



### ATTENDANCE RECORD



DATE(S) December 12, 2012 9:30 A.M.	SPONSORING ORGANIZATION COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LOCATION State Library of Louisiana Seminar Center (1 <sup>st</sup> floor) 701 North 4 <sup>th</sup> Street Baton Rouge, LA
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**PURPOSE** **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER*		
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
PAUL KASPAR	EPA -RL	214 665 7459
KAREN McORMICK	EPA RL	214-665-8365
Josh Carson	USACE - Contractor	504-862-2318
Scott Wendell	USACE	504-862-1878
Damon Mays	USACE	504-862-2693
D. V. Veach	COMOCO Phillips	337-540-0801
Tommy Wright	Doric Energy	337-540-1243
Randy Moertle	EA McIlhenny	(985) 856-3630
Britt Paul	NRCS	318-473-7714
ARCHIE CHAPMAN	LAFOURCHE PARENT	985-632-4666
Marcella Green	Madison Land	504-454-0707
Deirdre Smith	Madison Land Co.	678-403-1454
GEORGE PIVERT	VENICE Port complex	504-392-1830
Jane O. Rowan	Normandean	610 1035 9359
ANDREW BEALL	CPRA-PM	225-342-1952
James Harris	USFWS	
Mike Boudreaux	Shaw	225-987-7706
Garvin Pittman	Shaw	225-229-3569
Glenn Ledet	Shaw	225-987-7170
JERRY L. VARR	USFWS	337-291-3111
Scott Wilson	USGS	337 266 8649
PHIL TURNIPSEED	USGS-NWRC	337-266-8501





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DATE(S)	SPONSORING ORGANIZATION	LOCATION
December 12, 2012 9:30 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	State Library of Louisiana Seminar Center (1 <sup>st</sup> floor) 701 North 4 <sup>th</sup> Street Baton Rouge, LA
<b>PURPOSE</b>		
<b>MEETING OF THE CWPPRA TECHNICAL COMMITTEE</b>		
<b>PARTICIPANT REGISTER*</b>		
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Whitney Thompson	CPE-Shaw	225-932-2568
<del>Carol Jansaul</del>	<del>Iberia Levee Dist</del>	<del>337-658-5574</del>
Marc Berard	Iberia Parish Levee Hurricane & Conservation	337-298-8836
Anne Watkins	URS	504-218-0923
Erol Koradogan	Dynamic Solutions	4900090
Vicki Dufrenoy	Jeff Parish / Shaw	504-832-4880
Jason Smith	Jefferson Parish	504-731-4612
JOHN FORSTER	NOAA/NMFS	337-291-2107
Steve Beck	LDWF	225-765-2956
Gerry Duszinski	CH Fenstermaker	225-344-6701
Mel Landry	NOAA	225-578-7667
BRIAN FORTSON	St. Tammany Parish Govt	985-886-2552
ONEIL MCBROGAN	SHAW Coastal, LLC	985-856-1573
Nic Matheine	Terrebonne Parish	985-856-4170
Andre Lyon	Lyon Productions LLC	046-620-7598
Phillip Parker	NOAA	225-578-8341
Foy Fouth PF	Port of IBERIA	337-380-6757
Jim Pall	CRA	225-342-2413
Michael C Knight	Special Projects - Port of Morgan City	985-686-8391
Leslie Smith	Duke Unlimited	985-209-3270
Jennifer Vison	ULL	337-482-6966
Tyler Ortego	ORA Estuaries WAUFARER ENV. TECH	225-372-5570

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SUSAN Testroet-Bergeron CWPPRA Outreach 337-266-8623

Martin O. Miller III / Bellin Surface Mgt, LLC (504) 614-5700

Edna Miller Stoebner / Stoebner Enterprises LLC  
MARTIN O. MILLER II - MARTIN & MILLER LLC (504) 616-7936  
LAUREN AVERILL - GEC 504 289-6136

Nedra Davis - Athens 225 333 8234

Gregory Curran	Stobarr Enterprises, LLC	504
Jamie Favorite	Scum C's Properties, LLC	ME-20 561-7792
Anna Wojtanowicz	CPRA	225-342-4119
	CPRA	225-342-4473
MARK FORD	NAS	504-5782-3882
Trena Woolridge	CPRA	225-342-2799
Stephanie Remson	ME-20 tennisyak@aol.com	
Liz Wiley	ME-20 (Liz Wiley firm)	512 560 3480
Robert Boulet	M.O. Miller Estate	337-296-6663
Cynthia Duet	National Audubon Society	

# CWPPRA

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

### AGENDA

December 12, 2012, 9:30 a.m.

**Location:**

State Library of Louisiana  
Seminar Center (1<sup>st</sup> Floor)  
701 North 4<sup>th</sup> Street  
Baton Rouge, Louisiana

**Documentation of Technical Committee meetings may be found at:**

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

#### Tab Number

#### Agenda Item

1. **Meeting Initiation 9:30 a.m. to 9:40 a.m.**
  - a. Introduction of Technical Committee or Alternates
  - b. Opening remarks of Technical Committee Members
  - c. Request for Agenda Changes/Additional Agenda Items/Adoption of Agenda
2. **Report: Status of Breaux Act Program Funds and Projects (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 9:55 a.m.**
  - a. **Lost Lake Marsh Creation and Hydrologic Restoration (TE-72) Project Scope Change Request.** The United States Fish and Wildlife Service (USFWS) and the Louisiana Coastal Protection and Restoration Authority (CPRA) requested approval for a project scope change for the Lost Lake Marsh Creation and Hydrologic Restoration (TE-72). The project sponsors requested a scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to 267 Average Annual Habitat Units (AAHUs) (749 to 452 net acres), with no change in project features. The primary reason for the project cost increase was an underestimate of the marsh creation fill quantities during Phase 0. The primary reason for the reduction in net acres is the lower background loss rate calculated in the hydrologic restoration subareas. Since Priority Project List (PPL) 19, a new method for calculating loss rates was adopted by the Environmental Work Group. The new method often results in lower loss rates than the previous method. With a lower background loss rate, net acres were reduced in the hydrologic restoration subareas. The Technical Committee voted by email on November 29, 2012 to recommend the proposal for Task Force electronic vote approval. The Task

Force subsequently voted to approve the requested scope change by electronic vote on December 11, 2012.

- b. South Grand Chenier Hydrologic Restoration (ME-20) Project Scope and Name Change Request.** The USFWS and requested approval for a project scope and name change for the South Grand Chenier Hydrologic Restoration Project (ME-20). The 2009 project consisted of 453 acres of marsh creation plus freshwater introduction (approximately 100 cubic feet per second) from the Mermentau River across Highway 82 to target marshes. The project sponsors requested to remove the freshwater introduction component because it was determined to no longer be feasible and requested a name change from “South Grand Chenier Hydrologic Restoration” to “South Grand Chenier Marsh Creation” due to the removal of the hydrologic component. Additionally, USFWS and CPRA requested approval to decrease the budget and benefits from the current \$29,046,128 and 291 Average Annual Habitat Units (AAHUs) (415 net acres) to \$21,933,085 and 184 AAHUs (427 net acres). The Technical Committee voted by email on November 29, 2012 to recommend the proposal for Task Force electronic vote approval. The Task Force subsequently voted to approve the requested project scope and name change by electronic vote on December 11, 2012.
- 4. Report: 2012 State Master Plan Consistency and the CWPPRA program (Kirk Rhinehart, CPRA) 9:55 a.m. to 10:10 a.m.** Mr. Kirk Rhinehart will provide a briefing on interpretation of the 2012 State Master Plan for CWPPRA projects on future Priority Project Lists (PPLs).
- 5. Decision: Request for Approval to Initiate Deauthorization on six projects (Bren Haase, CPRA) 10:10 a.m. to 10:25 a.m.** The Coastal Protection and Restoration Authority (CPRA) is requesting formal deauthorization procedures be initiated on the six projects listed below. These projects face technical implementation issues, have an unfavorable benefit-to-cost ratio, or have languished for an extended period.

  - a. Freshwater Bayou Bank Stabilization (TV-11b), PPL 9, USACE
  - b. Delta Building Diversion North of Fort St. Philip (BS-10), PPL 10, USACE
  - c. Avoca Island Diversion and Land Building (TE-49), PPL 12, USACE
  - d. Spanish Pass Diversion (MR-14), PPL 13, USACE
  - e. White Ditch Resurrection (BS-12), PPL 14, NRCS
  - f. Bohemia Mississippi River Reintroduction (BS-15), PPL 17, EPA
- 6. Report: 2012 Report to Congress Final Draft (Karen McCormick, EPA) 10:25 a.m. to 10:35 a.m.** The U.S. Geological Survey (USGS), U.S. Fish and Wildlife Service (USFWS), and EPA have been leading the 2012 Report to Congress efforts and will present the final draft of the 2012 Report to Congress.
- 7. Report: Coastwide Reference Monitoring System (CRMS) Report (Dona Weifenbach, CPRA) 10:35 a.m. to 10:50 a.m.** Ms. Dona Weifenbach will provide a report on CRMS.
- 8. Report: Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Redirection Project (TV-19) (O’Neil Malbrough, Shaw) 10:50 a.m. to 11:05 a.m.** At the October 11, 2012 meeting, the Task Force voted to initiate deauthorization procedures for the Weeks Bay Marsh Creation and Shoreline Protection/Commercial Canal

Freshwater Redirection Project with a final decision at the June 2013 Task Force meeting. The Task Force requested a presentation at the January 2013 meeting on the suggested adjustments to the project's scope and design. Mr. O'Neil Malbrough from Shaw will provide a status update.

- 9. Report: Status of the Non-Rock Alternatives to Shoreline Protection Demonstration Project (LA-16) (Quin Kinler, NRCS) 11:05 a.m. to 11:20 a.m.** The final design (plans and specifications) and final cost estimates for five alternative shoreline protection systems at each of three sites will be submitted by previously approved Offerors to the Natural Resources Conservation Service (NRCS) on December 12, 2012. Those submittals will be evaluated and a final ranking of the alternative systems will be available in January 2013. At that time, NRCS and CPRA will make a recommendation and funding request for a specific number of alternative systems at a specific number of sites. Mr. Quin Kinler will provide a status update for the Non-Rock Alternatives to Shoreline Protection Demonstrations Project (LA-16).
- 10. Report/Decision: 22<sup>nd</sup> Priority Project List (Kevin Roy, USFWS) 11:20 a.m. to 12:00 p.m.** The Environmental Workgroup Chairman will present an overview of the ten PPL 22 candidate projects and four PPL 22 candidate demonstration projects. The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 22 projects, including demonstration projects, for Phase I Engineering and Design.

Region	Basin	PPL 22 Nominees	Agency
2	Breton Sound	Lake Lery Shoreline Marsh Creation and Terracing	NMFS
2	Breton Sound	Terracing and Marsh Creation South of Big Mar	USFWS
2	Barataria	Bayou Dupont Sediment Delivery – Marsh Creation 3	EPA
2	Barataria	NE Turtle Bay Marsh Creation & Critical Area Shoreline Protection	NRCS
2	Barataria	Elmer's Island Restoration	NMFS
3	Terrebonne	North Catfish Lake Marsh Creation	NRCS
3	Terrebonne	Grand Bayou Freshwater Enhancement and Terracing	USFWS
3	Teche-Vermilion	South Little Vermilion Bay Plantings and Terracing	NMFS
4	Mermentau	Front Ridge Freshwater Introduction and Terracing	NRCS
4	Calcasieu-Sabine	Cameron Meadows Marsh Creation and Terracing	NMFS

	PPL 22 Demonstration Project Nominees	Agency
DEMO	Hay Bale Demo	USACE
DEMO	Reconnection of Hydrologically Isolated Wetlands	NMFS
DEMO	CREPS: Coastal Restoration and Energy Production System	CPRA
DEMO	Bioengineering of Shorelines and Canal Banks using Live Stakes	EPA

- 11. Report/Decision: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding (Brad Inman, USACE) 12:00 p.m. to 12:30 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
EPA	TE-47	11	Ship Shoal: Whiskey West Flank Restoration	Jan 2014	\$3,742,053	\$63,820,773	\$67,562,826	195	\$346,476
FWS	ME-20	11	South Grand Chenier	Dec 2013	\$2,358,419	\$19,574,666	\$21,933,085	427	\$51,366
EPA	MR-15	15	Venice Ponds Marsh Creation & Crevasses	Sep 2013	\$1,074,522	\$21,112,602	\$22,187,124	318	\$69,771
NRCS	PO-34	16	Alligator Bend Marsh Restoration & Shoreline Protection	Sep 2013	\$1,660,985	\$38,665,259	\$40,326,244	192	\$210,033
NMFS	BA-76	19	Chenier Ronquille Barrier Island Restoration	Oct 2013	\$3,419,263	\$34,968,751	\$38,388,014	308	\$124,636
FWS	TE-72	19	Lost Lake Marsh Creation & Hydrologic Restoration	Aug 2013	\$2,320,214	\$32,306,514	\$34,626,728	452	\$76,608
FWS	PO-104	20	Bayou Bonfouca Marsh Creation	Jan 2014	\$2,567,244	\$25,456,740	\$28,023,984	478	\$58,628

**12. Additional Agenda Items (Tom Holden, USACE) 12:30 p.m. to 12:35 p.m.**

**13. Request for Public Comments (Tom Holden, USACE) 12:35 p.m. to 12:40 p.m.**

**14. Announcement: Priority Project List 23 Regional Planning Team Meetings (Brad Inman, USACE) 12:40 p.m. to 12:45 p.m.**

January 29, 2013	11:00 a.m.	Region IV Planning Team Meeting	Abbeville
January 30, 2013	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 31, 2013	8:00 a.m.	Region I Planning Team Meeting	New Orleans
January 31, 2013	11:30 a.m.	Region II Planning Team Meeting	New Orleans
February 19, 2013	10:30 a.m.	Coastwide Electronic Voting	(via email, no meeting)

**15. Announcement: Date of Upcoming CWPPRA Program Meeting (Brad Inman, USACE) 12:45 p.m. to 12:50 p.m.** The Task Force meeting will be held January 24, 2013 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).

**16. Announcement: Scheduled Dates of Future Program Meetings (Brad Inman, USACE) 12:50 p.m. to 12:55 p.m.**

**2013**

January 24, 2013	9:30 a.m.	Task Force	New Orleans
January 29, 2013	11:00 a.m.	Region IV Planning Team Meeting	Abbeville
January 30, 2013	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 31, 2013	8:00 a.m.	Region I Planning Team Meeting	New Orleans
January 31, 2013	11:30 a.m.	Region II Planning Team Meeting	New Orleans
April 16, 2013	9:30 a.m.	Technical Committee	New Orleans
June 4, 2013	9:30 a.m.	Task Force	Lafayette
September 11, 2013	9:30 a.m.	Technical Committee	Baton Rouge

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

**17. Decision: Adjourn**

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**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

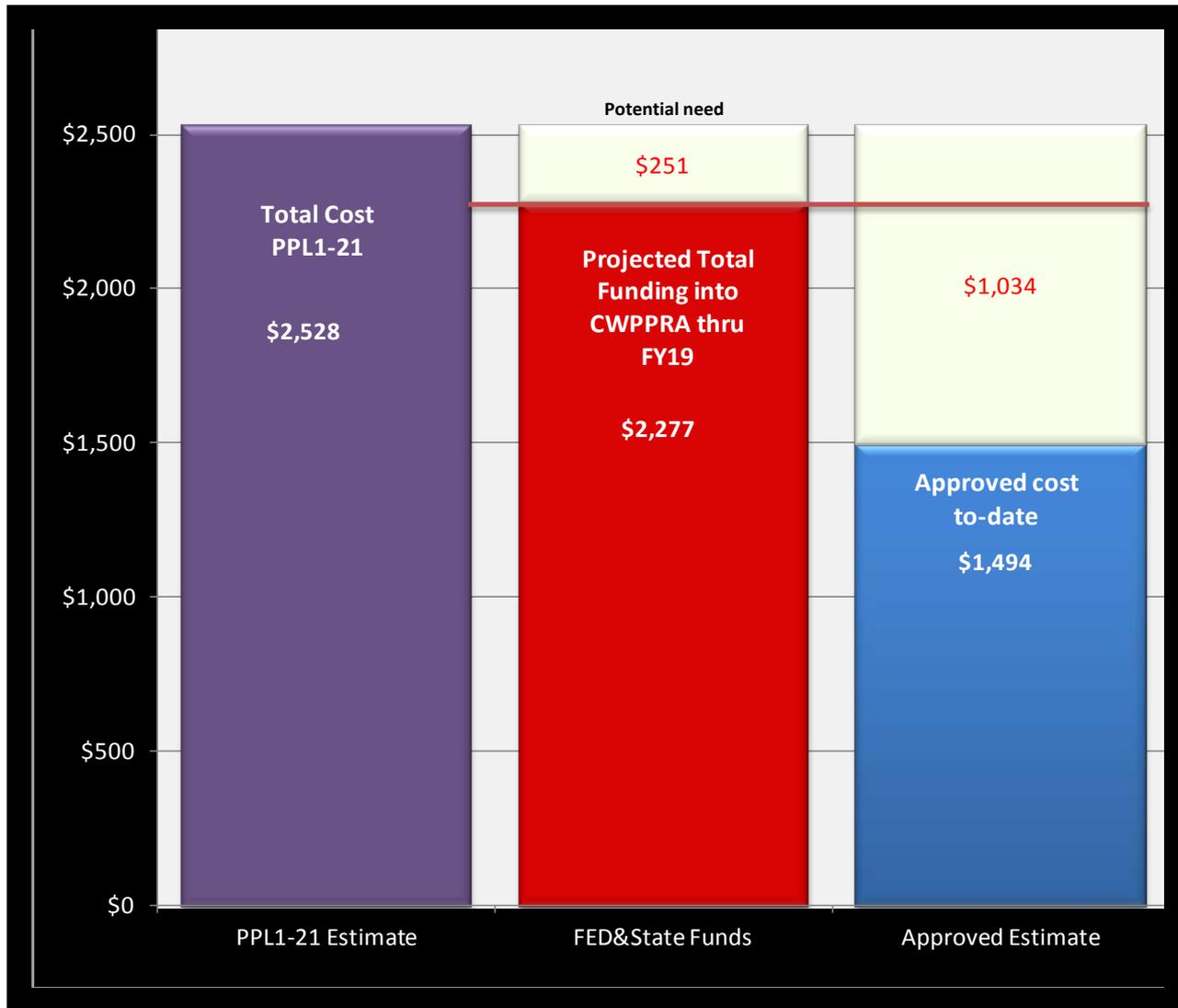
DECEMBER 12, 2012

**STATUS OF BREAUX ACT 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.

# Total Funding Required (Projects for which construction has started)



Last Updated June 25, 2012	Actual FY 2011	ESTIMATE FY 2012	ESTIMATE FY 2013	ESTIMATE FY 2014	ESTIMATE FY 2015	ESTIMATE FY 2016	ESTIMATE FY 2017	ESTIMATE FY 2018	ESTIMATE FY 2019	ESTIMATE 2020	ESTIMATE 2021	ESTIMATE 2022
<b>Sport Fish Restoration and Boating Safety Trust Fund</b>												
<b>Receipts by Treasury Category:</b>	<i>Actual</i>	<i>Estimates</i>	<i>Estimates</i>	<i>Estimates</i>	<i>Estimates</i>	<i>Estimates</i>	<i>Estimates</i>	<i>Estimates</i>	<i>Estimates</i>	<i>Estimates</i>	<i>Estimates</i>	<i>Estimates</i>
Gas (Motorboat)	393,996,000	331,000,000.00	349,000,000	370,000,000	390,000,000	412,000,000	434,000,000	455,000,000	477,000,000	500,000,000	523,000,000	546,000,000
Fishing Equipment (10%)	79,781,350	114,000,000.00	120,000,000	121,000,000	129,000,000	132,000,000	143,000,000	144,000,000	153,000,000	153,000,000	151,000,000	160,000,000
Electric Sonar & Trolling motors (3%) no longer taxed												
Gas (Small Engines)	102,007,000	113,000,000.00	119,000,000	126,000,000	133,000,000	141,000,000	148,000,000	155,000,000	163,000,000	171,000,000	179,000,000	187,000,000
Import Duties/Customs (boats, fishing equip.)	38,275,616	43,000,000.00	49,000,000	53,000,000	57,000,000	61,000,000	64,000,000	69,000,000	73,000,000	79,000,000	84,000,000	89,000,000
Outboard Motors	2,566,334											
Fishing Tackle Boxes	1,485,977											
Fishing Rods and Poles	12,706,437											
<b>Subtotal, Excise Taxes</b>	<b>630,818,713.80</b>	<b>601,000,000.00</b>	<b>637,000,000</b>	<b>670,000,000</b>	<b>709,000,000</b>	<b>746,000,000</b>	<b>789,000,000</b>	<b>823,000,000</b>	<b>866,000,000</b>	<b>903,000,000</b>	<b>937,000,000</b>	<b>982,000,000</b>
<b>Interest on investments (Cash Basis) Sport Fish</b>	<b>-4,436,134.65</b>	<b>26,034,606.83</b>	<b>26,062,037</b>	<b>26,359,226</b>	<b>30,018,692</b>	<b>30,827,522</b>	<b>31,841,409</b>	<b>36,436,145</b>	<b>37,761,620</b>	<b>39,400,191</b>	<b>44,271,363</b>	<b>46,028,364</b>
<b>Sport Fish Restoration and Boating Trust Fund MAX Sch N &gt;&gt;&gt;&gt;&gt;</b>	<b>626,382,579</b>	<b>627,034,606.83</b>	<b>663,062,037</b>	<b>696,359,226</b>	<b>739,018,692</b>	<b>776,827,522</b>	<b>820,841,409</b>	<b>859,436,145</b>	<b>903,761,620</b>	<b>942,400,191</b>	<b>981,271,363</b>	<b>1,028,028,364</b>
<b>Total Receipts Available for Distribution</b>	<b>626,382,579</b>	<b>627,034,606.83</b>	<b>663,062,037</b>	<b>696,359,226</b>	<b>739,018,692</b>	<b>776,827,522</b>	<b>820,841,409</b>	<b>859,436,145</b>	<b>903,761,620</b>	<b>942,400,191</b>	<b>981,271,363</b>	<b>1,028,028,364</b>
<b>Less: Coast Guard Discretionary Expenditures</b>												
Coast Guard appropriation	0	0.00	0	0	0	0	0	0	0	0	0	0
Available to Sport Fish account next FY	626,382,579	627,034,606.83	663,062,037	696,359,226	739,018,692	776,827,522	820,841,409	859,436,145	903,761,620	942,400,191	981,271,363	1,028,028,364
<b>Sport Fish Restoration and Boating Trust Fund</b>												
Deposits (from PY ARTF receipts)	650,321,813	626,382,579.15	627,034,607	663,062,037	696,359,226	739,018,692	776,827,522	820,841,409	859,436,145	903,761,620	942,400,191	981,271,363
Adjustments from prior years	0	0.00	0	0	0	0	0	0	0	0	0	0
Total Deposits after adjustments	650,321,813.14	626,382,579.15	627,034,607	663,062,037	696,359,226	739,018,692	776,827,522	820,841,409	859,436,145	903,761,620	942,400,191	981,271,363
<b>Boat Safety Spend-down P.L. 109-59 119 Stat. 1929-1931</b>												
<b>Total New Budget Authority - Sport Fish Restoration and Boating Trust Fund</b>	<b>650,321,813.14</b>	<b>626,382,579.15</b>	<b>627,034,607</b>	<b>663,062,037</b>	<b>696,359,226</b>	<b>739,018,692</b>	<b>776,827,522</b>	<b>820,841,409</b>	<b>859,436,145</b>	<b>903,761,620</b>	<b>942,400,191</b>	<b>981,271,363</b>
<b>Less Boat Safety transfers to Coast Guard</b>												
Boat Safety Improvement transfers to Coast Guard	-117,699,203.56	-113,199,495.33	-113,246,424.74	-119,834,951.56	-125,915,421.47	-133,724,835.56	-140,633,685.71	-148,776,254.89	-155,916,280.98	-164,116,493.78	-171,264,629.55	-178,455,796.37
<b>Boat Safety Spend-down P.L. 109-59 119 Stat. 1929-1931</b>												
B. Safety Budget Authority Adjusted by P.L. 107-295, Sec. 342.												
<b>Subtotal New Budget Authority for U.S. Coast Guard for MAX Sch X</b>	<b>(117,699,203.56)</b>	<b>(113,199,495.33)</b>	<b>(113,246,425)</b>	<b>(119,834,952)</b>	<b>(125,915,421)</b>	<b>(133,724,836)</b>	<b>(140,633,686)</b>	<b>(148,776,255)</b>	<b>(155,916,281)</b>	<b>(164,116,494)</b>	<b>(171,264,630)</b>	<b>(178,455,796)</b>
Total funds after Coast Guard Adjustment	532,622,610	513,183,083.82	513,788,182	543,227,085	570,443,805	605,293,857	636,193,836	672,065,154	703,519,864	739,645,126	771,135,562	802,815,567
<b>Adjustment:</b>												
\$20M withheld from FY96 allocation restored in FY97.	0	0.00	0	0	0	0	0	0	0	0	0	0
Net deposits into Sport Fish Account	532,622,610	513,183,083.82	513,788,182	543,227,085	570,443,805	605,293,857	636,193,836	672,065,154	703,519,864	739,645,126	771,135,562	802,815,567
Coastal Wetlands - Army Corps of Engineers												
<b>total New Budget Authority U.S. Army Corps of Engineers MAX Sch X</b>	<b>(82,389,442.49)</b>	<b>(79,239,646.73)</b>	<b>(79,272,497)</b>	<b>(83,884,466)</b>	<b>(88,140,795)</b>	<b>(93,607,385)</b>	<b>(98,443,580)</b>	<b>(104,081,006)</b>	<b>(109,014,239)</b>	<b>(114,687,094)</b>	<b>(119,620,892)</b>	<b>(124,582,106)</b>
<b>Subtotal New Budget Authority for U.S. Fish and Wildlife MAX Sch X</b>	<b>450,233,167.09</b>	<b>433,943,437.09</b>	<b>434,515,685</b>	<b>459,342,619</b>	<b>482,303,010</b>	<b>511,686,472</b>	<b>537,750,256</b>	<b>567,984,148</b>	<b>594,505,625</b>	<b>624,958,031</b>	<b>651,514,670</b>	<b>678,233,461</b>
<b>Coastal Wetlands - FWS</b>												
FWS Wetlands Grants (15% of Coastal Wetlands)	17,654,881	16,979,924.30	16,986,964	17,975,243	18,887,313	20,058,725	21,095,053	22,303,073	23,360,194	24,575,806	25,633,048	26,696,166
FWS North American Act (15% of Coastal Wetlands)	17,654,881	16,979,924.30	16,986,964	17,975,243	18,887,313	20,058,725	21,095,053	22,303,073	23,360,194	24,575,806	25,633,048	26,696,166
<b>Total - Coastal Wetlands [(18)(line 1)]</b>	<b>117,699,204</b>	<b>113,199,495.33</b>	<b>113,246,425</b>	<b>119,834,952</b>	<b>125,915,421</b>	<b>133,724,836</b>	<b>140,633,686</b>	<b>148,687,152</b>	<b>155,734,626</b>	<b>163,838,706</b>	<b>170,886,988</b>	<b>177,974,437</b>
<b>FWS Subtotal after Coastal deductions (s-u-v)</b>	<b>414,923,406</b>	<b>399,983,588.49</b>	<b>400,541,757</b>	<b>423,392,134</b>	<b>444,528,383</b>	<b>471,569,021</b>	<b>495,560,150</b>	<b>523,378,003</b>	<b>547,785,237</b>	<b>575,806,420</b>	<b>600,248,573</b>	<b>624,841,129</b>
<b>Clean Vessel Act - FWS</b>												
Pumpout Facility Grants	12,724,238.223	12,237,783.28	12,242,856.729	12,955,129.899	13,612,477.997	14,456,738.979	15,203,641.698	16,074,286.680	16,836,175.835	17,712,292.556	18,474,269.019	19,240,479.722
<b>Boat Safety Spend-down P.L. 109-59 119 Stat. 1929-1931</b>												
<b>Total - Clean Vessel Act</b>	<b>12,724,238</b>	<b>12,237,783.28</b>	<b>12,242,857</b>	<b>12,955,130</b>	<b>13,612,478</b>	<b>14,456,739</b>	<b>15,203,642</b>	<b>16,074,287</b>	<b>16,836,176</b>	<b>17,712,293</b>	<b>18,474,269</b>	<b>19,240,480</b>
<b>Non-trailerable Rec. Vessel Access - FWS</b>												
Access Grants	12,724,238.223	12,237,783.28	12,242,856.729	12,955,129.899	13,612,477.997	14,456,738.979	15,203,641.698	16,074,286.680	16,836,175.835	17,712,292.556	18,474,269.019	19,240,479.722
<b>Boat Safety Spend-down P.L. 109-59 119 Stat. 1929-1931</b>												
<b>Total - Non-trailerable Rec Vessel Access</b>	<b>12,724,238</b>	<b>12,237,783.28</b>	<b>12,242,857</b>	<b>12,955,130</b>	<b>13,612,478</b>	<b>14,456,739</b>	<b>15,203,642</b>	<b>16,074,287</b>	<b>16,836,176</b>	<b>17,712,293</b>	<b>18,474,269</b>	<b>19,240,480</b>
<b>Nat. Outreach and Communication Prog. - FWS</b>												
Outreach Grants	12,724,238.223	12,237,783.28	12,242,856.729	12,955,129.899	13,612,477.997	14,456,738.979	15,203,641.698	16,074,286.680	16,836,175.835	17,712,292.556	18,474,269.019	19,240,479.722
<b>Boat Safety Spend-down P.L. 109-59 119 Stat. 1929-1931</b>												
<b>Total - Nat'l Outreach</b>	<b>12,724,238</b>	<b>12,237,783.28</b>	<b>12,242,857</b>	<b>12,955,130</b>	<b>13,612,478</b>	<b>14,456,739</b>	<b>15,203,642</b>	<b>16,074,287</b>	<b>16,836,176</b>	<b>17,712,293</b>	<b>18,474,269</b>	<b>19,240,480</b>
<b>Multi State Conservation Grant Program</b>												
State Grants	3,000,000	3,000,000.00	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
<b>Boat Safety Spend-down P.L. 109-59 119 Stat. 1929-1931</b>												
<b>Total - Multi State</b>	<b>3,000,000</b>	<b>3,000,000.00</b>	<b>3,000,000</b>									
<b>Special Funding for Commissions and Boating Council</b>												
Atlantic States Marine Fishery Commission	200,000	200,000.00	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Gulf States Marine Fishery Commission	200,000	200,000.00	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Pacific States Marine Fishery Commission	200,000	200,000.00	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Great Lakes Fishery Commission	200,000	200,000.00	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Sport Fishing Boating Partnership Council	400,000	400,000.00	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000
<b>Total - Commissions and Boating Council</b>	<b>1,200,000</b>	<b>1,200,000.00</b>	<b>1,200,000</b>									
<b>Administration Expenses for Programs</b>												
Sport Fish Program Administration	9,909,902	10,293,415.21	10,691,770.38	11,105,541.89	11,535,326.36	11,981,743.49	12,445,436.96	12,927,075.37	13,427,353.19	13,946,991.76	14,486,740.34	15,047,377.19
Small Grant Program Administration	[900]	[900]	[900]	[900]	[900]	[900]	[900]	[900]	[900]	[900]	[900]	[900]
<b>Total Administration</b>	<b>9,909,902</b>	<b>10,293,415.21</b>	<b>10,691,770</b>	<b>11,105,542</b>	<b>11,535,326</b>	<b>11,981,743</b>	<b>12,445,437</b>	<b>12,927,075</b>	<b>13,427,353</b>	<b>13,946,992</b>	<b>14,486,740</b>	<b>15,047,377</b>

COASTAL WETLANDS, PLANNING, PROTECTION AND RESTORATION PROGRAM (Breau's Act)																		
FY	ACTUAL	FY 04	Jan-05	Jan-06	Jun-06	Dec-06	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	24-Jun-10	8-Dec-10	29-Jul-11	9-Dec-11	26-Jun-12	6-Dec-12
FY 92	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900	\$33,084,900
FY 93	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110	\$33,173,110
FY 94	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100	\$34,939,100
FY 95	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533	\$34,957,533
FY 96	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625	\$38,371,625
FY 97	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000	\$44,134,000
FY 98	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715	\$47,540,715
FY 99	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079	\$46,864,079
FY 00	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300	\$52,907,300
FY 01	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220	\$52,659,220
FY 02	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369	\$62,332,369
FY 03	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097	\$56,938,097
FY 04	\$59,023,130	\$59,023,131	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130	\$59,023,130
FY 05	\$58,054,804	\$62,421,000	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804	\$58,054,804
FY 06	\$63,059,645	\$64,507,000	\$61,299,000	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645	\$63,059,645
FY 07	\$76,402,872	\$65,308,000	\$61,894,000	\$74,853,592	\$75,957,636	\$76,402,872	\$76,402,872	\$76,402,872	\$76,402,872	\$76,402,872	\$76,402,872	\$76,402,872	\$76,402,872	\$76,402,872	\$76,402,872	\$76,402,872	\$76,402,872	\$76,402,872
FY 08	\$88,286,685	\$67,345,000	\$63,743,000	\$77,638,675	\$78,612,139	\$80,831,070	\$81,293,385	\$88,286,685	\$88,286,685	\$88,286,685	\$88,286,685	\$88,286,685	\$88,286,685	\$88,286,685	\$88,286,685	\$88,286,685	\$88,286,685	\$88,286,685
FY 09	\$89,916,489	\$70,000,000	\$65,414,000	\$80,507,000	\$81,489,000	\$83,806,000	\$84,262,000	\$84,173,117	\$84,318,450	\$89,916,489	\$89,916,489	\$89,916,489	\$89,916,489	\$89,916,489	\$89,916,489	\$89,916,489	\$89,916,489	\$89,916,489
FY 10	\$84,566,889	\$70,000,000	\$67,637,000	\$84,016,000	\$85,151,000	\$86,782,000	\$87,445,000	\$86,884,923	\$87,182,538	\$86,144,276	\$85,230,049	\$84,566,889	\$84,566,889	\$84,566,889	\$84,566,889	\$84,566,889	\$84,566,889	\$84,566,889
FY 11	\$82,389,442	\$70,000,000	\$69,681,000	\$87,012,000	\$88,103,000	\$89,901,000	\$90,656,000	\$89,798,801	\$90,241,174	\$88,634,493	\$86,307,862	\$83,299,687	\$84,620,743	\$82,389,442	\$82,389,442	\$82,389,442	\$82,389,442	\$82,389,442
FY 12	\$79,239,647	\$70,000,000	\$72,131,000	\$90,399,000	\$91,410,000	\$93,067,000	\$94,074,000	\$93,099,987	\$93,430,694	\$91,295,032	\$88,870,010	\$85,921,904	\$87,426,023	\$84,526,539	\$84,785,539	\$79,239,647	\$79,239,647	\$79,239,647
FY 13		\$70,000,000	\$74,211,000	\$94,110,000	\$95,131,000	\$96,659,000	\$97,418,000	\$96,175,422	\$96,652,244	\$94,002,582	\$91,727,148	\$88,535,045	\$90,359,907	\$86,557,868	\$87,075,868	\$81,354,810	\$79,272,497	\$84,626,177
FY 14		\$70,000,000	\$76,525,000	\$97,810,000	\$98,841,000	\$100,356,000	\$100,803,000	\$99,418,700	\$99,915,583	\$96,721,371	\$94,331,606	\$90,911,868	\$92,796,225	\$88,914,532	\$89,432,532	\$85,887,874	\$83,884,466	\$78,884,466
FY 15		\$70,000,000	\$78,927,000	\$101,630,000	\$102,522,000	\$103,585,000	\$104,673,000	\$102,780,971	\$103,298,800	\$99,708,170	\$96,938,010	\$93,842,447	\$96,061,292	\$91,066,461	\$91,713,961	\$90,329,469	\$88,140,795	\$83,140,795
FY 16		\$70,000,000	\$81,014,000	\$105,518,000	\$106,421,000	\$107,407,000	\$108,571,000	\$106,037,320	\$106,444,858	\$102,963,466	\$99,662,898	\$96,822,220	\$99,520,005	\$92,835,303	\$93,482,803	\$96,009,537	\$93,607,385	\$88,607,385
FY 17		\$70,000,000	\$83,101,000	\$109,633,000	\$110,385,000	\$111,646,000	\$112,552,000	\$109,420,603	\$110,109,689	\$106,370,677	\$102,782,772	\$100,093,135	\$103,024,004	\$94,500,492	\$95,147,992	\$100,922,126	\$98,443,580	\$93,443,580
FY 18		\$70,000,000	\$85,189,000	\$113,909,000	\$114,497,000	\$116,052,000	\$116,723,000	\$113,695,241	\$114,281,117	\$110,182,428	\$106,300,718	\$103,438,784	\$106,611,477	\$96,194,475	\$96,841,975	\$106,640,698	\$104,081,006	\$99,081,006
FY 19		\$70,000,000	\$87,276,000	\$118,351,000	\$118,762,000	\$120,633,000	\$121,049,000	\$117,909,000	\$118,516,000	\$113,356,209	\$109,303,731	\$106,717,314	\$110,140,901	\$98,147,861	\$98,924,861	\$111,698,023	\$109,014,239	\$104,014,239
FY 20		\$70,000,000	\$89,363,000	\$122,967,000	\$123,186,000	\$125,394,000	\$125,535,000	\$122,278,000	\$122,909,000	\$116,757,000	\$112,583,000	\$110,394,102	\$114,077,991	\$99,972,377	\$100,619,877	\$117,598,356	\$114,687,094	\$109,687,094
<b>Total</b>	<b>\$1,218,841,651</b>	<b>\$1,696,506,179</b>	<b>\$1,772,384,982</b>	<b>\$2,076,393,894</b>	<b>\$2,088,507,402</b>	<b>\$2,110,561,569</b>	<b>\$2,119,496,884</b>	<b>\$2,104,401,269</b>	<b>\$2,110,029,331</b>	<b>\$2,078,781,377</b>	<b>\$2,046,683,477</b>	<b>\$2,017,189,068</b>	<b>\$2,041,851,130</b>	<b>\$1,972,317,912</b>	<b>\$1,977,627,412</b>	<b>\$2,009,282,544</b>	<b>\$1,989,972,713</b>	<b>\$1,960,326,393</b>
Difference			\$75,878,803	\$304,008,912	\$12,113,508	\$22,054,167	\$8,935,315	(\$15,095,615)	\$5,628,062	(\$31,247,954)	(\$32,097,900)	(\$29,494,409)	\$24,662,062	(\$69,533,218)	\$5,309,500	\$31,655,131	(\$19,309,831)	(\$29,646,320)

<b>COASTAL WETLANDS, PLANNING, PROTECTION AND RESTORATION PROGRAM (Breaux Act)</b>					
<b>PPL / FY</b>	<b>PPL Approval Date</b>	<b>Funding Received</b>	<b>Total Federal Funds</b>	<b>Construction Program</b>	<b>Planning Program</b>
FY 92, PPL 1	31-Oct-91	22-Jan-92	33,084,900.00	28,084,900.00	5,000,000.00
FY 93, PPL 2	19-Oct-92	15-Jan-93	33,173,110.00	28,173,110.00	5,000,000.00
FY 94, PPL 3	1-Oct-93		34,939,100.00	29,939,100.00	5,000,000.00
FY 95, PPL 4	16-Dec-94	8-Mar-95	34,957,533.00	29,957,533.00	5,000,000.00
FY 96, PPL 5	28-Feb-96	3-May-96	38,371,625.00	33,371,625.00	5,000,000.00
FY 97, PPL 6	24-Apr-97	31-Mar-97	44,134,000.00	39,134,000.00	5,000,000.00
FY 98, PPL 7	16-Jan-98	6-Jul-98	47,540,715.00	42,540,715.00	5,000,000.00
FY 99, PPL 8	20-Jan-99	20-Mar-99	46,864,078.80	41,864,078.80	5,000,000.00
FY 00, PPL 9	11-Jan-00	21-Aug-00	52,907,300.00	47,907,300.00	5,000,000.00
FY 01, PPL 10	10-Jan-01	1-Mar-01	52,659,220.00	47,659,220.00	5,000,000.00
FY 02, PPL 11	16-Jan-02	15-Jan-02	62,332,369.00	57,332,369.00	5,000,000.00
FY 03, PPL 12	16-Jan-03	7-Jan-03	56,938,097.00	51,938,097.00	5,000,000.00
FY 04, PPL 13	28-Jan-04	29-Apr-04	59,023,130.00	54,023,130.00	5,000,000.00
FY 05, PPL 14	17-Feb-05	30-Mar-05	58,054,804.18	53,054,804.18	5,000,000.00
FY 06, PPL 15	8-Feb-06	28-Jun-06	63,059,645.00	58,059,645.00	5,000,000.00
FY 07, PPL 16	18-Oct-06	25-Apr-07	76,402,871.88	71,402,871.88	5,000,000.00
FY 08, PPL 17	25-Oct-07	24-Apr-08	88,286,685.00	83,286,685.00	5,000,000.00
FY 09, PPL 18	21-Jan-09	14-Apr-09	89,916,488.96	84,916,488.96	5,000,000.00
FY 10, PPL 19	20-Jan-10	10-May-10	84,566,888.73	79,566,888.73	5,000,000.00
FY 11, PPL 20	19-Jan-11	8-Apr-11	82,389,442.49	77,389,442.49	5,000,000.00
FY 12, PPL 21	19-Jan-12	16-Sep-12	79,239,646.73	74,239,646.73	5,000,000.00
FY 13, PPL 22	6-Dec-12		84,626,177.00	79,626,177.00	5,000,000.00
<b>Total</b>			<b>1,303,467,827.77</b>	<b>1,193,467,827.77</b>	<b>110,000,000.00</b>
<b>Future PPL / FY</b>	<b>29 July 2011 Forecast</b>	<b>9 Dec 2011 Forecast</b>	<b>Total Federal Funds (DOI - 26 June 2012)</b>	<b>Construction Program</b>	<b>Planning Program</b>
FY 14, PPL 23	89,432,532.00	85,887,874.00	78,884,466.00	73,884,466.00	5,000,000.00
FY 15, PPL 24	91,713,961.00	90,329,469.00	83,140,795.00	78,140,795.00	5,000,000.00
FY 16, PPL 25	93,482,803.00	96,009,537.00	88,607,385.00	83,607,385.00	5,000,000.00
FY 17, PPL 26	95,147,992.00	100,922,126.00	93,443,580.00	88,443,580.00	5,000,000.00
FY 18, PPL 27	96,841,975.00	106,640,698.00	99,081,006.00	94,081,006.00	5,000,000.00
FY 19, PPL 28	98,924,861.00	111,698,023.00	104,014,239.00	99,014,239.00	5,000,000.00
FY 20, PPL 29	100,619,877.00	117,598,356.00	109,687,094.00	104,687,094.00	5,000,000.00
<b>Total (Future Funding)</b>	<b>666,164,001.00</b>	<b>709,086,083.00</b>	<b>656,858,565.00</b>	<b>621,858,565.00</b>	<b>35,000,000.00</b>
<b>Total (All Funding)</b>			<b>1,960,326,392.77</b>	<b>1,815,326,392.77</b>	<b>145,000,000.00</b>

**STATUS OF CWP/PRA CONSTRUCTION FUNDS**

Task Force Meeting, Oct 2012

P/L	Current Estimate (a)	Current Estimate		Current Estimate		Current Unfunded		Expenditures thru Present (f)	Unexpended Funds (g)	75% x Current Est (h)	Fed Cost Share of Current Funded Estimate (i)	Non-Fed Cost Share of Current Funded Estimate (j)
		Approved Estimate (a 1)	UNApproved Estimate (a 2)	Funded Estimate (b)	Unfunded Estimate (c)	Approved Estimate (c 1)	UNApproved Estimate (c 2)					
0	191,807	191,807	0	191,807	0	0	0	143,855	47,952	143,855	150,716	41,091
CRMS 0.1	114,607,082	114,607,082	0	75,846,538	38,760,544	48,231,574	(9,471,030)	35,256,293	40,590,245	56,884,904	64,469,557	11,376,981
MCF 0.2	1,500,000	1,500,000	0	1,500,000	0	0	0	666,704	833,296	1,125,000	1,275,000	225,000
SRA 0.3	569,586	569,586	0	569,586	0	0	0	426,056	143,530	427,189	484,148	85,438
CPTS 0.4	372,036	372,036	0	372,036	0	0	0	0	372,036		316,231	55,805
1	84,570,907	84,570,907	0	66,797,987	17,772,920	17,775,669	(2,749)	59,224,882	7,573,105	50,098,491	55,456,261	11,341,726
2	86,332,609	86,332,609	0	85,889,903	442,706	477,483	(34,777)	70,176,996	15,712,907	64,417,427	71,803,324	14,086,579
3	55,530,645	55,530,645	0	53,600,163	1,930,482	3,994,581	(2,064,099)	38,911,479	14,688,684	40,200,122	45,034,329	8,565,834
4	14,116,422	14,116,422	0	14,116,422	0	0	0	13,349,943	766,478	10,587,316	11,961,226	2,155,195
5	17,558,343	17,558,343	0	17,443,384	114,959	121,675	(6,716)	15,989,630	1,453,754	13,082,538	15,699,046	1,744,338
5.1	9,700,000	9,700,000	0	9,700,000	0	0	0	3,432,749	6,267,251	7,275,000	4,850,000	4,850,000
6	72,981,974	72,981,974	0	66,932,938	6,049,036	6,052,460	(3,424)	39,430,022	27,502,916	50,199,703	60,239,644	6,693,294
7	34,136,929	34,136,929	0	34,136,929	0	0	0	29,475,151	4,661,778	25,602,697	29,016,389	5,120,539
8	37,915,451	37,915,451	0	37,842,053	73,398	158,909	(85,511)	21,423,410	16,418,644	28,381,540	32,165,745	5,676,308
9	181,627,766	113,414,667	68,213,099	97,837,230	83,790,536	15,583,219	68,207,317	60,970,854	36,866,376	73,377,922	83,161,645	14,675,584
10	253,005,636	112,111,677	140,893,959	102,394,044	150,611,592	10,200,597	140,410,995	73,240,944	29,153,100	76,795,533	87,034,937	15,359,107
11	560,500,317	313,003,487	247,496,830	260,913,221	299,587,096	54,361,959	245,225,137	155,415,153	105,498,068	195,684,916	221,776,238	39,136,983
11.1	14,130,233	14,130,233	(0)	14,130,233	0	0	0	13,918,568	211,665	10,597,675	7,065,116	7,065,116
12	63,481,572	46,554,232	16,927,340	42,435,647	21,045,925	4,220,904	16,825,021	33,164,931	9,270,716	31,826,736	36,070,300	6,365,347
13	93,763,717	51,125,120	42,638,597	50,917,264	42,846,453	502,509	42,343,944	37,548,323	13,368,941	38,187,948	43,279,674	7,637,590
14	62,466,050	49,216,534	13,249,516	47,015,998	15,450,052	2,202,767	13,247,285	32,500,688	14,515,310	35,261,999	39,963,598	7,052,400
15	61,246,121	40,164,351	21,081,770	39,801,324	21,444,797	363,027	21,081,770	1,686,704	38,114,620	29,850,993	33,831,126	5,970,199
16	170,113,763	49,100,014	121,013,749	48,418,687	121,695,076	681,327	121,013,749	4,899,163	43,519,524	36,314,015	41,155,884	7,262,803
17	97,555,911	77,475,919	20,079,992	76,692,170	20,863,741	783,749	20,079,992	4,400,534	72,291,636	57,519,128	65,188,345	11,503,826
18	96,491,295	51,638,886	44,852,409	50,997,534	45,493,761	641,352	44,852,409	3,478,837	47,518,697	38,248,151	43,347,904	7,649,630
19	117,518,363	10,736,747	106,781,616	10,736,747	106,781,616	0	106,781,616	3,478,837	7,257,910	8,052,560	9,126,235	1,610,512
20	104,018,369	22,896,117	81,122,252	15,980,215	88,038,154	8,099,062	79,939,092	508,247	15,471,968	11,985,161	13,583,183	2,397,032
21	121,770,544	12,542,213	109,228,331	12,542,213	109,228,331	0	109,228,331	0	12,542,213	9,406,660	10,660,881	1,881,332
<b>Total</b>	<b>2,527,773,448</b>	<b>1,494,193,989</b>	<b>1,033,579,460</b>	<b>1,335,752,273</b>	<b>1,192,021,175</b>	<b>174,452,823</b>	<b>1,017,568,352</b>	<b>753,118,954</b>	<b>582,633,319</b>	<b>1,001,535,178</b>	<b>1,132,777,208</b>	<b>207,585,590</b>
		<b>2,527,773,448</b>		<b>2,527,773,448</b>		<b>1,192,021,175</b>						

Non Cash Flow	415,476,709	415,476,709	0	389,093,208	26,383,501	28,580,777	(2,197,276)
Cash Flow	2,112,296,739	1,078,717,280	1,033,579,460	946,659,065	1,165,637,674	145,872,046	1,019,765,628
<b>Total</b>	<b>2,527,773,448</b>	<b>1,494,193,989</b>	<b>1,033,579,460</b>	<b>1,335,752,273</b>	<b>1,192,021,175</b>	<b>174,452,823</b>	<b>1,017,568,352</b>

<b>Available Fed Funds</b>	<b>\$1,193,467,828</b>
<b>N/F Cost Share</b>	<b>\$207,585,590</b>
<b>Available N/F Cash</b>	<b>\$66,787,614</b>
<b>WIK credit/cash</b>	<b>\$140,797,976</b>
<b>Total Available Cash (min)</b>	<b>\$1,260,255,442</b>
<b>Federal Balance</b>	<b>\$60,690,620</b>
<small>(Fed Cost Share of Funded Estimate-Avail Fed funds)</small>	

Construction Program Future Federal Funding (estimated) 9 Dec 2011 Forecast

PPL	Year	Fed	N/F	Total
23	FY14	78,884,466	11,832,670	90,717,136
24	FY15	83,140,795	12,471,119	95,611,914
25	FY16	88,607,385	13,291,108	101,898,493
26	FY17	93,443,580	14,016,537	107,460,117
27	FY18	99,081,006	14,862,151	113,943,157
28	FY19	104,014,239	15,602,136	119,616,375
29	FY20	109,687,094	16,453,064	126,140,158
<b>Total</b>		<b>656,858,565</b>	<b>98,528,785</b>	<b>755,387,350</b>

<b>Planning Program Funding Request</b>			10-Dec-12
	<b>Total Request</b>	<b>TF?</b>	<b>Total Recommended</b>
<b>Funds Available:</b>			
<b>Total</b>	<b>\$5,429,162.00</b>		<b>\$5,429,162.00</b>
<b>FY13 - Planning Budget (and Outreach Budget) Request Approval:</b>			
Task Force Approved FY13 Planning Budget	\$4,618,438.00	Y	\$4,618,438.00
Task Force Approved FY13 Outreach Budget	\$452,400.00	Y	\$452,400.00
			\$0.00
<b>Total</b>	<b>\$5,070,838.00</b>		<b>\$5,070,838.00</b>
<b>FY13 Planning Budget- Additional Requests Not on Agenda Request for Approval:</b>			
	\$0.00		\$0.00
	\$0.00		\$0.00
<b>Total</b>	<b>\$0.00</b>		<b>\$0.00</b>
<b>Total Remaining Funds in CWPPRA Planning Program</b>			
			<b>\$358,324.00</b>

**Construction Program Funding Requests for 12 December 2012 Tech Committee Recommendations**

	ESTIMATE Request	TC?	FUNDING Request	TC?	Fed	Non-Fed
<b>1. Funds Available:</b>						
Current Estimate/Estimated DOI Funds for FY13	\$2,527,773,448		\$91,252,759		\$79,350,225	\$11,902,534
Task Force Approval (O&M, Monitoring, COE Admin, West Bay)			(\$30,562,139)		(\$26,575,773)	(\$3,986,366)
<b>Total</b>	<b>\$2,527,773,448</b>		<b>\$60,690,620</b>		<b>\$52,774,452</b>	<b>\$7,916,168</b>
<b>2. Potential Funds returning to the Program</b>						
Potential Estimates Adjustment for Completed & Deauthorized projects	(\$16,553,065)		\$16,553,065		\$14,070,105	\$2,482,960
ESTIMATED	(\$16,553,065)		\$16,553,065		\$14,070,105	\$2,482,960
<b>3. Agenda Item 3: : Electronic Vote Approvals Project Scope Change Request:</b>						
a. Lost Lake Marsh Creation and Hydrologic Restoration (TE-72)	\$11,682,862		\$0			
b. South Grand Chenier Hydrologic Restoration (ME-20)	(\$7,113,043)		\$0			
<b>Total</b>	<b>\$4,569,819</b>		<b>\$0</b>		<b>\$0</b>	<b>\$0</b>
<b>4. Agenda Item 5: Approval to Initiate Deauthorization:</b>						
Freshwater Bayou Bank Stabilization (TV-11b), PPL 9, USACE	(\$34,532,329)		(\$397,229)		(\$337,645)	(\$59,584)
Delta Building Diversion North of Fort St. Philip (BS-10), PPL 10, USACE	(\$5,465,430)		(\$265,360)		(\$225,556)	(\$39,804)
Avoca Island Diversion and Land Building (TE-49), PPL 12, USACE	(\$17,440,267)		(\$512,927)		(\$435,988)	(\$76,939)
Spanish Pass Diversion (MR-14), PPL 13, USACE	(\$13,902,017)		(\$1,111,528)		(\$944,799)	(\$166,729)
White Ditch Resurrection (BS-12), PPL 14, NRCS	(\$14,187,346)		(\$657,847)		(\$559,170)	(\$98,677)
Bohemia Mississippi River Reintroduction (BS-15), PPL 17, EPA	(\$5,740,479)		(\$1,183,313)		(\$1,005,816)	(\$177,497)
<b>Total</b>	<b>(\$91,267,868)</b>		<b>(\$4,128,204)</b>		<b>(\$3,508,973)</b>	<b>(\$619,231)</b>
<b>5. Agenda Item 10: Dec 2012 - PPL 22 Project List Recommendation:</b>						
Lake Lery Shoreline Marsh Creation and Terracing, NMFS	\$31,377,030		\$3,198,248		\$2,718,511	\$479,737
Terracing and Marsh Creation South of Big Mar, FWS	\$23,692,705		\$2,308,599		\$1,962,309	\$346,290
Bayou Dupont Sediment Delivery-Marsh Creation 3, EPA	\$38,279,163		\$3,415,930		\$2,903,541	\$512,390
NE Turtle Bay Marsh Creation & Critical Area Shoreline Protection, NRCS	\$40,494,122		\$3,474,110		\$2,952,994	\$521,117
Elmer's Island Restoration, NMFS	\$35,745,200		\$3,974,176		\$3,378,050	\$596,126
North Catfish Lake Marsh Creation, NRCS	\$30,385,887		\$3,216,194		\$2,733,765	\$482,429
Grand Bayou Freshwater Enhancement and Terracing, FWS	\$30,344,992		\$3,206,177		\$2,725,250	\$480,927
South Little Vermilion Bay Plantings and Terracing, NMFS	\$6,506,921		\$777,158		\$660,584	\$116,574
Front Ridge Freshwater Introduction and Terracing, NRCS	\$13,622,423		\$1,954,290		\$1,661,147	\$293,144

**Construction Program Funding Requests for 12 December 2012 Tech Committee Recommendations**

	ESTIMATE Request	TC?	FUNDING Request	TC?	Fed	Non-Fed
Cameron Meadows Marsh Creation and Terracing, NMFS	\$27,685,820		\$3,108,025		\$2,641,821	\$466,204
<b>Total</b>	<b>\$278,134,263</b>		<b>\$28,632,907</b>		<b>\$24,337,971</b>	<b>\$4,294,936</b>

**6. Agenda Item 10: Dec 2012 - PPL 22 Demonstration Project Recommendation:**

Hay Bale Demo, COE	\$2,126,843		\$2,126,843		\$1,807,817	\$319,026
Reconnection of Hydrologically Isolated Wetlands, NMFS	\$1,724,012		\$1,724,012		\$1,465,410	\$258,602
CREPS: Coastal Restoration & Energy Production System, CPRA	\$3,357,745		\$3,357,745		\$2,854,083	\$503,662
Bioengineering of Shorelines & Canal Banks using Live Stakes, EPA	\$2,562,494		\$2,562,494		\$2,178,120	\$384,374
<b>Total</b>	<b>\$9,771,094</b>		<b>\$9,771,094</b>		<b>\$8,305,430</b>	<b>\$1,465,664</b>

**7. Agenda Item 11: Dec 2012 - Phase II Incr 1: January 2012 Phase II Incr 1 Requests (Construction + 3 years OM&M)**

Ship Shoal: Whiskey West Flank Restoration, TE-47, PPL 11 EPA (8)	\$67,562,826		\$63,631,540		\$54,086,809	\$9,544,731
South Grand Chenier, ME-20, PPL 11 FWS	\$21,933,085		\$19,232,722		\$16,347,814	\$2,884,908
Venice Ponds Marsh Creation & Crevasses, MR-15, PPL15 EPA (2)	\$22,187,124		\$19,935,800		\$16,945,430	\$2,990,370
Alligator Bend Marsh Restoration & Shoreline Protection, PO-34, PPL16 NRCS (1)	\$40,326,244		\$27,132,721		\$23,062,813	\$4,069,908
Chenier Ronquille Barrier Island Restoration, BA-76, PPL19 NMFS (2)	\$38,388,014		\$34,147,209		\$29,025,128	\$5,122,081
Lost Lake Marsh Creation & Hydrologic Restoration, TE-72, PPL19 FWS	\$34,626,728		\$29,084,228		\$24,721,594	\$4,362,634
Bayou Bonfouca Marsh Creation, PO-104, PPL20 FWS	\$28,023,984		\$25,010,119		\$21,258,601	\$3,751,518
<b>Total</b>	<b>\$253,048,005</b>		<b>\$218,174,339</b>		<b>\$185,448,188</b>	<b>\$32,726,151</b>

**8. Placeholder Pending Task Force decision in January**

Freshwater Bayou Wetland Protection (ME-04), PPL-2, NRCS	\$2,450,664				\$2,083,064	\$367,600
Freshwater Bayou Bank Stabilization (ME-13) PPL-5, NRCS	\$2,971,354				\$2,503,540	\$441,801
<b>Total</b>	<b>\$5,422,018</b>		<b>\$0</b>		<b>\$4,586,604</b>	<b>(\$4,586,604)</b>

( 1 ) Funds Available for 12 December 2011 Recommendations	\$2,527,773,448		\$60,690,620			
( 2, 4 ) Potential Funds to be Returned to Construction Program	(\$16,553,065)		\$16,553,065			
(4, 5, 6) 12 Dec 2012 Proposed Recommendations	\$529,822,315		\$273,131,405			
12 Dec 2012 Approved Recommendation	\$0		\$0			
<b>Available Funds</b>	<b>\$2,511,220,384</b>		<b>\$77,243,685</b>			

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**ELECTRONIC VOTE APPROVALS**

**For Report:**

- a. **Lost Lake Marsh Creation and Hydrologic Restoration (TE-72) Project Scope Change Request.** The United States Fish and Wildlife Service (USFWS) and the Louisiana Coastal Protection and Restoration Authority (CPRA) requested approval for a project scope change for the Lost Lake Marsh Creation and Hydrologic Restoration (TE-72). The project sponsors requested a scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to 267 Average Annual Habitat Units (AAHUs) (749 to 452 net acres), with no change in project features. The primary reason for the project cost increase was an underestimate of the marsh creation fill quantities during Phase 0. The primary reason for the reduction in net acres is the lower background loss rate calculated in the hydrologic restoration subareas. Since Priority Project List (PPL) 19, a new method for calculating loss rates was adopted by the Environmental Work Group. The new method often results in lower loss rates than the previous method. With a lower background loss rate, net acres were reduced in the hydrologic restoration subareas. The Technical Committee voted by email on November 29, 2012 to recommend the proposal for Task Force electronic vote approval. The Task Force subsequently voted to approve the requested scope change by electronic vote on December 11, 2012.
- b. **South Grand Chenier Hydrologic Restoration (ME-20) Project Scope and Name Change Request.** The USFWS and requested approval for a project scope and name change for the South Grand Chenier Hydrologic Restoration Project (ME-20). The 2009 project consisted of 453 acres of marsh creation plus freshwater introduction (approximately 100 cubic feet per second) from the Mermentau River across Highway 82 to target marshes. The project sponsors requested to remove the freshwater introduction component because it was determined to no longer be feasible and requested a name change from “South Grand Chenier Hydrologic Restoration” to “South Grand Chenier Marsh Creation” due to the removal of the hydrologic component. Additionally, USFWS and CPRA requested approval to decrease the budget and benefits from the current \$29,046,128 and 291 Average Annual Habitat Units (AAHUs) (415 net acres) to \$21,933,085 and 184 AAHUs (427 net acres). The Technical Committee voted by email on November 29, 2012 to recommend the proposal for Task Force electronic vote approval. The Task Force subsequently voted to approve the requested project scope and name change by electronic vote on December 11, 2012.

## Murry, Allison MVN-Contractor

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**From:** Murry, Allison MVN-Contractor  
**Sent:** Tuesday, December 11, 2012 2:20 PM  
**To:** 'bill honker'; 'Chris Doley'; 'Fleming, Edward R COL MVN'; 'Garret Graves'; 'Jeff Weller'; 'Kevin Norton ([kevin.norton@la.usda.gov](mailto:kevin.norton@la.usda.gov))'  
**Cc:** Mabry, Susan M MVN; Enger Kinchen ([enger.kinchen@la.gov](mailto:enger.kinchen@la.gov)); 'Stuart Brown'; Wandell, Scott F MVN; 'britt.paul@la.usda.gov'; 'Darryl Clark'; 'Holden, Thomas A MVN'; 'Karen McCormick ([McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov))'; 'kirk.rhinehart@la.gov'; 'Richard.Hartman@noaa.gov'; 'Cecelia Linder'; 'Chris Allen'; Inman, Brad L MVN; 'John Jurgensen'; 'Kevin Roy'; 'Paul Kaspar'; 'Rachel Sweeney'  
**Subject:** RE: CWPPRA Task Force Electronic Vote: Lost Lake Marsh Creation & Hydrologic Restoration Project (TE-72) Scope Change (UNCLASSIFIED)  
**Attachments:** TF Votes\_Lost Lake.pdf

Classification: UNCLASSIFIED  
Caveats: NONE

Task Force,

We have an electronic vote concurrence to approve FWS and CPRA's requested scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to 267 AAHUs (749 to 452 net acres), with no change in project features, for the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72).

Thanks you all for rapid responses.

Allison Murry  
CWPPRA Program  
USACE New Orleans  
Tel: 504.862.2075

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

**From:** Murry, Allison MVN-Contractor  
**Sent:** Friday, December 07, 2012 10:29 AM  
**To:** 'bill honker'; 'Chris Doley'; 'Fleming, Edward R COL MVN'; 'Garret Graves'; 'Jeff Weller'; 'Kevin Norton ([kevin.norton@la.usda.gov](mailto:kevin.norton@la.usda.gov))'  
**Cc:** Mabry, Susan M MVN; Enger Kinchen ([enger.kinchen@la.gov](mailto:enger.kinchen@la.gov)); 'Stuart Brown'; Wandell, Scott F MVN; 'britt.paul@la.usda.gov'; 'Darryl Clark'; 'Holden, Thomas A MVN'; 'Karen McCormick ([McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov))'; 'kirk.rhinehart@la.gov'; 'Richard.Hartman@noaa.gov'; 'Cecelia Linder'; 'Chris Allen'; Inman, Brad L MVN; 'John Jurgensen'; 'Kevin Roy'; 'Paul Kaspar'; 'Rachel Sweeney'  
**Subject:** CWPPRA Task Force Electronic Vote: Lost Lake Marsh Creation & Hydrologic Restoration Project (TE-72) Scope Change (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Task Force Members,

Please see the attached memorandum from the Chairman of the Task Force requesting an electronic vote to approve FWS and CPRA's requested scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to 267 AAHUs (749 to 452 net acres), with no change in project features, for the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72).

Please fax your completed form to the US Army Corps of Engineers at 504-862-2572 OR email a scanned copy to me ([Allison.Murry@usace.army.mil](mailto:Allison.Murry@usace.army.mil)) or Brad Inman ([Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)) by Tuesday, December 11, 2012.

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

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

06 DEC 2012

CEMVN-PM-B

MEMORANDUM FOR Louisiana Coastal Wetlands Conservation and Restoration Task Force

SUBJECT: Recommendation to approve the requested project scope change for the PPL 19 – Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72)

1. The United States Fish and Wildlife Service (USFWS) and the Louisiana Coastal Protection and Restoration Authority (CPRA) are requesting approval for a project scope change for the Lost Lake Marsh Creation and Hydrologic Restoration (TE-72). The project sponsors request a scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to 267 Average Annual Habitat Units (AAHUs) (749 to 452 net acres), with no change in project features. The primary reason for the project cost increase was an underestimate of the marsh creation fill quantities during Phase 0. The primary reason for the reduction in net acres is the lower background loss rate calculated in the hydrologic restoration subareas. Since Priority Project List (PPL) 19, a new method for calculating loss rates was adopted by the Environmental Work Group. The new method often results in lower loss rates than the previous method. With a lower background loss rate, net acres were reduced in the hydrologic restoration subareas. Additional information on this request is enclosed (Encl 1). The Technical Committee voted by email on 29 November 2012, to recommend the proposal for Task Force electronic vote approval.

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

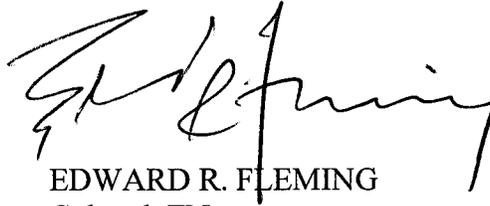
- The CWPPRA Task Force approves the Technical Committee's recommendation to approve USFWS and CPRA's requested scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to 267 AAHUs (749 to 452 net acres), with no change in project features, for the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72).

3. Please use the enclosed facsimile transmittal form to submit your vote (Encl 2). Please fax your completed form to the US Army Corps of Engineers at (504) 862-2572 or email a scanned copy to [Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil) by COB Tuesday, 11 December 2012.

CEMVN-PM-B

SUBJECT: Recommendation to approve the requested project scope change for the PPL 19 –  
Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72)

4. If you have any questions concerning this request, please contact Mr. Brad Inman, CWPPRA  
Program Manager, at (504) 862-2124.



EDWARD R. FLEMING  
Colonel, EN  
Commanding

2 Encls  
as

CF via email (w/encls):

Mr. Garret Graves, LA Office of the Governor  
Mr. William Honker, Environmental Protection Agency  
Mr. Jeffrey Weller, US Fish and Wildlife Service  
Mr. Kevin Norton, Natural Resource Conservation Service  
Mr. Chris Doley, National Oceanic and Atmosphere Administration  
Mr. Darryl Clark, US 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. Tom Holden, US Army Corps of Engineers

## Lost Lake Marsh Creation and Hydrologic Restoration (TE-72)

### Change in Project Scope

#### Report to the Technical Committee

November 26, 2012

The Lost Lake Marsh Creation and Hydrologic Restoration Project was approved on Priority Project List 19 in 2010 with a total fully funded cost of \$22,943,866. The project benefited a total project area of 7,312 acres and resulted in 281 average annual habitat units (AAHUs) and 749 net acres.

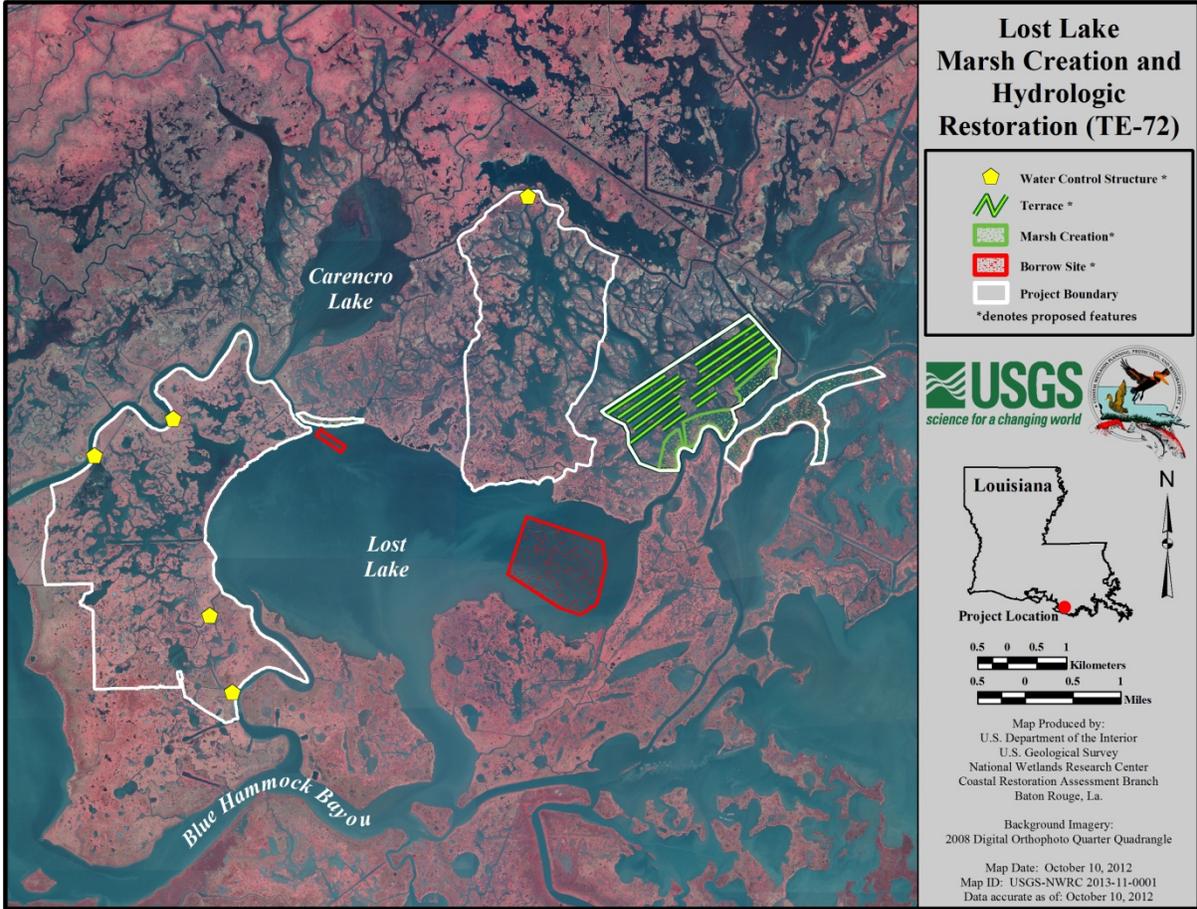
The Fish and Wildlife Service and Louisiana Coastal Protection and Restoration Authority request Technical Committee and Task Force approval for a project scope change due to changes in the total project cost and benefits (i.e., net acres) by more than 25 percent. Project features are essentially unchanged from the PPL19 project.

The primary reason for the project cost increase was an underestimate of the marsh creation fill quantities during Phase 0. The primary reason for the reduction in net acres is the lower background loss rate calculated in the hydrologic restoration subareas. Since PPL19, a new method for calculating loss rates was adopted by the Environmental Work Group. The new method often results in lower loss rates than the previous method. With a lower background loss rate, net acres were reduced in the hydrologic restoration subareas.

The revised fully funded cost has been reviewed and approved by the Engineering and Economic Work Groups. The revised benefits have been reviewed and approved by the Environmental Work Group (see the table below).

#### Comparison of Original (PPL19) and Revised Costs and Benefits.

	<b>PPL19 Project</b>	<b>Phase 2 Project</b>	<b>Increase/Decrease</b>
Fully-funded Cost	\$22,943,866	\$34,626,728	51%
Project Area	7,312	7,312	0%
Net Acres	749	452	-40%
AAHUs	281	268	-5%



## 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:**

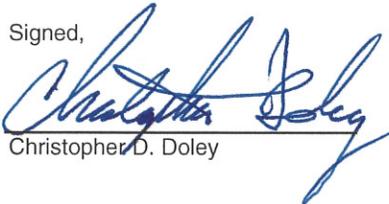
**The Motion:**

The CWPPRA Task Force approves the Technical Committee's recommendation to approve USFWS and CPRA's requested scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to 267 AAHUs (749 to 452 net acres), with no change in project features, for the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72).

**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

12-10-2012  
 Date

## FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
DOI, Fish and Wildlife Service	Jeffrey Weller	337-291-3115	
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 USFWS and CPRA's requested scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to 267 AAHUs (749 to 452 net acres), with no change in project features, for the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72).

**Please check one of the following:**

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

Jeffrey Weller

10-Dec-12

## FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
<b>Agency Name</b> USEPA	<b>Task Force Member Name</b> William Honker	<b>214-665-7107</b>	
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 USFWS and CPRA's requested scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to 267 AAHUs (749 to 452 net acres), with no change in project features, for the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72).

**Please check one of the following:**

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,  
  
 for William Honker  
Task Force Member Name

12/11/2012  
Date

## Murry, Allison MVN-Contractor

---

**From:** Garret Graves [Garret.Graves@LA.GOV]  
**Sent:** Tuesday, December 11, 2012 1:24 PM  
**To:** Murry, Allison MVN-Contractor  
**Cc:** Jerome Zeringue; Kirk Rhinehart; Chris Allen (CPRA)  
**Subject:** Re: CWPPRA Task Force Electronic Vote: Lost Lake Marsh Creation & Hydrologic Restoration Project (TE-72) Scope Change (UNCLASSIFIED)

We concur.

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

From: Murry, Allison MVN-Contractor [<mailto:Allison.Murry@usace.army.mil>]  
Sent: Tuesday, December 11, 2012 01:12 PM  
To: bill honker <[honker.william@epa.gov](mailto:honker.william@epa.gov)>; Chris Doley <[chris.doley@noaa.gov](mailto:chris.doley@noaa.gov)>; Fleming, Edward R COL MVN <[Edward.R.Fleming.Col@usace.army.mil](mailto:Edward.R.Fleming.Col@usace.army.mil)>; Garret Graves; Jeff Weller <[Jeff.Weller@fws.gov](mailto:Jeff.Weller@fws.gov)>; Kevin Norton (<[kevin.norton@la.usda.gov](mailto:kevin.norton@la.usda.gov)> <[kevin.norton@la.usda.gov](mailto:kevin.norton@la.usda.gov)>  
Cc: Mabry, Susan M MVN <[Susan.M.Mabry@usace.army.mil](mailto:Susan.M.Mabry@usace.army.mil)>; Enger Kinchen; Stuart Brown; Wandell, Scott F MVN <[Scott.F.Wandell@usace.army.mil](mailto:Scott.F.Wandell@usace.army.mil)>; [britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov) <[britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov)>; Darryl Clark <[darryl.clark@fws.gov](mailto:darryl.clark@fws.gov)>; Holden, Thomas A MVN <[Thomas.A.Holden@usace.army.mil](mailto:Thomas.A.Holden@usace.army.mil)>; Karen McCormick (<[McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov)> <[McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov)>; Kirk Rhinehart; [Richard.Hartman@noaa.gov](mailto:Richard.Hartman@noaa.gov) <[Richard.Hartman@noaa.gov](mailto:Richard.Hartman@noaa.gov)>; Cecelia Linder <[cecelia.linder@noaa.gov](mailto:cecelia.linder@noaa.gov)>; Chris Allen (CPRA); Inman, Brad L MVN <[Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)>; John Jurgensen <[john.jurgensen@la.usda.gov](mailto:john.jurgensen@la.usda.gov)>; Kevin Roy <[kevin\\_roy@fws.gov](mailto:kevin_roy@fws.gov)>; Paul Kaspar <[Kaspar.Paul@epamail.epa.gov](mailto:Kaspar.Paul@epamail.epa.gov)>; Rachel Sweeney <[rachel.sweeney@noaa.gov](mailto:rachel.sweeney@noaa.gov)>  
Subject: RE: CWPPRA Task Force Electronic Vote: Lost Lake Marsh Creation & Hydrologic Restoration Project (TE-72) Scope Change (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

REMINDER: Task Force electronic votes are due by COB today for the below scope change request and the South Grand Chenier scope and name change request.

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

From: Murry, Allison MVN-Contractor  
Sent: Friday, December 07, 2012 10:29 AM  
To: 'bill honker'; 'Chris Doley'; 'Fleming, Edward R COL MVN'; 'Garret Graves'; 'Jeff Weller'; 'Kevin Norton (<[kevin.norton@la.usda.gov](mailto:kevin.norton@la.usda.gov)>'  
Cc: Mabry, Susan M MVN; Enger Kinchen (<[enger.kinchen@la.gov](mailto:enger.kinchen@la.gov)>); 'Stuart Brown'; Wandell, Scott F MVN; 'britt.paul@la.usda.gov'; 'Darryl Clark'; 'Holden, Thomas A MVN'; 'Karen McCormick (<[McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov)>'; 'kirk.rhinehart@la.gov'; 'Richard.Hartman@noaa.gov'; 'Cecelia Linder'; 'Chris Allen'; Inman, Brad L MVN; 'John Jurgensen'; 'Kevin Roy'; 'Paul Kaspar'; 'Rachel Sweeney'  
Subject: CWPPRA Task Force Electronic Vote: Lost Lake Marsh Creation & Hydrologic Restoration Project (TE-72) Scope Change (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Task Force Members,

Please see the attached memorandum from the Chairman of the Task Force requesting an electronic vote to approve FWS and CPRA's requested scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to

267 AAHUs (749 to 452 net acres), with no change in project features, for the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72).

Please fax your completed form to the US Army Corps of Engineers at 504-862-2572 OR email a scanned copy to me ([Allison.Murry@usace.army.mil](mailto:Allison.Murry@usace.army.mil)) or Brad Inman ([Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)) by Tuesday, December 11, 2012.

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

Classification: UNCLASSIFIED  
Caveats: NONE

Classification: UNCLASSIFIED  
Caveats: NONE

## Murry, Allison MVN-Contractor

---

**From:** Murry, Allison MVN-Contractor  
**Sent:** Tuesday, December 11, 2012 2:21 PM  
**To:** 'bill honker'; 'Chris Doley'; 'Fleming, Edward R COL MVN'; 'Garret Graves'; 'Jeff Weller'; 'Kevin Norton ([kevin.norton@la.usda.gov](mailto:kevin.norton@la.usda.gov))'  
**Cc:** Mabry, Susan M MVN; Enger Kinchen ([enger.kinchen@la.gov](mailto:enger.kinchen@la.gov)); 'Stuart Brown'; 'Cecelia Linder'; 'Chris Allen'; Inman, Brad L MVN; 'John Jurgensen'; 'Kevin Roy'; 'Paul Kaspar'; 'Rachel Sweeney'; 'britt.paul@la.usda.gov'; 'Darryl Clark'; 'Holden, Thomas A MVN'; 'Karen McCormick ([McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov))'; 'kirk.rhinehart@la.gov'; 'Richard.Hartman@noaa.gov'  
**Subject:** RE: CWPPRA Task Force Electronic Vote: South Grand Chenier (ME-20) Project Scope and Name Change (UNCLASSIFIED)  
**Attachments:** TF Votes\_South Grand Chenier.pdf

Classification: UNCLASSIFIED

Caveats: NONE

Task Force,

We have an electronic vote concurrence to approve FWS and CPRA's request to remove the freshwater introduction feature, due to feasibility, decrease the budget and benefits to \$21,933,085 (-25%) and 184 AAHUs (- 37%) (427 net acres), and change the name to the "South Grand Chenier Marsh Creation" project for the South Grand Chenier Hydrologic Restoration Project (ME-20).

Thanks you all for rapid responses.

Allison Murry  
CWPPRA Program  
USACE New Orleans  
Tel: 504.862.2075

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

**From:** Murry, Allison MVN-Contractor  
**Sent:** Monday, December 10, 2012 7:33 AM  
**To:** 'bill honker'; 'Chris Doley'; 'Fleming, Edward R COL MVN'; 'Garret Graves'; 'Jeff Weller'; 'Kevin Norton ([kevin.norton@la.usda.gov](mailto:kevin.norton@la.usda.gov))'  
**Cc:** Mabry, Susan M MVN; Enger Kinchen ([enger.kinchen@la.gov](mailto:enger.kinchen@la.gov)); 'Stuart Brown'; 'Cecelia Linder'; 'Chris Allen'; Inman, Brad L MVN; 'John Jurgensen'; 'Kevin Roy'; 'Paul Kaspar'; 'Rachel Sweeney'; 'britt.paul@la.usda.gov'; 'Darryl Clark'; 'Holden, Thomas A MVN'; 'Karen McCormick ([McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov))'; 'kirk.rhinehart@la.gov'; 'Richard.Hartman@noaa.gov'  
**Subject:** CWPPRA Task Force Electronic Vote: South Grand Chenier (ME-20) Project Scope and Name Change (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Task Force Members,

Please see the attached memorandum from the Chairman of the Task Force requesting an electronic vote to approve FWS and CPRA's request to remove the freshwater introduction feature, due to feasibility, decrease the budget and benefits to \$21,933,085 (-25%) and 184 AAHUs (- 37%) (427 net acres), and change the name to the "South Grand Chenier Marsh Creation" project for the South Grand Chenier Hydrologic Restoration Project (ME-20).

Please fax your completed form to the US Army Corps of Engineers at 504-862-2572 OR email a scanned copy to me ([Allison.Murry@usace.army.mil](mailto:Allison.Murry@usace.army.mil)) or Brad Inman ([Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)) by Tuesday, December 11, 2012.

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

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

08 DEC 2012

CEMVN-PM-B

MEMORANDUM FOR Louisiana Coastal Wetlands Conservation and Restoration Task Force

SUBJECT: Recommendation to approve the requested project scope and name change for the PPL 11 – South Grand Chenier Hydrologic Restoration Project (ME-20)

1. The United States Fish and Wildlife Service (USFWS) and the Louisiana Coastal Protection and Restoration Authority (CPRA) are requesting approval for a project scope and name change for the South Grand Chenier Hydrologic Restoration Project (ME-20). The 2009 project consisted of 453 acres of marsh creation plus freshwater introduction (approximately 100 cubic feet per second) from the Mermentau River across Highway 82 to target marshes. The project sponsors wish to remove the freshwater introduction component because it was determined to no longer be feasible and request a name change from “South Grand Chenier Hydrologic Restoration” to “South Grand Chenier Marsh Creation” due to the removal of the hydrologic component. Additionally, USFWS and CPRA request approval to decrease the budget and benefits from the current \$29,046,128 and 291 Average Annual Habitat Units (AAHUs) (415 net acres) to \$21,933,085 and 184 AAHUs (427 net acres). Additional information on this request is enclosed (Encl 1). The Technical Committee voted by email on 29 November 2012 to recommend the proposal for Task Force electronic vote approval.

2. On behalf of USFWS and CPRA, I request an electronic vote from the Task Force regarding the recommended approval of the project scope and name change requests. Please consider the following motion:

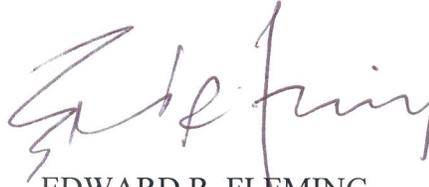
- The CWPPRA Task Force approves the Technical Committee’s recommendation to approve USFWS and CPRA’s request to remove the freshwater introduction feature, due to feasibility, decrease the budget and benefits to \$21,933,085 (-25%) and 184 AAHUs (- 37%) (427 net acres), and change the name to the “South Grand Chenier Marsh Creation” project for the South Grand Chenier Hydrologic Restoration Project (ME-20).

3. Please use the enclosed facsimile transmittal form to submit your vote (Encl 2). Please fax your completed form to the US Army Corps of Engineers at (504) 862-2572 or email a scanned copy to [Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil) by COB Tuesday, 11 December 2012.

CEMVN-PM-B

SUBJECT: Recommendation to approve the requested project scope and name change for the PPL 11 – South Grand Chenier Hydrologic Restoration Project (ME-20)

4. If you have any questions concerning this request, please contact Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.



EDWARD R. FLEMING  
Colonel, EN  
Commanding

2 Encls  
as

CF via email (w/encls):

Mr. Garret Graves, LA Office of the Governor  
Mr. William Honker, Environmental Protection Agency  
Mr. Jeffrey Weller, US Fish and Wildlife Service  
Mr. Kevin Norton, Natural Resource Conservation Service  
Mr. Chris Doley, National Oceanic and Atmosphere Administration  
Mr. Darryl Clark, US 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. Tom Holden, US Army Corps of Engineers

## South Grand Chenier Hydrologic Restoration (ME-20)

### Change in Project Scope and Name

#### Report to the Technical Committee

November 26, 2012

The South Grand Chenier project was approved on PPL 11 in 2002 for a total fully funded cost of \$20,998,000 to benefit 440 net acres in Cameron Parish, LA. The project was revised in 2009 with a fully funded cost of \$29,046,128 and 415 net acres.

The Fish and Wildlife Service and State Coastal Protection and Restoration Authority request Technical Committee and Task Force approval for a project scope and name change to remove the freshwater introduction component, decrease the budget to \$21,933,085 (-25%), and decrease the benefits to 184 Average Annual Habitat Units (although the net acres increased slightly to 427 acres) from the 2009 project (Table 1).

The 2009 project consisted of 453 acres of marsh creation plus fresh water introduction (approximately 100 cubic feet per second) from the Mermentau River across Highway 82 to target marshes (Figure 1). Project sponsors wish to remove the freshwater introduction feature because it was determined to no longer be feasible, and request a name change from “South Grand Chenier Hydrologic Restoration” to “South Grand Chenier Marsh Creation” due to the removal of that hydrologic component.

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: 2009 Project vs. Current Project Costs and Benefits.**

	<b>2009 Revised Project</b>	<b>Current Revised Project</b>	<b>Increase/Decrease</b>
Fully-funded Cost	\$29,046,128	\$21,933,085	- 25%
Net Acres Year 20	415	427	+ 3%
AAHU's	290.99	184	- 37%

Figure 1: 2009 South Grand Chenier Hydrologic Restoration Project (ME-20).

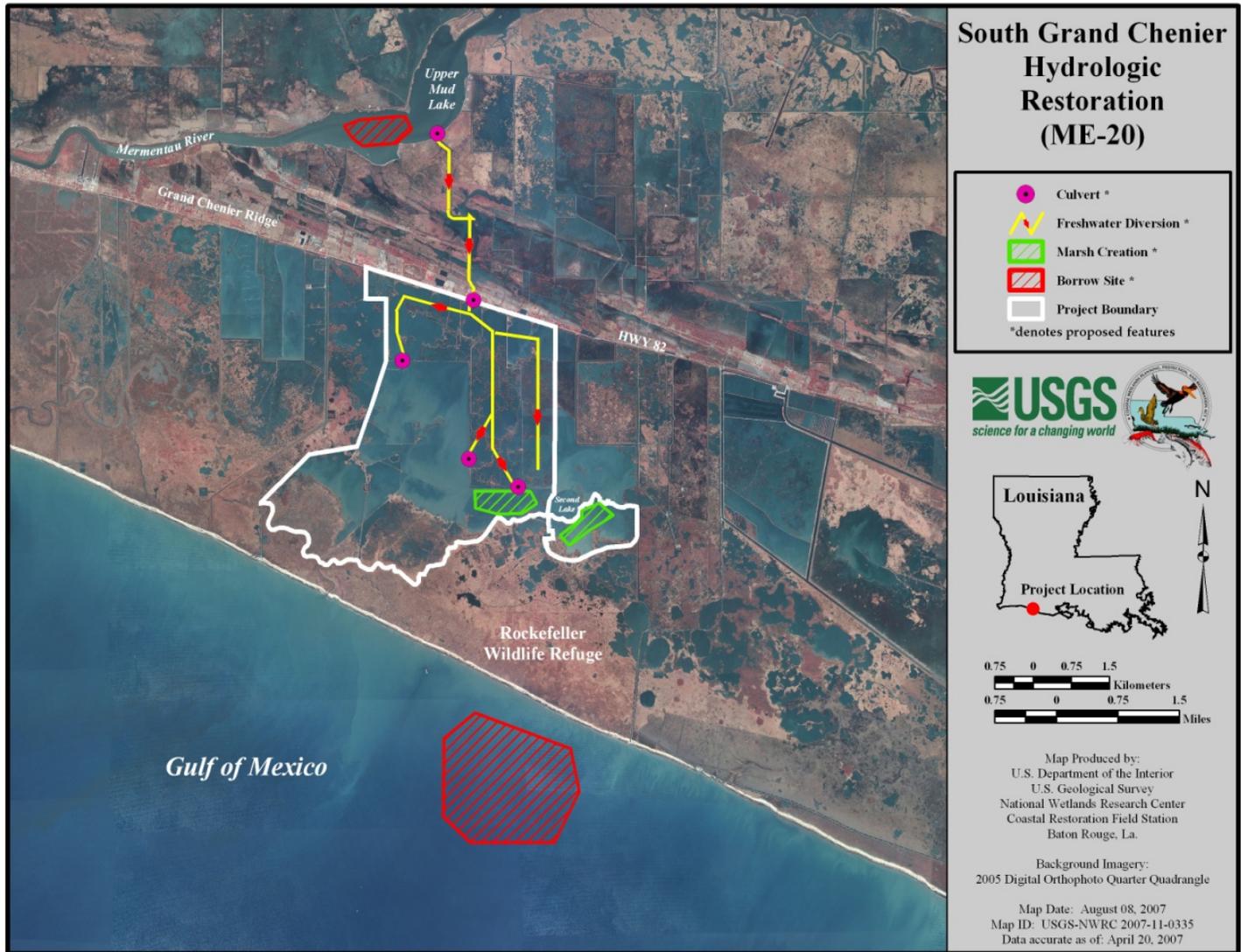
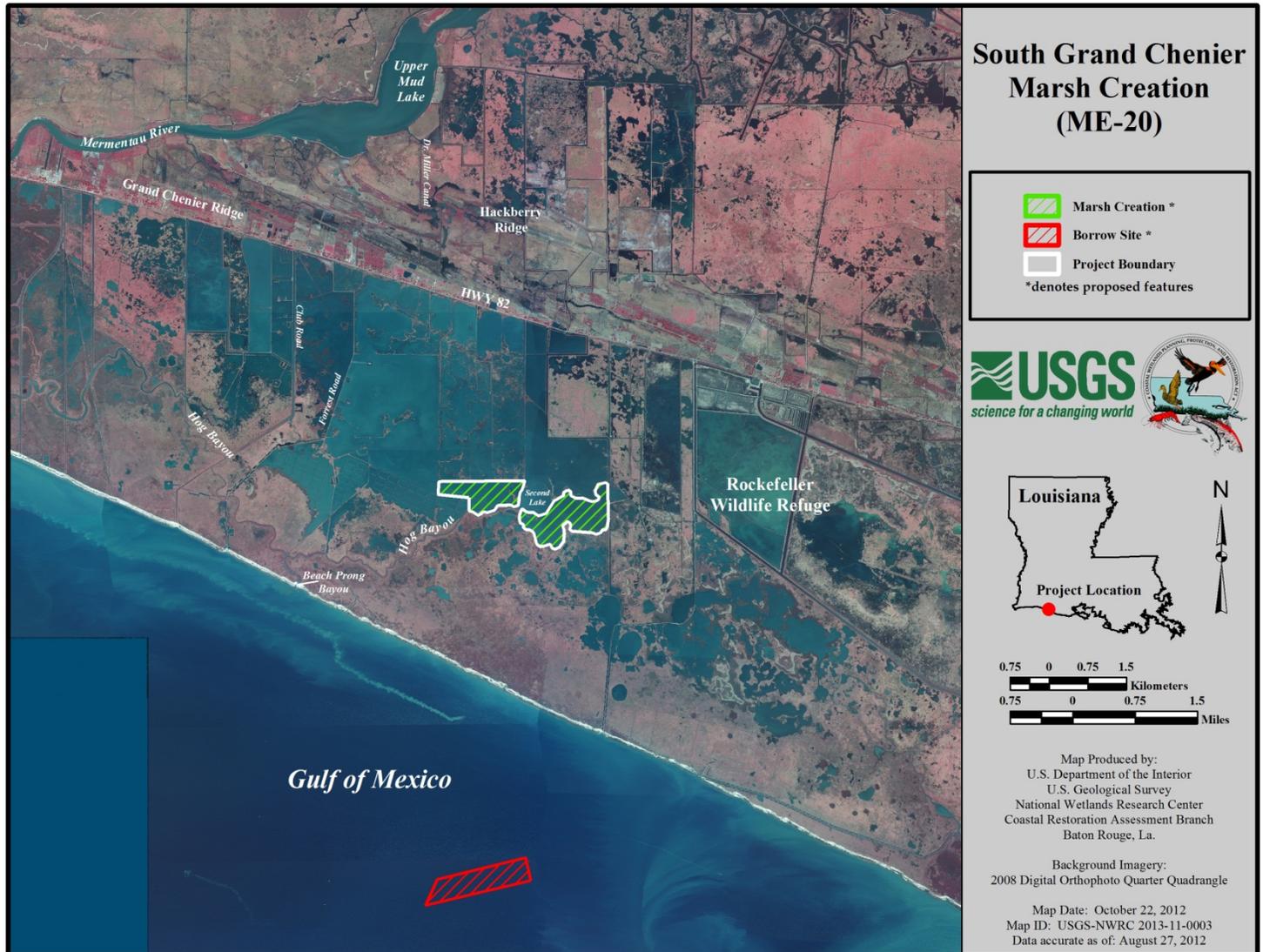


Figure 2: Current South Grand Chenier Marsh Creation Project (ME-20).



## 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 Including Header	Date/time
			Releaser's Signature

REMARKS:

**The Motion:**

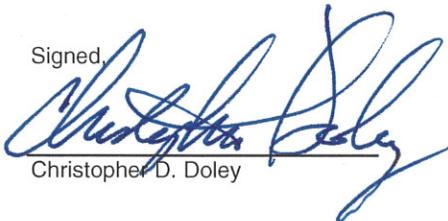
The CWPPRA Task Force approves the Technical Committee's recommendation to approve USFWS and CPRA's request to remove the freshwater introduction feature, due to feasibility, decrease the budget and benefits to \$21,933,085 (-25%) and 184 AAHUs (- 37%) (427 net acres), and change the name to the "South Grand Chenier Marsh Creation" project for the South Grand Chenier Hydrologic Restoration Project (ME-20).

**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

12-10-2012  
Date

## FACSIMILE TRANSMITTAL HEADER SHEET

Agency		NAME/OFFICE SYMBOL		OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM					
DOI, Fish and Wildlife Service		Jeffrey Weller		337-291-3115	
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 USFWS and CPRA's request to remove the freshwater introduction feature, due to feasibility, decrease the budget and benefits to \$21,933,085 (-25%) and 184 AAHUs (- 37%) (427 net acres), and change the name to the "South Grand Chenier Marsh Creation" project for the South Grand Chenier Hydrologic Restoration Project (ME-20).

**Please check one of the following:**

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

  
Jeffrey Weller

12/10/2012

## FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM			
Agency Name	Task Force Member Name	214-665-7101	
USEPA	Bill Honker		
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:**

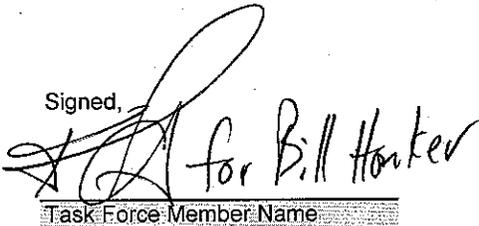
The CWPPRA Task Force approves the Technical Committee's recommendation to approve USFWS and CPRA's request to remove the freshwater introduction feature, due to feasibility, decrease the budget and benefits to \$21,933,085 (-25%) and 184 AAHUs (- 37%) (427 net acres), and change the name to the "South Grand Chenier Marsh Creation" project for the South Grand Chenier Hydrologic Restoration Project (ME-20).

**Please check one of the following:**

I approve the motion as stated above.

I do NOT approve the motion as stated above.

Signed,

  
 for Bill Honker  
 Task Force Member Name

12/10/12  
 Date

## Murry, Allison MVN-Contractor

---

**From:** Garret Graves [Garret.Graves@LA.GOV]  
**Sent:** Tuesday, December 11, 2012 1:24 PM  
**To:** Murry, Allison MVN-Contractor  
**Cc:** Jerome Zeringue; Kirk Rhinehart; Chris Allen (CPRA)  
**Subject:** Re: CWPPRA Task Force Electronic Vote: Lost Lake Marsh Creation & Hydrologic Restoration Project (TE-72) Scope Change (UNCLASSIFIED)

We concur.

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

From: Murry, Allison MVN-Contractor [<mailto:Allison.Murry@usace.army.mil>]  
Sent: Tuesday, December 11, 2012 01:12 PM  
To: bill honker <[honker.william@epa.gov](mailto:honker.william@epa.gov)>; Chris Doley <[chris.doley@noaa.gov](mailto:chris.doley@noaa.gov)>; Fleming, Edward R COL MVN <[Edward.R.Fleming.Col@usace.army.mil](mailto:Edward.R.Fleming.Col@usace.army.mil)>; Garret Graves; Jeff Weller <[Jeff.Weller@fws.gov](mailto:Jeff.Weller@fws.gov)>; Kevin Norton (<[kevin.norton@la.usda.gov](mailto:kevin.norton@la.usda.gov)> <[kevin.norton@la.usda.gov](mailto:kevin.norton@la.usda.gov)>  
Cc: Mabry, Susan M MVN <[Susan.M.Mabry@usace.army.mil](mailto:Susan.M.Mabry@usace.army.mil)>; Enger Kinchen; Stuart Brown; Wandell, Scott F MVN <[Scott.F.Wandell@usace.army.mil](mailto:Scott.F.Wandell@usace.army.mil)>; [britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov) <[britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov)>; Darryl Clark <[darryl.clark@fws.gov](mailto:darryl.clark@fws.gov)>; Holden, Thomas A MVN <[Thomas.A.Holden@usace.army.mil](mailto:Thomas.A.Holden@usace.army.mil)>; Karen McCormick (<[McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov)> <[McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov)>; Kirk Rhinehart; [Richard.Hartman@noaa.gov](mailto:Richard.Hartman@noaa.gov) <[Richard.Hartman@noaa.gov](mailto:Richard.Hartman@noaa.gov)>; Cecelia Linder <[cecelia.linder@noaa.gov](mailto:cecelia.linder@noaa.gov)>; Chris Allen (CPRA); Inman, Brad L MVN <[Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)>; John Jurgensen <[john.jurgensen@la.usda.gov](mailto:john.jurgensen@la.usda.gov)>; Kevin Roy <[kevin\\_roy@fws.gov](mailto:kevin_roy@fws.gov)>; Paul Kaspar <[Kaspar.Paul@epamail.epa.gov](mailto:Kaspar.Paul@epamail.epa.gov)>; Rachel Sweeney <[rachel.sweeney@noaa.gov](mailto:rachel.sweeney@noaa.gov)>  
Subject: RE: CWPPRA Task Force Electronic Vote: Lost Lake Marsh Creation & Hydrologic Restoration Project (TE-72) Scope Change (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

REMINDER: Task Force electronic votes are due by COB today for the below scope change request and the South Grand Chenier scope and name change request.

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

From: Murry, Allison MVN-Contractor  
Sent: Friday, December 07, 2012 10:29 AM  
To: 'bill honker'; 'Chris Doley'; 'Fleming, Edward R COL MVN'; 'Garret Graves'; 'Jeff Weller'; 'Kevin Norton (<[kevin.norton@la.usda.gov](mailto:kevin.norton@la.usda.gov)>'  
Cc: Mabry, Susan M MVN; Enger Kinchen (<[enger.kinchen@la.gov](mailto:enger.kinchen@la.gov)>); 'Stuart Brown'; Wandell, Scott F MVN; 'britt.paul@la.usda.gov'; 'Darryl Clark'; 'Holden, Thomas A MVN'; 'Karen McCormick (<[McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov)>'; 'kirk.rhinehart@la.gov'; 'Richard.Hartman@noaa.gov'; 'Cecelia Linder'; 'Chris Allen'; Inman, Brad L MVN; 'John Jurgensen'; 'Kevin Roy'; 'Paul Kaspar'; 'Rachel Sweeney'  
Subject: CWPPRA Task Force Electronic Vote: Lost Lake Marsh Creation & Hydrologic Restoration Project (TE-72) Scope Change (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Task Force Members,

Please see the attached memorandum from the Chairman of the Task Force requesting an electronic vote to approve FWS and CPRA's requested scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 and reduce the net benefits from 281 to

267 AAHUs (749 to 452 net acres), with no change in project features, for the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72).

Please fax your completed form to the US Army Corps of Engineers at 504-862-2572 OR email a scanned copy to me ([Allison.Murry@usace.army.mil](mailto:Allison.Murry@usace.army.mil)) or Brad Inman ([Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)) by Tuesday, December 11, 2012.

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

Classification: UNCLASSIFIED  
Caveats: NONE

Classification: UNCLASSIFIED  
Caveats: NONE

**From:** Murry, Allison MVN-Contractor  
**To:** ["britt.paul@la.usda.gov"](mailto:britt.paul@la.usda.gov); ["Darryl Clark"](#); ["Holden, Thomas A MVN"](#); ["Karen McCormick \(McCormick.Karen@epamail.epa.gov\)"](#); ["kirk.rhinehart@la.gov"](mailto:kirk.rhinehart@la.gov); ["Richard.Hartman@noaa.gov"](mailto:Richard.Hartman@noaa.gov)  
**Cc:** ["Mabry, Susan M MVN"](#); ["Cecelia Linder"](#); ["Chris Allen"](#); ["Inman, Brad L MVN"](#); ["John Jurgensen"](#); ["Kevin Roy"](#); ["Paul Kaspar"](#); ["Rachel Sweeney"](#)  
**Subject:** RE: CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)  
**Date:** Friday, November 30, 2012 7:42:00 AM

---

Classification: UNCLASSIFIED  
Caveats: NONE

Thank you all for your quick replies. The Technical Committee has approved the request for a Task Force Electronic Vote for the scope change requests below.

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

**From:** Murry, Allison MVN-Contractor  
**Sent:** Thursday, November 29, 2012 8:30 AM  
**To:** 'britt.paul@la.usda.gov'; 'Darryl Clark'; 'Holden, Thomas A MVN'; 'Karen McCormick (McCormick.Karen@epamail.epa.gov)'; 'kirk.rhinehart@la.gov'; 'Richard.Hartman@noaa.gov'  
**Cc:** 'Mabry, Susan M MVN'; 'Cecelia Linder'; 'Chris Allen'; 'Inman, Brad L MVN'; 'John Jurgensen'; 'Kevin Roy'; 'Paul Kaspar'; 'Rachel Sweeney'  
**Subject:** CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Technical Committee,

The Fish and Wildlife Service (FWS) and Coastal Protection and Restoration Authority (CPRA) request Technical Committee and Task Force electronic vote approvals for scope changes for the South Grand Chenier Hydrologic Restoration (ME-20) and Lost Lake Marsh Creation and Hydrologic Restoration (TE-72) projects as briefly described below and in the attachments.

They request the electronic votes rather than placement on the Technical Committee agenda so that these approvals will be completed prior to the Technical Committee and Task Force meetings.

South Grand Chenier Hydrologic Restoration Project (ME-20)

FWS & CPRA request to remove the freshwater introduction feature, due to feasibility, decrease the budget and benefits from the current \$29,046,128 and 291 Average Annual Habitat Units (AAHUs) (415 net acres), to \$21,933,085 (-25%) and 184 AAHUs (- 37%) (427 net acres), and change the name to the "South Grand Chenier Marsh Creation" project.

Lost Lake Marsh Creation and Hydrologic Restoration (TE-72)

FWS & CPRA request a scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 (+ 51%), and reduce the net benefits from 281 to 267 AAHUs (- 5%) (749 to 452 net acres), with no change in project features. The reason for the cost increase is an underestimate of marsh fill quantities. The primary reason for the reduction in net acres is the lower background loss rate calculated in the hydrologic restoration subareas due to a new method of calculating loss rates.

The above costs and benefits have been reviewed by the Engineering, Environmental and Economic work groups.

Please provide your concurrence, non-concurrence, and/or comments via email on whether or not you recommend Task Force electronic vote approval on each of the scope change requests above. Since this is a time sensitive request, please submit your final response by COB Friday, November 30.

Thank you,

Allison Murry  
CWPPRA Program  
USACE New Orleans  
Tel: 504.862.2075

Classification: UNCLASSIFIED  
Caveats: NONE

Classification: UNCLASSIFIED  
Caveats: NONE

**From:** [Kirk Rhinehart](#)  
**To:** [Murry, Allison MVN-Contractor](#); [britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov); [Darryl Clark](#); [Holden, Thomas A MVN](#); [Karen McCormick \(McCormick.Karen@epamail.epa.gov\)](#); [Richard.Hartman@noaa.gov](mailto:Richard.Hartman@noaa.gov)  
**Cc:** [Mabry, Susan M MVN](#); [Cecelia Linder](#); [Chris Allen \(CPRA\)](#); [Inman, Brad L MVN](#); [John Jurgensen](#); [Kevin Roy](#); [Paul Kaspar](#); [Rachel Sweeney](#)  
**Subject:** RE: CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)  
**Date:** Thursday, November 29, 2012 10:09:22 AM

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CPRA concurs.

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

From: Murry, Allison MVN-Contractor [<mailto:Allison.Murry@usace.army.mil>]  
Sent: Thursday, November 29, 2012 8:30 AM  
To: [britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov); Darryl Clark; Holden, Thomas A MVN; Karen McCormick (McCormick.Karen@epamail.epa.gov); Kirk Rhinehart; Richard.Hartman@noaa.gov  
Cc: Mabry, Susan M MVN; Cecelia Linder; Chris Allen (CPRA); Inman, Brad L MVN; John Jurgensen; Kevin Roy; Paul Kaspar; Rachel Sweeney  
Subject: CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Technical Committee,

The Fish and Wildlife Service (FWS) and Coastal Protection and Restoration Authority (CPRA) request Technical Committee and Task Force electronic vote approvals for scope changes for the South Grand Chenier Hydrologic Restoration (ME-20) and Lost Lake Marsh Creation and Hydrologic Restoration (TE-72) projects as briefly described below and in the attachments.

They request the electronic votes rather than placement on the Technical Committee agenda so that these approvals will be completed prior to the Technical Committee and Task Force meetings.

South Grand Chenier Hydrologic Restoration Project (ME-20) FWS & CPRA request to remove the freshwater introduction feature, due to feasibility, decrease the budget and benefits from the current \$29,046,128 and 291 Average Annual Habitat Units (AAHUs) (415 net acres), to \$21,933,085 (-25%) and 184 AAHUs (- 37%) (427 net acres), and change the name to the "South Grand Chenier Marsh Creation" project.

Lost Lake Marsh Creation and Hydrologic Restoration (TE-72) FWS & CPRA request a scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 (+ 51%), and reduce the net benefits from 281 to 267 AAHUs (- 5%) (749 to 452 net acres), with no change in project features. The reason for the cost increase is an underestimate of marsh fill quantities. The primary reason for the reduction in net acres is the lower background loss rate calculated in the hydrologic restoration subareas due to a new method of calculating loss rates.

The above costs and benefits have been reviewed by the Engineering, Environmental and Economic work groups.

Please provide your concurrence, non-concurrence, and/or comments via email on whether or not you recommend Task Force electronic vote approval on each of the scope change requests above. Since this is a time sensitive request, please submit your final response by COB Friday, November 30.

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

**From:** [McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov)  
**To:** [Murry.Allison.MVN-Contractor](mailto:Murry.Allison.MVN-Contractor); [britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov); [Darryl Clark](mailto:Darryl.Clark); [Holden.Thomas.A.MVN](mailto:Holden.Thomas.A.MVN); [kirk.rhinehart@la.gov](mailto:kirk.rhinehart@la.gov); [Richard.Hartman@noaa.gov](mailto:Richard.Hartman@noaa.gov)  
**Cc:** [Mabry.Susan.M.MVN](mailto:Mabry.Susan.M.MVN); [Cecelia Linder](mailto:Cecelia.Linder); [Chris Allen](mailto:Chris.Allen); [Inman.Brad.L.MVN](mailto:Inman.Brad.L.MVN); [John Jurgensen](mailto:John.Jurgensen); [Kevin Roy](mailto:Kevin.Roy); [Kaspar.Paul@epamail.epa.gov](mailto:Kaspar.Paul@epamail.epa.gov); [Rachel Sweeney](mailto:Rachel.Sweeney)  
**Subject:** Re: CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)  
**Date:** Thursday, November 29, 2012 5:50:49 PM

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EPA Concurrs

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Sent by EPA Wireless E-Mail Services

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

From: "Murry, Allison MVN-Contractor" [Allison.Murry@usace.army.mil]

Sent: 11/29/2012 02:29 PM GMT

To: "britt.paul@la.usda.gov" <britt.paul@la.usda.gov>; Darryl Clark <darryl\_clark@fws.gov>; "Holden, Thomas A MVN" <Thomas.A.Holden@usace.army.mil>; Karen McCormick; "kirk.rhinehart@la.gov" <kirk.rhinehart@la.gov>; "Richard.Hartman@noaa.gov" <Richard.Hartman@noaa.gov>

Cc: "Mabry, Susan M MVN" <Susan.M.Mabry@usace.army.mil>; Cecelia Linder <cecelia.linder@noaa.gov>; Chris Allen <chris.allen@la.gov>; "Inman, Brad L MVN" <Brad.L.Inman@usace.army.mil>; John Jurgensen <john.jurgensen@la.usda.gov>; Kevin Roy <kevin\_roy@fws.gov>; Paul Kaspar; Rachel Sweeney <rachel.sweeney@noaa.gov>

Subject: CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Technical Committee,

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The above costs and benefits have been reviewed by the Engineering, Environmental and Economic work groups.

Please provide your concurrence, non-concurrence, and/or comments via email on whether or not you

recommend Task Force electronic vote approval on each of the scope change requests above. Since this is a time sensitive request, please submit your final response by COB Friday, November 30.

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

Classification: UNCLASSIFIED  
Caveats: NONE

**From:** [Darryl Clark](#)  
**To:** [Murry, Allison MVN-Contractor](#); [britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov); [Holden, Thomas A MVN](#); [Karen McCormick](#); [kirk.rhinehart@la.gov](mailto:kirk.rhinehart@la.gov); [Richard.Hartman@noaa.gov](mailto:Richard.Hartman@noaa.gov)  
**Cc:** [Mabry, Susan M MVN](#); [Cecelia Linder](#); [Chris Allen](#); [Inman, Brad L MVN](#); [John Jurgensen](#); [Kevin Roy](#); [Paul Kaspar](#); [Rachel Sweeney](#); [Andrew Beal](#)  
**Subject:** RE: CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)  
**Date:** Thursday, November 29, 2012 11:38:09 AM

---

FWS concurs with the scope change requests.

Darryl

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

From: Murry, Allison MVN-Contractor [<mailto:Allison.Murry@usace.army.mil>]  
Sent: Thursday, November 29, 2012 8:30 AM  
To: [britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov); Darryl Clark; Holden, Thomas A MVN; Karen McCormick ([McCormick.Karen@epamail.epa.gov](mailto:McCormick.Karen@epamail.epa.gov)); [kirk.rhinehart@la.gov](mailto:kirk.rhinehart@la.gov); [Richard.Hartman@noaa.gov](mailto:Richard.Hartman@noaa.gov)  
Cc: Mabry, Susan M MVN; Cecelia Linder; Chris Allen; Inman, Brad L MVN; John Jurgensen; Kevin Roy; Paul Kaspar; Rachel Sweeney  
Subject: CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Technical Committee,

The Fish and Wildlife Service (FWS) and Coastal Protection and Restoration Authority (CPRA) request Technical Committee and Task Force electronic vote approvals for scope changes for the South Grand Chenier Hydrologic Restoration (ME-20) and Lost Lake Marsh Creation and Hydrologic Restoration (TE-72) projects as briefly described below and in the attachments.

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Lost Lake Marsh Creation and Hydrologic Restoration (TE-72) FWS & CPRA request a scope change to increase the project fully funded budget from \$22,943,866 to \$34,626,728 (+ 51%), and reduce the net benefits from 281 to 267 AAHUs (- 5%) (749 to 452 net acres), with no change in project features. The reason for the cost increase is an underestimate of marsh fill quantities. The primary reason for the reduction in net acres is the lower background loss rate calculated in the hydrologic restoration subareas due to a new method of calculating loss rates.

The above costs and benefits have been reviewed by the Engineering, Environmental and Economic work groups.

Please provide your concurrence, non-concurrence, and/or comments via email on whether or not you recommend Task Force electronic vote approval on each of the scope change requests above. Since this is a time sensitive request, please submit your final response by COB Friday, November 30.

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

Classification: UNCLASSIFIED  
Caveats: NONE

**From:** [Richard Hartman - NOAA Federal](#)  
**To:** [Murry, Allison MVN-Contractor](#)  
**Cc:** [britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov); [Darryl Clark](#); [Holden, Thomas A MVN](#); [Karen McCormick \(McCormick.Karen@epamail.epa.gov\)](#); [kirk.rhinehart@la.gov](mailto:kirk.rhinehart@la.gov); [Mabry, Susan M MVN](#); [Cecelia Linder](#); [Chris Allen](#); [Inman, Brad L MVN](#); [John Jurgensen](#); [Kevin Roy](#); [Paul Kaspar](#); [Rachel Sweeney](#)  
**Subject:** Re: CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)  
**Date:** Thursday, November 29, 2012 1:23:50 PM

---

NMFS concurs.

Rick

On Thu, Nov 29, 2012 at 8:29 AM, Murry, Allison MVN-Contractor <[Allison.Murry@usace.army.mil](mailto:Allison.Murry@usace.army.mil)> wrote:

Classification: UNCLASSIFIED  
Caveats: NONE

Technical Committee,

The Fish and Wildlife Service (FWS) and Coastal Protection and Restoration Authority (CPRA) request Technical Committee and Task Force electronic vote approvals for scope changes for the South Grand Chenier Hydrologic Restoration (ME-20) and Lost Lake Marsh Creation and Hydrologic Restoration (TE-72) projects as briefly described below and in the attachments.

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Please provide your concurrence, non-concurrence, and/or comments via email on whether or not you recommend Task Force electronic vote approval on each of the scope change requests above. Since this is a time sensitive request, please submit your final response by COB Friday, November 30.

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

**From:** [Paul, Britt - NRCS, Alexandria, LA](#)  
**To:** [Murry, Allison MVN-Contractor](#); [Darryl Clark](#); [Holden, Thomas A MVN](#); [Karen McCormick \(McCormick.Karen@epamail.epa.gov\)](#); [kirk.rhinehart@la.gov](#); [Richard.Hartman@noaa.gov](#)  
**Cc:** [Mabry, Susan M MVN](#); [Cecelia Linder](#); [Chris Allen](#); [Inman, Brad L MVN](#); [Jurgensen, John - NRCS, Alexandria, LA](#); [Kevin Roy](#); [Paul Kaspar](#); [Rachel Sweeney](#)  
**Subject:** RE: CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)  
**Date:** Thursday, November 29, 2012 11:00:02 AM

---

NRCS concurs.

\*\*\*\*\*

W. Britt Paul, P.E.  
Assistant State Conservationist WR  
USDA-NRCS  
318-473-7756  
cell 318-613-7988  
[britt.paul@la.usda.gov](mailto:britt.paul@la.usda.gov)

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

From: Murry, Allison MVN-Contractor [<mailto:Allison.Murry@usace.army.mil>]  
Sent: Thursday, November 29, 2012 8:30 AM  
To: Paul, Britt - NRCS, Alexandria, LA; Darryl Clark; Holden, Thomas A MVN; Karen McCormick (McCormick.Karen@epamail.epa.gov); [kirk.rhinehart@la.gov](mailto:kirk.rhinehart@la.gov); [Richard.Hartman@noaa.gov](mailto:Richard.Hartman@noaa.gov)  
Cc: Mabry, Susan M MVN; Cecelia Linder; Chris Allen; Inman, Brad L MVN; Jurgensen, John - NRCS, Alexandria, LA; Kevin Roy; Paul Kaspar; Rachel Sweeney  
Subject: CWPPRA Task Force Electronic Vote Requests: South Grand Chenier (ME-20) & Lost Lake MC & Hydrologic Restoration (TE-72) Scope Changes (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Technical Committee,

The Fish and Wildlife Service (FWS) and Coastal Protection and Restoration Authority (CPRA) request Technical Committee and Task Force electronic vote approvals for scope changes for the South Grand Chenier Hydrologic Restoration (ME-20) and Lost Lake Marsh Creation and Hydrologic Restoration (TE-72) projects as briefly described below and in the attachments.

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recommend Task Force electronic vote approval on each of the scope change requests above. Since this is a time sensitive request, please submit your final response by COB Friday, November 30.

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

Classification: UNCLASSIFIED  
Caveats: NONE

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COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**2012 STATE MASTER PLAN CONSISTENCY AND THE CWPPRA PROGRAM**

**For Report:**

Mr. Kirk Rhinehart will provide a briefing on interpretation of the 2012 State Master Plan for CWPPRA projects on future Priority Project Lists (PPLs).

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**REQUEST FOR APPROVAL TO INITIATE DEAUTHORIZATION ON SIX  
PROJECTS**

**For Decision:**

The Coastal Protection and Restoration Authority (CPRA) is requesting formal deauthorization procedures be initiated on the six projects listed below. These projects face technical implementation issues, have an unfavorable benefit-to-cost ratio, or have languished for an extended period.

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



# State of Louisiana

**BOBBY JINDAL**  
GOVERNOR

December 10, 2012

Mr. Thomas A. Holden, P.E.  
Chairman, CWPPRA Technical Committee  
US Army Corps of Engineers  
New Orleans District  
PO Box 60267  
New Orleans, LA 70160-0267

Re: Initiation of deauthorization procedures

Dear Mr. Holden:

Please accept this correspondence as the Coastal Protection and Restoration Authority's (CPRA) official request to initiate deauthorization procedures for the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) projects listed below. These projects have languished for extended periods due to technical implementation issues, landowner or policy issues, or have an unfavorable benefit to cost ratio.

**Freshwater Bayou Bank Stabilization (TV-11b, PPL 9):** This project has a very low benefit to cost ratio. The cost has increased and the benefits have decreased as the shoreline loss rate has slowed. This project has requested Phase 2 funding numerous times with no success.

**Delta Building Diversion North of Fort St. Philip (BS-10, PPL 10):** This project has languished for several years due to the induced shoaling issue and the required emergency closure plan. A natural crevasse has formed in the area, making the project unnecessary.

**Avoca Island Diversion and Land Building (TE-49, PPL 12):** The constructability of this project is highly questionable given the substrate in the proposed marsh creation area. There has been no progress for several years and the benefit to cost ratio is not favorable.

**Spanish Pass Diversion (MR-14, PPL 13):** The estimate of potential benefits for this project was significantly reduced, thereby reducing the cost effectiveness. It has languished for several years and also faces the induced shoaling issue.

**White Ditch Resurrection (BS-12, PPL 14):** This project faces many landowner issues, including operational demands, exotic vegetation management, bankline stabilization requirements, among others. There are also operational concerns. We prefer to move forward with diversions that input sediment rather than freshwater alone.

**Bohemia Mississippi River Reintroduction (BS-15, PPL 17):** This project was originally proposed as a sediment diversion, but the project team discovered that it had very little land-building potential and therefore greatly reduced benefits. Additionally, a natural outlet ("Mardi Gras Pass") formed just north of here, rendering the project unnecessary.

Please direct questions regarding this matter to Chris Allen of the CPRA (225-342-4736).

Sincerely,



William K. "Kirk" Rhinehart  
Chief, Planning and Research Division  
Coastal Protection and Restoration Authority

CC: Richard Hartman, NMFS, Baton Rouge, LA  
Britt Paul, NRCS, Alexandria, LA  
Karen McCormick, EPA, Dallas, TX  
Darryl Clark, USFWS, Lafayette, LA

## Projects for Deauthorization or Transfer to Other Program Request by the State

Project Name	Project No.	Agency	PL	Issues	Reason(s) for Potential De-authorization
Freshwater Bayou Bank Stab - Belle Isle Canal to Lock	TV-11b	COE	9	CSA	All work is on hold pending approval of a new Cost Share Agreement. State requests deauthorization because this project is not consistent with 2012 State Master Plan.
Delta Building Diversion North of Fort St. Philip	BS-10	COE	10	CSA/ Induced Shoaling Issue	All work is on hold pending approval of a new Cost Share Agreement. State requests deauthorization because this project is not consistent with 2012 State Master Plan.
Avoca Island Diversion and Land Building	TE-49	COE	12	Project features/ CSA	All work is on hold pending approval of a new Cost Share Agreement. (Tech Comm declined request to transfer to another federal agency). Potential Change in project scope for dedicated dredging marsh creation being considered. Decision to change scope and move toward 30% design review pending resolution of CPRA's geotechnical concerns and concurrence on final project features. State requests deauthorization because this project is not consistent with 2012 State Master Plan.
Spanish Pass Diversion	MR-14	COE	13	CSA	All work is on hold pending approval of a new Cost Share Agreement. Benefits to be realized changed from 334 to 190 acres. A smaller diversion is proposed along with dedicated dredging/marsh creation to result in an equivalent amount of acreage as originally proposed. State requests deauthorization because this project is not consistent with 2012 State Master Plan.
White Ditch Resurrection	BS-12	NRCS	14	Landrights/ Location Issues	Project team has agreed to move to deauthorization due to issues regarding location & operation of siphon. State requests deauthorization because this project is not consistent with 2012 State Master Plan.
Bohemia Mississippi River Reintroduction	BS-15	EPA	17	SMP	State requests deauthorization because this project is not consistent with 2012 State Master Plan

Updated - June 19, 2012

**Tier System -**  
**Tier 1** consists of projects that are consistent with the locations identified in the 2012 Master Plan.  
**Tier 2** consists of projects that are not consistent with the locations identified in the 2012 Master Plan but have not experienced significant delays.  
**Tier 3** consists of projects that are not consistent with the locations identified in the 2012 Master Plan and have experienced delays of more than 24 months.

Tier	PPL	Number	Project Name	Agency	Project Types	Project manager	Parishes	Primary Criteria		Footnotes	Secondary Criteria			
								Consistent with Project Areas identified in the 2012 Master Plan	Project has experienced schedule delays of MORE than 24 months		Have a signed agreement	Consistent with objectives of Master Plan 2012	Phase I complete	Projects that have requested Phase 2 THREE OR MORE times
1	16	ME-24	Southwest LA Gulf Shoreline Nourishment and Protection	COE	Shoreline Protection		Cameron, Vermilion	YES	YES	2	CORPS	YES	NO	Not Eligible
1	9	TV-11b	Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock	COE	Shoreline Stabilization	Andrew Beall	Vermilion	YES	YES	2	CORPS	YES	YES	YES
2	8	CS-28-4-5	Sabine Refuge Marsh Creation, Cycles 4 and 5	COE	Marsh Creation	Andrew Beall	Cameron	NO	YES	6	YES	YES	YES	Pre-Cashflow
3	13	MR-14	Spanish Pass Diversion	COE	Water Diversion		Plaquemines	NO	YES	6	CORPS	YES	NO	Not Eligible
3	12	TE-49	Avoca Island Diversion and Land Building	COE	Water Diversion		St. Mary	NO	YES	6	CORPS	NO	NO	Not Eligible
3	10	BS-10	Delta Building Diversion North of Fort St. Philip	COE	Water Diversion		Plaquemines	NO	YES	6	CORPS	YES	NO	Not Eligible
3	40	MR-13	Benneys Bay Diversion (Deauthorization Initiated)	COE	Water Diversion		Plaquemines	NO	YES	6	CORPS	YES	NO	Not Eligible
3	9	TV-19	Weeks Bay Marsh Creation and Shore Protection/Commercial Canals	COE	Marsh Creation, Shoreline Protection		Iberia	YES	YES	1,2	CORPS	YES	NO	Not Eligible
1	11	PO-29	River Reintroduction into Maurepas Swamp	EPA	Water Diversion	Brad Miller	Ascension, St. Charles	YES	YES	4	YES	YES	NO	Not Eligible
1	11	TE-47	Ship Shoal: Whiskey West Flank Restoration	EPA	Barrier Island Restoration	Brad Miller	Terrebonne	YES	YES	4	YES	YES	YES	YES
1	10	BA-34	Mississippi River Reintroduction Into Northwest Barataria Basin	EPA	Freshwater Diversion	Brad Miller	St. James	YES	YES	4	YES	NO	NO	Not Eligible
2	18	BS-18	Bertrandville Siphon	EPA	Freshwater Diversion	Brad Miller	Plaquemines	NO	NO	4	YES	NO	NO	Not Eligible
2	17	BS-15	Bohemia Mississippi River Reintroduction	EPA	Freshwater Diversion	Brad Miller	Plaquemines	NO	NO	4	YES	YES	NO	Not Eligible
2	15	MR-15	Venice Ponds Marsh Creation and Crevasses	EPA	Marsh Creation, Water Diversion	Brad Miller	Plaquemines	NO	NO	4	YES	YES	YES	NO
1	21	CS-59	Oyster Bayou	NMFS	Marsh Creation	Trena Woolridge	Cameron	YES	NO	4	YES	YES	NO	Not Eligible
1	21	TV-63	Coles Bayou	NMFS	Marsh Creation	Trena Woolridge	Vermilion	NO	NO	4	Pending	NO	NO	Not Eligible
1	19	BA-76	Cheniere Ronquille Barrier Island Restoration	NMFS	Barrier Island Restoration	Kenneth Bahlinger	Plaquemines	YES	NO	4	YES	YES	YES	NO
1	16	TE-51	Madison Bay Marsh Creation and Terracing (Scope Change)	NMFS	Marsh Creation	Kenneth Bahlinger	Terrebonne	YES	YES	4	YES	NO	NO	Not Eligible
1	10	ME-18	Rockefeller Refuge Gulf Shoreline Stabilization	NMFS	Shoreline Protection		Cameron	YES	YES	4	YES	YES	NO	Not Eligible
1	20	CS-53	Kelso Bayou Marsh Creation	NRCS	Marsh Creation	Bill Feazel	Cameron	YES	NO	4	YES	YES	NO	Not Eligible
1	19	ME-31	Freshwater Bayou Marsh Creation	NRCS	Marsh Creation	contractor	Vermilion	YES	NO	4	YES	YES	NO	Not Eligible
1	18	TE-66	Central Terrebonne Freshwater Enhancement	NRCS	Hydrologic Restoration	Andrew Beall	Terrebonne	YES	NO	4	YES	YES	NO	Not Eligible
1	18	CS-49	Cameron-Creole Freshwater Introduction	NRCS	Freshwater Diversion	Bill Feazel	Cameron	YES	NO	4	YES	YES	NO	Not Eligible
1	17	BA-47	West Pointe a la Hache Marsh Creation	NRCS	Marsh Creation	Bill Feazel	Plaquemines	YES	YES	4	YES	NO	NO	Not Eligible
1	16	PO-34	Alligator Bend Marsh Restoration and Shoreline Protection	NRCS	Marsh Creation	Bill Feazel	Orleans	YES	NO	4	YES	YES	YES	NO
1	11	TE-48 cu2	Raccoon Island Shoreline Protection/Marsh Creation	NRCS	Shoreline Protection, Marsh Creation	Dustin White	Terrebonne	YES	YES	4	YES	YES	NO	Not Eligible
2	9	TE-39 cu2	S. Lake Decade FW Introduction	NRCS	Water Diversion	Bill Feazel	Terrebonne	YES	YES	4	YES	YES	NO	Not Eligible
2	21	PO-133	LaBranche Central MC	NRCS	Marsh Creation	Devyani Kar	St. Charles	NO	NO	4	Pending	NO	NO	Not Eligible
2	19	PO-75	LaBranche East Marsh Creation	NRCS	Marsh Creation	Bill Feazel	St. Charles	NO	NO	4	YES	NO	NO	Not Eligible
3	14	BS-12	White Ditch Resurrection and Outfall Management	NRCS	Water Diversion, Outfall Management	Brad Miller	Plaquemines	NO	YES	4	YES	NO	NO	Not Eligible
3	13	TV-20	Bayou Sale Shoreline Protection	NRCS	Shoreline Protection	Bill Feazel	St. Mary	NO	YES	4	YES	YES	NO	Not Eligible
3	3	BA-04c	West Pointe a la Hache Outfall Management	NRCS	Water Diversion	Bill Feazel	Plaquemines	NO	YES	4	YES	NO	NO	Pre-Cashflow
1	20	TE-83	Terrebonne Bay Marsh Creation - Nourishment Project	USFWS	Marsh Creation	Andrew Beall	Terrebonne	YES	NO	3	YES	NO	NO	Not Eligible
1	20	CS-54	Cameron-Creole Watershed Grand Bayou Marsh Creation	USFWS	Marsh Creation	Andrew Beall	Cameron	YES	NO	3	YES	NO	NO	Not Eligible
1	19	TE-72	Lost Lake Marsh Creation and Hydrologic Restoration	USFWS	Marsh Creation	Andrew Beall	Terrebonne	YES	NO	3	YES	NO	NO	Not Eligible
1	6	TE-32a	North Lake Boudreaux Basin Freshwater Introduction and Hydrologic Restoration	USFWS	Water Diversion	Andrew Beall	Terrebonne	NO	YES	5	YES	YES	YES	Pre-Cashflow
2	21	BA-125	Northwest Turtle Bay	USFWS	Marsh Creation	Devyani Kar	Jefferson	NO	NO	5	Pending	NO	NO	Not Eligible
2	20	PO-104	Bayou Bonfouca Marsh Creation Project	USFWS	Marsh Creation	Andrew Beall	St. Tammany	NO	NO	5	YES	NO	NO	Not Eligible

**Footnotes**

- 1 We tried to deauthorize this project, due to high costs and low benefits.
- 2 Consistent with MP, but not consistent with CWPPRA policy on shoreline protection for Navigation Channels.
- 3 Potential to be deemed unconstructable
- 4 While Maurepas and Rockefeller are both supported by the Master Plan, they are likely too expensive to be funded under CWPPRA
- 5 Construction money is in-hand
- 6 An agreement was recently reached to transfer partial control from the Corps to USFWS to facilitate the final construction cycles



# Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock (TV-11b)

## Project Status

**Approved Date:** 2000      **Project Area:** 285 acres  
**Approved Funds:** \$1.49 M      **Total Est. Cost:** \$35.6 M  
**Net Benefit After 20 Years:** 241 acres  
**Status:** Engineering and Design  
**Project Type:** Shoreline Stabilization  
**PPL #:** 9

## Location

The project is located in Vermilion Parish, Louisiana, along the eastern bank of the Freshwater Bayou Canal between Freshwater Bayou Lock and Belle Isle Bayou.

## Problems

In 1960, the U.S. Army Corps of Engineers was authorized to construct a navigation channel from mile 161.2 of the Gulf Intracoastal Waterway south to the Gulf of Mexico. The present channel is 600 feet wide because of wakes from boat traffic. In the reach of the canal between Freshwater Bayou Lock and Belle Isle Bayou, breaches in the bank have developed at numerous locations.

The breaches are allowing boat wakes and hydrologic action to adversely affect the interior marsh east of the canal. Turbid, higher salinity water is entering the interior marsh, causing marsh loss and decreasing coverage of submerged aquatic vegetation. The wakes from passing vessels and tidal action are causing the export of organic material from the project area. A large area of interior marsh in the northern part of the project area is breaking apart and turning into open water. The effects of shoreline erosion are a direct conversion of marsh to open water and an increase in the introduction of higher salinity waters to formerly fresh and intermediate marshes.

## Restoration Strategy

The objective of the project is to halt bank erosion through the construction of a stone dike on the eastern bank of Freshwater Bayou Canal between Belle Isle Bayou and Freshwater Bayou Lock. The dike would reduce the amount of water exchange between the canal and interior marshes and protect the marshes from erosion.

A 40,000 foot-long rock dike is being constructed. The dike will be continuous except for openings left at the mouths of several oil well canals where the dike will be tied into the bank on both sides of each canal.



Looking north up Freshwater Bayou Canal toward Humble Canal.

## Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design at the January 2000 Task Force meeting. A 30% design review was held in June 2002.

This project is on Priority Project List 9.

*For more project information, please contact:*



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



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

# Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock (TV-11b)

 Shoreline Protection

 Project Boundary



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

Background Imagery:  
2002 Thematic Mapper Imagery

Map Date: August 19, 2003  
Map ID: USGS-NWRC 2003-11-131  
Data accurate as of: June 2, 2003



Gulf of Mexico

Lock

Freshwater Bayou Canal

West Cheniere Au Tigre Canal

McIlhenny Canal

Belle

Isle

Bayou



# Delta Building Diversion North of Fort St. Philip (BS-10)

## Project Status

**Approved Date:** 2001      **Project Area:** 2,254 acres

**Approved Funds:** \$1.44 M      **Total Est. Cost:** \$6.64 M

**Net Benefit After 20 Years:** 501 acres

**Status:** Engineering and Design

**Project Type:** Water Diversion

**PPL #:** 10

## Location

The project is located in Plaquemines Parish, Louisiana.

## Problems

The wetlands in the area are deteriorating from erosion, subsidence, and insufficient sediment input. Some delta building is occurring in the downstream end of the project area from Mississippi River overbank flow. However, most of the project area is deteriorating from a lack of sediment.

The project area contains all four marsh types: saline, brackish, intermediate, and fresh. Most of the project area is saline marsh and open water. The proximity of open, shallow, estuarine water to the Mississippi River, coupled with the low level of development and infrastructure at this site, presents a rare opportunity to construct a major sediment diversion project for a reasonable construction cost.

Oyster leases in the project area and in nearby Breton Sound may be impacted by the project. Also, oil and gas well canals and pipeline canals may experience increased siltation, causing access problems for companies operating in the area.



Deteriorating wetlands in the Fort St. Philip area.

## Restoration Strategy

A series of channel armor gaps will be strategically located and constructed along the east descending bank of the Mississippi in the vicinity of Fort St. Philip to restore wetlands in the Mississippi River delta. The channel will be constructed mainly through shallow open water and will hydrologically connect to Fort Bayou. Several openings will be made along the diversion channel to direct flows into the shallow water areas. The size of the diversion channel will be designed to allow enough sediment through to create about 624 acres of marsh over the project life. This project will significantly increase sediment input into the benefited wetlands through the diversion of about 2,500-5,000 cubic feet per second of Mississippi River water. The diversion of fresh water and sediments is expected to re-create natural landscape features found throughout the delta to include riverbank ridges, emergent marsh, and mudflats. The project will also reduce the loss of existing marsh in the 2,252-acre project area. In addition, it is expected that the project will enhance the integrity of the delta system through the restoration and protection of these integrated ecosystem components.

## Progress to Date

Modeling is in progress to examine the size and location of the proposed diversion channel.

This project is on Priority Project List 10.

*For more project information, please contact:*



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



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

# Delta Building Diversion North of Fort St. Philip (BS-10)

-  Armored Gap \*
-  Diversion Channel \*
-  Project Boundary

\* denotes proposed features



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

Background Imagery:  
1998 Digital Orthophoto Quarter Quadrangle  
Map Date: September 9, 2003  
Map ID: USGS-NWRC 2003-11-116  
Data accurate as of: September 9, 2003



Raccoon Point

Quarantine Bay

Bay Denesse

Fort St. Philip

Mississippi River



# Avoca Island Diversion and Land Building (TE-49)

## Project Status

**Approved Date:** 2003      **Project Area:** 7,233 acres  
**Approved Funds:** \$2.22 M      **Total Est. Cost:** \$19.1 M  
**Net Benefit After 20 Years:** 143 acres  
**Status:** Engineering and Design  
**Project Type:** Water Diversion  
**PPL #:** 12

## Location

The project is located in the Avoca Island area in St. Mary Parish, Louisiana.

## Problems

The Avoca Island area lost approximately 5,000 acres of marsh between 1932 and 1990. Natural overbank flooding into the area has been eliminated by channelization and construction of flood protection levees, thereby preventing the input of fresh water, sediment, and nutrients.

## Restoration Strategy

The goal of this project is to rebuild eroded wetlands in the area through the diversion of fresh water, sediment, and nutrients. A diversion structure will be installed through the Avoca levee to allow water from Bayou Shaffer to enter Avoca Lake at a rate of 1,000 cubic feet per second. A natural bayou will be used as the primary outfall channel for the diversion. Outfall management measures will be evaluated and incorporated to increase benefits to aquatic habitats in the island system.

## Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design at the January 2003 Task Force meeting. The project work plan for the engineering and design phase was submitted for program review in May 2003. Engineering data collection, including site surveys and a geotechnical boring, is ongoing.

This project is on Priority Project List 12.



In this aerial view facing southwest, Avoca Island surrounds Avoca Lake in the center of the photograph. Bayou Boeuf is seen in the foreground with Bayou Shaffer in the background.

For more project information, please contact:



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



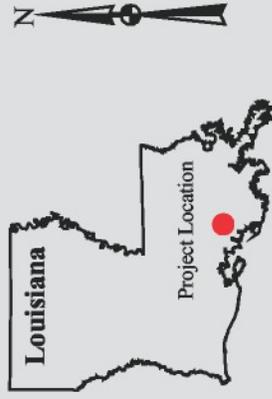
**Local Sponsor:**  
Coastal Protection and Restoration Authority  
Baton Rouge, LA  
(225) 342-4736

# Avoca Island Diversion and Land Building (TE-49)

-  Diversion Structure\*
  -  Sediment Diversion \*
  -  Marsh Creation\*
  -  Project Boundary
- \*denotes proposed feature



**USGS**  
science for a changing world



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

Background Imagery:  
1998 Digital Orthophoto Quarter Quadrangle  
Map Date: December 17, 2002  
Map ID: USGS-NWRC 2003-11-092  
Data accurate as of: December 17, 2002





# Spanish Pass Diversion (MR-14)

## Project Status

**Approved Date:** 2004      **Project Area:** 1,580 acres  
**Approved Funds:** \$1.42 M      **Total Est. Cost:** \$14.2 M  
**Net Benefit After 20 Years:** 433 acres  
**Status:** Engineering and Design  
**Project Type:** Water Diversion  
**PPL #:** 13

## Location

The project is located south of The Jump on Grand Pass near Venice in Plaquemines Parish, Louisiana.

## Problems

Marsh in the project area is not receiving sediment and is converting to open water. The principal hydrologic changes in the area are caused by the dredging of canals for the Venice Oil Field, roads, and other infrastructures. These changes have caused Spanish and Red Passes to be cut off from the influence of the Mississippi River, thus starving the area of fresh water, sediments, and nutrients. These processes have resulted in the loss of more than 3,900 acres of fresh marsh and swamp.

## Restoration Strategy

The primary goal of this project is to gain emergent marsh to the maximum extent possible by diverting river water and sediments into an otherwise open water environment.

The project involves constructing a diversion channel capable of diverting 7,000 cubic feet of water per second from Grand Pass (a tributary of the Mississippi River) into the large open-water receiving area shown on the project map. The construction of the 1,300-linear-foot diversion channel and its containment levees will necessitate placement of a bridge at Tidewater Road, which is included in the project's budget. Outfall management measures will be evaluated and incorporated to increase benefits to aquatic habitats in the system.



The construction of a diversion channel for a similar project, West Bay Sediment Diversion (MR-03), is shown above.

## Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved engineering and design funding at their January 2004 meeting. The project delivery team has been assembled, and a kickoff meeting and site visit was held in March 2004. The work plan was submitted to the CWPPRA Planning and Evaluation Subcommittee in April 2004. The project delivery team is in the process of obtaining right of entry to collect survey and water elevation data.

This project is on Priority Project List 13.

*For more project information, please contact:*



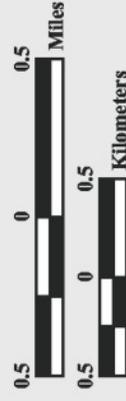
**Federal Sponsor:**  
 U.S. Army Corps of Engineers  
 New Orleans, LA  
 (504) 862-1597



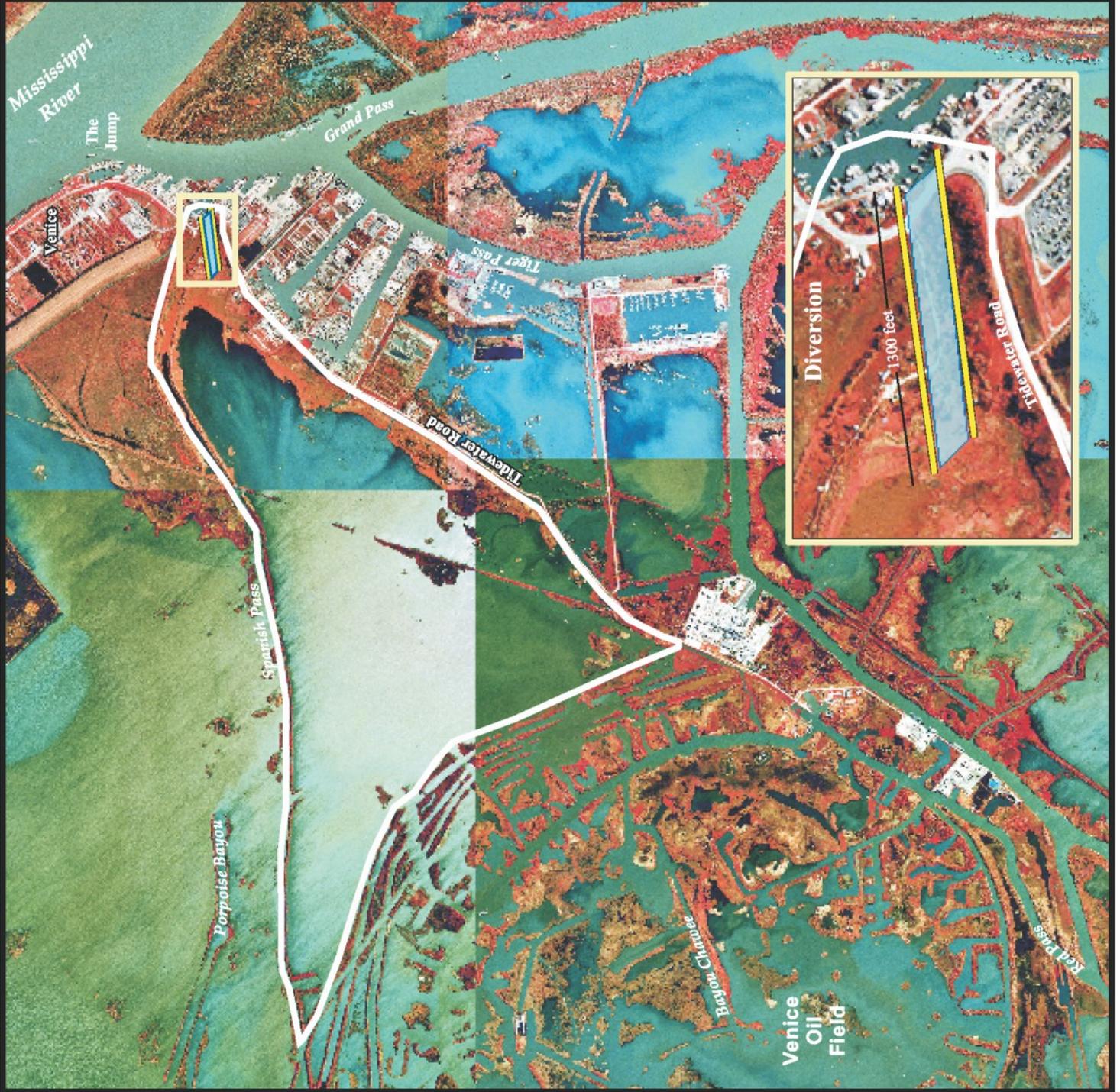
**Local Sponsor:**  
 Coastal Protection and Restoration Authority  
 Baton Rouge, LA  
 (225) 342-4736

# Spanish Pass Diversion (MR-14)

-  Containment Levee\*
  -  Diversion Channel\*
  -  Project Boundary
- \*denotes proposed features



Map Produced By:  
 U.S. Department of the Interior  
 U.S. Geological Survey  
 National Wetlands Research Center  
 Coastal Restoration Field Station  
 Background Imagery:  
 1998 Digital Orthophoto Quarter Quadrangle  
 Map Date: January 30, 2004  
 Map ID: USGS-NWRC 2004-11-0138  
 Data accurate as of: July 20, 2004





# White Ditch Resurrection and Outfall Management (BS-12)

## Project Status

**Approved Date:** 2005      **Project Area:** 8,224 acres

**Approved Funds:** \$1.59 M      **Total Est. Cost:** \$14.8 M

**Net Benefit After 20 Years:** 189 acres

**Status:** Engineering and Design

**Project Type:** Water Diversion and Outfall Management

**PPL #:** 14

## Location

The project area is located east of the Mississippi River in the vicinity of Belair, Louisiana, in Plaquemines Parish.

## Problems

The historically intermediate to brackish marshes in the area have completely converted to a brackish classification. These marshes are deteriorating due to a lack of freshwater input. A siphon built in 1963 at White Ditch that used to deliver the fresh water and sediment needed to maintain the area's wetlands has ceased operation due to age and various other complications. The natural banks of River Aux Chenes block any fresh water that may be provided by the Caernarvon Freshwater Diversion, a water control structure north of the project area. Currently, rainfall provides the only source of freshwater input to the area.



This project will help restore the highly degraded marshes of the area.

## Restoration Strategy

The goal of this project is to reduce the erosion rate by introducing fresh water, nutrients, and sediment into the marsh.

This will be accomplished through the rehabilitation or replacement of the existing siphon at White Ditch and the construction of an additional siphon of similar size. Each siphon will be capable of delivering approximately 250 cubic feet per second (cfs) of fresh water for a combined total of 500 cfs of fresh water entering into the project area. The project's proposed strategies also include installing a water control structure in the White Ditch outfall channel at the junction with River Aux Chenes in order to force water into the interior marsh.

The project area is subdivided into Areas A and B in order to delineate zones of direct and indirect impact from the siphons. Area A, which will be directly impacted, is estimated to have the land loss rate reduced by 50 percent, whereas the indirect impact in Area B is estimated to yield a 30 percent reduction of land loss.

## Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved engineering and design funding at their February 2005 meeting.

This project is on Priority Project List 14.

*For more project information, please contact:*



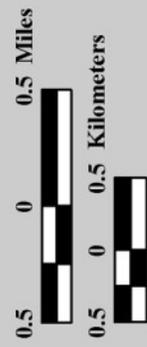
**Federal Sponsor:**  
Natural Resources Conservation Service  
Alexandria, LA  
(318) 473-7756



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

# White Ditch Resurrection and Outfall Management (BS-12)

-  Culvert
  -  Siphon
  -  Siphon \*
  -  Water Control Structure\*
  -  Project Boundary
- \* denotes proposed features



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

Background Imagery:  
 1998 Digital Orthophoto Quarter Quadrangle  
 Map Date: January 10, 2005  
 Map ID: USGS-NWRC 2005-11-0058  
 Data accurate as of: January 10, 2005





# Bohemia Mississippi River Reintroduction (BS-15)

## Project Status

**Approved Date:** 2007      **Project Area:** 5,210 acres  
**Approved Funds:** \$1.35 M      **Total Est. Cost:** \$6.92 M  
**Net Benefit After 20 Years:** 637 acres  
**Status:** Engineering and Design  
**Project Type:** Freshwater Diversion  
**PPL #:** 17

## Location

The project is located in the Breton Sound basin in Plaquemines Parish along the east bank of the Mississippi River approximately eight to nine miles southeast of Pointe à la Hache, Louisiana, just northeast of, and across the river from, Port Sulphur.

## Problems

The proposed project area is characterized by very low wetland loss rates, which may be attributed to the land-building effects of the existing, nearby Bohemia diversion and the seasonal flooding of the Mississippi River, among other things. The proposed project is designed to help offset wetland losses elsewhere in the State by enhancing deltaic growth in the area characterized by lower wetland loss rates.



Existing marsh adjacent to Nestor Canal.

## Restoration Strategy

The project will restore natural delta-building capacity by reintroducing Mississippi River water and sediments into shallow, open water and existing wetlands. This will be achieved through the construction of a diversion with a capacity of approximately 10,000 cubic feet per second. Dredged material from channel improvements will be used to fill in existing oil and gas canals to create an estimated 14 acres of marsh. Three acres of trees will be planted on new spoil banks of the improved diversion channel. Aquatic vegetation in interior marsh ponds and channels is expected to increase naturally. An estimated 640 net acres of marsh will be created over the 20-year life of the project.

## Progress to Date

The project is currently in Phase I, Engineering and Design.

This project is on Priority Project List 17.

*For more project information, please contact:*



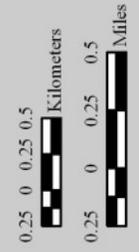
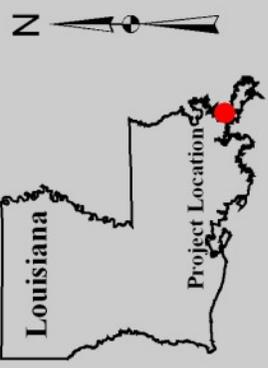
**Federal Sponsor:**  
U.S. Environmental Protection Agency  
Dallas, TX  
(214) 665-7255



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

# Bohemia Mississippi River Reintroduction (BS-15)

- Plug \*
- Diversion Channel Improvement \*
- Forebay \*
- Marsh Creation \*
- Project Boundary
- \*denotes proposed features



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

Background Imagery:  
 2005 Digital Orthophoto Quarter Quadrangle  
 Map Date: November 08, 2007  
 Map ID: USGS-NWRC 2008-11-0060  
 Data accurate as of: August 23, 2007



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**2012 REPORT TO CONGRESS FINAL DRAFT**

**For Report:**

The U.S. Geological Survey (USGS), U.S. Fish and Wildlife Service (USFWS), and EPA have been leading the 2012 Report to Congress efforts and will present the final draft of the 2012 Report to Congress.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**COASTWIDE REFERENCE MONITORING SYSTEM (CRMS) REPORT**

**For Report:**

Ms. Dona Weifenbach will provide a report on CRMS.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**WEEKS BAY MARSH CREATION AND SHORE PROTECTION/COMMERCIAL  
CANAL FRESHWATER REDIRECTION PROJECT (TV-19)**

**For Report:**

At the October 11, 2012 meeting, the Task Force voted to initiate deauthorization procedures for the Weeks Bay Marsh Creation and Shoreline Protection/Commercial Canal Freshwater Redirection Project with a final decision at the June 2013 Task Force meeting. The Task Force requested a presentation at the January 2013 meeting on the suggested adjustments to the project's scope and design. Mr. O'Neil Malbrough from Shaw will provide a status update.

**Motion from 11 October 2012 Task Force Meeting**

*Mr. Honker made a motion to initiate de-authorization of the Weeks Bay MC/SP/Commercial Canal/FW Redirection (TV-19) Project, with the project team giving a presentation on the project at the January Task Force meeting and the Task Force not making a final decision until the June 2013 Task Force meeting. Mr. Doley seconded. The motion was passed by the Task Force.*



**Weeks Bay/GIWW Shoreline Protection  
Feasibility Study**

Iberia Parish and Vermilion Parish CIAP

indap/ps 03/03/2012

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## Agenda

- Introduction
- Design Alternatives and Cost
- Scope of Project
- Potential Additional Benefits
- USGS & USACE Study
- Conclusion



indap/ps 03/03/2012

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2

## Introduction

- Contracted by Iberia & Vermilion Parishes as part of a study through CIAP Grant.
- Land bridge separating GIWW and Weeks Bay has steadily suffered shoreline erosion and habitat shift
- Subject of numerous Federal and State studies
  - Shoreline erosion
  - Salinity change
- Previous studies have resulted in range of conclusions and a variety of proposed projects
- Purpose was to evaluate Prior Studies and New Alternatives to show viability of project



3

## Design Alternatives & Costs

- Rock Dike
- Sheet Pile Wall
- Concrete Panel Wall



4



## Panel Wall Installation



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7

## Scope of Project

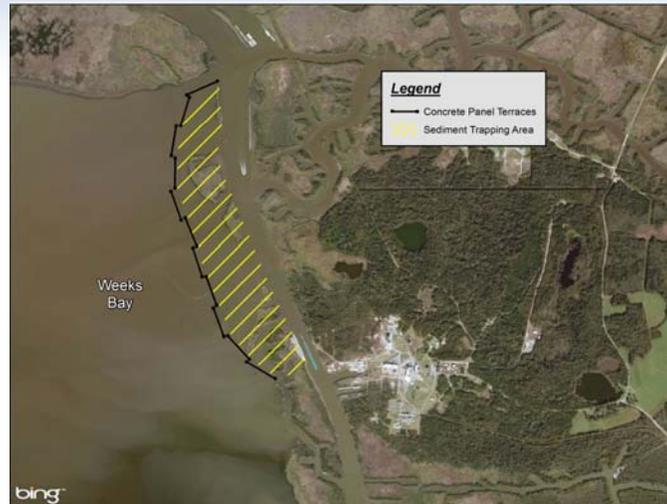
- “Re-Scope” from Shoreline Protection/Marsh Creation to Freshwater/Sediment Diversion, and Sediment Trap.
- Innovative Design
  - Similar in size and feasibility of prior project
  - Concrete Panel Wall on Weeks Bay Side
  - Project will work similar to shoreline restoration and freshwater diversion along GIWW

“The goal of the project is to provide a recommendation for the most efficient and effective alternative to maintain shoreline integrity, capture sediments, and stabilize critical areas of the actively eroding shoreline.”

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## Proposed Alignment



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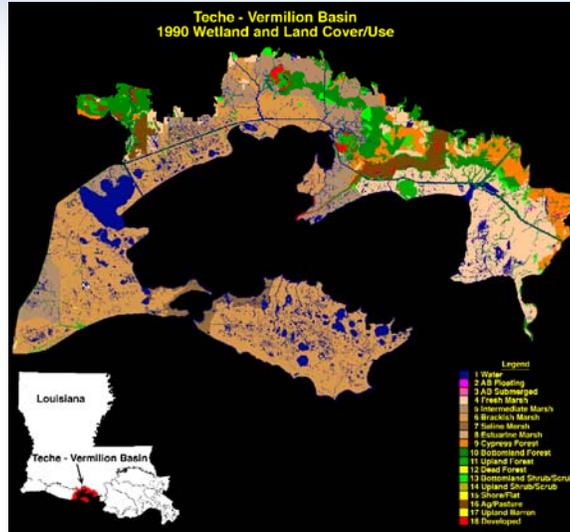
## Potential Additional Benefits

- Atchafalaya River West flow historically contained in the GIWW instead of short circuiting to Weeks Bay
- With the project sediment, nutrients, and freshwater flow will move through GIWW into adjacent marshes.
- Potential opportunity to beneficially use Atchafalaya River flow to benefit Teche-Vermillion Basin
- Cost effective “diversion”

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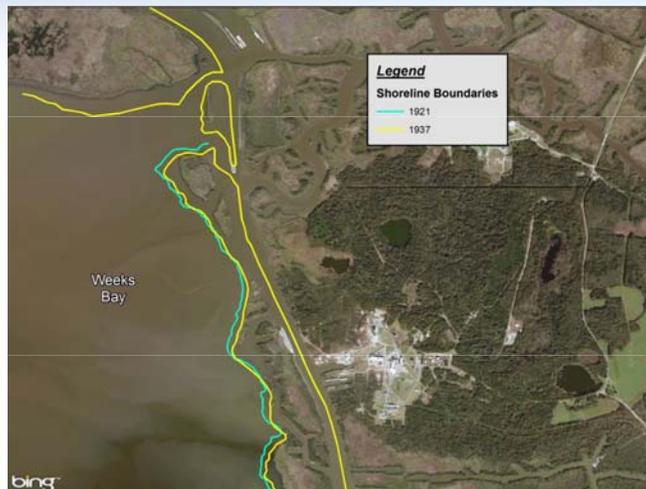
10

## Teche / Vermillion Basin



11

## 1921 and 1937 Shoreline Surveys



12

## USGS Study

- USGS Professional Paper 1672
  - By Christopher Swarzenski
- Study focused the effect of GIWW at transporting Atchafalaya River Water and Sediment East and West
- West water flow from River - towards project area
  - Water/Sediment move 30-50 miles
  - Average Flow to the West ~9460 CFS
  - Average Flow at Cypremort Point ~2,100 cfs
  - Maximum Flow at Cypremort Point ~4,900 cfs
- Noted that more sediment is going West than East

## Key Points of Study

- “the GIWW effectively distributes freshwater and sediment from the Lower Atchafalaya River and Wax Lake Outlet to points into Coastal LA 30-50 miles east and west of Morgan City”
- “The freshwater and sediments, some of which originate indirectly from the Mississippi River, are the building blocks for wetlands and could prove valuable in ongoing efforts to restore coastal Louisiana.”
- The Weeks Bay project could have the ability to effectively increase sediment and water flow West along GIWW

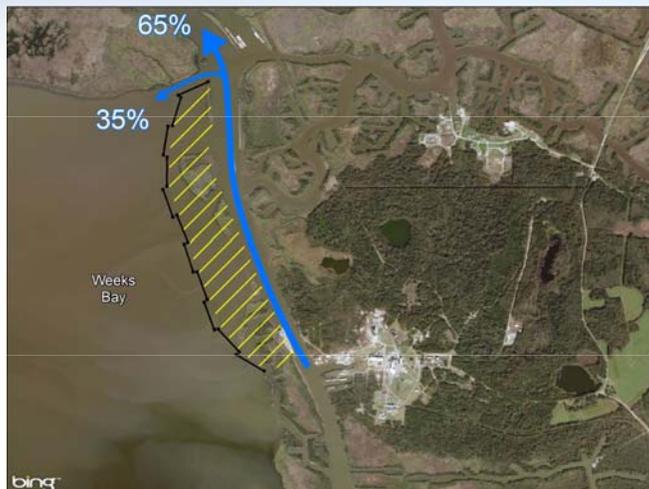
### Existing Flow



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### Flow with Project



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16

## CPRA Modeling Southwest Coastal Model

- Dr. Ehab Mesehle running a computer model – Southwest Coastal Model
- Modeling the use of the GIWW to transport Atchafalaya River Water and Sediment West
- Starting with “best case scenario” (no gaps in the channel) to test feasibility
- Should have results soon

12/13/2012



17

## Conclusion

- Continue to Research and Develop Project Benefits.
- Project fits in with 2012 Coastal Master Plan - Shoreline Protection, Bank Stabilization, and Conveyance Channel
- Potentially Re-scope with freshwater transport benefit
- Allow for consideration of secondary benefits
  - Navigation
  - Potential future marsh creation site
  - Protection of valuable infrastructure (weeks island)
  - Salinity Benefits

12/13/2012



18

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**STATUS OF THE NON-ROCK ALTERNATIVE TO SHORELINE PROTECTION  
DEMONSTRATION PROJECT (LA-16)**

**For Report:**

The final design (plans and specifications) and final cost estimates for five alternative shoreline protection systems at each of three sites will be submitted by previously approved Offerors to the Natural Resources Conservation Service (NRCS) on December 12, 2012. Those submittals will be evaluated and a final ranking of the alternative systems will be available in January 2013. At that time, NRCS and CPRA will make a recommendation and funding request for a specific number of alternative systems at a specific number of sites. Mr. Quin Kinler will provide a status update for the Non-Rock Alternatives to Shoreline Protection Demonstrations Project (LA-16).

**Non-Rock Alternatives to Shoreline  
Protection Demonstration Project  
(LA-16)**

**Project Update**

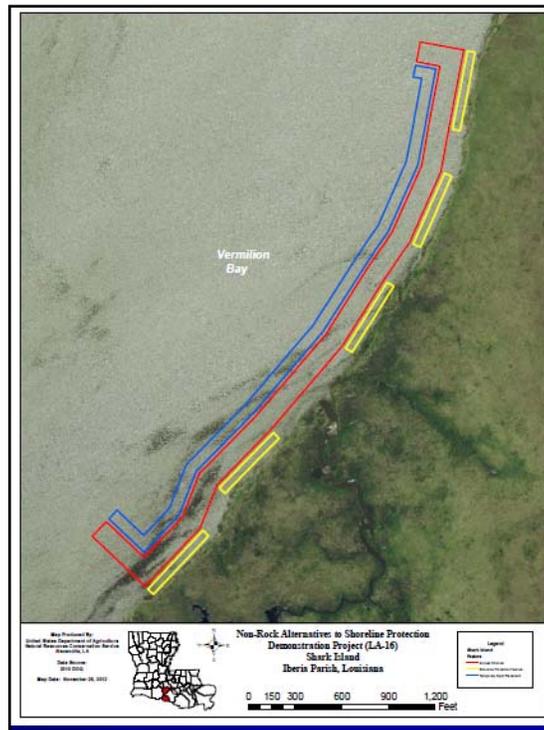
**CWPPRA Technical Committee Meeting  
December 12, 2012**

**Project Purpose**

Research, select, install, and monitor various shoreline protection alternatives in an area(s) of the state where physical, logistical and environmental limitations preclude the use of current adopted methods.

### Site Selection

- Considered 27 possible locations
- Factors considered
  - Erosion Rate (Uniform)
  - Soil Conditions
  - Fetch Length
  - Shoreline Length / Condition
  - Reasonable Proximity to Boat landing
  - Minimal Hindrances (pipelines, oyster leases, etc.)
  - Others
- Three Sites Selected
  - Shark Island, Vermilion Bay, Iberia Par.
  - Lake Salvador, Jefferson Parish
  - Bayou Perot, Lafourche Parish





#### Site Specific Data Collection

- Field Surveys
- Geotechnical Investigation / Report

#### Three Phase Approach

- Phase I -- Request and Evaluate Proposals to design, fabricate, transport and install a non-rock shoreline protection system.
- Phase II – Detailed Site-Specific Design and Final Cost for up to 7 products (Actual = 5).
- Phase III – Construction / Monitoring for up to 5 products.

Phase I

- Request for Proposals – Received 17
- Pre-selection Criteria
  - Not previously tested / evaluated in coastal Louisiana
  - Rock could not be a primary component
- Evaluation Criteria
  - Engineering and Design
  - Personnel
  - Risk Management
  - Past Performance
  - Cost
- Engineering and Design Criteria (examples)
  - Erosion Rate Reduction
  - Wave Dissipation

Phase I (continued)

- Engineering and Design Criteria (cont.)
  - Versatility / Applicability
  - Life Expectancy
  - Foundation Displacement
  - Anchoring method
  - Access Requirements
  - Fisheries Access
  - Site Impact / Disturbance
  - Navigation Hazard
- Selected 5 systems for Phase II

## Phase II

- Detailed Site-Specific Design and Final Cost for up to 7 products
- Five contracts awarded for design and cost
- Submittals are due today
- Evaluations / Ranking to be conducted through early January 2013

## Phase III

- Request Funding for Construction and Monitoring for up to 5 products (see subsequent slide).
- Amend CSA, Escrow Deposit, MIPR.
- Access Dredging, if needed, to be performed under contract by NRCS
- Award individual contract to selected offerors.
- 3-yr Monitoring

Based on Preliminary Estimates from Five Offerors

**LA-16 Cumulative Phase 3 Cost Analysis w/ Wave Monitoring**

# OF SITES	NO. OF PRODUCTS				
	5	4	3	2	1
3	\$13,471,540	\$11,142,825	\$7,184,651	\$4,621,511	\$2,206,255
2	\$9,253,207	\$7,777,780	\$4,950,265	\$3,444,508	\$1,649,038
1	\$4,827,650	\$4,091,805	\$2,587,273	\$1,819,395	\$941,238

\*Above costs include Contingency of 15% 1.15  
 \*Above values include the cost for the following:

Access Channel Dredging	Survey Monitoring (3 yrs @ 6 mth intervals)
Supervision & Inspection	Wave Monitoring (2 - 1 mth sessions)
Construction of Products (fab & install)	

**LA-16 Budget Situation**

	Current Budget	Expended	Available
E&D and Lands	510,184	478,543	31,641
Construction (S&I, cont.)	1,159,869	697,040	462,829
Monitoring	10,787	0	10,787
OMRR&R	215,964	0	215,964
USACE	9,433	1,893	7,540
<b>Total</b>	<b>1,906,237</b>	<b>1,177,476</b>	<b>728,761</b>

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**22<sup>ND</sup> PRIORITY PROJECT LIST**

**For Report/Decision:**

The Environmental Workgroup Chairman will present an overview of the ten PPL 22 candidate projects and four PPL 22 candidate demonstration projects. The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 22 projects, including demonstration projects, for Phase I Engineering and Design.

<b>Region</b>	<b>Basin</b>	<b>PPL 22 Nominees</b>	<b>Agency</b>
2	Breton Sound	Lake Lery Shoreline Marsh Creation and Terracing	NMFS
2	Breton Sound	Terracing and Marsh Creation South of Big Mar	USFWS
2	Barataria	Bayou Dupont Sediment Delivery – Marsh Creation 3	EPA
2	Barataria	NE Turtle Bay Marsh Creation & Critical Area Shoreline Protection	NRCS
2	Barataria	Elmer’s Island Restoration	NMFS
3	Terrebonne	North Catfish Lake Marsh Creation	NRCS
3	Terrebonne	Grand Bayou Freshwater Enhancement and Terracing	USFWS
3	Teche-Vermilion	South Little Vermilion Bay Plantings and Terracing	NMFS
4	Mermentau	Front Ridge Freshwater Introduction and Terracing	NRCS
4	Calcasieu-Sabine	Cameron Meadows Marsh Creation and Terracing	NMFS

	<b>PPL 22 Demonstration Project Nominees</b>	<b>Agency</b>
DEMO	Hay Bale Demo	USACE
DEMO	Reconnection of Hydrologically Isolated Wetlands	NMFS
DEMO	CREPS: Coastal Restoration and Energy Production System	CPRA
DEMO	Bioengineering of Shorelines and Canal Banks using Live Stakes	EPA

CWPPRA PPL 22 Technical Committee VOTE

12-Dec-12

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	North Catfish Lake Marsh Creation	6	5	5	5	6	6	6	33	\$3,216,194		\$27,138,815	
2	Terracing & Marsh Creation South of Big Mar		2	1	6	2	1	5	12	\$2,308,599		\$21,384,106	
2	Bayou Dupont Sediment Delivery - Marsh Creation 3		6	6	1		4	4	17	\$3,415,930		\$34,863,233	
4	Cameron Meadows Marsh Creation & Terracing	1	4	3		4		4	12	\$3,108,025		\$24,577,795	
3	Grand Bayou Freshwater Enhancement & Terracing		3	2	4		3	4	12	\$3,206,177		\$27,138,815	
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection	5			2		5	3	12	\$3,474,110		\$37,020,012	
2	Lake Lery Shoreline Marsh Creation & Terracing	4			3	3		3	10	\$3,198,248		\$28,178,782	
2	Elmer's Island Restoration		1	4		5		3	10	\$3,974,176		\$31,771,024	
4	Front Ridge Freshwater Introduction & Terracing	3					2	2	5	\$1,954,290		\$11,668,133	
3	South Little Vermilion Bay Plantings & Terracing	2				1		2	3	\$777,158		\$5,729,763	

Total

NOTES:

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

CWPPRA PPL 22 Technical Committee VOTE

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	Grand Bayou Freshwater Enhancement & Terracing			1	1		1	3	3	\$3,206,177		\$27,138,815	
4	Cameron Meadows Marsh Creation & Terracing	1	1			1		3	3	\$3,108,025		\$24,577,795	

Total

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

CWPPRA PPL 22 Technical Committee VOTE

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
4	Cameron Meadows Marsh Creation & Terracing	1	1	1		1		4	4	\$3,108,025		\$24,577,795	
3	Grand Bayou Freshwater Enhancement & Terracing				1		1	2	2	\$3,206,177		\$27,138,815	

Total

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

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing	4						0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection	5						0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation	6						0	0
3	Grand Bayou Freshwater Enhancement & Terracing							0	0
3	South Little Vermilion Bay Plantings & Terracing	2						0	0
4	Front Ridge Freshwater Introduction & Terracing	3						0	0
4	Cameron Meadows Marsh Creation & Terracing	1						0	0
		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 22 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.
3. Each agency will vote for their top projects, hand-written on the above ballot form
4. A weighted score will be assigned (6, 5, 4, 3, 2, and 1), to be used in the event of a tie. (6 highest...1 lowest).
5. Initial rank will be determined based upon the number of votes received for a project (unweighted).
6. The Technical Committee will vote on "up to four" projects for recommendation to the Task Force.
7. In the event of a tie at the cutoff (up to 4), the weighted score may be used as a tie-breaker (if the Technical Committee decides to break the tie).
8. The tied projects will be ranked based upon a sum of the weighted score.

X B L J S

tie-breaker #1

12-Dec-12

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation							0	0
3	Grand Bayou Freshwater Enhancement & Terracing							0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing	✓						0	0
		check	21	21	21	21	21	36	126

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- The tied projects will be ranked based upon a sum of the weighted score.

BAZ

\* \*

tie-breaker #2

12-Dec-12

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation							0	0
3	Grand Bayou Freshwater Enhancement & Terracing							0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing	✓						0	0
		check	21	21	21	21	21	36	126

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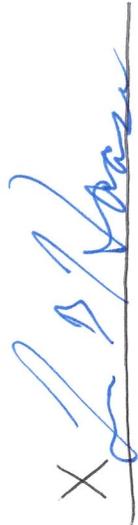
CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar		2					0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3		6					0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration		1					0	0
3	North Catfish Lake Marsh Creation		5					0	0
3	Grand Bayou Freshwater Enhancement & Terracing		3					0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing		4					0	0
		check	0	21	21	21	21	0	0
								36	126

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- The tied projects will be ranked based upon a sum of the weighted score.

X 

tie-breaker #2

12-Dec-12

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score		
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0		
2	Terracing & Marsh Creation South of Big Mar							0	0		
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0		
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0		
2	Elmer's Island Restoration							0	0		
3	North Catfish Lake Marsh Creation							0	0		
3	Grand Bayou Freshwater Enhancement & Terracing							0	0		
3	South Little Vermilion Bay Plantings & Terracing							0	0		
4	Front Ridge Freshwater Introduction & Terracing							0	0		
4	Cameron Meadows Marsh Creation & Terracing		✓					0	0		
		check	0	21	21	21	21	21	21	36	126

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8. The tied projects will be ranked based upon a sum of the weighted score.

tie-breaker #1

12-Dec-12

CWPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation							0	0
3	Grand Bayou Freshwater Enhancement & Terracing							0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing		↖					0	0
		check	0	21	21	21	21	0	0
								36	126

**RUN MACRO FROM "SORT-Final Vote" WORKSHEET**

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\* \*

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar			1				0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3			6				0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration			4				0	0
3	North Catfish Lake Marsh Creation			5				0	0
3	Grand Bayou Freshwater Enhancement & Terracing			2				0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing			3				0	0
		check	0	0	0	0	0	0	0
			21	21	21	21	21	36	126

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8. The tied projects will be ranked based upon a sum of the weighted score.

*[Handwritten Signature]* 12/12/12

Tie-breaker #12

12-Dec-12

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation							0	0
3	Grand Bayou Freshwater Enhancement & Terracing							0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing							0	0
		check	21	21	21	21	21	36	126

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*[Handwritten signature]*  
12/12/12



CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing				3			0	0
2	Terracing & Marsh Creation South of Big Mar				6			0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3				1			0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection				2			0	0
2	Elmer's Island Restoration				5			0	0
3	North Catfish Lake Marsh Creation				4			0	0
3	Grand Bayou Freshwater Enhancement & Terracing							0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing							0	0
		check	0	0	0	0	0	0	0
			21	21	21	21	21	36	126

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tie-breaker #1

12-Dec-12

CWPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation							0	0
3	Grand Bayou Freshwater Enhancement & Terracing				✓			0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing							0	0
		check	0	0	0	0	0	36	126

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tie-breaker #2

*[Handwritten signature]*

12-Dec-12

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation							0	0
3	Grand Bayou Freshwater Enhancement & Terracing				✓			0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing							0	0
		check	21	21	21	21	21	36	126

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CWPRA PPL 22 Technical Committee VOTE

12-Dec-12

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing					3		0	0
2	Terracing & Marsh Creation South of Big Mar					2		0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration					5		0	0
3	North Catfish Lake Marsh Creation					6		0	0
3	Grand Bayou Freshwater Enhancement & Terracing							0	0
3	South Little Vermilion Bay Plantings & Terracing					1		0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing					4		0	0
		0	0	0	0	0	0	0	0

check 21 21 21 21 21 21 21 21 36 126

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*Red handwritten signature*

X

tie-breaker #1

12-Dec-12

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation							0	0
3	Grand Bayou Freshwater Enhancement & Terracing					1		0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing					2		0	0

check 0 21 21 21 21 21 21 21 36 126

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tie-breaker #2

12-Dec-12

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation							0	0
3	Grand Bayou Freshwater Enhancement & Terracing					1		0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing					2		0	0
		0	0	0	0	0	0	36	126

check 21 21 21 21 21 21 21 21 21 21

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CWPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar						1	0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3						4	0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection						5	0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation						6	0	0
3	Grand Bayou Freshwater Enhancement & Terracing						3	0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing						2	0	0
4	Cameron Meadows Marsh Creation & Terracing							0	0
		check	0	0	0	0	0	0	0
			21	21	21	21	21	36	126

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tie-breaker #1

12-Dec-12

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation							0	0
3	Grand Bayou Freshwater Enhancement & Terracing							0	0
3	South Little Vermillion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing							0	0

check 0 21 21 21 21 21 21 21 36 126

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tie-breaker #2

12-Dec-12

CWPPRA PPL 22 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
2	Lake Lery Shoreline Marsh Creation & Terracing							0	0
2	Terracing & Marsh Creation South of Big Mar							0	0
2	Bayou Dupont Sediment Delivery - Marsh Creation 3							0	0
2	Northeast Turtle Bay Marsh Creation & Critical Area Shoreline Protection							0	0
2	Elmer's Island Restoration							0	0
3	North Catfish Lake Marsh Creation							0	0
3	Grand Bayou Freshwater Enhancement & Terracing						!	0	0
3	South Little Vermilion Bay Plantings & Terracing							0	0
4	Front Ridge Freshwater Introduction & Terracing							0	0
4	Cameron Meadows Marsh Creation & Terracing							0	0
		0	0	0	0	0	0	36	126

check 21 21 21 21 21 21

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# CWPPRA

## Priority Project List 22

### Candidate Project Evaluation Results



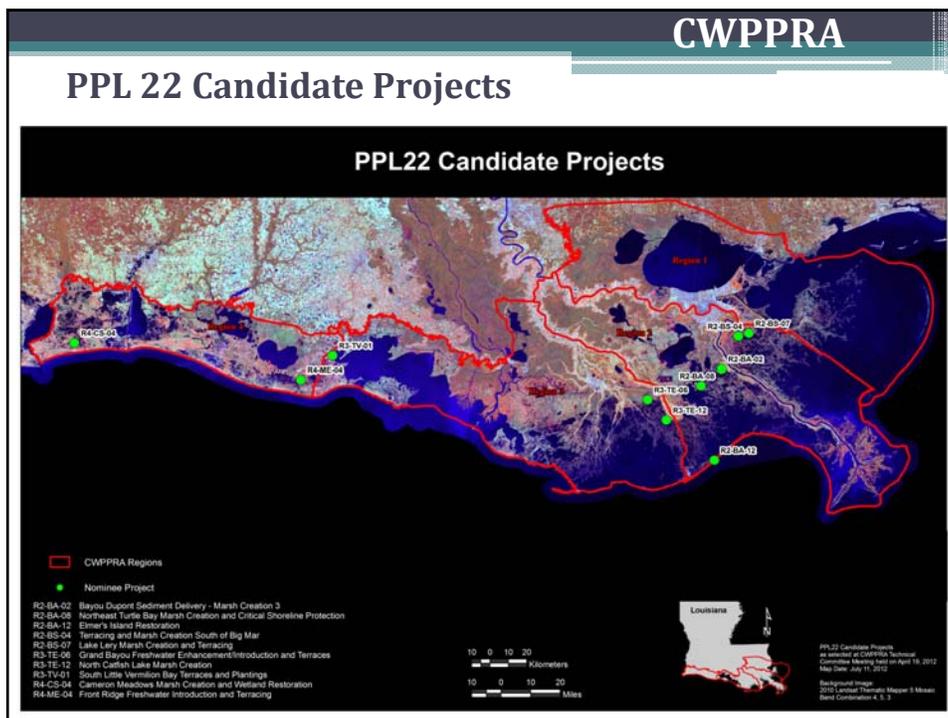
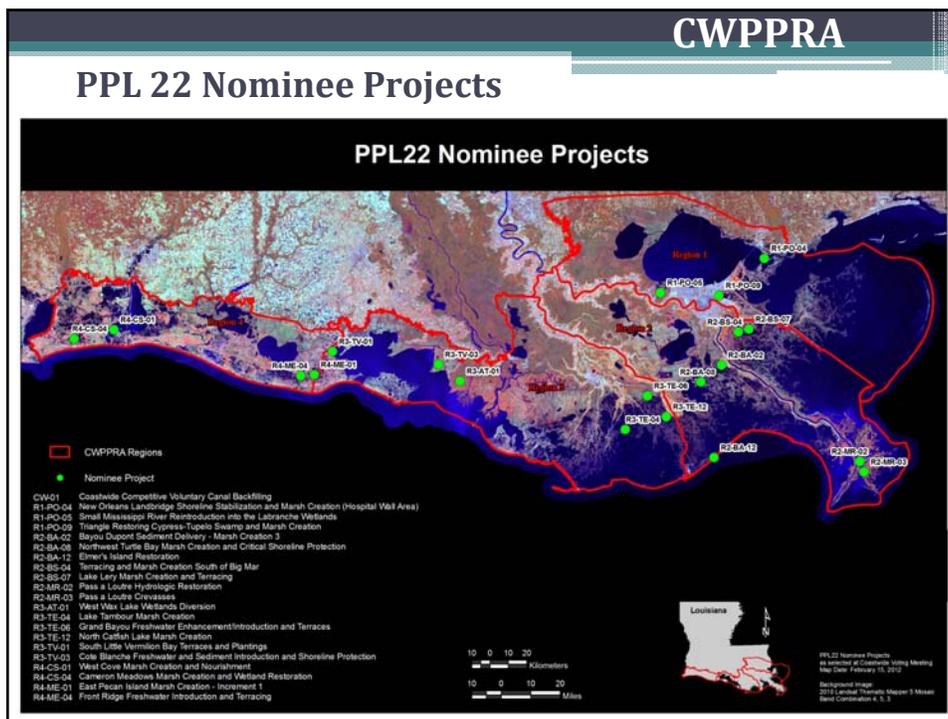
**Technical  
Committee Meeting**  
December 12, 2012  
Baton Rouge, LA

## CWPPRA

### Overview of Project Nomination and Selection Process

- Regional Planning Team meetings were held January 24-26, 2012 (Abbeville, Morgan City, and New Orleans) to accept project ideas from the public and government participants.
- Regional Planning Teams voted on February 15, 2012 at a Coastwide Voting Meeting to select 21 nominee projects and 4 demonstration projects.
- The Technical Committee selected 10 candidate projects and 4 demo candidates for detailed evaluation on April 19, 2012.





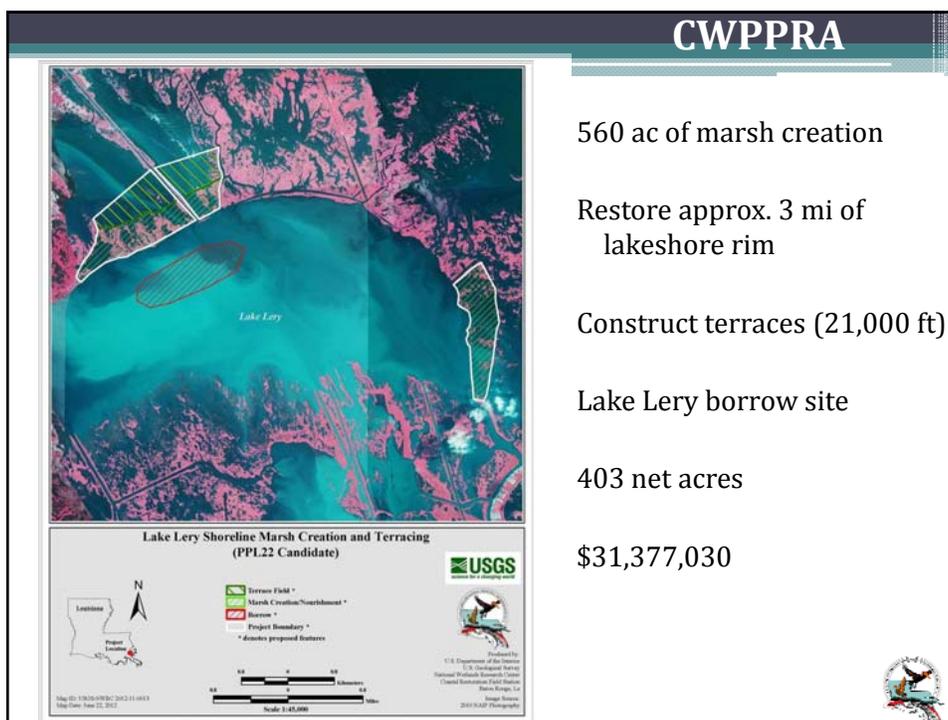
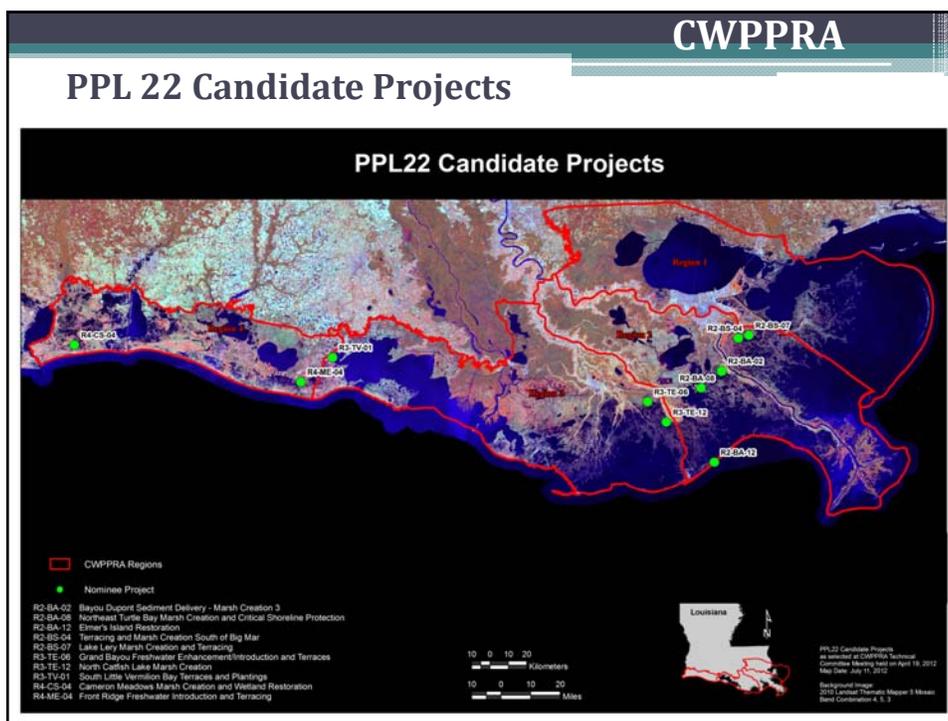
**CWPPRA****Project Evaluation Procedures**

- Interagency site visits were conducted with landowners and local governments.
- The Environmental Workgroup conducted Wetland Value Assessments (WVA) to estimate wetland benefits.
- The Engineering Workgroup reviewed project designs and cost estimates for each candidate and demonstration project.
- The demonstration projects were also evaluated by the Environmental and Engineering Workgroups.
- The Economics Workgroup developed fully-funded costs for engineering and design, construction, and 20 years of operation, maintenance, and monitoring for each project.

**CWPPRA****Region 2**

- Lake Lery Shoreline Marsh Creation and Terracing
- Terracing and Marsh Creation South of Big Mar
- Bayou Dupont Sediment Delivery – Marsh Creation 3
- Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection
- Elmer's Island Restoration





560 ac of marsh creation

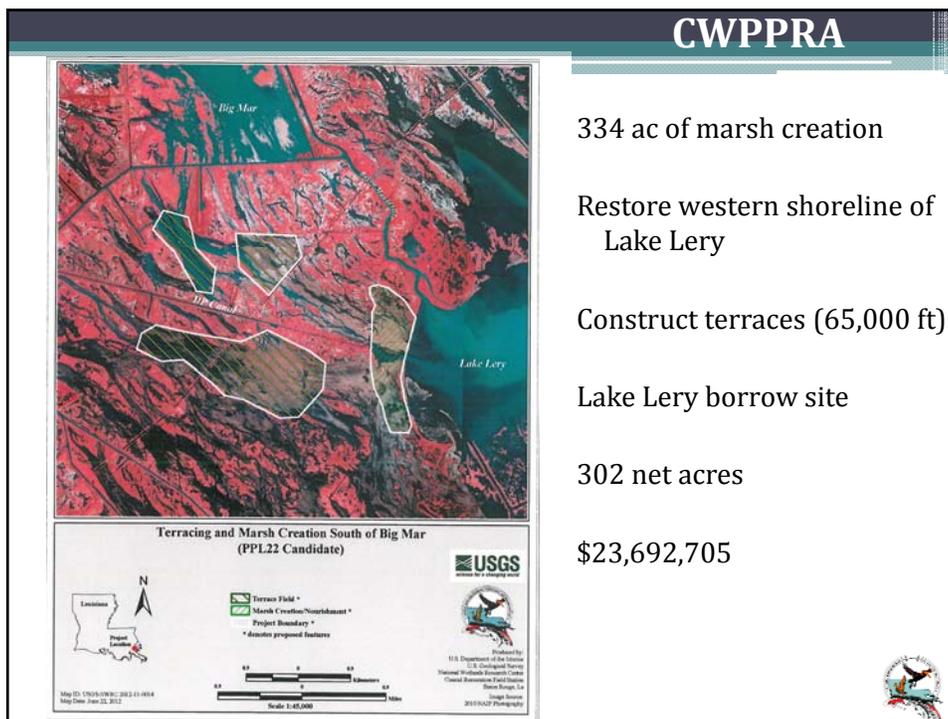
Restore approx. 3 mi of lakeshore rim

Construct terraces (21,000 ft)

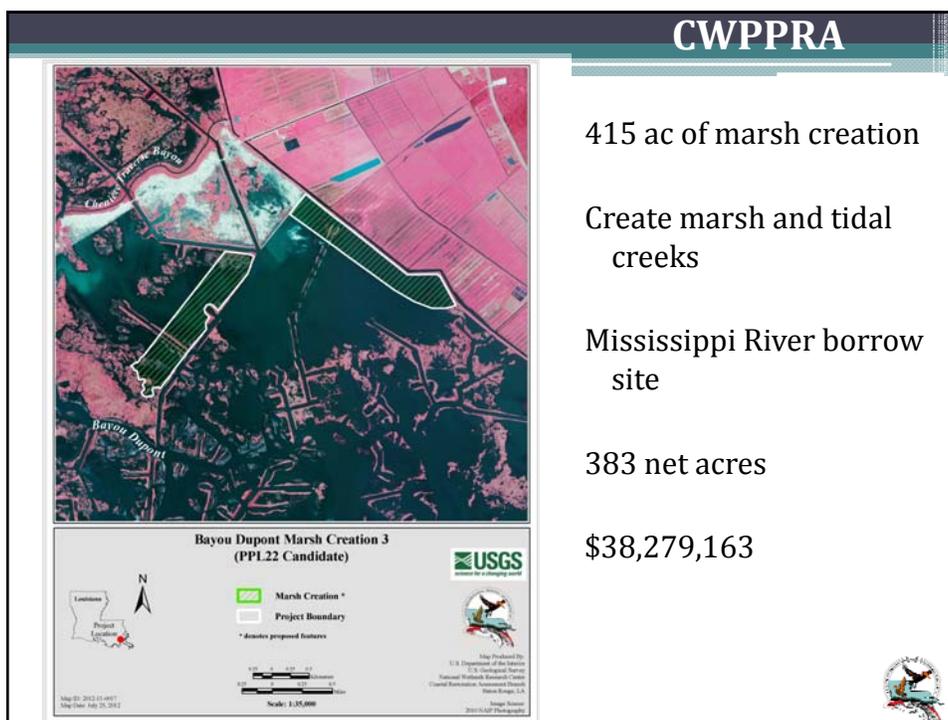
Lake Lery borrow site

403 net acres

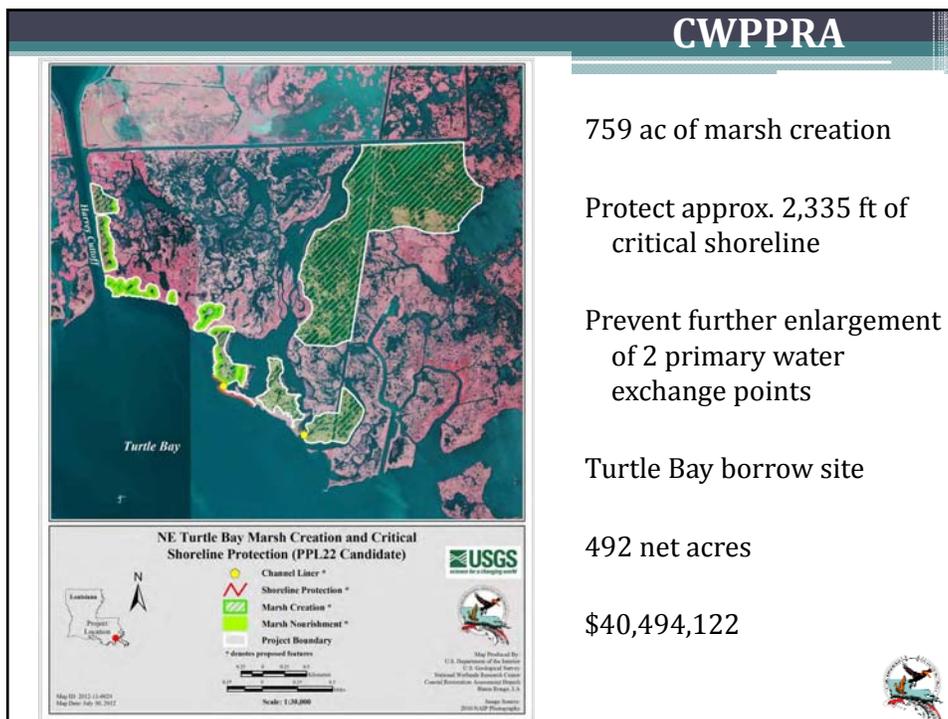
\$31,377,030



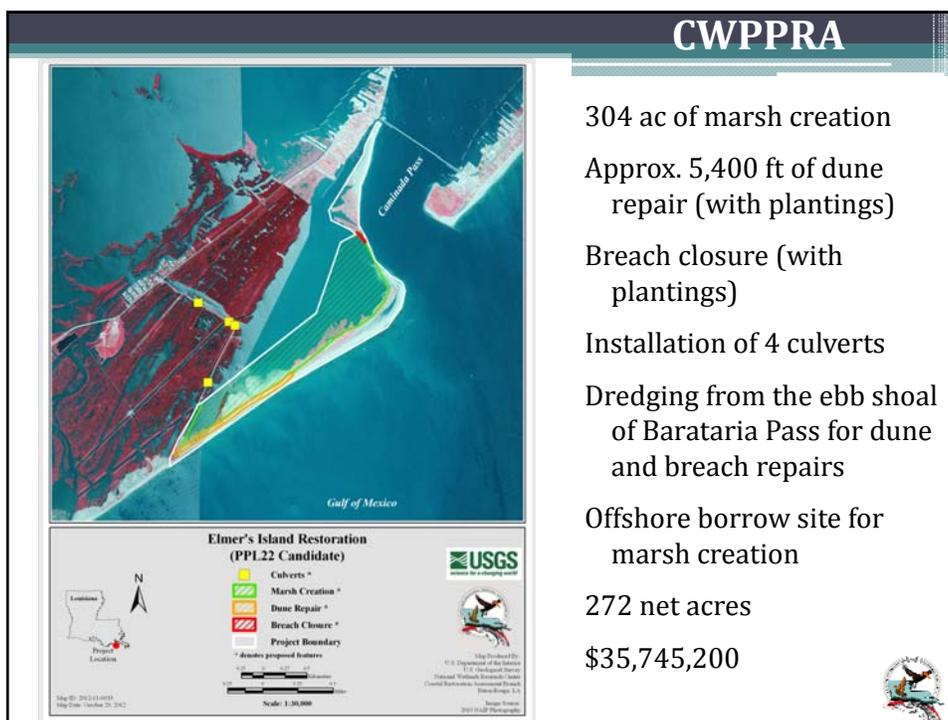
- 334 ac of marsh creation
- Restore western shoreline of Lake Lery
- Construct terraces (65,000 ft)
- Lake Lery borrow site
- 302 net acres
- \$23,692,705



- 415 ac of marsh creation
- Create marsh and tidal creeks
- Mississippi River borrow site
- 383 net acres
- \$38,279,163



- 759 ac of marsh creation
- Protect approx. 2,335 ft of critical shoreline
- Prevent further enlargement of 2 primary water exchange points
- Turtle Bay borrow site
- 492 net acres
- \$40,494,122



- 304 ac of marsh creation
- Approx. 5,400 ft of dune repair (with plantings)
- Breach closure (with plantings)
- Installation of 4 culverts
- Dredging from the ebb shoal of Baratavia Pass for dune and breach repairs
- Offshore borrow site for marsh creation
- 272 net acres
- \$35,745,200



## CWPPRA

### Region 3

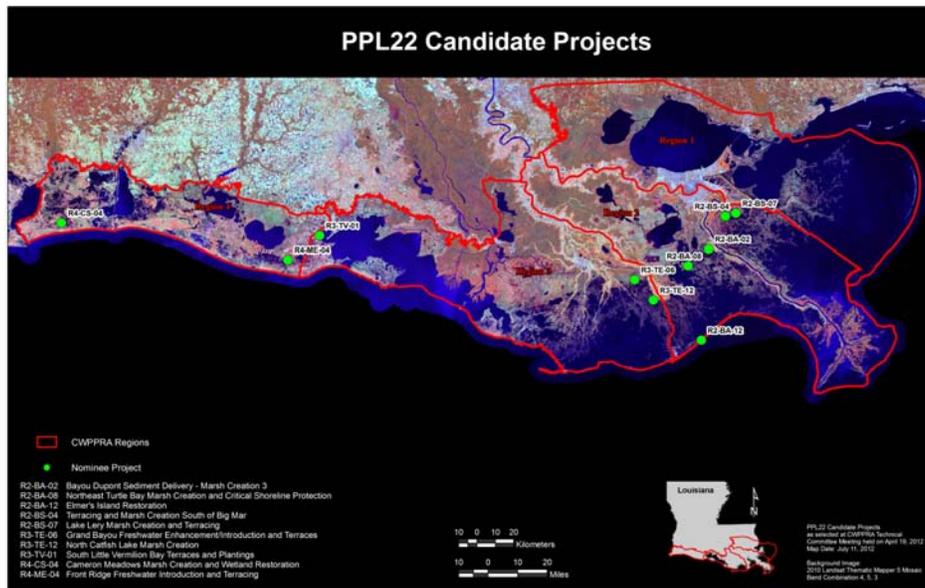
- North Catfish Lake Marsh Creation
- Grand Bayou Freshwater Enhancement and Terracing
- South Little Vermilion Bay Plantings and Terracing



## CWPPRA

### PPL 22 Candidate Projects

#### PPL22 Candidate Projects



**Legend:**

- CWPPRA Regions
- Nominee Project

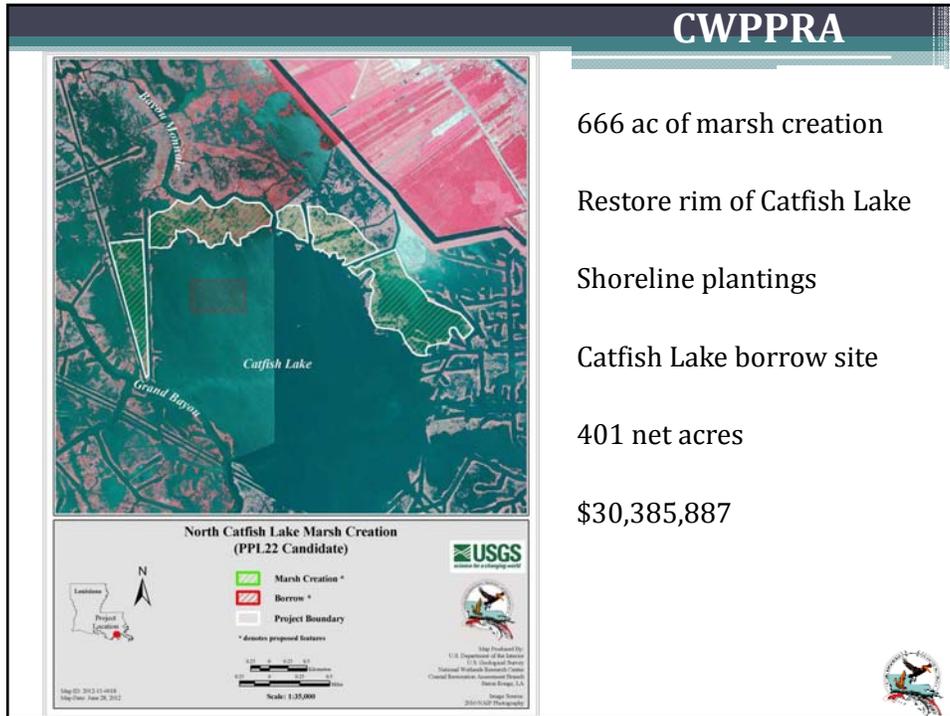
**Project List:**

- R2-BA-02 Bayou Dupont Sediment Delivery - Marsh Creation 3
- R2-BA-08 Northwest Turtle Bay Marsh Creation and Critical Shoreline Protection
- R2-BA-12 Elmer's Island Restoration
- R2-BB-04 Terracing and Marsh Creation South of Big Mar
- R2-BB-07 Lake Lary Marsh Creation and Terracing
- R3-TE-06 Grand Bayou Freshwater Enhancement/Introduction and Terracing
- R3-TE-12 North Catfish Lake Marsh Creation
- R3-TV-01 South Little Vermilion Bay Terracing and Plantings
- R4-CS-04 Cameron Meadows Marsh Creation and Wetland Restoration
- R4-ME-04 Front Ridge Freshwater Introduction and Terracing

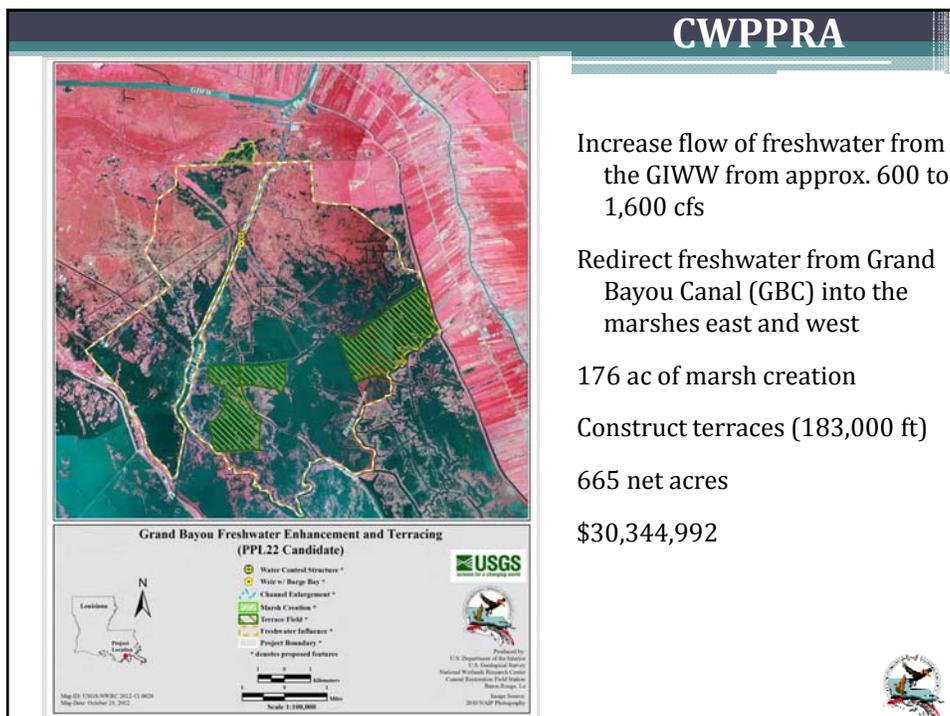
**Scale:** 0 10 20 Kilometers / 0 10 20 Miles

**Map Date:** July 11, 2012

**Background Image:** 2010 Landat Thematic Mapper 5 Minimap Band Combination 4, 5, 3

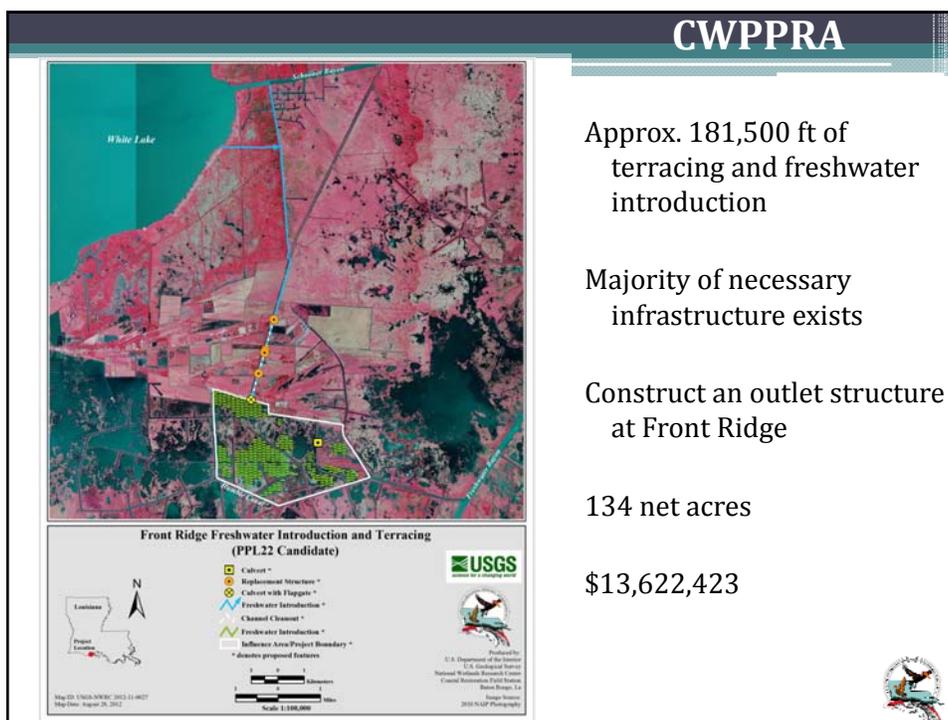
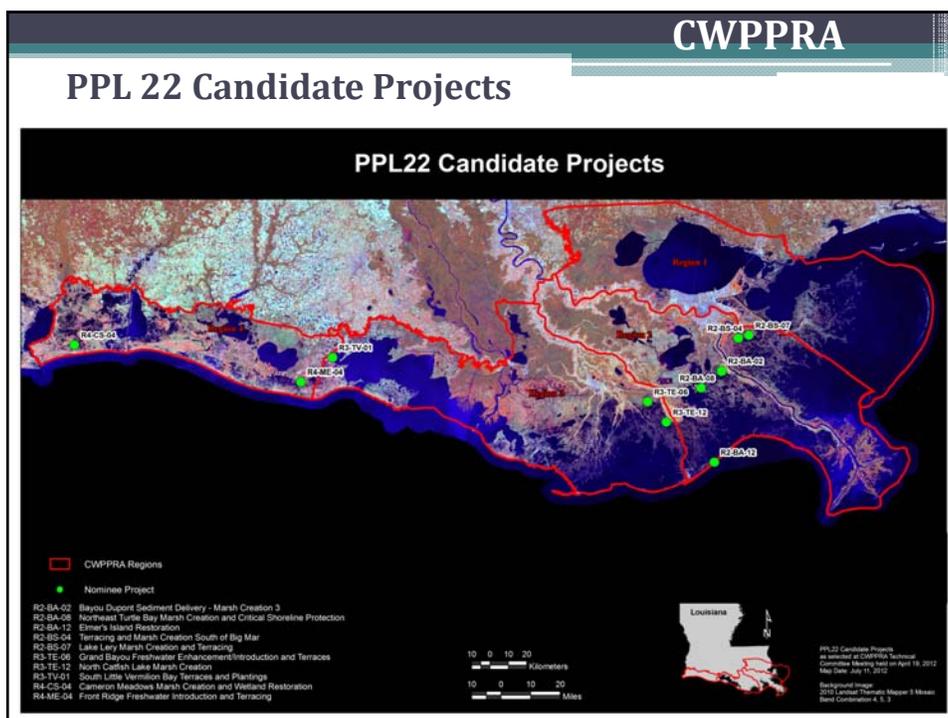


- 666 ac of marsh creation
- Restore rim of Catfish Lake
- Shoreline plantings
- Catfish Lake borrow site
- 401 net acres
- \$30,385,887



- Increase flow of freshwater from the GIWW from approx. 600 to 1,600 cfs
- Redirect freshwater from Grand Bayou Canal (GBC) into the marshes east and west
- 176 ac of marsh creation
- Construct terraces (183,000 ft)
- 665 net acres
- \$30,344,992





Approx. 181,500 ft of terracing and freshwater introduction

Majority of necessary infrastructure exists

Construct an outlet structure at Front Ridge

134 net acres

\$13,622,423

CWPPRA



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



Map ID: 2012-11-0021  
Map Date: 09/16/2012

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

\* denotes proposed features




Map Produced By:  
U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Inventory/Coastal  
Canal Ecosystem Assessment Branch  
Baton Rouge, LA

Image Source:  
2010 NAD PhotoScan

352 ac of marsh creation

Gulf of Mexico borrow site

Construct 35,000 ft of terraces

Cleaning out over 30,000 ft of canals

265 net acres

**\$27,685,820**

CWPPRA

### PPL 22 Candidate Project Evaluation Matrix

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Lake Lery Shoreline Marsh Creation and Terracing	2	St. Bernard	859	184	403	\$31,377,030	\$3,198,248	\$28,178,782	\$2,263,028	\$12,299	\$77,859
Terracing and Marsh Creation South of Big Mar	2	Plaquemines	1,396	80	302	\$23,692,705	\$2,308,599	\$21,384,106	\$1,717,292	\$21,466	\$78,453
Bayou Dupont Sediment Delivery-Marsh Creation 3	2	Plaquemines/Jefferson	415	166	383	\$38,279,163	\$3,415,930	\$34,863,233	\$2,735,823	\$16,481	\$99,946
Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection	2	Jefferson	769	282	492	\$40,494,122	\$3,474,110	\$37,020,012	\$2,897,273	\$10,274	\$82,305
Elmer's Island Restoration	2	Jefferson	494	146	272	\$35,745,200	\$3,974,176	\$31,771,024	\$2,549,848	\$17,465	\$131,416
North Catfish Lake Marsh Creation	3	Lafourche	666	256	401	\$30,385,887	\$3,216,194	\$27,169,693	\$2,201,005	\$8,598	\$75,775
Grand Bayou Freshwater Enhancement and Terracing	3	Lafourche	26,510	607	655	\$30,344,992	\$3,208,177	\$27,136,815	\$2,078,687	\$3,425	\$46,328
South Little Vermilion Bay Plantings and Terracing	3	Vermilion	392	17	93	\$6,506,921	\$777,158	\$5,729,763	\$436,858	\$25,696	\$69,967
Front Ridge Freshwater Introduction and Terracing	4	Vermilion	4,083	277	134	\$13,622,423	\$1,954,290	\$11,668,133	\$920,110	\$3,322	\$101,660
Cameron Meadows Marsh Creation and Terracing	4	Cameron	989	106	265	\$27,685,820	\$3,108,025	\$24,577,795	\$1,974,281	\$18,625	\$104,475



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## CWPPRA

### Candidate Demonstration Projects

- Hay Bale Demo
- Reconnection of Hydrologically Isolated Wetlands
- CREPS: Coastal Restoration and Energy Productions System
- Bioengineering of Shoreline and Canal Banks using Live Stakes



## CWPPRA

### Hay Bale Demo

- **Goals:** (1) Deploy and test various approaches for restoring eroding marsh/banks/shorelines. (2) Demonstrate the versatility of hay bales in restoration, as an alternative to traditional methods.
- **Features:** "Barriers" of 800-lb round bales of hay will be constructed to suppress the erosive effects of wave action on shorelines forming a more "natural" barrier compared to traditional methods. Approximately 1500 ft of double row hay bales would be placed in a linear "barricade alignment" near shore, with 3 replicate 500-foot sections and 20-foot gaps in between each section. In addition, the utilization of hay bales as containment for dredged material will also be evaluated. This treatment is intended to investigate a different method of containment in areas unsuitable for earthen dike construction. Three 0.9-acre cells consisting of a double wall of hay bales will be constructed.
- **Cost:** The total fully funded cost is \$2,126,843.

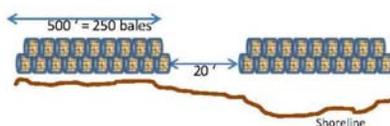


**CWPPRA**

## Hay Bale Demo

**Placements Near Shore:**

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



500' = 250 bales  
20'  
Shoreline

**Placements in Open Water Areas:**

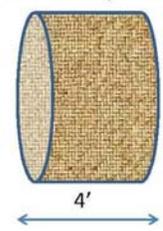
Figure 2: Double Row for Containment (3 reps = 1200 bales)



Dredged Sediment for Marsh Platform

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

Round Hay Bales



4'



**CWPPRA**

## Reconnection of Hydrologically Isolated Wetlands

- **Goals:** (1) Assess the size or number of connections necessary to re-establish the hydrology within an isolated wetland and improve the connectivity to the surrounding marsh in order to restore ecological function. (2) Improve the soil chemistry by decreasing soil waterlogging. (3) Reduce stress on vegetation. (4) Improve fisheries access.
- **Features:** Re-establish the connectivity to the surrounding wetlands by opening hydrologic pathways. It is anticipated that 1-3 impounded locations will be used, each with a reconnected and non-reconnected control. Approximately 500 linear feet (ft) of gaps (or spoil bank degradation) would be constructed at each of the locations for a total of 3,000 ft. The gap lengths tested would include the present minimum standard of 25 ft being used on CWPPRA projects. Additional size and/or number of gaps or degrading would be tested.
- **Cost:** The total fully funded cost is \$1,724,012.



**CWPPRA**

## Reconnection of Hydrologically Isolated Wetlands

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

**CWPPRA**

## Reconnection of Hydrologically Isolated Wetlands

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

## CWPPRA

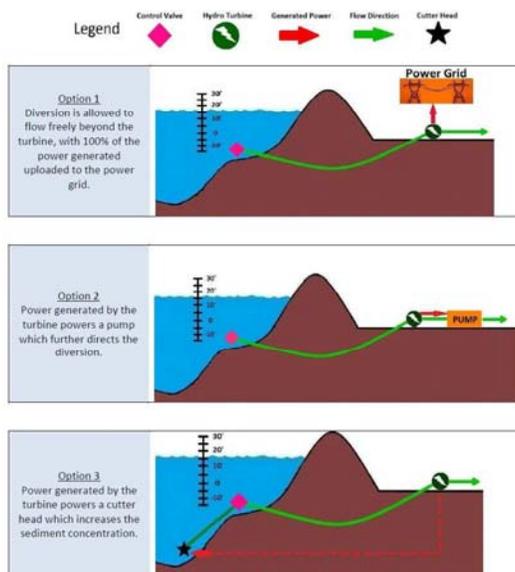
### CREPS: Coastal Restoration & Energy Production System

- **Goals:** (1) Demonstrate the potential use of the CREPS diversion technology for supplying degraded wetlands with fresh water and sediment. (2) Investigate the potential capture and utilization of hydroelectric power from the diversion.
- **Features:** CREPS consists of a 30-inch pipe horizontally drilled under a levee system (>8 ft below the levee), with input on the river side and the output outside of the levee. Because the average level of the river is higher in elevation than the wetlands, hydrostatic forces will force river water through the pipe. A hydrokinetic turbine will be fixed to the output and generate power. This electricity can then be used to power pumps to further direct the diverted river water or uploaded to the transmission grid to generate revenue.
- **Cost:** The total fully funded cost is \$3,357,745.



## CWPPRA

### CREPS: Coastal Restoration & Energy Production System



**CWPPRA**

## Bioengineering of Shoreline & Canal Banks using Live Stakes

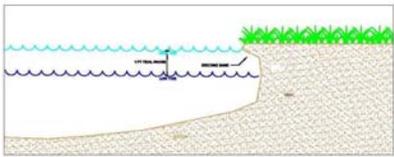
- **Goal:** Demonstrate an alternative to traditional shoreline protection techniques – an ecological engineering approach to stabilization of existing shoreline features and attenuation of shoreline retreat.
- **Features:** The stabilization materials have a variety of application possibilities that can be adjusted to best suit many different types of coastal environments. A staggered terrace-like orientation can break up wave action, reduce turbidity, and allow sediment to settle, potentially accreting and creating marsh. The use of native woody materials ensures the use of native plants and provides a relatively inexpensive source of plant materials. In combination with the erosion control materials, a variety of configurations in planting the shallows, shoreline, and near shore areas will begin the reestablishment of a native plant community. The demonstration would include the selection of 3 diverse application sites for treatment. Each treatment would include 3 replicate 500-foot sections for a total project installation of 4,500 linear feet.
- **Cost:** The fully funded cost is \$2,562,494.



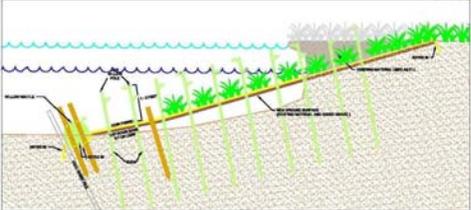
**CWPPRA**

## Bioengineering of Shoreline & Canal Banks using Live Stakes

**PRE-CONSTRUCTION  
(EXISTING CONDITIONS)**



**POST-CONSTRUCTION  
(DESIGN)**



**DORMANT WILLOW WATTLE**

- 1 FOOT DIAMETER
- 8 FOOT LENGTH WILLOW WRAPS
- STAKED EVERY FOOT WITH 8 FOOT STAKES
- TIED WITH HEAVY CORE TWINE
- BURIED 8 INCHES (HALF OF DIAMETER)

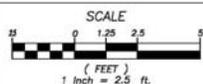
**DORMANT WILLOW POLE**

- 1 FOOT ON CENTER
- 1 INCH DIAMETER
- 8 FEET LONG - POINTED ON ONE END

**EROSION CONTROL FABRIC**

- EXTRA HEAVY DUTY COIR FABRIC

**SCALE**



( FEET )  
1 Inch = 2.5 Ft.

**SCHEMATIC OF BIOENGINEERED SLOPE  
(FRESHWATER/INTERMEDIATE)**

DESIGNED BY: JANE ROZMAN      DRAWN BY: JANELLE LAVALLÉE





CWPPRA										
PPL 22 Demonstration Project Evaluation Matrix										
10/30/2012										
(Parameter grading as to effect: 1 = low; 2 = medium; 3 = high)										
Demonstration Project Name	Lead Agency	Total Fully Funded Cost	Parameter (P <sub>i</sub> )						Total Score	Averaging of Agency Scores
			P <sub>1</sub> Innovativeness	P <sub>2</sub> Applicability or Transferability	P <sub>3</sub> Potential Cost Effectiveness	P <sub>4</sub> Potential Env Benefits	P <sub>5</sub> Recognized Need for Info	P <sub>6</sub> Potential for Technological Advancement		
Hay Bale Demo	USACE	\$2,126,843	2	2	2	2	2	1	11	11.6
Reconnection of Hydrologically Isolated Wetlands	NMFS	\$1,724,012	1	2	2	3	1	1	10	11.0
CREPS: Coastal Restoration & Energy Production System	CPRA	\$3,357,745	2	1	1	2	1	2	9	8.9
Bioengineering of Shorelines & Canal Banks using Live Stakes	EPA	\$2,582,484	2	2	2	2	2	1	11	11.3

"Total Score" calculation: Individual parameter scores were determined from the score having the majority of the vote.  
Example - if 4 agencies cast a vote of "3" and 3 agencies cast a vote of "2", then a score of "3" was given.

"Averaging of Agency Scores" calculation: Calculated by averaging the Total Scores from each Agency.

**Demonstration Project Parameters**

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

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

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

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

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

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



CWPPRA										
Project Selection										
<ul style="list-style-type: none"> <li>• Today's CWPPRA Technical Committee meeting <ul style="list-style-type: none"> <li>➤ 4 projects will be selected by agency vote for Phase 1 (E&amp;D) funding</li> <li>➤ 1 demonstration project may be selected for funding</li> </ul> </li> <li>• CWPPRA Task Force meets on January 24 in New Orleans at the Corps of Engineers. <ul style="list-style-type: none"> <li>➤ Project selection by the Technical Committee is usually accepted</li> </ul> </li> </ul>										



# Priority Project List Number 22

## Candidate Projects



**Public Meetings – November 2012**

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

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

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## APPENDIX A

### PRIORITY PROJECT LIST 22 SELECTION PROCESS

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

##### Final

#### I. Development of Supporting Information

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

B. OCPR/USGS staff prepare basin maps indicating:

- 1) Boundaries of the following projects types (PPLs 1-21; LCA Feasibility Study, COE 1135, 204, 206; and State only).
- 2) Locations of completed projects.
- 3) Projected land loss by 2050 including all CWPPRA projects approved for construction through January 2012.
- 4) Regional boundary maps with basin boundaries and parish boundaries included.

#### II. Project Nominations

A. The four Regional Planning Teams (RPTs) will meet individually by region to examine basin maps, discuss areas of need and Coast 2050 strategies, and accept project nominations by hydrologic basin. Project nominations that provide benefits or construct features in more than one basin shall be presented in the basin receiving the majority of the project's benefits. The RPT leaders, in coordination with the project proponents and the P&E Subcommittee, will determine which basin to place multi-basin projects. Alternatively, multi-basin projects can be broken into multiple projects to be considered individually in the basins which they occur. Project nominations that are legitimate coast-wide applications will be accepted separate from the nine basins at any of the four RPT meetings.

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

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

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

A total of up to 20 basin projects could be selected as nominees. Each officially designated parish representative in the basin will have one vote and each federal CWPPRA agency and the State will have one vote. If coast-wide projects have been presented, the RPTs will select one coast-wide project nominee to compete with the 20 basin nominees for candidate project selection. Selection of a coast-wide project nominee will be by consensus, if possible. If voting is required, officially designated representatives from all coastal parishes will have one vote and each federal CWPPRA agency and the State will have one vote. The RPTs will also select up to six demonstration project nominees at this coast-wide meeting. Selection of demonstration project nominees will be by consensus, if possible. If voting is required, officially designated representatives from all coastal parishes will have one vote and each federal CWPPRA agency and the State will have one vote.

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

Also, prior to the coast-wide RPT voting meeting, the Environmental and Engineering Work Groups will screen each demonstration project nominated at the RPT meetings. Demonstration projects will be screened to ensure that each meets the qualifications for demonstration projects as set forth in the CWPPRA Standard Operating Procedures (SOP), Appendix E.

D. A lead Federal agency will be designated for the nominees and demonstration project nominees to prepare preliminary project support information (fact sheet,

maps, and potential designs and benefits). The RPT Leaders will then transmit this information to the P&E Subcommittee, Technical Committee and other RPT members.

III. Preliminary Assessment of Nominated Projects

A. Agencies, parishes, landowners, and other individuals informally confer to further develop projects. Nominated projects shall be developed to support Coast 2050 strategies and goals.

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

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

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

IV. Selection of Phase 0 Candidate Projects

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

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

V. Phase 0 Analysis of Candidate Projects

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

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

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

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

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

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

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

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

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

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

A. The selection of the 22<sup>nd</sup> PPL will occur at the Winter Technical Committee and Task Force meetings.

B. Technical Committee meets and considers matrix, Project Fact Sheets, and public comments. The Technical Committee will recommend up to four projects for selection to the 22<sup>nd</sup> PPL. The Technical Committee may also recommend demonstration projects for the 22<sup>nd</sup>.

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

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

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

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

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

### **Coast 2050 Strategy:**

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

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

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

### **Project Benefits:**

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

### **Project Costs:**

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

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

Kimberly Clements, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 204

[Kimberly.Clements@noaa.gov](mailto:Kimberly.Clements@noaa.gov)

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

[Patrick.Williams@noaa.gov](mailto:Patrick.Williams@noaa.gov)



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

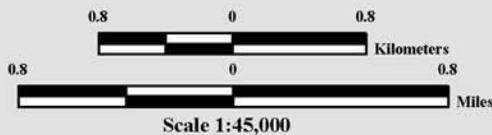


-  Terrace Field \*
  -  Marsh Creation/Nourishment \*
  -  Borrow \*
  -  Project Boundary \*
- \* denotes proposed features



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

Image Source:  
2010 NAIP Photography



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

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

### **Coast 2050 Strategy:**

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

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

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

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

### **Proposed Solutions:**

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

### **Project Benefits:**

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

### **Project Costs:**

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

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

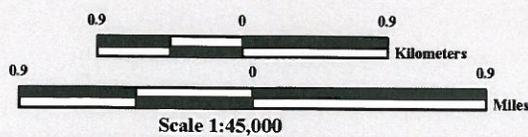
Angela Trahan, USFWS, 337/291-3137, [angela\\_trahan@fws.gov](mailto:angela_trahan@fws.gov)



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



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



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

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

Image Source:  
2010 NAIP Photography

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

### **Coast 2050 Strategy:**

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

Region 2 Regional Ecosystem Strategies: Restore and Sustain Marshes.

### **Project Location:**

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

### **Problem:**

Wetlands in the Barataria Basin were historically nourished by the fresh water, sediment and nutrients delivered by the Mississippi River and its many distributary channels. Following the creation of levees along the lower river for flood control and navigation, these inputs ceased. In addition, numerous oil and gas canals in the area contributed significantly to wetland loss. Recent information suggests that actual subsurface oil and gas withdrawal was a major cause of wetland loss. From 1932 to 1990, the Barataria Basin lost over 245,000 acres of marsh, and from 1978 to 1990, it experienced the highest rate of wetland loss in coastal Louisiana.

### **Goals:**

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

### **Proposed Solution:**

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

### **Project Benefits:**

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

### **Project Costs:**

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

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

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



-  Marsh Creation \*
-  Project Boundary

\* denotes proposed features



Scale: 1:35,000

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

Image Source:  
2010 NAIP Photography

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

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

### **Coast 2050 Strategy:**

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

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

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

### **Project Benefits:**

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

### **Project Costs:**

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

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

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Jason Kroll, USDA-NRCS, 225-389-0347, [jason.kroll@la.usda.gov](mailto:jason.kroll@la.usda.gov)

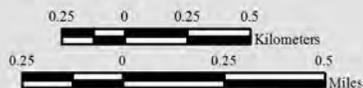


### NE Turtle Bay Marsh Creation and Critical Shoreline Protection (PPL22 Candidate)



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

\* denotes proposed features



Scale: 1:30,000



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

Image Source:  
 2010 NAIP Photography

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

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

### **Coast 2050 Strategy:**

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

Regional: Restore/maintain barrier headlands, islands and shorelines

### **Project Location:**

Region 2, Barataria Basin, Jefferson Parish

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

The proposed features consist of four primary elements (1) 304 acres of marsh creation (with planting), (2) approximately 5,400 feet of dune repair (with planting), (3) breach closure (with planting), and (4) installation of four culverts. Approximately 130,400 cubic yards of sand would be dredged from the ebb shoal of Barataria Pass for the dune and breach repairs. Approximately 2.2 million cubic yards of sediment would be dredged for marsh creation from an offshore location that would not impact the Caminada Headland or Grand Isle.

### **Project Benefits:**

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

### **Project Costs:**

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

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

Patrick Williams, NOAA Fisheries, (225) 389-0508, ext 208

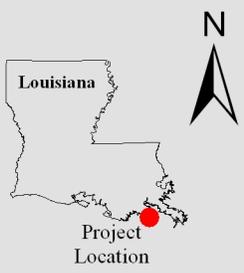


### Elmer's Island Restoration (PPL22 Candidate)



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

Image Source:  
2010 NAIP Photography



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

\* denotes proposed features



Scale: 1:30,000

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

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

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

### **Coast 2050 Strategy:**

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

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

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

### **Proposed Solutions:**

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

### **Project Benefits:**

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

### **Project Costs:**

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

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

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

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



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

\* denotes proposed features



Scale: 1:35,000



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

Image Source:  
2010 NAIP Photography

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

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

### **Coast 2050 Strategy:**

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

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

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

The primary goals of this project are to increase the flow of fresh water down GBC from the GIWW and create/nourish marsh using material dredged from the enlargement of GBC and from the creation of terraces. Specific project goals include: (1) increase the flow of fresh water from the GIWW from approximately 600 cfs to 1,600 cfs; (2) redirect much of the fresh water from GBC into the marshes east and west; (3) create 135 acres and nourish 41 acres of intermediate marsh; and (4) create 183,000 linear feet of terraces (97 acres of marsh) near the southern Point aux Chenes boundary and near the Lafourche Parish flood protection levee.

### **Proposed Solution:**

Enlarge the cross-sectional area of GBC by hydraulically dredging and placing approximately 612,674 cubic yards of sediments into an open water area to create/nourish 176 acres of intermediate marsh. Construct a fixed crest weir (with barge bay) in GBC south of Margaret's Bayou. Reconnect Margaret's Bayou with GBC and enlarge Margaret's Bayou. Replace a rock plug along GBC with a water control structure. Create 183,000 linear feet of earthen terraces south of Margaret's Bayou.

### **Project Benefits:**

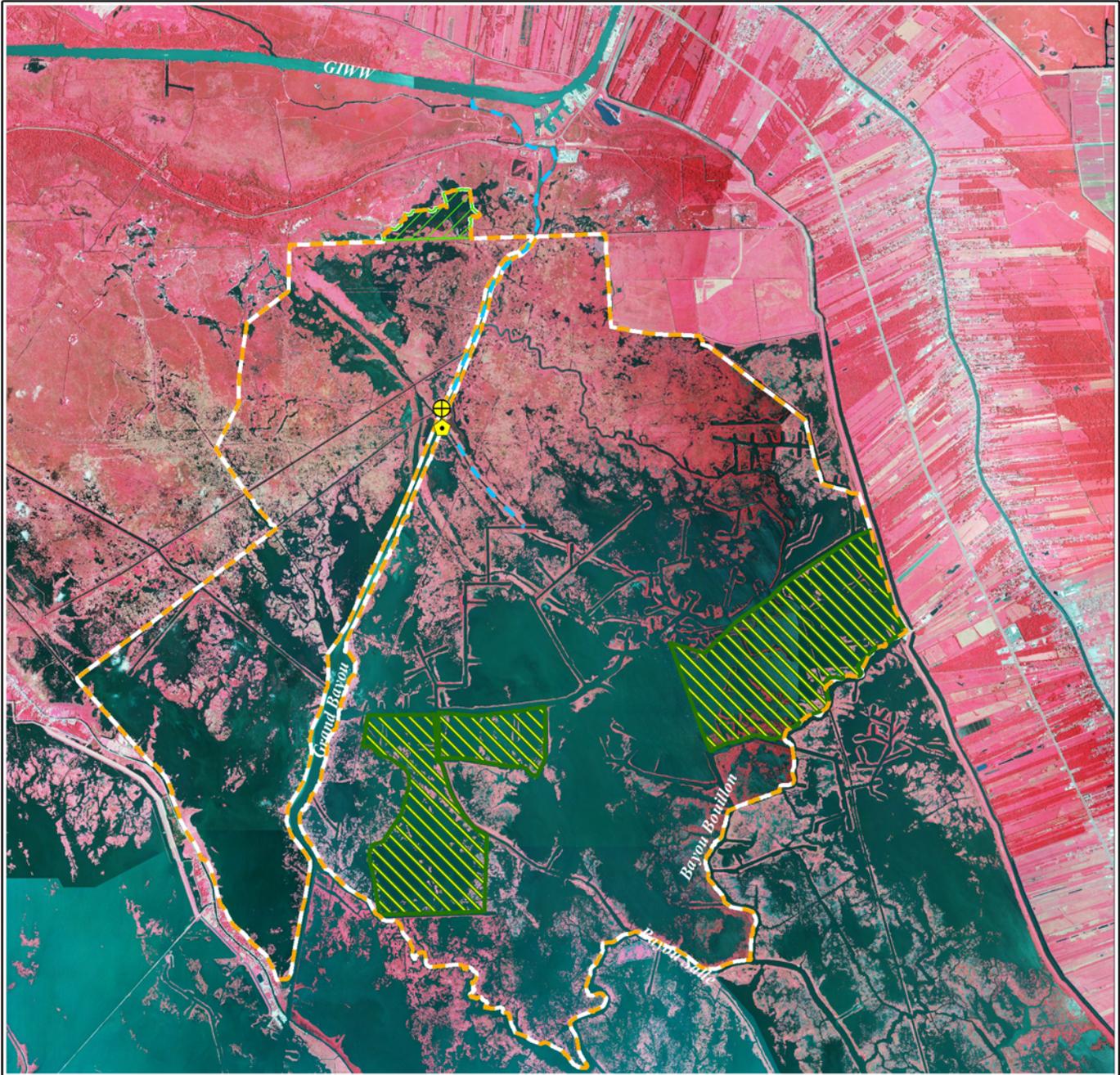
The project would result in approximately 655 net acres over the 20-year project life.

### **Project Costs:**

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

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

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



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

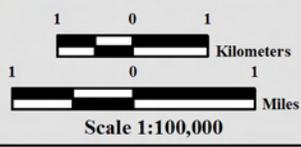


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 National Wetlands Research Center  
 Coastal Restoration Field Station  
 Baton Rouge, La  
 Image Source:  
 2010 NAIP Photography



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

\* denotes proposed features



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

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

### **Coast 2050 Strategy:**

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

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

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

### **Project Benefits:**

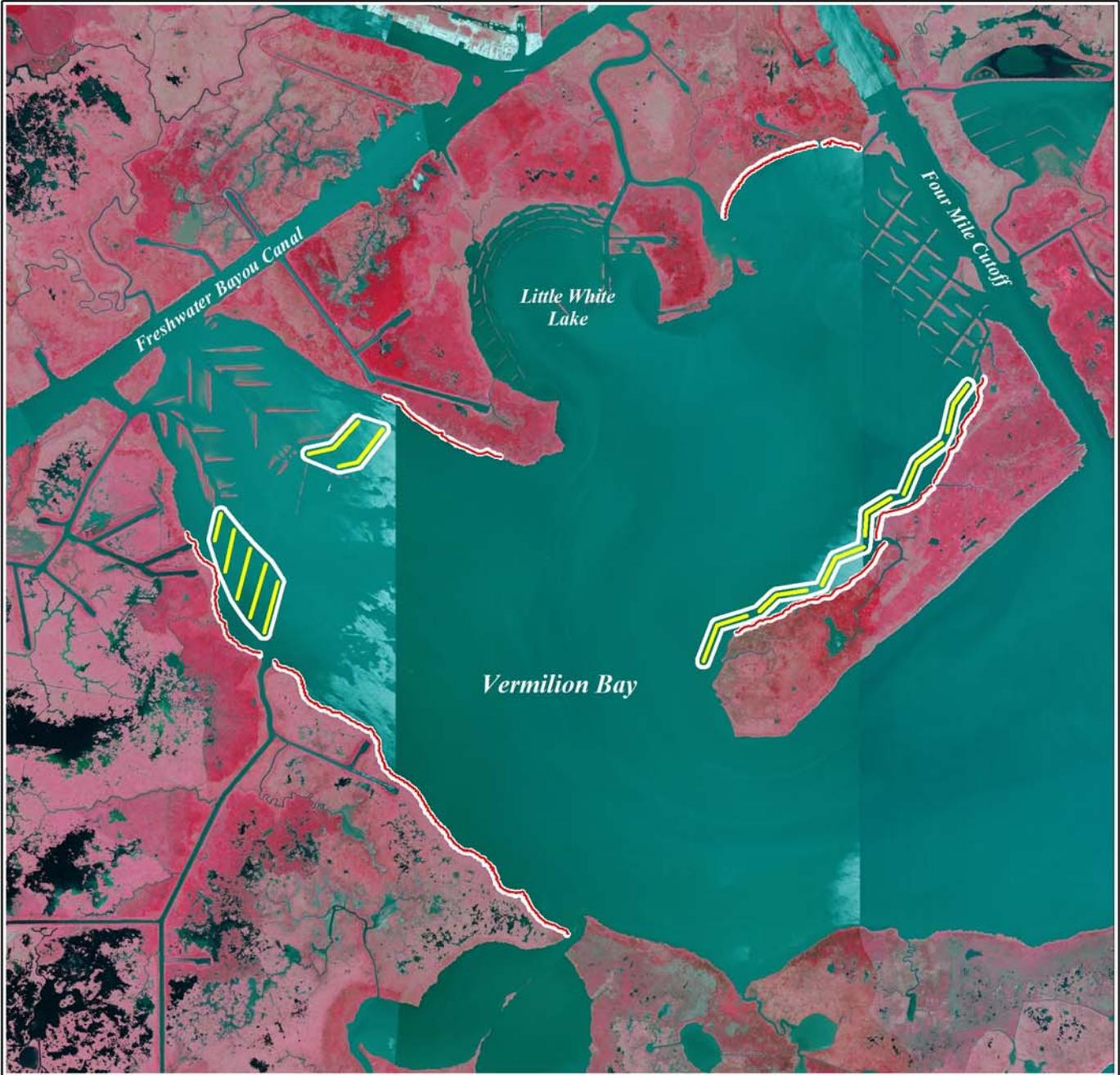
The project would result in approximately 93 net acres over the 20-year project life.

### **Project Costs:**

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

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

John Foret, NOAA's National Marine Fisheries Service, (337) 291-2107 [John.Foret@noaa.gov](mailto:John.Foret@noaa.gov)  
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[Kimberly.Clements@noaa.gov](mailto:Kimberly.Clements@noaa.gov)



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



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

\* denotes proposed features



Scale: 1:60,000



Map Produced By:  
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National Wetlands Research Center  
Coastal Restoration Assessment Branch  
Baton Rouge, LA

Image Source:  
2010 NAIP Photography

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

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

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

### **Coast 2050 Strategy:**

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

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

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

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

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

### **Project Benefits:**

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

### **Project Costs:**

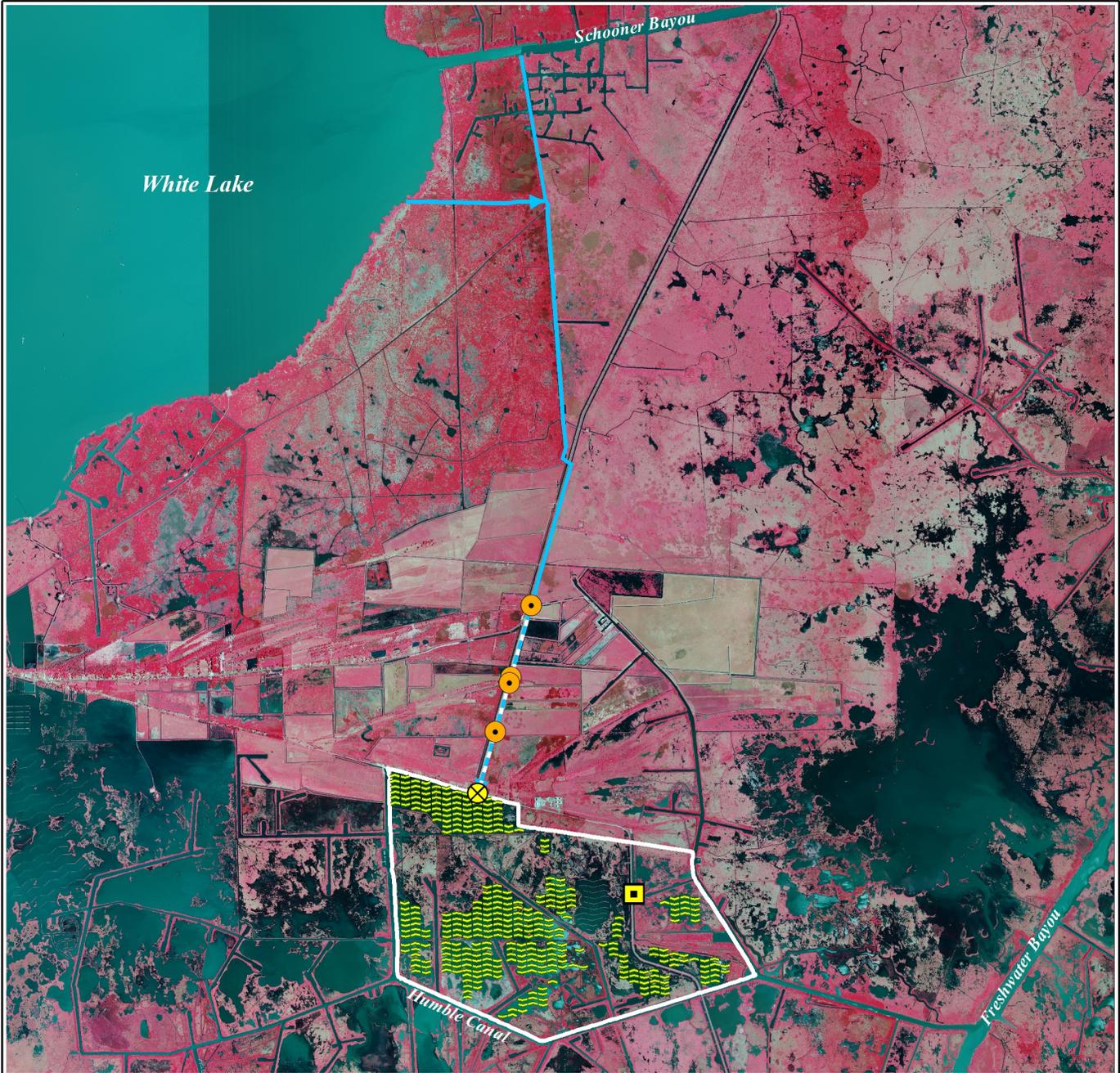
The total fully-funded cost is \$ 13,622,423.

### **Preparers of Fact Sheet**

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

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



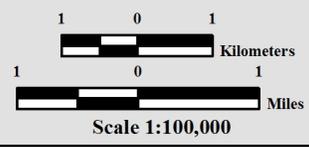
### Front Ridge Freshwater Introduction and Terracing (PPL22 Candidate)



Produced by:  
 U.S. Department of the Interior  
 U.S. Geological Survey  
 National Wetlands Research Center  
 Coastal Restoration Field Station  
 Baton Rouge, La  
 Image Source:  
 2010 NAIP Photography

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

\* denotes proposed features



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

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

### **Coast 2050 Strategy:**

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

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

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

### **Project Benefits:**

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

### **Project Costs:**

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

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

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[Kimberly.Clements@noaa.gov](mailto:Kimberly.Clements@noaa.gov)

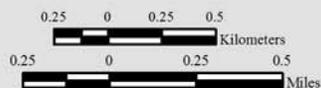


## Cameron Meadows Marsh Creation and Terracing (PPL22 Candidate)



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

\* denotes proposed features



Scale: 1:35,000



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

Image Source:  
2010 NAIP Photography

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

# **Candidate Demonstration Projects**

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

### **Coast 2050 Strategies:**

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

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

Coastwide

### **Problem:**

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

### **Goals:**

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

### **Proposed Solutions:**

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

### **Project Benefits:**

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

### **Project Costs:**

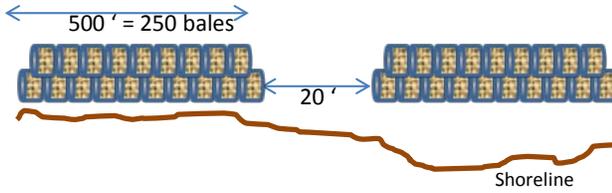
The total fully-funded cost is \$ 2,126,843.

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

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

## Placements Near Shore:

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



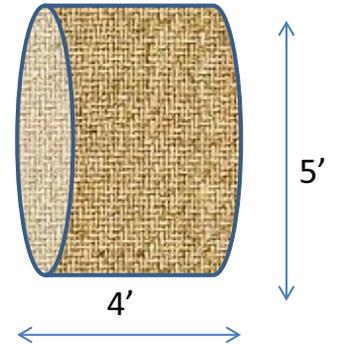
## Placements in Open Water Areas:

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



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

## Round Hay Bales



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

### **Coast 2050 Strategy:**

Regional: Improve hydrology, restore hydrology

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

Coastwide swamps, intermediate, brackish, and salt marshes

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

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

### **Project Benefits:**

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

### **Project Costs**

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

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

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

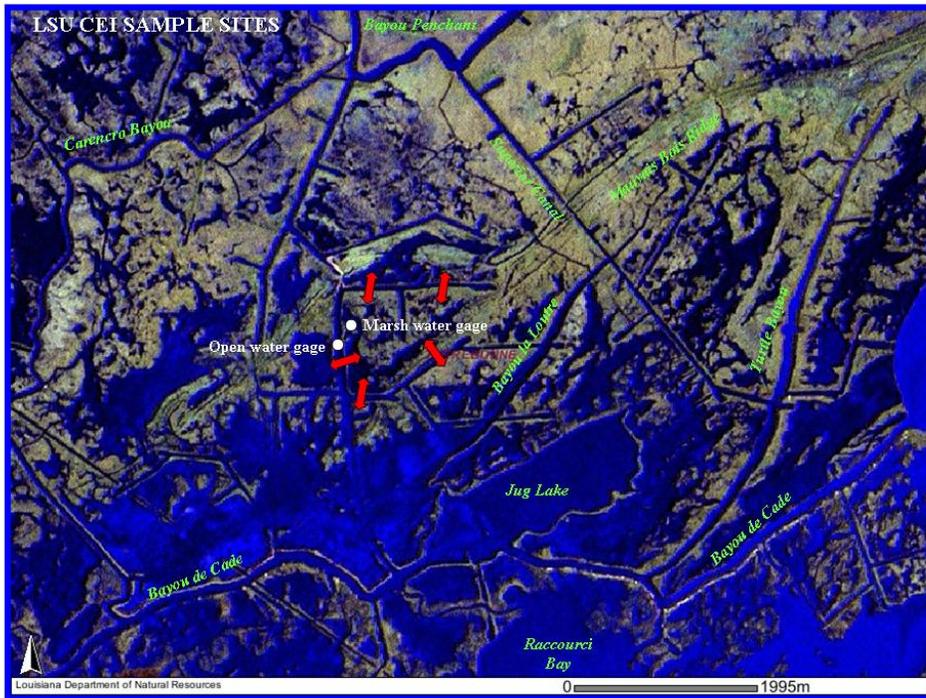
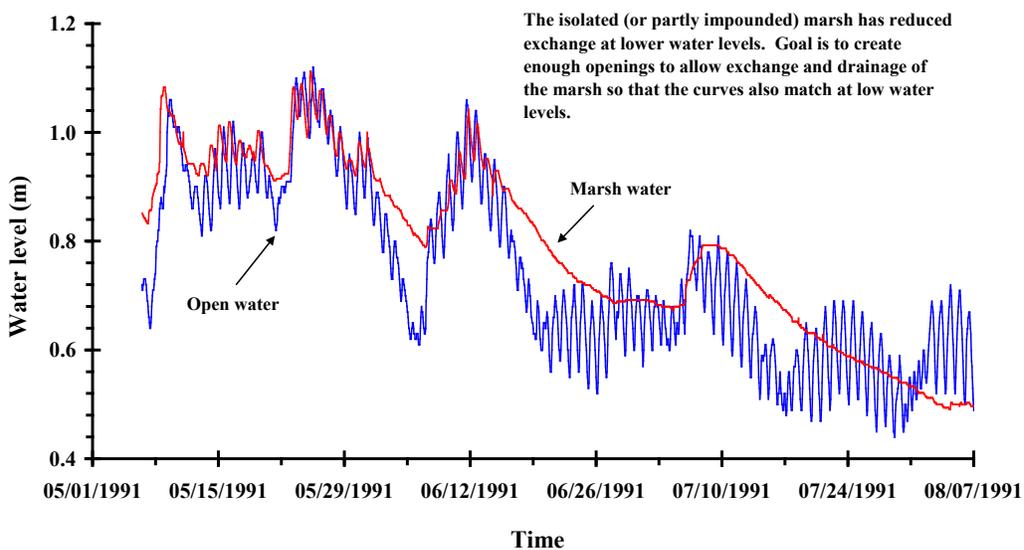


Figure 1. Example of an impounded site (surrounded by spoil banks) in an intermediate marsh in Terrebonne Parish. The red arrows indicate possible locations to gap (or degrade spoil banks) to re-establish hydrologic connectivity.



Data source: E. M. Swenson, LSU

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

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

### **Coast 2050 Strategy:**

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

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

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

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

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

### **Proposed Benefits:**

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

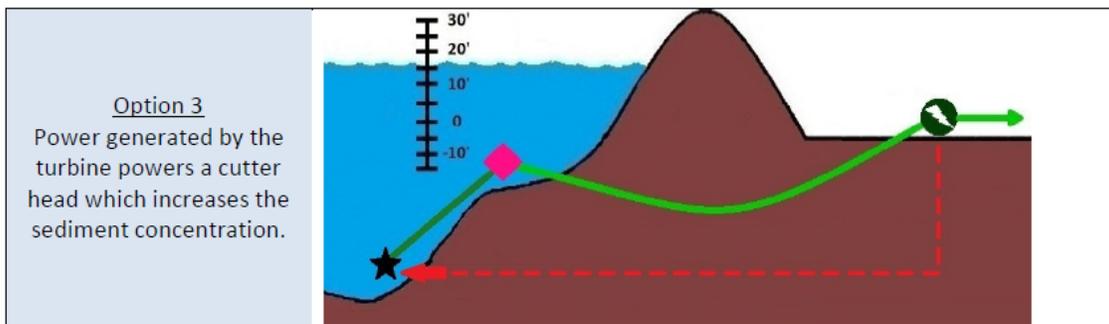
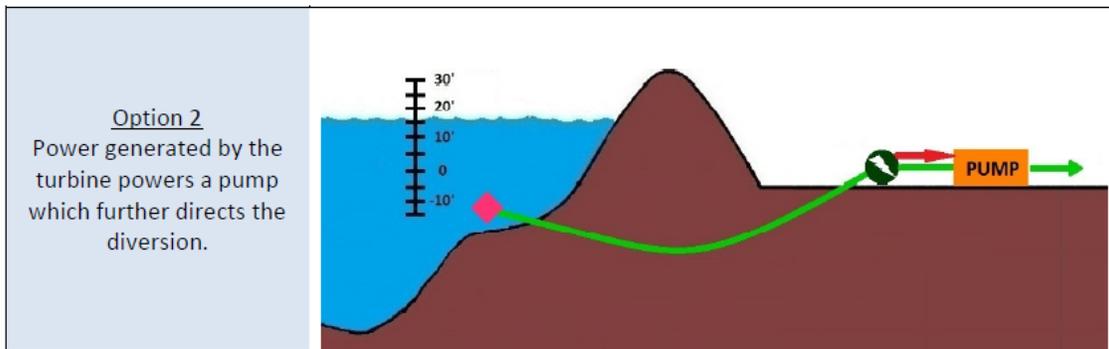
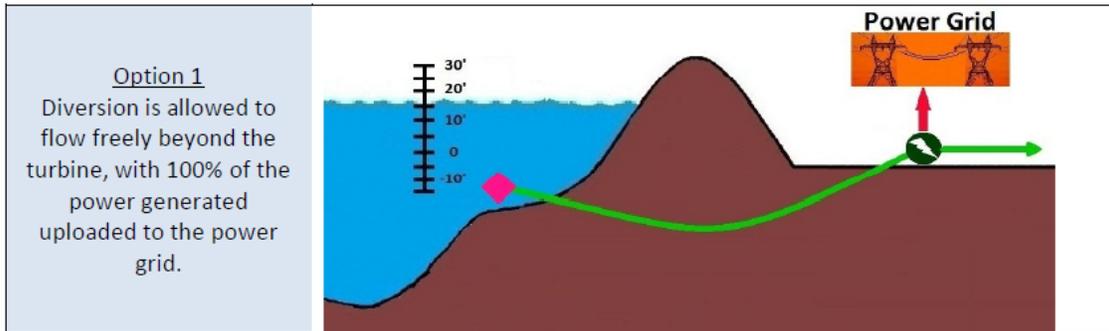
### **Project Costs:**

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

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

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

Legend



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

### **Coast 2050 Strategy:**

Maintain bay and lake shorelines. Terracing and plantings.

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

Coastwide

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

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

### **Project Benefits:**

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

### **Project Costs**

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

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

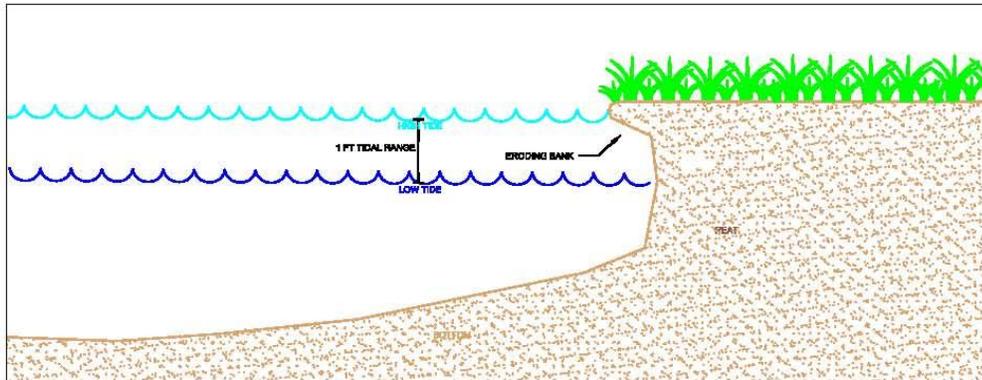
Paul Kaspar, EPA, 214-665-7459, [kaspar.paul@epa.gov](mailto:kaspar.paul@epa.gov)

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

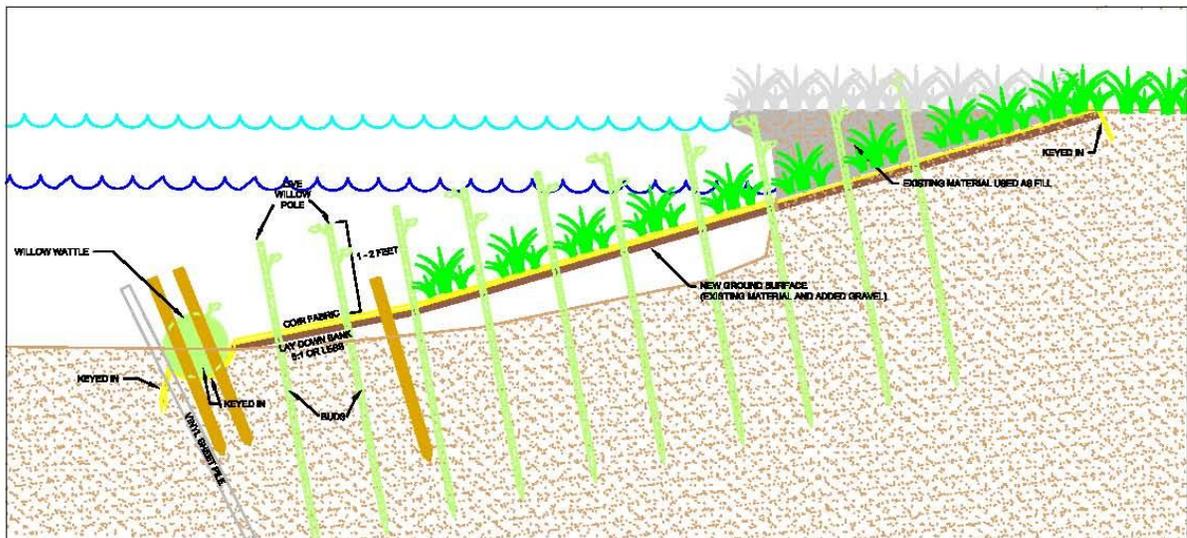
Adrian Chavarria, EPA, 214-665-7255, [chavarria.adrian@epa.gov](mailto:chavarria.adrian@epa.gov)

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

## PRE-CONSTRUCTION (EXISTING CONDITIONS)



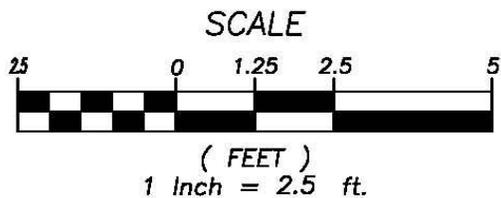
## POST-CONSTRUCTION (DESIGN)



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

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

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



## SCHMATIC OF BIOENGINEERED SLOPE (FRESHWATER/INTERMEDIATE)

DESIGNED BY: JANE ROWAN

DRAWN BY: JANELLE LAVALLÉE



## PPL22 Candidate Project Evaluation Matrix

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

# PPL 22 Demonstration Project Evaluation Matrix

10/30/2012

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

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

"Total Score" calculation:

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

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

"Averaging of Agency Scores" calculation:

Calculated by averaging the Total Scores from each Agency.

## Demonstration Project Parameters

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

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

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

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

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

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

# Coastal Wetlands Planning, Protection and Restoration Act

## 22nd Priority Project List Meeting Announcement

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



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

**Colonel Edward R. Fleming**  
**District Engineer, New Orleans**  
**c/o: Brad Inman**  
**U.S. Army Corps of Engineers**  
**P.O. Box 60267**  
**New Orleans, Louisiana**  
**Fax: 504-862-2572**  
**Email: Brad.L.Inman@usace.army.mil**

# Public Comments

## MEMORANDUM FOR RECORD

SUBJECT: Notes from the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) PPL 22 Public Meeting, Wednesday, 14 Nov 12, Abbeville, LA 7:00 p.m. Abbeville Courthouse

1. Mr. Brad Inman, United States Army Corps of Engineers (USACE), opened the meeting at 7:05 p.m. Mr. Inman introduced Mr. Kevin Roy, United States Fish and Wildlife Service (USFWS). Members of the public and agency attendees introduced themselves. A sign-in sheet is included as **Enclosure 1**. The agenda for the meeting is included as **Enclosure 2**. PPL 22 Candidate Project Packets were handed out to meeting attendees and are included as **Enclosure 3**.

2. Mr. Roy explained the CWPPRA process. He presented a PowerPoint presentation (included as **Enclosure 4**) that included the PPL 22 process and the ten (10) candidate projects (one slide per candidate project). The slides for each project included: project map, project location, project description, net acres of marsh that would be created in the project area, and the fully-funded cost estimate. Projects were presented in the following order: Region 2, 3, and 4. There are no candidate projects in Region 1. Mr. Roy explained the spreadsheet that would be used to select which candidate projects will continue to Engineering and Design (E&D). Four (4) demonstration projects were also proposed this year. Mr. Roy went over the four demonstration projects. He explained the scoring process for demonstration projects and presented the current scores for these projects.

3. Public comments were given after the presentation of each project:

*Lake Lery Shoreline Marsh Creation and Terracing*

- Mr. Sherrill Segrera, Vermilion Parish, asked about the depth of Lake Lery and the cost of creating marsh versus building terraces. Mr. Roy responded that even though the lake is shallow, building terraces is much less expensive than creating marsh.

*Bayou Dupont Sediment Delivery-Marsh Creation 3*

- Mr. W.P. Edwards III, Vermilion Corporation, asked why the tidal creeks were included in this project. Mr. Roy and Mr. Paul Kaspar, United States Environmental Protection Agency (USEPA), responded that the purpose of the tidal creeks is to maintain natural tidal hydrologic flow and prevent impoundment. CWPPRA does not want all of the marshes to be surrounded by containment dikes, but would rather build areas that mimic the natural conditions. The total acreage that would have tidal creeks would be small. Mr. Edwards stated that in

most places in Louisiana where tidal creeks exist, 20 years later this area is open water. He is not in favor of project features that will contribute to erosion and eventually wash away the land. Mr. Edwards asked whether CWPPRA had a study that showed that tidal creeks are nourishing marshes. Mr. Roy responded that there are many healthy, functioning marshes with tidal creeks, and that environment is what CWPPRA is trying to reproduce. Also, the material used in this project is river sand and should be able to withstand a little tidal exchange.

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

- Mr. Segrera asked about the use of contained marshes versus uncontained marshes. Mr. Roy stated that the Natural Resources Conservation Service (NRCS) has built marsh cells without containment dikes in this area previously and these projects have been successful. Mr. Segrera agreed with the use of uncontained marsh for this project and expressed his approval that CWPPRA agencies are moving away from the idea that every marsh creation cell must have containment dikes. Mr. Roy stated that containment dikes are needed where there are landowner issues and in larger open water areas.

#### *Elmer's Island Restoration*

- Mr. Segrera asked about the sustainability of this project. Mr. Roy responded that these types of projects are probably the most susceptible to storm damage. For most of these types of barrier island restoration projects, at the end of 20 years, only 50 to 60 percent of what was built will likely remain. The 272 net acres is the amount of additional marsh that will be in this area if this project is built compared to not building it.
- Mr. Edwards pointed out that Barataria Pass is seven (7) miles from this area. He asked whether there is a closer borrow area that would reduce cost. He suggested Caminada Pass as an alternative. Mr. Stuart Brown, Louisiana Coastal Protection and Restoration Authority (CPRA), stated that Caminada Pass is a sediment source for Grand Isle, so mining it would reduce the material available for Grand Isle, which would lead to large scale objections. Mr. Edwards asked about the possibility of offshore dredging, since Barataria Pass is a sediment source for other barrier islands such as Grand Terre. Mr. Brown stated that an offshore borrow site is still a possibility. Mr. Roy stated that the borrow area at Barataria Pass is already approved, and the process of getting an offshore area approved could add years to the project planning process. Although a representative of the National Marine Fisheries Service (NMFS) was not at the meeting, Mr. Roy stated that the amount of material is minimal and NMFS would not have chosen Barataria Pass as a borrow site if taking material from there would negatively impact other barrier islands.

### *Grand Bayou Freshwater Enhancement and Terracing*

- Mr. Edwards asked if the plans included dredging the canal all the way to the open water of the Gulf of Mexico. Mr. Roy responded that dredging is only included for the upper reach and indicated the location where dredging would occur on the map. Mr. Edwards asked if the canal is open all the way to the south. Mr. Roy responded yes. Mr. Edwards asked what would prevent all of the freshwater from leaving the system through the canal. Mr. Roy stated that the purpose of the structure in Grand Bayou Canal is to prevent the loss of freshwater. Mr. Edwards then asked how CWPPRA calculated the benefits of adding freshwater to the system. Mr. Roy said they have a freshwater introduction model that can estimate the benefits of freshwater based on the amount of freshwater to be introduced and the sediment and nutrient concentration in the freshwater. Mr. Chris Allen, CPRA, added that estimating these benefits is very difficult. The ability to accurately use the model depends on the particular features of the area and the project. Mr. Edwards asked about adding a similar structure to the Four Mile Canal as part of the Weeks Bay Project, and said that feature would make the Weeks Bay Project very similar to this project. Mr. Roy responded that the model that they use to estimate benefits of freshwater is designed for areas where the flow is more certain. Mr. Allen added that CWPPRA is currently trying to model the Weeks Bay Project.

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

- Mr. Segrera said he that he would like to see something in this project that would protect Four Mile Canal. Mr. Roy responded that features could be changed once they get into the E&D phase. Mr. Segrera said that the erosion rates in this area are very high, so this is a good project. He added that other terraces in Little Vermilion Bay are working very well. Mr. Roy said that the CWPPRA analysis shows that no land has been lost with these terraces. Mr. Segrera responded that land is accreting at these terraces.
- Mr. Edwards asked if the results seen at the Vermilion Bay terraces are indicative of terracing projects in other areas of the State. He asked if CWPPRA has studied the factors that make some terraces successful and others unsuccessful, especially since there are several candidate projects that include terracing. Mr. Roy responded that terraces are certainly more successful in some places than others. One reason for this could be the material used in construction, but CWPPRA has not looked at them in as much detail as Mr. Edwards is requesting. Many existing terracing projects are not old enough to have sufficient data yet. Mr. Allen added that the ones that are working have dedicated sediment sources, such as the Jaws. Mr. Edwards said that the sediment source for these proposed terraces would be the eroding marshes along the shoreline of Four Mile Canal.

### *Front Ridge Freshwater Introduction and Terracing*

- Mr. Segrera said that if nothing is done to Freshwater Bayou, this area will have more water than this project will introduce, but it will not be fresh water. Water is currently circumventing the locks and going into the basin. Mr. Segrera asked where the bridges would be located, and Mr. Edwards said the bridges would replace existing culverts, which are too small. Mr. Edwards said there are several terracing projects in this area that have been in place for several years and are holding up well. Mr. Segrera said there is an existing terracing project just west of this project that was built using Community Development Block Grant funds.
- Wayne Henderson, representing the landowners for this project, spoke in support of this project. He stated that moving freshwater to this area is part of the 2012 State Master Plan. This project will create marsh and prevent erosion of Highway 82. Right now this area is just open lake, and this project will preserve some land and create marsh. He has seen a strong south wind and high tides push water across Front Ridge Road, and this phenomenon is endangering a residential area north of the road.
- Mr. Segrera said that this is Vermilion Parish's number one project. Mr. Edwards said Vermilion Corporation is also in favor of this project, and he hopes there are no landowner issues for this project.

### *Demonstration Projects*

- Mr. Segrera said that he does not think the Hay Bale Restoration Demonstration Project could be used for shoreline protection. The wave energy on the shoreline would be too high and the hay bales would have to be anchored. The original purpose of this demonstration project was for marsh containment in a situation where the hay bales would biodegrade so that CWPPRA would not have to breach or degrade containment dikes. Mr. Roy responded that hay bales could perhaps be used in place of rock in low energy areas with poor soil conditions. Some anchoring is included in the cost estimates.
- Mr. Edwards asked about the type of marsh that would surround the impounded marshes used in the Reconnection of Hydrologically Isolated Wetlands to Improve Ecological Function Demonstration Project. Mr. Roy stated that in the example, all of the marsh is intermediate marsh. Mr. Edwards suggested asking the question, "Which came first, the canal or the fish?" If the canal came first, CWPPRA should not introduce more water into the area.
- Mr. Segrera asked about whether the cost of the Coastal Restoration and Energy Production System (CREPS) Demonstration Project includes the cost of the turbine. Mr. Kaspar responded that it does not. Mr. Segrera pointed out that the cost is over \$2 million. Mr. Roy said that limiting demonstration projects to less

than \$2 million is an unwritten rule, but the Task Force could decide to fund a demonstration project with a higher cost if the project is a great project.

- Mr. Edwards stated that he was disappointed that the CREPS Demonstration Project did not get a higher score. Mr. Roy explained that, in order to get a significant flow to the wetlands, the structure would have to be located so far up the River to get enough head that the surrounding areas do not need diversions. Mr. Allen said that the analysis showed that this method was less cost effective than traditional siphons. The directional drilling is expensive and the pipes that go under the levee are much smaller than siphons.
- Mr. Edwards asked for confirmation that the Bioengineering of Shorelines and Canal Banks using Live Stakes Demonstration Project is intended for low energy environments. Mr. Roy confirmed this assumption. Mr. Segrera suggested using hay bales on this project.

4. Mr. Roy described the remaining steps in the PPL 22 process. He explained that the Technical Committee will meet on December 12, 2012 to review the projects, including public comments, and make a recommendation to the Task Force as to which four (4) projects should proceed into the E&D phase. One demonstration project may be selected. The Task Force will meet on January 24, 2013 to select projects for PPL 22. Written comments can be mailed, faxed, or emailed to the USACE at the addresses shown in the PPL 22 Candidate Project Packet.

5. Mr. Roy thanked everyone for attending. The meeting was adjourned at 8:25 pm.

## MEMORANDUM FOR RECORD

SUBJECT: Notes from the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) PPL 22 Public Meeting, Wednesday, 15 Nov 12, New Orleans, LA 7:00 p.m. U.S. Army Corps of Engineers (USACE) New Orleans District

1. Mr. Brad Inman, USACE, opened the meeting at 7:05 p.m. Mr. Inman explained what would be covered at the meeting. He stated that the goal of the meeting is to go over the Priority Project List (PPL) 22 process and present the PPL 22 candidate and demonstration projects, and then open the floor for public support and/or comments. He asked members of the public to come to the microphone to make comments or ask questions. CWPPRA agency personnel introduced themselves. A sign-in sheet is included as **Enclosure 1**. The agenda for the meeting is included as **Enclosure 2**. PPL 22 Candidate Project Packets were handed out to meeting attendees and are included as **Enclosure 3**.

2. Mr. Kevin Roy, U.S. Fish and Wildlife Service (USFWS) gave an overview of the CWPPRA process. He presented a PowerPoint presentation (included as **Enclosure 4**) that included the PPL 22 process and the ten (10) candidate projects (one slide per candidate project). The slides for each project included: project map, project location, project description, net acres of marsh that would be created in the project area, and the fully funded cost estimate. Projects were presented in the following order: Region 2, 3 and 4. There are no candidate projects in Region 1. Mr. Roy explained the spreadsheet that would be used to select which candidate projects will continue to Engineering and Design (E&D). Four (4) demonstration projects were also proposed this year. Mr. Roy went over the four demonstration projects. He explained the scoring process for demonstration projects and presented the current scores for these projects. Mr. Roy then went over the remaining steps in the PPL 22 process. He explained that after the public meetings, the Technical Committee will meet on December 12, 2012 to review the project results and make a recommendation to the Task Force as to which four (4) projects should continue into E&D. One demonstration project may be selected. The Task Force will then meet on January 24, 2013 to select projects for PPL 22. Written comments can be mailed, faxed, or emailed to the USACE at the addresses provided in the PPL 22 Candidate Project Packet.

3. The floor was opened for public comments:

*Lake Lery Shoreline Marsh Creation and Terracing*

- Mr. Nicholas Alfonso, landowner at Delacroix Island and commercial fisherman, stated that this is a fantastic project. Lake Lery used to be seven feet deep, but now it is only 2.5 feet deep. The land is still there, but it is in the Lake under the water.

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

- Mr. Alfonso asked where the mud would come from for this project. Mr. Roy responded that this project would use the same borrow area as the Lake Lery Shoreline Marsh Creation and Terracing Project. Mr. Alfonso stated that when he was younger, he used to be able to walk on this land, and they trapped furs in this area. Before the Caernarvon Freshwater Diversion was constructed, this was sturdy land. There was land separation, but not land erosion. In the areas where land separation occurs, when a hurricane hits the area the land disappears. The reason this occurs is that the fresh water kills the root system of the plants. Mr. Alfonso said that building land is a great thing. Without this land, Mr. Alfonso's career as a commercial fisherman would be over and the Louisiana coast would be like the Mississippi coast with just a beach. Louisiana's coastal area protects the inland areas from storms. After a hard northwestern wind, land is visible because it is only half of a foot under water, not four feet under water. From the air, it just looks like open water, but the land is still there. Mr. Alfonso does not believe in freshwater diversions. He compared the freshwater diversion to placing a water hose in a garden and running it constantly for three months. The result would be killing all of the plants in the garden. Mr. Alfonso is in favor of building land.

### *Bayou Dupont Sediment Delivery-Marsh Creation 3*

- Ms. Marnie Winter, Jefferson Parish Environmental Department, stated that other similar CWPPRA projects have shown that this project will work. There may be a concern about availability of sediment in the River because of the Coastal Impact Assistance Program (CIAP) Long Distance Sediment Pipeline Project. This project is supposed to start construction in 2013. It usually takes a CWPPRA project two to three years to move from Phase I to Phase II, so it is possible that the CIAP project would be in place by then and would decrease the cost of this CWPPRA project.

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

- Ms. Winter stated that this project is in a critical area where CWPPRA has already done a lot of work. The dedicated dredging on the Barataria Basin Landbridge Project looks really good. The Northwest Turtle Bay Marsh Creation Project is in Phase I, so the addition of this project would provide complete protection to this critical area between Bayous Rigolettes and Perot and Turtle Bay. Bayou Rigolettes and Bayou Perot are so wide that they are basically a lake now.

### *Elmer's Island Restoration*

- Ms. Winter stated that this is a very important project because breaches occur after every storm. This would protect Louisiana Highway 1, which is the only

route to Grand Isle, and the residents of Caminada. Elmer's Island is a state wildlife refuge and a tourist destination, so the public would be able to see the CWPPRA project. Marsh behind the beach area would fortify the beach so that breaches would not occur after every storm.

4. Mr. Roy thanked everyone for attending.
5. The meeting was adjourned at 7:50 pm.

Handwritten initials and signature in the top right corner.

Carol Albritton Biedenharn  
5444 I-55 North Frontage Road  
Jackson, MS 39211

November 6, 2012

Colonel Edward Fleming  
District Engineer, New Orleans  
c/o: Brad Inman  
U.S. Army Corps of Engineers  
P. O. Box 60267  
New Orleans, LA 70160-0267

Reference: CWPPRA Technical Committee  
Region 4, Mermentau Basin, Vermilion Parish, east of Pecan Island  
and south of Highway 82.

Subject: Front Ridge Freshwater Introduction and Terracing

Dear Colonel Fleming:

This letter is to indicate my support for the above referenced project being considered for funding by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee. It is vital to restore as much of the marsh area basin as possible in this southern section of Louisiana where storms have eroded the once productive lands into underperforming and less desirable acres. As a child, I spent many memorable days in the area that was once vibrant with vegetation and wildlife. Today, the vegetation is nearly gone and what little wildlife left is just a small percentage that once abounded here.

Virtually all of the area marshes have experienced grader tidal exchange, saltwater intrusion, and less fresh water is retained in the Freshwater Bayou and Humble Canals. Highway 82 that runs through the area forms a hydrologic barrier

that impacts the Lakes and Chenier Sub basins reducing the drainage that otherwise would naturally occur in the area. The proposed project would restore hydrologic conditions and enhance the emergent marsh vegetation within the project area.

The proposed terracing project would introduce again freshwater by allowing water from the Lakes Subbasin to drain across the Highway 82 into the Chenier Subbasin. Minimal infrastructure work is required to restore and improve this watershed in the Pecan Island area.

The CWPPRA consideration of this project would be greatly appreciated. As a landowner with fading memories, I would love to see the area restored to its prior glory for my children and grandchildren to experience.

Sincerely,

A handwritten signature in black ink, reading "Carol Albritton Biedenharn". The signature is written in a cursive style with a large initial "C" and a long, sweeping tail.

Carol Albritton Biedenharn

ASA PROPERTIES LIMITED PARTNERSHIP

9619 INTERLINE AVE. STE B.  
BATON ROUGE, LOUISIANA 70809  
OFFICE: 225.387.8684.  
FAX: 225.387.0862

*PM (Brea  
Lynn)*

November 7, 2012

Colonel Edward Fleming  
District Commander  
U.S. Army Corps of Engineers, New Orleans District  
Executive Office  
P.O. Box 60267  
New Orleans, LA 70160-0267

Reference: CWPPRA Technical Committee  
Region 4, Mermentau Basin, Vermilion Parish, east of Pecan Island and south of Highway 82.

Subject: Front Ridge Fresh Water Introduction and Terracing

Dear Colonel Fleming:

This letter is in support of the subject project being considered for marsh creation in the Pecan Island Area of Vermilion Parish, Louisiana.

I have personally been involved with the management of the subject area in sections 8, 9 and 10 of T16S-R1E since 1977. This area is reclaimed marshlands that were converted to pasturelands and used as such during my involvement. The area has been pumped down for at least 35 years so that cattle could graze and rainwater would not collect. The south levees prevented salt water intrusion and wave action against the Front Ridge Road.

Hurricanes Rita and Ike breached the south levees and salt water to creep up to the Front Ridge Road thereby making this reclaimed marsh unusable. The subject project will allow fresh water to once again be introduced into the area and will allow vegetation to grow. In Addition, terracing and grass planting will help prevent erosion and recreate the marsh. This will save approximately 134 acres from becoming a wasteland. If left in the current status, the saltwater intrusion and wave action will further erode the Front Ridge Road and endanger more lands to the north.

A line needs to be drawn somewhere to prevent this loss of marsh and land. This would be a good start. I urge you to approve this worthwhile project.

Sincerely,

*Michael S. Albritton*

Michael S. Albritton, Manager  
ASA Properties, L.P.

Attention: Brad Inman  
U.S. Army Corps of Engineers, New Orleans  
P.O. Box 60267  
New Orleans, Louisiana 70160  
Brad.L.Inman@usace.army.mil  
Re: Bayou Dupont Sediment Delivery – Marsh Creation #3

Dear Technical Committee Members,

The Bayou Dupont Sediment Delivery – Marsh Creation #3 project is on the agenda at the upcoming Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee meeting. At this meeting, this project along with 10 others will be competing for Phase I engineering and design funds.

The project features are detailed below.

#### Project Features

---

- Approximately 415 ac marsh creation/nourishment
  - Creation of tidal creeks and ponds
  - Planting of intermediate marsh species
- Utilizes renewal sediment resources of the Mississippi River
  - Builds upon existing the Bayou Dupont Project
- Reinforces the Barataria Landbridge & Parish Levee System
- Increases protection of existing marsh to the north as was seen by the difference in marsh destruction on either side of the existing projects from Hurricane Issac

I represent one of the primary landowners within the proposed project area and want to express our full support for this project as it will be a substantial benefit the degraded wetlands of the Barataria Basin. We respectfully ask that you approve this project for Phase I engineering and design funds.

Sincerely,

Michael Jeansonne  
River Rest, LLC

## Murry, Allison MVN-Contractor

---

**From:** Inman, Brad L MVN  
**Sent:** Monday, December 10, 2012 8:01 AM  
**To:** Murry, Allison MVN-Contractor  
**Subject:** FW: Bayou Dupont Sediment Delivery - Marsh Creation #3 (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

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

From: Rufus Brown [<mailto:rufusmbrown@gmail.com>]  
Sent: Sunday, December 09, 2012 11:15 AM  
To: Inman, Brad L MVN  
Cc: [shawncill@gmail.com](mailto:shawncill@gmail.com)  
Subject: Bayou Dupont Sediment Delivery - Marsh Creation #3

Attention: Brad L. Inman  
U.S. Army Corps of Engineers, New Orleans  
Post Office Box 60267  
New Orleans, LA 70160

Re: Bayou Dupont Sediment Delivery - Marsh Creation #3

Dear Technical Committee Members:

The Bayou Dupont Sediment Delivery - Mash Creation #3 project is on the agenda at the upcoming Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Technical Committee meeting. It is my understanding this project, along with ten others, will compete for Phase 1 engineering and design funds.

The project features in detail are:

- 1) Approximately 415 acre marsh creation and nourishment
- 2) Creation of tidal creeks and ponds
- 3) Planting of intermediate marsh species
- 4) Utilizes renewal sediment resources of the Mississippi River
- 5) Builds upon the existing Bayou Dupont Project
- 6) Reinforces the Barataria Landbridge and Parish Levee System

As a landowner within the proposed project area, I wish to express my full support for this project, as it will substantially benefit the restoration of the heavily degraded Barataria Basin wetlands. I respectfully request you approve this project for Phase 1 engineering and design funds.

Sincerely,

Rufus M. Brown

Shawn S. Killeen  
1556 Webster St  
New Orleans, La. 70118

December 10, 2012

Attention: Brad Inman  
U.S. Army Corps of Engineers, New Orleans  
P.O. Box 60267  
New Orleans, Louisiana 70160  
[Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)

Re: Bayou Dupont Sediment Delivery – Marsh Creation #3

Dear Technical Committee Members:

The Bayou Dupont Sediment Delivery – Marsh Creation #3 project is on the agenda at the upcoming Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee meeting. At this meeting, this project along with ten others will be competing for Phase I engineering and design funds.

The project features are detailed as follows:

- Approximately 415 ac marsh creation/nourishment
- Creation of tidal creeks and ponds
- Planting of intermediate marsh species
- Utilizes renewal sediment resources of the Mississippi River
- Builds upon existing the Bayou Dupont Project
- Reinforces the Barataria Landbridge & Parish Levee System

As a lessee and now a landowner through Wildlife Lands, LLC, I have been witnessing the erosion and sinking of the marsh for over 45 years. The area has undergone an incredibly sad transformation especially over the last decade. Little ponds surrounded by healthy marsh are now large lakes. Because of the fragile nature of this particular marsh, the problem has become exponential in nature, and I fear that the land surrounding the proposed project will totally be lost within the next few years, if nothing is done.

Accordingly, I wish to express my full support for this project as it will be a substantial benefit the degraded wetlands of the Barataria Basin. I respectfully ask that you approve this project for Phase I engineering and design funds.

Respectfully,



Shawn S. Killeen

Wildlife Lands, LLC

CHRISTIAN T. BROWN  
416 VINCENT AVENUE  
METAIRIE, LOUISIANA 70005

December 8, 2012

Attention: Brad Inman  
U.S. Army Corps of Engineers, New Orleans  
P.O. Box 60267  
New Orleans, Louisiana 70160  
[Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)

Re: Bayou Dupont Sediment Delivery – Marsh Creation #3

Dear Technical Committee Members:

The Bayou Dupont Sediment Delivery – Marsh Creation #3 project is on the agenda at the upcoming Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee meeting. At this meeting, this project along with ten others will be competing for Phase I engineering and design funds.

The project features are detailed as follows:

- Approximately 415 ac marsh creation/nourishment
  - Creation of tidal creeks and ponds
  - Planting of intermediate marsh species
- Utilizes renewal sediment resources of the Mississippi River
  - Builds upon existing the Bayou Dupont Project
- Reinforces the Barataria Landbridge & Parish Levee System

As a lessee and now a landowner through Wildlife Lands, LLC, I have been enjoying the use of much of this marshland continuously since I was six years old. I am now in my fifties. The area has undergone an incredibly sad transformation especially over the last decade. Little ponds surrounded by healthy marsh are now large lakes. Because of the fragile nature of this particular marsh, the problem has become exponential in nature, and I fear that the land surrounding the proposed project will totally be lost within the next few years, if nothing is done immediately. Accordingly, I wish to express my full support for this project as it will be a substantial benefit the degraded wetlands of the Barataria Basin. I respectfully ask that you approve this project for Phase I engineering and design funds.

Very truly yours,



Christian T. Brown

Attention: Brad Inman  
U.S. Army Corps of Engineers, New Orleans  
P.O. Box 60267  
New Orleans, Louisiana 70160  
[Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)

Re: Bayou Dupont Sediment Delivery – Marsh Creation #3

Dear Technical Committee Members,

The Bayou Dupont Sediment Delivery – Marsh Creation #3 project is on the agenda at the upcoming Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee meeting. At this meeting, this project along with 10 others will be competing for Phase I engineering and design funds.

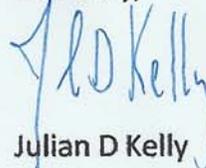
The project features are detailed below.

Project Features

- Approximately 415 ac marsh creation/nourishment
  - Creation of tidal creeks and ponds
  - Planting of intermediate marsh species
- Utilizes renewal sediment resources of the Mississippi River
  - Builds upon existing the Bayou Dupont Project
- Reinforces the Barataria Landbridge & Parish Levee System

I represent one of the primary landowners within the proposed project area and want to express my full support for this project as it will be a substantial benefit to the degraded wetlands of the Barataria Basin. I respectfully ask that you approve this project for Phase I engineering and design funds.

Sincerely,



Julian D Kelly  
Landowner  
Wildlife Lands, LLC

CHARLES W. BOUSTANY, JR., MD  
7TH DISTRICT, LOUISIANA



COMMITTEE ON WAYS AND MEANS  
SUBCOMMITTEES:  
CHAIRMAN ON OVERSIGHT  
SELECT REVENUE MEASURES  
HUMAN RESOURCES

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-0304**

WASHINGTON, DC OFFICE:  
1431 LONGWORTH HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515  
(202) 225-2031

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800 LAFAYETTE STREET  
SUITE 1400  
LAFAYETTE, LA 70501  
(337) 235-6322

LAKE CHARLES DISTRICT OFFICE:  
ONE LAKESHORE DRIVE  
SUITE 1775  
LAKE CHARLES, LA 70629  
(337) 433-1747

November 26, 2012

Colonel Edward Fleming  
District Engineer, New Orleans  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160

Dear Colonel Fleming:

As the Member of Congress representing Southwest Louisiana, I write in regards to the Front Ridge Freshwater Introduction and Terracing project proposed on the PPL-22 list. The project is located in Region 4 in Vermilion Parish, east of Pecan Island and south of Highway 82.

One important component of the project is to restore and improve hydrologic conditions by allowing water from the Lakes Subbasin to drain south across Highway 82 into the Chenier Subbasin. It is my understanding the majority of the necessary infrastructure exists and would require minimal cleanout and construction of an outlet structure under the gravel road at Front Ridge. Another important goal of the project is the proposed terracing which would protect Front Ridge and Highway 82 from storm and wave impacts.

The project is an important component of the region's strategy to restore historic hydrologic and salinity conditions throughout Region 4 to protect wetlands from hydrologic modification and will result in approximately 134 net acres over the 20-year project life. I respectfully request your support for the Front Ridge Freshwater Introduction and Terracing project.

Sincerely,

A handwritten signature in blue ink that reads "CWBoustany".

Charles Boustany Jr., MD  
Member of Congress

November 6, 2012

Colonel Edward Fleming  
District Commander  
U.S. Army Corps of Engineers, New Orleans District  
Executive Office  
P. O. Box 60267  
New Orleans, LA 70160-0267

Reference: CWPBRA Technical Committee  
Region 4, Mermentau Basin, Vermilion Parish, east of Pecan Island and south of  
Highway 82.

Subject: Front Ridge Freshwater Introduction and Terracing

Dear Colonel Fleming:

This letter is in support of the subject project being considered for marsh creation in the Pecan Island Area of Vermilion Parish, Louisiana.

I have personally been involved with the management of the subject area in sections 8, 9 and 10 of T16S-R1E since 1977. This area is reclaimed marshlands that were converted to pasturelands and used as such during my involvement. The area has been pumped down for at least 35 years so that cattle could graze and rainwater would not collect. The south levees prevented salt water intrusion and wave action against the Front Ridge Road.

Hurricanes Rita and Ike breached the south levees and allowed salt water to creep up to the Front Ridge Road thereby making this reclaimed marsh unusable. The subject project will allow fresh water to once again be introduced into the area and will allow vegetation to grow. In Addition, terracing and grass planting with help prevent erosion and re-create the marsh. This will save approximately 134 acres from becoming a wasteland. If left in the current status, the saltwater intrusion and wave action will further erode the Front Ridge Road and endanger more lands to the north.

A line needs to be drawn somewhere to prevent this loss of marsh and land. This would be a good start. I urge you to approve this worthwhile project.

Sincerely,



Wayne Henderson  
Land Manager for MLAL Enterprises, LLC



**APACHE LOUISIANA MINERALS LLC**  
(985) 879-3528 TEL · (985) 876-5267 FAX

Mailing Address:  
Post Office Box 206, Houma, LA 70361-0206

Deliveries Only:  
1913 LaTerre Court, Houma, LA 70363-7525

November 12, 2012

Colonel Edward R. Fleming  
District Commander, New Orleans  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160

(Sent via e-mail c/o: Brad Inman)

RE: PPL-22 Project Nominee; Grand Bayou Freshwater  
Enhancement and Terracing Project; Lafourche  
Parish, Louisiana

Dear Col. Fleming:

Please allow this letter to express Apache Louisiana Minerals LLC's support for the Grand Bayou Freshwater Enhancement and Terracing Project in Lafourche Parish. This project has the potential for possible Phase I Engineering and Design, Coastal Wetlands Planning and Protection Act (CWPPRA) funding.

Apache is a large, coastal landowner with a vested interest in this particular project. We endorse the project design to allow an increased flow of freshwater into the salinity intruded marshes of Lafourche and Terrebonne Parishes, areas that are starved for the nutrients and sediments that the marshes thrive on. The benefits of the Gulf Intracoastal Waterway (GIWW) are so close at hand, yet are not currently getting to the marshes in need. This project will fix that. In addition, the creation of 60,000 linear feet of terraces in the Point Aux Chenes area will result in valuable marsh habitat for fish and wildlife.

The Grand Bayou Freshwater Enhancement and Terracing Project would increase the flow of freshwater headed south from the GIWW to enter the marshes east and west of Grand Bayou. This would lower the salinities and aid in marsh recovery in the area. We believe the Grand Bayou Freshwater Enhancement and Terracing Project would be a cost-effective and efficient method of marsh restoration, and encourage Phase I Engineering and Design funding from CWPPRA.

Please do not hesitate to contact me for questions or further comments.

Sincerely,

**APACHE LOUISIANA MINERALS LLC**

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

Timothy J. Allen, P.L.S.  
General Manager



## 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 12, 2012

Colonel Edward R. Fleming  
District Commander, New Orleans  
c/o: Brad Inman  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160

RE: PPL-22 Project Nominee: Grand Bayou Freshwater Enhancement & Terracing

Col. Fleming:

According to information recently published by the United States Geological Survey in *Land area change in coastal Louisiana from 1932 to 2010*, Terrebonne Parish, Louisiana has been losing wetlands at an average rate of a football field every five hours, since 1932. We understand that this wetland loss is largely due to the absence of a substantial, perpetual source of fresh water and sediment into the Terrebonne Hydrologic Basin. In Terrebonne Parish, we are continuously developing innovative ways to increase the volume of fresh water in our basin to combat the nearly infinite supply of salt water inundating us from the Gulf of Mexico, which is destroying our wetland vegetation at such an alarming rate.

One such project that will combat this problem in the eastern section of the Terrebonne Basin is the Grand Bayou Freshwater Enhancement & Terracing project currently in the running for Phase I Engineering & Design CWPPRA funding. This project would increase the flow of freshwater from the GIWW down Grand Bayou southward into the wetlands between Bayou Terrebonne and Bayou Lafourche. It would also create 60,000 linear feet of terraces in the project area which would not only aid in retaining the newly introduced fresh water, but would also slow the northern movement of salt water and provide emergent wetland habitat.

In addition to these benefits, and although PPL-22 projects are not required to be consistent with the *2012 Louisiana Comprehensive Master Plan for a Sustainable Coast*, this project is directly connected with the project entitled *Increase Atchafalaya Flow to Eastern Terrebonne (Sediment Diversion)*, which is included in the 1<sup>st</sup> implementation period of the approved plan. This is a project which benefits both Terrebonne Parish and Lafourche Parish, and will work with other currently planned projects to help fulfill the need of fresh water in an area of the basin which is incredibly difficult to address. With these factors in mind, I would like to express the full support of Terrebonne Parish for this project and respectfully request that it

receive Phase I Engineering & Design funding from the CWPPRA Task Force. Should you have any questions about this project, please feel free to contact Nicholas Matherne, Director of Coastal Restoration & Preservation for Terrebonne Parish Consolidated Government at (985) 873-6889 or by email at [npmatherne@tpcg.org](mailto:npmatherne@tpcg.org).

Sincerely,

A handwritten signature in black ink, consisting of a series of connected loops and curves, starting with a small 'M' and ending with a long horizontal stroke.

Michel H. Claudet  
Parish President



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

November 12, 2012

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

Email: [Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)

**Re: PPL 22- Project Nominee: Grand Bayou Freshwater Enhancement and Terracing**

Dear Colonel Fleming,

Restore or Retreat, Inc. is a non-profit coastal advocacy group created by coastal Louisiana residents and stakeholders who recognize the Barataria and Terrebonne basins are the two most rapidly eroding estuaries on earth. Representing over 200 businesses, individuals, and stakeholders from our region, Restore or Retreat (ROR) would like to respectfully submit the following comments of **support** for PPL 22- Project Nominee "Grand Bayou Freshwater Enhancement and Terracing," currently under consideration within the Coastal Wetlands Planning and Protection Act (CWPPRA) program.

The proposed project would increase freshwater flow from the Gulf Intracoastal Waterway (GIWW) southward down Grand Bayou Canal into the wetlands of the Bully Camp area, which are some of the most freshwater starved marshes in coastal Louisiana. Additionally, this project would also create 60,000 linear feet of terraces in the Pointe-Aux-Chenes area. Our organization wholeheartedly supports these goals and this project because of its location in an exceptionally vulnerable area of the Terrebonne Basin and its ability to provide freshwater into an area which is currently only receiving freshwater flows via precipitation events and an inadequate supply from the GIWW. We believe an investment into this area would also closely adhere to the State's targeted strategic restoration plan for this area, as outlined in the *2012 Louisiana Comprehensive Master Plan for a Sustainable Coast*, falling under the project of "Increasing Atchafalaya flow into Eastern Terrebonne Sediment Diversion."

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

Sincerely,  
Restore or Retreat, Inc.

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

Simone Theriot Maloz  
Executive Director

***Executive Committee***

Mike Plaisance, *President* (Plaisance Dragline and Dredging) • Ted Falgout, *Vice President* (Ted M. Falgout and Associates)

Henri Boulet, *Secretary* (LA 1 Coalition, Inc.) • Robert Naquin, *Treasurer* (Capital One) • Timothy Allen (Apache Louisiana Minerals)

Charlotte Bollinger (Bollinger Shipyards, Inc.) • C. Berwick Duval II (Duval, Funderburk, Sundbery, Lovell & Watkins) • Dr. J.J. Jones (Jones Dermatology)

**From:** [Susan Bergeron](mailto:Susan.Bergeron@usgs.gov)  
**To:** [Murry, Allison MVN-Contractor](mailto:Murry.Allison.MVN-Contractor@usgs.gov); [Inman, Brad L.MVN](mailto:Inman,Brad.L.MVN@usgs.gov)  
**Cc:** [RuckstuhlC@usgs.gov](mailto:RuckstuhlC@usgs.gov); [GuilbeauD@usgs.gov](mailto:GuilbeauD@usgs.gov); [mfarizo@delacroixcorp.com](mailto:mfarizo@delacroixcorp.com)  
**Subject:** FW: ppl22 comment  
**Date:** Thursday, November 15, 2012 8:40:09 AM

---

Hi Allison and Brad,

Below is an email comment provided by Mr. Farizo. Written comments may be provided to the CWPPRA Task Force by mail, fax or email to:  
(Deadline: November 28, 2012)

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

Fax: 504-862-2572 (ATTN: Brad Inman)

Email: [Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil) <<mailto:Brad.L.Inman@usace.army.mil>>

Kind regards,  
Susan

~\*~\*~\*~\*~\*~\*~\*

Susan Testroet- Bergeron  
[BergeronS@usgs.gov](mailto:BergeronS@usgs.gov)  
Education Specialist, CWPPRA Outreach Coordinator  
Five Rivers Services, LLC  
at the USGS National Wetlands Research Center  
700 Cajundome Blvd.  
Lafayette, LA 70506  
Phone: 337-266-8623  
Fax: 337-266-8513  
[www.LACoast.gov](http://www.lacoast.gov) <<http://www.lacoast.gov>>

~\*~\*~\*~\*~\*~\*~\*

-----Forwarded by Susan Bergeron/BRD/CONT/USGS/DOI on 11/15/2012 08:36AM -----

To: "Susan Bergeron" <[bergerons@usgs.gov](mailto:bergerons@usgs.gov)>, "Cole Ruckstuhl" <[ruckstuhlC@usgs.gov](mailto:ruckstuhlC@usgs.gov)>  
From: "LaCoast.gov" <[lacoast@nwrccom.cr.usgs.gov](mailto:lacoast@nwrccom.cr.usgs.gov)>  
Date: 11/15/2012 08:03AM  
Subject: FW: ppl22

Here's a comment sent to LaCoast.gov.

David Guilbeau

---

www.LaCoast.gov

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

From: Mike Farizo [<mailto:mfarizo@delacroixcorp.com>]

Sent: Thursday, November 15, 2012 6:24 AM  
To: lacoast@nwrccom.cr.usgs.gov  
Subject: ppl22

As land manager for the Delacroix Corp. I am in full of support of the terracing and land creation project that is being introduced by Angela Trahan. The marsh in the Lake Lery area is in desperate need of attention if it is to survive.

Michael Farizo  
Land Manager  
Delacroix Corp.  
504-583-8192  
mfarizo@delacroixcorp.com



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

November 12, 2012

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

Email: [Brad.L.Inman@usace.army.mil](mailto:Brad.L.Inman@usace.army.mil)

**Re: PPL 22- Project Nominee: North Catfish Lake Marsh Creation Project**

Dear Colonel Fleming,

Restore or Retreat, Inc. is a non-profit coastal advocacy group created by coastal Louisiana residents and stakeholders who recognize the Barataria and Terrebonne basins are the two most rapidly eroding estuaries on earth. Representing over 200 businesses, individuals, and stakeholders from our region, Restore or Retreat (ROR) would like to respectfully submit the following comments of **support** for PPL 22- Project Nominee "North Catfish Lake Marsh Creation Project," currently under consideration within the Coastal Wetlands Planning and Protection Act (CWPPRA) program.

The northern Catfish Lake shoreline has experienced an average erosion rate of approximately 10 feet annually, with some areas losing as much as 40 feet per year. Additional interior marsh loss also threatens to greatly accelerate land loss in this exposed area of the basin. The proposed project would create marsh along the lake rim of the northern half of Catfish Lake by using a hydraulic dredge and plantings to reestablish a healthy and stable lake rim. With the goal of strategically creating 212 acres of marsh and nourishing another 196 acres, the project could reduce further shoreline and interior marsh loss in one of the most prominent interior lakes in the vulnerable eastern Terrebonne Basin, goals fully supported by our organization.

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

Sincerely,  
Restore or Retreat, Inc.

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

Simone Theriot Maloz  
Executive Director

***Executive Committee***

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Charlotte Bollinger (Bollinger Shipyards, Inc.) · C. Berwick Duval II (Duval, Funderburk, Sundbery, Lovell & Watkins) · Dr. J.J. Jones (Jones Dermatology)

**Alfred W. Brown, III**  
**4 Pepper Field Road**  
**Avery Island, Louisiana 70513**

December 11, 2012

Attn: Mr. Brad Inman

U.S. Army Corps of Engineers, New Orleans  
P.O. Box 60267  
New Orleans, Louisiana 70160

Re: Bayou Dupont Sediment Delivery – Marsh Creation #3

Dear Committee Members:

The Bayou Dupont Sediment Delivery – Marsh Creation #3 project is on the agenda at the upcoming Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee meeting. At this meeting, this project along with ten others will be competing for Phase I engineering and design funds.

The project features are detailed as follows:

- Approximately 415 acre marsh creation/nourishment
- Creation of tidal creeks and ponds
- Planting of intermediate marsh species
- Utilizes renewal sediment resources of the Mississippi River
- Builds upon existing Bayou Dupont Project
- Reinforces the Barataria Landbridge & Parish Levee System

For over 50 years I have witnessed firsthand the massive erosion as it has devastated this small area of our wetlands. Where there was lush marsh and small ponds there is now just open water. This particular marshland is truly a perfect candidate for immediate restoration and would compliment the successful project you recently completed on adjacent lands. As a property owner I am eager to have our marsh be a part of this valuable project.

Please approve the Bayou Dupont Sediment Delivery - Marsh Creation #3 for Phase I engineering and design funds.

With sincere regards,



Alfred W. Brown, III

Owner, Wildlife Lands, LLC

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**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
EPA	TE-47	11	Ship Shoal: Whiskey West Flank Restoration	Jan 2014	\$3,742,053	\$63,820,773	\$67,562,826	195	\$346,476
FWS	ME-20	11	South Grand Chenier	Dec 2013	\$2,358,420	\$19,574,666	\$21,933,085	427	\$51,366
EPA	MR-15	15	Venice Ponds Marsh Creation & Crevasses	Sep 2013	\$1,074,522	\$21,112,602	\$22,187,124	318	\$69,771
NRCS	PO-34	16	Alligator Bend Marsh Restoration & Shoreline Protection	Sep 2013	\$1,660,985	\$38,665,259	\$40,326,244	192	\$210,033
NMFS	BA-76	19	Chenier Ronquille Barrier Island Restoration	Oct 2013	\$3,419,263	\$34,968,751	\$38,388,014	308	\$124,636
FWS	TE-72	19	Lost Lake Marsh Creation & Hydrologic Restoration	Aug 2013	\$2,320,214	\$32,306,514	\$34,626,728	452	\$76,608
FWS	PO-104	20	Bayou Bonfouca Marsh Creation	Jan 2014	\$2,567,244	\$25,456,740	\$28,023,984	478	\$58,628

**CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2012**

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
20	PO-104	Bayou Bonfouca Marsh Creation	4	2	4	3	1		5	14	\$25,456,740	\$25,456,740
19	TE-72	Lost Lake Marsh Creation & Hydrologic Restoration	1		3	2	4	2	5	12	\$32,306,514	\$57,763,254
11	ME-20	South Grand Chenier Marsh Creation	3		1		3	3	4	10	\$19,574,666	\$77,337,920
15	MR-15	Venice Ponds Marsh Creation & Crevasses	2	4	2	1			4	9	\$21,112,602	\$98,450,522
19	BA-76	Chenier Ronquille Barrier Island Restoration		1		4		4	3	9	\$34,968,751	\$133,419,273
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection					2	1	2	3	\$38,665,259	\$172,084,532
11	TE-47	Ship Shoal: Whiskey West Flank Restoration		3					1	3	\$63,820,773	\$235,905,305

\$235,905,305

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 2012

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	TE-47	Ship Shoal: Whiskey West Flank Restoration							0	0
11	ME-20	South Grand Chenier Marsh Creation	3						0	0
15	MR-15	Venice Ponds Marsh Creation & Crevasses	2						0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection							0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration							0	0
19	TE-72	Lost Lake Marsh Creation & Hydrologic Restoration	1						0	0
20	PO-104	Bayou Bonfouca Marsh Creation	4						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 4 projects. All votes must be used.
3. Weighted scores will be assigned the values of 4, 3, 2, and 1 with 4 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.

XBLJ

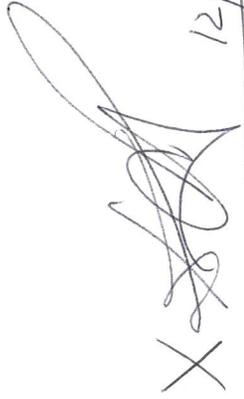
CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2012

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	TE-47	Ship Shoal: Whiskey West Flank Restoration		3					0	0
11	ME-20	South Grand Chenier Marsh Creation							0	0
15	MR-15	Venice Ponds Marsh Creation & Crevasses		4					0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection							0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration		1					0	0
19	TE-72	Lost Lake Marsh Creation & Hydrologic Restoration							0	0
20	PO-104	Bayou Bonfouca Marsh Creation		2					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

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X  12/12/12

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2012

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	TE-47	Ship Shoal: Whiskey West Flank Restoration							0	0
11	ME-20	South Grand Chenier Marsh Creation			1				0	0
15	MR-15	Venice Ponds Marsh Creation & Crevasses			2				0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection							0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration							0	0
19	TE-72	Lost Lake Marsh Creation & Hydrologic Restoration			3				0	0
20	PO-104	Bayou Bonfouca Marsh Creation			4				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

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PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	TE-47	Ship Shoal: Whiskey West Flank Restoration							0	0
11	ME-20	South Grand Chenier Marsh Creation							0	0
15	MR-15	Venice Ponds Marsh Creation & Crevasses				1			0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection							0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration				4			0	0
19	TE-72	Lost Lake Marsh Creation & Hydrologic Restoration				2			0	0
20	PO-104	Bayou Bonfouca Marsh Creation				3			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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11	TE-47	Ship Shoal: Whiskey West Flank Restoration							0	0
11	ME-20	South Grand Chenier Marsh Creation					3		0	0
15	MR-15	Venice Ponds Marsh Creation & Crevasses							0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection					2		0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration							0	0
19	TE-72	Lost Lake Marsh Creation & Hydrologic Restoration					4		0	0
20	PO-104	Bayou Bonfouca Marsh Creation					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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X *Ashley Taylor*

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2012

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
11	TE-47	Ship Shoal: Whiskey West Flank Restoration							0	0
11	ME-20	South Grand Chenier Marsh Creation						3	0	0
15	MR-15	Venice Ponds Marsh Creation & Crevasses							0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection						1	0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration						4	0	0
19	TE-72	Lost Lake Marsh Creation & Hydrologic Restoration						2	0	0
20	PO-104	Bayou Bonfouca Marsh Creation							0	0
			No. of votes:	0	0	0	0	0	0	0
			Sum of Votes:	0	0	0	0	0	0	0

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X 

Ship Shoal: Whiskey West Flank  
Restoration (TE-47)

**CWPPRA**  
**Ship Shoal: Whiskey Island**  
**West Flank Restoration (TE-47)**  
**Phase II Request**

**Technical Committee Meeting**



December 12, 2012

Baton Rouge, LA



**Project Overview**

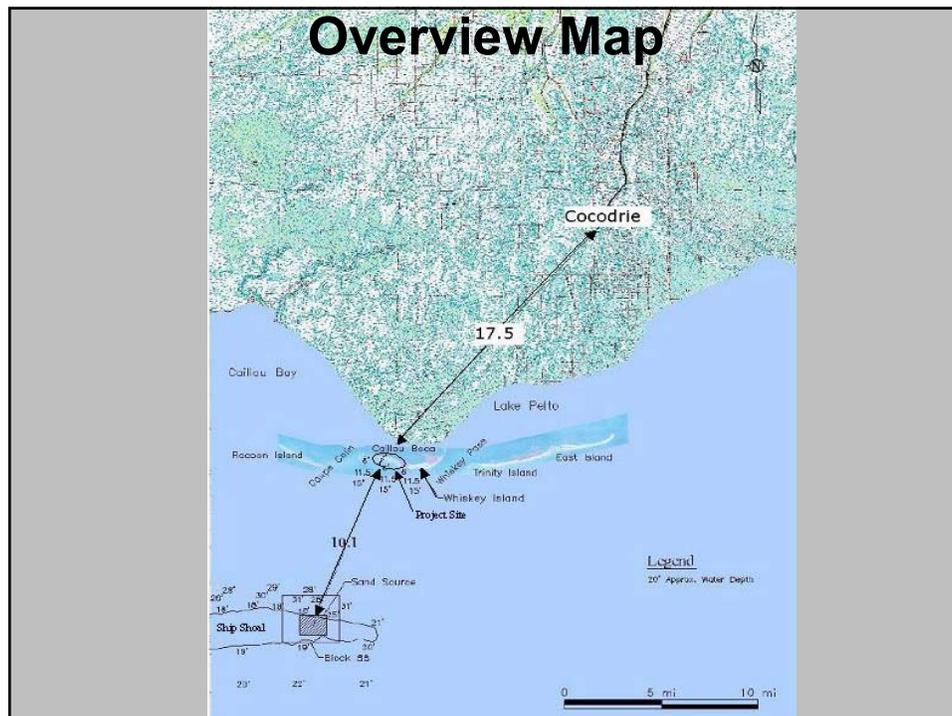
**Project Location:** Region 3 - Terrebonne Basin, Terrebonne Parish, Isles Dernieres Barrier Islands Refuge, western spit of Whiskey Island.

**Problem:** The Isles Dernieres, considered one of the most rapidly deteriorating barrier shorelines in the US, is losing its structural framework functions for the coastal/estuarine ecosystem including storm buffering capacity and protection for inland bays, estuaries and wetlands, human populations, and infrastructure. Island breakup is due to both storm action and loss of nourishing sediment from the natural system. Whiskey Island changes from 1978 to 1988 include loss of 31.1 acres per year.

# Project Overview

## Goals:

- Restore the integrity of the West Flank
- Rebuild the natural structural framework
- Create a continuous protective barrier
- Reduce wave energies
- Add offshore sediment with Ship Shoal sand
- Enhance long-shore sediment transport
- Provide roughly 500 acres of barrier island habitat



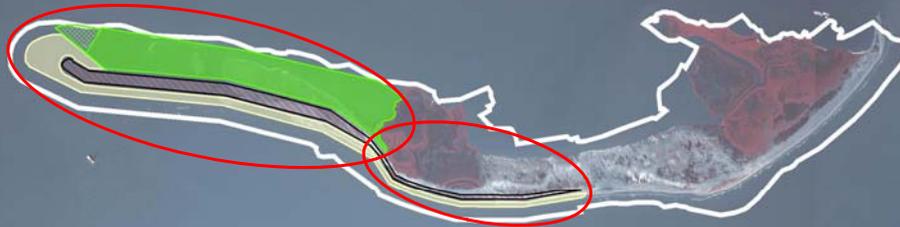
## Project Features

### West Flank –

- 415 Acres of intertidal, supratidal, and dune habitat
- 134 Acres of subtidal habitat.

### Project Extension -

- 85 Acres of intertidal, supratidal, and dune habitat
- 69 Acres of subtidal habitat



### Total Acreage -

- 500 Acres of intertidal, supratidal, and dune habitat
- 203 Acres of subtidal habitat
- 3.62 million cubic yards of sand, in place

## Project Benefits & Costs

- The project would benefit a total of 500 acres of barrier island and 203 acres shallow water habitat.
- At the end of 20 years, there would be a net of 195 acres of island habitat over the without-project condition.
- Wetland Value Assessment: 269 Net AAHUs
- The Fully Funded Cost for the project is: \$67,562,826  
Phase 2 request is: \$63,631,540

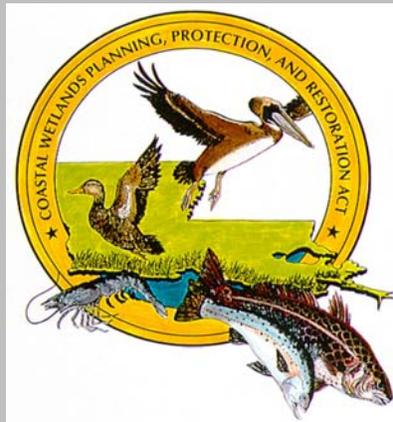
## Why Should We Fund This Project Now?

- **Barrier Islands are the first line of defense**
- **Rapidly changing Isle Dernieres shoreline**
- **Introduces new sediment into system**

## Questions?



**Paul Kaspar**  
US Environmental  
Protection Agency  
(214) 665 - 7459



**Brad Miller**  
LA Coastal Restoration  
and Protection Authority  
(225) 342 - 4122



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

November 26, 2012

Mr. Thomas A. Holden  
Deputy District Engineer  
U.S. Army Corps of Engineers  
New Orleans District  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

RE: Ship Shoal: Whiskey West Flank Project (TE-47)  
Request for Phase II Construction Authorization

Dear Mr. Holden:

The U.S. Environmental Protection Agency (EPA) and Louisiana Coastal Protection and Restoration Authority (CPRA), hereby request approval to begin construction of the Ship Shoal: Whiskey West Flank Project (TE-47). This project was authorized January 2002 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). This is the eighth submittal for Phase II funding for this project. This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures Manual (SOP).

Enclosed please find all of the information required for Phase II construction funding request and approval, pursuant to Appendix C of the SOP. If you have any questions or need additional information about this project, please contact Paul Kaspar at 214-665-7459.

Sincerely,

A handwritten signature in black ink, appearing to read "Karen McCormick", written over a horizontal line.

Karen McCormick  
Chief  
Marine & Coastal Section

Enclosures

cc: Mr. Brad Inman, USACE  
Mr. Darryl Clark, USFWS  
Mr. Richard Hartman, NMFS  
Mr. Britt Paul, NRCS  
Mr. Kirk Rhinehart, CPRA

Mr. Kevin Roy, USFWS  
Ms. Rachel Sweeney, NMFS  
Mr. John Jurgensen, NRCS  
Mr. Chris Allen, CPRA  
Mr. Brad Miller, CPRA

**Overview of Phase I Tasks, Process and Issues** – CPRA (at the time, LDNR) contracted with the company of DMJM Harris for the Engineering and Design (E&D). DMJM Harris conducted the following tasks:

- Delineated a borrow area on Ship Shoal by conducting a geophysical investigation.
- Surveyed the project area.
- Applied the appropriate modeling to optimize the cross section and to ensure the project does not have a negative impact on adjacent areas.
- Developed project Plans, Specifications, Permit Drawings and Design Report.

Compliance with the National Environmental Policy Act (NEPA) was addressed in two separate tracks. To address potential impacts to the dredging borrow site, the MMS completed an Environmental Assessment (EA) dated April 2004 addressing both this project and the Morganza to the Gulf Levee project. That EA included information regarding cultural resources obtained from the remote sensing survey completed by EPA in December 2003. NEPA compliance regarding the island fill site was addressed in a separate EA developed by EPA. The Draft EA was posted along with the 95% E&D documents, and the NEPA documentation was completed with the issuance of a Finding of No Significant Impact dated December 1, 2005. LDNR and EPA investigated the potential for cultural resource areas and determined there are not any in the delineated borrow area or the project footprint.

The project site was affected by hurricanes Katrina and Rita in 2005. EPA and LDNR surveyed the island via aerial flights after each event and LDNR and EPA re-surveyed the island in August 2006 and December 2010. While the storms disturbed the existing sediments, the quantities were not significantly affected. However, the cost estimates based on current market conditions have been revised. The original fact sheet and project map are provided in Attachment I.

**Description of Phase II Candidate project** – The overall project objectives as enumerated in the 95% E&D report are:

- I. Demonstrate the feasibility of moving Ship Shoal sand to the Isles Dernieres for future restoration projects;
- II. Restore the integrity of the West Flank of Whiskey Island to retain its structural function;
- III. Add offshore sediment to the West Flank of Whiskey Island from Ship Shoal to increase sediment supply and strengthen island formation;
- IV. Rebuild the natural structural framework within the coastal ecosystem to provide for separation of the gulf and the estuary;
- V. Create a continuous protective barrier for back bays and inland marshes;
- VI. Reduce wave energies thereby helping to reduce land loss;
- VII. Strengthen the longshore transport system of sediment for continuous island building;
- VIII. Provide a unique and sustainable barrier island habitat for numerous biological species; and,
- IX. Restore roughly 500 acres of barrier island habitat on the island's West Flank.

The proposed restoration template would restore the west flank of Whiskey Island through the direct creation of approximately 415 acres of new intertidal, supratidal, and dune habitat plus 134 acres of subtidal habitat. Information gathered during the initial phase of this project indicated the project may concentrate over-wash toward existing marsh. Based on this information, it was decided to extend the dune feature to protect this existing marsh. The project extension to the east will create approximately 85 acres of additional new intertidal, supratidal, and dune habitat plus 69 acres of additional subtidal habitat. The preferred alternative (Alternate "B" Extended) will create 500 acres of new intertidal, supratidal, and

- Restore roughly 400 acres of barrier island habitat into the island's West Flank

**B.** A cooperative agreement between EPA Region 6 and the State of Louisiana Department of Natural Resources was initially executed in January, 27, 2003, then revised February 25, 2004 to perform the Phase 1 Engineering & Design.

**C.** The project property is owned by the State of Louisiana and is managed by the Louisiana Department of Wildlife and Fisheries (LDWF). A landrights agreement between the Louisiana Department of Wildlife and Fisheries and the Louisiana Department of Natural Resources was sign and approved on October 26, 2005. See Attachment III

**D.** A favorable 30% design review was held on November 8, 2004, in Baton Rouge. Attendees included representatives from state and federal CWPPRA agencies and other interested parties. All comments and questions were addressed in the 95% design report. In an email dated January 12, 2005, EPA and LNDR informed the Technical Committee of the results of the 30% E&D and our intent to move forward with this project. See Attachment IV.

**E.** A favorable 95% design review was held on September 28, 2005. Attendees included representatives from state and federal CWPPRA agencies and other interested parties. All attendee comments and questions were addressed during the meeting. See Attachment IV.

**F.** The NEPA documentation was completed with the issuance of a "Finding of No Significant Impact" dated December 1, 2005. See Attachment V.

**G.** The final ER was posted as required prior to the 95% Design review. The document stated the following:

*Based on information gathered from similar restoration projects, engineering designs and related literature, the proposed strategies in the Ship Shoal: Whiskey West Flank Restoration project will likely achieve all of the desired goals. It is therefore recommended that this project progress towards construction following a favorable 95% Design Review. However, prior to construction the following needs to be addressed.*

*It is believed that the sandy material used to create the back barrier marsh component will experience minimal settlement and consolidation over the life of the project. However, a settlement analysis may be useful to determine how long the restored area will remain at the intertidal target elevation range of 1.0-2.0 feet NAVD-88.*

1. *Answer: The mash construction elevation ranges from +2' NAVD 88 to a +1' NAVD. Instantaneous settlement of this high quality sand will occur prior to construction being complete. If the material settles beyond the range of marsh elevation more material can be placed to offset this settlement. Other barrier island processes such as island rollover and cross shore sediment transport will far out weigh settlement of the underlying materials. The question concerning settlement was raised after the field data was collected. The design team did not feel the cost to remobilize equipment out weighted the*

*benefits from the data. Permitting and regulations prevent LDNR from constructing marsh platforms at significantly higher elevations than +2' in the anticipation of settlement of the underlying materials. Also, with no money for maintenance or re-nourishment, settlement of the marsh can not be addressed once it settles out of the healthy marsh range. Based on the quality of material being placed, and the minimal amount of material being placed (less than 2' on average) the design team did not feel a geotechnical investigation on the marsh platform was warranted.*

**H.** A 404 permit was issued on July 18, 2007. See Attachment VI

**I.** EPA and LDEQ databases were reviewed to determine the potential for hazardous material sites within the project area. No hazardous material sites were found along the project area or alternative alignments, including the borrow area. Based on this information, EPA Region 6 has determined that a Hazardous, Toxic, and Radiological Waste (HTRW) assessment is not needed for this project.

**J.** This project is consistent with the requirements of Section 303(e) of CWPPRA. The Commander of the USACE New Orleans District granted section 303e approval on November 27, 2006. See Attachment VII.

**K.** In a letter dated August 26, 2005, NRCS concluded that overgrazing is not of concern in this area. See Attachment VIII.

**L.** A revised fully funded cost estimate of \$68,089,549 has been reviewed and approved by the economic work group. Also included is a Phase II Funding Request and a Project Cost Schedule. See Attachment IX.

**M.** A revised WVA was completed by EPA and reviewed by the Environmental Work Group. As a result of that effort, EPA received revised benefit numbers from the chairman of the Environmental Work Group in an email dated August 25, 2005. See Attachment X

## ENCLOSURES

- Enclosure A: Phase 1 Approved Fact Sheet and Map
- Enclosure B: Phase 2 Request Fact Sheet and Map
- Enclosure C: Letter from CPRA concurring with EPA on favorable conclusion of 30% Design and desire to proceed to 95% Design
- Enclosure D: Letter from CPRA concurring with EPA on favorable conclusion of 95% Design and desire to proceed to Phase II Request
- Enclosure E: Permit Applications
- Enclosure F: 303(e) Certification Package submitted to U.S. Army Corps of Engineers
- Enclosure G: Overgrazing Determination
- Enclosure H: Fully Funded Cost Estimate, including cost schedule
- Enclosure I: Revised Wetland Value Assessment (WVA) and AAHU calculations
- Enclosure J: Finding of No Significant Impact (FONSI)

Enclosure A:

Phase 1 Approved Fact Sheet and Map



# 11<sup>TH</sup> PRIORITY PROJECT LIST REPORT

PREPARED BY:

LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION  
TASK FORCE

JULY 2003

**Project Name** - Ship Shoal: Whiskey West Flank Restoration

**Coast 2050 Strategy** - Regional Ecosystem Strategy #14: Restore and maintain the Isles Dernieres barrier island chain.

**Project Location** - Region 3 - Terrebonne Basin, Terrebonne Parish, west spit area Whiskey Island.

**Problem** - The Isles Dernieres Chain, which has been considered one of the most rapidly deteriorating barrier shorelines in the U.S., is losing its structural framework functions for the coastal/estuarine ecosystem including storm buffering capacity and protection for inland bays, estuary and wetlands, human populations and infrastructure. Chain breakup has resulted from both major storm actions and from loss of nourishing sediment from the natural system due to human alterations. Whiskey Island changes from 1978 to 1988 include loss of 31.1 acres per year.

**Goals** - 1) restore the integrity of the west flank of Whiskey Island to retain its structural function to the coastal/estuary ecosystem; 2) add new offshore prime quality sediment into the west flank; 3) initially restore approximately 387 acres of barrier island habitat to the western flank.

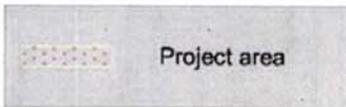
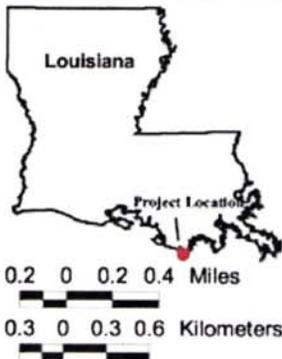
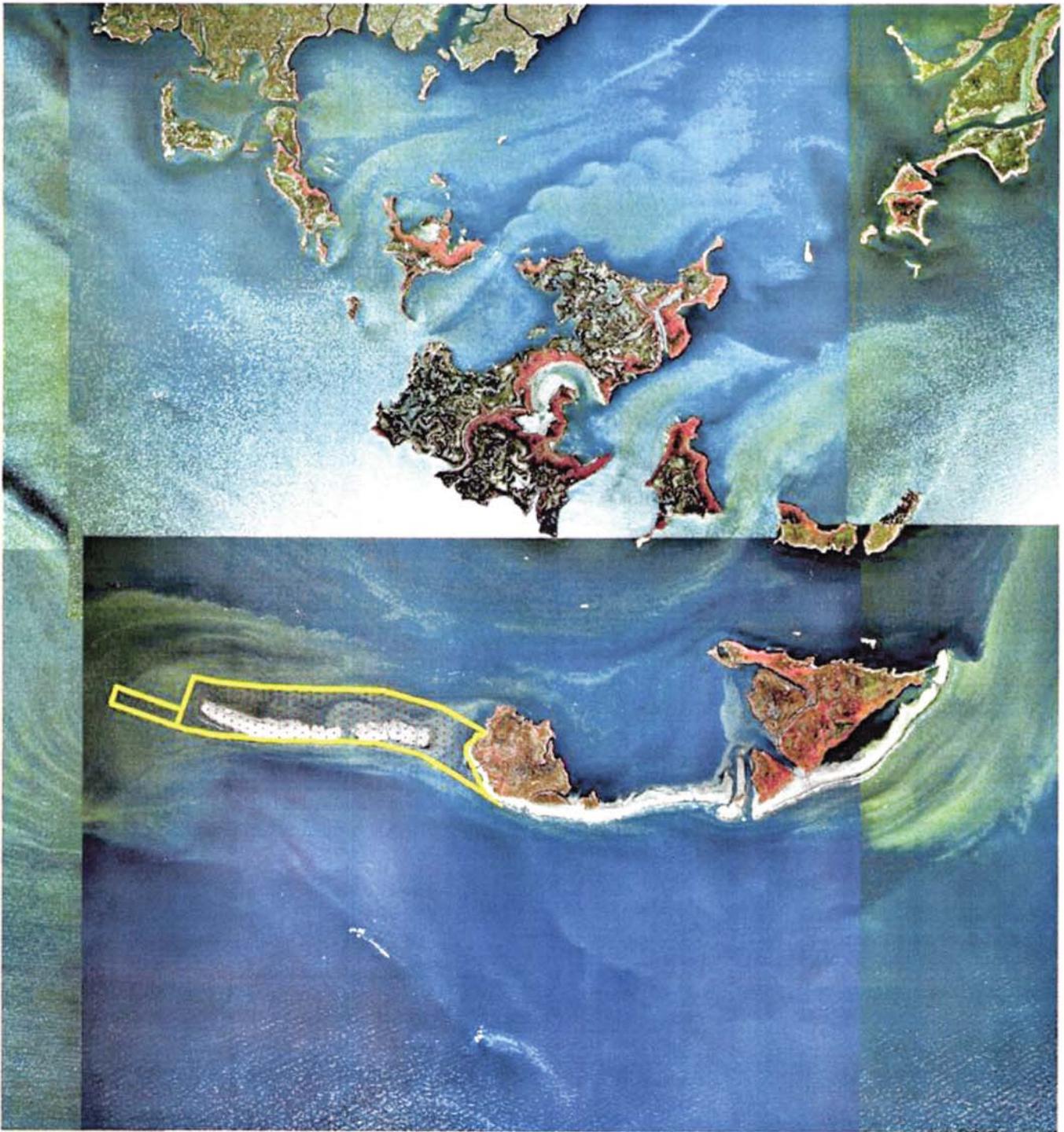
**Proposed Solution** - The project entails mining and placing Ship Shoal sand from the Minerals Management Service Block 88 by cutterhead or hopper dredge to rebuild the west flank of Whiskey Island, a distance of about 8 miles. The area to be restored includes 57 acres of dunes 7 feet high and 150 feet wide, 114 acres supratidal habitat at 4 feet in elevation, 208 acres intertidal habitat at a 2-foot elevation, and 8 acres subtidal habitat from 0 to minus 1.5 feet in elevation. All areas would be planted and sand fencing placed to trap wind-blown sediment.

**Project Benefits** - Benefits include prevention of loss of sediment from the system into deeper Gulf waters or into bayside deeper water. The project would benefit a total of 398 acres of barrier island and shallow water. At the end of 20 years, there would be a net of 182 acres of island over the without-project condition.

**Project Costs** - The fully funded first cost is \$38,985,100 and the total fully funded cost is \$39,302,900.

**Risk/Uncertainty and Longevity/Sustainability** - There is a moderate degree of risk associated with this project due to greater storm effects in this area of the coast and difficulty in engineering and construction. Benefits should continue for more than 20 years due to the high quality and compatibility of Ship Shoal sand.

**Sponsoring Agency/Contact Persons** - U.S. Environmental Protection Agency  
Jeanene Peckham (225) 389-0736; peckham.jeanene@epa.gov  
Wes Mcquiddy (214) 665-6722; mcquiddy.david@epa.gov  
Brad Crawford (214) 665-7255; crawford.brad@epa.gov



Data Source:  
 U.S. Geological Survey  
 National Wetlands Research Center  
 Coastal Restoration Field Station  
 LA Department of Natural Resources

1998 DOQQS  
 Map Date: October 10, 2001  
 Map ID: 2002-04-027

CWPPRA PPL11 Nominee:  
 Region 3

**Whiskey Island  
 West Flank Extension  
 (TE-14-1b)**

Enclosure B:

Phase 2 Approved Fact Sheet and Map

**Ship Shoal: Whiskey West Flank Restoration**

**Eleventh Priority Project List  
of the  
Coastal Wetlands Planning, Protection and Restoration Act**



**Proposed by**

**U.S. Environmental Protection Agency**

**and**

**LA Department of Natural Resources**

**Contacts:** Brad Crawford - US EPA - (214) 665-7255

Kenneth Teague - US EPA - (214) 665-6687

Brad Miller - LDNR - (225) 342-4122

**Project Name** - Ship Shoal: Whiskey West Flank Restoration

**Coast 2050 Strategy** - Regional Ecosystem Strategy #14: Restore and maintain the Isles Dernieres barrier island chain.

**Project Location** - Region 3 - Terrebonne Basin, Terrebonne Parish, west spit area  
Whiskey Island.

**Problem** - The Isles Dernieres Chain, which has been considered one of the most rapidly deteriorating barrier shorelines in the U.S., is losing its structural framework functions for the coastal/estuarine ecosystem including storm buffering capacity and protection for inland bays, estuary and wetlands, human populations and infrastructure. Chain break up has resulted from both major storm actions and from loss of nourishing sediment from the natural system due to human alterations. Whiskey Island changes from 1978 to 1988 include loss of 31.1 acres per year.

**Goals** - 1) Demonstrate the feasibility of moving Ship Shoal sands to the Isles Dernieres for future restoration projects; 2) Restore the integrity of the West Flank of Whiskey Island to retain its structural function; 3) Add offshore sediment to the West Flank of Whiskey Island from Ship Shoal to increase sediment supply and strengthen island formation; 4) Rebuild the natural structural framework within the coastal ecosystem to provide for separation of the gulf and the estuary; 5) Create a continuous protective barrier for back bays and inland marshes; 6) Reduce wave energies thereby helping to reduce land loss; 7) Strengthen the long shore transport system of sediment for continuous island building; 8) Provide a unique and sustainable barrier island habitat for numerous biological species; and, 9) Restore roughly 500 acres of barrier island habitat into the island's West Flank.

**Proposed Solution** - The proposed conceptual restoration template would restore the west flank of Whiskey Island through the direct creation of approximately 415 acres of new intertidal, supratidal, and dune habitat plus 134 acres of subtidal habitat. In order to control flow training effects on the western most existing marsh lobe, the project footprint includes an extension the dune feature eastward. The project extension to the east would create approximately 85 acres of additional new intertidal, supratidal, and dune habitat plus 69 acres of additional subtidal habitat. Therefore, the total acreage created for the preferred alternate (Alternate "B"-Extended) would be 500 acres of new intertidal, supratidal, and dune habitat plus 203 acres of subtidal habitat.

**Project Benefits** - Benefits include evaluation of the feasibility of using Ship Shoal sand for coastal restoration as well as, adding sediment to the longshore transport system. The project would benefit a total of 703 acres of barrier island and shallow water. At the end of 20 years, there would be a net of 195 acres of island over the without-project condition.

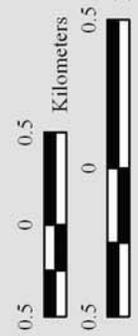
**Project Costs** - The fully funded first cost is \$51,683,571 and the total fully funded cost is \$51,853,787.

**Risk/Uncertainty and Longevity/Sustainability** - There is a moderate degree of risk associated with this project due to greater storm effects in this area of the coast and difficulty in construction. Benefits should continue for more than 20 years due to the high quality and compatibility of Ship Shoal sand.

**Sponsoring Agency/Contact Persons** - U.S. Environmental Protection Agency  
Brad Crawford, P.E., (214) 665-7255; [crawford.brad@epa.gov](mailto:crawford.brad@epa.gov)  
Kenneth Teague (214) 665-6687; [teague.kenneth@epa.gov](mailto:teague.kenneth@epa.gov)  
Brad Miller (225)342-4122

# Ship Shoal: Whiskey West Flank Restoration (TE-47)

-  WVA Re-assessment Boundary
  -  Beach Platform\*
  -  Dune Platform\*
  -  Marsh Platform\*
  -  Transition Platform\*
- \*denotes proposed features



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

Background Imagery:  
 2004 Digital Orthophoto Quarter Quadrangles  
 Map Date: October 12, 2005  
 Map ID: USGS-NWRC 2006-11-0004  
 Data accurate as of: October 12, 2005



Enclosure C:

Letter from CPRA concurring with EPA on favorable conclusion of 30% Design and  
desire to proceed to 95% Design

# State of Louisiana



KATHLEEN BABINEAUX BLANCO  
GOVERNOR

SCOTT A. ANGELLE  
SECRETARY

DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF COASTAL RESTORATION AND MANAGEMENT

December 28, 2004

Mr. Wes McQuiddy  
Acting Chief  
Marine and Wetlands Section (6WQ-EM)  
Environmental Protection Agency  
1445 Ross Avenue  
Dallas, Texas 75202

Via Facsimile

(214) 665-6689

Re: 30% Design Review for Ship Shoal Whiskey Island West Flank, (TE-47)  
Statement of Local Sponsor Concurrence

Dear Mr. McQuiddy:

We are in receipt of your November 29, 2004 letter regarding the captioned project. In that letter you indicated that EPA has concluded the project is still viable and is recommending the advancement of the project to the 95 Percent level. Questions were asked in the Ecological Review concerning the projects goals and objectives; these issues will be addressed in the 95 Percent Design report prior to holding the 95 Percent Design Review.

Based on our review of the technical information compiled to date, the Ecological Review, the preliminary land ownership investigation, and the preliminary designs, we, as local sponsor, are in concurrence with proceeding to final design. We have instructed the engineering and design firm (DMJM+Harris) to bring the project to the 95 Percent level.

In accordance with the CWPPRA Project Standard Operating Procedures manual, we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee.

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

Sincerely,

Handwritten signature of Christopher P. Knotts in cursive.

Christopher P. Knotts, P. E.  
Director

CPK:LCW:dpg

cc: John Hodnett, Engineer Manager  
Chris Williams, Project Manager  
Luke Le Bas, Engineer Manager

Enclosure D:

Letter from CPRA concurring with EPA on favorable conclusion of 95% Design and  
desire to proceed to Phase II Request

# State of Louisiana



KATHLEEN BABINEAUX BLANCO  
GOVERNOR

SCOTT A. ANGELLE  
SECRETARY

DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF COASTAL RESTORATION AND MANAGEMENT

October 20, 2005

Mr. Wes McQuiddy  
Team Leader  
Marine and Wetlands Section (6WQ-EM)  
Environmental Protection Agency  
1445 Ross Avenue  
Dallas, Texas 75202

**Via Facsimile**

(214) 665-6689

Re: 95% Design Review for Ship Shoal Whiskey Island West Flank, (TE-47)  
Statement of Local Sponsor Concurrence

Dear Mr. McQuiddy:

We are in receipt of your October 11, 2005 letter regarding the captioned project. In that letter you indicated that EPA has concluded the project is still viable and is recommending the advancement of the project to construction.

Based on our review of the technical information compiled to date, the Ecological Review, the preliminary land ownership investigation, and the preliminary designs, we, as local sponsor, are in concurrence with proceeding to construction. We have instructed the engineering and design firm (DMJM+Harris) to generate the final construction bid documents.

In accordance with the CWPPRA Project Standard Operating Procedures manual, we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee.

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

Sincerely,

Christopher P. Knotts, P. E.  
Director

CPK:LCW:dpg

cc: John Hodnett, Engineer Manager  
Chris Williams, Project Manager  
Luke Le Bas, Engineer Manager

Enclosure E:

Permit Applications



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

REPLY TO  
ATTENTION OF:  
Operations Division  
Central Evaluation Section

JUL 18 2007

SUBJECT: MVN-2006-4206-CY

Gentlemen:

Louisiana Department of Wildlife and Fisheries  
2415 Darnall Road  
New Iberia, Louisiana 70560

Enclosed is a permit dated this date, subject as above, authorizing work under the Department of the Army permit program.

You are again reminded that any work not in accordance with the approved plans is subject to removal regardless of the expense and the inconvenience that such removal may involve and regardless of the date when the discrepancy is discovered.

Your attention is directed to all the terms and conditions of the approval. In order to have the work approved in accordance with the issued permit, all terms and conditions of the permit and plans shown on the drawings attached thereto must be rigidly adhered to.

It is necessary that you notify the District Engineer, Attention: Central Evaluation Section, in writing, prior to commencement of work and also upon its completion. The notification must include the permittee's name, as shown on the permit, and the permit number. Please note the expiration date on the permit. Should the project not be completed by that date, you may request a permit time extension. Such requests must be received before, but no sooner than six months before, the permit expiration date and must show the work completed and the reason the project was not finished within the time period granted by the permit.

A copy of Page 1 of the permit (ENG Form 1721) must be conspicuously displayed at the project site. Also, you must keep a copy of the signed permit at the project site until the work is completed.

Sincerely,

Martin S. Mayer  
Chief, Central Evaluation Section

Enclosure

# DEPARTMENT OF THE ARMY PERMIT

Permittee: Louisiana Department of Wildlife and Fisheries

Permit No. MVN-2006-4206-CY

Issuing Office: New Orleans District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Implement the Ship Shoal: Whiskey Island West Flank Restoration Project (CWPPRA TE-47) by dredging for material and access and creation of dune and marsh habitat to restore the western end of Whiskey Island, in accordance with the drawings enclosed in eight sheets dated June 29, 2005 and one revision dated June 29, 2005.

Project Location: In Terrebonne Parish, Sections 44, 45 and 46, T24S-R16E, at the western end of Whiskey Island and the borrow area located in the Gulf of Mexico, offshore Louisiana.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **June 30, 2012**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 1 month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions: Page 4.**

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

- e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.
  - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
  - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

X *L. C. Williams*  
(PERMITTEE)

X 7.9.2007  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

*Martin S. Mayer*

17 July 2007  
(DATE)

Martin S. Mayer, Chief Central Evaluation Section

for Richard P. Wagenaar, District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE)

\_\_\_\_\_  
(DATE)

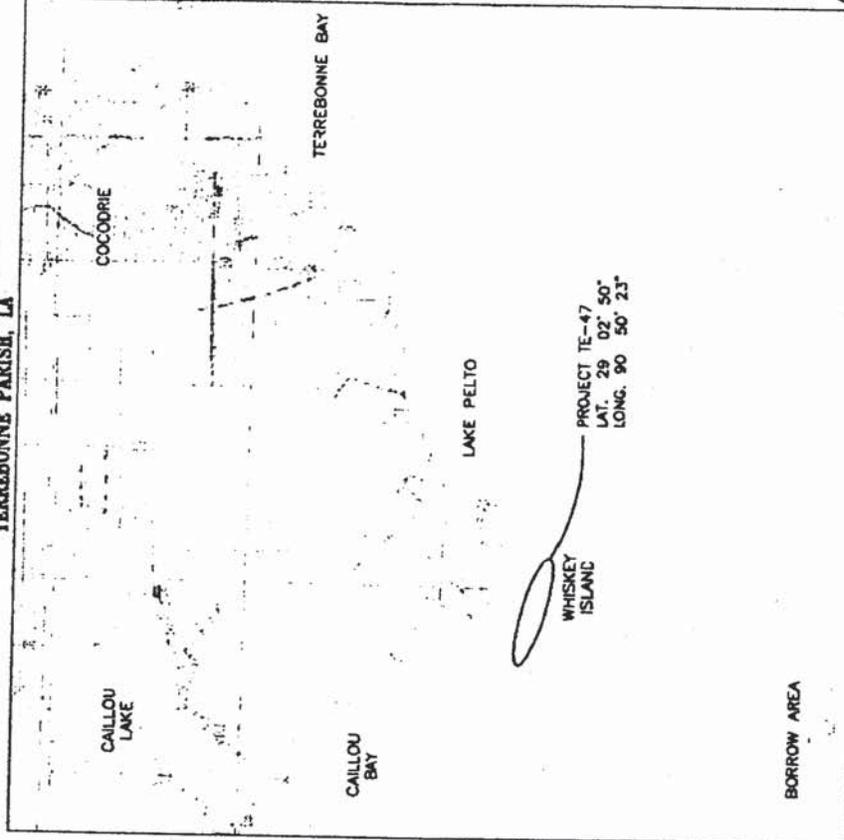
**SPECIAL CONDITIONS: 2006-4206-CY**

7. The permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.
8. The permittee must install and maintain, at the permittee's expense, any safety lights, signs, and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on the permittee's authorized facilities.
9. The Chitimacha Tribe of Louisiana has stated that the project area is part of the aboriginal Chitimacha homelands. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee will contact the Chitimacha Tribe of Louisiana at P.O. Box 661, Charenton, LA 70523, and the U. S. Army Corps of Engineers, New Orleans District (CEMVN) Regulatory Branch. CEMVN will initiate the required federal, state, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.
10. If the proposed project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.,) in the waterway, you are advised to notify the U.S. Coast Guard so that a Notice to Mariners, if required, may be prepared. Notification, with a copy of your permit approval and drawings, should be mailed to the U.S. Coast Guard, Sector New Orleans Command Center, 201 Hammond Highway, Metairie, Louisiana 70005, about 1 month before you plan to start work. Telephone inquiries can be directed to (504) 846-5923.
11. The time limit to perform dredging to maintain navigability and obtain material for island maintenance, unless specifically revoked or suspended by this office, expires 10 years from the effective dated of this approval.
12. The permittee shall limit dredge and fill activities to areas essential to the project. If the proposed project requires any additional work not expressly permitted herein, or impacts any wetlands other than the areas indicated on the attached drawings, the permittee must apply for an amendment to this authorization prior to commencement of work.

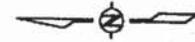
STATE OF LOUISIANA  
 DEPARTMENT OF NATURAL RESOURCES  
 COASTAL ENGINEERING DIVISION

# SHIP SHOAL - WHISKEY ISLAND WEST FLANK RESTORATION

STATE PROJECT No. TE - 47  
 SECTIONS 44 - 46, T 24 S - R 16 E  
 TERREBONNE PARISH, LA



PROJECT TE-47  
 LAT. 29 02' 50"  
 LONG. 90 50' 23"



**INDEX TO SHEETS**

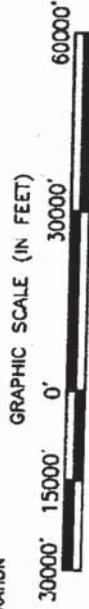
**SHEET NO. DESCRIPTION**

- 1 TITLE SHEET
- 2 OVERALL PROJECT PLAN VIEW
- 3 FILL AREA - PLAN VIEW I
- 4 FILL AREA - PLAN VIEW II
- 5 CONSTRUCTION ACCESS PLAN
- 6 BORROW AREA I
- 7 TYPICAL SECTIONS B1 AND B2
- 8 SAND FENCE DETAILS

**VICINITY MAP**

MHW. +1.6 NAVD  
 MLW. 3.0 NAVD

PURPOSE: 6.6 MILLION C.Y. OF IN-PLACE SAND  
 FOR DUNE/MARSH RESTORATION



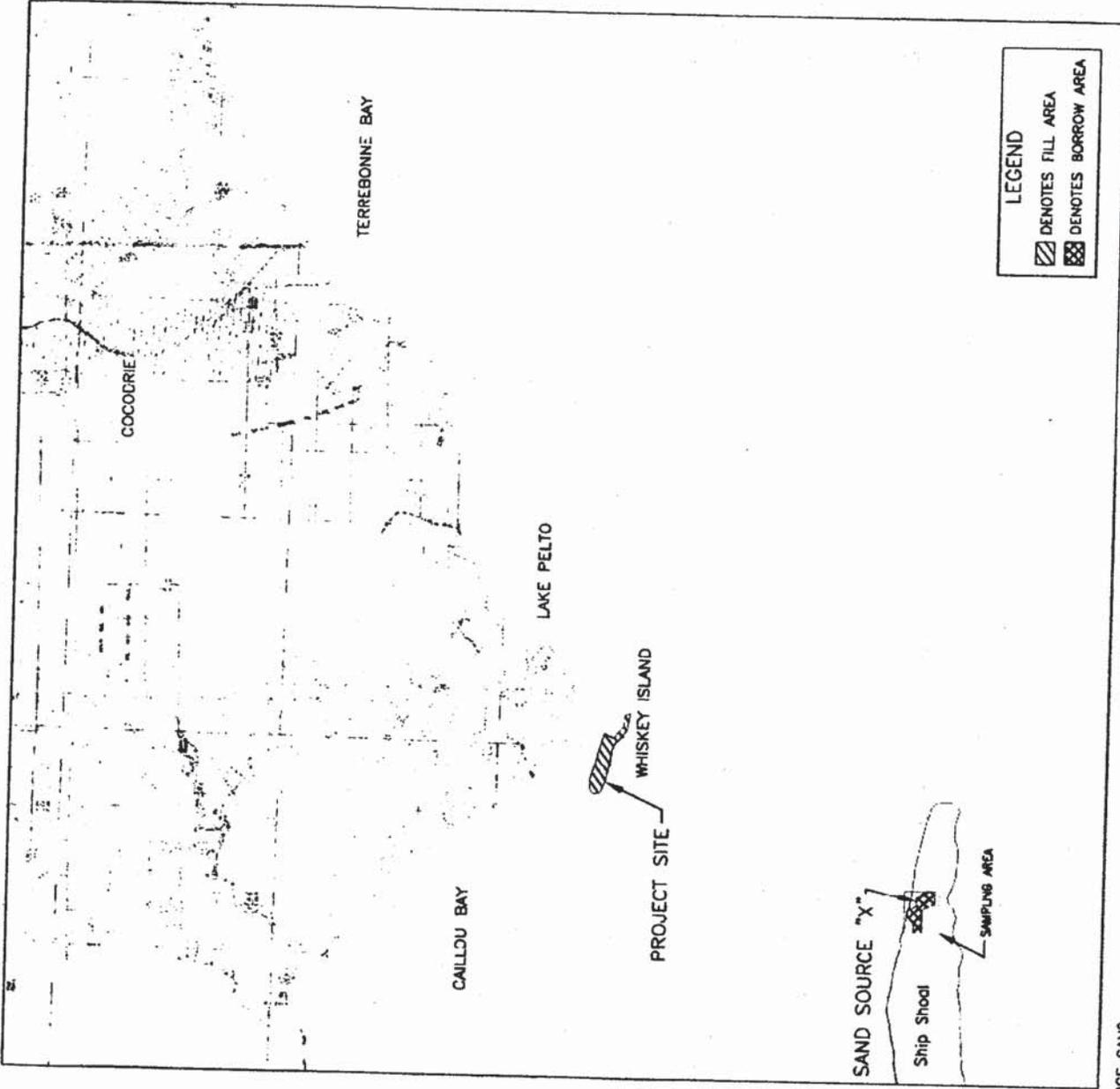
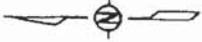
NO.	1 OF 8
-----	--------

SHIP SHOAL - WHISKEY ISLAND  
 WEST FLANK RESTORATION  
 SECTIONS 44 - 46, T 24 S - R 16 E  
 TERREBONNE PARISH, LA

TITLE SHEET

STATE PROJECT NUMBER: TE 47

DATE: JUN 29, 2006



**LEGEND**  
 [Hatched Box] DENOTES FILL AREA  
 [Cross-hatched Box] DENOTES BORROW AREA

MHW. +1.6 NAVD  
 MLW. 0.0 NAVD

PURPOSE: 6.6 MILLION C.Y. OF IN-PLACE SAND  
 FOR DUNE/MARSH RESTORATION

SHEET  
 2 OF 8

GRAPHIC SCALE (IN FEET)  
 24000' 12000' 0' 24000' 48000'

SHIP SHOAL - WHISKEY ISLAND  
 WEST FLANK RESTORATION  
 SECTIONS 44 - 46, T 24 S - R 16 E  
 TERREBONNE PARISH, LA

OVERALL PROJECT  
 PLAN VIEW

STATE PROJECT NUMBER: TE - 7

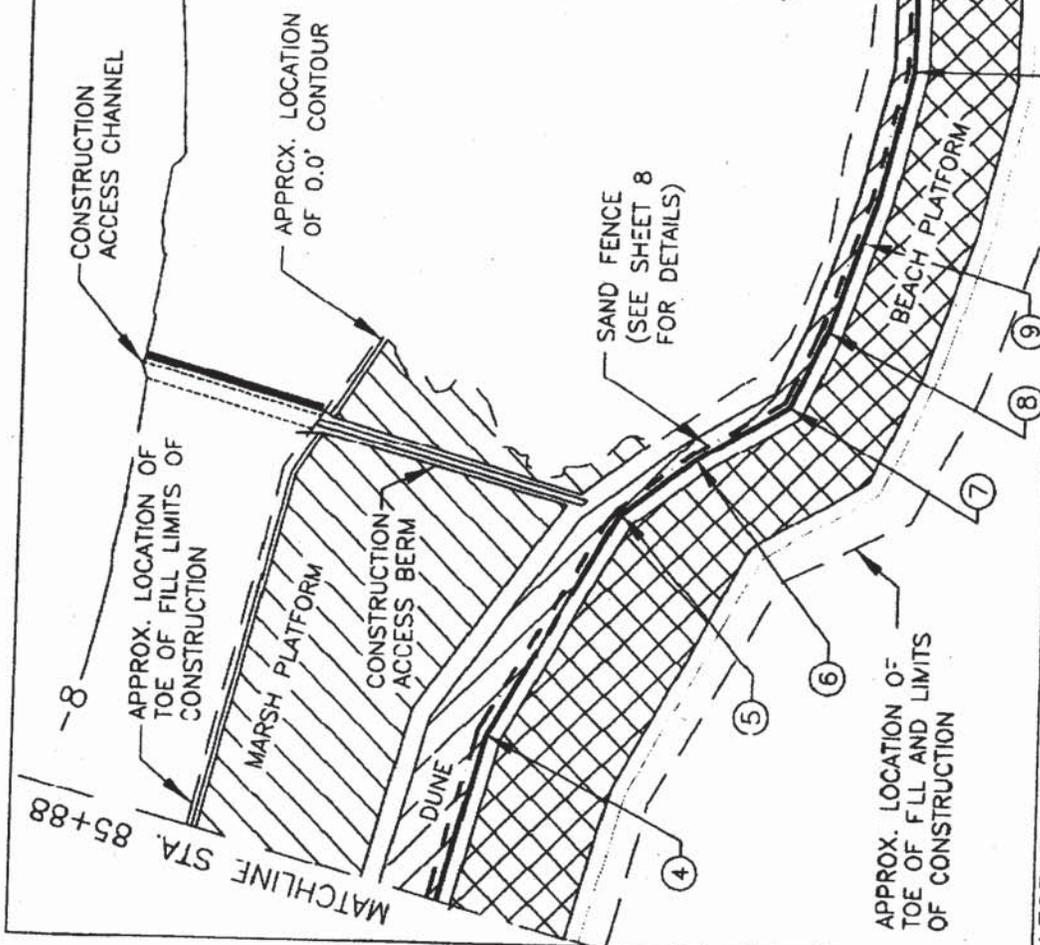
DATE: JUNE 20, 2005



MARSH TYPES	ACRES CREATED	ACRES IMPACTED
SUPRATIDAL	248	
INTERTIDAL	238	197
SUBTIDAL	258	
OPEN WATER		549
<b>BORROW AREA</b>		273

○ CONSTRUCTION BASELINE COORDINATES

4	STA. 94+61.54	X=3,436,056.56	Y=200,428.73
5	STA. 107+56.93	X=3,437,184.34	Y=199,791.41
6	STA. 112+21.91	X=3,437,466.61	Y=199,421.91
7	STA. 117+65.72	X=3,437,740.07	Y=198,951.86
8	STA. 121+91.64	X=3,438,125.71	Y=198,771.07
9	STA. 128+88.95	X=3,438,783.60	Y=198,539.93
10	STA. 135+82.54	X=3,439,457.91	Y=198,377.51
11	STA. 152+01.29	X=3,441,076.35	Y=198,346.32
12	STA. 172+81.17	X=3,443,135.42	Y=198,639.84

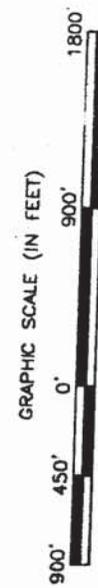


**LEGEND:**

- PROPOSED MARSH PLATFORM ELEV. +2.0' TO +1.0'
- PROPOSED TRANSITION PLATFORM ELEV. +3.0' TO +2.0'
- PROPOSED DUNE PLATFORM ELEV. +6.0'
- PROPOSED BEACH PLATFORM ELEV. +3.0'

MHW. +1.6 NAVD  
MLW. 0.0 NAVD

PURPOSE: 6.6 MILLION C.Y. OF IN-PLACE SAND FOR DUNE/MARSH RESTORATION



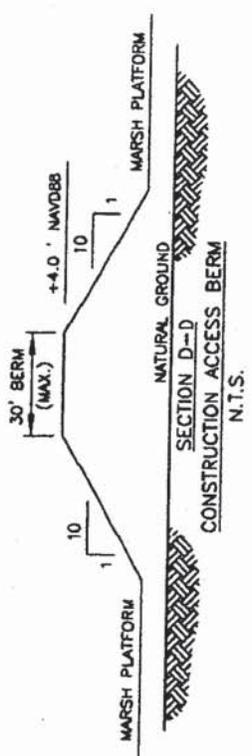
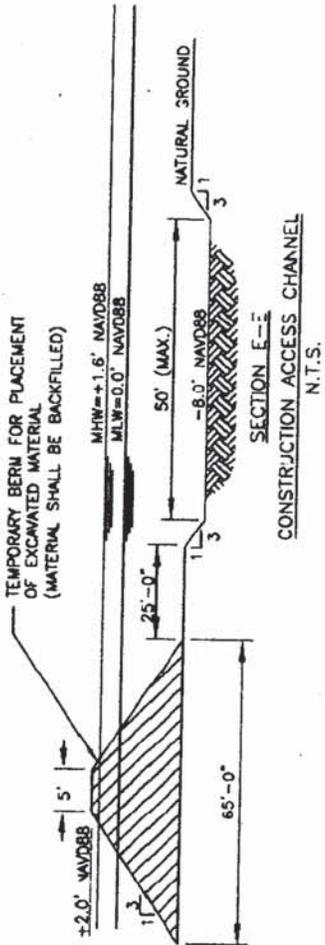
SHEET  
4 OF 8

SHIP SHOAL - WHISKEY ISLAND  
WEST FLANK RESTORATION  
SECTIONS 44 - 46, T 24 S - R 16 E  
TERREBONNE PARISH, LA

STATE PROJECT NUMBER: TL-47

DATE: JAN 29, 2005

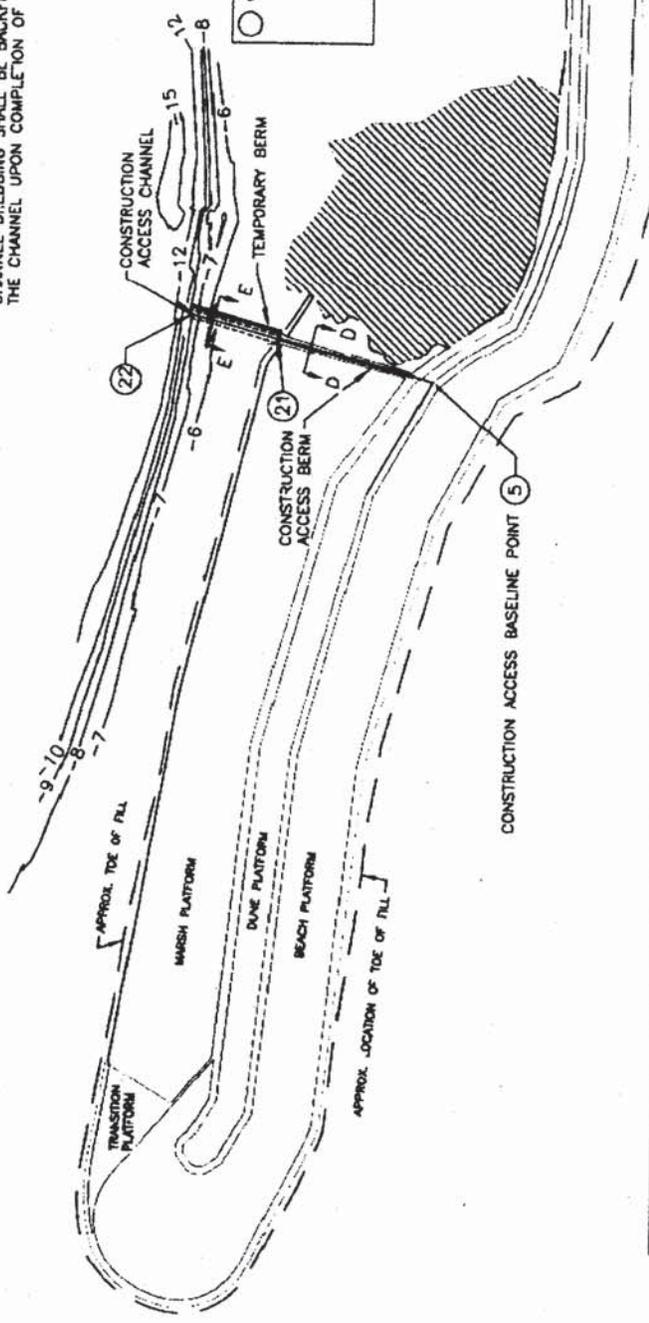
FILL AREA - PLAN VIEW II



NOTE: SPOIL MATERIAL FROM CONSTRUCTION ACCESS CHANNEL DREDGING SHALL BE BACKFILLED INTO THE CHANNEL UPON COMPLETION OF THE PROJECT.

CONSTRUCTION ACCESS BASELINE COORDINATES

POINT	X	Y
5	3,437,184.34	189,791.41
21	3,437,611.02	201,329.76
22	3,437,847.48	202,185.40



**LEGEND:**  
 VEGETATED AREAS SHALL NOT BE TRAVERSED BY PERSONNEL OR EQUIPMENT, AND SHALL NOT BE USED FOR STORAGE.

PURPOSE: 6.6 MILLION C.Y. OF IN-PLACE SAND FOR DUNE/MARSH RESTORATION

STATE PROJECT NUMBER: 1E-47

DATE: JUNE 29, 2005

SHIP ISLAND - WHISKEY ISLAND WEST FLANK RESTORATION SECTIONS 44-46, T 24 S - R 16 E TERREBONNE PARISH, LA

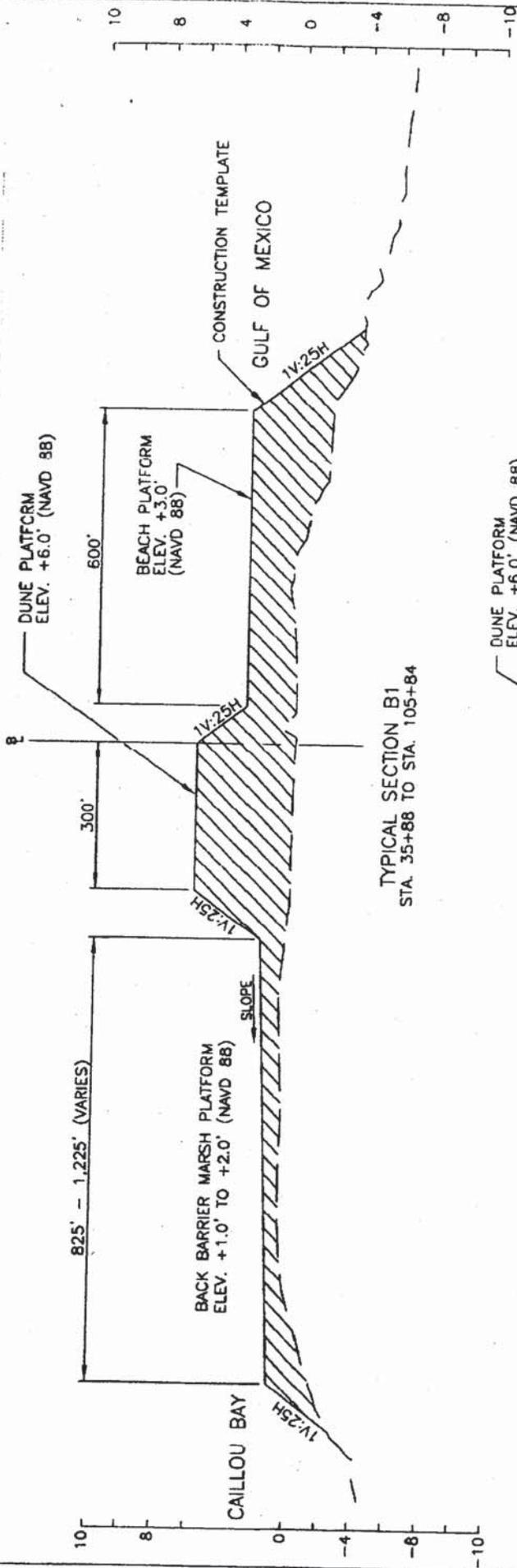
CONSTRUCTION ACCESS PLAN VIEW

NOTE: ALL ELEVATIONS SHOWN ARE IN NAVD88.  
 ALL COORDINATES ARE IN NAD83 STATE PLANE FEET.

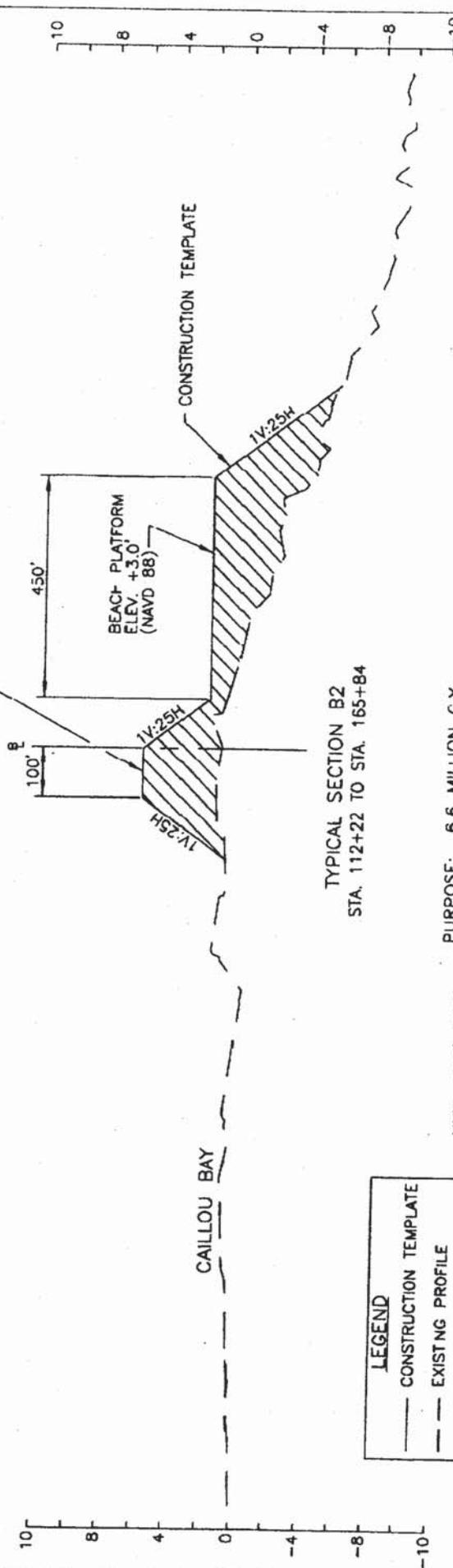
GRAPHIC SCALE (IN FEET)  
 1800' 900' 0' 1800' 3600'

SHEET 5 OF 8





TYPICAL SECTION B1  
STA. 35+88 TO STA. 105+84



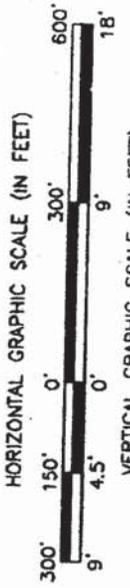
TYPICAL SECTION B2  
STA. 112+22 TO STA. 165+84

**LEGEND**

- CONSTRUCTION TEMPLATE
- - - EXISTING PROFILE
- ▨ PROPOSED FLL

PURPOSE: 6.6 MILLION C.Y. OF IN-PLACE SAND FOR DUNE/MARSH RESTORATION

MHW. +1.6' NAVD  
MLW. 0.0' NAVD



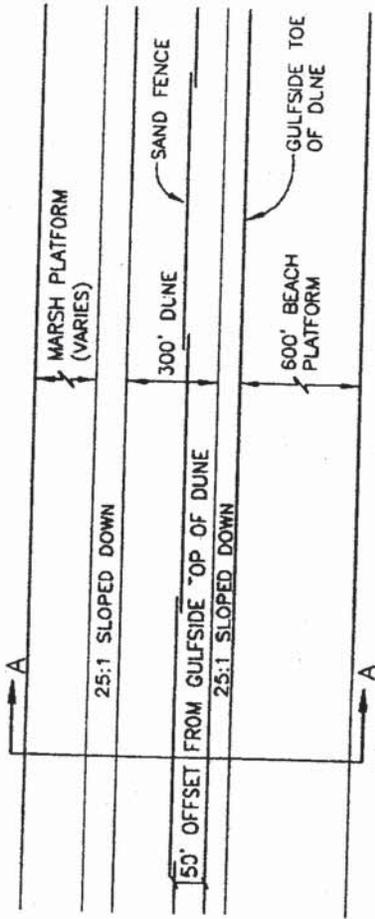
SHEET  
7 OF 8

SHIP SHOAL - WHISKEY ISLAND  
WEST FLANK RESTORATION  
SECTIONS 44 - 46, T 24 S - R 16 E  
TERREBONNE PARISH, I.A.

TYPICAL DUNE MARSH  
RESTORATION SECTIONS  
B1 & B2

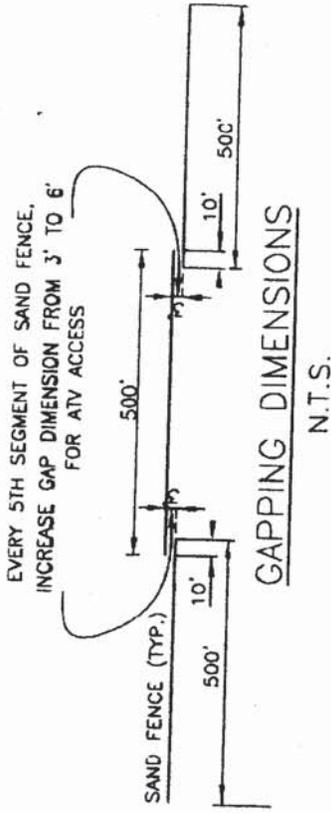
STATE PROJECT NUMBER: TE-47

DATE: JUNE 29, 2005



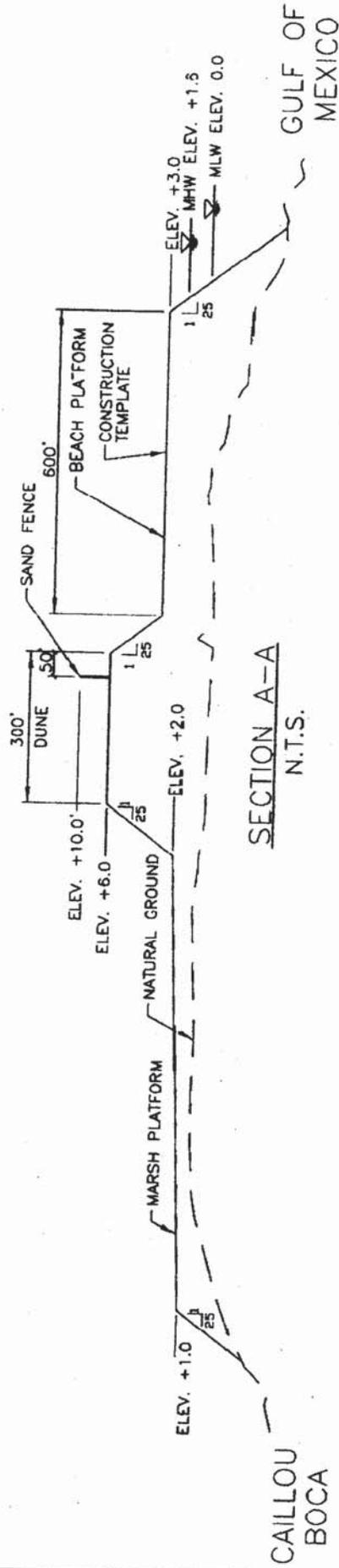
PLAN VIEW OF SAND FENCE  
WHISKEY ISLAND

N.T.S.



GAPPING DIMENSIONS

N.T.S.



SECTION A-A

N.T.S.

NOTE: ALL ELEVATIONS IN FT. NAVD88

PURPOSE: 6.6 MILLION C.Y. OF IN-PLACE SAND  
FOR DUNE/MARSH RESTORATION

SHIP SHOAL - WHISKEY ISLAND  
WEST FLANK RESTORATION  
SECTIONS 44 - 46, T 24 S - R 6 E  
TERREBONNE PARISH, LA

SHEET  
8 OF 8

SAND FENCE  
DETAILS

STATE PROJECT NUMBER: T1 - 7

DATE: JUN 29, 2005

Enclosure F:

303(e) Certification Package submitted to U.S. Army Corps of Engineers

# State of Louisiana



KATHLEEN BABINEAUX BLANCO  
GOVERNOR

SCOTT A. ANGELLE  
SECRETARY

DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF COASTAL RESTORATION AND MANAGEMENT

December 28, 2005

Mr. Wes McQuiddy  
U. S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733

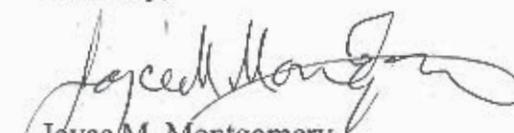
Re: Ship Shoal - Whiskey Island West Flank Project TE-47  
DWF Letter Agreement  
Terrebonne Parish, Louisiana

Dear Mr. McQuiddy:

Enclosed for your records is a certified original of the captioned document between the Louisiana Department of Wildlife and Fisheries and the Louisiana Department of Natural Resources for the above captioned project. This document has been recorded and certified by the Terrebonne Parish Clerk of Court.

Should you have any questions, please contact me at 225-342-5068.

Sincerely,

  
Joyce M. Montgomery  
CRD Land Specialist III

JMM

c:(w/o attachment) Chris Williams, CRD Project Manager

Final distribution letter agreement dwf.wpd

# Terrebonne Parish Recording Page

I. Robert "Bobby" Boudreaux  
Clerk Of Court  
P.O. Box 1569  
Houma, La 70361-1569  
(985) 868-5660

**Received From :**  
COLLINS, DAN S CPL & ASSOCIATES INC  
P.O. BOX 66773  
BATON ROUGE, LA 70896

**First VENDOR**

LOUISIANA DEPARTMENT OF NATURAL RESOURCES

**First VENDEE**

LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES

**Index Type :** Conveyances

**File # :** 1224363

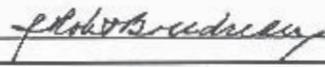
**Type of Document :** Agreement

**Book :** 1944      **Page :** 639

**Recording Pages :** 13

### Recorded Information

I hereby certify that the attached document was filed for registry and recorded in the Clerk of Court's office for Terrebonne Parish, Louisiana

  
Clerk Of Court

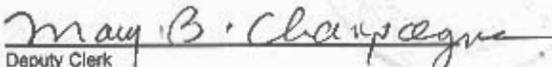
On (Recorded Date) : 11/23/2005

At (Recorded Time) : 11:11:34:000 AM

CLERK OF COURT  
I. ROBERT "BOBBY" BOUDREAUX  
Parish of Terrebonne  
I certify that this is a true copy of the attached  
document that was filed for registry and  
Recorded 11/23/2005 at 11:11:34  
Recorded in Book 1944 Page 639  
File Number 1224363



Doc ID - 004420600013

  
Deputy Clerk

**Return To :**

COLLINS, DAN S CPL & ASSOCIATES INC  
P.O. BOX 66773  
BATON ROUGE, LA 70896

# State of Louisiana



KATHLEEN BABINEAUX BLANCO  
GOVERNOR

SCOTT A. ANGELLE  
SECRETARY

**DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF COASTAL RESTORATION AND MANAGEMENT**

August 23, 2005

Mr. Dwight Landreneau, Secretary  
Department of Wildlife and Fisheries  
Post Office Box 98000  
Baton Rouge, La. 70898-9000

RE: Letter Agreement  
Ship Shoal – Whiskey Island West Flank Project TE-47  
Isles Dernieres Barrier Islands Refuge  
Terrebonne Parish, Louisiana

Dear Mr. Landreneau:

When executed by you, this letter shall constitute an agreement (the "Agreement") by and between the Louisiana Department of Natural Resources ("DNR") and the Louisiana Department of Wildlife and Fisheries ("DWF") whereby DWF authorizes DNR to conduct construction and monitoring operations for the Ship Shoal – Whiskey Island West Flank Project TE-47 ("Project") being a portion of the Isles Dernieres Barrier Islands Refuge ("IDBIR") as shown on Exhibit B attached hereto and made a part hereof.

DWF has no objection to DNR, or its assigns, proceeding with the proposed Project for the purposes authorized by Federal (16 U.S.C. 3951, et seq.) and State (R.S. 49:213-214) law within the Project area shown on Exhibit A and pursuant to the Project Activity Summary on Exhibit C, both attached hereto and made a part hereof, provided however, that DNR complies with the following stipulations:

1. This Agreement pertains to the IDBIR as shown on Exhibit B.
2. Prior to any activities on the IDBIR, DNR shall contact Mr. Ed Mouton, or his assignee (Programs Manager), at (337) 373-0032 to coordinate Project details.
3. DNR shall abide by the IDBIR regulations as set forth in Exhibit B, attached hereto and made a part hereof, unless otherwise agreed to by DWF.

4. All equipment and routes shall be approved by the Programs Manager.
5. No activities will be allowed within 1500 feet of nesting bird colonies unless approved by the Programs Manager.
6. It shall be the responsibility of DNR to repair any damages which may occur as a result of the Project.
7. DNR agrees to defend, indemnify and hold DWF harmless from and against any and all claims, demands, expense and liability arising out of injury or death to any person or the damage, loss or destruction of any property which may occur or in any way grow out of the proposed Project.
8. This agreement allows DNR to make minor modifications to the Project, but only insofar as changes pertain to materials for project features and minor changes to project features locations, as may be deemed necessary to fully and properly implement and maintain the Project. Further, DNR will notify DWF of such modifications and allow DWF to comment on the modifications prior to the implementation of such modifications, and shall, when practicable, consider and include any comments by DWF.
9. DNR is responsible for all maintenance and repair of all project features. In the event DWF notifies DNR that project features require maintenance or repair, DNR will provide such maintenance or repair in a time frame that ensures that the objectives of the Project are not compromised.
10. DNR agrees that any use of mechanized equipment must be pre-approved by the DWF Programs Manager referenced in number 2 above.
11. DNR will provide a fulltime, onsite construction inspector to ensure compliance with the project plans, specs, and the terms and conditions of this Agreement. If, in the opinion of DWF, DNR's operations conflict with the plans, specs and/or the terms of this Agreement, DWF shall contact DNR fully describing what is in conflict. DNR will immediately contact the contractor to remedy said conflict. If the conflict is not remedied to DWF's satisfaction within 2 days, DWF may suspend DNR's operations until such time that conflict can be appropriately addressed and remedied.

12. In the event any change or condition should develop that affects IDBIR and that would affect DNR's ability to perform the activities granted under this Agreement, DWF agrees to notify DNR at the following address:

Department of Natural Resources  
Coastal Restoration Division  
P. O. Box 44027  
Baton Rouge, LA 70804-4027  
Phone: 225-342-7308  
Fax: 225-342-9417

13. The final plans will require approval by DWF and DNR, prior to construction.

*The terms of this Agreement, where applicable, and except for Paragraph 7 above, are subject to the availability of funds as stated in the CWPPRA Task Force Standard Operation Procedures. Should funds not be available to comply with the terms of this Agreement, DNR agrees to use its best efforts to secure funding to meet the terms stated herein.*

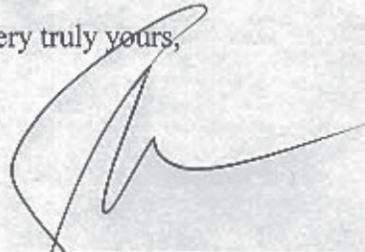
This Agreement shall become effective upon the signature of DWF and shall remain in effect for twenty (20) years from the date hereof unless sooner terminated by the mutual consent of DNR and DWF.

DNR may assign or transfer, in whole or in part, any or all of its rights hereunder, but only to the extent necessary to implement the purposes of the Project on the said Lands.

This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, their successors in interest, transferees and assigns.

If the foregoing accurately reflects your understanding of the agreement between DNR and DWF relative to the referenced Project activities on the IDBIR, please evidence your approval by signing the three (3) originals and returning the executed originals to this office. The documents will be recorded in the public records of Terrebonne Parish, and a certified duplicate will be returned to your office upon completion. Thank you for your cooperation in this matter.

Very truly yours,



SCOTT A. ANGELLE  
SECRETARY  
DEPARTMENT OF NATURAL  
RESOURCES

WITNESSES:

Twana A. Bowman

Print Name: Twana A. Bowman

Brandi Rogers

Print Name: BRANDI ROGERS

ACCEPTED AND APPROVED THIS 26<sup>th</sup> DAY OF October 2005.

WITNESSES:

Cathy S. Greeson

Print Name: Cathy S. Greeson

Susan C. Falcon

Print Name: Susan C. Falcon

LOUISIANA DEPARTMENT OF  
WILDLIFE AND FISHERIES

By: Dwight Landreneau

DWIGHT LANDRENEAU  
Title: SECRETARY

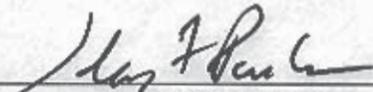
**ACKNOWLEDGMENTS**

**STATE OF LOUISIANA**

**PARISH OF EAST BATON ROUGE**

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 3rd day of October, 2005, personally came and appeared Scott A. Angelle, to me known, who declared that he is the Secretary of the **Department of Natural Resources**, State of Louisiana, that he executed the foregoing instrument on behalf of said State Agency and that the instrument was signed pursuant to the authority granted to him by said State Agency and that he acknowledged the instrument to be the free act and deed of said State Agency.

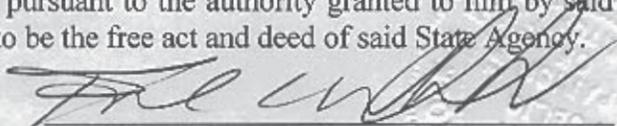
Identification Number: 01117  
My commission expires: with life  
(SEAL)

  
\_\_\_\_\_  
Print Name: John F. Parker  
NOTARY PUBLIC

**STATE OF LOUISIANA**

**PARISH OF EAST BATON ROUGE**

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish/County and State aforesaid, on this 26<sup>th</sup> day of October, 2005, personally came and appeared Dwight Landreneau, to me known, who declared that he is the Secretary of the **Department of Wildlife and Fisheries**, State of Louisiana, that he executed the foregoing instrument on behalf of said State Agency and that the instrument was signed pursuant to the authority granted to him by said State Agency and that he acknowledged the instrument to be the free act and deed of said State Agency.



Print Name: \_\_\_\_\_

Notary Number: \_\_\_\_\_  
My commission expires: with life  
(SEAL)

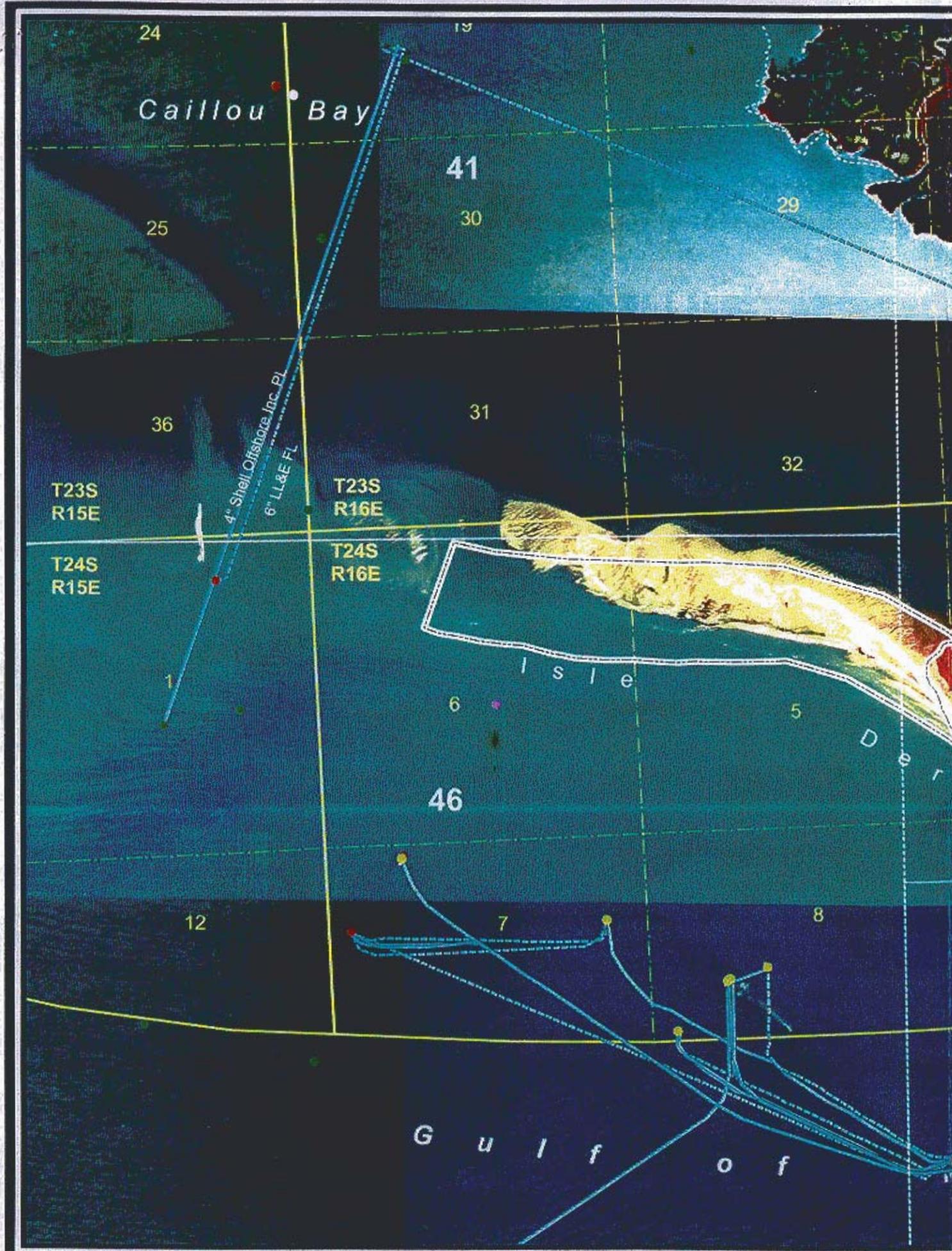
**NOTARY PUBLIC**  
**FREDERICK C. WHITROCK**  
Notary Public  
State of Louisiana  
State Bar Roll #18042  
My Commission Expires At Death

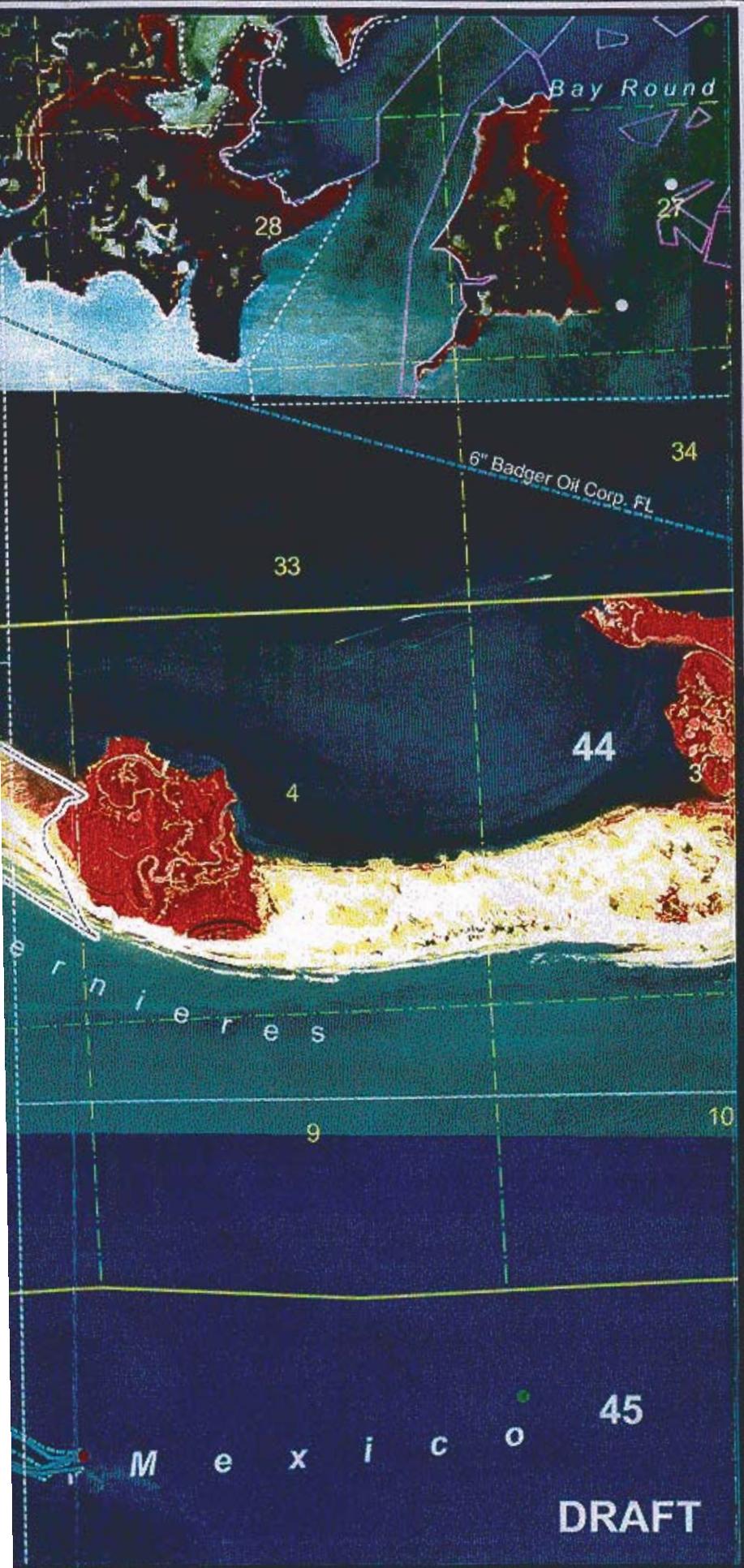
**FREDERICK C. WHITROCK**  
Notary Public  
State of Louisiana  
State Bar Roll #18042  
My Commission Expires At Death

c: DWF: Greg Linscombe  
DNR: Herbert Juneau, Helen Hoffpauir

## List of Exhibits

Exhibit A	Project Area
Exhibit B	Regulations for Isles Dernieres Barrier Islands Refuge
Exhibit C	Project Summary





# Exhibit A

## Ship Shoal: Whiskey West Flank Restoration (TE-47)

Terrebonne Parish, Louisiana

### Legend

-  Project Boundary
-  Township/Range Line
-  Section Line
-  Pipeline (CMD)
-  Flowline (CMD)
-  Oyster lease (04/04)
-  Inactive Well
-  Shut-In Well
-  Active Well
-  Other Well
-  SWD Well
-  Orphan Well
-  Well without status code (Tobin data)

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



Data Source:  
 U.S. Department of the Interior  
 U.S. Geological Survey  
 National Wetlands Research Center  
 Coastal Restoration Field Station  
 Louisiana Department of Natural Resources  
 Coastal Restoration Division  
 Baton Rouge, Louisiana  
 2002 CIR Aerial Photography  
 Map Date: June 30, 2004  
 Map ID: USGS-NWRC 2004-04-01

**DRAFT**

## EXHIBIT B

Louisiana Register Vol. 25, No. 5 May 20, 1999 {PAGE }

### DECLARATION OF EMERGENCY Department of Wildlife and Fisheries Wildlife and Fisheries Commission

Isles Dernieres Barrier Islands Refuge  
(LAC 76:III.321 and 331)

The Wildlife and Fisheries Commission does hereby establish emergency regulations for the management of the Isles Dernieres Barrier Islands Refuge which includes Wine Island, East Island, Trinity Island, Whiskey Island, and Raccoon Island. Formerly, three of these islands, i.e., Wine, Whiskey, and Raccoon Islands, were included within the Terrebonne Barrier Islands Refuge and were regulated under provisions of LAC 76:III.321. By promulgation of this declaration of emergency, the Terrebonne Barrier Islands Refuge regulations found at LAC 76:III.321 are hereby repealed.

A declaration of emergency is necessary to regulate public access to the Isles Dernieres Barrier Islands Refuge in order to ensure that those members of the public utilizing the public use area on Trinity Island enjoy a clean and healthful environment and in order to minimize contact with the numerous species of colonial seabirds that utilize the islands as nesting habitat in the spring and summer months. This declaration of emergency will become effective on May 6, 1999 and shall remain in effect for the maximum period allowed under the Administrative Procedure Act or until adoption of the final rule.

#### Title 76

#### WILDLIFE AND FISHERIES

#### Part III. State Game and Fish Preserves and Sanctuaries

#### Chapter 3. Particular Game and Fish Preserves and Commission

#### §321. Terrebonne Barrier Islands Refuge Repealed.

AUTHORITY NOTE: Promulgated in accordance with R.S. 56:6(18), R.S. 56:761 and R.S. 56:785.

HISTORICAL NOTE: Promulgated by the Department of Wildlife and Fisheries, Wildlife and Fisheries Commission, LR 19:910 (July 1993), repealed LR 25:

#### §331. Isles Dernieres Barrier Islands Refuge

#### A. Regulations for Isles Dernieres Barrier Islands Refuge

1. Regulations for Wine Island, East Island, Whiskey Island, and Raccoon Island a. Public access by any means to the exposed land areas, wetlands and interior waterways of these islands is prohibited.

c. Disturbing, injuring, collecting, or attempting to

Requests to access exposed land areas, wetlands and interior waterways shall be considered on a case-by-case basis and may be permitted by the Secretary or his designee in the interest of conducting research on fauna and flora, of advancing educational pursuits related to barrier islands, or of planning and implementing island restoration projects.

b. Disturbing, injuring, collecting, or attempting to disturb, injure, or collect any flora, fauna, or other property is prohibited, unless expressly permitted in writing by the Secretary or his designee for the uses provided for in Paragraph 1.a. above.

c. Boat traffic is allowed adjacent to the islands in the open waters of the Gulf and bays; however, boat traffic is prohibited in waterways extending into the interior of the islands or within any land-locked open waters or wetlands of the islands.

d. Fishing from boats along the shore and wade fishing in the surf areas of the islands is allowed.

e. Littering on the islands or in Louisiana waters or wetlands is prohibited.

f. Proposals to conduct oil and gas activities, including seismic exploration, shall be considered on a case-by-case basis and may be permitted by the Secretary or his designee, consistent with provisions of the Act of Donation executed by the Louisiana Land and Exploration Company on July 24, 1997.

#### 2. Regulations for Trinity Island

a. Public access is allowed in a designated public use area. An area approximately 3,000 linear feet by 500 linear feet is designated as a public use area, the boundaries of which will be marked and maintained by the Department. The designated public use area shall extend westward from the western boundary of the servitude area reserved by Louisiana Land and Exploration Company in the Act of Donation a distance of approximately 3,000 linear feet and northward from the southern shoreline within this area by a distance of approximately 500 linear feet. Public recreation such as bird-watching, picnicking, fishing and overnight camping is allowed in this area. Travel on or across this area shall be limited to foot or bicycle traffic only. No use of all-terrain vehicles or other vehicles powered by internal combustion engines or electric motors shall be allowed.

b. Public access to all exposed land areas of Trinity Island, other than the public use area, is prohibited. Requests to access these exposed land areas shall be considered on a case-by-case basis and may be permitted by the Secretary or his designee in the interest of conducting research on fauna and flora, of advancing educational pursuits related to barrier islands or of planning and implementing island restoration projects.

disturb, injure, or collect any flora, fauna, or other property is prohibited, unless expressly permitted in

writing by the Secretary or his designee for the uses provided for in Paragraph 2.b. above.

d. Any member of the public utilizing the designated public use area shall be required to have a portable waste disposal container to collect all human wastes and to remove same upon leaving the island. Discharge of human wastes, including that within the disposal container, onto the island or into Louisiana waters or wetlands is prohibited.

e. Littering on the island or in Louisiana waters or wetlands is prohibited.

f. Carrying, possessing, or discharging firearms, fireworks, or explosives in the designated public use area is prohibited.

g. Boat traffic is allowed adjacent to the island in open waters of the Gulf and bays and within the man-made canal commonly known as California Canal for its entire length to its terminus at the bulkhead on the

western end of the canal. No boat traffic is allowed in other man-made or natural waterways extending into the interior of the island or in any land-locked open waters or wetlands of the island.

h. Fishing from boats or wade fishing in the surf areas of the island is allowed.

i. Houseboats may be moored in designated areas along the California Canal. An annual permit shall be required to moor a houseboat in the canal. The required permit may be obtained from the Department of Wildlife and Fisheries New Iberia Office.

j. Proposals to conduct oil and gas activities, including seismic exploration, shall be considered on a case-by-case basis and may be permitted by the Secretary or his designee, consistent with provisions of the Act of Donation executed by the Louisiana Land and Exploration Company on July 24, 1997.

B. Violation of any provision of these regulations shall

be considered a Class Two Violation, as described in R.S.

56:115(D), 56:764, and 56:787.

AUTHORITY NOTE: Promulgated in accordance with R.S.

56:6(18), R.S. 56:109, and R.S. 56:781 et seq.

HISTORICAL NOTE: Promulgated by the Department of Wildlife and Fisheries, Wildlife and Fisheries Commission, LR 25:

Bill A. Busbice, Jr.  
Chairman

9905#041

## Exhibit "C"

### Project Summary

#### Ship Shoal – Whiskey Island West Flank Project TE-47 Terrebonne Parish, Louisiana

##### Location

The project is located on Whiskey Island, a barrier island in the Isles Dernieres chain in south Terrebonne Parish, Louisiana. The Whiskey West Flank project will extend Whiskey Island westward.

##### Problems

The Isles Dernieres barrier island chain, which is considered one of the most rapidly deteriorating barrier shorelines in the United States, is losing its structural functions for the coastal/estuarine ecosystem. Chief among these is the chain's storm buffering capacity and the protection it provides human populations, oil and gas infrastructure, inland bays, estuaries, and wetlands. Chain breakup has resulted from both major storm actions and, due to human alterations, the loss of nourishing sediment from the natural system.

Whiskey Island changes from 1978 to 1988 include the average loss of 31.1 acres per year.

##### Restoration Strategy

The project's objectives include: 1) restoring the integrity of the west flank of Whiskey Island to retain its structural function; 2) adding new offshore sediment into the west flank; and 3) restoring roughly 387 acres of barrier island habitat into the island's western flank.

One approach to the problem includes mining and importing offshore Ship Shoal sediment into the Louisiana coastal ecosystem to increase the sediment supply and strengthen island formation. Other approaches involve rebuilding the natural structural framework within the coastal ecosystem to provide for separation of the gulf and the estuary, and creating a continuous protective barrier for back bays and inland marshes to reduce wave energies, thereby helping to reduce land loss and restore the longshore transport system. One final approach towards meeting these goals is to provide a unique and sustainable barrier island habitat for numerous biological species, several of which are endangered, in areas that are presently open water.

Ship Shoal sand would be mined by a cutterhead hydraulic dredge and/or hopper dredge. It would then be transported approximately 8 miles to Whiskey Island. Restored areas will include: 1) 52 acres of 7-foot high, 150-foot wide dunes; 2) 114 acres of above-tide habitat at an elevation of 4 feet; 3) 208 acres of intertidal habitat at an elevation of 2 feet; 4) 8 acres of subtidal habitat. All areas will be planted and have sand fencing placed in order to trap wind-blown sediment.

Details for pipes and booster pumps or additional equipment for hopper dredge operations will be analyzed during engineering and design. Conventional equipment is expected to be used for earth moving to obtain island design elevations, widths, and slopes. Approximate design features for the west flank restoration include beach platform, dune, and marsh platform.

Maintenance is not proposed for this project. If a disastrous storm event should cause significant damage, a restoration project would be proposed.

### **Progress to Date**

This project was selected for Phase I (engineering and design) funding at the January 2002 Breaux Act Task Force meeting. It is included as part of Priority Project List 11.



REPLY TO  
ATTENTION OF

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

RECEIVED

2006 NOV 30 AM 6:53

COASTAL RESTORATION  
DIVISION

NOV 27 2006

Office of Counsel

Mr. William K. Honker  
United States Environmental Protection Agency  
Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733

Dear Mr. Honker:

We have reviewed your request for Section 303(e) approval for the Ship Shoal: Whiskey West Flank Restoration Project TE-47, Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA).

Our Office of Counsel has examined the October 17, 2005, package for this project. The package includes a letter of no objection from the State Land Office and a letter agreement between the Louisiana Department of Natural Resources (DNR) and the Louisiana Department of Wildlife and Fisheries (DWF) as well as an overgrazing determination from the Natural Resources Conservation Service.

Please be advised that prior to construction of the project, appropriate land rights, subject to such terms and conditions as necessary to ensure that wetlands restored, enhanced or managed through this project will be administered for the long-term conservation of the lands and waters and the dependent fish and wildlife populations, must be acquired from all persons or entities with ownership or other property interests of affected land, including oyster leaseholders whose leases will be adversely affected by the project.

If any existing pipeline or utility will be adversely affected by the project, requiring any relocation, alteration, or lowering of the pipeline, the appropriate land rights must be acquired from the owners of such facilities, including the subordination of their rights, title, and interests in their facilities to the interests necessary for the construction, operation and maintenance of the CWPPRA project.

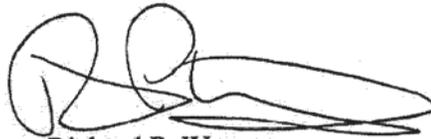
Additionally, please note that the letter agreement includes an indemnification clause. This indemnification responsibility cannot be passed on to the United States, including The Environmental Protection Agency or any other federal agency. Therefore, by accepting this indemnification clause, DNR is accepting all associated risks.

We further note that the letter agreement sets forth a 20 year term. If it is deemed necessary to extend this term in order to meet the long-term conservation objectives, you will need to coordinate such extension with DNR.

We also have considered the determination that overgrazing does not occur on the project lands or lands affected thereby. If overgrazing should occur in the future, a grazing plan must be established for the project.

Accordingly, by the authority delegated to me by the Secretary of the Army, and given compliance with the provisions set forth above, I approve the project in accordance with Section 303(e) of CWPPRA.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Wagenaar', written over a horizontal line.

Richard P. Wagenaar  
Colonel, U.S. Army  
District Commander

Copies Furnished:

✓ Ms. Helen Hoffpauir  
Coastal Restoration Division  
Louisiana Department of Natural Resources  
Post Office Box 44027  
Baton Rouge, LA 70804-4027

Mr. William Rhinehart  
Coastal Restoration Division  
Louisiana Department of Natural Resources  
Post Office Box 44027  
Baton Rouge, LA 70804-4027

Enclosure G:

Overgrazing Determination



Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

August 26, 2005

Mr. Brad Crawford  
Environmental Protection Agency  
Region VI  
Water Quality Protection Division (6WQ-EMC)  
1445 Ross Avenue  
Dallas, Texas 75202-2733

Dear Mr. Crawford:

RE: Ship Shoal: Whiskey West Flank Restoration (TE-47)

I am in receipt of your request for an overgrazing determination for the Ship Shoal: Whiskey West Flank Restoration (TE-47). I contacted our local district conservationist and our state resource conservationist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

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

W. Britt Paul  
Assistant State Conservationist  
for Water Resources and Rural Development

cc: Randolph Joseph, Area Conservationist, NRCS, Lafayette, Louisiana  
Michael Trusclair, District Conservationist, NRCS, Thibodaux, Louisiana  
Johanna Patc, State Grazing Lands Specialist, NRCS, Alexandria, Louisiana  
John Jurgensen, Civil Engineer, NRCS, Alexandria, Louisiana

Enclosure H:

Fully Funded Cost Estimate, including cost schedule

Enclosure I:

Revised Wetland Value Assessment (WVA) and AAHU calculations

Enclosure J:

Finding of No Significant Impact (FONSI)



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

December 1, 2005

## FINDING OF NO SIGNIFICANT IMPACT

### To All Interested Agencies and Public Groups:

In accordance with the environmental review guidelines of the Council on Environmental Quality at 40 Code of Federal Regulations Part 1500, the U.S. Environmental Protection Agency (EPA) has performed a Supplemental Environmental Assessment for the following proposed action under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) of November 1990, House Document 646, 101<sup>st</sup> Congress (Public Law 101-646).

**Project Name:** Ship Shoal Whiskey Island West Flank Restoration (TE-47)

**Sponsors:** U.S. Environmental Protection Agency, Region 6  
Louisiana Department of Natural Resources

<u>Total estimated funding</u>	\$42,175,800
Phase 1 (Engineering and Design) funding	\$ 2,999,000
Phase 2 (Construction) funding	\$39,176,800

**Location:** The proposed project is located on Whiskey Island in the Isles Dernieres Barrier Island chain, centered at approximate coordinates 29° 03' 45" north latitude, and 90° 49' 41" west longitude. The proposed sand borrow site is located approximately 10 miles south-southwest of Whiskey Island in the Gulf of Mexico, entirely within Block 88 of Ship Shoal.

**Introduction.** The EPA prepared an Environmental Assessment (EA) in December 1993 for the restoration of Isles Dernieres Barrier Island which included Racoon Island, Whiskey Island, Trinity Island and East Island. On September 4, 1997, EPA issued an addendum to the EA and a Finding of No Significant Impact (FNSI) for the Whiskey Island Barrier Island Restoration and Coastal Wetland Creation (TE-27) project, addressing the direct creation of approximately 355 acres (ac) of emergent marsh platform, and four major breach closures, including the Coupe Nouvelle. The Statement of Findings was issued on November 6, 1997. In April 2004, the U.S. Department of the Interior, Minerals Management Service (MMS), prepared an EA analyzing the proposed action to dredge sand within Block 88 in the Ship Shoal area for placement on the west flank of Whiskey Island (TE-47). Based on the EA, the MMS concluded that the proposed action would not significantly affect the quality of the human environment and that preparation of an Environmental Impact Statement (EIS) was not warranted.

**Proposed Action.** The objective of project TE-47 is to continue the restoration of Isles Dernieres. Offshore Ship Shoal sand would be excavated and transported a distance of

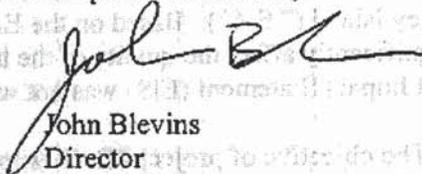
approximately 10 miles to restore the west flank of Whiskey Island. The restoration includes a 600-foot (ft) wide berm at +3 ft North American Vertical Datum of 1988 (NAVD), and 300-ft wide at +6 ft NAVD, and will require about 2.8 million cubic yards (cy) of sand. There is an existing east flank restoration area which includes a 450-ft wide berm at +3 ft NAVD, and a 100-ft wide dune transitioning from the west flank's +6 ft NAVD to the east flank's +4 ft NAVD. Approximately 1.1 million cy of sand will be required for the transition. The existing back barrier marsh habitat will be protected during the transition into the adjacent east dune to mitigate overwash-breaching (i.e., western marsh lobe) and to retain the island structural function.

After the construction, the west flank would be restored to approximately 415 ac of intertidal, supratidal, and dune habitat, and the extension to the east would be restored to approximately 85 ac of additional intertidal, supratidal, and dune habitat, for a total of 500 ac. The total benefits from the project would be the direct creation of approximately 85 ac of dune platform, a net increase of 98 ac of supratidal and a net increase of 131 ac of intertidal habitats. All areas will be planted and sand fencing placed to trap wind-blown sediment.

The proposed TE-47 project is part of and consistent with the Louisiana Coastal Wetlands Conservation and Restoration Task Force, and the Wetlands Conservation and Restoration Authority ecosystem strategy to restore barrier islands and gulf shorelines. CWPPRA provides Federal funds for planning and implementing projects that create, protect, restore and enhance wetlands in coastal Louisiana. Under CWPPRA, the project cost is shared by the Federal sponsoring agency and the State of Louisiana. The Federal government provides 85 percent of the project cost and the Louisiana Department of Natural Resources (LDNR) provides the remaining 15 percent.

**Finding.** On the basis of this Supplemental EA performed by the EPA of the proposed project, and other findings and available information, the Regional Administrator has determined that the proposed project is not a major Federal action significantly adversely affecting the quality of the human environment, and that preparation of an EIS is not warranted. This preliminary FNSI will become final 30 days after the issuance of the public notice if no new information is received to alter this finding. No administrative action will be taken on this decision during the 30-day comment period. Comments regarding this preliminary decision not to prepare an EIS, requests for copies of the EA, or review of the Administrative Record containing the information supporting this decision, may be submitted in writing to the U.S. Environmental Protection Agency, Office of Planning and Coordination (6EN-XP); 1445 Ross Avenue, Suite 1200; Dallas, Texas 75202-2733, or by telephone at (214) 665-8150.

Responsible Official,



John Blevins

Director

Compliance Assurance  
and Enforcement Division

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, 2012

## Project Management Team

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



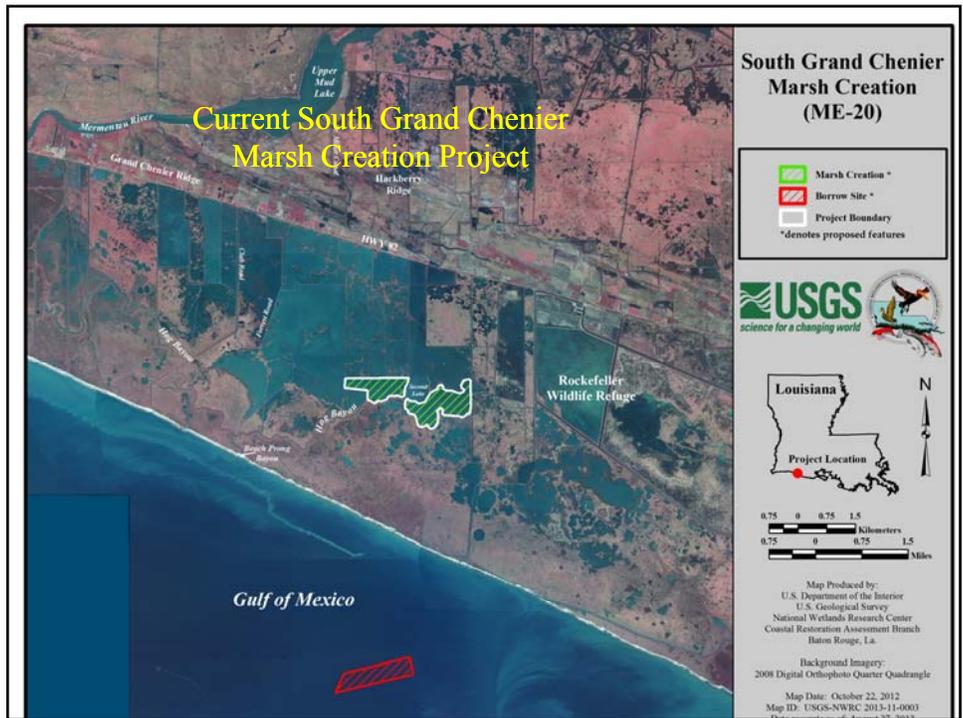
## Project Background

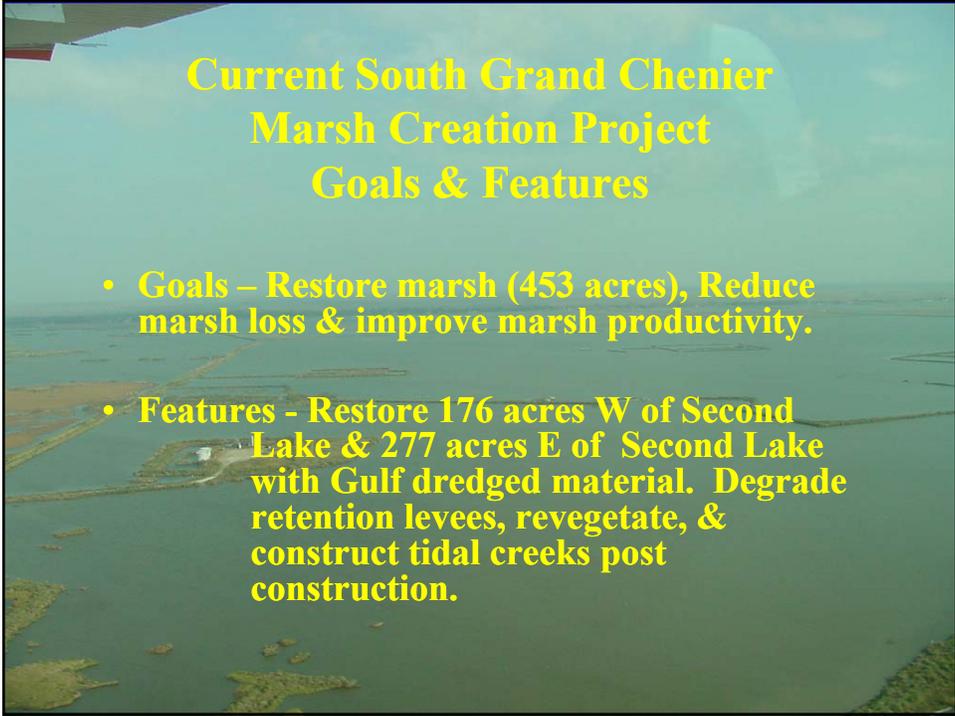
- Phase I approved – January 2002.
- Modest scope change to remove Area A freshwater introduction component – Nov. 2009.
- Construction funding approval – Jan. 2010.
- Funding returned due to landrights issues – Jan. 2012.
- Landrights issues resolved - April 2012
- Scope change to remove freshwater 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 = -0.16%/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
2009 Revised Project	415	291	\$29.04 M	\$69,991/acre
Current Project	427	184	\$21.9 M	\$51,366/acre
Current Phase II Increment Request			\$19,232,723	

## Why Fund So. Grand Chenier Now

- Ranks 1<sup>st</sup> of Phase II projects in cost effectiveness (\$51,366/acre; \$8,900/AAHU).
- Restores 453 acres initially; 427 acres over 20 years.
- Restores & protects eastern part of Hog Bayou Watershed with significant historic land loss.
- Helps mitigate Hurricanes Rita & Ike marsh damages to Hog Bayou Watershed.
- 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 28, 2012

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 Bayou Bonfouca Marsh Creation Project (PO-104), the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72), and the South Grand Chenier Marsh Creation Project (ME-20) for Phase 2 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 20<sup>th</sup> Priority Project List (PPL), the 19<sup>th</sup> PPL, and the 11<sup>th</sup> PPL, 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 ME-20 project has received a favorable National Environmental Policy Act (NEPA) review and we anticipate favorable NEPA reviews for the PO-104 and TE-72 projects 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  
Kirk Rhinehart, 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  
Paul Kaspar, EPA, Dallas, TX  
Andrew Beall, LA CPRA, Baton Rouge, LA

## **South Grand Chenier Marsh Creation Project (ME-20)**

### **Phase II Authorization Request Information**

November 28, 2012

#### **Phase I Project Description**

The project was approved for Phase I by the Task Force on January 16, 2002, as part of Priority Project List 11. It was slightly revised in November 2009 to remove the western fresh water introduction feature and was approved for construction funding in January 2010. Construction funding was returned in January 2012 due to landrights difficulties which have been overcome.

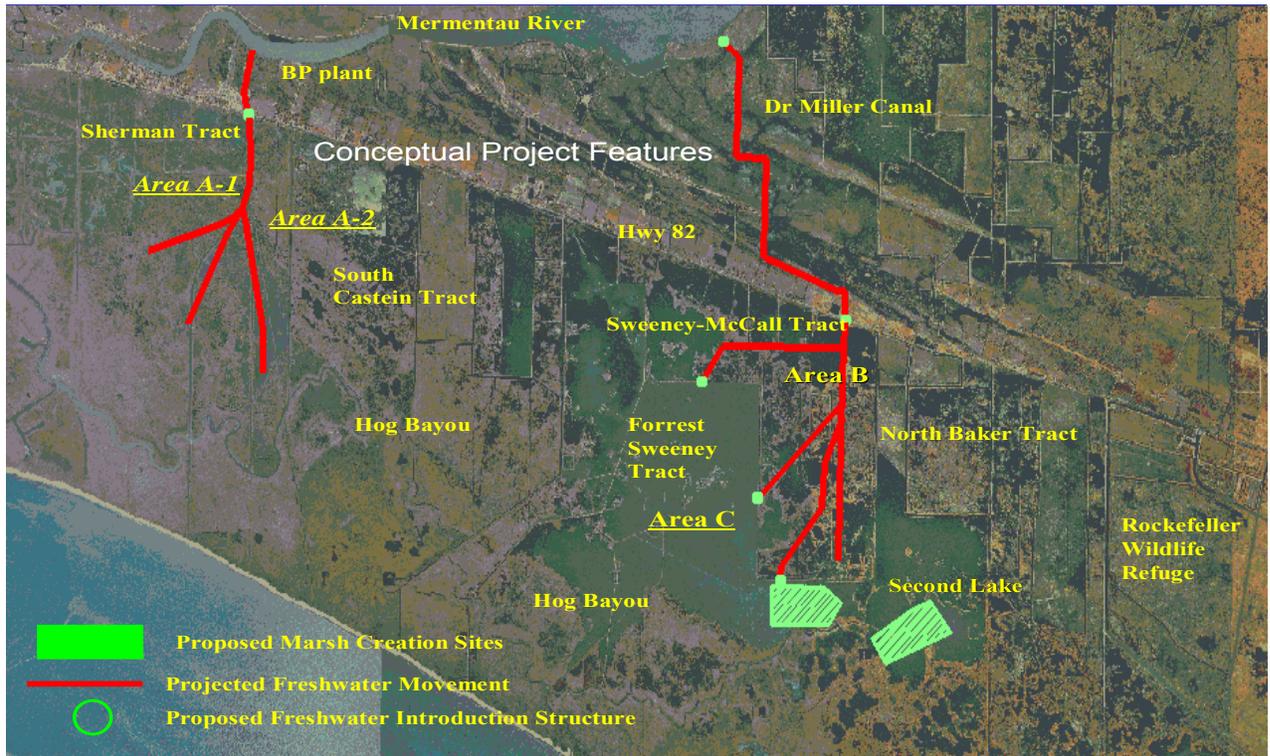
The Fish and Wildlife Service (FWS) and State Coastal Protection and Restoration Authority (CPRA) revised the project to remove the fresh water introduction component due to feasibility and change the name to, "South Grand Chenier Marsh Creation" in November 2012.

The Phase I project's goals were to, 1) nourish or enhance emergent marshes south of Highway 82 (Hwy 82) with fresh water, nutrients, and sediment via fresh water from the Mermentau River, and 2) restore marsh via dedicated dredging from the Gulf of Mexico.

The conceptual project consisted of fresh water introduction from the Mermentau River at two locations, the BP Plant and the Dr. Miller Canal, to brackish marshes south of Hwy 82 and marsh restoration using dredged material from either Gulf of Mexico or Upper Mud Lake borrow sites. That conceptual plan proposed to restore approximately 400 acres from dredged material placement and nourish or enhance an additional 4,000 acres of emergent marsh through fresh water introduction (Figure 1).

The original project components resulted in 440 net acres and 322 Average Annual Habitat Units (AAHUs) benefitting intermediate and brackish marsh over the 20-year project life. The original project fully funded cost was \$20,998,000.

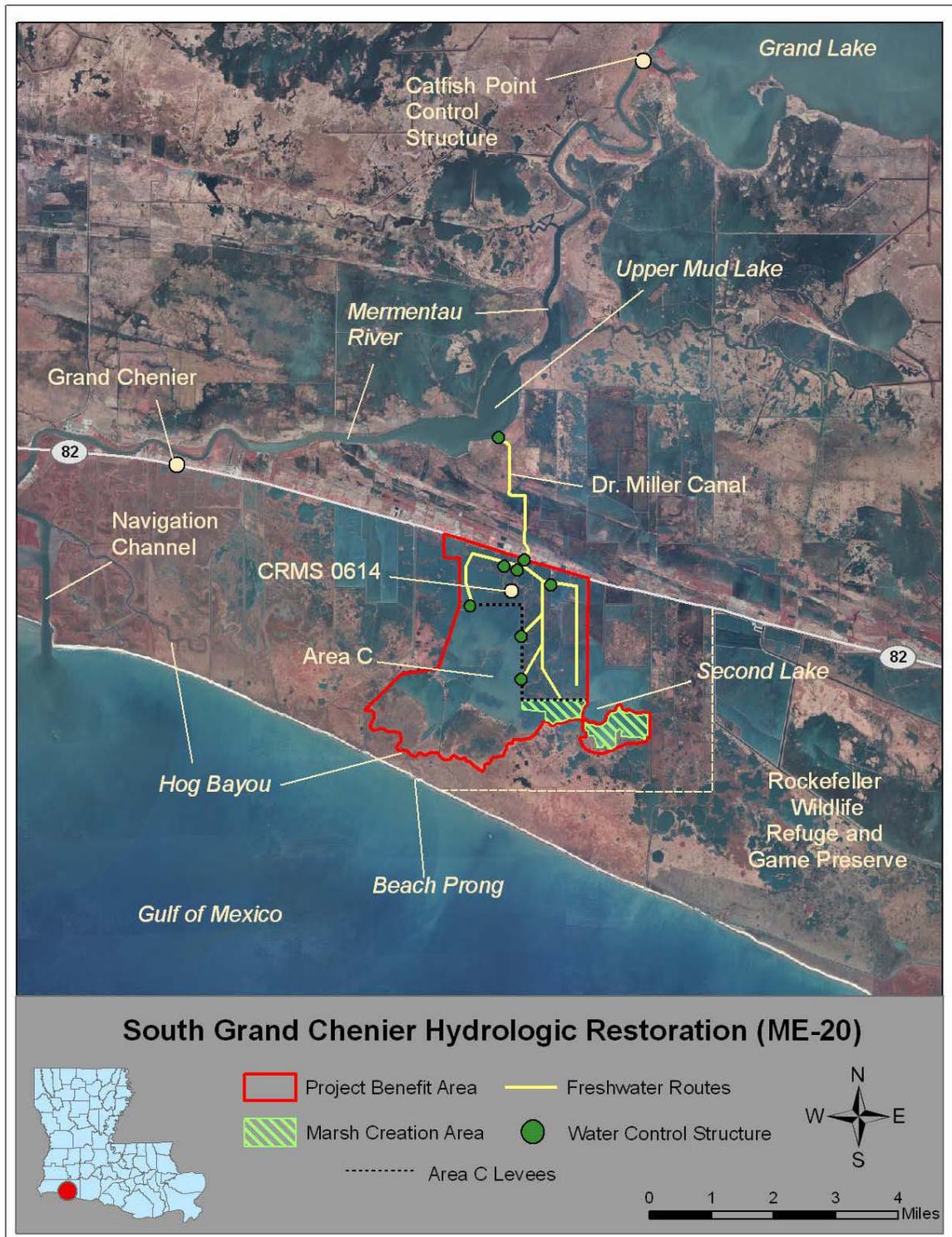
**Figure 1: South Grand Chenier Hydrologic Restoration Conceptual Project Features.**



### **2009 Revised Project Description**

The 2009 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 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: South Grand Chenier Hydrologic Restoration Project 2009 Revised Features.**



2012 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 planned two to four 48 inch-diameter culverts through the Grand Chenier ridge and under Hwy 82 were replaced with four 42 inch-diameter culverts in the 2009 revision, due to the need to maintain sufficient cover between the culverts and the highway. Surveys indicated that one existing pipeline would be crossed by the Dr. Miller Canal enlargement feature and two others would be crossed by the proposed fresh water introduction culverts. Pipeline crossing tolerances and specifications are included in the final designs. However, the fresh water introduction feature has been eliminated due to feasibility, cost effectiveness, and landrights issues.

A Gulf of Mexico borrow area was chosen vs. an Upper Mud Lake borrow because of less distance, fewer landowners, and because it does not cross Hwy 82. Wave analyses of the proposed Gulf borrow sites indicated only moderate impacts to the Gulf shoreline. The U. S. Army Corps of Engineers Engineer Research Development Center (ERDC) dredged material model predicted quantities and slurry heights needed for the two marsh restoration areas. Geotechnical and surveying information indicated that soil conditions and water depths were favorable for construction of the project features as planned.

The revised 2009 \$29 M project, containing fresh water introduction and marsh creation features, received Task Force construction funding approval in January 2010 (Figure 2). 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 requested Technical Committee and Task Force approval for a project scope and name change to remove the fresh water introduction component, and change the name to, “South Grand Chenier Marsh Creation” (Figure 3, Table 1). The budget decreased to \$21,933,085 (-25%) and the benefits decreased to 184 Average Annual Habitat Units (although the net acres increased slightly to 427 acres) from the 2009 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).

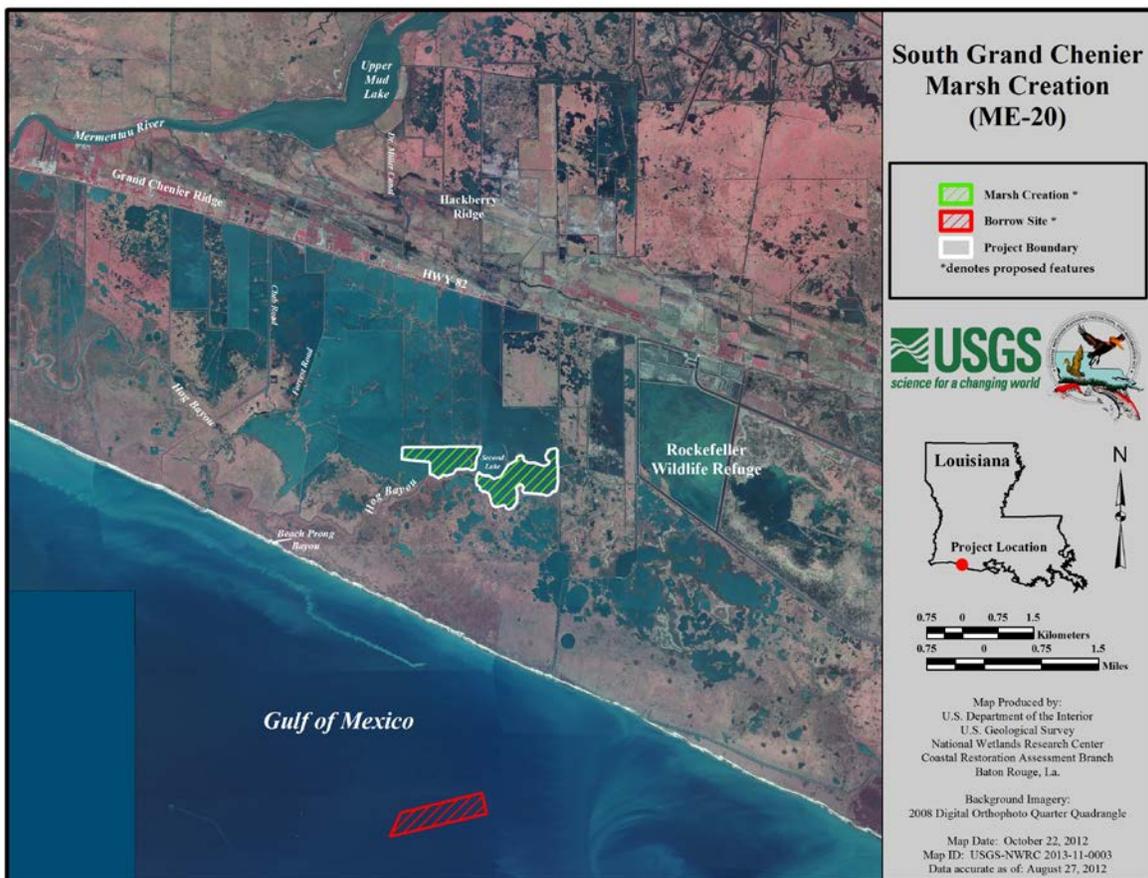
**Table 1: 2009 Project vs. Current Project Costs and Benefits.**

	<b>2009 Revised Project</b>	<b>Current Revised Project</b>	<b>Increase/Decrease</b>
Fully-funded Cost	\$29,046,128	\$21,933,085	- 25%
Net Acres Year 20	415	427	+ 3%
AAHU's	290.99	184	- 37%

**Current Revised Project Description**

The current project features the restoration of 453 acres of marsh 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 3).

**Figure 3: Current South Grand Chenier Marsh Creation Revised Project.**



## 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 marsh in shallow open water areas initially, and 427 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 402 acres of brackish marsh from shallow open water and nourishment of 51 acres of marsh (total 453 acres) in two cells (176 and 277 acres) via 1.55 M cubic yards of dredged material from a Gulf of Mexico borrow site.
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 and Revised Project Features**

Strategies/Features	2009 Project	Current Revised Project
A. Salinity reduction, nutrient and sediment introduction	1.) Fresh water introduction to target marshes via the Dr. Miller Canal.	1.) Fresh water introduction feature removed.
B. Marsh restoration via dredged material	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 contaminates 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 \$ 21,933,085. This represents a 25 percent decrease (- \$7,113,043) over the 2009 revised cost estimate (\$29,046,128) (See attached Request of Phase II Cost Estimate Table).

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

A 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 revised WVA yielded 427 net acres and 184 AAHUs (Table 3).

**Table 3: Comparison of Revised and Current Wetland Value Assessments**

<b>Project Phase</b>	<b>Net Acres</b>	<b>Average Annual Habitat Units (AAHUs)</b>
Candidate Project	440	322
Phase II Revised Project	415	291
Current Revised Project	427	184
Difference	+ 3%	- 37%

### **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 **\$19,232,723**. That amount includes \$13,976,545 for construction; \$378,346 for supervision and inspection; \$3,494,136 for contingencies; \$349,414 for Federal sponsor administration and \$349,414 for State administration; \$52,244 for monitoring (3 years); \$594,883 for operations and maintenance (3 years); and \$5,508 for Corps project management (See attached Request for Phase II Approval Cost Estimate Table).

DC 11-28-12

# Venice Ponds Marsh Creation & Crevasses (MR-15)

# Venice Ponds Marsh Creation and Crevasses (MR-15)

## Phase II Request

December 12, 2012

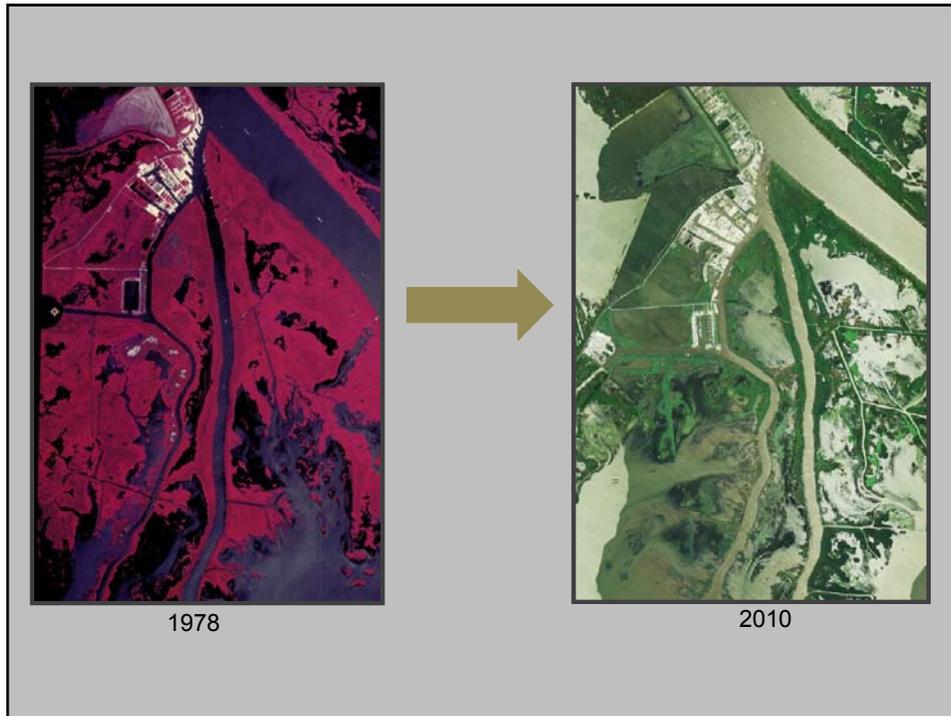


## Project Background

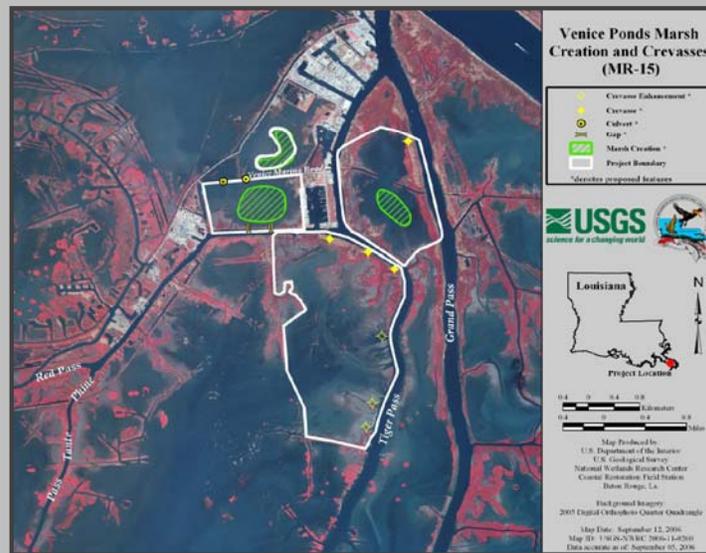
**Location:** Region 2, Mississippi River Delta Basin, Plaquemines Parish, adjacent to Venice, Louisiana

**Problem:** The project is within the West Bay mapping unit from the Coast 2050 report. The mapping unit lost approximately 87 percent of its land from 1932 to 1990. It is estimated that without restoration efforts, more than 91 percent of the remaining land will be lost by the year 2050.

**Goal:** The goal of this project is to create, nourish and maintain wetlands adjacent to Grand Pass and Tiger Pass



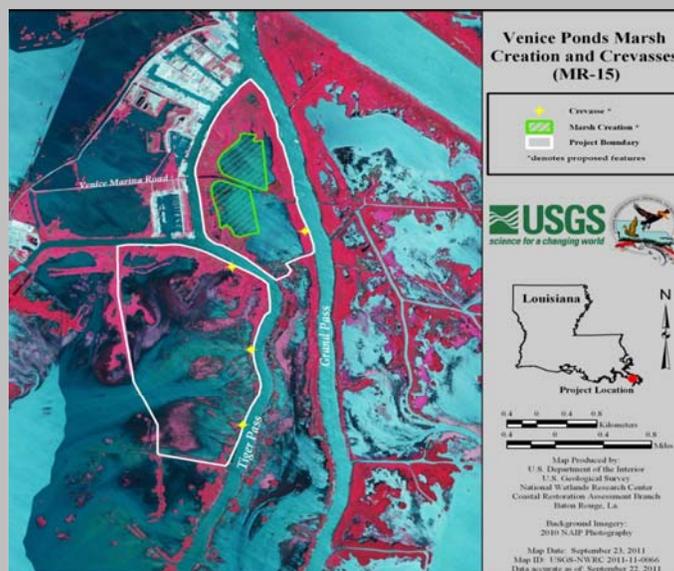
## Phase One Approved Design



## Change in Project Scope

1. More than 25% increase in total project cost
  - Construction cost estimates outdated (Estimates made in 2005)
    - ↑ in unit cost (96% ↑)
    - ↑ mob/demob (466% ↑)
2. Change in project features
  - 178 ac of marsh creation with unconfined dredged material  
-VS-
  - 190 ac marsh creation with confined dredged material
  - Create three crevasses and enhance three crevasses on Tiger Pass  
-VS-
  - Create one crevasse and enhance two crevasses on Tiger Pass
3. Change in Benefits

## Phase Two Candidate Project



## Project Features

1. Approx. 190 acres of marsh creation with dredged material
2. Create one crevasse on Grand Pass
3. Create one crevasse and enhance two crevasses on Tiger Pass
4. Plant 4,025 bald cypress trees
5. O&M including tallow control and crevasse cleanout
6. Environmental Monitoring

The Fully Funded Cost for the project is: \$22,187,123

Phase 2 Request is: \$19,935,800

## Questions?





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

November 26, 2012

Mr. Thomas A. Holden  
Deputy District Engineer  
U.S. Army Corps of Engineers  
New Orleans District  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

RE: Venice Ponds Marsh Creation and Crevasses Project (MR-15)  
Request for Phase II Construction Authorization

Dear Mr. Holden;

The U.S. Environmental Protection Agency (EPA) and Louisiana Coastal Protection and Restoration Authority (CPRA), hereby request approval to begin construction of the Venice Ponds Marsh Creation and Crevasses Project (MR-15). This project was authorized in January 2006 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). This is the second Phase II funding request submittal for this project. This request is submitted in accordance with the CWPPRA Project Standard Operating Manual (SOP).

Enclosed please find all of the information required for Phase II construction funding request and approval, pursuant to Appendix C of the SOP. If you have any questions or need additional information about this project, please contact Chris Llewellyn 214-665-7239.

Sincerely,

A handwritten signature in black ink, appearing to read "Karen McCormick", written over a horizontal line.

Karen McCormick  
Chief  
Marine and Coastal Section

Enclosures

cc: Mr. Brad Inman, USACE  
Mr. Darryl Clark, USFWS  
Mr. Richard Hartman, NMFS  
Mr. Britt Paul, NRCS  
Mr. Kirk Rhinehart, CPRA  
Mr. Kevin Roy, USFWS  
Ms. Rachel Sweeney, NMFS  
Mr. John Jurgensen, NRCS  
Mr. Chris Allen, CPRA  
Mr. Brad Miller, CPRA

The following tasks were completed during Phase I:

1. Interagency kickoff meeting and field trip
2. Final Cost Share Agreement executed between EPA and CPRA
3. Preliminary landrights
4. Topographic, bathymetric, and magnetometer survey
5. Geotechnical investigation of the proposed features
6. 30% design review
7. 95% design review
8. Environmental Assessment
9. Final construction cost estimate
10. Section 404 Permit application submitted
11. Cultural resources clearance
12. Section 303(e) certification submitted

During geotechnical investigations, equipment availability was difficult due to equipment demand brought on by the Deepwater Horizon oil spill. Despite the delay, project design reviews remained on schedule in order to request Phase II funding. Due to an increase in the overall cost estimate and significant changes to project features since Phase 0, a scope change was requested and approved through CWPPRA. EPA and CPRA requested information on cultural resources from the Louisiana State Historic Preservation Office (SHPO). The SHPO determined that there were no cultural resource areas within the project area. An oyster lease search discovered no leases within the project area. A search of the EPA and LDEQ Hazardous, Toxic and Radiological Waste (HTRW) found no HTRWs in the project area. EPA has completed an Environmental Assessment (EA) for the project. The document has been released for public comment and a Finding of No Significant Impact (FONSI) will be completed if no significant comments are made. We do not anticipate any significant comments due to the level of interagency coordination that occurs during the CWPPRA process.

**Description of Phase II Candidate project** – The overall project objectives as enumerated in the 95% E&D report are:

- I. Create emergent marsh habitat between Grand Pass and Tiger Pass
- II. Create, maintain and nourish marsh along Grand Pass and Tiger Pass with crevasses

The marsh creation with dredged material fill areas changed from the original Phase One request. The original Phase 1 approved design included three, unconfined fill areas and hydrologic modifications. Due to the inability to acquire land rights, two fill areas and the hydrologic modifications were removed from the project. The third area was expanded. This fill area is now divided into two separate fill areas, encompassing a total of approximately 190 acres. Each fill area will be surrounded by a containment dike that will be gapped 50 ft wide every 500 ft along the length of the containment dike following completion of construction to allow for hydrologic connectivity and fishery access. A tidal creek will also be constructed in the northern fill area to facilitate hydrologic connectivity and fishery access.

Following comments received during the 30% Design Review, design criteria was established to ensure the crevasses proposed would have the greatest likelihood of success. These criteria were based on previous research conducted in the Delta on crevasses. This resulted in a reduction in the number of crevasses originally approved for Phase One. A crevasse will be created on Grand Pass that will help create marsh and nourish the existing and created marsh acreage. Another crevasse will be created on Tiger Pass and two existing crevasses will be enhanced. Enhancement of existing crevasses will deepen and lengthen the existing crevasses.

Bald cypress trees will be planted along the southern bank of the Grand Pass crevasses and the western boundary of the marsh fill areas. 125 25-gallon cypress trees will be planted along the Grand Pass

- C. *Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase 2 approval.*

A landrights agreement will be finalized in a short period of time after Phase 2 approval.

- D. *A favorable Preliminary Design Review (30% Design Level).*

A favorable 30% design review was held on June 29, 2011, in Baton Rouge, Louisiana. Attendees included representatives from state and federal CWPPRA agencies. CPRA concurred with EPAs intent to proceed to 95% (Enclosure C).

- E. *Final Project Design Review (95% Design Level).*

A favorable 95% design review was held on October 25, 2011. Attendees included representatives from state and federal CWPPRA agencies. All attendee comments and questions were addressed in the final design report and cost estimate. In an email dated November 29, 2011, EPA and CPRA informed the Technical Committee of the results of the 95% design review and our intent to move forward with this project (Enclosure D).

- F. *A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act, must be submitted two weeks before the Technical Committee meeting at which Phase 2 approval is requested.*

An Environmental Assessment for this project was completed and posted for public comment on November 29, 2011 in the CWPPRA Newsflash, The Times-Picayune and the Plaquemines Gazette. The comment deadline was January 13, 2011. A final Environmental Assessment is pending a decision on several comments that will affect the layout of the borrow area in Grand Pass.

- G. *A written summary of the findings of the Ecological Review if completed.*

No Ecological Review was required for this project.

- H. *Application for and/or issuance of the public notices for permits at least two weeks before the Technical Committee meeting at which Phase 2 approval is requested.*

CPRA has filed a joint permit application for this project (LDNR/CMD, LDEQ, USACE) on November 28, 2011. CPRA has also received a dredging license from LDWF for this project (Enclosure E).

- I. *A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.*

EPA and Louisiana Department of Environmental Quality databases were reviewed to determine the potential for hazardous, toxic and radiological waste (HTRW) sites within the project area. No HTRW sites were found inside the project area or alternative alignments, including the borrow area. Based on this information, EPA Region 6 has determined that a HTRW assessment is not needed for this project.

- J. *Section 303(e) approval from the Corps.*

A 303(e) certification request was submitted to the Corps October 4, 2011. The project is still awaiting certification approval from the Corps (Enclosure F).

*K. Overgrazing determination from the NRCS (if necessary).*

An overgrazing determination was received from NRCS (Enclosure G). NRCS has determined that overgrazing is not, and is not anticipated to be, a problem in the project area.

*L. Revised fully funded cost estimate, reviewed and approved by the Engineering Work Group prior to the fully funding by the Economic Work Group, based on the revised Project design and the specific Phase 2 funding request as outlined in the below spreadsheet.*

A revised fully funded cost estimate has been approved by the economic workgroup and a spending schedule based on the five subcategories has been created as well (Enclosure H).

*M. A Wetland Value Assessment, reviewed and approved by the Environmental Work Group.*

The Environmental Work Group has reviewed and approved a final Wetland Value Assessment (WVA) for the Venice Ponds Marsh Creation and Crevasses (MR-15) project. A copy of the WVA and the Average Annual Habitat Unit (AAHU) calculations are enclosed (Enclosure I).

## ENCLOSURES

- Enclosure A: Phase 1 Approved Fact Sheet and Map
- Enclosure B: Phase 2 Request Fact Sheet and Map
- Enclosure C: Letter from CPRA concurring with EPA on favorable conclusion of 30% Design and desire to proceed to 95% Design
- Enclosure D: Letter from CPRA concurring with EPA on favorable conclusion of 95% Design and desire to proceed to Phase II Request
- Enclosure E: Permit Applications
- Enclosure F: 303(e) Certification Package submitted to U.S. Army Corps of Engineers
- Enclosure G: Overgrazing Determination
- Enclosure H: Fully Funded Cost Estimate, including cost schedule
- Enclosure I: Revised Wetland Value Assessment (WVA) and AAHU calculations

Enclosure A: Phase 1 Approved Fact Sheet and Map



# Venice Ponds Marsh Creation and Crevasses (MR-15)

## Project Status

**Approved Date:** 2006      **Project Area:** 1,944 acres  
**Approved Funds:** \$1.07 M      **Total Est. Cost:** \$8.99 M  
**Net Benefit After 20 Years:** 511 acres  
**Status:** Engineering and Design  
**Project Type:** Marsh Creation and Water Diversion

## Location

The project area is located in the Mississippi River Delta Basin in Plaquemines Parish south of Venice, Louisiana, adjacent to the Red, Tiger, and Grand Passes.

## Problems

Between 1932 and 1974, the mapping unit lost 38,400 of 59,640 acres of marsh as a result of subsidence, tropical storm activity, canal creation and maintenance, and hydrologic modification. Between 1974 and 1990, another 13,260 acres of land was lost. It is estimated that without restoration efforts, more than 91 percent of the remaining land will be lost by the year 2050.



Dredged material will be pumped into the open-water area in the center of the photograph, as well as two other areas seen in the background. Part of the town of Venice, Louisiana, is visible between the marsh creation areas. This picture was taken prior to Hurricane Katrina, which caused extensive damage.

## Restoration Strategy

The project will create marsh in open water areas that were nearly solid wetlands in 1956 by depositing material acquired through dedicated dredging and by constructing crevasses. It is anticipated that 178 acres of marsh will be created by hydraulically dredging material from Grand and Tiger Passes. The dredged material will be pumped into open water areas without the use of containment dikes. Existing marsh boundaries will aid in the retention of dredged material and the re-establishment of marsh habitat. Four crevasses will be constructed to convey the sediment-laden waters of Grand and Tiger Passes into the benefitted areas. Three existing crevasses off of Tiger Pass will be enhanced through bifurcation dredging (splitting the crevasses' delivery channels into "Y" shapes to more closely mimic natural river processes). Two sets of two 36-inch diameter culverts will be installed under Venice Marina Road, thereby increasing the hydrologic connection between the areas divided by the road. Two gaps will also be installed between Pass Tante Phine and the adjacent project site, thereby increasing hydrologic connectivity.

## Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design at their February 2006 meeting.

This project is on Priority Project List 15.

*For more project information, please contact:*



### Federal Sponsors:

U.S. Army Corps of Engineers  
 New Orleans, La.  
 (504) 862-1597



U.S. Environmental Protection Agency  
 Dallas, Tex.  
 (214) 665-7255



### Local Sponsor:

Louisiana Department of Natural Resources  
 Baton Rouge, La.  
 (225) 342-7308

# Venice Ponds Marsh Creation and Crevasse (MR-15)

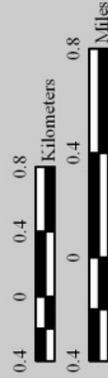
- Crevasse Enhancement \*
- Crevasse \*
- Culvert \*
- Gap \*
- Marsh Creation \*
- Project Boundary



\*denotes proposed features



Project Location



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

Background Imagery:  
2005 Digital Orthophoto Quarter Quadrangle

Map Date: September 12, 2006  
Map ID: USGS-NWRC 2006-11-0260  
Data accurate as of: September 05, 2006



Enclosure B: Phase 2 Request Fact Sheet and Map

## Venice Ponds Marsh Creation and Crevasses (MR-15)

November 28, 2011

**Approved Date:** 2006

**Project Area:** 917 acres

**Approved Funds:** \$1.07 M for Engineering and Design

**Net Created Acres After 20 Years:** 318 acres

**Status:** Engineering and Design

**Project Type:** Marsh Creation and Crevasse Creation

**Location:** The project area is located in the CWPPRA Mississippi River Delta Basin in Plaquemines Parish south of Venice, Louisiana, adjacent to Tiger and Grand Pass.

**Problems:** Between 1932 and 1974, the mapping unit lost 38,400 of 59,640 acres of marsh as a result of subsidence, tropical storm activity, canal creation and maintenance, and hydrologic modification. Between 1974 and 1990, another 13,260 acres of land was lost. It is estimated that without restoration efforts, more than 91 percent of the remaining land will be lost by the year 2050.

**Restoration Strategy:** The project will create marsh in open water areas that were nearly solid wetlands in 1956 by depositing material acquired through dedicated dredging and by constructing crevasses. It is anticipated that approximately 190 acres of marsh will be created by hydraulically dredging material from Grand Pass. The dredged material will be pumped into two fill areas surrounded by containment dikes along the existing marsh boundaries. Containment dikes will be gapped 50 feet wide every 500 feet. Four crevasses will be constructed to convey the sediment-laden waters of Grand and Tiger Passes into the benefitted areas. One crevasse will be created and two existing crevasses off of Tiger Pass will be enhanced through deepening in order to promote deltaic splay growth and nourishment of existing marsh. Another crevasse will be constructed off of Grand Pass to promote deltaic splay growth and introduce sediment laden water into the marsh creation areas.

**Progress to Date:** The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design in February 2006. The project team completed final design in November of 2011 and the project is awaiting construction funding.

The project is on Project Priority List 15.

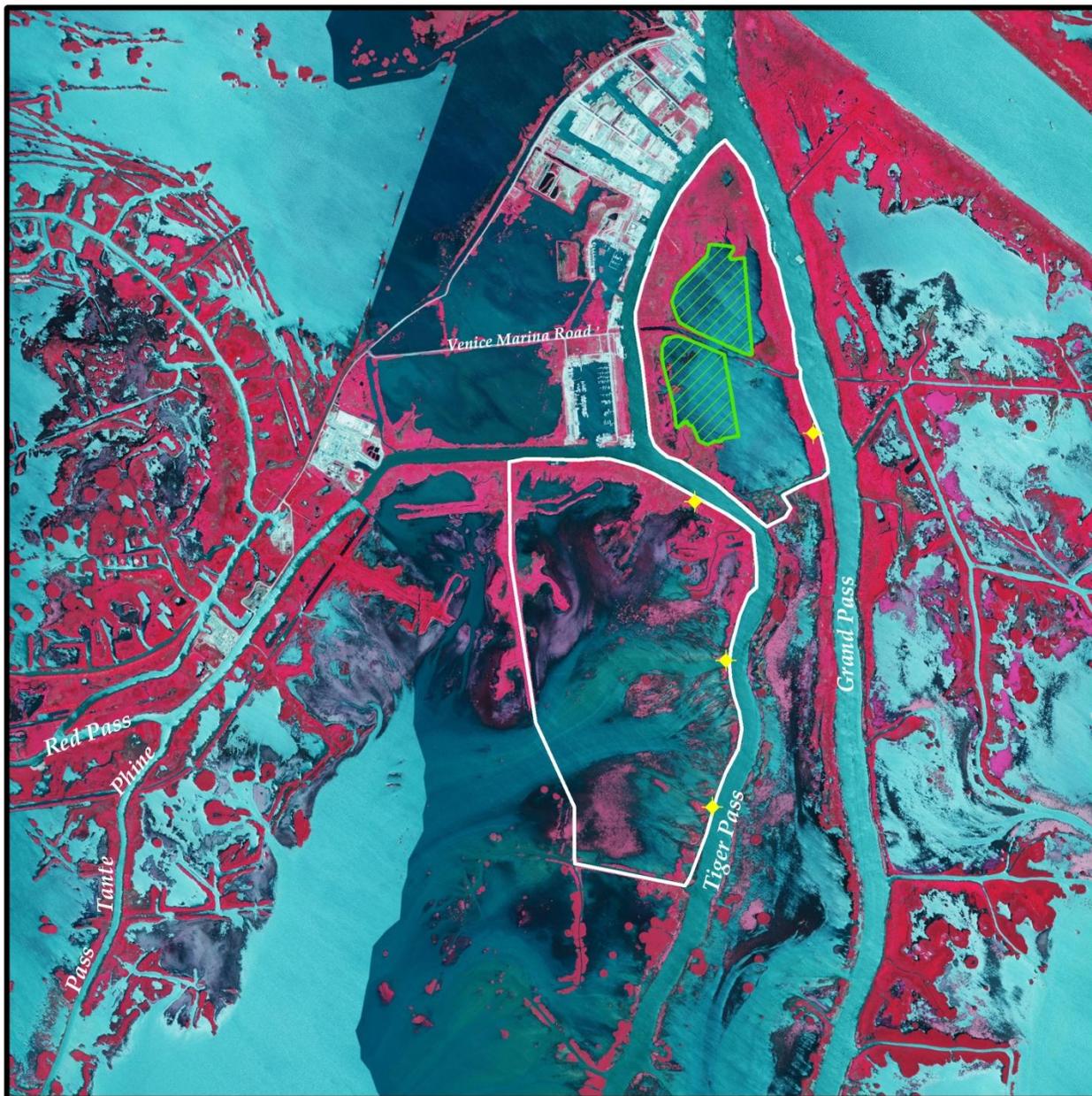
*For more project information, please contact:*

**Federal Sponsor:**

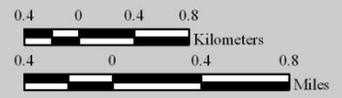
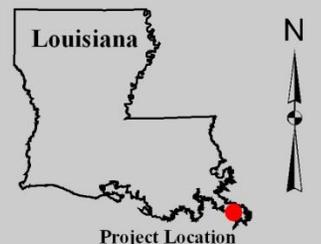
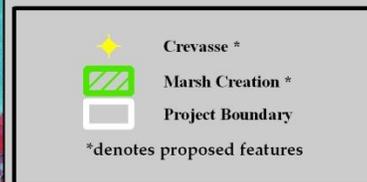
U.S. Environmental Protection Agency  
Dallas, TX  
(214)665-7239

**Local Sponsor:**

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



## Venice Ponds Marsh Creation and Crevasses (MR-15)



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 NAIIP Photography

Map Date: September 23, 2011  
 Map ID: USGS-NWRC 2011-11-0066  
 Data accurate as of: September 22, 2011

Enclosure C: Letter from CPRA concurring with EPA on favorable conclusion of 30%  
Design and desire to proceed to 95% Design



# State of Louisiana

BOBBY JINDAL  
GOVERNOR

September 1, 2011

Karen McCormick, Chief  
Marine and Coastal Protection Section  
EPA R6 (WQ-EC)  
1445 Ross Avenue  
Dallas, TX 75202-2733

Re: 30% Design Review for MR-15 Venice Ponds Marsh Creation & Crevasses  
Statement of Local Sponsor Concurrence

Dear Ms. McCormick:

The 30% Design Review meeting for MR-15 Venice Ponds Marsh Creation & Crevasses Project was held on June 29, 2011. Based on our review of the technical information compiled to date, and the preliminary designs, the Office of Coastal Protection and Restoration, as the local sponsor, concurs to proceed with the design of the above mentioned project.

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

Please feel free to contact me at (225) 342-4122, if you have any questions.

Sincerely,

Brad Miller  
CPRA Project Manager

cc: Robert Routon, P.E., CPRA Project Management Administrator  
Kirk Rhinehart, CPRA Planning Administrator  
Alex Gonzalez-Rodlies, E.I., CPRA Project Engineer  
MR-15 Project File

Enclosure D: Letter from CPRA concurring with EPA on favorable conclusion of 95%  
Design and desire to proceed to Phase II Request



# State of Louisiana

**BOBBY JINDAL**  
GOVERNOR

November 28, 2011

Karen McCormick, Chief  
Marine and Coastal Section  
EPA R6 (WQ-EC)  
1445 Ross Avenue  
Dallas, TX 75202-2733

Re: 95% Design Review for Venice Ponds Marsh Creation and Crevasses (MR-15)  
Statement of Local Sponsor Concurrence

Dear Ms. McCormick:

The 95% design review meeting was held on October 25, 2011 for the Venice Ponds Marsh Creation and Crevasses (MR-15) project. Based on our review of the technical information compiled to date, the ecological review, the land ownership investigation, and the final designs, we, as local sponsor, concur to proceed with requesting Phase II construction funding for the project. All comments received from the 95% meeting have been incorporated into the final design.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee. We also request that our project manager, Brad Miller, be copied on this and other correspondence concerning this project. Please do not hesitate to call if I may be of any assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "William K. Rhinehart", written in a cursive style.

William K. "Kirk" Rhinehart  
Coastal Protection and Restoration Authority  
Planning Administrator

WKR:bjm

cc: Karen McCormick, NOAA Fisheries  
Chris Llewellyn, EPA  
Robert Routon, P.E., OCPR Administrator  
Brad Miller, OCPR Project Manager  
Alex Gonzales-Rodiles, E.I., OCPR Project Engineer

Enclosure E: Permit Applications



Louisiana Department of Natural Resources  
Office of Coastal Management

# Joint Permit Application For Work Within the Louisiana Coastal Zone



U.S. Army Corps of Engineers  
(COE)  
New Orleans District

**Application Number:** 11869      **Permit Number:** P20111542      **Date Received:** 11/28/2011

## Step 1 of 15 - Applicant Information

**Applicant Name:** LOUISIANA COASTAL PROTECTION & RESTORATION AUTHORITY      **Applicant Type:** GOVERNMENT AGENCY

**Mailing Addr :**  
PO Box 44027  
Baton Rouge, LA 70804

**Contact Info:**  
Alex Gonzalez-Rodiles

**Phone:** (225) 342-4626      **Fax:** -      **Email:** alex.gonzalez-rodiles@la.gov

## Step 2 of 15 - Agent Information

**Agent Name:**

**Mailing Addr:**  
 , LA

**Contact Info:**  
**Phone:** -      **Fax:** -      **Email:**

## Step 3 of 15 - Permit Type

Coastal Use Permit (CUP)       Solicitation of Views (SOV)       Request for Determination (RFD)

## Step 4 of 15 - Pre- Application Activity

**a. Have you participated in a Pre- Application or Geological Review Meeting for the proposed project?**

No       Yes      Date meeting was held:

Attendees:

\_\_\_\_\_  
(Individual or Company Rep)

\_\_\_\_\_  
(OCM Representative)

\_\_\_\_\_  
(COE Representative)

**b. Have you obtained an official wetland determination from the COE for the project site?**

No       Yes      **If Yes, Please upload a copy with your application.**

**JD Number:**

**c. Is this application a mitigation plan for another CUP?**

No       Yes      OCM Permit Number:



# Joint Permit Application For Work Within the Louisiana Coastal Zone



## Step 5 of 15 - Project Information

### a. Describe the project.

The Venice Ponds Marsh Creation and Crevasses Project (MR-15) is located south east of the community of Venice, beginning at the fork of Tiger and Grand Pass. The United States Environmental Protection Agency (USEPA) is designated as the lead federal sponsor for this project with funding approved through the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) by the United States Congress and the Wetlands Conservation Trust Fund by the State of Louisiana. The Louisiana Coastal Protection and Restoration Authority (CPRA) is serving as the local sponsor.

The purpose of this project is to create healthy marsh habitat between Grand Pass and Tiger Pass utilizing dredge material from Grand Pass and to create, maintain, and nourish marsh along Grand Pass and Tiger Pass through the creation and enhancement of crevasses. Approximately 190 acres of sustainable marsh will be created using dredged material from Grand Pass. Four crevasses will be created to enhance sediment nourishment within the project area. A tidal creek will also be incorporated into the marsh fill area to promote hydrologic connectivity. Healthy marsh will be created by hydraulically dredging sediment from Grand Pass to fill the open water and broken marsh that lie between Tiger Pass and Grand Pass. Cypress trees will also be planted within the project area.

### b. Is this application a change to an existing permit?

No

Yes

OCM Permit Number:

### c. Have you previously applied for a permit or emergency authorization for all or any part of the proposed project?

No

Yes

Agency	Contact	Permit Number	Decision Status	Decision Date
OCM				
COE				
Other				

## Step 6 of 15 - Project Location

### a. Physical Location

Street:

City: Venice

Parish: Plaquemines

Zip: 70091

Water Body:

### b. Latitude and Longitude

Latitude: 29 14 20

Longitude: -89 21 10



Louisiana Department of Natural Resources  
Office of Coastal Management

## Joint Permit Application For Work Within the Louisiana Coastal Zone



U.S. Army Corps of Engineers  
(COE)  
New Orleans District

**c. Section, Township, and Range**

Section #: N/A	Township #: 21S	Range #: 31E
Section #: 005, 006, 008	Township #: 22S	Range #: 31E

**d. Lot, Tract, Parcel, or Subdivision Name**

Lot #:	Parcel #:
Tract #:	Subdivision Name:

**e. Site Direction**

START - I-10 East toward New Orleans. Continue onto US-90 BUS West toward Gretna. Exit and continue onto Terry Parkway. LEFT onto LA-23 S. RIGHT onto Jump Basin Road. RIGHT onto Tide Water Road. LEFT onto Venice Boat Harbor Drive. RIGHT onto Sports Marina Road. Boat Launch on left. By water, travel approximately 3,500 feet south on Tiger Pass. LEFT into project area. - END

**Step 7 of 15 - Adjacent Landowners** - See attached list

**Step 8 of 15 - Project Specifics**

**a. Project Name and/or Title:** Venice Ponds Marsh Creation and Crevasses

**b. Project Type:** Non-Residential

**c. Source of Funding** FEDERAL

**d. What will be done for the proposed project?**

- |  |  |  |  |
|--|--|--|--|
| <input type="checkbox"/> Bridge/Road           | <input type="checkbox"/> Home Site/Driveway  | <input type="checkbox"/> Pipeline/Flow Line              | <input type="checkbox"/> Rip Rap/Erosion Control |
| <input type="checkbox"/> Bulkhead/Fill         | <input type="checkbox"/> Levee Construction  | <input type="checkbox"/> Plug/Abandon                    | <input type="checkbox"/> Site Clearance          |
| <input type="checkbox"/> Drainage Improvements | <input checked="" type="checkbox"/> Dredging | <input type="checkbox"/> Production Barge/Structure      | <input type="checkbox"/> Subdivision             |
| <input type="checkbox"/> Drill Barge/Structure | <input type="checkbox"/> Prop Washing        | <input checked="" type="checkbox"/> Vegetative Plantings | <input type="checkbox"/> Wharf/Pier/Boathouse    |
| <input type="checkbox"/> Drill Site            | <input type="checkbox"/> Pilings             | <input type="checkbox"/> Remove Structures               |  |
| <input checked="" type="checkbox"/> Fill       | <input type="checkbox"/> Marina              | <input type="checkbox"/> Major Industrial/Commercial     |  |
| <input type="checkbox"/> Other:                |  |  |  |



Louisiana Department of Natural Resources  
Office of Coastal Management

## Joint Permit Application For Work Within the Louisiana Coastal Zone



U.S. Army Corps of Engineers  
(COE)  
New Orleans District

**e. Why is the proposed project needed?**

Material will be hydraulically dredged to create marsh in an open-water area which is rapidly deteriorating. Additionally, crevasses will be dredged in order to enhance sediment nourishment within the project area.

**Step 9 of 15 - Project Status**

**a. Proposed start date:** 09/01/2012                      **Proposed completion date:** 08/08/2013

**b. Is any of the project work in progress?**

No                       Yes

**c. Is any of the project work completed?**

No                       Yes

**Step 10 of 15 - Structures, Materials, and Methods for the Proposed Project**

**a. Excavations**

5913992 Cubic Yards                      269 Acres

**b. Fill Areas**

2385906 Cubic Yards                      234 Acres

**c. Fill Materials**

<input type="checkbox"/> Concrete:                      Cubic Yards <input type="checkbox"/> Crushed Stone or Gravel:                      Cubic Yards <input checked="" type="checkbox"/> Excavated and Placed onsite :                      2385906 Cubic Yards	<input type="checkbox"/> Rock:                      Cubic Yards <input type="checkbox"/> Sand:                      Cubic Yards <input type="checkbox"/> Hauled in Topsoil/Dirt:                      Cubic Yards
---	---



## Joint Permit Application For Work Within the Louisiana Coastal Zone



<input type="checkbox"/> Excavated and hauled offsite:	Cubic Yards	Cubic Yards
<input type="checkbox"/> Other:		

**d. What equipment will be used for the proposed project?**

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Airboat                     | <input type="checkbox"/> Bulldozer/Grader        | <input checked="" type="checkbox"/> Marsh Buggy            |
| <input type="checkbox"/> Backhoe                                | <input type="checkbox"/> Dragline/Excavator      | <input type="checkbox"/> Other Tracked or Wheeled Vehicles |
| <input checked="" type="checkbox"/> Barge Mounted Bucket Dredge | <input type="checkbox"/> Handjet                 | <input type="checkbox"/> Self Propelled Pipe Laying Barge  |
| <input type="checkbox"/> Barge Mounted Drilling Rig             | <input type="checkbox"/> Land Based Drilling Rig | <input type="checkbox"/> Tugboat                           |
| <input checked="" type="checkbox"/> Other: Hydraulic dredge     |  |  |

**Step 11 of 15 - Project Alternatives**

**a. Total acres of wetlands and/or waterbottoms filled and/or excavated.**

503 acres

**b. What alternative locations, methods, and access routes were considered to avoid impact to wetlands and/or waterbottoms?**

The project is located adjacent to both Tiger Pass and Grand Pass. This will allow for minimum access route impacts through the project area.

Access into the proposed marsh area will minimize impacts by using the proposed Crevasse 4 for access into the marsh creation area.

Access from the southern Tiger Pass entrance into the marsh creation area will be restricted to airboat usage in order to maintain existing waterbottoms and prevent existing marsh disturbance.

**c. What efforts were made to minimize impact to wetlands and/or waterbottoms?**

The use of both Tiger Pass and Grand Pass for access routes will avoid any disturbance to existing wetlands and waterbottoms. Crevasse 4 will also be used as an access channel in order to prevent any additional impact to existing land. Appropriate barge mounted equipment will be used when creating the proposed crevasses in order to minimize impacts and remain within project boundaries as specified within the plan set.

The marsh containment dike was designed adjacent to existing marsh and primarily within open water in order to prevent excessive impacts.

**d. How are unavoidable impacts to vegetated wetlands to be mitigated?**

The project is self mitigating. 190 acres of marsh will be created and a total of 2,075 cypress trees will be planted.



Louisiana Department of Natural Resources  
Office of Coastal Management

## Joint Permit Application For Work Within the Louisiana Coastal Zone



U.S. Army Corps of Engineers  
(COE)  
New Orleans District

### Step 12 of 15 - Permit Type and Owners

**a. Are you applying for a Coastal Use Permit?**

No                       Yes

**b. Are you the sole landowner / oyster lease holder?**

No                       Yes

- The applicant is an owner of the property on which the proposed described activity is to occur.
- The applicant has made reasonable effort to determine the identity and current address of the owner(s) of the land on which the proposed described activity is to occur, which included, a search of the public records of the parish in which the proposed activity is to occur.
- The applicant hereby attests that a copy of the application has been distributed to the following landowners / oyster lease holders. See attached list.

**c. Does the project involve drilling, production, and/or storage of oil and gas?**

No                       Yes                      **If yes, you must attach a list of all state and federal laws and rules and regulations**

### Step 13 of 15 - Maps and Drawing Instructions

Note: OCM Compiled Plats consist of a complete and current set of plats that have been pieced together by OCM using only the most current portions of the plat files provided by the applicant/agent. All out-of-date plats have been excluded.

MR15_Permit_Drawings.pdf	11/23/2011 09:04:15 PM
MR15_Excavation_and_Fill_Table.pdf	11/23/2011 09:03:42 PM

### Step 14 of 15 - Payment

**The fee for this permit is:**                      \$ 100.00

### Step 15 of 15 - Payment Processed

**Applicant Information**

**Applicant Name:** LOUISIANA COASTAL PROTECTION & RESTORATION AUTHORITY  
**Address:** PO Box 44027  
Baton Rouge, LA 70804



Louisiana Department of Natural  
Resources  
Office of Coastal Management

## Joint Permit Application For Work Within the Louisiana Coastal Zone



U.S. Army Corps of Engineers  
(COE)  
New Orleans District

To the best of my knowledge the proposed activity described in this permit application complies with, and will be conducted in a manner that is consistent with the Louisiana Coastal Resources Program. If applicable, I also certify that the declarations in Step 12c, oil spill response, are complete and accurate.

### Landowners List

<p><b>Landowner</b></p> <p>Louisiana Fruit Company c/o George Pivach II</p> <p>PO Box 7125</p> <p>Belle Chasse, LA 70037</p>
<p><b>Landowner</b></p> <p>Robinson Interests Company c/o Warren Doyle</p> <p>880 Commerce Road West</p> <p><u>Suite 104</u></p> <p>New Orleans, LA 70123</p>
<p><b>Adjacent Landowner</b></p> <p>Cattle Farms Management Company, LLC ; C/O Michael L. Hughe</p> <p>4782 Prosperity Street</p> <p>St. Francisville, LA 70775</p>
<p><b>Adjacent Landowner</b></p> <p>Charles Buck Mayer</p> <p>100 Poydras Street</p> <p><u>22nd Floor / Suite 2000</u></p> <p>New Orleans, LA 70163</p>
<p><b>Adjacent Landowner</b></p> <p>Edward Duff Nowotny</p> <p>7000 Juneberry</p> <p>Austin, TX 78750</p>
<p><b>Adjacent Landowner</b></p> <p>George Edward Nowotny, III et al</p> <p>5572 Vista Canada</p> <p>La Cañada Flintridge, CA 91011</p>



Louisiana Department of Natural  
Resources  
Office of Coastal Management

## Joint Permit Application For Work Within the Louisiana Coastal Zone



U.S. Army Corps of Engineers  
(COE)  
New Orleans District

**Adjacent Landowner**

**William A. Wenck, Jr.**

**110 Mile Creek**

**Old Lyme, CT 06371**



Coastal Protection and  
Restoration Authority of Louisiana

# State of Louisiana

**BOBBY JINDAL**  
GOVERNOR

November 22, 2011

Mr. Bob Love  
Louisiana Department of Wildlife and Fisheries  
Fill Material Permit Section  
P.O. Box 98000  
Baton Rouge, LA 70898-9000

Re: Venice Ponds Marsh Creation and Crevasses Project (MR-15)  
Fill Material Permit Application

Dear Mr. Love:

The Louisiana Coastal Protection and Restoration Authority – Restoration Engineering Division is in the design phase of the Venice Ponds Marsh Creation and Crevasses Project (MR-15). The project is funded through the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) and sponsored by the United States Environmental Protection Agency (USEPA). The project anticipates the creation and nourishment of approximately 190 acres of freshwater marsh in Plaquemines Parish.

Enclosed is the permit application to hydraulically dredge approximately 2,025,804 cubic yards of fill material from Grand Pass. A U.S. Army Corps of Engineers/LDNR Coastal Management Division Coastal Use Permit is also being applied for. Should you have any questions or if additional documentation is desired, please call me at 225-342-4626.

Sincerely,

Alex Gonzalez-Rodiles, E.I.  
CPRA Project Engineer

Enclosures

cc: Mr. Brad Miller, Project Manager  
Project File

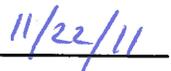
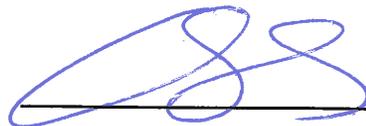
Date: 11/22/2011

Subject: License for dredging fill material

Dear Alex Gonzalez-Rodiles/CPRA:

Please review and concur on the following statement regarding the issuance of license by the Louisiana Department of Wildlife and Fisheries:

"I have been advised and do understand that by applying for and accepting a license issued by the Louisiana Department of Wildlife and Fisheries, I am being allowed to engage in an activity which would otherwise be prohibited by law. I specifically agree to abide by all State and Federal laws, all regulations enacted by the Louisiana Department of Wildlife and Fisheries commission, and other State and Federal agencies, and by all other terms and conditions of the license I am being issued. I understand that the license for which I am applying may be canceled or revoked with or without cause at anytime by the Louisiana Department of Wildlife and Fisheries. I agree to immediately surrender the license issued to me upon demand made upon me by any employee of the Louisiana Department of Wildlife and Fisheries. I understand that my failure to fully and completely comply with the laws, regulations, terms and conditions referred to herein will result in the immediate revocation or cancellation of this and any and all other license issued to me and that I may be denied future license as consequence of my actions. I understand and agree that any license issued to me by the Louisiana Department of Wildlife and Fisheries is in the nature of a privilege which is being voluntarily extended to me by the Department and any failure on my part to cooperate fully by the Department or any of its employees can result in the loss of the privilege conferred and the denial of future requests of license. By accepting this license, I evidence my agreement to be bound by all conditions and stipulations set forth herein."



Signature

Date

LICENSE APPLICATION

To remove sand, gravel or fill material from state owned water bottoms.  
Submit this application with a \$25 application fee and a royalty fee  
of \$ \_\_\_\_\_, or in lieu of royalty fee, a bond in the  
amount of \$ \_\_\_\_\_. (See #16)

to  
Louisiana Department of Wildlife and Fisheries  
Fill Material Section  
P.O. Box 98000  
Baton Rouge, LA 70898-9000

<p>1. Applicant's Name: Coastal Protection &amp; Restoration Authority ATTN: Alex Gonzalez-Rodiles Mailing Address: 450 Laurel Street, Suite 1200 Baton Rouge, LA 70801 Street Address, if different: Phone: ( 225 ) 342-4626</p>	<p>2. Name, address &amp; title of authorized agent  n/a  Phone: ( ) _____ (residence) Phone: ( ) _____ (office)</p>
---	--

3. Statement of authorization: I hereby designate and authorize \_\_\_\_\_ to act on my behalf as my agent in the processing of this license application and to furnish, upon request, supplemental information in support of this application.

Signature of Applicant: n/a Date: \_\_\_\_\_

Dredge site information:  
Waterbody: Grand Pass River Mile Marker: n/a Levee Station Marker:  
Latitude: See Attachment Longitude: See Attachment Parish: Plaquemines  
Nearest town: Venice, LA

5. Estimated amount and type of material to be removed under this license, if granted:  
Sand, screened: \_\_\_\_\_ cu.yds Gravel, screened and washed: \_\_\_\_\_ cu. yds  
Gravel/Sand, unscreened: \_\_\_\_\_ cu.yds Fill material and/or fill sand: 2,025,804 cu. yds

If material is to be stored at a location other than permitted site, provide the following information:  
Address or location of site:  
Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
(Attach a copy of quadrangle map/s)

6. Detailed description of proposed activity (purpose and ultimate disposition of materials) indicate license class  
LICENSE CLASS D (Use a separate sheet, if necessary)

The proposed project consists of crevasse enhancement and marsh creation on the critically subsiding Venice Ponds area. Borrow site within Grand Pass will be hydraulically dredged and pumped to the project location to create approximately 190 acres of marsh.  
See attached plan drawing.

7. If dredging is to be conducted by anyone other than the applicant, provide their name, address and phone number.  
Dredging will be performed by a party contracted by CPRA.

8. If applicant is conducting dredging for another party, provide their name, address and phone number.  
n/a

9. Method of removal of dredged material (circle as appropriate):  
Bucket Dredge Suction Dredge Cutterhead Other (specify): \_\_\_\_\_

10. Proposed beginning date of dredging: Pending notice to proceed, mobilization of dredge to commence  
Fall of 2012.

11 Coastal Use Permit # Permit Pending Date of Issue: \_\_\_\_\_ Expiration Date: \_\_\_\_\_  
CORP. Permit # Permit Pending Date of Issue: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

12. Application is hereby made for a license to authorize the activities described herein. I certify that I am familiar with the information contained in this application and that, to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities, or I am acting as the duly authorized agent of the applicant. I further stipulate that I have read and agree to abide by the conditions on the reverse of this application form and I understand my rights and obligations thereunder.

 11/22/11  
Signature of Applicant Date Signature of Agent Date

**ROYALTY**

1. The consideration for which this license has been made is the payment by aforesaid licensee to the DEPARTMENT a minimum royalty at the following rates:

**LICENSE CLASSES AND ROYALTIES.**

CLASS A. Commercial Dredging with the intent to offer dredge for resale. Royalty: 29 cents per cubic yard.

CLASS B. Commercial Dredging without the intent to resell; includes all mineral activities. Royalty: 25 cents per cubic yard.

CLASS C. Dredging for Private, Non-Commercial purposes. Royalty: 15 cents per cubic yard.

CLASS D. Dredging that has a public benefit, such as Coastal Restoration, Navigation, Removal of Sediment Buildup, and Recreation. Royalty: 5 cents per cubic yard.

CLASS E. All other Dredge activity. Royalty: 25 cents per cubic yard.

Any interest and/or penalty owed on unpaid royalty shall be established by the Department in accordance with the Administrative Procedure Act.

2. LICENSEE, agrees to report in a timely fashion to the DEPARTMENT, all dredging performed during the life of this license. It is understood the LICENSEE shall file a monthly report, on forms obtained from the DEPARTMENT, on or before the last day of the month following the month during which the permitted material is removed whether you dredge or not. This monthly report will include all dredging that has been completed during the month that the permitted material is removed. The monthly report shall be accompanied with full payment of all royalty(ies) due the DEPARTMENT. Attachment(s) to this monthly report shall include a cross section survey affidavit(s) as specified in paragraph number 3. Upon failure to pay royalty when due, a penalty of one and one-half percent (1.5%) per month calculated upon the royalty due, shall be levied and collected by the DEPARTMENT in addition to the royalty due. This penalty shall become due without demand for payment by the DEPARTMENT. In cases where there was no job projects during the month, a report shall be filed indicating therein "no operations". Failure to submit a monthly report or submitting a monthly report with false information will be cause for license revocation or suspension.

3. During the life of this license, LICENSEE agrees that a cross section survey of each dredge project will be completed by a Registered Professional Engineer or a Registered Professional Land Surveyor for the purpose of determining the quantity of material excavated. Upon completion of a cross section survey by a qualified engineer, LICENSEE agrees to have said engineer complete an affidavit giving pertinent details of the cross section survey. The Department will furnish an affidavit for this purpose. This affidavit will be used as an attachment in conjunction with all cross section surveys. LICENSEE further agrees that each dredge project taking place during the life of this license will be certified in this manner by his qualified engineer.

4. It is agreed that LICENSEE, and not DEPARTMENT, shall be liable for any and all state, local, and federal taxes and fees due for any and all materials taken pursuant to this agreement including state severance taxes. It is further understood and agreed that the royalties paid pursuant to this license shall be in addition to, and not in lieu of, any and all state, local and federal taxes and fees, including state severance taxes.

**AUDIT & INSPECTION**

5. DEPARTMENT reserves the right, and the said LICENSEE so agrees, to permit the DEPARTMENT'S authorized representatives to examine any and all of LICENSEE'S books, records and memoranda of whatever kind or nature, pertaining to or having any connection whatever with the removal or sale of said permitted material.

6. DEPARTMENT further reserves the right, and LICENSEE so agrees, to have the DEPARTMENT'S agents or representatives inspect the dredges, barges, boats, scows or other related equipment of any kind by which the said permitted material is removed, and to keep a check on the number of holding pits at the project stockpile site, and also to determine by whatever means it may deem necessary, the number of cubic yards of permitted material which have been removed from the hereinabove described beds or water bottoms, and to require the payment thereof.

7. LICENSEE agrees that it has or will acquire valid permits issued by the United States Army Corps of Engineers, the Louisiana Department of Natural Resources and any other agencies as may be required by law.

**LIABILITY, HOLD-HARMLESS, DEFENSE**

8. LICENSEE agrees that it shall be liable and responsible for any and all damage or damages done, or which may be done by it, its agent, directors, or employees of any kind, whether such damage or damages be done to the property of the State or the property of an individual, firm or corporation, or to any person or persons.

9. LICENSEE further agrees to provide legal defense and representation to the department and/or Louisiana Wildlife and Fisheries Commission for any and all lawsuits and legal claims which may arise as a result of this license or operations hereunder. LICENSEE further agrees to fully indemnify the DEPARTMENT for any and all claims for damages to property or bodily injury (including death) which may arise through the above said lawsuits and legal claims.

**OPERATION AND LOCATION**

10. The extent of a single license site in the Mississippi River, the Atchafalaya River, the Red River, the Pearl River (not including the West Pearl), the Calcasieu River below the saltwater barrier, the Ouachita/Black River south of the confluence of Bayou Bartholomew shall not exceed one linear mile and shall not extend across the geometric center line of the stream. The extent of a single licensed site on all other streams except designated Natural and Scenic Streams shall not exceed one linear half mile. Fill material, sand and gravel shall not be permitted to be removed from the water bottom of any designated Natural and Scenic River unless removal of such material is specifically allowed by statute.

11. LICENSEE further agrees, binds and obligates itself to notify the DEPARTMENT through the Fill Material License Section of the Department of Wildlife and Fisheries, in writing, at least ten (10) days prior to putting into actual service any and every dredge, barge, scow or boat used in the removal of the licensed material.

12. LICENSEE binds and obligates itself not to dredge within one hundred (100) yards of the dredging operations of any other operator holding a similar license from the Department of Wildlife and Fisheries.

**TERMINATION FOR CAUSE**

13. It is distinctly understood and agreed the DEPARTMENT may immediately and without notice of any character, terminate, cancel, revoke or suspend this license at any time during the operation of removing licensed material from the permitted site if, in the judgement of the SECRETARY, said operation results in the pollution of the river or stream or otherwise is harmful to fish and wildlife.

Any person or firm found to be dredging without, or in violation of a validly issued license from this DEPARTMENT shall be subject to civil penalties pursuant to R.S. 56:2012.

14. In case LICENSEE fails to make payment according to the reservations, terms and conditions hereinabove stipulated within the time provided within this license, or should LICENSEE fail and refuse to comply herewith, the DEPARTMENT shall have the right to revoke, terminate and cancel this license by written notice of such revocation and termination to LICENSEE. The DEPARTMENT shall send a copy of the said notice to the U.S. Army Corps of Engineers and the Coastal Management Division of the Department of Natural Resources.

**ASSIGNMENT OF CONTRACT**

15. License is non-transferable.

**SURETY BOND**

16. LICENSEE further agrees and obligates itself to execute and furnish to the DEPARTMENT, in advance of issuance of the license, a bond or irrevocable letter of credit in the manner prescribed by law, according to the following scale:

Bond Value Per Volume Dredged

TYPE OF MATERIAL	0 to 5,000 cu.yds.	5,001 to 10,000 cu.yds.	10,001 to 50,000 cu.yds.	50,001 to 100,000 cu.yds.	100,001+ cu.yds.
Fill Material and/or Fill Sand	\$1,000	\$2,000	\$10,000	\$20,000	\$.29xtotal cu. yds

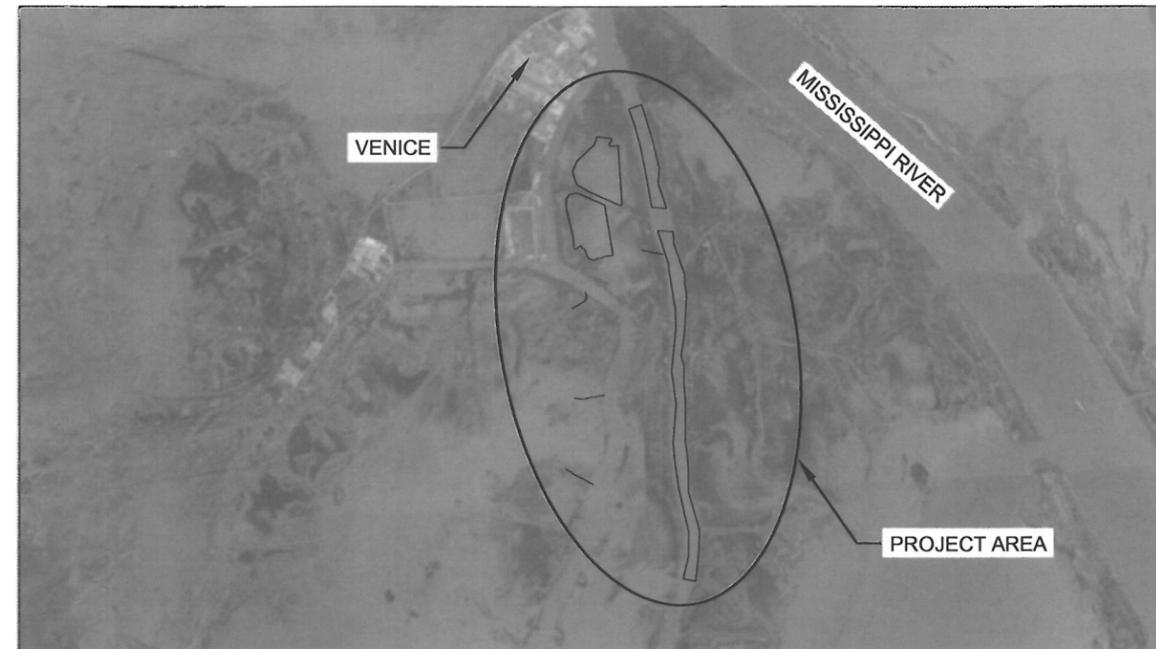
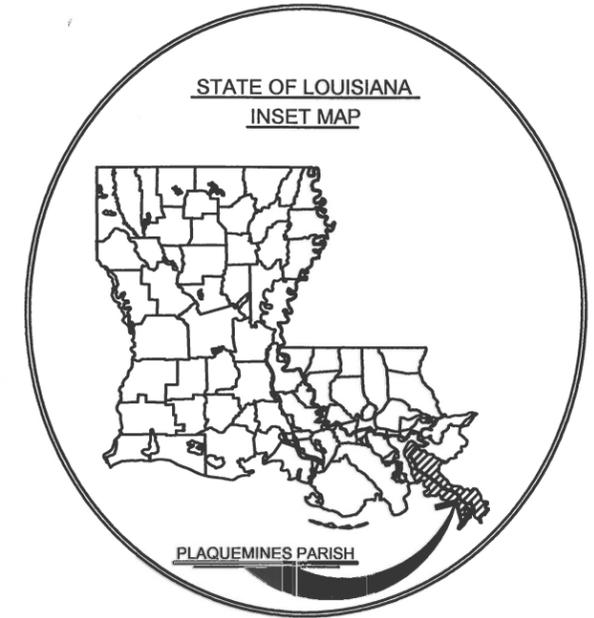
The minimum amount of this bond shall be calculated according to the known volume (Historical Capacity) of all existing pits at stockpile site. This bond or irrevocable letter of credit shall designate the DEPARTMENT as payee or beneficiary with a surety company authorized to do business in Louisiana as surety thereon, assuring that it will faithfully, promptly, and diligently carry out and perform all of the conditions and obligations imposed, described and assumed in this license, including but not limited to the payment of all royalties. A certified copy of such bond must be submitted to the Department of Wildlife and Fisheries before commencement of any dredging operation.

STATE OF LOUISIANA  
 COASTAL PROTECTION AND RESTORATION AUTHORITY

VENICE PONDS MARSH  
 CREATION AND CREVASSES PROJECT  
 MR-15  
 PLAQUEMINES PARISH

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
3	PROJECT LAYOUT
4	CONVEYANCE CORRIDOR LAYOUT
5	BORROW AREA LAYOUT
6	MARSH CREATION AREA LAYOUT
7	CREVASSE LAYOUT
8	VEGETATIVE PLANTINGS LAYOUT
9	SURVEY LAYOUT
10-13	TYPICAL SECTIONS
14-15	TYPICAL DETAILS
16	SETTLEMENT PLATE & GRADE STAKE DETAILS
17-23	FILL AREA SECTIONS
24-26	BORROW AREA SECTIONS
27-29	CHANNEL AREA SECTIONS
30	COORDINATES



CHIEF - RESTORATION DIVISION

ENGINEERING MANAGER

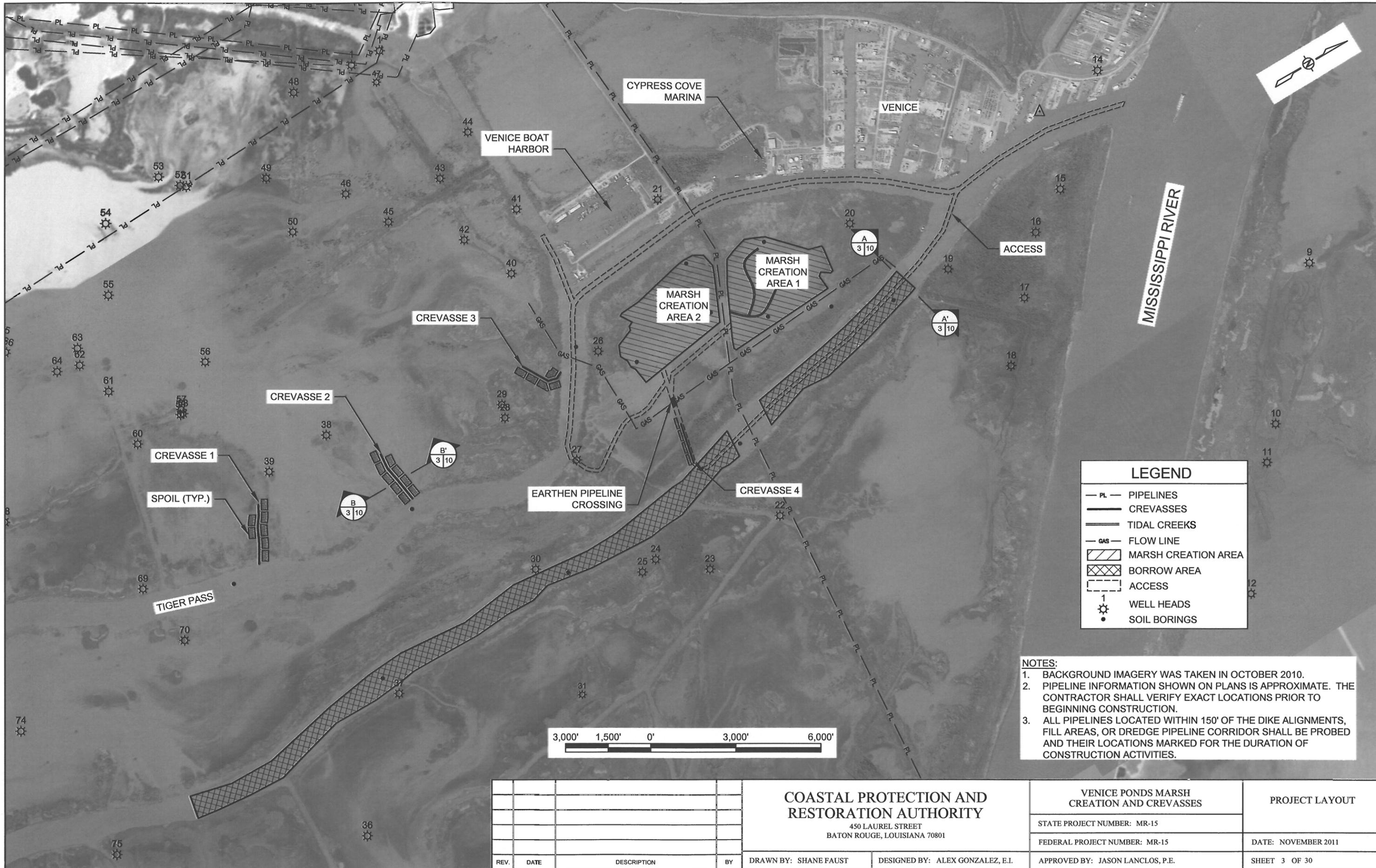
PROJECT ENGINEER

LICENSURE CLASSIFICATION REQUIREMENTS

MAJOR CATEGORY: HEAVY CONSTRUCTION

SUB CLASSIFICATION: DREDGING

				COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		VENICE PONDS MARSH CREATION AND CREVASSES		TITLE SHEET	
						STATE PROJECT NUMBER: MR-15			
						FEDERAL PROJECT NUMBER: MR-15		DATE: NOVEMBER 2011	
				DRAWN BY: SHANE FAUST		DESIGNED BY: ALEX GONZALEZ, E.I.		APPROVED BY: JASON LANCIOS, P.E.	
REV.	DATE	DESCRIPTION	BY	SHEET 1 OF 30					



LEGEND	
— PL —	PIPELINES
—	CREVASSES
—	TIDAL CREEKS
— GAS —	FLOW LINE
[Hatched Box]	MARSH CREATION AREA
[Cross-hatched Box]	BORROW AREA
[Dashed Box]	ACCESS
☼	WELL HEADS
•	SOIL BORINGS

**NOTES:**

- BACKGROUND IMAGERY WAS TAKEN IN OCTOBER 2010.
- PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
- ALL PIPELINES LOCATED WITHIN 150' OF THE DIKE ALIGNMENTS, FILL AREAS, OR DREDGE PIPELINE CORRIDOR SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.



				<b>COASTAL PROTECTION AND RESTORATION AUTHORITY</b>		VENICE PONDS MARSH CREATION AND CREVASSES		PROJECT LAYOUT	
				450 LAUREL STREET BATON ROUGE, LOUISIANA 70801					
				DRAWN BY: SHANE FAUST		DESIGNED BY: ALEX GONZALEZ, E.I.		DATE: NOVEMBER 2011	
				APPROVED BY: JASON LANGLIS, P.E.				SHEET 3 OF 30	
REV.	DATE	DESCRIPTION	BY						

Enclosure F: 303(e) Certification Package submitted to U.S. Army Corps of Engineers



Coastal Protection and Restoration Authority of Louisiana

# State of Louisiana

RECEIVED BOBBY JINDAL  
EPA-6WQ-DIR 050 GOVERNOR

11 SEP 30 PM 3:39

6WQ-D. *e-copy*..... 6WQ-D. *e-copy*.....

6WQ-A..... 6WQ-C.....

6WQ-E. *Original!* 6WQ-P.....

6WQ-S.....

September 21, 2011

Mr. Miguel Flores, Division Director  
Water Quality Protection Division  
U.S. Environmental Protection Agency, Region 6  
1445 Ross Ave, Suite 1200 (6WQ-EC)  
Dallas, TX 75202

RE: CWPPRA Section 303(e) Approval  
Venice Ponds Marsh Creation And Crevasses Project (MR-15)  
Plaquemines Parish, Louisiana

Dear Mr. Flores:

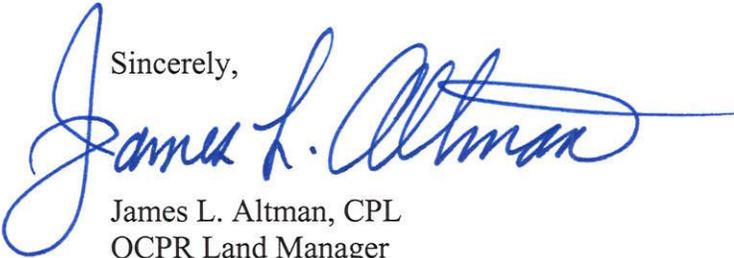
By this letter, I am transmitting to you a copy of the Office of Coastal Protection and Restoration's ("OCPR") Temporary Easement, Servitude and Right-Of-Way Agreement. This document will be used to acquire the necessary landrights for the project. There are no oyster leases, no oil and gas wells and some pipeline infrastructure in the project area.

This document fulfills the requirements as outlined in Section 6(g) (2)(a)(b)(c) of the *Standard Operating Procedures Manual* for CWPPRA projects: the Document is the "Language of Landrights," and the map and exhibit attached to them describe the "Plan" and the "Project Limits." The document was approved by OCPR counsel and the technical sections of the document and map(s) were overseen by the project engineer and project monitoring biologist. *By this letter, OCPR certifies that land acquisitions have been and will be in accordance with all applicable Federal and State laws and regulations, and all standard real estate practices have been and will be followed.*

This letter and accompanying document may be forwarded under cover letter from the U.S. Environmental Protection Agency, Region 6 (EPA) to the U. S. Army Corps of Engineers (Corps) as part of your request for CWPPRA Section 303(e) approval. The Natural Resources Conservation Service must also provide to the EPA an overgrazing determination on the project. These two items and a letter requesting 303(e) approval may be sent to the following address:

Attention: Ms. Linda C. LaBure, Chief  
CELMN-RE-L  
U. S. Army Corps of Engineers  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267

If you need further assistance or have any questions regarding this matter, please contact me at (225) 342-1934. We at OCPR look forward to completing the 303(e) approval process and proceeding with project construction.

Sincerely,  
  
James L. Altman, CPL  
OCPR Land Manager

JA

Attachments One (1)

**TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT**

**VENICE PONDS MARSH CREATION AND CREVASSES PROJECT (MR-15)  
PLAQUEMINES PARISH, LOUISIANA**

STATE OF LOUISIANA

PARISH OF PLAQUEMINES

THIS AGREEMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between: *(Grantor's name or the name of the corporation)*, a \_\_\_\_\_ corporation, tax identification number \_\_\_\_\_, with the mailing/business address of \_\_\_\_\_, herein represented by *(name of the corporation's officer)*, its *(title of the corporation's officer)* hereinafter called the "GRANTOR" (whether one or more), as owner(s) of the below described property; and

The STATE OF LOUISIANA herein represented by and appearing as follows through:

The **OFFICE OF COASTAL PROTECTION AND RESTORATION ("OCPR")**, as authorized and directed by the policy of the Coastal Protection and Restoration Authority ("CPRA"), herein represented by and appearing through the Executive Director of OCPR, **JEROME ZERINGUE**., domiciled in East Baton Rouge Parish, Louisiana, with offices located at 450 Laurel Street, Suite 1200, Baton Rouge, Louisiana, 70804, and whose mailing address is P.O. Box 44027, Baton Rouge, Louisiana, 70804-4027, appearing pursuant to the provisions of La. R.S. 49:214.1, et seq., as amended by Act 523 of the 2009 Regular Session of the Louisiana Legislature;

The above mentioned hereinafter collectively referred to as "**STATE**".

WITNESSETH: For and in consideration of the promises and undertakings by STATE to GRANTOR herein, and further for other good and valuable consideration, including the potential benefits to GRANTOR'S property interests resulting from the hereinafter described project, the receipt and adequacy of which are hereby acknowledged, GRANTOR hereby grants unto STATE, its successors, assigns or transferees, the temporary rights-of-way, servitudes and easements (hereinafter called "the Agreement"), together with the right to enter in, on, and over, GRANTOR'S property interests, for integrated coastal protection purposes as defined in La. R.S. 49:214.2(10) as part of the **Venice Ponds Marsh Creation And Crevasse Project** (hereinafter called the Project") located in, on, or over GRANTOR'S property interests. The Project will be publicly funded and shall be located on the following described property interest, including expressly, but not limited to, any interest in lands or water-covered lands which might be owned by GRANTOR (hereinafter called "said Lands"), to-wit:

(PROPERTY DESCRIPTION)

GRANTOR hereby warrants that GRANTOR understands the Project and accepts any and all impacts to said Lands resulting from construction and implementation of the Project.

I. This Agreement grants the rights to enter said Lands, (further identified on Exhibit A, attached hereto), to perform construction, operation, modification, monitoring, and maintenance and such other activities described on Exhibit B, (attached hereto), necessary to complete the Project.

II. STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.

III. To the extent permitted by Louisiana law, STATE shall, indemnify, and hold harmless GRANTORS against and from all costs, expenses, claims, demands, penalties, suits, fines, and actions of any kind and nature arising from the Project and caused by the actions and fault of STATE or its agents, employees, contractors, successors, assigns and transferees, including any court costs and reasonable and actual litigation expenses and attorneys' fees. However, nothing herein shall be construed as indemnifying or holding GRANTORS or any third person

not a party hereto harmless against its own fault or negligence or that of its agents, employees, contractors, successors, assigns and transferees. Should work on said Lands be performed via contract, STATE shall ensure that the contractor lists GRANTORS as additional insured on any policies carried by the contractor, including completed operations coverage. The STATE acknowledges, declares and stipulates that GRANTORS have provided this Agreement at no cost to the STATE under the provisions of La. R.S. 49:214.6.10 C, as amended by 2010 Acts No. 734. This clause shall survive the term of this agreement.

IV. STATE shall be responsible for repair in like manner of any fences, bridges, roads, and other similar facilities and appurtenances located on said Lands which may be damaged or destroyed by STATE, or its designees while on said Lands, but such repair shall be to that condition which existed immediately prior to STATE's activities. STATE shall remove or dispose of all debris associated with construction, operation and maintenance of the Project.

V. STATE acknowledges that La. R.S. 49:214.5.5 provides that no rights whatsoever shall be created in the public, whether such rights be in the nature of ownership, servitude or use, with respect to any private lands or waters utilized, enhanced, created, or otherwise affected by activities of any governmental agency, local, state, or federal, or any person contracting with same for the performance of any activities, funded in whole or in part, by expenditures from the Project. The STATE further agrees that in the event legal proceedings are instituted by any person seeking recognition of a right of ownership, servitude, or use in or over private property solely on the basis of the expenditure of funds from the Coastal Protection and Restoration Fund or expenditure of federal funds, that the State shall indemnify and hold harmless the owner of such property for any costs, expense, or loss related to such proceeding, including court costs and attorney fees. To the extent permitted by La. R.S. 49:214.5.5, the servitude and right-of-way rights granted herein shall be considered real rights and covenants running with the land.

VI. It is understood GRANTOR shall retain the limits of its title and all property rights (subject to the rights of STATE herein) in and to said Lands, and all minerals in, on and under said Lands are not affected in any way hereby. However, no structures and/or appurtenances constructed hereunder pursuant to the Project on said Lands shall be adjusted, removed and/or interfered with by GRANTOR, or anyone holding rights by, through or under GRANTOR.

VII. Subject to the above, in its exercise of the rights herein granted, STATE agrees not to unreasonably interfere with (a) oil and gas operations, (b) agricultural operations, and (c) hunting, trapping and alligator egg operations, (d) fishing, crabbing, or shrimping, now occurring, or authorized to occur, on said Lands. STATE specifically acknowledges the continuing right of GRANTOR, its heirs, successors, assigns, transferees or lessees, to use, occupy and enjoy all of said Lands, for all purposes, in such manner at such times as they, or any of them, shall desire to use same, including, but without limitation, for the purpose of conducting oil, gas or other mineral operations on any of said Lands, for the exploration, discovery, production, storage, transportation and disposition of oil, gas, sulphur or other minerals, under oil, gas and mineral leases or otherwise, and for the purpose of farming, grazing, hunting and trapping fur-bearing animals, alligator egg operations, fishing, crabbing, or shrimping thereon, provided, however, that such use, occupation, and enjoyment shall not unreasonably interfere with the lawful activities of STATE pursuant to this Agreement.

VIII. GRANTOR does not warrant title. GRANTOR specifically does not warrant or represent the correctness of any survey, or any of the plats attached hereto which purport to show the location of said Lands. If at any time any questions or litigation should arise as to the ownership of any part of the property covered hereby, or as to any boundary or limit of any part of the separate and various Lands covered by this Agreement, this Agreement shall not be construed to be, or permitted to serve as, evidence or as a basis of waiver of any legal rights against any party hereto, or prevent any party hereto from establishing its ownership, or having the boundaries or limits of its property determined, in any lawful manner, anything herein contained to the contrary notwithstanding.

IX. STATE may assign or transfer, in whole or in part, any or all of its rights hereunder, but only to the extent necessary to implement the purposes of the Project on the said Lands.

X. This Agreement shall become effective upon the date of the signature of STATE, and shall remain in effect for a term of \_\_\_\_\_ (XX) years unless sooner released by STATE.

XI. This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, their heirs, successors in interest, transferees and assigns.

XII. This Agreement may be executed in any number of counterparts, each of which shall constitute an original document which shall be binding upon any of the parties executing same. To facilitate recordation of this agreement, the parties hereto agree that individual signature and acknowledgment pages from the various counterparts may be merged and combined with signature and acknowledgment pages from other counterparts.

XIII. This Agreement does not confer or waive any rights except as provided herein.

IN WITNESS WHEREOF, GRANTOR has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:	GRANTOR <i>(or the name of the corporation)</i>
Sign: _____	By: _____
Print: _____	Print: <i>(Grantor's name or the name of the corporation's officer)</i>
Sign: _____	Title: <i>(title of the corporation's officer)</i>
Print: _____	Date: _____

IN WITNESS WHEREOF, STATE has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:	OFFICE OF COASTAL PROTECTION AND RESTORATION
_____	By: _____
Print: _____	<b>Jerome Zeringue.</b>
_____	Title: <u>Executive Director</u>
Print: _____	Date: _____
_____	

**CORPORATE ACKNOWLEDGMENT**

STATE OF LOUISIANA

PARISH OF \_\_\_\_\_

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish/County and State aforesaid, on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally came and appeared \_\_\_\_\_, to me known, who, being by me duly sworn, declared and acknowledged to me, Notary, that he/she is \_\_\_\_\_, of \_\_\_\_\_, that as such duly authorized officer, by and with authority of the Board of Directors of said corporation, he/she signed, and executed the foregoing instrument, as the free and voluntary act and deed of said corporation, for and on behalf of said corporation, and for the object and purposes therein set forth.

Sign: \_\_\_\_\_

Print: \_\_\_\_\_

NOTARY PUBLIC

Notary or Bar # \_\_\_\_\_

My commission expires: \_\_\_\_\_

(SEAL)

**INDIVIDUAL ACKNOWLEDGMENT**

STATE OF \_\_\_\_\_

PARISH/COUNTY OF \_\_\_\_\_

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish/County and State aforesaid, on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally appeared \_\_\_\_\_, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he/she executed it as his/her free act and deed.

Sign: \_\_\_\_\_

Print: \_\_\_\_\_

NOTARY PUBLIC

Bar/Notary # \_\_\_\_\_

My commission expires: with life

(SEAL)

**WITNESS ACKNOWLEDGMENT**

STATE OF LOUISIANA

PARISH/COUNTY OF \_\_\_\_\_

BEFORE ME, the undersigned Notary, duly commissioned and qualified in and for said Parish/County and State aforesaid, on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally came and appeared \_\_\_\_\_, who, known to me, being duly sworn, declared and acknowledged to me, Notary, that he was one of the subscribing witnesses to the foregoing instrument and that the same was signed by \_\_\_\_\_, who signed and executed the foregoing instrument as his free and voluntary act and deed, in the presence of \_\_\_\_\_ and in the presence of the other subscribing witness or witnesses.

Sign: \_\_\_\_\_  
SUBSCRIBING WITNESS

Print: \_\_\_\_\_

SWORN TO AND SUBSCRIBED before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Sign: \_\_\_\_\_

Print: \_\_\_\_\_

NOTARY PUBLIC

Notary Number: \_\_\_\_\_  
My commission expires: with life  
(SEAL)

**ACKNOWLEDGMENT**

STATE OF LOUISIANA

PARISH OF EAST BATON ROUGE

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally came and appeared **Jerome Zeringue**, me known, who declared that he is the **Executive Director**, of the **Office of Coastal Protection and Restoration, State of Louisiana**, that he executed the foregoing instrument on behalf of said State Agency and that the instrument was signed pursuant to the authority granted to him by said State Agency and that he acknowledged the instrument to be the free act and deed of said State Agency.

\_\_\_\_\_  
Print Name: \_\_\_\_\_  
NOTARY PUBLIC

Notary or Bar # \_\_\_\_\_  
My commission expires: with life  
(SEAL)

# Venice Ponds Marsh Creation and Crevasses (MR-15)

Plaquemines Parish, La

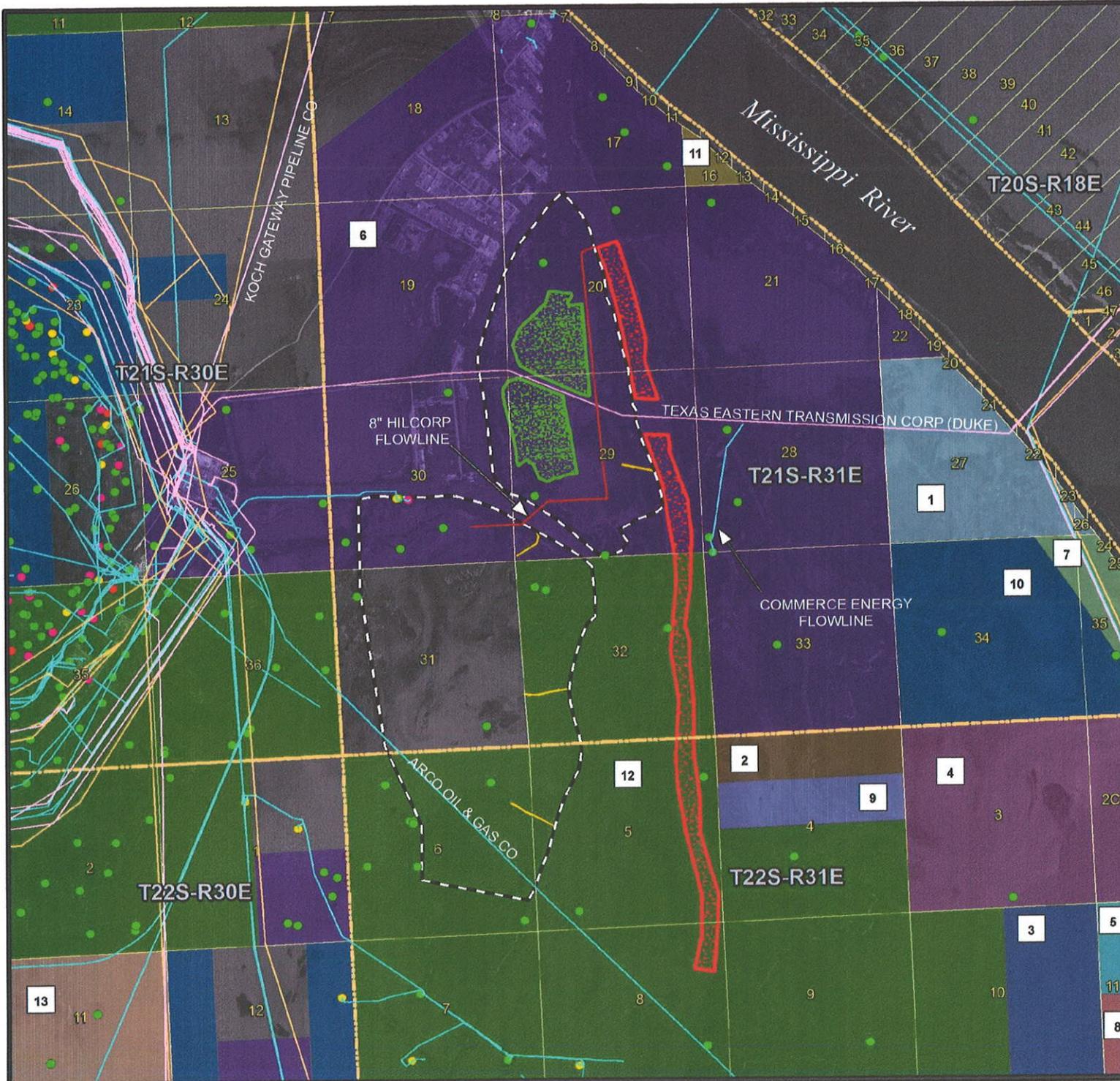
**MR-15 Boundary**  
**Borrow Site**  
**Marsh Creation**  
**Crevasse**  
**Town/Range**  
**Section**

**Pipelines**  
 NPMS  
 LGS  
 CMD  
 MAG SURVEY

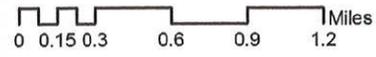
**Oil & Gas Wells**  
 Other  
 Inactive  
 Active  
 Orphan  
 Shut in

**OWNER**

1	BURAS BASIN LEVEE DISTRICT
2	CRAWFORD, SETH TURNER ET AL
3	DELESDEMIER, DON
4	ELLISTON, LURA DUFF
5	KELLER OILFIELD SERVICES INC ET AL
6	LOUISIANA FRUIT COMPANY
7	NEW ORLEANS FEMALE DOMINICAN ACADEMY
8	OGDEN, FRED NASH ET AL
9	PEREZ, JOHN R ET AL
10	PLAQUEMINES PARISH GOVERNMENT
11	PLAQUEMINES SCHOOL BOARD (SEC. 16)
12	ROBINSON INTERESTS COMPANY LLC
13	TIMOLAT, JAMES G ET AL



Coastal Protection and Restoration Authority of Louisiana

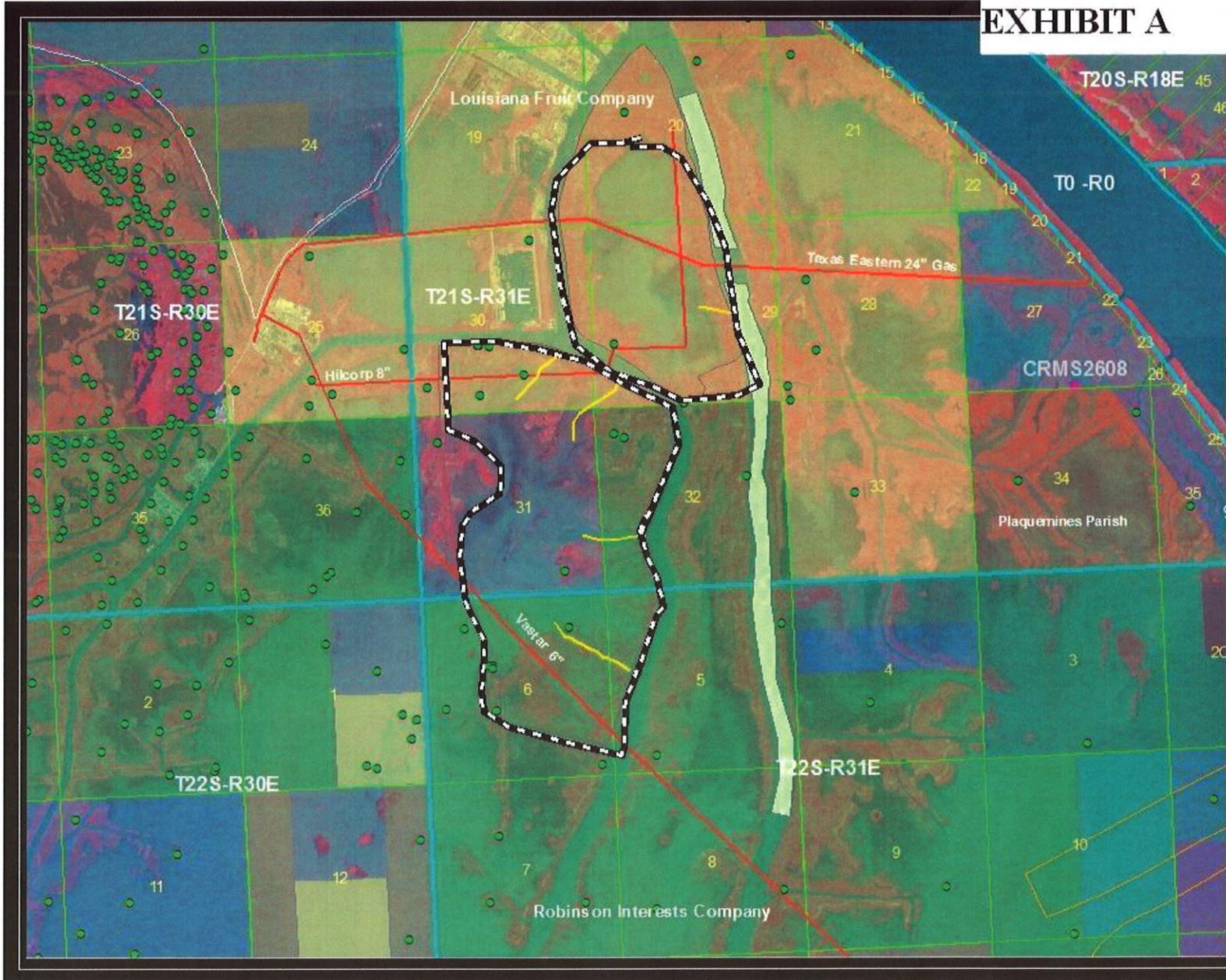


Scale 1:45,000



Source:  
 Coastal Protection & Restoration  
 Authority of Louisiana  
 Imagery: 2008 DOQQ  
 Map Date: October 11, 2011  
 //2012040008

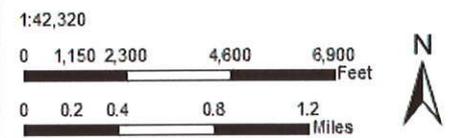
# EXHIBIT A



## MR - 15 Venice Ponds Marsh Creation and Crevasses Project Plaquemines Parish, Louisiana

	Robins on Interests Company
	Louisiana Fruit Company
	Borrow Area
	Oil and Gas Wells
	Crevasses
	Pipelines
	Project Outline

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



**Map Location**

Map Completion and Verification:  
Louisiana Department of Natural Resources  
Coastal Restoration Division  
Monitoring Section

2000 SPOT Satellite Imagery  
Map Date: October 15, 2010, revised 3-01-2011  
Map ID: MR 15 spot map

## Exhibit B

a. The right to construct (including the necessary excavation and/or filling), operate, maintain and monitor water control structures including all appurtenances thereto, in, over and across the said Lands as shown at Site(s) \_\_\_\_\_ on Exhibit A;

b. The right to construct, operate, maintain and monitor structures or improvements to enhance the deposition of sediment upon said Lands as shown at Site(s) \_\_\_\_\_ on Exhibit A;

c. The right to plant or cause the growth of vegetation in, on, over and across said Lands, including the right to nourish, replenish and maintain said vegetation at locations shown on Exhibit A;

d. The right to plug, close or fill selected channels, canals, ditches, streams or waterbodies located on said Lands as shown at Site(s) \_\_\_\_\_ on Exhibit A;

e. The right to construct (including the necessary borrow areas), maintain and monitor overflow banks so as to preclude the exchange of channelized water on, over and across said Lands shown at Site(s) \_\_\_\_\_ on Exhibit A;

f. The right to deposit dredged sediment and/or fill material on, over and across said Lands by either natural or mechanical means, including the right to alter land and/or water contours and undertake management practices to enhance or extend the beneficial use of dredged or sediment deposition for wetland creation, restoration and enhancement as shown at Site(s) \_\_\_\_\_ on Exhibit A;

g. The right to borrow, excavate, grade, and remove soil, vegetation and associated materials from the said Lands as shown at Site(s) \_\_\_\_\_ on Exhibit A;

h. The right to construct, operate, maintain and monitor channel improvements works on, over and across said Lands, including the right to enlarge, improve, deepen or realign existing channels, canals, ditches or other waterways as shown at Site(s) \_\_\_\_\_ on Exhibit A;

i. The right to construct and maintain fencing material to encourage the deposition of sand/sediment on said Lands as shown at Site(s) \_\_\_\_\_ on Exhibit A;

j. The right to relocate, alter, replace or remove appropriate pipelines, utility lines, facilities or other structures in, on, under, and across said Lands as shown at Site(s) \_\_\_\_\_ on Exhibit A;

k. The right to construct, locate, maintain and service required monitoring devices and equipment on said Lands and on other lands as may be owned by GRANTOR;

l. The right to post warning signs or notices on or near appropriate Project features on said Lands, as may be deemed necessary by STATE;

m. The right to alter or remove structures and/or appurtenances constructed on said Lands by STATE pursuant to the Project;

n. The right to enter said Lands for the purpose(s) of conducting surveys, inspections and investigations required by STATE to evaluate the effectiveness of the Project and Project features, including maintaining/improving wetland and/or restored land quantity and quality;

o. The right to enter and traverse said Lands to access Project features located on adjacent Lands;

Venice Ponds Marsh Creation And Crevasses Project (Mr-15)

Land Owners Name

p. The right, to permanently overflow, flood and submerge the said Lands, *including the right to deposit dredged or sediment material on, over and across said Lands (N.B. :this may not always be an applicable provision!)* in connection with the operation and maintenance of the Project, and the continuing right to clear and remove any brush, debris and natural obstructions on said Lands which may be detrimental to the Project as determined by DNR, its successors and assigns, provided that no excavation shall be conducted and no landfill placed on said Lands without *GRANTOR=S* approval as to the said location and method of excavation and/or placement of landfill; and

q. The right to make modifications to the above, but only insofar as changes pertain to materials for Project features and minor changes to project feature locations, as may be deemed necessary by STATE to fully and properly implement and maintain the Project.



**FW: Overgrazing Determination Request for Venice Ponds Marsh Creation and Crevasses (MR-15)**

**Jurgensen, John - NRCS, Alexandria, LA**

10/03/2011 02:44 PM

To: Chris Llewellyn, Karen McCormick

Cc: "Paul, Britt - NRCS, Alexandria, LA"

From: "Jurgensen, John - NRCS, Alexandria, LA" <john.jurgensen@la.usda.gov>

To: Chris Llewellyn/R6/USEPA/US@EPA, Karen McCormick/R6/USEPA/US@EPA

Cc: "Paul, Britt - NRCS, Alexandria, LA" <britt.paul@la.usda.gov>

---

History: This message has been replied to.

Chris,

Please note that the overgrazing determination has been completed as noted below and it was determined that overgrazing is not an issue nor expected to be one in the future as a result of this project. A formal response letter will be sent with Britt's signature. In order to expedite the project 303e you can use this email for response to the Corps.

John

---

John Jurgensen, P.E.  
Acting State Conservation Engineer  
Louisiana Engineering Staff  
USDA/Natural Resources Conservation Service  
Phone: (318) 473-7694  
Fax: (318) 473-7632

From: Trusclair, Michael - NRCS, Boutte, LA  
Sent: Monday, October 03, 2011 2:19 PM  
To: Jurgensen, John - NRCS, Alexandria, LA  
Subject: RE: Overgrazing Determination Request for Venice Ponds Marsh Creation and Crevasses (MR-15)

John,

I have reviewed the request for an overgrazing determination on MR-15 Venice Pond Project. Overgrazing is not a problem at this time and I do not expect a problem as a result of this project. If I can be of further assistance please give me a call.

Michael Trusclair  
District Conservationist  
Plaquemines, Orleans, Jefferson, St. Charles,  
St. Bernard and St. John the Baptist  
New Orleans Field Office  
USDA NRCS  
985-758-2162 ext.3

985-705-2905  
michael.trusclair@la.usda.gov

From: Jurgensen, John - NRCS, Alexandria, LA  
Sent: Monday, October 03, 2011 2:16 PM  
To: Trusclair, Michael - NRCS, Boutte, LA  
Cc: Sapp, Dexter - NRCS, Alexandria, LA; Pate, Johanna - NRCS, Alexandria, LA; Paul, Britt - NRCS, Alexandria, LA; Joseph, Randolph - NRCS, Lafayette, LA  
Subject: FW: Overgrazing Determination Request for Venice Ponds Marsh Creation and Crevasses (MR-15)

Mike,

Please initiate an overgrazing determination for the MR-15 Venice ponds project. If you need further information please let me know.

John

---

John Jurgensen, P.E.  
Acting State Conservation Engineer  
Louisiana Engineering Staff  
USDA/Natural Resources Conservation Service  
Phone: (318) 473-7694  
Fax: (318) 473-7632

From: Llewellyn.Chris@epamail.epa.gov [mailto:Llewellyn.Chris@epamail.epa.gov]  
Sent: Monday, October 03, 2011 1:44 PM  
To: Paul, Britt - NRCS, Alexandria, LA  
Cc: Jurgensen, John - NRCS, Alexandria, LA; McCormick.Karen@epamail.epa.gov  
Subject: Overgrazing Determination Request for Venice Ponds Marsh Creation and Crevasses (MR-15)

Mr. Paul,

Hello. The U.S. Environmental Protection Agency would like to request an overgrazing determination for the Venice Ponds Marsh Creation and Crevasses (MR-15) project. This determination will be included in our 303(e) request submitted to the U.S. Army Corps of Engineers in compliance with the Coastal Wetland Planning, Protection and Restoration Act SOP. We would appreciate this determination as soon as possible in order to make the 303(e) request by October 12, 2011. If you are unable to complete this determination by this date, please contact me. If you have any questions, please do not hesitate to contact me at the number below. I have attached a map of the proposed project features and the project location. Thank you for your assistance with this matter. Have a good day.

Christopher Llewellyn  
Environmental Scientist  
Marine and Coastal Section  
U.S. Environmental Protection Agency, Region 6  
1445 Ross Ave, Suite 1200 (6WQ-EC)  
Dallas, TX 75202

Office: (214) 665-7239  
Cell: (214) 310-6217

## Venice Ponds Marsh Creation and Crevasses (MR-15)

October 7, 2011

**Approved Date:** 2006

**Project Area:** 2,072 acres\*

**Approved Funds:** \$1.07 M for Engineering and Design

**Net Benefit After 20 Years:** 327 acres\*

**Status:** Engineering and Design

**Project Type:** Marsh Creation and Crevasse Creation

**Location:** The project area is located in the CWPPRA Mississippi River Delta Basin in Plaquemines Parish south of Venice, Louisiana, adjacent to Tiger and Grand Pass.

**Problems:** Between 1932 and 1974, the mapping unit lost 38,400 of 59,640 acres of marsh as a result of subsidence, tropical storm activity, canal creation and maintenance, and hydrologic modification. Between 1974 and 1990, another 13,260 acres of land was lost. It is estimated that without restoration efforts, more than 91 percent of the remaining land will be lost by the year 2050.

**Restoration Strategy:** The project will create marsh in open water areas that were nearly solid wetlands in 1956 by depositing material acquired through dedicated dredging and by constructing crevasses. It is anticipated that approximately 190 acres of marsh will be created by hydraulically dredging material from Grand Pass. The dredged material will be pumped into two fill areas surrounded by containment dikes along the existing marsh boundaries. Containment dikes will be gapped 20 feet wide every 500 feet. Four crevasses will be constructed to convey the sediment-laden waters of Grand and Tiger Passes into the benefitted areas. One crevasse will be created and two existing crevasses off of Tiger Pass will be enhanced through deepening in order to promote deltaic splay growth and nourishment of existing marsh. Another crevasse will be constructed off of Grand Pass to promote deltaic splay growth and introduce sediment laden water into the marsh creation areas.

**Progress to Date:** The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design in February 2006. The project will be holding a 95% Design Review Conference on October 25, 2011.

*\*NOTE: Based upon a preliminary draft version of the Wetland Value Assessment model for this project. This version is being reviewed by the Environmental Workgroup and has not yet been approved.*

Enclosure G: Overgrazing Determination



**FW: Overgrazing Determination Request for Venice Ponds Marsh Creation and Crevasses (MR-15)**

**Jurgensen, John - NRCS, Alexandria, LA**

10/03/2011 02:44 PM

To: Chris Llewellyn, Karen McCormick

Cc: "Paul, Britt - NRCS, Alexandria, LA"

From: "Jurgensen, John - NRCS, Alexandria, LA" <john.jurgensen@la.usda.gov>

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District Conservationist  
Plaquemines, Orleans, Jefferson, St. Charles,  
St. Bernard and St. John the Baptist  
New Orleans Field Office  
USDA NRCS  
985-758-2162 ext.3

985-705-2905

michael.trusclair@la.usda.gov

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Cc: Sapp, Dexter - NRCS, Alexandria, LA; Pate, Johanna - NRCS, Alexandria, LA; Paul, Britt - NRCS, Alexandria, LA; Joseph, Randolph - NRCS, Lafayette, LA  
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Acting State Conservation Engineer  
Louisiana Engineering Staff  
USDA/Natural Resources Conservation Service  
Phone: (318) 473-7694  
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Christopher Llewellyn  
Environmental Scientist  
Marine and Coastal Section  
U.S. Environmental Protection Agency, Region 6  
1445 Ross Ave, Suite 1200 (6WQ-EC)  
Dallas, TX 75202

Office: (214) 665-7239  
Cell: (214) 310-6217

Enclosure H: Fully Funded Cost Estimate, including cost schedule

Enclosure I: Revised Wetland Value Assessment (WVA) and AAHU calculations

# Venice Ponds Marsh Creation and Crevasses

## Fifteenth Priority Project List of the Coastal Wetlands Planning, Protection and Restoration Act



**Proposed by**

U.S. Environmental Protection Agency

**Project Information Sheet for the Wetland Value Assessment  
95% Design Review**

November 1, 2011

Contact: Chris Llewellyn, U.S. EPA, (214) 665-7239

# Wetland Value Assessment Project Information Sheet

## November 1, 2011

**Project Name:** Venice Ponds Marsh Creation and Crevasses

**Sponsoring Agency:** U.S. Environmental Protection Agency (EPA)

Env. WG contact: Chris Llewellyn, (214) 665-7239

Eng. WG Contact: Paul Kaspar, (214) 665-7459

**Project Area:** The project area is located in CWPPRA Region 2, Mississippi River Delta Basin, West Bay Mapping Unit, Plaquemines Parish (LCWCRTF 1999). The borrow location will be in Grand Pass. The marsh creation component of the project is located between Grand Pass and Tiger Pass and the crevasse component of the project will be constructed along Grand Pass and Tiger Pass. The marsh creation area encompasses 187 ac of open water and 4 ac of marsh (Figure 1). The crevasse receiving areas include 726 acres (100 acres of marsh, 626 acres of water). The total project area is 917 acres.

**Problem:** The project area has lost a considerable amount of land since 1956 mainly due to a subsidence rate of 3-5 feet per century and damage from hurricanes. The project area consists of two areas near Venice, Louisiana that were nearly solid wetlands in 1956 and are now mostly water. Between 1932 and 1974, the area (West Bay Mapping Unit) lost 38,400 acres of the original 59,640 acres of marsh as a result of subsidence, tropical storm activity, canal creation and maintenance and hydrologic modification (LCWCRTF 1999). Between 1974 and 1990 another 13,260 acres of land had been lost (LCWCRTF 1999). It is estimated that without restoration efforts over 91% of the remaining land would be lost by the year 2050.

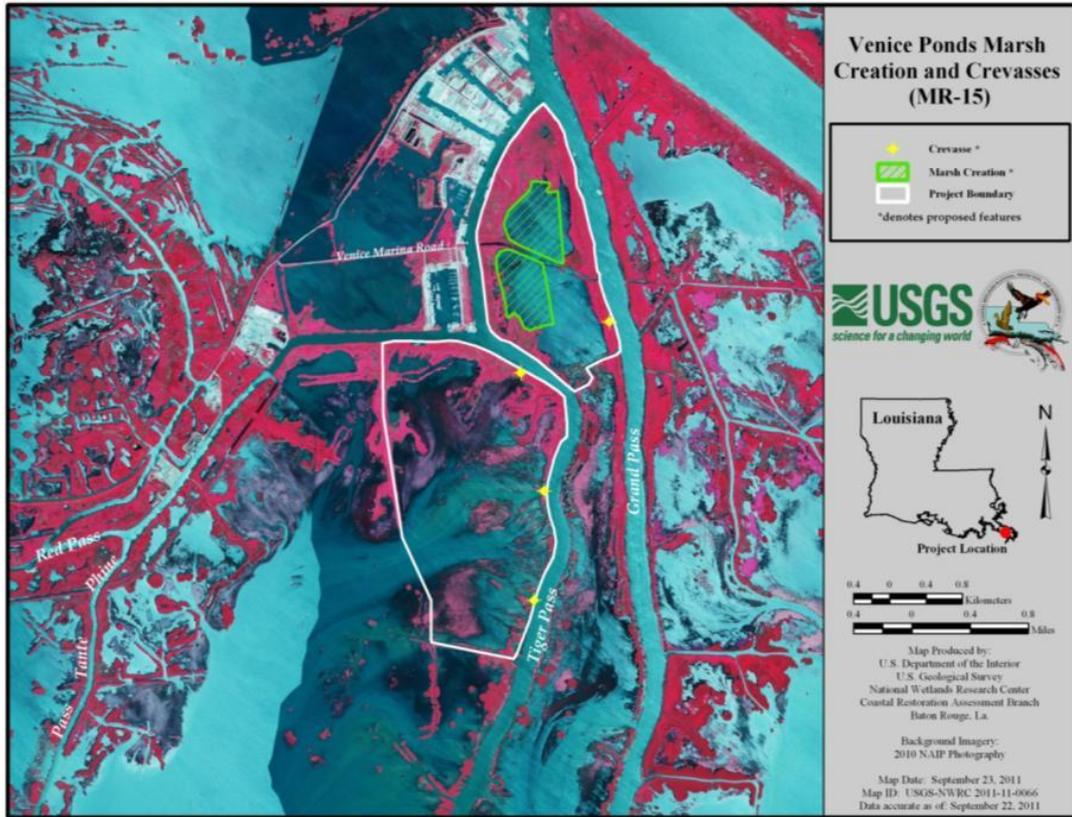
**Goals:** The goal of this project is to create 187 acres and nourish 4 acres of fresh marsh utilizing sediment from Grand Pass and to create, enhance and maintain marsh through the creation and enhancement of crevasses along Grand Pass and Tiger Pass. *(Note: Acreages analyzed in the WVA are 1 acre greater than indicated in the design report likely due to a rounding error in the analysis. For the purpose of the WVA, it was decided to use the data provided by USGS. The design report will remain at approximately 190 acres.)*

**Proposed Project Features:** The project incorporates 187 acres of marsh creation and 4 acres of marsh nourishment with the construction of two crevasses and enhancement of two existing crevasses (Figure 1). In addition, we plan to plant bald cypress, *Taxodium distichum*, along several reaches of the project area. The marsh creation/nourishment component, crevasse construction and enhancement component and a vegetative planting component will be described in further detail below.

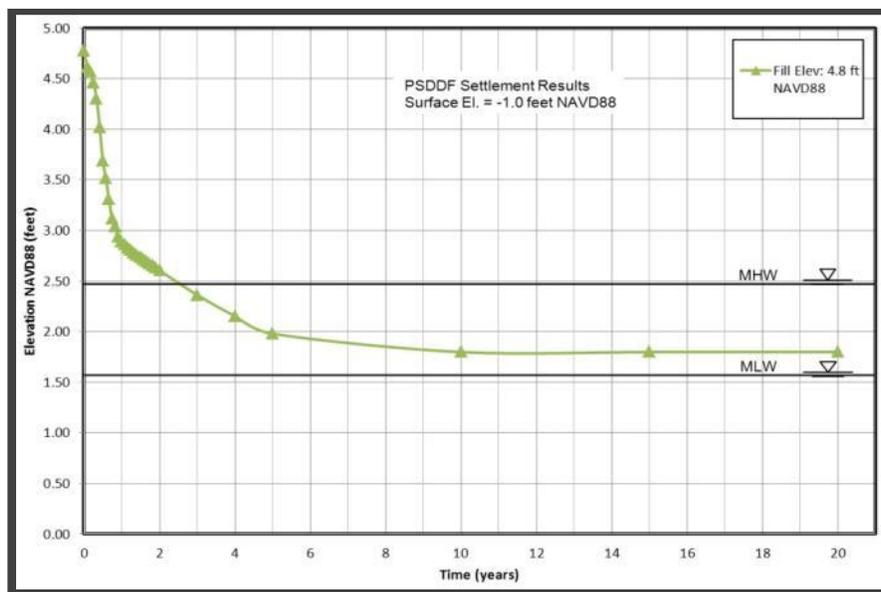
### Marsh Creation and Nourishment

The marsh creation/nourishment component of this project consists of approximately 187 ac of marsh creation and approximately 4 ac of marsh nourishment. These numbers are based upon the land/water analysis conducted by USGS in 2011 on the marsh creation/nourishment boundary. The target elevation is a range from +1.7 feet NAVD88 to +2.0 feet NAVD88. The target elevation was determined from GPS RTK topographic survey data collected in April 2010 throughout the project area. This information was then referenced to Coastwide Reference Monitoring Stations (CRMS) nearby (CRMS0163 and CRMS 2608). A geotechnical settlement analysis was conducted during the Phase 1 design of the project. It is anticipated that the marsh

platform will be within this range (+1.98 feet NAVD88) starting 5 years after construction and will remain within this range throughout the project's planned 20 year life span (Figure 2). Nyman et al. 1990 state that freshwater wetlands in the active delta should keep pace with relative sea level rise (RSLR) through increased productivity and inputs of mineral sediments.

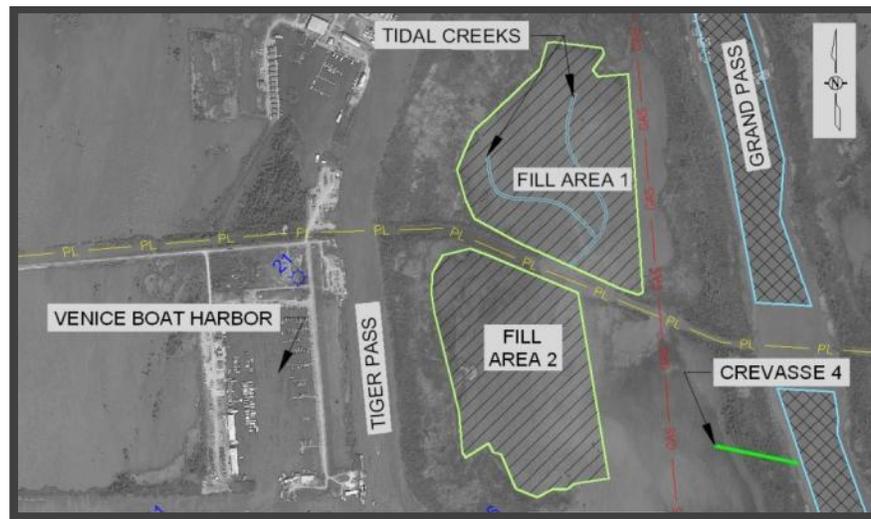


**Figure 1** Venice Ponds Marsh Creation and Crevasses project area map. Fill Area 1 is northern most marsh creation area and Fill Area 2 is southern most marsh creation area



**Figure 2** Settlement analysis performed on constructed fill elevation

The marsh platform will be created and nourished with sediment hydraulically dredged from Grand Pass. It is estimated that approximately 1.9 million yd<sup>3</sup> of sediment slurry will be needed in order to fill the marsh creation/nourishment cells to their designed construction elevation of +4.9 feet NAVD88 (Will settle to +1.98 feet NAVD88 by TY5). Cell #1 and #2 will be gapped post construction to allow for tidal exchange. A tidal creek will be constructed in Cell #1 in order to increase the tidal exchange in this area (Figure 3). It was decided that Cell #2 was not large enough to need a tidal creek to be constructed and gapping should provide sufficient access.



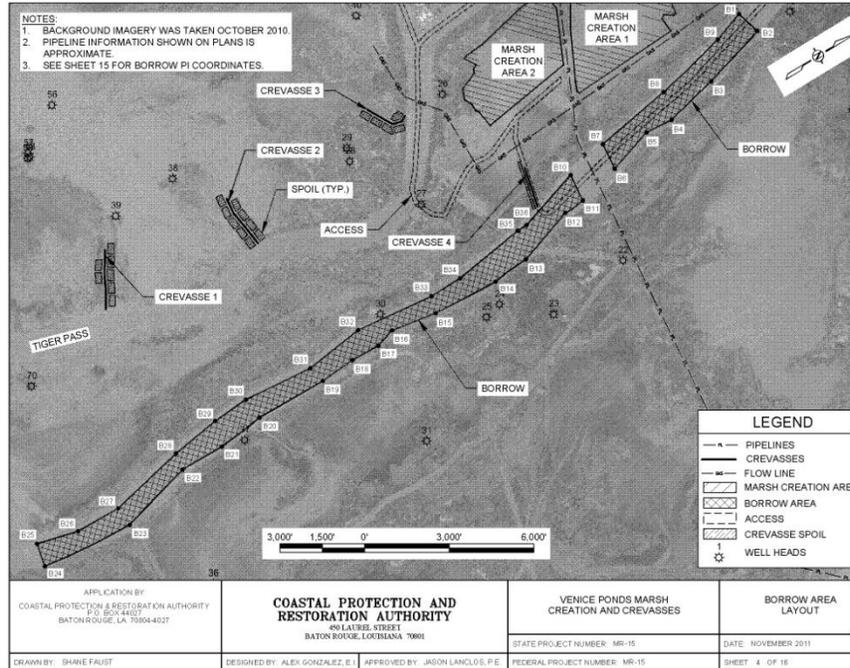
**Figure 3** Marsh Creation/Nourishment fill area design including tidal creeks

### Crevasses

All crevasses, constructed or enhanced, will share the same cross sectional area. They will be designed to be 6.5 feet deep with a 90 ft top width and 4H:1V (Horizontal:Vertical) side slopes. They will have a flat bottom for their entire reach. Material from crevasses will be side cast in 150 ft wide and 250 long segments separated by 50 foot gaps. In some instances, this will result in the conversion of wetlands into non-wetlands. Existing wetlands will be avoided in order to minimize impacts resulting from the conversion of wetlands to non-wetlands. There will be no conversion of wetland acres into non-wetland acres due to spoil placement for the two crevasse enhancement components due to the lack of wetland acres on at least one bank of the crevasse. In total, 2 crevasses will be create and two crevasses will be enhanced (Figure 4).

### Vegetative Plantings

4,025 bald cypress (3,900 3-gallon saplings, 125 25-gallon trees), *Taxodium distichum*, (hereafter referred to as cypress) will be planted along the western boundary of the marsh creation area and along the crevasse constructed adjacent to Grand Pass. It is anticipated that approximately a dozen bald cypress trees may be impacted by the construction of the crevasse. To account for this damage, the 25-gallon cypress trees will be planted in this area on 15 ft spacing. 1,950 3-gallon cypress trees will be planted on 10 ft spacing on the marsh creation cells' western boundary after construction. An additional 1,950 3-gallon cypress trees will be planted in this same area 3 years post construction to account for any mortality between TY1 and TY3. If all the trees were to be planted at the same time, it is estimated that approximately 7 acres could be planted. It was decided not to run a swamp model on this project due to the small number of acres that will be planted with the cypress and the main objective of the project is to create marsh.



**Figure 4** Crevasse layout and spoil placement

**Historical and Present Vegetative Community:** There are two CRMS sites located near the project area. They are identified as CRMS 0163 and CRMS 2608 (Figure 5). A comparison of the vegetative plant communities at CRMS 0163 (100% *Phragmites australis*) and CRMS 2608 stations indicate that CRMS 2608 most accurately describes the current plant community at the Venice Ponds Marsh Creation and Crevasses project location. Vegetative community surveys describe CRMS 2608 as a fresh marsh as far back as 1949. The most recent habitat classification of the area indicates that project area is a fresh marsh as well (Sasser et al. 2008).

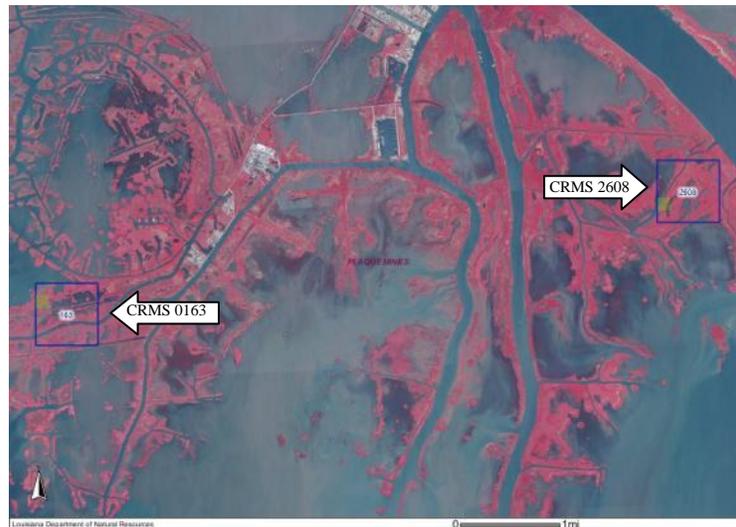
During the most recent visit to the site, in October 2010, the marsh community appeared to be dominated by elephant ear, *Colocasia esculenta*, giant cutgrass, *Zizaniopsis miliacea*, cattail, *Typha spp.*, and roseau cane, *Phragmites australis*. Bald cypress, *Taxodium distichum*, was also present along the eastern boundary of the project area, adjacent to Grand Pass.

**Soil Type:** The soil type classification at the nearby CRMS 2608 station are classified as Balize and Larose soils (LaOCPRA 2011).

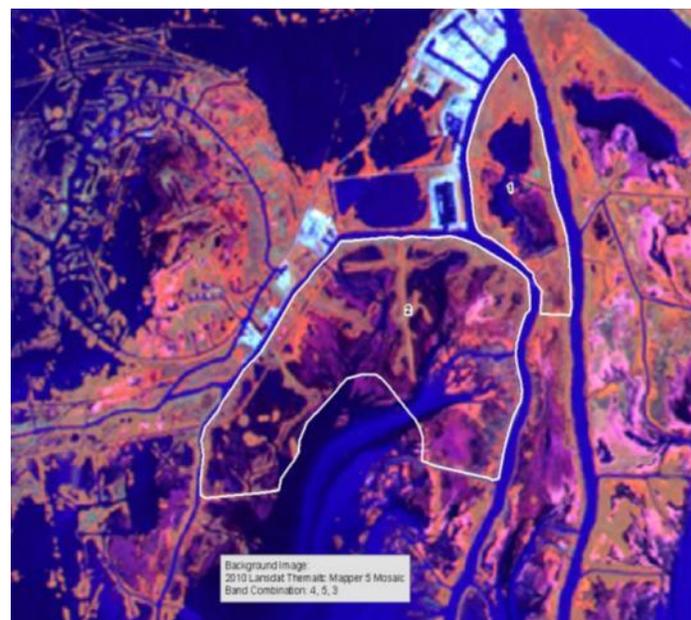
**Land Loss Data:** A historical loss rate was calculated for the area using an extended project boundary that encompasses 3,805 acres (Figure 6). USGS conducted a hyper-temporal land-water analysis on this boundary. Land-water data from 1985 – 2011 was used to determine the historical loss rate. The loss rate for this period is -0.28% per year. The loss rate was determined by plotting the percent land present within the extended boundary over time. A linear regression was created with this data and the slope of this line is the annual percent land loss rate (Figure 7).

The Venice Ponds Marsh Creation and Crevasses marsh creation project area encompasses 191 acres. The crevasse component boundary, delineated by the crevasse receiving area acreage, encompasses 720 acres. Within the marsh creation/nourishment area, 4 acres were classified as marsh and 187 acres were classified as open water (USGS 2011). The marsh creation/nourishment land loss spreadsheet was used to determine FWP land loss rates. Existing

marsh acres are classified as marsh nourishment and existing open water acres are classified as marsh creation.



**Figure 5** Location of CRMS 0163 and CRMS 2608 stations



**Figure 6** Extended project boundary used to determine historical land loss rate for project area

The crevasse component was delineated into receiving areas that would likely be influenced by the crevasses. For the crevasse constructed off Grand Pass, the receiving area is 132 acres and is delineated by the boundaries of the marsh creation cells and the existing marsh (Figure 9 **Error! Reference source not found.**). Receiving areas were delineated for each crevasse on Tiger Pass and were 122 acres, 233 acres and 233 acres in size (Figure 9 **Error! Reference source not found.**). Only water acres from each receiving area will be input into the crevasse model.

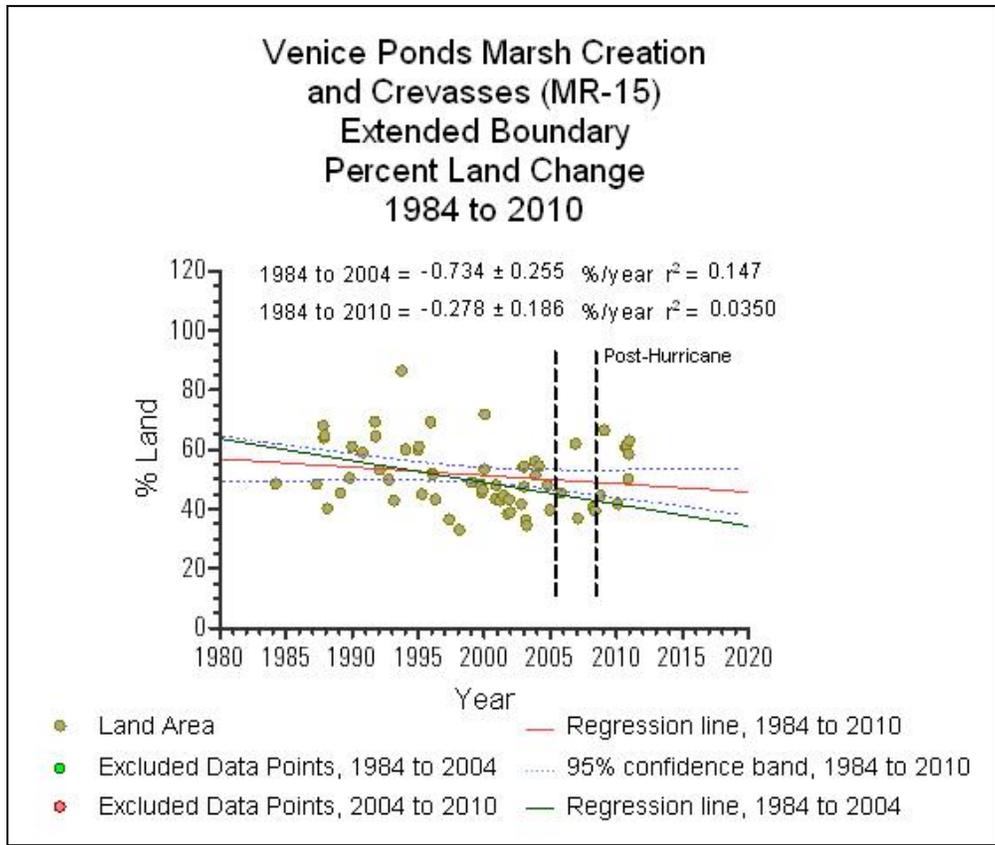


Figure 7 Land loss rate for extended project boundary prepared by USGS (2011)

**WVA Layout:** For the purposes of the WVA, it was decided to treat the marsh creation component separately from the crevasse component. Separate WVAs were run for the marsh creation and crevasse components.

**Marsh Creation WVA**

**V1 – Emergent Vegetation**

According to USGS, there were 4 acres of marsh and 187 acres of open water. One year of loss was applied to the 2011 land acreage to arrive at TY0 land acres.

**TY0 Acreage: Marsh = 4 acres    Water = 187 acres    Total = 191 acres**

Marsh acres were classified as marsh nourishment and open water was classified as marsh creation.

**FWOP**

We assume the 1984-2011 loss rate (-0.28%) continues for the project life. At this rate it is not anticipated that any land will be lost by TY20 (Table 1).

- TY0: 4 acres = 2%                      Water = 187 acres
- TY1: 4 acres = 2%                      Water = 187 acres
- TY20: 4 acres = 2%                      Water = 187 acres

## FWP

As stated previously, one year of loss has been applied to the project area in order to determine land acreage. Existing marsh will be nourished and marsh creation will occur in open water. The standard 50% land loss reduction is applied to FWP acreages. A target marsh elevation of +1.7 feet NAVD 88 to +2.0 feet NAVD88 was used based on GPS RTK topographic data collected (April 2010) during Phase 1 data acquisition. We will receive a 10% marsh credit at TY1 and a 100% credit at TY3 based upon previous Environmental Workgroup decisions regarding marsh creation in a fresh marsh in the Mississippi River Delta. Also, note that the 5% benefit at TY3 for tidal creek creation is included under the 100% credit at TY3 since you cannot give credit greater than 100%.

### Vegetated Marsh

TY1: 21 acres = 11%  
TY3: 190 acres = 99%  
TY5: 190 acres = 99%  
TY20: 186 acres = 97%

### Water

TY1: 0 acres  
TY3: 1 acres  
TY5: 1 acres  
TY20: 5 acres

## **V2 – Submerged Aquatic Vegetation**

The Phase 0 WVA states that submerged aquatic vegetation (SAV) percent cover was 50% in areas that overlap with the current project boundary. Recent site visits conducted in October 2009 and 2010 indicate that the SAV percent cover is higher than this. Several species were present, including *Potamogeton nodosus*, *Myriophyllum spicatum* and *Ceratophyllum demersum*.

## FWOP

The project area had dense concentrations of submerged aquatic vegetation throughout. It is not anticipated that anything will happen FWOP that would change this percentage.

TY0: 75%  
TY1: 75%  
TY20: 75%

## FWP

The project is expected to fill all open water inside the marsh creation project area. It is anticipated that the crevasses will support and stimulate SAV production in the marsh creation area through the input of nutrients.

TY1: 0%  
TY3: 75%  
TY5: 75%  
TY20: 75%

Project:		Venice Ponds Marsh Creation & Crevasses			Loss Rate (%/yr)										
Total Acres		TY0 Marsh Acres		TY0 Water Acres	-0.28										
191		4		187	FWP Land Loss Rate Reduction 0.50										
FWOP					FWP - Created Marsh			FWP - Nourished Marsh			FWP Totals				Total Acres Check
					Created Marsh = 187			Nourished Marsh = 4							
TY	FWOP Loss Rate	Marsh (acres)	% Marsh (V1)	Water (acres)	FWP Loss Rate	Created Marsh Acreage	Adjusted Marsh Acreage (10% @ TY1 and 100% @ TY3)	FWP Loss Rate	Nourished Marsh Acreage	Adjusted Marsh Acreage (50% @ TY1 and 100% @ TY3)	Water (acres)	Marsh (acres)	% Marsh (V1)	Net Acres of Marsh	Total Acres Check
0		4	2%	187		0			0						
1	-0.0028	4	2%	187	-0.0014	187	19	-0.0014	4	2	0	21	11%		191
2	-0.0028	4	2%	187	-0.0014	186		-0.0014	4		1				191
3	-0.0028	4	2%	187	-0.0014	186	186	-0.0014	4	4	1	190	100%		191
4	-0.0028	4	2%	187	-0.0014	186		-0.0014	4		1				191
5	-0.0028	4	2%	187	-0.0014	186	186	-0.0014	4	4	1	190	99%	186	191
6	-0.0028	4	2%	187	-0.0014	185	185	-0.0014	4	4	2	189	99%	185	191
7	-0.0028	4	2%	187	-0.0014	185	185	-0.0014	4	4	2	189	99%	185	191
8	-0.0028	4	2%	187	-0.0014	185	185	-0.0014	4	4	2	189	99%	185	191
9	-0.0028	4	2%	187	-0.0014	185	185	-0.0014	4	4	2	189	99%	185	191
10	-0.0028	4	2%	187	-0.0014	184	184	-0.0014	4	4	3	188	99%	184	191
11	-0.0028	4	2%	187	-0.0014	184	184	-0.0014	4	4	3	188	98%	184	191
12	-0.0028	4	2%	187	-0.0014	184	184	-0.0014	4	4	3	188	98%	184	191
13	-0.0028	4	2%	187	-0.0014	184	184	-0.0014	4	4	3	188	98%	184	191
14	-0.0028	4	2%	187	-0.0014	183	183	-0.0014	4	4	4	187	98%	183	191
15	-0.0028	4	2%	187	-0.0014	183	183	-0.0014	4	4	4	187	98%	183	191
16	-0.0028	4	2%	187	-0.0014	183	183	-0.0014	4	4	4	187	98%	183	191
17	-0.0028	4	2%	187	-0.0014	183	183	-0.0014	4	4	4	187	98%	183	191
18	-0.0028	4	2%	187	-0.0014	182	182	-0.0014	4	4	5	186	98%	182	191
19	-0.0028	4	2%	187	-0.0014	182	182	-0.0014	4	4	5	186	97%	182	191
20	-0.0028	4	2%	187	-0.0014	182	182	-0.0014	4	4	5	186	97%	182	191

Table 1 Land loss spread sheet for the Venice Ponds Marsh Creation and Crevasses project; marsh creation component

### **V3 – Interspersion**

#### FWOP

No further land loss is anticipated in the marsh creation areas FWOP based upon the land loss rate provided by USGS. There are only four (4) acres of wetlands existing inside the marsh creation areas. Both marsh creation areas are lumped together.

TY0: 100% Class 5  
TY1: 100% Class 5  
TY20: 100% Class 5

#### FWP

Class assignments follow the standard workgroup convention for marsh creation for both fill areas.

TY1: 100% Class 5  
TY3: 100% Class 3  
TY5: 100% Class 1  
TY20: 100% Class 1

### **V4 – Shallow Open Water Habitat**

Water depths were surveyed using GPS-RTK equipment in April 2010 by a contractor tasked with collecting bathymetric and topographic data for project design purposes. This data was used for the following FWOP V4 determinations. All water depth data are adjusted based upon the mean long-term water elevation for CRMS station 2608 (mean water elevation +2.18 feet NAVD 88) for the period July 2009 – June 2011. See separate excel spreadsheet for bathymetry data, percent shallow open water analysis and survey locations.

An attempt to account for subsidence was made utilizing a subsidence rate of 3.5 ft/century, 0.035ft/year, (0.7 ft at TY20) for the West Bay mapping unit from Coast 2050: Appendix D Region 2 Supplemental Information.

#### FWOP

TY0: 8 %  
TY1: 8 %  
TY20: 2 %

#### FWP

TY1: 0 %  
TY3: 100 %  
TY5: 100 %  
TY20: 100 %

### **V5 – Salinity**

The 2009-2011 mean growing season salinity (March 1 – November 30) was calculated using the closest CRMS station to the project area (CRMS2608, Figure 8). Salinity is assumed not to change FWOP or FWP. We plan to use the Fresh Marsh WVA model.



**Figure 8** Location of CRMS2608 in reference to the proposed project boundary (outlined in yellow)

FWOP

TY0: 0.35 ppt  
 TY1: 0.35 ppt  
 TY20: 0.35 ppt

FWP

TY1: 0.35 ppt  
 TY3: 0.35 ppt  
 TY5: 0.35 ppt  
 TY20: 0.35 ppt

**V6 – Aquatic Organism Access**

FWOP

The project area exhibits unrestricted aquatic organism access.

TY1: 1.0  
 TY3: 1.0  
 TY20: 1.0

FWP

The project area will remain an open system with no in-channel obstructions to fishery access. Fifty (50) foot gaps will be created in the containment every 500 feet and a tidal creek will be constructed in fill area 1. The settlement analysis also indicates the marsh platform will be lower than mean high water (MHW) by TY3 as well. The standard workgroup convention was applied FWP.

TY1: 0.0001  
 TY3: 1.0

TY5: 1.0  
 TY20: 1.0

## Crevasse Creation and Enhancement WVA

### **V1 – Emergent Vegetation**

According to USGS, the designated crevasse receiving areas encompass 726 acres, consisting of 100 acres of marsh and 626 acres of open water. One year of loss was applied to the 2011 land acreage to arrive at TY0 land acres.

**TY0 Acreage: Marsh = 100 acres    Water = 626 acres    Total = 726 acres**

### FWOP

We assume the 1984-2011 loss rate (-0.28%) continues for the project life. At this rate we estimate 5 acres of marsh inside the receiving area boundaries will be lost (Figure 9, Table 2) by TY20.

TY0: 100 acres = 14%                      Water = 626 acres  
 TY1: 100 acres = 14%                      Water = 626 acres  
 TY20: 95 acres = 13%                      Water = 631 acres

### FWP

For the FWP condition, the marsh acreage that results from the creation and enhancement of crevasses was estimated with the CWPPRA crevasse model (

Receiving Area C-1							
parent order	parent width (yds)	real age	crevasse age	crevasse csa (sq yds)	receiving area (ac)	Growth (ac)	Total (ac)
2	240	0	0	46.2	100	3.17	
2	240	1	1	46.2	100	2.84	
2	240	2	2	46.2	100	2.52	8.53
2	240	3	3	46.2	100	2.20	
2	240	4	4	46.2	100	1.87	12.60
2	240	5	5	46.2	100	1.55	
2	240	6	6	46.2	100	1.22	
2	240	7	0	46.2	100	3.17	
2	240	8	1	46.2	100	2.84	
2	240	9	2	46.2	100	2.52	
2	240	10	3	46.2	100	2.20	
2	240	11	4	46.2	100	1.87	
2	240	12	5	46.2	100	1.55	
2	240	13	6	46.2	100	1.22	
2	240	14	7	46.2	100	0.90	
2	240	15	8	46.2	100	0.58	
2	240	16	9	46.2	100	0.25	
2	240	17	10	46.2	100	-0.07	
2	240	18	11	46.2	100	-0.40	
2	240	19	12	46.2	100	-0.72	31.28

Receiving Area C-3					
parent order	parent width (yds)	real age	crevasse age	crevasse csa (sq yds)	r a
2	190	0	0	38.3	
2	190	1	1	38.3	
2	190	2	2	38.3	
2	190	3	3	38.3	
2	190	4	4	38.3	
2	190	5	5	38.3	
2	190	6	6	38.3	
2	190	7	0	38.3	
2	190	8	1	38.3	
2	190	9	2	38.3	
2	190	10	3	38.3	
2	190	11	4	38.3	
2	190	12	5	38.3	
2	190	13	6	38.3	
2	190	14	7	38.3	
2	190	15	8	38.3	
2	190	16	9	38.3	
2	190	17	10	38.3	
2	190	18	11	38.3	
2	190	19	12	38.3	

Receiving Area C-2							
parent order	parent width (yds)	real age	crevasse age	crevasse csa (sq yds)	receiving area (ac)	Growth (ac)	Total (ac)
2	200	0	0	19.5	201	2.49	
2	200	1	1	19.5	201	2.16	
2	200	2	2	19.5	201	1.84	6.49
2	200	3	3	19.5	201	1.51	
2	200	4	4	19.5	201	1.19	9.19
2	200	5	5	19.5	201	0.87	
2	200	6	6	19.5	201	0.54	
2	200	7	0	19.5	201	2.49	

Receiving Area C-4					
parent order	parent width (yds)	real age	crevasse age	crevasse csa (sq yds)	r a
1	230	0	0	46.2	
1	230	1	1	46.2	
1	230	2	2	46.2	
1	230	3	3	46.2	
1	230	4	4	46.2	
1	230	5	5	46.2	
1	230	6	6	46.2	
1	230	7	0	46.2	

2	200	8	1	19.5	201	2.16		1	230	8	1	46.2
2	200	9	2	19.5	201	1.84		1	230	9	2	46.2
2	200	10	3	19.5	201	1.51		1	230	10	3	46.2
2	200	11	4	19.5	201	1.19		1	230	11	4	46.2
2	200	12	5	19.5	201	0.87		1	230	12	5	46.2
2	200	13	6	19.5	201	0.54		1	230	13	6	46.2
2	200	14	7	19.5	201	0.22		1	230	14	7	46.2
2	200	15	8	19.5	201	-0.11		1	230	15	8	46.2
2	200	16	9	19.5	201	-0.43		1	230	16	9	46.2
2	200	17	10	19.5	201	-0.75		1	230	17	10	46.2
2	200	18	11	19.5	201	-1.08		1	230	18	11	46.2
2	200	19	12	19.5	201	-1.40	17.66	1	230	19	12	46.2

Table 3). The CWPPRA crevasse model uses the parent stream order, width of the parent stream channel, crevasse age, the



**Figure 9** Crevasse receiving areas.

crevasse cross sectional area ( $\text{yd}^2$ ) and the receiving area size (acres) to calculate how much land will be created. The dimensions for the crevasses will be the same and are listed below:

- Top Width: 90 feet
- Side Slopes: 4:1 (horizontal:vertical)
- Bottom Width: 38 feet
- Depth: 6.5 feet (below surface)

These dimensions yield a cross sectional area of  $46.2 \text{ yd}^2$  for each crevasse. The  $46.2 \text{ yd}^2$  cross sectional area was used in the crevasse model for the two created crevasses (C1 and C4) in the project area but was not used for the enhanced crevasses (Table 3). The crevasse enhancement will be occurring in two existing crevasses (C2 and C3) with an existing cross sectional area (Table 3). To calculate the FWP cross sectional area for each enhanced crevasse, bathymetry data collected during Phase 1 data collection in April 2010 was used to determine the existing cross sectional area. Then, we overlaid the crevasse excavation cross section and determined

how much the cross sectional area would increase with the crevasse enhancement (Figure 10). Only the additive cross sectional area resulting from crevasse enhancement was used in the crevasse model. Cross sectional area calculations were made using AutoCAD. A crevasse maintenance event is planned at TY7. This maintenance event will restore the crevasse excavations to their designed cross sectional area. This event is accounted for in the crevasse model by changing the crevasse age back to 0 in the crevasse model.

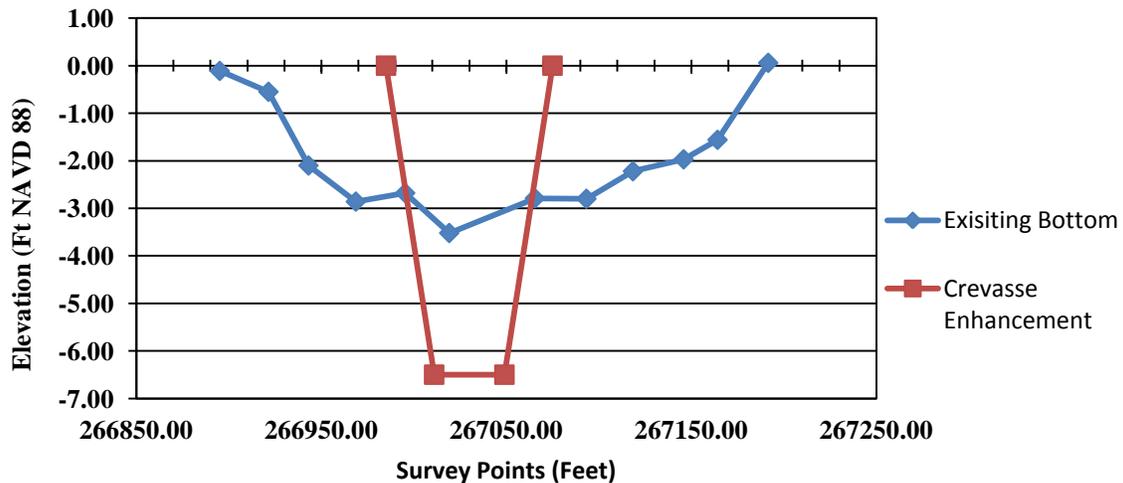


Figure 10 Existing and crevasse enhancement cross sectional area

FWP impacts resulting from the conversion of wetlands into non-wetlands resulting from the excavation and placement of fill material in existing wetlands was also taken into account. It was estimated that approximately 5.8 acres of wetlands would be converted to non-wetlands due to crevasse excavation activities. This loss was applied at TY1 FWP. The standard marsh creation/marsh nourishment spreadsheet was used to calculate total marsh acres at each target year (TY). No FWP land loss rate was applied to the created marsh acres because a loss rate is already factored in to the crevasse model. Marsh that was created in each receiving area was summed and then hard coded under marsh creation. It was assumed that all marsh acres inside the crevasse receiving areas would receive nourishment from the crevasse. We propose a 40% in the existing land loss rate for those acres that are nourished by the crevasse. No reductions in marsh acreage were taken at TY1 because unlike marsh creation utilizing dredge material, the deltaic splay is more gradual allowing for suitable elevations and the colonization and expansion of vegetation. We evaluate TY1 and TY7 because that is when construction and maintenance events will occur. TY20 is evaluated because that is at project completion.

**Marsh**

TY1: 107 acres = 15%  
 TY7: 160 acres = 22%  
 TY20: 231 acres = 32%

**Water**

TY1: 619 acres  
 TY7: 566 acres  
 TY20: 495 acres

**V2 – Submerged Aquatic Vegetation**

The previous WVA states that submerged aquatic vegetation (SAV) percent cover was 50% in areas that overlap with the current project boundary. Recent site visits conducted in October 2009 and 2010 indicate that the SAV percent cover is higher than this. Several species were present, including *Potamogeton nodosus*, *Myriophyllum spicatum* and *Ceratophyllum demersum*.

### FWOP

The project area had dense concentrations of submerged aquatic vegetation throughout. It is not anticipated that anything will happen FWOP that would change this percentage.

TY0: 75%

TY1: 75%

TY20: 75%

### FWP

It is anticipated that the crevasses will support and stimulate SAV production in the area through the input of nutrients.

TY1: 80%

TY7: 80%

TY20: 80%

### **V3 – Interspersion**

#### FWOP

The crevasse receiving areas are primarily open water fringed by marsh. The crevasse creation will have to cut through existing marsh and there is some marsh in the near the crevasse enhancements. This marsh is along the bank of the passes and is thought to be relatively more stable due to the input of mineral sediments the marshes along the bank. We expect no change TY0 through TY 20 to the interspersion ranking FWOP.

TY0: 100% Class 4

TY1: 100% Class 4

TY20: 100% Class 4

#### FWP

Based upon the cumulative outcome of the crevasse models, FWP Interspersion conditions were estimated using best professional judgment.

TY1: 100% Class 4

TY7: 25% Class 3; 75% Class 4

TY20: 50% Class 3; 50% Class 4

Project:		Venice Ponds Marsh Creation & Crevasses; Crevasse Component			Loss Rate (%/yr)										
Total Acres		TY0 Marsh Acres		TY0 Water Acres	FWP Land Loss Rate Reduction				FWP Totals				Total Acres Check		
726		100		626	0.40										
FWOP					FWP - Created Marsh			FWP - Nourished Marsh			FWP Totals				
					Crevasse Growth =			Nourished Marsh = 94							
TY	FWOP Loss Rate	Marsh (acres)	% Marsh (V1)	Water (acres)	FWP Loss Rate	Created Marsh Acreage		FWP Loss Rate	Nourished Marsh Acreage		Water (acres)	Marsh (acres)	% Marsh (V1)	Net Acres of Marsh	Total Acres Check
0		100	14%	626		0			0						
1	-0.0028	100	14%	626		13		-0.00168	94		619	107	15%		726
2	-0.0028	99	14%	627		26		-0.00168	94		607	119			726
3	-0.0028	99	14%	627		36		-0.00168	94		596	130	18%		726
4	-0.0028	99	14%	627		46		-0.00168	93		587	139			726
5	-0.0028	99	14%	627		54		-0.00168	93		579	147	20%	49	726
6	-0.0028	98	14%	628		61		-0.00168	93		572	154	21%	56	726
7	-0.0028	98	14%	628		67		-0.00168	93		566	160	22%	62	726
8	-0.0028	98	13%	628		80		-0.00168	93		553	173	24%	75	726
9	-0.0028	98	13%	628		92		-0.00168	93		541	185	25%	87	726
10	-0.0028	97	13%	629		103		-0.00168	92		530	196	27%	98	726
11	-0.0028	97	13%	629		113		-0.00168	92		521	205	28%	108	726
12	-0.0028	97	13%	629		121		-0.00168	92		513	213	29%	116	726
13	-0.0028	96	13%	630		128		-0.00168	92		506	220	30%	123	726
14	-0.0028	96	13%	630		133		-0.00168	92		501	225	31%	129	726
15	-0.0028	96	13%	630		138		-0.00168	92		497	229	32%	134	726
16	-0.0028	96	13%	630		141		-0.00168	92		494	232	32%	137	726
17	-0.0028	95	13%	631		143		-0.00168	91		492	234	32%	139	726
18	-0.0028	95	13%	631		143		-0.00168	91		492	234	32%	139	726
19	-0.0028	95	13%	631		142		-0.00168	91		493	233	32%	138	726
20	-0.0028	95	13%	631		140		-0.00168	91		495	231	32%	136	726

**Table 2** Land loss spread sheet for the Venice Ponds Marsh Creation and Crevasses project; crevasse component

Receiving Area C-1							
parent order	parent width (yds)	real age	crevasse age	crevasse csa (sq yds)	receiving area (ac)	Growth (ac)	Total (ac)
2	240	0	0	46.2	100	3.17	
2	240	1	1	46.2	100	2.84	
2	240	2	2	46.2	100	2.52	8.53
2	240	3	3	46.2	100	2.20	
2	240	4	4	46.2	100	1.87	12.60
2	240	5	5	46.2	100	1.55	
2	240	6	6	46.2	100	1.22	
2	240	7	0	46.2	100	3.17	
2	240	8	1	46.2	100	2.84	
2	240	9	2	46.2	100	2.52	
2	240	10	3	46.2	100	2.20	
2	240	11	4	46.2	100	1.87	
2	240	12	5	46.2	100	1.55	
2	240	13	6	46.2	100	1.22	
2	240	14	7	46.2	100	0.90	
2	240	15	8	46.2	100	0.58	
2	240	16	9	46.2	100	0.25	
2	240	17	10	46.2	100	-0.07	
2	240	18	11	46.2	100	-0.40	
2	240	19	12	46.2	100	-0.72	31.28

Receiving Area C-3							
parent order	parent width (yds)	real age	crevasse age	crevasse csa (sq yds)	receiving area (ac)	Growth (ac)	Total (ac)
2	190	0	0	38.3	194	3.18	
2	190	1	1	38.3	194	2.86	
2	190	2	2	38.3	194	2.53	8.57
2	190	3	3	38.3	194	2.21	
2	190	4	4	38.3	194	1.88	12.66
2	190	5	5	38.3	194	1.56	
2	190	6	6	38.3	194	1.24	
2	190	7	0	38.3	194	3.18	
2	190	8	1	38.3	194	2.86	
2	190	9	2	38.3	194	2.53	
2	190	10	3	38.3	194	2.21	
2	190	11	4	38.3	194	1.88	
2	190	12	5	38.3	194	1.56	
2	190	13	6	38.3	194	1.24	
2	190	14	7	38.3	194	0.91	
2	190	15	8	38.3	194	0.59	
2	190	16	9	38.3	194	0.26	
2	190	17	10	38.3	194	-0.06	
2	190	18	11	38.3	194	-0.38	
2	190	19	12	38.3	194	-0.71	31.51

Receiving Area C-2							
parent order	parent width (yds)	real age	crevasse age	crevasse csa (sq yds)	receiving area (ac)	Growth (ac)	Total (ac)
2	200	0	0	19.5	201	2.49	
2	200	1	1	19.5	201	2.16	
2	200	2	2	19.5	201	1.84	6.49
2	200	3	3	19.5	201	1.51	
2	200	4	4	19.5	201	1.19	9.19
2	200	5	5	19.5	201	0.87	
2	200	6	6	19.5	201	0.54	
2	200	7	0	19.5	201	2.49	
2	200	8	1	19.5	201	2.16	
2	200	9	2	19.5	201	1.84	
2	200	10	3	19.5	201	1.51	
2	200	11	4	19.5	201	1.19	
2	200	12	5	19.5	201	0.87	
2	200	13	6	19.5	201	0.54	
2	200	14	7	19.5	201	0.22	
2	200	15	8	19.5	201	-0.11	
2	200	16	9	19.5	201	-0.43	
2	200	17	10	19.5	201	-0.75	
2	200	18	11	19.5	201	-1.08	
2	200	19	12	19.5	201	-1.40	17.66

Receiving Area C-4							
parent order	parent width (yds)	real age	crevasse age	crevasse csa (sq yds)	receiving area (ac)	Growth (ac)	Total (ac)
1	230	0	0	46.2	131	4.58	
1	230	1	1	46.2	131	4.26	
1	230	2	2	46.2	131	3.94	12.78
1	230	3	3	46.2	131	3.61	
1	230	4	4	46.2	131	3.29	19.68
1	230	5	5	46.2	131	2.96	
1	230	6	6	46.2	131	2.64	
1	230	7	0	46.2	131	4.58	
1	230	8	1	46.2	131	4.26	
1	230	9	2	46.2	131	3.94	
1	230	10	3	46.2	131	3.61	
1	230	11	4	46.2	131	3.29	
1	230	12	5	46.2	131	2.96	
1	230	13	6	46.2	131	2.64	
1	230	14	7	46.2	131	2.32	
1	230	15	8	46.2	131	1.99	
1	230	16	9	46.2	131	1.67	
1	230	17	10	46.2	131	1.34	
1	230	18	11	46.2	131	1.02	
1	230	19	12	46.2	131	0.70	59.62

**Table 3** Crevasse model for each receiving area

#### **V4 – Shallow Open Water Habitat**

The original WVA document created in 2005 indicates that this area was 40% shallow open water ( $\leq 1.5$  feet). Bathymetric information was not collected across the receiving area open water areas during project data collection. Due to this lack of information, it was decided to use the assumptions made during 2005 for the purposes of this WVA. In the absence of actual bathymetry data we are unable to apply a subsidence rate to the data. FWP estimates are based upon best professional judgment.

##### FWOP

TY0: 40%

TY1: 40%

TY20: 50%

##### FWP

Under future with project conditions, we believe that shallow open water habitat will increase as shoaling in each receiving area increases due to the increased input of mineral sediment through each crevasse.

TY1: 40%

TY7: 55%

TY20: 70%

#### **V5 – Salinity**

The 2009-2011 mean growing season salinity (March 1 – November 30) was calculated using closest CRMS station to the project area (CRMS2608). Salinity is assumed not to change FWOP or FWP. We recommend using the Fresh Marsh WVA model.

##### FWOP

TY0: 0.35 ppt

TY1: 0.35 ppt

TY20: 0.35 ppt

##### FWP

TY1: 0.35 ppt

TY7: 0.35 ppt

TY20: 0.35 ppt

#### **V6 – Aquatic Organism Access**

##### FWOP

The project area exhibits unrestricted aquatic organism access.

TY1: 1.0

TY3: 1.0

TY20: 1.0

##### FWP

The project area will remain an open system with no in-channel obstructions to fishery access.

TY1: 1.0

TY7: 1.0

TY20: 1.0

### **Works Cited**

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# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

Project Area:	726
% Fresh	100
% Intermediate	0

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	14	0.23	14	0.23	13	0.22
V2	% Aquatic	75	0.78	75	0.78	75	0.78
V3	Interspersion	%		%		%	
	Class 1	0	0.20	0	0.20	0	0.20
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	100		100		100	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	40	0.55	40	0.55	50	0.66
V5	Salinity (ppt)						
	fresh	0.35	1.00	0.35	1.00	0.35	1.00
	intermediate						
V6	Access Value						
	fresh	1.0000	1.00	1.0000	1.00	1.0000	1.00
	intermediate						
<b>Emergent Marsh HSI =</b>		<b>0.36</b>		<b>EM HSI =</b>	<b>0.36</b>	<b>EM HSI =</b>	<b>0.35</b>
<b>Open Water HSI =</b>		<b>0.77</b>		<b>OW HSI =</b>	<b>0.77</b>	<b>OW HSI =</b>	<b>0.78</b>

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

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)						
	fresh						
	intermediate						
V6	Access Value						
	fresh						
	intermediate						
<b>EM HSI =</b>				<b>EM HSI =</b>		<b>EM HSI =</b>	
<b>OW HSI =</b>				<b>OW HSI =</b>		<b>OW HSI =</b>	

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

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)						
	fresh						
V6	intermediate						
	Access Value						
	fresh						
	intermediate						
		<b>EM HSI =</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
		<b>OW HSI =</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

Project Area:	589
% Fresh	0
% Intermediate	100

Condition: Future With Project

Variable		TY 0		TY 1		TY 7	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	14	0.23	15	0.24	22	0.30
V2	% Aquatic	75	0.78	80	0.82	80	0.82
V3	Interspersion	%		%		%	
	Class 1	0	0.20	0	0.20	0	0.25
	Class 2	0		0		0	
	Class 3	0		0		25	
	Class 4	100		100		75	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	40	0.55	40	0.55	55	0.72

V5	Salinity (ppt)						
	fresh	0.35	1.00	0.35	1.00	0.35	1.00
	intermediate						
V6	Access Value						
	fresh	1.0000	1.00	1.0000	1.00	1.0000	1.00
	intermediate						
<b>Emergent Marsh HSI =</b>		<b>0.36</b>		<b>EM HSI =</b>	<b>0.37</b>	<b>EM HSI =</b>	<b>0.42</b>
<b>Open Water HSI =</b>		<b>0.77</b>		<b>OW HSI =</b>	<b>0.80</b>	<b>OW HSI =</b>	<b>0.82</b>

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

FWP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	32	0.39				
V2	% Aquatic	80	0.82				
V3	Interspersion	%		%		%	
	Class 1	0	0.30				
	Class 2	0					
	Class 3	50					
	Class 4	50					
	Class 5	0					
V4	%OW <= 1.5ft	70	0.89				
V5	Salinity (ppt)						
	fresh	0.35	1.00				
	intermediate						
V6	Access Value						
	fresh	1.0000	1.00				
	intermediate						
<b>EM HSI =</b>		<b>0.50</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
<b>OW HSI =</b>		<b>0.83</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

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						
	Class 5						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
	fresh						
	intermediate						
V6	Access Value						
	fresh						
	intermediate						
<b>EM HSI =</b>				<b>EM HSI =</b>		<b>EM HSI =</b>	
<b>OW HSI =</b>				<b>OW HSI =</b>		<b>OW HSI =</b>	

## AAHU CALCULATION - EMERGENT MARSH

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

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Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	100	0.36	35.86	



20	495	0.83	411.97	5682.52
<b>Max=</b>	<b>20</b>		<b>AAHUs</b>	<b>452.18</b>

<b>NET CHANGE IN AAHUs DUE TO PROJECT</b>			
A. Future With Project Open Water AAHUs	=		452.18
B. Future Without Project Open Water AAHUs	=		487.64
<b>Net Change (FWP - FWOP)</b>	<b>=</b>		<b>-35.46</b>

<b>TOTAL BENEFITS IN AAHUs DUE TO PROJECT</b>			
A. Emergent Marsh Habitat Net AAHUs	=		41.84
B. Open Water Habitat Net AAHUs	=		-35.46
<b>Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1</b>			<b>16.91</b>

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

Project Area:	191
% Fresh	100
% Intermediate	0

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	2	0.12	2	0.12	2	0.12
V2	% Aquatic	75	0.78	75	0.78	75	0.78
V3	Interspersion	%		%		%	
	Class 1	0	0.10	0	0.10	0	0.10
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	0		0		0	
	Class 5	100		100		100	
V4	%OW <= 1.5ft	8	0.19	8	0.19	2	0.12
V5	Salinity (ppt)						
	fresh	0.35	1.00	0.35	1.00	0.35	1.00
	intermediate						
V6	Access Value						
	fresh	1.0000	1.00	1.0000	1.00	1.0000	1.00
	intermediate						
<b>Emergent Marsh HSI =</b>		<b>0.25</b>		<b>EM HSI =</b>	<b>0.25</b>	<b>EM HSI =</b>	<b>0.25</b>
<b>Open Water HSI =</b>		<b>0.74</b>		<b>OW HSI =</b>	<b>0.74</b>	<b>OW HSI =</b>	<b>0.73</b>

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

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)						
	fresh						
	intermediate						
V6	Access Value						
	fresh						
	intermediate						
<b>EM HSI =</b>				<b>EM HSI =</b>		<b>EM HSI =</b>	
<b>OW HSI =</b>				<b>OW HSI =</b>		<b>OW HSI =</b>	

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

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)						
	fresh						
V6	intermediate						
	Access Value						
	fresh						
	intermediate						
		<b>EM HSI =</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
		<b>OW HSI =</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

Project Area:	191
% Fresh	100
% Intermediate	0

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	2	0.12	11	0.20	99	0.99
V2	% Aquatic	75	0.78	0	0.10	75	0.78
V3	Interspersion	%		%		%	
	Class 1	0	0.10	0	0.10	0	0.40
	Class 2	0		0		0	
	Class 3	0		0		100	
	Class 4	0		0		0	
	Class 5	100		100		0	
V4	%OW <= 1.5ft	8	0.19	0	0.10	100	0.60

V5	Salinity (ppt)						
	fresh	0.35	1.00	0.35	1.00	0.35	1.00
	intermediate						
V6	Access Value						
	fresh	1.0000	1.00	0.0001	0.30	1.0000	1.00
	intermediate						
<b>Emergent Marsh HSI =</b>		<b>0.25</b>		<b>EM HSI =</b>	<b>0.29</b>	<b>EM HSI =</b>	<b>0.93</b>
<b>Open Water HSI =</b>		<b>0.74</b>		<b>OW HSI =</b>	<b>0.19</b>	<b>OW HSI =</b>	<b>0.79</b>

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	99	0.99	97	0.97		
V2	% Aquatic	75	0.78	75	0.78		
V3	Interspersion	%		%		%	
	Class 1	100	1.00	100	1.00		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	100	0.60	100	0.60		
V5	Salinity (ppt)						
	fresh	0.35	1.00	0.35	1.00		
	intermediate						
V6	Access Value						
	fresh	1.0000	1.00	1.0000	1.00		
	intermediate						
<b>EM HSI =</b>		<b>0.99</b>		<b>EM HSI =</b>	<b>0.98</b>	<b>EM HSI =</b>	
<b>OW HSI =</b>		<b>0.84</b>		<b>OW HSI =</b>	<b>0.84</b>	<b>OW HSI =</b>	

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

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						
	Class 5						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
	fresh						
	intermediate						
V6	Access Value						
	fresh						
	intermediate						
<b>EM HSI =</b>				<b>EM HSI =</b>		<b>EM HSI =</b>	
<b>OW HSI =</b>				<b>OW HSI =</b>		<b>OW HSI =</b>	

## AAHU CALCULATION - EMERGENT MARSH

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

---

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Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	4	0.25	1.01	



5	1	0.84	0.84	1.63
20	5	0.84	4.18	37.58
<b>Max=</b>	<b>20</b>		<b>AAHUs</b>	<b>4.59</b>

<b>NET CHANGE IN AAHUs DUE TO PROJECT</b>			
A. Future With Project Open Water AAHUs	=		4.59
B. Future Without Project Open Water AAHUs	=		137.56
<b>Net Change (FWP - FWOP)</b>	<b>=</b>		<b>-132.97</b>

<b>TOTAL BENEFITS IN AAHUs DUE TO PROJECT</b>			
A. Emergent Marsh Habitat Net AAHUs	=		164.08
B. Open Water Habitat Net AAHUs	=		-132.97
<b>Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1</b>			<b>68.26</b>

BELLE CHASSE OFFICE  
8311 HIGHWAY 23, SUITE 104  
P.O. BOX 7125  
BELLE CHASSE, LA 70037  
PHONE (504) 392-1830  
FAX (504) 393-2553  
INFO@VENICEPORTCOMPLEX.COM



WWW.VENICEPORTCOMPLEX.COM

VENICE OFFICE  
414 COAST GUARD ROAD  
VENICE, LA 70091

November 27, 2012

**VIA MAIL & E-MAIL: [edward.r.fleming.col@usace.army.mil](mailto:edward.r.fleming.col@usace.army.mil)**

Colonel Edward Fleming  
District Commander  
U.S. Army Corps of Engineers  
New Orleans District  
P. O. Box 60267  
New Orleans, LA 70160-0267

Re: Venice Ponds Marsh Creation and Crevasses (MR-15)  
Phase II Approval Request

Dear Colonel Fleming:

The Venice Ponds Marsh Creation and Crevasses (MR-15) project is on the agenda at the upcoming Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee meeting. The meeting will be held on December 12, 2012 in Baton Rouge, Louisiana. At this meeting, the MR-15 project will be requesting Phase II construction funds.

The project features and benefits are detailed below:

Project Features

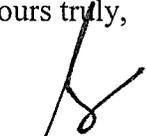
- Approximately 190 ac marsh creation
- Create a crevasse on Grand Pass
- Create a crevasse on Tiger Pass
- Enhance two crevasses on Tiger Pass
- Plant over 4,000 bald cypress trees

Project Benefits

- 318 net acres created over 20-year project lift
- Sustainability (deltaic processes)
- Resiliency

The Louisiana Fruit Company/Venice Port Complex owns approximately 4,000 acres of marsh land within and surrounding the proposed project and wants to express our full support for this project. We respectfully ask that you approve this project for Phase II construction funds.

Yours truly,



George Pivach, II  
Vice President and General Counsel  
[gpiwach@veniceportcomplex.com](mailto:gpiwach@veniceportcomplex.com)

GPII/dmg

cc: Colonel Edward Fleming  
Mr. Garret Graves  
Mr. William K. Honker  
Mr. Jeff Weller  
Mr. Kevin Norton  
Mr. Christopher Doley  
Mr. Thomas A. Holden  
Mr. Darryl Clark  
Mr. Kirk Rhinehart  
Mr. Richard Hartman  
Ms. Karen McCormick  
Ms. Britt Paul

# Alligator Bend Marsh Restoration & Shoreline Protection (PO-34)

*Coastal Wetlands Planning,  
Protection and Restoration Act*



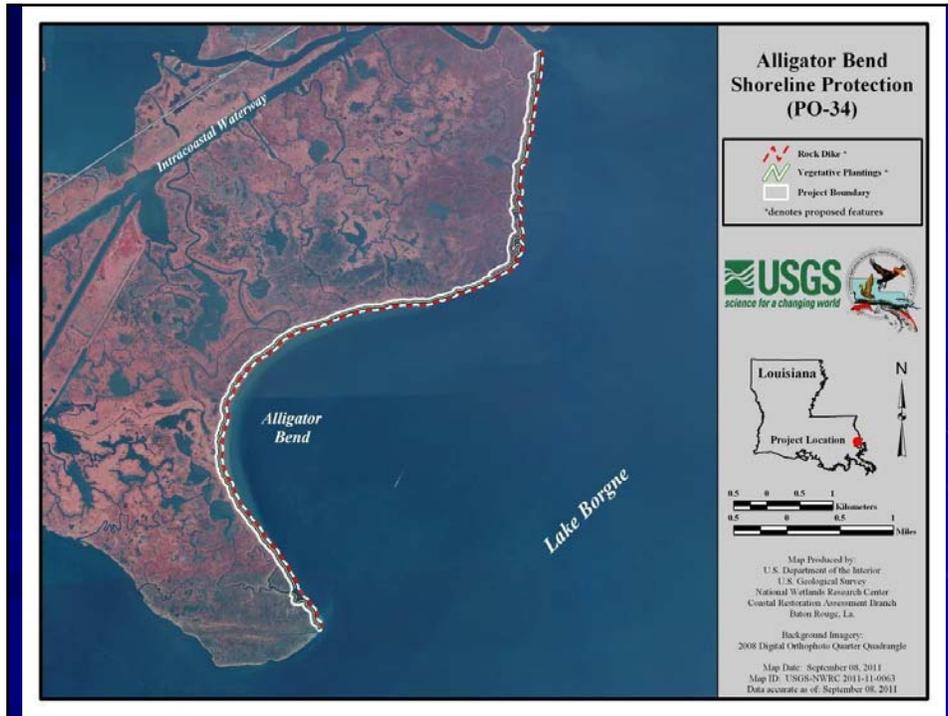
**ALLIGATOR BEND SHORELINE PROTECTION  
(PO-34)**

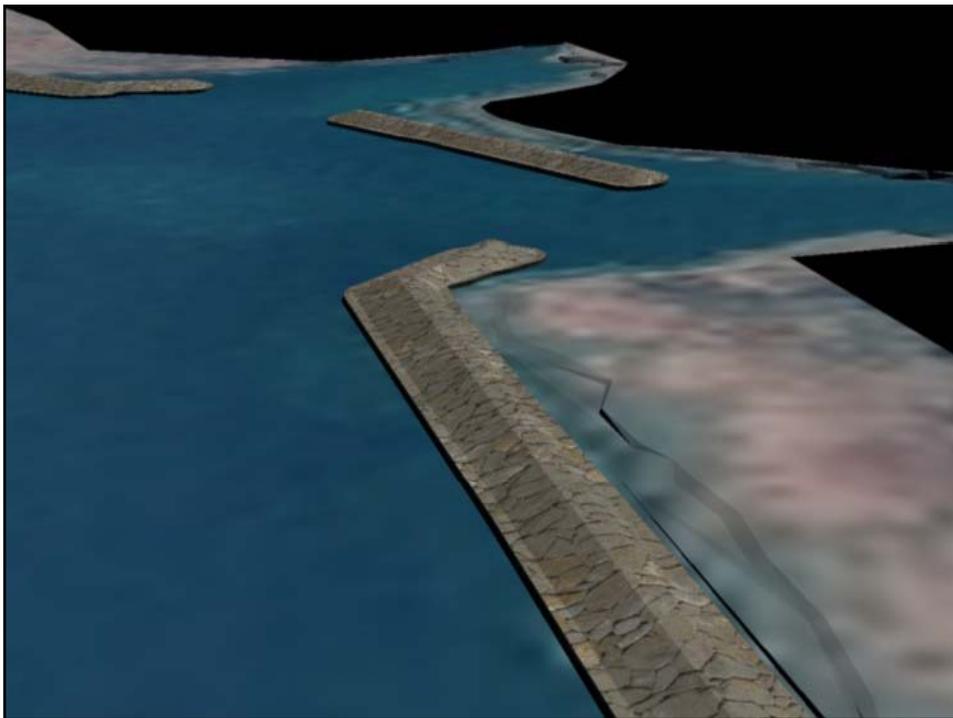
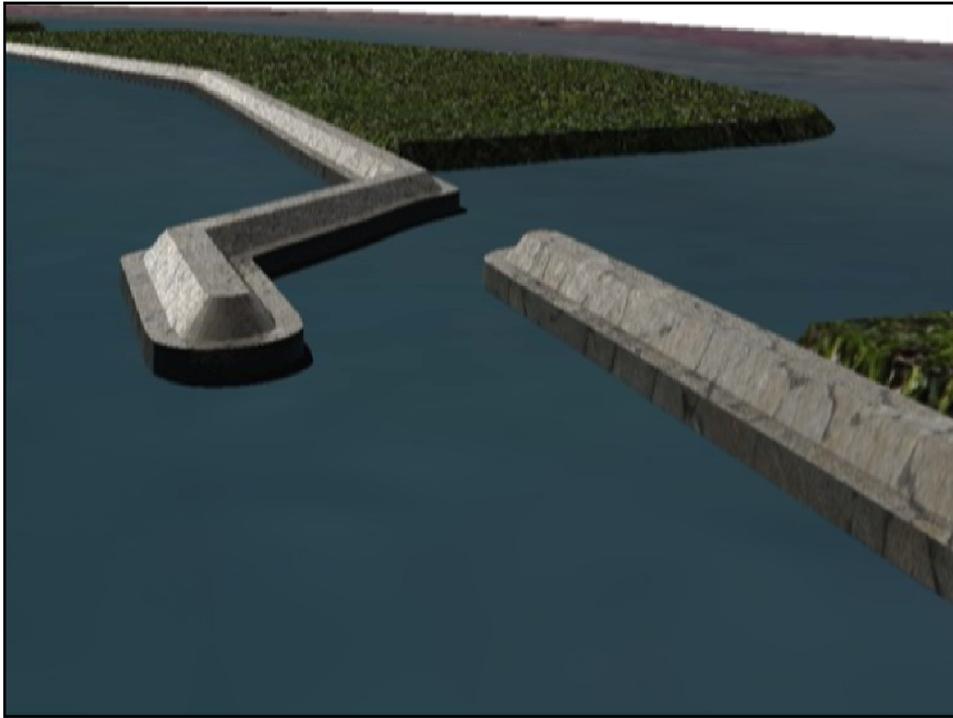
**PHASE II APPROVAL REQUEST**

*CWPPRA Technical Committee Meeting  
December 12, 2012*

**Project Location**







## Alligator Bend (PO-34)

### Benefits and Cost

Net Acres after 20 years:	192 Acres
Average Annual Habitat Units:	66
Fully Funded Phase II Total:	\$38,665,260
Fully Funded Phase II Increment 1:	\$27,132,720

United States Department of Agriculture



Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

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

November 30, 2012

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 16<sup>th</sup> 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  
Acting State Conservationist

Attachments

cc: (via email only)

Kirk Rhinehart, 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*

An Equal Opportunity Provider and Employer

Tom Holden  
November 30, 2012  
Page 2

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

- f) 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
- g) On January 21, 2009 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)".
- h) During Phase 1, the project team eliminated the alternative of using earthen terraces due to design concerns regarding the soils
- i) 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

### Landrights

The project is located wholly on state water bottoms with no features on privately owned land. The Louisiana State Land Office is fully supportive of the project.

### Cultural Resources and Environmental Compliance

NRCS has initiated the cultural resources coordination for this project. A preliminary review of the GIS database and Site and Survey files maintained by the Division of Archaeology, Louisiana Department of Culture, Recreation and Tourism was completed and known sites were identified. Several recorded 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. 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 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 \$38,665,260. The current fully-funded cost estimate for Phase II, Increment 1 is \$27,132,720.

Figure 1. Features Map



## ***Checklist of Phase Two Requirements***

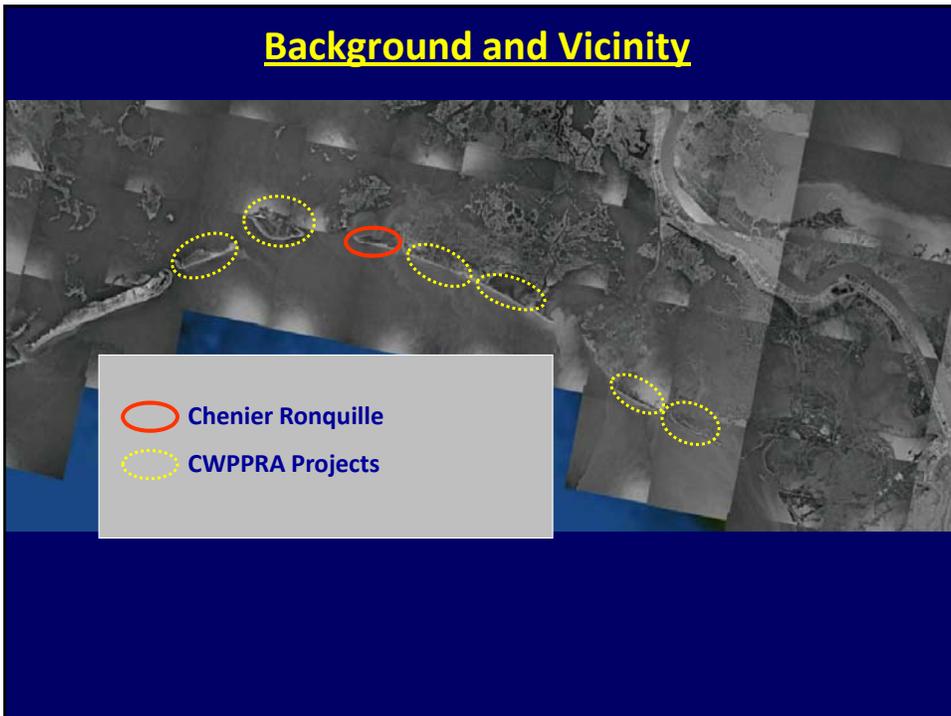
- A. List of Goals and Objectives. The Alligator Bend Shoreline Protection Project (PO-34) consists of a mechanism by which the integrity of a vital landbridge between the Gulf Intracoastal Waterway and Lake Borgne will be protected and thereby meeting one of the objectives of the CWPPRA program designed 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 is expected to be 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 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 \$40,326,245. The revised fully funded cost estimate for Phase II is \$38,665,260. The revised fully funded cost estimate for Phase II – Increment 1 is \$27,132,720. The required spreadsheet is enclosed.
- M. Wetland Value Assessment. The Final Revised WVA was completed November 8, 2011.

Chenier Ronquille Barrier Island  
Restoration (BA-76)

## Chenier Ronquille Barrier Island Restoration Project



## Background and Vicinity





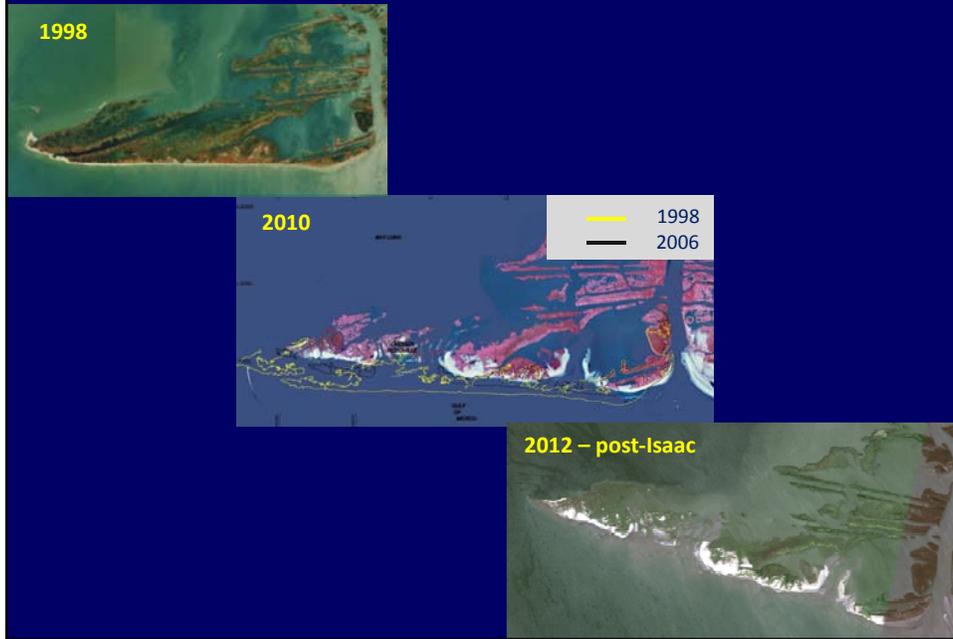
Images courtesy of CEC, WMI and GLDD

## Phase II Candidate

- Restore 8,000 ft of continuous shoreline (about 94 acres beach/dune habitat)
- Create/restore 274 acres of marsh
- Sand fencing, vegetative plantings, dike gapping and project-specific monitoring
- Benefits: 308 net acres and 224 AAHUs
- Total FFC: \$38,388,014
- Phase II, Increment 1: \$34,147,209



## Project Need



## Limited Sand Resources

Sand Required			
	Fill Quantity	1.3 C:F	1.5 C:F
Beach Fill	1.6 M cy	2.1 M cy	2.4 M cy

Sand Available				
Borrow Area	Mean Grain Size (mm)	Percent Silt (%)	Sand Volume	Marsh Fill Volume
Sand: primary (S)	0.11	15	2.3 M cy	
Sand: secondary (D)	0.11	28	1.9 M cy	-
D (overburden)	-	-	-	1.4 M cy





*Questions?*



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

November 28, 2012

Mr. Thomas A. Holden  
Deputy District Engineer  
U.S. Army Corps of Engineers  
P.O. Box 60267  
New Orleans, Louisiana 70160-0267

Re: Phase II Construction Funds Request for the Chenier Ronquille Barrier Island  
Restoration Project (BA-76)

Dear Mr. Holden:

NOAA Fisheries and the Louisiana Coastal Protection and Restoration Authority (CPRA) hereby request approval for Phase II authorization of the Chenier Ronquille Barrier Island Restoration Project (BA-76). Phase I activities were authorized on Priority Project List 19 in January 20, 2010, 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  
Rachel Sweeney, Project Manager, NOAA NMFS  
Kenneth Bahlinger, Project Manager, CPRA

## INFORMATION REQUIRED IN PHASE II AUTHORIZATION REQUESTS

### I. Description of Phase I Project

The Chenier Ronquille Barrier Island Restoration Project was proposed by the National Oceanic and Atmospheric Administration (NOAA) as a Project Priority List 19 candidate. Phase I was authorized by the CWPPRA Task Force on January 20, 2010. The candidate project included restoration of 11,000 feet of beach and dune to a constructed elevation of +6 ft NAVD (127 acres), creation and nourishment of 259 acres of saline marsh, installation and replacement of sand fencing, vegetative plantings, gapping of retention dikes as needed to ensure tidal exchange, and project-specific monitoring to support project performance assessments and inform future designs. A summary of project costs and benefits at the time of Phase I authorization is provided below; the candidate project fact sheet and map can be found in Attachment A.

Fully Funded Total Project Cost	\$43,828,285
Phase II, Increment I Request	\$39,942,806
Net Acres at TY20	234
Average Annual Habitat Units	190

### II. Overview of Phase I Tasks, Process and Issues

Phase I activities included formation of project goals and objectives, pre-design investigations (i.e., bathymetric and topographic surveys and geotechnical investigation of the project area), development and evaluation of project alternatives at the Preliminary (30%) Design level and completion of the Final (95%) Design 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 Officer, development of a 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 major features of the proposed project are beach and dune restoration flanked by an intertidal back barrier marsh platform. The 104-acre beach and dune restoration component consists of 8,000 linear feet of beach and dune constructed to +8 ft NAVD using 1.6 Mcy of coarse-grained material to be mined from an offshore borrow area.

The marsh portion of the project includes a 274-acre footprint built to an initial elevation of +2.5 ft NAVD. The average marsh width is approximately 1,280 ft and will require approximately 1.2Mcy of in-place fill.

Additional project elements include vegetative plantings, settlement plates, and sand fencing. On-going features throughout the project life will include vegetative plantings, replacement of sand fences, retention dike gapping, and project performance assessments. A summary of current project costs and benefits is provided below; the candidate project fact sheet and map can be found in Attachment B.

Current Costs and Benefits

Fully Funded Total Project Cost	\$38,388,014
Phase II, Increment I Request	\$34,147,209
Net Acres at TY20	308
Average Annual Habitat Units	224

Refinement of project design elements, estimated costs and anticipated benefits occurred during the engineering and design process although the modifications did not result in substantial changes warranting a formal change in project scope. The current design reflects the following modifications:

- The length of beach/dune fill was reduced from 11,000 ft to 8,000 ft due to high longshore sediment losses rates at western point and associated shoreline retreat rates as well as construction challenges;
- Dune elevation was increased from +6 ft NAVD to +8 ft NAVD based on observed and predicted dune settlement;
- Based on geotechnical investigations and settlement analyses, the constructed marsh elevation was lowered to +2.5 ft NAVD from +3.0 ft NAVD envisioned at Phase 0; and
- The configuration and alignment of the marsh fill platform was adjusted based on existing pipelines and constructability/access constraints.

#### IV. Checklist of Phase Two requirements

##### A. *List of Project Goals and Strategies*

The primary project goal is to re-establish and maintain the functional barrier island ecosystem of Chenier Ronquille for fish and wildlife habitat by restoring and creating shoreline, dune and back-barrier marsh acreage.

The following specific objectives were also used during development and analysis of alternatives:

1. Prevent island breaching over the 20-year project life.
2. Provide an intertidal marsh platform with tidal exchange by Target Year 4.
3. Maintain dune elevation greater than +5 feet NAVD following first 10-year storm event.
4. Maintain dune elevation of greater than +4 feet NAVD at Target Year 20.
5. Maintain 50% of the Target Year 1 subaerial acreage throughout the 20-year project life.
6. Maintain the Target Year 20 shoreline seaward of the pre-construction shoreline.

##### B. *Cost Sharing Agreement*

A cooperative agreement was executed between NOAA and CPRA for Phase I activities on August 18, 2010.

- C. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase II approval*  
The State confirmed that the process for landrights acquisition is progressing and that it anticipated that landrights would be finalized in a reasonable amount of time after Phase II Approval (November 22 e-mail; Attachment C).
- D. A favorable Preliminary Design Review (30% Design Level)*  
The Preliminary Design Review meeting was held on May 5, 2011; participants included EPA, COE and USFWS. Response to design review comments and the State's letter of concurrence to proceed to final design are included in Attachment D.
- E. Final Project Design Review (95% Design Level)*  
The Final Design Review meeting was held on October 13, 2011. In addition to the federal and non-federal sponsors, NRCS participated in the meeting. Response to design review comments and the State's letter of concurrence to proceed to Phase II request are included in Attachment E.
- F. A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act, must be submitted two weeks before the Technical Committee meeting at which Phase 2 approval is requested.*  
It is anticipated that the Finding of No Significant Impact will be signed by December 31, 2012.
- G. Written summary of the findings of the Ecological Review*  
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 the Chenier Ronquille project. However, previous ERs for similar barrier island restoration projects were considered during project design.
- H. Application for and/or issuance of the public notices for permits*  
Required permits (Clean Water Act Sections 404/10, Louisiana Department of Natural Resources and Louisiana Department of Environmental Quality) have been acquired (Attachment F).
- I. A hazardous, toxic and radiological waste (HTRW) assessment, if required*  
An HTRW analysis on the project area was completed on October 24, 2011 (Attachment G). The analysis was completed in accordance with Phase I ESA scope and limitations of American Society for Testing and Materials Standard Practice E 1527-05. That review of applicable federal and state regulatory agency records, historical records, interviews with persons knowledgeable about the subject property, and a physical site investigation, revealed no evidence of recognized environmental conditions.
- J. Section 303(e) approval*  
Received January 13, 2012 from New Orleans District (Attachment H).

*K. Overgrazing determination from the NRCS*

NRCS has determined that overgrazing by livestock is not a problem in the project area (Attachment I).

*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 Two funding request as outlined in below spreadsheet*

A revised fully funded cost estimate was finalized by the Economic Workgroup on November 14, 2012. The total fully funded cost is \$38,388,014. The Phase II funding request is included in Attachment J.

*M. A Wetland Value Assessment, reviewed and approved by the Environmental Work Group*

A revised WVA reflecting the final project design was completed on October 7, 2011 (Attachment K). The project is anticipated to result in 308 net acres and 224 AAHUs.

**CHENIER RONQUILLE, PHASE II REQUEST**  
**ATTACHMENT A**

**PPL 19 Candidate Fact Sheet**

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

### **Coast 2050 Strategy:**

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

### **Project Location:**

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

### **Problem:**

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

### **Goals:**

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

### **Proposed Solution:**

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

### **Project Benefits:**

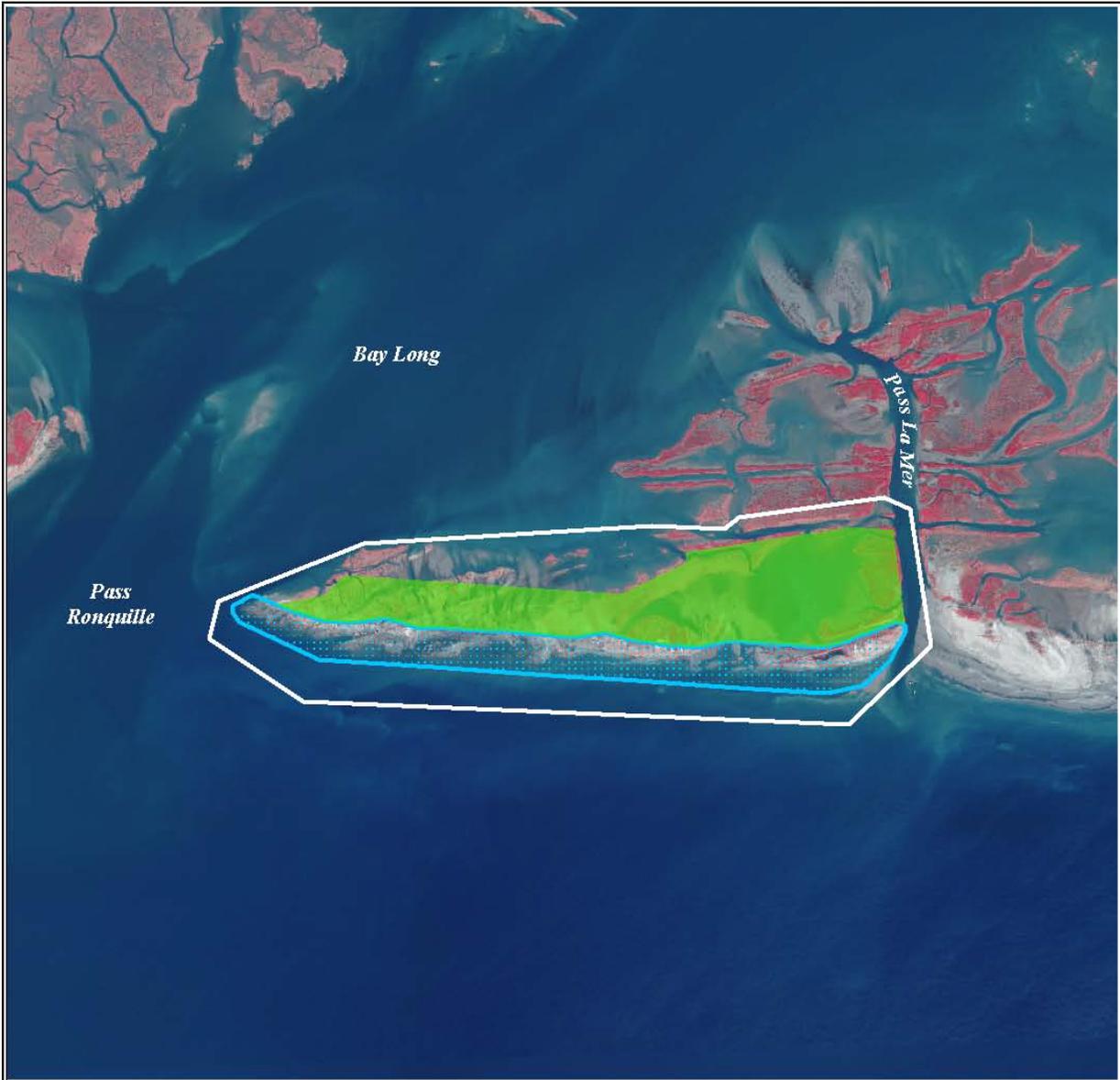
The project would benefit 408 acres of island beach/dune and back barrier marsh and adjacent open water. Approximately 234 acres of beach/dune and back barrier marsh would be created/protected over the 20-year project life.

### **Project Costs:**

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

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

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

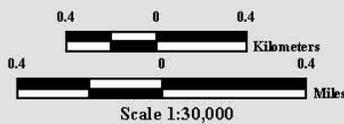


## Cheniere Ronquille Barrier Island Restoration (PPL19 Candidate)



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

\* denotes proposed features



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

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

Image Source:  
 2008 Digital Orthophoto Quarter Quadrangles

**CHENIER RONQUILLE, PHASE II REQUEST  
ATTACHMENT B**

**Phase II Fact Sheet**

## **Chenier Ronquille Barrier Island Restoration (BA-76)**

### **Coast 2050 Strategy:**

Regional Strategy 21: Extend and maintain barrier headlands, islands, and shorelines.

### **Project Location:**

Region 2, Barataria Basin, Plaquemines Parish, approximately eight miles east of Grand Isle and located between East Grand Terre and Chaland Headland.

### **Problem:**

Chenier Ronquille is the western extent of the lower Plaquemines shoreline. The area is undergoing shoreline erosion and breaching and interior wetland loss. Shoreline erosion rates have increased from 32 ft/year (1998-2006) to about 58 ft/year (2006-2010). Project area marshes are also being converted to open water at rates ranging from 3.16% per year to over 5% per year.

### **Goals:**

The primary goal is to re-establish and maintain a functional barrier island ecosystem for fish and wildlife habitat by restoring and creating shoreline, dune and back-barrier marsh acreage which provide the first line of defense to the interior marshes. The project objectives are to 1) restore approximately 8,000 feet of dune; 2) create and restore approximately 274 acres of intertidal marsh platform with tidal exchange; 3) prevent island breaching over the 20-year project life; and 4) maintain the shoreline seaward of the pre-construction shoreline over the 20-year project life.

### **Proposed Solution:**

Chenier Ronquille restoration would enhance the structural integrity of the Gulf shoreline and associated protection by tying into two recently constructed projects to the east and address one of the remaining reaches of the Barataria/Plaquemines shoreline. Project features include an 8,000 ft long dune crest at +8 ft NAVD requiring 1.6 Mcy of in-place sand fill resulting in the restoration of 104 acres of beach, dune and associated habitats. The dune is estimated to maintain an elevation greater than +5 ft NAVD following the first 10-year storm event and greater than +4 ft NAVD at year 20. The project would also restore 274 acres of saline marsh using about 1.4 Mcy of fine-grained material to an initial elevation of +2.5 ft NAVD; this fill elevation is anticipated to result in intertidal marsh elevation for a majority of the project life. Additional project features include sand fence installation and replacement, vegetative plantings, and retention dike gapping as needed to provide tidal exchange. Project-specific monitoring/performance assessments are also proposed.

### **Project Benefits:**

The project would benefit 463 acres of beach, dune, saline marsh and adjacent open water. Approximately 308 acres of beach/dune and back barrier marsh would be created/protected over the 20-year project life.

### **Project Costs:**

The total fully funded cost for the project is \$38,388,014.

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

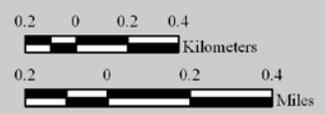
Rachel Sweeney, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 206



# Cheniere Ronquille Barrier Island Restoration (BA-76)

	Containment Dike *
	Dune/Beach *
	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 Assessment Branch  
 Baton Rouge, La.

Background Imagery:  
 2010 N.AIP Photography

Map Date: September 29, 2011  
 Map ID: USGS-NWRC 2011-11-0064  
 Data accurate as of: September 26, 2011

**CHENIER RONQUILLE, PHASE II REQUEST  
ATTACHMENT C**

**State's Notification regarding Landrights**

From [Kenneth Bahlinger <Kenneth.Bahlinger@LA.GOV>](mailto:Kenneth.Bahlinger@LA.GOV)

Sent Tuesday, November 22, 2011 7:10 am

To [Rachel Sweeney <Rachel.Sweeney@noaa.gov>](mailto:Rachel.Sweeney@noaa.gov)

Cc [James Altman <James.Altman@LA.GOV>](mailto:James.Altman@LA.GOV)

Subject Chenier Ronquille Barrier Island Restoration Project (BA-76) Landrights 95% Status

Rachel:

Appendix C of the CWPPRA SOP requires “Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase II Approval.”

This is to inform the CWPPRA committees and Task Force that the process for landrights acquisition is progressing for the Chenier Ronquille Barrier Island Restoration Project (BA-76), and the CPRA is confident that landrights will be finalized in a reasonable amount of time after Phase II Approval.

If you have any questions, please contact me.

Thanks,

Kenneth

Kenneth Bahlinger  
CPRA Project Manager

450 Laurel St, Suite 1200  
Baton Rouge, LA 70801  
Phone: (225) 342-7362

**CHENIER RONQUILLE, PHASE II REQUEST  
ATTACHMENT D**

**Preliminary Design Review: State Concurrence and Response to  
Comments**



Coastal Protection and  
Restoration Authority of Louisiana

# State of Louisiana

**BOBBY JINDAL**  
GOVERNOR

August 4, 2011

Ms. Cecelia Linder  
NMFS Restoration Center, F/HC3  
1315 East West Highway  
Silver Spring, MD 20910

Re: 30% Design Review Concurrence for Chenier Ronquille Barrier Island Restoration  
Project (BA-76)  
Statement of Local Sponsor Concurrence

Dear Ms. Linder:

The 30% Design Review meeting for the Chenier Ronquille Barrier Island Restoration Project (BA-76) was held on May 5, 2011. Based on our review of the technical information compiled to date, the land ownership investigation, and the preliminary design, the Office of Coastal Protection and Restoration, as the local sponsor, concurs to proceed with the design of BA-76. In accordance with the CWPPRA Standard Operating Procedures, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee and proceed to 95% design level with the selected alternative and revised project cost estimate. We also request that our project manager, Kenneth Bahlinger, be copied on all correspondence concerning this project.

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

Sincerely,

Kirk Rhinehart,  
Administrator

KR:kdb

cc: Richard Hartman, NOAA Fisheries  
Rachel Sweeney, NOAA Fisheries  
Robert Routon, P.E., OCPRA Administrator  
Kenneth Bahlinger, OCPRA Project Manager  
Anna Wojtanowicz, E.I., OCPRA Project Engineer  
TE-68 Project File

**Preliminary/30% Design Review**  
**Chenier Ronquille Barrier Island Restoration Project (BA-76)**  
**Agency Comments and Responses**

**USEPA's comments**

- 1) In the introduction it states "The stated goal of the Chenier Ronquille Shoreline Restoration Project is to reestablish and maintain a functional barrier island ecosystem for fish and wildlife habitat by restoring and creating shoreline, dune and back-barrier marsh acreage. This goal is then restated in the Project Goals and Objectives section. The project, as proposed, is to occur on the island in the title however the goal does not give the location which this project will occur. This could become problematic when completing your NEPA alternative analysis because it does not specify a location and permits a similar island project to be completed elsewhere as a feasible alternative. By listing the location in the goal, you can constrain the range of feasible alternatives to just those on Chenier Ronquille.

**Response:** Comment noted. The project goals may be adjusted in the Final Design Report.

- 2) It could be beneficial to delineate the parish boundaries in Figure 1 Project Location Map to help individuals reviewing the report understand how the project fits into the landscape. A scale bar would also be nice for the view of the islands but would not be needed for the state level or parish level maps.

**Response:** Comment noted.

- 3) The water depths referred to in the borrow area descriptions are referenced to the NAVD datum. These should be described as elevations and not water depths (Ex: -10 feet NAVD).

**Response:** Comment noted.

- 4) We recommend including a borrow area water quality impact analysis in the 95% report. This would examine the likelihood of the borrow areas to experience reduced dissolved oxygen levels and include a monitoring plan for the borrow area post construction. There is sufficient reason to believe that there may be some water quality impacts associated with the borrow area and implementing a monitoring plan following construction of the project would help confirm or deny this. These water quality impacts remain unknown due to the limited amount of information and monitoring data available for borrow areas in coastal Louisiana.

**Response:** The proposed borrow areas are located in the Gulf of Mexico approximately 1.5 miles offshore of Quatre Bayou Pass, a major tidal inlet serving Barataria Bay. This area appears to be located inshore of areas monitored annually for hypoxia. Review of information available at <http://www.gulfhypoxia.net/default.asp> indicates that nearby offshore areas experienced low dissolved oxygen (i.e., dissolved oxygen on the bottom was at or below 2.0 mg/L) about seven of the last twenty years. Given the relatively shallow water depths in the vicinity of the proposed borrow areas and their location immediately

offshore of a major tidal inlet; we believe that conditions in this area should generally be well-mixed both by wave action and tidal currents.

Proposed borrow areas include two sand deposits (S-1 and S-2), one mixed sediment deposit (D-1) and a borrow area that could be used as a source of marsh fill material (Quatre Bayou). Borrow Areas S-1 and S-2 are surficial sand deposits located in water depths ranging from about nine to 13 feet. It is anticipated that these two sand deposits will provide the majority of beach fill required for project construction. For the two primary sand targets, proposed depths of cut range from four to seven feet due to the surficial nature of the sand deposit. Because of these shallow depths of cut and the location of the borrow areas, it is not anticipated that borrow area excavation would be likely to result in formation of low-oxygen or hypoxic areas.

Additional borrow areas include the D-1 site which is located in water depths ranging from about 11 to 15 feet deep. Borrow Area D-1 is composed of a layer of fine-grained overburden suitable for marsh creation and an underlying sand layer. This borrow area has been partially excavated in construction of the East Grand Terre project. Water depths here range from about nine to 14 feet deep, although previously mined portions were excavated to about -21 feet NAVD88. It is likely that this entire area would be excavated to approximately -20 feet NAVD88 to obtain marsh fill material required for project construction. Such excavation would likely generate all required marsh fill material. In addition, it is possible that some portions of the D-1 borrow area would be further mined to obtain the remaining sand fill required to complete project construction subsequent to complete mining of Borrow Area S-1. Sand could be mined from Borrow Area D-1 to -24 to -26 feet NAVD, although it is unlikely that the much of D-1 area would be mined for sand because the majority of sand fill is anticipated to be mined from Borrow Area S-1. Because of the anticipated excavation depths associated with Borrow Area D-1 and the location of this area, it is not anticipated that borrow area excavation would be likely to result in formation of low-oxygen or hypoxic areas.

Additionally, we have reviewed available literature regarding physical chemistry and infilling rates associated with dredged pits throughout the U.S. Although there generally there seems to be limited available data, there does not appear to be conclusive evidence suggesting that water quality impacts associated with borrow area excavation are likely. Perhaps the most pertinent study was conducted to assess the effects of the Holly Beach borrow area on benthic communities. Palmer (2008) surveyed the Holly Beach dredged pit over three years after its excavation. The borrow area is located in water depths of about 26 feet and was dredged to about 60 feet deep in 2003. The study indicates that in thirty-eight months, the borrow area water depth has decreased to about 35 feet, suggesting rather rapid in-filling of the borrow area. Bottom dissolved oxygen concentrations in June 2006 did not vary appreciably between stations located within the pit and outside of the pit (range 3.0 to 3.5 ppm). Mean dissolved oxygen values for the entire water column were 4.9 to 5.0 ppm for stations located inside the dredged pit and 5.7 ppm outside the pit. Although the authors qualify that their dissolved oxygen data was taken on a during a single multi-day sampling event which may not fully capture seasonal events, they did find that overall water quality was the same inside and outside the excavated dredged pit.

Additional work in Louisiana includes an assessment of dredged pits located in Lake Pontchartrain. Monitoring of dissolved oxygen levels in a dredged hole along the south shore of Lake Pontchartrain indicated that chronic, low (<2 ppm) dissolved oxygen conditions only occurred at depths of 40 feet and greater and infrequently occurred at shallower depths (Flocks and Franze 2001). Dissolved oxygen concentrations at depths in the 20-foot range rarely dropped below the critical threshold of 2 parts per million. Finally, 11 dredged pits in Tampa Bay were monitored over a two year period (2002 through 2003) to assess the current habitat value of the excavated borrow areas (Tampa Bay Estuary Program, 2005). These borrow areas were all located in water depths ranging from 1.0 feet to 3.0 feet, and were dredged to depths ranging from 9.5 feet to 24.4 feet deep. This work revealed that near bottom DO concentrations were generally higher than 4 ppm; hypoxic conditions were only observed at one site in the fall of 2002. Based on our review of available information, we do not concur that there is substantial reason to believe that borrow area excavations proposed for this project are likely to cause water quality impacts.

- 5) We would like to commend NOAA NMFS and CP&E for their analysis of sea level rise, subsidence and accretion and incorporating these analyses into their project design.

**Response:** Noted.

### **USFWS Comments**

- 6) We appreciate the opportunity to attend the 30% design review meeting for the Chenier Ronquille Barrier Island Restoration Project and to provide comments. The design information was very complete and the meeting was very productive. An excellent job.

We are in complete agreement on the selection of Alternative 5 as the preferred option. Alternative 5 is the most cost-effective option in terms of both \$/Net AAHU and \$/Net Acre (\$122,922/ac). While Alternative 1 offers a more robust design and greater net acres (290 vs 256 for Alt. 5), the additional 34 net acres would come at a cost of \$6,337,000 or \$186,382/acre.

We are in support of this project proceeding to the 95% design level for Alternative 5.

**Response: Noted.**

### **COE Comments**

#### **Engineering Branch/Waterways Section**

The 30% report submitted on “Chenier Ronquille Barrier Island Restoration Project (BA-76) is fairly comprehensive and well thought out. The few comments that follow should not significantly impact design or schedule, but are offered for the designer’s consideration.

- 7) Executive summary, page iii references previous CWPPRA barrier island projects. Are monitoring reports/data/analysis available which correlate to anticipated erosion rates.

**Response:** There are no readily available monitoring reports that correlate anticipated erosion rates to measured erosion rates. While monitoring surveys were performed (Chaland Headland), they were conducted after extreme events (Hurricanes Gustav and Ike). These results were not compared with the anticipated erosion rates as the post-storm results would misrepresent the average annual erosion rate; Hurricanes Gustav and Ike were back-to-back 20 and 10 year events, respectively, that occurred two years post-construction. It should be noted that additional monitoring data will be obtained various Barataria barrier island projects.

- 8) Page 1, Paragraph 1. “Introduction”. This final subparagraph states that 205 acres of marsh will be created. Which alternative does this refer to? This also appears to be the only reference in the report to “acres nourished”. Recommend a table or reference be added for each alternative if applicable for acres nourished.

**Response:** The statement “205 acres of marsh will be created” is a design goal developed by the project team, which does not refer to a particular alternative.

The revised goal states “At a minimum, 205 acres of marsh will be created...” Each marsh option discussion includes a statement on the acres of marsh created. Although the marsh acreage for each alternative is not included in a table, the summary table in the executive summary includes a column that describes the total footprint acreage for each alternative.

- 9) Page 26, Paragraph 7.3 “Borrow Area D-1”. This write-up states that “The Contractor will therefore be required to use borrow area D-1 for marsh fill prior to dredging the underlying sand.” Although it appears that this will not be the proposed borrow alternate plan, placing marsh fill prior to beach fill would likely require an additional dike between the two features to retain the material. The construction plan as described uses the completed beach fill as retention for the marsh creation feature. If the order of construction was reversed, retention would be required.

**Response:** It was not the intent to specify that the contractor place marsh fill prior to beach fill but rather to point out that fine-grained overburden would have to be removed in order to access underlying sand. The contractor has three options to construct the project. Option 1, the contractor could construct the beach with sand from borrow areas S-1 and S-2 and then move to borrow area D-1 to dredge the overburden to construct the marsh. Option 2, the overburden material in borrow area D-1 could be sidecast into the Quatre Bayou borrow area prior to excavating the sand. Option 3, the contractor could construct a portion of the beach using surficial sand and then alternate between marsh and beach construction while dredging the complete cut depth of borrow area D-1.

- 10) Page 27, Paragraph 7.4 “Quatre Bayou”. States that D-1 overburden material would be sidecast into Quatre Bayou. This resolves the concern of the last comment, but adds a cost feature for wasting dredged material. Which scenario if either was used in preparing the cost estimate?

**Response:** In preparing the cost estimate, it was assumed that the beach would be constructed using surficial sand within borrow area S-2 and surficial sand within borrow area D-1 prior to excavating the overburden material from borrow area D-1 for marsh fill. By constructing the beach using surficial sand deposits, there is no need to sidecast marsh material because the marsh material can be pumped directly into the marsh fill area. Rehandling costs were not included in the cost estimate.

- 11) Page 51, Paragraph 10.2.1. “Gulf Shoreline Changes”. States that “the west end of the island is receding faster than the east end of the island”. Was any consideration given to transitioning proposed dune dimensions (height and/or crest width) (west to east or east to west) to best address scour rates and littoral drift concerns. This would result in a hybrid beach design, but may result in a favorable cost estimate.

**Response:** The terminus of the beach fill at the west end was moved to the east due to budget constraints. In doing so, the western portion of the island would not receive direct placement of beach fill. Regardless, the shoreline would benefit by diffusion of the fill and the longshore transport of sand to the west. This would in turn reduce the historical shoreline recession rates. No changes were proposed to the dune height for constructability purposes (little benefit vs increase in potential cost due to increased complexity).

- 12) Page 69, Paragraph 15.2 “Dune Settlement”. This and subsequent paragraphs go into great discussions of projected settlement (both dune and marsh). I did not find any mention of anticipated settlement during construction. The significant berm sections and contract durations will certainly result in construction settlements that will be corrected with additional fill during the construction process. Was this consolidation and these quantities accounted for during preparation of respective post construction settlement curves and cost estimates.

**Response:** The beach and marsh fill are addressed slightly differently with respect to this question.

It is assumed that there is no consolidation of the beach material during construction though there will be settlement due to compaction of the underlying soils. The Contractor is responsible for any erosion or compaction of soil between the placement of fill and acceptance of each beach fill section. The beach fill sections (100 feet) are generally surveyed and accepted within a few days after completion of a beach fill section so elevation losses are minimal. Settlement of the dune following the post-construction survey was included in project performance analyses. Consolidation of underlying soils prior to acceptance of the beach fill is not included in the pay volume. It will be included in the contractor’s expected loss and thus the unit cost. There is sufficient sand within the borrow area to allow a 1.5 to 1 cut to fill ratio.

The marsh fill is to be surveyed 30 days following any construction (filling) activities within a fill section (500 feet). There will be compaction of the underlying soil as well as dewatering and primary settlement of the fill material during this 30-day waiting period. The Contractor is expected to overfill the template to account for this decrease in elevation and

achieve the required +2.5-foot NAVD template 30 days after construction. Initial consolidation is expected but not included in the fill volume because the Contractor is being paid based on the survey conducted 30-days after fill placement. Project performance analyses include expected settlement following the post-construction survey assuming a 30-day waiting period. The additional material removed from the borrow area to overfill the template is considered with respect to having sufficient material in the borrow area but not with respect to direct payment.

- 13) Page 81, Figure 39. Question: Why does settlement not start till year 1? What does year 0 represent?

**Response:** Construction of the project is assumed to occur between TY0 and TY1. TY0 represents conditions immediately prior to the start of construction and TY1 represents conditions immediately following construction. It was assumed that the contractor would construct the project to the designed template elevation, which represents TY1 conditions. Settlement was applied after construction, which describes why settlement losses are not included in the performance analyses until TY2 (losses between TY1 and TY2).

- 14) Page 82, Paragraph 16.4.1 “Marsh Fill Design Option 1”. Safety should be of a higher priority than cost. It appears the Option 2 (constructing over a pipeline with 14’ cover) should be of a high consideration in lieu of the construction over the Plains pipeline with ?? cover. The added cost benefit of not backfilling the channel is also a benefit. In addition, page 85 states that materials may not be suitable for dike construction on options 3 & 4. Constructability issues and safety concerns should be accounted for in alternative selection.

**Response:** The project team agrees with the concern regarding depth of cover over the pipeline and it was a primary consideration and topic of discussion. This is why the preferred alternative does not cross the pipeline. Backfilling the channel was perceived as a benefit as there is an increase to the volume of material placed. Also, leaving the channel open could act as a future sink for material overwashing the dike.

Constructability of the primary dike is a concern given the geotechnical investigations. However, allowing transport of material within the channel (via barge), having significantly more volume than required to construct the dike, and avoiding areas with poor quality material was deemed the best approach to address these concerns.

- 15) Page 83, Paragraph 16.4.2 “Marsh Fill Design Option 2”. It’s hard to depict the distance between the Plains pipeline and the excavated borrow ditch proposed for Option 2. Is there any potential concern of the non-backfilled ditch impacting stability of the existing pipeline?

**Response:** The recently collected survey data provided by Plains suggests that their pipeline is located at least 50 feet (100 feet on average) north of the proposed top of the access channel. The access channel will be excavated to -7 feet, NAVD while the pipeline elevation varies between -5 and -7 feet, NAVD. Therefore, it is unlikely that the pipeline will be destabilized. However, the project team will be actively coordinating with all affected pipeline owners and marsh fill and retention dike alignments may be revised.

16) Page 84, Paragraph 16.5, "Primary Dike". This paragraph describes the retention dike construction. In general, it states that marsh fill is proposed to elevation +2.5, retention dikes are proposed to elevation +5.0, and a freeboard of 2.5 feet is assumed. To achieve a target elevation of +2.5', the slurry height would have to surpass that elevation. Doesn't seem that a freeboard of 2.5' will be maintained with this design.

**Response:** Correct, this statement is misleading and has been corrected in the report. Water elevations on the exterior of the fill area were assumed to be at 0 feet, NAVD, with an expected interior marsh fill placement elevation of +3 feet, NAVD. Construction of this elevation will likely require a dewatering elevation of +4 feet, NAVD, based on experience from the East Grand Terre Island Restoration Project (BA-30) (borders Quatre Bayou to the west) that was recently completed in 2010.

17) General Marsh Fill Design Comment. The write-ups for marsh fill quantities states that the derived quantities account for "over wash". If the required quantity of fill material is reduced by anticipated 20-year over wash amounts, the contractor may not reach target elevations. In addition; in what year is over wash on the 8' dune design anticipated to begin (TY-7)?

**Response:** The marsh fill construction volume accounts for overwash events anticipated to occur prior to construction. Overwash from the beach fill area is expected to add material to the marsh fill area, thus lowering the required marsh fill volume. This was approximated, using the sediment budget, at  $13,500 \text{ cy/yr} \times 4 \text{ years} = 54,000 \text{ cy}$ .

The analytical model assumes that there will be some overwash for all alternatives during significant storm events. The first significant storm was modeled to occur during TY7, while the second significant storm was modeled to occur during TY14. Additionally, annual overwash is projected to start when the dune is lowered by storm events and settlement to an elevation less than +4 feet, NAVD. The year annual overwash is projected to begin varies depending on the beach option. Annual overwash is predicted to begin in TY15 for beach option 1 (Alternative 1, Alternative 2, Alternative 3) and in TY8 for beach option 2 (Alternative 4) and beach option 3 (Alternative 5, Alternative 6).

18) General Question. How is marsh fill anticipated to be paid for? (Quantity Dredged, Quantity placed/surveyed, lump sum, etc.)

**Response:** Marsh fill will be paid based on the quantity of material placed in the template. The quantity will be determined by comparing pre-construction and as-built profile surveys; volume calculations will be made using the average end area method. The as-built surveys will be performed after a 30-day settlement period to allow the marsh fill to dewater and consolidate.

19) Page 105, Paragraph 18.3.1 Alternative 1 states that "over wash is the principle method of dune acreage loss". Table 27 (page 63) seems to indicate that more significant losses are due to "volume lost offshore" and "Longshore Sand Volume Change" respectively. Please explain, especially if over wash is not anticipated till the first 10-year storm event in TY7.

**Response:** Table 27 shows pre-construction conditions. Offshore loss is defined as silt loss from the island, which is significant for the existing conditions due to the large silt content in the island. However, this loss is significantly reduced for the constructed project because of the low silt content of the beach fill.

There is a fundamental difference when comparing acreage impacts caused by longshore losses and overwash. Overwash is generally not considered a loss (when discussed in the context of an uninhabited barrier island), but is a redistribution of sediment within the subaerial coastal system. If the shoreline retreats via overwash processes alone, it is possible that there is no net loss of sediment from the system but simply a shifting (migration) of the shoreline.

When comparing longshore loss and overwash, the mode of sediment transport must be considered. Overwash can result in a loss of dune elevation and can occur across the entire dune crest (horizontal plane) while longshore losses result in shoreline retreat and occur across the beach face (vertical plane). Thus, volume loss and acreage loss do not necessarily match. An example is given below to clarify this statement.

A significant storm event can result in a large overwash event that eliminates dune elevation by removing all sediment from above +5 feet, NAVD. However, this material is transported to and deposited on the backing marsh platform, resulting in no volumetric loss due to overwash. The following provides a quantitative example. Assume that the width of the dune is 100 feet and the crest elevation is +6 feet, NAVD, then 3.7cy/ft of sand is moved to the marsh platform to reduce the dune crest elevation to +5 feet, NAVD (1-foot x 100 feet / 27ft<sup>3</sup>/cy/ft).

Conversely, the volumetric loss on the gulf face due to longshore transport is assumed to occur uniformly across the active profile. Assuming that the same 3.7 cy/ft is lost in an alongshore direction and the active profile height is 12 feet (-6 feet, NAVD to +6 feet, NAVD), then the dune crest retreats 8.3 feet (3.7 cy/ft x 27 ft<sup>3</sup>/cy/ft / 12 feet).

So, for the same volumetric movement of sand, over 100 feet of dune elevation is lost via overwash but only 8.3 feet of dune is lost via longshore transport.

- 20) General Comment: It appears that gapping of the primary dikes is not necessarily recommended, as gaps should develop naturally by TY4.

**Response:** Gapping of the dike is only recommended if it is thought that the marsh will not become tidally connected through natural processes following construction. An assessment will be made prior to demobilizing equipment from the project site. For budgeting purposes, operations and maintenance costs will include funds to perform dike gapping if needed.

- 21) Page 113, Paragraph 18.3.4 “Alternative 4”. The report does not indicate any benefits to the substantial crown width of 445’ for beach option 2. Does the expansive crest width not provide any additional longevity to the project life? Please discuss.

**Response:** Project longevity is primarily a function of total sand volume placed. Therefore, Alternatives 1 through 4 are expected to have similar project lives, if considering only the beach component, because they have similar construction beach fill volumes. Alternatives 5 and 6 (beach option 3) have lower beach fill volumes and thus shorter project lives when considering only the beach component.

All beach fill options have sufficient beach fill volume to avoid exposing the pre-construction beach face during the 20-year project life. If the pre-construction beach face were to become exposed, then the shoreline recession rate will increase due to the higher silt content in the beach face.

A wider marsh (larger marsh fill volume) provides additional volume and should help capture overwash and minimize losses into the backing bay, thus increasing project longevity, which is a secondary consideration within the context of this discussion.

- 22) Page 123, Paragraph 19.2 “Construction Sequence”. The available dredge face found with the borrow areas appears to be minimal, which may increase contract durations. The allowable overdepth dredging limit shown appears to significantly increase the percentage of available face, and must have an impact on borrow quality – thus impacting overall project quality and performance. The report indicates that anticipated borrow will consist of approximately 10% silts and a grain size of 0.11 mm. Significant overdepth dredging may impact these assumptions.

**Response:** The statements above are correct on all accounts. The incorporation of silts into the mix due to allowable overdredging has been incorporated into the expected percent silt within the beach material. It is expected that some of the silt will be washed out during hydraulic placement of the fill. Production rates have been based on observed production rates on similar projects (East Grand Terre and Chaland Headland), where similar overdredge allowances were made.

- 23) General Comment: Was sand fencing proposed as a project feature, and how is trapped sand incorporated into the volume loss calculations? Could any potential savings be incorporated into Table 29, Page 77?

**Response:** Sand fencing was not originally proposed as a project feature. However, sand fence installation, maintenance and replacements has been incorporated into project design to help maintain dune elevation.

The volume of sand contained by a sand fence is estimated at less than 2cy/foot, which is negligible considering the constructed fill volumes are two magnitudes greater. This small a feature was found to have negligible impact during SBEACH modeling. Ignoring the benefits of sand fencing this results in a conservative design.

- 24) General Comment: It was made apparent by this report that Beach Fill Design Option 1 (8’ crest, 270’ width) and that Beach Fill Design Option 3 (8’ crest, 150’ width) would be

deficient. The final dune design should be maximized to see if any intermediate crest widths would accommodate the project goals.

**Response:** We concur that additional dune designs could be considered to accommodate the project goals. Numerous crest width options were considered by the project team but the scope of work limited full assessment to 6 alternatives. The alternatives were chosen to bracket a variety of project costs, beach fill, marsh fill and primary dike layouts.

POC for the comments is Keith O’Cain (504) 862-2746.

### **Geotechnical Branch**

25) There is a discrepancy in the second side slope of the beach sand dune. In the Executive Summary the side slope below El. +1 is stated as 1V on 90H and in the plans the side slope is labeled as 1V on 60H below El. +1. Correct this discrepancy so that the side slope is consistent.

**Response:** Comment was addressed. Changed slope in the executive summary to 1V:60H.

26) On plan sheet 7 of 30, the plan of the dune does not show 2 slopes on the Gulf side. Correct this error.

**Response:** Comment was addressed. Slope lines were added on the Gulf face between the dune crest and break in slope.

27) On geotechnical report plate number 14, boring B-4 has two stick logs shown. Please clarify why this boring is shown with two logs.

**Response:** Boring B-4 does not have two stick logs shown on Plate 14. The stick logs for Borings B-4 and B-5 are adjacent to one another. We can move the label for Boring B-5 so that it is more visible to eliminate confusion..

28) The report does not mention the borrow to in-place volume ratio and whether the amount of borrow is adequate for either of the marsh creation or the beach sand dune items of work.

**Response:** Comment was addressed. The sentence “Assuming a 1.5:1 cut-to-fill ratio, the volume of beach and marsh fill available within the borrow areas is adequate to construct the alternatives proposed” was added at the end of the Borrow Areas discussion (Section 7).

29) No borrow borings are shown.

**Response:** Section 7, Borrow Areas explains that the borrow areas identified for this project were previously developed to construct the East Grand Terre Island Restoration Project (BA-30) which was completed in 2010. A complete borrow area analysis is included in the report for the East Grand Terre Island project.

30) No stability analysis for the beach sand dune is shown. This should be included in the report for both landward and seaward stability. The landward stability should take into account that the marsh creation will be built subsequent to the beach sand dune, since it will serve as containment for the marsh creation as shown on cross sections in the plans.

**Response:** No stability analysis was conducted for the constructed beach and dune. The slopes are flat and the features will be constructed from material with a higher sand content and lower organic and silt content. It was not deemed necessary by the project team to have the analysis performed.

31) In the geotechnical report, it is stated that borings B-5, B-6, and B-8 contain highly organic material and are not suitable for containment dike construction. How has the designer accommodated this recommendation for the dikes in these areas?

**Response:** It was noted in the design and additional primary dike locations were considered for marsh options 1 and 2. Regardless, the primary dike along the eastern half of the project area, where the unsuitable material was found, is not exposed to direct wave impacts from the bay and thus degradation. Due to the shallow water depths in this area, it is believed that the contractor will ultimately be able to achieve the crest elevation to contain the marsh fill during construction. In addition, to be conservative, the primary dike was design with flatter side slopes (1V:8H) as compared to the slopes (1V:4H) that were analyzed.

32) Reference para. 6.2 of the geotechnical report. The geotechnical report should include a plot of all consolidation data and the selected values as was used in the settlement estimate. Also, details of the settlement computations should be presented in the report for completeness.

**Response:** We can include a table of consolidation parameters versus depth that were used in our settlement analyses.

33) To present a comprehensive settlement estimate, include an estimate of the marsh fill settlement in addition to that amount estimated for the in-situ material beneath the marsh.

**Response:** For transparency, Figure 39 and Figure 40 were added to the report to delineate the settlement curves used in the analysis. The text, “The analysis was performed given lift thicknesses ranging between 3 feet and 5 feet thick for the constructed marsh. Based on the existing mudline elevation (0.0 feet, NAVD) and the proposed marsh construction elevations (+2.0, +2.5, and +3.0 feet, NAVD), the marsh lift thicknesses ranged between 2 feet and 3 feet thick. Thus, settlement of the underlying soils was assumed to be that of a 3 foot lift thickness regardless of the marsh elevation (Figure 39). This provided a conservative estimate for the constructed marsh elevations below +3.0 feet, NAVD.” was added prior to Figure 39. The text, “The self-weight consolidation of the placed marsh fill for the proposed construction elevations are shown in Figure 40.” was added prior to Figure 40. Prior to Figure 41, the text “and includes geological subsidence, settlement of the underlying soils, self-weight consolidation, and detritus accumulation” was added to the first sentence of the preceding paragraph.

- 34) In the letter report dated 20 Jan 11, the geotechnical designer should state whether the assumption of extending the lowest stratum by 40-feet without any geotechnical information is an appropriate one. This discussion should present whether the assumption is believed to be conservative or unconservative relative to the 3 alternative crest widths of 150, 270, and 445 feet. The settlement curves for the beach sand dune should accommodate the 3 alternative crest widths of 150, 270, and 445 feet since they vary significantly in width.

**Response:** To estimate settlement beneath a crest width on the order of 150- to 445-ft with any certainty, subsurface information should be obtained to a deeper depth than that obtained during our field exploration. However, we assumed a normally consolidated clay between a depth of 60- and 100-ft so our settlement estimate is likely conservative.

- 35) It is not clear as to the reasons for the vastly different settlement curves presented in letter reports dated 20 Jan 11 and 20 Dec 10. One has a 20-year settlement from 1.9 to 2.5 feet while the other has a 20-year settlement from 0.7 to 0.9 feet. The geotechnical report should be updated with a discussion explaining these two different curves.

**Response:** The analyses performed for the December 20, 2011 letter report used our general soil profile based on all of our soil borings. After submittal of the December 20, 2010 letter report, we were asked to re-evaluate the same cross-section using a soil profile based only on Borings B-1 and B-2, which included more sand and accordingly, less settlement.

- 36) Geotechnical Report Plate 16. The curves in this graph are very odd. One should not anticipate the 20-year settlement of the marsh fill for the El. 2 and El. 3 grades to be almost equal at values of 1.13 and 1.20 feet, respectively. And then for the curve representing the marsh at El. +1 to have such a comparatively low value of 0.63 feet. These computations should be verified for accuracy.

**Response:** After additional review, it was discovered that there were inaccuracies in the water elevations used to compute the settlement. They are currently being re-analyzed and will be corrected in the 95% report.

- 37) Geotechnical Report. The report should include plots of all shear strength tests and unit weights versus elevation for all materials and the selected values for analysis shown.

**Response:** We can add plots of shear strength and unit weight versus elevation along with our design profiles. The dike containment material unit weight of 85 pcf is very low for granular material. In our original analyses for the dikes, we used a unit weight of 85 pcf for the granular dike material. However, in our revised analyses presented in the December 20, 2010 and January 20, 2011 letter reports, we used a unit weight of 100 pcf for the granular dike material.

- 38) Geotechnical Report Plates 17, 18, and 19. Verify that the search for this analysis included the marsh stockpiled material.

**Response:** We evaluated the slope stability of the Gulf side of the containment dikes using marsh fill material on the opposite side of the dikes. We evaluated marsh fill placed at elevations of +1.0-, +2.0-, and +3.0-ft. We will add a label for the marsh fill material so it is more recognizable and re-submit these plates.

39) Geotechnical Report Plates 20 and 21. Label the excavation bottom elevation used in the analysis and the distance to the C/L dike.

**Response:** We will label the elevation of the bottom of the excavation and the distance to the centerline of the dike and re-submit these plates.

**Environmental Branch**

40) All questions were addressed at the design review conference on May 5, 2011.

Literature Cited

Flocks, J. and C. Franze. 2001. *Dredge Pit Characterization*, in S. Penland, A. Beall and J. Waters (eds.), *Environmental Atlas of the Lake Pontchartrain Basin*. Lake Pontchartrain Basin Foundation, New Orleans, LA, p. 153.

Palmer, T. A., P. A. Montagna and R. B. Nairn. 2008. The Effects of a Dredge Excavation Pit on Benthic Macrofauna in Offshore Louisiana. *Environmental Management* (2008) 41:573–583

Tampa Bay Estuary Program. 2005. Tampa Bay Dredged Hole Habitat Assessment Project-Final Report. Technical Publication #04-05, 48 pp

**CHENIER RONQUILLE, PHASE II REQUEST  
ATTACHMENT E**

**Final Design Review: State Concurrence to Proceed and Response to  
Comments**



Coastal Protection and  
Restoration Authority of Louisiana

# State of Louisiana

**BOBBY JINDAL**  
GOVERNOR

November 15, 2011

Ms. Cecelia Linder  
NMFS Restoration Center, F/HC3  
1315 East West Highway  
Silver Spring, MD 20910

Re: 95% Design Review for Chenier Ronquille Barrier Island Restoration Project  
(BA-76)  
Statement of Local Sponsor Concurrence

Dear Ms. Linder:

The 95% design review meeting was held on October 13, 2011 for the Chenier Ronquille Barrier Island Restoration Project (BA-76). Based on our review of the technical information compiled to date, the ecological review, the land ownership investigation, and the final designs, we, as local sponsor, concur to proceed with requesting Phase II construction funding for the project.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee. We also request that our project manager, Kenneth Bahlinger, be copied on this and other correspondence concerning this project.

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

Sincerely,

William K. "Kirk" Rhinehart  
Coastal Protection and Restoration Authority  
Planning Administrator

KR:kdb

cc: Richard Hartman, NOAA Fisheries  
Rachel Sweeny, NOAA Fisheries  
Robert Routon, P.E., O CPR Administrator  
Kenneth Bahlinger, O CPR Project Manager  
Anna Wojtanowicz, E.I., O CPR Project Engineer

**Final/95% Design Review**  
**Chenier Ronquille Barrier Island Restoration Project (BA-76)**  
**Agency Comments and Responses**

NRCS Comments

1. After reviewing the Chenier Ronquille 95 % design report and attending the 95% design meeting, NRCS feels that NMFS and CPRA have adequately investigated the most cost effective dune and marsh fill design alternatives to increase the island's longevity. However, NRCS would like to note that there may be other features that could further increase the island's longevity that were not evaluated. NRCS recognizes that the scope of the project did not include any island protection other than dredged fill material. While the alternative with the lowest cost per net acre was chosen, NRCS would like to note that it is a high cost per net acre when compared to other CWPPRA projects.

Response: Based on review of cost effectiveness of similar projects (barrier islands) we believe that the proposed project provides excellent efficiency. The Chenier Ronquille project would use previously identified and cleared sand deposits that are located within three miles of the restoration project area.

USACE Comments

*Geotechnical Comments on Chenier Ronquille Barrier Island Restoration Project (BA-76) 95%:*

1. No stability analysis for the beach sand dune is shown. This should be included in the report for both landward and seaward stability. The landward stability should take into account that the marsh creation will be built subsequent to the beach sand dune, since it will serve as containment for the marsh creation as shown on cross sections in the plans.

Response: Slope stability was not analyzed for the proposed dune cross section. Dunes with similar geometry have been constructed under similar geotechnical conditions in the area with little to no difficulty.

2. The dike containment material unit weight of 85 pcf is very low for a granular material.

Response: In Fugro's original analyses for the dikes, a unit weight of 85 pcf was used for the granular dike material. However, in the revised analyses presented in the December 20, 2010 and January 20, 2011 letter reports, a unit weight of 100 pcf was used for the granular dike material.

3. No borrow borings are shown.

Response: No additional data was collected within the borrow area in order to develop this report. Borrow area designs are based on geotechnical work previously conducted for the Chaland Headland Restoration Project (BA-38-2) and the East Grand Terre Island Restoration Project (BA-30). Reports for these two projects are referenced. Table 6 and Sections 7.1 – 7.4 in the main report provide borrow material properties.

4. On plate 2 of the plans, there is only one reference benchmark. Three are required.

Response: The construction contractor will be required to verify the referenced benchmark prior to surveying.

5. Please label the Gulf Side and Bay Side on Plates 6 through 16 in the plans.

Response: Labels will be added during the development of construction plans.

6. On plates 6 through 15 in the plans, there is a box in the upper right hand corner the cross sections that states "September 2010 Construction". It is unclear from the cross sections what this is referring to.

Response: These two lines represent topography surveyed in September 2010 and the construction template.

*H&H Comments on Chenier Ronquille Barrier Island Restoration Project (BA-76) 95%:*

7. Main Report, page 46, section 9.4 - Change 0.00056 to 0.0056.

Response: This value has been corrected.

8. Main Report, page 46, section 9.4 - The last sentence in this section is confusing. Subsidence is the rate of vertical land movement.

Response: Noted.

9. Main Report, page 46, section 9.5 - According to the guidance (EC 1165-2-211), all 3 scenarios are considered equally likely to occur and all are to be considered in the planning process.

Response: CWPPRA does not have programmatic guidance for application of eustatic sea level rise and subsidence to project evaluations. Sea level rise in the project area was considered for all three scenarios for the 20 year project life, however, the project team agreed to analyze the alternatives using the baseline scenario in part due to the relatively short project life (20 years) and also due to the significant contribution of subsidence to relative sea level rise.

10. Appendix B, Delft3D Modeling - No comments.

11. Appendix E, Cross-Shore (SBEACH) Modeling - No comments.

*Civil Comments on Chenier Ronquille Barrier Island Restoration Project (BA-76) 95%:*

12. The discussions provided in response to 35% comments were descriptive and satisfactorily responded to the comments provided. No further comments are offered.

**CHENIER RONQUILLE, PHASE II REQUEST  
ATTACHMENT F**

**Permit Application Materials**

BOBBY JINDAL  
GOVERNOR

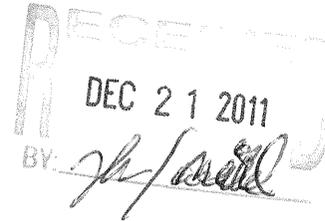


SCOTT A. ANGELLE  
SECRETARY

State of Louisiana  
DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF COASTAL MANAGEMENT

December 15, 2011

Richard Hartman  
National Marine Fisheries Service  
c/o LSU, Military Science Bldg, Rm 266  
Baton Rouge, LA 70803



RE: **C20110507**, Coastal Zone Consistency  
**National Marine Fisheries Service**  
Chenier Ronquille Barrier Island Restoration CWPPRA Project BA-76: Barrier island  
restoration via dedicated dredging, **Plaquemines Parish, Louisiana.**

*Rick*  
Dear Mr. Hartman:

The above referenced project has been reviewed for consistency with the approved Louisiana Coastal Resource Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in the application, is consistent with the LCRP. If you have any questions concerning this information request, please contact Jeff Harris of the Consistency Section at (225) 342-7949 or 1-800-267-4019.

Sincerely,

A handwritten signature in cursive that reads "Keith Lovell".

Keith Lovell  
Administrator  
Interagency Affairs/Field Services Division

KOL/jdh

cc: Anna Wojtanowicz, CPRA  
Dave Butler, LDWF



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

REPLY TO  
ATTENTION OF

NOV 07 2012

Operations Division  
Eastern Evaluation Section

SUBJECT: MVN 2011-03148-ETT

National Marine Fisheries Service  
Attn: Richard Hartman  
LSU, Military Science Building, Room 266  
Baton Rouge, Louisiana 70803

Dear Mr. Hartman:

Enclosed is a permit dated this date, subject as above, authorizing work under the Department of the Army permit program.

You are again reminded that any work not in accordance with the approved plans is subject to removal regardless of the expense and the inconvenience that such removal may involve and regardless of the date when the discrepancy is discovered.

Your attention is directed to all the terms and conditions of the approval. In order to have the work approved in accordance with the issued permit, all terms and conditions of the permit and plans shown on the drawings attached thereto must be rigidly adhered to.

It is necessary that you notify the District Engineer, Attention: Eastern Evaluation Section, in writing, prior to commencement of work and also upon its completion. The notification must include the permittee's name, as shown on the permit, and the permit number. Please note the expiration date on the permit. Should the project not be completed by that date, you may request a permit time extension. Such requests must be received before, but no sooner than six months before, the permit expiration date and must show the work completed and the reason the project was not finished within the time period granted by the permit.

A copy of Page 1 of the permit (ENG Form 1721) must be conspicuously displayed at the project site. Also, you must keep a copy of the signed permit at the project site until the work is completed.

Sincerely,

Michael V. Farabee  
Chief, Eastern Evaluation Section

Enclosure

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CPRA

**CHENIER RONQUILLE, PHASE II REQUEST  
ATTACHMENT G**

**HTRW Analysis**

**Chenier Ronquille Barrier Shoreline Restoration  
and Marsh Creation  
BA-76**

**Hazard, Toxic, and Radioactive Waste (HTRW)  
Analysis**

**Plaquemines Parish, LA**

**October 24, 2011**

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## **1.0 SUMMARY**

The National Oceanic and Atmospheric Administration (NOAA) – National Marine Fisheries Service (NMFS) conducted a Hazard, Toxic, and Radioactive Waste (HTRW) Analysis per Section 6.j of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Standard Operating Procedures (SOPs). The CWPPRA SOP required that consideration should be made regarding the potential for contaminants to be located on restoration project sites prior to seeking construction funds. This HTRW Analysis on the Chenier Ronquille Barrier Shoreline Restoration and Marsh Creation site (subject property) in Plaquemines Parish, Louisiana was completed to provide property-specific information to improve the understanding of the environmental conditions, detail any environmental considerations specific to the subject property.

NMFS performed the HTRW Analysis following the Phase I ESA scope and limitations of American Society for Testing and Materials (ASTM) Standard Practice E 1527-05 on the subject property.

Based on our review of applicable federal and state regulatory agency records, historical records, interviews with persons knowledgeable about the subject property, and a physical site investigation, NMFS, through this assessment, has revealed no evidence of recognized environmental conditions.

## **2.0 INTRODUCTION**

### **2.1 Purpose**

The purpose of a Phase I ESA is to identify, to the extent feasible, pursuant to the processes prescribed herein, recognized environmental conditions in connection with the subject property in accordance with ASTM Standard Practice E 1527-05. The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. A Phase I ESA is intended to reflect "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" in order to satisfy one of the requirements to qualify for the innocent landowner defense under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

This HTRW Analysis follows the Phase I ESA investigation.

## **2.2 Detailed Scope of Work**

NMFS developed a scope of work consistent with ASTM Standard Practice E 1527-05. The scope included a records review of state and federal regulatory agency databases that house environmental information relative to discerning the presence or absence of recognized environmental conditions. This review of records also included: (1) historical aerial photography; (2) soil survey information; (3) oil and gas well data; (4) water well data; (5) U.S. Geological Survey (USGS) 7.5 minute topographic maps; and (6) historical city directories. NMFS committed to interview personnel associated with the owner of the subject property and personnel from the appropriate state regulatory agency relative to the environmental history of the subject site. Additionally, NMFS was to perform a field visit to the subject property to conduct a reconnaissance of the site and adjoining properties with the purpose of identifying potential areas of environmental concern ranging from mismanagement of hazardous materials to evidence of spills and/or contamination and to confirm information obtained from interviews and records reviews. Lastly, NMFS would prepare a report detailing the data discovered relative to the subject site that would provide an opinion of the findings and conclusions relative to any future course of action.

## **2.3 Limitations and Exceptions**

This report and other instruments of service were prepared for and made available for the use of those cooperating agencies associated with CWPRRA. The contents thereof may not be used or relied upon by any other person or entity without the express written consent and authorization of NMFS.

A property inspection was conducted and pertinent observations relating to the condition of the environment at the subject property were recorded. This report was prepared to summarize findings and observations related to the environmental condition of the subject property. Included within the contents of this report is a description of the subject property, a summary of reviewable records, and an opinion by NMFS regarding any recognized environmental conditions observed during the time in which the site inspection was conducted. Historical photographs, maps, regulatory and governmental databases, and interviews were used to document previous site activities.

At this time, a Chain-of-Title and Environmental Lien Search are not being performed.

## **2.4 Special Terms and Conditions**

The findings and conclusions of this report are not scientific certainties, but rather probabilities based on professional judgment concerning the

significance of the data gathered during the course of the assessment. NMFS was not able to verify that the subject property or adjoining land contains no hazardous substances, petroleum products, or other latent condition beyond that detected or observed during the assessment. The possibility always exists for contaminants to migrate through surface water, air, soil, or groundwater. The ability to accurately address the environmental risks associated with transport in these media was beyond the scope of this assessment. The opinions expressed by NMFS with reference to the subject property only pertain to the conditions that existed at the subject property during the time in which the site inspection was conducted.

## **2.5 Reliance**

NMFS relied on the information obtained through records review, site reconnaissance, and interviews as being accurate and correct without conducting a separate independent verification of all sources. NMFS has no knowledge that any of the information obtained is incorrect.

## **3.0 SITE DESCRIPTION**

### **3.1 Locations and Legal Description**

The subject property consists of approximately 411 acres located along the Gulf of Mexico in Plaquemines Parish, Louisiana. The location of the property is shown on **Figure 1**.

### **3.2 Site and Vicinity General Characteristics**

The most current USGS 7.5 Minute Series Topographic Map depicting the subject property is the "BAY RONQUILLE, LA" Topographic Map, 1993 (**Figure 1**). The elevation of the subject property is between 0 and 5 national geodetic vertical datum (NGVD). Based on site reconnaissance, there is some remaining shoreline dune with minimal existing marsh behind the dune.

### **3.3 Current Use of the Property**

The subject property is currently undeveloped with oil and gas transmission lines crossing the subject property. **Figure 2** provides a plan view of the property with proposed restoration areas.

### **3.4 Descriptions of Structures, Roads, Other Improvements on the Site (including heating/cooling system, sewage disposal, source of potable water)**

The subject property is currently undeveloped. .

### **3.5 Current Uses of Adjoining Properties**

The adjoining properties are tidally influenced marshes that are currently undeveloped.

## **4.0 SUPPORT DOCUMENTATION**

### **4.1 Chain-of-Title**

A Chain-of-Title was not performed under the HTRW Analysis scope of work.

### **4.2 Environmental Liens**

An Environmental Lien Search was not performed under the HTRW Analysis scope of work.

### **4.3 Specialized Knowledge**

Chenier Ronquille is not believed to be located within any local fire districts.

### **4.4 Owner, Property Manager, and Occupant Information**

An interview relative to the subject site and adjoining areas was conducted with Mr. Buddy Smith, ConocoPhillips landman. All information obtained from this individual is documented in Sections 6.0 and 7.0 and **Appendix A** of this document.

### **4.5 Reason for Conducting the HTRW Analysis**

The reason for conducting this HTRW Analysis was to define potential sources or potential presence of any hazardous substance, pollutant, or contaminant that may impact the proposed marsh creation and ridge restoration project.

## **5.0 RECORDS REVIEW**

### **5.1 Standard Environmental Record Sources**

NMFS contracted Environmental Data Resources Inc (EDR) to research federal and state environmental databases for any information pertaining to the subject property and any other sites or facilities up to a one-mile radius from the subject property. The radius of the search for each database was based upon the ASTM standard search radius for each record. The radii were increased by 1 mile to provide coverage for the project site. A copy of the EDR Report is included in **Appendix B** and

includes details concerning each searched database and the researched radii.

### **5.1.1 Federal Databases**

#### **5.1.1.1 National Priorities List (NPL)**

The NPL, which is also known as Superfund, is a subset of the Comprehensive, Environmental Response, Compensation, and Liability Information System (CERCLIS). It identifies in excess of 1,200 sites for priority clean-up under the Superfund Program.

No NPL sites were identified within the specified search radius of the subject site.

#### **5.1.1.2 Proposed National Priority List (NPL) Sites**

A Proposed NPL site is a site that has been proposed for listing on the NPL through the issuance of a proposed rule in the Federal Register. The United States Environmental Protection Agency (USEPA) then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

No Proposed NPL sites were identified within the specified search radius of the subject site.

#### **5.1.1.3 Federal Superfund Liens (NPL LIENS)**

Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

No NPL LIENS sites were identified within the specified search radius of the subject site.

#### **5.1.1.4 National Priority List Deletions (Delisted NPL)**

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the USEPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

No Delisted NPL sites were identified within the specified search radius of the subject site.

**5.1.1.5 Comprehensive, Environmental Response, Compensation, and Liability Information System (CERCLIS)**

CERCLIS is a comprehensive listing of known or suspected uncontrolled or abandoned hazardous waste sites. These sites are either on or proposed for inclusion in the NPL or are in the screening and assessment phase for potential inclusion on the NPL. As of February 1995, CERCLIS sites that were designated as No Further Remedial Action Planned or NFRAP were removed from the CERCLIS database.

No CERCLIS sites were identified within the specified search radius of the subject site.

**5.1.1.6 CERCLIS No Further Remedial Action Planned (CERC-NFRAP)**

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of USEPA's knowledge, assessment at a site has been completed and that USEPA has determined no further steps will be taken to list this site on the NPL, unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

No CERC-NFRAP sites were identified within the specified search radius of the subject site.

**5.1.1.7 Resource Conservation and Recovery Act (RCRA) CORRACTS**

The RCRA CORRACTS (Corrective Action Reports) identify hazardous waste handlers involved in RCRA corrective action activity.

No RCRA CORRACTS sites were identified within the specified search radius of the subject site.

**5.1.1.8 Resource Conservation and Recovery Act (RCRA) non-CORRACTS Treatment, Storage, and Disposal Facilities List (RCRA-TSDF)**

RCRAInfo is USEPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites that transport, store, treat, and/or dispose of hazardous waste.

No RCRA-TSDF sites were identified within the specified search radius of the subject site.

**5.1.1.9 Resource Conservation and Recovery Act Generator's List**

RCRAInfo is USEPA's comprehensive information system, providing access to data supporting the RCRA of 1976 and the HSWA of 1984. The database includes selective information on sites that generate waste including large quantity generators (LQG), small quantity generators (SQG), and conditionally exempt small quantity generators (CESQG). No LQG or SQG were found within the search radius.

No RCRA-CESQG were identified within the specified search radius of the site.

**5.1.1.10 Engineering Controls Sites List (US ENG CONTROLS)**

US ENG CONTROLS is a listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

No US ENG CONTROLS sites were identified within the specified search radius of the subject site.

**5.1.1.11 Sites with Institutional Controls (US INST CONTROL)**

US INST CONTROL is a listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed

restrictions are generally required as part of the institutional controls.

No US INST CONTROL sites were identified within the specified search radius of the subject site.

**5.1.1.12 Emergency Response Notification System (ERNS)**

The ERNS is a database retrieval system that stores information on reported releases of oil and hazardous substances. Release notifications from 1987 to present found in this database were reported to the National Response Center. Information relative to a specific release includes: the reported discharge; date of release; material released; cause of release (if known); incident location; response actions taken; authorities notified; and affected environmental medium.

No ERNS records were identified for the subject property.

***5.1.2 Louisiana Department of Environmental Quality (LDEQ) Databases***

**5.1.2.1 Louisiana Site Remediation Information Systems (SHWS)**

The SHWS is the state hazardous waste sites and potentially inactive and abandoned sites listing, which amounts to the state's version of the federal CERCLIS database. Sites listed in the SHWS may or may not be CERCLIS sites. Priority sites planned for clean-up using state funds (state version of Superfund) are included with those sites planned for clean-up through private financing.

No SHWS records were identified for the subject or surrounding properties.

**5.1.2.2 Solid Waste Facilities/Landfill List (SWF/LF)**

The SWF/LF contains records of both landfill sites and solid waste facilities. LF records contain an inventory of solid waste disposal facilities or landfills that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

No SWF/LF sites were identified within the specified search radius of the subject site.

#### 5.1.2.3    **LDEQ-Approved Debris Sites (DEBRIS)**

DEBRIS is a listing of LDEQ-Approved Debris Sites where hurricane debris is dumped.

No DEBRIS sites were identified within the specified search radius of the subject site.

#### 5.1.2.4    **Leaking Underground Storage Incident Reports (LUST)**

LUST contains an inventory of reported leaking or remediated underground storage tank incidents. These records are maintained in LDEQ's Office of Environmental Assessment.

No LUST sites were identified within the specified search radius of the subject site.

#### 5.1.2.5    **Underground Storage Tank Case History Incidents (HIST-LUST)**

HIST-LUST includes detailed information for Leaking Underground Storage Tanks reported through November 1999. It is no longer updated. Current LUST incidents, without detail, can be found in the Leaking Underground Storage Tank Database.

No HIST-LUST sites were identified within the specified radius of the subject site.

#### 5.1.2.6    **Louisiana Registered Underground Storage Tanks (UST)**

Registered USTs are maintained in a database at LDEQ's Office of Environmental Assessment. Information maintained on USTs includes tank identification number, owner, installation date, closure date, status, age, contents, capacity, composition of tank (fiberglass, metal *etc.*), and location.

No USTs were identified within the specified search radius of the subject site.

#### 5.1.2.7    **Conveyance Notice Listing (AUL)**

AUL is a listing of sites for which a notice of contamination (nature and levels of contaminants) and restriction of property to non-residential use are placed in the conveyance records for the property.

No AUL records were identified within the specified search radius of the subject site.

#### 5.1.2.8 Voluntary Remediation Program Sites (VCP)

VCP is a listing of sites that entered the LDEQ's Voluntary Remediation Program.

No VCP sites were identified within the specified search radius of the subject site.

#### **5.1.3 Orphan Sites Summary**

Orphan sites are sites whereby the EDR database search located records, but could not obtain a full account of the information due to inadequate or inaccurate address data.

The orphan sites were individually evaluated for proximity to the subject property. No sites were identified as posing an environmental concern to the subject site.

### **5.2 Additional Environmental Record Sources**

#### **5.2.1 Former Manufactured Gas (Coal Gas) Sites**

The existence and location of former coal gas manufacturing sites is maintained by Real Property Scan, Inc. for the exclusive use of EDR.

No former coal gas manufacturing sites were identified within the specified search radius of the subject site.

#### **5.2.2 Additional Federal Databases**

In addition to the standard ASTM federal database search, the following federal databases were also searched: US BROWNFIELDS (a listing of Brownfields Sites); RCRA-NonGen (RCRA Non-Generators of hazardous waste) ODI (Open Dump Inventory); DEBRIS REGION 9 (Torres Martinez Reservation Illegal Dump Site Locations); SWARCY (Recycling Directory); US CDL (Clandestine Drug Labs); LIENS 2 (CERCLA Lien Information); LUCIS (Land Use Control Information System); LIENS (Environmental liens); SPILLS (Emergency Response Section Incidents); CONSENT (Superfund consent decrees); DOT OPS (Incident and Accident Data); DOD (Department of Defense Sites); FUDS (Formerly Used Defense Sites); ROD (Record of Decision documents); UMTRA (Uranium Mill Tailings Sites); FINDS (Facility Index System/Facility Registry System); HMIRS (Hazardous

Materials Information and Reporting System); MLTS (Material Licensing Tracking System); MINES (Mines Master Index File); PADS (PCB database activity); RAATS (RCRA Administrative Action Tracking System); TRIS (Toxic Chemical Release Inventory System); TSCA (Toxic Substances Control Act); SSTS (Section 7 Tracking Systems); and FTTS (FIFRA/TSCA Tracking System); HIST FTTS (FIFRA/TSCA Tracking System Administrative Case Listing); ICIS (Integrated Compliance Information System); RADINFO (Radiation Information Database); NPDES (LPDES Permits Database); INDIAN RESERV (Indian Reservations); DRYCLEANERS (Drycleaner Facility Listing); SCRD DRYCLEANERS (State Coalition for Remediation of Drycleaners Listing).

No additional database sites were identified within the specified search radius of the subject property.

### **5.2.3 Water Wells**

A search for water wells, including public water supply wells, USGS water wells, and Louisiana Department of Transportation and Development (LDOTD) registered water wells was conducted as part of this Phase I ESA. Public water supply wells supply water to at least 25 people for a minimum of 60 days. USGS water well data includes groundwater data on springs, wells, and other sources of groundwater input into their national water resource information tracking system. LDOTD maintains a database on all water wells registered in the State of Louisiana. LDOTD's database includes public and private drinking water supply wells, irrigation wells, livestock watering wells, and groundwater monitoring wells.

There are no registered wells within a one-mile radius of the site.

## **5.3 Physical Setting Sources**

The most current USGS 7.5 Minute Series Topographic Map depicting the subject property is the "BAY RONQUILLE, LA" Topographic Map, 1993 (**Figure 1**). The elevation of the subject property is between 0 and 5 NGVD. Under current conditions, the subject property is heavily eroded with large tidal connectivity.

According to the Soil Conservation Service National Cooperative Soil Survey, felicity loamy fine sand and scatlake muck on the subject property. A soil survey map is included as **Figure 3**.

## 5.4 Historical Use Information on the Property

### 5.4.1 Louisiana Department of Natural Resources (LDNR)

NMFS accessed and reviewed LDNR's on-line well location system referred to as SONRIS. The purpose of our review was to assess the presence or absence of oil and/or gas production wells on or in the vicinity of the subject property.

One oil and/or gas production well and two dry holes determined to be on the subject property. The following provides the wells and plugged and abandoning timeframe.

- Well 74441 (P&A Oil Producer) – Plugged and Abandoned 1980
- Well 78266 (P&A Dry Hole) – Plugged and Abandoned 1973
- Well 187719 (P&A Dry Hole) – Plugged and Abandoned 2001

Well information from SONRIS can be found in **Appendix C**. An Oil/Gas Well Location Map is included as **Figure 4**.

### 5.4.2 Aerial Photographs

NMFS contracted EDR to provide aerial photography for the subject property. Six aerial photographs of the subject property were obtained for the purpose of confirming and compiling historical use information (**Appendix D** and **Figure 2**). Photographs from 1956, 1972, 1983, 1994, 1998, and 1998 were reviewed during the preparation of this Phase I ESA.

All of the aerial photographs show the continued erosion of the marsh platform on the subject property. Oil and gas transmission lines are shown in the aerials (with the exception of 1956). Oil/gas exploration activities are apparent in the 1956 aerial photograph.

### 5.4.3 LDEQ Database Search

NMFS performed a search of the LDEQ's Electronic Data Management System (EDMS) to determine if the subject site had past or current compliance or enforcement actions on file with LDEQ.

No files were identified for the project site.

### 5.4.4 City Directories Search

Due to the location of the subject property, city directory data is not available.

#### **5.4.5 Sanborn Maps**

NMFS contracted EDR to research fire insurance records for the subject property. EDR provided a Sanborn Map search for the subject property. Sanborn Maps were originally created for assessing fire insurance liability in urbanized areas in the United States, and include detailed information regarding town and building information in approximately 12,000 U.S. towns and cities from 1867 to 1970. A copy of the EDR Sanborn Map report can be found in **Appendix E**.

The subject property was not found in the Sanborn Library.

#### **5.4.6 Historical Topographic Maps**

NMFS contracted EDR to provide historical topographic maps for the subject property. NMFS reviewed four topographic maps of the subject property for the purpose of confirming and compiling historical use information (**Appendix F**). Topographic maps from 1893, 1948, 1973, and 1993 were reviewed during the preparation of this Phase I ESA.

No development is evident on the historical topographic maps. Oil and gas transmission lines are first evident in the 1973 topographic map.

### **5.5 Historical Use Information on Adjoining Properties**

#### **5.5.1 LDNR**

NMFS accessed and reviewed LDNR's on-line well location system referred to as SONRIS. The purpose of our review was to assess the presence or absence of oil and/or gas production wells on or in the vicinity of the subject property.

Five oil and gas production wells were determined to be on the adjoining properties as shown on Oil/Gas Well Location Map (see **Figure 4**). The wells were identified as plugged and abandoned. Well information from SONRIS can be found in **Appendix C**.

#### **5.5.2 Aerial Photographs**

NMFS contracted EDR to provide aerial photography for the adjoining properties. Six aerial photographs of the adjoining properties were obtained for the purpose of confirming and compiling historical use information (**Appendix D** and **Figure 2**). Photographs from 1956, 1972, 1983, 1994, 1998, and 2010 were reviewed during the preparation of this Phase I ESA.

All of the aerial photographs show the continued erosion of the marsh platform on the adjoining properties. Oil and gas transmission lines are shown in the aerials (with the exception of 1956).

#### **5.5.3 LDEQ Database Search**

NMFS performed a search of the LDEQ's EDMS to determine if the adjoining properties had past or current compliance or enforcement actions on file with LDEQ.

No files were identified for adjacent properties.

#### **5.5.4 City Directories Search**

Due to the location of the subject property, city directory data is not available.

#### **5.5.5 Sanborn Maps**

NMFS contracted EDR to research fire insurance records for the adjoining properties. EDR provided a search of Sanborn Map coverage for the adjoining properties to the subject property. Sanborn Maps were originally created for assessing fire insurance liability in urbanized areas in the United States, and include detailed information regarding town and building information in approximately 12,000 U.S. towns and cities from 1867 to 1970. A copy of the EDR Sanborn Map report can be found in **Appendix E**.

There were no Sanborn Maps found for the surrounding areas in the Sanborn Library.

#### **5.5.6 Historical Topographic Maps**

NMFS contracted EDR to provide historical topographic maps for the adjoining properties. NMFS reviewed four topographic maps of the adjoining properties for the purpose of confirming and compiling historical use information (**Appendix F**). Topographic maps from 1893, 1948, 1973, and 1993 were reviewed during the preparation of this Phase I ESA.

No development is evident on the historical topographic maps. Oil and gas transmission lines are first evident in the 1973 topographic map.

### **5.5.7 Pipeline Right-of-Way**

Two pipelines traverse the project site. The following is a list of the pipeline owners:

- Plains
- Columbia Gulf

## **6.0 SITE RECONNAISSANCE**

NMFS personnel conducted an investigation of the subject property on June 10, 2009 and September 15, 2010 as part of the property specific evaluations. The purpose of the inspections was to observe whether any visible areas of environmental concern were evident on the subject property. Photographs of the subject property taken during the above inspections are shown in **Appendix G** (Photographs No. 1 through 7).

### **6.1 Methodology and Limiting Conditions**

Due to the size of the site, NMFS personnel traversed the site via boat.

### **6.2 General Site Setting**

The site is located in lower Plaquemines Parish outside flood protection levees. The site is undeveloped except for oil and gas infrastructure located within and bisecting the site.

### **6.3 Exterior Observations**

The site is located on the Gulf of Mexico shoreline and is bounded to the west by Quatre Bayou Pass, to the north by Bay Long and to the east by Pass la Mer. Areas surrounding the site are generally shallow open water bays, waters of the Gulf of Mexico and fragmented tracts of intertidal saline marsh. There are oil and gas facilities adjacent to the site.

### **6.4 Interior Observations**

The approximately 300-acre site is characterized by sandy shorelines fronting the Gulf, fragmented saline marsh and tracts of shallow open water. Two oil and gas pipelines traverse the area. There are no structures located on the subject property except for pipeline signage and a single wooden pipeline canal plug (see photograph 2).

## **7.0 INTERVIEWS**

Based on an interview with Mr. Buddy Smith (Landman for ConocoPhillips), the subject property has historical oil and gas related activities including pipelines and wells. The property was minimally impacted by an offshore release from Equinox Oil and Gas that was cleaned up. There are no environmental liens

associated with the property. The interview documentation can be found in **Appendix A**.

## **8.0 FINDINGS**

This assessment has revealed no evidence of recognized environmental conditions and historical recognized environmental conditions (see **Sections 8.1** and **8.2**) in association with the subject property.

The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. Historical recognized environmental conditions are conditions that in the past would have been considered recognized environmental conditions, but under present circumstances may or may no longer be considered recognized environmental conditions. Historical recognized environmental conditions usually involve properties that have experienced a past release and have been remediated to the satisfaction of the responsible regulatory authority. Neither recognized environmental conditions nor historical recognized environmental conditions are intended to include *de minimis* conditions that generally do not present a material risk or harm to public health or the environment, and that would not likely be the subject of an enforcement action if discovered by the appropriate regulatory authority.

### **8.1 Recognized Environmental Conditions**

There are no recognized environmental conditions found on the subject property.

### **8.2 Historical Recognized Environmental Conditions**

There are no historical recognized environmental conditions found on the subject property.

## **9.0 OPINION**

NMFS has discovered no evidence of known or suspected recognized environmental conditions and/or historical recognized environmental conditions associated with the subject site through our investigations into the subject property as described under section 8.0 of this report.

The oil and gas wells identified on the subject and adjoining property have been plugged and abandoned in accordance with LDNR regulations and are not believed to be a recognized environmental condition.

## **10.0 DATA GAPS AND DATA FAILURES**

Historical information on the subject property was available from 1893 (historical topographic map review) to 2010 (federal and state records review). The historical topographic map from 1894 was the only data available until 1956. The lack of available records for the subject property from 1893 to 1956 is identified as a data gap. The data gap is not believed to be an issue because the subject property was undeveloped. Data from 1956 to 2011 was available on an approximate 10 year intervals.

## **11.0 CONCLUSIONS**

NMFS has performed a HTRW Analysis following the scope and limitations of ASTM Standard Practice E 1527-05 of the subject property in Plaquemines Parish, Louisiana. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of recognized environmental conditions at the subject property.

## **12.0 DEVIATIONS**

Since the property is not being acquired, NMFS did not perform a chain-of-title and environmental lien search associated with the analysis. NMFS performed the remaining HTRW Analysis in conformance with the scope of ASTM Standard Practice E 1527-05.

## **13.0 REFERENCES**

References utilized to complete this HTRW Analysis include LDNR's SONRIS on-line well information system. This system can be accessed through LDNR's website at [www.dnr.louisiana.gov](http://www.dnr.louisiana.gov). Also utilized was LDOTD's water well registry files, which are available online at LDNRS's SONRIS on-line information system. Files from LDEQ's Office of Environmental Compliance were obtained on line from their EDMS located at <http://www.deq.louisiana.gov>. Soils data was obtained from the Soil Conservation Service National Cooperative Soil Survey.

## **14.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS**

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Phillip L. Parker, P.E.  
Engineer

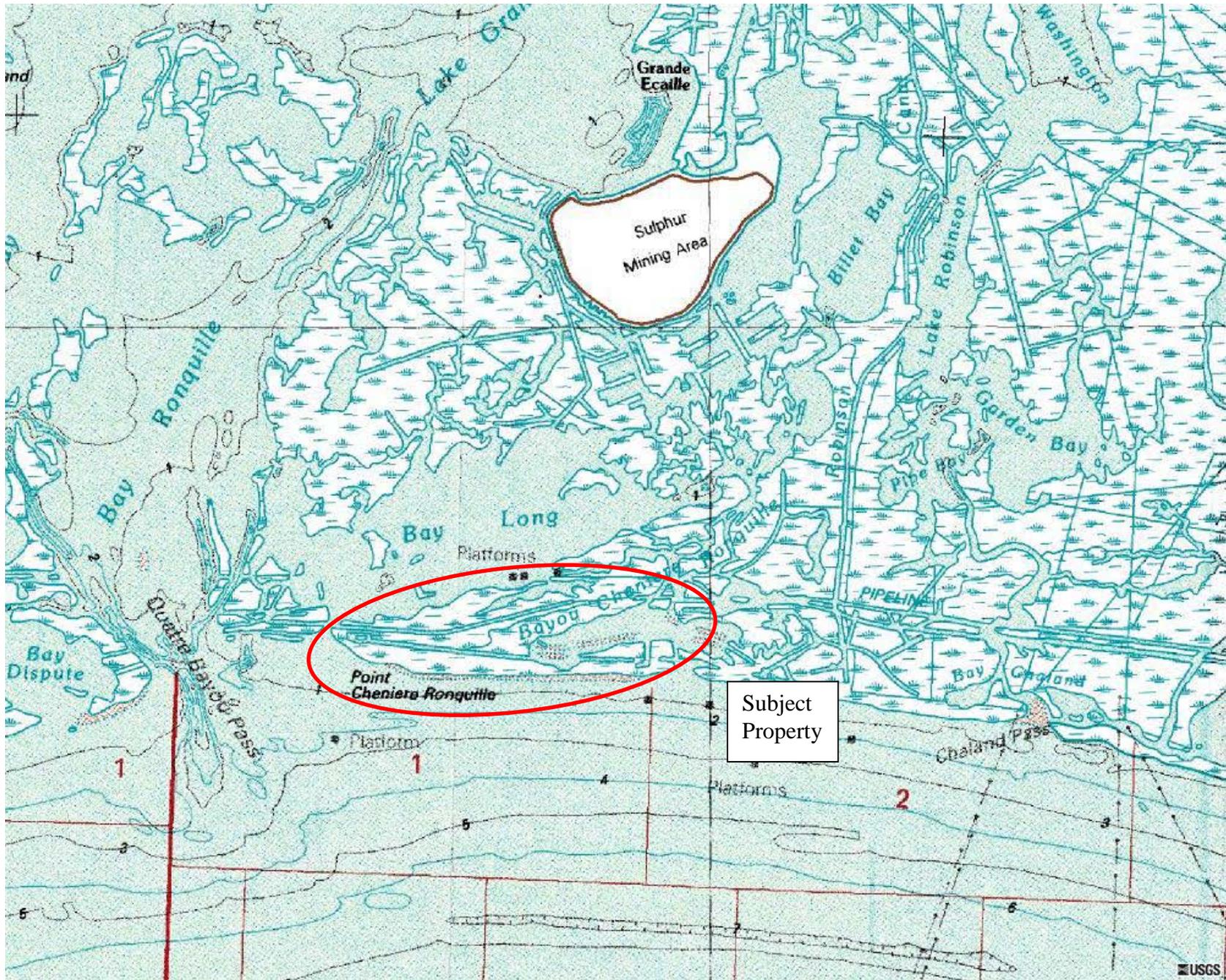
## **15.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS**

Phillip L. Parker declares that, to the best of his professional knowledge and belief, he meets the definition of Environmental Professionals as defined in #312.10 of 40 CFR 312. Mr. Parker has the specific qualifications based on education, training, and experience to assess a property of nature, history, and setting of the subject property.

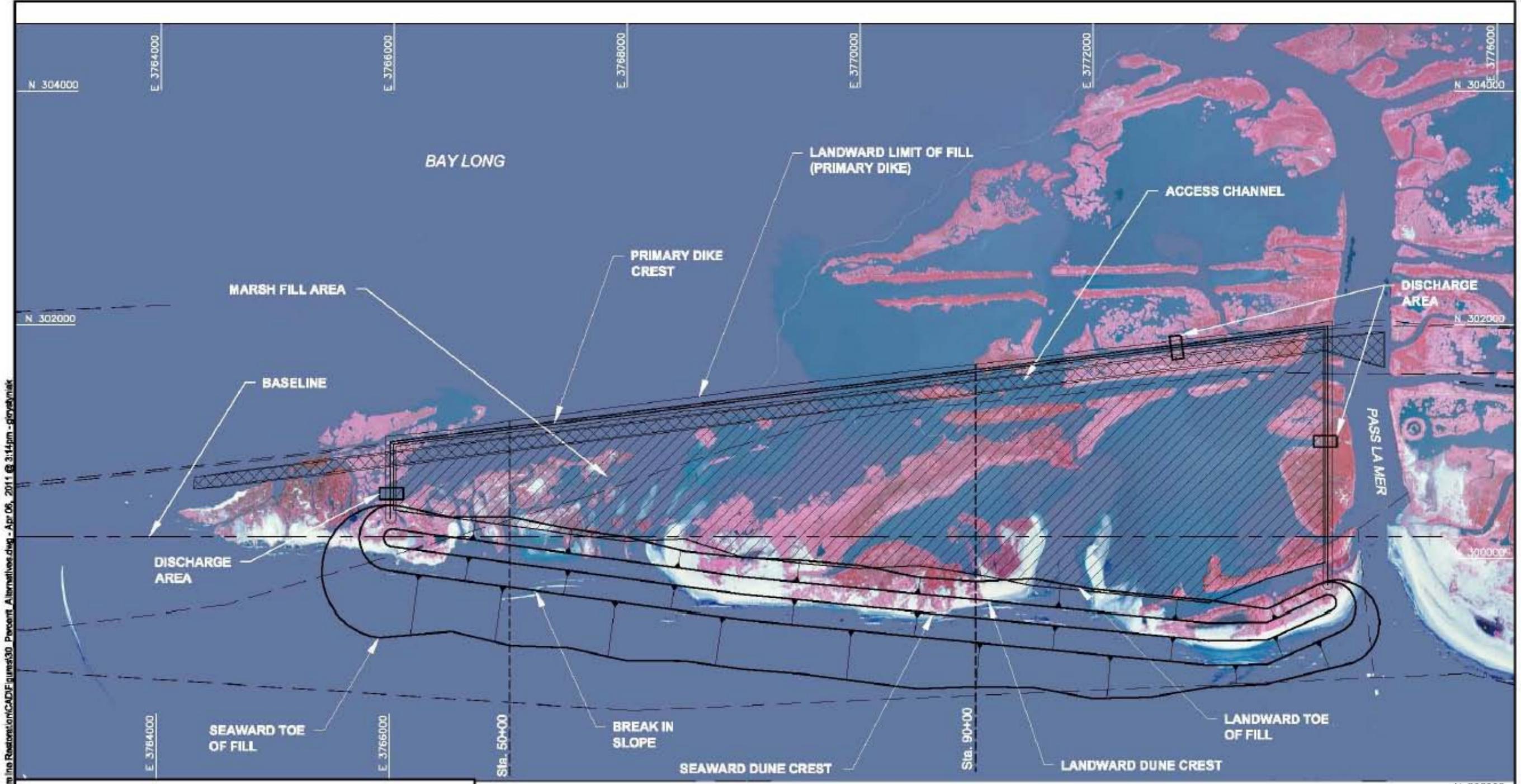
Phillip L. Parker, P.E., has over fifteen years of experience in the environmental and oil related industry and has performed and reviewed numerous Phase I ESAs. He has a Bachelor's degree in Civil Engineering with a minor in Environmental Engineering.

**FIGURE 1**  
**VICINITY MAP**

# VICINITY MAP



**FIGURE 2**  
**PROPERTY MAP**

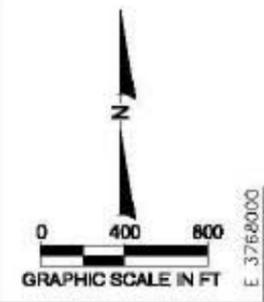


P:\Louisiana\190038 Chenier Rouge\11e Show Ino Restoration\CAD\Figures\30 Percent Alternatives.dwg - Apr 06, 2011 @ 3:14pm - plover.mak

**LEGEND:**  
 --- PIPELINES—VERIFIED BY MAGNETOMETER AND SURVEYS

**NOTES:**

1. COORDINATES ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83).
2. DATE OF PROJECT AREA PHOTOGRAPH: AUGUST 2010.



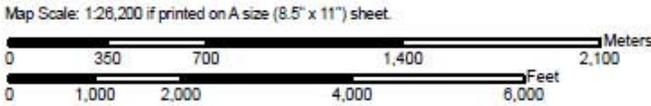
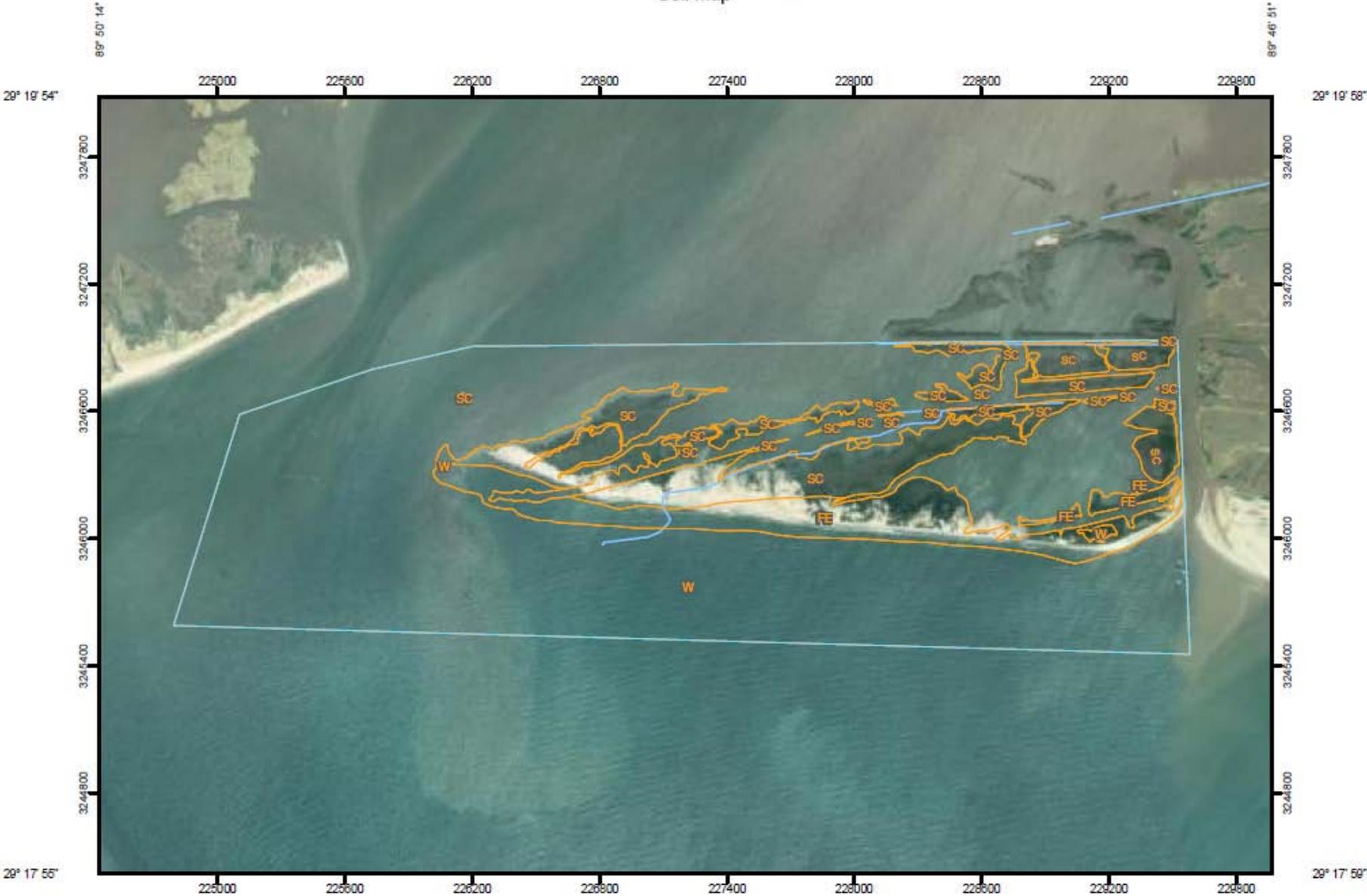
GULF OF MEXICO

**Figure 44. Plan View of Alternative 5**

**COASTAL PLANNING & ENGINEERING, INC.**  
 2481 N.W. BOCA RATON BOULEVARD  
 BOCA RATON, FLORIDA 33431  
 PH (561) 391-8102  
 FAX (561) 391-8118  
 www.CoastalPlanning.net

**FIGURE 3**  
**SOIL SURVEY MAP**

Custom Soil Resource Report  
Soil Map



## Custom Soil Resource Report

### MAP LEGEND

#### Area of Interest (AOI)

 Area of Interest (AOI)

#### Soils

 Soil Map Units

#### Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other

#### Special Line Features

-  Gully
-  Short Steep Slope
-  Other

#### Political Features

 Cities

#### Water Features

 Streams and Canals

#### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads

### MAP INFORMATION

Map Scale: 1:42,500 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
 Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Plaquemines Parish, Louisiana  
 Survey Area Data: Version 7, Aug 4, 2009

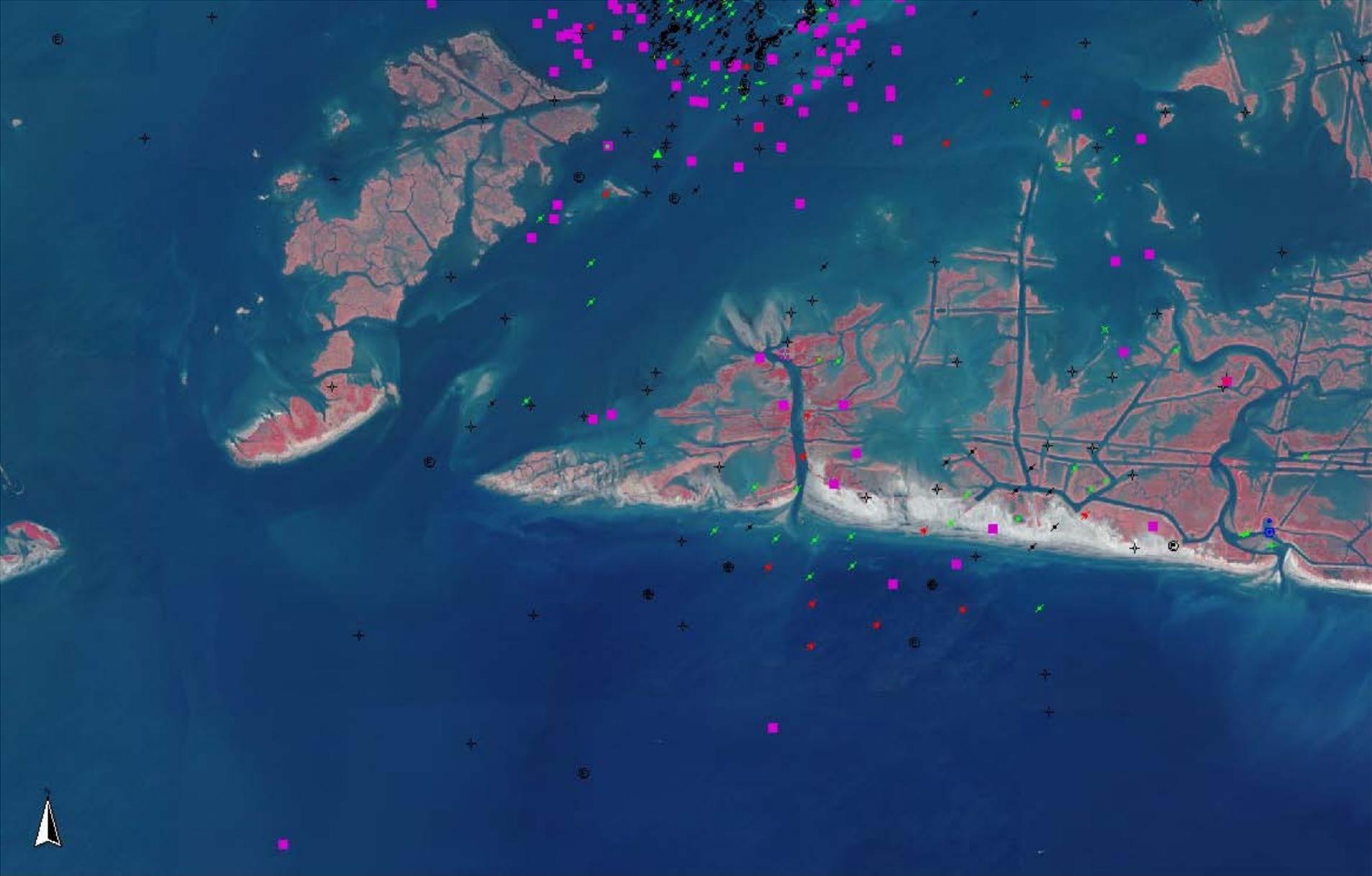
Date(s) aerial images were photographed: 9/20/2007

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

**FIGURE 4**

**OIL/GAS WELL LOCATION MAP**

# OIL/GAS WELL LOCATION MAP





**APPENDIX A**  
**INTERVIEW DOCUMENTATION**

## ENVIRONMENTAL SITE ASSESSMENT OWNER/MANAGER PHONE INTERVIEW LOG

<b>Interview Date:</b>	October 24, 2011
<b>Name:</b>	Mr. Buddy Smith
<b>Title:</b>	Landman
<b>Company/Organization:</b>	ConocoPhillips
<b>1. During what time period were you the site owner/manager of the property?</b>	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, describe:</b> <u>ConocoPhillips has owned the property since the 1920s</u> <hr/> <hr/>
<b>2. What was type of business did you have at the property?</b>	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, describe:</b> <u>The property has had oil and gas infrastructure (pipelines and wells)</u> <hr/> <hr/>
<b>3. Do you know the past uses of the property?</b>	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, describe:</b> <u>Undeveloped with the exception of oil and gas.</u> <hr/> <hr/>
<b>4. Do you know of specific chemicals that are present or once were present at the property?</b>	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, describe:</b> <u>Mr. Smith is not aware of any specific chemicals that are present or once were present at the property.</u> <hr/> <hr/>

<b>Interview Date:</b>	October 24, 2011
<b>Name:</b>	Mr. Buddy Smith
<b>Title:</b>	Landman
<b>Company/Organization:</b>	ConocoPhillips
<b>5. Do you know of spills or other chemical releases that have taken place at the property?</b>	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, describe:</b> <u>Equinox oil and gas had an offshore release that minimal impacts to the subject property.</u> _____ _____ _____
<b>6. Do you know of any environmental cleanups that have taken place at the property?</b>	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, describe:</b> <u>Yes, the property was cleaned up following the Equinox spill. Cleanup was performed under guidance of the state.</u> _____ _____
<b>7. Do you know of any environmental liens against the property?</b>	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, describe:</b> <u>Mr. Smith is not aware of any environmental liens associated with the property.</u> _____ _____
<b>8. Do you have any other knowledge or experience with the property that may be pertinent to the environmental professional?</b>	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, describe:</b> <u>None.</u> _____ _____

## **APPENDIX B**

### **EDR REGULATORY DATABASE SEARCH**

**APPENDIX C**  
**OIL AND GAS WELL INFORMATION**

**APPENDIX D**  
**HISTORICAL AERIAL PHOTOGRAPHS**

**APPENDIX E**  
**SANBORN MAPS**

**APPENDIX F**  
**HISTORICAL TOPOGRAPHIC MAPS**

**APPENDIX G**  
**SITE PHOTOGRAPHS**



**PHOTOGRAPH 1**

Description - Gulf of Mexico shoreline



**PHOTOGRAPH 2**

Description - Canal Plug at East End in June 2009



**PHOTOGRAPH 3**

Description - Sandy shoreline on the west end of Chenier Ronquille in September 2010.



**PHOTOGRAPH 4**

Description - Back-barrier saline marsh and open water ponds



**PHOTOGRAPH 5**

Description - Oblique Aerial (May 2009) of the western portion of the site



**PHOTOGRAPH 6**

Description - Oblique Aerial (May 2009) of the central portion of the site



**PHOTOGRAPH 7**

Description - Oblique Aerial (May 2009) of the eastern portion of the site

**CHENIER RONQUILLE, PHASE II REQUEST**  
**ATTACHMENT H**

**303(e) Request**



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

JAN 13 2012

REPLY TO  
ATTENTION OF

Office of Counsel

Ms. Cecelia Linder  
CWPPRA Program Manager  
for US Department of Commerce  
National Marine Fisheries Service  
Office of Habitat Protection  
1315 East West Highway, Restoration Center, Room 7120  
Silver Spring, MD 20910

Dear Ms. Linder:

This is in reference to your request, dated October 6, 2011, for Section 303(e) approval for Chenier Ronquille Barrier Island Restoration Project (BA-76) (Fact Sheet and Map enclosed), Plaquemines Parish, Louisiana, Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA).

The request includes a letter from the Coastal Protection and Restoration Authority of Louisiana (CPRA), dated September 21, 2011, which contains a copy of a very comprehensive Temporary Easement, Servitude and Right-of-Way Agreement to be executed by private landowners that will be used to acquire the necessary land rights for the project. The letter also explains that there are oyster leases, oil, and gas wells along with pipeline infrastructure in the project area. It is assumed that the project will not adversely impact these pre-existing rights. If the project will affect these pre-existing rights, suitable acquisitions, releases, or subordinations from all persons or entities with ownership or other property interests in the land adversely impacted by the project will have to be acquired.

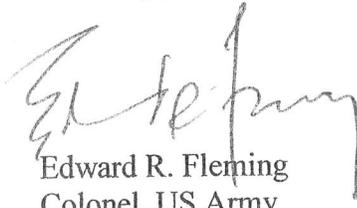
The Temporary Easement, Servitude and Right-of-Way Agreement to be executed by private landowners contained with your request appear to provide sufficient right-of-way for the project. Prior to construction of the project, the Temporary Easement, Servitude and Right-of-Way Agreements from private land owners must be executed and any other real property rights must be acquired, subject to such terms and conditions as necessary to ensure that wetlands restored, enhanced or managed through this project will be administered for the long-term conservation of the lands and waters and the dependent fish and wildlife populations. This includes the acquisition of rights from not only the State of Louisiana, but also all other persons or entities with ownership or other property interests in the land that may be impacted by the project.

The package also includes a 2011 determination from the Natural Resources Conservation Service that overgrazing does not occur on the project lands or lands affected thereby. If overgrazing should occur in the future, then a grazing plan must be established for the project.

Accordingly, by the authority delegated to me by the Secretary of the Army, and given compliance with the provisions set forth above, I approve the project in accordance with Section 303(e) of CWPPRA.

A copy of this letter has been forwarded to Mr. Kenneth Bahlinger, CPRA, PO Box 44027, Baton Rouge, Louisiana 70804-4027. Should you have any questions or comments, please feel free to contact Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

Sincerely,

A handwritten signature in black ink, appearing to read "Ed R. Fleming". The signature is written in a cursive style with a large, prominent initial "E".

Edward R. Fleming  
Colonel, US Army  
District Commander

Enclosure



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

October 6, 2011

Brad Inman  
U.S. Army Corps of Engineers  
New Orleans District Protection and  
Restoration Office, Restoration Branch  
P.O. Box 60267  
New Orleans, LA 70160-0267

Dear Mr. Inman,

As Lead Agency for the Chenier Ronquille Barrier Island Restoration Project (BA-76), the National Marine Fisheries Service is requesting approval from the U.S. Army Corps of Engineers in accordance with Section 303(e) of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). Enclosed for your review are a letter from the State's Office of Coastal Protection and Restoration containing information for Section 303(e) approval, including a land rights determination with supporting letter from the State's Land Office. In addition, we are enclosing the determination from the U.S. Natural Resources Conservation Service that overgrazing is not a problem for the project.

If you have any questions concerning this request and/or any submitted materials, please do not hesitate to contact me at (240) 535-2334 or via email at [cecilia.linder@noaa.gov](mailto:cecilia.linder@noaa.gov).

Sincerely,

A handwritten signature in cursive script that reads "Cecelia Linder".

Cecelia Linder  
NOAA Fisheries CWPPRA Program Manager

Cc: Rachel Sweeney, NOAA Fisheries  
James Wray, OCPR  
Kenneth Bahlinger, OCPR

Attachments



# Cheniere Ronquille Barrier Island Restoration (BA-76)

## Project Status

**Approved Date:** 2010      **Project Area:** 408 acres  
**Approved Funds:** \$3.41 M      **Total Est. Cost:** \$43.8 M  
**Net Benefit After 20 Years:** 234 acres  
**Status:** Engineering and Design  
**Project Type:** Barrier Islands  
**PPL #:** 19

## Location

The project is located in Region 2, within the Barataria Basin portion of Plaquemines Parish.

## Problems

This area is undergoing shoreline erosion, interior wetland loss, overwash, and breakup. The Gulf shoreline erosion rate has doubled from 1988 to 2006. Project area marshes also are being eroded at -11.8 ft/yr between 2003 to 2006 as well as being converted to open water from internal breakup.

## Restoration Strategy

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

## Progress to Date

This project is on Priority Project List 19.



This photo shows the current condition of the Chenier Ronquille shoreline, which is in a deteriorated state after being subjected to years of storms, subsidence, and sediment deprivation. Once restored, this island will provide critical habitat, and help reconnect the barrier island chain that provides a first line of defense to inland communities.

*For more project information, please contact:*



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

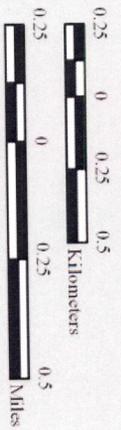
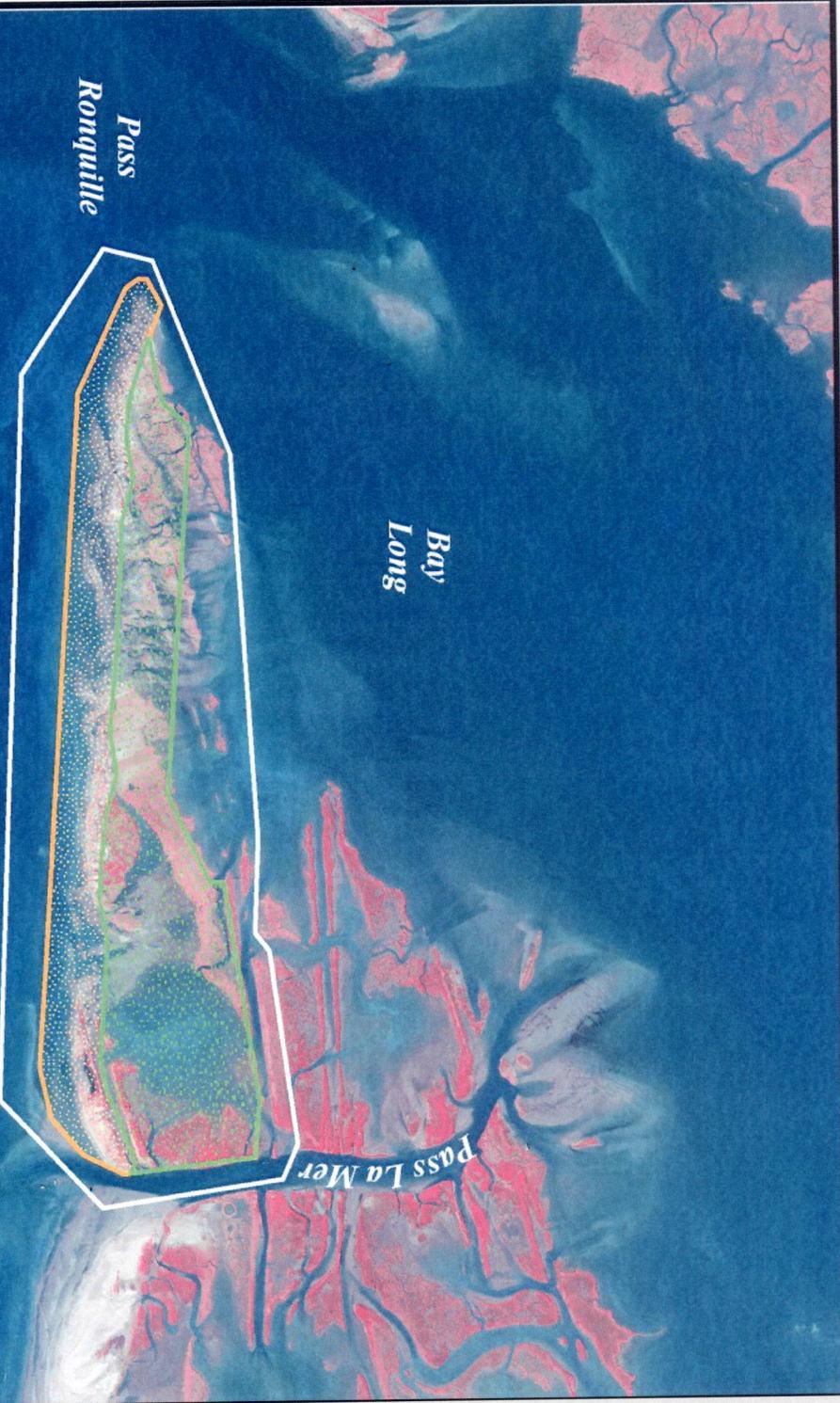


**Local Sponsor:**  
Coastal Protection and Restoration Authority  
Baton Rouge, La.  
(225) 342-4736

# Cheniere Ronquille Barrier Island Restoration (BA-76)

	Dune/Beach *
	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: February 9, 2010  
 Map ID: USGS-NWRC 2010-11-0022  
 Data accurate as of: February 9, 2010



# State of Louisiana

**BOBBY JINDAL**  
GOVERNOR

September 21, 2011

Ms. Cecelia Linder  
U.S. Department of Commerce  
National Marine Fisheries Service  
Office of Habitat Protection  
1315 East West Highway, Restoration Center, Room 7120  
Silver Spring, MD 20910

RE: CWPPRA Section 303(e) Approval  
**Chenier Ronquille Barrier Shoreline Restoration and Marsh Creation  
Project BA-76**  
Plaquemines Parish, Louisiana

Dear Ms. Linder:

By this letter, I am transmitting to you a copy of the Office of Coastal Protection and Restoration's ("OCPR") Temporary Easement, Servitude and Right-Of-Way Agreement. This document will be used to acquire the necessary landrights for the project. There are oyster leases, oil and gas wells along with pipeline infrastructure in the project area.

This document fulfills the requirements as outlined in Section 6(g) (2)(a)(b)(c) of the *Standard Operating Procedures Manual* for CWPPRA projects: the Document is the "Language of Landrights," and the map and exhibit attached to them describe the "Plan" and the "Project Limits." The document was approved by OCPR counsel and the technical sections of the document and map(s) were overseen by the project engineer and project monitoring biologist. *By this letter, OCPR certifies that land acquisitions have been and will be in accordance with all applicable Federal and State laws and regulations, and all standard real estate practices have been and will be followed.*

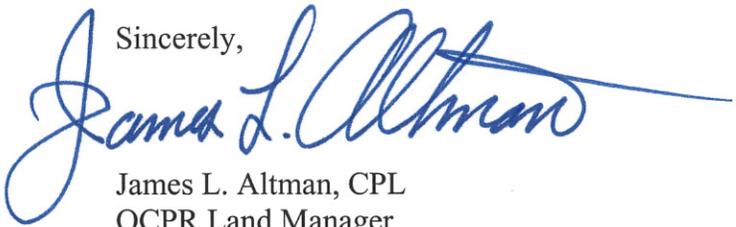
This letter and accompanying document may be forwarded under cover letter from the National Marine Fisheries Service (NMFS) to the U. S. Army Corps of Engineers (Corps) as part of your request for CWPPRA Section 303(e) approval. The Natural Resources Conservation Service must also provide to the NMFS an overgrazing determination on the project. These two items and a letter requesting 303(e) approval may be sent to the following address:

National Marine Fisheries Service  
Page 2

Attention: Ms. Linda C. LaBure, Chief  
CELMN-RE-L  
U. S. Army Corps of Engineers  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267

If you need further assistance or have any questions regarding this matter, please contact me at (225) 342-1934. We at OCPR look forward to completing the 303(e) approval process and proceeding with project construction.

Sincerely,

A handwritten signature in blue ink that reads "James L. Altman". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

James L. Altman, CPL  
OCPR Land Manager

JA

Attachments One (1)

**TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT**

**CHENIER RONQUILLE BARRIER SHORELINE RESTORATION AND  
MARSH CREATION PROJECT BA-76**

**PLAQUEMINES PARISHES, LOUISIANA**

STATE OF LOUISIANA

PARISHES OF PLAQUEMINES

THIS AGREEMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between: THE LOUISIANA LAND AND EXPLORATION COMPANY, a Maryland corporation, authorized to and doing business in the state of Louisiana, tax identification number 72-0244-700, with the business address of P. O. Box 7097, Houma, Louisiana 70361, herein represented by Phillip R. Precht, its Attorney-in-Fact, hereinafter called the "GRANTOR", as owner of the below described property; and the STATE OF LOUISIANA through its OFFICE OF COASTAL PROTECTION AND RESTORATION ("STATE"), herein represented by Jerome Zeringue, its Executive Director, hereinafter called the "STATE", and

The STATE OF LOUISIANA herein represented by and appearing as follows through:

The **OFFICE OF COASTAL PROTECTION AND RESTORATION ("OCPR")**, as authorized and directed by the policy of the Coastal Protection and Restoration Authority ("CPRA"), herein represented by and appearing through the Executive Director of OCPR, Jerome Zeringue, domiciled in East Baton Rouge Parish, Louisiana, with offices located at 450 Laurel Street, Suite 1200, Baton Rouge, Louisiana, 70804, and whose mailing address is P.O. Box 44027, Baton Rouge, Louisiana, 70804-4027, appearing pursuant to the provisions of La. R.S. 49:214.1, et seq., as amended by Act 523 of the 2009 Regular Session of the Louisiana Legislature;

The above mentioned hereinafter collectively referred to as "**STATE**".

WITNESSETH: For and in consideration of the promises and undertakings by STATE to GRANTOR herein, and further for other good and valuable consideration, including the potential benefits to GRANTOR'S property interests resulting from the hereinafter described project, the receipt and adequacy of which are hereby acknowledged, GRANTOR hereby grants unto STATE, its successors, assigns or transferees, the temporary rights-of-way, servitudes and easements (hereinafter called "the Agreement"), together with the right to enter in, on, and over, GRANTOR'S property interests, for integrated coastal protection purposes as defined in La. R.S. 49.214.2(10) as part of the **Chenier Ronquille Barrier Shoreline Restoration And Marsh Creation Project** (hereinafter called the Project") located in, on, or over GRANTOR'S property interests. The Project will be publicly funded and shall be located on the following described property interest, including expressly, but not limited to, any interest in lands or water-covered lands which might be owned by GRANTOR (hereinafter called "said Lands"), to-wit:

(PROPERTY DESCRIPTION)

GRANTOR hereby acknowledges that STATE has described the Project to GRANTOR and GRANTOR accepts any and all impacts to said Lands, resulting from construction and implementation of the Project, including any impairment, alteration or interference with the natural servitude of drain provided for by Louisiana Law, including expressly but not limited to, Louisiana Civil Code Articles 655-658 and/or La. R.S. 38:218.

I. This Agreement grants the right to enter said Lands, (further identified on Exhibit A, attached hereto), to perform construction, operation, modification, monitoring, and maintenance and such other activities described on Exhibits B and C, (attached hereto), necessary to complete the Project.

II. STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.

III. To the extent permitted by Louisiana law, STATE shall, indemnify, and hold harmless GRANTORS against and from all costs, expenses, claims, demands, penalties, suits, fines, and actions of any kind and nature arising from the Project and caused by the actions and fault of STATE or its agents, employees, contractors, successors, assigns and transferees, including any court costs and reasonable and actual litigation expenses and attorneys' fees. However, nothing herein shall be construed as indemnifying or holding GRANTORS or any third person not a party hereto harmless against its own fault or negligence or that of its agents, employees, contractors, successors, assigns, and transferees. Should work on said Lands be performed via contract, STATE shall ensure that the contractor lists GRANTORS as additional insured on any policies carried by the contractor, including completed operations coverage. The STATE acknowledges, declares, and stipulates that GRANTORS have provided this Agreement at no cost to the STATE under the provisions of La. R.S. 49:214.6.10 C, as amended by 2010 Acts No. 734. This clause shall survive the term of this agreement.

IV. STATE shall be responsible for repair in like manner of any fences, bridges, roads, and other similar facilities and appurtenances located on said Lands which may be damaged or destroyed by STATE, or its designees while on said Lands, but such repair shall be to that condition which existed immediately prior to STATE's activities. STATE shall remove or dispose of all debris associated with construction, operation, and maintenance of the Project.

V. STATE acknowledges that La. R.S. 49:214.5.5 provides that no rights whatsoever shall be created in the public, whether such rights be in the nature of ownership, servitude or use, with respect to any private lands or waters utilized, enhanced, created, or otherwise affected by activities of any governmental agency, local, state, or federal, or any person contracting with same for the performance of any activities, funded in whole or in part, by expenditures from the Project. The STATE further agrees that in the event legal proceedings are instituted by any person seeking recognition of a right of ownership, servitude, or use in or over private property solely on the basis of the expenditure of funds from the Coastal Protection and Restoration Fund or expenditure of federal funds, that the State shall indemnify and hold harmless the owner of such property for any costs, expense, or loss related to such proceeding, including court costs and attorney fees. To the extent permitted by La. R.S. 49:214.5.5, the servitude and right-of-way rights granted herein shall be considered real rights and covenants running with the land.

VI. It is understood GRANTOR shall retain the limits of its title and all property rights (subject to the rights of STATE herein) in and to said Lands, and all minerals in, on and under said Lands are not affected in any way hereby. However, no structures and/or appurtenances constructed hereunder pursuant to the Project on said Lands shall be adjusted, removed, and/or interfered with by GRANTOR, or anyone holding rights by, through, or under GRANTOR.

VII. In its exercise of the Agreement, STATE agrees not to unreasonably interfere with (a) oil and gas operations, (b) agricultural operations, and (c) hunting, trapping and alligator egg operations, (d) fishing, crabbing, or shrimping, now occurring, or authorized to occur, on said Lands. STATE specifically acknowledges the continuing right of GRANTOR, its heirs, successors, assigns, transferees or lessees, to use, occupy and enjoy all of said Lands, for all purposes, in such manner at such times as they, or any of them, shall desire to use same, including, but without limitation, for the purpose of conducting oil, gas or other mineral operations on any of said Lands, for the exploration, discovery, production, storage, transportation and disposition of oil, gas, sulphur or other minerals, under oil, gas and mineral leases or otherwise, and for the purpose of farming, grazing, hunting and trapping fur-bearing animals, alligator egg operations, fishing, crabbing, or shrimping thereon, provided, however, that such use, occupation, and enjoyment shall not unreasonably interfere with the lawful activities of STATE pursuant to this Agreement. GRANTOR, however, agrees that the Project features constructed and/or delineated on said Lands pursuant to this Agreement shall not be adjusted, removed, interfered with, subverted or altered by GRANTOR, or anyone holding rights by, through, or under GRANTOR.

VIII. GRANTOR does not warrant title or the fitness of said Lands for any intended purpose. GRANTOR specifically does not warrant or represent the correctness of any survey, or any of the plats attached hereto which purport to show the location of said Lands. If at any time any questions or litigation should arise as to the ownership of any part of the property covered hereby, or as to any boundary or limit of any part of the separate and various Lands covered by this Agreement, this Agreement shall not be construed to be, or permitted to serve as, evidence or as a basis of waiver of any legal rights against any party hereto, or prevent any party hereto from establishing its ownership, or having the boundaries or limits of its property determined, in any lawful manner, anything herein contained to the contrary notwithstanding.

IX. STATE may assign or transfer, in whole or in part, any or all of its rights hereunder, but only to the extent necessary to implement the purposes of the Project on the said Lands. GRANTOR'S permission shall not be required for STATE to assign or transfer any rights hereunder to its employees, agents, contractors or to public entities which are working with the STATE on the project or to their employees, agents or contractors; however, GRANTOR'S written approval shall be required for any other assignment or transfer in which event approval shall not be unreasonably withheld.

X. This Agreement shall become effective upon the date of the signature of STATE, and shall remain in effect for a term of \_\_\_\_\_(XX) years unless sooner released by STATE.

XI. This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, their heirs, successors in interest, transferees and assigns.

XII. This Agreement may be executed in any number of counterparts, each of which shall constitute an original document which shall be binding upon any of the parties executing same. To facilitate recordation of this agreement, the parties hereto agree that individual signature and acknowledgment pages from the various counterparts may be merged and combined with signature and acknowledgment pages from other counterparts.

XIII. This Agreement does not confer or waive any rights except as provided herein.

IN WITNESS WHEREOF, GRANTOR has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:

THE LOUISIANA LAND AND  
EXPLORATION COMPANY

Sign: \_\_\_\_\_

By: \_\_\_\_\_

Print: \_\_\_\_\_

Phillip R. Precht  
Attorney-in-Fact

Sign: \_\_\_\_\_

Date: \_\_\_\_\_

Print: \_\_\_\_\_

IN WITNESS WHEREOF, STATE has executed this Agreement in the presence of the undersigned witnesses on the date below:

OFFICE OF COASTAL RESTORATION AND  
PROTECTION

WITNESSES:

\_\_\_\_\_

By: \_\_\_\_\_

Jerome Zeringue

Print: \_\_\_\_\_

Title: \_\_\_\_\_

Executive Director

Print: \_\_\_\_\_

Date: \_\_\_\_\_

Print Name: \_\_\_\_\_  
NOTARY PUBLIC

Notary or Bailiff  
My commission expires with life  
(WAL)

**CORPORAL ACKNOWLEDGMENT**

STATE OF LOUISIANA

PARISH/COUNTY OF \_\_\_\_\_

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish/County and State aforesaid, on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally came and appeared Phillip R. Precht, to me known, who, being by me duly sworn, declared and acknowledged to me, Notary, that he/she is Attorney-in-Fact, of THE LOUISIANA LAND AND EXPLORATION COMPANY, that as such duly authorized officer, by and with authority of the Board of Directors of said corporation, he/she signed, and executed the foregoing instrument, as the free and voluntary act and deed of said corporation, for and on behalf of said corporation, and for the object and purposes therein set forth.

\_\_\_\_\_  
Print: \_\_\_\_\_  
NOTARY PUBLIC

Notary or Bar # \_\_\_\_\_  
My commission expires: \_\_\_\_\_  
(SEAL)

**STATE ACKNOWLEDGMENT**

STATE OF LOUISIANA

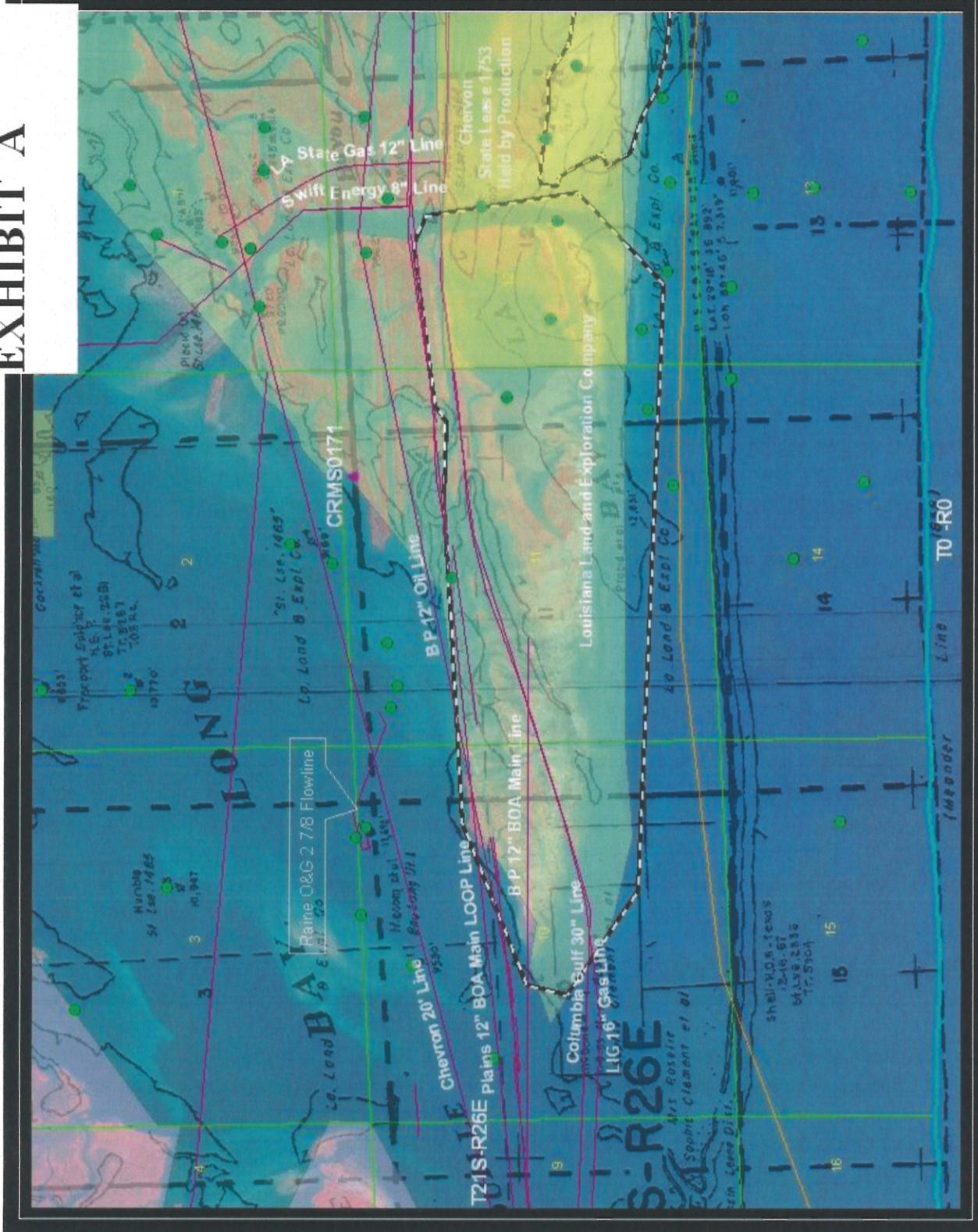
PARISH OF \_\_\_\_\_

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally came and appeared Jerome Zeringue, me known, who declared that he is the Executive Director, of the Office of Coastal Protection and Restoration, State of Louisiana, that he executed the foregoing instrument on behalf of said State Agency and that the instrument was signed pursuant to the authority granted to him by said State Agency and that he acknowledged the instrument to be the free act and deed of said State Agency.

\_\_\_\_\_  
Print Name: \_\_\_\_\_  
NOTARY PUBLIC

Notary or Bar # \_\_\_\_\_  
My commission expires: with life  
(SEAL)

# EXHIBIT A



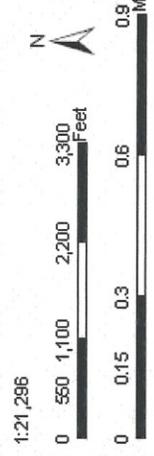
## Chenier Ronquille Barrier Shoreline Restoration and Marsh Creation Project

BA-76  
**CWPPRA**  
 Plaquemines Parish, Louisiana

**Legend**

- Township Range Lines
- Section Lines
- Secured CRMS Site Location
- Pending CRMS Site Location
- Oil and Gas Wells
- CWPPRA Projects
- Pipelines and Flowlines
- Oil and Gas Leases

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



**Map Location**

Map Compilation and Verification:  
 Louisiana Department of Natural Resources  
 Coastal Restoration Division  
 Land Section

2000 SPOT Satellite Imagery  
 Map Date: 7/22/16  
 Map ID: Chenier Ronquille BA-76 Project Map

## Exhibit B

Attached to and made a part of that certain Temporary Easement, Servitude, and Right-of-Way Agreement by and between The Louisiana Land and Exploration Company and the Office of Coastal Protection and Restoration dated \_\_\_\_\_, 2011.

The Agreement includes the right to enter said Lands to perform the following activities for the purposes authorized by Federal (16 U.S.C. 3951, et seq.) and State (R.S. 49:214.1 – 214.6.10) law at the sites or locations identified on the attached Exhibits A:

- a. The right to deposit dredged sediment and/or fill material on, over and across said Lands by either natural or mechanical means, including the right to alter land and/or water contours and undertake management practices to enhance or extend the beneficial use of dredged or sediment deposition for wetland/marsh creation, restoration and enhancement;
- b. The right to plant or cause the growth of vegetation in, on, over and across said Lands, including the right to nourish, replenish and maintain said vegetation;
- c. The right to relocate, alter, replace or remove appropriate pipelines, utility lines, facilities or other structures in, on, under, and across said Lands, as may be deemed necessary by STATE;
- d. The right to construct, locate, maintain and service required monitoring devices and equipment on said Lands and on other lands as may be owned by GRANTOR;
- e. The right to post warning signs or notices on or near appropriate Project features on said Lands, as may be deemed necessary by STATE;
- f. The right to alter or remove structures and/or appurtenances constructed on said Lands by STATE pursuant to the Project;
- g. The right to enter said Lands for the purpose(s) of conducting surveys, inspections and investigations required by STATE to evaluate the effectiveness of the Project and Project features, including maintaining/improving wetland and/or restored land quantity and quality;
- h. The right to enter and traverse said Lands to access Project features located on adjacent Lands;
- i. The right to make modifications to the above, but only insofar as changes pertain to materials for Project features and minor changes to project feature locations, as may be deemed necessary by STATE to fully and properly implement and maintain the Project;
- j. The right to construct, operate, maintain and monitor channel improvements works on, over and across said Lands, including the right to enlarge, improve, deepen or realign existing channels, canals, ditches or other waterways;
- k. The right to construct and maintain fencing material to encourage the deposition of sand/sediment;
- l. The right to dredge a temporary floatation channel(s) for access and to build a containment dike(s) within portions of the project area to retain deposited sediment;
- m. The right to construct (including the necessary excavation and/or filling) a sediment conveyance channel for the delivery (via dredge pipe) of sand and/or sediment.
- n. The right to borrow, excavate, grade, and remove soil, vegetation and associated materials from the said Lands as shown at Site(s) \_\_\_\_\_ on Exhibit(s) \_\_\_\_\_ (see detail on Exhibit(s) \_\_\_\_\_);

The Louisiana Land And Exploration Company  
Chenier Ronquille Barrier Shoreline Restoration And Marsh Creation Project Ba-76

o. The right to plug, close or fill selected channels, canals, ditches, streams or waterbodies located on said Lands as shown at Site(s) \_\_\_\_\_ on Exhibit(s) \_\_\_\_\_ (see detail on Exhibit(s) \_\_\_\_\_);

p. The right to construct (including the necessary borrow areas), maintain and monitor overflow banks so as to preclude the exchange of channelized water on, over and across said Lands shown at Site(s) \_\_\_\_\_ on Exhibit(s) \_\_\_\_\_ (see detail on Exhibit(s) \_\_\_\_\_);

q. The right to construct (including the necessary excavation and/or filling), operate, maintain and monitor water control structures including all appurtenances thereto, in, over and across the said Lands as shown at Site(s) \_\_\_\_\_ on Exhibit(s) \_\_\_\_\_ (see detail on Exhibit(s) \_\_\_\_\_);

r. The right to construct, operate, maintain and monitor structures or improvements to enhance the deposition of sediment upon said Lands as shown at Site(s) \_\_\_\_\_ on Exhibit(s) \_\_\_\_\_ (see detail on Exhibit(s) \_\_\_\_\_);

## EXHIBIT C

Attached to and made a part of that certain Temporary Easement, Servitude, and Right-of-Way Agreement by and between The Louisiana Land and Exploration Company and the Office of Coastal Protection and Restoration dated \_\_\_\_\_, 2011.

I. Should work on said Lands be performed via a Federal contract, the contractor shall be required to post a performance bond and a payment bond as stipulated by the Miller Act (40 U.S.C.270 a-f). Federal contractors shall be required to notify the federal contracting officer within seven (7) calendar days of occurrence of any written or oral notice of conflict between said contractor and any subcontractor/supplier regarding non-payment for services or supplies. Furthermore, STATE and GRANTOR acknowledge that the Miller Act requires that a lawsuit be filed in the United States District Court for any district in which the contract was to be performed in order for a performance bond or payment bond to be perfected. In the event that a lawsuit is filed and the prime contractor is notified of such lawsuit while the Federal contract is active, the prime contractor shall be required to notify the federal contracting officer within seven (7) calendar days of receipt of such notice. If, after completion of the contract work, the federal contracting officer receives written notice from the surety regarding the contractor's failure to meet its obligation to its subcontractors or suppliers, the contracting officer shall withhold final payment. However, the surety must agree to hold the Government harmless from any liability resulting from withholding the final payment. The contracting officer will authorize final payment upon agreement between the contractor and surety or upon a judicial determination of the rights of the parties. The federal contracting officer, once notified of such a lawsuit by the prime contractor or through other means, shall notify STATE, and STATE shall notify GRANTOR.

II. Should work on said Lands be performed via a STATE contract or a Federal contract, STATE shall file a request with the Clerk of Court in the Parish where work is to be performed to be notified of any suit and/or lien placed or filed against GRANTOR'S Lands; STATE shall notify GRANTOR of any such suit and/or lien within 5 days of being notified by Clerk of Court; and STATE shall cause any such lien filed against GRANTOR'S Lands to be bonded out and the inscription of such lien against GRANTOR'S Land's noted as cancelled on the records of the office of such Clerk of Court within thirty (30) days of the STATE being notified that such lien has been filed against GRANTOR'S Lands.

III. STATE shall verify that every contractor working on LL&E property shall maintain in full force, during the entire existence of this Agreement, Workman's Compensation Insurance in an amount necessary to satisfy the minimum requirements of the laws of the State of Louisiana.

IV. GRANTOR shall further have and expressly reserves unto itself, its heirs, successors, assigns, transferees or lessees (collectively, "Grantor"), the right to alter the shoreline stabilization structures subject to the following conditions:

- a. The only allowable purpose of such alteration is for the exploration and production of oil and/or gas;
- b. GRANTOR where practicable, shall provide STATE with sixty (60) days advance written notice of its intent to alter said shoreline stabilization structures, except where emergency conditions require a rapid response, in which event LESSEE shall provide written notice to STATE within seventy-two (72) hours after a decision is made to take emergency action. For non-emergency activities, GRANTOR agrees to consider and use alternate locations, if technically and economically feasible, to avoid alteration of said shoreline stabilization structures;
- c. For the shoreline stabilization structures, the alteration shall consist of the removal of shoreline stabilization structures to establish a canal not to exceed eighty (80) feet wide.

The Louisiana Land And Exploration Company  
Chenier Ronquille Barrier Shoreline Restoration And Marsh Creation Project Ba-76

Dredged earthen material and/or sediment is to be used so as to establish and maintain a continuous spoil bank around the canal, as shown on Exhibit B;

- d. Within three (3) months after production has ceased, or within three (3) months after a well is determined to be a dry hole, GRANTOR shall:
  - i. establish a rock plug or other suitable canal closure approved by the STATE across the canal as shown on Exhibit C in accordance with specifications (including gradation of rock, foundation support, e.g. geotextile, and dimensions) to be provided by the STATE; earthen material shall not be used as backfill below the canal plug(s); or
  - ii. establish a concrete sheetpile wall or other suitable closure approved by the STATE across the canal in accordance with specifications to be provided by the STATE; and
  - iii. if necessary to establish sufficient water circulation as jointly determined and defined by GRANTOR, STATE and the U.S. Fish and Wildlife Service, construct gaps in canal spoil bank.
- e. Any such alteration, subsequent restorations, or rebuilding of the shoreline stabilization structures shall be implemented at no cost to STATE.

V. This Agreement is subject to and subordinate to all existing contracts of record affecting said Lands.

VI. State agrees to maintain all structures and/or appurtenances placed on said Lands in good order and repair during the term of this Agreement. STATE may terminate this Agreement, due to lack of funding or otherwise, and thereby terminate maintenance of said structures and/or approved appurtenances, provided, however, that maintenance of other Project features, which are located on lands other than said Lands, is terminated concurrently. Upon termination of this Agreement, all structures and/or approved appurtenances placed on said Lands shall, at GRANTOR's option either become property of the GRANTOR without compensation to STATE or shall be promptly removed by STATE at STATE expense. Upon termination of this Agreement, STATE shall furnish to GRANTOR within sixty (60) days a recorded release of this Agreement.

**CHENIER RONQUILLE, PHASE II REQUEST  
ATTACHMENT I**

**Overgrazing Determination**

United States Department of Agriculture



Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

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

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September 1, 2011

Ms. Rachel Sweeney  
National Marine Fisheries Service  
C/O Louisiana State University  
Baton Rouge, Louisiana 70803

RE: Chenier Ronquille Barrier Shoreline (BA-76)

Dear Ms. Sweeney:

I am in receipt of your request for an overgrazing determination for the Chenier Ronquille Barrier Shoreline (BA-76). I contacted our local district conservationist and our state resource conservationist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. Should you need additional information, please contact me at 318-473-7756.

Respectfully,

A handwritten signature in black ink, appearing to read "W. Britt Paul", is written over a light blue horizontal line.

W. Britt Paul  
Assistant State Conservationist/ASTC WR/RCD

cc: Randolph Joseph, AC, AO, NRCS, Lafayette, LA  
Michael Trusclair, DC, FO, NRCS, Boutte, LA  
John Jurgensen, CE, SO, NRCS, Alexandria, LA  
Johanna Pate, RMS, SO, NRCS, Alexandria, LA  
Scott Edwards, SRC, SO, NRCS, Alexandria, LA

**CHENIER RONQUILLE, PHASE II REQUEST  
ATTACHMENT J**

**Phase II Funding Request Spreadsheet**

**CHENIER RONQUILLE, PHASE II REQUEST  
ATTACHMENT K**

**Phase II Wetland Value Assessment**

# Cheniere Ronquille Barrier Island Restoration (BA-76)

## Final (95%) Design Review Update



Project Information Sheet for Wetland Value Assessment (WVA)

October 7, 2011

Contact: Kymmie Clements/Rachel Sweeney NMFS, (225) 389-0508

## **PROJECT AREA**

Chenier Ronquille is located on the Barataria barrier shoreline, approximately eight miles east of Grand Isle and located between East Grand Terre and Chaland Headland. Chenier Ronquille is bordered by Quatre Bayou Pass to the west, Long Bay to the northeast, and Pass La Mer to the east. The project area is located in Region 2, Barataria Basin, Plaquemines Parish.

### **Sponsoring Agency:** National Marine Fisheries Service

Primary contact: Rachel Sweeney; [rachel.sweeney@noaa.gov](mailto:rachel.sweeney@noaa.gov); (225) 389-0508, ext 206

Env. WG contact: Kimberly Clements; [kimberly.clements@noaa.gov](mailto:kimberly.clements@noaa.gov); (225) 389-0508, ext. 204

Eng. WG contact: Patrick Williams; [patrick.williams@noaa.gov](mailto:patrick.williams@noaa.gov); (225) 389-0508, ext. 208

## **PROBLEM**

Cheniere Ronquille is the western extent of the lower Plaquemines shoreline. The area is undergoing shoreline erosion, interior wetland loss, overwash, and breakup due to various coastal processes, including relative sea level rise. Shoreline erosion rates have increased from 32 ft/yr (1998-2006) to about 58 ft/yr (2006-2010). Project area marshes are also being converted to open water at rates ranging from 3.16%/yr (Coastal Research Laboratory/UNO 2000) up to over 5%/yr (Thomson et al., 2011).

## **GOALS**

The over-arching project goal developed by the project team is to reestablish and maintain a functional barrier island ecosystem for fish and wildlife habitat by restoring and creating shoreline, dune and back-barrier marsh acreage.

The following specific objectives were also identified:

1. Prevent island breaching over the 20-year project life.
2. Provide an intertidal marsh platform with tidal exchange by Target Year 4.
3. Maintain dune elevation greater than +5 feet NAVD following first 10-year storm event.
4. Maintain dune elevation of greater than +4 feet NAVD at Target Year 20.
5. Maintain 50% of the Target Year 1 subaerial acreage throughout the 20-year project life.
6. Maintain the Target Year 20 shoreline seaward of the pre-construction shoreline.

## **PROJECT FEATURES**

Five design alternatives were evaluated in detail. Sediment availability, existing and historic island footprint, project performance, existing features that could assist constructability, pipeline constraints, and project cost (Thomson et al., 2011) were considered during the design process. Alternative 5, although not the “engineer preferred” alternative, was selected because it is the most cost effective alternative (cost/net acre) that meets the majority of project objectives. Project features are shown in Figures 1 and 2.

### **Beach and Dune Fill**

The beach and dune fill design template is based on advanced fill volumes needed to meet the majority of performance goals over the project life. The resulting template is an 8,000’ long dune crest with a +8’<sup>1</sup> crest elevation, 150’ crest width, and a constructed shoreline position located about 293 feet seaward of the projected 2014 shoreline. The beach and dune fill is

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<sup>1</sup> All elevations herein are referenced to NAVD88

designed with 1V:30H slope above +1.0', and 1V:90H below +1.0'. The in-place beach and dune fill volume was calculated based on 2010 design surveys with required fill volumes increased to compensate for losses anticipated to occur between the 2010 design surveys and a projected 2014 construction date. The in-place beach and dune fill volume is estimated to be 1,330,000 cubic yards (cy).

**Marsh Creation/Nourishment Design**

The marsh creation footprint was selected based on desired project performance (i.e., ideal minimum threshold marsh width) within the constraints of existing infrastructure. These constraints include pipelines within and to the north of the project area. The marsh fill footprint is 274 acres. The marsh width varies from 560' at the western extent to 1,990' at the eastern extent and has an average width of approximately 1,280'.

The average elevation of the existing marsh on the island, as surveyed by John Chance Land Surveys in August-October 2010, is approximately +1.0 feet, NAVD. This is comparable to the elevation of other marsh platforms in the area such as East Grand Terre, Chalant Headland, and Pelican Island. The present mean high water and mean low water elevations are +0.95 and -0.27 feet, NAVD, respectively. These elevations were obtained from site specific longterm subordinate stations. Figure 3 shows the marsh settlement curves for various construction elevations. A +2.5' construction elevation (±0.3' vertical tolerance) was selected based on anticipated performance as well as constructability issues.

Approximately 11,000' of primary retention dikes will be required to provide containment for the marsh fill material. The borrow source for the retention dikes is located within the marsh platform and will be re-filled with marsh fill material. Limited gapping of the primary dike may occur once the marsh fill has been accepted. The number and location of these gaps will be determined in the field at the end of construction. The gaps will be located near lower sections of the constructed marsh in order to assist with drainage. Additional gapping is included as a future maintenance event if initial gapping or natural erosion proves insufficient.

Sand fencing will be installed concurrent with dune construction. Settlement plates will also be installed during construction. Vegetative plantings will be introduced beginning in TY1 through the operations and maintenance program.

**Operations, Maintenance and Monitoring**

Operations and maintenance costs include vegetative plantings, dike gapping and sand fence replacement as summarized below.

	<b>Plantings</b>	<b>Dike Gapping</b>	<b>Sand Fence Replacement</b>	<b>Surveys</b>	<b>Imagery &amp; Habitat Analysis</b>	<b>Veg. Sampling</b>	<b>Report</b>
<b>TY1</b>	X		X	X			X
<b>TY3</b>	X	X		X			X
<b>TY5</b>			X	X	X	X	X
<b>TY10</b>			X	BICM	BICM		X

<b>TY15</b>				BICM	BICM		X
<b>TY20</b>				BICM	BICM		X

TY1 includes extensive dune and beach vegetative plantings and more limited, targeted marsh platform plantings as summarized below:

<b>Species</b>	<b>Unit Size</b>	<b>Layout</b>	<b>No. Units</b>
Bitter Panicum	4" Containers	6 Rows, 5' Spacing	13,920
Marshhay Cordgrass	4" Container	2 Rows, 5' Spacing	4,640
Sea Oats	Gallons	4 Rows, 5' Spacing	9,280
Smooth Cordgrass	Plugs	Rows 10' Apart, Plants 3' O.C.	10,000

More intensive marsh planting will occur at TY3 (25,000 units smooth cordgrass). Additional beach/dune plantings (25% TY1) are also included at TY3 to replace dune plantings that may not have survived from initial installation. Marsh plantings total 35,000 units (120 plants/acre) which is approximately 14% of the standard planting rate (i.e., 871 plants/acre assuming 10' x 5' spacing per WVA Procedural Manual).

Limited gapping of retention dikes is also included at TY3 although previous barrier island projects have demonstrated that the majority of retention dikes erode/settle/degrade naturally and only targeted and limited gapping is needed. Costs for targeted gapping are estimated based on excavation of 25' long gaps to 1.0' at 500' intervals along the 11,000' retention dike and assuming excavation quantity identical to the construction retention dike fill density of 11.3 cy/lf. Replacement/re-installation of new full length of sand fencing (one row) is budgeted for TY1, TY5 and TY10 to ensure continued effectiveness as previous sand fence installations are buried by wind-blown sand.

Monitoring includes both near-term (i.e., TY1 – TY5) project specific monitoring and long-term efforts under the State's BICM program. Near-term budgeted project specific monitoring includes re-occupation of about one-quarter of as-built survey profiles, acquisition and habitat classification of aerial imagery, vegetative sampling and associated reporting as summarized below. In approximately TY10, TY15 and TY20, more limited survey data as well as aerial photography will be collected through the BICM program; project specific funds are included at appropriate intervals to provide funding for site-specific data analysis and reporting beyond that included in the coast-wide BICM program.

### **SUMMARIZED GENERAL BARRIER ISLAND WVA ASSUMPTIONS**

Detailed information regarding project performance projections is included in Thomson et al., 2011. Specific project performance information is included in Appendix F, as excerpted from the draft 95% design report. Derivation of the model elements, input rates and quantities and the model results for the future without project (FWOP) and future with project (FWP) conditions are described in detail in the preliminary and final design report (Thomson et al., 2011) and Appendix A.

Project design and evaluation was supported by a suite of data collection including topographic and bathymetric surveys, site-specific oceanographic data including wave height, wave period, wave direction, water level, and current velocities between August 8, 2010 and October 12, 2010, on-shore geotechnical investigations, coastal process assessments, sediment budget development, and various modeling applications (e.g., SBEACH and DELFT3D).

### **Analytical Model to Forecast FWOP Conditions**

An analytic model was developed to forecast the acreages of various habitat elevations for each alternative, including the no action alternative. Future without project conditions were based on projections made for acreage and shoreline change rates for the various habitat areas. The key elements of the base (FWOP) analytical model are summarized below.

1. Gulf shoreline recession due to longshore losses, relative sea level rise, overwash, and the silt fraction in the beach (offshore losses).
2. Gulf and bay shoreline reduction at the western extent as the shorelines receded due to the island's wedge shape planview geometry.
3. Change in the gulf shoreline elevation and active profile height resulting in the loss of acreage and a conversion of one habitat type to another (dune to supratidal and supratidal to bay intertidal).
4. Subsidence resulting in conversion of one habitat type to another (dune to supratidal and supratidal to bay intertidal).
5. Net decrease in marsh platform elevation due to historical subsidence which offset detritus accumulation in vegetated areas. This results in a conversion of one habitat type to another (supratidal to intertidal and intertidal to subtidal).
6. Annual storm overwash resulting in conversion of one habitat type to another (dune to supratidal or bay intertidal to supratidal).
7. Bay shoreline recession resulting in loss of bayside acreage (bay intertidal and subtidal) due to anticipated waves propagating from the north. This is assumed to be 3 feet/year based on the observed back bay erosion in Bastian Bay (Thomson and Wycklendt, 2009).

### **Base Year (TY0) Acreage Forecast**

TY0 values for habitat acreages were developed by application of the existing conditions (i.e., FWOP analytical model). Loss rates and habitat switching was determined by analyzing 1998 and 2006 LIDAR data, 1998 and 2010 aerial imagery, and survey data collected in 2010.

Subaerial acreage change rates, including dune, supratidal, and intertidal acreages, were estimated by analyzing the loss rate for each habitat and projecting it forward for any acreage that was within the project boundary. The acreages were estimated from the 1998 and 2006 LIDAR data sets, and then a linear interpolation was used to estimate the rate of acreage loss. From these land loss rates, the acreages at each target year were extrapolated. For comparison, the loss rates were used to extrapolate the instantaneous percent acreage loss for the various habitat types as shown in Table 1.

Table: 1. Land Loss Rates Extrapolated between 1998 and 2006 LIDAR data

Habitat Type	Absolute Loss Rate (ac/yr)	Percent Loss Rate (%/yr)
<b>Dune</b>	0.4	30.7%
<b>Supratidal</b>	3.2	20.0%
<b>Gulf Intertidal</b>	-	1.0%
<b>Bay Intertidal</b>	5.6	5.1%
<b>Subtidal</b>	3.8	4.9%

The gulf shoreline position was projected by analyzing the shoreline retreat rate between 1998 and 2006. This was overlaid on the 2008 aerial and where the shoreline was located in open water, it was assumed that the shoreline was breached in this location or had been eroded. Breaching will increase the shoreline retreat rate, but this was ignored resulting in a conservative (higher) estimate of future without project acreage. The west end of the island has experienced erosion thus reducing the shoreline length. The length of shoreline in TY20 (2034 for purposes of the analysis) was estimated to be 9,900 feet long compared to 11,600 feet in 2006. Gulf shoreline recession was evaluated over several different periods of record; results are summarized below.

Annual Shoreline Change (ft/yr)		
1998-2006	2006-2010	1998-2010
-32.0	-58.4	-43.9

Application of expected on-going losses to historic data sets (LIDAR, 2010 design surveys, etc) results in the following TY0 acreages:

	<b>Dune (acres)</b>	<b>Supratidal (acres)</b>	<b>Gulf Intertidal (acres)</b>	<b>Bay Intertidal (acres)</b>	<b>Subtidal (acres)</b>	<b>Total (acres)</b>
TY 0	1	10	18	97	70	196

Selected FWOP Target Year Acreage Forecast

At each FWOP target year, the shoreline recession and lowering of island elevations is converted to a loss of acreage based on the variable shoreline lengths, profile heights, and the yearly elevation changes. The analytic model predicted that dune and supratidal acreage would be lost sometime between TY1 and TY5, bay intertidal acreage will be lost by TY17, subtidal acreage will be lost by TY18; and Gulf intertidal acreage will be lost by TY19. Comparison of the 1998 and 2006 LIDAR data indicated an increase in gulf supratidal acreage. Part of this increase may be due to overwash but can also be attributed to difficulty in defining gulf intertidal habitat verses bay intertidal habitat. Regardless, a gain in habitat is obviously not sustainable. Projecting total acreage forward suggests that all subaerial acreage will be lost by TY20, which required an assumption that the gulf intertidal loss rate was 1%/year. Table 2 reports forecasted FWOP habitat acreages for barrier island sub-habitats. Proposed FWOP TYs are highlighted in Table 2 below.

Table: 2. Planform Performance Projection for Future without Project (FWOP) Conditions

Target Year	Habitat (acres)					Total
	Dune	Supratidal	Gulf Intertidal	Bay Intertidal	Subtidal	
TY 0	1	10	18	97	70	196
TY 1	1	6	18	92	66	183
TY3	0	0	18	80	58	156
TY 5	0	0	17	64	47	128
TY7	0	0	17	52	39	108
TY8	0	0	16	46	36	98
TY 10	0	0	15	36	28	79
TY 15	0	0	14	8	9	31
TY 16	0	0	13	3	5	21
TY 17	0	0	10	0	2	12
TY 18	0	0	4	0	0	4
TY 19	0	0	0	0	0	0
TY 20	0	0	0	0	0	0

**Analytical Model to Forecast FWP Conditions**

Target years were selected based on review of planform performance (acreage projections). TYs are proposed that capture significant events (i.e., simulated storm event, anticipated settlement of marsh into the intertidal zone). Table 3 reports forecasted FWP habitat acreages for barrier island sub-habitats.

For the FWP alternatives, in addition to FWOP conditions the analytic habitat acreage change model also incorporated the following processes:

1. Gulf shoreline recession the year following construction as the constructed profile equilibrates to the natural profile. Equilibration of the profile results in a loss of acreage from the highest constructed habitat type (dune).
2. Settlement and subsidence of the constructed dune due to the additional load applied to the underlying substrate. This process is assumed until the target year that the gulf shoreline elevation becomes equivalent to natural barrier island elevation. This results in a conversion of one habitat type to another and additional acreage loss due to shoreline recession (dune to supratidal).
3. Consolidation, settlement, and subsidence of the constructed marsh platform due to the additional load applied to the underlying substrate. This results in a conversion of one habitat type to another (supratidal to bay intertidal).
4. A change in the active profile height due to lowering of the dune that occurred following the two significant (10-year) storm events, estimated to occur in TY7 and TY14. A

probability analysis suggests that a 10-year storm event has a 50% chance of occurrence by TY7 (Thomson et al., 2009).

5. Conversion of habitat (dune to supratidal and bay intertidal to supratidal) due to major storm overwash as dune elevation is lowered and material deposited landward onto the marsh platform.
6. Increase in the natural gulf shoreline elevation and depth of closure due to sea-level rise. The difference in elevation with respect to mean high water (MHW) is maintained to account for sea-level rise.

At each target year, as with FWOP conditions, the shoreline recession and lowering of island elevations is converted to a loss of acreage based on the variable shoreline lengths, profile heights, and the yearly elevation changes. The entire profile is translated so losses only occur in the uppermost habitat area. All values assume that construction is completed by the end of 2014, which defines TY1.

Table: 3. Planform Performance Projection for Future with Project (FWP) Conditions

Target Year	Habitat (acres)					Total
	Dune	Supratidal	Gulf Intertidal	Bay Intertidal	Subtidal	
TY 0	1	10	18	97	70	196
TY 1	63	324	20	20	36	463
TY 2	40	44	20	293	35	432
TY 3	34	42	20	292	35	423
TY 4	30	40	20	291	35	416
TY 5	26	38	20	291	35	410
TY 6	22	36	20	290	35	403
TY 7	18	35	20	289	35	397
TY 8	0	166	20	169	35	390
TY 9	0	160	20	168	35	383
TY 10	0	155	20	166	35	376
TY 11	0	150	19	163	34	366
TY 12	0	146	19	161	34	360
TY 13	0	143	19	158	34	354
TY 14	0	139	19	155	34	347
TY 15	0	135	19	152	34	340
TY 16	0	132	19	149	34	334
TY 17	0	129	19	146	34	328
TY 18	0	126	19	143	34	322
TY 19	0	123	19	140	34	316
TY 20	0	120	19	136	33	308

### **BARRIER ISLAND ASSESSMENT VARIABLE VALUES**

As mentioned in FWP conditions and illustrated in Table 3 above, target years were selected based on forecasted significant changes in planform performance (acreage projections), vegetative characteristics, etc. TYs are proposed that capture significant events (i.e., simulated

storm event, anticipated settlement of marsh into the intertidal zone, vegetation establishment/post-storm recovery).

**Variables V1, V2, and V3**

Table 4 reports the calculated values for V1, V2 and V3 based on the forecasted acreage projections for FWOP; proposed FWOP TYs are highlighted.

Table: 4. FWOP calculated values for V1, V2 and V3

<b>Target Year</b>	<b>V1 (% total subaerial area classified as dune)</b>	<b>V2 (% total subaerial area classified as supratidal)</b>	<b>V3 (% total subaerial area classified as intertidal)</b>
TY 0	0.8%	8%	91%
TY 1	0.9%	5%	94%
TY3	0.0%	0%	100%
TY 5	0.0%	0%	100%
TY7	0.0%	0%	100%
TY8	0.0%	0%	100%
TY 10	0.0%	0%	100%
TY 15	0.0%	0%	100%
TY 16	0.0%	0%	100%
TY 17	0.0%	0%	100%
TY 18	0.0%	0%	100%
TY 19	0.0 %	0%	0%
TY 20	0.0%	0%	0%

Table 5 reports the calculated values for V1, V2 and V3 based on the forecasted acreage projections for FWP; proposed FWP TYs are highlighted.

Table: 5. FWP calculated values for V1, V2 and V3

<b>Target Year</b>	<b>V1 (% total subaerial area classified as dune)</b>	<b>V2 (% total subaerial area classified as supratidal)</b>	<b>V3 (% total subaerial area classified as intertidal)</b>
TY 0	0.8%	8%	91%
TY 1	14.8%	76%	9%
TY 2	10.1%	11%	79%
TY 3	8.8%	11%	80%
TY 4	7.9%	10%	82%
TY 5	6.9%	10%	83%
TY 6	6.0%	10%	84%
TY 7	5.0%	10%	85%
TY 8	0.0%	47%	53%
TY 9	0.0%	46%	54%
TY 10	0.0%	45%	55%
TY 11	0.0%	45%	55%

TY 12	0.0%	45%	55%
TY 13	0.0%	45%	55%
TY 14	0.0%	44%	56%
TY 15	0.0%	44%	56%
TY 16	0.0%	44%	56%
TY 17	0.0%	44%	56%
TY 18	0.0%	44%	56%
TY 19	0.0%	44%	56%
TY 20	0.0%	44%	56%

**Variable V<sub>4</sub> - Percent vegetative cover of dune, supratidal, and intertidal habitats**

Oblique photography taken in 2009 by US Fish and Wildlife Service, the PPL19 video, and various site inspections in 2009, 2010 and 2011 were used to characterize the percent vegetative cover FWOP. Based on that information backbarrier saline marsh in the project area is primarily vegetated by smooth cordgrass and wiregrass with lesser amounts of black mangrove, and saltgrass. The barrier shoreline including the dune and supratidal elevations is vegetated primarily by marshhay cordgrass and roseau cane. Information is provided below comparing previous barrier island assumptions for this variable.

FWOP				
TY	Scofield Island	Whiskey West Flank	Raccoon Island	Ronquille (Phase 0)
0	75%	33%	23%	70%
1	75%	33%	23%	70%
3	70%			70%
5	70%		24%	70%
10	50%	36%		50%
20	30%	20%	25%	30%
FWP				
1	5%	24%	23%	7%
2		29%		
3	26%	30%		26%
5	65%	45%		60%
7				60%
10	70%	46%	38%	65%
20	66%	29%	38%	41%

**FWOP**

TY0 70% 70% vegetative cover overall (30% unvegetated beach, overwash fans, or backbarrier sand flats)

TY1 70%

TY3 60% 100% intertidal of which overwash fans would be common

TY18 50 % Large portions of the intertidal with elevations are likely lower than expected to be required to maintain robust vegetation or very overwash dominated

TY19 0 % Subaerial acreage lost by TY19

TY20 0%

## FWP

### *Assumptions*

- Plantings are proposed in TYs 1 and 3 (see pages 3 - 4).
- **Dune:** Assume total dune planting at TY1 with limited replacement in TY3. Assume standard conventions for each habitat planted per page 13 of the Barrier Island Community Model August 2011 (i.e., TY1 = 25% of the dune acres). Contrary to the standard convention, 50% of the dune acres are applied at TY3 and delaying 100% of the dune acres until TY5. Assume a SI of 50%, 60%, and 65% for the dune at TY 1, 2, and 3, respectively to reflect time for colonization from a total dune planting.
- **Marsh Platform:** Reduced marsh platform density planting is proposed with 10,000 units at TY 1 and 25,000 units at TY3. Total marsh plantings (by TY 3) are 35,000 units (120 plants/acre) which is approximately 14% of the standard planting rate (871 plants/acre assuming 10' x 5' spacing per the Barrier Island Community Model August 2011). The conventions established for the Phase 0 WVA as adapted from the marsh model for "no planting" are applied for supratidal and intertidal bay at TY1 and TY2. That is 10% of the supratidal and intertidal acres are multiplied by the SI percent cover value. As with the dune, assume a SI of 50%, 60%, and 65% at TY 1, 2, and 3, respectively to reflect time for colonization. This is less than previous conventions. Potential programmatic updates to conventions are under investigation.

TY1 6%

Dune 25% of 63 acres =  $0.25 \times 63 = 16$   
Supratidal 10% of 324 acres =  $0.1 \times 324 = 32$   
Bay Intertidal 10% of 20 acres =  $0.1 \times 20 = 2$   
Gulf Intertidal 0% of 20 acres = 0

Weighted Average= sum of percentages of each habitat/total subaerial acres =  
 $(16+32+2+0)/427 = 0.12$

**V4 calculation:** (weighted average of planted areas x SI i.e., % cover planted areas) +  
(Remaining unvegetated area x % cover unvegetated areas)  
 $(0.12 \times 50\% \text{ cover}) = ((1.0 - 0.12) \times 0\% \text{ cover}) = (5.9) + (0.88 \times 0\%) = 6\%$

TY2 9%

Dune 25% of 40 acres =  $0.25 \times 40 = 10$   
Supratidal 15% (slight increase over TY1 10%) of 44 acres =  $0.15 \times 44 = 7$   
Bay Intertidal 15% of 293 acres =  $0.15 \times 293 = 44$   
Gulf Intertidal 0% of 20 acres = 0

Weighted Average= sum of percentages of each habitat /total subaerial acres =  
 $(10+7+44+0)/397 = 0.15$

**V4 calculation:** (weighted average of planted areas x % cover planted areas) +  
(Remaining unvegetated area x % cover unvegetated areas)  
 $(0.15 \times 60\% \text{ cover}) + ((1.0 - 0.15) \times 0\% \text{ cover}) = (9.2) + (0.85 \times 0\%) = 9\%$

TY3 17%

Dune 50% of 34 acres =  $0.5 \times 34 = 17$   
Supratidal 30% of 42 acres =  $0.30 \times 42 = 13$   
Bay Intertidal 30% of 292 acres =  $0.30 \times 293 = 88$

Gulf Intertidal 0% of 20 acres = 0%

Weighted Average= sum of percentages of each habitat /total subaerial acres =  
(17+13+88+0)/388 = 0.30

**V4 calculation:** (weighted average of planted areas x % cover planted areas) +  
(Remaining unvegetated area x % cover unvegetated areas)  
(0.30 x 65% cover) = ((1.0 - 0.30) x 0%) = (19.5) + (0.70 x 0%) = **19%**

TY5 71%

Dune 100% of 26 acres = 26

Supratidal 100% of 38 acres = 38

Bay Intertidal 100% of 291 acres = 291

Gulf Intertidal 0% of 20 acres = 0

Weighted Average= sum of percentages of each habitat /total subaerial acres =  
(26+38+291+0)/375= 355/375 = 0.95

**V4 calculation:** (weighted average of planted areas x % cover planted areas) +  
(Remaining unvegetated area x % cover unvegetated areas)  
(0.95 x 75% cover) + ((1.0 - 0.95) x 0%) = (71) + (0.05 x 0%) = **71%**

TY7 71%

Dune 100% of 18 acres = 18

Supratidal 100% of 35 acres = 35

Bay Intertidal 100% of 289 acres = 289

Gulf Intertidal 0% of 20 acres = 0%

Weighted Average= sum of percentage of each habitat /total subaerial acres =  
(18+35+289+0)/362= 342/362 = 0.94

**V4 calculation:** (weighted average of planted areas x % cover planted areas) +  
(Remaining unvegetated area x % cover unvegetated areas)  
(0.94 x 75% cover) + ((1.0 - 0.94) x 0%) = (71) + (0.06 x 0%) = **71%**

TY8 61% Slight reduction in percent cover for supratidal and intertidal areas due to storm  
overwash. Most vegetated areas (back platform will receive a shallow layer of sand  
overwashed from beach)

Dune 100% of 0 acres = 0

Supratidal 100% of 166 acres = 166

Bay Intertidal 100% of 169 acres = 169

Gulf Intertidal 0% of 20 acres = 0

Weighted Average= sum of percentages of each habitat /total subaerial acres =  
(0+166+169+0)/= 335/355 = 0.94

**V4 calculation:** (weighted average of planted areas x % cover planted areas) +  
(Remaining unvegetated area x % cover unvegetated areas)  
(0.94 x 65% cover) = ((1.0 - 0.94) x 0%) = (61) + (0.06 x 0%) = **61%**

TY20 61% Based on forecasted FWP conditions, all acreage is within the supratidal and  
intertidal range and beachfront is continuous (unbreached).

Dune 100% of 0 acres = 0

Supratidal 100% of 120 acres = 120

Bay Intertidal 100% of 136 acres = 136

Gulf Intertidal 0% of 19 acres = 0

Weighted Average= sum of percentages of each habitat /total subaerial acres =  
 $(0+120+136+0)/275 = 0.93$

**V4 calculation:** (weighted average of planted areas x % cover planted areas) +  
 (Remaining unvegetated area x % cover unvegetated areas)  
 $(0.93 \times 65\% \text{ cover}) = ((1.0 - 0.93) \times 0\%) = (61) + (0.07 \times 0\%) = 61\%$

**Variable V<sub>5</sub> - Percent of vegetative cover comprised by woody species**

Information is provided below comparing previous barrier island assumptions for this variable.

FWOP				
TY	Scofield Island	Whiskey West Flank	Raccoon Island	Ronquille (Phase 0)
0	5%	15%	17%	4%
1	5%	15%	17%	4%
3	5%			4%
5	5%		18%	4%
10	5%	16%		4%
20	3%	16%	20%	1%
FWP				
1	2%	11%	14%	2%
2		11%		
3	2%	12%		2%
5	5%	12%		5%
7				5%
10	7%	12%	19%	8%
20	5%	10%	24%	8%

**FWOP**

TY0 4% Woody vegetation in the project area includes marsh elder and maybe some wax myrtle located on spoil banks along the pipeline canals, and the eastern end of the project area. There are minor amounts of black mangrove in the intertidal marsh.

TY1 4%

TY3 4%

TY18 0% By TY18 it is anticipated that overall elevation would not be sufficient to support woody vegetation.

TY19 0%

TY20 0%

**FWP**

Due to salinity, natural recruitment and survival of woody species is anticipated to be limited. Limited colonization by woody species is expected on the dune, persisting portions of the primary dike, and portions of the marsh platform at various TYs. Alleman and Hester (2011) identified that the average elevation colonized by black mangrove (for mainland marshes) is +0.75' NAVD88 ± 0.02'. Colonization of portions of the marsh platform by black mangrove is expected to occur towards the end of the 20-year project life when considering ±0.3' vertical

tolerance of the +2.5' line in the appended settlement curve. It is likely some minor amount of woody species may colonize the dune and higher supratidal elevations persisting through and past TY 7. Furthermore, portions of the primary containment dike not degraded or subjected to bay fetch (i.e., eastern most portion) would support woody species similar to those observed for TY0 conditions along the remaining pipeline spoil banks. Some limited woody vegetation may be planted if on-site investigation suggests conditions would support survival.

TY1	0%	Burial of marsh elder and small wax myrtle is expected
TY2	0%	
TY3	2%	Minimal colonization of marsh elder of the remaining portions of the primary dike and dune are expected. Note: 1 woody species only.
TY5	2%	Based on existing and natural recruitment on the substantial dune and supratidal elevations. Note: 2 woody species.
TY7	2%	
TY8	1%	No dune remaining; marsh elder colonized on remaining primary dike; Note: 1 woody species only.
TY20	1%	No dune remaining; limited black mangroves are expected to naturally colonize in the project area; Note: 1 woody species only.

**Variable V<sub>6</sub> - Edge and interspersions**

**FWOP**

Current conditions at TY0 are 97 acres intertidal marsh out of 196 total land acres (See 2010 Imagery in Figure 1 below). According to the images provided in the barrier island WVA model for interspersions, the project area resembles a Class 4 with a large percent ratio of open water with multiple breaches from the Gulf of Mexico. The remaining target years were assigned a class value based on outputs from Table 2. A Class 5 in the barrier island model is only assigned to a project area with 100% open water. It is assumed that the project area will be a Class 5 at TY20 after two forecasted storm events occur.

TY0	100%	Class 4
TY1	100%	Class 4
TY3	100%	Class 4
TY18	100%	Class 4
TY19	100%	Class 5 (all acres in the project area convert to open water)
TY20	100%	Class 5

**FWP**

TY1	100%	Class 3 (i.e., confined carpet marsh similar to Grand Terre COE disposal).
TY2	100%	Class 3
TY3	100%	Class 3

For TY5, based on similar projects, it appears that some natural development of aquatic features should be anticipated. Borrow areas used for construction of primary dikes that are backfilled with marsh fill generally exhibit lower elevations due to differential settlement. Shallow pond-like features have also been observed to develop within created marsh platforms also due to

differential settlement of fill placed in deeper open water areas. Containment dikes would have been previously gapped in TY3 if they did not degrade/settle/breach naturally.

TY5 50% Class 1; 50% Class 3  
TY7 80% Class 1; 20% Class 2 (1<sup>st</sup> Storm event; no dune remains)  
TY8 80% Class 1; 20% Class 2  
TY20 50% Class 2; 50% Class 3 (2<sup>nd</sup> Storm event, remaining subaerial platform is 61% intertidal and 39% supratidal)

### **Variable V<sub>7</sub>, Beach/Surf Zone Features**

FWOP and FWP - 100% Class 1; unconfined natural beach with no shore parallel structures. Containment built for construction would be graded into the template for a more natural slope as-built.

### **Literature Cited**

Alleman, L.K. and M.W. Hester. 2011. Reproductive ecology of black mangrove (*Avicennia germinans*) along the Louisiana coast: propagule production cycles, dispersal limitations, and establishment elevations. *Estuaries and Coast* (2011): 34:1068-1077.

Coastal Research Laboratory/University of New Orleans, 2000. Barataria Barrier Island Restoration Shoreline Change Analysis (Final Report). Submitted to Tetra Tech EM Inc. in fulfillment of Contract No 00RM-S0003. (Report prepared for NOAA – National Marine Fisheries Service)

Thomson, G., Thompson, W., Wycklendt, A., Swigler, D., and Gielow, R., 2011. Chenier Ronquille Barrier Island Restoration Project (BA-76) – 30% Design Report. Boca Raton, Florida: Coastal Planning & Engineering, Inc. 140p. (Report prepared for the Louisiana Office of Coastal Protection and Restoration).

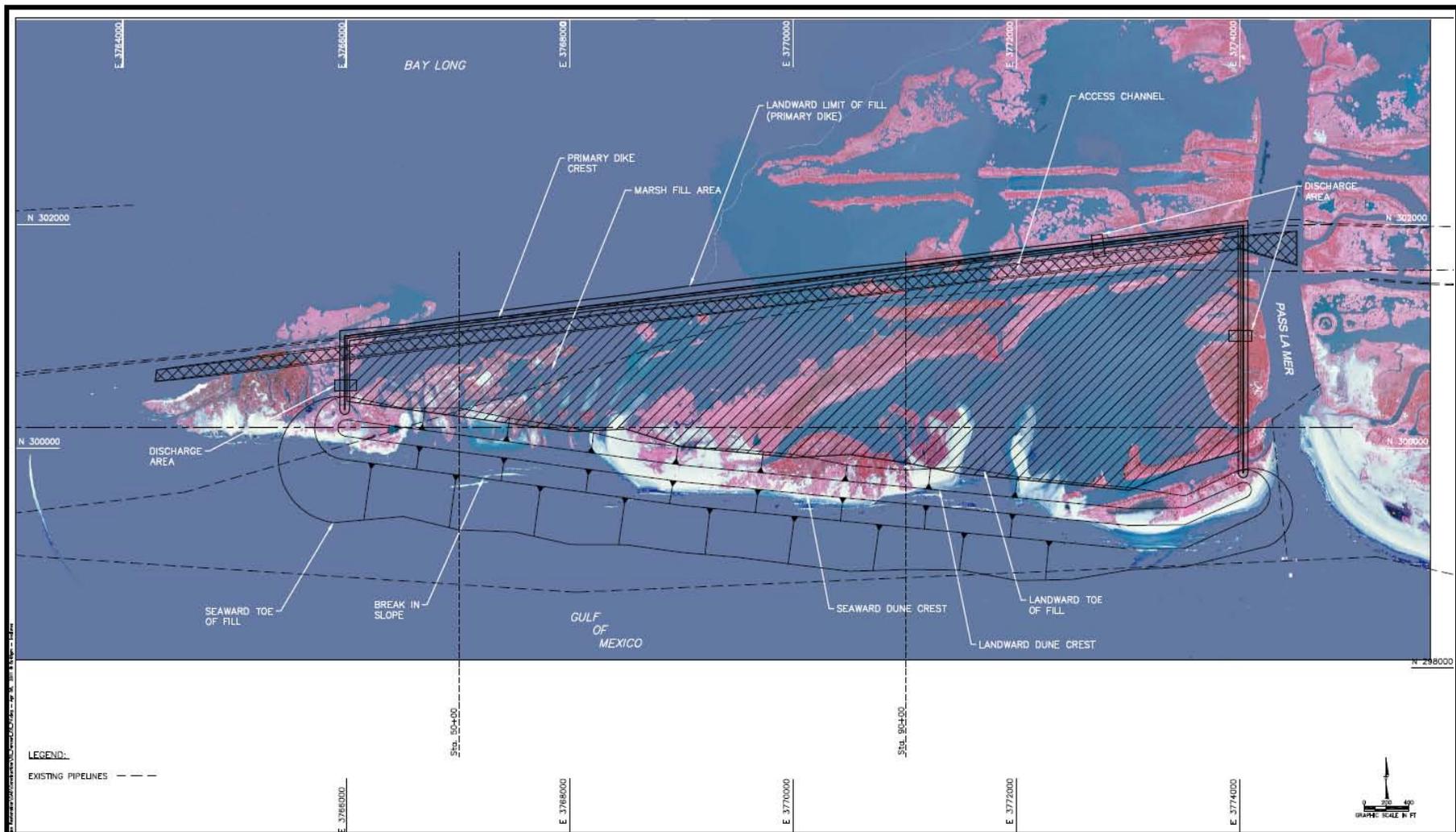


Figure 1 – Plan view of Alternative 5

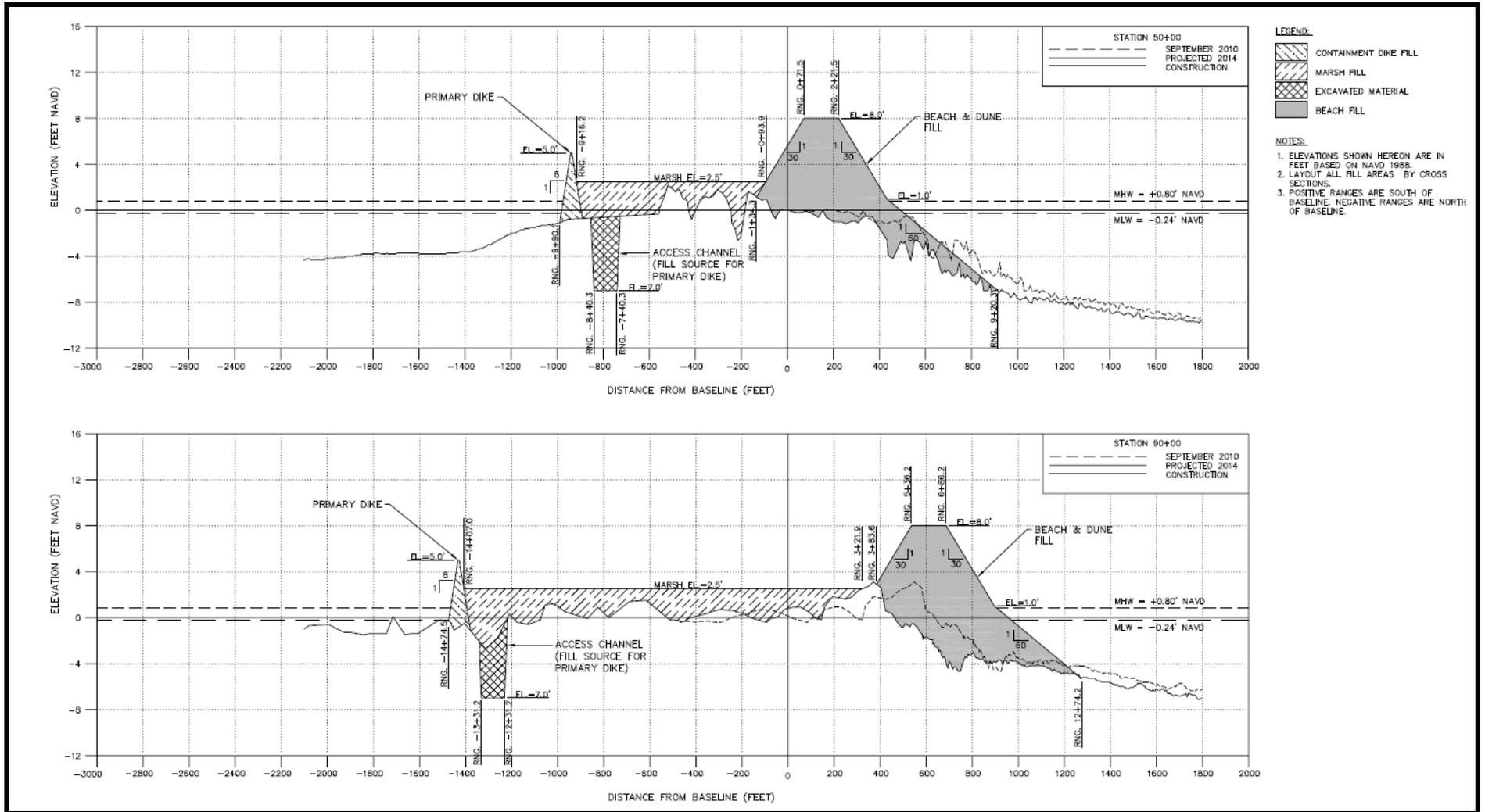


Figure 2 – Typical profile views of Alternative 5

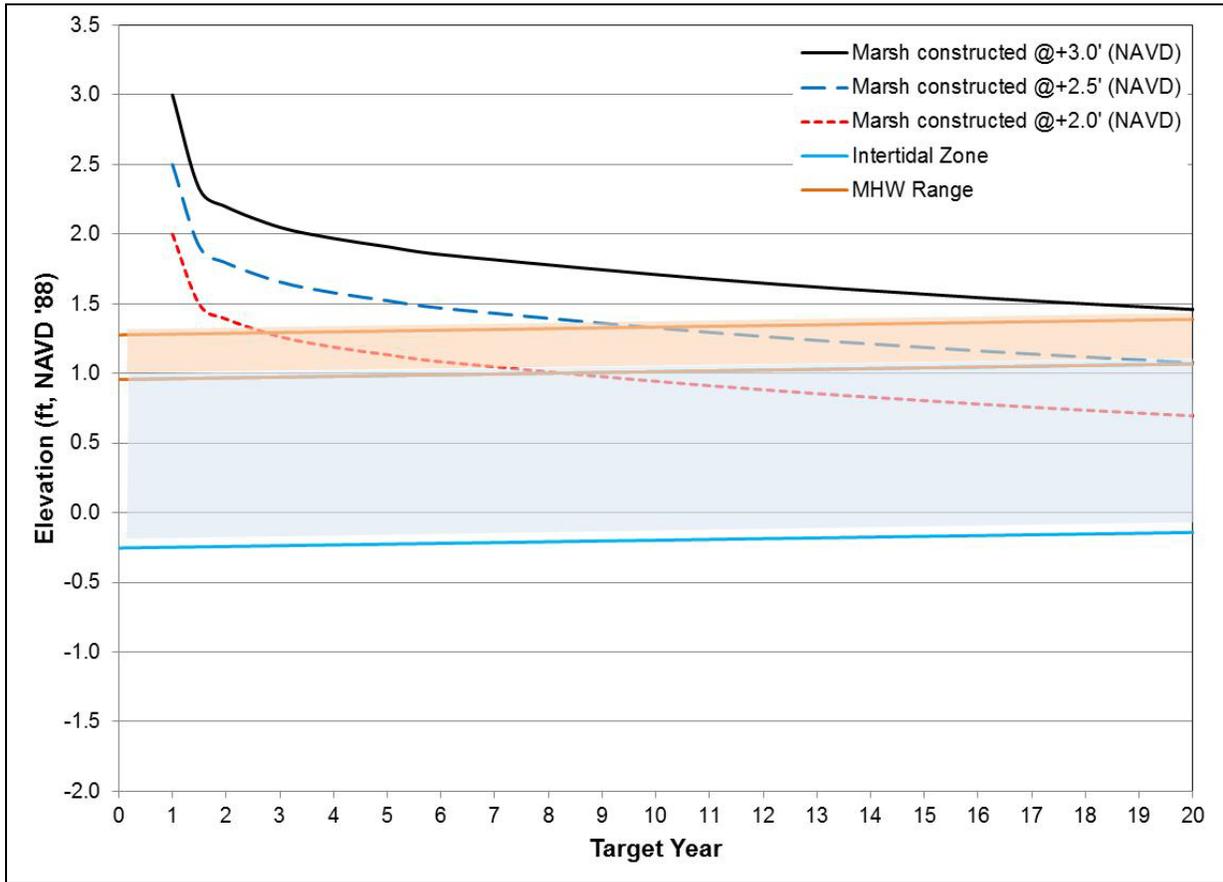


Figure 3 – Anticipated settled elevations for various initial marsh fill elevations. Initial elevation of +2.5' is proposed in consideration of performance and constructability issues.

## Murry, Allison MVN-Contractor

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**From:** Fleming, Edward R COL MVN  
**Sent:** Monday, December 10, 2012 8:45 AM  
**To:** Holden, Thomas A MVN; Wingate, Mark R MVN; Inman, Brad L MVN; Kinsey, Mary V MVN;  
Murry, Allison MVN-Contractor  
**Subject:** FW: (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

fyi

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

From: Garret Graves [<mailto:Garret.Graves@LA.GOV>]  
Sent: Monday, December 10, 2012 8:36 AM  
To: Fleming, Edward R COL MVN; 'Honker.William@epamail.epa.gov'; 'chris.doley@noaa.gov';  
'kevin.norton@la.usda.gov'; 'Jeff\_Weller@fws.gov'  
Subject:

CWPPRA Task Force:

At the November 28 meeting of the CPRA, there was a discussion of potential oil spill funding from the Deep Water Horizon disaster as it relates to State priorities for restoration. Kyle Graham presented a group of projects that are a high priority for the State. Two of the projects listed were Whiskey Island and Cheniere Ronquille, which are projects that will be requesting Phase II funding recommendations in the CWPPRA program at the December 12 Technical Committee meeting.

The timing of the BP funding is very uncertain. Likewise, the NFWF will be administering this funding, and they will ultimately determine which projects warrant funding. Because of these uncertainties, we do not believe that consideration for BP funding should influence voting on these projects. These projects clearly stand on their own feet -- they have solid merit. Suggesting that the Task Force delay these projects or prematurely conclude that they have an alternative funding stream would be a disservice to the coast.

In conclusion, these projects are high priorities for the State. We are supportive of implementing these projects as quickly as possible with any funds available, including CWPPRA. Further, it is possible that in the future, CWPPRA may serve as the vehicle or model for the disbursement of oil spill restoration funds.

Please contact me if you would like to discuss.

Thanks,  
g

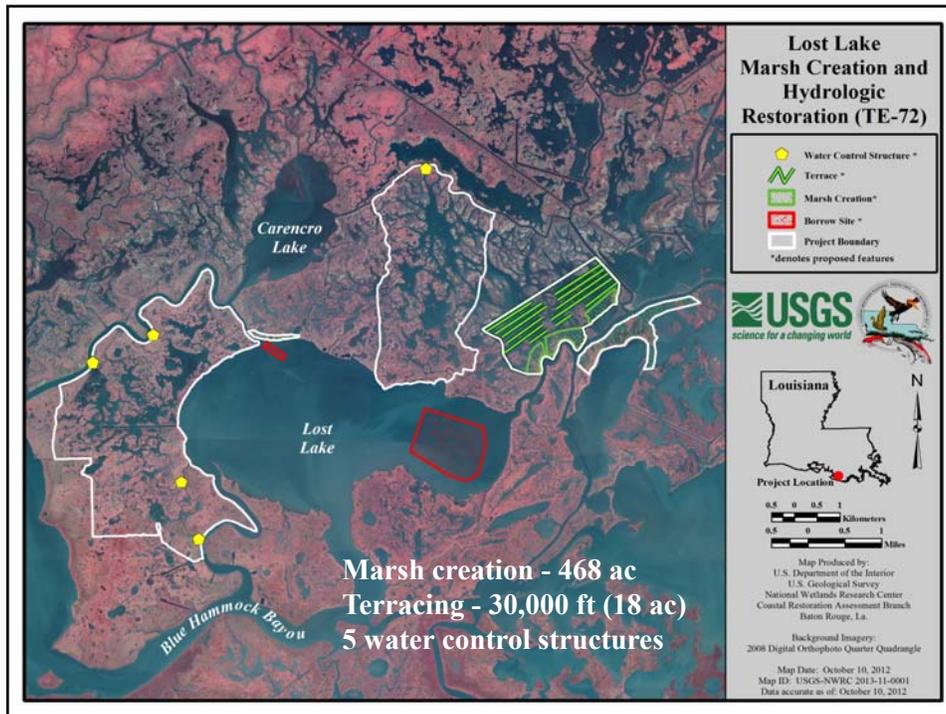
Classification: UNCLASSIFIED  
Caveats: NONE

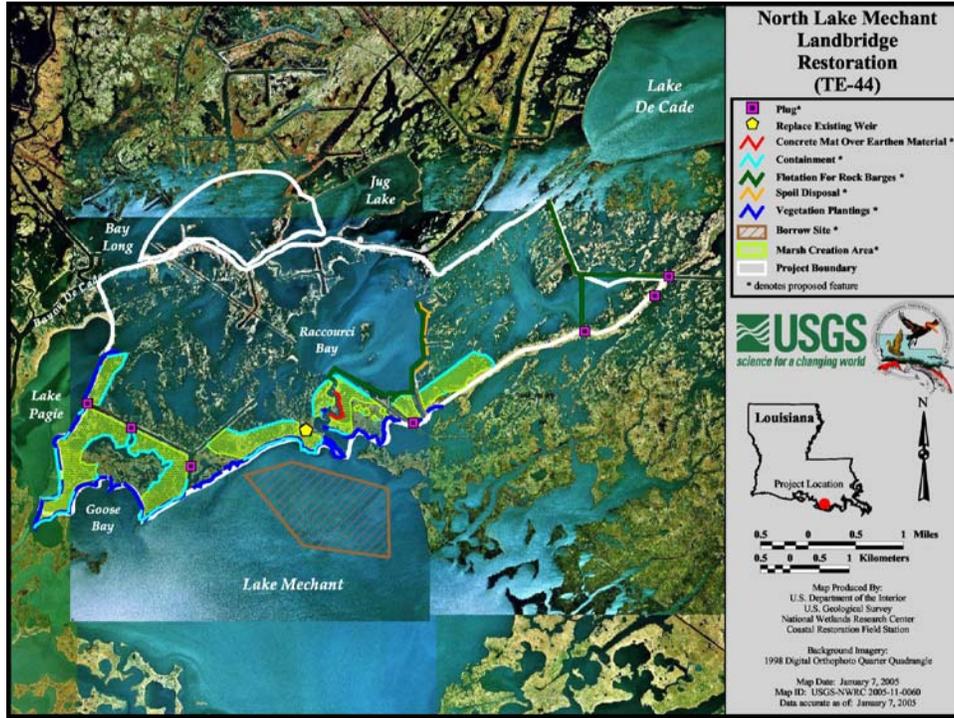
# Lost Lake Marsh Creation & Hydrologic Restoration (TE-72)

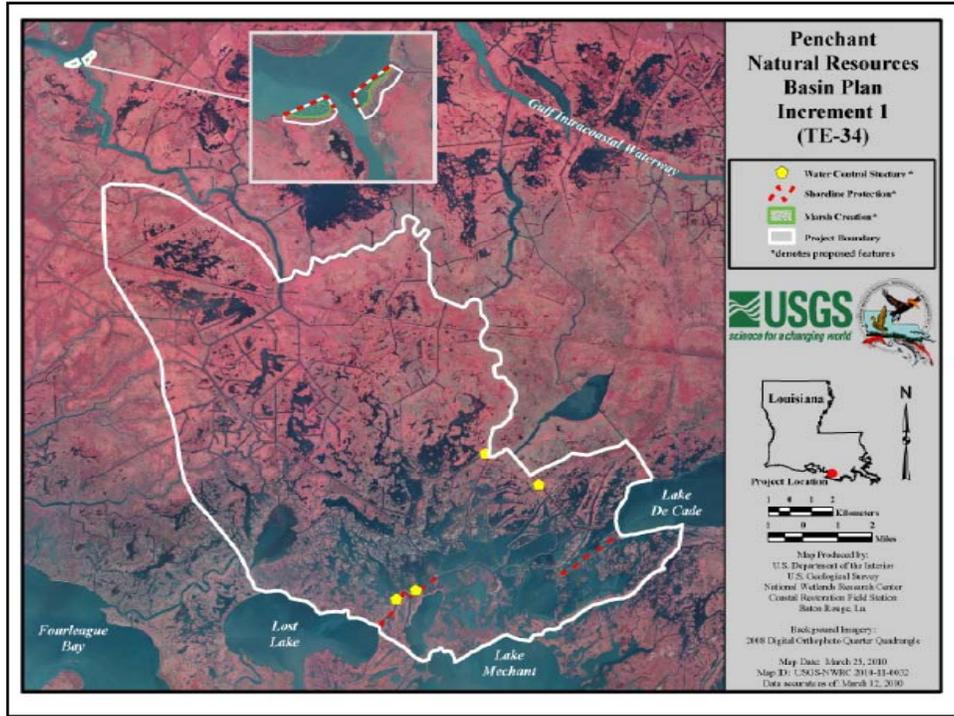


## Project Background and Purpose

- Phase 1 approval in January 2010
- Developed to complement other restoration projects in protecting intermediate marsh in the western Terrebonne Basin
- Extends the landbridge function of the TE-44 North Lake Mechant Landbridge Restoration Project (PPL10 - completed)
- Complements features of the TE-34 Penchant Basin Natural Resources Plan (PPL6 – completed) and recently funded Carencro Bayou Freshwater Introduction Project (DU, CPRA, NOAA, ConocoPhillips)
- Improves distribution of Atchafalaya River water into semi-impounded marshes
- Addresses a hot spot of loss along the Lost Lake shoreline







## Project Benefits and Costs

- The project benefits 7,312 acres of marsh and open water habitats
- 452 net acres at the end of the 20-year project life
- Wetland Value Assessment – 268 net AAHUs
- Fully funded cost of \$34,626,728
- **Today's Phase 2 Increment 1 request - \$29,084,228**



## Why Fund This Project Today?

- Builds upon several other restoration efforts aimed at marsh creation and better distribution of Atchafalaya River water in the narrowing intermediate zone in the western Terrebonne Basin
- Complements the TE-44 North Lake Mechant Project, the TE-34 Penchant Basin Project, and the Carencro Bayou Freshwater Introduction Project (funded by NOAA, CPRA, DU, and ConocoPhillips)
- Based on the 2012 State Master Plan, this project will be one of the last opportunities to create marsh in the western Terrebonne Basin





## United States Department of the Interior



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

November 28, 2012

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 Bayou Bonfouca Marsh Creation Project (PO-104), the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72), and the South Grand Chenier Marsh Creation Project (ME-20) for Phase 2 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 20<sup>th</sup> Priority Project List (PPL), the 19<sup>th</sup> PPL, and the 11<sup>th</sup> PPL, 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 ME-20 project has received a favorable National Environmental Policy Act (NEPA) review and we anticipate favorable NEPA reviews for the PO-104 and TE-72 projects 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  
Kirk Rhinehart, 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  
Paul Kaspar, EPA, Dallas, TX  
Andrew Beall, LA CPRA, Baton Rouge, LA

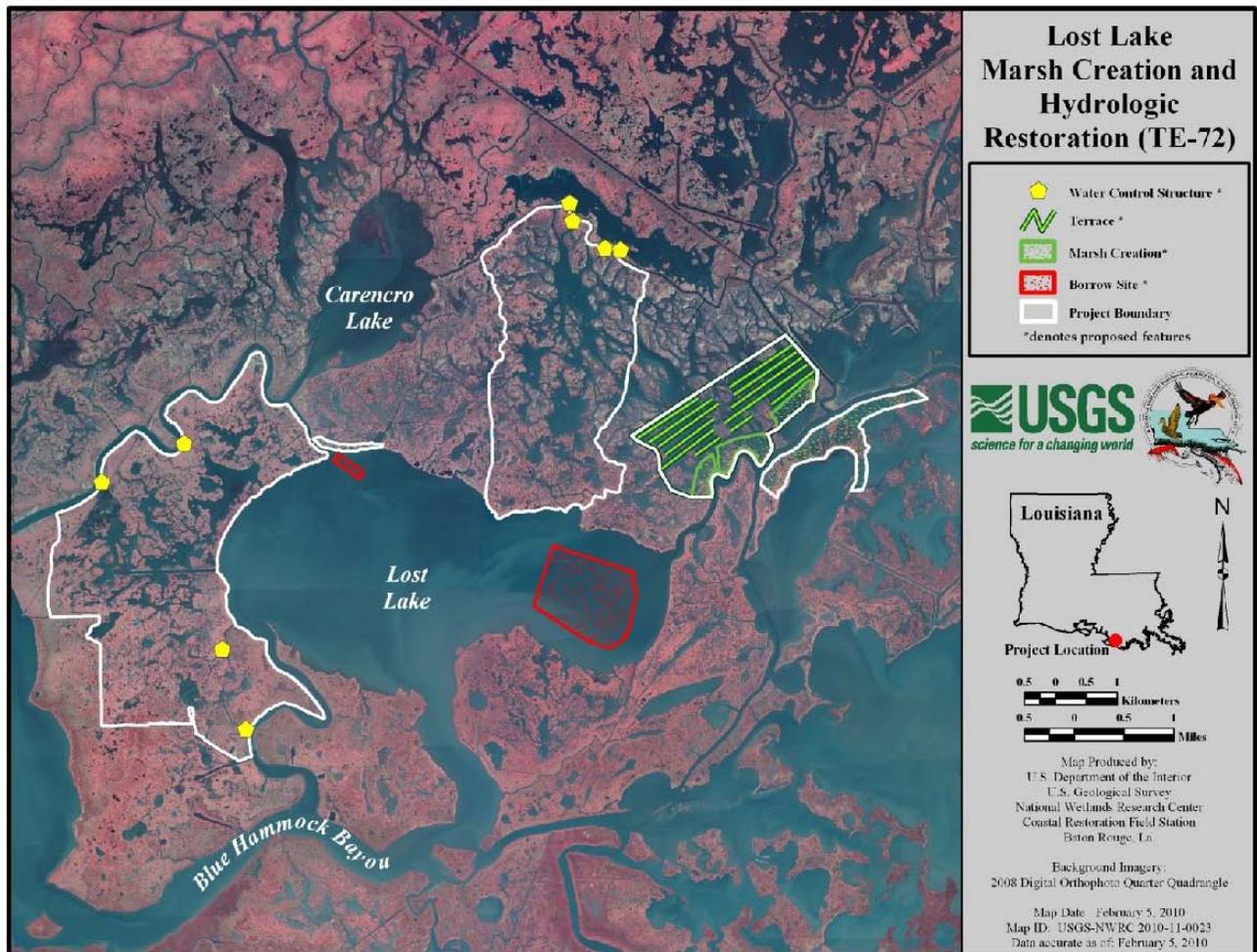
# Phase II Authorization Request

## Lost Lake Marsh Creation and Hydrologic Restoration

### TE-72

#### Description of Phase I Project

The TE-72 Project was approved for Phase I funding on the 19<sup>th</sup> Priority Project List of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). The following figure illustrates the project features and project boundary at the time of Phase I authorization.



At the time of Phase 1 authorization, project features included:

- 1) Marsh creation/nourishment (276 acres) between Lake Pagie and Bayou DeCade. This feature will connect to one of the marsh creation cells recently constructed under the North Lake Mechant Landbridge Restoration Project (TE-44).

characteristics, and stability analyses on the borrow areas. A total of 20 subsurface borings were drilled in the project area and within the borrow sites. Analyses performed include; 1) a general geologic evaluation, 2) slope stability analyses for the containment dikes and terraces, and 3) a settlement analysis to determine the target fill elevations for the marsh creation and terracing features.

A 30% design level interagency review meeting was held on June 19, 2012. By correspondence dated October 16, 2012, the local sponsor (CPRA) agreed to proceed to the 95% design level.

A 95% design level interagency review meeting was held on October 31, 2012. By correspondence dated November 9, 2012, the local sponsor (CPRA) agreed to proceed with a request for Phase 2 funding.

#### Landrights, Cultural Resources, Environmental Compliance and Other Tasks

Preliminary landrights work has proceeded smoothly and no problems are anticipated in acquiring final landrights. Correspondence from the CPRA landrights section dated November 13, 2012, indicates no significant landrights acquisition problems are anticipated and that landrights should be finalized within a reasonable period after Phase 2 funding approval.

The Louisiana Department of Culture, Recreation and Tourism has reviewed the project information to determine if any cultural resources may be impacted by project implementation. In a November 28, 2012 email, they indicated no objection to this project. They did request a minor modification to one of the containment dikes on the eastern side of Lake Pagie to avoid any potential impacts to a cultural resources site located to the south along the Lake Pagie shoreline.

The U.S. Fish and Wildlife Service (Service) has not yet applied for a Corps of Engineers Section 404 permit. However, it is anticipated that a permit application will be submitted in early December 2012.

Correspondence dated July 2, 2012, from the Natural Resources Conservation Service indicated that overgrazing is not a problem within the project area.

Correspondence dated November 9, 2012 from the Corps of Engineers indicated that the project has been approved in accordance with Section 303(e) of CWPPRA.

A hazardous, toxic, and radiological waste (HTRW) assessment is currently being conducted by the Fish and Wildlife Service. It is not anticipated that HTRW materials will be encountered during project implementation.

A draft Environmental Assessment was issued for public comment on November 28, 2012.

## Project Scope Change

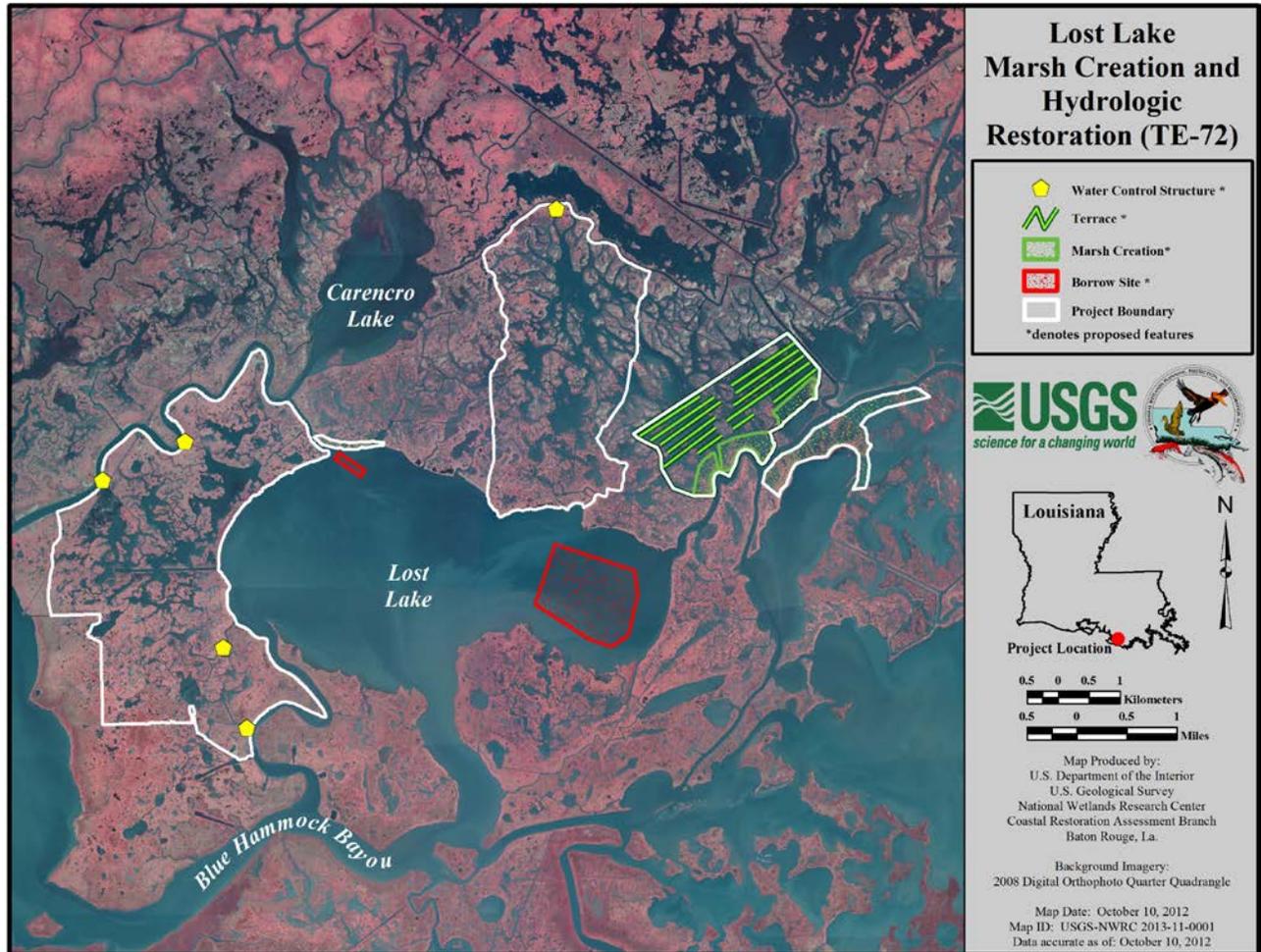
Due to an increase in the project cost and reduction in project benefits, a change in scope was requested per the CWPPRA Standard Operating Procedures. The fully funded project cost has increased from the original Phase 1 approved estimate of \$22,943,866 to the current estimate of \$34,626,728, an increase of 51 percent. The primary reason for this cost increase is that fill quantities for the marsh creation cells were significantly underestimated during Phase 0.

Project benefits have also decreased. Net AAHUs decreased from 281 to 268, a reduction of 5 percent. However, net acres decreased from 749 to 452, a reduction of 40 percent. The primary reason for the reduction in net acres is the lower loss rate calculated in the hydrologic restoration subareas. The revised WVA utilized a different method (i.e., linear regression) for calculating the background loss rate that was not in use at the time the Phase 0 WVA was prepared. Lower loss rates typically result using a linear regression compared to the previous technique. With the updated lower loss rate, the project area lost significantly fewer acres of marsh under the future without-project condition. Thus, the hydrologic restoration features result in the protection of fewer acres of marsh than originally estimated.

Although costs have increased and benefits have decreased, the project still remains a viable, cost effective project. With an average annual cost per AAHU of \$9,229, the project ranks near the top of those projects requesting Phase 2 funds. With a total cost per net acre of \$76,608, the project ranks near the middle of those projects requesting Phase 2 funds. Both measures of cost effectiveness place this project well within the range of projects funded by the CWPPRA program.

## Description of the Phase II Candidate Project

The following figure illustrates the currently proposed project features and project boundary.



### Project Features

1) Marsh creation/nourishment (276 acres) between Lake Pagie and Bayou DeCade to prevent the coalescence of those two waterbodies and restore/protect some key features of structural framework (i.e., lake rim and bayou bank) in the area. This feature will connect to one of the marsh creation cells along Lake Pagie recently constructed under the North Lake Mechant Landbridge Restoration Project (TE-44).

2) Marsh creation/nourishment (165 acres) north of Bayou DeCade in three marsh creation cells. These cells are adjacent to the northern/western bank of Bayou DeCade which has been rebuilt and armored under the Penchant Basin Natural Resources Plan Project (TE-34).

3) At the end of construction, containment dikes will be gapped every 500 feet and tidal creeks will be created by tracking marsh buggies across the marsh platforms.

4) Approximately 30,000 linear feet (18 acres) of terraces to reduce fetch in an area of deteriorated marsh north of the three marsh creation cells along Bayou DeCade. Terraces will be planted with two rows along the crown and two rows on each side slope.

5) Marsh creation/nourishment (27 acres) along the northwestern Lost Lake shoreline near the mouth of Crochet Canal. The shoreline in this area has deteriorated considerably in recent years and several breaches have developed.

6) Two fixed-crest weirs along Big Carencro Bayou will be replaced with structures containing variable-crest bays to increase freshwater and sediment delivery. Two fixed-crest weirs near Rice Bayou will also be replaced with variable-crest structures to provide flow-through conditions in the system (i.e., water enters the system from Big Carencro Bayou and exits through the structures near Rice Bayou).

7) A plug in the southern bank of Carencro Bayou will be replaced with a variable-crest structure to allow the introduction of fresh water, nutrients, and sediments.

#### Updated Assessment of Benefits

A revised WVA was reviewed and approved by the Environmental Workgroup. Net AAHUs for the project decreased from 281 to 268 and net acres decreased from 749 to 452.

#### Modifications to the Phase 1 Project

As a result of Phase 1 activities, the approved Phase 0 project has undergone one minor modification. The Phase 0 project included the installation of four variable-crest structures along Carencro Bayou in place of two fixed-crest weirs on the north bank and two plugs on the south bank. It was determined during Phase 1 investigations that the two variable-crest structures on the north bank of Carencro Bayou were not needed to provide additional fresh water to the south. Based on salinity data, Carencro Bayou is a reliable source of fresh water and the additional input was not necessary. In addition, only one plug on the south bank of Carencro Bayou will be replaced with a variable-crest structure.

#### Current Cost Estimate

The fully-funded cost estimate prepared by the CWPPRA Economics Work Group is \$34,626,728.

## **Checklist of Phase Two Requirements**

### **A. List of Project Goals and Strategies.**

The primary goals of this project are to 1) restore an important feature of structural framework between Lake Pagie and Bayou DeCade to prevent the coalescence of those two water bodies, 2) increase the delivery of fresh water, sediments, and nutrients into marshes north and west of Lost Lake, 3) reduce fetch in open water areas via construction of a terrace field. Marshes north, east, and west of Lost Lake serve an important function as an intermediate zone buffering fresh marshes to the north from the higher salinities to the south.

Specific goals of the project are: 1) Create approximately 468 acres (345 acres of marsh creation and 123 acres of marsh nourishment) of marsh with dredged material from Lost Lake; 2) increase the delivery of fresh water, sediments, and nutrients by replacing 4 fixed-crest weirs and one plug with variable-crest structures; 3) create approximately 18 acres of marsh via the construction of 30,000 feet of terraces.

### **B. A Statement that the Cost Sharing Agreement between the Lead Agency and the Local Sponsor has been executed for Phase I.**

A Cost Share Agreement between the U.S. Fish and Wildlife Service (Service) and the State of Louisiana was executed on April 22, 2010.

### **C. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase 2 approval.**

The Service received notification from the Louisiana Coastal Protection and Restoration Authority (CPRA) in their November 13, 2012, letter, that no significant landrights acquisition problems are anticipated and that landrights will be finalized in a reasonable period of time after Phase 2 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 June 19, 2012, and resulted in favorable reviews of the project design with minor modifications. The Service and the CPRA (via letter dated October 16, 2012) agreed on the project design and to proceed with project implementation.

### **E. Final Project Design Review (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporate elements from the Preliminary Design and the Preliminary**

**Design Review. Final Project Design Review (95%) must be successfully completed prior to seeking Technical Committee approval.**

A 95% design review meeting was held on October 31, 2012, and resulted in favorable reviews of the project design with minor modifications. The Service and the CPRA agreed (via letter dated November 9, 2012) on the project design and to proceed with a Phase 2 funding request.

**F. A draft of the Environmental Assessment, as required under the National Environmental Policy Act must be submitted thirty days before the request for Phase 2 approval.**

A draft EA was issued for public comment on November 28, 2012.

**G. A written summary of the findings of the Ecological Review, if completed.**

An Ecological Review was not prepared for this project.

**H. Application for and/or issuance of the public notices for permits. If a permit has not been received by the agency, a notice from the Corps of when the permit may be issued.**

The Service will apply for a Section 404 permit from the Corps of Engineers in early December 2012.

**I. A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.**

An HTRW assessment/contaminants screening is being conducted by the Service and should be completed during December 2012. Based on preliminary information and previous experience, it not anticipated that HTRW materials will be encountered during project implementation.

**J. Section 303(e) approval from the Corps.**

In their November 9, 2012, letter to the Service, the Corps of Engineers granted Section 303(e) approval.

**K. Overgrazing determination from the NRCS (if necessary).**

An overgrazing determination was issued on July 2, 2012 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 Economics Work Group, based on the revised project design and the specific Phase 2 funding request as outlined in below spreadsheet.**

# **Attachment 1**

Bayou Bonfouca Marsh Creation  
(PO-104)

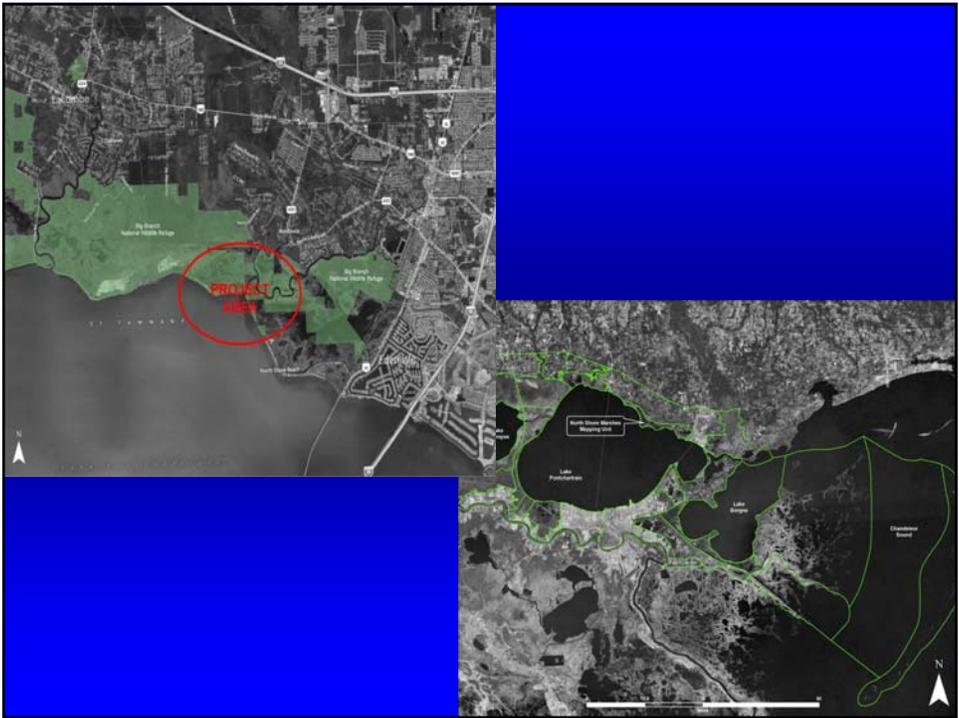
# Bayou Bonfouca Marsh Creation (PO-104) Phase II Request

## Technical Committee Meeting

December 12, 2012  
New Orleans, LA



The slide features a background image of a large, gnarled tree in a field. At the bottom, there are three logos: the U.S. Fish & Wildlife Service logo on the left, the Louisiana Department of Wildlife and Fisheries logo in the center, and the Coastal Protection and Restoration Authority of Louisiana (CPRA) logo on the right.



## Project Overview

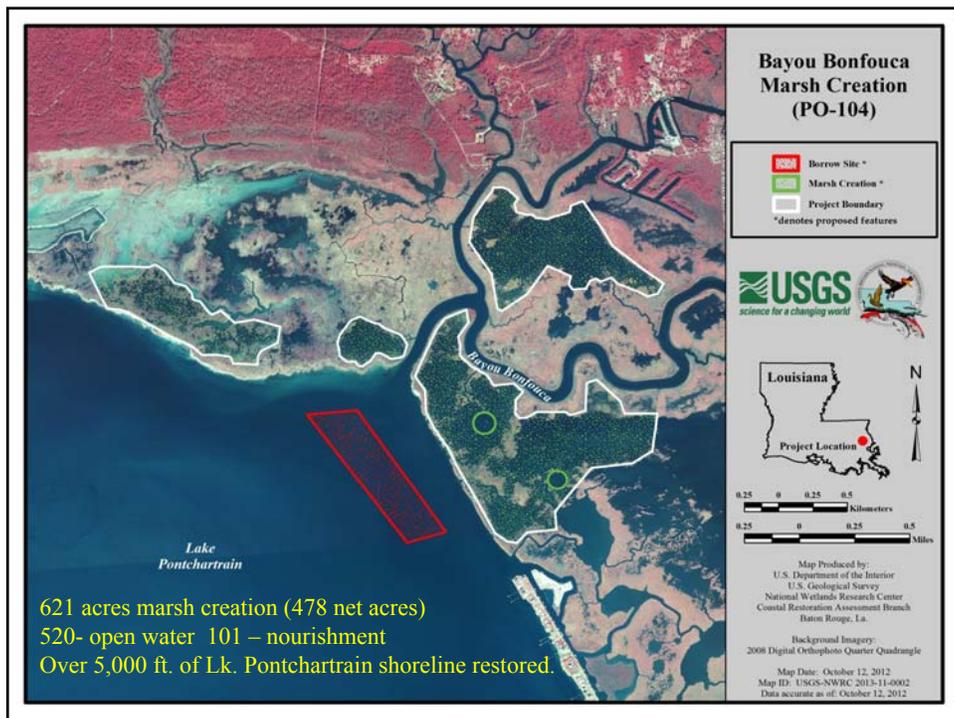
**Project Location:** Region 1, Lake Pontchartrain Basin, St. Tammany Parish, north shore of Lake Pontchartrain, east and west of Bayou Bonfouca

**Problem:** Fairly stable marsh which lost a considerable amount of emergent marsh due to Hurricane Katrina; northern lake shoreline has deteriorated considerably with multiple breaches and much of the interior marsh has converted to open water

**Goals:**

- 1) Create/nourish 621 acres of marsh in open water areas
- 2) Restore portions of the northern Lake Pontchartrain shoreline by rebuilding the shoreline rim





## **Project Benefits & Costs**

- **In total, the project will benefit 621 acres of marsh and open water habitat; 478 net acres of marsh at the end of the 20-year project life**
- **Wetland Value Assessment: 202 Net AAHUs**
- **The Fully Funded Cost is: \$28,023,984  
Phase 2 Request is: \$25,010,119**

## **Why Should We Fund This Project Now?**

- **The northern shoreline of Lake Pontchartrain continues to deteriorate and additional breaches are forming with each major storm exposing hundreds of acres of low salinity marshes north of the Lake Pontchartrain shoreline.**
- **The project will afford critical protection to the communities directly north and east of the project from storm surge and wave energies.**
- **Restoring the shoreline now is much more cost efficient than waiting until the breaches are large and deep.**
- **This project works in conjunction with the recently (PPL13) constructed Goose Point/Point Plate Marsh Creation Project (PO-33) to restore additional habitat in the area.**



**Bayou Bonfouca Marsh Creation  
(PO-104)**

The image features three logos at the bottom. From left to right: the U.S. Fish & Wildlife Service logo, which includes a blue bird and a fish; the U.S. Coast Guard Auxiliary logo, which features a seagull and a fish; and the CPRA logo, which shows a stylized landscape with a sun and water, with the text "CPRA Coastal Protection and Restoration Authority of Louisiana" below it.



## United States Department of the Interior



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

November 28, 2012

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 Bayou Bonfouca Marsh Creation Project (PO-104), the Lost Lake Marsh Creation and Hydrologic Restoration Project (TE-72), and the South Grand Chenier Marsh Creation Project (ME-20) for Phase 2 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 20<sup>th</sup> Priority Project List (PPL), the 19<sup>th</sup> PPL, and the 11<sup>th</sup> PPL, 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 ME-20 project has received a favorable National Environmental Policy Act (NEPA) review and we anticipate favorable NEPA reviews for the PO-104 and TE-72 projects 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  
Kirk Rhinehart, 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  
Paul Kaspar, EPA, Dallas, TX  
Andrew Beall, LA CPRA, Baton Rouge, LA

## **Bayou Bonfouca Marsh Creation Project (PO-104)**

### **Phase II Authorization Request Information**

**November 27, 2012**

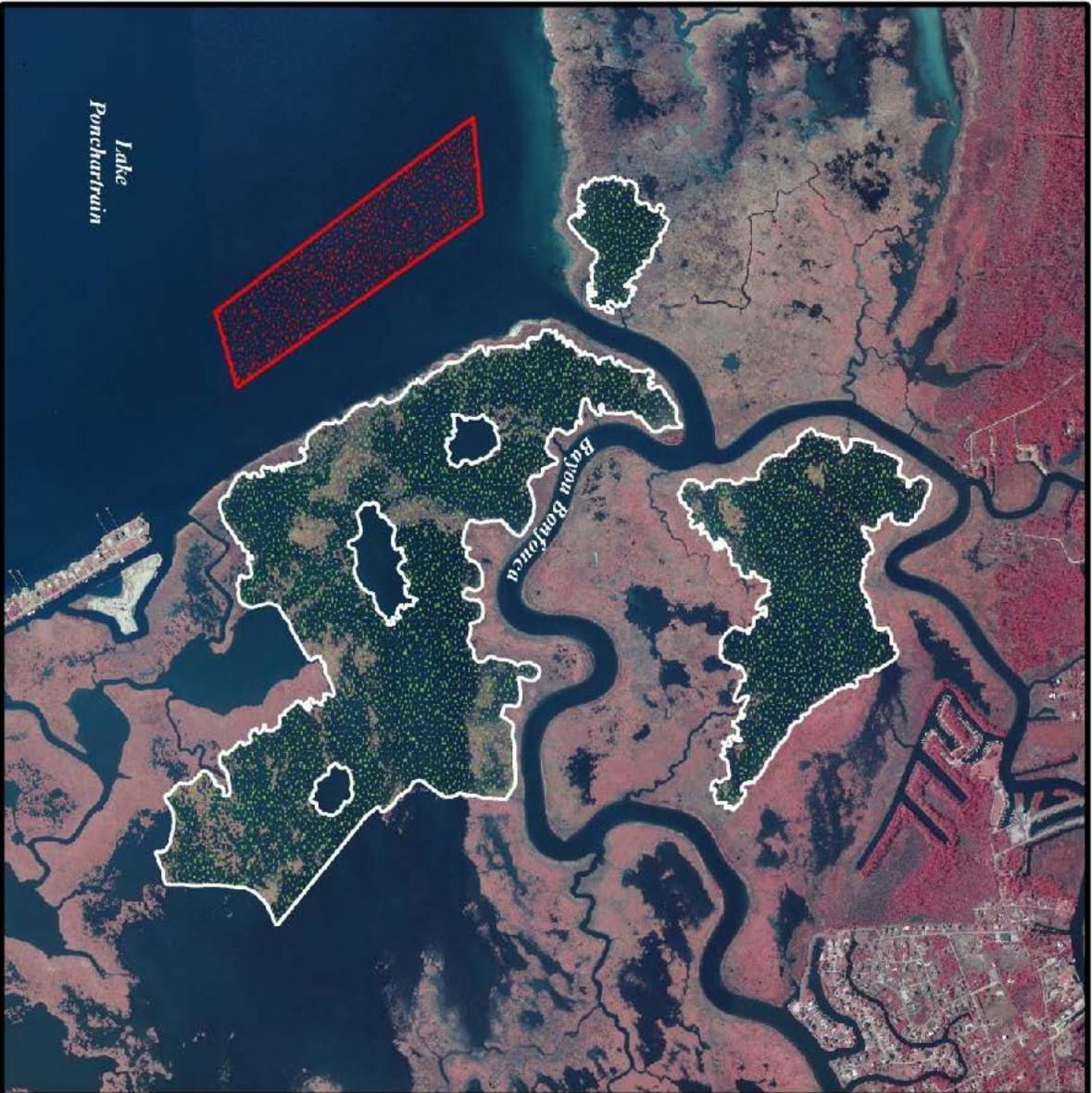
#### **Phase I Original Project Description**

The project was approved by the Task Force in January 19, 2011, as part of Priority Project List 20. The project's goals were to: 1) create 533 acres and nourish 42 acres of low salinity brackish marsh in open water areas adjacent to Bayou's Bonfouca and Liberty.

The original project features included filling approximately 533 acres of very low or broken marsh with material hydraulically dredged from Lake Pontchartrain. Target settled marsh elevation would be +1.4 foot NAVD 88. That will ultimately settle to surrounding healthy marsh elevation.

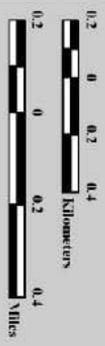
Temporary containment dikes would be constructed around each marsh creation/nourishment site to retain the dredged slurry. Containment dikes located adjacent to naturally occurring marshes or small interior ponds would be sufficiently gapped within 3 years of construction to allow for greater tidal and estuarine organism access. This project will work synergistically with the recently constructed Goose Point Marsh Creation project and a Tier I CIAP project requested by St. Tammany Parish to restore a portion of the Lake Pontchartrain shoreline.

The Environmental Work Group determined that the original project components would result in a net increase of 424 acres of brackish marsh and 195 Average Annual Habitat Units (AAHU), as a result of reduced erosion and marsh establishment over the 20-year project life.



## Bayou Bonfouca Marsh Creation (PO-104)

-  Borrow Site \*
  -  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 2011-11-0012  
 Data accurate as of: January 3, 2011

## **Description of the Revised (Current) Project Features**

The revised project features consist of filling approximately 520 acres of shallow open water and nourishing approximately 101 acres of very low or broken marsh with material hydraulically dredged from Lake Pontchartrain and placed in 4 sites. Target settled marsh elevation will be +1.0 foot NAVD 88, which corresponds to surrounding healthy marsh of +0.94 foot NAVD 88 and the nearby CRMS station's (CRMS3667) marsh height of +0.94 foot NAVD 88.

Temporary containment dikes would be constructed around each marsh creation/nourishment site to retain the dredged slurry. Containment dikes located adjacent to naturally occurring marshes or small interior ponds would be sufficiently gapped within 3 years of construction to allow for greater tidal and estuarine organism access. This project will work synergistically with the recently constructed Goose Point Marsh Creation project and a Tier I CIAP project requested by St. Tammany Parish that restores a portion of the Lake Pontchartrain shoreline.

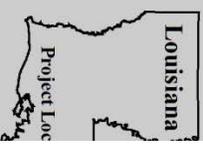
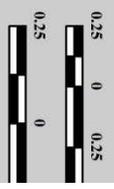


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 Map Date: Oc  
 Map ID: USGS-IN  
 Data accurate as of

**Checklist of Phase II Request Requirements  
Bayou Bonfouca Marsh Creation Project (PO-104)**

**A. List of Project Goals and Strategies**

Goals:

1. Create/nourish 621 acres of interior marsh
2. Restore/stabilize a portion of the northern Lake Pontchartrain Shoreline by filling in breaches in the shoreline with earthen fill.

Objectives/Strategies

1. Restore 621 acres of intermediate marsh that were lost due to Hurricane Katrina through hydraulically dredging material from Lake Pontchartrain. Those intermediate marshes will be created in 4 marsh creation cells via the placement of just over 4 million cubic yards of dredged material from borrow sites located in Lake Pontchartrain.

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

**Table 2. Comparison of Original and Revised Project Features.**

<b>Strategies/Features</b>	<b>Original Project</b>	<b>Current Revised Project</b>
A. Restore/stabilize a portion of the northern shoreline of Lake Pontchartrain	1.) Restore a portion of the northern shoreline of Lake Pontchartrain east of Bayou Bonfouca.	1.) Restore a portion of the northern shoreline of Lake Pontchartrain east and west of Bayou Bonfouca.
B. Marsh restoration via dredged material	2) Restore/nourish 575 acres of brackish marsh through the placement of hydraulically dredged material in 3 shallow open water areas adjacent to Bayou's Bonfouca and Liberty along the northern shoreline of Lake Pontchartrain.	2.) Restore/nourish 621 acres of brackish marsh through the placement of hydraulically dredged material in 4 shallow open water areas adjacent to Bayou's Bonfouca and Liberty along the northern shoreline of Lake Pontchartrain.
C. Create marsh ponds within one of the marsh creation sites	3) Create 4 shallow marsh ponds within marsh creation Site #1.	3) Create 2 shallow marsh ponds within marsh creation Site #1.

**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 document for the PO-104 project to the Corps along with NRCS's Overgrazing Determination for their 303(e) determination on October 10, 2012.

The State of Louisiana, through its Coastal Protection and Restoration Authority (CPRA) Lands Section provided a landrights report that consisted of ownership tract maps and lists of names, addresses and phone numbers of landowners within the project area. The State secured letter agreements from the affected landowners for surveying and geotechnical field work. An email from the State's project manager dated 11-15-2012, states that:

“...the process for landrights acquisition is progressing for the Bayou Bonfouca Marsh Creation (PO-104) project. A tax assessor's report identified landowners in the project area and a title report is being prepared to insure accuracy. CPRA is confident that landrights will be finalized in a reasonable amount of time after Phase II Approval.”

Landrights will be finalized prior to construction.

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

A 30 Percent Design Meeting was held in April 2012, and resulted in favorable reviews of the project design. Responses to all meeting and post-meeting comments were submitted. The Service and LA 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 31, 2012. 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 November 15, 2012. That review is expected to be completed in March 2013.

#### **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 were submitted in November 2012. 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**

Currently the USFWS does not have the ability to issue HTRW Assessment at this time. We are working with our Regional Office in hopes that we will attain a favorable HTRW Assessment.

#### **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 10, 2012.

#### **K. Overgrazing Determination from the NRCS**

The Service received an Overgrazing Determination from the NRCS on October 12, 2012.

#### **L. Revised Project Cost Estimate**

The revised total 100% budget for Phase II is \$25,456,174. This amount represents an increase of 15 percent (\$3,701,496) over the original Phase II cost estimate (\$21,308,623) (See attached Request of Phase II Cost Estimate Table).

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

A revised WVA of revised project features was submitted to and reviewed by the Environmental Working Group. The initial WVA completed in 2011 yielded 424 net acres with a project boundary of 575 acres. The Phase II revised project changed from the original project by: 1) creating an additional marsh creation cell (Marsh Creation Cell 4); 2) reduction of acreage within Marsh Creation Cell 1 and; 3) elimination of 2 marsh ponds within Marsh Creation Cell 1.

Table 2: Comparison of Original and Revised Wetland Value Assessments

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)
Candidate Project	424	195
Phase II Revised Project	478	202
Difference	+54	+7

#### **Phase II Request**

Based on the above information, the FWS and OCPR hereby request CWPPRA Task Force Phase II funding approval for the Bayou Bonfouca Marsh Creation Project (PO-104) in the 3-year incremental amount of **\$25,010,119**. That amount includes \$18,937,491 for construction; \$454,262 for supervision and inspection; \$4,734,373 for contingencies; \$377,926 for administration by the Federal sponsor and \$335,053 for State administration; \$31,466 for monitoring (3 years); \$133,935 for operations and maintenance (3 years); and \$5,613 for Corps project management (See attached Request for Phase II Approval Cost Estimate Table).

RD/DC 12-06-2011

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**ADDITIONAL AGENDA ITEMS**

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**REQUEST FOR PUBLIC COMMENTS**

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**PRIORITY PROJECT LIST 23 REGIONAL PLANNING TEAM MEETINGS**

**For Announcement:**

January 29, 2013	11:00 a.m.	Region IV Planning Team Meeting	Abbeville
January 30, 2013	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 31, 2013	8:00 a.m.	Region I Planning Team Meeting	New Orleans
January 31, 2013	11:30 a.m.	Region II Planning Team Meeting	New Orleans
February 19, 2013	10:30 a.m.	Coastwide Electronic Voting	<i>(no meeting, via email)</i>

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 12, 2012

**DATE OF UPCOMING CWPPRA PROGRAM MEETING**

**For Announcement:**

The Task Force meeting will be held January 24, 2013 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, 2012

**SCHEDULED DATES OF FUTURE PROGRAM MEETINGS**

**For Announcement:**

**2013**

January 24, 2013	9:30 a.m.	Task Force	New Orleans
January 29, 2013	11:00 a.m.	Region IV Planning Team Meeting	Abbeville
January 30, 2013	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 31, 2013	8:00 a.m.	Region I Planning Team Meeting	New Orleans
January 31, 2013	11:30 a.m.	Region II Planning Team Meeting	New Orleans
April 16, 2013	9:30 a.m.	Technical Committee	New Orleans
June 4, 2013	9:30 a.m.	Task Force	Lafayette
September 11, 2013	9:30 a.m.	Technical Committee	Baton Rouge
October 10, 2013	9:30 a.m.	Task Force	New Orleans
November 13, 2013	7:00 p.m.	PPL 23 Public Comment Meeting	Baton Rouge
December 12, 2013	9:30 a.m.	Technical Committee Meeting	Baton Rouge