



ATTENDANCE RECORD



DATE(S) December 12, 2013 9:30 A.M.	SPONSORING ORGANIZATION COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LOCATION LA Department of Wildlife and Fisheries (Louisiana Room) 2000 Quail Drive Baton Rouge, LA
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PURPOSE	MEETING OF THE CWPPRA TECHNICAL COMMITTEE
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PARTICIPANT REGISTER*		
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
MARTIN O. MILLER	Manager / Laurel M&M'S LLC	504/616-7836
Robert O. Boulet	MO Miller Estate Boulet Family LLC	337/296-6663
David Brunet	Env. Manager / St. Tammany Govt	985-898-2442
Carolyn Dostley	Chair, Chenier Plain Committee Chamber/SWLA	337-842-3100
FX Phillips	McNeese State Univ, Lake Charles	337-475-5656
Jamae Favoite	CPRA	225-342-4119
Chris Allen	CPRA	225-342-4736
ANDREW BEALL	CPRA	225 342 - 4550
Laurie Cormier	Calcasieu Parish Police Jury	337-721-3045
Rene Escuriex	Bus. Dev. - Fenstermaker	337-654-9584
Quin Kinker	NRCS	225-665-4253
Carol Giardina	LCCA	504 3315 326
GEORGE WINNINGHAM	LCCA	504 6625770
Pam Ricca	LCCA - Lake Catherine Marina	504-662-5741
LOUIS BROUSSARD	USDA-NRCS	337-291-3069
ARCHIE CHASSIN	LAFourche Parish	985-637-5245
Kern Roy	USFWS	337-291-3120
Adrian Shevarris	USEPA	214-665-3103
Carl Beisan	LCCA	772-971-0460
Amanda Bordelon	GW CPRA	225-454-0467
Garvin Pittman	CPRA	225-229-3569
Keith Barwick	CPRA	225-931-8212



ATTENDANCE RECORD



DATE(S)	SPONSORING ORGANIZATION	LOCATION
December 12, 2013 9:30 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LA Department of Wildlife and Fisheries (Louisiana Room) 2000 Quail Drive Baton Rouge, LA
PURPOSE MEETING OF THE CWPPRA TECHNICAL COMMITTEE		
PARTICIPANT REGISTER*		
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Nic Methorne	Terrebonne Parish	985-873-6889
JOHN FORST	NMFS	337-291-2107
BARRY HERBERT	LDWF	225-765-0233
Tom Wells	Waldemar S. Nelson	504-593-5395
Gerald Vetter	" " "	514-593-5413
Patrick Williams	NOAA/NMFS	225-397-0308 ext 208
Michelle Fisher	USGS	225-570-7483
Erol Kasapoglu	Dynamic Solutions LLC	225-440-0090
Jody White	Engineer/Operations CPRA	337-482-0664
DARREN PONTIFF	CPRA	337-482-0683
VIDA CARVER	CPRA	225-342-0242
Julia Wall	CPRA	225-342-4485
Michael Pontus	CPRA	239-789-7402
Jim Smith	Stanley Consultants	225-388-4208
COLE FICKSTADT	CWPPRA MEDIA SEC.	337-266-8542
Amanda Taylor	CPRA	225-342-0931
Charles Sasser	LSU	225-578-6375
Whitney Thompson	CR&I	225-932-2568
DARREN L CHAM	USFWS	337-241-3111
Steve Littlejohn	State Rep.	
Glenn Smith	Terrebonne Levee Dist	985-868-8523
RICK CANIK	Royal Engineering	337-802-0190

CWPPRA

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT TECHNICAL COMMITTEE MEETING

AGENDA

December 12, 2013, 9:30 a.m.

Location:

LA Department of Wildlife and Fisheries
Louisiana Room
2000 Quail Drive
Baton Rouge, Louisiana

Documentation of Technical Committee meetings (including minutes, attendance records, PowerPoint Presentations, and meeting binders) may be found at:

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

Tab Number

Agenda Item

1. **Meeting Initiation 9:30 a.m. to 9:40 a.m.**
 - a. Introduction of Technical Committee or Alternates
 - b. Opening remarks of Technical Committee Members
 - c. Request for Agenda Changes/Additional Agenda Items/Adoption of Agenda
2. **Report: Status of CWPPRA Program Funds and Projects (Susan Mabry, USACE) 9:40 a.m. to 9:50 a.m.** Ms. Susan Mabry will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.
3. **Report: Electronic Vote Approvals (Brad Inman, USACE) 9:50 a.m. to 10:10 a.m.**

Four electronic votes were completed in lieu of the October 2013 Task Force meeting, which was canceled due to the government shutdown. To allow for public comment on several decision items, the Task Force will wait until the January meeting to vote on those items. The Technical Committee voted at the September 11, 2013 meeting to recommend the proposals for Task Force approval. The Task Force voted via electronic vote on November 18, 2013 to approve the following:

 - a. **Incremental Funding for FY16 Administrative Costs.** The U.S. Army Corps of Engineers (USACE) requested funding in the amount of \$26,834 for FY16 administrative costs for CWPPRA cash flow projects beyond Increment 1.
 - b. **Funding for CWPPRA Program's Technical Services.** The U.S. Geological Survey (USGS) and the Louisiana Coastal Protection and Restoration Authority (CPRA) requested funding in the amount of \$171,410 for technical services for the CWPPRA program.

- c. **FY16 Monitoring Incremental Funding and Budget Increase.** CWPPRA total FY16 monitoring incremental funding in the amount of \$10,008,316 and budget increase in the amount of \$24,492 were requested.
 - d. **FY16 Operation and Monitoring (O&M) Incremental Funding.** CWPPRA total FY16 O&M incremental funding in the amount of \$4,210,149 was requested.
4. **Report: Status of “Consistency with the 2012 Coastal Master Plan: Guidelines for Restoration Projects Receiving State Funding” Document (Bren Haase, CRPA) 10:10 a.m. to 10:20 a.m.** Mr. Haase will provide an update on the status and availability of the document.
 5. **Report: Coastwide Reference Monitoring System (CRMS) Report (Dona Weifenbach, CPRA) 10:20 a.m. to 10:35 a.m.** Ms. Dona Weifenbach will provide a report on CRMS.
 6. **Decision: Future Priority Project List Public Meetings (Brad Inman, USACE) 10:35 a.m. to 10:45 a.m.** Due to low attendance at the past PPL Public Comment Meetings, the P&E Subcommittee recommends eliminating this annual meeting. The purpose of the PPL Public Meeting is to distribute information on the candidate project evaluations and accept public comments. If the meeting is eliminated, the candidate project evaluation information will be distributed to the public via the website and CWPPRA Newsflash. Additionally, a presentation on the projects will be provided at the December Technical Committee meeting. Comments will be accepted orally at the December and January meetings or written via e-mail, fax, or mail. The Technical Committee will vote to make a recommendation to the Task Force.
 7. **Decision: Funding Increase Scope Change Request for Sabine Refuge Marsh Creation Cycles 4 & 5 Project (CS-28-4&5) (Darryl Clark & Robert Dubois, FWS) 10:45 a.m. to 11:00 a.m.** The U.S. Fish and Wildlife Service (FWS), USACE, and CPRA request Technical Committee approval to increase the current cost from \$8,111,705 to \$10,328,064, an increase of \$2,216,359 (27.3%). The revised incremental funding amount is \$10,169,154. The project was approved for construction by the Task Force on January 19, 2011, at a cost of \$8,111,705. This funding increase represents the Corps’ current construction estimate plus 15% contingency, including the need for some dedicated dredging in the Calcasieu Ship Channel to supplement maintenance material to construct both cycles in one dredging event. Combining both cycles is the most cost effective way to implement the project. USACE, CPRA, and FWS plan to return approximately \$2.1 M to the CWPPRA Program from the Sabine Refuge Marsh Creation Cycle 2 project, which makes this request budget neutral. The benefits remain unchanged at 230 acres per cycle (total 460 acres). The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the funding increase request for CS-28-4&5.
 8. **Decision: Request for Incremental Funding Increase for the Black Bayou Culverts Project (CS-29) (John Jurgensen, NRCS) 11:00 a.m. to 11:15 a.m.** The Natural Resources Conservation Service (NRCS) and CPRA request an incremental funding increase for the Black Bayou Culverts Project (CS-29). This incremental funding request in the amount of \$8,237,204 covers the estimate for the immediate repair of the structure and the next three years of project expenditures. The revised total project cost would be \$16,399,059, which represents a total project budget increase of \$8,021,455. This estimate is

currently in draft format pending the results of a test pile being performed as part of the design. The test pile is necessary to confirm the design parameters used and verify the factor of safety used. If the test pile results differ from the design parameters a revised estimate will be provided prior to the Task Force meeting. The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the incremental funding request for CS-29.

9. **Report/Decision: 23rd Priority Project List (Kevin Roy, USFWS) 11:15 a.m. to 12:00 p.m.** The Environmental Workgroup Chairman will present an overview of the ten PPL 23 candidate projects. The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 23 projects for Phase I Engineering and Design.

Region	Basin	PPL 23 Nominees	Agency
1	Pontchartrain	New Orleans Landbridge Shoreline Stabilization & Marsh Creation	FWS
2	Barataria	Caminada Headlands Back Barrier Marsh Creation	EPA
2	Barataria	Wilkinson Canal Marsh Creation & Nourishment	NMFS
2	Barataria	Bayou Grande Cheniere Marsh and Ridge Restoration	FWS
3	Terrebonne	Island Road Marsh Creation and Nourishment	NMFS
3	Terrebonne	Grand Bayou Freshwater Enhancement	FWS
3	Teche/Vermilion	Southwest Pass Shoreline Protection	NRCS
4	Calcasieu/Sabine	West Cove Marsh Creation and Nourishment	FWS/USACE
4	Mermentau	Southeast Pecan Island Marsh Creation & Freshwater Enhancement	NRCS
4	Mermentau	South Grand Chenier Marsh Creation – Baker Tract	NRCS

10. **Report/Decision: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding (Brad Inman, USACE) 12:00 p.m. to 12:45 p.m.** The Technical Committee will consider requests for Phase II authorization and approval of Increment 1 funding for cash flow projects for recommendation to the Task Force. Due to limited funding, the Technical Committee will recommend a list of projects for Task Force approval within available program construction funding limits. Each project listed in the following table will be discussed individually by its sponsoring agency. Following presentations and discussion on individual projects, the Technical Committee will rank all projects to aid in deciding which to recommend to the Task Force for Phase II authorization and funding.

Agency	Project No.	PPL	Project Name	Construct Start Date	Phase I Cost	Phase II Cost	Total Fully Funded Cost Est.	Net Benefit Acres	Total Cost per Acre
FWS	ME-20	11	South Grand Chenier	Dec-14	2,358,421	20,264,925	22,623,346	414	\$54,646
NRCS	PO-34	16	Alligator Bend Marsh Restoration & SP	Sep-13	1,660,984	43,171,632	44,832,616	181	\$247,694
NMFS	TE-51	16	Madison Bay Marsh Creation & Terracing	Sep-14	\$3,002,170	\$35,569,268	\$38,571,438	334	\$115,483
FWS	CS-54	20	Cameron Creole Grand Bayou MC	Jan-14	2,376,789	24,726,187	27,102,976	476	\$56,939

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

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

13. Announcement: Priority Project List 24 Regional Planning Team Meetings (Brad Inman, USACE) 12:55 p.m. to 1:00 p.m.

January 28, 2014	11:00 a.m.	Region IV Planning Team Meeting	Abbeville
January 29, 2014	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 30, 2014	8:00 a.m.	Region I Planning Team Meeting	New Orleans
January 30, 2014	11:30 a.m.	Region II Planning Team Meeting	New Orleans
February 18, 2014	10:30 a.m.	Coastwide Electronic Voting	<i>(via email, no meeting)</i>

14. Announcement: Date of Upcoming CWPPRA Program Meeting (Brad Inman, USACE) 1:00 p.m. to 1:05 p.m. The Task Force meeting will be held January 16, 2014 at 9:30 a.m. at the U.S. Army Corps of Engineers, 7400 Leake Avenue, New Orleans, Louisiana in the District Assembly Room (DARM).

15. Announcement: Scheduled Dates of Future Program Meetings (Brad Inman, USACE) 1:05 p.m. to 1:10 p.m.

2014

January 16, 2014	9:30 a.m.	Task Force	New Orleans
January 28, 2014	11:00 a.m.	Region IV Planning Team Meeting	Abbeville
January 29, 2014	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 30, 2014	8:00 a.m.	Region I Planning Team Meeting	New Orleans
January 30, 2014	11:30 a.m.	Region II Planning Team Meeting	New Orleans
April 15, 2014	9:30 a.m.	Technical Committee	New Orleans
May 22, 2014	9:30 a.m.	Task Force	Lafayette
September 11, 2014	9:30 a.m.	Technical Committee	Baton Rouge
October 7, 2014	9:30 a.m.	Task Force	New Orleans
November 12, 2014	7:00 p.m.	PPL 24 Public Meeting	Baton Rouge
December 11, 2014	9:30 a.m.	Technical Committee	Baton Rouge

16. Decision: Adjourn

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

MEETING INITIATION

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

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

STATUS OF CWPPRA PROGRAM FUNDS AND PROJECTS

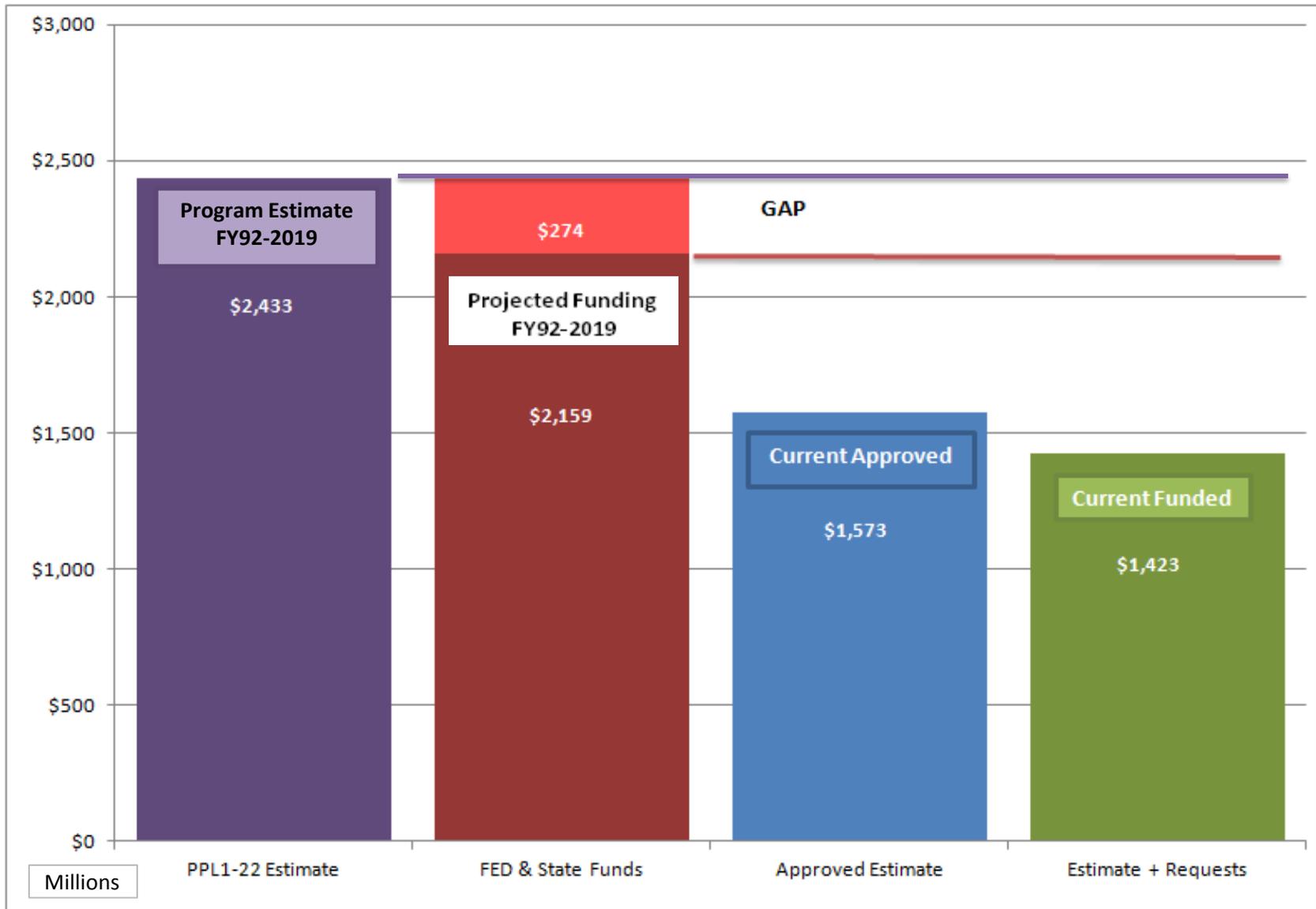
For Report:

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

Status of CWPPRA Program Funds and Projects

Susan M. Mabry

CWPPRA CONSTRUCTION PROGRAM



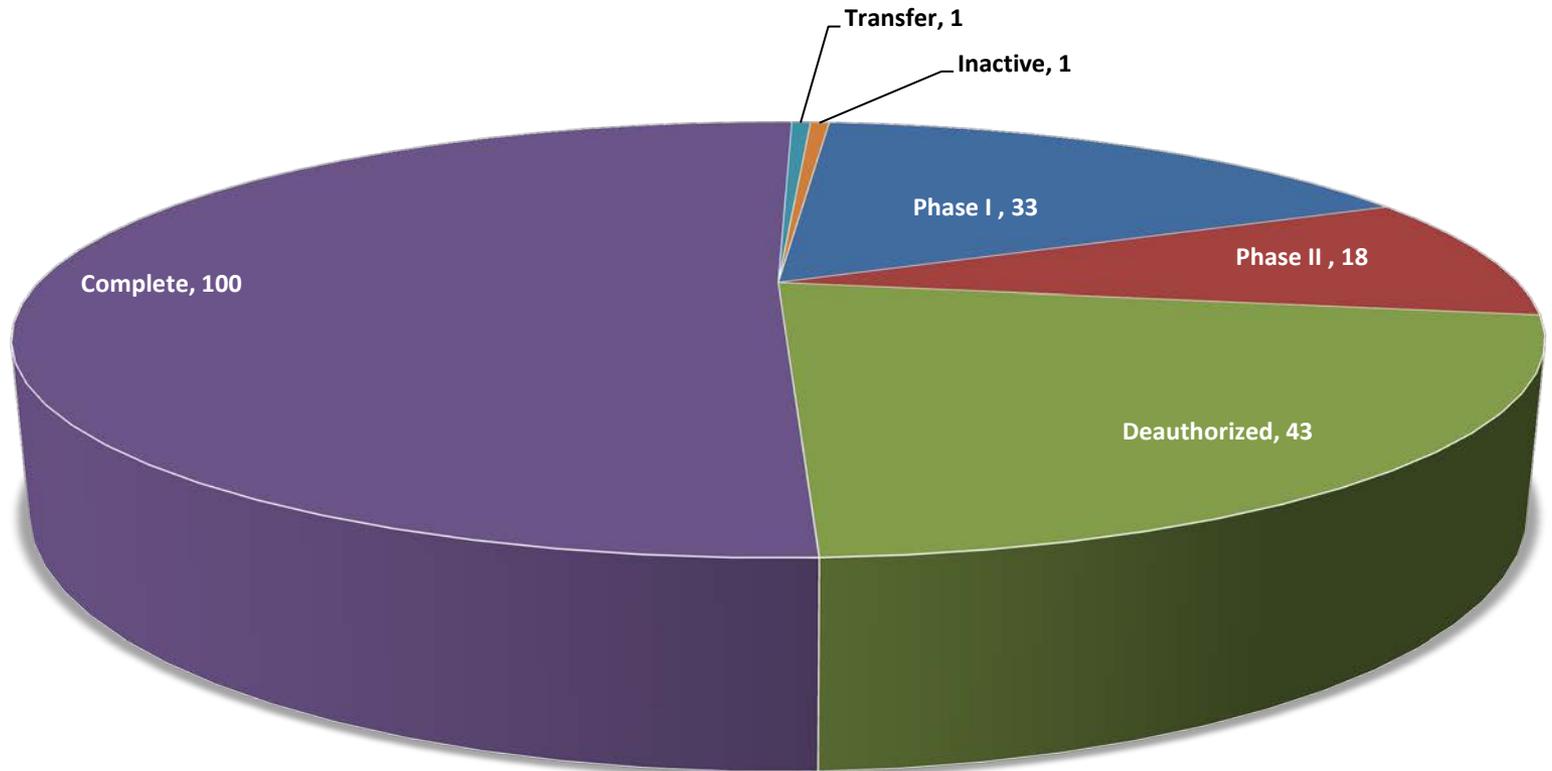
Construction Program Funding Requests: Tech Committee Recommendation, 12 December 2013

	Program Estimate	TC	FUNDING	TC	Fed	Non-Fed
1. Funds Available:						
Available Funds			\$68,382,842		\$58,125,416	\$10,257,426
Approved Funded Estimate PPL 1-22	\$2,435,941,672					
Total Program / Funds Available:	\$2,435,941,672		\$68,382,842		\$58,125,416	\$10,257,426
2. Agenda Item 3: Electronic Vote Approvals:						
a. Incremental Funding for FY16 Administrative Costs	\$0		\$26,834		\$22,809	\$4,025
b. Funding for CWPPRA Program's Technical Services	\$0		\$171,410		\$145,699	\$25,712
c. FY16 Monitoring Incremental Funding and Budget Increase	\$24,492		\$10,008,316		\$8,507,069	\$1,501,247
d. FY16 Operation and Monitoring (O&M) Incremental Funding and Budget Increase	\$9,209,040		\$4,210,149		\$3,578,627	\$631,522
Total	\$9,233,532		\$14,416,709		\$12,254,203	\$2,162,506
3. Agenda Item 7: Scope Change and Funding Increase Request:						
Sabine Refuge Marsh Creation (CS-28-4&5) FWS	\$2,216,359		\$2,216,359		\$1,883,905	\$332,454
****Sabine Refuge Marsh Creation (CS-28-2)**** (Estimated funds to return to Program)	(\$2,226,300)		(\$2,226,300)		(\$1,892,355)	(\$333,945)
Total	(\$9,941)		(\$9,941)		(\$8,450)	(\$1,491)
5. Agenda Item 8: Scope Change and Funding Increase Request:						
Black Bayou Culverts (CS-29) NRCS	\$8,021,455		\$8,237,204		\$7,001,623	\$1,235,581
Total	\$8,021,455		\$8,237,204		\$7,001,623	\$1,235,581
6. Agenda Item 9: 23rd Priority Project List :						
New Orleans Landbridge Shoreline Stabilization & Marsh Creation - FWS	\$12,499,983		\$1,516,303		\$1,288,857	\$227,445
Caminada Headlands Back Barrier Marsh Creation - EPA	\$31,034,094		\$3,354,935		\$2,851,695	\$503,240
Wilkinson Canal Marsh Creation & Nourishment - NMFS	\$36,292,706		\$3,490,445		\$2,966,878	\$523,567
Bayou Grande Cheniere Marsh and Ridge Restoration - FWS	\$29,104,945		\$3,038,142		\$2,582,420	\$455,721
Island Road Marsh Creation and Nourishment - NMFS	\$39,185,267		\$3,721,447		\$3,163,230	\$558,217
Grand Bayou Freshwater Enhancement - FWS	\$22,618,793		\$2,861,725		\$2,432,466	\$429,259
Southwest Pass Shoreline Protection - NRCS	\$38,679,382		\$3,045,177		\$2,588,400	\$456,777
West Cove Marsh Creation and Nourishment - FWS/USACE	\$20,034,472		\$2,534,043		\$2,153,936	\$380,106
Southeast Pecan Island Marsh Creation & Freshwater Enhancement - NRCS	\$39,835,500		\$3,662,682		\$3,113,280	\$549,402
South Grand Chenier Marsh Creation – Baker Tract - NRCS	\$25,441,833		\$2,653,242		\$2,387,918	\$265,324
Total	\$294,726,975		\$29,878,140		\$25,529,081	\$4,349,059
7. Agenda Item 10: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding:						
South Grand Chenier (ME-20) - FWS	\$22,623,346		\$19,924,519		\$16,935,841	\$2,988,678
Alligator Bend Marsh Restoration & SP (PO-34) - NRCS	\$44,832,616		\$29,145,336		\$24,773,536	\$4,371,800
Madison Bay Marsh Creation & Terracing (TE-51) - NMFS	\$38,571,438		\$35,075,039		\$29,813,783	\$5,261,256
Cameron Creole Grand Bayou MC (CS-54) - FWS	\$27,102,976		\$24,147,733		\$20,525,573	\$3,622,160
Total	\$133,130,376		\$108,292,627		\$92,048,733	\$16,243,894
(1) Funds Available for September 2013 Recommendations						
October Approved Recommendations (Fax Vote)	\$9,233,532		\$14,416,709			
**GIWW BA-02 O&M funding & budget increase (January Task Force)	\$1,754,749		\$1,692,883			
Program Amount/Available Funds Surplus/Shortage	\$2,446,929,953		\$52,273,250			

CWPPRA PROJECT STATUS

TOTAL CWPPRA PROJECTS: 196

ACTIVE PROJECTS: 151



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

ELECTRONIC VOTE APPROVALS

For Report:

Four electronic votes were completed in lieu of the October 2013 Task Force meeting, which was canceled due to the government shutdown. To allow for public comment on several decision items, the Task Force will wait until the January meeting to vote on those items. The Technical Committee voted at the September 11, 2013 meeting to recommend the proposals for Task Force approval. The Task Force voted via electronic vote on November 18, 2013 to approve the following:

- a. **Incremental Funding for FY16 Administrative Costs.** The U.S. Army Corps of Engineers (USACE) requested funding in the amount of \$26,834 for FY16 administrative costs for CWPPRA cash flow projects beyond Increment 1.
- b. **Funding for CWPPRA Program's Technical Services.** The U.S. Geological Survey (USGS) and the Louisiana Coastal Protection and Restoration Authority (CPRA) requested funding in the amount of \$171,410 for technical services for the CWPPRA program.
- c. **FY16 Monitoring Incremental Funding and Budget Increase.** CWPPRA total FY16 monitoring incremental funding in the amount of \$10,008,316 and budget increase in the amount of \$24,492 were requested.
- d. **FY16 Operation and Monitoring (O&M) Incremental Funding.** CWPPRA total FY16 O&M incremental funding in the amount of \$4,210,149 was requested.

Murry, Allison N CONTRACTOR @ MVN

From: Murry, Allison N CONTRACTOR @ MVN
Sent: Monday, November 18, 2013 12:09 PM
To: 'bill honker'; 'Chris Doley'; 'Garret Graves'; Hansen, Richard L COL MVN; 'Jeff Weller'; 'Kevin Norton (kevin.norton@la.usda.gov)'
Cc: 'Bren Haase'; 'britt.paul@la.usda.gov'; 'Darryl Clark'; 'Holden, Thomas A MVN'; 'Karen McCormick (McCormick.Karen@epamail.epa.gov)'; 'Richard.Hartman@noaa.gov'; Inman, Brad L MVN; 'Roy, Kevin'; Petitbon, John B MVN; 'Cecelia Linder - NOAA Federal'; rachel.sweeney@noaa.gov; Adrian Chavarria; 'Chris Allen (CPRA)'; Mabry, Susan M MVN; 'Stuart Brown'; 'Dona Weifenbach'; 'Michelle Fischer'; Scott_Wilson
Subject: RE: CWPPRA Task Force Electronic Votes (in lieu of Oct 2013 mtg) -- APPROVED (UNCLASSIFIED)
Attachments: ALL Electronic Votes (Oct TF Mtg votes).pdf

Classification: UNCLASSIFIED
Caveats: NONE

Task Force,

Thank you for your timely responses, we have an electronic vote concurrence to approve the following:

- (1) USACE requests funding in the amount of \$26,834 for FY16 administrative costs for cash flow projects beyond Increment 1.
- (2) USGS and CPRA request funding in the amount of \$171,410 for technical services for the CWPPRA program.
- (3) Total FY16 monitoring incremental funding requests in the amount of \$10,008,316 and budget increase in the amount of \$24,492.
- (4) Total FY16 O&M incremental funding requests in the amount of \$4,210,149.

As stated in the email below, for public comment reasons, the Status of Unconstructed Project (SOUP) recommendations and the BA-02 O&M funding and budget increase request will be added to the January Task Force meeting agenda.

Thanks!

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

From: Murry, Allison N CONTRACTOR @ MVN
Sent: Wednesday, November 13, 2013 1:20 PM
To: 'bill honker'; 'Chris Doley'; 'Garret Graves'; Hansen, Richard L COL MVN; 'Jeff Weller'; 'Kevin Norton (kevin.norton@la.usda.gov)'
Cc: 'Bren Haase'; 'britt.paul@la.usda.gov'; 'Darryl Clark'; 'Holden, Thomas A MVN'; 'Karen McCormick (McCormick.Karen@epamail.epa.gov)'; 'Richard.Hartman@noaa.gov'; Inman, Brad L MVN; 'Roy, Kevin'; Petitbon, John B MVN; 'Cecelia Linder - NOAA Federal'; rachel.sweeney@noaa.gov; Adrian Chavarria; 'Chris Allen (CPRA)'; Mabry, Susan M MVN; 'Stuart Brown'
Subject: CWPPRA Task Force Electronic Votes (in lieu of Oct 2013 mtg) (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Task Force,

Please see the attached memorandums from the Chairman of the Task Force requesting electronic votes in lieu of the October 2013 CWPPRA Task Force meeting, which was canceled due to the government shutdown.

The votes are for the following:

- (1) USACE requests funding in the amount of \$26,834 for FY16 administrative costs for cash flow projects beyond Increment 1.
- (2) USGS and CPRA request funding in the amount of \$171,410 for technical services for the CWPPRA program.
- (3) Total FY16 monitoring incremental funding requests in the amount of \$10,008,316 and budget increase in the amount of \$24,492.
- (4) Total FY16 O&M incremental funding requests in the amount of \$4,210,149. **NOTE: It was requested for public comment purposes to wait until the January Task Force meeting to vote for the BA-02 O&M funding and budget increase request. The memo was already in routing and does not reflect this change; however, the Excel voting sheet reflects the correct motion.**

Additionally, for public comment purposes, it was requested to wait until the January Task Force meeting to vote on the Status of Unconstructed Projects (SOUP) recommendations -- deauthorize Bayou Sale Shoreline Protection (TV-20) and Bertrandville Siphon (BS-18); transfer the unconstructed River Reintroduction into Maurepas Swamp Project (PO-20) from EPA to CPRA; and inactivate Ship Shoal: Whiskey West Flank Restoration (TE-47) and Venice Ponds Marsh Creation & Crevasses (MR-15).

Please see the attached "Status of Funds" pdf from the September Technical Committee meeting. Any additional funding questions can be directed to Susan Mabry.

Please email scanned copies of the vote sheets (4 total) to me (Allison.Murry@usace.army.mil) OR fax your completed forms to the US Army Corps of Engineers at 504-862-2572 by Monday, November 18, 2013. If you fax the forms, please send me an email to let me know they were faxed.

Thank you,
Allison Murry
CWPPRA Program
USACE New Orleans
Tel: 504.862.2075

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE



REPLY TO
ATTENTION OF

CEMVN-PM-B

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

18 NOV 2013

MEMORANDUM FOR Louisiana Coastal Wetlands Conservation and Restoration Task Force

SUBJECT: Recommendation to Approve Request for Incremental Funding for FY16 Administrative Costs

1. The U.S. Army Corps of Engineers (USACE) requests funding in the amount of \$26,834 for FY16 administrative costs for Coastal Wetlands, Planning, Protection, and Restoration Act (CWPPRA) cash flow projects beyond Increment 1. Additional information on this annual request is enclosed (Encl 1). The Technical Committee voted at the 11 September 2013 meeting, to recommend the proposal for Task Force approval. This electronic vote is in lieu of the October 2013 Task Force meeting, which was canceled due to the government shutdown.

2. I request an electronic vote from the Task Force regarding the recommended approval of the funding request. Please consider the following motion:

- The CWPPRA Task Force approves the Technical Committee's recommendation to approve USACE's funding request in the amount of \$26,834 for FY16 administrative costs for cash flow projects beyond Increment 1.

3. Please use the enclosed facsimile transmittal form to submit your vote (Encl 2). Please fax your completed form to the U.S. Army Corps of Engineers at (504) 862-2572 or email a scanned copy to Brad.L.Inman@usace.army.mil by COB Monday, 18 November 2013.

4. If you have any questions concerning this request, please contact Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124 or Mr. Thomas A. Holden Jr., P.E., Deputy District Engineer for Project Management, at (504) 862-2204.

2 Encls
as


RICHARD L. HANSEN
Colonel, EN
Commanding

ANNUAL REQUEST FOR INCREMENTAL FUNDING FOR FY16 ADMINISTRATIVE COSTS FOR CASH FLOW PROJECTS

The U.S. Army Corps of Engineers will request funding approval in the amount of \$26,834 for administrative costs for cash flow projects beyond Increment 1. The Task Force will consider the Technical Committee's recommendation on the request for funds for the following projects:

- Barataria Basin Landbridge Shoreline Protection, Phase 4 (BA-27d), PPL 11, NRCS
Incremental funding amount: \$1,064
- Barataria Basin Landbridge Shoreline Protection, Phase 3 (BA-27c), PPL 9, NRCS
Incremental funding amount: \$1,396
- Little Lake Shoreline Protection/ Dedicated Dredging (BA-37), PPL 11, NMFS
Incremental funding amount: \$1,097
- North Lake Mechant Landbridge Restoration (TE-44), PPL 10, USFWS
Incremental funding amount: \$828
- West Lake Boudreaux Shoreline Protection & Marsh Creation (TE-46), PPL 11, USFWS
Incremental funding amount: \$908
- GIWW - Perry Ridge West Bank Stabilization (CS-30), PPL 9, NRCS
Incremental funding amount: \$1,056
- South White Lake Shoreline Protection (ME-22), PPL 12, USACE
Incremental funding amount: \$1,285
- Lake Borgne Shoreline Protection (PO-30), PPL 10, EPA
Incremental funding amount: \$1,704
- Delta Management at Fort St. Philip (BS-11), PPL 10, USFWS
Incremental funding amount: \$2,099
- Pass Chalant to Grand Bayou Pass Barrier Shoreline Protection (BA-35), PPL 11, NMFS
Incremental funding amount: \$908
- Pelican Island and Pass La Mer to Chalant Pass Restoration (BA-38), PPL 11, NMFS
Incremental funding amount: \$1,590
- Mississippi River Sediment Delivery System Bayou Dupont (BA-39), PPL 12, EPA
Incremental funding amount: \$1,752
- Goose Pt., Pt. Platte Marsh Creation (PO-33), PPL 13, USFWS
Incremental funding amount: \$1,744
- Coastwide Nutria Control Program (LA-03b), PPL 11, NRCS
Incremental funding amount: \$2,161
- Point Au Fer Canal Plugs (TE-22), PPL 2, NMFS
Incremental funding amount: \$1,349
- Lake Chapeau Sediment Input and Hydrologic Restoration (TE-26), PPL 6, NMFS
Incremental funding amount: \$1,544
- Brady Canal Hydrologic Restoration (TE-28), PPL 3, NRCS
Incremental funding amount: \$1,349
- Replace Sabine Refuge Water Control Structures & Hog Island (CS-23), PPL 3, USFWS
Incremental funding amount: \$1,000
- Coastwide Reference Monitoring System (CRMS) -Wetlands
Incremental funding amount: \$2,000

CEMVN-PM-B

SUBJECT: Recommendation to Approve Request for Incremental Funding for FY16
Administrative Costs

CF:

via email (w/encls)

Mr. Garret Graves, LA Office of the Governor

Mr. William Honker, Environmental Protection Agency

Mr. Jeffrey Weller, U.S. Fish and Wildlife Service

Mr. Kevin Norton, Natural Resource Conservation Service

Mr. Chris Doley, National Oceanic and Atmosphere Administration

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

Mr. Bren Haase, LA Coastal Protection and Restoration Authority

Mr. Rick Hartman, National Marine and Fisheries Service

Ms. Karen McCormick, Environmental Protection Agency

Mr. Britt Paul, Natural Resource Conservation Service

Mr. Thomas A. Holden Jr., U.S. Army Corps of Engineers

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM	Agency Name <i>ERA</i>	Task Force Member Name <i>Hawker</i>	
TO	USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124 (504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve USACE's funding request in the amount of \$26,834 for FY16 administrative costs for cash flow projects beyond Increment 1.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

BRK Hawker
Task Force Member Name

11/15/13
Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
Fish and Wildlife Service	Jeff Weller	337-291-3115	337-291-3139
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve USACE's funding request in the amount of \$26,834 for FY16 administrative costs for cash flow projects beyond Increment 1.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,


Jeff Weller

11/14/13
Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM NOAA Fisheries	Christopher D. Doley	301-427-8660	301-713-0184
TO USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/Time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve USACE's funding request in the amount of \$26,834 for FY16 administrative costs for cash flow projects beyond Increment 1.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

 Christopher D. Doley

11-18-2013
 Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
NRCS	Kevin D. Norton	318-473-7751	318-473-7626
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages Including Header	Date/time
			Releaser's Signature

REMARKS:

The Motion:

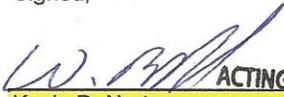
The CWPPRA Task Force approves the Technical Committee's recommendation to approve USACE's funding request in the amount of \$26,834 for FY16 administrative costs for cash flow projects beyond Increment 1.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,


 ACTING FOR
 Kevin D. Norton

11-13-13
 Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
Agency Name <i>USACE</i>	Task Force Member Name <i>MVN- COL Hansen</i>		
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages Including Header	Date/time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve USACE's funding request in the amount of \$26,834 for FY16 administrative costs for cash flow projects beyond Increment 1.

Please check one of the following:

[Signature] I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

[Signature]

Task Force Member Name

15 Nov 2013

Date

Murry, Allison N CONTRACTOR @ MVN

From: Garret Graves [Garret.Graves@LA.GOV]
Sent: Wednesday, November 13, 2013 6:57 PM
To: Murry, Allison N CONTRACTOR @ MVN
Cc: Bren Haase; Jerome Zeringue; Kyle Graham (CPRA); Jammie Favorite; Chris Allen (CPRA)
Subject: [EXTERNAL] RE: CWPPRA Task Force Electronic Votes (in lieu of Oct 2013 mtg) (UNCLASSIFIED)

Louisiana supports all four.

Thanks Allison.

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

From: Murry, Allison N CONTRACTOR @ MVN [<mailto:Allison.Murry@usace.army.mil>]
Sent: Wednesday, November 13, 2013 1:20 PM
To: bill honker; Chris Doley; Garret Graves; Hansen, Richard L COL MVN; Jeff Weller; Kevin Norton (kevin.norton@la.usda.gov)
Cc: Bren Haase; britt.paul@la.usda.gov; Darryl Clark; Holden, Thomas A MVN; Karen McCormick (McCormick.Karen@epamail.epa.gov); Richard.Hartman@noaa.gov; Inman, Brad L MVN; Roy, Kevin; Petitbon, John B MVN; Cecelia Linder - NOAA Federal; rachel.sweeney@noaa.gov; Adrian Chavarria; Chris Allen (CPRA); Mabry, Susan M MVN; Stuart Brown
Subject: CWPPRA Task Force Electronic Votes (in lieu of Oct 2013 mtg) (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Task Force,

Please see the attached memorandums from the Chairman of the Task Force requesting electronic votes in lieu of the October 2013 CWPPRA Task Force meeting, which was canceled due to the government shutdown.

The votes are for the following:

- (1) USACE requests funding in the amount of \$26,834 for FY16 administrative costs for cash flow projects beyond Increment 1.
- (2) USGS and CPRA request funding in the amount of \$171,410 for technical services for the CWPPRA program.
- (3) Total FY16 monitoring incremental funding requests in the amount of \$10,008,316 and budget increase in the amount of \$24,492.
- (4) Total FY16 O&M incremental funding requests in the amount of \$4,210,149. **NOTE: It was requested for public comment purposes to wait until the January Task Force meeting to vote for the BA-02 O&M funding and budget increase request. The memo was already in routing and does not reflect this change; however, the Excel voting sheet reflects the correct motion.**

Additionally, for public comment purposes, it was requested to wait until the January Task Force meeting to vote on the Status of Unconstructed Projects (SOUP) recommendations -- deauthorize Bayou Sale Shoreline Protection (TV-20) and Bertrandville Siphon (BS-18); transfer the unconstructed River Reintroduction into Maurepas Swamp Project (PO-20) from EPA to CPRA; and inactivate Ship Shoal: Whiskey West Flank Restoration (TE-47) and Venice Ponds Marsh Creation & Crevasses (MR-15).

Please see the attached "Status of Funds" pdf from the September Technical Committee meeting. Any additional funding questions can be directed to Susan Mabry.

Please email scanned copies of the vote sheets (4 total) to me (Allison.Murry@usace.army.mil) OR fax your completed forms to the US Army Corps of Engineers at 504-862-2572 by Monday,



REPLY TO
ATTENTION OF

CEMVN-PM-B

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

13 NOV 2013

MEMORANDUM FOR Louisiana Coastal Wetlands Conservation and Restoration Task Force

SUBJECT: Recommendation to Approve Requested Funding for the CWPPRA Program's Technical Services

1. The U.S. Geological Survey (USGS) and the Louisiana Coastal Protection and Restoration Authority (CPRA) request funding in the amount of \$171,410 for technical services for the Coastal Wetlands, Planning, Protection, and Restoration Act (CWPPRA) program. Additional information on this annual request is enclosed (Encl 1). The Technical Committee voted at the 11 September 2013 meeting, to recommend the proposal for Task Force approval. This electronic vote is in lieu of the October 2013 Task Force meeting, which was canceled due to the government shutdown.

2. On behalf of USGS and CPRA, I request an electronic vote from the Task Force regarding the recommended approval of the funding request. Please consider the following motion:

- The CWPPRA Task Force approves the Technical Committee's recommendation to approve USGS and CPRA's funding request in the amount of \$171,410 for the CWPPRA program's technical services.

3. Please use the enclosed facsimile transmittal form to submit your vote (Encl 2). Please fax your completed form to the U.S. Army Corps of Engineers at (504) 862-2572 or email a scanned copy to Brad.L.Inman@usace.army.mil by COB Monday, 18 November 2013.

4. If you have any questions concerning this request, please contact Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124 or Mr. Thomas A. Holden Jr., P.E., Deputy District Engineer for Project Management, at (504) 862-2204.

2 Encls
as

RICHARD L. HANSEN
Colonel, EN
Commanding

CEMVN-PM-B

SUBJECT: Recommendation to Approve Requested Funding for the CWPPRA
Program's Technical Services

CF:

via email (w/encls)

Mr. Garret Graves, LA Office of the Governor

Mr. William Honker, Environmental Protection Agency

Mr. Jeffrey Weller, U.S. Fish and Wildlife Service

Mr. Kevin Norton, Natural Resource Conservation Service

Mr. Chris Doley, National Oceanic and Atmosphere Administration

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

Mr. Kirk Rhinehart, LA Office of Coastal Protection and Restoration

Mr. Rick Hartman, National Marine and Fisheries Service

Ms. Karen McCormick, Environmental Protection Agency

Mr. Britt Paul, Natural Resource Conservation Service

Mr. Thomas A. Holden Jr., U.S. Army Corps of Engineers



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

National Wetlands Research Center

April 2, 2014

Scope of Work

Technical Services to the CWPPRA Program

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

Project Information Database Maintenance Task Description:

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

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

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

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

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

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

GIS Task Description:

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

Technical Services for FY14

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

Deliverables:

Project Information Database Maintenance Task

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

CWPPRA Website Maintenance Task

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

GIS Task

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

Points of Contact:

Craig Conzelmann, Physical Scientist
USGS - National Wetlands Research Center
700 Cajundome Blvd
Lafayette, LA 70506
work: 337-266-8842
mobile: 337-356-6510
Email: conzelmannc@usgs.gov

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

FACSIMILE TRANSMITTAL HEADER SHEET

Agency		NAME/OFFICE SYMBOL		OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM		Task Force Member Name			
Agency Name <i>EPA</i>		<i>Hawker</i>			
TO		Brad Inman CWPPRA Program Manager		(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time	Releaser's Signature	

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve USGS and CPRA's funding request in the amount of \$171,410 for the CWPPRA program's technical services.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

Brad Inman
Task Force Member Name

11/15/13
Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
Fish and Wildlife Service	Jeff Weller	337-291-3115	337-291-3139
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve USGS and CPRA's funding request in the amount of \$171,410 for the CWPPRA program's technical services.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,


Jeff Weller

11/14/13
Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM NOAA Fisheries	Christopher D. Doley	301-427-8660	301-713-0184
TO USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time
			Releaser's Signature

REMARKS:

The Motion:

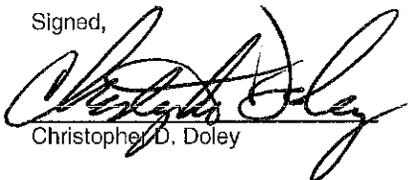
The CWPPRA Task Force approves the Technical Committee's recommendation to approve USGS and CPRA's funding request in the amount of \$171,410 for the CWPPRA program's technical services.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,


Christopher D. Doley

11-18-2013
Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
NRCS	Kevin D. Norton	318-473-7751	318-473-7626
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages Including Header	Date/time
			Releaser's Signature

REMARKS:

The Motion:

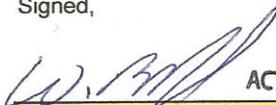
The CWPPRA Task Force approves the Technical Committee's recommendation to approve USGS and CPRA's funding request in the amount of \$171,410 for the CWPPRA program's technical services.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,


 ACTING FOR

 Kevin D. Norton

11-13-13

 Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
Agency Name <i>USACE</i>	Task Force Member Name <i>COL Hansco</i>		
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages Including Header	Date/time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve USGS and CPRA's funding request in the amount of \$171,410 for the CWPPRA program's technical services.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

R. Hansco

 Task Force Member Name

15 Nov 2013

 Date



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF

13 NOV 2013

CEMVN-PM-B

MEMORANDUM FOR Louisiana Coastal Wetlands Conservation and Restoration Task Force

SUBJECT: Recommendation to Approve FY16 Monitoring Incremental Funding and Budget Increase

1. Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) total FY16 monitoring incremental funding in the amount of \$10,008,316 and budget increase in the amount of \$24,492 were requested. Additional information on specific project funding requests is enclosed (Encl 1). The Technical Committee voted at the 11 September 2013 meeting, to recommend the proposal for Task Force approval. This electronic vote is in lieu of the October 2013 Task Force meeting, which was canceled due to the government shutdown.

2. I request an electronic vote from the Task Force regarding the recommended approval of the incremental funding and budget increase requests. Please consider the following motion:

- The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 monitoring incremental funding in the amount of \$10,008,316 and budget increase in the amount of \$24,492.

3. Please use the enclosed facsimile transmittal form to submit your vote (Encl 2). Please fax your completed form to the U.S. Army Corps of Engineers at (504) 862-2572 or email a scanned copy to Brad.L.Inman@usace.army.mil by COB Monday, 18 November 2013.

4. If you have any questions concerning this request, please contact Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124 or Mr. Thomas A. Holden Jr., P.E., Deputy District Engineer for Project Management, at (504) 862-2204.

2 Encls
as

RICHARD L. HANSEN
Colonel, EN
Commanding

CEMVN-PM-B

SUBJECT: Recommendation to Approve FY16 Monitoring Incremental Funding and Budget Increase

CF:

via email (w/encls)

Mr. Garret Graves, LA Office of the Governor

Mr. William Honker, Environmental Protection Agency

Mr. Jeffrey Weller, U.S. Fish and Wildlife Service

Mr. Kevin Norton, Natural Resource Conservation Service

Mr. Chris Doley, National Oceanic and Atmosphere Administration

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

Mr. Kirk Rhinehart, LA Office of Coastal Protection and Restoration

Mr. Rick Hartman, National Marine and Fisheries Service

Ms. Karen McCormick, Environmental Protection Agency

Mr. Britt Paul, Natural Resource Conservation Service

Mr. Thomas A. Holden Jr., U.S. Army Corps of Engineers

REQUEST FOR MONITORING INCREMENTAL FUNDING AND BUDGET INCREASES

The Task Force will consider the Technical Committee's recommendation to approve requests for total FY16 incremental funding in the amount of \$10,008,316.

- a. PPL 9+ Projects requesting approval for FY16 incremental funding in the total amount of \$639,283 for the following projects:
 - Grand Lake-White Lake Landbridge Protection (ME-19), PPL 10, USFWS
Incremental funding amount: \$29,000
 - Coastwide Planting Project (LA-39), PPL 20, NRCS
Incremental funding amount: \$76,686
 - Coastwide Nutria Control Program (LA-03b), PPL 11, NRCS
Incremental Funding amount: \$96,109
 - Barataria Basin Landbridge Shoreline Protection (BA-27c), PPL 9, NRCS
Incremental funding amount: \$8,648
 - Pass Chalant to Grand Bayou Pass (Bay Joe Wise) Barrier Shoreline Restoration (BA-35), PPL 11, NMFS
Incremental funding amount: \$102,738
 - Dedicated Dredging on the Barataria Basin Landbridge (BA-36), PPL 11, USFWS
Incremental funding amount: \$88,179
 - Pelican Island and Pass La Mer to Chalant Pass Restoration (BA-38), PPL 11, NMFS
Incremental funding amount: \$147,657
 - Lake Hermitage Marsh Creation (BA-42), PPL 15, USFWS
Incremental funding amount: \$31,027
 - Delta Management at Fort St. Philip (BS-11), PPL 10, USFWS
Incremental funding amount: \$16,736
 - Timbalier Island Dune & Marsh Creation (TE-40), PPL 9, EPA
Incremental funding amount: \$13,297
 - Four Mile Canal Terracing and Sediment Trapping (TV-18), PPL 9, NMFS
Incremental funding amount: \$29,206
- b. PPL 1-8 Project requesting approval for FY16 incremental funding in the total amount of \$135,501:
 - East Mud Lake Marsh Management (CS-20), PPL 2, NRCS
Incremental funding amount: \$130,071
 - Naomi Outfall Project (BA-03c), PPL 5, NRCS
Incremental funding amount: \$5,430
- c. PPL 1-8 Projects requesting approval for a budget increase and incremental funding:
 - Vermilion River Cutoff Bank Protection (TV-03), PPL 1, USACE
Funding increase amount: \$24,492
Incremental funding amount: \$24,492
- d. Coastwide Reference Monitoring System (CRMS) requesting approval for FY16 incremental funding in the total amount of \$9,209,040:
 - Incremental funding (FY13 – FY15): \$9,209,040

Monitoring activities

- a. *PPL 9+ Projects requesting approval for FY16 incremental funding in the total amount of \$639,283 for the following projects:*

Grand Lake-White Lake Landbridge Protection (ME-19), PPL-10, USFWS

FY2016 \$29,000 (Vegetation & shoreline survey, OM&M report)

Coastwide Planting Project (LA-39), PPL-20, NRCS

FY 2016 \$76,686 (Vegetation monitoring and mapping)

Coastwide Nutria Control Program (LA-03b), PPL-11, NRCS

FY2016 \$96,109 (Aerial surveys and report writing)

Barataria Basin Landbridge Shoreline Protection (BA27c), PPL-9, NRCS

FY 2016 \$8,648 (Data Analysis/Reporting)

Pass Chaland to Grand Bayou Pass (Bay Joe Wise) Barrier Shoreline Restoration (BA-35), PPL-11, NMFS

FY 2016 \$102,738 (Photography, Vegetation and Elevation Survey)

Dedicated Dredging on the Barataria Basin Landbridge (BA-36), PPL-11, USFWS

FY 2016 \$88,179 (Elevation Survey)

Pelican Island and Pass La Mer to Chaland Pass Restoration (BA-38), PPL-11, NMFS

FY 2016 \$147,657 (Photography, Vegetation and Elevation Survey)

Lake Hermitage Marsh Creation (BA-42), PPL-15, USFWS

FY 2016 \$31,027 (Photography and Elevation Survey)

Delta Management at Fort St. Philip (BS-11), PPL-10, USFWS

FY 2016 \$16,736 (Vegetation and Report)

Timbalier Island Dune & Marsh Creation (TE-40), PPL-9, EPA

FY 2015 \$13,297 (Data analysis and report writing)

Four Mile Canal Terracing and Sediment Trapping (TV-18), PPL 9, NMFS

FY 2016 \$29,206 (Vegetation and shoreline analysis, OM&M report)

- b. *PPL 1-8 Project requesting approval for FY16 incremental funding in the total amount of \$135,501:*

East Mud Lake Marsh Management (CS-20), PPL-2, NRCS

FY 2015 \$130,071 (Vegetation, soil properties, accretion, and elevation change monitoring; sonde maintenance; OM&M report)

Naomi Outfall Project (BA-03c), PPL-5, NRCS

FY 2016 \$5,430 (Continuous Recorder)

c. *PPL 1-8 Projects requesting approval for a budget increase and incremental funding:*

Vermilion River Cutoff Bank Protection (TV-03), PPL-1, USACE

FY 2015 \$24,492 (Vegetation and shoreline analysis, OM&M report)

**Request for CWPPRA Project O&M Funding Increase
Project Performance Synopsis
August 29, 2013**

Vermilion River Cutoff (TV-03)

The shoreline along the east bank of the Vermilion River Cut-Off Canal has benefitted from the construction of the rock dike. The Differential Global Positioning System (DGPS) shoreline survey performed in 2006 (figure 1) and post-construction aerial photography suggest that the shoreline is stable behind the rock dike while erosion continues along un-rocked portions of the channel.

Additional monitoring funds will support analysis of a DGPS shoreline survey collected in 2011, collection and analysis of a final shoreline survey in 2014, and the compilation of a final monitoring report in 2015.

The project appears to have been successful but at present, we cannot quantify the extent of that success.

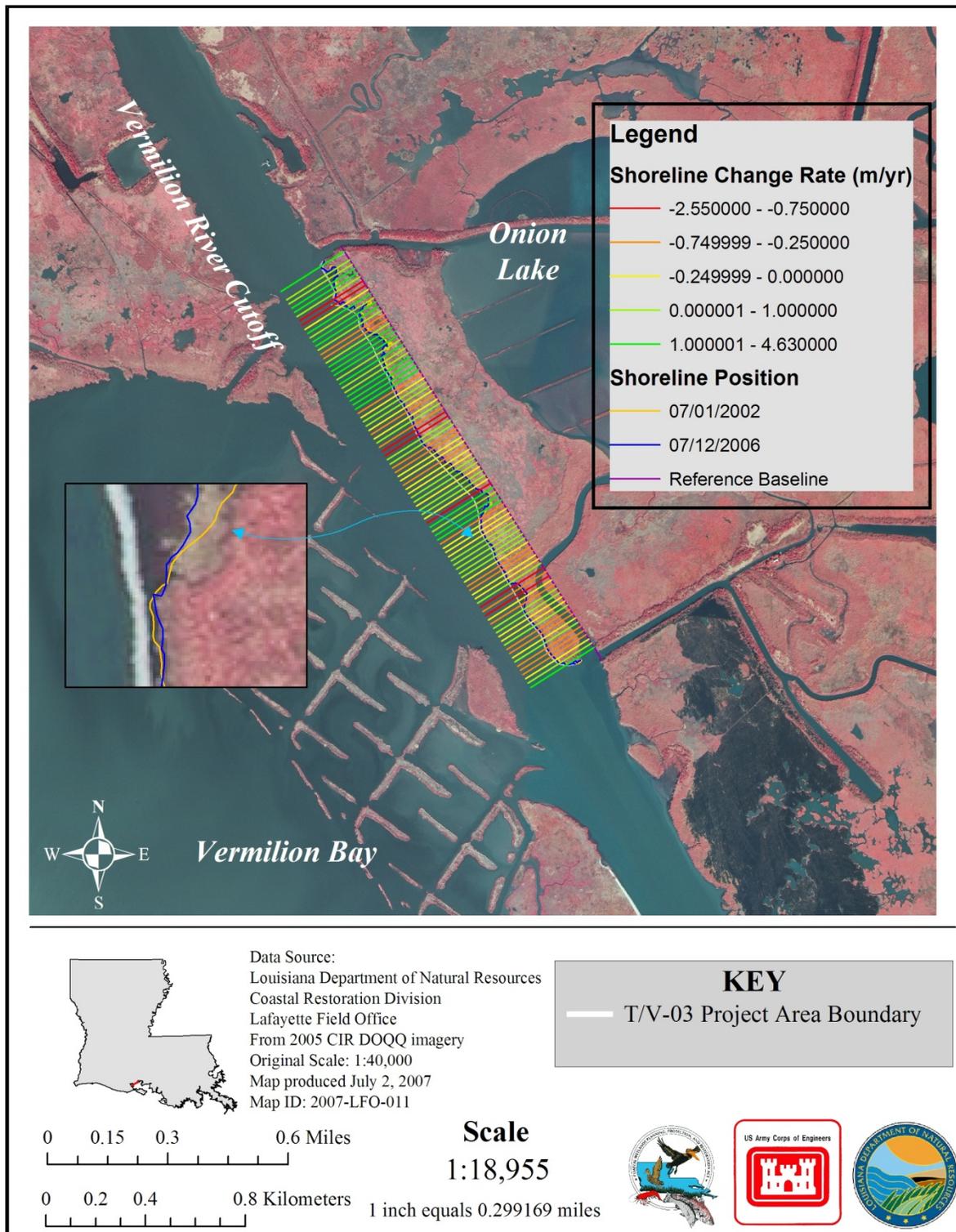


Figure 1. Shoreline change map of the Vermilion River Cut-Off (TV-03) project for July 9, 2002 to July 12, 2006.

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
Agency Name <i>EPA</i>	Task Force Member Name <i>Harker</i>		
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 monitoring incremental funding in the amount of \$10,008,316 and budget increase in the amount of \$24,492.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

 Task Force Member Name

11/15/13
 Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
Fish and Wildlife Service	Jeff Weller	337-291-3115	337-291-3139
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time
		Releaser's Signature	

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 monitoring incremental funding in the amount of \$10,008,316 and budget increase in the amount of \$24,492.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,



Jeff Weller

11/14/13

Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM NOAA Fisheries	Christopher D. Doley	301-427-8660	301-713-0184
TO USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time
			Releaser's Signature

REMARKS:

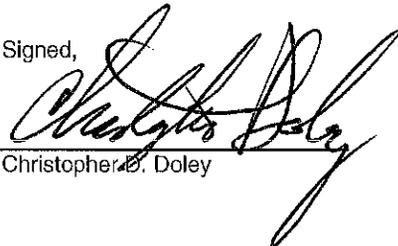
The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 monitoring incremental funding in the amount of \$10,008,316 and budget increase in the amount of \$24,492.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed, 
 Christopher D. Doley

11-18-2013
 Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
NRCS	Kevin D. Norton	318-473-7751	318-473-7626
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages Including Header	Date/time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 monitoring incremental funding in the amount of \$10,008,316 and budget increase in the amount of \$24,492.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,


 ACTING FOR
 Kevin D. Norton

11-13-13
 Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
Agency Name <i>USACE</i>	Task Force Member Name <i>COL Hansen</i>		
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages Including Header	Date/time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 monitoring incremental funding in the amount of \$10,008,316 and budget increase in the amount of \$24,492.

Please check one of the following:

RHI I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

R. Hansen

 Task Force Member Name

15 Nov 2013

 Date



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF

CEMVN-PM-B

13 NOV 2013

MEMORANDUM FOR Louisiana Coastal Wetlands Conservation and Restoration Task Force

SUBJECT: Recommendation to Approve FY16 Operation and Monitoring (O&M) Incremental Funding and Budget Increase

1. Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) total FY16 O&M incremental funding in the amount of \$5,903,032 and budget increase in the amount of \$1,754,749 were requested. Additional information on specific project funding requests is enclosed (Encl 1). The Technical Committee voted at the 11 September 2013 meeting, to recommend the proposal for Task Force approval. This electronic vote is in lieu of the October 2013 Task Force meeting, which was canceled due to the government shutdown.

2. I request an electronic vote from the Task Force regarding the recommended approval of the funding and budget increase requests. Please consider the following motion:

- The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 O&M incremental funding in the amount of \$5,903,032 and O&M budget increase in the amount of \$1,754,749.

3. Please use the enclosed facsimile transmittal form to submit your vote (Encl 2). Please fax your completed form to the U.S. Army Corps of Engineers at (504) 862-2572 or email a scanned copy to Brad.L.Inman@usace.army.mil by COB Monday, 18 November 2013.

4. If you have any questions concerning this request, please contact Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124 or Mr. Thomas A. Holden Jr., P.E., Deputy District Engineer for Project Management, at (504) 862-2204.

2 Encls
as


RICHARD L. HANSEN
Colonel, EN
Commanding

CEMVN-PM-B

SUBJECT: Recommendation to Approve FY16 Operation and Monitoring (O&M)
Incremental Funding and Budget Increase

CF:

via email (w/encls):

Mr. Garret Graves, LA Office of the Governor

Mr. William Honker, Environmental Protection Agency

Mr. Jeffrey Weller, U.S. Fish and Wildlife Service

Mr. Kevin Norton, Natural Resource Conservation Service

Mr. Chris Doley, National Oceanic and Atmosphere Administration

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

Mr. Kirk Rhinehart, LA Office of Coastal Protection and Restoration

Mr. Rick Hartman, National Marine and Fisheries Service

Ms. Karen McCormick, Environmental Protection Agency

Mr. Britt Paul, Natural Resource Conservation Service

Mr. Thomas A. Holden Jr., U.S. Army Corps of Engineers

REQUEST FOR OPERATION AND MAINTENANCE (O&M) INCREMENTAL FUNDING AND BUDGET INCREASES

The Task Force will consider the Technical Committee's recommendation to approve requests for total FY16 incremental funding in the amount of \$5,903,032 and O&M budget increases totaling \$1,754,749.

- a. PPL 9+ Projects requesting approval for FY16 incremental funding in the total amount of \$3,359,605 for the following projects:
- Little Lake Shoreline Protection/ Dedicated Dredging Near Round Lake (BA-37), PPL 11, NMFS
Incremental funding amount (FY16) (O&M and State Insp.): \$12,253
Incremental funding amount (Federal S&A): \$1,604
 - Barataria Basin Landbridge Shoreline Protection, Phase 3 (BA-27c), PPL 9, NRCS
Incremental funding amount \$5,882
 - North Lake Mechant Landbridge Restoration (TE-44), PPL 10, USFWS
Incremental funding amount: \$95,367
 - West Lake Boudreaux Shoreline Protection and Marsh Creation (TE-46), PPL 11, USFWS
Incremental funding amount: \$15,801
 - GIWW - Perry Ridge West Bank Stabilization (CS-30), PPL 9, NRCS
Incremental funding amount: \$413,252
 - South White Lake Shoreline Protection (ME-22), PPL 12, USACE
Incremental funding amount: \$11,871
Incremental funding amount (Federal S&A): \$3,957
 - Lake Borgne Shoreline Protection (PO-30), PPL 10, EPA
Incremental funding amount (FY16) (O&M and State Insp.): \$88,400
Incremental funding amount (Federal S&A): \$1,180
 - Delta Management at Fort St. Philip (BS-11), PPL 10, USFWS
Incremental funding amount (FY16): \$5,666
 - Pass Chalard to Grand Bayou Pass Barrier Shoreline Protection (BA-35), PPL 11, NMFS
Incremental funding amount (FY16) (O&M and State Insp.): \$224,790
Incremental funding amount (Federal S&A): \$4,178
 - Pelican Island and Pass La Mer to Chalard Pass Restoration (BA-38), PPL 11, NMFS
Incremental funding amount (FY16) (O&M and State Insp.): \$142,707
Incremental funding amount (Federal S&A): \$10,861
 - Mississippi River Sediment Delivery System Bayou Dupont (BA-39), PPL 12, EPA
Incremental funding amount (FY16) (O&M and State Insp.): \$3,726
Incremental funding amount (Federal S&A): \$3,726
 - Goose Pt., Pt. Platte Marsh Creation (PO-33), PPL 13, USFWS
Incremental funding amount (FY16) (O&M and State Insp.): \$3,650
Incremental funding amount (Federal S&A): \$3,399
 - Coastwide Nutria Control Program (LA-03b), PPL 11, NRCS
Incremental funding amount (FY16): \$2,307,335

- b. PPL 1-8 Projects requesting approval for FY16 incremental funding in the amount of \$850,544 for the following projects:
- Point Au Fer Canal Plugs (TE-22), PPL2, NMFS
Incremental funding amount (FY16) (O&M and State Insp.): \$14,127
Incremental funding amount (Federal S&A): \$2,430
 - Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island (TE-26), PPL 6, NMFS
Incremental funding amount (FY16) (O&M and State Insp.): \$13,904
Incremental funding amount (Federal S&A): \$2,459
 - Brady Canal Hydrologic Restoration (TE-28), PPL 3, NRCS
Incremental funding amount: \$172,706
 - West Belle Pass Headland Restoration (TE-23), PPL 2, USACE
Incremental funding amount: \$42,111
 - Cameron-Creole Maintenance (CS-04a), PPL 3, NRCS
Incremental funding amount: \$248,439
 - East Mud Lake Marsh Management (CS-20), PPL 2, NRCS
Incremental funding amount: \$38,877
 - Highway 384 Hydrologic Restoration (CS-21), PPL 2, NRCS
Incremental funding amount: \$171,450
 - Replace Sabine Refuge Water Control Structures at Headquarters Canal, West Cove Canal, and Hog Island Gully (CS-23), PPL 3, USFWS
Incremental funding amount: \$144,041
- c. PPL 1-8 Project requesting approval for an O&M budget increase of \$1,754,749 and FY16 incremental funding in the amount of \$1,692,883:
- GIWW to Clovelly Hydrologic Restoration (BA-02), PPL 1, NRCS
Budget Increase amount: \$1,754,749
Incremental Funding amount: \$1,692,883

O&M Activities

- a. *PPL 9+ Projects requesting approval for FY16 incremental funding in the total amount of \$3,359,605 for the following projects:*

Little Lake Shoreline Protecton (BA-37), PPL-11, NMFS

State O&M:

FY 2015	\$6,030 (Annual Inspection)
FY 2016	\$6,223 (Annual Inspection)
TOTAL	\$12,253

Federal S&A:

FY 2016	\$1,604
---------	---------

Bartaria Landbridge (BA-27c – Phase 3), PPL-9, NRCS

State O&M:

FY 2015	\$2,898 (Annual Inspection)
FY 2016	\$2,984 (Annual Inspection)
TOTAL	\$5,882

North Lake Mechant (TE-44), PPL-10, USFWS

State O&M:

FY 2014	\$4,292 (Annual Inspection)
FY 2015	\$4,421 (Annual Inspection)
FY 2016	\$86,654 (Annual Inspection, Earthen embankment refurbishment)
TOTAL	\$95,367

West Lake Boudreaux (TE-46), PPL-11, USFWS

State O&M:

FY 2014	\$5,097 (Annual Inspection)
FY 2015	\$5,265 (Annual Inspection)
FY 2016	\$5,439 (Annual Inspection)
TOTAL	\$15,801

CS-30: GIWW – Perry Ridge West Bank Stabilization, PPL-9, NRCS

State O&M:

FY09-FY13	\$356,851 (Catch up amount that was never requested for maintenance event, repair earthen plug with sheet pile wall)
FY 2014	\$5,743 (Annual inspections)
FY 2015	\$5,932 (Annual inspections)
FY 2016	\$44,726 (Annual inspection and minor maintenance for sheet pile wall)
TOTAL	\$413,252

ME-22: South White Lake Shoreline Protection, PPL-12, USACE

State O&M:

FY 2015	\$5,877 (Annual inspection)
FY 2016	\$5,994 (Annual inspection)
TOTAL	\$11,871

Federal S&A:

FY 2015	\$1,959
FY 2016	\$1,998
TOTAL	\$3,957

Lake Borgne Shoreline Protection (PO-30), PPL-10, EPA

State O&M:

FY 2016 \$88,400 (Annual Inspection, scheduled Navigation Aids Maintenance including State E&D and S&A)

Federal S&A:

FY 2016 \$1,180

Delta Management at Fort St. Philip (BS-11), PPL-10, USFWS

State O&M:

FY 2016 \$5,666 (Annual Inspection)

Pass Chalard to Grand Bayou Pass Barrier Shoreline Protection (BA-35), PPL-11, NMFS

State O&M:

FY 2016 \$224,790 (Annual Inspection, Sand Fence Replacement including State E&D and S&A)

Federal S&A:

FY 2016 \$4,178

Pelican Island and Pass La Mer to Chalard Pass Restoration (BA-38), PPL-11, NMFS

State O&M:

FY 2016 \$142,707 (Annual Inspection, Sand Fence Replacement including state E&D and S&A)

Federal S&A:

FY 2016 \$10,861

Mississippi River Sediment Delivery System Bayou Dupont (BA-39), PPL-12, EPA

State O&M:

FY 2016 \$3,726 (Annual Inspection)

Federal S&A:

FY 2016 \$3,726

Goose Pt., Pt. Platte Marsh Creation (PO-33), PPL-13, USFWS

State O&M:

FY 2016 \$3,650 (Annual Inspection)

Federal S&A:

FY 2016 \$3,399

Coastwide Nutria Control Program (LA-03b), PPL-11, NRCS

FY 2016 \$2,307,335

b. PPL 1-8 Projects requesting approval for FY16 incremental funding in the amount of \$850,544 for the following projects:

Point Au Fer Island (TE-22), PPL-2, NMFS

State O&M:

FY 2015 \$6,949 (Annual Inspection)

FY 2016 \$7,178 (Annual Inspection)

TOTAL \$14,127

Federal S&A:

FY 2016 \$2,430

Lake Chapeau (TE-26), PPL-6, NMFS

State O&M:

FY 2015 \$6,849 (Annual Inspection)

FY 2016 \$7,055 (Annual Inspection)

TOTAL \$13,904

Federal S&A:

FY 2016 \$2,459

Brady Canal (TE-28), PPL-3, NRCS

State O&M:

FY 2014 \$30,986 (Annual Inspection, Structure Operations, Navigational Aid Maintenance and Repairs)

FY 2015 \$110,400 (Annual Inspection, Structure Operations, Navigational Aid Maintenance, and routine overflow bank maintenance)

FY 2016 \$31,350 (Annual Inspection, Structure Operations, Navigational Aid Maintenance and Repairs)

TOTAL \$172,706

West Belle Pass (TE-23), PPL-2, USACE

State O&M:

FY 2015 \$42,111 (Annual Inspection, Topographic Survey and Profile of rock dike)

CS-04a: Cameron-Creole maintenance, PPL-3, NRCS

FY 2015 \$121,255 (Annual inspection and contract operations)

FY 2016 \$127,184 (Annual inspection and contract operations)

TOTAL \$248,239

CS-20: East Mud Lake Marsh Management, PPL-2, NRCS

FY 2013 \$12,769 (Annual inspection and contract operations) (Catch up amount not previously requested)

FY 2014 \$12,957 (Annual inspection and contract operations)

FY 2015 \$13,151 (Annual inspection and contract operations) (End of project life)

TOTAL \$38,877

CS-21: Highway 384 Hydrologic restoration, PPL-2, NRCS

FY 2015 \$150,000 (O&M Maintenance event, Levee Repairs/Inlet Channel Dredging)

FY 2016 21,450 (Annual inspection and contract operations)

TOTAL \$171,450

CS-23: Replace Sabine Refuge Water Control Structures at Headquarters canal, West Cove canal, and Hog Island Gully, PPL-3, USFWS

FY 2014 \$109,453 (Annual inspection, contract operations and overspending amount)

FY 2015 \$17,216 (Annual inspection and contract operations)

FY 2016 \$17,372 (Annual inspection and contract operations)

TOTAL \$144,041

c. PPL 1-8 Project requesting approval for an O&M budget increase of \$1,754,749 and FY16 incremental funding in the amount of \$1,692,883:

GIWW to Clovelly Hydrologic Restoration (BA-02), PPL-1, NRCS

- Please see binder materials for a detailed explanation of this O&M event



BA-02 GIWW to Clovelly Hydrologic Restoration Project

CWPPRA Technical Committee
09/11/2013



committed to our coast

INITIAL CONSTRUCTION DETAILS

Project was designed to reduce adverse tidal effects in the project area and to promote freshwater introduction and sediment retention. Project features included:

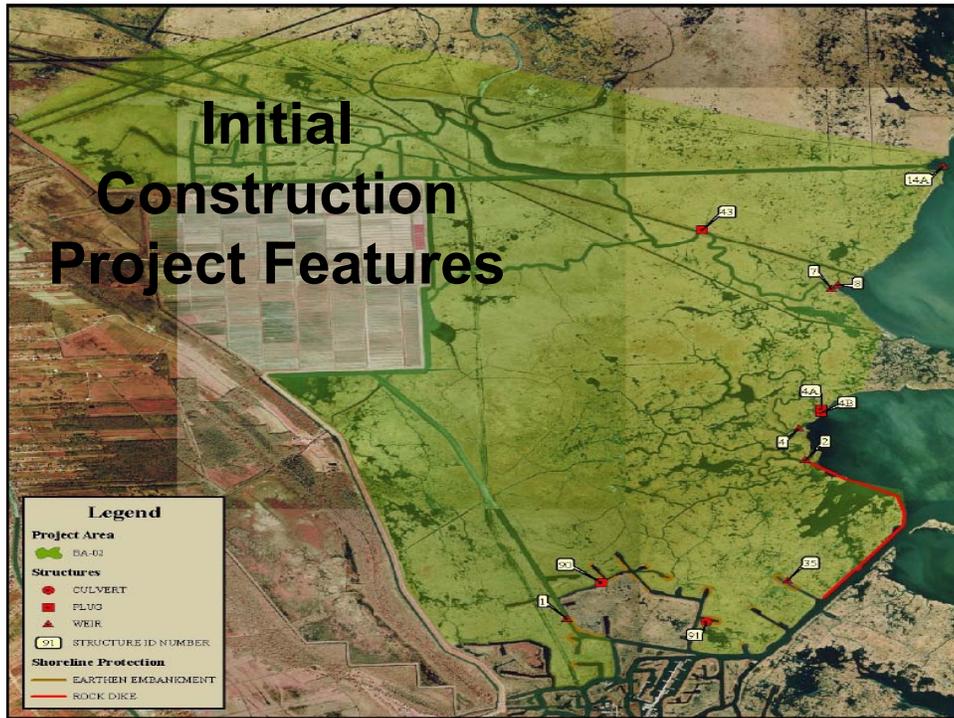
Construction Unit No.1

- Three (3) fixed crest rock weirs with boat bays.
- Two (2) rock channel plugs.
- Rock plug with culvert and flap gate.

Construction Unit No.2

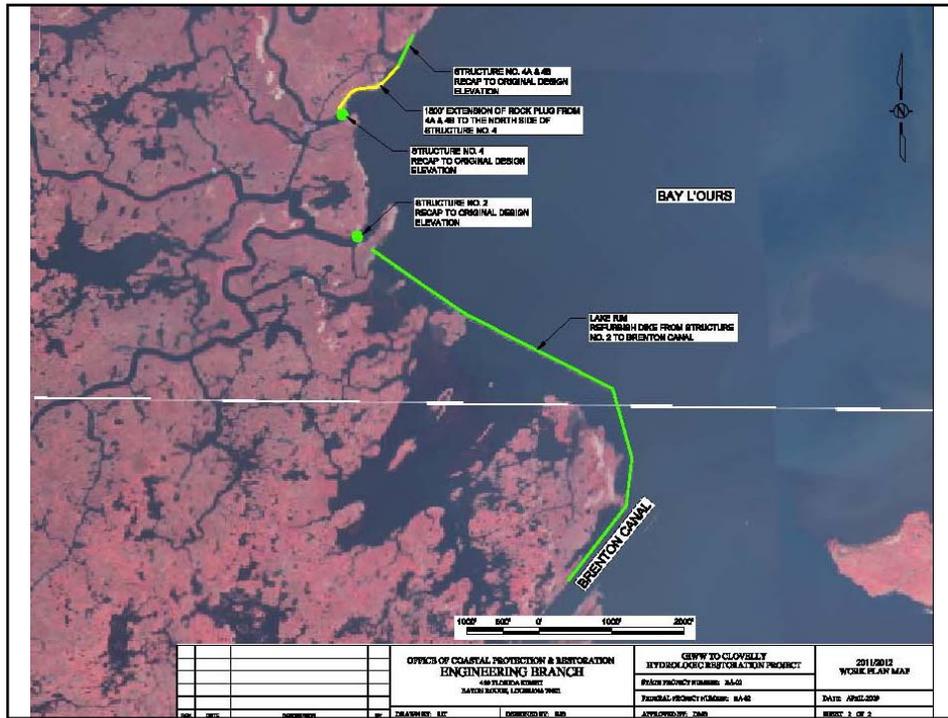
- Fixed crest weir with boat bay
- Rock riprap channel plug
- Fixed crest weir with barge bay
- Variable crest weir, water control structure
- Riprap channel plug
- 5,665 linear feet lake rim restoration
- 11,711 linear feet earthen embankment stabilization

Total Construction Cost: \$6,444,428



MAINTENANCE EVENT No.1 (2006) – DETAILS

- Maintenance needs on project determined in 2006.
- Maintenance resulting from a maritime barge colliding with the timber dolphin system supporting the navigational aids on the southwest side of Structure 14A.
- Tidewater Dock, Inc of Galliano, La. constructed the new timber pile dolphin
- The project was completed in Dec 2006.
- Work funded from the O&M budget
- **BA-02 Maintenance Cost for Construction: \$14,000**



PROPOSED MAINTENANCE EVENT No. 3 (2013)

Proposed Maintenance Event No.3 consist of approximately 1,700 linear feet of rock dike to protect the fragile and deteriorating marsh between Structures 2 and 4. The project area breached during Hurricane Isaac, compromising the project goals. The Overall Projected Budget to complete this work is outlined below:

Estimated Construction Cost:	\$1,512,000
Engineering and Design:	\$ 104,600
Surveying:	\$ 19,950
Permitting:	\$ 3,200
Construction Inspection:	\$ 102,000
Construction Administration:	\$ 18,000
CPRA Administration:	\$ 20,000
Total Overall Estimated Project Budget:	\$1,779,750



Request for CWPPRA Project O&M Funding Increase
Project Performance Synopsis
August 2013

GIWW (Gulf Intracoastal Waterway to Clovelly)
Hydrologic Restoration (BA-02)

Specific objectives of the GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration (BA-02) project are (1) to protect and maintain approximately 14,948 acres (6,049 hectares) of intermediate marsh by restoring natural hydrologic conditions that promote greater freshwater retention and utilization, prevent rapid salinity increases, and reduce the rate of tidal exchange; and (2) to reduce shoreline erosion through shoreline stabilization. The goals which contribute to the evaluation of these objectives are to 1) increase or maintain marsh to open water ratios, 2) decrease salinity variability in the project area, 3) decrease the water level variability in the project area, 4) increase or maintain the relative abundance of intermediate marsh plants, 5) promote greater freshwater retention and utilization in the project area, 6) reduce shoreline erosion through shoreline stabilization, and 7) increase or maintain the relative abundance of submerged aquatic vegetation (SAV).

Engineering and design components are comparable to the monitoring goals and are essential to the project's success. The final design of the GIWW (Gulf Intracoastal Waterway to Clovelly) Hydrologic Restoration Project (BA-02), consisted of two construction units aimed at protecting the intermediate marshes in the project area; to restore natural hydrologic conditions, Construction Unit I included the construction of three (3) fixed crest rock weirs with boat bays, two (2) rock riprap channel plugs, one rock riprap weir with a boat bay, and one rock-filled channel plug with a corrugated aluminum pipe through the plug embankment with an aluminum flap gate. To further restore natural hydrologic conditions and to stabilize the eastern and southern project shorelines and protect them from erosion, Construction Unit II included the construction of 5,665 linear ft (1,727 m) of lake-rim shoreline protection along the southwestern shorelines of Little Lake, Bay L'Ours, and Brusle Lake, the construction of approximately 5,023 linear ft (1531 m) of bank stabilization along the northern shoreline of Breton Canal, the construction of approximately 11,711 linear ft (3,570 m) of earthen bank stabilization along dead-end oilfield canals on the northern edge of Breton Canal, the construction of two (2) fixed crest weirs with barge bays, the construction of two (2) rock riprap channel plugs, and the construction of one sheet pile variable crest weir with a variable crest section containing a stop log bay with twelve (12) stop logs and a movable crane with a hand winch.

This area is experiencing rapid land loss and shoreline retreat. Unprotected shoreline adjacent to the project area is eroding up to 14 ft/yr. Land-water analysis indicates a trend from land to open water in both the project and reference areas between 1993 and 2008. There were slight gains inside the project area between 1996 and 2002, which could have possibly been attributed to project effects since project construction occurred

within this time period. Despite a large shift from land to open water inside both the project and reference areas between 2002 and 2008, the change was slightly lower in the project area in comparison to the reference area which could be attributed to the project's moderating effects against powerful hurricanes such as Katrina, Rita, Gustav, and Ike which impacted the area during this time frame. In addition, water level and salinity data analyses show the area to be classified as an oligohaline marsh (0.5 – 5.0 ppt), which illustrates the project area has not drastically changed marsh classifications.

The rock dike along the lake rim has reduced the average shoreline erosion rate by 0.24 m/yr⁻¹ (0.78 ft/yr⁻¹) during post-construction (2000-2012) in the immediate vicinity of its position. There were five (5) sampling areas lost during the sampling time frame (1993 – 2012); however, the overall rate of erosion has decreased. During the 2007 annual inspection, shoreline segments along the rim of Little Lake and Bay L'Ours exhibited moderate settlement. The ensuing profile survey in 2008 helped to determine the extent of the settlement and which segments required maintenance and/or rehabilitation. The capping of the lake rim shoreline protection structure occurred in 2012 and is expected to continue to contribute to the overall reduction of the shoreline erosion rate meeting the goal of the project.

Closure of the breaches will assist in obtaining the project's goals of promoting greater freshwater retention and utilization, prevention of rapid salinity increases, and reduction of the rate of tidal exchange. Closure of the breaches along Bay L'Ours is critical to ensure the reduction of the rate of tidal exchange. Without the closure of these breaches, the influences of the lake will affect the marshes farther inside the project and may cause a loss of marsh as the erosion occurs.

An examination of limited Coastwide Reference Monitoring System (CRMS) data as well as extensive project-specific data indicates that tidal ranges in the project area sites have been significantly lower than in the reference sites. Reference sites had a tidal range 0.1 ft (0.03 m) greater than project sites. Salinities inside the project area have remained in the normal range for a healthy intermediate marsh. Variation in salinities based upon the minimum and maximum yearly data indicated a wide salinity range (0.14 – 20.71 ppt). Salinities spiked in the spring and fall, however the yearly means remained below 3 ppt.

As the data has shown and from field observations, it is recommended that the proposed O&M event occur to ensure the goals of the project are met.

**Request for CWPPRA Project O&M Funding Increase
Project Costs and Benefits Reevaluation
Fact Sheet
August 22, 2013**

Project Name: GIWW to Clovelly Hydrologic Restoration (BA-02)

PPL: 1

Federal Sponsor: NRCS

Construction Completion Date: October 2000

Projected Project Close-out Date: October 2020

Project Description: The GIWW to Clovelly Hydrologic Restoration project consisted of the installation and maintenance of structures in two (2) construction units (CU's). CU#1 included three (3) fixed crest weirs with boat bays, two (2) rock channel plugs and a rock plug with culvert and flap gate. CU#2 consisted of the construction of a two (2) fixed crested weirs with a boat bay, the other with a barge bay, a variable crest weir structure, two (2) rock channel plugs, 5,665 linear feet of lake rim restoration and 11,711 linear feet of earthen bank stabilization. These structures were designed to reduce the adverse tidal effects in the project area and promote freshwater introduction to better utilize available freshwater and sediment retention. If these objectives are met, it is anticipated that the rate of shoreline erosion will be reduced and a hydrologic regime, conducive to sediment and nutrient deposition, will encourage the re-establishment of emergent and submerged vegetation in eroded areas to a more historic low energy environment.

Construction changes from the approved project: No change

Explain why O&M funding increase is needed: Due the excessive erosion of the shoreline, the potential for breaching of the remaining marsh adjacent to Structures 2 and 4 is very high, which would greatly compromise the restored hydrology of the project. O&M funding is needed in year 2014 to construct a hardened structure between Structures 2 and 4 along the shoreline of Bay L' Ours to prevent breaching and protect the remaining marsh in this area. The proposed maintenance event includes the construction of approximately 1,200 linear feet of composite rock dike and approximately 500 linear feet of gabion mats extending from the south side of Structure No. 4 to the northern end of Structure No.2. The gabion mats are needed in areas where the existing electrical transmission line is too close to the shoreline to allow rock dike construction.

Detail O&M work conducted to date: Maintenance Event No.1 included the replacement of a timber dolphin structure on the lake side of Structure 14A. The timber dolphin was destroyed by a vessel accessing the barge bay in 2006. The total cost for replacement was approximately \$14,000. Maintenance event No.2 was completed in 2012 and included the removal and replacement of four (4) timber pile dolphins at Structure No.1, refurbishment of the rock weir at Structures 2 and 4, closure of a 1,500 linear feet breach in the shoreline between Structures 4 and 4A, removal and replacement of two (2) timber pile dolphins at Structure 14A, refurbishment of approximately 5,000 linear feet of rock dike along the lake rim of Bay L' Ours, and repair of five (5) breaches along the earthen embankment. The final cost of Maintenance Event No.2 was \$3,056,834, of which \$511,122 was funded by FEMA and the remaining \$2,454,712 was funded by CWPPRA.

Detail and date of next O&M work to be completed: We are anticipating that the rock dike shoreline construction could begin in the fall of 2014 contingent upon approval of CWPPRA funds in the fall of 2013. Construction Completion is estimated to occur around the summer of 2015.

Detail of future O&M work to be completed: The remaining years beginning in year 2015 through 2020, the end of the project life, we do not anticipate any other major maintenance events other than routine earthen breach repairs, navigational aid maintenance, structure operations and annual inspections.

Originally approved fully funded project cost estimate: \$8,916,131

Originally approved O&M budget: \$1,235,079

Approved O&M Budget Increases: \$2,225,478

Total O&M obligations to date: \$3,302,172

Remaining available O&M budget funds: \$158,385

Current Incremental Funding Request: \$1,692,883

Revised fully funded cost estimate \$12,896,358

Total Project Life Budget Increase: \$1,754,749

Requested Revised fully funded O&M estimate \$5,215,206

Percent total project cost increase of proposed revised budget over original budget: 44.64 %

Percent total project cost increase of proposed revised budget over original budget plus net budget changes: 15.75%

Original net benefits based on WVA prepared when project was approved: 175 acres

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

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): No anticipated change in estimated net benefits, project is performing as expected.

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

Original CE = \$50,949/acre

Revised CE = \$73,693/acre 44.64%

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

Original CE = \$63,666/acre

Revised CE = \$73,693/acre 15.75%

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
Agency Name <i>EPA</i>	Task Force Member Name <i>Harker</i>		
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 O&M incremental funding in the amount of \$4,210,149.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

Brad Inman

 Task Force Member Name

11/15/13

 Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
Fish and Wildlife Service	Jeff Weller	337-291-3115	337-291-3139
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 O&M incremental funding in the amount of \$4,210,149.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,


Jeff Weller

11/14/13
Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM NOAA Fisheries	Christopher D. Doley	301-427-8660	301-713-0184
TO USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>including Header</i>	Date/time
			Releaser's Signature

REMARKS:

The Motion:

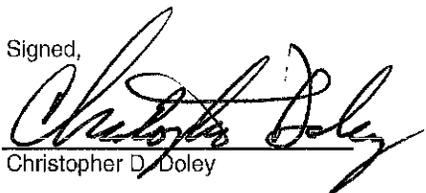
The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 O&M incremental funding in the amount of \$4,210,149.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,


Christopher D. Doley

Date

11-18-2013

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
NRCS	Kevin D. Norton	318-473-7751	318-473-7626
TO			
USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages Including Header	Date/time
			Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 O&M incremental funding in the amount of \$4,210,149.

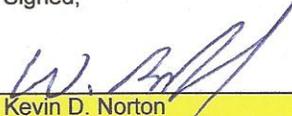
Please check one of the following:

X

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,


 ACTING FOR
Kevin D. Norton

11-13-13
Date

FACSIMILE TRANSMITTAL HEADER SHEET

Agency		NAME/OFFICE SYMBOL		OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM					
Agency Name <i>USACE</i>		Task Force Member Name <i>COL Hansen</i>			
TO					
USACE		Brad Inman CWPPRA Program Manager		(504) 862-2124	(504) 862-2572
Classification	Precedence	No. Pages <i>Including Header</i>	Date/time	Releaser's Signature	

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve requests for total FY16 O&M incremental funding in the amount of \$4,210,149.

Please check one of the following:

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

R. Hansen

 Task Force Member Name

15 Nov 2013

 Date

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

**STATUS OF “CONSISTENCY WITH THE 2012 COASTAL MASTER PLAN:
GUIDELINES FOR RESTORATION PROJECTS RECEIVING STATE FUNDING”
DOCUMENT**

For Report:

Mr. Haase will provide an update on the status and availability of the document.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

COASTWIDE REFERENCE MONITORING SYSTEM (CRMS) REPORT

For Report:

Ms. Dona Weifenbach will provide a report on CRMS.





CRMS Update to the CWPPRA Technical Committee



Dona Weifenbach
Coastal Protection and Restoration Authority
and
Sarai Piazza
USGS National Wetlands Research Center
December 12, 2013



CRMS Implementation Status

Milestones:

- 13 OM&M reports in progress for 2013, delays from federal furlough
 - **3 are complete and on website (*), 10 are in review or revisions**
 - BA-27 Barataria Basin Landbridge Shoreline Protection NRCS *
 - BA-39 Miss. River Sediment Delivery, Bayou Dupont EPA
 - MR-09 Delta Wide Crevasses NMFS *
 - BA-02 GIWW to Clovelly Hydrologic Restoration, NRCS
 - TE-44 North Lake Mechant Landbridge Restoration
 - TE-45 Terrebonne Bay Shore Protection Demonstration USFWS *
 - TE-46 West Lake Boudreaux Shoreline Projection and Marsh Creation USFWS
 - TE-48 Raccoon Island Shoreline Projection and Marsh Creation NRCS
 - CS-20 East Mud Lake Marsh Management NRCS
 - CS-23 Replace Sabine Refuge Water Control Structures USFWS
 - CS-31 Holly Beach Sand Management NRCS
 - TV-21 East Marsh Island Marsh Creation NRCS
 - ME-11 Humble Canal Hydrologic Restoration NRCS
- CRMS coastwide aerial photography flown in mid Oct-Nov 2012. Progress update, Land:Water analyses to be delivered May 2014
- Vegetation Helicopter Survey, fieldwork completed, QAQC in progress, results to be presented at State of the Coast in March



CRMS Implementation Status

- CWPPRA “Roadshows” with federal partners and website training to be scheduled in March and April 2014
- Working with CWPPRA Outreach Committee on a CRMS educational document for release early 2014
- Coastwide elevation survey of CRMS sites in planning for March 2014 start date
- Meetings and Workshops:
 - Participated in an SWAMP (System Wide Assessment Monitoring Program) Restoration Workshop at the Water Institute in September
 - Participated in the 1st International Workshop on Coastal Subsidence sponsored by the Water Institute, Tulane, and Deltares in November
 - CRMS Analytical Team meeting last week outlining our activities for 2014
- Conferences
 - Basics of the Basin October in New Orleans
 - Coastal and Estuarine Research Federation (CERF), presentations and posters, November in San Diego
 - State of the Coast in New Orleans, March 2014- CRMS workshop, presentations, and posters
 - Conference on Ecological and Ecosystem Restoration (CEER) in July 2014, dedicated sessions Landscape-scale restoration in coastal Louisiana: the use of data-driven science applications to support planning and assessment and a session on real-time evaluation, reporting, and modeling of ecosystem restoration



CRMS Analytical Team

- 2012 we presented the CRMS report card
- 2013 we focused on fine tuning and developing new tools
 - Finalizing visualizations
 - Refining indices: Submergence Vulnerability Index, Forested Floristic Quality Index Vegetative Volume Index
 - Developing new metrics: Vegetation Community Salinity
 - Modified high resolution Land:Water analysis technique
 - Considering new tools to evaluate projects
- 2014
 - Publication of Land:Water at CRMS sites using hypertemporal data sets
 - Landscape Index- focus on spatial integrity of the landscape using an aggregation index
 - Larger spatial scale analyses involving multiple indices
 - Website improvements:
 - journal articles, theses, and dissertations that use CRMS data
 - exporting
 - map based selection of sites for charting
 - full user control of project/reference station selection for charts
 - password protected environment to allow user customized analyses

 **CRMS Website Guide**



**THE COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
COASTWIDE REFERENCE MONITORING SYSTEM TRAINING MANUAL**

BEGINNER'S GUIDE TO RETRIEVING DATA



Page | 1

QUESTIONS?

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

X

2013-0-12
9:40 AM CST
9:41 AM CST

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

FUTURE PRIORITY PROJECT LIST PUBLIC MEETINGS

For Decision:

Due to low attendance at the past PPL Public Comment Meetings, the P&E Subcommittee recommends eliminating this annual meeting. The purpose of the PPL Public Meeting is to distribute information on the candidate project evaluations and accept public comments. If the meeting is eliminated, the candidate project evaluation information will be distributed to the public via the website and CWPPRA Newsflash. Additionally, a presentation on the projects will be provided at the December Technical Committee meeting. Comments will be accepted orally at the December and January meetings or written via e-mail, fax, or mail. The Technical Committee will vote to make a recommendation to the Task Force.



ATTENDANCE RECORD



DATE(S)	SPONSORING ORGANIZATION	LOCATION	
November 13, 2013 7:00 P.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LA Department of Wildlife and Fisheries (Louisiana Room) 2000 Quail Drive Baton Rouge, LA	
PURPOSE		CWPPRA PPL 23 PUBLIC MEETING	
PARTICIPANT REGISTER			
PLEASE PRINT - - - PLEASE PRINT - - - PLEASE PRINT			
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER	
Stuart Brown	CRS - CPRA	225-342-4596	
Tony Beck / Mel / G / W / ?	ST-BERNARD POET	504 909-3803	
Jammie Favorite	CPRA - CRS Manager	225-342-4119	
Adrian Chavarrias	Engineer - EPA	214-4605-3103	
Anne Watkins	LRS	504-218-0923	
Andre Lyon	Lyon Productions LLC	646-620-7598	
Chris Allen	CPRA - CRS	225-342-4736	
Brad INMAN	USACE	504-862-2124	
Daniela Brunet	St. Tammany Parish	985-898-2442	
Billy Broussard	COM Vermilion Corp	337 652 4191	
Kevin Roy	NRCS	337 291-3064	
Darryl Clark	USFWS	337-291-3120	
Nic Matherne	USFWS	337-291-3111	
Nic Matherne	Terrebonne Parish	985-873-6889	
ONEIL MALBROUGH	Shaw Coastal Inc	825-987-7544	
MIKE ROMERO	C.F. BEAN LLC	504 587-8700	
Vickie Duffourc	CBI / Jeff PAR	504-832-4880	
Marnie Winter	Jeff. Parish	504-736-6440	
Martin O. Miller III	Kellim Surface Mgmt / Dr. M.D. Miller Estate	(504) 616-5700	
Diane + MO Miller, II	Amy - M.O. Miller, M.D. Estate	(504) 616-7936	
Jerry V. Graves	St. Bernard Port	504-628-5031	

November PPL Public Meeting Attendance

	Location	# of Total Attendees	# of Non-agency attendees
2011	Abbeville	16	9
	New Orleans	18	11
2010	Abbeville	17	7
	New Orleans	28	21
2009	Abbeville	13	5
	New Orleans	22	15
2008	Abbeville	15	3
	New Orleans	31	22
2007	Abbeville	22	10
	New Orleans	30	22

Average/5 yrs	
Abbeville	6.8
New Orleans	18.2

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

**FUNDING INCREASE SCOPE CHANGE REQUEST FOR SABINE REFUGE MARSH
CREATION CYCLES 4 & 5 PROJECT (CS-28-4&5)**

For Decision:

U.S. Fish and Wildlife Service (FWS), USACE, and CPRA request Technical Committee approval to increase the current cost from \$8,111,705 to \$10,328,064, an increase of \$2,216,359 (27.3%). The revised incremental funding amount is \$10,169,154. The project was approved for construction by the Task Force on January 19, 2011, at a cost of \$8,111,705. This funding increase represents the Corps' current construction estimate plus 15% contingency, including the need for some dedicated dredging in the Calcasieu Ship Channel to supplement maintenance material to construct both cycles in one dredging event. Combining both cycles is the most cost effective way to implement the project. USACE, CPRA, and FWS plan to return approximately \$2.1 M to the CWPPRA Program from the Sabine Refuge Marsh Creation Cycle 2 project, which makes this request budget neutral. The benefits remain unchanged at 230 acres per cycle (total 460 acres). The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the funding increase request for CS-28-4&5.

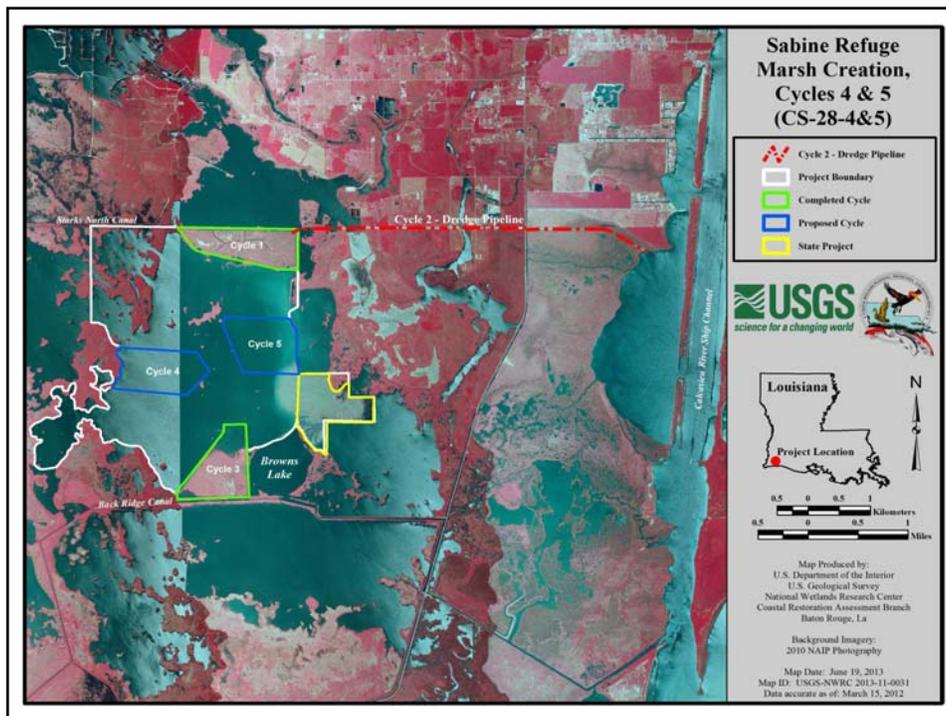
Sabine Refuge Marsh Creation Project Cycles 4 and 5 (CS-28-4&5) Funding Increase Scope Change



CWPPRA Technical Committee
Meeting
December 12, 2013

Presented by:

Robert Dubois
Project Manager, FWS
With CPRA and USACE



Sabine Refuge Marsh Creation Project Background

- Approved in January 1999 (PPL 8)
- 1,120 acres of Marsh Creation on Sabine NWR & Construction of a Permanent Pipeline to Transport Dredged Material from Calcasieu River Ship Channel for Beneficial Use.
- January 2011 Task Force Approved Scope Change to Combine Cycles 4&5 with a Fully Funded Cost of \$8,111,705.
- June 2012 Transfer Lead Federal Agency from Corps to FWS.

CS-28 Cycles 1-5 Status Update

Cycle 1

Completed January 2002 (200 acres; \$3.4 M)

Cycle 3

Completed March 2007 (230 acres; cost – \$4.7 M)

Cycle 2

State of Louisiana funded marsh creation feature (≈227 acres marsh; cost – \$6.0 M) with State Surplus Funds; Construction completed - May 2010; Permanent Pipeline completed in April 2010; cost \$14.4 M

Cycles 4&5

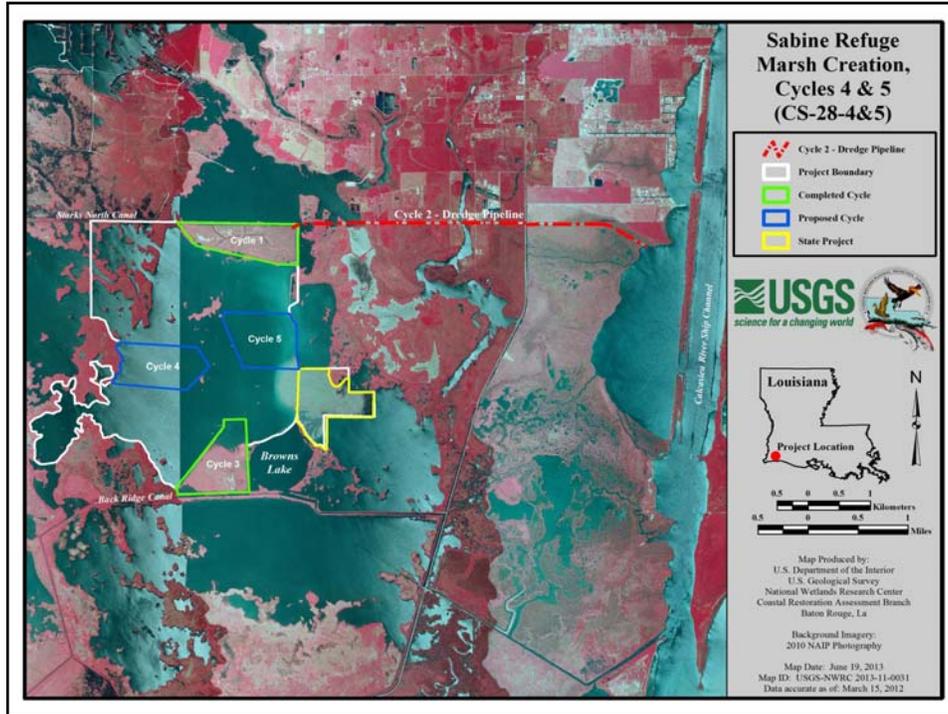
State Consistency Complete; Corps 404 Permit Near Completion; CSA Signed; Permanent Pipeline O&M Agreement Complete; FY 2014 Dredging Cycle – Spring/Summer 2014; cost \$8.1 M

Sabine Refuge Marsh Creation Project Cycles 4&5

- Initially create 460 acres of marsh
- 331 net acres
- Current fully funded cost = \$ 8.1 M (\$24,506/acre)
- ≈1.8 M cy of material to build both sites
- Construction Schedule
 - Construct both cycles during the 2014 Calcasieu River Ship Channel maintenance dredging
 - Utilize Cycle 2 permanent pipeline

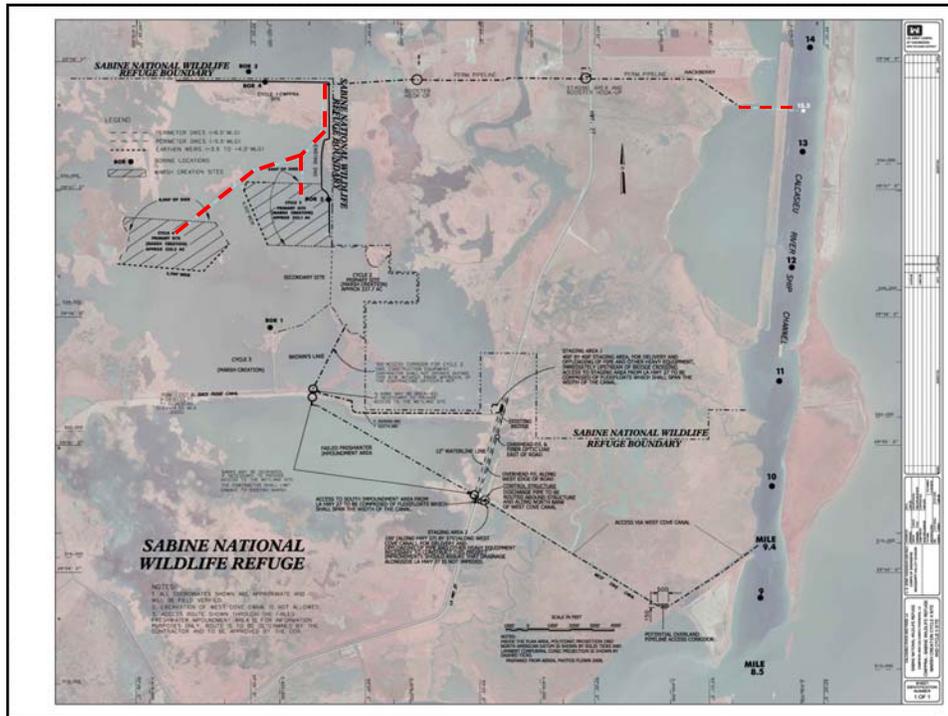
Proposed Scope Change to Increase Construction Funding

- Increase is only for construction costs and 15% contingency from \$7,335,380 to \$9,551,739
- Total funding increase of \$2,216,359 from \$8,111,705 to \$10,328,064 (+27.3%)
- Cycle 2 return ~\$2,226,300
No additional cost to CWPPRA
- \$9,551,739 = 460 Acres Marsh Created
\$7,335,380 = 321 Acres Marsh Created



Costs Associated with Different Dredging Scenarios

Cycle	River Mile Dredged	Channel Width Dredged	Construction & Contingency Cost	Cost/Acre	Acres Created
5	8 - 15	250 ft	\$8,362,500	\$36,358	230
5	12 - 14.5	400 ft	\$5,069,625	\$22,042	230
4 & 5	10.5 - 15	400 ft	\$9,551,739	\$20,765	460
Current		400 ft	\$7,335,380	~\$21,404	~343



Reasons for Funding Increase

- Complete the final two cycles/sites of a project from the 8th CWPPRA Project Priority List
- Meet CS-28 (cycles 1-5) Goals
- No additional cost to CWPPRA program (due to \$2.2 M returned from Cycle 2)
- The most cost effective option (\$20 K/acre)

Sabine Refuge Marsh Creation Cycle's 4 & 5 (CS-28-4&5)

Scope Change Request

Report to the Technical Committee

December 12, 2013

The Sabine Refuge Marsh Creation project (CS-28) was originally approved as part of the PPL 8 in 1999. The project was later broken into 5 cycles. On January 19, 2011, the Task Force approved a Scope Change that combined Cycles 4 and 5 to meet the needs of the FY11 maintenance dredging cycle with a fully funded cost of \$8,111,705 to benefit 331 net acres in Cameron, Parish, LA. The Task Force transferred the lead Federal agency from the United States Army Corps of Engineers (Corps) to the Fish and Wildlife Service (FWS) on June 5, 2012.

Currently the project consists of the creation of approximately 460 acres of marsh platform by beneficially using material from the maintenance dredging of the Calcasieu River Ship Channel. The current project features include:

- Approximately 230 acres of marsh creation per disposal cell location via use of the CS-28-2 permanent pipeline.
- 9,800 linear feet of lower level earthen overflow weirs to assist in the dewatering of the marsh creation area and to create fringe marsh with the overflow.
- 16,680 linear feet of containment dikes with 50 foot gaps every 1,000 feet post-construction to allow tidal flow and fishery access.

The FWS, State Coastal Protection and Restoration Authority, and Corps request Technical Committee approval for a Scope Change due to an increase the current cost from \$8,111,705 to \$10,328,064, an increase of \$2,216,359 (+27.3%) as seen in Table 1. The funding increase represents the Corps' current construction estimate plus 15% contingency included in the 2011 fully funded budget. This funding approval also includes the addition of some dedicated dredging (overburden dredging) as a project feature.

Due to the limited funds that have been allocated for maintenance dredging within the Calcasieu River Ship Channel, the Federal Standard has been reduced to a 250 foot-wide channel vs. the 400-foot-wide authorized channel width. The cost to the CWPPRA program to construct Cycles 4&5 would be reduced with the inclusion of some dedicated dredging (dredging outside of the current 250-foot-wide Federal Standard) as opposed to the cost of only using material dredged from within the reduced Federal Standard. The revised cost reflects the added cost of dedicated/overburden dredging from 250-foot-wide to 400-foot-wide from Mile 10.5 to Mile 15.00.

The benefits for this project would remain unchanged.

Table 1: 2011 Project vs. Current Project Costs and Benefits.

	2011 Revised Project	Current Revised Project	Increase
Fully-funded Cost	\$8,111,705	\$10,328,064	+ 27.3%
Net Acres Year 20	331	331	unchanged

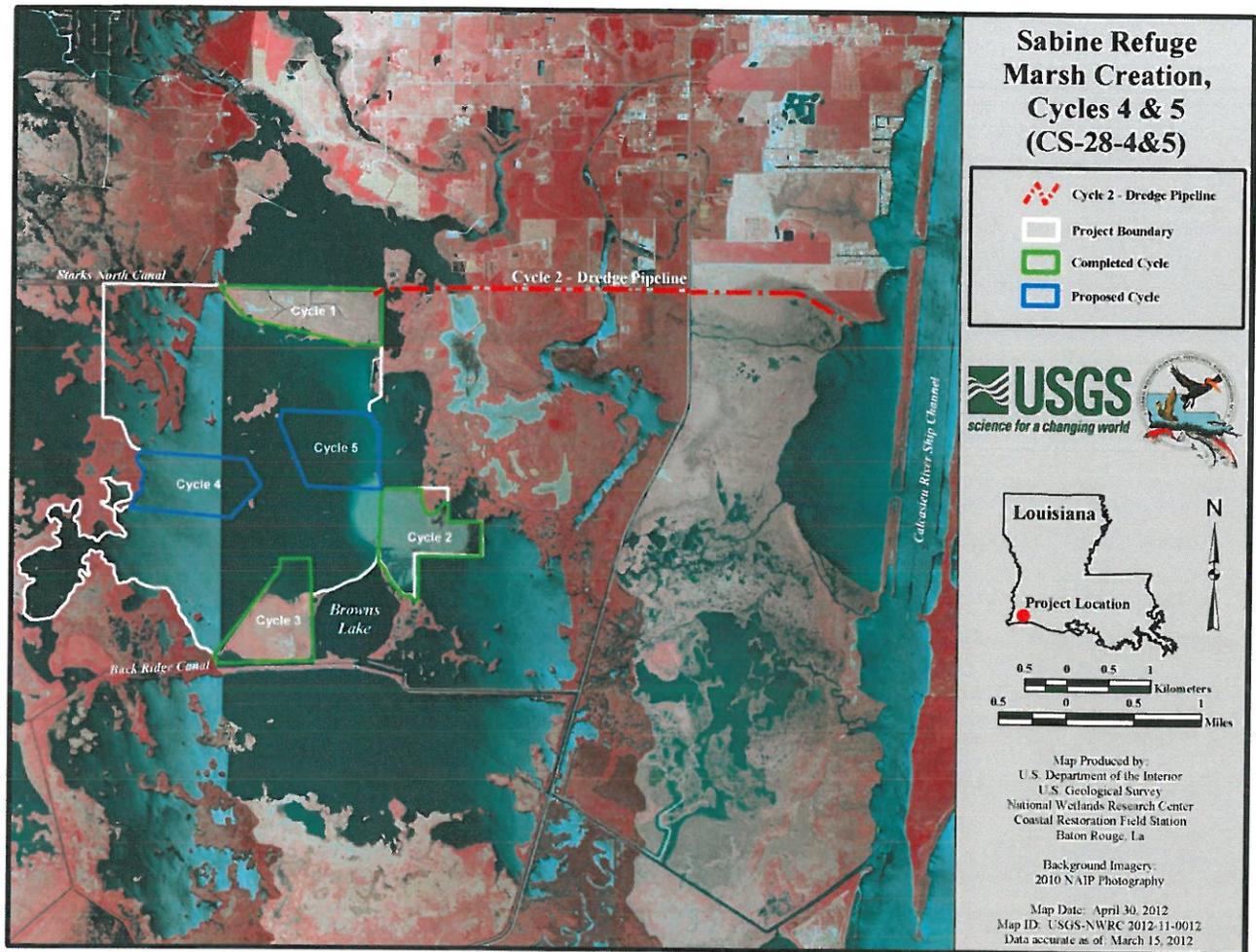


Figure 1: Current Sabine Refuge Marsh Creation Project (CS-28-4&5).



Sabine Refuge Marsh Creation, Cycles IV & V (CS-28-4&5)

Project Status

Approved Date: 2011 **Project Area:** aaaArea
Approved Funds: aaaAF **Total Est. Cost:** aaaTEC
Net Benefit After 20 Years: aaaNB
Status: Engineering and Design/ Construction
Project Type: Marsh Creation
PPL #: 8

Location

This project is located in the Sabine National Wildlife Refuge, west of LA Highway 27, in large, open water areas west of Brown's Lake in Cameron Parish, Louisiana.

Problems

The project area is experiencing marsh degradation due to saltwater intrusion, subsidence, and wind-driven erosion. Salt water migrates into the region from the Calcasieu River Ship Channel through existing canals and bayous. Wind-driven waves cause further loss of the remaining marsh fringe. This has resulted in the conversion of vegetated intermediate marsh to large shallow open water areas.

Restoration Strategy

Cycles 4 & 5 consist of the creation of 230 and 232 acres (respectively) of brackish marsh platform using material dredged from the Calcasieu River Ship Channel. Approximately 2 million cubic yards of material will be placed within each of the two Sabine Refuge Cycle 4 & 5 marsh creation areas. The dredged material will be contained by earthen dikes. Low level earthen overflow weirs will be constructed to assist in the de-watering of the marsh creation disposal area and to create fringe marsh with the overflow. The dredged slurry will be placed between elevations 2.0 and 2.7 feet North American Vertical Datum 88.

Progress to Date

The Sabine Refuge Marsh Creation Project, originally sponsored by the U.S. Army Corps of Engineers, was approved in 1999 as part of the Project Priority List 8 and later broken into 5 cycles. In 2001, the 214 acre Cycle I was constructed and in 2007 the 232 acre Cycle III was constructed. Cycle II consisted of the construction of a permanent pipeline to promote the beneficial use of material removed from the Calcasieu River Ship Channel during maintenance dredging events. This permanent pipeline was constructed in 2010. In 2012 the Corps transferred lead Federal sponsorship to FWS, which in turn signed a Cost Share Agreement with CPRA.



View of the "overflow" area just outside of the Cycle 2 Marsh Creation Cell in which material was allowed to overflow the lower dike. Material was quickly colonized by Smooth cordgrass.



View of the State funded Cycle 2 Marsh Creation site on Sabine National Wildlife Refuge constructed in 2010.

For more project information, please contact:



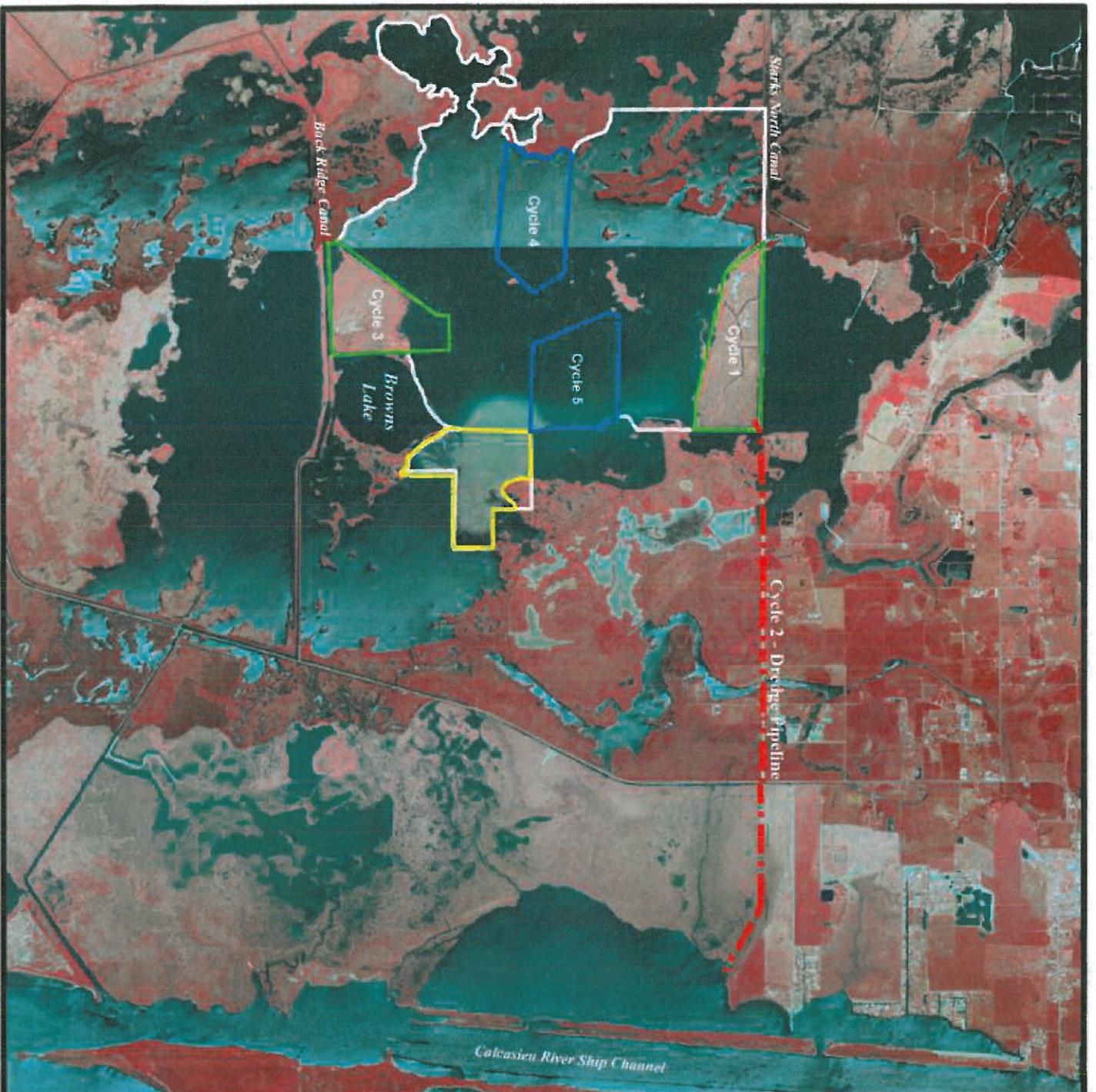
Federal Sponsor:
 U.S. Fish and Wildlife Service
 Lafayette, LA
 (337) 291-3100



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

Sabine Refuge Marsh Creation, Cycles 4 & 5 (CS-28-4&5)

-  Cycle 2 - Dredge Pipeline
-  Project Boundary
-  Completed Cycle
-  Proposed Cycle
-  State Project



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 Photography

Map Date: June 19, 2013
 Map ID: USGS-NWRC 2013-11-0031
 Data accurate as of March 15, 2012

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

**REQUEST FOR INCREMENTAL FUNDING INCREASE FOR BLACK BAYOU
CULVERTS PROJECT (CS-29)**

For Decision:

The Natural Resources Conservation Service (NRCS) and CPRA request an incremental funding increase for the Black Bayou Culverts Project (CS-29). This incremental funding request in the amount of \$8,237,204 covers the estimate for the immediate repair of the structure and the next three years of project expenditures. The revised total project cost would be \$16,399,059, which represents a total project budget increase of \$8,021,455. This estimate is currently in draft format pending the results of a test pile being performed as part of the design. The test pile is necessary to confirm the design parameters used and verify the factor of safety used. If the test pile results differ from the design parameters a revised estimate will be provided prior to the Task Force meeting. The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the incremental funding request for CS-29.

Request for Incremental Funding Increase for the Black Bayou Culverts Project (CS-29)

In December 2009, the CS-29 Black Bayou Culverts Project completed construction. The project components, ten 10' x 10' concrete box culverts, served to decrease the depth and duration of flooding events within the Mermentau Lakes Subbasin while also preventing saltwater from entering the basin from Calcasieu Lake. In June 2010, local land owners and managers in the immediate area reported an increase in salinity within the freshwater reach of Black Bayou Cut. A field inspection of the project location revealed that water was flowing past the closed gates and culvert structure when a west to east pressure gradient existed. The water appeared to be flowing through holes in the channel bottom adjacent to the structure. Sandbags were placed to provide a temporary containment of the flow and an internal investigation was requested. In August 2011, the NRCS National Design, Construction and Soil Mechanics Center conducted an investigation of the project site. As part of the field inspection, the project site was dewatered and earthen coffer dams were placed east and west of the culvert structure. In January 2012, the investigation was completed and a report was provided that detailed the findings and recommended corrective actions. The report confirmed that the primary means of tidal saltwater ingress at the project site was through voids found underneath the culvert structure. Additionally, some damage was also noted on the flap gates and seals. In August 2012, NRCS initiated a scope of work under an AE Design Services contract to Lonnie Harper & Associates to design the proposed corrective actions and prevent further issues with the existing structure. This work included a new survey of the site and water bottom, a new geotechnical investigation, and the subsequent design of the repairs. The final design recommendations have been reviewed by the project team, and independently reviewed by DOTD for concurrence.

This Incremental Funding request in the amount of \$8,237,204 covers the estimate for the immediate repair of the structure and the next three years of project expenditures. The revised total project cost would be \$16,399,059, which represents a total project budget increase of \$8,021,455. This estimate is currently in draft format pending the results of a test pile being performed as part of the design. The test pile is necessary to confirm the design parameters used and verify the factor of safety used. If the test pile results differ from the design parameters a revised estimate will be provided prior to the Task Force meeting.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

23RD PRIORITY PROJECT LIST

For Report/Decision:

The Environmental Workgroup Chairman will present an overview of the ten PPL 23 candidate projects. The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 23 projects for Phase I Engineering and Design.

Region	Basin	PPL 23 Nominees	Agency
1	Pontchartrain	New Orleans Landbridge Shoreline Stabilization & Marsh Creation	FWS
2	Barataria	Caminada Headlands Back Barrier Marsh Creation	EPA
2	Barataria	Wilkinson Canal Marsh Creation & Nourishment	NMFS
2	Barataria	Bayou Grande Cheniere Marsh and Ridge Restoration	FWS
3	Terrebonne	Island Road Marsh Creation and Nourishment	NMFS
3	Terrebonne	Grand Bayou Freshwater Enhancement	FWS
3	Teche/Vermilion	Southwest Pass Shoreline Protection	NRCS
4	Calcasieu/Sabine	West Cove Marsh Creation and Nourishment	FWS/USACE
4	Mermentau	Southeast Pecan Island Marsh Creation & Freshwater Enhancement	NRCS
4	Mermentau	South Grand Chenier Marsh Creation – Baker Tract	NRCS

CWPPRA PPL 23 Technical Committee VOTE

12-Dec-13

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score	Phase I Fully Funded Cost	Cumulative Phase I Fully Funded Cost	Phase II Fully Funded Cost	Cumulative Phase II Fully Funded Cost
3	Island Road Marsh Creation & Nourishment	2	2	5	3	6	3	6	21	\$3,721,447		\$35,463,820	
2	Caminada Headlands Back Barrier Marsh Creation	1	6	6		5	2	5	20	\$3,354,935		\$27,679,159	
2	Bayou Grande Cheniere Marsh & Ridge Restoration	4	4	3	6	1		5	18	\$2,742,302		\$27,195,273	
4	South Grand Chenier Marsh Creation - Baker Tract	3	5	1		4	4	5	17	\$2,653,242		\$22,788,591	
1	New Orleans Landbridge Shoreline Stabilization & Marsh Creation	5			4	2	1	4	12	\$1,516,303		\$10,983,680	
4	West Cove Marsh Creation & Nourishment	6	1	2	2			4	11	\$2,534,043		\$17,500,429	
2	Wilkinson Canal Marsh Creation & Nourishment		3	4		3		3	10	\$3,490,445		\$32,802,261	
3	Grand Bayou Freshwater Enhancement				5		5	2	10	\$2,861,725		\$19,757,068	
4	Southeast Pecan Island Marsh Creation & FW Enhancement				1		6	2	7	\$3,662,682		\$36,172,818	
3	Southwest Pass Shoreline Protection							0	0	\$3,045,177		\$35,634,205	

Total

NOTES:

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

CWPPRA PPL 23 Technical Committee VOTE

12-Dec-13

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	New Orleans Landbridge Shoreline Stabilization & Marsh Creation	5							
2	Caminada Headlands Back Barrier Marsh Creation	1							
2	Wilkinson Canal Marsh Creation & Nourishment								
2	Bayou Grande Cheniere Marsh & Ridge Restoration	4							
3	Island Road Marsh Creation & Nourishment	2							
3	Grand Bayou Freshwater Enhancement								
3	Southwest Pass Shoreline Protection								
4	West Cove Marsh Creation & Nourishment	0							
4	Southeast Pecan Island Marsh Creation & FW Enhancement								
4	South Grand Chenier Marsh Creation - Baker Tract	3							
		0	0	0	0	0	0	0	0
		check	21	21	21	21	21	36	126

RUN MACRO FROM "SORT-Final Vote" WORKSHEET

The following voting process will be used to recommend projects under PPL 23 to the Task Force:

1. Each agency represented in the Technical Committee will be provided one ballot for voting.
2. Each agency represented in the Technical Committee will cast weighted votes for 6 projects. All votes must be used.
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6. The Technical Committee will vote on "up to four" projects for recommendation to the Task Force.
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8. The tied projects will be ranked based upon a sum of the weighted score.

CWPPRA PPL 23 Technical Committee VOTE

12-Dec-13

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	New Orleans Landbridge Shoreline Stabilization & Marsh Creation								
2	Caminada Headlands Back Barrier Marsh Creation		6						
2	Wilkinson Canal Marsh Creation & Nourishment		3						
2	Bayou Grande Cheniere Marsh & Ridge Restoration		4						
3	Island Road Marsh Creation & Nourishment		2						
3	Grand Bayou Freshwater Enhancement								
3	Southwest Pass Shoreline Protection								
4	West Cove Marsh Creation & Nourishment		1						
4	Southeast Pecan Island Marsh Creation & FW Enhancement								
4	South Grand Chenier Marsh Creation - Baker Tract		5						
		check	0	0	0	0	0	0	0
			21	21	21	21	21	36	126

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CWPPRA PPL 23 Technical Committee VOTE

12-Dec-13

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	New Orleans Landbridge Shoreline Stabilization & Marsh Creation								
2	Caminada Headlands Back Barrier Marsh Creation			6					
2	Wilkinson Canal Marsh Creation & Nourishment			4					
2	Bayou Grande Cheniere Marsh & Ridge Restoration			3					
3	Island Road Marsh Creation & Nourishment			5					
3	Grand Bayou Freshwater Enhancement								
3	Southwest Pass Shoreline Protection								
4	West Cove Marsh Creation & Nourishment			2					
4	Southeast Pecan Island Marsh Creation & FW Enhancement								
4	South Grand Chenier Marsh Creation - Baker Tract			1					


12/12/13

check 0 21 21 21 21 21 21 21 36 126

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Keith

CWPPRA PPL 23 Technical Committee VOTE

12-Dec-13

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	New Orleans Landbridge Shoreline Stabilization & Marsh Creation					2			
2	Caminada Headlands Back Barrier Marsh Creation					5			
2	Wilkinson Canal Marsh Creation & Nourishment					3			
2	Bayou Grande Cheniere Marsh & Ridge Restoration					1			
3	Island Road Marsh Creation & Nourishment					6			
3	Grand Bayou Freshwater Enhancement								
3	Southwest Pass Shoreline Protection								
4	West Cove Marsh Creation & Nourishment								
4	Southeast Pecan Island Marsh Creation & FW Enhancement								
4	South Grand Chenier Marsh Creation - Baker Tract					4			

check 0 21 21 21 21 21 21 21 36 126

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CWPPRA PPL 23 Technical Committee VOTE

12-Dec-13

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	New Orleans Landbridge Shoreline Stabilization & Marsh Creation						1		
2	Caminada Headlands Back Barrier Marsh Creation						2		
2	Wilkinson Canal Marsh Creation & Nourishment								
2	Bayou Grande Cheniere Marsh & Ridge Restoration								
3	Island Road Marsh Creation & Nourishment						3		
3	Grand Bayou Freshwater Enhancement						5		
3	Southwest Pass Shoreline Protection								
4	West Cove Marsh Creation & Nourishment								
4	Southeast Pecan Island Marsh Creation & FW Enhancement						6		
4	South Grand Chenier Marsh Creation - Baker Tract						4		
		0	0	0	0	0	0	0	0
		check	21	21	21	21	21	36	126

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CWPPRA

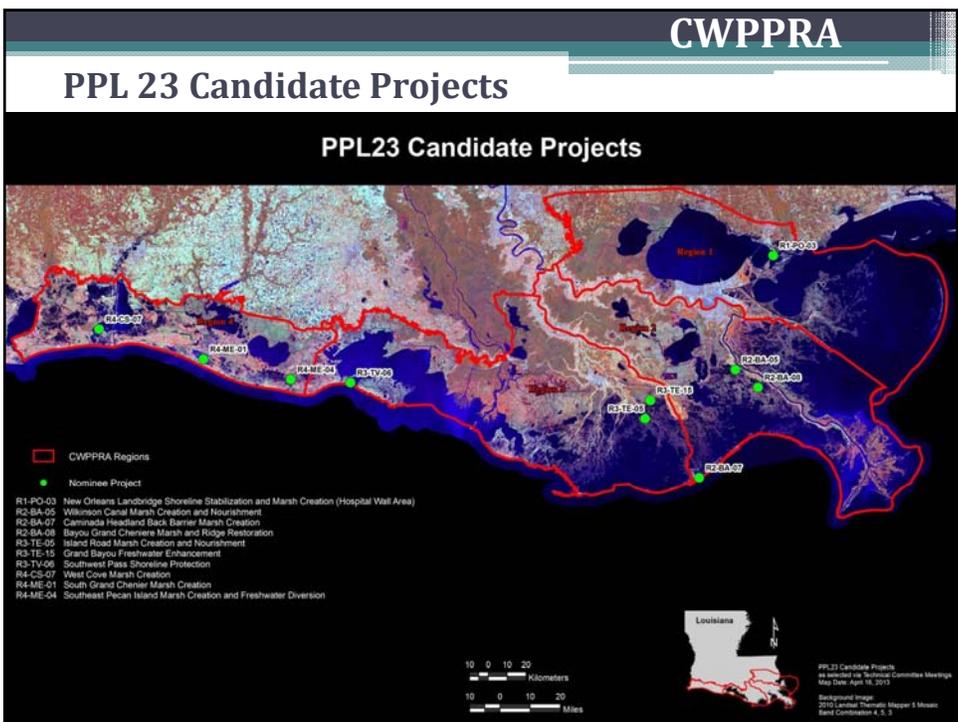
Priority Project List 23

Candidate Project Evaluation Results



Technical Committee Meeting

December 12, 2013
Baton Rouge, LA





New Orleans Landbridge Shoreline Stabilization and Marsh Creation (PPL23 Candidate)



CWPPRA

192 ac of marsh creation

Two borrow areas: Lakes St. Catherine & Pontchartrain

12,716 linear ft of earthen berm to protect shoreline & structural integrity of Orleans Landbridge

104 net acres

\$12,499,983

CWPPRA

PPL 23 Candidate Projects

PPL23 Candidate Projects



CWPPRA Regions

● Nominee Project

- R1-PO-03 New Orleans Landbridge Shoreline Stabilization and Marsh Creation (Hospital Wall Area)
- R2-BA-05 Wilkinson Canal Marsh Creation and Nourishment
- R2-BA-07 Caminada Headland Back Barrier Marsh Creation
- R3-BA-08 Bayou Grand Chenier Marsh and Ridge Restoration
- R3-TE-05 Island Road Marsh Creation and Nourishment
- R3-TE-10 Grand Bayou Freshwater Enhancement
- R3-TV-06 Southwest Pass Shoreline Protection
- R4-CS-07 West Cove Marsh Creation
- R4-ME-01 South Grand Chenier Marsh Creation
- R4-ME-04 Southeast Pecan Island Marsh Creation and Freshwater Diversion



PPL23 Candidate Projects
As presented to Executive Committee Meetings
Map Date: April 16, 2013
Background Image
2011 Landsat Thematic Mapper 5 Mission
Band Combination 4, 3, 3



**Caminada Headlands Back Barrier Marsh Creation
(PPL23 Candidate)**



Map ID: CH23-WB-BC 2013-11-0004
Map Date: August 01, 2013

Produced for:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Resources Development Branch
Baton Rouge, LA
Project Number:
2013-00000

CWPPRA

430 ac of marsh creation
behind 3.5 miles of the
Caminada beach

Create platform upon which
the beach and dune can
migrate

Beach and dune constructed
as part of CIAP project

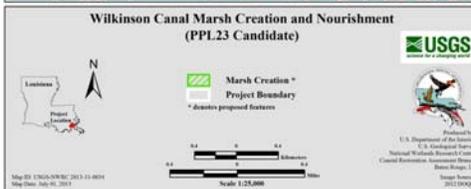
181 net acres

\$31,034,094





**Wilkinson Canal Marsh Creation and Nourishment
(PPL23 Candidate)**



Map ID: CH23-WB-NC 2013-11-0004
Map Date: July 01, 2013

Produced for:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Resources Development Branch
Baton Rouge, LA
Project Number:
2013-00000

CWPPRA

484 ac of marsh creation

Hydraulically pump sediment
from Mississippi River
borrow site

Reestablish a portion of the
Bayou Dupont bank while
providing protection to the
local flood protection levee

395 net acres

\$36,292,706



CWPPRA

342 ac of marsh creation

Hydraulically dredge and pump material from a Mississippi River borrow site

10,820 linear ft (12 acres) of forested coastal ridge

264 net acres

\$29,937,575

CWPPRA

PPL 23 Candidate Projects

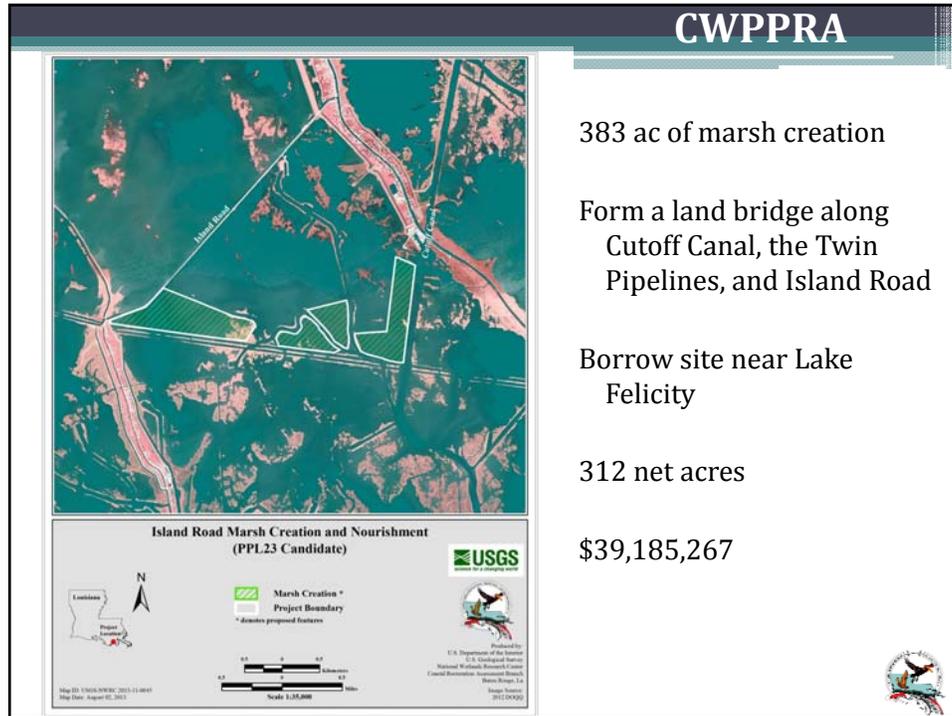
PPL23 Candidate Projects

Legend:

- CWPPRA Regions
- Nominee Project

Project List:

- R1-PO-03 New Orleans Landbridge Shoreline Stabilization and Marsh Creation (Hospital Wall Area)
- R2-BA-05 Wilkinson Canal Marsh Creation and Nourishment
- R2-BA-07 Caminada Headland Back Barrier Marsh Creation
- R2-BA-08 Bayou Grand Cheniere Marsh and Ridge Restoration
- R3-TE-05 Island Road Marsh Creation and Nourishment
- R3-TE-10 Grand Bayou Freshwater Enhancement
- R3-TV-05 Southwest Pass Shoreline Protection
- R4-CS-07 West Cove Marsh Creation
- R4-ME-01 South Grand Cheniere Marsh Creation
- R4-ME-04 Southeast Pecan Island Marsh Creation and Freshwater Diversion



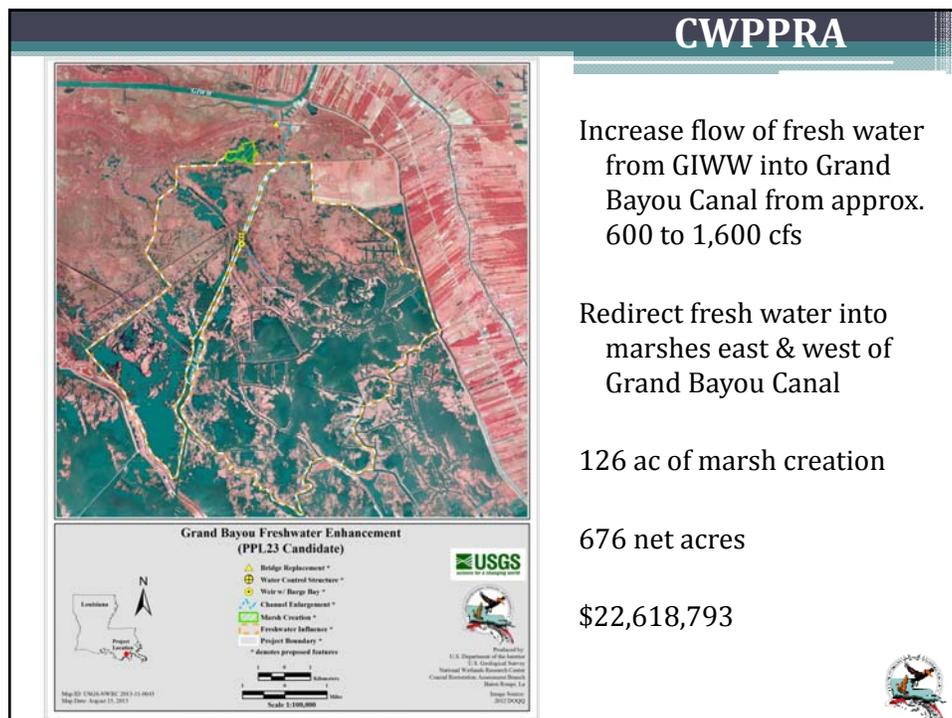
383 ac of marsh creation

Form a land bridge along
Cutoff Canal, the Twin
Pipelines, and Island Road

Borrow site near Lake
Felicity

312 net acres

\$39,185,267



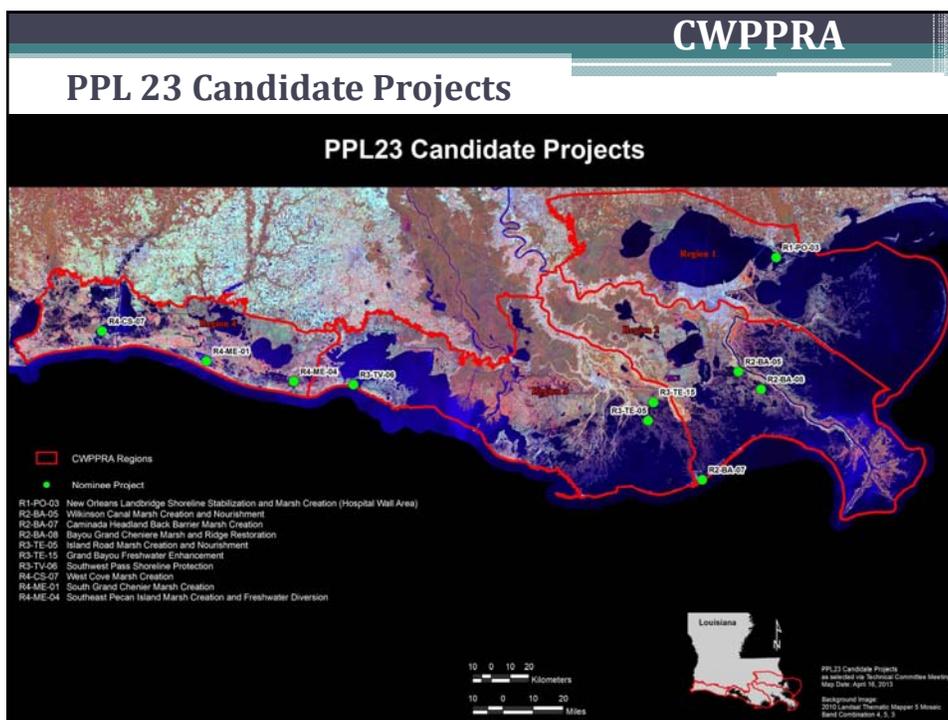
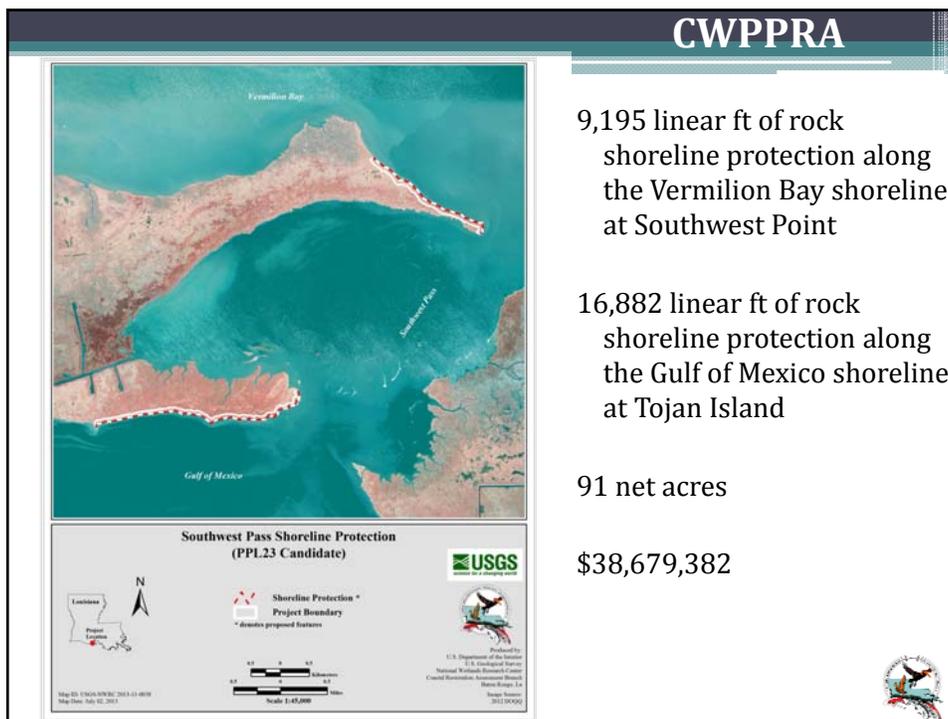
Increase flow of fresh water
from GIWW into Grand
Bayou Canal from approx.
600 to 1,600 cfs

Redirect fresh water into
marshes east & west of
Grand Bayou Canal

126 ac of marsh creation

676 net acres

\$22,618,793



CWPPRA



Southeast Pecan Island Marsh Creation and Freshwater Enhancement (PPL23 Candidate)

- Replacement Structure *
- Culvert with Flapgate *
- Freshwater Introduction *
- Marsh Creation *
- Marsh Nourishment *
- Influence Area/Project Boundary *
- *denotes proposed features

Map ID: USGS-NWRC-2013-11-0012
Map Date: September 10, 2013

Scale: 1:100,000

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Central Resource Assessment Branch
Baton Rouge, LA
Image Source:
2012 DOQQ

531 ac of marsh creation

Gulf of Mexico borrow site

Construction of an outlet structure at Front Ridge, replacement of 4 sets of culverts along the conveyance channel, & potential cleanout of culverts under Hwy 82

372 net acres

\$39,835,500





CWPPRA



South Grand Chenier Marsh Creation (PPL23 Candidate)

- Tidal Creeks *
- Marsh Creation *
- Project Boundary
- *denotes proposed features

Map ID: USGS-NWRC-2013-11-0013
Map Date: July 01, 2013

Scale: 1:25,000

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Central Resource Assessment Branch
Baton Rouge, LA
Image Source:
2012 DOQQ

420 ac of marsh creation

Gulf of Mexico borrow site

Approximately 11,756 linear ft. of tidal creeks

Vegetative plantings

393 net acres

\$25,441,833





CWPPRA



**West Cove Marsh Creation and Nourishment
(PPL23 Candidate)**

USGS
United States Geological Survey

Produced for:
U.S. Department of the Interior
B. Donald Smith
National Wetlands Resource Center
Central Louisiana Assessment Branch
Baton Rouge, LA
Image Source:
2012 (PPL23)

409 ac of marsh creation

Beneficially use material from the Calcasieu River Ship Channel dredged during routine maintenance dredging operations

Tidal creeks will also be constructed

359 net acres

\$20,034,472

CWPPRA

PPL23 Candidate Project Evaluation Matrix

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
New Orleans Landbridge Shoreline Stabilization and Marsh Creation	1	Orleans	192	65	104	\$12,499,993	\$1,516,303	\$10,983,690	\$844,300	\$12,999	\$120,192
Bayou Grande Cheniere Marsh and Ridge Restoration	2	Plaquemines	354	146	264	\$29,937,575	\$2,742,302	\$27,195,273	\$2,047,855	\$14,026	\$113,400
Wilkinson Canal Marsh Creation and Nourishment	2	Plaquemines	484	223	395	\$36,292,706	\$3,490,445	\$32,802,261	\$2,477,962	\$11,112	\$91,880
Caminada Headlands Back Barrier Marsh Restoration	2	Lafourche	430	144	181	\$31,034,094	\$3,354,935	\$27,679,159	\$2,113,849	\$14,680	\$171,459
Grand Bayou Freshwater Enhancement	3	Lafourche	26,533	585	676	\$22,618,793	\$2,861,725	\$19,757,068	\$1,484,004	\$2,537	\$33,460
Island Road Marsh Creation and Nourishment	3	Terrebonne	383	166	312	\$39,185,267	\$3,721,447	\$35,463,820	\$2,738,405	\$16,496	\$125,594
Southwest Pass Shoreline Protection	3	Vermilion	100	35	91	\$38,679,382	\$3,045,177	\$35,634,205	\$2,577,022	\$73,629	\$425,048
Southeast Pecan Island Marsh Creation and Freshwater Enhancement	4	Vermilion	3,281	181	372	\$39,835,500	\$3,662,682	\$36,172,818	\$2,693,285	\$14,880	\$107,085
South Grand Chenier Marsh Creation-Baker Tract	4	Cameron	420	196	393	\$25,441,833	\$2,653,242	\$22,788,591	\$1,735,602	\$8,855	\$64,737
West Cove Marsh Creation and Nourishment	4	Cameron	409	178	359	\$20,034,472	\$2,534,043	\$17,500,429	\$1,370,842	\$7,701	\$55,806

rev 10/23/13

This matrix is also located in the PPL 23 Candidate Booklet

Priority Project List 23

Candidate Projects



Public Meeting – November 13, 2013

Baton Rouge, LA

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APPENDIX A

PRIORITY PROJECT LIST 23 SELECTION PROCESS

Coastal Wetlands Planning, Protection and Restoration Act Guidelines for Development of the 23rd Priority Project List

Final

I. Development of Supporting Information

A. COE staff prepares spreadsheets indicating status of all restoration projects (CWPPRA Priority Project Lists (PPL) 1-22; Louisiana Coastal Area (LCA) program, Corps of Engineers Continuing Authorities 1135, 204, 206; and State only projects). Also, indicate net acres at the end of 20 years for each CWPPRA project.

B. CPRA/USGS staff prepare basin maps indicating:

- 1) Boundaries of the following projects types (PPLs 1-22; LCA program, COE 1135, 204, 206; and State only).
- 2) Locations of completed projects.
- 3) Projected land loss by 2050 including all CWPPRA projects approved for construction through January 2013.
- 4) Regional boundary maps with basin boundaries and parish boundaries included.

II. Project Nominations

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

Proposed project nominees shall be consistent with the State Master Plan. Representatives of the State will be present at the RPT meetings to provide guidance on the consistency of project nominations. Nominations for demonstration projects will also be accepted at any of the four RPT meetings.

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

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

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

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

Also, prior to voting on project nominees, the Environmental and Engineering Work Groups will screen each demonstration project nominated at the RPT meetings. Demonstration projects will be screened to ensure that each meets the

qualifications for demonstration projects as set forth in the CWPPRA Standard Operating Procedures (SOP), Appendix E.

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

III. Preliminary Assessment of Nominated Projects

A. Agencies, parishes, landowners, and other individuals informally confer to further develop projects. Nominated projects shall be developed to support the strategies and goals of the State Master Plan.

B. The lead agency designated for each nominated project will prepare a brief Project Description that discusses possible features. Fact sheets will also be prepared for demonstration project nominees.

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

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

IV. Selection of Phase 0 Candidate Projects

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

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

V. Phase 0 Analysis of Candidate Projects

A. Sponsoring agency coordinates site visits for each project. A site visit is vital so each agency can see the conditions in the area and estimate the project area boundary. There will be no site visits conducted for demonstration projects.

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

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

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

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

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

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

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

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

VI. Selection of 23rd Priority Project List

A. The selection of the 23rd PPL will occur at the Winter Technical Committee and Task Force meetings.

B. Technical Committee meets and considers matrix, Project Fact Sheets, and public comments. The Technical Committee will recommend up to four projects for selection to the 23rd PPL. The Technical Committee may also recommend demonstration projects for the 23rd PPL.

C. The CWPPRA Task Force will review the Technical Committee recommendations and determine which projects will receive Phase 1 funding for the 23rd PPL.

23rd Priority List Project Development Schedule (dates subject to change)

December 2012	Distribute public announcement of PPL 23 process and schedule
December 12, 2012	Winter Technical Committee Meeting, approve Phases I and II (Baton Rouge)
January 24, 2013	Winter Task Force Meeting (New Orleans)
January 29, 2013	Region IV Planning Team Meeting (Abbeville)
January 30, 2013	Region III Planning Team Meeting (Morgan City)
January 31, 2013	Regions I and II Planning Team Meetings (New Orleans)
February 19, 2013	Coast-wide RPT Voting (via electronic vote)
February 25 – March 8, 2013	Agencies prepare fact sheets for RPT-nominated projects
March 20-21, 2013	Engineering/ Environmental Work Groups review project features, benefits & prepare preliminary cost estimates for nominated projects (Baton Rouge)
March 27, 2013	P&E Subcommittee prepares matrix of nominated projects showing initial cost estimates and benefits
April 16, 2013	Spring Technical Committee Meeting, select PPL 23 candidate project (New Orleans)
May/June	Candidate project site visits
June 4, 2013	Spring Task Force Meeting (Lafayette)
July/August/ September	Env/Eng/Econ Work Group project evaluations
September 11, 2013	Fall Technical Committee Meeting, O&M and Monitoring funding recommendations (Baton Rouge)
October 10, 2013	Fall Task Force meeting, O&M and Monitoring approvals (New Orleans)
October 18, 2013	Economic, Engineering, and Environmental analyses completed for PPL 23 candidates
November 13, 2013	PPL 23 Public Meeting (Baton Rouge)
December 12, 2013	Winter Technical Committee Meeting, recommend PPL 23 and Phase I and II approvals (Baton Rouge)
January 2014	Winter Task Force Meeting, select PPL 23 and approve Phase II requests (New Orleans)

Candidate Project Located in Region 1

PPL23 New Orleans Landbridge Shoreline Stabilization and Marsh Creation

Project Location:

Region 1, Pontchartrain Basin, Orleans Parish

Problem:

Since 1956, the project area has lost more than 110 acres of wetlands along the east shore of Lake Pontchartrain between Hospital Road and the Greens Ditch area. The shoreline in the area has retreated approximately 450 feet since 1956. Wetland losses were accelerated by winds and storm surge caused by Hurricanes Katrina and Rita. Within the project area, these storms alone converted approximately 70 acres of interior marsh to open water. Flooding of nearby communities during strong northwest winds may be partially attributed to these high wetland losses. Stabilizing the shoreline and protecting the remaining marsh would protect natural coastal resources, communities and infrastructure. USGS land change analysis determined a loss rate of -0.35% per year for the 1984 -2011 period of analysis. Subsidence in this unit is relatively low and is estimated at 0-1 ft/century (Coast 2050).

Goals:

The project goal is to restore and enhance **192** acres of brackish marsh and to protect **12,716** linear feet of shoreline to maintain the structural integrity of the Orleans Landbridge, a critical landscape feature.

Proposed Solution:

Approximately 863,000 cubic yards of material will be dredged from two borrow areas in Lakes St. Catherine and Pontchartrain and from flotation access. Material will be placed in two restoration areas: a 107-acre area west of U.S. Highway 90 (MC 1), and an 85-acre area east of U.S. Highway 90 (MC 3). Approximately 12,716 linear feet of containment will be constructed with a top width of 20 feet (1V:5H side slopes) to serve as an enhanced earthen shoreline along both lake shorelines adding additional protection from wind-induced wave fetch. Of the shoreline protection, 2,129 linear feet would be constructed in front of existing marsh offering additional protection. Gaps are not proposed in the enhanced shoreline for MC 3. However, at least 4 gaps are proposed at historically natural bayous along the shoreline for MC 1 to allow for organism access. Vegetative plantings are proposed including five rows along the crown and two rows along the front slope of the shoreline protection berm and within the marsh creation areas.

Project Benefits:

The project would result in approximately 104 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$12,499,983.

Preparers of Fact Sheet:

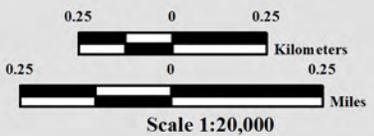
Angela Trahan, FWS, angela_trahan@fws.gov, 337-291-3137



New Orleans Landbridge Shoreline Stabilization and Marsh Creation (PPL23 Candidate)



- Earthen Berm*
 - Marsh Creation *
 - Project Boundary
- * denotes proposed features



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 2012 DOQQ

Map ID: USGS-NWRC 2013-11-0041
 Map Date: September 03, 2013

Candidate Projects Located in Region 2

PPL23 Caminada Headlands Back Barrier Marsh Creation

Project Location:

Region 2, Barataria Basin, Lafourche Parish

Problem:

The Caminada Headland has experienced some of the highest shoreline retreat rates in Louisiana. Historically the shoreline has migrated landward at about 40 feet per year. Between 2006 and 2011, shoreline migration increased dramatically, exceeding 80 feet per year in near Bay Champagne and 110 feet per year in the Bayou Moreau area. The increased losses occurred in the wake of Hurricanes Katrina and Rita in 2005 as the breaches remained open for an extended length of time. The losses were exacerbated by Tropical Storm Fay and Hurricanes Gustav and Ike in 2008. Significant prolonged breaches greatly increase the net export of sediment from the headland.

In addition to the shoreline migration, the area is also experiencing high loss rates of interior marshes. As the beach and dune continue to migrate landward, overwashed sediment will be lost into newly formed open water and land loss rates will be exacerbated. The continued deterioration of Caminada headland threatens thousands of acres of wetland habitat as well as critical infrastructure, including Port Fourchon, LA Highway 1, and the lower Lafourche levee system.

Goals:

The goals of this project are to: 1) Create and/or nourish 430 acres of back barrier marsh, by pumping sediment from an offshore borrow site; 2) Create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, improving the longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west. The proposed project is expected to slow the current trend of degradation in the headland.

Proposed Solution:

This project would create 300 acres of back barrier intertidal marsh and nourish 130 acres of emergent marsh behind 3.5 miles of the Caminada beach using material dredged from the Gulf of Mexico. The marsh creation and nourishment cells are designed to minimize impacts on existing marsh and mangroves. Assuming some natural vegetative recruitment, vegetative plantings are planned at a 50% density, with half planned at project year one and half planned at project year 3. Containment dikes will be degraded or gapped by year three to allow access for estuarine organisms.

Project Benefits:

The project would result in approximately 181 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$31,034,094.

Preparers of Fact Sheet:

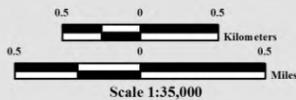
Barbara Aldridge (EPA), (214) 665-2712; Stuart Brown, CPRA, (225) 342-4596



Caminada Headlands Back Barrier Marsh Creation (PPL23 Candidate)



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



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 Coastal Restoration Assessment Branch
 Baton Rouge, La

Image Source:
 2012 DOQQ

Map ID: USGS-NWRC 2013-11-0044
 Map Date: August 01, 2013

PPL23 Wilkinson Canal Marsh Creation and Nourishment

Project Location:

The project is located in Region 2, Barataria Basin, in Plaquemines Parish

Problem:

There is widespread historic and continued rapid land loss within the project site and surrounding marshes resulting from subsidence, wind erosion, storms, and altered hydrology. Based on USGS data from 1984 to 2011, the wetland loss rate for the proposed project area is 1.04 %/year. The natural limits of Bayou Dupont are difficult to determine in some areas because land loss is causing the coalescence of the bayou with adjacent water bodies. Natural tidal flow and drainage patterns that once existed through the bayou are currently circumvented by the increasing area of open water. Data suggests that from 1932 to 1990, the basin lost over 245,000 ac of marsh, and from 1978 to 1990, Barataria Basin experienced the highest rate of wetland loss along the entire coast.

Goals:

The concept provides for the restoration of approximately 484 acres of emergent brackish marsh to help reestablish the banks of Bayou Dupont while also providing protection to the local flood protection levee.

Proposed Solution:

The proposed project's primary feature is to create 435 acres and nourish 49 acres of brackish marsh. Sediment will be hydraulically pumped from a borrow source in the Mississippi River (near the Myrtle Grove area). Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. No later than three years post construction, the containment dikes will be degraded and/or gapped. Additionally, half of the newly constructed marsh (242 acres) will be planted following construction to stabilize the platform and reduce time for full vegetation.

Project Benefits:

The project would result in approximately 395 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$36,292,706.

Preparers of Fact Sheet:

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Kimberly.Clements@noaa.gov

Patrick Williams, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 208

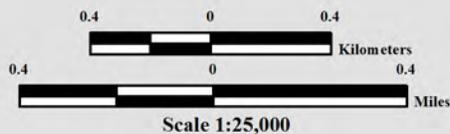
Patrick.Williams@noaa.gov



Wilkinson Canal Marsh Creation and Nourishment (PPL23 Candidate)



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



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 2012 DOQQ

Map ID: USGS-NWRC 2013-11-0034
 Map Date: July 01, 2013

PPL23 Bayou Grande Cheniere Marsh and Ridge Restoration

Project Location:

Region 2, Barataria Basin, Plaquemines Parish

Problem:

Significant marsh loss has occurred south of Lake Hermitage with the construction of numerous oil and gas canals, subsidence, and sediment deprivation. The most significant loss occurred during the 1960s and 1970s. Based on the hyper-temporal analysis conducted by USGS for the extended boundary, loss rates in the project area are estimated to be -1.16% per year for the period 1984 to 2011.

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. Specific goals of the project are: 1) Create approximately 342 acres of marsh with dredged material from the Mississippi River; 2) create 10,820 linear feet (12 acres) of forested coastal ridge habitat.

Proposed Solution:

Riverine sediments will be hydraulically dredged and pumped via pipeline to create/nourish approximately 342 acres of marsh. Containment dikes will be constructed as necessary. The proposed design is to place the dredged material to a fill height of +2.0 ft NAVD88. Approximately 8,200 ft of pre-dredged tidal creeks are also proposed. Tidal creeks will be dredged approximately 5 feet deep, with side slopes of 1(V):3(H), and with a 10-ft bottom width.

Approximately 10,820 linear feet of forested coastal ridge will be constructed along Bayou Grande Cheniere. The ridge will have a 25-ft crown width, a height of +5.0 ft NAVD88, and side slopes of 1(V):5(H). The current proposal is to create the ridge using material dredged from the Mississippi River. Herbaceous plantings (e.g., seashore paspalum) will occur immediately after construction and bottomland hardwood species (seedlings and saplings) will be planted at Year 2. Funding for tallow control and maintenance plantings is also included.

Project Benefits:

The project would result in approximately 264 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$29,937,575.

Preparer of Fact Sheet:

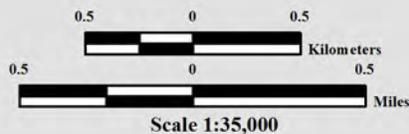
Kevin Roy, FWS, Kevin_Roy@fws.gov, 337-291-3120



Bayou Grande Cheniere Marsh and Ridge Restoration (PPL23 Candidate)



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



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Image Source:
 2012 DOQQ

Map ID: USGS-NWRC 2013-11-0033
 Map Date: September 04, 2013

Candidate Projects Located in Region 3

PPL23 Island Road Marsh Creation and Nourishment

Project Location:

Region 3, Terrebonne Basin, Terrebonne Parish

Problem:

The Terrebonne Basin is an abandoned delta complex, characterized by a thick section of unconsolidated sediments that are undergoing dewatering and compaction, contributing to high subsidence, and a network of old distributary ridges extending southward from Houma. Historically, subsidence and numerous oil and gas canals and pipelines in the area have contributed significantly to wetland losses. Since 1932, the Terrebonne Basin has lost approximately 20% of its wetlands. One-third of the Terrebonne Basin's remaining wetlands are estimated to be lost to open water by the year 2040. There has been a significant reduction in the marsh platform in the vicinity of Island Road (1.60%/year based on USGS data from 1984 to 2011) that has provided some historical wave energy protection. Island Road is the only land access to the Isle of Jean Charles located west of Pointe Aux Chenes which serves unique Native American and minority communities that historically relied on fishing for their livelihood.

Goals:

The restoration concept provides for the creation and/or nourishment of approximately 383 acres of emergent saline marsh that will form a land bridge along portions of the perimeter of Cutoff Canal, Twin Pipelines Canals, and Island Road.

Proposed Solution:

The proposed project's primary feature is to create 364 acres and nourish 19 acres of saline marsh. Sediment will be hydraulically pumped from a borrow source near Lake Felicity. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping and will be degraded and/or gapped no later than three years post construction. Half of the newly constructed marsh (182 acres) will be planted following construction to stabilize the platform and reduce time for full vegetation.

Project Benefits:

The project would result in approximately 312 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$39,185,267.

Preparers of Fact Sheet

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Kimberly.Clements@noaa.gov

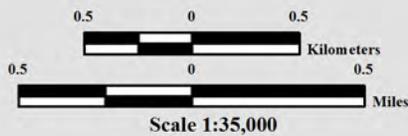
Patrick Williams, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 208
Patrick.Williams@noaa.gov



Island Road Marsh Creation and Nourishment (PPL23 Candidate)



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



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 Baton Rouge, La

Image Source:
 2012 DOQQ

Map ID: USGS-NWRC 2013-11-0045
 Map Date: August 02, 2013

PL23 Grand Bayou Freshwater Enhancement

Project Location:

Region 3, Terrebonne Basin, Lafourche Parish

Problem:

The project area is located within the North Bully Camp Marsh (43,882) and St. Louis Canal (25,563 acres) mapping units. Between the years 1932 and 1990, these two mapping units lost an estimated 12,840 and 3,450 acres of marsh, respectively. A significant amount of the land loss in these areas since 1949 may be attributed to direct removal and altered hydrology from canal dredging. Altered hydrology remains a current cause of land loss along with high rates of subsidence which are estimated to be between 2.1 and 3.5 ft/century (LCWCRTF 1999).

Because of the high number of canals that have been dredged in the area, high salinity Gulf waters move rapidly northward into the marshes within the project area. The amount of high salinity waters moving north is increasing as the marshes continue to breakup and disappear. The only freshwater input to this area originates from the Gulf Intracoastal Waterway (GIWW) along the northern project boundary. The freshwater inflow from the GIWW is restricted by the small cross-section of the channel north of the Hwy. 24 bridge and continuing for several thousand feet south of that bridge. There is also a restriction (earthen plug) in Margaret's Bayou which prevents fresh water from moving east from Grand Bayou into the broken marshes.

Goals:

The primary goal of this project is to increase the flow of fresh water from the GIWW down Grand Bayou Canal. That increase in water would lower salinities and add nutrients to the wetlands south of the GIWW along the east and west banks of Grand Bayou Canal. **Specific goals:** 1) Increase the flow of fresh water from the GIWW into Grand Bayou Canal from approximately 600 cfs to 1,600 cfs; 2) redirect much of the freshwater from Grand Bayou Canal into the marshes east and west of Grand Bayou Canal, and 3) Create 112 acres of fresh marsh and nourish an additional 14 acres of intermediate marsh west of Grand Bayou near Hwy 24.

Proposed Solution:

This project would increase the Grand Bayou cross-section from an average of 628 cfs to 1,604 cfs with the use of a hydraulic dredge. Material dredged from the channel would be beneficially used to create approximately 126 acres of intermediate marsh. Along the west bank of the channel a rock plug would be replaced with a 5-48" flap-gated culvert water control structure, an increase of 122 cfs. Along the east bank an earthen plug would be removed to allow freshwater to flow directly into the marshes to the east down Margaret's Bayou, an increase in 385 cfs.

Project Benefits:

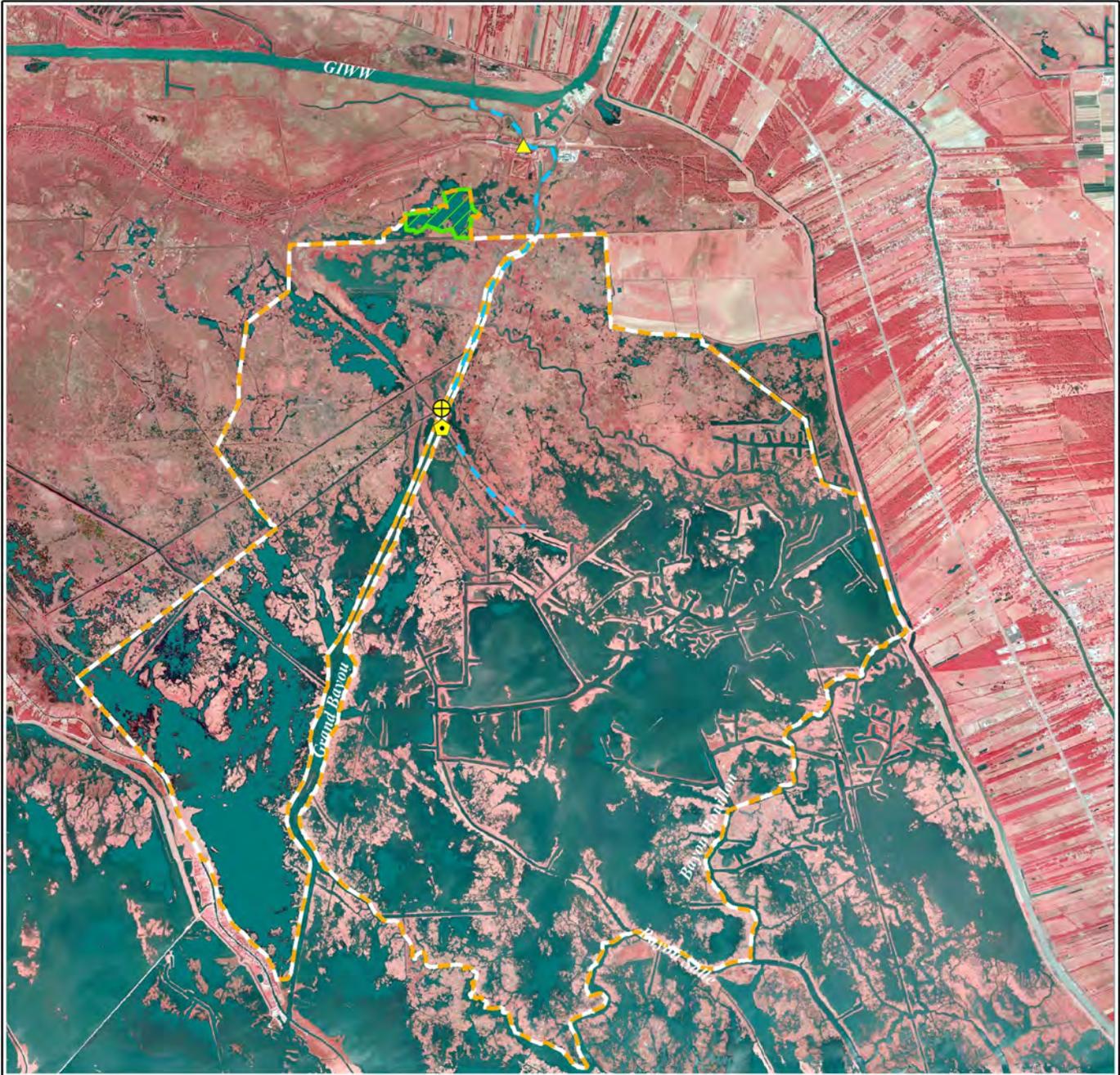
The project would result in approximately 676 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$22,618,793.

Preparer of Fact Sheet:

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



Grand Bayou Freshwater Enhancement (PPL23 Candidate)



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 Coastal Restoration Assessment Branch
 Baton Rouge, La

Image Source:
 2012 DOQQ



- Bridge Replacement *
- Water Control Structure *
- Weir w/ Barge Bay *
- Channel Enlargement *
- Marsh Creation *
- Freshwater Influence *
- Project Boundary *

* denotes proposed features



Scale 1:100,000

Map ID: USGS-NWRC 2013-11-0043
 Map Date: August 15, 2013

PPL23 Southwest Pass Shoreline Protection

Project Location:

Region 3, Teche/Vermilion Basin, Iberia and Vermilion Parishes

Problem:

Erosion of peninsulas in the project area is reducing the effectiveness of the landmass as a mainland barrier to gulf storm surge, wave energy and tidal flux reduction. Average losses of 10 ft/yr at Southwest Point and 8 ft/yr at Tojan Island were measured from 1998 to 2012. Southwest Point is only about 240 ft wide at its thinnest location and the gulf shoreline on Tojan Point is within less than 500 ft from interior tidal creeks leading to the interior.

Goals:

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

Proposed Solution:

Proposed is the installation of armored shoreline protection along the south shoreline of Vermilion Bay at Southwest Point to protect approximately 9,195 linear feet of shoreline and along the north shoreline of the Gulf of Mexico at Tojan Island to protect approximately 16,882 linear feet of shoreline. Shoreline protection would consist of typical rock construction.

Project Benefits:

The project would result in approximately 91 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$38,679,382.

Preparer(s) of Fact Sheet:

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

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



Southwest Pass Shoreline Protection (PPL23 Candidate)

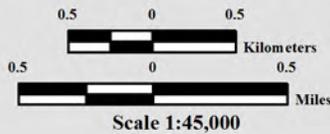


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Image Source:
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 Shoreline Protection *
 Project Boundary
 * denotes proposed features



Map ID: USGS-NWRC 2013-11-0038
 Map Date: July 02, 2013

Candidate Projects Located in Region 4

PPL23 West Cove Marsh Creation and Nourishment

Project Location:

Region 4, Calcasieu-Sabine Basin, Cameron Parish

Problem:

The project area is located within the Mud Lake mapping unit (22,711 ac). Between the years 1932 and 1990, the mapping unit lost an estimated 4,630 acres of marsh. The majority of this loss (3,570 acres) occurred from 1956-1974. In 2005, marshes in the area were severely impacted as a result of Hurricane Rita and again in 2008 by Hurricane Ike.

With the recent increase in area salinities coupled with hurricane impacts, much of the marsh vegetation in the area has been stressed and in many cases lost. USGS performed a linear regression of land area values based on the land-water analysis of hyper-temporal data set (1984-2011) and estimated a loss rate of -0.80%/yr. If not addressed through some type of restoration, wind generated waves within the open water areas can cause an increase in shoreline erosion.

Goals:

The primary goal of this project is to divert material from an upland disposal site along the Calcasieu River Ship Channel and beneficially utilize that material to create and/or nourish approximately 409 acres of brackish marsh (388 acres created and 21 acres nourished).

Proposed Solution:

The proposed project will beneficially utilize material from the Calcasieu River Ship Channel dredged during routine maintenance dredging operations and create/nourish marsh by placing that material in an area with shallow open water and highly broken marsh located south and west of West Cove. Approximately 388 acres of brackish marsh would be restored and 21 acres nourished by beneficially using approximately 1.6 million cubic yards of material. Dredged material would be contained by earthen containment dikes to achieve a target marsh elevation of +1.4 ft. NAVD 88 (2 inches above the existing marsh elevation at Sonde CS20-15R and equal to the target elevations at the Sabine Marsh Creation Project Cycles 1 & 3).

Containment dikes will be degraded and/or adequately gapped within three years post construction. Tidal creeks will also be constructed with the use of a marsh buggy tracking along a predetermined path to initiate the establishment of those tidal creeks thus allowing tidal flow and estuarine organism access to the marsh restoration areas.

Project Benefits:

The project would result in approximately 359 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$20,034,472.

Preparers of Fact Sheet:

Robert Dubois, Fish and Wildlife Service, (337) 291-3127

Scott Wandell, U.S. Army Corps of Engineers, (504) 862-1878



West Cove Marsh Creation and Nourishment (PPL23 Candidate)

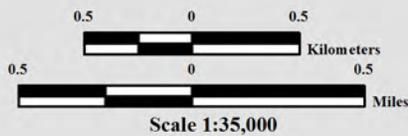


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Image Source:
 2012 DOQQ



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



Map ID: USGS-NWRC 2013-11-0046
 Map Date: September 03, 2013

PPL23 Southeast Pecan Island Marsh Creation and Freshwater Enhancement

Project Location:

The project is located in Region 4, Mermentau Basin, Vermilion Parish, east of Pecan Island and south of Highway 82.

Problem:

Virtually all of the project area marshes have experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention associated with the Freshwater Bayou Canal and the Humble Canal. Highway 82 traverses cheniers wherever possible, however, low spots between cheniers historically allowed drainage from the Lakes Subbasin south into the Chenier Subbasin. Currently, Highway 82 forms a hydrologic barrier that isolates those sub basins. Saltwater intrusion has been caused by blocking the normal north-south freshwater flow, retaining freshwater to the north in the Lakes subbasin, and by canals providing a direct route for saltwater to infiltrate the Chenier Subbasin. Recent land loss resulting from Hurricanes Rita and Ike has also left Louisiana State Highway 3147 and Front Ridge Road exposed to open water wave action and vulnerable to additional storm impacts.

Goals:

The project goals are to restore/improve hydrologic conditions and increase emergent marsh vegetation throughout the project area. The project would help restore drainage of excess fresh water from the Lakes Subbasin into the Chenier Subbasin. Restoring the hydrology would reduce the exposure of fragile interior marsh to seasonal salinity spikes and increase productivity of marshes receiving freshwater. The project would also create/nourish approximately 531 acres of emergent marsh and promote growth of submerged aquatic vegetation.

Proposed Solution:

Approximately 531 acres of marsh will be created and/or nourished from dredged material from the Gulf of Mexico.

The proposed freshwater introduction would restore/improve hydrologic conditions by allowing water from the Lakes Subbasin to drain south into the Chenier Subbasin. The majority of the necessary infrastructure exists and would require construction of an outlet structure at Front Ridge, replacement of four sets of culverts along the conveyance channel, and the potential cleanout of culverts under Highway 82.

Project Benefits:

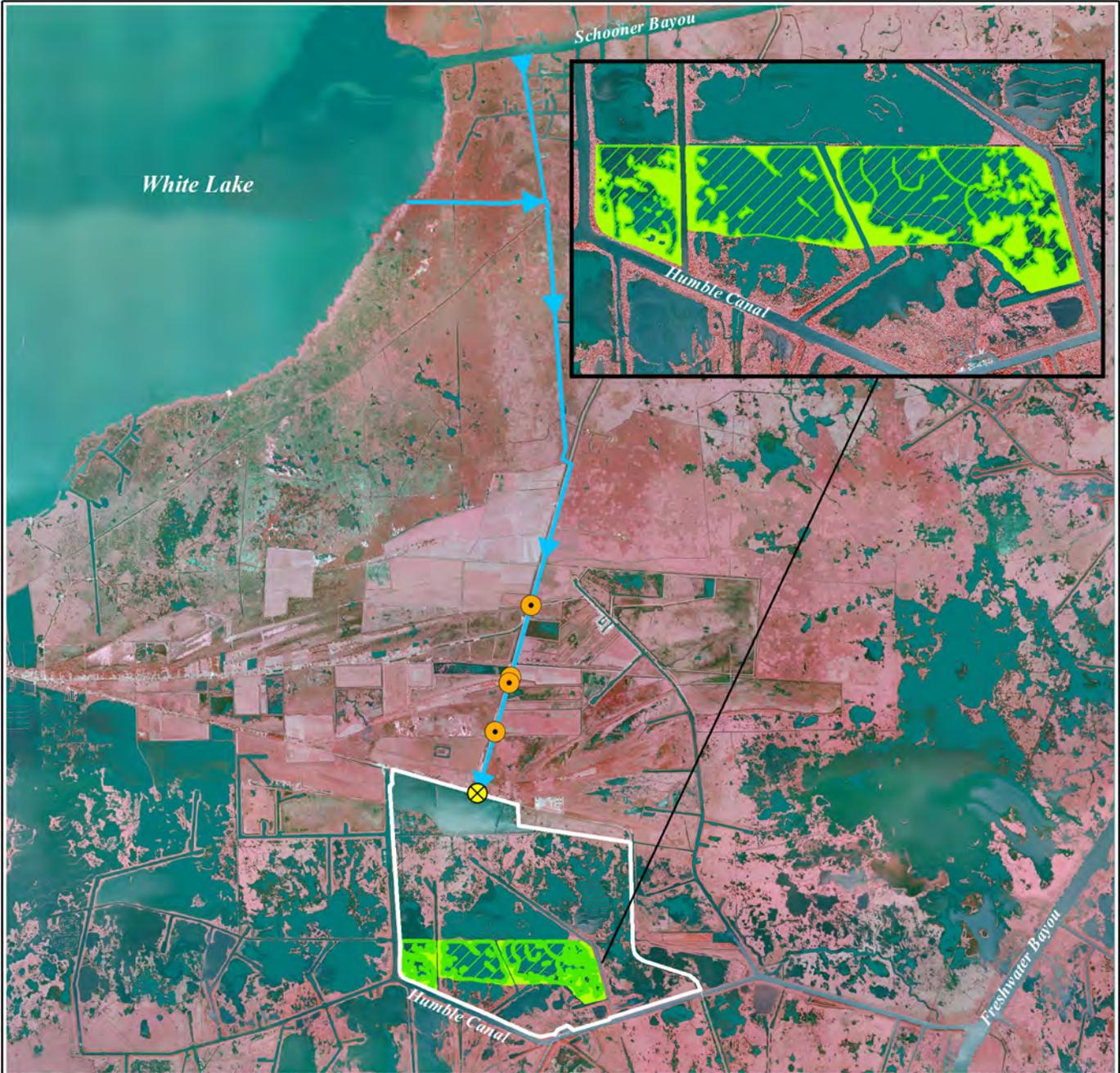
The project would result in approximately 372 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$39,835,500.

Preparer of Fact Sheet:

Troy Mallach, NRCS, (337) 291-3064.



Southeast Pecan Island Marsh Creation and Freshwater Enhancement (PPL23 Candidate)

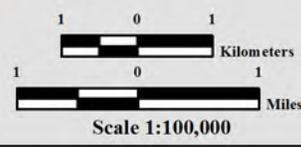


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 Baton Rouge, La

Image Source:
 2012 DOQQ



-  Replacement Structure *
 -  Culvert with Flapgate *
 -  Freshwater Introduction *
 -  Marsh Creation *
 -  Marsh Nourishment *
 -  Influence Area/Project Boundary *
- * denotes proposed features



Map ID: USGS-NWRC 2013-11-0042
 Map Date: September 10, 2013

PPL23 South Grand Chenier Marsh Creation – Baker Tract

Project Location:

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

Problem:

Marshes within the Hog Bayou Unit are stressed due to limited freshwater input and seasonal salinity spikes exacerbated by construction of the Mermentau Ship Channel. The dredging of the Mermentau River Ship Channel and subsequent wetland loss has increased tidal amplitude and salt water intrusion into the watershed. Other contributors to land loss in the area are subsidence, compaction, and erosion of organic soils. Currently, the project area is characterized as large open water with degraded areas of wetland vegetation, low organic production, and large areas of wave fetch.

Goals:

The primary project goal is to create new wetland habitat, restore degraded marsh, and reduce wave erosion. The project would promote the expansion of emergent marsh and submerged aquatic vegetation throughout the project area. Primary focus is on substantial marsh creation to increase organic production and reduce tidal prism. Successful CWPPRA beneficial use and dedicated dredging marsh creation projects show that placement of dredged material in shallow open water areas can restore vegetated marsh within a few years post construction

Proposed Solution:

Approximately 420 acres of marsh will be created and nourished using material dredged from the Gulf of Mexico. Retention levees will be degraded and approximately 11,756 linear feet of tidal creeks will be constructed by tracking marsh buggies on the marsh platform for estuarine fisheries access. Smooth cordgrass plugs will be planted on 20-foot centers throughout the area (total 49,268 plants).

Project Benefits:

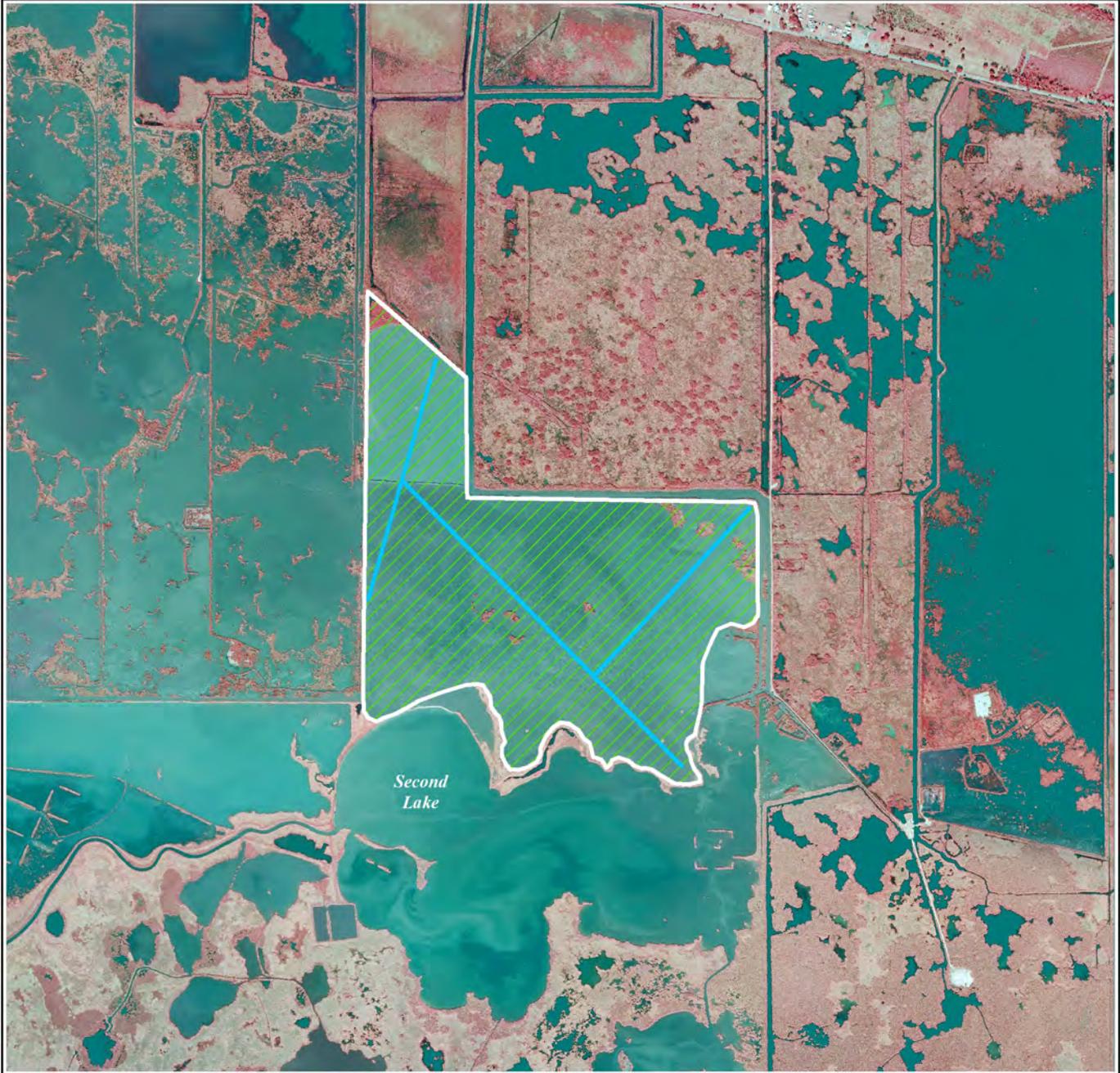
The project would result in approximately 393 net acres over the 20-year project life.

Project Costs:

The total fully-funded cost is \$25,441,833.

Preparer of Fact Sheet:

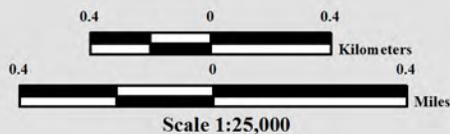
Troy Mallach, NRCS, (337) 291-3064



South Grand Chenier Marsh Creation (PPL23 Candidate)



- Tidal Creeks *
 - Marsh Creation *
 - Project Boundary
- * denotes proposed features



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Map ID: USGS-NWRC 2013-11-0035
 Map Date: July 01, 2013

PPL23 Candidate Project Evaluation Matrix

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
New Orleans Landbridge Shoreline Stabilization and Marsh Creation	1	Orleans	192	65	104	\$12,499,983	\$1,516,303	\$10,983,680	\$844,380	\$12,990	\$120,192
Bayou Grande Cheniere Marsh and Ridge Restoration	2	Plaquemines	354	146	264	\$29,937,575	\$2,742,302	\$27,195,273	\$2,047,855	\$14,026	\$113,400
Wilkinson Canal Marsh Creation and Nourishment	2	Plaquemines	484	223	395	\$36,292,706	\$3,490,445	\$32,802,261	\$2,477,962	\$11,112	\$91,880
Caminada Headlands Back Barrier Marsh Restoration	2	Lafourche	430	144	181	\$31,034,094	\$3,354,935	\$27,679,159	\$2,113,849	\$14,680	\$171,459
Grand Bayou Freshwater Enhancement	3	Lafourche	26,533	585	676	\$22,618,793	\$2,861,725	\$19,757,068	\$1,484,004	\$2,537	\$33,460
Island Road Marsh Creation and Nourishment	3	Terrebonne	383	166	312	\$39,185,267	\$3,721,447	\$35,463,820	\$2,738,405	\$16,496	\$125,594
Southwest Pass Shoreline Protection	3	Vermilion	100	35	91	\$38,679,382	\$3,045,177	\$35,634,205	\$2,577,022	\$73,629	\$425,048
Southeast Pecan Island Marsh Creation and Freshwater Enhancement	4	Vermilion	3,281	181	372	\$39,835,500	\$3,662,682	\$36,172,818	\$2,693,285	\$14,880	\$107,085
South Grand Chenier Marsh Creation-Baker Tract	4	Cameron	420	196	393	\$25,441,833	\$2,653,242	\$22,788,591	\$1,735,602	\$8,855	\$64,737
West Cove Marsh Creation and Nourishment	4	Cameron	409	178	359	\$20,034,472	\$2,534,043	\$17,500,429	\$1,370,842	\$7,701	\$55,806

rev 10/23/13

Coastal Wetlands Planning, Protection and Restoration Act

23rd Priority Project List Meeting Announcement

Date: November 13, 2013
Time: 7:00 p.m.
Location: LA Dept of Wildlife and Fisheries
Louisiana Room
2000 Quail Drive
Baton Rouge, Louisiana

23rd Priority Project List (PPL) Public Meetings

A public meeting will be held to present the results of candidate project evaluations under review and consideration for CWPPRA PPL 23. The evaluation results will be presented for all the PPL 23 candidate projects. The public is invited to attend and provide comments on the candidate projects. The CWPPRA Technical Committee will meet on December 12, 2013 in Baton Rouge at the LA Dept of Wildlife and Fisheries to recommend projects for PPL 23 selection.

Written comments may be provided no later than November 26, 2013 to the CWPPRA Task Force by mail, fax or email to:

**Colonel Richard Hansen
District Engineer, New Orleans
c/o: Brad Inman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana**

Fax: 504-862-2572

Email: Brad.L.Inman@usace.army.mil



Letters of Support



OFFICE OF THE PARISH PRESIDENT
TERREBONNE PARISH CONSOLIDATED GOVERNMENT
P. O. Box 6097
HOUMA, LOUISIANA 70361-6097



MICHEL H. CLAUDET
PARISH PRESIDENT

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

November 26, 2013

Colonel Richard Hansen
District Engineer, New Orleans
c/o: Brad Inman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

RE: CWPPRA Phase I Funding — Island Road Marsh Creation Project; Terrebonne Parish, LA

Col. Hansen:

As Terrebonne Parish President, it is with the utmost urgency that I ask you, along with the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Technical Committee and Task Force, to approve Phase I Engineering & Design funding for the Island Road Marsh Creation Project for Priority Project List (PPL) 23 at your upcoming meetings this winter. Terrebonne Parish is Ground Zero for land loss in Coastal Louisiana, and sees loss in the way of an average of a football field every five hours. Projects like the Island Road Marsh Creation can help us reverse some of that loss.

The project is located in the immediate vicinity of a landform known as Isle de Jean Charles, which has been home to dozens of Native American families in the past; however, due to loss of land historically used for both trapping by these residents and protection from storm surge, the island is now home to fewer than thirty families. The restoration of wetland habitat will not only assist in dampening wave energy that plagues this community and its homes, but will also provide protection for Island Road to the north—a parish-owned roadway that has recently been completely reconstructed by Terrebonne Parish Consolidated Government at a cost of over \$7 million. This road serves as the only vehicular access to or from Isle de Jean Charles.

In addition to these factors, the overall project area has been historically impacted by subsidence, salt water intrusion, storm surge damage, a lack of sediment supply, and oil and gas canals dating back several decades. The loss of land in this area has devastated habitat necessary for native species of wildlife, fisheries, and vegetation to thrive and reproduce. Marsh creation associated with this project will restore some of that lost habitat and reduce storm surge action in a large open water area, providing future protection to a very fragile portion of the Terrebonne Hydrologic Basin.

When reviewing Louisiana's 2012 Comprehensive Master Plan for a Sustainable Coast, the necessity of this project is quite clear. Much of eastern Terrebonne Parish was ignored in the Master Plan because modeling efforts associated with composition of the plan suggested that the area was not sustainable. Aside from obvious flaws in the modeling efforts, most notably a disregard for synergistic qualities of projects within close proximity to one another, we cannot ignore the emergency needs of an area that thousands of Americans call home. Since the CWPPRA Task Force has elected to require future CWPPRA projects to be consistent with the 2012 State Master Plan, this project may be one of our last chances to put a necessary and highly beneficial project on the ground before the next Master Plan update in 2017.

As we understand it, this project was relocated from its originally proposed location, due to poor soil conditions in the originally proposed area. The geotechnical investigations conducted in the new project area are very promising, and will allow the CWPPRA program to help prove that eastern Terrebonne is, in fact, a very sustainable area that should not be written off and allowed to wash away. The Terrebonne Levee & Conservation District has recently constructed earthen terraces in the immediate vicinity of the project area that have proven viable through the most recent tropical events.

Consisting of 470 acres of marsh and 42 acres of earthen terraces and estimating a cost of approximately \$36 million, I again urge you to approve funding of the Madison Bay Marsh Creation and Terracing Project at the December 12, 2013 CWPPRA Technical Committee meeting. Terrebonne is disappearing at an alarmingly fast rate. We need to approve and construct vitally important projects like this one before time runs out for our residents.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michel H. Claudet', with a stylized, wavy flourish at the end.

Michel H. Claudet
Parish President



Leslie R. Suazo
Coastal Restoration Coordinator

C/O ConocoPhillips Company 806 Bayou Black Drive P.O. Box 7097 Houma, LA 70361-7097 lsuazo@ducks.org
985-853-3020 Fax: 985-872-1509

November 26, 2013

Mr. Thomas A. Holden, Chairman
Deputy District Engineer
U.S. Army Engineer District, New Orleans
Office of the Chief
P.O. Box 60267
New Orleans, Louisiana 70160

Re: Phase I Funding Request
Island Road Marsh Creation and Nourishment Project
Grand Bayou Hydrologic Restoration

Dear Mr. Holden:

As you are aware, the Technical Committee of the Coastal Wetlands Planning, Protection and Restoration Act program will be meeting in Baton Rouge on December 12, 2013 to select up to four candidate projects for Phase I, Engineering and Design funding. I would like to offer the following comments in support of two projects in the Terrebonne Basin of importance to Ducks Unlimited and its core mission to preserve, protect and restore waterfowl habitat. As you know, this area lies within the Mississippi flyway, and serves as a critical wintering site for a large number of migratory waterfowl species, as well as providing on-going habitat needs of resident populations of mottled ducks, whistling ducks and wood ducks. I hope that you will consider this information when evaluating candidate projects.

The Island Road Marsh Creation Project sponsored by the NOAA Fisheries Service is located in the eastern portion of the Terrebonne Basin, within the Terrebonne Marshes Ecological Management Unit (EMU) as identified by the Terrebonne Parish Coastal Zone Management Program Document (2000). The area is directly south of the Montegut subunit of the Wildlife Management Area managed by Louisiana Department of Wildlife and Fisheries, and south of Island Road, the boundary between the Montegut EMU and Terrebonne Marshes EMU.

The primary goal of this project is to create approximately 397 acres of marsh and nourish an additional 31 acres between Island Road and the Twin Pipelines Corridor. The project will provide natural protection to Island Road, (the only access between Isle de Jean Charles and the nearest community of Pointe-Aux-Chenes); will restore a portion of Cutoff Canal and the Bayou Jean LaCroix ridge and provide additional protection to non-critical oil and gas facilities (pipelines) located in the

area from wave energy. The restored marsh and associated edge habitat will also promote conditions conducive to the growth of submerged aquatic vegetation, an essential waterfowl habitat.

This project is in keeping with Louisiana's 2012 Comprehensive Plan for a Sustainable Coast (including recent guidance developed for CWPPRA projects), and the Terrebonne Parish Coastal Zone Management and Restoration Advisory Committee continues to rank this area as a priority area in its ongoing restoration planning efforts. In addition, restoration projects in this area will produce positive synergies with on-going levee and mitigation projects in adjacent areas being implemented by the Terrebonne Levee and Conservation District. Synergistic benefits, direct and indirect, will also be provided by ongoing efforts in the area sponsored by Ducks Unlimited, Inc., with the participation of cooperating landowners, Terrebonne Parish Consolidated Government, and the Terrebonne Levee District.

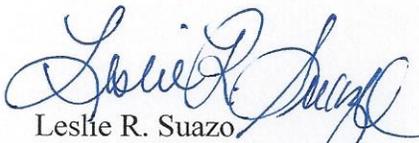
Also in the Terrebonne Basin, in western Lafourche Parish is the proposed Grand Bayou Hydrologic Restoration Project sponsored by the US Fish and Wildlife Service. This project, located within the North Bully Camp and St. Louis Canal mapping units, would increase the flow of fresh water from the Gulf Intra-Coastal Waterway (GIWW) down Grand Bayou Canal. The increase in fresh water would lower salinities and provide nutrients to the wetlands south of the GIWW on the east and west banks of Grand Bayou Canal. The project as proposed would utilize a hydraulic dredge to expand the cross section of the canal from its average of 628 cfs to 1,604 cfs. Material dredged from the channel would be used to create approximately 126 acres of intermediate marsh. A rock plug on the west bank of the canal would be replaced with a 5-48" flap-gated culvert water control structure to provide freshwater flow to the marshes to the west and an earthen plug removed on the east bank to allow freshwater to flow into the marshes to the east through Margaret's Bayou. The project would result in approximately 676 net acres over the project life.

This project is also consistent with the principles of Louisiana's 2012 Comprehensive Plan for a Sustainable Coast, and has long been an area of common concern for Terrebonne and Lafourche Parishes.

Please give these projects every favorable consideration possible under the guidelines used by the Coastal Protection and Restoration Authority when evaluating projects for Phase I (E&D) funding through the CWPPRA program.

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

Sincerely,



Leslie R. Suazo
Coastal Restoration Coordinator

CC: Garrett Graves, GOCA
Charlotte Randolph, Lafourche Parish Government
Michel Claudet, Terrebonne Parish Government

Timothy Allen, Apache Louisiana Minerals LLC
Phil Precht, Conoco Phillips
Jerry Holden, Ducks Unlimited
Scott Manley, Duck Unlimited
Archie Chaisson, Lafourche Parish Government
Amanda Penick, Lafourche Parish Government
Al Levron, Terrebonne Parish Government
Nick Matherne, Terrebonne Parish Government

985.873.6401 Office

985.873-6409 Fax

Saltwater Fishing Capital of the World

Go Green. Please consider the environment before printing this email.

LBC_ConsolGovRGB

From: Michel Claudet
Sent: Friday, December 06, 2013 9:13 AM
To: 'Hansen, Richard L COL MVN'; 'Holden, Thomas A MVN'
Subject:

Dear Colonel and Tom, the CWPPRA Tech Committee is scheduled for Thursday in Baton Rouge. Terrebonne has two projects that need the support of the Corps. I have attached data sheets and talking points on each project. Madison Bay is up for construction funding and Island Road is up for engineering and design.

These projects are both very critical. I certainly helps to protect our Morganza levees. It certainly is in an area with a large Native American population. We have strong agency support but we need your support.

Please remember that these are both in Eastern Terrebonne which had overwhelming public support for additional projects in our area.

We respectfully ask for your support.

Michel H. Claudet

Parish President

P.O. Box 6097

Houma, LA 70361

985.873.6401 Office

985.873-6409 Fax

Island Road Marsh Creation

Up for Engineering & Design Funding

- Isle de Jean Charles – Native American Community
- Island Road only access for residents
- Road recently reconstructed by TPCG at a cost of over \$7 million
- Open water area south of Road creates hard wave energy that impacts island and road
- Only 2 landowners: Apache & ConocoPhillips – both supportive
- Important duck habitat.
- Ducks Unlimited and ConocoPhillips planning to build terraces nearby, supplementing the project
- It's been 3 years since a project has received Engineering funding in Terrebonne. 1/5 of LA's land loss, 2nd most rapidly-vanishing parish, not enough projects coming our way.



Plaquemines Parish Government

Parish President
Billy Nungesser

**COASTAL
ZONE MANAGEMENT**

8056 Hwy. 23, Suite 307
Belle Chasse, Louisiana 70037
(504) 297-5629
Fax (504) 274-2463
eMail: pjhahn@plaqueminesparish.com

Council Members

District 1 - Don Beshel
District 2 - Keith Hinkley
District 3 - Jerry Hodnett
District 4 - Dr. Stuart J Guey Jr.
District 5 - Anthony Buras
District 6 - Burghart Turner
District 7 - Jay Friedman
District 8 - Lynda Banta
District 9 - Marla Cooper

December 5, 2013

CWPPRA Technical Committee Members

LETTER OF SUPPORT

Dear Members,

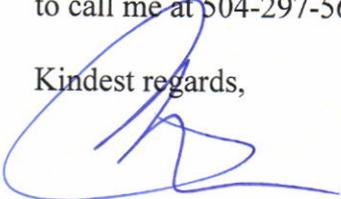
On behalf of our Parish President Billy Nungesser and as the Director of Coastal Zone Management, Plaquemines Parish supports our No. 1 project, the Bayou Grande Cheniere Marsh and Ridge Restoration Project under CWPPRA.

The PPL23 Bayou Grande Cheniere Marsh and Ridge Restoration fact sheet goals, solutions and benefits compliment the Plaquemines Parish Coastal Plan. Also, the Barataria Estuary is the fastest disappearing estuary in the United States and is also the very existence of Plaquemines Parish.

We have learned the hard way that a sustainable ecosystem is a vital component not just for the economic livelihood of those who rely on our State's abundant natural resources, but also for the protection of our homes, businesses, communities, and infrastructure.

I would respectfully request your support of this project. Should you have any questions, please do not hesitate to call me at 504-297-5631.

Kindest regards,



P. J. Hahn

Cc: Kevin J Roy
Albertine M Kimble

OFFICE OF COASTAL & ENVIRONMENTAL AFFAIRS
CITY OF NEW ORLEANS

MITCHELL J. LANDRIEU
MAYOR

CEDRIC S. GRANT
DEPUTY MAYOR

December 10, 2013

Colonel Richard Hansen
District Engineer, New Orleans
c/o: Brad Inman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA, 70118

RE: New Orleans Landbridge Shoreline Stabilization and Marsh Creation

Dear Colonel Hansen,

I am writing to express Orleans Parish support for the PPL23 project entitled *New Orleans Landbridge Shoreline Stabilization and Marsh Creation* that is being was nominated by the U.S. Fish and Wildlife Service (USFWS)

We believe that this could be a very beneficial project in its proposed use of dredged material from nearby borrow areas to sufficiently stabilize an ever eroding but very important shoreline. Furthermore, once this stabilization effort is underway, it will then be complimented with very critical vegetative plantings to provide a buffer to help protect this area from ever powerful storm surges that come about from major storms and hurricanes. This proposed project could also serve as a worthwhile complement to a recent restoration project that was supported through the Coastal Impact Assistance Program. This CIAP project beneficially reused concrete from the former Interstate 10 twin span for shoreline stabilization in another area along the New Orleans Landbridge.

We see this CWPPRA process as an opportunity to further advance very necessary and critical ecological restoration in a highly populated urban area. This restoration can ultimately provide necessary storm surge protection to our communities as well as a host of other ecosystem services and benefits.

Thanks so much for this opportunity. And, I thoroughly appreciate the consideration of the support letter by the CWPPRA task force.

Sincerely,



Charles E. Allen, III, MSPH
Director





→ *J. J. J.*
Corporate Real Estate
SLA / Feelands

ConocoPhillips Company
P.O. Box 7097
Houma, LA 70361-7097
phone 985-879-1517
fax 985-872-1509

December 9, 2013

Mr. Thomas A. Holden
Deputy District Engineer
U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, Louisiana 70160

Re: Phase I Funding Request
Island Road Marsh Creation and Nourishment Project
Grand Bayou Hydrologic Restoration

Dear Mr. Holden:

As you are aware, the Technical Committee of the Coastal Wetlands Planning, Protection and Restoration Act program will be meeting in Baton Rouge on December 12, 2013 to select up to four candidate projects for Phase I, Engineering and Design funding.

The Island Road Marsh Creation Project sponsored by the NOAA Fisheries Service is located in the eastern portion of the Terrebonne Basin, directly south of the Montegut subunit of the Wildlife Management Area managed by Louisiana Department of Wildlife and Fisheries, and south of Island Road, between Island Road and the Twin Pipelines corridor.

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

As you know, the primary goal of this project is to create approximately 397 acres of marsh and nourish an additional 31 acres in the area between Island Road and the Twin Pipelines Corridor. The project will provide natural protection to Island Road, (the only access between Isle de Jean Charles and the nearest community of Pointe-Aux-Chenes); will restore a portion of Cutoff Canal and the Bayou Jean LaCroix ridge and provide additional protection to non-critical oil and gas facilities (pipelines) located in the area from wave energy. The restored marsh and associated edge habitat will also promote conditions conducive to the growth of submerged aquatic vegetation, an essential waterfowl habitat.

This project is in keeping with Louisiana's 2012 Comprehensive Plan for a Sustainable Coast (including recent guidance developed for CWPPRA projects), and is a priority project area for

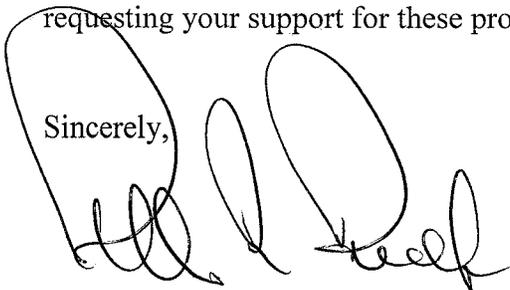
Terrebonne Parish. Additionally, restoration projects in this area will produce positive synergies with on-going levee and mitigation projects in adjacent areas being implemented by the Terrebonne Levee and Conservation District as well as our own restoration efforts in the area through our restoration partnership with Ducks Unlimited, Inc. We fully support this project and sincerely believe that it will be of great value in enhancing the overall restoration protection and restoration activities planned for the area.

Also in the Terrebonne Basin, in western Lafourche Parish is the proposed Grand Bayou Hydrologic Restoration Project sponsored by the US Fish and Wildlife Service. This project, located within the North Bully Camp and St. Louis Canal mapping units, would increase the flow of fresh water from the Gulf Intra-Coastal Waterway (GIWW) down Grand Bayou Canal. The increase in fresh water would lower salinities and provide nutrients to the wetlands south of the GIWW on the east and west banks of Grand Bayou Canal. While not directly impacted by this project as landowners, LL&E Coastal Wetlands located to the south of the project area would receive benefit from the addition of freshwater in to this area. Furthermore, through its partnership with Ducks Unlimited, ConocoPhillips plans an aggressive terracing program in this area, and additional freshwater will increase the overall benefits provided by the terraces through increased habitat diversity.

As you may know, LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since the inception of the CWPPRA Program, we have fully supported both State and Federal efforts to restore, enhance or protect coastal wetlands. We, along with Fina-LaTerre, now Apache, were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. LL&E has also donated thousands of acres for coastal restoration projects such as the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies, we have issued numerous scientific research permits, as well as servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study.

We sincerely appreciate the cooperative efforts of all parties involved in the protection and restoration of Louisiana's coastal wetlands. Continuing with that spirit of cooperation, we are requesting your support for these projects.

Sincerely,



The Louisiana and Land and Exploration Company LLC
Phillip R. Precht
Attorney-in-Fact

Received By
CEMVN-EX
US Army Corps of Engineers
New Orleans District

DEC 10 2013

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

REQUEST FOR PHASE II AUTHORIZATION AND APPROVAL OF PHASE II INCREMENT 1 FUNDING

For Report/Decision:

The Technical Committee will consider requests for Phase II authorization and approval of Increment 1 funding for cash flow projects for recommendation to the Task Force. Due to limited funding, the Technical Committee will recommend a list of projects for Task Force approval within available program construction funding limits. Each project listed in the following table will be discussed individually by its sponsoring agency. Following presentations and discussion on individual projects, the Technical Committee will rank all projects to aid in deciding which to recommend to the Task Force for Phase II authorization and funding.

Agency	Project No.	PPL	Project Name	Construct Start Date	Phase I Cost	Phase II Cost	Total Fully Funded Cost Est.	Net Benefit Acres	Total Cost per Acre
FWS	ME-20	11	South Grand Chenier	Dec-14	2,358,421	20,264,925	22,623,346	414	\$54,646
NRCS	PO-34	16	Alligator Bend Marsh Restoration & SP	Sep-13	1,660,984	43,171,632	44,832,616	181	\$247,694
NMFS	TE-51	16	Madison Bay Marsh Creation & Terracing	Sep-14	\$3,002,170	\$35,569,268	\$38,571,438	334	\$115,483
FWS	CS-54	20	Cameron Creole Grand Bayou MC	Jan-14	2,376,789	24,726,187	27,102,976	476	\$56,939

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2013

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score	Phase II, Increment 1 Funding Request	Cumulative Phase II, Increment 1 Funding	
11	ME-20	South Grand Chenier Marsh Creation	3	3	2	1	3	2	6	14	\$19,924,519	\$19,924,519	\$67,622,173
20	CS-54	Cameron Creole Grand Bayou MC	2	1	3	2	1	3	6	12	\$24,147,733	\$44,072,252	\$43,474,440
16	TE-51	Madison Bay Marsh Creation & Terracing	1	2	1	3		1	5	8	\$35,075,039	\$79,147,291	\$8,399,401
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection					2		1	2	\$29,145,336	\$108,292,627	-\$20,745,935
											\$108,292,627	\$216,585,254	-\$129,038,562
												\$216,585,254	-\$129,038,562
												\$216,585,254	-\$129,038,562

NOTES:

- Projects are sorted by: (1) Agency Support or "Number of Yes Votes" and (2) "Sum of Weighted Score"
- The "Number of Yes Votes" and the Sum of the Total Point Score will be used by the Technical Committee to formulate a recommendation to the Task Force within available funding limits.

RUN MACRO "sort" TO AUTOMATICALLY COMPLETE STEPS

- STEP 1: Information from "VOTE" sheet is automatically copied into "SORT-Final Vote".
- STEP 2: Sort columns A..P, descending, first by "No. of Yes Votes" (Column J) and second by "Sum of Point Score" (Column K).
- STEP 3: Once projects are sorted, add in formula to add funding requests cumulatively (Column M)

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2013

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	ME-20	South Grand Chenier Marsh Creation	3						0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection	1						0	0
16	TE-51	Madison Bay Marsh Creation & Terracing	2						0	0
20	CS-54	Cameron Creole Grand Bayou MC							0	0

No. of votes: 0 0 0 0 0 0 0 0 0
 Sum of Votes: 0 0 0 0 0 0 0 0 0

The following voting process will be used to rank all projects under consideration for construction approval/Phase II Authorization:

1. Each agency represented in the Technical Committee will be provided one ballot for voting.
2. Each agency represented in the Technical Committee will cast weighted votes for 3 projects. All votes must be used.
3. Weighted scores will be assigned the values of 3, 2, and 1 with 3 being highest and 1 being the lowest ranking.
4. Projects are ranked first by the number of agency votes received (to determine level of agency consensus/support for individual projects, and then by "Sum" of the weighted score (on next page).
5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

BAZ

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2013

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	ME-20	South Grand Chenier Marsh Creation		3					0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection		2					0	0
16	TE-51	Madison Bay Marsh Creation & Terracing		1					0	0
20	CS-54	Cameron Creole Grand Bayou MC							0	0

No. of votes: 0 0 0 0 0 0 0 0 0
 Sum of Votes: 0 0 0 0 0 0 0 0 0

The following voting process will be used to rank all projects under consideration for construction approval/Phase II Authorization:

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5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.



CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2013

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	ME-20	South Grand Chenier Marsh Creation			2				0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection							0	0
16	TE-51	Madison Bay Marsh Creation & Terracing			1				0	0
20	CS-54	Cameron Creole Grand Bayou MC			1				0	0

No. of votes: 0 0 0 0 0 0 0 0 0
 Sum of Votes: 0 0 0 0 0 0 0 0 0

D. Clark
 12-12-13

The following voting process will be used to rank all projects under consideration for construction approval/Phase II Authorization:

1. Each agency represented in the Technical Committee will be provided one ballot for voting.
2. Each agency represented in the Technical Committee will cast weighted votes for 3 projects. All votes must be used.
3. Weighted scores will be assigned the values of 3, 2, and 1 with 3 being highest and 1 being the lowest ranking.
4. Projects are ranked first by the number of agency votes received (to determine level of agency consensus/support for individual projects, and then by "Sum" of the weighted score (on next page).
5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

12-Dec-13

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2013

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	ME-20	South Grand Chenier Marsh Creation				1			0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection							0	0
16	TE-51	Madison Bay Marsh Creation & Terracing				3			0	0
20	CS-54	Cameron Creole Grand Bayou MC				2			0	0

No. of votes: 0 0 0 0 0 0 0 0 0 0
 Sum of Votes: 0 0 0 0 0 0 0 0 0 0

The following voting process will be used to rank all projects under consideration for construction approval/Phase II Authorization:

1. Each agency represented in the Technical Committee will be provided one ballot for voting.
2. Each agency represented in the Technical Committee will cast weighted votes for 3 projects. All votes must be used.
3. Weighted scores will be assigned the values of 3, 2, and 1 with 3 being highest and 1 being the lowest ranking.
4. Projects are ranked first by the number of agency votes received (to determine level of agency consensus/support for individual projects, and then by "Sum" of the weighted score (on next page).
5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2013

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	ME-20	South Grand Chenier Marsh Creation					3		0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection					2		0	0
16	TE-51	Madison Bay Marsh Creation & Terracing							0	0
20	CS-54	Cameron Creole Grand Bayou MC					1		0	0

No. of votes: 0 0 0 0 0 0 0 0 0 0
 Sum of Votes: 0 0 0 0 0 0 0 0 0 0

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CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2013

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	ME-20	South Grand Chenier Marsh Creation						2	0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection						1	0	0
16	TE-51	Madison Bay Marsh Creation & Terracing						3	0	0
20	CS-54	Cameron Creole Grand Bayou MC							0	0

No. of votes: 0 0 0 0 0 0 0 0 0 0
 Sum of Votes: 0 0 0 0 0 0 0 0 0 0

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5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

Evaluation Matrix for January 2014 Phase 2 Requests

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Phase II, Increment 1 Request	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Alligator Bend Marsh Restoration and Shoreline Protection (PO-34, PPL16)	1	Orleans	301	63	181	\$29,145,336	\$44,832,616	\$1,660,984	\$43,171,632	\$2,720,787	\$43,187	\$247,694
Madison Bay Marsh Creation and Terracing (TE-51, PPL16)	3	Terrebonne	943	187	334	\$35,075,039	\$38,571,438	\$3,002,170	\$35,569,268	\$2,754,446	\$14,730	\$115,483
South Grand Chenier (ME-20, PPL 11)	4	Cameron	453	190	414	\$19,924,519	\$22,623,346	\$2,358,421	\$20,264,925	\$1,611,325	\$8,481	\$54,646
Cameron Creole Watershed Grand Bayou Marsh Creation (CS-54, PPL 20)	4	Cameron	616	193	476	\$24,147,733	\$27,102,976	\$2,376,789	\$24,726,187	\$1,974,317	\$10,230	\$56,939

rev 11/26/13

South Grand Chenier
(ME-20)

South Grand Chenier Marsh Creation Project (ME-20) Phase II Construction Request

Coastal Wetlands Planning, Protection & Restoration Act
Technical Committee Meeting
December 12, 2013

Project Management Team

Darryl Clark (USFWS), Andrew Beall
Rudy Simoneaux, Darrell Pontiff, David Lindquist,
V. J. Marretta, Leigh Anne Sharpe (CPRA)
Charles Slocum, Dale Garber, John Jurgensen, Dain Gillen, Jason Kroll (NRCS)
Guthrie Perry, Tom Hess (LDWF), Miller Family



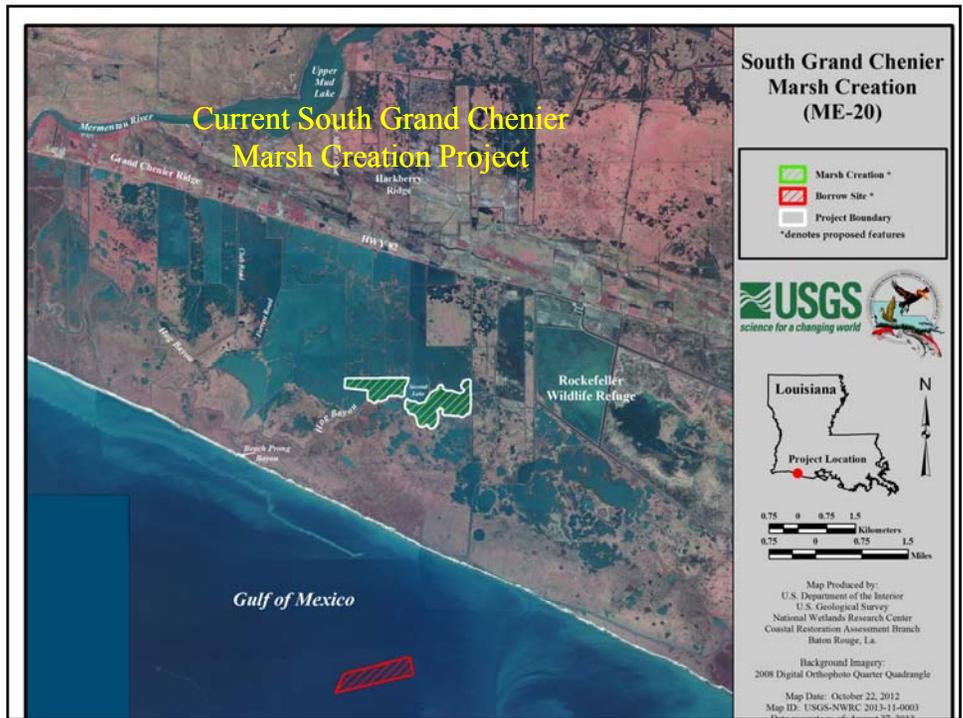
Project Background

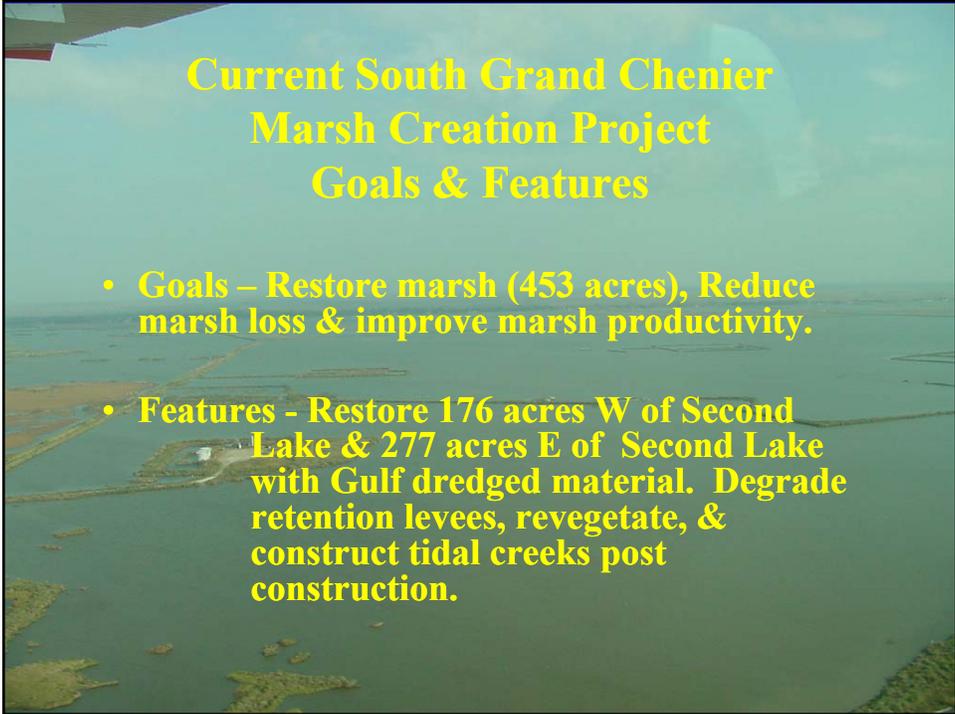
- Phase I approved – January 2002.
- Construction funding approval – Jan. 2010.
- Funding returned due to landrights issues – Jan. 2012.
- Landrights issues resolved - April 2012
- Scope change to remove freshwater introduction component – Dec. 2012.



Hog Bayou Watershed Problems

- Altered Hydrology – Saltwater intrusion (Mermentau River Ship Channel), agricultural impoundments (levees, & roads), & subsidence.
- Marsh Loss
- Watershed - Hog Bayou Watershed (32,000 acres) - 38% marsh loss (9,222 acres) [1932 to 1990, (0.65 %/yr)]. Moderate loss projected to 2050 (-0.13 %/yr).
- Project Area – Moderate current loss = -0.41%/year; Higher historic loss - 4%/year (1978 to 1988); 2.45%/yr (1985-2006).





Current South Grand Chenier Marsh Creation Project Goals & Features

- **Goals – Restore marsh (453 acres), Reduce marsh loss & improve marsh productivity.**
- **Features - Restore 176 acres W of Second Lake & 277 acres E of Second Lake with Gulf dredged material. Degrade retention levees, revegetate, & construct tidal creeks post construction.**



Western Marsh Creation Area
From Hog Bayou Looking North

Eastern Marsh Creation Area

Revised & Current Benefits & Costs

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)	Cost	Cost Effectiveness
2010 Revised Project	415	291	\$29.04 M	\$69,991/acre
Current Project	414	190	\$22.6 M	\$54,646/acre
Current Phase II Increment Request			\$19,924,520	

Why Fund So. Grand Chenier Now

- Ranks 1st of Phase II projects in cost effectiveness (\$54,646/acre; \$11,907/AAHU).
- Restores 453 acres initially; 414 acres over 20 years.
- Restores & protects eastern part of Hog Bayou Watershed with significant historic land loss.
- Helps mitigate Hurricanes Rita & Ike Hog Bayou Watershed marsh damages.
- Helps provide Grand Chenier storm protection.

2 10:59 AM



United States Department of the Interior

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



November 22, 2013

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

Dear Mr. Holden:

The Fish and Wildlife Service and Louisiana Coastal Protection and Restoration Authority would like to submit the South Grand Chenier Marsh Creation (ME-20) and Cameron-Creole Watershed Grand Bayou Marsh Creation (CS-54) projects for Phase 2 construction funding approval. Those projects were approved for Phase 1 funding by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Task Force as part of the 11th and 20th Project Priority Lists, respectively. The enclosed packets include all information required for a Phase 2 authorization request, per the CWPPRA Standard Operating Procedures. These Phase 2 authorization requests were also sent electronically to all CWPPRA Technical Committee and Planning and Evaluation Subcommittee members.

Each project has received favorable 30% and 95% Design Reviews, and are, to our knowledge, without controversy. The South Grand Chenier (ME-20) project has received a favorable National Environmental Policy Act (NEPA) review and we anticipate favorable NEPA reviews for the Cameron-Creole Watershed Grand Bayou (CS-54) project as well.

If you have any questions regarding this letter and submittal, please contact Mr. Darryl Clark of this office at (337) 291-3111.

Sincerely,

Jeffrey D. Weller
Supervisor
Louisiana Field Office

Enclosures

cc: via email

Britt Paul, NRCS, Alexandria, LA
Bren Haase, LA CPRA, Baton Rouge, LA

Karen McCormick, EPA, Dallas, TX
Richard Hartman, NMFS, Baton Rouge, LA
Chris Allen, LA CPRA, Baton Rouge, LA
Brad Inman, COE, New Orleans, LA
Rachel Sweeney, NMFS, Baton Rouge, LA
John Jurgensen, NRCS, Alexandria, LA
Brad Crawford, EPA, Dallas, TX
Andrew Beall, LA CPRA, Baton Rouge, LA
Rudy Simoneaux, LA CPRA, Baton Rouge, LA
Amanda Bordelon, LA CPRA, Baton Rouge, LA

South Grand Chenier Marsh Creation Project (ME-20)

Phase II Authorization Request Information

November 27, 2013

Phase I Project Description and History

The project was approved for Phase I by the Task Force on January 16, 2002, as part of Priority Project List 11 at a cost of \$20.9 million.

The original 2002 conceptual project features consisted of fresh water introduction from the Mermentau River to brackish marshes south of Hwy 82, and marsh restoration using dredged material from either Gulf of Mexico or Upper Mud Lake borrow sites. That conceptual project proposed to restore approximately 400 acres from dredged material placement and nourish or enhance an additional 4,000 acres of emergent marsh through fresh water introduction.

The conceptual (2002) project was slightly revised to remove the western fresh water introduction feature and approved by the Task Force for construction funding in January 2010. Construction funding was returned in January 2012 due to landrights difficulties which have been overcome.

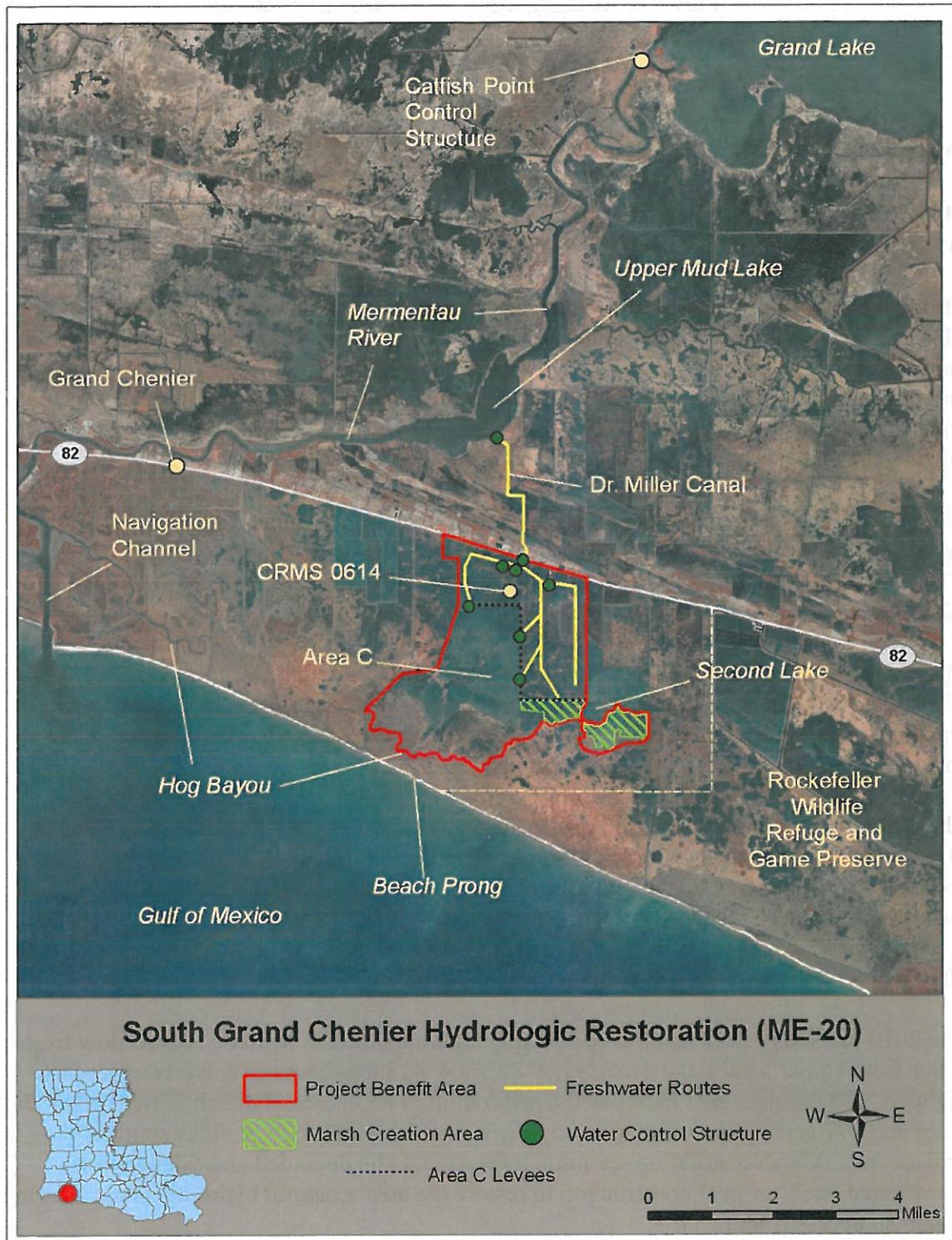
The Fish and Wildlife Service (FWS) and State Coastal Protection and Restoration Authority (CPRA) revised the project to remove the fresh water introduction component due to feasibility and change the name to, "South Grand Chenier Marsh Creation" via a scope change approved by the Task Force in November 2012.

The current (2013) revised Phase I project's goal is to restore 453 acres of brackish marsh (430 acres marsh creation and 23 acres nourished) in shallow open water areas initially, producing 414 net acres by the end of the 20-year project life, via dedicated dredging from the Gulf of Mexico.

2010 Revised Project Description

The 2010 revised project features included maintaining the Dr. Miller Canal to flow fresh water from Upper Mud Lake across Hwy 82 via 4, 42 inch-diameter culverts under that highway. The project also included the restoration of 453 acres of marsh in two cells (176 acres and 277 acres) via dedicated dredging in the Gulf of Mexico, 4 miles south of the project area. Marsh restoration retention levees would be degraded and tidal creeks constructed one year post construction to restore the area's natural hydrology and estuarine organism access (Figure 1).

Figure 1: South Grand Chenier Hydrologic Restoration Project 2010 Revised Features.



2013 revised project was the removal of the fresh water introduction feature and an increase in the marsh creation acres from 400 acres to 453 acres. The project sponsors eliminated the fresh water introduction feature because it was determined to no longer be feasible due to the smaller amounts of fresh water predicted to flow across Highway 82 (~ 100 cubic feet per second) compared to the estimated construction and O&M costs to maintain that feature. Although the hydrodynamic model indicated that the Dr. Miller Canal fresh water introduction project component could reduce salinities in target area marshes by as much as 60%. The fresh water introduction feature has been eliminated due to feasibility, cost effectiveness, and landrights issues.

A Gulf of Mexico borrow area was chosen because of less distance, fewer landowners, and the sediment would be from “outside-of-the-system”. Wave analyses of the proposed Gulf borrow sites indicated only slight impacts to the Gulf shoreline. The U. S. Army Corps of Engineers Engineer Research Development Center (ERDC) dredged material model predicted quantities and slurry heights needed for the two marsh restoration areas. Geotechnical and surveying information indicated that soil conditions and water depths were favorable for construction of the project features as planned.

The revised 2010 \$29 M project, containing fresh water introduction and marsh creation features, received Task Force construction funding approval in January 2010 (Figure 1). Those funds were returned in January 2012 due to landrights issues. Landrights agreements have since been acquired for all marsh creation feature landowners.

Project Scope and Name Change

The Fish and Wildlife Service and State Coastal Protection and Restoration Authority received Technical Committee and Task Force approval for a project scope and name change, in November 2012, to remove the fresh water introduction component, and change the name to, “South Grand Chenier Marsh Creation” (Figure 2, Table 1). The current project budget decreased to \$22,623,346 (-22%) and the benefits decreased to 190 Average Annual Habitat Units from the 2010 project.

The fully funded revised budget was approved by the Engineering and Economic Work Groups; the revised benefits were approved by the Environmental Work Group (Table 1).

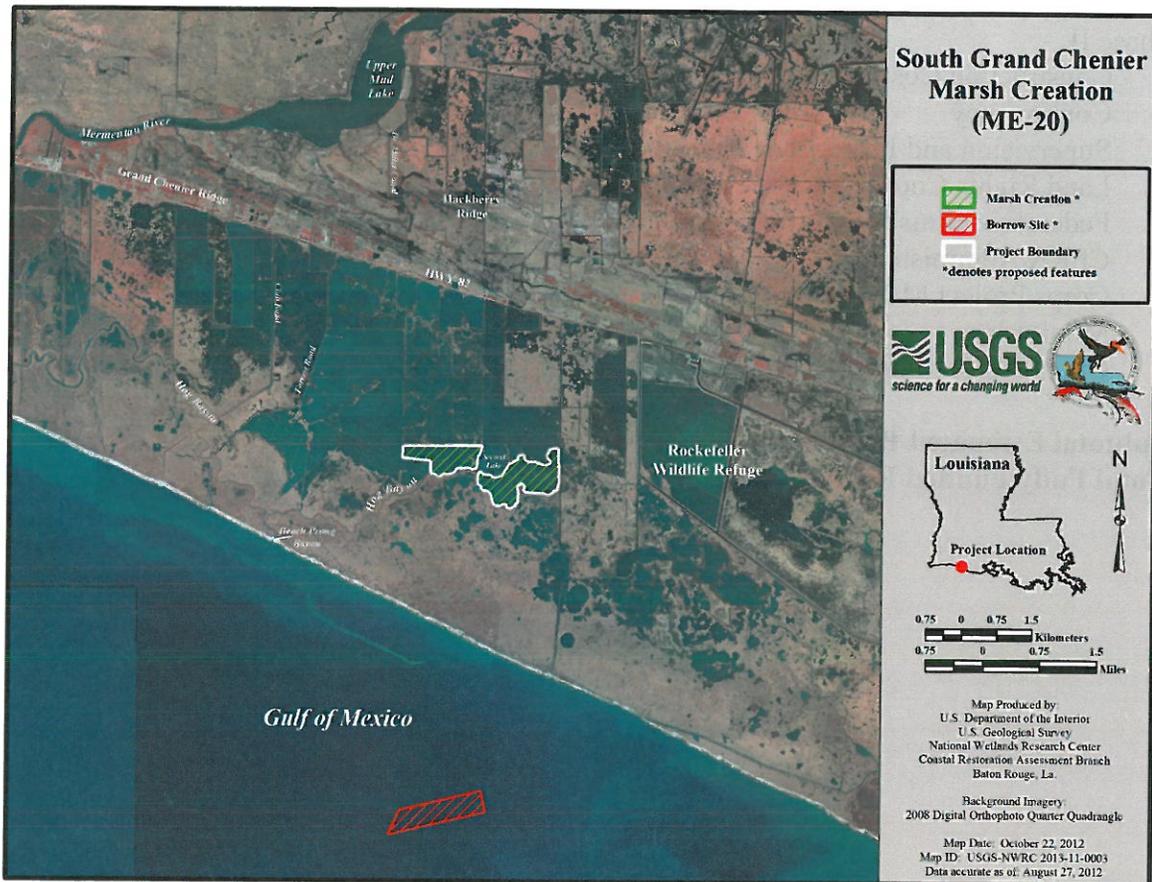
Table 1: 2010 Project vs. Current (2013) Project Costs and Benefits.

	2010 Revised Project	Current 2013 Revised Project	Increase/Decrease
Fully-funded Cost	\$29,046,128	\$22,623,346	- 22.1%
Net Acres Year 20	415	414	- 0.24%
AAHU’s	290.99	190	- 34.6%

Current (2013) Revised Project Description

The current (2013) project features include the restoration of 453 acres of brackish marsh (430 acres created and 23 acres nourished) in two cells (176 acres and 277 acres) via dedicated dredging from the Gulf of Mexico, 4 miles south of the project area. Marsh restoration retention levees will be degraded and tidal creeks constructed one year post construction to restore the area's natural hydrology and estuarine organism access (Figure 2).

Figure 2: Current (2013) South Grand Chenier Marsh Creation Revised Project.



Current (2013) Project Costs

Below are the current revised Phase II cost estimates. The revised project fully funded costs represent a 22 percent decrease (- \$6,422,782) over the 2010 revised project cost (\$29,046,128) when it was approved for construction funding in January 2010 (See attached Request for Phase II Approval Cost Estimate Table).

Checklist of Phase II Request Requirements

South Grand Chenier Marsh Creation Project (ME-20)

A. A List of Project Goals and Strategies

Goals

1. Restore 453 acres of brackish marsh (430 acres created and 23 acres nourished) in shallow open water areas initially, and 414 net acres by the end of the 20-year project life.
2. Maintain fisheries and estuarine organism access to the marsh restoration areas.

Objectives/Strategies

1. Restoration of 430 acres of brackish marsh from shallow open water and nourishment of 23 acres of marsh (total 453 acres) in two cells (176 and 277 acres) via 1.55 million cubic yards of dredged material from a Gulf of Mexico borrow site.
2. Maintain fisheries and estuarine organism access to the marsh restoration areas via the degradation of retention dikes and construction of 5 miles of tidal creeks.

The goals and objectives will be achieved by project features described above.

Table 2. Comparison of Original, 2010 Project, and Current Revised Project Features

Strategies/Features	2002 Conceptual Project	2010 Revised Project	Current (2013) Revised Project
A. Salinity reduction, nutrient and sediment introduction	1.) Fresh water introduction to target marshes south of Hwy 82 via the Dr. Miller & BP Canals.	1.) Fresh water introduction to target marshes south of Hwy 82 via the Dr. Miller Canal.	1.) Fresh water introduction feature removed.
B. Marsh restoration via dredged material	2) Construct two marsh restoration cells (total 400 acres) from a Gulf of Mexico or Upper Mud Lake borrow site.	2) Construct two marsh restoration cells (176 acres and 277 acres, total 453 acres) from a Gulf of Mexico borrow site.	2.) Construct two marsh restoration cells (176 acres and 277 acres, total 453 acres) from a Gulf of Mexico borrow site.

B. A Statement that the Cost-Sharing Agreement Between the Lead Agency and Local Sponsor has been Executed for Phase I.

A Cost Share Agreement between LDNR and FWS was executed on April 3, 2002.

C. Notification from the State that Land Rights will be Finalized in a Short Period of Time after Phase II Approval.

Landrights acquisition is complete. The LA CPRA has acquired landrights from all landowners including the State Land Office (Grant of Particular Use) for the current project features.

D. A Favorable Preliminary Design Review (30 Percent Design Level)

A 30 Percent Design Meeting was held on August 6, 2009, and resulted in favorable reviews of the project design. Responses to all meeting and post-meeting comments were submitted by September 4, 2009. The Service and LA CPRA agreed to proceed with the project. No major design issues were identified.

E. A Favorable Final Project Design Review (95 Percent Design Level)

A favorable 95 Percent Design Meeting was held on November 3, 2009. No major design issues were identified.

F. A Draft of the Environmental Assessment for the Project, as Required under the National Environmental Policy Act, must be Submitted 30 days Before the Request for Phase II Approval

The FWS submitted a draft Environmental Assessment for preliminary agency review on October 22, 2009, as part of the 95% Design Review materials. The final EA and Finding of No Significant Impact (FONSI) were completed on May 16, 2011.

G. A Written Summary of the Finding of the Ecological Review

The Ecological Review concluded that based on the evaluation of available ecological, geological, and engineering information, and a review of scientific literature and similar restoration projects, the proposed strategies of the South Grand Chenier Hydrologic Restoration (ME-20) project will likely achieve the desired ecological goals. It is recommended that this project be considered for Phase 2 authorization. However, the following recommendations should improve project success:

- The project's operational plan should be coordinated with the marsh management plan for Area C.
- Plans should be made to further degrade containment dikes and/or reopen trenasses, if needed, to maintain hydrologic exchange to the created marshes.

H. Application for and/or Issuance of the Public Notices for Permits

Application for the Corps of Engineers Section 404 permit and the Louisiana Coastal Resources Program consistency determination were submitted on November 16, 2009, with a final Corps permit received October 27, 2010. The LA Department of Natural Resources (DNR) Coastal Zone Consistency Determination was received on February 24, 2010, and the

LA Department of Environmental Quality (DEQ) Water Quality Certification was received on March 25, 2010.

I. A Statement that a Hazardous, Toxic and Radiological Waste (HTRW) Assessment has been Prepared, if Required

Based on an initial review, the FWS determined that there is not a need for a detailed HTRW project assessment. The FWS LA Ecological Services Office contaminants specialist completed a Phase I preliminary contaminants screening on November 23, 2009, that included screening the project area for oil wells, hazardous waste pits, abandoned barges and pipeline crossings. That screening concluded that, "Based on the proposed locations, the implementation of the project should be able to avoid any of the know wells or associated facilities. No significant re-suspensions of contaminants from sediment disturbances are expected. Further studies are probably not warranted in consideration of the hazards information available at this time." The review indicated that no apparent contaminants hazards are located in the project area except for a few oil wells in the near vicinity.

J. Section 303(e) Approval from the Corps

The project is consistent with the requirements of Section 303(e) of CWPPRA. A request for Section 303(e) approval was submitted to the Corps on July 1, 2009, and the Section 303(e) certification was received on October 6, 2009.

K. Overgrazing Determination from the NRCS

The Service received an overgrazing determination from the NRCS on July 10, 2008. Over 90 percent of the project area consists of shallow open water with very limited to no grazing.

L. Revised Project Cost Estimate

The revised fully funded cost estimate for the current project is \$22,623,346. This represents a 22 percent decrease (- \$6,422,782) over the 2010 revised cost estimate (\$29,046,128) (Request of Phase II Cost Estimate Table).

M. A Revised Wetland Value Assessment must be Prepared if, During the Review of the Preliminary NEPA Documentation, Three of the Task Force Agencies Determine that a Significant Change in the Project Scope Occurred

A WVA of the current revised project features was reviewed by the Environmental Working Group. The revised Wetland Value Assessment (WVA) completed in 2009 yielded 415 net acres and 291 Average Annual Habitat Units (AAHUs). The current project was revised by removing the fresh water introduction feature and its adjacent project influence area. The current revised 2013 WVA yielded 414 net acres and 190 AAHUs (Table 3).

Table 3: Comparison of Original (2002), 2010 Revised, and Current Revised (2013) South Grand Chenier Marsh Creation Project Wetland Value Assessments

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)
Original 2002 Project	440	322
2010 Phase II Revised Project	415	291
Current 2013 Revised Project	414	190
Difference (Current from Original)	- 5.9%	- 41 %
Difference (Current from 2010)	- 0.24%	- 35%

Phase II Request

Based on the above information, the FWS and CPRA hereby request CWPPRA Task Force Phase II funding approval for the South Grand Chenier Marsh Creation Project (ME-20) in the 3-year incremental amount of **\$19,924,520**. That amount includes \$14,504,076 for construction; \$386,112 for supervision and inspection; \$3,626,019 for contingencies; \$356,585 for Federal sponsor administration and \$356,585 for State administration; \$34,393 for monitoring (3 years); \$622,242 for State operations and maintenance (3 years); \$32,888 for Federal operations and maintenance (3 years); and \$5,620 for Corps project management (Request for Phase II Approval Cost Estimate Table).



South Grand Chenier Marsh Creation (ME-20)

Project Status

Approved Date: 2002 **Project Area:** aaaArea
Approved Funds: aaaAF **Total Est. Cost:** aaaTEC
Net Benefit After 20 Years: aaaNB
Status: Completion of Engineering and Design
Project Type: Marsh Creation
PPL #: 11

Location

The project is located south of Grand Chenier in Cameron Parish, Louisiana, between Louisiana Highway 82, Hog Bayou, and east of Second Lake.

Problems

The major problem in the Hog Bayou Unit is land loss caused by failed agricultural impoundments and pump-offs. Other problems include saltwater intrusion from the Mermentau Ship Channel and a Gulf shoreline erosion rate of 40 feet per year. Over a period of 60 years, 9,230 acres (38% of the original marsh) was lost from the Hog Bayou Watershed, with the greatest amount of land lost between 1956 and 1974.

The major contributors to land loss in the Watershed are subsidence, compaction, and the oxidization of marsh soils in the former pump-offs and leveed agricultural areas between Hog Bayou and Highway 82. Large areas of marsh south of Highway 82 were "force drained" during the 1960s, 1970s, and 1980s. Many of these same areas now consist of open water with very little wetland vegetation. One of the largest areas of current loss is in and north of the project area.

Restoration Strategy

The project's goal is to create 430 acres and nourish 23 acres of emergent brackish and intermediate marsh.

The project goal will be achieved by using dredged material from the Gulf to create two marsh creation cells (176 acres and 277 acres) in the project area east and west of Second Lake.



White Pelicans flying over the Western Marsh Creation area.

Progress to Date

This project was selected for Phase I (engineering and design) funding at the January 2002 Task Force meeting. It is included as part of Priority Project List 11. Engineering and design is complete. Construction funding will be requested in 2013.

For more project information, please contact:



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

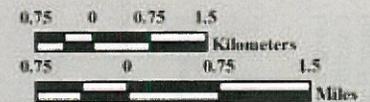


Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736

South Grand Chenier Marsh Creation (ME-20)

-  Marsh Creation *
 -  Borrow Site *
 -  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 Assessment Branch
Baton Rouge, La.

Background Imagery:
2008 Digital Orthophoto Quarter Quadrangle

Map Date: October 22, 2012
Map ID: USGS-NWRC 2013-11-0003
Data accurate as of: August 27, 2012



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KIRK QUINN

DISTRICT 4
TERRY BEARD

DISTRICT 5
KIRK BURLEIGH

DISTRICT 6
JOE DUPONT

DISTRICT 7
DARRYL FARQUE

November 27, 2013

To: Colonel Richard Hansen
District Engineer, New Orleans
c/o: Brad Inman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

Re: PPL11 South Grand Chenier Marsh Creation Project

Col. Hansen:

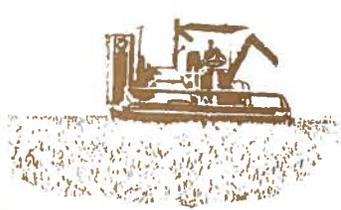
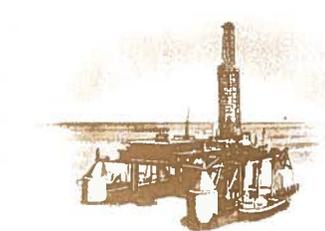
The Cameron Parish Police Jury would like to submit this letter of support for Phase II construction funds on behalf of the PPL 11-South Grand Chenier Marsh Creation Project (ME-20). The South Grand Chenier Marsh Creation Project will restore 453 acres of brackish marsh south of the community of Grand Chenier at a fully funded cost of \$22,600,000. It will restore 414 net acres of marsh after 20 years. It is our understanding that the project received initial construction funding in January 2010, however, the funds were returned to the program due to landrights difficulties. Those landrights have since been secured from the landowner.

We appreciate your consideration of this request, and if you have any questions, please do not hesitate to contact us.

Sincerely,



Earnestine T. Horn, Parish Administrator
CAMERON PARISH POLICE JURY



RELLIM

SURFACE MANAGEMENT, L.L.C.

P.O. Box 55447
METAIRIE, LA 70055-5447

504.616.5700
FAX 504.835.0900
rellism@rellimco.com

December 11, 2013

*** *via US MAIL & EMAIL @ Brad.L.Inman@usace.army.mil* ***

Mr. Col. Richard Hansen
U.S. Army Corps of Engineers, New Orleans District
Office of the Chief
P.O. Box 60267
New Orleans, LA 70160-0267

**RE: ME-20 PROJECT
SOUTH GRAND CHENIER MARSH CREATION
CAMERON, LA**

Dear Col. Hansen:

I am writing you to express my family's full support of the ME-20 project that has been in the works for over 11 years and was approved in 2011. Since the inception of the project both our family and I have been very involved in the project by attending meetings, gathering salinity data, helping all the agencies with access to the property, etc. Additionally we have spent thousands of dollars of our own money to help save this marsh that is located between the Gulf of Mexico and Hwy 82. From an aerial view you can easily identify this area as one of the largest open bodies of water south of Hwy 82 and west of the Rockefeller Refuge. Our efforts have been very encouraging; however, the scope of the erosion is just too much for a private landowner to bear.

In reviewing the project agenda for Thursday, December 12, 2013, I noticed that the "Total Cost Per Acre" for the ME-20 project is the lowest on the list being considered (\$54,646 per acre). Additionally, we found out last year that the local drainage board was working on approving the installation and cleanout of some culverts to the north of this project and Hwy 82. Once this occurs (permits are in the works now), it will increase the amount of fresh water flowing south to the east side of this project (see attached map). I have been told by several biologists, the project manager and other specialists that this will greatly enhance the success of the ME-20 project.

The Miller family has been longtime supporters of Coastal Restoration in Louisiana and since I took over managing the property for the family ten plus years ago we have supported over \$30M in coastal restoration projects, including a 3,000 acre State terracing project on our property in Vermilion Parish and the completion of the ME-22 South White Lake Shoreline Protection Project. Both of these projects have been very successful in protecting different areas of Vermilion Parish. The ME-20 project will not only help the coastal marsh, but will also serve to better protect the Grand Chenier community from future

storm surges. If this marsh opens up to the Gulf of Mexico, it is only a matter of time before the main evacuation route of Hwy 82 and the ridge are compromised by the Gulf of Mexico.

At this point, the “land rights” agreements from 100% of the owners have been executed and we plan on showing a large degree of family support of the project at Thursday’s Technical Committee meeting. I have several individual family members that will be traveling in for the day to show their gratitude and support for the project. Like the ME-22 project, we see this project as a joint venture between the landowner, local community and State and Federal agencies for the next 20+ years.

In closing, I ask that if you have any reservations on our commitment to this or any coastal restoration project, that you please call Susan Hennington or Melanie Goodman with the Corps of Engineers and reference the ME-22 project. Since it has been built we have been in communication with their agency over the years regarding the project. When requested, we give them unrestricted access to our property to tour the improvements since it is much easier to get to them by road through our private property rather than by boat through White Lake.

As stated above, this project is vital to the sustainability of the wetlands within the project area and to the Grand Chenier community and **is in the State’s Master Plan**. Additionally, it is adjacent to a proposed PPL-23 Marsh Restoration Project that has been gaining support since its inception two years ago (see attached map).

We would appreciate your support in approving this critical project. Thank you for your attention to this matter and we look forward to a future joint partnership in this endeavor.

Sincerely,



Martin O. Miller III
Surface Manager

attachment

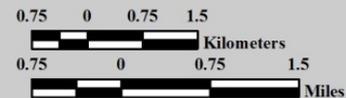
cc: Mr. Darryl Clark *(via email only)*
Mr. Tom Holden *(via email only)*
Mr. Bren Haase *(via email only)*
Mr. Richard Hartman *(via email only)*
Ms. Karen McCormick *(via email only)*
Mr. Britt Paul, P.E. *(via email only)*
Mr. Randy Moertle *(via email only)*
Miller Family *(via email only)*

Local drainage project in yellow

Fresh Water Southern Flow

South Grand Chenier Marsh Creation (ME-20)

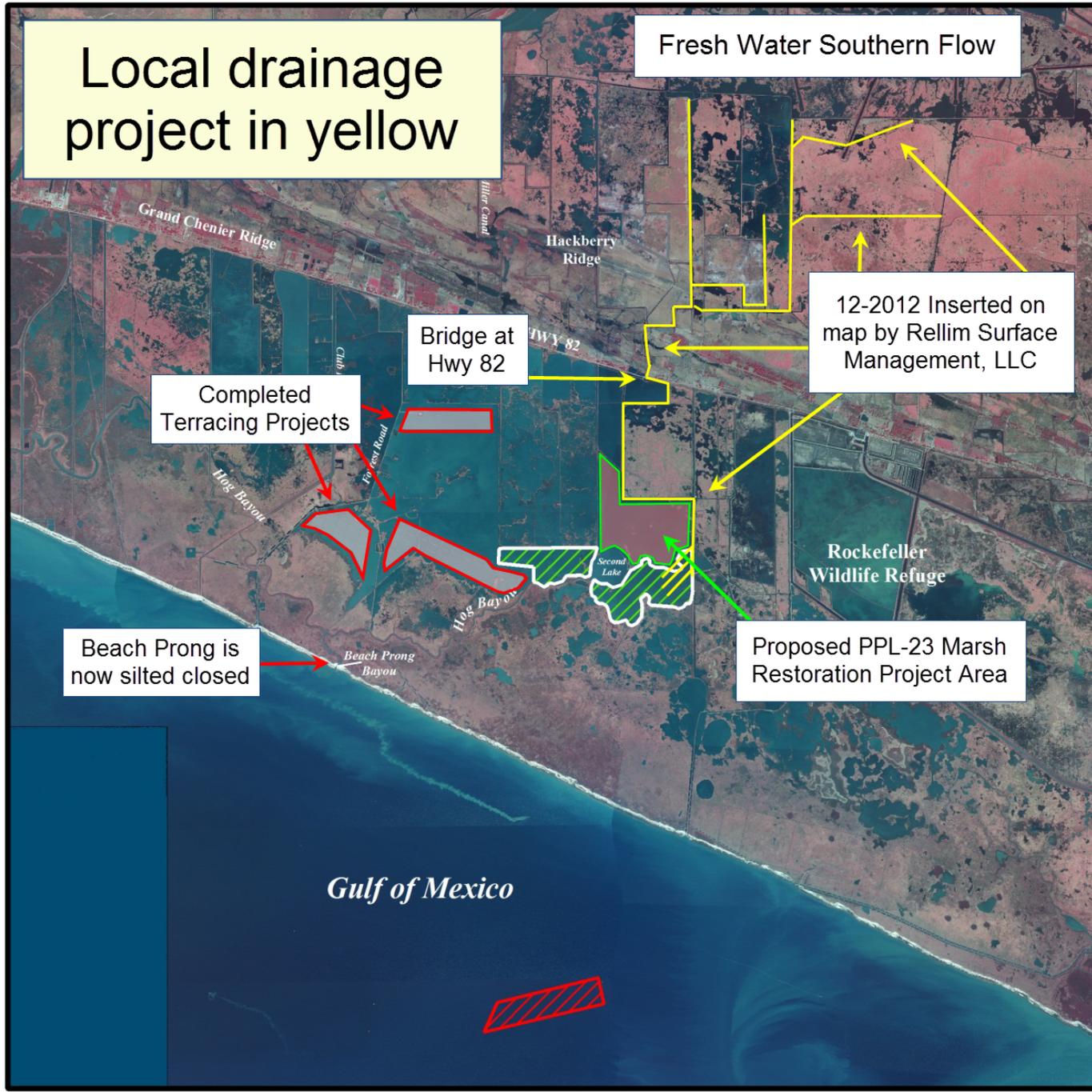
-  Marsh Creation *
 -  Borrow Site *
 -  Project Boundary
- *denotes proposed features



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

Background Imagery:
 2008 Digital Orthophoto Quarter Quadrangle

Map Date: October 22, 2012
 Map ID: USGS-NWRC 2013-11-0003
 Data accurate as of: August 27, 2012



**Alligator Bend Marsh Restoration
and Shoreline Protection
(PO-34)**

*Coastal Wetlands Planning,
Protection and Restoration Act*



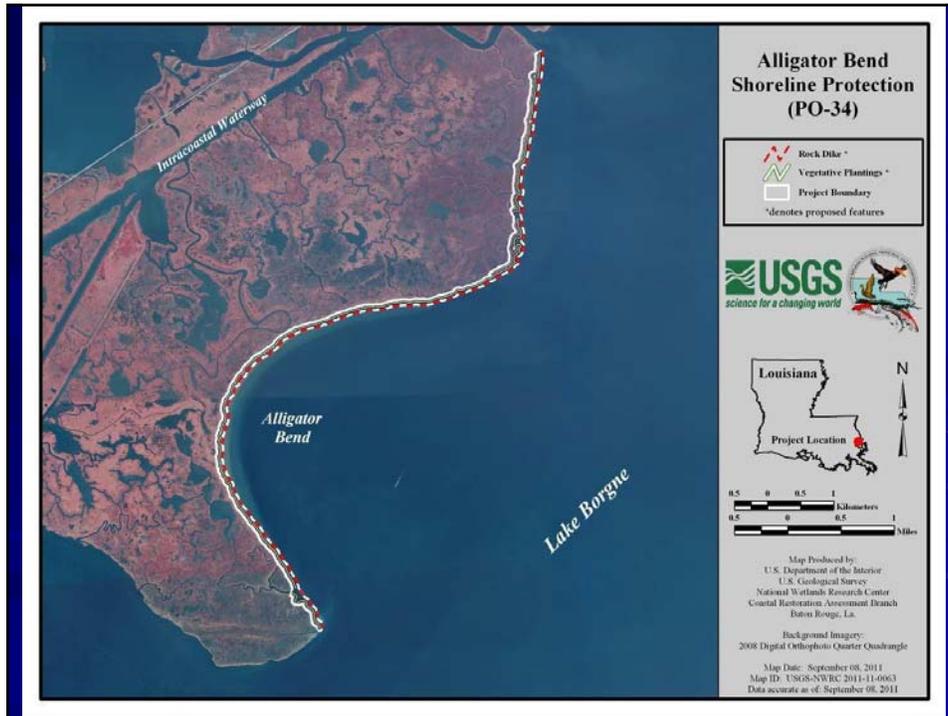
**ALLIGATOR BEND SHORELINE PROTECTION
(PO-34)**

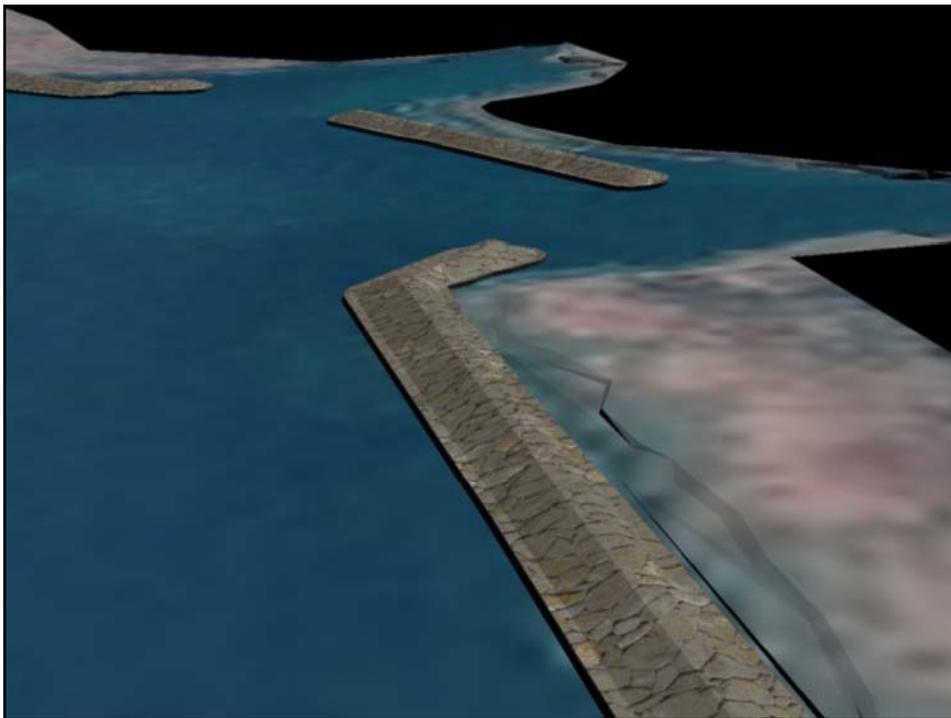
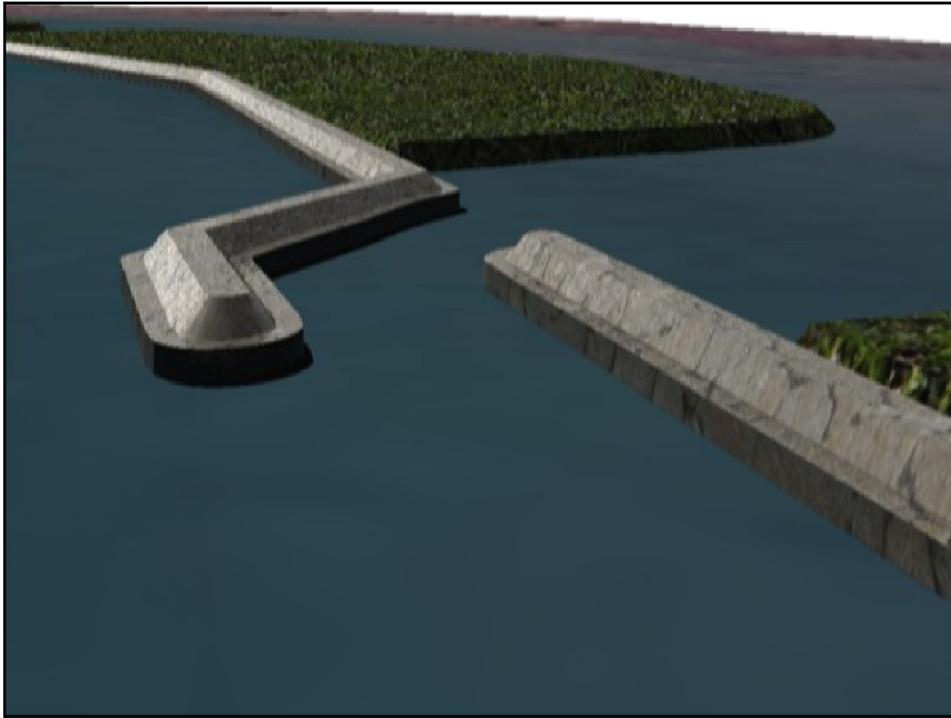
PHASE II APPROVAL REQUEST

*CWPPRA Technical Committee Meeting
December 12, 2013*

Project Location







Alligator Bend (PO-34)

Benefits and Cost

Net Acres after 20 years:	181 Acres
Average Annual Habitat Units:	63
Fully Funded Phase II Total:	\$43,171,632
Fully Funded Phase II Increment 1:	\$29,145,336

United States Department of Agriculture



Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

(318) 473-7751
Fax: (318) 473-7626

November 26, 2013

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

RE: Alligator Bend Shoreline Protection Project (PO-34) – Phase II Authorization

Dear Mr. Holden:

The Natural Resources Conservation Service and the Louisiana Coastal Protection and Restoration Authority request Phase II Authorization for the Alligator Bend Shoreline Protection Project (PO-34). This project was approved for Phase I funding by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Task Force as part of the 16th Priority Project List. The enclosed packet includes all information required for a Phase II authorization, per the CWPPRA Standard Operating Procedures. This information was also provided by email to the members of the CWPPRA Technical Committee and Planning and Evaluation Subcommittee.

If you have any questions regarding this submittal, please contact John Jurgensen at (318) 473-7694.

Respectfully,

A handwritten signature in black ink, appearing to read "W. Britt Paul".

W. Britt Paul
Assistant State Conservationist / Water Resources

Attachments

cc: (via email only)

Bren Haase, CPRA Technical Committee Member
Darryl Clark, USFWS Technical Committee Member
Richard Hartman, NMFS Technical Committee Member
Karen McCormick, EPA Technical Committee Member
Brad Inman, USACE P&E Subcommittee Member, Chairman
John Jurgensen, NRCS P&E Subcommittee Member
Chris Allen, CPRA P&E Subcommittee Member

Helping People Help the Land

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Tom Holden
November 26, 2013
Page 2

Kevin Roy, USFWS P&E Subcommittee Member
Rachel Sweeney, NMFS P&E Subcommittee Member
Adrian Chavarria, EPA P&E Subcommittee Member
Allison Murry, USACE Contractor
Dexter Sapp, NRCS PO-34 Project Manager
Quin Kinler, NRCS Resource Conservationist
Dain Gillen, NRCS Civil Engineer
John Boatman, NRCS District Conservationist, Boute Field Office

sites, mainly listed as shell middens, were found to be located within the interior marsh adjacent to the project shoreline and on the shoreline. In addition, recent cultural resources investigations were conducted by Pan American Consulting in 2008 for a CIAP project, and by CEI, Inc. for the US Army Corps of Engineers' MRGO project that included evaluation of the sites listed within the PO-34 project area.

The terrestrial investigation by CEI, Inc. found no evidence of intact cultural deposits at any of the known sites and all beach profiles had no subsurface deposits. From these findings, coupled with the highly eroded condition of the sites and artifacts that were recovered, CEI concluded that all of the sites were re-deposited material. As a result, CEI, Inc. recommended to the State Historic Preservation Officer (SHPO) that these sites were not eligible for inclusion in the National Register of Historic Places (NRHP) (*Terrestrial Cultural Resources Investigations for the MRGO Ecosystem Restoration Project, Southeast LA: Management Summary*. R.A. Weinstein, et al., July 2011. CEI, Inc. submitted to the US Army Corps of Engineers. In draft).

Also for the Corps' MRGO project, CEI, Inc. conducted an offshore remote sensing cultural resources survey in Lake Borgne. For the survey track relative to the Alligator Bend Project shoreline, CEI, Inc. reported that no targets were found in the pertinent remote sensing areas that might represent historic significant cultural resources. (*Phase I Cultural Resources Investigations, Remote-Sensing Survey, MRGO Ecosystem Restoration Shoreline Protection: Management Summary*. C.E. Pierson and K. Lowe. December 2010. CEI, Inc. submitted to the US Army Corps of Engineers in draft).

Consequently, NRCS has determined that no negative cultural resources impacts are anticipated as a result of the PO-34 project implementation. Consultation will continue with the SHPO and also be conducted with the appropriate Indian Tribes regarding this recent finding. In the event any potential cultural resources materials or sites are discovered during the implementation of this project, NRCS will immediately initiate the required consultation with the SHPO and appropriate Indian Tribes. On January 11, 2012, NRCS received concurrence from the SHPO that the project will have no adverse impacts on historic properties.

An Environmental Assessment was completed in October 2011.

A draft Section 404 permit has been developed. A CZM Consistency Determination, and Water Quality Certification will be submitted upon funding approval. An Ecological Review is not required for this project.

Engineering Design Task

On August 18, 2011, a 30% Design Review Meeting was conducted and four construction alternatives were reviewed as follows:

1. Foreshore Rock
2. Foreshore Rock Dike w/Wick Drains
3. Foreshore Rock Dike w/Lightweight Aggregate Core
4. Composite Sheet Pile Wall

The summary of the 30% meeting recommended the construction of a Foreshore Rock Dike for the South Project Area and the construction of a Lightweight Aggregate Core Structure for the North Project Area.

Agency comments on the 30% design report were received from OCPR and NMFS and were incorporated into the final design report.

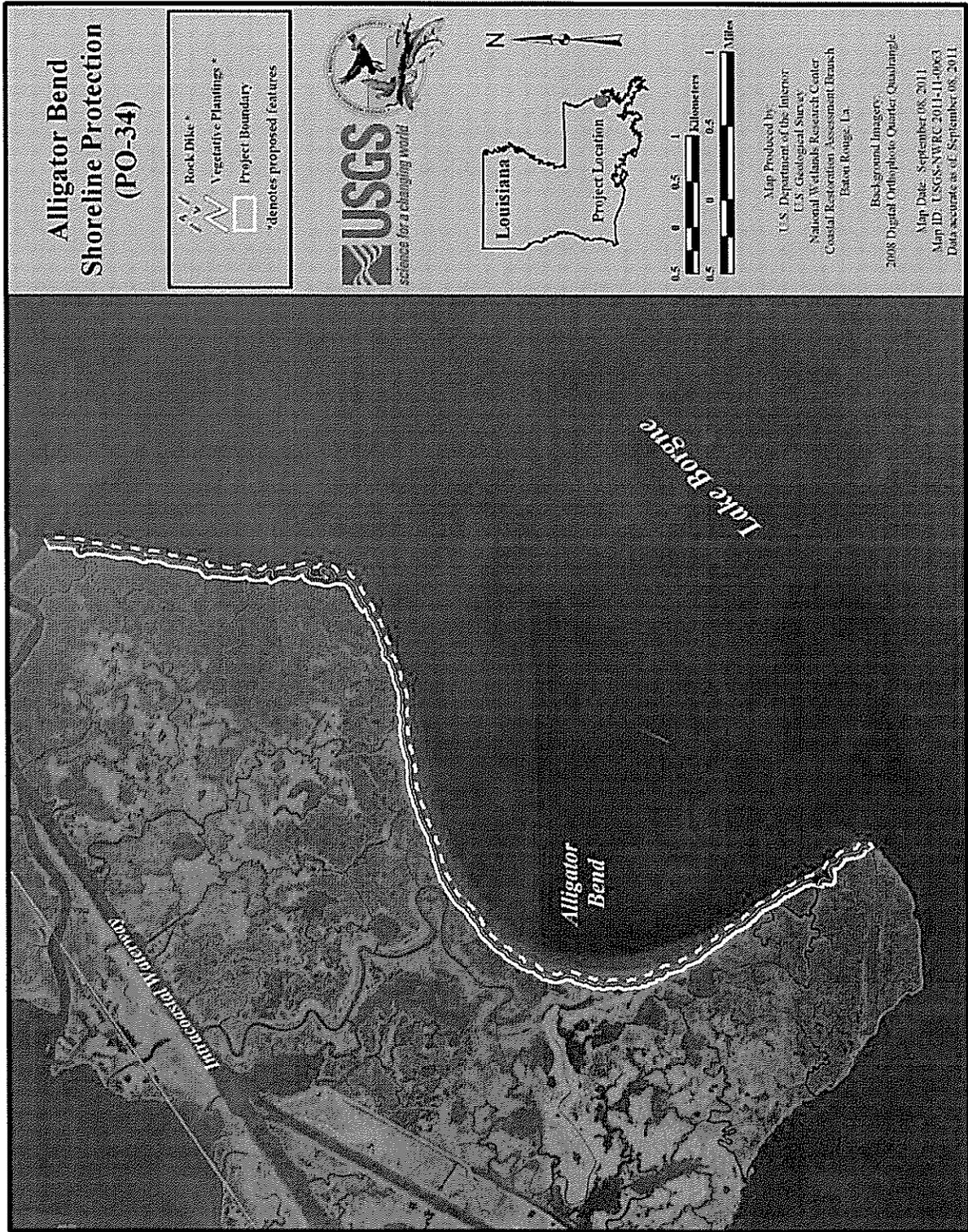
Description of the Phase Two Candidate Project

The Alligator Bend Shoreline Protection (PO-34) Phase Two Candidate Project consists of shoreline protection that will protect the integrity of a vital landbridge between the Gulf Intracoastal Waterway and Lake Borgne.

A foreshore rock dike (44,021 feet) will be constructed along the shoreline of Lake Borgne along the -2 ft contour. Vegetation will be planted over approximately half of the length of the shoreline in areas protected by the rock dike (See Figure 1). The rock dike will have a top elevation of +2.5' to +3.0, 6' crest, and 2 to 3:1 side slopes. Fish dips that are 50 feet wide will be placed every 1,000 feet along the entire structure. The vegetative plantings along the shoreline will be two rows of smooth cordgrass planted on a 10' spacing. The rows will be staggered to promote rapid vegetative growth and expansion to stabilize and restore the shoreline. A portion of the material cut from the flotation channel for access to the foreshore rock dike component will be placed on the marsh side of the proposed rock feature at an elevation sufficient to create marsh.

The fully funded cost estimate for Phase II Total of the Alligator Bend Shoreline Protection (PO-34) is \$43,171,632. The current fully-funded cost estimate for Phase II, Increment 1 is \$29,145,336.

Figure 1. Current Features Map



Checklist of Phase Two Requirements

- A. List of Goals and Objectives. The Alligator Bend Shoreline Protection Project (PO-34) will protect the integrity of a vital landbridge between the Gulf Intracoastal Waterway and Lake Borgne, thereby meeting one of the objectives of the CWPPRA program designed to implement targeted restoration efforts in the areas of coastal Louisiana.
- B. Cost Sharing Agreement for Phase One. The Cost Sharing Agreement for Phase One of PO-34 was executed between CPRA and NRCS on June 11, 2008.
- C. Landrights Notification. A letter from CPRA indicating that landrights will be completed in a reasonable period of time after Phase II approval was received on December 2, 2011.
- D. Favorable Preliminary Design Review. A 30% Design Meeting was conducted on August 18, 2011. Agency comments were received from CPRA and NMFS and were incorporated in the final design.
- E. Final Project Design Review. A successful 95% design review was conducted on November 15, 2011. Besides NRCS, representatives from USFWS and CPRA were present. USFWS representative was complimentary of the fish dip design for the project. CPRA had some editorial comments as well as some comments regarding the project cost. All comments were incorporated into the final design.
- F. Environmental Assessment. An Environmental Assessment was completed in October 2011.
- G. Findings of Ecological Review. An Ecological Review is not required for this project.
- H. Application/Public Notice for Permits. Application for the Section 404 permit, CZM Consistency Determination, and Water Quality Certification will be submitted after Phase II approval.
- I. HTRW Assessment. NRCS personnel determined that a detailed HTRW assessment would not be required for this project.
- J. Section 303e Approval. Section 303e approval request from the Corps of Engineers was received on December 6, 2011.
- K. Overgrazing Determination. NRCS has determined that overgrazing is not a problem in the project area, and will not be anticipated to be a problem as a result of the project features.
- L. Revised fully funded cost estimate, generated by the Economic Work Group, is \$44,832,616. The revised fully funded cost estimate for Phase II is \$43,171,632. The revised fully funded cost estimate for Phase II – Increment 1 is \$29,145,336. The required spreadsheet is enclosed.
- M. Wetland Value Assessment. The Final Revised WVA was completed November 21, 2013.

Coastal Wetlands Planning, Protection and Restoration Act

Alligator Bend Shoreline Protection Project (PO-34)

Priority Project List 16



PROJECT INFORMATION PACKAGE

Revised WVA

November 21, 2013

NRCS Contacts:

**Ron Boustany
John Jurgensen**

**337-291-3067
318-473-7694**

Project Name: Alligator Bend Shoreline Protection Project (PO-34)

Project Type: Shoreline Protection and Marsh Creation

Sponsoring Agencies:

Natural Resources Conservation Service

Ron Boustany, NRCS Environmental Workgroup Representative, ron.boustany@la.usda.gov

John Jurgensen, NRCS Engineering Workgroup Representative, john.jurgensen@la.usda.gov

Project Area:

Region 1, Lake Pontchartrain Basin, Orleans Parish, East Orleans Land Bridge Mapping Unit, along the northwest shoreline of Lake Borgne bounded by the Chef Pass, Unknown Pass, the Gulf Intracoastal Waterway (GIWW), and Lake Borgne (Figure 1). The project includes 153 acres of brackish marsh and 148 acres of open water along the 44,021 linear feet of shoreline to be projected.

Problem:

High wave energy, sea level rise and subsidence levels are impacting the wetland shorelines and inland marshes of lakes Pontchartrain, Borgne and St. Catherine, Chef Pass, and the Rigolets. These water bodies all outline the East Orleans Landbridge and are located in the Pontchartrain Basin. Identified in both *Coast 2050* and the LCA, this critical land bridge forms a barrier between Lake Pontchartrain and Lake Borgne, an eventual passage to the Gulf of Mexico. Along Lake Borgne between Unknown Pass and Chef Pass, there has been continued loss of shoreline and inland ponds have widened. This area holds the majority of remaining, contiguous wetland acres located in Orleans Parish.

Goals:

- Maintain the East Orleans Landbridge by stopping shoreline erosion.
- Protect inland wetlands between Lake Borgne and Lake St. Catherine.

Objectives

The objective of this project is to protect the shoreline integrity of Lake Borgne and prevent breaching of the lake shoreline into the marsh.

Proposed Solution:

A foreshore rock dike (44,021 ft) will be constructed along the shoreline of Lake Borgne along the 2 ft contour. Vegetation will be planted over approximately half of the length of the shoreline in areas protected by the rock dike. The rock dike will have a top elevation of +2.5' to +3.0', 6' crest, and 2 to 3:1 side slopes. The vegetative plantings along the shoreline will be two rows of smooth cordgrass planted on a 10' spacing. The rows will be staggered to promote rapid vegetative growth and expansion to stabilize and restore the shoreline. A portion of the material cut from the flotation channel for access to the foreshore rock dike component will be placed on the marsh side of the proposed rock feature at an elevation sufficient to create marsh. This too will be planted to facilitate rapid functional marsh development.

Figure 1: Project map.



Monitoring Information / Rock Dikes:

Vermilion Bay / Boston Canal Shoreline Protection, TV-09 – Rock dikes configured as sediment traps were constructed in 1995 along the shoreline at the mouth of Boston Canal to promote sediment deposition and protect the shoreline and adjacent wetlands from continued wave-induced erosion. Vegetation was planted along 14 miles of the Vermilion Bay shoreline to act as a wave buffer and decrease shoreline erosion rates. Following the construction of the rock dikes, as much as 4.5 feet of sediment has vertically accreted in the lee, or wind-sheltered regions, of the structures. The dikes and vegetative plantings have increased vegetation cover, resulting in 57 acres of land growth.

Sabine National Wildlife Refuge Erosion Protection (CS-18) – The Sabine Refuge Protection project has been successful in stabilizing bank erosion of the west levee on the Burton-Sutton Canal (BSC), thus preventing land loss in Impoundment 3 on Sabine National Wildlife Refuge (SNWR). Visual observation indicates vertical accretion of the wetland area at many locations between the foreshore rock dike and the shoreline.

Cameron Prairie National Wildlife Refuge Shoreline Protection (ME-09) – The project has been effective at preventing shoreline erosion at all project area stations and has caused progradation of the shoreline at many stations. There is no evidence of shoreline progradation at the reference stations, and most show shoreline retreat. Visual observation indicates vertical accretion of the wetland.

Turtle Cove Shoreline Protection (PO-10) – To this point, the Turtle Cove project has achieved the objectives of protecting the shoreline which shelters the Prairie and has promoted sediment deposition behind the gabion. The project has accomplished this via wave energy reduction. The shoreline has advanced at a rate of 3.47 ft/yr (1.05 m/yr). Project-reference area comparisons show a definite effect of the gabion on shoreline retreat rates. The project seemed most effective in terms of minimizing shoreline erosion during unusually harsh conditions. This can be seen by comparing the severe erosion rates in the reference area between July and December 1996, which included the impacts of Tropical Storm Josephine, with those in the project area.

Background Information

The original Alligator Bend Marsh Restoration and Shoreline Protection Project (PO-34) consisted of approximately 410 acres of marsh creation and nourishment and 38,140 feet of vegetative plantings along the Lake Borgne shoreline.

The original project team, consisting of NRCS, USACE, and the Louisiana OCPR (now CPRA), were informed that the landowner (Marsh Holdings, LLC) is proceeding with the establishment of a mitigation bank in the proposed project area, consisting of marsh creation / nourishment in the same area as the original PO-34 project. The landowner secured Permit No. MVN-2007-210-MJ from the Department of the Army for the mitigation bank, and to date, is still actively pursuing this work. Therefore, the mitigation bank eliminated the need for the marsh creation/nourishment component of PO-34.

As a result, NRCS, USACE and the Louisiana CPRA concluded that the PO-34 project should be revised in scope to provide more comprehensive shoreline protection in the area. Based on a site visit by the Project Team and subsequent discussions of project alternatives, the Project Team reached consensus that the shoreline protection measures should extend from Unknown Pass to the western end of Alligator Point, terminating at the southern end of Lake Borgne CIAP project. The proposed revised project would protect approximately 26,700 feet of shoreline using a foreshore rock dike and approximately 21,700 feet of shoreline using earthen terraces and vegetative plantings.

On January 29, 2010 the project team received approval from the CWPPRA Task Force to change the scope of the project to the revised features of shoreline protection and vegetative plantings. The project also changed federal sponsors from USACE to NRCS and the name was officially changed to “Alligator Bend Shoreline Protection Project (PO-34)”.

During Phase 1, the project team eliminated the alternative of using earthen terraces due to design concerns regarding the soils. The final alternative selected for design was a foreshore rock dike separated into two sections; the southern region, which is comprised of Alligator Point and Alligator Bend, and the northern region, which is from Shell Point to the northern project extent. The recommended project for the southern region is a rock dike with a +2.5 ft NAVD88 post-construction design crest elevation, a 6 ft crest width and a 2H:1V slope for the entire project length, except at the Alligator Point headland where there will be a 3H:1V slope with a +3.0 ft NAVD88 post-construction design crest elevation. The recommended project for the northern region, due to expected excessive settlement values, is a lightweight aggregate core (LWAC) rock dike structure with a post-construction design crest elevation of +3.0 ft NAVD88, a three foot layer of protective armor stone and a 3H:1V structure side slope. Fish dips that are 50 feet wide will be placed every 1,000 feet along the entire structure.

Revised Project Boundary/Baseline or TY 0 Acreage

The proposed revised project area is based on shoreline erosion rates determined by USGS for the period 1998 through 2010 and the position of the foreshore rock dike. USGS measured a total of 44,021 feet of shoreline that will be protected by the foreshore rock dike. Depending on the directional face of the shoreline, the shoreline erosion rates vary from 5 ft/yr to 12 ft/yr from the period 1998 to 2010. The erosion rates were determined by analysis of various segments of the shoreline identified as Segments 1 through 5 and Supplemental Segments 1 and 2 (Figures 2-4).

At the current erosion rate, the project area disappears by TY-20 FWOP. The foreshore rock dike is assumed to reduce the shoreline erosion rates by 100%. Additional benefit is accounted for from the beneficial placement of dredged material and vegetative plantings. Table 1 provides the engineering estimate of marsh creation. The project is expected to create approximately 37.3 acres of marsh from the beneficial use of excavated material from the flotation channel. The marsh creation will butt up against the landward toe of the rock dike and extend landward at a +2 crest elevation. The marsh creation will extend as far inland as allowable with the excavated material or the 20' allowable buffer from the land lease. The marsh will maintain a 100' buffer

zone on either side of the fish dips to avoid impeding the fish access. Vegetation plantings will expedite fully functional marsh development by TY3.

Table 1. Estimated quantities and acreages of borrow material from flotation channel excavation.

Extended Marsh Creation					
Station Range	Area		Volume (CY)		% Excavated Volume Used for Marsh Creation
	Square Feet	Acres	Excavated from Flotation Channel	Utilized for Marsh Creation	
5+00 - 9+50	12,921	0.3	2,620.03	2,369.63	90.44
33+00-35+50	4,257	0.1	1,768.79	1,054.68	59.63
40+00-45+50	18,647	0.4	4,169.51	3,044.37	73.02
49+00-55+50	24,963	0.6	7,326.53	2,868.77	39.16
57+50-59+50	12,243	0.3	4,355.45	3,930.81	90.25
67+50 - 75+50	83,044	1.9	14,225.69	8,480.34	59.61
77+50 - 85+50	111,498	2.6	14,188.84	11,449.73	80.70
87+50 - 95+50	214,564	4.9	25,213.71	19,846.21	78.71
97+50 - 105+50	116,450	2.7	14,006.83	11,737.85	83.80
107+50-115+50	117,657	2.7	14,184.42	11,900.42	83.90
117+50-125+50	115,322	2.6	14,221.15	11,856.39	83.37
128+00-135+00	157,201	3.6	26,224.11	26,516.91	101.12
137+50-145+00	109,480	2.5	12,954.11	11,483.99	88.65
147+50 - 155+50	122,358	2.8	14,451.24	12,761.93	88.31
157+50-165+50	120,291	2.8	13,846.14	13,313.07	96.15
167+50-175+00	69,943	1.6	13,096.56	11,826.08	90.30
177+50-185+50	97,527	2.2	17,723.99	14,650.43	82.66
187+50-195+50	43,326	1.0	19,466.36	5,206.92	26.75
197+50 - 205+50	42,570	1.0	13,788.44	4,531.74	32.87
207+50-214+00	31,646	0.7	10,984.23	3,265.97	29.73
Total	1,625,908	37.3	258,816	192,096	74.22

A weighted average was used to determine the shoreline loss rate for the entire project area (Table 2). The project area is losing approximately 8.13 ft/yr which results in 7.65 acres/yr and 153 acres over a period of 20 years. The rock dike placement along the 2 ft contour yields an average distance from the existing shoreline of 125 ft.

Figure 2. USGS analysis of Segment 1 and Supplemental Segment 1.

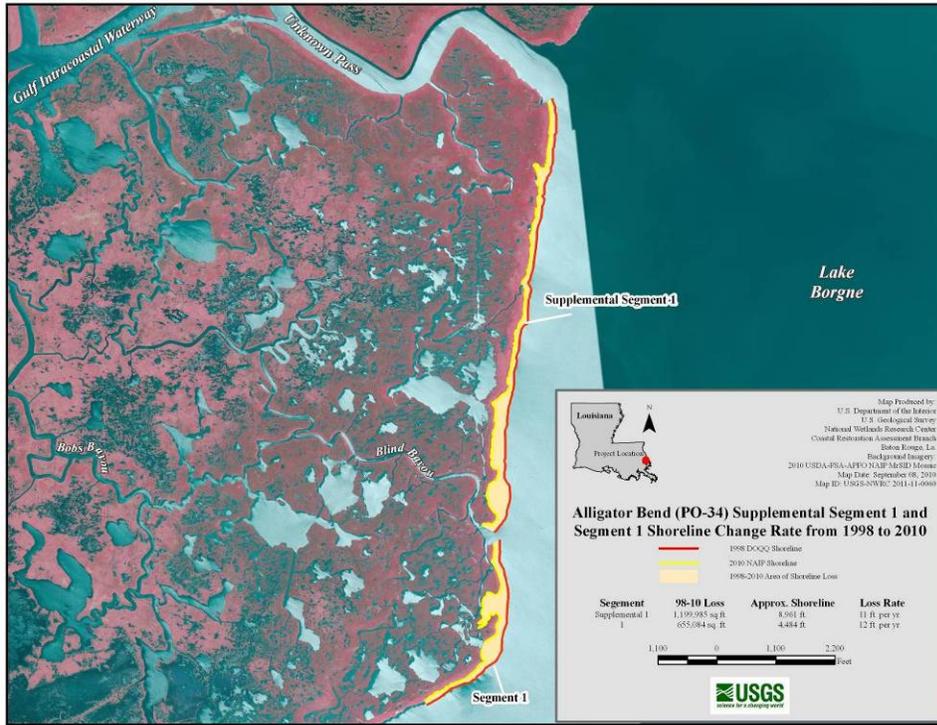


Figure 3. USGS analysis of Segments 2 and 3.

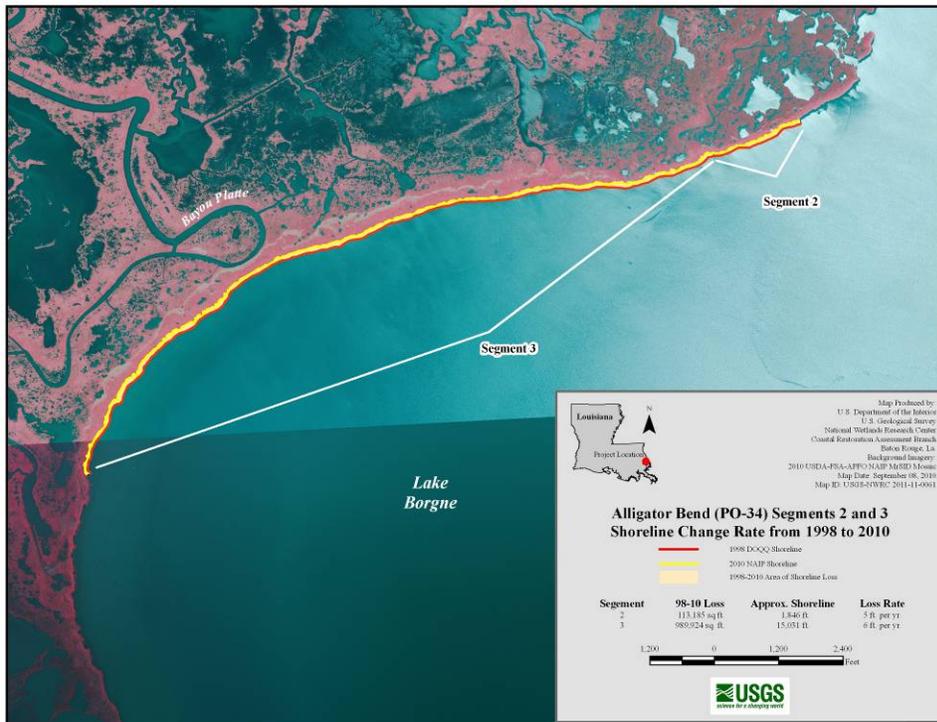


Figure 4. USGS analysis of Segments 4, 5 and Supplemental 2.

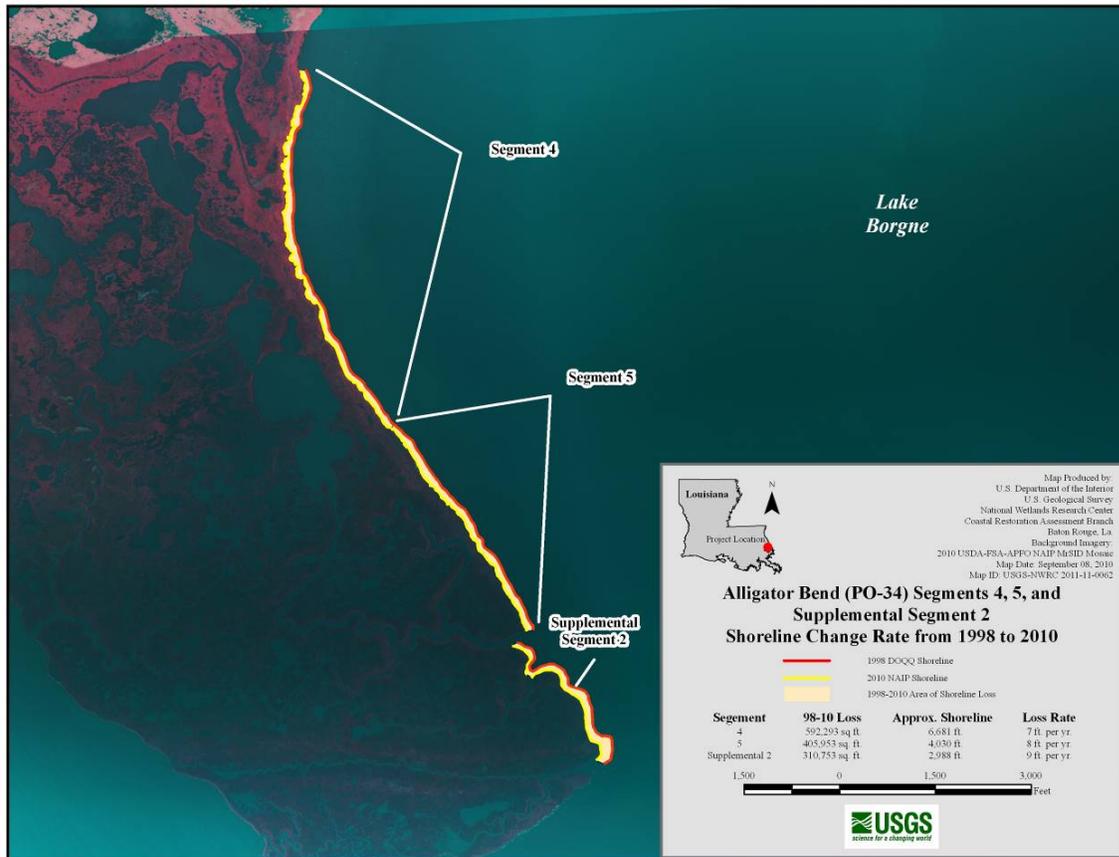


Table 2. Summary of weighted average shoreline erosion rates

ALLIGATOR BEND (PO-34)
Weighted Average Shoreline Erosion Rates

USGS Segment	Area Fronted by Rock		USGS Erosion	
	USGS Lengths	% of total length	Rate (ft/yr)	Weighted Avg
Segment 1	4,484	10.19%	12.0	1.22
Segment 2	1,846	4.19%	5.0	0.21
Segment 3	15,031	34.15%	6.0	2.05
Segment 4	6,681	15.18%	7.0	1.06
Segment 5	4,030	9.15%	8.0	0.73
Supplemental Segment 1	8,961	20.36%	11.0	2.24
Supplemental Segment 2	2,988	6.79%	9.0	0.61
	44,021			8.13
				ft/yr

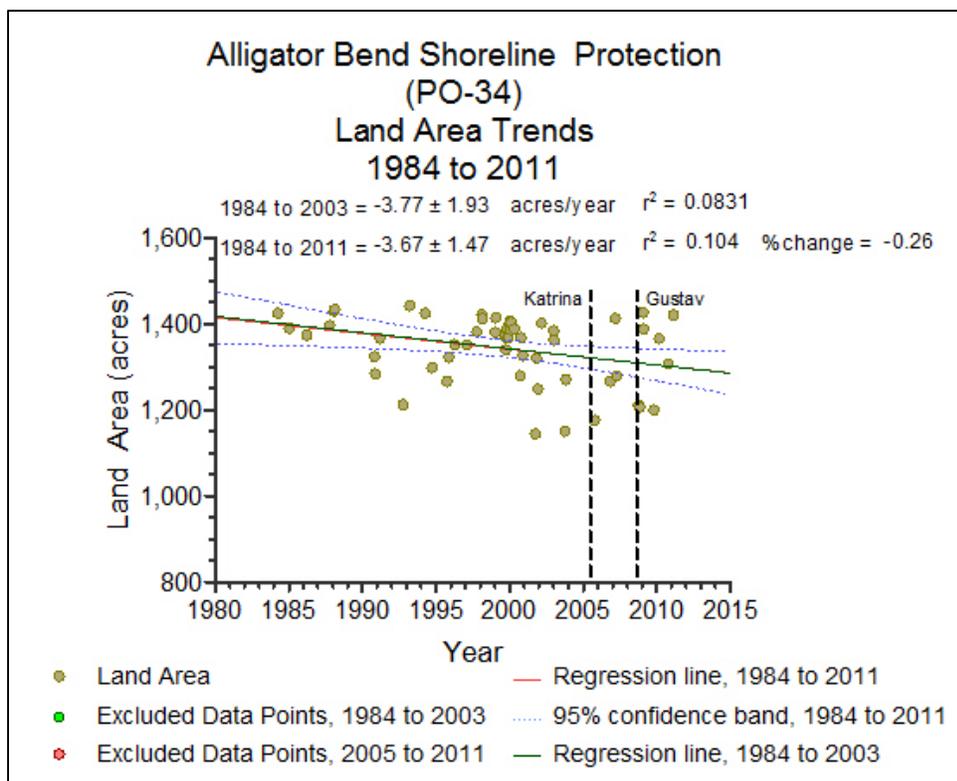
V1 - Emergent Vegetation

The project area has been classified as brackish for all survey years; however, in the 2007 vegetation survey, a portion of the project area near Unknown Pass was classified as saline. The majority of the surrounding area of the Orleans land bridge however is brackish. There are no CRMS sites located directly on-site but the closest locations on the land bridge (CRMS0002 and CMRS3784) are both classified as mesohaline wiregrass marshes dominated by *S. patens*. Therefore the brackish marsh model is proposed for this analysis.

The project area includes 153 acres of existing marsh and 148 acres of open water including open water from the shoreline out to the position of the rock dike. The cumulative loss rate of all the segments of the shoreline is 7.65 acres/yr. Under the FWOP scenario, 153 acres of marsh will be lost by TY-20 from shoreline erosion alone.

USGS determined that the extended boundary buffered at 1500 ft from the existing shoreline has a historic background loss rate of -0.26 %/y (Figure 5). Although the shoreline protection stops shoreline erosion completely, the project will continue to lose land at the historic rate of loss within the existing marsh area (153 acres) and half that in the area newly created (37 acres). The land loss spreadsheet was set up to reflect shoreline loss FWOP and the 50% reduction in the background land loss rate was applied only to the marsh creation area FWP (Figure 6). The existing marsh was assumed to continue at the historic loss rate because there is technically no nourishment received from the means of creating marsh away from the existing shore using a bucket dredge.

Figure 5. USGS loss rate regression analysis.



FWOP

TY0 51% marsh (153 acres) (water = 148 acres)

TY1 48% marsh (145 acres) (water = 156 acres)

TY20 0% marsh (0 acres) (water = 301 acres)

FWP

The shoreline erosion rate will be reduced by 100% due to the rock feature. Therefore, 153 acres will be protected from shoreline erosion but subjected to the full rate of background loss (-0.26 %/y). The 37 acres of marsh creation will be subjected to half the background loss rate.

TY1 54% marsh (162 acres) (37 acres of created marsh is 25% functional)
Water = 112 acres

TY3 63% marsh (189 acres) Water = 112 acres

TY20 60% marsh (181 acres) Water = 120 acres

Figure 6. Land loss spreadsheet. Note: sheet is modified to capture only shoreline erosion for FWOP.

Project: Alligator Bend (PO-34)					Loss Rate (%/yr)	Shoreline Loss (ft/y)	Shoreline Loss (acres/y)								
Total Acres	Year	Marsh Acres		Water Acres	-0.260	8.13	7.65								
301	2012	153		148	FWP Land Loss Rate Reduction for Created Marsh			0.50							
301	2013	153		148											
FWOP					FWP - Created Marsh			FWP - Existing Marsh			FWP Totals				
					Created Marsh = 37			Existing Marsh = 153							
TY	FWOP Loss Rate (interior loss not applied)	Marsh (acres) w/annual shoreline acres lost subtracted; no interior loss	% Marsh (V1)	Water (acres)	FWP Loss Rate	Created Marsh Acreage	Adjusted Marsh Acreage (25% @ TY1 and 100% @ TY3)	FWP Loss Rate	Nourished Marsh Acreage	Existing Marsh Acreage	Water (acres)	Marsh (acres)	% Marsh (V1)	Net Acres of Marsh	Total Acres Check
2012		153	51%	148											
0	-0.0026	153	51%	148		0			0						
1	-0.0026	145	48%	156	-0.0013	37	9	-0.0026	152	152	112	162	54%	17	301
2	-0.0026	137	46%	164	-0.0013	37		-0.0026	152						
3	-0.0026	130	43%	171	-0.0013	37	37	-0.0026	151	151	112	189	63%	59	301
4	-0.0026	122	41%	179	-0.0013	37		-0.0026	151						
5	-0.0026	114	38%	187	-0.0013	37	37	-0.0026	151	151	113	188	62%	73	301
6	-0.0026	107	35%	194	-0.0013	37	37	-0.0026	150	150	114	187	62%	81	301
7	-0.0026	99	33%	202	-0.0013	37	37	-0.0026	150	150	114	187	62%	88	301
8	-0.0026	91	30%	210	-0.0013	37	37	-0.0026	149	149	115	186	62%	95	301
9	-0.0026	84	28%	217	-0.0013	37	37	-0.0026	149	149	115	186	62%	102	301
10	-0.0026	76	25%	225	-0.0013	37	37	-0.0026	149	149	116	185	62%	109	301
11	-0.0026	68	23%	233	-0.0013	37	37	-0.0026	148	148	116	185	61%	117	301
12	-0.0026	61	20%	240	-0.0013	37	37	-0.0026	148	148	116	185	61%	124	301
13	-0.0026	53	18%	248	-0.0013	37	37	-0.0026	148	148	117	184	61%	131	301
14	-0.0026	46	15%	255	-0.0013	37	37	-0.0026	147	147	117	184	61%	138	301
15	-0.0026	38	13%	263	-0.0013	37	37	-0.0026	147	147	118	183	61%	145	301
16	-0.0026	30	10%	271	-0.0013	37	37	-0.0026	146	146	118	183	61%	153	301
17	-0.0026	23	7%	278	-0.0013	36	36	-0.0026	146	146	119	182	61%	160	301
18	-0.0026	15	5%	286	-0.0013	36	36	-0.0026	146	146	119	182	60%	167	301
19	-0.0026	7	2%	294	-0.0013	36	36	-0.0026	145	145	119	182	60%	174	301
20	-0.0026	0	0%	301	-0.0013	36	36	-0.0026	145	145	120	181	60%	182	301

V2 - Submerged Aquatic Vegetation

FWOP

TY0	0% (original WVA found no SAV)
TY1	0% (SAVs are not expected to establish under FWOP)
TY20	0%

FWP

SAVs are expected to colonize in the area of open water between the shoreline and the rock dike as a result of the protection and shallowing.

TY1	5%
TY3	10%
TY20	10%

V3 - Interspersion

The project area consists of 153 acres of existing marsh and 148 acres of water along the bay front. Conventional classification would have it that the open water along the bay would include a marsh fringe in the classification which would roughly result in approximately 50% Class 1 marsh and 50% Class 4 open water with the marsh fringe FWOP.

FWOP

TY0	50% Class 1; 50% Class 4
TY1	50% Class 1; 50% Class 4
TY20	100% Class 5 (Loss of the entire 153 acres of marsh to open water)

FWP

Shoreline protection is expected to completely stop erosion and the project area will include an additional 37 acres of marsh where previously existed open water. This would adjust the previous Class 4 designation to Class 3.

TY1	50% Class 1; 50% Class 3
TY3	50% Class 1; 50% Class 3
TY20	50% Class 1; 50% Class 3

V4 - Percent open water ≤ 1.5 ft deep

Open water in the project area consists primarily of the 125-ft strip of water between the shoreline and the shoreline protection feature, which is set on the 2 ft contour and existing marsh edge. Design cross-sections indicate that approximately 24% of the open water (36 acres of the 148 acres) is ≤ 1.5 feet deep at 25 feet away from the shoreline between the proposed location of the rock dike and the existing shoreline. This 25 ft shallow zone is assumed to migrate inland at the same rate as the shoreline retreat.

FWOP

TY0	24%
TY1	23% - With the conversion of about 7.65 acres of marsh to open water, the total amount of open water will increase to 156 acres with 36 acres ≤ 1.5 feet deep. The percent of open water ≤ 1.5 feet deep will drop to 23% ($36/156 = 0.23$).
TY20	12% - With the conversion of about 153 acres of marsh to open water the total amount of open water will increase to 301 acres with about 36 acres ≤ 1.5 feet deep. The percent of open water ≤ 1.5 feet deep will drop to 12% ($36/301 = 0.12$).

FWP

Since the rock dike is expected to reduce erosion by 100% and the 37 acres of marsh creation will all be in water > 1.5 ft deep, open water will be reduced to 112 acres of which 36 acres will be shallow open water (32%). It is expected that because of the isolation of the open water behind the rock protection and marsh creation, the area will begin to silt in and increase the percentage of shallow open water by at least 10% by TY20.

TY1	32%
TY3	32%
TY20	42%

V5 - Salinity

Salinity readings on a 1 May 2006 field trip ranged from 5.1 ppt (interior marsh and canal) to 11.1 ppt (lake edge) which is considered to be brackish. Previous field work by NRCS in July 1990 found interior marsh salinities ranging from 6-7 ppt. There are no CRMS sites in the immediate vicinity of the project site but several sites give some insight to the range for the area (Figure 7). Those interior nearer to Lake Pontchartrain range from 5-6 ppt and those on the periphery of Lake Borne range from 6-9 ppt. Because the project location is on the western lake edge, salinity will probably reflect the lower end of the range for those locations on the east side of the lake and the upper range of those on the interior side of Lake Pontchartrain at about 6.5 ppt. The project would not change salinities.

Figure 7. Map showing positions of nearby CRMS stations.



<u>FWOP</u>	
TY0	6.5 ppt
TY1	6.5 ppt
TY20	6.5 ppt
<u>FWP</u>	
TY1	6.5 ppt
TY3	6.5 ppt
TY20	6.5 ppt

V6 - Aquatic Organism Access

The project area is currently open to tidal circulation. The shoreline plantings would not block fisheries access to the interior marsh. Openings will be placed in the rock dike at existing fisheries access points.

Gaps will be placed at 1,000 ft intervals. The gaps will be 50 ft wide and pre-project depth. The rock dike will not be tied into the shoreline on the ends. Therefore the open access value of **1.0** will be used for all areas and all TYs.

FWOP

TY0 1.0

TY1 1.0

TY20 1.0

FWP

TY1 1.0

TY3 1.0

TY20 1.0

Model Name Wetland Value Assessment - Brackish Marsh Community Model
Model Version 1.1
Date of Last Update November 15, 2011
Original Model Version 1.0 - March 10, 2010
Objective of Model The coastal marsh models were developed to determine the suitability of marsh and open water habitats in the Louisiana coastal zone. These models were designed to function at a community level and therefore attempt to define an optimal combination of habitat conditions for all fish and wildlife species utilizing coastal marsh

Instructions Enter data in green cells. All green cells must contain values (including 0's) in order for the HSI calculation to compute for that year. Always error check data following entry. Click on variable name in column B for a brief description of the variable. Intermediate Calculations are "over flow" calculations that were too long or complex to fit within one cell within the table. Refer to WVA documents for model structure and background.

Notes 1) Enter data in units noted.
2) All percentages should be entered as whole numbers between 0 and 100.

Color Coding Key:

Input
Calculation
Output

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: **Alligator Bend Shoreline Protection (PO-34)**

Project Area: **301**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	51	0.56	48	0.53	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion	%		%		%	
	Class 1	50	0.60	50	0.60	0	0.10
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	50		50		0	
	Class 5	0		0		100	
V4	%OW <= 1.5ft	24	0.41	23	0.40	12	0.25
V5	Salinity (ppt)	6.5	1.00	6.5	1.00	6.5	1.00
V6	Access Value	1.0000	1.00	1.0000	1.00	1.0000	1.00
Emergent Marsh HSI =		0.68		EM HSI =		0.66	
Open Water HSI =		0.34		OW HSI =		0.34	
				EM HSI =		0.25	
				OW HSI =		0.30	

Project: **Alligator Bend Shoreline Protection (PO-34)**

Project Area: **301**

FWOP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
	Class 5						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
V6	Access Value						
EM HSI =				EM HSI =			
OW HSI =				OW HSI =			

Project: **Alligator Bend Shoreline Protection (PO-34)**

Project Area: **301**

FWOP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						



V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
V6	Access Value						
		EM HSI =		EM HSI =		EM HSI =	
		OW HSI =		OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: Alligator Bend Shoreline Protection (PO-34)

Project Area: 301

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	51	0.56	54	0.59	63	0.67
V2	% Aquatic	0	0.10	5	0.15	10	0.19
V3	Interspersion	%		%		%	
	Class 1	50	0.60	50	0.70	50	0.70
	Class 2	0		0		0	
	Class 3	0		50		50	
	Class 4	50		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	24	0.41	32	0.51	32	0.51

V5	Salinity (ppt)	6.5	1.00	6.5	1.00	6.5	1.00
V6	Access Value	1.0000	1.00	1.0000	1.00	1.0000	1.00
Emergent Marsh HSI =			0.68	EM HSI =	0.70	EM HSI =	0.76
Open Water HSI =			0.34	OW HSI =	0.41	OW HSI =	0.45

Project: Alligator Bend Shoreline Protection (PO-34)

Project Area: 301

FWP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	60	0.64				
V2	% Aquatic	10	0.19				
V3	Interspersion	%		%		%	
	Class 1	50	0.70				
	Class 2	0					
	Class 3	50					
	Class 4	0					
V4	%OW <= 1.5ft	42	0.64				
V5	Salinity (ppt)	6.5	1.00				
V6	Access Value	1.0000	1.00				
EM HSI =			0.74	EM HSI =		EM HSI =	
OW HSI =			0.46	OW HSI =		OW HSI =	

Project: Alligator Bend Shoreline Protection (PO-34)

Project Area: 301

FWP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
V6	Access Value						
EM HSI =				EM HSI =		EM HSI =	
OW HSI =				OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Alligator Bend Shoreline Protection (PO-34)

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	153	0.68	103.28	
1	145	0.66	95.18	99.20
20	0	0.25	0.00	719.70



Max TY=	20	AAHUs	52.19
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NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	52.19
B. Future Without Project Open Water AAHUs =	71.41
Net Change (FWP - FWOP) =	-19.23

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	95.22
B. Open Water Habitat Net AAHUs =	-19.23
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	63.43

Original Model Version 1.0 - March 10, 2010

Model Revisions

Version 1.1 - 11/16/2011

- 1) Spreadsheet formatted to populate FWP TY0 with FWOP TY0 values.
- 2) Spreadsheet formatted to allow entry of any value in Marsh and Water acreage cells in AAHU calculation sheet.
- 3) Minor formatting changes to font type, font size, font color, etc.



Background Image:
2011 Landsat Thematic Mapper 5 Imagery
Acquisition Date: March 16, 2011
Band Combination: 4, 5, 3

**Alligator Bend Shoreline Protection (PO-34)
Boundary****Extended**

Date	Decimal Date	Data	Land Area (acres)	Water (acres)	Total (acres)	% Land
04/06/1984	1984.2650	TM	1,425	75	1,500	95.0%
01/19/1985	1985.0521	TM	1,390	110	1,500	92.7%
03/27/1986	1986.2356	TM	1,374	126	1,500	91.6%
10/08/1987	1987.7699	TM	1,396	104	1,500	93.1%
01/28/1988	1988.0765	TM	1,430	70	1,500	95.3%
02/13/1988	1988.1202	TM	1,434	66	1,500	95.6%
11/01/1990	1990.8356	TM	1,324	176	1,500	88.3%
11/17/1990	1990.8795	TM	1,284	216	1,500	85.6%
03/09/1991	1991.1863	TM	1,367	133	1,500	91.1%
10/05/1992	1992.7623	TM	1,212	288	1,500	80.8%
03/14/1993	1993.2000	TM	1,443	57	1,500	96.2%
04/02/1994	1994.2521	TM	1,425	75	1,500	95.0%
09/25/1994	1994.7342	TM	1,299	201	1,500	86.6%
09/28/1995	1995.7425	TM	1,267	233	1,500	84.5%
11/15/1995	1995.8740	TM	1,323	177	1,500	88.2%
04/07/1996	1996.2678	TM	1,352	148	1,500	90.1%
02/05/1997	1997.0986	TM	1,351	149	1,500	90.1%
10/03/1997	1997.7562	TM	1,382	118	1,500	92.1%
02/08/1998	1998.1068	TM	1,422	78	1,500	94.8%
02/24/1998	1998.1507	TM	1,413	87	1,500	94.2%
01/10/1999	1999.0274	TM	1,381	119	1,500	92.1%
01/26/1999	1999.0712	TM	1,415	85	1,500	94.3%
09/15/1999	1999.7068	TM	1,369	131	1,500	91.3%
09/23/1999	1999.7288	TM	1,375	125	1,500	91.7%
10/01/1999	1999.7507	TM	1,340	160	1,500	89.3%
10/25/1999	1999.8164	TM	1,388	112	1,500	92.5%
11/18/1999	1999.8822	TM	1,367	133	1,500	91.1%
11/26/1999	1999.9041	TM	1,369	131	1,500	91.3%
12/28/1999	1999.9918	TM	1,402	98	1,500	93.5%
01/05/2000	2000.0137	TM	1,407	93	1,500	93.8%
01/21/2000	2000.0574	TM	1,386	114	1,500	92.4%
02/06/2000	2000.1011	TM	1,404	96	1,500	93.6%
04/18/2000	2000.2978	TM	1,389	111	1,500	92.6%
09/17/2000	2000.7131	TM	1,280	220	1,500	85.3%
10/11/2000	2000.7787	TM	1,369	131	1,500	91.3%
11/20/2000	2000.8880	TM	1,327	173	1,500	88.5%
09/28/2001	2001.7425	TM	1,145	355	1,500	76.3%
10/30/2001	2001.8301	TM	1,321	179	1,500	88.1%
12/01/2001	2001.9178	TM	1,249	251	1,500	83.3%
02/27/2002	2002.1589	TM	1,402	98	1,500	93.5%
12/28/2002	2002.9918	TM	1,384	116	1,500	92.3%
01/05/2003	2003.0137	TM	1,363	137	1,500	90.9%
10/04/2003	2003.7589	TM	1,150	350	1,500	76.7%
10/20/2003	2003.8027	TM	1,271	229	1,500	84.7%
10/09/2005	2005.7726	TM	1,176	324	1,500	78.4%

10/28/2006	2006.8247	TM	1,266	234	1,500	84.4%
03/05/2007	2007.1753	TM	1,413	87	1,500	94.2%
04/06/2007	2007.2630	TM	1,279	221	1,500	85.3%
10/01/2008	2008.7514	TM	1,211	289	1,500	80.7%
11/02/2008	2008.8388	TM	1,207	293	1,500	80.5%
01/21/2009	2009.0575	TM	1,427	73	1,500	95.1%
02/06/2009	2009.1014	TM	1,388	112	1,500	92.5%
10/20/2009	2009.8027	TM	1,200	300	1,500	80.0%
02/25/2010	2010.1534	TM	1,366	134	1,500	91.1%
10/07/2010	2010.7671	TM	1,307	193	1,500	87.1%
02/12/2011	2011.1178	TM	1,421	79	1,500	94.7%

*Grand Isle Estimated Water Level Ranges for SE Deltaic Plain Used in TM Classification

Low = < 1.8

Moderate = 1.8 to 2.00

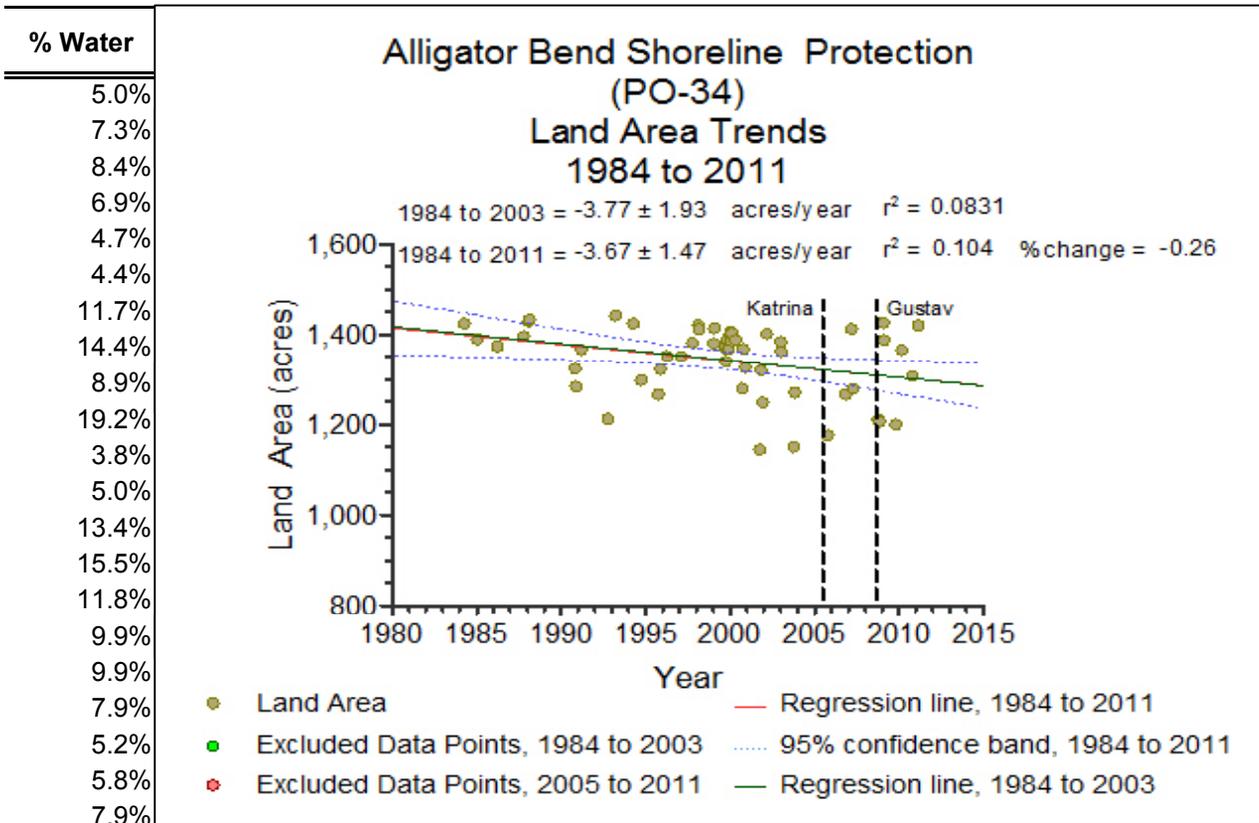
High = > 2.0

The water level estimates constitute a sliding range that varies with time as sea-level rise and subsidence increase water levels. The water level population is defined by the available classified TM data points.

Ex. Land-water classifications based on a "high water" Landsat TM satellite scene from 1983/84 will generally be based on a lower "high water" elevation than "high water" measurements for current scenes.

Land change data provided by USGS NWRC Coastal Restoration and Assessment Branch (CRAB)

Source: Contact Brady Couvillion



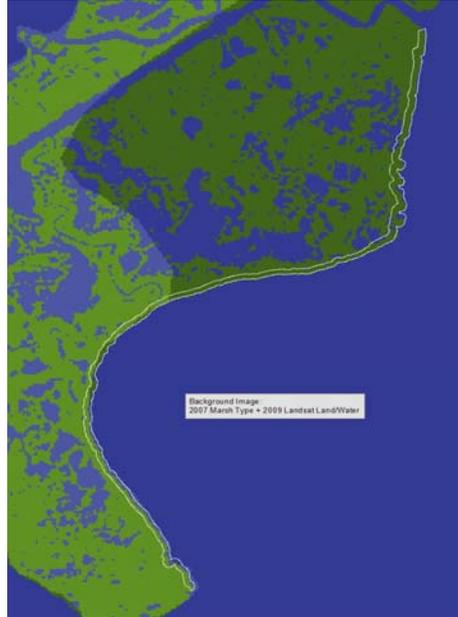
15.6%
5.8%
14.7%
19.3% Post-hurricane
19.5%
4.9%
7.5%
20.0%
8.9%
12.9%
5.3%

2012 land/water data is based on 2008 DOQQ photography.

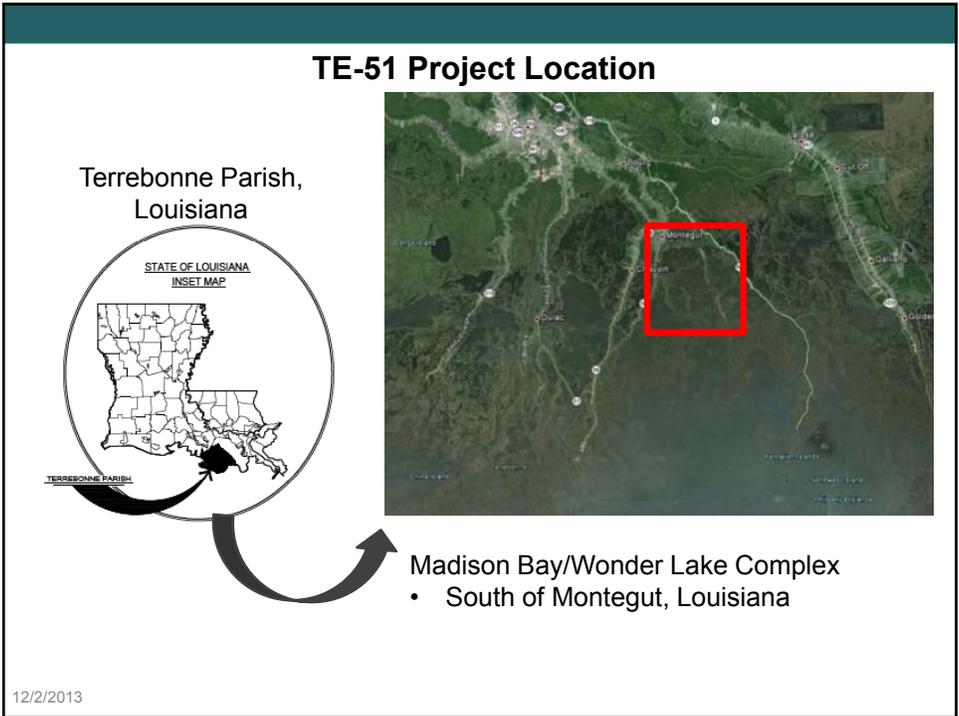
LAND COVER TYPE	Acres		Percent LAND COVER TYPE	Percent LAND COVER TYPE	
	Pj Bdy	Total		Pj Bdy	Total
Land	153	153	50.8%	50.8%	
Water	148	148	49.2%	49.2%	
Total	301	301	100.0%	100.0%	



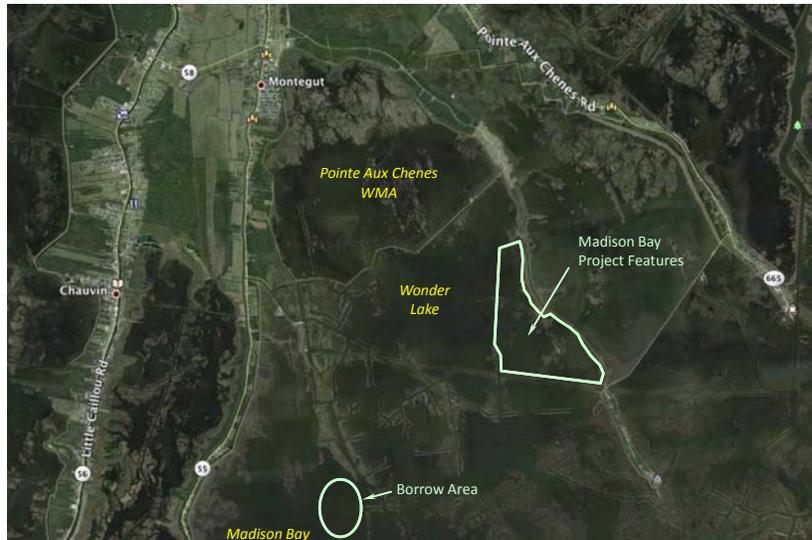
According to 2007 marsh type survey (Sasser, C.E., Visser, J.M., Mouton, Edmond, Linscombe, Job, and Hartley, S.B., 2008. Vegetation types in coastal Louisiana in 2007: U.S. Geological Survey Open-File Report 2008-1224, 1 sheet, scale 1:550,000.) the project area is about 50% Brackish and 50% Saline.



Madison Bay Marsh Creation & Terracing
(TE-51)



TE-51 Project Location

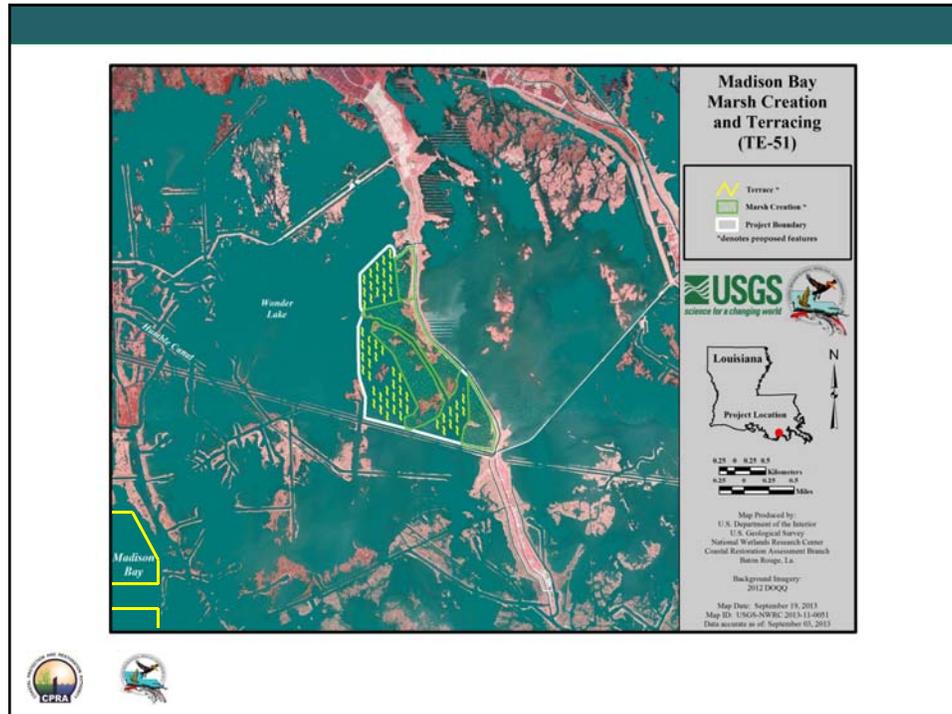


12/2/2013

Project Background and Purpose

- Phase 1 approval on October 18, 2006
- Project change in scope on April 19, 2012
- Construct and maintain an intertidal marsh elevation for the longest period of time within the 20-year project life.
- Protect the Montegut Flood Protection Levee and St. Jean Charles Ridge from wave energy by reducing the open water fetch of Wonder Lake/Madison Bay
- Protect the newly constructed marsh from wave energy by reducing the open water fetch of Wonder Lake/Madison Bay through the use of earthen terraces





Madison Bay (TE-51)

Benefits and Costs

- The project benefits 943 acres of marsh and open water habitats
- 334 net acres at the end of the 20-year project life
- Fully funded cost = \$38,571,438
- Today's Phase 2 Increment 1 request = \$38,077,208





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

November 22, 2013

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

Re: Phase II Construction Funds Request for the Madison Bay Marsh Creation and Terracing Project (TE-51)

Dear Mr. Holden:

NOAA Fisheries and the Louisiana Coastal Protection and Restoration Authority (CPRA) hereby request approval for Phase II authorization of the Madison Bay Marsh Creation and Terracing project (TE-51). Phase I activities were authorized on Priority Project List 16 on October 18, 2006, by the Louisiana Coastal Wetlands Conservation and Restoration Task Force under the authority of the Coastal Wetlands, Planning, Protection and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures Manual (SOP).

Enclosed please find the information required for Phase II requests and approval pursuant to Appendix C of the SOP. Should additional information be required for this project, I can be reached at (301) 427-8675. Thank you for your consideration of this request.

Sincerely,

Cecelia Linder
NOAA CWPPRA Program Manager
NOAA Fisheries Service

Enclosures

Cc: Members of the CWPPRA Technical Committee
John Foret, Project Manager, NOAA NMFS
Andrew Beall, CPRA Project Management Administrator

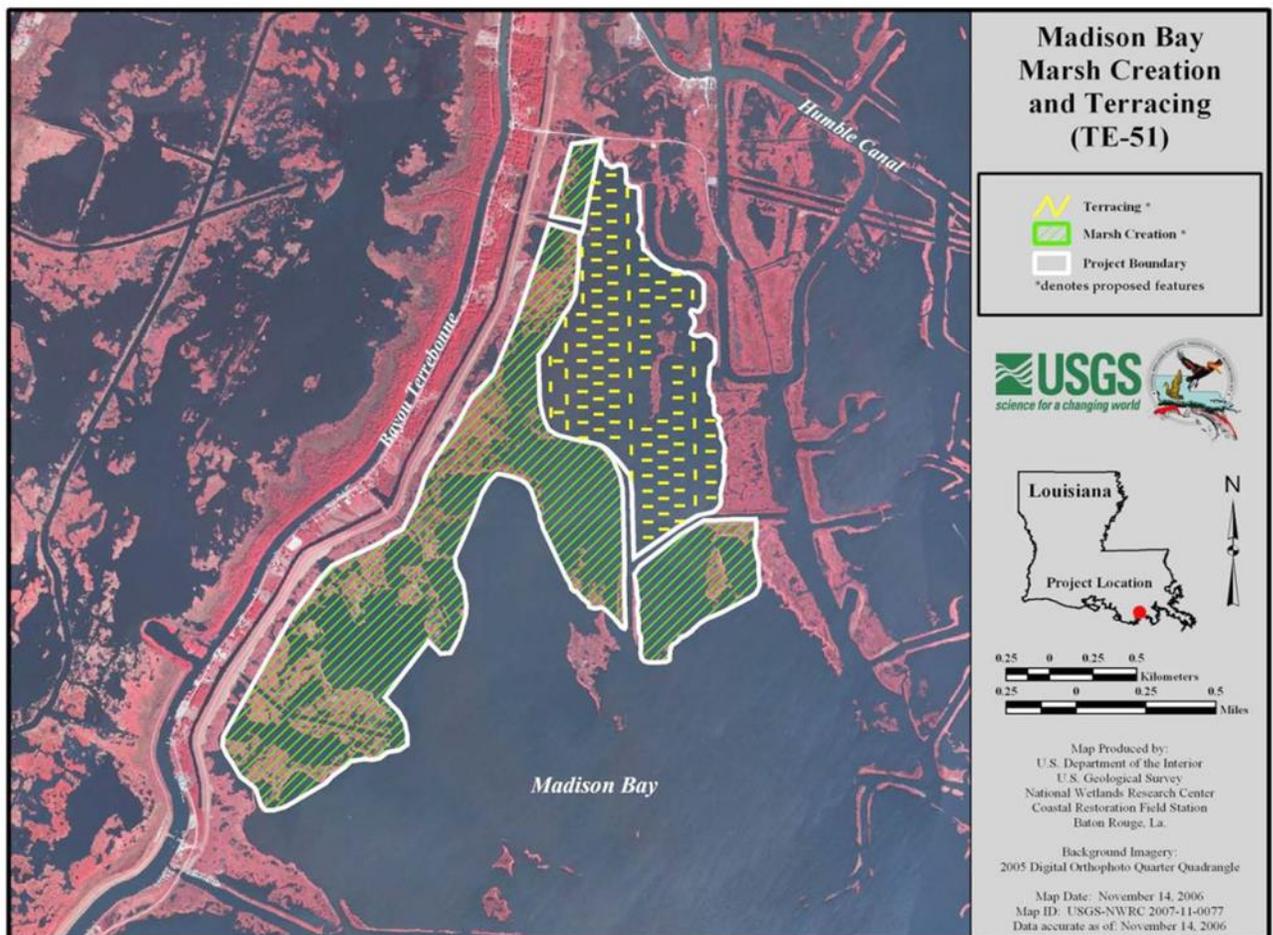


**Phase II Authorization Request
Madison Bay Marsh Creation and Terracing
TE-51**

I. Description of Phase I Project

The Madison Bay Marsh Creation and Terracing Project was proposed by the National Oceanic and Atmospheric Administration (NOAA) as a candidate for Project Priority List 16. Phase 1 was authorized by the CWPPRA Task Force on October 18, 2006. The original 1,019-acre project area is located in Terrebonne Parish, Louisiana, north of Madison Canal between Bayou Terrebonne and Humble Canal. This area has experienced tremendous wetland loss due to a variety of forces including subsidence, saltwater 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.

Figure 1: Phase I project location



II. Overview of Phase I Tasks, Process and Issues

The following tasks were completed during Phase I:

- October 2006 – Phase 1 Approval
- March 7, 2007 – Project Kick off meeting
- October 2008 – Landowner meeting (Oyster lease coordination initiated)
- April 2009 – Survey and Geotechnical Investigations initiated
- January 2010 – Survey, magnetometer survey, and landrights results began discussion of project boundary shift.
- February 2010 – NMFS/OCPR met with landowners in the area to keep them apprised of project status.
- May 2010 – Field investigation conducted to evaluate alternative project locations.
- April 2011 – Made project presentation to the Technical Committee in order to request permission to expend project funds outside of the approved project area for geotechnical investigation of an alternative project site.
- August 30, 2011 – Geotechnical investigation to begun.
- November 19, 2011 – Geotechnical report delivered, results show Wonder Lake area most appropriate for construction consideration.
- April 19, 2012 – Technical Committee approves project scope change; i.e. 32% reduction in constructed acres, 29% reduction in TY20 acres, and 19% increase to the FullyFunded Cost Estimate; Technical Committee approved the relocation of the project boundary to the Wonder Lake area.
- June 5, 2012 – Task Force approved Technical Committee project scope change recommendation.
- July 23, 2013 – 30% Preliminary Design Review meeting held.
- October 31, 2013 – 95% Final Project Design Review held.

Initial investigations of the Phase I area showed complications in achieving the environmental benefits of the project goals from the area's poor load-bearing capacity. The location for marsh creation had over 1,200 landowners with 3 dual claims, meaning landrights were in legal dispute. The cost to acquire landrights was estimated at over \$1,000,000. Concurrent with project design, part of the proposed area was defined for levee improvements in the Morganza to the Gulf (Reach H-3), which would limit construction area. A survey found 108 magnetometer anomalies at that location and state maps identify pipelines, and active or abandoned wellheads. Given complications of landrights, infrastructure (hazards) to avoid, water depths, and unstable soils, a request to change project location was made.

Further investigation into two probable alternate locations yielded one prime candidate. That location, Wonder Lake, was identified as the preferred alternative location for the project. The request to change the project location was approved and geotech, surveys, land rights, oyster impacts, and magnetometer surveys confirmed the feasibility to construct a project that would meet the project goals and objectives. There were no significant problems encountered within the Wonder Lake location.

Table 2.1: Summary of Project Scope Change Costs and Benefits

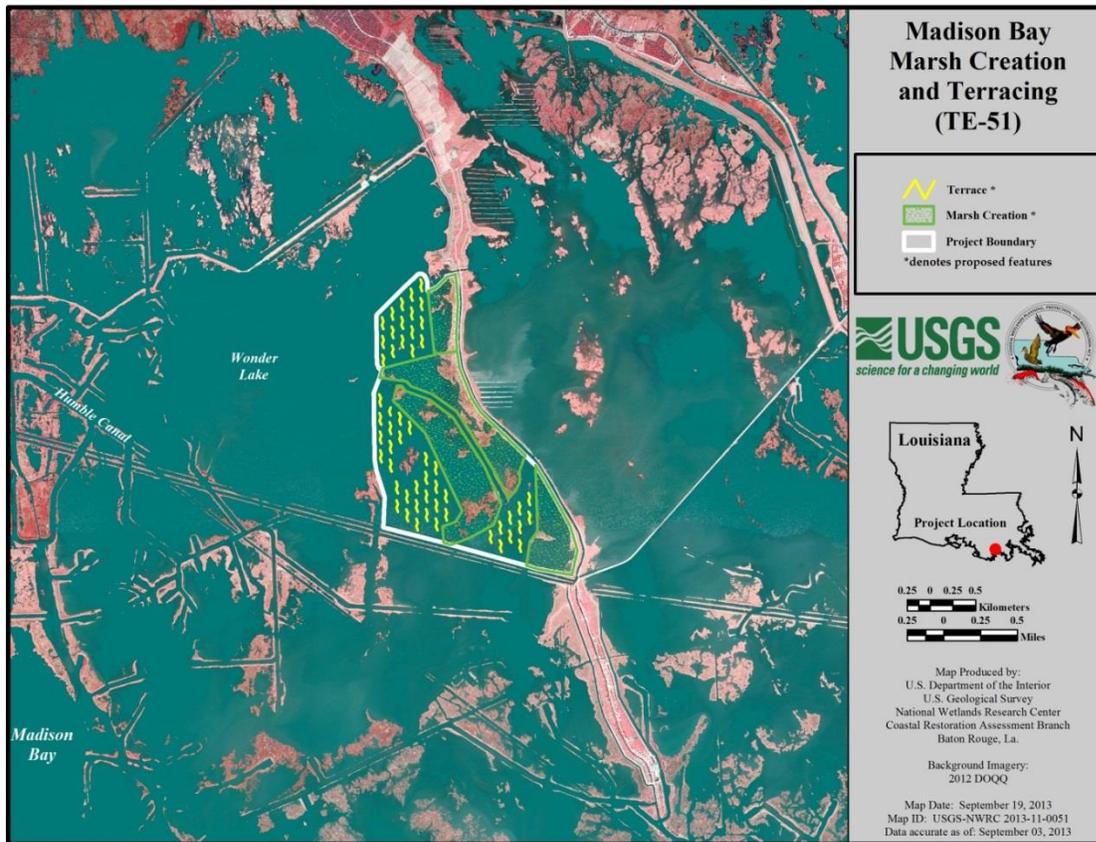
	Phase I	Scope Change
Location	Madison Bay	Wonder Lake
Marsh created and nourished	675 acres marsh 13 acres terrace	430 acres marsh 40 acres terrace
20-year post-construction acres	514 acres will have been gained/retained	364 acres
Borrow	Madison Bay cut at -10ft	Madison Bay cut at -10ft
Total FFC	\$32.5	\$38.8

Phase I activities in the Wonder Lake area included formation of project goals and objectives, pre-design investigations (i.e., bathymetric and topographic surveys and geotechnical investigation of the project area), borrow area identification, data acquisition and geotechnical analyses, development and evaluation of project alternatives at the Preliminary (30%) Design level and completion of Final Design (95%) of the preferred alternative. Other tasks included the development of the landrights, workplan, the preliminary ownership report, application for appropriate permits and regulatory clearances, consultations with the State Historic Preservation Office, development of draft Environmental Assessment, completion of a Phase 1 Environmental Site Assessment to evaluate the potential for hazardous, toxic and radioactive waste concerns, and review of updated costs and benefits by the Engineering and Environmental Workgroups.

III. Description of the Phase II Candidate Project

The proposed area contains “soils better suited for marsh construction [than the original location] due to the smaller peat layer in the subsurface and generally higher soil strengths, especially in the top twenty feet of the profile (GeoEngineers 2011).”

Figure 2: Phase II Project Location



The major feature of the proposed project is creation and nourishment of 470 acres of saline marsh. Due to geotechnical conditions, a two-lift marsh fill method is proposed. Initial (no settlement period) fill elevations range from +2.5 ft to +2.9 ft NAVD which is anticipated to result in marsh elevations that would remain intertidal for the majority of the 20-year project life. Layout of the marsh creation and terraces avoid deepest areas for marsh fill, optimizes protection of a perimeter ridge, and facilitates hydrologic exchange across the ridge. An estimated 47,838 linear feet of containment dike would be constructed in a two-phase (two lift) process for the four defined marsh areas.

The proposed project also calls for the construction of 25,000 linear feet of earthen terraces (42 acres). Due to geotechnical conditions, a two-lift method is proposed. Initial (no settlement period) elevation will be +1.5 ft NAVD, with the second lift constructed to +3.5 ft NAVD, which is anticipated to result in terrace crown elevations above +2.5 ft NAVD for the majority of the 20-year project life.

A. *List of Project Goals and Strategies.*

Goals:

1. Creating and nourishing marsh and associated edge habitat, and promoting conditions conducive to the growth of submerged aquatic vegetation (SAV).
2. The proposed terraces will reduce the wave erosion of created and existing marshes along the fringes of Madison Bay.

Strategy:

1. Construct and maintain an intertidal marsh elevation for the longest period of time within the 20 year project life.
2. Protect the Montegut Flood Protection Levee and St. Jean Charles Ridge from wave energy by reducing the open water fetch of Wonder Lake/Madison Bay.
3. Protect the newly constructed marsh from wave energy by reducing the open water fetch of Wonder Lake/Madison Bay through the use of earthen terraces.

B. *A statement that the Cost Sharing Agreement between the Lead Agency and the Local Sponsor has been executed for Phase I.*

A cooperative agreement was executed between NOAA and CPRA for Phase I activities on May 31, 2007.

C. *Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase II approval.*

NOAA received notification from the Louisiana CPRA in correspondence dated September 20, 2013, that no significant landrights acquisition problems are anticipated and that landrights will be finalized in a reasonable period of time after Phase II approval.

D. *A favorable Preliminary Design Review (30% Design Level). The Preliminary Design shall include completion of surveys, borings, geotechnical investigations, data analysis review, hydrologic data collection and analysis, modeling (if necessary), and development of preliminary designs.*

A 30% design review meeting was held on July 23, 2013. Participants included EPA, the Corps, and USFWS. Responses to design review comments were either clarified, or incorporated into the project final design. NOAA and CPRA (via correspondence dated September 23, 2013) agreed on the project design and to proceed to the 95% design level.

- E. *Final Project Design Review (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporate elements from the Preliminary Design and the Preliminary Design Review. Final Project Design Review (95%) must be successfully completed prior to seeking Technical Committee approval.*

A 95% design meeting was held on October 31, 2013 and resulted in favorable reviews of the project design with minor modifications. NOAA and CPRA agreed (via correspondence dated November 12, 2013) on the project design and to proceed with a Phase II funding request.

- F. *A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act, must be submitted two weeks before the Technical Committee meeting at which Phase II approval is requested.*

NOAA submitted a draft Environmental Assessment for preliminary agency review on November 22, 2013. That review is expected to be completed by February 21, 2014.

- G. *Written summary of the findings of the Ecological Review, if completed.*

In accordance with SOP revision #34 approved by the Task Force on June 3, 2009 which eliminated the requirement for Ecological Reviews (ER), no ER was developed for TE-51.

- H. *Application for and/or issuance of the public notices for permits at least two weeks before the Technical Committee meeting at which Phase II approval is requested.*

NOAA intends to submit a "Joint Use Permit" application to the Corps in December 2013. The supporting documentation for the permit application has been prepared and is ready for submittal upon Phase 2 funding approval.

- I. *A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.*

An HTRW analysis of the project area was performed and documented in a report dated August 28, 2013. The analysis was completed in accordance with Phase I ESA scope and limitations of American Society for Testing and Materials Standard Practice E1527-05. The report concluded, "This assessment has revealed no evidence of recognized environmental conditions at the subject property."

- J. *Section 303(e) approval from the Corps.*

The project is consistent with the requirements of CWPPRA Section 303(e). A request for Section 303(e) approval was submitted to the Corps on September 20, 2013. According to information provided by the Corps, approval is expected in December 2013.

K. Overgrazing determination from the NRCS (if necessary).

An overgrazing determination was issued on September 13, 2013 by the NRCS and indicated that overgrazing would not be a problem in the project area.

L. Revised fully funded cost estimate, reviewed and approved by the Engineering Work Group prior to fully funding by the Economic Work Group, based on the revised Project design and the specific phase II funding request as outlined in below spreadsheet.

The revised fully funded cost estimate of the project is \$38,571,438. The specific Phase II funding request is \$38,077,208 (Phase II Increment I). See the attached "Request for Phase II Approval" for additional detail regarding the funding request.

M. A Wetland Value Assessment reviewed and approved by the Environmental Work Group.

A revised WVA (dated November 20, 2013) was reviewed and approved by the Environmental Work Group.

**MADISON BAY MARSH CREATION AND TERRACING PROJECT
ENVIRONMENTAL ASSESSMENT**

Fed No. TE-51

Terrebonne Parish, Louisiana



U.S. Department of Commerce

National Oceanic and Atmospheric Administration

National Marine Fisheries Service

DRAFT

November 2013

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ACRONYMS

BTNEP	Barataria-Terrebonne National Estuary Program
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CPRA	Louisiana Coastal Protection and Restoration Authority
CWA	Clean Water Act
CWPPRA	Coastal Wetlands Planning, Protection, and Restoration Act
CZMA	Coastal Zone Management Act
DWH	Deepwater Horizon
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FIRM	Flood Insurance Rate Maps
GMFMC	Gulf of Mexico Fisheries Management Council
HTRW	Hazardous, Toxic, and Radioactive Waste
LCWCRTF	Louisiana Coastal Wetlands Conservation and Restoration Task Force
LDWF	Louisiana Department of Wildlife and Fisheries
LDEQ	Louisiana Department of Environmental Quality
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NAVD88	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration, U.S. Department of Commerce
NRHP	National Register of Historic Places
SAV	Submerged aquatic vegetation
SHPO	State Historic Preservation Office
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service, U.S. Department of Interior
WCRA	Wetlands Conservation and Restoration Authority
WVA	Wetland Value Assessment

UNITS OF MEASURE

ft feet

EXECUTIVE SUMMARY

- Project:** Madison Bay Marsh Creation and Terracing (TE-51)
- Sponsor:** National Marine Fisheries Service and Louisiana Coastal Protection and Restoration Authority
- Contact:** Cecelia Linder; 1315 East-West Hwy, Silver Spring MD 20910; ph 301-427-8675
- Project Size:** Over 1,000 acres of shallow open water and marsh, where the net benefit of several hundred acres of new and enhanced marsh is expected.
- Location:** Along the Terrebonne Basin in Terrebonne Parish, Louisiana near Montegut.
- Need:** Land loss from wave erosion, subsidence, salt water intrusion, lack of sediment input, and oil and gas activities have resulted in conversion of marsh to open water, a less valuable fish and wildlife habitat.
- Purpose:** Support the objectives of the Coastal Wetlands Planning, Protection, and Restoration Act by creating marsh, and nourishing existing marsh.
- Proposal:** Create and nourish 470 acres of marsh using nearby bay sediments. Construct approximately 25,000 ft (42 acres) of terraces and marsh to reduce wave erosion of created and existing marsh.

Public Participation:

State resource agencies, federal resource agencies, and local government coordinated throughout project development. The draft Environmental Assessment will be available for public review at the Terrebonne Parish Public Library in Houma, Louisiana, and online (http://www.habitat.noaa.gov/pdf/madison_te_51_draft_environmental_assessment.pdf). We will publish a notice of the draft EA in the Advocate (State newspaper) and the Houma Daily Courier (local newspaper), and copies of the notices will be added to Appendix C. Comments received to date have been included in this EA.

Summary of statement and conclusions:

Long-term benefits to Louisiana coastal resources without substantial long-term adverse environmental impacts are expected of the preferred alternative. Construction-related adverse impacts are considered minor and insubstantial because they are temporary or reversible. Benefits are moderate and sustained. This conclusion is based on: a review of relevant literature; site-specific data; project-specific engineering reports related to biological, physical and cultural resources; and experience gained through more than a decade of coastal restoration in Louisiana. An increase to fisheries habitat is expected to have lasting social and economic benefits for recreational and commercial fishing. Also, the action would increase protection of adjacent marsh in the area to be restored.

Potential adverse impacts: None

Issues to be resolved: None

1 INTRODUCTION

The proposed project (**Madison Bay Marsh Creation and Terracing Project, TE-51**) is authorized under the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) of 1990 (16 United States Code [U.S.C.] §777c, 3951-3956), which stipulates that five federal agencies and the State of Louisiana jointly develop and implement a plan to reduce the loss of coastal wetlands in Louisiana (16 U.S.C. §3952 (b) (2)). The National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (Fisheries Service), Department of Commerce is the federal sponsor responsible for project oversight, including National Environmental Policy Act (NEPA) compliance. The Louisiana Coastal Protection and Restoration Authority (CPRA) is the non-federal local project sponsor. Other federal agencies that make up the CWPPRA Task Force selected this project through a publicly vetted process for engineering and design (Louisiana Coastal Wetlands Conservation and Restoration Task Force [LCWCRTF] 2006).

For NOAA and CPRA to request funds and authorization to construction this project, the CWPPRA standard operating procedures require an Environmental Assessment (EA) at this time. The EA provides information for the decision of whether or not to fund and authorize this project, including the proposed action and alternatives, and to determine whether the proposed re-establishment of marsh features have the potential for significant impacts. This EA discloses information on and analyzes the direct, indirect, and cumulative impacts on the human environment likely to result from the Madison Bay Marsh Creation and Terracing Project proposed action and the alternatives. It was prepared in compliance with the NEPA of 1969 and Council on Environmental Quality (CEQ) regulations for implementation of NEPA (Title 40 *Code of Federal Regulations* [CFR] Parts 1500 through 1508 [CEQ 1992]). Significant sources used to consider environmental impacts are:

- Environmental Impact Statement (EIS) for the CWPPRA program (LCWCRTF 1993).
- Louisiana Coastal Area Ecosystem Restoration Study (LCA) EIS (U.S. Army Corps of Engineers (USACE) 2004).
- Wetland Value Assessment (WVA, NOAA Fisheries Service 2006 and its revision NOAA Fisheries Service 2012)
- Engineering design analyses (Byland, Kar, and Foret 2013)
- Coast 2050 Plan (LCWCRTF and Wetlands Conservation and Restoration Authority (WCRA) 1998)
- Barataria-Terrebonne National Estuary Program (BTNEP) Ecological Management Action Plans (BTNEP 2013)
- and other restoration efforts in coastal Louisiana (LCWCRTF 2006 and OCPR 2012)

The CWPPRA EIS and LCA EIS provide general information on the need for action, the affected environment, and the environmental consequences.

The CWPPRA WVA evaluates wetland impacts through a quantitative, habitat-based assessment model developed to estimate anticipated environmental benefits. The WVA compares conditions over a 20-year period to determine the net difference in “future without project” and “future with project” scenarios. Initial and future conditions are set based on historical land loss, aerial imagery, and on-site visits to the proposed project area. Expected benefits are based on a combination of experience with previous projects, construction plans, models, and biological and engineering experience of the assessment team.

The engineering design analyses evaluate the cost efficiency and feasibility of components to achieve project goals. The design process includes surveying the proposed project area, testing soils for type and strength, determining options for access and staging of work, and proposed feature longevity. The

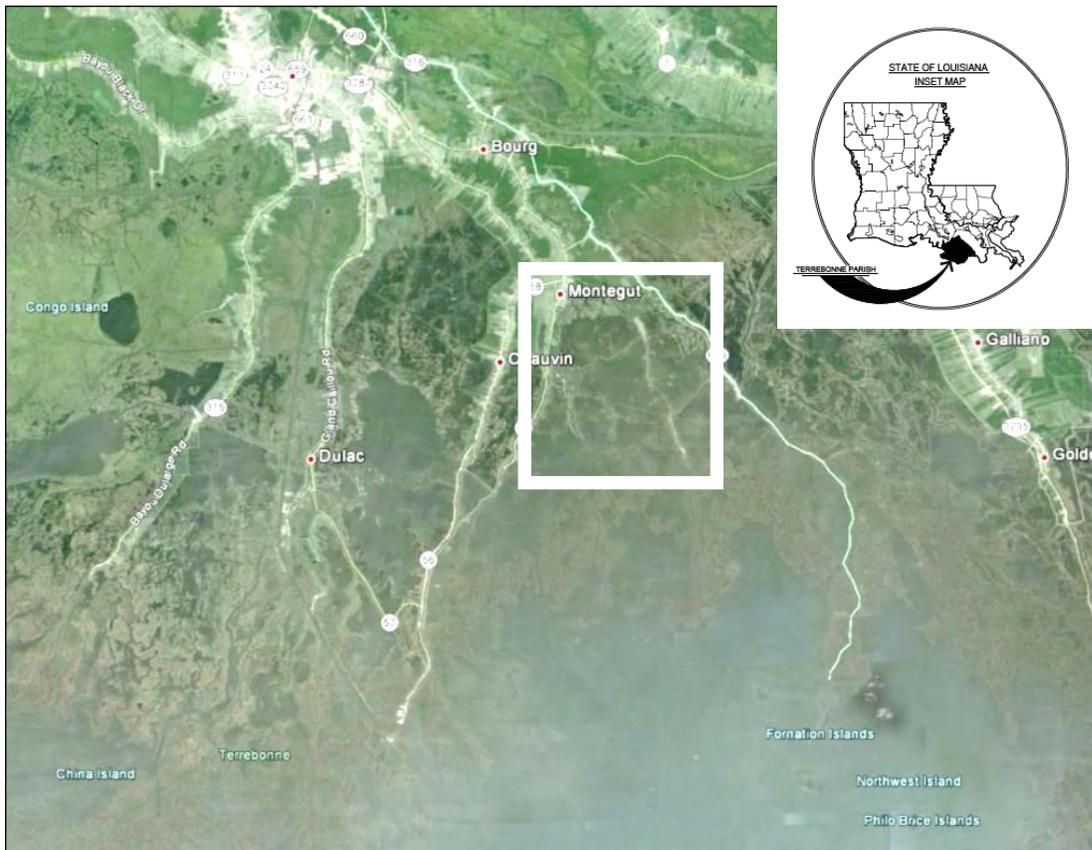
CWPPRA program operating principles stipulate that, during engineering and design, reports are required at 30% and 95% completion. The reports are circulated, and meetings are held at which the CWPPRA participating agencies, landowners, and other interested parties are presented with the design process to date, and provided opportunity to comment at that time. A 30% design meeting was held in Baton Rouge, LA July 23, 2013, and comments are being incorporated. A 95% design meeting was held on October 31, 2013.

1.1 Project Location

The proposed project is located in Terrebonne Parish, Louisiana near Montegut approximately 16 miles southeast of the Houma, Louisiana (Figure 1). The proposed project area encompasses over a thousand acres of saline marsh and open water (Sasser and others 2008). The borrow area and pipeline corridor proposed for this project are located along and within the project boundary (Figure 2).

The proposed project area is in Terrebonne Basin of the Terrebonne Marshes mapping unit in Region 3 of the Coast 2050 Restoration Plan (LCWCRTF and WCRA 1998, 1999).

FIGURE 1. GENERAL PROJECT VICINITY MAP



Source: Project files

1.2 CWPPRA Process

The CWPPRA project selection process takes several months to complete, involves extensive public involvement and review by federal and state agencies, and narrows the field of potential projects down to approximately four a year that are approved to enter the formal engineering and design process. As a result of this process, the field of available alternatives under consideration for a project generally

includes those alternatives that would meet project goals developed during the engineering and design process and that take place within the general proposed project area.

During the engineering and design process, a CWPPRA project is subjected to layers of public, academic, and interagency review to ensure that effective projects move forward for design and ultimate construction. The project selection process begins around February of each year when Regional Planning Teams across the coast convene to solicit project nominations from the public, State, and federal agencies, as well as members of industry and academia. The meetings are publicized via public notices, and all members of the public are invited to attend. Every nominated project contains conceptual project features, approximate construction costs, and anticipated benefits to wetland resources. The nominated projects are screened and pared down to 20 nominees at a public voting meeting. Each federal agency represented in the CWPPRA program, the State, and each coastal parish participates in voting.

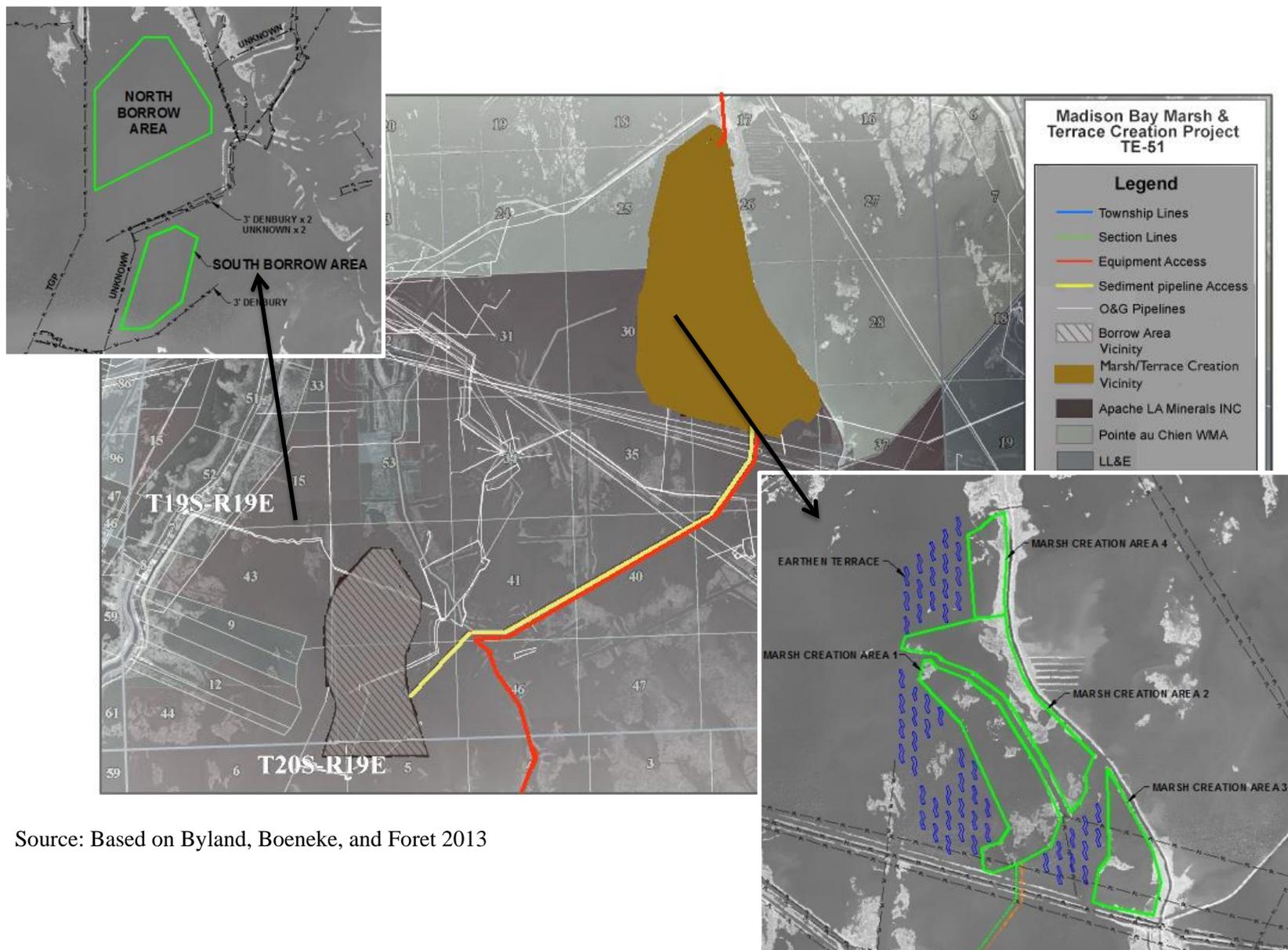
Interagency and academic working groups then evaluate the conceptual project features for cost and project-associated wetland benefits for feasibility and appropriateness to addressing the local land loss. The 20 nominee projects are then voted on by the program's federal agencies and the State to obtain a list of the 10 top-ranking projects to continue through the process. These candidate projects undergo several months of further design and interagency evaluation to determine whether the proposed project features are feasible, the anticipated benefits are likely, and the project costs are within the funding constraints of the program. Certain project features are typically discounted during this preliminary design phase based on concerns about inferior performance, adverse impacts, technical infeasibility, or unreasonable costs. In the first months of each calendar year, the candidate projects are publicly presented and voted on by the program agencies to be funded for Phase 1 analysis, which includes the activities necessary to complete engineering and design, permitting, land rights, and environmental compliance before the project moves to construction.

1.3 Environmental Setting

The proposed project is part of the Mississippi River Delta system that consists of a main river channel with radiating distributaries. In the project vicinity, these natural waterways are called bayous. The bayous historically provide freshwater, sediments, and nutrients that flow into the surrounding marshes from river and rainwaters that drained to the bays and lakes, such as Madison Bay. Generally, erosion and deterioration of the marshes in the greater Terrebonne Basin are the result of increased eustatic sea-level rise, diminished sediment supply, frequent storm events, construction of canals and navigation channels, and high rates of subsidence (Boesch and others 1994). The low marshes in the project area are frequently inundated with several feet of gulf water during hurricanes and tropical storms.

The area is predominantly marsh habitat, which in the 1930s included intermediate, less saline, marsh. Since then the intermediate marsh converted to brackish marsh. While some brackish marsh remains, the area today is nearly all saline marsh and open water (Figure 3). The Terrebonne Marshes Mapping Unit lost 24,270 acres of wetlands between 1932 and 1990 (LCWCRTF and WCRA 1999). It is expected that 19,600 acres of the 1990 marsh will convert to open water by 2050 (LCWCRTF and WCRA 1999), and approximately 30% of Terrebonne Parish will be below sea level by 2050 (Figure 4 and Terrebonne Parish 2009).

FIGURE 2. SPECIFIC AREA OF MARSH AND TERRACE CREATION.



Source: Based on Byland, Boeneke, and Foret 2013

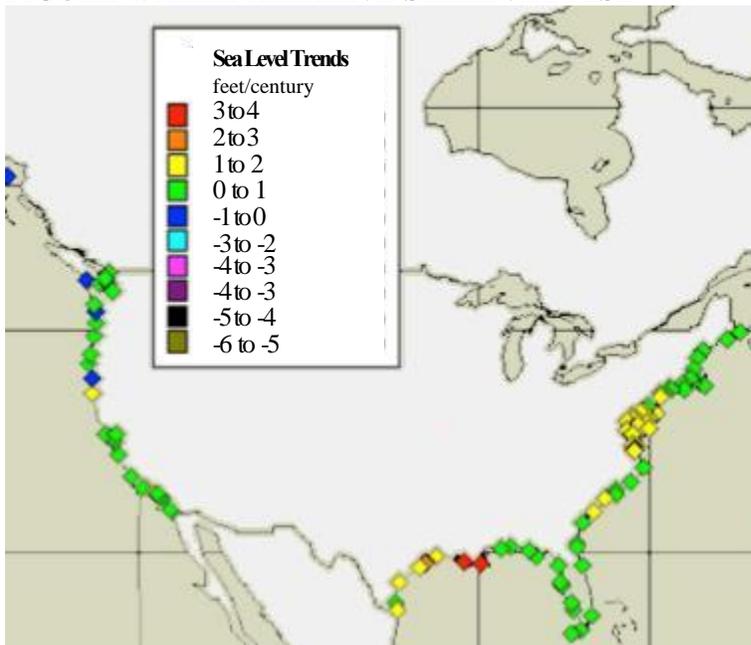
Subsidence (2.1 to 3.5 ft/century), wind and wave erosion, and altered hydrology are historic causes of land loss (LCWCRTF and WCRA 1999) that continue to convert land to open water in these units. The reason for the significant land loss at the Madison Bay area, specifically, was determined to be 2/3 subsidence and 1/3 erosion as determined by a subsurface study (Morton and others 2002).

The proposed project area is within the coastal area impacted by the Deepwater Horizon (DWH) oil spill of 2010 - the largest marine oil discharge ever to occur and possibly one the largest environmental disasters to occur in the United States (Mendelssohn and others 2012). The nearest oiled shoreline is 6.8 miles south of the proposed project area boundary (Appendix B). None of the proposed project area was directly oiled by the DWH spill.

FIGURE 3. AREA LAND LOSS FROM 1971 TO 2010



FIGURE 4. AREA RELATIVE SEALEVEL RISE



Source: <http://tidesandcurrents.noaa.gov/sltrends/slrmap.html>

1.4 Purpose and Need

1.4.1 Purpose

The purpose of this proposed project is to support the coastal restoration objectives of CWPPRA by re-establishing marsh in the project area using local sediment. After construction, native saline marsh would be planted to help stabilize the rebuilt marsh habitat. Specific objectives listed in the 30% design report are:

- Construct and maintain an intertidal marsh elevation for the longest period of time within the 20-year project life.
- Protect the Montegut Flood Protection Levee and St. Jean Charles Ridge from wave energy by reducing the fetch over Wonder Lake/Madison Bay.
- Protect the newly constructed marsh from wave energy by reducing the fetch of Wonder Lake/Madison Bay.

1.4.2 Need for Action

The need for the proposed action is directly related to the rapidly degrading environmental conditions at the proposed project site and the necessity to re-establish the structural integrity and value of the marsh as habitat. Priority issues identified by the public that affect the Terrebonne Basin include habitat loss, eutrophication, and living resources (Rabalais and others 1995). A healthy coastal marsh: provides rearing habitat for shellfish and finfish; furnishes habitat for waterfowl, wading birds, small mammals, and numerous amphibians and reptiles; protects interior lands from storm surges; helps maintain water quality; and provides other services. Louisiana's coastal wetlands are essential to sustain renewable fishery resources integral to the local, state, and national economies. Of the 1.7 billion pounds of fisheries landings reported for the Gulf Coast in 2011, more than 73% were caught in Louisiana (NOAA 2012). Marshes provide nursery, foraging, and spawning habitat for numerous marine and estuarine species of commercial and recreational importance. Maintaining marshes also helps protect the habitat, infrastructure, and community inland by reducing storm surge.

2 PROPOSED ACTION AND ALTERNATIVES

2.1 Alternatives Considered but Eliminated

Through the CWPPRA process, it was determined that re-establishment of the marsh was the appropriate approach to restoration. Alternatives available to achieve this goal focus on protecting existing marsh, adding sediment for elevation and nutrient enrichment of existing marsh, and establishing new marsh using borrow sediments of the surrounding bay area. When a proposed project is approved to proceed to formal engineering and design (Phase 1) by the CWPPRA Task Force, evaluation of project performance often includes the use of modeling to determine what project features are likely to be the most cost effective. Project features are refined based on results of field investigations and quantitative modeling, where applicable. Comprehensive engineering and design efforts focus on project alternatives that are considered technically feasible and cost effective while still meeting the project purpose and need. Project features are typically vetted to landowners and the public before the project moves into Phase 1, so that untenable features are eliminated from the evaluation process prior to investment of significant resources in data collection and detailed design.

Using borrow material from a nearby waterway was considered and rejected. The bayous within pumping distance have a limited availability of sediments relative to the goals and sediment needs of the project, and those available are dedicated to other projects, such as the *Morganza to the Gulf* earthen levee adjacent to the bayou intended to protect people and property.

Other methods of restoration were considered, such as a freshwater diversion, or ridge/levee construction. A freshwater diversion, the Mississippi River Reintroduction into Bayou Lafourche, is being designed by

the State of Louisiana north of the project area. Freshwater diversions are known to be a costly and slowly implemented endeavor. Considering the extended time required, the extra cost to mine sediments, and additional time to establish a freshwater diversion project, the areas needs would not be met efficiently. Alternatives that would address the wind/wave erosion include re-establishing the lake boundary or creating a ridge/levee. The lake boundary is far too eroded for a re-establishment to be structurally feasible. Building a ridge/levee was rejected, as there was no such natural feature in the area. Neither option would address subsidence.

2.2 Alternatives Considered in Detail

Scientific studies and monitoring have been conducted on marsh creation/ terracing projects and evidence exists that open-water areas can be filled to create marsh with this method. The successes of marsh creation/ terracing projects are apparent, as the method has been adopted by numerous restoration actions being constructed by the state, CWPPRA, Ducks Unlimited/NAWCA, Coastal Impact Assistance Program, NOAA Community-based Restoration Program, and as compensatory mitigation. Therefore, marsh creation and terracing options were pursued to meet the goals of the project.

Build alternatives were designed based on results of geotechnical reports, and topographic, bathymetric, and magnetometer surveys. All build alternatives consider using bay borrow sources and have similar elevations of marsh and terrace, but differ in location (Table 1). Locations differ by benthic and fisheries resources, sediment type, and existing infrastructure (pipelines).

TABLE 1. FEATURE DIFFERENCES OF ALTERNATIVES CONSIDERED

	No Action Alternative	Build Alternative 1	Build Alternative 2 (Preferred)
Marsh created and nourished	None	675 acres marsh, 13 acres terrace, 49 acres initially impacted*	470 acres marsh (4 areas), 42 acres terrace, 32 acres initially impacted**
20-year post-construction acres	-115 in build alternative 1 area * -41 in build alternative 2 area **	+245 acres would be gained/remained*	+199 acres would be gained**
Borrow	None	Two areas cut at -15 ft**	Two areas cut at -15ft**
Location	Madison Bay	Madison Bay	Wonder Lake
Dike	None	42,240 linear feet***	47,838 linear feet**

* Byland, Kar, and Foret 2013; NOAA Fisheries Service 2006 ** Byland, Boeneke, and Foret 2013; NOAA Fisheries Service 2013 *** estimated from images in Byland, Kar, and Foret 2013

2.2.1 The No-Action Alternative

NEPA refers to the no-action alternative as the continuation of baseline conditions without implementation of the proposed action. Evaluation of the no-action alternative is required by CEQ regulations.

2.2.2 Build Alternative 1

This alternative was is to have marsh creation and terraces north of Madison Bay (Figures 1). Borrow material from the center of Madison Bay would be used as described below.

Terrace The terrace construction would be built to approximately 25,000 linear ft in length, with a crown width averaging 10 ft, and side slopes of 1:5. Initial target elevation is +1.5 ft NAVD88 with a second lift resulting in a +3.5 ft height providing approximately 42 acres. This height is estimated to be required to retain an intertidal height typical of healthy marshes for 20 years, +2.5 ft. Placement would be in water depths averaging 3.0 ft or less (Figure 5). This alternative considers aligning terraces counter to the wind direction to provide wave reduction to existing marshes. Marsh buggy excavators would be used to build terraces.

Marsh The marsh creation and nourishment assumes a 2 ft average water depth or less. Borrow sediments would be hydraulically dredged and transported via pipeline to the fill/nourishment locations. Initial target elevation is +1.5 ft NAVD88 with a second lift resulting in a +3.5 ft height. Engineers estimate this height would be required for the created marsh to remain intertidal for 20 years. The intertidal elevations are typical of healthy marshes. Containment dikes (Figure 6) would be necessary along the perimeter to contain sediments and allow settlement, except where existing marsh or levee would contain sediments. Roughly 42,240 linear ft of containment dike would be necessary for this alternative. The dikes would be gapped, if needed, to provide tidal exchange and drainage after construction and consolidation of the marsh. Marsh buggy excavators would be used to build containment dikes. A hydraulic dredge at the borrow area and a conveyance pipeline from the dredge to the marsh fill area would be used for marsh creation.

Plantings After initial settlement of marsh creation sediments, half the created marsh would be planted with 4-inch live saltmeadow cordgrass and plugs of smooth cordgrass (*Spartina alterniflora* cv. Vermilion). Terraces would be planted with 4 rows of smooth cordgrass plugs on 7-ft spacing and two rows of saltmeadow cordgrass on the crown. Areas not planted are expected to vegetate naturally.

Borrow Approximately 5 miles from the marsh creation area, is a 715-acre potential borrow area. Pipelines and magnetic anomalies were found in preliminary surveys. To avoid these for both environmental and human safety, the borrow area was divided into north and south borrow areas. A 300 ft offset from the pipelines and -15 ft depth-of-cut incorporated. The estimated available sediment for marsh fill borrow within these areas is 6,762,733 cubic yards. For equipment to access the shallow area for project construction, some sediment may be removed from interior bay areas. Materials excavated would be used beneficially for terraces or containment dike construction. Additional materials would be needed to construct the perimeter containment dikes. Any materials removed from the marsh creation area would subsequently be filled with the marsh fill borrow materials.

FIGURE 5. TERRACE TYPICAL SECTION

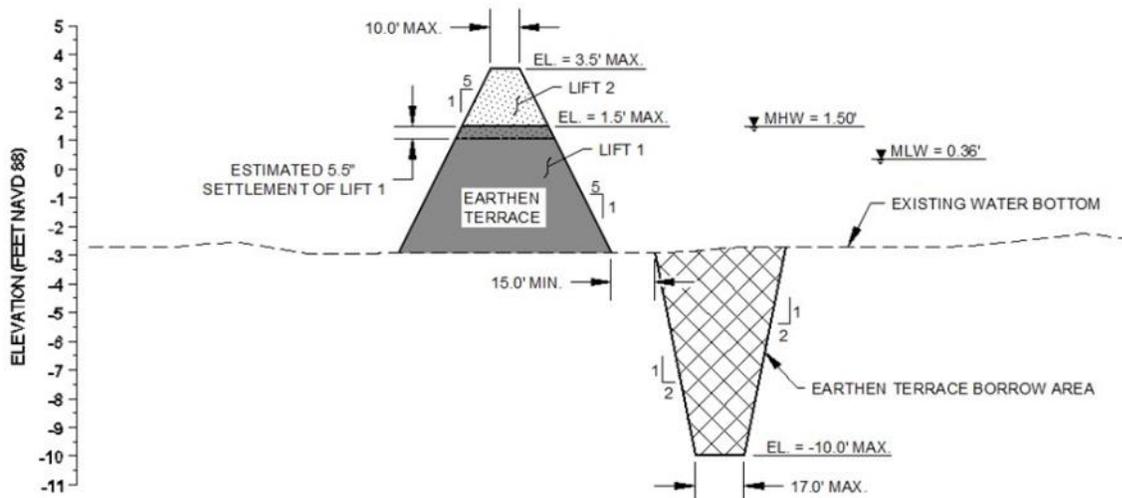
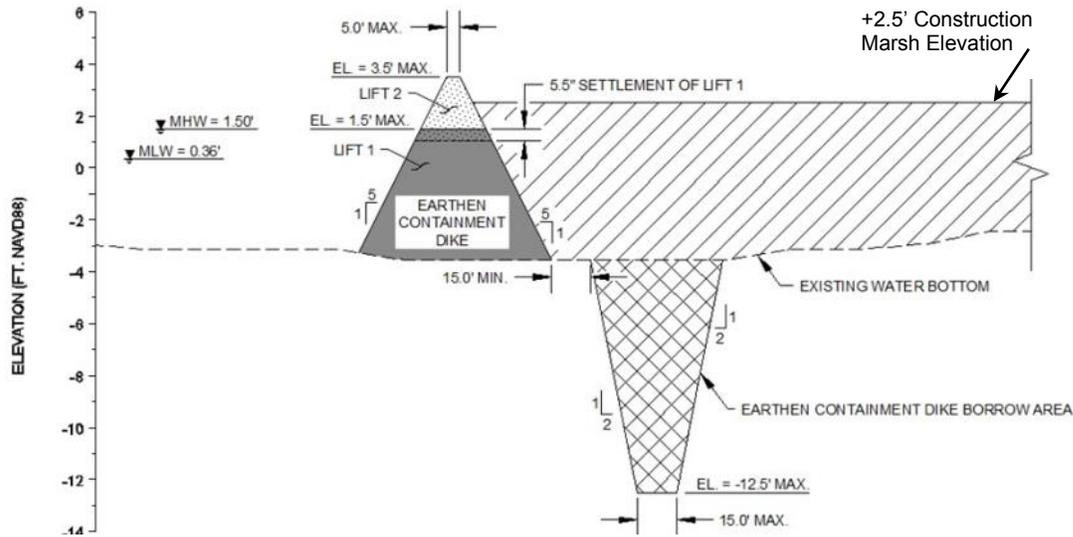


FIGURE 6. EARTHEN CONTAINMENT DIKE AND MARSH CREATION DESIGN



2.2.3 Preferred-Build Alternative 2

Terrace and Marsh Creation Areas to the east of the build alternative 1 were soil tested to identify alternative locations. The build alternative 2 contained “soils better suited for marsh construction [than build alternative 1] due to the smaller peat layer in the subsurface and generally higher soil strengths, especially in the top twenty feet of the profile (GeoEngineers 2011).”

Layout of the marsh creation and terraces avoid deepest areas for marsh fill, optimizes protection of a perimeter ridge, and facilitates hydrologic exchange across the ridge. An estimated 47,838 linear feet of containment dike would be constructed in a phased (two lifts) process for four defined marsh areas (Figure 2).

Plantings After initial settlement of marsh creation sediments, the created marsh and terraces would be planted with approximately 33,333 plugs of smooth cordgrass (*Spartina alterniflora* cv. Vermilion) and 16,668 live grasses (*Paspalum* sp.). Areas not planted are expected to vegetate naturally.

Borrow The borrow area is the same as build alternative 1.

3 AFFECTED ENVIRONMENT AND CONSEQUENCES

Effects of alternatives were designated as having *no impact*, *no significant impact (minor or moderate)*, or *significant impact*. Consideration was given to both length of time and severity of the impact. *Minor impacts* are those that may be measurable but not result in adverse effects to humans or their resources; these are short-term and reversible. *Moderate* impacts may have longer-term adverse effects that have a measurable change to the identified environment, and thus warrant consideration of revision of the project component causing the adverse impact. *Significant* impacts are harmful to humans or their environment and long lasting that warrant preparation of a full EIS. The qualitative assessment is based on reference material and professional judgment. A quantitative assessment is included when sufficient data are available to do so. Table 2 presents a summary of environmental impacts associated with the no-action and build alternatives. Table 3 presents avoidance and minimization measures of the preferred alternative.

Given the magnitude and duration of the 2010 Deepwater Horizon oil spill to gulf waters, the disturbance and recovery of resources from the event were considered in analysis. The proposed project area was not directly impacted/oiled in the event (Appendix A) and indirect impacts may exist that are not yet identified. Information about the impacts to resources in surrounding areas is provided, if it was available and applicable.

TABLE 2. SUMMARY OF ENVIRONMENTAL IMPACTS OF ALTERNATIVES

Resource	No Action	Build Alternative 1	Build Alternative 2 (Preferred)
Geology, Soils & Topography	Long-term, direct and indirect, moderate adverse from loss of surface soils.	Long-term, indirect, moderate beneficial from elevation Short-term, direct, minor from burial, and moderate from suspension	Same as alternative 1
Climate & Air Quality	None	Long-term, indirect, moderate beneficial from carbon storage Short-term, direct, minor adverse from emissions	Same as alternative 1
Water Resources	Long-term, indirect, moderate adverse from turbidity and reduced nutrient uptake	Long-term, moderate, indirect beneficial from reduced turbidity and increased nutrient uptake	Same as alternative 1
Vegetation Resources	Long-term, direct and indirect, moderate adverse from loss of surface soils.	Long-term, moderate, direct and indirect beneficial from created, nourished, and protected marshes Short-term, minor, direct adverse from construction disturbance	Same as alternative 1
Aquatic & Benthic Habitats	Long-term, moderate, indirect adverse as current conditions continue	Long-term, moderate, indirect beneficial from increased clarity and detritus Short-term, minor, direct adverse from construction disturbance Long-term, moderate, direct adverse from construction disturbance	Same as alternative 1
Essential Fish Habitat	Long-term, moderate, indirect adverse as variety and quality decline	Long-term, moderate, direct and indirect beneficial from increased marsh Short-term, unavoidable, direct and indirect adverse during construction	Less adverse impact than with alternative 1 or no action

Resource	No Action	Build Alternative 1	Build Alternative 2 (Preferred)
Marine Fisheries	Long-term, moderate, indirect adverse as variety and quality decline	Long-term, moderate, direct and indirect beneficial as habitat quality is increased Short-term, minor, direct and indirect adverse from construction disturbance	Same as alternative 1
Marine Mammals	Long-term, moderate, indirect adverse from prey habitat declines	Long-term, moderate, indirect beneficial as prey species habitat increases Short-term, minor, indirect adverse during construction	Same as alternative 1
Migratory Birds	Long-term, moderate, indirect adverse from habitat and prey habitat declines	Long-term, moderate, direct and indirect beneficial from increased longevity and variety of foraging habitat Short-term, minor, indirect adverse from disrupted foraging	Same as alternative 1
Wildlife	Long-term, moderate, indirect adverse from habitat decline	Long-term, moderate, direct beneficial from habitat creation Short-term, minor, localized, direct adverse from displacement during construction	Same as alternative 1
Threatened & Endangered Species	Long-term, moderate, indirect adverse from prey habitat decline	Long-term, moderate, indirect beneficial from prey habitat creation	Same as alternative 1
Historic, Prehistoric & Native American	None	None	None
Socio-economics	Long-term, minor, indirect adverse from land loss	Long-term, moderate, indirect beneficial from fisheries habitat longevity Shore-term, minor, indirect as construction utilize local businesses Short-term, minor, indirect adverse from disruption of fishing during construction	Same as alternative 1
Land Use & Infrastructure	Long-term, minor, indirect from subsidence and erosion increasing risks to infrastructure	Long-term, moderate, indirect beneficial from fisheries habitat longevity Short-term, minor, indirect adverse from disruption of fishing	Longer-term benefits than alternative 1 or no action
Hazardous, Toxic, & Radioactive Waste	None	None	None
Noise	None	Short-term, minor, direct adverse from construction equipment	Same as alternative 1

TABLE 3. AVOIDANCE/MINIMIZATION MEASURES SUMMARY OF THE PREFERRED ALTERNATIVE

Resource	Potential Avoidance and Minimization Measures
Geology, Soil & Topography	None
Climate & Air Quality	Comply with emissions standards
Water	Retention to maximize settling of turbidity-causing flocculants
Vegetation	<ul style="list-style-type: none"> • Stay within designated staging and transport areas • Identify any rare plant species at risk and coordinate with Louisiana Department of Wildlife and Fisheries (LDWF)
Aquatic & Benthic Habitats	Retention dikes, sediment curtains, and best practices to reduce impacts to habitat quality
Essential Fish Habitat & Fisheries	None
Marine Mammals	Cease work until manatee is over 500 ft away from workboats
Migratory Birds	If nesting migratory bird colonies were observed... <ul style="list-style-type: none"> • Restrict activities within 1,000 ft to the fall/winter non-nesting period • Develop an abatement plan with U.S. Fish and Wildlife Service (USFWS).
Wildlife	None
Threatened & Endangered Species	None
Historic, Prehistoric & Native American	None
Socioeconomics	None
Land Use & Infrastructure	None
Hazardous, Toxic & Radioactive Waste	Stay within design designated areas to avoid identified hazards
Noise	None

3.1 Physical Environment

3.1.1 Geology, Soils, and Topography

The soils underlying the proposed project area consist of tidally influenced Clovelly Muck and Lafitte Muck (Soil Survey Staff 2013). Clovelly soils are “very poorly drained” organic soils that are very slowly permeable or impermeable, slightly saline, with a fluid, clay substratum (U.S. Department of Agriculture 2000).” Lafitte soils are “very poorly drained” organic soils that are slightly saline (U.S. Department of Agriculture 2000).” A soil boring taken in 2011 consisted of “a thin layer (about 2 feet) of peat, followed by very soft to soft organic clay with intermittent layers of inorganic clay” to a depth of 40 feet (GeoEngineers 2011). Ardaman and Associates, Inc. performed nine subsurface soil borings of the marsh creation and terrace area in the fall of 2012. Water depths averaged 2.15 ft at these soil-boring locations (Byland, Kar, and Foret 2013).

The approximately 715 acre borrow area, located approximately 4.5 miles from the middle of the marsh fill area (Figure 2), consists of soft clay with traces of organic soil (Byland, Kar, and Foret 2013). Profession Service Industries performed three subsurface samples to a depth of 25 ft within the borrow area. The soil borings and analyses were completed in 2009 and 2010. Water depths were between 1.3 and 3 ft at the boring locations (Byland, Kar, and Foret 2013).

Impacts of No Action Under the no-action alternative, material from the borrow areas is likely to be used for other restoration projects in the area as sediment sources have long been recognized as a limited

resource (Galliano and van Beek 1973). With no action, existing marsh would continue to erode in storm conditions resulting in an estimated loss of 115 acres in the build alternative 1 area, and 41 acres in the build alternative 2 area (Table 1). Without terracing and marsh creation, wave erosion from wind and tide flushes the area, moving sediments around, and undercutting existing vegetation. This is expected to continue until the marsh vegetation has all died and the area is all shallow open water. The loss of marsh coupled with the area's high rate of subsidence would leave little protection for the levee. Adjacent marshes converted to shallow open water and are exposed mud flats at low tide. Geomorphology in the project area is characteristic of a highly eroding, sediment-deficient system with marsh areas increasing in salinity and converting to open water.

Impacts of Build Alternative 1 Long-term, moderate, indirect benefits to this resource would result as vegetation colonizes the recreated emergent areas. The created habitat would reduce wave energy along the marsh and allow establishment of vegetation on the terrace and protected marshes, clarify the remaining water, and reduce the wind-induced marsh loss. The proposed elevation increase would reduce vegetation stress caused by subsidence, and placed sediments would increase nutrient availability to plants. An increase in plant productivity and subsequent increases in organic material in the plant soils would be expected.

Short-term, minor, direct adverse effects would result from the burial of current marsh habitat, because marsh exists in the area. This impact is expected to be temporary, as long-term direct benefits of recreating more of this habitat is the project goal.

Retention dikes would temporarily reduce natural water exchange with the marsh. After placed sediment consolidates, gaps may be placed in strategic places along the dike to return tidal influence to the marsh if natural consolidation and erosion of the dikes does not occur. The dredged material used for the terraces and dikes would consist of naturally occurring material to the area. Native vegetative plantings would be used to stabilize soil, reduce resuspension of recently deposited sediment, and encourage sedimentation and colonization.

Short-term, moderate, direct adverse effects would result in the direct suspension of sediments and disturbance to natural sediment within the borrow area. To minimize ecological impacts, depths of cut are limited. An excavation of -15 ft NAVD88 has been planned (Byland, Boeneke, and Foret 2013). Water depth would increase in the bay to a depth up to 15 ft in some places, but that would be temporary and depths of 12 ft exist in areas of the bay currently, so there would be minimal impact. Over the long term, dredged materials removed from the borrow area would be expected to rearrange by natural processes, and pre-dredging bathymetric contours would return to the dredged areas as they have before (Lear and others 2011).

Impacts of Preferred-Build Alternative 2 The beneficial impacts are similar to the build alternative 1. Short-term, moderate, direct adverse effects within the borrow area would be the same. Short-term, minor, direct adverse effects would differ slightly from build alternative 1, with the result being equivalent to that of the build alternative 1. For instance, 17 acres less marsh would be initially impacted, but approximately 10% more containment dike would be needed than for build alternative 1.

3.1.2 Climate and Air Quality

The subtropical climate of coastal Louisiana is characterized by long, hot summers and short, mild winters with high humidity year round. Over the past 40 years, air temperature ranged from 14 to 102 °F; average winter and summer temperatures are 55.3 and 82.4 °F, respectively. In a typical year, more than 60 inches of rain falls, mostly in the spring and summer. In the fall and winter, winds tend to be from the north-northeast; in spring and summer, winds are generally from the south-southeast.

Hurricanes and tropical storms typically occur over the study area between June and November. On average, since 1871, a tropical storm or hurricane is expected somewhere within the state of Louisiana every 0.7 years; hurricanes make landfall about every 2.8 years (Roth 1998). Historic data from the National Hurricane Center dataset on tropical cyclones (including tropical depressions, tropical storms, and hurricanes) along the Louisiana coast from 1899 to 2007 indicates a total of 63 storms, of which 49 were Category 3 or less. Coastal wetlands provide storm surge protection that was estimated at a value of \$4,320/acre annually in 2004 dollars (Costanza and others 2008, as cited in Engle 2011).

Louisiana air quality is good, having “attainment” status according to the National Ambient Air Quality Standards in areas of the proposed project area (Appendix C). Ozone, carbon monoxide, lead, nitrogen dioxide, and particulate pollution are monitored with sulfur dioxide designations expected this year (Louisiana Department of Environmental Quality (LDEQ) 2013a). In Terrebonne Parish, offshore breezes mix and freshen the air and frequent precipitation prevents accumulation of particulates. The American Lung Association (2012) reports air quality with a passing grade for particulates; other sources are not reported by the Environmental Protection Agency for the Parish. Sources of air emissions in the proposed project area are mainly associated with the oil and gas industry, commercial vessel traffic, and recreational fishing. Emission amounts vary depending on the amount of activity.

Impacts of No Action The no-action alternative would not result in any significant change to existing air quality in the area. Negligible adverse impacts to climate change would result from the loss of an estimated 115 acres of wetlands in the next 20 years. The function of wetlands as a potential carbon sink and storm surge protection would be reduced.

Impacts of Build Alternatives Neither the no-action alternative nor any of the build alternatives would substantially affect the climate or weather. However, there is some suggestion that increases in marsh acreage can contribute to the overall carbon sink and mitigate the effects of atmospheric carbon on global warming, which may indirectly reduce the intensity of hurricanes in the Gulf of Mexico. Potential long-term, indirect, moderate benefits would result from increases in quality and productivity of estuarine marsh that are a significant carbon sink and protection from storm surge function (Engel 2011).

Short-term, minor, direct adverse impacts to air quality from construction would be associated with emissions from diesel engines that would power the dredging machinery and material placement operations. Differences between the emissions of the build alternatives are unquantifiable; while build alternative 2 has more dike and terrace construction, build alternative 1 has more dredging acres and poorer soils which require more machinery handling time. Emissions would occur over a period of a few months, with most emissions occurring at the dredge and creation sites. The emissions would consist predominantly of nitrogen oxides, with smaller amounts of carbon monoxide, sulfur dioxide, particulate matter, and volatile organic compounds.

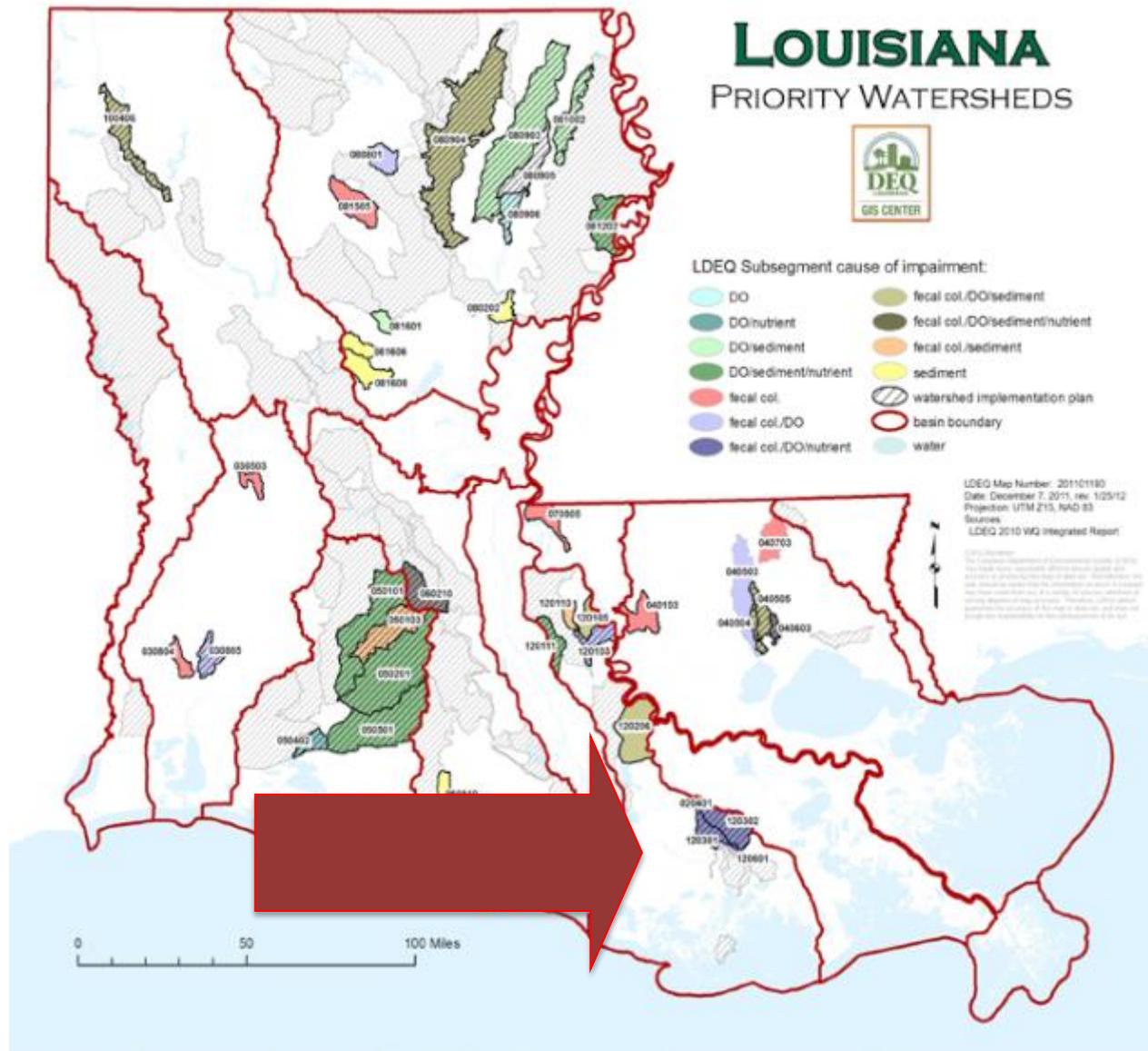
Prevailing winds would dissipate airborne pollutants and limit them to the proposed project’s construction phase. In addition, newly placed, unconsolidated dredged material is subject to drying and blowing during high wind events, adding particulates to the air. Revegetation would hold sediments in place after a time. The impact to human health would be negligible because the proposed project area is remote from any residential area. In the long-term, air quality in the area is expected to be unchanged.

3.1.3 Water Resources

The U.S. Environmental Protection Agency (EPA) has authority through Section 1424(e) of the Safe Drinking Water Act of 1974 to review federally financed projects to determine their potential for contaminating sole source aquifers. There is not a sole source aquifer or underground water source/aquifer for the proposed project area (Appendix C).

Low dissolved oxygen and high turbidity is common of the project area (Figure 7). The Terrebonne Basin generally has low water quality because of organic (nutrient) loading (Rabalais 1995). This nutrient loading can lead to decreased oxygen in the water but is most likely in stagnant or deep waters that surround, but are not within, the proposed project area. Because water quality data was lacking, Rabalais and others (1995) reviewed wetland soils for evidence of historic water quality in the Terrebonne Basin. They found evidence of eutrophication (high chlorophyll a) since the 1970s, nonpoint runoff as a significant source of nutrients, and agricultural fertilizers as more influential to water nutrients than population changes.

FIGURE 7. LOUISIANA WATER QUALITY PRIORITIES



The area is located in the LDEQ water quality subsegment 120704. The project area is “fully supporting the designated use” of swimming, and boating (LDEQ 2013b). The core indicators used to support the determination for each use are based on the following standards:

- Primary contact (swimming): fecal coliform, temperature, and metals and toxic substances
- Secondary contact (boating): fecal coliform, and metals and toxic substances

Waters of this subsegment are “not fully supporting the designated use” of fishing and oyster propagation. Core indicators used to support this determination are based on the following standards:

- Fish and wildlife propagation (fishing): ambient and continuous dissolved oxygen, temperature, pH, chloride, sulfate, total dissolved solids, turbidity, and metals and toxic substances.
- Oyster propagation: fecal coliform

The suspected causes of impairment are “accidental release/spill” for which “corrective actions are in place,” fecal coliform from “sewage discharges in unsewered areas,” and “marine/boating sanitary on-vessel discharges.” Total Maximum Daily Load priority is high.

The fish-and-wildlife-propagation use category is relevant to other sections in this EA. It is defined as “the use of water for preservation and reproduction of aquatic biota such as indigenous species of fish and invertebrates, as well as reptiles, amphibians, and other wildlife associated with the aquatic environment. This use also includes the maintenance of water quality at a level that prevents contamination of aquatic biota consumed by humans (LDEQ 2013b).”

Precipitation and tide are the primary factors that affect surface water in the proposed marsh creation area. Low dissolved oxygen waters occur offshore of coastal Louisiana periodically due to Mississippi River discharge (Osterman and others 2008) and may occur after storm events in inland water bodies as a result of the decomposition of deposit debris in the water bodies.

Impacts of No Action The no-action alternative would not directly affect local water quality. Long-term, moderate, indirect adverse impacts would result from increased turbidity of the water from land erosion, and a decrease in the nutrient uptake of area marshes.

Impacts of Build Alternatives Short-term, minor, direct adverse impacts associated with the dredging required for implementation of the preferred alternative include: (1) increased turbidity and decreased dissolved oxygen in the water column at the dredge sites (dredge plume) and fill sites; (2) potential decreased dissolved oxygen in the water column at the construction location due to increased water depth (>16.4 ft); (3) possible exhumation of buried debris; and (4) discharges from the dredge vessel. During dredging, silt or clay may become suspended in the water column near the dredge site. The suspended sediment would settle in a matter of hours to days (depending on current). If the disturbed sediments were anoxic, the dissolved oxygen levels in the water column would decrease. Turbidity and suspended particulate levels in the water column above the preferred borrow area are normally high as a result of estuarine processes. Adverse impacts would be minimized by the addition of retention dikes and turbidity barriers (such as, Particulate Control System™ silt curtains). If they do not naturally degrade after construction and settlement, dikes would be degraded if allow a tidal exchange typical of healthy marshes.

Long-term, moderate, indirect benefits to water quality would result from the ability of created marsh, including terraces, to remove nitrates and phosphate and reduce turbidity in the water. Beneficial impacts to water quality are likely to result from the ability of terraces to trap sediments and decrease shoreline-erosion (Steyer 1993) thereby reducing turbidity, and increase submerged aquatics (Rozas and Minello 2001, Cannaday 2006, USFWS project files) that trap sediments and consume nitrates and phosphates.

3.2 Biological Environment

Approximately 735 species of birds, finfish, shellfish, reptiles, amphibians, and mammals spend all or part of their life cycle in the estuaries (USACE 2004). We describe broad categories in this chapter.

3.2.1 Vegetation Resources

Coastal Louisiana contains an estimated 40 percent of the vegetated estuarine wetlands in the contiguous United States (USACE 2004). Based on U.S. Geological Survey habitat mapping, the current marsh area for the build alternative 1 area is 258 acres (NOAA Fisheries Service 2006) and the build alternative 2 area is approximately 107 acres. The majority of the vegetation is smooth cordgrass. Other species present are saltmeadow 'marsh hay' cordgrass (*Spartina patens*), and big cordgrass (*Spartina cynosuroides*) (Sasser and others 2008). Common names are from the U.S. Department of Agriculture PLANTS Database. Trace (<1%) submerged aquatic vegetation (SAV) is currently in the project area and occurs only along the marsh edge.

Moderately and lightly oiled marshes of Louisiana were in recovery one year after the DWH event (Mendelssohn and others 2012). Vegetation in the proposed project area was not directly oiled in the DWH event (Appendix B). Any indirect impacts to vegetation attributed to the DWH spill are unknown and considered to be non-existent for this vegetation-resource analysis because of this reported recovery of directly oiled areas.

Rare plants that may occur in Terrebonne parish are mostly of dune/beach habitats, and would not occur in the project area. The Louisiana Department of Wildlife and Fisheries (LDWF) Natural Heritage Program lists arrow-grass (*Triglochin striata*) as a rare plant of Louisiana which was recorded as having three known occurrences in the 1970s, two of which were in Pointe Au Chenes Wildlife Management Area (approximately 5 miles to the east). The plant is a fleshy-leaved grass-like herb about 1 foot tall that occurs in saline and brackish marsh habitat. The U.S. Department of Agriculture PLANTS database lists the species as a native in Louisiana and southeastern US wetlands, protected in the state of Maryland, but not a federally listed species.

Impacts of No Action With no action, continued erosion and subsidence are expected to occur, resulting in long-term, moderate, direct and indirect losses to vegetative resources. Within twenty years, 115 acres are expected to be lost in the build alternative 1 area, and 41 acres in the build alternative 2 area (Table 1). The inability to retain elevation would continue to lead to flooding stress on the plants, decreasing plant productivity, and continue the conversion of remaining vegetation to shallow open water. This would include any rare plant species, should any still exist at this location.

Impacts of Build Alternative 1 The build alternative 1 would exert long-term, moderate, direct and indirect beneficial impacts on vegetative communities of the area (NOAA Fisheries Service 2006). It is expected that over 400 acres of the resource would be created and over 200 acres nourished leading to greater productivity. Similar terrace projects have created marsh and increased plant cover (Turner and Streever 2002). Terraced marsh would increase the resource approximately 13 acres, and the 6 acres that would be lost with no action in the terrace area would be protected. Adding elevation to marshes would offset some subsidence, increase vegetative productivity, and decrease marsh conversion to open water. Increasing the elevation in the area would be beneficial to vegetative communities, reducing flooding stress on the plants and allowing time for vegetation to colonize and contribute to the elevation. Accumulation of organic material is a primary factor influencing the vertical accretion of marshes.

Increases of SAV in terraced shallow water have been reported to be 3.5 times more abundant than SAV in untterraced shallow open water (Cannaday 2006). Increased SAV to approximately 40% cover is expected with this alternative (NOAA Fisheries Service 2006). Creation of the terraces would allow vegetation to colonize and stabilize the terrace sediments, while protecting marsh vegetation from waves

that erode their soils. Long-term, moderate, direct benefits to these habitats are expected through increased marsh habitat, clarification of water, increased marsh edge, and increased submerged aquatics and habitats important to fish and wildlife species.

Implementing the alternative would unavoidably have short-term, minor, direct adverse impacts to existing marsh, and shallow open-water areas and their associated vegetative communities. It is estimated that 49 acres would temporarily be suppressed while roots establish in the added sediments. The runoff from the project site would nourish vegetation through added minerals and elevation resulting in beneficial impacts in the long term. Vegetation at the staging areas and the fringe of the marsh creation areas would be disturbed or smothered, but are expected to recover shortly after construction. If the project were authorized for construction, LDWF would be contacted to coordinate identifying and reducing impacts to any existing species. NOAA Fisheries Service would ask that an LDWF biologist visit areas of the proposed project location that are both likely to be disturbed and of the habitat type listed for the rare arrow-grass plant, primarily the wetlands along the projects eastern bank where sediment would be deposited, and staging areas.

Impacts of Build Alternative 2 Long-term, moderate, direct beneficial impacts on vegetative communities would have the same consequence as build alternative 1, although they have individual differences. For example, this alternative would differ from build alternative 1 by creating fewer marsh acres (NOAA Fisheries Service 2013). It is expected that over 470 acres of the resource would be created and nourished leading to greater productivity in the area (Table 1). The likelihood of achieving the increased vegetation is greater with this alternative because of the better soils. Soils of this area are more capable of creating and retaining elevation. Terraced marsh would increase approximately 42 acres, which is an estimated 7 acres less than with the build alternative 1 terraces (Table 1). In twenty years, both build alternatives are likely to have similar increases in vegetation. The 20-year projections presented in Table 1 do not account for the weaker soils in build alternative 1. Benefits of offsetting subsidence, and increasing vegetative productivity are similar to the build alternative 1.

Short-term, minor, direct adverse impacts to existing marsh are less than with build alternative 1, because there is less initially impacted marsh (Table 1). The impacted marsh would recover as soils stabilize and vegetation recolonizes. The soil addition that causes the impact is expected to create more productive vegetation that would increase soil accretion. The accretion would help plants maintain elevations and withstand the wetland flooding and salinity stresses.

3.2.2 Aquatic and Benthic Habitats

Benthic habitats near the proposed marsh creation area are in shallow (<3 ft) open water. In the borrow area, benthic habitats are under open estuarine water column. These habitats support bacteria, fungi, microalgae, meiofauna, and microfauna, such as mollusks, polychaetes, decapods, and nematodes (Day and others 1989, NOAA Fisheries Service 2006). The benthic community supports higher levels of the food chain, such as shrimp and demersal fish (Conner and Day 1987). Substrate quality strongly influences the distribution of benthic fauna. Other variables affecting the distribution of benthic organisms include water depth, salinity, illumination, food availability, currents, and tides. The area has salinities conducive to oyster production and oyster leases are located throughout the area (Figure 8), but water quality is not conducive as described in the water resources section (BTNEP 2010, LDEQ 2013b). Also, declines in Louisiana oyster production have been reported on public seed grounds since 2002 (personal communication, LDWF Inland Fisheries Division).

Disturbance and recovery of benthic organisms from the 2010 BP Deepwater Horizon oil spill were considered in analysis. The project area was not directly impacted or oiled in the event, but indirectly impacted given the magnitude and duration of the pollution event to gulf waters. Areas to the south of the

proposed project area and closer to oil-exposed marsh and tidal waters were studied (McCall and Pennings 2012). Snails were unaffected, and crab and arthropods had nearly recovered a year after the event. Oyster east of the Mississippi River (east of the proposed project area) were assessed for oil impacts specifically to identify lingering effects of the pollutant. As a water-filtering organism, it is a good indicator of biological health. In a comparison of the condition of oil-exposed and non-exposed sites, differences were consistent with those occurring along a salinity gradient rather than with contamination (Soniati and others 2011).

Impacts of No Action Declines in oyster production are expected to continue with no action resulting in long-term, moderate, indirect adverse impacts. The reason for current and future expected decline is unknown, but declines are reported on public seed grounds (personal communication, LDWF Inland Fisheries Division). The recreational and commercial value of the aquatic and benthic resources are expected to decline in ecological function, as indicated by low oyster production, loss of vegetative resources, and poor water quality.

Impacts of Build Alternative 1 Long-term, moderate, direct adverse impacts would result from sediment deposition. However long-term, moderate, indirect benefits would be expected in the water quality of surrounding areas that would result from reduced turbidity and dissolved oxygen issues.

Short-term, minor, direct adverse impacts to local aquatic and benthic resources would occur by the direct removal of sediment along with the organisms living in the sediment during dredging. A revision in design was requested and adopted to minimize oyster impacts; increasing the depth-of-cut from -10 ft to -15 ft reduced the dredge impact area. Other direct, adverse impacts could include entrapment and likely death of slow-moving organisms and polychaetes during dredging, and smothering of benthic organisms in the deposition sites. Mobile invertebrates would be expected to vacate the proposed project area during construction and return after construction is complete. Invertebrates, oysters, and fish that do not move out of the area would likely be injured by suffocation from suspended sediments. Dredging would change substrate topography, causing a temporary redistribution of organisms in the immediate vicinity.

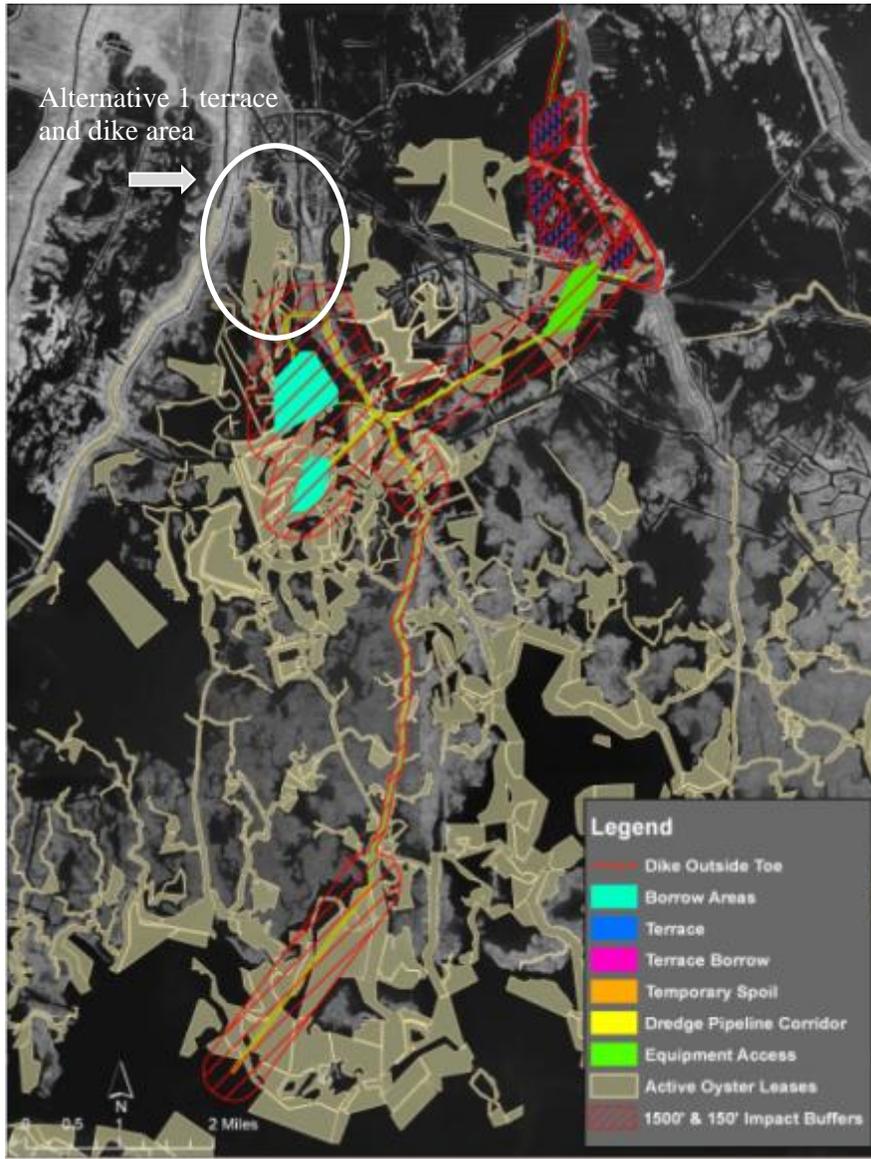
Benthic organisms would likely re-colonize borrow areas. Early-stage recruitment of defaunated sediments occurs rapidly in coastal systems (Grassle and Grassle 1974, McCall 1977, Simon and Dauer 1977, Ruth and others 1994, all as cited in EPA 2003). Dredged sites would be rapidly colonized by opportunistic infauna (EPA 2003). Later stages of colonization would be more gradual and would depend on environmental conditions after cessation of dredging. Fish and invertebrates are expected to recover as turbidity returns to pre-construction levels. There is expected to be a low potential for creation of persistent low dissolved oxygen conditions that would impact fisheries and aquatic biota in the borrow and placement areas given the patterns of water flow over the borrow sites and the shallow elevation of placement area.

Long-term, moderate, indirect benefits would result from the increase in quality aquatic and benthic habitat from increased primary productivity and habitat diversity. The created marsh would contribute to detritus and decrease turbidity. Terraces are known to increase the abundance and diversity of nekton (Rozas and Minello 2001, Rozas and others 2005, Bush Thom 2004), and are therefore attributed with improving aquatic habitat in shallow open water areas. By maintaining existing waterways with retaining dikes and ensuring tidal exchange after construction, fisheries access to the marsh would be maintained.

Impacts of Preferred- Build Alternative 2 This alternative differs slightly from the build alternative 1 in quantifiable measures that can influence the aquatic and benthic resource, such as oyster lease and marsh creation acres (Table 1). So, impacts may differ between build alternatives but the overall influence to the resource is indistinct. While there are fewer acres of marsh to be constructed with this alternative, the productivity may be better than in alternative 1 because of the more stable soils. A map of the potential

marsh creation and terrace areas shows more acres are leased for oyster production in build alternative 1 than in this alternative (Figure 8). It is therefore possible that this alternative would have less adverse impact to oyster resources than alternative 1, but quality of the habitat is unknown and expected to be poor in both locations. If the project is authorized for construction by the CWPPRA program, oyster surveys would be performed to verify the condition of oyster health.

FIGURE 8. OYSTER LEASES IN BUILD ALTERNATIVES.



3.2.3 Essential Fish Habitat (EFH)

The proposed project area is in an area that has been identified as EFH for various life stages of federally managed species (Table 4). The primary categories of EFH that would be affected by project implementation are areas designated by the Gulf of Mexico Fisheries Management Council (GMFMC) for species that are estuarine emergent wetlands, submerged aquatic vegetation, shell substrate, estuarine water bottoms, and estuarine water column. Detailed information on federally managed fisheries and their EFH is provided in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico prepared by the Gulf of Mexico Fishery Management Council. The generic amendment was prepared as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; P.L. 104-297).

Brown shrimp, white shrimp, and red drum are estuarine-dependent species. In other words, they require estuarine habitat at some point in their life cycle for existence. In the Terrebonne Basin, white and brown shrimp have shown decreasing trends over the last 10 to 20 years, while red drum has had an increasing trend and is projected to decrease toward the year 2050 (LCWCRTF and WCRA 1999).

TABLE 4. ESSENTIAL FISH HABITAT OF PROPOSED PROJECT AND BORROW AREAS

Common Name	Life Stage System M=marine, E=estuarine	Essential Fish Habitat (1 meter (m)= approximately 3.3 ft)
Brown shrimp	postlarvae M/E	Water column <82 m, planktonic, sand/shell/soft bottom, SAV, marsh, oyster reef
	juvenile E	Water column <18 m, sand/shell/soft bottom, SAV, marsh, oyster reef
White shrimp	postlarvae M/E	Water column <82 m, planktonic, soft bottom, marsh
	juvenile E	Water column <30 m, soft bottom, marsh
Red drum	postlarvae E	planktonic, SAV, sand/shell/soft bottom, marsh
	juvenile M/E	Water column <5 m, SAV, sand/shell/soft/hard bottom, marsh

Source: GMFMC 2005, Appendix C

In addition to being designated as EFH for the brown shrimp, white shrimp, and red drum, wetlands and water bottoms in the project area provide nursery and foraging habitats. A variety of economically important marine fishery species are supported by the habitat, such as Atlantic croaker, black drum, blue crab, gulf menhaden, spotted seatrout, sand seatrout, southern flounder, and striped mullet. Some of these species serve as prey for other fish species managed under the Magnuson-Stevens Act by the GMFMC (e.g., mackerels, snappers, and groupers). They may also be prey of highly migratory species managed by NOAA Fisheries Service (e.g., billfishes and sharks).

Impacts of No Action The variety and quality of EFH associated with estuarine areas are expected to continue to decrease as the remaining marsh converts to open water. Only open-water EFH, which is not in short supply, would increase. The long-term, moderate, indirect adverse impacts would result from these changes.

Impacts of Build Alternative 1 Long-term, moderate, direct and indirect benefits of the build alternatives would result from re-establishing marsh and improving estuarine-related EFH. Marsh and marsh edge habitat would increase vegetation that would develop post-construction aided by vegetative plantings. Detrital material, formed by the breakdown of emergent vegetation, would contribute to the aquatic food web of the surrounding ecosystem. Decreases in wind erosion would protect estuarine mud

bottoms around the proposed project area. Thus, this alternative would restore more productive habitats supportive of brown shrimp, white shrimp, and red drum.

Short-term, unavoidable, direct and indirect adverse impacts to habitats supportive of various life stages of brown shrimp, white shrimp, and red drum would occur during the construction phase of the proposed project as marsh is filled and created. Potential short-term impacts to EFH include movement of prey species away from the construction area, interruption of feeding or spawning by some species, and other effects on behavioral patterns. Minor short-term adverse impacts on EFH are possible if oyster leased areas are shell bottom habitat, because such substrate is less available than soft-bottom open waters. No impacts to soft bottom substrate EFH are expected because hundreds of acres of this habitat type are available to organisms outside of the proposed project area. Post-construction long-term benefits of increased quality and quantity of the marsh would be greater than the short-term, minor adverse impacts. Turbidity would return to ambient conditions post-construction and improve in terrace-protected waters.

Impacts of Preferred-Build Alternative 2 All impacts would be similar to the build alternative 1 with the exception that the potential for minor adverse impacts to shell bottom would be less than the build alternative 1. Benefits would be similar to the build alternative 1 and greater than the no action alternative, because the quality of EFH would increase with construction of marsh and marsh edge habitat within the project area.

3.2.4 Marine Fishery Resources

Freshwater fisheries do not occur in the project area. Fishery guilds common to coastal Louisiana and their current population trends are (LCWCRTF and WCRA 1998):

- Spanish mackerel guild (marine) – increasing population trend for species within project area.
- red drum, black drum, blue crab (estuarine dependent) – increasing trend, and projected to decline toward the year 2050.
- spotted seatrout, Gulf menhaden, southern flounder, white shrimp, brown shrimp guilds (estuarine dependent) – generally decreasing population trend for species within project area.
- American oyster guild (estuarine resident) – decreasing population trend for species within project area and expected to steady toward the year 2050.

A wide variety of estuarine-dependent fishery species found in the Terrebonne Basin (LCWCRTF and WCRA 1999) are of national economic importance in accordance with Section 906(e)(1) of PL 99-602, the Water Resources Development Act of 1986. Most species vary in abundance from season to season due to their migratory life cycle, habitat preferences according to life stage, and the variation in salinity (Herke 1978, Rogers and others 1993, LCWCRTF and WCRA 1999). Most spawn offshore in the open Gulf of Mexico and enter the marsh area as postlarvae or young juveniles to use the marshes as a nursery, and return to the open Gulf as subadults or adults.

Impacts of No Action Open-water fisheries habitat is available and increasingly abundant in coastal Louisiana. The increase in open-water fisheries habitat comes at the expense of submerged vegetation and emergent fisheries habitats, which are less common and more vulnerable to disturbance than open-water habitat. The quality of fish habitat is expected to decrease as remaining marsh converts to open water reducing the nursery function of the area for estuarine-dependent species. Long-term, moderate, indirect adverse impacts would result from these changes.

Impacts of Build Alternative 1 Short-term, minor, direct, adverse impact to local fishery resources would occur during construction from dredging and placement of sediments. Dredging would directly move benthic organisms that live in the sediment and indirectly entrap the slow-moving organisms and

polychaetes of the borrow areas. In the placement area, smothering of benthic organisms and sessile fish and invertebrate species would occur. Mobile aquatic animals would move during construction and return after construction completes. Short-term severe effects on fish eggs and larvae in the immediate area may occur. These are temporary adverse impacts because benthic organisms would likely recolonize borrow areas. Early-stage recruitment of defaunated sediments occurs rapidly in coastal systems (Grassle and Grassle 1974, McCall 1977, Simon and Dauer 1977, Ruth and others 1994, all as cited in EPA 2003). Dredged sites would be rapidly colonized by opportunistic infauna (EPA 2003). Later stages of colonization would be more gradual and would depend on environmental conditions after cessation of dredging. Fish and invertebrates are expected to recover as turbidity returns to pre-construction levels.

Long-term, moderate, direct and indirect beneficial impacts would result from the increase in marsh habitat providing nursery for estuarine-dependent fisheries that would decline with the no-action alternative. Access to the marsh habitat would be maintained after construction through dike gapping.

Impacts of Build Alternative 2 Impacts are the same as build alternative 1. Both alternatives increase habitat diversity by disturbing sediments and temporarily adversely impacting turbidity with long-term benefits expected through increased fishery nursery area.

3.2.5 Marine Mammal Resources

Marine mammals that occur in Louisiana waters include the blue, sei, sperm, finback and humpback whales, the dolphin, and the endangered West Indian manatee. Whales are unlikely to occur in or near the shallow project area, so are not further discussed. West Indian manatees may be found in Louisiana coastal waters during the warmer months, and their occurrences appear to be increasing in Louisiana. Based on the proposed project location in shallow water, it is unlikely that West Indian manatees would occur in the project area. Dolphins are common along the shore. Dolphins follow schooling fishes, such as menhaden that are prey, and seek food and refuge in interior bay waters.

Impacts of No Action Long-term, moderate, indirect adverse impacts would be expected as the marsh used by marine mammal forage species, such as small fish, would decline.

Impacts of Build Alternatives Whales, manatee, and dolphin are unlikely to occur in the project area, though dolphins frequently use deeper coastal waters south of the proposed project area. Dolphin prey species would be temporarily displaced to other similar habitat, so short-term, minor, indirect adverse impacts may be associated with the build alternatives. In the long-term, moderate, indirect benefits would result from increasing the quantity and longevity of prey nursery grounds and refuges. Contractors would be instructed to watch for marine mammals. Should any manatee be seen, any workboats in the area would be instructed to cease work until the animal is over 500 ft away.

3.2.6 Migratory Bird Resources

Waterbirds were specifically considered pursuant to the Migratory Bird Treaty Act. No colonies of colonial nesting waterbirds have been observed in the proposed project area, but could occur. This resource consists of heron, egret, night-heron, ibis, roseate spoonbill, anhinga, and/or cormorant.

Impacts of No Action Long-term, moderate, indirect adverse impacts to migratory birds are expected as the marsh habitat that supports them and their forage species' declines. Ridge habitat used by roosting birds would be threatened as the banks of bayous in the area erode.

Impacts of Build Alternatives No migratory birds are known to nest in the area. Short-term, minor, indirect adverse impacts may occur, as foragers would be temporarily displaced to the abundance of nearby foraging habitat. Long-term, moderate, indirect benefits would occur after construction as a result

of increased habitat diversity, and longevity of the foraging marsh. Roosting ridge habitats would be protected from erosion. No substantial adverse impacts would occur.

It is uncertain whether nesting colonies occur within the project area vicinity and nesting is impermanent. A visit to the proposed project site in the nesting season prior to construction would determine if undocumented nesting water birds are present. If colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants are observed, all activities within 1,000 ft of the nesting colony should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present). Because the anticipated construction duration is in excess of eight months and some construction activities may occur during the nesting season, time-of-year restrictions may not be practicable. Accordingly, an abatement plan may be necessary to ensure that birds do not nest at construction time. A plan would be developed in consultation with the USFWS, if required, to address potential nesting.

The USFWS would be contacted to report the colonies' location and consult on the species present and their non-nesting periods. If nesting were to occur it would be prior to construction, as the disturbance of construction would prevent colonies from selecting the area for nesting during construction. Long-term, moderate, direct and indirect benefits would occur by creating nesting habitat for colonial waterbirds once vegetation becomes established and increasing the quantity and quality of foraging area.

3.2.7 Wildlife Resources

Louisiana's coastal zone supports 19 percent of the United States' winter population for 14 species of ducks and geese. The North American Waterfowl Management Plan identified coastal Louisiana as one of the most important regions for the maintenance of continental waterfowl populations in North America (USACE 2004).

The Terrebonne Basin proposed project area is unlikely to support species that frequent woody or freshwater habitats. The basin is located at the bottom of the Mississippi Flyway, and birds from central and northern North America start to converge in the fall. Waterfowl populations in the Terrebonne basins have declined as marsh converts to open water (LCWCRTF and WCRA 1999). Rare wildlife of Terrebonne parish that utilize habitats similar to those of the proposed project area include the red wolf, diamondback terrapin, reddish egret, peregrine falcon (most likely in winter), gull-billed tern, bald eagle (whom feed in lakes), brown pelican, and roseate spoonbill (LDWF 2013).

Table 5 and 6 lists the wildlife species and/or species groups prominent (LCWCRTF and WCRA 1998) within coastal Louisiana along with the habitat function, status, trend, and projection within the project area.

TABLE 5. AVIAN POPULATION FUNCTIONS OF PARTICULAR INTEREST WITH THE STATUS OF PRESENCE IN THE PROJECT AREA, POPULATION TREND SINCE 1985, AND PROJECTED POPULATION THROUGH 2050 BY HABITAT TYPE.

1988 Habitat		Open Water	Saline Marsh
% of Area		85	12
Brown Pelican	Function	Nesting	.
	Status	Moderate numbers	Not historically present (NH)
	Trend/Proj.	Increasing/Increase	.
Bald Eagle	Status	NH	NH
Seabirds	Function	Multiple functions	Multiple functions
	Status	High numbers	High numbers
	Trend/Proj.	Steady/Steady	Steady/Steady
Wading Birds	Function	.	Multiple functions
	Status	NH	High numbers
	Trend/Proj.	.	Decreasing/Decrease
Shorebirds	Function	.	Multiple functions
	Status	NH	High numbers
	Trend/Proj.	.	Decreasing/Decrease
Dabbling Ducks	Function	Wintering area	Wintering area
	Status	Low numbers	Low numbers
	Trend/Proj.	Decreasing/Decrease	Decreasing/Decrease
Diving Ducks	Function	Wintering area	Wintering area
	Status	Low numbers	Low numbers
	Trend/Proj.	Steady/Decrease	Steady/Decrease
Geese	Status	NH	NH
Raptors	Status	NH	NH
Rails, Coots, and Gallinules	Function	Wintering area	Wintering area
	Status	Low numbers	Low numbers
	Trend/Proj.	Steady/Decrease	Steady/Decrease
Other Marsh/OW Residents	Function	.	Multiple functions
	Status	NH	High numbers
	Trend/Proj.	.	Decreasing/Decrease
Other Marsh/OW Migrants	Function	.	Multiple functions
	Status	NH	High numbers
	Trend/Proj.	.	Steady/Decrease

*Projection (Proj.) Source: LCWCRTF and WCRA 1998 Appendix E. Terrebonne Mapping Unit

TABLE 6. FUNCTIONS, STATUS AND TRENDS OF OTHER POPULATIONS OF PARTICULAR INTEREST.

1988 Habitat Type		Open Water	Saline Marsh
% of area		85	12
Furbearers	Nutria	Function	.
		Status	Not historically present (NH)
		Trend/Proj.	.
	Muskrat	Function	.
		Status	NH
		Trend/Proj.	.
	Mink, Otter, Raccoon	Function	.
		Status	NH
		Trend/Proj.	.
Game	Rabbits	Function	.
		Status	NH
		Trend/Proj.	.
	Squirrels	Status	NH
	Deer	Status	NH
	Reptiles	American Alligator	Function
Status			No longer present
Trend/Proj.			.

*Projection (Proj.) Source: LCWCRTF and WCRA 1998 Appendix E, Terrebonne Mapping Unit

Impacts of No Action Long-term, moderate, indirect adverse impacts would be expected as the remaining marsh and mud flat convert to open water. Habitat would become less suitable for waterfowl, small mammals, and increase for aquatic species that are not habitat limited, such as alligator. Current waterfowl declines would continue (LCWCRTF and WCRA 1999).

Impacts of Build Alternatives Short-term, minor, localized, direct adverse impacts to wildlife would result from displacement. Wildlife would vacate or avoid the area and return once construction is complete. Proposed project modifications to move the location to avoid impacts to wildlife were coordinated with USFWS. Long-term, moderate, direct benefits would result from increasing wildlife habitat through marsh creation. Projection of the banks of the bayous north of the project would provide habitat for birds, furbearer and game, and mammal populations. Many bird species are migratory or permanent residents and depend on marsh of the proposed project area. Population numbers of bird species are expected to increase in response to project implementation.

3.2.8 Threatened and Endangered Species

The USFWS and NOAA Fisheries Service manage critical habitats and threatened or endangered listings of the Endangered Species Act (ESA). Information below is from several sources provided on the websites for these agencies and the LDWF Natural Heritage Program all accessed in September of 2013.

Loggerhead, Kemp’s ridley, hawksbill, leatherback, and green sea turtles occur along the coast in Louisiana. Hawksbill sea turtles have both federal and state endangered status but are “one of the most infrequently encountered sea turtles” in Louisiana (LDWF 2013), so are not further discussed. Green sea turtles have both federal and state threatened status, and are “relatively rare, with most sightings from the eastern coast” in Louisiana (LDWF 2013). They may occur in Louisiana bays while migrating between their nesting and foraging sites in Florida and Texas. Kemp’s ridley sea turtles nest in Mexico and immature individuals are believed to stay in shallow, warm, nearshore waters in the northern Gulf of

Mexico. Loggerhead sea turtles regularly enter marshes, estuaries, and coastal rivers but their range in Louisiana is in parishes to the east (LDWF 2013). Leatherback sea turtles occur in coastal bays of Terrebonne parish (LDWF 2013). The nearest proposed critical habitat is at barrier islands near Mobile Bay, Alabama.

There is no critical habitat designated for sea turtles in Louisiana and no sea turtle nesting is known to occur in the vicinity of the project. There has been an increase since 2010 in reports of sea turtles being found dead, ill or stranded along the north-central Gulf of Mexico, including coastal shores south of the project area (NOAA 2013). The cause of the increased deaths is unknown and no strandings have been reported in Terrebonne Parish. Strandings have been reported in parishes directly to the east on the Gulf coast – not as far inland as the proposed project and borrow areas. The majority of strandings are of Kemp’s ridley in spring and summer. Investigation of strandings continue by the Sea Turtle Stranding and Salvage Network, which includes federal, state, and private participants (NOAA 2013).

Fishermen have reported sea turtle sightings in bays, such as the Vermilion Bays, and inland within about 2 miles of a direct connection to the Gulf, and its bays (Beth Bourgeois, NOAA, personal communication). Given that the location of the project borrow area is 6 miles north of Terrebonne Bay, it is unlikely any sea turtle would occur in the shallow inland waters there. They would occur in the project borrow area if high tides of a hurricane pushed them in.

Gulf sturgeons utilize southeast Louisiana rivers in the summer and marine waters in the winter. They do not have designated critical habitat occurring in the project area (NOAA Protected Resources 2013) and the proposed project area is outside of the habitat range listed by the Louisiana Natural Heritage Program (LDWF 2013), so the species is not further considered.

The smalltooth sawfish favors warm, estuarine, shallow waters over mud or sand such as those of the proposed project area and historically occurred along the coast from Texas to North Carolina. However, range of the species has decreased and currently only includes areas of Florida. No critical habitat is designated for this species in Louisiana and sightings in Louisiana are very rare (Wiley and Simpfendorfer 2010), so the species is not further considered.

Threatened or endangered marine mammals are not known to occur near the project, but those that occur in Louisiana are the blue, sei, sperm, finback, and humpback whale, under jurisdiction of the NOAA Fisheries Service, and the West Indian manatee under the jurisdiction of the USFWS. Whales typically occur in water depths greater than 650 feet, and may occasionally be sighted in shallower depths of Louisiana. The West Indian manatee may be found in lakes Pontchartrain and Maurepas, and the Louisiana coastal waters during the winter. Based on the proposed project location in inland shallow water, it is unlikely that whale or manatee would occur in the project area.

Piping plover is “known or believed to occur” in Terrebonne parish. They utilize beaches, mudflats, and sandflats along the Gulf of Mexico in the winter. The proposed project area does not contain habitat suitable for the species, but could be created by the proposed build alternatives prior to the establishment of dense vegetation on terraces and marsh creation areas.

Sprague’s pipit, a candidate for ESA species listing, is “known or believed to occur” in Terrebonne parish. This songbird utilizes prairie and may winter in the grasslands of Terrebonne Parish at its far eastern winter range, so is unlikely to occur in the marsh and shallow water project area.

Impacts of No Action Without action, existing marsh that is habitat for the sea turtle and marine mammal forage species, such as species of shrimp and fish, would continue to be lost resulting in long-term, moderate, indirect adverse impacts. Habitat suitable for the threatened piping plover would not be created.

Impacts of Build Alternatives The leatherback sea turtle, hawksbill sea turtle, Gulf sturgeon, smalltooth sawfish, and endangered whales are not likely to be adversely affected, because they do not commonly occur in the project area. Whales were extremely unlikely to overlap geographically with the action area. We do not expect these species to be adversely affected from this project and do not discuss them further. Placement of dredged material is unlikely to adversely affect threatened and endangered species. Manatees rarely occur in coastal Louisiana during the warmer months and are unlikely to occur in the project area.

Both USFWS and NOAA Fisheries Service have concurred that the proposed project is not likely to adversely affect federally listed threatened or endangered species or associated critical habitat (Appendix C). Long-term, moderate, indirect benefits to listed species may result from increasing the quality of forage species habitat and quantity of refuge area. Habitat suitable for the threatened piping plover would be temporarily (1 to 3 years) created by the proposed build alternatives prior to the establishment of dense vegetation on terraces and marsh creation areas.

3.3 Cultural Resources

3.3.1 Historic, Prehistoric and Native American

This section considers both terrestrial and submerged cultural resources. There are no known terrestrial or submerged cultural resources. Archeological surveys near the project were considered in this analysis (Gulf South Research Institute 1975). No Archeological surveys were conducted of the proposed project areas, as they are in areas of shallow open waters unlikely to contain submerged or terrestrial cultural resources, as explained in the cultural history of the area quoted below.

In lower Terrebonne Parish no occupation has been identified earlier than [A.D. 1200-1500].

Prehistoric peoples and residents of today have no other choice than to live on the natural levees of streams. Because of the shifts in the Mississippi River discharge into the Gulf, the distributaries have varied between mere low water sluggish streams to active channel systems such as the Atchafalaya today. Probably few of the aborigines lived throughout the year on these streams but occupied them seasonally. Large middens suggesting continuous occupation by a relatively large group are mostly confined to southwestern Louisiana or to large main stream natural levees.

At historic contact times the area that is now Terrebonne Parish did not have a reportedly large Indian population. A resident of lower Montegut assured that no Indians had lived there because her father had settled there in 1904 and there were none then. European people probably began settling the region as early as the latter half of the 18th century.

During the Civil War Bayou Lafourche was the scene of frequent skirmishes between harassed Union forces and Confederate units. In particular, the Terrebonne Regiment and other partisans or local militia caused embarrassment to Union troops and Louisiana defenders as well. Their guerilla-like attacks on Union troops and supply vessels on the Mississippi River brought costly reprisals, such as the almost total destruction of Donaldsonville in 1962. No great battles were fought in Terrebonne and there is little likelihood that any material evidence of Great Unpleasantness would be found in the specific areas under study here.

In recent decades, especially since about 1930, there has been an intensification of settlement and building along many of the bayous in lower Terrebonne Parish. Just how extensive was revealed by the damaging effects of the [1985] hurricane Juan ...the landscape was dotted with mattresses, destroyed furniture, refrigerators and car bodies. Virtually all of the displaced residents are returning to rebuild or to refurbish their homes.

- Hagg 1985

Impacts of No Action No historic cultural resources have been identified in the area. The State Historic Preservation Office was consulted in preparation of this analysis (Appendix C).

Impacts of Build Alternatives No historic cultural resources have been identified in the area so no affect of the build alternatives is expected. Dredging would primarily be located where previous settlements, therefore artifacts, are unlikely. Hydraulic dredging of open-water bay areas and mechanical dredging in shallow open waters that were marsh within recent history would be used. No resources are likely to be affected by these actions, because these would not have been elevations suitable for habitation, major waterways, nor the banks of shorelines.

3.3.2 **Socioeconomics (Income and Environmental Justice)**

The population of Terrebonne Parish is 111,860 (U.S. Census 2010). The population has grown approximately 1% per year in the last twenty years and is projected to continue to grow at a slower rate (Terrebonne Parish 2012). Within the parish, a significant migration of residents to the north has occurred, where they seek less flood-prone elevations. The nearest town and road are one mile west of the proposed project area (Terrebonne Parish 2012). Table 7 provides population/poverty data for the parish, State, and the nearest town. Additional information on environmental justice indices is in Appendix B.

TABLE 7. POPULATIONS OF LOUISIANA, TERREBONNE PARISH, AND MONTEGUT

Topic	Louisiana*	Terrebonne Parish*	Montegut CDP**
Total Population	4,574,766	111,917	1,540
White alone	63.8%	72.1%	98.2%
Black or African American alone	32.4%	19.2%	1%
American Indian and Alaska Native alone	0.7%	5.5%	9.1%
Asian alone	1.6%	1.1%	0.4%
Native Hawaiian and Other Pacific Islander alone	0.1%	0.1%	0%
Two or More Races:	1.4%	2.0%	1.8%
2007-2011 percent persons below poverty level	18.4%	17.3%	not available

*U.S. Census 2011 estimates and ** U.S. Census 2010 (U.S. Census 2013).

Impacts of No Action As the remaining marsh is lost to open water, the threat of structural flooding increases. The cost of flooding to the livelihood of businesses and community reduces the local economy. People have migrated toward less flood-prone elevations to the north, and this can be expected to continue for the remaining population. A loss of shrimp habitat is expected. Loss of local fisheries leads to loss of local income as fisheries-related activities decline. The result is a long-term, minor, indirect adverse impact.

Impacts of Build Alternatives This alternative would have a short-term, minor, indirect adverse impact through disruption of localized fishing during construction. Short-term, minor, direct benefits through local job creation would result from construction activities. Long-term, indirect, moderate benefits would result from increasing shrimp habitat, and recreational and fishing value of the area. Oyster production in the area would be compensated by the state of Louisiana at fair market value following the requirements set by the Louisiana Department of Wildlife and Fisheries, and therefore have no significant impact to lease holders.

3.3.3 **Land Use and Infrastructure**

Over 90% of Terrebonne Parish is classified as environmentally sensitive in development terms (Appendix B). “Buildings or structures and access are severely limited by the nature of this land itself, and by the additional layers of mitigation and permitting that are required (Terrebonne Parish 2012).” The

proposed project area is within this development category, and the proposed terrace creation area is within the Pointe Aux Chenes Wildlife Management Area. Residential, commercial, industrial, and agricultural land uses are located in linear patches along natural bayou banks. Oil and gas pipelines are throughout the basin and project area as active or remnant conveyance of oil/natural gas (Figure 2). Magnetometer surveys of the borrow area had several anomalies that are being investigated. Pipelines and infrastructure would be removed or avoided to use the borrow area. Commercial fisheries and recreational activities influence the local economy. The proposed project area is accessible only to shallow draft boats.

The marshes and bayous of Terrebonne Basin are used for recreation, such as hunting, fishing and birding. The State of Louisiana leases areas to private entities for oyster production throughout Terrebonne Basin. There are a total of 107 oyster leases within a 500 ft radius of the preferred project's borrow, construction, and access areas (Byland, Boeneke, and Foret 2013; Figure 8). Public oyster seed grounds are located at Lake Chien (8 miles southeast of the proposed borrow area) and Lake Felicity (2 miles south of Lake Chien).

The *Morganza to the Gulf* project is proposed north of the project area and could be constructed in the foreseeable future. The plan includes a levee running to the north of the proposed marsh creation area and several water control structures at other locations.

Impacts of No Action Conversion of the proposed project area to open water increases exposure of pipelines (both active and inactive), posing threats to human safety, and decreases the commercial and recreational value of the area. Increased storm surges would erode nearby land and increase structural damages from storms. The result of these changes would be long-term, minor, indirect impacts.

Impacts of Build Alternative 1 Long-term, moderate, indirect benefits would result from the terrace and marsh acting as a buffer from waves during storms. Wave erosion would decrease for surrounding land, pipelines, and infrastructure. Short-term, minor, direct and indirect adverse impacts on recreational fishing would occur during construction. However, habitat suitable for fishing is common in the region, and the temporary loss of opportunity for fishing in the proposed project area is considered minimal. Construction would avoid pipelines and maintain waterways of the area used by local boaters. The expected benefits would not be as long lasting, because the created habitat would settle to below marsh elevation in 10 years, which is sooner than estimated for the preferred alternative (GeoEngineers 2011).

Impacts of Preferred-Build Alternative 2 Impacts to land use/recreation would be similar to the preferred alternative. The expected benefits would be longer lasting than with no action or the build alternative 1, because the created habitat would not subside as quickly as the build alternative 1. There would be benefits to the area north of this alternative location of buffering storm-generated water impacts, including the *Morganza to the Gulf* levee. The pipeline companies have been notified of the potential project and all associated features; there are no anticipated issues. Formal agreements for crossing pipelines would be made with the companies prior to construction (Byland, Boeneke, and Foret 2013).

3.3.4 Hazardous, Toxic, and Radioactive Wastes

Magnetometer surveys have been conducted in the proposed marsh creation area. Pipelines have been identified and anomalies mapped for the area. NOAA Fisheries Service personnel conducted a site investigation of the project area for hazardous, toxic, and radioactive waste (HTRW). There were no signs of HTRW problems, such as dead or discolored vegetation, stained soil, chemical sheens or odors, or dead or dying fish, amphibians, reptiles, or mammals, or discarded drums, tanks, or chemical containers. In an analysis of applicable federal and state regulatory agency records, historical records, and interviews with persons knowledgeable about the subject property, NOAA Fisheries Service discovered no evidence of HTRW issues (Parker 2013).

Impacts of No Action Although existing pipelines would be at increased risk of exposure with continued subsidence and land loss, there are no foreseeable HTRW issues.

Impacts of Build Alternatives During construction activities, existing oil and gas infrastructure within the project area would be avoided. Hazard avoidance is included in state of Louisiana contracts, and in the interest of the construction workers' personal safety and company finance, so no impacts are anticipated.

3.3.5 Noise

The proposed marsh creation and borrow areas are remote with no industry other than oil production and fisheries. Ambient noise in the area results from oil and gas production, boats, and wildlife.

Impacts of No Action The no-action alternative would not cause any change to the existing noise conditions in the proposed project area.

Impacts of Build Alternatives Short-term, minor, direct adverse impacts through the increase in noise associated with construction equipment would occur. No long-term changes in ambient noise levels would result from the build alternatives, as noise-producing equipment would vacate the area after construction.

3.4 Other Considerations

3.4.1 Cumulative Impacts

Direct and indirect impacts of past, present, and reasonably foreseeable future events were considered in the analysis of the proposed project consequences. These impacts include historical and predicted future land loss rates for the area and other restoration projects in the vicinity. The preferred alternative would have temporary adverse impacts to some environmental resources but cumulative benefits to the environmental resources.

Coastal Louisiana, including the project area, has been greatly impacted by natural subsidence (Reed and Yuill 2009), levees, hurricanes, and oil and gas infrastructure. Recent events, such as hurricanes or oil spills, contribute to the loss of habitat but are nearly indiscernible from other impacts.

Through the CWPPRA program, projects are ranked independently and have individual merit. The cumulative value of all wetland restoration and protection projects in an area can far exceed the summed values of the individual projects. Similar wetland restoration projects in the area, as shown in Appendix B, would operate synergistically with the preferred alternative to enhance the structural and functional integrity of the ecosystem, improve primary productivity rates, and thereby improve the overall environmental resources. The Mississippi River Reintroduction into Bayou Lafourche is the nearest of these projects that is currently being considered and designed by the State of Louisiana. Since CWPPRA's inception, 151 coastal restoration or protection projects have been authorized, benefiting over 110,000 acres in Louisiana (Appendix B). Information on similar and nearby CWPPRA projects in the vicinity is available at www.lacoast.gov.

Physical cumulative impacts of this and other restoration projects are to slow the land loss rate in coastal Louisiana. Currently, land loss is at an average rate of an acre every 38 minutes. If the current rate of loss is not slowed by the year 2040, an additional 800,000 acres of wetlands will convert to open water. Other physical cumulative impacts are related to mining borrow sediments.

The cumulative impact of the proposed action on air and water quality would not differ substantially from the effects of the alternatives considered individually, as similar impact producing events would not co-occur in space or time. The cumulative beneficial impact to water quality would be a long-term increase

in quality as a result of reduced turbidity, and decreased nitrogen and phosphorus, thereby reducing low dissolved oxygen.

Biological cumulative impacts would be similar to the direct and indirect impacts of the alternatives described previously. Both build alternatives would work with existing projects to enhance habitat for fish, wildlife, vegetation, and EFH. Cumulatively, both build alternatives would increase benefits to the area by decreasing land loss rates. No cumulative adverse impacts are anticipated.

Cultural cumulative impacts would result from synergy of the build alternatives with nearby restoration projects. These projects would cumulatively decrease losses of habitat, thereby maintaining more of the economy and storm protection than with no action. The build alternatives are similar to previous actions in the area that have had no adverse cultural impacts. No adverse cumulative impacts would be expected.

3.4.2 Invasive Species

Executive Order 13112 requires federal agencies to use authorities to prevent introduction and control (in cost effective and environmentally sound manners) of invasive species, and to provide for restoration of native species and habitats in ecosystems that have been invaded. As stated above, the purpose of the preferred alternative is to restore the native habitat. The proposed project would not introduce invasive species. The State of Louisiana, whom administers contracts for plantings, uses only plantings authorized for release. This insures appropriate (noninvasive) species and cultivars are provided.

3.4.3 Coordination

Coordination in development of the proposed action, its alternatives and selection of the preferred alternative has been maintained with each CWPPRA Task Force agency. The project was vetted publicly through the CWPPRA process, which includes opportunities for the public and CWPPRA agencies to comment on the proposed project. The project was discussed in public meetings for CWPPRA where project details were made available on several occasions. A draft EA will be circulated to participating restoration agencies and the public. Comments received to date are provided in Appendix C. The preferred alternative is not expected to cause adverse environmental impacts that would require compensatory mitigation.

3.4.4 Compliance with Laws and Regulations

Many federal, state, and local laws and regulations are considered during development of the proposed restoration project, as well as several regulatory requirements that are typically evaluated during the permitting process. A brief review of potentially applicable laws and regulations that may pertain to this proposed project is available in Appendix A. Relevant correspondence is provided in Appendix C and the status in Table 8. The project manager would ensure that there is coordination among these programs where possible and that project implementation and monitoring comply with all applicable laws and regulations.

TABLE 8. STATUS OF LAW AND REGULATION COMPLIANCE

Status	Law or Regulation
Completed SHPO correspondence as of letter received 4/9/2013	Archeological & Historic Preservation Act of 1974
Completed LDEQ coordination as of email received 6/5/13	Clean Air Act of 1970
Pending, Permit application to USACE for section 404 is being prepared concurrent with the completion of this EA Pending 303(e), approval requested by the state 9/20/13	Clean Water Act
Pending	Coastal Zone Management Act of Louisiana
In process, with NOAA coordination in process. Completed USFWS coordination with letter received 4/30/13	Endangered Species Act of 1973
In compliance	Executive Order 11990, Protection of Wetlands
Coordinated with Office of Floodplain Administration the Houma-Terrebonne Planning and Zoning, and FEMA	Executive Order 11998, Floodplain Management
In compliance, assessed with this EA	Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations & Low-Income Populations
Completed, Coordination with USFWS for ESA 4/30/13, and as a CWPPRA participating agency	Fish & Wildlife Coordination Act
Completed as per letter received June 26, 2013	Magnuson-Stevens Fishery Conservation & Management Act
May require an abatement plan, coordination with USFWS continuing	Migratory Bird Treaty Act of 1918
In Process with this EA draft	National Environmental Policy Act of 1969
Completed correspondence in person with SHPO prior to 4/12/13, no additional surveys required	National Historic Preservation Act of 1966

4 CONCLUSIONS

The natural processes of subsidence, habitat switching, and erosion of wetlands have been exacerbated by widespread human alterations of sediment delivery and other processes, resulting in marked degradation of the Louisiana coastal area. Without intervention to slow down or reverse the loss of marshes, Louisiana’s healthy and highly productive coastal ecosystem would not be maintained.

Initial investigations of build alternative 1 showed complications in achieving the environmental benefits of the project goals from the areas poor load-bearing capacity. The location for marsh creation had over 1,200 landowners with 3 dual claims, meaning that landrights were in legal dispute. The cost to acquire landrights was estimated at over \$1,000,000. Concurrent with project design, part of the proposed area was defined for levee improvements in the *Morganza to the Gulf* (Reach H-3), which would limit construction area. A survey found 108 magnetometer anomalies at that location and state maps identify pipelines, and active or abandoned wellheads. Given complications of landrights, infrastructure (hazards) to avoid, and unstable soils, build alternative 2 is the preferred alternative to lower costs, increase feasibility, and thus increase the likelihood of meeting the project goals.

This EA discloses information on the direct, indirect, and cumulative impacts on the human environment likely to result from the Madison Bay Marsh Creation and Terracing Project. It has disclosed long-term beneficial impacts on the coastal resources of south Louisiana and does not anticipate any significant long-term adverse environmental impacts. Construction-related adverse impacts are considered minor, as they are temporary or reversible. This EA predicts beneficial impacts that would be minor to moderate. The analysis is based on a review of relevant literature, site-specific data, and project-specific engineering reports related to biological, physical, and cultural resources, as well as on the cumulative experience gained through many similar coastal restoration projects in south Louisiana over the past two decades. The increase of fisheries habitat is anticipated to have long-term beneficial impacts on the local economy and culture as it relates to recreational and commercial fishing. In addition, the preferred alternative would result in increased protection of adjacent marsh in the area to be restored. NOAA Fisheries Service will review, evaluate and consider the information in this EA to determine whether to issue a Finding of No Significant Impact for the proposed action.

5 PREPARERS

This EA was prepared by biologists Joy Merino, Cecelia Linder, and John Foret Ph.D. of NOAA Fisheries Service.

6 DISTRIBUTION LIST

This EA was distributed for comment to agencies of the CWPPRA Task Force and resource agencies as listed below. A minimum 30-day comment period was provided. A draft EA was available for public review. A final EA will be made available to the public at <http://www.lacoast.gov> along with other public records for the project. The EA was distributed to:

Thomas A. Holden Chairman Deputy District Engineer, U.S. Army Engineer District, New Orleans Office of the Chief. 7400 Leake Ave. New Orleans, Louisiana 70160-0267

Darryl Clark Senior Field Biologist, U.S. Fish and Wildlife Service. 646 Cajundome Blvd, Suite 400 Lafayette, Louisiana 70506

Bren Haas Deputy Chief- Studies & Environmental Branch, Coastal Protection and Restoration Authority. 617 North 3rd Street Baton Rouge, Louisiana 70804-4027

Richard Hartman Fishery Biologist, National Marine Fisheries Service. Rm 266 Military Science Bldg South Stadium Drive, LSU Baton Rouge, Louisiana 70803-7535

Karen McCormick Section Chief Environmental Protection Agency, Region 6 Marine and Coastal Protection Division (6WQ-EC). 1445 Ross Avenue Dallas, Texas 75202-2733

Britt Paul, P.E. Assistant State Conservationist, Water Resources, Natural Resources Conservation Service. 3737 Government Street Alexandria, Louisiana 71302

Dana Masters Cultural Director, Jena Band of Chactaw Indians P.O. Box 14. Jena Louisiana 71342-0014 (in response to request for area information)

A solicitation of comments on the proposed project was conducted by mailing letters to the following listed entities prior to this analysis. Comments received are summarized in Appendix C and considered in analysis and project design. Full letters of reply are available in the project files maintained by the NOAA Fisheries Service.

8th Coast Guard District Commander
Choctaw Nation of Oklahoma
Chitimacha Tribe
Coalition to Restore Coastal Louisiana

Coushatta Tribe of Louisiana
 Department of Health and Hospitals Chief Sanitarian and Division of Environmental Health
 Department of Public Safety Highway Safety Commission
 Department of the Army Technical Support
 Department of Wildlife & Fisheries Louisiana Natural Heritage Program
 Department of Agriculture and Forestry - Office of Soil & Water Conservation and Office of Forestry
 Department of Culture Recreation & Tourism/Division of Archaeology and Office of State Parks
 Department of Economic Development Office of Business Development
 Division of Administration State Land Office and State Planning Office
 Environmental Protection Agency Source Water Protection and Federal Activities
 Federal Transit Administration Region 6
 Federal Emergency Management Agency Region VI
 Floodplain Management Program District 64
 Habitat Conservation Division of Louisiana State University Center for Wetlands Research
 Houma -Thibodaux Metropolitan Planning Organization
 Inter-Tribal Council of Louisiana, Inc
 Jena Band of Choctaw Indians
 Louisiana Department of Environmental Quality Beth Altazan-Dixon, Office of the Secretary
 Louisiana House of Representatives District 51 - Joe Harrison, District 52 - Gordon E Dove, SR, District
 53 Lenar L. Whitney
 Louisiana Senate District 20 - Norby Chabert, District 21 - R. L. "Bret" Allain
 Lafourche -Terrebonne Soil and Water Conservation District of Louisiana
 Louisiana Department of Natural Resources Office of Conservation, Office of Mineral Resources, and
 Coastal Management Division
 Louisiana Forestry Association
 Louisiana Good Roads Association
 Louisiana State Police
 Louisiana State University Sea Grant Legal Advisory Service
 Mississippi Band of Choctaw Indians
 Natural Resources Conservation Service
 Nichols State University
 Office of Indian Affairs
 Seminole Nation of Oklahoma
 South Central Planning and Development Commission
 South Louisiana Economic Council
 Terrebonne Parish Civil Defense
 Terrebonne Parish Consolidated Government
 Terrebonne Parish Police Floodplain Administrator
 Terrebonne Parish School
 Terrebonne Port Commission
 Tunica - Biloxi Tribe of Louisiana
 U.S. Geological Survey
 U.S. House of Representatives; District 1 - Steve Scalise, District 2 - Cedric Richmond, District 3 -
 Charles Boustany, Jr. MD, District 4 - John Fleming, MD, District 5 - Rodney Alexander, District 6 - Bill
 Cassidy, MD
 U.S. National Park Service
 U.S. Senate - David Vitter and Mary Landrieu

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APPENDIX A- ENVIRONMENTAL LAWS, AND REGULATIONS

The proposed action is compliant or in the process of compliance with the following laws and regulations. A current status of compliance is provided in the attached EA.

Archeological and Historic Preservation Act of 1974 The Archeological and Historic Preservation Act of 1974 states that, if an activity may cause irreparable loss or destruction of significant scientific, prehistoric, historic, or archeological data, the responsible agency is authorized to undertake data recovery and preservation activities, in accordance with implementing procedures promulgated by the Secretary of the Interior.

Clean Air Act of 1970 Under the Clean Air Act of 1970, Congress established procedures for developing National Ambient Air Quality Standards (NAAQS) for the protection of human health and public welfare. EPA published the NAAQS in 1971, and they became effective at that time. Standards are provided for the following criteria pollutants: carbon monoxide, sulfur dioxide, nitric oxide, ozone, lead, and fine particulate matter.

Clean Water Act (CWA) The CWA is the principal law governing pollution control and water quality of the nation's waterways. It requires the establishment of guidelines and standards to control the direct or indirect discharge of pollutants to waters of the United States. Discharges of material into navigable waters are regulated under Sections 303 and 404 of the CWA. The USACE has the primary responsibility for administering the Section 404 permit program. Under Section 303e of the CWA, projects that involve discharge or fill to wetlands or navigable waters must obtain certification of compliance with state water quality standards.

Coastal Zone Management Act The Coastal Zone Management Act (CZMA) provides for protection of resources found in the coastal zone, proactive land management practices, and preservation of unique coastal resources. Included in the CZMA is the requirement that all federal actions within the coastal zone of Louisiana must be consistent with the federally approved State of Louisiana Coastal Resource Management Plan.

Endangered Species Act of 1973 (ESA) The ESA directs all federal agencies to conserve endangered and threatened species and their habitats and encourages such agencies to utilize their authorities to further these purposes. Under the Act, NOAA Fisheries Service and USFWS publish lists of endangered and threatened species. Section 7 of the act requires that federal agencies consult with these agencies to minimize the effects of federal actions on endangered and threatened species.

Executive Order 11990, Protection of Wetlands The intent of Executive Order 11990, Protection of Wetlands, is to avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support for new construction in wetlands whenever there is a practicable alternative.

Executive Order 11998, Floodplain Management Executive Order 11998, Floodplain Management, requires each agency (including military departments) to determine whether any action undertaken would occur in a floodplain. The Federal Emergency Management Agency provides Flood Insurance Rate Maps (FIRM) for more than 19,000 communities in the country as part of the Flood Insurance Studies the agency completes. In addition to the 100-year floodplain, which is the area of the community with a 1 percent chance of flooding in any given year, the FIRM also illustrates coastal high hazard areas, the floodway, and the 500-year floodplain, which is the area of the community with a 0.2 percent chance of flooding in any given year.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs that the programs of federal agencies identify and address disproportionately high and adverse effects on human health and the environment of minority or low-income populations.

Fish and Wildlife Coordination Act The Fish and Wildlife Coordination Act requires agencies to consult with the USFWS, NOAA Fisheries Service, and appropriate state agencies, prior to modification of any stream or other body of water, to ensure conservation of wildlife resources. Compliance with the FWCA is integrated into the USACE interagency review process under Section 404 of the CWA as well as through the NEPA review process.

Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) In 1996, the act was reauthorized and changed by amendments to require that fisheries be managed at maximum sustainable levels and that new approaches be taken in habitat conservation. EFH is defined broadly to include “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity” (62 Fed. Reg. 66551, § 600.10 Definitions). The act requires consultation for all federal agency actions that may adversely affect EFH. Under Section 305(b)(4) of the act, NOAA Fisheries Service is required to provide advisory EFH conservation and enhancement recommendations to federal and state agencies for actions that adversely affect EFH. Where federal agency actions are subject to ESA Section 7 consultations, such consultations may be combined to accommodate the substantive requirements of both ESA and the Magnuson-Stevens Act.

Migratory Bird Treaty Act of 1918 (MBTA) The MBTA requires the protection of all migratory bird species and protection of ecosystems of special importance to migratory birds against detrimental alteration, pollution, and other environmental degradation. Coordination under MBTA is generally incorporated into Section 404 of the CWA, NEPA, or other federal permit, license or review requirements.

National Environmental Policy Act of 1969 NEPA was enacted in 1969 to establish a national policy for the protection of the environment. The CEQ was established to advise the President and to carry out certain other responsibilities relating to implementation of NEPA by federal agencies. Pursuant to Presidential Executive Order, federal agencies are obligated to comply with NEPA regulations adopted by the CEQ (40 CFR Parts 1500-1508). These regulations outline the responsibilities of federal agencies under NEPA and provide specific procedures for preparing environmental documentation to comply with NEPA.

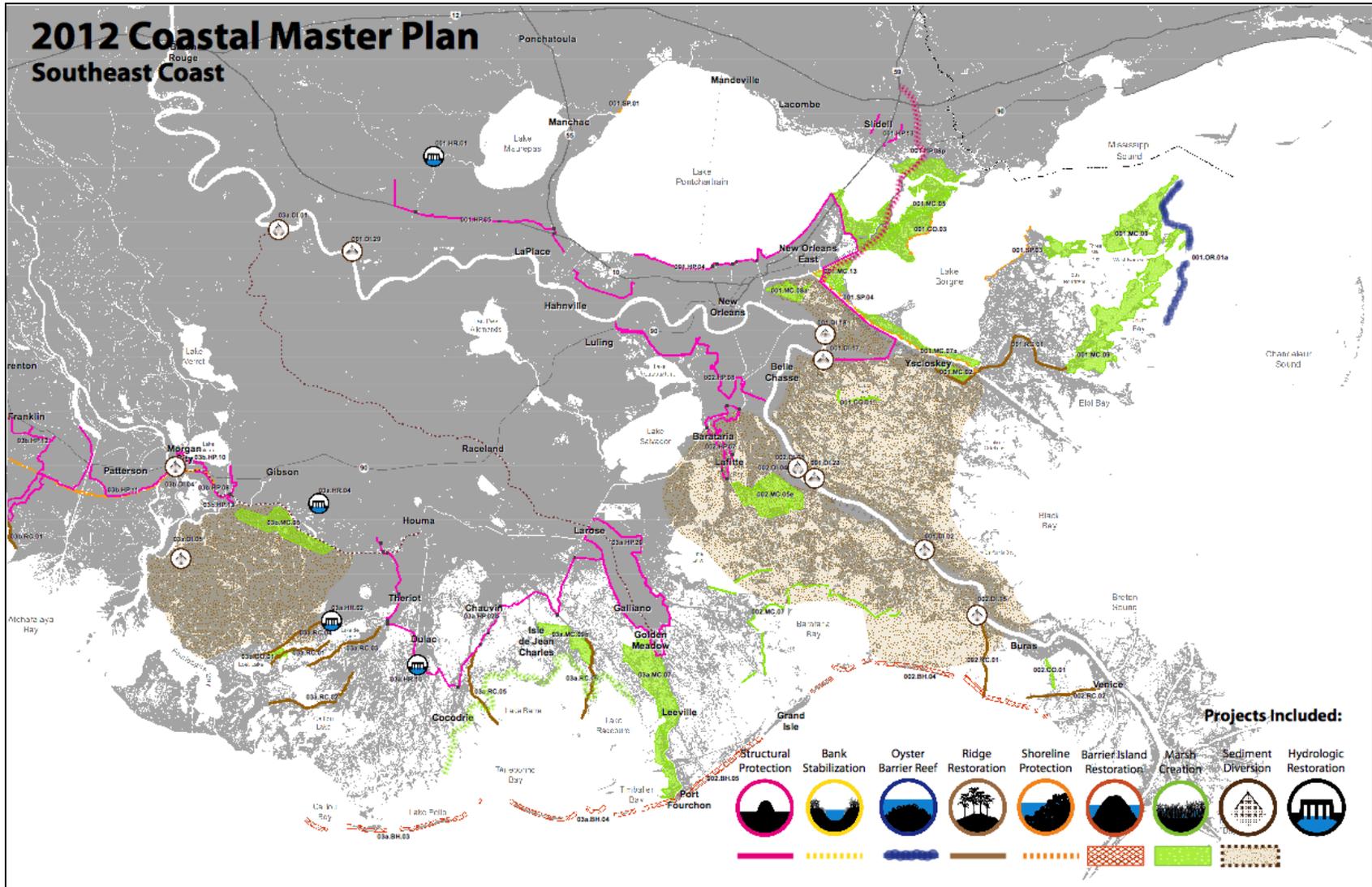
National Historic Preservation Act of 1966 The National Historic Preservation Act of 1966, as amended in 1992, requires that responsible agencies taking action that affects any property with historic, architectural, archeological, or cultural value that is listed on or eligible for listing on the National Register of Historic Places (NRHP) comply with the procedures for consultation and comment issued by the Advisory Council on Historic Preservation. The responsible agency also must identify properties affected by the action that are potentially eligible for listing on the NRHP, usually through consultation with the state historic preservation officer.

Overgrazing – requested Sept. 4, 2013 received 9-18-13

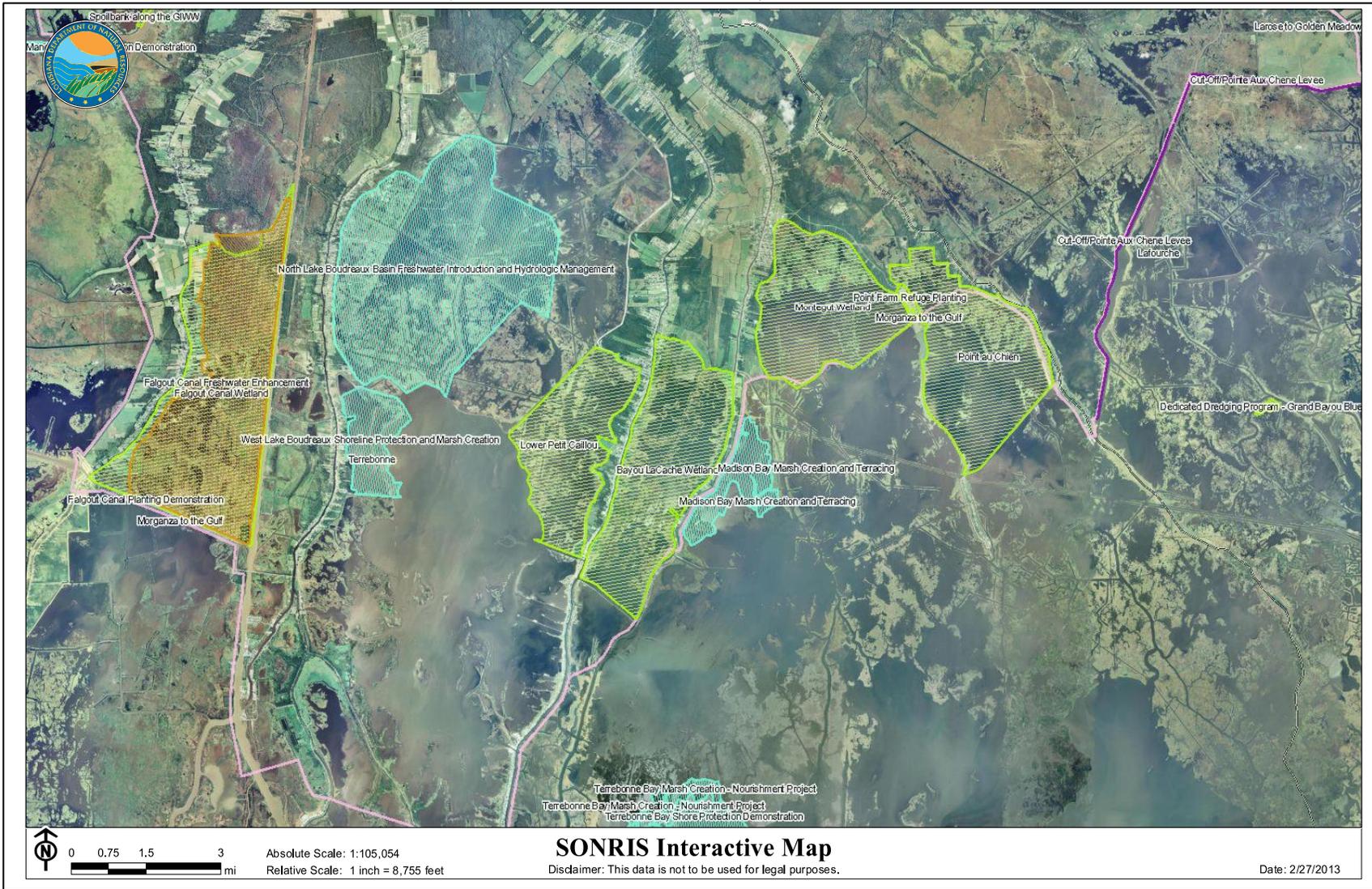
APPENDIX B- SUPPORTING DOCUMENTATION

APPENDIX B- SUPPORTING DOCUMENTATION

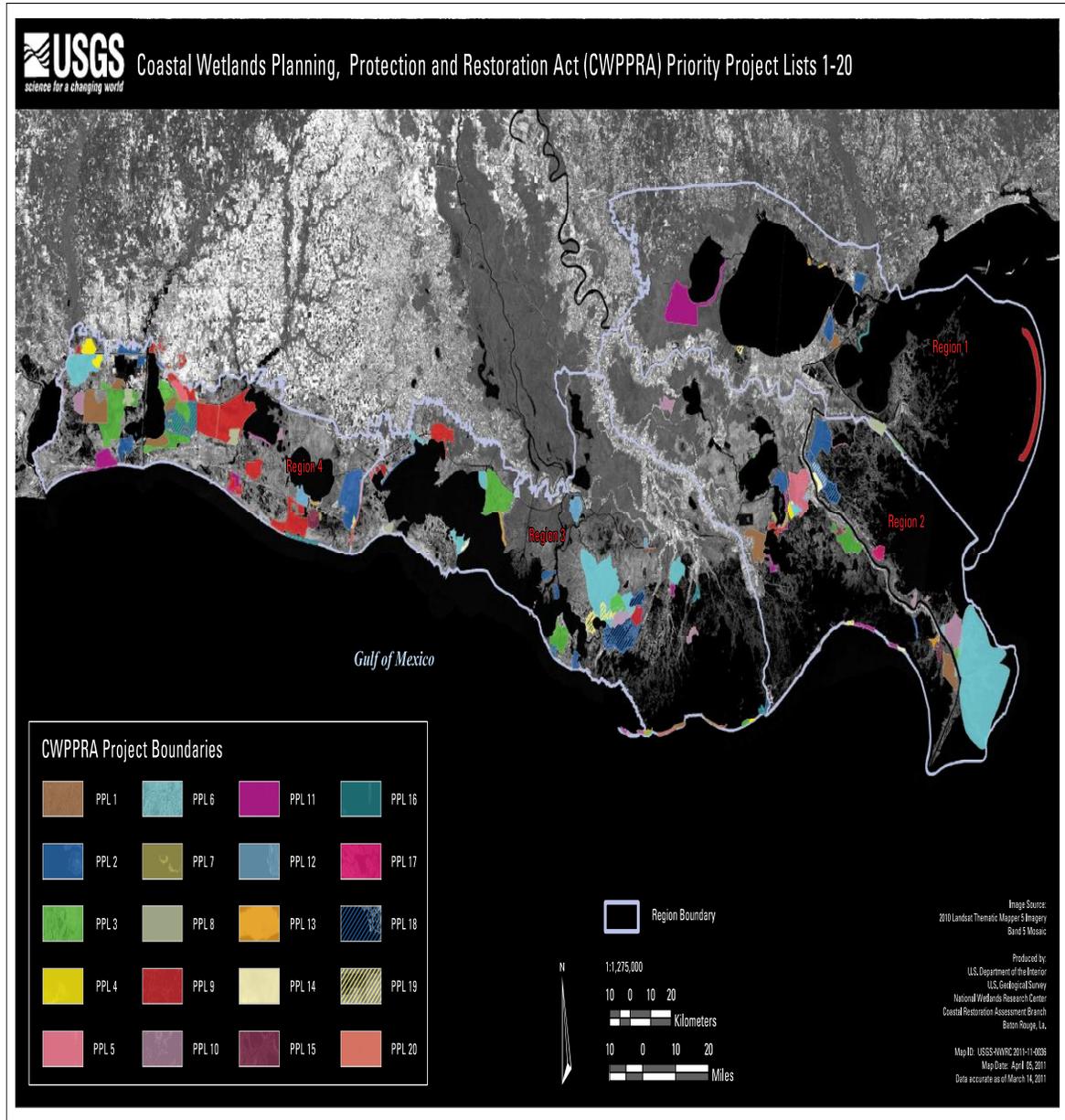
Coastal Master Plan For Southeast Louisiana



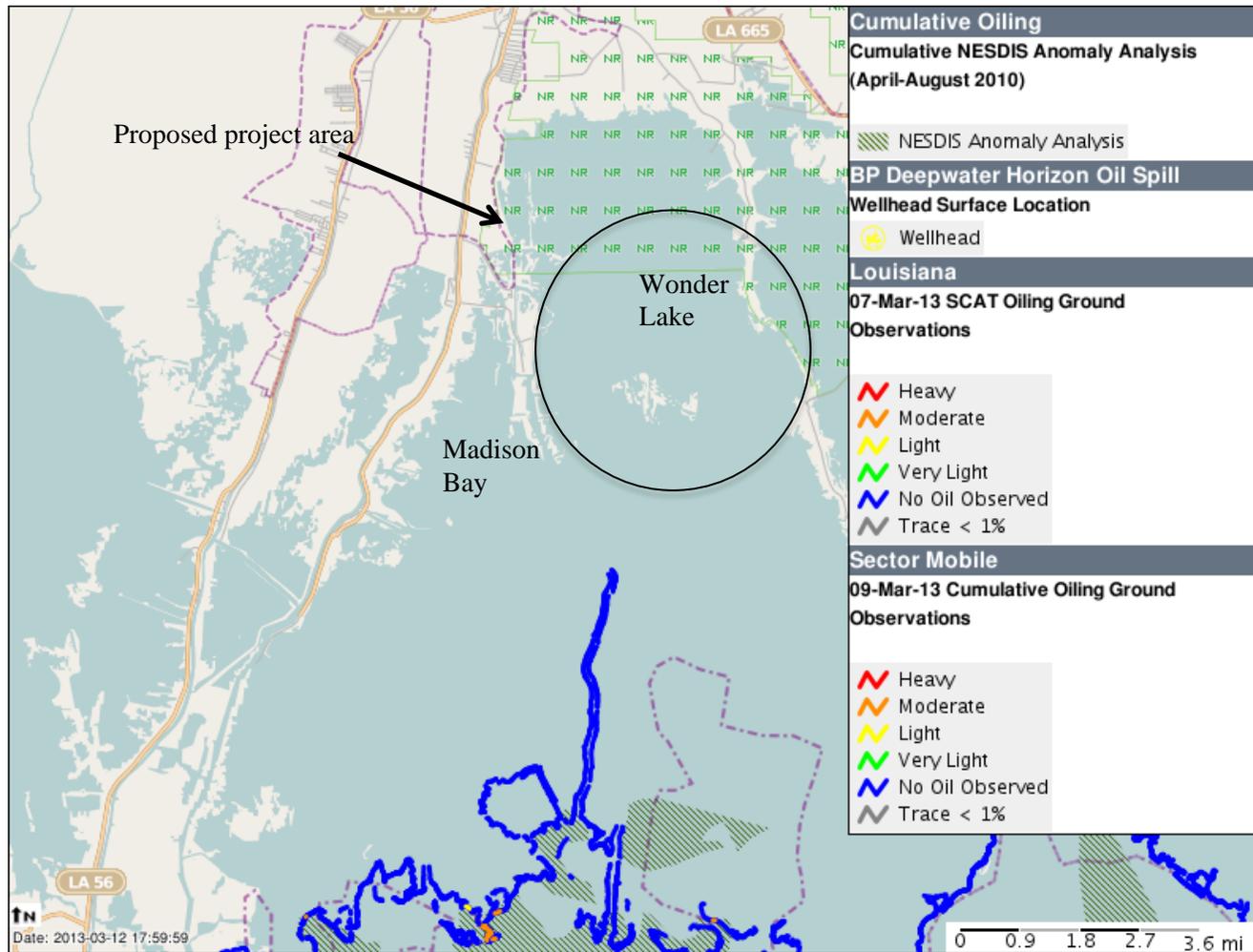
Coastal Protection and Restoration Authority of Louisiana Restoration Projects



CWPPRA Restoration Projects



Deepwater Horizon



US DOC | NOAA | NOS | NOAA Office of Response & Restoration
 Email Comments: orr.erma@noaa.gov

Coastal Response Research Center
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ERMA GULF RESPONSE

Source: <http://gomex.erma.noaa.gov/erma>

Environmental Justice



EJView ACS Summary Report



Location: -90.522537,29.468297,-90.571976,29.412087,-90.604935,29.357043,-90.612488,29.336693,-90.602188,29.31993

Study Area: 1 mile around the polygonal location

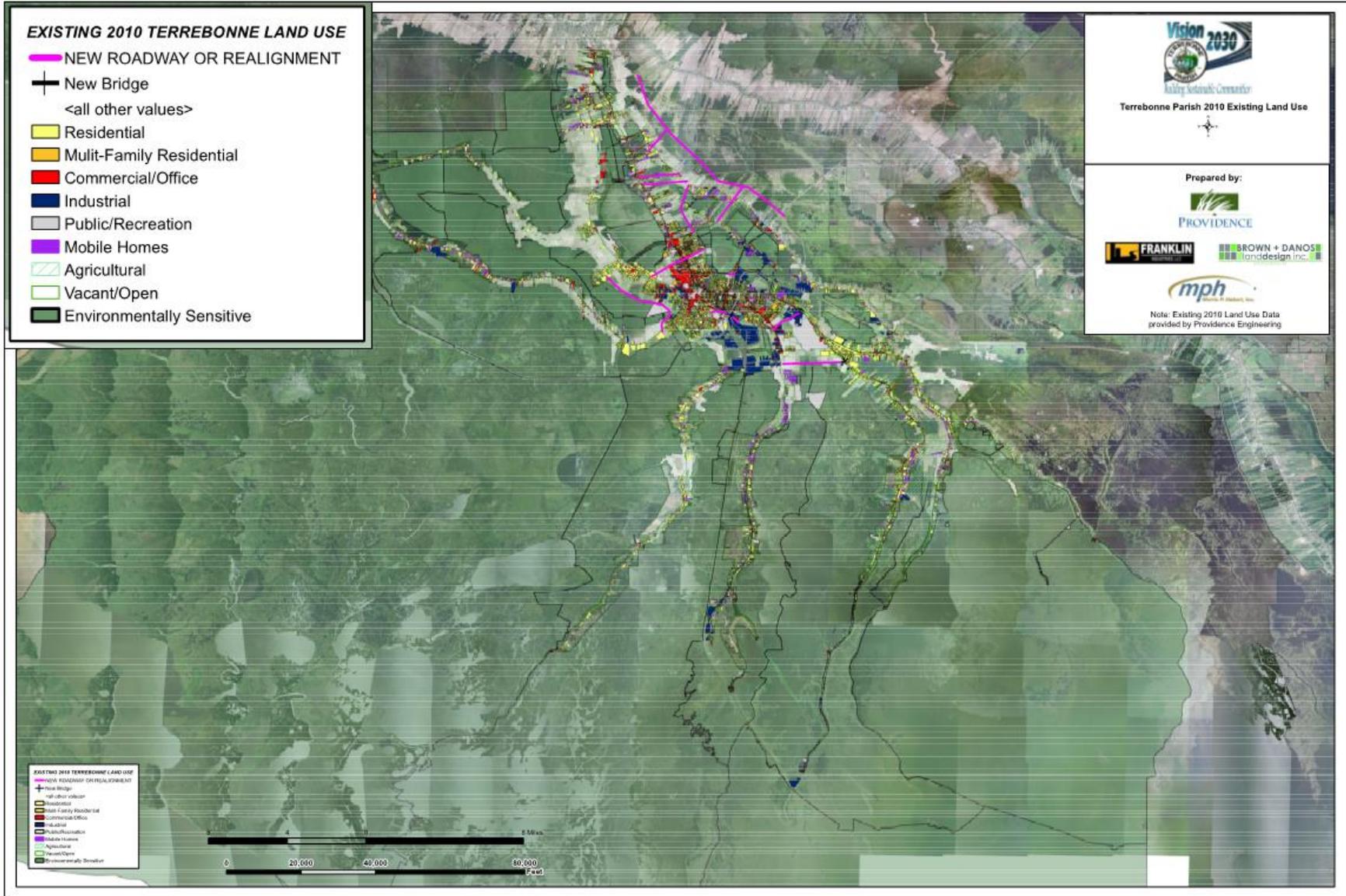
Summary of ACS Estimates	2006 - 2010
Population	798
Population Density (per sq. mile)	15
Minority Population	179
% Minority	22%
Households	290
Housing Units	430
Housing Units Built Before 1950	74
Per Capita Income	18,264
Land Area (sq. miles) (Source: SF1)	53.72
% Land Area	54%
Water Area (sq. miles) (Source: SF1)	46.45
% Water Area	46%

	2006 - 2010 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	798	100%	399
Population Reporting One Race	798	100%	1,069
White	620	78%	356
Black	0	0%	123
American Indian	178	22%	221
Asian	0	0%	123
Pacific Islander	0	0%	123
Some Other Race	0	0%	123
Population Reporting Two or More Races	0	0%	123
Total Hispanic Population	1	0%	123
Total Non-Hispanic Population	797		
White Alone	619	78%	356
Black Alone	0	0%	123
American Indian Alone	178	22%	221
Non-Hispanic Asian Alone	0	0%	123
Pacific Islander Alone	0	0%	123
Other Race Alone	0	0%	123
Two or More Races Alone	0	0%	123
Population by Sex			
Male	375	47%	184
Female	423	53%	255
Population by Age			
Age 0-4	72	9%	85
Age 0-17	226	28%	142
Age 18+	572	72%	298
Age 65+	104	13%	169

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available.

Source: U.S. Census Bureau, American Community Survey (ACS) 2006 - 2010.

Land use



APPENDIX C- CORRESPONDENCE

Department of Environmental Quality- no objection

Fwd: DEQ SOV 130530/1005 US Dept of Commerce-NOAA-Mad...

Subject: Fwd: DEQ SOV 130530/1005 US Dept of Commerce-NOAA-Madison Bay Marsh Creation and Terracing TE-51-Terrebonne Basin
From: John Foret - NOAA Federal <john.foret@noaa.gov>
Date: 6/5/13 1:56 PM
To: "Joy Merino (E-mail)" <joy.merino@noaa.gov>

For the file

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

Subject: DEQ SOV 130530/1005 US Dept of Commerce-NOAA-Madison Bay Marsh Creation and Terracing TE-51-Terrebonne Basin
Date: Wed, 5 Jun 2013 18:53:46 +0000
From: Beth Altazan-Dixon <Beth.Dixon@LA.GOV>
To: john.foret@noaa.gov <john.foret@noaa.gov>, joy.merino@noaa.gov <joy.merino@noaa.gov>

June 5, 2013

John Foret, PhD-NOAA Fisheries Service
US Department of Commerce-NOAA-National Fisheries Service
646 Canjundome Blvd, Room 175
Lafayette, LA 70506
john.foret@noaa.gov
joy.merino@noaa.gov

RE: 130530/1005 US Dept of Commerce-NOAA-Madison Bay Marsh Creation and Terracing TE-51-Terrebonne Basin
CWPPRA Funding
Terrebonne Parish

Dear Mr. Foret:

The Department of Environmental Quality (LDEQ), Business and Community Outreach Division has received your request for comments on the above referenced project.

After reviewing your request, the Department has no objections based on the information provided in your submittal. However, for your information, the following general comments have been included. Please be advised that if you should encounter a problem during the implementation of this project, you should immediately notify LDEQ's Single-Point-of-contact (SPOC) at (225) 219-3640.

- Please take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.
- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater.
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permits Division at (225) 219-9371 to determine if your proposed project requires a permit.
- If your project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit application or Notice of Intent must be submitted no later than January 1, 2013. Additional information may be obtained on the LDEQ website at <http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx> or by contacting the LDEQ Water Permits Division at (225) 219- 9371.
- If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps directly regarding permitting issues. If a Corps permit is required, part of the application process may involve a water quality certification from LDEQ.
- All precautions should be observed to protect the groundwater of the region.
- Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact the

Fwd: DEQ SOV 130530/1005 US Dept of Commerce-NOAA-Mad...

LDEQ Water Permits to determine if special water quality-based limitations will be necessary.

- Any renovation or remodeling must comply with LAC 33:III.Chapter 28, Lead-Based Paint Activities; LAC 33:III.Chapter 27, Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation); and LAC 33:III.5151, Emission Standard for Asbestos for any renovations or demolitions.
- If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at (225) 219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents.

Currently, Terrebonne Parish is classified as attainment with the National Ambient Air Quality Standards and has no general conformity determination obligations.

Please send all future requests to my attention. If you have any questions, please feel free to contact me at (225) 219-3958 or by email at beth.dixon@la.gov.

Sincerely,



Beth Altazan-Dixon, EPS III
Performance Management
LDEQ/Office of the Secretary
Business and Community Outreach and Incentives Division
P.O. Box 4301 (602 N. 5th Street)
Baton Rouge, LA 70821-4301
Phone: 225-219-3955
Fax: 225-325-8148
Email: beth.dixon@la.gov

John D. Foret <john.foret@noaa.gov>
Research Fisheries Ecologist
NOAA/NMFS/SEFSC/EHCFC

NOAA Fisheries Service - EFH Concurrence



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

June 26, 2013

F/SER46/RH:jk
225/389-0508

Dr. John Foret
National Marine Fisheries Service
SEFC/Estuarine Habitats & Coastal Fisheries Center
646 Cajundome Boulevard
Lafayette, Louisiana 70506

Dear Dr. Foret:

NOAA's National Marine Fisheries Service (NMFS) has received your letter dated May 29, 2013, pertaining to the Madison Bay Marsh Creation and Terracing Project (TE-51). In your letter, you solicited our views about the resources, concerns, and issues to be addressed in an Environmental Assessment (EA) for the TE-51 project under provisions of the National Environmental Policy Act.

Aquatic and tidally influenced wetland habitats in portions of the study area are designated as essential fish habitat (EFH) for postlarval and juvenile life stages of brown shrimp, white shrimp, and red drum. Fishery management plans (FMPs) for these species have been developed by the Gulf of Mexico Fishery Management Council (GMFMC). Detailed information on federally-managed fisheries and their EFH is provided in the 2005 generic amendment of the FMPs for the Gulf of Mexico prepared by the GMFMC. The generic amendment was prepared as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act, P.L. 104-297).

In addition to being designated as EFH for the brown shrimp, white shrimp, and red drum, water bodies and wetlands in the study area provide nursery and foraging habitats supportive of a variety of economically important marine fishery species, such as striped mullet, Atlantic croaker, gulf menhaden, spotted and sand seatrout, southern flounder, black drum, and blue crab. Some of these species also serve as prey for other fish species managed under the Magnuson-Stevens Act by the GMFMC (e.g., mackerels, snappers, and groupers) and highly migratory species managed by NMFS (e.g., billfishes and sharks). NMFS recommends the EA include separate sections titled "Essential Fish Habitat" and "Marine Fishery Resources" which identify the EFH and fisheries resources of the study area and describe the potential impacts and benefits to those resources that could be caused by various activities to be described and evaluated in the document. Potential direct adverse impacts of project implementation could result from the construction of impediments to marine fishery movements, smothering of benthos, or the filling of marsh or water bottoms to supratidal or higher elevations if desired marsh elevations are exceeded by the dredging contractor. Potential direct beneficial impacts could result from the restoration or maintenance of more productive categories of EFH (i.e., marsh and marsh edge).

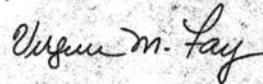


1287

The EFH and marine fishery resources sections of the document also should describe and quantify the potential impacts and benefits of the proposed construction activities on EFH sub-categories (e.g., marsh, marsh edge, mud bottoms, submerged aquatic vegetation, and estuarine water column). The EA should evaluate alternatives to any activities which would result in an adverse impact to those resources to determine if there are less damaging methods to achieve the same result. The overall net benefits of the project on wetland habitats supportive of marine fishery resources should not preclude efforts to avoid or minimize negative impacts of some design features on those resources.

We appreciate the opportunity to identify resources that should be evaluated in the EA, and to recommend alternatives and issues to be addressed. If you have any questions regarding comments, please contact Mr. Richard Hartman of our Baton Rouge Habitat Conservation Division office at (225) 389-0508, extension 203.

Sincerely,



Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

c:
F/SER46, Swafford
F/SER4, Rolfes, Dale
Files

SHPO Concurrence



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

NATIONAL MARINE FISHERIES SERVICE
SEFC/Estuarine Habitats & Coastal Fisheries Center
646 Cajundome Boulevard
Lafayette, Louisiana 70506

April 9, 2013

Pam Breaux
State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge LA 70804-44247

No known historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.

Pam Breaux 4-19-13
Pam Breaux Date
State Historic Preservation Officer

Dear Ms. Breaux,

The NOAA, National Marine Fisheries Service is reviewing a terrace and marsh creation project in Terrebonne Basin, Terrebonne Parish. We have prepared a cultural resources assessment for this activity (see attachment), as required under Section 106 of the National Historic Preservation Act of 1966, as amended. By transmittal of this letter and the attached cultural resource assessment, we request consultation with your office for cultural resources, and request a concurrence with our determination of effect.

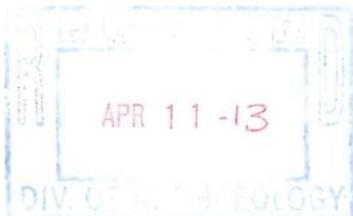
The Madison Bay Marsh Creation and Terracing Project (TE-51) is funded under the Coastal Wetlands Planning, Protection and Restoration Act. The Area of Potential Effects (APE) is located in the Montegut Quadrangle. During a recent visit to your office, we found no records of identified sites in the APE, nor in the Montegut Quadrangle.

Our proposed action includes creating and nourishing marsh from nearby bay sediments. Potential impacts can occur from dredging that could unearth unknown sites. The dredging proposed for this project will primarily be located where previous settlements are unlikely, such as shallow open water. We propose constructing terraces and marsh to reduce wave erosion to existing and created marsh and increase SAV habitat suitability. The area marked as "terrace" in the attached map is where mechanical dredging would occur in shallow open waters that were marsh within recent history. Figure 3 illustrates a typical cross section of a terrace and borrow area. The bay borrow area would be excavated to up to a 10 feet depth.

Attached are portions of the draft environmental assessment for this project that includes the project location and cultural resources summary. We consulted historic records including previous surveys of the area (your report # 22-1160 and 22-317). Your response would be appreciated no later than May 10, 2013, and may be addressed to me.

Sincerely,

Dr. John Foret
NOAA Fisheries Service
646 Cajundome Blvd
Lafayette, LA 70506
John.foret@noaa.gov



Summary of Comments from Solicitation of Views

- Office of Floodplain Administration and the Houma-Terrebonne Planning and Zoning “fully support the Madison Bay Marsh Creation and Terracing Project in Terrebonne Parish and would request that this project be constructed as soon as possible.”
- Choctaw Nation of Oklahoma “defer to the other Tribes that have been contacted.”
- Terrebonne Port Commission commented that the project “does not interfere with navigation...[we have] no objection.”
- SHPO commented that “no known historic properties will be affected.”
- South Central Planning and Development Commission believe the project “will not have a negative impact on open space, recreational, or cultural facilities...[and they] do not anticipate any impact on the existing demographic employment or income patterns of the area...[and] no one will be displaced by the project.”
- Louisiana Office of Conservation refers to the SONRIS data website where records for the project area indicate “numerous oil and/or gas wells located in the project area. The DNR water well database indicates that there are no registered water wells in the vicinity of the project area. However, it is possible that unregistered water wells may be located in the area.”
- Office of the Parish President was “delighted to support the efforts...[and] encourages continued efforts to design and seek funding for this project and would like to help further in any way.”
- Louisiana Department of Wildlife and Fisheries “indicates that the proposed project occurs within the boundaries of Pointe Aux Chenes Wildlife Management Area. No activities shall occur within any LDWF wildlife management area/ refuge without first obtaining proper authorization from LDWF. Please contact Mr. Mike Windham at 504-284-5268 to coordinate authorization...no other impacts to rare, threatened or endangered species or critical habitats are anticipated...” They reviewed records on the Louisiana Natural Heritage Program for known rare, endangered or otherwise significant plant and animal species, plant communities (not wetlands), and other natural features, however, many areas of Louisiana have not been surveyed, the review does not address the occurrence of wetlands, and should not be substituted for onsite surveys. They ask to be contacted at 225-765-2643, if any tracked species is encountered.
- EPA “concluded that the project does not lie within the boundaries of a designated sole source aquifer and is thus not eligible for review under the SSA.”
- FEMA Region VI “request that the Parish Floodplain Administrator be contacted [which has been done]...and be in compliance with EO11988 and EO11990 [as described in appendix A].”
- Louisiana Office of Public Health has “no objection” and advises compliance with any applicable State Sanitary Code regulations such as Title 51, Public Health –Sanitary Code [to be included in the States contracting for project work] and Title 48, Public Health-General [not applicable].
- Louisiana Department of Environmental Quality response was provided in full for attainment status reference purposes.
- USACE “do not anticipate any adverse impacts to [USACE] projects” and advise on permitting.
- Jena Band of Chactaw Indians requests we provide “a cultural resource report or any information in regards to the presence of survey site within the area.

USFWS Concurrence



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

NATIONAL MARINE FISHERIES SERVICE
SEFC/Estuarine Habitats & Coastal Fisheries Center
646 Cajundome Boulevard
Lafayette, Louisiana 70506

April 2, 2013

Jeffery Weller
U.S. Fish and Wildlife Service
646 Cajundome Blvd.
Lafayette, LA 70506

Dear Jeffery Weller,

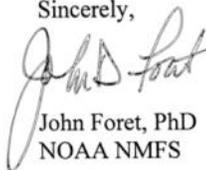
The NOAA National Marine Fisheries Service is the federal sponsor of the *Madison Bay Marsh Creation and Terracing Project* (TE-51) in the Terrebonne Basin. As part of the preparation of the Environmental Assessment, in compliance with the National Environmental Policy Act, we ask the Service to provide a list of endangered, threatened, and proposed species and designated and proposed critical habitats that may occur in the project area, shown in the enclosed information.

This TE-51 project is being funded under the Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA), of which your agency is a cooperating partner. We appreciate your participation in identifying any concerns you have regarding fish and wildlife resources, including threatened and endangered species that may be affected by the proposed project.

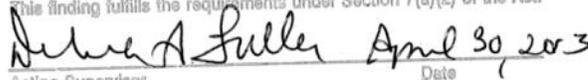
The project location is saline marsh and open water, and is shown on the map provided. Our proposed action includes creating and nourishing marsh from nearby bay sediments. We propose constructing terraces and marsh to reduce wave erosion to existing and created marsh and increase SAV habitat suitability.

Please do not hesitate to call or write (337) 291-2107, john.foret@noaa.gov with any questions or concerns that this request raises.

Sincerely,


John Foret, PhD
NOAA NMFS

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act). The project, as proposed,
 Will have no effect on those resources
 is not likely to adversely affect those resources.
This finding fulfills the requirements under Section 7(a)(2) of the Act.


Date

Acting Supervisor
Louisiana Field Office
U.S. Fish and Wildlife Service



NOAA Fisheries Service – Protected Resources Concurrence

Pending as of this draft



OFFICE OF THE PARISH PRESIDENT
TERREBONNE PARISH CONSOLIDATED GOVERNMENT
P. O. Box 6097
HOUMA, LOUISIANA 70361-6097



MICHEL H. CLAUDET
PARISH PRESIDENT

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

November 26, 2013

Colonel Richard Hansen
District Engineer, New Orleans
c/o: Brad Inman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

RE: TE-51; Madison Bay Marsh Creation & Terracing Project; Terrebonne Parish, LA

Col. Hansen:

With our history of devastation from storms, salt water intrusion, subsidence, and erosion, Terrebonne Parish is definitely Ground Zero for land loss in Coastal Louisiana. According to a recent study by the United States Geological Survey, Terrebonne Parish has lost an average of a football field of land every 5 hours between 1932 and 2010. The most rapid loss of land is in the eastern part of the parish, which is more isolated from fresh water and sediment sources than the western side, which benefits from the resources afforded by the Atchafalaya River. As Terrebonne Parish President, it is with the utmost urgency that I ask you, along with the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Technical Committee and Task Force, to approve funding for the Madison Bay Marsh Creation & Terracing Project (Project No. TE-51).

The project is located in an area historically impacted by all the factors listed above, as well as a lack of sediment supply and oil and gas canals dating back several decades. The loss of land in this area has diminished the habitat necessary for native species of wildlife, fisheries, and vegetation to thrive and reproduce. Marsh creation associated with this project will restore some of that lost habitat and reduce storm surge action in a large open water area, providing future protection to a very fragile portion of the Terrebonne Hydrologic Basin. Earthen Terraces will further impede damaging storm surge forces. In addition to benefits from habitat restoration, the project will provide storm-side protection for Reach J-2 of the future Morganza to the Gulf alignment, which the Terrebonne Levee and Conservation District is working tirelessly to put on the ground in order to protect property and infrastructure of our district.

When reviewing Louisiana's 2012 Comprehensive Master Plan for a Sustainable Coast, the necessity of this project is quite clear. Much of eastern Terrebonne Parish was ignored in the Master Plan because modeling efforts associated with composition of the plan suggested that the area was not sustainable. Aside from obvious flaws in the modeling efforts, most notably a disregard for synergistic qualities of projects within close proximity to one another, we cannot ignore the emergency needs of an area that thousands of Americans call home. Since the CWPPRA Task Force has elected to require future CWPPRA projects to be consistent with the 2012 State Master Plan, this project may be one of our last chances to put a necessary and highly beneficial project on the ground before the next Master Plan update in 2017.

As we understand it, this project was relocated from its originally proposed location, due to poor soil conditions in the originally proposed area. The geotechnical investigations conducted in the new project area are very promising, and will allow the CWPPRA program to help prove that eastern Terrebonne is, in fact, a very sustainable area that should not be written off and allowed to wash away. The Terrebonne Levee & Conservation District has recently constructed earthen terraces in the immediate vicinity of the project area that have proven viable through the most recent tropical events.

Consisting of 470 acres of marsh and 42 acres of earthen terraces and estimating a cost of approximately \$36 million, I again urge you to approve funding of the Madison Bay Marsh Creation and Terracing Project at the December 12, 2013 CWPPRA Technical Committee meeting. Terrebonne is disappearing at an alarmingly fast rate. We need to approve and construct vitally important projects like this one before time runs out for our residents.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michel H. Claudet', with a long, wavy horizontal line extending to the right.

Michel H. Claudet
Parish President



Leslie R. Suazo
Coastal Restoration Coordinator

C/O ConocoPhillips Company 806 Bayou Black Drive P.O. Box 7097 Houma, LA 70361-7097 lsuazo@ducks.org
985-853-3020 Fax: 985-872-1509

November 26, 2013

Mr. Thomas A. Holden, Chairman
Deputy District Engineer
U.S. Army Engineer District, New Orleans
Office of the Chief
P.O. Box 60267
New Orleans, Louisiana 70160

Re: Madison Bay Marsh Creation - Phase II Funding Request

Dear Mr. Holden:

As you are likely aware, the National Marine Fisheries Service will be requesting Phase II funding for the Madison Bay Marsh Creation and Terracing Project (TE-51) at the meeting of the CWPPRA Technical Committee scheduled for December 12, 2013. I would like to offer the following comments in support of funding for the project, and hope that you will consider this information when evaluating candidate projects.

The proposed project area is located in the eastern portion of the Terrebonne Basin, within the Montegut Ecological Management Unit (EMU) as identified by the Terrebonne Parish Coastal Zone Management Program Document (2000). This management unit lies within the Mississippi flyway, and provides critical, high quality wintering habitat for a large number of waterfowl species, and is adjacent to the Montegut subunit of the Wildlife Management Area managed by Louisiana Department of Wildlife and Fisheries.

The primary goals of this important project are to create and nourish marsh and associated edge habitat and to promote conditions conducive to the growth of submerged aquatic vegetation, an essential waterfowl habitat. In addition, the project features will provide natural protection for the adjacent Bayou St. Jean Charles Ridge, reducing impacts from wave erosion.

The implementation of this project is expected to result in the creation of approximately 470 acres of brackish marsh and the construction of 24,600 linear feet of terraces.

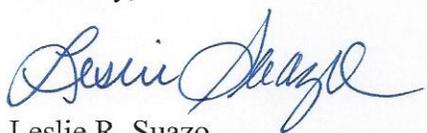
This project is in keeping with Louisiana's 2012 Comprehensive Plan for a Sustainable Coast (including recent guidance developed for CWPPRA projects), and the Terrebonne Parish Coastal Zone Management and Restoration Advisory Committee continues to rank this area as a priority area in its

ongoing restoration planning efforts. In addition, restoration projects in this area will produce positive synergies with on-going levee and mitigation projects in adjacent areas being implemented by the Terrebonne Levee and Conservation District. Synergistic benefits will also be provided by ongoing efforts in the area sponsored by Ducks Unlimited, Inc., with the participation of cooperating landowners, Terrebonne Parish Consolidated Government, and the Terrebonne Levee District.

Please give this project every favorable consideration possible under the guidelines used by the Coastal Protection and Restoration Authority when evaluating projects for Phase II (construction) funding through the CWPPRA program.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Leslie R. Suazo".

Leslie R. Suazo
Coastal Restoration Coordinator

Cc: Garret Graves, GOCA
Michel Claudet, Terrebonne Parish
Timothy Allen, Apache Louisiana Mineral LLC
Phil Precht, Conoco Phillips
Jerry Holden, Ducks Unlimited
Scott Manley, Duck Unlimited
Nick Matherne, Terrebonne Parish

985.873.6401 Office

985.873-6409 Fax

Saltwater Fishing Capital of the World

Go Green. Please consider the environment before printing this email.

LBC_ConsolGovRGB

From: Michel Claudet
Sent: Friday, December 06, 2013 9:13 AM
To: 'Hansen, Richard L COL MVN'; 'Holden, Thomas A MVN'
Subject:

Dear Colonel and Tom, the CWPPRA Tech Committee is scheduled for Thursday in Baton Rouge. Terrebonne has two projects that need the support of the Corps. I have attached data sheets and talking points on each project. Madison Bay is up for construction funding and Island Road is up for engineering and design.

These projects are both very critical. I certainly helps to protect our Morganza levees. It certainly is in an area with a large Native American population. We have strong agency support but we need your support.

Please remember that these are both in Eastern Terrebonne which had overwhelming public support for additional projects in our area.

We respectfully ask for your support.

Michel H. Claudet

Parish President

P.O. Box 6097

Houma, LA 70361

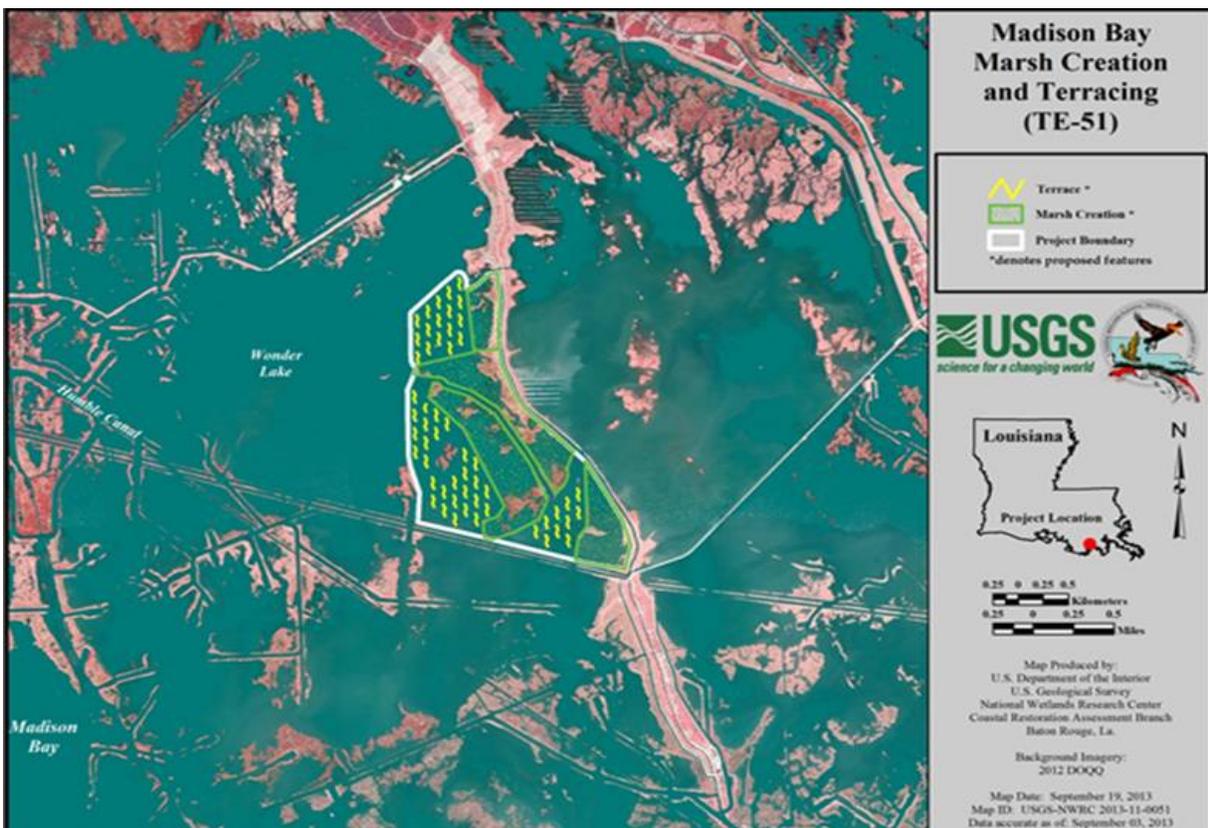
985.873.6401 Office

985.873-6409 Fax

Madison Bay Marsh Creation & Terracing Project, TE-51

Up for Construction Funding

- Will restore lost wildlife & fisheries habitat and reduce storm surge in the large open water area
- Will provide storm-side protection for Reach J-2 of Morganza to the Gulf
- Will provide great benefit to the Wildlife Management Area
- Project Will prove what we CAN do in the eastern part of Terrebonne
- 3 landowners: 1 private landowner, Wildlife & Fisheries (Management Area), & Apache
- Apache submitted letter of support in November
- Terrebonne Levee District built terraces near project area that have held up through recent storms





→ *Inman*
[Signature]
Corporate Real Estate
SLA / Feelands
ConocoPhillips Company
P.O. Box 7097
Houma, LA 70361-7097
phone 985-879-1517
fax 985-872-1509

December 9, 2013

Mr. Thomas A. Holden, Chairman
Deputy District Engineer
U.S. Army Engineer District, New Orleans
Office of the Chief
P.O. Box 60267
New Orleans, Louisiana 70160

Re: Madison Bay Marsh Creation - Phase II Funding Request

Dear Mr. Holden:

As I am sure you are aware, the National Marine Fisheries Service will be requesting Phase II funding for the Madison Bay Marsh Creation and Terracing Project (TE-51) at the meeting of the CWPPRA Technical Committee scheduled for December 12, 2013. I would like to offer the following comments in support of funding for the project, and hope that you will consider this information when evaluating candidate projects.

The primary goals of this important project are to create and nourish marsh and associated edge habitat and to promote conditions conducive to the growth of submerged aquatic vegetation, an essential waterfowl habitat. In addition, the project features will provide natural protection for the adjacent Bayou St. Jean Charles Ridge, reducing impacts from wave erosion. The implementation of this project is expected to result in the creation of approximately 470 acres of brackish marsh and the construction of 24,600 linear feet of terraces.

This project will compliment current and planned restoration activities in adjacent areas, including the Phase I candidate project, Island Road Marsh Creation, ongoing protection and mitigation efforts in the area by the Terrebonne Levee and Conservation District as well as efforts planned by the Louisiana Land Exploration Company (LL&E) through its partnership with Ducks Unlimited, Inc.

While LL&E is not the landowner for this project, we have been full participants in coastal restoration activities in Louisiana and whole heartedly support State and Federal efforts to restore, enhance or protect coastal wetlands. We along with Fina- LaTerre, now Apache, were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We hope to continue that cooperative effort and are requesting your support for this project as an important part of the preservation of coastal wetlands in Terrebonne Parish.

Thank you for your consideration and support of restoration activities in the Terrebonne Basin.

Sincerely,

Louisiana Land and Exploration Company, LLC
Phillip R. Precht
Attorney-in Fact

Received By
CEMVN-EX
US Army Corps of Engineers
New Orleans District

DEC 10 2013

**Cameron Creole Grand Bayou Marsh Creation
(CS-54)**

Cameron-Creole Watershed Grand Bayou Marsh Creation (CS-54) Phase II Request

Technical Committee Meeting

December 12, 2013
Baton Rouge, LA







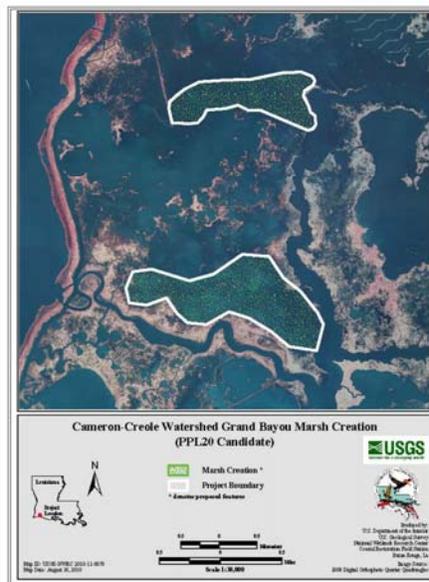
Project Background and Purpose

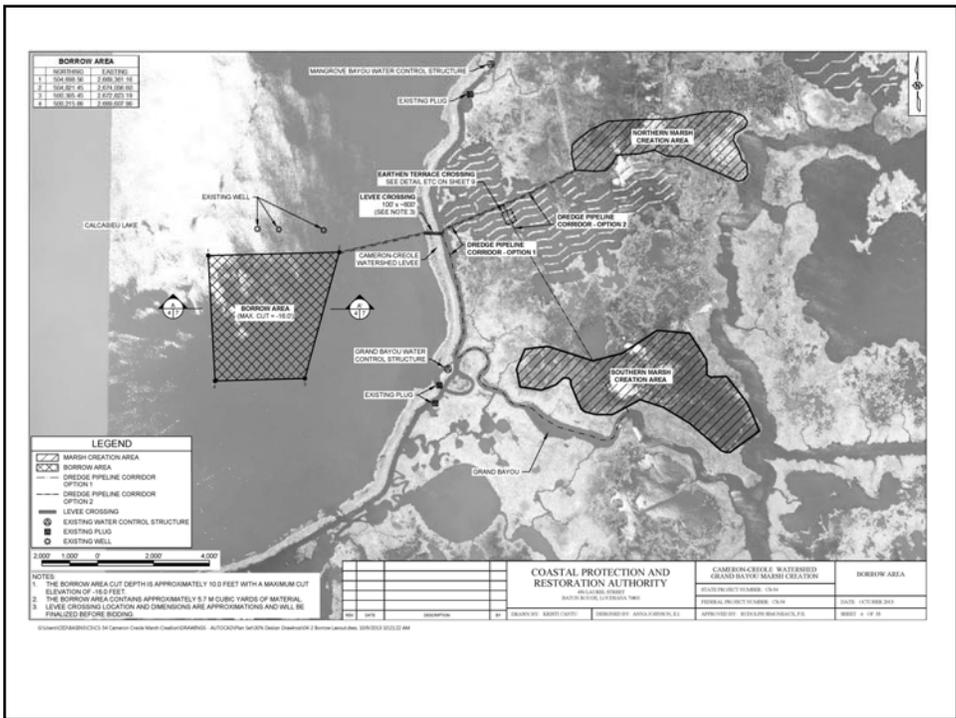
- Phase 1 approval in January 2012 as part of the 20th Priority Project List
- Rebuild the marsh lost due to scour and storm surge by Hurricanes Rita and Ike
- Re-create low salinity brackish marsh in the open water areas immediately behind the Cameron-Creole Watershed levee north of Grand Bayou
- Buffer tidal exchange through the Cameron-Creole Watershed
- Restore marshes that support the Calcasieu Lake estuary



Marsh Creation & Nourishment

- **Northern Cell**
 - 177 ac created
 - 41 ac nourished
- **Southern Cell**
 - 376 ac created
 - 22 ac nourished
- **616 Acres Total**





Project Benefits and Costs

- The project benefits 616 acres of marsh and open water habitats
- 476 net acres at the end of the 20-year project life
- Wetland Value Assessment – 193 net AAHUs
- Fully funded cost of \$27,102,976
- **Today's Phase 2 Increment 1 request - \$24,147,733**



Why Fund This Project Today?

- Takes advantage of shallow open water created by Hurricanes Rita and Ike
- Would help to buffer tidal exchange within the watershed and to support management of the watershed
- Restores marshes that support fish and wildlife resources within the Cameron Creole Watershed, Cameron Prairie NWR, and the Calcasieu Lake Estuary
- Located in an area that is supported by the 2012 State Master Plan





United States Department of the Interior

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



November 22, 2013

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

Dear Mr. Holden:

The Fish and Wildlife Service and Louisiana Coastal Protection and Restoration Authority would like to submit the South Grand Chenier Marsh Creation (ME-20) and Cameron-Creole Watershed Grand Bayou Marsh Creation (CS-54) projects for Phase 2 construction funding approval. Those projects were approved for Phase 1 funding by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Task Force as part of the 11th and 20th Project Priority Lists, respectively. The enclosed packets include all information required for a Phase 2 authorization request, per the CWPPRA Standard Operating Procedures. These Phase 2 authorization requests were also sent electronically to all CWPPRA Technical Committee and Planning and Evaluation Subcommittee members.

Each project has received favorable 30% and 95% Design Reviews, and are, to our knowledge, without controversy. The South Grand Chenier (ME-20) project has received a favorable National Environmental Policy Act (NEPA) review and we anticipate favorable NEPA reviews for the Cameron-Creole Watershed Grand Bayou (CS-54) project as well.

If you have any questions regarding this letter and submittal, please contact Mr. Darryl Clark of this office at (337) 291-3111.

Sincerely,

Jeffrey D. Weller
Supervisor
Louisiana Field Office

Enclosures

cc: via email
Britt Paul, NRCS, Alexandria, LA
Bren Haase, LA CPRA, Baton Rouge, LA

Karen McCormick, EPA, Dallas, TX
Richard Hartman, NMFS, Baton Rouge, LA
Chris Allen, LA CPRA, Baton Rouge, LA
Brad Inman, COE, New Orleans, LA
Rachel Sweeney, NMFS, Baton Rouge, LA
John Jurgensen, NRCS, Alexandria, LA
Brad Crawford, EPA, Dallas, TX
Andrew Beall, LA CPRA, Baton Rouge, LA
Rudy Simoneaux, LA CPRA, Baton Rouge, LA
Amanda Bordelon, LA CPRA, Baton Rouge, LA

Phase II Authorization Request

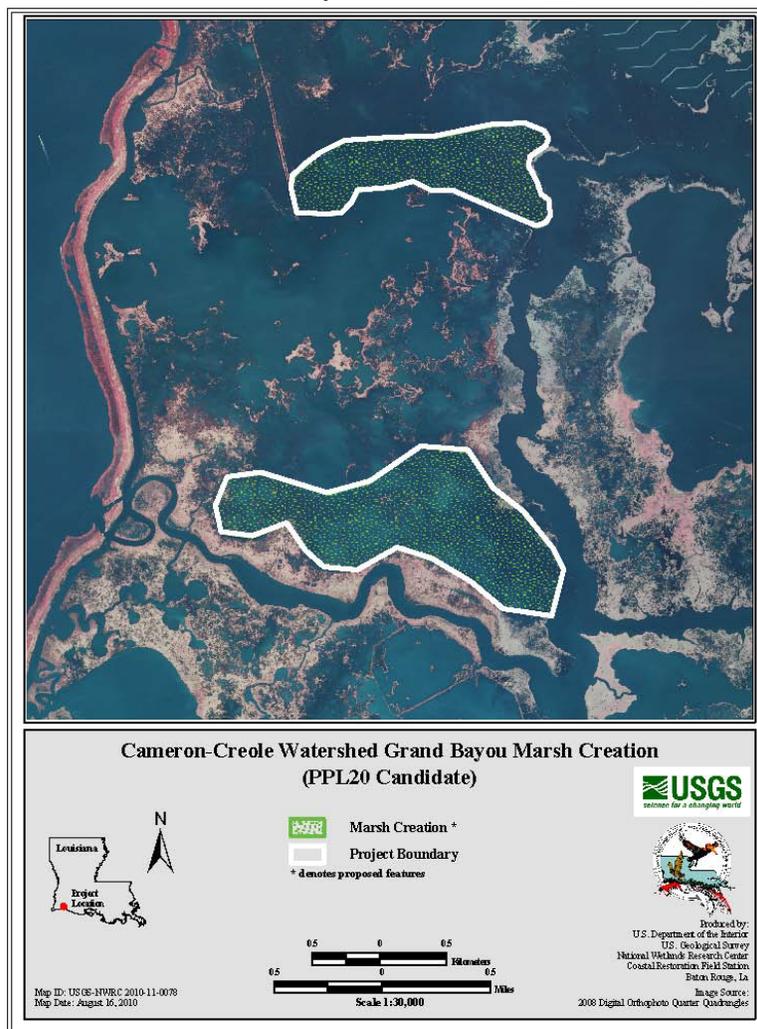
Cameron Creole Grand Bayou Marsh Creation Project

CS-54

Description of Phase I Project

The CS-54 Project was approved for Phase I funding on the 20th Priority Project List of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). At the time of Phase 1 approval the project's goals were to create 603 acres and nourish 13 acres of brackish marsh with dedicated dredged material from Calcasieu Lake to benefit fish and wildlife resources within the Cameron Prairie NWR and adjacent brackish marshes. The following figure illustrates the project features and project boundary at the time of Phase I authorization.

Figure 1: Project Features and Boundary.



The original project included construction of two separate marsh creation areas, a 398-acre area on the Cameron Prairie National Wildlife Refuge and a 218-acre area on Miami Corporation

Overgrazing Determination; and 16) 95% Design Review meeting. The details of those E&D tasks were presented and discussed at the 30% and 95% Design Review meetings.

Overall, no major feature change from the approved conceptual project (Phase I) occurred during Phase I development.

Description of the Revised (Current) Project Features

The currently proposed project consists of hydraulically dredging bottom sediments in Calcasieu Lake and pumping that material into open-water and fragmented marsh areas in the project area to create and nourish approximately 616 acres of marsh within two marsh creation areas. Initial fill elevations of between +3.2 and +3.7 feet for the Northern Cell and +3.4 and +3.9 feet for the Southern Cell are proposed and would ultimately settle to an elevation at or near +1.1 feet within the project life. Those values are extremely close to the existing healthy marsh elevation of +1.08 feet and fall within watershed water level projections through the project life. An additional area to the west of the Northern Marsh Creation Area was also included in the surveys and geotechnical investigations per the request of the landowner, Miami Corporation. Figure 1 represents the location (in purple) of this additional area.

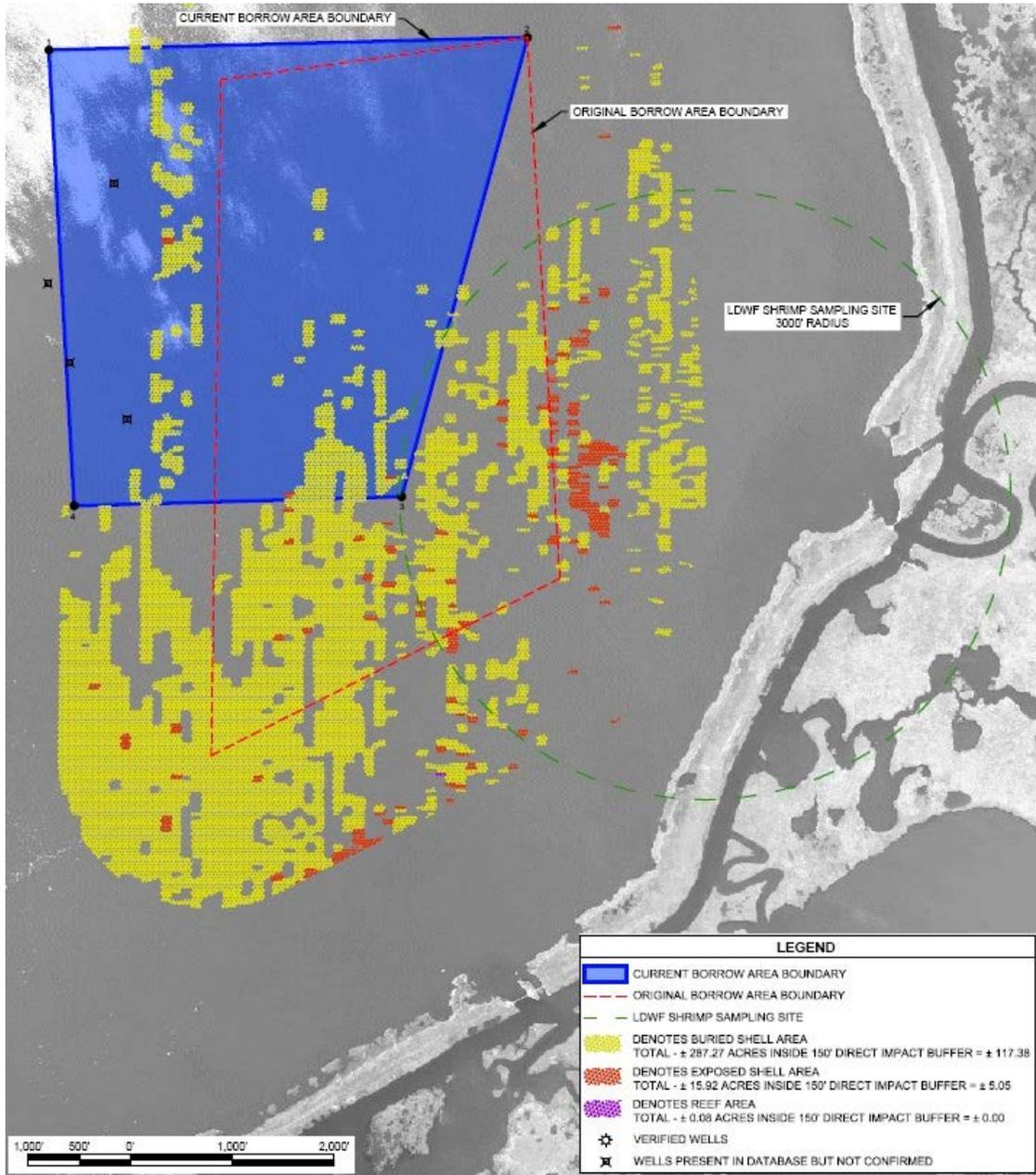
Figure 2: Additional Marsh Creation Area.



Though this area will not be a part of the 95% Design and the Phase II funding request, it will be permitted in case of low bids or additional funding.

A 390-acre area of water bottom in Calcasieu Lake has been designated as a borrow area (Figure 3). The maximum dredge depth is 10 feet below the lake bottom (-16 feet North American Vertical Datum of 1988 (NAVD 88) and a side slope of 3 feet horizontal for every foot of vertical rise (3H:1V) will be maintained to lessen the chance of anoxic conditions within the borrow area. A magnetometer survey was conducted in the proposed borrow area to identify pipelines and other hazards, and the borrow area has been configured to avoid those hazards.

Figure 3. Designated Area for Borrow.



**Checklist of Phase II Request Requirements
Cameron Creole Watershed Grand Bayou Marsh Creation Project (CS-54)**

A. List of Project Goals and Strategies

Goals:

1. Protect the Watershed levee from waves generated in the east.
2. Act as a buffer for tidal exchange within the Cameron-Creole Watershed.
3. Rebuild the marsh lost due to scour and storm surge by Hurricanes Rita and Ike.
4. Construct a marsh that will perform comparably to existing healthy marsh in the Cameron-Creole Watershed.

Objectives/Strategies

1. Restore 616 acres of brackish marsh that were lost due to scour and storm surge by Hurricanes Rita and Ike through hydraulically dredging material from Calcasieu Lake. Marsh restoration will be done in 2 marsh creation cells via the placement of approximately 2.6 million cubic yards of dredged material from borrow sites located in Calcasieu Lake.

The goals and objectives will be achieved by the project features described above. Project strategies and features have, for the most part, remained as proposed during Phase 0.

B. A Statement that the Cost-Sharing Agreement Between the Lead Agency and Local Sponsor has been Executed for Phase I.

Cost Share Agreement between CPRA and FWS was executed on March 14, 2011.

C. Notification from the State that Land Rights will be Finalized in a Short Period of Time after Phase II Approval.

The Service forwarded a copy of CPRA's Temporary Easement, Servitude, and Right-of-Way agreement (unsigned) for the CS-54 project to the Corps along with NRCS's Overgrazing Determination for their 303(e) determination on October 31, 2013.

By letter dated September 20, 2013, the State of Louisiana, through its Coastal Protection and Restoration Authority (CPRA) Lands Section also provided a land rights status letter. CPRA has indicated that all ownership investigations should be completed in approximately three months. Because lands within the project area are owned by two landowners (i.e., Miami Corporation and the Federal Government) no significant land rights acquisition problems are anticipated.

D. A Favorable Preliminary Design Review (30 Percent Design Level)

A 30 Percent Design Meeting was held in March 2013, and resulted in favorable reviews of the project design. Responses to all meeting and post-meeting comments were provided. The Service and CPRA agreed to proceed with the project.

E. A Favorable Final Project Design Review (95 Percent Design Level)

A favorable 95 Percent Design Meeting was held on October 24, 2013. No major design issues were identified.

F. A Draft of the Environmental Assessment for the Project, as Required under the National Environmental Policy Act, must be Submitted 30 days Before the Request for Phase II Approval

The FWS anticipates submitting a preliminary draft Environmental Assessment for agency review on November 27, 2013 (2 weeks before the December 12th Technical Committee Meeting). That review is expected to be completed in March 2014.

G. A Written Summary of the Finding of the Ecological Review

It was determined by CPRA and USFWS that no Ecological Review would be needed for this project.

H. Application for and/or Issuance of the Public Notices for Permits

Application for the Corps of Engineers permit and the Louisiana Coastal Resources Program consistency determination has been prepared and will be submitted should Phase II funding be awarded. DNR will forward the application to the LA Department of Environmental Quality for Water Quality Certification Review.

I. A Statement that a Hazardous, Toxic and Radiological Waste (HTRW) Assessment has been Prepared, if Required

The USFWS does not have the ability to issue HTRW Assessment at this time. A cursory screening of in-house databases and Environmental Protection Agency and Louisiana Department of Environmental Quality databases did not reveal any HTRW issues.

J. Section 303(e) Approval from the Corps

The project is consistent with the requirements of CWPPRA Section 303(e). A request for Section 303(e) approval was submitted to the Corps on October 31, 2013.

K. Overgrazing Determination from the NRCS

The Service received an Overgrazing Determination from the NRCS on October 22, 2013.

L. Revised Project Cost Estimate

The revised total budget for Phase II is \$27,102,976. This amount represents an increase of 16 percent (\$3,697,364) over the original Phase II cost estimate (\$23,405,612) (See attached

Request of Phase II Cost Estimate Table).

M. A Revised Wetland Value Assessment (WVA) must be Prepared if, During the Review of the Preliminary NEPA Documentation, Three of the Task Force Agencies Determine that a Significant Change in the Project Scope Occurred

A revised WVA was submitted to and reviewed by the Environmental Working Group. While the project scope has not significantly changed, methods in conducting the WVA have been revised by the Environmental Workgroup. The initial WVA completed in October 2010 yielded 534 net acres with a project boundary of 616 acres. The revised WVA completed in October 2013 yielded 476 net acres for the same project boundary area.

Table 2: Comparison of Original and Revised Wetland Value Assessments

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)
Candidate Project	534	214.41
Phase II Revised Project	476	193.33
Difference	-58	-21.08

Phase II Request

Based on the above information, the FWS and CPRA hereby request CWPPRA Task Force Phase II funding approval for the Cameron Creole Watershed Grand Bayou Marsh Creation Project (CS-54) in the 3-year incremental amount of **\$24,147,733**. That amount includes \$17,695,031 for construction; \$783,198 for supervision and inspection; \$4,423,758 for contingencies; \$442,376 for administration by the Federal sponsor and \$382,927 for State administration; \$236,304 for monitoring; \$177,882 for operations and maintenance (State and Federal); and \$6,258 for Corps project management (See attached Request for Phase II Approval Cost Estimate Table).

AT/DC 11-22-2013



Cameron-Creole Watershed Grand Bayou Marsh Creation (CS-54)

Project Status

Approved Date: 2011 **Project Area:** 616 acres
Approved Funds: \$2.37 M **Total Est. Cost:** \$23.4 M
Net Benefit After 20 Years: 534 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 20

Location

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

Problems

Approximately 14,390 acres (32%) of the Cameron-Creole Watershed Project (CCWP) marshes were lost to open water from 1932 to 1990 at an average loss rate of 248 acres/year (0.55 percent/year) due to subsidence and saltwater intrusion from the Calcasieu Ship Channel. The CCWP was implemented by the NRCS in 1989 to reduce saltwater intrusion and stimulate restoration through revegetation. Hurricanes Rita and Ike in 2005 and 2008 breached the watershed levee scouring the marsh and allowing higher Calcasieu Lake salinities to enter the watershed causing more land loss. The Calcasieu-Sabine Basin lost 28 square miles (17,920 acres) (4.4%) as a result of Hurricane Rita (Barras et al. 2006). Land loss is estimated to be 1.33 percent/year based on USGS data from 1985 to 2009 within the extended project boundary.



This picture shows the depletion of the marsh due to saltwater intrusion from the Gulf.

Restoration Strategy

Project goals include restoring and nourishing hurricane-scoured marsh in the Cameron Prairie National Wildlife Refuge and adjacent brackish marshes of the Calcasieu Lake estuary. Approximately 3 million cubic yards of material would be dredged from a borrow site proposed in Calcasieu Lake and placed into two marsh creation areas north of Grand Bayou to restore 609 acres and nourish approximately 7 acres of brackish marsh. The borrow site would be designed to avoid and minimize impacts to oysters and other sensitive aquatic habitat. Tidal creeks would be constructed prior to placement of dredge material and retention levees would be gapped to support estuarine fisheries access and to achieve a functional marsh. The project would result in approximately 534 net acres of brackish marsh over the 20-year project life.

Progress to Date

This project is on Priority Project List 20. Phase 1 funding approval for engineering and design was given by the Task Force in January 2011.

For more project information, please contact:



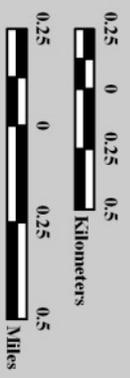
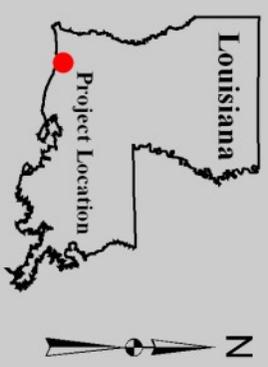
Federal Sponsor:
U.S. Fish and Wildlife Service
Lafayette, LA
(337) 291-3100



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

Cameron Creole Watershed Grand Bayou Marsh Creation (CS-54)

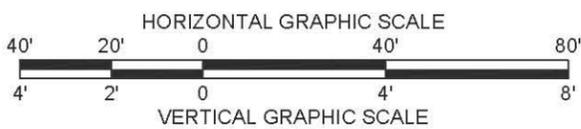
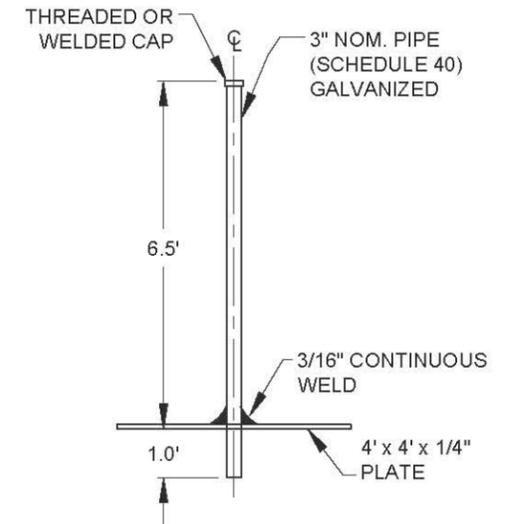
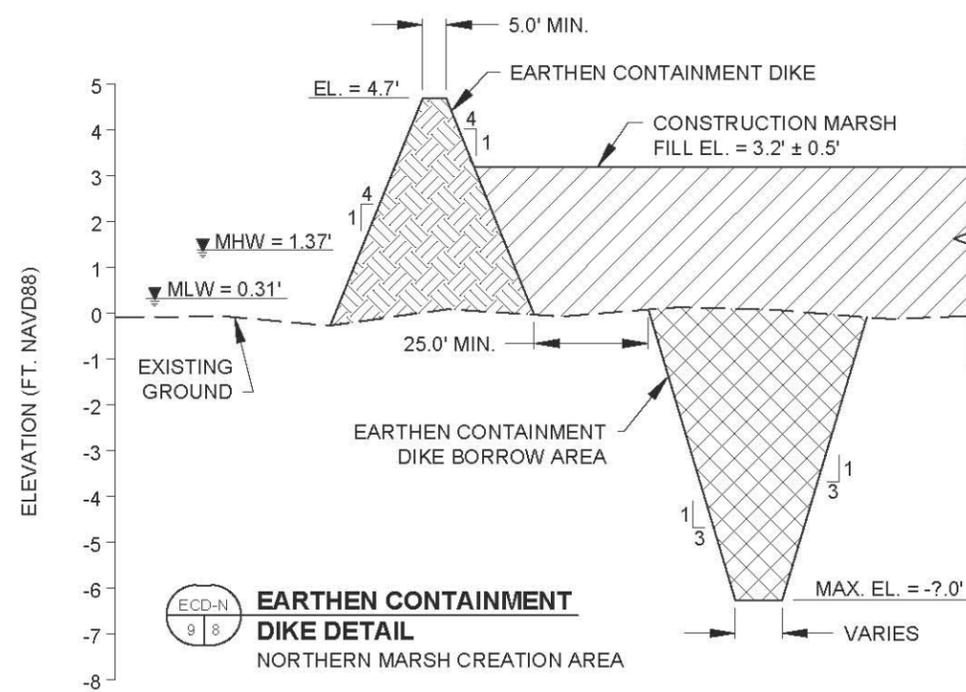
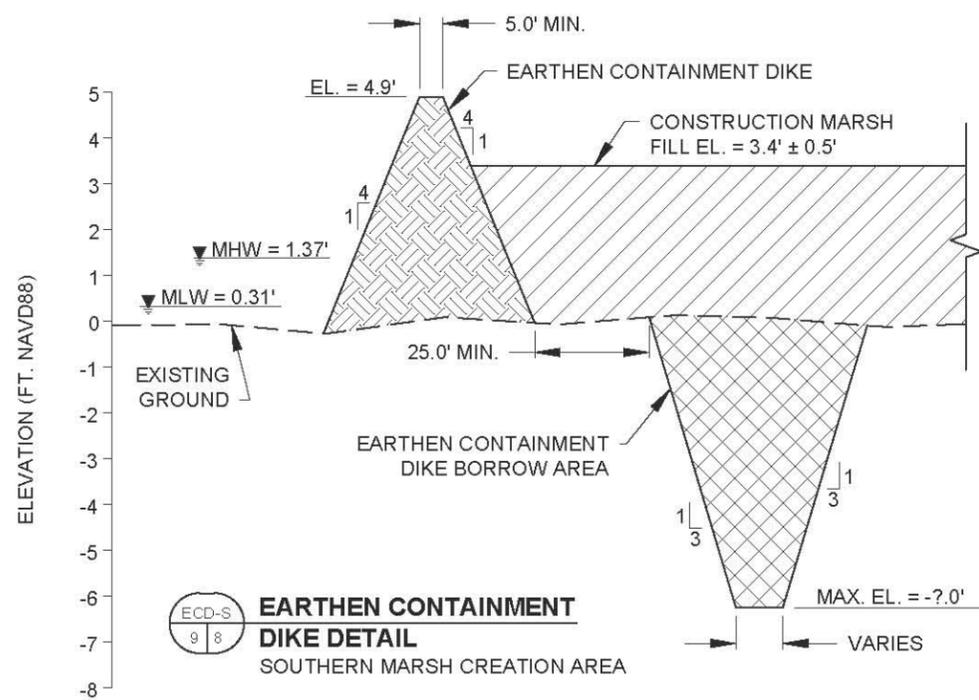
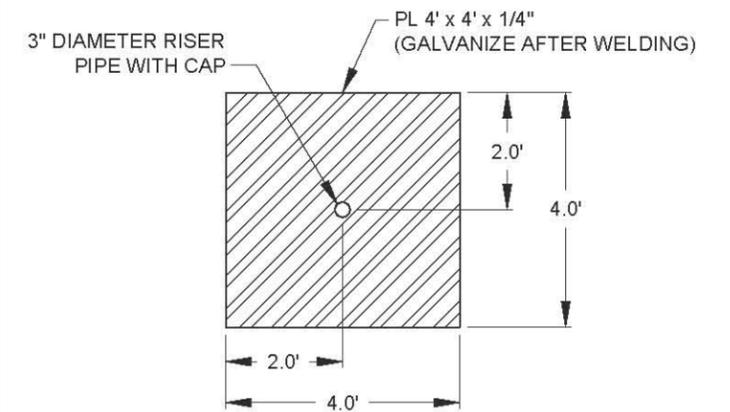
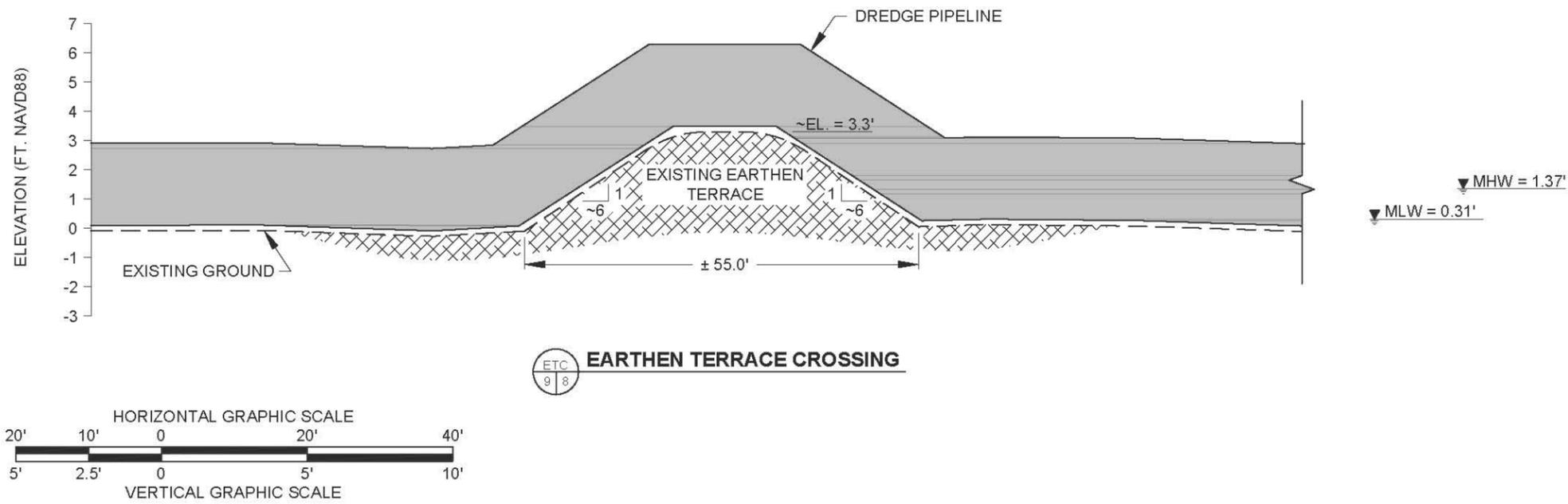
-  Marsh Creation *
-  Project Boundary
- *denotes proposed features



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:
 2008 Digital Orthophoto Quarter Quadrangle
 Map Date: January 24, 2011
 Map ID: USGS-NWRC 2011-11-0014
 Data accurate as of: January 3, 2011



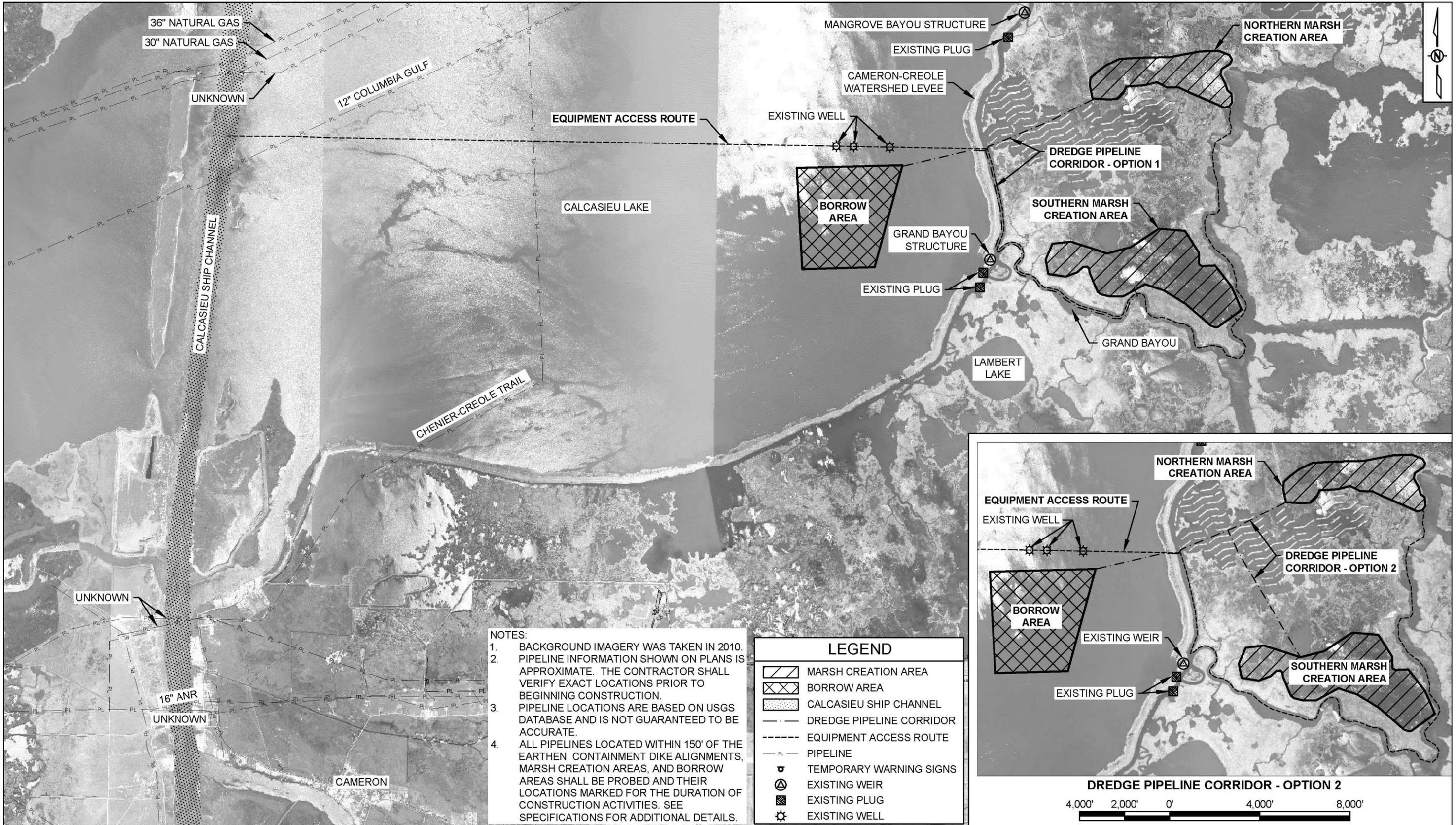


LEGEND			
	EARTHEN CONTAINMENT DIKE		MARSH CREATION FILL
	EARTHEN CONTAINMENT DIKE BORROW AREA		EXISTING GROUND

- SETTLEMENT PLATE NOTES:
1. SETTLEMENT PLATES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
 2. LOCATION AND ELEVATION WILL BE RECORDED DURING AS-BUILT SURVEY.

- NOTES:
1. THE EARTHEN CONTAINMENT DIKES SHALL BE CONSTRUCTED USING IN-SITU MATERIAL. SEE SHEET 5 & 6 FOR EARTHEN CONTAINMENT DIKE LOCATIONS.
 2. THE LENGTHS OF EACH EARTHEN CONTAINMENT DIKE WERE ESTIMATED USING AUTOCAD AND AERIAL PHOTOGRAPHY.
 3. THE OWNER RESERVES THE RIGHT TO REQUEST ADDITIONAL LINEAR FEET OF EARTHEN CONTAINMENT DIKE FOR CONSTRUCTION AT THE CONTRACTOR'S UNIT BID PRICE.

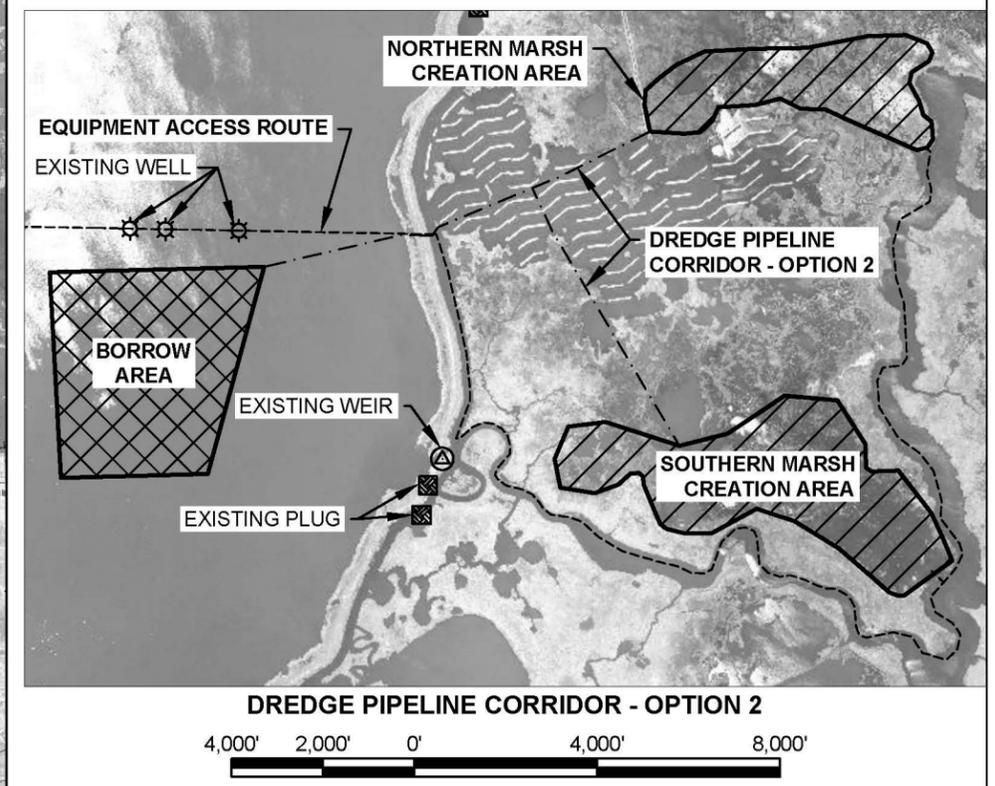
				COASTAL PROTECTION AND RESTORATION AUTHORITY		CAMERON-CREOLE WATERSHED GRAND BAYOU MARSH CREATION		DETAILS	
				450 LAUREL STREET BATON ROUGE, LOUISIANA 70801					
				DRAWN BY: KRISTI CANTU		DESIGNED BY: ANNA JOHNSON, E.I.		STATE PROJECT NUMBER: CS-54	
						APPROVED BY: RUDOLPH SIMONEAUX, P.E.		FEDERAL PROJECT NUMBER: CS-54	
								DATE: OCTOBER 2013	
								SHEET 9 OF 33	
REV.	DATE	DESCRIPTION	BY						



NOTES:

1. BACKGROUND IMAGERY WAS TAKEN IN 2010.
2. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
3. PIPELINE LOCATIONS ARE BASED ON USGS DATABASE AND IS NOT GUARANTEED TO BE ACCURATE.
4. ALL PIPELINES LOCATED WITHIN 150' OF THE EARTHEN CONTAINMENT DIKE ALIGNMENTS, MARSH CREATION AREAS, AND BORROW AREAS SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. SEE SPECIFICATIONS FOR ADDITIONAL DETAILS.

LEGEND	
	MARSH CREATION AREA
	BORROW AREA
	CALCASIEU SHIP CHANNEL
	DREDGE PIPELINE CORRIDOR
	EQUIPMENT ACCESS ROUTE
	PIPELINE
	TEMPORARY WARNING SIGNS
	EXISTING WEIR
	EXISTING PLUG
	EXISTING WELL



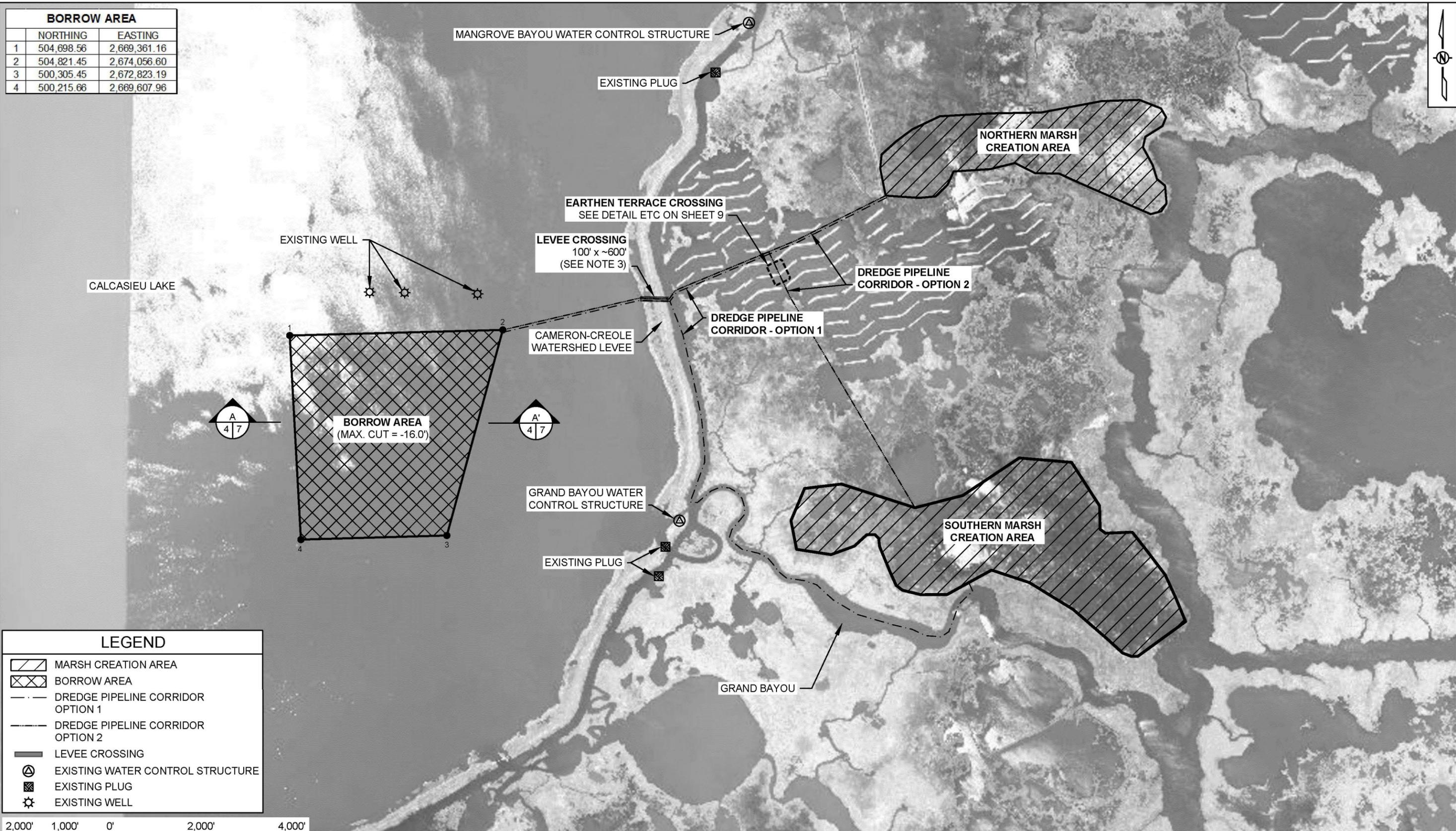
REV.	DATE	DESCRIPTION	BY

COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL STREET
 BATON ROUGE, LOUISIANA 70801

DRAWN BY: KRISTI CANTU DESIGNED BY: ANNA JOHNSON, E.I.

CAMERON-CREOLE WATERSHED GRAND BAYOU MARSH CREATION		PROJECT LAYOUT
STATE PROJECT NUMBER: CS-54		DATE: OCTOBER 2013
FEDERAL PROJECT NUMBER: CS-54		APPROVED BY: RUDOLPH SIMONEAUX, P.E.
		SHEET 3 OF 33

BORROW AREA		
	NORTHING	EASTING
1	504,698.56	2,669,361.16
2	504,821.45	2,674,056.60
3	500,305.45	2,672,823.19
4	500,215.66	2,669,607.96



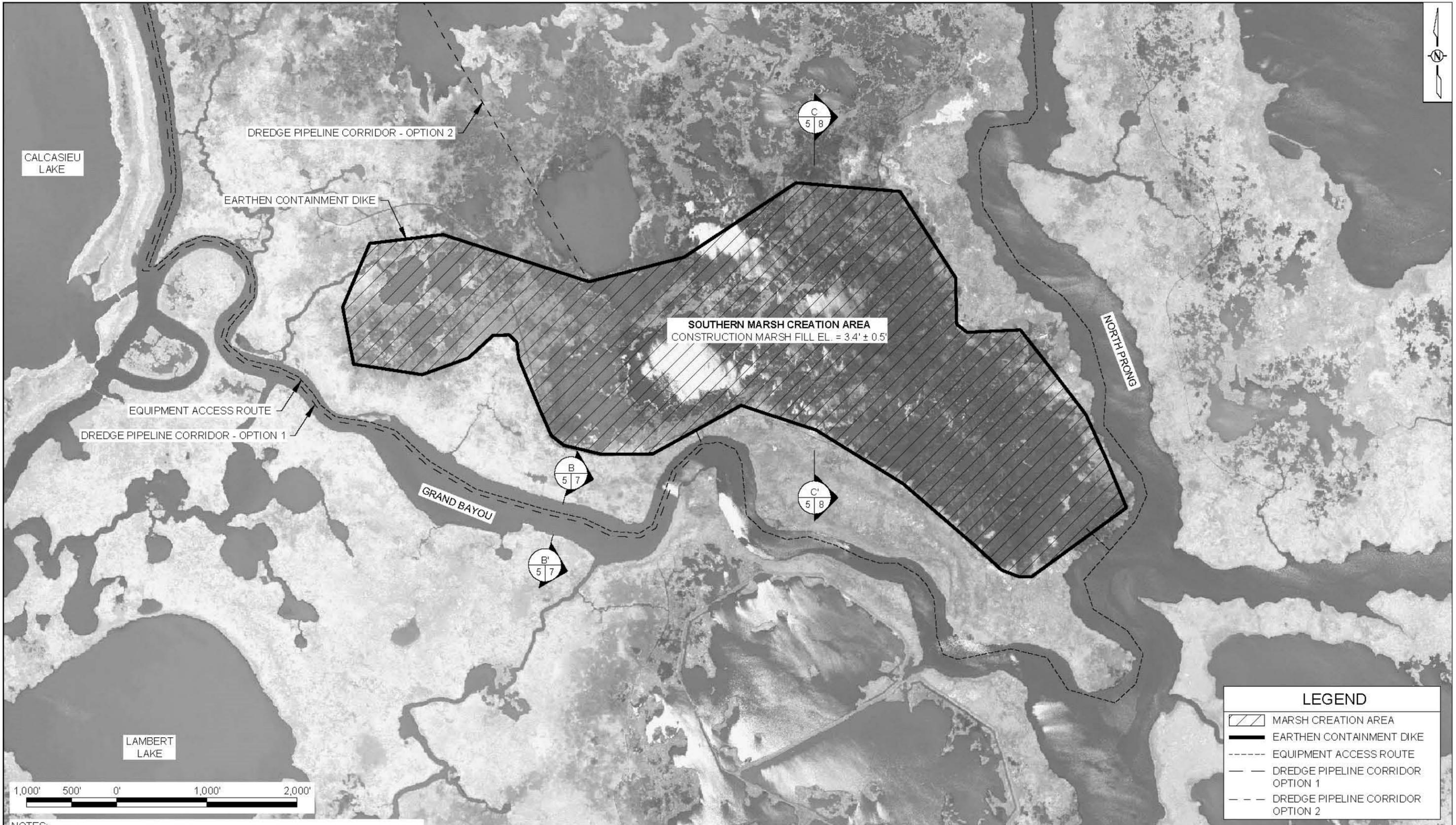
LEGEND	
	MARSH CREATION AREA
	BORROW AREA
	DREDGE PIPELINE CORRIDOR OPTION 1
	DREDGE PIPELINE CORRIDOR OPTION 2
	LEVEE CROSSING
	EXISTING WATER CONTROL STRUCTURE
	EXISTING PLUG
	EXISTING WELL



NOTES:
 1. THE BORROW AREA CUT DEPTH IS APPROXIMATELY 10.0 FEET WITH A MAXIMUM CUT ELEVATION OF -16.0 FEET.
 2. THE BORROW AREA CONTAINS APPROXIMATELY 5.7 M CUBIC YARDS OF MATERIAL.
 3. LEVEE CROSSING LOCATION AND DIMENSIONS ARE APPROXIMATIONS AND WILL BE FINALIZED BEFORE BIDDING.

REV.	DATE	DESCRIPTION	BY

COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		CAMERON-CREOLE WATERSHED GRAND BAYOU MARSH CREATION		BORROW AREA
		STATE PROJECT NUMBER: CS-54		
DRAWN BY: KRISTI CANTU		DESIGNED BY: ANNA JOHNSON, E.I.		DATE: OCTOBER 2013
APPROVED BY: RUDOLPH SIMONEAUX, P.E.		SHEET 4 OF 33		



CALCASIEU LAKE

DREDGE PIPELINE CORRIDOR - OPTION 2

EARTHEN CONTAINMENT DIKE

SOUTHERN MARSH CREATION AREA
CONSTRUCTION MARSH FILL EL. = 3.4' ± 0.5'

NORTH PRONG

EQUIPMENT ACCESS ROUTE

DREDGE PIPELINE CORRIDOR - OPTION 1

GRAND BAYOU

LAMBERT LAKE



LEGEND	
	MARSH CREATION AREA
	EARTHEN CONTAINMENT DIKE
	EQUIPMENT ACCESS ROUTE
	DREDGE PIPELINE CORRIDOR OPTION 1
	DREDGE PIPELINE CORRIDOR OPTION 2

NOTES:
 1. BACKGROUND IMAGERY WAS TAKEN IN 2010.
 2. DEWATERED EFFLUENT SHALL NOT BE ALLOWED TO FLOW INTO CALCASIEU LAKE OR ANY OTHER NAVIGABLE WATERWAYS NEAR THE PROJECT AREA.
 3. THE DEWATERING OUTFALL SHALL BE LOCATED ALONG THE NORTHERN EARTHEN CONTAINMENT DIKE.
 4. THE ANTICIPATED FILL VOLUME IS 1,050,890 CUBIC YARDS. THE ANTICIPATED CUT VOLUME IS 1,576,334 CUBIC YARDS.

REV.	DATE	DESCRIPTION	BY

COASTAL PROTECTION AND RESTORATION AUTHORITY
 450 LAUREL STREET
 BATON ROUGE, LOUISIANA 70801

DRAWN BY: KRISTI CANTU DESIGNED BY: ANNA JOHNSON, E.I.

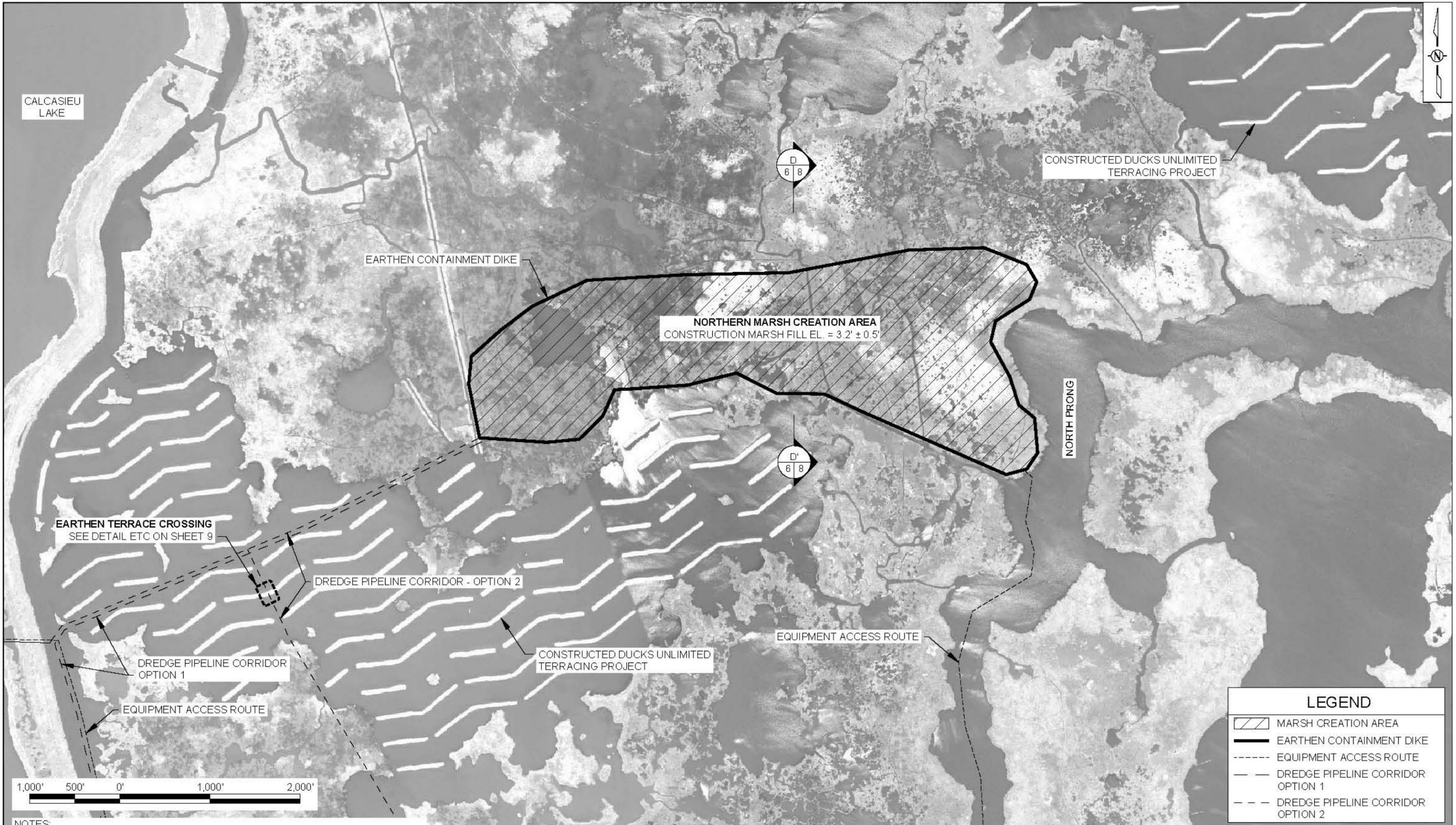
CAMERON-CREOLE WATERSHED
 GRAND BAYOU MARSH CREATION

STATE PROJECT NUMBER: CS-54
 FEDERAL PROJECT NUMBER: CS-54

APPROVED BY: RUDOLPH SIMONEAUX, P.E.

SOUTHERN MARSH CREATION AREA LAYOUT

DATE: OCTOBER 2013
 SHEET 5 OF 33



CALCASIEU LAKE

CONSTRUCTED DUCKS UNLIMITED TERRACING PROJECT

EARTHEN CONTAINMENT DIKE

NORTHERN MARSH CREATION AREA
CONSTRUCTION MARSH FILL EL. = 3.2' ± 0.5'

NORTH PRONG

EARTHEN TERRACE CROSSING
SEE DETAIL ETC ON SHEET 9

DREDGE PIPELINE CORRIDOR - OPTION 2

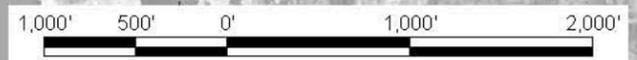
EQUIPMENT ACCESS ROUTE

DREDGE PIPELINE CORRIDOR
OPTION 1

CONSTRUCTED DUCKS UNLIMITED
TERRACING PROJECT

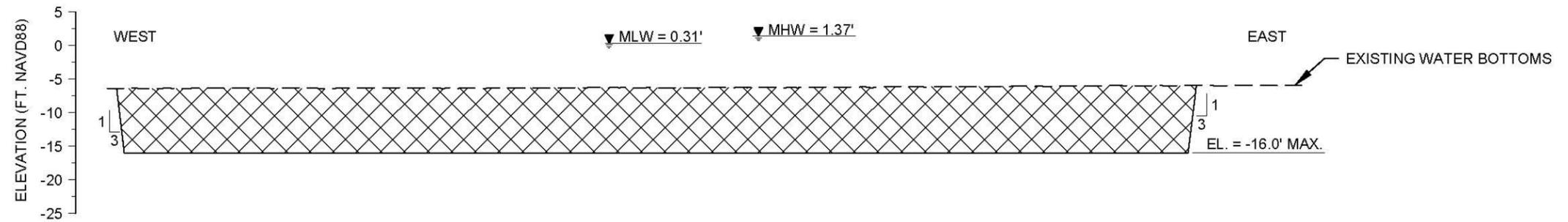
EQUIPMENT ACCESS ROUTE

LEGEND	
	MARSH CREATION AREA
	EARTHEN CONTAINMENT DIKE
	EQUIPMENT ACCESS ROUTE
	DREDGE PIPELINE CORRIDOR OPTION 1
	DREDGE PIPELINE CORRIDOR OPTION 2

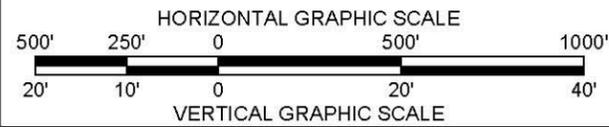


NOTES:
 1. BACKGROUND IMAGERY WAS TAKEN IN 2010.
 2. DEWATERED EFFLUENT SHALL NOT BE ALLOWED TO FLOW INTO CALCASIEU LAKE OR ANY OTHER NAVIGABLE WATERWAYS NEAR THE PROJECT AREA.
 3. THE DEWATERING OUTFALL SHALL BE LOCATED ALONG THE NORTHERN EARTHEN CONTAINMENT DIKE.
 4. THE ANTICIPATED FILL VOLUME IS 659,280 CUBIC YARDS. THE ANTICIPATED CUT VOLUME IS 988,920 CUBIC YARDS.

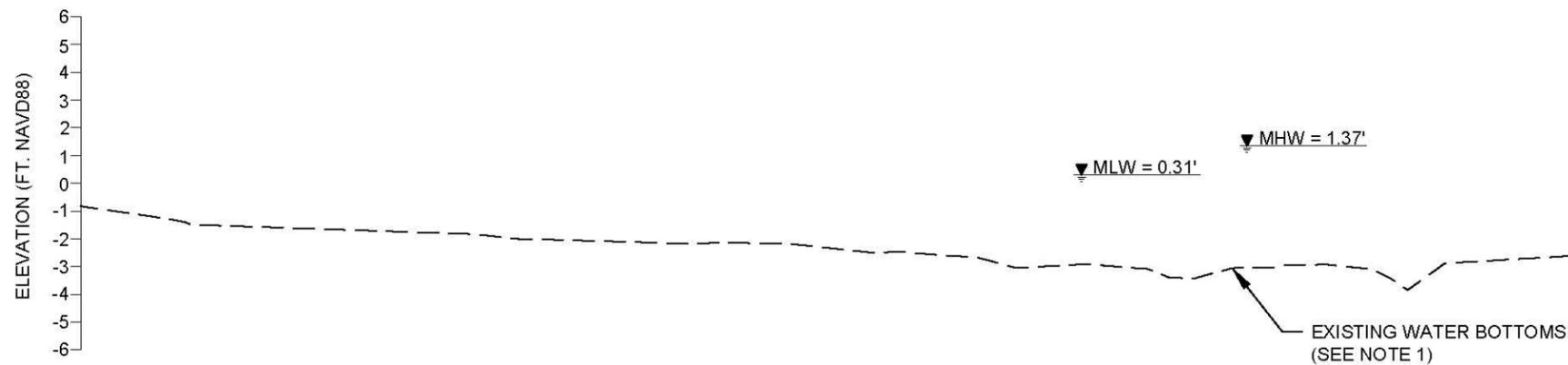
				COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		CAMERON-CREOLE WATERSHED GRAND BAYOU MARSH CREATION		NORTHERN MARSH CREATION AREA LAYOUT	
				DRAWN BY: KRISTI CANTU		DESIGNED BY: ANNA JOHNSON, E.I.		APPROVED BY: RUDOLPH SIMONEAUX, P.E.	
				STATE PROJECT NUMBER: CS-54		FEDERAL PROJECT NUMBER: CS-54		DATE: OCTOBER 2013	
				REV.		DATE		DESCRIPTION	
				BY					
				SHEET 6 OF 33					



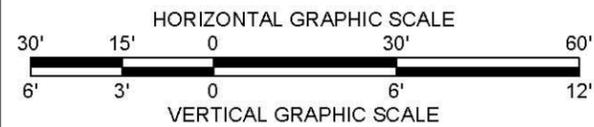
TYPICAL SECTION - WEST BORROW AREA
TRANSECT 47



- NOTES:
1. THE BORROW AREA CONTAINS APPROXIMATELY 5.7 M CUBIC YARDS OF MATERIAL.
 2. SEE SHEETS 3 AND 4 FOR PLAN VIEWS OF THE BORROW AREA LAYOUT.

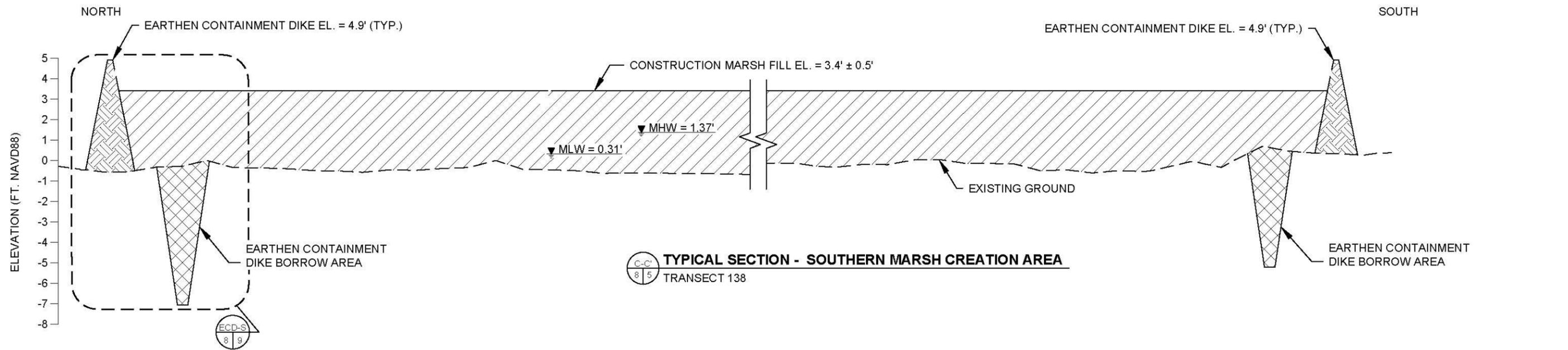


TYPICAL SECTION - ACCESS
TRANSECT 79

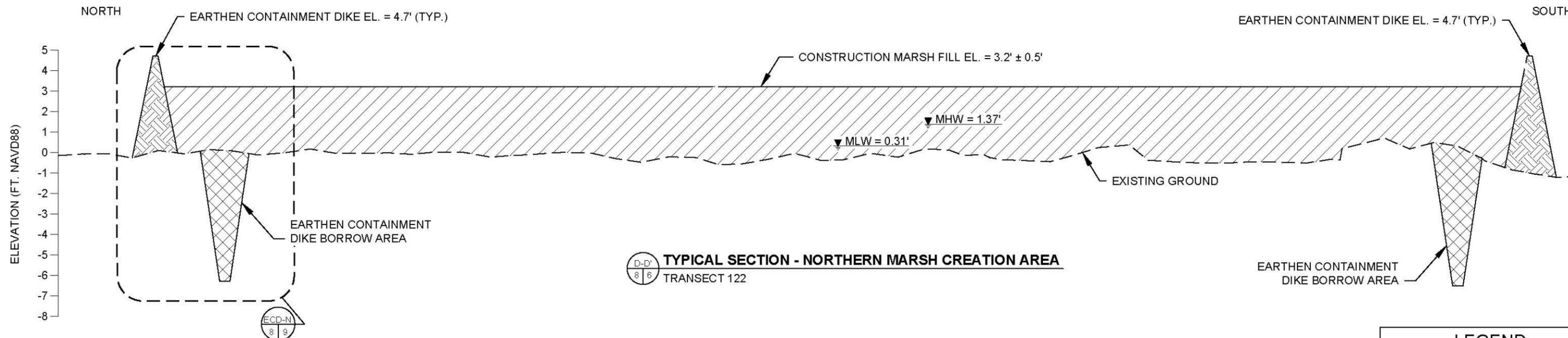


- NOTE:
1. ONLY AIRBOATS AND SHALLOW DRAFT BOATS WILL BE ALLOWED WITHIN THE BAYOUS AND WATERWAYS ADJACENT TO THE PROJECT AREA. THEREFORE, ACCESS DREDGING WILL NOT BE REQUIRED. A TYPICAL SECTION OF GRAND BAYOU IS SHOWN HERE FOR REFERENCE.

				COASTAL PROTECTION AND RESTORATION AUTHORITY		CAMERON-CREOLE WATERSHED GRAND BAYOU MARSH CREATION		TYPICAL SECTIONS	
				450 LAUREL STREET BATON ROUGE, LOUISIANA 70801					
						STATE PROJECT NUMBER: CS-54			
						FEDERAL PROJECT NUMBER: CS-54		DATE: OCTOBER 2013	
REV.	DATE	DESCRIPTION	BY	DRAWN BY: KRISTI CANTU		DESIGNED BY: ANNA JOHNSON, E.I.		APPROVED BY: RUDOLPH SIMONEAUX, P.E.	
								SHEET 7 OF 33	

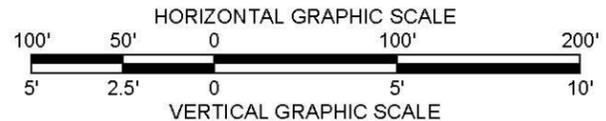


TYPICAL SECTION - SOUTHERN MARSH CREATION AREA
 TRANSECT 138



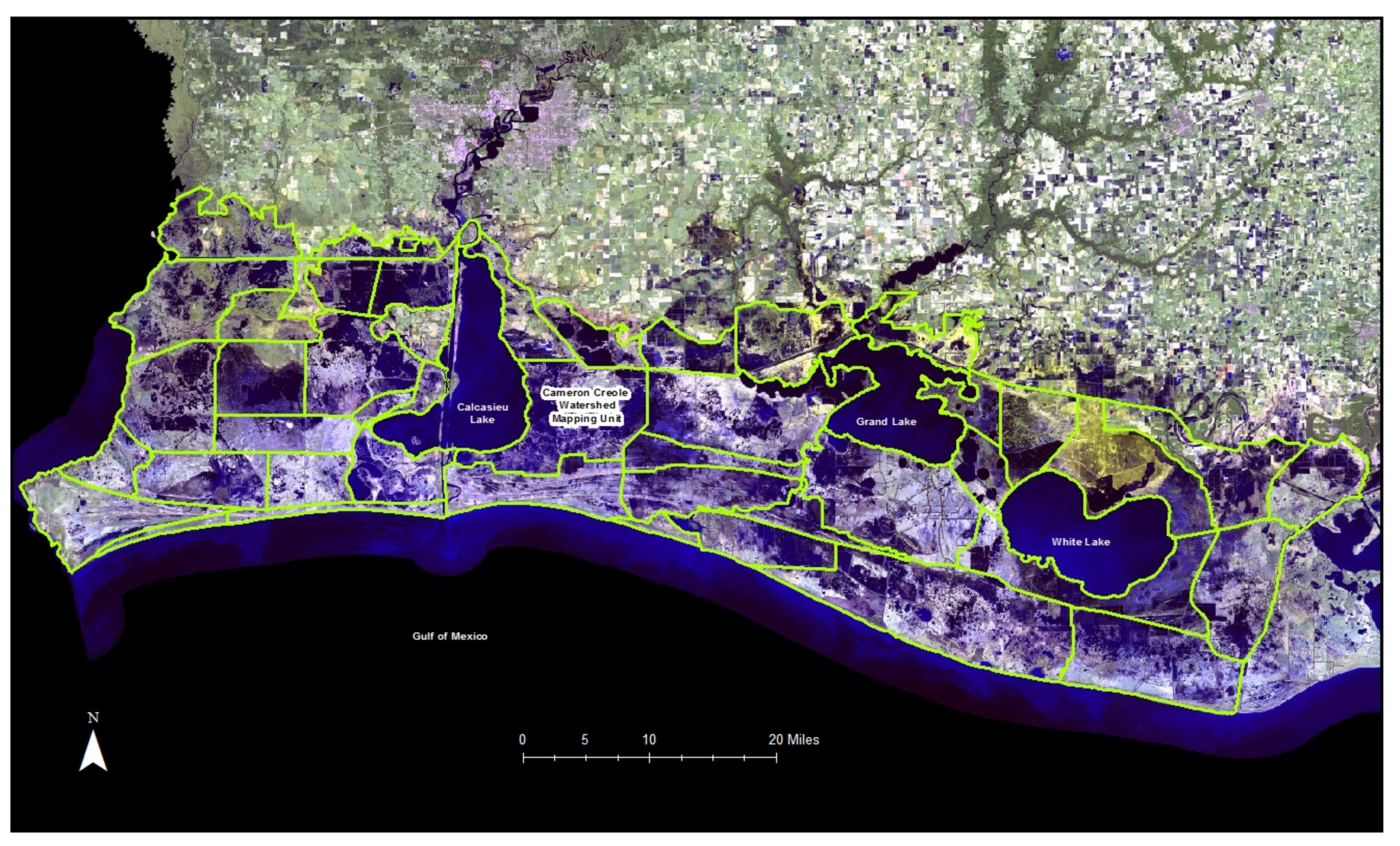
TYPICAL SECTION - NORTHERN MARSH CREATION AREA
 TRANSECT 122

LEGEND	
	EARTHEN CONTAINMENT DIKE
	EARTHEN CONTAINMENT DIKE BORROW AREA
	MARSH CREATION FILL
	EXISTING GROUND



NOTE:
 DISCHARGE SHALL BE DIRECTED TO RETAIN AS MUCH MATERIAL AS POSSIBLE.

				COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		CAMERON-CREOLE WATERSHED GRAND BAYOU MARSH CREATION		TYPICAL SECTIONS	
				DRAWN BY: KRISTI CANTU		DESIGNED BY: ANNA JOHNSON, E.I.		APPROVED BY: RUDOLPH SIMONEAUX, P.E.	
				STATE PROJECT NUMBER: CS-54		FEDERAL PROJECT NUMBER: CS-54		DATE: OCTOBER 2013	
				REV.		DATE		DESCRIPTION	
				BY					
				SHEET 8 OF 33					



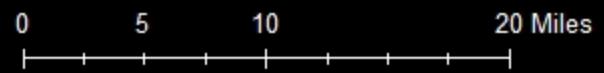
Calcasieu Lake

Cameron Creole Watershed Mapping Unit

Grand Lake

White Lake

Gulf of Mexico



MIAMI CORPORATION

309 LA RUE FRANCE
SUITE 201
LAFAYETTE, LOUISIANA 70508
TELEPHONE (337) 264-1695
FAX NO. (337) 264-9499

November 25, 2013

Re: PPL-20 Cameron Creole Watershed-Grand Bayou Marsh Creation Project
Region 4
Cameron Parish, Louisiana

Dear Colonel Hansen:

It is our understanding that the **Cameron Creole Watershed-Grand Bayou Marsh Creation Project** has advanced to the Phase II consideration phase of the Coastal Wetlands Planning Protection and Restoration Program (CWPPRA). As indicated in the project's fact sheet the features proposed are consistent with the coast wide and regional strategies identified in the Coast 2050 plan as well as the State's Master Plan.

Miami Corporation wishes to go on record in support of the Cameron Creole Watershed-Grand Bayou Marsh Creation Project. Efforts to protect and stabilize the critical marshes in this region have been proven to be successful but additional work is needed.

This area was severely impacted by relatively recent storm events and the interior lakes are threatening to expand their historical limits. A well planned marsh creation project could help with the interior loss problems and would compliment other ongoing efforts in this region.

If we can be of any assistance for this project, or any additional needs, please feel free to contact me at 337.264.1695.

Thanking you for your continued support of coastal restoration, I remain...

Very truly yours,

MIAMI CORPORATION


Chad J. Cœurville
Land Manager

Handwritten signatures and initials: J.L., DD, DAM, PM, INMAN

POLICE JURY

PARISH OF CAMERON

P.O. BOX 1280

CAMERON, LOUISIANA 70631

(337) 775-5718

(337) 775-5567 Fax

www.parishofcameron.net

DISTRICT 1
CURTIS FOUNTAIN

DISTRICT 2
ANTHONY HICKS

DISTRICT 3
KIRK QUINN

DISTRICT 4
TERRY BEARD

DISTRICT 5
KIRK BURLEIGH

DISTRICT 6
JOE DUPONT

DISTRICT 7
DARRYL FARQUE

DARRYL FARQUE
PRESIDENT

KIRK QUINN
VICE PRESIDENT

EARNESTINE T. HORN
ADMINISTRATOR

DARRELL WILLIAMS
SECRETARY-TREASURER

November 18, 2013

To: Colonel Richard Hansen
District Engineer, New Orleans
c/o: Brad Inman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

Re: PPL20 Cameron-Creole Watershed Grand Bayou Marsh Creation Project

Col. Hansen:

The Cameron Parish Police Jury would like to submit this letter of support for Phase II construction funds on behalf of the PPL 20-Cameron-Creole Watershed Grand Bayou Marsh Creation Project. This project aims to restore and nourish marsh with dedicated dredged material from Calcasieu Lake to benefit fish and wildlife resources in the Cameron Prairie National Wildlife Refuge and adjacent brackish marshes of the Calcasieu Lake estuary. The project would restore 553 acres and nourish 63 acres of brackish marsh in the 616-acre project area.

We appreciate your consideration of this request, and if you have any questions, please do not hesitate to contact us.

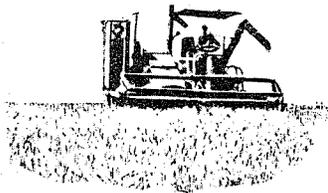
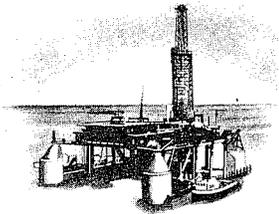
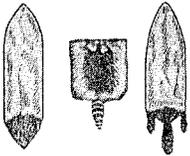
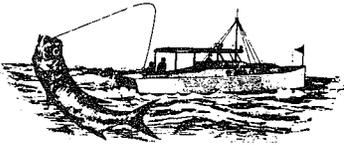
Sincerely,

Ryan Bourriague

Ryan Bourriague, Associate Parish Administrator
CAMERON PARISH POLICE JURY

Received By
CEMNV-EX
US Army Corps of Engineers
New Orleans District

NOV 21 2013



November 18, 2013

To: Colonel Richard Hansen
District Engineer, New Orleans
c/o: Brad Inman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

Re: PPL20 Cameron-Creole Watershed Grand Bayou Marsh Creation
Project

Col. Hansen:

The Cameron Parish Police Jury would like to submit this letter of support for Phase II construction funds on behalf of the PPL 20-Cameron-Creole Watershed Grand Bayou Marsh Creation Project. This project aims to restore and nourish marsh with dedicated dredged material from Calcasieu Lake to benefit fish and wildlife resources in the Cameron Prairie National Wildlife Refuge and adjacent brackish marshes of the Calcasieu Lake estuary. The project would restore 609 acres and nourish 7 acres of brackish marsh in the 616-acre project area.

We appreciate your consideration of this request, and if you have any questions, please do not hesitate to contact us.

Sincerely,

Ryan Bourriaque, Associate Parish Administrator
CAMERON PARISH POLICE JURY

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

ADDITIONAL AGENDA ITEMS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

REQUEST FOR PUBLIC COMMENTS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

PRIORITY PROJECT LIST 24 REGIONAL PLANNING TEAM MEETINGS

For Announcement:

January 28, 2014	11:00 a.m.	Region IV Planning Team Meeting	Abbeville
January 29, 2014	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 30, 2014	8:00 a.m.	Region I Planning Team Meeting	New Orleans
January 30, 2014	11:30 a.m.	Region II Planning Team Meeting	New Orleans
February 18, 2014	10:30 a.m.	Coastwide Electronic Voting	<i>(via email, no meeting)</i>

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

DATE OF UPCOMING CWPPRA PROGRAM MEETING

For Announcement:

The Task Force meeting will be held January 16, 2014 at 9:30 a.m. at the U.S. Army Corps of Engineers, 7400 Leake Avenue, New Orleans, Louisiana in the District Assembly Room (DARM).

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2013

SCHEDULED DATES OF FUTURE PROGRAM MEETINGS

For Announcement:

2013

January 16, 2014	9:30 a.m.	Task Force	New Orleans
January 28, 2014	11:00 a.m.	Region IV Planning Team Meeting	Abbeville
January 29, 2014	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 30, 2014	8:00 a.m.	Region I Planning Team Meeting	New Orleans
January 30, 2014	11:30 a.m.	Region II Planning Team Meeting	New Orleans
April 15, 2014	9:30 a.m.	Technical Committee	New Orleans
May 22, 2014	9:30 a.m.	Task Force	Lafayette
September 11, 2014	9:30 a.m.	Technical Committee	Baton Rouge
October 7, 2014	9:30 a.m.	Task Force	New Orleans
November 12, 2014	7:00 p.m.	PPL 24 Public Meeting	Baton Rouge
December 11, 2014	9:30 a.m.	Technical Committee	Baton Rouge