

CWPPRA

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT TECHNICAL COMMITTEE MEETING

AGENDA

April 8, 2011, 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/pd/cwppra_mission.htm

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 Breaux Act Program Funds and Projects (Gay Browning, USACE) 9:40 a.m. to 9:55 a.m.** Ms. Gay Browning will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.
- 3. Report: Status of the PPL 1 – West Bay Sediment Diversion Project (MR-03) (Lauren Averill and Travis Creel, USACE) 9:55 a.m. to 10:05 a.m.** Ms. Lauren Averill and Mr. Travis Creel will provide a status on the West Bay Project and Closure Plan.
- 4. Report: Status of the PPL 11 – Grand Lake Shoreline Protection, Tebo Point (ME-21a) (Tom Holden, USACE) 10:05 a.m. to 10:15 a.m.** Mr. Tom Holden will provide a status on the PPL 11 – Grand Lake Shoreline Project, Tebo Point (ME-21a) cost-share agreement.
- 5. Report: Status of the PPL 6 -- North Lake Boudreaux Freshwater Introduction and Hydrologic Management Project (TE-32a) Federal Fiscal Law Issue (Darryl Clark, USFWS) 10:15 a.m. to 10:30 a.m.** Mr. Darryl Clark will report on the current status of the Department of Interior and U.S. Army Corps of Engineers (USACE) solicitors' discussions, from November 2010 to the present, concerning USACE-raised fiscal law issues.
- 6. Report: Review of Navigation Channel Agreements (Kirk Rhinehart, OCPR) 10:30 a.m. to 10:45 a.m.** Mr. Kirk Rhinehart will provide the State's position on sponsoring coastal restoration projects located along federally authorized navigation channels.
- 7. Discussion: Initial Discussion of FY12 Planning Budget Development (Process, Size, Funding, etc.) (Brad Inman, USACE) 10:45 a.m. to 11:05 a.m.** The FY12 Planning Program Budget development, including the PPL 22 Process, will be initiated.

- 8. Decision: Request for a Change in Project Boundary for the PPL 16 -- Madison Bay Marsh Creation and Terracing Project (TE-51) (John Foret, NMFS) 11:05 a.m. to 11:15 a.m.** Dr. John Foret will provide a status on the Madison Bay Marsh Creation and Terracing Project. The National Marine Fisheries Service (NMFS) and the Office of Coastal Protection and Restoration (OCPR) request approval from the Technical Committee to adjust the project boundary. The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the request to expend up to \$60,000 of existing project funds to acquire geotechnical data in an area outside of the approved project boundary.
- 9. Decision: Request for Operation and Maintenance (O&M) Incremental Funding and Budget Increase for the PPL 10 – Lake Borgne Shoreline Protection (PO-30) (Paul Kaspar and Karen McCormick, EPA) 11:15 a.m. to 11:25 a.m.** The Environmental Protection Agency (EPA), through OCPR, is requesting approval for O&M Incremental funding and budget increase for the Lake Borgne Shoreline Protection (PO-30) Project. During the September 28, 2010 Technical Committee meeting, EPA made an initial request for an O&M budget increase in the amount of \$3,349,711, and an Increment 1 funding increase in the amount of \$3,356,181. The Technical Committee deferred making a decision until the project’s alternatives had been analyzed. At the December 8, 2010 Technical Committee meeting, a \$3 million dollar “set-aside” was approved for the project. The project team has completed the alternatives analysis, selected the preferred alternative, and developed a revised project estimate. The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the request for an O&M budget increase in the amount of \$3,327,676, and Phase 2 Increment 1 funding increase in the amount of \$3,333,417.
- 10. Decision: Request for a Change in Scope for the PPL 13 -- Bayou Sale Shoreline Protection Project (TV-20) (Britt Paul, NRCS; Kirk Rhinehart, OCPR) 11:25 a.m. to 11:35 a.m.** The Natural Resources Conservation Service (NRCS) and OCPR request a project scope change to separate the Bayou Sale Shoreline Protection Project into 3 segments and proceed with the design to 30% and 95% of segment 1 which consists of 23,082 feet out of the original 35,776 feet of shoreline protection. The NRCS and OCPR also request a cost estimate increase from the original \$23,082,000 to an estimated \$64,825,325 due to the plethora of pipelines and flow lines in the project area necessitating unconventional construction techniques.
- 11. Decision: Request for a Change in Scope for the PPL 17 -- Caernarvon Outfall Management/ Lake Lery Shoreline Restoration Project (BS-16) (Darryl Clark and Robert Dubois, USFWS; Kirk Rhinehart, OCPR) 11:35 a.m. to 11:45 a.m.** The U.S. Fish and Wildlife Service (USFWS) and OCPR request a project scope change to delete the Mississippi River fresh water introduction component because it has been incorporated into the USACE’s 4th Supplemental Caernarvon Project. The scope change includes an extension to both the shoreline restoration and marsh creation components to include stabilization of 37,500 linear feet (vs. 32,000 feet) of the western Lake Lery shoreline and restore a net 453 acres (vs. 652 acres) of marsh via dredged material. The USFWS and OCPR also request a cost estimate increase from \$25,137,149 to an estimated \$43,624,191 due to the above revisions.
- 12. Decision: Selection of Ten Candidate Projects and up to Three Demonstration Projects to Evaluate for PPL 21 (Brad Inman, USACE) 11:45 a.m. to 12:45 p.m.** The Technical Committee will consider preliminary costs and benefits of the 21st Priority Project List (PPL) project and demonstration project nominees listed below. The Technical Committee will select 10 projects and up to 3 demonstration projects as PPL 21 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 21 Nominees
1	Pontchartrain	Fritchie Marsh Creation and Terracing
1	Pontchartrain	LaBranche Central Marsh Creation
1	Pontchartrain	Guste Island Marsh Creation
2	Mississippi River Delta	Pass a Loutre Restoration
2	Breton Sound	Lake Lery Shoreline Marsh Creation
2	Breton Sound	White Ditch Marsh Creation Sediment Delivery
2	Breton Sound	Wills Point Marsh Creation
2	Barataria	Northwest Turtle Bay Marsh Creation and Shore Protection
2	Barataria	Bayou Grande Cheniere Marsh Creation
2	Barataria	Bayou L'Ours Terracing
3	Terrebonne	Lake Tambour Marsh Creation
3	Terrebonne	Lake Decade Marsh Creation and Nourishment
3	Terrebonne	Carencro Bayou Freshwater Introduction
3	Atchafalaya	West Wax Lake Wetlands Diversion
3	Teche-Vermilion	Southeast Marsh Island Marsh Creation and Nourishment
3	Teche-Vermilion	Cole's Bayou Marsh Creation and Restoration
4	Calcasieu-Sabine	Cameron Meadows Marsh Creation and Wetland Restoration
4	Calcasieu-Sabine	Oyster Bayou Restoration
4	Mermentau	Front Ridge Freshwater Introduction and Marsh Creation
4	Mermentau	Southwest White Lake Shoreline Protection
	Coastwide	Backfilling Canals

	PPL 21 Demonstration Project Nominees
DEMO	Automated Marsh Planting (formerly called "Alternative to Manual Planting")
DEMO	Bioengineering Solutions using Fascines and Coir Mattresses
DEMO	Deltalok
DEMO	Habitat Enhancements through Vegetation Plantings Using Gulf Saver Bags
DEMO	The Wave Robber

13. Additional Agenda Items (Tom Holden, USACE) 12:45 p.m. to 12:50 p.m.

14. Request for Public Comments (Tom Holden, USACE) 12:50 p.m. to 12:55 p.m.

15. Announcement: Date of Upcoming CWPPRA Project Meeting (Brad Inman, USACE) 12:55 p.m. to 1:00 p.m. The Task Force meeting will be held June 8, 2011 at 9:30 a.m. at the Estuarine Fisheries and Habitat Center, 646 Cajundome Blvd., Lafayette, Louisiana.

16. Announcement: Scheduled Dates of Future Program Meetings (Brad Inman, USACE) 1:00 p.m. to 1:05 p.m.

2011			
June 1, 2011	9:30 a.m.	Task Force	Lafayette
June 8, 2011			
September 20, 2011	9:30 a.m.	Technical Committee	Baton Rouge
October 12, 2011	9:30 a.m.	Task Force	New Orleans
November 16, 2011	7:00 p.m.	PPL 21 Public Meeting	Abbeville
November 17, 2011	7:00 p.m.	PPL 21 Public Meeting	New Orleans
November 30, 2011	9:30 a.m.	Technical Committee	Baton Rouge
December TBD, 2011			
January 19, 2011	9:30 a.m.	Task Force	New Orleans

17. Decision: Adjourn

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

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 8, 2011

STATUS OF BREAUX ACT PROGRAM FUNDS AND PROJECTS

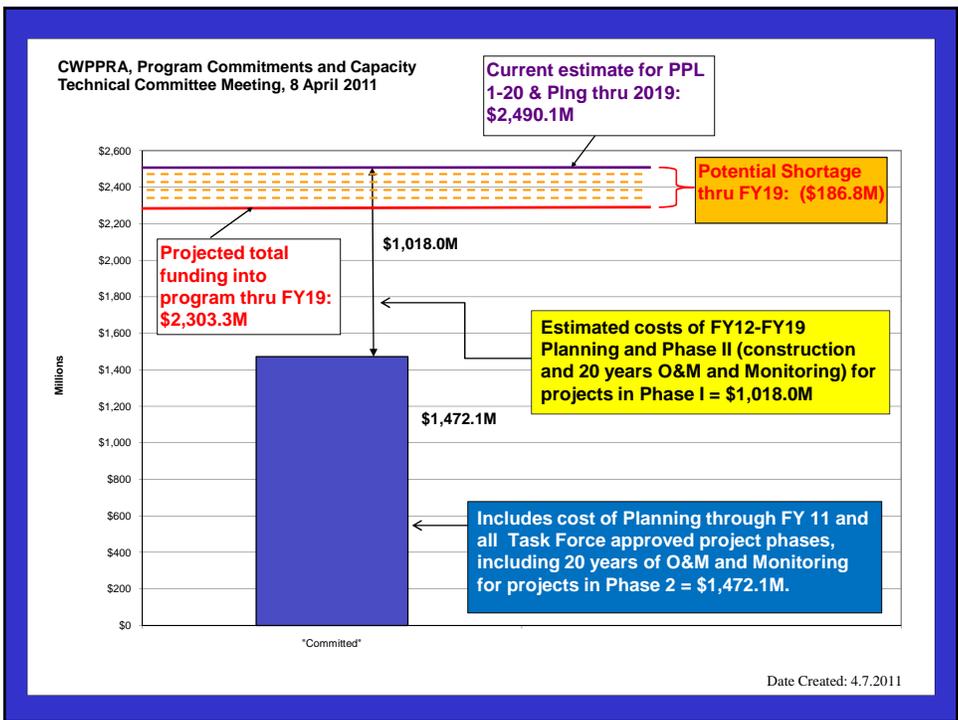
For Report:

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

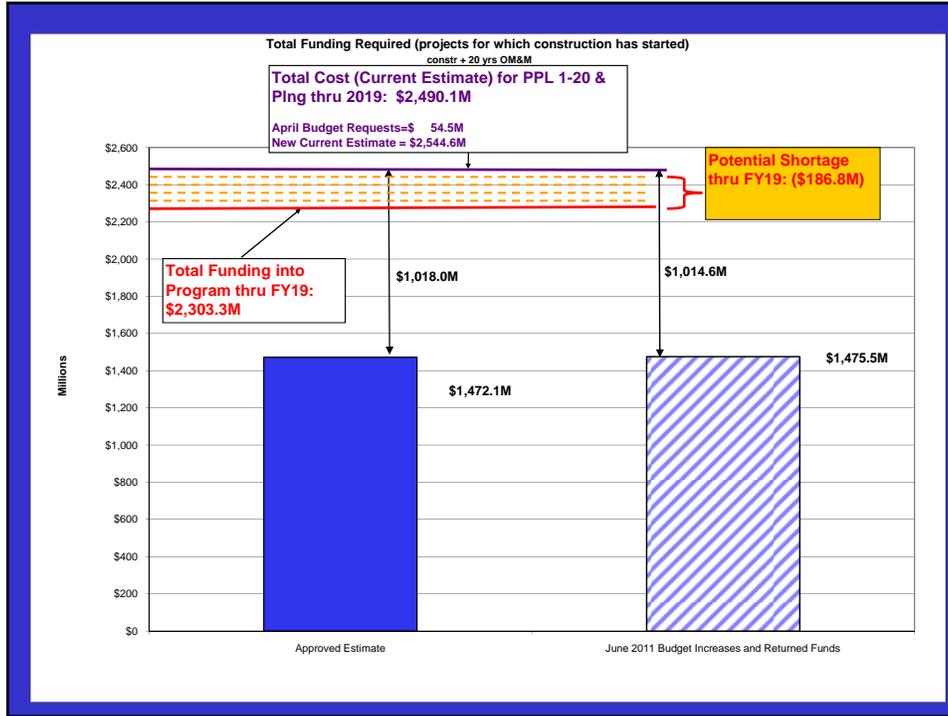
Tab 2 - Status of CWPPRA Funds Technical Committee Meeting 8 April 2011



Gay B. Browning, U. S. Army Corps of Engineers



Tab 3 - CWPPRA Funding Status



Construction Program – Today’s Budget Requests

- Approved project estimate increase and funding approval to Technical Committee for consideration today (Construction funds):

9 Lake Borgne SP, O&M (\$3.0M funding set aside) \$ 3,327,676

- Current project budget estimate increase to Technical Committee for consideration today (Construction funds):

#10 Bayou Sale Shoreline Protection, Ph II \$ 32,722,325

#11 Caernarvon Outfall Mgmt/Lake Lery, Ph II \$ 18,487,042

TOTAL \$ 54,537,043



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington, D.C. 20240



In Reply Refer To:
FWS/ABHR-DB/047754

MAR 15 2011

Wesley C. Miller
Director of Resource Management
U.S. Army Corps of Engineers
441 G Street N.W.
Washington, D.C. 20314-1000

Dear Mr. Miller:

In accordance with 16 USC 777b, amounts in the Sport Fish Restoration and Boating Trust Fund are made available for expenditures to carry out the purpose of the Dingell-Johnson Sport Fish Restoration Act. This letter is to document the authorization of appropriations to agencies entitled to receipts from the Sport Fish Restoration and Boating Trust Fund for Fiscal Year 2011. Appropriations are comprised of the tax receipts and interest collected in the prior fiscal year. The tax revenue collected in FY 2010 was \$615,935,308.62 and the interest collected on a cash basis was \$34,386,504.52, for a total appropriated budget authority of \$650,321,813.14.

16 USC 777c, as amended by The Safe, Accountable, Flexible, Efficient Transportation Equity Act-A Legacy for Users, P.L. 109-59, provides the balance of each annual appropriation made in accordance with 16 USC 777b remaining after the distributions for administrative expenses and other purposes, to the Corps of Engineers for the Coastal Wetlands Planning, Protection and Restoration Act. This provision expired September 30, 2009; however, reauthorization is currently pending. In the interim, P.L. 112-5 extends expenditure authority through September 30, 2011.

The FY 2011 Appropriation for the Corps of Engineers is \$82,389,442.49.

If you have any questions regarding this matter, please call Julie McCandless or Nancy LaBatte at 703-358-2501.

Sincerely,

Acting

DIRECTOR



PUBLIC LAW 112-5—MAR. 4, 2011

**SURFACE TRANSPORTATION EXTENSION ACT
OF 2011**

Public Law 112–5
112th Congress

An Act

Mar. 4, 2011
[H.R. 662]

To provide an extension of Federal-aid highway, highway safety, motor carrier safety, transit, and other programs funded out of the Highway Trust Fund pending enactment of a multiyear law reauthorizing such programs.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Surface
Transportation
Extension Act of
2011.
23 USC 101 note.

SECTION 1. SHORT TITLE; RECONCILIATION OF FUNDS.

(a) **SHORT TITLE.**—This Act may be cited as the “Surface Transportation Extension Act of 2011”.

(b) **RECONCILIATION OF FUNDS.**—The Secretary of Transportation shall reduce the amount apportioned or allocated for a program, project, or activity under this Act in fiscal year 2011 by amounts apportioned or allocated pursuant to the Surface Transportation Extension Act of 2010 and the Surface Transportation Extension Act of 2010, Part II for the period beginning on October 1, 2010, and ending on March 4, 2011.

(c) **TABLE OF CONTENTS.**—The table of contents for this Act is as follows:

Sec. 1. Short title; reconciliation of funds.

TITLE I—FEDERAL-AID HIGHWAYS

Sec. 101. Extension of Federal-aid highway programs.

TITLE II—EXTENSION OF HIGHWAY SAFETY PROGRAMS

Sec. 201. Extension of National Highway Traffic Safety Administration highway safety programs.

Sec. 202. Extension of Federal Motor Carrier Safety Administration programs.

Sec. 203. Additional programs.

TITLE III—PUBLIC TRANSPORTATION PROGRAMS

Sec. 301. Allocation of funds for planning programs.

Sec. 302. Special rule for urbanized area formula grants.

Sec. 303. Allocating amounts for capital investment grants.

Sec. 304. Apportionment of formula grants for other than urbanized areas.

Sec. 305. Apportionment based on fixed guideway factors.

Sec. 306. Authorizations for public transportation.

Sec. 307. Amendments to SAFETEA–LU.

Sec. 308. Level of obligation limitations.

TITLE IV—EXTENSION OF EXPENDITURE AUTHORITY

Sec. 401. Extension of expenditure authority.

TITLE I—FEDERAL-AID HIGHWAYS

SEC. 101. EXTENSION OF FEDERAL-AID HIGHWAY PROGRAMS.

(a) IN GENERAL.—Section 411 of the Surface Transportation Extension Act of 2010 (Public Law 111-147; 124 Stat. 78) is amended—

(1) by striking “the period beginning on October 1, 2010, and ending on March 4, 2011” each place it appears (except in subsection (c)(2)) and inserting “fiscal year 2011”; and

(2) in subsection (a) by striking “March 4, 2011” and inserting “September 30, 2011”.

(b) AUTHORIZATION OF APPROPRIATIONS.—Section 411(b)(2) of the Surface Transportation Extension Act of 2010 (124 Stat. 79) is amended by striking “¹⁵⁵/₃₆₅ of”.

(c) USE OF FUNDS.—Section 411(c) of the Surface Transportation Extension Act of 2010 (124 Stat. 79) is amended—

(1) in paragraph (2)—

(A) by striking “¹⁵⁵/₃₆₅ of”; and

(B) by striking “the period beginning on October 1, 2010, and ending on March 4, 2011,” and inserting “fiscal year 2011”;

(2) in paragraph (4)—

(A) in subparagraph (A)(ii) by striking “, except that during such period obligations subject to such limitation shall not exceed ¹⁵⁵/₃₆₅ of the limitation on obligations included in an Act making appropriations for fiscal year 2011”; and

(B) in subparagraph (B)(ii)(II) by striking “\$271,356,164” and inserting “\$639,000,000”; and

(3) by striking paragraph (5);

(d) EXTENSION AND FLEXIBILITY FOR CERTAIN ALLOCATED PROGRAMS.—Section 411(d) of the Surface Transportation Extension Act of 2010 (124 Stat. 80) is amended—

(1) by striking “¹⁵⁵/₃₆₅ of” each place it appears; and

(2) in paragraph (4)(A) by striking “2009” and inserting “2010”.

(e) EXTENSION OF AUTHORIZATIONS UNDER TITLE V OF SAFETEA-LU.—Section 411(e) of the Surface Transportation Extension Act of 2010 (124 Stat. 82) is amended—

(1) in paragraph (1)(B) by striking “¹⁵⁵/₃₆₅”; and

(2) in paragraph (3)(A) by striking “2009” and inserting “2010”.

(f) ADMINISTRATIVE EXPENSES.—Section 412(a)(2) of the Surface Transportation Extension Act of 2010 (Public Law 111-147; 124 Stat. 83) is amended to read as follows:

“(2) \$422,425,000 for fiscal year 2011.”.

TITLE II—EXTENSION OF HIGHWAY SAFETY PROGRAMS

SEC. 201. EXTENSION OF NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION HIGHWAY SAFETY PROGRAMS.

(a) CHAPTER 4 HIGHWAY SAFETY PROGRAMS.—Section 2001(a)(1) of SAFETEA-LU (119 Stat. 1519) is amended by striking “and \$99,795,000 for the period beginning on October 1, 2010, and ending

on March 4, 2011.” and inserting “and \$235,000,000 for fiscal year 2011.”.

(b) HIGHWAY SAFETY RESEARCH AND DEVELOPMENT.—Section 2001(a)(2) of SAFETEA-LU (119 Stat. 1519) is amended by striking “and \$45,967,000 for the period beginning on October 1, 2010, and ending on March 4, 2011.” and inserting “and \$108,244,000 for fiscal year 2011.”.

(c) OCCUPANT PROTECTION INCENTIVE GRANTS.—Section 2001(a)(3) of SAFETEA-LU (119 Stat. 1519) is amended by striking “and \$10,616,000 for the period beginning on October 1, 2010, and ending on March 4, 2011.” and inserting “and \$25,000,000 for fiscal year 2011.”.

(d) SAFETY BELT PERFORMANCE GRANTS.—Section 2001(a)(4) of SAFETEA-LU (119 Stat. 1519) is amended by striking “and \$52,870,000 for the period beginning on October 1, 2010, and ending on March 4, 2011.” and inserting “and \$124,500,000 for fiscal year 2011.”.

(e) STATE TRAFFIC SAFETY INFORMATION SYSTEM IMPROVEMENTS.—Section 2001(a)(5) of SAFETEA-LU (119 Stat. 1519) is amended by striking “and \$14,651,000 for the period beginning on October 1, 2010, and ending on March 4, 2011.” and inserting “and \$34,500,000 for fiscal year 2011.”.

(f) ALCOHOL-IMPAIRED DRIVING COUNTERMEASURES INCENTIVE GRANT PROGRAM.—Section 2001(a)(6) of SAFETEA-LU (119 Stat. 1519) is amended by striking “and \$59,027,000 for the period beginning on October 1, 2010, and ending on March 4, 2011.” and inserting “and \$139,000,000 for fiscal year 2011.”.

(g) NATIONAL DRIVER REGISTER.—Section 2001(a)(7) of SAFETEA-LU (119 Stat. 1520) is amended by striking “and \$1,748,000 for the period beginning on October 1, 2010, and ending on March 4, 2011.” and inserting “and \$4,116,000 for fiscal year 2011.”.

(h) HIGH VISIBILITY ENFORCEMENT PROGRAM.—Section 2001(a)(8) of SAFETEA-LU (119 Stat. 1520) is amended by striking “and \$12,315,000 for the period beginning on October 1, 2010, and ending on March 4, 2011.” and inserting “and \$29,000,000 for fiscal year 2011.”.

(i) MOTORCYCLIST SAFETY.—Section 2001(a)(9) of SAFETEA-LU (119 Stat. 1520) is amended by striking “and \$2,973,000 for the period beginning on October 1, 2010, and ending on March 4, 2011.” and inserting “and \$7,000,000 for fiscal year 2011.”.

(j) CHILD SAFETY AND CHILD BOOSTER SEAT SAFETY INCENTIVE GRANTS.—Section 2001(a)(10) of SAFETEA-LU (119 Stat. 1520) is amended by striking “and \$2,973,000 for the period beginning on October 1, 2010, and ending on March 4, 2011.” and inserting “and \$7,000,000 for fiscal year 2011.”.

(k) ADMINISTRATIVE EXPENSES.—Section 2001(a)(11) of SAFETEA-LU (119 Stat. 1520) is amended by striking “and \$10,756,000 for the period beginning on October 1, 2010, and ending on March 4, 2011.” and inserting “and \$25,328,000 for fiscal year 2011.”.

SEC. 202. EXTENSION OF FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION PROGRAMS.

(a) MOTOR CARRIER SAFETY GRANTS.—Section 31104(a)(7) of title 49, United States Code, is amended to read as follows:

“(7) \$209,000,000 for fiscal year 2011.”.

(b) ADMINISTRATIVE EXPENSES.—Section 31104(i)(1)(G) of title 49, United States Code, is amended to read as follows:

“(G) \$244,144,000 for fiscal year 2011.”

(c) GRANT PROGRAMS.—Section 4101(c) of SAFETEA-LU (119 Stat. 1715) is amended—

(1) in paragraph (1) by striking “2009” and all that follows before the period and inserting “2011”;

(2) in paragraph (2) by striking “, 2007” and all that follows before the period and inserting “through 2011”;

(3) in paragraph (3) by striking “, 2007” and all that follows before the period and inserting “through 2011”;

(4) in paragraph (4) by striking “2009” and all that follows before the period and inserting “2011”; and

(5) in paragraph (5) by striking “2009” and all that follows before the period and inserting “2011”.

(d) HIGH-PRIORITY ACTIVITIES.—Section 31104(k)(2) of title 49, United States Code, is amended by striking “through 2010 and \$6,370,000 for the period beginning October 1, 2010, and ending on March 4, 2011” and inserting “through 2011”.

(e) NEW ENTRANT AUDITS.—Section 31144(g)(5)(B) of title 49, United States Code, is amended by striking “(and up to \$12,315,000 for the period beginning October 1, 2010, and ending on March 4, 2011)”.

(f) COMMERCIAL DRIVER’S LICENSE INFORMATION SYSTEM MODERNIZATION.—Section 4123(d)(6) of SAFETEA-LU (119 Stat. 1736) is amended to read as follows:

“(6) \$8,000,000 for fiscal year 2011.”

49 USC 31309
note.

(g) OUTREACH AND EDUCATION.—Section 4127(e) of SAFETEA-LU (119 Stat. 1741) is amended by striking “2010,” and all that follows before “to carry out” and inserting “2010, and 2011”.

49 USC 31100
note.

(h) GRANT PROGRAM FOR COMMERCIAL MOTOR VEHICLE OPERATORS.—Section 4134(c) of SAFETEA-LU (119 Stat. 1744) is amended by striking “2009” and all that follows before “to carry out” and inserting “2011”.

49 USC 31301
note.

(i) MOTOR CARRIER SAFETY ADVISORY COMMITTEE.—Section 4144(d) of SAFETEA-LU (119 Stat. 1748) is amended by striking “March 4, 2011” and inserting “September 30, 2011”.

49 USC 31100
note.

(j) WORKING GROUP FOR DEVELOPMENT OF PRACTICES AND PROCEDURES TO ENHANCE FEDERAL-STATE RELATIONS.—Section 4213(d) of SAFETEA-LU (49 U.S.C. 14710 note; 119 Stat. 1759) is amended by striking “March 4, 2011” and inserting “September 30, 2011”.

SEC. 203. ADDITIONAL PROGRAMS.

(a) HAZARDOUS MATERIALS RESEARCH PROJECTS.—Section 7131(c) of SAFETEA-LU (119 Stat. 1910) is amended by striking “through 2010 and \$531,000 for the period beginning on October 1, 2010, and ending on March 4, 2011” and inserting “through 2011”.

(b) DINGELL-JOHNSON SPORT FISH RESTORATION ACT.—Section 4 of the Dingell-Johnson Sport Fish Restoration Act (16 U.S.C. 777c) is amended—

(1) in subsection (a) by striking “through 2010, and for the period beginning on October 1, 2010, and ending on March 4, 2011,” and inserting “through 2011,”; and

(2) in subsection (b)(1)(A) by striking “through 2010, and for the period beginning on October 1, 2010, and ending on March 4, 2011,” and inserting “through 2011,”.

TITLE III—PUBLIC TRANSPORTATION PROGRAMS

SEC. 301. ALLOCATION OF FUNDS FOR PLANNING PROGRAMS.

Section 5305(g) of title 49, United States Code, is amended by striking “2010, and for the period beginning October 1, 2010, and ending March 4, 2011,” and inserting “2011”.

SEC. 302. SPECIAL RULE FOR URBANIZED AREA FORMULA GRANTS.

Section 5307(b)(2) of title 49, United States Code, is amended—

(1) by striking the paragraph heading and inserting “SPECIAL RULE FOR FISCAL YEARS 2005 THROUGH 2011.—”;

(2) in subparagraph (A) by striking “2010, and the period beginning October 1, 2010, and ending March 4, 2011,” and inserting “2011,”; and

(3) in subparagraph (E)—

(A) by striking the subparagraph heading and inserting “MAXIMUM AMOUNTS IN FISCAL YEARS 2008 THROUGH 2011.—”;

(B) in the matter preceding clause (i) by striking “In fiscal years 2008 through 2010, and during the period beginning October 1, 2010, and ending March 4, 2011,” and inserting “In each of fiscal years 2008 through 2011”.

SEC. 303. ALLOCATING AMOUNTS FOR CAPITAL INVESTMENT GRANTS.

Section 5309(m) of title 49, United States Code, is amended—

(1) in paragraph (2)—

(A) by striking the paragraph heading and inserting “FISCAL YEARS 2006 THROUGH 2011.—”;

(B) in the matter preceding subparagraph (A) by striking “2010, and during the period beginning October 1, 2010, and ending March 4, 2011,” and inserting “2011”; and

(C) in subparagraph (A)(i) by striking “2010, and \$84,931,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “2011”;

(2) in paragraph (6)—

(A) in subparagraph (B) by striking “2010, and \$6,369,000 shall be available for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “2011”; and

(B) in subparagraph (C) by striking “2010, and \$2,123,000 shall be available for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “2011”; and

(3) in paragraph (7)—

(A) in subparagraph (A)—

(i) by striking “(A) FERRY BOAT SYSTEMS.—” and all that follows through “(i) FISCAL YEARS 2006 THROUGH 2010.—\$10,000,000 shall be available in each of fiscal years 2006 through 2010” and inserting the following:

“(A) FERRY BOAT SYSTEMS.—\$10,000,000 shall be available in each of fiscal years 2006 through 2011”;

(ii) by striking clause (ii);

(iii) by redesignating subclauses (I) through (VIII) as clauses (i) through (viii), respectively, and moving the text of such clauses 2 ems to the left; and

(iv) by inserting a period at the end of clause (iv) (as so redesignated);

(B) in subparagraph (B)—

(i) by striking “\$5,732,000 for the period beginning October 1, 2010 and ending March 4, 2011”; and

(ii) by adding after clause (v) the following:

“(vi) \$13,500,000 for fiscal year 2011.”;

(C) in subparagraph (C) by striking “, and during the period beginning October 1, 2010, and ending March 4, 2011,”;

(D) in subparagraph (D) by striking “, and not less than \$14,863,000 shall be available for the period beginning October 1, 2010 and ending March 4, 2011,”; and

(E) in subparagraph (E) by striking “, and \$1,273,000 shall be available for the period beginning October 1, 2010 and ending March 4, 2011,”.

SEC. 304. APPORTIONMENT OF FORMULA GRANTS FOR OTHER THAN URBANIZED AREAS.

Section 5311(c)(1)(F) of title 49, United States Code, is amended to read as follows:

“(F) \$15,000,000 for fiscal year 2011.”.

SEC. 305. APPORTIONMENT BASED ON FIXED GUIDEWAY FACTORS.

Section 5337 of title 49, United States Code, is amended—

(1) in subsection (a), in the matter preceding paragraph (1), by striking “2010” and inserting “2011”; and

(2) by striking subsection (g).

SEC. 306. AUTHORIZATIONS FOR PUBLIC TRANSPORTATION.

(a) FORMULA AND BUS GRANTS.—Section 5338(b) of title 49, United States Code, is amended—

(1) by striking paragraph (1)(F) and inserting the following:

“(F) \$8,360,565,000 for fiscal year 2011.”; and

(2) in paragraph (2)—

(A) in subparagraph (A) by striking “\$48,198,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$113,500,000 for fiscal year 2011”;

(B) in subparagraph (B) by striking “\$1,766,730,000 for the period beginning October 1, 2010, and ending March 4, 2011,” and inserting “\$4,160,365,000 for fiscal year 2011”;

(C) in subparagraph (C) by striking “\$21,869,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$51,500,000 for fiscal year 2011”;

(D) in subparagraph (D) by striking “\$707,691,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$1,666,500,000 for fiscal year 2011”;

(E) in subparagraph (E) by striking “\$417,863,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$984,000,000 for fiscal year 2011”;

(F) in subparagraph (F) by striking “\$56,691,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$133,500,000 for fiscal year 2011”;

(G) in subparagraph (G) by striking “\$197,465,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$465,000,000 for fiscal year 2011”;

(H) in subparagraph (H) by striking “\$69,856,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$164,500,000 for fiscal year 2011”;

(I) in subparagraph (I) by striking “\$39,280,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$92,500,000 for fiscal year 2011”;

(J) in subparagraph (J) by striking “\$11,423,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$26,900,000 for fiscal year 2011”;

(K) in subparagraph (K) by striking “\$1,486,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$3,500,000 for fiscal year 2011”;

(L) in subparagraph (L) by striking “\$10,616,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$25,000,000 for fiscal year 2011”;

(M) in subparagraph (M) by striking “\$197,465,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$465,000,000 for fiscal year 2011”; and

(N) in subparagraph (N) by striking “\$3,736,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$8,800,000 for fiscal year 2011”.

(b) CAPITAL INVESTMENT GRANTS.—Section 5338(c)(6) of title 49, United States Code, is amended to read as follows:

“(6) \$2,000,000,000 for fiscal year 2011.”.

(c) RESEARCH AND UNIVERSITY RESEARCH CENTERS.—Section 5338(d) of title 49, United States Code, is amended—

(1) in paragraph (1)—

(A) in the matter preceding subparagraph (A) by striking “\$29,619,000 for the period beginning October 1, 2010 and ending March 4, 2011,” and inserting “\$69,750,000 for fiscal year 2011”; and

(B) in subparagraph (A) by striking “fiscal year 2009” and inserting “each of fiscal years 2009, 2010, and 2011”;

(2) in paragraph (2)(A)—

(A) in clauses (i), (ii), and (iii) by striking “2009” and inserting “2011”; and

(B) in clauses (v), (vi), (vii), and (viii) by striking “and 2009” and inserting “through 2011”; and

(3) by striking paragraph (3) and inserting the following:

“(3) FUNDING.—If the Secretary determines that a project or activity described in paragraph (2) received sufficient funds in fiscal year 2010, or a previous fiscal year, to carry out the purpose for which the project or activity was authorized, the Secretary may not allocate any amounts under paragraph (2) for the project or activity for fiscal year 2011, or any subsequent fiscal year.”.

(d) ADMINISTRATION.—Section 5338(e)(6) of title 49, United States Code, is amended to read as follows:

“(6) \$98,911,000 for fiscal year 2011.”.

SEC. 307. AMENDMENTS TO SAFETEA-LU.

(a) **CONTRACTED PARATRANSIT PILOT.**—Section 3009(i)(1) of SAFETEA-LU (119 Stat. 1572) is amended by striking “2010, and for the period beginning October 1, 2010, and ending March 4, 2011” and inserting “2011”.

(b) **PUBLIC-PRIVATE PARTNERSHIP PILOT PROGRAM.**—Section 3011 of SAFETEA-LU (49 U.S.C. 5309 note; 119 Stat. 1588) is amended—

(1) in subsection (c)(5) by striking “2010 and the period beginning October 1, 2010, and ending March 4, 2011” and inserting “2011”; and

(2) in subsection (d) by striking “2010, and for the period beginning October 1, 2010, and ending March 4, 2011” and inserting “2011”.

(c) **ELDERLY INDIVIDUALS AND INDIVIDUALS WITH DISABILITIES PILOT PROGRAM.**—Section 3012(b)(8) of SAFETEA-LU (49 U.S.C. 5310 note; 119 Stat. 1593) is amended by striking “March 4, 2011” and inserting “September 30, 2011”.

(d) **OBLIGATION CEILING.**—Section 3040(7) of SAFETEA-LU (119 Stat. 1639) is amended to read as follows:

“(7) \$10,507,752,000 for fiscal year 2011, of which not more than \$8,360,565,000 shall be from the Mass Transit Account.”.

(e) **PROJECT AUTHORIZATIONS FOR NEW FIXED GUIDEWAY CAPITAL PROJECTS.**—Section 3043 of SAFETEA-LU (119 Stat. 1640) is amended—

(1) in subsection (b), in the matter preceding paragraph (1), by striking “2010, and for the period beginning October 1, 2010, and ending March 4, 2011,” and inserting “2011”; and

(2) in subsection (c), in the matter preceding paragraph (1), by striking “2010, and for the period beginning October 1, 2010, and ending March 4, 2011,” and inserting “2011”.

(f) **ALLOCATIONS FOR NATIONAL RESEARCH AND TECHNOLOGY PROGRAMS.**—Section 3046 of SAFETEA-LU (49 U.S.C. 5338 note; 119 Stat. 1706) is amended—

(1) in subsection (b) by striking “or period”; and

(2) by striking subsection (c) and inserting the following:

“(c) **ADDITIONAL APPROPRIATIONS.**—The Secretary shall allocate amounts appropriated pursuant to section 5338(d) of title 49, United States Code, for national research and technology programs under sections 5312, 5314, and 5322 of such title for fiscal years 2010 and 2011, in amounts equal to the amounts allocated for fiscal year 2009 under each of paragraphs (2), (3), (5), and (8) through (25) of subsection (a).”.

SEC. 308. LEVEL OF OBLIGATION LIMITATIONS.

(a) **HIGHWAY CATEGORY.**—Section 8003(a) of SAFETEA-LU (2 U.S.C. 901 note; 119 Stat. 1917) is amended—

(1) by striking “and” at the end of paragraph (5);

(2) by striking the period at the end of paragraph (6) and inserting “; and”; and

(3) by striking paragraph (7) and inserting the following:

“(7) for fiscal year 2011, \$42,469,970,178.”.

(b) **MASS TRANSIT CATEGORY.**—Section 8003(b) of SAFETEA-LU (2 U.S.C. 901 note; 119 Stat. 1917) is amended—

(1) by striking “and” at the end of paragraph (5);

(2) by striking the period at the end of paragraph (6) and inserting “; and”; and

(3) by striking paragraph (7) and inserting the following: “(7) for fiscal year 2011, \$10,338,065,000.”.

TITLE IV—EXTENSION OF EXPENDITURE AUTHORITY

SEC. 401. EXTENSION OF EXPENDITURE AUTHORITY.

26 USC 9503. (a) HIGHWAY TRUST FUND.—Section 9503 of the Internal Revenue Code of 1986 is amended—

(1) by striking “March 5, 2011” in subsections (b)(6)(B) and (c)(1) and inserting “October 1, 2011”;

(2) by striking “the Surface Transportation Extension Act of 2010, Part II” in subsections (c)(1) and (e)(3) and inserting “the Surface Transportation Extension Act of 2011”; and

(3) by striking “March 5, 2011” in subsection (e)(3) and inserting “October 1, 2011”.

26 USC 9504. (b) SPORT FISH RESTORATION AND BOATING TRUST FUND.—Section 9504 of the Internal Revenue Code of 1986 is amended—

(1) by striking “Surface Transportation Extension Act of 2010, Part II” each place it appears in subsection (b)(2) and inserting “Surface Transportation Extension Act of 2011”; and

(2) by striking “March 5, 2011” in subsection (d)(2) and inserting “October 1, 2011”.

26 USC 9503 note. (c) EFFECTIVE DATE.—The amendments made by this section shall take effect on March 4, 2011.

Approved March 4, 2011.

LEGISLATIVE HISTORY—H.R. 662:

HOUSE REPORTS: No. 112-18, Pt. 1 (Comm. on Transportation and Infrastructure).
CONGRESSIONAL RECORD, Vol. 157 (2011):

Mar. 2, considered and passed House.
Mar. 3, considered and passed Senate.



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

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

For Report:

Ms. Lauren Averill and Mr. Travis Creel will provide a status on the West Bay Project and Closure Plan.

Plaquemines Parish Government

BILLY NUNGESSER

Parish President

8056 Hwy. 23, Suite 200
Belle Chasse, LA 70037

(504) 392-6690
(504) 274-2462
1-888-784-5387
Fax: (504) 274-2463

March 9, 2011

Ms. Linda C. LaBure
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Re: CWPPRA, West Bay Diversion Channel Closure Survey

Dear Ms. LaBure,

I recently read a letter you had sent to Mr. Mark Delesdernier about the right-of-entry for closure of the West Bay Diversion. It was my understanding after outcry from the public and other agencies the Corps of Engineers agreed to look at leaving this diversion open. The diversion is building land and the only reason it caused silting in the river was because the levee constructed by a previous drilling rig was removed causing most of the sediment built up to be blown out to sea. Since the island was pumped in that area it is building silt. Had the Corps of Engineers not altered the original plan it would have continued to build land.

Therefore, I respectfully request you stop the efforts to close the diversion and, do like we were told you would do, look at leaving the diversion open. Failure of the Corps of Engineers to leave the diversion open will cause further action to stop the closure.

Please provide in writing your intentions as we were led to believe the Corps was looking to leave the diversion open and yet now are asking for right-of-entry from the landowners to close the diversion.

Sincerely,



BILLY NUNGESSER
Parish President

BN/mle

CC: Col. Edward R. Fleming



West Bay Sediment Diversion (MR-03)

Project Status

Approved Date: 1992 **Cost:** \$50.8 M
Project Area: 12,910 acres **Status:** Completed
Net Benefit After 20 Years: 9,831 acres November 2003
Project Type: Water Diversion

Location

The diversion site is located on the west bank of the Mississippi River, in Plaquemines Parish, Louisiana, 4.7 miles above Head of Passes. The project diverts Mississippi River water and sediments into West Bay.

Problems

Marshes along the lower Mississippi River are subsiding and converting to open water because of a lack of riverine sediment inputs and fresh water.

Restoration Strategy

The objective of the project is to restore vegetated wetlands in an area that is currently shallow open water. The project diverts sediments to create, nourish, and maintain approximately 9,831 acres of fresh to intermediate marsh in the West Bay area over the 20-year project life.

The project consists of a conveyance channel for the large-scale diversion of sediments from the river. The conveyance channel is being constructed in two phases: (1) construction of an initial channel with an average discharge of 20,000 cubic feet per second (cfs); (2) after a period of intensive monitoring, enlargement of the channel to a 50,000 cfs discharge. Material from the construction of the initial channel was used to create wetlands in the diversion outfall area.

The diversion may induce shoaling in the main navigation channel of the Mississippi River and the adjacent Pilottown anchorage area. Dredging of the main channel is accomplished under the U.S. Army Corps of Engineers' ongoing Operations and Maintenance Program for the river, but additional dredging of the anchorage area would be an added feature and cost of the project. The material dredged from the anchorage area will be used to create wetlands in the West Bay diversion outfall area.



The conveyance channel allows fresh water and sediment to flow from the Mississippi River (bottom of picture) to restore vegetated wetlands in an area that is currently shallow open water.

Progress to Date

An Environmental Impact Statement was completed in March 2002. Final project plans and specifications were approved in September 2002. Project construction began in September 2003 and was completed in November 2003. Monitoring of the channel and receiving area is currently underway.

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved proceeding with the project at the current price of \$22 million at their January 2001 meeting. Most of the increase in the project cost is for dredging of the anchorage area and the relocation of a 10-inch oil pipeline.

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:
Louisiana Department of Natural Resources
Baton Rouge, LA
(225) 342-7308

West Bay Sediment Diversion (MR-03)

 Sediment Diversion

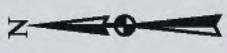
 Project Boundary



USGS
science for a changing world



Louisiana



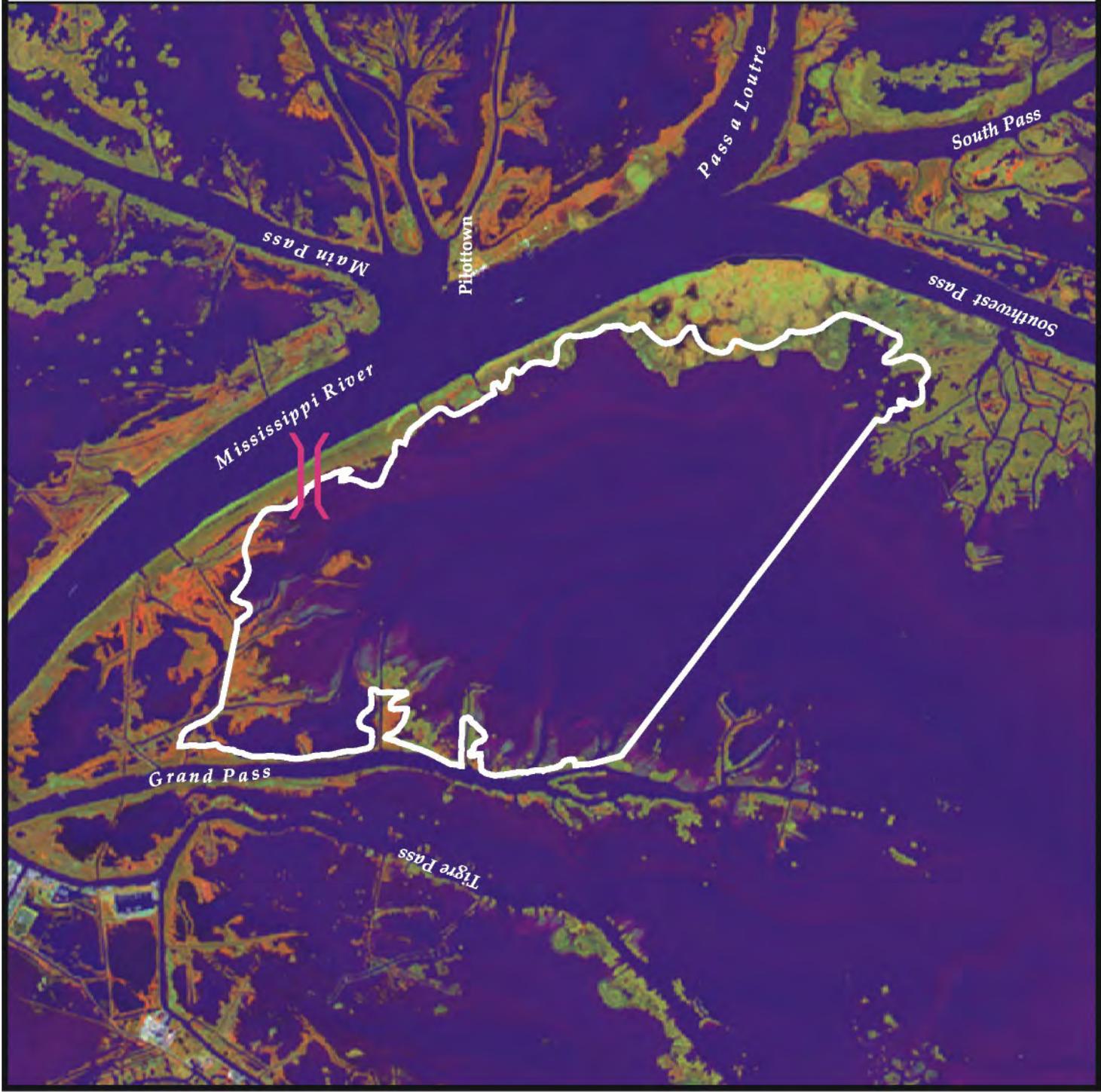
Project Location



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

Background Imagery:
2002 Thematic Mapper Imagery

Map Date: June 23, 2004
Map ID: USGS-NWRC 2003-11-085
Data accurate as of: June 23, 2004



West Bay Diversion Closure Status

April 8, 2011

1

West Bay Sediment Diversion Project

In response to escalating costs to dredge the Pilottown Anchorage Area (PAA) the following motion was made at the 05 Nov 08 Task Force Meeting:

The motion was approved to increase Projects O&M budget, included the motion to require closure of the channel in FY12, unless alternative funding sources were found. It required the USACE/OCPR to develop a Work Plan to address the induced shoaling issue.

A project cost estimate in 2008 increased the total cost over the 20-year project life from \$22M to \$140M.

2

Topics of Discussion:

- Closure Plan Process
- Project Closure Alternatives
- Obtaining Rights of Entry (ROE)
- ERDC Shoaling Study Results
- Upcoming Schedule

3

Closure Plan Process

1) Collect survey data

- Closure Survey -ERDC
 - Waterway Survey – Current easements have allowed data to be collected
 - Bank Survey – ROE refused by property owner.
- Receiving Area Survey – OCPR
 - Currently developing a plan and schedule

2) Engineering Analysis

- Geotechnical, H&H, Civil engineering analysis is being conducted
- 3 Closure alternatives are being considered with preliminary designs generated from Geotech survey analysis

3) Alternative Designs

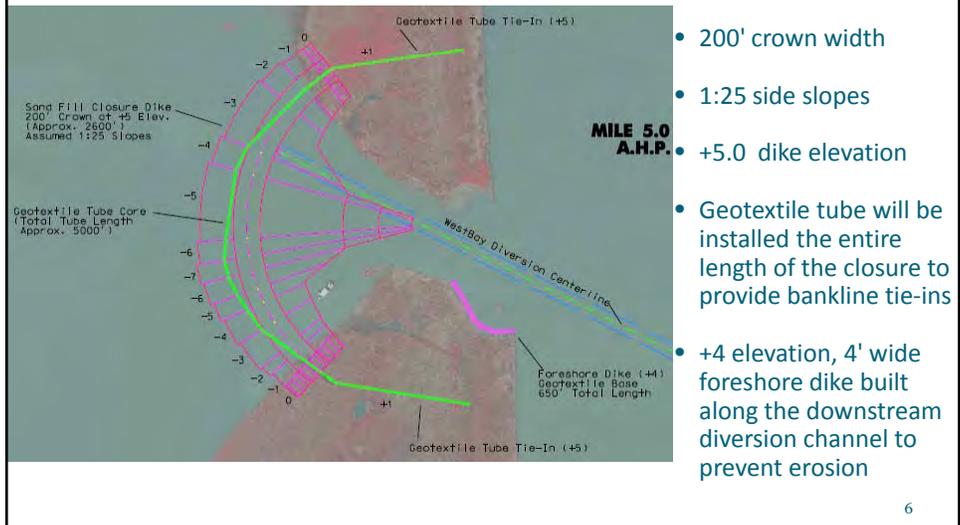
4

Alternative 1: Semi-circle Rock Dike Closure



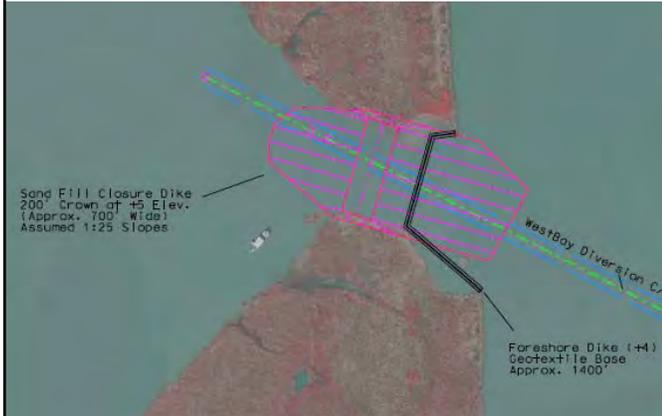
5

Alternative 2: Pumped In Earthen Ring Closure



6

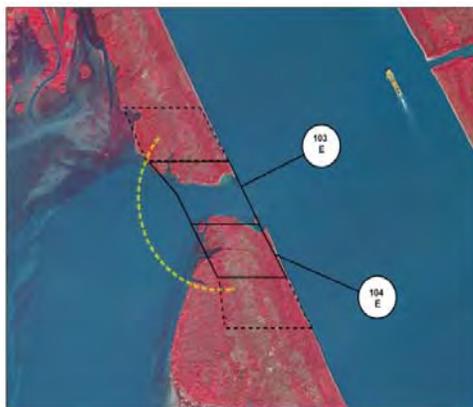
Alternative 3: Pumped In Earthen Plug Closure



- 200' crown width
- 1:25 side slopes
- +5.0 dike elevation
- +4 elevation, 4' wide foreshore dike tied into the existing foreshore dike

7

Obtaining ROE for Land Survey



- Land owner refused ROE Request
- Plaquemines parish letter (03 Mar 11) supports the land owner's position if plan is close the diversion
- Survey data is required for final design.
- Construction will require Right of Way (ROW) easements from land owners

8

ERDC Shoaling Study Results:

- ERDC was tasked to review existing West Bay vicinity modeling
- Develop new modeling to better identify significant or measurable impacts of the West Bay Diversion on shoaling in the PAA
- June 2011 ERDC meeting to present their latest shoaling findings.

9

Initial Work Plan Components

- Review existing West Bay modeling
- Develop detailed Scope of work and Scheduling for the following modeling:
 - Hydrodynamic
 - Sediment Transport
 - Gather past and collect present data of River sediment & discharge measurements
- Bathymetry Survey of Receiving Area
- Find alternative funding sources to dredge PAA

10

Schedule:

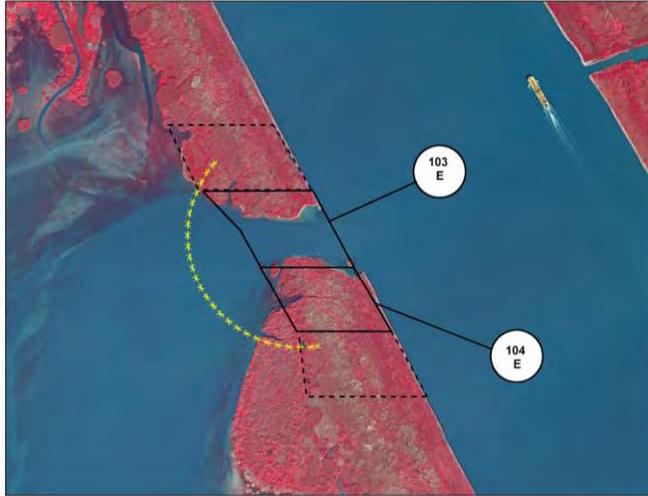
- June Task Force Meeting – Status Update
- Proposed site visit for June 30th – Plaquemines Parish is considering a later date that coincide with low water season.

11

Background Slides

12

Additional RE Requirements

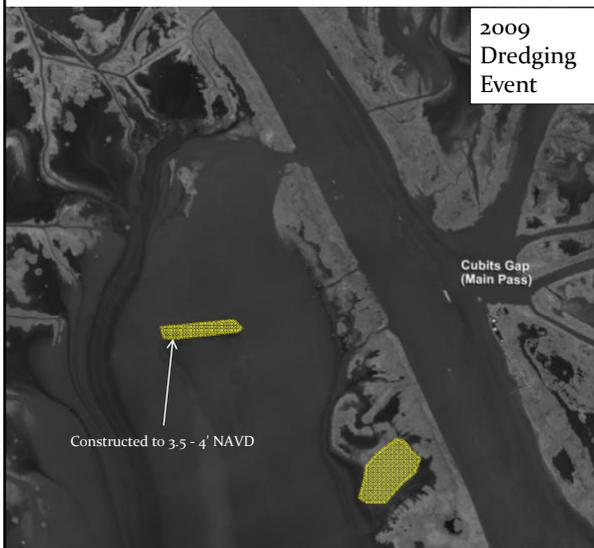


103 E - Channel Easement

104 E - Disposal Easement

13

West Bay Diversion History & Cost



Acres	CY	Cost:
Created: ~143 ac	Dredged: 1.08M	\$3.10M*
~175 ac	1.36M	\$7.29M
~193 ac	1.75M	\$9.49M
Summary:		
~511 ac	4.19M	\$19.88M
Work Plan Budget:		\$1.99 M
Closure Plan Budget:		\$399 K
Estimated Closure Cost Range :		\$10 to \$20M

* Included the Cost to construct the Diversion

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COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

**STATUS OF PPL 11 – GRAND LAKE SHORELINE PROTECTION, TEBO POINT
(ME-21A)**

For Report:

Mr. Tom Holden will provide a status on the PPL 11 – Grand Lake Shoreline Project, Tebo Point (ME-21a) cost-share agreement.



Grand Lake Shoreline Protection (ME-21)

Project Status

Approved Date: 2002 **Cost:** \$4.40 M
Project Area: 77 acres **Status:** Engineering and Design
Net Benefit After 20 Years: 45 acres
Project Type: Shoreline Protection

Location

The project is located in the Mermentau Basin in Cameron Parish, Louisiana, on the south shore of Grand Lake.

Problems

A comparison of 1978-79 aerial photography to 1997-98 aerial photography indicates that shoreline erosion rates in this area vary from 11 to 32 feet per year.

Restoration Strategy

The project's objectives include stopping shoreline erosion from Superior Canal to Tebo Point and promoting accretion between the breakwater and the shore.

Approximately 39,000 feet of stone breakwater will be built in 2 feet of water in Grand Lake roughly 200 feet from the shoreline from Superior Canal to Tebo Point. The breakwater will rise 2 feet above sea level. Fish dips, gaps that allow fish to move across the breakwater barrier, will be built every 1000 feet. The fish dips, 46 feet wide at the top, will extend to the lake bottom and be lined with concrete aprons. A 6-foot deep flotation canal with a 1:4 side slope will be at least 35 feet from the centerline of the dike, and material from the flotation canal will be cast inside the breakwater. Minimal maintenance of the breakwater will be necessary.

Progress to Date

This project was selected for Phase I (engineering and design) funding at the January 2002 Breaux Act Task Force meeting.



This photo of Lake Salvador is representative of the shoreline protection work to be accomplished along Grand Lake from Superior Canal to Tebo Point in Cameron Parish. About 39,000 feet of stone breakwater will be built to protect the shoreline from further erosion and to promote accretion between the breakwater and the shore.

For more project information, please contact:



Federal Sponsor:
U.S. Army Corps of Engineers
New Orleans, LA
(504) 862-2502



Local Sponsor:
Louisiana Department of Natural Resources
Baton Rouge, LA
(225) 342-7308

Grand Lake Shoreline Protection (ME-21)

 Proposed Breakwater

 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:
1998 Digital Orthophoto Quarter Quadrangles

Map Date: March 10, 2002
Map ID: 2002-11-217



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

**STATUS OF THE PPL 6 – NORTH LAKE BOUDREAU FRESHWATER
INTRODUCTION AND HYDROLOGIC MANAGEMENT PROJECT (TE-32A)
FEDERAL FISCAL LAW ISSUE**

For Report:

Mr. Darryl Clark will report on the current status of the Department of Interior and U.S. Army Corps of Engineers (USACE) solicitors' discussions, from November 2010 to the present, concerning USACE-raised fiscal law issues.

North Lake Boudreaux Freshwater Introduction Project (TE-32a)

Technical Committee Briefing

April 8, 2011

The North Lake Boudreaux project, co-sponsored by the U.S. Fish and Wildlife Service (Service) and the State of Louisiana, was originally approved by the CWPPRA Task Force in 1997, and again for construction funding on October 27, 2011. The project will restore and protect 267 acres of brackish marshes north of Lake Boudreaux in south central Louisiana in Terrebonne Parish by introducing an average of 400 cubic feet per second of freshwater from the Houma Navigation Canal to project area marshes at a construction cost of \$25.8 M.

The project would require construction of a stand-alone flood protection levee, at least 3 feet high, with two associated pumping stations (forced drainage system) to protect nearby communities from an estimated 0.5 foot of increased water levels that could occur during high water events as a result of project operations. The Terrebonne Parish Consolidated Government and the Service identified mutual interest in the construction of the forced drainage system due to its identical location and proximity to their proposed flood protection project.

The Service and State agreed to contribute \$1.8 M in Federal funds toward the construction of a Terrebonne Parish 7-foot-high flood protection levee which would protect nearby communities from both project and storm-caused flooding. The \$1.8 M project "contribution" to the parish levee was calculated as 1.5/7ths (21.4%) of total levee costs of \$6.8 M. This contribution was acceptable to the parish and the CWPPRA Task Force. This percentage was calculated because the project needed to protect the community from a 0.5 foot water level rise caused by the project. An additional foot was added to this to guard against overtopping to arrive at a 1.5 foot-high levee needed by the project. Therefore, the sponsors agreed to fund the equivalent of constructing 1.5 feet of a 7 foot-high parish flood protection levee and pumping stations, or 21.4% of total levee construction costs. In turn, Terrebonne parish would design, permit, acquire landrights, construct and perform operation and maintenance on the flood protection levee.

The CWPPRA Task Force (Task Force) unanimously approved \$25.8 M in project construction funding, including the contribution to the parish for levee and pump features, on October 27, 2010. Following Task Force approval, the Corps stated that it could not transfer project construction funds to the Service citing possible Federal fiscal law violation issues.

The Corps chairman of the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) Task Force, stated that transfer of construction funding to the Service and State for the approved North Lake Boudreaux project, which would include partial funding by CWPPRA for the construction and maintenance of a levy by Terrebonne

Parish, may violate Federal fiscal law [31 USC 1341 (limitations on expending and obligating), 31 USC 1342 (limitations on voluntary services)].

The Corps' opinion was that Federal fiscal law may be violated if funds are provided for the project because Terrebonne Parish would be de facto "donating" funds or services to the Federal government for project construction because a stand-alone CWPPRA-constructed 3-foot-high flood protection levee could likely cost more. Any difference in cost, in the Corps' opinion, could be viewed as a "donation" from the parish to the Federal government. The Corps views this arrangement as a possible unauthorized augmentation to another public works project funded and authorized outside CWPPRA for purposes exclusive of coastal restoration.

Department of Interior Response

The Army Corps of Engineers sought a legal determination from the Department of the Interior's Solicitor's office as to whether the Secretary of the Interior had "augmentation authority" which would, in this case, allow Terrebonne Parish to cooperate in project construction through the building of flood control structures in excess of the ten percent match required by the CWPPRA statute.

The Department of the Interior (DOI) solicitor's office attorney, [Larry Mellinger (January 7, 2011, February 2, 2011, February 11, 2011)], indicated that the Secretary of the Interior, as delegated to the U.S. Fish and Wildlife Service, has the "augmentation authority" which would allow it to accept a portion of Terrebonne Parish's flood control structures as a contribution to its implementation of the North Lake Boudreaux project approved by the CWPPRA Task Force. The Service will not violate Federal fiscal law in constructing the project because the Secretary of the Interior possesses such "augmentation" authority, under the Fish and Wildlife Coordination Act (16 USC 661 et seq.), the Fish and Wildlife Act of 1956 (16 USC 742f. et seq.), and additional broad Cooperative Agreement authority, from the 2010 Interior Appropriations Act (Public Law 111-88). Thus the Service is able to accept non-Federal "donations" for Federal projects and construct the North Lake Boudreaux project without violating Federal fiscal law.

The Service believes any position to the contrary would require unnecessary and excessive expenditures of Federal and state funds to achieve the same mutual goals of CWPPRA and Terrebonne Parish, which would be realized by the Task Force-approved North Lake Boudreaux project.

The Service strongly recommends that the Corps comply with the Task Force decision to fully fund and construct the project, as proposed. The North Lake Boudreaux project is very important to the protection and restoration of fish and wildlife resources in the Lake Boudreaux basin.

North Lake Boudreaux Post Task Force Approval Chronology

- October 27, 2010 – Task Force unanimously approves the North Lake Boudreaux construction request.
- November 10, 2010 – DOI Solicitor's Office attorney provides Corps attorneys with initial citations to DOI augmentation authorities.
- November 17, 2010 - Conference call between DOI Solicitor's Office attorneys and Corps attorneys.
- December 7, 2010 – Corps attorneys raise further questions regarding DOI augmentation authorities.
- January 7, 2011 – DOI Solicitor's Office attorney provides Corps attorneys with e-mail reiterating DOI's augmentation authorities.
- February 11, 2011 – Corps attorney propose a second conference call which has not occurred.
- February 17, 2011 – Last communication between DOI and Corps providing DOI conference call information which has not yet occurred.

dc 3-23-2011



North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management (TE-32a)

Project Status

Approved Date: 1997 **Cost:** \$12.2 M
Project Area: 9,604 acres **Status:** Engineering and Design
Net Benefit After 20 Years: 416 acres
Project Type: Water Diversion

Location

The project is located in Terrebonne Parish, approximately 5 miles southwest of Chauvin, Louisiana.

Problems

The area is suffering from a lack of fresh water, increasing the negative effects of saltwater intrusion into the north Lake Boudreaux basin marshes.

Restoration Strategy

The purpose of the project is to reduce deterioration and loss of area marshes by seasonally introducing fresh water from the Houma Navigation Canal. This project includes the construction of a freshwater conveyance channel with water management gates and the installation of several outfall management structures to allow drainage and reduce ponding of water.

Progress to Date

The contracted Feasibility Study report has indicated that the project, as proposed, can introduce the originally projected volumes of fresh water. Prior to beginning engineering and design work, a landrights assessment is being conducted to better determine where the project's conveyance channel can be located.

This project is on Priority Project List 6.

For more project information, please contact:



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



Local Sponsor:
 Louisiana Department of Natural Resources
 Baton Rouge, LA
 (225) 342-7308



Dead cypress swamps in the northern part of the project area.



Aerial view of dead cypress swamps in the northern part of the project area.

North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management (TE-32a)

	Culvert*
	Plug*
	Water Control Structure*
	Bridge*
	Levee
	Freshwater Diversion*
	Marsh Creation Area*
	Project Boundary

* denotes proposed feature




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 Quad
 Map Date: October 17, 2003
 Map ID: USGS-NWRC 2003-11-044
 Data accurate as of: October 17, 2003



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

REVIEW OF NAVIGATION CHANNEL AGREEMENTS

For Report:

Mr. Kirk Rhinehart will provide the State's position on sponsoring coastal restoration projects located along federally authorized navigation channels.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

**INITIAL DISCUSSION OF THE FY12 PLANNING BUDGET DEVELOPMENT
(PROCESS, SIZE, FUNDING, ETC.)**

For Discussion:

The FY12 Planning Program Budget development, including the PPL 22 Process, will be initiated.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

**REQUEST FOR A CHANGE IN PROJECT BOUNDARY FOR THE PPL 16 --
MADISON BAY MARSH CREATION AND TERRACING PROJECT (TE-51)**

For Decision:

Dr. John Foret will provide a status on the Madison Bay Marsh Creation and Terracing Project. The National Marine Fisheries Service (NMFS) and the Office of Coastal Protection and Restoration (OCPR) request approval from the Technical Committee to adjust the project boundary.

The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the request to expend up to \$60,000 of existing project funds to acquire geotechnical data in an area outside of the approved project boundary.



Madison Bay Marsh Creation and Terracing (TE-51)

Project Status

Approved Date: 2006 **Cost:** \$3.00 M
Project Area: 1,019 acres **Status:** Engineering
Net Benefit After 20 Years: 372 acres
Project Type: Marsh Creation

Location

The 1,019-acre project area is located in Terrebonne Parish, Louisiana, north of Madison Canal between Bayou Terrebonne and Humble Canal.

Problems

This area has experienced tremendous wetland loss due to a variety of forces including subsidence, salt water intrusion, a lack of sediment supply, and oil and gas activities. The loss of these marshes has exposed significant infrastructure to open water conditions, and has made the areas north less suitable for various wildlife and fish species.

Restoration Strategy

Project goals include creating and nourishing marsh and associated edge habitat, and promoting conditions conducive to the growth of submerged aquatic vegetation (SAV). Secondly, proposed terraces will reduce the wave erosion of created and existing marshes along the fringes of Madison Bay. Specific phase 0 goals include creating 417 acres and nourishing 258 acres of brackish marsh and constructing about 24,600 linear feet (LF) of terraces. Approximately one-half of the marsh creation area will be planted with smooth cord-grass or marsh hay cord-grass. Reducing shoreline erosion would protect about 6 acres of existing marsh (from existing marsh in terrace field only), and the percent cover of SAV is projected to increase in the project area.



This dredge pipe is rebuilding marsh by depositing sediment dredged from a nearby borrow area. The placed sediment will reach an elevation conducive for growing and sustaining marsh vegetation.



The above terraces are an example for the proposed project. These terraces would help protect the created and existing marshes from wave erosion.

Progress to Date

Phase 1 project design meetings have begun, and the preliminary bathymetry and geotechnical borings are currently being planned.

The estimated total fully funded project cost is \$32,353,377.

This project is on Priority Project List 16.

For more project information, please contact:



Federal Sponsor:
National Marine Fisheries Service
Baton Rouge, LA
(225) 389-0508



Local Sponsor:
Louisiana Department of Natural Resources
Baton Rouge, LA
(225) 342-7308

Madison Bay Marsh Creation and Terracing (TE-51)

- Terracing *
 - 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 14, 2006
Map ID: USGS-NWRC 2007-11-0077
Data accurate as of: November 14, 2006

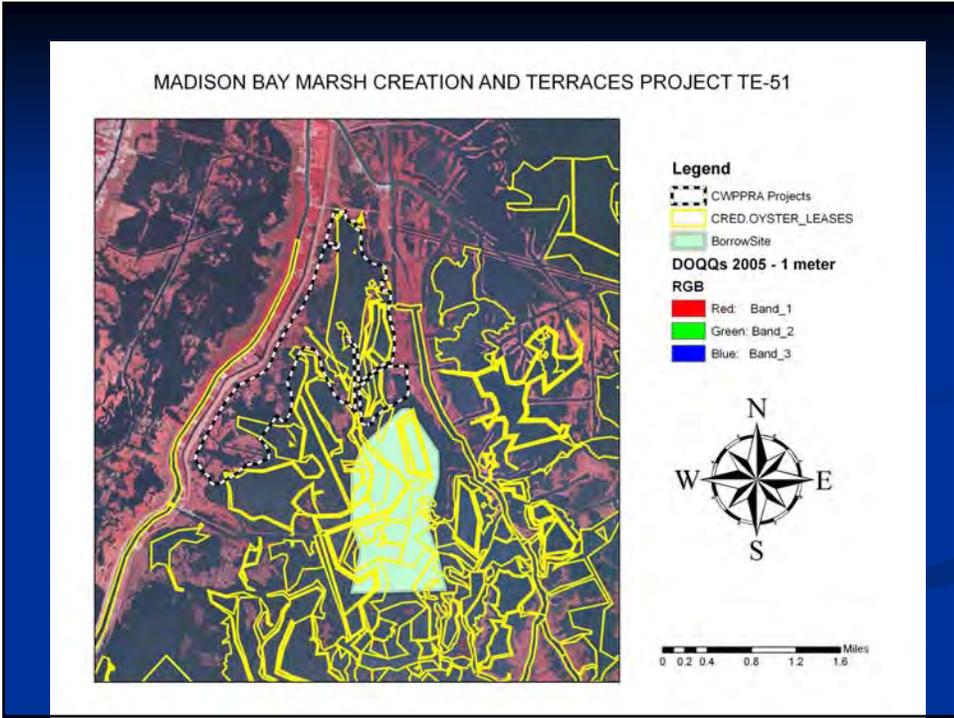


Madison Bay Marsh Creation and Terracing (TE-51)

Project Status
CWPPRA Technical Committee Meeting
April 8, 2011



- PPL 16 Project
- Approved by CWPPRA Task Force October 18, 2006
- Kickoff on March 7, 2007
- Landowner Meeting October 2008 (Oyster lease coordination)
- Survey and Geotechnical Investigations initiated April 2009

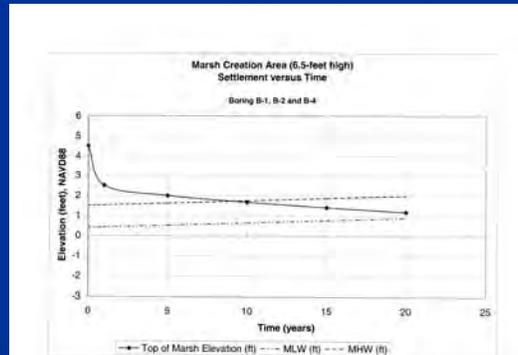


Pipelines/Infrastructure



Geotechnical

- Extremely soft clays and organics.
- Target marsh elevation of +1.5
 - Construction: +4.5
 - Year 1: +2.5
 - Year 5: +2.0
 - Year 10: +1.7
 - Year 20: +1.2



Levee Encroachment



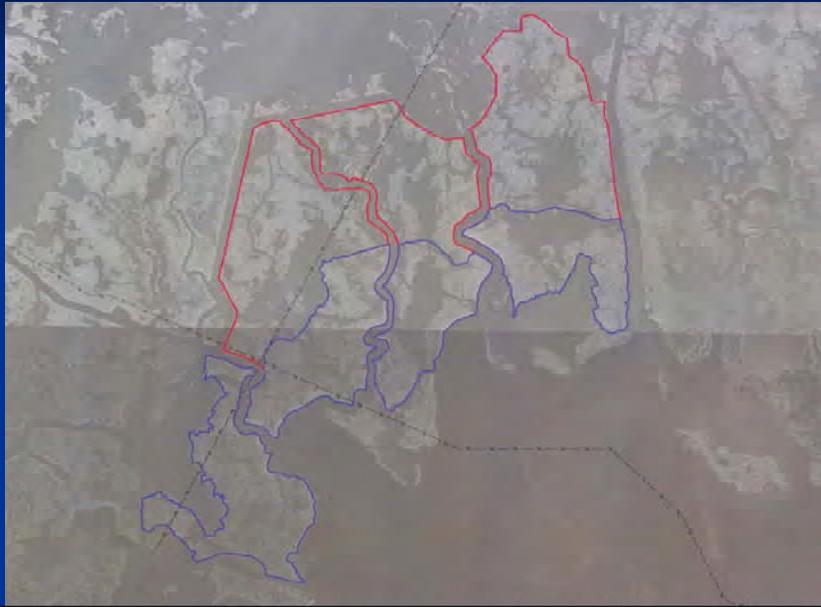
Path Forward

- Request to spend existing funds to investigate Alternative 1 project area.
 - Minimal Geotech in Alternative 1
 - Geotech data for Alternative 2 will be collected as part of Terrebonne Bay Marsh Creation-Nourishment Project
 - Same Borrow Area
 - Two Supportive Landowners in Alternatives 1 & 2
- Supported by Terrebonne Parish and State

Alternative I



Alternative II



Questions?

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

**REQUEST FOR OPERATION AND MAINTENANCE (O&M) INCREMENTAL
FUNDING AND BUDGET INCREASE FOR THE PPL 10 – LAKE BORGNE
SHORELINE PROTECTION (PO-30)**

For Decision:

The Environmental Protection Agency (EPA), through OCPR, is requesting approval for O&M Incremental funding and budget increase for the Lake Borgne Shoreline Protection (PO-30) Project. During the September 28, 2010 Technical Committee meeting, EPA made an initial request for an O&M budget increase in the amount of \$3,349,711, and a Phase 2 Increment 1 funding increase in the amount of \$3,356,181. The Technical Committee deferred making a decision until the project's alternatives had been analyzed. At the December 8, 2010 Technical Committee meeting, a \$3 million dollar "set-aside" was approved for the project. The project team has completed the alternatives analysis, selected the preferred alternative, and developed a revised project estimate.

The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the request for an O&M budget increase in the amount of \$3,327,676, and Phase 2 Increment 1 funding increase in the amount of \$3,333,417.

**Request for CWPPRA Project O&M Funding Increase
Project Costs and Benefits Reevaluation
Fact Sheet for April 8, 2011 Technical Committee Meeting**

Project Name: Lake Borgne Shoreline Protection (PO-30)

PPL: 10

Federal Sponsor: EPA

Construction Completion Date: June 2009

Projected Project Close-out Date: March 2029

Project Description: Construction of approximately five (5) miles of rock dike shoreline protection and 1600 linear feet of back-to-back sheet pile breakwater.

Construction changes from the approved project: Alignment revised during construction to conform to post-Hurricane Katrina shoreline and bathymetry.

Explain why O&M funding increase is needed: The original approved O&M budget included a maintenance lift in year 1, navigation aids maintenance in years 7 and 15, and annual inspections to evaluate the condition of the project features. During design, two areas, known as Reach 1 and Reach 3 Weak, were identified as having relatively weaker soil properties than the rest of the project area. Therefore, construction in these areas was planned in three lifts, 2 during the initial construction phase and a third maintenance lift one year later. For the Reach 1 rock dike, soil bearing failures occurred in several areas during construction of the first lift and rock placement of the second lift was halted in other areas because the dike was settling with the additional weight as rock was placed. After the passage of hurricanes Gustav and Ike, much of the rock dike was found to be submerged below the mudline. In order for the project to provide shoreline protection in this area, reconstruction of most of Reach 1 and a more robust maintenance lift will be required. It is anticipated that the planned maintenance lift for Reach 3 Weak will be sufficient.

Detail O&M work conducted to date: The O&M Manual is in draft form. Evaluation of scope for Maintenance lift is underway.

Detail and date of next O&M work to be completed: Design and construction of the maintenance lift after decision on scope.

Detail of future O&M work to be completed:

Annual field inspections and navigation aids maintenance in years 2016 and 2024.

Originally approved fully funded project cost estimate: \$18,378,900

Originally approved O&M budget: \$2,782,524

Approved O&M Budget Increases: \$986,231

Total Current Approved O&M Budget: \$3,768,755

Total O&M obligations to date: \$1,770

Total Remaining available O&M budget funds: \$3,766,985

Current Incremental Funding Request: \$3,333,417

Revised fully funded cost estimate: \$28,908,755

Total Project Life Budget Increase: \$10,529,875

The current O&M funding request reflects a project increase of \$3,327,676. However, there will be approximately \$300K in funds remaining from Phase 1 activities and approximately \$900K in funds remaining from Phase 2 activities available for return to the program upon reconciliation of project funds.

Requested Revised fully funded O&M estimate: \$7,096,431

Percent total project cost increase of proposed revised budget over original budget:
57.29%

Original net benefits based on WVA prepared when project was approved: 165 acres

The WVA, dated November 2005, divided the project into 3 areas totaling a net benefit of 165 acres (Area A = 47 acres, Area B = 23 acres & Area C = 95 acres). Since the primary O&M work to rebuild the breakwaters will concentrate on Area A (i.e., Reach 1), the focus of the current evaluation of benefits for this O&M request is only on the 47 acre area associated with this section. Satellite imagery and surveying indicate the other sections of the project are generally performing as anticipated.

Estimate of cumulative project wetland acres to date (from quantitative and/or qualitative analysis):

The basis of the benefit estimates for this O&M event is a USGS shoreline loss estimate from 2008 to 2010 for the section defined as Area A in the WVA. This timeframe equates to approximately the first 2-years of the project's life. The current analysis for this area estimates rates of shoreline erosion ranging from 6 ft/yr to 20 ft/yr. A summary of the analysis is included in the attached Table 1. For reference, the WVA, dated November 2005, estimated a shoreline loss rate of 9 ft/yr for Area A without the project. Additionally, the WVA assumed no shoreline loss, as is standard procedure for shoreline protection projects, with the project.

In the analysis performed by USGS, shoreline loss rates were determined for each segment of intact breakwater and each segment of failed breakwater. These segments are identified in the attached USGS generated map. Based on the analysis, approximately 4 acres of wetlands have been lost in the WVA defined Area A. This area has been calculated by summing the areas of loss for each of the defined segments as highlighted in Table 2. With the loss of these 4 acres of wetlands, the estimate of cumulative project wetland acres to date for Area A is 43 acres.

Applying the 43 acres of cumulative project wetland acres to date estimated for Area A to the original WVA benefits for Area B (23 acres) and Acre C (95 acres), the estimate of cumulative wetland acres to date for the entire project is 161 acres.

Revised estimate of project benefits in net acres through 20 year project life based on the project with and without continued O&M (include description of method used to determine estimate):

Again, evaluating only Area A of the project, and based upon the recent USGS analysis performed for this area, rates of shoreline erosion ranged from 6 ft/yr to 20 ft/yr for the area. Applying the specific shoreline erosion rates estimated for each of the segments of intact and failed breakwater, it is estimated that a total of 44 acres of wetland loss will occur over the 20-yr project life. This acreage was calculated by summing the areas loss for each of the identified segments after applying the estimated 20-yr change in shoreline to the respective segment lengths as highlighted in Table 3.

So, in addition to the 4 acres of wetlands already lost over the first 2-years of the project, an additional 40 acres of wetland loss will occur over the remaining 18-yr of the project life assuming the current shoreline loss rates. This would represent approximately 94% of the entire project Area A being lost. A loss of this extent would also increase the vulnerability of the parish hurricane protection levee to the west of the project area, along with increasing the exposure of the sheetpile structure at the tip of Bayou Dupre and the rock structures along MRGO.

Given these estimates, without the continued O&M of the project, the estimate of wetlands benefited in Area A is 3 acres. With the project O&M event and the application of only the actual wetland losses seen over the first 2-yr of the project, the estimate of wetland benefited will remain at 43 acres.

Applying the 3 acres estimated as wetlands benefited in Area A without the O&M event and the 43 acres of wetlands benefited in Area A with the O&M event to the original WVA benefits for Area B (23 acres) and Acre C (95 acres), the estimate of wetland acres benefited for the entire project without the O&M event is 121 acres and with the O&M event is 161 acres.

Original and revised cost effectiveness (cost/net acre) and percent change:

Original CE = \$111,387/acre (\$18,35,900 / 165 acres)

Revised CE = \$179,558/acre (\$28,908,755 / 161 acres)

% change = 61%



Map Produced by:
 U.S. Department of the Interior
 U.S. Geological Survey
 National Wetlands Research Center
 Coastal Restoration Assessment Branch
 Baton Rouge, La.
 Background Imagery:
 2010 NAIP Aerial Photography
 Map Date: February 22, 2011
 Map ID: USGS-NWRC 2011-11-0019

Lake Borgne Shoreline Protection (PO-30) Shoreline Loss Rates from 2008 to 2010

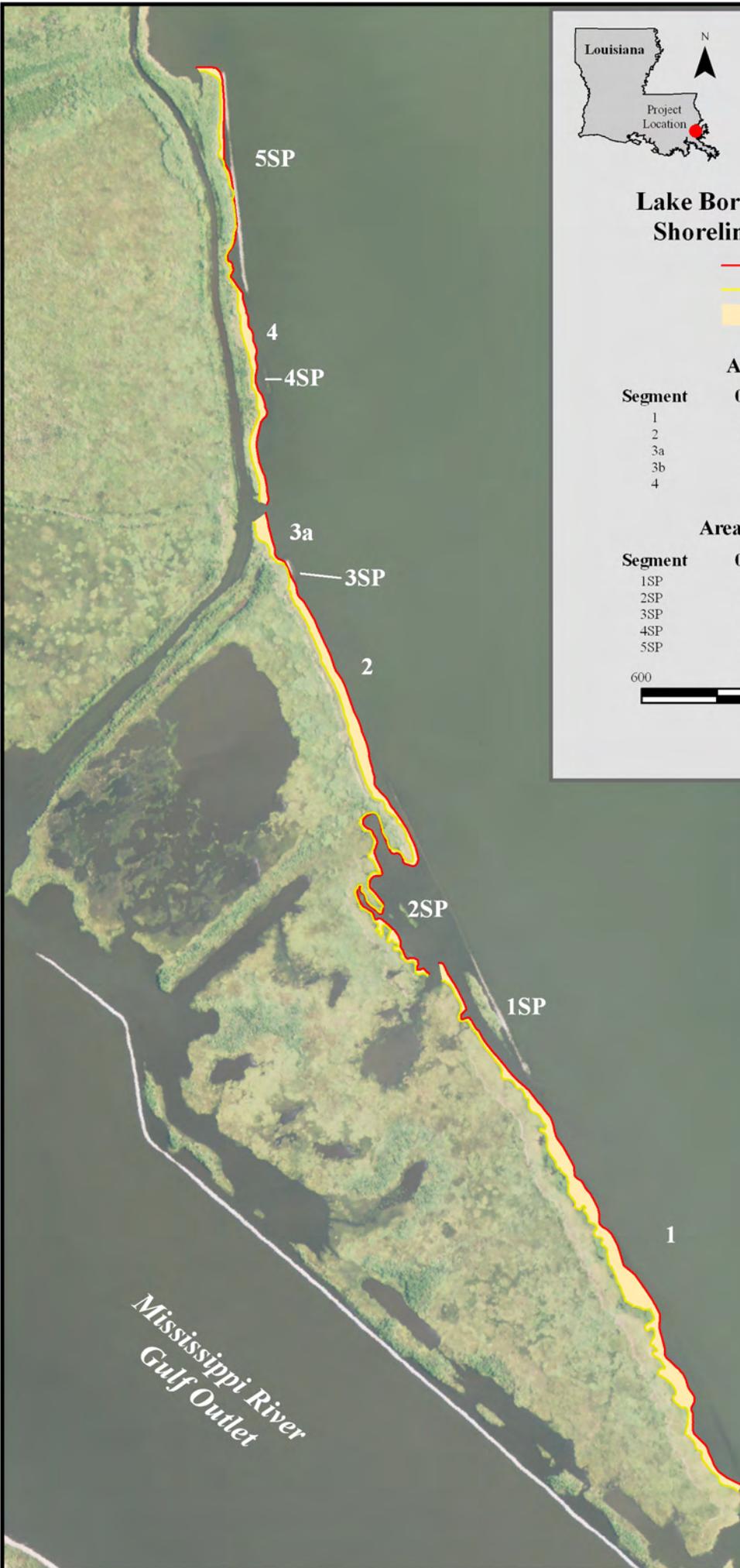
- 2008 Aerial Photography Shoreline
- 2010 Aerial Photography Shoreline
- 2008-2010 Area of Shoreline Loss

Areas Where Breakwaters Failed

Segment	08 - 10 Loss	Approx. Shoreline	Loss Rate
1	83,370 sq. ft.	2,054 ft.	20 ft. per yr.
2	32,090 sq. ft.	837 ft.	19 ft. per yr.
3a	7,519 sq. ft.	220 ft.	17 ft. per yr.
3b	11,938 sq. ft.	445 ft.	13 ft. per yr.
4	9,136 sq. ft.	299 ft.	15 ft. per yr.

Areas Where Breakwaters Did Not Fail

Segment	08 - 10 Loss	Approx. Shoreline	Loss Rate
1SP	11,393 sq. ft.	647 ft.	9 ft. per yr.
2SP	24,593 sq. ft.	2,006 ft.	6 ft. per yr.
3SP	1,310 sq. ft.	117 ft.	6 ft. per yr.
4SP	2,130 sq. ft.	129 ft.	8 ft. per yr.
5SP	11,505 sq. ft.	1,009 ft.	6 ft. per yr.



Lake
 Borgne

Mississippi River
 Gulf Outlet



Lake Borgne Shoreline Protection (PO-30)

Project Status

Approved Date: 2002 **Cost:** \$25.5 M
Project Area: 192 acres **Status:** Construction completed
Net Benefit After 20 Years: 165 acres
Project Type: Shoreline Protection

Location

The project is located on the southwest shoreline of Lake Borgne at Old Shell Beach and Bayou Dupre in St. Bernard Parish, Louisiana.

Problems

The narrow strip of marsh separating the Mississippi River Gulf Outlet (MRGO) and Lake Borgne in the vicinity of Old Shell Beach and Bayou Dupre is disappearing. This project addresses the loss by mitigating shoreline retreat and protecting the Lake Borgne shoreline. The shoreline erosion rate in the Shell Beach area has been estimated to be five to seven feet per year and seven to nine feet per year at Bayou Dupre. The interior marsh loss is likely to accelerate the erosion process. Revised shoreline erosion rates were based upon 1990 and 2004 imagery, therefore, the effects of hurricanes Katrina and Rita are not reflected.

Restoration Strategy

The project's objectives include: preventing and reducing Lake Borgne shoreline retreat in the areas adjacent to Old Shell Beach and Bayou Dupre to mitigate further joining of the lake and MRGO; reestablishing a sustainable lake rim; and preventing or reducing conversion of emergent marsh to open water.

Continuous rock breakwaters were constructed onshore approximately 17,000 feet from Doulluts Canal to Fort Bayou (Shell Beach) to provide shoreline protection. The protection ties into the existing rock breakwater structure which surrounds the perimeter of Old Fort Beauregard (Fort Proctor). Additional onshore rock breakwaters were constructed approximately 6,643 feet west and 4,418 feet southeast of Bayou Dupre. Back-to-back steel sheet pile structures at Bayou Dupre tie the rock structures into the existing offshore U.S. Army Corps of Engineers rock breakwater along MRGO.



Double wall steel sheet pile structure at Bayou Dupre.

Progress to Date

The initial project from Priority Project List 10, Lake Borgne Shoreline Protection (PO-30), originally provided lakeside protection only to the Old Shell Beach area. The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design of the original PO-30 project at the January 2001 meeting. In April 2002, the project was combined with Lake Borgne Shoreline Protection at Bayou Dupre (PO-31) from Priority Project List 11. Construction funds were approved by the Task Force in February 2006. Construction has been completed. Double wall steel sheet pile structures are unique design features not previously used in other CWPPRA projects. Moreover, end-on construction rock placement, used in the vicinity of the Old Shell Beach naval facility due to debris, is another method not frequently used in other coastal restoration projects. Information and lessons learned from this project will be used in planning future coastal restoration work.

This project is listed on Priority Project List 10.

For more project information, please contact:



Federal Sponsor:
U.S. Environmental Protection Agency
Dallas, TX
(214) 665-7255



Local Sponsor:
Office of Coastal Protection and Restoration
Baton Rouge, LA
(225) 342-4122



Lake Borgne Shoreline Protection East Section (PO-30)

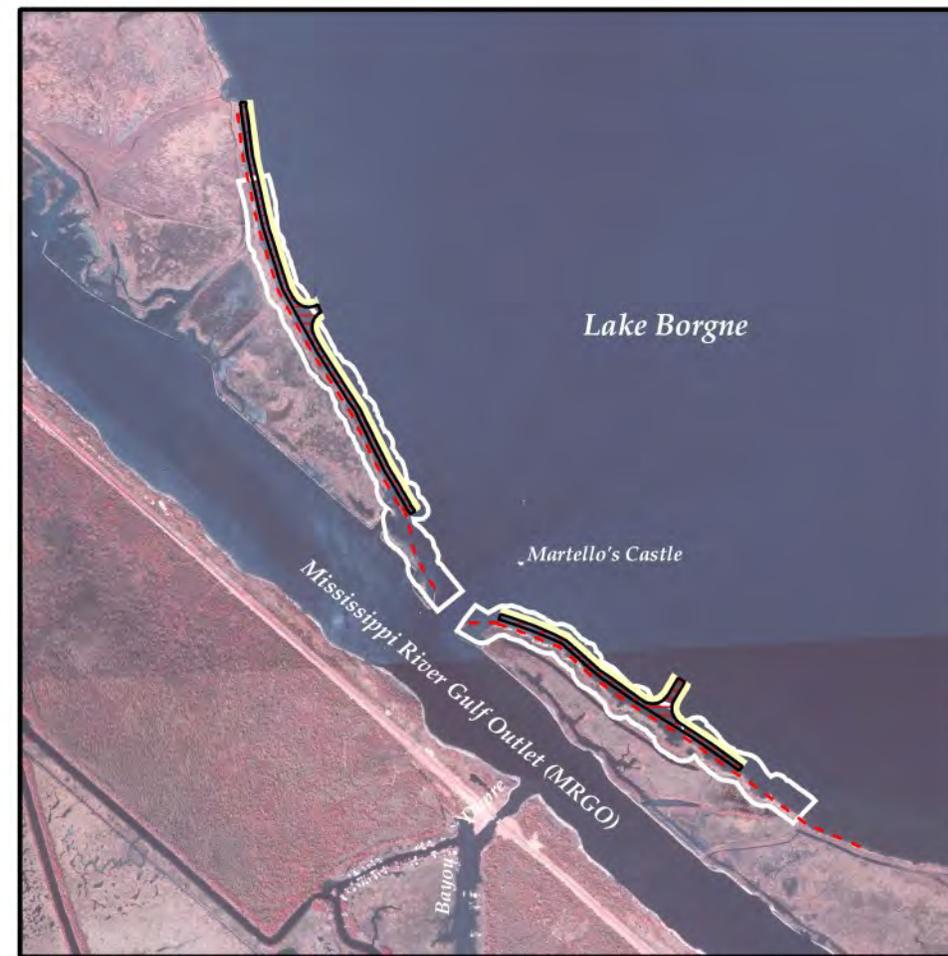
- Shoreline Protection *
 - Dredge Channel *
 - Containment Dike/
Spoil Bank/Levee *
 - Project Boundary *
- * denotes proposed feature



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

Background Imagery:
 2004 Digital Orthophoto Quarter Quadrangle

Map Date: April 10, 2006
 Map ID: USGS-NWRC 2006-11-0267
 Data accurate as of: April 07, 2006



Lake Borgne Shoreline Protection West Section (PO-30)

- Shoreline Protection *
 - Dredge Channel *
 - Containment Dike/
Spoil Bank/Levee *
 - Project Boundary *
- * denotes proposed feature



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

Background Imagery:
 2004 Digital Orthophoto Quarter Quadrangle

Map Date: April 10, 2006
 Map ID: USGS-NWRC 2006-11-0265
 Data accurate as of: April 07, 2006



OFFICE OF COASTAL PROTECTION AND RESTORATION

Lake Borgne Shoreline Protection (PO-30) O&M Funding Request

CWPPRA Technical Committee Meeting



April 8, 2011
New Orleans, LA





OFFICE OF COASTAL PROTECTION AND RESTORATION

Project Overview

Project Goals/Objectives:

- 1) Halt shoreline retreat/marsh loss
- 2) Protect approximately 165 acres of emergent marsh
- 3) Prevent further coalescence of the lake and MRGO
- 4) Re-establish a sustainable lake rim

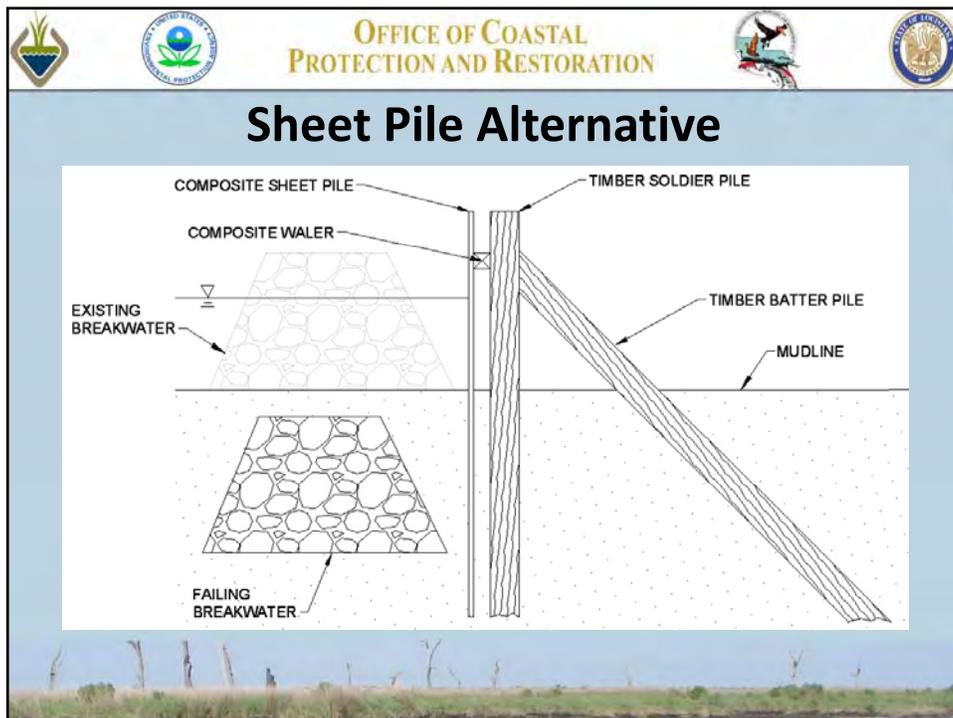
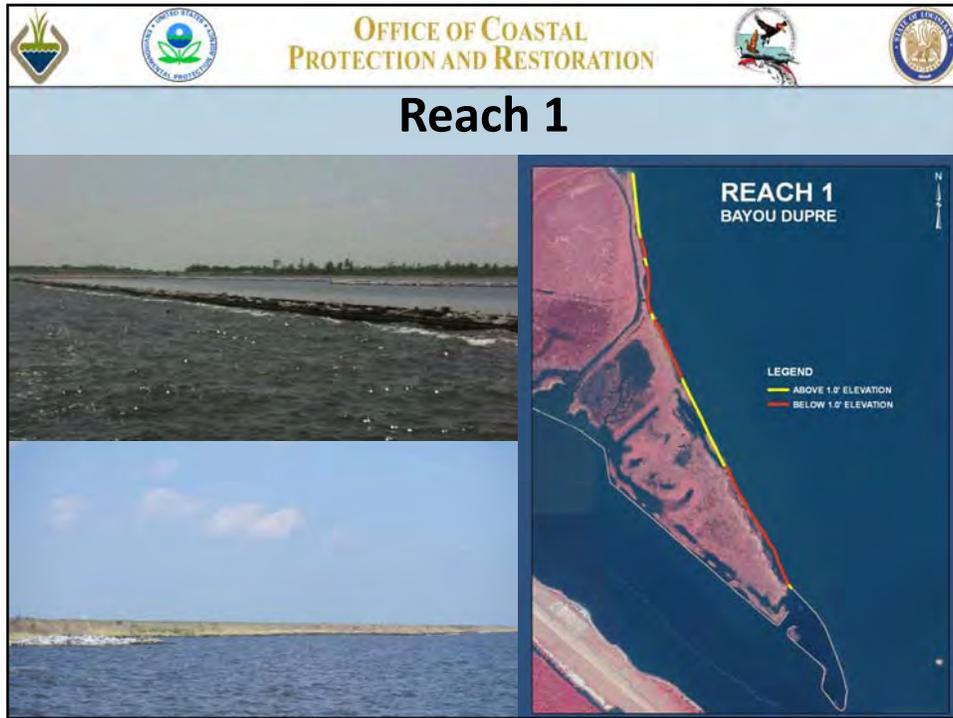
Original Project Features:

- 1) Approximately 29,000 ft of onshore rock dike
- 2) Approximately 2,000 ft of sheet pile structure

Current O&M Event:

- 1) Maintenance lift on approximately 6,000 ft of rock dike
- 2) Construct approximately 4,400 ft of sheetpile structure







OFFICE OF COASTAL PROTECTION AND RESTORATION

Project Funding

- Phase I approved Jan-2001 - \$1.7M
- Phase II approved Feb-2006 - \$17M
- Phase II increase approved Feb-2007 - \$6.9M
- Current Fully Funded Cost - \$25.6M
- Requesting O&M Increase - \$3.3M
- Revised Fully Funded Cost - \$28.9M
 - Remaining PI Balance – \$300K
 - Remaining PII Balance - \$900K



OFFICE OF COASTAL PROTECTION AND RESTORATION

Path Forward

- Obtain Technical Committee Approval
- Request Task Force Approval via Email Vote
- Schedule Award of O&M Contract this Year





**OFFICE OF COASTAL
PROTECTION AND RESTORATION**

Questions?

Paul Kaspar, EPA – 214.665.7459
Peter Hopkins, OCPR – 504.280.4070
Shannon Haynes, OCPR – 225.342.9424
Alex Gonzalez-Rodiles, OCPR – 225.342.4626



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

**REQUEST FOR A CHANGE IN SCOPE FOR THE PPL 13 -- BAYOU SALE
SHORELINE PROTECTION PROJECT (TV-20)**

For Decision:

The Natural Resources Conservation Service (NRCS) and OCPR request a project scope change to separate the Bayou Sale Shoreline Protection Project into 3 segments and proceed with the design to 30% and 95% of segment 1 which consists of 23,082 feet out of the original 35,776 feet of shoreline protection. The NRCS and OCPR also request a cost estimate increase from the original \$23,082,000 to an estimated \$ 64,825,325 due to the plethora of pipelines and flow lines in the project area necessitating unconventional construction techniques.

The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the requested project scope change, separating the project into 3 segments and proceeding with the design to 30% and 95% of segment 1, and also to approve the requested cost estimate increase to \$ 64,825,325.

Bayou Sale Shoreline Protection (TV-20)

Change in Project Scope
Report to the Technical Committee
March 18, 2011

The original Bayou Sale Shoreline Protection Project (TV-20) consisted of approximately 123 acres of marsh creation and 35,776 feet of foreshore rock dike (Figure 1). The project, as originally planned, extended from the British American Canal on the northern end to Bayou Sale on the southern end. The original project features included the construction of a foreshore rock dike parallel to and approximately 150 feet out from the existing shoreline of East Cote Blanche Bay. Plans were to use conventional construction techniques to construct the rock dike and place the flotation channel material behind the rock dike to create marsh.

Due to the plethora of pipelines and flowlines located in the project site, NRCS, in conjunction with OCPR, now proposes to use end-on construction techniques to construct the rock dike. The numerous pipelines and flowlines greatly hinder the construction of a flotation channel parallel to the shoreline. Several major pipelines and numerous flowlines are located at or near the surface along the shoreline and they pose major obstacles to digging a channel parallel to the shoreline. Due to these obstacles located along the shoreline, we determined it would be more feasible to construct “perpendicular flotation channels” at strategic points to barge the rock into the shoreline and utilize end-on construction to build the dike. This alternative will reduce encounters with oil and gas infrastructure, especially known pipelines and flowlines.

End-on construction necessitates building the rock dike in close proximity to the existing shoreline. Building the dike in close proximity to the existing shoreline provides two significant advantages: (1) construction in shallower water reduces the volume of rock needed to raise the dike to a sufficient level above the surface of the water; and (2) soil stability is higher near the shore.

The marsh creation component has been eliminated due to the change in construction methods. End-on construction would not be feasible at a distance of 150 feet from the shoreline and flotation channel material will be less readily available because there would not be a flotation channel parallel to the shoreline.

The NRCS and OCPR present this project scope change due to increased cost and reduced benefits that result from the need to use unconventional construction techniques due to the plethora of pipelines and flowlines in the project area. Additionally, due to the significant cost increase, NRCS, in conjunction with OCPR, St. Mary Parish, and the stakeholders propose to segment the Bayou Sale Shoreline Protection Project into 3 segments (Figure 2). The Central Segment extends from Burns Point northward for approximately 23,082 feet (Figure 3). The Central Segment is the highest priority because this segment of shoreline is eroding at a rate of up to 6 feet per year. Furthermore, the most extensive acreage of marsh is located in the Central Segment of the project. The North Segment extends northward for approximately 9,133 feet to the British American Canal. The South Segment extends southward for approximately 13,340 feet to the mouth of Bayou Sale. The North and South segments are eroding at a lower rate than the Central Segment but the shoreline in both of these segments is steadily encroaching and threatening the integrity of the Bayou Sale Ridge.

Due to the significant cost increase, NRCS, OCPR and the stakeholders propose to proceed to 30% and 95% design of only the Central Segment because that segment of the shoreline is eroding at a higher erosion rate than

the remainder of the shoreline (North and South Segments). NRCS, OCPR and stakeholders propose to design the North and South Segments of the Bayou Sale Shoreline Protection Project in subsequent years.

NRCS and OCPR will compare the feasibility of utilizing existing roads in combination with cut-in channels versus using cut-in channels only. The results of this analysis will be presented at the 30% design review. Also, NRCS and OCPR will thoroughly consider the merits of “letting” 2 separate contracts for the construction of the Bayou Shoreline Protection Project. The first contract will be to “clear” the cut-in channels and alignment of obstacles such as flowlines and debris. The second contract will be to construct the rock dike.

The draft revised WVA predicts that the revised project would produce the following AAHUs and net acres at the end of 20 years. The preliminary revised fully funded cost estimate of the revised project is \$64,825,325. The revised estimates of benefits and costs are presently being reviewed by the appropriate CWPPRA Work Groups.

	Original Project	All Segments revised project	%Change
Fully-funded Cost	\$23,082,000	\$ 64,825,325	+180%
Net Acres @year 20	155	142	-8%
AAHUs	73	56	-23%

	Original Project	Central Segment revised project	%Change
Fully-funded Cost	NA	\$ 38,855,291	NA
Net Acres @year 20	NA	71	NA
AAHUs	NA	30	NA

	Original Project	North Segment revised project	%Change
Fully-funded Cost	NA	\$ 12,985,017	NA
Net Acres @year 20	NA	36	NA
AAHUs	NA	10	NA

	Original Project	South Segment revised project	%Change
Fully-funded Cost	NA	\$ 12,985,017	NA
Net Acres @year 20	NA	35	NA
AAHUs	NA	16	NA

Figure 1. Original Bayou Sale Shoreline Protection Project.

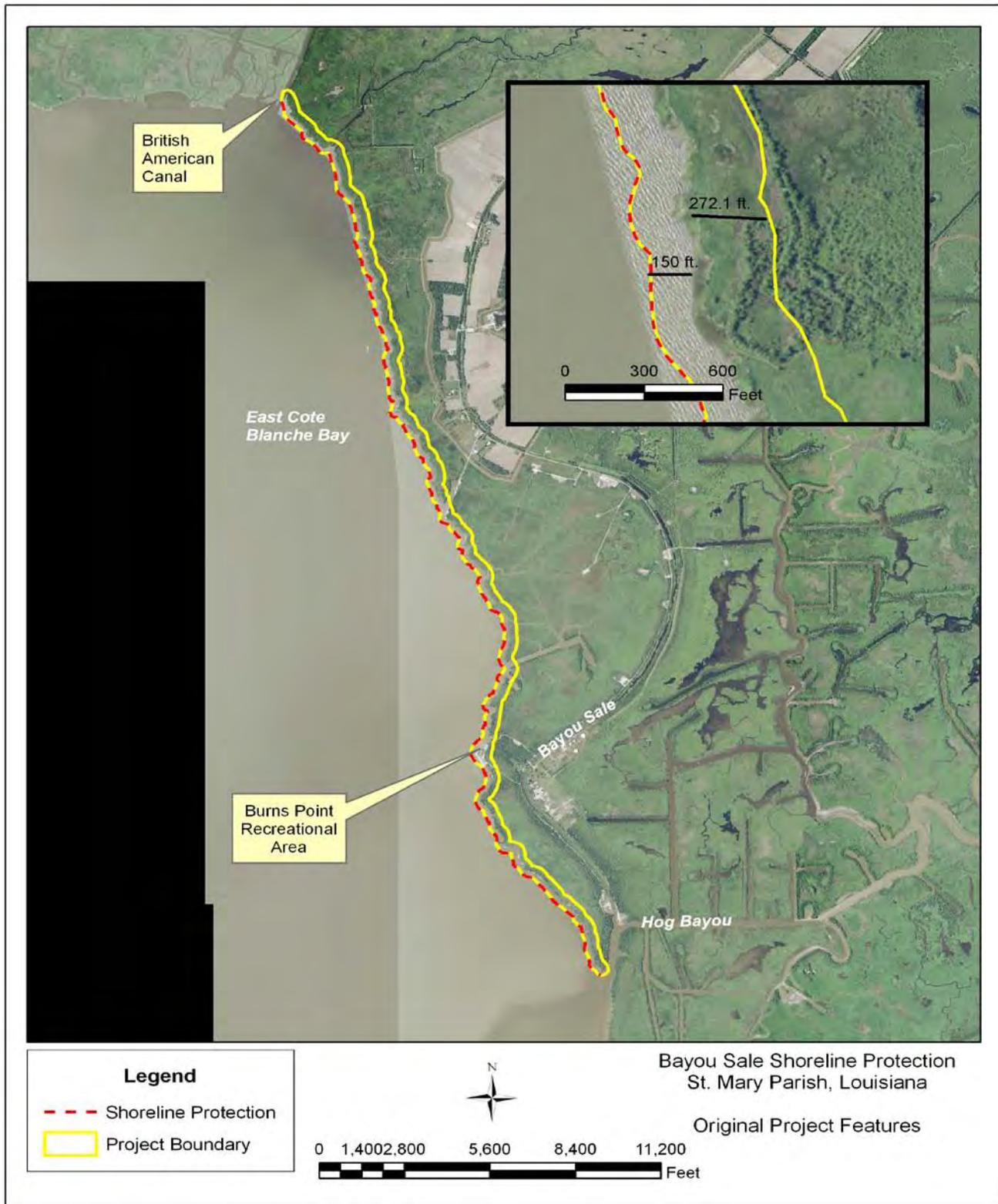


Figure 2. All Segments of Bayou Sale Shoreline Protection Project.

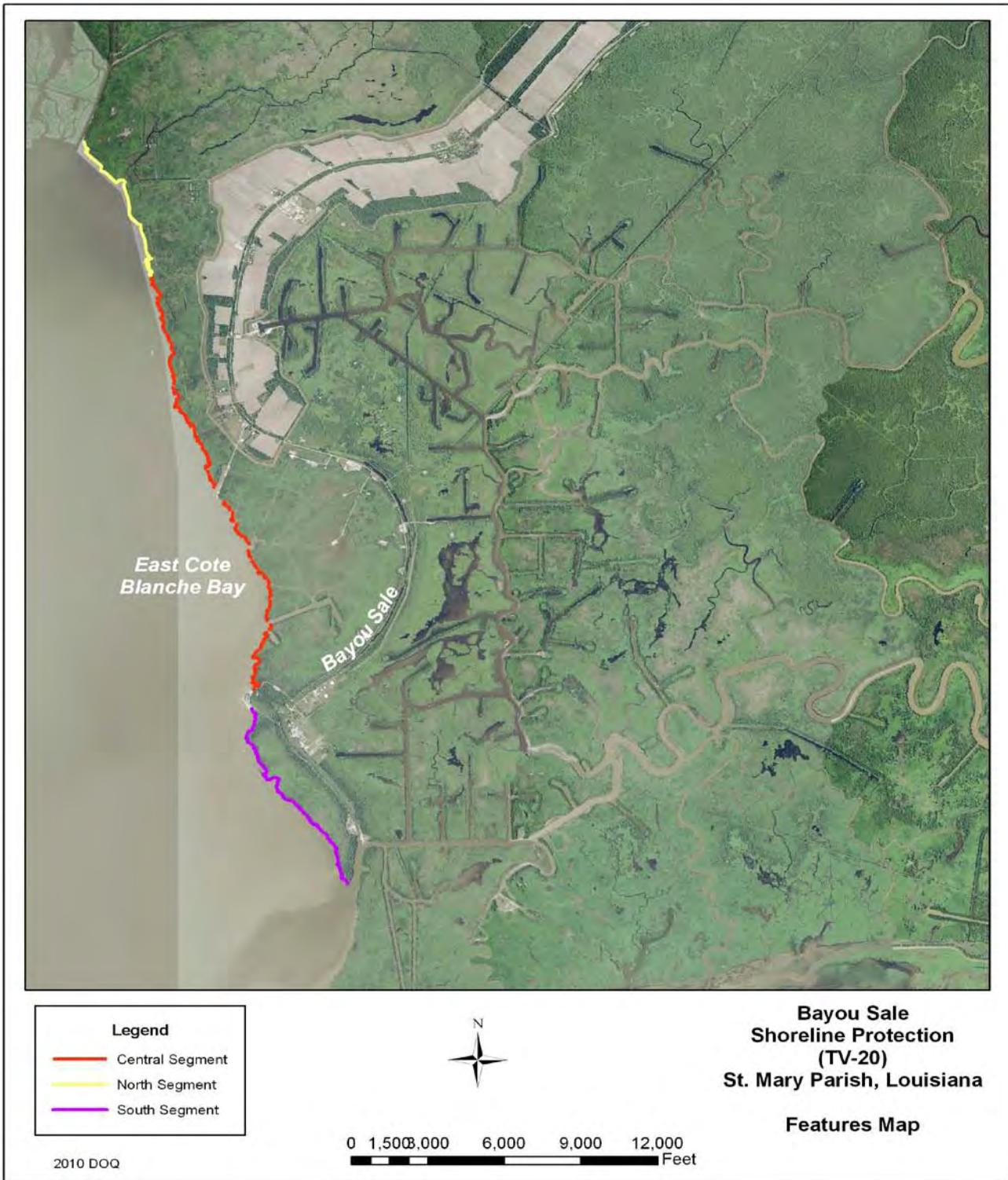
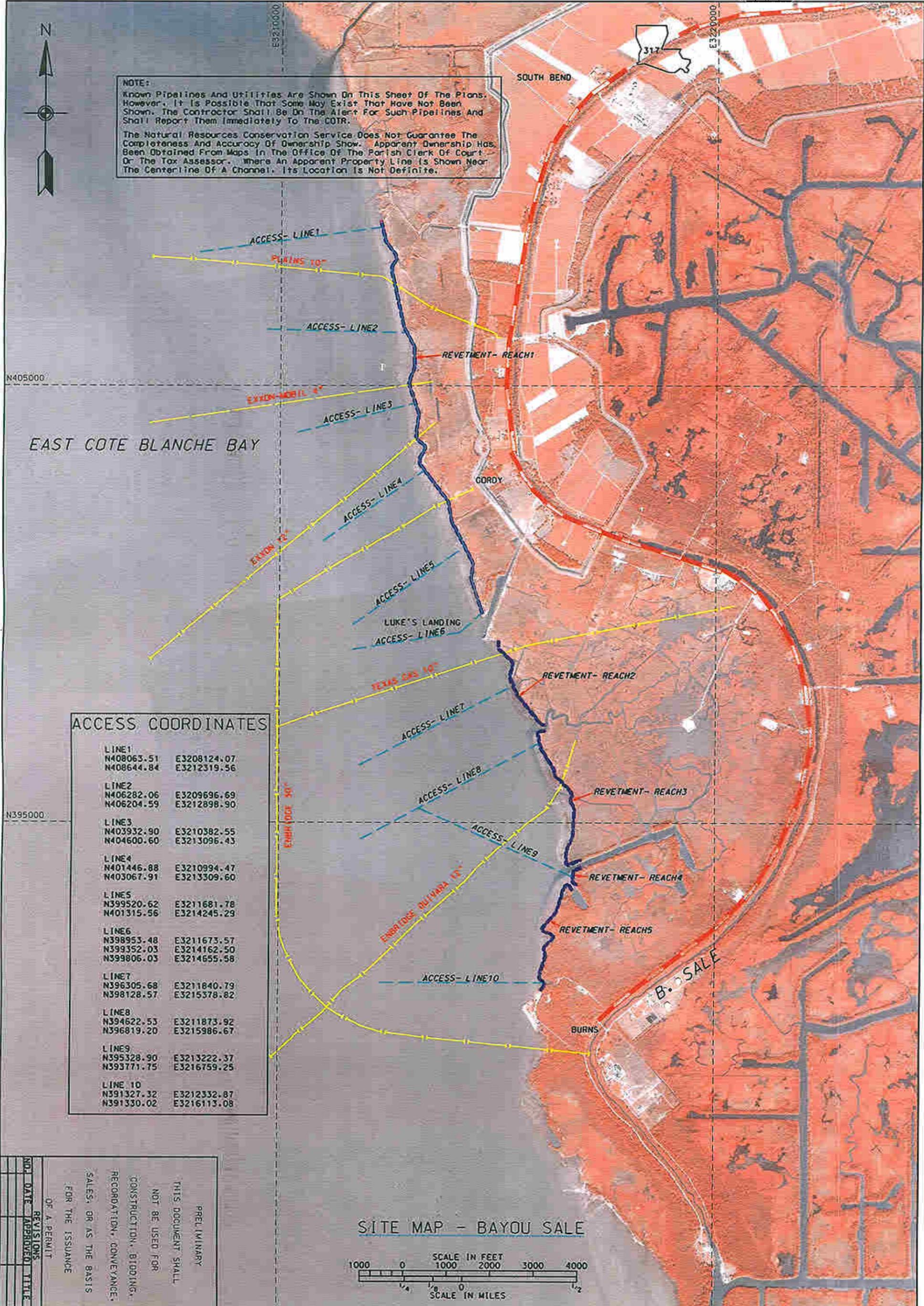


Figure 3. Central Segment of Bayou Sale Shoreline Protection Project.



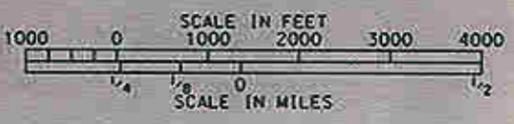


NOTE:
 Known Pipelines And Utilities Are Shown On This Sheet Of The Plans. However, It Is Possible That Some May Exist That Have Not Been Shown. The Contractor Shall Be On The Alert For Such Pipelines And Shall Report Them Immediately To The COTR.
 The Natural Resources Conservation Service Does Not Guarantee The Completeness And Accuracy Of Ownership Show. Apparent Ownership Has Been Obtained From Maps In The Office Of The Parish Clerk Of Court Or The Tax Assessor. Where An Apparent Property Line Is Shown Near The Centerline Of A Channel, Its Location Is Not Definite.



ACCESS COORDINATES	
LINE1 N408063.51 N408644.84	E3208124.07 E3212319.56
LINE2 N406282.06 N406204.59	E3209696.69 E3212898.90
LINE3 N403932.90 N404600.60	E3210382.55 E3213096.43
LINE4 N401446.88 N403067.91	E3210994.47 E3213309.60
LINE5 N399520.62 N401315.56	E3211681.78 E3214245.29
LINE6 N398953.48 N399352.03 N399806.03	E3211673.57 E3214162.50 E3214655.58
LINE7 N396305.68 N398128.57	E3211840.79 E3215378.82
LINE8 N394622.53 N396819.20	E3211873.92 E3215986.67
LINE9 N395328.90 N393771.75	E3213222.37 E3216759.25
LINE 10 N391327.32 N391330.02	E3212332.87 E3216113.08

SITE MAP - BAYOU SALE



PRELIMINARY
 THIS DOCUMENT SHALL
 NOT BE USED FOR
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 SALES, OR AS THE BASIS
 FOR THE ISSUANCE
 OF A PERMIT

NO.	DATE	APPROVED	TITLE

FILE NAME
L379003
DRAWING NAME
L379003.DGN



**SITE MAP - ACCESS
 TV-20 BAYOU SALE
 SHORELINE PROTECTION
 ST. MARY PARISH, LOUISIANA**

	DESIGNED	C. SLOCUM	DATE	04/10
DRAWN	D. WILMORE		04/10	
CHECKED				
APPROVED				

DESIGNED C. SLOCUM 05/10
 DRAWN D. WILMORE 05/10
 CHECKED _____
 APPROVED _____

TYPICAL SECTIONS
 TV-20 BAYOU SALE
 SHORELINE PROTECTION
 ST. MARY PARISH, LOUISIANA

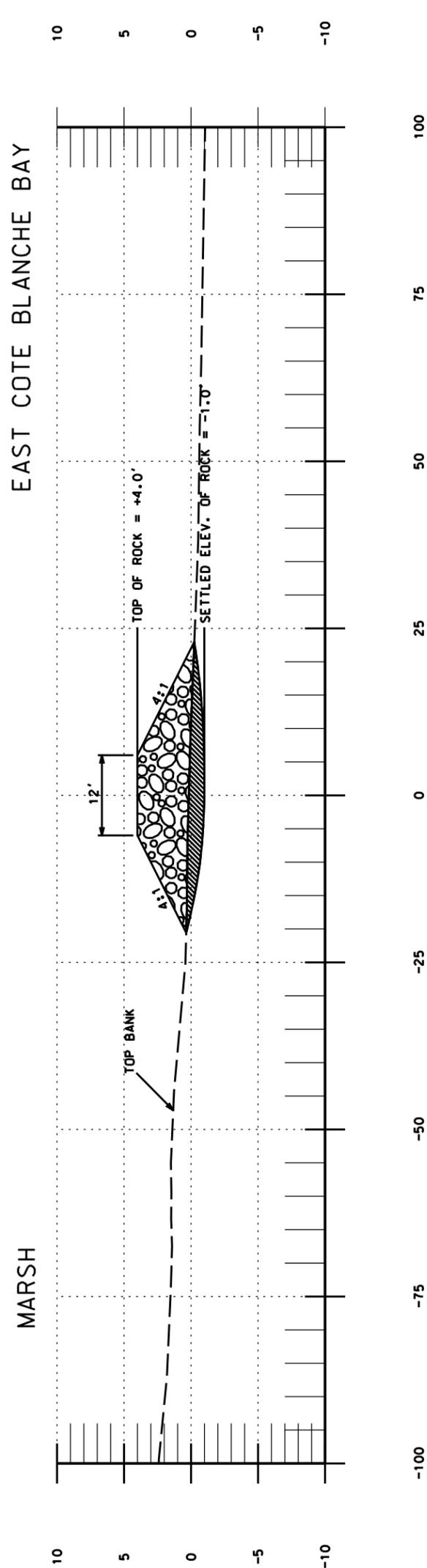
NRCS
 Natural Resources Conservation Service
 United States Department of Agriculture



FILE NAME LA379036
 DRAWING NAME LA379036.DGN
 SHEET 36 OF

PRELIMINARY
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TYPICAL ROCK REVETMENT

NOTE:
 ROCK REVETMENT WILL BE BUILT USING END-ON CONSTRUCTION METHOD.
 REVETMENT WILL BE USED BY ARTICULATED TRUCK TRAFFIC TO MOVE THE ROCK.

Exhibit A

Bayou Sale Shoreline Protection (TV-20)

St. Mary Parish, Louisiana

Legend

- Project Boundary
- Township/Range Line
- Section Line
- Pipeline (LGS, NPMS, CMD)
- Flowlines
- Proposed Rock Shoreline Protection
- Proposed Access Flotation Channel for Access to Rock Shoreline Protection Structure
- MIAMI CORPORATION
- HOGAN, ADELIA W ET AL
- CHAMPAGNE, ELBY L ET AL
- ROBICHAUX, PAUL E
- MICHAELS PLACE INC
- LUKE III, DAVEA ET AL
- ARNAUD, DOLORES B
- DAVEA LUKE UND PROP LLC
- LUKE, AINTOINE S ET AL
- LUKE, CHARLES M ET AL
- BREAUX, VERONICA M ET AL
- AMADORE, STANLEY ET AL
- ST MARY PARISH
- Inactive Well
- Shut-In Well
- Active Well
- Well without status code (Tobin data)
- Other Well
- SWD Well
- Orphan Well

All features are graphical representations only and may not reflect true location or dimension.

0.5 0.25 0 0.5 1 Kilometers

0.5 0.25 0 0.5 1 Miles

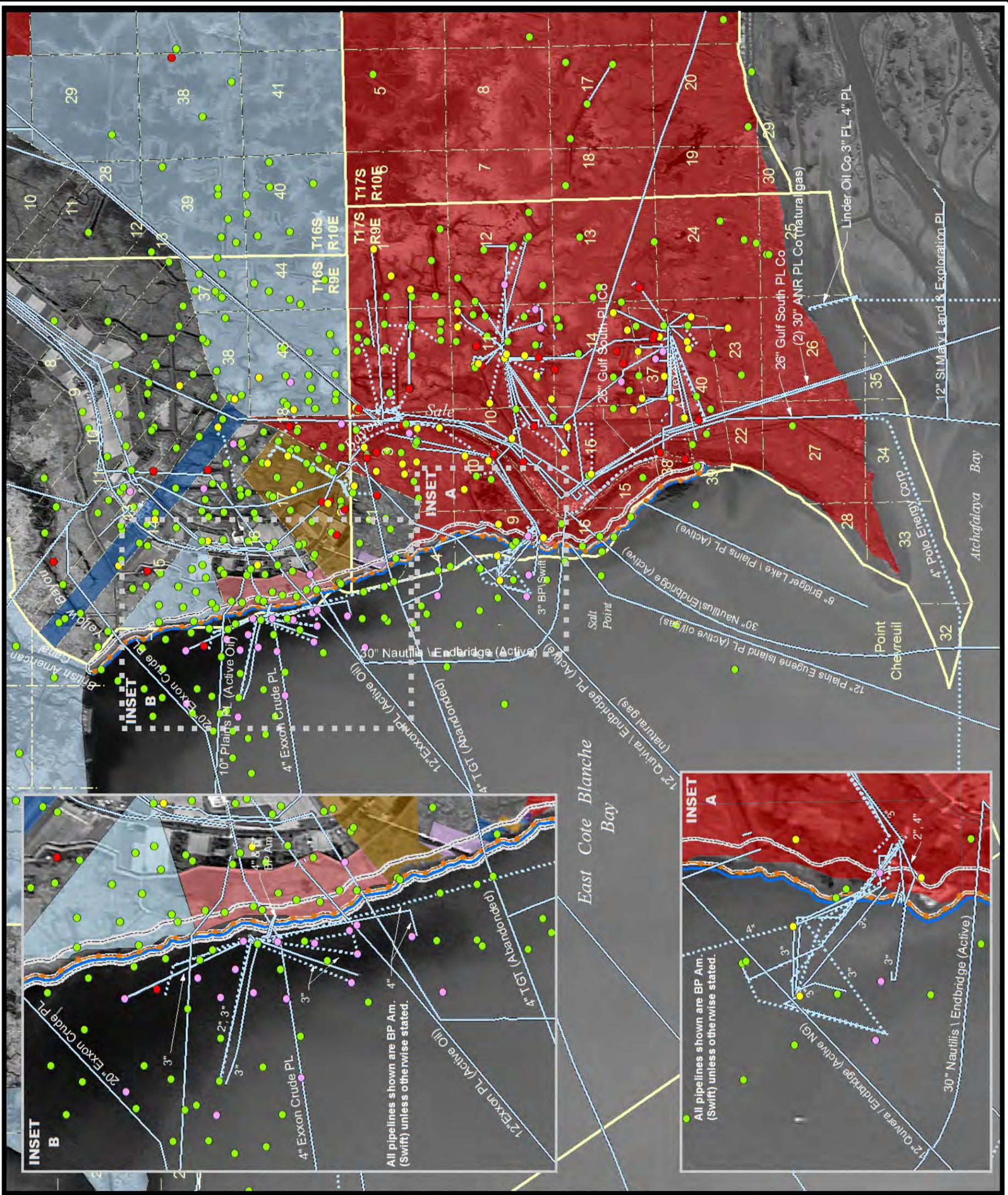
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Louisiana

Map Location

Louisiana Department of Natural Resources
Coastal Restoration Division
Baton Rouge, Louisiana

Image Source: 2000 Spot Imagery
Printing Date: November 9, 2006
File: j:\labwork\space\lason\ Landrights\20070411\20070411_TV-20.mxd





Bayou Sale

Shoreline Protection (TV-20)

Project Status

Approved Date: 2004 **Project Area:** 370 acres
Approved Funds: \$2.25 M **Total Est. Cost:** \$32.1 M
Net Benefit After 20 Years: 329 acres
Status: Engineering and Design
Project Type: Shoreline Protection

Location

The project is located along the eastern shoreline of East Cote Blanche Bay, from British-American Canal to the mouth of Bayou Sale, in St. Mary Parish, Louisiana.

Problems

Shoreline erosion at an estimated rate of 13.5 feet per year is being caused by the open water fetch and resulting wave energy from East Cote Blanche Bay. The retreating shoreline has resulted in a substantial loss of live oak forest, emergent wetlands, and critical habitat used by a multitude of fish and wildlife species, including the endangered Louisiana black bear.

Restoration Strategy

The goal of this project is to reduce or, if possible, reverse shoreline erosion and create marsh between the breakwater and existing shoreline. Project plans include construction of 35,776 linear feet of foreshore rock dike parallel to and approximately 150 feet out from the existing eastern shoreline of East Cote Blanche Bay. The rock dike will be tied into the banks of all substantial channels. Smaller channels and sloughs will have provisions for adequate drainage and aquatic organism access via openings through the dredge material and gaps in the dike. It is anticipated that approximately 123 acres of marsh will be created with the fill material from the dredging of an access channel to accommodate construction equipment.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved the engineering and design phase of this project in January 2004. Planning is ongoing.

This project is on Priority Project List 13.



A foreshore rock dike, such as the one shown above, may provide an alternative type of shoreline protection to the eastern shoreline of East Cote Blanche Bay.



Brown pelicans are using this rock dike located in Lafourche Parish.

For more project information, please contact:



Federal Sponsor:
 Natural Resources Conservation Service
 Alexandria, LA
 (318) 473-7756



Local Sponsor:
 Louisiana Department of Natural Resources
 Baton Rouge, LA
 (225) 342-7308

Bayou Sale Shoreline Protection (TV-20)

Shoreline Protection*
Project Boundary



*denotes proposed features



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:
2002 Panfusion TM Imagery
Map Date: January 30, 2004
Map ID: USGS-NWRC 2004-11-0141
Data accurate as of: July 22, 2004



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

**REQUEST FOR A CHANGE IN SCOPE FOR THE PPL 17 – CAERNARVON
OUTFALL MANAGEMENT/ LAKE LERY SHORELINE RESTORATION PROJECT
(BS-16)**

For Decision:

The U.S. Fish and Wildlife Service (USFWS) and OCPR request a project scope change to delete the Mississippi River fresh water introduction component because it has been incorporated into the USACE's 4th Supplemental Caernarvon Project. The scope change includes an extension to both the shoreline restoration and marsh creation components to include stabilization of 37,500 linear feet (vs. 32,000 feet) of the western Lake Lery shoreline and restore a net 453 acres (vs. 652 acres) of marsh via dredged material. The USFWS and OCPR also request a cost estimate increase from \$25,137,149 to an estimated \$43,624,191 due to the above revisions.

The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the scope change to delete the Mississippi River fresh water introduction component and extend the shoreline restoration and marsh creation components, and also to approve the requested cost estimate increase to \$43,624,191.

Caernarvon Outfall Management/Lake Lery Shoreline Restoration Project (BS-16)

Project Scope Change Request

Report to the Technical Committee

April 8, 2011

The Caernarvon Outfall Management/Lake Lery Shoreline Restoration Project (BS-16) was approved for Phase I funding by the Task Force in February 2008 as part of Priority Project List 17 (PPL 17). The Fish and Wildlife Service and State Office of Coastal Protection and Restoration (OCPR) request a project scope change to delete the outfall management feature, add shoreline restoration and marsh creation features and increase the budget over 25% of the fully funded Phase I budget.

As a result of the October 27, 2010, 30% Design Review Meeting, project sponsors recommended several revisions from the originally authorized project. The original project features consisted of, 1) conveyance of 250 cfs of Mississippi River water from the Caernarvon Freshwater Diversion outfall channel to marshes east of Bayou Mandeville, 2) restoration of approximately 32,000 linear feet of Lake Lery shoreline via bucket dredge (73 acres of marsh), and 3) creation of approximately 396 acres of marsh south of the shoreline stabilization. The revised project consists of; 1) removal of the freshwater diversion component, 2) restoration of 37,500 linear feet of Lake Lery shoreline via bucket dredge resulting in 72 net acres of higher marsh (103 constructed acres of higher marsh), and 3) creation of approximately 381 net acres of marsh (580 constructed marsh acres) along the southern and western Lake Lery shoreline, for a total of 453 net acres of marsh (623 acres of marsh after construction).

The freshwater feature is being deleted because the Corps' 4th Supplemental Caernarvon project will construct that component with construction funds identified for that project. In turn, project sponsors are adding shoreline stabilization and marsh creation originally identified in the 4th Supplemental project, thus swapping freshwater introduction for shoreline protection and marsh creation.

Table 1: Caernarvon Outfall Management (BS-16) Original vs. Revised Cost Effectiveness.

	Original Phase I Project	Revised Project
Fully-funded Cost	\$25,137,149	\$43, 624,191 (74% increase)
Net Acres Year 20	652	453 (- 30%)
AAHU's	302	188 (- 38%)



United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506
January 28, 2011



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

Dear Mr. Holden,

The Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA) funded Caernarvon Outfall Management/Lake Lery Shoreline Restoration Project (BS-16) project was approved for Phase I funding by the Technical Committee in January 2008 and by the Task Force in February 2008 as part of Priority Project List 17 (PPL 17) process. On October 27, 2010, the United States Fish and Wildlife Service (Service) acting as the Federal Sponsor, in partnership with the state Office of Coastal Protection and Restoration (OCPR) successfully held its 30% Design Meeting concerning the BS-16 project. By this letter, the Service is requesting the Technical Committee to recommend that this project move forward toward the 95% Design Level of Engineering and Design. In compliance with the most recent CWPPRA Standard Operating Procedures (SOP) (Version 18), the Service has included the Revised Cost Estimate and Description of Project Revisions from the Previously Authorized Project. We have also enclosed for your review: Agency Comments and Responses Concerning the 30% Design Meeting; and Letter of Concurrence from the Local Sponsor, informing the Technical Committee of the agreement to continue with the project.

Revised Cost Estimate- The project costs have increased from the original fully funded cost plus 25% contingency of \$25,137,149 to an estimated \$29,744,875 fully funded cost plus 25% contingency because of changes in project construction components. Further details concerning project components revisions can be found in the following section.

Description of Project Revisions from the Previously Authorized Project- As a result of the 30% Design Meeting the project sponsors recommended several changes from the original authorized project both in cost and project components. We anticipate requesting a Change in Scope during the April 2011 Technical Committee meeting. The original scope of this project had three very distinctive components. One was to convey on average 250 Cubic Feet per Second of Mississippi River water from the Caernarvon Outfall Channel to the marshes east of Bayou Mandeville. The second component was to restore approximately 32,000 linear feet of shoreline along the southern shoreline of Lake

Lery via bucket dredge. It was estimated that this would create approximately 73 acres of high marsh and would include vegetative plantings. The third component was to create approximately 396 acres of marsh south of the newly constructed lake shoreline via hydraulic dredge.

Project sponsors wish to delete components dealing with conveying Mississippi River water to the marshes east of Bayou Mandeville because the Corps 4th Supplemental Project decided to include this component. Because the Corps 4th Supplemental Project is being "fast tracked" and has funds dedicated to construction, we agreed not to undertake that component. We wish to add several components the 4th Supplemental Project dropped which were adjacent to the original BS-16 project area. We propose to extend both the shoreline restoration and marsh creation components to include the entire western Lake Lery shoreline and adjacent marsh. The project with the currently proposed revisions will restore the entire 37,500 linear foot section of the southern and western Lake Lery shoreline to include creation of approximately 43 acres of high intertidal marsh. The revised project would also create approximately 580 acres of marsh via hydraulic dredge directly adjacent to the newly constructed southern and western shorelines. This revised project would total 623 acres of newly created marsh.

The Service would like to thank the members of the Technical Committee and Planning and Evaluation Subcommittee for your time and consideration in this matter. If you have any questions please contact Robert Dubois (Project Manager) at (337) 291-3127 or by email at robert_dubois@fws.gov.

Sincerely,



Jim Boggs
Supervisor
Louisiana Field Office
U. S. Fish and Wildlife Service

Enclosures:

Agency Comments and Responses
Local Sponsors Letter of Concurrence

Cc: Mr. Darryl Clark, United States Fish and Wildlife Service
Mr. Kirk Rhinehart, Office of Coastal Protection and Restoration
Mr. Richard Hartman, National Marine Fisheries Service
Ms. Karen McCormick, Environmental Protection Agency, Region 6
Mr. Britt Paul, Natural Resources Conservation Service
Ms. Melanie Goodman, U.S. Army Corps of Engineers



Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR



January 13, 2011

Robert T. Dubois
U.S. Fish and Wildlife Service
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506

Re: 30% Design Review Concurrence for Caernarvon Outfall Management/Lake Lery Marsh
Creation and Shoreline Restoration
Statement of Local Sponsor Concurrence

Dear Mr. Dubois:

The 30% Design Review meeting for the Caernarvon Outfall Management/Lake Lery Marsh Creation and Shoreline Restoration (BS-16) project was held on October 27, 2010. Based on our review of the technical information compiled to date, the land ownership investigation, and the preliminary designs, the Office of Coastal Protection and Restoration, as the local sponsor, concurs to proceed with the design of BS-16.

In accordance with the CWPPRA Standard Operating Procedures, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee and proceed to 95% design level. Please be sure to copy me on all future correspondences concerning this project.

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

Sincerely,

Tim Harper, E.I.,
OCPR Project Manager

cc: Chris Williams, P.E., OCPR Project Management Administrator
Kirk Rhinehart, OCPR Planning Administrator
Joseph Guillory, E.I., OCPR Project Engineer
BS-16 Project File



Caernarvon Outfall Management Lake Lery Shoreline Restoration (BS-16)

Project Status

Approved Date: 2007 **Project Area:** 16,260 acres

Approved Funds: \$2.66 M **Total Est. Cost:** \$25.1 M

Net Benefit After 20 Years: 652 acres

Status: Engineering and Design

Project Type: Outfall Management

Location

This project is located in Region 2, Breton Sound Basin, St. Bernard and Plaquemines Parishes, Caernarvon mapping unit. The marshes are located north and south of Lake Lery.

Problems

1) The wetlands surrounding Lake Lery and the Lake Lery shoreline were heavily damaged due to Hurricane Katrina (August 29, 2005). Wind induced waves within Lake Lery could further damage the shorelines and cause accelerated interior marsh loss.

2) Marshes north of Lake Lery have historically not achieved the benefits from the Caernarvon diversion that the marshes to the south and west have achieved. The marshes to the east have been deteriorating from increased salinities and from a lack of freshwater from the diversion. After Hurricane Katrina the two canals that transported limited amounts of freshwater eastward were completely blocked with debris virtually cutting off the flow of all freshwater to these marshes.



Caernarvon Freshwater Diversion

Hurricane Katrina severely damaged these marshes and with the lack of freshwater from the diversion it is unlikely they can be restored without assistance.

Restoration Strategy

This project will divert freshwater from the Caernarvon Outfall Canal by dredging an 850 foot long conveyance channel from the Outfall Canal to the marshes east of Bayou Mandeville. This project will also restore approximately 32,000 linear feet of the Lake Lery shoreline. Additionally, vegetative plantings will help restore and maintain the lakeward edge. Approximately 396 acres of interior marsh along the southern shoreline of Lake Lery will be created or nourished.

Progress to Date

This project has received Phase I funding, and survey and geotechnical data are being collected for use in the engineering and design work.

This project is on Priority Project List 17.

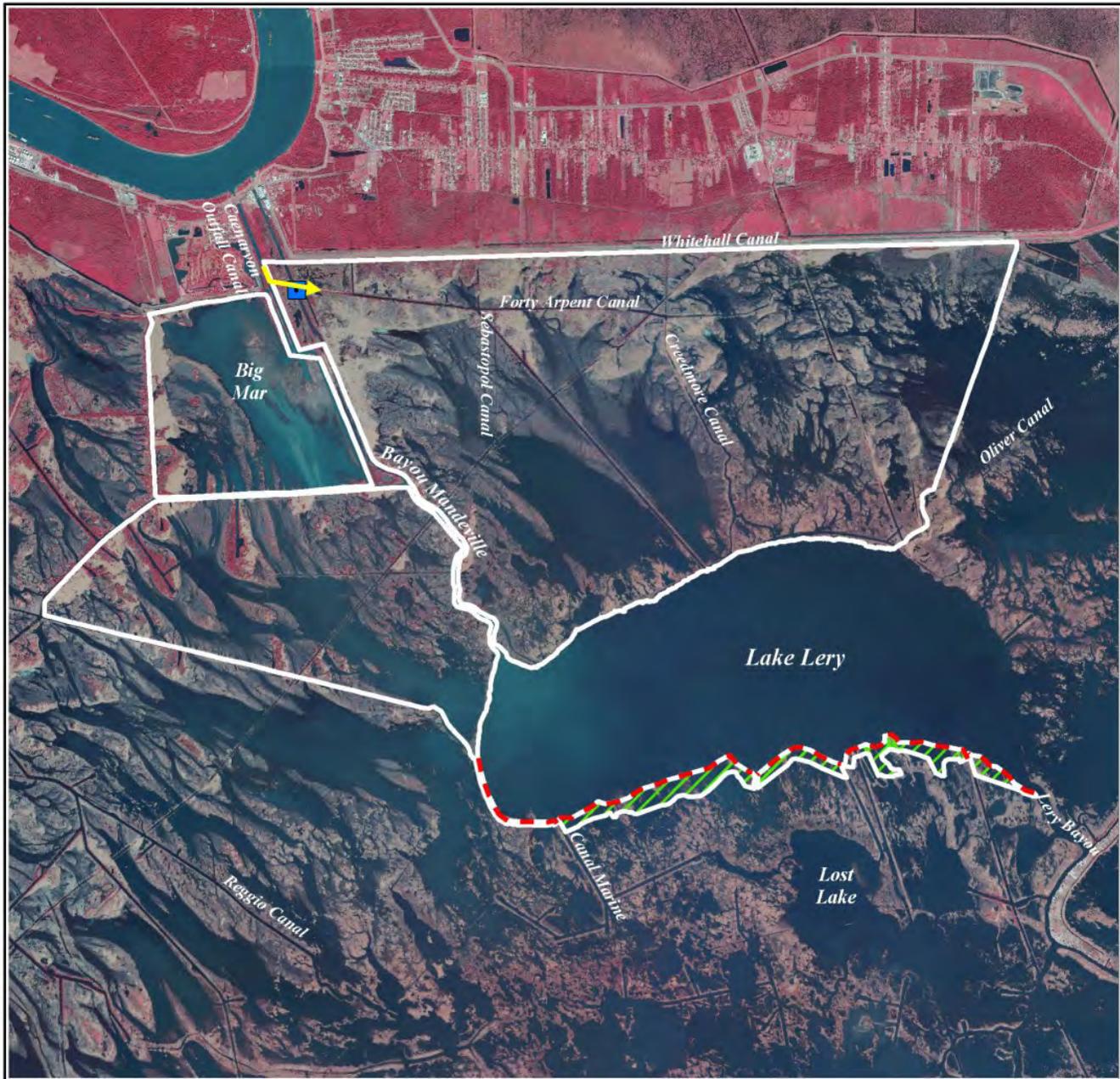
For more project information, please contact:



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



Local Sponsor:
Office of Coastal Protection and Restoration
Baton Rouge, La.
(225) 342-7308

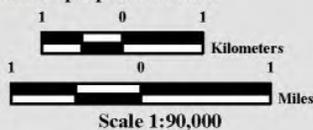


Caernarvon Outfall Management/Lake Lery Shoreline Restoration (CWPPRA BS-16)



-  Structure *
-  Diversion *
-  Shoreline Restoration *
-  Marsh Creation *
-  Project Boundary *

* denotes proposed features



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

Image Source:
2008 Digital Orthophoto Quarter Quadrangles

Map ID: USGS-NWRC 2007-11-0296
Map Date: October 27, 2009

PROPOSED
CHANGE IN SCOPE FOR THE
CAERNARVON OUTFALL MANAGEMENT
AND LAKE LERY SHORELINE
RESTORATION PROJECT
BS-16

PRESENTED TO CWPPRA TECHNICAL COMMITTEE
APRIL 08, 2011



The slide features a background image of a large body of water with a shoreline. The text is centered and reads: "PROPOSED CHANGE IN SCOPE FOR THE CAERNARVON OUTFALL MANAGEMENT AND LAKE LERY SHORELINE RESTORATION PROJECT BS-16". Below the text, it says "PRESENTED TO CWPPRA TECHNICAL COMMITTEE APRIL 08, 2011". At the bottom, there are four logos: the U.S. Fish & Wildlife Service seal, the U.S. Department of Natural Resources seal, the U.S. Department of Natural Resources seal, and the NRCS logo.

BS-16 PROJECT BACKGROUND

- Nominated by the FWS in January 2007 at the Region 2 RPT meeting
- Selected by CWPPRA Technical Committee as PPL17 Candidate in January 2008
- Approved for Phase 1 funding by CWPPRA Task Force in February 2008

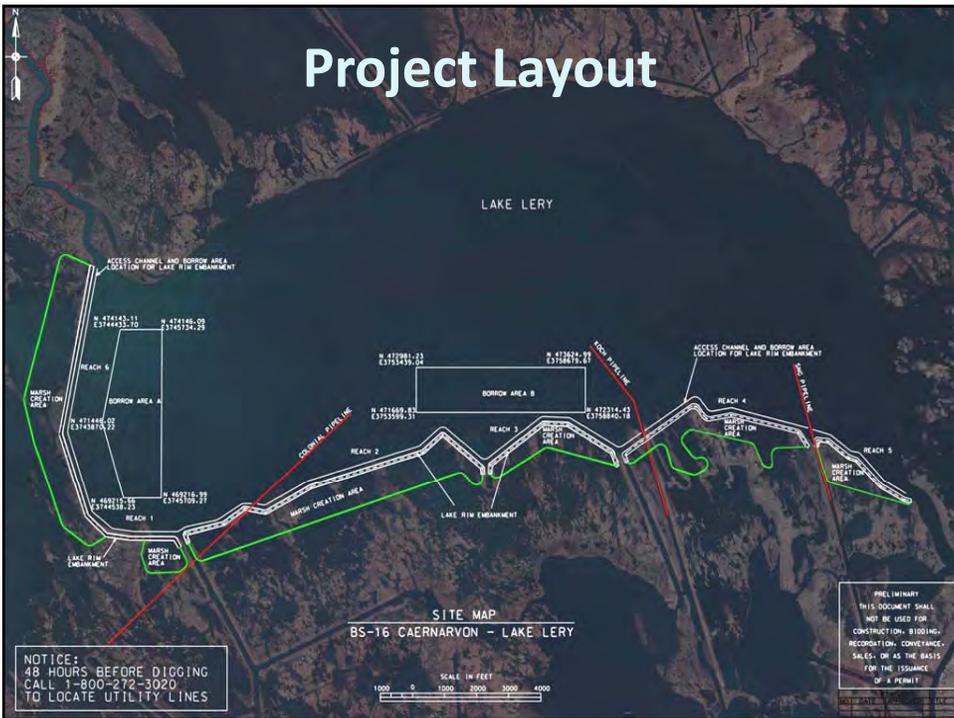


ORIGINAL PROJECT FEATURES

- Dredge conveyance channel from outfall canal near the 40 Arpent canal to shunt water east
- Plug Caernarvon canal with a rock dike or gated structure south of the 40 Arpent Canal to shunt water east
- Restore the southern and portions of the western shoreline of Lake Lery with a low level earthen embankment and plant the lakeward edge of that embankment
- Restore approximately 396 acres of marsh around the southern perimeter of Lake Lery

BS-16 REVISED PROJECT FEATURES

- Restore approximately 37,000 linear feet of the southern and western Lake Lery shoreline which will create 72 acres of intertidal marsh
- Plant restored shoreline
- Create 580 acres of marsh along the southern and western Lake Lery shorelines with hydraulic dredge
- Initially creating 683 acres of marsh or 453 net acres

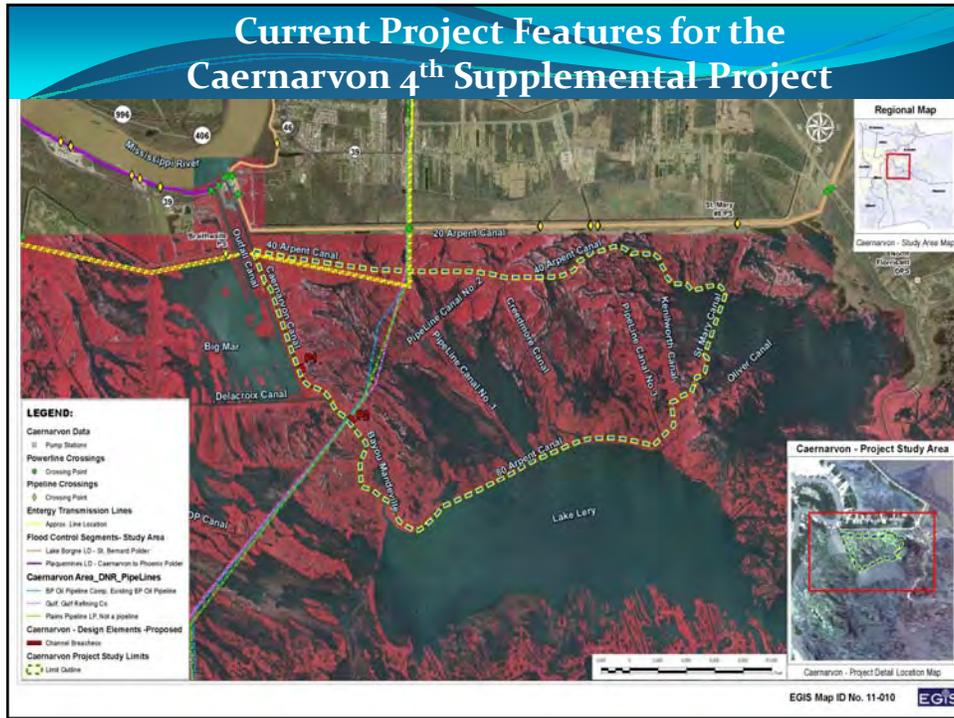


Original Caernarvon 4th Supplemental Project Features



Corps Caernarvon 4th Supplemental Project Features: original vs. revised

- Original project features included; marsh creation, shoreline restoration, shoreline protection, and dredging/clearing 40 Arpent canal
- Revised project features include; siphon diversion water east of Bayou Mandeville and dredge/clear 40 Arpent canal



Revised vs. Original Benefits and Costs

Project Feature Benefits	Original Project Features	Revised Project Features
Initial Marsh Creation Acres	396 acres	580 acres
Initial Shoreline Restoration Acres	73 acres 32,000 LF	103 acres 37,500 LF
Net Marsh Creation Acres	652 acres	381 acres
Net Shoreline Restoration Acres	69 acres	72 acres
Total Net Acres	652 acres	453 acres
Total Net AAHU's	302	188
Fully Funded Cost	\$25,137,149	\$43,624,191

Name change from
Caernarvon outfall Management
and Lake Lery Shoreline
Restoration Project
to
**Lake Lery Shoreline
Restoration and Marsh
Creation Project**

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

SELECTION OF TEN CANDIDATE PROJECTS AND UP TO THREE DEMONSTRATION PROJECTS TO EVALUATE FOR PPL 21

For Decision:

The Technical Committee will consider preliminary costs and benefits of the 21st Priority Project List (PPL) project and demonstration project nominees listed below. The Technical Committee will select 10 projects and up to 3 demonstration projects as PPL 21 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).

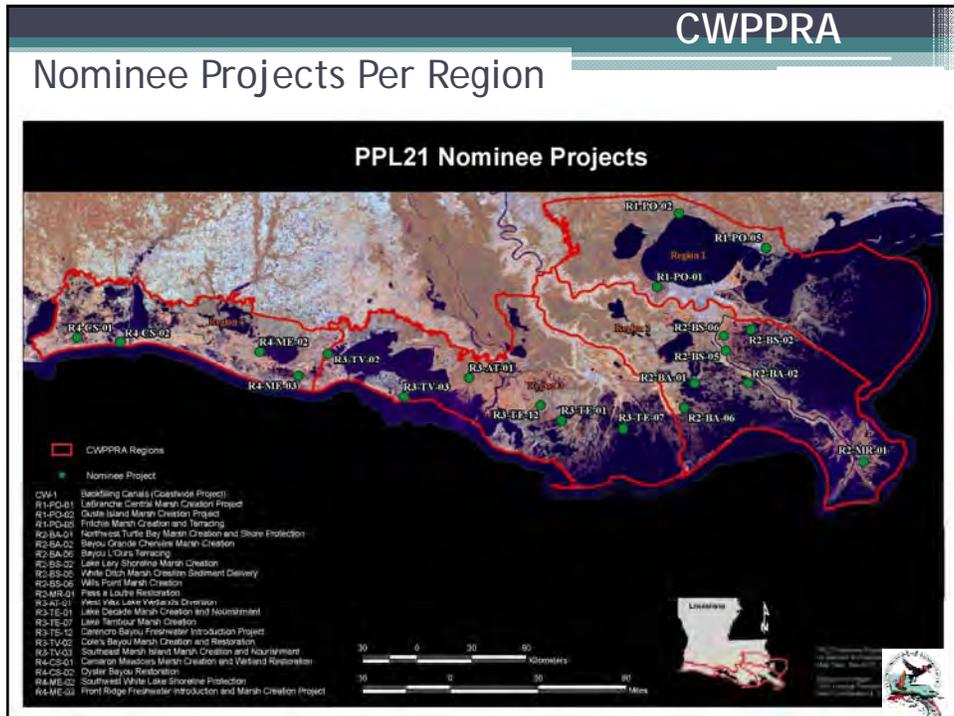
Region	Basin	PPL 21 Nominees
1	Pontchartrain	Fritchie Marsh Creation and Terracing
1	Pontchartrain	LaBranche Central Marsh Creation
1	Pontchartrain	Guste Island Marsh Creation
2	Mississippi River Delta	Pass a Loutre Restoration
2	Breton Sound	Lake Lery Shoreline Marsh Creation
2	Breton Sound	White Ditch Marsh Creation Sediment Delivery
2	Breton Sound	Wills Point Marsh Creation
2	Barataria	Northwest Turtle Bay Marsh Creation and Shore Protection
2	Barataria	Bayou Grande Cheniere Marsh Creation
2	Barataria	Bayou L'Ours Terracing
3	Terrebonne	Lake Tambour Marsh Creation
3	Terrebonne	Lake Decade Marsh Creation and Nourishment
3	Terrebonne	Carencro Bayou Freshwater Introduction
3	Atchafalaya	West Wax Lake Wetlands Diversion
3	Teche-Vermilion	Southeast Marsh Island Marsh Creation and Nourishment
3	Teche-Vermilion	Cole's Bayou Marsh Creation and Restoration
4	Calcasieu-Sabine	Cameron Meadows Marsh Creation and Wetland Restoration
4	Calcasieu-Sabine	Oyster Bayou Restoration
4	Mermentau	Front Ridge Freshwater Introduction and Marsh Creation
4	Mermentau	Southwest White Lake Shoreline Protection
	Coastwide	Backfilling Canals

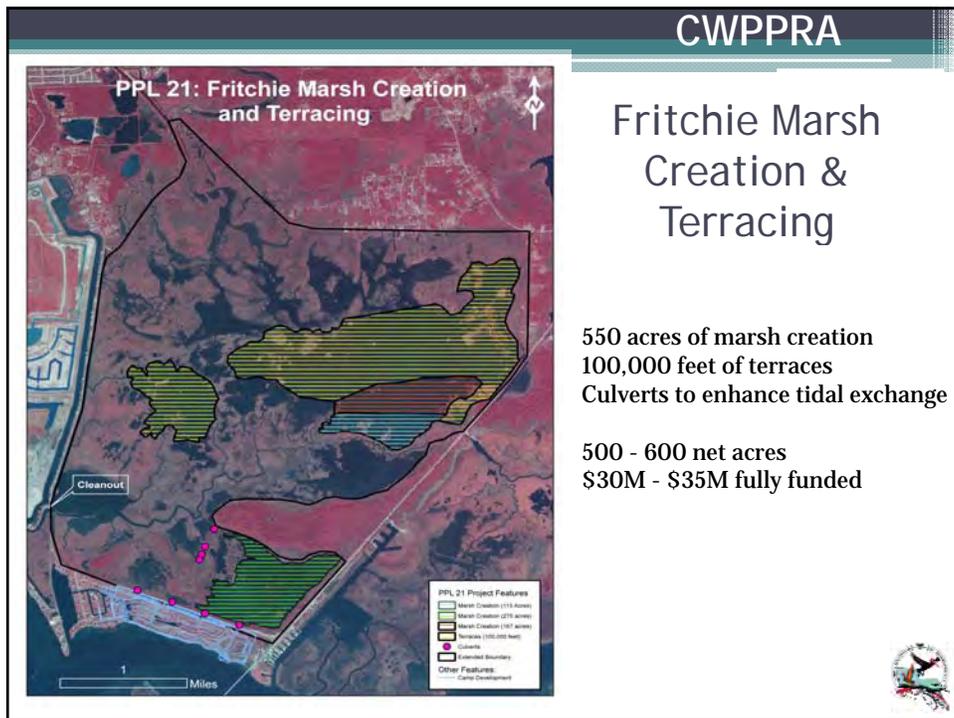
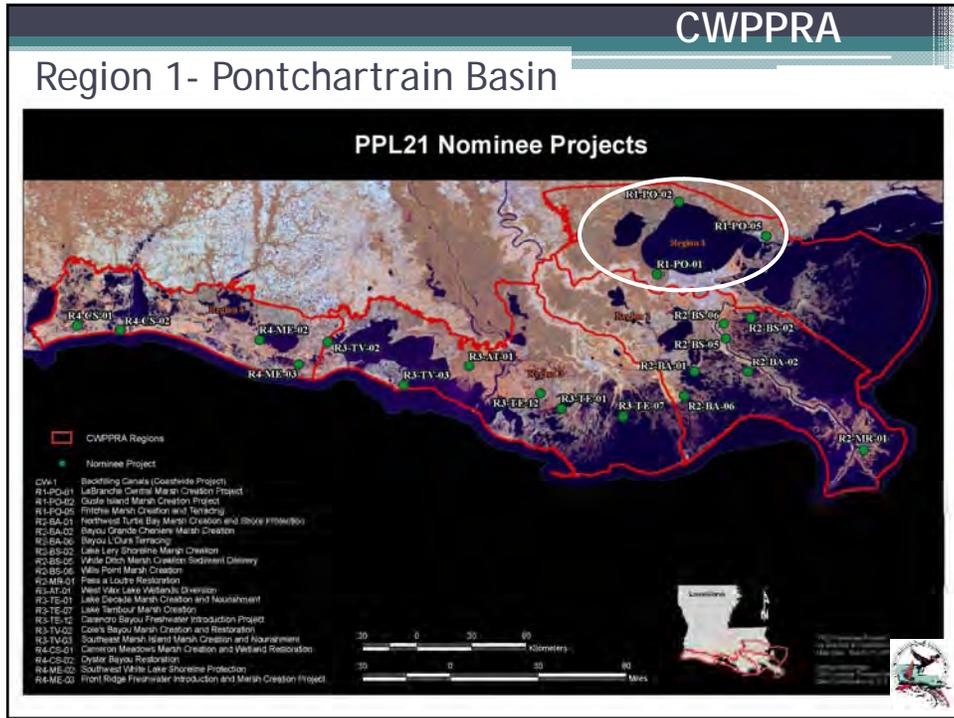
	PPL 21 Demonstration Project Nominees
DEMO	Automated Marsh Planting (formerly called "Alternative to Manual Planting")
DEMO	Bioengineering Solutions using Fascines and Coir Mattresses
DEMO	Deltalok
DEMO	Habitat Enhancements through Vegetation Plantings Using Gulf Saver Bags
DEMO	The Wave Robber

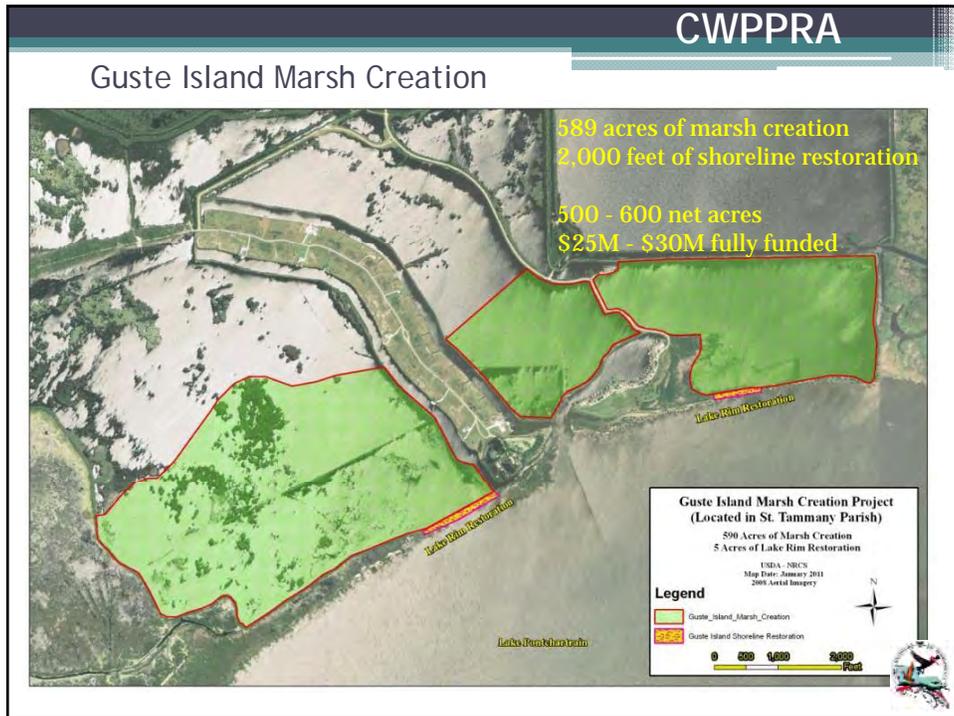
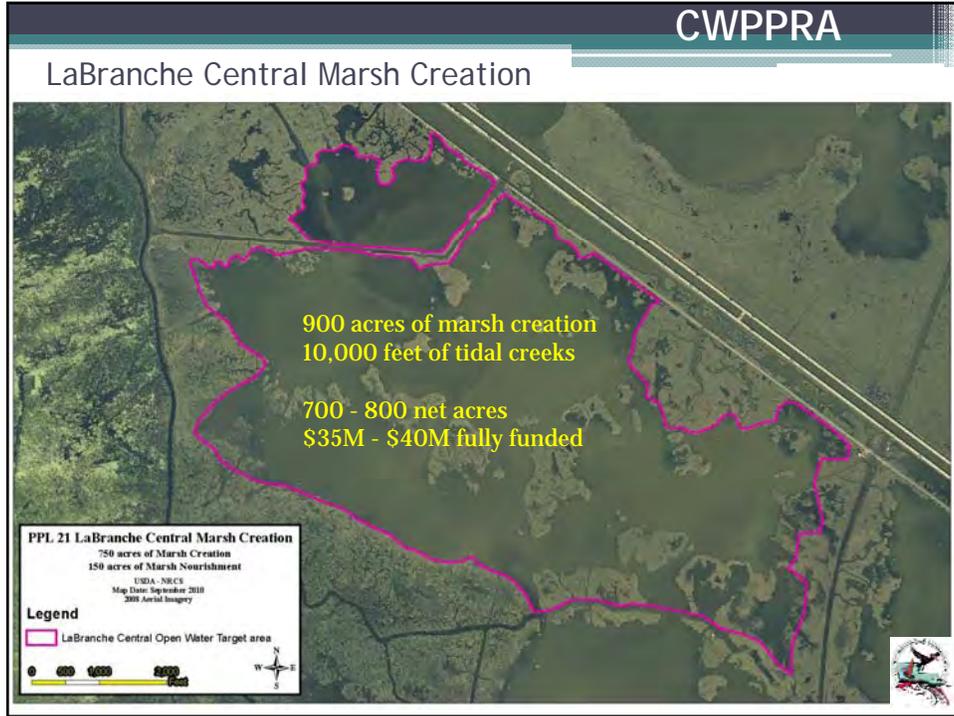
CWPPRA PPL 21 Nominees Technical Committee Meeting

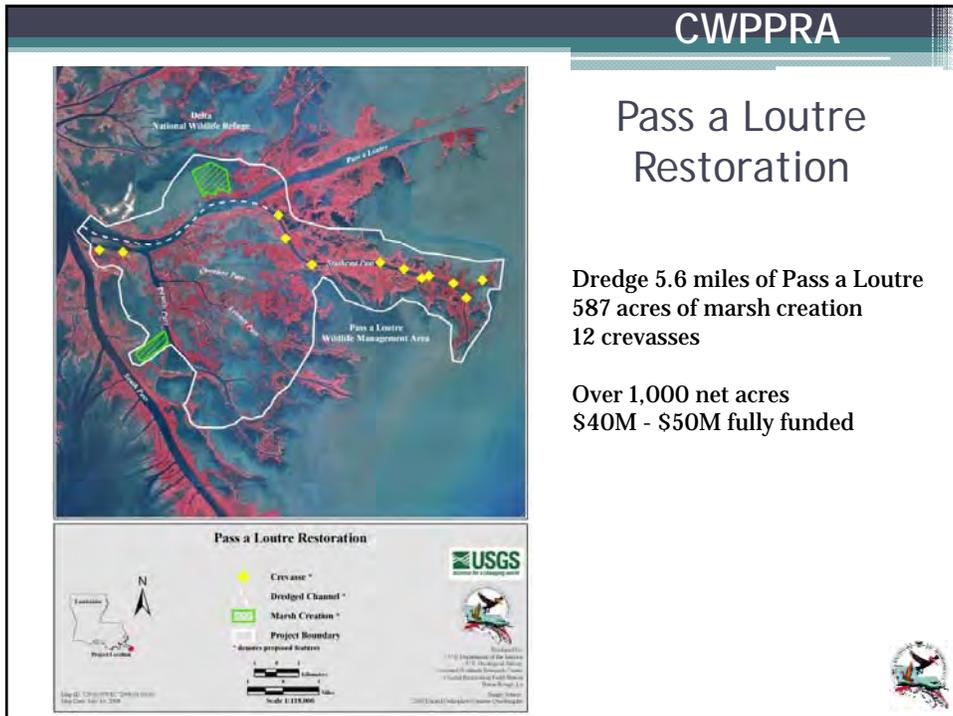
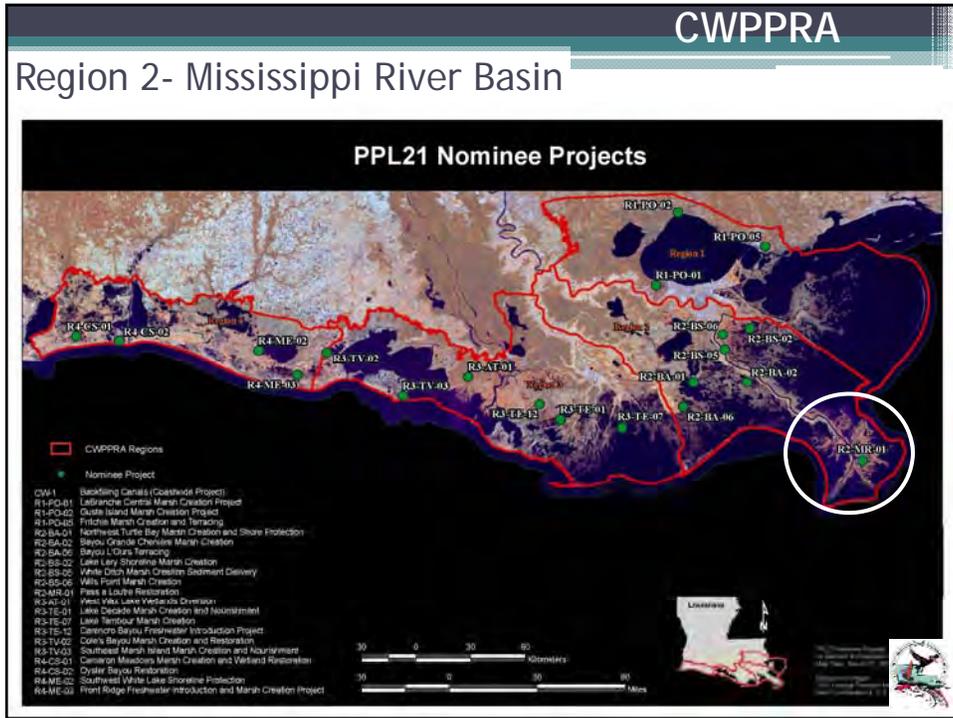


New Orleans, LA
April 8, 2011





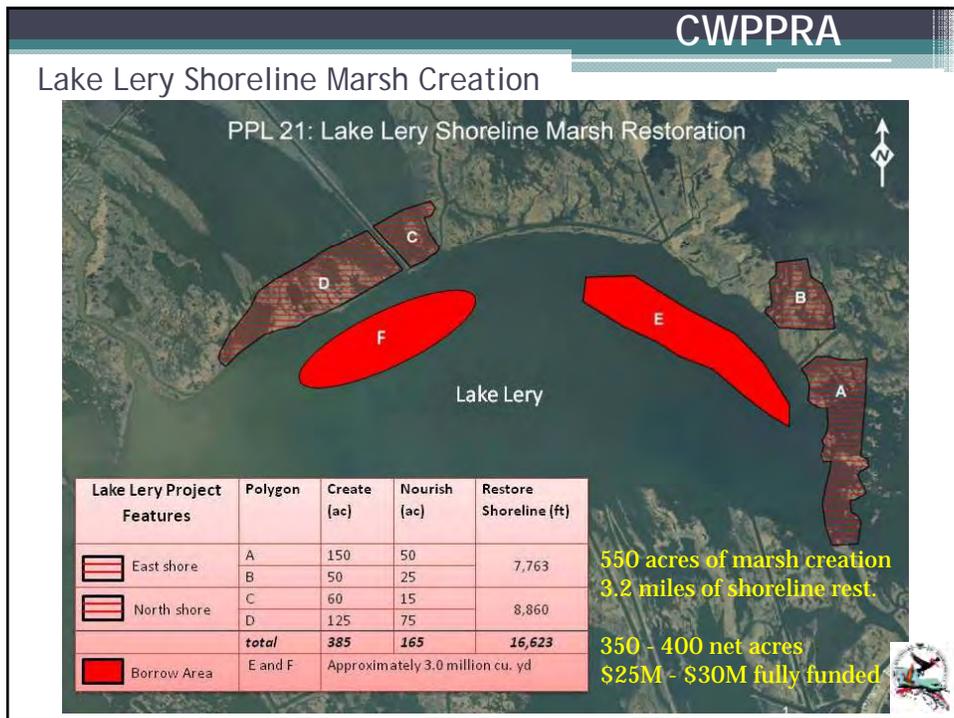
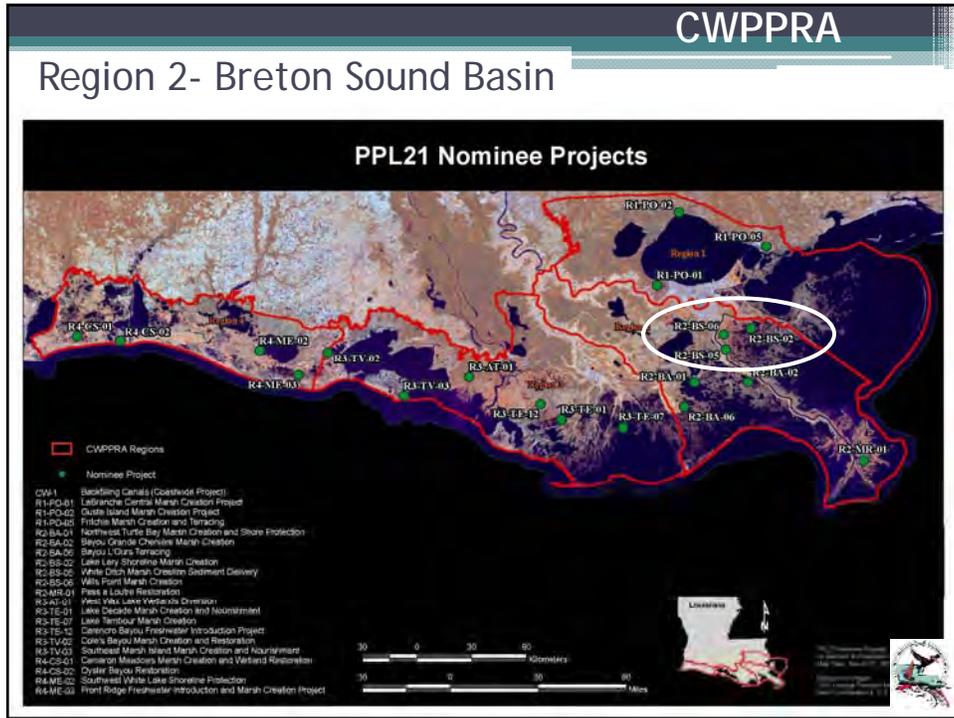


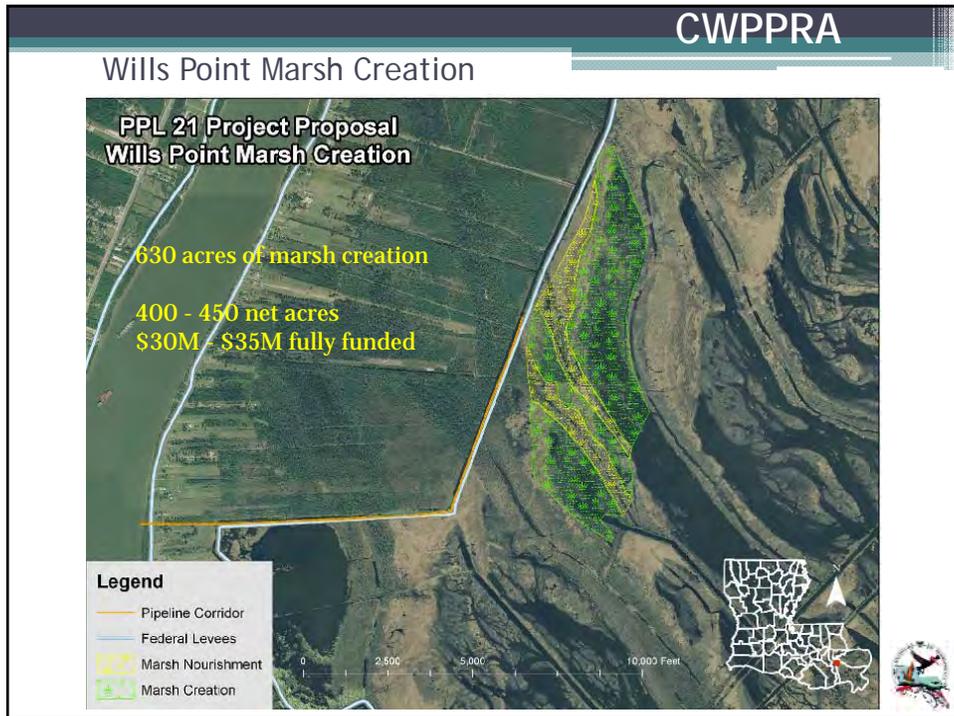
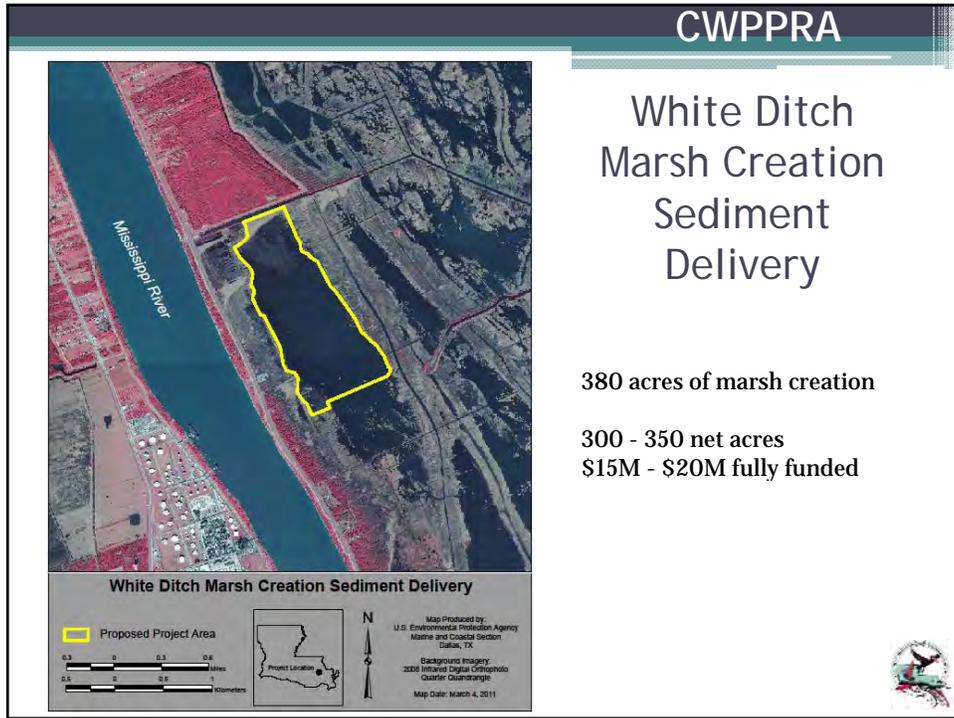


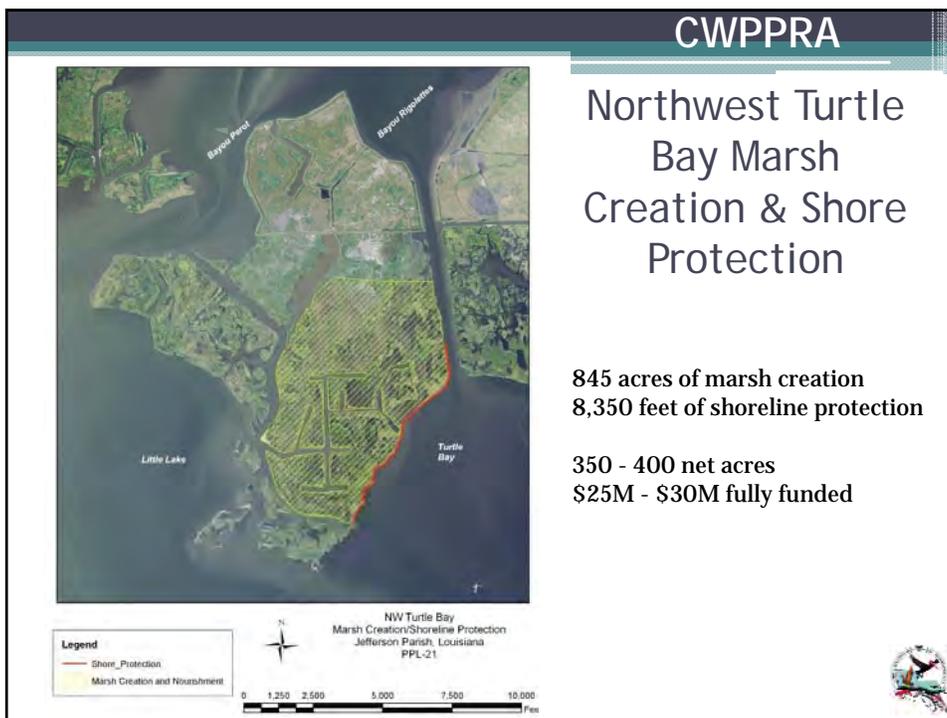
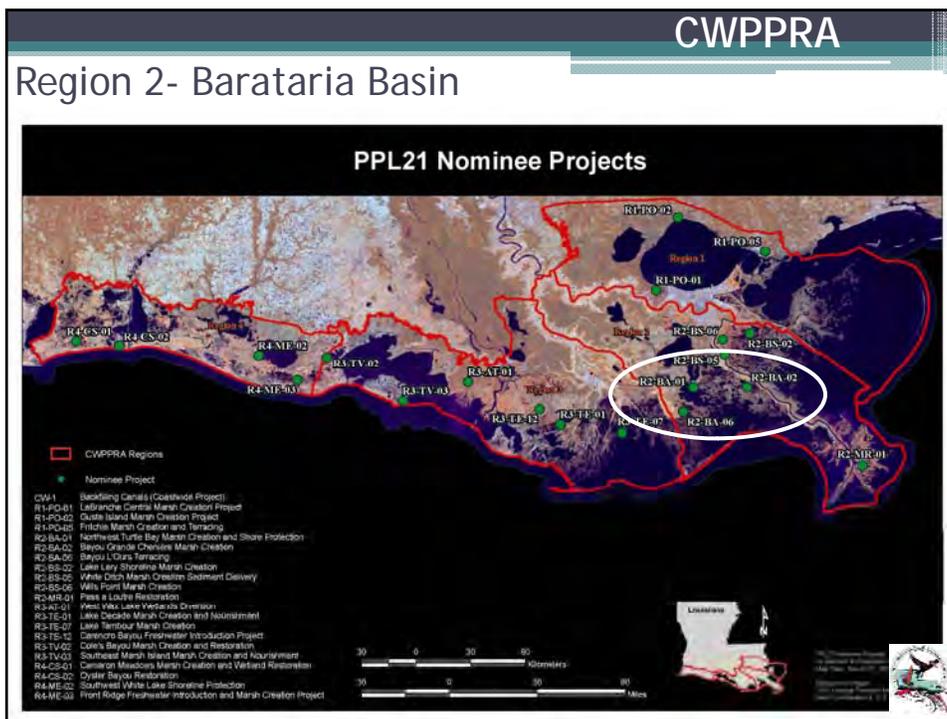
Pass a Loutre Restoration

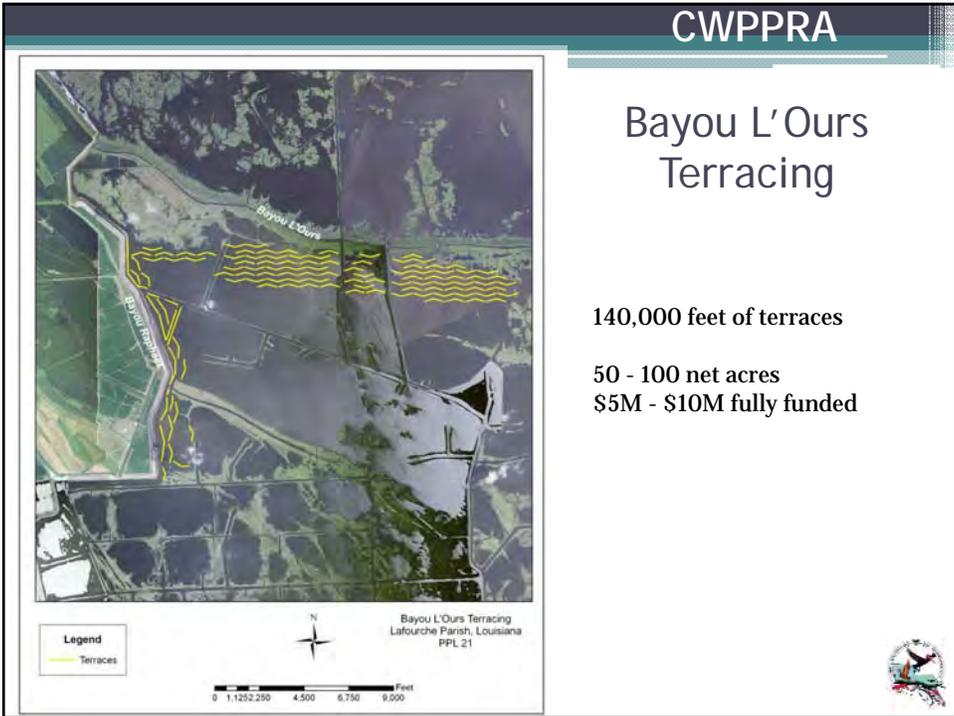
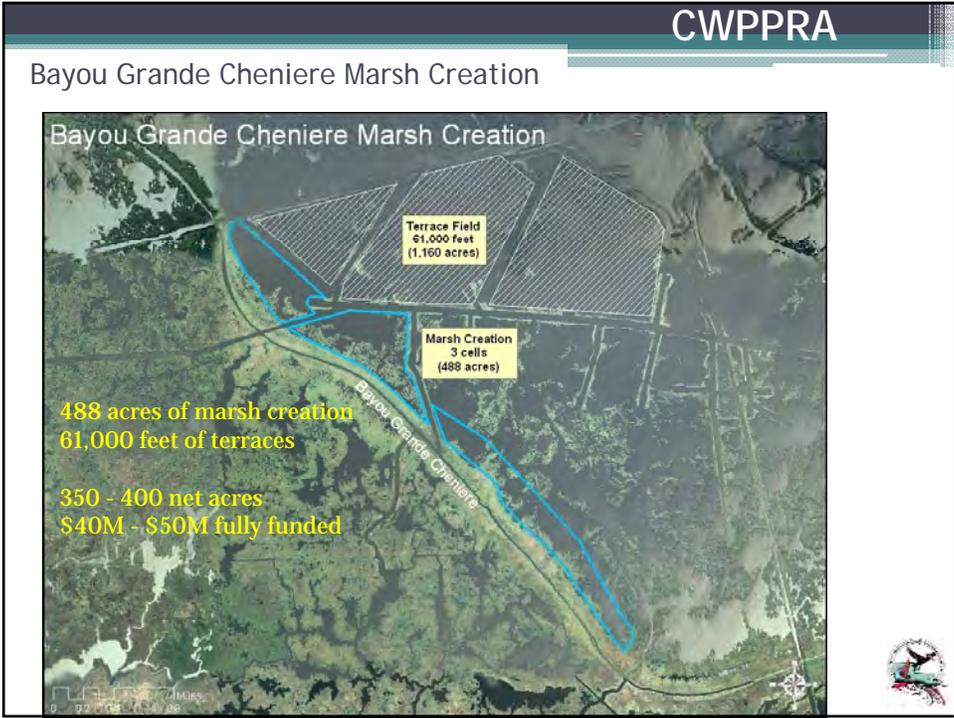
Dredge 5.6 miles of Pass a Loutre
587 acres of marsh creation
12 crevasses

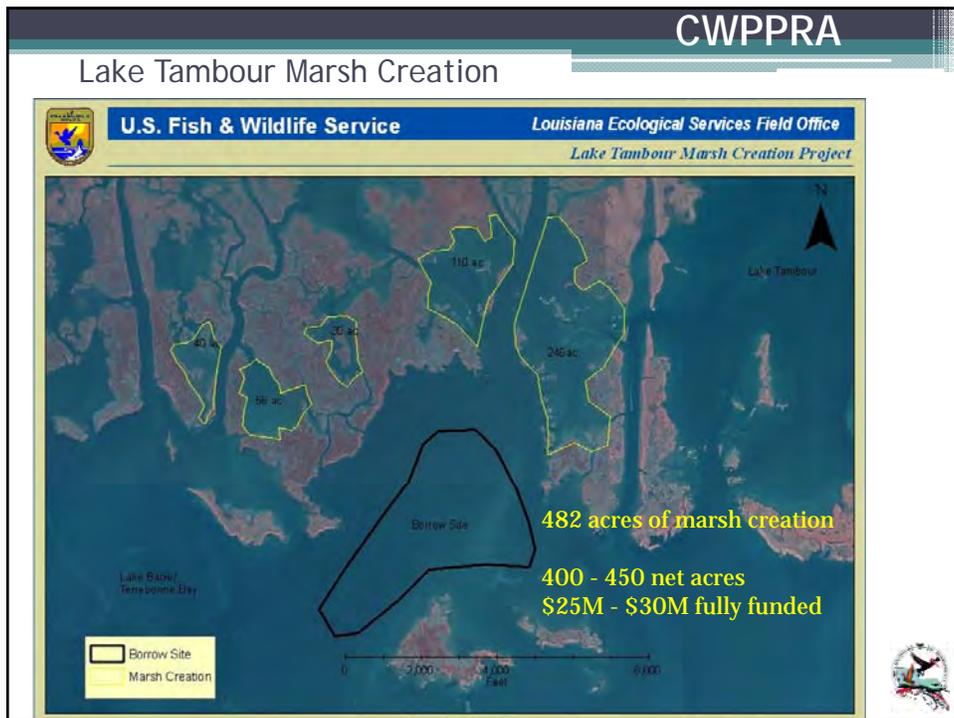
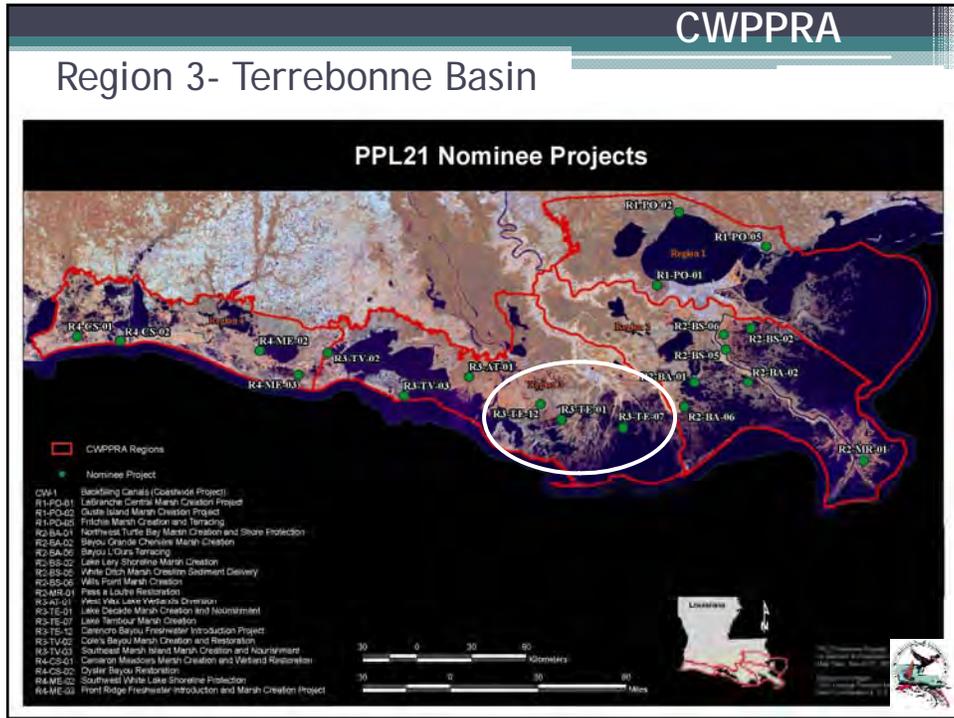
Over 1,000 net acres
\$40M - \$50M fully funded

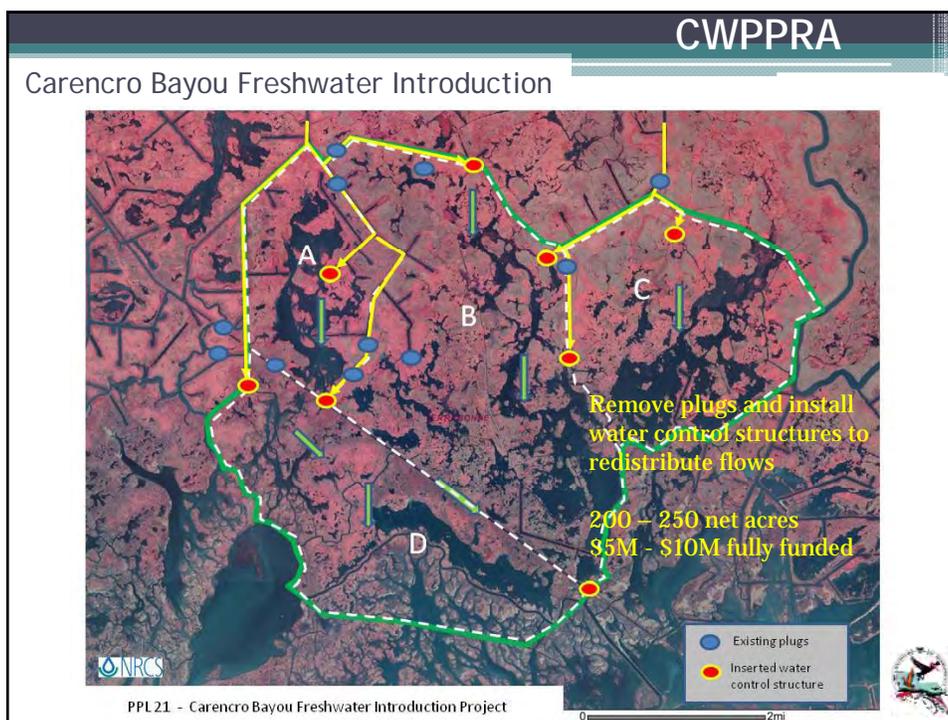
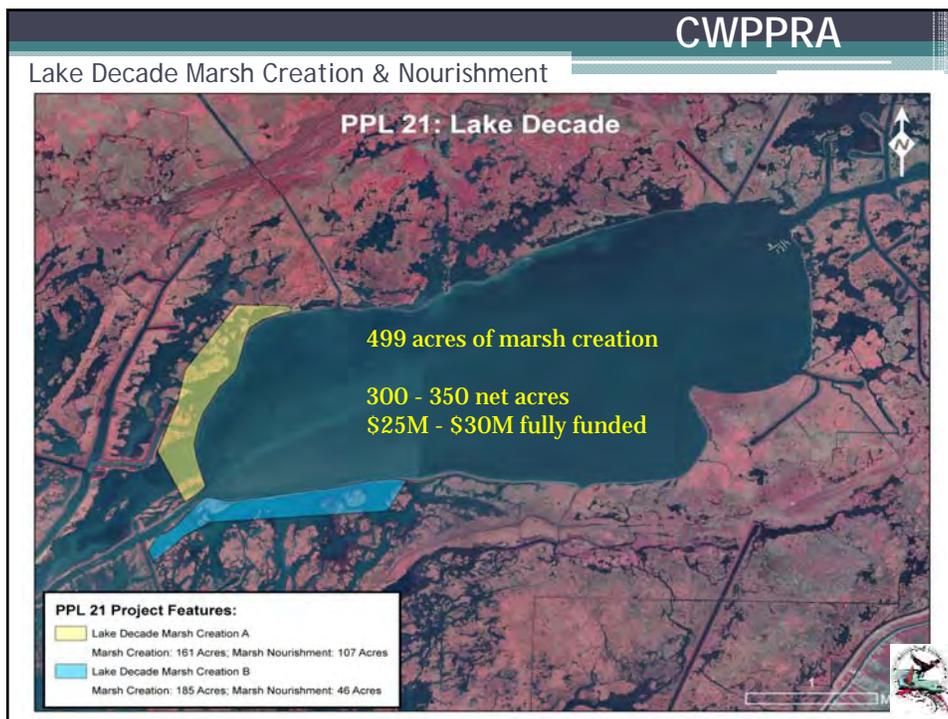


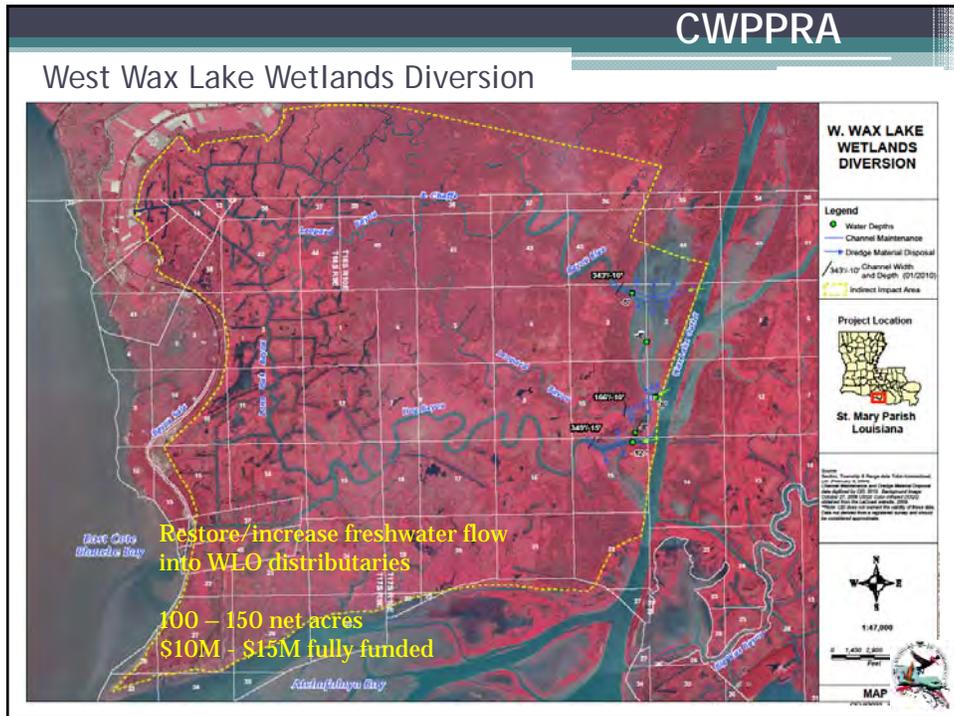
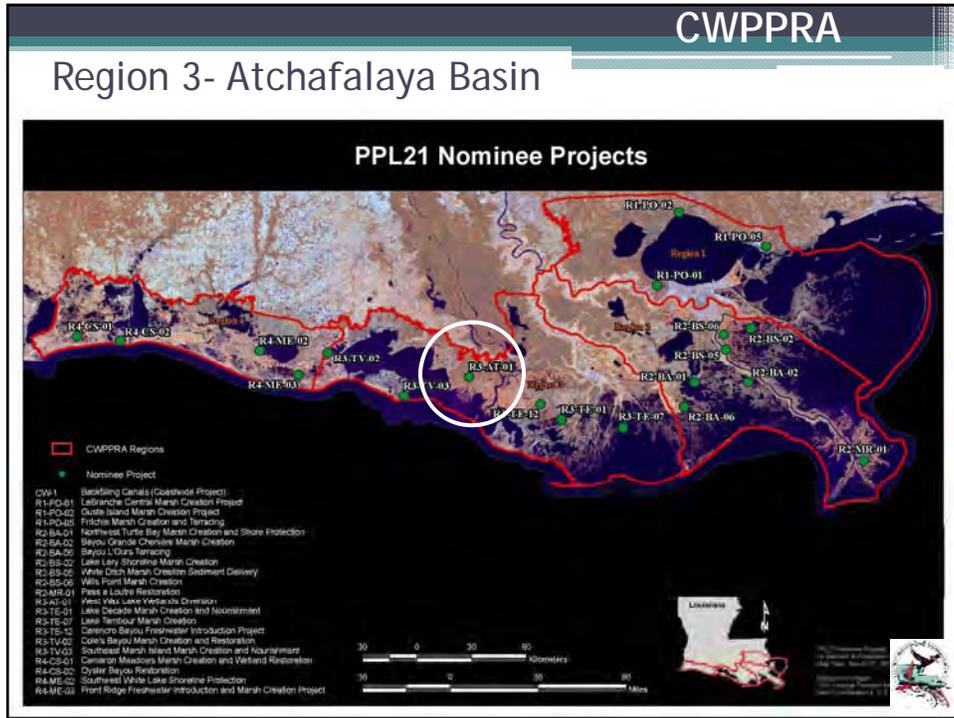


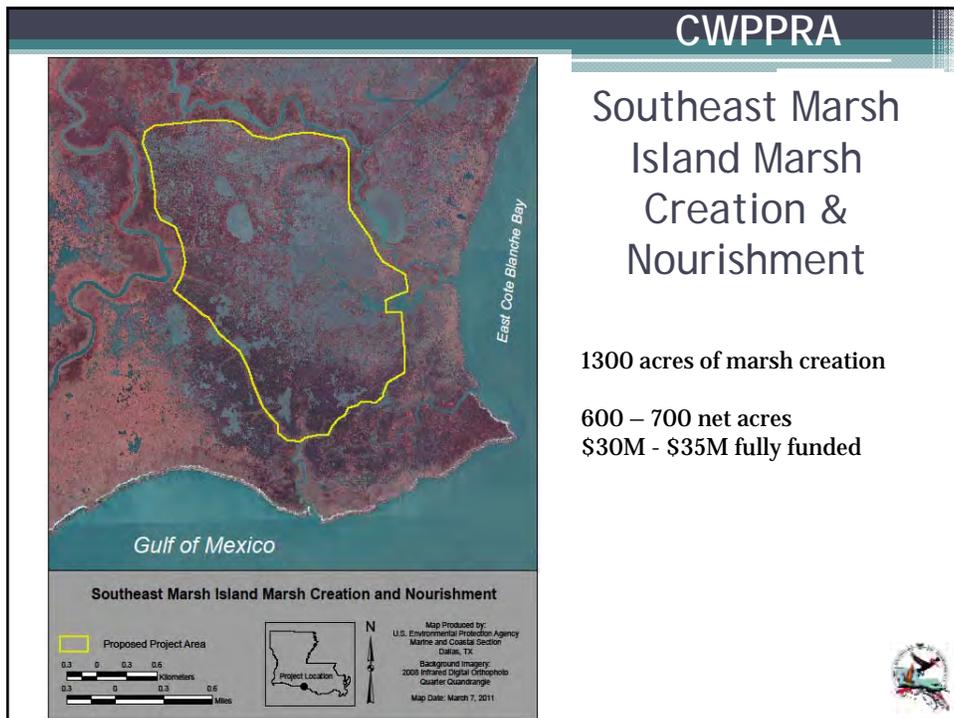
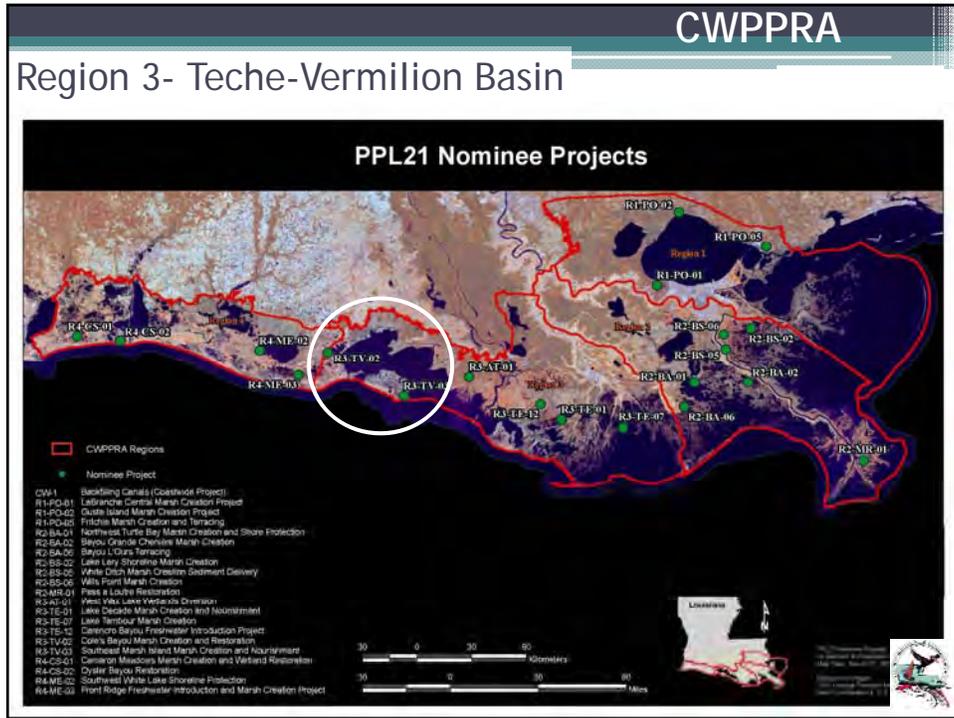












CWPPRA

Cole's Bayou Marsh Creation & Restoration

421 acres of marsh creation
30,000 feet of terraces
Culverts and channel work to
increase fresh water and
sediment input

350 – 400 net acres
\$25M - \$30M fully funded

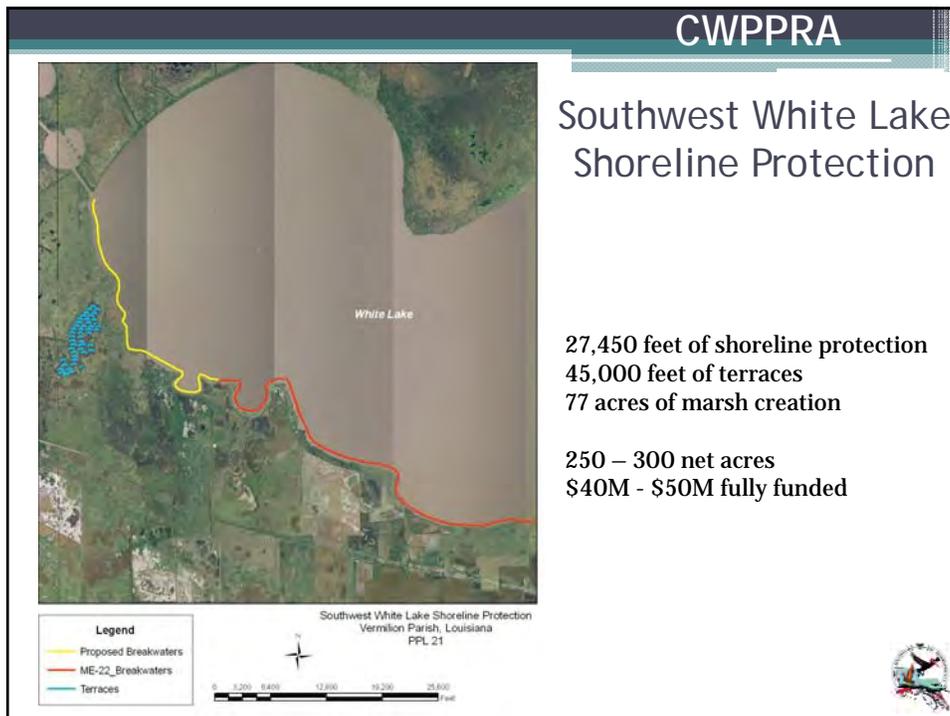
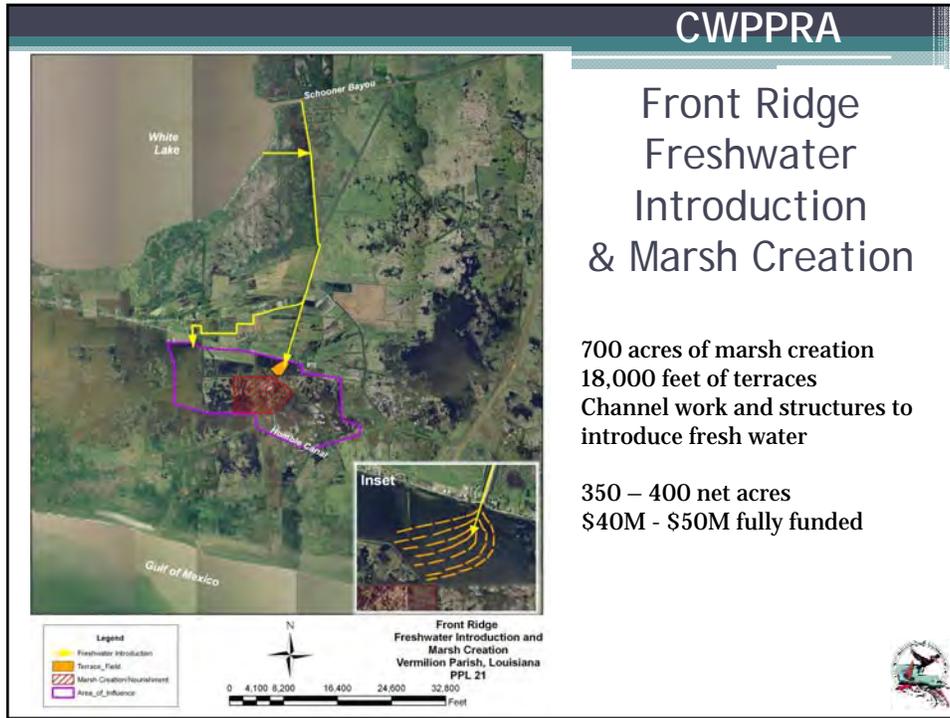
CWPPRA

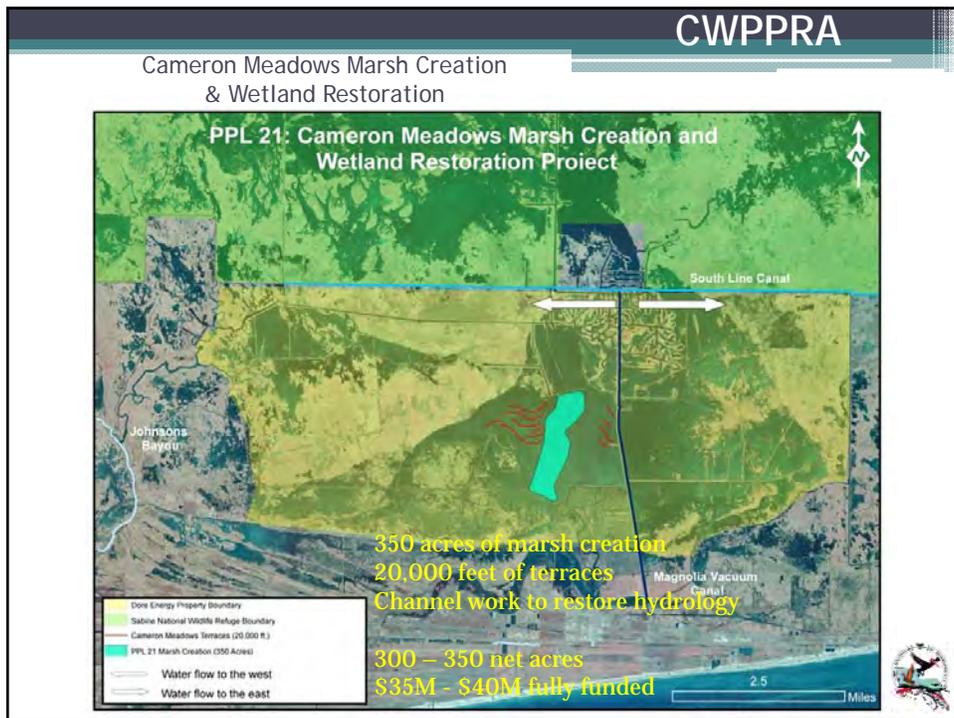
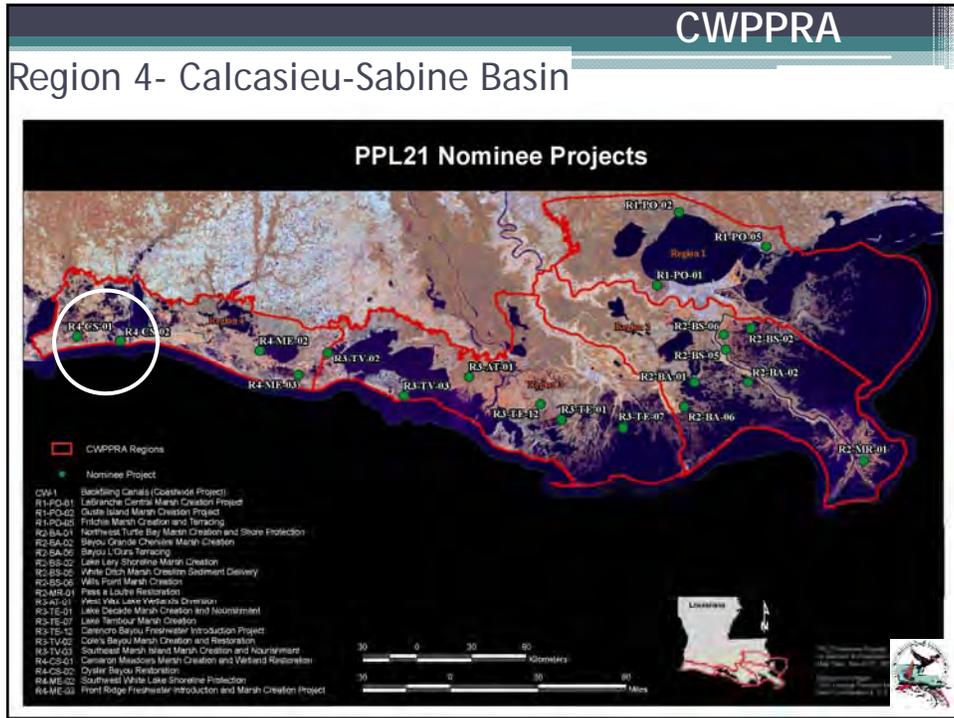
Region 4- Mermentau Basin

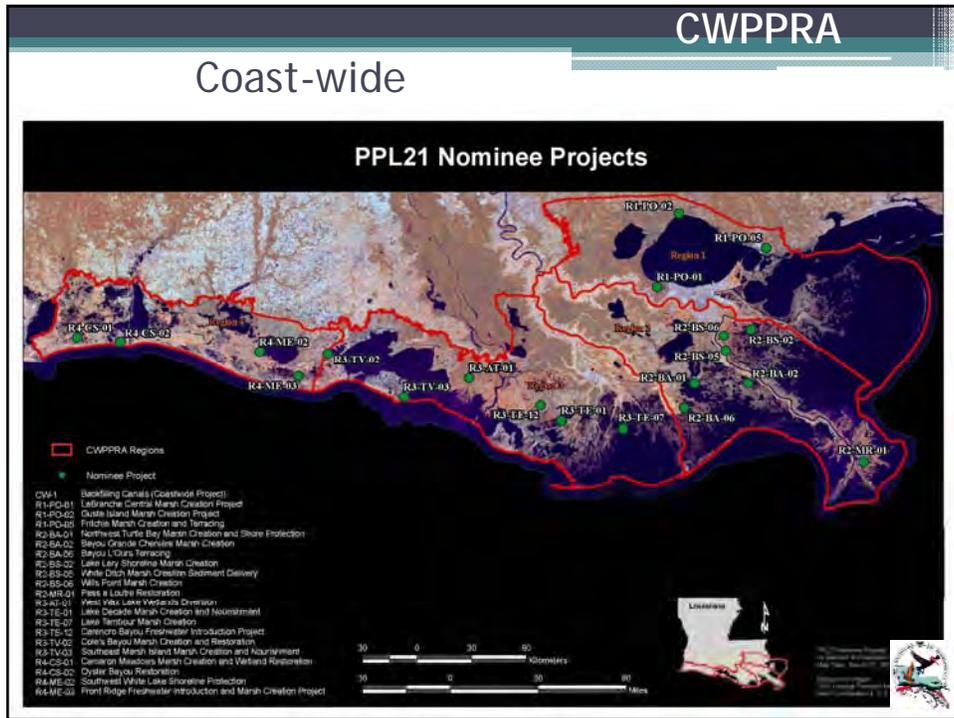
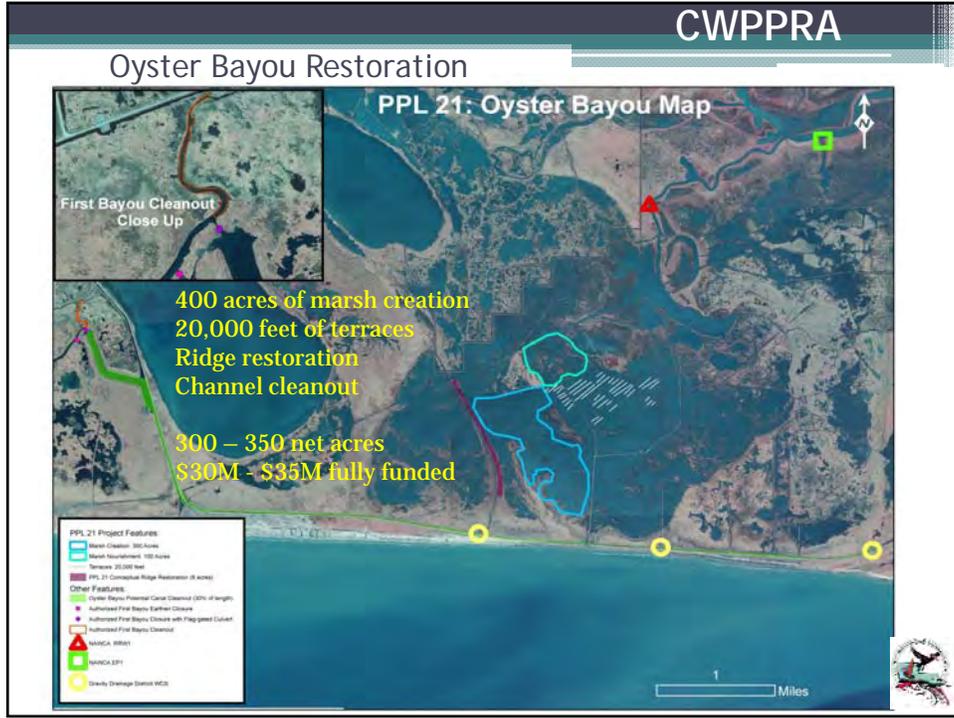
PPL21 Nominee Projects

■ CWPPRA Regions
● Nominee Project

CW-1 Backsliding Canals (Coastwide Project)
 R1-PC-01 Lafourche Central Marsh Creation Project
 R1-PC-02 Delta Island Marsh Creation Project
 R1-PC-03 Fritchie Marsh Creation and Terracing
 R2-BA-01 Northwest Turtle Bay Marsh Creation and Shore Protection
 R2-BA-02 Bayou Grande Chevreux Marsh Creation
 R2-BA-03 Bayou L'Ours Terracing
 R2-BS-01 Lake Lery Shoreline Marsh Creation
 R2-BS-02 White Ditch Marsh Creation Sediment Delivery
 R2-BS-03 Wills Point Marsh Creation
 R2-MR-01 Pass a Loutre Restoration
 R3-AT-01 West Vieux Lake Verdade Diversions
 R3-TE-01 Lake Cochon Marsh Creation and Neotomist
 R3-TE-02 Lake Tembour Marsh Creation
 R3-TE-03 Calumet Bayou Freshwater Introduction Project
 R3-TV-02 Cole's Bayou Marsh Creation and Restoration
 R3-TV-03 Southeast Marsh Island Marsh Creation and Hourfairment
 R4-CS-01 Central Mississippi Marsh Creation and Wetland Rehabilitation
 R4-CS-02 Cyprien Bayou Restoration
 R4-ME-02 Southwest White Lake Shoreline Protection
 R4-ME-03 Front Ridge Freshwater Introduction and Marsh Creation Project







CWPPRA

Backfilling Canals

Backfilling in Cross-Section

EXISTING CONDITIONS
NET

PROPOSED CONDITIONS
NET

Pilot Project Completed with LSU 2001 & 2002

Pilot Canal w/Spoilbanks Pilot Canal After Backfilling

EXPERIENCE YOUR AMERICA

Backfill 51 miles of canals
Convert 908 acres of spoil bank to wetland
Convert 51 acres of open water to wetland
Restore hydrology

900 – 1,000 net acres
\$30M - \$35M fully funded



CWPPRA PPL 21

Demonstration Project Nominees



CWPPRA

Automated Marsh Planting

Tests (3 replicates):

1. No Planting
2. Hopper Release Time Interval 1
3. Hopper Release Time Interval 2
4. Manual Planting

Construction plus 25% contingency - \$2M

The diagram illustrates the automated marsh planting process. A hopper filled with plant parts is positioned above a dredge pipe. The dredge pipe is used to deposit sediment onto a marsh platform. The hopper is shown with green arrows indicating the direction of plant part release. The dredge pipe is shown with a black arrow indicating the direction of sediment flow. The marsh platform is shown as a brown area on the left side of the diagram.

CWPPRA

Bioengineered Slope Stabilization and Land Building

Construction plus 25% contingency - \$2M

The diagram shows a cross-section of a bioengineered slope stabilization structure. Key components include:

- EMERGENT MARSH PLANT PLANT PLINGS
- EXIST. GRADE
- 12" PREVEGETATED COIR FASCINE
- PROPOSED FLOOD GRADE
- 1-YEAR DESIGN FLOOD
- 200' FLOOD ELEV. (1987)
- PROG. OROSCOPE ELEV.
- WETLAND TERRACE
- 5' 11" CHAIN LINK FENCE REDESIGNED
- PLANT/FLOE PROTECTION FENCE
- LIVE OAKS PLANTING
- PERIMETER ROAD
- STEEL SILL BATHY 3"

Below the main diagram, two cross-sections are compared:

- TRADITIONAL BANK:** Shows a canal with a steep bank, a dam, and a steel sheet pile.
- NATURE-FRIENDLY BANK:** Shows a canal with a shallower bank, a dam, and a steel sheet pile.

Additional details for the bioengineered bank include:

- BALTIM WIRE
- NOTCHED WOOD STAKES, 2' LENGTH
- WATTLE, 8" x 10" DIA. LIVE AND DEAD WETLAND WIRE BOUND
- SHRUB LIVE MATERIAL INCLUDING PIN DEAD MATERIAL, 1/2 DIA. 8' x 10' LENGTH
- FINAL GRADE
- WOOD STAKES, 2" DIA. 2' LENGTH, 4' O.C.

CWPPRA

Detalok

Construction plus 25% contingency - \$1,025,700

- Surface is leveled
- A Detalok® Interlocking Plate secures first layer of Terra-Soft Blocks to the ground
- Build wall like a block & mortar wall
- Tamp TSB's down to engage with interlocking plate

Building a Detalok® TSB Wall

CWPPRA

Habitat Enhancements through Vegetation Plantings Using Gulf Saver Bags

Construction plus 25% contingency - \$632,000

**Typical Deployment Detail
Plan View and Cross Section**

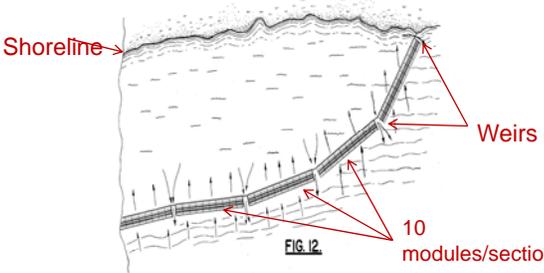
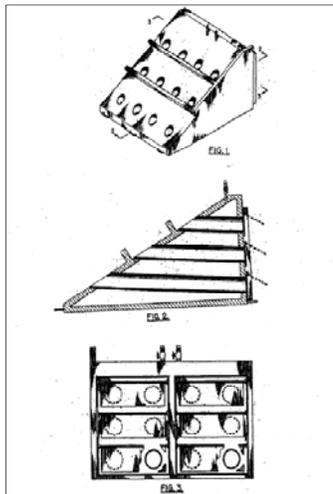
Plan View - Detail Cross Section - Typical

Bags will be placed on top bare sand/substrate, and stacked 2 wide with a 3rd bag placed on top. Wooden stakes will be driven through alternating bags to anchor the system. Bags will be plugged, prior to placement, with *Spartina alterniflora* for the grass deployments.

CWPPRA

The Wave Robber

Construction plus 25% contingency - \$967,000

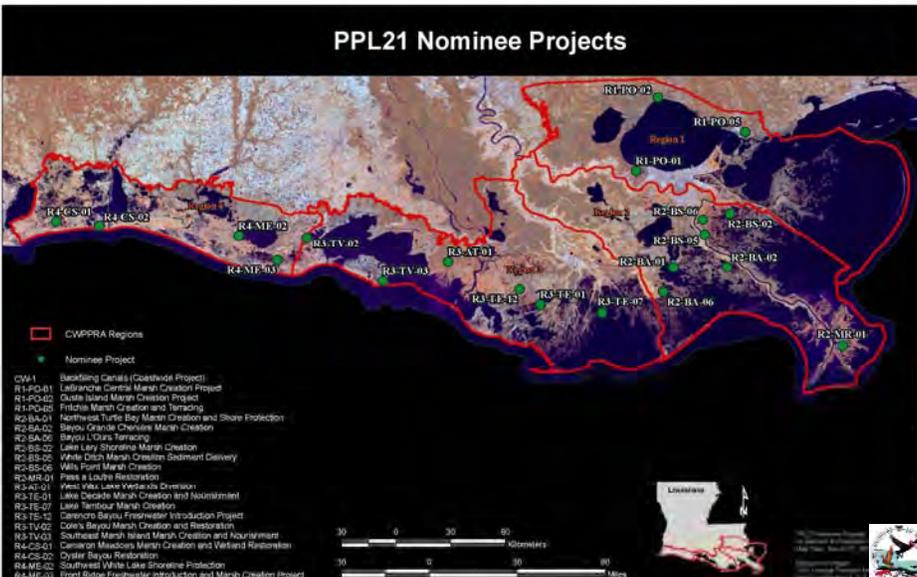
Schematic drawings of the WSSC System



CWPPRA

Nominee Projects Per Region

PPL21 Nominee Projects



Legend:

- CWPPRA Regions
- Nominee Project

Project List:

- CW-1 Backfilling Canals (Coastwide Project)
- R1-PO-01 Lafourche Central Marsh Creation Project
- R1-PO-02 Delta Island Marsh Creation Project
- R1-PO-03 Fritche Marsh Creation and Trenching
- R2-BA-01 Northwest Turtle Bay Marsh Creation and Shore Protection
- R2-BA-02 Bayou Grande Chevreux Marsh Creation
- R2-BA-03 Bayou L'Ours Trenching
- R2-BS-01 Lake Lery Shoreline Marsh Creation
- R2-BS-02 White Ditch Marsh Creation Sediment Delivery
- R2-BS-03 Mills Point Marsh Creation
- R2-MR-01 Pass a Loutre Restoration
- R3-AT-01 West Vieux Lake Wetlands Diversion
- R3-TE-01 Lake Cochon Marsh Creation and Hourstmarsh
- R3-TE-02 Lake Tembouc Marsh Creation
- R3-TE-03 Calumet Bayou Freshwater Introduction Project
- R3-TV-02 Cadeaux Bayou Marsh Creation and Restoration
- R3-TV-03 Southeast Marsh Island Marsh Creation and Hourstmarsh
- R4-CS-01 Cameron Mississippi Marsh Creation and Wetland Restoration
- R4-CS-02 Cyprien Bayou Restoration
- R4-ME-01 Southwest White Lake Shoreline Protection
- R4-ME-02 Front Ridge Freshwater Introduction and Marsh Creation Project



CWPPRA PPL 21 Nominee Voting Results

<u>Region</u>	<u>Basin</u>	<u>Project Nominees</u>
1	Pontchartrain	Fritchie Marsh Creation and Terracing
1	Pontchartrain	Guste Island Marsh Creation
1	Pontchartrain	LaBranche Central Marsh Creation
2	Mississippi River	Pass a Loutre Restoration
2	Breton Sound	Lake Lery Shoreline Marsh Creation
2	Breton Sound	White Ditch Marsh Creation Sediment Delivery
2	Breton Sound	Wills Point Marsh Creation
2	Barataria	Bayou Grande Cheniere Marsh Creation
2	Barataria	Bayou L'Ours Terracing
2	Barataria	Northwest Turtle Bay Marsh Creation and Shore Protection
3	Terrebonne	Carencro Bayou Freshwater Introduction
3	Terrebonne	Lake Decade Marsh Creation and Nourishment
3	Terrebonne	Lake Tambour Marsh Creation
3	Atchafalaya	West Wax Lake Wetlands Diversion
3	Teche-Vermilion	Cole's Bayou Marsh Creation and Restoration
3	Teche-Vermilion	Southeast Marsh Island Marsh Creation and Nourishment
4	Calcasieu-Sabine	Cameron Meadows Marsh Creation and Wetland Restoration
4	Calcasieu-Sabine	Oyster Bayou Restoration
4	Mermentau	Front Ridge Freshwater Introduction and Marsh Creation
4	Mermentau	Southwest White Lake Shoreline Protection
N/A	Coast-wide	Backfilling Canals

Region	Basin	Type	Project	Preliminary Fully Funded Cost Range	Preliminary Benefits (Net Acres Range)	Potential Issues					Comments on Other Issues
						Oysters	Land Rights	Pipelines/Utilities	O&M	Other Issues	
1	Pontchartrain	MC/TR	Fritchie Marsh Creation and Terracing	\$30M - \$35M	500-600				X	X	Gulf sturgeon critical habitat
1	Pontchartrain	MC	LaBranche Central Marsh Creation Project	\$35M - \$40M	700-800						
1	Pontchartrain	MC	Guste Island Marsh Creation Project	\$25M - \$30M	500-600						
2	MR Delta	FD/MC	Pass a Loutre Restoration	\$40M - \$50M	>1,000			X		X	Induced shoaling
2	Breton Sound	MC	Lake Lery Shoreline Marsh Creation	\$25M - \$30M	350-400			X			
2	Breton Sound	MC	White Ditch Marsh Creation Sediment Delivery	\$15M - \$20M	300-350			X			
2	Breton Sound	MC	Wills Point Marsh Creation	\$30M - \$35M	400-450						
2	Barataria	MC/SP	Northwest Turtle Bay Marsh Creation and Shore Protection	\$25M - \$30M	350-400	X		X	X		
2	Barataria	MC	Bayou Grande Cheniere Marsh Creation	\$40M - \$50M	350-400			X			
2	Barataria	TR	Bayou L'Ours Terracing	\$5M - \$10M	50-100			X			
3	Terrebonne	MC	Lake Tambour Marsh Creation	\$25M - \$30M	400-450	X					
3	Terrebonne	MC	Lake Decade Marsh Creation and Nourishment	\$25M - \$30M	300-350			X			
3	Terrebonne	FD	Carencro Bayou Freshwater Introduction Project	\$5M - \$10M	200-250			X	X		
3	Atchafalaya	FD/MC	West Wax Lake Wetlands Diversion	\$10M - \$15M	100-150			X	X		
3	Teche-Vermilion	MC	Southeast Marsh Island Marsh Creation & Nourishment	\$30M - \$35M	600-700						
3	Teche-Vermilion	MC	Cole's Bayou Marsh Creation and Restoration	\$25M - \$30M	350-400	X		X	X		
4	Mermentau	MC/TR	Front Ridge Freshwater Introduction and Marsh Creation Project	\$40M - \$50M	350-400			X	X		
4	Mermentau	SP/TR	Southwest White Lake Shoreline Protection	\$40M - \$50M	250-300			X	X		
4	Calcasieu-Sabine	MC	Cameron Meadows Marsh Creation and Wetland Restoration	\$35M - \$40M	300-350			X	X		Landowner may provide \$1M cost
4	Calcasieu-Sabine	MC/TR	Oyster Bayou Restoration	\$30M - \$35M	300-350			X	X		

	CoastWide	MC	Backfilling Canals	\$30M - \$35M	900-1,000						
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PPL21 PROJECT NOMINEE FACT SHEET
March 31, 2011

Project Name

Fritchie Marsh Creation and Terracing

Coast 2050 Strategy

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

Regional: Restore and Sustain Marshes

Project Location

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

Problem

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

Proposed Solution

The project will construct approximately 550 acres of marsh platform. Definite creation areas include the green and blue polygons (~400 ac) on the project map. Approximately 150 acres would be created in the red polygon or potentially in the open water to the west of that polygon or with revisions to the conceptual terrace field. Borrow for marsh creation would come from Lake Pontchartrain. The borrow site in Lake Pontchartrain would be located far enough away from the existing shoreline to prevent slope failure and inducing wave refraction/diffraction erosion and avoid sandy substrate preferred by the threatened Gulf sturgeon. The borrow site would be monitored to verify the rate of infilling and for water quality. Coordination on the borrow pit design is currently ongoing in order to minimize potential environmental impacts.

Approximately 100,000 feet of terraces (60 acres above water; 10 feet crowns to +3 feet NAVD 88) would be constructed and planted in a combination of the yellow polygons or exclusively in the larger of the two polygons. Four culverts would be installed in the existing unimproved road to restore and enhance tidal exchange with the area in the green polygon. Additionally, four more culverts may be included under the highway to connect into the planned residential development to enhance tidal exchange with the Fritchie marsh and improve flushing of the planned deadend canals to minimize typical degraded water quality with those features. Inclusion of these culverts is pending coordination with the developer. Cleanout of the sediment sill in Salt Bayou adjacent to the bridge would be included pending further investigation and coordination to enhance improved hydrology.

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

Goals

Project goals include 1) creating 550 acres of intermediate marsh, 2) creating 100,000 linear feet of vegetated, earthen terraces (~60 acres), 3) reducing wave fetch and erosion of adjacent interior marshes, and 4) improving tidal connection.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is 1250 ac (550 marsh creation and up to 700 acres of terrace field).
- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 585 ac of brackish marsh will be protected/created over the project life (this include loss applied to the terraces in the same manner as the marsh creation).
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the projects life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help maintain the natural ridge along and extending from Provost Island.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will have a net positive effect on the highways and adjacent development.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a direct synergy with the PO-06 CWPPRA project.

Identification of Potential Issues

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

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$25,774,565. The fully funded cost range is \$30M - \$35M.

Preparer(s) of Fact Sheet:

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

PPL 21: Fritchie Marsh Creation and Terracing



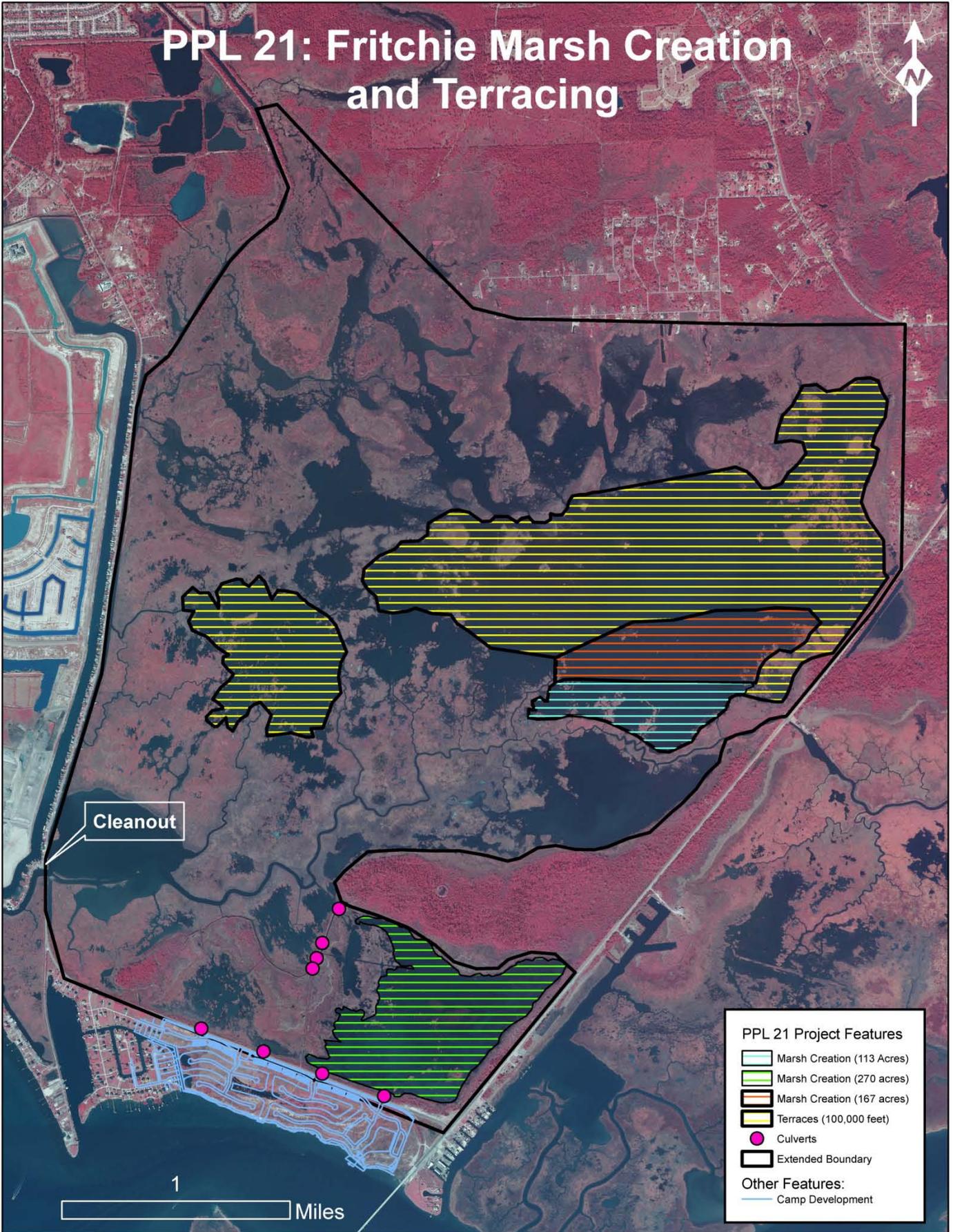
Cleanout

1

Miles

PPL 21 Project Features

-  Marsh Creation (113 Acres)
 -  Marsh Creation (270 acres)
 -  Marsh Creation (167 acres)
 -  Terraces (100,000 feet)
 -  Culverts
 -  Extended Boundary
- Other Features:
-  Camp Development



PPL-21 LaBranche Central Marsh Creation Project
March 31, 2011

Project Name: LaBranche Central Marsh Creation Project

Coast 2050 Strategy:

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

Project Location:

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

Problem:

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

Goals :

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

Proposed Solutions:

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

Preliminary Project Benefits:

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

900 acres of wetlands will benefit directly.

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

A net of 743 acres will be created through marsh creations and nourishment.

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%).

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.
None identified.

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

The project will provide a protective wetland buffer to the railroad and I-10 corridor, the region's primary westward hurricane evacuation route, and complement hurricane protection levies in the area.

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

The project would continue to build upon the constructed PO-17 LaBranche Wetland Creation and the planned PO-75 Labranche East Marsh Creation to complete reconstruction of large wetland loss sites in this area.

Identification of Potential Issues:

The proposed project has no known potential issues.

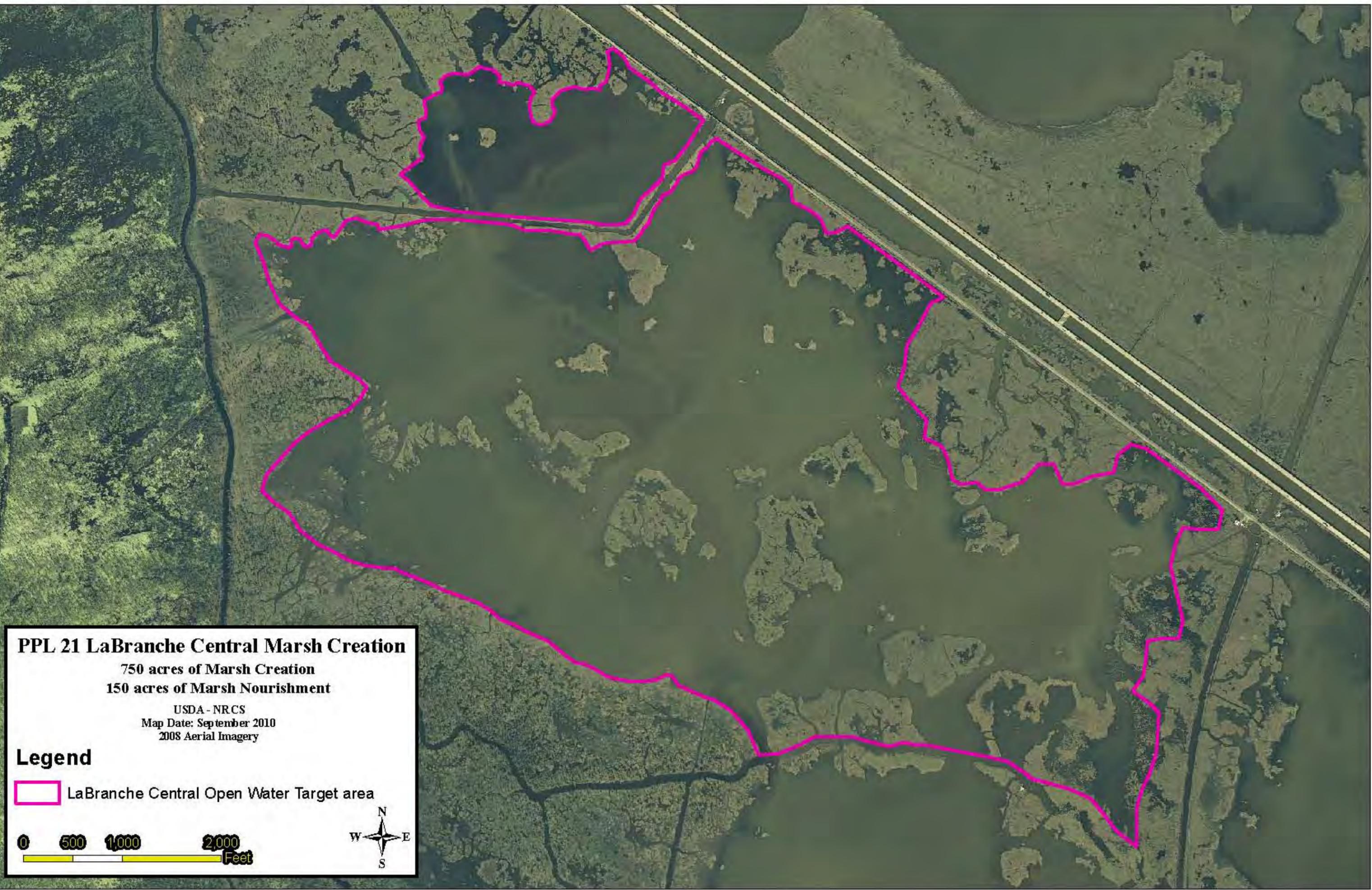
Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$28,299,627.

The fully-funded cost range is \$35M - \$40M.

Preparer(s) of Fact Sheet:

Jason Kroll, USDA-NRCS, 225-389-0347, Jason.Kroll@la.usda.gov.



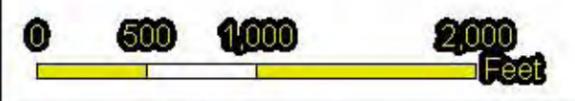
PPL 21 LaBranche Central Marsh Creation

750 acres of Marsh Creation
150 acres of Marsh Nourishment

USDA - NRCS
Map Date: September 2010
2008 Aerial Imagery

Legend

 LaBranche Central Open Water Target area



PPL21 GUSTE ISLAND MARSH CREATION
March 30, 2011

Project Name: Guste Island Marsh Creation

Coast 2050 Strategy:

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

Project Location:

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

Problem:

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

Goals :

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

Proposed Solutions:

Proposed solution consists of the creation of approximately 530 acres of emergent wetlands and the nourishment of approximately 59 acres of emergent wetlands using dedicated dredging from Lake Pontchartrain. In addition, 2,000 linear feet (approximately 4 acres) of lake rim would be restored. The marsh creation area would have a target elevation the same as average healthy marsh. It is proposed to place the dredge material in the target area with the use of retention dikes along the edge of the project area. Hydrologic connectivity will be maintained as a component of creating this functional wetland. Vegetative plantings would be utilized on the restored lake rim during construction. In the areas designated to be created emergent marsh, vegetative planting will be planned as a maintenance event after construction. Engineering monitoring surveys of the marsh creation area and borrow area are planned as well.

Preliminary Project Benefits:

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

The project will directly benefit 594 acres of created wetland area.

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

The project will net 530 acres of created marsh over the 20 year life of the 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%). 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 is directly adjacent to Lake Pontchartrain in an area where breach of the shoreline into the degraded marsh is imminent.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project provides buffer marsh for coastal communities of the North Shore of Lake Pontchartrain.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project compliments other North Shore marsh creation projects including constructed Goose Pointe and planned Bayou Bonfouca.

Identification of Potential Issues:

The proposed project has no known potential issues.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$20,949,241.
The fully-funded cost range is \$25M - \$30M.

Preparer(s) of Fact Sheet:

Jason Kroll, USDA-NRCS, 225-389-0347, jason.kroll@la.usda.gov



PPL21 PROJECT NOMINEE FACT SHEET
March 29, 2011

Project Name

Pass a Loutre Restoration

Coast 2050 Strategy

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

Coastwide: Utilize off-shore and riverine sand and sediment resources

Project Location

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

Problem

Historically, Pass a Loutre was a major distributary of the Mississippi River. This pass carried sediments that created and maintained in excess of 120,000 acres of marsh. Pass a Loutre is not a maintained navigation channel and over time has filled in considerably and carries much less flow than it did historically. The Pass a Loutre channel has silted in and is now very shallow and narrow. The decreased channel size has much less capacity to carry fresh water and sediments and marshes historically nourished by the channel are now being starved and are subsiding at an alarming rate. In addition, a hopper dredge disposal site located at the head of Pass a Loutre has accelerated infilling of the channel.

Goals

The goal of this project is to restore an important distributary of the Mississippi River so that it will once again create new wetlands and nourish existing marsh. Specific goals are: 1) Enhance marsh-building processes within the project area; 2) Create approximately 587 acres of marsh with dredged material from construction of a conveyance channel; and 3) Over the 20-year life of the project, create approximately 609 acres of marsh via the construction of 12 crevasses.

Proposed Project Features

Pass a Loutre would be dredged for approximately 5.6 miles from Head of Passes to Southeast Pass. Preliminary design includes channel dimensions of -30.0ft NAVD88 by a 300-ft bottom width. Approximately 5.0M yd³ of material would be dredged during construction of the conveyance channel. That material will be used beneficially to create approximately 587 acres of marsh on Delta NWR and Pass a Loutre WMA. In addition, 11 new crevasses would be constructed and cleanout of one existing crevasse.

Preliminary Project Benefits

1) What is the total acreage benefited both directly and indirectly? Approximately 587 acres of marsh would be created from initial channel construction. Indirect benefits would occur over approximately 27,000 acres of marsh and open water habitats as a result of increased freshwater and sediment delivery.

2) *How many acres of wetlands will be protected/created over the project life?* Based on a revision of the Wetland Value Assessment conducted for the PPL18 candidate project, 1,102 net acres of marsh would result from this 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 assumed reduction in marsh loss over the entire project area would be 25-49%.

4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?* The project would help maintain several natural levee ridges. The project would introduce sediment along several passes that have been sediment starved for several decades and are subsiding.

5) *What is the net impact of the project on critical and non-critical infrastructure?* Seven oil and gas companies have facilities and pipelines in this area which would benefit from an increase in marsh acreage. The loss of wetlands in this area exposes those facilities to open water wave energies resulting in expensive damages and oil spills.

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 Delta Wide Crevasses Project (PPL6) which constructed several crevasses south of Pass a Loutre. Many of the crevasses constructed under that project depend on the sediment load delivered by Pass a Loutre. With Pass a Loutre restored, the sediment carrying capacity of the channel will be increased which will accelerate crevasse growth in the area. This project would also have a synergistic effect with an LDWF crevasse project on Pass a Loutre and several state mitigation projects that have been constructed on the WMA.

Identification of Potential Issues

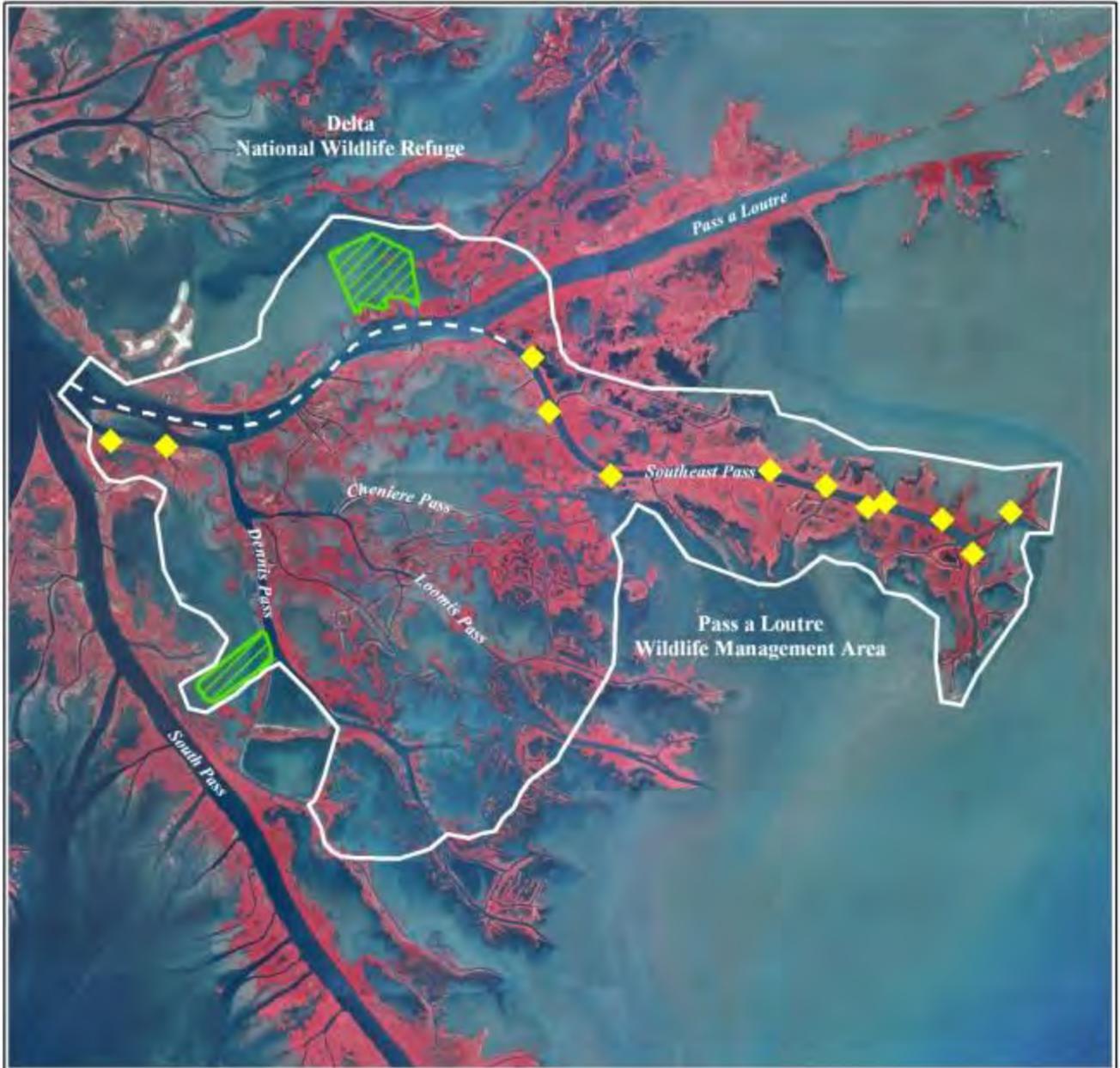
Several pipelines are within the project area. Impacts (e.g., induced shoaling) to the Mississippi River navigation channel would need to be investigated via modeling and other analyses.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$30,972,900. The fully-funded cost range is \$40M - \$50M.

Preparer of Fact Sheet

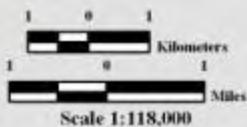
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Pass a Loutre Restoration



-  Crevasse *
 -  Dredged Channel *
 -  Marsh Creation *
 -  Project Boundary
- * denotes proposed features



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

Map ID: USGS-NWRC 2008-11-03-40
 Map Date: July 10, 2008

Image Source:
 2005 Digital Orthophoto Quarter Quadrangles

PPL 21 PROJECT NOMINEE FACT SHEET
March 31, 2011

Project Name: Lake Lery Shoreline Marsh Creation

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:

Region 2, Breton 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 were severely deteriorated by Hurricane Katrina. Without directly rebuilding these marshes, the lake itself will likely continue to grow and will extend to Bayou Terre aux Boeufs.

Goals:

- Create/nourish 550 acres of marsh through dedicated dredging and vegetative plantings
- Restore/stabilize 3.15 miles (25 acres) of north/east shoreline of Lake Lery

Proposed Solutions:

This project would create 385 acres and nourish an additional 165 acres of marsh along the northern and eastern shore of Lake Lery using material dredged from Lake Lery. The target elevation for the marsh creation areas will correspond with the elevation of healthy marsh in the surrounding area (1.5 ft NAVD 88 according to PPL20 Lake Lery Candidate project WVA). An earthen berm will be constructed along approximately 16,600 feet of deteriorated lake shoreline. Temporary containment dikes will be constructed and gapped within three years of construction to allow greater tidal exchange and estuarine organism access. Vegetative plantings will be used.

Preliminary Project Benefits:

- 1) *What is the total acreage benefited both directly and indirectly?*
550 acres of marsh creation/nourishment + 24 acres of shoreline restoration = 575 acres
- 2) *How many acres of wetlands will be protected/created over the project life?*
385 acres (using USGS land loss estimates from the LCA Lake Lery subunit polygon)
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life?*
50-74% per convention of the Environmental WG for interior marsh creation projects
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.?*

This project will reestablish the northern/eastern rim of Lake Lery. This area was significantly damaged during Hurricane Katrina and is not being addressed under any restoration funding vehicle.

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

This project will have a moderate impact on non-critical infrastructure.

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

This project represents the final construction unit required to restore the Lake Lery shoreline. This project will complement the following projects:

- 1) BS-16 Lake Lery Shoreline Restoration project, which will reestablish the west/south shoreline of Lake Lery through marsh creation;
- 2) CIAP project that will reinforce western bank of Bayou Terre aux Boeufs; and, 3) Caernarvon 4th Supplemental project which will provide a freshwater shunt
- 3) from Caernarvon to the 40 Arpent Canal to restore northwestern marshes of Lake Lery

Identification of Potential Issues:

There is oil and gas pipeline infrastructure in the project area.

Preliminary Construction Costs:

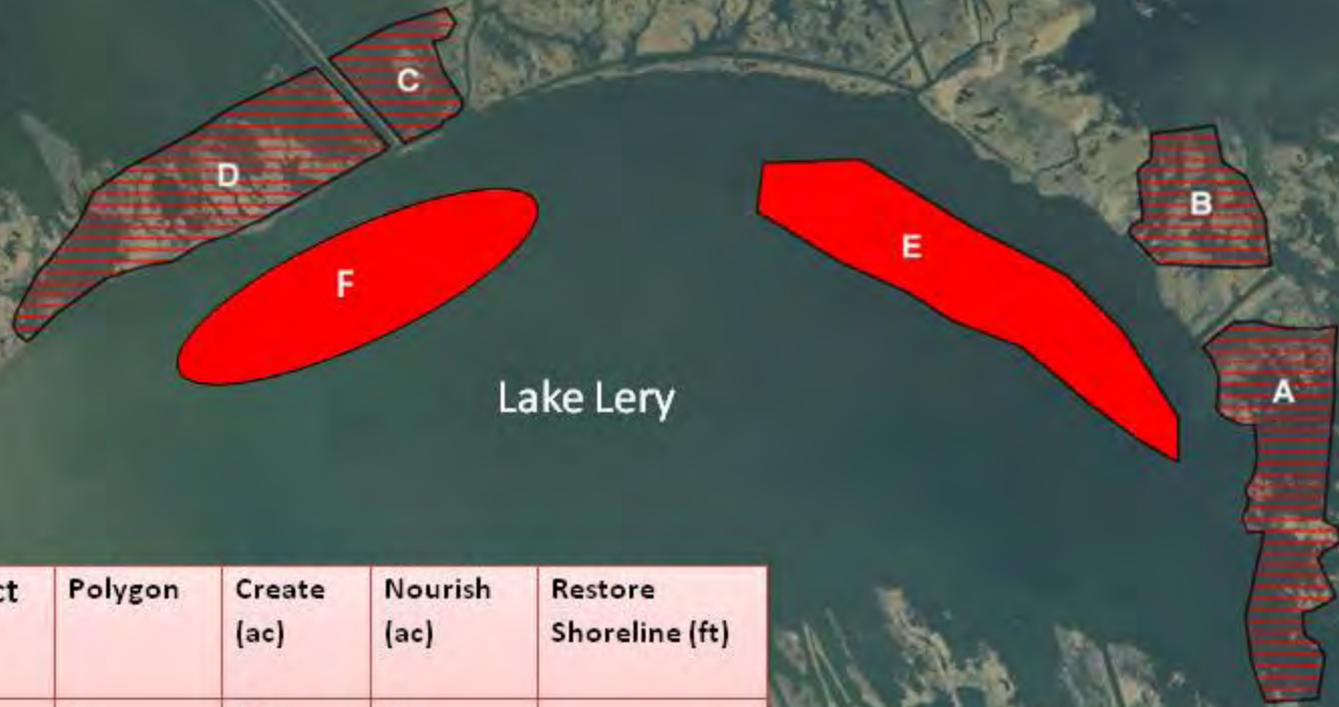
The estimated construction cost including 25% contingency is \$22,689,769. The fully-funded cost range is \$25M - \$30M.

Preparer(s) of Fact Sheet:

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PPL 21: Lake Lery Shoreline Marsh Restoration



Lake Lery Project Features	Polygon	Create (ac)	Nourish (ac)	Restore Shoreline (ft)
 East shore	A	150	50	7,763
	B	50	25	
 North shore	C	60	15	8,860
	D	125	75	
total		385	165	16,623
 Borrow Area	E and F	Approximately 3.0 million cu. yd		

PPL21 PROJECT NOMINEE FACT SHEET
March 29, 2011

Project Name

White Ditch Marsh Creation Sediment Delivery

Coast 2050 Strategy

Coastwide Strategies: Dedicated Dredging, to Create, Restore, or Protect Wetlands; Off-shore and Riverine Sand and Sediment Resources.

Region 2 Regional Ecosystem Strategies: Restore and Sustain Marshes

Project Location

Region 2, Breton Sound Basin, Plaquemines Parish

Problem

The project area is a nearly-rectangular open water body immediately adjacent to the east bank of the Mississippi River levee, which is reported to be a failed former agricultural impoundment (Fairview Plantation; rice farm; personal communication, Albertine Kimble, Plaquemines Parish). It seems likely that, like many other agricultural impoundments in coastal Louisiana, this area was drained for agriculture long ago, which probably led to soil oxidation and subsidence. Levees probably failed at some point, flooding the subsided soil surface. In addition to this, following the likely failure of the agricultural impoundment, the existing Mississippi River levee would have eliminated any input of sediment or nutrients from the Mississippi River to this marsh, which because of ongoing subsidence, would have further exacerbated land loss and would have increased water depths. In addition to this, surrounding marshes have changed from fresh marsh and possibly swamp, to brackish marsh over time, due to the elimination of freshwater inputs from the Mississippi River due to construction of incrementally-larger flood control levees, beginning shortly after European settlement, and culminating in the present levee configuration which was completed following the 1927 flood. Beginning in 1963, small flows of Mississippi River water were reintroduced via a small siphon (the White Ditch Siphon). However, the structure had deteriorated and was no longer effective until recently, when it was partly rehabilitated. In addition, the River Aux Chenes Ridge prevents freshwater, sediment, and nutrients from the Caernarvon Freshwater Diversion to the north, from benefitting this general area. An approved CWPPRA Project, White Ditch Resurrection and Outfall Management, is being designed, and will restore some of the flow of Mississippi River water, sediment, and nutrients into this general area.

Goals

- Create approximately 380 ac of intermediate marsh using sediment dredged from the Mississippi River
- Maintain approximately 350 ac of intermediate marsh over 20 years

Proposed Solution

Dredge sediments from the Mississippi River to create 380 acres of marsh. Vegetative planting may or may not be necessary. Funds will be budgeted for planting 50% of the project area in the event this is determined to be necessary. The project will complement the White Ditch Resurrection and Outfall Management project (BS-12) currently in the engineering and design phase. BS-12 is intended to provide increased freshwater inputs through the rehabilitation or replacement of the existing siphon at White Ditch and the construction of an additional siphon of

similar size. Freshwater input from the White Ditch siphon would work synergistically to help sustain marsh created via sediment delivery from the Mississippi River.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total project area is 380 ac.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 350 ac will be protected/created at the end of the project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the projects life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help maintain the natural southern ridge along River Aux Chenes
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will have a net positive effect on critical flood protection levees and a power station.
- 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 approved restoration projects. This project is expected to have a synergistic effect with several approved projects including the Bertrandville Siphon (BS-18) and the White Ditch Restoration and Outfall Management (BS-12).

Identification of Potential Issues

The proposed project has potential land rights and utility/pipeline issues.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$12,208,676. The fully-funded cost range is \$15M-\$20M.

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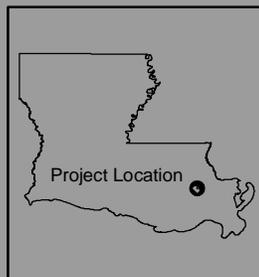


White Ditch Marsh Creation Sediment Delivery

 Proposed Project Area

0.3 0 0.3 0.6
Miles

0.5 0 0.5 1
Kilometers



Map Produced by:
U.S. Environmental Protection Agency
Marine and Coastal Section
Dallas, TX

Background Imagery:
2008 Infrared Digital Orthophoto
Quarter Quadrangle

Map Date: March 4, 2011

PPL 21 PROJECT NOMINEE FACT SHEET
30 March 2011

Project Name

Wills Point Marsh Creation

Coast 2050 Strategy

Coastwide Strategy: Dedicated Dredging for Wetland Creation

Project Location

Region 2, Breton Sound Basin, Plaquemines Parish, east bank of Mississippi River, northeast of Wills Point and adjacent to local 40-Arpent levee.

Problem

The project area is mostly shallow water that appeared when marsh was lost between 1958 and 1974. Katrina caused some loss in the project area and extensive loss adjacent to it. The area lies between the natural ridge of Rive aux Chenes and Tigers Ridge. It is adjacent to the local 40-Arpent levee. Another hurricane could open the area more and impact the two natural ridges.

Proposed Project Features

Approximately 2.4 million CY of material would be mined from the Mississippi River from the point bar at Wills Point. It would be used to restore 630 acres of marsh near the Rive aux Chenes and Tigers Ridges.

Goals

1. Restore 630 acres of marsh (478 acres created/152 acres nourished)
2. Provide additional protection to the 40-Arpent levee
3. Provide additional protection to the natural ridges of Rive aux Chenes and Tigers Ridge.

Preliminary Project Benefits

- 1) What is the total acreage benefited both directly and indirectly?
478 acres of marsh would be created immediately, and 152 acres of marsh would be nourished
- 2) How many acres of wetlands will be protected/created over the project life?
Applying the half of the 0.93 % per year loss rate from the Caernarvon Outfall LCA loss polygon to 478 acres created for 20 years shows 448 acres remaining 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%)?
50% loss rate reduction applied to the created marsh
- 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.
Project protects 40-Arpent Levee, natural ridge of Rive aux Chenes and Tigers Ridge.
- 5) What is the net impact of the project on critical and non-critical infrastructure?
Project protects 40-Arpent levee, which could be critical to inhabitants of Bertrandville, Linwood, and Greenwood.

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

The project provides synergy with the White Ditch project to the south, which also protects Rive aux Chenes.

Identification of Potential Issues

There are pipelines in the vicinity which could be a potential issue.

Preliminary Construction Costs

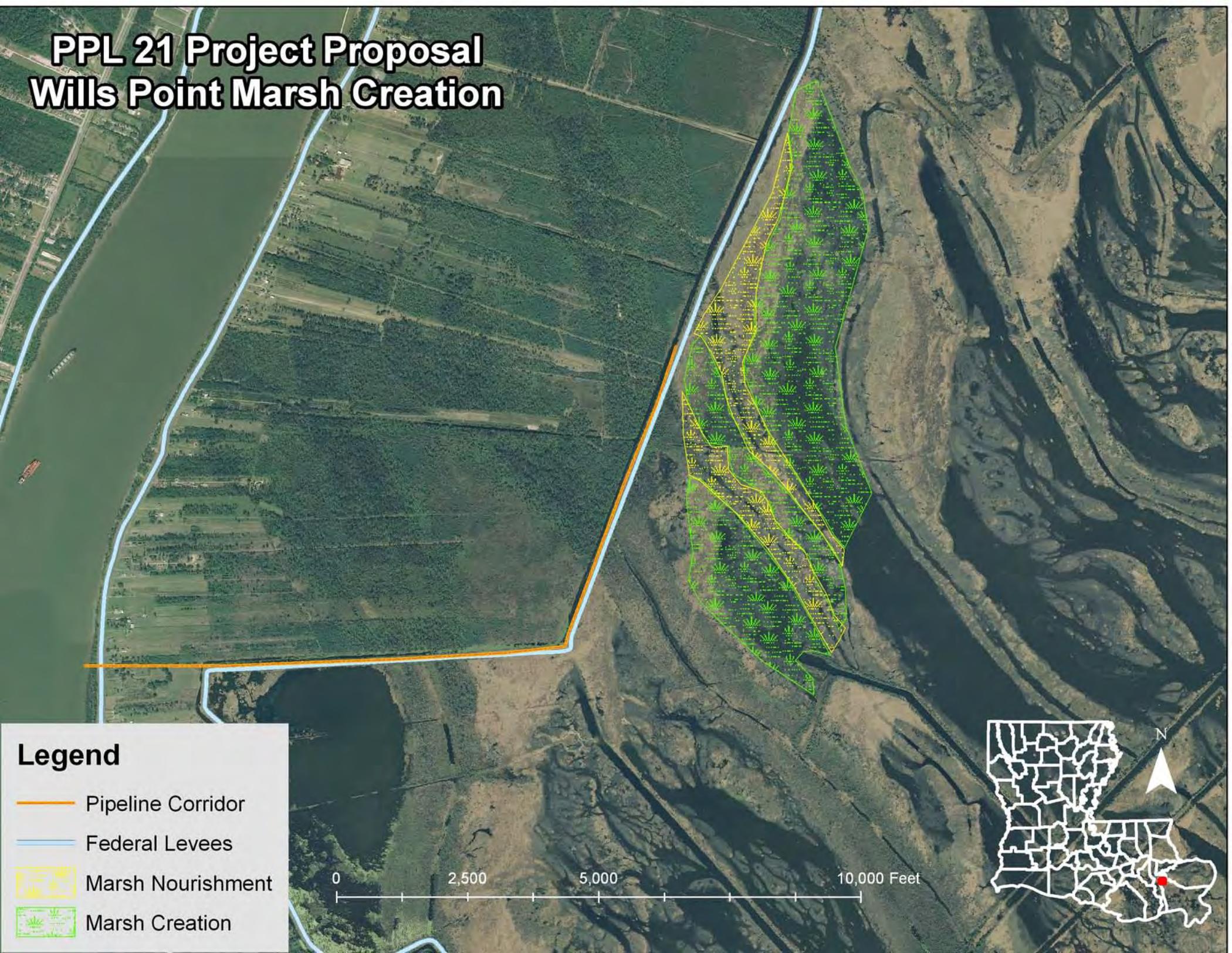
The estimated construction cost including 25% contingency is \$26,361,993. The fully funded cost range is \$30-\$35 M.

Preparers of Fact Sheet

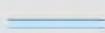
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PPL 21 Project Proposal Wills Point Marsh Creation



Legend

-  Pipeline Corridor
-  Federal Levees
-  Marsh Nourishment
-  Marsh Creation

0 2,500 5,000 10,000 Feet



PPL21 PROJECT NOMINEE FACT SHEET
March 31, 2011

Project Name

Northwest Turtle Bay Marsh Creation and Shore Protection

Coast 2050 Strategy

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

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

Project Location

Region 2, Barataria Basin, Jefferson Parish, Northwest shoreline of Turtle Bay

Problem

Excluding canals, approximately 360 acres within the project area (845 acres) have converted to open water. USGS has estimated a 1985-2009 loss rate of -0.56% per year for the Three Bayou Bay LCA polygon. Shoreline erosion along the northwest shore of Turtle Bay is estimated to be approximately 10 feet per year (previous WVA).

Proposed Project Features

The proposed project would create approximately 360 acres and nourish approximately 485 acres of marsh using sediment dredged from Turtle Bay or Little Lake. Existing canal spoil banks, emergent marsh, and limited segments of containment dikes will be used to guide the distribution of the dredged material. Containment dikes will be degraded as necessary to reestablish hydrologic connectivity with adjacent wetlands. Newly constructed marsh will be assessed to determine if vegetative plantings are necessary. The estimated cost includes funds to plant 50% of the created marsh (180 ac).

Approximately 8,350 feet of shoreline protection (rock revetment or rock dike) is proposed for the northwest shoreline of Turtle Bay.

Goals

The goals of the project goal are to 1) create approximately 360 acres and nourish approximately 485 acres of emergent marsh using dredged sediment; and 2) eliminate shoreline erosion along the northwest shoreline of Turtle Bay, resulting in the protection of approximately 38 acres over 20 years.

Preliminary Project Benefits

1) What is the total acreage benefited both directly and indirectly? Approximately 845 acres of emergent marsh would be created/nourished or protected from shoreline erosion.

2) How many acres of wetlands will be protected/created over the project life? The project would result in the protection/creation of approximately 399 net acres of marsh.

- 3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%). The anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the projects life.
- 4) Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc. This project would contribute to protection of the Central Barataria Basin Landbridge.
- 5) What is the net impact of the project on critical and non-critical infrastructure? The communities of Lafitte and Barataria lie to the north of this important landmass which serves to buffer the effect of tropical weather events. Numerous oil and gas wells, pipelines, and supporting infrastructure would benefit from reducing land loss in the area.
- 6) To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects? This project would work in sync with BA-2, BA-27, BA-20, BA-23, BA-03a, BA-26, BA-36 (and associated CIAP project), and BA-41, contributing to protection of the Central Barataria Basin Landbridge.

Identification of Potential Issues

The proposed project has the following potential issues: coordination with oil and gas entities would be required so that some canals could be closed at the shoreline.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$18,994,641. The fully-funded cost range is \$25M - \$30M.

Preparers of Fact Sheet

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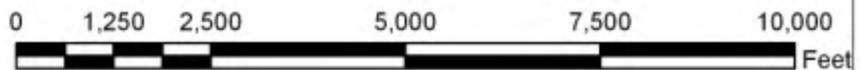


Legend

- Shore_Protection
- ▨ Marsh Creation and Nourishment



NW Turtle Bay
Marsh Creation/Shoreline Protection
Jefferson Parish, Louisiana
PPL-21



PPL21 PROJECT NOMINEE FACT SHEET
March 31, 2011

Project Name

Bayou Grande Cheniere Marsh Creation

Coast 2050 Strategy

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

Coastwide: Utilize off-shore and riverine sand and sediment resources

Project Location

Region 2, Barataria Basin, Plaquemines Parish, near Lake Hermitage, along Bayou Grande Cheniere ridge

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 re-create marsh habitat in the open water areas and nourish marsh along the eastern side of the Bayou Grande Cheniere ridge. Terraces are proposed to reduce fetch in large open water bodies and to capture suspended sediment delivered via the West Pointe a la Hache siphons.

Proposed Project Features

1. Riverine sediments will be hydraulically dredged and pumped via pipeline to create approximately 488 acres of marsh in the project area.
2. Approximately 61,000 linear feet of terraces (49 acres) will be constructed to reduce fetch and turbidity and capture suspended sediment.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?* Approximately 1,648 acres would be benefited directly and indirectly. Direct benefits include 537 acres (488 acres of marsh creation/nourishment and 49 acres of terraces). Indirect benefits would occur to the Bayou Grand Cheniere ridge and within the 1,160-acre terrace field.

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 382 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 to 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 help maintain the Bayou Grande Cheniere ridge.

5) *What is the net impact of the project on critical and non-critical infrastructure?* The project would not protect any significant 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 (PPL15), the West Pointe a la Hache Marsh Creation Project (PPL17), and the West Pointe a la Hache Siphon Enhancement Project (PPL3). All of these projects would work in conjunction to restore wetlands within the West Pointe a la Hache Mapping Unit.

Identification of Potential Issues

Numerous oil and gas canals; pipelines.

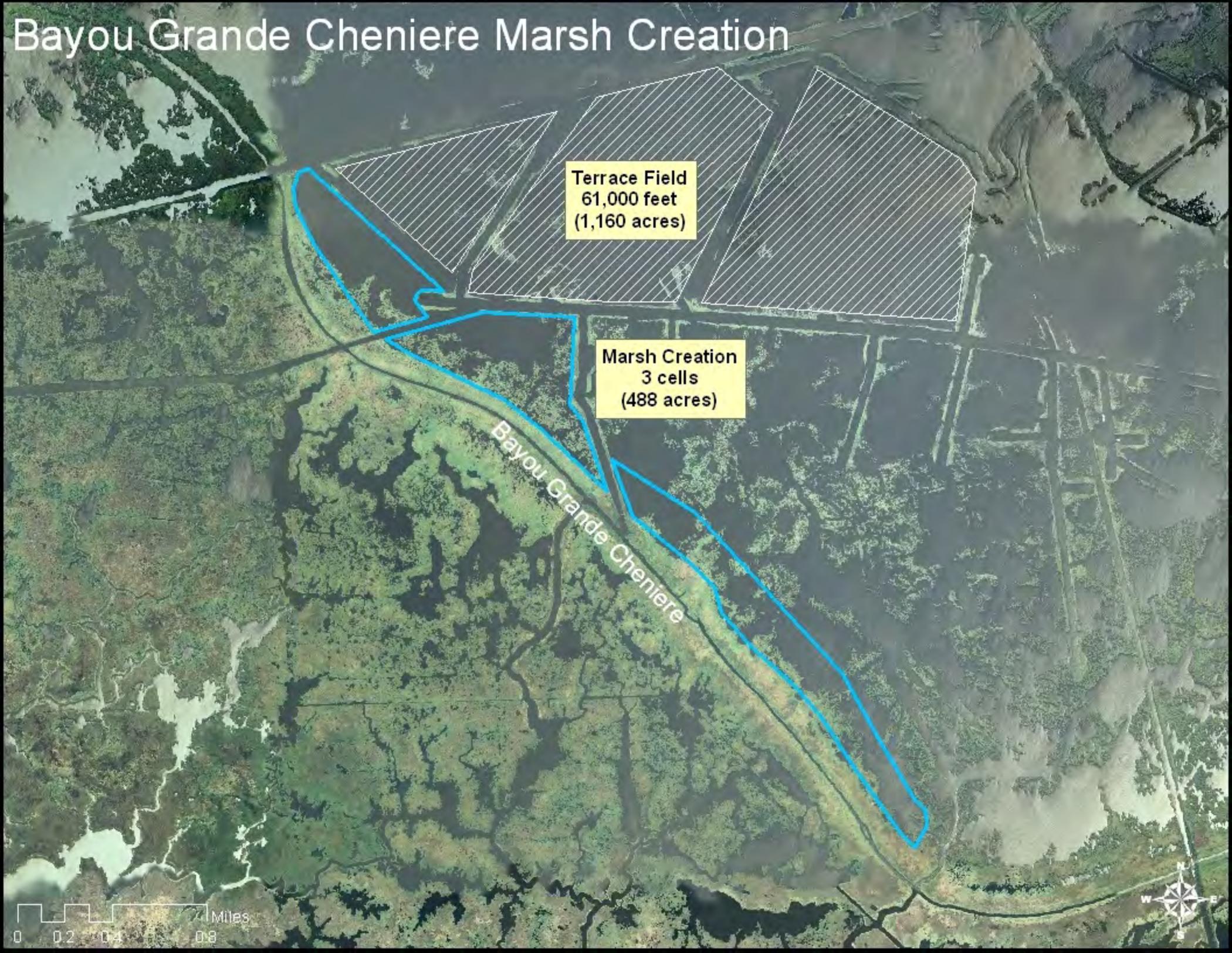
Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$31,818,119. The fully-funded cost range is \$40M - \$50M.

Preparer of Fact Sheet

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Bayou Grande Cheniere Marsh Creation



Terrace Field
61,000 feet
(1,160 acres)

Marsh Creation
3 cells
(488 acres)

Bayou Grande Cheniere



PPL 21 PROJECT NOMINEE FACT SHEET

March 31, 2011

Project Name

Bayou L'Ours Terracing

Coast 2050 Strategy

Coastwide: Terracing
Vegetative Plantings
Maintain or Restore Ridge Functions

Local and Common Strategies: Maintain function of Bayou L'Ours Ridge

Project Location

Region 2, Barataria Basin, Lafourche Parish, east of Galliano and south of Little Lake

Problem

Areas located north and south of Bayou L'Ours and adjacent to the East Golden Meadow Hurricane Protection Levee have experienced marsh loss in the range of 8,000 to 10,000 acres. Because this location is a great distance from preferred sediment sources such as the Mississippi River, Gulf of Mexico, and even large bays and lakes, the now-customary practice of marsh creation using hydraulically dredged and deposited material presently does not seem feasible. And the use of more local borrow sources has not gained significant support. Thus, this critical area has been neglected from a restoration standpoint.

Goals

The proposed project would re-establish landmass in an area where land mass is scarce. This added landmass will help protect, extend the life expectancy, and help maintain the current function of the Bayou L'Ours ridge. The proposed project would also protect the Larose to Golden Meadow Hurricane Protection Levee.

Proposed Solutions

The proposed solution is to construct 140,000 linear feet of terraces. The terraces would have a target elevation of 2.0 NAVD88, 15-foot top width, and 5:1 side slopes. The terraces would produce about 80 acres of emergent marsh.

Preliminary Project Benefits

- 1) *What is the total acreage benefitted both directly and indirectly?* The terraces will create 80 acres. The terrace field is approximately 800 acres, and an additional 600 acres of the Bayou L'Ours ridge will be benefitted, for a total direct and indirect benefit of 1,400 acres.
- 2) *How many acres of wetlands will be protected/created over the project life?* At the end of 20 years, about 77 acres of the terrace acres will remain.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life?* 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.* Project features will help protect, extend the life expectancy, and help maintain the current function of the Bayou L'Ours ridge. The proposed project would also protect the Larose to Golden Meadow Hurricane Protection Levee.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?* The proposed project would help protect the Clovelly Dome Oil Storage Terminal, the Larose to Golden Meadow Hurricane Protection Levee, and communities along Bayou Lafourche.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* The proposed project would provide additional landmass Gulfward of the Little Lake Shoreline Protection (BA-37) Project.

Identification of Potential Issues

Past projects in this area have had landowner issues, but landowners in the area, including the owners of the Tidewater Canal, have publicly expressed their support of the project.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$4,897,426. The fully-funded cost range is \$5M - \$10M.

Preparer(s) of Fact Sheet

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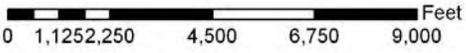


Legend

— Terraces



Bayou L'Ours Terracing
Lafourche Parish, Louisiana
PPL 21



PPL21 PROJECT NOMINEE FACT SHEET
March 31, 2011

Project Name

Lake Tambour Marsh Creation Project

Coast 2050 Strategy

Coastwide Strategy: Maintenance of Bay and Lake Shoreline Integrity
Region 3 Strategy #8; Dedicated Dredging for Wetland Creation, #11- Maintain shoreline integrity of marshes adjacent to Caillou, Terrebonne, and Timbalier Bays

Project Location

This project is located in Region 3, Terrebonne Basin, Terrebonne Parish, along the northern shoreline of Lake Barre/Terrebonne Bay from Bayou Chitique to the western shoreline of Lake Tambour.

Problem

Marshes north of Terrebonne Bay have been eroding as fast or faster than almost any other marshes along coastal Louisiana. Reasons for this include subsidence, a lack of sediment input, and a limited supply of fresh water coupled with past dredging of oil and gas canals. As these marshes convert to shallow open water, the tidal prism will increase which will in turn increase the frequency and duration of tides north of Terrebonne Bay.

This increasing tidal prism is likely to increase the future interior marsh loss rates for those marshes directly north of Terrebonne Bay. These marshes are not only important for their habitat values but they also serve to slow the movement of highly saline waters that threaten the lower salinity marshes north and west of Madison Bay and even in Lake Boudreaux. The continued loss of these marshes has directly contributed to the ongoing flooding problems of many communities along Bayou Terrebonne including the town of Montegut.

Proposed Solution

Project features consist of filling approximately 462 acres of open water and nourishing 20 acres of marsh with material hydraulically dredged from Terrebonne Bay/Lake Barre. The target settled elevation will be +1.4 NAVD 88, but will ultimately correspond to surrounding healthy marsh. Containment dikes would be constructed around each marsh creation/nourishment site and be of sufficient height to retain the dredged slurry. Containment dikes located adjacent to naturally occurring marshes or small interior ponds would be sufficiently gapped within 3 years of construction to allow for greater tidal and estuarine organism access. Those containment dikes adjacent to bays would be degraded to an elevation of +2.5 NAVD 88, which is considered a high marsh but one that should reduce shoreline erosion. The two largest marsh creation cells, totaling 356 acres, would be planted (50% of the area planted) with saline marsh vegetation. This project would be the second phase of a comprehensive plan to protect the northern shoreline of Terrebonne Bay, reduce interior marsh loss, and reduce the tidal prism. This would also work synergistically with the Terrebonne Bay Shoreline Protection Demonstration Project and possibly the Madison Bay Marsh Creation and Terracing project.

Goals

Fill shallow open water areas north of Terrebonne Bay/Lake Barre which would reduce the tidal prism north of Terrebonne Bay and reduce interior land loss from tidal scouring.

Specific Project Goals: 1) Create 482 acres of intertidal marsh within the project area and 2) Reduce shoreline erosion along 12,000 ft of the northern shoreline of Terrebonne Bay and along major bayous.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?* Approximately 482 ac would be filled with dredged material.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 413 ac of saline marsh will be protected/created over the project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?* The anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the projects life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?* This project would restore and help maintain the Terrebonne Bay shoreline.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
This project would help protect several camps and oil and gas infrastructure. This project would also help protect numerous homes and businesses located within the town Montegut, LA, which is located 6 miles north of the project area.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project would work with the recently constructed CWPPRA Terrebonne Bay Demonstration Project TE-45 and the newly Phase I funded Terrebonne Bay Marsh Creation-Nourishment CWPPRA Project. This project could potentially work with the Madison Bay Marsh Creation and Terracing Project which is also in Phase I.

Identification of Potential Issues

There are numerous oyster leases within the project area.

Preliminary Construction Costs

The estimated construction cost including a 25% contingency is \$22,531,754. The fully-funded cost range is \$25M-\$30M.

Preparer(s) of Fact Sheet:

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PPL21 PROJECT NOMINEE FACT SHEET
April 1, 2011

Project Name:

Lake Decade Marsh Creation and Nourishment

Coast 2050 Strategy:

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

Regional Strategy – Dedicated delivery and/or beneficial use for marsh building by any means feasible means

Mapping Unit Strategy - Beneficial use of dredged material

Project Location:

Region 3, Terrebonne Basin, Mechant/Decade Mapping Unit, Terrebonne Parish, located along the shorelines of Lake Decade southwest of Theriot.

Problem:

The project would restore lake edge and interior wetlands that have been lost and fragmented.

The marsh creation and nourishment areas would maintain delineation of the lake rim if the lake shoreline levees are no longer possible to be maintained. What problem will the project solve?

Wetland loss rates are evidence for the nature and scope of the problem in the project area. The wetland loss rate for the Lake Decade subunit polygon is -0.15%/year based on USGS data from 1985 to 2009. The lake shoreline breaches routinely even with efforts by the land owner.

Generally, a breach or two develop in between the annual maintenance efforts to re-establish the integrity of the shoreline, but wouldn't last more than two years without breaching. Construction of the South Lake Decade project (Section B) has commenced that will address the vulnerability of the lake shoreline east of Bayou Decade and will allow for project synergy along that reach.

Goals:

The conceptual project goals are to accomplish approximately 346 acres of marsh creation and 153 acres of marsh nourishment in strategic locations to enhance and maintain the structure integrity of the lake shorelines.

Proposed Solutions:

Sediment would be dredged from Lake Decade and placed in a semi- to confined manner in strategic locations along the lake shoreline to create and nourish intertidal intermediate and fresh marsh. Approximately half of the created marsh acres would be planted with appropriate wetland vegetation. The borrow area in Lake Decade would be located and designed in a manner to avoid and minimize environmental impacts (e.g., to submerged aquatic vegetation and water quality) to the maximum extent practicable.

Preliminary Project Benefits:

The following questions should be addressed: 1) the total acreage benefited both directly and indirectly is 499 acres. 2) Approximately 343 net acres are expected at TY 20. *Note that this is a draft number subject to pro-rating revisions due to overlapping with the South Lake Decade TE-39.* 3) The anticipated loss rate reduction throughout the area of direct impacts is 50-74%. 4) The marsh creation would help maintain the structural limits of Lake Decade, especially if the existing levees can not be maintained. 5) The project would have not significant impact on

critical or non-critical infrastructure. 6) The project would have direct synergy with the TE-39, South Lake Decade Freshwater Introduction Project.

Identification of Potential Issues:

The proposed project has the following potential issues: utilities/pipelines, etc. The fill areas are located on Apache Corporation property and the conceptual features have been coordinated with them.

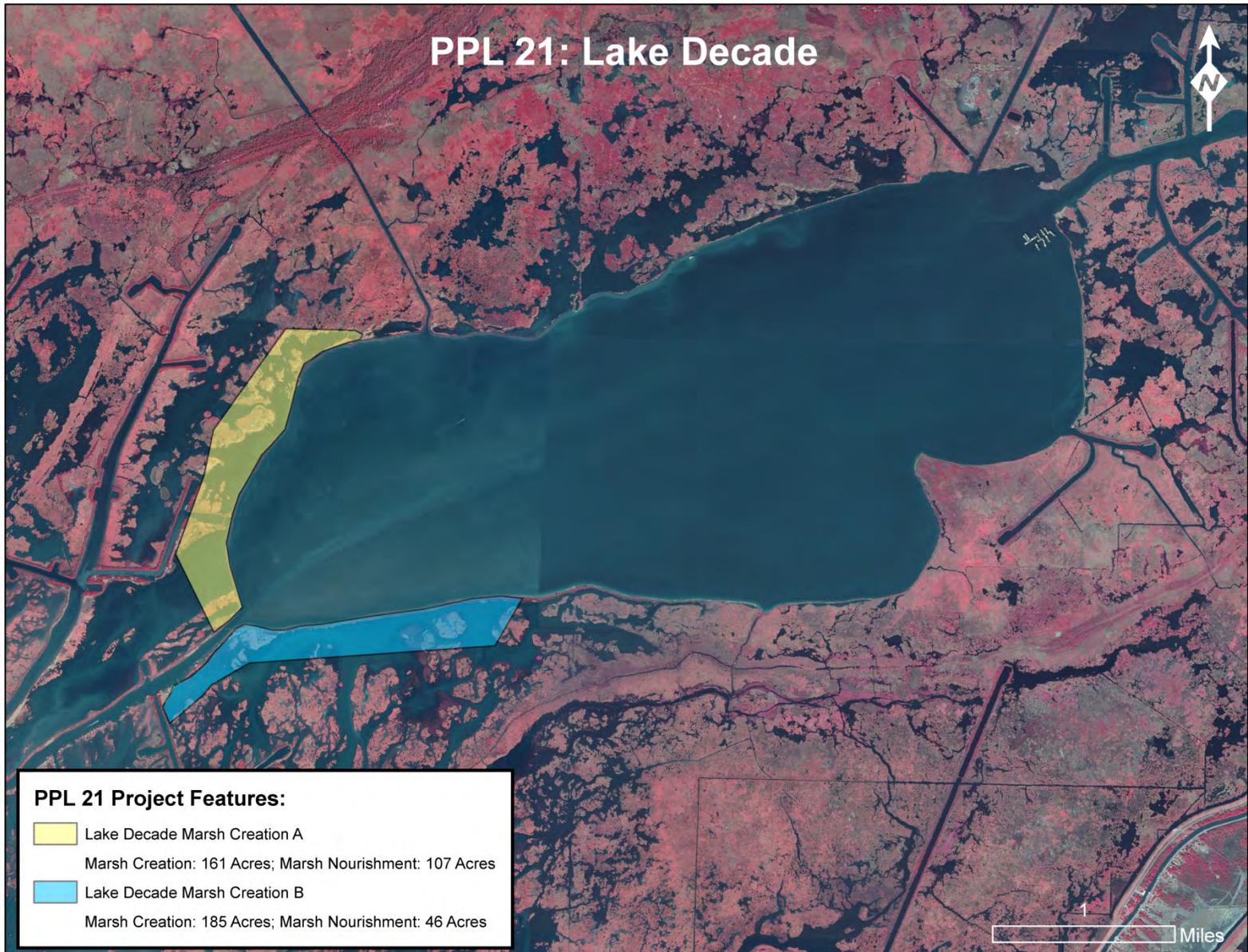
Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$21,639,616. The fully funded cost range is \$25M - \$30M.

Preparer(s) of Fact Sheet:

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patrick.williams@noaa.gov

PPL 21: Lake Decade



PPL 21 Project Features:

-  Lake Decade Marsh Creation A
Marsh Creation: 161 Acres; Marsh Nourishment: 107 Acres
-  Lake Decade Marsh Creation B
Marsh Creation: 185 Acres; Marsh Nourishment: 46 Acres

1 Miles

PPL21 PROJECT NOMINEE FACT SHEET
March 31, 2011

Project Name: Carencro Bayou Freshwater Introduction Project

Coast 2050 Strategy:

Regional: Lower water levels in upper Penchant Marshes; Increase transfer of Atchafalaya River water to lower Penchant tidal marshes

Project Location:

Region III, Terrebonne Basin, Terrebonne Parish, South of Bayou Penchant

Problem:

The potential to flow water from the Atchafalaya River into the Penchant Basin has increased over the past few decades through the GIWW from the north and west through Bayou Chene and into Bayou Penchant. Although the Penchant Basin Plan project will do much to increase flow to the south through Bayou Copesaw into Brady and Superior Canals, much of the water flowing through Bayou Penchant short-circuits back to the Atchafalaya Bay area through Palmetto, Plum and Carencro Bayous. Therefore, much of the fresh water, rich in nutrients and sediments, never reaches the marshes of Central Terrebonne where it is most needed.

Proposed Solutions:

The Carencro Bayou FW Introduction project would open critical pathways through existing canals to allow increased flow of riverine water to reach areas where salinity intrusion has devastated previously vibrant fresh and intermediate marshes north of Bayou Decade. The project would evaluate various pathways and existing plugs and structures to determine the most advantageous routes to move water into areas of greatest need. The objective would be to reestablish flows to areas of high loss and subsidize existing restoration efforts in an area recognized as one of great need.

Goals :

The goal would be to reestablish freshwater flows to areas of high loss and subsidize existing restoration efforts in an area of high loss.

Preliminary Project Benefits:

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

The project will benefit approximately 14,643 acres of wetlands.

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

An increase in freshwater flow to four subareas is expected to protect/create 234 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 project will reduce the loss rate in the 25-49% range.

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 does not directly restore structural components.

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

There is no critical infrastructure in the project area; the project will restore 234 acres of marsh, much of which is in an area that has experienced high loss.

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

The project provides synergy to constructed projects including Brady Canal (TE-28), Penchant Basin Natural Resources Plan (TE-34), N Lake Mechant Landbridge Restoration (TE-44) and Phase 1 projects including Lost Lake MC/HR (TE-72) and Central Terrebonne FEW (TE-66).

Identification of Potential Issues:

Potential issues identified are pipeline and utilities.

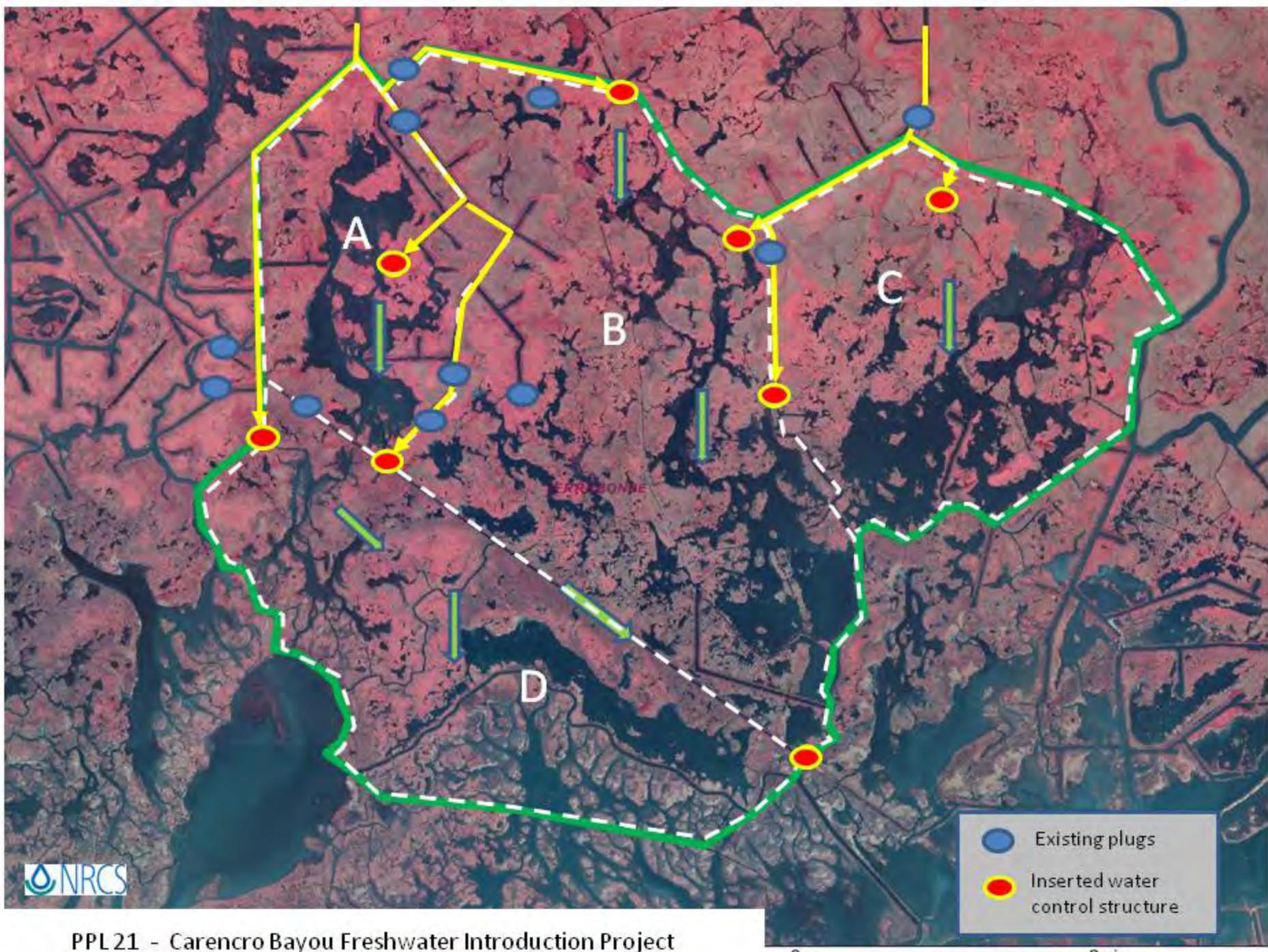
Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$4,044,050. The fully funded cost range is \$5M to \$10M.

Preparer(s) of Fact Sheet:

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PPL21 - Carencro Bayou Freshwater Introduction Project



PPL21 PROJECT NOMINEE FACT SHEET

March 25, 2011

Project Name: West Wax Lake Outlet Wetlands Diversion

Coastwide 2050 Strategy:

- Coastwide Strategy: Dedicated Dredging for Wetland Creation
- Regional Strategies: Restore and Sustain Marshes - Maximize Atchafalaya Land Building
- Mapping Unit Strategies (Wax Lake Wetlands Unit):
 - #61 Beneficial use of dredged material
 - #62 Maintain distributaries (e.g., Hog Bayou, *Leopard Bayou and Bayou Blue*)

State Master Plan:

- Planning Unit 3b: Atchafalaya and Teche-Vermilion Basins
- Atchafalaya River Diversion - Freshwater (*nutrients & sediments*) Conveyance
 - D3b-9 Increase Sediment Transport Down Wax Lake Outlet (*and distributaries*)
 - D3b-14 Convey Atchafalaya River Water Westward via GIWW (*and distributaries*)

Project Location: Region 3 - Atchafalaya Basin, Wax Lake Wetlands mapping unit (western subunit between Wax Lake Outlet and Bayou Sale), St. Mary Parish. The West Wax Lake Wetlands subunit is bordered on the north by the Gulf Intracoastal Waterway (GIWW), on the east by the Wax Lake Outlet, on the south by the Atchafalaya Bay and emerging Wax Lake Delta and on the west by the Bayou Sale east bank natural levee and flood protection levee which extends from Gordy to the GIWW. This environmental unit contains approximately 34,466 acres, predominantly in fresh marsh and swamp, with numerous bayous and small open water areas, a narrow strip of natural levee hardwoods and petroleum related development, oil and gas pipeline canals and access canals and associated spoil banks and spoil retention areas along the west bank of historic Wax Lake from dredging of the Outlet in 1941.

Problem: Three bayous (Hog, Leopard and Blue) that have functioned as distributary channels of the Wax Lake Outlet since its construction in the early 1940s are becoming blocked by natural development of the Outlet's west bank natural levee (evidenced through aerial-photo analysis and depth measurements) and are reducing diversion of fresh water, nutrients and sediment to the West Wax Lake Wetlands east of Bayou Sale.

Goals: The goal of this project is to help restore and maintain sediment and nutrient-laden freshwater distribution from the Wax Lake Outlet throughout the West Wax Lake Wetlands subunit by: 1) dredging a new, direct channel from Wax Lake Outlet to the original mouth of Bayou Blue, 2) dredging a new direct channel from Wax Lake Outlet to the original mouth of Leopard Bayou and 3) performing maintenance dredging of the existing Hog Bayou channel to Wax Lake Outlet. Dredged material cast onto the shallow bottom of the historic Wax Lake north and south of the newly dredged and/or maintained channels would create marsh. High water overbank flooding would continue development of natural levees along the three major bayous as well as firm up the banks of smaller, interior bayous and fill in abandoned access canals off of major bayous with distributary channel sediments. Through-flow would enhance water quality and also offset tidal influence and substrate erosion associated with access canals in the western portion of the subunit by maintaining a westward moving head of fresh water and introduction of sediments and nutrients that promote vigorous plant growth and sustain wetlands.

Proposed Solutions: Restore and maintain hydrologic connection between Wax Lake Outlet (Atchafalaya River water) and distributary channels to sustain hydrologic processes and wetlands.

Preliminary Project Benefits:

- 1) *What is the total acreage benefited both directly and indirectly?*
Approximately 25,360 ac of wetlands between the Bayou Sale natural levee / flood protection levee and the Wax Lake Outlet west bank, influenced by these three major distributary channels, would be benefited.
- 2) *How many acres of wetlands will be protected/created over the project life?*
The proposed project would immediately create 125 ac of wetlands through beneficial use of dredged material from Bayou Blue, Leopard Bayou and Hog Bayou. Additional acreage is expected to accrue throughout the project area and the 125 net acres are expected to remain throughout the 20 year project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%)?*
The 20-yr reduction in loss rate attributable to this project is estimated to be <25%.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.*
This project would help sustain existing wetlands, especially those located near the east Bayou Sale natural levee and flood protection levee, and north of the north-central and north-west Atchafalaya Bay shoreline, through delivery of fresh water, sediment and nutrient input via natural hydrologic processes. Maintenance of these wetlands would help protect the eastern flood protection levee and development infrastructure along the eastern natural levee of Bayou Sale and along interior water bodies. Overbank flow, especially during high water periods, would deposit mineral sediments and continue promotion of natural levee development along distributary channels, thus helping to protect interior wetlands from tidal and boat-generated wave action. Continuance of sediment input would facilitate repair of marsh impacted by natural and human-induced activities. Through-flow via channel and overland movement from Wax Lake Outlet to East Cote Blanche Bay and Atchafalaya Bay would promote water quality enhancement in the project area as well as facilitate entrainment and southward movement of GIWW flow from the north.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The net impact of the project is that it will help sustain the natural environment that supports both critical and non-critical infrastructure such as development along Bayou Sale and interior water bodies, LA 317 to Burns and the Bayou Sale Flood Protection Levee.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project will function synergistically with other restoration projects in this area: 1) the active natural Wax Lake Outlet Delta formation, 2) CWPPRA TV-20: Bayou Sale Shoreline Protection Project, \$32.1 million, 35,776 ft of foreshore rock dike along eastern side of East Cote Blanche Bay north of Burns Point, 3) CIAP Point Chevreuil Shoreline Protection Project: \$1.9 million, covering 4,250 ft of coastline around the point at the southern most tip of East Cote Blanche Bay, and 4) CIAP Burns Point Shoreline: \$1.01 million for protection of the 8.5 ac recreational vehicle park and campground at Bayou Sale Bay (e.g., East Cote Blanche Bay). While these three proposed actions are designed to prevent future shoreline erosion and protect existing infrastructure, the PPL-21 project nominee is designed to sustain the interior wetlands, water quality and infrastructure using natural hydrologic processes to deliver fresh water, sediments and nutrients.

Identification of Potential Issues: There do not appear to be any potential issues at this time. The Wax Lake Outlet connections of Blue Bayou, Leopard Bayou and Hog Bayou, as well as the majority of the project impact area, are located on property owned by St. Mary Land and Exploration Company, which supports the project. A portion of the property along Bayou Blue north of St. Mary Land & Exploration Company property is owned by Miami Corp. Their land manager has been provided information on the proposed project and has expressed no objections to the project.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$5,641,645. The fully-funded cost range is \$10M - \$15M.

Preparer of Fact Sheet:

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W. WAX LAKE WETLANDS DIVERSION

Legend

- Water Depths
- Channel Maintenance
- Dredge Material Disposal
- 343'/-10' Channel Width and Depth (01/2010)
- Indirect Impact Area

Project Location

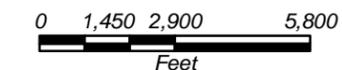


**St. Mary Parish
Louisiana**

Source: Section, Township & Range data Tobin International, Ltd. (February 9, 2004). Channel Maintenance and Dredge Material Disposal data digitized by CEI, 2010. Background Image: October 27, 2008 USGS Color-Infrared DOQQ obtained from the LaCoast website, 2009.
**Note: CEI does not warrant the validity of these data. Data not derived from a registered survey and should be considered approximate.

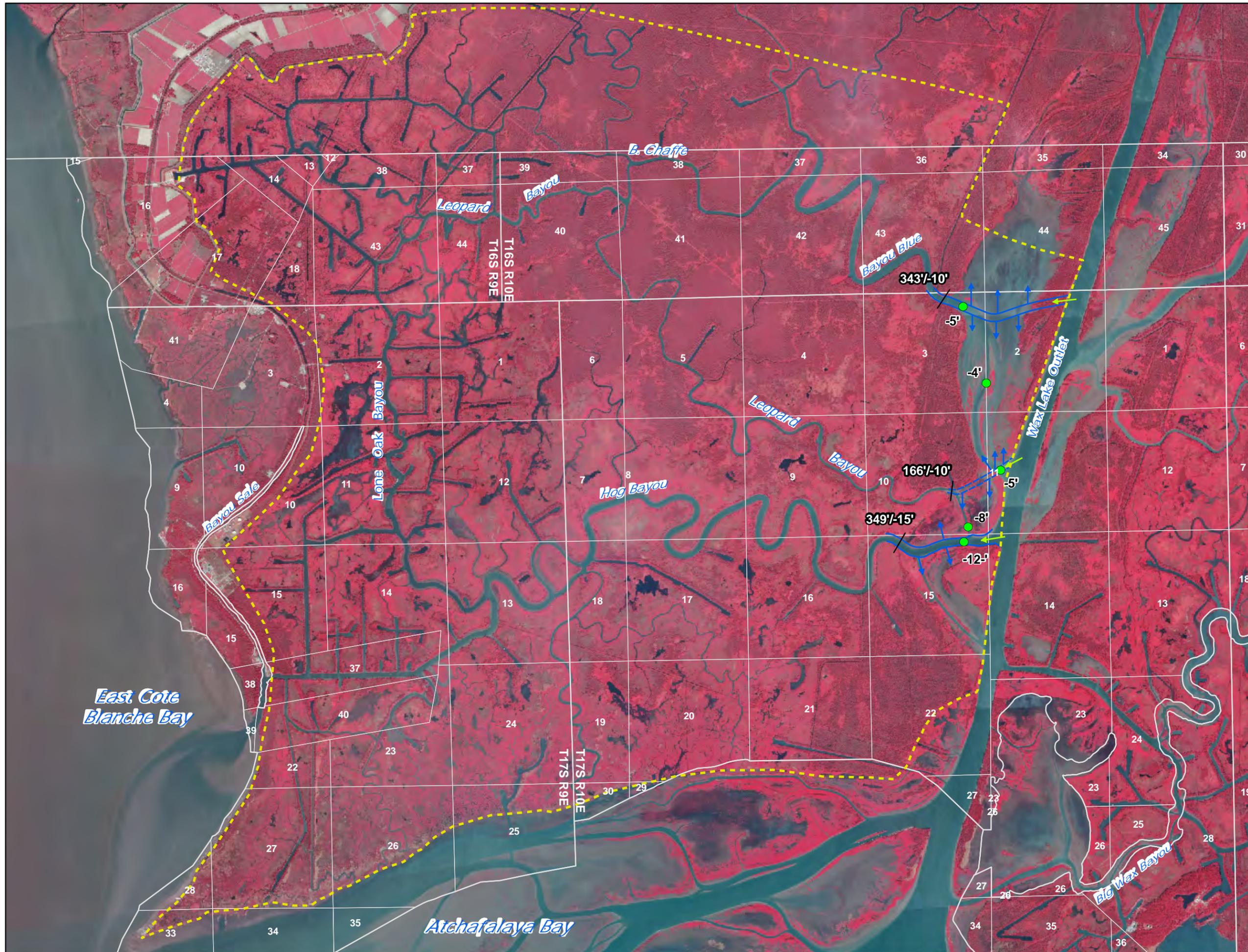


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MAP 1

CEI 93032 January 25, 2010



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PPL21 PROJECT NOMINEE FACT SHEET

March 29, 2011

Project Name:

Southeast Marsh Island Marsh Creation and Nourishment

Coast 2050 Strategy:

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

Region 3 Regional Ecosystem Strategy: Restore and Sustain Marshes.

Project Location:

Region 3, Teche-Vermillion Basin, Iberia Parish, Southeast end of Marsh Island Wildlife Refuge.

Problem:

Areas of emergent marsh in Marsh Island interior have been converted to open water, primarily due to hurricane activity and subsidence. Marsh Island has been projected to lose 12.9% of its marsh habitat through 2050. Areas targeted by this project are those with the greatest historic land loss and are proximal to East Cote Blanche Bay.

Proposed Solution:

The project would utilize hydraulic dredging from an offshore borrow site to create/nourish approximately 1300 acres of brackish marsh by completely filling in open water and deteriorated areas and use unconfined or limited confinement techniques allowing finer material to flow through the interior marsh areas and provide nourishment. This project would complement the constructed Marsh Island Hydrologic Restoration (TV-14) and the East Marsh Island Marsh Creation (TV-21) projects on the east-end of Marsh Island.

Goals:

Create and restore brackish marsh habitat in the open water and deteriorated areas of the interior marsh primarily formed as a result of hurricane activity and to nourish the surrounding marsh. The marsh nourishment component of this project will be completed with minimal or limited containment. Borrow material will be targeted from the state offshore area to limit water quality impacts and minimize impacts to potential oyster bed areas.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total project area is 1300 acres. 650 acres of marsh will be created and 650 acres of marsh will be nourished.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 650 ac of brackish marsh will be protected/created over the project life.

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the projects life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
No project features maintain or restore structural components of the coastal ecosystem but East Marsh Island does provide benefits that would be similar to a barrier island.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project may have a net positive impact on non-critical infrastructure on the mainland north of the island.
- 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 the Marsh Island Hydrologic Restoration Project (TV-14) and the East Marsh Island Marsh Creation Project (TV-21). Both of these projects have been constructed.

Identification of Potential Issues:

There may be potential oyster ground issues with this project.

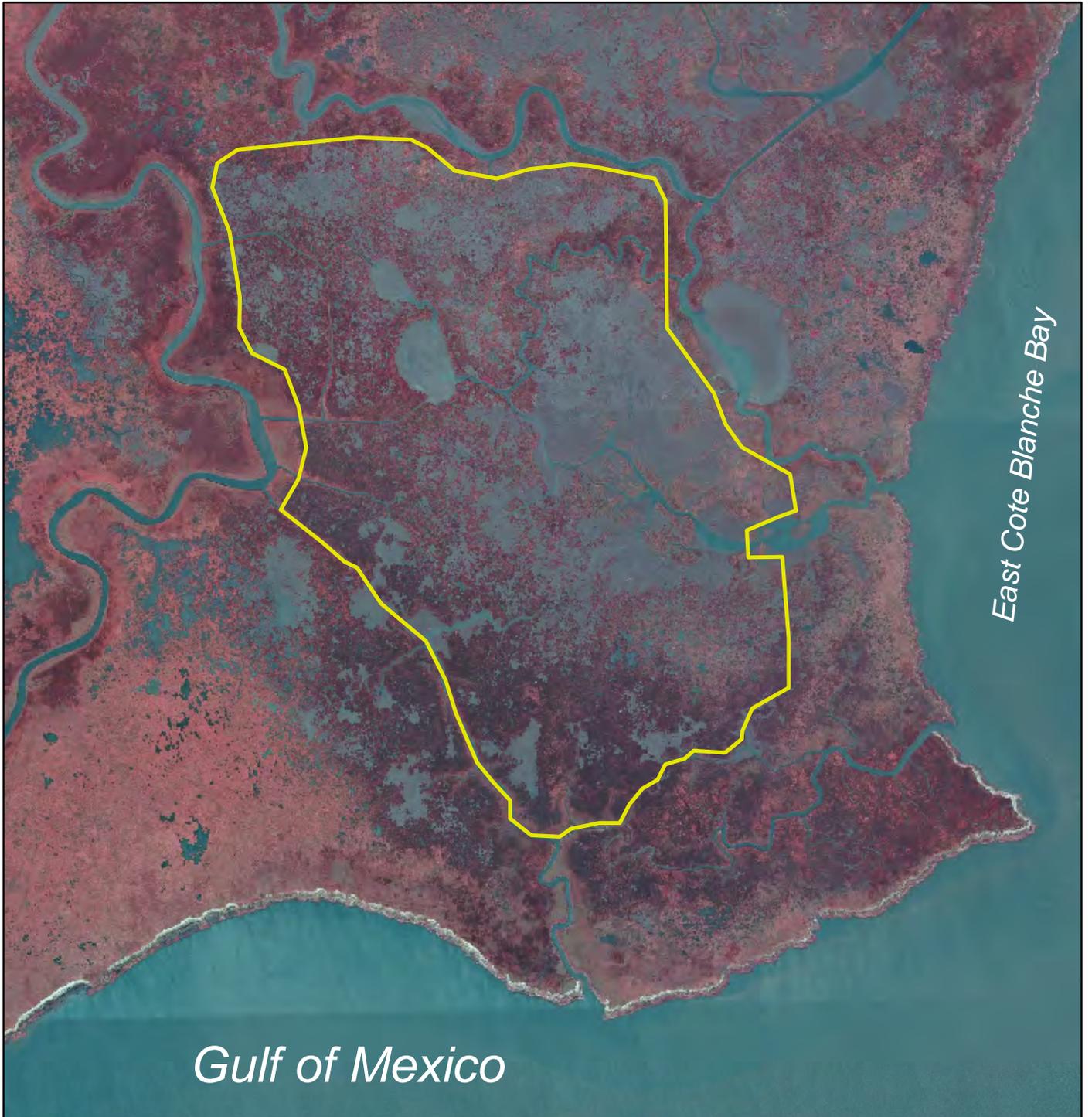
Project Costs:

The estimated construction cost including 25% contingency is \$26,386,429. The fully-funded cost range is \$30M-\$35M.

Preparer(s) of Fact Sheet:

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Southeast Marsh Island Marsh Creation and Nourishment

 Proposed Project Area



Map Produced by:
U.S. Environmental Protection Agency
Marine and Coastal Section
Dallas, TX

Background Imagery:
2008 Infrared Digital Orthophoto
Quarter Quadrangle

Map Date: March 7, 2011

PPL21 PROJECT NOMINEE FACT SHEET
March 31, 2011

Project Name: Cole's Bayou Marsh Creation and Restoration

Coast 2050 Strategy:

Restore and Sustain Wetlands (*Regional Ecosystem Strategy*); Dedicated Dredging, to Create, Restore, or Protect Wetlands (*Coastwide Common Strategy*); Terracing (*Coastwide Common Strategy*); and Vegetative Plantings (*Coastwide Common Strategy*)

Project Location:

Region 3, Teche/Vermilion Basin, Vermilion Parish, east of Freshwater Bayou

Problem:

Project area wetlands are undergoing losses at recent rates of about -0.3 %/year (LCA, 1985-2009, East Freshwater Bayou/Chenier au Tigre Subunit Polygon). Wetland loss processes in this area include subsidence/sediment deficit, interior ponding and pond enlargement, and storm impacts resulting in rapid episodic losses. In addition, significant interior marsh loss has resulted from salt water intrusion and hydrologic changes associated increasing tidal influence. As hydrology in this area has been modified, habitats have shifted to more of a floatant marsh type, resulting in increased susceptibility to tidal energy and storm damages. Habitat shifts and hydrologic stress reduce marsh productivity, a critical component of vertical accretion in wetlands. Disturbances to the landscape from hurricanes and herbivory have resulted in the breakup and export of large sections of interior marsh. The ensuing erosion creates water turbidity within the interior ponds which coupled with increased pond depth, decreases the coverage of submerged aquatic vegetation. As evidenced from aerial photography the project area is part of a larger feature of weakened interior marsh from the project area south and west to include those marshes south of Pecan Island. If left to deteriorate, the project area may eventually open Vermilion Bay into Freshwater Bayou.

Goals:

1. Create 337 acres of brackish marsh in recently formed shallow open water
2. Nourish 84 acres of existing brackish marsh
3. Create 30,000 feet of terraces (22 acres)
4. Increase freshwater and sediment inflow into interior wetlands
5. Improve project area hydrology

Proposed Solutions:

Create 337 acres and nourish 84 acres of brackish marsh with a target elevation of +1.4' NAVD using about 2.5 million cu yd from a borrow area located in Vermilion Bay; although not considered "external" source of material, significant sediment inflows into this area may result in some borrow area infilling.

Create approximately 30,000 feet of terraces in shallow open water areas to reduce pond enlargement. Terraces would be constructed to +2.5' NAVD, with a 20' crown width and planted with brackish marsh species. Terrace construction is estimated to create about 22 acres of wetland.

Encourage additional freshwater and sediment inflow by

- Conducting limited excavation of the northern reach of Cole's Bayou and an existing access canal to improve water inflow,
- Installing four sets of three, 36" flap-gated culverts at locations in the perimeter of the project area, and
- Installing five sets of two, 24" flap-gated culverts at interior locations.

These conceptual features are proposed to encourage intake of fresher, sediment-rich water from the north and provide drainage from the south while still allowing limited perimeter control in cases of excessive drought and high salinity spikes in the Vermilion Bay area. It is anticipated that all structures will remain fully open except during extreme events. Stabilization of the two perimeter structure locations along the upper reaches of Freshwater Bayou is proposed to maintain structure function in light of excessive vessel-generated boat wakes.

Preliminary Project Benefits:

1. *What is the total acreage benefited both directly and indirectly?* Throughout the area of direct benefits, approximately 443 acres of brackish marsh would be created from initial dredged material placement and terrace construction. In addition, over the 20-year project life, indirect benefits may occur over some portions of the 4,400 project area, including 233 acres for the terrace field, as a result of freshwater and sediment introduction.
2. *How many acres of wetlands will be protected/created over the project life?* Assuming a 50% reduction in the background loss rate of -0.3%/year (LCA), terracing and marsh creation would result in 352 net acres after 20 years. There was no land loss rate applied to construction of terraces (at the borderline of the chenier plain). However, as evidenced in the photography pre- and post- 2008, project specific loss rates may be much higher; i.e. similar to the trend observed with the PPL 19 Freshwater Bayou Marsh Creation Project, extended boundary. In the event that benefits associated with the freshwater and sediment introduction are calculated, there could be a minor increase in anticipated net acres.
3. *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life?* A 50% loss rate reduction is assumed for the terraces and marsh creation (from -0.3%/year to -0.15%/year). In the event that benefits associated with the freshwater and sediment introduction are calculated, there could be a minor decrease in anticipated loss rates for some portion of the 4,400 acre project area.
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 provide positive impacts to both critical (i.e., Freshwater Bayou Canal) and non-critical (i.e., minor oil and gas facilities) infrastructure. In addition, Audubon Society, Rainey Refuge borders the project area to the south, and it 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?* This project would provide synergistic effects with the Little Vermilion Bay Sediment Trapping Project (TV-12) and several projects addressing wetland loss and protection in this area (TV-11, TV-11b, ME-4, and ME-13).

Identification of Potential Issues:

There are potential issues with oysters, oil and gas infrastructure, and O & M.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$20,803,566. The fully-funded cost range is \$25M - \$30M.

Preparer of Fact Sheet:

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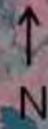
Rachel Sweeney, NOAA Fisheries Service (225) 389-0508, rachel.sweeney@noaa.gov

COLE'S BAYOU RESTORATION



-  Marsh creation and nourishment (421 acres)
-  Terraces (25,000')
-  Set of 3, 36" flap-gated culverts
-  Set of 2, 24" flap-gated culverts
-  300' rock armour at 2 culvert locations
-  Excavation to improve water & sediment inflow (4,700' Coles Bayou and 5,600' existing access canal)

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PPL21 PROJECT NOMINEE FACT SHEET
March 31, 2011

Project Name:

Cameron Meadows Marsh Creation and Wetland Restoration Project

Coast 2050 Strategy:

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

Project Location:

Region 4, Calcasieu/Sabine, Cameron Parish, approximately 18 miles West of Cameron, 5 miles north of Gulf of Mexico shoreline, northeast of Johnsons Bayou, immediately 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 of the marsh surface 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 after Hurricane Ike has resulted in the conversion of intermediate to brackish emergent marsh to approximately 7,000 acres of shallow open water. In addition to these direct losses, significant interior marsh loss has resulted from saltwater intrusion and hydrologic changes associated with storm damage and blocked drainages. Habitat shifts and hydrologic stress reduce marsh productivity, a critical component of vertical accretion in intermediate wetlands. It is unlikely that many of these areas will recover unaided.

Goals:

- (1) Create approximately 362 acres of marsh with dredge material and terraces,
- (2) Restore coastal marsh habitat, and
- (3) Reverse the conversion of wetlands to shallow open water in the project area through reestablishment of hydrologic connectivity.

Proposed Solutions:

Construct 350 acres of marsh in one or two areas utilizing dredge material from the Gulf of Mexico. Target marsh elevation is +1.4 feet NAVD 88. Construct 20,000 linear feet of earthen terraces (or 12 acres), oriented in such a way as to reduce wind generated wave fetch. Terraces would be constructed with +2.5 feet NAVD 88, 15 feet crown width and planted. Project features would include cleaning out over 30,000 linear feet of canals to re-establish drainage patterns filled in as a result of the hurricanes. In addition, the project would build upon an existing HD model to assist in the identification of those canal reaches that need clearing to

restore this system. Water depths throughout the project area average 0.6-1.0 feet deep. In addition, the marsh creation areas would be planted with appropriate species of wetland vegetation to reestablish the plant productivity.

Preliminary Project Benefits:

- 1) *What is the total acreage benefited both directly and indirectly?* The marsh creation and terrace footprint area is 362 acres. The overall project boundary including areas benefited from drainage improvements could total over 18,000 acres.
- 2) *How many acres of wetlands will be protected/created over the project life?* A 50% loss rate reduction in the background loss rate of -1.18% (1985-2009, LCA, Magnolia Subunit Polygon) terracing and marsh creation would result in 323 net acres after 20 years. Note that recent losses are attributed to the 2005 and 2008 hurricanes, and it is anticipated that the background loss rate could increase. In the event that benefits associated with the hydrologic connectivity are calculated, there could be an increase in anticipated net acres, but there would be some direct marsh impacts with disposal of canal debris/sediment.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life?* A 50% loss rate reduction is assumed for the marsh creation (from -1.18%/year to -0.59%/year). No loss was applied to the terraces. In the event that benefits associated with the hydrologic connectivity are calculated, there could be a minor decrease in anticipated loss rates for some portion of the 18,000 acre project area.
- 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 provide positive impacts to non-critical (i.e., minor oil and gas facilities) infrastructure. Two oil and gas companies have facilities and pipelines in this area, which would benefit from an increase in marsh acreage. The loss of wetlands in this area exposes those facilities to open water wave energies resulting in expensive damages and oil spills. Protecting/creating wetlands in this area may assist in reducing storm damages to oil and gas infrastructure. In addition, US Fish and Wildlife Service's Sabine Refuge borders the project area to the north, and it 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?* This project would provide a synergistic effect with the Holly Beach Sand Management Project (CS-31), which constructed approximately 300 acres of beach dunes on the Gulf of Mexico shoreline. The project would also provide a synergistic effect with the East Sabine Lake Hydrologic Restoration Project (CS-32), by increasing marsh acreage south of the CS-32 project.

Identification of Potential Issues:

Pipelines/utilities and operations and maintenance are potential issues. The landowner has offered \$1M as a cost share.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$24,436,712. The fully funded cost range is \$35M - \$40M.

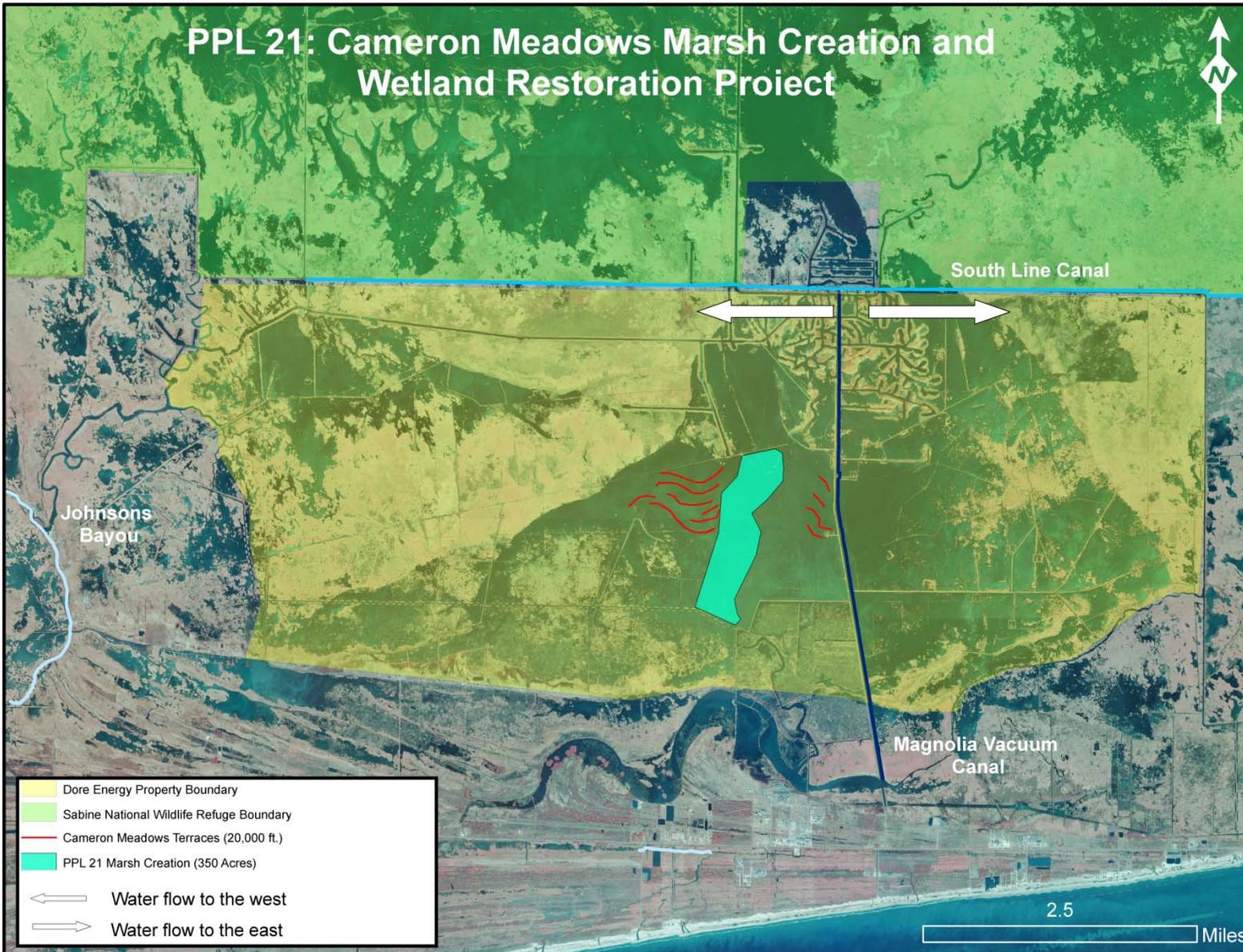
If approved for construction, the landowner has pledged \$1,000,000 towards Phase 2, construction, of this project.

Preparer of Fact Sheet:

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PPL 21: Cameron Meadows Marsh Creation and Wetland Restoration Project



- Dore Energy Property Boundary
- Sabine National Wildlife Refuge Boundary
- Cameron Meadows Terraces (20,000 ft.)
- PPL 21 Marsh Creation (350 Acres)
- Water flow to the west
- Water flow to the east

2.5

Miles

PPL21 PROJECT NOMINEE FACT SHEET
March 31, 2011

Project Name:

Oyster Bayou Restoration

Coast 2050 Strategy:

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

Region 4 Ecosystem Strategy 6. Use dedicated dredging or beneficial use of sediment for wetland creation or protection

Project Location:

Region 4, Calcasieu-Sabine Basin, located west of the Calcasieu Ship Channel and south of the west fork of the Calcasieu River

Problem:

The project would restore marsh to offset levels of historic and ongoing wetland loss. Based on LCA, Subunit Mud Bayou polygon data from 1985 to 2009, landloss is -0.15% per year for the project area. Saltwater intrusion, drought stress, and hurricane induced wetland losses have resulted in interior marsh breakup and coalescence of Oyster Lake with interior water bodies.

Goals:

The project would create between 300 to 400 acres of saline marsh and potentially 10 to 25 acres of ridge restoration.

Proposed Solutions:

Sediment would be mined from offshore and placed to create 300 acres of saline marsh. Approximately 100 acres of marsh may be nourished. Disposal areas have not yet been selected; however, conceptual disposal areas could include those depicted on the project map. Post 2008 field data are needed to refine site selection and input from the landowners, Parish, and agencies is welcomed. Disposal would be semi-confined if feasible; however, cost estimates assume complete containment. Although marsh creation via dedicated dredging of sediment would be the primary technique, opportunities exist to include some terracing where warranted. Twenty thousand (20,000) feet of terraces would be constructed. Terrace construction equates to approximately 10 additional acres of marsh creation. Ridge restoration along Mud Pass is a potential restoration feature. As conceptualized, Mud Pass would be dredged by marsh buggy to minimize intrusion by equipment and a relatively low ridge (+4 ft NAVD 88) would be constructed. The conceptual ridge is 10 acres, but may be scalable up to 25 acres and would support a scrub/shrub community. Lastly, the cleanout of canals along Highway 82 to facilitate any surplus water delivery from First Bayou to the Oyster Bayou area via the water control structures installed by the Gravity Drainage District could be considered through further coordination with the landowners as long as to not affect water introduction into Mud Lake. The amount potentially needing cleanout warrants field verification.

Preliminary Project Benefits:

- 1) *What is the total acreage benefited both directly and indirectly?* The project area, comprised of marsh creation and nourishment, terracing, and ridge restoration, is 644 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 -0.15%/year terracing, marsh creation, and nourishment would result in 307 net acres after 20 years.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life?* A 50% loss rate reduction is assumed for the marsh creation and marsh nourishment. No loss was applied to the terraces. No gain or loss was assumed for the ridge because it would be a conversion of one habitat to another (i.e., constructed on marsh).

- 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, 10 acres of ridge habitat would be restored along Mud Bayou.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?* The project would provide positive impacts to non-critical (i.e., minor oil and gas facilities) infrastructure. Oil and gas companies have facilities and pipelines in this area, which would benefit from an increase in marsh acreage. The loss of wetlands in this area increases the vulnerability of infrastructure to wave energy. Protecting/creating wetlands in this area may also assist in reducing storm damages to oil and gas infrastructure.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* This project would provide a synergistic effect with the East Mud Lake Marsh Management Project (CS-20) to the west-northwest side of the proposed project and the North America Wetlands Conservation Act project constructed by Ducks Unlimited.

Identification of Potential Issues:

Pipelines and related oil and gas infrastructure (including roads) is within the project area and would need to be avoided by dredge/fill activities.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$24,141,477. The fully funded cost range is \$30M - \$35M.

Preparer(s) of Fact Sheet:

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PPL 21: Oyster Bayou Map



PPL21 PROJECT NOMINEE FACT SHEET
29 March 2011

Project Name:

Front Ridge Freshwater Introduction and Marsh Creation Project

Coast 2050 Strategy:

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

Regional Strategy 6: *Use dedicated dredging or beneficial use of sediment for wetland creation or protection.*

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 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 sub basins. Based on LCA, Subunit Rockefeller/Pecan Island polygon data from 1985 to 2009, landloss is -0.43% per year for the project area.

Goals:

The project goal is to restore/improve hydrologic conditions by allowing water to drain from the Lakes Subbasin south across Highway 82 and Front Ridge into the Chenier Subbasin. Initially, the project would also create/nourish approximately 700 acres of emergent marsh. Those acres and additional existing marsh acres would benefit from the introduced freshwater from the Lake Subbasin.

Proposed Solutions:

- Approximately 700 acres of emergent marsh would be created/nourished with dedicated dredge material from the Gulf of Mexico. The exact location of those acres would be determined from the approximately 950 acres identified on the attached map.
- Approximately 18,000 feet of terraces would be constructed and would direct water to the marsh creation sites.
- Conventional structures demonstrate the projects benefits and are applicable; however structure type and design would be completed during E & D and target the most appropriate flow rates.

Preliminary Project Benefits:

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

The total project area is 6,172 acres.

- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 310 ac of brackish marsh will be created with terracing and marsh creation. An additional 400 acres of marsh would be nourished. Half of the background loss rate for this area (-0.43%/yr) was applied to the created/nourished acreage and no loss was applied to the terrace acreage (approximately 10 acres). An estimated 67 net acres would result from the Lake Subbasin water introduction (Boustany Model). Accordingly, (304 + 67 + 10) approximately **381 net acres of marsh would result over the project life.**

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 25-49% 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 and protect the natural Front Ridge Cheneire.

- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will have a net positive effect on infrastructure associated with the Front Ridge Cheneire and will improve drainage from north to south across Highway 82.

- 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 the Pecan Island Terracing project (ME-14).

Identification of Potential Issues

Potential issues that have been identified include O&M and pipelines/utilities.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$35,131,821. The fully-funded cost range is \$40M-\$50M.

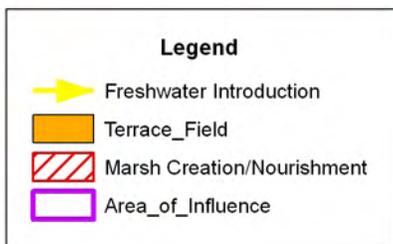
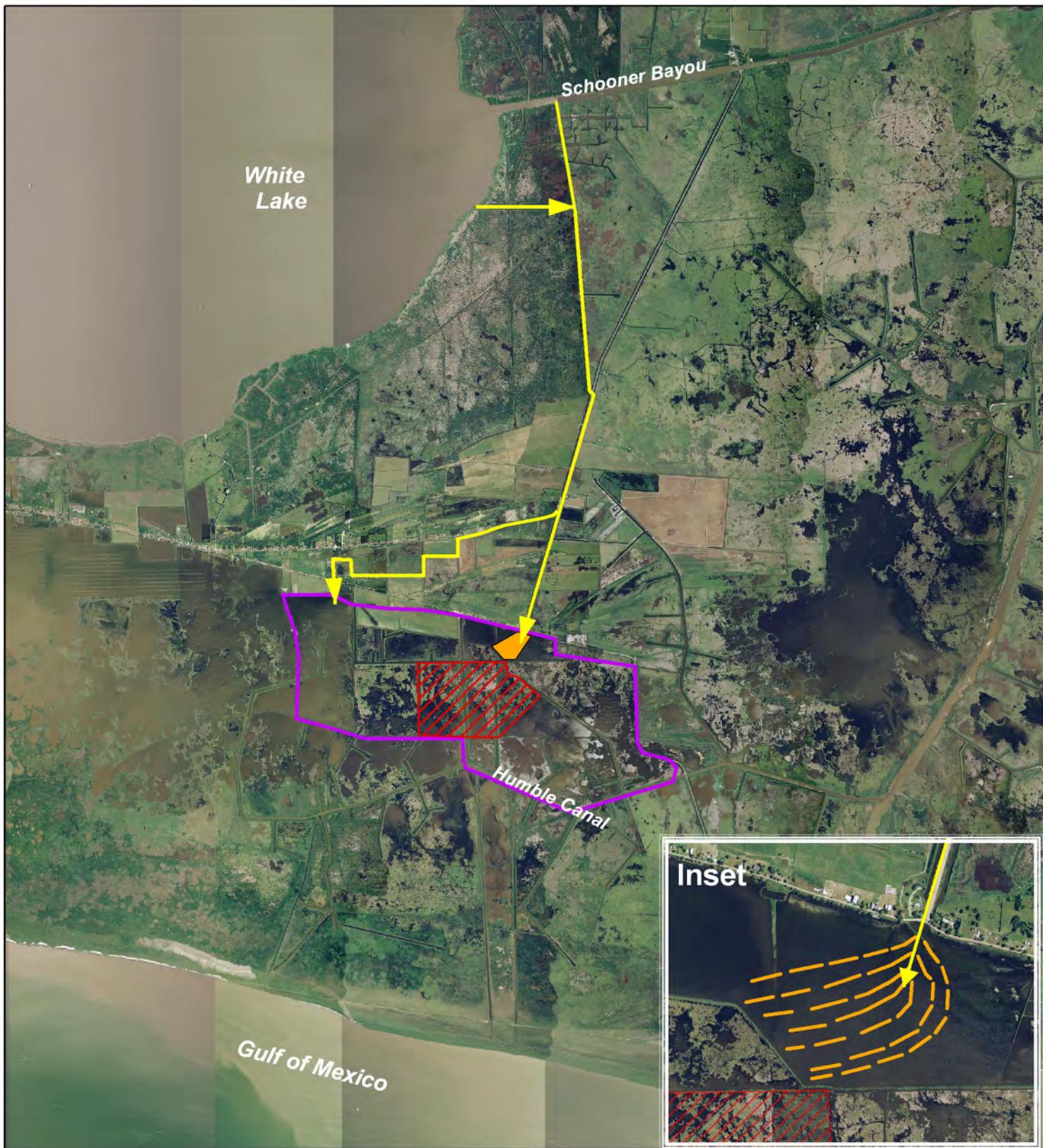
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**Front Ridge
Freshwater Introduction and
Marsh Creation
Vermilion Parish, Louisiana
PPL 21**

PPL21 PROJECT NOMINEE FACT SHEET
31 March 2011

Project Name:

Southwest White Lake Shoreline Protection

Coast 2050 Strategy:

Stabilize Grand Lake and White Lake shorelines

Project Location:

Region 4, Mermentau Basin, Vermilion and Cameron Parish, White Lake Mapping Unit, southwest shoreline.

Problem:

This portion of the White Lake shoreline is experiencing significant erosion of approximately 15 ft/yr (ME-22 Design Report). In some areas the historic lake rim is completely lost and interior organic soils are exposed to high wave energies from the lake and interior water bodies.

Goals:

The project goal is to protect and create approximately 291 acres (190 acres protected, 101 acres created) of emergent marsh using rock breakwater shoreline protection, terraces, and marsh creation sediment from constructed floatation channels.

Proposed Solutions:

Shoreline protection of the lake rim is expected to preserve a major amount of marsh by 2050. According to the ME-22 Design Report, project surveys and geotechnical investigations have revealed that sufficient material should be available from dredging the floatation channel to create marsh by raising the substrate behind the rock dike to marsh elevation. This project would complete the protection of the southern shoreline of White Lake by constructing approximately 98 acres of marsh behind 27,540 linear feet (6.7 miles) of rock breakwater shoreline protection and approximately 24 acres from the 45,000 linear feet of terracing.

Preliminary Project Benefits:

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

The total project area is approximately 77 acres created + 190 acres protected + 620 acres terrace field = **887 total acres**.

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

Approximately **291 ac of marsh will be protected/created over the project life**.

According to the ME-22 fact sheet the recommended best fit alignment created 172 acres of marsh adjacent to the 61,500 linear feet of constructed breakwater. A similar design would result in approximately 77 acres adjacent to the proposed 27,540 linear feet $(172/61500)(27,540) = 77$ acres.

The ME-22 Design Report estimated a shoreline loss rate of 15 ft/yr. Using that rate the proposed project would protect $(27,540)(15)(20)/43560 = 190$ acres.

Using a terrace with a 15 ft. crown width and 4 feet additional wetland area on each side the 45,000 linear feet would create $(15+8)(45,000)/43,560 = 24$ 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 land loss rate reduction throughout the area of direct benefits will be greater than 75% 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 stabilize the southwest shoreline of White Lake.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The proposed project will reduce the chances of White Lake breaching into interior ponds and/or canal systems that tie into the Grand Lake system and preserve a significant amount of marsh by 2050.
- 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 the constructed ME-22 and ME-16 CWPPRA project by providing protection to the freshwater introduction channel.

Identification of Potential Issues

Potential issues that have been identified include O&M and pipelines/utilities.

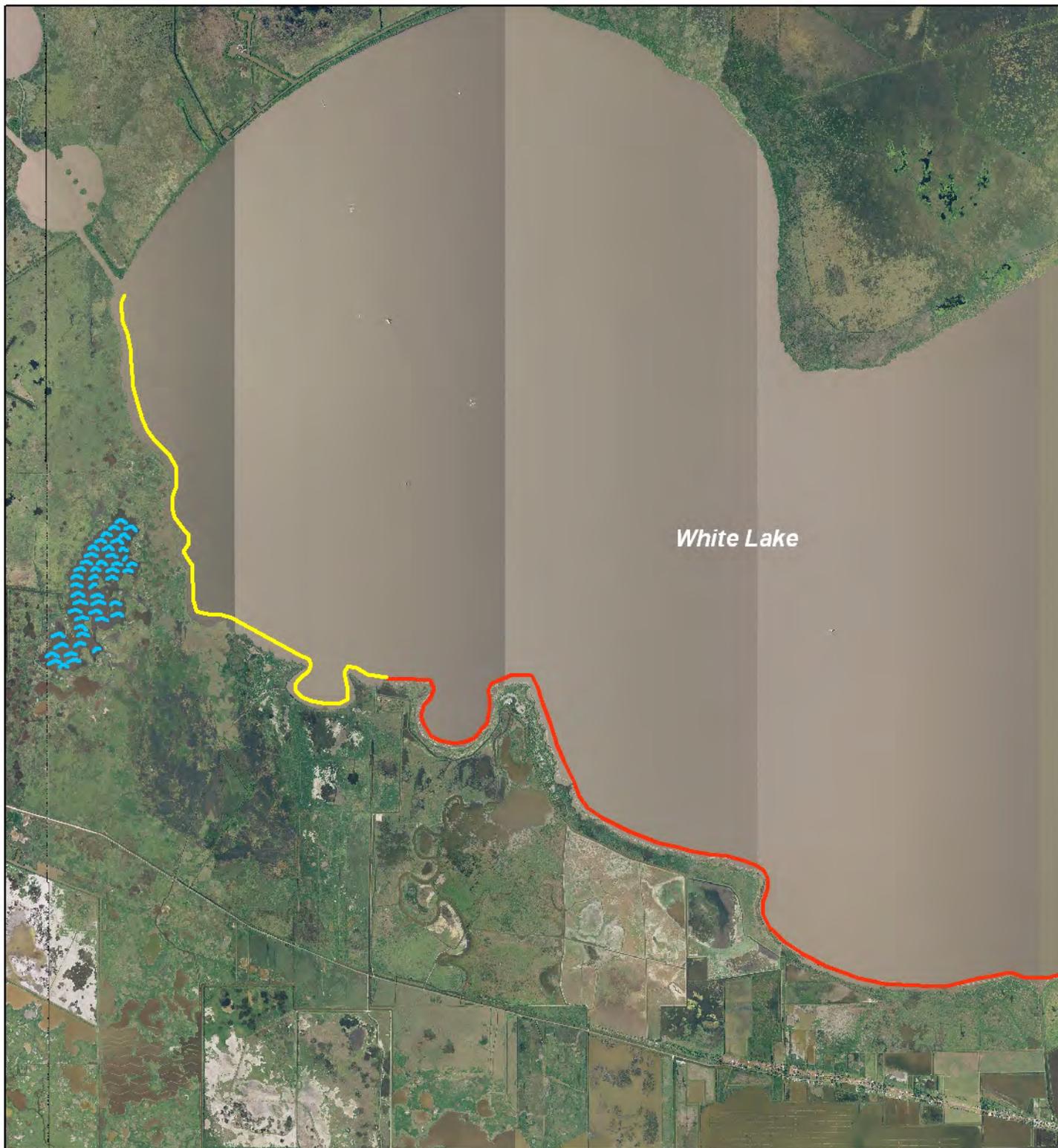
Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$20,173,732. The fully-funded cost range is \$40M-\$50M.

Preparer(s) of Fact Sheet:

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White Lake

Southwest White Lake Shoreline Protection
Vermilion Parish, Louisiana
PPL 21

Legend

- Proposed Breakwaters
- ME-22_Breakwaters
- Terraces



PPL21 PROJECT NOMINEE FACT SHEET
March 29, 2011

Project Name

Coastal Wetland Restoration by Backfilling Canals Coastwide

Coast 2050 Strategy

Coastwide Strategy: Restore/sustain marshes, Restore Swamps

Project Location

Coastwide, but one likely location is Region 2, Barataria Basin, Jefferson Parish, Jean Lafitte National Historical Park and Preserve. Numerous other possible locations.

Problem

Canal dredging has contributed significantly to land loss in Louisiana, yet little has been done to reverse the damage caused by canals and spoilbanks. Canals have turned marsh and swamps to open water, and spoil banks have replaced wetlands with an upland environment. Spoil banks also restrict water flow above and below the wetland surface and cause increased periods of flooding and drying of the wetlands behind them. Increased flooding can lead to stress and mortality of wetland vegetation, while drying the soil increases subsidence through oxidation of organic matter. These hydrologic alterations also limit sediment deposition in the adjacent wetlands. In addition to these effects, canals can also facilitate saltwater intrusion into these wetlands, and spoil banks retain saltwater on the landscape after storm surges.

Goals

- Backfill approximately 51 miles of canal and spoil bank coastwide by year 5¹
- Convert approximately 908 acres of upland spoil bank habitat to emergent wetlands by year 5²
- Convert approximately 51 acres of open water (canal) to emergent wetlands by year 5³
- Achieve a net benefit of approximately 891 ac over 20 years through conversion of spoil bank and canal to emergent wetland habitat⁴
- Convert approximately 455 acres of open water (canal) to shallow water habitat by year 5⁵
- Increase SAV cover from 10% to 59% in 456 acres of open water by year 5⁶
- Convert approximately 1414 acres of canal and spoil bank to emergent wetlands or shallow water habitat by year 5⁷
- Partially restore hydrology over 57,400 ac of emergent wetlands, resulting in a 5% reduction in the landloss rate, or a net increase of 83 ac over 20 years⁸
- Achieve a total net benefit of approximately 974 ac of emergent wetlands over 20 years⁹

Proposed Solutions

This project will backfill oil and gas, pipeline, and residential development canals at several strategic locations across coastal Louisiana. Backfilling will involve removing the existing spoil banks and disposing of the dredged material in the canals. While there is not sufficient sediment volume remaining in the spoil banks to completely fill the canals to adjacent wetland elevation, typically there is enough to significantly shallow the canals, and over time some additional filling to the target elevation is observed. Those areas returned to adjacent wetland elevation rapidly revegetate without the need for planting. In addition, removal of the spoil banks will restore natural hydrology across the wetland surface over a larger area in the vicinity of the canals.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
We estimate this project will benefit approximately 83,414 ac directly and indirectly.¹⁰
- 2) *How many acres of wetlands will be protected/created over the project life?*
We estimate that approximately 974 net ac of emergent wetlands will be protected/created over the project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50-74% over the project's life.¹¹
- 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?*
It is unlikely that any specific project features will maintain or restore structural components of the coastal ecosystem.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project may have a net positive effect on various critical and non-critical infrastructure, via protection afforded by new marsh and shallow water habitat. In addition, filling of the canals will make them less efficient conduits of flows, including storm surges.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
Since this is a coastwide project, and therefore we don't know exactly where specific backfilling projects may be located, we cannot predict at this time whether or not this project will be synergistic with others. However, there would seem to be a reasonable probability this may occur.

Identification of Potential Issues:

The proposed project has the following potential issues: land rights, pipelines.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$26,000,000. The fully-funded cost range is \$30M-\$35M.

Preparer(s) of Fact Sheet:

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Demonstration Project Nominees

Coast-wide	DEMO	Alternative to Manual Planting
Coast-wide	DEMO	Bioengineering Solutions using Fascines and Coir Mattresses
Coast-wide	DEMO	Deltalok
Coast-wide	DEMO	Habitat Enhancements through Vegetation Plantings Using Gulf Saver Bags
Coast-wide	DEMO	The Wave Robber

CWPPRA PPL 21 Nominee Demonstration Projects

Demonstration Project Name	Meets Demonstration Project Criteria?	Lead Agency	Estimated Cost plus 25% contingency **	Technique Demonstrated
Deltalok	Yes	COE	\$1,025,703	Evaluate the effectiveness of the Deltalok® Terra-Soft Block™ (TSB) System as alternative method to traditional shoreline protection methods, combining the structural stability of rip rap with the ecosystem benefits of vegetative earthen banks.
Automated Marsh Planting	Yes	COE	\$2,000,000	Evaluate the potential of dredged material transport of plant materials to planting site via dredge pipeline as an alternative planting method.
Habitat Enhancements through Vegetation Plantings Using Gulf Saver Bags	Yes	USFWS	\$632,231	Evaluate the effectiveness of Gulf Saver Bags to stabilize an eroding shoreline and establish marsh vegetation.
Autoclaved Aerated Concrete for the Coastline	Yes	COE	-----	Project Withdrawn
Bioengineering Solutions using Fascines and Coir Mattresses	Yes	EPA	\$2,000,000	Evaluate the effectiveness of using natural materials to reduce shoreline retreat along bay and lake areas that have experienced excessive amounts of erosion. In addition, evaluate the ability to trap sediment and accrete land behind the shoreline protection features.
The Wave Robber	Yes	NMFS	\$967,113	Evaluate the effectiveness of the Wave Robber system as an alternative method of shoreline protection equivalent to traditional methods, while trapping ambient sediments to facilitate expansion of emergent marsh.

04/01/11

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

PPL21 DEMONSTRATION PROJECT NOMINEE FACT SHEET

30 March 2011

Demonstration Project Name: Automated Marsh Planting (formerly called “Alternative to Manual Planting”)

Coast 2050 Strategy(ies):

Coastwide: Dedicated dredging for wetland creation; Wetlands Vegetation Plantings

Regional: Dedicated delivery of sediment for marsh building by any means feasible; Habitat Diversification and Vegetation Planting

Potential Demonstration Project Location(s):

This demonstration project could be done at any dedicated or beneficial use of dredged material site creating a marsh platform.

Problem:

Though wetland restoration with grass plugs is being done in some areas, success of re-establishing vegetation is limited in many challenged sites. New technologies and applications are needed to achieve greater stabilization, higher survivability, and integration of diverse species back into these areas. Hand planting is costly and time consuming.

Goals:

The goal of this project is to demonstrate a possible alternative to manual plantings at dredged material placement sites. *Specific goals:* 1) To test if “plant parts” (not limited to rhizomes, seeds, stolons, stem cuttings, etc.) can survive passing through a dredge pipe; 2) To determine if this method gives an acceptable distribution of plants; and 3) To determine the optimal time to input the “plant parts” for maximum growth and distribution.

Proposed Solution:

Install a hopper on the dredge pipe allowing “plant parts” to be carried to the dredged material placement site with the dredged material through the pipeline. The demo would consist of 3 replicates of 4 separate concepts/equal size test areas/cells: *Concept 1* – three flagged-off areas of the dredged material placement site to be the “natural recruitment” area (no dikes required); *Concept 2* – three flagged-off areas of the dredged material placement site to be the typical “hand planted” area (no dikes required); *Concept 3* – three cells having dredged material pre-loaded thru the dredge pipe with “plant parts” at “time/dredged quantity interval 1”; and *Concept 4* – three cells having dredged material pre-loaded thru the dredged pipe with “plant parts” at “time/dredged quantity interval 2”.

Project Benefits:

Potential project benefits include:

- 1) reduce the cost of planting
- 2) increase habitat value.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$2,000,000.

Preparer(s) of Fact Sheet:

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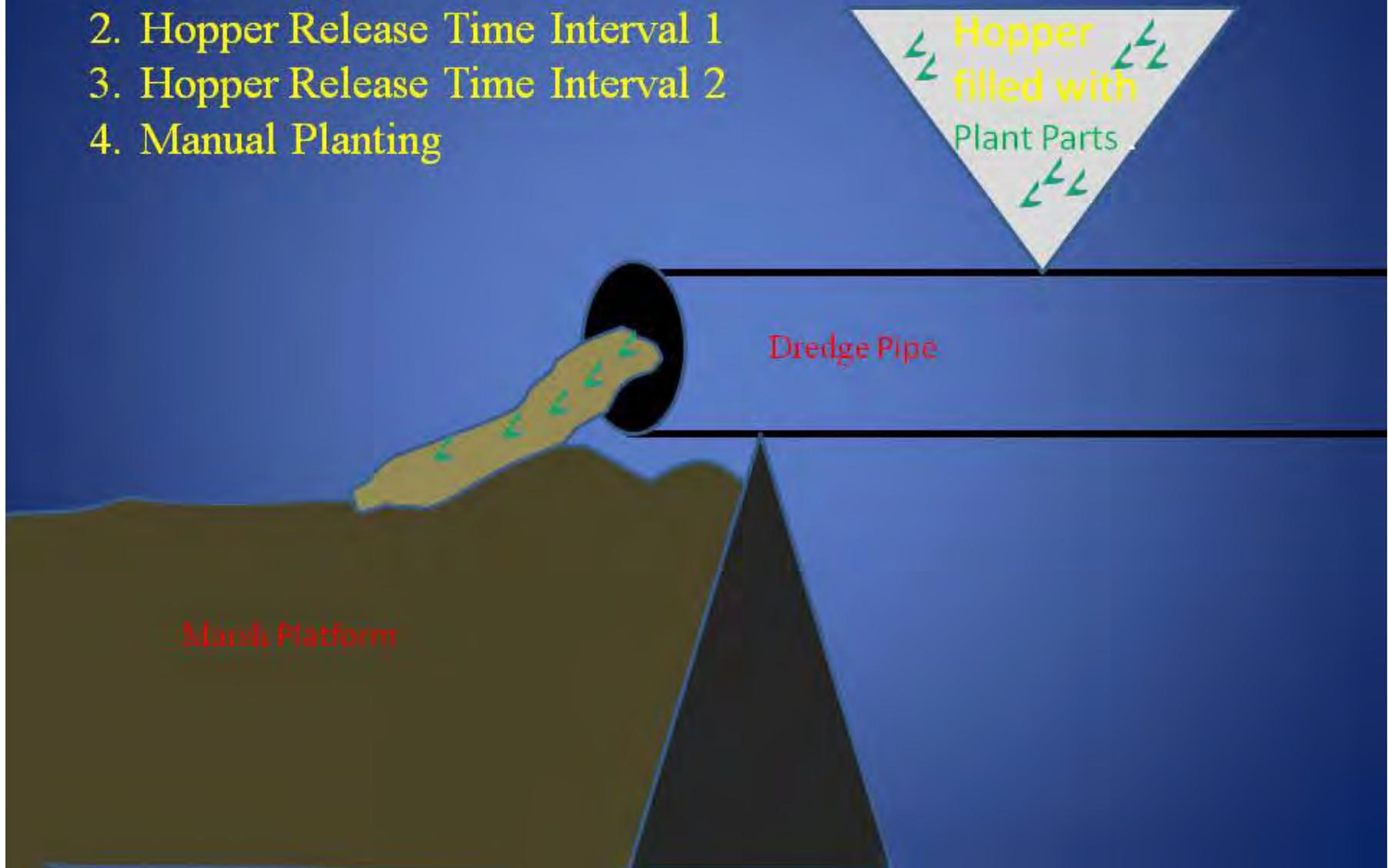
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Tests (3 replicates):

1. No Planting
2. Hopper Release Time Interval 1
3. Hopper Release Time Interval 2
4. Manual Planting



PPL21 DEMONSTRATION PROJECT NOMINEE FACT SHEET

March 29, 2011

Demonstration Project Name: Bioengineered Slope Stabilization and Land Building

Coast 2050 Strategy(ies):

- Management of Bay/Lake Shoreline Integrity
- Vegetative Planting
- Stabilization of Major Navigation Channels

Potential Demonstration Project Location(s):

Coast Wide

Problem:

What problem will the demonstration project try to solve?

The project would demonstrate a series of methodologies for using natural materials to reduce shoreline retreat along bay and lake areas that have experienced excessive amounts of erosion. The project will also demonstrate the products ability to trap sediment and accrete land behind the shoreline protection features.

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

Shoreline erosion rates have been measured in excess of 30 feet per year in areas across the Louisiana coast. The need for stabilization in critical areas was noted in all four Coast 2050 regions.

Goals:

What does the demonstration project hope to accomplish?

Proposed Solution:

Describe demonstration project features in as much detail as possible.

The Bioengineered Shoreline Stabilization and Land Building project is a multi-faceted shoreline protection and restoration, marsh protection, restoration, and enhancement system that would absorb and deflect wave energy, protect and enhance vegetation, protect and create emergent marsh, trap sediment and provide nursery habitat.

1. The stabilization and protection materials have a variety of application possibilities that can be adjusted to best suit the problem area to best restore and enhance shorelines and marshes in many different types of coastal environments.
2. The coir material that could be used is available planted at various densities but is also available unplanted so that native vegetation could be utilized.
3. 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.
4. A staggered terrace-like orientation can break up wave action, reducing turbidity and allow sediment time to settle, potentially accreting and creating emergent marsh.

Project effectiveness would be monitored and evaluated after construction according to the CWPPRA workgroups' recommended treatments established for this product in Phase-1. The conceptual treatments are shown in Figure 1.

Project Benefits:

The proposed project would:

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

Preliminary Construction Costs:

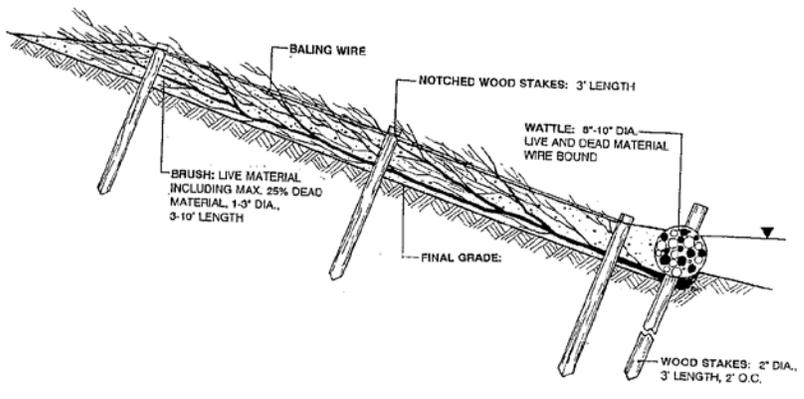
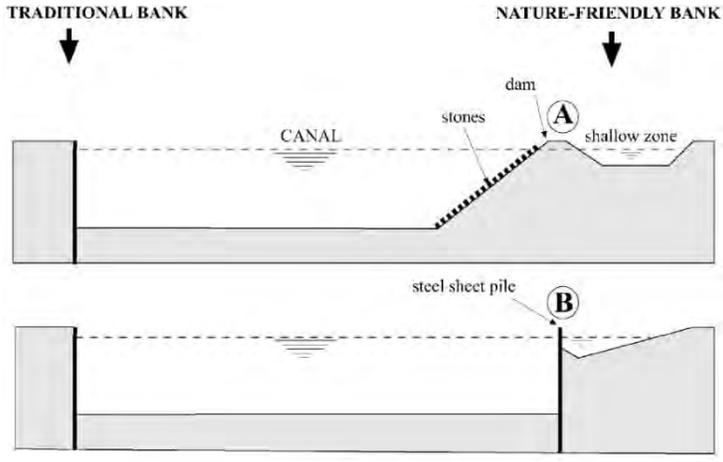
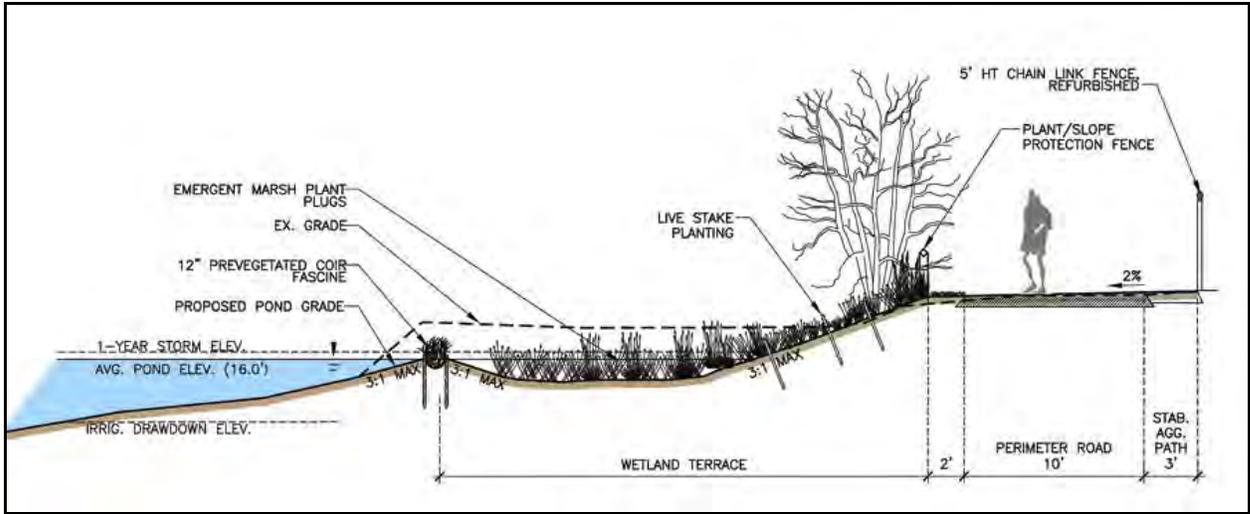
The estimated construction cost including 25% contingency is \$2,000,000.

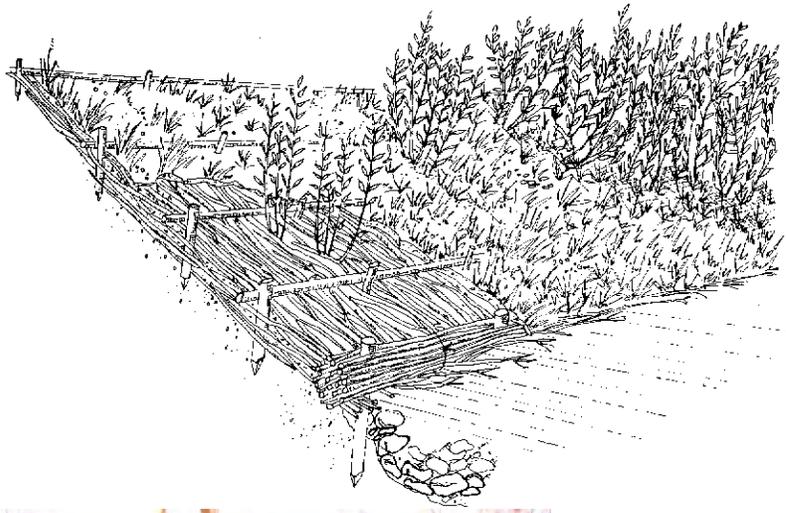
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PPL21 DEMONSTRATION PROJECT NOMINEE FACT SHEET

30 March 2011

Demonstration Project Name

Deltalok® Coastline Stabilization

Coast 2050 Strategy

Coastwide Strategy: Maintain, Protect or Restore Ridge Functions; Vegetation Planting;
Regional Strategies: Protect Bay, Lake and Shorelines; Restore and Maintain Barrier Islands & Critical Land Forms

Project Location

Coastwide

Problem

Marsh and Wetland loss throughout coastal Louisiana . The loss of vegetation has accelerated the rate of erosion, and reducing this loss is proving difficult and costly. Shore stabilization is crucially needed to prevent the eroding marsh footprint. Though wetland restoration with grass plugs is being done in some areas re-establishing success but is limited in its scope. Shore stabilization is still needed to prevent the eroding marsh footprint.

Proposed Project Features

Shoreline protection and vegetation plantings utilizing the The Deltalok® Terra-Soft Block™ (TSB) System. It is a completely new category of civil engineering products, as it is a highly adaptive soft material product that exhibits hard material capabilities. These TSBs serve two purposes: stop further erosion; provide a stable foundation for growth of vegetation. TSBs will blend with the local environment to leave a natural finish (unlike riprap or other hard material), and follow the natural contours of the marsh. Once built, the Deltalok® shoreline would be planted with indigenous vegetation plugs. The TSBs offer the structural integrity of hard structure, and the vegetation of an earthen berm.

Goals:

The goal of this project is demonstrate the successful use of the Deltalok® TSB System to both armor shorelines and ridges, but server as a viable planting ground for marsh vegetation:

Proposed Solution:

Constructing 3 -500ft Shoreline Protection treatments using the Deltalok® Terra-Soft Block™ (TSB) System, in 3 different dynamic locations along the coast, totaling approximately 4500ft.

Project Benefits:

- 1) Reduce the cost of shoreline stabilization (2/3 the cost of Riprap)
- 2) Rapid and efficient effective construction
- 3) Durable, resists differential settlement and seismic activity
- 4) Achieves 100% system strength on installation, does not rely on root strength/reinforcement

Construction Costs

The estimated construction cost including 25% contingency is \$1,025,703.

Preparer of Fact Sheet

Lauren Averill, USACE, 504-289-6136, lauren.e.averill@usace.army.mil

Construction

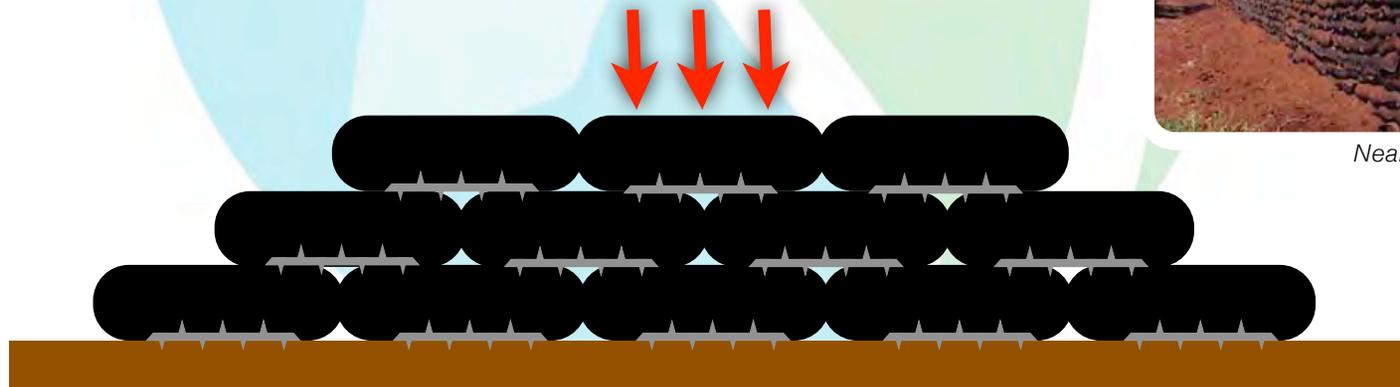
Deltalok® reinforced slope



- Surface is leveled
- A Deltalok® Interlocking Plate secures first layer of Terra-Soft Blocks to the ground
- Build wall like a block & mortar wall
- Tamp TSB's down to engage with interlocking plate



Near vertical Deltalok® wall



Building a Deltalok® TSB Wall



Coastal Erosion Control - Newcastle Island, BC Canada

PPL21 PROJECT NOMINEE FACT SHEET
March 31, 2011

Demonstration Project Name

Habitat Enhancements through Vegetation Plantings using Gulf Saver Bags

Coast 2050 Strategy

Coastwide Common Strategy- Wetlands Vegetation Plantings
Benefits: Habitat Diversification and Vegetation Planting

Potential Demonstration Project Location

Region 2; Mississippi River Basin; Pass a Loutre Wildlife Management Area

Problem

Louisiana's coastal marsh continues to disappear at the rate of 50 acres a day from erosion. This equates to the loss of an area about the size of one football field every 30 minutes. The years of impact from storms, shipping, dredging, flooding, nutrient run off, and now the recent oil spill has indirectly and directly affected untold numbers of plant and animal species and diminished the overall diversity of this unique and complex ecosystem.

Though wetland restoration with grass plugs is being done, success is limited in many challenged sites. New technologies and applications are needed to achieve greater stabilization, higher survivability, and integration of diverse species back into to these areas, particularly where invasive species like roseau cane (*Phragmites*) have become excessively dominant.

Goals

The goal of this project is to demonstrate the applicability of Gulf Saver Bags for long term stabilization and reestablishment of coastal wetlands. Specifically, the project goal is to demonstrate the effectiveness of Gulf Saver Bags to provide a more efficient, reliable, and cost effective vegetative planting technique. A secondary goal is to demonstrate the ability of Gulf Saver Bags to establish black mangrove areas for rookeries and storm protection.

Proposed Solution

Install a variety of applications at critical wetland areas using Gulf Saver bags to demonstrate the relative success, applicability, and cost effectiveness of this method. The bags would be planted with a diverse selection of native marsh grasses or black mangrove and deployed at critical sites. Black mangrove would be planted in bags at sites where increased nesting sites and habitat for birds and greater shoreline protection are needed. The plant materials could be grown by local grassroots organizations and school groups as part of their wetland education programs and all deployment efforts would include an environmental education and awareness component.

Application sites would be selected based on best or typical conditions that support the various species to be tested. Treatments would be applied to allow statistical testing of applications. It is recommended that treatments be monitored immediately after deployment, and at 2 and 6 month intervals to ascertain success of the plantings. The Pass a Loutre Wildlife Management Area in Venice, Louisiana is recommended as the general demonstration site due to its potential for

diverse applications, and availability of on-site State field personnel to assist with regular monitoring.

The Gulf Saver Bag is a package of native marsh grasses with its own supply of totally natural nutrients and billions of oil eating micro-organisms to support, feed and protect the marsh grasses, promoting survival and growth. Each Gulf Saver Bag protects and restores one square foot of wetland. A Gulf Saver Bag is a U.S. Army Corps of Engineers standard biodegradable burlap (sand) bag that is filled with an all natural humus mix (weight and size adapted for easy handling by volunteers). The humus is a mixture of all natural organic nutrients that support maximum plant growth and survivability and custom mixed to be site specific. The plants "plugged" into the Gulf Saver Bag are native marsh plants that are vital to protecting, holding together, and restoring the ecosystems that are essential to the Gulf Coast. The 100% all natural biodegradable Gulf Saver Bags decompose and continue to provide additional food for the marsh plants as they thrive and grow.

Shoreline Stabilization Evaluation

750 ft section for each treatment

3 Treatments

3 Replicates

6,750 ft total

3-bag stack configuration; each unit covers 2 ft; 10,125 total Gulf Saver Bags required

Project Benefits

Potential project benefits include; 1) establishment of vegetation in eroding areas, 2) reduction in shoreline erosion, 3) increased habitat value through increased species diversity.

Preliminary Construction Costs

The estimated construction cost including 25% contingency is \$632,231.

Preparers of Fact Sheet

Kevin Roy, USFWS, Kevin_Roy@fws.gov

Don Blancher, Sustainable Ecosystem Restoration, LLC, blancher@restoreecosystems.com

P.J. Marshall, Restore the Earth Foundation Inc, pjmar@gulfsaversolutions.com

Leslie Carrere, Gulf Saver Solutions, lc@gulfsaversolutions.com

PPL21 DEMONSTRATION PROJECT NOMINEE FACT SHEET

March 31, 2011

Demonstration Project Name: **The Wave Robber (Wave Suppressor Sediment Collection System)**

Coast 2050 Strategy(ies):

Maintenance of Bay and lake Shoreline Integrity.

Potential Demonstration Project Location(s):

Region 2, Barataria Basin, Lafourche Parish, southwestern shore of Little Lake

Problem:

What problem will the demonstration project try to solve? The Wave Suppressor Sediment Collection System addresses two critical areas of need in Coastal Louisiana. First, the WSSC is a system designed to protect the shorelines and wetlands from erosion caused by wave action or tidal surge. Second, the WSSC system can assist in the rebuilding of shorelines and restoration of wetlands loss from wave action and tidal surge.

What evidence is there for the nature and scope of the problem in the project area? The southwestern portion of Little Lake is currently experiencing a high shoreline erosion rate of between 20' and 40' per year. The WSSC system serves as a barrier to disrupt the tidal wave flow into the shorelines and wetlands while at the same time allowing sediment to be carried through the system by the wave action and water currents. The sediment is trapped and deposited between the system and the shorelines and wetlands. Trapped sediment would then consolidate to form a solid base for the establishment of emergent marsh.

Goals:

What does the demonstration project hope to accomplish? The primary goal of this demonstration is to manufacture, deploy and test an alternative method of shoreline protection equivalent to traditional methods, while trapping ambient sediments to facilitate expansion of emergent marsh.

Proposed Solution:

Describe demonstration project features in as much detail as possible. The WSSC system serves as a barrier to disrupt the tidal wave flow into the shorelines and wetlands while at the same time allowing sediment to be carried through the system by the wave action and water currents. The sediment is trapped and deposited between the system and the shorelines and wetlands.

Install 45 WSSC units along three different shorelines (500LF each shoreline), with two different spacing patterns at each site. The first spacing would be installing a 10' gap every 50 LF (5 WSSC units) for 3 50' segments, then increase the number of WSSC units to 10 units (100 LF) between 10' gaps, for a total of 45 WSSC units per shoreline

location. All gaps would be made using the same material as the WSSC units. The spacing is as follows:

Shoreline

5 WSSC / 10' / 5 WSSC / 10' / 5 WSSC / 10' / 10 WSSC / 10' / 10 WSSC / 10' / 10 WSSC

Bay

Project Benefits:

Describe demonstration project benefits in as much detail as possible. Trapped sediment would then consolidate to form a solid base for the establishment of emergent marsh. The WSSC system has several distinct advantages over other wave suppression and sediment retention structures that makes it ideal for the rebuilding and restoring of the degraded wetlands of south Louisiana as well as other areas in the United States and throughout the world. One major advantage is that the WSSC system is transportable and can be easily installed along shorelines and wetlands. Additionally, the WSSC units are reusable and designed to be removed from one location and easily moved to another. The WSSC system is also less expensive than fixed dike structures, a distinct advantage in managing project cost. Lastly, the WSSC system allows a continuous water exchange for ecological support rather than isolating areas behind the structure.

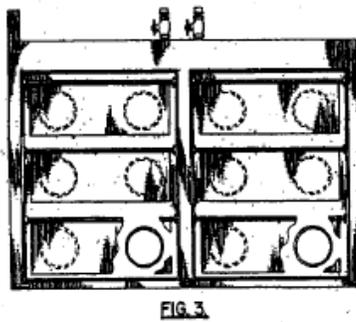
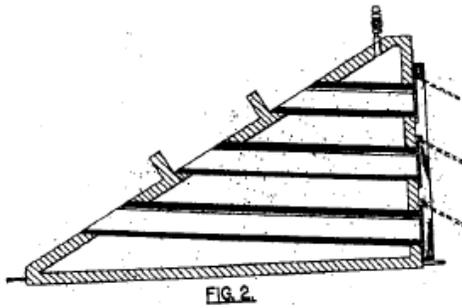
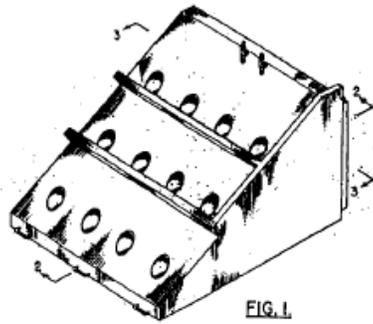
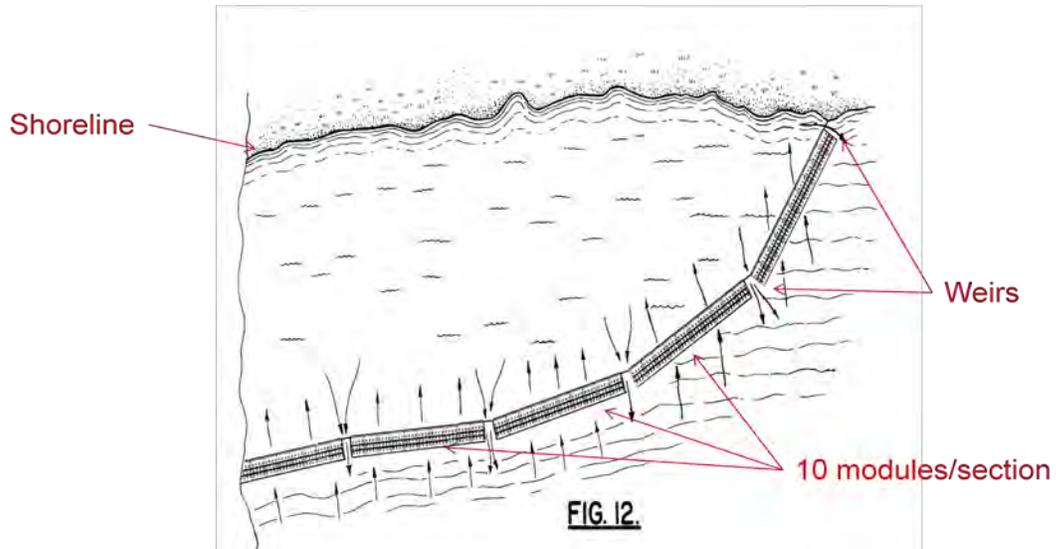
If successful the product could be a low cost option in shoreline protection, dredge spoil containment, barrier island protection and island creation, direct creation of habitat in shallow waters where turbidity could be decreased, and used as an addition to both interior lake and exposed coastal bay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

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$967,113.

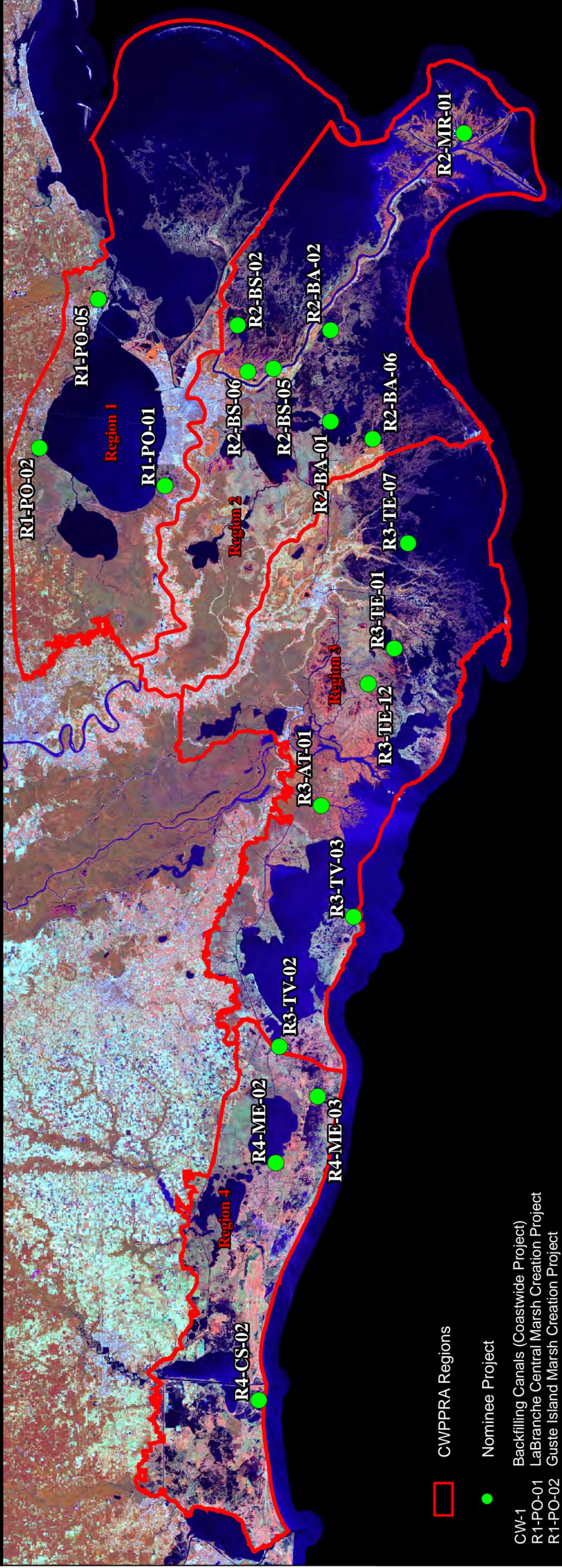
Preparer(s) of Fact Sheet:

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



Schematic drawings of the WSSC System

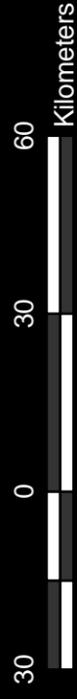
PPL21 Nominee Projects



□ CWPPRA Regions

● Nominee Project

- CW-1 Backfilling Canals (Coastwide Project)
- R1-PO-01 LaBranche Central Marsh Creation Project
- R1-PO-02 Guste Island Marsh Creation Project
- R1-PO-05 Fritchie Marsh Creation and Terracing
- R2-BA-01 Northwest Turtle Bay Marsh Creation and Shore Protection
- R2-BA-02 Bayou Grande Cheniere Marsh Creation
- R2-BA-06 Bayou L'Ours Terracing
- R2-BS-02 Lake Lery Shoreline Marsh Creation
- R2-BS-05 White Ditch Marsh Creation Sediment Delivery
- R2-BS-06 Wills Point Marsh Creation
- R2-MR-01 Pass a Loutre Restoration
- R3-AT-01 West Wax Lake Wetlands Diversion
- R3-TE-01 Lake Decade Marsh Creation and Nourishment
- R3-TE-07 Lake Tambour Marsh Creation
- R3-TE-12 Carencro Bayou Freshwater Introduction Project
- R3-TV-02 Cole's Bayou Marsh Creation and Restoration
- R3-TV-03 Southeast Marsh Island Marsh Creation and Nourishment
- R4-CS-01 Cameron Meadows Marsh Creation and Wetland Restoration
- R4-CS-02 Oyster Bayou Restoration
- R4-ME-02 Southwest White Lake Shoreline Protection
- R4-ME-03 Front Ridge Freshwater Introduction and Marsh Creation Project



PPL21 Nominee Projects
as selected at Coastwide Voting Meeting
Map Date: March 21, 2011

Background Image:
2010 Landsat Thematic Mapper 5 Mosaic
Band Combination 4, 5, 3

Letters of Support

On the motion of Mr. Jackson,
Seconded by Mr. Wittie, the following resolution was offered:

RESOLUTION NO. 03-17-11-04 - RECOMMENDATION TO CWPPRA

WHEREAS, the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA or "Breux Act"), was enacted in 1990 to identify, prepare and fund construction of coastal wetlands restoration projects; and

WHEREAS, the CWPPRA program provides for targeted funds to be used for planning and implementing projects that create, protect, restore and enhance wetlands in coastal Louisiana; and

WHEREAS, the CWPPRA Priority Project List (PPL) 21 Coastwide Voting Meeting was held on February 22, 2011, and CWPPRA agencies and participating coastal parishes selected 21 nominee projects and 6 demonstration projects; and

WHEREAS, the SLFPA-E's Coastal Advisory Committee reviewed the twenty-one nominated projects and recommended six of the nominated projects that would optimize use of CWPPRA funds to further coastal restoration and enhance storm protection for southeast Louisiana.

BE IT HEREBY RESOLVED, that the Southeast Louisiana Flood Protection Authority-East expresses its support for the following projects and respectfully requests that the CWPPRA Task Force and Technical Committee favorably consider the selection of these projects for funding:

1. LaBranche Central Marsh Creation
2. Lake Lery Shoreline Creation
3. Guste Island Marsh Creation
4. Fritchie Marsh Creation and Terracing
5. Wills Point Marsh Creation
6. White Ditch March Creation Sediment Delivery

The foregoing was submitted to a vote, the vote thereon was as follows:

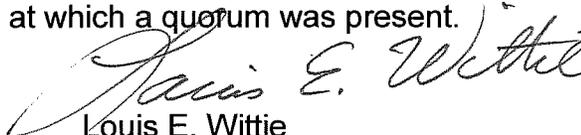
YEAS: Mr. Barnes, Mr. Barry, Mr. Estopinal, Mr. Jackson, Mr. Losonsky and
Mr. Wittie

NAYS: None

ABSENT: Mr. Goins and Mr. Pineda

This resolution was declared adopted this 17th day of March, 2011.

I hereby certify that the above and foregoing is a true and correct copy of a resolution duly adopted by the Southeast Louisiana Flood Protection Authority-East at its meeting of March 17, 2011, held in Chalmette, LA, at which a quorum was present.


Louis E. Wittie
Secretary



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

March 10, 2011

**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

Vermilion Soil and Water Conservation District (SWCD) Board of Supervisors is requesting you continue to hold the goals of Cole's Bayou Marsh Creation and Restoration Project in high regards, and to consider this a priority project.

Vermilion SWCD Board of Supervisors is in support of the project Cole's Bayou Marsh Creation and Restoration, which is a Region 3-RPT PPL20 Project Nominee. Again, please consider this project in the next round of funding.

If you have any questions, please feel free to contact Vermilion SWCD Vice Chairman Sherrill Sagrera at 337-652-0636.

Regards,

A handwritten signature in black ink that reads "Ernest Girouard".

Ernest Girouard
SWCD Chairman

md



WAYNE TOUCHET
PRESIDENT

DANE HEBERT
VICE-PRESIDENT

LINDA DUHON
PARISH ADMINISTRATOR

MEMBERS

DISTRICT 1
DANE HEBERT

DISTRICT 2
CHRIS BÉRAUD

DISTRICT 3
NATHAN GRANGER

DISTRICT 4
RONALD DARBY

DISTRICT 5
WAYNE TOUCHET

DISTRICT 6
MARK POCHÉ

DISTRICT 7
KEITH MEAUX

DISTRICT 8
ERROL J. DOMINGUES

DISTRICT 9
GERALD W. BUTAUD

DISTRICT 10
RONALD MENARD

DISTRICT 11
PERVIS GASPARD

DISTRICT 12
CLORIS J. BOUDREAUX

DISTRICT 13
T. J. PREJEAN, JR.

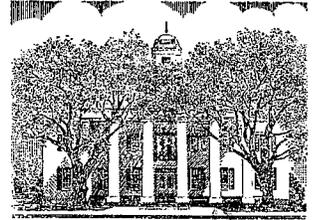
DISTRICT 14
LEON BROUSSARD

VERMILION PARISH POLICE JURY

Courthouse Bldg.

**100 N. State St., Suite 200
Abbeville, Louisiana 70510**

**337-898-4300
FAX 337-898-4310**



for Madam

March 24, 2011

U.S. ARMY CORPS OF ENGINEERS
ATTN: Ms. Melanie Goodman
New Orleans District
P. O. Box 60267
New Orleans, LA 70160-0267

Re: PPL 21 – Region 3 and Region 4 Projects

Dear Ms. Goodman:

In action taken at their March 21, 2011 meeting, the Vermilion Parish Police Jury approved sending a letter supporting the following projects:

- Region 3 (Teche-Vermilion Basin) – “Cole’s Bayou Marsh Creation and Restoration Project”
- Region 4 (Mermentau Basin) – Front Ridge Freshwater Introduction and Marsh Creation Project

Should you have any questions, or need additional information, please feel free to call on us.

Very Truly Yours,

Linda Duhon
Parish Administrator

LLD/ldb



ST. CHARLES PARISH

OFFICE OF THE COUNCIL

P.O. BOX 302 • HAHNVILLE, LA 70057

(985) 783-5000 • FAX (985) 783-2067

<http://www.stcharlesparish-la.gov> • bjacob@stcharlesgov.net

→ Brad Furman

DENNIS NUSS

Chairman

Councilman, District VII

March 29, 2011

WENDY BENEDETTO

Vice-Chairman

Councilwoman, District III

CAROLYN K. SCHEXNAYDRE

Councilwoman-At-Large, Division A

TERRY AUTHEMENT

Councilman-At-Large, Division B

BILLY RAYMOND, SR.

Councilman, District I

SHELLEY M. TASTET

Councilman, District II

PAUL J. HOGAN, PE

Councilman, District IV

LARRY COCHRAN

Councilman, District V

MARCUS M. LAMBERT

Councilman, District VI


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

Re: LaBranche Central Marsh Creation Project

Dear Mr. Holden:

On Monday, March 21, 2011, the St. Charles Parish Council adopted Resolution No. 5813 notifying the members of the Coastal Wetland Planning, Protection, and Restoration Act (CWWPRA) Task Force and Technical Committee that the St. Charles Parish Council fully supports the LaBranche Central Marsh Creation Project (R1-PO-01) and respectfully asks for a favorable vote for the project to be included on the Priority Project List 21 (PPL 21).

A certified copy of the resolution is enclosed for your review and consideration.

Sincerely,



BARBARA JACOB-TUCKER, LCMC, CAA, CMA, CPO
COUNCIL SECRETARY

BJT/sm

enclosure

cc: Parish Council
Mr. Timothy J. Vial w/enclosure
Mr. Earl Matherne w/enclosure

2011-0112

INTRODUCED BY: V.J. ST. PIERRE, JR., PARISH PRESIDENT
(COASTAL ZONE MANAGEMENT SECTION)

RESOLUTION NO. 5813

A resolution notifying the members of the Coastal Wetland Planning, Protection, and Restoration Act (CWWPRA) Task Force and Technical Committee that the St. Charles Parish Council fully supports the LaBranche Central Marsh Creation Project (R1-PO-01) and respectfully asks for a favorable vote for the project to be included on the Priority Project List 21 (PPL 21).

WHEREAS, restoration of the LaBranche Wetlands is extremely important to the citizenry of the Parish of St. Charles and the State of Louisiana because of anticipated benefits, which include, but are not limited to: increase in biological productivity, enhancement of water quality, improvement in storm buffer and hurricane protection, promotion of marsh restoration work and the aesthetic value derived from restored wetlands; and,

WHEREAS, implementation of the LaBranche Central Marsh Creation Project (R1-PO 01), which is located east of Bayou LaBranche, west of the pipeline canal, and south of the CNIC railroad tracks, will result in the restoration of approximately 750 ac of wetlands and the enhancement of approximately 150 ac of existing wetlands.

NOW, THEREFORE, BE IT RESOLVED, THAT WE THE MEMBERS OF THE ST. CHARLES PARISH COUNCIL, do hereby notify the CWPPRA Task Force and Technical Committee to advise on our support of the LaBranche Central Marsh Creation Project (R1-PO-01) and to ask for a favorable vote for its inclusion on the Final PPL 21. **BE IT FURTHER RESOLVED**, that certified copies of this resolution be forwarded to members of the CWPPRA Task Force and Technical Committee.

The foregoing resolution having been submitted to a vote, the vote thereon was as follows:

YEAS: SCHEXNAYDRE, AUTHEMENT, RAYMOND, TASTET, BENEDETTO, HOGAN, COCHRAN, LAMBERT, NUSS

NAYS: NONE

ABSENT: NONE

And the resolution was declared adopted this 21st day of March, 2011, to become effective five (5) days after publication in the Official Journal.

CHAIRMAN: *Dennis T...*

SECRETARY: *Barbara Jacob Tucker*

DLVD/PARISH PRESIDENT: March 22, 2011

APPROVED: ✓ DISAPPROVED: _____

PARISH PRESIDENT: *Wick*

RETD/SECRETARY: March 28, 2011

AT: 11:30 AM RECD BY: *BT*

CERTIFIED TRUE & CORRECT AS PER
MINUTES DATED 3-21-11

Barbara Jacob Tucker
SECRETARY

ST. CHARLES PARISH COUNCIL

The attached correspondence has been forwarded to the following:

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

Mr. Garret Graves, Senior Advisor
to the Governor for Coastal Activities
CWPPRA Task Force
Governor's Office of Coastal Activities
Capitol Annex
1051 North Third Street, Suite 139
Baton Rouge, LA 70802

Mr. Jim Boggs, Field Supervisor
CWPPRA Task Force
U. S. Fish and Wildlife Service
Louisiana Field Office
646 Cajundome Blvd, Suite 400
Lafayette, LA 70506

Mr. William K. Honker, Deputy Director
Water Quality Protection Division (6WQ)
CWPPRA Task Force
U. S. Environmental Protection Agency
1445 Ross Avenue
Dallas, TX 75202-2733

Mr. Christopher Doley
Director, NOAA Restoration Center
CWPPRA Task Force
Office of Habitat Conservation
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
1315 East-West HWY, Room 14853
Silver Spring, MD 20910

Mr. Kevin Norton, State Conservationist
CWPPRA Task Force
Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

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

Mr. Troy Constance, Chief, Restoration Branch
CWPPRA Technical Committee
U. S. Army Corps of Engineers
Protection and Restoration Office
Restoration Branch
P. O. Box 60267
New Orleans, LA 70160-0267

Mr. Darryl Clark, Senior Field Biologist
CWPPRA Technical Committee
U. S. Fish and Wildlife Service
646 Cajundome Blvd, Suite 400
Lafayette, LA 70506

Mr. Kirk Rhinehart, Planning Administrator
CWPPRA Technical Committee
Office of Coastal Protection and Restoration
P. O. Box 44027, Capitol Station
Baton Rouge, LA 70804-4027

Mr. Richard Hartman, Fishery Biologist
Chief Baton Rouge Field Office
CWPPRA Technical Committee
National Marine Fisheries Service
Room 266, Military Science Bldg
South Stadium Drive
Baton Rouge, LA 70803-7535

Ms. Karen McCormick
Chief, Coastal and Marine Section
CWPPRA Technical Committee
U. S. Environmental Protection Agency
Water Quality Protection Division (6WQ-EC)
1445 Ross Avenue
Dallas, TX 75202-2733

Mr. Britt Paul, P.E.
Assistant State Conservationist/Water Resources
CWPPRA Technical Committee
Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302



PROTECTING YOU
AND YOUR FAMILY

The Board of Commissioners
OF THE
Pontchartrain Levee District

2204 ALBERT STREET • P.O. BOX 426 • LUTCHER, LA 70071
TEL: 225-869-9721 FAX: 225-869-9723 LA WATTS: 800-523-3148

STEVEN C. WILSON
PRESIDENT

MICHAEL DELAUNE
VICE PRESIDENT

COMMISSIONERS
RICKY BOSCO
L.C. IRVIN, SR.
MARTY J. POCHE
JERRY SAVOY
ALLEN J. ST. PIERRE, SR.

DWIGHT D. POIRRIER
SPECIAL COUNSEL

SUSAN M. SHEETS
BOARD SECRETARY

MONICA T. SALINS
EXECUTIVE DIRECTOR

RESOLUTION

The following resolution was moved by Mr. Leonard Irvin, seconded by Mr. Michael DeLaune notifying the members of the Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA) Task Force and Technical Committee that the Commissioners of the Pontchartrain Levee District fully support the LaBranche Central Marsh Creation Project (R1-PO-01) and respectfully ask for a favorable vote to ensure its inclusion on the Final Priority Project List 21 (PPL 21).

WHEREAS: the restoration and sustainability of the LaBranche Wetlands is extremely important to the Pontchartrain Basin and the State of Louisiana because of anticipated benefits which include an increase in wetland habitat, an increase in storm buffer and hurricane protection, an increase in biological productivity, enhancement of water quality, and increase in aesthetic value; and,

WHEREAS: implementation of the LaBranche Central Marsh Creation Project (R1-PO-01), which is located east of Bayou LaBranche, west of the Pipeline Canal, and south of the CNIC railroad tracks, will result in the restoration of approximately 750 ac of wetlands and the enhancement of approximately 150 ac of existing wetlands; and,

NOW, THEREFORE, BE IT RESOLVED, THAT WE THE COMMISSIONERS OF THE PONTCHARTRAIN LEVEE DISTRICT, do hereby notify the CWPPRA Task Force and Technical Committee to advise of our full support for the LaBranche Central Marsh Creation Project (R1-PO-01) and to ask for a favorable vote to ensure its inclusion on the Final PPL 21; and,

THEREFORE BE IT FURTHER RESOLVED that certified copies of this resolution be forwarded to members of the CWPPRA Technical Committee.

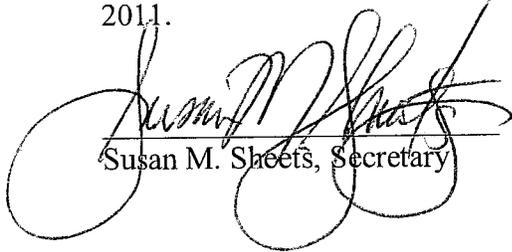
The foregoing resolution having been submitted to a vote thereon was as follows:

YEAS: 6 NAYS: 0 ABSENT: 1

THE BOARD OF COMMISSIONERS
OF THE
PONTCHARTRAIN LEVEE DISTRICT

I, Susan M. Sheets, hereby certify that the above and foregoing is a true and correct copy of a motion adopted at a regular board meeting of the Pontchartrain Levee District held on the 21st day of March, 2011 in which a quorum was present and voting, and that the motion adopted is still in effect and has not been rescinded or revoked.

Signed at 2204 Albert Street, Litcher, Louisiana on the 21st day of March,
2011.


Susan M. Sheets, Secretary

FISHMAN HAYGOOD PHELPS
WALMSLEY WILLIS & SWANSON, L.L.P.

201 ST. CHARLES AVENUE
46TH FLOOR
NEW ORLEANS, LOUISIANA 70170-4600
(504) 586-5252
FAX (504) 586-5250

JOHN D. WERNER
PARTNER
(504) 586-5265 DIRECT
JWERNER@FISHMANHAYGOOD.COM

February 18, 2011

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

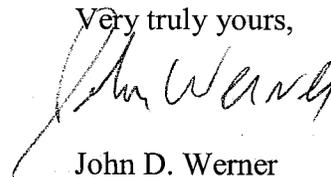
Re: R2-BA-01 PPL 21 Project
Northwest Turtle Bay Marsh Creation and
Shore Protection Project, Jefferson Parish, Louisiana

Dear Mr. Holden:

I am writing in support of the above-referenced proposed project. I am the President of the Little Lake Club, which was established in 1918 and has held long term leases on this property for many generations. I and the rest of the Little Lake Club are well aware of the benefits of these marsh creation projects, having watched the design, implementation and impact of the Marsh Creation Project numbered BA-36 which is also on acreage that we lease. As enthusiastic users of this marsh, we have watched the marsh loss firsthand and are very supportive of this project as an effort to stem the devastating tide of coastal erosion in the Barataria Basin. Further, this new project is an efficient means to leverage the considerable investment the government has already made in the Barataria Land Bridge project.

We have a large clubhouse facility very near your proposed project. We hosted several events for the various governmental agencies involved in the BA-36 Project and it seemed to work well. If you or any of your team would like to arrange similar events in conjunction with the planning, design or implementation of this project, we would be happy to assist you. Please feel free to call me if you would like to schedule anything of this sort.

Very truly yours,



John D. Werner

DAM
PM-P
(Brad
Lynn)

DPM
PM-P
(Brad
Lorenson)

LUCAS H. EHRENSING, P.E.
P.O. Box 1063
St. Rose, LA 70087

February 18, 2011

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

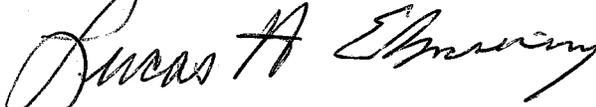
RE: R2-BA-01 PPL 21 Project
Northwest Turtle Bay Marsh Creation and
Shore Protection Project
Jefferson Parish, LA

Dear Mr. Holden,

I am writing this letter in support of the above referenced project. I feel it is important to go forward with this project in an effort to protect the prior restoration projects in the area and also the tens of millions of dollars already spent, but most importantly the protection of the marsh.

Thanking you in advance for all of your help and consideration on the above project.

My Best,



Lucas H. Ehrensing, P.E.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

ADDITIONAL AGENDA ITEMS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

REQUEST FOR PUBLIC COMMENTS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

APRIL 8, 2011

DATE OF UPCOMING CWPPRA PROGRAM MEETING

For Announcement:

The Task Force meeting will be held June 8, 2011 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 8, 2011

SCHEDULED DATES OF FUTURE PROGRAM MEETINGS

For Announcement:

2011			
June 1, 2011	9:30 a.m.	Task Force	Lafayette
June 8, 2011			
September 20, 2011	9:30 a.m.	Technical Committee	Baton Rouge
October 12, 2011	9:30 a.m.	Task Force	New Orleans
November 16, 2011	7:00 p.m.	PPL 21 Public Meeting	Abbeville
November 17, 2011	7:00 p.m.	PPL 21 Public Meeting	New Orleans
November 30, 2011	9:30 a.m.	Technical Committee	Baton Rouge
December TBD, 2011			
January 19, 2011	9:30 a.m.	Task Force	New Orleans