

# Priority Project List Number 22

## Candidate Projects



**Public Meetings – November 2012**

**Abbeville  
November 14<sup>th</sup>**

**New Orleans  
November 15<sup>th</sup>**

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## APPENDIX A

### PRIORITY PROJECT LIST 22 SELECTION PROCESS

#### Coastal Wetlands Planning, Protection and Restoration Act Guidelines for Development of the 22<sup>nd</sup> Priority Project List

##### Final

#### I. Development of Supporting Information

A. COE staff prepares spreadsheets indicating status of all restoration projects (CWPPRA Priority Project Lists (PPL) 1-21; Louisiana Coastal Area (LCA) Feasibility Study, Corps of Engineers Continuing Authorities 1135, 204, 206; and State only projects). Also, indicate net acres at the end of 20 years for each CWPPRA project.

B. OCPR/USGS staff prepare basin maps indicating:

- 1) Boundaries of the following projects types (PPLs 1-21; LCA Feasibility Study, 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 2012.
- 4) Regional boundary maps with basin boundaries and parish boundaries included.

#### II. Project Nominations

A. The four Regional Planning Teams (RPTs) will meet individually by region to examine basin maps, discuss areas of need and Coast 2050 strategies, and accept project nominations by hydrologic basin. 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 nine basins at any of the four RPT meetings.

Proposed project nominees shall support Coast 2050 strategies. Nominations for demonstration projects will also be accepted at any of the four RPT meetings.

The RPTs will not vote to select nominee projects at the individual regional meetings. Rather, voting will be conducted during a separate coast-wide RPT meeting. All CWPPRA agencies and parishes will be required to provide the name and contact information during the RPT meetings for the official representative that will vote at the coast-wide RPT meeting.

B. One coast-wide RPT meeting will be held after the individual RPT meetings to vote for nominees (including basin, coast-wide and demonstration project nominees). The RPTs will select three projects in the Terrebonne, Barataria, and Pontchartrain Basins based on the high loss rates (1985-2006) in those basins. Two projects will be selected in the Breton Sound, Teche/Vermilion, Mermentau, Calcasieu/Sabine, and Mississippi River Delta Basins. Because of the relatively low land loss rates, only one project will be selected in the Atchafalaya Basin. If only one project is presented at the Region II RPT Meeting for the Mississippi River Delta Basin, then an additional nominee would be selected for the Breton Sound Basin.

A total of up to 20 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 20 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.

C. Prior to the coast-wide RPT voting meeting, 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 the coast-wide RPT voting meeting, the Environmental and Engineering Work Groups will screen each demonstration project nominated at the RPT meetings. Demonstration projects will be screened to ensure that each meets the qualifications for demonstration projects as set forth in 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 Coast 2050 strategies and goals.

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.

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

IV. Selection of Phase 0 Candidate Projects

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

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.

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 and CPRA. 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 two public hearings to present the results from the candidate project evaluations. Public comments from the public will be accepted during the meeting and in writing.

## VI. Selection of 22<sup>nd</sup> Priority Project List

A. The selection of the 22<sup>nd</sup> 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 22<sup>nd</sup> PPL. The Technical Committee may also recommend demonstration projects for the 22<sup>nd</sup>.

C. The CWPPRA Task Force will review the Technical Committee recommendations and determine which projects will receive Phase 1 funding for the 22<sup>nd</sup> PPL.

## **22<sup>nd</sup> Priority List Project Development Schedule (dates subject to change)**

December 2011	Distribute public announcement of PPL 22 process and schedule
December 13, 2011	Winter Technical Committee Meeting, approve Phases I and II (Baton Rouge)
January 19, 2012	Winter Task Force Meeting (New Orleans)
January 24, 2012	Region IV Planning Team Meeting (Abbeville)
January 25, 2012	Region III Planning Team Meeting (Morgan City)
January 26, 2012	Regions I and II Planning Team Meetings (New Orleans)
February 15, 2012	Coast-wide RPT Voting Meeting (Baton Rouge)
March 9, 2012	Agencies prepare fact sheets for RPT-nominated projects
March 20-21, 2012	Engineering/ Environmental Work Groups review project features, benefits & prepare preliminary cost estimates for nominated projects (Baton Rouge)
March 22, 2012	P&E Subcommittee prepares matrix of nominated projects showing initial cost estimates and benefits
April 19, 2012	Spring Technical Committee Meeting, select PPL 22 candidate project (Baton Rouge)
May/June/July	Candidate project site visits
June 5, 2012	Spring Task Force Meeting (Lafayette)
July/August/ September	Env/Eng/Econ Work Group project evaluations
September 12, 2012	Fall Technical Committee Meeting, O&M and Monitoring funding recommendations (Baton Rouge)
October 11, 2012	Fall Task Force meeting, O&M and Monitoring approvals (New Orleans)
October 18, 2012	Economic, Engineering, and Environmental analyses completed for PPL 22 candidates
November 14, 2012	PPL 22 Public Meeting (Abbeville)
November 15, 2021	PPL 22 Public Meeting (New Orleans)
December 12, 2012	Winter Technical Committee Meeting, recommend PPL 22 and Phase I and II approvals (Baton Rouge)
January 24, 2013	Winter Task Force Meeting, select PPL 22 and approve Phase II requests (New Orleans)

## **Candidate Projects Located in Region 2**

## **PPL22 Lake Lery Shoreline Marsh Creation and Terracing**

### **Coast 2050 Strategy:**

Dedicated Dredging, to Create, Restore, or Protect Wetlands; Maintenance of Gulf, Bay and Lake Shoreline Integrity; and, Vegetative Planting (Coastwide Common Strategies)

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

The primary goals of the project are to 1) Create/nourish 560 acres of marsh through dedicated dredging, 2) Restore/stabilize approximately 3 miles of Lake Lery shoreline, and 3) Construct 15 acres of terraces.

### **Proposed Solution:**

The project would create 422 acres and nourish an additional 138 acres of marsh along the northern and eastern shore of Lake Lery using material dredged from Lake Lery. The marsh creation/nourishment will restore approximately 3 miles of the lake shoreline. The target elevation for the marsh creation areas will correspond with the elevation of healthy marsh in the surrounding area (1.4 feet NAVD 88 according to PPL21 Lake Lery Candidate project WVA). No planting is included for the creation or nourishment. The project will construct 21,000 feet (15 acres) of terraces in a 299-acre area north of the lake rim. Terraces would be constructed to an elevation of +2.5 feet NAVD 88, with a 15-foot crown width, and would be planted with suitable marsh vegetation 2.5 feet apart with two rows on the crown and each slope.

### **Project Benefits:**

The project would result in approximately 403 net acres over the 20-year project life.

### **Project Costs:**

The total fully-funded cost is \$ 31,377,030.

### **Preparers of Fact Sheet:**

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### Lake Lery Shoreline Marsh Creation and Terracing (PPL22 Candidate)

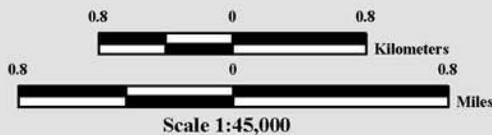


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U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Field Station  
Baton Rouge, La

Image Source:  
2010 NAIP Photography



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



Map ID: USGS-NWRC 2012-11-0013  
Map Date: June 22, 2012

## **PPL22 Terracing and Marsh Creation South of Big Mar**

### **Coast 2050 Strategy:**

Coastwide Common Strategies: Dedicated dredging to create, restore, or protect wetlands; Terracing.

Region 2 Regional Ecosystem Strategies: Restore and Sustain Marshes; Manage outfall of existing diversions.

### **Project Location:**

Region 2, Breton Sound Basin, Plaquemines Parish, south of Big Mar and west of Lake Lery

### **Problem:**

From 1932 to 1990, the Caernarvon Mapping Unit lost 14,240 acres of its marsh. Prior to Hurricane Katrina, the greatest lost documented occurred between 1956 and 1974 and coincided with Hurricane Betsy and extensive canal building. Hurricane Katrina devastated the area resulting in substantial marsh loss. According to USGS Open File Report (2006-1274), approximately 39 square miles of marsh around the upper and central portions of Breton Sound were converted to open water by ripping of the marsh or by marsh submergence. Because the framework of the marsh has been devastated, suspended sediments provided by the diversion move through the system and fall out where velocities are reduced such as in Big Mar and Lake Lery.

### **Goals:**

The primary goal is to create terraces in the shallow open water areas south of Big Mar within the Caernarvon Diversion outfall area. Terraces will reduce wave fetch in the large open water areas and promote conditions conducive to growth of marsh vegetation and submerged aquatic vegetation. Additional benefits may be achieved through capturing suspended sediments. Marsh creation is also proposed to reestablish the western shoreline of Lake Lery in association with the Lake Lery Shoreline Restoration Project (BS-16).

### **Proposed Solutions:**

Approximately 65,000 linear feet of terraces (37 acres) will be constructed with in-situ material to reduce fetch and turbidity and capture suspended sediment. Sediments will be hydraulically dredged from Lake Lery and pumped via pipeline to create and restore approximately 334 acres of marsh in the project area.

### **Project Benefits:**

The project would result in approximately 302 net acres over the 20-year project life.

### **Project Costs:**

The total fully-funded cost is \$ 23,692,705.

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

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**Terracing and Marsh Creation South of Big Mar  
(PPL22 Candidate)**

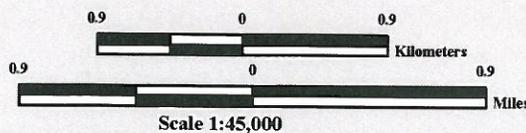


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National Wetlands Research Center  
Coastal Restoration Field Station  
Baton Rouge, La

Image Source:  
2010 NAIP Photography



-  Terrace Field \*
  -  Marsh Creation/Nourishment \*
  -  Project Boundary \*
- \* denotes proposed features



Map ID: USGS-NWRC 2012-11-0014  
Map Date: June 22, 2012

## **PPL22 Bayou Dupont Sediment Delivery – Marsh Creation #3**

### **Coast 2050 Strategy:**

Coastwide Common Strategies: Dedicated dredging to create, restore, or protect wetlands; Offshore and riverine sand and sediment resources.

Region 2 Regional Ecosystem Strategies: Restore and Sustain Marshes.

### **Project Location:**

Region 2, Barataria Basin, Jefferson and Plaquemines Parishes. The borrow location will be in the Mississippi River. The project is immediately adjacent to the Mississippi River Sediment Delivery System project (BA-39).

### **Problem:**

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. 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 loss. Recent information suggests that actual subsurface oil and gas withdrawal was a major cause of wetland loss. From 1932 to 1990, the Barataria Basin lost over 245,000 acres of marsh, and from 1978 to 1990, it experienced the highest rate of wetland loss in coastal Louisiana.

### **Goals:**

The primary goal of this project is to create/nourish approximately 415 acres of emergent intermediate marsh using sediment from the Mississippi River. Specific goals include: 1) Create approximately 402 acres of intermediate marsh; 2) Nourish approximately 13 acres of existing intermediate marsh; and 3) Create approximately 2500 linear feet of tidal creeks.

### **Proposed Solution:**

The proposed project consists of features to create/nourish 415 acres of marsh adjacent to the Mississippi River Sediment Delivery System – Bayou Dupont (BA-39) project, again *using sediment from the Mississippi River*. The target elevation of +1.3 feet is estimated to be met at year 10. Approximately 50% of created marsh will be planted using intermediate marsh plant species. Approximately 2500 linear feet of tidal creeks will be created throughout the project area.

### **Project Benefits:**

The project would result in approximately 383 net acres over the 20-year project life.

### **Project Costs:**

The total fully-funded cost is \$ 38,279,163.

### **Preparers of Fact Sheet:**

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### Bayou Dupont Marsh Creation 3 (PPL22 Candidate)



-  Marsh Creation \*
-  Project Boundary

\* denotes proposed features



Scale: 1:35,000

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U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Assessment Branch  
Baton Rouge, LA

Image Source:  
2010 NAIP Photography

Map ID: 2012-11-0017  
Map Date: July 25, 2012

## **PPL22 Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection**

### **Coast 2050 Strategy:**

Dedicated Dredging to Create Marsh on the Landbridge; Preserve Bay and Lake Shoreline Integrity on the Landbridge; Coastwide: Dedicated Dredging for Wetland Creation.

### **Project Location:**

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

### **Problem:**

Historic wetland loss in the area occurs in the form of shoreline erosion along Turtle Bay and interior marsh loss. The interior loss is caused by subsidence, sediment deprivation, and construction of access and pipeline canals. Based on an analysis conducted by USGS, loss rates in the area are estimated to be -0.615% per year for the period 1984 to 2011. Shoreline erosion along the northwest shore of Turtle Bay, in the area proposed to be addressed by this project is approximately 3 to 4 feet per year.

### **Goals:**

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

### **Proposed Solution:**

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

### **Project Benefits:**

The project would result in approximately 492 net acres over the 20-year project life.

### **Project Costs:**

The total fully-funded cost is \$ 40,494,122.

### **Preparers of Fact Sheet:**

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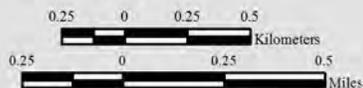


### NE Turtle Bay Marsh Creation and Critical Shoreline Protection (PPL22 Candidate)



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

\* denotes proposed features



Scale: 1:30,000



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

Image Source:  
 2010 NAIP Photography

Map ID: 2012-11-0024  
 Map Date: July 30, 2012

## **PPL22 Elmer's Island Restoration**

### **Coast 2050 Strategy:**

Coastwide: Dedicated dredging to create, restore, or protect wetlands; Maintenance of Gulf, bay, and lake shoreline integrity;

Regional: Restore/maintain barrier headlands, islands and shorelines

### **Project Location:**

Region 2, Barataria Basin, Jefferson Parish

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

The proposed features consist of four primary elements (1) 304 acres of marsh creation (with planting), (2) approximately 5,400 feet of dune repair (with planting), (3) breach closure (with planting), and (4) installation of four culverts. Approximately 130,400 cubic yards of sand would be dredged from the ebb shoal of Barataria Pass for the dune and breach repairs.

Approximately 2.2 million cubic yards of sediment would be dredged for marsh creation from an offshore location that would not impact the Caminada Headland or Grand Isle.

### **Project Benefits:**

The project would result in approximately 272 net acres over the 20-year project life.

### **Project Costs:**

The total fully-funded cost is \$35,745,200.

### **Preparers of Fact Sheet:**

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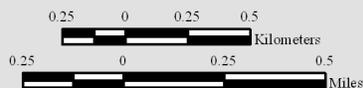


### Elmer's Island Restoration (PPL22 Candidate)



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

\* denotes proposed features



Scale: 1:30,000

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National Wetlands Research Center  
Coastal Restoration Assessment Branch  
Baton Rouge, LA

Image Source:  
2010 NAIP Photography

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

## **Candidate Projects Located in Region 3**

## **PPL22 North Catfish Lake Marsh Creation**

### **Coast 2050 Strategy:**

Coastwide Strategy: Dedicated dredging to create, restore, or protect wetlands.  
Region 3, Strategy 11: Maintain Shoreline Integrity/Stabilize Critical Areas.

### **Project Location:**

Region 3, Terrebonne Basin, Lafourche Parish, Northern Shoreline of Catfish Lake

### **Problem:**

Eastern Terrebonne Basin is significantly isolated from the riverine influences of the Mississippi and Atchafalaya Rivers. Consequently, both subsidence and erosion of shorelines have occurred at some of the highest rates in Louisiana. The northern half of the Catfish Lake shoreline has experienced an average erosion rate of approximately 9.8 ft with some areas losing as much as 40 ft per year. Interior marsh loss along the lake rim has also formed a large pond on the east side of the lake shoreline that has breached and threatens to greatly accelerate wetland loss in the area.

### **Goals:**

The goal of the project is to strategically create marsh and reduce shoreline loss by reconstructing the marsh along the lake rim of Catfish Lake, one of the most prominent interior lakes in the eastern Terrebonne Basin.

### **Proposed Solutions:**

The project will create marsh along the lake rim of the northern half of Catfish Lake and plant smooth cordgrass along the lake shore-face to reestablish a healthy and stable lake rim marsh community. Sediments will be hydraulically dredged from Catfish Lake and pumped via pipeline to create approximately 415 acres of marsh habitat and nourish an additional 251 acres of marsh habitat.

### **Project Benefits:**

The project would result in approximately 401 net acres over the 20 year project life.

### **Project Costs:**

The total fully-funded cost is \$ 30,385,887.

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

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### North Catfish Lake Marsh Creation (PPL22 Candidate)



-  Marsh Creation \*
-  Borrow \*
-  Project Boundary

\* denotes proposed features



Scale: 1:35,000



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

Image Source:  
2010 NAIP Photography

Map ID: 2012-11-0018  
Map Date: June 28, 2012

## **PPL22 Grand Bayou Freshwater Enhancement and Terracing**

### **Coast 2050 Strategy:**

Coastwide Strategy: Maintain estuarine gradient to achieve diversity; Diversions and riverine discharge; Management of diversion outfall for wetland benefits.

Region 3 Strategy: Enhance Atchafalaya River water influence to Central Terrebonne Marshes; Restore and Sustain Marshes.

### **Project Location:**

Region 3, Terrebonne Basin, Lafourche Parish, Marshes east and west of Grand Bayou Canal (GBC) from the Gulf Intracoastal Waterway (GIWW) to just south of Margaret's Bayou.

### **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 GBC. Margaret's Bayou is also plugged keeping fresh water from moving east into the 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 west of GBC are estimated at -0.328 percent/year and -0.583 percent/year east of GBC.

### **Goals:**

The primary 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 and from the creation of terraces. 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; and (4) create 183,000 linear feet of terraces (97 acres of marsh) near the southern Point aux Chenes boundary and near the Lafourche Parish flood protection levee.

### **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. Construct a fixed crest weir (with barge bay) in GBC south of Margaret's Bayou. Reconnect Margaret's Bayou with GBC and enlarge Margaret's Bayou. Replace a rock plug along GBC with a water control structure. Create 183,000 linear feet of earthen terraces south of Margaret's Bayou.

### **Project Benefits:**

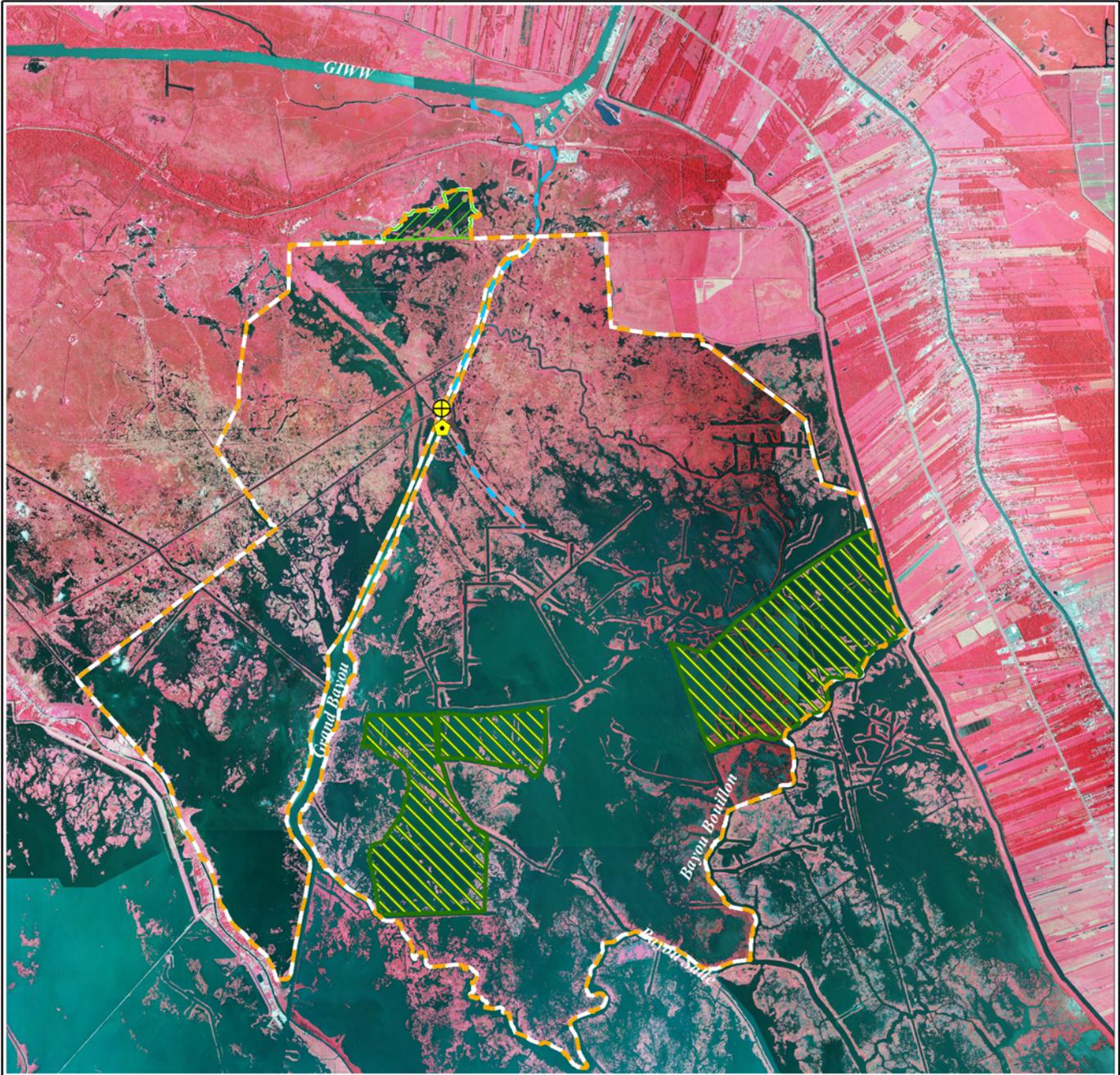
The project would result in approximately 655 net acres over the 20-year project life.

### **Project Costs:**

The total fully-funded cost is \$ 30,344,992.

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

Robert Dubois, FWS, (337) 291-3127; robert\_dubois@fws.gov



## Grand Bayou Freshwater Enhancement and Terracing (PPL22 Candidate)



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

Image Source:  
 2010 NAIP Photography



- Water Control Structure \*
- Weir w/ Barge Bay \*
- Channel Enlargement \*
- Marsh Creation \*
- Terrace Field \*
- Freshwater Influence \*
- Project Boundary \*

\* denotes proposed features



Scale 1:100,000

Map ID: USGS-NWRC 2012-11-0026  
 Map Date: October 24, 2012

## **PPL22 South Little Vermilion Bay Plantings and Terracing**

### **Coast 2050 Strategy:**

Maintain shoreline integrity and stabilize critical areas (*Regional Ecosystem Strategy*); Terracing and Vegetative Plantings (*Coastwide Common Strategy*)

### **Project Location:**

Region 3, Teche/Vermilion Basin, Vermilion Parish, Northeastern shore of Vermilion Bay extending from Mud Point, around Little Vermilion Bay to State Wildlife Refuge.

### **Problem:**

Continuous wind-wave energy is preventing sediments from the Gulf Intracoastal Waterway through Freshwater Bayou and Schooner Bayou from becoming sub-aerial features, and is also responsible for shoreline erosion. Continued shoreline retreat in Vermilion Bay is threatening the integrity of Bay rim, which if compromised would expose surrounding marsh to open bay energies.

### **Goals:**

The primary goals of the project are to: 1) Create approximately 26,000 LF of distributary channels in Little Vermilion Bay, 2) Create approximately 22,000 LF of earthen terraces (17 acres), 3) Increase sediment deposition to create emergent marsh base, 4) Stabilize approximately 46,695 linear feet of bay shoreline through five years of intensive vegetative plantings (63 acres), 5) Create an additional 14 acres of emergent marsh through the expansion of vegetative plantings. Abate wind-driven wave erosion along Vermilion Bay.

### **Proposed Solution:**

The project features includes terracing and intensive shoreline vegetation plantings. Terraces would be constructed to diminish waves in Little Vermilion Bay, helping to increase sediment deposition and reduce the rate of shoreline erosion. A pattern of channels would be dredged 100-foot wide and 6-foot deep to beneficially distribute sediment from the GIWW through the Freshwater and Schooner bayous. Dredged sediments would be used to construct 22,000 LF of earthen terraces. Terraces would be constructed to +2.8 feet NAVD88 with a crown 20 feet wide. The slopes of the terraces would be planted with smooth cordgrass plugs. The project design follows that of the Little Vermilion Bay Sediment Trapping Project (TV-12).

### **Project Benefits:**

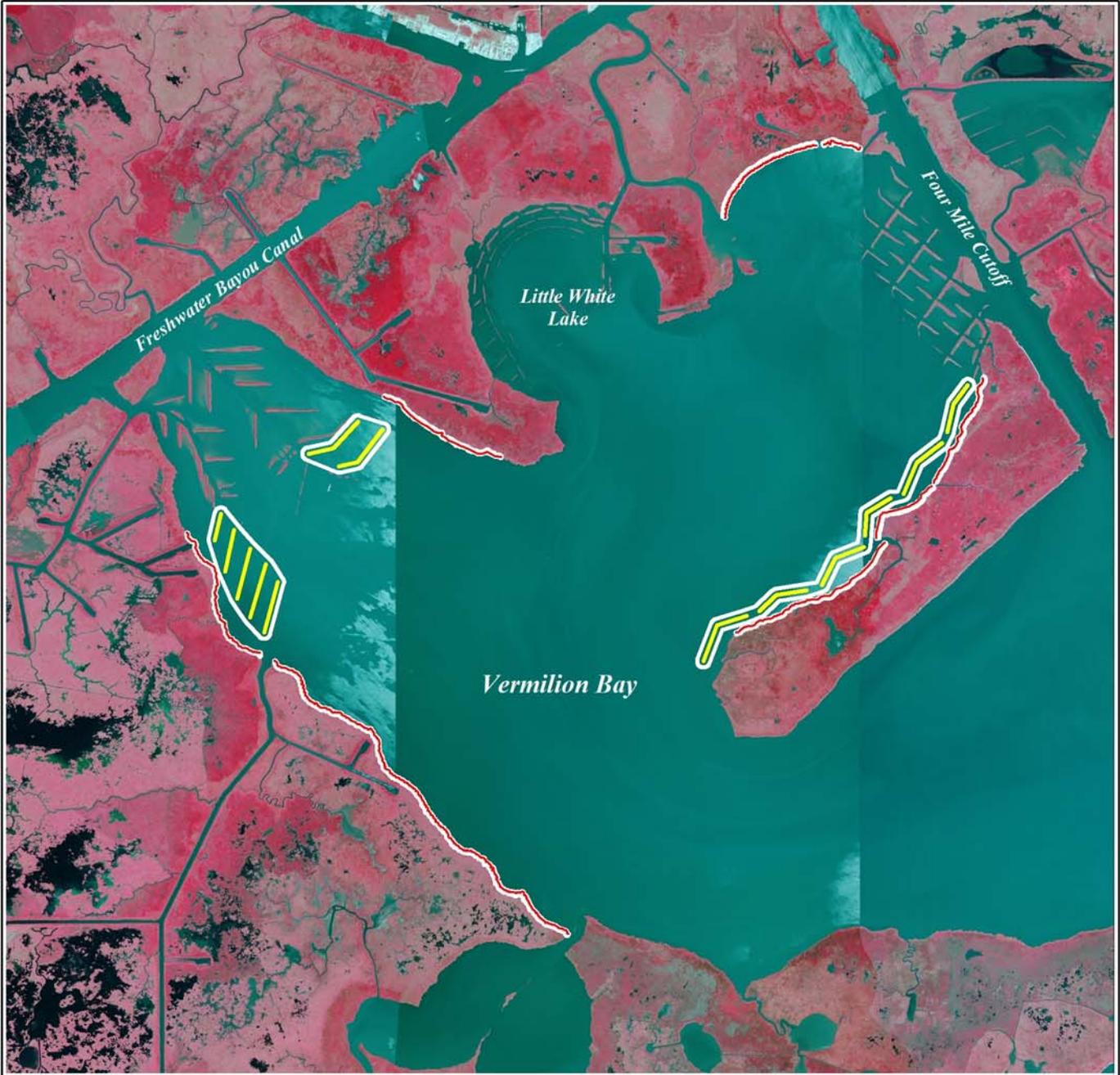
The project would result in approximately 93 net acres over the 20-year project life.

### **Project Costs:**

The total fully-funded cost is \$ 6,506,921.

### **Preparers of Fact Sheet:**

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### South Vermilion Bay Terraces and Planting (PPL22 Candidate)



-  Terraces \*
-  Vegetative Plantings \*
-  Possible Project Location

\* denotes proposed features



Scale: 1:60,000



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

Image Source:  
2010 NAIP Photography

Map ID: 2012-11-0015  
Map Date: September 04, 2012

## **Candidate Projects Located in Region 4**

## **PPL22 Front Ridge Freshwater Introduction and Terracing**

### **Coast 2050 Strategy:**

Coastwide Common Strategies: Maintain, Protect, or Restore Ridge Functions; Terracing accompanied by vegetative planting, is an effective means of marsh habitat creation.

Regional Strategy 4: Move water from Lakes Subbasin across Highway 82 including outfall management and flood protection where needed. Restore historic hydrologic and salinity conditions throughout Region 4 to protect wetlands from hydrologic modification.

### **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 Freshwater Bayou and Humble Canals. 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 subbasins.

### **Goals:**

The project goals are two-fold: 1) to evacuate excess water from the Lakes Subbasin; and 2) to provide freshwater to the Chenier Subbasin. The project would restore/improve hydrologic conditions and promote the expansion of emergent marsh vegetation throughout the project area. The terracing will be designed to reduce wave energies and promote growth of submerged aquatic vegetation.

### **Proposed Solution:**

The project proposes approximately 181,500 linear feet of terracing and freshwater introduction.

The proposed freshwater introduction would restore/improve hydrologic conditions by allowing water from the Lakes Subbasin to drain south across Highway 82 into the Chenier Subbasin. The majority of the necessary infrastructure exists and would require minimal improvement/cleanout and the construction of an outlet structure at Front Ridge.

### **Project Benefits:**

The project would result in approximately 134 net acres over the 20-year project life.

### **Project Costs:**

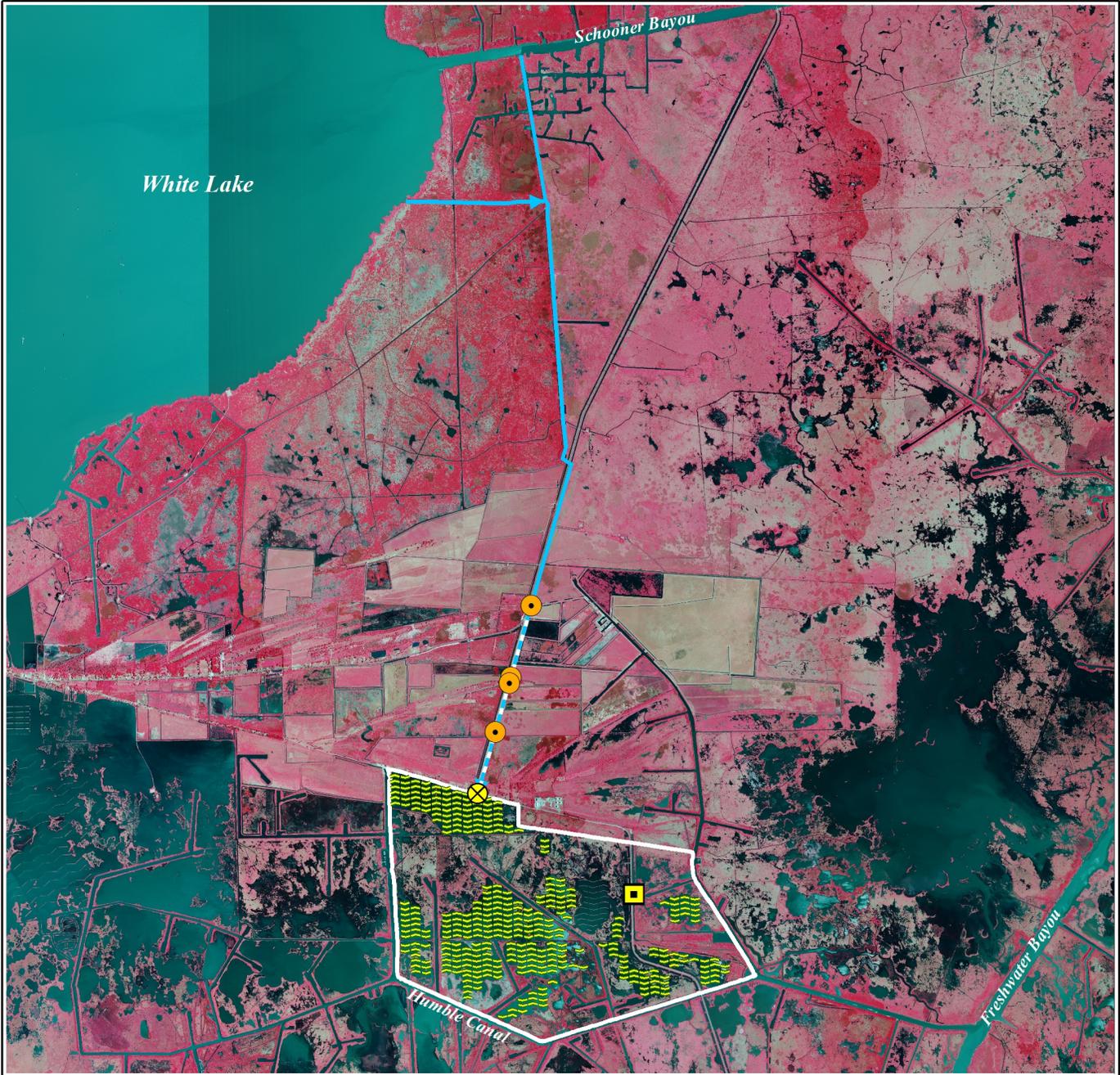
The total fully-funded cost is \$ 13,622,423.

### **Preparers of Fact Sheet**

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Wayne Henderson, (225) 922- 4600, [whenderson@pncca.com](mailto:whenderson@pncca.com)

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



### Front Ridge Freshwater Introduction and Terracing (PPL22 Candidate)



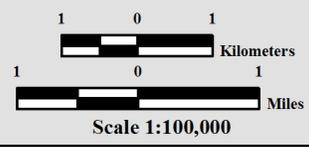
Produced by:  
U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Field Station  
Baton Rouge, La

Image Source:  
2010 NAIP Photography



- Culvert \*
- Replacement Structure \*
- Culvert with Flapgate \*
- Freshwater Introduction \*
- Channel Cleanout \*
- Freshwater Introduction \*
- Influence Area/Project Boundary \*

\* denotes proposed features



Map ID: USGS-NWRC 2012-11-0027  
Map Date: August 28, 2012

## **PPL22 Cameron Meadows Marsh Creation and Terracing**

### **Coast 2050 Strategy:**

Restore and Sustain Wetlands (*Regional Ecosystem Strategy*); Dedicated Dredging for Wetlands Creation, Terracing, and Vegetative Plantings (*Coastwide Common Strategy*); Restore Hydrology in the Burton-Sutton Canal (*Mapping Unit Strategy*)

### **Project Location:**

Region 4, Calcasieu/Sabine Basin, Cameron Parish, approximately 18 miles west of Cameron, 5 miles north of the Gulf of Mexico, northeast of Johnsons Bayou, south of Cameron Meadows Gas Field.

### **Problem:**

Significant marsh loss is attributed to rapid fluid and gas extraction beginning in 1931, Hurricanes Rita, Gustav and Ike. Rapid fluid and gas extraction resulted in a surface down warping along distinguished geologic fault lines. In the decades that followed, organic matter filled the low area and an emergent marsh community became established. During the hurricanes of 2005 and 2008, the physical removal of the marsh coupled with low rainfall has resulted in the conversion of intermediate to brackish marsh to approximately 7,000 acres of open water. In addition to these direct losses, significant marsh loss has resulted from saltwater intrusion and hydrologic changes associated with storm damage and blocked drainages.

### **Goals:**

Restore coastal marsh habitat by creating approximately 352 acres of marsh with dredge material and constructing terraces. Reverse the conversion of wetlands to shallow open water in the project area through reestablishment of hydrologic connectivity.

### **Proposed Solution:**

Construct 334 acres of marsh, reestablishing Old North Bayou, utilizing dredged material from the Gulf of Mexico. Construct 35,000 linear feet of terraces (18 acres) to reduce wind generated wave fetch. Terraces would be constructed to +2.5 feet NAVD 88, 15 feet crown width, and planted. Project features would include cleaning out over 30,000 linear feet of canals (South Line and/or B1) to re-establish drainage patterns filled in as a result of the hurricanes. The marsh creation areas would be planted with appropriate species of wetland vegetation.

### **Project Benefits:**

The project would result in approximately 265 net acres over the 20-year project life.

### **Project Costs:**

The total fully-funded cost is \$ 27,685,820.

### **Preparers of Fact Sheet:**

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Kimberly Clements, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 204  
[Kimberly.Clements@noaa.gov](mailto:Kimberly.Clements@noaa.gov)

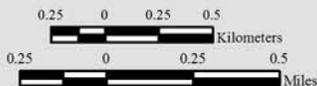


### Cameron Meadows Marsh Creation and Terracing (PPL22 Candidate)



- Marsh Creation \*
- Terrace Field \*
- Project Boundary

\* denotes proposed features



Scale: 1:35,000

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

Image Source:  
2010 NAIP Photography

Map ID: 2012-11-0025  
Map Date: July 18, 2012

# **Candidate Demonstration Projects**

## **PPL22 Hay Bale Restoration Demonstration Project**

### **Coast 2050 Strategies:**

Coastwide strategies: Maintenance of bay and lake shoreline integrity; Vegetative Planting; Terracing. Regional Ecosystem strategies: Restore Swamps; Restore/Sustain Marshes; Protect Bay and Lake Shorelines; Restore and Maintain Barrier Islands; Maintain Critical Landforms.

### **Potential Demonstration Project Location:**

Coastwide

### **Problem:**

With the construction of the levee system, the integrity of the natural flow of the Mississippi River has been compromised. The use of hay bales in restoration efforts needs to be investigated as an all “natural” solution to help put back what the construction of the levees has taken away (i.e. return of sediment input from waterways back to the land to help counter land subsidence/add nutrients).

### **Goals:**

Deploy and test various approaches for restoring the eroding marsh/banks/shorelines. Demonstrate the versatility of hay bales in restoration, as an alternative to traditional methods.

### **Proposed Solutions:**

“Barriers” of 800-lb round bales of hay, wheat, and/or rice straw will be constructed to suppress the erosive effects of wave action on shorelines and trap sediment, forming a more “natural” barrier or buffer compared to traditional methods used for erosion control. Approximately 1500 ft of double row hay bales would be placed in a linear “barricade alignment” near shore, with 3 replicate 500-foot sections and 20-foot gaps in between each section (Figure 1). In addition, the utilization of hay bales as containment for dredged material will also be evaluated. This treatment is intended to investigate a different method of containment in areas unsuitable for earthen dike construction. Three 0.9-acre cells consisting of a double wall of hay bales will be constructed (Figure 2).

### **Project Benefits:**

Benefits include: 1) cost effective when compared to other traditional means of erosion control (e.g., rock); 2) all-natural and expected to be non-toxic to the environment (biodegradable); 3) reduces wave energy to help with soil stabilization/soil creation; 4) would serve to protect new vegetative plantings as well as existing vegetation; 5) excellent source of shelter for nesting/colonization by birds and other animals; 6) attract fish and other aquatic species; and 7) creates a market for wheat and rice straw that currently does not exist.

### **Project Costs:**

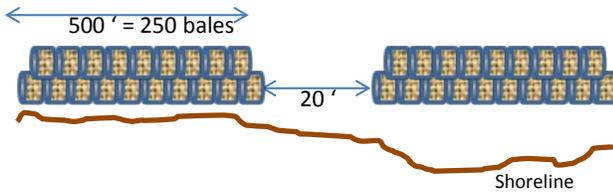
The total fully-funded cost is \$ 2,126,843.

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

Susan Hennington, USACE, 504-862-2504, [Susan.M.Hennington@usace.army.mil](mailto:Susan.M.Hennington@usace.army.mil)  
Scott F. Wandell, USACE, 504-862-1878, [Scott.F.Wandell@usace.army.mil](mailto:Scott.F.Wandell@usace.army.mil)

## Placements Near Shore:

Figure 1: Nearshore Barricade- Double Row (3 reps = 750 bales total)



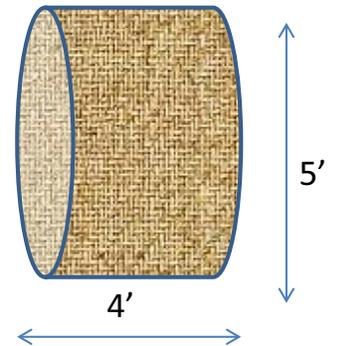
## Placements in Open Water Areas:

Figure 2: Double Row for Containment (3 reps = 1200 bales)



200' x 200' = 400 bales  
(0.9 acres)

## Round Hay Bales



## **PPL22 Reconnection of Hydrologically Isolated Wetlands to Improve Ecological Function Demonstration Project**

### **Coast 2050 Strategy:**

Regional: Improve hydrology, restore hydrology

### **Potential Demonstration Project Location:**

Coastwide swamps, intermediate, brackish, and salt marshes

### **Problem:**

The juxtaposition of canal spoils banks often results in the impoundment or partial impoundment of coastal wetlands thus reducing the exchange between these wetlands and the surrounding areas. This reduced exchange results in fewer but longer flooding and drying events. The increased flooding may be enough to increase the soil waterlogging to a point where plants may become stressed due to soil chemistry changes ultimately leading to plant death and wetland loss. Excessive inundation of swamps has been shown to lead to increased stress, resulting in mortality to less flood tolerant species and eventually to loss of tree density.

### **Goals:**

(1) Assess the size or number of connections necessary to re-establish the hydrology within an isolated wetland and improve the connectivity to the surrounding wetland in order to restore ecological function. (2) Improve the soil chemistry by decreasing soil waterlogging. (3) Reduce stress on the vegetation. (4) Improve fisheries access.

### **Proposed Solution:**

Re-establish the connectivity to the surrounding wetlands by opening hydrologic pathways. It is anticipated that 1-3 impounded locations will be used, each with a reconnected and non-reconnected control. Approximately 500 linear feet (ft) of gaps (or spoil bank degradation) would be constructed at each of the locations for a total of 3,000 ft. The gap lengths tested would include the present minimum standard of 25 ft being used on CWPPRA projects. Additional size and/or number of gaps or degrading would be tested.

### **Project Benefits:**

1. Re-establishment of a natural hydrologic regime.
2. Lower (or eliminate) plant stress due to waterlogging.
3. Increase connectivity (water, material and organisms) to surrounding wetlands.
4. Provide data on transient fish and invertebrate species access to the marsh.
5. Determine optimal sizes of gaps that may be useful for marsh creation projects.

### **Project Costs**

The total fully funded cost is \$1,724,012.

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

Patrick Williams, NOAA Fisheries, 225-389-0508, [patrick.williams@noaa.gov](mailto:patrick.williams@noaa.gov)  
Erick Swenson, Louisiana State University, (225)578-2730, [eswenson@lsu.edu](mailto:eswenson@lsu.edu)

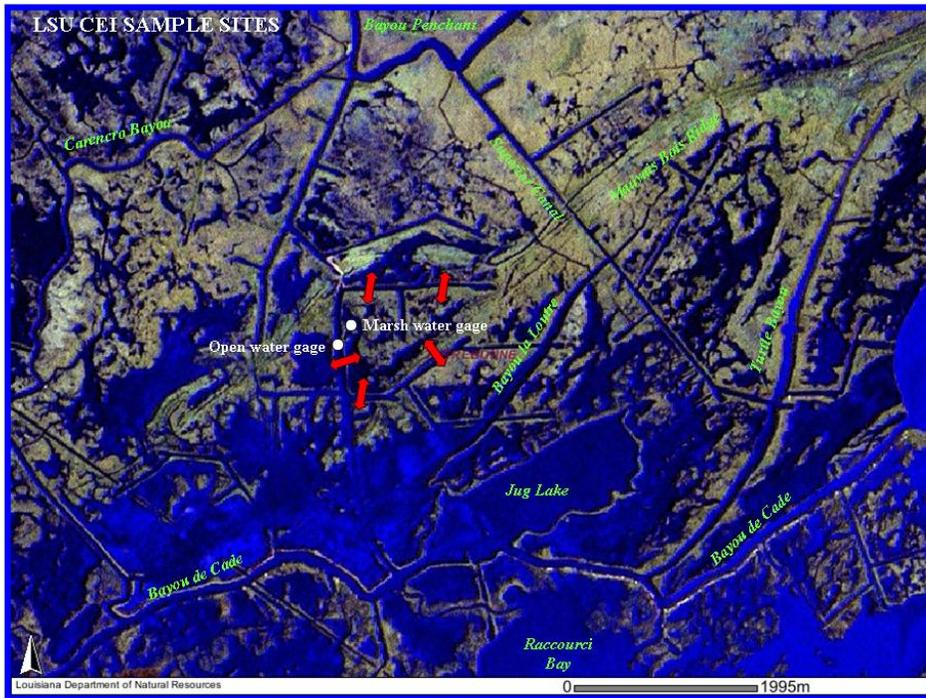
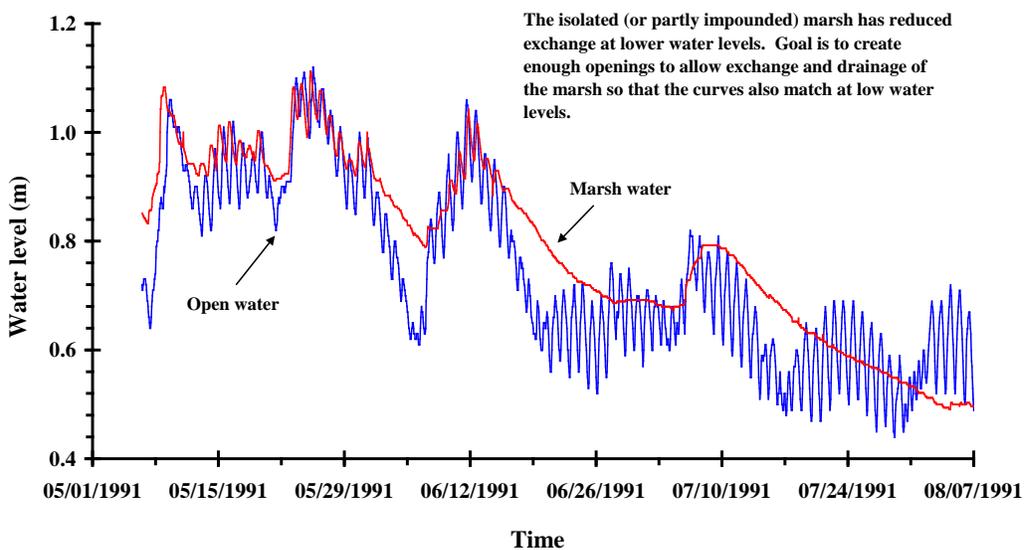


Figure 1. Example of an impounded site (surrounded by spoil banks) in an intermediate marsh in Terrebonne Parish. The red arrows indicate possible locations to gap (or degrade spoil banks) to re-establish hydrologic connectivity.



Data source: E. M. Swenson, LSU

Figure 2. Example of marsh water levels (red) in an impounded marsh and in the adjacent open water (blue) at an intermediate marsh site in Terrebonne Parish (Figure 1). The site floods and drains during high water level events but drainage is limited (by spoil banks) at lower water levels leading to increased waterlogging.

## **PPL22 Coastal Restoration and Energy Production System (CREPS) Demonstration Project**

### **Coast 2050 Strategy:**

Coastwide: Management of Pump and Gravity-flow Outfall for Wetland Benefits; Diversions and Riverine Discharge

### **Potential Demonstration Project Location:**

Plaquemines Parish, St. Bernard Parish, Orleans Parish, Jefferson Parish, St. Charles Parish, St. John the Baptist Parish, or St. James Parish.

### **Problem:**

Over a century of leveeing and river management has isolated the Mississippi River from the wetlands that have historically depended on its periodic inputs of nutrients, sediment, and freshwater.

### **Goals:**

The goal of this project is to demonstrate the potential use of the CREPS diversion technology for supplying degraded wetlands with fresh water and sediment. Specifically, the project will compare the efficiency and cost effectiveness of CREPS technology with existing diversions. Another goal of the project is investigate the potential capture and utilization of hydroelectric power from the diversion.

### **Proposed Solution:**

CREPS consists of a 30inch pipe horizontally directional drilled under a levee system (>80ft below the levee), with the input under water on the river side and the output outside of the levee (Figure 1). Because the average level of the river is higher in elevation than the wetlands, hydrostatic forces will force river water through the pipe. A hydrokinetic turbine will be fixed to the output and generate power. This electricity can then be used to power pumps to further direct the diverted river water or uploaded to the transmission grid to generate revenue.

### **Proposed Benefits:**

CREPS technology would introduce nutrient and sediment-rich freshwater into coastal wetlands. It is similar in cost to install as a major diversion on a cfs basis, but can be constructed in a fraction of the time. It also minimizes the induced shoaling threat to the maritime industry, and does not hinder existing residential, commercial, or industrial operations during construction or operation.

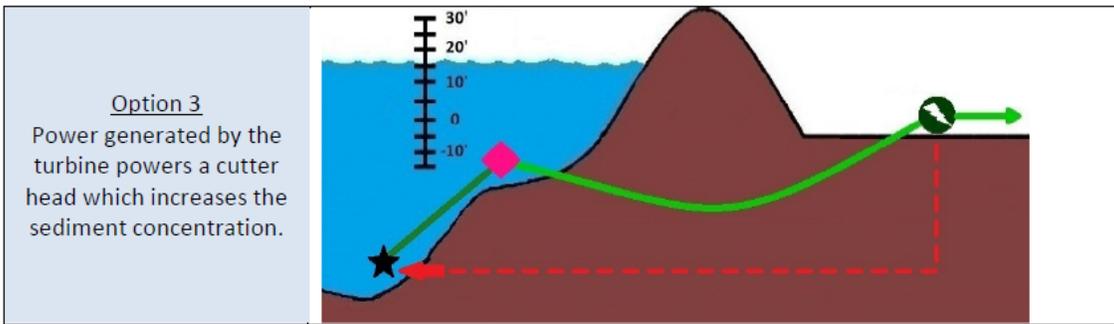
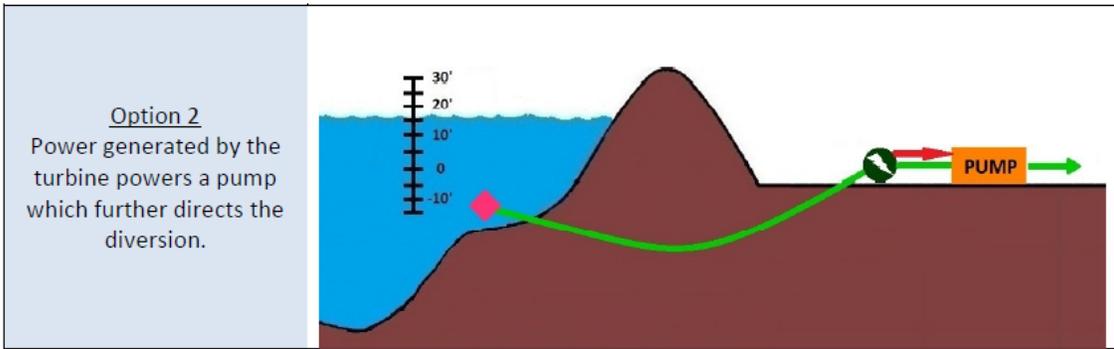
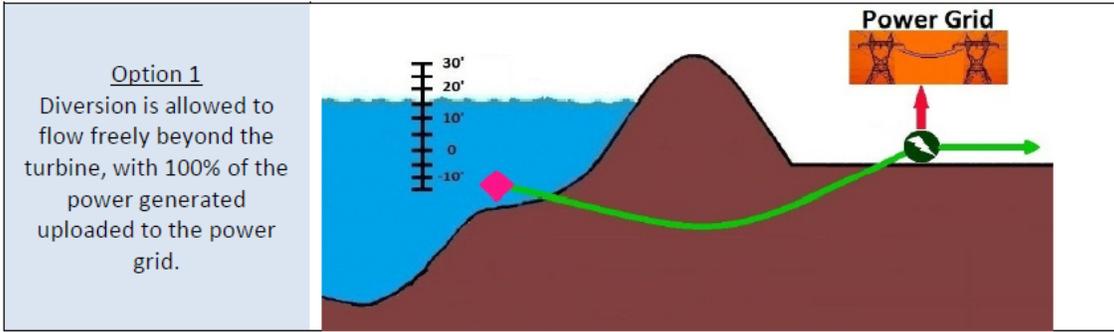
### **Project Costs:**

The total fully-funded cost is \$ 3,357,745.

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

Stuart Brown, CPRA, 225-342-4596, stuart.brown@la.gov  
Kodi Collins, CPRA, 225-342-4106, kodi.collins@la.gov

Legend



## **PPL22 Bioengineering of Shorelines and Canal Banks using Live Stakes Demonstration Project**

### **Coast 2050 Strategy:**

Maintain bay and lake shorelines. Terracing and plantings.

### **Potential Demonstration Project Location:**

Coastwide

### **Problem:**

Louisiana's coastal shorelines have experienced high levels of retreat. The typical approach to reducing shoreline erosion has been to use rock dikes or sheetpile structures. These structures require the use of materials that are not native to the Louisiana coast and when procured elsewhere, cause damage to other environments (quarry). In addition, rock is often not physically compatible with native coastal soils - rocks often sink into the fine-grained and highly organic coastal wetland soils.

### **Goals:**

The proposed project would demonstrate an alternative to traditional shoreline protection techniques. In particular, this project would demonstrate an ecological engineering approach to stabilization of existing shoreline features and attenuation of shoreline retreat.

### **Proposed Solution:**

The stabilization materials have a variety of application possibilities that can be adjusted to best suit many different types of coastal environments. A staggered terrace-like orientation can break up wave action, reduce turbidity, and allow sediment to settle, potentially accreting and creating emergent marsh. The use of native woody materials ensures the use of native plants and provides a relatively inexpensive source of plant materials. In combination with the erosion control materials, a variety of configurations in planting the shallows, shoreline and near shore areas will begin the reestablishment of a native plant community. The demonstration would include the selection of 3 diverse application sites for treatment. Each treatment would include 3 replicate 500-foot sections for a total project installation of 4,500 linear feet.

### **Project Benefits:**

Benefits include: 1) absorb and deflect wave energy; 2) protect and enhance existing or planted shoreline vegetation; 3) allow ingress and egress of aquatic species; 4) collect sediment by reducing wave energy; 5) reduce interior marsh loss; and 6) use of native materials.

### **Project Costs**

The fully-funded cost is \$2,562,494.

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

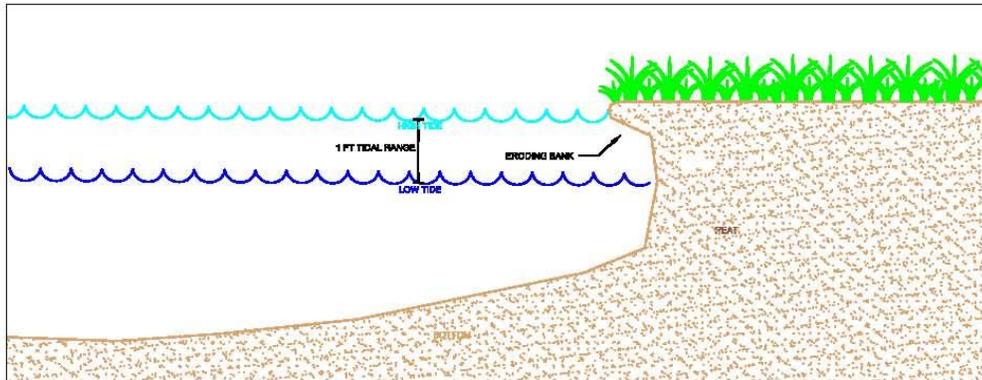
Paul Kaspar, EPA, 214-665-7459, [kaspar.paul@epa.gov](mailto:kaspar.paul@epa.gov)

Ken Teague, EPA, 214-665-6687, [Teague.kenneth@epa.gov](mailto:Teague.kenneth@epa.gov)

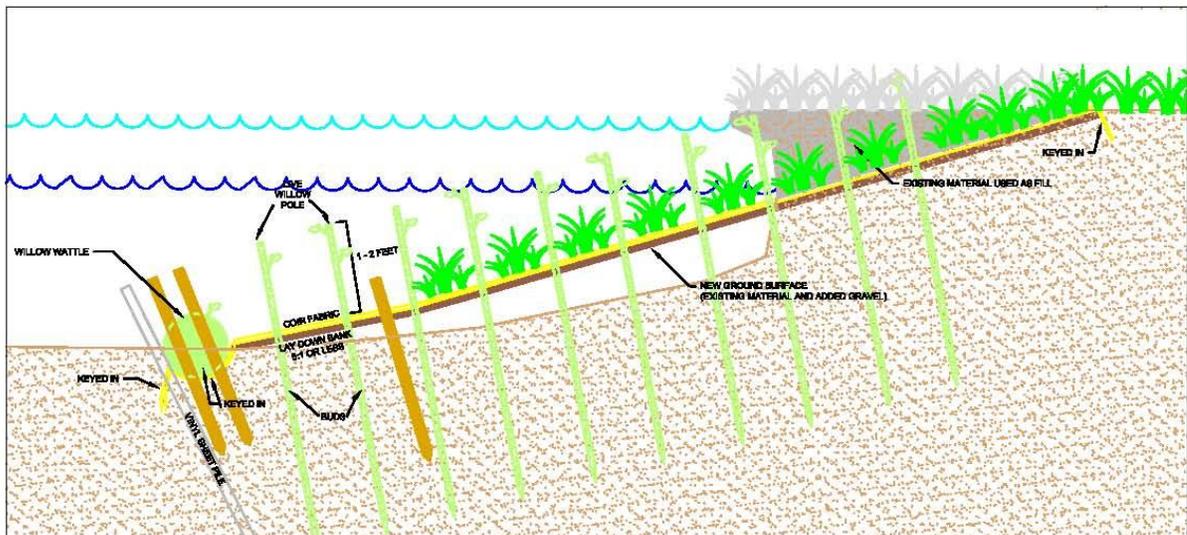
Adrian Chavarria, EPA, 214-665-7255, [chavarria.adrian@epa.gov](mailto:chavarria.adrian@epa.gov)

Chris Llewellyn, EPA, 214-665-7239, [Llewellyn.chris@epa.gov](mailto:Llewellyn.chris@epa.gov)

## PRE-CONSTRUCTION (EXISTING CONDITIONS)



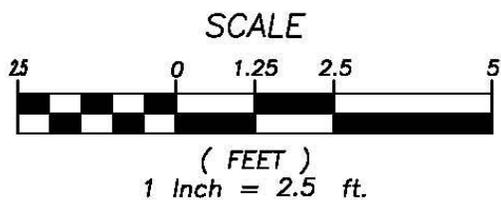
## POST-CONSTRUCTION (DESIGN)



- DORMANT WILLOW WATTLE**
- 1 FOOT DIAMETER
  - 5 FOOT LENGTH WILLOW WHIPS
  - STAKED EVERY FOOT WITH 3 FOOT STAKES
  - TIED WITH HEAVY COIR TWINE
  - BURIED 6 INCHES (HALF OF DIAMETER)

- DORMANT WILLOW POLE**
- 1 FOOT ON CENTER
  - 1 INCH DIAMETER
  - 5 FEET LONG - POINTED ON ONE END

- EROSION CONTROL FABRIC**
- EXTRA HEAVY DUTY COIR FABRIC



## SCHMATIC OF BIOENGINEERED SLOPE (FRESHWATER/INTERMEDIATE)

DESIGNED BY: JANE ROWAN

DRAWN BY: JANELLE LAVALLÉE



## PPL22 Candidate Project Evaluation Matrix

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Lake Lery Shoreline Marsh Creation and Terracing	2	St. Bernard	859	184	403	\$31,377,030	\$3,198,248	\$28,178,782	\$2,263,028	\$12,299	\$77,859
Terracing and Marsh Creation South of Big Mar	2	Plaquemines	1,396	86	303	\$23,692,705	\$2,308,599	\$21,384,106	\$1,717,292	\$19,969	\$78,194
Bayou Dupont Sediment Delivery-Marsh Creation 3	2	Plaquemines/Jefferson	415	166	383	\$38,279,163	\$3,415,930	\$34,863,233	\$2,735,823	\$16,481	\$99,946
Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection	2	Jefferson	769	282	492	\$40,494,122	\$3,474,110	\$37,020,012	\$2,897,273	\$10,274	\$82,305
Elmer's Island Restoration	2	Jefferson	494	146	272	\$35,745,200	\$3,974,176	\$31,771,024	\$2,549,848	\$17,465	\$131,416
North Catfish Lake Marsh Creation	3	Lafourche	666	256	401	\$30,385,887	\$3,216,194	\$27,169,693	\$2,201,005	\$8,598	\$75,775
Grand Bayou Freshwater Enhancement and Terracing	3	Lafourche	26,510	607	655	\$30,344,992	\$3,206,177	\$27,138,815	\$2,078,687	\$3,425	\$46,328
South Little Vermilion Bay Plantings and Terracing	3	Vermilion	392	17	93	\$6,506,921	\$777,158	\$5,729,763	\$436,858	\$25,698	\$69,967
Front Ridge Freshwater Introduction and Terracing	4	Vermilion	4,083	277	134	\$13,622,423	\$1,954,290	\$11,668,133	\$920,110	\$3,322	\$101,660
Cameron Meadows Marsh Creation and Terracing	4	Cameron	989	106	265	\$27,685,820	\$3,108,025	\$24,577,795	\$1,974,281	\$18,625	\$104,475

# PPL 22 Demonstration Project Evaluation Matrix

10/30/2012

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

Demonstration Project Name	Lead Agency	Total Fully Funded Cost	Parameter (P <sub>n</sub> )						Total Score	Averaging of Agency Scores
			P <sub>1</sub> Innovativeness	P <sub>2</sub> Applicability or Transferability	P <sub>3</sub> Potential Cost Effectiveness	P <sub>4</sub> Potential Env Benefits	P <sub>5</sub> Recognized Need for Info	P <sub>6</sub> Potential for Technological Advancement		
Hay Bale Demo	USACE	\$2,126,843	2	2	2	2	2	1	11	11.6
Reconnection of Hydrologically Isolated Wetlands	NMFS	\$1,724,012	1	2	2	3	1	1	10	11.0
CREPS: Coastal Restoration & Energy Production System	CPRA	\$3,357,745	2	1	1	2	1	2	9	8.9
Bioengineering of Shorelines & Canal Banks using Live Stakes	EPA	\$2,562,494	2	2	2	2	2	1	11	11.3

"Total Score" calculation:

Individual parameter scores were determined from the score having the majority of the vote.

Example - if 4 agencies cast a vote of "3" and 3 agencies cast a vote of "2", then a score of "3" was given.

"Averaging of Agency Scores"

calculation:

Calculated by averaging the Total Scores from each Agency.

## Demonstration Project Parameters

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

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

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

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

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

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

# *Coastal Wetlands Planning, Protection and Restoration Act*

## *22nd Priority Project List Meeting Announcement*

<b>Date:</b>	November 14, 2012	November 15, 2012	<b>22nd Priority Project List (PPL) Public Meetings</b>
<b>Time:</b>	7:00 p.m.	7:00 p.m.	
<b>Location:</b>	Abbeville Courthouse Courtroom #1, 2nd Floor 100 North State Street Abbeville, Louisiana	U.S. Army Corps of Engineers District Assembly Room 7400 Leake Avenue New Orleans, Louisiana	Two public meetings will be held to present the results of candidate project evaluations under review and consideration for CWPPRA PPL 22. The evaluation results will be presented for all the PPL 22 candidate projects at each meeting. The public is invited to attend and provide comments on the candidate projects. The CWPPRA Technical Committee will meet on December 12, 2012 in Baton Rouge at the State Library's Seminar Center to recommend projects for PPL 22 selection.



**Written comments may be provided no later than November 28, 2012 to the CWPPRA Task Force by mail, fax or email to:**

**Colonel Edward R. Fleming**  
**District Engineer, New Orleans**  
**c/o: Brad Inman**  
**U.S. Army Corps of Engineers**  
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