ATTENDANCE RECORD

DATE	SPONSORING ORGANIZATION	LOCATION
December 13, 2011 9:30 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LA WILDLIFE AND FISHERIES Louisiana Room 2000 Quail Dr., Baton Rouge, LA

PURPOSE **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER

PLEASE PRINT- - - PLEASE PRINT- - - PLEASE PRINT

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
[illegible]	Manager-Conservation Dist	337-540-8804
Albertine M. Kimble	Plaquemines Parish Coastal Mgr	504.912.5973
Brad Miller	CPRA	225 342-4122
[illegible]	USACE	504-862-2504
Cecelia Linder	NOAA Fisheries	240 535-2334
Kenneth Bahlinger	CPRA	(225) 342-7362
Catherine Ricks	CPRA	225-342-0931
Stuart Brown	CPRA	342-4586
Bryan Kemp	Gulf CPR	225-665-2825
Juli Kemp	GulfCPR	225-665-2825
Tim Harper	CPRA	225-342-4635
Tye Fitzgerald	CPRA	225-252-5700
KAREN McCORMICK	EPA	214-665-8365
ANDREW Beall	CPRA	225-342-1952
Adrian Chavarria	EPA	214-665-3103
Aaron Hoff	EPA	214.665.7319
Trena Woolridge	CPRA	225-242-2779
Chris Llewellyn	EPA	214-665-7239
Devyani Kan	CPRA	225-342-4295
Chris Allen	CPRA	225-342-4736
Charles L. Eustis	Principal GeoEngrs Inc	225-293-2460
Summer Langlois	CPRA-CRS	225-342 1594

LMV FORM 583-R
JAN 88

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

ATTENDANCE RECORD

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December 13, 2011 9:30 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LA WILDLIFE AND FISHERIES Louisiana Room 2000 Quail Dr., Baton Rouge, LA

PURPOSE **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER

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NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Greg Steyer	Ecologist, USGS NWRC	225-578-7201
Mark Schleifstein	Times Picayune	504-826-3327
VIRGINIA FAY	Division Chief - NMFS Habitat Conservation	727-551-5739
Travis Byland	Restoration Engineering - CPRA	225-342-9419
Jason Landos	CPRA - Restoration Division	225-342-6748
Judge Edwards	Vermilion Corporation	337-893-0268
ALTON JAMES, JR	USDA-NRCS	
Sherrill Sagrera	Vermilion	337 652 0634
SUSAN Testroet-Bergeron	CWPPRA Outreach Coordinator	337-266-8623
Mohan Menon	Ecology & Environmental, Inc	225-281-1149
Kevin Roy	USFWS	337-291-3120
Allen Eksminger	St. Charles Herald	337-462-0762
Brian Vosburg	CPRA	225-342-4744
Randy Moertle	McIlhenny	985-856-3630
Whitney Thompson	CPE-Shaw	225-932-2568
Quin Kinler	NRCS	225-382-2047
Michael Knobloch	Special Projects, Port of Morgan City	985-686-9391
Maura Wood	NWF	225-205-2804
GEORGE PINAKI II	VENICE PORT COMPLEX	504-394-8870
ARCHIE CHAISSON III	LAFOURCHE PARISH	985-632-4444
Theryn Henkel	LPBF	812-219-4740
Rob Bourgeois	LDWF	225-765-0765

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ATTENDANCE RECORD

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PURPOSE **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER

PLEASE PRINT- - - PLEASE PRINT- - - PLEASE PRINT

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Darryl Clark	USFWS	337-291-3111
JASON KROLL	USDANRCS	225 389 0347
Sean Duffy	BIG RIVER COALITION	504-885-6762
LAUREN AVERILL	GEC	504-289-6136
Agahe Brass	Weston Solutions	225-335-3119
Scott Wilson	USGS	337 266 8644
PJ HAHN	PLAQUEMINES PARISH	504-297-5631
Bart Farmer	Providence	225-413-2213
Marnie Winter	Jefferson Parish	504-736-6440
Cynthia Duet	Nat'l Audubon Society	225 235 6269
Nicholas Mathieu	Terrebonne Parish	985-873-6889
Martin O. Miller III	Rellim Surface Mgt, LLC President	(504)616-5700
COLE RUCKSTUHL	MEDIASPECIALIST, CWPPRA	(337) 266-8542
BRIAN FORTSON	ENVIRONMENTAL RESOURCES MGR ST. TAMMANY PARISH	(985) 898-2552
MOLLY BOURGOYNE	CPRA	225-342-6207
Brian Newman	CK Associates	225-755-1000

LMV FORM 583-R
JAN 88

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

CWPPRA

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

AGENDA

December 13, 2011, 9:30 a.m.

Location:
LA Department of Wildlife and Fisheries
Louisiana Room
2000 Quail Dr.
Baton Rouge, LA

Documentation of Technical Committee meetings may be found at:
http://www.mvn.usace.army.mil/pd/cwppra_mission.htm

Tab Number	Agenda Item

1. **Meeting Initiation 9:30 a.m. to 9:40 a.m.**
    a. Introduction of Technical Committee or Alternates
    b. Opening remarks of Technical Committee Members
    c. Request for Agenda Changes/Additional Agenda Items/Adoption of Agenda

2. **Report: Status of Breaux Act Program Funds and Projects (Gay Browning, USACE) 9:40 a.m. to 9:50 a.m.** Ms. Gay Browning will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.

3. **Report: Request Approved by Task Force Fax Vote for a Scope Change for the PPL 15 -- Venice Ponds Marsh Creation and Crevasses Project (MR-15) (Karen McCormick, EPA) 9:50 a.m. to 9:55 a.m.** The Environmental Protection Agency (EPA) and the Louisiana Office of Coastal Protection and Restoration (CPRA) requested approval for a change in scope for the Venice Ponds Marsh Creation and Crevasses Project (MR-15). The project originally included 178 acres of marsh creation, divided into three different areas between Grand Pass and Tiger Pass and north of Pass Tante Phine, construction of four crevasses and enhancement of three crevasses, and hydrologic features. During Phase 1, it was determined that the Phase 0 proposal was not feasible and redesign was necessary. The project now consists of approximately 187 acres of marsh creation and 4 acres of marsh nourishment located between Grand Pass and Tiger Pass, the creation of one crevasse on Grand Pass, one crevasse on Tiger Pass, and the enhancement of two crevasses on Tiger Pass. At Phase 0, the total project cost was $7,175,319, and after completion of engineering and design during Phase 1, the total project cost is now $19,737,075. On October 21, 2011, the Technical Committee voted via email to recommend the proposal for Task Force fax vote. The Task Force voted via fax vote on November 7, 2011 to approve the requested scope change.

4. **Report: 2012 Report to Congress Outline (Karen McCormick, EPA) 9:55 a.m. to 10:05 a.m.** At the October 12, 2011 meeting, the Task Force approved utilizing the $110,000 placeholder to create the 2012 Report to Congress, which will be a concise (10-15 pages) document concentrating on projects and providing monitoring information. 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 a draft outline for the 2012 Report to Congress.

5. **Report: Coastwide Reference Monitoring System (CRMS) Report (Dona Weifenbach, CPRA) 10:05 a.m. to 10:20 a.m.** At the October 13, 2011 meeting, the Task Force directed that a CRMS report be presented at every meeting. Ms. Dona Weifenbach will provide a report on CRMS.

6. **Report/Discussion: Decision Structure for Projects Reaching 20-Year Life Span (Brad Inman, USACE) 10:20 a.m. to 10:30 a.m.** At the October 13, 2011 meeting, the Task Force directed the Technical Committee to develop a decision structure (a course of action for the CWPPRA Standard Operating Procedure) to be used as a tool for making logical decisions for projects reaching their 20-year life span. The Planning & Evaluation (P&E) Committee will report on their initial discussion about the decision structure.

7. **Report/Discussion: Standard Operating Procedure for Project Transfers Between Federal Agencies (Brad Inman, USACE) 10:30 a.m. to 10:40 a.m.** At the June 8, 2011 meeting, the Task Force directed the Technical Committee to develop a standard operating procedure to address the situation where a project is transferred from one Federal Sponsor to another. The Corps will provide a recommendation for the Technical Committee to consider.

8. **Report: Status of the PPL 8 – Sabine Refuge Marsh Creation Project (CS-28) (Scott Wandell, USACE) 10:40 a.m. to 10:50 a.m.** Mr. Scott Wandell will provide a status update on the PPL 8 – Sabine Refuge Marsh Creation Project (CS-28).

9. **Report: Status of the PPL 11 – River Reintroduction into Maurepas Swamp (PO-29) Gap Analysis (Karen McCormick, EPA) 10:50 a.m. to 11:00 a.m.** Ms. Karen McCormick will provide a status update on the PPL 11 – River Reintroduction into Maurepas Swamp (PO-29) Gap Analysis.

10. **Report: Status of the PPL 1 – West Bay Sediment Diversion Project (MR-03) (Nick Sims USACE) 11:00 a.m. to 11:10 a.m.** Mr. Nick Sims will provide a status update on the West Bay Work Plan and Closure Plan. Final results from the Engineering Research and Development Center (ERDC) study will be presented.

11. **Report/Decision: Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Redirection Project (TV-19) (Brad Inman, USACE) 11:10 a.m. to 11:20 a.m.** The U.S. Army Corps of Engineers (USACE) and CPRA received a report from Vermillion and Iberia Parishes providing project alternatives. The agency engineers reviewed the alternative analysis and will recommend a path forward. The Technical Committee will vote on a recommendation to the Task Force on a path forward for the Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Redirection Project (TV-19).

12. **Decision: Request for Scope Change of the PPL 14 -- South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41) (Britt Paul, NRCS) 11:20 a.m. to 11:30 a.m.** The Natural Resources Conservation Service (NRCS) and CPRA request a change in project scope for the South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41). The

change would remove the northern marsh creation site of BA-41 so that it can be built by USACE as a Risk Reduction project (Barataria Basin Landbridge). The Risk Reduction project was authorized by the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery of 2006 (P.L. 109-234, Title II, Chapter 3, Investigations), commonly known as the Fourth Supplemental. The balance of the BA-41 project, which consists of 11,750 feet of shoreline protection and the southern marsh creation (63 acres) and nourishment (14 acres) will now constitute the CWPPRA project at a fully funded cost of $21,639,575. Phase II approval has already been granted for these components and construction is ongoing. The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the requested scope change for the South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41).

13. **Decision: Request for a One-Year Construction Time Extension for the PPL 11 -- South Grand Chenier Hydrologic Restoration Project (ME-20) (Darryl Clark, FWS; Kirk Rhinehart, Andrew Beall, CPRA) 11:30 a.m. to 11:40 a.m.** The U.S. Fish and Wildlife Service (USFWS) and CPRA request a one-year time extension for the South Grand Chenier Hydrologic Restoration project (ME-20) for the completion of major landowner landrights. Project construction was approved by the Task Force in January 2010 at a fully funded cost of $29,046,128, for a benefit of 352 net acres. Most landrights approvals from the major landowner have been received and project sponsors are confident that the remaining major landowner landrights can be acquired in early 2012. The Technical Committee will consider and vote to make a recommendation to the Task Force to approve this time extension.

14. **Decision: Request for Approval to Initiate Deauthorization of the PPL 10 -- Benneys Bay Diversion Project (MR-13) (Scott Wandell, USACE) 11:40 a.m. to 11:45 a.m.** USACE and CPRA are requesting formal deauthorization procedures be initiated for the Benneys Bay Diversion Project (MR-13) based on the high cost of dredging associated with the project. The Technical Committee will vote on a recommendation to the Task Force to initiate deauthorization of the Benneys Bay Diversion Project (MR-13).

15. **Decision: Request for Approval for Final Deauthorization of the PPL 14 – Riverine Mining – Scofield Island Restoration Project (BA-40) (Rachel Sweeney, NMFS) 11:45 a.m. to 11:50 a.m.** NMFS and CPRA request approval for final deauthorization of the Riverine Mining – Scofield Island Restoration project (BA-40). The project was authorized for engineering and design on PPL 14. A Preliminary Design Review was held on March 16, 2010. Currently, CPRA intends to construct the Scofield Island project using State funds. The Technical Committee will vote on a recommendation to the Task Force to approve the final deauthorization of the Riverine Mining – Scofield Island Restoration project (BA-40).

16. **Report/Decision: 21st Priority Project List (Kevin Roy, USFWS) 11:50 a.m. to 12:20 p.m.** The Environmental Workgroup Chairman will present an overview of the ten PPL 21 candidate projects and three PPL 21 candidate demonstration projects. The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 21 projects, including demonstration projects, for Phase I Engineering and Design.

Region	Basin	PPL 21 Nominees
1	Pontchartrain	Fritchie Marsh Creation and Terracing
1	Pontchartrain	LaBranche Central Marsh Creation
2	Breton Sound	Lake Lery Shoreline Marsh Creation
2	Breton Sound	White Ditch Marsh Creation Sediment Delivery

2	Barataria	Northwest Turtle Bay Marsh Creation and Shore Protection
2	Barataria	Bayou Grande Cheniere Marsh Creation
2	Barataria	Bayou L'Ours Terracing
3	Teche-Vermilion	Southeast Marsh Island Marsh Creation and Nourishment
3	Teche-Vermilion	Cole's Bayou Marsh Creation and Restoration
4	Calcasieu-Sabine	Oyster Bayou Restoration

	PPL 21 Demonstration Project Nominees
DEMO	Automated Marsh Planting (formerly called "Alternative to Manual Planting")
DEMO	Deltalok
DEMO	Habitat Enhancements through Vegetation Plantings Using Gulf Saver Bags

17. **Report/Decision: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding (Brad Inman, USACE) 12:20 p.m. to 12:50 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 1 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	Apr 2013	$3,742,053	$62,347,496	$66,089,549	195	$338,921
EPA	MR-15	15	Venice Ponds Marsh Creation & Crevasses	Apr 2012	$1,074,522	$21,081,770	$22,156,292	318	$69,674
NRCS	PO-34	16	Alligator Bend Marsh Restoration & Shoreline Protection	Oct 2012	$1,660,985	$56,006,898	$57,667,883	192	$300,354
FWS	BS-16	17	South Lake Lery Shoreline and Marsh Restoration		$2,665,993	$36,747,067	$39,413,060	507	$77,738
NMFS	BA-68	18	Grand Liard Marsh & Ridge Restoration		$3,271,287	$39,308,329	$42,579,616	370	$115,080
NMFS	BA-76	19	Chenier Ronquille Barrier Island Restoration		$3,419,263	$33,308,188	$36,727,451	308	$119,245
NRCS	LA-39	20	Coastwide Planting		$156,945	$12,532,780	$12,689,725	779	$16,290
COE	TV-11b	9	Freshwater Bayou Bank Stabilization – Belle Isle Canal to Lock		$1,498,968	$34,135,100	$35,634,068	241	$424,215

18. **Discussion: CWPPRA Program Funding Capacity (Tom Holden, USACE) 12:50 p.m. to 1:05 p.m.** The Technical Committee will discuss the CWPPRA program's future funding capacity and implications for future project priority lists. This discussion will provide the P&E Committee guidance on developing action items by the next Technical Committee meeting.

19. Additional Agenda Items (Tom Holden, USACE) 1:05 p.m. to 1:10 p.m.

20. Request for Public Comments (Tom Holden, USACE) 1:10 p.m. to 1:15 p.m.

21. Announcement: Priority Project List 22 Regional Planning Team Meetings (Brad Inman, USACE) 1:15 p.m. to 1:20 p.m.

January 24, 2012	1:00 p.m.	Region IV Planning Team Meeting	Abbeville
January 25, 2012	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 26, 2012	9:00 a.m.	Region II Planning Team Meeting	New Orleans
January 26, 2012	1:00 p.m.	Region I Planning Team Meeting	New Orleans
February 15, 2012	10:00 a.m.	RPT Voting Meeting	Baton Rouge

22. Announcement: Date of Upcoming CWPPRA Program Meeting (Brad Inman, USACE) 1:20 p.m. to 1:25 p.m. The Task Force meeting will be held January 19, 2012 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).

23. Announcement: Scheduled Dates of Future Program Meetings (Brad Inman, USACE) 1:25 p.m. to 1:30 p.m.

2012

January 19, 2012	9:30 a.m.	Task Force	New Orleans
January 24, 2012	1:00 p.m.	Region IV Planning Team Meeting	Abbeville
January 25, 2012	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 26, 2012	9:00 a.m.	Region II Planning Team Meeting	New Orleans
January 26, 2012	1:00 p.m.	Region I Planning Team Meeting	New Orleans
February 15, 2012	10:00 a.m.	RPT Voting Meeting	Baton Rouge
April 19, 2012	9:30 a.m.	Technical Committee	New Orleans
June 28, 2012	9:30 a.m.	Task Force	Lafayette
September 12, 2012	9:30 a.m.	Technical Committee	Baton Rouge
October 11, 2012	9:30 a.m.	Task Force	New Orleans
November 14, 2012	7:00 p.m.	PPL 23 Public Comment Meeting	Abbeville
November 15, 2012	7:00 p.m.	PPL 23 Public Comment Meeting	New Orleans
December 12, 2012	9:30 a.m.	Technical Committee Meeting	Baton Rouge

24. Decision: Adjourn

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

MEETING INITIATION

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

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

STATUS OF BREAUX ACT PROGRAM FUNDS AND PROJECTS

For Report:

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

Murry, Allison MVN-Contractor

From: Browning, Gay B MVN
Sent: Monday, December 12, 2011 11:08 AM
To: Holden, Thomas A MVN; Inman, Brad L MVN; darryl_clark@fws.gov; Britt Paul (britt.paul@la.usda.gov); Kirk Rhinehart (kirk.rhinehart@la.gov); Karen McCormick (McCormick.Karen@epamail.epa.gov); richard.hartman@noaa.gov
Cc: Murry, Allison MVN-Contractor; kevin_roy@fws.gov; john.jurgensen@la.usda.gov; Chris Allen (chris.allen@la.gov); Kaspar.Paul@epamail.epa.gov; rachel.sweeney@noaa.gov
Subject: CWPPRA: DOI 9 Dec 2011 Funding Update - Good News and Bad News (UNCLASSIFIED)
Attachments: Funding Packet_Updated 9 Dec 2011 to Tech Committee.pdf

Classification: UNCLASSIFIED
Caveats: NONE

All,

I just received DOI's 9 December 2011 funding update this morning. As I try to stress to everyone, estimates fluctuate between each update. The December update is usually to the penny what we receive for the FY.

Bad news: The July 2011 update estimated that we would receive $84,785,539 for the total program (Planning & Construction). The Dec 2011 update has that we will receive $79,239,646.73; a $5.5M decrease.

Good news: Looks like future year estimates for FY13 through FY15 show decreases, but from Fy16 through FY20, these years show increases.

Bottom line: even though we will take a hit for FY12, the total through FY20 shows a $31,655,513 increase from the July 2011 forecast.

The FY12 decrease will have an impact on the amount of funds going into tomorrow's meeting for funding approvals. I will create the new funding summary spreadsheet today and try to get it to you. If you want a ballpark figure, decrease the $69.2M (remaining balance after 12 Oct 2011 Task Force approvals) by the $5.5M Fed + 15% for N/F funds.

Attached is a funding packet that let's you see all the yearly funding, past and future.

Gay

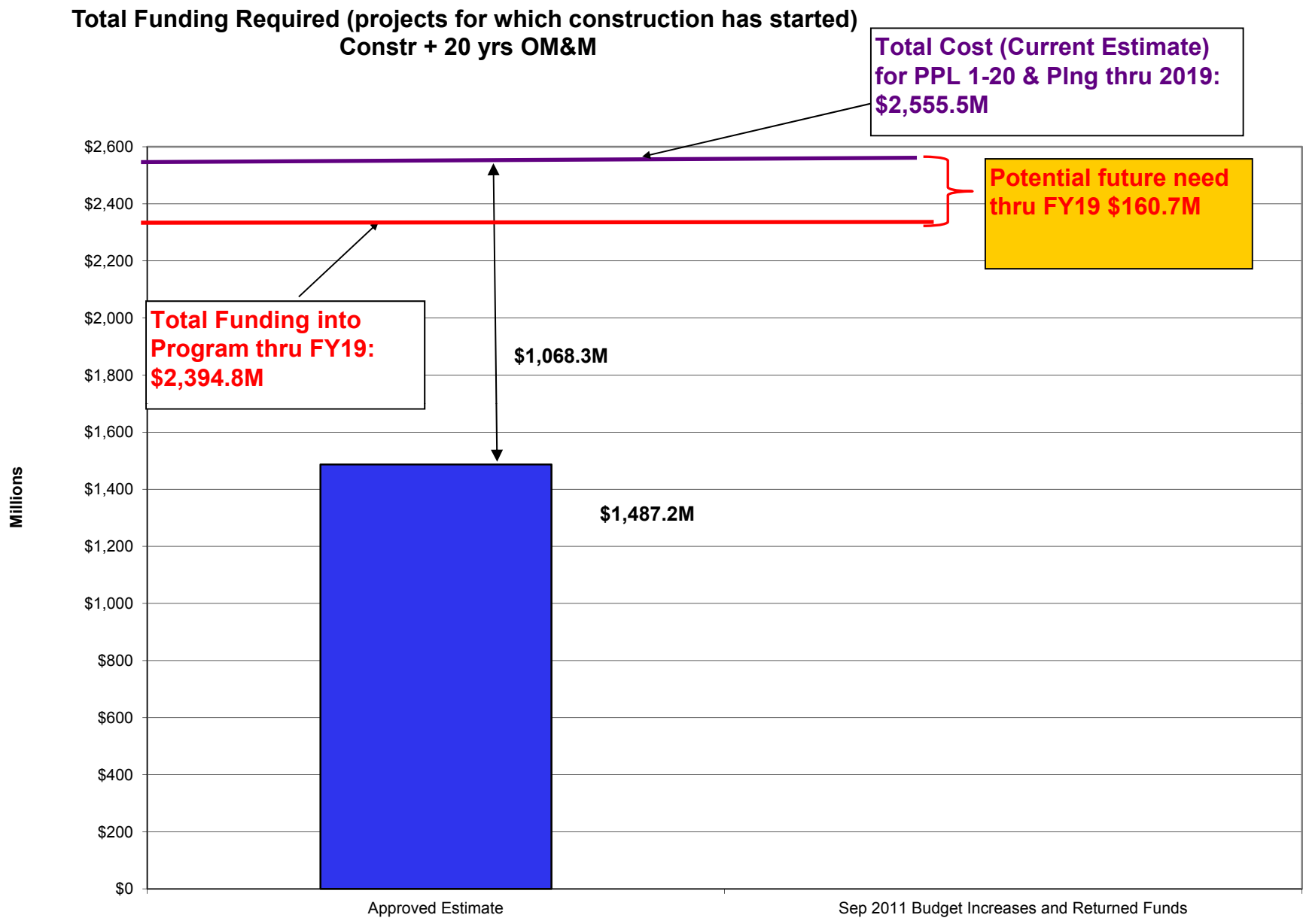
Classification: UNCLASSIFIED
Caveats: NONE

Construction Program Funding Requests for 13 December 2011 Tech Committee Recommendations

	ESTIMATE Request	TC?	FUNDING Request	TC?	Fed	Non-Fed
1. Funds Available:						
FY12 Estimated Funding [$74,239,646.73]			$0			
Current Estimate	$2,609,399,730					
Total	**$2,609,399,730**		**$62,720,329**		**$0**	**$0**
2. Potential Project Funds to be Returned to Construction Program:						
Deauthorized Projects	$4,900,000		$4,900,000		$4,165,000	$735,000
Projects Completed Construction	$20,000,000		$20,000,000		$17,000,000	$3,000,000
					$0	$0
Total	**$24,900,000**		**$24,900,000**		**$21,165,000**	**$3,735,000**
3. Funding Set Aside by Task Force at 19 Jan 2011 Meeting						
West Bay (MR-03) [PPL 1] [COE] [O&M]			$15,000,000		$12,750,000	$2,250,000
					$0	$0
Total	**$0**		**$15,000,000**		**$0**	**$0**
4. Agenda Item 3: Dec 2011 - Report on Task Force Approved FAX Votes						
Venice Ponds MC & Crevasses (MR-15), PPL 15, EPA [Scope Change & Current Estimate Increase]	$10,744,120	Y			$0	$0
					$0	$0
Total	**$10,744,120**		**$0**		**$0**	**$0**
5. Agenda Item 11: Dec 2011 - Initial Deauthorization Recommendation:						
Weeks Bay (TV-19) [COE]	($28,797,968)	Y			$0	$0
Total	**($28,797,968)**		**$0**		**$0**	**$0**
6. Agenda Item 13 & 14: Dec 2011 - Projects to Move to "Suspended" Category Recommendation:						
South Grand Chenier Hydrologic Restoration (ME-20) [USFWS]	($26,687,708)	Y	($24,921,491)	Y	($21,183,267)	($3,738,224)
Benneys Bay Diversion (MR-13) [COE]	($29,220,777)	Y			$0	$0
Freshwater Bayou-Belle Isle Canal (TV-11b), PPL 9, COE (6)	($34,135,101)	Y			$0	$0
Total	**($90,043,586)**		**($24,921,491)**		**($21,183,267)**	**($3,738,224)**
7. Agenda Item 15: Dec 2011 - Final Deauthorization Rcommendation:						
Riverine Mining-Scofield Island Restoration (BA-40), PPL 14, NMFS	($41,322,749)	Y			$0	$0
					$0	$0
Total	**($41,322,749)**		**$0**		**$0**	**$0**

Construction Program Funding Requests for 13 December 2011 Tech Committee Recommendations

	ESTIMATE Request	TC?	FUNDING Request	TC?	Fed	Non-Fed
8. Agenda Item 16: Dec 2011 - PPL 21 Project Recommendation:						
Fritchie Marsh Creation and Terracing	**$4,080,095**		$4,080,095		$3,468,081	$612,014
LaBranche Central Marsh Creation	$3,885,298	Y	$3,885,298	Y	$3,302,503	$582,795
Lake Lery Shoreline Marsh Creation	$3,277,356		$3,277,356		$2,949,620	$327,736
White Ditch Marsh Creation Sediment Delivery	$2,807,119		$2,807,119		$2,386,051	$421,068
Bayou Grande Cheniere Marsh Creation	$3,572,873		$3,572,873		$3,036,942	$535,931
Northwest Turtle Bay Marsh Creation	$2,354,788	Y	$2,354,788	Y	$2,001,570	$353,218
Bayou L'Ours Terracing	$903,617		$903,617		$768,074	$135,543
Southeast Marsh Island MC & Nourishment	$2,273,834		$2,273,834		$1,932,759	$341,075
Cole's Bayou Marsh Creation and Restoration	$3,136,805	Y	$3,136,805	Y	$2,666,284	$470,521
Oyster Bayou Restoration	$3,165,322	Y	$3,165,322	Y	$2,690,524	$474,798
Total	**$29,457,107**		**$29,457,107**		**$3,468,081**	**$612,014**
9. Agenda Item 17: Dec 2011 - Phase II Incr 1: January 2012 Phase II Incr 1 Requests (Construction + 3 years OM&M)						
Ship Shoal: Whiskey West Flank Rest (TE-47), PPL 11, EPA (7)	$62,347,496		$62,186,707		$52,858,701	$9,328,006
Freshwater Bayou-Belle Isle Canal (TV-11b), PPL 9, COE (6)	$34,135,100		$30,668,583		$26,068,296	$4,600,287
Venice Ponds Marsh Creation & Crevasses (MR-15), PPL 15, EPA (1)	$21,081,770		$19,930,492		$16,940,918	$2,989,574
Alligator Bend Marsh Restoration & SP (PO-34), PPL 16, NRCS (1)	$56,006,898		$41,761,744		$35,497,482	$6,264,262
South Lake Lery (BS-16), PPL 17, USFWS (1)	$36,747,067		$36,518,340		$31,040,589	$5,477,751
Grand Liard Marsh and Ridge Restoration (BA-68), PPL 18, NMFS (1)	$39,308,329	Y	$38,823,875	**Y**	$33,000,294	$5,823,581
Chenier Ronquille Barrier Island Restoration (BA-76), PPL 19, NMFS (1)	$33,308,188		$32,504,233		$27,628,598	$4,875,635
Coastwide Planting (LA-39), PPL 20, NRCS (1)	$12,532,780	Y	$4,433,718	**Y**	$3,768,660	$665,058
Total	**$295,467,628**		**$266,827,692**		**$0**	**$266,827,692**
(1) Funds Available for 12 December 2011 Recommendations	**$2,609,399,730**		**$62,720,329**			
(2) Potential Funds to be Returned to Construction Program	**$24,900,000**		**$24,900,000**			
(3) Set Aside Funds	**$0**		**$15,000,000**			
13 Dec 2011 Requests for Recommendation			**$271,363,308**			
(5, 6, 7, 8, 9) 13 Dec 2011 Approved Recommendations	**($95,780,981)**		**$30,878,315**			
Available Funds Surplus/(Shortage)	**$2,488,718,749**		**$31,842,014**			


Total Funding Required (projects for which construction has started)
Constr + 20 yrs OM&M
Total Cost (Current Estimate) for PPL 1-20 & Plng thru 2019: $2,555.5M
Potential future need thru FY19 $160.7M
Total Funding into Program thru FY19: $2,394.8M
$1,068.3M
$1,487.2M
Millions
$2,600
$2,400
$2,200
$2,000
$1,800
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
Approved Estimate
Sep 2011 Budget Increases and Returned Funds

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

REQUEST APPROVED BY TASK FORCE FAX VOTE FOR A SCOPE CHAGNE FOR THE PPL 15 – VENICE PONDS MARSH CREATION AND CREVASSES PROJECT (MR-15)

For Report:

The Environmental Protection Agency (EPA) and the Louisiana Office of Coastal Protection and Restoration (CPRA) requested approval for a change in scope for the Venice Ponds Marsh Creation and Crevasses Project (MR-15). The project originally included 178 acres of marsh creation, divided into three different areas between Grand Pass and Tiger Pass and north of Pass Tante Phine, construction of four crevasses and enhancement of three crevasses, and hydrologic features. During Phase 1, it was determined that the Phase 0 proposal was not feasible and redesign was necessary. The project now consists of approximately 187 acres of marsh creation and 4 acres of marsh nourishment located between Grand Pass and Tiger Pass, the creation of one crevasse on Grand Pass, one crevasse on Tiger Pass, and the enhancement of two crevasses on Tiger Pass. At Phase 0, the total project cost was $7,175,319, and after completion of engineering and design during Phase 1, the total project cost is now $19,737,075. On October 21, 2011, the Technical Committee voted via email to recommend the proposal for Task Force fax vote. The Task Force voted via fax vote on November 7, 2011 to approve the requested scope change.

Murry, Allison MVN-Contractor

From: Murry, Allison MVN-Contractor
Sent: Monday, November 07, 2011 7:30 AM
To: bill honker; Chris Doley; Fleming, Edward R COL MVN; Garret Graves; Kevin Norton (kevin.norton@la.usda.gov); Darryl Clark
Cc: britt.paul@la.usda.gov; Holden, Thomas A MVN; Karen McCormick (McCormick.Karen@epamail.epa.gov); kirk.rhinehart@la.gov; Richard.Hartman@noaa.gov; Wingate, Mark R MVN; Inman, Brad L MVN; Chris Allen (OCPR); Jurgensen, John - NRCS, Alexandria, LA; Rachel Sweeney; Kevin_Roy@fws.gov; Kaspar.Paul@epamail.epa.gov; Llewellyn.Chris@epamail.epa.gov; Browning, Gay B MVN; Cecelia.Linder; stuart.brown@la.gov; Enger Kinchen
Subject: RE: CWPPRA Task Force FAX VOTE: Venice Ponds (MR-15) Request for Scope Change
Attachments: Venice Ponds Fax Votes.pdf

Task Force,

We have a fax vote concurrence to approve EPA and CPRA's request for a change in scope for the Venice Ponds Marsh Creation and Crevasses project (MR-15).

Thank you all for rapid responses.

-----Original Message-----
From: Murry, Allison MVN-Contractor
Sent: Wednesday, November 02, 2011 7:18 AM
To: 'bill honker'; 'Chris Doley'; 'Fleming, Edward R COL MVN'; 'Garret Graves'; 'Kevin Norton (kevin.norton@la.usda.gov)'; 'Darryl Clark'
Cc: 'britt.paul@la.usda.gov'; 'Holden, Thomas A MVN'; 'Karen McCormick (McCormick.Karen@epamail.epa.gov)'; 'kirk.rhinehart@la.gov'; 'Richard.Hartman@noaa.gov'; Wingate, Mark R MVN; Inman, Brad L MVN; 'Chris Allen (OCPR)'; 'Jurgensen, John - NRCS, Alexandria, LA'; 'Rachel Sweeney'; 'Kevin_Roy@fws.gov'; 'Kaspar.Paul@epamail.epa.gov'; 'Llewellyn.Chris@epamail.epa.gov'; Browning, Gay B MVN; 'Cecelia.Linder'; 'stuart.brown@la.gov'; 'Enger Kinchen'
Subject: CWPPRA Task Force FAX VOTE: Venice Ponds (MR-15) Request for Scope Change

Task Force Members,

Please see the attached memorandum from the Chairman of the Task Force requesting a fax vote to approve EPA and CPRA's request for a change in scope for the Venice Ponds Marsh Creation and Crevasses project (MR-15).

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) or Brad Inman (Brad.L.Inman@usace.army.mil) by Friday, November 4, 2011. Please note this is an extension of the date provided in the attached memo.

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

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM USDA-NRCS	W. Britt Paul, Acting STC	(318) 473-7751	(318) 473-7626
TO USACE	Brad Inman CWPPRA Program Manager	(504) 862-2124	(504) 862-2572

Classification	Precedence	No. Pages *Including Header*	Date/time	Releaser's Signature

REMARKS:

The Motion:

The CWPPRA Task Force approves the Technical Committee's recommendation to approve the EPA and CPRA requested scope change for the Venice Ponds Marsh Creation and Crevasses project (MR-15).

Please check one of the following:

[✓] I approve the motion as stated above.

[ ] I do NOT approve the motion as stated above.

Signed,

W. Britt Paul / Acting STC

11/2/2011

Encl 2

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM ouisiana Office of the Govern	Garret Graves	225-342-7669	225-342-1991
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 the EPA and CPRA requested scope change for the Venice Ponds Marsh Creation and Crevasses project (MR-15).

Please check one of the following:

[x] I approve the motion as stated above.

[ ] I do NOT approve the motion as stated above.

Signed,

Task Force Member Name

11-4-11
Date

Encl 2

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM Dept. of Interior, USFWS	Darryl Clark (alternate)	337-291-3111	291-3139
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 the EPA and CPRA requested scope change for the Venice Ponds Marsh Creation and Crevasses project (MR-15).

Please check one of the following:

[XXXX] I approve the motion as stated above.

[ ] I do NOT approve the motion as stated above.

Signed,

Darryl Clark (Alternate)

Nov. 3, 2011
Date

Encl 2

FACSIMILE TRANSMITTAL HEADER SHEET

Agency	NAME/OFFICE SYMBOL	OFFICE TELEPHONE NO.	OFFICE FAX NO.
FROM NOAA Fisheries	Christopher 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 the EPA and CPRA requested scope change for the Venice Ponds Marsh Creation and Crevasses project (MR-15).

Please check one of the following:

[X] I approve the motion as stated above.

[ ] I do NOT approve the motion as stated above.

Signed,

Christopher Doley

Nov. 2, 2011
Date

Encl 2

Murry, Allison MVN-Contractor

From: Murry, Allison MVN-Contractor
Sent: Wednesday, November 02, 2011 7:18 AM
To: 'bill honker'; 'Chris Doley'; 'Fleming, Edward R COL MVN'; 'Garret Graves'; 'Kevin Norton (kevin.norton@la.usda.gov)'; 'Darryl Clark'
Cc: 'britt.paul@la.usda.gov'; 'Holden, Thomas A MVN'; 'Karen McCormick (McCormick.Karen@epamail.epa.gov)'; 'kirk.rhinehart@la.gov'; 'Richard.Hartman@noaa.gov'; Wingate, Mark R MVN; Inman, Brad L MVN; 'Chris Allen (OCPR)'; 'Jurgensen, John - NRCS, Alexandria, LA'; 'Rachel Sweeney'; 'Kevin_Roy@fws.gov'; 'Kaspar.Paul@epamail.epa.gov'; 'Llewellyn.Chris@epamail.epa.gov'; Browning, Gay B MVN; 'Cecelia.Linder'; 'stuart.brown@la.gov'; 'Enger Kinchen'
Subject: CWPPRA Task Force FAX VOTE: Venice Ponds (MR-15) Request for Scope Change
Attachments: Signed MEMO Venice Ponds Scope Change Request.pdf; ENCL 2_Venice Ponds Scope Change Request.xlsx; Encl 1_Report, factsheet, and map.pdf

Task Force Members,

Please see the attached memorandum from the Chairman of the Task Force requesting a fax vote to approve EPA and CPRA's request for a change in scope for the Venice Ponds Marsh Creation and Crevasses project (MR-15).

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) or Brad Inman (Brad.L.Inman@usace.army.mil) by Friday, November 4, 2011. Please note this is an extension of the date provided in the attached memo.

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

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

REPLY TO
ATTENTION OF

CEMVN-PM-B

1 NOV 2011

MEMORANDUM FOR Louisiana Coastal Wetlands Conservation and Restoration Task Force

SUBJECT: Recommendation to approve the Scope Change Request for the PPL 15 – Venice Ponds Marsh Creation and Crevasses (MR-15)

1. The US Environmental Protection Agency (EPA) and the Louisiana Office of Coastal Protection and Restoration (CPRA) are requesting approval for a change in scope for the Venice Ponds Marsh Creation and Crevasses project (MR-15). The project originally included 178 acres of marsh creation, divided into three different areas between Grand Pass and Tiger Pass and north of Pass Tante Phine, construction of four crevasses and enhancement of three crevasses, and hydrologic features. During Phase 1, it was determined that the Phase 0 proposal was not feasible and redesign was necessary. The project now consists of approximately 187 acres of marsh creation and 4 acres of marsh nourishment located between Grand Pass and Tiger Pass, the creation of one crevasse on Grand Pass, one crevasse on Tiger Pass, and the enhancement of two crevasses on Tiger Pass. At Phase 0, the total project cost was $7,175,319, and after completion of engineering and design during Phase 1, the total project cost is now $19,737,075. The fact sheet detailing reasons for the increase in costs and the change in benefits is enclosed (encl 1). EPA and CPRA intend to request Phase 2 funds at the December 2011 Technical Committee meeting. Given the short time remaining to execute Phase 2 requests, a fax vote is requested. On 21 October 2011, via an email, the Technical Committee recommended the proposal for Task Force fax vote.

2. On behalf of EPA, I request a fax vote from the Task Force regarding the recommended approval of the scope change request. Please consider the following motion:

- The CWPPRA Task Force approves the Technical Committee's recommendation to approve the EPA and CPRA requested change in scope for the Venice Ponds Marsh Creation and Crevasses project (MR-15).

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 by COB Wednesday, 2 November 2011.

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

2 Encls
as

EDWARD R. FLEMING
Colonel, EN
Commanding

CF via email (w/encls):
Mr. Garret Graves, LA Office of the Governor
Mr. William Honker, Environmental Protection Agency
Mr. Jim Boggs, 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. Thomas Holden, US Army Corps of Engineers

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

October 21, 2011

Colonel Edward R. Fleming
Chairman
Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Task Force
U.S. Army Corps of Engineers
New Orleans District
P.O. Box 70267
New Orleans, LA 70160

Re: Scope Change Request for Venice Ponds Marsh Creation and Crevasses (MR-15) project

Dear Colonel Fleming:

The U.S. Environmental Protection Agency (EPA) and the Louisiana Office of Coastal Protection and Restoration (CPRA) are requesting the initiation of CWPPRA Task Force fax vote procedures to approve a scope change for the MR-15 project. Section 6.e.(3) of the CWPPRA Standard Operating Procedures (SOP) manual (Revision 18; July 9, 2010), states that if "a project undergoes a major change in scope or a change in scope resulting in a variance of 25 percent from the original approved design, in either: (1) total project cost, (2) the number of acres benefited, or (3) the ratio of total project cost to the number of acres benefited, the Federal or Local Sponsor will submit a report the Technical Committee explaining the reason(s) for the scope change, the impact on cost and benefits, and a statement from the Local Sponsor endorsing the Change. The Technical Committee will review the report and recommend to the Task Force approval or rejection of the change."

We wish to inform the Task Force that after completing the selection of our preferred design alternative, the resulting project costs and changes in benefits trigger the requirement for a scope change request. The request for a change in scope has already been made to the Technical Committee. The Technical Committee recommends to approve the change in scope request for the MR-15 project. We have including a brief narrative describing the changes in benefits and costs as well as maps depicting the MR-15 project at Phase 0 and Phase 1.

As originally envisioned and accepted at Phase 0, MR-15 included 178 acres of marsh creation, divided into three different areas between Grand Pass and Tiger Pass and north of Pass Tante Phine, construction of four (4) crevasses and enhancement of three (3) crevasses, and hydrologic features (culverts and gapping existing spoil bank). During Phase 1, it was determined the Phase 0 proposal was not feasible and a redesign was necessary due to land owner concerns and pipeline issues.

Encl 1

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The project now consists of approximately 187 acres of marsh creation and 4 acres of marsh nourishment located between Grand Pass and Tiger Pass, the creation of one (1) crevasse on Grand Pass and one (1) crevasse on Tiger Pass, and the enhancement of two (2) crevasses on Tiger Pass. We feel these changes alone result in a project scope change but there was also a change greater than 25% in project costs and benefits that resulted from the change in the location and number of project features. The engineering cost estimate is being reviewed by the Engineering Workgroup and has been submitted to the Economic Workgroup to be fully funded. The Wetland Value Assessment has also been completed and submitted to the Environmental Workgroup. Comments received from the Environmental Workgroup have been incorporated into the current WVA. The changes in benefits and costs have been cataloged in the table below.

	Total Cost	Fully Funded Cost	Net AAHU's	Net Acres	Total Cost Effectiveness ($ / AAHU)	Percent Total Cost Increase
Phase 0	$7,175,319	$8,992,955	152.16	511	$ 47,156	--------
Phase 1	$19,737,075	*In progress*	78.02	319	$ 252,975	175%

When MR-15 was accepted during the PPL15 process in 2005, the total project estimated cost was $7,175,319. MR-15 is nearing Phase 1 completion and the total project cost is now estimated to be $19,737,075. This is an increase of approximately 175% from the Phase 0 estimate. The Phase 0 fully funded cost estimate was $8,992,955. The Phase 1 total project cost has been submitted to the Economic Workgroup and a Fully Funded Cost Estimate is pending. The increase in total project cost is a result of increases in Phase 2 costs. In general, the costs associated with restoration projects have risen dramatically since 2005, when MR-15 received Phase 0 approval. For instance, dredge mobilization and demobilization increased approximately 466%, unit costs for dredging increased approximately 96% per yd^3 and excavation for the crevasses increased approximately 97% per yd^3. At Phase 0, the project was designed to include unconfined marsh creation but at Phase 1 it was decided to construct earthen containment around the marsh creation cells. Cypress tree plantings and borrow area debris removal have also been added to the estimate. The latter was added based on previous project experience with debris in the borrow area at the EPA sponsored Bayou Dupont Sediment Delivery project (BA-39). These items are detailed in the table below. The Phase 0 costs associated with the placement of culverts, creation of gaps in Pass Tante Phine, timber access restrictions and 2 crevasse construction and 1 crevasse enhancement excavations were removed from the Phase 1 cost estimate.

	Dredge Mob / Demob	Dredge Volume (yd^3)	Total Dredging Costs	Borrow Area Debris Removal	Avg. Cost per Crevasse	Earthen Containment	Cypress Tree Plantings
Phase 0	$520,000	1,507,660	$3,390,965	-------	$43,248	----------	---------
Phase 1	$2,941,000	2,025,804	$9,116,118	$500,000	$58,688	$893,620	$117,884

An assessment of project benefits was performed during Phase 0 in 2005 with a Wetland Value Assessment (WVA) model and determined that there would be 511 net acres of benefits and 152.16 AAHU's. A revised WVA has been run on the Phase 1 proposed project. It is estimated that the currently proposed MR-15 project will create 319 net acres and 78.02 AAHU's. One of the reasons for the sharp decline in AAHU's is due to a decrease in the total project area. At Phase 0, the total project area evaluated included 1,944 acres. The total project area evaluated at Phase 1 only included 917 acres.

It is EPA's and CPRA's intent to request Phase 2 funds at the December 2011 Technical Committee meeting. All required items for Phase 2 approval are nearing completion. Based upon the information presented above, we wish to state that the resultant cost increase was necessary given updated costs associated with performing restoration in Louisiana and updated design information. We feel that the Phase 1 proposed MR-15 project is the most suitable and best performing alternative following discussions with land owners and pipeline companies.

The EPA and CPRA respectfully request that the Task Force review the recommendation of the CWPPRA Technical Committee and approve this request by a fax vote, given the short time remaining to execute Phase 2 requests. The information presented in this report is the most current available and the costs are not anticipated to change, pending approval from the Engineering Workgroup. Thank you for your consideration of our scope change request. Should you require additional information, please do not hesitate to contact me at (214) 665-7239.

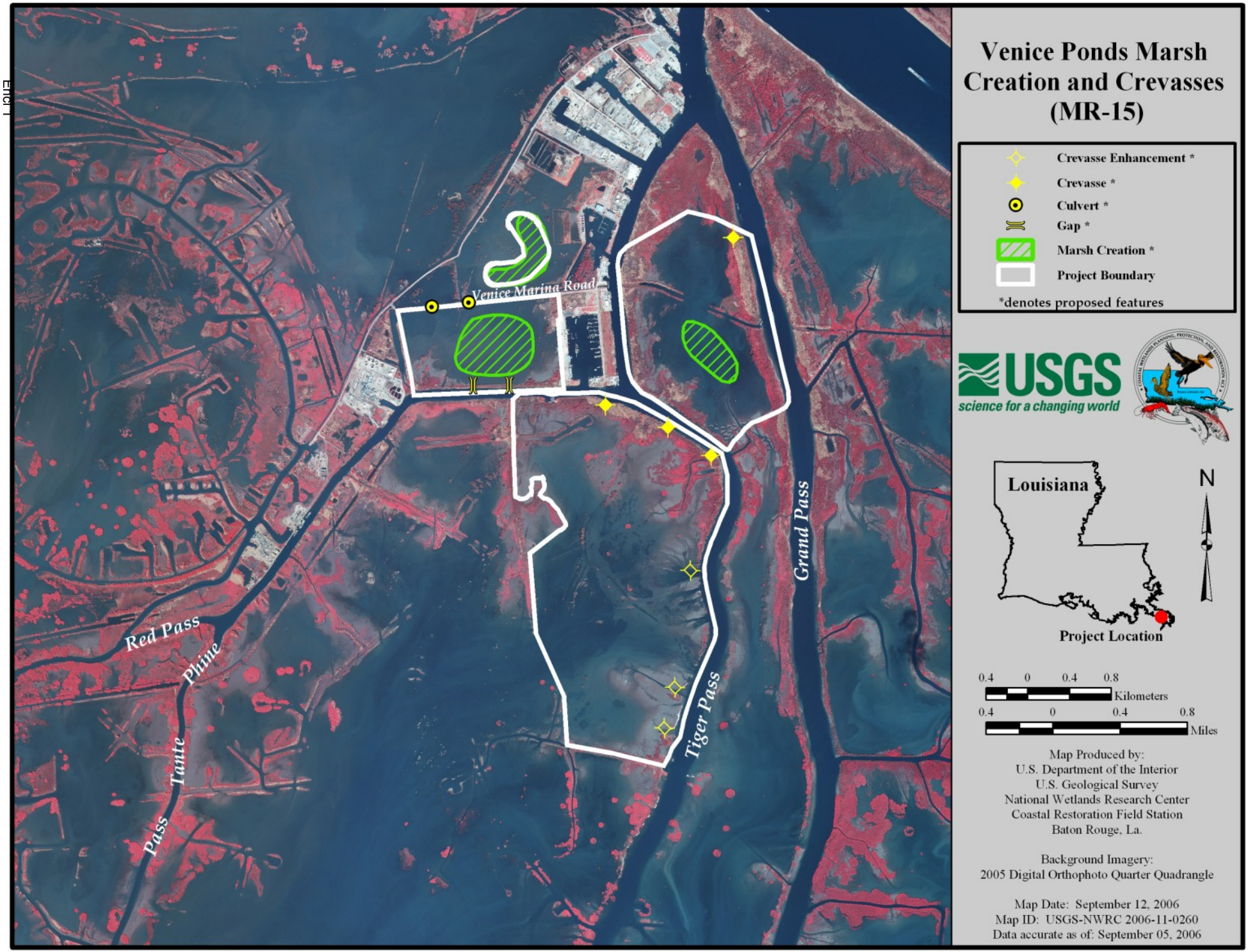
Sincerely,

Chris Llewellyn, Project Manager
U.S. Environmental Protection Agency

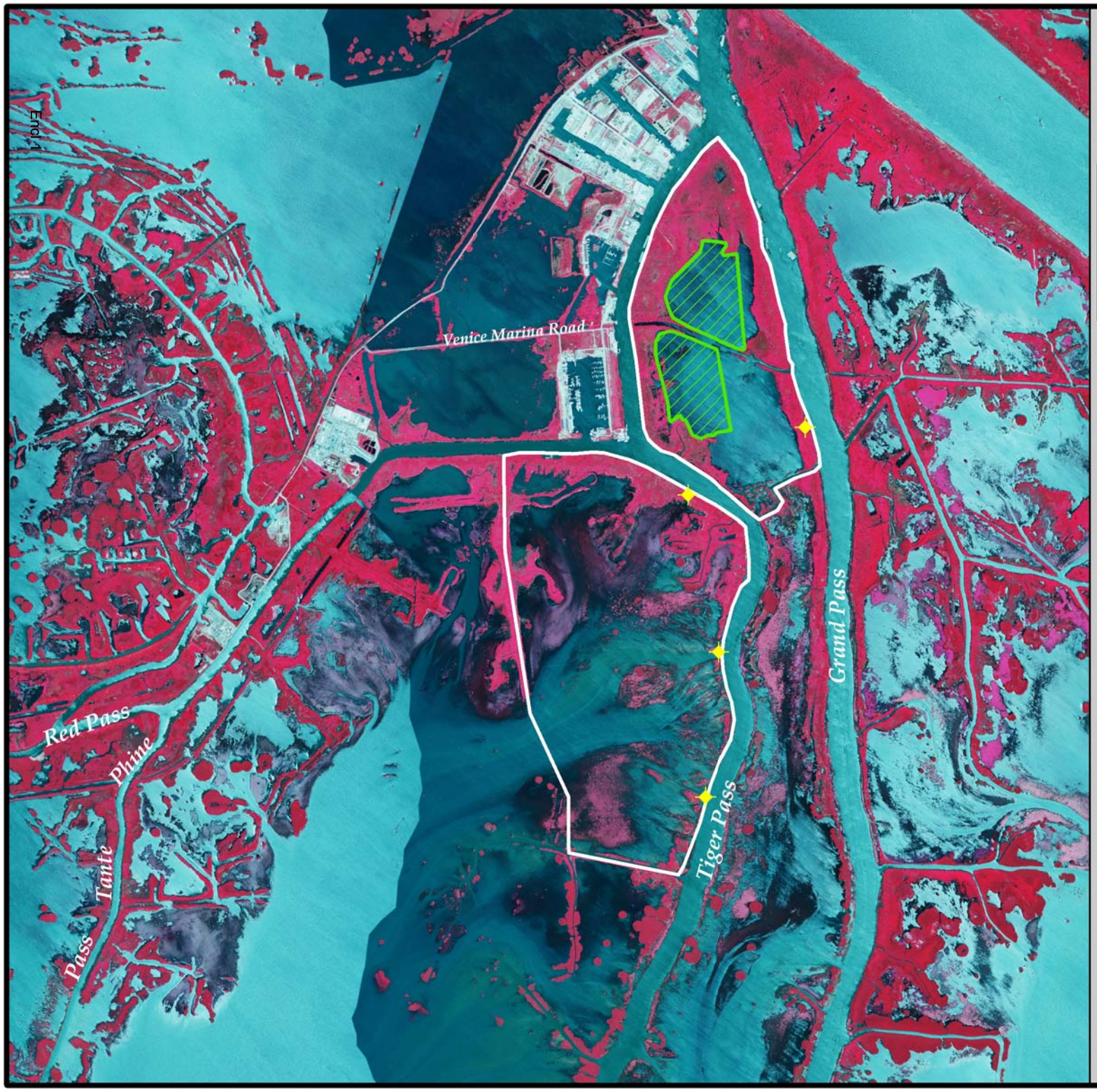
Attachments:
Phase 0 Project Feature Map
Phase 1 Project Feature Map
Local Sponsor (CPRA) Endorsement

Cc: Members of the CWPPRA Task Force
Members of the CWPPRA Technical Committee
Members of the CWPPRA Planning and Evaluation Subcommittee
Brad Miller, Project Manager, CPRA

Encl 1


Venice Ponds Marsh Creation and Crevasses (MR-15)
Crevasse Enhancement *
Crevasse *
Culvert *
Gap *
Marsh Creation *
Project Boundary
*denotes proposed features
USGS
science for a changing world
Louisiana
Project Location
N
0.4 0 0.4 0.8
Kilometers
0.4 0 0.4 0.8
Miles
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
Venice Marina Road
Red Pass
Pass Tante Phine
Tiger Pass
Grand Pass

Venice Ponds Marsh Creation and Crevasses (MR-15)



Crevasse *

Marsh Creation *

Project Boundary

*denotes proposed features

USGS
science for a changing world

Project Location

N

0.4 0 0.4 0.8 Kilometers

0.4 0 0.4 0.8 Miles

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

Background Imagery:
2010 NAIP Photography

Map Date: September 23, 2011
Map ID: USGS-NWRC 2011-11-0066
Data accurate as of: September 22, 2011

Coastal Protection and
Restoration Authority of Louisiana

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

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.lacpra.org/
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Encl 1

Venice Ponds Marsh Creation and Crevasses (MR-15)

October 20, 2011

Approved Date: 2006 **Project Area:** 917 acres

Approved Funds: $1.07 M for Engineering and Design

Net Benefit After 20 Years: 319 acres

Status: Engineering and Design

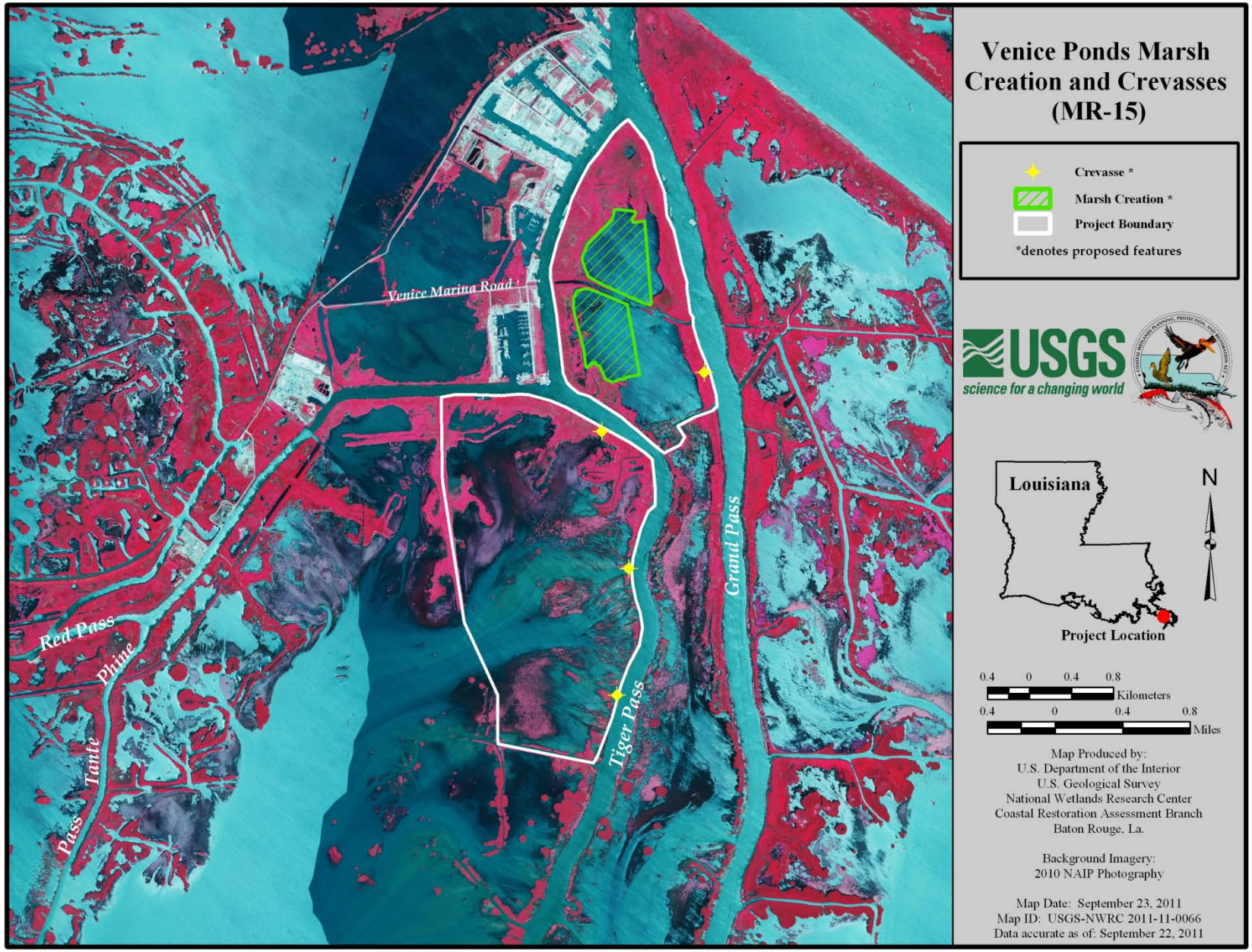
Project Type: Marsh Creation and Crevasse Creation

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.


Venice Ponds Marsh Creation and Crevasses (MR-15)
Crevasse *
Marsh Creation *
Project Boundary
*denotes proposed features
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Louisiana
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Background Imagery:
2010 NAIP Photography
Map Date: September 23, 2011
Map ID: USGS-NWRC 2011-11-0066
Data accurate as of: September 22, 2011
Venice Marina Road
Red Pass
Pass Tante Phine
Tiger Pass
Grand Pass

Encl 1

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

2012 REPORT TO CONGRESS

For Report:

At the October 12, 2011 meeting, the Task Force approved utilizing the $110,000 placeholder to create the 2012 Report to Congress, which will be a concise (10-15 pages) document concentrating on projects and providing monitoring information. 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 a draft outline for the 2012 Report to Congress.

Murry, Allison MVN-Contractor

From: McCormick.Karen@epamail.epa.gov
Sent: Monday, December 12, 2011 9:51 AM
To: britt.paul@la.usda.gov; Darryl Clark; Holden, Thomas A MVN; kirk.rhinehart@la.gov; Cecelia Linder; Chris Allen; Inman, Brad L MVN; John Jurgensen; Kevin Roy; Kaspar.Paul@epamail.epa.gov; Rachel Sweeney; Browning, Gay B MVN; Hennington, Susan M MVN; Wandell, Scott F MVN; Sims, Nick MVN; stuart.brown@la.gov
Cc: Murry, Allison MVN-Contractor; Kaspar.Paul@epamail.epa.gov; Inman, Brad L MVN
Subject: Draft Outline for 2012 Report to Congress for your review

Dear CWPPRA Technical Committee and P&E - please find below a "Draft Table of Contents" for the upcoming 2012 CWPPRA Report to Congress which will be discussed briefing at tomorrow's Tech Meeting. I wish to thank USGS, Donna and Greg and especially Darryl Clark for assisting me. If you should have any questions, please do not hesitate to contact me. Thanks

Hope that the 2012 Report to Congress will be @ 15 pages or less…….than is my goal!

Contents

1. Executive Summary

Will include Gulf Task Force and Louisiana State Master Plan information.....how it ties to CWPPRA

2. Introduction

3. The CWPPRA Program Overview

4. Project Types

5. CWPPRA Projects Approved Since the 2009 Report to Congress - CWPPRA Map of Regions….brief descriptions of each project in regions

6. CWPPRA Effectiveness and Progress

Coast Wide reference monitoring System (CRMS) or site specific monitoring. Note: Each Agency can recommend (1-2) projects per agency

7. Conclusion (Wrap Up)

8. References

Links Available via webpage (www.lacoast.gov <http://www.lacoast.gov>) will all approved CWPPRA Projects

Rough Draft by March……..Final by June.

Karen McCormick, Chief
Marine and Coastal Section
EPA R6 (WQ-EC)
1445 Ross Avenue
Dallas, TX 75202-2733

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

COASTWIDE REFERENCE MONITORING SYSTEM (CRMS) REPORT

For Report:

At the October 13, 2011 meeting, the Task Force directed that a CRMS report be presented at every meeting. Ms. Dona Weifenbach will provide a report on CRMS.

Excerpt from the 12 October 2011 CWPPRA Task Force Meeting Minutes:

Mr. Doley expressed support for CRMS, but with the reservation that the data coming from CRMS be used as envisioned. He suggested that a CRMS discussion be added to the Task Force meeting agenda on a regular basis to be more heavily utilized for planning, prioritization, and evaluating CWPPRA Program success. Mr. Steyer agreed that CRMS data should be used in planning, engineering, design, operation and maintenance (O&M), and monitoring, but that it is not currently being utilized by all agencies. He suggested more participation in the CRMS dataset trainings.

Mr. Doley asked to see how CRMS data is working with project specific monitoring to evaluate the bigger picture perspective.

Colonel Fleming directed that a CRMS report be on every Task Force meeting agenda starting with the January meeting. He stressed that he does not want a report of details, but rather an overall report regarding trends, objectives, and the success of the Program. Mr. Doley and Mr. Honker agreed.

Colonel Fleming opened the floor to comments from the public.

CWPPRA Monitoring Funding Request

USGS National Wetlands Research Center
Dona Weifenbach,
And
Gregory D. Steyer
Coastal Protection and Restoration Authority
December 13, 2011

CRMS Implementation Status

On October 12, the CWPPRA Task Force approved a budget increase of $54,477,419 through FY 18-19, and a funding request of $22,580,623 through FY 13-14 for CRMS. The Task Force requested an update on the progress made to evaluate projects and the CWPPRA program, at each meeting.

Milestones:

- Monitoring Work Group met Nov. 4 in Lafayette
  - Aerial photography product comparison and applicability to CWPPRA project/program analysis
  - CRMS Report Card, Basin and Coastwide scales
- Training on SONRIS and CRMS data access: Held Dec 6 – 7 in Baton Rouge
- Annual CRMS roadshow with CWPPRA agencies to demonstrate recent additions to website (CRMS site and project report cards) and refine indices and a coastal report card are scheduled
  - EPA Jan 10
  - NMFS Jan 17
  - NRCS Jan 18
  - USFWS Jan 31
  - COE TBD

CRMS Implementation Status

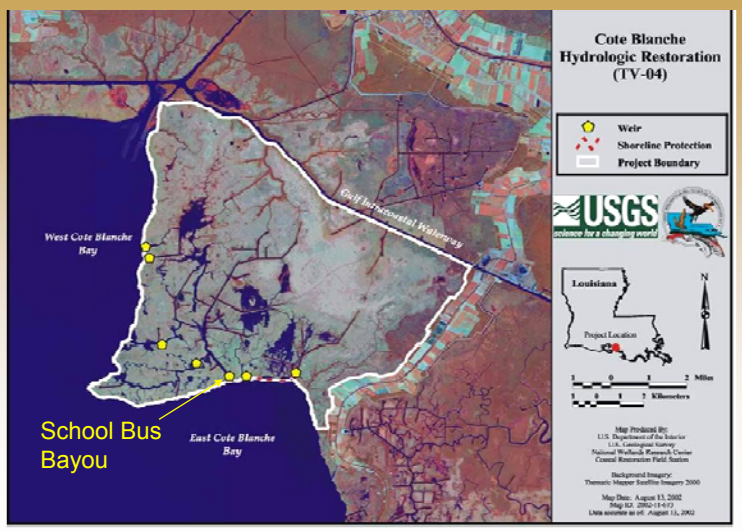
Reporting:

- 20 Project-Specific OM&M reports in 2011
  - NRCS: TV-04, ME-04, CS-11b, BS-03a, BA-03c and BA-26 (combined), BA-20, BA-23, TE-28
  - USFWS: ME-19, TE-41, TV-13a
  - COE: TV-14, CS-28, PO-17, PO-22
  - NMFS: TV-18, BA-37, TE-22, TE-26
  - EPA: TE-40
- 14 reports scheduled in 2012
  - NRCS: BA-04c, PO-06, CS-30, TE-48
  - USFWS: BS-11, ME-16, CS-32
  - COE: MR-06, CS-22
  - NMFS: CS-27, TV-15, TE-25 and TE-30 (combined)
  - EPA: BA-39
- 2012 Report to Congress in progress, project specific results and CRMS draft provided to EPA
- Basin and Coastwide Report Cards in draft formats pending completion of land/water analysis and comments from federal sponsors. Posted to website in early March.

TV-04 Historical Information

- The Cote Blanche Hydrologic Restoration project area consists of 31,637 acres of freshwater marsh in the Teche/Vermilion Basin in St. Mary Parish. The project boundaries include the GIWW to the north, Hwy 317 to the east, East Cote Blanche Bay to the south, and West Cote Blanche Bay to the west.
- Land loss in the area has been caused by several factors including subsidence, shoreline erosion, and rapid tidal fluctuations.
- Project goals were to create a lower energy environment by reducing the larger openings that penetrate fragile interior marsh and act as direct conduits for increased tidal influences and provide shoreline protection in the most critical areas.
- Initial construction was completed in 1999. Maintenance events were completed in 2001, 2005, & 2007 with another one to be completed in early 2012.

TV-04 Project Area

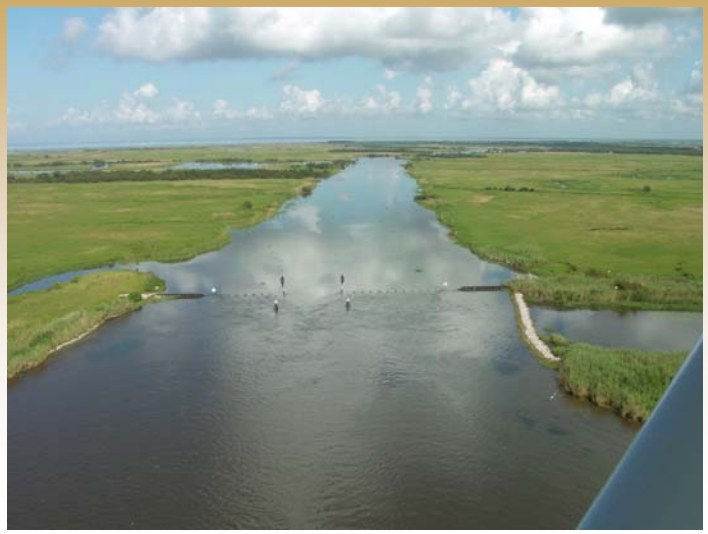


Initial Construction Details

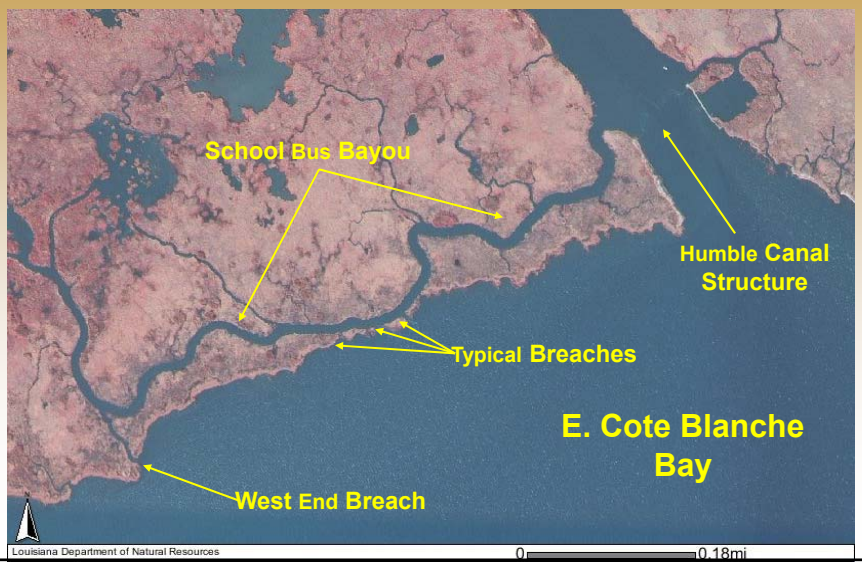
- The project was completed in January 1999 at a constructed cost of $3,875,018.
- The project consisted of low level weirs at Mud Bayou, Humble-F Canal, Bayou Long, Bayou Carlin, Humble Canal, Jackson Bayou and British American Canal. Approximately 3,500 L.F. of PVC shoreline protection was constructed along the southern boundary.
- Problems with the design of the PVC wall became apparent early on during construction. A change order was issued correcting the issues.

PVC Wall for Shoreline Protection

Aerial view of Humble Canal structure



Coastal View of School Bus Bayou



TV-04 Monitoring

Monitoring Elements

Water-level Variability:

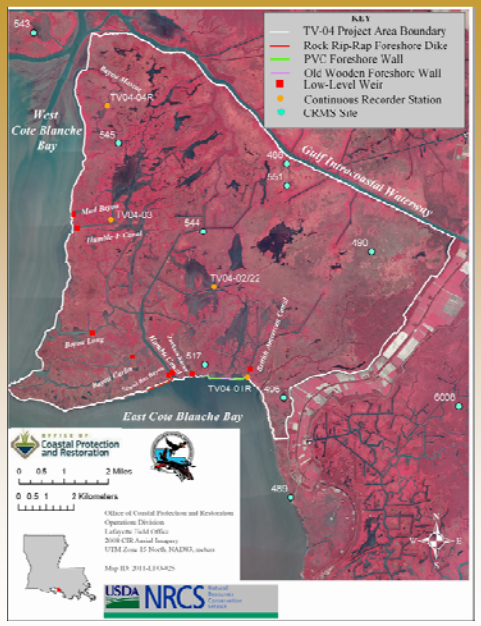
Calculate water-level ranges to quantify changes in water-level variability.

Shoreline Erosion:

Map shorelines over time to compare change rates over time among shoreline reaches with and without protection.

Marsh Loss:

Calculate land loss rates from Land to Water analyses since project construction to compare to historical and regional rates.



TV-04 Monitoring Water-Level Variability

Goal is to quantify the change in the water-level fluctuations within the project area.

Different Sonde Sets

TV-04 Sondes (1997 - 2004)

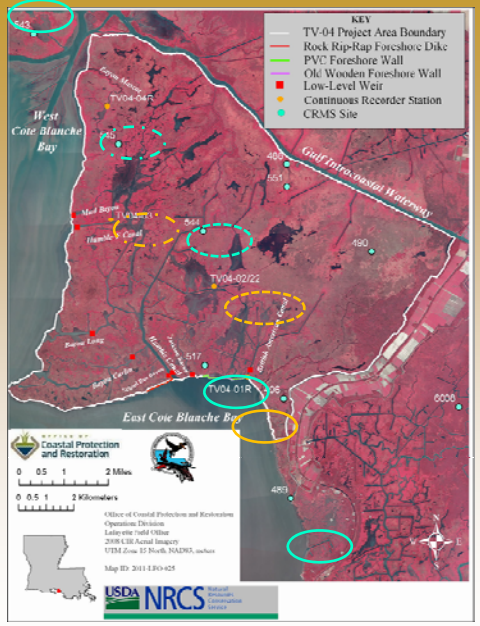
- 2 Project Sondes
- 1 Reference Sonde

CRMS Sondes (2006 - 2010)

- 2 Project Sondes
- Collective of Reference Sondes (3)

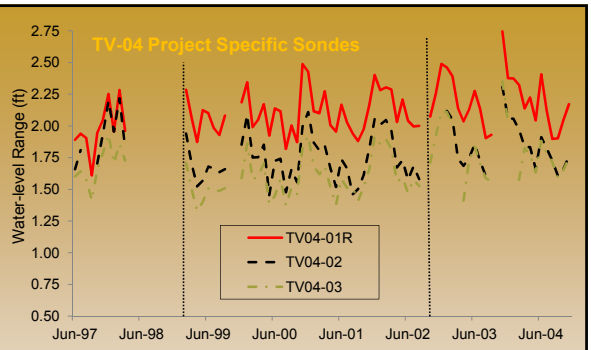
Calculated a daily water-level range for each sonde:

WL Range = Max WL – Min WL



TV-04 Monitoring Water-Level Variability

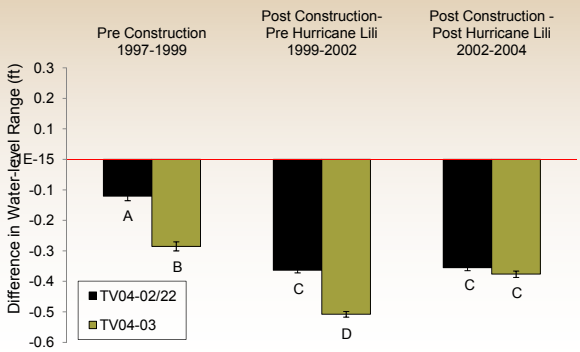
Ranges were closer together during pre construction than post construction.



The difference in water-level ranges between project and reference sondes on a daily basis:

$$Diff = Proj_i - Ref$$

Relative to the reference, water-level range decreased at the project sondes after project construction.

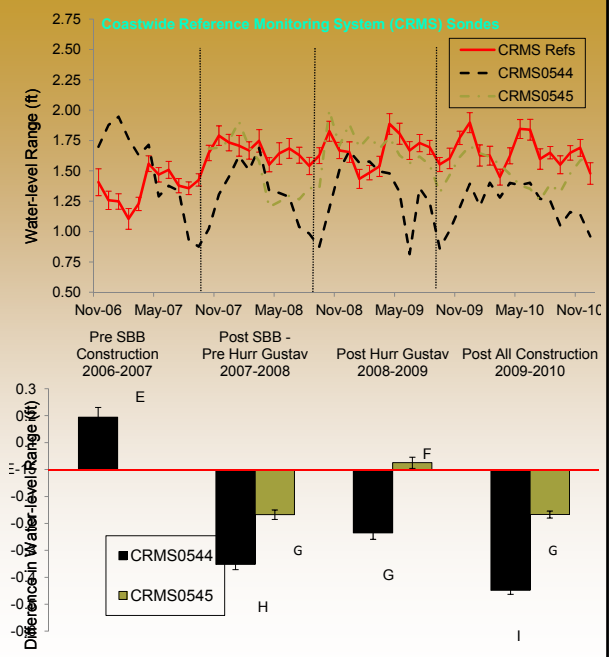


TV-04 Water-Level Variability

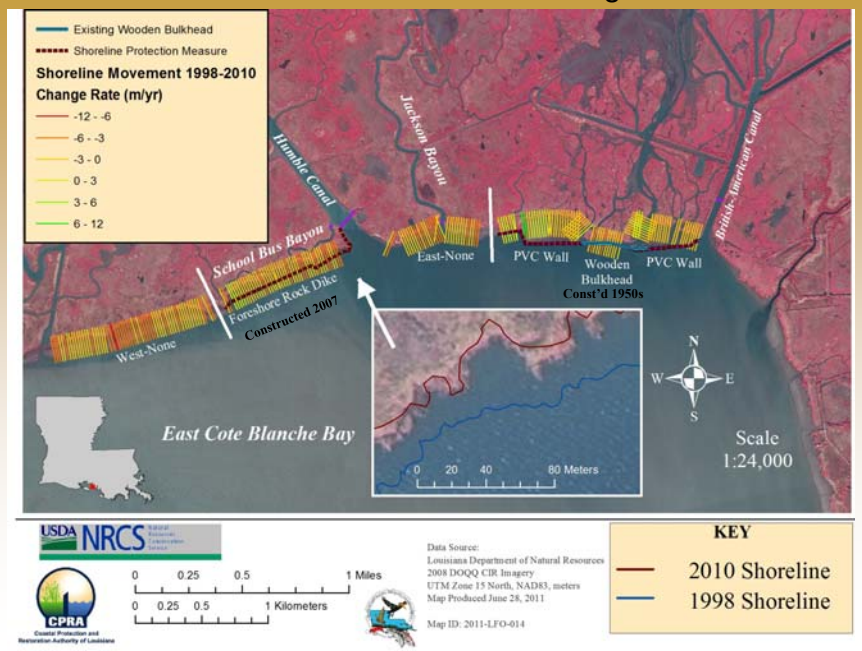
The reference sondes surround the project area and are not in the bays.

Water-level variability decreased substantially at Humble Canal sonde (CRMS0544) after the SBB structures were installed.

The hydrology at Humble B Canal and Mud Bayou sonde (CRMS0545) is also connected to a smaller bayou that reaches WCBB.

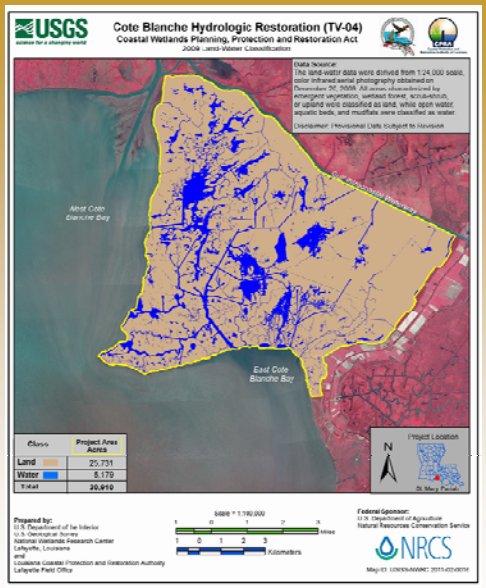


TV-04 Shoreline Change



TV-04 Land Loss

Date	% Land
TV-04 Project Area	
January 1997	84.4
December 2002	82.0
December 2009	83.2



Final Scheduled Aerial Photography - 2015

TV-04 Conclusions – Project Effectiveness

Cote Blanche Hydrologic Restoration (TV-04) project has been achieving the specific goals of decreasing water-level variability, shoreline erosion, and the rate of marsh loss.

- The low-level weirs are decreasing water-level variability within the TV-04 area when surrounding conditions are within the design specification such as being free from hurricanes and water not bypassing around the weirs.
- Shoreline protection measures have significantly reduced erosion relative to unprotected shorelines.
- The rate of marsh loss has decreased by two-thirds in the TV-04 project area since construction relative to the historical (1957-1990) land-loss rate.

Reducing the cross section of large pipeline canal and bayou openings decreases daily hydraulic energy which reduces daily export of vulnerable organic soils and allows the marsh interior to recuperate following storm-surge disturbances.

TV-04 Conclusions

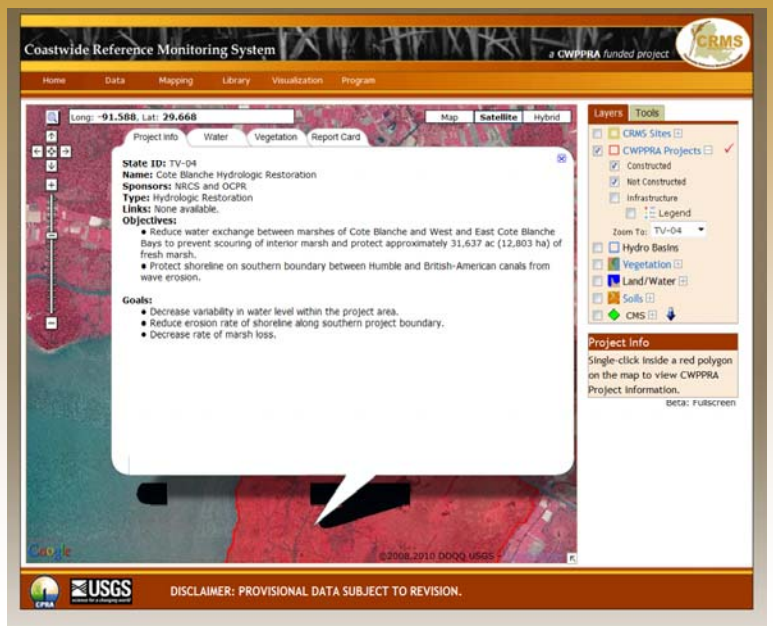
Recommendations

- Increase O&M cost estimates during project planning to account for dynamic conditions and projects with multiple structures.
- Land-to-Water Change Analyses would be beneficial for displaying where land gains and losses are occurring within the project area.

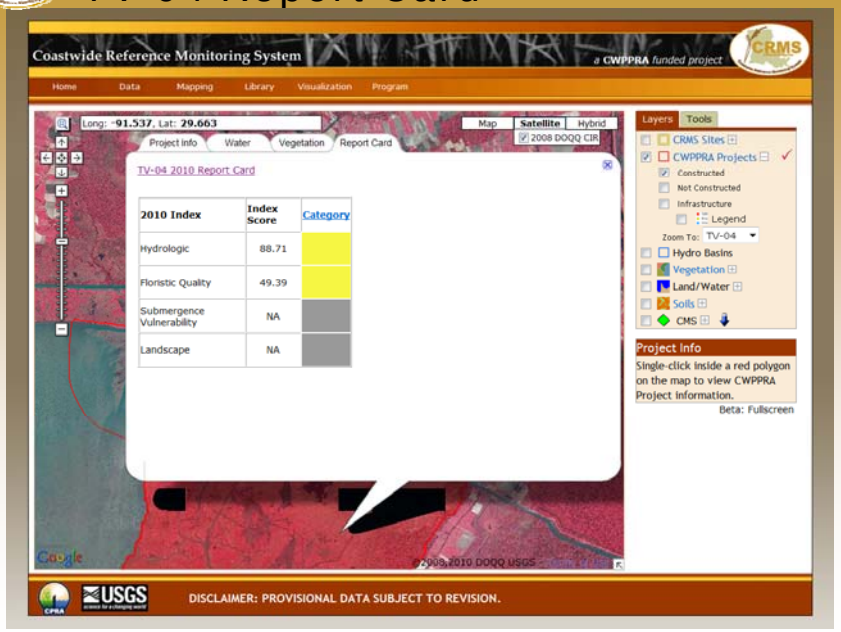
Lessons Learned

- PVC walls, designed properly, provide shoreline protection but are difficult to maintain.
- Marsh areas around structures should be paved with large rock at an elevation that will allow significant tidal events to pass around the structure without scouring the bank.
- The rock dike at School Bus Bayou still reduced erosion relative to unprotected shoreline reaches although it settled to below design specifications.

TV-04 CRMS Website



TV-04 Report Card



TV-04 Report Card Basin Scale

Project Scale Assessment: TV-04 Hydrologic Index (HI)

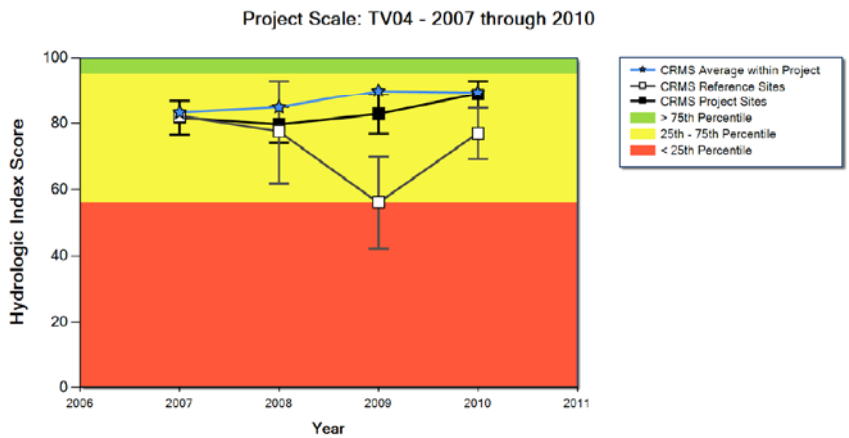
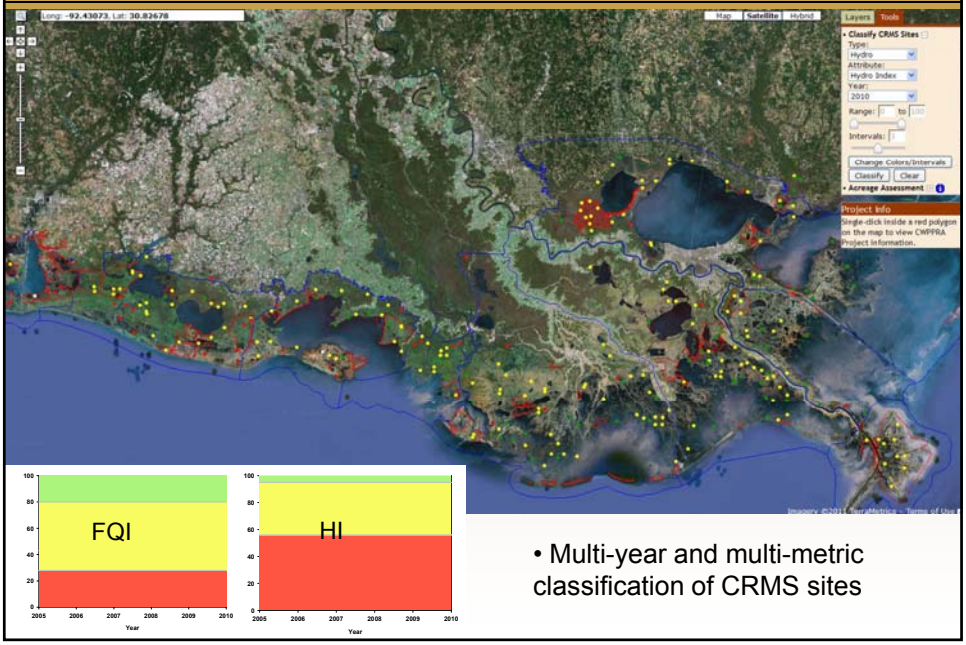


Figure 7. HI scores of CRMS sites within a project are shown over time relative to all other CRMS sites within the same vegetation type and hydrologic basi
Project and reference site scores are the mean (± SE) HI scores by year for all brackish and intermediate sites within Teche / Vermilion Basin. Blue stars re
the average of all CRMS sites located within the project boundary. An average HI score is displayed when more than three CRMS sites exist within the proj
boundaries

Assessment Visualizations



- Multi-year and multi-metric classification of CRMS sites

For more information

http://www.lacoast.gov/crms2/Home.aspx
http://www.nwrc.usgs.gov/
http://dnr.louisiana.gov/crm/ocpr.asp

Steyer, G.D. 2010. Coastwide Reference Monitoring System (CRMS): U.S. Geological Survey Fact Sheet 2010-3018, 2p.

Steyer, G.D. and others 2003. A Proposed Coast-wide Reference Monitoring System for Evaluating Wetland Restoration Trajectories in Louisiana. *Environmental Monitoring and Assessment*. 81:107-117.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

DECISION STRUCTURE FOR PROJECTS REACHING 20-YEAR LIFE SPAN

For Report/Discussion:

At the October 13, 2011 meeting, the Task Force directed the Technical Committee to develop a decision structure (a course of action for the CWPPRA Standard Operating Procedure) to be used as a tool for making logical decisions for projects reaching their 20-year life span. The Planning & Evaluation (P&E) Committee will report on their initial discussion about the decision structure.

Excerpt from the 12 October 2011 CWPPRA Task Force Meeting Minutes:

Colonel Fleming opened the floor to comments from the Task Force.

Mr. Honker cautioned that there is a longer-term issue here. As older projects approach their 20-year life, decisions will have to be made as to whether to continue funding such projects. He suggested charging the Technical Committee with developing a decision structure to be used as a tool for making logical decisions on such projects in the future.

Mr. Clark asked what year 20 for this project is. Mr. Paul answered, 2017. Mr. Clark clarified that USFWS was conducting operations of the structures, but that the USFWS refuges have lost funding and staff and no longer have the resources to continue those activities. He added that he has a letter from the refuge complex manager outlining these reasons for Task Force review.

Mr. Doley asked who will conduct the actual maintenance. Mr. Burkholder responded that the work will be bid to a contractor.

Colonel Fleming stated that he has directed the Technical Committee to plan a course of action as to how to address projects that are reaching their 20-year life span so that some recommendations can be made as to how to move forward on such projects. The Technical Committee will need to look at options and be aware of safety, funding, and authority issues. While not applicable to this project, future action will need to be taken.

Colonel Fleming opened the floor to comments from the public. There were no public comments.

CWPPRA

20-year Project Life Decision Structure

The P&E Committee held a teleconference on Dec 1, 2011 to discuss a potential decision structure for projects reaching their 20-year life span.

Initial Tasks:

- Identify time frame for effort (must be complete by 2013 to implement for initial projects)
- Analyze projects close to 20-year
  - Break down by project type
- Review CSAs for trends
- Draft outline of process (see following slide)

CWPPRA

Upcoming 20-year life completions

Type	Proj No.	Project	20 year Life
Marsh Creation	PO-17	Bayou LaBranche	7-Apr-14
Shoreline Protection	ME-09	Cameron Prairie National Wildlife Refuge SP	9-Aug-14
Shoreline Protection	CS-18	Sabine National Wildife Refuge Erosion Protection	1-Mar-15
Shoreline Protection	TV-09	Vermilion Bay/Boston Canal SP	30-Nov-15
Shoreline Protection	TV-03	Vermilion River Cutoff Bank Protectioin	11-Feb-16
Hydrologic Restoration	PO-16	Bayou Sauvage #1	30-May-16
Marsh Management	CS-20	East Mud Lake Marsh Management	15-Jun-16
Marsh Creation	BA-19	Barataria Bay Waterway Wetland Cretion	15-Oct-16
Hydrologic Restoration	CS-17	Cameron Creole Plugs	28-Jan-17
Shoreline Protection	CS-22	Clear Marais	3-Mar-17
Shoreline Stabilization	TE-22	Point au Fer Canal Plugs	8-May-17
Hydrologic Restoration	PO-18	Bayou Sauvage #2	28-May-17
Barrier Island Restoratio	TE-29	Raccoon Islands Breakwaters Demo	31-Jul-17
Hydrologic Restoration	CS-04a	Cameron-Creole Maintenance	30-Sep-17
Sediment Diversion	MR-06	Channel Armor Gap Crevasse	2-Nov-17

* An additional 19 projects will reach their 20-year life span by October 2020

CWPPRA

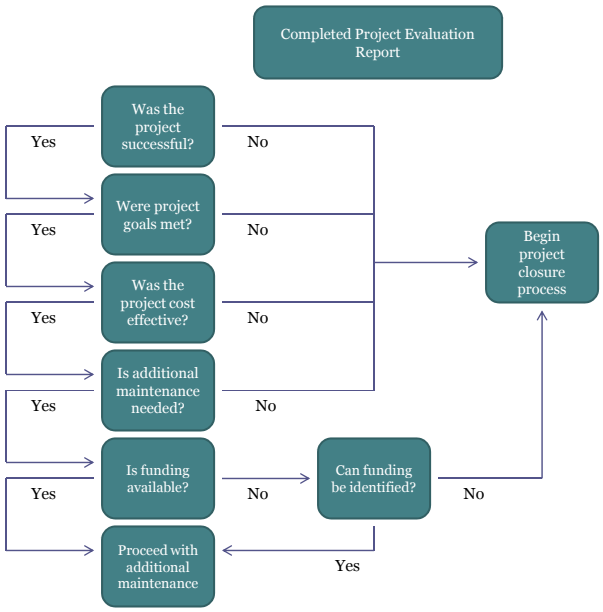
Project Completion Report

Potential Issues To Document in a Report:

- Report Completion Timeline and responsible party for preparation
- CSA Language Impact
- Real Estate Agreement Language
- Removal of structures
- Liability
- Authorization, SOP and 20-year Project life
- Additional O&M, Monitoring impacts to Budget Capacity
- Verification of Project Goals

CWPPRA

Decision Structure



CWPPRA

20-year Project Life Decision Structure

- Request additional guidance from Technical Committee as to the approach and deliverable for review.

CWPPRA

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CWPPRA

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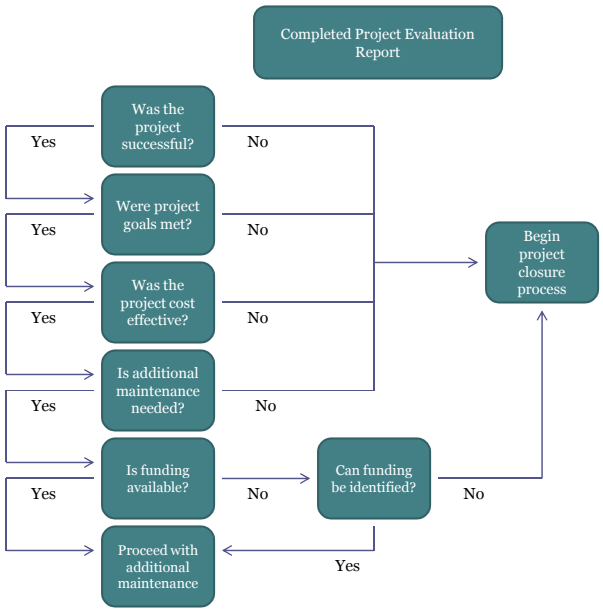
CWPPRA

Decision Structure



CWPPRA

20-year Project Life Decision Structure

- Request additional guidance from Technical Committee as to the approach and deliverable for review.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

STANDARD OPERATING PROCEDURE FOR PROJECT TRANSFERS BETWEEN FEDERAL AGENCIES

For Report/Discussion:

At the June 8, 2011 meeting, the Task Force directed the Technical Committee to develop a standard operating procedure to address the situation where a project is transferred from one Federal Sponsor to another. The Corps will provide a recommendation for the Technical Committee to consider.

PROJECT TRANSFERS TO AN ALTERNATE FEDERAL AGENCY

(1) If the Federal Sponsor and the Local Sponsor agree that it is necessary to transfer a project to an alternate Federal Sponsor prior to construction, then they shall submit a request to the Technical Committee for approval by the eligible voting members of the Task Force, in conformity with the Appointments Clause, Article II, sec. 2, cl. 2, of the Constitution, as stipulated in the President's November 29, 1990, signing statement of the Wetland and Coastal Inland Waters Protection and Restoration Programs Bill, to transfer the project and explaining the reasons for the transfer.

If the Federal Sponsor and the Local Sponsor do not agree to transfer a project prior to construction, then either party may submit a letter to the Technical Committee requesting approval by the eligible voting members of the Task Force to transfer the project to an alternate Federal Sponsor and explaining their reasons for the transfer.

(2) The Technical Committee will forward to the eligible voting members of the Task Force a recommendation concerning transfer of the project. Nothing herein shall preclude the Federal Sponsor, Local Sponsor, or a receiving lead agency from bringing a request for transfer to the Task Force irrespective of the recommendation of the Technical Committee.

(3) Upon submittal of a request for transfer to the Technical Committee, all parties shall suspend all future obligations and expenditures as soon as practicable, until the issue is resolved.

(4) Upon receiving preliminary approval from the Task Force to transfer a project to an alternate Federal Sponsor, the receiving Federal Sponsor shall notify all senior parish officials in the parish (es) where the project is located, any landowners whose property would be directly affected by the project, and any interested parties.

(5) If the Task Force determines that a project should be transferred to another lead agency, the original Federal Sponsor and Local Sponsor shall provide a chronological summary of all work completed to date; identify any outstanding issues; and provide all project information to the receiving Federal Sponsor, including acquired data, engineering and design analyses, and project documents. In cases where the project has undergone significant engineering and design efforts, it is anticipated that significant quantities of hard copy and digital information will be provided. The transferring Federal Sponsor, along with the Local sponsor shall host an information transfer meeting with appropriate representatives of the receiving Federal Sponsor. The purpose of the meeting is to review project status and details regarding work accomplished to date.

(6) When the Task Force determines that a project should be transferred to an alternate Federal Sponsor, responsibility for all expenditures and obligations shall be assumed immediately by the receiving Federal Sponsor or as soon as practicable after information is transferred according to paragraph 6.p(5) to the alternate lead agency. The assumption of all obligations and expenditures will be acknowledged in the newly developed cost share agreement between the receiving Federal and Local Sponsors.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

STATUS OF THE PPL 8 – SABINE REFUGE MARSH CREATION PROJECT CYCLE 2 (CS-28)

For Report:

Mr. Scott Wandell will provide a status update on the PPL 8 – Sabine Refuge Marsh Creation Project (CS-28).

Sabine Refuge Marsh Creation Project Status of Cycle 2

CWPPRA Technical Committee Meeting
December 13, 2011

Presented by:

Scott Wandell
Project Manager, USACE

Current Work Update

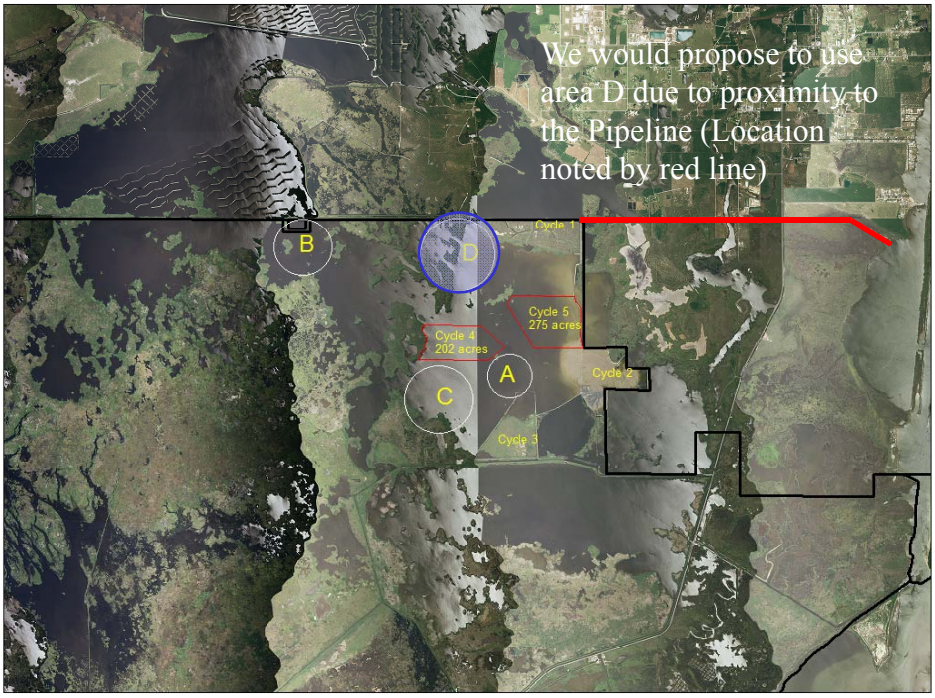
Cycle 2 Permanent Pipeline

- Permanent Pipeline construction was completed in 2010
- Before pipeline can be used during Calcasieu River and Pass Maintenance Dredging events, an O&M manual must be approved (including a pipeline checklist that would be provided to potential dredging contractors)
- Initial draft of O&M manual is currently being assembled by State and Federal Partners for review.
- Target completion date for submittal of final draft is Jan 2012

Cycle 2 Beneficial Use Opportunity

BACKGROUND

- In 2008, the Task Force voted to eliminate Cycle 2 marsh creation site from project scope
- Construction of the original marsh creation site was completed during FY09 dredging event and paid for with State Surplus Funds
- We propose to construct a new Marsh Creation site under the existing Cost Share Agreement for the Cycle 2 project (would require an amendment for new location along with an approved scope change)
- Potentially meets schedule for implementation during FY12 Calcasieu River and Pass dredging maintenance event.



Potential Advantages of this Proposal

- Opportunity to use constructed permanent pipeline for intended purpose
- Potentially provides only known option for beneficial use of Calcasieu dredged material for FY12
- Otherwise, material will be placed in designated confined disposal sites along banks of Calcasieu River

Sabine Refuge Marsh Creation Project Status of Cycle 2

- It is understood that other items that include but are not limited to engineering the marsh creation containment dikes, a supplemental EA for the new area, agreement with agencies on the location, an O&M estimate approval, and approval of an O&M manual, and so dredging contractors can respond to an RFP, must be completed to match up with a 2012 dredging event.
- Simply, we ask for the State's concurrence of the proposal to modify the Cost Share Agreement to show a location change in the Sabine Cycle 2 CWPPRA project.

September 2010 (rev)
Cost figures as of: December 2011

Sabine Refuge Marsh Creation Cycle II (CS-28-2)

Project Status

Approved Date: 2004 **Project Area:** 0 acres *
Approved Funds: $16.5 M **Total Est. Cost:** $16.5 M
Net Benefit After 20 Years: 261 acres
Status: Construction
Project Type: Marsh Creation
PPL #: 8

Location

Region 4, Cameron Parish, The project is located on the Sabine National Wildlife Refuge, west of Highway 27, in large open water areas northeast of Brown's Lake.

Problems

The project area is experiencing marsh degradation due to saltwater intrusion and freshwater loss. This has resulted in the conversion of vegetated intermediate marsh to large shallow open water areas. Salinity migrates into the region from the Calcasieu River. Southeast winds push saline waters into the project area through canals and bayous. Wind driven waves cause further loss of the remaining marsh fringe.

Restoration Strategy

A permanent dredged material disposal pipeline, measuring 3.57 miles in length, will be constructed in Cycle II. The pipeline will commence near Mile 13.2 of the Calcasieu River Ship Channel and terminate at the northeastern corner of the Sabine National Wildlife Refuge. Much of the right of way required for the pipeline was previously impacted by the construction of a temporary pipeline used during the construction of Cycle I. The pipeline is to be used for future marsh creation projects in conjunction with the U.S. Army Corps of Engineers maintenance dredging of the Calcasieu River Ship Channel.

Marsh created from dredged material from the Calcasieu River Ship Channel.

Progress to Date

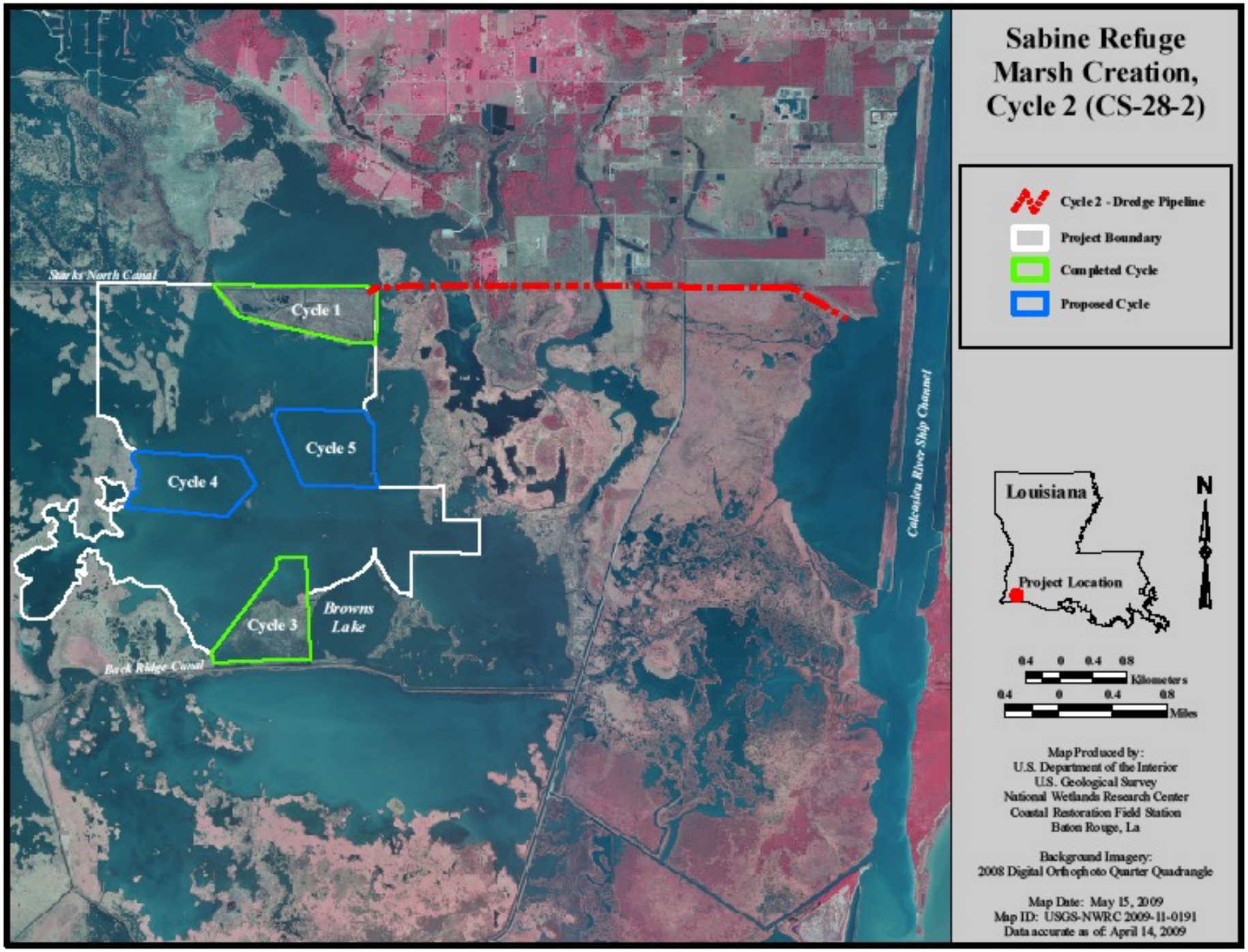
The Sabine Refuge Marsh Creation Project was originally approved as part of the Project Priority List 8 in 1999. The project was later broken into 5 cycles. In 2004, additional funds for engineering and design and construction were approved for Cycle II. The pipeline is constructed and will be available for use during the 2011 maintenance dredging of the Calcasieu River Ship Channel.

For more project information, please contact:

Federal Sponsors:
U.S. Army Corps of Engineers
New Orleans, LA
(504) 862-2309

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

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


Sabine Refuge
Marsh Creation,
Cycle 2 (CS-28-2)
Cycle 2 - Dredge Pipeline
Project Boundary
Completed Cycle
Proposed Cycle
Starks North Canal
Cycle 1
Cycle 5
Cycle 4
Cycle 3
Browns Lake
Beck Ridge Canal
Calcasieu River Ship Channel
Louisiana
Project Location
N
0.4 0 0.4 0.8
Kilometers
0.4 0 0.4 0.8
Miles
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: May 15, 2009
Map ID: USGS-NWRC 2009-11-0191
Data accurate as of: April 14, 2009

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

STATUS OF THE PPL 11 – RIVER REINTRODUCTION INTO MAUREPAS SWAMP (PO-29) GAP ANALYSIS

For Report:

Ms. Karen McCormick will provide a status update on the PPL 11 – River Reintroduction into Maurepas Swamp (PO-29) Gap Analysis.

October 2002 (rev.)
Cost figures as of: December 2011

River Reintroduction into Maurepas Swamp (PO-29)

Project Status

Approved Date: 2001 **Project Area:** 36,121 acres
Approved Funds: $6.78 M **Total Est. Cost:** $165. M
Net Benefit After 20 Years: * See below
Status: Engineering and Design
Project Type: Water Diversion
PPL #: 11

Location

The proposed project is located south of Lake Maurepas in the upper Pontchartrain Basin. The waters diverted from the Mississippi River will affect St. John the Baptist, St. James, and Ascension Parishes, Louisiana.

Problems

Since the construction of the Mississippi River flood control levees, the Maurepas swamp has been virtually cut off from any fresh water, sediment, or nutrient input. Thus, the only soil building has come from organic production within the wetlands. Subsidence in this area is classified as intermediate, but when coupled with minimal soil building, it has produced a net lowering of ground surface elevation. This, in turn, has led to a doubling in flood frequency over the last four decades that leaves the swamps persistently flooded. Without restoration, the factors and processes that are contributing to stress and deterioration of the south Maurepas swamps will continue. The result would be the loss of the swamp, eventually followed by a succession to open water.

Restoration Strategy

The goal of the south Maurepas diversion project is to restore and protect the health and productivity of the swamps south of Lake Maurepas by reintroducing sediment- and nutrient-laden water from Mississippi River.

The specific objectives of the Maurepas project are to: restore natural swamp hydrology; increase sediment and nutrient loading to the project area; increase substrate accretion; retain and increase existing areas of swamp vegetation, including overstory cover; and reduce salinity levels.

The project's main structural features will include: two 10x10 box culverts capable of diverting 2,000 cubic feet of water per second; a 100x100 foot receiving pond reinforced with a 20-inch layer of riprap; and a 50-foot wide, 10-foot deep outflow channel roughly 27,500 feet long that will run from the river to U.S. Interstate 10.

The Maurepas Swamp in decline.

Progress to Date

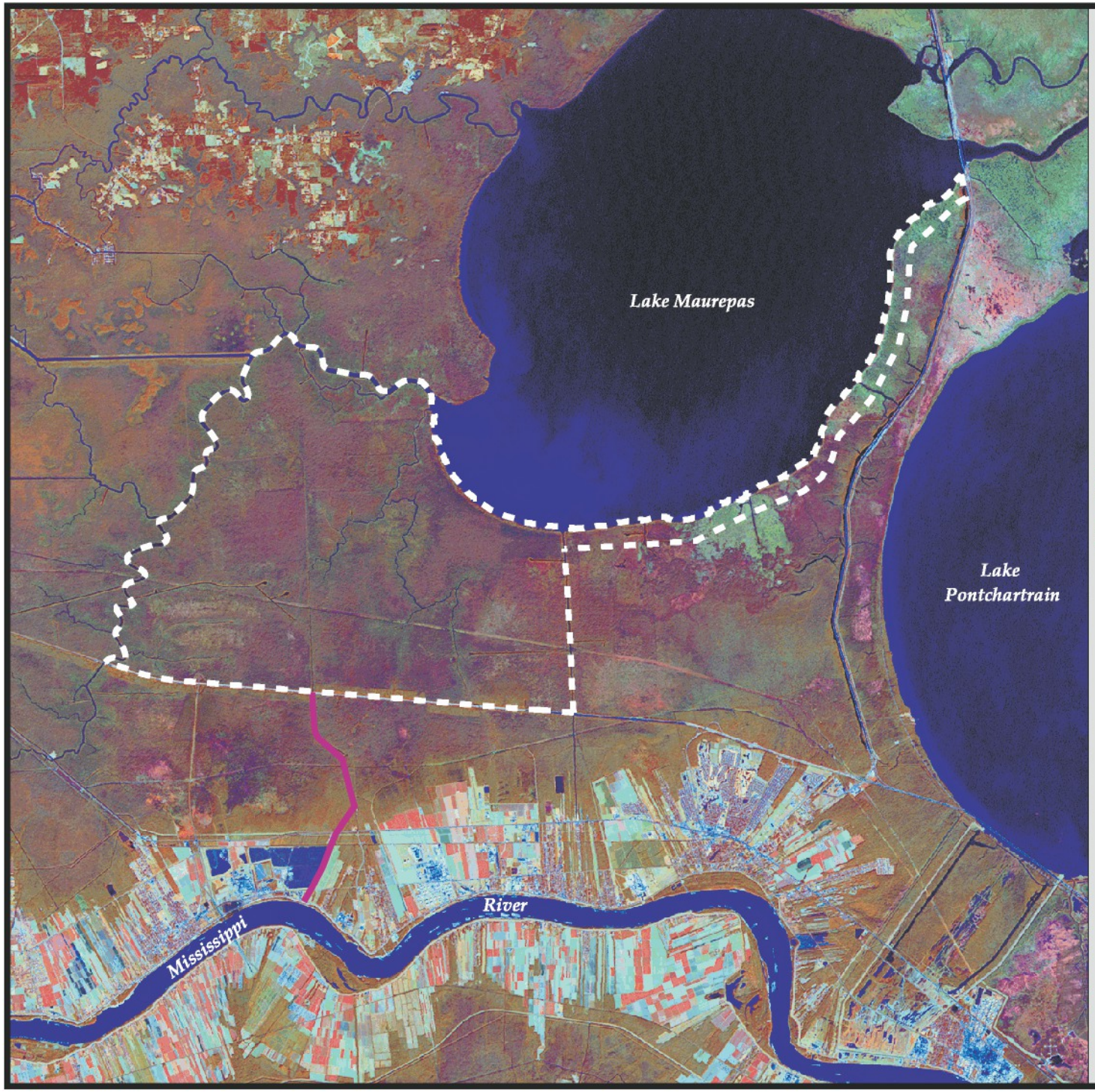
This project was selected for Phase 1 (engineering and design) funding at the August 2001 Breaux Act Task Force meeting. The project is on Priority Project List 11.

* The project will enhance an area of swamp (36,121 acres) that would be substantially degraded without the project.

For more project information, please contact:

Federal Sponsor:
U.S. Environmental Protection Agency
Baton Rouge, LA
(225) 389-0735

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



River Reintroduction into Maurepas Swamp (PO-29)

Diversion *

Hydrologic Boundary (non-structural)

* denotes proposed features

USGS
science for a changing world

N

2 0 2 4 Miles

2 0 2 4 Kilometers

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

Background Imagery:
Thematic Mapper Satellite Imagery 2000

Map Date: November 27, 2002
Map ID: 2002-11-596
Data accurate as of: July 18, 2002

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

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

For Report:

Mr. Nick Sims will provide a status update on the West Bay Work Plan and Closure Plan. Final results from the Engineering Research and Development Center (ERDC) study will be presented.

June 2004 (rev.)
Cost figures as of: September 2011

West Bay Sediment Diversion (MR-03)

Project Status

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

Location

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

Problems

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

Restoration Strategy

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

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

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

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

Progress to Date

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

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

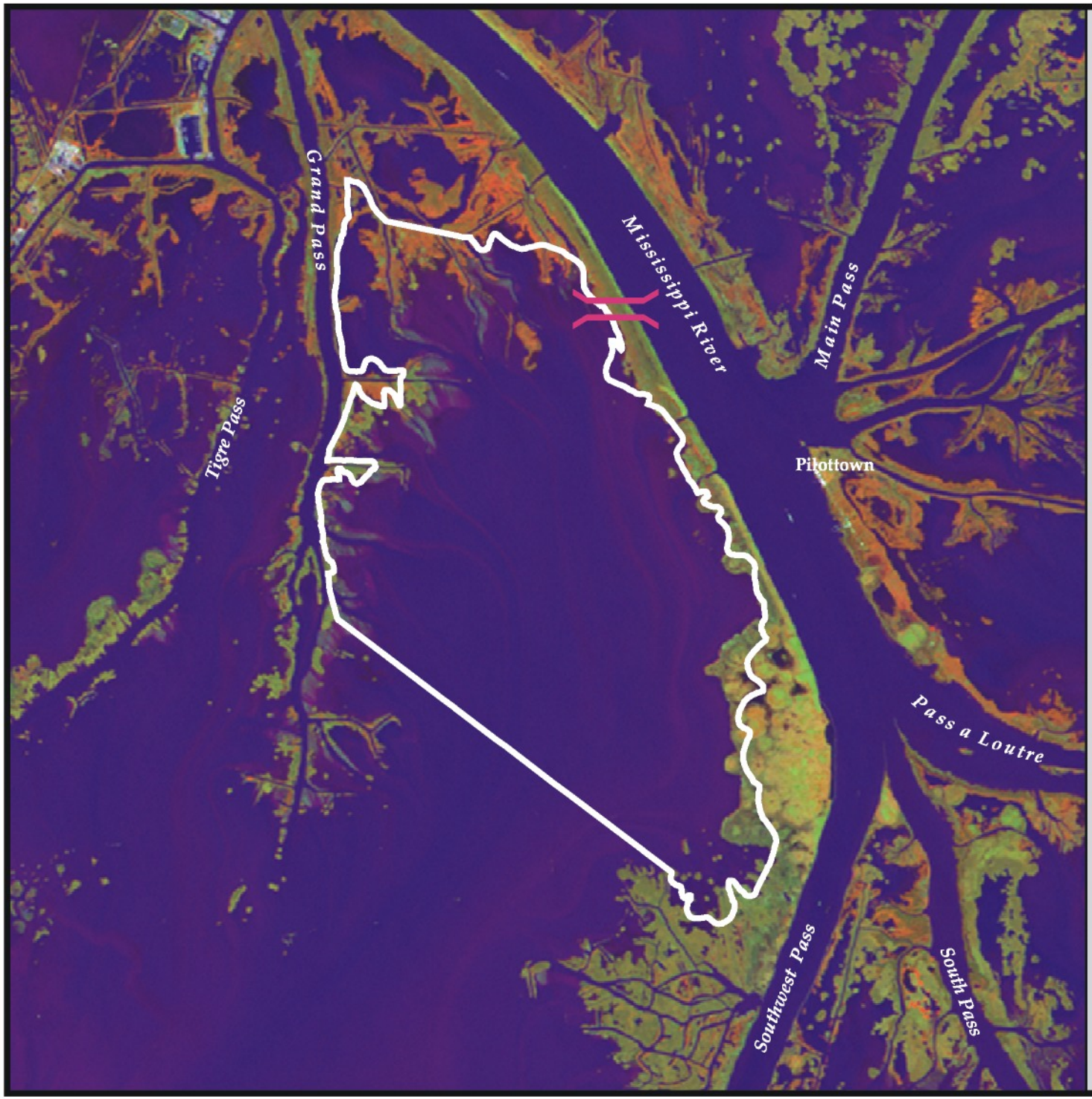
This project is on Priority Project List 1.

For more project information, please contact:

US Army Corps of Engineers
New Orleans District

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

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



West Bay Sediment Diversion (MR-03)

Sediment Diversion

Project Boundary

USGS
science for a changing world

Louisiana

N

Project Location

1 0 1 Miles

1 0 1 Kilometers

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

Background Imagery:
2002 Thematic Mapper Imagery

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

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

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

For Report/Decision:

The U.S. Army Corps of Engineers (USACE) and CPRA received a report from Vermillion and Iberia Parishes providing project alternatives. The agency engineers reviewed the alternative analysis and will recommend a path forward.

The Technical Committee will vote on a recommendation to the Task Force on a path forward for the Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Redirection Project (TV-19).

CWPPRA

Weeks Bay Alternatives Analysis

(TV-19) Project

CWPPRA

Review of Weeks Bay Alternative Analysis

- At the September 2011 Tech Comm meeting, USACE and CPRA were tasked to review the Alternative Analysis Report (alignment and design of recommended Concrete Panel Wall Alternative with potential marsh creation)
- Alternatives Analysis Report projected benefits of 60 acres with only wave barrier design criteria for concrete panel wall at cost of $12,590,624
- Projected benefits of 260 acres were calculated based upon design criteria for wave barrier and construction of a potential marsh creation site
- USACE and CPRA have conducted reviews of geotechnical, topographic and bathymetric surveys, tidal datum, wave and hydrostatic loading, structural analysis and estimated project costs.

CWPPRA

Preliminary Results from Review of Weeks Bay Alternatives Analysis Report

- Some discrepancies were found in design criteria and cost analysis
- Recommended alternative was deemed inadequate in the report for containment of material for potential marsh creation site due to poor soil conditions
- Since inadequate for design, cost was not applied to full design (wave barrier only)
- Cost effectiveness of project with reported costs is $209,843/acre (without marsh creation)

CWPPRA

USACE & CPRA Recommendation

- Based upon limited benefits and high cost/acre, in concurrence with CPRA, it is recommended that this project be deauthorized due to cost ineffectiveness and presumed unconstructability of recommended alternative.

October 2003
Cost figures as of: September 2011

Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Redirection (TV-19)

Project Status

Approved Date: 2000 **Project Area:** 0 acres
Approved Funds: $1.22 M **Total Est. Cost:** $30.0 M
Net Benefit After 20 Years: 278 acres
Status: Engineering and Design
Project Type: Marsh Creation and Shoreline Protection

Location

This project is located in Iberia Parish, Louisiana, in the northeastern area of Vermilion and Weeks Bays.

Problems

Shoreline and bank erosion is occurring within this area as a result of heavy wind and wake activity. Openings along the shoreline, along with the dredging of Commercial Canal, have resulted in increased tidal energy and adverse saltwater intrusion into interior wetlands. These openings also prevent the Atchafalaya River's sediment-laden fresh water from reaching marshes within the western portion of the Teche/Vermilion Basin.

Restoration Strategy

Project components will include constructing retention levees, dedicating placement of dredged material, re-vegetating critical areas along the north shoreline, and armoring shore and bank areas.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design. Vibracore soil samples have been taken in the project area to verify foundation conditions. Initial review of these samples confirms that the bearing capacity of the bay bottom is very limited. Hydrographic surveys are currently underway to support hydrologic circulation modeling and design studies.

This project is on Priority Project List 9.

Weeks Island and Commercial Canal, the North-South waterway in upper left corner, are shown on infrared.

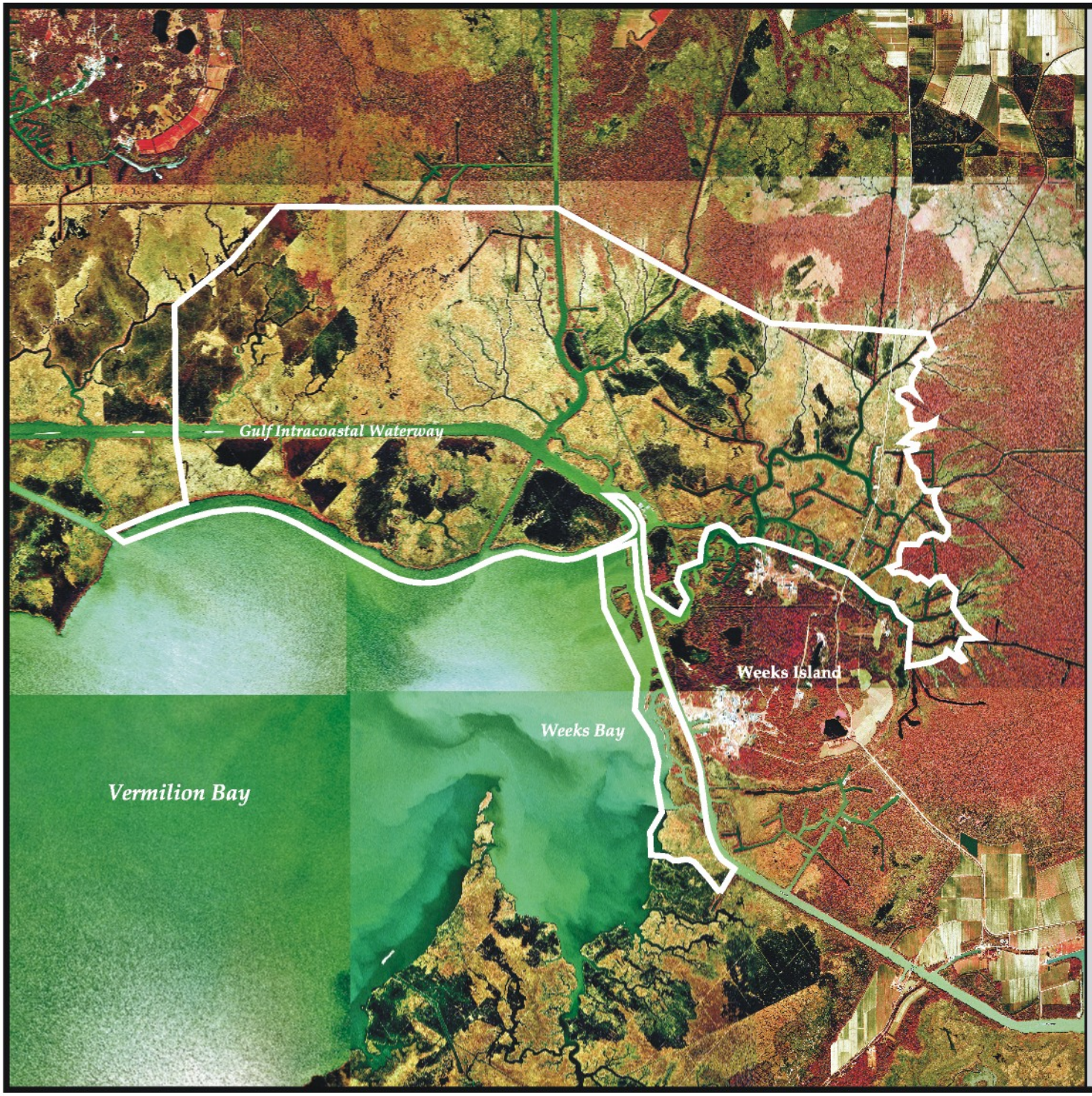
Shoreline and bank erosion occurring in Weeks Bay between Mud Point and Weeks Island.

For more project information, please contact:

US Army Corps of Engineers
New Orleans District

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

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



Weeks Bay Marsh Creation and Shoreline Protection/ Commercial Canal Freshwater Redirection (TV-19)

Project Boundary

USGS
science for a changing world

N

1 0 1 Miles

1 0 1 Kilometers

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

Background Imagery:
2002 Thematic Mapper Imagery
Map Date: August 25, 2003
Map ID: USGS-NWRC 2003-11-068
Data accurate as of: March 27, 2003

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

REQUEST FOR SCOPE CHANGE OF THE PPL 14 – SOUTH SHORE OF THE PEN SHORELINE PROTECTION AND MARSH CREATION PROJECT (BA-41)

For Decision:

The Natural Resources Conservation Service (NRCS) and CPRA request a change in project scope for the South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41). The change would remove the northern marsh creation site of BA-41 so that it can be built by USACE as a Risk Reduction project (Barataria Basin Landbridge). The Risk Reduction project was authorized by the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery of 2006 (P.L. 109-234, Title II, Chapter 3, Investigations), commonly known as the Fourth Supplemental. The balance of the BA-41 project, which consists of 11,750 feet of shoreline protection and the southern marsh creation (63 acres) and nourishment (14 acres) will now constitute the CWPPRA project at a fully funded cost of $21,639,575. Phase II approval has already been granted for these components and construction is ongoing.

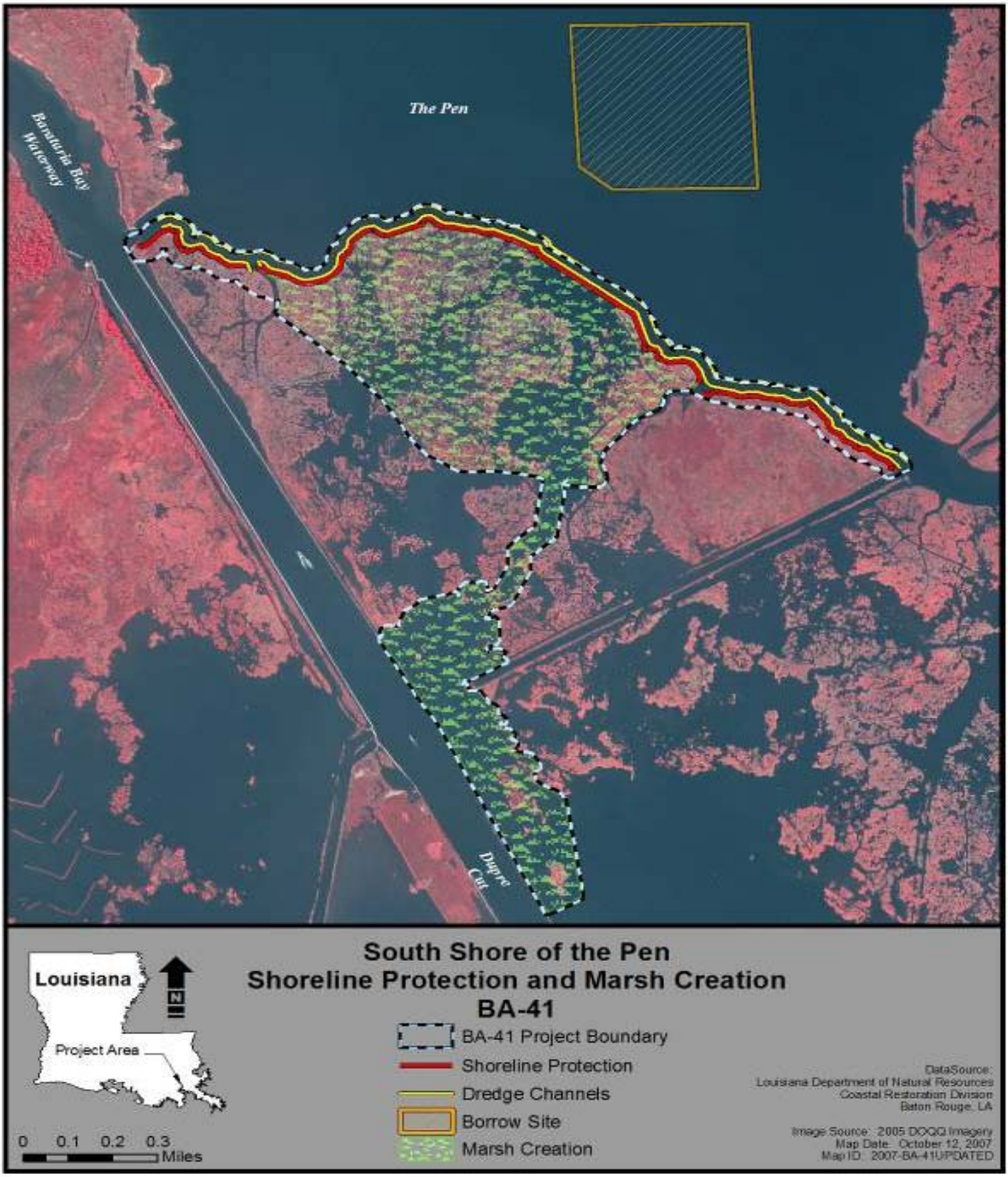
The Technical Committee will consider and vote to make a recommendation to the Task Force to approve the requested scope change for the South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41).

South Shore of The Pen Shoreline Protection and Marsh Creation (BA-41)

Change in Project Scope

CWPPRA Technical Committee Meeting
December 13, 2011

CURRENT PROJECT



REVISED PROJECT

South Shore of The Pen Shoreline Protection and Marsh Creation (BA-41)

Change in Project Scope

	Current Project	Revised Project	% Change
Fully Funded Cost	$27.9 M	$21.6M	-22%
Net Acres	211	106	-50%
AAHUs	84	44	-48%

South Shore of The Pen Shoreline Protection and Marsh Creation (BA-41)
Change in Project Scope
Report to the Technical Committee
November 29, 2011

The original (PPL14) South Shore of The Pen Shoreline Protection and Marsh Creation Project (BA-41) consisted of about 11,900 linear feet of shoreline protection along the south Shore of The Pen and about 180 acres of marsh creation and nourishment areas.

In November 2007, the Task Force approved a change in project scope. Based on that change in scope, the current BA-41 CWPPRA project consists of approximately 11,750 feet of foreshore rock dike, and approximately 175 and 132 acres of marsh creation and nourishment, respectively. See Figure 1.

However, the U.S. Army Corps of Engineers (USACE) has requested that the northern marsh creation site of BA-41 be transferred to USACE as a Risk Reduction project (Barataria Basin Landbridge). The Risk Reduction project was authorized by the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery of 2006 (P.L. 109-234, Title II, Chapter 3, Investigations), commonly known as the Fourth Supplemental. This proposed change in project scope would remove the northern marsh creation / nourishment area from the CWPPRA BA-41 project.

The balance of the BA-41 project, which consists of 11,750 feet of shoreline protection and the southern marsh creation (63 acres) and nourishment (14 acres) will now constitute the CWPPRA Project. See Figure 2. Phase II approval has already been granted for these components and construction is ongoing.

A summary of current and revised costs and benefits is provided below.

	Current Project	Revised Project (after Scope Change)	%Change
Fully-funded Cost	$27,895,605	$ 21,639,575 (already approved)	-22%
Net Acres @year 20	211	106	-50%
AAHUs	84	44	-48%

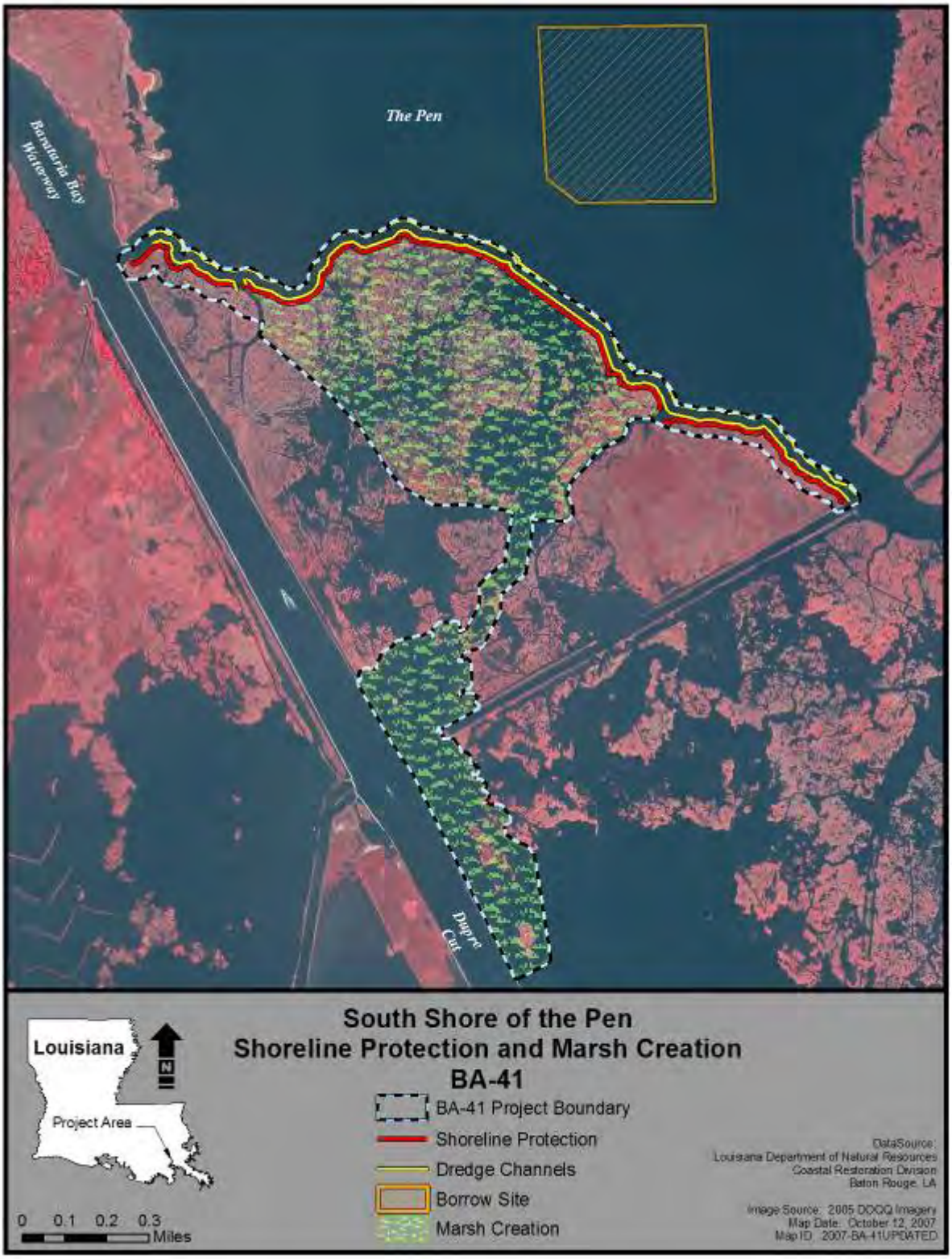


Figure 1. Current project map for South Shore of The Pen Shoreline Protection and Marsh Creation (BA-41).

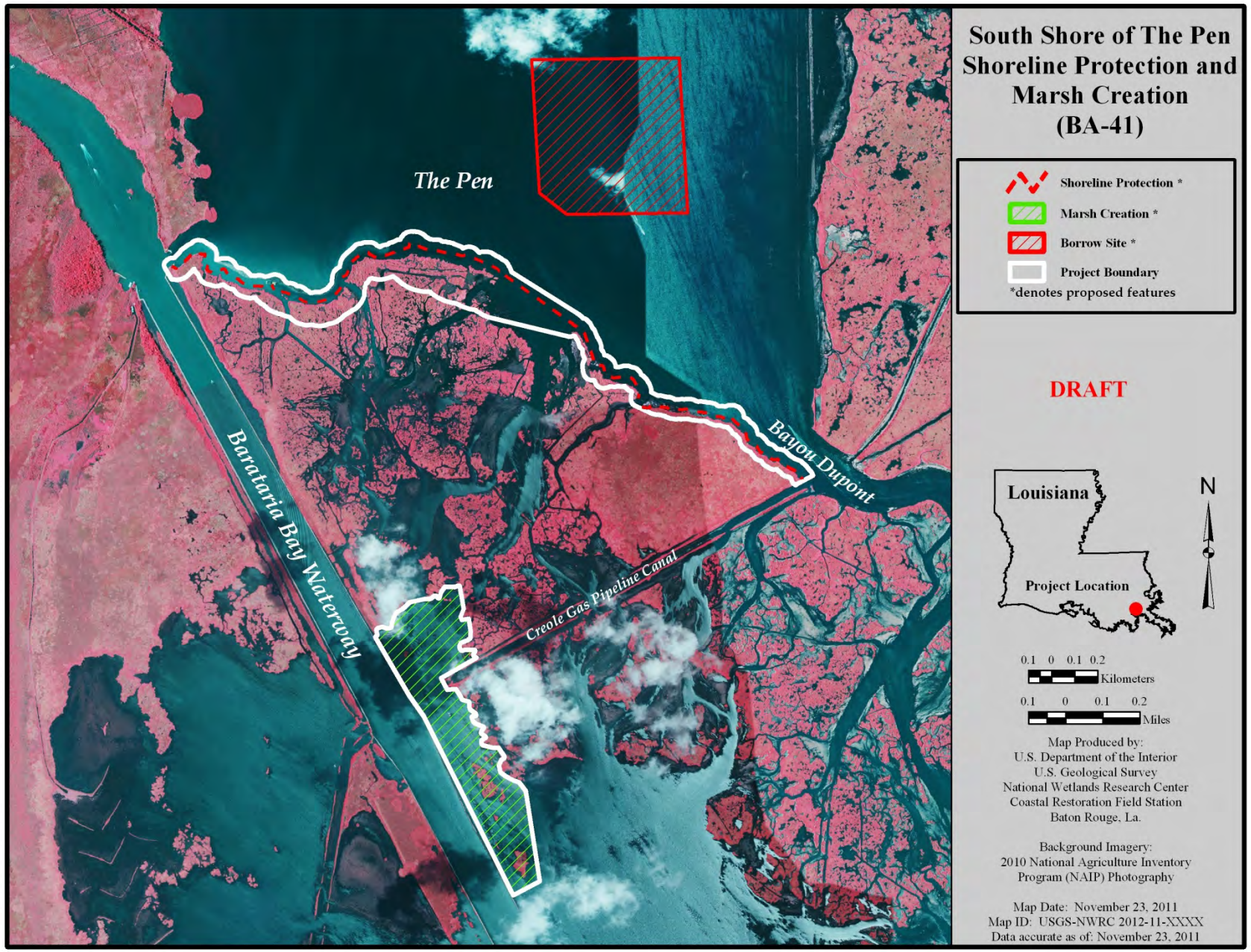


Figure 2. Proposed revised project map for South Shore of The Pen Shoreline Protection and Marsh Creation (BA-41).

March 2010 (rev)
Cost figures as of: December 2011

South Shore of The Pen Shoreline Protection and Marsh Creation (BA-41)

Project Status

Approved Date: 2005 **Project Area:** 348 acres
Approved Funds: $19.8 M **Total Est. Cost:** $21.6 M
Net Benefit After 20 Years: 211 acres
Status: Construction
Project Type: Shoreline Protection and Marsh Restoration
PPL #: 14

Location

The project area is located in Jefferson Parish, Louisiana, in the vicinity of Bayou Dupont and the Barataria Bay Waterway.

Problems

The triangular landmass bounded by the southern shoreline of The Pen (an abandoned land reclamation effort), the Barataria Bay Waterway (Dupre Cut), and the Creole Gas Pipeline Canal is deteriorating because of shoreline erosion (ranging from 5 to 30 feet per year) and interior marsh loss. Loss of this protective landmass would provide a more direct connection between the marine/tidal processes of the lower and the freshwater-dominated upper Barataria Basin.

Shoreline erosion along the south shore of The Pen.

Restoration Strategy

The goals of this project are to stop shoreline erosion and to create and nourish marsh located between The Pen and Barataria Bay Waterway.

For shoreline protection, approximately 11,750 feet of foreshore rock dike will be constructed along the south shore of The Pen and Bayou Dupont. Two existing bayous will remain open, and a site-specific opening to The Pen will be incorporated at the eastern marsh creation site. Dedicated dredging will be used to create approximately 175 acres of marsh and nourish an additional 132 acres of marsh within the triangular area bounded by the south shore of The Pen, the Barataria Bay Waterway (Dupre Cut), and the Creole Gas Pipeline Canal. Containment dikes constructed for marsh creation and nourishment will be degraded upon completion of construction.

It is estimated that the project will prevent the loss of 56 acres of marsh caused by shoreline erosion, as well as create 175 acres of marsh, and nourish 132 acres of intermediate marsh. Over the 20-year project life, it is estimated that the project will produce 211 net acres.

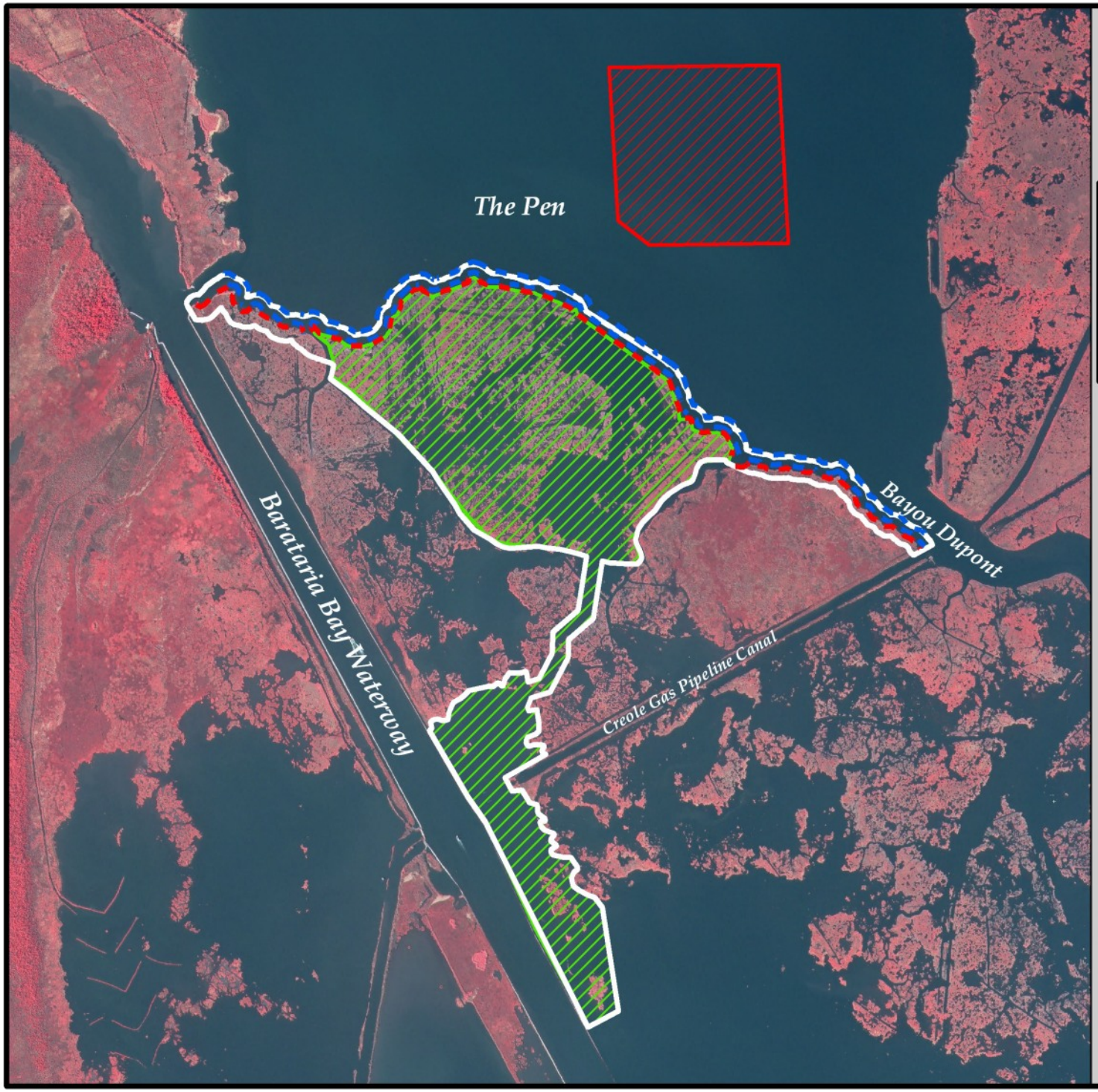
Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design at their February 2005 meeting contingent upon funds becoming available by the end of the 2005 fiscal year. When funds became available in July 2005, the project was added to Priority Project List 14. The construction contract was advertised in November 2009, and construction is anticipated to begin in Spring 2010.

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



South Shore of The Pen Shoreline Protection and Marsh Creation (BA-41)

- Shoreline Protection *
- Dredge Channel *
- Marsh Creation *
- Borrow Site *
- Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.1 0 0.1 0.2 Kilometers

0.1 0 0.1 0.2 Miles

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: January 09, 2008
Map ID: USGS-NWRC 2008-11-0111
Data accurate as of: January 08, 2008

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

REQUEST FOR A ONE-YEAR CONSTURCTION TIME EXTENSION FOR THE PPL 11 – SOUTH GRAND CHENIER HYDROLOGIC RESTORATION PROJECT (ME-20)

For Decision:

The U.S. Fish and Wildlife Service (USFWS) and CPRA request a one-year time extension for the South Grand Chenier Hydrologic Restoration project (ME-20) for the completion of major landowner landrights. Project construction was approved by the Task Force in January 2010 at a fully funded cost of $29,046,128, for a benefit of 352 net acres. Most landrights approvals from the major landowner has been received and project sponsors are confident that the remaining major landowner landrights can be acquired in early 2012.

The Technical Committee will consider and vote to make a recommendation to the Task Force to approve this time extension.

Revised Technical Committee South Grand Chenier Agenda Item No. 13

The FWS and State wish to revise our "one-year time extension" request to a project "suspension" and return of construction funds.

Decision: Request to Suspend and Return Construction Funding for the South Grand Chenier Hydrologic Restoration Project (ME-20) (Darryl Clark, FWS; Kirk Rhinehart, Andrew Beall, CPRA). The FWS and CPRA request to suspend the South Grand Chenier Hydrologic Restoration project and return unexpended funds to the program due to the failure to receive landowner approval from 2 of the 7 principal family members (29%). The likelihood is that such agreement would not be received in the next 6 months. We request return of the $24,921,491 M Phase II construction funds. The total fully funded budget is $29,046,128; consisting of $2,358,420 for Phase I E&D and $26,687,708 for Phase 2.

About $1 M in funds are remaining in Phase I E&D and will need a small reserve to cover the State CPRA In Kind credits for 2010/2011. When those credits are recorded, additional funding will be returned. We request that the project remain on the CWPPRA project list and when landrights are finalized, we will again request construction funding.

Murry, Allison MVN-Contractor

From: Inman, Brad L MVN
Sent: Monday, December 12, 2011 5:46 PM
To: Murry, Allison MVN-Contractor
Subject: Fw: South Grand Chenier Agenda Item No. 13
Attachments: So Grand Chenier_Ph II Rev_Cost_Template_24 Nov 2009.xls

!!

Message sent via my BlackBerry Wireless Device

From: Darryl_Clark@fws.gov [mailto:Darryl_Clark@fws.gov]
Sent: Monday, December 12, 2011 05:40 PM
To: Richard.Hartman@NOAA.gov <Richard.Hartman@NOAA.gov>; Britt.Paul@la.usda.gov <Britt.Paul@la.usda.gov>; Rachel.Sweeney@NOAA.gov <Rachel.Sweeney@NOAA.gov>; John.Jurgensen@la.usda.gov <John.Jurgensen@la.usda.gov>; Kirk.Rhinehart@la.gov <Kirk.Rhinehart@la.gov>; Holden, Thomas A MVN; Kevin_Roy@fws.gov <Kevin_Roy@fws.gov>; McCormick.Karen@epamail.epa.gov <McCormick.Karen@epamail.epa.gov>; Chris.Allen@la.gov <Chris.Allen@la.gov>; Inman, Brad L MVN; Kaspar.Paul@epamail.epa.gov <Kaspar.Paul@epamail.epa.gov>
Cc: Browning, Gay B MVN; Andrew.Beall@la.gov <Andrew.Beall@la.gov>; Cynthia.Wallace@LA.GOV <Cynthia.Wallace@LA.GOV>; VictorM@dnr.state.la.us <VictorM@dnr.state.la.us>; Walther, David
Subject: South Grand Chenier Agenda Item No. 13

Technical Committee and P&E,

Due to the failure to receive landowner approval from 2 of the 7 Miller family principals (29%), and the likelihood that such agreement would not be received in the next 6 months, we will request a suspension of the South Grand Chenier project and return of the $24,921,491M Phase II construction funds at tomorrow's Technical Committee meeting. We will request the agenda item be changed from a one-year time extension to project suspension and return of construction funding.

We have about $1 M remaining in Phase I E&D and will need a small reserve to cover the State CPRA In Kind credits for 2010/2011. When those credits are recorded, additional funding will be returned.

The total fully funded budget is $29,046,128; $2,358,420 for Phase I E&D and $26,687,708 for Phase 2 (see attached cost template).

We request that the project remain on the CWPPRA project list and when landrights are finalized, we will again request construction funding.

Darryl
337-291-3111

(See attached file: So Grand Chenier_Ph II Rev_Cost_Template_24 Nov 2009.xls)

August 2007 (rev)
Cost figures as of: December 2011

South Grand Chenier Hydrologic Restoration (ME-20)

Project Status

Approved Date: 2002 **Project Area:** 5,321 acres
Approved Funds: $27.2 M **Total Est. Cost:** $29.0 M
Net Benefit After 20 Years: 352 acres
Status: Engineering and Design
Project Type: Hydrologic Restoration
PPL #: 11

Location

The project is located south of Grand Chenier in Cameron Parish, Louisiana, between Louisiana Highway 85 and Hog Bayou.

Problems

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

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

Restoration Strategy

The project's goals are to: 1) create 400 acres of emergent marsh and 2) nourish and enhance an additional 4,000 acres of emergent marsh with fresh water, nutrients, and sediments.

One approach to achieve the project's goals is to restore the Hog Bayou watershed hydrology through the use of dredged material to create two 200-acre cells that will impede water movement and saltwater intrusion in the eastern project area. Another approach the project will take is to reduce intermediate and brackish marsh loss (and hence, protect fish and wildlife wetland habitats) by introducing fresh water, sediment, and nutrients from the Mermentau River at Upper Mud Lake at a rate of approximately 125 cubic feet per second whenever the river is fresher than the project area marshes.

Looking west along the northern levee.

Progress to Date

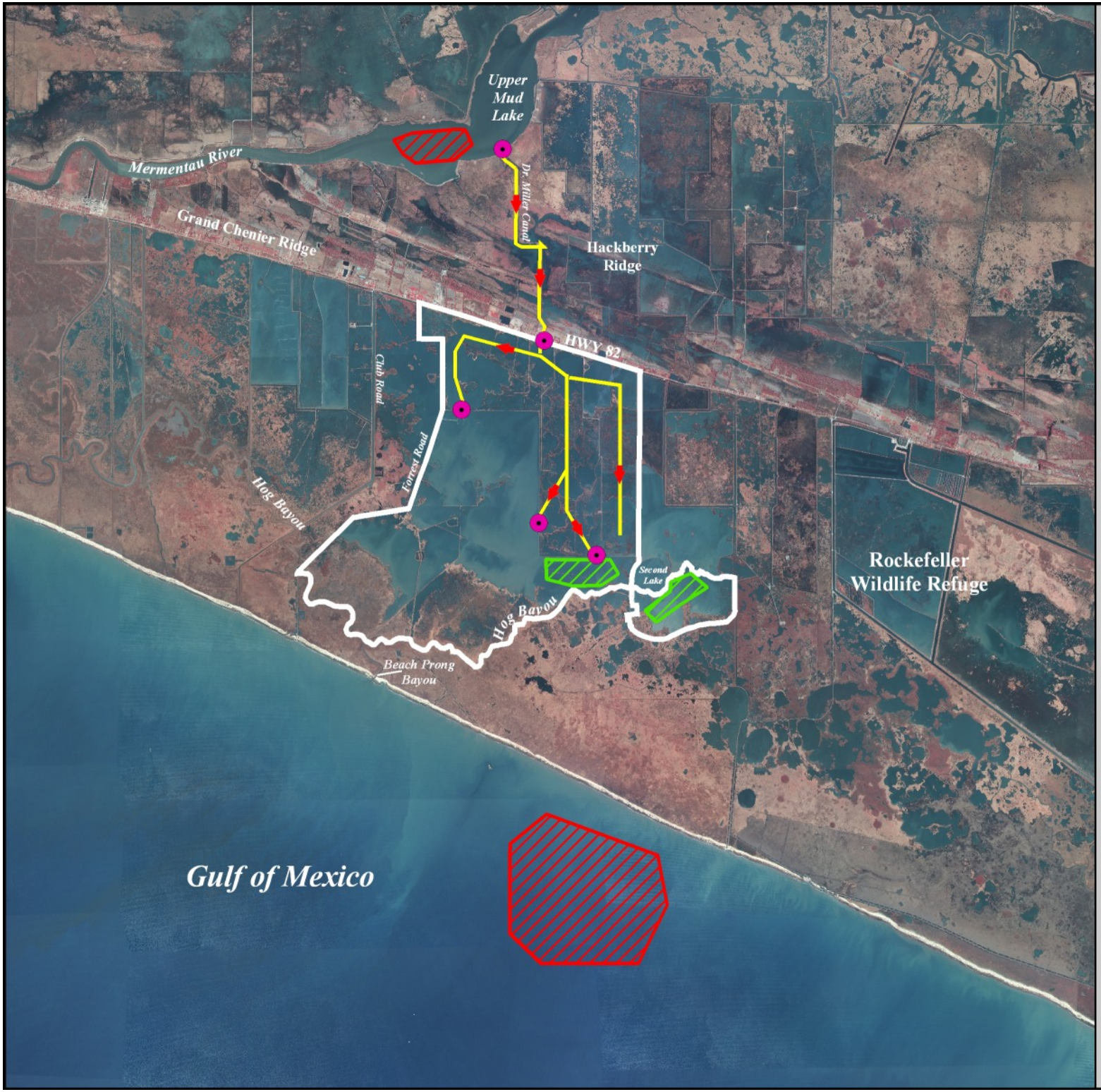
This project was selected for Phase I (engineering and design) funding at the January 2002 Breaux Act Task Force meeting. It is included as part of Priority Project List 11. Hydrodynamic modeling was completed in September 2005. Surveying and engineering and design are continuing.

For more project information, please contact:

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

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

South Grand Chenier Hydrologic Restoration (ME-20)



Culvert *

Freshwater Diversion *

Marsh Creation *

Borrow Site *

Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.8 0 0.8 1.6 Kilometers

0.75 0 0.75 1.5 Miles

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: August 20, 2007
Map ID: USGS-NWRC 2007-11-0335
Data accurate as of: April 20, 2007

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

REQUEST FOR APPROVAL TO INITIATE DEAUTHORIZATION OF THE PPL 10 – BENNEYS BAY DIVERSION PROJECT (MR-13)

For Decision:

USACE and CPRA are requesting formal deauthorization procedures be initiated for the Benneys Bay Diversion Project (MR-13) based on the high cost of dredging associated with the project.

The Technical Committee will vote on a recommendation to the Task Force to initiate deauthorization of the Benneys Bay Diversion Project (MR-13).

October 2003
Cost figures as of: December 2011

Benneys Bay Sediment Diversion (MR-13)

Project Status

Approved Date: 2001 **Project Area:** 21,518 acres
Approved Funds: $1.07 M **Total Est. Cost:** $30.2 M
Net Benefit After 20 Years: 5,706 acres
Status: Engineering and Design
Project Type: Water Diversion
PPL #: 10

Location

The diversion site is located on the east bank of the Mississippi River, in Plaquemines Parish, Louisiana, 7.5 miles above Head of Passes. The project would divert Mississippi River water and sediments into Benneys Bay.

Problems

The project area has lost over 15,000 acres of emergent wetlands since 1932, mainly because of subsidence and sediment deprivation. The 1983-90 land loss rate was 2.4% per year.

Restoration Strategy

The objective of the project is to restore vegetated wetlands in an area that is currently shallow open water. The project would divert sediments in an effort to create, nourish, and maintain approximately 5,828 acres of fresh to intermediate marsh in the Benneys Bay area over the 20-year project life.

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

The diversion would induce shoaling in the main navigation channel of the Mississippi River. Dredging of the channel is accomplished under the U.S. Army Corps of Engineers' ongoing Operations and Maintenance (O&M) Program for the river. The Pilottown anchorage area is not maintained under the O&M Program. The additional dredging of the induced shoaling in the navigation channel and anchorage area would be an added feature and cost of the project. The dredge material removed from these areas will be used to create wetlands where possible.

A dredge is being used to create marsh in the lower delta for the West Bay Sediment Diversion (MR-03) project. Work similar to this will take place during construction of the Benneys Bay project.

Progress to Date

Approximately one third of the design is complete. Final engineering will rely on information gained from the West Bay Sediment Diversion project (MR-03).

This project is on Priority Project List 10.

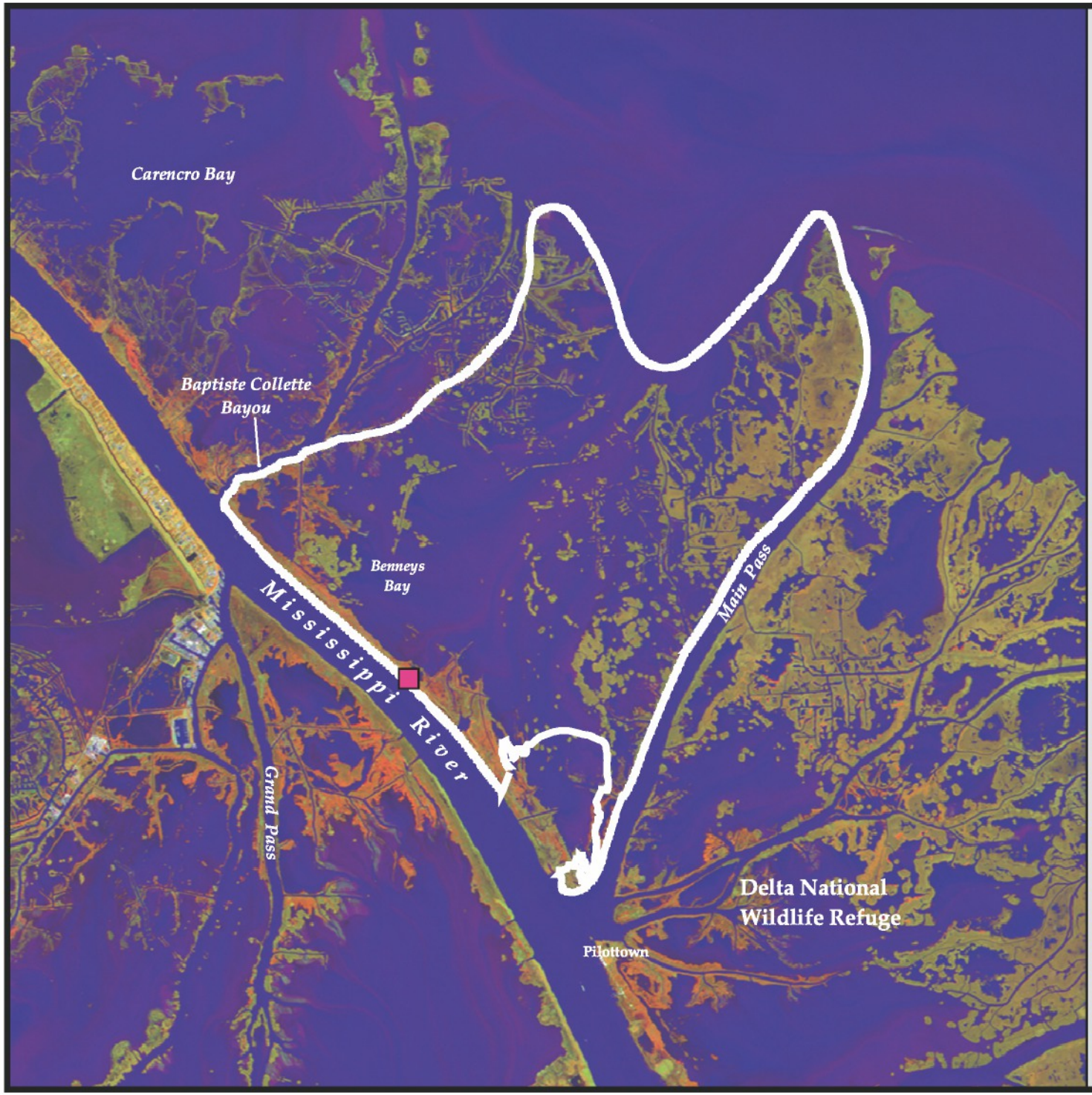
For more project information, please contact:

US Army Corps of Engineers
New Orleans District

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

CPRA

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



Benneys Bay Sediment Diversion (MR-13)

Diversion Site *

Project Boundary

* denotes proposed feature

USGS science for a changing world

N

1 0 1 2 Miles

1 0 1 2 Kilometers

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: September 4, 2003
Map ID: USGS-NWRC 2003-11-117
Data accurate as of: March 27, 2003

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

REPLY TO ATTENTION OF

CEMVN-PM-BC

MEMORANDUM FOR Deputy District Engineer for Project Management, US Army Corps of Engineers (CEMVN-PPMD)

SUBJECT: RE: Benneys Bay Sediment Diversion Project (MR-13)

1. Please accept this correspondence as the US Army Corps of Engineers'(USACE) official request to deauthorize the Coastal Wetlands Planning, Protection Restoration Act Benneys Bay Sediment Diversion project (MR-13) based on the significant costs associated with maintaining the project over its twenty year life. This is due to the maintenance responsibilities related to the projected shoaling impacts from the diversion. Current estimates suggest that maintenance costs would exceed the assigned cost limitations agreed upon by the Federal and local project sponsors, thereby rendering the project unfeasible for construction and beyond the funding capabilities of the program. This memorandum has been reviewed by the Coastal Protection and Restoration Authority of Louisiana, the local sponsor, and they have concurred.

2. Please direct questions regarding this matter to the USACE Project Manager, Scott Wandell (504) 862-1878.

Brad L. Inman
Senior Program Manager, CWPPRA
US Army Corps of Engineers

CF: Richard Hartman, NMFS, Baton Rouge, LA
Britt Paul, NRCS, Alexandria, LA
Karen McCormick, EPA, Dallas, TX
Darryl Clark, USFWS, Lafayette, LA
Kirk Rhinehart, CPRA, Baton Rouge, LA
Scott Wandell, USACE Project Manager

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

REQUEST FOR APPROVAL FOR FINAL DEAUTHORIZATION OF THE PPL 14 – RIVERINE MINING – SCOFIELD ISLAND RESTORATION PROJECT (BA-40)

For Decision:

NMFS and CPRA request approval for final deauthorization of the Riverine Mining – Scofield Island Restoration project (BA-40). The project was authorized for engineering and design on PPL 14. A Preliminary Design Review was held on March 16, 2010. Currently, CPRA intends to construct the Scofield Island project using State funds.

The Technical Committee will vote on a recommendation to the Task Force to approve the final deauthorization of the Riverine Mining – Scofield Island Restoration project (BA-40).

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

REPLY TO
ATTENTION OF

DEC 12 2011

Programs and Project Management Division
Projects and Restoration Branch

Honorable David Vitter
United States Senate
516 Hart Senate Office Building
Washington, DC 20510-1805

Dear Senator Vitter:

The Louisiana Coastal Wetlands Conservation and Restoration Task Force is initiating procedures to deauthorize the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Riverine Sand Mining/Scofield Island Restoration Project (BA-40) as requested by the project sponsors. Alternative funding has been provided to the State of Louisiana that will allow construction of the project outside of the CWPPRA program (see enclosure 1).

This 14th Priority Project List project (Fact Sheet enclosure 2) is located in the Barataria Basin east of lower Scofield Bayou along the Plaquemines barrier shoreline in Plaquemines Parish about 10 miles southwest of Venice, Louisiana. The goals for this project are to repair breaches and tidal inlets in the shoreline, reinforce the existing shoreline with sand, and increase the island width with back barrier marsh creation to increase longevity. Project features include the construction of 429 acres of dune areas and marsh platform collectively, with installation of about 12,700 feet of double-rowed sand fencing along the dune, and tidal pond construction in the marsh area, with vegetative plantings in both dune and marsh areas.

Prior to making a final decision, the Task Force will consider written comments on the request to deauthorize the project. Written comments should be provided within 30 days of the date of this letter to the following address:

Colonel Edward R. Fleming
District Commander
US Army Corps of Engineers, New Orleans District
Attention: Projects and Restoration Branch, CWPPRA Manager
PO Box 60267
New Orleans, Louisiana 70160-0267

If you need further information, please contact Mr. Thomas A. Holden Jr., P.E., CWPPRA Technical Committee Chairman, at (504) 862-2204 or Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

Sincerely,

Edward R. Fleming
Colonel, US Army
District Commander

Enclosures

Copies Furnished (w/enclosures):

Mr. Garret Graves
Director, Office of Coastal Activities
1051 North Third Street
Capital Annex Building, Suite 138
Baton Rouge, Louisiana 70802

Mr. William K. Honker
Deputy Director, Water Quality Protection Division
Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Mr. Jim Boggs
Field Supervisor
US Fish and Wildlife Service
Louisiana Field Office
646 Cajunland Boulevard, Suite 400
Lafayette, Louisiana 70506

Mr. Kevin Norton
State Conservationist
Natural Resource Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

Mr. Christopher Doley
Director, National Oceanic
and Atmospheric Administration
National Marine Fisheries Service
1315 East-West Highway, Room 14853
Silver Spring, Maryland 20910

Honorable Mary L. Landrieu
United States Senate
328 Hart Senate Office Building
Washington DC 20515-1802

Honorable Jeffrey Landry
United States House of Representatives
206 Cannon House Office Building
Washington DC 20515-1803

Honorable A.G. Crowe
Louisiana Senate
646 Carnation Street
Slidell, Louisiana 70460

Honorable Ernest D. Wooton
Louisiana House of Representatives
8018 Highway 23, Suite 214
Belle Chase, Louisiana 70037

Copies Furnished Continued:

Plaquemines Parish Government
Mr. Billy Nungesser, President
8056 Highway 23, Suite 200
Belle Chase, Louisiana 70037

Plaquemines Parish Government
Mr. P.J. Hahn, Director of
Coastal Zone Management
8056 Highway 23, Suite 307
Belle Chase, Louisiana 70037

Plaquemines Parish Government
Ms. Albertine M. Kimble, Local
Coastal Program Manager
138 Edna LaFrance Road
Braithwaite, Louisiana 70040

Succession of May C. Devitt
C/O Matthew Bourdon Devitt, Jr.
P.O. Box 319
6747 Line Road
Ethel, LA 70730

Shingle Point, LLC
P.O. Box 7125
8311 Highway 23, Suite 104
Belle Chasse, LA 70037

The Rene' Leland Provosty, George H.
Provosty, and Yvette Nan Provosty Trust
1003 Scottland Drive
Mt. Pleasant, SC 29464

C/O Joan Rester Brown
P.O. Box 1188
Mansfield, LA 71052

Tennessee Gas Pipeline Company
1001 Louisiana Street
or
9 Greenway Plaza
Houston, Texas 77002-5089

Robinson Lumber Company
C/O Samuel G. Robinson, Manager
4000 Tchoupitoulas Street
New Orleans. LA 70115

C/O Peter Cooper Hitt, Jr.
8502 Huntspring Drive
Lutherville, MD 21093

Felice Exploration LLC
C/O A. Bruce Wallis
P.O. Box 750667
New Orleans, LA 70175-0667

C/O Jacqueline Elizabeth Kirn LONG
P. O. Box 73
Meridian, CA 95957-0073

C/O Anne Schulze Nelson
345 Lake Avenue
Metairie, LA 70005

C/O Kathyrn Cartan Schulze
505 Helios Avenue
Metairie, LA 70005-3243

C/O Elaine Mary Schulze Colen
10272 Latney Road
Fairfax, Virginia 22032-3256

C/O Hermann John Schulze, Jr.
474 Spinnaker Drive
Marco Island, Florida 34145-2430

C/O Ann Gretchen Schulze Fontenot
1041 Westchester Drive
Baton Rouge, LA 70810-5229

C/O Diane Mary Schulze Hill
10965 Good wood Blvd.
Baton Rouge, LA 70815-5220

C/O Richard Rudolph Schulze
1812 Pasadena Avenue
Metairie, LA 70001-2542

C/O Rupolph Franz Schulze
P. O. Box 393
134 Cherry Street
Grand Coteau, LA 70541

C/O Joanne Plough Guilbault
1219 Jim Street
Metairie, LA 70005

C/O Carolyn Plough Saunders
253 Audubon Boulevard
New Orleans, LA 70125

C/O Gerald Francis Plough
4426 S. Miro Street
New Orleans.LA 70125

Frank J. Stich, Jr. Testamentary Trust
C/O Jacquelyn R. Stich, Trustee
175 Quitman Perry Road
Carriere, Mississippi 39426

BCMO, LLC
70I Poydras Street, Suite 3600
New Orleans. LA 70139-7735

C/O Sam B. Marcus
14902 Preston Road, PMB 534-404
Dallas, TX 75240-9105

C/O Ann Elizabeth Levy Plassick Cox
#5 Laureston Place
Dallas, TX 75225

C/O Walter Milton Levy
5315 Rockclift Place
Dallas, TX 75209-2425

C/O Lester J. Levy, Jr.
3911 Beverly Drive
Dallas, TX 75205-2809

C/O Elisabeth Ainsworth Rareshide
3840 Napoleon Avenue
New Orleans, LA 70125-4444

C/O Robert A. Ainsworth, III
77378 Donnie Road
Folsom, LA 70437

C/O Leslie Ainsworth Maggio
7609 Overbrook Drive
Tampa. FL 33634-2961

Fishman Family Louisiana, LLC
C/O Louis Yarrut Fishman
20I St. Charles Avenue, 46th Floor
New Orleans, LA 70170

C/O Linda Carroll D'Antoni Blicharz
20 Willow Oak Lane
St. Louis, Missouri 63I22-4714

C/O Anita Marie D'Antoni Blanke
4912 Townsend Street
Metairie, LA 70006-1131

C/O Carla Ann D'Antoni Ratican
643 East Monroe Avenue
Kirkwood, Missouri 63122-6319

C/O Mona Claire D'Antoni Marsden
12225 Robyn Lane
Sunset Hills, Missouri 63127-1627

C/O Antonia Catherine Vaccoro Hanson
715 St. Louis Street
Pass Christian, Mississippi 39571-5001

C/O Margaret Lynn Perschall Fetherston
785 Dividing Ridge Road
Birmingham, AL 35244

C/O Susan Mary Per GUARISCO
159 Hollywood Drive
Metairie, LA 70005

C/O Patricia Ann Perschall Loyacano
6009 Morton Street
Metairie, LA 70003

C/O Clement Francis Perschall, Jr.
435 Fairway Drive
New Orleans, L
A 70124

C/O Ralph Brennan
310 Chartres St
New Orleans. LA 70130

C/O Lally Brennan
1403 Washington Ave
New Orleans, LA 70130

C/O Cynthia Brennan Davis
201 Royal St
New Orleans. LA 70130

Thomas Brennan
2 Country Club Park
Covington, LA 70433

J. A. Interests.Inc.
C/O John W. Backer, Jr., VP
830 Grassy Springs Road
Versailles, Kentucky 40383

Mildred Bryan Bancroft Trust
C/O ICG
P. O. Box 810490
Dallas. TX 75361-0490

C/O Robinson Interest Company, LLC
C/O George A. Robinson, Manager
5005 Riverway Drive Suite 200
Houston, TX 77056

C/O Bert A. Flanders III
927 Wild Forest Drive
Gaithersburg, Maryland 20879-3209

C/O Martha Anne Flanders Zimmer
2705 Canna Ridge Circle NE
Atlanta, Georgia 30345-1411

C/O Mary Cathrerine Flanders Berglund
7716 Sweetbriar Road
Richmond, Virginia 23229-6622

F.A. Wallis Properties, LLC
C/O Floyd A. Wallis
P.O. Box 750667
New Orleans. LA 70175-0667

C/O Nathaniel P. Phillps, Jr.
826 Union Street, Suite 200
New Orleans, LA 70112

*The addresses for landowners were supplied by Kenneth Bahlinger, Coastal Protection Restoration Authority

CPRA
Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

August 25, 2011

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

RE: Riverine Sand Mining/Scofield Island Restoration (BA-40)

Dear Mr. Holden:

Please accept this correspondence as the State of Louisiana's official request to deauthorize the CWPPRA Riverine Sand Mining/Scofield Island Restoration (BA-40). The project attained CWPPRA 30% Design Review on March 16, 2010. Funding has been provided to the State that will enable the project to be constructed outside CWPPRA. This letter has been reviewed by NMFS, the Federal sponsor, and they have concurred.

Please direct questions regarding this matter to the OCPR Project Manager, Kenneth Bahlinger (225-342-7362).

Sincerely,

William K. "Kirk" Rhinehart
Office of Coastal Protection and Restoration
Planning Administrator

c: Richard Hartman, NMFS, Baton Rouge,
LA Britt Paul, NRCS, Alexandria, LA
Karen McCormick, EPA, Dallas, TX
Darryl Clark, USFWS, Lafayette, LA
Kenneth Bahlinger, OCPR Project Manager

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

August 26, 2011

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

RE: Riverine Sand Mining/Scofield Island Restoration (BA-40)

Dear Mr. Holden:

In accordance with the CWPPRA Standard Operating Procedures (SOP) Section (6)(p)(1), this letter serves as the National Oceanic and Atmospheric Administration's request to initiate deauthorization procedures for the Riverine Sand Mining/Scofield Island Restoration project (BA-40). This Project Priority List 14 project is currently in Phase One.

As the State indicates in the attached letter, funding has been provided that will enable the project to be constructed outside CWPPRA.

Please direct questions regarding this matter to the NOAA Project Manager, Rachel Sweeney (225-389-0508) or the OCPR Project Manager, Kenneth Bahlinger (225-342-7362).

Sincerely,

Cecelia Linder

Cecelia Linder
NOAA CWPPRA Program Manager
Silver Spring, MD

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

Printed on Recycled Paper

February 2005
Cost figures as of: September 2011

Riverine Sand Mining/ Scofield Island Restoration (BA-40)

Project Status

Approved Date: 2005 **Project Area:** 746 acres
Approved Funds: $3.22 M **Total Est. Cost:** $44.5 M
Net Benefit After 20 Years: 234 acres
Status: Engineering and Design
Project Type: Barrier Island Restoration

Location

The project area (called "Scofield Island" for the purpose of this project) is located between Scofield Bayou and the point where Bay Coquette has merged with the Gulf of Mexico along the Plaquemines barrier shoreline in Plaquemines Parish, approximately 10 miles southwest of Venice, Louisiana.

Problems

A large shoreline breach developed early in 2003 after the passage of Hurricane Lili in October 2002. The gulfside erosion rate is approximately 13 feet per year. It is expected that the shoreline erosion rates and percent loss per year have increased since the passage of Hurricane Lili in 2002 and the relatively high frequency of tropical storms in 2003. Wetlands, dune, and swale habitats within the project area have undergone substantial loss due to oil and gas activities (e.g., pipeline construction), subsidence, sea level rise, and marine- and wind-induced erosion causing landward transgression and, more recently, breaching and breakup.

This project will help to stabilize the eroding barrier shoreline, which is shown above.

Restoration Strategy

The goals of this project are to repair breaches and tidal inlets in the shoreline, reinforce the existing shoreline with sand, and increase the island width with back barrier marsh creation to increase longevity. The design approach is to maximize surface area habitat remaining after 20 years by preventing shoreline breaching through the introduction of riverine sand and offshore fine sediment that will be dredged (i.e., mined) and pumped in.

Project strategies include the construction of 429 acres of dune area, including the dune itself, dune foreslope and backslope (above-tide, sloping elevations in front of and behind the dune), and marsh platform (areas behind the dune backslope where marsh will be created). Of that acreage, approximately 278 acres would settle to intertidal back barrier marsh. A double row of sand fencing will be installed along the 12,700-foot length of dune. A tidal pond will be constructed in the marsh platform, and approximately three years after construction, containment dikes (built from material removed from the borrow canal) will be gapped as needed to ensure tidal exchange with the marsh platform. Over three years, the dune and marsh platform will be planted with bitter panicum (*Panicum amarum*), Gulf cordgrass (*Spartina spartinae*), marshhay cordgrass (*Spartina patens*), seaoats (*Uniola paniculata*), smooth cordgrass (*Spartina alterniflora*), matrimony vine (*Lycium barbarum*), and black mangrove (*Avicennia germinans*).

Previous barrier island work has found limited sand resources in the nearshore Gulf of Mexico. Additional sand sources must be identified to support barrier shoreline restoration in the Barataria Basin. Dredgable sand resources appear to exist in the Mississippi River in the form of relic sand bars and bed load. Several possible sand sources for Scofield Island have been identified in the vicinity of Empire, Louisiana.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design at their February 2005 meeting. This project is on Priority Project List 14.

For more project information, please contact:

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

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

Riverine Sand Mining/ Scofield Island Restoration (BA-40)

- Sand Fencing *
- Tidal Pond *
- Beach/Dune Fill *
- Borrow Canal *
- Containment Dike *
- Marsh Fill *
- Project Boundary

* denotes proposed features

USGS
science for a changing world

N

0.2 0 0.2 0.4 Miles

0.2 0 0.2 0.4 Kilometers

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 3, 2005
Map ID: USGS-NWRC 2005-11-0090
Data accurate as of: January 3, 2005

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

21ST PRIORITY PROJECT LIST

For Report/Decision:

The Environmental Workgroup Chairman will present an overview of the ten PPL 21 candidate projects and three PPL 21 candidate demonstration projects.

The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 21 projects, including demonstration projects for Phase I Engineering and Design.

Region	Basin	PPL 21 Nominees
1	Pontchartrain	Fritchie Marsh Creation and Terracing
1	Pontchartrain	LaBranche Central Marsh Creation
2	Breton Sound	Lake Lery Shoreline Marsh Creation
2	Breton Sound	White Ditch Marsh Creation Sediment Delivery
2	Barataria	Northwest Turtle Bay Marsh Creation and Shore Protection
2	Barataria	Bayou Grande Cheniere Marsh Creation
2	Barataria	Bayou L'Ours Terracing
3	Teche-Vermilion	Southeast Marsh Island Marsh Creation and Nourishment
3	Teche-Vermilion	Cole's Bayou Marsh Creation and Restoration
4	Calcasieu-Sabine	Oyster Bayou Restoration

	PPL 21 Demonstration Project Nominees
DEMO	Automated Marsh Planting (formerly called "Alternative to Manual Planting")
DEMO	Deltalok
DEMO	Habitat Enhancements through Vegetation Plantings Using Gulf Saver Bags

13-Dec-11

CWPPRA PPL 21 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	Oyster Bayou Marsh Restoration	3	6	3	2	6	4	6	24	$3,165,322		$26,616,033	
1	Labranche Central Marsh Creation	6		4	1	2	3	5	16	$3,885,298		$38,273,910	
2	Northwest Turtle Bay Marsh Creation	5			3	5	6	4	19	$2,354,788		$20,843,969	
2	Lake Lery Shoreline Marsh Creation	2	2		4	4		4	12	$3,277,356		$28,000,656	
2	Bayou L'Ours Terracing	1	4	2			5	4	12	$903,617		$4,543,902	
3	Cole's Bayou Marsh Restoration	4	3			3	2	4	12	$3,136,805		$23,494,419	
1	Fritchie Marsh Creation and Terracing		5		6	1		3	12	$4,080,095		$42,000,658	
3	Southeast Marsh Island Marsh Creation		1	6			1	3	8	$2,273,834		$20,258,471	
2	Bayou Grande Cheniere Marsh Creation and Terracing			1	5			2	6	$3,669,775		$44,997,107	
2	White Ditch Marsh Creation			5				1	5	$2,807,119		$27,713,363	
									Total				

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

Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
Lake Lery Shoreline Marsh Creation	2	1	1	3	2	1	6	10
Bayou L'Ours Terracing	1	3	3	1	1	3	6	12
Cole's Bayou Marsh Restoration	3	2	2	2	3	2	6	14

√ TC

13-Dec-11

CWPPRA PPL 21 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	Labranche Central Marsh Creation	6						0	0
2	Lake Lery Shoreline Marsh Creation	2						0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing							0	0
2	Northwest Turtle Bay Marsh Creation	5						0	0
2	Bayou L'Ours Terracing	1						0	0
3	Southeast Marsh Island Marsh Creation							0	0
3	Cole's Bayou Marsh Restoration	4						0	0
4	Oyster Bayou Marsh Restoration	3						0	0
		0	0	0	0	0	0	0	0
	check	21	21	21	21	21	21	36	126

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DA 1.9

13-Dec-11

CWPPRA PPL 21 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing		5					0	0
1	Labranche Central Marsh Creation							0	0
2	Lake Lery Shoreline Marsh Creation		2					0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing							0	0
2	Northwest Turtle Bay Marsh Creation							0	0
2	Bayou L'Ours Terracing		4					0	0
3	Southeast Marsh Island Marsh Creation		1					0	0
3	Cole's Bayou Marsh Restoration		3					0	0
4	Oyster Bayou Marsh Restoration		6					0	0
		0	0	0	0	0	0	0	0
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CWPPRA PPL 21 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	Labranche Central Marsh Creation			4				0	0
2	Lake Lery Shoreline Marsh Creation							0	0
2	White Ditch Marsh Creation			5				0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing			1				0	0
2	Northwest Turtle Bay Marsh Creation							0	0
2	Bayou L'Ours Terracing			2				0	0
3	Southeast Marsh Island Marsh Creation			6				0	0
3	Cole's Bayou Marsh Restoration							0	0
4	Oyster Bayou Marsh Restoration			3				0	0
		0	0	0	0	0	0	0	0
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FWS

+C

CWPPRA PPL 21 Technical Committee VOTE

13-Dec-11

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing				6			0	0
1	Labranche Central Marsh Creation				1			0	0
2	Lake Lery Shoreline Marsh Creation				4			0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing				5			0	0
2	Northwest Turtle Bay Marsh Creation				3			0	0
2	Bayou L'Ours Terracing							0	0
3	Southeast Marsh Island Marsh Creation							0	0
3	Cole's Bayou Marsh Restoration							0	0
4	Oyster Bayou Marsh Restoration				2			0	0
		0	0	0	0	0	0	0	0
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Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing					1		0	0
1	Labranche Central Marsh Creation					2		0	0
2	Lake Lery Shoreline Marsh Creation					4		0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing							0	0
2	Northwest Turtle Bay Marsh Creation					5		0	0
2	Bayou L'Ours Terracing							0	0
3	Southeast Marsh Island Marsh Creation							0	0
3	Cole's Bayou Marsh Restoration					3		0	0
4	Oyster Bayou Marsh Restoration					6		0	0
		0	0	0	0	0	0	0	0
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CWPPRA PPL 21 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	Labranche Central Marsh Creation						3	0	0
2	Lake Lery Shoreline Marsh Creation							0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing							0	0
2	Northwest Turtle Bay Marsh Creation						6	0	0
2	Bayou L'Ours Terracing						5	0	0
3	Southeast Marsh Island Marsh Creation						1	0	0
3	Cole's Bayou Marsh Restoration						2	0	0
4	Oyster Bayou Marsh Restoration						4	0	0
		0	0	0	0	0	0	0	0
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tie-breaker

13-Dec-11

CWPPRA PPL 21 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	Labranche Central Marsh Creation							0	0
2	Lake Lery Shoreline Marsh Creation	2						0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing							0	0
2	Northwest Turtle Bay Marsh Creation							0	0
2	Bayou L'Ours Terracing	1						0	0
3	Southeast Marsh Island Marsh Creation							0	0
3	Cole's Bayou Marsh Restoration	3						0	0
4	Oyster Bayou Marsh Restoration							0	0
		0	0	0	0	0	0	0	0
	check	21	21	21	21	21	21	36	126

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tie-breaker

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Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	Labranche Central Marsh Creation							0	0
2	Lake Lery Shoreline Marsh Creation		1					0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing							0	0
2	Northwest Turtle Bay Marsh Creation							0	0
2	Bayou L'Ours Terracing		3					0	0
3	Southeast Marsh Island Marsh Creation							0	0
3	Cole's Bayou Marsh Restoration		2					0	0
4	Oyster Bayou Marsh Restoration							0	0
		0	0	0	0	0	0	0	0
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ABV

tie-breaker

✓ TC

13-Dec-11

CWPPRA PPL 21 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	Labranche Central Marsh Creation							0	0
2	Lake Lery Shoreline Marsh Creation			1				0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing							0	0
2	Northwest Turtle Bay Marsh Creation							0	0
2	Bayou L'Ours Terracing			3				0	0
3	Southeast Marsh Island Marsh Creation							0	0
3	Cole's Bayou Marsh Restoration			2				0	0
4	Oyster Bayou Marsh Restoration							0	0
		0	0	0	0	0	0	0	0
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tie-breaker

TC

13-Dec-11

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Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	Labranche Central Marsh Creation							0	0
2	Lake Lery Shoreline Marsh Creation				3			0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing							0	0
2	Northwest Turtle Bay Marsh Creation							0	0
2	Bayou L'Ours Terracing				1			0	0
3	Southeast Marsh Island Marsh Creation							0	0
3	Cole's Bayou Marsh Restoration				2			0	0
4	Oyster Bayou Marsh Restoration							0	0
		0	0	0	0	0	0	0	0
	check	21	21	21	21	21	21	36	126

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tie-breaker

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Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	Labranche Central Marsh Creation							0	0
2	Lake Lery Shoreline Marsh Creation					2	Pat	0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing							0	0
2	Northwest Turtle Bay Marsh Creation							0	0
2	Bayou L'Ours Terracing					1		0	0
3	Southeast Marsh Island Marsh Creation							0	0
3	Cole's Bayou Marsh Restoration					3	Pat	0	0
4	Oyster Bayou Marsh Restoration							0	0
		0	0	0	0	0	0	0	0
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Lake Lery
Cole's
Bayou Louis

TC

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tie-breaker

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13-Dec-11

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	Labranche Central Marsh Creation							0	0
2	Lake Lery Shoreline Marsh Creation						1	0	0
2	White Ditch Marsh Creation							0	0
2	Bayou Grande Cheniere Marsh Creation and Terracing							0	0
2	Northwest Turtle Bay Marsh Creation							0	0
2	Bayou L'Ours Terracing						3	0	0
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3	Cole's Bayou Marsh Restoration						2	0	0
4	Oyster Bayou Marsh Restoration							0	0
		0	0	0	0	0	0	0	0
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Priority Project List Number 21
Candidate Projects

Public Meetings – November 2011

Abbeville	New Orleans
November 16th	November 17th

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APPENDIX A

PRIORITY LIST 21 SELECTION PROCESS

Coastal Wetlands Planning, Protection and Restoration Act Guidelines for Development of the 21st 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) 1-20; 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 1-20; 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 2011.
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 21st Priority Project List

A. The selection of the 21st 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 21st PPL. The Technical Committee may also recommend demonstration projects for the 21st PPL.

C. The CWPPRA Task Force will review the Technical Committee recommendations and determine which projects will receive Phase 1 funding for the 21st PPL.

21st Priority List Project Development Schedule (dates subject to change)

December 2010	Distribute public announcement of PPL 21 process and schedule
December 8, 2010	Winter Technical Committee Meeting, approve Phases I and II (Baton Rouge)
January 19, 2011	Winter Task Force Meeting (New Orleans)
January 25, 2011	Region IV Planning Team Meeting (Abbeville)
January 26, 2011	Region III Planning Team Meeting (Morgan City)
January 27, 2011	Regions I and II Planning Team Meetings (New Orleans)
February 22, 2011	Coast-wide RPT Voting Meeting (Baton Rouge)
February 24 - March 11, 2011	Agencies prepare fact sheets for RPT-nominated projects
March 22-23, 2011	Engineering/ Environmental Work Groups review project features, benefits & prepare preliminary cost estimates for nominated projects (Baton Rouge)
March 24, 2011	P&E Subcommittee prepares matrix of nominated projects showing initial cost estimates and benefits
April 8, 2011	Spring Technical Committee Meeting, select PPL 21 candidate project (Baton Rouge)
May/June/July	Candidate project site visits
June 8, 2011	Spring Task Force Meeting (Lafayette)
July/August/ September	Env/Eng/Econ Work Group project evaluations
September 20, 2011	Fall Technical Committee Meeting, O&M and Monitoring funding recommendations (Baton Rouge)
October 12, 2011	Fall Task Force meeting, O&M and Monitoring approvals (New Orleans)
October 26, 2011	Economic, Engineering, and Environmental analyses completed for PPL 21 candidates
November 16, 2011	PPL 21 Public Meeting (Abbeville)
November 17, 2011	PPL 21 Public Meeting (New Orleans)
December 13, 2011	Winter Technical Committee Meeting, recommend PPL 21 and Phase I and II approvals (Baton Rouge)
January 19, 2012	Winter Task Force Meeting, select PPL 21 and approve Phase II requests (New Orleans)

Candidate Projects Located in Region 1

PPL21 Fritchie Marsh Creation and Terracing

Coast 2050 Strategy:
Coastwide: Dedicated dredging to create, restore, or protect wetlands

Project Location:
Region 1, Pontchartrain Basin, St. Tammany Parish, located approximately 3 miles southeast of Slidell, Louisiana. Portions of the project are located on Big Branch Marsh National Wildlife Refuge.

Problem:
A significant portion of the Fritchie Marsh was lost due to Hurricane Katrina. Post storm shallow open water areas dominate the landscape which reduces the effectiveness of the PO-06 project. Wetlands in the project vicinity are being lost at the rate -0.92%/yr based on the extended boundary during 1984 to 2011. These marshes cannot recover without replacement of lost sediment, which is critical if the northshore marshes are to be sustained. Marshes near the intersection of Highways 433 and 90 are semi-impounded with substantially limited tidal exchange.

Goals:
Project goals include restoring and nourishing marsh, maintaining the structural integrity of Salt Bayou, creating edge and reducing wave erosion, and improving tidal exchange to created and existing marshes south of Prevost Island. Specific goals of the project are: 1) create 580 acres of marsh including 10,000 feet of tidal creeks and 10 acres of ponds; 2) nourish an additional 20 acres or marsh, and 3) create 36 acres of emergent habitat by constructing 50,000 linear feet of earthen terraces.

Proposed Solution:
Approximately 4.5 million cubic yards of material would be placed into two marsh creation areas to restore 580 acres and nourish 20 acres of brackish marsh. Material would be dredged from a borrow site in Lake Pontchartrain. The borrow site would be designed to avoid and minimize impacts to sensitive aquatic habitat and existing banklines. Tidal creeks and ponds would be constructed prior to placement of dredged material and retention levees would be gapped to support estuarine fisheries access to achieve a functional marsh. Culverts would be installed to improve tidal exchange to marsh located south of Prevost Island. Approximately 50,000 linear feet of earthen terraces would be constructed and planted.

Project Benefits:
The project would result in approximately 575 net acres of marsh over the 20-year project life.

Project Costs:
The total fully-funded cost is $46,080,753.

Preparers of Fact Sheet:
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Fritchie Marsh Creation and Terracing (PPL21 Candidate)

Culverts *

Marsh Creation *

Terrace Field (see note)*

Project Boundary*

* denotes proposed features

Note: lines do not represent terrace alignments

0.8 0 0.8 Kilometers

0.8 0 0.8 Miles

Scale 1:45,000

Map ID: USGS-NWRC 2011-11-0055

Map Date: September 21, 2011

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

PPL21 LaBranche Central Marsh Creation

Coast 2050 Strategy:
Coastwide: Dedicated Dredging for Wetland Creation

Project Location:
Region 4, Pontchartrain Basin, St. Charles Parish, bounded to the North by the railroad running parallel to I-10, to the west by the marsh fringe just east of Bayou LaBranche, to the south by Bayou Traverse and to the east by marsh fringe west of a pipeline canal.

Problem:
Dredging of access/flotation canals for construction of I-10 resulted in increased salinity & altered hydrology that exacerbated conversion of wetland vegetation into shallow open water bodies. Land loss is estimated to be -0.543 percent/year based on USGS data from 1984 to 2011 within the extended project boundary.

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

Proposed Solution:
The proposed solution consists of the creation of 762 acres of emergent wetlands and the nourishment of 140 acres of existing wetlands using dedicated dredging from Lake Pontchartrain. The marsh creation area would have a target elevation the same as average healthy marsh. It is proposed to place the dredge material in the target area with the use of retention dikes along the edge of the project area. If degradation of the containment dikes has not occurred naturally by TY3, gapping of the dikes will be mechanically performed. Successful wetland restoration in the immediate area (PO-17 constructed in 1994) clearly demonstrates the ability for these wetlands to be restored using material from a sustainable borrow area (outlet end of Bonnet Carre Spillway). Engineering monitoring surveys of the marsh creation area and borrow area are planned as well.

Project Benefits:
The project would result in approximately 731 net acres of marsh over the 20-year project life.

Project Costs:
The total fully-funded cost is $42,159,208.

Preparer of Fact Sheet:
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LaBranche Central Marsh Creation
(PPL21 Candidate)

Marsh Creation *

Project Boundary

* denotes proposed features

0.3 0 0.3 Kilometers

0.3 0 0.3 Miles

Scale 1:20,000

Map ID: USGS-NWRC 2011-11-0056
Map Date: July 12, 2011

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

Candidate Projects Located in Region 2

PPL21 Lake Lery Shoreline Marsh Creation

Coast 2050 Strategy:
Coastwide: Dedicated Dredging to Create, Restore, or Protect Wetlands; and, Maintenance of Lake Shoreline Integrity.

Project Location:
Region 2, Breton Sound Basin, along the northern and eastern rim of Lake Lery in St. Bernard Parish

Problem:
The marshes forming the northern and eastern shoreline of Lake Lery 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 recently formed open water areas north of the lake. Based on USGS hyper temporal data analysis (1984 to 2011), land loss for the area is -1.42% per year. The subsidence rate is estimated at 1.1 to 2.0 ft per century (Coast 2050, Lake Lery mapping unit).

Goals:
The project area encompasses 589 acres. The primary goals of the project are to 1) create/nourish 557 acres of marsh through dedicated dredging: and, 2) restore/stabilize approximately 3 miles of Lake Lery shoreline.

Proposed Solution:
Create 432 acres and nourish 125 acres of intermediate marsh via dedicated dredging with borrow from nearby Lake Lery. Containment dikes will be constructed in situ and will be gapped within 3 years of construction to allow greater tidal exchange and estuarine fisheries access. Restore 15,911 feet of the lake rim by constructing a lakeshore berm feature, designed to reduce shoreline erosion. Approximately 17 acres will be constructed above water and will settle to intertidal elevation by year 5. The berm will be vegetated to stabilize the feature and reduce shoreline erosion.

Project Benefits:
The project would result in approximately 412 net acres of marsh over the 20-year project life.

Project Costs:
The total fully-funded cost is $31,278,012.

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Lake Lery Shoreline Marsh Creation (PPL21 Candidate)

Shoreline Berm*
Marsh Creation/Nourishment *
Borrow *
Project Boundary *
* denotes proposed features

0.8 0 0.8 Kilometers
0.8 0 0.8 Miles
Scale 1:45,000

Map ID: USGS-NWRC 2011-11-0047
Map Date: September 07, 2011

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

PPL21 White Ditch Marsh Creation

Coast 2050 Strategy:
Coastwide: Dedicated Dredging to Create, Restore, or Protect Wetlands; Off-shore and Riverine Sand and Sediment Resources.
Region 2 Regional Ecosystem Strategies: Restore and Sustain Marshes.

Project Location:
Region 2, Breton Sound Basin, Plaquemines Parish, South of the White Ditch Siphon canal

Problem:
The project area is an open water body immediately adjacent to the east bank of the Mississippi River levee. The area is a failed former agricultural impoundment that has also been cut off from the Mississippi River effectively eliminating any input of sediment or nutrients from the River. Surrounding marshes have changed from fresh marsh and possibly swamp, to intermediate marsh due to the elimination of freshwater inputs from the Mississippi River. High levels of subsidence (2.1 to 3.5 ft/century) have further exacerbated land loss and have increased water depths because of the lack of sediment input from the Mississippi River. The project area encompasses 380 acres. Land loss rates in the area are estimated at -0.79% per year between 1984 and 2011.

Goals:
The primary goal of this project is to create/nourish emergent intermediate marsh habitat using dedicated renewable dredged sediment from the Mississippi River. Specific project goals include (1) creating 357 acres of marsh habitat, (2) nourishing 23 acres of existing marsh habitat, and (3) creating approximately 9,500 linear feet of tidal creeks.

Proposed Solution:
Hydraulically dredge and place approximately 2 million cubic yards of renewable sediments from the Mississippi River to create 357 acres of marsh habitat, nourish 23 acres of existing marsh habitat, create approximately 9,500 linear feet of tidal creeks, and plant 50% of the created marsh area using the appropriate intermediate species. The project would complement the White Ditch Resurrection and Outfall Management project (BS-12) intended to provide increased freshwater inputs through the existing siphon at White Ditch. Freshwater input would work synergistically to help sustain the marsh created via sediment delivery from the Mississippi River.

Project Benefits:
The project would result in approximately 331 net acres of marsh over the 20-year project life.

Project Costs:
The total fully-funded cost is $30,520,482.

Preparers of Fact Sheet:
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White Ditch Marsh Creation Sediment Delivery (PPL21 Candidate)

Marsh Creation/Nourishment *

Project Boundary *

* denotes proposed features

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

Scale 1:30,000

Map ID: USGS-NWRC 2011-11-0054
Map Date: June 15, 2011

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

PPL21 Bayou Grande Cheniere Marsh Creation and Terracing

rev 12/01/11

Coast 2050 Strategy:
Coastwide: Dedicated Dredging for Wetland Creation

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

Problem:
Significant marsh loss has occurred south of Lake Hermitage with the construction of numerous oil and gas canals, subsidence, and sediment deprivation. Based on the hyper-temporal analysis conducted by USGS for the extended project boundary, loss rates in the area are estimated to be -0.66% per year for the period 1984 to 2011.

Goals:
The primary goal is to re-create marsh habitat in the open water areas and nourish marsh along the eastern side of the Bayou Grande Cheniere ridge. Terraces are proposed to reduce fetch in several large open water bodies and to capture suspended sediment delivered via the West Pointe a la Hache siphons. Specific goals of the project are: 1) Create approximately 509 acres (383 acres of marsh creation and 126 acres of marsh nourishment) of marsh with dredged material from the Mississippi River; 2) create 85,600 linear feet (55 acres of marsh) of terraces.

Proposed Solution:
Riverine sediments will be hydraulically dredged and pumped via pipeline to create/nourish approximately 509 acres of marsh in the project area. Containment dikes will be constructed as necessary. The proposed design is to place the dredged material to a fill height of +2.0 ft NAVD88. Dewatering and compaction of dredged sediments should produce marsh elevations conducive to the establishment of emergent marsh and within the intertidal range.

Approximately 85,600 linear feet of terraces (55 acres subaerial) will be constructed. The terraces will be 500 to 700 feet long, have a 20 ft crown width, an initial constructed height of +3.5 ft NAVD88 (settled height of +2.5ft), side slopes of 1(V):3(H), and 300 to 500-ft gaps between terraces. Terrace rows will be staggered and 250 feet apart. The terrace slopes will be planted with two staggered rows of smooth cordgrass, on 5-ft centers. The terrace crowns will be planted with two rows of seashore paspalum on 5-ft centers.

Project Benefits:
The project would result in approximately 419 net acres of marsh over the 20-year project life.

Project Costs:
The total fully-funded cost is $46,645,803.

Preparer of Fact Sheet
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Bayou Grande Cheniere Marsh Creation and Terracing (PPL21 Candidate)

Marsh Creation *

Terrace Field *

Project Boundary

* denotes proposed features

0.6 0 0.6 Kilometers

0.6 0 0.6 Miles

Scale 1:35,000

Map ID: USGS-NWRC 2011-11-0049
Map Date: May 19, 2011

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

PPL21 Northwest Turtle Bay Marsh Creation

Coast 2050 Strategy:
Coastwide: Dedicated Dredging for Wetland Creation

Project Location:
Region 2, Barataria Basin, Jefferson Parish, northwest of Turtle Bay

Problem:
Historic wetland loss in the area stems from shoreline erosion along Turtle Bay and interior marsh loss from subsidence, sediment deprivation, and construction of oil and gas canals. Based on the hyper-temporal analysis conducted by USGS for the extended project boundary, loss rates in the area are estimated to be -0.61% per year for the period 1984 to 2011.

Goals:
The primary goal is to re-create marsh habitat in the open water areas and nourish existing marsh within the project area. The specific goal of the project is to create approximately 760 acres (423 acres of marsh creation and 337 acres of marsh nourishment) of marsh with dredged material from Turtle Bay or Little Lake.

Proposed Solution:
The proposed project would create approximately 423 acres (90% of the 470 open water acres) and nourish approximately 337 acres of marsh using sediment dredged from Turtle Bay or Little Lake. Existing canal spoil banks, emergent marsh, and limited segments of containment dikes will be used to guide the distribution of the dredged material. Containment dikes will be degraded as necessary to reestablish hydrologic connectivity with adjacent wetlands.

Project Benefits:
The project would result in approximately 407 net acres of marsh over the 20-year project life.

Project Costs:
The total fully-funded cost is $23,198,757.

Preparers of Fact Sheet
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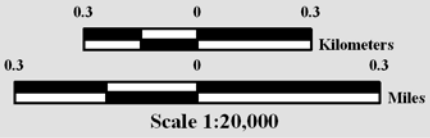
Northwest Turtle Bay Marsh Creation
(PPL21 Candidate)

Marsh Creation/Nourishment *

Project Boundary *

* denotes proposed features



Scale 1:20,000

Map ID: USGS-NWRC 2011-11-0048
Map Date: August 11, 2011

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

PPL21 Bayou L'Ours Terracing

Coast 2050 Strategy:
Coastwide: Terracing, Vegetative Plantings, Maintain or Restore Ridge Functions
Local and Common Strategies: Maintain function of Bayou L'Ours Ridge

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

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

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

Proposed Solution:
The proposed solution is to construct 93,250 linear feet of terraces. The terraces would have a target elevation of +2.0 NAVD88, 15-foot top width, and 5:1 side slopes. The terraces will be planted with a row of plants on the crest and a row of plants on each side; spacing between plants will be 2.5 feet.

Project Benefits:
The project would result in approximately 58 net acres of marsh over the 20-year project life.

Project Costs:
The total fully-funded cost is $ $5,447,519.

Preparer of Fact Sheet:
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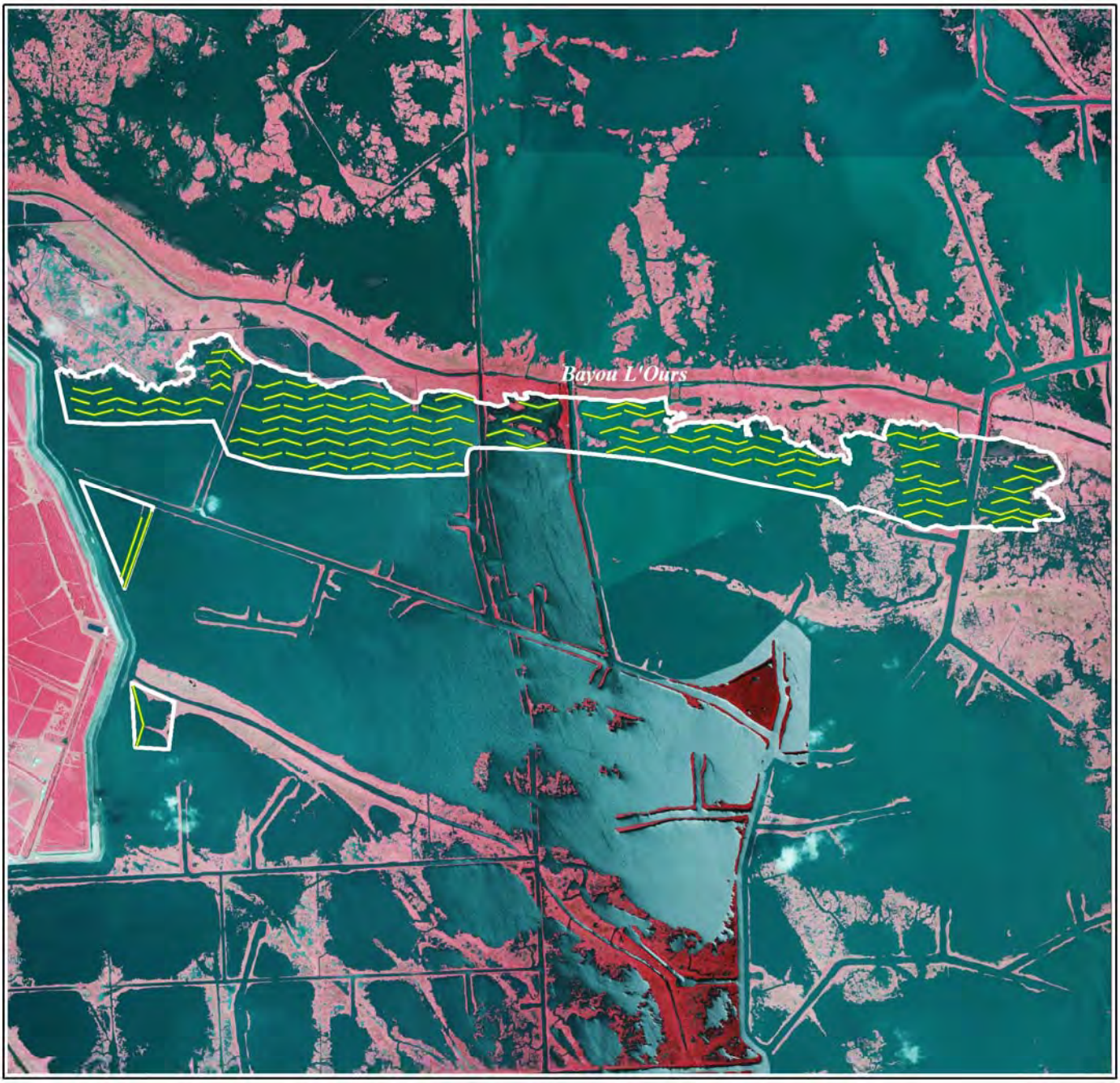

Bayou L'Ours Terracing
(PPL21 Candidate)

Terraces *

Project Boundary *

* denotes proposed features

Scale 1:46,000

Map ID: USGS-NWRC 2011-11-0051
Map Date: May 24, 2011

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

Candidate Projects Located in Region 3

PPL21 Southeast Marsh Island Marsh Creation

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

Problem:
Areas of interior emergent marsh on Marsh Island have been converted to open water, primarily due to hurricane activity and subsidence. Marsh Island has been projected to lose 12.9% of its marsh habitat through 2050. Areas targeted by this project are those with the greatest historic land loss and are proximal to East Cote Blanche Bay. The project area encompasses 610 acres. Within the project area, 270 acres were marsh and the remaining 340 acres were open water as of 2010. Land loss rates in the area are estimated at -0.46 percent/year based on USGS data from 1985 – 2010.

Goals:
The primary goal of this project is to create/nourish brackish marsh habitat using dedicated dredging of offshore sediment. Borrow material will be targeted from the state offshore area to limit water quality impacts, avoid *in situ* deltaic sediments, and minimize impacts to potential oyster lease areas. Specific project goals include (1) creating 341 acres of marsh habitat, (2) nourishing 269 acres of marsh habitat, and (3) creating approximately 10,000 linear feet of tidal creeks.

Proposed Solution:
Hydraulically dredge and place approximately 1.3 million cubic yards of offshore sediments into two marsh creation areas to create 341 acres of marsh habitat, nourish 269 acres of marsh habitat, create approximately 10,000 linear feet of tidal creeks, and plant 50% of the created marsh area using the appropriate brackish species. The project would complement the constructed Marsh Island Hydrologic Restoration (TV-14) and the East Marsh Island Marsh Creation (TV-21) projects.

Project Benefits:
The project would result in approximately 338 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $22,532,305.

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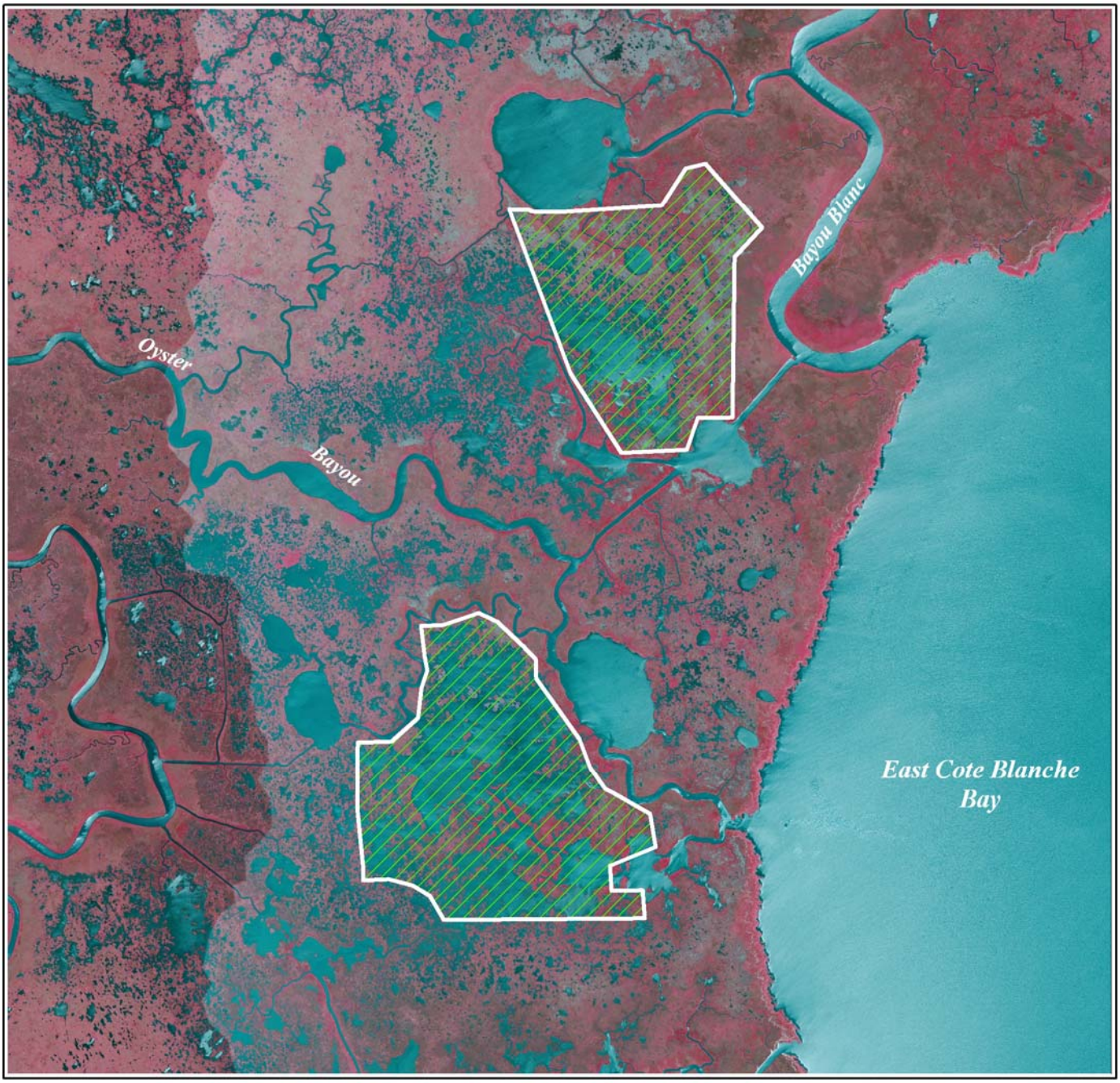

Southeast Marsh Island Marsh Creation and Nourishment (PPL21 Candidate)

Marsh Creation/Nourishment *

Project Boundary *

* denotes proposed features

Scale 1:30,000

Map ID: USGS-NWRC 2011-11-0053
Map Date: August 11, 2011

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

PPL21 Cole's Bayou Marsh Restoration

Coast 2050 Strategy:
Coastwide: Dedicated Dredging to Create, Restore, or Protect Wetlands
Regional: Restore and Sustain Wetlands

Project Location:
Region 3, Teche/Vermilion Basin, Vermilion Parish, east of Freshwater Bayou Canal

Problem:
Project area wetlands are undergoing loss at -0.42 %/year based on 1983 to 2011 USGS data from the extended boundary. Wetland loss processes in this area include subsidence/sediment deficit, interior ponding and pond enlargement, and storm impacts resulting in rapid episodic losses. In addition, significant interior marsh loss has resulted from salt water intrusion and hydrologic changes associated with increasing tidal influence. As hydrology in this area has been modified, habitats have shifted to more of a floatant marsh type, resulting in increased susceptibility to tidal energy and storm damages. Habitat shifts and hydrologic stress reduce marsh productivity, a critical component of vertical accretion in wetlands.

Goals:
Specific goals of the project are: 1) create 365 acres of brackish marsh in recently formed shallow open water; 2) nourish 53 acres of existing brackish marsh; and, 3) increase freshwater and sediment inflow into interior wetlands by improving project area hydrology.

Proposed Solution:
Create 365 acres and nourish 53 acres of brackish marsh via dedicated dredging with borrow from nearby Vermilion Bay. Although this is not considered an "external" source of material, significant sediment inflows into this area may result in some borrow area infilling. Half of the marsh creation acres would be planted. Encourage additional freshwater nutrient and sediment inflow from Freshwater Bayou Canal by dredging a portion of Cole's Bayou; and, installing a series of culverts throughout the project area. North structures are envisioned to allow the ingress of sediment, water, and fisheries organisms into the semi-impounded project area, but avoid backflow of water and potential loss of interior marsh sediment (i.e., north to south flow only). Southern structures are envisioned to allow water to drain out of the marsh.

Project Benefits:
The project would result in approximately 398 net acres of marsh over the 20-year project life.

Project Costs:
The total fully-funded cost is $26,631,224.

Preparer of Fact Sheet:
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Cole's Bayou Restoration
(PPL21 Candidate)

Channel Improvement *

1, 48" cluvert with sluice and flap gates *

2, 48" cluverts with flag-gates *

Marsh Creation/Nourishment *

Project Boundary *

* denotes proposed features

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

Scale 1:35,000

Map ID: USGS-NWRC 2011-11-0044
Map Date: October 18, 2011

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

Candidate Projects Located in Region 4

PPL21 Oyster Bayou Marsh Restoration

Coast 2050 Strategy:
Coastwide: Dedicated Dredging to Create, Restore, or Protect Wetlands

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

Problem:
Altered hydrology, drought stress, saltwater intrusion and hurricane induced wetland losses have caused the area to undergo interior marsh breakup. Recent impacts from Hurricane Rita in 2005 and Hurricane Ike in 2008 have resulted in the coalescence of Oyster Lake with interior water bodies increasing wave/wake related erosion. Based on USGS hyper temporal data analysis (1984 to 2011), land loss for the area is -0.75% per year. The subsidence rate is estimated at 0.0 to1.0 ft per century (Coast 2050, Mud Lake mapping unit).

Goals:
The project boundary encompasses 809 acres. Specific goals of the project are: 1) create 510 acres of saline marsh in recently formed shallow open water; 2) nourish 90 acres of existing saline marsh; 3) create 14,140 linear feet of terraces; and, 4) reduce wave/wake erosion.

Proposed Solution:
Approximately 510 acres of marsh would be created and 90 acres would be nourished. Sediment needed for the fill would be mined approximately one and a half miles offshore in the Gulf of Mexico. Half of the created acres would be planted. Tidal creeks and ponds would be constructed prior to placement of dredged material and retention levees would be gapped to support estuarine fisheries access to achieve a functional marsh. Approximately 14,140 linear feet of earthen terraces would be constructed and planted.

Project Benefits:
The project would result in approximately 489 net acres of marsh over the 20-year project life.

Project Costs:
The total fully-funded cost is $29,781,355.

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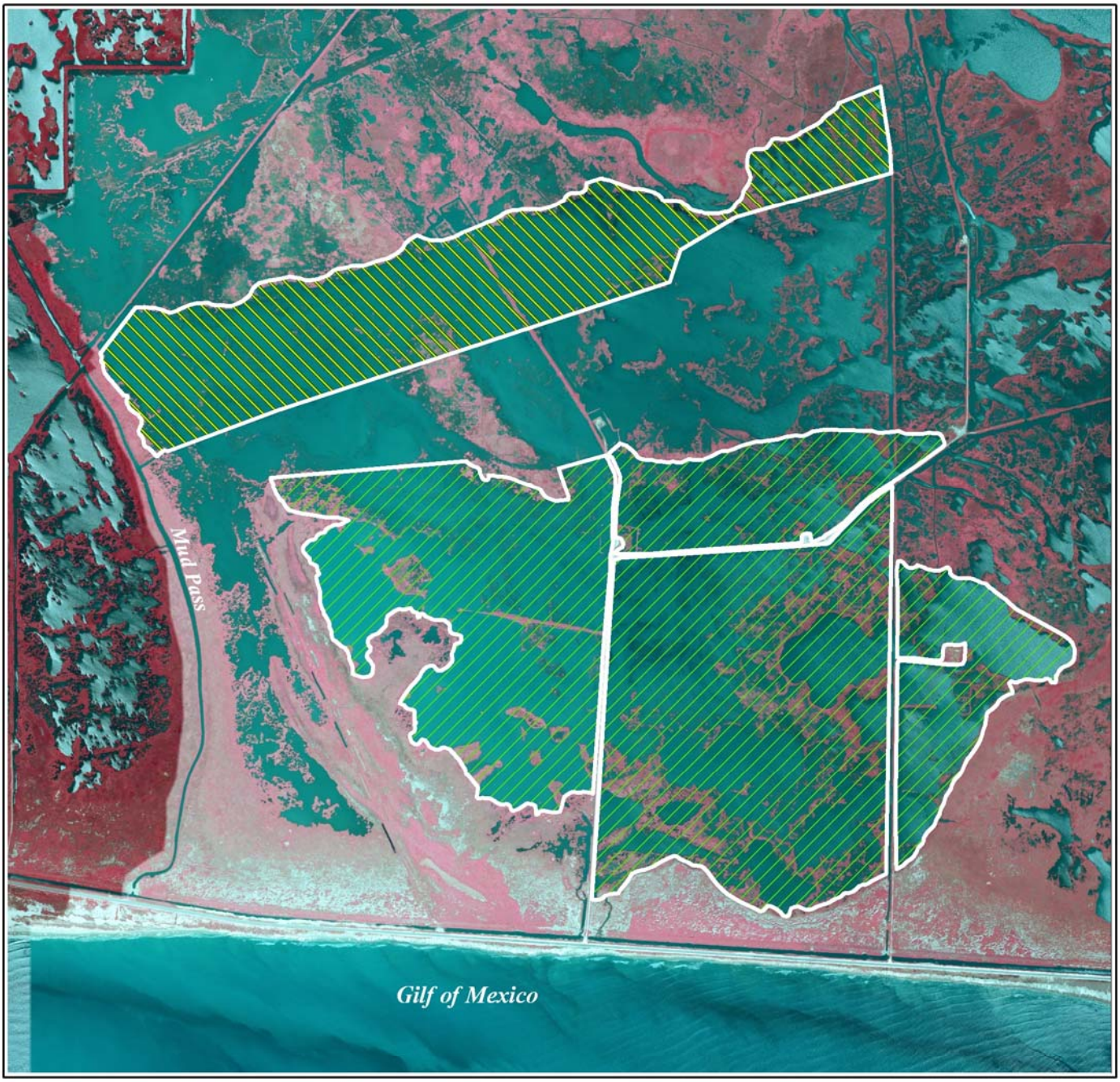
Kimberly Clements, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 204
kimberly.clements@noaa.gov



Oyster Bayou Restoration
(PPL21 Candidate)

Marsh Creation/Nourishment *

Terrace Field *

Project Boundary *

* denotes proposed features

0.3 0 0.3 Kilometers

0.3 0 0.3 Miles

Scale 1:20,000

Map ID: USGS-NWRC 2011-11-0045
Map Date: September 02, 2011

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

Candidate Demonstration Projects

PPL21 Automated Marsh Planting Demonstration Project
(formerly called "Alternative to Manual Planting")

Coast 2050 Strategy:
Coastwide: Dedicated dredging for wetland creation; Wetlands Vegetation Plantings
Regional: Dedicated delivery of sediment for marsh building by any means feasible; Habitat Diversification and Vegetation Planting

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

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

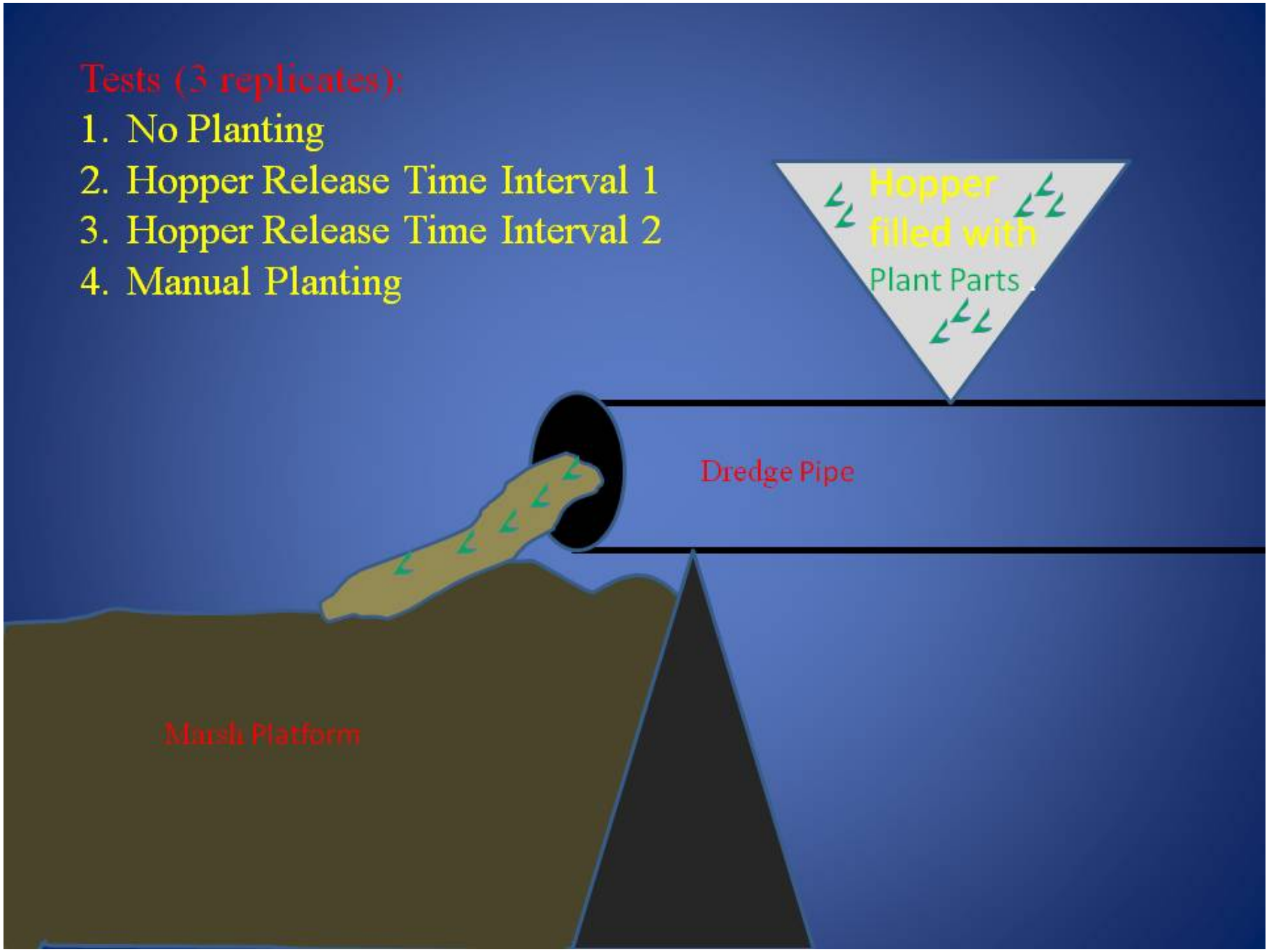
Goals:
The goal of this project is to demonstrate a possible alternative to manual plantings at dredged material placement sites. *Specific goals*: 1) To test if "plant parts" (not limited to rhizomes, seeds, stolons, stem cuttings, etc.) can survive passing through a dredge pipe; 2) To determine if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

Proposed Solution:
Install a hopper on the dredge pipe allowing "plant parts" to be carried to the dredged material placement site through the pipeline. The demo would consist of 3 replicates of 4 separate treatments: *Concept 1* – three flagged-off areas of the dredged material placement site to be the "natural recruitment" area; *Concept 2* – three flagged-off areas of the dredged material placement site to be the typical "hand planted" area; *Concept 3* – three cells having dredged material pre-loaded thru the dredge pipe with "plant parts" at "time/dredged quantity interval 1"; and *Concept 4* – three cells having dredged material pre-loaded thru the dredged pipe with "plant parts" at "time/dredged quantity interval 2".

Project Benefits:
Potential project benefits include: 1) reduce the cost of planting and 2) increase habitat value.

Project Costs:
The total fully funded cost is $2,300,608.

Preparers of Fact Sheet:
Nathan Dayan, USACE. 504-862-2530, nathan.s.dayan@usace.army.mil
Susan Hennington, USACE, 504-862-2504, susan.m.hennington@usace.army.mil
John Petitbon, USACE, 504-862-2732, john.b.petitbon@usace.army.mil
Steve Roberts, USACE, 504-862-2517, steve.w.roberts@usace.army.mil


Tests (3 replicates):
1. No Planting
2. Hopper Release Time Interval 1
3. Hopper Release Time Interval 2
4. Manual Planting
Hopper filled with Plant Parts
Dredge Pipe
Marsh Platform

PPL21 Deltalok® Coastline Stabilization Demonstration Project

Coast 2050 Strategy:
Coastwide Strategy: Maintain, Protect or Restore Ridge Functions; Vegetation Planting;
Regional Strategies: Protect Bay, Lake and Shorelines; Restore and Maintain Barrier Islands and Critical Land Forms

Potential Demonstration Project Location:
Coastwide

Problem:
Marsh and wetland loss occurs throughout coastal Louisiana due to shoreline erosion. The loss of vegetation has accelerated the rate of erosion, and reducing this loss is proving difficult and costly. Shore stabilization is crucially needed to prevent the eroding marsh footprint. Though wetland restoration with grass plugs is being done in some areas, it is limited in scope. Shoreline and ridge stabilization is still needed to prevent the eroding marsh footprint.

Goals:
The goal of this project is demonstrate the successful use of the Deltalok® Terra-Soft Block™ (TSB) System to both armor and repair shorelines, and serve as a viable planting ground for marsh vegetation.

Proposed Solution:
This project proposes shoreline protection and stabilization treatments with vegetative plantings utilizing the Deltalok® TSB System. Two different applications of the Deltalok® Terra-Soft Block™ (TSB) System will be constructed: 3-700ft Shoreline Protection treatments at 2 separate locations/environments; and 3 Shoreline Repair treatments due to washouts. The Shoreline Protection treatments will total 4,200 feet and be constructed to a height of 4 feet. The Shoreline Repair treatments have designed cross-sections of 30 foot wide double-wall washout closures, with a maximum depth of 4 feet in center, and an average depth of 3 feet, with the double wall to be approximately 12-18 inches above water at average tide. Assumptions of water depth, weather, and tide conditions will be subject to actual conditions once the project location is chosen.

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

Project Costs
The total fully funded cost is $1,750,312.

Preparer of Fact Sheet:
Scott Wandell, USACE, 504-862-1878, scott.f.wandell@usace.army.mil

System Components

TSBs ready to install

Empty TSB ready for fill material

Deltalok Interlocking Plate

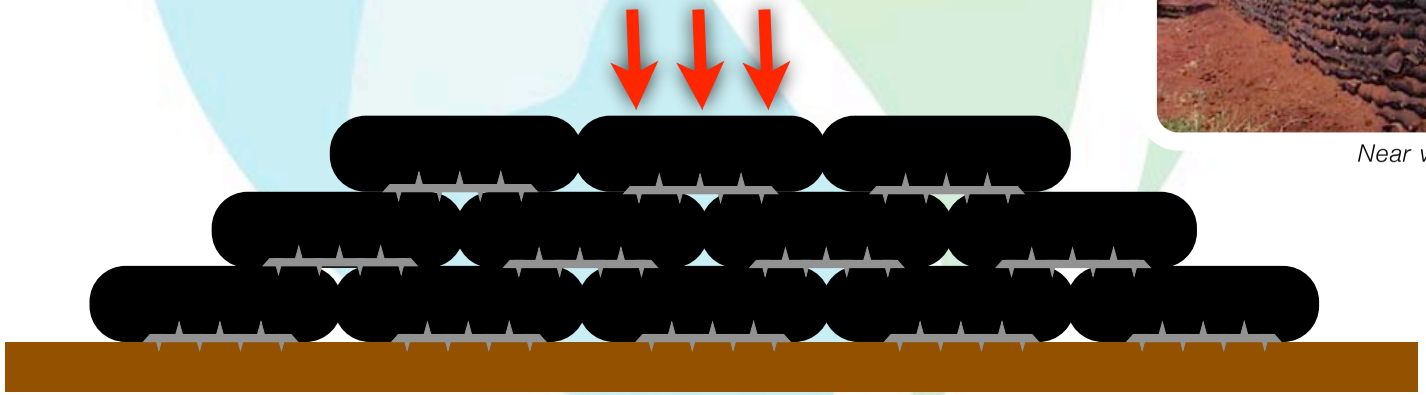
- Deltalok® Terra-Soft Block™ (TSB)
  - Soft, earthen building block, Terra-Soft Block™
  - Made from geotextile material (5 micron mesh)
  - Material filters soil particles
  - Water permeable and root friendly
- Deltalok® Interlocking Plate
  - 100% recycled plastic, made in USA
  - Interlocks Deltalok® TSB's
  - Provides mechanical connection to geogrid for backfill reinforcement

Construction

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

Deltalok® reinforced slope

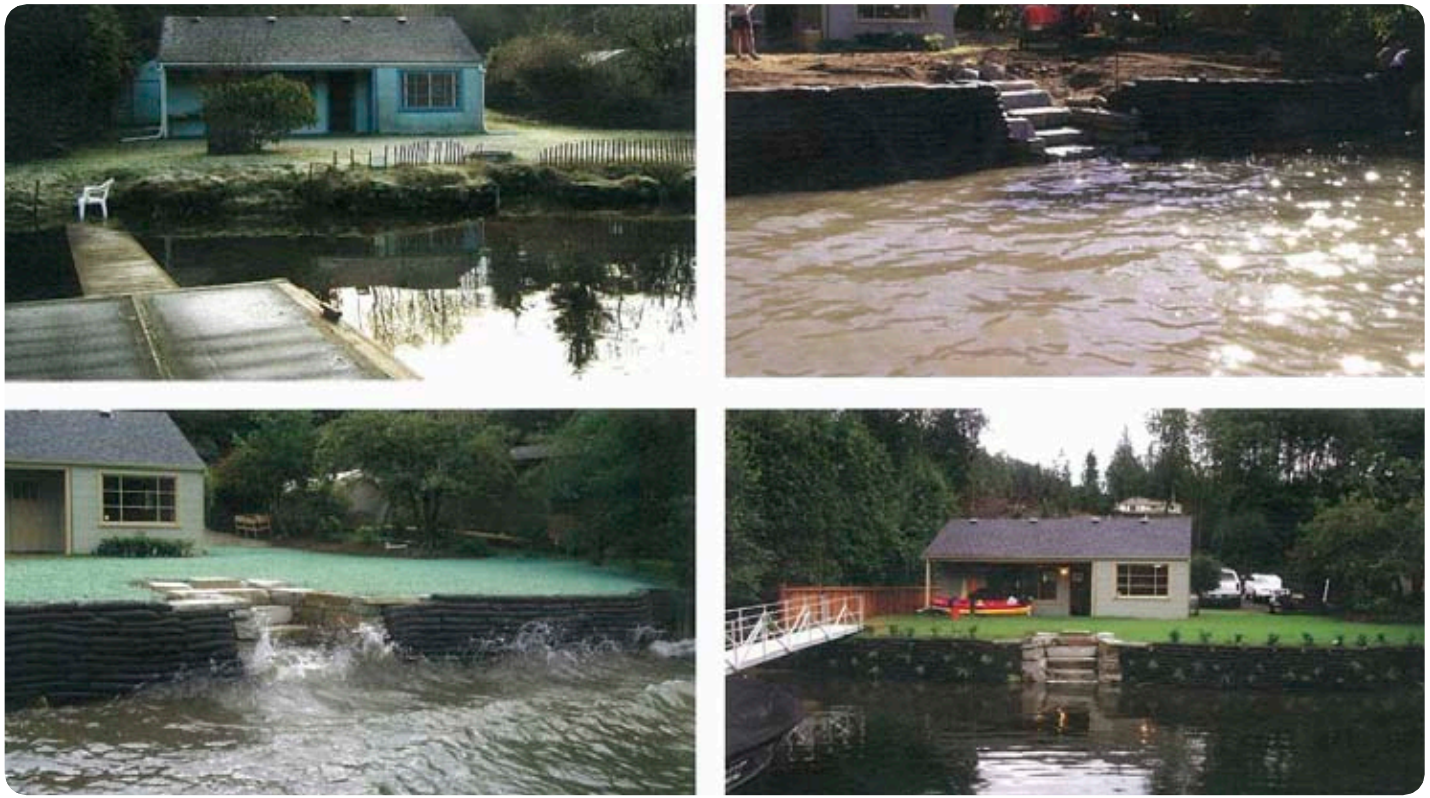
Near vertical Deltalok® wall



Building a Deltalok® TSB Wall

Coastal Erosion Control - Newcastle Island, BC Canada

Riverbank protection - UK



Lakeside erosion control - Great Lakes

PPL21 Gulf Saver Bags Demonstration Project

Coast 2050 Strategy:
Maintenance of Bay and Lake Shoreline Integrity; Vegetative Planting

Potential Demonstration Project Location:
Coastwide

Problem:
Shoreline erosion is one of the primary causes of loss in Louisiana's coastal marshes. Vegetative plantings are frequently used to combat shoreline erosion, especially in areas where funding or poor soils limit the use of hard structures (e.g., rock dikes). Though wetland restoration with grass plugs is being done, success is limited in many challenged sites. New technologies and applications are needed to achieve greater stabilization, higher survivability, and integration of diverse species back into to these areas, particularly where invasive species like roseau cane (*Phragmites sp.*) have become excessively dominant.

Goals:
The goal of this project is to demonstrate the applicability of Gulf Saver Bags for long term stabilization and reestablishment of coastal vegetation. Specifically, the project goal is to demonstrate the effectiveness of Gulf Saver Bags to provide a more efficient, reliable, and cost effective vegetative planting technique for shoreline stabilization.

Proposed Solution:
The Gulf Saver Bag is a biodegradable burlap bag filled with an all natural humus mix. The humus is a mixture of all natural organic nutrients that support maximum plant growth and survivability and custom mixed to be site specific. The plants "plugged" into the Gulf Saver Bag are native species such as smooth cordgrass.

Three shoreline stabilization treatments will be evaluated. The treatments will consist of different alignments and spacing along the shoreline. Each treatment will be employed along 750 feet of shoreline and will consist of three replicates for a total of 6,750 feet. Plant growth, survival, and shoreline position will be monitored.

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

Project Costs:
The total fully funded cost is $1,053,181.

Preparers of Fact Sheet
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P.J. Marshall, Restore the Earth Foundation Inc, pjm@gulfsaversolutions.com
Leslie Carrere, Gulf Saver Solutions, lc@gulfsaversolutions.com

Gulf Saver Bags Demonstration Project

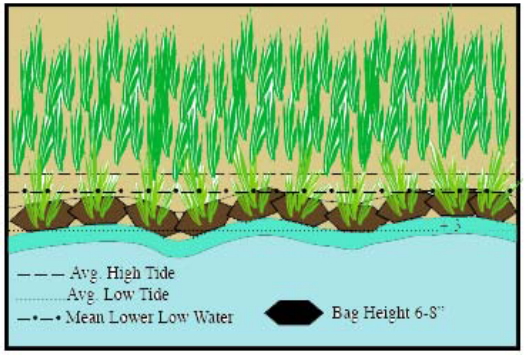
Habitat Enhancement through Vegetative Plantings Using Gulf Saver Bags
Conceptual Treatments

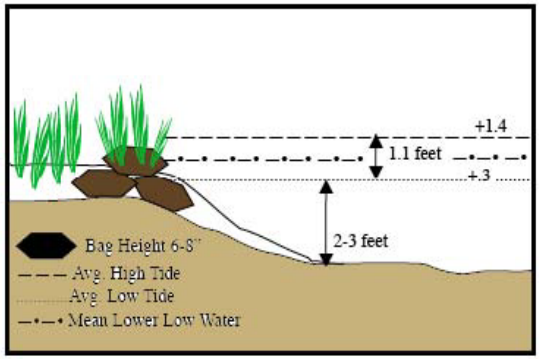
Each treatment will be 750 ft long with 3 replicates

Shallow water-shoreline treatment
Single row of Gulf Saver Bags
Along vegetated edge of shoreline

Foreshore treatment
Distance from shoreline-TBD
3 bags stacked to increase height

Staggered row treatment
Spacing and distance from shoreline-TBD
3 bags stacked in outer row





Final dimensions and spacing for treatments to be determined during engineering and design

PPL21 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)
Fritchie Marsh Creation and Terracing	1	St. Tammany	2,021	209	575	$46,080,753	$4,080,095	$42,000,658	$3,344,557	$16,003	$80,140
Labranche Central Marsh Creation	1	St. Charles	902	309	731	$42,159,208	$3,885,298	$38,273,910	$3,065,695	$9,921	$57,673
Lake Lery Shoreline Marsh Creation	2	St. Bernard	589	172	412	$31,278,012	$3,277,356	$28,000,656	$2,271,516	$13,206	$75,918
White Ditch Marsh Creation	2	Plaquemines	380	119	331	$30,520,482	$2,807,119	$27,713,363	$2,211,330	$18,583	$92,207
Bayou Grande Cheniere Marsh Creation and Terracing	2	Plaquemines	1,729	190	419	$46,645,803	$3,572,873	$43,072,930	$3,387,165	$17,827	$111,326
Northwest Turtle Bay Marsh Creation	2	Jefferson	807	187	407	$23,198,757	$2,354,788	$20,843,969	$1,683,220	$9,001	$56,999
Bayou L'Ours Terracing	2	Lafourche	1,047	32	58	$5,447,519	$903,617	$4,543,902	$385,639	$12,051	$93,923
Southeast Marsh Island Marsh Creation	3	Iberia	610	216	338	$22,532,305	$2,273,834	$20,258,471	$1,632,615	$7,558	$66,664
Cole's Bayou Marsh Restoration	3	Vermilion	3,840	234	398	$26,631,224	$3,136,805	$23,494,419	$1,922,965	$8,218	$66,913
Oyster Bayou Marsh Restoration	4	Cameron	809	231	489	$29,781,355	$3,165,322	$26,616,033	$2,162,912	$9,363	$60,903

rev 12/01/11

PPL 21 Demonstration Project Evaluation Matrix

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

Demonstration Project Name	Lead Agency	Total Fully Funded Cost	Parameter (P_n)						**Total Score**	Averaging of Agency Scores
			P_1 Innovativeness	**P_2** Applicability or Transferability	**P_3** Potential Cost Effectiveness	**P_4** Potential Env Benefits	**P_5** Recognized Need for Info	**P_6** Potential for Technological Advancement		
Automated Marsh Planting (aka "Alternative to Manual Planting")	COE	$2,300,608	3	3	2	2	2	2	**14**	13.7
Deltalok	COE	$1,750,312	2	3	3	2	2	2	**14**	13.9
Habitat Enhancement through Vegetative Plantings Using Gulf Saver Bags	FWS	$1,053,181	2	3	1	2	2	2	**12**	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_1) *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_2) *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_3) *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_4) *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_5) *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_6) *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

21st Priority Project List Meeting Announcement

Date:	November 16, 2011	November 17, 2011
Time:	7:00 p.m.	7:00 p.m.
Location:	Vermilion LSU Agriculture Center 1105 West Port Street Abbeville, Louisiana	U.S. Army Corps of Engineers District Assembly Room 7400 Leake Avenue New Orleans, Louisiana

21st Priority Project List (PPL) Public Meetings

Two public meetings will be held to present the results of candidate project evaluations under review and consideration for CWPPRA PPL 21. The evaluation results will be presented for all the PPL 21 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 13, 2011 in Baton Rouge at the Louisiana Department of Wildlife and Fisheries to recommend projects for PPL 21 selection.

Written comments may be provided no later than November 28, 2011 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

CWPPRA
Priority Project List 21
Candidate Project Evaluation Results

Public Meetings

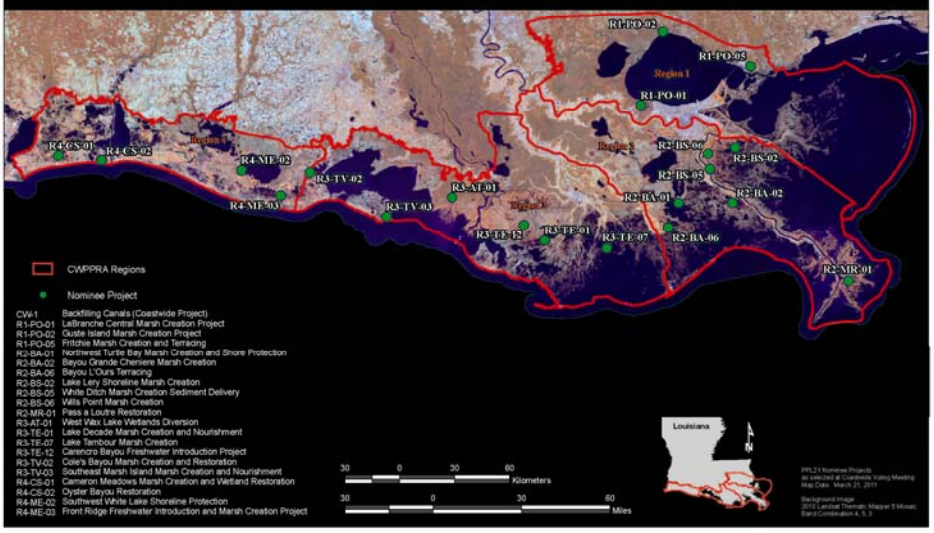
November 16 & 17, 2011

Abbeville and New Orleans

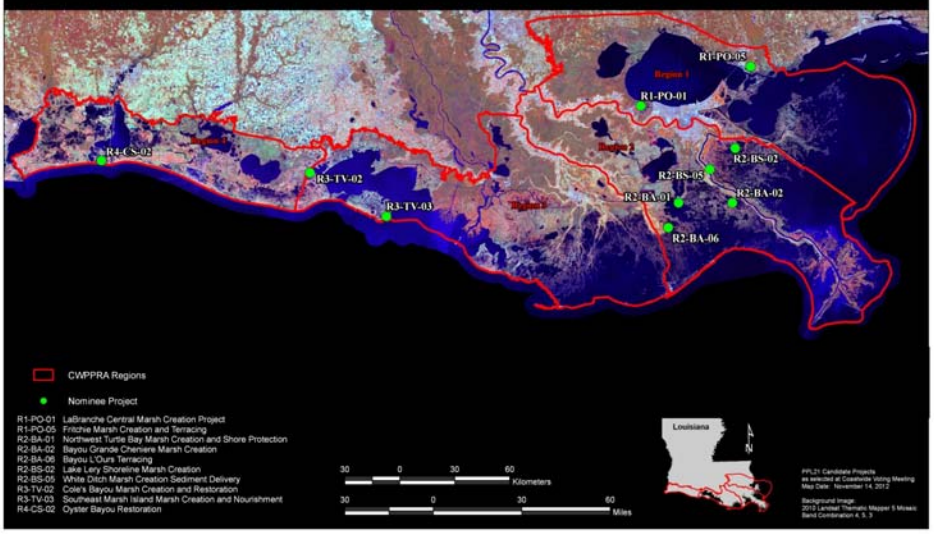
Overview of Project Nomination and Selection Process

- Regional Planning Team meetings were held January 25-27, 2011 (Abbeville, Morgan City, and New Orleans) for each Coast 2050 region to accept project ideas from the public and government participants.
- Regional Planning Teams voted on February 22, 2011 at a Coastwide Voting Meeting to select 21 nominee projects and six demonstration projects.
- The Technical Committee selected 10 candidate projects and 3 demo candidates for detailed evaluation on April 8, 2011.

PPL21 Nominee Projects



PPL21 Candidate Projects



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 operations, maintenance, and monitoring for each project.

Region 1

Fritchie Marsh Creation and Terracing

Labranche Central Marsh Creation

600 ac of marsh creation

Lake Pontchartrain borrow site

50,000 ft of terraces

Culverts/tidal creeks

575 net acres

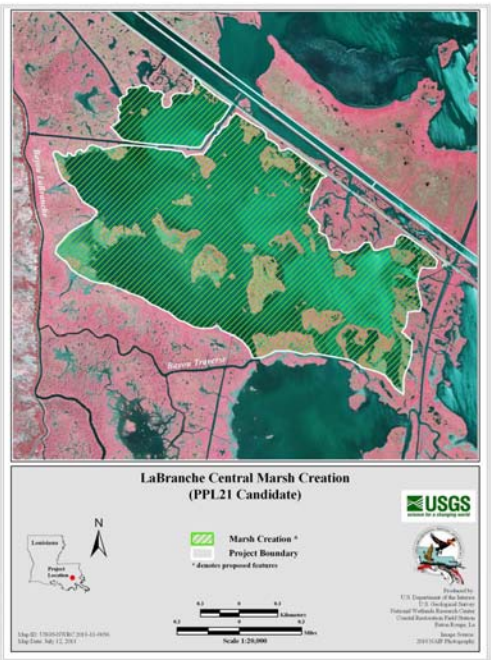
$46,080,753

902 ac of marsh creation

Lake Pontchartrain borrow site

731 net acres

$42,159,208



Region 2

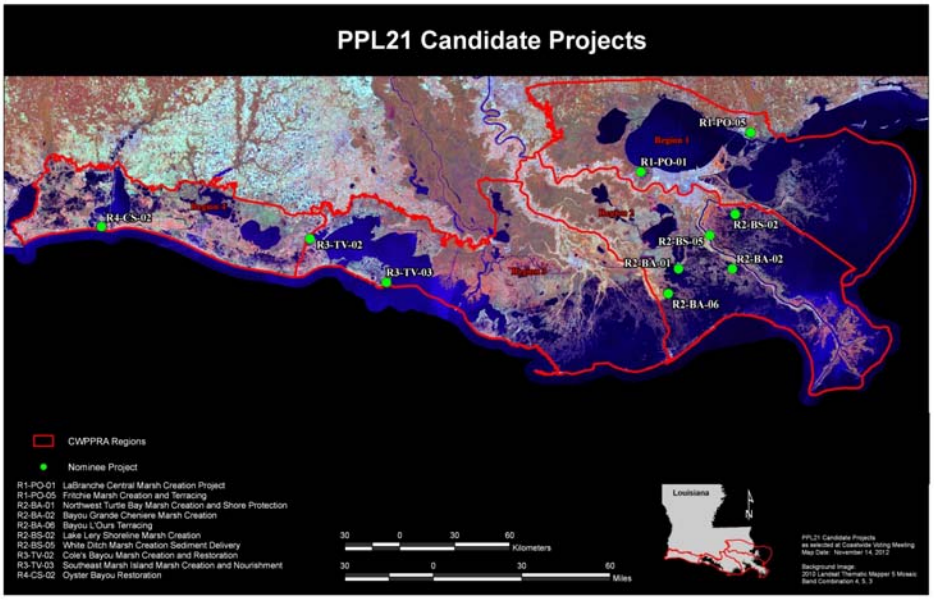
Lake Lery Shoreline Marsh Creation

White Ditch Marsh Creation

Bayou Grande Cheniere Marsh Creation and Terracing

Northwest Turtle Bay Marsh Creation

Bayou L'Ours Terracing



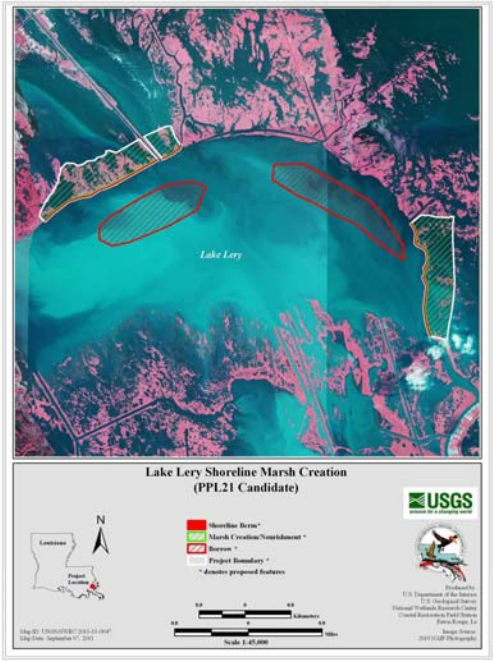
557 ac of marsh creation

Restore lakeshore rim

Lake Lery borrow site

412 net acres

$31,278,012



380 ac of marsh creation

Mississippi River borrow site

331 net acres

$30,520,482

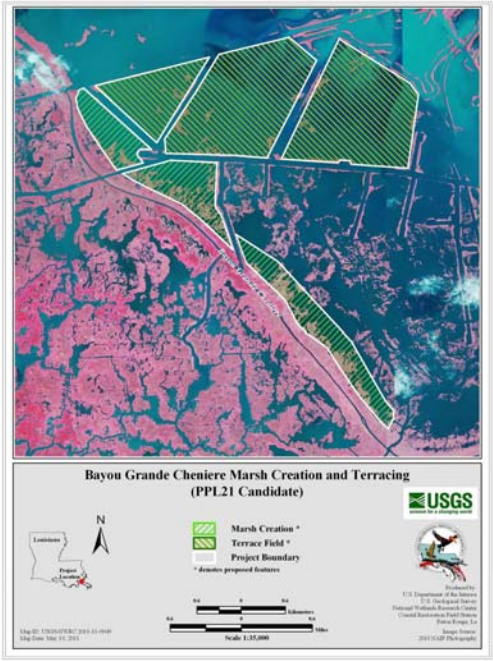
509 ac of marsh creation

Mississippi River borrow site

85,600 ft of terraces

419 net acres

$48,646,882

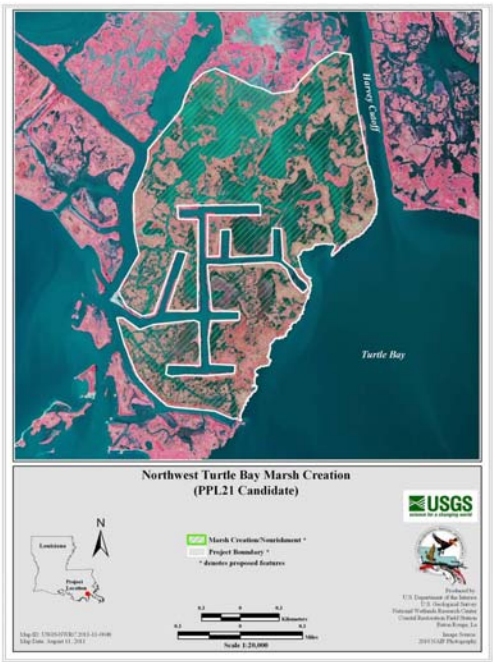


760 ac of marsh creation

Little Lake borrow site

407 net acres

$23,198,757

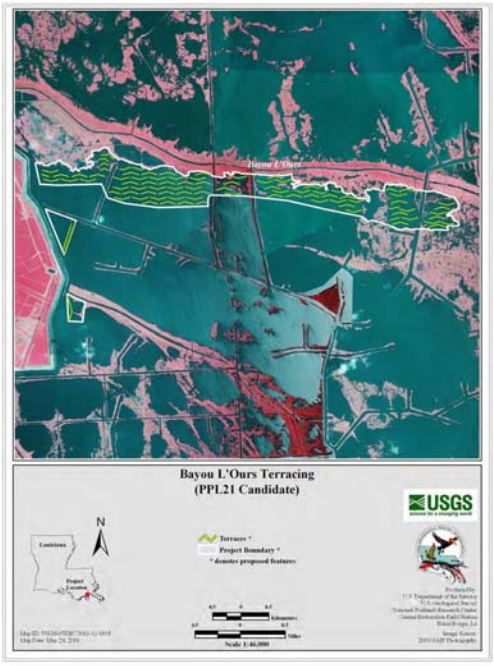


93,250 ft of terraces

Protection of Bayou L'Ours ridge

58 net acres

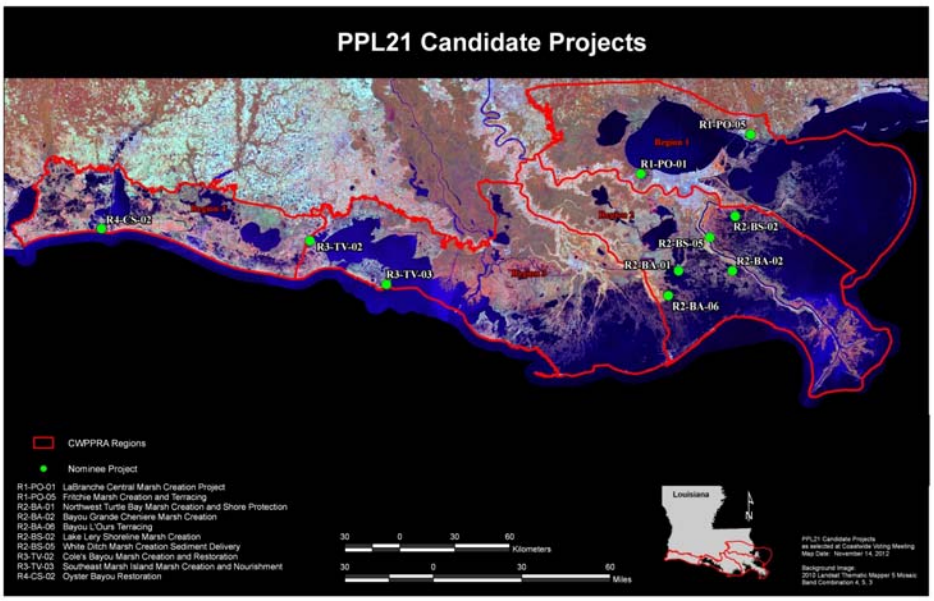
$5,447,519



Region 3

Southeast Marsh Island Marsh Creation

Cole's Bayou Marsh Restoration

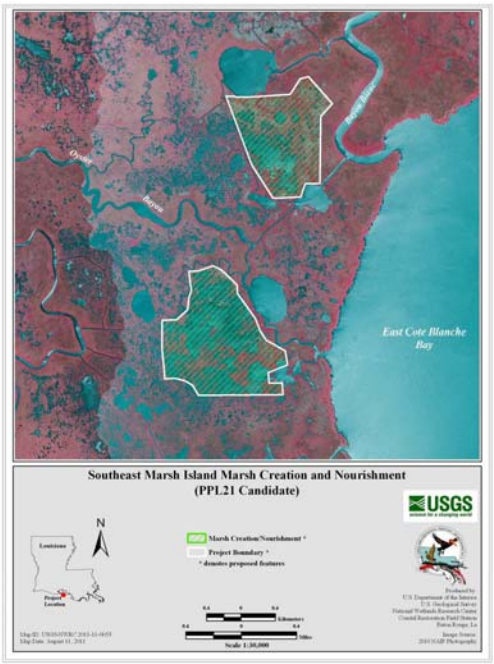


610 ac of marsh creation

Gulf of Mexico borrow site

338 net acres

$22,532,305



418 ac of marsh creation

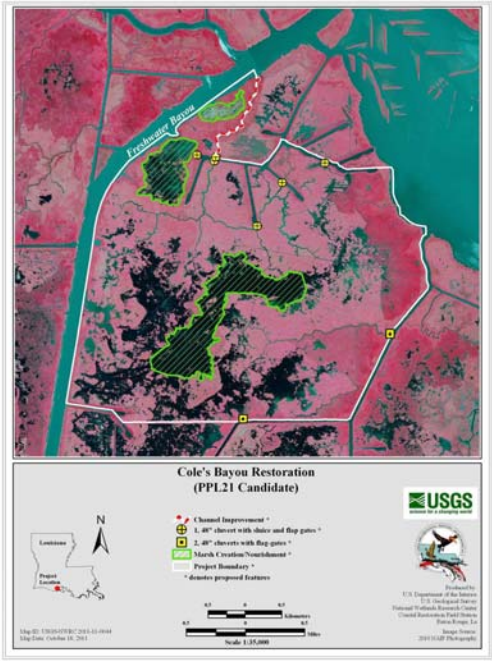
Vermilion Bay borrow site

Improve Cole's Bayou

Structures to allow freshwater input

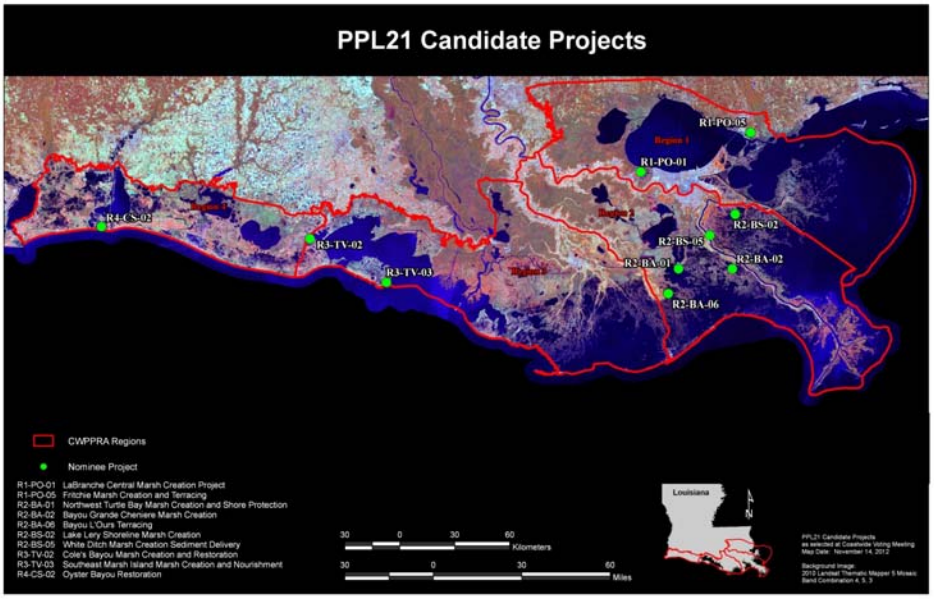
398 net acres

$26,631,224



Region 4

Oyster Bayou Marsh Restoration



600 ac of marsh creation

Gulf of Mexico borrow site

14,140 ft of terraces

489 net acres

$29,781,355

PPL21 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)
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Oyster Bayou Marsh Restoration	4	Cameron	809	231	489	$29,781,355	$3,165,322	$26,616,033	$2,162,912	$9,363	$60,903

Demonstration Projects

- Contain technology that has not been fully developed for routine application in coastal Louisiana or in certain regions of the coastal zone.
- Contain new technology which can be transferred to other areas of the coastal zone.
- Are unique and are not duplicative in nature.

Demonstration Projects

- Demonstration Projects were nominated at the 4 Regional Planning Team meetings.
- Six demonstration nominees were selected at the February 22, 2011 Coastwide Voting Meeting.
- The Technical Committee selected 3 candidate demos on April 8, 2011.

Proposed Demonstration Projects

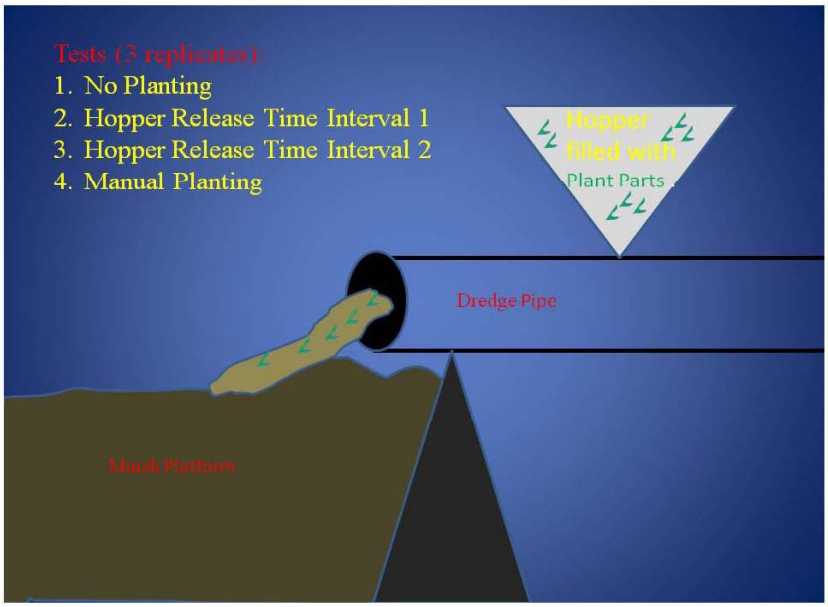
Automated Marsh Planting

Deltalok Coastline Stabilization

Gulf Saver Bags

Automated Marsh Planting

- Goal: Determine the effectiveness of delivering "plant parts" via the dredge pipeline as an alternative to manual planting of marsh creation sites.
- Features: Rhizomes, seeds, stem cuttings, etc. will be delivered to the marsh creation site through the dredge pipeline. A hopper will be installed on the dredge pipe so that plant parts can be placed directly into the dredged slurry. Four treatments will be monitored: 1) natural recruitment; 2) manual plantings; 3) delivery of plant parts via pipeline at time/quantity interval 1; 4) delivery of plant parts at time/quantity interval 2.
- Cost: The total fully funded cost is $2,300,608.



Deltalok Coastline Stabilization

- Goal: Determine the effectiveness of the Deltalok Terra-Soft Block System to armor/repair shorelines and serve as a suitable substrate for vegetative plantings.
- Features: The Deltalok Terra-Soft Block System will be used in shoreline protection and shoreline repair treatments. Protection treatments total 4,200 feet and are constructed to 4 feet in height. Repair treatments will be designed to close washouts/breaches along marsh shorelines. All treatments will be planted with the appropriate vegetation.
- Cost: The total fully funded cost is $1,750,312.

System Components

EMS

TSBs ready to install

- Deltalok® Terra-Soft Block™ (TSB)
  - Soft, earthen building block, Terra-Soft Block™
  - Made from geotextile material (5 micron mesh)
  - Material filters soil particles
  - Water permeable and root friendly
- Deltalok® Interlocking Plate
  - 100% recycled plastic, made in USA
  - Interlocks Deltalok® TSB's
  - Provides mechanical connection to geogrid for backfill reinforcement

Empty TSB ready for fill material

Deltalok Interlocking Plate

Deltalok®

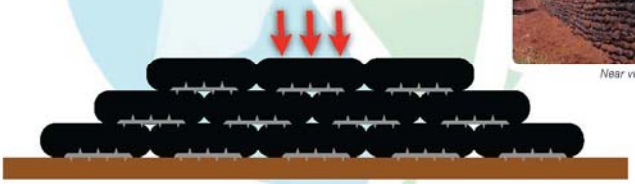
8

Construction

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

Deltalok® reinforced slope

Near vertical Deltalok® wall



Building a Deltalok® TSB Wall

Deltalok®

13

Riverbank protection - UK

Deltalok®

28

Gulf Saver Bags

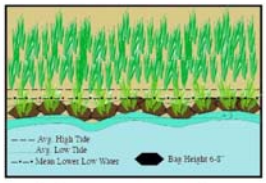
- Goal: Determine the effectiveness of Gulf Saver Bags as a cost effective vegetative planting technique for shoreline stabilization.
- Features: Gulf Saver Bags are biodegradable burlap bags filled with an organic mix to support plant growth and maximize survivability. Plants are plugged into the bags. Three potential shoreline stabilization treatments to be evaluated include: 1) on-shore treatment; 2) foreshore treatment; and 3) staggered rows. Each treatment will address 750 ft of shoreline and consist of 3 replicates.
- Cost: The total fully funded cost is $1,053,181.

Habitat Enhancement through Vegetative Plantings Using Gulf Saver Bags
Conceptual Treatments

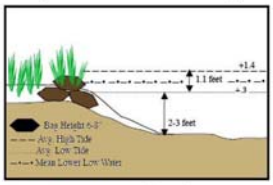
Each treatment will be 750 ft long with 3 replicates

Marsh Shoreline

Shallow water-shoreline treatment
Single row of Gulf Saver Bags
Along vegetated edge of shoreline



Foreshore treatment
Distance from shoreline-TBD
3 bags stacked to increase height



Staggered row treatment
Spacing and distance from shoreline-TBD
3 bags stacked in outer row

Final dimensions and spacing for treatments to be determined during engineering and design

PPL 21 Demonstration Project Evaluation Matrix

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

Demonstration Project Name	Lead Agency	Total Fully Funded Cost	Parameter (P_n)						Total Score	Averaging of Agency Scores
			P_1 Innovativeness	P_2 Applicability or Transferability	P_3 Potential Cost Effectiveness	P_4 Potential Env Benefits	P_5 Recognized Need for Info	P_6 Potential for Technological Advancement		
Automated Marsh Planting (aka "Alternative to Manual Planting")	COE	$2,300,608	3	3	2	2	2	2	**14**	13.7
Deltalok	COE	$1,750,312	2	3	3	2	2	2	**14**	13.9
Habitat Enhancement through Vegetative Plantings Using Gulf Saver Bags	FWS	$1,053,181	2	3	1	2	2	2	**12**	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_1) *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_2) *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_3) *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_4) *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_5) *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_6) *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.

Project Selection

- CWPPRA Technical Committee meets on December 13 in Baton Rouge at the LA Department of Wildlife and Fisheries
  - 4 projects will be selected, by agency vote, for Phase 1 (E&D) funding
  - 1 demonstration project may be selected for funding
- CWPPRA Task Force meets on January 19 in New Orleans at the Corps of Engineers
  - Project selection by the Technical Committee is usually accepted

Written Comments Should be Mailed to the CWPPRA Task Force (Deadline: November 28, 2011)

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 70160
Or Fax to 504-862-2572
Attn: Brad Inman
Email: Brad.L.Inman@usace.army.mil

Public Comments

CEMVN-PM-C (10-1-7a) 16 Nov 11

MEMORANDUM FOR RECORD

SUBJECT: Notes from PPL21 Public Meeting, Wednesday, 16 Nov 11, Abbeville, LA 7:00 p.m. Vermilion LSU Agriculture Center

1. Mr. Brad Inman opened the meeting at 7:10 p.m. Mr. Inman went over the details of what would be covered at the meeting. He stated that the goal of the meeting is to go over the Priority Project List (PPL) 21 process and present the PPL 21 candidate and demonstration projects, and then open the floor for public support and/or comments. A sign-in sheet is included as **Enclosure 1**. The agenda for the meeting is included as **Enclosure 2**. PPL 21 Candidate Project Packets were handed out to meeting attendees and are included as **Enclosure 3**. Mr. Inman asked that written public comments be provided to the CWPPRA Task Force no later than November 28, 2011, for consideration by the Technical Committee at their December 13th meeting.

2. Introductions around the room were made. Mr. Inman introduced Mr. Kevin Roy. Mr. Roy went over a Powerpoint presentation (included as **Enclosure 4**) that included the PPL 21 process and the ten (10) candidate projects (one slide per candidate project). The slides for each project included: project map, project location, project description, acres of marsh that would remain in the project area after 20 years, and the fully funded cost estimate. Projects were presented in the following order: Region 1, 2, 3 and 4. There are also three (3) proposed demonstration projects this year. Mr. Roy explained that demonstration projects must demonstrate a new technique/technology that could be applied on a coast-wide basis and they should be unique and not duplicative of existing strategies. Mr. Roy went over these three projects (one slide each). Mr. Roy then went over the remaining steps in the PPL 21 process. He explained that after the public meetings, the Technical Committee will meet on December 13, 2011 to review the project results and make a recommendation to the Task Force as to which projects should receive further consideration. The Task Force will then meet on January 19, 2012 and select projects for PPL 21.

3. The floor was opened for public comments:

Lake Lery Shoreline Marsh Creation

- Sherrill Sagrera, Vermilion Parish Landowner, asked how they intend to prevent erosion of the Lake Lery shoreline with this project since it appears the project would rebuild a feature that has already eroded away once. Mr. Roy answered that the Lake shore will be built to the same or higher elevation for a standard containment dike and that shoreline erosion is taken into account when developing project benefits. Mr. Roy added that they hope to rebuild something that is better than what was historically there with a shoreline that is higher, wider, and slopes out into the Lake. Mr. Sagrera asked if what they intend to build

is expected to hold up better than what was there previously. Mr. Roy answered that there is potential for decent material to be dredged from Lake Lery, but that may not be the case. Mr. Chris Allen responded that Hurricane Katrina caused much of the shoreline erosion in this area and that the project objective is to build a bigger berm that would not erode away in one event.

White Ditch Marsh Creation

- W.P. Edwards III, representing Vermilion Corporation, asked how the cost of dredge material from the Mississippi River compares with pumping material from the Gulf of Mexico if the dredging distances were the same. Mr. Roy answered that the cost difference for this project is approximately $5.00 to $8.00 per cubic yard of material. Mr. Roy added that dredge material from the Gulf of Mexico is the most expensive, followed by using material from the River, and then using an adjacent bay or lake source.

Bayou L'Ours Terracing

- Randy Moertle, representing the Little Lake Land Company, spoke in support of the Bayou L'Ours Terracing Project because it this is one of the larger remaining east-west natural land bridges and this terracing project represents the best bang for your buck. He pointed out that after the top candidate projects are chosen, this project could also be added for a fairly cheap cost.

- Archie Chaisson III, representing Lafourche Parish Government, spoke in support of the Bayou L'Ours Project and stated that it is the number one priority project for the Parish and has been for the past twelve PPL cycles because if this ridge is not protected then the ridge will degrade and will open up the areas behind it.

Cole's Bayou Marsh Restoration

- Sherrill Sagrera, Vermilion Parish Landowner, spoke in support of the Cole's Bayou Project and stated that it is the number one project for Vermilion Parish. He pointed out that it is a good project because fresh water from the Mermentau Basin comes out right at the project area and will help to create marsh and that it would be a multi-benefit project that would really help out the area.

- Randy Moertle, representing the McIlhenny Company, stated that they are the landowner of this area of Cole's Bayou and fully support this project. He added that the project seems to be very cost effective based on the evaluation matrix and is ranked close to the top of the list of proposed projects and is a good project.

- W.P. Edwards III, representing Vermilion Corporation, spoke in support of the Cole's Bayou project. He suggested that as these projects are evaluated, they should be considered based on an overall strategy. Since they are all marsh creation projects, they should consider what makes one better than others. He

pointed out that Cole's Bayou is an important project strategically because: Little Vermilion Bay is a dedicated dredging sediment source that is currently filling in and therefore represents a renewable source; after Hurricanes Rita and Ike, there was significant breakup of marshes and this area is the closest to the Bay and needs to be protected because if this area breaches then there will be more tidal influx from the Bay into the interior marshes; and helping this area will buy time for the interior marshes and if rebuilding this area works, then other areas of the marsh can be rehabilitated.

- Mark Shirley, with the LSU Agriculture Center and the Louisiana Sea Grant, spoke in support of the Cole's Bayou Project. He stated that the Vermilion Parish Coastal Advisory Committee meeting was held earlier this evening and that they wish to reiterate the importance of this project to Vermilion Parish and that the local government and police jury are very much in favor of this project and want to see it move forward.

Demonstration Projects

- Sherrill Sagrera, Vermilion Parish Landowner, asked if the demonstration projects should work everywhere, how the Deltalok Coastline Stabilization Demonstration Project fit the category since it can only be used for projects with shore stabilization components. Mr. Roy responded that demonstration projects do not have to have universal applications, but just need to be applicable in multiple locations throughout the coast rather than only one particular area. Mr. Sagrera then asked if one demonstration project would be conducted this year. Mr. Roy answered that the Technical Committee and Task Force can choose to select up to one demonstration project, but that they are not required to select any.

- Mark Shirley, with the LSU Agriculture Center and the Louisiana Sea Grant, pointed out that most of the candidate projects have some sort of pumping of materials to create marsh and that the Automated Marsh Planting Demonstration Project could be applied to most of the candidate projects, making it the best choice of the three.

4. Mr. Inman thanked everyone for attending and stated that the schedule for next year's meetings is included in the PPL packet information.

5. Meeting was adjourned at 8:05 pm.

CEMVN-PM-C (10-1-7a) 17 Nov 11

MEMORANDUM FOR RECORD

SUBJECT: Notes from PPL21 Public Meeting, Thursday, 17 Nov 11, New Orleans, LA 7:00 p.m. U.S. Army Corps of Engineers Headquarters.

1. Mr. Brad Inman opened the meeting at 7:05 p.m. Mr. Inman went over the details of what would be covered at the meeting. He stated that the goal of the meeting is to go over the Priority Project List (PPL) 21 process and present the PPL 21 candidate and demonstration projects, and then open the floor for public support and/or comments. A sign-in sheet is included as **Enclosure 1**. The agenda for the meeting is included as **Enclosure 2**. PPL 21 Candidate Project Packets were handed out to meeting attendees and are included as **Enclosure 3**. Mr. Inman asked that written public comments be provided to the CWPPRA Task Force no later than November 28, 2011, for consideration by the Technical Committee at their December 13th meeting.

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3. The floor was opened for public comments:

Bayou L'Ours Terracing

- Archie Chaisson III, representing Lafourche Parish Government, spoke in support of this project as it is cost effective and stated that it is Lafourche Parish's number one priority project. He pointed out that in the past a major problem with this project was an uncooperative landowner to the south. However, there is now a new landowner who has pledged support for the project.

Northwest Turtle Bay Marsh Creation

- Marnie Winter, representing Jefferson Parish, spoke in support of this project. The project is very cost effective and represents the last plug in the land bridge west of Barataria Bay Waterway. The project would complete the land bridge and keep salt water from getting into Bayous Perot and Rigolettes and Lake Salvador. The project is Jefferson Parish's number one priority project.

- Vickie Duffourc, representing the Bayou Segnette Boater's Association, spoke in support of this project and added that a plug is needed at this location to prevent flushing in of salt water to Lake Salvador and into Little Lake.

- Jason Smith, representing the Jefferson Parish Marine Fisheries Advisory Board, spoke in support of this project because it is cost effective. Jefferson Parish has been concentrating on two land bridges and trying to create a line of defense to protect the metropolitan area and prevent salt water intrusion on the West Bank. This project works with other shoreline protection and dredging projects to the north and is well suited to this high erosion area. This project would help prevent Little Lake and Bayous Perot and Rigolettes from becoming one big system.

Demonstration Projects

- Marnie Winter, representing Jefferson Parish, spoke in support of the Deltalok Coastline Stabilization Project and added that Jefferson Parish has a site at Bayou Villars with both shoreline protection and stabilization components that would be a good site to test the Deltalok system if it is chosen.

- Vickie Duffourc, representing the Bayou Segnette Boater's Association, spoke in support of the Deltalok Coastline Stabilization Project and also supported testing the system at the Bayou Villars site.

4. Meeting was adjourned at 7:40 pm.

Murry, Allison MVN-Contractor

From: Inman, Brad L MVN
Sent: Monday, November 28, 2011 4:19 PM
To: Murry, Allison MVN-Contractor
Subject: FW: PPL 21 Project Nominee - Bayou L'Ours Terracing Project (UNCLASSIFIED)
Attachments: Scan0014.pdf

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: Lin Kiger [mailto:lin@lafourchechamber.com]
Sent: Monday, November 28, 2011 3:26 PM
To: Inman, Brad L MVN
Cc: Archie P. Chaisson III
Subject: PPL 21 Project Nominee - Bayou L'Ours Terracing Project

Mr. Inman,

Please accept this nomination letter for the Bayou L'Ours Terracing Project from the Lafourche Chamber of Commerce.

I appreciate your time in this matter; please do not hesitate to contact me with any questions or comments you may have.

Regards, Lin

Thank you for your time,

Lin Kiger <mailto:lin@lafourchechamber.com>

President/CEO

Lafourche Chamber of Commerce <http://www.lafourchechamber.com/>

P.O. Box 1462

Larose, LA 70373

985-693-6700

985-693-6702 fax

Don't forget about our School "ream of paper" Supply Drive!
<http://www.lafourchechamber.com/calendar.php?event_id=76>

Lafourche
Chamber of Commerce

November 28, 2011

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

Re: PPL 21 Project Nominee- Bayou L 'Ours Terracing Project

Dear Mr. Inman,

The Lafourche Chamber of Commerce is a membership driven, non-profit, business organization, representing members along Bayou Lafourche as well as in Grand Isle and the Bayou Region of southern Louisiana. The Lafourche Chamber of Commerce recognizes that the Barataria and Terrebonne basins are the two most rapidly eroding estuaries on earth. Representing over 400 member businesses and individuals, the Lafourche Chamber of Commerce would like to respectfully submit the following comments of support for PPL 21 Project Nominee "Bayou L 'Ours Terracing Project," currently under consideration within the Coastal Wetlands Planning and Protection Act (CWPPRA) program.

Our organization stands behind this project because of its location in the exceptionally vulnerable Barataria Basin and its ability to provide protection to not only the communities along Bayou Lafourche, but to the Golden Meadow to Larose Hurricane Protection Project and the strategic asset of the Clovelly Dome Oil Storage Terminal. The proposed project would re-establish landmass in an area where land is scarce, and where traditional restoration resources such as hydraulically dredged marsh creation and freshwater are not a viable option. We believe an investment into this area would help protect, extend the life expectancy and help maintain the current function of the ridge.

The Lafourche Chamber of Commerce would appreciate your careful consideration of every favorable outcome possible for this project. Thank you very much for your time and attention in this matter. 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) 693-6700, or email us at admin@lafourchechamber.com.

Sincerely,

Lin J. Kiger
President & CEO

P.O. Box 1462 Larose, Louisiana 70373-1462
www.lafourchechamber.com
(985) 693-6700 Fax: (985) 693-6702
admin@lafourchechamber.com

Murry, Allison MVN-Contractor

From: Inman, Brad L MVN
Sent: Monday, November 28, 2011 4:19 PM
To: Murry, Allison MVN-Contractor
Subject: FW: Letter of Support- Bayou L'Ours (UNCLASSIFIED)
Attachments: Letter of Support- CWPPRA Bayou L'Ours 11 11.pdf

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: Simone Maloz [mailto:simone.maloz@nicholls.edu]
Sent: Monday, November 28, 2011 8:21 AM
To: Inman, Brad L MVN
Cc: 'Archie P. Chaisson'
Subject: Letter of Support- Bayou L'Ours

Good morning, Brad!

Attached is a letter of support for CWPPRA PPL 21 Project, "Bayou L 'Ours Terracing" in Lafourche Parish from Restore or Retreat (ROR.) Thank you for the opportunity to show our support for this project, and please do not hesitate to contact me if you have any questions or need more information.

Sincerely,

Simone Theriot Maloz

Executive Director

Restore or Retreat, Inc.

Office: 985.448.4485

Cell: 985.688.3290

www.restoreorretreat.org

www.facebook.com/restoreorretreat

Classification: UNCLASSIFIED
Caveats: NONE

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

November 28, 2011

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

Re: PPL 21 Project Nominee- Bayou L 'Ours Terracing Project

Dear Mr. Inman,

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 and individuals, Restore or Retreat (ROR) would like to respectfully submit the following comments of support for PPL 21 Project Nominee "Bayou L 'Ours Terracing Project," currently under consideration within the Coastal Wetlands Planning and Protection Act (CWPPRA) program.

Our organization stands behind this project because of its location in the exceptionally vulnerable Barataria Basin and its ability to provide protection to not only the communities along Bayou Lafourche, but to the Golden Meadow to Larose Hurricane Protection Project and the strategic asset of the Clovelly Dome Oil Storage Terminal. The proposed project would re-establish landmass in an area where land is scarce, and where traditional restoration resources such as hydraulically dredged marsh creation and freshwater are not a viable option. We believe an investment into this area would help protect, extend the life expectancy and help maintain the current function of the ridge.

In summary, Restore or Retreat respectfully requests your careful consideration of every favorable consideration possible for this project. 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.

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)

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

November 28, 2011

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

Re: PPL 21 Project Nominee- Bayou L 'Ours Terracing Project

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In summary, Restore or Retreat respectfully requests your careful consideration of every favorable consideration possible for this project. 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.

Simone Theriot Maloz

Simone Theriot Maloz
Executive Director

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Murry, Allison MVN-Contractor

From: Albertine Kimble [albertine_kimble@plaqueminesparish.com]
Sent: Thursday, November 17, 2011 11:29 AM
To: Murry, Allison MVN-Contractor
Subject: PPL 21

Allison, Plaquemines Parish Government regrets that we are unable to attend tonight's pubic meeting for the PPL 21. Plaquemines Parish Government's top project for this PPL 21 are #1 White Ditch Marsh Creation Project. #2 Bayou Grand Cheniere Marsh Creation. We will see you at the December meeting in Baton Rouge. Sincerely, Albertine M. Kimble

THE LOUISIANA LAND AND EXPLORATION COMPANY
806 BAYOU BLACK DRIVE
HOUMA, LOUISIANA 70360

November 22, 2011

Colonel Edward Fleming
District Engineer, New Orleans
C/O: Brad Inman
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: R2-BA-06 PPL 21 Project
Bayou L'Ours Terracing Project
Lafourche Parish, Louisiana

Dear Colonel Fleming,

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

This proposed project is very much needed in this area to protect the Bayou L' Ours Ridge which will also protect the adjacent hurricane protection levee system which protects the communities of South Lafourche. These proposed terraces will also increase waterfowl and fish habit that has been lost in this area of the Barataria Basin.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We, along with Fina-LaTerre, now Apache, were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Lafourche Parish. We humbly request that the Technical Committee consider and

recommend for Phase I approval. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Lafourche Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

Phillip R. Precht
Manager -Feelands

PRP/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/R2-BA06 Phase I Bayou L'Ours Terracing Project letter

Murry, Allison MVN-Contractor

From: Inman, Brad L MVN
Sent: Monday, December 05, 2011 8:09 AM
To: Murry, Allison MVN-Contractor
Subject: FW: PPL 21 - Bayou L'Ours Project (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: Archie P. Chaisson [mailto:chaissonap@lafourchegov.org]
Sent: Tuesday, November 15, 2011 3:06 PM
To: Inman, Brad L MVN
Subject: PPL 21 - Bayou L'Ours Project

Mr. Inman,

I just wanted to touch base with you about the Bayou L'Ours Terracing project. I know we have spoken before about this project but I wanted to again stress the importance of this project to Lafourche Parish and emphasize that this is our number one project. There is a reason we have proposed this project on ever PPL for the past 12 years. This project will not only rebuild critical landforms in an area that has been ravaged by subsidence and land loss, but I will also serve to protect the existing natural ridge from further degradation. This project also will act as a buffer to a vital portion of the South Lafourche Levee District Larose to Golden Meadow Hurricane Protection system, which protects the LOOP (Louisiana Offshore Oil Pipeline) facility in Galliano.

I would encourage you to look at the site and not just focus on the WVA sheets. This project is just below the successful BA-37 project and just below the proposed project area is only location canals and open water. This gives us a glimpse into what could occur to this area if no action is taken. We also realize that some Tech Committee Agencies have issue with the concept of "dig a hole to fill a hole", but Lafourche Parish is in a unique situation in that we are too far away from either the Atchafalaya and Mississippe Rivers to have a easy access source of sediment to mine from.

Again we ask for your consideration at the December Tech Committee meeting and if you have any questions on the mean time please feel free to contact me at any time.

Archie P. Chaisson, III | Administrator

Office of Coastal Zone Management

Lafourche Parish Government

16241 East Main Street, Suite B10 |Cut Off, LA 70345

JEFFERSON PARISH
DEPARTMENT OF ENVIRONMENTAL AFFAIRS

WWW.JEFFPARISH.NET

JOHN F. YOUNG, JR.
PARISH PRESIDENT

MARNIE WINTER
DIRECTOR

November 28, 2011

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

RE: CWPPRA PPL-21 Project Nominees

Dear Colonel Fleming:

As you know, the Barataria Basin is experiencing some of the highest rates of land loss in Louisiana and the nation. Thus, Jefferson Parish urges the CWPPRA Technical Committee and the Task Force to authorize Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Phase 1 funding on the 21st Project Priority List (PPL 21) for The **Northwest Turtle Bay Marsh Creation** project, which fared very well in the evaluation as compared with other candidate projects both in terms of total cost and cost effectiveness and is the last area of marsh within the western Barataria landbridge within Jefferson Parish in need of restoration. In addition, this project would protect Lafitte, Barataria, Crown Point and the entire west bank of Jefferson and neighboring parishes from storm surge.

The proposed project would restore approximately 760 acres of wetlands through creation or enhancement of emergent marsh along the northwest shoreline of Turtle Bay. This project would work synergistically with BA-2, BA-27, BA-20, BA-23, BA-03a, BA-26, BA-36 (and associated CIAP project), and BA-41 to restore and maintain the landbridge across the Central Barataria Basin from the Mississippi River to Bayou Lafourche, which is of upmost importance to Jefferson Parish. The Louisiana Land & Exploration Company (LL&E) and ConocoPhillips is the major landowner in the project area, and is in strong support of the project and will provide land rights as they have done on all the past CWPPRA projects.

The Parish also strongly supports **Deltalok Coastline Stabilization** for the PPL 21 demonstration project. This project also fared very well in the evaluation, receiving the highest score of all candidate demonstration projects

Your support for these projects would be greatly appreciated.

Sincerely,

Marnie Winter

Marnie Winter, Director
Jefferson Parish Department of Environmental Affairs

4901 JEFFERSON HIGHWAY - SUITE E - JEFFERSON, LOUISIANA 70121-0242 - OFFICE 504.731.4612 - FAX 504.731.4607

THE LOUISIANA LAND AND EXPLORATION COMPANY
806 BAYOU BLACK DRIVE
HOUMA, LOUISIANA 70360

November 21, 2011

Colonel Edward Fleming
District Engineer, New Orleans
C/O: Brad Inman
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: R2-BA-01 PPL 21 Project
Northwest Turtle Bay Marsh Creation Project
Jefferson Parish, Louisiana

Dear Colonel Fleming,

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

This proposed project will tie into and compliment the existing Barataria Landbridge projects (BA-36 and BA-27 projects) that have been completed in this area. This proposed project along with the completed projects will work together to protect and enhance this area of the Barataria Basin.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We, along with Fina-LaTerre, now Apache, were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Jefferson Parish. We humbly request that the Technical Committee consider and

recommend Phase 1 funding approval. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Jefferson Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

Phillip R. Precht
Manager -Feelands

PRP/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/R2-BA01 Phase 1 Northwest Turtle Bay Project letter

Murry, Allison MVN-Contractor

From: Inman, Brad L MVN
Sent: Monday, December 05, 2011 1:57 PM
To: Murry, Allison MVN-Contractor
Subject: FW: PPL 21 - Bayou L'Ours Project (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

-----Original Message-----
From: Archie P. Chaisson [mailto:chaissonap@lafourchegov.org]
Sent: Monday, December 05, 2011 1:52 PM
To: Inman, Brad L MVN; darryl_clark@fws.gov; McCormick.Karen@epamail.epa.gov; kirk.rhinehart@la.gov; richard.hartman@noaa.gov
Subject: PPL 21 - Bayou L'Ours Project

Good Afternoon All:

I hope this email finds you all well after enjoying the Thanksgiving Holiday. This being the final week before the Tech Committee Meeting, I thought I would send out another friendly reminder about how important the Bayou L 'Ours Terracing project is to not only Lafourche Parish, but also the South Lafourche Levee District and the Louisiana Offshore Oil Port (LOOP).

As I have stated before in several other emails, this project offers a level of storm protection for this area that is left venerable to ever changing weather conditions. This project also offers a great deal of benefit for its cost. At a total price tag of just under six million dollars this project could be slid in behind three other large projects and still offer a protection feature to this area.

Again, I implore you to consider this project during the PPL 21 voting next week. As always if you have any questions or need any other information please feel free to contact me at anytime.

Archie P. Chaisson, III | Administrator

Office of Coastal Zone Management

Lafourche Parish Government

16241 East Main Street, Suite B10 |Cut Off, LA 70345

Main: (985) 632-4666 | Mobile: (985) 637-5245

chaissonap@lafourchegov.org | www.lafourchegov.org

THE LOUISIANA LAND AND EXPLORATION COMPANY
806 BAYOU BLACK DRIVE
HOUMA, LOUISIANA 70360

November 22, 2011

Colonel Edward Fleming
District Engineer, New Orleans
C/O: Brad Inman
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: R2-BA-06 PPL 21 Project
Bayou L'Ours Terracing Project
Lafourche Parish, Louisiana

Dear Colonel Fleming,

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

This proposed project is very much needed in this area to protect the Bayou L' Ours Ridge which will also protect the adjacent hurricane protection levee system which protects the communities of South Lafourche. These proposed terraces will also increase waterfowl and fish habit that has been lost in this area of the Barataria Basin.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We, along with Fina-LaTerre, now Apache, were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Lafourche Parish. We humbly request that the Technical Committee consider and

THE LOUISIANA LAND AND EXPLORATION COMPANY
806 BAYOU BLACK DRIVE
HOUMA, LOUISIANA 70360

November 22, 2011

Colonel Edward Fleming
District Engineer, New Orleans
C/O: Brad Inman
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Proposed BA-76 CWPPRA Project
Chenier Ronquille Barrier Shoreline Restoration
And Marsh Creation Project
Plaquemines Parish, Louisiana

Dear Colonel Fleming,

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

This project will tie into and compliment the existing and proposed projects in this area. The BA-38 Pass LaMer to Chaland Pass Restoration Project which was just recently completed and BA-30 East Grand Terre Restoration Project presently under construction will all work together to protect and enhance this area of the Barataria Basin.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We along with Fina-LaTerre, now Apache were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in

Plaquemines Parish. We humbly request that the Technical Committee consider and recommend for Phase II approval. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Plaquemines Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

Phillip R. Precht
Manager -Feelands

PRP/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/BA 76 CWPPRA Chenier Ronquille Project letter

THE LOUISIANA LAND AND EXPLORATION COMPANY
806 BAYOU BLACK DRIVE
HOUMA, LOUISIANA 70360

November 22, 2011

Colonel Edward Fleming
District Engineer, New Orleans
C/O: Brad Inman
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Proposed LA-39 CWPPRA Project
Coastwide Planting Project
Terrebonne Parish, Louisiana

Dear Colonel Fleming,

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

This project will tie into and compliment the existing and proposed projects in this area. The TE-44 Lake Mechant Landbridge Restoration Project which was just recently completed and TE-28 Brady Canal Restoration Project will all work together to protect and enhance this area of the Bayou Decade.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We, along with Fina-LaTerre, now Apache, were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Terrebonne Parish. We humbly request that the Technical Committee consider and

recommend for Phase II approval. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Terrebonne Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

Phillip R. Precht
Manager -Feelands

PRP/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/LA 39 CWPPRA Coastwide planting Project letter

THE LOUISIANA LAND AND EXPLORATION COMPANY
806 BAYOU BLACK DRIVE
HOUMA, LOUISIANA 70360

November 22, 2011

Colonel Edward Fleming
District Engineer, New Orleans
C/O: Brad Inman
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Proposed BA-68 CWPPRA Project
Grand Liard Marsh and Ridge Restoration Project
Plaquemines Parish, Louisiana

Dear Colonel Fleming,

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

This project will restore both structural and habitat functions of Grand Liard Bayou and marshes in the area. It will also recreate the ridges and be planted with woody and marsh vegetation that will help to protect and enhance this area of the Barataria Basin.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We, along with Fina-LaTerre, now Apache, were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Plaquemines Parish. We humbly request that the Technical Committee consider and

recommend for Phase II approval. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Plaquemines Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

Phillip R. Precht
Manager -Feelands

PRP/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/BA 68 CWPPRA Grand Liard Project letter

THE LOUISIANA LAND AND EXPLORATION COMPANY
806 BAYOU BLACK DRIVE
HOUMA, LOUISIANA 70360

November 21, 2011

Colonel Edward Fleming
District Engineer, New Orleans
C/O: Brad Inman
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: R2-BA-01 PPL 21 Project
Northwest Turtle Bay Marsh Creation Project
Jefferson Parish, Louisiana

Dear Colonel Fleming,

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

This proposed project will tie into and compliment the existing Barataria Landbridge projects (BA-36 and BA-27 projects) that have been completed in this area. This proposed project along with the completed projects will work together to protect and enhance this area of the Barataria Basin.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We, along with Fina-LaTerre, now Apache, were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Jefferson Parish. We humbly request that the Technical Committee consider and

recommend Phase 1 funding approval. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Jefferson Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

Phillip R. Precht
Manager -Feelands

PRP/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/R2-BA01 Phase 1 Northwest Turtle Bay Project letter

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

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.

The Technical Committee will vote to recommend a list of projects to the Task Force for Phase II authorization and funding.

Agency	Project No.	PPL	Project Name	Construct Start Date	Phase 1 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	Apr 2013	$3,742,053	$62,347,496	$66,089,549	195	$338,921
EPA	MR-15	15	Venice Ponds Marsh Creation & Crevasses	Apr 2012	$1,074,522	$21,081,770	$22,156,292	318	$69,674
NRCS	PO-34	16	Alligator Bend Marsh Restoration & Shoreline Protection	Oct 2012	$1,660,985	$56,006,898	$57,667,883	192	$300,354
FWS	BS-16	17	South Lake Lery Shoreline and Marsh Restoration		$2,665,993	$36,747,067	$39,413,060	507	$77,738
NMVS	BA-68	18	Grand Liard Marsh & Ridge Restoration		$3,271,287	$39,308,329	$42,579,616	370	$115,080
NMFS	BA-76	19	Chenier Ronquille Barrier Island Restoration		$3,419,263	$33,308,188	$36,727,451	308	$119,245
NRCS	LA-39	20	Coastwide Planting		$156,945	$12,532,780	$12,689,725	779	$16,290
COE	TV-11b	9	Freshwater Bayou Bank Stabilization – Belle Isle Canal to Lock		$1,498,968	$34,135,100	$35,634,068	241	$424,215

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2011

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	LA-39	Coastwide Planting	3	2	1	1	4	1	6	12	$4,433,718	$12,532,780
18	BA-68	Grand Liard Marsh & Ridge Restoration	1		2	2	2	2	5	9	$38,823,875	$39,308,329
17	BS-16	South Lake Lery Shoreline and Marsh Restoration	4		4	3	3		4	14	$36,518,340	$36,747,067
19	BA-76	Chenier Ronquille Barrier Island Restoration		1	3	4		4	4	12	$32,504,233	$33,308,188
15	MR-15	Venice Ponds Marsh Creation & Crevasses	2	4					2	6	$19,930,492	$21,081,770
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection					1	3	2	4	$41,761,744	$56,006,898
11	TE-47	Ship Shoal: Whiskey West Flank Restoration		3					1	3	$62,186,707	$62,347,496
9	TV-11b	Freshwater Bayou Bank Stabilization -- Belle Isle Canal to Lock							0	0	$30,668,583	$34,135,100
											$266,827,692	

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 furmulate 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)

/ HC

13-Dec-11

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2011

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
15	MR-15	Venice Ponds Marsh Creation & Crevasses	2						0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection							0	0
17	BS-16	South Lake Lery Shoreline and Marsh Restoration	4						0	0
18	BA-68	Grand Liard Marsh & Ridge Restoration	1						0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration							0	0
20	LA-39	Coastwide Planting	3						0	0
9	TV-11b	~~Freshwater Bayou Bank Stabilization -- Belle Isle Canal to Lock~~							0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	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.

Bl I.

13-Dec-11

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2011

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 ~~4~~					0	0
15	MR-15	Venice Ponds Marsh Creation & Crevasses		~~3~~ 4					0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection							0	0
17	BS-16	South Lake Lery Shoreline and Marsh Restoration							0	0
18	BA-68	Grand Liard Marsh & Ridge Restoration							0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration		1					0	0
20	LA-39	Coastwide Planting		~~3~~ 2					0	0
9	TV-11b	Freshwater Bayou Bank Stabilization -- Belle Isle Canal to Lock							0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	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.

VTC

D. Chuk FWS

✓ TC

13-Dec-11

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2011

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
15	MR-15	Venice Ponds Marsh Creation & Crevasses							0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection							0	0
17	BS-16	South Lake Lery Shoreline and Marsh Restoration			4				0	0
18	BA-68	Grand Liard Marsh & Ridge Restoration			2				0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration			3				0	0
20	LA-39	Coastwide Planting			1				0	0
9	TV-11b	Freshwater Bayou Bank Stabilization -- Belle Isle Canal to Lock							0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	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.

13-Dec-11

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2011

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
15	MR-15	Venice Ponds Marsh Creation & Crevasses							0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection							0	0
17	BS-16	South Lake Lery Shoreline and Marsh Restoration				3			0	0
18	BA-68	Grand Liard Marsh & Ridge Restoration				2			0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration				4			0	0
20	LA-39	Coastwide Planting				1			0	0
9	TV-11b	~~Freshwater Bayou Bank Stabilization -- Belle Isle Canal to Lock~~							0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	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.
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VTC

13-Dec-11

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2011

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
15	MR-15	Venice Ponds Marsh Creation & Crevasses							0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection					1		0	0
17	BS-16	South Lake Lery Shoreline and Marsh Restoration					3		0	0
18	BA-68	Grand Liard Marsh & Ridge Restoration					2		0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration							0	0
20	LA-39	Coastwide Planting					4		0	0
9	TV-11b	Freshwater Bayou Bank Stabilization -- Belle Isle Canal to Lock							0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	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.
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5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

T6

13-Dec-11

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2011

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
15	MR-15	Venice Ponds Marsh Creation & Crevasses							0	0
16	PO-34	Alligator Bend Marsh Restoration & Shoreline Protection						43	0	0
17	BS-16	South Lake Lery Shoreline and Marsh Restoration							0	0
18	BA-68	Grand Liard Marsh & Ridge Restoration						32	0	0
19	BA-76	Chenier Ronquille Barrier Island Restoration						48	0	0
20	LA-39	Coastwide Planting						21	0	0
9	TV-11b	Freshwater Bayou Bank Stabilization -- Belle Isle Canal to Lock							0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	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.

Evaluation Matrix for January 2012 Phase 2 Requests

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Phase II, Increment 1 Request	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Alligator Bend Marsh Restoration and Shoreline Protection (PO-34)	1	Orleans	291	70	192	$41,761,744	$57,667,883	$1,660,985	$56,006,898	$3,806,098	$54,373	$300,354
South Lake Lery Marsh Restoration (BS-16)	2	Plaquemines	710	198	507	$36,518,340	$39,413,060	$2,665,993	$36,747,067	$2,987,757	$15,090	$77,738
Grand Liard Marsh and Ridge Restoration (BA-68)	2	Plaquemines	484	188	370	$38,823,875	$42,579,616	$3,271,287	$39,308,329	$3,226,314	$17,161	$115,080
Chenier Ronquille Barrier Island Restoration (BA-76)	2	Plaquemines	463	224	308	$32,504,233	$36,727,451	$3,419,263	$33,308,188	$2,719,896	$12,142	$119,245
Venice Ponds Marsh Creation and Crevasses (MR-15)	2	Plaquemines	917	85	318	$19,930,492	$22,156,292	$1,074,522	$21,081,770	$1,642,902	$19,328	$69,674
Ship Shoal: Whiskey West Flank Restoration (TE-47)	3	Terrebonne	1,249	269	195	$62,186,707	$66,089,549	$3,742,053	$62,347,496	$5,084,691	$18,902	$338,921
Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock (TV-11b)	3	Vermilion	121	17	84	$30,668,583	$35,634,068	$1,498,968	$34,135,100	$2,618,491	$154,029	$424,215
Coastwide Planting (LA-39)		Coastwide	4,903	189	779	$4,433,718	$12,689,725	$156,945	$12,532,780	$732,273	$3,874	$16,290

rev 12/12/11

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 13, 2011

Baton Rouge, LA

Project Overview

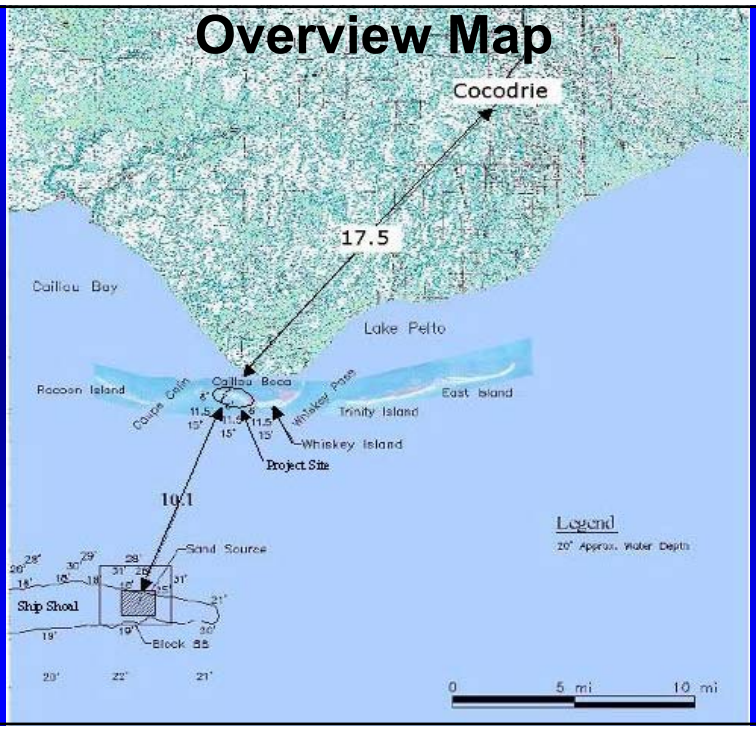
Project Location: Region 3 - Terrebonne Basin, Terrebonne Parish, Isles Dernieres Barrier Islands Refuge, western spit of Whiskey Island.

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.

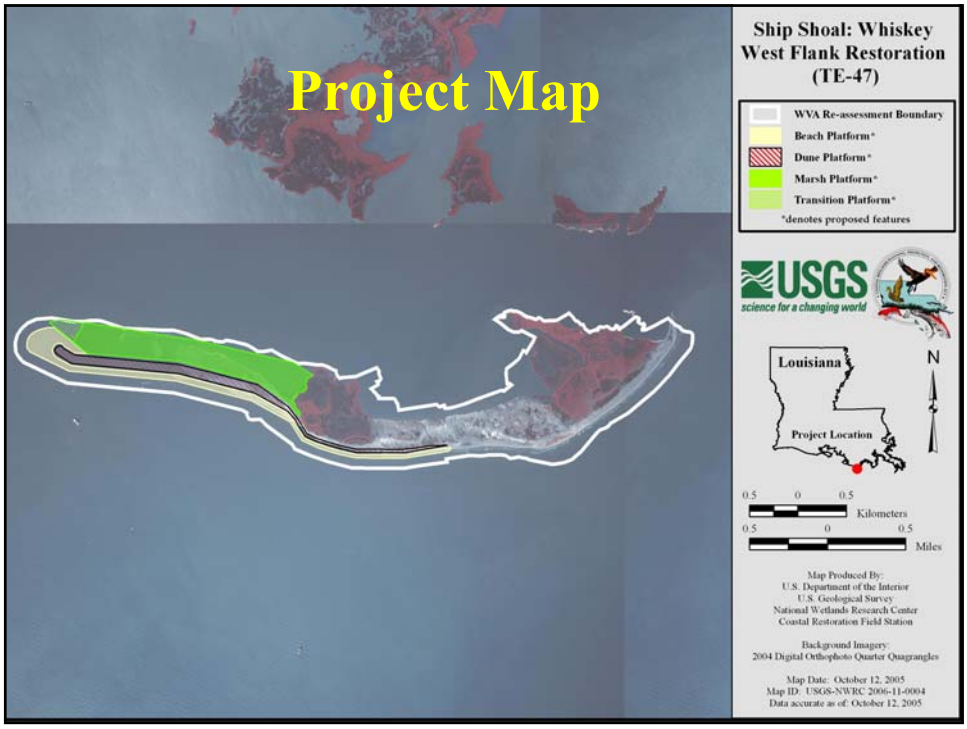
Project Overview

Goals:

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



Project Map



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

- Benefits include evaluation of the feasibility of using Ship Shoal sand for coastal restoration.
- The project would benefit a total of 703 acres of barrier island and 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: $66,089,549
  Phase 2 request is: $62,186,678

Why Should We Fund This Project Now?

- Barrier Islands are first line of defense against storm surge
- Potential use of Ship Shoal sand for future restoration projects
- Infuses new sediment into system
- Rapidly changing shoreline of the Isles Dernieres
- Limited Plans and Specifications shelf life

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

NOV 29 2011

Mr. Tom 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 seventh 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,

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

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. <u>Answer</u>: *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

LIST OF ATTACHMENTS

I. ORIGINAL FACT SHEET AND PROJECT MAP
II. REVISED FACT SHEET AND PROJECT MAP
III. LAND RIGHTS AGREEMENT
IV. 30% AND 95% DESIGN REVIEW LETTERS
V. FINDING OF NO SIGNIFICANT IMPACT
VI. 404 PERMIT
VII. SECTION 303 (e) APPROVAL LETTER
VIII. OVERGRAZING DETERMINATION
IX. REVISED FULLY FUNDED COST ESTIMATE
X. WETLAND VALUE ASSESSMENT

ATTACHMENT
I

ORIGINAL FACT SHEET AND PROJECT MAP

11TH 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.

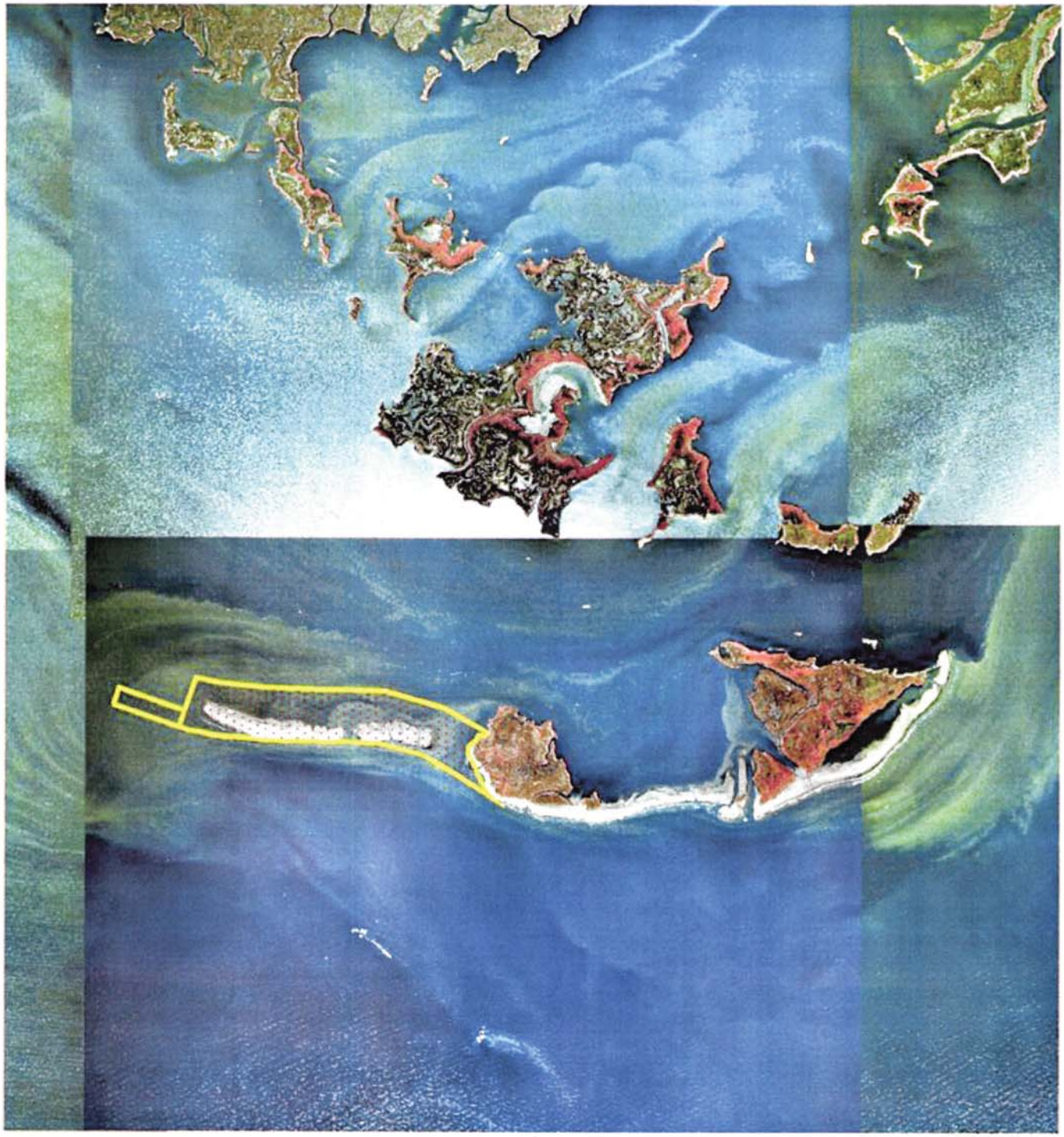
Proposed Solution - The project entails mining and placing Ship Shoal sand from the Minerals Management Service Block 88 by cutterhead or hopper dredge to rebuild the west flank of Whiskey Island, a distance of about 8 miles. The area to be restored includes 57 acres of dunes 7 feet high and 150 feet 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.

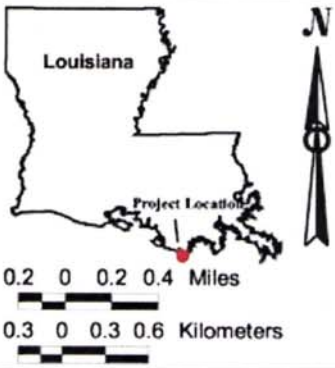
Project Benefits - Benefits include prevention of loss of sediment from the system into deeper Gulf waters or into bayside deeper water. The project would benefit a total of 398 acres of barrier island and shallow water. At the end of 20 years, there would be a net of 182 acres of island over the without-project 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





Project area

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)

II

REVISED FACT SHEET AND PROJECT 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 IslesDernieres 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
Kenneth Teague (214) 665-6687: 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

USGS
science for a changing world

N

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

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 Quagrangles

Map Date: October 12, 2005
Map ID: USGS-NWRC 2006-11-0004
Data accurate as of: October 12, 2005

ATTACHMENT III

LAND RIGHTS AGREEMENT

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

COASTAL RESTORATION DIVISION
P. O. BOX 44027 • BATON ROUGE, LA 70804-4027 • 617 N. THIRD STREET • 10TH FLOOR • BATON ROUGE, LA 70802
PHONE (225) 342-7308 • FAX (225) 342-9417 • WEB http://www.dnr.state.la.us
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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

Deputy Clerk

Doc ID - 004420600013

Return To :
COLLINS, DAN S CPL & ASSOCIATES INC
P.O. BOX 66773
BATON ROUGE, LA 70896

Do not Detach this Recording Page from Original Document

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 26th 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
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.

Print Name: John F. Parker
NOTARY PUBLIC

Identification Number: 01117
My commission expires: with life
(SEAL)

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 26th 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 PUBLIC
FREDERICK C. WHITROCK
Notary Public
State of Louisiana
State Bar Roll #18042
My Commission Expires At Death

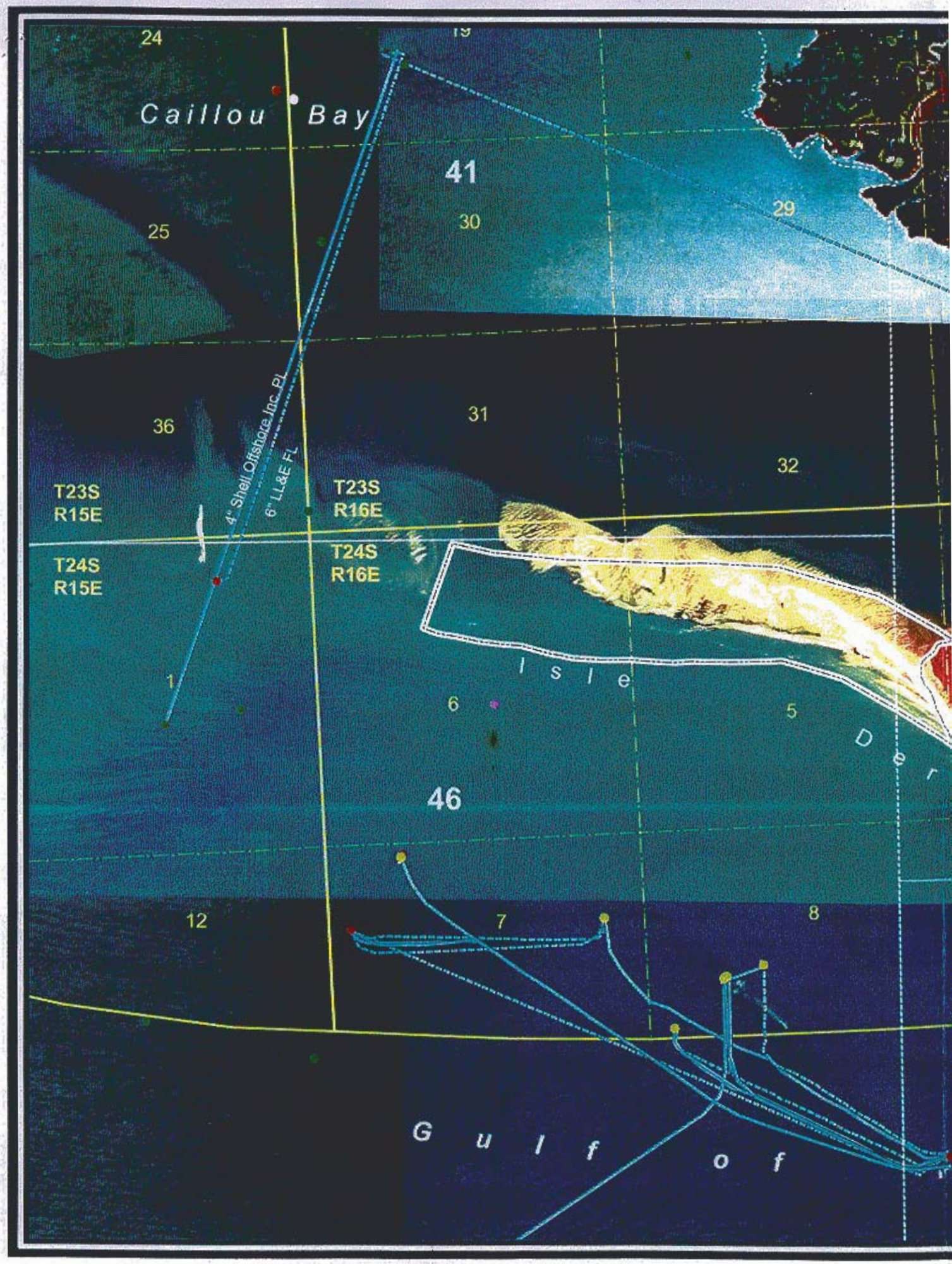
Notary Number: _____
My commission expires: with life
(SEAL)

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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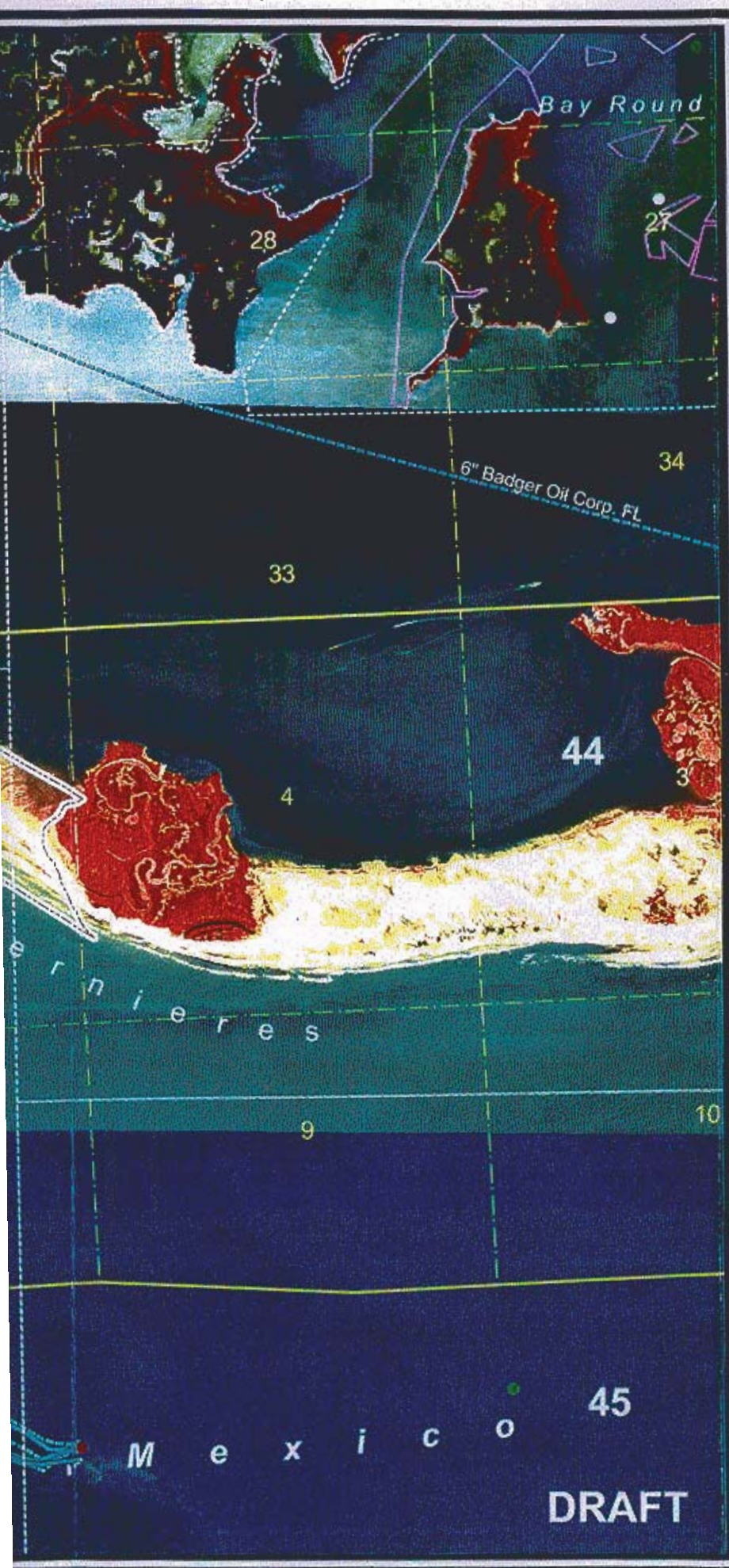

Exhibit A

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.

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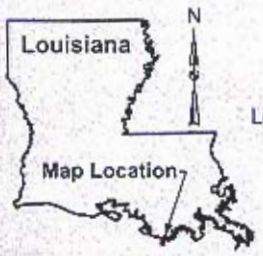

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U.S. Geological Surv
National Wetlands Research Cen
Coastal Restoration Field Stat
Louisiana Department of Natural Resourc
Coastal Restoration Divis
Baton Rouge,
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Map Date: June 30, 20
Map ID: USGS-NWRC 2004-04-01

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.

ATTACHMENT
IV

30% AND 95% DESIGN REVIEW LETTERS

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

COASTAL ENGINEERING DIVISION
P. O. BOX 44027 • BATON ROUGE, LA 70804-4027 • 617 N. THIRD STREET • 10TH FLOOR • BATON ROUGE, LA 70802
PHONE (225) 342-7308 • FAX (225) 342-9417 • WEB http://www.dnr.state.la.us
AN EQUAL OPPORTUNITY EMPLOYER

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,

Christopher P. Knotts, P. E.
Director

CPK:LCW:dpg
cc: John Hodnett, Engineer Manager
Chris Williams, Project Manager
Luke Le Bas, Engineer Manager

COASTAL ENGINEERING DIVISION
P. O. BOX 44027 • BATON ROUGE, LA 70804-4027 • 617 N. THIRD STREET • 10TH FLOOR • BATON ROUGE, LA 70802
PHONE (225) 342-7308 • FAX (225) 342-9417 • WEB http://www.dnr.state.la.us
AN EQUAL OPPORTUNITY EMPLOYER

ATTACHMENT
V

FINDING OF NO SIGNIFICANT IMPACT

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, 101st 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

Total estimated funding	$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 December1993 for the restoration of Isles Derniers 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

ATTACHMENT VI

404 PERMIT

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 1 9 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

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 _____ X 7.9.2007
(PERMITTEE) (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.

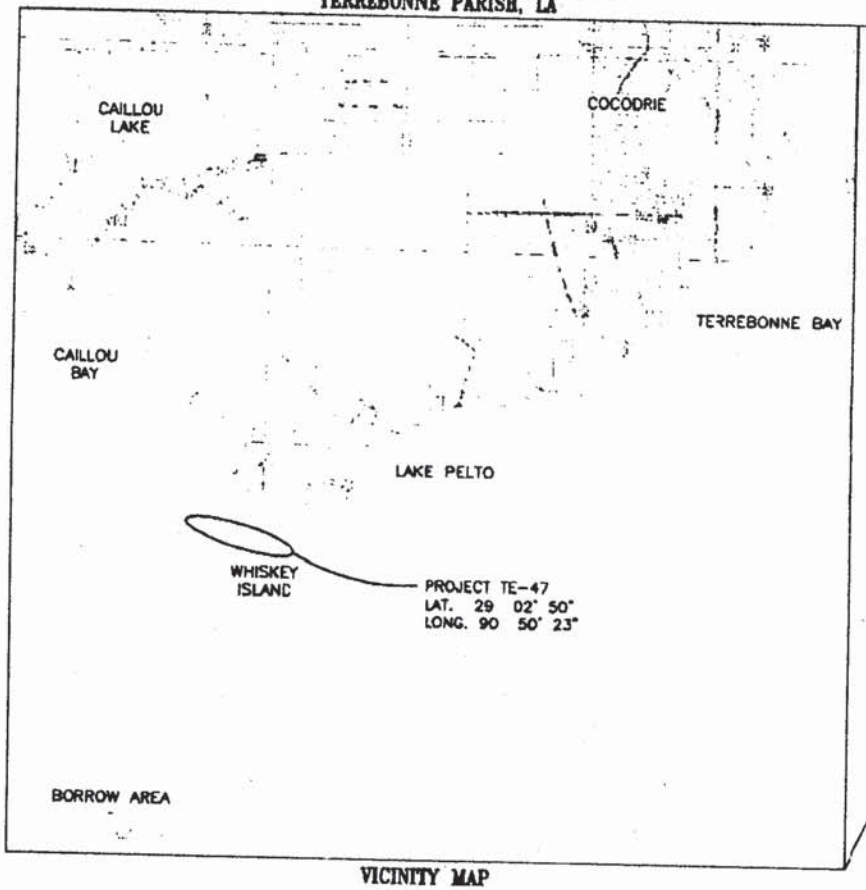
STATE OF LOUISIANA
DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION

SHIP SHOAL – WHISKEY ISLAND WEST FLANK RESTORATION

STATE PROJECT No. TE – 47
SECTIONS 44 – 46, T 24 S – R 16 E
TERREBONNE PARISH, LA

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

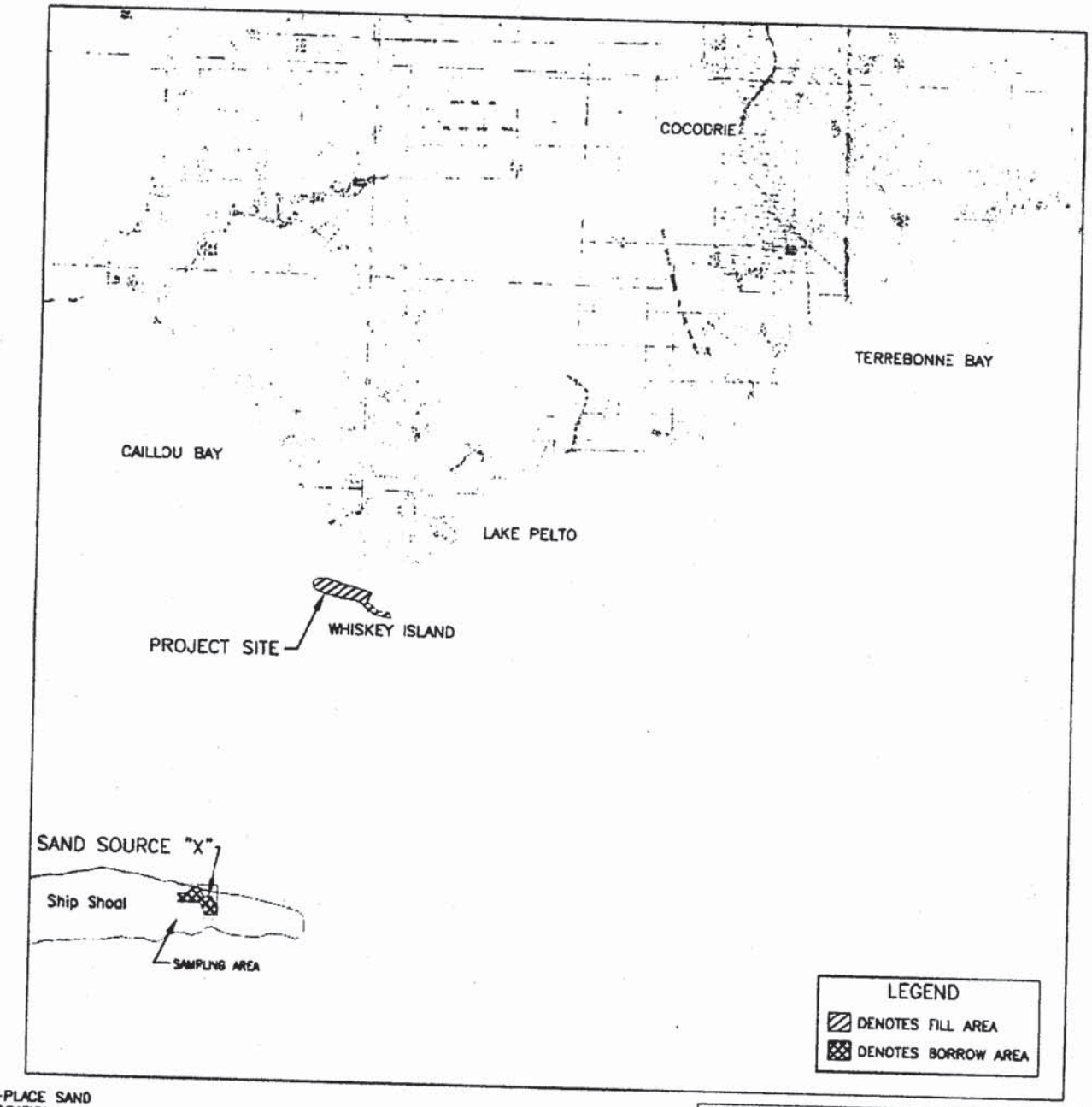
MHW. +1.6 NAVD
MLW. 0.0 NAVD

PURPOSE: 6.6 MILLION C.Y. OF IN-PLACE SAND FOR DUNE/MARSH RESTORATION

GRAPHIC SCALE (IN FEET)
30000' 15000' 0' 30000' 60000'

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: JUNE 29, 2006

SHEET 1 OF 8



MHW. +1.6 NAVD
MLW. 0.0 NAVD

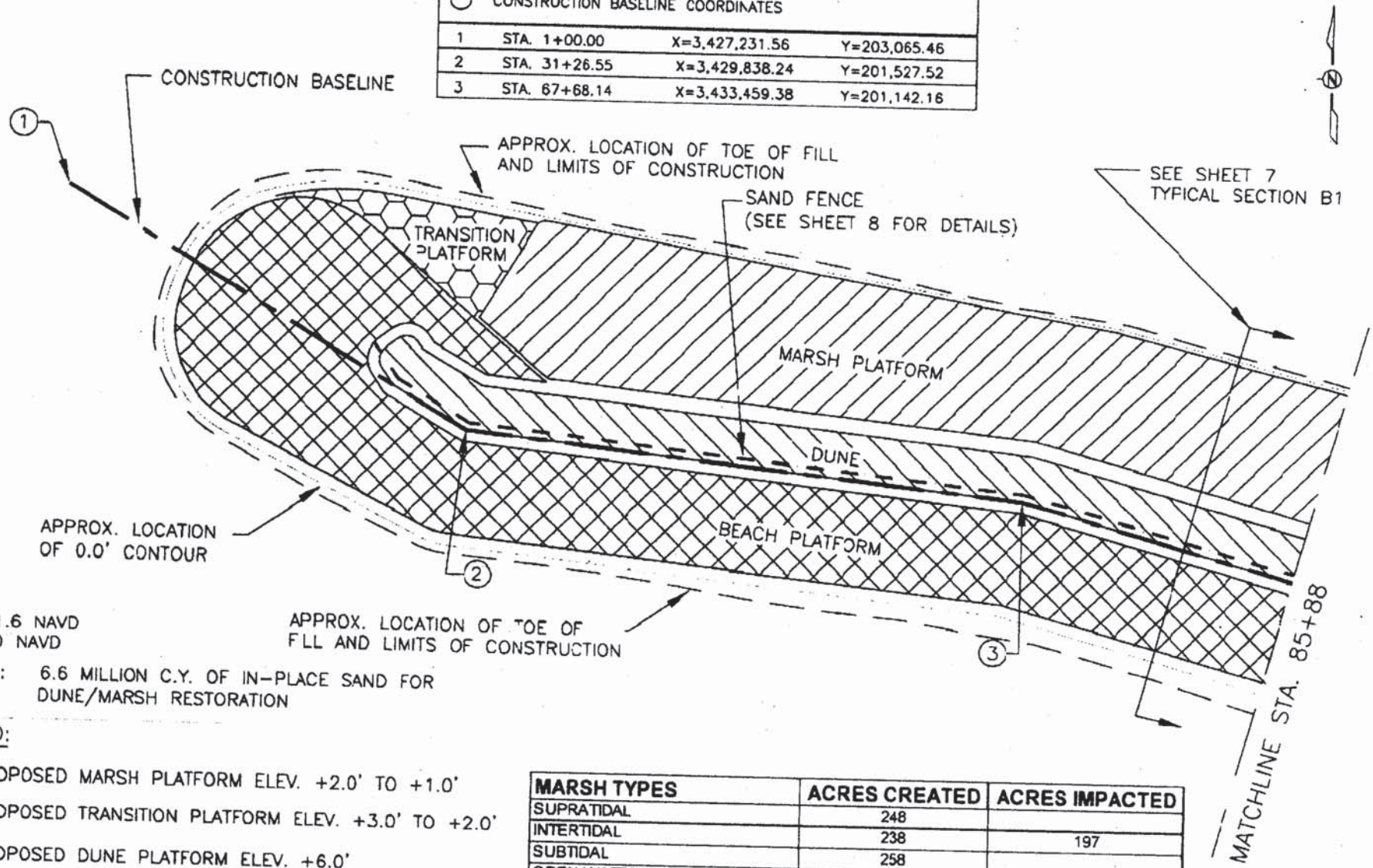
PURPOSE: 6.6 MILLION C.Y. OF IN-PLACE SAND FOR DUNE/MARSH RESTORATION

GRAPHIC SCALE (IN FEET)

24000' 12000' 0' 24000' 48000'

SHEET 2 OF 8	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 29, 2005

CONSTRUCTION BASELINE COORDINATES			
1	STA. 1+00.00	X=3,427,231.56	Y=203,065.46
2	STA. 31+26.55	X=3,429,838.24	Y=201,527.52
3	STA. 67+68.14	X=3,433,459.38	Y=201,142.16



MHW. +1.6 NAVD
MLW. 0.0 NAVD

PURPOSE: 6.6 MILLION C.Y. OF IN-PLACE SAND FOR DUNE/MARSH RESTORATION

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'

MARSH TYPES	ACRES CREATED	ACRES IMPACTED
SUPRATIDAL	248	
INTERTIDAL	238	197
SUBTIDAL	258	
OPEN WATER		549
BORROW AREA		273

GRAPHIC SCALE (IN FEET)

900' 450' 0' 900' 1800'

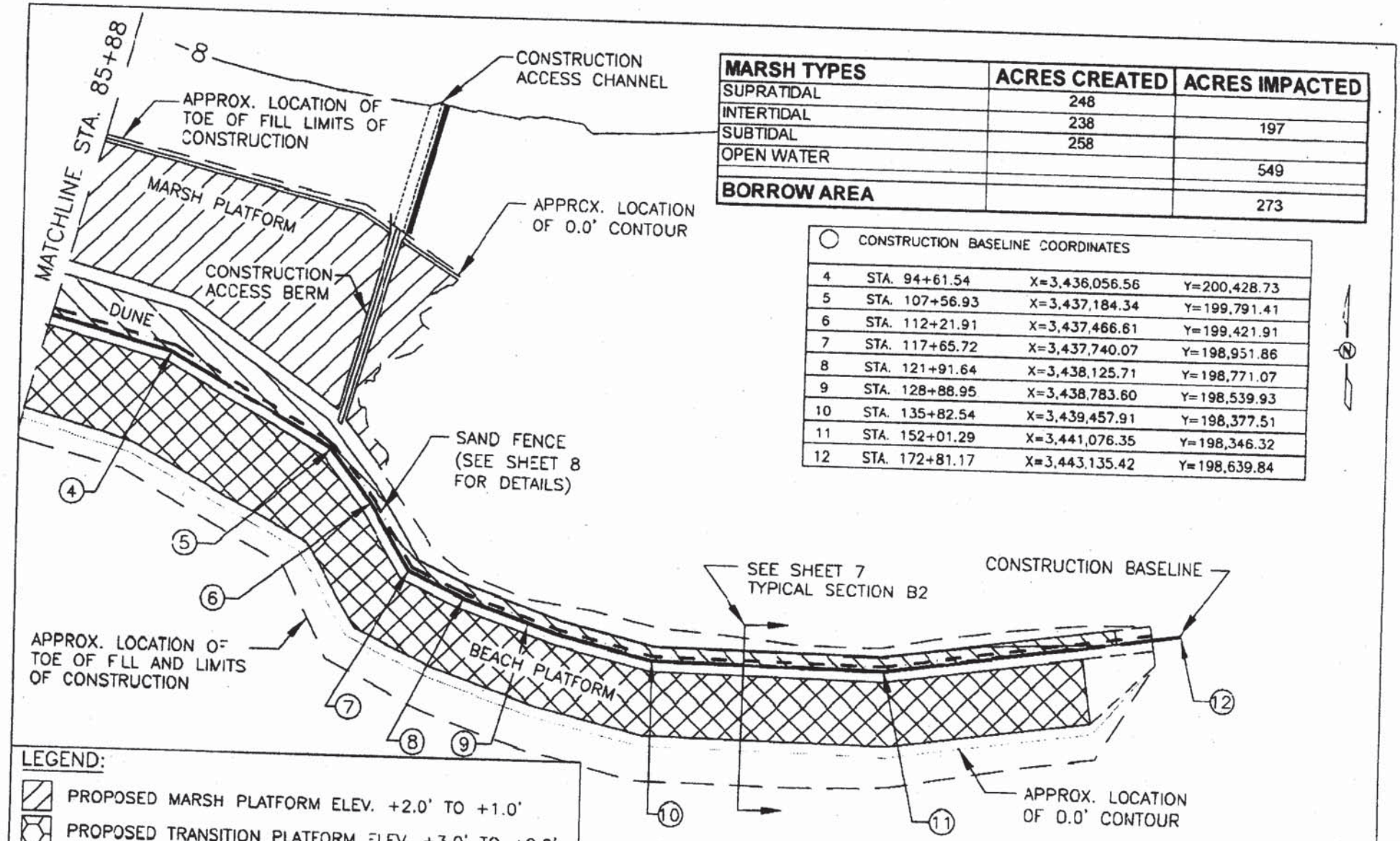
SHEET
3 OF 8

SHIP SHOAL - WHISKEY ISLAND WEST FLANK RESTORATION
SECTIONS 44 - 46, T 24 S - R 16 E
TERREBONNE PARISH, LA

FILL AREA - PLAN VIEW I

STATE PROJECT NUMBER: TE - 47

DATE: JUNE 29, 2005



MARSH TYPES	ACRES CREATED	ACRES IMPACTED
SUPRATIDAL	248	
INTERTIDAL	238	197
SUBTIDAL	258	
OPEN WATER		549
BORROW AREA		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

GRAPHIC SCALE (IN FEET)
900' 450' 0' 900' 1800'

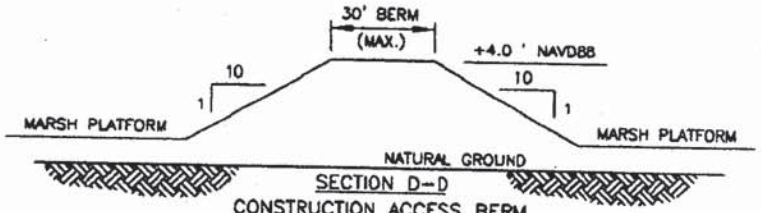
SHEET 4 OF 8

SHIP SHOAL - WHISKEY ISLAND WEST FLANK RESTORATION
SECTIONS 44 - 46, T 24 S - R 16 E
TERREBONNE PARISH, LA

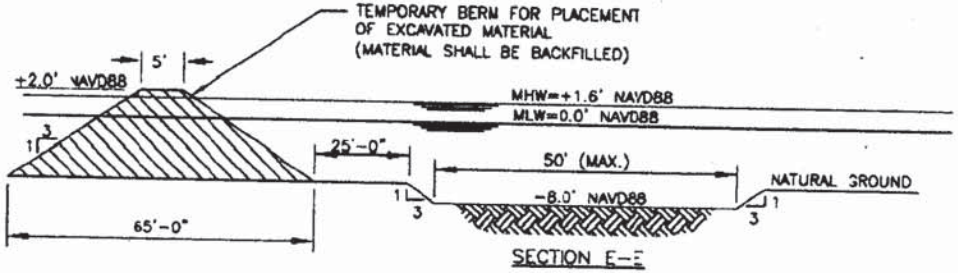
FILL AREA - PLAN VIEW II

STATE PROJECT NUMBER: TE - 47

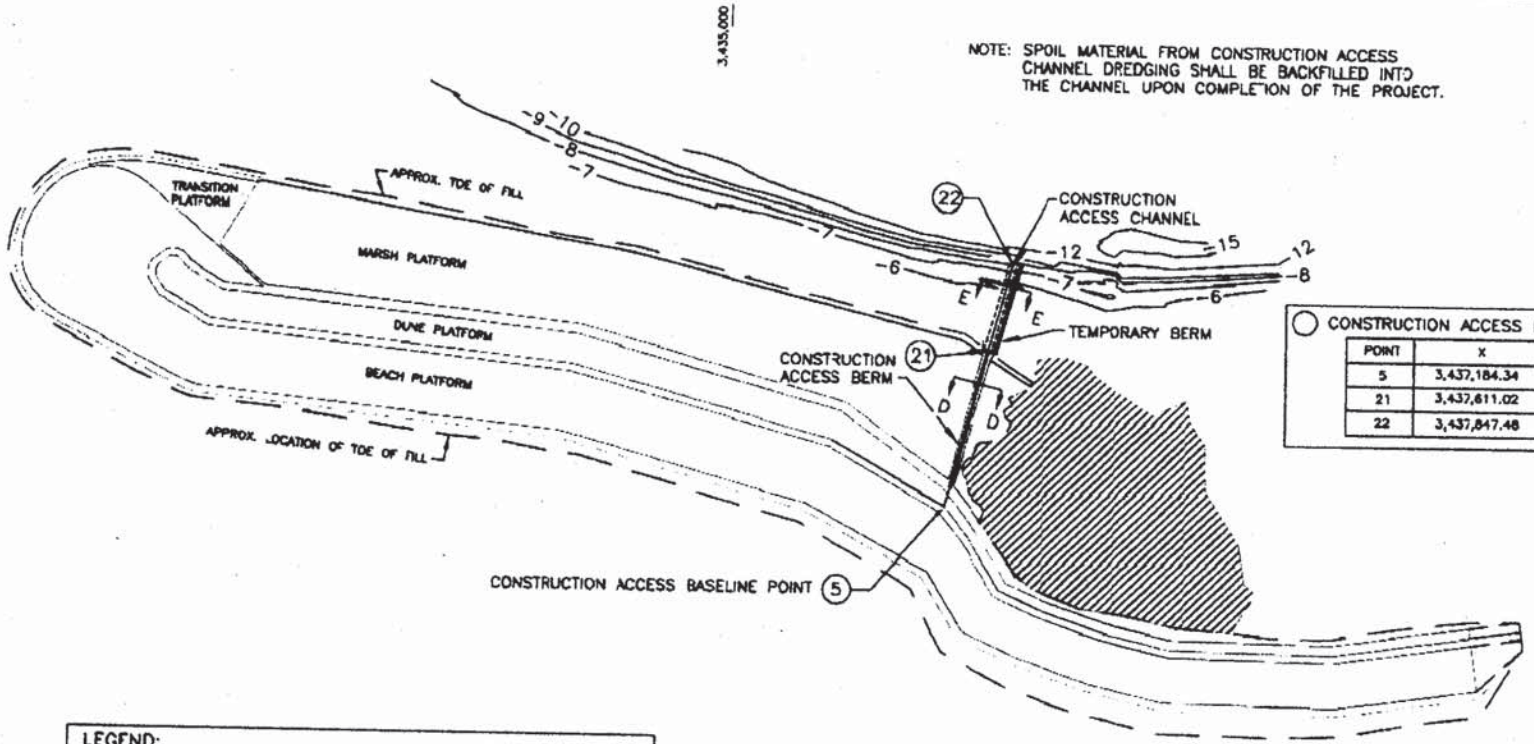
DATE: JUNE 29, 2005



SECTION D–D
CONSTRUCTION ACCESS BERM
N.T.S.



SECTION E–E
CONSTRUCTION ACCESS CHANNEL
N.T.S.



CONSTRUCTION ACCESS BASELINE COORDINATES

POINT	X	Y
5	3,437,184.34	199,791.41
21	3,437,611.02	201,329.76
22	3,437,847.48	202,195.40

MHW. +1.6 NAVD
MLW. 0.0 NAVD

LEGEND:
VEGETATED AREAS SHALL NOT BE TRAVERSED BY PERSONNEL OR EQUIPMENT, AND SHALL NOT BE USED FOR STORAGE.

NOTE: ALL ELEVATIONS SHOWN ARE IN NAVD88.
ALL COORDINATES ARE IN NAD83 STATE PLANE FEET.

PURPOSE: 8.6 MILLION C.Y. OF IN-PLACE SAND FOR DUNE/MARSH RESTORATION

GRAPHIC SCALE (IN FEET)
1800' 900' 0' 1800' 3600'

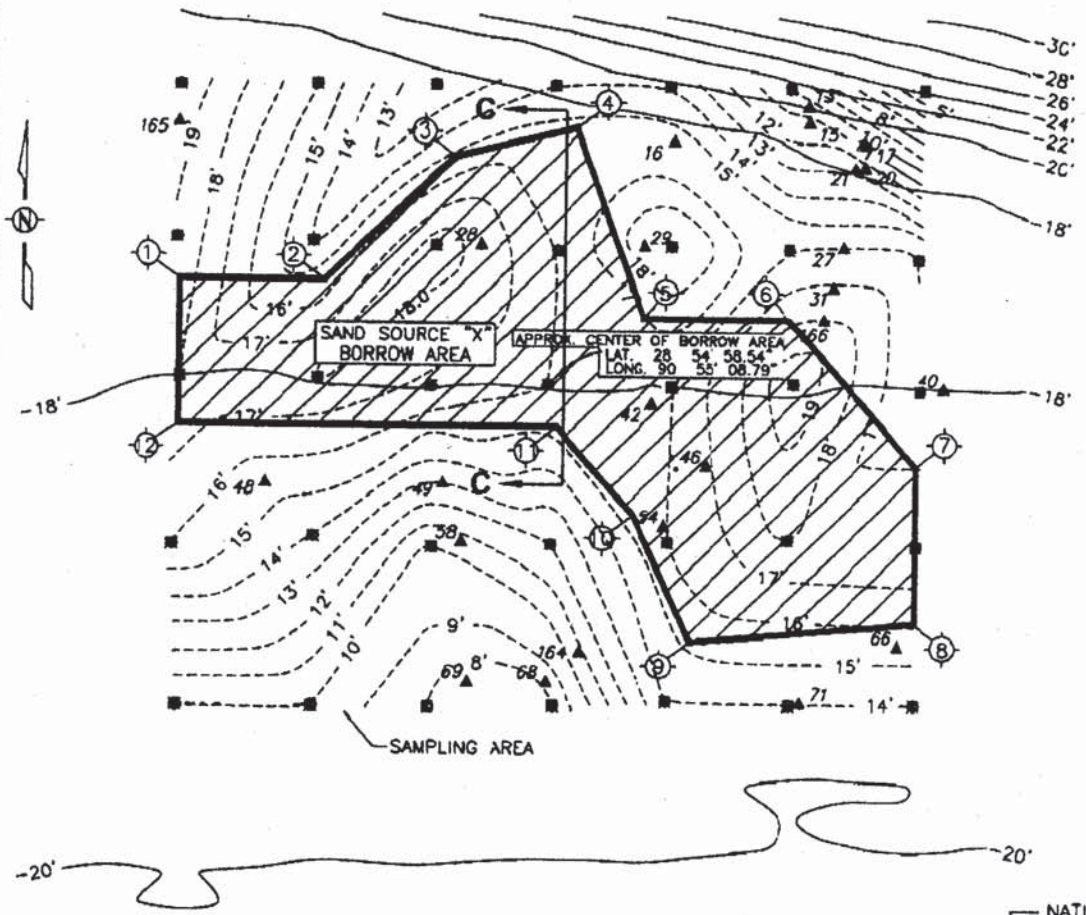
SHEET
5 OF 8

SHIP SHOAL - WHISKEY ISLAND
WEST FLANK RESTORATION
SECTIONS 44 - 46, T 24 S - R 16 E
TERREBONNE PARISH, LA

CONSTRUCTION ACCESS
PLAN VIEW

STATE PROJECT NUMBER TE - 47

DATE: JUNE 29, 2005



▲ UNIDENTIFIED MAGNETIC ANOMALIES

PT. NO.	X COORDINATE NAD 83 FEET	Y COORDINATE NAD 83 FEET	PT. NO.	X COORDINATE NAD 83 FEET	Y COORDINATE NAD 83 FEET
13	3415519.797	153830.763	46	3414687.552	150972.624
15	3415536.135	153786.312	48	3411054.390	150803.453
16	3414405.620	153588.221	49	3412527.379	150811.383
17	3415983.491	153611.601	54	3414347.110	150468.851
20	3415984.678	153425.219	58	3412677.428	150325.520
21	3415900.679	153421.819	66	3416291.381	149487.605
27	3415807.789	152775.225	68	3413884.363	149171.063
28	3412815.801	152779.235	69	3412735.778	149166.603
29	3414165.768	152778.025	71	3413484.528	149010.802
31	3415727.516	152446.393	164	3413663.884	149421.784
40	3416663.993	151825.078	165	3410311.355	153737.152
42	3414236.427	151471.287	166	3415651.516	152144.181

*COORDINATES CONVERTED TO NAD83

(CEI 2003)

LEGEND:

- 30' BATHYMETRIC CONTOURS
- 17' SAND THICKNESS
- ① SAND SOURCE "X" COORDINATE
- SAND SOURCE "X" BOUNDARY
- SAMPLING AREA
- ▲ UNIDENTIFIED MAGNETIC ANOMALY
- ■ VIBRACORE SAMPLE

NOTES:

1. MAXIMUM DEPTH OF CUT FOR DREDGE MATERIAL WITHIN THE BORROW AREA IS 15 FEET.

SAND SOURCE "X" COORDINATES

PT. NO.	X COORDINATE NAD 83 FEET	Y COORDINATE NAD 83 FEET
1	3410327.31	152479.74
2	3411527.31	152479.74
3	3412800.05	153480.79
4	3413804.06	153725.78
5	3414166.77	152179.74
6	3415364.79	152179.74
7	3416431.46	150979.74
8	3416431.46	149679.74
9	3414568.23	149515.21
10	3414291.62	150563.13
11	3413454.64	151279.74
12	3410327.31	151279.74

REFERENCE:

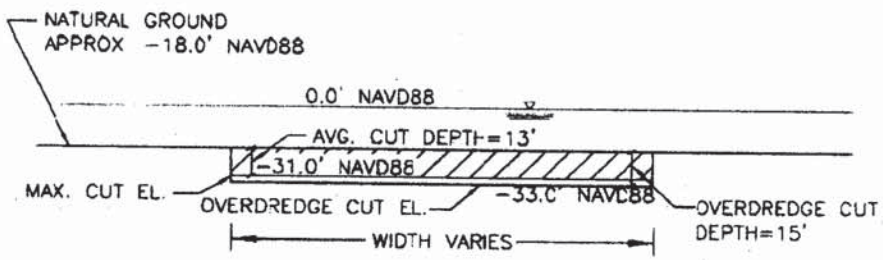
1. BATHYMETRY AND LOCATIONS OF MAGNETIC ANOMALIES FROM C&C ARCHAEOLOGICAL & HAZARD REPORT DATED DECEMBER 2003
2. VIBRACORE LOCATIONS FROM STE REPORT OF SAND SOURCE INVESTIGATION DATED MARCH 2005

NOTE:

ALL ELEVATIONS ARE IN NAVD88 AND ALL COORDINATES ARE IN NAD83

MHW. +1.6 NAVD
MLW. 0.0 NAVD

PURPOSE: 6.6 MILLION C.Y. OF IN-PLACE SAND FOR DUNE/MARSH RESTORATION



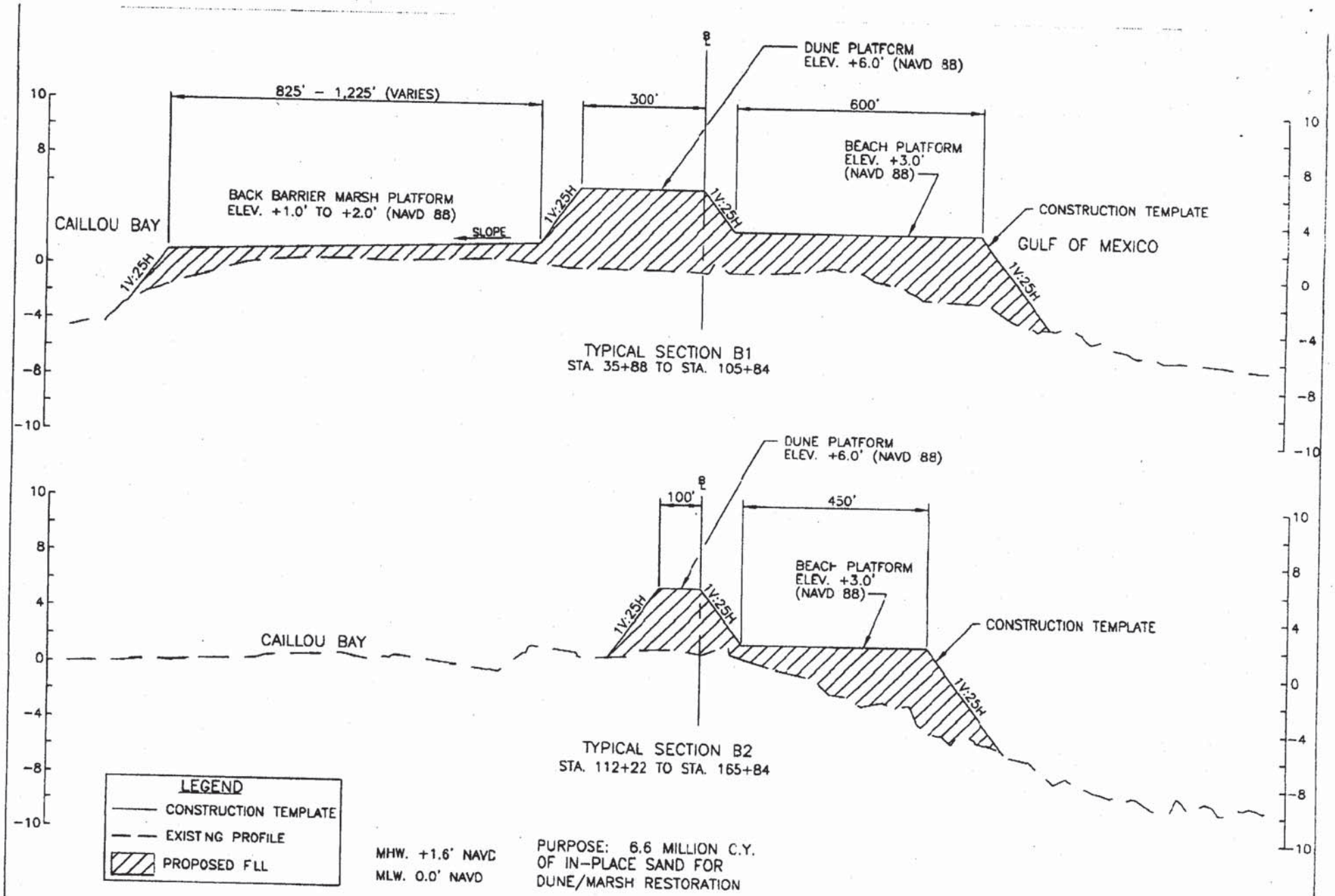
SECTION C-C
SAND SOURCE "X" BORROW AREA
N.T.S.

GRAPHIC SCALE (IN FEET)

1500' 750' 0' 1500' 3000'

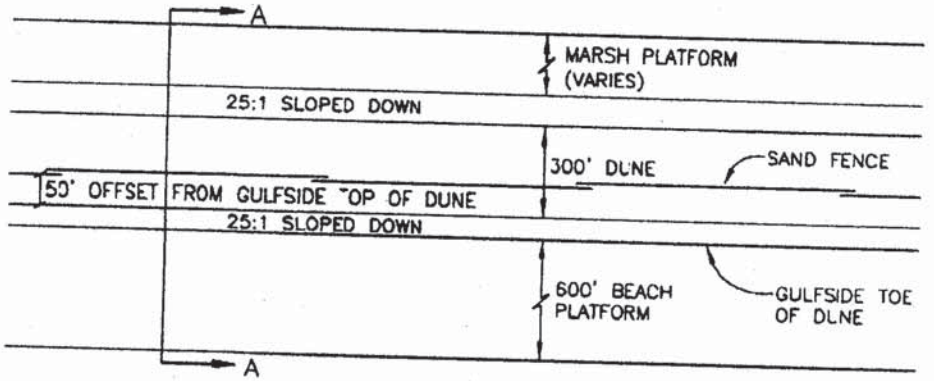
SHIP SHOAL - WHISKEY ISLAND WEST FLANK RESTORATION SECTIONS 44 - 46, T 24 S - R 16 E TERREBONNE PARISH, LA	BORROW AREA-PLAN VIEW
STATE PROJECT NUMBER: TE - 47	DATE: JUNE 29, 2006

SHEET



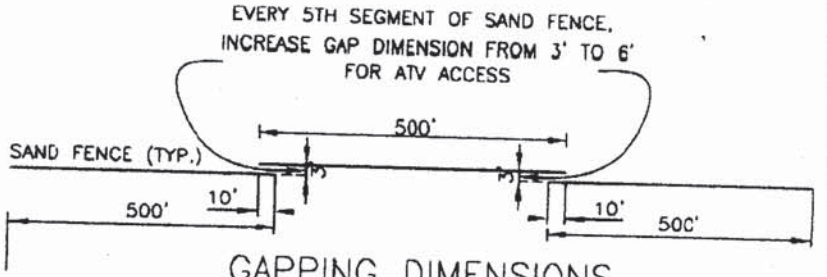
SHIP SHOAL - WHISKEY ISLAND WEST FLANK RESTORATION SECTIONS 44 - 46, T 24 S - R 16 E TERREBONNE PARISH, LA	TYPICAL DUNE/MARSH RESTORATION SECTIONS B1 & B2
STATE PROJECT NUMBER: TE - 47	DATE: JUNE 29, 2005

SHEET 7 OF 8



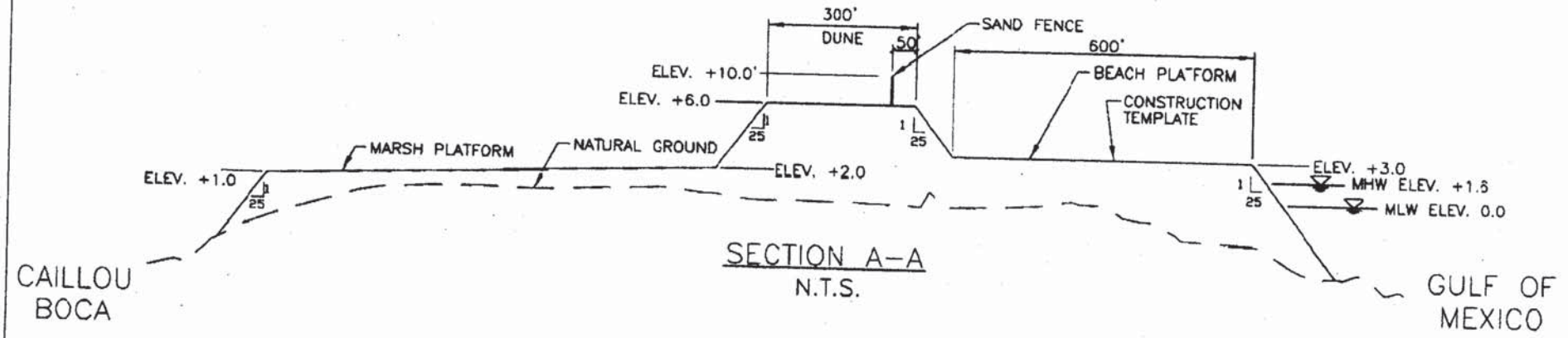
PLAN VIEW OF SAND FENCE
WHISKEY ISLAND

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

SHEET 8 OF 8	SHIP SHOAL - WHISKEY ISLAND WEST FLANK RESTORATION SECTIONS 44 - 46, T 24 S - R 6 E TERREBONNE PARISH, LA	SAND FENCE DETAILS
	STATE PROJECT NUMBER: TE-[illegible]	DATE: JUNE 29, 2005

ATTACHMENT
VII

SECTION 303 (e) APPROVAL LETTER

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

REPLY TO ATTENTION OF

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,

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

ATTACHMENT VIII

OVERGRAZING DETERMINATION

United States Department of Agriculture

NRCS
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,

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 Pate, State Grazing Lands Specialist, NRCS, Alexandria, Louisiana
John Jurgensen, Civil Engineer, NRCS, Alexandria, Louisiana

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

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ATTACHMENT
IX

REVISED FULLY FUNDED COST ESTIMATE

ATTACHMENT
X

WETLAND VALUE ASSESSMENT

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Barrier Island

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

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Dune	0	0.10	0	0.10	0	0.10
V2	% Supratidal	30	1.00	30	1.00	28	1.00
V3	% Intertidal	70	1.00	70	1.00	72	0.94
V4	% Vegetative Cover	33	0.56	33	0.56	36	0.60
V5	% Woody Cover	15	1.00	15	1.00	16	1.00
V6	Interspersion	%	0.72	%	0.72	%	0.65
	Class 1	44		44		28	
	Class 2					15	
	Class 3	26		26		13	
	Class 4	30		30		44	
	Class 5						
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI =	0.742	HSI =	0.742	HSI =	0.731

Project..... Ship Shoal - Whiskey Island West Flank Restoration (TE-47)
FWOP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Dune	0	0.10				
V2	% Supratidal	22	1.00				
V3	% Intertidal	81	0.67				
V4	% Vegetative Cover	20	0.38				
V5	% Woody Cover	16	1.00				
V6	Interspersion	%	0.54	%		%	
	Class 1						
	Class 2	30					
	Class 3	10					
	Class 4	60					
	Class 5						
V7	Beach/surf Zone	1	1.00				
		HSI =	0.624	HSI =		HSI =	

Project.....
FWOP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Dune						
V2	% Supratidal						
V3	% Intertidal						
V4	% Vegetative Cover						
V5	% Woody Cover						
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	%		%		%	
V7	Beach/surf Zone						
		HSI =		HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Barrier Island

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

Condition: Future With Project

Variable		TY 0		TY 1		TY 2	
		Value	SI	Value	SI	Value	SI
V1	% Dune	0	0.10	7	1.00	7	1.00
V2	% Supratidal	30	1.00	30	1.00	30	1.00
V3	% Intertidal	70	1.00	63	1.00	63	1.00
V4	% Vegetative Cover	33	0.56	24	0.43	29	0.50
V5	% Woody Cover	15	1.00	11	1.00	11	1.00
V6	Interspersion	%	0.72	%	0.69	%	0.70
	Class 1	44		24		26	
	Class 2						
	Class 3	26		73		70	
	Class 4	30		3		4	
	Class 5						
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI =	0.742	HSI =	0.840	HSI =	0.854

Project..... Ship Shoal - Whiskey Island West Flank Restoration (TE-47)
FWP

Variable		TY 3		TY 5		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Dune	7	1.00	7	1.00	5	1.00
V2	% Supratidal	30	1.00	30	1.00	29	1.00
V3	% Intertidal	63	1.00	64	1.00	65	1.00
V4	% Vegetative Cover	30	0.51	45	0.72	46	0.73
V5	% Woody Cover	12	1.00	12	1.00	12	1.00
V6	Interspersion	%	0.70	%	0.82	%	0.75
	Class 1	27		40		30	
	Class 2			30		30	
	Class 3	68		30		25	
	Class 4	5				15	
	Class 5						
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI =	0.858	HSI =	0.917	HSI =	0.909

Project.....
FWP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Dune	0	0.10				
V2	% Supratidal	28	1.00				
V3	% Intertidal	72	0.94				
V4	% Vegetative Cover	29	0.50				
V5	% Woody Cover	10	1.00				
V6	Interspersion	%	0.66	%		%	
	Class 1						
	Class 2	45					
	Class 3	40					
	Class 4	15					
	Class 5						
V7	Beach/surf Zone	1	1.00				
		HSI =	0.713	HSI =		HSI =	

AAHU CALCULATION

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

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	1041	0.742	772.92	
1	1007	0.742	747.68	760.30
10	758	0.731	554.30	5854.69
20	437	0.624	272.73	4077.80
			AAHUs =	534.64

Future With Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	1041	0.742	772.92	
1	1249	0.840	1048.84	907.51
2	1216	0.854	1039.00	1044.00
3	1181	0.858	1012.71	1025.87
5	1114	0.917	1021.76	2035.80
10	946	0.909	860.35	4704.19
20	608	0.713	433.41	6358.02
			AAHUs	803.77

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHUs =	803.77
B. Future Without Project AAHUs =	534.64
Net Change (FWP - FWOP) =	**269.13**

Venice Ponds Marsh Creation & Crevasses (MR-15)

Venice Ponds Marsh Creation and Crevasses (MR-15)

Phase II Request

December 13, 2011

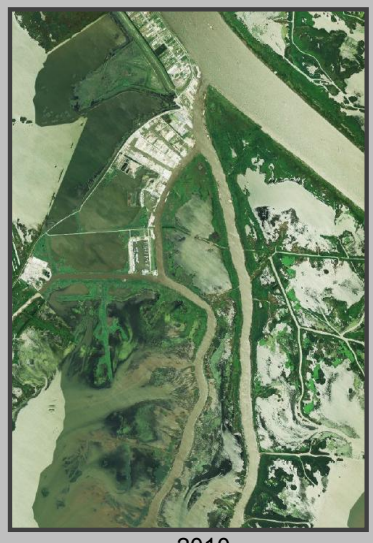
Project Background

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.

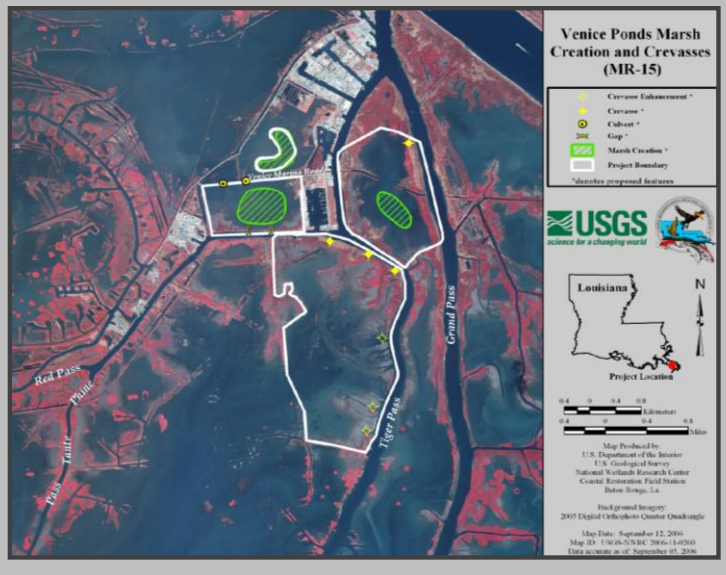
Goal: The goal of this project is to create, nourish and maintain wetlands adjacent to Grand Pass and Tiger Pass with

1978

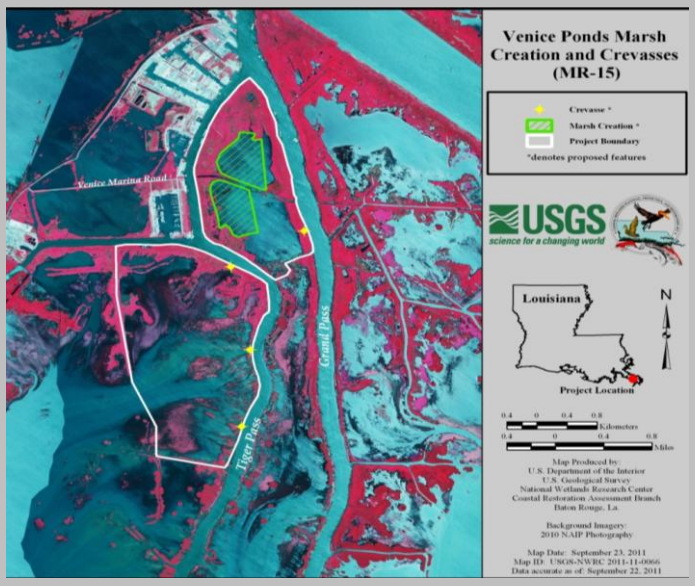


2010

Phase One Approved Design



Phase Two Candidate Project



Project Features

1. Approx. 190 acres of marsh creation with dredged material
   - Tidal creek included
   - Containment dikes gapped 50 ft every 500 ft
2. Create one crevasse on Grand Pass
   - Plant 125 25-gallon bald cypress trees along this crevasse
3. Create one crevasse and enhance two crevasses on Tiger Pass
4. Plant 3,900 bald cypress trees
   - Plant 1,950 trees at construction
   - Plant 1,950 trees three years post construction

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 an enhance two crevasses on Tiger Pass

3. Change in Benefits

Comparison Phase 0 and Phase 2 Request

Phase 0

- Fully Funded Cost $8.99 M
- Total AAHU's 152 AAHUs
- Total Net Acres 511 acres
- Project Area 1,944 acres

Phase 1

- Fully Funded Cost $22.M
- Total AAHU's 85 AAHUs*
- Total Net Acres 318 acres*
- Project Area 917 acres

*Reduction in AAHUs and Net Acres due to reduced number of crevasses. Net acres created may have been over-estimated at Phase 0 based upon Phase 1 evaluation of crevasse design.

O&M Plan

1. Chinese tallow tree control using chemical spraying
2. Additional O&M cypress plantings at TY3.
3. Crevasse maintenance using barge-mounted bucket dredge at TY7
4. Annual Inspections

	Target Year																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Tallow Control			•		•			•			•				•					
Cypress Planting			•																	
Crevasse Maintenance							•													

Monitoring Plan

Project Wide

1. Aerial Photography
2. Topographic/Bathymetric Survey
3. One hydrologic station

2 fixed stations

1. Vegetation
2. Soil Properties
3. RSET / Accretion

	Target Year																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aerial Survey	•		•				•								•					
Topographic & Bathymetric	•		•				•								•					
Vegetation		•			•					•					•					
Soil Properties	•				•					•					•					
RSET / Accretion	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
Hydrologic	•																			

Questions?

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

November 29, 2011

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 first 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,

Karen McCormick
Chief
Marine and Coastal Section

Enclosures

cc: CWPPRA Technical Committee Members
CWPPRA Planning and Evaluation Subcommittee Members
Chris Llewellyn, Project Manager, EPA
Brad Miller, Project Manager, CPRA

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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 has been completed and posted for public comment on November 29, 2011 in the CWPPRA Newsflash, The Times-Picayune and the Plaquemines Gazette. The comment deadline is January 13, 2011. During the comment period, the document is available online at:

www.epa.gov/region6/water/ecopro/em/eco-publicnotice/venice_ponds_marsh.html

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

June 2007
Cost figures as of: October 2011

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:

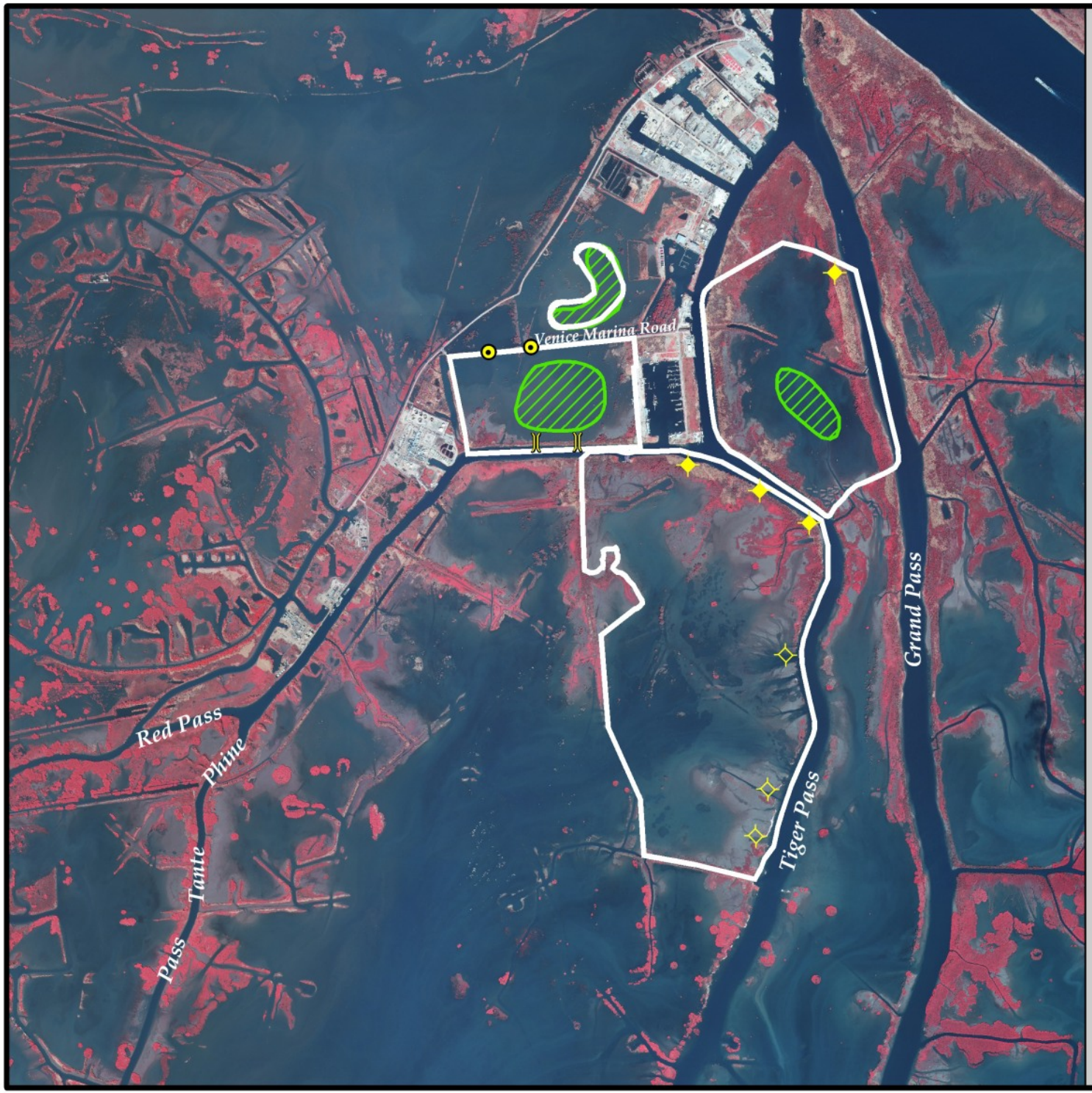
Federal Sponsors:

US Army Corps of Engineers
New Orleans District

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 Crevasses (MR-15)

- Crevasse Enhancement *
- Crevasse *
- Culvert *
- Gap *
- Marsh Creation *
- Project Boundary

*denotes proposed features

USGS
science for a changing world

Louisiana

Project Location

N

0.4 0 0.4 0.8 Kilometers

0.4 0 0.4 0.8 Miles

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.

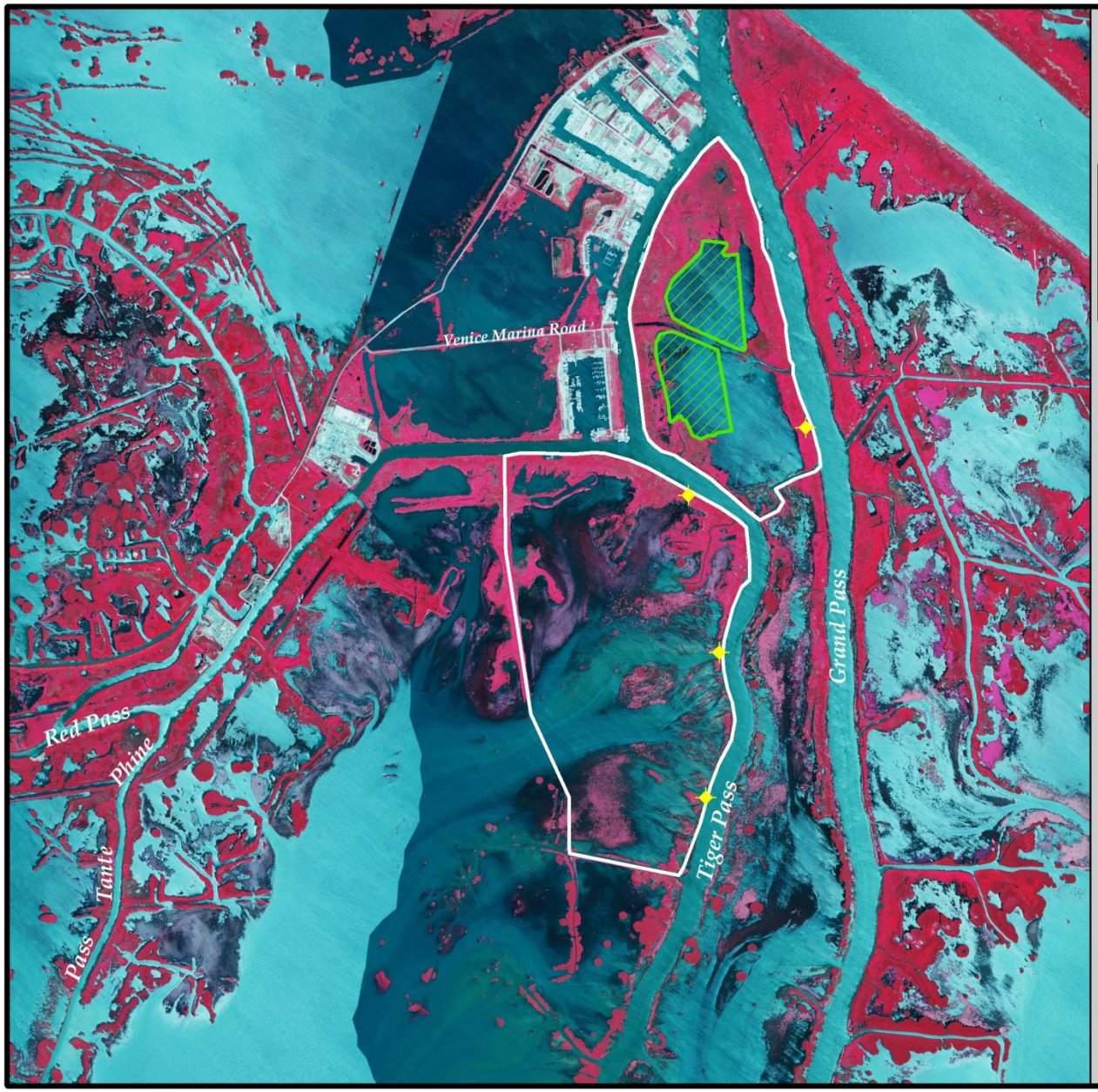
Progress to Date: The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design in February 2006. The project team completed final design in November of 2011 and the project is awaiting construction funding.

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)

Crevasse *

Marsh Creation *

Project Boundary

*denotes proposed features

USGS
science for a changing world

Louisiana

N

Project Location

0.4 0 0.4 0.8 Kilometers

0.4 0 0.4 0.8 Miles

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

Background Imagery:
2010 NAIP Photography

Map Date: 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

Coastal Protection and
Restoration Authority of Louisiana

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

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.lacpra.org/
An Equal Opportunity Employer

Enclosure D: Letter from CPRA concurring with EPA on favorable conclusion of 95% Design and desire to proceed to Phase II Request

Coastal Protection and
Restoration Authority of Louisiana

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,

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

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.lacpra.org/
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Enclosure E: Permit Applications

Joint Permit Application For Work Within the Louisiana Coastal Zone

Louisiana Department of Natural Resources
Office of Coastal Management

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:

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 authoriation 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

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?

☐ Bridge/Road	☐ Home Site/Driveway	☐ Pipeline/Flow Line	☐ Rip Rap/Erosion Control
☐ Bulkhead/Fill	☐ Levee Construction	☐ Plug/Abandon	☐ Site Clearance
☐ Drainage Improvements	☒ Dredging	☐ Production Barge/ Structure	☐ Subdivision
☐ Drill Barge/ Structure	☐ Prop Washing	☒ Vegetative Plantings	☐ Wharf/Pier/Boathouse
☐ Drill Site	☐ Pilings	☐ Remove Structures	
☒ Fill	☐ Marina	☐ Major Industrial/Commercial	
☐ Other:			

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

☐ Concrete:	Cubic Yards	☐ Rock:	Cubic Yards
☐ Crushed Stone or Gravel:	Cubic Yards	☐ Sand:	Cubic Yards
☒ Excavated and Placed onsite :	2385906 Cubic Yards	☐ Hauled in Topsoil/Dirt:	Cubic Yards

☐ Other: Excavated and hauled offsite:	Cubic Yards	Cubic Yards

d. What equipment will be used for the proposed project?

☒ Airboat	☐ Bulldozer/Grader	☒ Marsh Buggy
☐ Backhoe	☐ Dragline/Excavator	☐ Other Tracked or Wheeled Vehicles
☒ Barge Mounted Bucket Dredge	☐ Handjet	☐ Self Propelled Pipe Laying Barge
☐ Barge Mounted Drilling Rig	☐ Land Based Drilling Rig	☐ Tugboat
☒ 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 ajacent 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 ajacent 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.

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

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

Landowner

Louisiana Fruit Company c/o George Pivach II

PO Box 7125

Belle Chasse, LA 70037

Landowner

Robinson Interests Company c/o Warren Doyle

880 Commerce Road West

Suite 104
New Orleans, LA 70123

Adjacent Landowner

Cattle Farms Management Company, LLC ; C/O Michael L. Hughe

4782 Prosperity Street

St. Francisville, LA 70775

Adjacent Landowner

Charles Buck Mayer

100 Poydras Street

22nd Floor / Suite 2000
New Orleans, LA 70163

Adjacent Landowner

Edward Duff Nowotny

7000 Juneberry

Austin, TX 78750

Adjacent Landowner

George Edward Nowotny, III et al

5572 Vista Canada

La Cañada Flintridge, CA 91011

Adjacent Landowner

William A. Wenck, Jr.

110 Mile Creek

Old Lyme, CT 06371

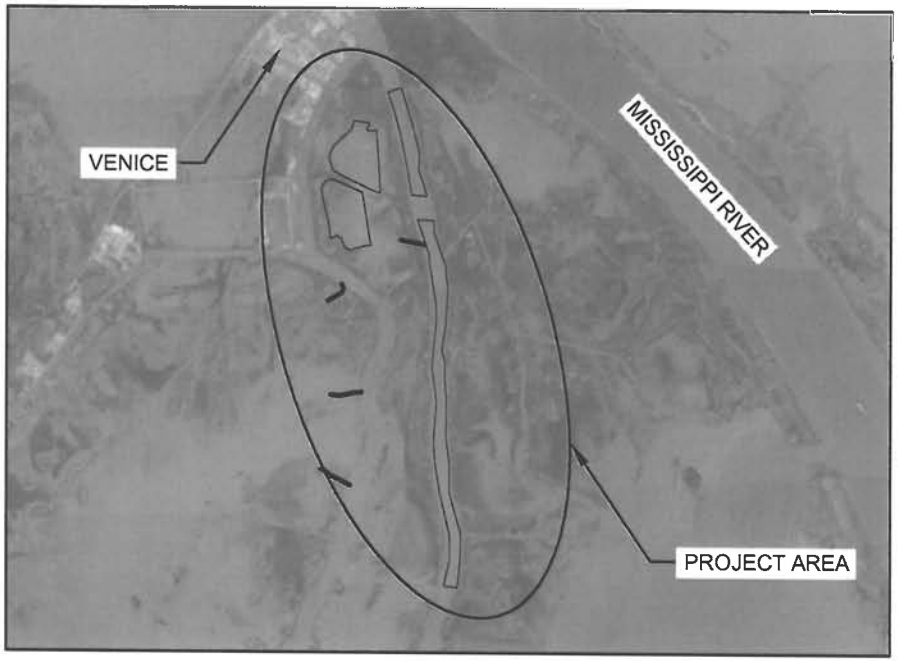
INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PROJECT LAYOUT
3	CONVEYANCE CORRIDOR LAYOUT
4	BORROW AREA LAYOUT
5	MARSH CREATION LAYOUT
6-7	CREAVSSE LAYOUT
8	VEGETATIVE PLANTING LAYOUT
9-13	TYPICAL SECTIONS
14-15	TYPICAL DETAILS
16	COORDINATES

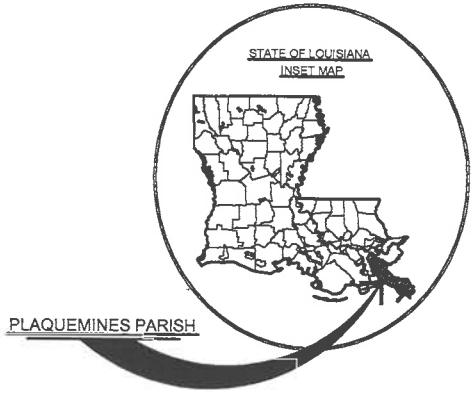
STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY

VENICE PONDS MARSH CREATION AND CREVASSES PROJECT

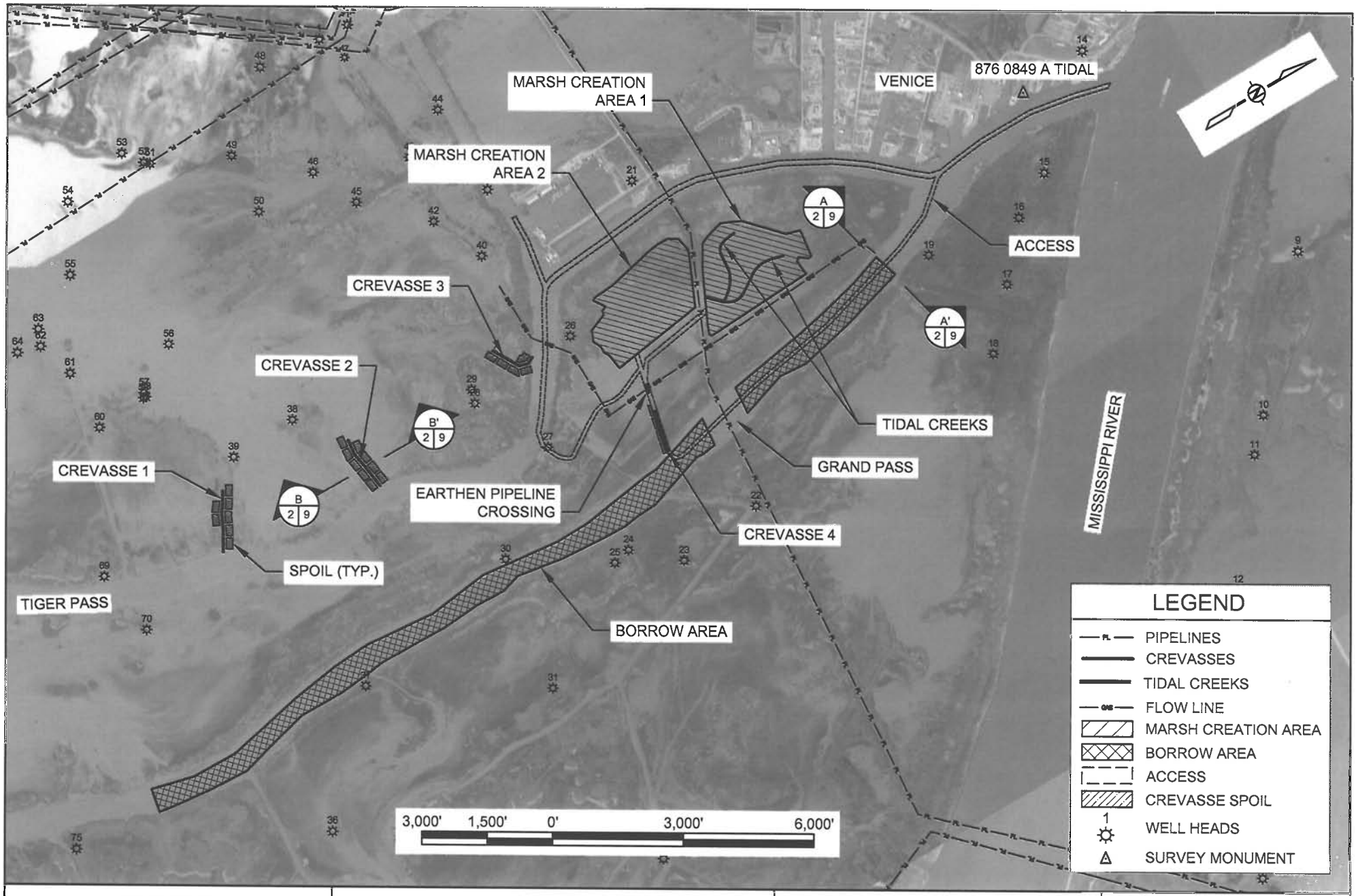
MR-15
PLAQUEMINES PARISHES



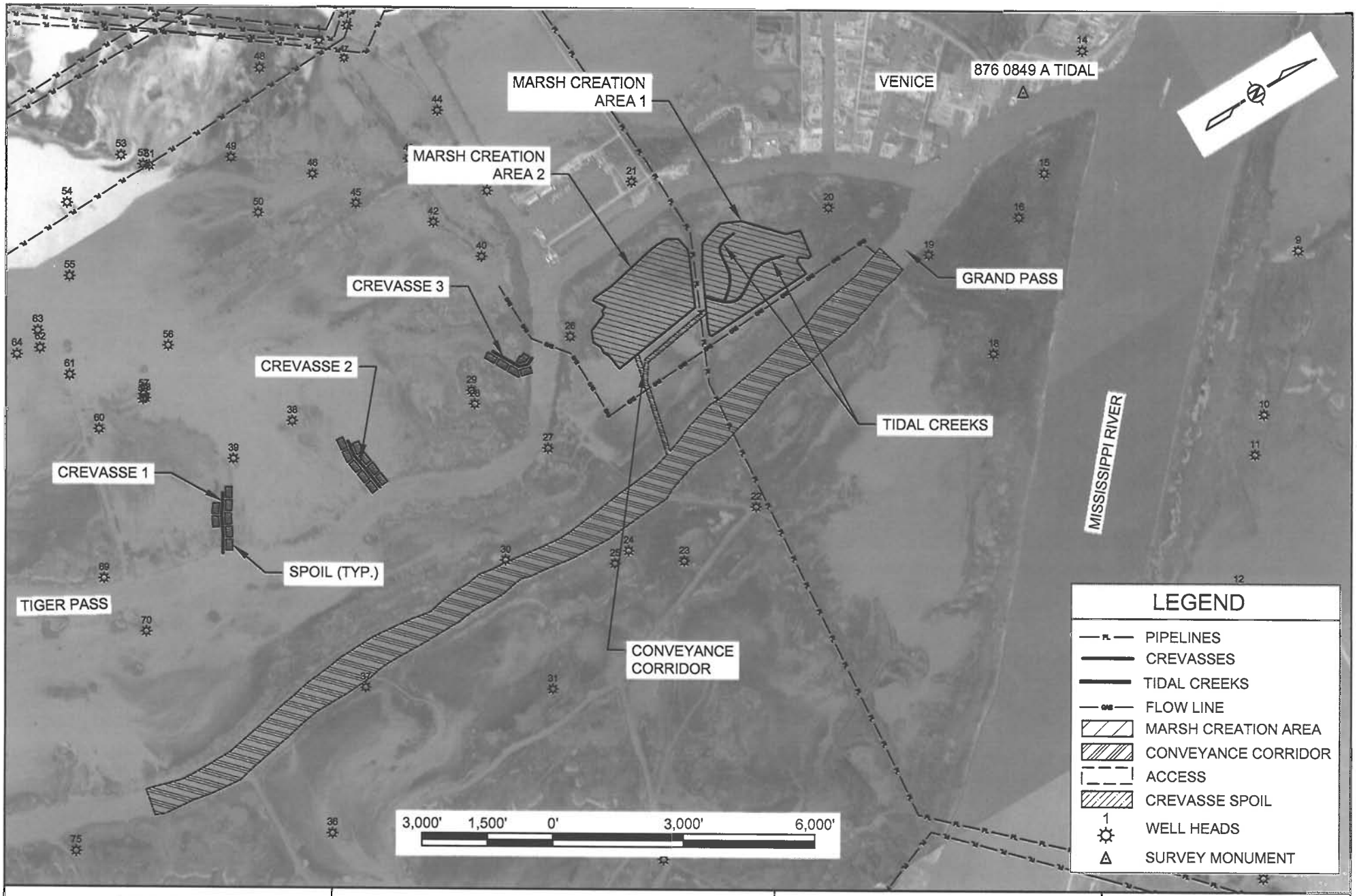
8,000' 4,000' 0' 8,000' 16,000'



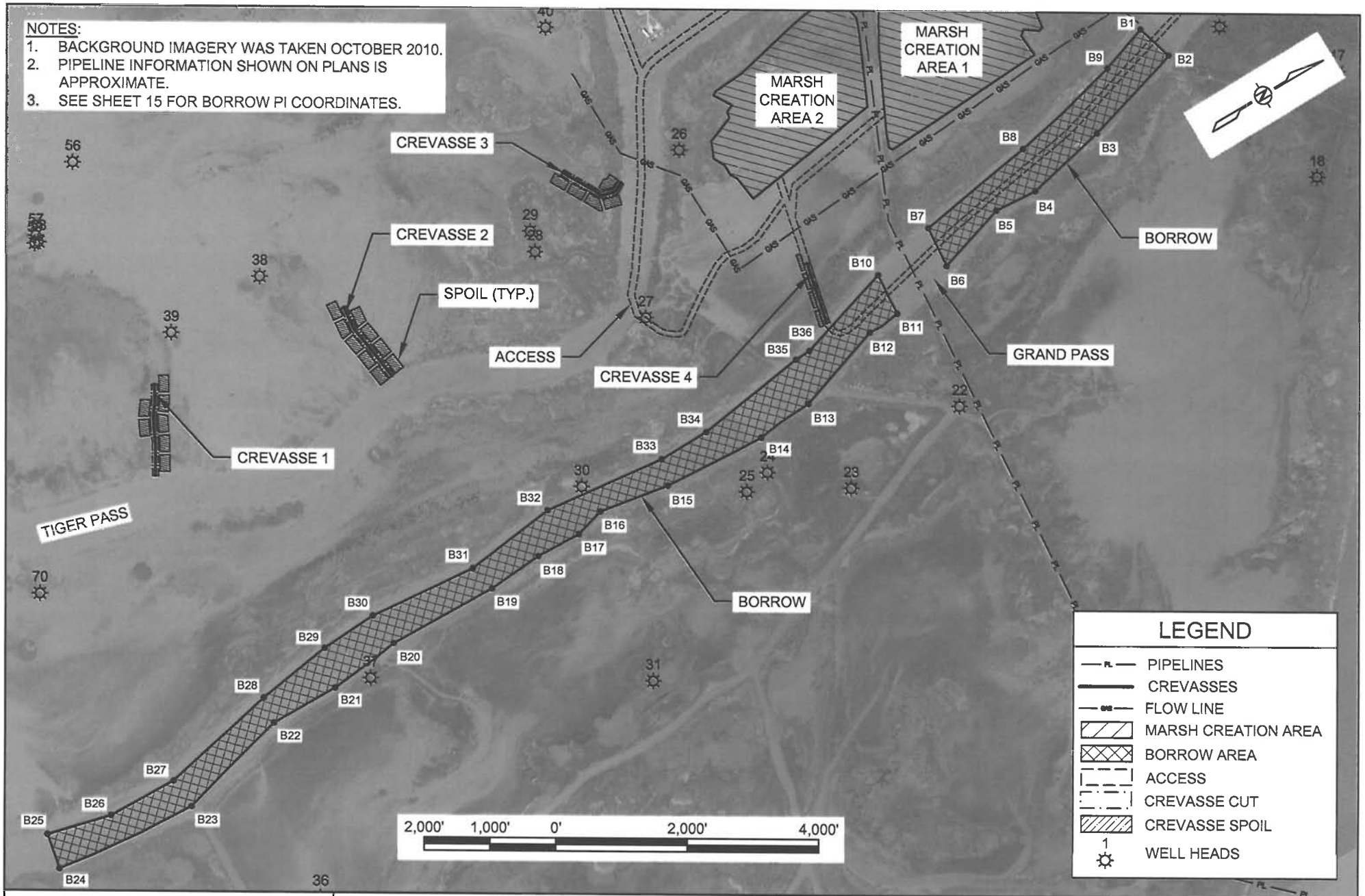
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 70804-4027	COASTAL PROTECTION AND RESTORATION AUTHORITY 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	TITLE SHEET
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 1 OF 16



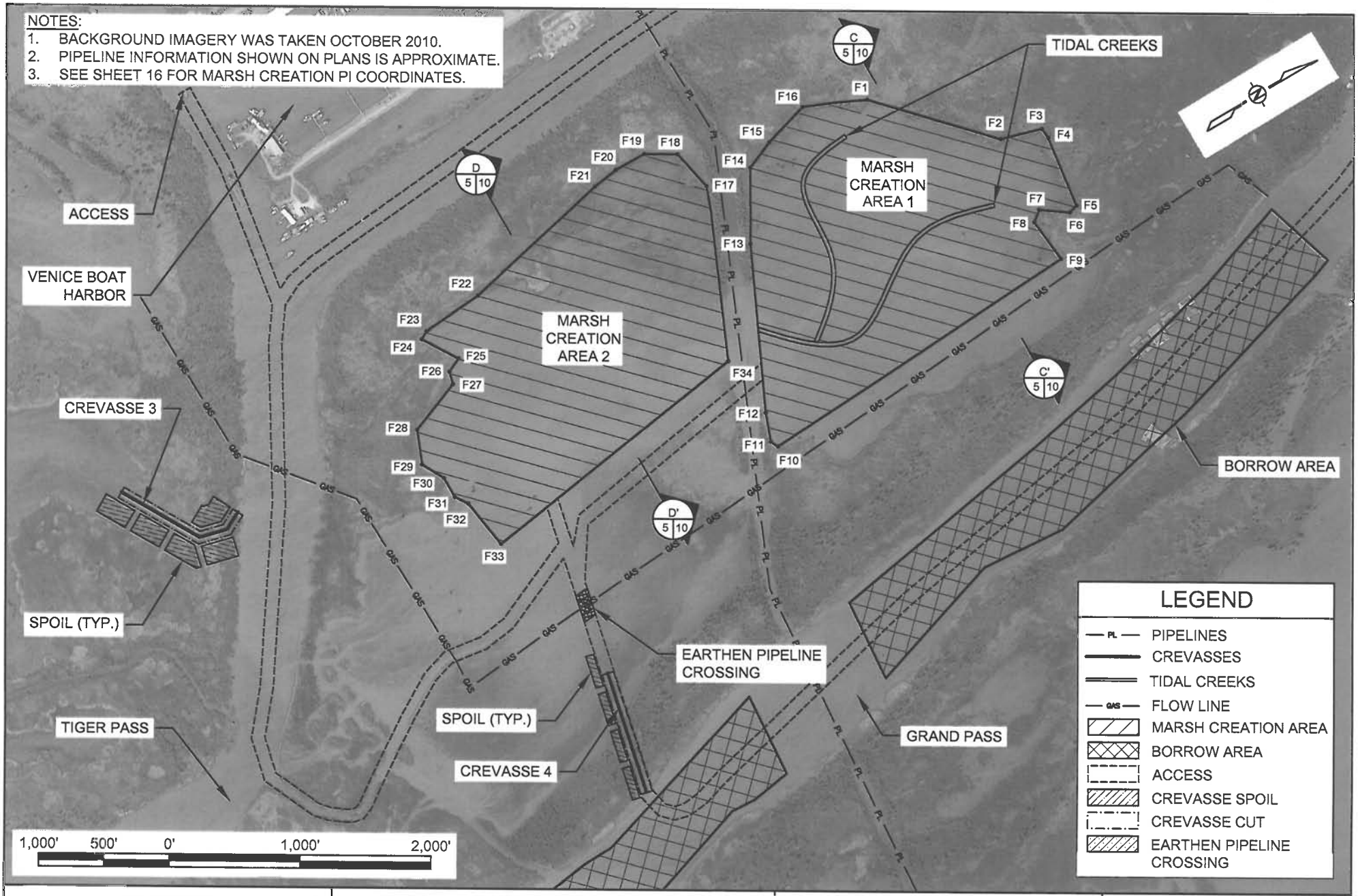
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	PROJECT LAYOUT
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 2 OF 16



APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	CONVEYANCE CORRIDOR LAYOUT
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 3 OF 16



APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	BORROW AREA LAYOUT
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 4 OF 16

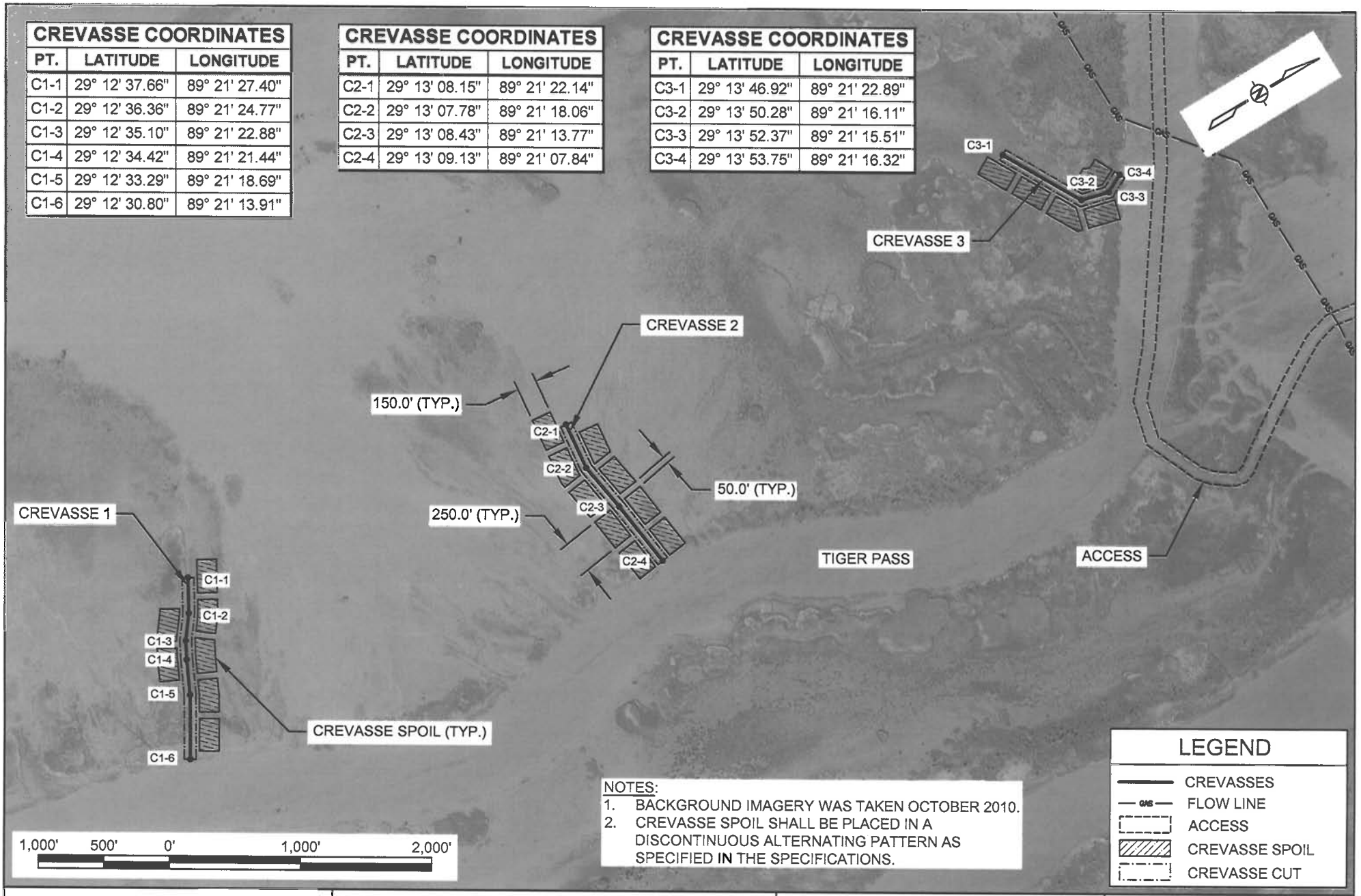


APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	MARSH CREATION LAYOUT
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 5 OF 16

CREVASSE COORDINATES		
PT.	LATITUDE	LONGITUDE
C1-1	29° 12' 37.66"	89° 21' 27.40"
C1-2	29° 12' 36.36"	89° 21' 24.77"
C1-3	29° 12' 35.10"	89° 21' 22.88"
C1-4	29° 12' 34.42"	89° 21' 21.44"
C1-5	29° 12' 33.29"	89° 21' 18.69"
C1-6	29° 12' 30.80"	89° 21' 13.91"

CREVASSE COORDINATES		
PT.	LATITUDE	LONGITUDE
C2-1	29° 13' 08.15"	89° 21' 22.14"
C2-2	29° 13' 07.78"	89° 21' 18.06"
C2-3	29° 13' 08.43"	89° 21' 13.77"
C2-4	29° 13' 09.13"	89° 21' 07.84"

CREVASSE COORDINATES		
PT.	LATITUDE	LONGITUDE
C3-1	29° 13' 46.92"	89° 21' 22.89"
C3-2	29° 13' 50.28"	89° 21' 16.11"
C3-3	29° 13' 52.37"	89° 21' 15.51"
C3-4	29° 13' 53.75"	89° 21' 16.32"



NOTES:
1. BACKGROUND IMAGERY WAS TAKEN OCTOBER 2010.
2. CREVASSE SPOIL SHALL BE PLACED IN A DISCONTINUOUS ALTERNATING PATTERN AS SPECIFIED IN THE SPECIFICATIONS.

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA. 70804-4027

COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

VENICE PONDS MARSH CREATION AND CREVASSES

CREVASSE LAYOUT

STATE PROJECT NUMBER: MR-15

DATE: NOVEMBER 2011

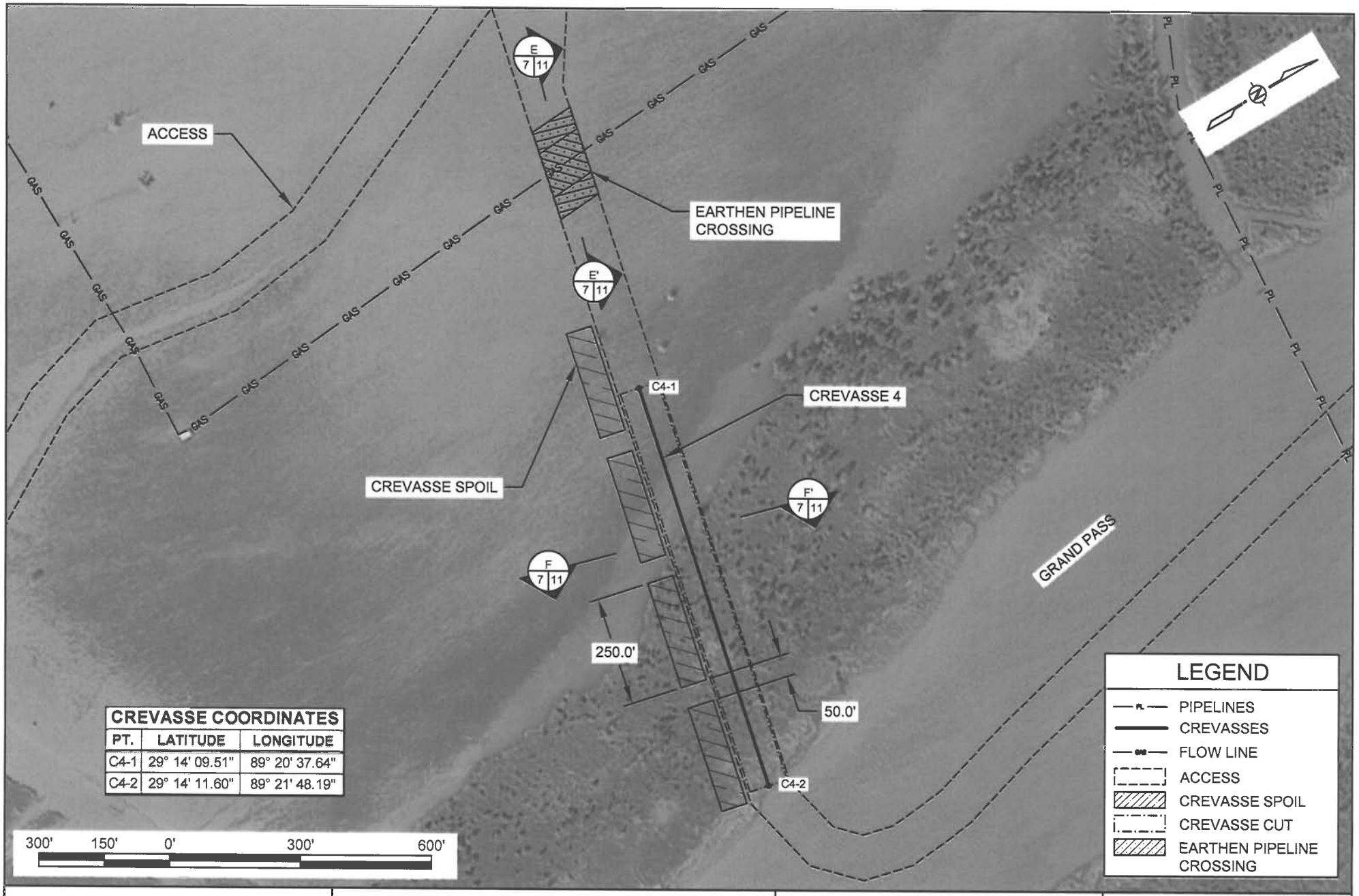
DRAWN BY: SHANE FAUST

DESIGNED BY: ALEX GONZALEZ, E.I.

APPROVED BY: JASON LANCLOS, P.E.

FEDERAL PROJECT NUMBER: MR-15

SHEET 6 OF 16



CREVASSE COORDINATES

PT.	LATITUDE	LONGITUDE
C4-1	29° 14' 09.51"	89° 20' 37.64"
C4-2	29° 14' 11.60"	89° 21' 48.19"

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA. 70804-4027

COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

VENICE PONDS MARSH CREATION AND CREVASSES

CREVASSE LAYOUT

STATE PROJECT NUMBER: MR-15

DATE: NOVEMBER 2011

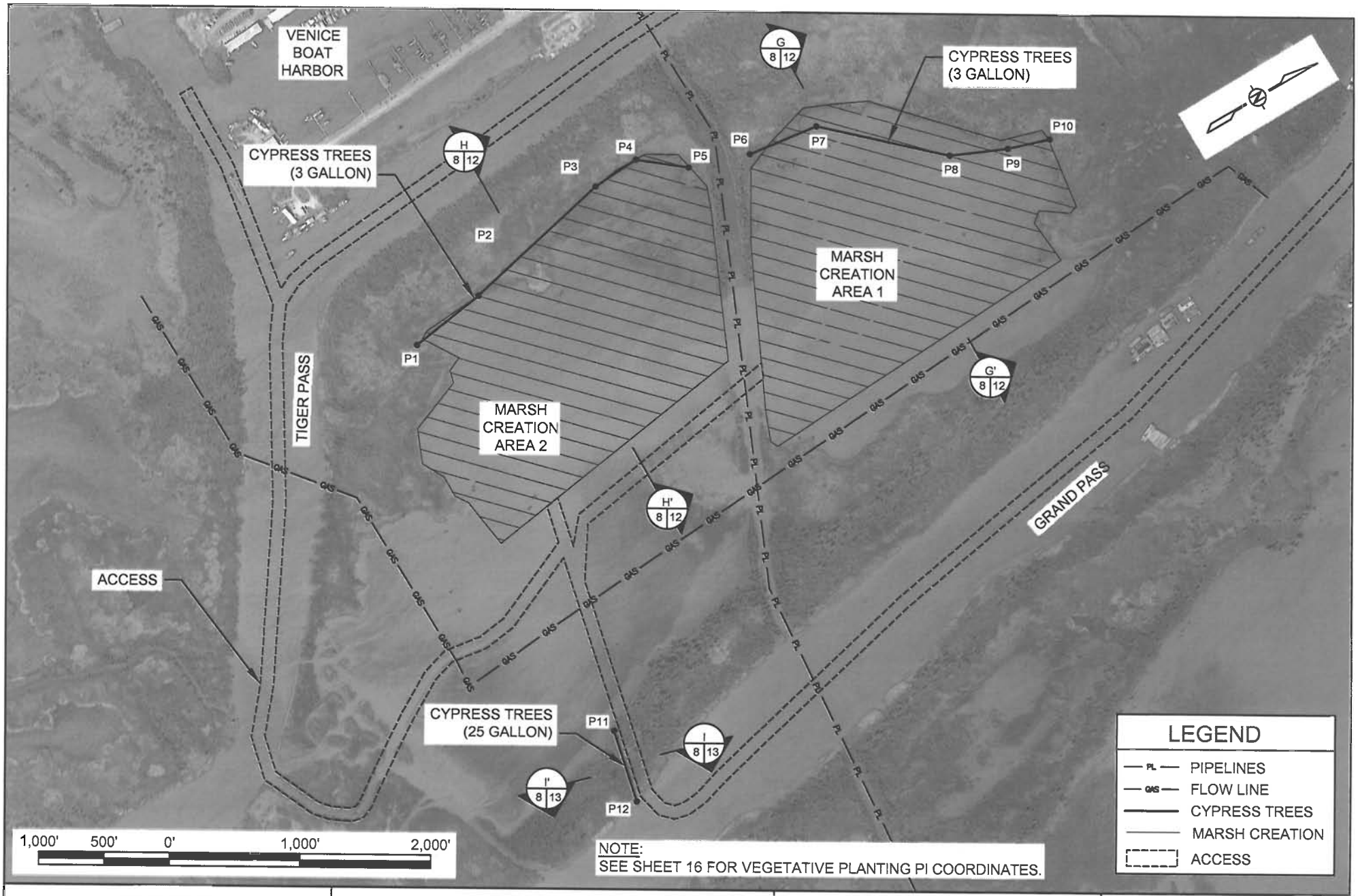
DRAWN BY: SHANE FAUST

DESIGNED BY: ALEX GONZALEZ, E.I.

APPROVED BY: JASON LANCLOS, P.E.

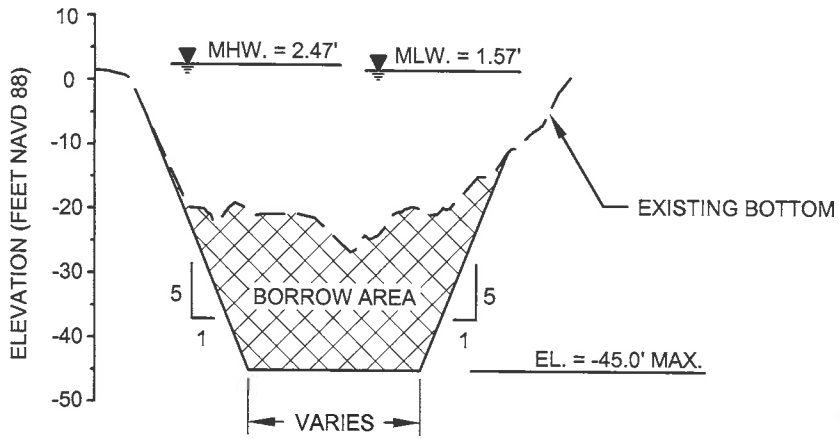
FEDERAL PROJECT NUMBER: MR-15

SHEET 7 OF 16



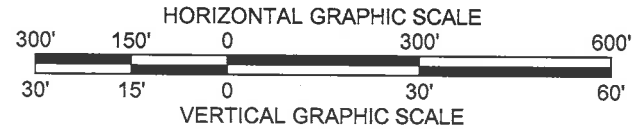
NOTE:
SEE SHEET 16 FOR VEGETATIVE PLANTING PI COORDINATES.

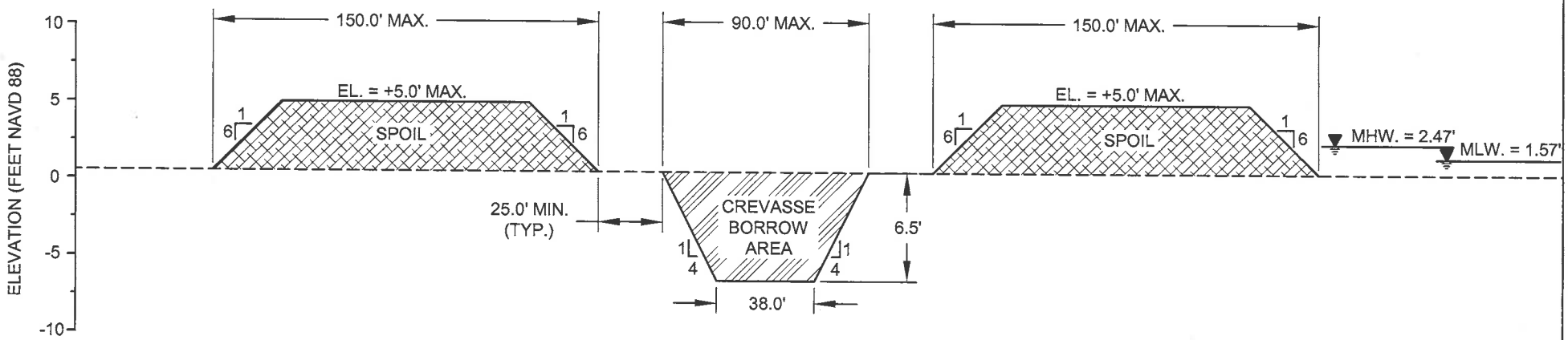
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	VEGETATIVE PLANTINGS LAYOUT
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 8 OF 16



SECTION A-A'

BORROW AREA
TRANSECT 23

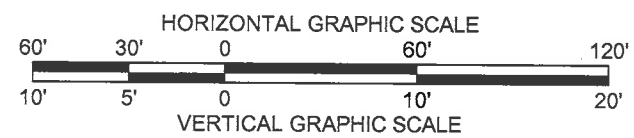




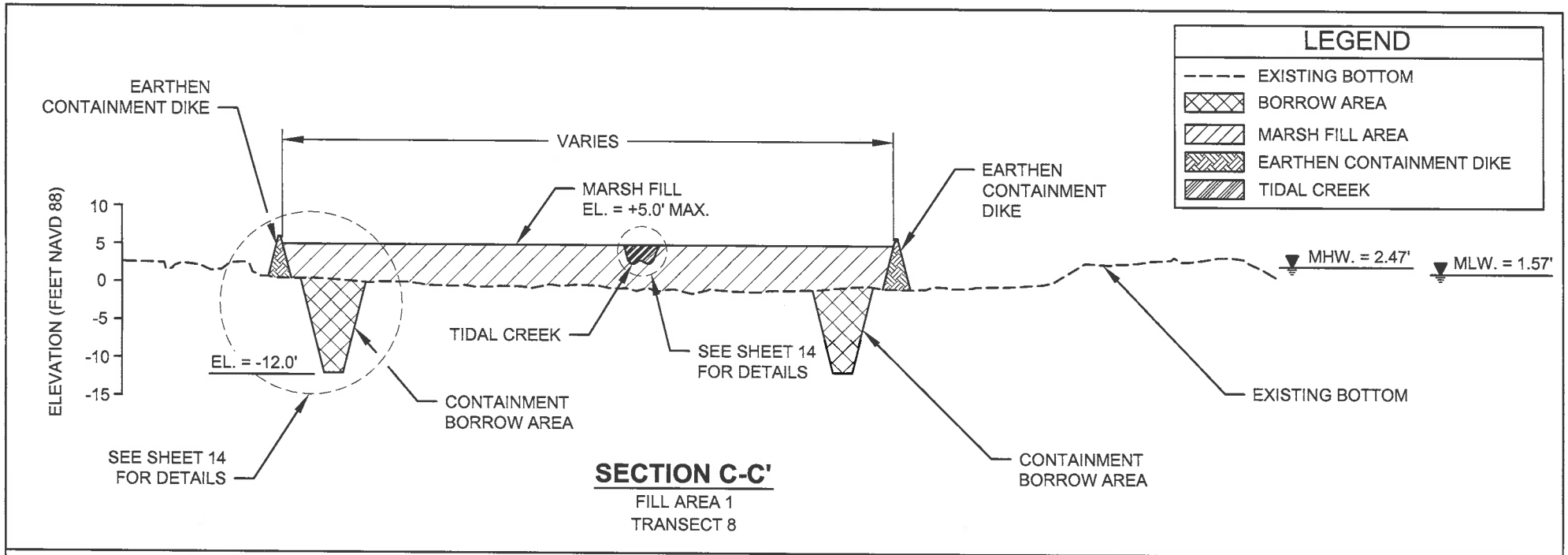
NOTE:
1. SPOIL SHALL BE PLACED IN A DISCONTINUOUS ALTERNATING PATTERN AS SPECIFIED IN THE SPECIFICATIONS.
2. SECTION B-B' USED FOR CREVASSES 1, 2, AND 3.

SECTION B-B'

TYPICAL CREVASSE
C-1, C-2, C-3

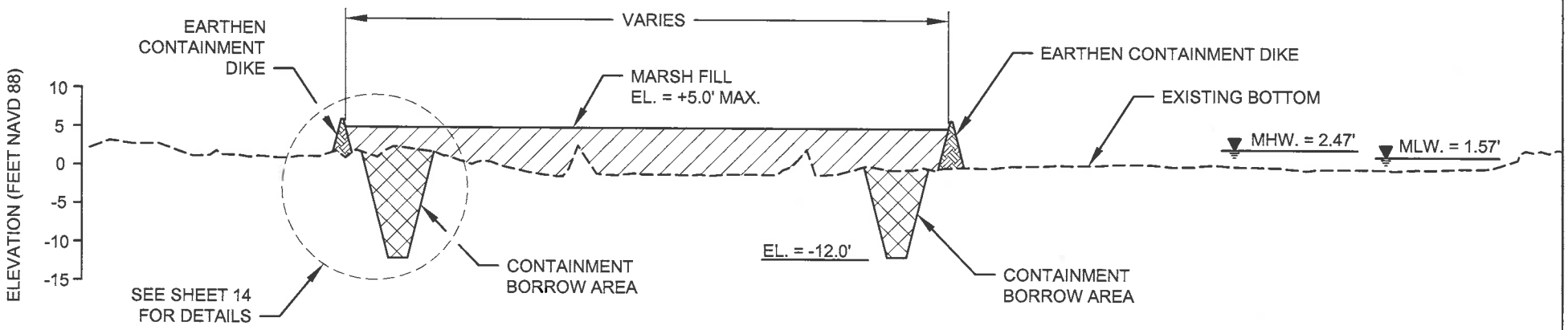


APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	TYPICAL SECTIONS
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 9 OF 16



SECTION C-C'

FILL AREA 1
TRANSECT 8



SECTION D-D'

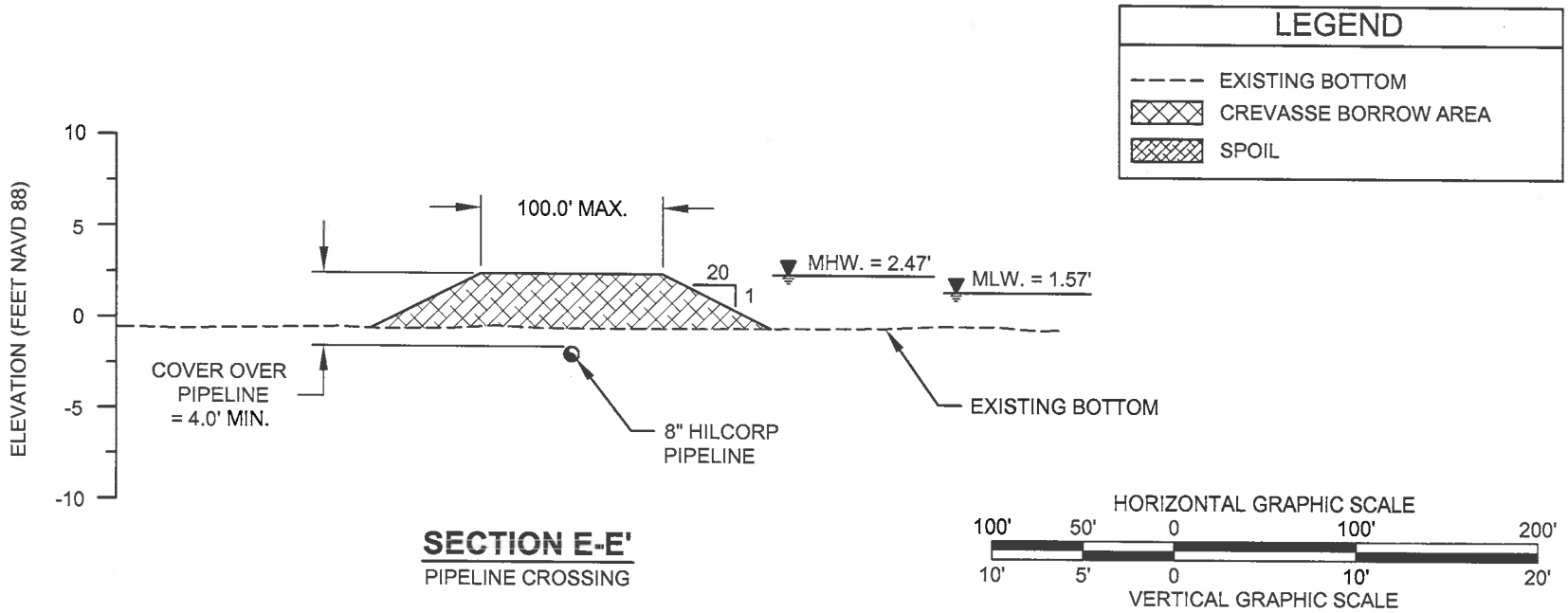
FILL AREA 2
TRANSECT 14

NOTE:

1. SPOIL SHALL BE PLACED DISCONTINUOUS TO PROVIDE FOR APPROXIMATELY 50' GAPS AT 500' INTERVALS AND/OR AT EXISTING CUTS.

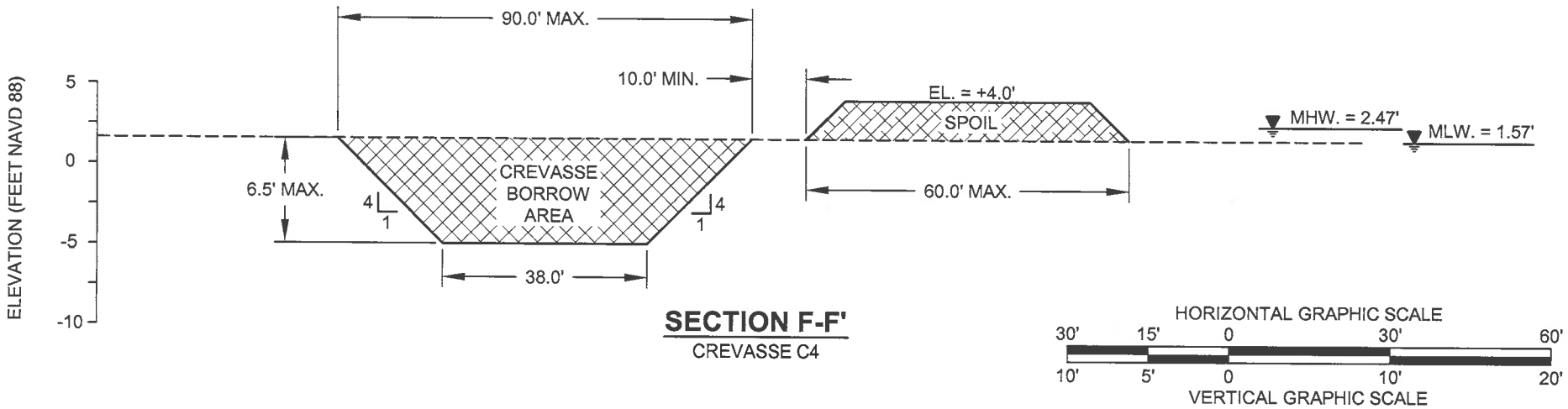
HORIZONTAL GRAPHIC SCALE
400' 200' 0 400' 800'
20' 10' 0 20' 40'
VERTICAL GRAPHIC SCALE

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	TYPICAL SECTIONS
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 10 OF 16



SECTION E-E'

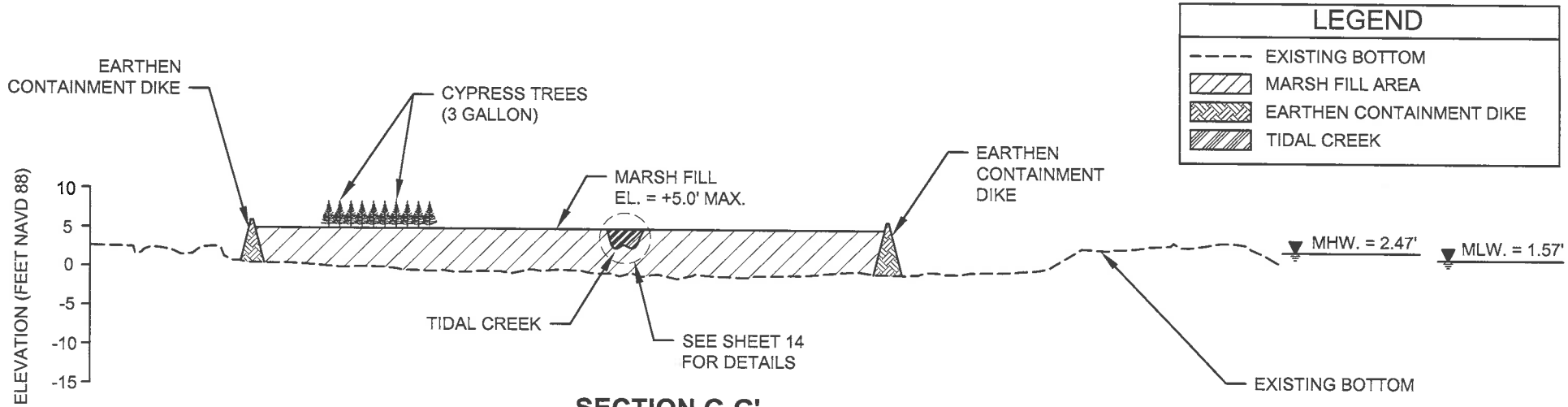
PIPELINE CROSSING



SECTION F-F'

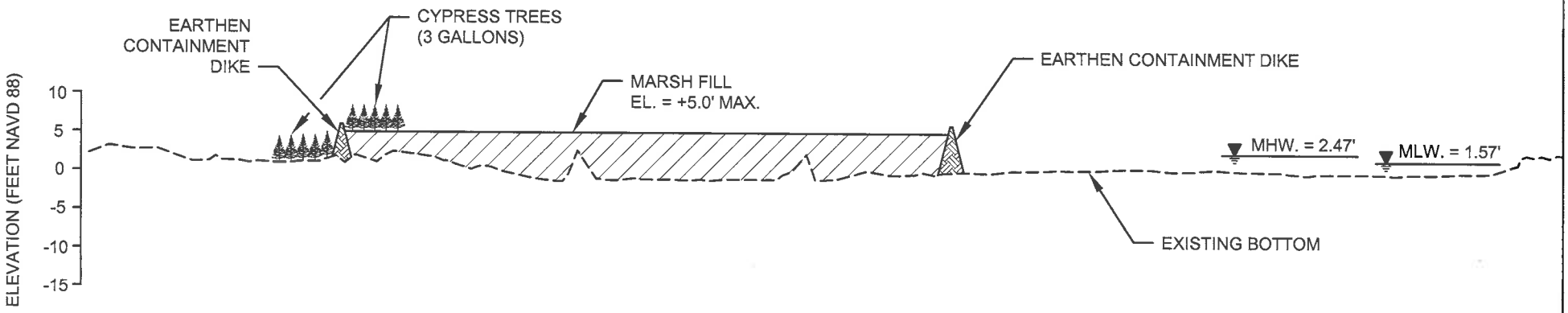
CREVASSE C4

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		VENICE PONDS MARSH CREATION AND CREVASSES	TYPICAL SECTIONS
			STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I.	APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 11 OF 16



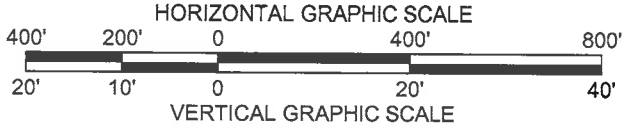
SECTION G-G'

PLANTINGS - FILL AREA 1



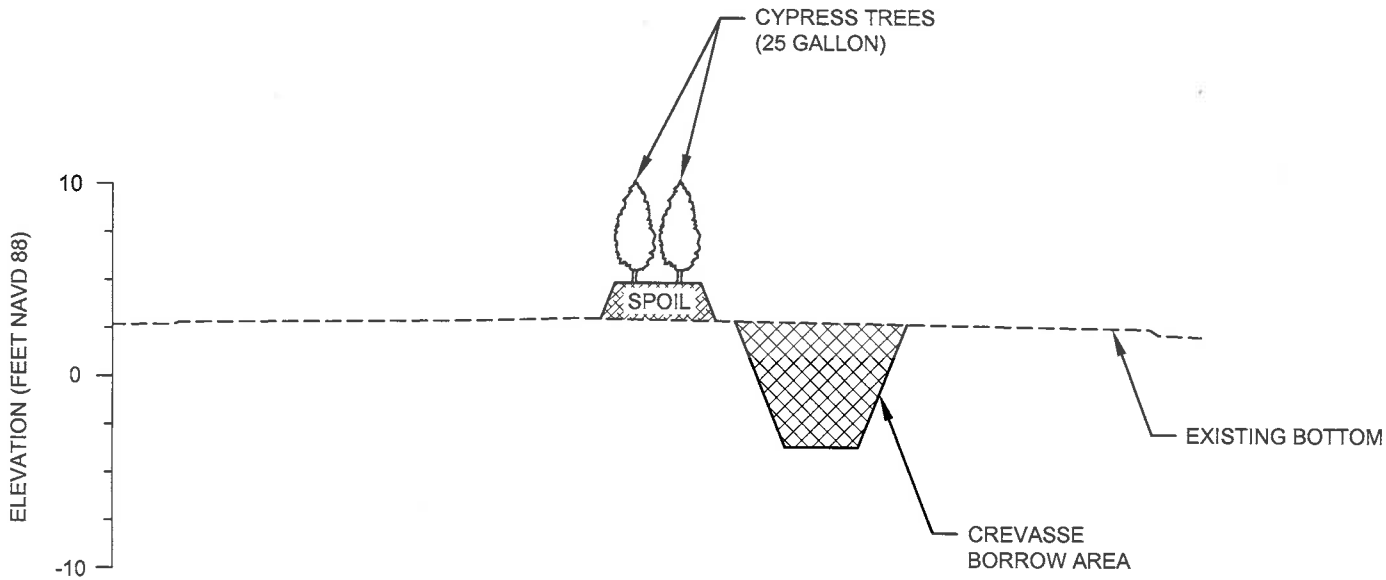
SECTION H-H'

PLANTINGS - FILL AREA 2



NOTE:
SEE SHEET15 FOR CYPRESS TREE DETAILS.

APPLICATION BY: COASTL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	TYPICAL SECTIONS
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 12 OF 16



SECTION I-I'

PLANTINGS

HORIZONTAL GRAPHIC SCALE

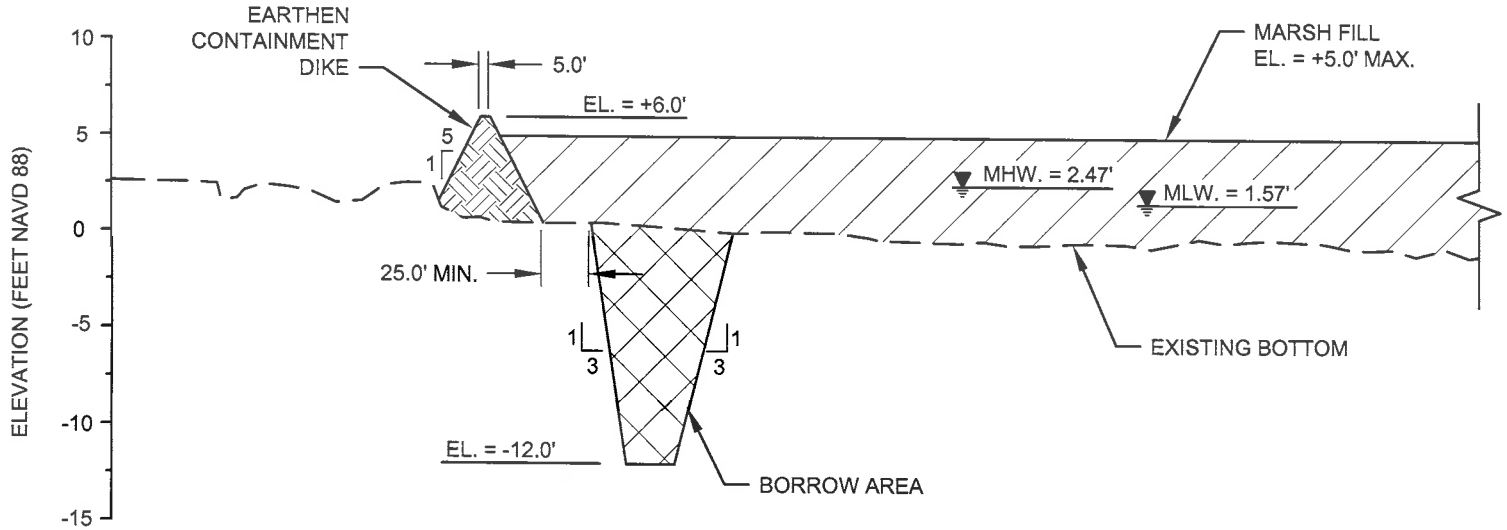
100' 50' 0 100' 200'

10' 5' 0 10' 20'

VERTICAL GRAPHIC SCALE

NOTE:
SEE SHEET 15 FOR CYPRESS TREE DETAILS.

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	TYPICAL SECTIONS
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 13 OF 16



EARTHEN CONTAINMENT DIKE DETAIL

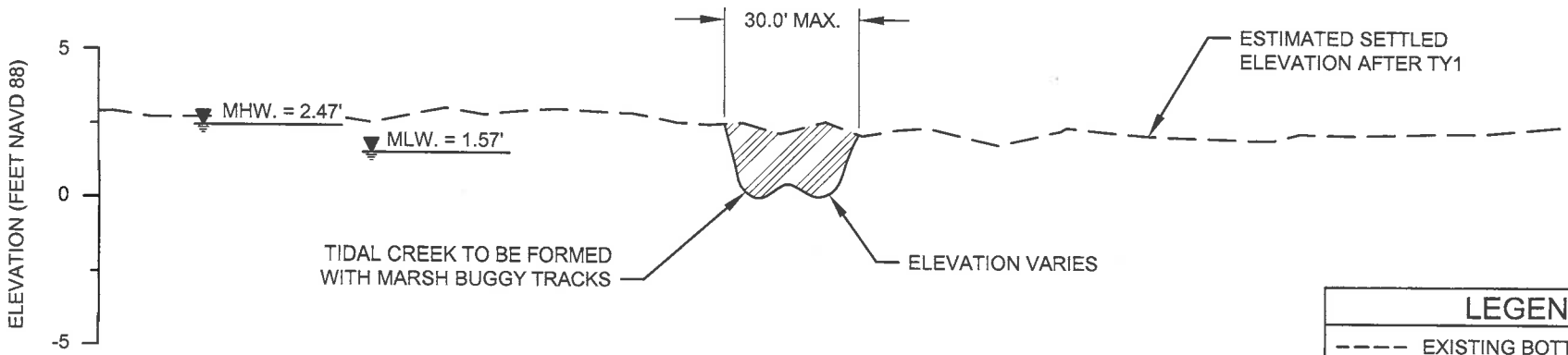
FILL AREAS 1 & 2

HORIZONTAL GRAPHIC SCALE

100' 50' 0 100' 200'

10' 5' 0 10' 20'

VERTICAL GRAPHIC SCALE



HORIZONTAL GRAPHIC SCALE

40' 20' 0 40' 80'

6' 3' 0 6' 12'

VERTICAL GRAPHIC SCALE

TIDAL CREEK DETAIL

FILL AREA 1

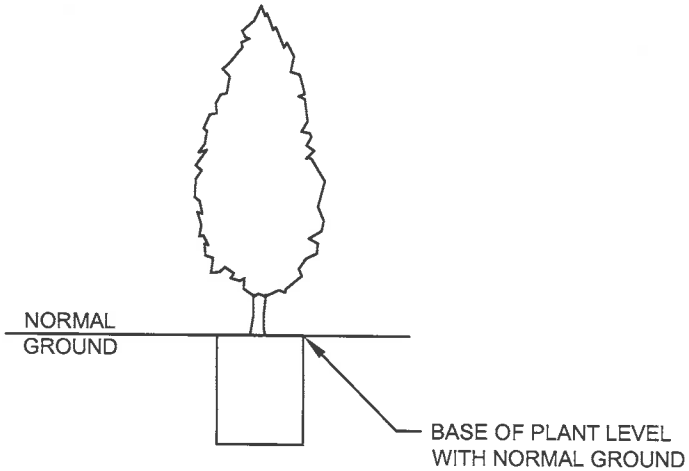
LEGEND

- EXISTING BOTTOM
- MARSH FILL AREA
- BORROW AREA
- EARTHEN CONTAINMENT DIKE
- TIDAL CREEK

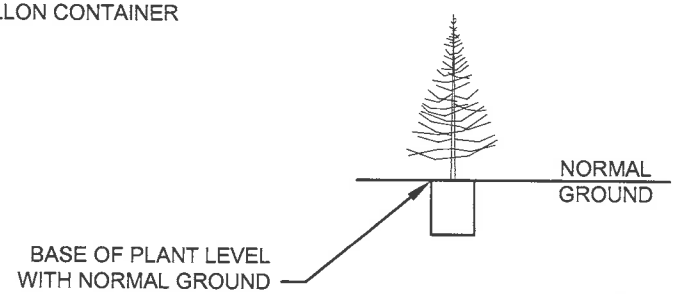
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	VENICE PONDS MARSH CREATION AND CREVASSES	TYPICAL DETAILS
		STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I. / APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 14 OF 16

NOTES:

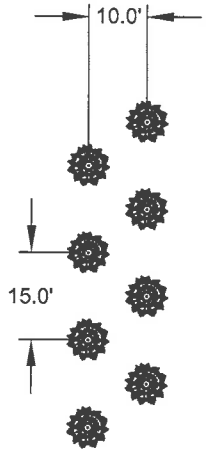
1. PLANTING HOLE SHALL BE AT LEAST TWICE THE WIDTH OF THE ROOT BALL.
2. DO NOT PLACE ANY SOIL OVER THE TOP OF THE ROOT BALL.
3. LOCATION OF TREE ROWS ARE APPROXIMATE. LOCATIONS ARE SUBJECT TO CHANGE DUE TO SITE CONDITIONS AND/OR CONSTRUCTION VARIABLES.
4. NO EQUIPMENT MAY ALTER THE EXISTING CONDITIONS OR DISTURB EXISTING VEGETATION.



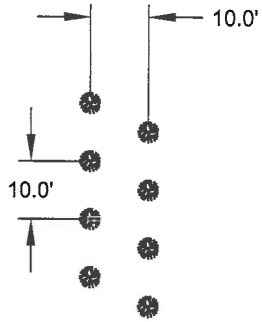
TYPICAL PLANTING
BALD CYPRESS
25 GALLON CONTAINER



TYPICAL PLANTING
BALD CYPRESS
3 GALLON CONTAINER



TYPICAL BALD CYPRESS -
25 GALLON CONTAINER PROFILE



TYPICAL BALD CYPRESS -
3 GALLON CONTAINER PROFILE

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA. 70804-4027	**COASTAL PROTECTION AND RESTORATION AUTHORITY** 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		VENICE PONDS MARSH CREATION AND CREVASSES	TYPICAL DETAILS
			STATE PROJECT NUMBER: MR-15	DATE: NOVEMBER 2011
DRAWN BY: SHANE FAUST	DESIGNED BY: ALEX GONZALEZ, E.I.	APPROVED BY: JASON LANCLOS, P.E.	FEDERAL PROJECT NUMBER: MR-15	SHEET 15 OF 16

BORROW AREA COORDINATES

PT.	LATITUDE	LONGITUDE
B1	29° 15' 12.80"	89° 20' 53.41"
B2	29° 15' 14.45"	89° 20' 47.11"
B3	29° 14' 59.20"	89° 20' 42.04"
B4	29° 14' 46.75"	89° 20' 38.86"
B5	29° 14' 40.20"	89° 20' 39.45"
B6	29° 14' 29.50"	89° 20' 35.62"
B7	29° 14' 30.03"	89° 20' 42.79"
B8	29° 14' 48.39"	89° 20' 46.19"
B9	29° 15' 05.54"	89° 20' 50.57"
B10	29° 14' 19.91"	89° 20' 40.24"
B11	29° 14' 19.35"	89° 20' 32.87"
B12	29° 14' 14.39"	89° 20' 32.48"
B13	29° 14' 00.96"	89° 20' 27.36"
B14	29° 13' 52.24"	89° 20' 26.52"
B15	29° 13' 35.45"	89° 20' 27.66"
B16	29° 13' 25.68"	89° 20' 29.72"
B17	29° 13' 21.14"	89° 20' 28.24"
B18	29° 13' 14.21"	89° 20' 28.56"

BORROW AREA COORDINATES

PT.	LATITUDE	LONGITUDE
B19	29° 13' 05.76"	89° 20' 27.88"
B20	29° 12' 48.76"	89° 20' 28.36"
B21	29° 12' 37.74"	89° 20' 26.98"
B22	29° 12' 27.13"	89° 20' 27.19"
B23	29° 12' 10.00"	89° 20' 22.00"
B24	29° 11' 48.06"	89° 20' 24.35"
B25	29° 11' 49.16"	89° 20' 30.46"
B26	29° 11' 58.87"	89° 20' 27.71"
B27	29° 12' 09.63"	89° 20' 27.37"
B28	29° 12' 27.75"	89° 20' 31.75"
B29	29° 12' 39.44"	89° 20' 33.69"
B30	29° 12' 48.19"	89° 20' 34.28"
B31	29° 13' 04.80"	89° 20' 32.51"
B32	29° 13' 18.93"	89° 20' 34.51"
B33	29° 13' 37.67"	89° 20' 32.07"
B34	29° 13' 45.54"	89° 20' 32.17"
B35	29° 14' 02.69"	89° 20' 34.96"
B36	29° 14' 05.12"	89° 20' 35.04"

FILL AREA COORDINATES

PT.	LATITUDE	LONGITUDE
F1	29° 14' 50.68"	89° 21' 19.20"
F2	29° 14' 57.86"	89° 21' 10.45"
F3	29° 15' 00.93"	89° 21' 09.40"
F4	29° 15' 01.00"	89° 21' 08.47"
F5	29° 15' 00.21"	89° 21' 02.26"
F6	29° 14' 59.52"	89° 21' 02.05"
F7	29° 14' 57.62"	89° 21' 03.58"
F8	29° 14' 56.82"	89° 21' 02.85"
F9	29° 14' 57.12"	89° 20' 58.93"
F10	29° 14' 31.46"	89° 20' 57.48"
F11	29° 14' 31.17"	89° 20' 58.15"
F12	29° 14' 31.96"	89° 21' 00.52"
F13	29° 14' 37.49"	89° 21' 13.66"
F14	29° 14' 40.45"	89° 21' 19.32"
F15	29° 14' 42.68"	89° 21' 20.36"
F16	29° 14' 46.20"	89° 21' 21.48"

FILL AREA COORDINATES

PT.	LATITUDE	LONGITUDE
F17	29° 14' 36.88"	89° 21' 19.90"
F18	29° 14' 36.24"	89° 21' 23.48"
F19	29° 14' 34.08"	89° 21' 24.96"
F20	29° 14' 31.62"	89° 21' 25.04"
F21	29° 14' 29.61"	89° 21' 24.73"
F22	29° 14' 17.74"	89° 21' 21.76"
F23	29° 14' 13.04"	89° 21' 21.42"
F24	29° 14' 12.42"	89° 21' 21.02"
F25	29° 14' 14.06"	89° 21' 18.01"
F26	29° 14' 12.98"	89° 21' 17.43"
F27	29° 14' 12.71"	89° 21' 16.36"
F28	29° 14' 08.62"	89° 21' 14.53"
F29	29° 14' 07.59"	89° 21' 11.75"
F30	29° 14' 08.49"	89° 21' 09.79"
F31	29° 14' 08.47"	89° 21' 07.92"
F32	29° 14' 09.09"	89° 21' 06.84"
F33	29° 14' 09.65"	89° 21' 02.41"
F34	29° 14' 31.51"	89° 21' 06.00"

VEGETATIVE PLANTING COORDINATES

PT.	LATITUDE	LONGITUDE
P1	29° 14' 11.82"	89° 21' 20.80"
P2	29° 14' 17.74"	89° 21' 21.76"
P3	29° 14' 29.61"	89° 21' 24.73"
P4	29° 14' 33.27"	89° 21' 24.98"
P5	29° 14' 36.42"	89° 21' 22.08"
P6	29° 14' 40.93"	89° 21' 20.42"
P7	29° 14' 46.35"	89° 21' 19.57"
P8	29° 14' 53.91"	89° 21' 11.57"
P9	29° 14' 57.96"	89° 21' 09.53"
P10	29° 15' 01.05"	89° 21' 08.40"
P11	29° 14' 09.76"	89° 20' 43.52"
P12	29° 14' 08.53"	89° 20' 37.29"

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
P.O. BOX 44027
BATON ROUGE, LA. 70804-4027

COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

VENICE PONDS MARSH CREATION AND CREVASSES

COORDINATES

STATE PROJECT NUMBER: MR-15

DATE: NOVEMBER 2011

DRAWN BY: SHANE FAUST

DESIGNED BY: ALEX GONZALEZ, E.I.

APPROVED BY: JASON LANCLOS, P.E.

FEDERAL PROJECT NUMBER: MR-15

SHEET 16 OF 16

MR-15 Venice Ponds Marsh Creation and Crevasses

Excavations

	Raw CY	Adjusted CY[1]	Acres[2]	Notes
Waterbottoms				
Borrow Area				
Grand Pass[3]	5,417,871	5,417,871	229	
Marsh Creation Areas				
Containment Dike Borrow	417,729	417,729	30.1	
Crevasse Creation Areas				
Crevasse 1 Excavation	13,466	13,466	1.8	
Crevasse 2 Excavation	21,262	21,262	2.9	
Crevasse 3 Excavation	10,785	10,785	1.5	
Crevasse 4 Excavation	8,928	8,928	1.2	
Wetlands				
Borrow Area				
Grand Pass	0	0	0.0	
Marsh Creation Areas				
Containment Dike Borrow	0	0	0.0	
Crevasse Creation Areas				
Crevasse 1 Excavation	9,414	9,414	0.6	
Crevasse 2 Excavation	0	0	0.0	
Crevasse 3 Excavation	7,149	7,149	1.0	
Crevasse 4 Excavation	7,388	7,388	1.0	
TOTAL:		**5,913,992**	**269**	

Fill

	Raw CY	Adjusted CY[1]	Acres	Notes
Waterbottoms				
Borrow Area				
Grand Pass	0	0	0.0	
Marsh Creation Areas				
Containment Dike Creation	109,984	274,960	7.6	2.5:1 cut to fill ratio
Dredged Marsh Fill	1,350,536	2,025,804	190.4	1.5:1 cut to fill ratio
Temporary Pipeline Crossing	2,700	6,750	0.5	2.5:1 cut to fill ratio
Crevasse Creation Areas				
Crevasse 1 Spoil	21,386	21,386	5.9	
Crevasse 2 Spoil	18,895	18,895	6.3	
Crevasse 3 Spoil	8,425	8,425	1.9	
Crevasse 4 Spoil	8,928	8,928	0.9	
Wetlands				
Borrow Area				
Grand Pass	0	0	0.0	
Marsh Creation Areas				
Containment Dike Creation			16.0	
Crevasse Creation Areas				
Crevasse 1 Spoil	1,494	1,494	0.4	
Crevasse 2 Spoil	2,367	2,367	0.9	
Crevasse 3 Spoil	9,509	9,509	2.4	
Crevasse 4 Spoil	7,388	7,388	0.7	
TOTAL:		**2,385,906**	**234**	

Notes:

1) Adjusted volume includes adjustment using corresponding cut-to-fill ratio
2) Excavation acreage based on top of cut footprint
3) Volume value depicts total material to be permitted and not necessarily excavated.

CPRA
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

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.lacpra.org/
An Equal Opportunity Employer

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."

11/22/11

Signature Date

LICENSE #
Official Use Only

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

1. Applicant's Name: Coastal Protection & 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

2. Name, address & title of authorized agent

n/a

Phone:( ) _____ (residence)

Phone:( ) _____ (office)

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

revised 5/1/08

ROYALTY

1. The consideration for which this license has been made is the payment by aforesaid license 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 LINCESEE'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 LINCESEE 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 liceased 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 LICENSI 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

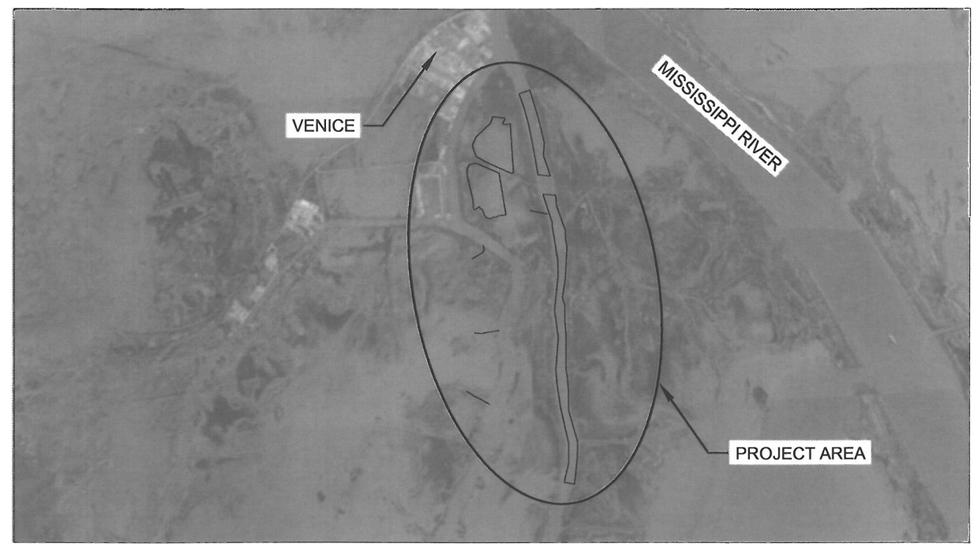
VENICE PONDS MARSH CREATION AND CREVASSES PROJECT

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



8,000' 4,000' 0' 8,000' 16,000'

CHIEF - RESTORATION DIVISION

ENGINEERING MANAGER

PROJECT ENGINEER

LICENSURE CLASSIFICATION REQUIREMENTS

MAJOR CATEGORY: HEAVY CONSTRUCTION

SUB CLASSIFICATION: DREDGING

REV.	DATE	DESCRIPTION	BY

COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: SHANE FAUST | DESIGNED BY: ALEX GONZALEZ, E.I.

VENICE PONDS MARSH CREATION AND CREVASSES

STATE PROJECT NUMBER: MR-15

FEDERAL PROJECT NUMBER: MR-15

APPROVED BY: JASON LANCLOS, P.E.

TITLE SHEET

DATE: NOVEMBER 2011

SHEET 1 OF 30

CYPRESS COVE MARINA

VENICE

VENICE BOAT HARBOR

MARSH CREATION AREA 1

MARSH CREATION AREA 2

ACCESS

MISSISSIPPI RIVER

CREVASSE 3

CREVASSE 2

CREVASSE 1

SPOIL (TYP.)

EARTHEN PIPELINE CROSSING

CREVASSE 4

TIGER PASS

A 3 10

A' 3 10

B 3 10

B' 3 10

3,000' 1,500' 0' 3,000' 6,000'

LEGEND

- PL — PIPELINES
- CREVASSES
- TIDAL CREEKS
- GAS — FLOW LINE
- MARSH CREATION AREA
- BORROW AREA
- ACCESS
- 1 WELL HEADS
- SOIL BORINGS

NOTES:

1. BACKGROUND IMAGERY WAS TAKEN IN OCTOBER 2010.
2. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
3. 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.

REV.	DATE	DESCRIPTION	BY

COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

VENICE PONDS MARSH CREATION AND CREVASSES

PROJECT LAYOUT

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 LANCLOS, P.E.

SHEET 3 OF 30

Enclosure F: 303(e) Certification Package submitted to U.S. Army Corps of Engineers

CPRA
Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

RECEIVED
EPA-6WQ-DIR 050
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6WQ e-copy..... 6WQ-D e-copy....
6WQ-A..... 6WQ-C.....
6WQ-E Original 6WQ-P.....
6WQ-S..... .....
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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:

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.lacpra.org/
An Equal Opportunity Employer

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)

F:\users\LAND\Projects\MR\MR15 venice ponds crevasse &mc\Section 303 Doc\303(e) Approval letter.docx

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 Crevasses 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 (*or the name of the corporation)*
Sign:_____	By: _____
Print:_____	Print:(*Grantor's name or the name of the corporation's officer)*
Sign:_____	Title: *(title of the corporation's officer)*
Print:_____	Date:_____

IN WITNESS WHEREOF, STATE has executed this Agreement in the presence of the undersigned witnesses on the date below:

	OFFICE OF COASTAL PROTECTION AND RESTORATION
WITNESSES:	
_____	By: _____
	Jerome Zeringue.
Print: _____	
	Title: Executive Director
_____	
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

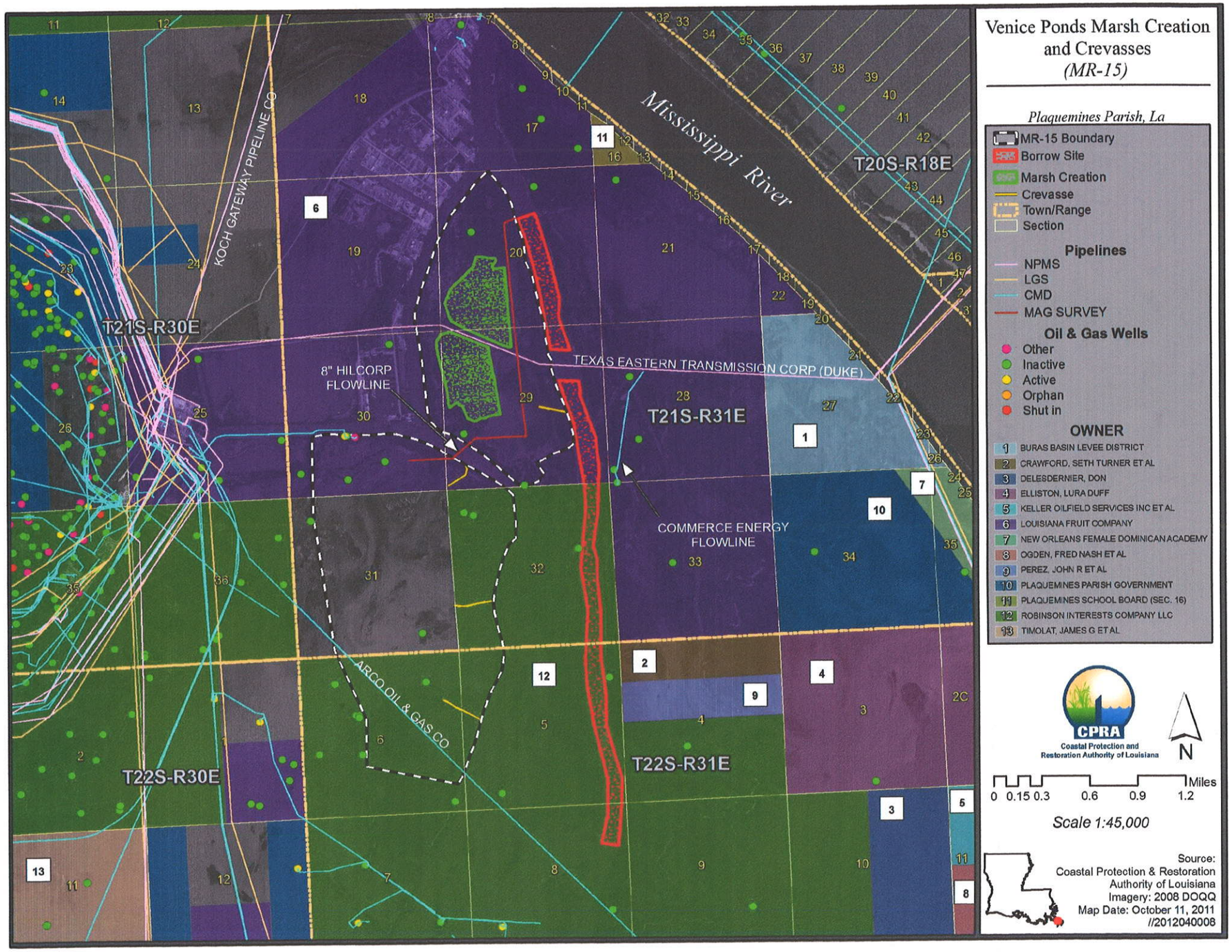
PARISH OF EAST BATON ROUGE

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. DELESDERNIER, 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

CPRA
Coastal Protection and Restoration Authority of Louisiana

N

0 0.15 0.3 0.6 0.9 1.2 Miles

Scale 1:45,000

Source:
Coastal Protection & Restoration Authority of Louisiana
Imagery: 2008 DOQQ
Map Date: October 11, 2011
//2012040008

EXHIBIT A

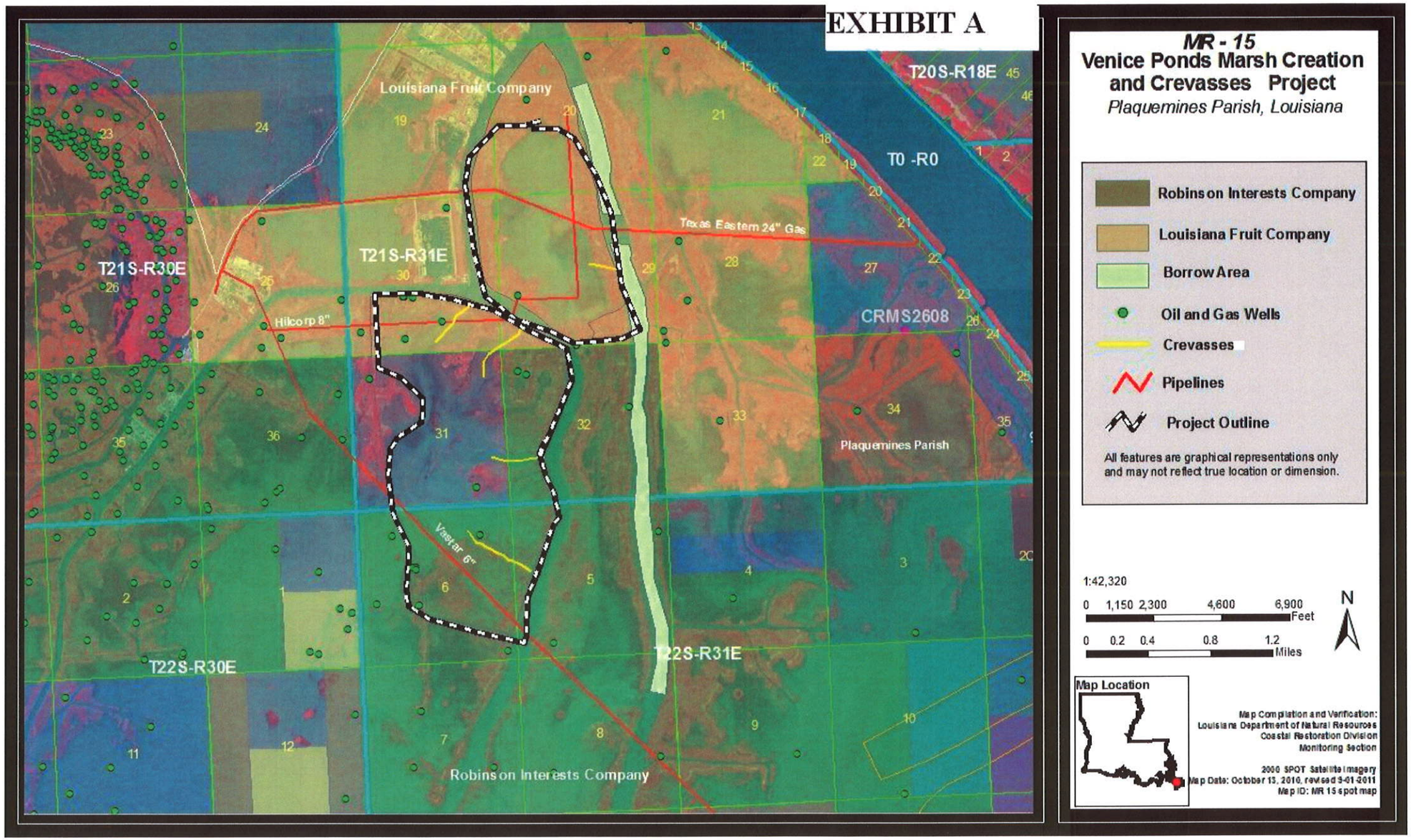

MR - 15
Venice Ponds Marsh Creation and Crevasses Project
Plaquemines Parish, Louisiana
Robinson Interests Company
Louisiana Fruit Company
Borrow Area
Oil and Gas Wells
Crevasses
Pipelines
Project Outline
All features are graphical representations only and may not reflect true location or dimension.
1:42,320
0 1,150 2,300 4,600 6,900 Feet
0 0.2 0.4 0.8 1.2 Miles
N
Map Location
Map Compilation and Verification:
Louisiana Department of Natural Resources
Coastal Restoration Division
Monitoring Section
2008 SPOT Satellite Imagery
Map Date: October 13, 2010, revised 5-01-2011
Map ID: MR 15 spot map
Louisiana Fruit Company
T20S-R18E
T0 -R0
T21S-R30E
T21S-R31E
Texas Eastern 24" Gas
Hilcorp 8"
CRMS2608
Plaquemines Parish
Vestar 6"
T22S-R30E
T22S-R31E
Robinson Interests Company

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;

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.

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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 th 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 attach 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)

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Christopher Llewellyn
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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.

<u>Marsh Creation and Nourishment</u>

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.

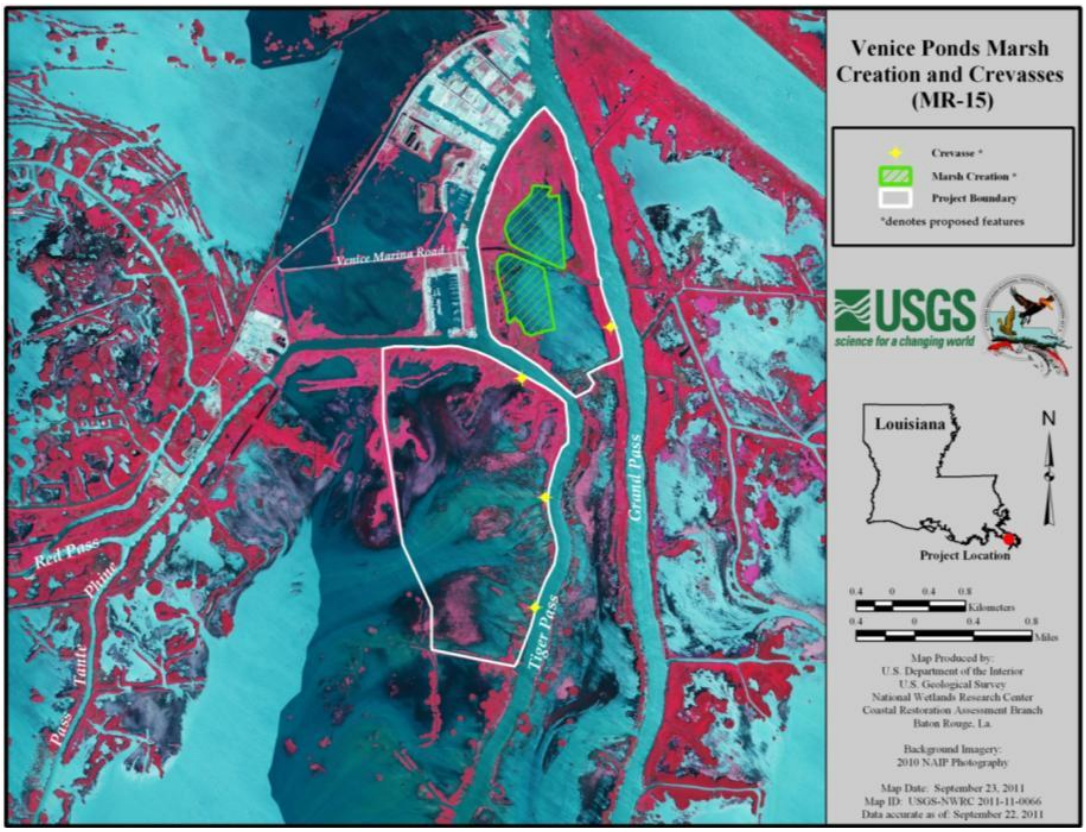

Figure 1 Venice Ponds Marsh Creation and Crevasses project area map. Fill Area 1 is northern most marsh creation area and Fill Area 2 is southern most marsh creation area

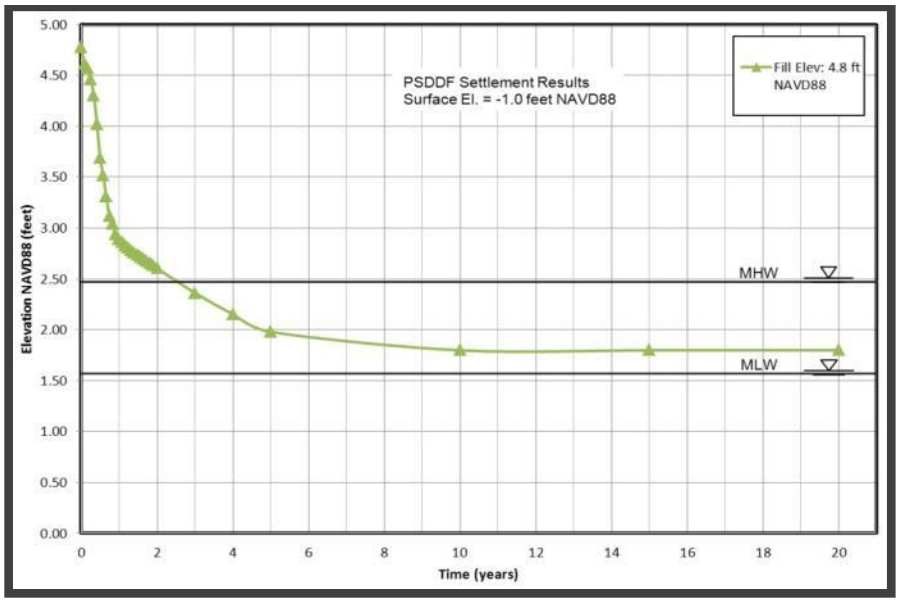

Figure 2 Settlement analysis performed on constructed fill elevation

The marsh platform will be created and nourished with sediment hydraulically dredged from Grand Pass. It is estimated that approximately 1.9 million yd^3 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.

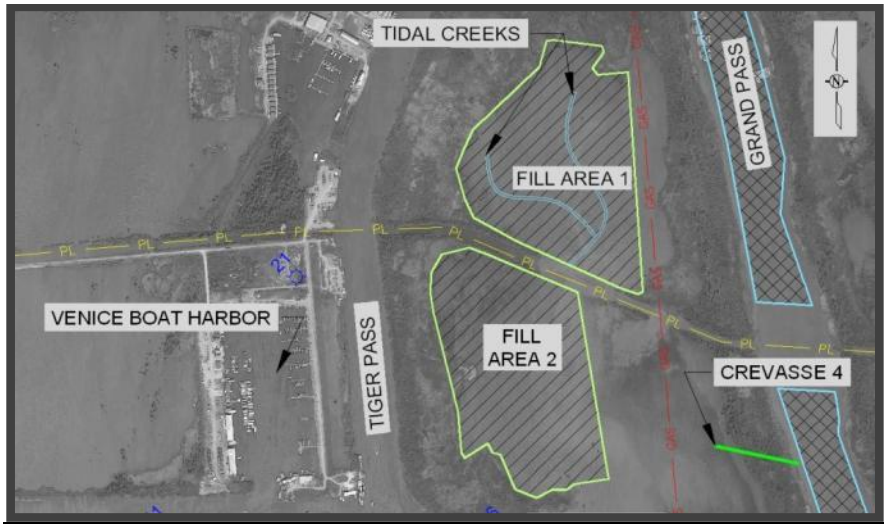

Figure 3 Marsh Creation/Nourishment fill area design including tidal creeks

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.

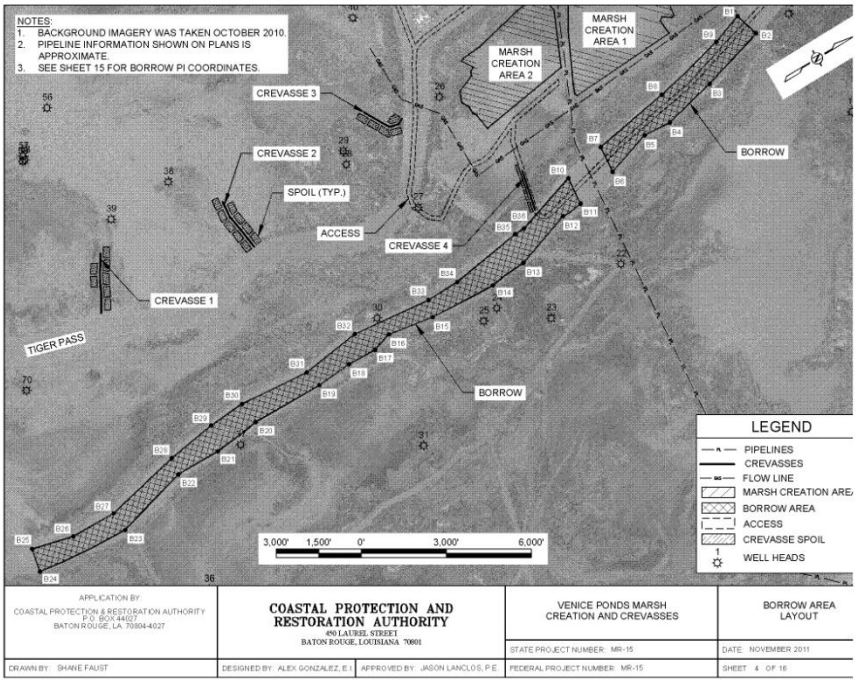

Figure 4 Crevasse layout and spoil placement

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.

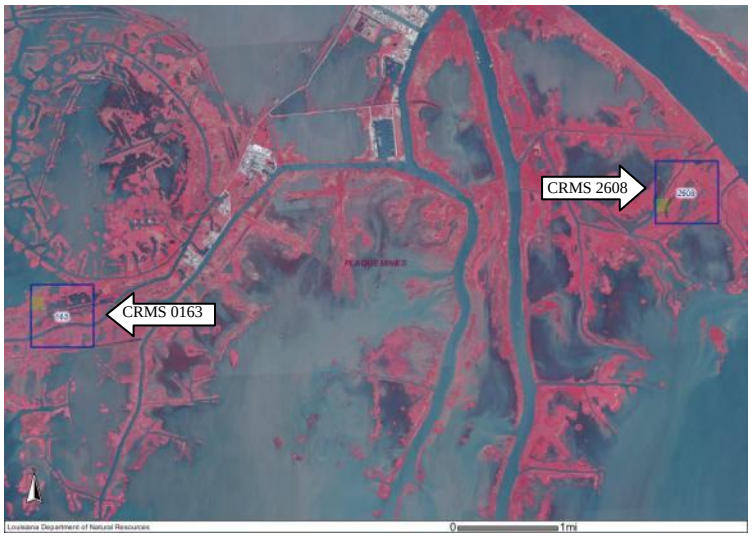

Figure 5 Location of CRMS 0163 and CRMS 2608 stations

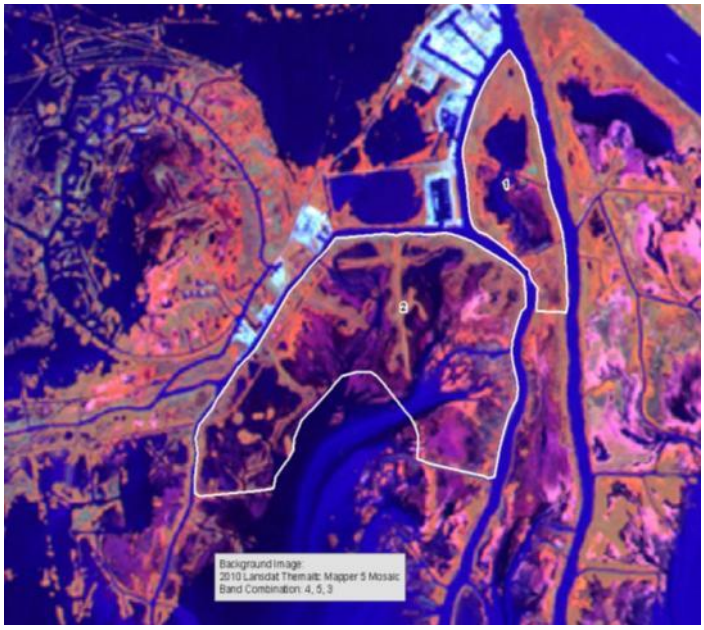

Figure 6 Extended project boundary used to determine historical land loss rate for project area

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.

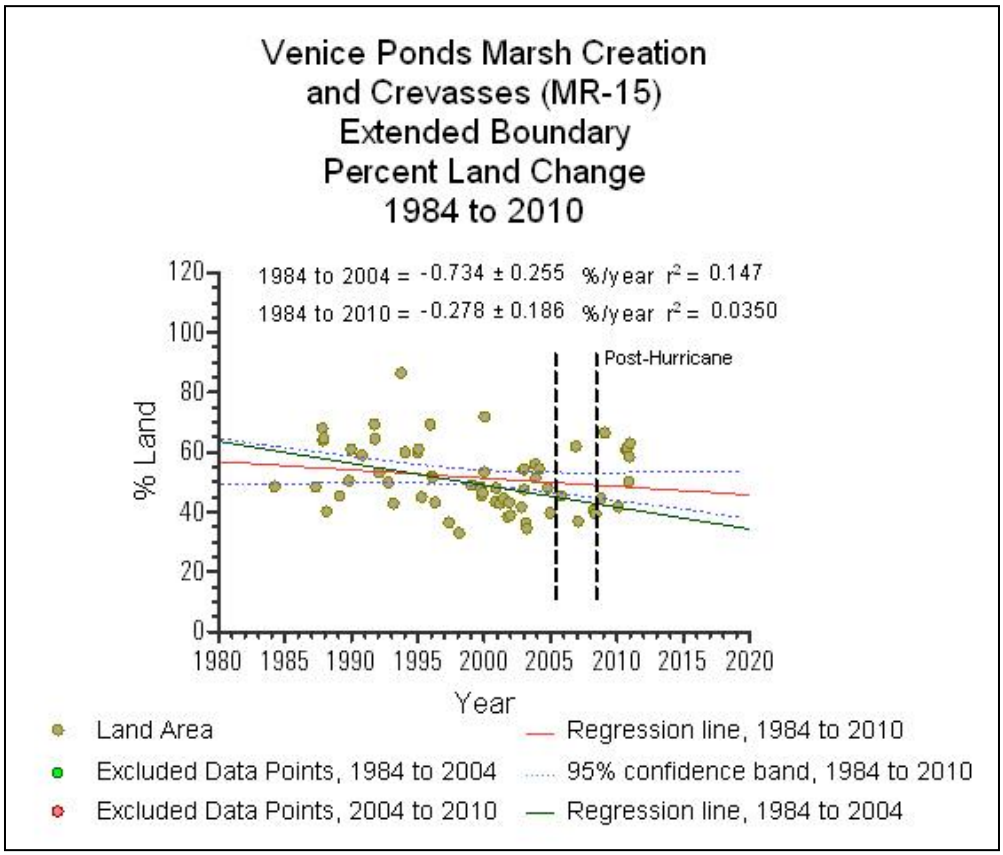

Figure 7 Land loss rate for extended project boundary prepared by USGS (2011)

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		Water	
TY1:	21 acres = 11%	TY1:	0 acres
TY3:	190 acres = 99%	TY3:	1 acres
TY5:	190 acres = 99%	TY5:	1 acres
TY20:	186 acres = 97%	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 *Potomogeton nodosus*, *Myriophyllum spicata* 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%

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 colleting 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)

<u>FWOP</u>

TY0: 0.35 ppt
TY1: 0.35 ppt
TY20: 0.35 ppt

<u>FWP</u>

TY1: 0.35 ppt
TY3: 0.35 ppt
TY5: 0.35 ppt
TY20: 0.35 ppt

V6 – Aquatic Organism Access

<u>FWOP</u>

The project area exhibits unrestricted aquatic organism access.

TY1: 1.0
TY3: 1.0
TY20: 1.0

<u>FWP</u>

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 (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 yd^2 for each crevasse. The 46.2 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.

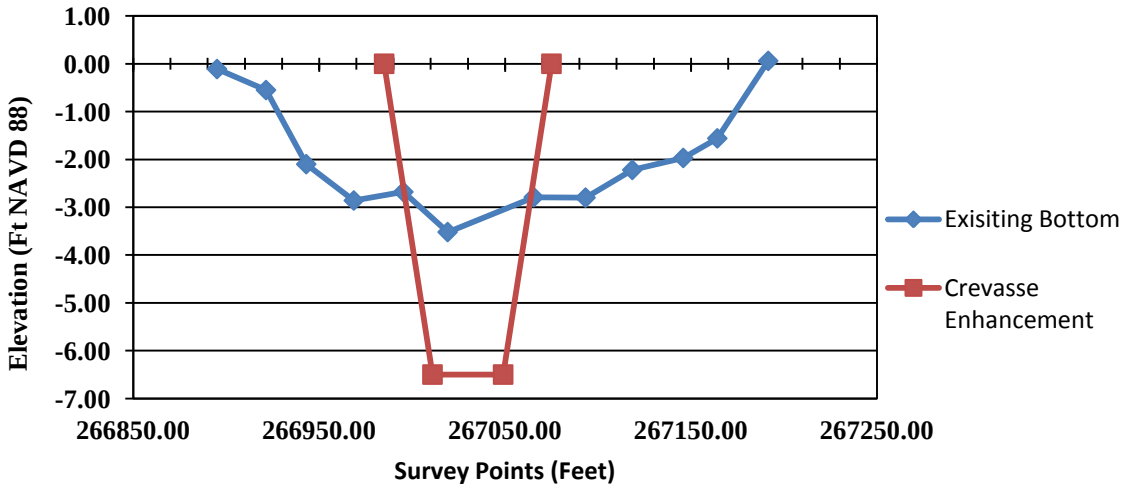

Figure 10 Existing and crevasse enhancement cross sectional area

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	Water
TY1: 107 acres = 15%	TY1: 619 acres
TY7: 160 acres = 22%	TY7: 566 acres
TY20: 231 acres = 32%	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 *Potomogeton nodosus*, *Myriophyllum spicata* 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	-0.28										
726		100		626	FWP Land Loss Rate Reduction			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-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-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-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 (≤ 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-Marsh Creation**

Project Area:	191
% Fresh	100
% Intermediate	0

Condition: Future Without Project

Variable		TY Value	0 SI	TY Value	1 SI	TY Value	20 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						
	Emergent Marsh HSI =		**0.25**	**EM HSI =**	**0.25**	**EM HSI =**	**0.25**
	Open Water HSI =		**0.74**	**OW HSI =**	**0.74**	**OW HSI =**	**0.73**

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

FWOP

Variable		TY Value	SI	TY Value	SI	TY 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						
		EM HSI =		**EM HSI =**		**EM HSI =**	
		OW HSI =		**OW HSI =**		**OW HSI =**	

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						
		EM HSI =		EM HSI =		EM HSI =	
		OW HSI =		OW HSI =		OW HSI =	

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						
	Emergent Marsh HSI =		**0.25**	**EM HSI =**	**0.29**	**EM HSI =**	**0.93**
	Open Water HSI =		**0.74**	**OW HSI =**	**0.19**	**OW HSI =**	**0.79**

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

FWP

		TY	5	TY	20	TY	
Variable		**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						
		EM HSI =	**0.99**	**EM HSI =**	**0.98**	**EM HSI =**	
		OW HSI =	**0.84**	**OW HSI =**	**0.84**	**OW HSI =**	

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

FWP

		TY		TY		TY	
Variable		**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						
		EM HSI =		**EM HSI =**		**EM HSI =**	
		OW HSI =		**OW HSI =**		**OW HSI =**	

AAHU CALCULATION - EMERGENT MARSH

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	4	0.25	1.01	

1	4	0.25	1.01	1.01
20	4	0.25	1.01	19.25
Max=	20		AAHUs =	1.01

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	4	0.25	1.01	
1	21	0.29	6.05	3.43
3	190	0.93	176.22	146.24
5	190	0.99	188.89	365.11
20	186	0.98	182.74	2787.10
Max=	20		AAHUs	165.09

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	165.09
B. Future Without Project Emergent Marsh AAHUs	=	1.01
Net Change (FWP - FWOP) =		164.08

AAHU CALCULATION - OPEN WATER

Project: Venice Ponds Marsh Creation and Crevasses-Marsh Creation

Future Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	187	0.74	138.00	
1	187	0.74	138.00	138.00
20	187	0.73	137.07	2613.21
Max=	20		AAHUs =	137.56

Future With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	187	0.74	138.00	
1	0	0.19	0.00	51.96
3	1	0.79	0.79	0.59

5	1	0.84	0.84	1.63
20	5	0.84	4.18	37.58
Max=	**20**		**AAHUs**	**4.59**

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	4.59
B. Future Without Project Open Water AAHUs =	137.56
Net Change (FWP - FWOP) =	**-132.97**

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	164.08
B. Open Water Habitat Net AAHUs =	-132.97
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	**68.26**

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 Value	0 SI	TY Value	1 SI	TY Value	20 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						
	Emergent Marsh HSI =		**0.36**	**EM HSI =**	**0.36**	**EM HSI =**	**0.35**
	Open Water HSI =		**0.77**	**OW HSI =**	**0.77**	**OW HSI =**	**0.78**

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

FWOP

Variable		TY Value	SI	TY Value	SI	TY 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						
		EM HSI =		**EM HSI =**		**EM HSI =**	
		OW HSI =		**OW HSI =**		**OW HSI =**	

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						
		EM HSI =		EM HSI =		EM HSI =	
		OW HSI =		OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

Condition: Future With Project

Project Area:	589
% Fresh	0
% Intermediate	100

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						
	Emergent Marsh HSI =		**0.36**	**EM HSI =**	**0.37**	**EM HSI =**	**0.42**
	Open Water HSI =		**0.77**	**OW HSI =**	**0.80**	**OW HSI =**	**0.82**

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

FWP

Variable		TY	20	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						
		EM HSI =	**0.50**	**EM HSI =**		**EM HSI =**	
		OW HSI =	**0.83**	**OW HSI =**		**OW HSI =**	

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						
		EM HSI =		**EM HSI =**		**EM HSI =**	
		OW HSI =		**OW HSI =**		**OW HSI =**	

AAHU CALCULATION - EMERGENT MARSH

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	100	0.36	35.86	

1	100	0.36	35.86	35.86
20	95	0.35	33.35	657.34
Max=	20		AAHUs =	34.66

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	100	0.36	35.86	
1	107	0.37	39.16	37.50
7	160	0.42	67.60	317.29
20	231	0.50	114.99	1175.25
Max=	20		AAHUs	76.50

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	76.50
B. Future Without Project Emergent Marsh AAHUs	=	34.66
Net Change (FWP - FWOP) =		41.84

AAHU CALCULATION - OPEN WATER

Project: Venice Ponds Marsh Creation and Crevasses-Crevasses

Future Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	626	0.77	483.31	
1	626	0.77	483.31	483.31
20	631	0.78	492.43	9269.48
Max=	20		AAHUs =	487.64

Future With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	626	0.77	483.31	
1	619	0.80	495.11	489.24
7	566	0.82	461.88	2871.83

20	495	0.83	411.97	5682.52
Max=	**20**		**AAHUs**	**452.18**

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	452.18
B. Future Without Project Open Water AAHUs =	487.64
Net Change (FWP - FWOP) =	**-35.46**

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	41.84
B. Open Water Habitat Net AAHUs =	-35.46
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	**16.91**

Alligator Bend Marsh Restoration & Shoreline Protection (PO-34)

Coastal Wetlands Planning, Protection and Restoration Act

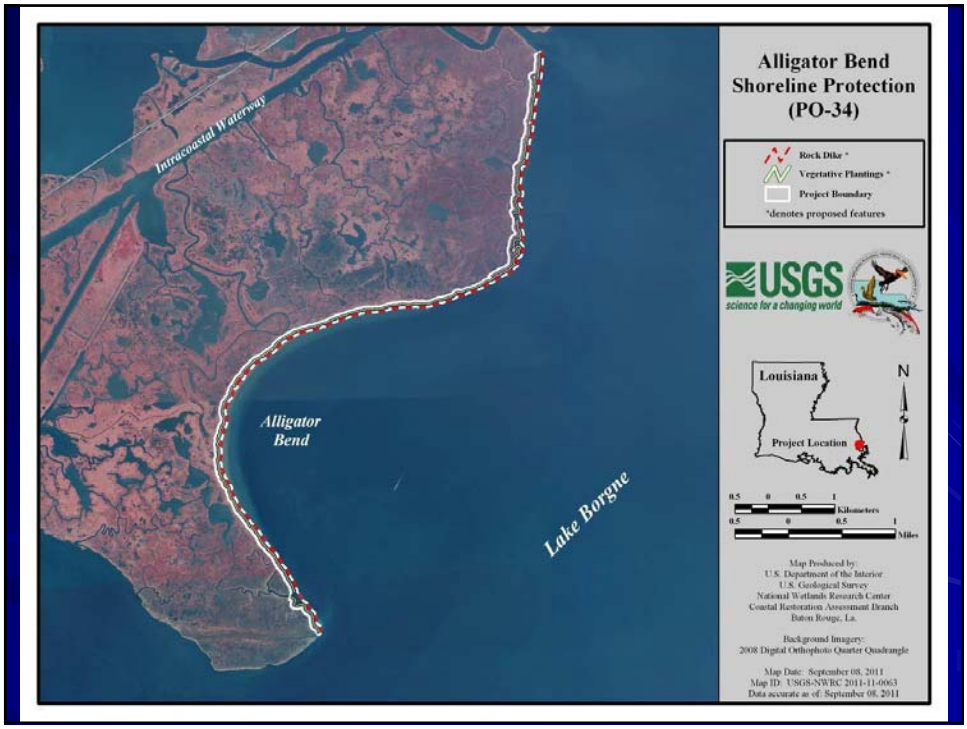
ALLIGATOR BEND SHORELINE PROTECTION (PO-34)

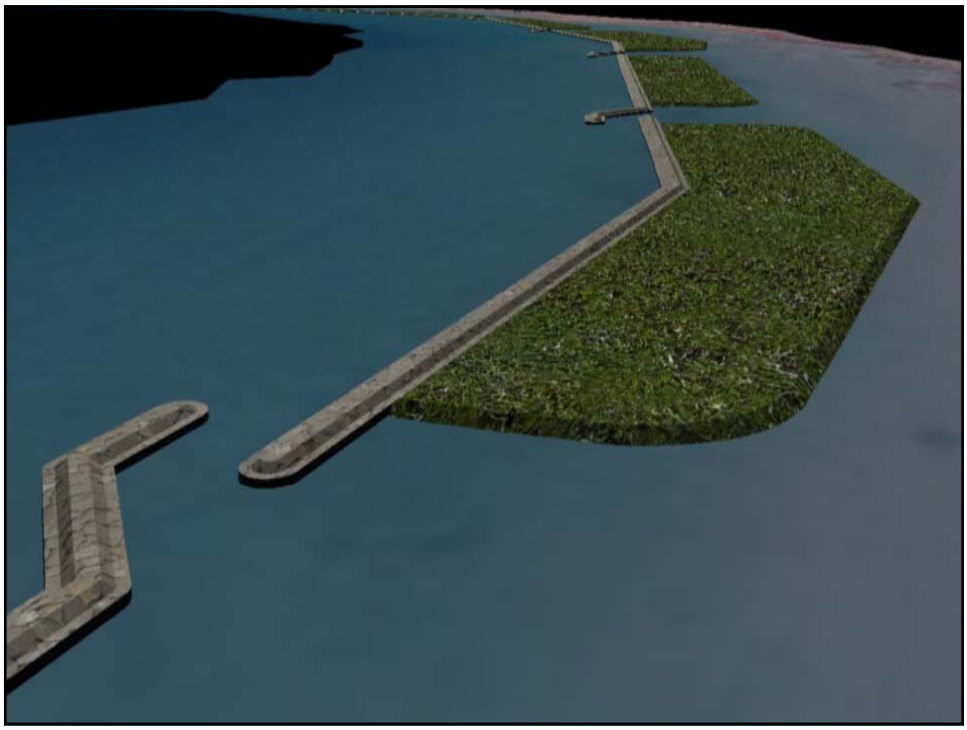
PHASE II APPROVAL REQUEST

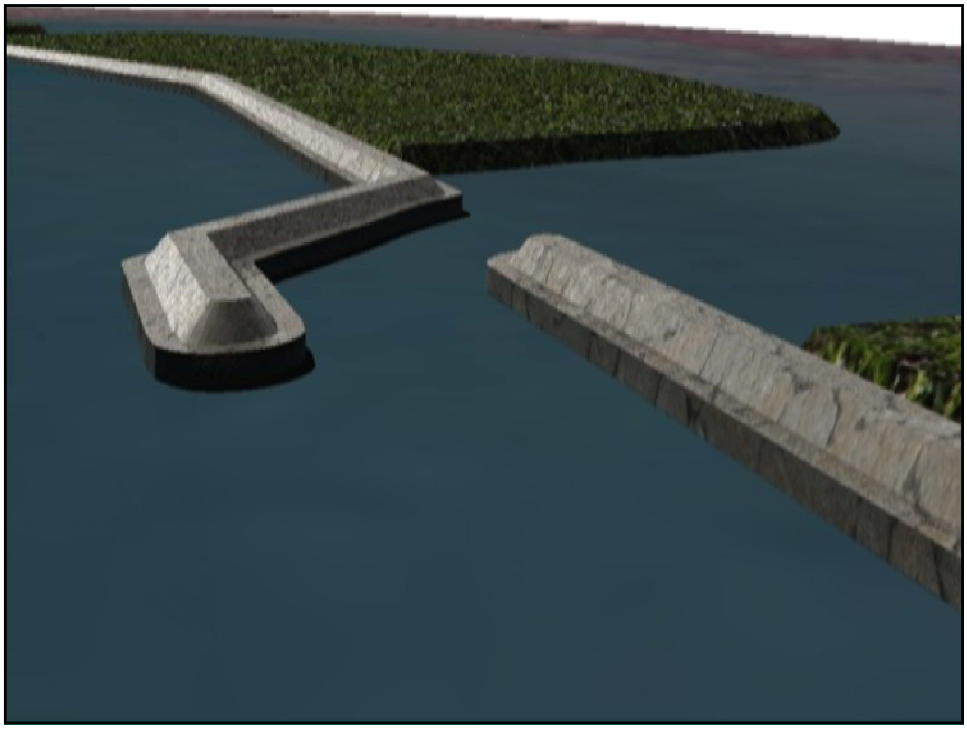
CWPPRA Technical Committee Meeting
December 13, 2011

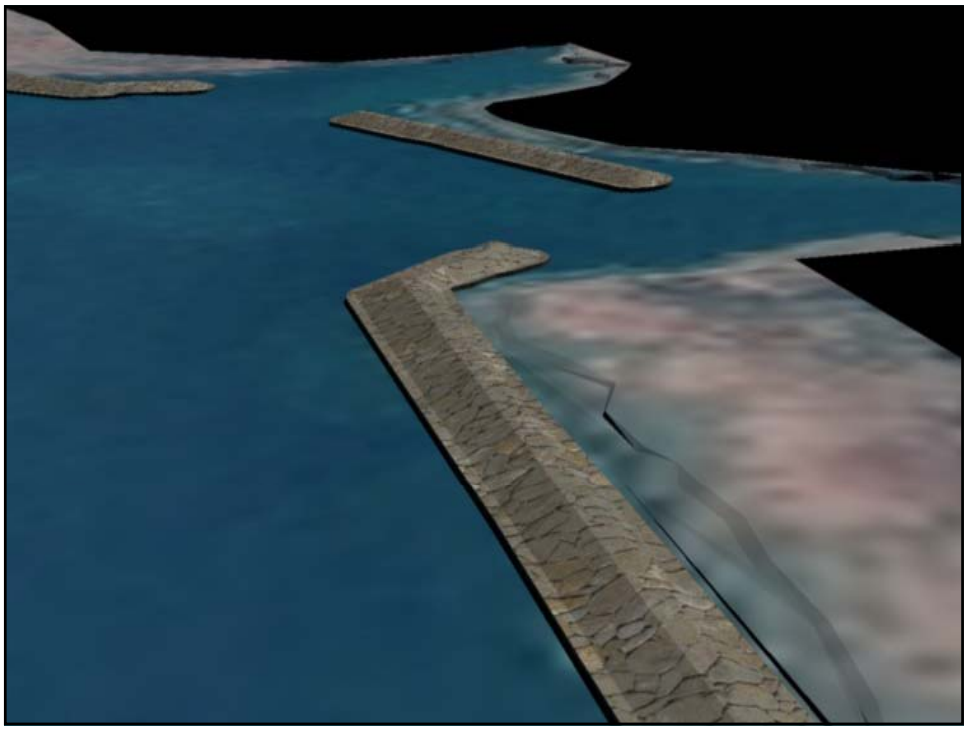
Project Location

2


Intracoastal Waterway
Alligator Bend
Lake Borgne
Alligator Bend Shoreline Protection (PO-34)
Rock Dike *
Vegetative Plantings *
Project Boundary
*denotes proposed features
USGS
science for a changing world
Louisiana
Project Location
N
0.5 0 0.5 1
Kilometers
0.5 0 0.5 1
Miles
Map Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Assessment Branch
Baton Rouge, La.
Background Imagery:
2008 Digital Orthophoto Quarter Quadrangle
Map Date: September 08, 2011
Map ID: USGS-NWRC 2011-11-0063
Data accurate as of: September 08, 2011







Alligator Bend (PO-34)

Benefits and Cost

Net Acres after 20 years:	192 Acres
Average Annual Habitat Units:	66
Fully Funded Phase II Total:	$56,006,897
Fully Funded Phase II Increment 1:	$41,761,743

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

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

December 1, 2011

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

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

Dear Mr. Holden:

By this letter, the Natural resources Conservation Service and the Louisiana Coastal Protection and Restoration Authority request Phase Two Authorization for the Alligator Bend Shoreline Protection Project (PO-34).

Pursuant to Revision 20 of the CWPPRA Standard Operating Procedures Appendix C, a document entitled "Information Required in Phase two Authorization Request" is provided as Attachment A.

Pursuant to Revision 20 of the CWPPRA Standard Operating Procedures, Section 6.j. (2), a project estimate and spending schedule based on the 5 budget subcategories is provided as Attachment b.

If you or any members of the Technical Committee or Task Force have any questions regarding this matter, please call John Jurgensen (318) 473-7694.

Respectfully,

Dexter R. Sapp

W. Britt Paul
Acting State Conservationist

Attachments

cc: (via email only)
Kirk Rhinehart, CPRA Technical Committee
Darryl Clark, USFWS Technical Committee Member
Rick Hartman, NMFS Technical Committee Member
Karen McCormick, EPA, Technical Committee Member
Brad Inman, P&E Subcommittee Chair
Chris Allen, CPRA P&E Subcommittee Member
Kevin Roy, USFWS P&E Subcommittee Member
Rachel Sweeney, NMFS P&E Subcommittee Member
Paul Kaspar, EPA P&E Subcommittee Member
Allison Murry, USCOE Contractor
Tim Harper, CPRA, Baton Rouge, LA
Dexter Sapp, Acting ASTC/WR, SO, NRCS, Alexandria, LA
John Jurgensen, Acting SCE, SO, NRCS, Alexandria, LA
Quin Kinler, RC, NRCS, Baton Rouge, LA
Dain Gillen, Engineer, NRCS, FO, Denham Springs, LA
Michael Trusclair, DC, NRCS, FO, Boutte, LA

Overview of Phase One Tasks, Process and Issues

During Phase I, the following activities were performed:

a) The original Alligator Bend Marsh Restoration and Shoreline Protection Project (PO-34) consisted of approximately 410 acres of marsh creation and nourishment and 38,140 feet of vegetative plantings along the Lake Borgne shoreline
b) The original project team, consisting of NRCS, USACE, and the Louisiana OCPR (now CPRA) were informed that the landowner (Marsh Holdings, LLC) is proceeding with establishment of a mitigation bank in the proposed project area
c) The landowner secured Permit No. MVN-2007-210-MJ from the Department of the Army for the mitigation bank. Therefore the mitigation bank eliminated the need for the marsh creation/nourishment component of PO-34
d) NRCS, USACE and the Louisiana OCPR concluded that the PO-34 project should be revised in scope to provided more comprehensive shoreline protection in the area
e) Based on a site visit by the Project Team and subsequent discussions of project alternatives, the Project Team reached consensus that the shoreline protection measures should extend from Unknown Pass to the western end of Alligator Point, terminating at the southern end of Lake Borgne CIAP project
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 29, 2010 the project team received approval from the CWPPRA Task Force to change the scope of the project to the revised features of shoreline protection and vegetative plantings. The project also changed federal sponsors from USACE to NRCS and the name was officially changed to "Alligator Bend Shoreline Protection project (PO-34)".
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

<u>Landrights</u>

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.

<u>Cultural Resources and Environmental Compliance</u>

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.

A draft Environmental Assessment will be submitted for Agency review by December 6, 2011.

Application for the Section 404 permit, CZM Consistency Determination, and Water Quality Certification has been submitted. An Ecological Review is not required for this project will be submitted by December 6, 2011

<u>Engineering Design Task</u>

On August 18, 2011 a 30% Design Review Meeting was conducted and 4 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 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.

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 Features Map in 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 $56,006,897. The current fully-funded cost estimate for Phase II, Increment 1 is $41,761,743.

Figure 1. Features Map

Checklist of Phase Two Requirements

A. List of Goals and Objectives. The Alligator Bend Shoreline Protection Project (PO-34) ct 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 and there were no comments from any agency regarding the 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.

F. Environmental Assessment. An Environmental Assessment has been completed and is being submitted for Agency review.

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 by December 6, 2011.

I. HTRW Assessment. NRCS procedures do not call for an HTRW assessment on this project.

J. Section 303e Approval. Section 303e approval request was submitted to the Corps of Engineers in October 2011.

K. Overgrazing Determination. 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, generated by the Economic Work Group, is $57,667,883. The revised fully funded cost estimate for Phase II is $56,006,897. The revised fully funded cost estimate for Phase II – Increment 1 is $41,761,743. The required spreadsheet is enclosed.

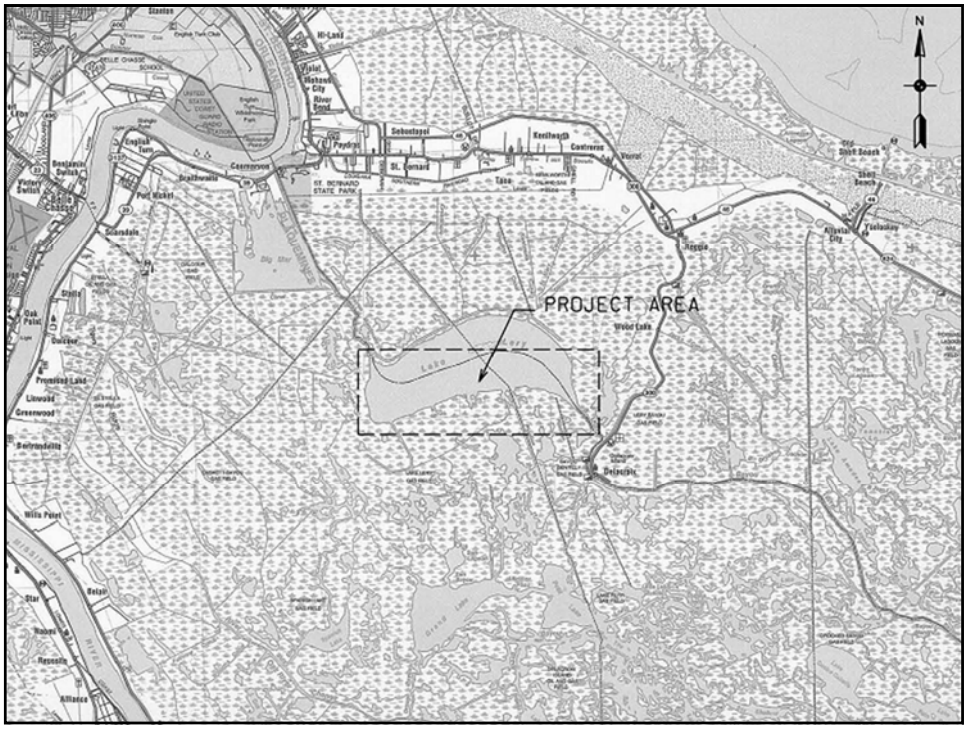
M. Wetland Value Assessment. The Final Revised WVA was completed November 8, 2011.

South Lake Lery Shoreline & Marsh Restoration (BS-16)

South Lake Lery Shoreline and Marsh Restoration (BS-16)

Phase II Request

Technical Committee Meeting
December 13, 2011
Baton Rouge, LA



Project Overview

Project Location: Region 2, Breton Sound Basin, Plaquemines Parish, southern and western Lake Lery shorelines

Problem: The marshes surrounding Lake Lery were extensively damage from Hurricane Katrina. The southern lake rim is essentially non-existent with significant loss to much of the interior marsh surrounding the lake. The current loss rate is -1.5%/yr

Goals:

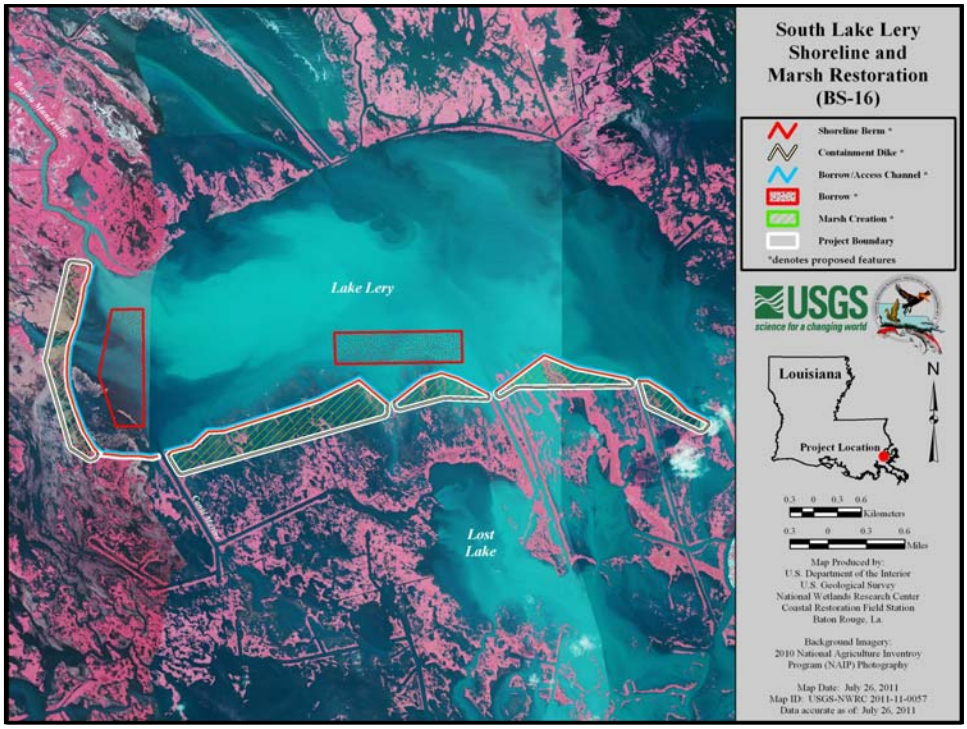
- Restore the southern and western Lake Lery shorelines (53 acres)
- Plant the restored shoreline
- Create/restore 648 acres of marsh in open water areas

Project Features Overview

- Create/nourish 648 acres of marsh; Initial target height ranges from +2.0 to +3.0 ft NAVD88.

- Approximately 35,831 feet of the southern and western Lake Lery shoreline will be restored using sediments excavated from the lake via bucket dredge; Lakeshore rim will be constructed with an initial elevation of +3.0 ft. with a 50' crown and 5:1 lakeside slope; Total of 53 acres of shoreline marsh will be restored.

- Lakeside slope will be planted with vegetation

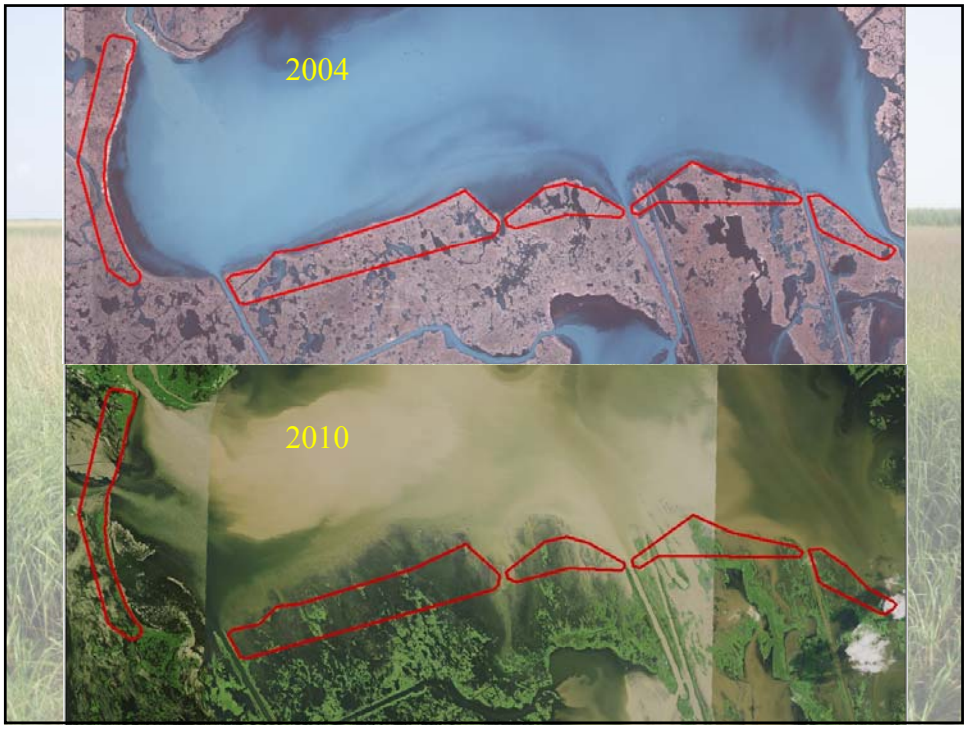


Project Benefits & Costs

- In total, the project will create 701 acres of marsh; 507 net acres of marsh at the end of the 20-year project life
- Wetland Value Assessment: 198 Net AAHUs
- The Fully Funded Cost is: $39,413,060
  Phase 2 Increment 1 Request is: $36,518,340

Why Should We Fund This Project Now?

- Would prevent the coalescence of Lake Lery with small lakes and other waterbodies to the south.
- Habitat restored in this area will have the added benefit of fresh water, sediments, and nutrients delivered via the Caernarvon Freshwater Diversion.
- Complementary to other restoration projects planned for the area – CIAP, COE 4th Supplemental, CWPPRA
- In one of the hardest hits areas by Hurricane Katrina, no restoration projects have been implemented as of yet.


2004
2010

United States Department of the Interior

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

November 30, 2011

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 U.S. Fish and Wildlife Service (Service) and the Louisiana Coastal Protection and Restoration Authority (CPRA) hereby requests Phase II approval to begin construction of the South Lake Lery Shoreline and Marsh Restoration Project (BS-16). The project was authorized for Phase I engineering and design 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) on Priority Project List 17 on October 25, 2007. This request and required enclosures are submitted in accordance with the provisions of CWPPRA Project Standard Operating Procedures Manual.

The project received favorable 30% and 95% Design Reviews on October 27, 2010, and November 15, 2011, respectively, and is, to our knowledge, without controversy; we anticipate favorable National Environmental Policy Act reviews. Phase II Authorization Request Information and the checklist of Phase II requirements are enclosed. Should you have any further questions, please contact Robert Dubois (337/291-3127) (Robert_Dubois@fws.gov) of this office.

Sincerely,

Darryl Clark
Acting Supervisor
Louisiana Ecological Services Office

Enclosures

cc: via e-mail
Britt Paul, NRCS, Alexandria, LA
Brian Inman, Corps, New Orleans, LA

TAKE PRIDE IN AMERICA

Kirk Rhinehart, LA CPRA, Baton Rouge, LA
Karen McCormick, EPA, Dallas, TX
Richard Hartman, NMFS, Baton Rouge, LA
John Jurgensen, NRCS, Alexandria, LA
Chris Allen, LA OCPR, Baton Rouge, LA
Paul Kaspar, EPA, Dallas, TX
Rachel Sweeney, NMFS, Baton Rouge, LA
Kevin Roy, USFWS, Lafayette, LA
Tim Harper, LA CPRA, Baton Rouge, LA
Gay Browning, Corps, New Orleans, LA

South Lake Lery Shoreline and Marsh Restoration Project (BS-16)

Phase II Authorization Request Information

Revised December 6, 2011

Phase I Original Project Description

The project was approved by the Task Force in February 2008, as part of Priority Project List 17. The project's goals were to: 1) increase the amount of river water flowing into the marshes east of Bayou Mandeville and 2) to restore the southern and western shorelines of Lake Lery that were severely impacted by Hurricane Katrina.

The original project features included dredging a conveyance canal approximately 850 feet in length that would divert approximately 250 cubic feet per second (cfs) of freshwater from the Caernarvon Outfall Canal to the marshes east of Bayou Mandeville. To ensure that the water would not go down Bayou Mandeville, there would have to be some type of gated water control structure located in the bayou, south of the conveyance channel. This would bring much needed nutrient and sediment rich waters to the hurricane impacted marshes.

The project would also consist of restoring approximately 32,000 linear feet of the southern and western Lake Lery shorelines. The shoreline embankment would be constructed low enough to be considered high functional marsh, but high enough to function as a shoreline rim. Adjacent to the shoreline embankment feature 396 acres of emergent marsh would be constructed by hydraulically dredging material from Lake Lery and placing that material in open-water areas.

The Environmental Work Group determined that the original project components would result in a net increase of 652 acres of intermediate and brackish marsh and 302 Average Annual Habitat Units (AAHU), as a result of reduced erosion and marsh establishment over the 20-year project life.

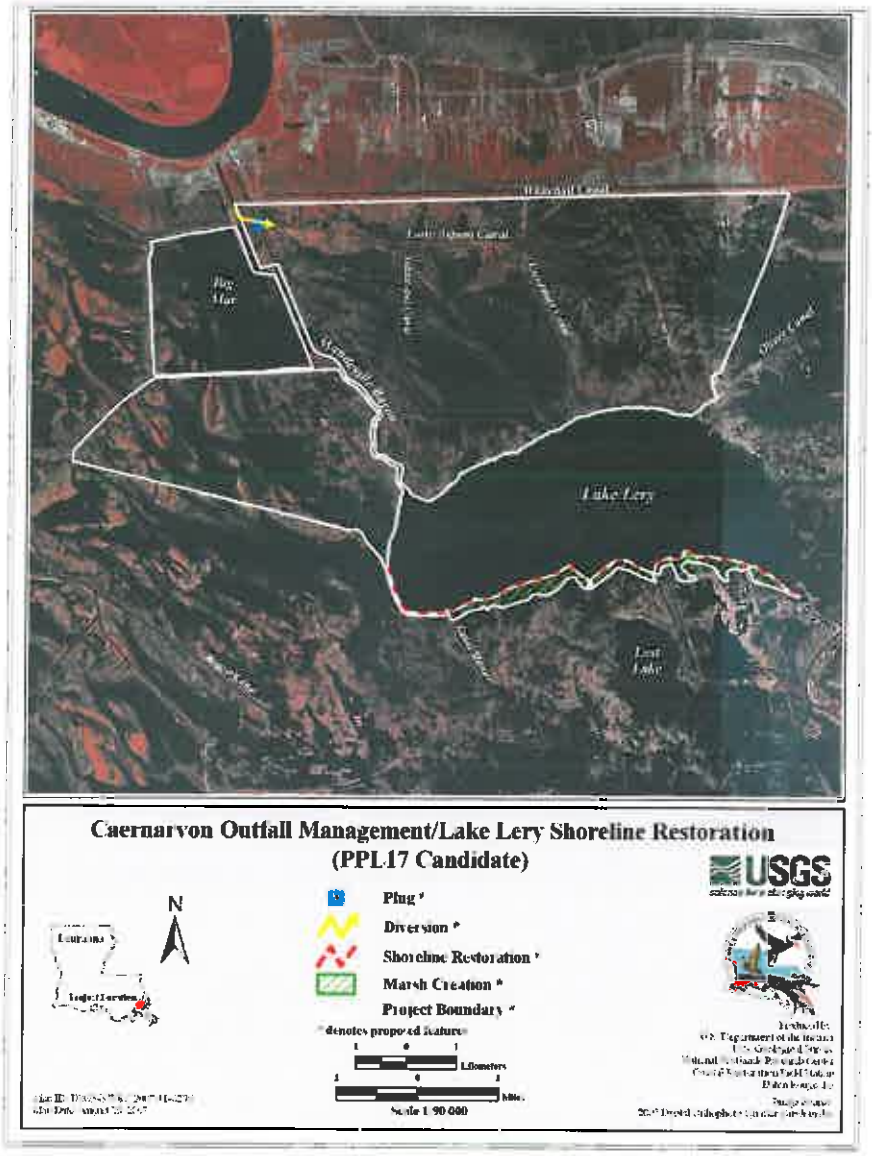


Figure 1: Map of the Original Caernarvon Outfall Management/ Lake Lery Shoreline Restoration Features

second (cfs) of freshwater to be diverted from the Caernarvon Outfall Canal to those marshes east of Bayou Mandeville. Also, the extension of the shoreline embankment feature to cover the entire western shoreline and the addition of the marsh creation feature along the western Lake Lery shoreline embankment feature.

Description of the Revised (Current) Project Features

The revised project features consists of mechanically (bucket) dredging material from Lake Lery and placing that material in open water and fragmented marsh following the 2005 shoreline. This material will be placed along the entire length (35,831 linear feet) of the southern and western shorelines. The dimensions of the shoreline embankment are: 1) crest width of 50-60 feet; 2) +2.5-+3.0 feet NAVD 88 top height; 3) 5:1 lakeside side-slope; and 4) 4:1 interior side-slope. The shoreline embankment will also serve as the lakeside containment dike for the marsh creation feature.

The marsh creation feature consist of hydraulically dredging material from Lake Lery and placing that material in five shallow open water areas south and west of the newly restored Lake Lery shoreline (Figure 2). Those five shallow open water areas will be confined by retention dikes constructed of material excavated from within the marsh fill template and when filled with dredged material will be 653 acres. The fill material will be pumped to a height (+2.0-+3.0 feet NAVD 88) that allow for a maximum number of years at or near healthy marsh height of +0.82 feet NAVD 88. Marsh restoration containment dikes will be degraded along the shoreline embankment before the end of construction, while the interior containment dikes will be gapped within 3 years post construction to help restore the area's natural hydrology and estuarine organism access (Figure 2).

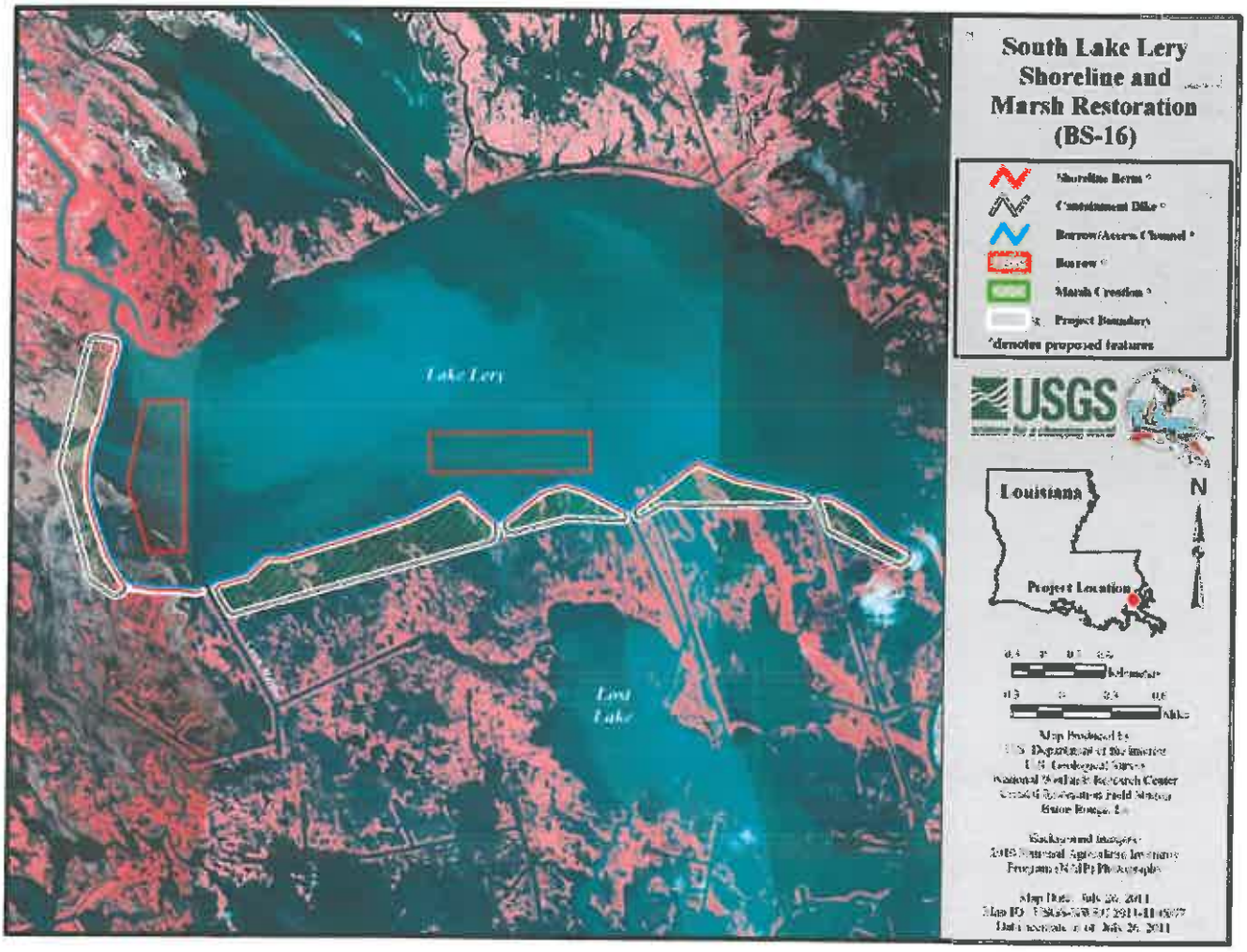


Figure 2: South Lake Lery Shoreline and Marsh Restoration Project Features

Checklist of Phase II Request Requirements
South Lake Lery Shoreline and Marsh Restoration Project (BS-16)

A. List of Project Goals and Strategies

Goals:

1. Create/nourish 648 acres of interior marsh
2. Restore/stabilize 35,831 linear feet of the southern and western Lake Lery Shoreline by creating 53 acres of "high marsh" along those shorelines

Objectives/Strategies

1. Restore 648 acres of marsh that was lost from Hurricane Katrina through the use of hydraulic dredge. Those intermediate marshes will be created in 5 marsh creation cells via the placement of just over 5 million cubic yards of dredged material from two Lake Lery borrow sites.
2. Restoration of 35,831 linear feet of Lake Lery shoreline that was lost by the landfall of Hurricane Katrina. Those shorelines would be created through the mechanical dredging of material excavated from Lake Lery and placed to a target elevation of +2.5-+3.0 feet NAVD 88.

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

Table 2. Comparison of Original and Revised Project Features.

Strategies/Features	Original Project	Current Revised Project
A. Shoreline restoration via mechanical dredged material	1.) Restore 32,000 ft. of the southern and part of the western Lake Lery shoreline via mechanical dredging of Lake Lery water bottoms.	1.) Restore 35,831 ft. of the southern and western Lake Lery shoreline via mechanical dredging of Lake Lery water bottoms. This would ultimately create 53 acres of high marsh.
B. Marsh restoration via dredged material	2) Restore/nourish 396 acres of intermediate marsh through the placement of hydraulically dredged material in shallow open water area along the southern Lake Lery shoreline.	2.) Restore/nourish 648 acres of intermediate marsh through the placement of hydraulically dredged material in shallow open water area along the southern and western Lake Lery shorelines.
C. Nourishment of marsh through freshwater diversion	3) Construct an 850 foot long canal that would allow freshwater to be diverted from the Caernarvon Freshwater Diversion structures to marshes east of Bayou Mandeville.	Feature dropped from Project.

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 LDNR and FWS was executed on February 19, 2008.

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 BS-16 project to the Corps along with NRCS's Overgrazing Determination for their 303(e) determination on October 3, 2011.

The State of Louisiana, through its Office of Coastal Protection and Restoration (CPRA/OCPR) Lands Section provided a landrights report that consisted of ownership tract maps and lists of names, addresses and phone numbers of more than 50 landowners in 9 tracts of land within the project area. The Service secured letter agreements from the affected landowners for surveying and geotechnical field work. It is anticipated that the majority of the landrights efforts for the BS-16 project should be completed within a reasonable time-frame. 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 October 2010, and resulted in favorable reviews of the project design. Responses to all meeting and post-meeting comments were submitted. The Service and LA OCPR agreed to proceed with the project. On June 8, 2011, as a result of the 30% Design Review, the USFWS along with CPRA requested and attained a change in project scope and a change in project name from the CWPPRA Task Force.

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

A favorable 95 Percent Design Meeting was held on November 15, 2011. 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 December 2, 2011, as part of the 95% Design Review materials. That review is expected to be completed in January 2012.

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 on December XX, 2011. 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.

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 October 3, 2011.

K. Overgrazing Determination from the NRCS

The Service received an Overgrazing Determination from the NRCS on September 28, 2011.

L. Revised Project Cost Estimate

The revised total 100% budget for Phase II is $ 38,881,146. This amount represents an increase of 73 percent ($16,409,990) over the original Phase II cost estimate ($22,471,156) (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 2007 yielded 652 net acres with a project boundary of 10,899. The Phase II revised project scope changed from the original project scope by: 1) removing the freshwater diversion feature; 2) extending the western shoreline feature and; 3)adding the marsh restoration features on the western shoreline which yield 507 net acres with a project boundary of 710 acres.

Table 2: Comparison of Original and Revised Wetland Value Assessments

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)
Candidate Project	652	302
Phase II Revised Project	507	198
Difference	-145	-104

Phase II Request

Based on the above information, the FWS and OCPR hereby request CWPPRA Task Force Phase II funding approval for the South Lake Lery Shoreline and Marsh Restoration Project (BS-16) in the 3-year incremental amount of **$38,849,954**. That amount includes $29,678,976 for construction; $736,587 for supervision and inspection; $7,419,744 for contingencies; $556,481 for administration by the Federal sponsor and $405,867 for State administration; $24,938 for monitoring (3 years); $21,102 for operations and maintenance (3 years); and $6,259 for Corps project management (See attached Request for Phase II Approval Cost Estimate Table).

RD/DC 12-06-2011

rev. August 2011

South Lake Lery Shoreline and Marsh Restoration (BS-16)

Project Status

Approved Date: 2007 **Project Area:** 16,260 acres
Approved Funds: $2.5 M **Total Est. Cost:** $25 M
Net Benefit After 20 Years: 479 acres
Status: Engineering and Design
Project Type: Marsh Creation and Shoreline Restoration
PPL #: 17

Location

The project area is located in Region 2, within the Breton Sound Basin portion of Plaquemines Parish. The project is specifically located south of the Caernarvon Freshwater Diversion Structure and west of the town of Delacroix, southeast of New Orleans.

Problems

According to USGS-land loss analysis, much of the southern and western shorelines of Lake Lery and the surrounding wetlands were heavily damaged in 2005 by Hurricane Katrina. In the years following this storm, wind induced waves within the lake have begun to cause further damage to the lake's shorelines. Currently the shorelines have become so damaged that the interior emergent marshes that are still intact are being exposed to the damaging waves. This has caused an increased loss of emergent marsh habitat. Even with the benefits of the Caernarvon Diversion Structure, without some type of restoration in this area, these marshes may not be able to fully recover.

Restoration Strategy

This is a marsh creation and shoreline restoration project. The marsh creation aspect of the project would utilize a hydraulic dredge to extract material from Lake Lery water bottoms and pump that material into contained marsh creation cells which are located south and west of the southern and western Lake Lery shorelines. This will initially create and/or nourish approximately 642 acres of marsh (436 Net Acres at Target Year 20).

Aerial photo taken looking south at the southern shoreline of Lake Lery with Grand Lake in the background

The shoreline restoration project component would have a barge-mounted dragline excavating material from the bottom of Lake Lery and placing that material along 35,561 ft of the southern and western Lake Lery shorelines. This restored shoreline would have a 50 to 60 foot crown width and be built to a height considered high intertidal marsh. The lake side shoreline would have a 1:4 sideslope which would be planted with smooth cordgrass and bullwhip. This would initially create 43 acres of marsh along the Lake Lery shoreline. Total created/restored marsh acreage for this project is 685 acres (479 Net Acres at Target Year 20).

Progress to Date

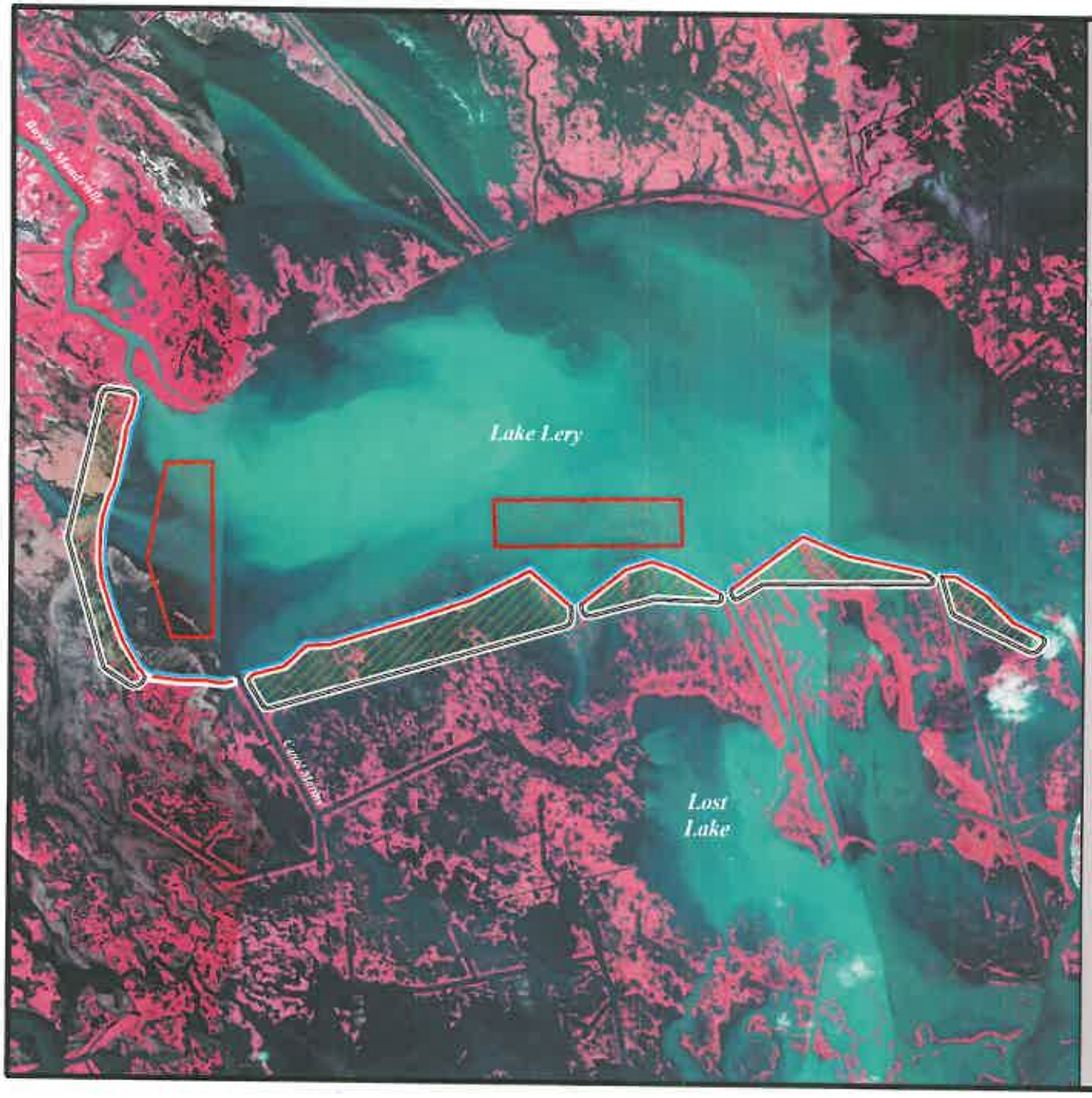
This project has received Phase I funding, and is currently in the final stages of engineering and design. The 95% Design Meeting will take place in the fall of 2011 with the goal of requesting Phase II construction funds in December 2011 and construction to start in the fall of 2012.

This project is on Priority Project List 17.

For more project information, please contact:

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

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



South Lake Lery Shoreline and Marsh Restoration (BS-16)

- Shoreline Berm *
- Containment Dike *
- Borrow/Access Channel *
- Borrow *
- Marsh Creation *
- Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.3 0 0.3 0.6 Kilometers

0.3 0 0.3 0.6 Miles

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
2010 National Agriculture Inventory
Program (NAIP) Photography

Map Date: July 26, 2011
Map ID: USGS-NWRC 2011-11-0057
Data accurate as of: July 26, 2011

Grand Liard Marsh & Ridge Restoration (BA-68)

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

November 23, 2011

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 Grand Liard Marsh and Ridge Restoration Project (BA-68)

Dear Mr. Holden:

NOAA Fisheries and the Louisiana Coastal Protection and Restoration Authority (CPRA) hereby request approval for Phase II authorization of the Grand Liard Marsh and Ridge Restoration Project (BA-68). Phase I activities were authorized on Priority Project List 18 in January 21, 2009, 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

Enclosures

Cc: Members of the CWPPRA Technical Committee
Rachel Sweeney, Project Manager, NOAA NMFS
Kenneth Bahlinger, Project Manager, CPRA

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INFORMATION REQUIRED IN PHASE II AUTHORIZATION REQUESTS

I. Description of Phase I Project

The Grand Liard Marsh and Ridge Restoration Project was proposed by the National Oceanic and Atmospheric Administration (NOAA) as a candidate for Project Priority List 18. Phase I was authorized by the CWPPRA Task Force on January 21, 2009. The candidate project envisioned creating and nourishing about 468 acres of saline marsh using sediment dredged from the Mississippi River and restoration of 34 acres of ridge habitat on the east bank of Bayou Grand Liard using sediment dredged from the Bayou. Vegetative plantings, tallow control and dike gapping as needed to ensure tidal exchange and fisheries support functions were also included as conceptual project features.

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	$31,390,698
Phase II, Increment I Request	$27,615,636
Net Acres at TY20	286
Average Annual Habitat Units	158

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), borrow area identification, data acquisition and geotechnical analyses, development and evaluation of project alternatives at the Preliminary (30%) Design level and completion of Final Design (95%) of the preferred alternative. Other tasks included the development of the landrights workplan, the preliminary ownership report, application for appropriate permits and regulatory clearances, consultations with the State Historic Preservation Office, development of draft Environmental Assessment, completion of a Phase 1 Environmental Site Assessment to evaluate the potential for hazardous, toxic and radioactive waste concerns, and review of updated costs and benefits by the Engineering and Environmental Workgroups.

III. Description of the Phase II Candidate Project

The major feature of the proposed project is creation and nourishment of 460 acres of saline marsh using about 3.4 Mcy of fine-grained material mined from the Gulf of Mexico. Due to geotechnical conditions, a two-lift marsh fill method is proposed. Initial (no settlement period) fill elevations range from +2.8 ft to +3.5 ft NAVD (varies with marsh creation cell) which is anticipated to result in marsh elevations that would remain intertidal for the majority of the 20-year project life.

The proposed project also includes restoration of about 18,000 feet of ridge along the western boundary of the project area. Material for ridge restoration would be obtained from both within the marsh fill area and also from Bayou Grand Liard to ensure adequate volume is available to meet the ridge construction template. The proposed ridge dimensions are +5 ft NAVD with a 20-foot crown; this is the largest template that could be constructed given geotechnical conditions and using standard construction equipment. It is

anticipated that elevation of the restored ridge would remain at or above +3 ft NAVD throughout the 20-year project life. The ridge feature would provide containment for the marsh fill along the western project boundary; an additional 29,000 ft of temporary containment dikes would be constructed using material excavated from within the marsh fill area to provide complete marsh fill containment during construction. Eight structural closures (sheet-pile structures) would be required to create continuous confinement for the marsh fill material; these structures would be embedded in the ridge and containment dike template.

Other project components include vegetative plantings (including woody species), tallow control, installation of settlement plates, retention dike gapping as needed to ensure tidal exchange and fisheries support functions, and project-specific monitoring to inform performance assessment and future project designs. A summary of current project costs and benefits is provided below; an updated project fact sheet and map can be found in Attachment B.

Fully Funded Total Project Cost	$42,579,616
Phase II, Increment I Request	$38,823,875
Net Acres at TY20	370
Average Annual Habitat Units	188

Several design challenges were encountered during Phase I that resulted in modifications of the original project features and increased construction costs. A change in project scope was approved by the Task Force on October 11, 2011. Design challenges included geotechnical conditions, scarcity of Mississippi River sediment sources deemed feasible for mining, ridge construction methods and sediment sources, existing site conditions and existing infrastructure. The current design reflects the following modifications:

- Use of a Gulf of Mexico borrow source in lieu of mining material from the Mississippi River due to lack of appropriate and minable riverine sediment sources in the project vicinity;
- Inclusion of sheet pile closures to create confined marsh creation cells;
- Adjustments to the marsh creation cells due to existing infrastructure and existing bathymetry;
- Reduction in the length of proposed ridge restoration from 20,000 ft to 18,000 ft ridge; and
- Reduction in ridge elevation from the +6 ft NAVD proposed during the candidate evaluation to +5 ft NAVD due to geotechnical and constructability considerations.

IV. Checklist of Phase Two requirements

A. List of Project Goals and Strategies

The primary project goals are to create and restore saline marsh and restore ecological and hydrologic functions associated with maritime ridges. Specific project objectives are to 1) create and nourish 460 acres of saline marsh to provide fish and wildlife

habitat and 2) restore 3.4 miles (24 acres) of Grand Liard ridge to reduce wave and tidal setup and provide fallout habitat for neotropical migrant birds.

B. *Cost Sharing Agreement*
A cooperative agreement was executed between NOAA and CPRA for Phase I activities on October 8, 2009.

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 June 29, 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 November 14, 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.*
A draft Environmental Assessment was submitted to the Technical Committee via e-mail on November 23, 2011. Notice of its availability online is planned for publishing via the Times Picayune and Baton Rouge Advocate the first week of December. Additionally, hard copies of the EA will be available at the Plaquemines Parish library.

G. *Written summary of the findings of the Ecological Review*
The project sponsors elected to conduct an Ecological Review (ER) due to the scarcity of previously designed and constructed ridge restoration projects. The summary finding of the ER was "The proposed strategies of the Grand Liard Marsh and Ridge Restoration (BA-68) project will likely achieve the desired ecological goals." The ER included several specific recommendations regarding depth of fill material placed for marsh nourishment, ridge restoration elevations, and vegetative plantings; some recommendations (i.e., constructed ridge elevation) were determined not to be feasible given geotechnical conditions and construction considerations.

H. *Application for and/or issuance of the public notices for permits*
Joint permit application materials (LDNR/CMD; COE and LDEQ) were submitted on November 29, 2011 (Attachment F).

I. *A hazardous, toxic and radiological waste (HTRW) assessment, if required*
An HTRW analysis on the project area was completed on November 4, 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*
Request for 303(e) approval was submitted to the New Orleans District on October 6, 2011 (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 18, 2011. The total fully funded cost is $42,579,616. 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 19, 2011 (Attachment K). The project is anticipated to result in 370 net acres and 180 AAHUs.

GRAND LIARD MARSH AND RIDGE RESTORATION
PHASE II REQUEST

ATTACHMENT A

PPL 19 Candidate Fact Sheet

Grand Liard Marsh and Ridge Restoration

Coast 2050 Strategy:

- Coastwide Common Strategies- Dedicated dredging to create, restore or protect wetlands; Off-shore and Riverine Sand and sediment delivery systems; Vegetative Plantings

Project Location:
Region 2, Barataria Basin, Plaquemines Parish, Bastian Bay and Grand Liard mapping units, vicinity of Triumph

Problem:
The Bastion Bay and Grand Liard mapping units were historically structured by a series of north south bayous and associated ridges (i.e., Bayou Long, Dry Cypress Bayou). Over the preceding decades the majority of these bayou ridges and the marshes flanking them have disappeared. The Grand Liard ridge is the most prominent remaining ridge, and separates the open bays of the Bastian Bay and Grand Liard mapping units. Land loss projections suggest that the remaining bayou bank wetlands will be completely converted to open water by 2050. The Coast 2050 1983 to 1990 loss rate for the Grand Liard mapping unit is 1.7%/yr, whereas the 1988 to 2007 loss rate for the extended project boundary is -3.3%/yr and its rate of subsidence is 2.1 to 3.5 ft/century.

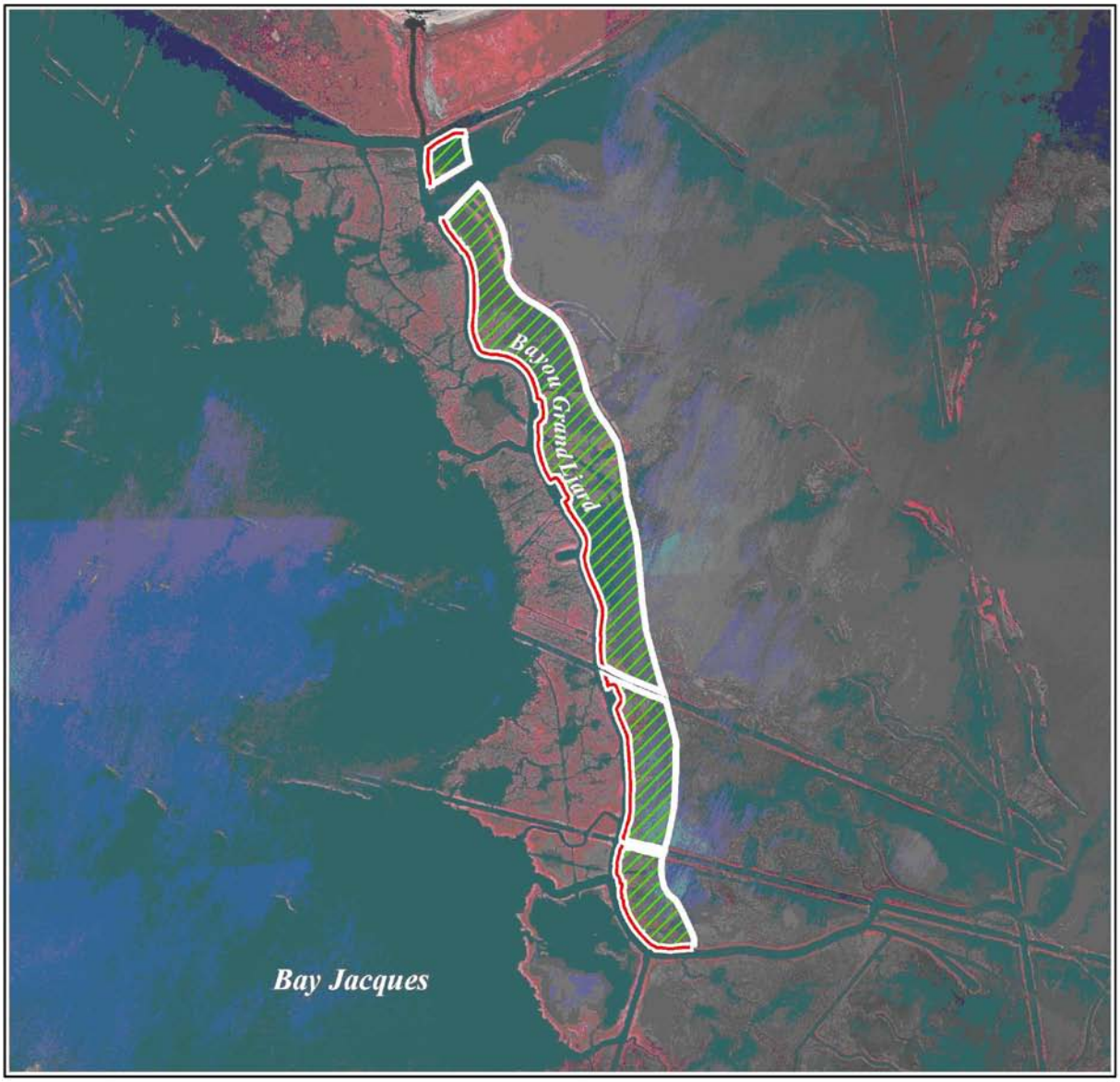
Goals:
Project goals include 1) creating/nourishing marsh and associated edge habitat for aquatic species through pipeline sediment delivery, and 2) restoring the Grand Liard ridge to reduce wave and tidal setup and provide fallout habitat for neotropical migrant birds. Specific phase 0 goals include creating 328 acres saline marsh, nourishing 140 acres of saline marsh and constructing about 20,000 linear feet (LF) or 34 acres of maritime ridge habitat.

Proposed Solution:
Approximately 328 acres of marsh would be created and 140 acres nourished with sediment dredged from the Mississippi River. A bucket dredge would construct approximately 34 acres of on the east bank of Grand Liard Bayou with sediment dredged from the bayou. Approximately 50% of the created marsh would be planted upon construction with plugs of smooth cordgrass. The entire ridge would be planted with appropriate woody vegetation. Planting of woody species would occur after construction once appropriate soil salinities become established. High marsh species would be planted on the slopes of the ridge. After settlement containment dikes would be gapped to encourage establishment of natural marsh hydrology and fisheries support functions.

Project Benefits:
The project would benefit 502 acres of saline marsh and open water. A net of approximately 252 acres of saline marsh and 34 acres of ridge would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $31,390,698.

Preparers of Fact Sheet:
Patrick Williams, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 208; patrick.williams@noaa.gov



Grand Liard Marsh and Ridge Restoration (PPL18 Candidate)

Ridge Restoration *

Marsh Creation *

Project Boundary

* denotes proposed features

Scale: 1:42,500

Map ID: USGS-NWRC 2008-11-0323
Map Date: September 18, 2008

Map 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:
2005 Digital Orthophoto Quarter Quadrangle

GRAND LIARD MARSH AND RIDGE RESTORATION
PHASE II REQUEST

ATTACHMENT B

Phase II Fact Sheet

Grand Liard Marsh and Ridge Restoration (BA-68)

Coast 2050 Strategy:
Coastwide Common Strategies: Dedicated dredging to create, restore or protect wetlands; Off-shore and riverine sand and sediment delivery systems; Vegetative plantings

Project Location:
The 485-acre project area is located in the vicinity of Triumph in lower Plaquemines Parish, Louisiana, immediately adjacent to Bayou Grand Liard. The project area is within Region 2, the Barataria Basin, Bastian Bay and Grand Liard mapping units.

Problem:
The Bastian Bay and Grand Liard mapping units were historically structured by a series of north south bayous and associated ridges (i.e., Bayou Long, Dry Cypress Bayou). Over the preceding decades, the majority of these bayou ridges and the marshes flanking these bayous have disappeared. The Grand Liard ridge is the most prominent remaining ridge, and separates the open bays of the Bastian Bay and Grand Liard mapping units. Land loss projections suggest that the remaining bayou bank wetlands will be completely converted to open water by 2050. The 1984 to 2010 loss rate for the area is -1.43%/year.

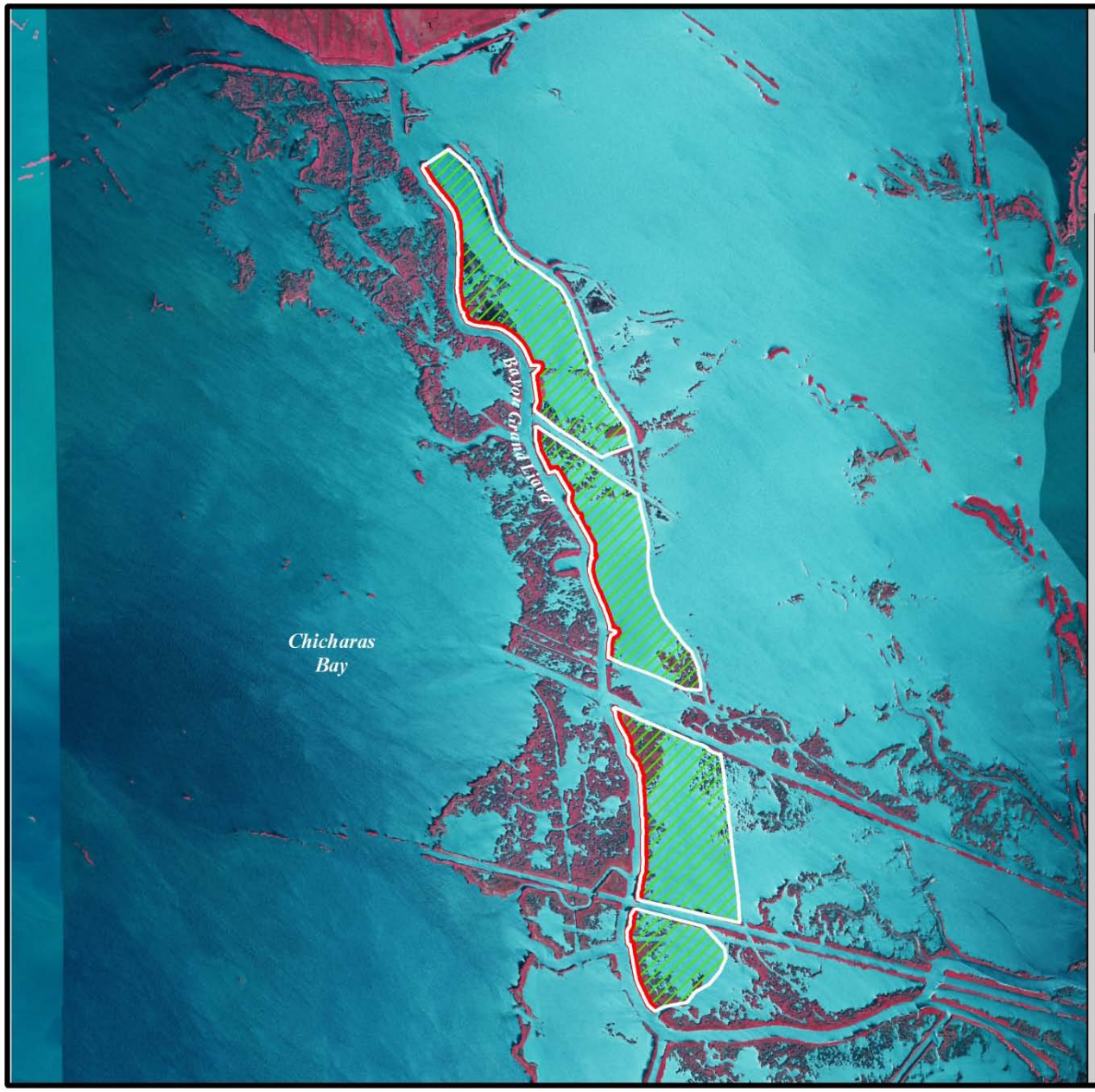
Goals:
The primary goals are to create and nourish saline marsh and restore ecological and hydrologic ridge functions. Specific project objectives are to 1) create and nourish 460 acres of saline marsh to provide fish and wildlife habitat and 2) restore 3.4 miles (24 acres) of Grand Liard ridge to reduce wave and tidal setup and provide fallout habitat for neotropical migrant birds.

Proposed Solution:
The proposed project involves hydraulic dredging approximately 3.4 Mcy of sediment from the Gulf of Mexico to create and restore marshes to an initial elevation of +3.5 ft NAVD. The design fill elevation provides the saline marsh will remain intertidal for a majority of the project life. The project also includes restoration of about 18,000 linear feet of remnant ridge adjacent to Bayou Grand Liard to an initial elevation of +5.0 ft NAVD. Marsh fill areas will be confined by retention dikes constructed of material excavated from within the marsh fill template except adjacent to the ridge feature which will also serve as containment. Material for ridge construction (approximately 128,000 cy) will be excavated from within the marsh fill template and also from Bayou Grand Liard. Vegetative plantings, tallow control, and dike gapping as needed to ensure tidal exchange are also proposed during the operations and maintenance phase. Project-specific monitoring is proposed to inform performance assessments and future project designs.

Project Benefits:
The project would benefit 484 acres of saline marsh and maritime ridge habitat. A net of approximately 346 acres of saline marsh and 24 acres of ridge would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $42,579,616.

Preparer of Fact Sheet:
Rachel Sweeney, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 206, rachel.sweeney@noaa.gov



Grand Liard Ridge and Marsh Restoration (BA-68)

Ridge Restoration *

Marsh Creation *

Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.2 0 0.2 0.4 Kilometers

0.2 0 0.2 0.4 Miles

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:
2010 NAIP Photography

Map Date: August 29, 2011
Map ID: USGS-NWRC 2011-11-0058
Data accurate as of: August 25, 2011

GRAND LIARD MARSH AND RIDGE RESTORATION
PHASE II REQUEST

ATTACHMENT C

State's Notification regarding Landrights

From Kenneth Bahlinger <Kenneth.Bahlinger@LA.GOV>
Sent Tuesday, November 22, 2011 7:16 am
To Rachel Sweeney <Rachel.Sweeney@noaa.gov>
Cc V J Marretta <Victor.Marretta@LA.GOV> , "Angela Thomas (CPRA)" <angelae.thomas@la.gov> , James Altman <James.Altman@LA.GOV>
Subject Grand Liard Marsh and Ridge Restoration (BA-68) 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 Grand Liard Marsh and Ridge Restoration (BA-68), 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
OCPR Project Manager

450 Laurel St, Suite 1200
Baton Rouge, LA 70801
Phone: (225) 342-7362

GRAND LIARD MARSH AND RIDGE RESTORATION
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 9, 2011

Ms. Cecelia Linder
NMFS Restoration Center, F/HC3
1315 East West Highway
Silver Spring, MD 20910

Re: 30% Design Review Concurrence for Grand Liard Marsh and Ridge Restoration Project (BA-68)
Statement of Local Sponsor Concurrence

Dear Ms. Linder:

The 30% Design Review meeting for the Grand Liard Marsh and Ridge Restoration Project (BA-68) project was held on June 29, 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-68. 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.

The revised BA-68 cost estimate will require a change in scope resulting in 25% or greater variance from the original cost estimate. The OCPR concurs with your recommendation that we request this change in scope at the December 2011 CWPPRA Technical Committee Meeting.

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., OCPR Administrator
Kenneth Bahlinger, OCPR Project Manager
Tye Fitzgerald, E.I., OCPR Project Engineer
TE-68 Project File

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Preliminary/30% Design Review
Grand Liard Marsh and Ridge Restoration Project (BA-68)
Agency Comments and Responses: Tye Fitzgerald, E.I.

NRCS (John Jurgenson)

1) The dredging consists of two lifts, and the second lift is equal to or lower than the first lift for all 4 cells. Maybe this is fine; I've just never seen that before.

- Due to significant variations in the subsurface soil, GeoEngineers Inc. was not able to combine fill area borings into one profile. Therefore each fill cell has a different boring which was used to evaluate the settlement and marsh fill height for that fill cell. The higher/heavier first lift will provide greater compaction of the organic sub layer, and squeeze out the subsurface water, providing greater initial compaction of the sub-surface layer. This pre-loading should contribute to enhanced longevity of the created marsh.

2) RSLR is accounted for. I thought CWPPRA had some official stance that they were going to ignore RSLR? (I clarified this with Dain, CWPPRA has no official stance and our agency does not have an official policy either. I have asked that the workgroups discuss for consistency across projects.)

- RSLR has been identified as a major contributor to wetland loss in south Louisiana. Incorporating RSLR into project design and performance projections uses the best science and engineering available.

US Fish (Kevin Roy)

1) <u>Section 5.1 Fill Site Design</u> – On page 25, the final lift elevations are provided for each marsh creation cell. Settlement curves for each of the final lift elevations should be included in the main body of the design report instead of referring the reader to Appendix E.

- This change will be made in the 95% Design submittal.

2) <u>Section 5.1 Fill Site Design</u> – On it is indicated that "Marsh fill volumes were calculated by finding the cross-sectional area of each survey transect, assuming it would be filled to the target 20-year elevation of that cell." This section seems to indicate that information from the settlement curves and construction fill elevations was not used to calculate the marsh fill volumes although section 4.4.1 indicates "The primary purpose of the settlement analysis in marsh creation design is to determine the target construction fill elevation and total volume of material required." This section seems to indicate that the marsh fill volumes could be calculated

based on the target 20-year elevation (i.e., approximately +1.4ft NAVD88) regardless of the construction fill elevation. The calculation methods and relevance of the settlement curves and construction fill elevations should be discussed in greater detail.

- Settlement curves were used to calculate marsh fill volumes. The "target 20-year elevation" used in this analysis was the marsh platform elevation after 20 years of settlement given by the settlement curves. I then calculated the volume of material needed to fill that area assuming little to no voids. Settlement of the sub layer, derived from the geotechnical data, was added to this analysis and will be explained it greater detail in the 95% Design submittal.

3) Section 5.1 Fill Site Design – On page 26, it is indicated that marsh fill acreages were calculated from centerline of the ridge to centerline of the containment dikes for each cell. Instead of using the centerline of the ridge, the marsh fill acreage should be delineated along the +2.5ft NAVD88 contour along the ridge slope. In addition, the Ecological Review indicates that 400 acres of marsh will be created instead of 428 acres as in the design report.

- Marsh and ridge acreages will be updated based on the criteria required for the WVA and submitted in the 95% submittal.

4) Section 5.2 Borrow Site Design – On page 28, it is indicated that a cut to fill ration of 1.3:1 was applied to the marsh fill volumes. What is the basis for that cut to fill ratio? Was that the recommendation of the geotech firm?

- A cut to fill recommendation was not requested from the Geotechnical firm. Instead, the cut to fill ratio was chosen based on the actual cut to fill values of similar constructed projects.

5) Section 6 Ridge Restoration Design – This section should contain settlement curves for the selected construction fill height of +5.0ft NAVD88. This section should also contain fill quantities for the ridge feature for each borrow source (i.e., Bayou Grand Liard and the marsh creation area) and the cut to fill ratio used.

- Settlement curves for the proposed +5.0 feet NAVD 88 design height will be incorporated in the 95% design submittal. Additionally, a half foot construction tolerance will be given to the contractor allowing for a maximum construction elevation of +5.5 feet NAVD 88. Required ridge fill volumes and available borrow volumes from both borrow sources for each construction reach were provided in the Project Plans (Appendix I) posted with the 30% design review information. Additional supporting calculations of required and available fill volumes and estimated cut-to-fill ratio were included in the Design Calculations Package (Appendix H). This information will be presented in summary format in the 95% design submittal.

6) Vegetative plantings proposed for the marsh fill sites and the ridge should be discussed.

- This information will be included in the 95% Design submittal.

7) The report should include a section discussing changes from the Phase 0 approved project.

- This information will be included in the 95% Design submittal.

8) Construction Cost Estimate – The unit cost of $5.19 per cubic yard seems low. During recent PPL21 nominee project evaluations, the CWPPRA Engineering Workgroup settled on $5.50 per cubic yard as the unit cost for marsh creation projects with a Gulf of Mexico borrow site. Many of those projects had much shorter pump distances than the Grand Liard project. Average marsh fill bid prices from many recent projects with Gulf of Mexico borrow sites also range higher (file attached). Justification for $5.19 per cubic yard should be provided.

Also, the standard unit cost for earthen containment dikes used by the Engineering Workgroup has been $3.25 per cubic yard instead of $3.00.

- The project team has reviewed the proposed unit costs for marsh fill and containment dikes. The cost estimate will be revised using $5.55/CY for marsh fill and $3.50/CY for containment dikes.

EPA (Chris Llewellyn)

1.) 'A 17 foot "Gator Tail" vessel' is used to describe the vessel used to perform your inshore magnetometer survey. You may need to add a trademark or copyright logo beside that since it is a trade name. I realize there are other surface drive motor manufacturers that have motors similar to the Gator Tail company (i.e. Proline) but not sure what exactly was used. I am not sure if have to include the trademark or copyright but I just want to give you a heads up.

- This change will be made in the 95% Design submittal.

2.) Did you investigate pre-constructing tidal creeks in this project? They may form via differential settlement but it is somewhat uncertain to what extent. I also realize this is a narrow, linear project seeking to restore a historic ridge and adjacent marsh habitat which means pre-constructed tidal creeks may not be best suited because they may have a negative effect on the overall integrity of the marsh and ridge platform.

- The project team assessed the need to include pre-dredging of tidal creeks and ponds within the fill area. Design surveys suggest that the bathymetry of the marsh fill areas is rather variable with some deeper areas and submerged channels. Due to this variability, combined with site geometry it is expected that differential settlement of the marsh fill will naturally result in formation of open water channels, as has been observed on other

project. The project cost estimate and operations and maintenance plan will include provisions for gapping retention dikes as needed.

3.) I could not locate, in the Containment Dike section of your report, what you intend to do with the containment dike post construction. We prefer to at least gap the dike in several locations to encourage a hydrologic connection but leave this decision up to the project sponsor. A sentence in the report indicating what you intend to do with the containment dikes would be appreciated (i.e. degrade to marsh elevation, gap, leave in place and allowed to erode).

- See previous comment.

4.) During your presentation, you mentioned that you will consider monitoring of the borrow area. As you are aware this is a concern of our Agency and appreciate your inclusion of this in the presentation. With your cooperation, we look forward to discussing this issue with you further in an effort to determine the best way to handle this issue.

- Due to the location of the borrow areas and borrow area geometry, project specific monitoring will include dissolved oxygen monitoring of the borrow area and a reference site. Data collection is proposed for approximately one month during the summer at TYs 1 and 3.

USACE Review (<u>Engineering Division</u>)

1. Ecological Review, page 1, paragraph 1, Introduction; Land loss rates are posted with trend that is increasing. Land loss is currently being measured on land masses in natural state. Report includes settlement curves. Did design include anticipated lateral loss due to higher rates on freshly placed uncompacted fill?

   - Project performance and benefits will be assessed based on the Environmental Workgroup standard methodology for marsh creation projects which includes consideration of project specific and extended area loss rates. Adjustments to future with project loss rates will be in accordance with standard WVA assumptions.

2. Preliminary Design Report, pg 11, paragraph 3.4, Marsh Elevation Survey; Disagree with Project Team assertion that Marsh Site 3 is not a good representation of healthy marsh. Area was likely selected because it included desired vegetation. Site 3 is important because it opens range of elevation for healthy marsh.

   - Area 3 was initially selected for marsh elevation surveys based on cursory review of aerial photography. However, assessment of the specific location the survey team used for Area 3 suggests that the area has had large pockets of broken marsh since at least 1998.and the specific location of the detailed survey does not appear to represent robust and densely vegetated marsh.

3. Preliminary Design Report, pg 19, paragraph 4.3.2, Stability Analysis – Earthen Ridge; Report mentions a stability berm of 20, 15, and 40 feet. Are these constructed features or simply offset distances for borrow excavation.

   - Those are offset distances for the borrow excavation.

4. Preliminary Design Report, pg 20, paragraph 4.3.2, Stability Analysis – Earthen Ridge; All evaluations were done with a target elevation of (+)5.5 ft. FOS was met. Perhaps an analysis should be done to see how high the ridge can be constructed while maintaining minimum FOS. Ridge cannot be too high.

   - We have a limited amount of borrow material to construct the ridge. We are already exhausting most of our available bayou borrow material to construct the ridge and will need to borrow from the marsh fill area for the remainder. A higher ridge would also entail a wider ridge base (resulting in increased wetland impacts) and require more material from the fill area. Borrowing that amount of material from the interior will leave permanent low elevation areas in the fill area.

5. Preliminary Design Report, pg 21, paragraph 4.4.2, Settlement Analysis – Earthen Containment Dikes; What is the 6 inches of consolidation assumed attributed to? Please add explanation.

   - The six inches of consolidation assumed is the immediate consolidation that would occur during construction.

6. Preliminary Design Report, pg 21, Table 3; Lift elevations are given with only a 60 day period of dewatering between lifts. Fill material is pumped in suspension to open water areas. Be sure to allow adequate dewatering of cell for such a short period of time, i.e. muddy water over the spill box.

   - The lift scenario requiring 60 day dewatering periods were not chosen for this design.

7. Preliminary Design Report, pg 26, paragraph 5.2, Borrow Site Design; Change “you” to “to” on sentence about dropping sites due to cultural resource issues.

   - Corrected

8. Preliminary Design Report, pg 28, Opening sentence; Change “lose” to “loss”.

   - Corrected

9. Preliminary Design Report, pg 31, Figure 11; Add stability berm if they are a constructed feature.

   - This change will be made in the 95% Design submittal.

10. The soil test results should be presented.

- The geotechnical report and borings were posted on the ftp site in advance of the Preliminary Design Review meeting. Additional volumes are available upon request.

11. Appendix F, Figures II-B1 to II-B4. The derivation of the soil stratification should be shown.

- The geotechnical report and borings were posted on the ftp site in advance of the Preliminary Design Review meeting. Additional volumes are available upon request.

GRAND LIARD MARSH AND RIDGE RESTORATION
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 Grand Liard Marsh and Ridge Restoration Project (BA-68)
Statement of Local Sponsor Concurrence

Dear Ms. Linder:

The 95% design review meeting was held on November 14, 2011 for the Grand Liard Marsh and Ridge Restoration Project (BA-68). 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 Sweeney, NOAA Fisheries
Robert Routon, P.E., OCPR Administrator
Kenneth Bahlinger, OCPR Project Manager
Tye Fitzgerald, E.I., OCPR Project Engineer

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Final/95% Design Review
Grand Liard Marsh and Ridge Restoration (BA-68)
Agency Comments and Responses

NRCS Comments

1. NRCS has reviewed the 95% Design packet and attended the design review meeting for the Grand Liard Marsh and Ridge Restoration (BA-68). We recognize the high level of need for restoration in this area of the coast and also appreciate the challenges associated with this type of design and construction. We compliment the planning and design team for their efforts. During previous reviews, NRCS has made comments relative to ridge construction and vegetation suitability. We believe that these questions have been appropriately addressed. One final cautionary note that was not brought up in the design review meeting is that we suggest the design team please consider the possibility that the sheetpile plugs at some time may become exposed with time from erosion and that the design team consider the possible need for some obstruction warning. Thanks for the opportunity to comment.

   Response: The necessity of signage would be governed by the elevation of the sheetpile structure in reference to the Mean High Water elevation. Based on the geotechnical analysis performed on these structures, it is unlikely that the sheetpile structures (el.+4.5 ft. NAVD 88) will settle below the Mean High Water elevation. However, each structure will be inspected annually per the O&M plan. Should the inspection reveal sheetpile elevations at or near the Mean High Water elevation, installation of signage could be facilitated through a modification to the O&M plan.

GRAND LIARD MARSH AND RIDGE RESTORATION
PHASE II REQUEST

ATTACHMENT F

Permit Application Materials

CPRA
Coastal Protection and Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

November 22, 2011

Mr. Keith Lovell
Office of Coastal Management
Louisiana Department of Natural Resources
Post Office Box 44487
Baton Rouge, Louisiana 70804-4497

Re: Grand Liard Marsh and Ridge Restoration Project (BA-68)
Coastal Zone Consistency

Dear Mr. Lovell,

This letter is in reference to the Coastal Zone Consistency Application for the Grand Liard Marsh and Ridge Restoration Project being proposed by the Coastal Protection and Restoration Authority (CPRA) in partnership with the National Marine Fisheries Service (NMFS). NMFS is serving as the applicant and CPRA as the agent. The proposed project is determined consistent, to the maximum extent practicable, with Louisiana's federally approved Coastal Zone Management Program. The project is funded by the Coastal Wetlands Planning, Protection, and Restoration Act under Priority Project List 18 with the primary goal of restoring 16,600 linear feet of earthen ridge habitat and creating 432 acres of marsh.

The project area is located approximately 2.5 miles South-southeast of the town of Triumph and on the Eastern shore of Bayou Grand Liard. This project consists of hydraulically dredging and placing approximately 3.5 million cubic yards of marsh compatible material onto the marsh platform east of Bayou Grand Liard. The marsh material will be dredged from an area approximately two miles South of Scofield island in the Gulf of Mexico. This project shall also consist of 16,600 linear feet of earthen ridge restoration. The earthen ridge shall be constructed to an elevation of +5.0 feet NAVD 88. Eight sheet pile walls will be constructed to close deep gaps in the earthen ridge and containment dikes.

The permit application contains the following components:

- Joint Permit Application
- Permit Drawings
- Permit Volumes Breakdown
- List of Oyster Lease Holders
- Copy of Signed Letter to Landowner
- Copies of Signed Letters to Leaseholders
- Exemption from Fee Letter

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The Permit Volumes Breakdown is presented in the form of three tables. The First table (*Permitted Excavations)* represents the amount of material that is available to be excavated. The second table *(Fills)* represents the volume and area of material that will be placed within the project area boundaries. The third table (*Construction Excavations*) displays the amount of material that is expected to be excavated for the construction of the project. Though the application requests that all the available borrow areas be permitted, it is not anticipated that this amount will be utilized. The additional permitted area will allow the contractor some flexibility in movement and sequence to preform each task.

There are four (4) landowners in the project vicinity. There are four (4) oyster lease holders as shown in the list attached to the permit application. All landowners and oyster lease holders have been mailed a copy of this permit application.

If any other documentation is desired or if you have any questions, please call me at 225-342-4496.

Regards,

Tye Fitzgerald

Tye Fitzgerald, E.I
Project Engineer

Louisiana Department of Natural Resources
Office of Coastal Management (OCM)
Telephone: 1-800-267-4019
Website: http://dnr.louisiana.gov/crm/

U.S. Army Corps of Engineers (COE)
New Orleans District
Telephone: 504-862-2766
Website: www.mvn.usace.army.mil/ops/regulatory

Joint Permit Application

For Work Within the Louisiana Coastal Zone

What is the purpose of the Joint Permit Application?

This Joint Permit Application was developed to facilitate the state and federal permit application process administered by the Louisiana Department of Natural Resources/Office of Coastal Management (OCM) and the U.S. Army Corps of Engineers (COE) for work within the Louisiana Coastal Zone.

To simplify the permit application process, the Joint Permit Application is a multi-purpose application. It may be used to apply for a Coastal Use Permit (CUP) and/or a Department of the Army Permit under Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act. This application may also be used to apply for a Solicitation of Views (SOV) or an OCM Request for Determination (RFD). Review the instructions below, then proceed to Step 1.

Instructions

How do I complete the Joint Permit Application?

There are two parts to the Joint Permit Application package:

1. Joint Permit Application, and
2. Maps and Drawings.

An accurate/complete application is required for processing; inaccurate/missing information may delay processing. Follow the instructions below to complete the application. Specific instructions are provided with each step.

- Type or print clearly using black or blue ink;
- Steps 1 through 16 must be completed; write "N/A" if information does not apply to your proposed project. It is not necessary to write "N/A" on the Steps that you have been asked to skip;
- When additional space is needed, include an 8½ x 11 sheet of paper identifying the Step number.

When you have questions or need assistance in completing the application package:

- Refer to the "Glossary of Terms" (See page 10.);
- Refer to "Frequently Asked Questions" (See page 11.);
- Contact the Office of Coastal Management at 1-800-267-4019 or 225-342-7591; or
- Contact your local coastal parish program (See page 11.) (http://dnr.louisiana.gov/CRM/coastmgt/interagencyaff/lcp/lcp.asp)

Step 1 of 16

Who is the applicant for the proposed project?

Note: Applicants may be either the landowner, person or company that is responsible for the proposed project.

Complete the following information about the applicant.

Applicant/Company Name: National Marine Fisheries Service
Individual Person or Corporation/Company

Mailing Address: c/o LSU, Military Science Bldg, Room 266
Street Address or P.O. Box — Unit/Apartment #

Baton Rouge — City
LA — State
70803 — Zip

Contact Information: Richard Hartman
Name of Contact Person *(not the agent)*

richard.hartman@noaa.gov
E-Mail Address

(225) 389-0508
Area Code — Daytime Telephone Number

(225) 389-0506
Area Code — Fax Number

Continue to page 2 for step 2.

Internal Office Use Permit #

Step 2 of 16

Is an agent being used for the proposed project?

Note: An agent is not required.

Is an agent being used for the proposed project?

☐ **NO** (If NO, proceed to Step 3.)
☑ **YES** (If YES, complete the following information.)

Company Name: Coastal Protection and Restoration Authority (CPRA)
Corporation/Company

Mailing Address: P.O. Box 44027
Street Address or P.O. Box — Unit/Apartment #

Baton Rouge — La — 70804
City — State — Zip

Contact Information: Tye Fitzgerald — tye.fitzgerald@la.gov
Name of Contact Person — E-Mail Address

(225) 342-4496 — (225) 342-6801
Area Code Daytime Telephone Number — Area Code Fax Number

Step 3 of 16

What type of permit or action would you like to request?

Note: You may need the approval of other federal, state or local agencies for your project.

Note: For questions concerning the CUP, SOV or RFD, call OCM at:
- *1-800-267-4019*
  or
- *225-342-7591*

Check ☑ the appropriate box(es) to indicate the type of permit or action that you would like to request.

☑ **Coastal Use Permit (CUP), Clean Water Act Permit (Section 404), Rivers and Harbors Act (Section 10)**

The purpose of the CUP is to ensure that any activity affecting the Coastal Zone is completed in a manner that is consistent with the Louisiana Coastal Resource Program.

The purpose of the Department of the Army permit program under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act is to review and evaluate proposals for dredging, filling, and/or placement of structures in waterways and wetlands in order to determine whether a permit should be granted or denied based on expected impacts to the overall public interest.

☐ **Solicitation of Views (SOV)**

If you wish to find out if your project is in the Coastal Zone or if you wish to determine if there are special features of the area that may impact your project design you may request a SOV. No application fee is assessed for SOV requests. The following Steps must be completed to obtain an informal determination.

- Step 1, Step 2, Step 6, Step 14, Step 16; and
- Step 13 - (Vicinity plat showing project location and extent is required; cross section and plan views are useful, if available.)

☐ **Request for Determination (RFD) - OCM only**

If you wish to obtain a formal determination as to whether or not a CUP would be required for a particular activity, you may submit a RFD. The appropriate application fee will be assessed for RFD requests. The following Steps must be completed to obtain a RFD.

- Step 1, Step 2, Step 5, Step 6, Step 8, Step 10, Step 14, Step 16; and;
- Step 13 - (Vicinity plat showing project location and extent is required; cross section and plan views are useful, if available.)
- If you think that no permit is required, you must provide a statement explaining why you think a permit is not required.

Step 4 of 16

Have you participated in a Pre-Application or Geological Review Meeting or obtained a wetland determination?

Note: To schedule a Pre-Application and/or a Geological Review Meeting, call OCM at 1-800-267-4019.

Note: To apply for a wetland determination, call the COE at 504-382-1621.

a. Have you participated in a Pre-Application or Geological Review Meeting for the proposed project?

☑ **NO** (If NO, proceed to Step 4b.) (If you would like to schedule a pre-application meeting, please call 1-800-267-4019)
☐ **YES** (If YES, complete the following information.)

Date meeting was held: ____/____/_____

Attendees: _____ _____ _____
Individual or Company Representative — OCM Representative — COE Representative

b. Have you obtained an official wetland determination from the COE for the project site?

☑ **NO** (If NO, proceed to Step 4c.)
☐ **YES** (If YES, include a copy with this application.)

JD Number: _____

c. Is this application a mitigation plan for another CUP?

☑ **NO** (If NO, proceed to Step 5.)
☐ **YES** (If YES, identify the permit number of the project requiring mitigation.)

OCM Permit Number: P_____

Continue to page 3 for step 5.

Step 5 of 16

What permits/ certifications have you previously requested for the proposed project?

Note: Additional sheets may be required for agency name, permit number and status information.

a. Describe the project.

This project consists of hydraulically dredging and placing approximately 3.5 million cubic yards of marsh fill material onto the marsh platform east of Bayou Grand Liard. This material will be dredged from the Gulf of Mexico South of Scofield Island. This project shall consist of 16,600 linear feet of earthen ridge restoration to an elevation of +5.0 feet NAVD 88. Eight sheet pile walls will be constructed to close deep gaps in the earthen ridge and containment dikes.

b. Is this application a change to an existing permit?

☑ **NO** (If NO, proceed to Step 5c.)
☐ **YES** (If YES, identify the existing permit number.)

OCM Permit Number: P

Please explain

c. Have you previously applied for a permit or emergency authorization for all or any part of the proposed project?

☑ **NO** (If NO, proceed to Step 6.)
☐ **YES** (If YES, complete the following information for the proposed project.)

Agency Name	Permit Number	Decision Status: Approved	Decision Status: Denied	Decision Status: Pending	Decision Date
OCM		☐	☐	☐	
COE		☐	☐	☐	
Other		☐	☐	☐	

Step 6 of 16

Where will the proposed project be located?

Note: The following websites may provide assistance in completing the latitude/longitude and directions:
- *Sonris on OCM website*
- *MapQuest.com*
- *Topozone.com.*

Complete the following information to identify the exact location of the proposed project.

a. Physical Location: Plaquemines
Parish | City | Zip

Street Address (If known)
Bayou Grand Liard
Water Body (if known)

b. Latitude and Longitude:
Must be included in all applications.

Latitude: 29 Degrees, 18 Minutes, 22.430 Seconds
Longitude: 89 Degrees, 28 Minutes, 28.530 Seconds

c. Section, Township, Range: *(if available)*

Section #(s)	Township # (Specify North or South)	Range # (Specify East or West)
N/A	N/A	N/A
N/A	N/A	N/A

d. Lot #, Tract #, Parcel # or Subdivision Name: *(if known)*

Lot # N/A	Parcel # N/A
Tract # N/A	Subdivision Name N/A

Note: Directions may include the following:
- *Nearest town/city*
- *Highways*
- *Intersections*
- *Street names*
- *Landmarks*
- *Start/end point*

e. Site Directions: Directions to the proposed project site must be identified in order to process the application.

Example: **START - I-10 toward Baton Rouge. Exit #153 toward Port Allen. US-190 West/LA-1 North ramp. RIGHT onto LA-987 1/Bridge Side Road. RIGHT onto LA-986/North River Road to Popular Grove Plantation directly behind guest parking lot in rear. –END**

Start - I-10 toward New Orleans. Continue to US-90 BUS W. Exit at Terry Pkwy. Turn left onto LA-23 S to Triumph. Turn left onto Triumph Pump Rd. Travel by boat from triumph to Bayou Grand Liard.

Continue to page 4 for step 7.

Step 7 of 16

Who are the adjacent landowners?

Note: Adjacent landowner information is usually available through the office of the tax assessor in the parish where the project is to be developed.

Note: Additional information may be included in the area provided on page12. Also, extra sheets may be required if there are more than eight adjacent landowners.

Complete the following information to notify adjacent landowners whose property adjoins the proposed project site.

Adjacent Landowner #1: See attached Adjacent Land holder list.
Name of Adjacent Landowner

Mailing Address:
Address | Unit/Apartment #
City | Parish | State | Zip

Adjacent Landowner #2:
Name of Adjacent Landowner

Mailing Address:
Address | Unit/Apartment #
City | Parish | State | Zip

Adjacent Landowner #3:
Name of Adjacent Landowner

Mailing Address:
Address | Unit/Apartment #
City | Parish | State | Zip

Adjacent Landowner #4:
Name of Adjacent Landowner

Mailing Address:
Address | Unit/Apartment #
City | Parish | State | Zip

Step 8 of 16

What is the purpose of the proposed project?

Note: We are required to review the justifications and needs for your project. Providing detailed information at the time of application may expedite processing of your proposal.

Note: Additional sheets may be required to explain why the proposed project is needed.

Complete the following information to identify the purpose and need for the proposed project.

a. **Project Name and/or Title:** BA-68: Grand Liard Marsh and Ridge Restoration (CWPPRA)

b. **Project Type:** *(Check ☑ the appropriate box. See the "Glossary" on page 10 for the definitions of terms.)*
☑ **Non-Residential**
☐ **Residential**

c. **Source of Funding** ☑ ***Federal*** ☑ ***State*** ☐ ***Local*** ☐ ***Private***

d. **Check ☑ the appropriate box(es) to identify what will be done for the proposed project.**

☐ Bridge/Road	☐ Drill site	☐ Pilings	☐ Riprap/Erosion Control
☐ Bulkhead/Backfill	☑ Fill	☐ Pipeline/Flow line	☐ Site Clearance
☐ Drainage Improvements	☐ Home Site/Driveway	☐ Plug/Abandon	☐ Subdivision
☑ Dredging	☐ Levee Construction	☐ Production Barge/Structure	☑ Vegetative Plantings
☑ Drill Barge/Structure	☐ Major Industrial Commercial	☐ Prop Washing	☐ Wharf/Pier/Boathouse
☑ Other	☐ Marina	☐ Remove Structures	

(Please specify)
Steel Sheet Pile Wall

e. **Why is the proposed project needed?**

The project is proposed through CWPPRA to reestablish the earthen ridge and restore the integrity of the marsh platform.

Continue to page 5 for step 9.

Step 9 of 16

What is the status of the proposed project?

Note: Show and identify planned, in progress, completed work and dimensions for excavations and fill on the Plan View and Cross Section Drawings.

Complete the following information to indicate the start/end dates and the current status of the proposed project.

a. **Proposed project start date:** 1 / 1 / 2013 **Proposed project completion date:** 1 / 1 / 2014

b. **Is any of the project work in progress?**

☑ **NO** (If NO, proceed to Step 9c.)

☐ **YES** (If YES, show and identify the work in progress on the Plan View and Cross Section Drawings.)

Please explain

c. **Is any of the project work complete?**

☑ **NO** (If NO, proceed to Step 10.)

☐ **YES** (If YES, show and identify the work completed on the Plan View and Cross Section Drawings.)

Please explain

Step 10 of 16

How would you describe the proposed project?

Note: To apply for a wetland determination, call the COE at 504-862-1627.

Note: Information provided in this Step must be consistent with Maps and Drawings.

Note: For any equipment used, show the access route and construction right of way on the Maps and Drawings.

Complete the following information to describe structures, materials and methods for the proposed project.

Cubic yards are determined by using this formula. *(Length (ft.) X Width (ft.) X Depth (ft.) divided by 27 = Cubic Yards)*

Example: 25 ft. X 25 ft. X 5 ft. divided by 27 = 115.7 Cubic Yards

Acres are determined by using this formula. *(Length (ft.) X Width (ft.) divided by 43,560 = Acres)*

Example: 250 ft. X 250 ft. divided by 43,560 = 1.43 Acres

a. **Excavation:** 10,973,822.00 **Cubic Yards** 525.00 **Acres**

b. **Fill:** 3,135,406.00 **Cubic Yards** 599.00 **Acres**

c. **What fill materials will be used for the proposed project?**

(Check ☑ the appropriate box(es) and indicate the cubic yards for each type of fill material.)

☐ Concrete	Cubic Yards	☐ Rock (rip/rap)	Cubic Yards
☐ Crushed Stone or Gravel	Cubic Yards	☑ Sand	1,828.00 Cubic Yards
☑ Excavated & Placed on site	3,133,578.! Cubic Yards	☐ Hauled in Topsoil/Dirt	Cubic Yards
☐ Excavated & Hauled off site	Cubic Yards		
☐ Other *(Please specify)*:			Cubic Yards

d. **What equipment will be used for the proposed project?** *(Check ☑ the appropriate box(es).)*

☑ Airboat	☐ Bulldozer/Grader	☑ Marsh Buggy
☐ Backhoe	☑ Dragline/Excavator	☑ Other Tracked or Wheeled Vehicles
☑ Barge Mounted Bucket Dredge	☐ Handjet	☐ Self Propelled Pipe Laying Barge
☐ Barge Mounted Drilling Rig	☐ Land Based Drilling Rig	☑ Tugboat

☑ Other (Please specify.) Hydraulic Cutterhead Dredge, Sheet Pile Driving Rig

Continue to page 6 for step 11.

Step 11 of 16

What impact will the proposed project have?

Note: You will be notified by OCM if a field investigation is required to determine if the proposed project will impact wetlands.

Note: Additional sheets may be required to adequately respond to 11b, 11c, 11d and/or 11e.

Note: Providing detailed information at the time of application may expedite processing of your proposal.

a. Total acres of wetlands and/or waterbottoms filled and/or excavated: 505.53

b. What alternative locations, methods and access routes were considered to avoid impact to wetlands and/or waterbottoms?

The project was developed through the CWPPRA process, which has a rigorous selection process to propose projects and then requires multiple alternatives to be analyzed in the design reports. One of these alternatives was to borrow material from the Mississippi. The borrow area was later moved to an off shore borrow source. This avoided potential impacts to cultural resources near Fort Jackson and the need for jacking and boring underneath LA-23.

c. What efforts were made to minimize impact to wetlands and/or waterbottoms?

The Project Team took extra measures to ensure that there would be enough material in each borrow area, such that only one would be required for construction. There by minimizing the impacts to water bottoms. Modeling was performed to ensure that borrow area excavation would have negligible impacts to the shoreline of Scofield Island. Dredging a floatation access canal will be required due to the size of the equipment required to construct the earthen ridge feature and closure structures. The material excavated from the access canal will be used to construct the adjacent containment dike and earthen ridge so as to minimize the material excavated within the fill area. The contractor will dredge as small a volume as possible to fulfill project goals and minimize costs.

d. How are unavoidable impacts to vegetated wetlands to be mitigated? (Please note that a willingness to perform mitigation does not relieve the applicant from adequately addressing justification for (step 8e) and alternatives to (step 11b & 11c) the proposed activity)

Unavoidable impacts to wetlands will be offset by the creation and nourishment of over 400 acres of wetlands.

Landowner Rights

- The affected landowner(s) whose property may be impacted by the proposed project has (have) the option of requesting that compensatory mitigation be done on their property.
- Once OCM determines that mitigation is required, they will notify the applicant and all affected landowners of the extent and type of habitat impacted. The landowner(s) will be given thirty (30) days to formally request or waive their mitigation option. (This can cause substantial delays in processing of the application.)

Applicant Responsibilities

- Coordinate with the affected landowner(s) to develop a conceptual compensatory mitigation plan. This plan should be designed to offset the adverse impacts to vegetated wetlands which will occur from the proposed project. (This can also cause substantial delays in processing of the application.)
- To avoid delays, it is recommended that, prior to sending the application to OCM, you contact affected landowner(s) to:

  – Inform them of possible wetland impacts and discuss their compensatory mitigation rights; and
  –Ask them to indicate their intentions regarding compensatory mitigation on the form.
- Submit the Landowner Compensatory Mitigation Request/Waiver form along with your application.

Continue to page 7 for step 12.

Step 12 of 16

What are the requirements for notification of landowners and oyster lease holders of the proposed project site?

Note: OCM and COE both have mitigation requirements under different laws, rules and regulations; therefore, specific agency requirements may vary.

Note: If a property has multiple owners with undivided interest in the property, each person owning an interest is considered to be a landowner and must be notified.

Note: Additional sheets may be required if there are more than two landowners.

Note: Compensatory mitigation is not a monetary settlement to be used at the discretion of the landowner(s).

Note: A copy of the "Landowner Compensatory Mitigation Request/ Waiver" form is included with this application. To obtain additional copies, visit the OCM website or call: •1-800-267-4019 Or •225-342-7591

Note: See our FAQ for a list of regulations that may be applicable. Be aware that this list is for example proposes and does not purport to be complete or indicate applicability in any particular situation or project. It is the applicant's responsibility to be fully aware of all regulatory requirements, to list those requirements and certify that thy will be in compliance.

a. Are you applying for a Coastal Use Permit?

☐ **NO** (If NO, proceed to Step 12b.)
☑ **YES** (If YES, read the following information.)

Requirements for Notification of Landowners

It is the responsibility of the applicant to notify the landowner(s) of the property about this proposed project. Notification must include providing each impacted landowner with a copy of the permit application (form and plats) at the time the application is submitted to the Office of Coastal Management.

Requirements for Notification to Oyster Lease Holders

It is the responsibility of the applicant to notify all affected oyster lease holders about this proposed project. Notification must include providing each affected oyster lease holder with a copy of the permit application (form and plats) at the time the application is submitted to the Office of Coastal Management. The location of leases, and the name and contact information of the lessee can be obtained by contacting the LDWF Oyster Lease Survey Section at 504-284-5279. You also can use the OCM GIS interactive map on our website at http://sonris-www.dnr.state.la.us/www_root/sonris_portal_1.htm. Please note that copies of the lease holder notification letters must be included with your application packet at the time of submittal. For more information regarding notification requirements please contact the Oyster Lease Survey Section or visit our website at http://dnr.louisiana.gov/crm/coastmgt/permitsmitigation/oyster.asp.

While these are legal requirements to ensure that property owners/oyster lease holders are aware of proposals which might impact their land/oyster lease, it also serves as a proactive measure to initiate communication between the applicant and the landowner(s)/lease holders, especially when mitigation might be necessary. Since mitigation can be a lengthy process, taking proactive steps early in the process may significantly reduce the time necessary to receive an authorization.

b. Are you the sole owner of the property on which the proposed activity is to occur?

☐ **YES** (If YES, proceed to Step 12c.)
☑ **NO** (If NO, follow the instructions below.)

Check ☑ the appropriate box(es) and complete the landowner information to attest to OCM that a copy of this application has been sent to all landowners whose property will be impacted by the project.

☐ The applicant is an owner of the property on which the proposed described activity is to occur.
☑ The applicant has made every 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, if necessary, 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.

Landowner/Lease Holder #1: Package distributed to attached Land and Lease holder list
Name of Landowner / Lease Holder

Mailing Address:
Street Address or P.O. Box | Unit/Apartment #
City | Parish | State | Zip Code

Landowner/Lease Holder #2:
Name of Landowner / Lease Holder

Mailing Address:
Street Address or P.O. Box | Unit/Apartment #
City | Parish | State | Zip Code

c. Does the project involve drilling, production, and/or storage of oil and gas?

☑ **NO** (If NO, proceed to Step 13.)
☐ **YES** (If YES, review and complete the certification below. You must attach a list of all state and federal laws and rules and regulations dealing with spill prevention and containment. Your signature on step 14 certifies that you are aware of the terms and conditions of each requirement and that you will remain in compliance at all times.)

I, _____ hereby certify that I am the _____ of
(Name of officer) *(Name of Office)*
_____, hereinafter referred to as the Applicant and that I have authority to
(Full legal name of the entity seeking a permit)
act on behalf of and bind that legal entity, and by my signature below I certify that the information in the application is true and correct to the best of my knowledge, that Applicant has provided a complete list of the requirements for protection of health, safety and the environment, and that Applicant is in full compliance with all applicable safety and environmental regulations as listed on the attached sheet, specifically including when applicable, LAC 43:XIX.111 Diverter Systems and Blowout Preventers.

Continue to page 8 for step 13.

Step 13 of 16

Why are Maps and Drawings required to obtain a permit?

Note: *The following websites may provide assistance in completing the Vicinity Map:*
•Sonris on OCM website
•MapQuest.com
•Topozone.com

Note:
For additional assistance with specific requirements, refer to the samples provided in this application package.

Quality Maps and Drawings are required to process the Joint Permit Application and for Public Notice. They must visually reflect what will be done in the proposed project and are key to the overall evaluation.

The following Maps and Drawings must be submitted with the Joint Permit Application and must show both existing and proposed conditions.

- **Vicinity Map** - Illustrates access to and the location of the proposed project relative to surrounding areas;
- **Plan View Drawing** - Illustrates an overhead view of the proposed project; and
- **Cross Section Drawing** - Illustrates a side view of the proposed project.

In general, all Maps and Drawings should be:

- Legible and clearly labeled on single sided 8½ x 11 size paper; (large drawings that are reduced in size to fit the 8½ x 11 format are not acceptable if the scale is no longer accurate and if the dimensions and details are not clear and easy to read after reproduction in the Public Notice);
- Drawn to scale with the scale identified graphically on each drawing; (if you cannot provide Maps and Drawings to scale, you may submit the dimensions of the proposed and existing features of the work area displayed);
- Black and white **ONLY** (Colored Maps and Drawings will **NOT** be accepted);
- Accurate and reproducible;
- Placement of the north arrow, title, legend and scale bar must be consistent on Maps and Drawings; and
- Information provided in Steps 1 through 12 must be consistent with the Maps and Drawings.

Inadequate or poor Maps and Drawings are the primary reason for delays in the permitting process. Sample Maps and Drawings are provided with this Joint Permit Application package for your assistance.
Link to sample plats:
http://dnr.louisiana.gov/crm/coastmgt/cup/sampleplats.asp

Step 14 of 16

Who needs to certify and sign this application?

Note:
The application must be signed and dated by the applicant who desires to undertake the proposed activity.

Note: *If an agent is being used, the applicant and agent must sign and date this application.*

Read the following information. Print your name, sign and date to certify this application for processing.

- Application is hereby made for a permit or permits to authorize the work described in this application.
- 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.
- I certify that the information in this application is complete and accurate.
- If applicable, I also certify that the declarations in Step 12, notification to landowner(s), are complete and accurate.
- If applicable, I also certify that the declarations in Step 12c, oil spill response, are complete and accurate.
- I will abide by the conditions of the permit or license if issued and will not begin work without the appropriate authorization.
- Permission is granted to the agencies responsible for authorization of this work, or their duly authorized representative, to enter the property site during working hours for inspection purposes.
- If applicable, I authorize the agent identified in Step 2 to act in my behalf as agent for this application and the agent will furnish, upon request, information in support of this application.

National Marine Fisheries Service	Richard Hartman	11 / 29 / 11
Clearly Print Name of Applicant	Applicant Signature Richard Hartman	Date

- As the agent, I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Tye Fitzgerald	Tye Fitzgerald	11/29/11
Clearly Print Name of Authorized Agent	Authorized Agent Signature	Date

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than 5 years or both.

Continue to page 9 for step 15.

Step 15 of 16

What fees are required for permit processing and what methods are available for payment?

The following fees apply and must be received in order to process the application.

a. Check ☑ the appropriate box to indicate the fee type: *(See the "Glossary" on page 10 for the definitions of terms.)*

☐ **$100.00 - Non-Residential**
☐ **$ 20.00 - Residential**

- If your activity involves dredging or filling, OCM will bill you on the basis of $.04 per cubic yards for residential uses and $.05 per cubic yards for all other uses.
- Fees may not apply if the Joint Permit Application is being processed by the local Parish.
- Additional fees may be assessed for mitigation processing.

COE and Local Parish Program fees will be assessed separately at the end of the process.

b. Check ☑ the appropriate box to indicate payment method:

☐ **Check/Money Order**
☐ **Credit Card (Visa or MasterCard only)**
☐ **Electronic Transfer**
☐ **Escrow Account**

- Make Check/Money Order payable to the Office of Coastal Management.
- To pay by Credit Card, Electronic Transfer or Escrow Account, call OCM at 1-800-267-4019 to provide specific account information or provide account information on a separate sheet of paper and include with application.
- Cash is not accepted.

Step 16 of 16

How do I submit the Joint Permit Application and Maps and Drawings for processing?

If your project is in the Galveston or Vicksburg District of the Corps of Engineers, please see page 12.

***Note:** Please keep a copy of the completed application for your records.*

To submit this permit application, Maps and Drawings and all supporting documentation, select an option below.

MAIL:
Office of Coastal Management
P.O. Box 44487
Baton Rouge, LA 70804-4487

If you select the MAIL option, submit the original Joint Permit Application, Maps and Drawings and supporting documentation.

EXPRESS MAIL:
Office of Coastal Management
617 North 3rd Street,
Suite 1078
Baton Rouge, LA 70802
Phone: 225-342-7591

If you select the EXPRESS MAIL option, submit the original copies of the Joint Permit Application, Maps and Drawings and supporting documentation.

FAX:
225-342-6760
Attention: Office of Coastal Management, Joint Permit Application Processing

- Include a cover sheet with the total number of pages; and
- If you select the FAX option, follow-up with one of the mail options to prevent delay if the fax is not legible.
- Payment arrangements should be made prior to faxing your application by calling OCM at 1-800-267-4019.

Continue to page 10 for "Glossary of Terms".

GRAND LIARD MARSH AND RIDGE RESTORATION
PHASE II REQUEST

ATTACHMENT G

HTRW Analysis

Bayou Grand Liard
Marsh Creation and Ridge Restoration
BA-68

Hazard, Toxic, and Radioactive Waste (HTRW) Analysis

Plaquemines Parish, LA

November 4, 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 Bayou Grand Liard Marsh Creation and Ridge Restoration 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 468 acres located along Bayou Grand Liard south of Triumph, 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 "TRIUMPH, LA" Topographic Map, 1993 (**Figure 1**). The elevation of the subject property is approximately 0 feet national geodetic vertical datum (NGVD). Based on site reconnaissance, the remaining land formations have generally eroded to open water with the signs of former ridge feature along Bayou Grand Liard.

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

Mr. A.B. Croft, Chief of Buras Volunteer Fire Department, was contacted to discuss any calls they may have received in reference to the subject property. Mr. Croft has been with the Fire District for 43 years and does not have any recollection of any calls for that area. Interview documentation is provided in **Appendix A**.

4.4 Owner, Property Manager, and Occupant Information

An interview relative to the subject site and adjoining areas was conducted with October 24, 2011 (the current owner). 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 2 miles 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. One site was identified as posing an environmental concern to the subject site.

An ERNS report was identified for "Bayou Grand Laurds behind Triumph Pumping Plant" (see **Appendix C**). The report identifies a release from a 12-inch Chevron pipeline that released approximately 3 gallons of crude oil. No damage was identified.

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 "TRIUMPH, LA" Topographic Map, 1993. The elevation of the subject property area is less than 5 feet NGVD. Under current conditions, the subject property is heavily eroded with large tidal connectivity.

According to the Soil Conservation Service National Cooperative Soil Survey, there were several types of soil at the subject property. They

include the following: clovelly muck and gentilly muck. 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 (Well ID 193633) was determined to be on the subject property. The well was plugged and abandoned in 1989. Well information from SONRIS can be found in **Appendix D**. 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. Five aerial photographs of the subject property were obtained for the purpose of confirming and compiling historical use information (**Appendix E** and **Figure 2**). Photographs from 1972, 1982, 1990, 1994, 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 subject property. Oil and gas transmission lines are shown in the aerials.

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 Triumph Pump Road (the nearest street).

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 F**.

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 G**). Topographic maps from 1893, 1960, 1971, 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 1971 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.

Two 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 D**.

5.5.2 Aerial Photographs

NMFS contracted EDR to provide aerial photography for the adjoining properties. Five aerial photographs of the adjoining properties were obtained for the purpose of confirming and compiling historical use information (**Appendix E** and **Figure 2**). Photographs from 1972, 1982, 1990, 1994, 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.

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 Triumph Pump Road (the nearest street).

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 F**.

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 G**). Topographic maps from 1893, 1960, 1971, 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 1971 topographic map.

5.5.7 Pipeline Right-of-Way

Seven pipelines traverse the project site. The following is a list of the pipeline owners:

- Chevron – 4 pipelines
- SNG – 1 pipeline
- Texas Eastern Transmission – 1 pipeline
- Gulfsouth Pipeline – 1 pipeline

6.0 SITE RECONNAISSANCE

NMFS personnel conducted an investigation of the subject property on June 17, 2009 and February 16, 2011 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 H** (Photographs No. 1 through 6).

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 bounded by large undeveloped tracts of saline marsh and shallow open water areas. The northern boundary of the site is located approximately 0.9 miles south of the Plaquemines Parish back levee and a Parish-operated storm-water discharge facility (see photograph 6).

6.4 Interior Observations

There are no structures located on the subject property except for pipeline signs, rock and concrete mat canal closures/bankline protection measures, and abandoned oil wells and associated structures (see photographs 3, 4 and 5). The approximately 500-acre site is characterized by fragmented saline marsh and large tracts of shallow open water and remnant bayous.

7.0 INTERVIEWS

NMFS interviewed Mr. A.B. Croft, Mr. Buddy Smith (ConocoPhillips) and Mr. Robert Nugon (Nugon Property Resources LLC), in relation to the subject property. The interview documentation can be found in **Appendix A**.

Mr. A.B. Croft, Chief of the Buras Volunteer Fire Department, was contacted on August 2, 2011. Mr. Croft confirmed that the subject property was in the Buras Volunteer Fire Department's jurisdiction. To his knowledge, the fire department has not responded to any spills on the subject property.

Based on an interview with October 21, 2011, Mr. Robert Nugon with Nugon Property Resources LLC stated he was not aware of any environmental issues on the Nugon Resources property including spills or chemical release, environmental cleanups, or environmental liens. The interview documentation can be found in **Appendix A**.

Mr. Buddy Smith with ConocoPhillips was contacted on October 24, 2011, and Mr. Smith stated that he was not aware of any environmental issues on the ConocoPhillips property including spills or chemical release, environmental cleanups, or environmental liens. The interview documentation can be found in **Appendix A**.

NMFS also attempted contacting Mr. John Doyle representing Campbellton Corporation via phone and email, but Mr. Doyle could not be contacted.

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 identified ERNS Report from the Chevron Pipeline (as discussed in Section 5.1.3) released a reported 3 gallons. A 3-gallon release of crude oil is considered *de minimis* conditions that do not present a material risk or harm to public health or the environment.

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 1960. The lack of available records for the subject property from 1893 to 1960 is identified as a data gap. The data gap is not believed to be an issue because the subject property was undeveloped. Data from 1960 to 2011 was available on an approximate ten 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. Also utilized was LDOTD's water well registry files, which are available online at http://www.dotd.la.gov/intermodal/wells/home.asp. Files from LDEQ's Office of Environmental Compliance were obtained on line from their EDMS located at http://ww.deq.louisiana.gov. Soils data was obtained from the Soil Conservation Service National Cooperative Soil Survey.

14.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

_____

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

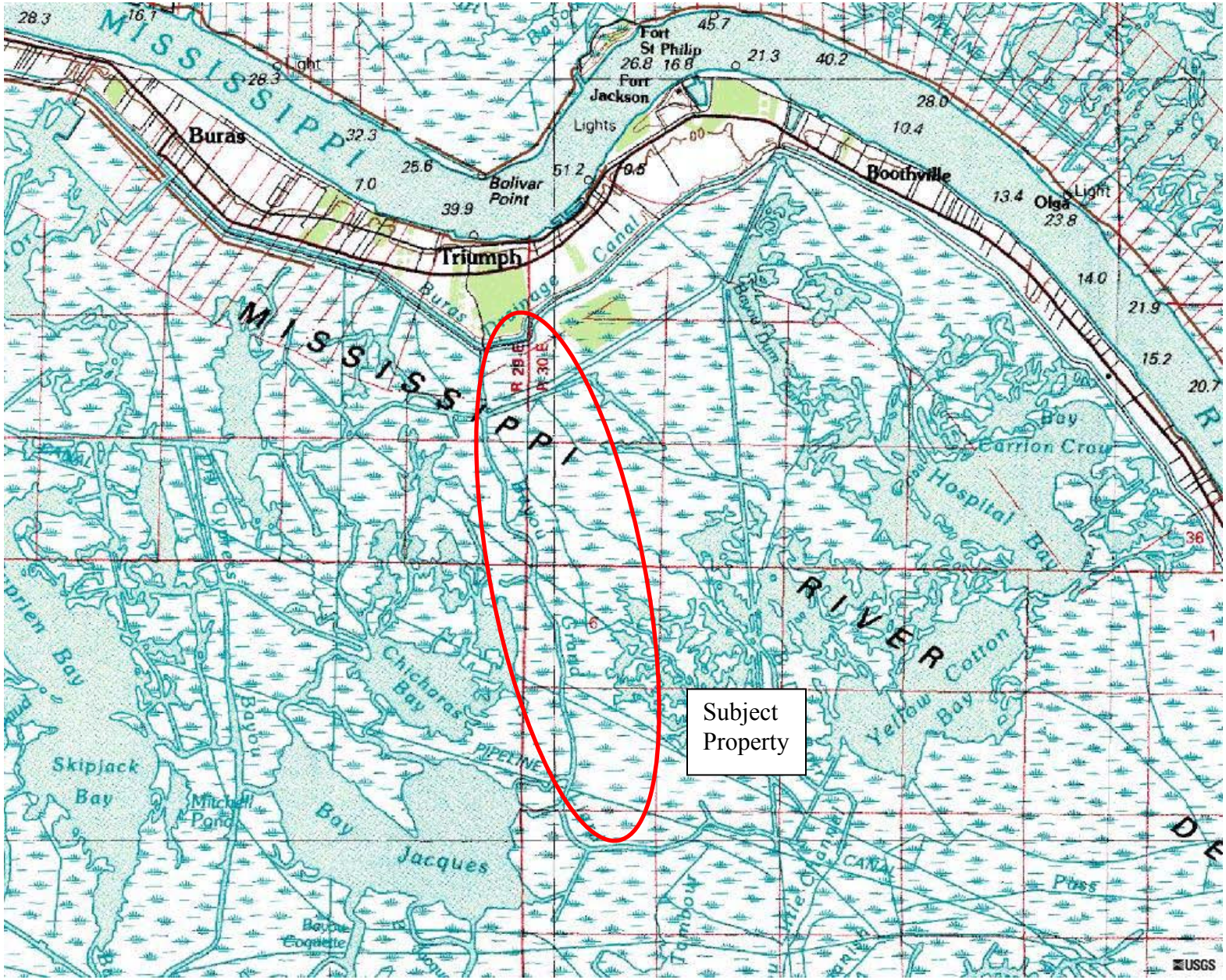
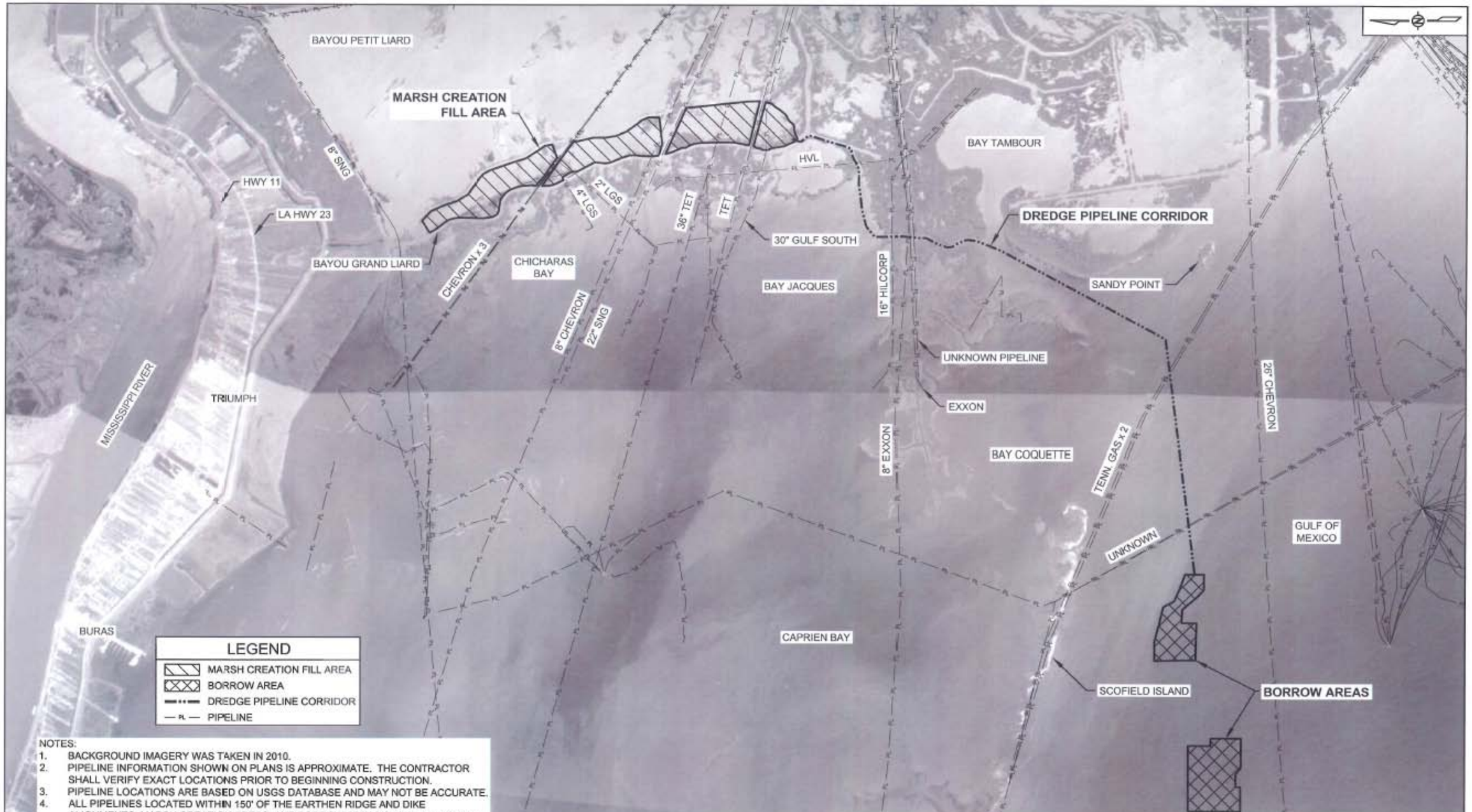


FIGURE 2

PROPERTY MAP



NOTES:

1. BACKGROUND IMAGERY WAS TAKEN IN 2010.
2. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
3. PIPELINE LOCATIONS ARE BASED ON USGS DATABASE AND MAY NOT BE ACCURATE.
4. ALL PIPELINES LOCATED WITHIN 150' OF THE EARTHEN RIDGE AND DIKE ALIGNMENTS, MARSH CREATION AREAS, AND BORROW AREAS SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. SEE SPECIFICATIONS FOR ADDITIONAL DETAILS.

REV.	DATE	DESCRIPTION	BY

OFFICE OF COASTAL PROTECTION & RESTORATION
RESTORATION ENGINEERING DIVISION
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: KRISTI CANTU
DESIGNED BY: TYE FITZGERALD, E.I.

GRAND LIARD MARSH AND RIDGE RESTORATION

STATE PROJECT NUMBER: BA-68

FEDERAL PROJECT NUMBER:

APPROVED BY: RUDY SIMONEAUX, P.E.

PLAN VIEW

DATE: JUNE 2011

SHEET 3 OF 33

G:\Users\Autocad\BASINS\BA\BA-68 Grand Liard Marsh and Ridge Restoration\Plan Drawings\03 Project Layout.dwg

BAYOU PETIT LIARD

CHEVRON x 2

36" TET

TET

30" GULFSOUTH

EARTHEN CONTAINMENT DIKE

2" GULF

MARSH CREATION FILL AREA A

MARSH CREATION FILL AREA B

MARSH CREATION FILL AREA C

MARSH CREATION FILL AREA D

2" LGS

2" LGS

4" LGS

DREDGE PIPELINE CORRIDOR

BAYOU GRAND LIARD

HVL

EARTHEN RIDGE RESTORATION

8" SNG

8" CHEVRON

22" SNG

UNKNOWN PIPELINE

EXXON x 2

16" HILCORP

CHICHARAS BAY

BAY JACQUES

NOTES:

1. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
2. ALL PIPELINES LOCATED WITHIN 150' OF THE EARTHEN RIDGE AND DIKE ALIGNMENTS, FILL AREAS, OR BORROW AREA SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. SEE TS-????? OF THE SPECIFICATIONS.
3. NO EXCAVATION SHALL OCCUR WITHIN 50.0' OF A PIPELINE.

2000' 1000' 0' 2000' 4000'

LEGEND

- MARSH CREATION FILL AREA
- EARTHEN RIDGE RESTORATION
- EARTHEN CONTAINMENT DIKE
- DREDGE PIPELINE CORRIDOR
- PL — PIPELINE

REV.	DATE	DESCRIPTION	BY

OFFICE OF COASTAL PROTECTION & RESTORATION
RESTORATION ENGINEERING DIVISION
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: KRISTI CANTU

DESIGNED BY: TYE FITZGERALD, E.I.

GRAND LIARD MARSH AND RIDGE RESTORATION

STATE PROJECT NUMBER: BA-68

FEDERAL PROJECT NUMBER:

APPROVED BY: RUDY SIMONEAUX, P.E.

MARSH CREATION AREA LAYOUT

DATE: JUNE 2011

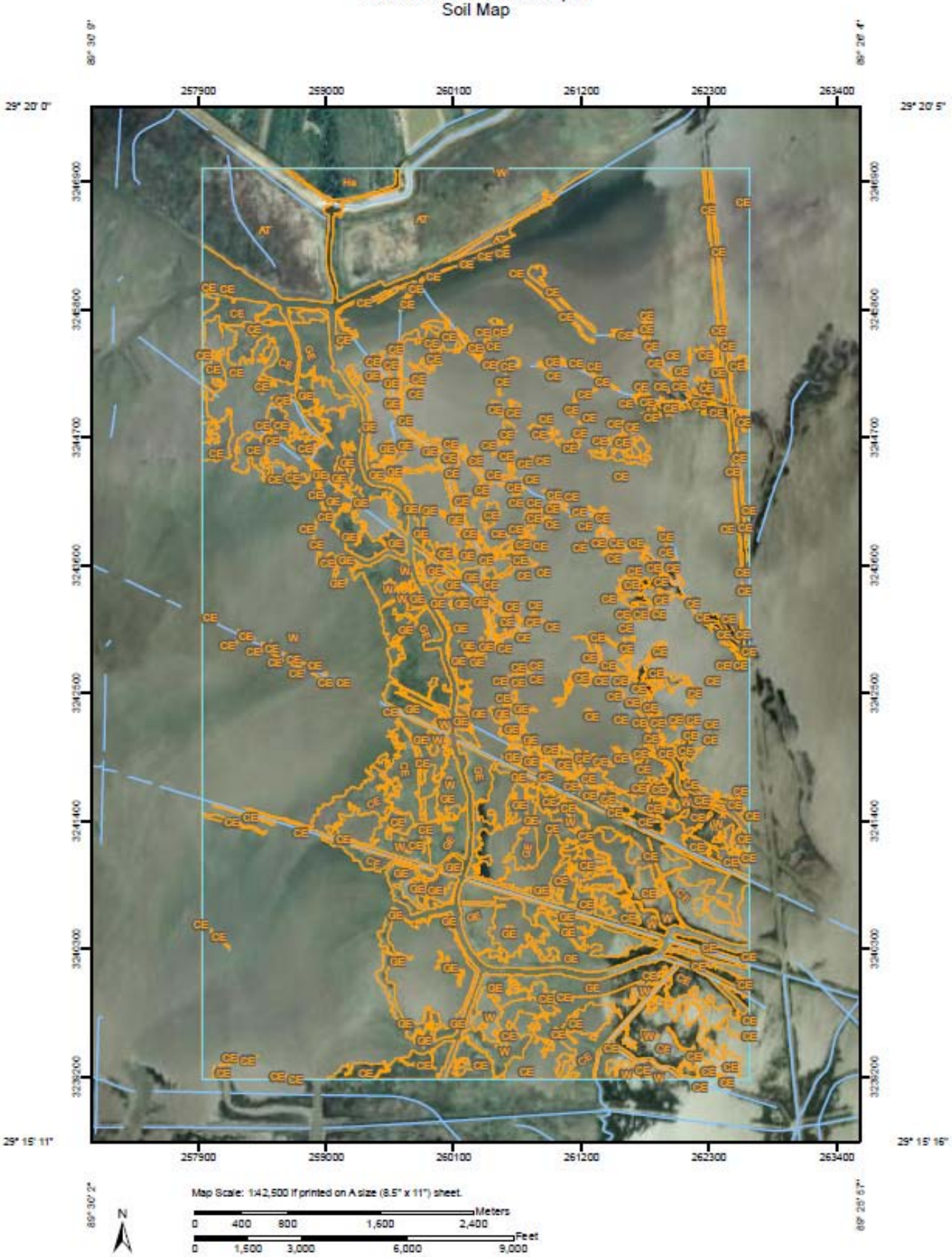
SHEET 5 OF 33

G:\Users\Autocad\BASINS\BA\BA-68 Grand Liard Marsh and Ridge Restoration\Plan Drawings\05 Marsh Creation Layout.dwg

FIGURE 3

SOIL SURVEY MAP

Custom Soil Resource Report
Soil Map



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

Bayou Grand Liard Marsh Creation and Ridge Restoration Oil and Gas Map - 8/1/2011
NOTE Data from this web site are not to be used for legal purposes.

Legend

Oil/Gas Wells

- Converted to Oil or Gas
- Unknown Status
- Water Supply - (GC)
- Water Supply - (Oil)
- Water Supply - (Unknown)
- SW Disposal
- SW Disposal
- SW Disposal - Annular (Oil)
- SW Disposal - Annular (Unknown)
- SW Disposal - Community
- Formation Storage - Dry Gas
- Formation Storage - G&C
- Formation Storage - No Product
- Shut-In Waiting on Market (Dry Gas)
- Shut-In Waiting on Market (G&C)
- Shut-In Waiting on Market (Oil)
- Shut-In Waiting on Market
- Shut-In Waiting on Pipeline (Dry Gas)
- Shut-In Waiting on Pipeline (G&C)
- Shut-In Waiting on Pipeline (Oil)
- Shut-In Waiting on Pipeline
- Shut-In Productive (Dry Gas) - NFU
- Shut-In Productive (G&C) - NFU
- Shut-In Productive (Oil) - NFU
- Shut-In Productive - NFU
- Shut-In Productive (Dry Gas) - FU
- Shut-In Productive (G&C) - FU
- Shut-In Productive (Oil) - FU
- Shut-In Productive - FU
- Shut-In Dry Hole (Gas) - NFU
- Shut-In Dry Hole (Oil) - NFU
- Shut-In Dry Hole (NFU)
- Shut-In Dry Hole (Dry Gas) - FU
- Shut-In Dry Hole (G&C) - FU
- Shut-In Dry Hole (Oil) - FU
- Shut-In Dry Hole - FU
- P&A Dry Gas Producer
- P&A G&C Producer
- P&A Oil Producer
- P&A Producer
- P&A Dry Hole (Non Comm Dry Gas)
- P&A Dry Hole - Non Comm G&C
- P&A Dry Hole (Non-Comm Oil)
- P&A Dry Hole
- Dry Gas - Unable to Locate
- G&C - Unable to Locate
- Oil - Unable to Locate
- Unable to Locate
- Orphaned SW Disp
- Orphaned SW Disposal
- Federal - Formely State
- Rvrtd to Landowner - Res Cons (Dry Gas)
- Rvrtd to Landowner - Res Cons (G&C)
- Rvrtd for Res Cons (Oil)
- Rvrtd to Landowner for Res Cons
- Orphaned Dry Gas
- Orphaned (G & C)
- Orphaned - Oil
- Orphaned Well
- Rvrtd to Single Complete - Dry Gas
- Rvrtd to Single Completeion - G&C
- Rvrtd to Single Complete - Oil
- Rvrtd to Single Completion
- Gas Rvrtd to Landowner (FW)
- (Oil) Rvrtd to Landowner for FW
- Rvrtd to Landowner for FW
- PA-35 - No Report (Dry Gas)
- PA-35 - No Report (G&C)
- PA-35 - No Report (Oil)
- PA-35 - No Report
- Temp Abandoned (Dry Gas)
- Temp Abandoned (G&C)
- Temp Abandoned - Oil
- Temp Abandoned
- Edu/Serv Company (Gas)
- Edu/Serv Company (Oil)

(cont)

- Edu/Serv Company
- Multi-Complete - PA-35
- Producing Dry Gas - Cyclic Inj
- Producing Gas - Cyclic Inj
- Producing Oil - Cyclic Inj
- Producing Well Unknown Prod.
- Producing - Dry Gas
- Producing - G&C
- Producing - Oil
- Producing (No Product Code)
- Auto Repair
- Industrial Process Waste
- Cesspool
- Subsidence Control
- Aquifer Remediation
- Geothermal
- Heat Pump/AC Return Flow
- Industrial Drainage
- Improved Sinkhole
- Active - Unknown
- Active
- Brine Supply
- EOR - Water
- Observation - Dry Gas
- Injection Well - Water
- Injection Well - Other
- Injection Well - Gas
- Fire Flood Well
- Inject Com. NOW Disposal
- Com. SW Disposal
- SW Disposal
- SW Disposal Conventional
- Storage Cavity - Gas
- Storage Cavity - LPG
- Storage Cavity Well - Liguid
- Industrial Non-Haz Waste Disp
- Hazardous Waste Disp
- Permit Expired
- Approval to Construct Injection Well
- Permitted Well
- Directional - Surface Loc
- No Coordinates
- Bad Data
- Bad Data
- Bad Data
- Bad Data
- Bad Data
- Other

Oil/Gas Well Bottom Holes and Bores

Oil/Gas Well Bottom Holes

- Converted to Oil or Gas
- Unknown Status
- Water Supply - (GC)
- Water Supply - (Oil)
- Water Supply - (Unknown)
- SW Disposal
- SW Disposal
- SW Disposal - Annular (Oil)
- SW Disposal - Annular (Unknown)
- SW Disposal - Community
- Formation Storage - Dry Gas
- Formation Storage - G&C
- Formation Storage - No Product
- Shut-In Waiting on Market (Dry Gas)
- Shut-In Waiting on Market (G&C)
- Shut-In Waiting on Market (Oil)
- Shut-In Waiting on Market
- Shut-In Waiting on Pipeline (Dry Gas)
- Shut-In Waiting on Pipeline (G&C)
- Shut-In Waiting on Pipeline (Oil)
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- Shut-In Productive (Oil) - NFU
- Shut-In Productive - NFU
- Shut-In Productive (Dry Gas) - FU
- Shut-In Productive (G&C) - FU
- Shut-In Productive (Oil) - FU

(cont)

- Shut-In Productive - FU
- Shut-In Dry Hole (Gas) - NFU
- Shut-In Dry Hole (Oil) - NFU
- Shut-In Dry Hole (NFU)
- Shut-In Dry Hole (Dry Gas) - FU
- Shut-In Dry Hole (G&C) - FU
- Shut-In Dry Hole (Oil) - FU
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- Rvrtd to Landowner for Res Cons
- Orphaned Dry Gas
- Orphaned (G & C)
- Orphaned - Oil
- Orphaned Well
- Rvrtd to Single Complete - Dry Gas
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- Rvrtd to Single Complete - Oil
- Rvrtd to Single Completion
- Gas Rvrtd to Landowner (FW)
- (Oil) Rvrtd to Landowner for FW
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- PA-35 - No Report (Dry Gas)
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- PA-35 - No Report (Oil)
- PA-35 - No Report
- Temp Abandoned (Dry Gas)
- Temp Abandoned (G&C)
- Temp Abandoned - Oil
- Temp Abandoned
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- Edu/Serv Company (Oil)
- Edu/Serv Company
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- Subsidence Control
- Aquifer Remediation
- Geothermal
- Heat Pump/AC Return Flow
- Industrial Drainage
- Improved Sinkhole
- Active - Unknown
- Active
- Brine Supply
- EOR - Water
- Observation - Dry Gas
- Injection Well - Water
- Injection Well - Other
- Injection Well - Gas
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- SW Disposal
- SW Disposal Conventional
- Storage Cavity - Gas
- Storage Cavity - LPG
- Storage Cavity Well - Liguid
- Industrial Non-Haz Waste Disp
- Hazardous Waste Disp

(cont)

- Permit Expired
- Approval to Construct Injection Well
- Permitted Well
- Directional - Surface Loc
- No Coordinates
- Bad Data
- Bad Data
- Bad Data
- Bad Data
- Bad Data
- Other

South LA Photography (2008)

APPENDIX A

INTERVIEW DOCUMENTATION

ENVIRONMENTAL SITE ASSESSMENT INTERVIEW

DATE: August 2, 2011

CONTACT PERSON: Chief A.B. Croft (Buras Volunteer Fire Department

LOT DESCRIPTION: Bayou Grand Liard south of Triumph Pump Road

DISCUSSION:

NMFS Personnel contacted Chief Croft with the Buras Volunteer Fire Department on August 2, 2011. Chief Croft was not aware of any spills or releases of hazardous materials or petroleum products along Bayou Grand Liard south of the Triumph Pump Station.

ENVIRONMENTAL SITE ASSESSMENT OWNER/MANAGER PHONE INTERVIEW LOG

Interview Date:	October 21, 2011
Name:	Robert Nugon
Title:	Owner
Company/Organization:	Nugon Property Resources LLC

1. During what time period were you the site owner/manager of the property?

☒Yes ☐No	**If yes, describe:** **The property has been in the Nugon family since Robert's grandmother owned it.**

2. What was type of business did you have at the property?

☐Yes ☒No	**If yes, describe:** **The property has never been developed.**

3. Do you know the past uses of the property?

☒Yes ☐No	**If yes, describe:** **None**

4. Do you know of specific chemicals that are present or once were present at the property?

☐Yes ☒No	**If yes, describe:** **Mr. Nugon is not aware of any chemicals being stored on the property.**

Interview Date:	October 21, 2011
Name:	Robert Nugon
Title:	Owner
Company/Organization:	Nugon Property Resources LLC

5. Do you know of spills or other chemical releases that have taken place at the property?

☐Yes ☒No	**If yes, describe:** **Mr. Nugon is not aware of any spills or other chemical releases on the property.**

6. Do you know of any environmental cleanups that have taken place at the property?

☐Yes ☒No	**If yes, describe:** **Mr. Nugon is not aware of any environmental cleanups associated with the property.**

7. Do you know of any environmental liens against the property?

☐Yes ☒No	**If yes, describe:** **Mr. Nugon is not aware of any environmental liens associated with the property.**

8. Do you have any other knowledge or experience with the property that may be pertinent to the environmental professional?

☐Yes ☒No	**If yes, describe:** **None.**

ENVIRONMENTAL SITE ASSESSMENT OWNER/MANAGER PHONE INTERVIEW LOG

Interview Date:	October 24, 2011
Name:	Mr. Buddy Smith
Title:	Landman
Company/Organization:	ConocoPhillips

1. During what time period were you the site owner/manager of the property?

☒Yes ☐No	**If yes, describe:** **ConocoPhillips has owned the property since the 1920s**

2. What was type of business did you have at the property?

☒Yes ☐No	**If yes, describe:** **The property has had oil and gas infrastructure (pipelines and wells)**

3. Do you know the past uses of the property?

☒Yes ☐No	**If yes, describe:** **Undeveloped with the exception of oil and gas.**

4. Do you know of specific chemicals that are present or once were present at the property?

☐Yes ☒No	**If yes, describe:** **Mr. Smith is not aware of any specific chemicals that are present or once were present at the property.**

Interview Date:	October 24, 2011
Name:	Mr. Buddy Smith
Title:	Landman
Company/Organization:	ConocoPhillips

5. Do you know of spills or other chemical releases that have taken place at the property?

☒ Yes ☐ No	**If yes, describe:** **Mr. Smith is not aware of any spills or other chemical releases that have taken place at the property.**

6. Do you know of any environmental cleanups that have taken place at the property?

☒ Yes ☐ No	**If yes, describe:** **Mr. Smith is not aware of any environmental cleanups that have taken place at the property.**

7. Do you know of any environmental liens against the property?

☐ Yes ☒ No	**If yes, describe:** **Mr. Smith is not aware of any environmental liens associated with the property.**

8. Do you have any other knowledge or experience with the property that may be pertinent to the environmental professional?

☐ Yes ☒ No	**If yes, describe:** **None.**

APPENDIX B

EDR REGULATORY DATABASE SEARCH

APPENDIX C

SUPPLEMENTAL EDR ORPHAN SITE INFORMATION

APPENDIX D

OIL AND GAS WELL INFORMATION

APPENDIX E

HISTORICAL AERIAL PHOTOGRAPHS

APPENDIX F

SANBORN MAPS

APPENDIX G

HISTORICAL TOPOGRAPHIC MAPS

APPENDIX H

SITE PHOTOGRAPHS

PHOTOGRAPH 1

Description - Taken from bank of Bayou Grand Liard facing east toward interior marsh and large open water areas

PHOTOGRAPH 2

Description - Open water with fragmented tidally-influenced marsh on site interior

PHOTOGRAPH 3

Description - Oil/Gas pipeline canal at intersection with Bayou Grand Liard.

PHOTOGRAPH 4

Description - Bankline of Bayou Grand Liard at pipeline crossing location

PHOTOGRAPH 5

Description - Abandoned oil/gas gathering lines immediately adjacent to Bayou Grand Liard

PHOTOGRAPH 6

Description - Stormwater pump station located north of the project site

GRAND LIARD MARSH AND RIDGE RESTORATION
PHASE II REQUEST

ATTACHMENT H

303(e) Request

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 Grand Liard Marsh and Ridge Restoration Project (BA-68), 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 cecelia.linder@noaa.gov.

Sincerely,

Cecelia Linder
NOAA Fisheries CWPPRA Program Manager

Cc: Rachel Sweeney, NOAA Fisheries
James Wray, OCPR
Kenneth Bahlinger, OCPR

Attachments

Printed on Recycled Paper

CPRA
Coastal Protection and
Restoration Authority of Louisiana

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
Grand Liard Marsh and Ridge Restoration (BA-68)
Plaquemines Parish, Louisiana

Dear Ms. Linder:

By this letter, I am transmitting to you two copies of the Office of Coastal Protection and Restoration's ("OCPR") Temporary Easement, Servitude and Right-Of-Way Agreement. One for The Louisiana Land And Exploration Company and one for the other land owners. These documents 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.

These documents fulfill 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 documents 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:

F:\users\LAND\Projects\BA\BA68 Grand Liard\section 303 Doc\303(e) Approval letter.doex

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 Two (2)

TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT

GRAND LIARD MARSH AND RIDGE RESTORATION (BA-68)

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, Steve Mathies Ph.D., 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 **GRAND LIARD MARSH AND RIDGE RESTORATION 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 *(or the name of the corporation)*
Sign:_____	By: _____
Print:_____	Print:*(Grantor's name or the name of the corporation's officer)*
Sign:_____	Title: *(title of the corporation's officer)* ____
Print:_____	Date:_____

IN WITNESS WHEREOF, STATE has executed this Agreement in the presence of the undersigned witnesses on the date below:

	OFFICE OF COASTAL PROTECTION AND RESTORATION
WITNESSES:	
_____	By: _____
Print: _____	STEVE MATHIES, Ph.D.
	Title: Executive Director
_____	
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 **Steve Mathies, Ph.D.,** 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)

DRAFT

EXHIBIT A

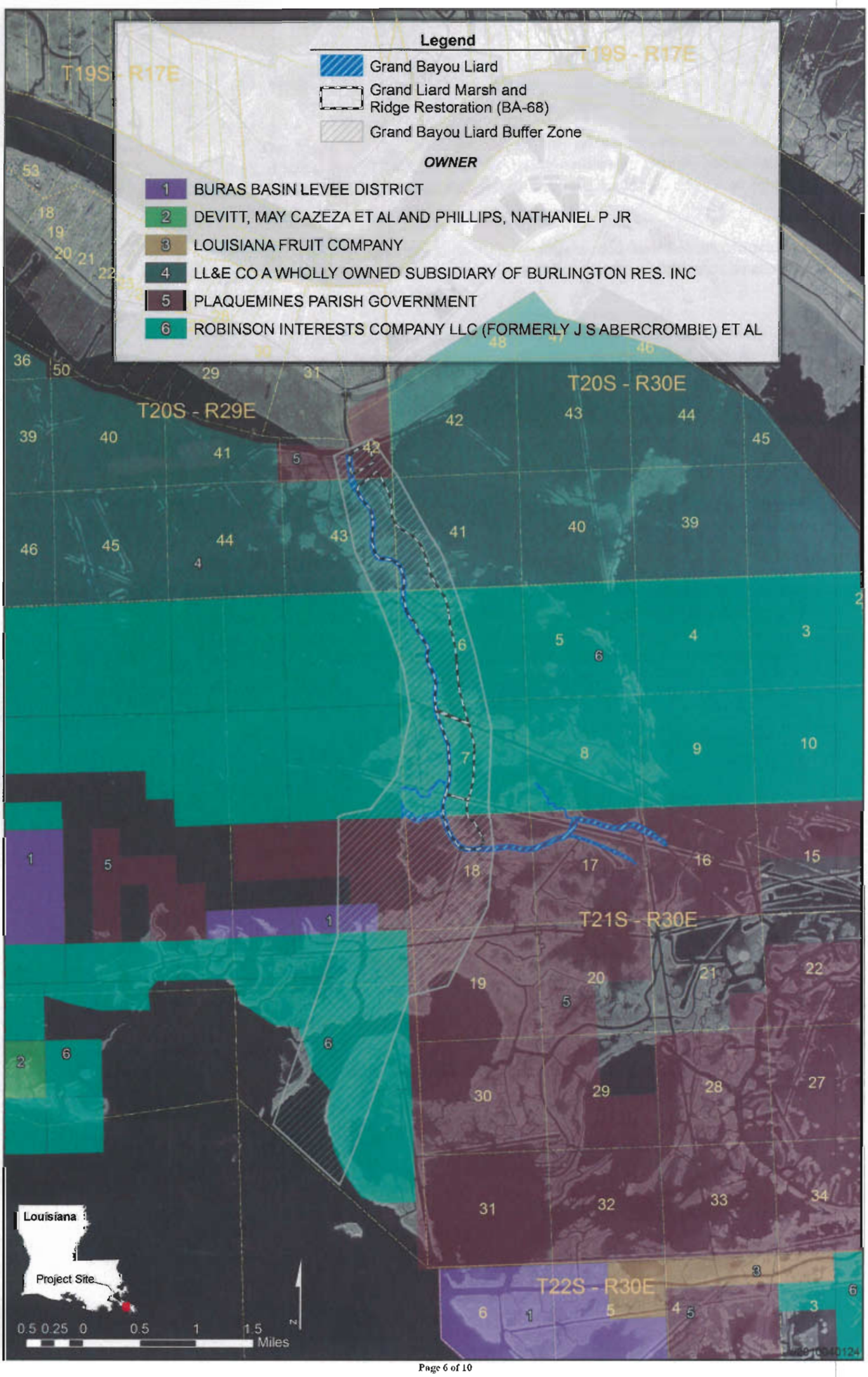
Legend
Grand Bayou Liard
Grand Liard Marsh and Ridge Restoration (BA-68)
Grand Bayou Liard Buffer Zone
OWNER
1 BURAS BASIN LEVEE DISTRICT
2 DEVITT, MAY CAZEZA ET AL AND PHILLIPS, NATHANIEL P JR
3 LOUISIANA FRUIT COMPANY
4 LL&E CO A WHOLLY OWNED SUBSIDIARY OF BURLINGTON RES. INC
5 PLAQUEMINES PARISH GOVERNMENT
6 ROBINSON INTERESTS COMPANY LLC (FORMERLY J S ABERCROMBIE) ET AL
T19S - R17E
T20S - R29E
T20S - R30E
T21S - R30E
T22S - R30E
Louisiana
Project Site
0.5 0.25 0 0.5 1 1.5
Miles

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;

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.

TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT

GRAND LIARD MARSH AND RIDGE RESTORATION (BA-68)

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 **GRAND LIARD MARSH AND RIDGE RESTORATION 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:_____
Phillip R. Precht
Attorney-in-Fact

Print:_____

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: _____

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)

DRAFT

EXHIBIT A

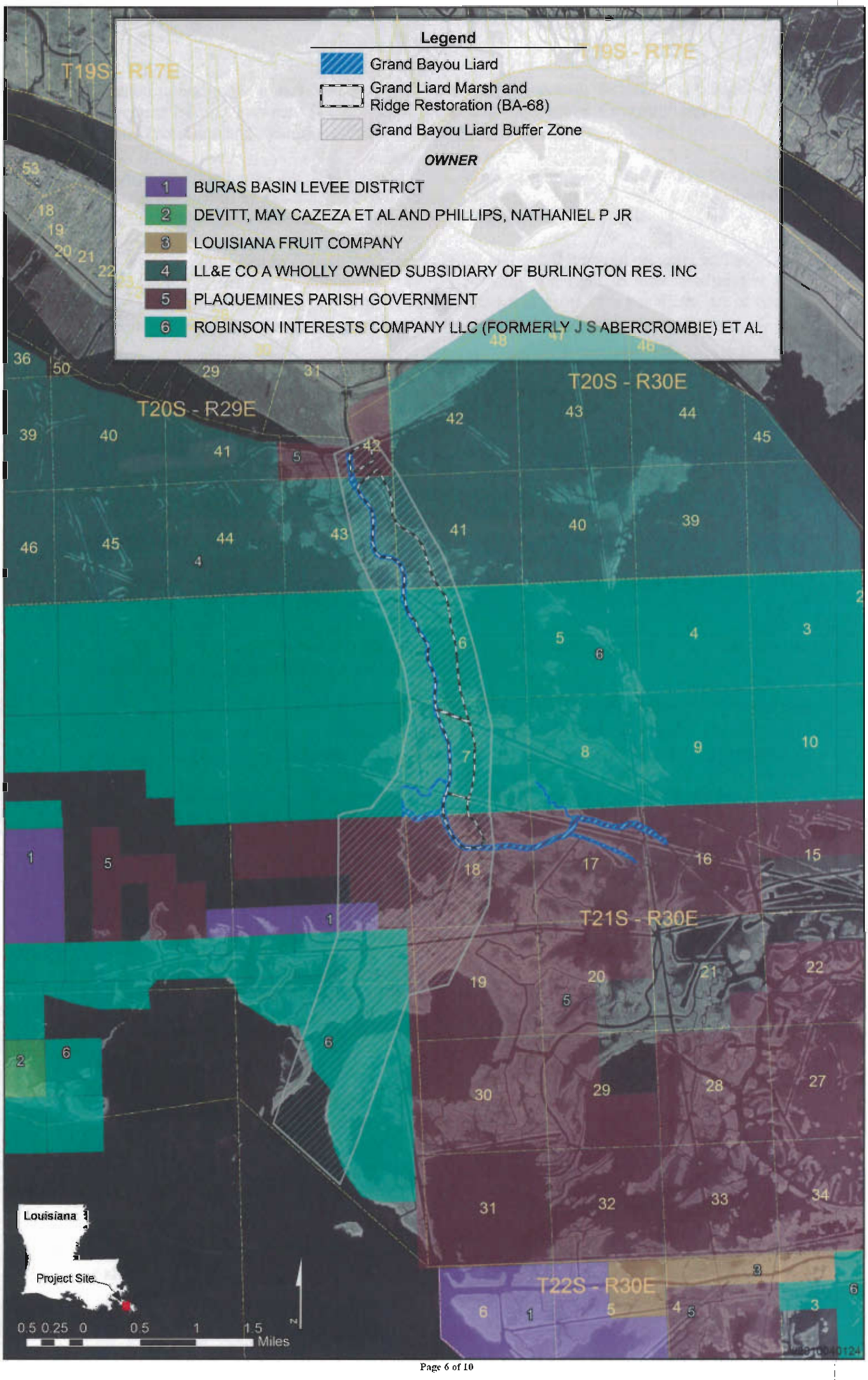
Legend
Grand Bayou Liard
Grand Liard Marsh and Ridge Restoration (BA-68)
Grand Bayou Liard Buffer Zone
OWNER
1 BURAS BASIN LEVEE DISTRICT
2 DEVITT, MAY CAZEZA ET AL AND PHILLIPS, NATHANIEL P JR
3 LOUISIANA FRUIT COMPANY
4 LL&E CO A WHOLLY OWNED SUBSIDIARY OF BURLINGTON RES. INC
5 PLAQUEMINES PARISH GOVERNMENT
6 ROBINSON INTERESTS COMPANY LLC (FORMERLY J S ABERCROMBIE) ET AL
T19S - R17E
T20S - R29E
T20S - R30E
T21S - R30E
T22S - R30E
Louisiana
Project Site
0.5 0.25 0 0.5 1 1.5
Miles

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)_____);

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)_____);

DRAFT

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.

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.

GRAND LIARD MARSH AND RIDGE RESTORATION
PHASE II REQUEST

ATTACHMENT I

Overgrazing Determination

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

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

September 1, 2011

Ms. Rachel Sweeney
National Marine Fisheries Service
C/O Louisiana State University
Baton Rouge, Louisiana 70803

RE: Grand Liard Marsh and Ridge (BA-68)

Dear Ms. Sweeney:

I am in receipt of your request for an overgrazing determination for the Grand Liard Marsh and Ridge (BA-68). 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,

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

GRAND LIARD MARSH AND RIDGE RESTORATION
PHASE II REQUEST

ATTACHMENT J

Phase II Funding Request Spreadsheet

GRAND LIARD MARSH AND RIDGE RESTORATION
PHASE II REQUEST

ATTACHMENT K

Phase II Wetland Value Assessment

Grand Liard Marsh and Ridge Restoration (BA-68)

Final (95%) Design Review Update

Project Information Sheet for Wetland Value Assessment (WVA)

October 19, 2011

Contact: Kymmi Clements/Rachel Sweeney, NMFS, (225) 389-0508

Project Name: Grand Liard Marsh and Ridge Restoration Project

Sponsoring Agency: National Marine Fisheries Service
Primary contact: Rachel Sweeney; rachel.sweeney@noaa.gov; (225) 389-0508, ext 206
Env. WG contact: Kimberly Clements; kimberly.clements@noaa.gov; (225) 389-0508, ext. 204
Eng. WG contact: Patrick Williams; patrick.williams@noaa.gov; (225) 389-0508, ext. 208

Project Area: The 485-acre project area is located in the vicinity of Triumph in lower Plaquemines Parish, Louisiana, immediately adjacent to Bayou Grand Liard. The project area is within Region 2, the Barataria Basin, Bastian Bay and Grand Liard mapping units.

Problem: This area has experienced wetland loss due to a variety of forces including subsidence, salt-water intrusion, a lack of sediment supply, and oil and gas activities. The Bastion Bay and Grand Liard mapping units were historically structured by a series of north south bayous and associated ridges (i.e., Bayou Long, Dry Cypress Bayou). Over the preceding decades the majority of these bayou ridges and the marshes flanking them have disappeared. Ridge loss combined with interior wetland loss has resulted in large expanses of open water.

The eastern bankline of Bayou Grand Liard is the most prominent of the remaining ridge features, and separates the open bays of the Bastian Bay and Grand Liard mapping units. Geotechnical borings collected from the proposed ridge footprint are suggestive of inter-distributary bank/ridge formations. Anecdotal information from local sources clearly suggests historic presence of an elevated ridge and associated woody vegetation.

Land loss projections suggest that the remaining bayou bank wetlands will be completely converted to open water by 2050. The proposed project would re-establish some ridge and marsh function in the Bayou Grand Liard vicinity. The Coast 2050 1983 to 1990 loss rate for the Grand Liard mapping unit is 1.7%/yr and its rate of subsidence is 2.1 to 3.5 feet/century (LDNR 1999).

Goals: Project objectives include creating and nourishing saline marsh and restoring biological and hydrologic functions associated with maritime ridges. Specific project goals are:

1) Create and nourish 460 acres of saline marsh to provide fish and wildlife habitat.
2) Restore 3.4 miles (24 acres) of Grand Liard ridge to reduce wave and tidal setup and provide fallout habitat for neotropical migrant birds.

Project Features:
The proposed project involves hydraulic dredging of sediment from the Gulf of Mexico to create and restore marshes (Figure 1) including vegetative plantings. The project also includes restoration of about 18,000 linear feet of remnant bayou ridge. Marsh fill areas will be confined by retention dikes constructed of material excavated from within the marsh fill template except adjacent to the ridge feature which will also serve as containment. Material for ridge construction will be excavated from both within the marsh fill template and also from Bayou Grand Liard. Vegetative plantings and tallow control are also proposed during the operations and maintenance phase.

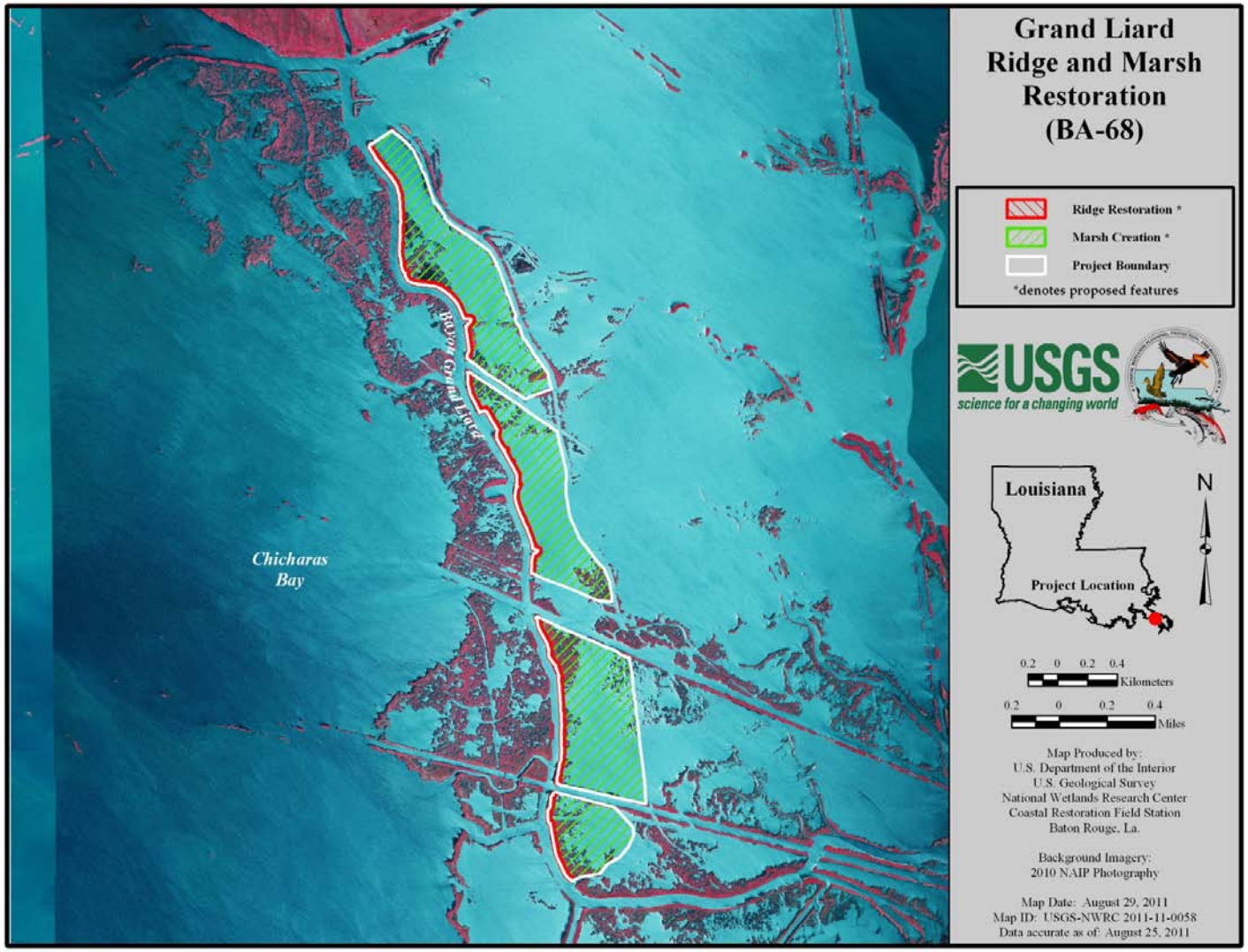

Figure 1: Grand Liard Project Feature Map

Marsh Creation/Nourishment Design

The marsh creation cells have been revised since originally evaluated at the planning level. Excessive water depths and small cell size resulted in exclusion of the northern-most marsh creation cell proposed at Phase 0. The remaining marsh creation cells were aligned to avoid excavation in the vicinity of pipelines and other infrastructure.

Analysis of tidal datums[1] in the project area was conducted for the closest representative CRMS station (CRMS0163); NOAA station #876124 located at Grand Isle, Louisiana near Barataria Pass at 29°15'48"N, 89°57'24"W was used as the control station for tidal epoch correlation. Resulting 2010 project area tidal datums are:

MHW = 1.35', MTL = 0.82', MLW = 0.30'

Since the water elevations within the BA-68 project area are influenced by subsidence and sea level rise, the calculated tidal datum were adjusted to reflect Relative Sea Level Rise (RSLR) over the 20 year project life (Table 1). The Intergovernmental Panel on Climate Change) eustatic sea level rise rate of 3.5 mm/year (0.0115 feet/year), which generally represents an intermediate Coastal Louisiana rate for a 25 year period, were applied to the tidal datums. Additionally, a subsidence rate of 8.90 mm/year (0.0292 feet/year) was used.

Table 1: Project area tidal datums adjusted for projected RSLR for selected target years

Year	MHW	MTL	MLW
	(ft. NAVD 88)	**(ft. NAVD 88)**	**(ft. NAVD 88)**
0	1.39	0.86	0.34
1	1.43	0.90	0.38
3	1.51	0.98	0.46
5	1.59	1.06	0.54
10	1.79	1.26	0.74
15	1.99	1.46	0.94
20	2.19	1.66	1.14

Marsh elevation surveys were conducted at four sites that were believed to have visibly healthy marsh based on review of aerial photography. Upon review of this survey and further review of aerial photography, it was determined that site 3 was not a good representation of average healthy marsh and was excluded from the target marsh height calculations. Average marsh elevation based on 20 shot points at three sites ranged from 1.03' to 1.39'. After review of both site specific project datums and marsh elevation surveys the project team selected 1.4' as a target marsh elevation.

Due to geotechnical conditions, it was determined that a two-lift construction methodology (75 to 85 days between lifts) is required to create elevations conducive to wetland habitat over the project life. A variety of lift elevations and scenarios were evaluated (OCPR 2011). Note that due to variability between marsh creation cells, each cell has differing proposed construction elevations. The proposed fill elevations represent the design team's balance between constructability, short term performance and project life sustainability of the created marsh.

1. All elevations herein are referenced to NAVD88

Table 2 summarizes the construction fill elevations and projected out-year settled elevations. Settlement curves for each marsh creation cell are included in Appendix A. Typical profile for the project features is depicted in Figure 2.

Table 2: Project elevation of marsh cells for proposed initial fill elevation and out-years

Marsh Fill Area (1st lift elevation/2nd lift elevation)	Elevation (ft. NAVD)					
	Year 0.5	Year 1	Year 3	Year 5	Year 10	Year 20
Cell A (+3.5'/+3.0')	2.2	1.8	1.5	1.5	1.4	1.4
Cell B (+3.5'/+3.5')	2.4	1.8	1.7	1.6	1.5	1.3
Cell C (+3.5'/+2.8')	2.8	2.1	1.7	1.5	1.5	1.5
Cell D (+3.5'/+3.0')	2.3	1.8	1.6	1.4	1.3	1.3
Average	**2.4**	**1.9**	**1.6**	**1.5**	**1.4**	**1.4**

Modified from Figures II-A9 - II-A12. MARSH FILL SETTLEMENT VS. TIME ESTIMATES (from Volume II: Geotechnical Engineering Report, Grand Liard Marsh and Ridge Restoration Project (BA-68), Plaquemines Parish, Louisiana, prepared by GeoEngineers, Inc. March 21, 2011

Fill material for marsh creation would be mined from two Gulf of Mexico borrow areas and transported hydraulically to the project area. Retention dikes would be constructed around the project perimeter as shown in the plan view and typical profiles. Borrow material for dike construction would be obtained from within the marsh creation cells. Vegetated plantings will be installed during the construction and operations and maintenance phases.

Ridge Design

This project proposes to restore approximately 18,000 linear feet of earthen ridge along the east bank of Bayou Grand Liard (typical construction ridge profile is shown in Figure 3). Surveys of elevated, wooded banklines immediately to the north of the project area indicate that elevation of these features range from +3.5' to +6'. Proposed ridge design is based on limitations in geotechnical conditions and limitations in availability of borrow material for construction of this feature.

During project design, ridge elevation, side slopes, structure stability, and construction methods were evaluated. Three different sources of material for ridge construction were evaluated: Gulf of Mexico borrow areas, Grand Liard Bayou and in-situ material from adjacent marsh. The offshore borrow areas were dismissed as impractical due to the need to confine and dewater the hydraulically dredged material. Bayou Grand Liard was determined to be a viable source of heavy material needed for ridge restoration. After review of survey data from the project area and coordination with local interests, it was determined that the bayou could be excavated to depths of about -12' without likely indirect impacts since the project area is bisected by canals up to 25' deep and sections of the bayou are up to 15' deep. Additional material will be borrowed from borrow areas located within the marsh fill template.

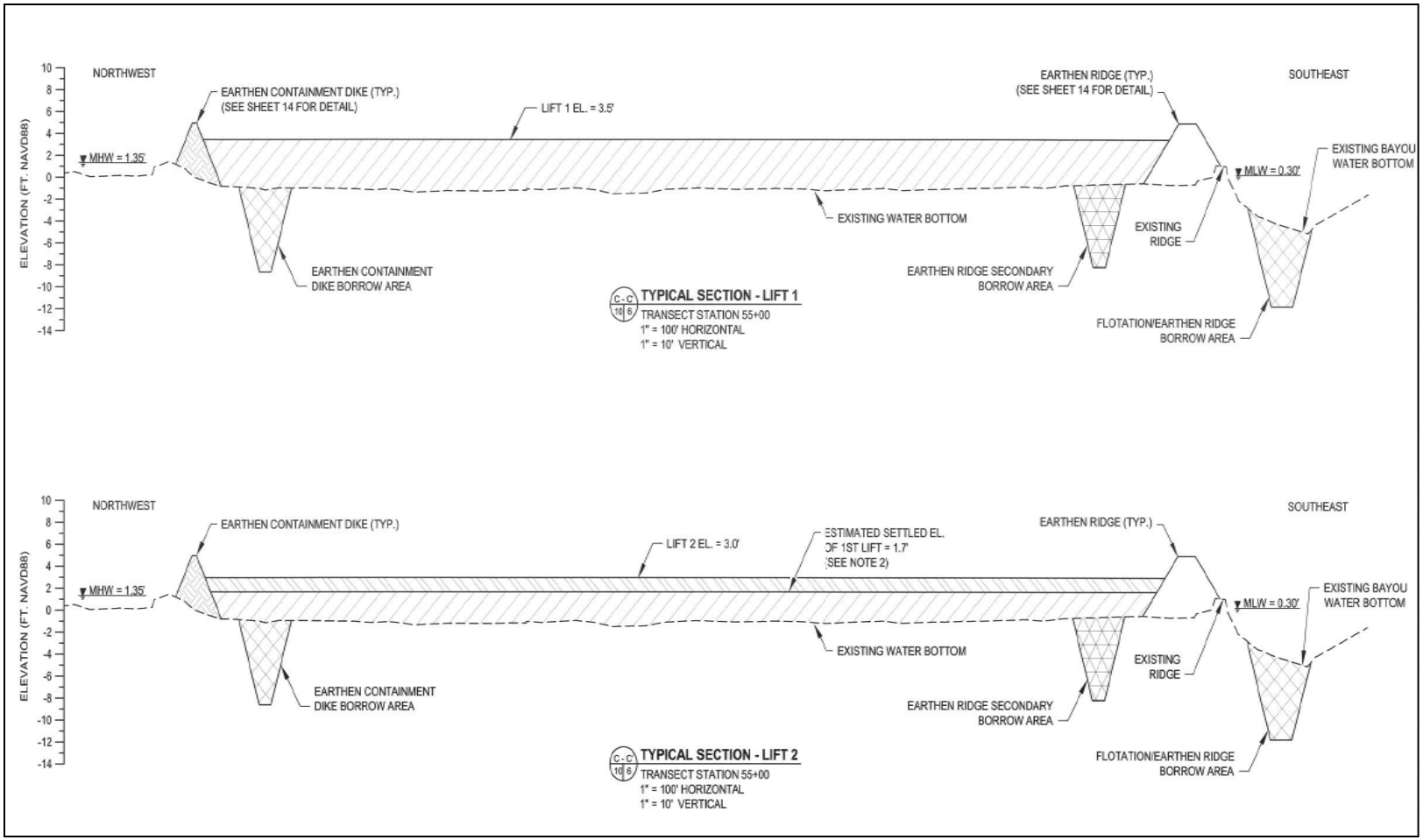

Figure 2: Typical construction profiles for retention dikes, ridge creation and two-lift marsh creation for Cells A and D.

Settlement and slope stability analyses were performed using geotechnical data obtained from borings taken within the Bayou and the marsh fill areas. The project team determined that a construction fill elevation should be based on the project goal of maintaining berm elevation above marsh elevation for the full duration of the project life. A variety of scenarios were run using borings from the two borrow sources (bayou and interior marsh) and borings taken from the proposed ridge alignments. Based on borrow material availability and target elevations, the ridge will be constructed to an initial elevation of +5'. Average anticipated ridge crown elevations over the project life are summarized in Table 3. Crown width was maximized within the limits of typical construction equipment and borrow material availability. Average base width of the ridge profile is approximately 93'.

Table 3: Initial and settled elevations for design ridge feature

Borrow Material Source	Initial (ft)	TY1 (ft)	TY5 (ft)	TY10 (ft)	TY20 (ft)
Bayou Grand Liard	5	3.3	3.3	3.3	3.3
Existing marsh	5	3.5	3.4	3.4	3.3
Bayou Grand Liard	5	3.9	3.6	3.4	3.3
Existing marsh	5	4.0	3.8	3.6	3.4
Bayou Grand Liard	5	3.5	3.1	3.0	3.0
Existing marsh	5	3.6	3.3	3.2	3.2
Bayou Grand Liard	5	2.9	2.8	2.8	2.8
Existing marsh	5	3.0	2.9	2.9	2.9
Bayou Grand Liard	5	2.8	2.3	2.3	2.3
Existing marsh	5	2.8	2.5	2.5	2.5
Average elevation		**3.3**	**3.1**	**3.0**	**3.0**

Modified from TABLE 7. EARTHEN RIDGE SETTLEMENT ESTIMATES (from Volume II: Geotechnical Engineering Report, Grand Liard Marsh and Ridge Restoration Project (BA-68), Plaquemines Parish, Louisiana, prepared by GeoEngineers, Inc. March 21, 2011

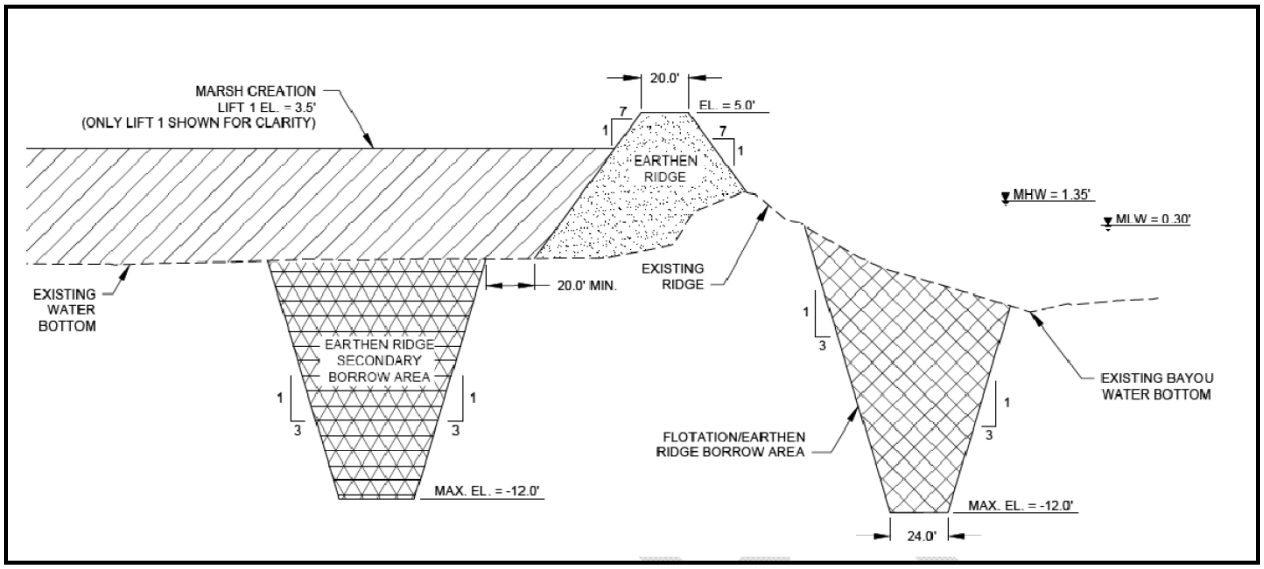

Figure 3: Typical Ridge Construction Cross-section

Planting

Due to the size of the marsh creation platform, over 400,000 vegetative units would be required to meet the standard" planting density (i.e., 875 units/acre = 10 x 5 spacing) as specified in the WVA Procedural Manual March 2006 and Coastal Marsh Community Model August 2011. Given experience with the capacity of vegetation suppliers and labor needs associated with such large number of plantings, more limited and targeted plant installation is proposed. Plantings will be installed both at TY1 and also at approximately TY 3. Tallow control on the ridge will be undertaken at TY1, 3, 5, and 10. Initial plantings (TY1) include:

- Smooth Cordgrass (37,000 Plugs)
- Marshhay Cordgrass (4" Container, 1 Rows, 5' Spacing)
- Paspalum (4" Container, 4 Rows, 10' Spacing)
- Matrimony Vine (4" Container, 3 Rows, 5' Spacing)
- Switch Grass (4' Containers, 2 Rows, 5' Spacing)
- Iva/ Baccharis (Bare Root Sapling, Various Spacing)

TY3 plantings will include Smooth Cordgrass (10,000 Plugs), and may include Saltgrass and Gulf Cordgrass. TY3 plantings will also include 3,500 woody species seedlings and 3,500 saplings. Woody species may include Wax Myrtle, Hackberry, Red Mulberry, Yaupon, Marsh Elder, Persimmon, and Toothache Tree, and will be staked with nutria excluder devices.

Operations and Maintenance

Due to the geometry of the disposal site, it is not anticipated that tidal creeks would be constructed. Cost for gapping containment dikes for the marsh creation cells at TY3 have been included to ensure the establishment of an acceptable amount of tidal exchange and associated wetland function. Specifically, cost estimates are based on one 25-foot-wide gap every 1,000' to an elevation of about -1.0' to allow for tidal exchange.

Project Boundary and Sub-Areas

The 484-acre project area includes two sub-areas. The marsh sub-area extends from the +1.0' contour on the exterior slope of the retention dike to the +2.5' contour of the interior slope of the ridge. This sub-area includes four cells and totals 460 acres; this sub-area included 58 acres classified as land in 2010 and 402 acres classified as open water in 2010 (393 acres "water" + 9 acres "aquatic vegetation"). The ridge footprint includes 24 acres (delineated from the +2.5' contour on the bayou side of the constructed ridge to +2.5' on the back slope of ridge). In 2010, 14 acres within the ridge sub-area were classified as land and 10 acres were classified as water.

Table 4: Project sub-area acreages

	Ridge Sub-Area	**Marsh Sub-area**	**Totals**
Cell A	9	155	164
Cell B	7	117	124
Cell C	5	133	138
Cell D	3	55	58
Total	**24**	**460**	**484**

Table 5: 2010 Land cover types

Land Cover Type (2010 acres)	Ridge Sub-area (acres)	Marsh Sub-area (acres)	TOTAL (acres)
Land	**14**	**58**	72
Water	9	393	402
Aquatic Vegetation	1	9	10
Total Water	**10**	**402**	**412**
TOTAL	***24***	***460***	***484***

Land Change Data

Land change data was obtained from the USGS (Appendix B). Based on a hyper-temporal linear regression loss rate analysis (1984 to 2010) for the extended project boundary (delineated during Planning WVA), a FWOP loss rate of -1.43%/year is proposed (Figure 4).

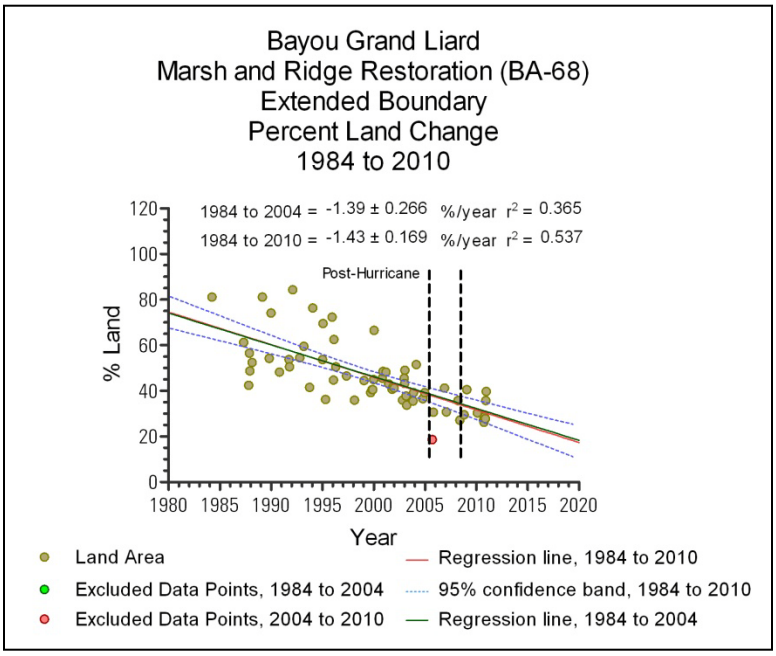

Figure 4: Land loss analysis for extended boundary

To assess the benefits of both project features, the WVA evaluation was split into two separate model runs for FWP conditions only. The saline marsh model was run for the marsh creation/nourishment acres. The ridge model was run for the ridge acres.

V1 - Emergent Vegetation (See Appendix C for loss spreadsheet)

Using the USGS derived land loss rate of (-1.43 %/yr), one year of loss was applied to the 2010 Land/Water acres to arrive at TY0.

FWOP

TY0 (15%)

Marsh: 71 ac (72 ac in 2010 with 1 yr loss @ -1.43%/yr = 71 ac in TY1)

Water:	413 ac	
Total:	484 ac	(460 acres marsh sub-area + 24 acres ridge sub-area)

TY1	(14%)
Marsh:	70 ac
Water:	414 ac
Total:	484 ac

TY20	(11%)
Marsh:	53 ac
Water:	431 ac
Total:	484 ac

Marsh Creation/Nourishment Area (FWP)

Assumptions:

- FWP Marsh Area = 484 acres – 24 acres ridge = 460 acres.
- 2010 Land/Water for 460-acre marsh sub-area included 58 acres of land and 402 acres of water (see Table 5).
- TY0 land acres estimated by applying one year FWOP loss rate to existing land (TY1 land = 57 acres and TY1 water acres = 403).
- Marsh creation = 403 acres; marsh nourishment = 57 acres.
- Marsh planting density about 11% "standard convention" of 875 plants/acre. For simplicity, credit is proposed at the rate accrued under a "no planting scenario" (10% at TY1, 30% at TY3 and 100% at TY5). Marsh nourishment convention is 50% marsh credit at TY1 and 100% marsh credit at TY3. 50% reduction of background loss rate = FWP loss rate of (-0.715%/yr).
- See Appendix C for landloss spreadsheet.

<u>FWP</u>

TY1	(15%)
Marsh:	68 ac
Water:	3 ac

TY3	(38%)
Marsh:	174 ac
Water:	10 ac

TY5	(96%)
Marsh:	444 ac
Water:	16 ac

TY20	(86%)
Marsh:	399 ac
Water:	61 ac

V2 - Submerged Aquatic Vegetation (SAV)

FWOP

Widespread SAV was observed during the field reconnaissance conducted by NMFS staff in April 2008. The coverage was observed to be 50% during that time, but species were not identified. It is assumed that due to high salinity conditions, that SAV diversity would be limited and likely be dominated by widgeon grass (*Ruppia maritime*).

TY0	50%	(Phase 0 WVA)
TY1	50%	
TY20	40%	(SAV decreases approximately 10% of TY0 as marsh is lost by TY20 and w/ increasing average project area water depths; not just a function of the photic zone, but also wave fetch and high salinity).

FWP

It is assumed that SAV will gradually return to the project area by TY 20. Salinity, although limiting, and shallow water depth should be conducive to some growth.

TY 1	0%
TY 3	25%
TY 5	50%
TY 20	50%

V3 – Interspersion

FWOP

TY0-	25% Class 4 and 75% Class 5
TY20	100% Class 5

FWP

TY 1	100% Class 5
TY 3	100% Class 3
TY 5	100% Class 1
TY 20	100% Class 1

V4 - Shallow Open Water Habitat (percent open water ≤ 1.5 ft)

Assumptions (see Appendix D for supporting data and calculations):

- 2010 design survey data within marsh and ridge sub-areas was used (OCPR 2011).
- Calculated 2010 tidal datums for project area are: MHW = +1.35'; MTL = +0.82'; and MLW = +0.30'.
- Eustatic SLR estimated = 0.0115'/year. Subsidence estimated = 0.0292'/yr.
- Survey points greater than +0.82' removed from calculation because elevations > +0.82' (i.e., above MTL) are assumed to be supportive of marsh and not likely classified as "open water." These points are identified as NOW (not open water) and were removed from all V4 calculations.
- Limit of "shallow open water" for TY0 calculated as MTL = +0.82' - 1.5' depth = -0.68'. Therefore, all open water points with elevation < -0.68' is classified as “shallow open water”.
- A tidal datum for TY20 was estimated by applying annual eustatic sea level rise (0.0115'/yr)

- TY20 MTL = TY0 MTL + 20 years of eustatic sea level rise
  +1.05' = (0.82' + (20 x 0.0115)).
- A TY20 water bottom elevation was estimated by applying 20 years of subsidence (0.0292'/year).
- The limit of "shallow open water" for TY20 = +1.05' (TY20 MTL) - 1.5' depth = -0.45'. Therefore, all open water points with elevation ≤ -0.45' are classified as shallow open water (19 % = 82 acres). See Appendix D. In addition, the marsh lost (18 ac) over the project life (at TY20) is considered shallow open water and therefore included in the calculation:
  (82 acres + 18 acres = 100 acres*100%/431 acres) = 23%

FWOP
TY0 34%
TY1 34%
TY20 23%

FWP
It is assumed that all shallow open water in the marsh creation/nourishment cells under FWP conditions is ≤ to 1.5' post-construction for TY1-5. It is assumed that some of the water acres will subside to water depths greater than 1.5 ft by TY20.

TY1 100%
TY 3 100%
TY 5 100%
TY20 90%

V5 – Salinity
The nearest CRMS station is several miles away and located in the Mississippi River delta. Based on dramatic differences between the CRMS Site 0163 vegetation type (100% Phragmites) and saline marsh type of the project area, CRMS 0163 is not believed to be representative of the project area. Summary data from CRMS 0163 is included as Appendix E.

As previously evaluated at the planning stage, (Williams 2008) 1997 to 2006 monitoring data indicate an annual average salinity of 12.7 ppt. at Bay Batiste and 20.6 ppt. at Barataria Pass. It is assumed that salinities in the project area would fall between these values, increase slightly over time, and not change FWP.

FWOP
TY0 16 ppt.
TY1 16 ppt.
TY20 18 ppt.

FWP
TY1-5 16 ppt.
TY20 18 ppt.

V6 - Fish Access

FWOP

TY0 1.0 (Unrestricted access)
TY1 1.0 (Unrestricted access)
TY20 1.0 (Unrestricted access)

FWP

Assumption:

- Containment dikes strategically gapped at TY 3 to an elevation of -1.0 ft. NAVD
- Marsh has settled at or below MHW by TY3.
- Existing tidal exchange points with the bayou could be kept open to the maximum extent practicable with gaps in the fill placement for the ridge and temporary plugs that could be removed upon demobilization.

TY1 0.0001 (Solid plug)
TY3 1 (Dikes breached, unrestricted access)
TY5 1
TY20 1

Ridge Restoration Area (FWP)

Assumptions:

- Settlement curves for the ridge restoration feature suggest that the ridge will remain at elevation ≥ +3.0' NAVD 88 throughout the 20-year project life.
- Based on GIS analysis of the ridge polygons (inclusive of +2.5' on the bayou side slope to +2.5' on the interior slope), about 24 acres of ridge will be constructed (Figure 3).
- Marsh and open water for the 24-acre ridge area were removed from the marsh creation calculations. No land loss is expected to occur for the higher elevation portions of the ridge. Therefore, no loss was applied to the ridge under the future with project scenario.
- The assumptions evaluated in other restoration efforts and observed field studies are identified in Tables 6, 7 and 8 below. These assumptions were also considered in determining the values at each of the target years for all three variables.

Table 6: Previous V1 values for Percent Canopy Tree Cover FWP taken from other WVAs and literature.

	MRGO (USACE 2010)	**B. Dupont Phase 0 (NMFS 2008a)**	**Grand Liard Phase 0 (NMFS 2008b)**	**Monte Dissertation (Monte 1978)**	**Bayou Dupont Phase 1 (NMFS 2010)**
TY 1	0	0	0	0	0
TY3	0	0	0	0	0
TY7					20
TY8	10	20	20	0 (TY10)	No remaining ridge
TY15	n/a	65	65	10	No remaining ridge
TY20	40 (TY25)	80	80	30	No remaining ridge

V1 – Percent Canopy Tree Cover

Assumptions:

- Plant with herbaceous species and Iva/ Baccharis at TY1 to stabilize ridge.
- Soils suitable for planting with woody species at TY3. TY3 plantings will include Smooth Cordgrass (10,000 Plugs), and may include Saltgrass and Gulf Cordgrass. TY3 plantings will also include 3,500 woody species seedlings and 3,500 saplings. Woody species may include Wax Myrtle, Hackberry, Red Mulberry, Yaupon, Marsh Elder, Persimmon, and Toothache Tree, and will be staked with nutria excluder devices.

FWP
TY1 0%
TY3 0%
TY5 10%
TY20 35%

V2 – Percent Shrub/Midstory Cover

Table 7: Previous V2 values for Percent Shrub/Midstory Cover FWP taken from other WVAs and literature.

	MRGO (USACE 2010)	**B. Dupont Phase 0 (NMFS 2008a)**	**Grand Liard (NMFS 2008b)**	**Monte Dissertation (Monte 1978)**	**Bayou Dupont Phase 1 (NMFS 2010)**
TY1	0	0	0	20	0
TY3	20	3	0	30	10
TY5					
TY7					35
TY8	75	35	35	30 (ty10)	No remaining ridge
TY15	n/a	65	65	40	No remaining ridge
TY20	65 (TY25)	60	60	50	No remaining ridge

FWP
TY1 0%
TY3 25%
TY5 30%
TY20 55%

V3 – Native Woody Species Diversity

Assumptions:

- TY3: Plant with 6 native species including Wax Myrtle, Hackberry, Red Mulberry, Yaupon, Marsh Elder and Persimmon. Plantings will be staked with excluder devices and tallow control will continue.
- At least 4 additional native species will recruit to area naturally within first three years.
- Even with initial and subsequent plantings, diversity will be limited in FWP out years due to its settled elevation (+3.0 ft), potential for increased inundation, and high salinity soils.

Table 8: Assumptions for V3 (Native Woody Species Diversity) FWP taken from other WVAs and literature

	MRGO (USACE 2010)	B. Dupont Phase 0 (NMFS 2007)	Grand Liard NMFS (2008)	Monte Dissertation (Monte 1978)	Bayou Dupont Phase 1 (NMFS 2010)
TY 1	0	0	0	4	2
TY3	6	6	10	8	6
TY5					
TY7					10
TY8	10	11	11	11 (ty10)	No remaining ridge
TY15	n/a	12	12	9	No remaining ridge
TY20	13 (ty25)	13	13	9	No remaining ridge

FWP
TY1 0
TY3 10 (10 different species planted by this time)
TY5 9
TY20 8

Literature Cited

Louisiana Department of Natural Resources. 1999. Coast 2050: Toward a Sustainable Coastal Louisiana, Appendix D & Region 2 Supplemental Information, Baton Rouge, LA.

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National Marine Fisheries Service. 2007. Bayou Dupont Ridge and Marsh Creation, Candidate Project for the Seventeenth Priority Project List of the Coastal Wetlands Planning, Protection and Restoration Act: Project Information Sheet for Wetland Value Assessment (WVA).

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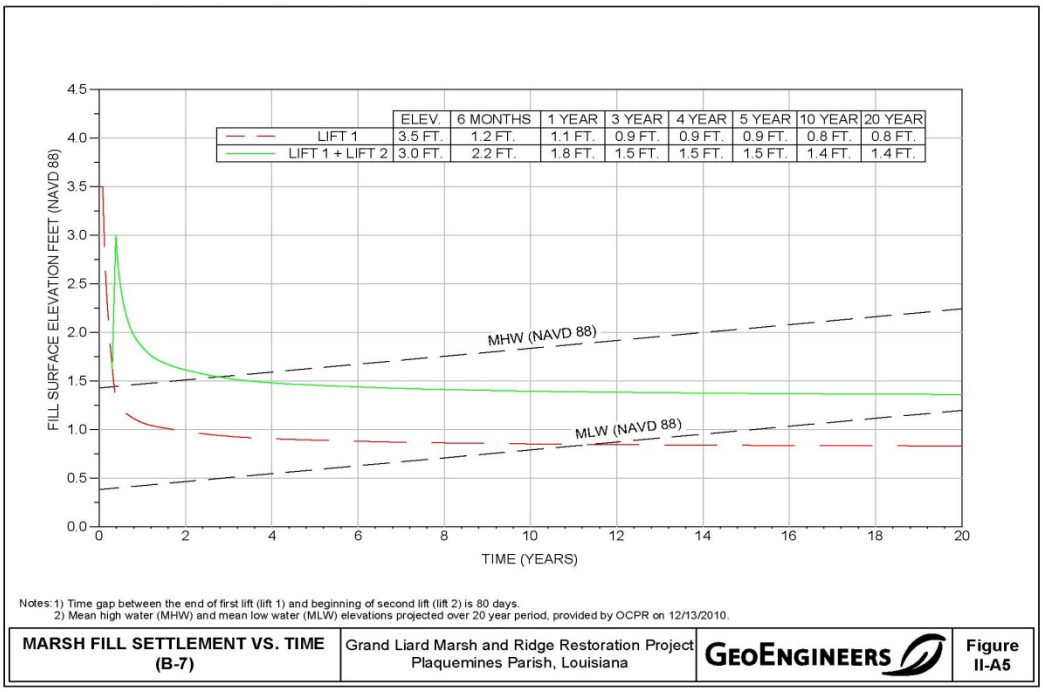
National Marine Fisheries Service. 2010. Bayou Dupont Ridge and Marsh Creation (BA-48), 95% Design Review of the Coastal Wetlands Planning, Protection and Restoration Act: Project Information Sheet for Wetland Value Assessment (WVA).

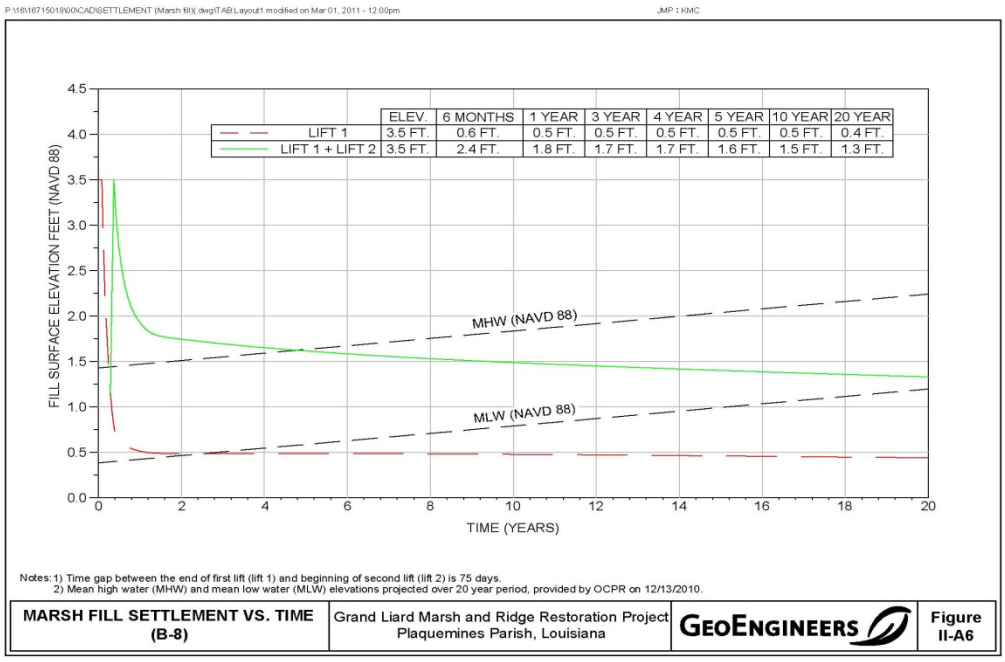
Office of Coastal Protection and Restoration. 2011. Bayou Grand Liard Marsh Creation and Ridge Restoration (BA-68), Plaquemines Parish, LA, Preliminary Design Report.

United States Army Corps of Engineers. 2010. Mississippi River-Gulf Outlet Ecosystem Restoration Feasibility Study Wetland Value Assessment.

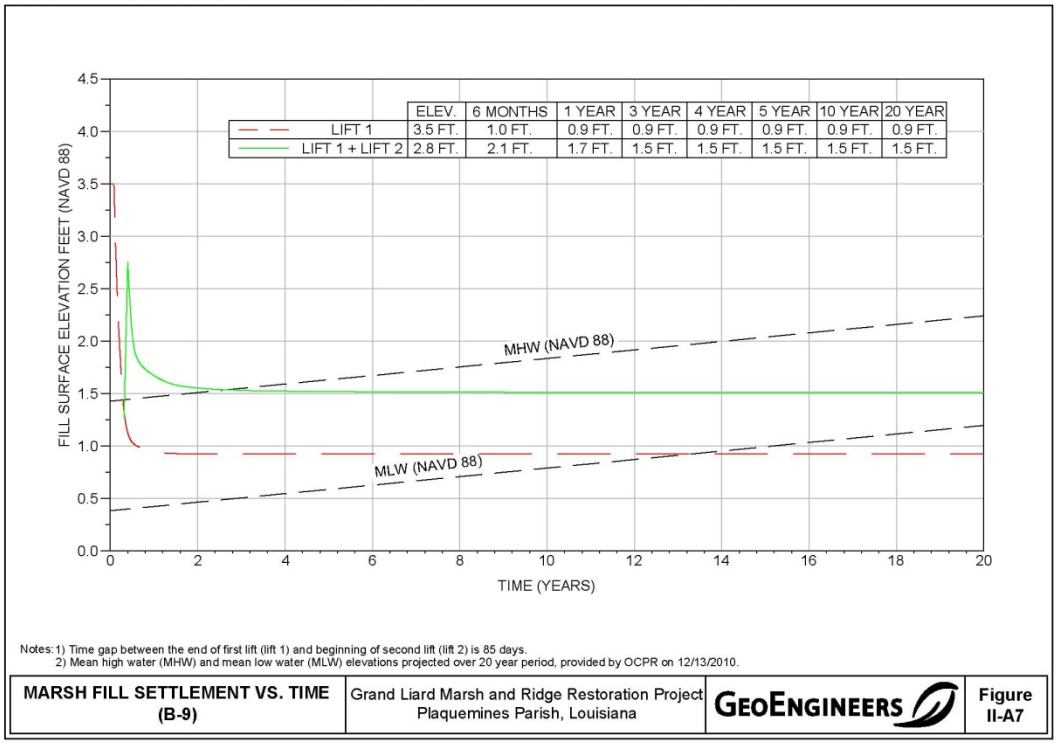
Appendix A (marsh fill settlement curves)



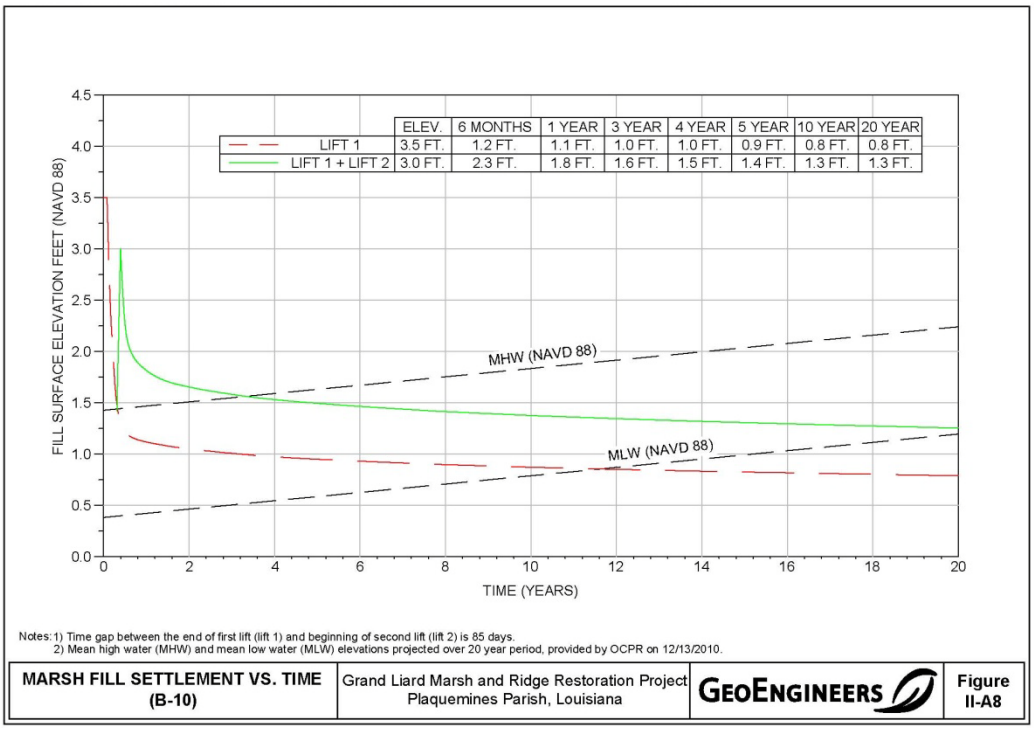
Cell A marsh fill settlement curve depicting preferred construction fill elevations (Lift 1 = +3.5/Lift 2 = +3.0'). Site specific tidal datums adjusted for projected SLR over project life



Cell B marsh fill settlement curve depicting preferred construction fill elevations (+3.5'/+3.5). Site specific tidal datums adjusted for projected SLR over project life Cell B)

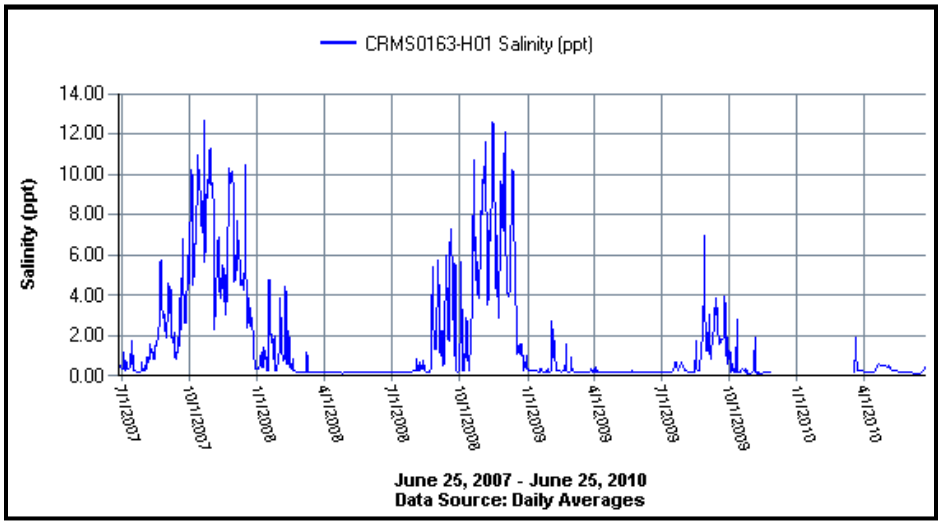


Cell C marsh fill settlement curve depicting preferred construction fill elevations (+3.5/2.8). Site specific tidal datums adjusted for projected SLR over project life



Cell D marsh fill settlement curve depicting preferred construction fill elevations (+3.5/ +3.0'). Site specific tidal datums adjusted for projected SLR over project life

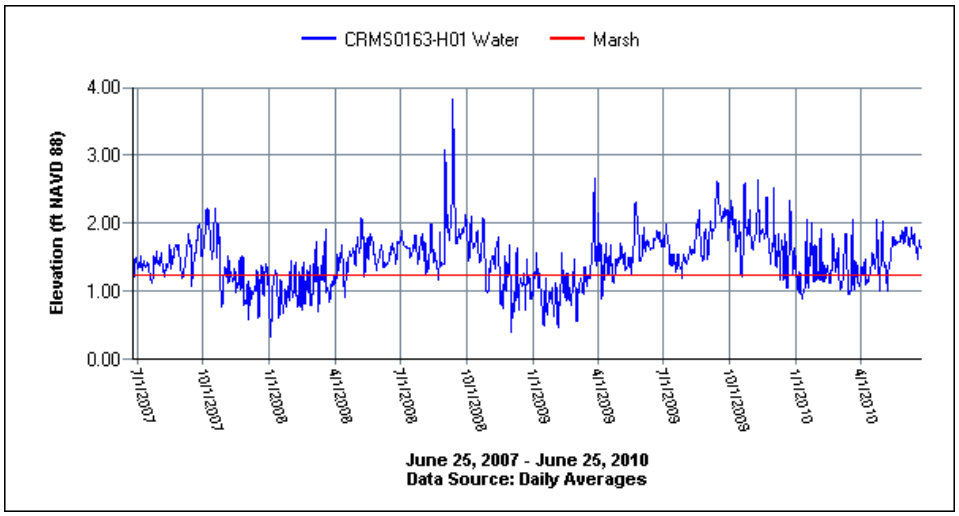
Appendix E (CRMS station 0163 analysis)



Water Salinity (ppt.) at the CRMS hydro station, CRMS0163-H01.

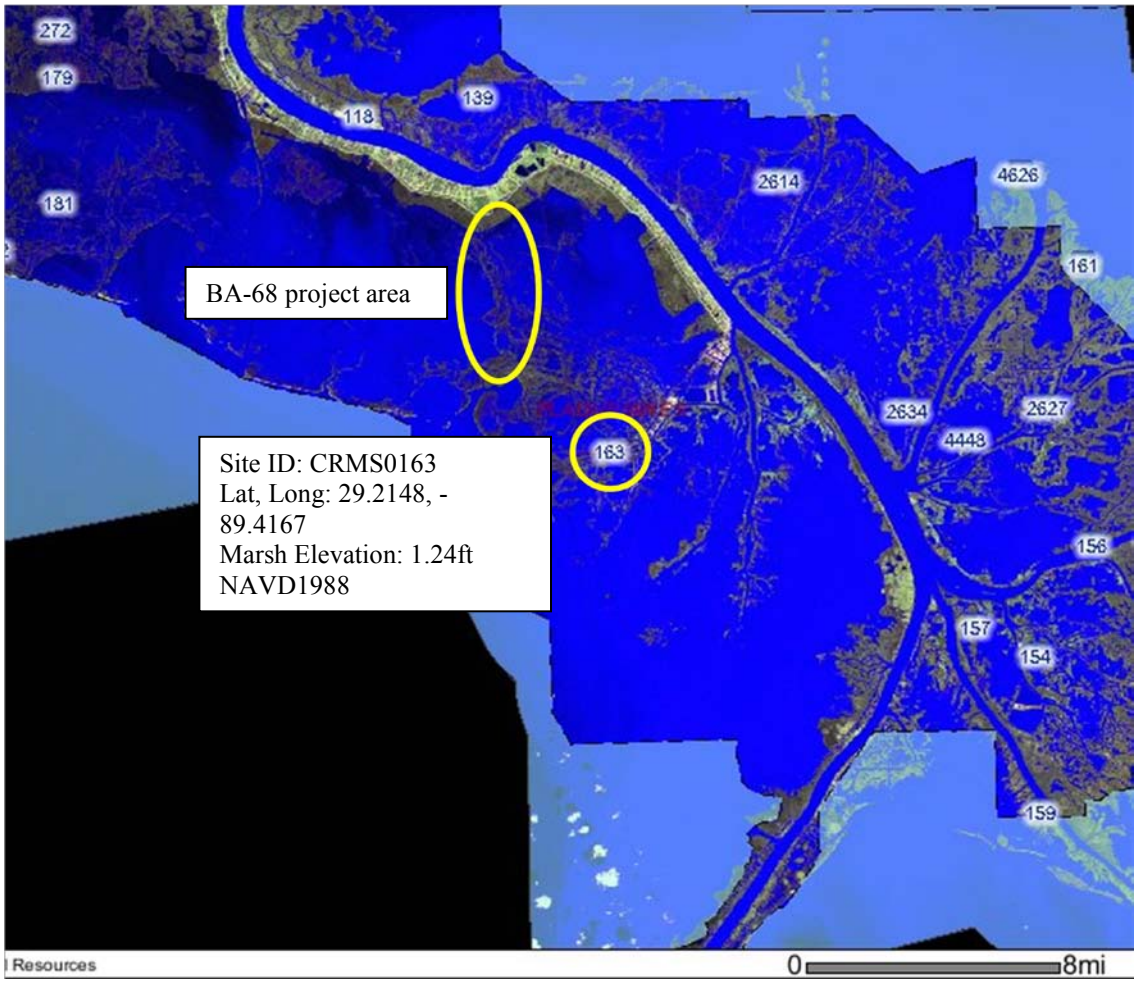
	May 2010 to May 2011	Mar 1 2011 - Jun 30, 2011	Jul 1, 2010 - Oct 31, 2010	Nov 1, 2010 - Feb 28, 2011
Min	0.06	0.15	0.17	0.06
Mean	0.96	0.21	0.67	2.16
Max	18.22	2	18.22	16.16

Mean 2010 Growing Season Salinity (March 1 – Nov 30): 0.84 ppt.

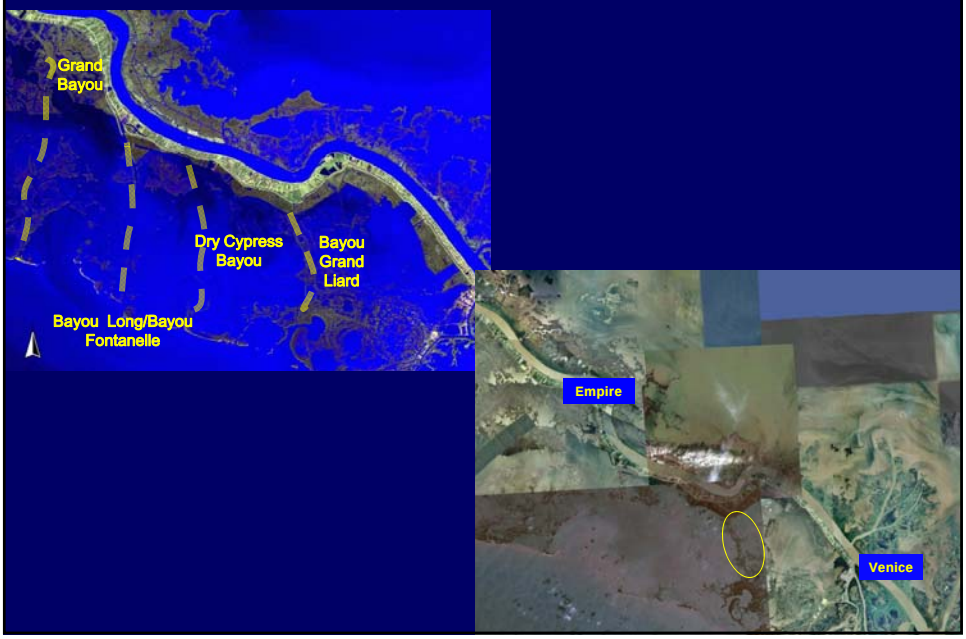


Water Elevation (ft. NAVD 88) at the CRMS hydro station, CRMS0163

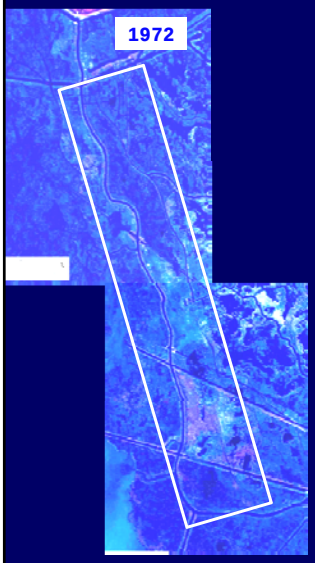
	May 2010 to May 2011	Mar 1 2011 - Jun 30, 2011	Jul 1, 2010 - Oct 31, 2010	Nov 1, 2010 - Feb 28, 2011
Min	0.54	0.56	0.55	0.54
Mean	1.53	1.47	1.81	1.22
Max	3.19	2.52	3.19	2.69



Project Background & Vicinity

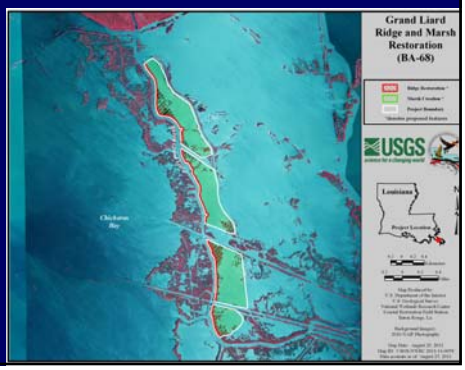


Project Area

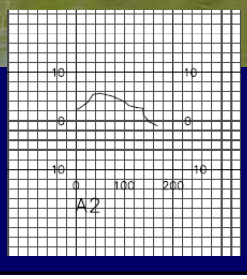


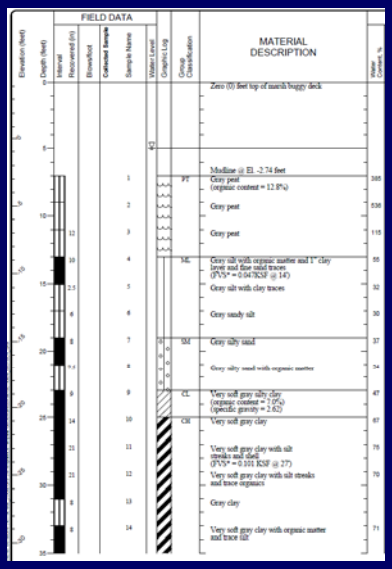
Phase II Candidate

- Create/nourish 460 acres marsh
- Restore 3.4 miles of ridge (24 acres)
- Vegetative plantings (including woody), dike gapping and project-specific monitoring
- Benefits: 370 net acres and 188 AAHUs
- Total FFC: $42,579,616
- Phase II, Increment 1: $38,823,875



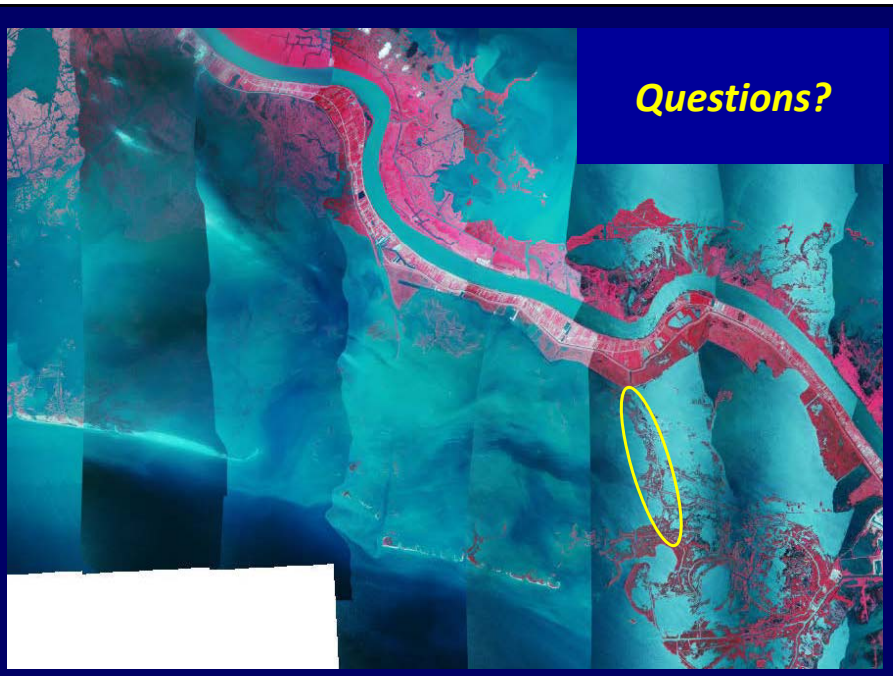
Ridge Constructability





Planning vs Final Design Costs & Benefits

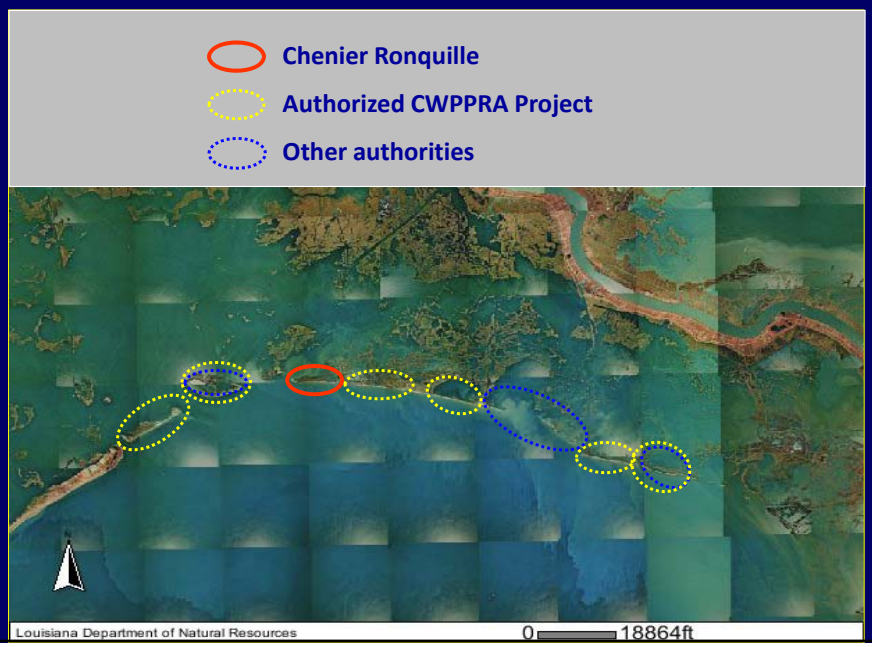
	Phase 0	Current Estimate
Construction Cost	$25.3 M	$35.5 M
Total FFC	$31.4 M	$42.6 M
Constructed Acres	502	484
TY20 Net Acres	286	370
AAHUs	158	188



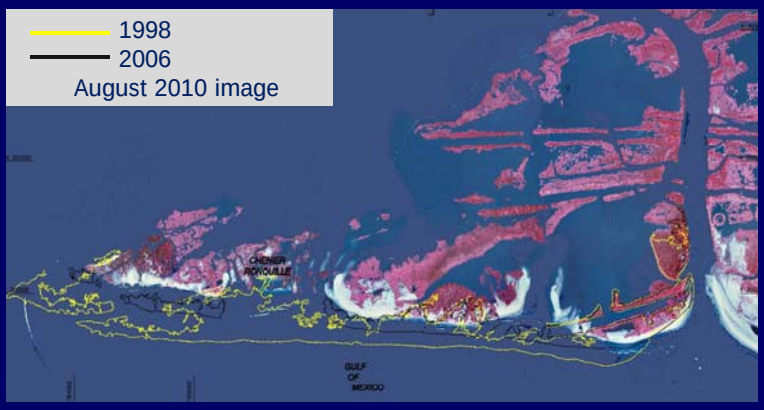
Questions?

Chenier Ronquille Barrier Island Restoration (BA-76)

Background and Vicinity



Project Area



Phase II Candidate

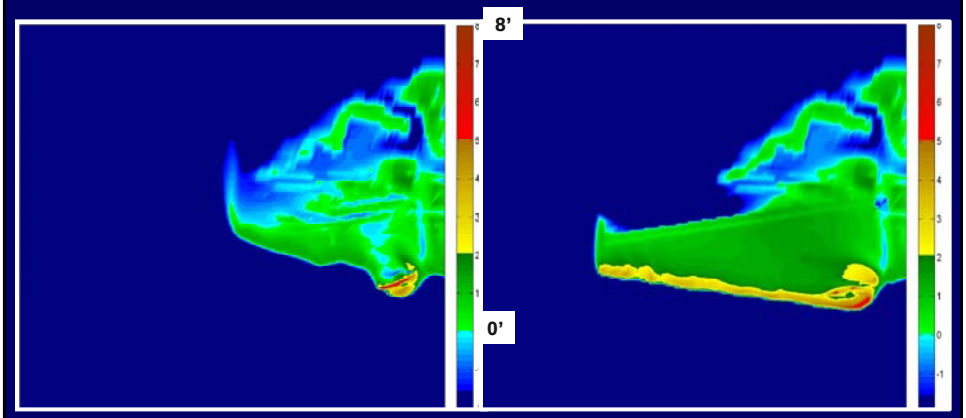
- Restore 8,000 ft of continuous shoreline (about 94 acres beach/dune habitat)
- Create/restore 274 acres of marsh
- Sand fencing, vegetative plantings, dike gapping and project-specific monitoring
- Benefits: 308 net acres and 224 AAHUs
- Total FFC: $36,727,451
- Phase II, Increment 1: $32,504,233

Planning vs Final Design Costs & Benefits

	Phase 0	Current Estimate
Construction Cost	$36.2 M	$29.6 M
Total FFC	$43.8 M	$36.7 M
Constructed sub-aerial acres	393	427
TY20 Net Acres	234	308
AAHUs	190	224

Projected Elevations and Geometry (Delft 3D)

FWOP – TY20 **FWP – TY20**



?
Questions?

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

November 23, 2011

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

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

Printed on Recycled Paper

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 1,330,000 cubic yards 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 1,380,000 cubic yards 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	$36,727,451
Phase II, Increment I Request	$32,504,232
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 results 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.*
A draft Environmental Assessment was submitted to the Technical Committee via e-mail on November 23, 2011. Notice of its availability online is planned for publishing via the Times Picayune and Baton Rouge Advocate the first week of December. Additionally, hard copies of the EA are being made available at the Plaquemines Parish library.

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*
Joint permit application materials (LDNR/CMD; COE and LDEQ) were submitted on November 21, 2011 (Attachment F). 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.

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*
Request for 303(e) approval was submitted to the New Orleans District on October 6, 2011 (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 21, 2011. The total fully funded cost is $36,727,451. 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.

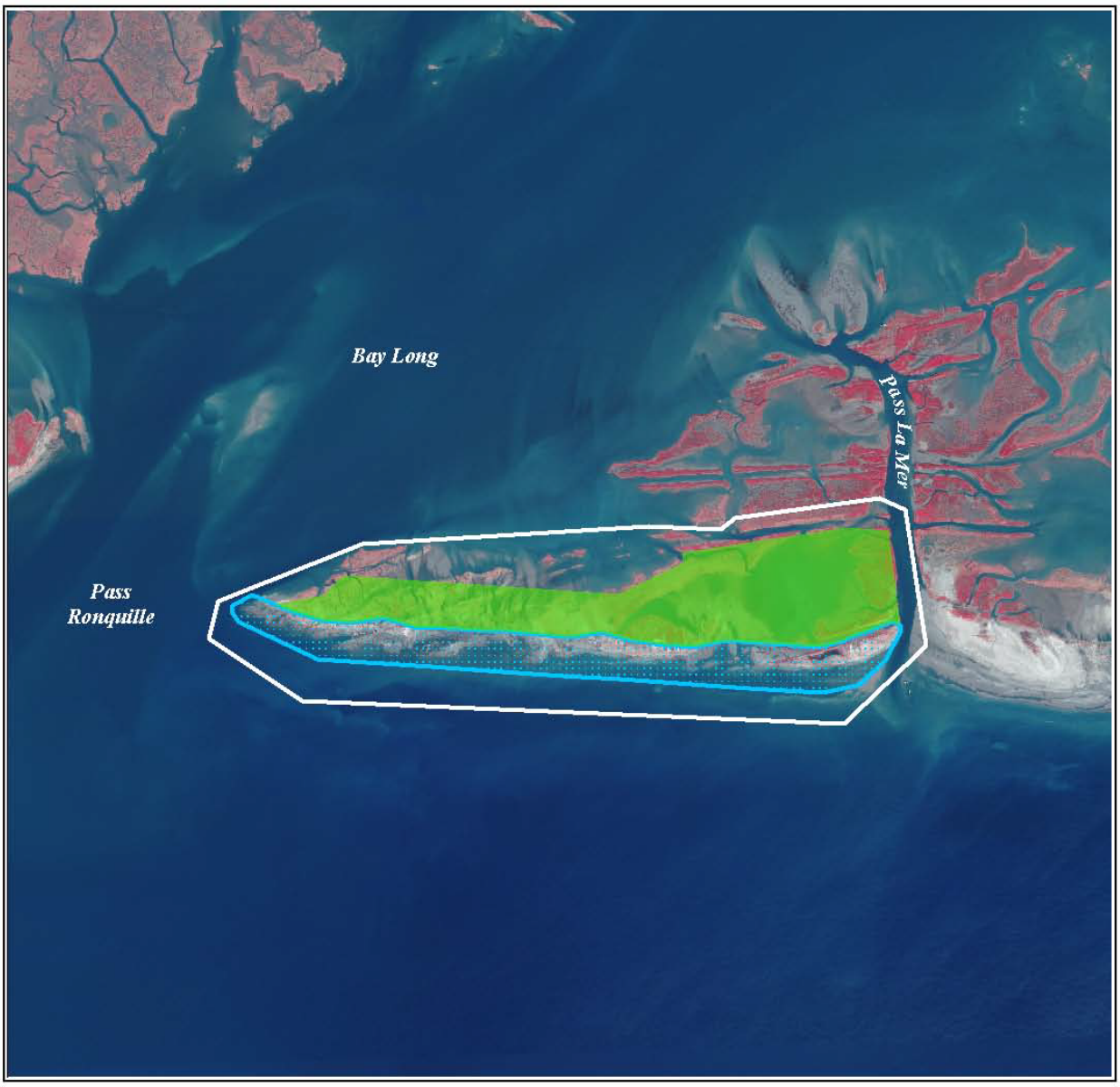
Goals:
The general project goal is to maintain shoreline integrity including preventing breaching/formation of tidal inlets for 20 years by repairing and reinforcing the existing shoreline with sand and marsh restoration. A minimum dune elevation of +4.0 ft NAVD 88 at the end of the 20-yr project life 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



Cheniere Ronquille Barrier Island Restoration (PPL19 Candidate)

Dune/Beach *

Marsh Creation *

Project Boundary

* denotes proposed features

0.4 0 0.4 Kilometers

0.4 0 0.4 Miles

Scale 1:30,000

Map ID: USGS-NWRC 2009-11-0380
Map Date: August 20, 2009

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

Image Source:
2008 Digital Orthophoto Quarter Quadrangles

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 1.3 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 $36,727,451.

Preparer(s) of Fact Sheet:
Rachel Sweeney, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 206, rachel.sweeney@noaa.gov

Cheniere Ronquille Barrier Island Restoration (BA-76)

Containment Dike *

Dune/Beach *

Marsh Creation *

Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.2 0 0.2 0.4 Kilometers

0.2 0 0.2 0.4 Miles

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

Background Imagery:
2010 NAIP Photography

Map Date: 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>
Sent Tuesday, November 22, 2011 7:10 am
To Rachel Sweeney <Rachel.Sweeney@noaa.gov>
Cc James Altman <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

CPRA
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., OCPR Administrator
Kenneth Bahlinger, OCPR Project Manager
Anna Wojtanowicz, E.I., OCPR Project Engineer
TE-68 Project File

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
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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-feet 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 mash fill volume. This was approximated, using the sediment budget, at 13,500 cy/yr x 4 years = 54,000 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 Alternative1 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 uninhabitated 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^3/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 x27 ft^3/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

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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

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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., OCPR Administrator
Kenneth Bahlinger, OCPR Project Manager
Anna Wojtanowicz, E.I., OCPR Project Engineer

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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

Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

November 21, 2011

Mr. Keith Lovell
Office of Coastal Management
Louisiana Department of Natural Resources
Post Office Box 44487
Baton Rouge, Louisiana 70804-4497

Re: Chenier Ronquille Barrier Island Restoration Project (BA-76)
Coastal Zone Consistency

Dear Mr. Lovell,

This letter is in reference to the Coastal Zone Consistency Application for the Chenier Ronquille Barrier Island Restoration Project being proposed by the Coastal Protection and Restoration Authority (CPRA) in partnership with the National Marine Fisheries Service (NMFS). NMFS is serving as the applicant and CPRA as the agent. The proposed project is determined consistent, to the maximum extent practicable, with Louisiana's federally approved Coastal Zone Management Program. The project is funded by the Coastal Wetlands Planning, Protection, and Restoration Act under Priority Project List 19 with the primary goal of restoring the integrity of the barrier island by creating 309 acres of marsh and 189 acres of dune and beach.

The project area is located approximately eight miles east of Grand Isle between Quatre Bayou Pass and Pass La Mer and is an important link in the barrier island chain running through Plaquemine's Parish. The project entails hydraulically dredging sand and marsh compatible material from four designated borrow areas approximately two to four miles west of the island in the Gulf of Mexico. The material will be pumped to the project site and placed within the template in the plans attached to this permit application. Prior to construction, an access channel along the back side of the proposed marsh will be excavated and a containment dike will be constructed using the excavated material to the north of the access channel. This dike will act as the northern boundary of the project area. Once dredging activity has ceased, a sand fence will be installed along the dune and approximately 20,000 units of vegetation will be planted. The containment dikes may be gapped as needed to provide hydrologic exchange and the project will continue to be monitored throughout the course of the 20 year project life.

The permit application contains the following components:

- Joint Permit Application
- Permit Drawings
- Permit Volumes Breakdown
- List of Oyster Lease Holders

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Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

- Copy of Signed Letter to Landowner
- Copies of Signed Letters to Leaseholders
- Exemption from Fee Letter

The Permit Volumes Breakdown is presented in the form of three tables. The first table *(Fills)* represents the volume and area of material that will be placed within the project area boundaries. The second table (*Anticipated Excavations*) displays the amount of material that is expected to be excavated for the construction of the project. The third table (*Permitted Excavations)* represents the amount of material that is available to be excavated. Though the application requests that all the available borrow areas be permitted, it is not anticipated that this amount will be utilized. The additional permitted area will allow the contractor some flexibility in movement and sequence to preform each task.

The only landowner in the project vicinity is Conoco Phillips. There are seven oyster lease holders as shown in the list attached to the permit application. All landowners and oyster lease holders have been mailed a copy of this permit application.

If any other documentation is desired or if you have any questions, please call me at 225-342-4473.

Regards,

Anna Wojtanowicz, E.I
Project Engineer

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Louisiana Department of Natural Resources
Office of Coastal Management (OCM)
Telephone: 1-800-267-4019
Website: http://dnr.louisiana.gov/crm/

U.S. Army Corps of Engineers (COE)
New Orleans District
Telephone: 504-862-2766
Website: www.mvn.usace.army.mil/ops/regulatory

Joint Permit Application

For Work Within the Louisiana Coastal Zone

What is the purpose of the Joint Permit Application?

This Joint Permit Application was developed to facilitate the state and federal permit application process administered by the Louisiana Department of Natural Resources/Office of Coastal Management (OCM) and the U.S. Army Corps of Engineers (COE) for work within the Louisiana Coastal Zone.

To simplify the permit application process, the Joint Permit Application is a multi-purpose application. It may be used to apply for a Coastal Use Permit (CUP) and/or a Department of the Army Permit under Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act. This application may also be used to apply for a Solicitation of Views (SOV) or an OCM Request for Determination (RFD). Review the instructions below, then proceed to Step 1.

Instructions

How do I complete the Joint Permit Application?

There are two parts to the Joint Permit Application package:

1. Joint Permit Application, and
2. Maps and Drawings.

An accurate/complete application is required for processing; inaccurate/missing information may delay processing. Follow the instructions below to complete the application. Specific instructions are provided with each step.

- Type or print clearly using black or blue ink;
- Steps 1 through 16 must be completed; write "N/A" if information does not apply to your proposed project. It is not necessary to write "N/A" on the Steps that you have been asked to skip;
- When additional space is needed, include an 8½ x 11 sheet of paper identifying the Step number.

When you have questions or need assistance in completing the application package:

- Refer to the "Glossary of Terms" (See page 10.);
- Refer to "Frequently Asked Questions" (See page 11.);
- Contact the Office of Coastal Management at 1-800-267-4019 or 225-342-7591; or
- Contact your local coastal parish program (See page 11.). (http://dnr.louisiana.gov/CRM/coastmgt/interagencyaff/lcp/lcp.asp)

Step 1 of 16

Who is the applicant for the proposed project?

Note: Applicants may be either the landowner, person or company that is responsible for the proposed project.

Complete the following information about the applicant.

Applicant/Company Name: National Marine Fisheries Service
Individual Person or Corporation/Company

Mailing Address: c/o LSU, Military Science Bldg, Room 266
Street Address or P.O. Box

Unit/Apartment #

Baton Rouge
City

LA
State

70803
Zip

Contact Information: Richard Hartman
Name of Contact Person *(not the agent)*

richard.hartman@noaa.gov
E-Mail Address

(225) 389-0508
Area Code Daytime Telephone Number

(225) 389-0506
Area Code Fax Number

Continue to page 2 for step 2.

Internal Office Use Permit #

Step 2 of 16

Is an agent being used for the proposed project?

Note: An agent is not required.

Is an agent being used for the proposed project?

☐ **NO** (If NO, proceed to Step 3.)
☑ **YES** (If YES, complete the following information.)

Company Name: Coastal Protection and Restoration Authority (CPRA)
Corporation/Company

Mailing Address: P.O. Box 44027
Street Address or P.O. Box

Unit/Apartment #

Baton Rouge
City

La
State

70804
Zip

Contact Information: Anna Wojtanowicz
Name of Contact Person

anna.wojtanowicz@la.gov
E-Mail Address

(225) 342-4473
Area Code Daytime Telephone Number

(225) 342-6801
Area Code Fax Number

Step 3 of 16

What type of permit or action would you like to request?

Note: You may need the approval of other federal, state or local agencies for your project.

Note: For questions concerning the CUP, SOV or RFD, call OCM at:
- *1-800-267-4019*
  or
- *225-342-7591*

Check ☑ the appropriate box(es) to indicate the type of permit or action that you would like to request.

☑ **Coastal Use Permit (CUP), Clean Water Act Permit (Section 404), Rivers and Harbors Act (Section 10)**

The purpose of the CUP is to ensure that any activity affecting the Coastal Zone is completed in a manner that is consistent with the Louisiana Coastal Resource Program.

The purpose of the Department of the Army permit program under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act is to review and evaluate proposals for dredging, filling, and/or placement of structures in waterways and wetlands in order to determine whether a permit should be granted or denied based on expected impacts to the overall public interest.

☐ **Solicitation of Views (SOV)**

If you wish to find out if your project is in the Coastal Zone or if you wish to determine if there are special features of the area that may impact your project design you may request a SOV. No application fee is assessed for SOV requests. The following Steps must be completed to obtain an informal determination.

- Step 1, Step 2, Step 6, Step 14, Step 16; and
- Step 13 - (Vicinity plat showing project location and extent is required; cross section and plan views are useful, if available.)

☐ **Request for Determination (RFD) - OCM only**

If you wish to obtain a formal determination as to whether or not a CUP would be required for a particular activity, you may submit a RFD. The appropriate application fee will be assessed for RFD requests. The following Steps must be completed to obtain a RFD.

- Step 1, Step 2, Step 5, Step 6, Step 8, Step 10, Step 14, Step 16; and;
- Step 13 - (Vicinity plat showing project location and extent is required; cross section and plan views are useful, if available.)
- If you think that no permit is required, you must provide a statement explaining why you think a permit is not required.

Step 4 of 16

Have you participated in a Pre-Application or Geological Review Meeting or obtained a wetland determination?

Note: To schedule a Pre-Application and/or a Geological Review Meeting, call OCM at 1-800-267-4019.

Note: To apply for a wetland determination, call the COE at 504-862-1627.

a. Have you participated in a Pre-Application or Geological Review Meeting for the proposed project?

☑ **NO** (If NO, proceed to Step 4b.) (If you would like to schedule a pre-application meeting, please call 1-800-267-4019)
☐ **YES** (If YES, complete the following information.)

Date meeting was held: ____/____/_____

Attendees: _____ _____ _____
Individual or Company Representative OCM Representative COE Representative

b. Have you obtained an official wetland determination from the COE for the project site?

☑ **NO** (If NO, proceed to Step 4c.)
☐ **YES** (If YES, include a copy with this application.)

JD Number:_____

c. Is this application a mitigation plan for another CUP?

☑ **NO** (If NO, proceed to Step 5.)
☐ **YES** (If YES, identify the permit number of the project requiring mitigation.)

OCM Permit Number: P_____

Continue to page 3 for step 5.

Step 5 of 16

What permits/ certifications have you previously requested for the proposed project?

Note: Additional sheets may be required for agency name, permit number and status information.

a. **Describe the project.**

1.31 million cyds of sand and 1.38 million cyds of marsh compatible material will be hydraulically dredged and placed on Chenier Ronquille Barrier Island. The borrow areas are 2-4 west of the island. The sand will be placed along the shoreline fronting a dune that will be constructed to el. +8 NAVD. The marsh will act as a back barrier against breaching. A sand fence and 20,000 units of vegetation will be added once dredging is complete.

b. **Is this application a change to an existing permit?**

☑ **NO** (If NO, proceed to Step 5c.)
☐ **YES** (If YES, identify the existing permit number.)

OCM Permit Number: P

Please explain

c. **Have you previously applied for a permit or emergency authorization for all or any part of the proposed project?**

☑ **NO** (If NO, proceed to Step 6.)
☐ **YES** (If YES, complete the following information for the proposed project.)

Agency Name	Permit Number	Decision Status: Approved	Decision Status: Denied	Decision Status: Pending	Decision Date
OCM		☐	☐	☐	
COE		☐	☐	☐	
Other		☐	☐	☐	

Step 6 of 16

Where will the proposed project be located?

Note: The following websites may provide assistance in completing the latitude/longitude and directions:
- *Sonris on OCM website*
- *MapQuest.com*
- *Topozone.com.*

Complete the following information to identify the exact location of the proposed project.

a. **Physical Location:** Plaquemines (Parish) ____ City ____ Zip ____

Street Address (If known) ____

Water Body (if known) ____

b. **Latitude and Longitude:** Must be included in all applications.

Latitude: 29 Degrees, 19 Minutes, 7.630 Seconds
Longitude: 89 Degrees, 47 Minutes, 26.780 Seconds

c. **Section, Township, Range:** *(if available)*

Section #(s)	Township # (Specify North or South)	Range # (Specify East or West)
N/A	South	East
N/A	South	East

d. **Lot #, Tract #, Parcel # or Subdivision Name:** *(if known)*

Lot #: N/A
Parcel #: N/A
Tract #: N/A
Subdivision Name: N/A

Note: Directions may include the following:
- *Nearest town/city*
- *Highways*
- *Intersections*
- *Street names*
- *Landmarks*
- *Start/end point*

e. **Site Directions:** Directions to the proposed project site must be identified in order to process the application.

Example: **START - I-10 toward Baton Rouge. Exit #153 toward Port Allen. US-190 West/LA-1 North ramp. RIGHT onto LA-987 1/Bridge Side Road. RIGHT onto LA-986/North River Road to Popular Grove Plantation directly behind guest parking lot in rear. –END**

Barrier island east of Grand Isle. START - Take LA Hwy 1 to Grand Isle. By boat, travel east along Gulf shoreline. Project area is eight miles east of Grand Isle between Quatre Bayou Pass and Pass La Mer. - END

Continue to page 4 for step 7.

Step 7 of 16

Who are the adjacent landowners?

Note: Adjacent landowner information is usually available through the office of the tax assessor in the parish where the project is to be developed.

Note: Additional information may be included in the area provided on page12. Also, extra sheets may be required if there are more than eight adjacent landowners.

Complete the following information to notify adjacent landowners whose property adjoins the proposed project site.

Adjacent Landowner #1: Conoco Phillips/ Louisiana Land and Exploration
Name of Adjacent Landowner

Mailing Address: 806 Bayou Black Dr
Address

Unit/Apartment #

Houma — City
Terrebone — Parish
La — State
70360 — Zip

Adjacent Landowner #2:
Name of Adjacent Landowner

Mailing Address:
Address
Unit/Apartment #
City
Parish
State
Zip

Adjacent Landowner #3:
Name of Adjacent Landowner

Mailing Address:
Address
Unit/Apartment #
City
Parish
State
Zip

Adjacent Landowner #4:
Name of Adjacent Landowner

Mailing Address:
Address
Unit/Apartment #
City
Parish
State
Zip

Step 8 of 16

What is the purpose of the proposed project?

Note: We are required to review the justifications and needs for your project. Providing detailed information at the time of application may expedite processing of your proposal.

Note: Additional sheets may be required to explain why the proposed project is needed.

Complete the following information to identify the purpose and need for the proposed project.

a. **Project Name and/or Title:** BA-76: Chenier Ronquille Barrier Island Restoration (CWPPRA)

b. **Project Type:** *(Check ☑ the appropriate box. See the "Glossary" on page 10 for the definitions of terms.)*
☑ **Non-Residential**
☐ **Residential**

c. **Source of Funding** ☑ ***Federal*** ☑ ***State*** ☐ ***Local*** ☐ ***Private***

d. **Check ☑ the appropriate box(es) to identify what will be done for the proposed project.**

☐ Bridge/Road	☐ Drill site	☐ Pilings	☐ Riprap/Erosion Control
☐ Bulkhead/Backfill	☑ Fill	☐ Pipeline/Flow line	☐ Site Clearance
☐ Drainage Improvements	☐ Home Site/Driveway	☐ Plug/Abandon	☐ Subdivision
☑ Dredging	☐ Levee Construction	☐ Production Barge/Structure	☑ Vegetative Plantings
☐ Drill Barge/Structure	☐ Major Industrial Commercial	☐ Prop Washing	☐ Wharf/Pier/Boathouse
☐ Other	☐ Marina	☐ Remove Structures	

↘ (Please specify)

e. **Why is the proposed project needed?**

The project is proposed through CWPPRA to reestablish and maintain the functional barrier island ecosystem, restore the integrity of the barrier island and reestablish productive habitat of Chenier Ronquille.

Continue to page 5 for step 9.

Step 9 of 16

What is the status of the proposed project?

Note: Show and identify planned, in progress, completed work and dimensions for excavations and fill on the Plan View and Cross Section Drawings.

Complete the following information to indicate the start/end dates and the current status of the proposed project.

a. **Proposed project start date:** 1 / 1 / 2014 **Proposed project completion date:** 1 / 1 / 2015

b. **Is any of the project work in progress?**

☑ **NO** (If NO, proceed to Step 9c.)

☐ **YES** (If YES, show and identify the work in progress on the Plan View and Cross Section Drawings.)

Please explain

c. **Is any of the project work complete?**

☑ **NO** (If NO, proceed to Step 10.)

☐ **YES** (If YES, show and identify the work completed on the Plan View and Cross Section Drawings.)

Please explain

Step 10 of 16

How would you describe the proposed project?

Note: To apply for a wetland determination, call the COE at 504-862-1627.

Note: Information provided in this Step must be consistent with Maps and Drawings.

Note: For any equipment used, show the access route and construction right of way on the Maps and Drawings.

Complete the following information to describe structures, materials and methods for the proposed project.

Cubic yards are determined by using this formula. *(Length (ft.) **X** Width (ft.) **X** Depth (ft.) divided by 27 = Cubic Yards)*

Example: 25 ft. X 25 ft. X 5 ft. divided by 27 = 115.7 Cubic Yards

Acres are determined by using this formula. *(Length (ft.) **X** Width (ft.) divided by 43,560 = Acres)*

Example: 250 ft. X 250 ft. divided by 43,560 = 1.43 Acres

a. **Excavation:** 11,073,000.00 **Cubic Yards** 832.00 **Acres**

b. **Fill:** 2,932,000.00 **Cubic Yards** 532.00 **Acres**

c. **What fill materials will be used for the proposed project?**

(Check ☑ the appropriate box(es) and indicate the cubic yards for each type of fill material.)

☐ Concrete	Cubic Yards	☐ Rock (rip/rap)	Cubic Yards
☐ Crushed Stone or Gravel	Cubic Yards	☐ Sand	1,310,000.(Cubic Yards
☑ Excavated & Placed on site	242,000.0(Cubic Yards	☐ Hauled in Topsoil/Dirt	Cubic Yards
☐ Excavated & Hauled off site	Cubic Yards		

☐ Other *(Please specify)*: Native Material (clay, mud, soil) 1,380,000.(Cubic Yards

d. **What equipment will be used for the proposed project?** *(Check ☑ the appropriate box(es).)*

☑ Airboat	☑ Bulldozer/Grader	☑ Marsh Buggy
☐ Backhoe	☐ Dragline/Excavator	☑ Other Tracked or Wheeled Vehicles
☑ Barge Mounted Bucket Dredge	☐ Handjet	☐ Self Propelled Pipe Laying Barge
☐ Barge Mounted Drilling Rig	☐ Land Based Drilling Rig	☑ Tugboat

☑ Other (Please specify.) Hydraulic Cutterhead Dredge

Continue to page 6 for step 11.

Step 11 of 16

What impact will the proposed project have?

Note: You will be notified by OCM if a field investigation is required to determine if the proposed project will impact wetlands.

Note: Additional sheets may be required to adequately respond to 11b, 11c, 11d and/or 11e.

Note: Providing detailed information at the time of application may expedite processing of your proposal.

a. Total acres of wetlands and/or waterbottoms filled and/or excavated: 532.00

b. What alternative locations, methods and access routes were considered to avoid impact to wetlands and/or waterbottoms?

The project was developed through the CWPPRA process, which has a rigorous selection process to propose projects and then requires multiple alternatives to be analyzed in the design reports. Two of these alternatives contained a smaller marsh platform to minimize excavation for access, however, it was found that this smaller marsh would not satisfy the project goals and objectives. The access routes and construction methodologies were chosen based on necessary acreage requirements and dredge fill availability. Dike configuration minimally impacts existing vegetation and is consistent with current barrier island design techniques.

c. What efforts were made to minimize impact to wetlands and/or waterbottoms?

Borrow site location was selected due to the availability of sand and marsh fill resources and the close proximity to the project area. This area has already been permitted for excavation by past projects so as to not disturb any new water bottoms. Modeling was performed to ensure that borrow area excavation would have negligible impacts of adjacent shorelines. Dredging a floatation access canal will be required due to the size of the equipment required to construct the primary containment dikes. The material excavated from the access canal will be used to construct the containment dikes so as to minimize the material excavated. The contractor will dredge as small a volume as possible to fulfill project goals and minimize costs.

d. How are unavoidable impacts to vegetated wetlands to be mitigated? (Please note that a willingness to perform mitigation does not relieve the applicant from adequately addressing justification for (step 8e) and alternatives to (step 11b & 11c) the proposed activity)

The construction of this project will temporarily impact 146 acres of wetlands: beach fill (23), marsh fill (115), primary dike fill (6), and access outside of the marsh fill (2). These impacts will be off-set by the creation of 309 acres of marsh at the time of construction.

Landowner Rights

- The affected landowner(s) whose property may be impacted by the proposed project has (have) the option of requesting that compensatory mitigation be done on their property.
- Once OCM determines that mitigation is required, they will notify the applicant and all affected landowners of the extent and type of habitat impacted. The landowner(s) will be given thirty (30) days to formally request or waive their mitigation option. (This can cause substantial delays in processing of the application.)

Applicant Responsibilities

- Coordinate with the affected landowner(s) to develop a conceptual compensatory mitigation plan. This plan should be designed to offset the adverse impacts to vegetated wetlands which will occur from the proposed project. (This can also cause substantial delays in processing of the application.)
- To avoid delays, it is recommended that, prior to sending the application to OCM, you contact affected landowner(s) to:

  – Inform them of possible wetland impacts and discuss their compensatory mitigation rights; and
  –Ask them to indicate their intentions regarding compensatory mitigation on the form.

- Submit the Landowner Compensatory Mitigation Request/Waiver form along with your application.

Continue to page 7 for step 12.

Step 12 of 16

What are the requirements for notification of landowners and oyster lease holders of the proposed project site?

Note: OCM and COE both have mitigation requirements under different laws, rules and regulations; therefore, specific agency requirements may vary.

Note: If a property has multiple owners with undivided interest in the property, each person owning an interest is considered to be a landowner and must be notified.

Note: Additional sheets may be required if there are more than two landowners.

Note: Compensatory mitigation is not a monetary settlement to be used at the discretion of the landowner(s).

Note: A copy of the "Landowner Compensatory Mitigation Request/ Waiver" form is included with this application. To obtain additional copies, visit the OCM website or call:
•1-800-267-4019
Or
•225-342-7591

Note: See our FAQ for a list of regulations that may be applicable. Be aware that this list is for example proposes and does not purport to be complete or indicate applicability in any particular situation or project. It is the applicant's responsibility to be fully aware of all regulatory requirements, to list those requirements and certify that thy will be in compliance.

a. Are you applying for a Coastal Use Permit?

☐ **NO** (If NO, proceed to Step 12b.)
☑ **YES** (If YES, read the following information.)

Requirements for Notification of Landowners

It is the responsibility of the applicant to notify the landowner(s) of the property about this proposed project. Notification must include providing each impacted landowner with a copy of the permit application (form and plats) at the time the application is submitted to the Office of Coastal Management.

Requirements for Notification to Oyster Lease Holders

It is the responsibility of the applicant to notify all affected oyster lease holders about this proposed project. Notification must include providing each affected oyster lease holder with a copy of the permit application (form and plats) at the time the application is submitted to the Office of Coastal Management. The location of leases, and the name and contact information of the lessee can be obtained by contacting the LDWF Oyster Lease Survey Section at 504-284-5279. You also can use the OCM GIS interactive map on our website at http://sonris-www.dnr.state.la.us/www_root/sonris_portal_1.htm. Please note that copies of the lease holder notification letters must be included with your application packet at the time of submittal. For more information regarding notification requirements please contact the Oyster Lease Survey Section or visit our website at http://dnr.louisiana.gov/crm/coastmgt/permitsmitigation/oyster.asp.

While these are legal requirements to ensure that property owners/oyster lease holders are aware of proposals which might impact their land/oyster lease, it also serves as a proactive measure to initiate communication between the applicant and the landowner(s)/lease holders, especially when mitigation might be necessary. Since mitigation can be a lengthy process, taking proactive steps early in the process may significantly reduce the time necessary to receive an authorization.

b. Are you the sole owner of the property on which the proposed activity is to occur?

☐ **YES** (If YES, proceed to Step 12c.)
☑ **NO** (If NO, follow the instructions below.)

Check ☑ the appropriate box(es) and complete the landowner information to attest to OCM that a copy of this application has been sent to all landowners whose property will be impacted by the project.

☐ The applicant is an owner of the property on which the proposed described activity is to occur.
☑ The applicant has made every 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, if necessary, 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.

Landowner/Lease Holder #1: Conoco Phillips/ Louisiana Land and Exploration Company
Name of Landowner / Lease Holder

Mailing Address: 806 Bayou Black
Street Address or P.O. Box — Unit/Apartment #

Houma — City; Terrebone — Parish; LA — State; 70360 — Zip Code

Landowner/Lease Holder #2: _____
Name of Landowner / Lease Holder

Mailing Address: _____
Street Address or P.O. Box — Unit/Apartment #

City — Parish — State — Zip Code

c. Does the project involve drilling, production, and/or storage of oil and gas?

☑ **NO** (If NO, proceed to Step 13.)
☐ **YES** (If YES, review and complete the certification below. You must attach a list of all state and federal laws and rules and regulations dealing with spill prevention and containment. Your signature on step 14 certifies that you are aware of the terms and conditions of each requirement and that you will remain in compliance at all times.)

I, _____ (Name of officer) hereby certify that I am the _____ (Name of Office) of _____ (Full legal name of the entity seeking a permit), hereinafter referred to as the Applicant and that I have authority to act on behalf of and bind that legal entity, and by my signature below I certify that the information in the application is true and correct to the best of my knowledge, that Applicant has provided a complete list of the requirements for protection of health, safety and the environment, and that Applicant is in full compliance with all applicable safety and environmental regulations as listed on the attached sheet, specifically including when applicable, LAC 43:XIX.111 Diverter Systems and Blowout Preventers.

Continue to page 8 for step 13.

Step 13 of 16

Why are Maps and Drawings required to obtain a permit?

Note: *The following websites may provide assistance in completing the Vicinity Map:*
•Sonris on OCM website
•MapQuest.com
•Topozone.com

Note: *For additional assistance with specific requirements, refer to the samples provided in this application package.*

Quality Maps and Drawings are required to process the Joint Permit Application and for Public Notice. They must visually reflect what will be done in the proposed project and are key to the overall evaluation.

The following Maps and Drawings must be submitted with the Joint Permit Application and must show both existing and proposed conditions.

- **Vicinity Map** - Illustrates access to and the location of the proposed project relative to surrounding areas;
- **Plan View Drawing** - Illustrates an overhead view of the proposed project; and
- **Cross Section Drawing** - Illustrates a side view of the proposed project.

In general, all Maps and Drawings should be:

- Legible and clearly labeled on single sided 8½ x 11 size paper; (large drawings that are reduced in size to fit the 8½ x 11 format are not acceptable if the scale is no longer accurate and if the dimensions and details are not clear and easy to read after reproduction in the Public Notice);
- Drawn to scale with the scale identified graphically on each drawing; (if you cannot provide Maps and Drawings to scale, you may submit the dimensions of the proposed and existing features of the work area displayed);
- Black and white **ONLY** (Colored Maps and Drawings will **NOT** be accepted);
- Accurate and reproducible;
- Placement of the north arrow, title, legend and scale bar must be consistent on Maps and Drawings; and
- Information provided in Steps 1 through 12 must be consistent with the Maps and Drawings.

Inadequate or poor Maps and Drawings are the primary reason for delays in the permitting process. Sample Maps and Drawings are provided with this Joint Permit Application package for your assistance.
Link to sample plats:
http://dnr.louisiana.gov/crm/coastmgt/cup/sampleplats.asp

Step 14 of 16

Who needs to certify and sign this application?

Note: *The application must be signed and dated by the applicant who desires to undertake the proposed activity.*

Note: *If an agent is being used, the applicant and agent must sign and date this application.*

Read the following information. Print your name, sign and date to certify this application for processing.

- Application is hereby made for a permit or permits to authorize the work described in this application.
- 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.
- I certify that the information in this application is complete and accurate.
- If applicable, I also certify that the declarations in Step 12, notification to landowner(s), are complete and accurate.
- If applicable, I also certify that the declarations in Step 12c, oil spill response, are complete and accurate.
- I will abide by the conditions of the permit or license if issued and will not begin work without the appropriate authorization.
- Permission is granted to the agencies responsible for authorization of this work, or their duly authorized representative, to enter the property site during working hours for inspection purposes.
- If applicable, I authorize the agent identified in Step 2 to act in my behalf as agent for this application and the agent will furnish, upon request, information in support of this application.

National Marine Fisheries Service — Clearly Print Name of Applicant
Richard Hartman for — Applicant Signature
11/16/2011 — Date

- As the agent, I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Anna Wojtanowicz — Clearly Print Name of Authorized Agent
Authorized Agent Signature
11/21/2011 — Date

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than 5 years or both.

Continue to page 9 for step 15.

Step 15 of 16

What fees are required for permit processing and what methods are available for payment?

The following fees apply and must be received in order to process the application.

a. Check ☑ the appropriate box to indicate the fee type: *(See the "Glossary" on page 10 for the definitions of terms.)*

☐ **$100.00 - Non-Residential**
☐ **$ 20.00 - Residential**

- If your activity involves dredging or filling, OCM will bill you on the basis of $.04 per cubic yards for residential uses and $.05 per cubic yards for all other uses.
- Fees may not apply if the Joint Permit Application is being processed by the local Parish.
- Additional fees may be assessed for mitigation processing.

COE and Local Parish Program fees will be assessed separately at the end of the process.

b. Check ☑ the appropriate box to indicate payment method:

☐ **Check/Money Order**
☐ **Credit Card (Visa or MasterCard only)**
☐ **Electronic Transfer**
☐ **Escrow Account**

- Make Check/Money Order payable to the Office of Coastal Management.
- To pay by Credit Card, Electronic Transfer or Escrow Account, call OCM at 1-800-267-4019 to provide specific account information or provide account information on a separate sheet of paper and include with application.
- Cash is not accepted.

Step 16 of 16

How do I submit the Joint Permit Application and Maps and Drawings for processing?

If your project is in the Galveston or Vicksburg District of the Corps of Engineers, please see page 12.

Note: *Please keep a copy of the completed application for your records.*

To submit this permit application, Maps and Drawings and all supporting documentation, select an option below.

MAIL:

Office of Coastal Management
P.O. Box 44487
Baton Rouge, LA 70804-4487

If you select the MAIL option, submit the original Joint Permit Application, Maps and Drawings and supporting documentation.

EXPRESS MAIL:

Office of Coastal Management
617 North 3rd Street,
Suite 1078
Baton Rouge, LA 70802
Phone: 225-342-7591

If you select the EXPRESS MAIL option, submit the original copies of the Joint Permit Application, Maps and Drawings and supporting documentation.

FAX:

225-342-6760
Attention: Office of Coastal Management, Joint Permit Application Processing

- Include a cover sheet with the total number of pages; and
- If you select the FAX option, follow-up with one of the mail options to prevent delay if the fax is not legible.
- Payment arrangements should be made prior to faxing your application by calling OCM at 1-800-267-4019.

Continue to page 10 for "Glossary of Terms".

Glossary of Terms

The following information may provide a better understanding of terms that are used throughout this application.
If the terms defined in this section do not help you, please contact OCM at one of the following, 1-800-267-4019 or 225-342-7591.

Adjacent Landowner
Property owners or lessees whose property is contiguous or shares a common border with that being developed.

Affected Landowner
The owner of the land on which a proposed activity will occur. If a property has multiple owners with undivided interest, each person owning an interest is considered to be an affected landowner.

Coastal Use Permit
A permit required by 214.30 of the SLCRMA. The term does not mean or refer to, and is in addition to, any other permit or approval required or established pursuant to any other constitutional provision or statute.

Compensatory Mitigation
As defined by OCM, replacement, substitution, enhancement, or protection of ecological values to offset anticipated losses of ecological values caused by a permitted activity.
As defined by the COE, compensating for unavoidable adverse impacts to wetlands by restoring areas to wetlands, creating wetlands, or enhancement of wetlands. Most compensatory mitigation involves purchase of mitigation credits in a private mitigation bank. The amount of credits purchased is dependent on the amount of wetland values that would be lost because of the permitted project.

Cross Section
A side view of a project area illustrating elevations of features such as natural ground; buildings; bulkheads; piers; and depressions such as waterways, ditches, ponds, etc. Cross sections also show side views of proposed work such as dredging and filling.

Discharge
The placement or movement of fill or excavated material using methods including, but not limited to dragline or backhoe buckets, bulldozers, front loaders, dump trucks, hydraulic dredge pipes, wheel-washing or prop-washing, jetting, etc.

Dredged Material (Spoil)
Material that is excavated as part of a specific project.

Ecological Value
The ability of an area to support vegetation, fish and wildlife populations.

Excavate
To dig out, remove or move earthen material, or to form a cavity or hole including linear features. Methods include, but are not limited to, draglines, backhoes, bulldozers, front loaders, hydraulic dredges, wheel-washing or prop-washing, jetting, etc.

Fastlands
Lands surrounded by publicly-owned, maintained, or otherwise validly existing levees or natural formations as of January 1, 1979, or as may be lawfully constructed in the future, which levees or natural formations would normally prevent activities, not to include the pumping of water for drainage purposes, within the surrounded area from having direct and significant impacts on coastal waters.

Fill Material
Any material including, but not limited to, soil, rocks, sand, clay, construction debris, trees, wood chips, broken concrete and asphalt, etc., whose placement replaces any portion of a waterbottom or wetland with dry land or changes the elevation of wetlands or waterbottoms. This material may come from on-site or be imported from an off-site source.

Mean High Water
The average position (elevation) of the high water mark.

Mean Low Water
The average position (elevation) of the low water mark.

Mitigation
All actions taken by a permittee to avoid, minimize, restore, and compensate for ecological values lost due to a permitted activity.

Non-Residential
Includes all actions that do not meet the requirements for the Residential category.

Non-Vegetated Waterbottoms
Waterbottoms that lack the presence of rooted vegetation.

Non-Wet Areas
Any area that has sufficiently dry conditions that indicate hydrophytic vegetation, hydric soils, and/or wetland hydrology are lacking.

Off-site
Not within or adjoining the area directly modified by the permitted activity and not directly related to implementation of the permitted activity.

On-site
Within or adjoining the area directly modified by the permitted activity or directly related to implementation of the permitted activity.

Residential
Any coastal use associated with the construction or modification of one single-family, duplex, or triplex residence or camp. It shall also include the construction or modification to any outbuilding, bulkhead, pier, or appurtenance on a lot on which there exists a single-family, duplex, or triplex residence or camp or on a water body which is immediately adjacent to such lot. Uses which do not fit this definition are non-residential. The Coastal Use Permit application fee for residential projects is $20.

Unavoidable Net Loss of Ecological Values
The net loss of ecological value that is anticipated to occur as the result of a permitted/authorized activity, despite all efforts, required by the guidelines, to avoid, minimize, and restore the permitted/authorized impacts.

Vegetated Waterbottoms
Waterbottoms that exhibit the presence of rooted vegetation.

Wetlands
For the purposes of §724 (as defined in R.S. 49:21.41), Open water areas or areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

Continue to page 10 for "Frequently Asked Questions".

Frequently Asked Questions

The following questions and answers may assist you during the application process. For an expanded version of frequently asked questions, visit our website at http://dnr.louisiana.gov/CRM/faq.asp

What gives the Office of Coastal Management (OCM) the right to regulate private property?

OCM does not regulate private property. OCM regulates activities that have a direct and significant impact on state public resources. OCM's authority derives from Louisiana Revised Statute 49:214.21 et seq. Visit the legislative website for additional information at http://www.legis.state.la.us/lss/tsrssearch.htm.

How does the Joint Permit Application process work?

In general, an application is submitted which details the location and scope of the proposed work. OCM – Permits & Mitigation Division, which serves as a central collection point for the applications, distributes the applications to interested parties for their review and comment. OCM - Permits & Mitigation Division and the commenting agencies review the application for conformance with programmatic requirements and look for ways of minimizing impacts to coastal resources (e.g., vegetated wetlands, bird rookeries, endangered species, etc.). If necessary, negotiations are entered into to find locations, technologies or methods of implementing the project which will accommodate the needs of the permit applicant while conforming with the mandates of the various state and federal agencies. Once consensus is reached an appropriately conditioned permit is issued.

Who receives a copy of my Joint Permit Application?

The following agencies/offices receive a copy of your application:

- OCM Permit Section;
- Local Programs Section, (if necessary);
- OCM Support Services Staff;
- OCM Field Investigator;
- The Army Corps of Engineers; and
- State Land Office.

How long does it take to obtain a permit?

The following schedules are offered with the assumption that all of the information required by OCM is included in the application and the plats are adequate, clear and legible. For activities that are exempt from permit requirements, the determination is normally issued in under seven days. Projects that are determined to have no direct or significant impacts to coastal resources are issued in 4 to 10 days depending on location. Authorizations for activities that qualify for a General Permit are issued in 10 to 15 days. For those activities that require full public notice, a minimum of 45 days is required. During review of the permit application, for more complex activities, additional information may be requested. The more promptly the applicant can furnish this information the less time it will require to issue the authorization. The requirement for mitigation of wetland impacts is one of the factors that increases the time required for permit application review, as does coordination with other State agencies for activities affecting resources of concern to that agency

How do I check the status of a submitted Joint Permit Application?

Information regarding submitted permits may usually be obtained on the OCM website: http://sonris.com/direct.asp?server=sonris-www&path=/sonris/cmdPermit.jsp%3Fsid%3DPROD.

How does OCM protect the information that I provide throughout this application?

Information provided on the application is used to evaluate the activity that is proposed for permitting, and this information is generally available for inspection and copying by the public, pursuant to the Louisiana Public Records act. There are some limited exceptions to the public records laws to protect certain types of records or information from public inspection. Please contact our office, **before** you submit any records or information that you would prefer not be available for public inspection or copying. In any case, simply marking a document "CBI" or "confidential business information" will not guarantee that the records or information will be protected from public inspection and copying.

May I submit a Joint Permit Application to the Parish instead of OCM?

Yes, if your project is located in a parish with an approved Local Coastal Program (Calcasieu, Cameron, Jefferson, Lafourche, Orleans, Plaquemines, St. Bernard, St. James, St. Tammany or Terrebonne) then you may submit your application to either the approved local program or the state office. If you submit the application to the state office, it will be input into the system and reviewed at that time. If you submit your application to the local parish office, then that office will forward the application to the state office to be input into the system and reviewed. Please allow additional time to receive a response if you choose the latter option.

What other permits may be required?

If your project involves dredging or filling of wetlands you may need a Water Quality Certification from the Department of Environmental Quality. Other approvals may be required but are not limited to the following:

- State Land Office;
- Department of Wildlife and Fisheries;
- Department of Culture, Recreation and Tourism;
- Department of Transportation and Development; and/or
- Department of Health and Hospitals.

These agencies will notify you of their requirements as part of the Joint Public Notice process.

When I receive my permit from OCM, may I begin work?

Following the determination from OCM, work may begin only after obtaining any necessary permit(s) from the COE, including any required mitigation, and any approvals or permits required any local authority or agency or by any state or federal agency, as may be required by law for said activity or the construction of the referenced project.

How may I receive an extension for a permit?

If you have not begun work on your project within two years of the date of permit issuance, the initiation period can be extended for an additional two years if you submit a request to OCM no less than sixty days and no more than one-hundred and eighty days before the initial two year period expires. The expiration date can be extended. Follow the same rules. There is an $80.00 extension fee.

If I began my project without a permit, what will happen?

OCM processing of any pending Joint Permit Application for the project will be suspended until the violation is resolved. You may be required to remove any structures installed and restore any impacted habitat. You may be subject to fines of up to $12,000and may be jailed up to six months. The penalties assessed by the Army Corps of Engineers may be significantly more expensive and more complicated.

Did I break the law if I have already done some clearing?

A representative from LDNR will perform a field investigation and project evaluation in order to determine the extent of any impacts and if you have violated any laws.
Contact OCM at 1-800-267-4019 for assistance.

What is Section 10 of the Rivers and Harbors Act?

Section 10 of the Rivers and Harbors Act of 1899 prohibits the obstruction or alteration of navigable water of the United States without a permit from the U.S. Army Corps of Engineers.

What is Section 404 of the Clean Water Act?

Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into waters of the United States without a permit from the U.S. Army Corps of Engineers.

How do I receive additional information on the Joint Permit Application process?

For additional information regarding the Joint Application Process, contact OCM at 1-800-267-4019 or visit the website at: http://dnr.louisiana.gov/crm/. You may also contact the Army Corps of Engineers at 504-862-2766 or visit the website at: www.mvn.usace.army.mil/ops/regulatory.

Continue to page 12 for "Contacts and Additional Landowner Information".

Contacts and Additional Landowner Information

If your project is in the Galveston or Vicksburg COE District, submit your application directly to them. See addresses listed below.

COE District Contact Information:

U.S. Army Corps of Engineers
Galveston District
Attention: CESWG-PE-R
P.O. Box 1229
Galveston, TX 77553-1229
Phone:409-766-3930
Fax:409-766-3931

U.S. Army Corps of Engineers
Vicksburg District
Attention: CEMVK-OD-F
4155 Clay Street
Vicksburg, MS 39183-3435
Phone:601-631-5276
Fax:601-631-5459

Additional Landowner Information (if necessary):

Adjacent Landowner #5: _____
Name of Adjacent Landowner

Mailing Address: _____
Street Address or P.O. Box — Unit/Apartment #

City _____ Parish _____ State _____ Zip _____

Adjacent Landowner #6: _____
Name of Adjacent Landowner

Mailing Address: _____
Street Address or P.O. Box — Unit/Apartment #

City _____ Parish _____ State _____ Zip _____

Adjacent Landowner #7: _____
Name of Adjacent Landowner

Mailing Address: _____
Street Address or P.O. Box — Unit/Apartment #

City _____ Parish _____ State _____ Zip _____

Adjacent Landowner #8: _____
Name of Adjacent Landowner

Mailing Address: _____
Street Address or P.O. Box — Unit/Apartment #

City _____ Parish _____ State _____ Zip _____

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. 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

_____

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

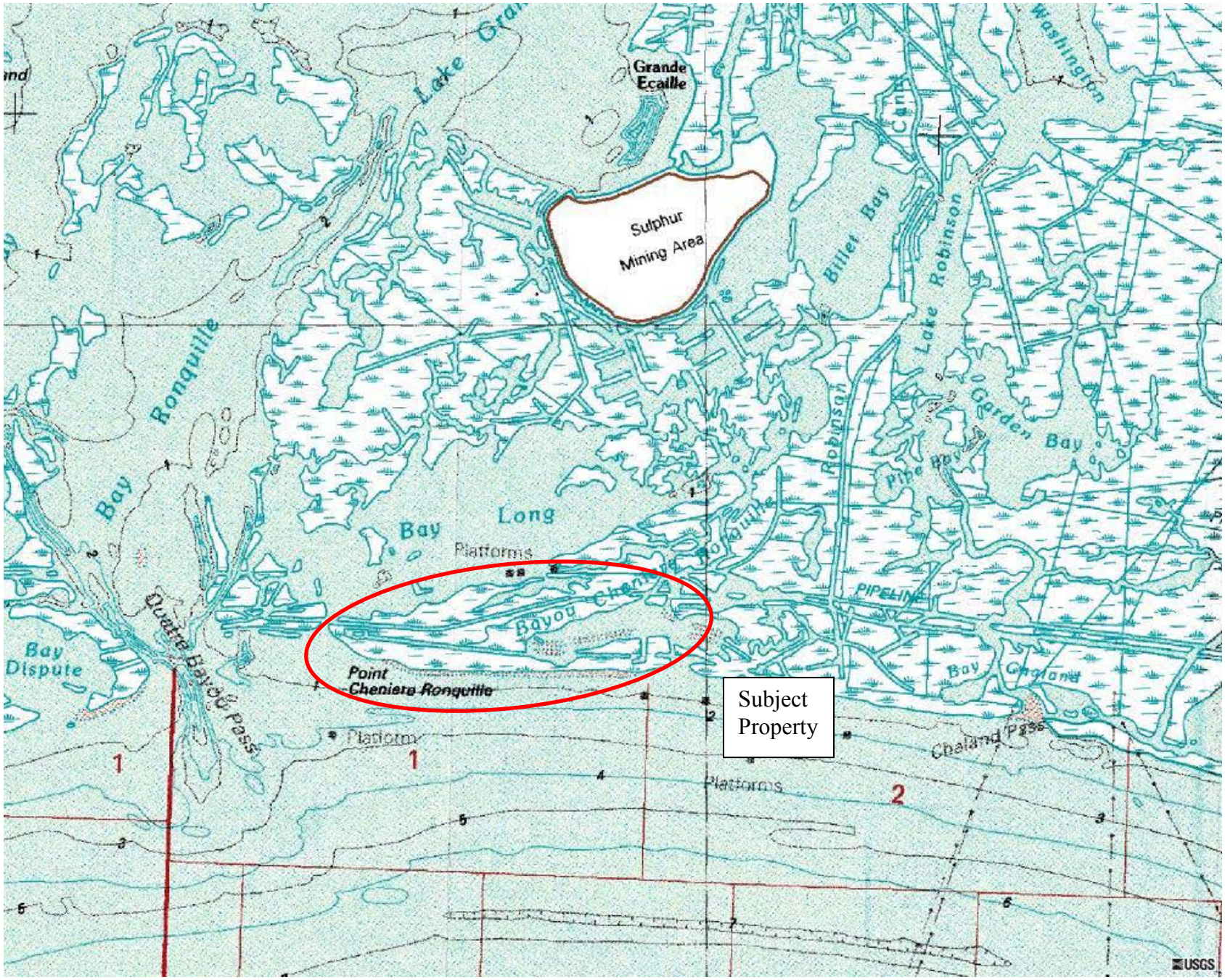
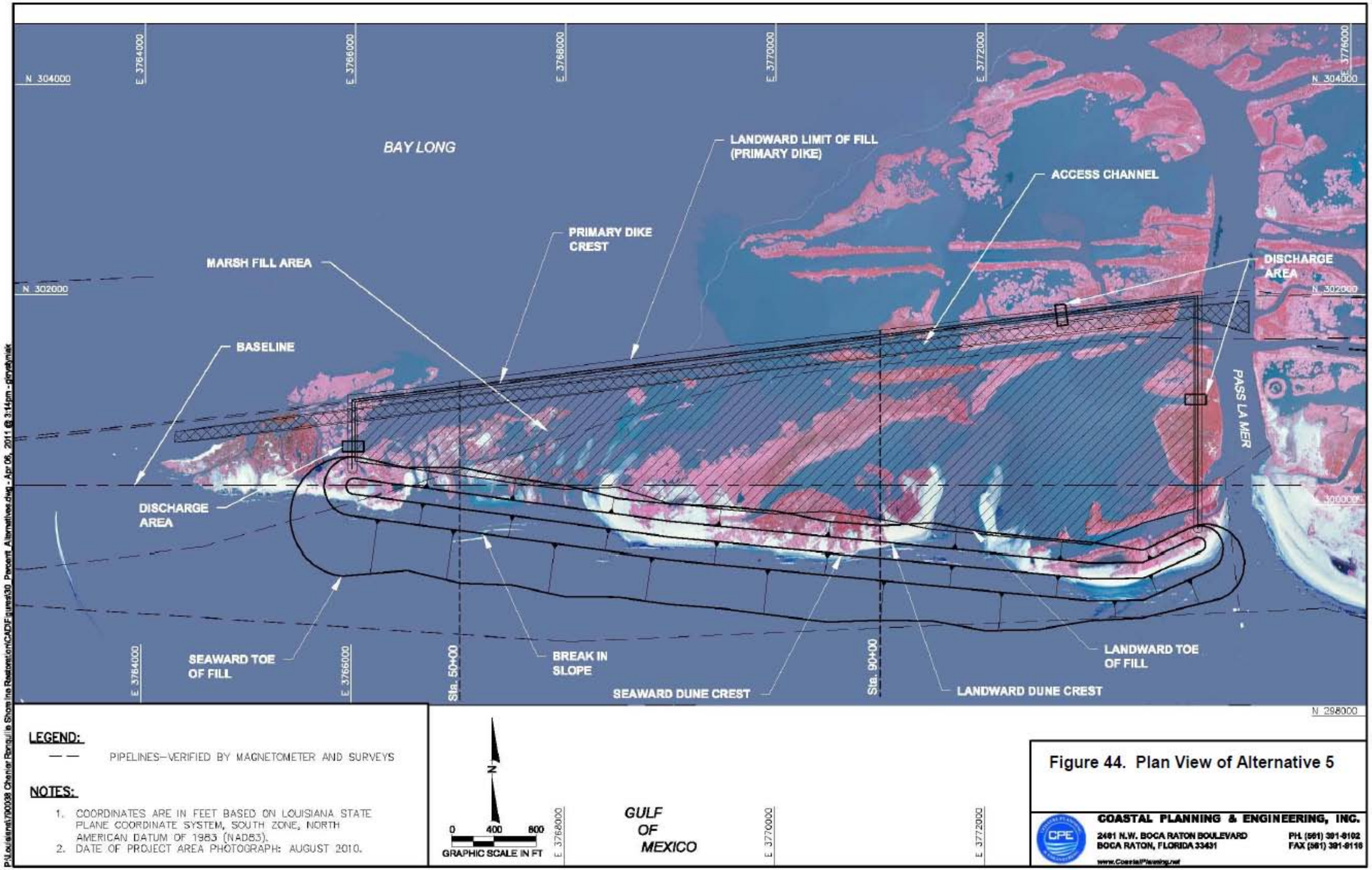


FIGURE 2

PROPERTY MAP



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.

Figure 44. Plan View of Alternative 5

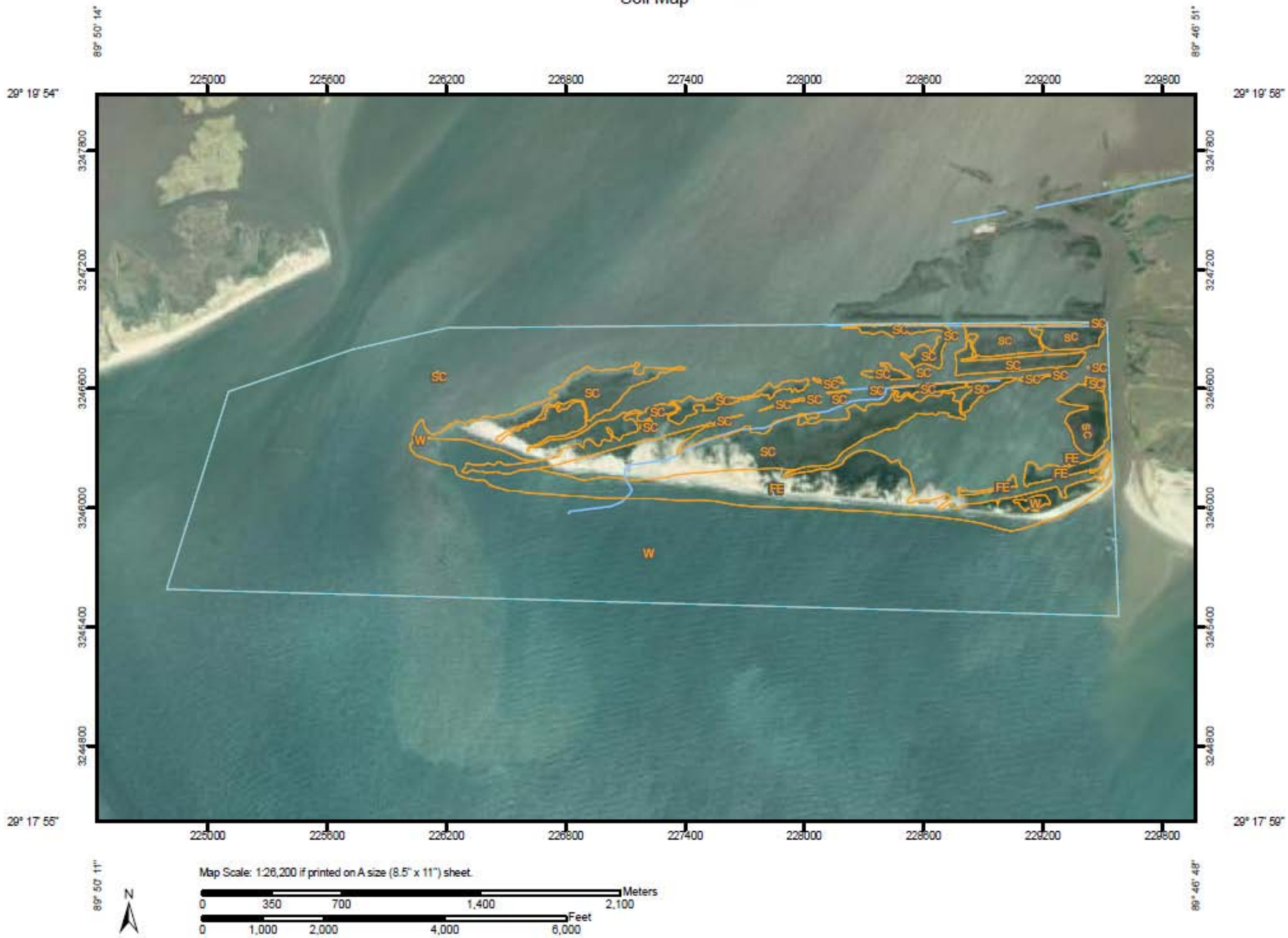
COASTAL PLANNING & ENGINEERING, INC.
2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-8102
FAX (561) 391-9116
www.CoastalPlanning.net

P:\Louisiana\70039 Chenier Ronquille Shoreline Restoration\CAD\Figures\30 Percent Alternatives.dwg - Apr 06, 2011 @ 3:14pm - gonzalo\nick

FIGURE 3

SOIL SURVEY MAP

Custom Soil Resource Report
Soil Map



Map Scale: 1:26,200 if printed on A size (8.5" x 11") sheet.

N

Meters
0 350 700 1,400 2,100

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

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

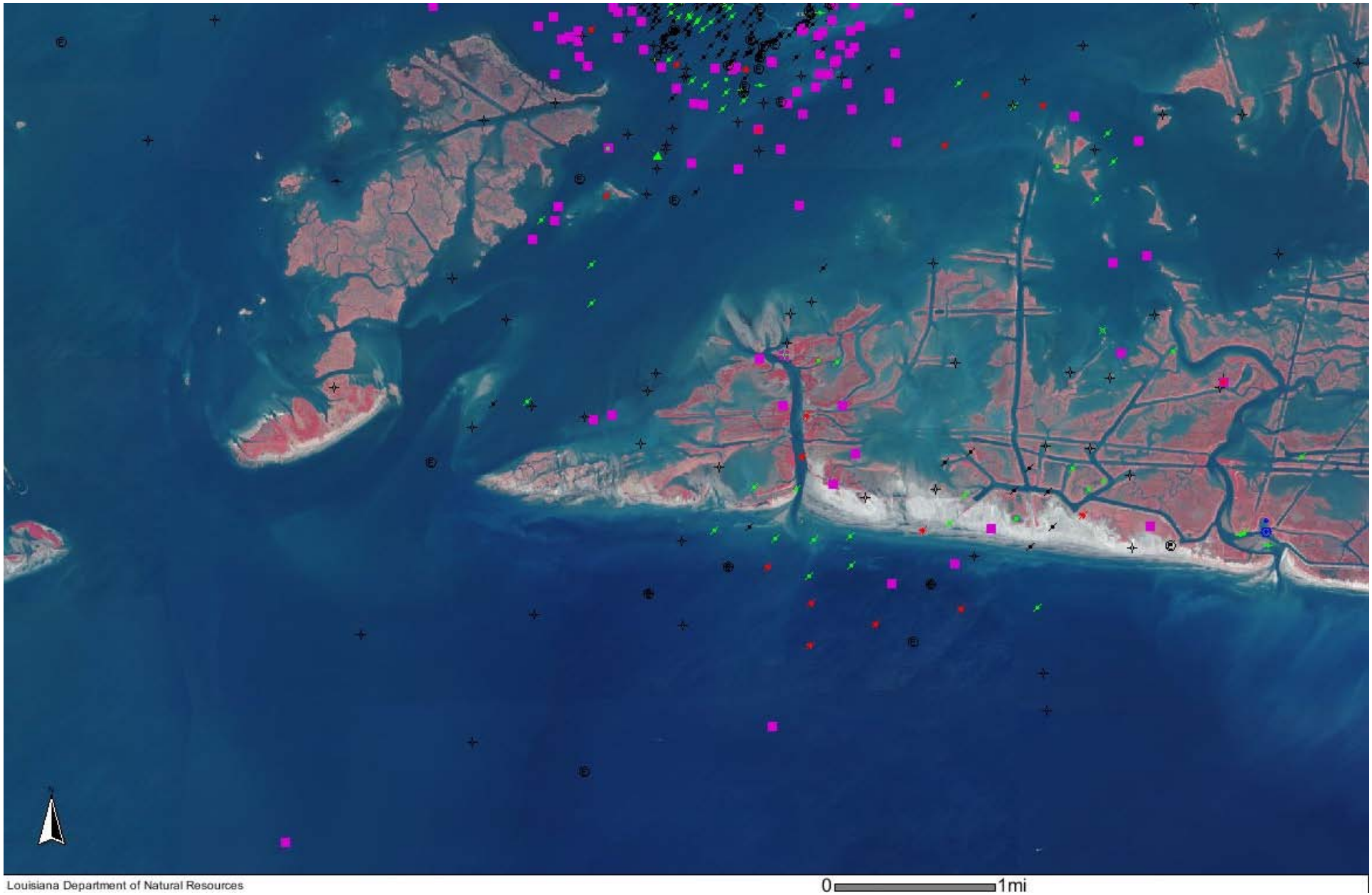
Date(s) aerial images were photographed: 9/20/2007

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



Louisiana Department of Natural Resources

Legend

Oil/Gas Wells

- Converted to Oil or Gas
- Unknown Status
- Water Supply - (GC)
- Water Supply - (Oil)
- Water Supply - (Unknown)
- SW Disposal
- SW Disposal
- SW Disposal - Annular (Oil)
- SW Disposal - Annular (Unknown)
- SW Disposal - Community
- Formation Storage - Dry Gas
- Formation Storage - G&C
- Formation Storage - No Product
- Shut-In Waiting on Market (Dry Gas)
- Shut-In Waiting on Market (G&C)
- Shut-In Waiting on Market (Oil)
- Shut-In Waiting on Market
- Shut-In Waiting on Pipeline (Dry Gas)
- Shut-In Waiting on Pipeline (G&C)
- Shut-In Waiting on Pipeline (Oil)
- Shut-In Waiting on Pipeline
- Shut-In Productive (Dry Gas) - NFU
- Shut-In Productive (G&C) - NFU
- Shut-In Productive (Oil) - NFU
- Shut-In Productive - NFU
- Shut-In Productive (Dry Gas) - FU
- Shut-In Productive (G&C) - FU
- Shut-In Productive (Oil) - FU
- Shut-In Productive - FU
- Shut-In Dry Hole (Gas) - NFU
- Shut-In Dry Hole (Oil) - NFU
- Shut-In Dry Hole (NFU)
- Shut-In Dry Hole (Dry Gas) - FU
- Shut-In Dry Hole (G&C) - FU
- Shut-In Dry Hole (Oil) - FU
- Shut-In Dry Hole - FU
- P&A Dry Gas Producer
- P&A G&C Producer
- P&A Oil Producer
- P&A Producer
- P&A Dry Hole (Non Comm Dry Gas)
- P&A Dry Hole - Non Comm G&C
- P&A Dry Hole (Non-Comm Oil)
- P&A Dry Hole
- Dry Gas - Unable to Locate
- G&C - Unable to Locate
- Oil - Unable to Locate
- Unable to Locate
- Orphaned SW Disp
- Orphaned SW Disposal
- Federal - Formely State
- Rvrtd to Landowner - Res Cons (Dry Gas)
- Rvrtd to Landowner - Res Cons (G&C)
- Rvrtd for Res Cons (Oil)
- Rvrtd to Landowner for Res Cons
- Orphaned Dry Gas
- Orphaned (G & C)
- Orphaned - Oil
- Orphaned Well
- Rvrtd to Single Complete - Dry Gas
- Rvrtd to Single Completeion - G&C
- Rvrtd to Single Complete - Oil
- Rvrtd to Single Completion
- Gas Rvrtd to Landowner (FW)
- (Oil) Rvrtd to Landowner for FW
- Rvrtd to Landowner for FW
- PA-35 - No Report (Dry Gas)
- PA-35 - No Report (G&C)
- PA-35 - No Report (Oil)
- PA-35 - No Report
- Temp Abandoned (Dry Gas)
- Temp Abandoned (G&C)
- Temp Abandoned - Oil
- Temp Abandoned
- Edu/Serv Company (Gas)
- Edu/Serv Company (Oil)

(cont)

- Edu/Serv Company
- Multi-Complete - PA-35
- Producing Dry Gas - Cyclic Inj
- Producing Gas - Cyclic Inj
- Producing Oil - Cyclic Inj
- Producing Well Unknown Prod.
- Producing - Dry Gas
- Producing - G&C
- Producing - Oil
- Producing (No Product Code)
- Auto Repair
- Industrial Process Waste
- Cesspool
- Subsidence Control
- Aquifer Remediation
- Geothermal
- Heat Pump/AC Return Flow
- Industrial Drainage
- Improved Sinkhole
- Active - Unknown
- Active
- Brine Supply
- EOR - Water
- Observation - Dry Gas
- Injection Well - Water
- Injection Well - Other
- Injection Well - Gas
- Fire Flood Well
- Inject Com. NOW Disposal
- Com. SW Disposal
- SW Disposal
- SW Disposal Conventional
- Storage Cavity - Gas
- Storage Cavity - LPG
- Storage Cavity Well - Liguid
- Industrial Non-Haz Waste Disp
- Hazardous Waste Disp
- Permit Expired
- Approval to Construct Injection Well
- Permitted Well
- Directional - Surface Loc
- No Coordinates
- Bad Data
- Bad Data
- Bad Data
- Bad Data
- Bad Data
- Other

Oil/Gas Well Bottom Holes and Bores

Oil/Gas Well Bottom Holes

- Converted to Oil or Gas
- Unknown Status
- Water Supply - (GC)
- Water Supply - (Oil)
- Water Supply - (Unknown)
- SW Disposal
- SW Disposal
- SW Disposal - Annular (Oil)
- SW Disposal - Annular (Unknown)
- SW Disposal - Community
- Formation Storage - Dry Gas
- Formation Storage - G&C
- Formation Storage - No Product
- Shut-In Waiting on Market (Dry Gas)
- Shut-In Waiting on Market (G&C)
- Shut-In Waiting on Market (Oil)
- Shut-In Waiting on Market
- Shut-In Waiting on Pipeline (Dry Gas)
- Shut-In Waiting on Pipeline (G&C)
- Shut-In Waiting on Pipeline (Oil)
- Shut-In Waiting on Pipeline
- Shut-In Productive (Dry Gas) - NFU
- Shut-In Productive (G&C) - NFU
- Shut-In Productive (Oil) - NFU
- Shut-In Productive - NFU
- Shut-In Productive (Dry Gas) - FU
- Shut-In Productive (G&C) - FU
- Shut-In Productive (Oil) - FU

(cont)

- Shut-In Productive - FU
- Shut-In Dry Hole (Gas) - NFU
- Shut-In Dry Hole (Oil) - NFU
- Shut-In Dry Hole (NFU)
- Shut-In Dry Hole (Dry Gas) - FU
- Shut-In Dry Hole (G&C) - FU
- Shut-In Dry Hole (Oil) - FU
- Shut-In Dry Hole - FU
- P&A Dry Gas Producer
- P&A G&C Producer
- P&A Oil Producer
- P&A Producer
- P&A Dry Hole (Non Comm Dry Gas)
- P&A Dry Hole - Non Comm G&C
- P&A Dry Hole (Non-Comm Oil)
- P&A Dry Hole
- Dry Gas - Unable to Locate
- G&C - Unable to Locate
- Oil - Unable to Locate
- Unable to Locate
- Orphaned SW Disp
- Orphaned SW Disposal
- Federal - Formely State
- Rvrtd to Landowner - Res Cons (Dry Gas)
- Rvrtd to Landowner - Res Cons (G&C)
- Rvrtd for Res Cons (Oil)
- Rvrtd to Landowner for Res Cons
- Orphaned Dry Gas
- Orphaned (G & C)
- Orphaned - Oil
- Orphaned Well
- Rvrtd to Single Complete - Dry Gas
- Rvrtd to Single Completeion - G&C
- Rvrtd to Single Complete - Oil
- Rvrtd to Single Completion
- Gas Rvrtd to Landowner (FW)
- (Oil) Rvrtd to Landowner for FW
- Rvrtd to Landowner for FW
- PA-35 - No Report (Dry Gas)
- PA-35 - No Report (G&C)
- PA-35 - No Report (Oil)
- PA-35 - No Report
- Temp Abandoned (Dry Gas)
- Temp Abandoned (G&C)
- Temp Abandoned - Oil
- Temp Abandoned
- Edu/Serv Company (Gas)
- Edu/Serv Company (Oil)
- Edu/Serv Company
- Multi-Complete - PA-35
- Producing Dry Gas - Cyclic Inj
- Producing Gas - Cyclic Inj
- Producing Oil - Cyclic Inj
- Producing Well Unknown Prod.
- Producing - Dry Gas
- Producing - G&C
- Producing - Oil
- Producing (No Product Code)
- Auto Repair
- Industrial Process Waste
- Cesspool
- Subsidence Control
- Aquifer Remediation
- Geothermal
- Heat Pump/AC Return Flow
- Industrial Drainage
- Improved Sinkhole
- Active - Unknown
- Active
- Brine Supply
- EOR - Water
- Observation - Dry Gas
- Injection Well - Water
- Injection Well - Other
- Injection Well - Gas
- Fire Flood Well
- Inject Com. NOW Disposal
- Com. SW Disposal
- SW Disposal
- SW Disposal Conventional
- Storage Cavity - Gas
- Storage Cavity - LPG
- Storage Cavity Well - Liguid
- Industrial Non-Haz Waste Disp
- Hazardous Waste Disp

(cont)

- Permit Expired
- Approval to Construct Injection Well
- Permitted Well
- Directional - Surface Loc
- No Coordinates
- Bad Data
- Bad Data
- Bad Data
- Bad Data
- Bad Data
- Other

South LA Photography (2008)

APPENDIX A

INTERVIEW DOCUMENTATION

ENVIRONMENTAL SITE ASSESSMENT OWNER/MANAGER PHONE INTERVIEW LOG

Interview Date:	October 24, 2011
Name:	Mr. Buddy Smith
Title:	Landman
Company/Organization:	ConocoPhillips

1. During what time period were you the site owner/manager of the property?

☒Yes ☐No	**If yes, describe:** **ConocoPhillips has owned the property since the 1920s**

2. What was type of business did you have at the property?

☒Yes ☐No	**If yes, describe:** **The property has had oil and gas infrastructure (pipelines and wells)**

3. Do you know the past uses of the property?

☒Yes ☐No	**If yes, describe:** **Undeveloped with the exception of oil and gas.**

4. Do you know of specific chemicals that are present or once were present at the property?

☐Yes ☒No	**If yes, describe:** **Mr. Smith is not aware of any specific chemicals that are present or once were present at the property.**

Interview Date:	October 24, 2011
Name:	Mr. Buddy Smith
Title:	Landman
Company/Organization:	ConocoPhillips

5. Do you know of spills or other chemical releases that have taken place at the property?

☒Yes ☐No	**If yes, describe:** **Equinox oil and gas had an offshore release that minimal impacts to the subject property.**

6. Do you know of any environmental cleanups that have taken place at the property?

☒Yes ☐No	**If yes, describe:** **Yes, the property was cleaned up following the Equinox spill. Cleanup was performed under guidance of the state.**

7. Do you know of any environmental liens against the property?

☐Yes ☒No	**If yes, describe:** **Mr. Smith is not aware of any environmental liens associated with the property.**

8. Do you have any other knowledge or experience with the property that may be pertinent to the environmental professional?

☐Yes ☒No	**If yes, describe:** **None.**

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

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 cecelia.linder@noaa.gov.

Sincerely,

Cecelia Linder
NOAA Fisheries CWPPRA Program Manager

Cc: Rachel Sweeney, NOAA Fisheries
James Wray, OCPR
Kenneth Bahlinger, OCPR

Attachments

Printed on Recycled Paper

Coastal Protection and
Restoration Authority of Louisiana

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:

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.lacpra.org/
An Equal Opportunity Employer

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

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.

DRAFT

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:_____

Phillip R. Precht
Attorney-in-Fact

Print:_____

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: _____

DRAFT

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)

DRAFT

EXHIBIT A

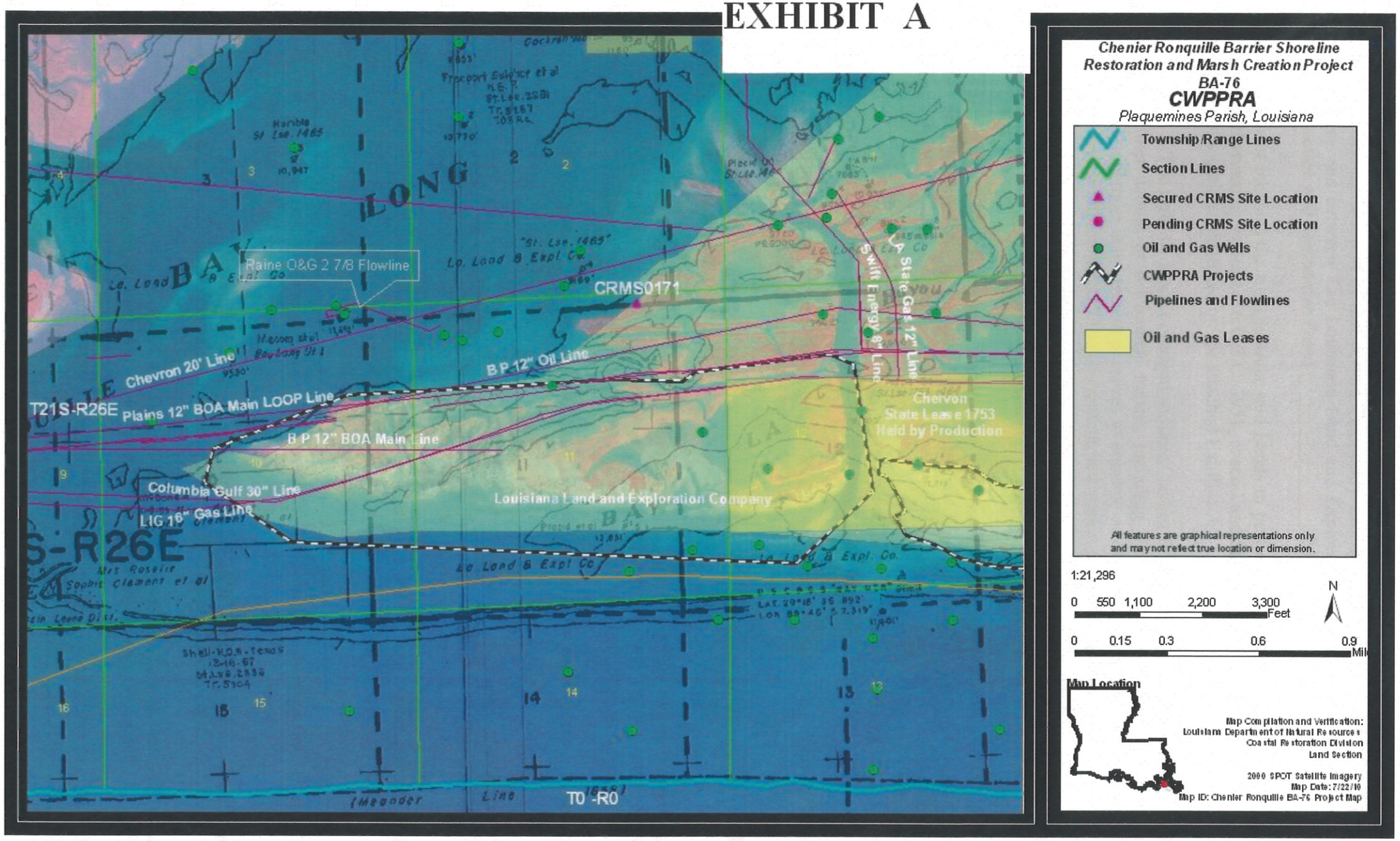

Chenier Ronquille Barrier Shoreline Restoration and Marsh Creation Project
BA-76
CWPPRA
Plaquemines Parish, Louisiana
Township/Range Lines
Section Lines
Secured CRMS Site Location
Pending CRMS Site Location
Oil and Gas Wells
CWPPRA Projects
Pipelines and Flowlines
Oil and Gas Leases
All features are graphical representations only and may not reflect true location or dimension.
1:21,296
0 550 1,100 2,200 3,300 Feet
0 0.15 0.3 0.6 0.9 Mi
N
Map Location
Map Compilation and Verification:
Louisiana Department of Natural Resources
Coastal Restoration Division
Land Section
2000 SPOT Satellite Imagery
Map Date: 7/22/10
Map ID: Chenier Ronquille BA-76 Project Map
Raine O&G 2 7/8 Flowline
CRMS0171
Chevron 20" Line
Plains 12" BOA Main LOOP Line
B P 12" BOA Main Line
B P 12" Oil Line
Columbia Gulf 30" Line
LIG 16" Gas Line
Swift Energy 8" Line
LA State Gas 12" Line
Chevron State Lease 1753 Held by Production
Louisiana Land and Exploration Company
T21S-R26E
T0 -R0
Meander Line

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)_____);

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)_____);

DRAFT

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.

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.

DRAFT

CHENIER RONQUILLE, PHASE II REQUEST

ATTACHMENT I

Overgrazing Determination

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

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

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,

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: Kymmi 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; (225) 389-0508, ext 206
Env. WG contact: Kimberly Clements; kimberly.clements@noaa.gov; (225) 389-0508, ext. 204
Eng. WG contact: Patrick Williams; 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'[1] 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

[1] 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, Chaland 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.

	Plantings	Dike Gapping	Sand Fence Replacement	Surveys	Imagery & Habitat Analysis	Veg. Sampling	Report
TY1	X		X	X			X
TY3	X	X		X			X
TY5			X	X	X	X	X
TY10			X	BICM	BICM		X

TY15				BICM	BICM		X
TY20				BICM	BICM		X

TY1 includes extensive dune and beach vegetative plantings and more limited, targeted marsh platform plantings as summarized below:

Species	Unit Size	Layout	No. Units
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) analytic 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)
Dune	0.4	30.7%
Supratidal	3.2	20.0%
Gulf Intertidal	-	1.0%
Bay Intertidal	5.6	5.1%
Subtidal	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:

	Dune (acres)	**Supratidal (acres)**	**Gulf Intertidal (acres)**	**Bay Intertidal (acres)**	**Subtidal (acres)**	**Total (acres)**
TY 0	1	10	18	97	70	196

<u>Selected FWOP Target Year Acreage Forecast</u>

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)**					
	Dune	**Supratidal**	**Gulf Intertidal**	**Bay Intertidal**	**Subtidal**	**Total**
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

Target Year	**V1** (% total subaerial area classified as dune)	**V2** (% total subaerial area classified as supratidal)	**V3** (% total subaerial area classified as intertidal)
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

Target Year	**V1** (% total subaerial area classified as dune)	**V2** (% total subaerial area classified as supratidal)	**V3** (% total subaerial area classified as intertidal)
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_4 - 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 x 63 = 16
Supratidal 10% of 324 acres = 0.1 x 324 = 32
Bay Intertidal 10% of 20 acres = 0.1 x 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 x 50% cover) = ((1.0 – 0.12) x 0% cover) = (5.9) + (0.88 x 0%) = **6%**

TY2 9%

Dune 25% of 40 acres = 0.25 x 40 = 10
Supratidal 15% (slight increase over TY1 10%) of 44 acres = 0.15 x 44 = 7
Bay Intertidal 15% of 293 acres = 0.15 x 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 x 60% cover) + ((1.0 – 0.15) x 0% cover) = (9.2) + (0.85 x 0%) = **9%**

TY3 17%

Dune 50% of 34 acres = 0.5 x 34 = 17
Supratidal 30% of 42 acres = 0.30 x 42 = 13
Bay Intertidal 30% of 292 acres = 0.30 x 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)/= 256/275 = 0.93
V4 calculation: (weighted average of planted areas x % cover planted areas) + (Remaining unvegetated area x % cover unvegetated areas)
(0.93 x 65% cover) = ((1.0 – 0.93) x 0%) = (61) + (0.07 x 0%) = 61%

Variable V_5 - 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_6 - Edge and interspersion

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 interspersion, 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	(1st Storm event; no dune remains)
TY8	80% Class 1; 20% Class 2	
TY20	50% Class 2; 50% Class 3	(2nd Storm event, remaining subaerial platform is 61% intertidal and 39% supratidal)

Variable V_7, 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).

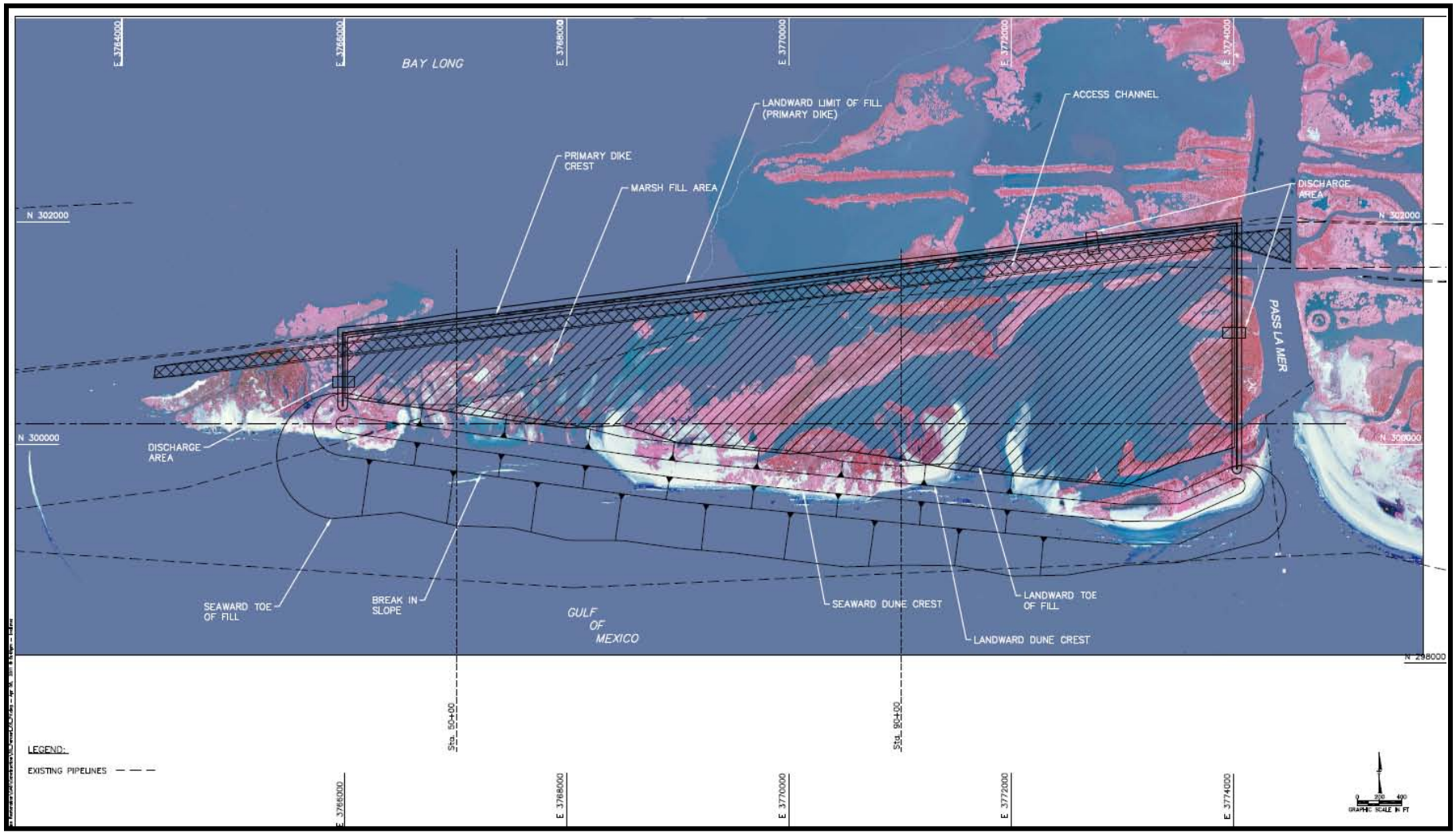


Figure 1 – Plan view of Alternative 5

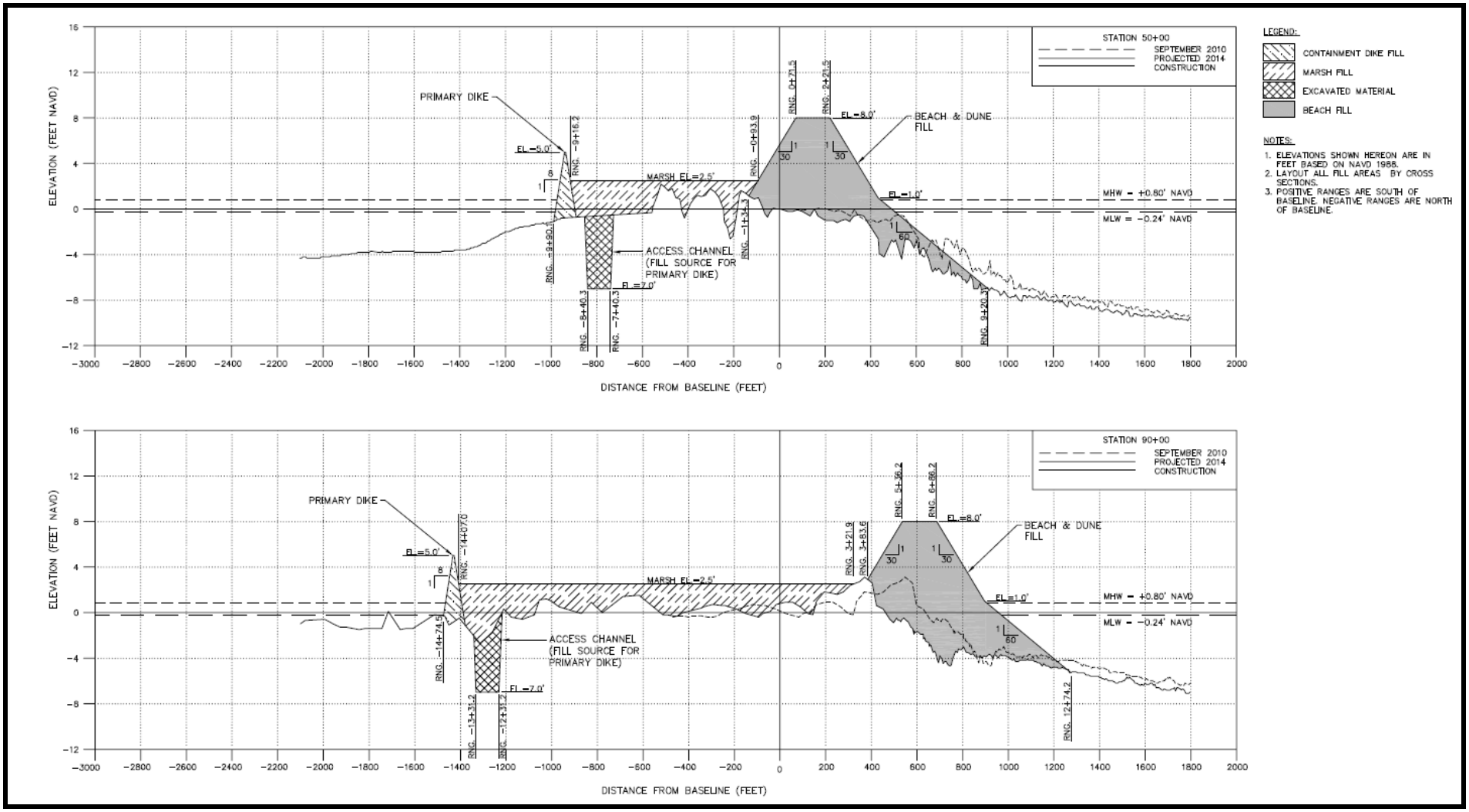


Figure 2 – Typical profile views of Alternative 5

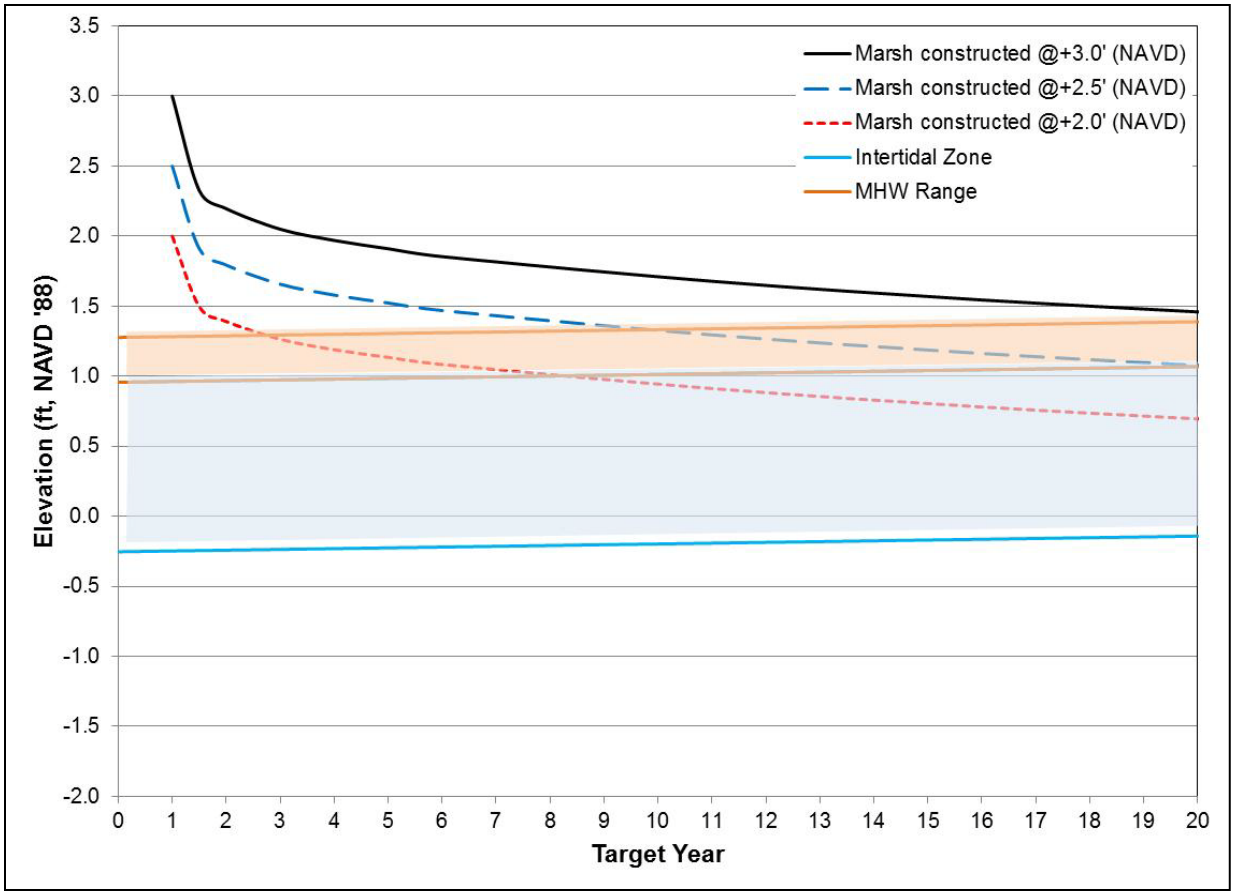


Figure 3 – Anticipated settled elevations for various initial marsh fill elevations. Initial elevation of +2.5' is proposed in consideration of performance and constructability issues.

Coastwide Planting
(LA-39)

Coastal Wetlands Planning, Protection and Restoration Act

COASTWIDE PLANTINGS (LA-39)

PHASE II APPROVAL REQUEST

CWPPRA Technical Committee Meeting
December 13, 2011

COASWIDE PLANTINGS (LA-39)

Project Location: Coastwide

Goal: Provide a consistent annual mechanism for funding large scale vegetative planting projects through the CWPPRA program.

COASWIDE PLANTINGS (LA-39)

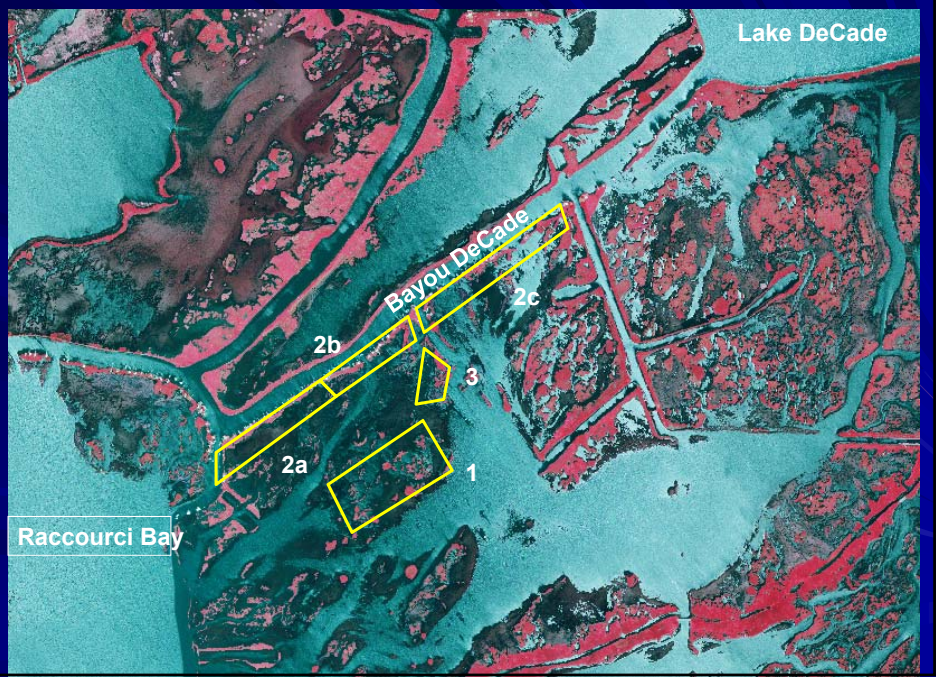
First Year Plantings

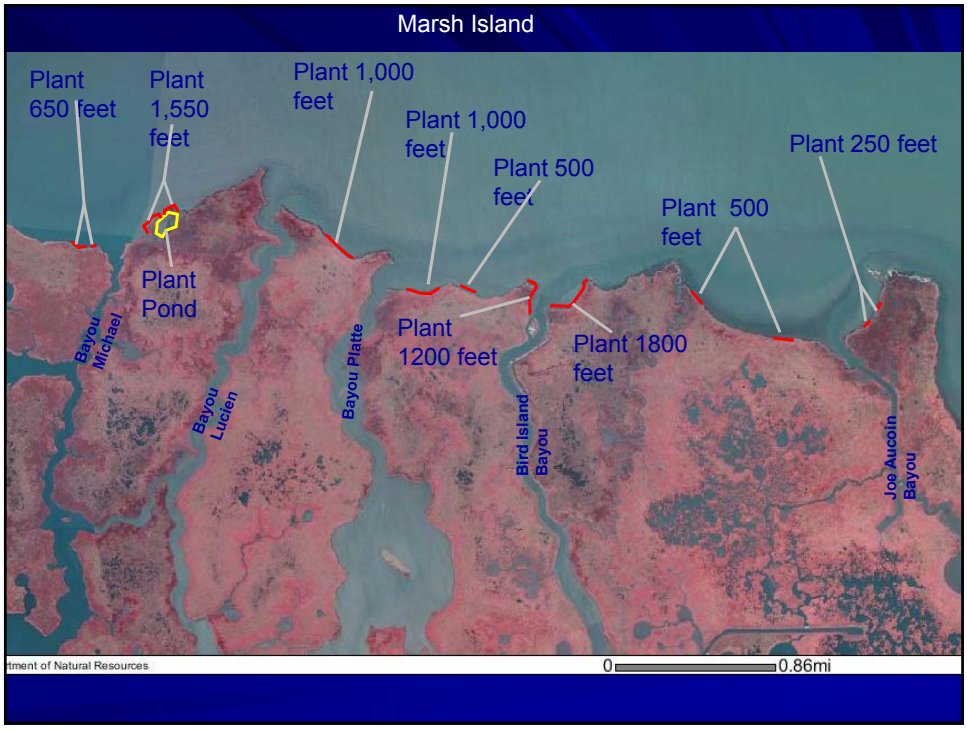
South Lake Decade: 26,870 *Spartina alterniflora* vegetative plugs, 720 *Spartina alterniflora* trade gallon sized plants, and 5,740 *Schoenoplectus californicus* trade gallon sized plants;

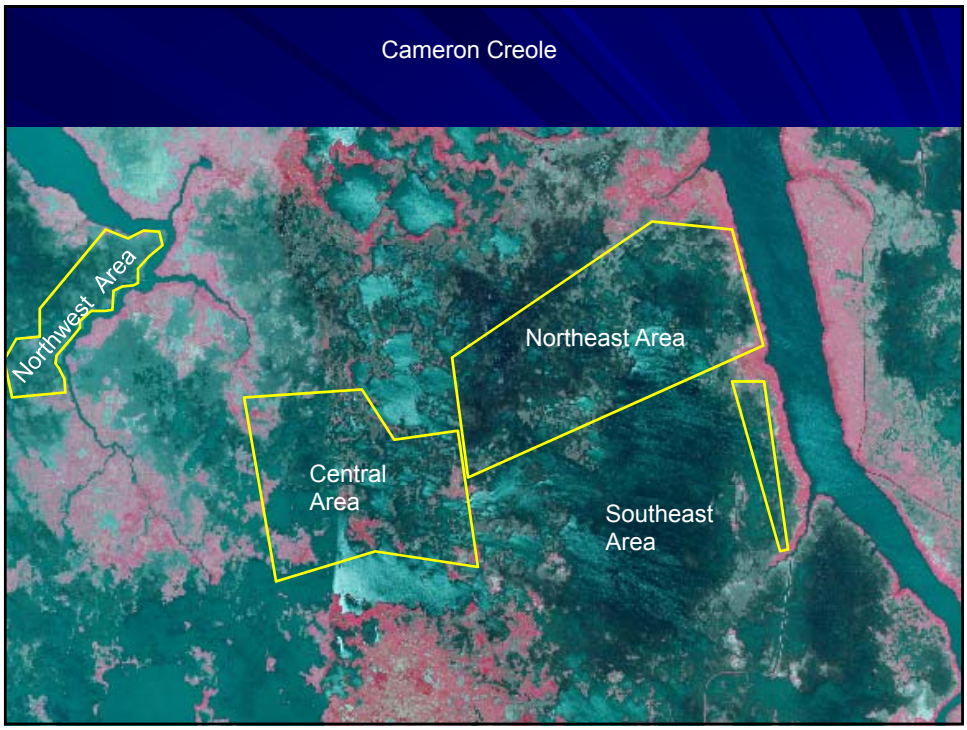
Marsh Island: 5,102 *Spartina alterniflora* trade gallon sized plants and 1,200 *Schoenoplectus californicus* trade gallon sized plants;

Cameron Creole: 74,470 *Spartina alterniflora* vegetative plugs.

South Lake DeCade




Marsh Island
Plant 650 feet
Plant 1,550 feet
Plant 1,000 feet
Plant 1,000 feet
Plant 500 feet
Plant 250 feet
Plant 500 feet
Plant Pond
Plant 1200 feet
Plant 1800 feet
Bayou Michael
Bayou Lucien
Bayou Platte
Bird Island Bayou
Joe Aucoin Bayou
tment of Natural Resources
0
0.86mi


Cameron Creole
Northwest Area
Northeast Area
Central Area
Southeast Area

COASTWIDE PLANTINGS (LA-39)

Phase II Approval Request includes approval of process for selecting planting site for nine additional years

COASWIDE PLANTINGS (LA-39)

Task	Month
Solicit sites from Project Team (PT) and CWPPRA Advisory Panel (AP)	January-February 14
PT Conduct Preliminary Screening	February 15 – February 28
PT Conduct Site Visits	March 1 – April 15
PT Conduct Preliminary Site Selection	April 15 – April 30
AP Review Site Selection	May 1 – May 15
PT Develop Planting Concept	May 16 – May 31
Landowner Permissions (for surveys, etc.)	May
Surveys	June 1 – July15
Planting Design	July 15 – August 31
Design Review (AP & CWPPRA)	September
Permit/ NEPA/Cult Res	September-November
303e / Landrights	September-November
Update Cost Estimate	September-November
Final Plans, Specifications, And Cost for Fall Planting	December-January
Advertise Contract for Fall Planting	February
Award Contract for Fall Planting	April
Final Plans, Specifications, And Cost for Fall Planting	June-July
Advertise Contract for Spring Planting	August
Award Contract for Spring Planting	October

COASWIDE PLANTINGS (LA-39)

Benefits and Cost

Net Acres after 20 years:	779 Acres
Average Annual Habitat Units:	189
Fully Funded Phase II Total:	$12,532,780
Fully Funded Phase II Increment 1:	$4,433,718

Why Fund This Project Now?

- **Project will allow rapid response to "hot spots" following storms or other damaging events**
- **Many sites available across the coast**
- **3 First Year planting sites provide timely opportunities for restoration**
- **Most cost effective: $3,874 AAC/AAHU**
  $16,290 / Net Acre
- **Low cost , affordable project**

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

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

November 29, 2011

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

RE: Coastwide Plantings Project (LA-39) - Phase Two Authorization Request

Dear Mr. Holden:

By this letter, the Natural Resources Conservation Service and the Louisiana Coastal Protection and Restoration Authority request Phase Two Authorization for the Coastwide Plantings Project (LA-39).

Pursuant to Revision 20 of the CWPPRA Standard Operating Procedures Appendix C, a document entitled "Information Required in Phase Two Authorization Request" is provided as Attachment A.

Pursuant to Revision 20 of the CWPPRA Standard Operating Procedures, Section 6.j. (2), a project estimate and spending schedule based on the 5 budget subcategories is provided as Attachment B.

If you or any members of the Technical Committee or Task Force have any questions regarding this matter, please call Quin Kinler (225) 382-2047.

Respectfully,

W. Britt Paul
Acting State Conservationist

Attachments

cc: (via email only):
Kirk Rhinehart, CPRA Technical Committee Member
Darryl Clark, USFWS Technical Committee Member
Rick Hartman, NMFS Technical Committee Member
Karen McCormick, EPA, Technical Committee Member
Brad Inman, P&E Subcommittee Chair
Chris Allen, CPRA P&E Subcommittee Member
Kevin Roy, USFWS P&E Subcommittee Member
Rachel Sweeney, NMFS P&E Subcommittee Member
Paul Kaspar, EPA P&E Subcommittee Member
John Jurgensen, NRCS P&E Subcommittee Member
Allison Murry, USCOE Contractor
Gay Browning, USCOE
Quin Kinler, Project Manager, NRCS, Baton Rouge, LA
Ken Bahlinger, Project Manager, CPRA
Dexter Sapp, Acting Assistant State Conservationist/WR, SO, NRCS, Alexandria, LA

Application for the Section 404 permit, CZM Consistency Determination, and Water Quality Certification has been submitted. An Ecological Review is not required for this project.

Vegetative Design Tasks.

Based on 1) the level of detail covered in the June 28th LA-39 Advisory Panel meeting (similar to a 30% meeting for a vegetative project), 2) documentation provided in the meeting report, and 3) support from the Advisory Panel, the Technical Committee concurred that a single design review meeting would be sufficient to represent a combined 30% and 95% design review for LA-39, in fulfillment of the requirements of the CWPPRA Standard Operating Procedures Sections 6.e.2 and 6.h.1, and Appendix C., items IV. D. and IV. E.

A successful 95% design review was conducted on November 9, 2011. A summary of that meeting and a final 95% Design Report has been made available to all CWPPRA agencies.

Description of the Phase Two Candidate Project

The Coastwide Planting (LA-39) Phase Two Candidate Project consists of providing a consistent annual mechanism for vegetative planting projects through the CWPPRA program designed to implement targeted restoration planting efforts.

For the first year, the project consists of:

1) At the South Lake Decade site, the installation of 26,870 *Spartina alterniflora* vegetative plugs, 720 *Spartina alterniflora* trade gallon sized plants, and 5,740 *Schoenoplectus californicus* trade gallon sized plants;
2) At the Marsh Island site, the installation of 5,102 *Spartina alterniflora* trade gallon sized plants and 1,200 *Schoenoplectus californicus* trade gallon sized plants; and
3) At the Cameron Creole site, the installation of 74,470 *Spartina alterniflora* vegetative plugs.

For nine subsequent years, the project consists of site selection, planting design, and plant installation utilizing the process outlined in Attachment C.

The fully-funded cost estimate for Phase II Total of the Coastwide Planting (LA-39) is $12,532,780. The current fully-funded cost estimate for Increment 1 is $4,433,718.

Checklist of Phase Two Requirements

A. List of Project Goals and Objectives. The objective of LA-39 is to provide a consistent annual mechanism for vegetative planting projects through the CWPPRA program designed to implement targeted restoration planting.
B. Cost Sharing Agreement for Phase One. The Cost Sharing Agreement for Phase One of LA-39 was executed between CPRA and NRCS on September 20, 2011.
C. Landrights Notification. By letter to Kevin Norton, NRCS, dated November 17, 2011, CPRA has provided notice that landrights will be completed in a reasonable period of time after Phase II approval (copy enclosed).
D. Favorable Preliminary Design Review. Based on 1) the level of detail covered in the June 28th LA-39 Advisory Panel meeting (similar to a 30% meeting for a vegetative project), 2) documentation provided in the meeting report, and 3) support from the Advisory Panel, the Technical Committee concurred that a single design review meeting would be sufficient to represent a combined 30% and 95% design review for LA-39, in fulfillment of the requirements of the CWPPRA Standard Operating Procedures Sections 6.e.2 and 6.h.1, and Appendix C., items IV. D. and IV. E.
E. Final Project Design Review. A successful 95% design review was conducted on November 9, 2011. A summary of that meeting and a final 95% Design Report has been made available to all CWPPRA agencies.
F. Environmental Assessment. It has been determined that the project qualifies for a categorical exclusion for the National Environmental Policy Act (NEPA). Documentation of the categorical exclusion will be included in the project files.
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 has been submitted.
I. HTRW Assessment. NRCS procedures do not call for an HTRW assessment on this project.
J. Section 303e Approval. Section 303e approval request was submitted to the Corps of Engineers on October 27, 2011.
K. Overgrazing Determination. NRCS has determined that overgrazing is not, and is not anticipated to be, a problem in the three sites selected for the first year of the project. For subsequent years, overgrazing determinations will be made once planting sites are selected.
L. Revised fully funded cost estimate, generated by the Economic Work Group, is $12,689,725. The revised fully funded cost estimate for Phase II is $12,532,780. The revised fully funded cost estimate for Phase II – Increment 1 is $4,433,718. The required spreadsheet is enclosed.
M. Wetland Value Assessment. On October 5, 2011, the Environmental Work Group determined that the LA-39 Phase 0 Wetland Value Assessment will stand as the "WVA reviewed and approved by the EnvWG".

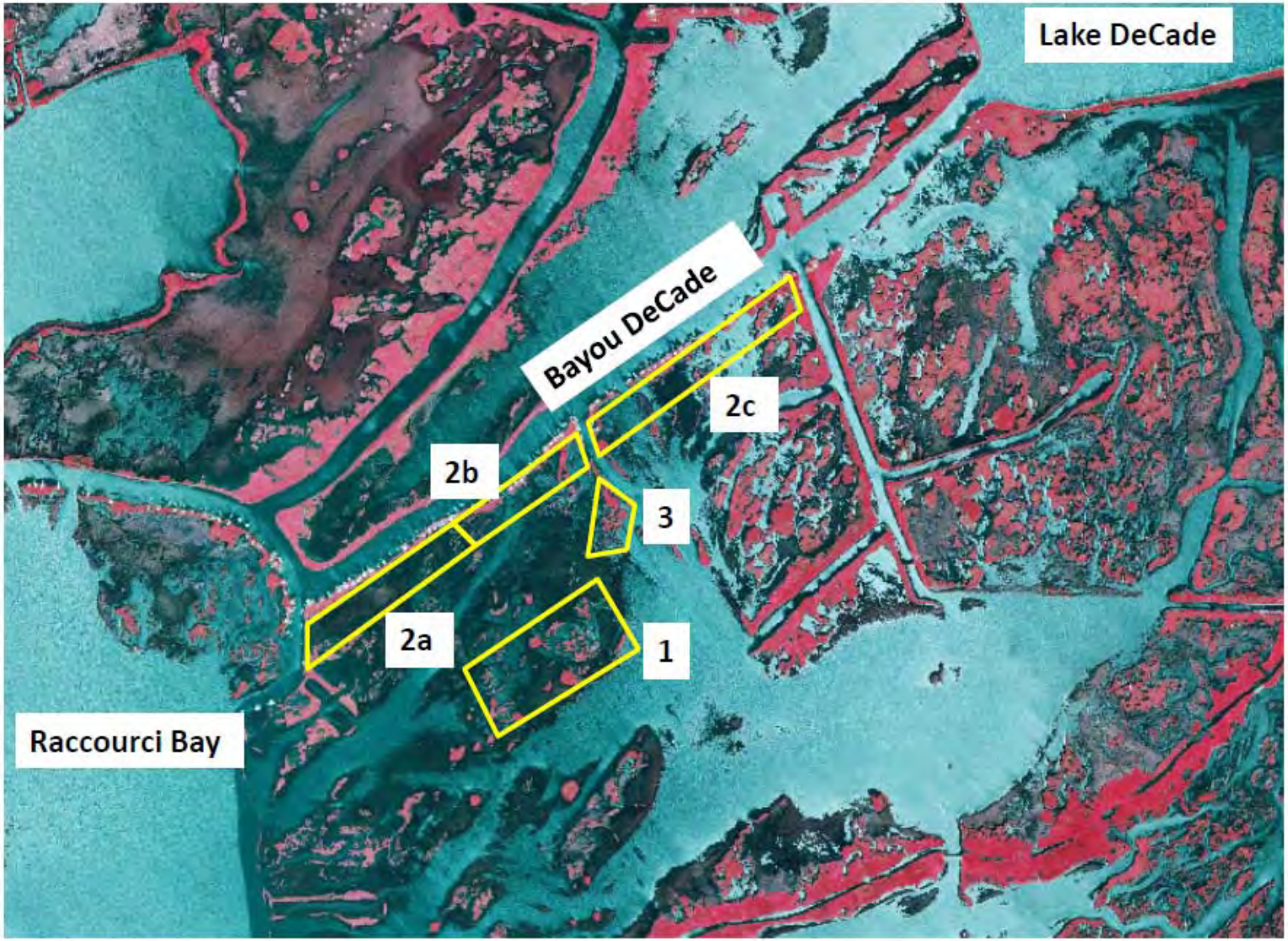


Figure 1. Coastwide Planting Project (LA-39) South Lake DeCade Site Map.

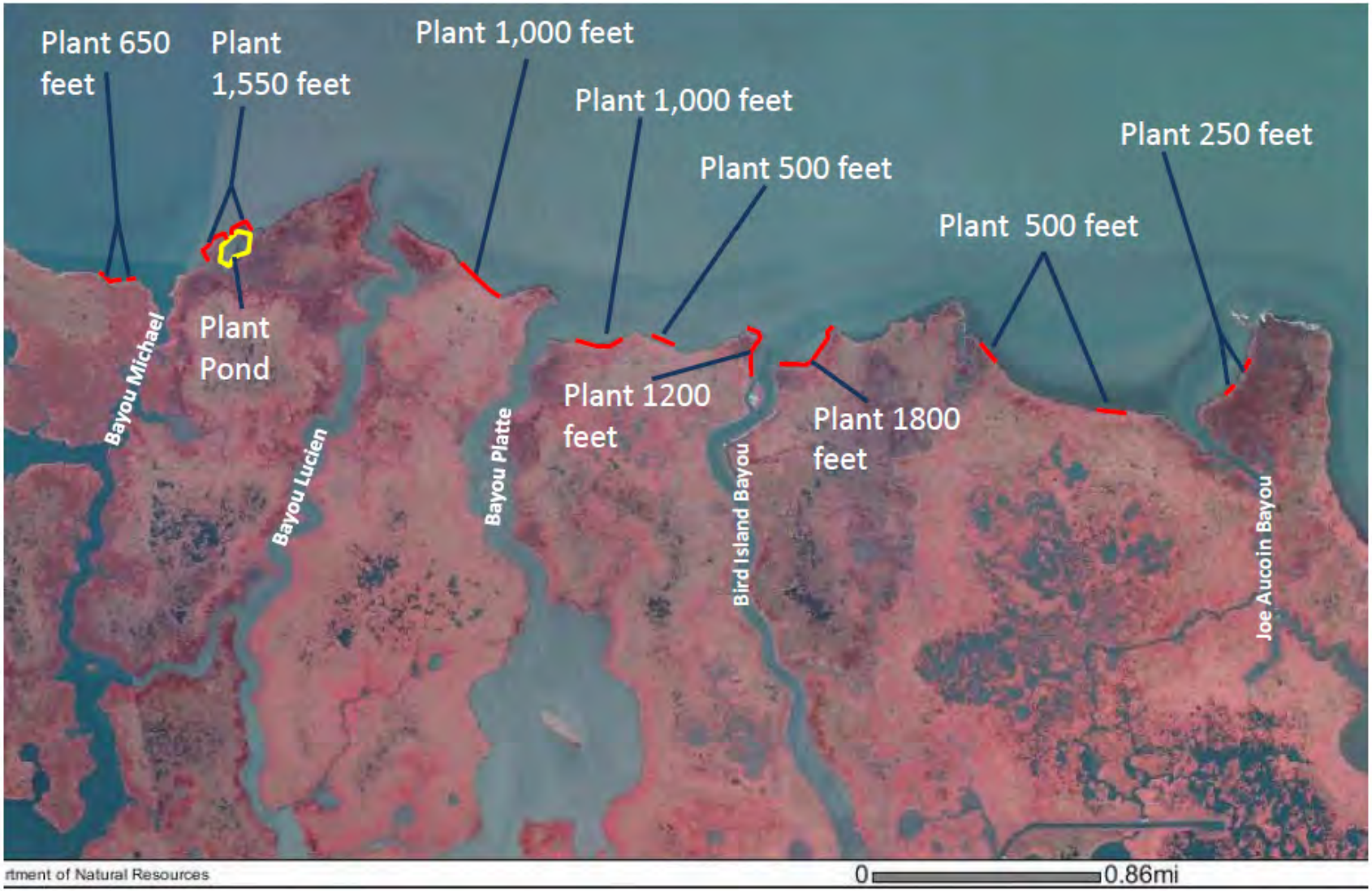


Figure 2. Coastwide Planting Project (LA-39) Marsh Island Site Map.

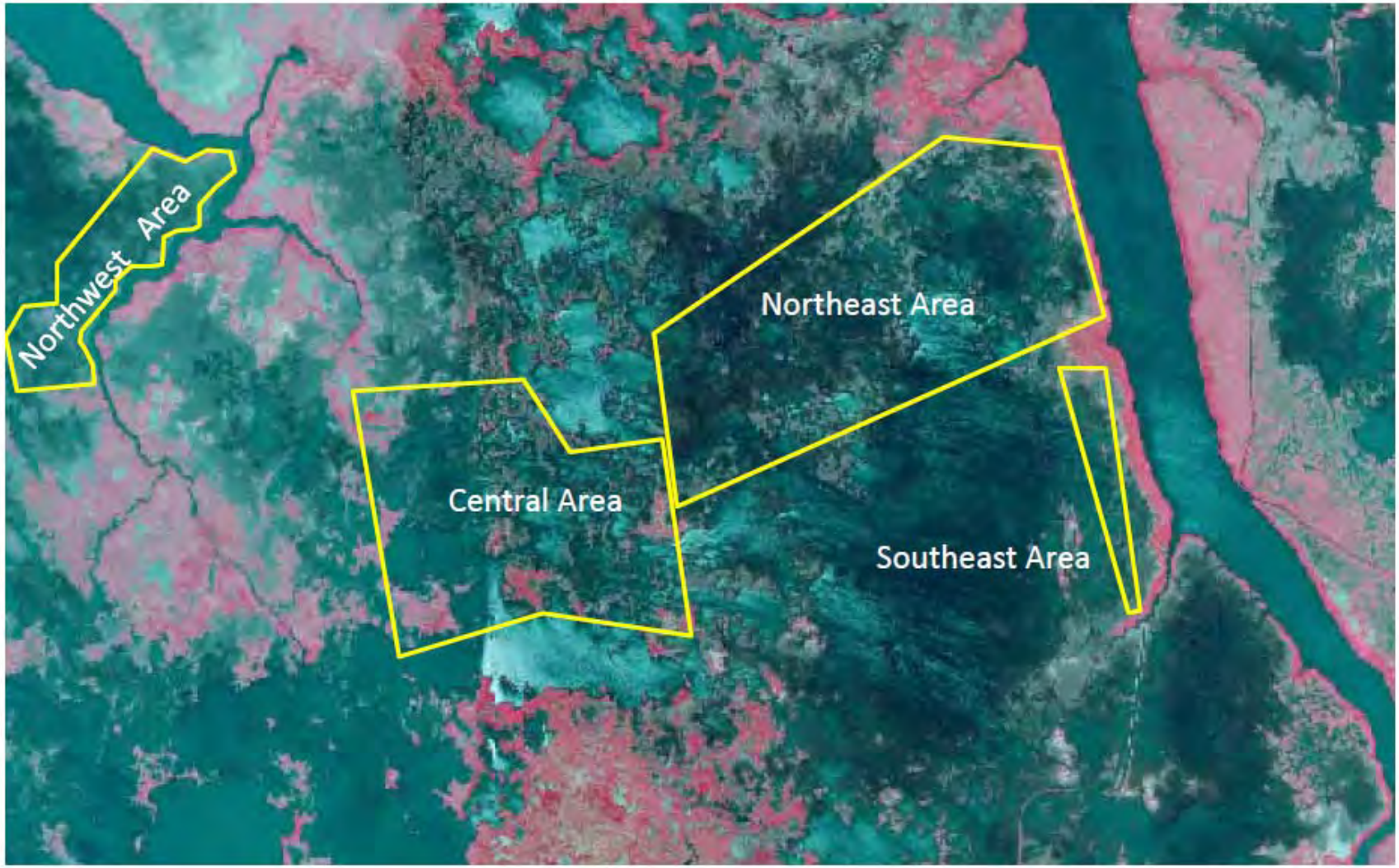


Figure 3. Coastwide Planting Project (LA-39) Cameron Creole Site Map.

ATTACHMENT C

Coastwide Vegetative Plantings (LA-39)

Site Selection Process (After Year 1)
Revised July 29, 2011

A. General Schedule

Task	Month
Solicit sites from Project Team (PT) and CWPPRA Advisory Panel (AP)	January-February 14
PT Conduct Preliminary Screening	February 15 – February 28
PT Conduct Site Visits	March 1 – April 15
PT Conduct Preliminary Site Selection	April 15 – April 30
AP Review Site Selection	May 1 – May 15
PT Develop Planting Concept	May 16 – May 31
Landowner Permissions (for surveys, etc.)	May
Surveys	June 1 – July15
Planting Design	July 15 – August 31
Design Review (AP & CWPPRA)	September
Permit/ NEPA/Cult Res	September-November
303e / Landrights	September-November
Update Cost Estimate	September-November
Final Plans, Specifications, And Cost for Fall Planting	December-January
Advertise Contract for Fall Planting	February
Award Contract for Fall Planting	April
Final Plans, Specifications, And Cost for Fall Planting	June-July
Advertise Contract for Spring Planting	August
Award Contract for Spring Planting	October

Note: Dates for Advertising and Awarding contract may shift 2 months forward or back to accommodate project specific needs and contracting procedures.

B. Identification of Potential Sites

The NRCS/OCPR Project Team and CWPPRA Advisory Panel will identify potential sites by February 14 of each year.

C. Preliminary Site Screening Criteria

The NRCS/OCPR Project Team will screen all identified potential sites using the following criteria:

1. Probability of Success (based on existing known information): 30 points

Factors considered include:

- N-value
- Water Depth
- Water Salinity
- Fetch Length
- Bank Slope (shoreline sites only)
- Herbivory

2. Implementability: 25 points

Sites meeting all of the following criteria will receive 25 points. Point reductions will be determined by consensus based on available information.

- Landowner routinely provides written access permission to NRCS
- Landowner routinely executes State easement, MOA, etc
- No access route concerns re oysters, pipelines, etc
- No logistics issues
- No site modification needed

3. Urgency: 20 points

Highest to lowest point value assigned in order of the following:

- Potential for project success greatly reduced if not implemented in 1 year
- Potential for project success greatly reduced if not implemented by 1.5 years
- Potential for project success greatly reduced if not implemented by 2.5 years
- Potential for project success greatly reduced if not implemented by 3.5 years
- Project not time sensitive

4. Landscape Value: 15 points

Highest to lowest point value assigned in order of the following:

- Project will help maintain a critical landscape feature
- Project synergistic with other projects that collectively maintain a critical landscape feature and/or critical landscape function such as sediment capture/retention
- Project represents an initial contribution to maintaining a critical landscape feature
- Project's value is primarily self-contained

5. Relation to Existing CWPPRA Project: 10 points

Highest to lowest point value assigned in order of the following:

- New vegetative project
- Enhancement of existing CWPPRA project
- Located in direct benefit area of CWPPRA project, e.g., in terrace field
- Repair of damage to CWPPRA project feature
- Maintenance of CWPPRA project feature
- Component of new CWPPRA project

D. <u>Preliminary Site Selection and Review</u>

The NRCS/OCPR Project Team will identify an appropriate break point in the ranked sites. Projects below that break point may be considered in subsequent years. Projects above that break point will be discussed to determine if there are any known factors that may significantly delay, hamper, or confound project implementation or potential success. There will be an attempt to narrow the list of sites to about 3 to 6. Project site visits will be conducted for these 3 to 6 sites. The results of the site visits and a recommendation of 1 to 4 sites will be presented to the Advisory Panel. The Advisory Panel will review and provide comments regarding the preliminary site selection.

E. Planting Concept, Survey and Planting Design

The NRCS/OCPR Project Team will develop the planting concept. NRCS will conduct the necessary surveys and develop a planting design. The NRCS/OCPR Project Team will review and comment on the planting design.

F. Design Review

NRCS/OCPR Project Team will announce, distribute supporting materials for, and conduct a single review to represent a combined 30% and 95% design review with the Advisory Panel and CWPPRA representatives.

Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

November 17, 2011

Mr. Kevin D. Norton
State Conservationist
US Department of Agriculture
3737 Government Street
Alexandria, LA 71302

RE: Coastwide Planting Project (LA-39)
Landrights 95% Status

Dear Mr. Norton:

Appendix C of the November 14, 2011, CWPPRA SOP requires "Notification from the State or the Corps that land rights will be finalized in a short period of time after Phase II Approval."

The purpose of this letter is to inform the CWPPRA committees and Task Force that the process for landrights acquisition is progressing on the above reference project. All ownership investigations should be completed couple of months. The three Coastwide Plantings sites appear to be owned by Louisiana Department of Wildlife and Fisheries (Marsh Island Wildlife Management Area), U.S. Fish and Wildlife Service (Cameron Prairie National Wildlife Refuge), The Louisiana Land and Exploration Company, LLC. All have verbally approved the plans and specifications.

At this time, no significant land rights acquisition problems are anticipated. Therefore, CPRA is confident that land rights for the above referenced project will be finalized in a reasonable period of time after Phase II Approval. If you have questions regarding this matter, please contact me at (225-342-5068).

Sincerely,

Ben Barnes
CPRA Land Specialist

C: Kenneth Bahlinger, Project Manager
C: Quin Kinler - NRCS
LA-39 Coastwide Planting Project to COE for PH2 approval

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

Public Comments

THE LOUISIANA LAND AND EXPLORATION COMPANY
806 BAYOU BLACK DRIVE
HOUMA, LOUISIANA 70360

November 22, 2011

Colonel Edward Fleming
District Engineer, New Orleans
C/O: Brad Inman
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Proposed BA-76 CWPPRA Project
Chenier Ronquille Barrier Shoreline Restoration
And Marsh Creation Project
Plaquemines Parish, Louisiana

Dear Colonel Fleming,

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

This project will tie into and compliment the existing and proposed projects in this area. The BA-38 Pass LaMer to Chaland Pass Restoration Project which was just recently completed and BA-30 East Grand Terre Restoration Project presently under construction will all work together to protect and enhance this area of the Barataria Basin.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We along with Fina-LaTerre, now Apache were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in

Plaquemines Parish. We humbly request that the Technical Committee consider and recommend for Phase II approval. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Plaquemines Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

Phillip R. Precht
Manager -Feelands

PRP/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/BA 76 CWPPRA Chenier Ronquille Project letter

THE LOUISIANA LAND AND EXPLORATION COMPANY
806 BAYOU BLACK DRIVE
HOUMA, LOUISIANA 70360

November 22, 2011

Colonel Edward Fleming
District Engineer, New Orleans
C/O: Brad Inman
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Proposed BA-68 CWPPRA Project
Grand Liard Marsh and Ridge Restoration Project
Plaquemines Parish, Louisiana

Dear Colonel Fleming,

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

This project will restore both structural and habitat functions of Grand Liard Bayou and marshes in the area. It will also recreate the ridges and be planted with woody and marsh vegetation that will help to protect and enhance this area of the Barataria Basin.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We, along with Fina-LaTerre, now Apache, were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Plaquemines Parish. We humbly request that the Technical Committee consider and

recommend for Phase II approval. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Plaquemines Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

Phillip R. Precht
Manager -Feelands

PRP/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/BA 68 CWPPRA Grand Liard Project letter

THE LOUISIANA LAND AND EXPLORATION COMPANY
806 BAYOU BLACK DRIVE
HOUMA, LOUISIANA 70360

November 22, 2011

Colonel Edward Fleming
District Engineer, New Orleans
C/O: Brad Inman
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Proposed LA-39 CWPPRA Project
Coastwide Planting Project
Terrebonne Parish, Louisiana

Dear Colonel Fleming,

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

This project will tie into and compliment the existing and proposed projects in this area. The TE-44 Lake Mechant Landbridge Restoration Project which was just recently completed and TE-28 Brady Canal Restoration Project will all work together to protect and enhance this area of the Bayou Decade.

LL&E has long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We, along with Fina-LaTerre, now Apache, were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. We have also issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we are requesting your support for this Project, we feel it is important for the preservation of coastal wetlands in Terrebonne Parish. We humbly request that the Technical Committee consider and

recommend for Phase II approval. We support this Project and sincerely believe that it will be of great value in enhancing the wetlands of this area in Terrebonne Parish.

We strongly urge your support for this Project.

Thank you in advance for your favorable support for this Project.

Sincerely,

Phillip R. Precht
Manager -Feelands

PRP/dbg

S/Jeff/DNR CWPRA and Coast 2050 projects/LA 39 CWPPRA Coastwide planting Project letter

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

CWPPRA PROGRAM FUNDING CAPACITY

For Discussion:

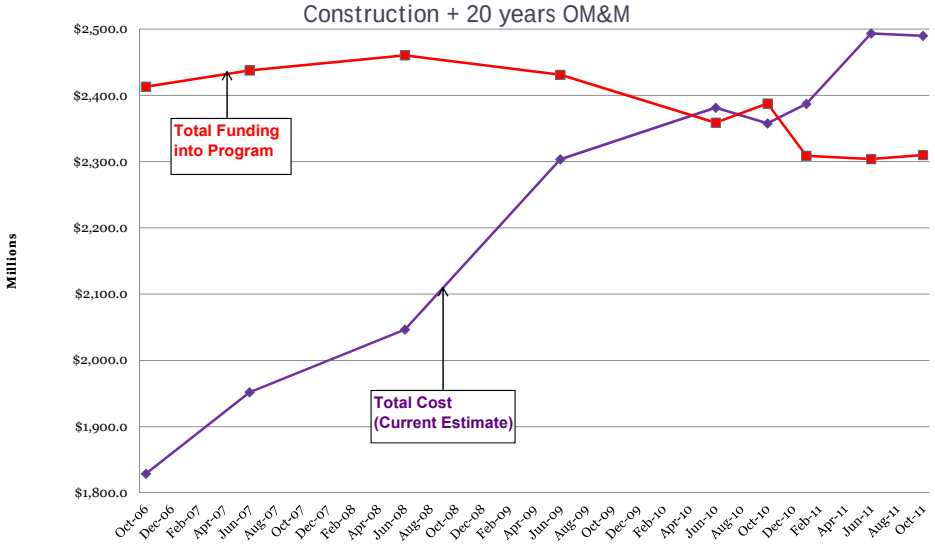
The Technical Committee will discuss the CWPPRA program's future funding capacity and implications for future project priority lists. This discussion will provide the P&E Committee guidance on developing action items by the next Technical Committee meeting.

CWPPRA

CWPPRA Program Funding Capacity Issues

Can CWPPRA fulfill it's existing construction, monitoring, and O&M under current 2019 Authorization based upon current trends?

Total Funding Required (projects for which construction has started)
Construction + 20 years OM&M



	Oct-06	Jun-07	Jun-08	Jun-09	Jun-10	Oct-10	Jan-11	Jun-11	Oct-11
Current Estimate	$1,829.0	$1,951.9	$2,046.6	$2,303.4	$2,381.3	$2,357.6	$2,387.1	$2,493.4	$2,489.8
Total Funding	$2,413.0	$2,437.6	$2,460.4	$2,431.0	$2,358.7	$2,387.7	$2,308.8	$2,303.8	$2,310.0

Project Budget Increase Analysis

Fiscal Year	Construction Budget Increases	O&M Budget Increases		Monitoring Budget Increases		Total
		PPL 1 - 8	PPL 9+	PPL 1 - 8	PPL 9+	
FY 2004		$506,109				$506,109
FY 2005		$1,100,000			$143,610	$1,243,610
FY 2006	$2,818,404	$1,859,116				$4,677,520
FY2007	$25,304,534	$2,829,656				$28,134,190
FY2008	$7,462,596	$1,397,267				$8,859,863
FY2009	$5,000,000	$21,175,265	$3,091,351			$29,266,616
FY2010		$7,567,617	$466,948			$8,034,565
FY 2011	$13,477,632		$3,651,423	$405,938		$17,534,993
FY 2012	$2,475,000	$1,689,769	$180,966	$104,545	$56,247,038	$60,697,318
TOTAL	**$56,538,166**	**$37,618,690**	**$7,390,688**	**$510,483**	**$56,390,648**	**$158,954,784**

CWPPRA Program Funding Capacity Issues

- Potential Program Funding shortfalls lead to fundamental questions such as:
  - How much money has to be set aside for ongoing O&M and Monitoring for the 20-year project life's?
  - How much money is required for ongoing administration of the funds and management of those projects?
  - What is the ongoing Program impact of projects being carried in the program with limited chance of being approved for Phase II?

CWPPRA Program Funding Capacity Issues

- How many more PPLs can the CWPPRA program generate?
  - Potential Options that have been discussed in the past:
    - Approve up to 4 projects each PPL through 2015 (PPL 24)
    - Approve fewer projects each PPL to "stretch" planning years
    - Skip a year between PPLs (M. Goodman, 2008 Presentation)
- Suggestion:

  Comprehensive analysis of Program Capacity needs to be conducted to determine how many more projects can be funded and how much money needs to be held in reserve to pay for program obligations within our authorized budget capacity.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

ADDITIONAL AGENDA ITEMS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

REQUEST FOR PUBLIC COMMENTS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

PRIORITY PROJECT LIST 22 REGIONAL PLANNING TEAM MEETINGS

For Announcement:

January 24, 2012	1:00 p.m.	Region IV Planning Team Meeting	Abbeville
January 25, 2012	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 26, 2012	9:00 a.m.	Region II Planning Team Meeting	New Orleans
January 26, 2012	1:00 p.m.	Region I Planning Team Meeting	New Orleans
February 15, 2012	10:00 a.m.	RPT Voting Meeting	Baton Rouge

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 13, 2011

DATE OF UPCOMING CWPPRA PROGRAM MEETING

For Announcement:

The Task Force meeting will be held January 19, 2012 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 13, 2011

SCHEDULED DATES OF FUTURE PROGRAM MEETINGS

For Announcement:

2012

January 19, 2012	9:30 a.m.	Task Force	New Orleans
January 24, 2012	1:00 p.m.	Region IV Planning Team Meeting	Abbeville
January 25, 2012	9:00 a.m.	Region III Planning Team Meeting	Morgan City
January 26, 2012	9:00 a.m.	Region II Planning Team Meeting	New Orleans
January 26, 2012	1:00 p.m.	Region I Planning Team Meeting	New Orleans
February 15, 2012	10:00 a.m.	RPT Voting Meeting	Baton Rouge
April 19, 2012	9:30 a.m.	Technical Committee	New Orleans
June 28, 2012	9:30 a.m.	Task Force	Lafayette
September 12, 2012	9:30 a.m.	Technical Committee	Baton Rouge
October 11, 2012	9:30 a.m.	Task Force	New Orleans
November 14, 2012	7:00 p.m.	PPL 23 Public Comment Meeting	Abbeville
November 15, 2012	7:00 p.m.	PPL 23 Public Comment Meeting	New Orleans
December 12, 2012	9:30 a.m.	Technical Committee Meeting	Baton Rouge