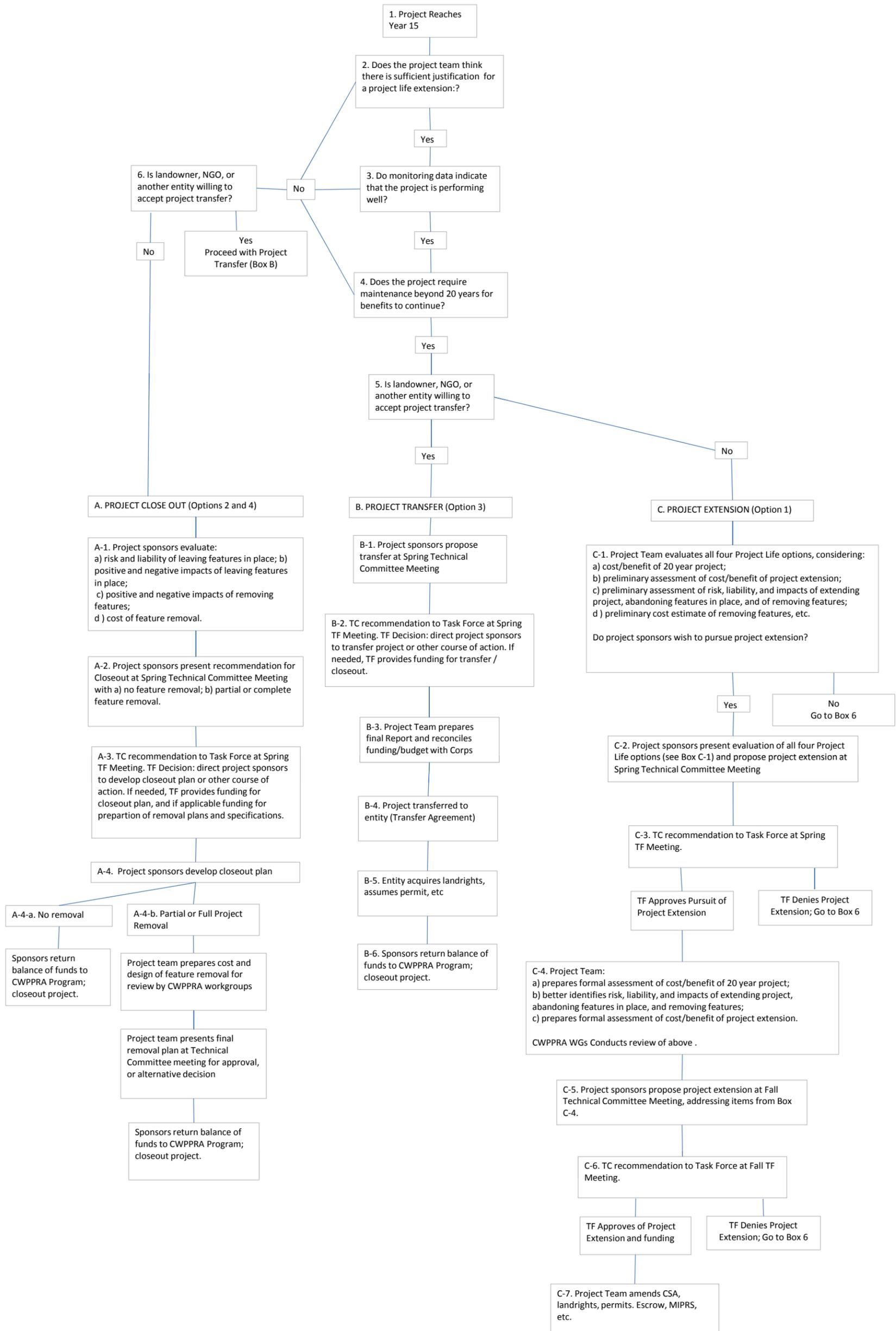
APRIL 16, 2013

20-YEAR LIFE DECISION MATRIX

For Report/Decision:

At the January 23, 2013 20-Year Life (20YL) Workshop, the Task Force directed the P&E Subcommittee to develop a decision matrix to assess project closeout activities. The Technical Committee and P&E Subcommittee have evaluated and discussed the first two projects nearing their 20-year lives as well as other projects to demonstrate that the matrix can be used for all four of the different 20YL options: extension of project life, close out, transfer of responsibility, and close out with removal of features. The Technical Committee will vote on a recommendation to the Task Force on the path forward for the Bayou LaBranche Wetland Creation (PO-17) and Cameron Prairie National Wildlife Refuge (ME-09) projects.

- **Request for Monitoring Funding and Budget Increase (Scott Wandell, USACE)** The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the request for Bayou LaBranche Wetland Creation (PO-17), PPL-1, USACE:
Budget Increase Amount: \$138,227
Funding Amount: \$138,227



1

PO-17 Bayou Labranche Wetland Creation



CWPPRA

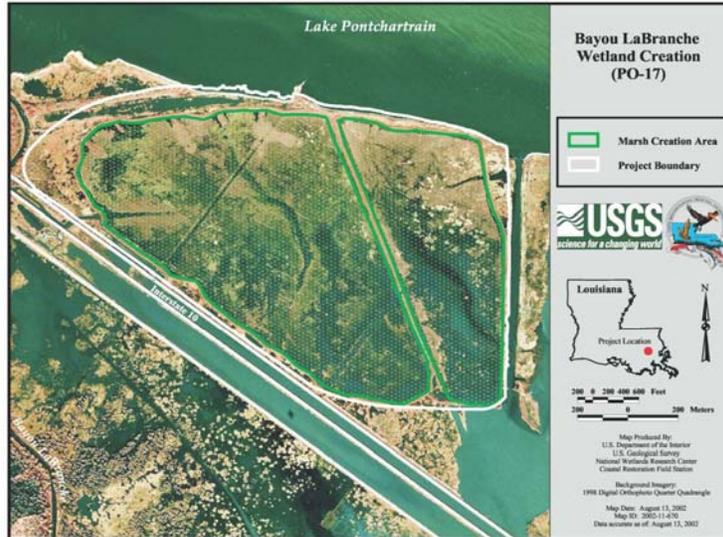
2

PO-17 Bayou Labranche Wetland Creation BACKGROUND

- PPL 1 project in Pontchartrain Basin; 1st CWPPRA project constructed
- Restoration Strategy: Dredge material from Lake Pontchartrain borrow source to create 203 net acres
- Construction completed April 1994
- 20 year life will be reached on April 7, 2014
- Cost of project ≈ \$3.8M



PO-17 Bayou Labranche Wetland Creation



PO-17 Bayou Labranche Wetland Creation CURRENT STATUS

- 2011 State OM&M Report states that:
 “...the consolidation of dredged material over time has reached an elevation that appears to sustain the 70% emergent marsh to 30% open water goal for the project. Furthermore the soil properties and the vegetation community of the project have developed into characteristic wetland habitat for the region. Current data indicate that the project has been effective in meeting project goals.”



CWPPRA 5

PO-17 Bayou Labranche Wetland Creation Planned Activities

- Currently, the project has expended all financial resources, therefore we will request a Tech Committee vote to recommend to the Task Force a funding increase to execute all remaining activities.
- They Include:
 - COE and State conduct final site visit/inspection to determine the condition of the project
 - Vegetation Survey (activity in Monitoring Plan for 2013)
 - Elevation Survey
 - Final OM&M Report (consistent with 3 yr OM&M report schedule)
 - Estimated funding needed for remaining activities≈\$138K



CWPPRA 6

PO-17 Bayou Labranche Wetland Creation DECISION MATRIX PATH FORWARD

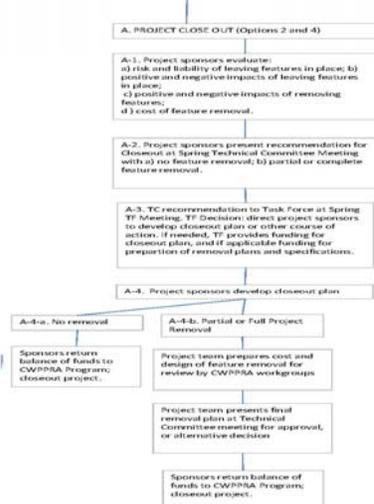
2. Project Team does not believe that project extension is justified

↓

6. Project Team does not anticipate project transfer

↓

Proceed to Closeout





7

PO-17 Bayou Labranche Wetland Creation PROPOSED PATH FORWARD

- Following site inspection, surveying efforts, and analysis of information.
 - Proceed with Project Final Activities:
 - Monitoring results/Determination of project effectiveness, Final Monitoring report
 - Public Notice that project has reached its 20 year mark
 - Final accounting of all project funds
 - Task Force Approval of Project Closeout

8

PO-17 Bayou Labranche Wetland Creation



PO-17 Bayou Labranche Wetland Creation



QUESTIONS

CWPPRA Project Monitoring Budget Adjustment Template

Project Name: Bayou Labranche Wetland Creation (PO-17)
 PPL: 1
 Project Sponsor: COE

Prepared By: COE
 Date Prepared: 3/29/2013
 Date Revised: 4/11/2013

Construction completed April 1994

| Approved Original Base Line | | | | | Obligations (CWPPRA) to Date | | | | | Proposed Revised Estimate and Schedule | | | | Description |
|-----------------------------|--------------|------------------|-------------|----------------|------------------------------|------------------|-------------|----------------|------|--|----------------|-----------------|--|-------------|
| Year | FY | State Monitoring | Corps Admin | Fed Monitoring | FY | State Monitoring | Corps Admin | Fed Monitoring | FY | Monitoring | Corps Admin | Fed Monitoring | | |
| 0 | 1994 | | \$0 | \$0 | 1994 | | | | 1994 | | | | | |
| -1 | 1995 | | \$0 | \$0 | 1995 | | | | 1995 | | | | | |
| -2 | 1996 | | \$0 | \$0 | 1996 | | | | 1996 | | | | | |
| -3 | 1997 | | \$0 | \$0 | 1997 | | | | 1997 | | | | | |
| -4 | 1998 | | \$0 | \$0 | 1998 | | | | 1998 | | | | | |
| -5 | 1999 | | \$0 | \$0 | 1999 | | | | 1999 | | | | | |
| -6 | 2000 | | \$0 | \$0 | 2000 | | | | 2000 | | | | | |
| -7 | 2001 | | \$0 | \$0 | 2001 | | | | 2001 | | | | | |
| -8 | 2002 | | \$0 | \$0 | 2002 | | | | 2002 | | | | | |
| -9 | 2003 | | \$0 | \$0 | 2003 | | | | 2003 | | | | | |
| -10 | 2004 | | \$0 | \$0 | 2004 | | | | 2004 | | | | | |
| -11 | 2005 | | \$0 | \$0 | 2005 | | | | 2005 | | | | | |
| -12 | 2006 | | \$0 | \$0 | 2006 | | | | 2006 | | | | | |
| -13 | 2007 | | \$0 | \$0 | 2007 | | | | 2007 | | | | | |
| -14 | 2008 | | \$0 | \$0 | 2008 | | | | 2008 | | | | | |
| -15 | 2009 | | \$0 | \$0 | 2009 | | | | 2009 | | | | | |
| -16 | 2010 | | \$0 | \$0 | 2010 | | | | 2010 | | | | | |
| -17 | 2011 | | \$0 | \$0 | 2011 | | | | 2011 | | | | | |
| -18 | 2012 | | \$0 | \$0 | 2012 | | | | 2012 | | | | | |
| -19 | 2013 | | \$0 | \$0 | 2013 | | | | 2013 | \$102,637 | \$3,000 | \$16,800 | Site Visit, Vegetation and Elevation Survey, real estate | |
| -20 | 2014 | | \$0 | \$0 | 2014 | | | | 2014 | \$15,790 | | | OM&M Report | |
| | Total | \$274,024 | \$0 | | | \$0 | \$0 | \$0 | | \$118,427 | \$3,000 | \$16,800 | | |

SUMMARY:

Benefits:

| Original Net Acres | Revised Net Acres |
|--------------------|-------------------|
| 203 | 203 |

Approved Mon Budget vs Obligations to Date: Increment Years -0 through -18

| Funding Category | Approved Original Mon Baseline | Mon Obligations to Date | Difference |
|------------------|--------------------------------|-------------------------|------------|
| State Monitoring | \$86,845 | \$86,845 | \$0 |
| Corps Admin | \$0 | \$0 | \$0 |
| Fed Monitoring | \$187,179 | \$187,179 | \$0 |
| Totals | \$274,024 | \$274,024 | \$0 |

Current Request:

| Current Increment Funding Request Year | Proposed Revised Estimate | Remaining Available Mon Budget | Current Funding Request Amount |
|--|---------------------------|--------------------------------|--------------------------------|
| Year -19 | \$122,437 | | \$122,437 |
| Year -20 | \$15,790 | | \$15,790 |
| NA | \$0 | | \$0 |
| Totals | \$138,227 | \$0 | \$138,227 |

Approved Budgeted Mon Funds less Obligations to Date

| | Total Approved Mon | Mon Obligations to Date | Remaining Available Mon Budget |
|-----------------|--------------------|-------------------------|--------------------------------|
| Original Budget | \$274,024 | \$274,024 | \$0 |
| Totals | \$274,024 | \$274,024 | \$0 |

Original Approved vs Proposed Revised Fully Funded Estimates

| Original Fully Funded Baseline Estimate | Approved Net Budget Change to E&D, Constr., O&M and Monitoring | Additional Mon funding required for remaining project life | Requested Revised Fully Funded Estimate |
|---|--|--|---|
| \$3,817,929 | \$0 | \$138,227 | \$3,956,156 |

Total Approved Budget less Total Proposed Revised Budget

| Funding Category | Current Total | Proposed Revised Total | Difference |
|------------------|------------------|------------------------|--------------------|
| State Monitoring | \$274,024 | \$392,451 | (\$118,427) |
| Corps Admin | | \$3,000 | (\$3,000) |
| Fed Monitoring | | \$16,800 | (\$16,800) |
| Total | \$274,024 | \$412,251 | (\$138,227) |

Change in Total Cost and Cost Effectiveness:

| As Compared To | Cost Estimate % Change | Cost Effectiveness | Revised Cost Effectiveness |
|---|------------------------|--------------------|----------------------------|
| Original Fully Funded Baseline Est. | 3.62% | 18808 | 19488 |
| Approved Fully Funded Baseline Est. Plus Net Budget Changes | 3.62% | 18808 | 19488 |



Bayou LaBranche Wetland Creation (PO-17)

Project Status

Approved Date: 1991 **Project Area:** 487 acres
Approved Funds: \$3.81 M **Total Est. Cost:** \$3.81 M
Net Benefit After 20 Years: 203 acres
Status: Completed October 2000
Project Type: Marsh Creation
PPL #: 1

Location

The project is bounded by U.S. Interstate 10 to the south and Lake Pontchartrain to the north. It is approximately 3 miles northeast of Norco, Louisiana, in St. Charles Parish.

Problems

Construction of Interstate 10 (with its associated construction access canals), the Illinois Central Railroad, and an abandoned agricultural development resulted in altered hydrology and increased salinity.

The primary cause of wetland loss in the area was the failure of agricultural impoundments and subsequent flooding.

An unnamed hurricane in 1915 and Hurricane Betsy (1965) caused salt water to overflow the banks of Lake Pontchartrain and flow unchecked through canals. This overflow resulted in excessive salt water in the project area marsh and a subsequent loss of intermediate marsh vegetation.

Restoration Strategy

The project's goal was to create an area of 70% land and 30% water within 5 years of construction. Depositing 2.7 million cubic yards of sediments dredged from Lake Pontchartrain within an earthen containment berm created new, emergent marsh in what had formerly been an open water area.

Project effectiveness was evaluated by monitoring emerging wetland vegetation growth, water quality, and both the elevation and compaction rates of the deposited sediment.



Aerial view looking north depicting the marsh created within the Bayou LaBranche project area. Lake Pontchartrain is in the foreground, U.S. Interstate 10 can be seen running east to west near the top, and the emergent marsh (open water prior to 1994) is the large, vegetated area in the center.

Progress to Date

Land and water analysis in 1997 showed 300 acres of open water had been converted to land 3 years after construction was completed in 1994. The project had created 80% land and 20% percent water in 3 years, which was well within the target schedule. As of January 1999, sediment elevation was within target range at all monitoring stations.

The goal of creating a shallow water habitat conducive to the natural establishment of wetland vegetation seems to have been partially met. As sediment continues to consolidate and water is maintained in the area, upland vegetation is expected to be supplanted by more obligate wetland species. The project goal of creating a minimum of 70% marsh and 30% open water in the project area may still be attained as sediment elevation continues to decline. The project will be monitored for 20 years.

This project is on Priority Project List 1.

For more project information, please contact:



Federal Sponsor:
U.S. Army Corps of Engineers
New Orleans, LA
(504) 862-1597



Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736

Lake Pontchartrain

Bayou LaBranche Wetland Creation (PO-17)

-  Marsh Creation Area
-  Project Boundary



200 0 200 400 600 Feet



200 0 200 Meters



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

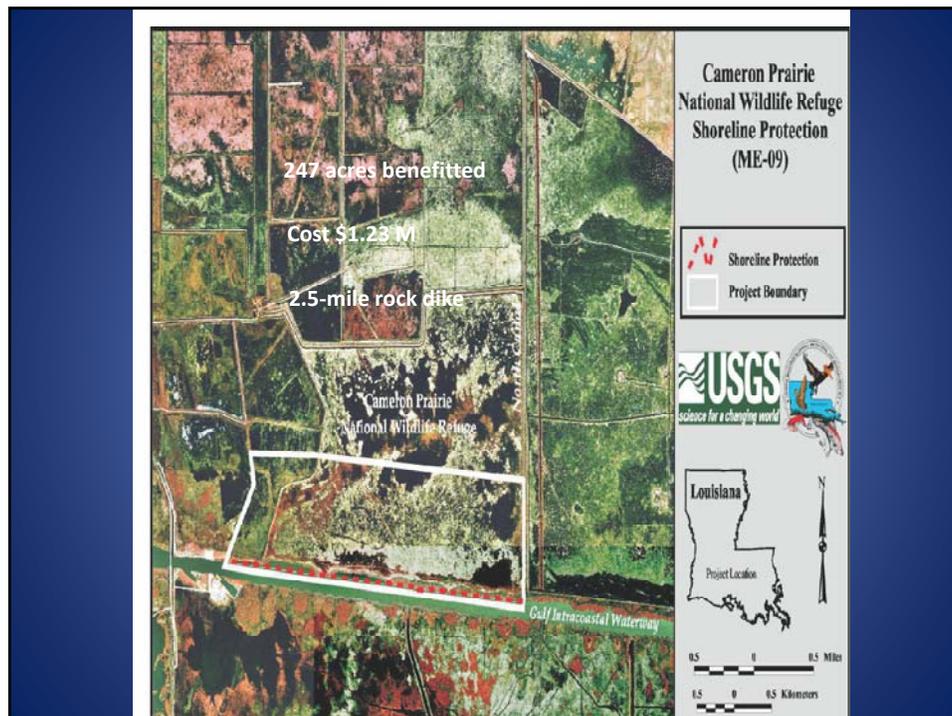
Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle

Map Date: August 13, 2002
Map ID: 2002-11-670
Data accurate as of: August 13, 2002



Cameron Prairie Refuge Protection Project (ME-09)

- North bank of GIWW Cameron Prairie NWR
- 2.5 miles of rock foreshore dike (0-50 ft. from shore)
- Protects 247 acres of fresh marsh
- Cost = \$1,227,123
- Constructed 8-9-1994
- 20-Year Life 8-9-2014





Cameron Prairie Protection Budget & Expenditures

| Category | Current Estimate | Expended | Balance |
|--------------|--------------------|--------------------|------------------|
| E&D | \$61,112 | \$61,112 | \$0 |
| Lands | \$0 | \$0 | \$0 |
| Construction | \$851,775 | \$851,775 | \$0 |
| Monitoring | \$101,177 | \$98,304 | \$2,873 |
| O&M | \$213,059 | \$39,963 | \$173,096 |
| Total | \$1,227,123 | \$1,051,154 | \$175,969 |

| COST ESTIMATE FOR REMOVAL OF THE CAMERON PRARIE REFUGE PROTECTION PROJECT (ME-09) | | | | | |
|---|---|----------|-------------|-----------|--------------------|
| <u>CONSTRUCTION COST</u> | | | | | |
| Item No. | Work or Material | Quantity | Unit | Unit Cost | Amount |
| 1 | Mobilization/Demobilization | 1 | LS | \$175,000 | \$175,000 |
| 2 | Shoreline Protection, Removal | 13,200 | Linear Foot | \$214.50 | \$2,831,400 |
| 3 | Material Stockpile, Placement (Assuming Losses) | 39,204 | Tons | \$65.00 | \$2,548,260 |
| 4 | Construction Surveys | 1 | LS | \$150,000 | \$150,000 |
| ESTIMATED CONSTRUCTION COST | | | | | \$5,704,660 |
| ESTIMATED CONSTRUCTION COST + 25% CONTINGENCY | | | | | \$7,130,825 |
| <u>ENGINEERING COST</u> | | | | | |
| DESIGN PHASE (SURVEY, PLANS & SPECIFICATIONS, CONTRACT DOCUMENTS) | | | | | \$85,000 |
| CONSTRUCTION ADMINISTRATION PHASE (CONSTRUCTION MANAGEMENT, AS-BUILT SURVEYS) | | | | | \$150,000 |
| ESTIMATED ENGINEERING COST | | | | | \$235,000 |
| <u>FEDERAL/STATE ADMINISTRATION COST</u> | | | | | |
| FEDERAL ADMINISTRATION COST | | | | | \$50,000 |
| STATE ADMINISTRATION COST | | | | | \$50,000 |
| ESTIMATED FEDERAL/STATE ADMINISTRATION COST | | | | | \$100,000 |
| TOTAL ESTIMATED CAMERON PRARIE REFUGE PROTECTION PROJECT (ME-09) REMOVAL COST | | | | | \$7,465,825 |
| NOTE: | | | | | |
| Without knowing the exact location where the removed stone will be placed and how many times the removed stone will have to be handled by the Contractor, this cost estimate represents a best guess based on available information. Computed by Mel Guidry CPRA 3-25-2013. | | | | | |

Cameron-Prairie Shore Protection (ME-09) 20-Year Life Project Close-Out Steps

- **2. Justification for Project Life Extension**
- No. Because no maintenance has been required in 19 years, the benefits will continue.
- **6. Landowner or another entity willing to accept project transfer**
- The project is located on the USFWS Cameron Prairie NWR. The FWS could accept the project but does not have the funds for maintenance.
- **6(a). Risk and liability of leaving features in place**
- There has been very little risk and liability over the last 19 years since construction in 1994. Corps installed navigation warning signs in 2001.

Cameron-Prairie 20-Year Life Project Close-Out Steps

- **6A(b) Positive and Negative Impacts of Leaving Cameron Prairie Refuge Protection Project Features in Place**

| Positive | Negative |
|---|--|
| 1. Continued shore protection protecting 247 acres on a national wildlife refuge over 20 years (12.35 acres/year). | 1. Continued low risk and liability of harm to life or property if features remain in place after close out. |
| 2. This protection has been accomplished at very little cost per linear foot (\$64.52/foot). Current foreshore rock dike construction is at least \$500/ linear foot. | |

Cameron-Prairie 20-Year Life Project Close-Out Steps

- **6A(c) Positive and Negative Impacts of Removing Cameron Prairie Refuge Protection Project Features**

| Positive | Negative |
|---|---|
| 1. There would be no risk or liability of public injury or property damage if the features are removed. | 1. Removal would be costly to the CWPPRA program. Removal costs are estimated at \$7.4 M; 8.7 times the original construction cost. |
| 2. There would be no future O&M costs if features are removed. | 2. 13,200 feet along the northern portion of the GIWW at Cameron-Prairie NWR would be unprotected from shoreline erosion after dike removal. 2.5 feet/year shoreline erosion was estimated in 1991. 247 acres were projected to be lost in 20 years (12 acres/year) along the 2.5 mile shoreline due to shore erosion and interior marsh loss (1991 WVA). |
| | 3. A viable \$1.2 M taxpayer-funded project would be removed when project features could remain for another 20 years with very little maintenance. |

O&M History & 20-Year Life Recommendation

- **No maintenance has been required since project construction in 1994**
- **Corps installed warning signs in 2001**

Close Out Recommendation

- **It is recommended that the project be closed & the remaining funds be returned in 2014.**

Cameron Prairie National Wildlife Refuge Shoreline Protection Project (ME-09)

Project 20-Year Life Report

April 2, 2013

Approved Date: 1991 **Project Area:** 640 acres
Approved Funds: \$1.22 M **Total Estimated Cost:** \$1.22 M
Net Benefit After 20 Years: 247 acres
Status: Completed August 1994; 20-Year Life end – August 2014
Project Type: Shoreline Protection (rock foreshore dike)
PPL No. 1

Project Description and Status

Location - This project is located in Cameron Parish, Louisiana, on the north shore of the Gulf Intracoastal Waterway (GIWW), 7 miles southeast of Sweet Lake and to the east of Louisiana Highway 27 at its intersection with the GIWW. It encompasses 640 acres of fresh marsh and open water on Cameron Prairie National Wildlife Refuge (NWR).

Problem - The management levee between the GIWW and the Cameron Prairie National Wildlife Refuge was in danger of breaching as a result of erosion from GIWW boat traffic. If breaching had occurred, wave energy from the GIWW and salt water would have entered the organic, freshwater wetlands on the refuge.

Solution – Project Features - A 13,200-foot rock breakwater was constructed 50 feet from the northern bank of the GIWW to prevent waves caused by boat traffic from overtopping and eroding the remaining spoil bank and fresh marsh.

Table 1: Cameron Prairie Shore Protection Project Budget and Expenditures

| Category | Current Estimate | Expended | Balance |
|--------------|--------------------|--------------------|------------------|
| E&D | \$61,112 | \$61,112 | \$0 |
| Lands | \$0 | \$0 | \$0 |
| Construction | \$851,775 | \$851,775 | \$0 |
| Monitoring | \$101,177 | \$98,304 | \$2,873 |
| O&M | \$213,059 | \$39,963 | \$173,096 |
| Total | \$1,227,123 | \$1,051,154 | \$175,969 |

Project Evaluation Monitoring Reports - The project's effectiveness was evaluated by shoreline movement surveys and by comparing pre-construction and post-construction aerial photographs for changes in marsh loss rates. During 1993-97, while the project area had a 4.9% increase in water coverage due to management for waterfowl, the reference area remained unchanged. The results of shoreline monitoring indicate that the project has protected 13,200 feet of shoreline and interior marsh within the 640-acre project area. A net accretion of at least 23 acres of marsh between the rock and

shoreline was estimated in the 1997 monitoring report. The project reversed erosion and accreted 3.03 acres of marsh at an average rate of 1.4 acres per year while retreating at a rate of 3.76 feet per year from 1994 to 1997 in the reference area, indicating that low sediment availability does not prohibit wetland accretion behind rock dikes on navigation channels (DNR 1997 Monitoring Report). Between 2000 and 2003 the mean shoreline change rate was 13 +/- 15.4 feet/year (4 +/- 4.7 meters/year) and - 2.1 +/- 2.1 feet/year (-0.6 +/- 0.6 meters/year) for the project and reference areas, respectively (DNR, 2004 O&M and Monitoring Report). The data indicate that the project has continued to be effective in preventing erosion at all project area stations. It is expected that the project area will continue to accrete new wetland area between the spoil bank and the rock dike, further safeguarding the adjacent wetland area from encroachment by the GIWW.

Operation and Maintenance – No maintenance has been required since project construction in August 1994. The Corps installed warning signs in 2011 at the request of the barge industry to prevent barges from being damaged hitting the rocks.

20-year Life Recommendation – Project sponsors recommend that the project be closed and the rock shoreline stabilization remain in place, and the remaining funds returned to the CWPPRA Program in August 2014.

Figure 1: Cameron Prairie National Wildlife Refuge Shoreline Protection (ME-09) Project Map.

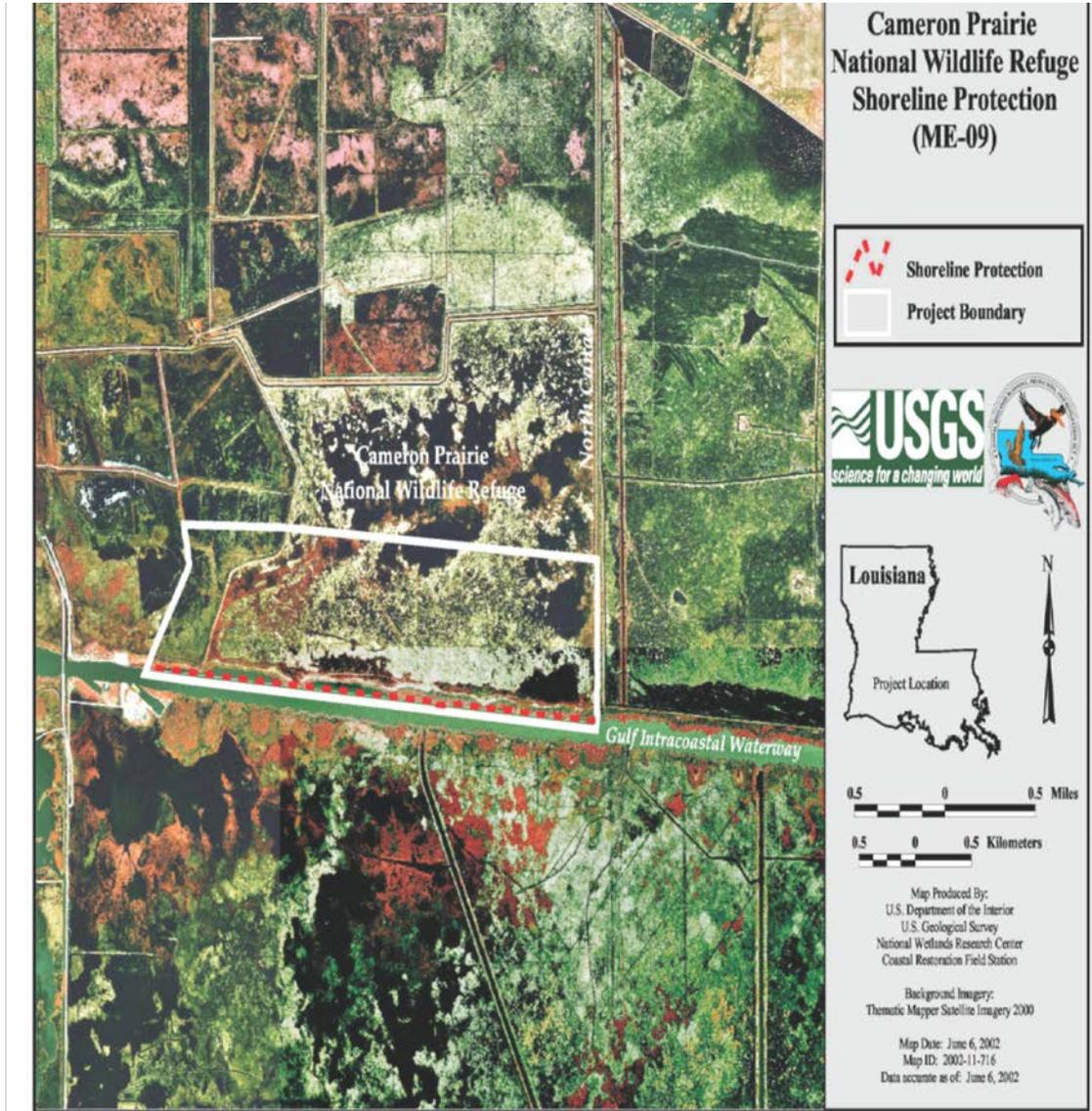


Table 2: Cameron-Prairie Refuge Protection Project (ME-09) Removal Cost Estimate

**COST ESTIMATE FOR REMOVAL
OF THE
CAMERON PRARIE REFUGE PROTECTION
PROJECT (ME-09)**

CONSTRUCTION COST

| | | | | | | |
|---------------------|---|--|-----------------|-------------|------------------|---------------|
| Project: | Cameron Prairie Refuge Protection Project (ME-09) | | Date: | 25-Mar-1 | Revised: | |
| Computed by: | Mel Guidry | | | | | |
| Item No. | Work or Material | | Quantity | Unit | Unit Cost | Amount |
| 1 | Mobilization/Demobilization | | 1 | LS | \$175,000 | \$175,000 |
| 2 | Shoreline Protection, Removal | | 13,200 | Linear Ft. | \$214.50 | \$2,831,400 |
| 3 | Material Stockpile, Placement (Assuming Losses) | | 39,204 | Tons | \$65.00 | \$2,548,260 |
| 4 | Construction Surveys | | 1 | LS | \$150,000 | \$150,000 |

ESTIMATED CONSTRUCTION COST \$5,704,660

ESTIMATED CONSTRUCTION COST + 25% CONTINGENCY \$7,130,825

ENGINEERING COST

DESIGN PHASE (SURVEY, PLANS & SPECIFICATIONS, CONTRACT DOCUMENTS) \$85,000

CONSTRUCTION ADMINISTRATION PHASE (CONSTRUCTION MANAGEMENT, AS-BUILT SURVEYS) \$150,000

ESTIMATED ENGINEERING COST \$235,000

FEDERAL/STATE ADMINISTRATION COST

FEDERAL ADMINISTRATION COST \$50,000

STATE ADMINISTRATION COST \$50,000

ESTIMATED FEDERAL/STATE ADMINISTRATION COST \$100,000

| | |
|--|---------------------------|
| TOTAL ESTIMATED CAMERON PRARIE REFUGE PROTECTION PROJECT (ME-09) REMOVAL COST | <u>\$7,465,825</u> |
|--|---------------------------|

NOTE:

Without knowing the exact location where the removed stone will be placed and how many times the removed stone will have to be handled by the Contractor, this cost estimate represents a best guess based on available information.

Cameron-Prairie Shore Protection (ME-09) 20-Year Life Project Close-Out Steps

(Numbers match the 20-Year Life Flow Chart for Close Out)

2. Sufficient Justification for Project Life Extension.

No. Because no maintenance has been required in 19 years, the benefits will continue. There may not be sufficient justification for project life extension. The project sponsors are recommending close out.

6. Is the landowner or another entity willing to accept project transfer?

The project is located on and currently protecting a portion (247 acres) of the USFWS Cameron Prairie NWR north of the GIWW. The FWS could accept the project but does not have the funds for maintenance. The Southwest Louisiana Refuges Complex (Complex) lost 33% of its staff within the last 10 years. The Complex recently experienced 21% budget decreases.

6 A. Project Close-Out (Options 2 and 4)

A-1. Project Sponsors Evaluate:

a) Risk and liability of leaving features in place -

There has been very little risk and liability over the last 19 years since construction in 1994. Project features consist of a foreshore dike located from 0 to 50 feet from the shore in water 3 feet deep or less and away from the navigation channel. The only incident within the project life was when barge operators requested the Corps to install warning signs so their barges would not run on the rocks when barges nose against the shoreline.

b) Positive and negative impacts of leaving features in place –

Table 3: Positive and Negative Impacts of Leaving Cameron Prairie Refuge Protection Project Features in Place

| Positive | Negative |
|--|--|
| 1. Continued shore protection protecting 247 acres on a national wildlife refuge over 20 years (12.35 acres/year). | 1. Continued low risk and liability of harm to human life or property if features remain in place after close out. |
| 2. This protection has been accomplished at very little cost per linear foot (\$64.52/foot). Current foreshore rock dike construction is at least \$500/linear foot. | |

c) Positive and negative impacts of removing features –

Table 4: Positive and Negative Impacts of Removing Cameron Prairie Refuge Protection Project Features

| Positive | Negative |
|---|---|
| 1. There would be no risk or liability of public injury or property damage if the features are removed. | 1. Removal would be costly to the CWPPRA program. Removal costs are estimated at \$7.4 M; 8.7 times the original construction cost. |
| 2. There would be no future O&M costs if features are removed. | 2. 13,200 feet along the northern portion of the GIWW at Cameron-Prairie NWR would be unprotected from shoreline erosion after dike removal. 2.5 feet/year shoreline erosion was estimated in 1991. 247 acres were projected to be lost in 20 years (12 acres/year) along the 2.5 mile shoreline due to shoreline loss and interior marsh loss, exposing Cameron Prairie NWR fresh marshes to continued erosion (1991 WVA). |
| | 3. A viable \$1.2 M taxpayer-funded project would be removed when project features could remain for another 20 years with very little maintenance. |

d) Cost of feature removal –

Removal costs are estimated at \$7,465,825 or 8.7 times original construction costs of \$851,000 (Table 2).

A-2. Sponsors present recommendation for Closeout at the Spring Technical Committee meeting.

Project sponsors recommend project close out leaving the current foreshore rock dike feature in place. The project is working to protect 247 acres of coastal wetlands on Cameron-Prairie NWR with very little need of maintenance. Only \$39,963 has been expended from the O&M budget in 19 years.



Cameron Prairie National Wildlife Refuge Shoreline Protection (ME-09)

Project Status

Approved Date: 1991 **Project Area:** 640 acres
Approved Funds: \$1.22 M **Total Est. Cost:** \$1.22 M
Net Benefit After 20 Years: 247 acres
Status: Completed Aug. 1994
Project Type: Shoreline Protection
PPL #: 1

Location

This project is located in Cameron Parish, Louisiana, on the north shore of the Gulf Intracoastal Waterway (GIWW), approximately 7 miles southeast of Sweet Lake and to the east of Louisiana Highway 27 at its intersection with the GIWW. It encompasses 640 acres of fresh marsh and open water.

Problems

The management levee between the GIWW and the Cameron Prairie National Wildlife Refuge was in danger of breaching as a result of erosion from boat traffic in the GIWW. If breaching had occurred, wave energy from the GIWW and salt water would have entered the organic, freshwater wetlands.

Restoration Strategy

A 13,200-foot rock breakwater was constructed 50 feet from the northern bank of the GIWW to prevent waves caused by boat traffic from overtopping and eroding the remaining spoil bank.

The project's effectiveness is being evaluated by shoreline movement surveys and by comparing pre-construction and post-construction aerial photographs for changes in marsh loss rates.



The shoreline protection dike running along the northern shore of the GIWW.

Progress to Date

During 1993-97, while the project area had a 4.9% increase in water coverage due to management for waterfowl, the reference area remained unchanged.

The results of shoreline monitoring indicate that the project has protected 13,200 feet of shoreline, along with 247 acres of marsh north of the dike. This protection is expected to accrue throughout the life of the project for a net restoration of at least 23 acres. Monitoring has shown that the GIWW's northern shoreline advanced 9.8 feet per year in the project area while retreating at a rate of 3.0 feet per year in the reference area, indicating that low sediment availability does not prohibit wetland creation behind rock dikes on navigation channels.

To date, the project has exhibited success. It is expected that the project area will continue to accrete new wetland area between the spoil bank and the rock dike, further safeguarding the adjacent wetland area from encroachment by the GIWW. This project is on Priority Project List 1.

For more project information, please contact:



Federal Sponsor:
U.S. Fish and Wildlife Service
Lafayette, LA
(337) 291-3100



Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736



Cameron Prairie National Wildlife Refuge Shoreline Protection (ME-09)

-  Shoreline Protection
-  Project Boundary

USGS
science for a changing world



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

Background Imagery:
Thematic Mapper Satellite Imagery 2000

Map Date: June 6, 2002
Map ID: 2002-11-716
Data accurate as of: June 6, 2002

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

**FINAL REPORT ON THE ENHANCEMENT OF BARRIER ISLAND VEGETATION
DEMONSTRATION**

For Report:

Dr. Mark Hester will provide a final report on the Enhancement of Barrier Island Vegetation Demonstration (TE-53).

CWPPRA - Enhancement of Barrier Island Vegetation Demonstration Project (TE-53)

Mark W. Hester
Jonathan M. Willis
(Christine N. Pickens, Michael J. Dupuis)

Coastal Plant Ecology Laboratory
Department of Biology
University of Louisiana, Lafayette



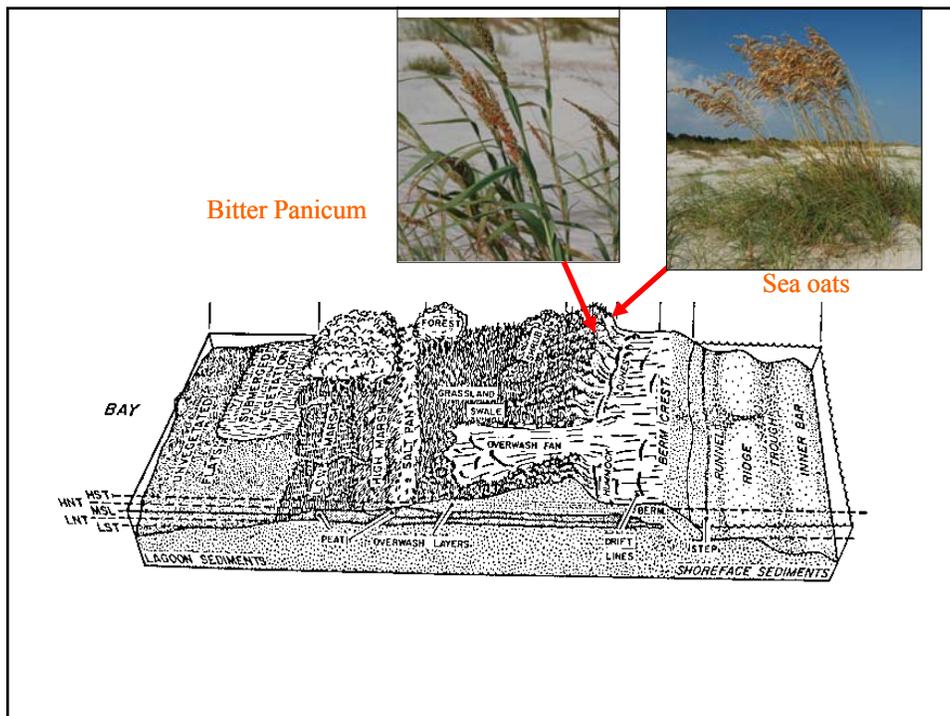
*Funding provided by:
US EPA, Louisiana Office of Coastal Protection and Restoration*

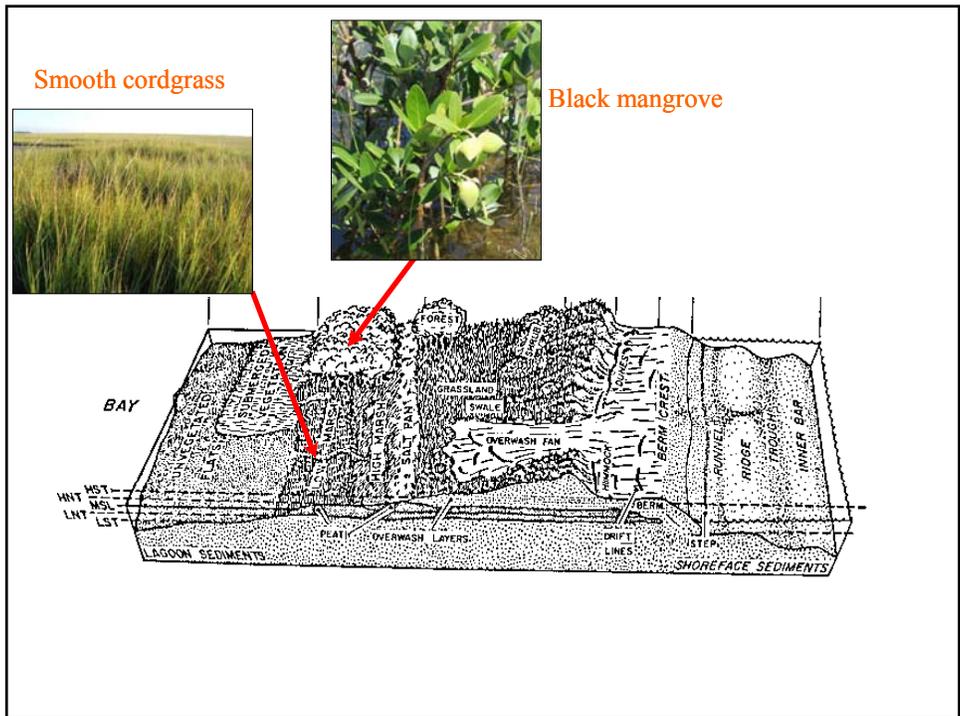
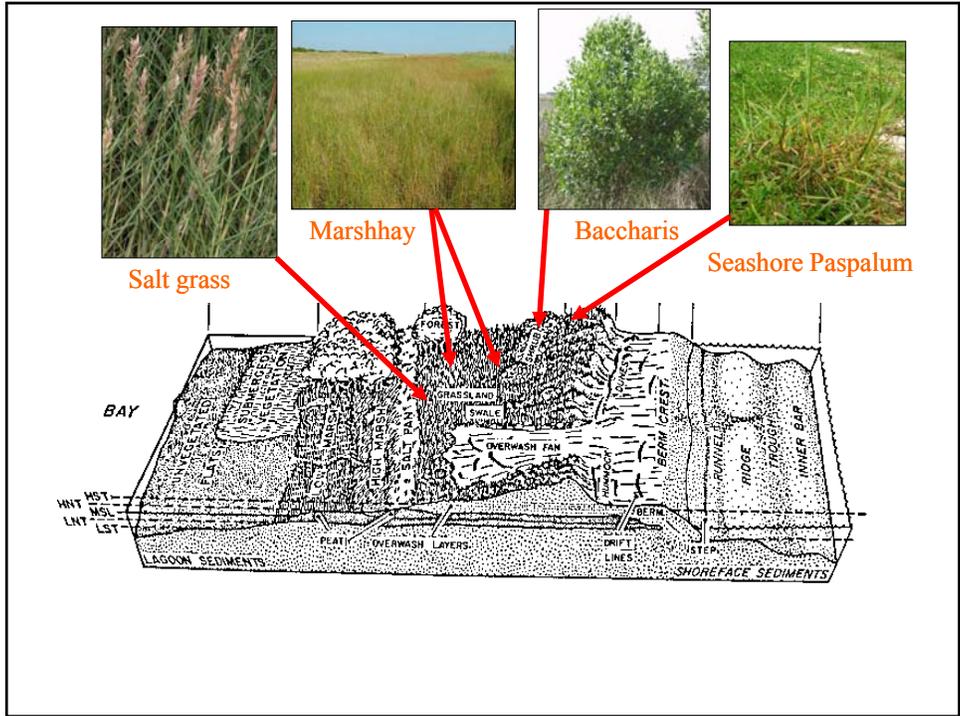
Rationale for Demonstration Project

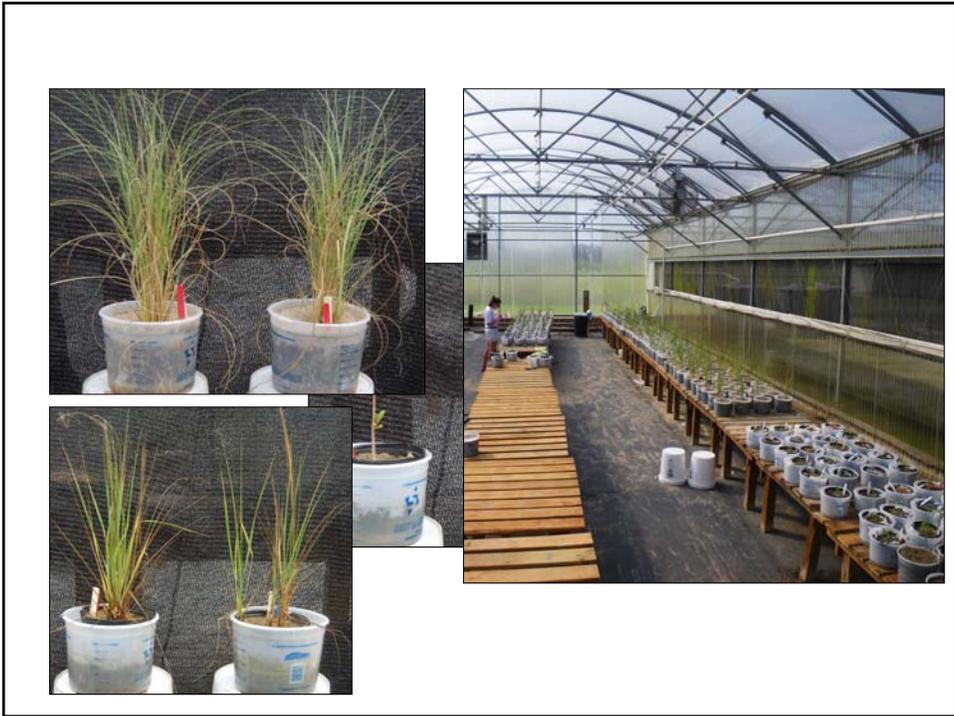
- Barrier Island projects expensive
 - Engineering and design costs
 - Sand sources limited, dredging/pumping costs
- Louisiana's barrier islands
 - Deltaic in origin
 - Provide important ecosystem services
 - Dynamic
 - Frequent impact from tropical storms/hurricanes
- Jump-start and enhance plant establishment and vegetation expansion
 - Trap, bind, and retain sand
 - Dune building and stabilization
 - Minimize island breaching
 - Promote island longevity and sustainability

Objectives

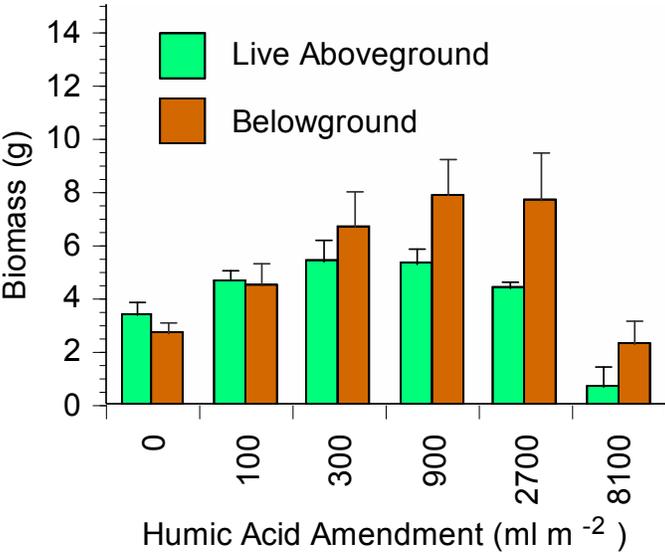
- Assess methods to enhance plant establishment and expansion of key barrier island plant species
 - Greenhouse
 - Field
- Determine potential benefits of
 - Humic acid amendment
 - Fertilization regime
 - Planting density
- Identify differences in species responses





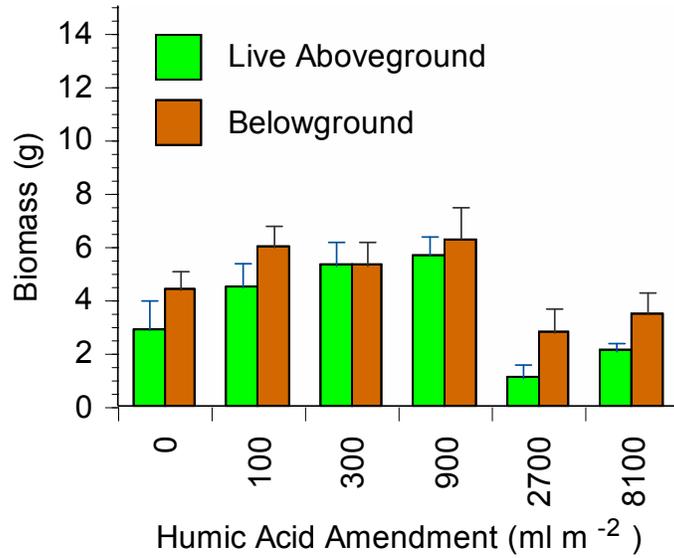


Greenhouse Results: Bitter Panicum



Note: 100 ml m⁻² = (107 gal ac⁻¹)

Greenhouse Results: Sea Oats



Note: 100 ml m⁻² = (107 gal ac⁻¹)

Whiskey Island (TE-50) Marsh, Dune, Swale Restoration Project





Field Experimental Design Barrier Island (Dune & Swale)

- 3 species
 - sea oats
 - bitter panicum
 - marshhay cordgrass
- 2 planting densities (5.0 ft and 2.5 ft)*
- 2 fertilization regimes
 - Ambient
 - (8-8-8) after planting and spring yr 2 at 878 Kg ha⁻¹ (784 lb ac⁻¹) **
 - Ammonium Nitrate summer & fall yr 1 at 195 Kg ha⁻¹ (174 lb ac⁻¹) **
- 3 humic acid levels (4% solution)
 - 0 ml m⁻²
 - 125 ml m⁻² (134 gal ac⁻¹)
 - 250 ml m⁻² (267 gal ac⁻¹)
- x 5 Blocks = 180 treatment plots (4-m² permanent plots)

*Marshhay cordgrass planting densities of 5.0 ft and 1.6 ft

**Broome, S.W., E.D. Seneca, and W.W. Woodhouse. 1982.
Building and Stabilizing Coastal Dunes with Vegetation. UNC Sea Grant Pub 82-05

May 17, 2010 Planting



Sea oats transplant May 2010



September 2010



Sea Oats: Benefit of High Density and Fertilization post Tropical Storm Lee (Fall 2011)

- L D & Fert
- L D; No Fert
- H D; No Fert
- H D & Fert



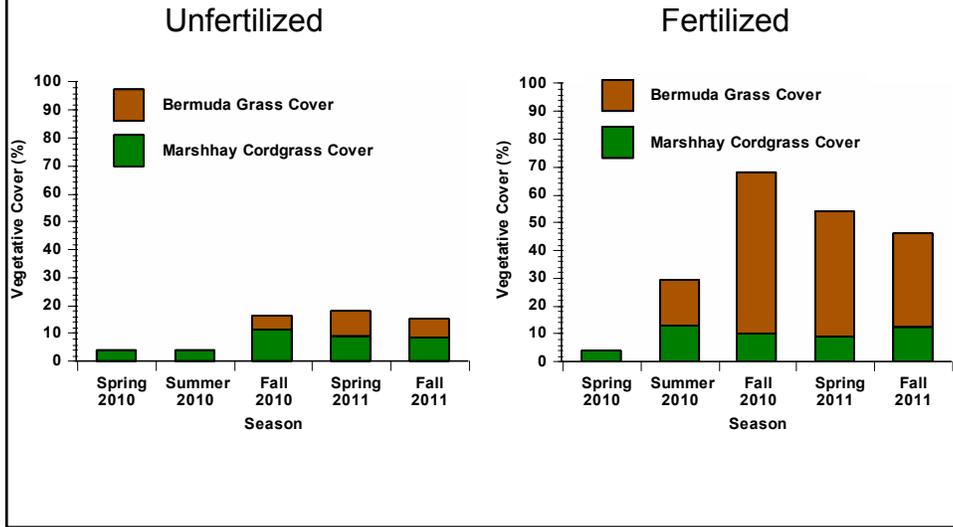
Bitter Panicum: Fertilized & Humic Acid
(September 2010)



Bitter Panicum: Fertilized & Humic Acid
(October 2011)



Inhibition of Marshhay Cordgrass Cover by Bermuda Grass under Fertilized Conditions



Marshhay Cordgrass plots (April 2011)

Fertilized only
Bermuda Grass dominates



Fertilized & Humic Acid
Marshhay Cordgrass persists



Groundsel Bush Hydromulch Seeding



Groundsel Bush Hydromulch Seeding



Groundsel Bush Hydromulch Monitoring



Conclusions

- Differential species response to treatments
 - High-density planting most beneficial to sea oats and marshhay cordgrass
 - Fertilization regime beneficial to all species
 - Multiple species by treatment interactions
 - Most stress-tolerant (and woody) species may show least HA benefit
 - Unfertilized conditions usually resulted in more HA benefit except marshhay cordgrass
- Benefits of humic acid not realized to the extent anticipated from greenhouse studies
 - Low cation exchange capacity of sand
 - Environmental stressors, disturbance
- Practice of broadcast seeding of coastal Bermuda grass should be re-evaluated
 - Persistence/stimulation with fertilization
 - Resource competition
 - Interference with sand transport

Lessons Learned

- Barrier island restoration projects are complex with multiple construction phases (delays likely)
- Incorporate flexibility in planting schedules for success
 - Plant when environmental conditions at site are suitable
 - Work with succession
 - Herbaceous species first
 - Woody species the following year
- Utilize high-density plantings for sea oats and marshhay cordgrass
- Repeat visits (maintenance) can increase success
 - Broadcast fertilization regime
 - Maintenance plantings can be important in this dynamic environment

CWPPRA - ENHANCEMENT OF BARRIER ISLAND AND SALT MARSH VEGETATION DEMONSTRATION (TE-53) PROJECT

MARK W. HESTER, JONATHAN M. WILLIS, CHRISTINE N. PICKENS,
AND MICHAEL J. DUPUIS

COASTAL PLANT ECOLOGY LABORATORY
DEPARTMENT OF BIOLOGY
UNIVERSITY OF LOUISIANA
LAFAYETTE, LA 70504

SUMMARY OF KEY FINDINGS

Barrier islands are unique environments comprising a variety of habitat types, each exhibiting unique environmental stressors. A crucial component of barrier island restoration is the rapid establishment and expansion of vegetation to stabilize newly placed sediments. This Demonstration Project evaluated the efficacy of soil amendments, planting techniques, and propagule/seed dispersal methods in improving the success and cost efficiency of plant restoration efforts in key barrier island habitats.

Humic acid amendment has been reported to improve agricultural/horticultural plant performance in marginal soils, but prior to this project had not been thoroughly investigated for use in coastal plant restoration efforts. Studies were conducted to determine the beneficial and deleterious application ranges of this soil amendment. Key findings of greenhouse studies were:

- Substantial variation in the response of individual plant species to humic acid amendment was detected, however, applications of 2700 ml m⁻² (2885 gal ac⁻¹) and higher detrimentally affected all plant species assessed: bitter panicum (*Panicum amarum*), sea oats (*Uniola paniculata*), marshhay cordgrass (*Spartina patens*), seashore paspalum (*Paspalum vaginatum*), saltgrass (*Distichlis spicata*), groundsel bush (*Baccharis halimifolia*), black mangrove (*Avicennia germinans*) and smooth cordgrass (*Spartina alterniflora*).
- Low to moderate humic acid amendment dosages (100 to 300 ml m⁻²; 107 to 321 gal ac⁻¹) resulted in some increased growth response in all the species assessed, with the exception of saltgrass and groundsel bush.

A field investigation of planting density, fertilizer regime, and humic acid amendment in dune and swale environments yielded several clear and important findings relevant to barrier island restoration. Several important findings were discernible:

- Increasing the planting density of sea oats from 1.52 m (5 ft) centers (low density) to 0.76 m (2.5 ft) centers (high density) resulted in a rapid and significantly sustained benefit of increased vegetative coverage.

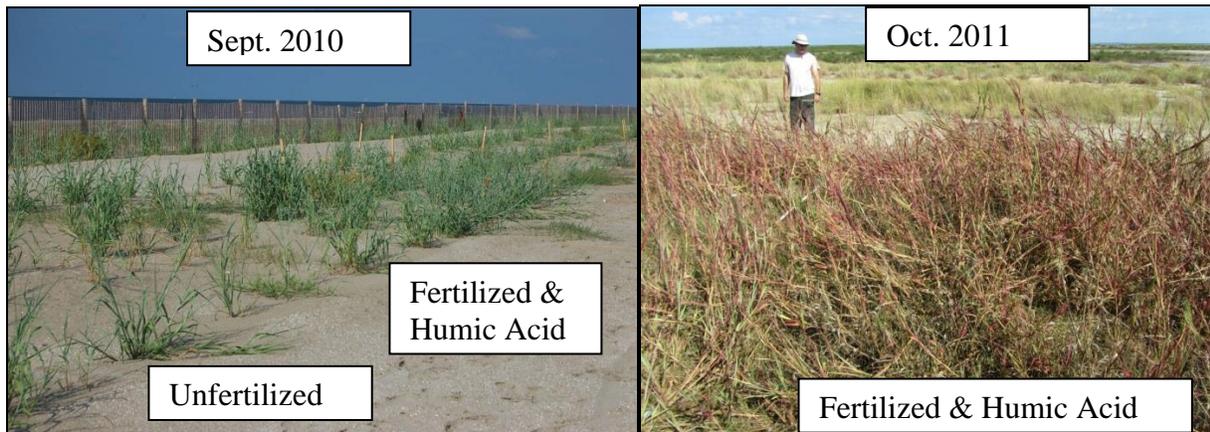
- Marshhay cordgrass similarly displayed increased vegetative coverage in the higher planting density,
- The low density planting treatment for bitter panicum quickly became equivalent to the high density planting treatment, suggesting that there would be no long-term benefit to increasing the planting density of this rapidly expanding species.
- Broadcast fertilizer increased vegetative coverage of all species. This effect was somewhat masked in the first year since the planting contractor had also applied fertilizer. Nonetheless, the benefit of a broadcast fertilization regime post-planting was obvious and consistent across species (see image of the response of sea oats and bitter panicum to broadcast fertilization at the end of this summary).
- The benefit of humic acid amendment was less discernible in the field than the greenhouse, likely due to a combination of factors including the minimal precipitation during the study and lack of soil components to retain the applied humic acid.
- The presence of Bermuda grass (*Cynodon dactylon*), which is often seeded as a portion of the restoration effort prior to planting the target species, appeared to limit the establishment and expansion of target species, particularly marshhay cordgrass.
- Bermuda grass might restrict sand movement, thereby limiting the development of a well-defined primary dune by interfering with Aeolian (wind) transport of sand. Therefore, further assessment of its value or detriment in barrier island restoration projects may be warranted.

Key insights into the restoration ecology of groundsel bush were learned:

- Groundsel bush seeds displayed no required dormancy period and can germinate immediately once developed without pretreatment.
- Optimal seed germination occurred at the soil surface; seed burial of greater than 0.5 cm (0.2 inch) resulted in less than 3% germination. Shade (60% light transmittance) significantly reduced groundsel bush germination response. Efforts to establish groundsel bush from seed in swale environments requires protected areas where the potential for the burial of seeds by sand or impact of heavy shade is minimal.
- Hydromulch significantly increased seed germination in sediments containing no organic matter, but simulated drought conditions negatively affected germination response regardless of the treatment assessed.
- Successful field establishment of groundsel bush by seed and hydromulch (hydroseeding) requires sufficient soil moisture post hydroseeding, and hence a subsequent rainfall event or watering for germination to occur.

Greenhouse and field studies determined potential treatment benefits for black mangrove and smooth cordgrass:

- Humic acid amendment of 500 ml m^{-2} (534 gal ac^{-1}) resulted in increased smooth cordgrass biomass and cumulative height, but not for black mangrove.
- A very thin layer of hydromulch has potential to enhance survival and establishment of black mangrove propagules.
- Hydromulch application in the upper intertidal range may assist in black mangrove propagule establishment in selected locations that are infrequently flooded.
- Biodegradable structures designed to trap mangrove propagules in the created back-barrier marsh had minimal effect. An established marsh of smooth cordgrass can be effective in trapping propagules whether naturally dispersed from a neighboring population or from human-assisted dispersal.



Images of the bitter panicum planting area in September 2010 (4 months post planting) and October 2011. Note the significant benefit of the broadcast fertilization regime on the vigor and expansion of bitter panicum. Although the benefit of humic acid amendment was not statistically significant under field conditions, there was a trend of significant benefit in some cases, such as increased belowground root production in bitter panicum.

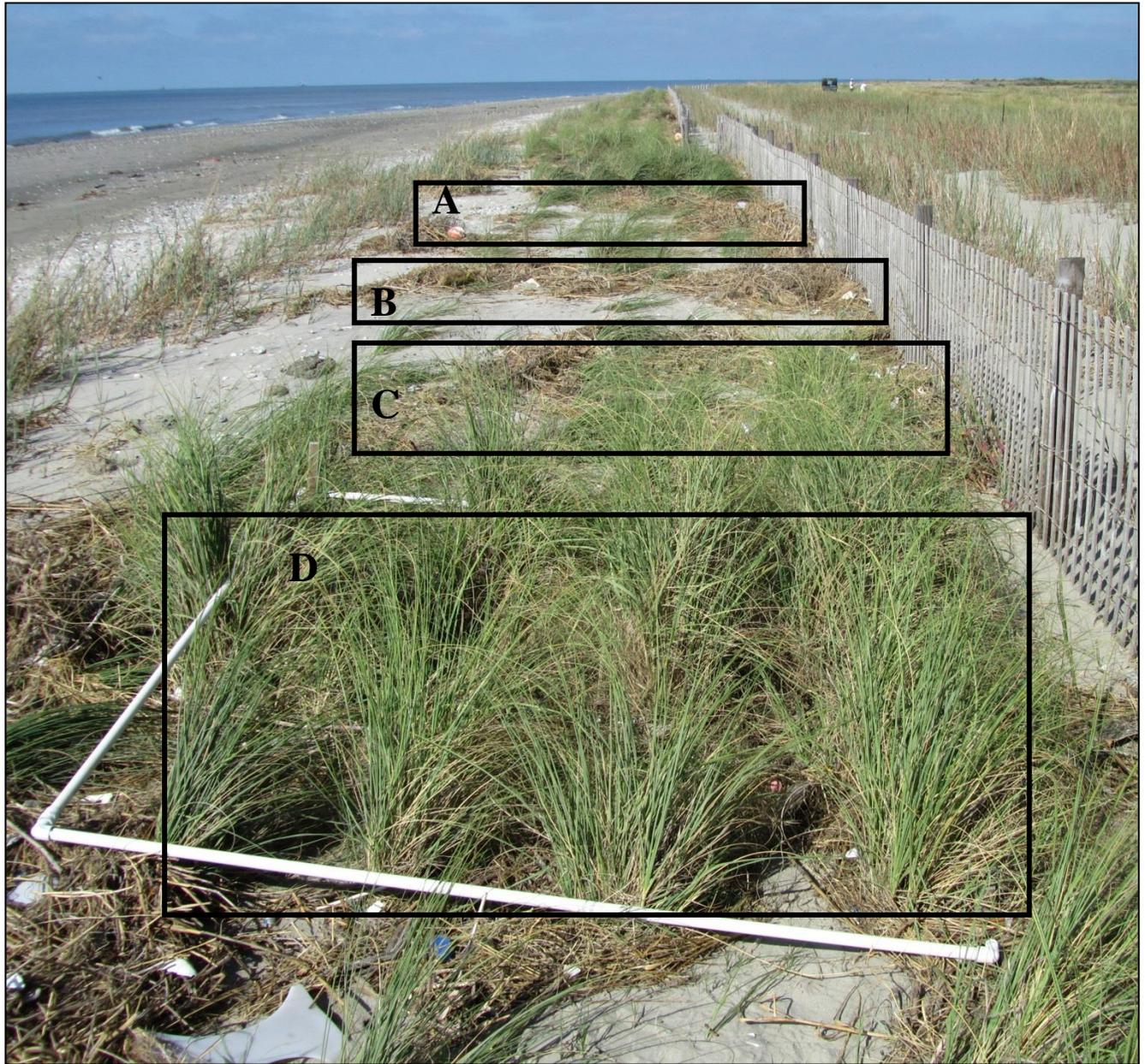


Image of the sea oats planting area in Fall 2011 subsequent to the passing of Tropical Storm Lee showing different treatment areas of planting density (**A**: low density; fertilizer **B**: low density; no fertilizer, **C**: high density; no fertilizer, **D**: high density; fertilizer). Note the extent and health of sea oats planted at high density with fertilizer application and its increased ability to resist storm damage.



Enhancement of Barrier Island Vegetation Demonstration (TE-53)

Project Status

Approved Date: 2006 **Project Area:** N/A
Approved Funds: \$0.91 M **Total Est. Cost:** \$0.91 M
Net Benefit After 20 Years: N/A
Status: Planning
Project Type: Demonstration: Barrier Island Vegetative Enhancement

PPL #: 16

Location

Two possible projects sites in Region 3 are the Timbalier Island Dune and Marsh Restoration project (TE-40) that installed nearly 110,000 plants, eight different species in 2005 and an additional 40,000 plants in 2006, and the New Cut Dune and Marsh Restoration (TE-37) which installed approximately 40,000 plants, 9 different species in the summer of 2007. Additional project locations are available in Regions 2 and 3.

Problems

Barrier Islands provide critical habitat and are the first line of defense to not only day-to-day coastal erosion but also to the destructive forces of major storm events. There remains a critical need to develop cost-effective improvements to existing restoration methodologies that will enhance the successful establishment and spread of vegetation in these important restoration projects. Developing methodologies to enhance vegetation establishment and growth in barrier island restoration projects is important in this very stressful environment because healthy vegetative cover traps, binds, and stabilizes sand and sediment, thereby improving island integrity during storm and overwash events.

Progress to Date

The project plan is under development.

This project is on Priority Project List 16.



Timbalier Island vegetative plantings.

Restoration Strategy

The purpose of this demonstration project is to test several technologies and/or products to enhance the cost-effective establishment and growth of key barrier island and salt marsh vegetation. Humic acid and broadcast fertilization regimes will be applied. The humic acid amendment and broadcast fertilization regime techniques are intended to “jump start” and facilitate the rapid establishment and expansion of vegetation. Humic acid benefits will be demonstrated in both intertidal and supratidal plantings, whereas broadcast fertilization benefits will only be demonstrated in supratidal plantings. Each product (humic acid and fertilizer) will be commercially available and off-the-shelf. Enhancing the establishment of woody vegetation (black mangrove and groundsel bush) will be achieved via high-density dispersal techniques of propagules and seeds, a cost-saving alternative to planting container-grown transplants. All treatment test sections and reference planting areas will be visually inspected and sampled quarterly (plant and soil variables) and compared to the reference area in order to develop recommendations for future planting projects.

For more project information, please contact:



Federal Sponsor:
 U.S. Environmental Protection Agency
 Dallas, TX
 (214) 665-6608



Local Sponsor:
 Coastal Protection and Restoration Authority
 Baton Rouge, LA
 (225) 342-4736

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

COASTWIDE REFERENCE MONITORING SYSTEM (CRMS) REPORT

For Report:

Ms. Dona Weifenbach will provide a report on CRMS.





CRMS Update to the CWPPRA Technical Committee



Dona Weifenbach
Coastal Protection and Restoration Authority
and
Sarai Piazza
USGS National Wetlands Research Center
April 16, 2013



CRMS Implementation Status

Milestones:

- 14 OM&M reports in progress for 2013
 - BA-27 Barataria Basin Landbridge Shoreline Protection NRCS
 - BA-39 Miss. River Sediment Delivery, Bayou Dupont EPA
 - MR-09 Delta Wide Crevasses NMFS
 - PO-16/18 Bayou Sauvage, Phase 1 and 2 USFWS
 - BA-02 GIWW to Clovelly Hydrologic Restoration, NRCS
 - TE-45 Terrebonne Bay Shore Protection Demonstration USFWS
 - TE-46 West Lake Boudreaux Shoreline Projection and Marsh Creation USFWS
 - TE-48 Raccoon Island Shoreline Projection and Marsh Creation NRCS
 - CS-20 East Mud Lake Marsh Management NRCS
 - CS-23 Replace Sabine Refuge Water Control Structures USFWS
 - CS-31 Holly Beach Sand Management NRCS
 - TV-21 East Marsh Island Marsh Creation NRCS
 - ME-11 Humble Canal Hydrologic Restoration NRCS
- CWPPRA Project Planning for newly selected projects and those in Phase 1 and 2
- CRMS coastwide aerial photography flown in mid Oct-Nov. Data available for land/water analysis by USGS this week.



CRMS Implementation Status

- Participated in an Adaptive Management Workshop at the Water Institute of the Gulf along with other CWPPRA partners in January
- CWPPRA “Roadshows” with federal partners and website training completed in March
- Meeting with LDWF in April, integration of their datasets into CRMS website, TV-21 and nutria dataset
- Meeting with Deepwater Horizon Restoration Subcommittee of the Natural Resource Damage Assessment Trustee Council, CRMS presentation and programmatic approach to project development and monitoring gulf wide
- Watermarks featuring CRMS article to be released in June
- Working with CWPPRA Outreach Committee on a CRMS educational document
- Coastwide Elevation Survey of CRMS sites in planning for 2014
- Vegetation Helicopter Survey scheduled for summer 2013
- MWG meeting early summer to present additional vegetation indices and tools

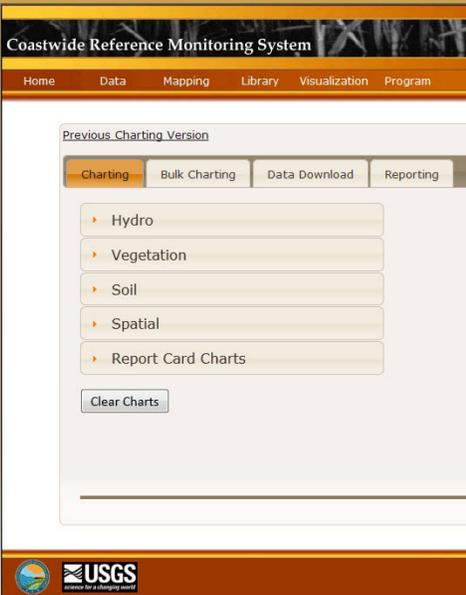


Utility of CRMS data for CWPPRA community

- Identify potential areas in need of restoration
- Plan a new project on the priority list
- Evaluate the performance of a constructed project
- Perform water control structure operations based on data
- Adaptively manage an existing project that is not meeting the project goals
- Identify damages to projects whether constructed or in planning following a major disturbance
- Base recommendations for the 20-yr Project Life close out report on data analysis and discussion with project team



CRMS Website Updates



Data/Visualization

Charting:

- Individual charts
- Site, multi-station, project

Bulk Charting:

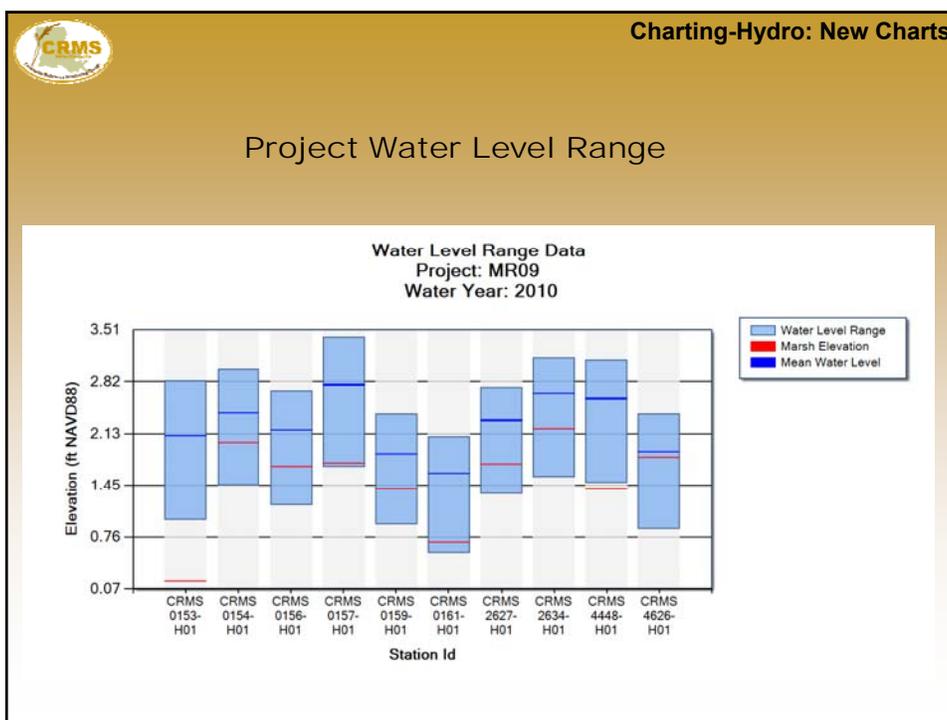
- Generate & download sets of charts (with custom colors where appropriate)

Data Download:

- Download derived values

Reporting:

- CRMS report cards (multi-scale)
- OM&M reports coming soon



Charting-Hydro: Multi-Station Example
limited to 10 stations

CRMS

Previous Charting Version

Charting | Bulk Charting | Data Download | Reporting

Hydro

- Water Level Range
- Hydro Completeness
- Salinity
- Water Level**
- Temperature
- Continuous
- Site Hydro Index
- Soil Porewater
- Precipitation

Interactive Hydro

Vegetation

Soil

Spatial

Report Card Charts

Clear Charts

Water Year is October 1 - September 30

Scale: Multi Station

Date Range: 2/25/1987 - 12/19/2012

Min Date: 2/25/1987

Max Date: 12/19/2012

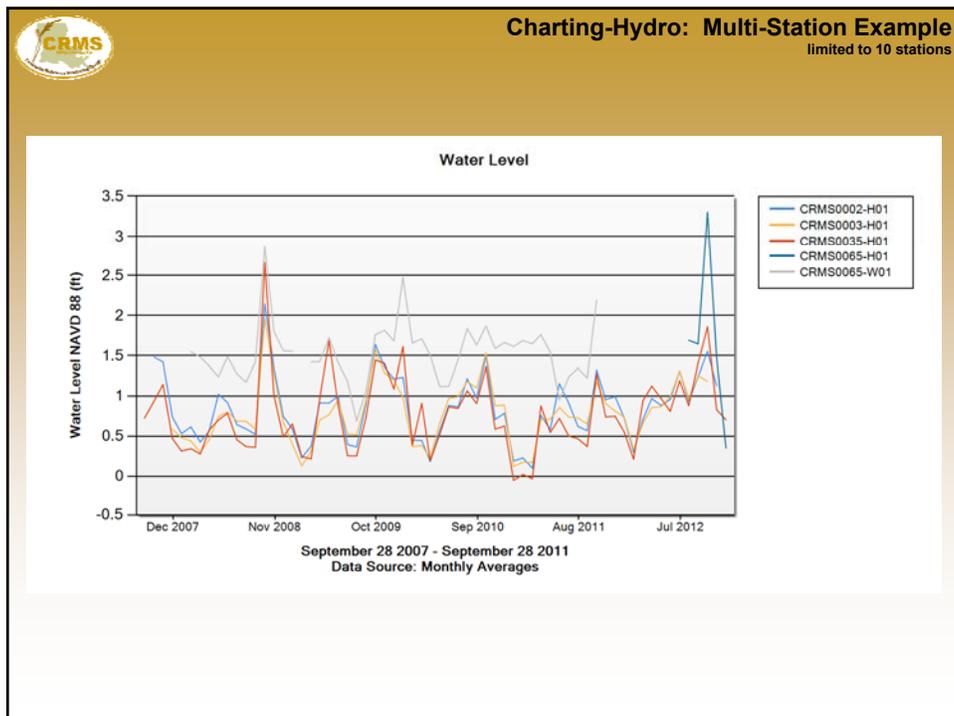
Apply Date Filter

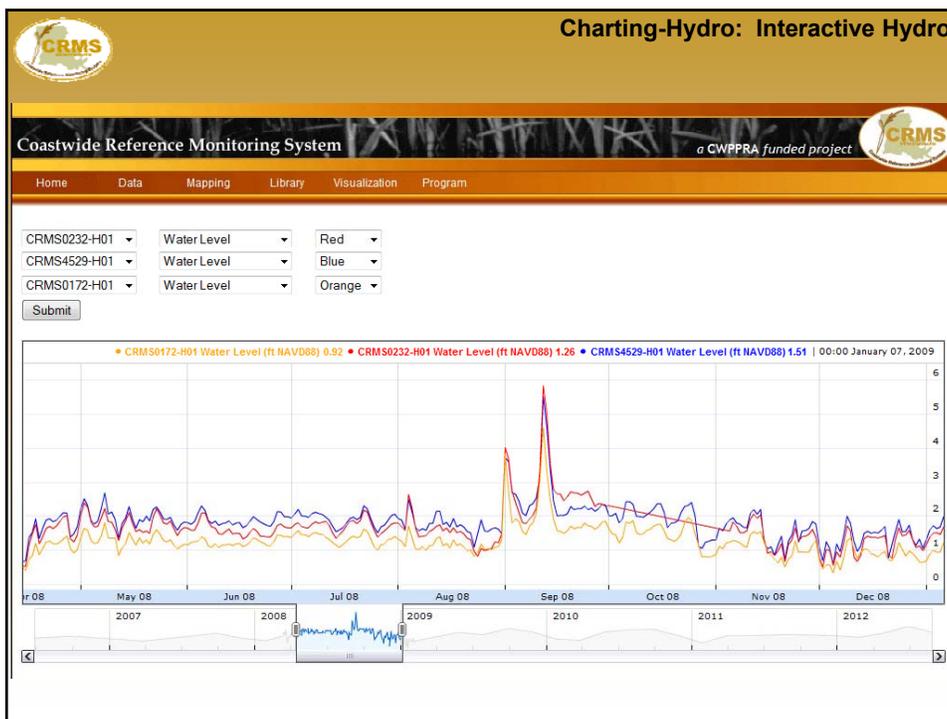
Basin: All Basins | Project: All Projects

Selection limited to 10 items.

| | |
|---------|--------------|
| AT04-01 | CRMS0002-H01 |
| AT04-02 | CRMS0003-H01 |
| AT04-03 | CRMS0035-H01 |
| AT04-04 | CRMS0065-H01 |
| AT04-06 | CRMS0065-W01 |
| BA01-01 | |
| BA01-02 | |
| BA01-03 | |

Submit Request





Bulk Data Download: Data Available



Coastwide Reference Monitoring System

a CWPPRA funded project



Home
Data
Mapping
Library
Visualization
Program

Previous Charting Version

Charting
Bulk Charting

Data Download

Data available through this website are calculated or derived values based on the original data which are available from the SONRIS database ([SONRIS](#))

- ▾ Hydro
 - Hydro Averages
 - Hydro Index
 - Percent Flooded
 - Water Level Range
- Vegetation
- Spatial

Previous Charting Version

Charting
Bulk Charting

Data Download

Data available through this website are calculated or derived values based on the original data which are available from the SONRIS database ([SONRIS](#))

- Hydro
- ▾ Vegetation
 - Basal Area
 - Floristic Quality Index
 - Marsh Class
 - Veg Percent Cover
- Spatial

Previous Charting Version

Charting
Bulk Charting
Data Download
Reporting

Data Download

Data available through this website are calculated or derived values based on the original data which are available from the SONRIS database ([SONRIS](#))

- Hydro
- Vegetation
- ▾ Spatial
 - Percent Land

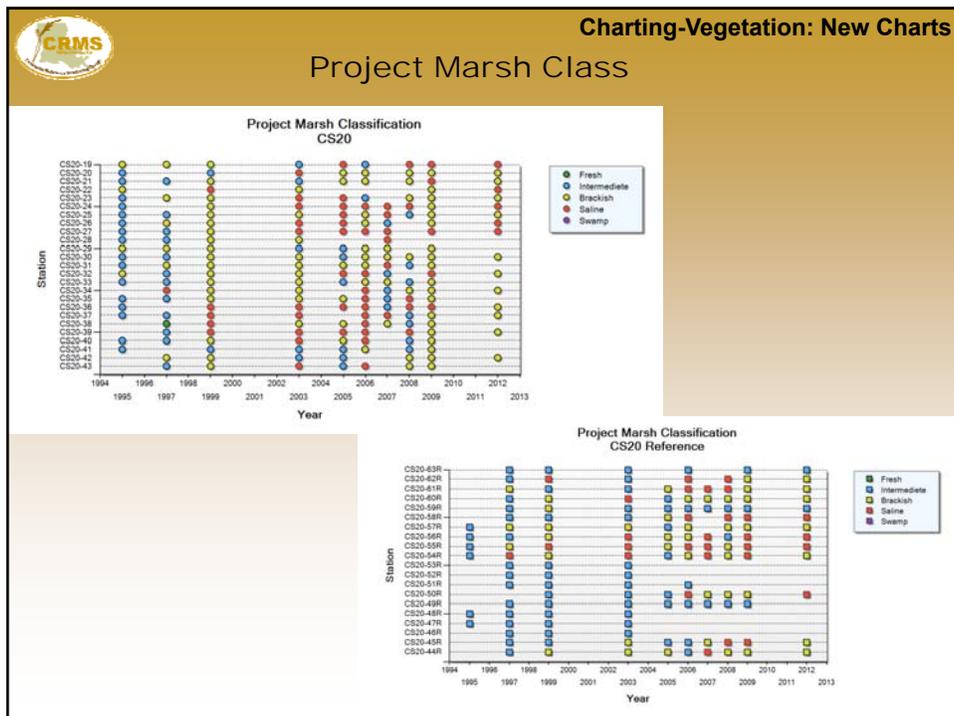
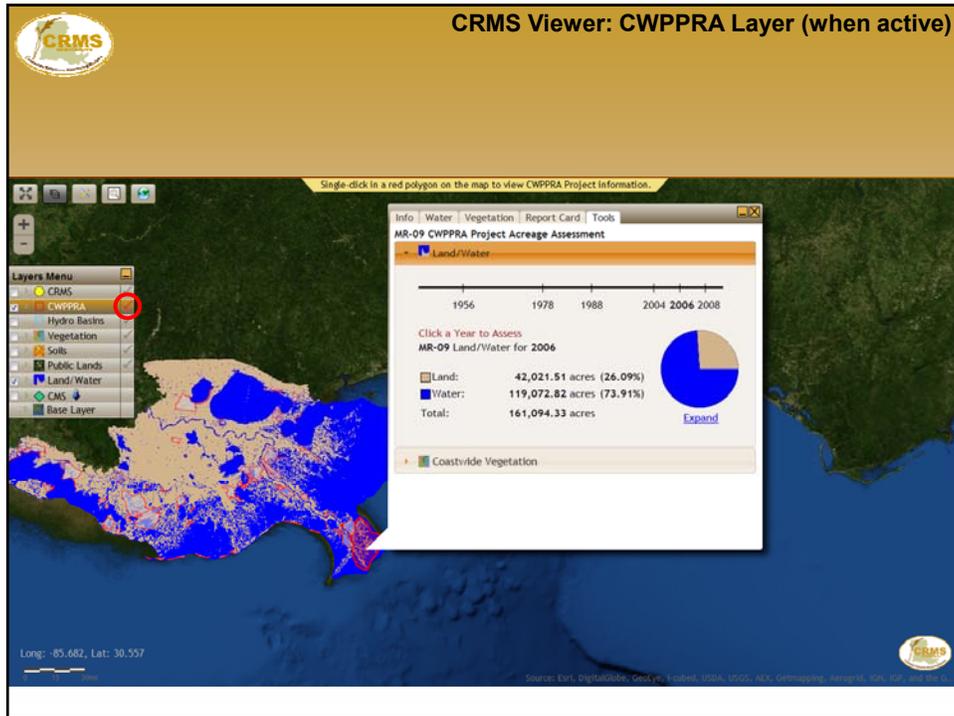
Bulk Data Download: Example

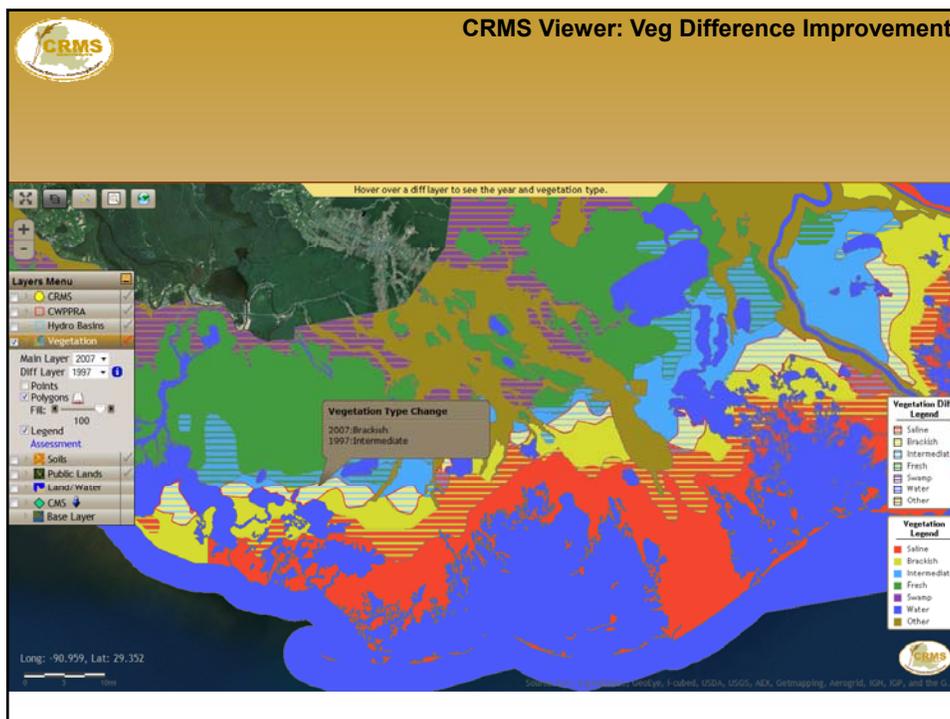
- Select Type
- Select Years
- Station selection
- Provide email
- View zipped package

Bulk Data Download: Example

- Select Type
- Select Years
- Station selection
- Provide email
- View zipped package

| | A | B | C | D |
|----|--------------|----------------|------|-----------------|
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| 3 | CRMS0153-H01 | 0.992569647 | 2009 | 0.921803653 |
| 4 | CRMS0153-H01 | 0.998626519 | 2010 | 0.997374429 |
| 5 | CRMS0154-H01 | 0.51837899 | 2008 | 1 |
| 6 | CRMS0154-H01 | 0.623563627 | 2009 | 0.784817352 |
| 7 | CRMS0154-H01 | 0.779207572 | 2010 | 0.674200913 |
| 8 | CRMS0156-H01 | 0.609246568 | 2008 | 1 |
| 9 | CRMS0156-H01 | 0.607944132 | 2009 | 0.997260274 |
| 10 | CRMS0156-H01 | 0.811033526 | 2010 | 0.997374429 |
| 11 | CRMS0157-H01 | 0.865248217 | 2008 | 0.997945205 |
| 12 | CRMS0157-H01 | 0.866490634 | 2009 | 0.994406393 |





Reporting: CRMS Report Card

Coastwide Reference Monitoring System (CRMS)

Site Level Report Card

Site: CRMS0583
Year: 2009

6/18/2012

About the Interactive Report Card

Through the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) a comprehensive, standardized monitoring and assessment program has been developed to evaluate coastal restoration projects throughout the Louisiana coastal zone. The Coastwide Reference Monitoring System (CRMS) collects monitoring data for numerous ecological variables. Using CRMS data, indices have been developed to assess wetland hydrology, vegetation, and soils. This interactive report card provides summary information and displays index scores for individual CRMS sites, restoration projects, hydrologic basins, and the entire Louisiana coast.

Index Development

What is an Index?

An index combines and synthesizes scientific data to help inform or assess a topic of interest. Each index helps explain the condition of a particular aspect of the coastal wetland ecosystem. By comparing indices at various time and spatial scales we can understand the overall condition of coastal wetlands in Louisiana.

How were the indices developed?

CRMS Analytical Teams, made up of agency and academic personnel, developed indices based on the suite of parameters available from the 2006 to 2009 CRMS dataset. Three indices have been developed: a floristic quality (FQI), hydrologic (HI), and submergence vulnerability (SVI), and a landscape index is currently being refined. Wetland vegetation, hydrology, and soils are undeniably interconnected and form the basis for ecological processes that ultimately influence future land change and the sustainability of coastal habitats. Although these indices have been developed using 4 years of baseline CRMS data, the indices will be refined to better define ecological relationships as the data set becomes more robust overtime.

Because no regulatory thresholds exist for the ecological parameters of interest, it was not possible to assess index scores based on previously defined values that would indicate an acceptable or unacceptable score. Therefore, for the FQI and HI, assessments were made relative to a baseline distribution of the index scores derived from 2006 to 2009 data at CRMS sites across the Louisiana coast. Because ideal thresholds were not available for the FQI and HI, scores were classified as 'good' (green) if they exceeded the 75th percentile of index scores calculated for all CRMS sites during the baseline period, 'poor' (red) if they did not exceed the 25th percentile, or 'fair' (yellow) if they were intermediate to the 25th and 75th percentiles (Figure 1).

Legend:

- > 75th percentile
- 25th - 75th percentile
- < 25th percentile

A) Floristic Quality Index distribution and HI

B) HI

Figure 1. Example of how classification change based on the assessment index and index score distribution. A) Floristic Quality Index distribution and B) HI index distribution based on coastwide data from 2006 to 2009.


Reporting: OM&M Report

Previous Charting Version

Charting
Bulk Charting
Data Download
Reporting

Generate Report Card

State Number: MR-09

▸ Generate Report Card

▾ OM&M

OM&M report

Clear Reports

Report Card MR-09 2004 Operations, Maintenance, and Monitoring Report

Report Card MR-09 2009 Operations, Maintenance & Monitoring Report



Coastal Protection and Restoration Authority of Louisiana

Coastal Protection and Restoration Authority of Louisiana
Office of Coastal Protection and Restoration

2009 Operations, Maintenance and Monitoring Report

For

DELTA WIDE CREVASSES

State Project Number MR-09
Priority Project List 6

August 1, 2009
Plaquemine Parish

Prepared by:

Bryan Gossman

CPRA Office of Coastal Protection and Restoration
New Orleans Field Office
CEDM, Suite 309
2045 Lakeshore Dr.
New Orleans, La 70122


Analytical Teams

Last year we presented the CRMS report card. This year we focused on fine tuning and developing new tools.

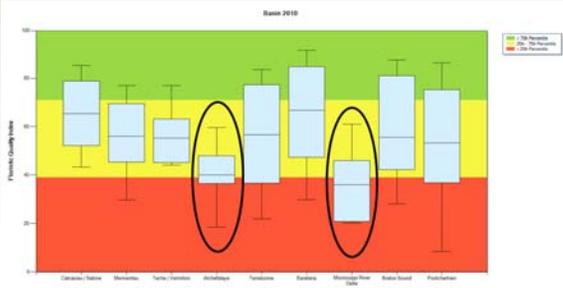
- Finalizing visualizations
- Refining indices
- Developing new metrics
- Considering new tools to evaluate projects



Additional Vegetation Metrics

EXAMPLE PROJECT GOALS:

- Evaluate the condition of the established emergent and planted vegetation on the terraces.
- Maintain or increase the abundance of plant species typical of a freshwater and intermediate marsh.
- Promote the re-establishment of emergent marsh.
- Establish emergent wetland vegetation in shallow open water areas.
- Maintain existing intermediate and brackish vegetation communities.

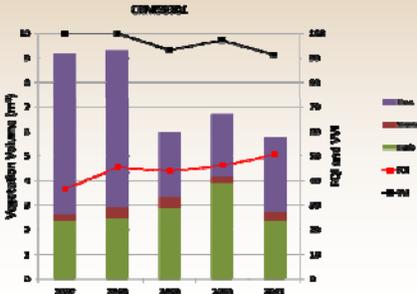


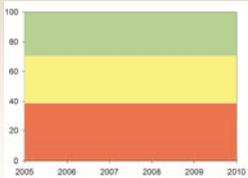


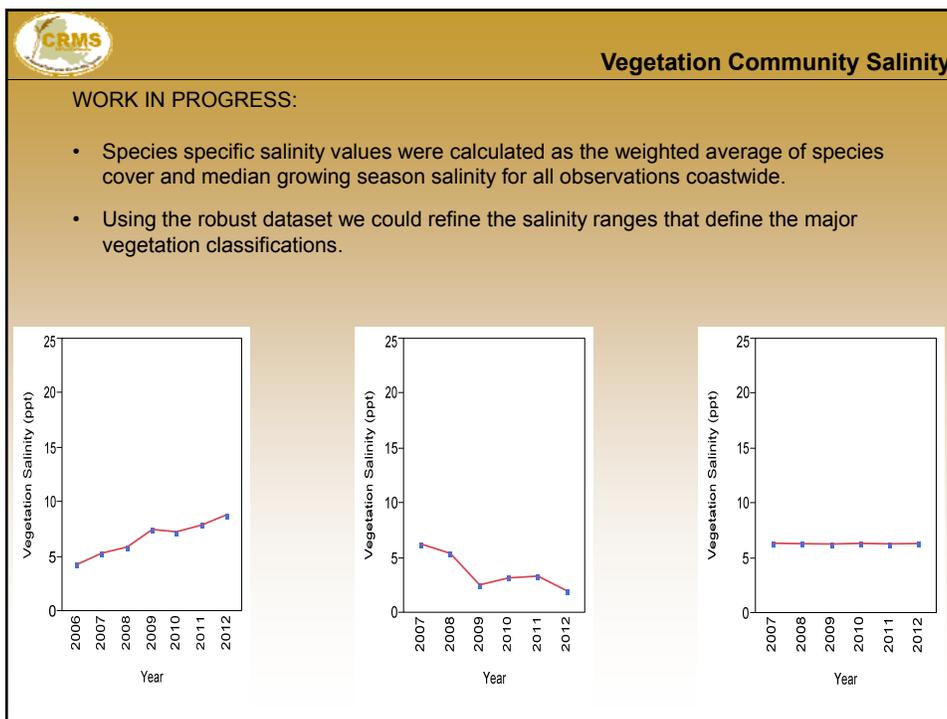
Vegetation Volume

WORK IN PROGRESS:

- Quantifies the **AMOUNT** of vegetation, without consideration of vegetation type or quality
- Sum of the volume of individual vegetation layers (herbaceous, shrub, trees, carpet)
- Index scoring would be the same as HI & FQI
>75% would be green and <25% would be red







QUESTIONS?

<http://www.lacoast.gov/crms2/Home.asp>

X

2013-05-13
8:00 AM EDT
8:01:12 PM EDT



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

**REQUEST FOR A CHANGE IN SCOPE AND NAME FOR THE PPL 10 – MISSISSIPPI
RIVER REINTRODUCTION INTO NORTHWESTERN BARATARIA BASIN
PROJECT (BA-34)**

For Decision:

The Environmental Protection Agency (EPA) and the Coastal Protection and Restoration Authority (CPRA) request approval for a change in project scope and name for the Mississippi River Reintroduction Into Northwestern Barataria Basin project (BA-34). We propose to change the scope of the project by eliminating the siphon, due to limited ability to reintroduce Mississippi River water at reasonable cost (i.e. high cost, small flows). Instead, we propose focusing on restoring hydrology within part of the original approved project area (impounded) by gapping spoil banks and installing culverts, which would be highly cost-effective. We propose to change the project name to Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp (BA-34-2). The Technical Committee will vote on a recommendation to the Task Force to approve the scope and name change.

Mississippi River Reintroduction Into Upper Barataria Basin (BA-34)

Review of approved project and proposed rescoping



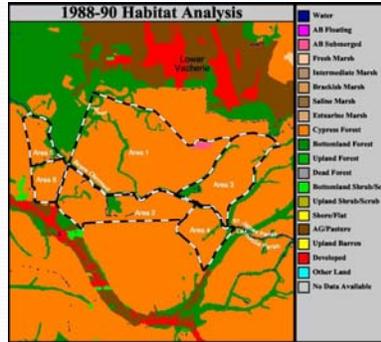
Approved Project Features

- Two six ft diameter siphon pipes and vacuum pipes over the Mississippi River levee at Pikes Peak
- Diversion canals
- Gap spoil banks along Bayou Chevreuil
- Gap spoil banks along borrow canal along LA20
- Culverts under LA20
- Tree planting/nutria protection



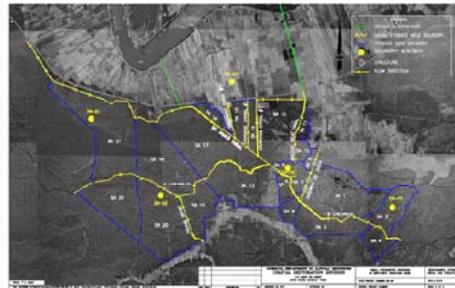
Approved Project Benefits & Cost

- Approved benefit area= 5,141 ac
- Approved WVA benefits=781 AAHUs
- Proposed “alternate net acres” = 941
- Fully funded cost estimate=\$14,281,000



Early Insights & Proposed Changes

- Bayou Chevreuil a diversion “short-circuit”
- Areas 2-6 not as degraded as Area 1, & project would result in minimal benefits in Areas 2-6
- EPA/CPRA/parish propose diversion into Dredge Boat Canal, then directly into the des Allemands Swamp.

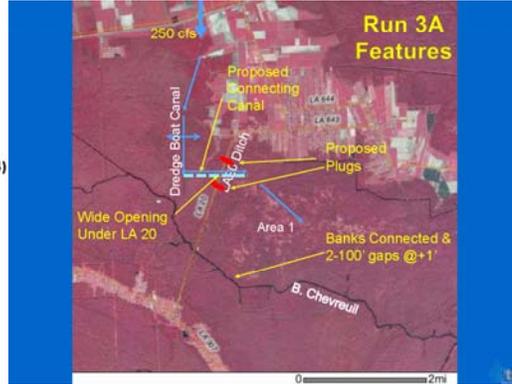


Hydrologic Modeling- Diversion

NUMERICAL MODELING OF THE MISSISSIPPI RIVER REINTRODUCTION INTO THE NORTHWEST BARATARIA BASIN (BA-34)



MARCH 24, 2011



Hydrologic Modeling (contd)

- Dredge boat canal could only carry about 250 cfs w/o expensive modification
- Area 1 would only receive 141 cfs



Preliminary Revised Cost Estimate (Siphon)

- Costs estimated for a 250 cfs pump-siphon
- Construction cost +20% contingency
- Estimates \$47,312,000-47,644,000



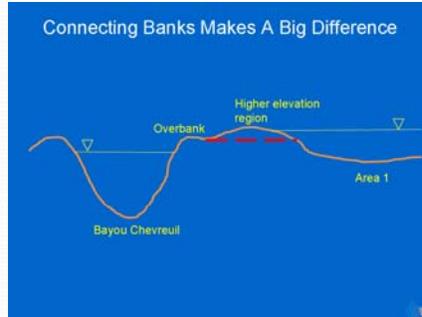
Ecological 2nd Opinion (Dr. Gary Shaffer, SELU)

- *...Swamp Area 1 of the BA-34 proposal is currently on a trajectory to marsh and open water, largely because of impoundment from levees and spoil banks.*
- *Without question, Swamp Area 1 would benefit from a 140 cfs diversion, but the suggested hydrologic improvements alone will greatly improve ecosystem function at a relatively modest cost.*
- *Through installation of a series of gated culverts, open culverts, and gaps there exists a very high probability that Swamp Area 1 can be restored to a sustainable swamp characterized by periodic natural regeneration events.*



Recent PMT Decision

- Request scope change
 - eliminate the siphon
 - keep hydrologic restoration
- Keep vegetative planting
- Add nutria and Chinese tallow control
- Request project name change



Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp (BA-34-2)

Proposed Revised Project Area, Features, and Cost Estimate

Proposed Revised Boundary- Work Group Reviewed/Approved



Proposed New Project Features

- **Swamp vegetative indicators will be improved** by hydrologic restoration , vegetative plantings, nutria control, and control of Chinese tallow.
- **Hydrologic Restoration:**
 - 21 large gaps in Bayou Chevreuil spoil bank
 - 3 gaps in board road
 - 3 culverts under board road
 - Breach/remove aquaculture impoundment dike at historic channel locations and strategic low points
 - Remove, breach, or culvert, any internal spoil banks or materials blocking or obstructing flow through historic, natural drainage ways
- **Vegetative plantings-** 400 ac cypress planting
- **Nutria control-** Trapping, shooting, and/or poisoning
- **Chinese tallow control-** Herbicide application on 400 ac

Potential cypress planting areas



Coordination With Other Projects

- St. James Parish has 2 funded CIAP projects that will affect this swamp:
 - *Culvert installation through an existing berm and board road*
 - *West Bank wastewater assimilation system (900,000 gpd)*

Scope Change Cost Estimate (Phase 0)

| | | | | | |
|--------------|------------------------------|----------|-----------|-------------|-------------|
| Project: | BA-34 | Date: | 12-Mar-13 | Revised: | |
| Computed by: | Travis Byland | | | | |
| Item No. | Work or Material | Quantity | Unit | Unit Cost | Amount |
| 1 | Mobilization/De-mobilization | 1 | LS | \$125,000 | \$125,000 |
| 2 | Clearing/Grubbing | 25 | AC | \$6,300 | \$157,500 |
| 3 | Gap Excavation | 98,600 | CY | \$3.50 | \$345,100 |
| 4 | Culvert Installation | 240 | LF | \$150.00 | \$36,000 |
| 5 | Construction Surveys | 1 | LS | \$13,465.00 | \$13,465 |
| 6 | Bald Cypress Planting | 400 | AC | \$3,000.00 | \$1,200,000 |
| 7 | Nitrate Control | 1 | LS | \$36,325.00 | \$36,325 |
| 8 | Chinese Yallow Control | 400 | AC | \$250.00 | \$100,000 |

\$263,040.0

ESTIMATED CONSTRUCTION COST \$2,013,390
 ESTIMATED CONSTRUCTION + 25% CONTINGENCY \$2,516,738

Project Name: Small Freshwater Diversion to the Northwestern Barataria Basin (BA-34)

Project Sponsor: U.S. Environmental Protection Agency

Regional Strategy: Construct small diversions (to swamps) with outfall management; prevent diversion-related flooding and remove diverted waters from upper basin.

Location: Region 2, Upper Barataria Basin, St. James and Lafourche Parishes, LA. The project is proposed for Lac des Allemands drainage basin. The 5,134 acre project boundary is divided into 6 sub-areas (see map). Most of the areas to be benefited by the project are downstream of LA 20 (2 small areas are located just upstream of it). The project is located northwest of Lac des Allemands with the prospective siphon location identified at Pikes Peak.

Problem: The Lac des Allemands River Basin Initiative identified the following specific problems within the Lac des Allemands Watershed: 1) drainage impairments, 2) water quality impairments, and 3) loss of marsh and decline of cypress forest. Many years of research by LSU researchers in these swamps have demonstrated: 1) the swamps throughout the basin will eventually change to open water, floating aquatic plants, or fresh marsh, due to the effects of subsidence and inadequate accretion of sediments and organic matter; and 2) some areas are highly stressed and converting to open water, floating aquatic plants, and fresh marsh. These problems are caused by the loss of river water, and its associated sediment and nutrients, due to the leveeing of the Mississippi River, and by impoundment, caused by roads, drainage canals, and spoil banks.

Goals: 1) Restore and maintain selected cypress-tupelo swamp tracts in the upper Barataria Basin, 2) restore and maintain water quality in the swamp and in Bayou Chevreuil, and 3) contribute to reduction in nutrient loading from the Mississippi River to the Gulf of Mexico.

Proposed Solution: The project consists of the installation of two 6 foot diameter siphon pipes, vacuum pipes, and associated diversion canals placed over the Mississippi River levee at Pikes Peak. Very importantly, the project also consists of gapping spoil banks along Bayou Chevreuil downstream from LA 20, gapping of spoil banks along the borrow canal along LA 20, and culverts under LA 20.

Public Support, Risk/Uncertainty and Longevity/Sustainability: It is anticipated that this project will receive statements of support from local and state elected officials, and Congressional representatives. The proposed project is expected to continue providing substantial wetland benefits 30 to 40 years after construction, and there is a high degree of probability that the project will meet its objectives.

Project Benefits: Over time, project benefits should include reduced swamp submergence, increased regrowth of young trees, denser forests in currently stressed areas, increased swamp productivity, and improved water quality. Exact benefited acres have not been calculated.

Total Fully Funded Cost: The total fully funded cost of this project is \$14,281,000.



Mississippi River Reintroduction Into Northwestern Barataria Basin (BA-34)

Project Status

Approved Date: 2001 **Project Area:** 5,134 acres
Approved Funds: \$2.36 M **Total Est. Cost:** \$14.7 M
Net Benefit After 20 Years: 941 acres
Status: Engineering and Design
Project Type: Freshwater Diversion
PPL #: 10

Location

The project is located northwest of Lac des Allemands with the prospective siphon location identified at Pikes Peak or Dredge Boat Canal in St. James Parish, Louisiana.

Problems

The Lac des Allemands River Basin Initiative identified the following specific problems within the Lac des Allemands Watershed: drainage impairments; water quality impairments; loss of marsh; and decline of cypress forest. Many years of study by Louisiana State University researchers in these swamps have demonstrated that, because of impoundment, subsidence, and inadequate accretion of sediments and organic matter, some areas are already highly stressed and converting to open water, floating aquatic plants, and fresh marsh. Also, the Coast 2050 report suggests that other areas of the swamps throughout the basin will likely convert to open water or floating marsh by the year 2050. These problems are caused by the loss of river water along with the associated sediment and nutrients necessary for swamp health. The loss of river water can be attributed to the leveeing of the Mississippi River. Impoundment caused by roads, drainage canals, and spoil banks is also a major cause of degradation of these swamps.



An impounded cypress and tupelo swamp in the upper Barataria Basin in summer during extreme drought is shown here. The open, park-like nature of the landscape is due to the long-term effects of impoundment along with the recent drought. The impoundment has had a negative effect on the growth of young trees and the drought has led to the luxuriant growth of herbaceous plants in what is normally a deepwater impounded swamp.

Restoration Strategy

The proposed restoration strategy includes installing two small siphons (averaging 400 cubic feet per second) to divert water from the Mississippi River; gapping spoil banks on Bayou Chevreuil; gapping spoil banks along the borrow canal beside Louisiana Highway 20; installing culverts under Louisiana Highway 20; improving drainage in impounded swamps; and planting cypress and tupelo seedlings in highly degraded swamp areas. This diversion from the Mississippi River will bring fresh water, fine-grained sediments, and nutrients into the upper des Allemands swamps. It will help maintain swamp elevation, improve swamp water quality, and increase productivity and regrowth of young trees as older trees die. The spoil bank gaps, culverts, and other hydrologic improvements for the impounded swamps will help ensure the proper distribution of river water, sediments, and nutrients into the swamps, and reverse the impoundment effects that are such serious impediments to swamp health. Planting cypress and tupelo seedlings will help reestablish the swamp forest in highly stressed areas. Over time, project benefits should include reduced swamp submergence, increased swamp productivity, and improved water quality. This strategy will, in turn, provide wildlife, fishery, and storm buffering benefits.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved Phase 1 funding at their January 10, 2001 meeting.

A cooperative agreement between the U.S. Environmental Protection Agency and Louisiana Department of Natural Resources has been negotiated. Engineering and design tasks have begun.

This project is on Priority Project List 10.

* The project will enhance an area of swamp (5,134 acres) that would be substantially degraded without the project.

For more project information, please contact:



Federal Sponsor:

U.S. Environmental Protection Agency
 Dallas, TX
 (214) 665-6722



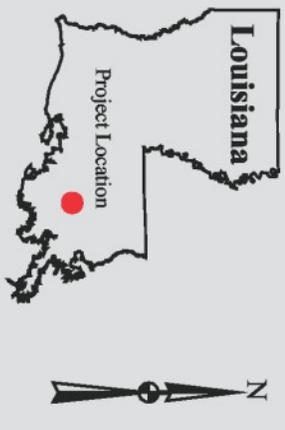
Local Sponsor:

Coastal Protection and Restoration Authority
 Baton Rouge, LA
 (225) 342-4736



Mississippi River Reintroduction Into Northwestern Barataria Basin (BA-34)

 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:
LDEQ Landsat Enhanced Thematic Mapper
Pan Sharpened Mosaic Image
Map Date: April 29, 2004
Map ID: USGS-NWRC 2003-11-251
Data accurate as of: April 29, 2004

CHANGE IN PROJECT SCOPE
Mississippi River Reintroduction Into Northwestern Barataria Basin (BA-34)
April 1, 2013

This project was approved in January, 2001, on Priority Project List 10. The fully funded cost was \$14,281,000. The project was assumed to benefit a total project area of 5,141 acres (Fig. 1) and to produce 781 average annual habitat units (AAHUs) and 941 net acres. Note however, the net acres estimate was derived using an approach for swamps that is no longer used (alternate net acres). Note that the project was approved before this estimate of net acres was generated.

The U.S. Environmental Protection Agency (EPA) and Louisiana Coastal Protection and Restoration Authority (CPRA) request Technical Committee and Task Force approval for a scope change due to proposed major changes in project features, project area, cost (>25% decrease), and although not yet quantified, benefits (likely >25% decrease). We also request to change the name of the project, consistent with the proposed change in scope.

We would have needed to request a scope change for change in project area even if we were not proposing a major change to project features, as we have learned that much of our original proposed project would not have benefitted from reintroduction of Mississippi River water, due to hydrologic short-circuiting. We would also have had to request a scope change due to estimated costs being much higher than original estimates (>\$47 million vs >\$14 million). Finally, we would also have had to request a scope change due to reduced benefits. While we did not quantify reduced benefits, siphon flows into the benefit area, as evaluated, would only have been 140 cfs (vs 400 cfs average, as originally proposed). In the absence of additional information, it seems reasonable to assume that ecological benefits would have been related linearly to siphon flow.

Now we are proposing to eliminate the siphon feature, and refocus the project on hydrologic restoration and vegetative planting, both features of the original approved project, within a modification of our original "Area 1" (2395 ac). In addition, we are proposing to control nutria to reduce herbivory of planted cypress, and to control invasive Chinese tallow. We are proposing to change the project name to: *Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp* (BA-34-2).

We are proposing elimination of the approved siphon feature because hydrologic modeling, preliminary design planning, and cost estimation, collectively strongly suggest that we could only flow about 140 cfs into the benefit area, and at a very high cost of >\$47 million. In addition, we consulted with Dr. Gary Shaffer of Southeastern Louisiana University to get a second opinion regarding the relative ecological benefits of such a small diversion into this swamp, relative to the high costs. Dr. Shaffer believed there would be significant ecological benefits of reintroducing even 140 cfs of Mississippi River water into Area 1. However, he also acknowledged that the costs would be high. We also asked Dr. Shaffer for his views regarding a possible alternate restoration approach for Area 1, dropping the siphon and instead focusing on hydrologic restoration and cypress planting. Dr. Shaffer enthusiastically agreed that such an approach would have significant ecological benefits here, and would be very low cost.

Our "Phase 0"-level cost estimate for this revised approach is:

- Estimated construction + 25% Contingency: \$2,516,738
- Projected O&M Estimate (grand total): \$1,894,730

We do not yet have a fully-funded cost estimate. This cost estimate will be submitted to the Engineering Work Group for review shortly. We do not yet have a revised WVA. The Environmental Work Group recommended that we seek approval for the scope change prior to initiating a revised WVA. If the scope change is approved, we will initiate a revised WVA shortly thereafter.

We are proposing these changes prior to conducting detailed planning for the project features, so this request is different than most CWPPRA scope change requests. If this request is approved, we will follow up with a brief "Phase 1 Engineering and Design" phase for the revised project, including 30% and 95% Design Reviews, a revised WVA (reviewed and approved by the Environmental Work Group), and a revised cost estimate, prior to a request for Phase 2 funding.

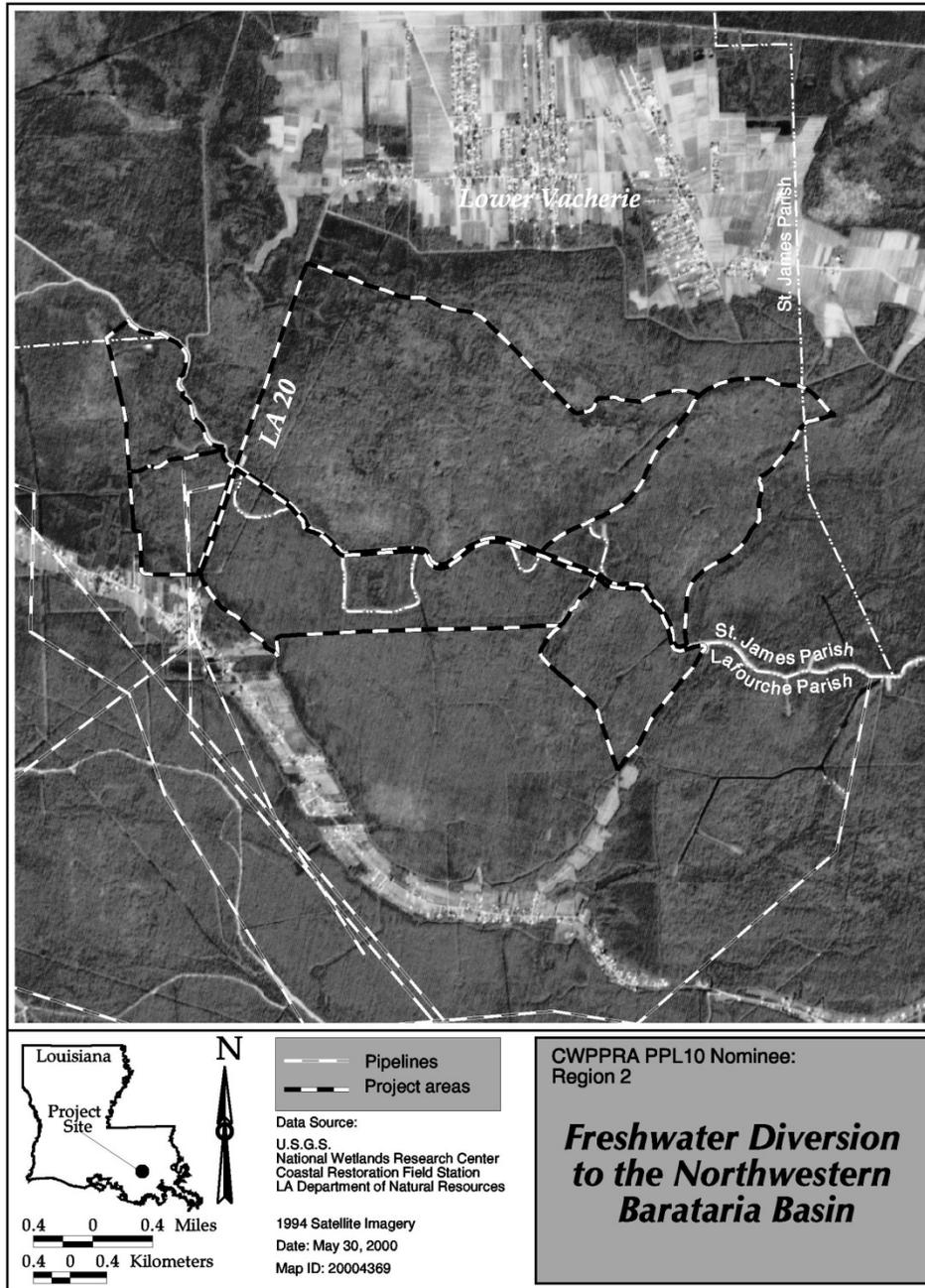


Figure 1. BA-34 original approved project area.

Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp (BA-34-2) (formerly Mississippi River Reintroduction into Northwestern Barataria Basin (BA-34))

Coast 2050 Strategy:

Coastwide Common Strategies: Vegetative planting

Region 2 Regional Ecosystem Strategies: Restore Swamps: 2. Restore natural drainage patterns

Project Location:

Region 2, Barataria Basin, St. James Parish. North of Bayou Chevreuil and east of Highway LA 20.

Problem:

The project area is very well-studied, being the site of some of the earliest and most important cypress-tupelo swamp forest ecological research in the country (Conner and Day 1976, Conner et al. 1981, Conner and Day 1988, Conner and Brody 1989).

Forest plant species composition, basal area and vegetative productivity in the project area reflect a degraded cypress-tupelo swamp. Degradation of the swamp forest is due to a combination of historical logging, hydrologic alteration, subsidence, and possibly nutria herbivory. In turn, the hydrologic alteration is due to a combination of the elimination of the connection of the swamp with the Mississippi River, and impoundment due to road construction, spoil bank placement, drainage canals, and former intentional creation of an impoundment for crawfish aquaculture .

The cypress lumber industry thrived in Louisiana between 1880 and 1925. The exact dates when the Lac des Allemands Swamp was logged cannot be determined due to the lack of accurate records, but Conner and Day (1976) estimated the second growth forest to be between 50 and 95 years old in 1976 (86 to 131 years old currently). After logging, water tupelo and maple increased in importance because baldcypress stumps and logs provided excellent places for germination of the maple seeds, and there was little competition for growing space and light (Anderson and White 1970).

The wetlands in the Barataria Basin were historically nourished by the fresh water, sediment and nutrients delivered by the Mississippi River and its many distributary channels. These river inputs gradually ceased as levees were constructed in a stepwise fashion over time, with nearly complete elimination of the connection between the basin and the river upon completion of the current levee system in the 1930s. With the elimination of sediment inputs, the flooding frequency, duration, and flooding depth have increased as subsidence is no longer offset by accretion.

The project benefit area was impounded beginning in 1930, when Highway LA 20 was completed on the western boundary of the project area. A natural ridge runs along the southeastern boundary. The Vacherie Canal was dredged in 1955 along the northern boundary, eliminating connectivity of the benefit area with bottomland hardwood swamps and uplands to the north. Bayou Chevreuil, on the southern edge of the project area, was dredged in 1959, impounding the area with spoil banks. The northern portion of the project area was isolated on the south by construction of a board road for a gas well in 1969, and a levee was constructed from the end of the board road, north to the Vacherie Canal in 1970. This northern area was previously managed as a crawfish farm, with artificially alternating wet and dry periods. The area south of the “northern portion” of the project area is mostly permanently flooded by water up to 1 m deep. So, in addition to the increased flooding caused by subsidence and the lack of sediment input, impoundment has resulted in increased flooding frequency, duration, and depth.

Goals:

The primary goal of this project is to partially restore and maintain the cypress-tupelo swamp here. More specifically:

- Maintain “cypress forest” habitat area
- Eliminate conversion of “cypress forest” habitat to open water, floating aquatic bed, and fresh marsh.
- Restore and maintain desirable swamp vegetative species composition, vegetative density, and basal area.
- Restore and maintain swamp hydrology to the maximum extent possible, given that reintroducing Mississippi River water has been found not to be cost effective here.

- **Objectives:**
- Increase the density of the dominant tree species
- Restore and/or maintain the tree and shrub species importance values and density to approximate those of reference “natural-flooding” swamps within 20 years.
- Restore and/or maintain tree species basal area to approximate that that of reference “natural flooding” swamps.
- Increase (or maintain) overstory closure to >50% and herbaceous or scrub-shrub midstory cover to >33%, within 20 years.
- Increase (or maintain) mean dbh of baldcypress to >16 in and of water tupelo to >12 in within 20 years
- Decrease the morbidity rate of tupelo trees.
- Increase regeneration of baldcypress and watertupelo
- Restore and maintain characteristics of natural swamp hydrology (e.g. flooding regime, drainage patterns, through-flow).
- Restore the water regime to seasonally-flooded (surface water is present for extended periods, especially in the growing season, but is absent by the end of the growing season in most years)
- Restore NW to SE water flow and exchange
- Increase accretion of substrate in the swamp
- Establish the appropriate proportions of seedlings, and achieve a minimum 75% survival after 2 growing seasons.
- Ensure emergence of vegetative transplants into the canopy after establishment (approx. year 5)

Proposed Solution:

- Impoundment is to be alleviated by constructing numerous small gaps in spoil banks and in the board road, and by installing several small culverts under the board road
 - Breaching and removal of the aquaculture impoundment dike at historic channel locations and strategic low points to re-establish hydrologic connectivity and sheet flow
 - Installation of appropriately sized culverts, or gapping and breaching of the Old Board Road at strategic lows and historic channel locations, also to re-establish hydrologic connectivity and sheet flow.
 - Gapping and breaching of the spoil bank along Bayou Chevreuil at strategic low point and historic channel locations, to re-establish hydrologic connectivity and sheet flow.
 - Removal, breaching, or culverting, as appropriate, of any internal spoil banks or materials blocking or obstructing flow through historic, natural drainage ways, with renourishing of damaged natural levees from airboat traffic and prospecting. Several historic drainage ways were identified that, if restored, will reestablish the historic drainage pattern, reconnecting portions of the swamp and re-establishing outflow from areas that are now hydrologically isolated except during high magnitude flood stages sufficient to overtop the levees.
- Swamp species composition will be improved by a combination of hydrologic restoration (see above), vegetative plantings, herbivore control (mostly nutria), and control of harmful non-native vegetation (Chinese tallow).
- Preparation of the planting areas by controlled burning, mechanical and or chemical means to remove any nuisance/exotic species or undesirable competing undergrowth that is non-native or nuisance.
- Plant approximately 400 ac of degraded baldcypress watertupelo swamp forest.
- Planting stock will be either 3-4 foot seedlings planted on 20 foot centers for a density of 109 trees/acre) or 1-2 foot bare root seedlings planted on 12 foot centers for a density of 302 trees/acre.
- Targeted areas will be planted November 1 through April 1 during the non-growing and dry season to ensure establishment before the commencement of the annual wet season.
- Grazing of cypress seedlings by nutria will be reduced by protecting transplants using plastic collars, and by trapping, shooting, and/or poisoning nutria to control their populations.
- Reduce occurrence of undesirable non-native vegetation, especially Chinese tallow, using mechanical and/or chemical controls.

Project Benefits:

The project would benefit approximately 2395 ac, and would result in approximately x net acres, and x AAHU's over the 20-year project life.

Project Costs:

The estimated construction cost + 25% contingency is \$2,516,738.

Preparers of Fact Sheet: Ken Teague, EPA, (214) 665-6687; Teague.kenneth@epa.gov

DRAFT

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

**REQUEST FOR CHANGE IN SCOPE FOR THE PPL 10 – ROCKEFELLER REFUGE
GULF SHORELINE STABILIZATION PROJECT (ME-18)**

For Decision:

The National Marine Fisheries Service (NMFS) and CPRA request a project scope change to proceed with the design to 30% and 95% for the Rockefeller Refuge Gulf Shoreline Stabilization project (ME-18). The NMFS and CPRA are proposing to scale down the project from 9.2 miles to 2.0 miles. The net acres protected are estimated as 198 acres, while the original concept was targeting 920 net acres protected. The NMFS and CPRA also request a fully funded cost estimate decrease from the original \$95,988,680 to an estimated \$28,082,507. In 2009, the NMFS de-obligated \$877,476 Phase 1 funds. If the change of scope is approved by the Technical Committee and the Task Force, the NMFS and CPRA are requesting that \$502,842 of the project's de-obligated funds be returned to complete the project design.

ROCKEFELLER REFUGE GULF SHORELINE STABILIZATION PROJECT (ME-18)

Request for Change in Project Scope

April 16, 2013

Original Project Concept

Rockefeller Refuge Gulf Shoreline Stabilization (ME-18)

- Shoreline Protection
- Project Boundary

USGS
science for a changing world

Louisiana
Project Location

Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Resources Field Station

Background Imagery:
2002 Florida Mapper Imagery

Map Date: March 15, 2003
Map ID: 2002-11-519
Data collected on: March 18, 2003

Goals:

- 1) Halt Gulf shoreline retreat and direct marsh loss from Beach Prong to Joseph Harbor (9.2 miles)
- 2) Protect saline marsh habitat
- 3) Enhance fish and wildlife habitat

Project Background

- Project funded originally through CWPPRA on PPL 10
- 84 different shoreline protection designs were evaluated
- Project surveys and geotechnical sampling was conducted over entire 9.2 mile project
- Due to challenging soil conditions at site, a demonstration project was implemented
- Construction and monitoring of demonstration project funded through CIAP



Demonstration Design

- **Design criteria**
 - Prevent erosion for up to Category 1 hurricane conditions (estimated return period of about 10 years)
 - Where practicable, the shore protection alternative should remain stable for more severe storm conditions up to a 100-year event.
- **Alternatives analysis**
 - Selected 3 of the most promising design alternatives of the 84 reviewed
 - Most alternatives did not meet design criteria or were too expensive
- **Decided to construct a demonstration project first to assess preferred alternatives**



Post-Construction Monitoring



| Average Shoreline Change, ft | | | |
|------------------------------|---------------------------------|-----------------------------------|--------------------------------------|
| | February to August 2010 (6 mos) | February to November 2010 (9 mos) | February 2010 to March 2011 (13 mos) |
| Control Area | -26.9 | -37.7 | -45.3 |
| Beach Fill | -59.5 | -61.3 | -84.4 |
| Reef Breakwater | -8.4 | -10.8 | -17.8 |
| Reef Breakwater with LWAC | -1.5 | +0.5 | -3.0 |



Reef Breakwater w/ LWA Core (Feb '10 - March '11)



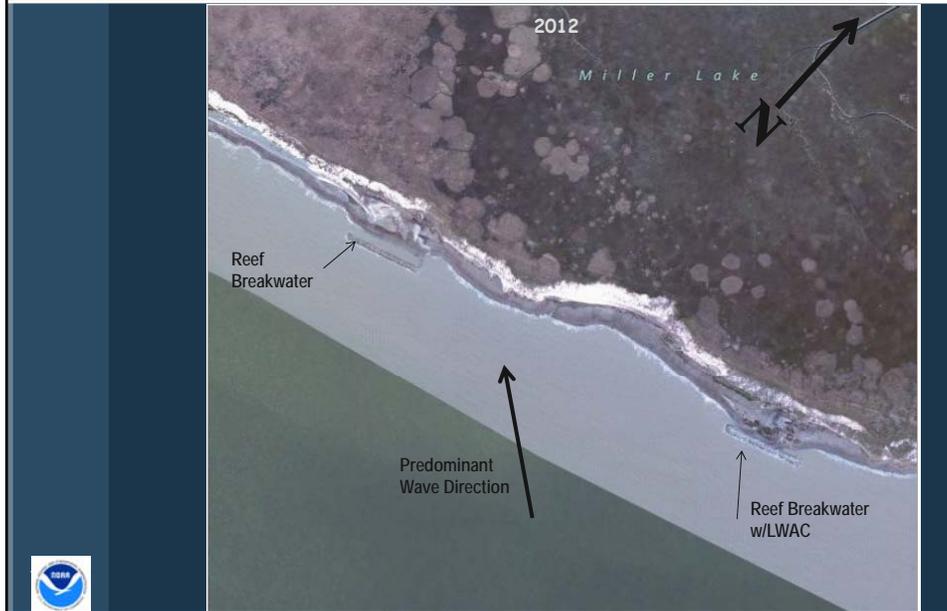
Test Section: Lessons Learned



- Timing is essential
 - Downtime waiting on materials
 - Survey timing
- Difficult working conditions
- Shoreline erosion rates higher than previously reported
- Flotation channels were not used, but light loading was done.
- Actual settlement rates less than anticipated

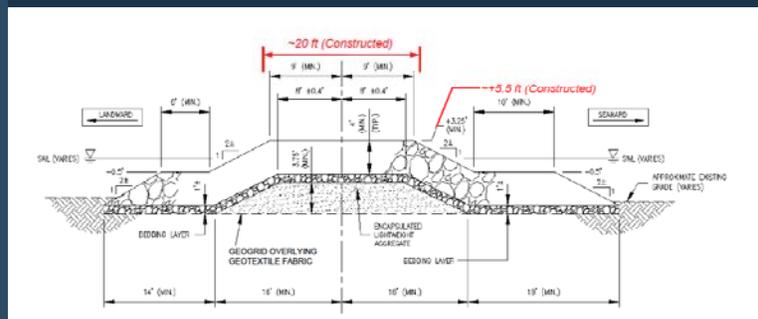


Post-Construction



Proposed Project

- ◇ Beginning at the west bank of Joseph's Harbor Canal, construct 10,560 LF of near shore breakwater along the -4' contour westward. Why here?
- ◇ Plan view would reflect and offset configuration; i.e. every 1,500 LF the breakwater section would end, and the next section would begin at the same station, but offset by 30'.



Proposed Project



Project Layout



Project Change in Scope



| | 2001 Project | Current Revised Project | Increase/Decrease |
|-------------------|--------------|-------------------------|-------------------|
| Fully-funded Cost | \$95,988,680 | \$28,082,507 | - 71% |
| Net Acres Year 20 | 920 | 198 | -79% |
| AAHU's | 344 | 73.83 | - 79% |

- **Significant amount of work for design has been completed**

- 84 designs evaluated
- Shoreline surveys
- Geotech for entire project
- Test sections constructed and monitored

- **2 Miles LWA Breakwater**

- Repurpose the \$502,842 needed to complete Phase 1 from the \$877,476 de-obligated in 2009.
- Construction + 15% = \$24.7 M
- 6 months to construct
- Projected costs assumes no Operations and Maintenance



Questions?



Rockefeller Refuge Gulf Shoreline Stabilization Project (ME-18)

Change in Project Scope and Name

Report to the Technical Committee

April 16, 2013

Phase 1 activities for the Rockefeller Refuge Gulf Shoreline Protection project were authorized on PPL 10 in 2001 to address a rapidly eroding shoreline affecting the State's Rockefeller Wildlife Refuge in southwestern Louisiana. This Refuge is one of the most biologically diverse wildlife areas in the nation. Since the Rockefeller Foundation's donation of the property to the State in 1920, the property is estimated to have been reduced from 86,000 to 76,000 acres, largely due to erosion of the Gulf shoreline. Continued erosion in this area may also reduce the ability to actively manage over 44,000 acres of a wide range of wetland habitats representing one of the most diverse coastal complexes in south Louisiana.

At the time of Phase 1 authorization the project was envisioned to provide protection along over nine miles of Gulf shoreline at an estimated fully funded cost of \$95,988,680 to benefit 920 net acres in Cameron Parish, LA. Detailed engineering and design revealed uncertainties regarding most appropriate and cost-effective structural design. Using CIAP funds, three test sections were constructed to evaluate actual construction costs and assess project performance.

Based on data and experience from the test sections, the project sponsors desire to complete Phase 1 activities for a high priority two-mile project. The fully funded revised budget was reviewed by the Engineering Work Group Chairman, and the revised benefits were reviewed by the Environmental Work Group Chairman (Table 1).

The National Marine Fisheries Service and State Coastal Protection and Restoration Authority request Technical Committee and Task Force approval for a project scope change which would reduce the estimated fully funded cost to \$28,082,507 (-71%), and decrease the estimated benefits to 198 net acres (-79%). The sponsors also request that a portion of the Phase 1 costs that were de-obligated in 2009 be re-obligated to support completion of full design and completion of all Phase 1 activities for the revised project.

Table 1: 2001 Project vs. Current Project Costs and Benefits.

| | 2001 Project | Current Revised Project | Increase/Decrease |
|-------------------|---------------------|--------------------------------|--------------------------|
| Fully-funded Cost | \$95,988,680 | \$28,082,507 | - 71% |
| Net Acres Year 20 | 920 | 198 | -79% |
| AAHU's | 344 | 73.83 | - 79% |

Figure 1: 2001 Rockefeller Gulf Shoreline Stabilization Project (ME-18).

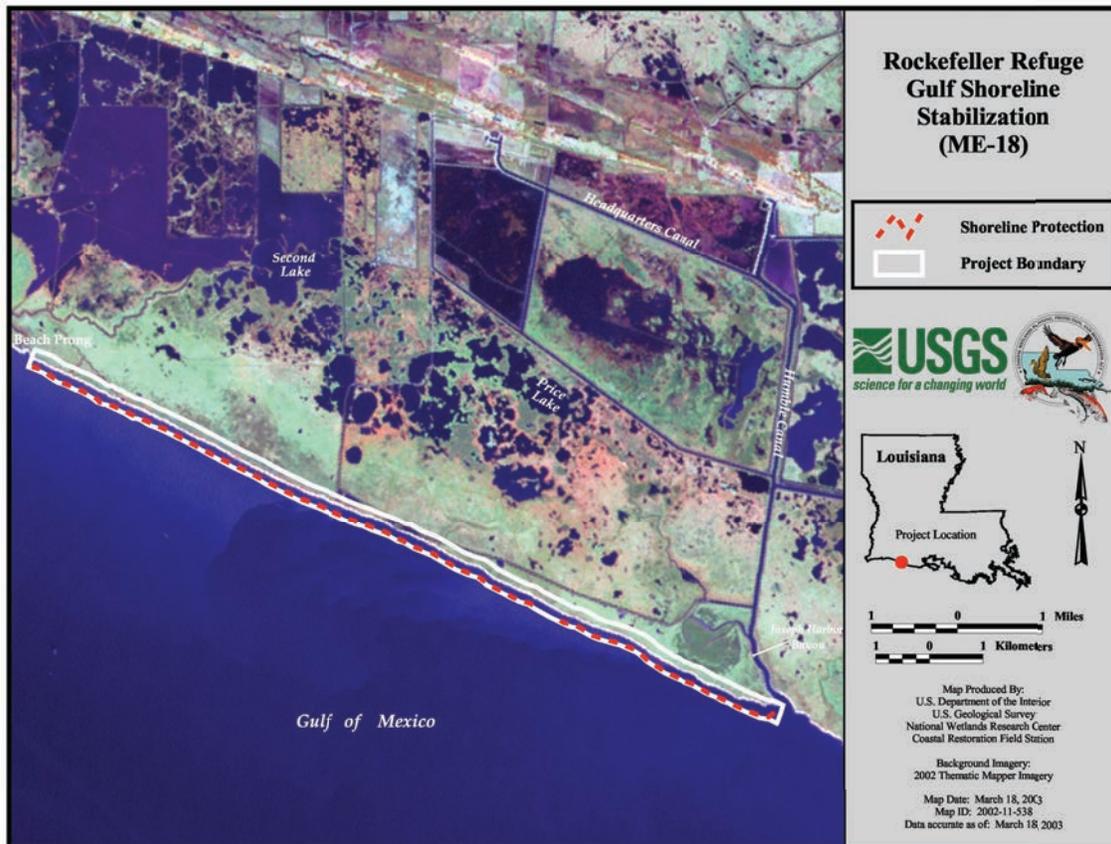
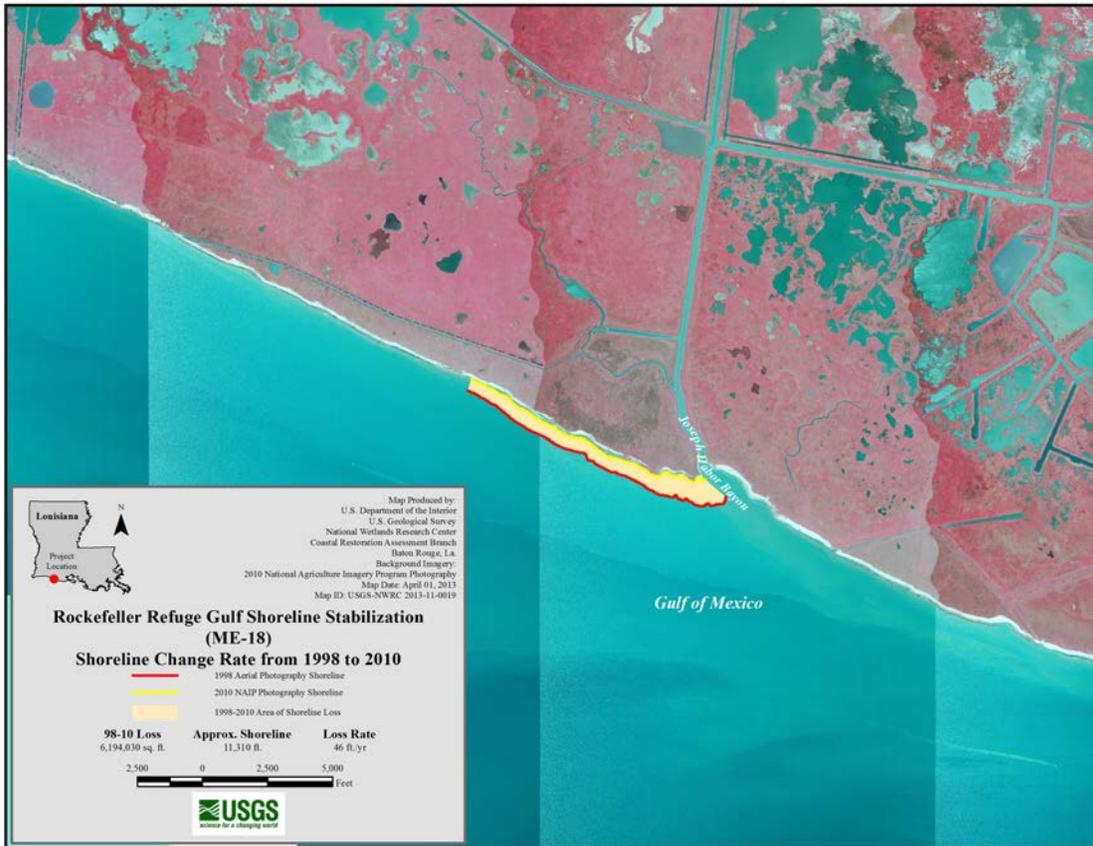


Figure 2: Current Rockefeller Gulf Shoreline Stabilization Project (ME-18).





Rockefeller Refuge Gulf Shoreline Stabilization (ME-18)

Project Status

Approved Date: 2001 **Project Area:** 1,373 acres
Approved Funds: \$2.40 M **Total Est. Cost:** \$96.4 M
Net Benefit After 20 Years: 920 acres
Status: Engineering and Design
Project Type: Shoreline Protection
PPL #: 10

Location

The project is located along the Rockefeller Wildlife Refuge Gulf of Mexico shoreline from Beach Prong to Joseph Harbor in Cameron Parish, Louisiana.

Problems

The project is designed to address Rockefeller Wildlife Refuge gulf shoreline retreat that averages approximately 39 feet/year with a subsequent direct loss of emergent saline marsh.

Restoration Strategy

The project entails construction of shoreline protection along the Gulf of Mexico. The proposed structure would be tied into the west bank of Joseph Harbor and the east bank of Beach Prong. It would be designed to reduce shoreline retreat along this stretch of gulf shoreline, as well as promote shallowing, settling out, and natural vegetative colonization of the overwash material landward of the proposed structure. Gaps within the shoreline protection feature are also proposed to facilitate material and organism linkages.

Progress to Date

The cooperative agreement between the National Marine Fisheries Service and the Louisiana Department of Natural Resources has been executed.

Construction feasibility report has been completed.

This project is listed on Priority Project List 10.



Existing beach formation at Rockefeller Wildlife Refuge gulf shoreline. Beach material is primarily made up of lightweight oyster shell fragments (hash).



An example of ongoing shoreline erosion on Rockefeller Wildlife Refuge. Dark areas in photo are remnant organic marsh.

For more project information, please contact:



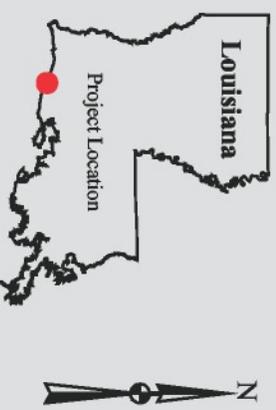
Federal Sponsor:
National Marine Fisheries Service
Baton Rouge, LA
(225) 389-0508



Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736

Rockefeller Refuge Gulf Shoreline Stabilization (ME-18)

 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: March 18, 2003
 Map ID: 2002-11-538
 Data accurate as of: March 18, 2003

Gulf of Mexico

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

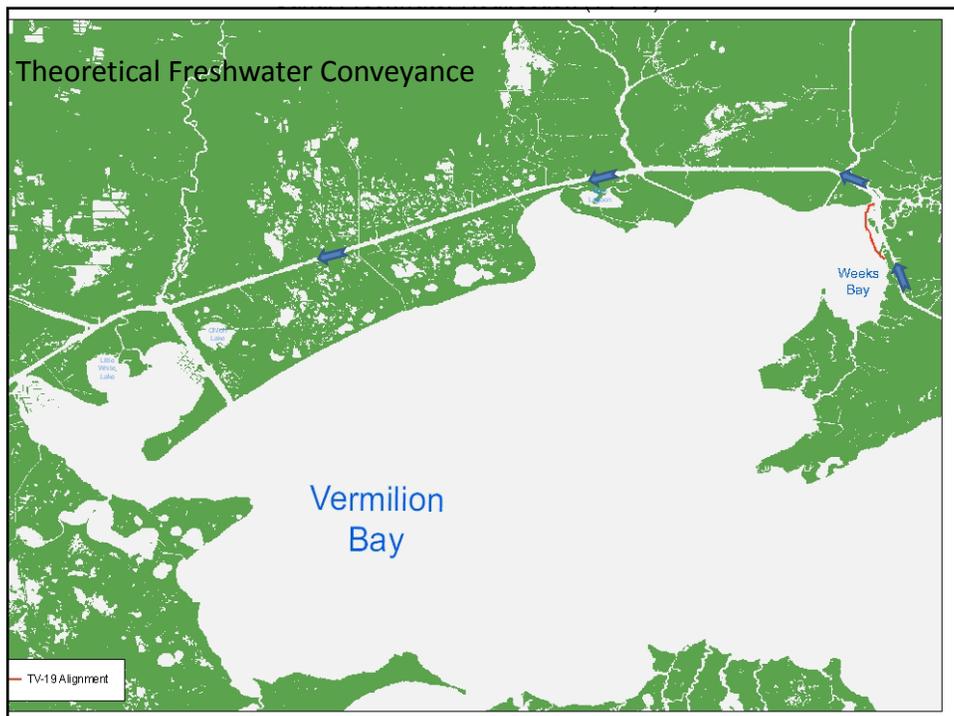
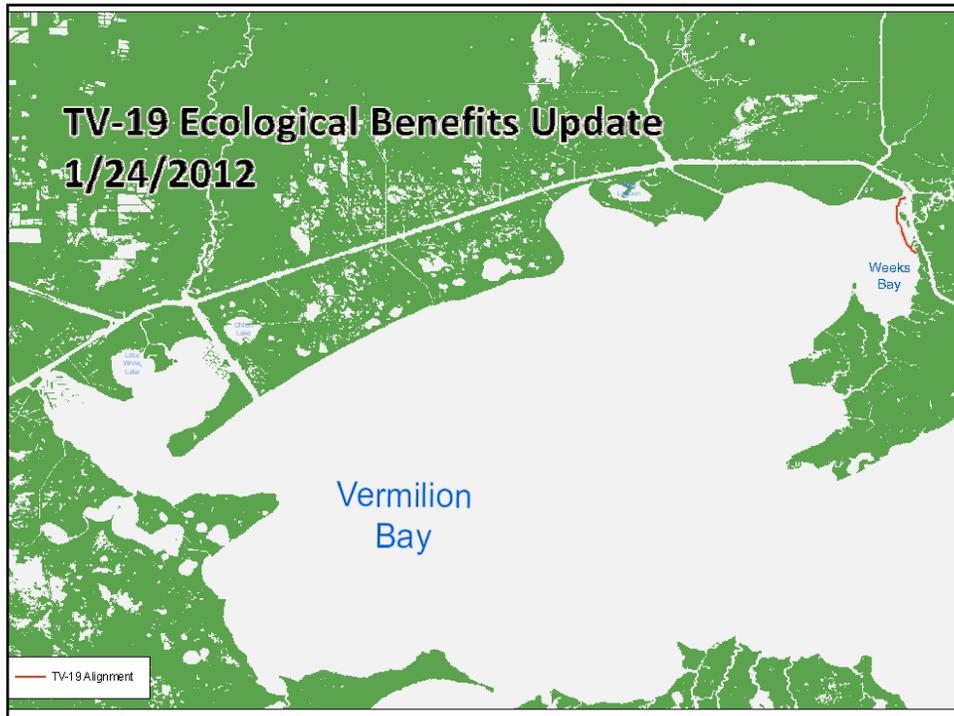
TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

**REQUEST FOR APPROVAL FOR FINAL DEAUTHORIZATION ON THE PPL 9 –
WEEKS BAY MARSH CREATION/SHORELINE PROTECTION/COMMERCIAL
CANAL/FRESHWATER REDIRECTION PROJECT (TV-19)**

For Decision:

The USACE and CPRA are requesting approval for final deauthorization procedures on the Weeks Bay Marsh Creation/Shoreline Protection/Commercial Canal/Freshwater Redirection project (TV-19). The Task Force voted to initiate deauthorization at the October 11, 2012 meeting, allowing the project team to give a presentation about the project changes at the January 24, 2013 meeting, and making a final decision at the June meeting. Mr. Stuart Brown will provide a presentation on Weeks Bay, followed by a presentation by Mr. Jeff Pena. The Technical Committee will vote on a recommendation to the Task Force to approve the final deauthorization of the Weeks Bay Project.

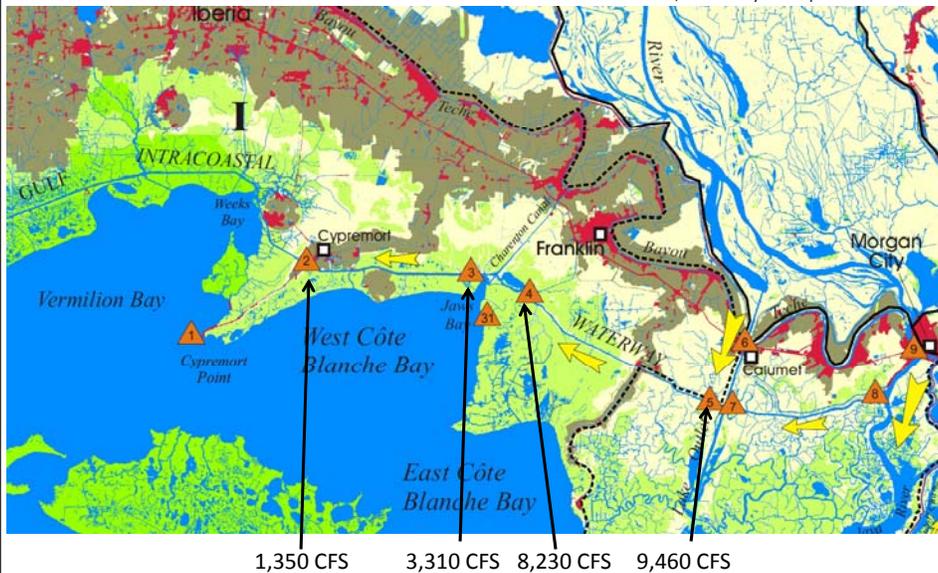


Current Proposed Alignment and Landloss 1998-2010

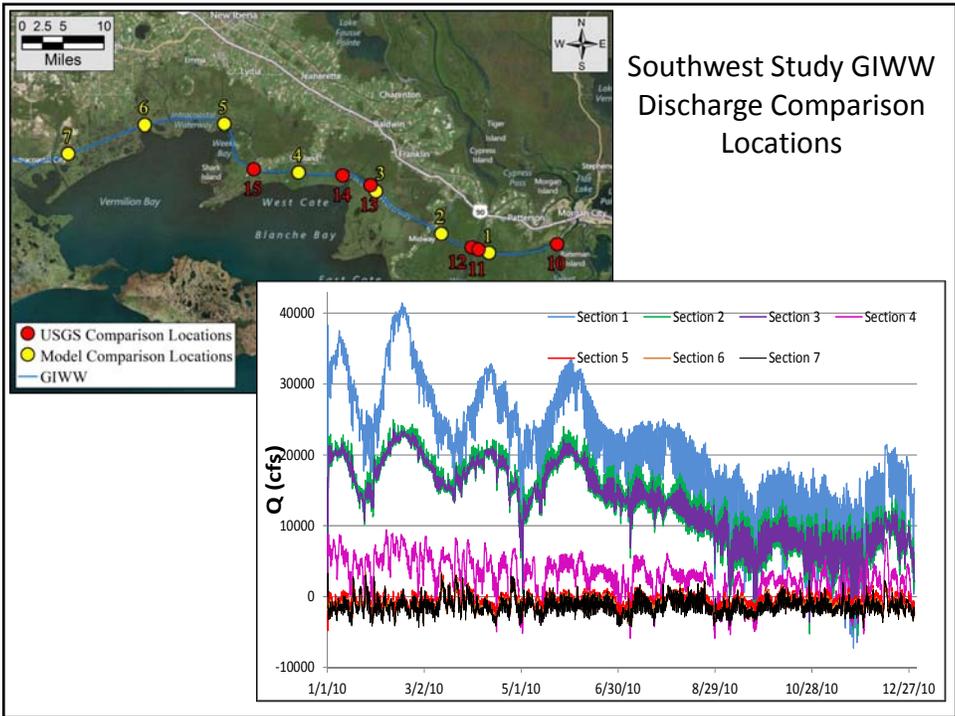
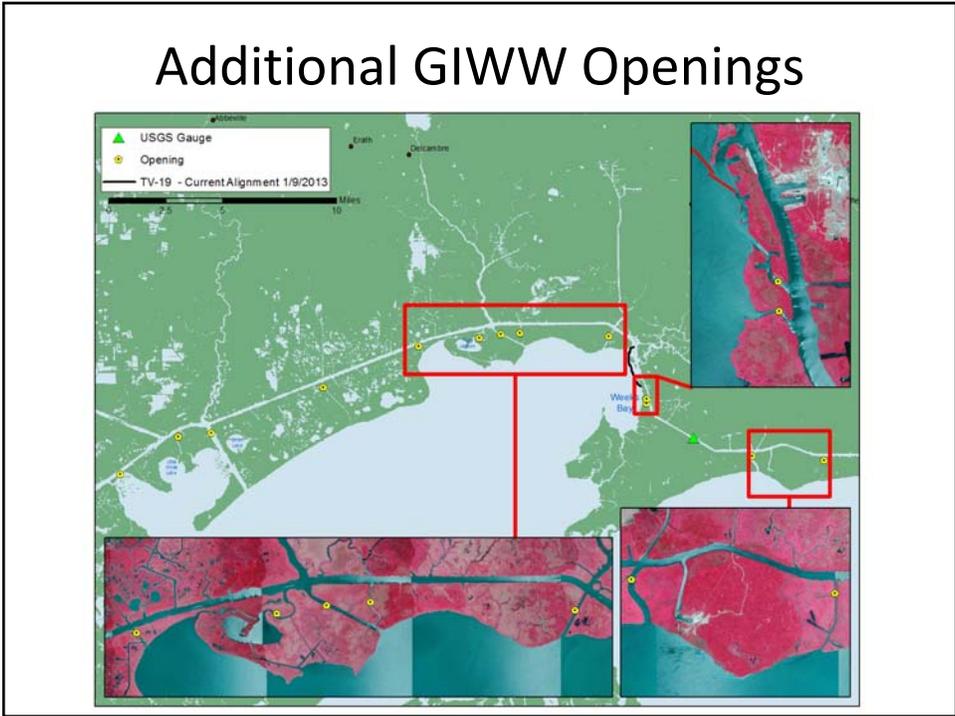


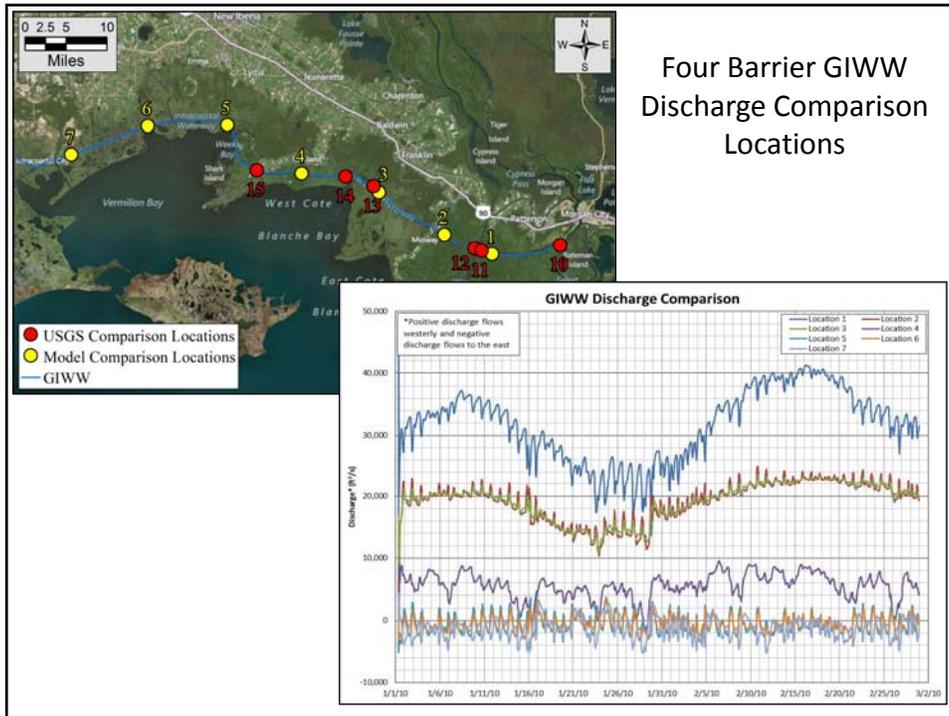
Average Instantaneous Discharge West

SURFACE-WATER HYDROLOGY OF THE GULF INTRACOASTAL WATERWAY IN SOUTH-CENTRAL LOUISIANA, 1996-99. By Christopher M. Swarzenski



Additional GIWW Openings





Four Barrier GIWW Discharge Comparison Locations

Questions?



WEEKS BAY/GIWW SHORELINE PROTECTION FEASIBILITY STUDY

Iberia Parish and Vermilion Parish CIAP

April 16, 2013



Weeks Bay/GIWW Shoreline Protection
Feasibility Study

Introduction

- ▶ Contracted by Iberia & Vermilion Parishes as part of a study through CIAP Grant.
- ▶ Land bridge separating GIWW and Weeks Bay has steadily suffered shoreline erosion and habitat shift
- ▶ Subject of numerous Federal and State studies
 - Shoreline erosion
 - Salinity change
- ▶ Previous studies have resulted in range of conclusions and a variety of proposed projects
- ▶ Purpose was to evaluate Prior Studies and New Alternatives to show viability of project

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CBI Weeks Bay/GIWW Shoreline Protection Feasibility Study

Design Alternatives

- ▶ Rock Dike
- ▶ Sheet Pile Wall
- ▶ Concrete Panel Wall



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CBI Weeks Bay/GIWW Shoreline Protection Feasibility Study

Concrete Panel Wall Example BA-27



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Weeks Bay/GIWW Shoreline Protection
Feasibility Study

Scope of Project

- ▶ “Re-Scope” from Shoreline Protection/Marsh Creation to Freshwater/Sediment Diversion, and Sediment Trap.
- ▶ Innovative Design
 - Similar in size and feasibility of prior project
 - Concrete Panel Wall on Weeks Bay Side
 - Project will work similar to shoreline restoration and freshwater diversion along GIWW

“The goal of the project is to provide a recommendation for the most efficient and effective alternative to maintain shoreline integrity, capture sediments, and stabilize critical areas of the actively eroding shoreline.”

4

Weeks Bay/GIWW Shoreline Protection
Feasibility Study

Proposed Alignment

5

CBI Weeks Bay/GIWW Shoreline Protection Feasibility Study

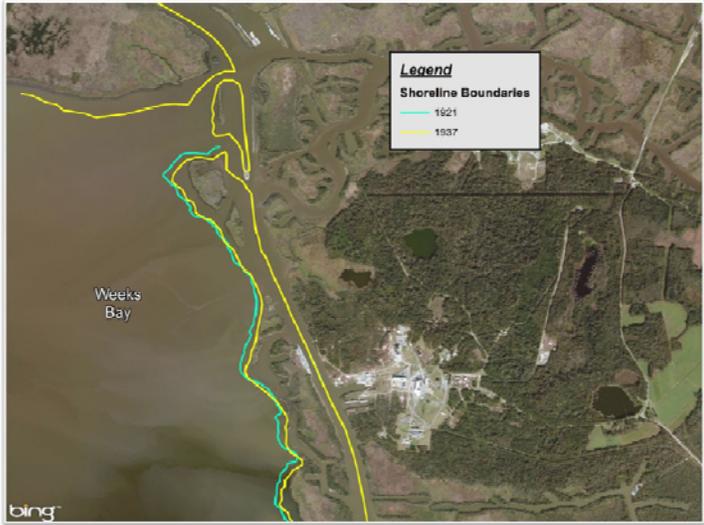
Potential Additional Benefits

- ▶ Atchafalaya River West flow historically contained in the GIWW instead of short circuiting to Weeks Bay
- ▶ With the project sediment, nutrients, and freshwater flow will move through GIWW into adjacent marshes.
- ▶ Potential opportunity to beneficially use Atchafalaya River flow to benefit Teche-Vermillion Basin
- ▶ Cost effective “diversion”

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CBI Weeks Bay/GIWW Shoreline Protection Feasibility Study

1921 and 1937 Shoreline Surveys



Weeks Bay

bing

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 Weeks Bay/GIWW Shoreline Protection
Feasibility Study

CWPPRA Model MIKE FLOOD

- ▶ “simulated durations on the order of 2-4 weeks only” – Why so short a duration? Assumptions made use Atchafalaya River Flow is over longer period.
- ▶ “This model cannot be used to accurately analyze restoration projects that rely heavily on seasonal patterns.”
- ▶ Model does show positive average flow (Westward flow)
- ▶ Is the 4 Closure Structure Project the best design? Are variations better?
- ▶ Atchafalaya River flow rate used in model does not appear to mimic natural rhythms similar to USGS.

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 Weeks Bay/GIWW Shoreline Protection
Feasibility Study

CWPPRA Model ADCIRC Model

- ▶ “Freshwater inputs are not included in the model” – Why even use the model if it doesn’t accurately reflect the system you are trying to model?
- ▶ Model uses 30 day tidal simulation.
- ▶ “ADCIRC Model... has not been developed for this specific application.”

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 Weeks Bay/GIWW Shoreline Protection
Feasibility Study

USGS Report Swarzenski

- ▶ Atchafalaya river over +2.5 feet – water and sediment is effectively distributed up to 50 miles away.
- ▶ A +2.5 ft stage at the Atchafalaya River shows significant water flow to the West and the Project area
- ▶ Atchafalaya River is above +2.5 ft and flowing West in the project area for 24 of 36 months (1997-1999) in the study or for 2/3 of the time

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 Weeks Bay/GIWW Shoreline Protection
Feasibility Study

USGS Conclusions

- ▶ “GIWW captures water from Atchafalaya River passively routes it east and west to points as far as 50 miles away.”
- ▶ “GIWW is introducing more River Water and suspended sediments to Delta Plain Marshes at no cost than the largest man-built controlled river diversions”
- ▶ “Irony is that a ship channel built in 1933 has become the largest distributary of river water to marshes other than active deltas”

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CBI Weeks Bay/GIWW Shoreline Protection Feasibility Study

Conclusion

- ▶ Continue to Research and Develop Project Benefits.
- ▶ Project fits in with 2012 Coastal Master Plan - Shoreline Protection, Bank Stabilization, and Conveyance Channel
- ▶ Potentially Re-scope with freshwater transport benefit
- ▶ Allow for consideration of secondary benefits
 - Navigation
 - Potential future marsh creation site
 - Protection of valuable infrastructure (weeks island)
 - Salinity Benefits

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CBI

WEEKS BAY/GIWW SHORELINE PROTECTION FEASIBILITY STUDY

Iberia Parish and Vermilion Parish CIAP

April 16, 2013



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MEMORANDUM

TO: CWPPRA Technical Committee
CWPPRA Planning and Evaluation Subcommittee

CC: CB&I, c/o Glenn Ledet
Vermilion Corporation, c/o WP Edwards
Scott Wandell, USACE

FROM: Stuart Brown, CPRA

DATE: March 26, 2013

ATTACHMENTS:

- (1) GIWW DISCHARGE SUMMARY - This memo, prepared by Fenstermaker, discusses discharge studies along the GIWW from several sources: USGS and three circulation models, two of which are MIKE FLOOD based and the third which is ADCIRC based.

SUBJECT: Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Redirection (TV-19) – Ecological Benefits.

Introduction:

Originally proposed by NRCS, TV-19 received Phase 1 funding in 1999 (PPL 9). It had an estimated cost of \$15M and featured marsh creation, shoreline protection features and a fixed crest weir in Weeks Bayou. In 2000 the project was transferred to the Army Corps of Engineers because of an existing planning effort in the area. Oil and gas pipelines and water depths drove up the costs of shoreline protection and marsh creation. In 2001 the Corps conducted a "Value Engineering Study" looking at a wide range of potential alternatives, which estimated the project cost at over \$50M. The project was suspended due to a lack of environmental benefits to justify the cost.

In 2009, the Planning and Evaluation Subcommittee recommended deauthorization. At their April 2009 meeting, the Technical Committee agreed to grant the project a one-year extension while Vermilion and Iberia Parishes commissioned their own feasibility study using parish CIAP money. In August 2011, CB&I (formerly Shaw) completed their feasibility study. The study recommended constructing a concrete panel wall on the bay side of the remnant marsh between Weeks Bay and the GIWW for ~\$10M. After the feasibility study was reviewed by CPRA and the Corps of Engineers, the Technical Committee moved to deauthorize the project In December 2011 based on the unfavorable benefit:cost ratio. At the January 2012 Task Force meeting the Task Force did not vote on this.

In 2012 the Planning and Engineering Subcommittee again recommended deauthorization. The Technical Committee and Task Force initiated deauthorization under the condition that the local and federal sponsors look into the potential benefits that could be gained from limiting the amount of freshwater leaving the GIWW at Weeks Bay.

Ecological Benefits:

TV-19 has had a number of different designs and goals over its life in CWPPRA. Pipeline concerns and water depths made marsh creation in the area exceedingly expensive. In 2011 CB&I redesigned the project as a shoreline protection project utilizing concrete panels similar to those used in the Barataria Landbridge project (BA-27). As the project is currently designed, it would protect/preserve between 15 and 20 acres of wetland over the 20-year life of the project.

At the October 2012 Task Force meeting, the project sponsors were asked to evaluate the benefits that this project might have as a hydrologic restoration project. The theory being that by necking down the opening at Weeks Bay, water in the GIWW would continue westward benefiting those wetlands. Calculating benefits for a hydrologic restoration typically requires a defined receiving area and a specific input (mean flow). Defining a receiving area for this project would require extensive surveying of the GIWW and/or many assumptions. Our first task is to try to predict how much additional water could be conveyed to the west with the partial closure of the Weeks Bay opening.

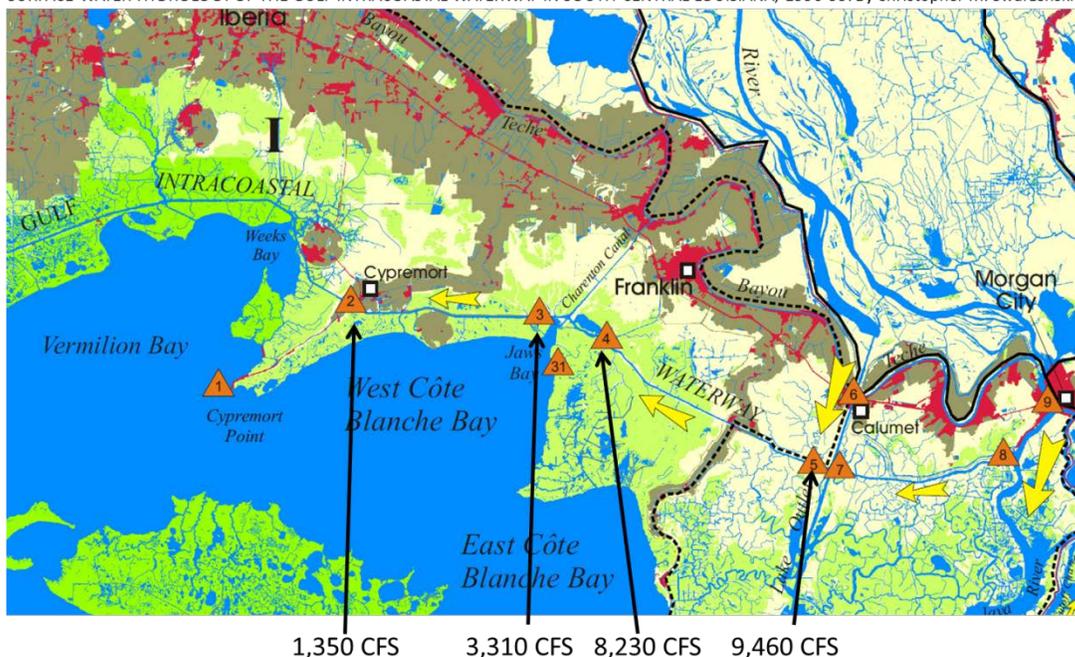
A USGS Professional Paper (Swarzenski, 2003) identified flow regimes in the GIWW from its intersection the Wax Lake Outlet (WLO) westward to the LA-319 bridge near Cypremort, about 3.3 miles southeast of the TV-19 project area. The study showed that on average over 85% of the measured discharge just west of WLO is lost before reaching the Cypremort gauge through canals, bayous, and other openings between the GIWW and Cote Blanche Bay. At Cypremort the USGS report showed bidirectional flow, with a mean discharge to the west of 1,350 CFS. Modeling conducted by Fenstermaker using the Southwest Coastal model found similar flow regimes. (See Attached memo).

Current Proposed Alignment and Landloss 1998-2010



Average Instantaneous Discharge West

SURFACE-WATER HYDROLOGY OF THE GULF INTRACOASTAL WATERWAY IN SOUTH-CENTRAL LOUISIANA, 1996-99. By Christopher M. Swarzenski



Modeling - Concurrent with the deauthorization procedures, CPRA was modeling the “Four-Closures” project in the same area (See attached report). The Four Closures project features the complete closure of the opening at Weeks Bay, as well as the closures of Delcambre-Avery Canal, Oaks Canal, Boston Canal, and Vermillion River south of the GIWW. We had hoped that this modeling would serve as a surrogate for the TV-19 project. However, because this effort did not specifically model the alignment proposed for TV-19, there is still some uncertainty as to whether we can project the changes in salinity and flow regimes that we found in the Four Closures model to the TV-19 project.

Fenstermaker did, however, provide us with a summary of discharge information for the GIWW, gathered from the USGS report (cited above), and three circulation models, two of which are MIKE FLOOD-based and a third which is ADCIRC-based (see attached “GIWW DISCHARGE SUMMARY” memo). The models confirm the trends shown in the USGS report: that the magnitude of flows in the GIWW west of Wax Lake Outlet decreases by over 85% before reaching the gage near Cypremort. The models also showed that west of the Weeks Bay opening, GIWW flows were bidirectional with a small net mean flow to the east (Figure 3 in the “GIWW DISCHARGE SUMMARY” memo) .

Conclusion - The evidence indicates that it is very unlikely that the TV-19 project alone would significantly increase GIWW flows to the west. Measured discharges from the USGS Study and modeling conducted by Fenstermaker and ULL show that the vast majority of Atchafalaya water captured by the GIWW is lost before it reaches Weeks Bay. In the GIWW west of Weeks Bay the discharge is heavily influenced by tidal movements. The flow is bidirectional with a small net movement to the east. The construction of TV-19 could result in localized salinity changes in the vicinity of the project, but it is highly unlikely that the project will significantly increase the fresh water delivery to the wetlands north and west of Vermilion Bay.

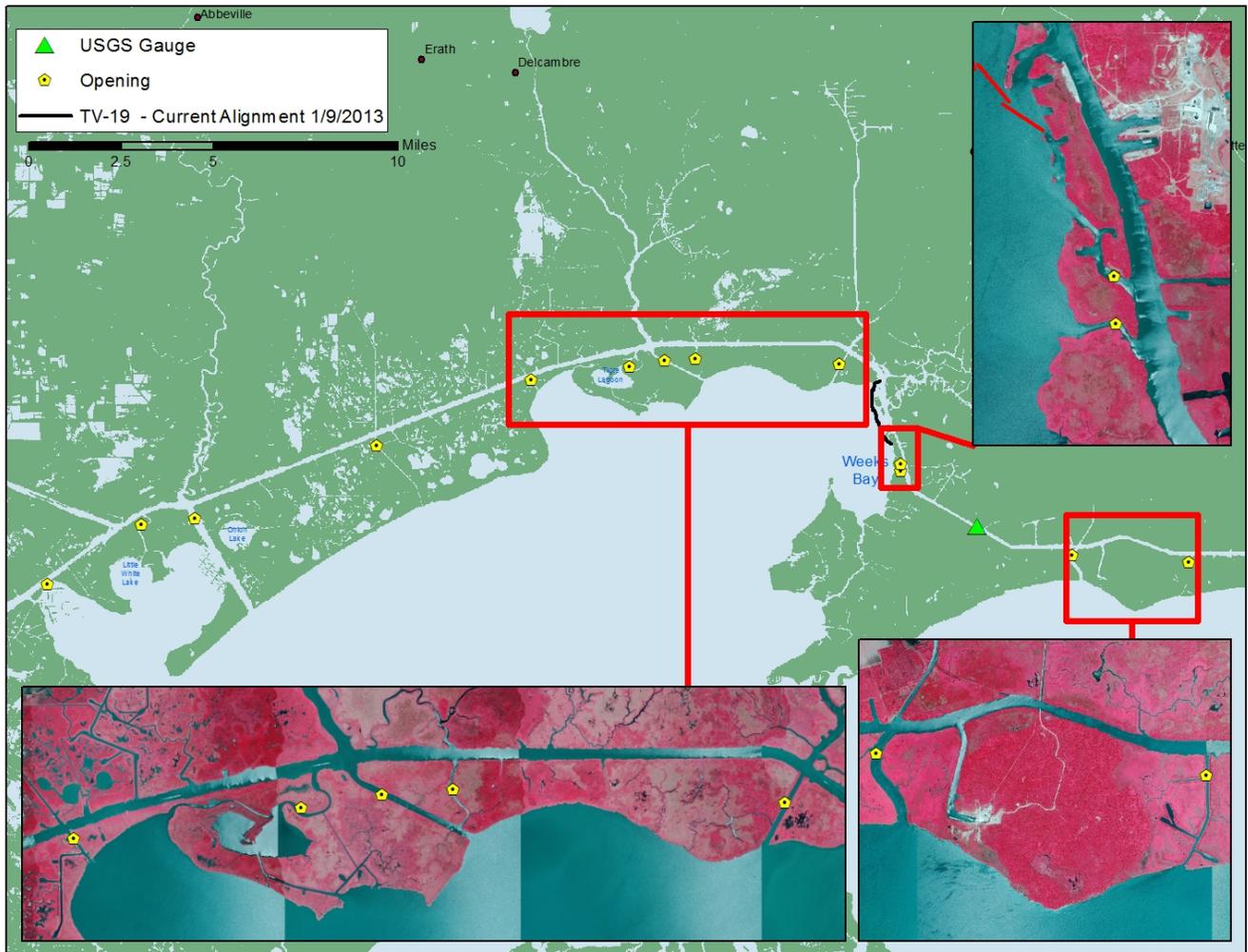
Works Cited

Swarzenski, Christopher; 2003. Surface-Water Hydrology of the Gulf Intracoastal Waterway in South-Central Louisiana, 1996-99. U.S. Geological Survey Professional Paper 1672

<http://pubs.usgs.gov/pp/pp1672/pdf/pp1672.pdf>

Additional Figures:

Figure 1 - Additional openings between the GIWW and open bays.



GIWW DISCHARGE SUMMARY

This memo discusses discharge studies along the GIWW from several sources: USGS and three circulation models, two of which are MIKE FLOOD based and the third which is ADCIRC based. The following figures and discussion show similar trends were identified with the field observations (USGS) and the models results.

Several points were selected to understand the spatial variations of the discharge (flow rate) along the GIWW reach between Morgan City and Intracoastal City (Figure 1). The USGS measurements (points 10 through 15) are shown in red in Figure 1. The USGS collected discharge measurements 13 to 18 times at each location over three years from 1997 through 1999 (Table 1). Seven MIKE FLOOD and ADCIRC model locations (points 1 through 7) are shown in yellow in Figure 1. The results at these locations are provided by circulation models from two separate studies (the Southwest Coastal Louisiana Study and the Four Barrier Study). MIKE FLOOD was simulated for both studies. ADCIRC results are from 30 day tidal simulations as part of the Southwest Coastal Louisiana Study. The hourly time series flow hydrographs from the two MIKE FLOOD studies are shown in Figures 2 and 3.

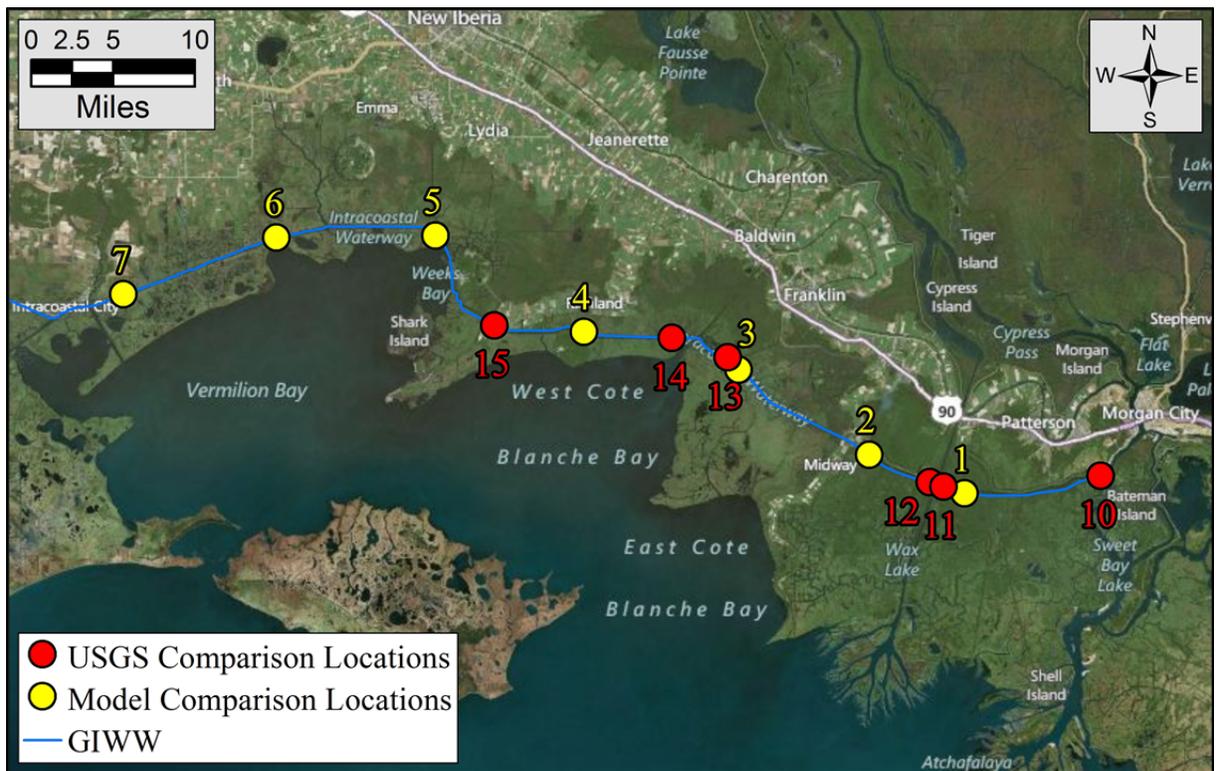


Figure 1: GIWW Comparison Locations

Table 1, Figure 2, and Figure 3 all assume a positive flow to be from east to west and negative flow to be from west to east. The USGS field observations (Table 1) shows a clear trend that the GIWW flows from east to west at points 10 through 14. Point 15 indicates a bi-directional flow with a bias towards east-to-west discharge.

The MIKE FLOOD model results shown in Figures 2 and 3 show similar trends to the USGS observations despite the fact that they are for a different time period and a shorter duration. Before discussing the models results, it should be noted that the Southwest Coastal Louisiana Study circulation model was used to perform simulations lasting 12 months. The trends shown in Figure 2 were for the calendar year of 2010. The Four Barrier circulation model was used to analyze internal drainage patterns for short-duration rainfall events. As such, it simulated durations on the order of 2 to 4 weeks only. The results of the Four Barrier model are shown in Figure 3. This model cannot accurately be used to analyze restoration projects that heavily rely on seasonal patterns.

Overall, similar to the USGS observations, both MIKE FLOOD models show that the GIWW flows consistently from east to west (yellow points 1 through 4). Also consistent with the USGS observations, the magnitude of the flow diminishes from east to west as shown in Figure 2 and Figure 3.

Table 1: USGS Comparison Locations

| Location | # of Measurements (1997-1999) | Maximum Discharge (cfs) | Mean Discharge (cfs) | Minimum Discharge (cfs) |
|-----------------|--------------------------------------|--------------------------------|-----------------------------|--------------------------------|
| 10 | 13 | 35,200 | 13,400 | 3,910 |
| 11 | 18 | 16,200 | 9,230 | 4,430 |
| 12 | 16 | 20,300 | 9,460 | 2,050 |
| 13 | 18 | 17,000 | 8,230 | 3,560 |
| 14 | 18 | 10,200 | 3,310 | 1,000 |
| 15 | 17 | 4,830 | 1,350 | -2,830 |

The USGS study and the circulation models both show large westerly discharges near Morgan City and Wax Lake Outlet which tend to decrease as distance from the Atchafalaya River increases. The GIWW–Jaws Bay opening near Charenton Canal shows an approximate 60% loss in discharge (see USGS locations 13 & 14 in Table 1 and circulation model locations 3 & 4 in Figure 2 and 3). Farther east near Cypremort, discharge in the GIWW becomes bi-directional. USGS location 15 and model locations 5, 6 and 7 indicate flow between West Cote Blanche Bay and Intracoastal City is bi-directional.

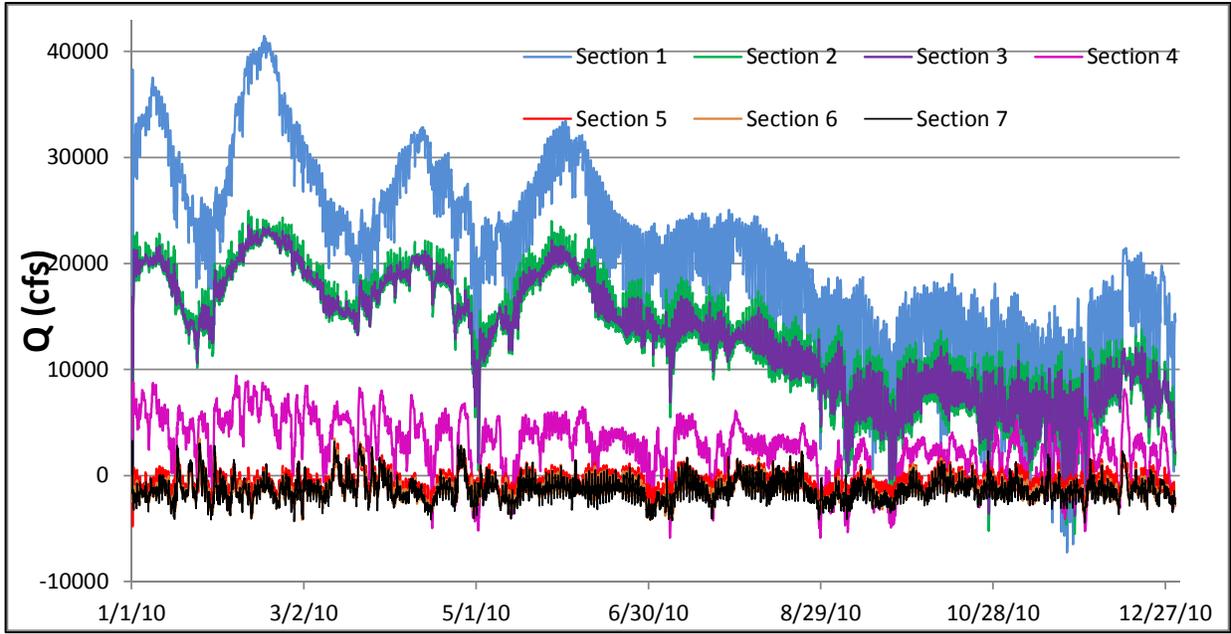


Figure 2: Southwest Study GIWW Discharge Comparison Locations

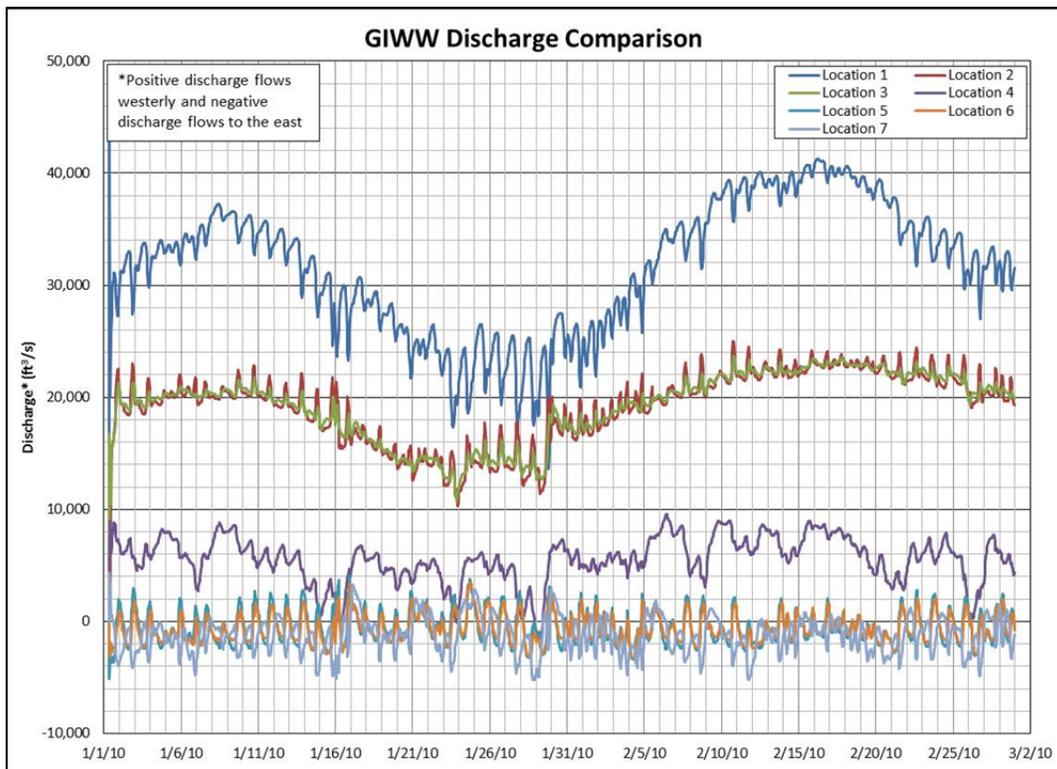


Figure 3: Four Barrier GIWW Discharge Comparison Locations

The ADCIRC model simulations are primarily driven by tidal forcing in the North Atlantic and Gulf of Mexico. Freshwater inputs are not included in the model, with the exception of flows in the Atchafalaya and Mississippi Rivers. Therefore, ADCIRC outputs for the Southwest Coastal Louisiana analysis account for flows in the GIWW north of Vermillion Bay which are driven by tides and the seasonal flow rate in the Atchafalaya River.

Figure 4 and Figure 5 shows a water surface elevation time series at the seven locations shown in Figure 1 for January 2012. Figure 4 shows the entire month of January 2012, while Figure 5 shows January 1 to January 3, 2012. Figure 6 shows a time series from September 1 to September 3, 2012. Similar to the MIKE FLOOD model results, ADCIRC outputs show a few consistent trends. First, locations 1 through 4 generally result in a flow from east to west. This is more pronounced in January than September, due to the higher flow rates in the Atchafalaya River at that time of year. Note, flow rates along the GIWW are not quantified, but the direction can be assumed based on head differential demonstrated in the water surface elevation time series (e.g. at a given point in time flows are from the location with the higher elevation to the location of lower elevation). Additionally, model locations 5, 6 and 7 indicate flow between West Cote Blanche Bay and Intracoastal City is bi-directional depending on the phasing of the tides.

It should be noted that the ADCIRC model for the Southwest Coastal Louisiana Study is a statewide model that has not been developed for this specific application. In order to further investigate flows in this stretch of the GIWW, the model should be more highly refined, particularly between locations 1 and 5, in order to more accurately account for flows exiting the GIWW.

In conclusion, the USGS study and the circulation models showed similar GIWW discharge trends between Morgan City and Intracoastal City. Discharge generally was largest in magnitude (from east to west) at Morgan City and diminished as the GIWW flows to the west. Bi-directional discharge became apparent between West Cote Blanche Bay and Intracoastal City.

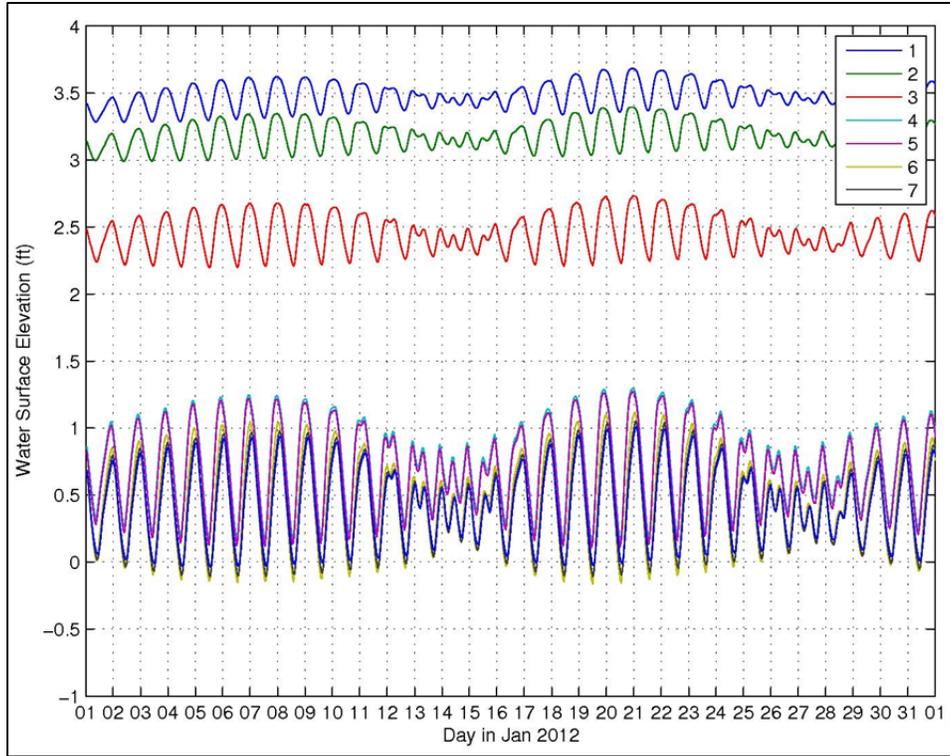


Figure 4: ADCIRC Southwest Study Water Surface Elevation for January 2012 (ft-NAVD88)

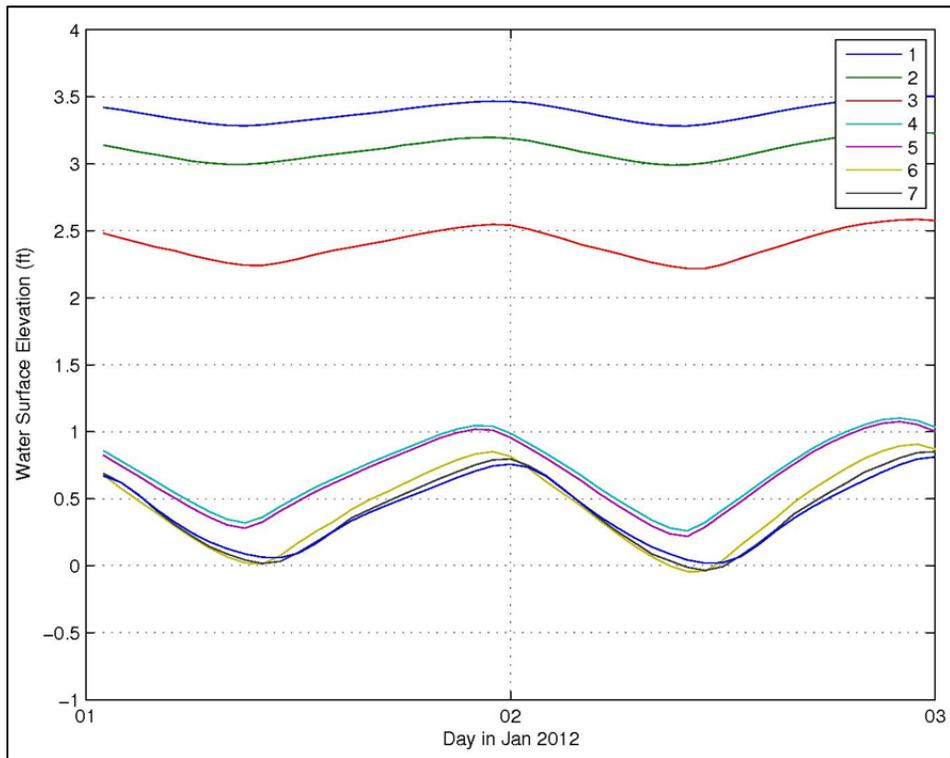


Figure 5: ADCIRC Southwest Study Water Surface Elevation for January 1-3, 2012 (ft-NAVD88)

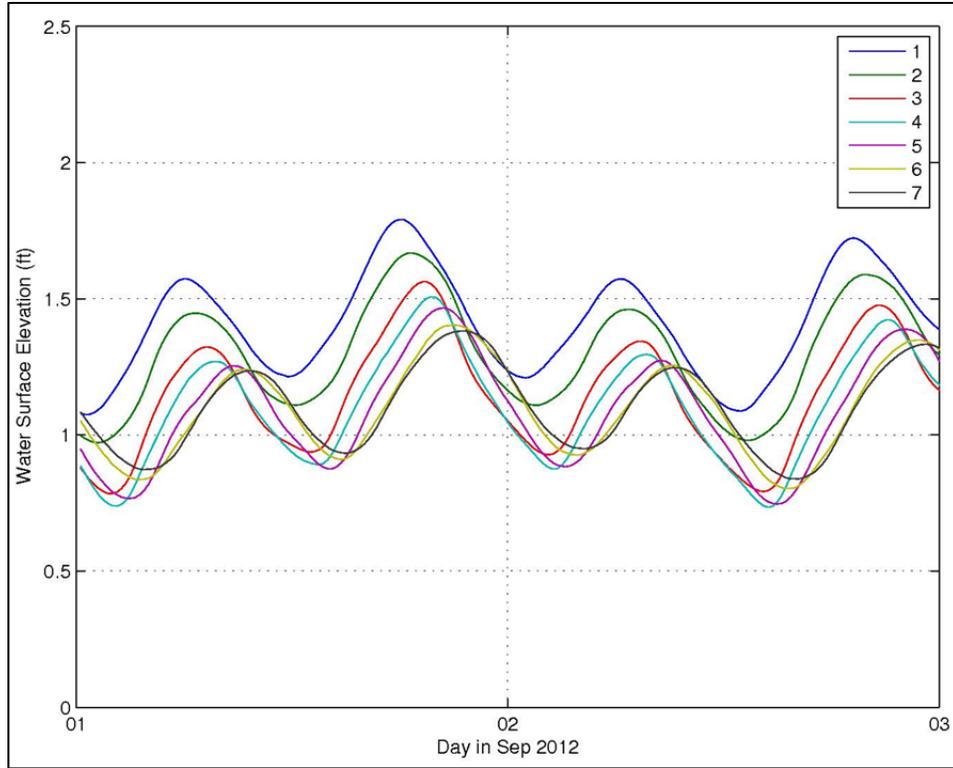


Figure 6: ADCIRC Southwest Study Water Surface Elevation for September 1-3, 2012 (ft-NAVD88)



Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Redirection (TV-19)

Project Status

Approved Date: 2000 **Project Area:** 0 acres
Approved Funds: \$1.22 M **Total Est. Cost:** \$30.0 M
Net Benefit After 20 Years: 278 acres
Status: Engineering and Design
Project Type: Marsh Creation and Shoreline Protection
PPL #: 9

Location

This project is located in Iberia Parish, Louisiana, in the northeastern area of Vermilion and Weeks Bays.

Problems

Shoreline and bank erosion is occurring within this area as a result of heavy wind and wake activity. Openings along the shoreline, along with the dredging of Commercial Canal, have resulted in increased tidal energy and adverse saltwater intrusion into interior wetlands. These openings also prevent the Atchafalaya River's sediment-laden fresh water from reaching marshes within the western portion of the Teche/Vermilion Basin.

Restoration Strategy

Project components will include constructing retention levees, dedicating placement of dredged material, re-vegetating critical areas along the north shoreline, and armoring shore and bank areas.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design. Vibracore soil samples have been taken in the project area to verify foundation conditions. Initial review of these samples confirms that the bearing capacity of the bay bottom is very limited. Hydrographic surveys are currently underway to support hydrologic circulation modeling and design studies.

This project is on Priority Project List 9.



Weeks Island and Commercial Canal, the North-South waterway in upper left corner, are shown on infrared.



Shoreline and bank erosion occurring in Weeks Bay between Mud Point and Weeks Island.

For more project information, please contact:



Federal Sponsor:
U.S. Army Corps of Engineers
New Orleans, LA
(504) 862-1597

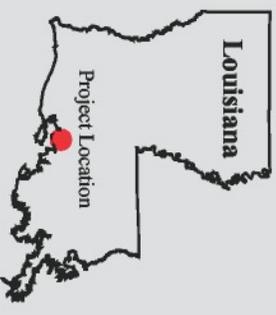


Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736



**Weeks Bay
Marsh Creation and
Shoreline Protection/
Commercial Canal
Freshwater Redirection
(TV-19)**

 **Project Boundary**

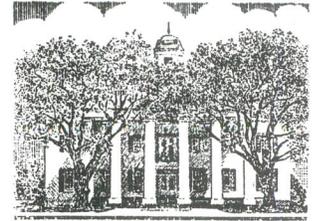


Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
2002 Thematic Mapper Imagery
Map Date: August 25, 2003
Map ID: USGS-NWRC 2003-11-068
Data accurate as of: March 27, 2003



→ Turner



VERMILION PARISH POLICE JURY
Courthouse Bldg.
100 N. State St., Suite 200
Abbeville, Louisiana 70510

NATHAN GRANGER
PRESIDENT

RONALD MENARD
VICE PRESIDENT

LINDA DUHON
PARISH ADMINISTRATOR

337-898-4300
FAX 337-898-4310

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DISTRICT 13
SANDRUS STELLY

DISTRICT 14
LEON BROUSSARD

March 21, 2013

TRK 3-26-13

Mr. Thomas A. Holden, Chairman CWPPRA Technical Committee
Deputy District Engineer
U.S. ARMY-CORPS OF ENGINEERS
New Orleans District
P. O. Box 60267
New Orleans, LA 70160-0267

Re: Weeks Bay Marsh Creation & Shore Protection Commercial Canal Freshwater
Redirection Project (TV-19) De-authorization

Dear Mr. Holden:

It has been brought to the Police Jury's attention that the Corps of Engineers and Department of Natural Resources are considering the de-authorization of the Weeks Bay Marsh Creation & Shore Protection Commercial Canal Freshwater.

Please allow this correspondence to serve as the Police Jury expresses its opposition of the de-authorization of the Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Project (TV-19) CWPPRA Project, and furthermore, acknowledges the negative impact on a significant source of freshwater to Vermilion Parish.

Thanking you for time and consideration in this matter, I remain.

Very Truly Yours,

Linda Duhon
Parish Administrator

LLD/kav

cc: Senator David Vitter
Senator Mary Landrieu
Congressman Charles Boustany
Senator Jonathan Perry
Representative Simone Champagne
Representative Nancy Landry

Received By
CEMVN-EX
US Army Corps of Engineers
New Orleans District

MAR 25 2013

MEMORANDUM FOR C/PM-P, Brad Inman, CWPPRA

SUBJECT: Fiscal Year (FY) 2014 Operations Environmental Dredging Conference

1. The Operations Division, Technical Support Branch, is hosting an interagency meeting on 2 May 2013 to discuss maintenance dredging scheduled for FY 14. The meeting will be held in the District Assembly Room and will begin at 9:00 a.m.
2. This meeting is intended to review scheduled dredging for FY 14 to ascertain Federal and state agencies, regulatory and environmental concerns and interests. A copy of the FY 14 dredging schedule is attached.
3. Please provide a list of conference attendees no later than 19 April 2013. Your representatives should be prepared to become a part of a Project Delivery Team that will review proposed FY 14 maintenance dredging projects, attend onsite inspection for the projects, and attend any other meetings relative to planning the scheduled projects. All team members from your division are requested to provide written comments and/or recommendations for modifications of project plans to OD-T no later than 5 July 2012. Additional information about the site inspections will be provided at the conference.
4. Point of contact for this matter is Melissa Hightower at ext. 1738.

Attachment



Edward D. Creef
Chief, Environmental Function

January 23, 2013

To: CPRA Task Force Members

From: Iberia Parish Levee, Hurricane, and Conservation District (IBLHCD)

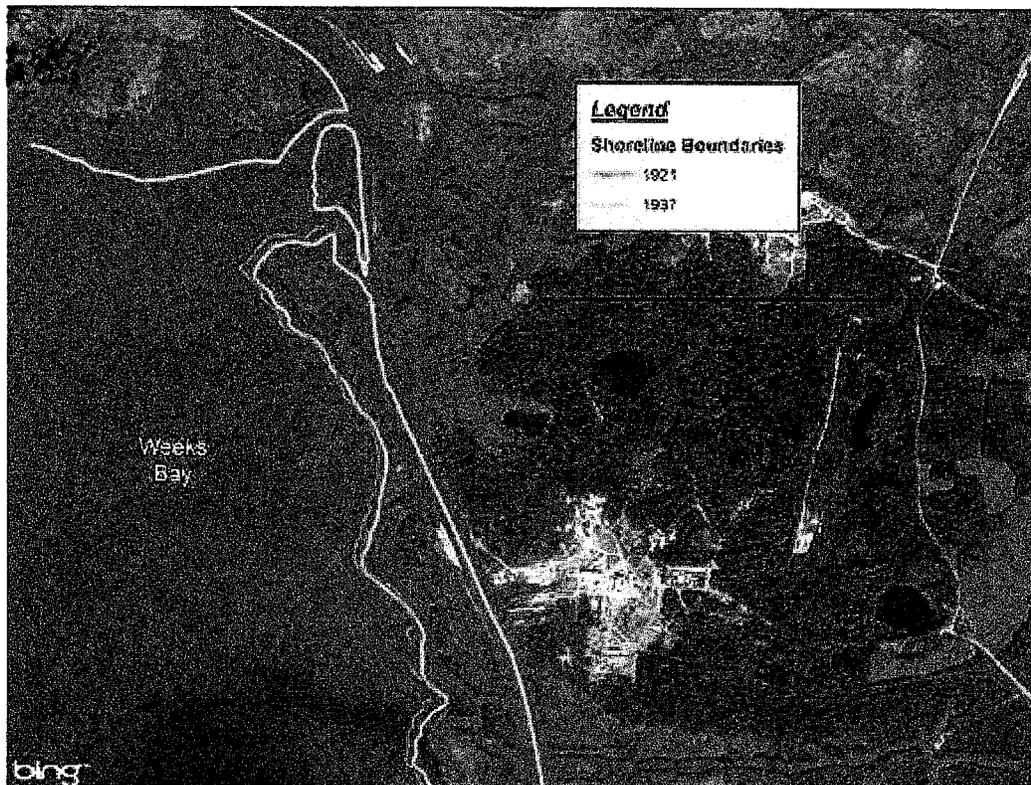
**Subject: Review of Weeks Bay Mesehle Computer Model Comments
Proposed Weeks Bay Project Iberia Parish**

Please be advised the Iberia Parish Levee, Hurricane, and Conservation District have reviewed the Draft report and information presented which indicates that there is not much opportunity to move freshwater westward thru the GIWW from the Wax Lake Outlet. The IBLHCD does not believe that the information as presented reflects accurately the opportunities of the westward flow thru the GIWW from the Wax Lake Outlet especially during the high river events that usually occur during the spring and early summer. Historic Aerial photography of the Wax Lake Outlet, clearly indicates that sediment laden river water is flowing westward thru the GIWW during high river stages. We understand that this model was being done to improve the Proposed Week Bay Project Benefits. We believe that these benefits still exist.

The IBLHCD believes that the Week Bay Project as proposed offers the following benefits.

- **With the project** - sediment, nutrients, and freshwater flow will move through GIWW into Adjacent marshes.
- **With the project**- there is potential opportunity to beneficially use Atchafalaya River flow to benefit Teche-Vermilion Basin which is currently experiencing increase inland tidal amplitudes and inland salinity increases.
- **With the project**- the closure of the breach along the GIWW will help slow the tidal movement into the marshes directly north of the existing breaches. Currently the eastern part of Iberia Parish is experience increase tidal amplitudes in the inland drainage a channel causing Inland area's to flood without rainfall.
- **With the Project**-The GIWW will become a Cost effective "diversion" into St Mary Iberia and Vermilion Parishes.
- **With the Project**- Because the Vermilion Bay West Cote Blanche Bay complex has had its hydrology altered dramatically because of manmade dredging events which have removed the reef complex which once existed from Point Chevruel to Marsh Island, which has in turned increased the tidal energy throughout the Bay complex, and the surrounding marshes have experienced increased tidal amplitudes which become very evident in the event of prolonged south Easterly wind events and Inland Area's have seen increased tidal amplitudes which are causing inland area's to flood because of tides. The closure of breaches in the Weeks Bay area

will slow tidal movement into the marshes north of Weeks Island thus reducing the Tidal amplitudes in the marshes and inland area's in East Iberia Parish.



USGS Professional Paper 1672:

- By Christopher Swarzenski
- Study focused the effect of GIWW at transporting Atchafalaya River Water and Sediment East and West
- “the GIWW effectively distributes freshwater and sediment from the Lower Atchafalaya River and Wax Lake Outlet to points into Coastal LA 30-50 miles east and west of Morgan City”
- “The freshwater and sediments, some of which originate indirectly from the Mississippi River, are the building blocks for wetlands and could prove valuable in ongoing efforts to restore coastal Louisiana.”
- The Weeks Bay project could have the ability to effectively increase sediment and water flow West along GIWW

Conclusion:

- Project fits in with 2012 Coastal Master Plan - Shoreline Protection, Bank Stabilization, and Conveyance Channel
- Potentially Re-scope with freshwater transport benefit
- Allow for consideration of secondary benefits
 - ❖ Navigation
 - ❖ Potential future marsh creation site
 - ❖ Protection of valuable infrastructure (weeks island)
 - ❖ Salinity Benefits
 - ❖ Buffer the tidal amplitudes in the Eastern part of Iberia Parish

The IBLHCD would like to see the imputed model data used in this report. In addition the IBLHCD would appreciate being advised of such studies in the future. Although this board is fairly new we intend to be very active in ongoing and future planning with all projects that affect coastal Iberia Parish.

Thanks,

Benson J Langlinais

Vice Chairman

Iberia Parish Levee, Hurricane, and Conservation District

PORT OF IBERIA

The Gulf Coast Cajun Connection

PORT COMMISSION:

Gene L. Jefferies
President
Mark T. Doré
Vice-President
Michael Resweber
Secretary-Treasurer

Danny J. David, Sr.
Board Member
Larry G. Rader
Board Member
Millie Martinez
Board Member
Frank C. Minvielle
Board Member
Joanna D. Durke
Administrative Assistant

March 4, 2013

Mr. Thomas A. Holden, Chairman CWPPRA Technical Committee
Deputy District Engineer
U.S. Army Engineer District, New Orleans
Office of the Chief
Post Office Box 60267
New Orleans, LA 70160-0267

Re: Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Redirection Project (TV-19) De-authorization

Dear Mr. Holden,

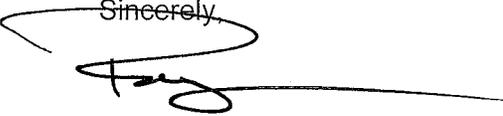
I attended the December 12, 2012 Technical Committee Meeting because the Port of Iberia (Port) is interested in the above referenced project. I understand a final decision on de-authorization will be made at the June 2013 Task Force Meeting.

Restoring the land bridge separating the GIWW and Weeks Bay is a project that has been of interest to the Port for a number of years. The existing condition of the project site has a negative impact on GIWW navigation and allows for salt water intrusion into our interior marshes. It is also a future marsh creation site for the spoil generated by the AGMAC channel deepening project.

Because of the aforementioned, please accept and enter into your record the enclosed extract of a regular meeting of the Port of Iberia District Board of Commissioners held on December 18, 2012, expressing its opposition to the de-authorization of the referenced project.

Thank you for the opportunity to enter this document into the record.

Sincerely,


Roy A. Pontiff
Executive Director
Port of Iberia District

RAP/heh

Enclosure

Cc: Ronnie Gonsoulin, Chairman, Iberia Parish Levee, Hurricane & Conservation District
Frank Minvielle, Commissioner, Port of Iberia District Board of Commissioners
W.P. Edwards, III, President, Vermilion Corporation
Nathan Granger, President, Vermilion Parish
Errol "Romo" Romero, President, Iberia Parish
Garret Graves, Chair, Governor's Office of Coastal Protection & Restoration

Received By
CEM/EX
US Army Corps of Engineers
New Orleans District

MAR 08 2013

Millie Martinez
President
Frank C. Minvielle
Vice-President
Gene L. Jefferies
Secretary-Treasurer

Mark T. Doré
Board Member
Michael Resweber
Board Member
Danny J. David, Sr.
Board Member
Larry G. Rader
Board Member
Joanna D. Durke
Administrative Assistant

THE FOLLOWING IS AN EXTRACT OF A REGULAR MEETING OF THE PORT OF IBERIA DISTRICT BOARD OF COMMISSIONERS HELD ON TUESDAY, DECEMBER 18, 2012:

**PORT OF IBERIA DISTRICT
BOARD OF COMMISSIONERS
REGULAR MEETING - TUESDAY, DECEMBER 18, 2012
PORT ADMINISTRATIVE OFFICE - 5:30 P.M.
MINUTES**

The regular meeting of the Port of Iberia District Board of Commissioners was called to order by Commissioner Millie Martinez, Board President, at the Port of Iberia Administrative Office, on Tuesday, December 18, 2012, at 5:30 P.M.

In attendance were Commissioners Millie Martinez, President, Gene Jefferies, Secretary-Treasurer, Mark Dore', Mike Resweber, Danny J. David Sr., and Larry G. Rader.

Commissioner Frank Minvielle, Vice-President, was absent.

Also present were Roy Pontiff, Executive Director, Joanna Durke, Administrative Assistant, Holly Breaux, Secretary-Bookkeeper, and Ray Allain, Port Attorney.

Thus, with a quorum being acknowledged, Commissioner Danny J. David, Sr., recited the opening prayer and the Pledge of Allegiance.

I. APPROVAL OF MINUTES

On a motion by Commissioner Gene Jefferies, seconded by Commissioner Mark Dore', the Commission approved the minutes of the Special meeting held on Friday, November 16, 2012.

This motion having been submitted to a vote, the vote thereon was as follows:

Yeas: Millie Martinez, Gene Jefferies, Mark Dore', Mike Resweber, Danny J. David, Sr., and Larry G. Rader.

Nays: None.

Absent at Voting: Frank Minvielle.

And the motion was therefore passed on this the 18th day of December 2012.

On a motion by Commissioner Gene Jefferies, seconded by Commissioner Mark

Dore', the Commission approved the minutes of the Regular meeting held on Tuesday, November 20, 2012.

This motion having been submitted to a vote, the vote thereon was as follows:

Yeas: Millie Martinez, Gene Jefferies, Mark Dore', Mike Resweber, Danny J. David, Sr., and Larry G. Rader.

Nays: None.

Absent at Voting: Frank Minvielle.

And the motion was therefore passed on this the 18th day of December 2012.

VIII. REPORT FROM MR. O'NEIL MALBROUGH & MR. GLENN LEDET, SHAW COASTAL, INC., ON:

(b) Status of the AGMAC Project.

2} Discuss/Consider Action on the Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Project (TV-19) CWPPRA Project.

The Executive Director presented a project illustration on the TV Monitors for the Board to review relative to the Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Project (TV-19) CWPPRA (Coastal Wetlands Planning Protection Restoration Act) Project. The Executive Director explained that at the last CWPPRA Technical Committee Meeting, there was an Agenda item to initiate de-authorization of the project. The Executive Director asked the Board if they would consider taking action to support the continuation of the project. The Executive Director justified his request for support due to the current shoreline erosion of the GIWW/Weeks Bay Land Bridge. The eroded bankline is limiting a significant source of freshwater to Iberia and Vermilion Parishes and creates a hazard to navigation due to the lack of GIWW shoreline protection. Mr. Glenn Ledet, Shaw Coastal, Inc. provided further explanation on this matter to the Board. Discussion ensued.

A motion was made by Commissioner Mark Dore', seconded by Commissioner Larry Rader, that the Port of Iberia District Board of Commissioners expresses its opposition of the de-authorization of the Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Project (TV-19) CWPPRA Project; and motion further authorizes the Executive Director to submit the necessary documentation to the CWPPRA Technical Review Committee regarding same; and motion further acknowledges the negative impact on a significant source of freshwater to Iberia and Vermilion Parish, in addition to creating a hazard to navigation in the GIWW.

This motion having been submitted to a vote, the vote thereon was as follows:

Yeas: Millie Martinez, Gene Jefferies, Mark Dore', Mike Resweber, Danny J. David, Sr., and Larry G. Rader.

Nays: None.

Absent at Voting: Frank Minvielle.

And the motion was therefore passed on this the 18th day of December 2012.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

REQUEST FOR APPROVAL FOR FINAL DEAUTHORIZATION ON SIX PROJECT

For Decision:

CPRA is requesting approval for final deauthorization procedures on the six projects listed below. These projects face technical implementation issues, have an unfavorable benefit-to-cost ratio, or have languished for an extended period. The Technical Committee will vote on a recommendation to the Task Force to approve the final deauthorization of the following six projects:

- a. Freshwater Bayou Bank Stabilization (TV-11b), PPL 9, USACE
- b. Delta Building Diversion North of Fort St. Philip (BS-10), PPL 10, USACE
- c. Avoca Island Diversion and Land Building (TE-49), PPL 12, USACE
- d. Spanish Pass Diversion (MR-14), PPL 13, USACE
- e. White Ditch Resurrection (BS-12), PPL 14, NRCS
- f. Bohemia Mississippi River Reintroduction (BS-15), PPL 17, EPA



State of Louisiana

BOBBY JINDAL
GOVERNOR

December 10, 2012

Mr. Thomas A. Holden, P.E.
Chairman, CWPPRA Technical Committee
US Army Corps of Engineers
New Orleans District
PO Box 60267
New Orleans, LA 70160-0267

Re: Initiation of deauthorization procedures

Dear Mr. Holden:

Please accept this correspondence as the Coastal Protection and Restoration Authority's (CPRA) official request to initiate deauthorization procedures for the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) projects listed below. These projects have languished for extended periods due to technical implementation issues, landowner or policy issues, or have an unfavorable benefit to cost ratio.

Freshwater Bayou Bank Stabilization (TV-11b, PPL 9): This project has a very low benefit to cost ratio. The cost has increased and the benefits have decreased as the shoreline loss rate has slowed. This project has requested Phase 2 funding numerous times with no success.

Delta Building Diversion North of Fort St. Philip (BS-10, PPL 10): This project has languished for several years due to the induced shoaling issue and the required emergency closure plan. A natural crevasse has formed in the area, making the project unnecessary.

Avoca Island Diversion and Land Building (TE-49, PPL 12): The constructability of this project is highly questionable given the substrate in the proposed marsh creation area. There has been no progress for several years and the benefit to cost ratio is not favorable.

Spanish Pass Diversion (MR-14, PPL 13): The estimate of potential benefits for this project was significantly reduced, thereby reducing the cost effectiveness. It has languished for several years and also faces the induced shoaling issue.

White Ditch Resurrection (BS-12, PPL 14): This project faces many landowner issues, including operational demands, exotic vegetation management, bankline stabilization requirements, among others. There are also operational concerns. We prefer to move forward with diversions that input sediment rather than freshwater alone.

Bohemia Mississippi River Reintroduction (BS-15, PPL 17): This project was originally proposed as a sediment diversion, but the project team discovered that it had very little land-building potential and therefore greatly reduced benefits. Additionally, a natural outlet ("Mardi Gras Pass") formed just north of here, rendering the project unnecessary.

Please direct questions regarding this matter to Chris Allen of the CPRA (225-342-4736).

Sincerely,



William K. "Kirk" Rhinehart
Chief, Planning and Research Division
Coastal Protection and Restoration Authority

CC: Richard Hartman, NMFS, Baton Rouge, LA
Britt Paul, NRCS, Alexandria, LA
Karen McCormick, EPA, Dallas, TX
Darryl Clark, USFWS, Lafayette, LA

Projects for Deauthorization or Transfer to Other Program Request by the State

| Project Name | Project No. | Agency | PL | Issues | Reason(s) for Potential De-authorization |
|---|-------------|--------|----|--------------------------------|---|
| Freshwater Bayou Bank Stab - Belle Isle Canal to Lock | TV-11b | COE | 9 | CSA | All work is on hold pending approval of a new Cost Share Agreement. State requests deauthorization because this project is not consistent with 2012 State Master Plan. |
| Delta Building Diversion North of Fort St. Philip | BS-10 | COE | 10 | CSA/ Induced Shoaling Issue | All work is on hold pending approval of a new Cost Share Agreement. State requests deauthorization because this project is not consistent with 2012 State Master Plan. |
| Avoca Island Diversion and Land Building | TE-49 | COE | 12 | Project features/ CSA | All work is on hold pending approval of a new Cost Share Agreement. (Tech Comm declined request to transfer to another federal agency). 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 CPRA's geotechnical concerns and concurrence on final project features. State requests deauthorization because this project is not consistent with 2012 State Master Plan. |
| Spanish Pass Diversion | MR-14 | COE | 13 | CSA | All work is on hold pending approval of a new Cost Share Agreement. 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. State requests deauthorization because this project is not consistent with 2012 State Master Plan. |
| White Ditch Resurrection | BS-12 | NRCS | 14 | Landrights/ Location Issues | Project team has agreed to move to deauthorization due to issues regarding location & operation of siphon. State requests deauthorization because this project is not consistent with 2012 State Master Plan. |
| Bohemia Mississippi River Reintroduction | BS-15 | EPA | 17 | SMP | State requests deauthorization because this project is not consistent with 2012 State Master Plan |

Updated - June 19, 2012

Tier System -
Tier 1 consists of projects that are consistent with the locations identified in the 2012 Master Plan.
Tier 2 consists of projects that are not consistent with the locations identified in the 2012 Master Plan but have not experienced significant delays.
Tier 3 consists of projects that are not consistent with the locations identified in the 2012 Master Plan and have experienced delays of more than 24 months.

| Tier | PPL | Number | Project Name | Agency | Project Types | Project manager | Parishes | Primary Criteria | | Footnotes | Secondary Criteria | | | |
|------|-----|-----------|---|--------|--------------------------------------|-------------------|----------------------|--|--|-----------|-------------------------|--|------------------|--|
| | | | | | | | | Consistent with Project Areas identified in the 2012 Master Plan | Project has experienced schedule delays of MORE than 24 months | | Have a signed agreement | Consistent with objectives of Master Plan 2012 | Phase I complete | Projects that have requested Phase 2 THREE OR MORE times |
| 1 | 16 | ME-24 | Southwest LA Gulf Shoreline Nourishment and Protection | COE | Shoreline Protection | | Cameron, Vermilion | YES | YES | 2 | CORPS | YES | NO | Not Eligible |
| 1 | 9 | TV-11b | Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock | COE | Shoreline Stabilization | Andrew Beall | Vermilion | YES | YES | 2 | CORPS | YES | YES | YES |
| 2 | 8 | CS-28-4-5 | Sabine Refuge Marsh Creation, Cycles 4 and 5 | COE | Marsh Creation | Andrew Beall | Cameron | NO | YES | 6 | YES | YES | YES | Pre-Cashflow |
| 3 | 13 | MR-14 | Spanish Pass Diversion | COE | Water Diversion | | Plaquemines | NO | YES | 6 | CORPS | YES | NO | Not Eligible |
| 3 | 12 | TE-49 | Avoca Island Diversion and Land Building | COE | Water Diversion | | St. Mary | NO | YES | 6 | CORPS | NO | NO | Not Eligible |
| 3 | 10 | BS-10 | Delta Building Diversion North of Fort St. Philip | COE | Water Diversion | | Plaquemines | NO | YES | 6 | CORPS | YES | NO | Not Eligible |
| 3 | 40 | MR-13 | Benneys Bay Diversion (Deauthorization Initiated) | COE | Water Diversion | | Plaquemines | NO | YES | 6 | CORPS | YES | NO | Not Eligible |
| 3 | 9 | TV-19 | Weeks Bay Marsh Creation and Shore Protection/Commercial Canals | COE | Marsh Creation, Shoreline Protection | | Iberia | YES | YES | 1,2 | CORPS | YES | NO | Not Eligible |
| 1 | 11 | PO-29 | River Reintroduction into Maurepas Swamp | EPA | Water Diversion | Brad Miller | Ascension, St. James | YES | YES | 4 | YES | YES | NO | Not Eligible |
| 1 | 11 | TE-47 | Ship Shoal: Whiskey West Flank Restoration | EPA | Barrier Island Restoration | Brad Miller | Terrebonne | YES | YES | 4 | YES | YES | YES | YES |
| 1 | 10 | BA-34 | Mississippi River Reintroduction Into Northwest Barataria Basin | EPA | Freshwater Diversion | Brad Miller | St. James | YES | YES | 4 | YES | NO | NO | Not Eligible |
| 2 | 18 | BS-18 | Bertrandville Siphon | EPA | Freshwater Diversion | Brad Miller | Plaquemines | NO | NO | 4 | YES | NO | NO | Not Eligible |
| 2 | 17 | BS-15 | Bohemia Mississippi River Reintroduction | EPA | Freshwater Diversion | Brad Miller | Plaquemines | NO | NO | 4 | YES | YES | NO | Not Eligible |
| 2 | 15 | MR-15 | Venice Ponds Marsh Creation and Crevasses | EPA | Marsh Creation, Water Diversion | Brad Miller | Plaquemines | NO | NO | 4 | YES | YES | YES | NO |
| 1 | 21 | CS-59 | Oyster Bayou | NMFS | Marsh Creation | Trena Woolridge | Cameron | YES | NO | 4 | YES | YES | NO | Not Eligible |
| 1 | 21 | TV-63 | Coles Bayou | NMFS | Marsh Creation | Trena Woolridge | Vermilion | NO | NO | 4 | Pending | NO | NO | Not Eligible |
| 1 | 19 | BA-76 | Cheniere Ronquille Barrier Island Restoration | NMFS | Barrier Island Restoration | Kenneth Bahlinger | Plaquemines | YES | NO | 4 | YES | YES | YES | NO |
| 1 | 16 | TE-51 | Madison Bay Marsh Creation and Terracing (Scope Change) | NMFS | Marsh Creation | Kenneth Bahlinger | Terrebonne | YES | YES | 4 | YES | NO | NO | Not Eligible |
| 1 | 10 | ME-18 | Rockefeller Refuge Gulf Shoreline Stabilization | NMFS | Shoreline Protection | | Cameron | YES | YES | 4 | YES | YES | NO | Not Eligible |
| 1 | 20 | CS-53 | Kelso Bayou Marsh Creation | NRCS | Marsh Creation | Bill Feazel | Cameron | YES | NO | 4 | YES | YES | NO | Not Eligible |
| 1 | 19 | ME-31 | Freshwater Bayou Marsh Creation | NRCS | Marsh Creation | contractor | Vermilion | YES | NO | 4 | YES | YES | NO | Not Eligible |
| 1 | 18 | TE-66 | Central Terrebonne Freshwater Enhancement | NRCS | Hydrologic Restoration | Andrew Beall | Terrebonne | YES | NO | 4 | YES | YES | NO | Not Eligible |
| 1 | 18 | CS-49 | Cameron-Creole Freshwater Introduction | NRCS | Freshwater Diversion | Bill Feazel | Cameron | YES | NO | 4 | YES | YES | NO | Not Eligible |
| 1 | 17 | BA-47 | West Pointe a la Hache Marsh Creation | NRCS | Marsh Creation | Bill Feazel | Plaquemines | YES | YES | 4 | YES | NO | NO | Not Eligible |
| 1 | 16 | PO-34 | Alligator Bend Marsh Restoration and Shoreline Protection | NRCS | Marsh Creation | Bill Feazel | Orleans | YES | NO | 4 | YES | YES | YES | NO |
| 1 | 11 | TE-48 cu2 | Raccoon Island Shoreline Protection/Marsh Creation | NRCS | Shoreline Protection, Marsh Creation | Dustin White | Terrebonne | YES | YES | 4 | YES | YES | NO | Not Eligible |
| 2 | 9 | TE-39 cu2 | S. Lake Decade FW Introduction | NRCS | Water Diversion | Bill Feazel | Terrebonne | YES | YES | 4 | YES | YES | NO | Not Eligible |
| 2 | 21 | PO-133 | LaBranche Central MC | NRCS | Marsh Creation | Devyani Kar | St. Charles | NO | NO | 4 | Pending | NO | NO | Not Eligible |
| 2 | 19 | PO-75 | LaBranche East Marsh Creation | NRCS | Marsh Creation | Bill Feazel | St. Charles | NO | NO | 4 | YES | NO | NO | Not Eligible |
| 3 | 14 | BS-12 | White Ditch Resurrection and Outfall Management | NRCS | Water Diversion, Outfall Management | Brad Miller | Plaquemines | NO | YES | 4 | YES | NO | NO | Not Eligible |
| 3 | 13 | TV-20 | Bayou Sale Shoreline Protection | NRCS | Shoreline Protection | Bill Feazel | St. Mary | NO | YES | 4 | YES | YES | NO | Not Eligible |
| 3 | 3 | BA-04c | West Pointe a la Hache Outfall Management | NRCS | Water Diversion | Bill Feazel | Plaquemines | NO | YES | 4 | YES | NO | NO | Pre-Cashflow |
| 1 | 20 | TE-83 | Terrebonne Bay Marsh Creation - Nourishment Project | USFWS | Marsh Creation | Andrew Beall | Terrebonne | YES | NO | 3 | YES | NO | NO | Not Eligible |
| 1 | 20 | CS-54 | Cameron-Creole Watershed Grand Bayou Marsh Creation | USFWS | Marsh Creation | Andrew Beall | Cameron | YES | NO | 3 | YES | NO | NO | Not Eligible |
| 1 | 19 | TE-72 | Lost Lake Marsh Creation and Hydrologic Restoration | USFWS | Marsh Creation | Andrew Beall | Terrebonne | YES | NO | 3 | YES | NO | NO | Not Eligible |
| 1 | 6 | TE-32a | North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Restoration | USFWS | Water Diversion | Andrew Beall | Terrebonne | NO | YES | 5 | YES | YES | YES | Pre-Cashflow |
| 2 | 21 | BA-125 | Northwest Turtle Bay | USFWS | Marsh Creation | Devyani Kar | Jefferson | NO | NO | 5 | Pending | NO | NO | Not Eligible |
| 2 | 20 | PO-104 | Bayou Bonfouca Marsh Creation Project | USFWS | Marsh Creation | Andrew Beall | St. Tammany | NO | NO | 5 | YES | NO | NO | Not Eligible |

Footnotes
1 We tried to deauthorize this project, due to high costs and low benefits.
2 Consistent with MP, but not consistent with CWPPRA policy on shoreline protection for Navigation Channels.
3 Potential to be deemed unconstructable
4 While Maurepas and Rockefeller are both supported by the Master Plan, they are likely too expensive to be funded under CWPPRA
5 Construction money is in-hand
6 An agreement was recently reached to transfer partial control from the Corps to USFWS to facilitate the final construction cycles



Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock (TV-11b)

Project Status

Approved Date: 2000 **Project Area:** 285 acres
Approved Funds: \$1.49 M **Total Est. Cost:** \$35.6 M
Net Benefit After 20 Years: 241 acres
Status: Engineering and Design
Project Type: Shoreline Stabilization
PPL #: 9

Location

The project is located in Vermilion Parish, Louisiana, along the eastern bank of the Freshwater Bayou Canal between Freshwater Bayou Lock and Belle Isle Bayou.

Problems

In 1960, the U.S. Army Corps of Engineers was authorized to construct a navigation channel from mile 161.2 of the Gulf Intracoastal Waterway south to the Gulf of Mexico. The present channel is 600 feet wide because of wakes from boat traffic. In the reach of the canal between Freshwater Bayou Lock and Belle Isle Bayou, breaches in the bank have developed at numerous locations.

The breaches are allowing boat wakes and hydrologic action to adversely affect the interior marsh east of the canal. Turbid, higher salinity water is entering the interior marsh, causing marsh loss and decreasing coverage of submerged aquatic vegetation. The wakes from passing vessels and tidal action are causing the export of organic material from the project area. A large area of interior marsh in the northern part of the project area is breaking apart and turning into open water. The effects of shoreline erosion are a direct conversion of marsh to open water and an increase in the introduction of higher salinity waters to formerly fresh and intermediate marshes.

Restoration Strategy

The objective of the project is to halt bank erosion through the construction of a stone dike on the eastern bank of Freshwater Bayou Canal between Belle Isle Bayou and Freshwater Bayou Lock. The dike would reduce the amount of water exchange between the canal and interior marshes and protect the marshes from erosion.

A 40,000 foot-long rock dike is being constructed. The dike will be continuous except for openings left at the mouths of several oil well canals where the dike will be tied into the bank on both sides of each canal.



Looking north up Freshwater Bayou Canal toward Humble Canal.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design at the January 2000 Task Force meeting. A 30% design review was held in June 2002.

This project is on Priority Project List 9.

For more project information, please contact:



Federal Sponsor:
U.S. Army Corps of Engineers
New Orleans, LA
(504) 862-1597

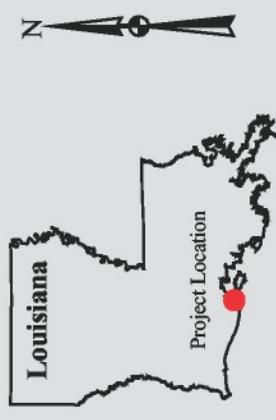


Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736

Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock (TV-11b)

 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 19, 2003
Map ID: USGS-NWRC 2003-11-131
Data accurate as of: June 2, 2003



Gulf of Mexico

Lock

Freshwater Bayou Canal

West Cheniere Au Tigre Canal

McIlhenny Canal

Belle

Isle

Bayou



Delta Building Diversion North of Fort St. Philip (BS-10)

Project Status

Approved Date: 2001 **Project Area:** 2,254 acres

Approved Funds: \$1.44 M **Total Est. Cost:** \$6.64 M

Net Benefit After 20 Years: 501 acres

Status: Engineering and Design

Project Type: Water Diversion

PPL #: 10

Location

The project is located in Plaquemines Parish, Louisiana.

Problems

The wetlands in the area are deteriorating from erosion, subsidence, and insufficient sediment input. Some delta building is occurring in the downstream end of the project area from Mississippi River overbank flow. However, most of the project area is deteriorating from a lack of sediment.

The project area contains all four marsh types: saline, brackish, intermediate, and fresh. Most of the project area is saline marsh and open water. The proximity of open, shallow, estuarine water to the Mississippi River, coupled with the low level of development and infrastructure at this site, presents a rare opportunity to construct a major sediment diversion project for a reasonable construction cost.

Oyster leases in the project area and in nearby Breton Sound may be impacted by the project. Also, oil and gas well canals and pipeline canals may experience increased siltation, causing access problems for companies operating in the area.



Deteriorating wetlands in the Fort St. Philip area.

Restoration Strategy

A series of channel armor gaps will be strategically located and constructed along the east descending bank of the Mississippi in the vicinity of Fort St. Philip to restore wetlands in the Mississippi River delta. The channel will be constructed mainly through shallow open water and will hydrologically connect to Fort Bayou. Several openings will be made along the diversion channel to direct flows into the shallow water areas. The size of the diversion channel will be designed to allow enough sediment through to create about 624 acres of marsh over the project life. This project will significantly increase sediment input into the benefited wetlands through the diversion of about 2,500-5,000 cubic feet per second of Mississippi River water. The diversion of fresh water and sediments is expected to re-create natural landscape features found throughout the delta to include riverbank ridges, emergent marsh, and mudflats. The project will also reduce the loss of existing marsh in the 2,252-acre project area. In addition, it is expected that the project will enhance the integrity of the delta system through the restoration and protection of these integrated ecosystem components.

Progress to Date

Modeling is in progress to examine the size and location of the proposed diversion channel.

This project is on Priority Project List 10.

For more project information, please contact:



Federal Sponsor:
U.S. Army Corps of Engineers
New Orleans, LA
(504) 862-1597



Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736

Delta Building Diversion North of Fort St. Philip (BS-10)

-  Armored Gap *
-  Diversion Channel *
-  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

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle

Map Date: September 9, 2003
Map ID: USGS-NWRC 2003-11-116
Data accurate as of: September 9, 2003





Avoca Island Diversion and Land Building (TE-49)

Project Status

Approved Date: 2003 **Project Area:** 7,233 acres
Approved Funds: \$2.22 M **Total Est. Cost:** \$19.1 M
Net Benefit After 20 Years: 143 acres
Status: Engineering and Design
Project Type: Water Diversion
PPL #: 12

Location

The project is located in the Avoca Island area in St. Mary Parish, Louisiana.

Problems

The Avoca Island area lost approximately 5,000 acres of marsh between 1932 and 1990. Natural overbank flooding into the area has been eliminated by channelization and construction of flood protection levees, thereby preventing the input of fresh water, sediment, and nutrients.

Restoration Strategy

The goal of this project is to rebuild eroded wetlands in the area through the diversion of fresh water, sediment, and nutrients. A diversion structure will be installed through the Avoca levee to allow water from Bayou Shaffer to enter Avoca Lake at a rate of 1,000 cubic feet per second. A natural bayou will be used as the primary outfall channel for the diversion. Outfall management measures will be evaluated and incorporated to increase benefits to aquatic habitats in the island system.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design at the January 2003 Task Force meeting. The project work plan for the engineering and design phase was submitted for program review in May 2003. Engineering data collection, including site surveys and a geotechnical boring, is ongoing.

This project is on Priority Project List 12.



In this aerial view facing southwest, Avoca Island surrounds Avoca Lake in the center of the photograph. Bayou Boeuf is seen in the foreground with Bayou Shaffer in the background.

For more project information, please contact:



Federal Sponsor:
U.S. Army Corps of Engineers
New Orleans, LA
(504) 862-1597



Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736

Avoca Island Diversion and Land Building (TE-49)

-  Diversion Structure*
 -  Sediment Diversion *
 -  Marsh Creation*
 -  Project Boundary
- *denotes proposed feature



USGS
science for a changing world



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

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle
Map Date: December 17, 2002
Map ID: USGS-NWRC 2003-11-092
Data accurate as of: December 17, 2002





Spanish Pass Diversion (MR-14)

Project Status

Approved Date: 2004 **Project Area:** 1,580 acres
Approved Funds: \$1.42 M **Total Est. Cost:** \$14.2 M
Net Benefit After 20 Years: 433 acres
Status: Engineering and Design
Project Type: Water Diversion
PPL #: 13

Location

The project is located south of The Jump on Grand Pass near Venice in Plaquemines Parish, Louisiana.

Problems

Marsh in the project area is not receiving sediment and is converting to open water. The principal hydrologic changes in the area are caused by the dredging of canals for the Venice Oil Field, roads, and other infrastructures. These changes have caused Spanish and Red Passes to be cut off from the influence of the Mississippi River, thus starving the area of fresh water, sediments, and nutrients. These processes have resulted in the loss of more than 3,900 acres of fresh marsh and swamp.

Restoration Strategy

The primary goal of this project is to gain emergent marsh to the maximum extent possible by diverting river water and sediments into an otherwise open water environment.

The project involves constructing a diversion channel capable of diverting 7,000 cubic feet of water per second from Grand Pass (a tributary of the Mississippi River) into the large open-water receiving area shown on the project map. The construction of the 1,300-linear-foot diversion channel and its containment levees will necessitate placement of a bridge at Tidewater Road, which is included in the project's budget. Outfall management measures will be evaluated and incorporated to increase benefits to aquatic habitats in the system.



The construction of a diversion channel for a similar project, West Bay Sediment Diversion (MR-03), is shown above.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved engineering and design funding at their January 2004 meeting. The project delivery team has been assembled, and a kickoff meeting and site visit was held in March 2004. The work plan was submitted to the CWPPRA Planning and Evaluation Subcommittee in April 2004. The project delivery team is in the process of obtaining right of entry to collect survey and water elevation data.

This project is on Priority Project List 13.

For more project information, please contact:



Federal Sponsor:
 U.S. Army Corps of Engineers
 New Orleans, LA
 (504) 862-1597

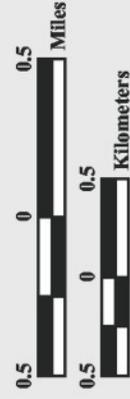


Local Sponsor:
 Coastal Protection and Restoration Authority
 Baton Rouge, LA
 (225) 342-4736

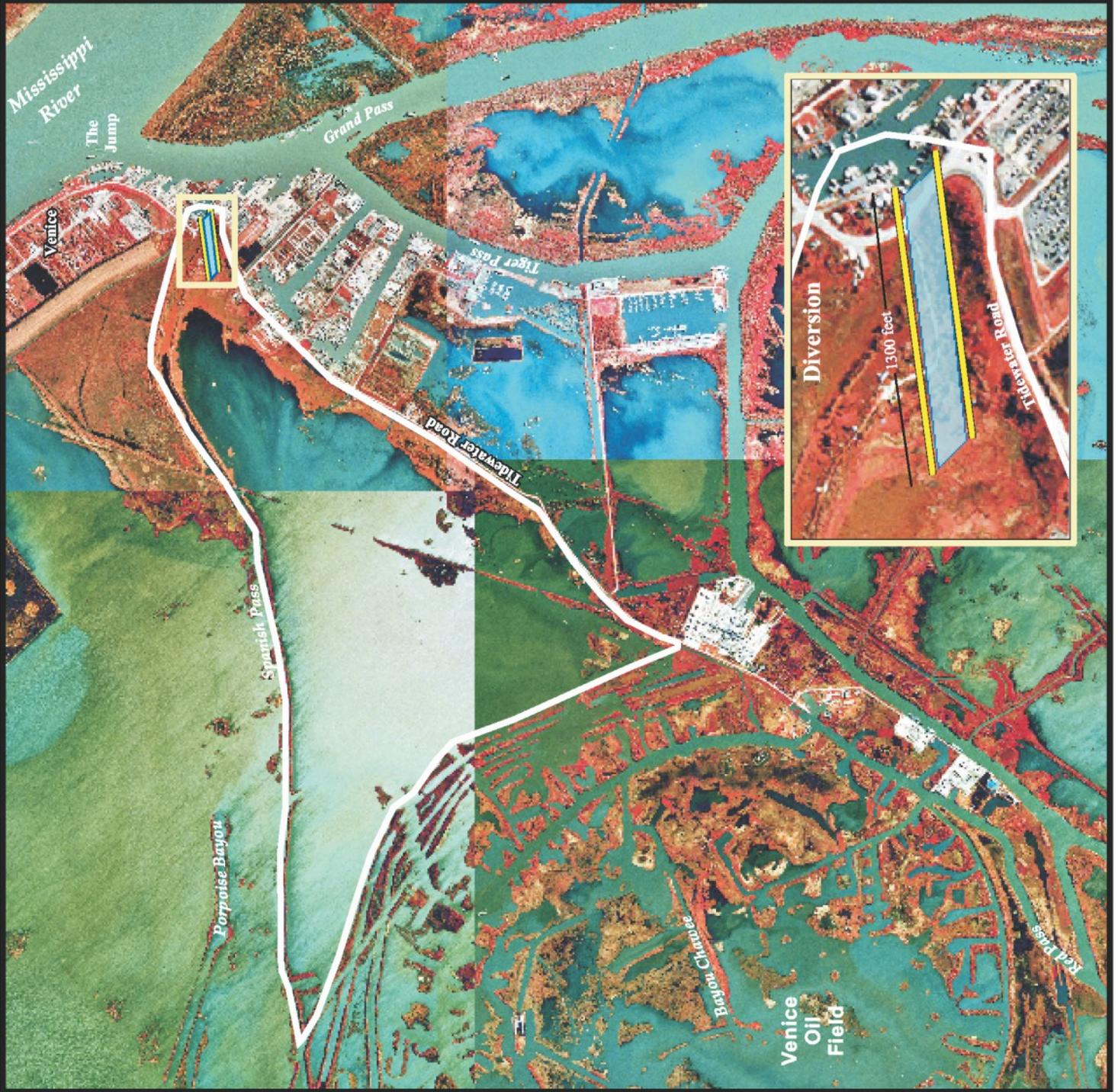
Spanish Pass Diversion (MR-14)

-  Containment Levee*
-  Diversion Channel*
-  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
 Background Imagery:
 1998 Digital Orthophoto Quarter Quadrangle
 Map Date: January 30, 2004
 Map ID: USGS-NWRC 2004-11-0138
 Data accurate as of: July 20, 2004





White Ditch Resurrection and Outfall Management (BS-12)

Project Status

Approved Date: 2005 **Project Area:** 8,224 acres

Approved Funds: \$1.59 M **Total Est. Cost:** \$14.8 M

Net Benefit After 20 Years: 189 acres

Status: Engineering and Design

Project Type: Water Diversion and Outfall Management

PPL #: 14

Location

The project area is located east of the Mississippi River in the vicinity of Belair, Louisiana, in Plaquemines Parish.

Problems

The historically intermediate to brackish marshes in the area have completely converted to a brackish classification. These marshes are deteriorating due to a lack of freshwater input. A siphon built in 1963 at White Ditch that used to deliver the fresh water and sediment needed to maintain the area's wetlands has ceased operation due to age and various other complications. The natural banks of River Aux Chenes block any fresh water that may be provided by the Caernarvon Freshwater Diversion, a water control structure north of the project area. Currently, rainfall provides the only source of freshwater input to the area.



This project will help restore the highly degraded marshes of the area.

Restoration Strategy

The goal of this project is to reduce the erosion rate by introducing fresh water, nutrients, and sediment into the marsh.

This will be accomplished through the rehabilitation or replacement of the existing siphon at White Ditch and the construction of an additional siphon of similar size. Each siphon will be capable of delivering approximately 250 cubic feet per second (cfs) of fresh water for a combined total of 500 cfs of fresh water entering into the project area. The project's proposed strategies also include installing a water control structure in the White Ditch outfall channel at the junction with River Aux Chenes in order to force water into the interior marsh.

The project area is subdivided into Areas A and B in order to delineate zones of direct and indirect impact from the siphons. Area A, which will be directly impacted, is estimated to have the land loss rate reduced by 50 percent, whereas the indirect impact in Area B is estimated to yield a 30 percent reduction of land loss.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved engineering and design funding at their February 2005 meeting.

This project is on Priority Project List 14.

For more project information, please contact:



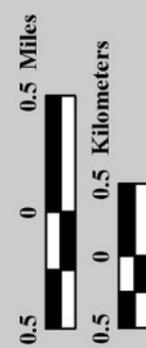
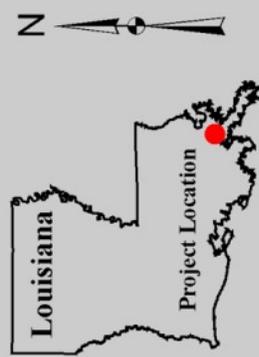
Federal Sponsor:
Natural Resources Conservation Service
Alexandria, LA
(318) 473-7756



Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736

White Ditch Resurrection and Outfall Management (BS-12)

-  Culvert
 -  Siphon
 -  Siphon *
 -  Water Control Structure*
 -  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

Background Imagery:
 1998 Digital Orthophoto Quarter Quadrangle
 Map Date: January 10, 2005
 Map ID: USGS-NWRC 2005-11-0058
 Data accurate as of: January 10, 2005





Bohemia Mississippi River Reintroduction (BS-15)

Project Status

Approved Date: 2007 **Project Area:** 5,210 acres
Approved Funds: \$1.35 M **Total Est. Cost:** \$6.92 M
Net Benefit After 20 Years: 637 acres
Status: Engineering and Design
Project Type: Freshwater Diversion
PPL #: 17

Location

The project is located in the Breton Sound basin in Plaquemines Parish along the east bank of the Mississippi River approximately eight to nine miles southeast of Pointe à la Hache, Louisiana, just northeast of, and across the river from, Port Sulphur.

Problems

The proposed project area is characterized by very low wetland loss rates, which may be attributed to the land-building effects of the existing, nearby Bohemia diversion and the seasonal flooding of the Mississippi River, among other things. The proposed project is designed to help offset wetland losses elsewhere in the State by enhancing deltaic growth in the area characterized by lower wetland loss rates.



Existing marsh adjacent to Nestor Canal.

Restoration Strategy

The project will restore natural delta-building capacity by reintroducing Mississippi River water and sediments into shallow, open water and existing wetlands. This will be achieved through the construction of a diversion with a capacity of approximately 10,000 cubic feet per second. Dredged material from channel improvements will be used to fill in existing oil and gas canals to create an estimated 14 acres of marsh. Three acres of trees will be planted on new spoil banks of the improved diversion channel. Aquatic vegetation in interior marsh ponds and channels is expected to increase naturally. An estimated 640 net acres of marsh will be created over the 20-year life of the project.

Progress to Date

The project is currently in Phase I, Engineering and Design.

This project is on Priority Project List 17.

For more project information, please contact:



Federal Sponsor:
U.S. Environmental Protection Agency
Dallas, TX
(214) 665-7255

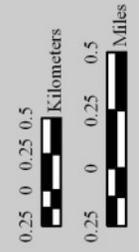
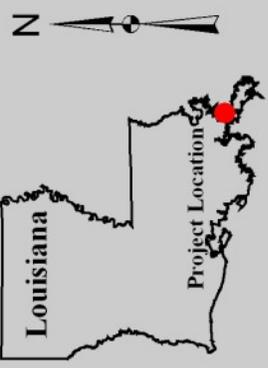


Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736

Bohemia Mississippi River Reintroduction (BS-15)

- Plug *
- Diversion Channel Improvement *
- Forebay *
- Marsh Creation *
- 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: November 08, 2007
 Map ID: USGS-NWRC 2008-11-0060
 Data accurate as of: August 23, 2007





REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

MAR 29 2013

Programs and Project Management Division
Projects and Restoration Branch

Honorable David Vitter
United States Senate
516 Hart Senate Office Building
Washington, DC 20510-1805

Dear Senator Vitter:

The Louisiana Coastal Wetlands Conservation and Restoration Task Force is initiating procedures to deauthorize the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Freshwater Bayou Bank Stabilization – Belle Isle Canal to Lock (TV-11b) project as requested by the local project sponsor, the Coastal Protection and Restoration Authority (CPRA), based on a very low benefit to cost ratio and lack of success in receiving approval of Phase II funding from the Task Force despite numerous requests (see letter dated December 10, 2012, provided as enclosure 1).

This 9th Priority Project List project (see Fact Sheet with map provided as enclosure 2) was supposed to be located in Vermilion Parish, Louisiana, along the eastern bank of the Freshwater Bayou Canal between Freshwater Bayou Lock and Belle Isle Bayou. The objective of the project was to halt bank erosion through the construction of a stone dike on the eastern bank of Freshwater Bayou Canal between Belle Isle Bayou and Freshwater Bayou Lock. The dike would have reduced the amount of water exchange between the canal and interior marshes and protected the marshes from erosion. The project feature under consideration was construction of a 40,000 foot-long rock dike on the east bank of the canal.

Prior to making a final decision, the Task Force will consider written comments on the request to deauthorize the project. Written comments should be provided within 30 days of the date of this letter to the following address:

Colonel Edward R. Fleming
District Commander
US Army Corps of Engineers, New Orleans District
Attention: Projects Branch West, CWPPRA Manager
PO Box 60267
New Orleans, Louisiana 70160-0267

If you need further information, please contact Mr. Thomas A. Holden Jr., P.E., CWPPRA Technical Committee Chairman, at (504) 862-2204 or Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

Sincerely,

For  LTC, EN

Edward R. Fleming
Colonel, US Army
District Commander

Enclosures

Copies Furnished (w/enclosures):

Mr. Garret Graves
Director, Office of Coastal Activities
1051 North Third Street
Capital Annex Building, Suite 138
Baton Rouge, Louisiana 70802

Mr. William K. Honker
Deputy Director
Water Quality Protection Division
Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Mr. Jeff Weller
Field Supervisor
US Fish and Wildlife Service
Louisiana Field Office
646 Cajunland Boulevard, Suite 400
Lafayette, Louisiana 70506

Mr. Kevin Norton
State Conservationist
Natural Resource Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

Mr. Christopher Doley
Director, National Oceanic
and Atmospheric Administration
National Marine Fisheries Service
1315 East-West Highway, Room 14853
Silver Spring, Maryland 20910

Honorable Mary L. Landrieu
United States Senate
328 Hart Senate Office Building
Washington DC 20515-1802

Honorable Charles W. Boustany, Jr.
House of Representatives
1431 Longworth House Office Building
Washington DC 20515-1807

Honorable Jonathan "J.P." Perry
Louisiana Senate
PO Box 100
Kaplan, Louisiana 70548

Honorable Bob Hengens
Louisiana House of Representatives
407 Charity Street
Abbeville, Louisiana 70510

Copies Furnished (w/enclosures) Continued:

Honorable Gordon Dove
Louisiana House of Representatives
PO Box 629
Houma, Louisiana 70361

Honorable John Smith
Louisiana Senate
611-B South 5th Street
Leesville, Louisiana 71446

Honorable Gerald Long
Louisiana Senate
PO Box 151
Wingfield, Louisiana 71483

Mr. Nathan Granger
President, Vermilion Parish
Police Jury
100 North State Street
Abbeville, Louisiana 70510

Mr. Judge Edwards
President, Vermilion Corporation
115 Tivoli Street
Abbeville, Louisiana 70510

Mr. Sherrill Sagrera
12139 West Louisiana Highway 82
Abbeville, Louisiana 70510

Exxon Mobil Corp.
c/o Rex W. Tillerson, President
5959 Las Colinas Blvd.
Irving, Texas 75039-2298

Exxon Mobil Corp.
320 Somerulos Street
Baton Rouge, Louisiana 70002-6129

Exxon Mobil Corp.
c/o Mr. David Rosenthal, Secretary
5959 Las Colinas Blvd.
Irving, Texas 75039-2298



CWPPRA Newsflash



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

RESTORING COASTAL LOUISIANA SINCE 1990

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Deauthorization Procedures Starting for TV-11b

PUBLIC NOTICE

The Louisiana Coastal Wetlands Conservation and Restoration Task Force is initiating procedures to deauthorize the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Freshwater Bayou Bank Stabilization – Belle Isle Canal to Lock (TV-11b) project as requested by the local project sponsor, the Coastal Protection and Restoration Authority (CPRA), based on a very low benefit to cost ratio and lack of success in receiving approval of Phase II funding from the Task Force despite numerous requests.

This 9th Priority Project List project was supposed to be located in Vermilion Parish, Louisiana, along the eastern bank of the Freshwater Bayou Canal between Freshwater Bayou Lock and Belle Isle Bayou. The objective of the project was to halt bank erosion through the construction of a stone dike on the eastern bank of Freshwater Bayou Canal between Belle Isle Bayou and Freshwater Bayou Lock. The dike would have reduced the amount of water exchange between the canal and interior marshes and protected the marshes from erosion. The project feature under consideration was construction of a 40,000 foot-long rock dike on the east bank of the canal.

Prior to making a final decision, the Task Force will consider written comments on the request to deauthorize the project. Written comments should be provided by April 29, 2013 to the following address:

Colonel Edward R. Fleming
District Commander
US Army Corps of Engineers, New Orleans District
Attention: Projects Branch West, CWPPRA Manager
PO Box 60267
New Orleans, Louisiana 70160-0267

If you need further information, please contact Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

###

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REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

APR 1 - 2013

Programs and Project Management Division
Projects and Restoration Branch

Honorable David Vitter
United States Senate
516 Hart Senate Office Building
Washington, DC 20510-1805

Dear Senator Vitter:

The Louisiana Coastal Wetlands Conservation and Restoration Task Force is initiating procedures to deauthorize the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Avoca Island Diversion and Land Building (TE-49) project as requested by the local project sponsor, the Coastal Protection and Restoration Authority (CPRA), based on questionable constructability given the substrate in the proposed marsh creation area, lack of progress over several years toward project development and implementation, and an unfavorable benefit to cost ratio (see letter dated December 10, 2012, provided as enclosure 1).

This 12th Priority Project List project (see Fact Sheet with map provided as enclosure 2) was supposed to be located in the Avoca Island area in St. Mary Parish, Louisiana. The objective of the project was to rebuild eroded wetlands in the area through the diversion of fresh water, sediment, and nutrients into an area that is currently shallow open water. Project features under consideration were installation of a diversion structure through the Avoca levee to allow water from Bayou Shaffer to enter Avoca Lake, utilizing a natural bayou as the primary outfall channel west of the levee, plus possible inclusion of dedicated dredging within Bayou Shaffer to obtain materials to create wetlands near the diversion outfall area within Avoca Lake.

Prior to making a final decision, the Task Force will consider written comments on the request to deauthorize the project. Written comments should be provided within 30 days of the date of this letter to the following address:

Colonel Edward R. Fleming
District Commander
US Army Corps of Engineers, New Orleans District
Attention: Projects Branch West, CWPPRA Manager
PO Box 60267
New Orleans, Louisiana 70160-0267

If you need further information, please contact Mr. Thomas A. Holden Jr., P.E., CWPPRA Technical Committee Chairman, at (504) 862-2204 or Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

Sincerely,

For  LTC, EN

Edward R. Fleming
Colonel, US Army
District Commander

Enclosures

Copies Furnished (w/enclosures):

Mr. Garret Graves
Director, Office of Coastal Activities
1051 North Third Street
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Environmental Protection Agency, Region 6
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Mr. Jeff Weller
Field Supervisor
US Fish and Wildlife Service
Louisiana Field Office
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Lafayette, Louisiana 70506

Mr. Kevin Norton
State Conservationist
Natural Resource Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

Mr. Christopher Doley
Director, National Oceanic
and Atmospheric Administration
National Marine Fisheries Service
1315 East-West Highway, Room 14853
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Honorable Mary L. Landrieu
United States Senate
328 Hart Senate Office Building
Washington DC 20515-1802

Honorable Charles W. Boustany, Jr.
House of Representatives
1431 Longworth House Office Building
Washington DC 20515-1807

Honorable R. L. "Bret" Allain II
Louisiana Senate
600 Main Street, Suite 1
Franklin, Louisiana 70538

Honorable Christopher J. Leopold
Louisiana House of Representatives
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Gray, Louisiana 70359

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Louisiana House of Representatives
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Houma, Louisiana 70361

Honorable John Smith
Louisiana Senate
611-B South 5th Street
Leesville, Louisiana 71446

Honorable Gerald Long
Louisiana Senate
PO Box 151
Wingfield, Louisiana 71483

Honorable Karen Gaudet St. Germain
Louisiana House of Representatives
57835 Plaquemine Street
Plaquemine, Louisiana 70764

Mr. Paul Naquin
President
St. Mary Parish Government
Courthouse Building, Room 500
500 Main Street
Franklin, Louisiana 70538

Mr. Jimmy Field
Avoca Island Inc.
8743 West Fairway Drive
Baton Rouge, Louisiana 70809

Mr. E. Wade Walk
URS Corporation New Orleans
600 Carondelet Street
New Orleans, Louisiana 70130

Avoca, Inc.
c/o Mr. J. Scott Tucker, President, Director
228 St. Charles Ave, Suite 838
New Orleans, Louisiana 70130

Mr. Charles E. Smith, et al
c/o Mr. Lonnie Higerson
349 Flannery, Lot 30
Baton Rouge, Louisiana 70815

Estate of Alex Turner
c/o Rev. C. F. Smith, Sr.
719 Federal Avenue
Morgan City, Louisiana 70380

Estate of Jules Mire
c/o Mr. Edward J. Patterson, Jr.
1344 Old Spanish Trail
Berwick, Louisiana 70342



**CWPPRA
Newsflash**



**COASTAL WETLANDS PLANNING,
PROTECTION AND RESTORATION ACT**
RESTORING COASTAL LOUISIANA SINCE 1990

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PUBLIC NOTICE

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Prior to making a final decision, the Task Force will consider written comments on the request to deauthorize the project. Written comments should be provided by April 30, 2013 to the following address:

Colonel Edward R. Fleming
District Commander
US Army Corps of Engineers, New Orleans District
Attention: Projects Branch West, CWPPRA Manager
PO Box 60267
New Orleans, Louisiana 70160-0267

If you need further information, please contact Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

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P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF

MAR 29 2013

Programs and Project Management Division
Projects and Restoration Branch

Honorable David Vitter
United States Senate
516 Hart Senate Office Building
Washington, DC 20510-1805

Dear Senator Vitter:

The Louisiana Coastal Wetlands Conservation and Restoration Task Force is initiating procedures to deauthorize the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Spanish Pass Diversion (MR-14) project as requested by the local project sponsor, the Coastal Protection and Restoration Authority (CPRA), based on an estimated significant reduction in potential benefits resulting in project cost ineffectiveness, lack of progress over several years toward project development and implementation, and non-resolution of the induced shoaling issue in the Mississippi River (see letter dated December 10, 2012, provided as enclosure 1).

This 13th Priority Project List project (see Fact Sheet with map provided as enclosure 2) was supposed to be located south of "The Jump" on the left descending bank of the Mississippi River, at the river's juncture with the Grand Pass waterway near Venice in Plaquemines Parish, Louisiana. The primary goal of this project was to gain emergent marsh to the maximum extent possible by diverting river water and sediments into an otherwise open water environment. Project features included construction of a 1300-foot diversion channel capable of delivering 7,000 cubic feet of water per second from Grand Pass into a large open-water area, construction of containment levees and a bridge at Tidewater Road, plus incorporation of various outfall management measures to increase aquatic habitat benefits in the system.

Prior to making a final decision, the Task Force will consider written comments on the request to deauthorize the project. Written comments should be provided within 30 days of the date of this letter to the following address:

Colonel Edward R. Fleming
District Commander
US Army Corps of Engineers, New Orleans District
Attention: Projects Branch West, CWPPRA Manager
PO Box 60267
New Orleans, Louisiana 70160-0267

If you need further information, please contact Mr. Thomas A. Holden Jr., P.E., CWPPRA Technical Committee Chairman, at (504) 862-2204 or Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

Sincerely,

For  LTC, EN

Edward R. Fleming
Colonel, US Army
District Commander

Enclosures

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Director, Office of Coastal Activities
1051 North Third Street
Capital Annex Building, Suite 138
Baton Rouge, Louisiana 70802

Mr. William K. Honker
Deputy Director
Water Quality Protection Division
Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Mr. Jeff Weller
Field Supervisor
US Fish and Wildlife Service
Louisiana Field Office
646 Cajunland Boulevard, Suite 400
Lafayette, Louisiana 70506

Mr. Kevin Norton
State Conservationist
Natural Resource Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

Mr. Christopher Doley
Director, National Oceanic
and Atmospheric Administration
National Marine Fisheries Service
1315 East-West Highway, Room 14853
Silver Spring, Maryland 20910

Honorable Mary L. Landrieu
United States Senate
328 Hart Senate Office Building
Washington DC 20515-1802

Honorable Steve Scalise
House of Representatives
2338 Rayburn House Office Building
Washington DC 20515

Honorable A.G. Crowe
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Honorable Christopher J. Leopold
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Belle Chasse, Louisiana 70037

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Louisiana House of Representatives
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Houma, Louisiana 70361

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Louisiana Senate
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Leesville, Louisiana 71446

Honorable Gerald Long
Louisiana Senate
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Cockrell Investment Partners, LP
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c/o Ms. Sharon S. Jones
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Denham Springs, Louisiana 70726



CWPPRA Newsflash



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

RESTORING COASTAL LOUISIANA SINCE 1990

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Deauthorization Procedures Starting for MR-14

PUBLIC NOTICE

The Louisiana Coastal Wetlands Conservation and Restoration Task Force is initiating procedures to deauthorize the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Spanish Pass Diversion (MR-14) project as requested by the local project sponsor, the Coastal Protection and Restoration Authority (CPRA), based on an estimated significant reduction in potential benefits resulting in project cost ineffectiveness, lack of progress over several years toward project development and implementation, and non-resolution of the induced shoaling issue in the Mississippi River.

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COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

ADDITIONAL AGENDA ITEMS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

REQUEST FOR PUBLIC COMMENTS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

DATE OF UPCOMING CWPPRA PROGRAM MEETING

For Announcement:

The Task Force meeting will be held June 4, 2013 at 9:30 a.m. at the Estuarine Fisheries and Habitat Center, 646 Cajundome Blvd., Lafayette, Louisiana.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2013

SCHEDULED DATES OF FUTURE PROGRAM MEETINGS

For Announcement:

2013

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|--------------------|-----------|-------------------------------|-------------|
| June 4, 2013 | 9:30 a.m. | Task Force | Lafayette |
| September 11, 2013 | 9:30 a.m. | Technical Committee | Baton Rouge |
| October 10, 2013 | 9:30 a.m. | Task Force | New Orleans |
| November 13, 2013 | 7:00 p.m. | PPL 23 Public Comment Meeting | Baton Rouge |
| December 12, 2013 | 9:30 a.m. | Technical Committee Meeting | Baton Rouge |