

CWPPRA

Coastal Wetlands Planning, Protection and Restoration Act



Technical Committee Meeting

April 16, 2015

Baton Rouge, Louisiana



ATTENDANCE RECORD



DATE(S) April 16, 2015 9:30 A.M.	SPONSORING ORGANIZATION COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LOCATION LA Department of Wildlife and Fisheries (Louisiana Room) 2000 Quail Drive Baton Rouge, LA
--	---	--

PURPOSE: MEETING OF THE CWPPRA TECHNICAL COMMITTEE

PARTICIPANT REGISTER*		
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
<i>[Signature]</i>	Director Coastal Wetlands - COP	337-540-0800
<i>[Signature]</i>	NRCS	225-665-4253
<i>[Signature]</i>	PPG LCP Manager	504-912-5773
Gorvin Pittman	CPRA - Project Manager	225-229-3809
Frank Cucco	CPRA - PM	337-288-4457
Cecelia Linder	NOAA Fisheries	301-427-8675
<i>[Signature]</i>	CONOCO Phillips	504-415-8181
<i>[Signature]</i>	USFWS	337-291-3111
Tommy McInnis	CPRA-Ops - LRO	337-482-0665
James Harris	USFWS	
Ryan Bourgeois	Cameron Parish Administrator	337-775-5718
RALPH LIBERGAT	Vermilion Parish	337-652-6557
Jason Knoll	NOAA NMFS	225-757-5411
Lolanda Broussard	USDA - NRCS	337-291-3069
MANE WINGATE	USACE PM-	504-862-2512
Troy Mallard	NRCS	337/291-3064
Don Boutang	NRCS	337-291-3067
Cassidy Lejeune	LDWF	337-313-0030
Michelle Fischer	USGS	225-578-7483
Patrick Williams	NOAA Fisheries	225-389-0508
Alta Jones	USDA - NRCS	
BARRY HEBERT	LDWF	225-765-0733

* 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

April 16, 2015, 9:30 a.m.

Location:

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

Documentation of Technical Committee meetings may be found at:

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

Tab Number

Agenda Item

1. **Meeting Initiation 9:30 a.m. to 9:40 a.m.**
 - a. Introduction of Technical Committee or Alternates
 - b. Opening remarks of Technical Committee Members
 - c. Request for Agenda Changes/Additional Agenda Items/Adoption of Agenda
2. **Report: Status of CWPPRA Program Funds and Projects (Susan Mabry, USACE) 9:40 a.m. to 9:50 a.m.** Ms. Susan Mabry will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.
3. **Report/Decision: Selection of Ten Candidate Projects and up to Two Demonstration Projects to Evaluate for PPL 25 (Kevin Roy, FWS) 9:50 a.m. to 10:45 a.m.** The Technical Committee will consider preliminary costs and benefits of the 25th Priority Project List (PPL) project and demonstration project nominees listed below. The Technical Committee will select 10 projects and may select up to 2 demonstration projects as PPL 25 candidates to be evaluated for Phase 0 analysis, which will be considered later for final selection of projects that will be approved for Phase I (Planning and Engineering and Design).

Region	Basin	PPL 25 Nominees	Agency
1	Pontchartrain	North Shell Beach Marsh Creation	USACE/EPA
1	Pontchartrain	Fritchie Marsh Creation & Terracing	NMFS
1	Pontchartrain	St. Catherine Island Shoreline Protection & Marsh Creation	FWS
2	Barataria	Caminada Headlands Back Barrier Marsh Creation #2	EPA
2	Barataria	Barataria Bay Rim Marsh Creation	NRCS
2	Barataria	East Bayou Lafourche Marsh Creation & Terracing	FWS
2	Barataria	East Leeville Marsh Creation & Nourishment	NMFS
3	Terrebonne	Bayou Dularge Ridge Restoration & Marsh Creation	NRCS
3	Terrebonne	Bayou Terrebonne Ridge Restoration & Marsh Creation	NMFS

3	Terrebonne	Bayou Jean Lacroix Marsh Creation & Terracing	NMFS
3	Terrebonne	South Bayou Pointe aux Chenes Marsh Creation & Terraces	NRCS
3	Teche-Vermilion	West Vermilion Bay Shoreline Protection & Marsh Creation	NRCS/EPA
3	Teche-Vermilion	Lake Sand Complex Shoreline Protection	NRCS
4	Calcasieu-Sabine	Oyster Lake Marsh Creation & Nourishment	NMFS
4	Calcasieu-Sabine	East Holly Beach Gulf Shoreline Protection	NRCS
4	Mermentau	Southeast Pecan Island Marsh Creation & Freshwater Enhancement	NRCS
4	Mermentau	Sweeney Tract Marsh Creation & Nourishment	NMFS
	Coastwide	Southwest Louisiana Salvinia Weevil Propagation	FWS

PPL 25 Demonstration Project Nominees		Agency
DEMO	Wave Robber (Wave Suppressor Sediment Collection System)	TBD
DEMO	Shoreline Protection, Preservation & Restoration (SPPR) Panel	NMFS

4. Report/Decision: Upcoming 20-Year Life Projects (Brad Inman, USACE) 10:45 a.m. to 11:00 a.m. The project sponsors will present recommended paths forward for projects nearing the end of their 20 year lives. The Technical Committee will vote on a recommendation to the Task Force on the path forward for the following projects:

- a. Projects requesting approval for project closeout with no additional cost increase:

CS-22	Clear Marais Bank Protection	USACE	Mar 2017
TE-22	Point au Fer Canal Plugs	NMFS	May 2017
MR-06	Channel Armor Gap Crevasse	USACE	Nov 2017
AT-02	Atchafalaya Sediment Delivery	NMFS	Mar 2018
TE-23	West Belle Pass Barrier Headland Restoration	USACE	Aug 2018
AT-03	Big Island Mining	NMFS	Oct 2018
PO-19	MRGO Disposal Area Marsh Protection	USACE	Jan 2019
TE-26	Lake Chapeau Sediment Input & Hydrologic Restoration	NMFS	May 2019

- b. Projects requesting approval to pursue project extension through formal evaluation:

CS-04a	Cameron-Creole Maintenance	NRCS	Sep 2017
CS-17	Cameron Creole Plugs	FWS	Jan 2017

- c. Projects requesting approval for no-cost extension:

PO-18	Bayou Sauvage Hydrologic Restoration #2	FWS	May 2017
-------	---	-----	----------

- d. Projects requesting approval for project closeout pending final O&M cost increases in the amount of \$1,274,967:

TV-09	Boston Canal/Vermilion Bay Bank Protection	NRCS	Nov 2015	\$630,891
CS-20	East Mud Lake Marsh Management	NRCS	Jun 2016	\$643,986

- e. Projects requesting approval for 20-year extension and cost increases in the amount of \$7,056,150:

ME-04	Freshwater Bayou Wetland Protection	NRCS	Mar 2015	\$3,789,112
ME-13	Freshwater Bayou Bank Stabilization	NRCS	Jun 2018	\$3,267,038

- 5. Decision: FY16 Planning Budget Approval, including the PPL 26 Process, and Presentation of FY16 Outreach Budget (Process, Size, Funding, etc.) (Brad Inman, USACE) 11:00 a.m. to 11:10 a.m.** The P&E Subcommittee will present their recommended FY16 Planning Program Budget development, including the PPL 26 Process.

 - a. The Technical Committee will vote on a recommendation to the Task Force to approve that the PPL 26 Process include selecting four nominees in the Barataria and Terrebonne Basins; three projects in the Breton Sound and Pontchartrain Basins; two nominees in the Mermentau, Calcasieu/Sabine, and Tech/Vermilion Basins; and one nominee will be selected in the Atchafalaya Basin.
 - b. The Technical Committee will vote on a recommendation to the Task Force to approve the FY16 Outreach Committee Budget, in the amount of \$446,113.
 - c. The Technical Committee will vote on a recommendation to the Task Force to approve the FY16 Planning Budget (includes Outreach Committee Budget), in the amount of \$5,002,132.
- 6. Report: Status of the 2015 Report to Congress (Darryl Clark, FWS) 11:10 a.m. to 11:15 a.m.** Mr. Darryl Clark will provide a status update on the 2015 Report to Congress.
- 7. Report: Sediment Containment for Marsh Creation Demonstration Project (LA-09) Final Report (Ron Boustany, NRCS) 11:15 a.m. to 11:25 a.m.** NRCS will present the Final Report for the Sediment Containment for Marsh Creation Demonstration Project (LA-09). A brief PowerPoint presentation will be provided along with information on how to access the Final Report.
- 8. Decision: Request to Transfer Funds within PPL 14 – East Marsh Island Marsh Creation (TV-21) from Phase I and Phase II Contingency to Phase II Monitoring and O&M (Jodi White, CPRA) 11:25 a.m. to 11:30 a.m.** CPRA and NRCS propose to transfer funds from Phase I and from Phase II contingency to Phase II Monitoring and O&M, reducing overall project costs by \$32,537. The revised total project cost would be decreased to \$22,992,913. The Technical Committee will vote on a recommendation to the Task Force to approve the funds transfer for TV-21.
- 9. Decision: Request for O&M Budget and Incremental Funding Increase for the Black Bayou Culverts Project (CS-29) (Britt Paul, NRCS) 11:30 a.m. to 11:40 a.m.** The CS-29 Black Bayou Culverts structure was experiencing tidal salt water ingress at the project site through voids that developed underneath the culvert structure. To address the problem, NRCS and CPRA requested funding for the formulation of a design to permanently repair the structure. Lonnie Harper & Associates was chosen to perform the design of the proposed repair. At the January 16, 2014 Task Force meeting, the Task Force approved a project increase to fund the repair work. The contract award for these repairs was \$6,920,303, which is within the budgeted allocation for this work, but it leaves very little funds available for modification and contingencies. Due to the nature of the repair work and to allow timely potential modifications through the completion of the contract, NRCS and CPRA request a project budget and funding increase of \$500,000 for the Black Bayou Culverts Project (CS-29). The revised total project cost would be

\$16,899,059. The Technical Committee will vote on a recommendation to the Task Force to approve an O&M budget and incremental funding increase for CS-29.

- 10. Decision: Scope Change Request for Cameron Creole Freshwater Introduction Project (CS-49) (Troy Mallach, NRCS) 11:40 a.m. to 11:50 a.m.** NRCS has completed 30% design of the Cameron Creole Freshwater Introduction Project (CS-49) and CPRA has concurred with proceeding to 95% Design. Based on revisions to costs and benefits, NRCS requests approval of a scope change and to proceed with the project. The Technical Committee will vote on a recommendation to the Task Force regarding the scope change and whether to proceed with the project.
- 11. Decision: Request for Approval for Final Deauthorization of the PPL 19 – Chenier Ronquille Barrier Island Restoration Project (BA-76) (Cece Linder, NMFS) 11:50 a.m. to 11:55 a.m.** NMFS and CPRA are requesting approval for final deauthorization for the Chenier Ronquille Barrier Island Restoration Project (BA-76) due to securing of construction funds for this project from the Deepwater Horizon Oil Spill Phase III Early Restoration Plan in October 2014. This project had a favorable 95% design review through the CWPPRA process but did not secure phase 2 funding approval in 2012 and 2013. The Technical Committee will vote on a recommendation to the Task Force to approve final deauthorization of the Chenier Ronquille Barrier Island Restoration project.
- 12. Decision: Request for Approval for Final Deauthorization of the PPL 17 – West Pointe a la Hache Marsh Creation Project (BA-47) (Bren Haase, CPRA) 11:55 a.m. to 12:00 p.m.** CPRA and NRCS are requesting approval for final deauthorization for the West Pointe a la Hache Marsh Creation (BA-47) Project. This project is currently being constructed utilizing remaining CWPPRA funds from the Lake Hermitage Marsh Creation project (BA-42). The Technical Committee will vote on a recommendation to the Task Force to approve final deauthorization of the West Pointe a la Hache Marsh Creation project.
- 13. Additional Agenda Items (Brad Inman, USACE) 12:00 p.m. to 12:05 p.m.**
 - **Decision: Request to Redistribute Funds for PPL 4 – Barataria Waterway West Bank Protection Project (BA-23) (Luke Prendergast, CPRA)** The Barataria Waterway West Bank Protection Project's (BA-23) first costs (E&D, Lands, and Construction) have been reconciled and \$291,422 was returned to the program. CPRA and NRCS request those funds be returned to the BA-23 Operation and Maintenance budget. The total project cost previously approved by the Task Force would remain at \$3,304,787. The Technical Committee will vote on a recommendation to the Task Force to approval the request to redistribute funds for BA-23.
- 14. Request for Public Comments (Brad Inman, USACE) 12:05 p.m. to 12:10 p.m.**
- 15. Announcement: Date of Upcoming CWPPRA Program Meeting (Brad Inman, USACE) 12:10 p.m. to 12:15 p.m.** The Task Force meeting will be held May 14, 2015 at 9:30 a.m. at the Estuarine Habitats and Fisheries Center, 646 Cajundome Blvd., Lafayette, Louisiana.

16. Announcement: Date of Upcoming CWPPRA 25th Anniversary Dedication Event (Brad Inman, USACE) 12:15 p.m. to 12:20 p.m. A Dedication Ceremony will be held on October 14, 2015 to celebrate the 25th Anniversary of the CWPPRA Program. The ceremony will begin at 10:00 a.m. in Grand Isle, Louisiana. More details will be provided via the CWPPRA Newsflash.

17. Announcement: Scheduled Dates of Future Program Meetings (Brad Inman, USACE) 12:20 p.m. to 12:25 p.m.

May 14, 2015	9:30 a.m.	Task Force	Lafayette
September 10, 2015	9:30 a.m.	Technical Committee	Baton Rouge
October 15, 2015	9:30 a.m.	Task Force	Grand Isle
December 10, 2015	9:30 a.m.	Technical Committee	Baton Rouge

18. Decision: Adjourn

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

MEETING INITIATION

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

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

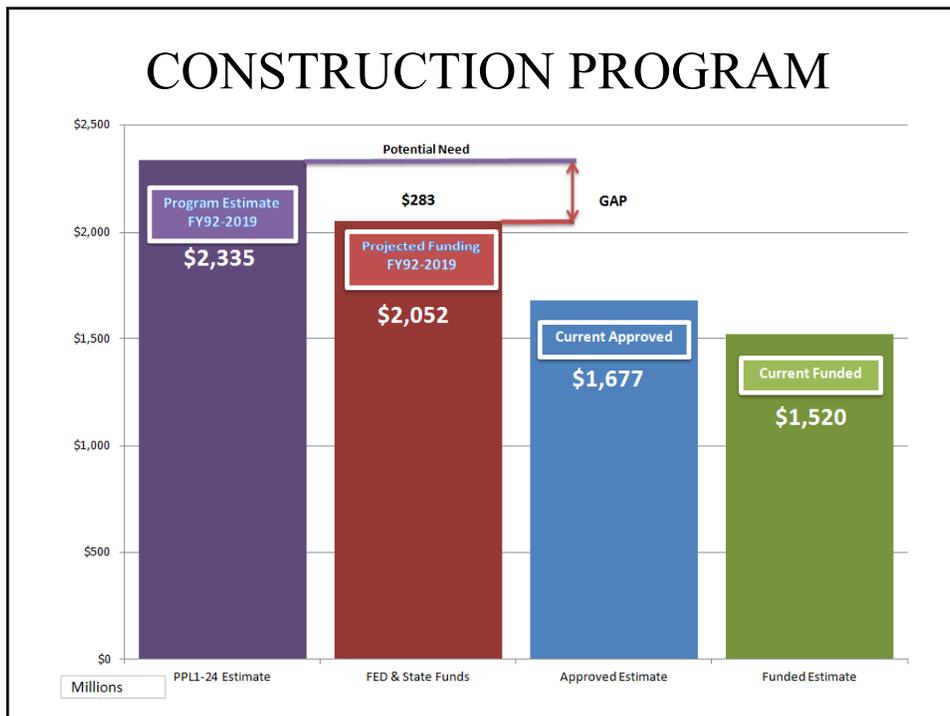
STATUS OF CWPPRA PROGRAM FUNDS AND PROJECTS

For Report:

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

Status of CWPPRA Program Funds and Projects

Susan M. Mabry



CONSTRUCTION PROGRAM FUNDING REQUESTS

1. Funds Available:				
Total Program / Funds Available:	\$2,235,560,662	\$17,148,668	\$0	\$0
2. Requests				
Boston Canal/Vermilion Bay Bank Protection, NRCS, TV-09, PPL 2	\$630,891	\$630,891	\$536,257	\$94,634
East Mud Lake Marsh Management, NRCS, CS-20, PPL 14	\$643,986	\$643,986	\$547,388	\$96,598
Freshwater Bayou Wetland Protection, NRCS, ME-04, PPL 12	\$3,789,112	\$3,789,112	\$3,220,745	\$568,367
Freshwater Bayou Bank Stabilization, NRCS, ME-13, PPL 5	\$3,267,038	\$3,267,038	\$2,940,334	\$326,704
East Marsh Island Marsh Creation, NRCS, TV-21, PPL 14	(\$32,537)	\$0		
Black Bayou Culverts Project, NRCS, CS-29, PPL 9	\$500,000	\$500,000	\$425,000	\$75,000
Barataria Waterway West Bank Protection, NRCS, BA-23, PPL 4	\$291,422	\$291,422	\$247,709	\$43,713
(1) Funds Available for April 2015 Recommendations	\$2,235,528,125	\$17,148,668		
Proposed amount	\$9,089,912	\$9,122,449	\$7,917,434	\$1,205,015
Program Amount/Available Funds Surplus/Shortage	\$2,244,618,037	\$8,026,219		

CONSTRUCTION PROGRAM FUNDING REQUESTS

	Total Request	TC?
Funds Available:		
Funds Available January 2015:	\$122,387	
FY16 Planning Program Funding	\$5,000,000	
Funds Available:	\$5,122,387	
Agenda Item 4: FY15 - Planning Budget & Outreach Budget Request:		
Technical Committee Recommended FY16 Planning Budget	\$4,556,019	
Outreach Committee Recommended FY16 Budget	\$446,113	
Total	\$5,002,132	
Total Remaining Funds in CWPPRA Planning Program	\$120,255	

Construction Program Funding Requests: Tech Committee Meeting, 16 April 2015						
	PROGRAM ESTIMATE	TC	PROPOSED	TC	Fed	Non-Fed
1. Funds Available:						
Approved Funded Estimate PPL 1-23	\$2,235,560,662					
Available Funds as of January 2015			\$17,148,668			
Total Program / Funds Available:	\$2,235,560,662		\$17,148,668		\$0	\$0
2. Agenda Item 4.b&c: Budget and Incremental Funding Increase						
Boston Canal/Vermilion Bay Bank Protection, NRCS, TV-09, PPL 2	\$630,891		\$630,891		\$536,257	\$94,634
East Mud Lake Marsh Management, NRCS, CS-20, PPL 14	\$643,986		\$643,986		\$547,388	\$96,598
Freshwater Bayou Wetland Protection, NRCS, ME-04, PPL 12	\$3,789,112		\$3,789,112		\$3,220,745	\$568,367
Freshwater Bayou Bank Stabilization, NRCS, ME-13, PPL 5	\$3,267,038		\$3,267,038		\$2,940,334	\$326,704
Total	\$8,331,027		\$8,331,027		\$7,244,725	\$1,086,302
3. Agenda Item 8: Transfer Funds						
East Marsh Island Marsh Creation, NRCS, TV-21, PPL 14	(\$32,537)		\$0			
Total	(\$32,537)		\$0		\$0	\$0
4. Agenda Item 9: Budget and Incremental Funding Increase						
Black Bayou Culverts Project, NRCS, CS-29, PPL 9	\$500,000		\$500,000		\$425,000	\$75,000
Total	\$500,000		\$500,000		\$425,000	\$75,000
5. Agenda Item 13: Request to Redistribute Funds						
Barataria Waterway West Bank Protection, NRCS, BA-23, PPL 4	\$291,422		\$291,422		\$247,709	\$43,713
Total	\$291,422		\$291,422		\$247,709	\$43,713
(1) Funds Available for April 2015Recommendations						
	\$2,235,528,125		\$17,148,668			
Proposed amount	\$9,089,912		\$9,122,449		\$7,917,434	\$1,205,015
Program Amount/Available Funds Surplus/Shortage	\$2,244,618,037		\$8,026,219			

FY16 Planning Program Budget Recommendation for May-2015 Task Force Approval		
	Total Request	TC?
Funds Available:		
Funds Available January 2015:	\$122,387	
FY16 Planning Program Funding	\$5,000,000	
Funds Available:	\$5,122,387	
Agenda Item 4: FY15 - Planning Budget & Outreach Budget Request:		
Technical Committee Recommended FY16 Planning Budget	\$4,556,019	
Outreach Committee Recommended FY16 Budget	\$446,113	
Total	\$5,002,132	
Total Remaining Funds in CWPPRA Planning Program		
	\$120,255	

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

**SELECTION OF TEN CANDIDATE PROJECTS AND UP TO TWO
DEMONSTRATION PROJECTS TO EVALUATE FOR PPL 25**

For Report/Decision:

The Technical Committee will consider preliminary costs and benefits of the 25th Priority Project List (PPL) project and demonstration project nominees listed below. The Technical Committee will select 10 projects and may select up to 2 demonstration projects as PPL 25 candidates to be evaluated for Phase 0 analysis, which will be considered later for final selection of projects that will be approved for Phase I (Planning and Engineering and Design).

Region	Basin	PPL 25 Nominees	Agency
1	Pontchartrain	North Shell Beach Marsh Creation	USACE/EPA
1	Pontchartrain	Fritchie Marsh Creation & Terracing	NMFS
1	Pontchartrain	St. Catherine Island Shoreline Protection & Marsh Creation	FWS
2	Barataria	Caminada Headlands Back Barrier Marsh Creation #2	EPA
2	Barataria	Barataria Bay Rim Marsh Creation	NRCS
2	Barataria	East Bayou Lafourche Marsh Creation & Terracing	FWS
2	Barataria	East Leeville Marsh Creation & Nourishment	NMFS
3	Terrebonne	Bayou Dularge Ridge Restoration & Marsh Creation	NRCS
3	Terrebonne	Bayou Terrebonne Ridge Restoration & Marsh Creation	NMFS
3	Terrebonne	Bayou Jean Lacroix Marsh Creation & Terracing	NMFS
3	Terrebonne	South Bayou Pointe aux Chenes Marsh Creation & Terraces	NRCS
3	Teche-Vermilion	West Vermilion Bay Shoreline Protection & Marsh Creation	NRCS/EPA
3	Teche-Vermilion	Lake Sand Complex Shoreline Protection	NRCS
4	Calcasieu-Sabine	Oyster Lake Marsh Creation & Nourishment	NMFS
4	Calcasieu-Sabine	East Holly Beach Gulf Shoreline Protection	NRCS
4	Mermentau	Southeast Pecan Island Marsh Creation & Freshwater Enhancement	NRCS
4	Mermentau	Sweeney Tract Marsh Creation & Nourishment	NMFS
	Coastwide	Southwest Louisiana Salvinia Weevil Propagation	FWS
PPL 25 Demonstration Project Nominees			Agency
DEMO	Wave Robber (Wave Suppressor Sediment Collection System)		TBD
DEMO	Shoreline Protection, Preservation & Restoration (SPPR) Panel		NMFS

CWPPRA PPL 25 Candidate Vote - Technical Committee

Region	Basin	Type	Project	COE	EPA	FWS	NMFS	NRCS	State	No. of votes	Sum of Point Score
1	PO	MC/TR	Fritchie Mash Creation & Terracing	10	1	9	7	6	6	6	39
4	CS	MC/FD	Oyster Lake Marsh Creation & Nourishment	3	6	3	10		10	5	32
2	BA	MC/TR	East Bayou Lafourche Marsh Creation & Terracing	1	4	7	5		3	5	20
2	BA	MC	East Leeville Marsh Creation & Nourishment	4	2	1	9		4	5	20
4	ME	MC	Southeast Pecan Island Marsh Creation & Freshwater Enhancement		3	6	6	10		4	25
2	BA	MC	Barataria Bay Rim Marsh Creation	2			2	2	9	4	15
3	TV	SP/MC	West Vermilion Bay Shoreline Protection & Marsh Creation		8			5	7	3	20
1	PO	MC	North Shell Beach Marsh Creation	8	9				1	3	18
3	TE	MC	Bayou Terrebonne Ridge Restoration & Marsh Creation	7				3	8	3	18
2	BA	MC	Caminada Headlands Back Barrier Marsh Creation #2		10	2			5	3	17
4	ME	SP	Sweeney Tract Marsh Creation & Nourishment		7		8		2	3	17
3	TE	MC/TR	South Bayou Pointe aux Chenes Marsh Creation & Terraces		5		1	4		3	10
0	CW	0	Southwest Louisiana Salvinia Weevil Propagation			4	3	1		3	8
3	TE	MC	Bayou Dularge Ridge Restoration & Marsh Creation	9				9		2	18
1	PO	MC/SP	St. Catherine Island Shoreline Protection & Marsh Creation	5		10				2	15
3	TV	SP	Lake Sand Complex Shoreline Protection	6				8		2	14
3	TE	MC/TR	Bayou Jean Lacroix Marsh Creation & Terracing			8	4			2	12
4	CS	MC	East Holly Beach Gulf Shoreline Protection			5		7		2	12

NOTES:

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

CWPPRA PPL 25 Candidate Vote - Technical Committee

15-Apr-14

Region	Basin	Type	Project	COE	EPA	FWS	NMFS	NRCS	State	No. of votes	Sum of Point Score
1	PO	MC	North Shell Beach Marsh Creation	8						0	0
1	PO	MC/TR	Fritchie Mash Creation & Terracing	10						0	0
1	PO	MC/SP	St. Catherine Island Shoreline Protection & Marsh Creation	5						0	0
2	BA	MC	Caminada Headlands Back Barrier Marsh Creation #2							0	0
2	BA	MC	Barataria Bay Rim Marsh Creation	2						0	0
2	BA	MC/TR	East Bayou Lafourche Marsh Creation & Terracing	1						0	0
2	BA	MC	East Leeville Marsh Creation & Nourishment	4						0	0
3	TE	MC	Bayou Dularge Ridge Restoration & Marsh Creation	9						0	0
3	TE	MC	Bayou Terrebonne Ridge Restoration & Marsh Creation	7						0	0
3	TE	MC/TR	Bayou Jean Lacroix Marsh Creation & Terracing							0	0
3	TE	MC/TR	South Bayou Pointe aux Chenes Marsh Creation & Terraces							0	0
3	TV	SP/MC	West Vermilion Bay Shoreline Protection & Marsh Creation							0	0
3	TV	SP	Lake Sand Complex Shoreline Protection	6						0	0
4	CS	MC/FD	Oyster Lake Marsh Creation & Nourishment	3						0	0
4	CS	MC	East Holly Beach Gulf Shoreline Protection							0	0
4	ME	MC	Southeast Pecan Island Marsh Creation & Freshwater Enhancement							0	0
4	ME	SP	Sweeney Tract Marsh Creation & Nourishment							0	0
	CW		Southwest Louisiana Salvinia Weevil Propagation							0	0
				0	0	0	0	0	0	0	0
				check 55	55	55	55	55	55	60	330

The following voting process will be used by the Technical Committee to select 10 candidate projects under PPL 25:

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 10 projects. All votes must be used.
3. Each agency will vote for their top projects, hand-written on the above ballot form
4. A weighted score will be assigned (10, 9, 8,...1), to be used in the event of a tie. (10 highest...1 lowest).
5. Initial rank will be determined based upon the number of votes received for a project (unweighted).
6. The Technical Committee will select the top 10 projects as candidates under PPL 25.
7. In the event of a tie at the cutoff of 10, the weighted will be used as a tie-breaker.
8. The tied projects will be ranked based upon a sum of the weighted score.
9. The results of the Technical Committee candidate selection will be reported to the Task Force.

CWPPRA PPL 25 Candidate Vote - Technical Committee

15-Apr-14

Region	Basin	Type	Project	COE	EPA	FWS	NMFS	NRCS	State	No. of votes	Sum of Point Score
1	PO	MC	North Shell Beach Marsh Creation		9					0	0
1	PO	MC/TR	Fritchie Mash Creation & Terracing		1					0	0
1	PO	MC/SP	St. Catherine Island Shoreline Protection & Marsh Creation							0	0
2	BA	MC	Caminada Headlands Back Barrier Marsh Creation #2		10					0	0
2	BA	MC	Barataria Bay Rim Marsh Creation							0	0
2	BA	MC/TR	East Bayou Lafourche Marsh Creation & Terracing		4					0	0
2	BA	MC	East Leeville Marsh Creation & Nourishment		2					0	0
3	TE	MC	Bayou Dularge Ridge Restoration & Marsh Creation							0	0
3	TE	MC	Bayou Terrebonne Ridge Restoration & Marsh Creation							0	0
3	TE	MC/TR	Bayou Jean Lacroix Marsh Creation & Terracing							0	0
3	TE	MC/TR	South Bayou Pointe aux Chenes Marsh Creation & Terraces		5					0	0
3	TV	SP/MC	West Vermilion Bay Shoreline Protection & Marsh Creation		8					0	0
3	TV	SP	Lake Sand Complex Shoreline Protection							0	0
4	CS	MC/FD	Oyster Lake Marsh Creation & Nourishment		6					0	0
4	CS	MC	East Holly Beach Gulf Shoreline Protection							0	0
4	ME	MC	Southeast Pecan Island Marsh Creation & Freshwater Enhancement		3					0	0
4	ME	SP	Sweeney Tract Marsh Creation & Nourishment		7					0	0
	CW		Southwest Louisiana Salvinia Weevil Propagation							0	0
				0	0	0	0	0	0	0	0
				check	55	55	55	55	55	60	330

The following voting process will be used by the Technical Committee to select 10 candidate projects under PPL 25:

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 10 projects. All votes must be used.
3. Each agency will vote for their top projects, hand-written on the above ballot form
4. A weighted score will be assigned (10, 9, 8,...1), to be used in the event of a tie. (10 highest...1 lowest).
5. Initial rank will be determined based upon the number of votes received for a project (unweighted).
6. The Technical Committee will select the top 10 projects as candidates under PPL 25.
7. In the event of a tie at the cutoff of 10, the weighted will be used as a tie-breaker.
8. The tied projects will be ranked based upon a sum of the weighted score.
9. The results of the Technical Committee candidate selection will be reported to the Task Force.



4/16/15

David Cole

Region	Basin	Type	Project	COE	EPA	FWS	NMFS	NRCS	State	No. of votes	Sum of Point Score	
1	PO	MC	North Shell Beach Marsh Creation							0	0	
1	PO	MC/TR	Fritchie Mash Creation & Terracing			9				0	0	
1	PO	MC/SP	St. Catherine Island Shoreline Protection & Marsh Creation			10				0	0	
2	BA	MC	Caminada Headlands Back Barrier Marsh Creation #2			2				0	0	
2	BA	MC	Barataria Bay Rim Marsh Creation							0	0	
2	BA	MC/TR	East Bayou Lafourche Marsh Creation & Terracing			7				0	0	
2	BA	MC	East Leeville Marsh Creation & Nourishment			1				0	0	
3	TE	MC	Bayou Dularge Ridge Restoration & Marsh Creation							0	0	
3	TE	MC	Bayou Terrebonne Ridge Restoration & Marsh Creation							0	0	
3	TE	MC/TR	Bayou Jean Lacroix Marsh Creation & Terracing			8				0	0	
3	TE	MC/TR	South Bayou Pointe aux Chenes Marsh Creation & Terraces							0	0	
3	TV	SP/MC	West Vermilion Bay Shoreline Protection & Marsh Creation							0	0	
3	TV	SP	Lake Sand Complex Shoreline Protection							0	0	
4	CS	MC/FD	Oyster Lake Marsh Creation & Nourishment			3				0	0	
4	CS	MC	East Holly Beach Gulf Shoreline Protection			5				0	0	
4	ME	MC	Southeast Pecan Island Marsh Creation & Freshwater Enhancement			6				0	0	
4	ME	SP	Sweeney Tract Marsh Creation & Nourishment							0	0	
	CW		Southwest Louisiana Salvinia Weevil Propagation			4				0	0	
				0	0	0	0	0	0	0	0	
				check	55	55	55	55	55	55	60	330

The following voting process will be used by the Technical Committee to select 10 candidate projects under PPL 25:

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 10 projects. All votes must be used.
3. Each agency will vote for their top projects, hand-written on the above ballot form
4. A weighted score will be assigned (10, 9, 8,...1), to be used in the event of a tie. (10 highest...1 lowest).
5. Initial rank will be determined based upon the number of votes received for a project (unweighted).
6. The Technical Committee will select the top 10 projects as candidates under PPL 25.
7. In the event of a tie at the cutoff of 10, the weighted will be used as a tie-breaker.
8. The tied projects will be ranked based upon a sum of the weighted score.
9. The results of the Technical Committee candidate selection will be reported to the Task Force.



15-Apr-14

CWPPRA PPL 25 Candidate Vote - Technical Committee

Region	Basin	Type	Project	COE	EPA	FWS	NMFS	NRCS	State	No. of votes	Sum of Point Score
1	PO	MC	North Shell Beach Marsh Creation							0	0
1	PO	MC/TR	Fritchie Mash Creation & Terracing				7			0	0
1	PO	MC/SP	St. Catherine Island Shoreline Protection & Marsh Creation							0	0
2	BA	MC	Caminada Headlands Back Barrier Marsh Creation #2							0	0
2	BA	MC	Barataria Bay Rim Marsh Creation				2			0	0
2	BA	MC/TR	East Bayou Lafourche Marsh Creation & Terracing				5			0	0
2	BA	MC	East Leeville Marsh Creation & Nourishment				9			0	0
3	TE	MC	Bayou Dularge Ridge Restoration & Marsh Creation							0	0
3	TE	MC	Bayou Terrebonne Ridge Restoration & Marsh Creation							0	0
3	TE	MC/TR	Bayou Jean Lacroix Marsh Creation & Terracing				4			0	0
3	TE	MC/TR	South Bayou Pointe aux Chenes Marsh Creation & Terraces				1			0	0
3	TV	SP/MC	West Vermilion Bay Shoreline Protection & Marsh Creation							0	0
3	TV	SP	Lake Sand Complex Shoreline Protection							0	0
4	CS	MC/FD	Oyster Lake Marsh Creation & Nourishment				10			0	0
4	CS	MC	East Holly Beach Gulf Shoreline Protection							0	0
4	ME	MC	Southeast Pecan Island Marsh Creation & Freshwater Enhancement				6			0	0
4	ME	SP	Sweeney Tract Marsh Creation & Nourishment				8			0	0
	CW		Southwest Louisiana Salvinia Weevil Propagation				3			0	0
				0	0	0	0	0	0	0	0

check 55 55 55 55 55 55 60 330

The following voting process will be used by the Technical Committee to select 10 candidate projects under PPL 25:

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 10 projects. All votes must be used.
3. Each agency will vote for their top projects, hand-written on the above ballot form
4. A weighted score will be assigned (10, 9, 8,...1), to be used in the event of a tie. (10 highest...1 lowest).
5. Initial rank will be determined based upon the number of votes received for a project (unweighted).
6. The Technical Committee will select the top 10 projects as candidates under PPL 25.
7. In the event of a tie at the cutoff of 10, the weighted will be used as a tie-breaker.
8. The tied projects will be ranked based upon a sum of the weighted score.
9. The results of the Technical Committee candidate selection will be reported to the Task Force.

CWPPRA PPL 25 Candidate Vote - Technical Committee

15-Apr-14

Region	Basin	Type	Project	COE	EPA	FWS	NMFS	NRCS	State	No. of votes	Sum of Point Score
1	PO	MC	North Shell Beach Marsh Creation							0	0
1	PO	MC/TR	Fritchie Mash Creation & Terracing					6		0	0
1	PO	MC/SP	St. Catherine Island Shoreline Protection & Marsh Creation							0	0
2	BA	MC	Caminada Headlands Back Barrier Marsh Creation #2							0	0
2	BA	MC	Barataria Bay Rim Marsh Creation					2		0	0
2	BA	MC/TR	East Bayou Lafourche Marsh Creation & Terracing							0	0
2	BA	MC	East Leeville Marsh Creation & Nourishment							0	0
3	TE	MC	Bayou Dularge Ridge Restoration & Marsh Creation					9		0	0
3	TE	MC	Bayou Terrebonne Ridge Restoration & Marsh Creation					3		0	0
3	TE	MC/TR	Bayou Jean Lacroix Marsh Creation & Terracing							0	0
3	TE	MC/TR	South Bayou Pointe aux Chenes Marsh Creation & Terraces					4		0	0
3	TV	SP/MC	West Vermilion Bay Shoreline Protection & Marsh Creation					5		0	0
3	TV	SP	Lake Sand Complex Shoreline Protection					8		0	0
4	CS	MC/FD	Oyster Lake Marsh Creation & Nourishment							0	0
4	CS	MC	East Holly Beach Gulf Shoreline Protection					7		0	0
4	ME	MC	Southeast Pecan Island Marsh Creation & Freshwater Enhancement					10		0	0
4	ME	SP	Sweeney Tract Marsh Creation & Nourishment							0	0
	CW		Southwest Louisiana Salvinia Weevil Propagation					1		0	0
				0	0	0	0	0	0	0	0
				check	55	55	55	55	55	60	330

The following voting process will be used by the Technical Committee to select 10 candidate projects under PPL 25:

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 10 projects. All votes must be used.
3. Each agency will vote for their top projects, hand-written on the above ballot form
4. A weighted score will be assigned (10, 9, 8,...1), to be used in the event of a tie. (10 highest...1 lowest).
5. Initial rank will be determined based upon the number of votes received for a project (unweighted).
6. The Technical Committee will select the top 10 projects as candidates under PPL 25.
7. In the event of a tie at the cutoff of 10, the weighted will be used as a tie-breaker.
8. The tied projects will be ranked based upon a sum of the weighted score.
9. The results of the Technical Committee candidate selection will be reported to the Task Force.

Region	Basin	Type	Project	COE	EPA	FWS	NMFS	NRCS	State	No. of votes	Sum of Point Score
1	PO	MC	North Shell Beach Marsh Creation						2	0	0
1	PO	MC/TR	Fritchie Mash Creation & Terracing						6	0	0
1	PO	MC/SP	St. Catherine Island Shoreline Protection & Marsh Creation							0	0
2	BA	MC	Caminada Headlands Back Barrier Marsh Creation #2						5	0	0
2	BA	MC	Barataria Bay Rim Marsh Creation						9	0	0
2	BA	MC/TR	East Bayou Lafourche Marsh Creation & Terracing						3	0	0
2	BA	MC	East Leeville Marsh Creation & Nourishment						4	0	0
3	TE	MC	Bayou Dularge Ridge Restoration & Marsh Creation							0	0
3	TE	MC	Bayou Terrebonne Ridge Restoration & Marsh Creation						8	0	0
3	TE	MC/TR	Bayou Jean Lacroix Marsh Creation & Terracing							0	0
3	TE	MC/TR	South Bayou Pointe aux Chenes Marsh Creation & Terraces							0	0
3	TV	SP/MC	West Vermilion Bay Shoreline Protection & Marsh Creation						7	0	0
3	TV	SP	Lake Sand Complex Shoreline Protection							0	0
4	CS	MC/FD	Oyster Lake Marsh Creation & Nourishment						10	0	0
4	CS	MC	East Holly Beach Gulf Shoreline Protection							0	0
4	ME	MC	Southeast Pecan Island Marsh Creation & Freshwater Enhancement							0	0
4	ME	SP	Sweeney Tract Marsh Creation & Nourishment						2	0	0
	CW		Southwest Louisiana Salvinia Weevil Propagation							0	0
				0	0	0	0	0	0	0	0
				check	55	55	55	55	55	60	330

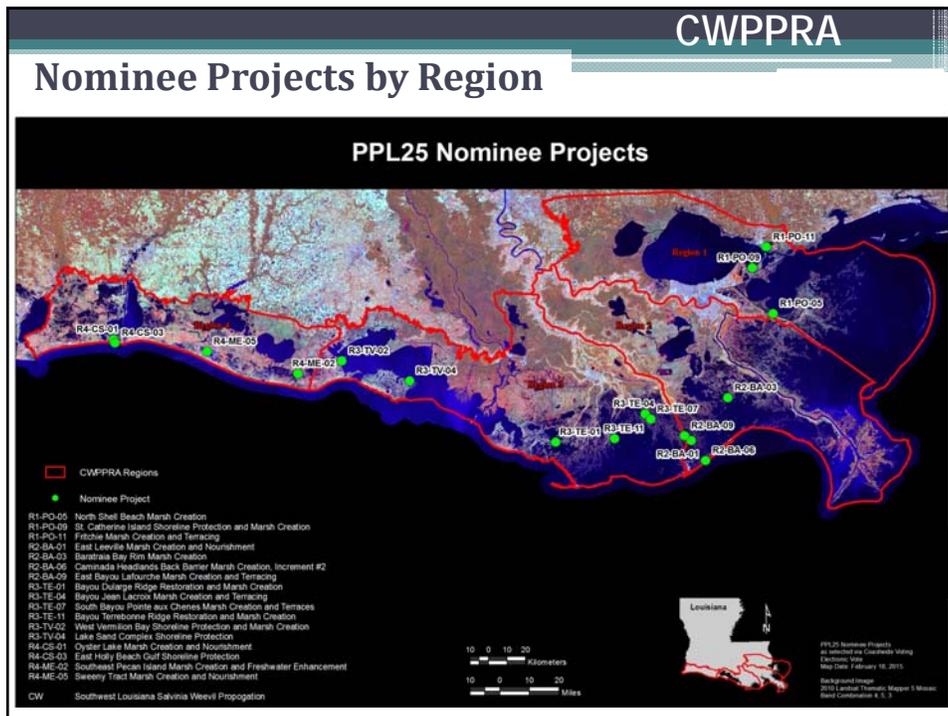
The following voting process will be used by the Technical Committee to select 10 candidate projects under PPL 25:

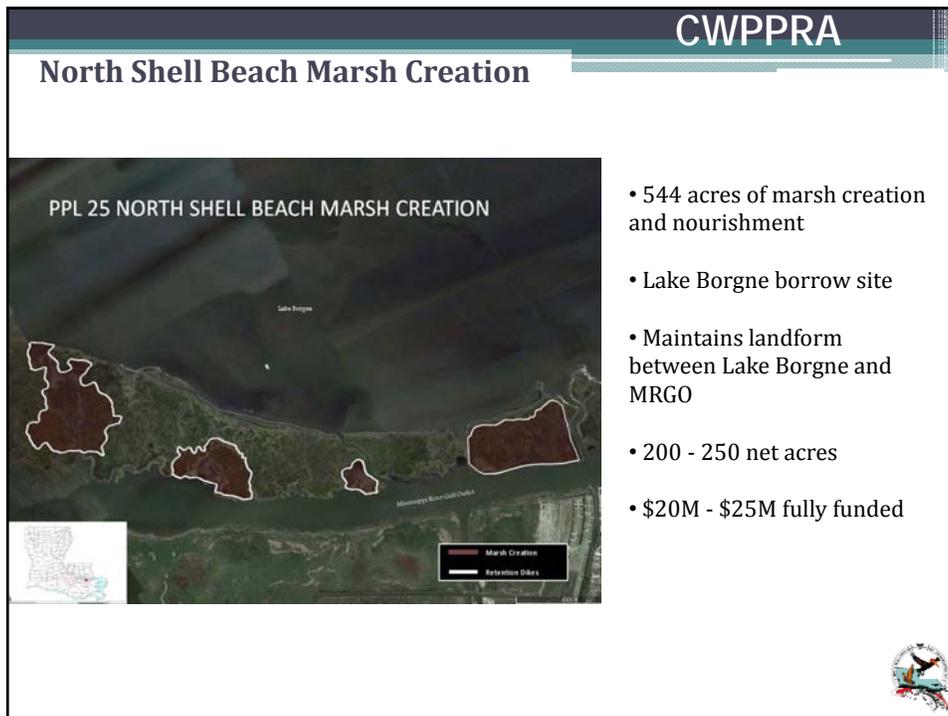
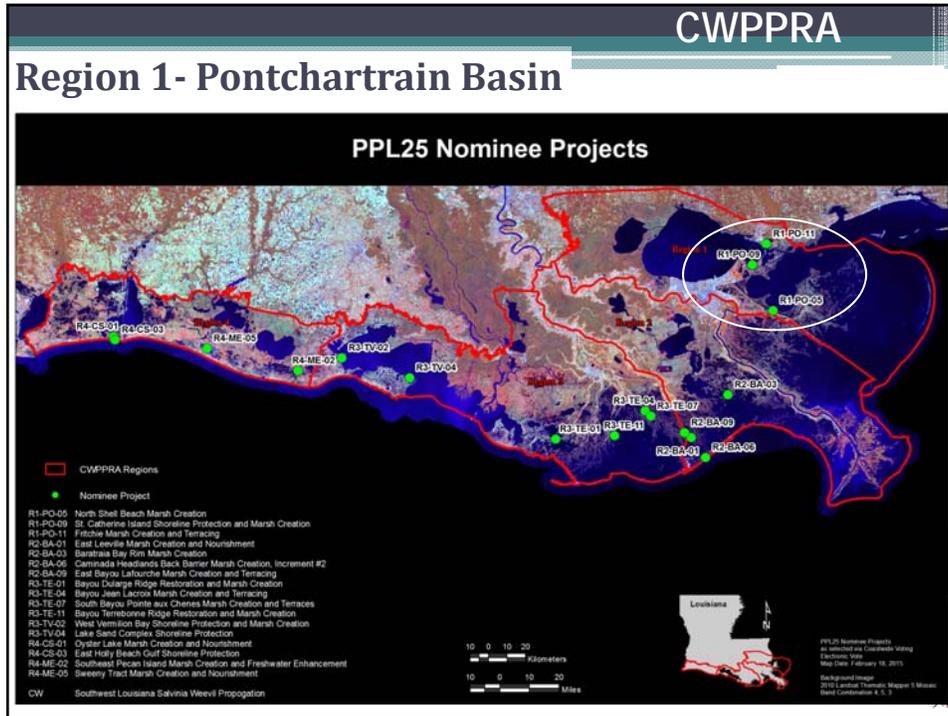
1. Each agency represented in the Technical Committee will be provided one ballot for voting.
2. Each agency represented in the Technical Committee will cast weighted votes for 10 projects. All votes must be used.
3. Each agency will vote for their top projects, hand-written on the above ballot form
4. A weighted score will be assigned (10, 9, 8,...1), to be used in the event of a tie. (10 highest...1 lowest).
5. Initial rank will be determined based upon the number of votes received for a project (unweighted).
6. The Technical Committee will select the top 10 projects as candidates under PPL 25.
7. In the event of a tie at the cutoff of 10, the weighted will be used as a tie-breaker.
8. The tied projects will be ranked based upon a sum of the weighted score.
9. The results of the Technical Committee candidate selection will be reported to the Task Force.

CWPPRA PPL 25 Nominees Technical Committee Meeting



Baton Rouge, LA
April 16, 2015





Fritchie Marsh Creation & Terracing

PPL25 Nominee
Fritchie Marsh Creation and Terracing

- 56,770 ft or 40 ac of Terraces
- 328 ac Marsh Creation/Nourishment
- Culverts

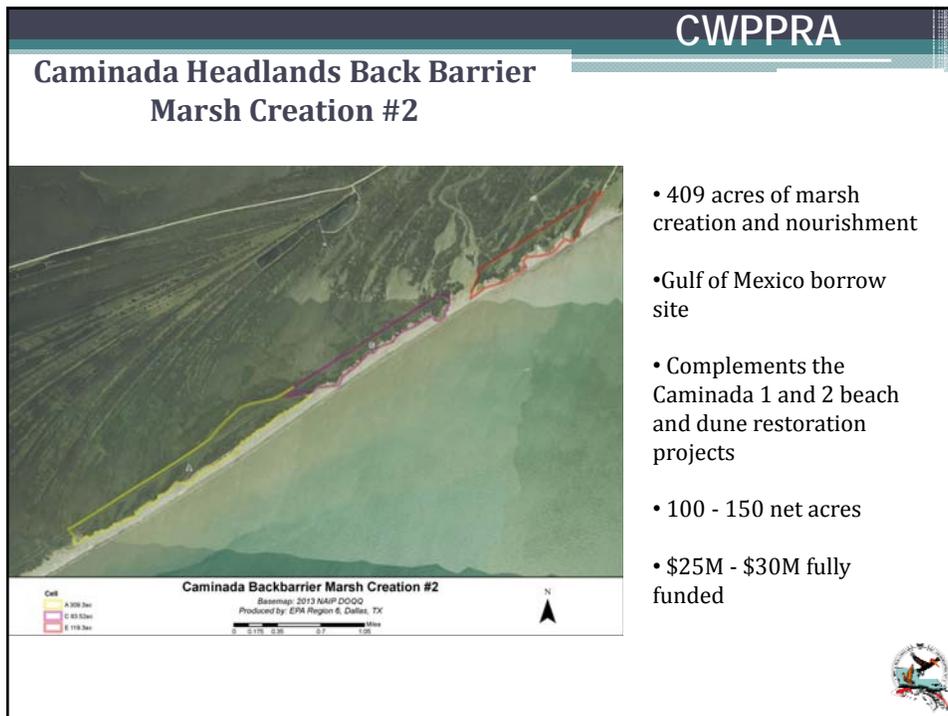
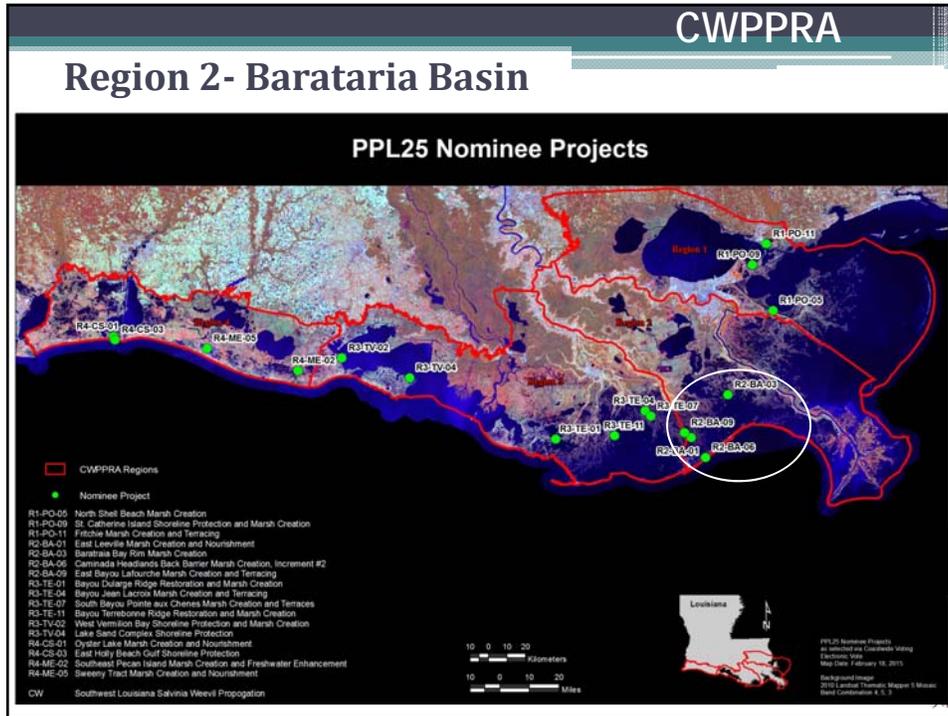
CWPPRA

- 328 acres of marsh creation and nourishment
- Lake Pontchartrain borrow site
- 57,000 feet (40 ac) of earthen terraces
- Culverts to improve tidal exchange
- 250 - 300 net acres
- \$25M - \$30M fully funded

St. Catherine Island Shoreline Protection & Marsh Creation

CWPPRA

- 19,457 feet of shoreline protection
- 173 acres of marsh creation and nourishment
- Lake Pontchartrain borrow site
- 200 - 250 net acres
- \$35M - \$40M fully funded



CWPPRA

Barataria Bay Rim Marsh Creation

- 554 acres of marsh creation and nourishment
- Barataria Bay borrow site
- Stabilizes a portion of the northern Barataria Bay rim
- 200 - 250 net acres
- \$25M - \$30M fully funded

CWPPRA

East Bayou Lafourche Marsh Creation & Terracing

- 420 acres of marsh creation and nourishment
- Little Lake borrow site
- 42,200 feet (29 acres) of terracing
- Affords protection to LA-1/ Bayou Lafourche corridor
- 350 - 400 net acres
- \$30M - \$35M fully funded

CWPPRA

East Levee Marsh Creation & Nourishment



- 482 acres of marsh creation and nourishment
- Little Lake borrow site
- Restores structural framework around Lake Jesse and South Lake
- 300 - 350 net acres
- \$30M - \$35M fully funded

East Levee Marsh Creation and Nourishment
(PPL25 Nominee)




Map Date: January 20, 2015

Scale: 1:10,000

Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Inventory Team
Coastal Resources Assessment Branch
Baton Rouge, LA
April 2015



CWPPRA

Region 3- Terrebonne Basin

PPL25 Nominee Projects



CWPPRA Regions

• Nominee Project

R1-PO-05 North Shell Beach Marsh Creation
 R1-PO-09 St. Catherine Island Shoreline Protection and Marsh Creation
 R1-PO-11 Friches Marsh Creation and Terracing
 R2-BA-01 East Levee Marsh Creation and Nourishment
 R2-BA-03 Barataria Bay Rim Marsh Creation
 R2-BA-05 Camille/Houma/Beauregard Barrier Marsh Creation, Increment #2
 R2-BA-09 East Bayou Lafourche Marsh Creation and Terracing
 R3-TE-01 Bayou Dulong Ridge Restoration and Marsh Creation
 R3-TE-04 Bayou Jean Lacroix Marsh Creation and Terracing
 R3-TE-07 South Bayou Pointe aux Chenes Marsh Creation and Terracing
 R3-TE-11 Bayou Terrebonne Ridge Restoration and Marsh Creation
 R3-TV-02 West Vermilion Bay Shoreline Protection and Marsh Creation
 R3-TV-04 Lake Sand Complex Shoreline Protection
 R4-CS-01 Oyster Lake Marsh Creation and Nourishment
 R4-CS-03 East Houly Beach Gulf Shoreline Protection
 R4-ME-02 Southeast Pecan Island Marsh Creation and Freshwater Enhancement
 R4-ME-03 Seewey Tract Marsh Creation and Nourishment
 CW Southwest Louisiana Galvina Weevil Propagation

10 0 10 20 Kilometers
 10 0 10 20 Miles

PPL25 Nominee Projects as selected via Louisiana Voting Electronic Ballot
 Map Date: February 18, 2015
 Background Image: 2010 Landsat Thematic Mapper 5, Modified Contrast, 4 x 3

CWPPRA

Bayou Dularge Ridge Restoration & Marsh Creation

- 30,567 feet (35 acres) of ridge restoration
- Bottomland hardwood tree planting on ridge footprint
- 342 acres of marsh creation and nourishment
- Caillou Lake borrow site
- 200 - 250 net acres
- \$25M - \$30M fully funded

CWPPRA

Bayou Terrebonne Ridge Restoration & Marsh Creation

PPL25 - Bayou Terrebonne Ridge Restoration and Marsh Creation

- 20,461 feet (24 acres) of ridge restoration
- 214 acres of marsh creation and nourishment
- Terrebonne Bay borrow site
- 7,100 feet of artificial oyster reef
- 150 - 200 net acres
- \$25M - \$30M fully funded

Bayou Jean Lacroix Marsh Creation & Terracing

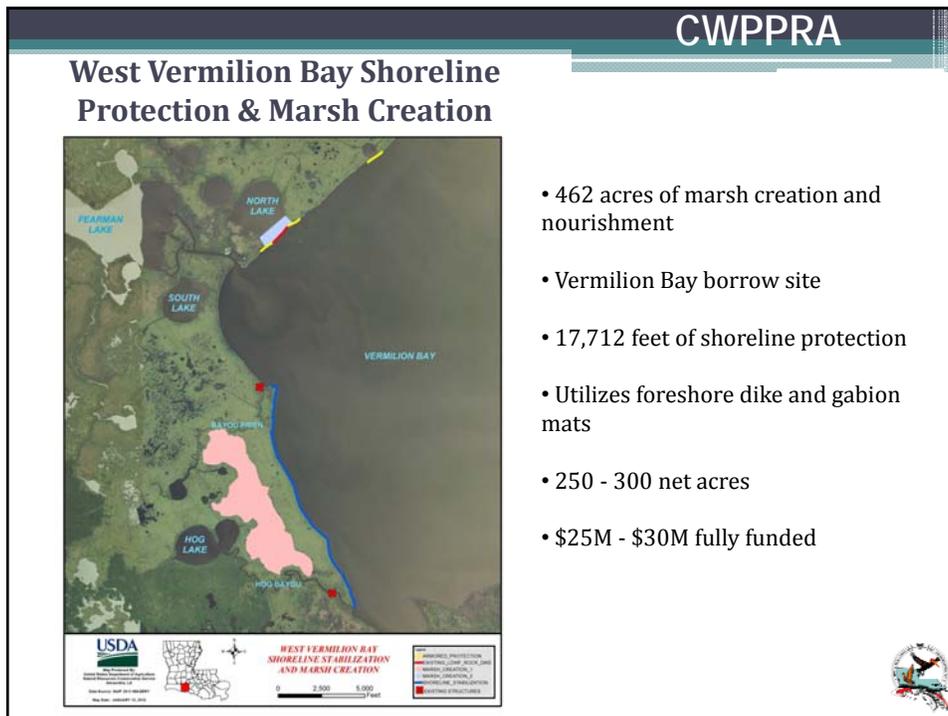
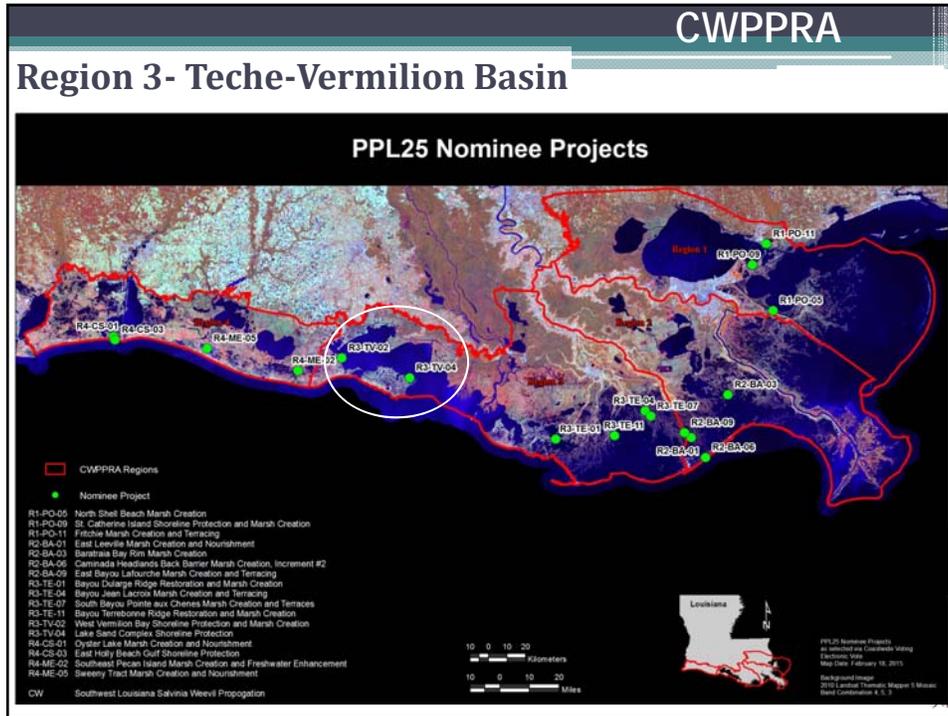
CWPPRA

- 360 acres of marsh creation and nourishment
- Lake Felicity borrow site
- 26,600 feet (17 acres) of terraces
- 250 - 300 net acres
- \$30M - \$35M fully funded

South Bayou Pointe aux Marsh Creation & Terraces

CWPPRA

- 256 acres of marsh creation and nourishment
- Lake Felicity borrow site
- 43,591 feet (23 acres) of terraces
- 250 - 300 net acres
- \$20M - \$25M fully funded



CWPPRA

Lake Sand Complex Shoreline Protection



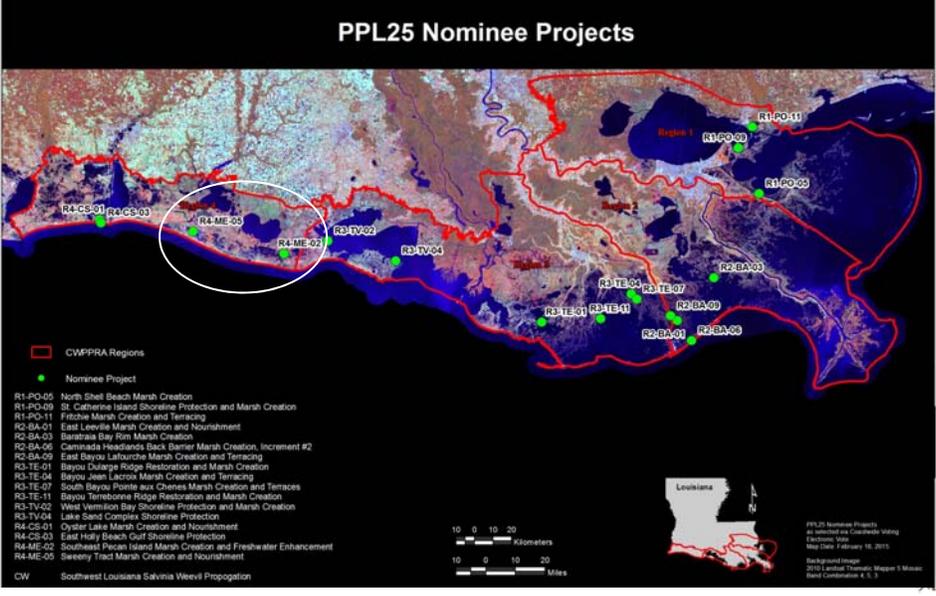
- 20,260 feet of shoreline protection
- Utilizes rock breakwaters
- 37 acres of marsh creation with access channel material
- 150 - 200 net acres
- \$20M - \$25M fully funded



CWPPRA

Region 4- Mermentau Basin

PPL25 Nominee Projects



Legend

- CWPPRA Regions
- Nominee Project

Project List:

- R1-PO-05 North Shell Beach Marsh Creation
- R1-PO-09 St. Catherine Island Shoreline Protection and Marsh Creation
- R1-PO-11 Friches Marsh Creation and Terracing
- R2-SA-01 East Levee Marsh Creation and Nourishment
- R2-SA-03 Barataria Bay Rim Marsh Creation
- R2-SA-05 Camille Headlands Duck Barrier Marsh Creation, Increment #2
- R2-SA-09 East Bayou Lafourche Marsh Creation and Terracing
- R3-TE-01 Bayou Dulong Ridge Restoration and Marsh Creation
- R3-TE-04 Bayou Jean Lacroix Marsh Creation and Terracing
- R3-TE-07 South Bayou Pointe aux Chenes Marsh Creation and Terraces
- R3-TE-11 Bayou Terrebonne Ridge Restoration and Marsh Creation
- R3-TV-02 West Vermilion Bay Shoreline Protection and Marsh Creation
- R3-TV-04 Lake Sand Complex Shoreline Protection
- R4-CS-01 Oyster Lake Marsh Creation and Nourishment
- R4-CS-03 East Holly Beach Gulf Shoreline Protection
- R4-ME-02 Southeast Pecan Island Marsh Creation and Freshwater Enhancement
- R4-ME-03 Seewey Tract Marsh Creation and Nourishment

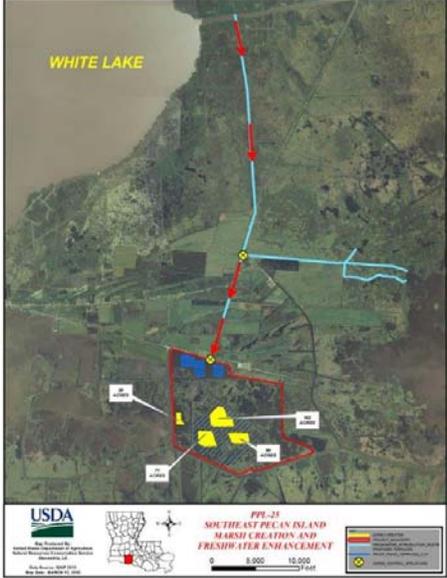
Scale:
 0 10 20 Kilometers
 0 10 20 Miles

Map Information:
 Louisiana
 PPL25 Nominee Projects as selected via Louisiana Voting Electronic Ballot
 Map Date: February 18, 2015
 Background Image: 2010 Landat Thematic Mapper 5, Modified
 Data Contribution: K. S. J.

CW Southwest Louisiana Galvina Weevil Propagation

CWPPRA

Southeast Pecan Island Marsh Creation & Freshwater Enhancement



- 253 acres of marsh creation and nourishment
- Gulf of Mexico borrow site
- 55,000 feet (44 acres) of terracing
- Freshwater introduction structure at Front Ridge
- 300 - 350 net acres
- \$30M - \$35M fully funded




CWPPRA

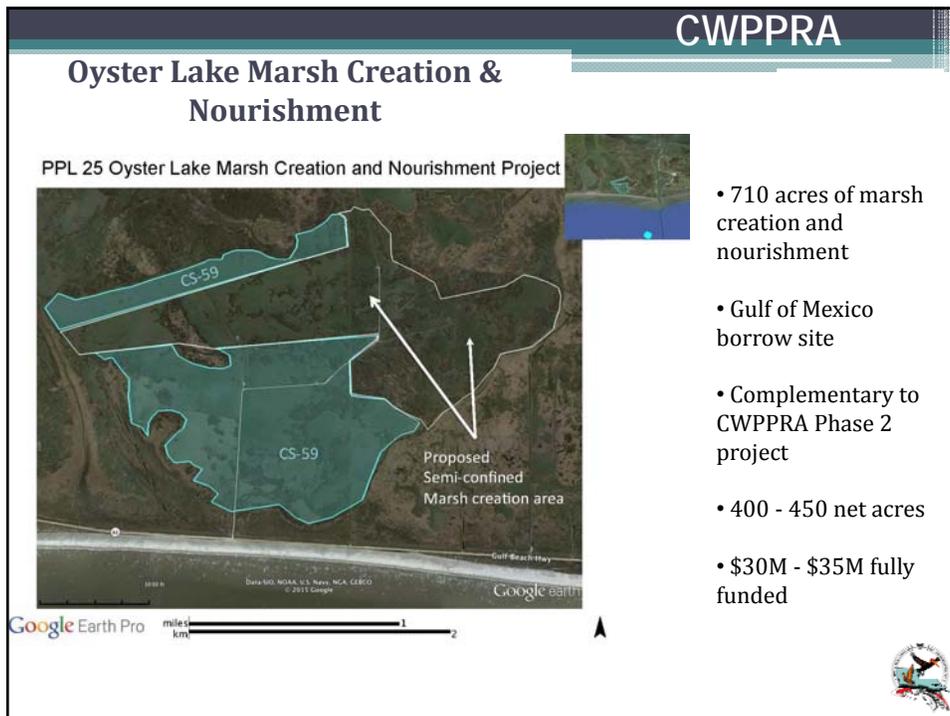
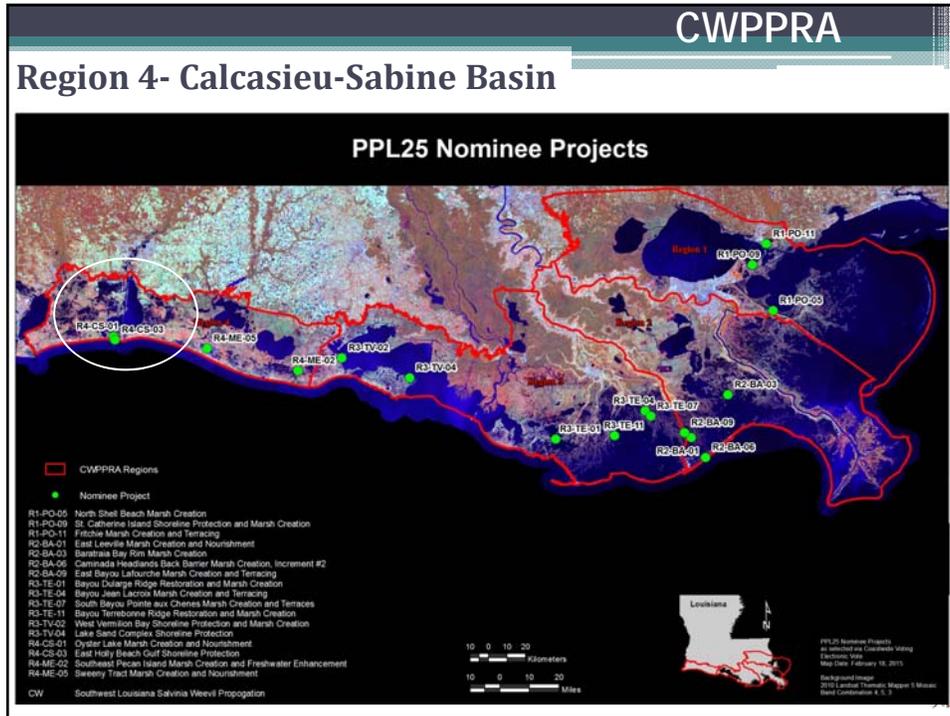
Sweeney Tract Marsh Creation & Nourishment

PPL 25 Nominee Sweeney Tract Marsh Creation



- 748 acres of marsh creation and nourishment
- Gulf of Mexico borrow site
- Complementary to CWPPRA Phase 1 and Phase 2 projects
- 500 - 600 net acres
- \$25M - \$30M fully funded



CWPPRA

East Holly Beach Gulf Shoreline Protection



- 15,454 feet of offshore breakwaters
- Approximately 26 breakwaters placed 250 feet offshore
- Complements the constructed CS-33 beach and dune restoration project
- 150 - 200 net acres
- \$30M - \$35M fully funded



CWPPRA PPL 25 Coastwide Project Nominee



CWPPRA

Southwest Louisiana Salvinia Weevil Propagation

Southwest Coastal Louisiana Salvinia Weevil Propagation Facility

Lacassine NWR potential location

White Lake Conservation Area potential location

Potential Project Area

Grand Lake

White Lake

Gulf of Mexico

- Provides for construction, operation, and maintenance of a facility to propagate the *Salvinia* weevil
- Located at Lacassine NWR or the White Lake Conservation Area
- Weevils distributed to landowners in the Mermentau Basin
- 150 - 200 net acres
- <=\$5M fully funded

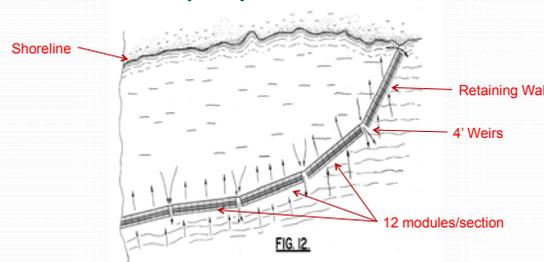


CWPPRA PPL 25 Demonstration Project Nominees

* COASTAL WETLANDS PLANNING, PROTECTION, AND RESTORATION ACT *

CWPPRA

Wave Robber (Wave Suppressor Sediment Collection System)



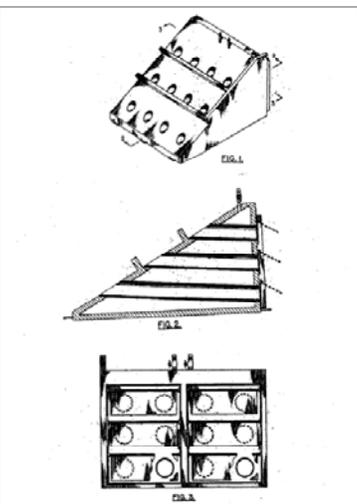
Shoreline

Retaining Wall

4' Weirs

12 modules/section

FIG. 12



Schematic drawings of the WSSC System

- Evaluates an alternative method of shoreline protection
- 300 feet installed at two locations to test effectiveness
- Structures are designed to reduce wave energy and trap sediment
- \$1M

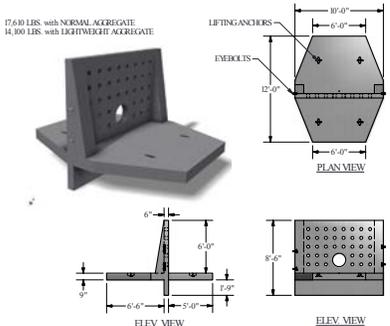
CWPPRA

Shoreline Protection, Preservation & Restoration (SPPR) Panel



10' x 12' Wall - Precast Concrete Low Energy Wave Break STRUCTURE ID: 10-STR-WB-1

17,640 LBS. with NORMAL AGGREGATE
14,300 LBS. with LIGHTWEIGHT AGGREGATE



LIFTING ANCHORS
EMERUSIS

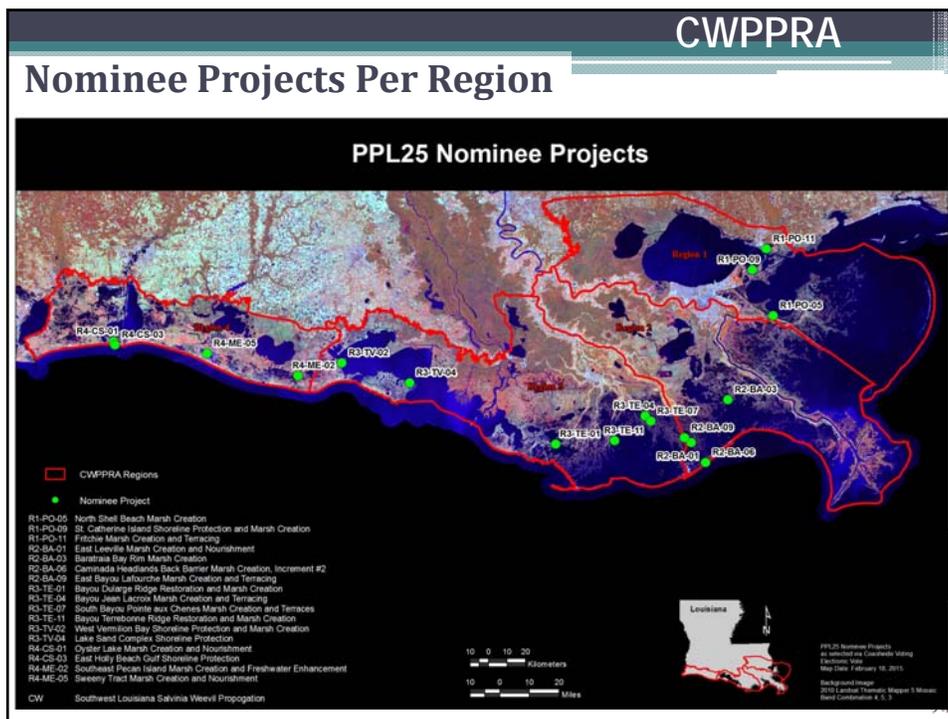
PLAN VIEW

ELEV. VIEW

WAVE BREAK FEATURES
- Fiber Reinforced Precast Concrete
- 100 Mesh Reinforcing
- 2,000 PSI Concrete



- Evaluates an alternative method of shoreline protection
- Test the effectiveness of a pre-cast, concrete panel system
- Total installation of 2,700 ft across 3 sites
- \$1.4M



CWPPRA PPL 25 Project Nominees

<u>Region</u>	<u>Basin</u>	<u>Project Nominees</u>
1	Pontchartrain	North Shell Beach Marsh Creation
1	Pontchartrain	Fritchie Marsh Creation & Terracing
1	Pontchartrain	St. Catherine Island Shoreline Protection & Marsh Creation
2	Barataria	Caminada Headlands Back Barrier Marsh Creation #2
2	Barataria	Barataria Bay Rim Marsh Creation
2	Barataria	East Bayou Lafourche Marsh Creation & Terracing
2	Barataria	East Leeville Marsh Creation & Nourishment
3	Terrebonne	Bayou Dularge Ridge Restoration & Marsh Creation
3	Terrebonne	Bayou Terrebonne Ridge Restoration & Marsh Creation
3	Terrebonne	Bayou Jean Lacroix Marsh Creation & Terracing
3	Terrebonne	South Bayou Pointe aux Chenes Marsh Creation & Terracing
3	Teche-Vermilion	West Vermilion Bay Shoreline Protection & Marsh Creation
3	Teche-Vermilion	Lake Sand Complex Shoreline Protection
4	Calcasieu-Sabine	Oyster Lake Marsh Creation & Nourishment
4	Calcasieu-Sabine	East Holly Beach Gulf Shoreline
4	Mermentau	Southeast Pecan Island Marsh Creation & Freshwater Enhancement
4	Mermentau	Sweeney Tract Marsh Creation & Nourishment
	Coastwide	Southwest Louisiana Salvinia Weevil Propagation

Region	Basin	Type	Project	Considerations							Comments / Other
				Preliminary Fully Funded Cost Range	Preliminary Benefits (Net Acres Range)	Oysters	Land Rights	Pipelines/Utilities	O&M	Other ---->	
1	Pontchartrain	MC	North Shell Beach Marsh Creation	\$20M - \$25M	200 - 250	X		X		X	Atlantic sturgeon critical habitat **
1	Pontchartrain	MC/TR	Fritchie Marsh Creation and Terracing	\$25M - \$30M	250 - 300				X	X	Atlantic sturgeon critical habitat **
1	Pontchartrain	MC/SP	St. Catherine Island Shoreline Protection and Marsh Creation	\$35M - \$40M	200 - 250				X	X	Atlantic sturgeon critical habitat **
2	Barataria	MC	Caminada Headlands Back Barrier Marsh Creation #2	\$25M - \$30M	100 - 150	X		X		X	Piping plover critical habitat **
2	Barataria	MC	Barataria Bay Rim Marsh Creation	\$25M - \$30M	200 - 250	X		X			
2	Barataria	MC/TR	East Bayou Lafourche Marsh Creation and Terracing	\$30M - \$35M	350 - 400	X		X			
2	Barataria	MC	East Leeville Marsh Creation and Nourishment	\$30M - \$35M	300 - 350	X		X			
3	Terrebonne	MC	Bayou Dularge Ridge Restoration and Marsh Creation	\$25M - \$30M	200 - 250	X					
3	Terrebonne	MC	Bayou Terrebonne Ridge Restoration and Marsh Creation	\$25M - \$30M	150 - 200	X			X		
3	Terrebonne	MC/TR	Bayou Jean Lacroix Marsh Creation and Terracing	\$30M - \$35M	250 - 300	X					
3	Terrebonne	MC/TR	South Bayou Pointe aux Chenes Marsh Creation and Terraces	\$20M - \$25M	250 - 300	X					
3	Teche-Vermilion	SP/MC	West Vermilion Bay Shoreline Protection and Marsh Creation	\$25M - \$30M	250 - 300			X	X		
3	Teche-Vermilion	SP	Lake Sand Complex Shoreline Protection	\$20M - \$25M	150 - 200			X	X		
4	Mermentau	MC/FD	Southeast Pecan Island Marsh Creation and Freshwater Enhancement	\$30M - \$35M	300 - 350			X	X		
4	Mermentau	MC	Sweeney Tract Marsh Creation and Nourishment	\$25M - \$30M	500 - 600			X		X	Piping plover critical habitat **
4	Calcasieu-Sabine	MC	Oyster Lake Marsh Creation and Nourishment	\$30M - \$35M	400 - 450					X	Piping plover critical habitat **
4	Calcasieu-Sabine	SP	East Holly Beach Gulf Shoreline Protection	\$30M - \$35M	150 - 200				X	X	Piping plover critical habitat **

	CoastWide		Southwest Louisiana Salvinia Weevil Propagation	\$0M - \$5M	150 - 200				X		
--	-----------	--	---	-------------	-----------	--	--	--	---	--	--

** Project construction could affect critical habitat for that species. Consultation with appropriate agency required.

PPL25 PROJECT NOMINEE FACT SHEET

April 1, 2015

Project Name

North Shell Beach Marsh Creation

Project Location

Region 1, Pontchartrain Basin, South Lake Borgne Mapping Unit, St. Bernard Parish, north bank of the MRGO in the vicinity of Shell Beach. Lies within Project 001.MC.07a of State Master Plan

Problem

The landform separating Lake Borgne and the MRGO has undergone both interior and shoreline wetland losses due to subsidence, storm events, historic use of the MRGO prior to deauthorization (i.e., deep draft vessel traffic), and wave fetch. Although much of the project area is now protected from edge erosion by rock dike features, interior wetland loss attributed to subsidence continues to cause marsh fragmentation and open water conversion. Wetland loss rates in the applicable mapping unit are estimated to be -0.49%/year (1985 – 2009 LCA loss rate).

Goals

The project would create and nourish 544 acres of emergent brackish marsh to continue the ongoing efforts to stabilize the landform separating Lake Borgne from the MRGO.

Proposed Solution

The proposed project will create and nourish 544 acres of marsh by dredging sediment from designated borrow sources in Lake Borgne to a target fill elevation of +1.2 feet. Existing high shorelines along Lake Borgne and interior marsh edge would be used for containment where practical. Containment features would be degraded or gapped as needed to promote tidal exchange after consolidation of the fill material. The project would create 244 acres of marsh and nourish at least 300 acres of existing fragmented marsh. 50% of the newly created area will include vegetative plantings

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
An estimated 244 acres of open water, 300 acres of degraded marsh area. The total project area is approximately 544 acres.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Assuming a 50% reduction in the background loss rate of -0.49%/year, the marsh creation and nourishment would result in 246 net acres after 20 years.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?*
A 50% loss rate reduction is assumed for both marsh creation and nourishment.

- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*

The project would maintain the narrow landform between the shallow waters of Lake Borgne and the deeper MRGO as well as provide benefits to the Lake Borgne shoreline.

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

The proposed project would benefit those communities that lie outside of the Hurricane Storm Damage Risk Reduction System (Reggio, Shell Beach, Yscloskey, etc) which will be increasingly exposed as loss of the landform continues through subsidence and interior marsh loss. The project would also benefit the immediate non-critical infrastructure (i.e., minor oil and natural gas facilities).

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

The project would be synergistic with shoreline protection projects implemented under the CWPPRA program, and Corps of Engineers' MRGO 4th Supplemental Study, as well as marsh creation efforts recently approved in the Shell Beach South Marsh Creation Project.

Identification of Potential Issues

Items to consider during project design include oyster leases in Lake Borgne, pipelines, and Atlantic sturgeon critical habitat in Lake Borgne.

Preliminary Cost

The fully funded cost range is \$20 - \$25M.

Preparer(s) of Fact Sheet:

Scott Wandell, USACE, 504-862-1878, scott.f.wandell@usace.army.mil

Adrian Chavarria, EPA, (214) 665-3103, chavarria.adrian@epa.gov

PPL 25 NORTH SHELL BEACH MARSH CREATION



Lake Borgne

Mississippi River Gulf Outlet

	Marsh Creation
	Retention Dikes

4000 ft



PPL25 PROJECT NOMINEE FACT SHEET

April 1, 2015

Project Name

Fritchie Marsh Creation and Terracing

Project Location

Region 1, Pontchartrain Basin, St. Tammany Parish, located approximately three miles southeast of Slidell, Louisiana. A portion of the project is located on Big Branch 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 CWPRRA 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, and improving tidal exchange to created and existing marshes south of Prevost Island. Specific goals of the project are: 1) create 278 acres of marsh including about 10 acres of tidal creeks and ponds; 2) nourish 50 acres of existing marsh; and 3) construct about 57,000 feet of earthen terraces or 40 emergent acres.

Proposed Solution

Approximately 2.7 million cubic yards of material would be placed confined into two marsh creation areas to restore 278 acres and nourish approximately 50 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 aquatic habitat and existing shorelines. Approximately 10,000 feet of tidal creeks and tidal ponds (totaling approximately 10 acres) would be constructed. Approximately 57,000 feet of earthen terraces would be constructed within various locations totaling approximately 811 acres of terrace field. All containment dikes would be gapped or degraded to achieve functional tidal marsh supportive of estuarine species. Approximately four culverts would be installed to improve tidal exchange to marsh located south of Prevost Island. The terraces would be planted as well as 50% of the created marsh acres.

Note: Opportunities would be considered to expand the marsh creation areas either adjacent to the south side of Salt Bayou or on Refuge property in lieu of some of the terraces. Siting and sizing of creeks and ponds would be developed and refined during the candidacy stage.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total project area is 1,149 acres (1139 ac + 10 ac of creeks and ponds).

- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 295 acres of brackish marsh will be protected/created over the project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50% over the projects life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help maintain the natural ridge along and extending from Prevost Island and the bank lines of Salt Bayou.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will have a net positive effect on the highways and adjacent development.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a direct synergy with the PO-06 CWPPRA project, the Hurricane Surge Damage Risk Reduction mitigation, and St. Tammany Parish beneficial use projects.

Identification of Potential Issues

Potential issues for this project include Atlantic sturgeon critical habitat in Lake Pontchartrain and O&M. Cooperation from the majority landowners is anticipated.

Preliminary Cost

The fully-funded cost range is \$25M - \$30M.

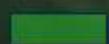
Preparer(s) of Fact Sheet

Patrick Williams, NOAA Fisheries, 225-389-0508, ext 208; patrick.williams@noaa.gov
Lisa Abernathy, NOAA Fisheries, 225-389-0508, ext 209; lisa.abernathy@noaa.gov

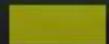
PPL25 Nominee Fritchie Marsh Creation and Terracing

Treasure Island

Prevost Island



56,770 ft or 40 ac of Terraces



328 ac Marsh Creation/Nourishment



Culverts

Google earth

PPL25 PROJECT NOMINEE FACT SHEET

April 1, 2015

Project Name

St. Catherine Island Shoreline Protection and Marsh Creation

Project Location

Region 1, Pontchartrain Basin, Orleans Parish

Problem

The landfall of Hurricane Katrina in southeast Louisiana destroyed thousands of acres of marsh and other coastal habitats in the Lake Pontchartrain basin. The hurricane weakened the Lake Pontchartrain shoreline and large areas of interior marsh habitat were either lost or damaged near Chef Menteur Pass. This area has an estimated erosion rate of 18 ft./yr. or greater. A portion of the lakeshore is protected by rock dikes (Bayou Chevee PO-22), State only project and FWS funded project). Shorelines that are not protected by rock dikes will erode back into the shallow open water areas located near the shorelines further increasing erosion rates.

Goals

The goals of the project are to 1) stop shoreline erosion due to wind generated waves along 33,324 linear feet of the Lake Pontchartrain shoreline preserving 201 acres (166 acres of marsh and 35 acres of shallow water) and 2) create/nourish 173 acres (create 107 acres of marsh and nourish 66 acres of marsh) landward of that shoreline protection.

Service goals include the protection/creation of habitat or improvement of habitat for species of concern (LDWF), priority species (JV), and threatened and endangered species (FWS). The creation of low salinity brackish intertidal marsh habitat would be beneficial to several species that are currently on these lists, including, but are not limited to Black Rail, Mottled Duck, Brown Pelican, King Rail, and Saltwater Topminnow. Helping to keep these species off of the threatened and endangered list is a goal of FWS and should be a goal of all Federal agencies because at that point ALL Federal agencies must then address those species concerns. Improving habitat, especially on Federal and State owned lands insures the protection of those valuable resources in perpetuity.

Proposed Solution

This project would extend the Bayou Chevee (PO-22) rock dike along approximately 19,457 LF of weakened Lake Pontchartrain shoreline. This would protect approximately 201 acres. This project would also create/nourish 173 acres (107 acres of marsh creation and 66 acres of marsh nourishment). That marsh would be created by filling those sites with material hydraulically dredged from the bottom of Lake Pontchartrain. Earthen dikes would be constructed to contain that material. All constructed containment dikes would be sufficiently gapped within 3 years to allow for exchange of nutrients and estuarine organisms. This project would work synergistically with other restoration projects in the area including CWPPRA, state, and Bayou Sauvage National Wildlife Refuge projects.

Preliminary Project Benefits

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

Approximately 301 acres of wetland habitat located on Bayou Sauvage NWR would be benefited directly. At this time no credit was given to any marsh creation from placement of material behind rocks from floatation channel dredging.

- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 225 acres of Bayou Sauvage NWR marsh habitat would be protected/created over the project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The project would stop shoreline erosion and reduce the interior loss rates associated with marsh creation/nourishment to >74%.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
This project would help maintain the current Lake Pontchartrain shoreline, portions of Chef Menteur Pass and its natural ridge functions along with several smaller bayou ridges located within the project area.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would have a net positive impact to critical infrastructures which consists of U.S. Hwy 90 (a hurricane evacuation route), several businesses and camps along Chef Pass and a portion of the New Orleans Landbridge.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a synergistic effect with several projects including PO-22, several State and FWS funded shoreline protection projects.

Identification of Potential Issues

Issues to be considered are the O&M required for the rock dike and the borrow site is located within critical habitat for the threatened Atlantic sturgeon.

Preliminary Cost

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

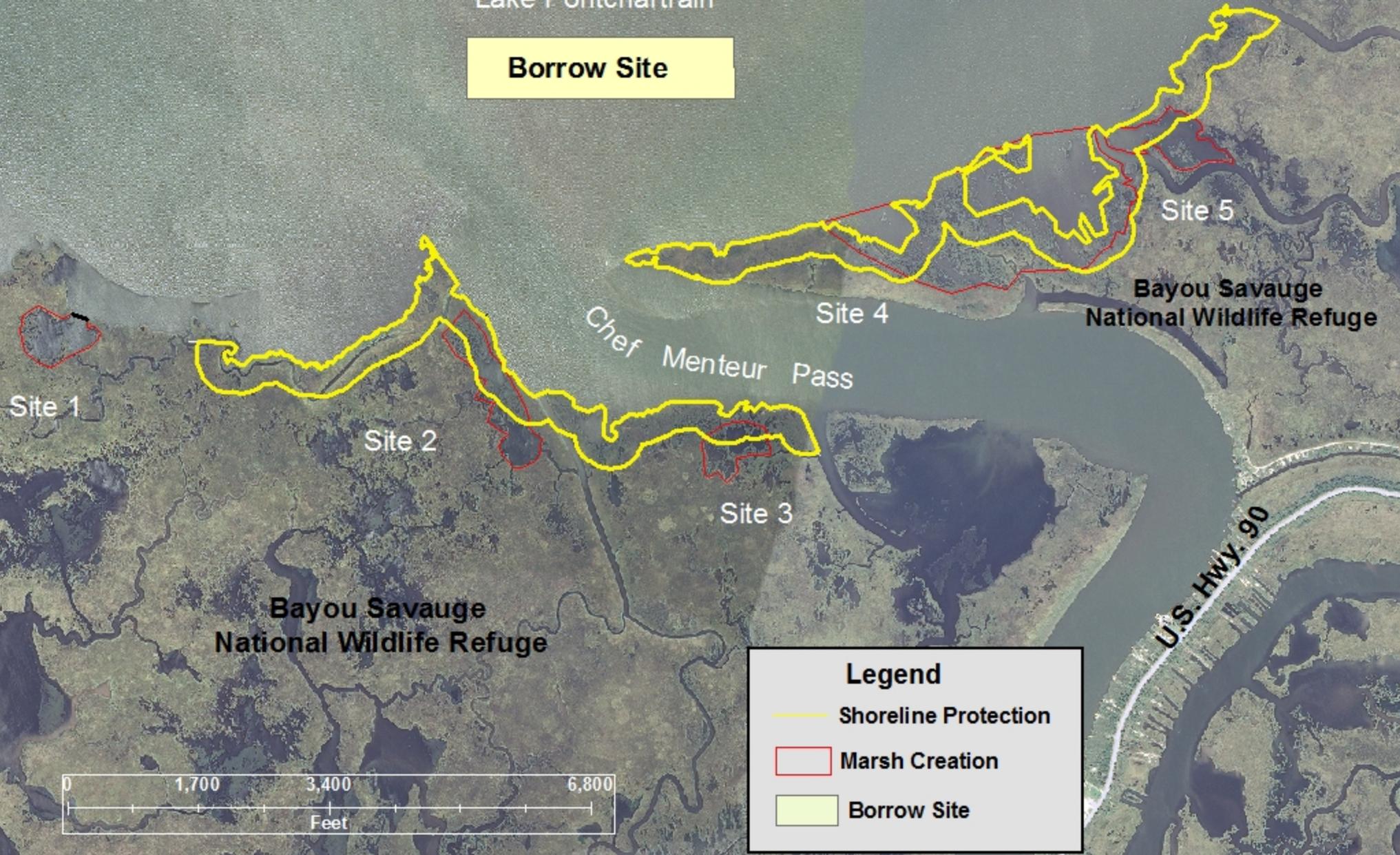
Preparer(s) of Fact Sheet:

Robert Dubois, FWS, (337) 257-4345 robert_dubois@fws.gov



Lake Pontchartrain

Borrow Site



Site 1

Site 2

Site 3

Site 4

Site 5

Chef Menteur Pass

Bayou Sauvage National Wildlife Refuge

Bayou Sauvage National Wildlife Refuge

U.S. Hwy. 90

Legend

- Shoreline Protection
- ▭ Marsh Creation
- ▭ Borrow Site



PPL 25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

Caminada Headlands Back Barrier Marsh Creation, Increment #2

Project Location

Region 2, Barataria Basin. The project is located directly behind the Caminada headland beach, to the east of West Belle Pass, in Lafourche and Jefferson Parishes, Louisiana.

Problem

The Caminada headland has experienced some of the highest shoreline retreat rates in Louisiana, measuring between 55 and 65 feet per year from 1998 to 2010 (historically, up to 100 feet per year). At the same time the area is also experiencing extremely high loss rates of interior marshes. As the barrier headland continues to retreat, over-washed sediment will be lost into newly formed open water and these land loss rates will be exacerbated. The subunit land loss rate is estimated at -0.49%/yr.

Goals

Create and nourish 409 acres of back barrier marsh (cells A, C, & E) using sediment from an offshore borrow site. This will create a platform for the headland to migrate onto, which will slow its retreat while protecting nearby associated wetlands and infrastructure.

Proposed Solution

This project would create 201 acres and nourish 208 acres of emergent back barrier marsh using sediment from an offshore borrow site. The preliminary cost estimate includes 51,600 LF of containment. Vegetative planting will occur on 50% of the project area. The back barrier marsh created in this project will serve as a platform upon which beach and dune sediment can migrate, reducing the likelihood of breaching and improving the longevity of the barrier shoreline.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total project area is approximately 409 acres (Cells A, C, & E).

- 2) *How many acres of wetlands will be protected/created over the project life?*
The average wetland loss rate for the Port Fourchon Shoreline sub-unit is -0.49% per year. Using a loss rate reduction of 50%, an expected loss rate of -0.245% per year is used, with net acreages at TY20 totaling 201 acres. Since the shoreline has historically migrated at a rate of 41.4 ft per year, the benefits may be reduced to 124 acres at TY20.

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%)?*
A 50% loss rate reduction is anticipated throughout the entire project area.

- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*

The back barrier marsh created in this project will serve as a platform upon which beach and dune sediment can migrate, reducing the likelihood of breaching and improving the longevity of the barrier shoreline. The proposed project is expected to slow the current trend of degradation in the headland.

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

Caminada Headland serves as a critical barrier between the gulf and lower Lafourche and Jefferson Parishes. The project helps protect infrastructure in the immediate area such as LA-1 and parts of Port Fourchon.

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

This project will build on the Caminada Headland Backbarrier Marsh project that was approved for Phase 1 funding in PPL 23, which supports the Caminada 1 beach restoration effort that is currently under construction with funding from CIAP. According to CPRA, there were significant budget savings on the Caminada 1 project, so CPRA is proposing a second beach project, Caminada 2, which will cover the remainder of the beach up to Elmer's Island. This project will provide holistic benefits to both approved projects as well as the proposed Caminada 2 project due to its location. It will provide protection against breaches and capture any beach over-wash from the planned Caminada 2 beach project.

Identification of Potential Issues

Potential issues for this project are oyster leases, pipelines, and piping plover critical habitat. At least two pipeline canals bisect the entire length of the project. Since one of these pipeline canals will be used as containment, borrow from inside the project area to create containment will not be possible. This issue is addressed in the "Proposed Project Features" section above.

Preliminary Cost

The fully funded cost range is \$25M-30M.

Preparer of Fact Sheet

Adrian Chavarria, EPA (214) 665-3103, chavarria.adrian@epa.gov
Sharon Osowski, EPA, 214.665.7506, Osowski.sharon@epa.gov

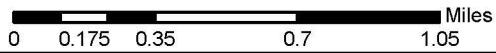


Caminada Backbarrier Marsh Creation #2

Basemap: 2013 NAIP DOQQ
Produced by: EPA Region 6, Dallas, TX

Cell

-  A 309.3ac
-  C 83.52ac
-  E 119.3ac



PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

Barataria Bay Rim Marsh Creation

Project Location

Region 2, Barataria Basin, Jefferson and Plaquemines Parishes

Problem

Historic wetland loss in the area occurs in the form of interior marsh loss and shoreline erosion along Barataria Bay. The interior loss is caused by subsidence, sediment deprivation, and construction of access and pipeline canals.

Goals

The goal of the project is to create approximately 235 acres of marsh and nourish approximately 319 acres of marsh (554 acres total) with dredged material from Barataria Bay.

Proposed Solution

The proposed project would create approximately 235 acres and nourish approximately 319 acres of marsh using sediment dredged from Barataria Bay. Three areas would fully contained and one area would be semi-contained. 50% of the contained marsh creation area will be planted. Containment dikes will be degraded as necessary to reestablish hydrologic connectivity with adjacent wetlands.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
554 directly benefitted; indirect benefit not yet determined.
- 2) *How many acres of wetlands will be protected/created over the project life?*
238 net acres at end of 20 years.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50% over the project's life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
This project would create and nourish marsh that would help stabilize the northern rim of Barataria Bay.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The communities of Lafitte and Barataria lie to the north of this important landmass which serves to buffer the effect of tropical weather events.

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

This project would be the first in a potential series of projects focused on stabilizing the northern rim of Barataria Bay, a strategy presented in the State's 2012 Master Plan.

Identification of Potential Issues

The proposed project has potential pipeline and oyster issues.

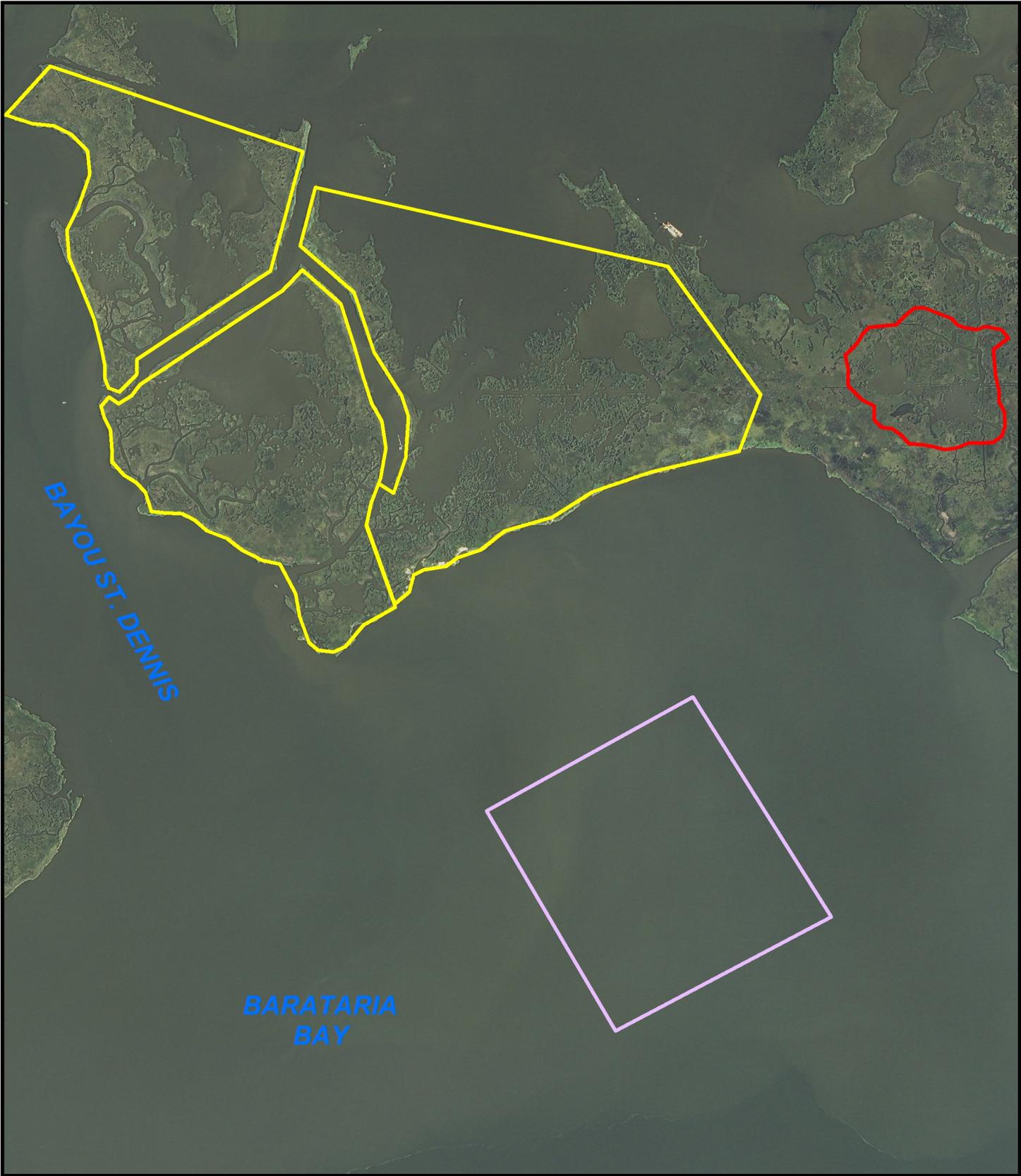
Preliminary Cost

The fully funded cost range is \$25M-\$30M.

Preparers of Fact Sheet:

Quin Kinler, USDA-NRCS, 225-665-4253 ext 110, quin.kinler@la.usda.gov

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



Map Produced By:
 United States Department of Agriculture
 Natural Resources Conservation Service
 Alexandria, LA

Data Source: NAIP 2013

Map Date: JANUARY 8, 2015



**PPL-25
 BARATARIA BAY RIM
 MARSH CREATION
 PROJECT MAP**



Legend

- Traditional_Marsh_Creation
- Semi-Contained_Marsh_Creation
- Borrow_Area

PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

East Bayou Lafourche Marsh Creation and Terracing

Project Location

Region 2, Barataria Basin, Lafourche Parish, south of Golden Meadow adjacent to Bayou Lafourche

Problem

The project area is within the Coast 2050 Caminada Bay mapping unit which encompasses approximately 130,000 acres. From 1932 to 1990, approximately 26,600 acres of marsh were lost from the initial 63,110 acres. An extensive network of oil and gas canals, resulting in altered hydrology, was one of the major causes of this loss. Subsidence, wind erosion, and altered hydrology continue to result in marsh loss. USGS calculated a 1985-2009 loss rate of -0.9% per year for the Lake Palourde unit.

Goals

The primary goal of this project is to restore marsh along the Highway 1-Bayou Lafourche corridor via marsh creation and terracing.

Service goals include restoration/protection of habitat for threatened and endangered species and other at-risk species. This project would restore habitat potentially utilized by the black rail and Louisiana eyed silkmoth which are both petitioned for listing as threatened/endangered species. The project could also benefit other at-risk species including the peregrine falcon, osprey, diamondback terrapin, and seaside sparrow.

Proposed Solution

1. Sediments will be hydraulically dredged in Little Lake, west of Bayou Lafourche, and pumped via pipeline to create/nourish approximately 420 acres of marsh. Caminada Bay or one of the small bays north of Caminada Bay may offer other options for borrow material. However, the pipeline route may be more problematic.
2. Containment dikes will be constructed as necessary and gapped upon project completion.
3. Terraces (42,200 linear ft-29 ac) will be constructed in open water and deteriorated marsh areas to reduce fetch, provide protection to the created marsh, and provide marsh edge habitat.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
Approximately 1,090 acres would be benefited directly and indirectly. Direct benefits include 365 acres of marsh creation, 55 acres of marsh nourishment, and 29 acres of terraces. Indirect benefits would occur to surrounding marshes and within the 670-acre terrace field.
- 2) *How many acres of wetlands will be protected/created over the project life?*
The total net acres protected/created over the project life is approximately 366 acres.

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated loss rate reduction throughout the area of direct benefit is estimated to be 50%.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project would restore marsh along what remains of the historical natural levee ridge along Bayou Lafourche.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
Some protection could be afforded to Highway 1 which is not elevated along this reach.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
None at this time.

Identification of Potential Issues

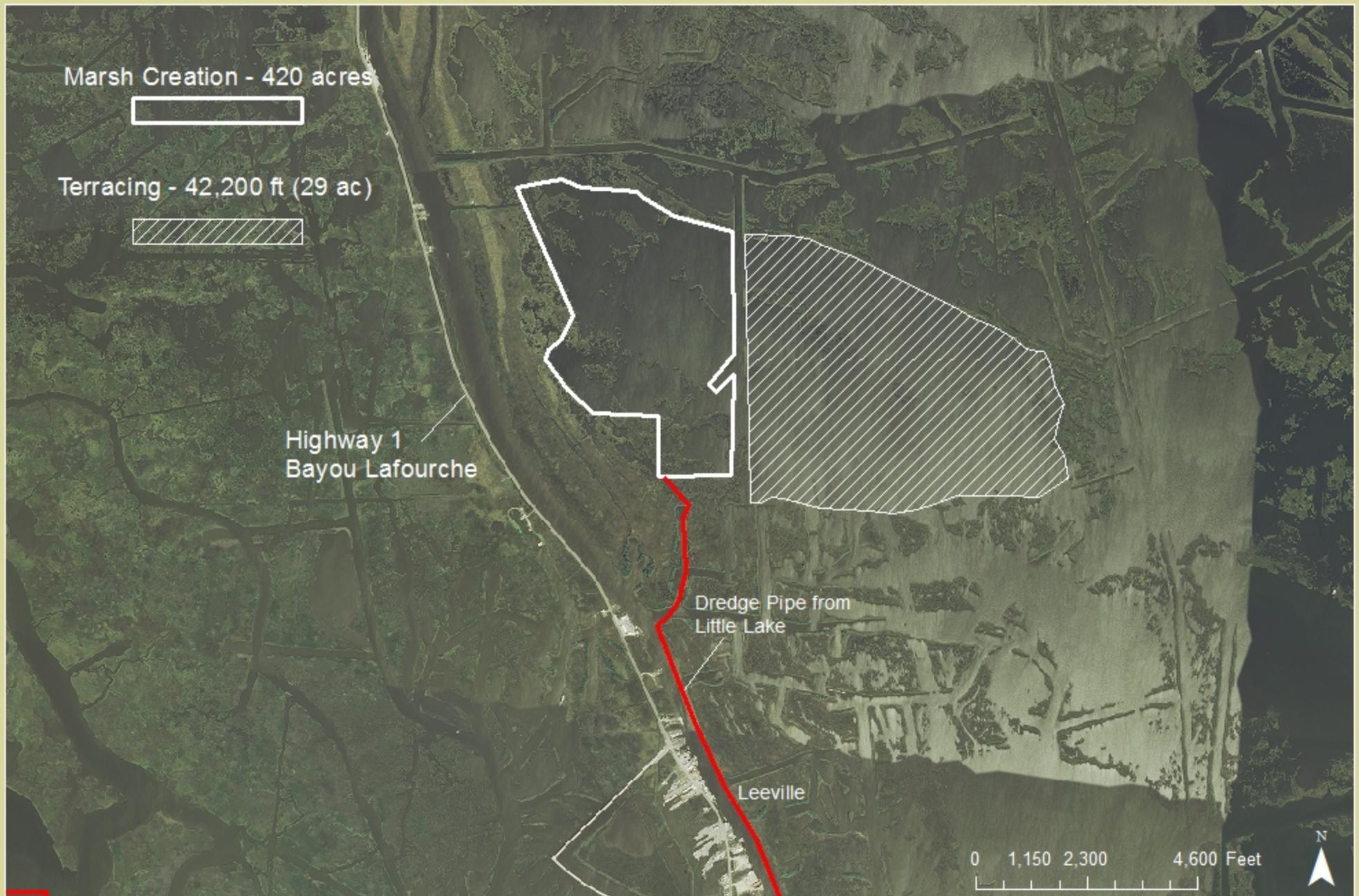
Oil and gas infrastructure (i.e., pipelines) and oyster leases would have to be considered in the project design. However, the SONRIS database indicates very few oyster leases in Little Lake.

Preliminary Construction Costs

The fully-funded cost range is \$30M - \$35M.

Preparer of Fact Sheet

Kevin Roy, USFWS, (337) 291-3120, kevin_roy@fws.gov



PPL25 PROJECT NOMINEE FACT SHEET April 1, 2015

Project Name

East Leeville Marsh Creation and Nourishment Project

Project Location

Region 2, Barataria Basin, Lafourche Parish (primary)
Region 3, Terrebonne Basin, Lafourche Parish

Problem

There is historic and continued rapid land loss within the project and surrounding areas resulting from oil and gas exploration, subsidence, wind erosion, storms, and altered hydrology. The limits of Southwestern Louisiana Canal are difficult to determine in some areas because land loss is causing the coalescence of the canal with adjacent water bodies. A large section of the western bank of South Lake has been lost increasing wave fetch and further coalescence of natural lakes with adjacent waters that were once marsh. Natural tidal flow and drainage patterns which once existed are currently circumvented by the increasing area of open water. The wetland loss rate for the project area is -1.15%/year based on USGS data from 1984 to 2011.

Goals

The project goal is to create approximately 352 acres and nourish 130 acres of saline marsh east of Leeville.

Proposed Solution

After consideration of three potential alternatives, an alignment was selected to re-establish an arc of wetlands along the north side of Southwestern Canal, Lake Jesse, and the west side of South Lake. This is to begin rebuilding the structural framework of wetlands east of Leeville and provide protection for Leeville from southeasterly winds and tides. A robust engineering and design cost was included for full flexibility during Phase 1 to expand the project if cost allows or to assess alternative configurations, if necessary. The proposed features consist of hydraulically mining sediment from a borrow source in Little Lake west of Leeville and pumping material to create and nourish marsh east of Leeville. The disposal areas would be fully contained during construction and gapped no later than three years post construction to establish tidal connection and function. Additionally, 50% of the created marsh acres would be planted with smooth cordgrass following construction to help stabilize the created platform by increasing the rate of colonization.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is approximately 484 acres.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Assuming a 50% reduction in the background loss rate of -1.15%/year, the marsh creation and nourishment would result in 326 net acres after 20 years.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?*

A 50% loss rate reduction is assumed for the marsh creation, and marsh nourishment.

- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*

The project will help restore the bank line of Lake Jesse, South Lake, and a portion of bank line along Southwestern Canal.

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

Minor oil and gas facilities and pipelines in the area would benefit from an increase in marsh acreage. Facilities along Bayou Lafourche in Leeville could benefit from marsh creation along Bayou Lafourche, Southwestern Louisiana Canal, Lake Jesse, and South Lake.

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

This is an area of need due to the lack of previous restoration efforts and provides synergy with a marsh creation mitigation project.

Identification of Potential Issues

The proposed project has potential oyster lease and pipeline/utility issues.

Preliminary Cost

The fully funded cost range is \$30M - \$35M.

Preparer(s) of Fact Sheet:

Patrick Williams, NMFS, 225-389-0508, ext 208, patrick.williams@noaa.gov

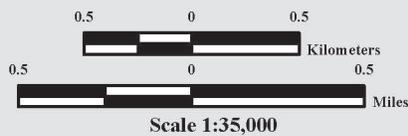
Lisa Abernathy, NMFS, 225-389-0508, ext 209, lisa.abernathy@noaa.gov



East Leeville Marsh Creation and Nourishment (PPL25 Nominee)



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



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

Image Source:
 2012 DOQQ

Map Date: January 23, 2015

PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

Bayou Dularge Ridge Restoration and Marsh Creation Project

Project Location

Region 3, Terrebonne Basin, Terrebonne Parish, Bayou Dularge at Grand Pass

Problem

The Bayou Dularge Ridge is a prominent feature in the south central Terrebonne Basin forming a diagonal ridge extending from northeast to southwest that historically restricted the Gulf marine influence into Central Terrebonne marshes. The project location provides a unique opportunity to manage salinity intrusion into a vast area where historically salinity was naturally moderated through intact land features. The Grand Pass, a 900 ft wide artificial cut through the Bayou Dularge Ridge, south of Lake Mechant, is currently being addressed in the CWPPRA TE-66 project. However, the integrity of the ridge is also of concern due to erosion of the adjacent marshes. Loss of this important land bridge separating Lake Mechant from Sister Lake would undermine efforts to restore the fresh and intermediate marshes to the north and eliminate an important landscape feature of critical importance to basin hydrology. The State Master Plan has also identified the ridge as a restoration priority.

Goals

The project will create/restore a ridge feature and marsh in the landbridge that separates Lake Mechant from Sister Lake to insure the integrity of the ridge and the important function of sustaining optimal salinity gradients and promote healthy marsh recovery in the region.

Proposed Solution

The project would create/restore approximately 30,567 linear feet (35 acres) of coastal ridge south of Bayou Dularge and create/nourish approximately 342 acres of marsh. Lake sediments will be hydraulically dredged and pumped via pipeline to supply material to the marsh creation locations. Containment dikes will be constructed around marsh creation areas to retain material during pumping. Additionally, the ridge feature will be fully planted with appropriate hardwood species.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total acreage benefited directly and indirectly would be approximately 377 total acres consisting of 204 acres of water and 173 acres of marsh.

- 2) *How many acres of wetlands will be protected/created over the project life?*
The net acres of wetlands created/protected over the project life is estimated at 169 acres of marsh and approximately 35 acres of ridge for a total of 204 net acres.

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%).*
The anticipated land loss rate reduction throughout the area of direct benefits over the project life is 50%.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.?*
The project will reestablish a portion of the historic Bayou Dularge ridge.
- 5) *What is the impact of the project on critical and non-critical infrastructure?*
The project will reestablish a major ridge feature in the Terrebonne Basin.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project provides a synergistic effect with TE-66 by improving the integrity of the ridge and marsh adjacent to the proposed weir structure across Grand Pass.

Identification of Potential Issues

The proposed project has the following potential issues: oyster leases.

Preliminary Cost

The fully funded cost range is \$25M-\$30M.

Preparer of Fact Sheet

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

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



LAKE MECHANT

BAYOU DULARGE

GRAND PASS

CAILLOU LAKE



Map Produced By:
United States Department of Agriculture
Natural Resources Conservation Service
Alexandria, LA

Data Source: NAIP 2013

Map Date: APRIL 6, 2015



**BAYOU DULARGE RIDGE RESTORATION
AND MARSH CREATION
TERREBONNE PARISH, LA**

0 2,600 5,200
Feet

Legend	
	RIDGE_RESTORATION
	RIDGE_FLOTATION_CANAL
	MARSH_CREATION
	MARSH_NOURISHMENT

PPL 25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

Bayou Terrebonne Ridge Restoration and Marsh Creation

Project Location

The project is located directly along Bayou Terrebonne, northwest of Cocodrie, in Terrebonne Parish, Louisiana.

Problem

Terrebonne basin was historically structured by a series of north-south ridges—remnants of the many distributaries of Bayou Lafourche. Much of the habitat function of these ridges has been lost over the last half-century to erosion, subsidence, and development. Land loss projections predict that the ridge and surrounding marshes will be converted to open water by 2050.

Goals

- 1) Restore both the structural and habitat functions of 3.9 miles of Bayou Terrebonne Ridge.
- 2) Create and nourish 221 acres of marsh habitat.
- 3) Install 7,100 feet of artificial oyster reef along the lake-side containment dike, to provide habitat and help protect the newly created marsh and ridge.

Proposed Solution

Create a 20,461 foot ridge along the east bank of Bayou Terrebonne. The ridge will have a +5.2 ft settled top height, a 15-foot top width, and 1:7 side slopes. The ridge feature would result in 7 acres of marsh and 24 acres of ridge habitat. Ridge material will come from Bayou Terrebonne. The borrow sites will be noncontiguous, as not to facilitate the northward flow of saltwater. The project will also include 214 acres of marsh creation and nourishment adjacent to the ridge component. 7,100 feet of artificial oyster reef will be installed on the outside of the lake-side containment dikes. Borrow for the marsh creation component will come from Terrebonne Bay.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
246 acres
- 2) *How many acres of wetlands will be protected/created over the project life?*
This project will create a net benefit of 185 acres of marsh and ridge habitats over the 20-year project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50% for the MC feature and 50% for the ridge feature over the projects life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help restore nearly 4 miles of the natural ridge habitat along the east bank of Bayou Terrebonne. The project also helps maintain the Bayou Terrebonne bank line, keeping the bayou from coalescing with Lake Barre.

- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would help maintain Bayou Terrebonne which sees heavy commercial and recreational boat traffic. The ridge may offer some protection to infrastructure (LA-56) and communities to the west and north of the project.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a synergistic effect with other efforts to protect and restore Terrebonne Bay rim, including Terrebonne Bay Shore Protection Demonstration (TE-45), and Terrebonne Bay Marsh Creation and Nourishment Project (TE-83).

Identification of Potential Issues

Oyster leases, pipelines, and piping plover critical habitat are issues to be considered.

Preliminary Cost

The fully-funded cost range is \$25M - \$30M.

Preparer of Fact Sheet

Stuart Brown, CPRA (225) 342-4736, stuart.brown@la.gov

PPL25 - Bayou Terrebonne Ridge Restoration and Marsh Creation



PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

Bayou Jean Lacroix Marsh Creation and Terracing

Project Location

Region 3, Terrebonne Basin, Terrebonne and Lafourche Parish

Problem

The Terrebonne Basin is an abandoned delta complex, characterized by a thick section of unconsolidated sediments that are undergoing dewatering and compaction, contributing to high subsidence, and a network of old distributary ridges extending southward from Houma. Historically, subsidence and numerous oil and gas canals and pipelines in the area have contributed significantly to wetland losses. Since 1932, the Terrebonne Basin has lost approximately 20% of its wetlands. Current loss rates range from approximately 4,500 to 6,500 acres/year. This loss amounts to up to 130,000 acres during the next 20 years. One-third of the Terrebonne Basin's remaining wetlands would be lost to open water by the year 2040. The wetland loss rate for the Wonder Lake subunit is -0.87%/year based on USGS data from 1985 to 2009.

Goals

The project goals are to:

- create and/or nourish up to 360 acres of emergent brackish marsh;
- construct 26,600 linear feet of terraces (17 acres) south of and adjacent to the newly restored marsh platform

Proposed Solution

The proposed project's primary feature is to create 288 acres and nourish 72 acres of existing marsh to form a land bridge south of the Twin Pipeline Canal between Bayou Jean Lacroix and Bayou Pointe au Chien. Sediment will be hydraulically pumped from a borrow source near Lake Felicity. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. Dikes will be degraded and/or gapped no later than three years post construction to allow greater tidal exchange and estuarine organism access. Half of the newly constructed marsh (144 acres) will be planted following construction to stabilize the platform and reduce time for full vegetation. The project will also construct 26,600 feet (17 acres) of terraces in 380 acres of shallow open water just south of the marsh platform to help reduce wave fetch generated from the south in Terrebonne Bay. Terraces would be constructed to an elevation of +2.5 feet NAVD 88, with a 15-ft crown width, and would be planted. The proposed solution is synergistic with (TE-53) Madison Bay Marsh Creation and Terracing and (TE-117) Island Road Marsh Creation and Nourishment projects currently authorized under the CWPPRA program.

Preliminary Project Benefits

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

This total project area is approximately 740 acres (288 acres of marsh creation and 72 acres of marsh nourishment + 380 acres of terrace field).

- 2) *How many acres of wetlands will be protected/created over the project life?*
Assuming a 50% reduction in the background loss rate (Wonder Lake Mapping Unit, -0.87%/year), the marsh creation, nourishment, and constructed terraces would result in 286 net acres after 20 years.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
A 50% loss rate reduction is assumed for the marsh creation, marsh nourishment, and terraces. (Wonder Lake Mapping Unit, from -0.87%/year to -0.43%/year)
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help restore a small portion of Bayou Jean Lacroix.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would provide positive impacts to non-critical (i.e., minor oil and gas facilities) infrastructure. Minor oil and gas facilities and pipelines in the area would benefit from an increase in marsh acreage. The loss of wetlands in this area increases the vulnerability of infrastructure to wave energy.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project may have indirect synergy with the (TE-53) Madison Bay Marsh Creation and Terracing project and (TE-117) Island Road Marsh Creation and Nourishment project; the Ducks Unlimited marsh management unit on Point aux Chien Wildlife Management Area; and the Ducks Unlimited Island Road Marsh Terracing Project.

Identification of Potential Issues

The proposed project has potential utility/pipeline issues and oyster leases.

Preliminary Cost

The fully-funded cost range is \$30M - \$35M.

Preparer(s) of Fact Sheet:

Kimberly Clements, NOAA Fisheries, 225-389-0508 ext 204, kimberly.clements@noaa.gov
Patrick Williams, NOAA Fisheries, 225-389-0508, ext 208, patrick.williams@noaa.gov

PPL 25 Nominee

Bayou Jean Lacroix Marsh Creation and Terracing

Project Features:

-  360 ac marsh creation
-  380 ac terraces
-  Bayou Jean Lacroix
-  Twin Pipeline

Twin Pipeline Canal

170 ac

80 ac

130 ac

65 ac

45 ac

250 ac

Bayou Pointe au Chien

Bayou Jean Lacroix

Google earth

PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

South Bayou Pointe aux Chenes Marsh Creation and Terraces

Project Location

Region 3, Terrebonne Basin, Terrebonne Parish, South Bayou Pointe aux Chenes near Lake Billiot

Problem

The eastern side of Terrebonne Basin is significantly isolated from the riverine influences of the Mississippi and Atchafalaya Rivers. Consequently, both subsidence and erosion of shorelines have occurred at some of the highest rates in Louisiana. The peripheral marshes surrounding Terrebonne Bay have experienced significant erosion and the interior marsh has also succumbed to several large ponds that tend to expand and accelerate erosion.

The State has identified this region as a priority in the master plan. Some locations within the State Master Plan marsh creation polygons consist of broad open water areas that are not feasible by conventional marsh creation approaches.

Goals

The goal of the project is to strategically create marsh and reduce interior erosion/subsidence by creating marsh and terraces to stabilize the area and prevent further expansion of large shallow open water area and loss of adjacent marshes.

Proposed Solution

Project would create approximately 256 acres of marsh (245 ac marsh creation and 11 ac nourishment) in the form of an island cell surrounded by 43,591 linear feet of terraces. Total project area is about 1200 acres. This project will utilize an innovative solution to addressing larger open water areas by combining marsh creation and terraces to collectively stabilize the broader area. Placement of fill material in the form of islands optimizes the use of imported material toward marsh creation and provides an anchor to increase the effectiveness of the in-situ terrace construction. It also allows the restoration effort to impact a much broader area than conventional marsh creation designs.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total acreage benefited directly and indirectly would be approximately 1231 acres with 256 acres consisting of marsh creation and the remaining 975 acres containing terraces throughout.

- 2) *How many acres of wetlands will be protected/created over the project life?*
The net acres of wetlands created/protected over the project life is estimated at 278 acres.

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%).*
The anticipated land loss rate reduction throughout the area of direct benefits over the project life is 50%.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.?*
The project will provide protection to the Bayou Pointe aux Chenes ridge.
- 5) *What is the impact of the project on critical and non-critical infrastructure?*
The project will reestablish marsh in a broad area of loss that has converted to shallow water.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
There are no projects in the immediate area.

Identification of Potential Issues

The proposed project has the following potential issues: oyster leases

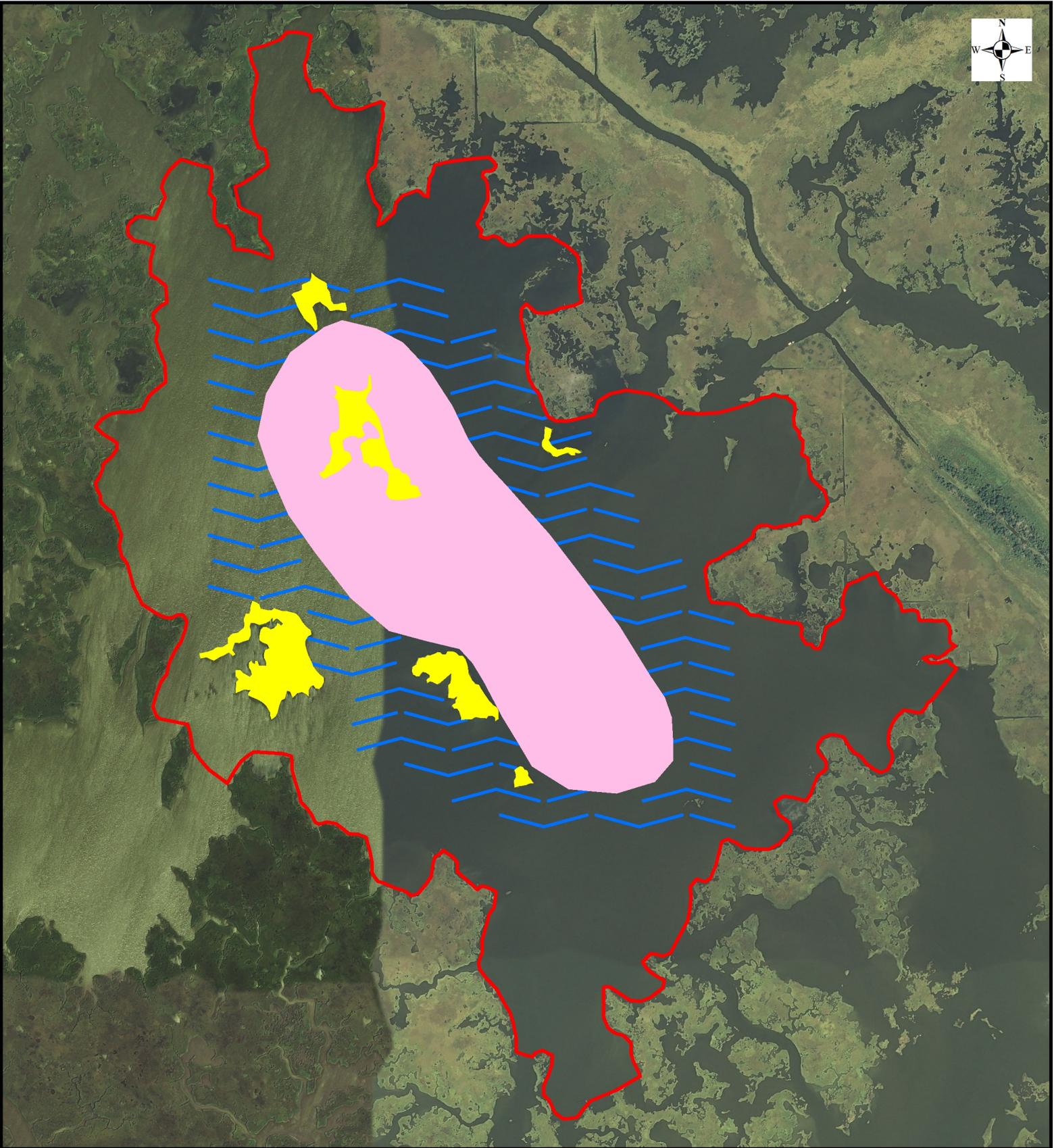
Preliminary Cost

The fully funded cost range is \$20M-\$25M.

Preparer of Fact Sheet

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

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



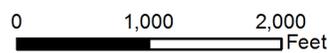
Map Produced By:
United States Department of Agriculture
Natural Resources Conservation Service
Alexandria, LA

Data Source: NAIP 2013

Map Date: MARCH 31, 2015



***SOUTH BAYOU POINT AUX CHENES
MARSH CREATION AND TERRACES
TERREBONNE PARISH, LOUISIANA***



Legend	
	PROJECT_BOUNDARY
	ISLANDS
	MARSH_CREATION
	TERRACES

PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

West Vermilion Bay Shoreline Protection and Marsh Creation

Project Location

Region 3, Teche-Vermilion Basin, Vermilion Parish, east of Hog Lake and along the southeastern shore of North Lake.

Problem

Over the past decades, the project area has experienced both wetland loss, primarily due to geomorphologic and hydrologic conditions being altered due to dredging of navigation and petroleum access canals and the construction of spoil banks and levees, and shoreline erosion along Vermilion Bay caused primarily by natural wave energy. Wave energy in the bay has gradually increased over the centuries because the bay is naturally getting deeper due to a slight yet constant subsidence and global sea-level rise. Recent loss rates (2003-2013) were calculated from aerial photography at 6.0 ft/yr.

Goals

There are two goals for this project. First is to create/nourish marsh in one cell located east of Hog Lake between Bayou Prien and Hog Bayou and a second cell located between the shorelines of North Lake and Vermilion Bay. The second goal is to protect/armor the western shoreline of Vermilion Bay between Bayou Prien and Hog Bayou and the Vermilion Bay shoreline adjacent to the proposed marsh creation cell near North Lake.

Proposed Solution

The project proposes to create 281 acres and nourish 181 acres of emergent marsh by dredging sediment from Vermilion Bay. The project also includes armoring approximately 17,712 linear feet of shoreline (2,500 LF of shoreline protection plus 15,212 LF of gabion mats) along Vermilion Bay between Bayou Prien and Hog Bayou and adjacent to the proposed marsh creation cell located near North Lake.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
512 acres would be benefitted directly; 463 acres of marsh and 49 acres of shoreline protection. Direct benefits include 281 acres of marsh creation, 181 acres of marsh nourishment and 49 acres along the 17,712 LF of shoreline stabilization (2,500 LF of shoreline protection plus 15,212 LF of gabion mats).

- 2) *How many acres of wetlands will be protected/created over the project life?*
The total net acreage protected/created is approximately 291 acres. The net acreage protected/created by marsh creation is approximately 246 acres. The acreage protected/created via the shoreline stabilization is approximately 45 acres.

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?*
A 40% loss rate reduction is anticipated throughout the entire project area.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project would restore marsh along the remnant shoreline between North Lake and Vermilion Bay and, stabilize the shoreline in three areas; between North Lake and Vermilion Bay, between the small lake near Redfish Point and Vermilion Bay, and along the western shoreline of Vermilion Bay between Bayou Prien and Hog Bayou.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
There is no critical/non-critical infrastructure in the immediate project area.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
None at this time.

Identification of Potential Issues

Pipelines must be addressed during project design. O&M is also a project consideration.

Preliminary Costs

The fully-funded cost range is \$25M - \$30M.

Preparer of Fact Sheet

Adrian Chavarria, EPA, (214) 665-3103, chavarria.adrian@epa.gov

Cindy Steyer, NRCS, (225) 665-4253, cindy.steyer@la.usda.gov



Map Produced By:
 United States Department of Agriculture
 Natural Resources Conservation Service
 Alexandria, LA

Data Source: NAIP 2013 IMAGERY

Map Date: JANUARY 12, 2015



**WEST VERMILION BAY
 SHORELINE STABILIZATION
 AND MARSH CREATION**



Legend	
	ARMORED_PROTECTION
	EXISTING_LDWF_ROCK_DIKE
	MARSH_CREATION_1
	MARSH_CREATION_2
	SHORELINE_STABILIZATION
	EXISTING STRUCTURES

PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

Lake Sand Complex Shoreline Protection Project

Project Location

Region III, Teche-Vermilion Basin, Iberia Parish

Problem

Marsh Island supports a diversity of important fish and wildlife species, and serves as a crucial geomorphic structure that maintains the tidal environment and protects the estuarine character of the Vermilion-Cote Blanche Bays system. The Lake Sand Complex Shoreline Protection Project area lies on the eastern point of Marsh Island, and consists of a complex of shallow interior lakes, including Lake Sand, that are surrounded and separated by fragmenting marsh areas. This eastern point of the Island is situated where multi-directional impacts from wave action generated across the long fetch lengths of East and West Cote Blanche Bays converge with wave and tidal energy propagated out of the Gulf of Mexico.

In addition to direct marsh loss from bay shoreline retreat at a rate of 14 feet per year, of particular concern is the loss of certain reaches that would also allow West Cote Blanche Bay to break through existing bands of surrounding marsh and coalesce with the large shallow interior lakes. Also, multiple storm impacts in the last decade have accelerated marsh fragmentation that is leading to the merge of these interior lakes and their expansion into a much larger, higher-energy water body. Capture of these interconnected shallow lake-marsh ecosystems by the bay will significantly alter hydrology, intensify wave and tidal exchange impacts, and immediately escalate break up and loss of fragile interior wetland habitat.

Goal

The goal of this project is to halt erosion, protect critical shoreline reaches and restore marsh along the southern West Cote Blanche Bay shoreline, thereby preventing the bay from capturing the adjacent interior lakes.

Proposed Solution

The project consists of a total of 20,260 LF of rock breakwater shoreline protection and the beneficial use of material dredged for access to create bands of marsh that will protect and restore the emergent marsh areas that maintain separation of West Cote Blanche Bay from the lakes.

Preliminary Project Benefits

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

The total acreage expected to be benefited both directly and indirectly is approximately 1,160 ac. The direct benefits totaling 185 acres are composed of 120 acres of emergent marsh protected from shoreline erosion, 37 acres of emergent marsh created via beneficial use of dredged material which would be maintained, plus an additional 28 acres of land gain achieved via sediment accretion and expansion of the created areas and existing marsh shoreline. These acres would be combined with those acres indirectly benefitted by

preventing West Cote Blanche Bay from breaching through surrounding marsh into Lake Sand & the Hawkins Bayou lake in multiple locations, escalating the lakes' interior shoreline erosion and marsh breakup, and causing irretrievable loss of the complex.

- 2) *How many acres of wetlands will be protected/created over the project life?*
The project is expected to directly benefit approximately 185 net acres of interior marsh that will be directly protected and created over the 20-year life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
Construction of the proposed project features is expected to reduce the shoreline loss rate by 100%, and maintain the created marsh areas and promote concurrent land gain via sediment accretion over the project's twenty-year life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
This project would protect the West Cote Blanche Bay shoreline and prevent the Bay from capturing substantial acreage of interior shallow-water lakes and surrounding marsh over the project life. In addition, this project area is situated in the eastern end of Marsh Island which serves as the principal geomorphic structure that maintains the tidal prism and buffers the Vermilion-Cote Blanche Bays system from direct marine influence of the Gulf of Mexico. This project would help prevent breakup and narrowing of the eastern Marsh Island point.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would have a small positive impact to non-critical infrastructure such as recreational camps and oilfield infrastructure by maintaining the width and breadth of Marsh Island and its buffering influence on the Bays' wave environment, tidal exchange and storm impacts from the Gulf of Mexico.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project will have significant synergistic effects with existing restoration and protection projects on the refuge including the adjacent TV-14 Hydrologic Restoration Project, TV-21 Marsh Creation Project, and other CIAP protection and restoration actions.

Identification of Potential Issues

Issues to be considered are pipelines in the project area and O&M. There are pipelines in the project area, however, there are no major issues anticipated as a result: some of the pipelines crossing the shoreline are already lying below armored plugs, and the others can likely be avoided by deliberate placement of breaks in the rock dike and the marsh creation band. In addition, a potential source of a portion of the rock needed for the shoreline protection structure may be available to be moved from a deauthorized project in the Atchafalaya Delta, although this circumstance is not included in the project cost estimate.

Preliminary Cost

The fully funded cost range is \$20M-\$25M.

Preparer(s) of Fact Sheet

Cindy S. Steyer, NRCS, (225) 665-4353, xt 111, cindy.steyer@la.usda.gov

Cassidy Lejeune, LDWF, (337) 373-0032, clejeune@wlf.la.gov



WEST COTE BLANCHE BAY

LAKE SAND

HAWKINS LAKE

GULF OF MEXICO

- Legend**
- EXISTING_SHORELINE_PROTECTION
 - EXISTING_CLOSURE
 - PROPOSED_SHORELINE_PROTECTION
 - / / BENEFICIAL_USE_OF_DREDGE_MATERIAL



2/2/2015

NAIP 2013 IMAGERY

LAKE SAND COMPLEX
SHORELINE PROTECTION PROJECT

IBERIA PARISH, LOUISIANA



Natural Resources
Conservation Service

File No.
Drawing1.mxd

Drawing No.
XXX

Sheet X of X

PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

Oyster Lake Marsh Creation and Nourishment

Project Location

Region 4, Calcasieu-Sabine Basin, Cameron Parish

Problem

The project would restore marsh to offset levels of historic and ongoing wetland loss. Saltwater intrusion, drought stress, and hurricane induced wetland losses have resulted in interior marsh breakup and coalescence of Oyster Lake with interior water bodies. Based on the LCA, Subunit Mud Bayou polygon data from 1985 to 2009, land loss is -0.15% per year for the general area where the proposed project is geographically located. More specifically, based on 1984 to 2010 data evaluated for Oyster Bayou Marsh Creation and Terracing Project (CS-59), the extended boundary loss rate is -1.18%/yr.

Goals

The project goal is to create and or nourish 710 acres of saline marsh (create 438 acres and nourish 272 acres).

Proposed Solution

Sediment would be mined from the offshore disposal area used for CS-59 and placed to create approximately 438 acres of saline marsh. Approximately 272 acres of marsh may be nourished. Disposal areas would be constructed between the CS-59 marsh creation areas and terrace field depicted on the concept map (red polygon). Disposal would be confined. Possible expansion of the marsh creation area is shown on the concept map as yellow polygons. Although marsh creation via dedicated dredging of sediment would be the primary technique, opportunities may exist to include some terracing where warranted, but that is not included in the benefit/cost estimates at this time. Vegetated plantings are not a planned construction feature.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The project area comprised of marsh creation and nourishment is 710 acres.
- 2) *How many acres of wetlands will be protected/created over the project life?*
Assuming a 50% reduction in the background loss rate of -1.18%/year, marsh creation, and nourishment would result in 416 net acres after 20 years.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
A 50% loss rate reduction is assumed for the marsh creation and marsh nourishment.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*

No.

- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would provide positive impacts to non-critical (i.e., minor oil and gas facilities) infrastructure. Oil and gas companies have facilities and pipelines in this area, which would benefit from an increase in marsh acreage. The loss of wetlands in this area increases the vulnerability of infrastructure to wave energy. Protecting/creating wetlands in this area may also assist in reducing storm damages to oil and gas infrastructure.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project would provide a synergistic effect with the Oyster Bayou Marsh Restoration Project (CS-59), the East Mud Lake Marsh Management Project (CS-20) to the west-northwest side of the proposed project and the North America Wetlands Conservation Act project constructed by Ducks Unlimited.

Identification of Potential Issues

Pipelines and related oil and gas infrastructure (including roads) are within the project area and would need to be avoided by dredge/fill activities. Piping plover critical habitat will need to be addressed along the dredge pipe corridor.

Preliminary Cost

The fully funded cost range is \$30M-\$35M.

Preparer(s) of Fact Sheet:

John Foret, NOAA's National Marine Fisheries Service, (337) 291-3107; john.foret@noaa.gov

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

kimberly.clements@noaa.gov

PPL 25 Oyster Lake Marsh Creation and Nourishment Project



PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

East Holly Beach Gulf Shoreline Protection

Project Location

Region 4, Calcasieu-Sabine Basin, Cameron Parish, South of State Highway 82, west of the Calcasieu Ship Channel.

Problem

The project will be designed to reduce erosion of the Gulf Shoreline and protect the State's Beach Nourishment project (CS-33 SF). Recent loss rates (1998-2008) were calculated from aerial photography at 26.5 ft/yr.

Goals

The project is designed to reduce wave energies on the gulf shoreline west of the Calcasieu Ship Channel and trap sediment between the breakwaters and shoreline. The total area benefited is approximately 248 acres of beach, dune, supratidal, and subtidal habitat created by the (CS-33 SF) state surplus project. The proposed project maintains a beach rim component of the coastal ecosystem and has a positive net impact on critical infrastructure (Highway 82). The project would also protect and restore critical habitat for the piping plover, a threatened/endangered species.

Proposed Solution

The project proposes approximately 15,454 linear feet (2.9 miles) of breakwaters similar to the Raccoon Island (TE-29) and the Chenier Au Tigre Demonstration (TV-16) projects. Breakwaters will be designed to protect the most critical shoreline area along Highway 82 using all the lessons learned from the Holly Beach Breakwater Enhancement and Sand Management Project (CS-31). Approximately 26 round rubble breakwaters (300 ft length with 300 ft gaps), placed 250 feet offshore and built to 3.8 ft NGVD will be created. This project will protect approximately 248 acres of headland habitat created by the CS-33SF project using approximately 2 million cubic yards of sand from an offshore borrow site.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total area benefitted is estimated at 248 acres (15,454 x 700/43,560).
- 2) *How many acres of wetlands will be protected/created over the project life?*
The project would protect approximately 153 net acres (15,454 x 430/43,560).
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%).*
The anticipated loss rate reduction throughout the area of direct benefit is estimated to be >75%.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.*

The proposed project would maintain a beach rim component of the coastal ecosystem. This area has also been designated as critical habitat for the threatened piping plover by the Fish and Wildlife Service.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
The proposed project would provide protection to Louisiana Highway 82 and the Gulf shoreline.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The proposed project is synergistic with the state surplus project (CS-33 SF) that recently created beach and dune habitat in this area using sand from offshore borrow sites.

Identification of Potential Issues

Issues to consider for this project include listed species such as the piping plover (critical habitat) and red knot. O&M is another consideration.

Preliminary Cost

The fully-funded cost range is \$30M-\$35M.

Preparers of Fact Sheet

Troy Mallach, NRCS

troy.mallach@la.usda.gov

Loland Broussard, NRCS

loland.broussard@la.usda.gov



Map Produced By:
United States Department of Agriculture
Natural Resources Conservation Service
Alexandria, LA

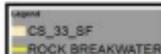
Date Source: NADP 2013

Map Date: MARCH 16, 2015



PPL-25
**EAST HOLLY BEACH GULF
SHORELINE PROTECTION**

0 4,000 8,000
Feet



PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

Southeast Pecan Island Marsh Creation and Freshwater Enhancement

Project Location

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

Problem

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

Goals

The project goals are to restore/improve hydrologic conditions and promote the expansion of emergent marsh vegetation throughout the project area. The proposed freshwater introduction feature would restore/improve hydrologic conditions by allowing water from the Lakes Subbasin to drain south across Highway 82 into the Chenier Subbasin. The marsh creation and terrace features would create new wetland habitat, restore degraded marsh, and reduce wave erosion.

Proposed Solution

The project would construct approximately 253 acres of marsh creation and 55,000 linear feet of terraces.

The majority of the necessary freshwater introduction infrastructure exists and would require minimal improvement/cleanout and the construction of an outlet structure at Front Ridge.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
The total area benefitted is approximately 3,281 acres.
- 2) *How many acres of wetlands will be protected/created over the project life?*
The project would protect/create approximately **320 net acres** (233 MC + 41 Terraces + 46 FWE).
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%).*
The anticipated loss rate reduction throughout the area of direct benefit is estimated to be 50-74%.

- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.*
The project would protect the Front Ridge Chenier.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would help protect Louisiana Highway 82.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project would provide additional freshwater across Highway 82 and have a synergistic effect with the constructed Pecan Island Terracing project (ME-14).

Identification of Potential Issues

There are pipelines in the area and O&M will be required.

Preliminary Cost

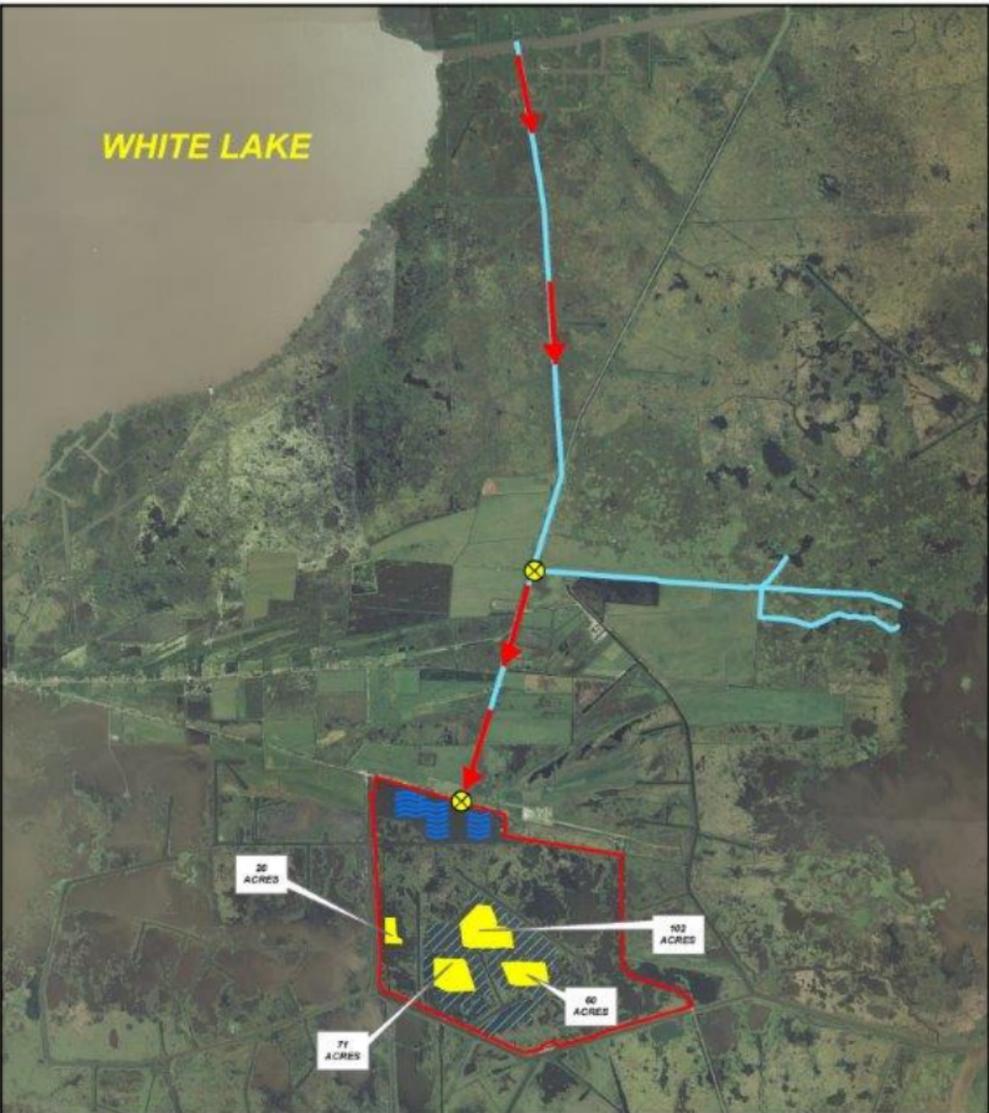
The fully-funded cost range is \$30M-\$35M.

Preparer of Fact Sheet

Troy Mallach, NRCS, (337) 291-3064, troy.mallach@la.usda.gov

Billy Broussard, Vermilion Corps, (337) 893-0268, bbillypb@kaplantel.net

WHITE LAKE



PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

Sweeney Tract Marsh Creation and Nourishment

Project Location

Region 4, Mermentau Basin, Cameron Parish

Problem

Marshes within the Hog Bayou Watershed mapping unit are stressed due to limited freshwater input and seasonal salinity spikes exacerbated by construction of the Mermentau Ship Channel. Other contributors to land loss in the area are subsidence, inundation, compaction, and erosion of organic soils. Currently, the project area is characterized as large, open water with degraded areas of wetland vegetation. The dredging of the Mermentau Ship Channel increased tidal amplitude and salt water intrusion into the watershed. In addition to these direct losses, significant interior marsh loss has resulted from saltwater intrusion and hydrologic changes associated with storm damage and blocked drainages (inundation). The 1985 to 2009 Hog Bayou subunit loss rate is -0.2% per year and the ME-32, South Grand Chenier rate is -0.41% per year from 1984 to 2010 (ME-32 WVA, 7/01/13).

Goals

The project goal is to create 748 acres of saline marsh (549 created and 199 nourished) with approximately 10,000 feet of tidal creeks (approximately 5 acres).

Proposed Solution

Sediment would be mined from offshore and placed to create 549 acres of saline marsh. Approximately 199 acres of marsh may be nourished. The disposal area have not yet been selected; however, a conceptual disposal area could include the depicted on the project map. Continuing input from the landowners, Parish, and agencies is welcomed. Disposal would be semi-confined if feasible; however, cost estimates assume complete containment. Although marsh creation via dedicated dredging of sediment would be the primary technique, opportunities exist to include some terracing where warranted, but terraces are not included as a project feature at this time. To help facilitate estuarine fisheries access, constructed retention levees will be degraded and approximately 10,000 linear feet of tidal creeks (approximately 5 acres) will be constructed. Lastly, although marsh creation via dedicated dredging of sediment would be the primary technique, opportunities may exist to include some improvement in water conveyance where warranted, but that is not included in the benefit/cost estimates at this time.

Preliminary Project Benefits

- 1) *What is the total acreage benefited both directly and indirectly?*
This total project area is approximately 753 ac (748 ac creation and nourishment + 5 acres of creeks).

- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 535 acres of wetland habitat will be protected/created over the project life.

- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
The anticipated land loss rate reduction throughout the area of direct benefits will be 50% over the projects life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
The project will help maintain Grand Chenier.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would have moderate net positive impact to critical infrastructures which consists of LA82, a hurricane evacuation route, and residence of Grand Chenier due to reducing the flooding risk to the state highway by reestablishing a land mass in place of open water.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a synergistic effect with South Grand Chenier Marsh Creation Project (ME-20), and the South Grand Chenier Marsh Creation Project (Baker Tract), ME-32.

Identification of Potential Issues

The proposed project has pipelines to consider and potential piping plover critical habitat issues (route from borrow source).

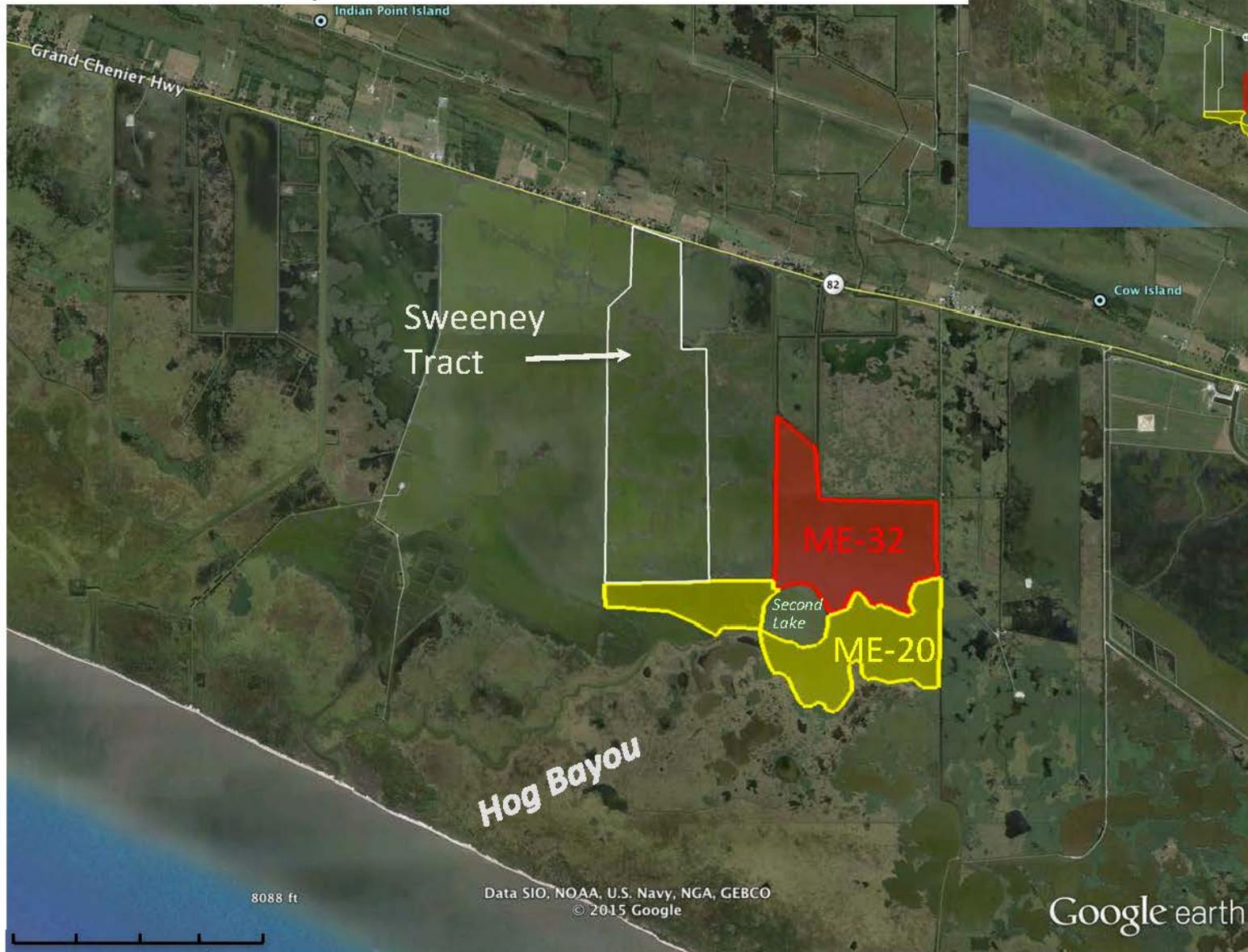
Preliminary Cost

The fully-funded cost range is \$25M-\$30M.

Preparer(s) of Fact Sheet:

John Foret, NOAA's National Marine Fisheries Service, (337) 291-3107; john.foret@noaa.gov
Kimberly Clements, NOAA's National Marine Fisheries Service, (225) 389-0508, ext. 204;
kimberly.clements@noaa.gov

PPL 25 Nominee Sweeney Tract Marsh Creation



PPL25 PROJECT NOMINEE FACT SHEET
April 1, 2015

Project Name

Southwest Louisiana *Salvinia* Weevil Propagation

Project Location

Coastwide

Problem

The invasive plant, giant *Salvinia* (*Salvinia molesta*), has been spreading and causing problems in coastal southeast Louisiana since 1989. It appeared in Chenier Plain marshes in 2009. Since then it has spread throughout most the Louisiana Chenier Plain fresh marshes. This plant can stack up above the water surface to as much as 6 inches. Under such conditions, oxygen exchange is greatly reduced, and decay of shaded *Salvinia* can easily cause anoxic conditions in affected areas. As a result, habitat quality of badly infested areas is severely degraded and marsh loss has been observed where mats have been deposited on the marsh surface. *Salvinia* infestations reduce habitat quality for many species typical of fresh marshes, including many species of management concern (alligator snapping turtle, mottled duck [including critical brood rearing habitat], wintering migratory waterfowl, black rail, king rail, little blue heron, whooping crane, and peregrine falcon). Fish and shellfish would also be adversely affected. The LSU Agricultural Center is operating a facility in Houma, but it is not able to address the growing problem in coastal southwest Louisiana.

Goals

Achieve long-term effective biocontrol of giant *Salvinia* by creating and operating a weevil propagation facility at Lacassine Refuge or the White Lake Conservation Area, like that operated by LSU, to make *Salvinia* eating weevils available free of charge to landowners in coastal Louisiana.

Proposed Solution

Construct and manage two shallow ponds (equivalent to crawfish ponds), approximately 0.8 acres in size, to propagate annual crops of the *Salvinia* biocontrol agent, the *Salvinia* weevil (*Cyrtobagous salviniae*). When weevil densities become high enough, the public will be notified and allowed to harvest invested *Salvinia* for distribution on their property. Weevils will also be distributed by project staff to unaddressed problem areas. These weevils and this method of propagation/distribution has been shown (by LSU and others) to be an effective biocontrol on giant *Salvinia*.

Preliminary Project Benefits

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

The total project area is conservatively estimated at over 303,000 ac (Mermentau Lakes sub-basin minus the lake acreage). Other areas may also benefit, such as marshes around Sweet/Willow Lakes, and Teche Vermilion Basin low-salinity marshes. However, benefits have been calculated using only acreage from the Mermentau Lakes sub-basin.

- 2) *How many acres of wetlands will be protected/created over the project life?*
Approximately 180 acres of marsh habitat will be protected over the project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
A 1.3 % land loss rate reduction is estimated over the project life (background loss for this area = -0.30 % per year).
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
No.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*
None.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project may have a synergistic effect with the Black Bayou Culverts Hydrologic Restoration Project (CS-29), the Humble Canal Hydrologic Restoration Project (ME-11), the South White Lake Shoreline Protection Project (ME-22), and the Grand Lake Shoreline Protection Project (ME-21).

Identification of Potential Issues

As project costs are mainly facility O&M costs (one full time position to manage *Salvinia* ponds), achieving anticipated project benefits will depend on making O&M costs available for the entire 20 yrs.

Preliminary Cost

The fully funded cost range is \$0M-\$5M.

Preparer(s) of Fact Sheet:

Ronny Paille, USFWS, 337-291-3117, ronald_paille@fws.gov

Southwest Coastal Louisiana Salvinia Weevil Propagation Facility

Lacassine NWR potential location

White Lake Conservation Area potential location

Potential Project Area

Grand Lake

White Lake

Gulf of Mexico



Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, Swisstopo, and the GIS User Community

CWPPRA PPL 25 Demonstration Project Nominees

DEMO	Wave Robber (Wave Suppressor Sediment Collection System)
DEMO	Shoreline Protection, Preservation & Restoration (SPPR) Panel

CWPPRA PPL 25 Nominee Demonstration Projects

Demonstration Project Name	Meets Demonstration Project Criteria?	Technique Demonstrated
Shoreline Protection, Preservation, and Restoration Panel (SPPR Panel)	Yes	The demonstration project would introduce an innovative solution for shoreline protection and dredge containment projects, which can be installed at a significant savings to the project owner. The demonstration project would help reduce shoreline retreat in areas that have experienced excessive amounts of erosion and would also have the intent to collect/retain suspended sediments behind the structures.
Wave Robber (Wave Suppressor Sediment Collection System)	Yes	The WSSC system serves as a barrier to disrupt the tidal wave flow into the shorelines and wetlands while at the same time allowing sediment to be carried through the system by the wave action and water currents. The sediment is trapped and deposited between the system and the shorelines and wetlands.

04/07/15

PPL25 DEMONSTRATION PROJECT NOMINEE FACT SHEET

April 1, 2015

Demonstration Project Name:

The Wave Robber (Wave Suppressor Sediment Collection System)

Potential Demonstration Project Location(s):

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

Problem:

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

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

Goals:

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

Proposed Solution:

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

Install 36 WSSC units along two different shorelines (300LF each shoreline). The spacing would be installing a 4' gap every 96 LF (12 WSSC units) for 3 96' segments, for a total of 36 WSSC units per shoreline location. All gaps would be made using the same material as the WSSC units. The spacing is as follows:

Shoreline

Retaining Wall to Shore / 12 WSSC / 4' / 12 WSSC / 4' / 12 WSSC / Retaining Wall to Shore

Bay

Preliminary Project Benefits:

Describe demonstration project benefits in as much detail as possible. Trapped sediment would then consolidate to form a solid base for the establishment of emergent marsh. The WSSC system has several distinct advantages over other wave suppression and sediment retention structures that makes it ideal for the rebuilding and restoring of the degraded wetlands of south Louisiana as well as other areas in the United States and throughout the world. One major advantage is that the WSSC system is transportable and can be easily installed along shorelines and wetlands. Additionally, the WSSC units are reusable and designed to be removed from one location and easily moved to another. The WSSC system is also less expensive than fixed dike structures, a distinct advantage in managing project cost. Lastly, the WSSC system allows a continuous water exchange for ecological support rather than isolating areas behind the structure. If successful the product could be a low cost option in shoreline protection, dredge spoil containment, barrier island protection and island creation, direct creation of habitat in shallow waters where turbidity could be decreased, and used as an addition to both interior lake and exposed coastal bay shorelines and open bay waters.

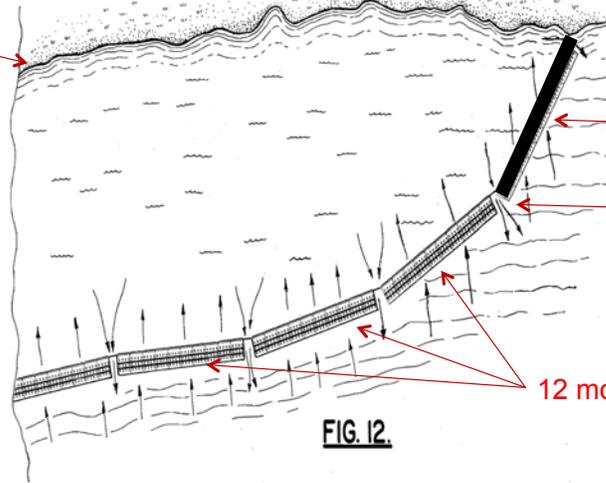
Preliminary Cost:

The estimated construction cost including 25% contingency is \$1.0 million.

Preparer(s) of Fact Sheet:

John D. Foret, Ph.D., NOAA Fisheries Service, (337) 291-2107, john.foret@noaa.gov.
Webster Pierce, Pierce Industries, (985) 855-5363

Shoreline



Retaining Wall

4' Weirs

12 modules/section

FIG. 12.

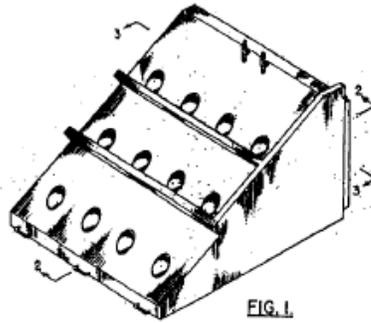


FIG. 1.

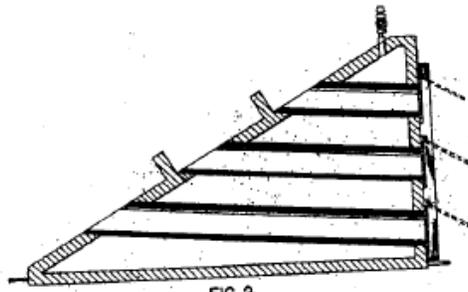


FIG. 2.

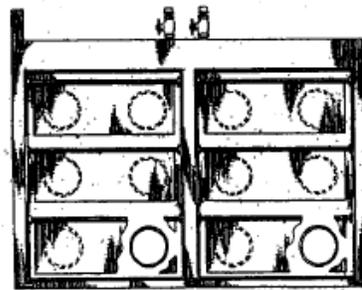


FIG. 3.

Schematic drawings of the WSSC System

PPL25 DEMONSTRATION PROJECT NOMINEE FACT SHEET
April 1, 2015

Demonstration Project Name:

Shoreline Protection, Preservation, and Restoration Panel (*SPPR Panel*)

Potential Demonstration Project Location(s):

Coastwide: Navigation Channels/Estuary Shorelines

Problem:

What problem will the demonstration project try to solve?

The demonstration project would introduce an innovative solution for shoreline protection and dredge containment projects, which can be installed at a significant savings to the project owner. The demonstration project would help reduce shoreline retreat in areas that have experienced excessive amounts of erosion and would also have the intent to offset increased rates of land loss to wetlands that become exposed due the loss of protective shorelines features through the protection of the shoreline and collection/retention of suspended sediments behind the structures.

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

Historically Louisiana's coastal shoreline, bays, and lake rims have experience high levels of retreat and land loss. The approach to repairing these areas have utilized heavy, hard engineering methods that eventually settle into the substrate, which has not achieved the goal and even presented additional hazards. Through the use of pre-fabrication of the proposed units, the landowner will see a 60%-80% reduction in installation costs when compared to typical rock rip-rap construction.

Goals:

What does the demonstration project hope to accomplish?

The proposed demonstration project would stabilize existing shoreline features and attenuate shoreline retreat and potentially enhance interior marshes and an accretion platform behind the structure. The goal of the proposed demonstration project is to provide a cost effective construction alternative to rip rap for shoreline protection.

Proposed Solution:

Describe demonstration project features in as much detail as possible.

The SPPR Panel is a pre-cast, saltwater tolerant concrete panel system (with ***no carbon steel reinforcement***), the dimensions and density of which can be adjusted to site conditions. The SPPR Panel units resemble a chain when joined together allowing for on site adjustments to irregular shorelines. The project has several aspects, in that it is shoreline protection and restoration, marsh protection, restoration, and enhancement system that would deflect wave energy, protect and enhance vegetation, trap sediment, protect and create emergent marsh, and provide nursery habitat.

1. The SPPR Panels have a variety of application possibilities that can be adjusted to best suit the problem area to best restore and enhance shorelines and marshes in many different types of coastal environments.

2. Each panel has planned openings (vents) within the face of the unit that allows for some sediment to penetrate. The vents can be adjusted in size and location on the unit (depending on location and water depth) to allow for the most beneficial capture of available sediment.
3. When connected, there is a 0.3' to 0.5' gap between SPPR Panels to allow for water drainage from behind the units, as well as, estuarine animal ingress/egress. Connection is made through stainless steel I-bolts protruding from each side and a stainless steel rod to create the pivot point through the I-bolts.

The demonstration would include the selection of 3 diverse application sites for treatment with water depths ranging from 2 to 5 feet. Each treatment would include 3 replicate 300-foot sections for a total project installation of 2,700 linear feet. Project effectiveness would be monitored and evaluated after construction according to the CWPPRA workgroups' recommendation for this product in Phase 0. The conceptual treatment is shown in Figure 1.

By using a pre-cast SPPR Panel, owners can see significant savings from traditional rip-rap embankments by;

- Project construction phase time is reduced
- Reduced initial installation cost compared to rip rap embankments (60%-80% the cost of rip rap per linear foot depending upon water depths)
- Reduced life-cycle cost compared to rip rap embankments (no additional lifts required)
- Minimal settlement (designed for LA-16 Shark Island location which has 15' – 20' of peat...Engineering theory shows the units will only settle 6-9 inches)
- Can be installed in water as shallow as 2 feet and as deep at 5 feet with minimal footprints
- Provides fisheries access on landward side
- Collects/retains suspended sediments

Preliminary Project Benefits:

Describe demonstration project benefits in as much detail as possible.

The proposed project would:

1. Deflect wave energy;
2. Protect and enhance existing or planted shoreline vegetation;
3. Allow ingress and egress of aquatic species;
4. Collect sediment by reducing wave energy;
5. Reduce interior marsh loss;
6. Cost savings.

Preliminary Cost:

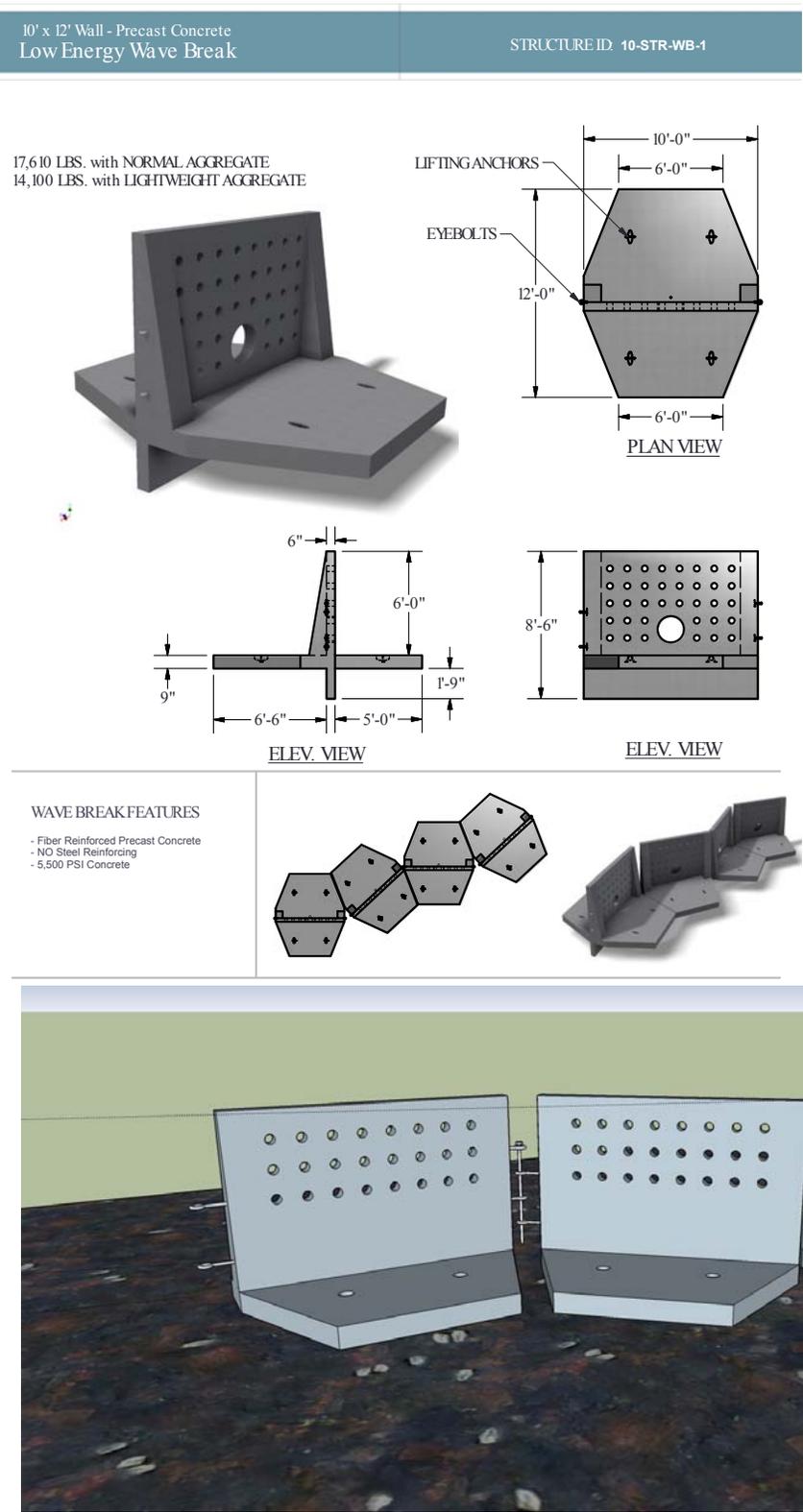
The estimated construction cost including 25% contingency is \$1,358,018.

Preparer(s) of Fact Sheet:

John D. Foret, Ph.D. (NMFS), 337.291.2107, John.foret@noaa.gov

David Minton, The Cypress Group, 337.504.7755, david.minton@cypressgrouppla.com

Figure 1. Example SPPR Panel dimensions, layout, and vent placement.



Support Letters

Murry, Allison N CONTRACTOR @ MVN

From: Inman, Brad L MVN
Sent: Friday, March 13, 2015 11:52 AM
To: Murry, Allison N CONTRACTOR @ MVN
Subject: Fw: [EXTERNAL] CPRCPA support of Southwest Projects
Attachments: 24Feb2015 Resolutions signed East Holly _ Southeast Pecan.pdf

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

From: Nedra Davis <nedra.davis@cpcrpa.org>
Sent: Thursday, March 12, 2015 4:20 PM
To: Inman, Brad L MVN
Subject: [EXTERNAL] CPRCPA support of Southwest Projects

Dear Mr. Inman,

The Chenier Plain Coastal Restoration and Protection Authority (CPCRPA) would like to thank the Coastal Wetland Protection, Planning, and Restoration Act Technical Committee (CWPPRA) for consideration of projects in Southwest Louisiana.

CPCRPA is requesting support of the CWPPRA Technical Committee for Phase I funding for the following projects:

- * Vermilion Parish "Southeast Pecan Island Marsh Creation & Freshwater Enhancement"
- * Cameron Parish "East Holly Beach Gulf Shoreline Protection Project"

Please find the resolutions from CPRCPA attached. If you have any comments or questions, please contact me. I plan on being at the April 16, 2015 Meeting in Baton Rouge to support these projects.

Thank you,

Nedra

Nedra Davis

Executive Director

Chenier Plain Coastal Restoration and Protection Authority

7575 Jefferson Highway #322

Baton Rouge, LA 70806

Email: nedra.davis@cpcrpa.org

Mobile: 225.333.8234

Website: www.cpcrpa.org <<http://www.cpcrpa.org/>>

<http://t.signaleuna.com/e1t/o/5/f18dQhb0S7ks8dDMPbw2n0x612B9gXrN7sKj6v4dY_0N4WYH4gfD6ngW8q5Msg2z1ZNzW3SKGrZ1k1H6H0?si=4881234072174592&pi=a4ca0221-ba91-4f3a-a526-d333c2ad8108>

RESOLUTION

CHENIER PLAIN COASTAL RESTORATION & PROTECTION AUTHORITY

WHEREAS, the Chenier Plain Coastal Restoration & Protection Authority was created pursuant to the provisions of the Louisiana Constitution of 1974, Article VI, Sections 38, 38.1 and 44, and La. R.S. 38:329.5; and

WHEREAS, the Chenier Plain CRPA is a political subdivision of the State of Louisiana, and through its board of commissioners, is organized with the primary duty to establish, construct, operate, or maintain flood control works as they relate to hurricane protection, tidewater flooding, saltwater intrusion, and conservation, and a secondary duty to establish flood control, adequate drainage relating to tidal or riverine flooding, and water resources development including but not limited to construction of reservoirs, diversion canals, gravity and pump drainage systems, erosion control measures, and marsh management; and

WHEREAS, the Chenier Plain Authority is inclusive of the Parishes of Calcasieu, Cameron, & Vermilion and seeks to identify discretionary funds to implement projects included in the State Master Plan; and

WHEREAS, marsh creation and freshwater enhancement are viewed as the most vital restoration types for Vermilion Parish; and

WHEREAS, this project received support from four agencies and was next in line for Phase I funding at the last Task Force meeting.

WHEREAS, this project would restore, create and improve emergent marsh in Vermilion Parish and throughout the project area, it would also supply needed freshwater into the Chenier Sub-basin (below Hwy 82) to increase the productivity of the marshes.

WHEREAS, the Vermilion Parish Police Jury acknowledges the proposed Southeast Pecan Island Marsh Creation and Freshwater Enhancement project as the top priority Vermilion Parish project to be moved forward toward engineering & design, and

NOW, THEREFORE BE IT RESOLVED, by the Chenier Plain Coastal Restoration & Protection Authority on this 24th day of February 2015, that the Executive Director is hereby authorized, empowered and directed to forward this Resolution of support for the "Southeast Pecan Island Marsh Creation and Freshwater Enhancement for E&D Phase I" to the Coastal Wetland Planning, Protection and Restoration Act Technical Committee and Task Force.

BE IT FURTHER RESOLVED, that the Coastal Wetland Planning, Protection and Restoration Act Task Force, thru this Resolution, are requested to support the engineering and design funding for this project.

ADOPTED AND APPROVED this 24th day of February 2015.

APPROVED:


EARL LANDRY, PRESIDENT
CHENIER PLAIN CRPA

ATTEST:


PHILIP TRUSCLAIR, SECRETARY

RESOLUTION

CHENIER PLAIN COASTAL RESTORATION & PROTECTION AUTHORITY

WHEREAS, the Chenier Plain Coastal Restoration & Protection Authority was created pursuant to the provisions of the Louisiana Constitution of 1974, Article VI, Sections 38, 38.1 and 44, and La. R.S. 38:329.5; and

WHEREAS, the Chenier Plain CRPA is a political subdivision of the State of Louisiana, and through its board of commissioners, is organized with the primary duty to establish, construct, operate, or maintain flood control works as they relate to hurricane protection, tidewater flooding, saltwater intrusion, and conservation, and a secondary duty to establish flood control, adequate drainage relating to tidal or riverine flooding, and water resources development including but not limited to construction of reservoirs, diversion canals, gravity and pump drainage systems, erosion control measures, and marsh management; and

WHEREAS, the Chenier Plain Authority is inclusive of the Parishes of Calcasieu, Cameron, & Vermilion and seeks to identify discretionary funds to implement projects included in the State Master Plan; and

WHEREAS, shoreline protection is viewed as the most vital restoration type for Cameron Parish; and

WHEREAS, \$45,000,000.00 in State Surplus funds from 2007 were allocated to fund a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach, and

WHEREAS, the CPRA managed project mined nearly 2,000,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and construct new dunes and a new beach for a five mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community, and

WHEREAS, the benefits of this vital sand nourishment project will be short lived if no other protection is provided to this area, and

WHEREAS, the particular type of shoreline protection adequate for this area is yet to be determined but needs to be researched in more detailed, and

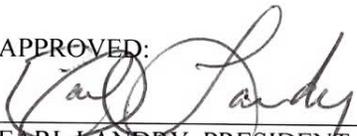
WHEREAS, the Cameron Parish Police Jury hereby acknowledges the proposed East Holly Beach Gulf Shoreline Protection project is the top priority Cameron Parish project to be moved forward toward engineering & design, and

NOW, THEREFORE BE IT RESOLVED, by the Chenier Plain Coastal Restoration & Protection Authority on this 24th day of February 2015, that the Executive Director is hereby authorized, empowered and directed to forward this Resolution of support for the "East Holly Beach Gulf Shoreline Protection Project" to the Coastal Wetland Planning, Protection and Restoration Act Technical Committee and Task Force.

BE IT FURTHER RESOLVED, that the Coastal Wetland Planning, Protection and Restoration Act Task Force, thru this Resolution, are requested to support the engineering and design funding for this project.

ADOPTED AND APPROVED this 24th day of February 2015.

APPROVED:


EARL LANDRY, PRESIDENT
CHENIER PLAIN CRPA

ATTEST:


PHILIP TROSCLAIR, SECRETARY

PARISH OF  CALCASIEU
State of Louisiana
RESOLUTION

WHEREAS, shoreline protection is viewed as the most vital restoration type for Cameron Parish; and

WHEREAS, \$45,000,000.00 in State Surplus funds from 2007 were allocated to fund a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach, and

WHEREAS, the CPRA managed project mined nearly 2,000,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and constructed new dunes and a new beach for a five-mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community; and

WHEREAS, the benefits of this vital sand nourishment project will be short lived if no other protection is provided to this area, and while the particular type of shoreline protection adequate for this area is yet to be determined, it needs to be researched in more detail; and

WHEREAS, the Chenier Plain Committee has acknowledged that the proposed East Holly Beach Gulf Shoreline Protection Project is the top priority of Cameron Parish, and said Committee has indicated its desire that said project be moved forward toward engineering and design.

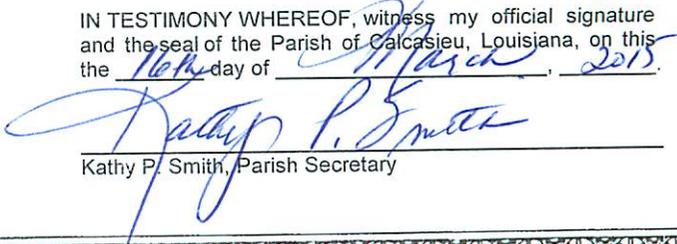
NOW, THEREFORE, BE IT RESOLVED BY THE POLICE JURY OF CALCASIEU PARISH, LOUISIANA in Regular Session convened on this 5th day of March, 2015, that it does hereby support funding for the East Holly Beach Shoreline Protection Project-Phase I, Engineering and Design, from the Coastal Wetland Planning Protection and Restoration Act (CWPPRA) Technical Committee and Task Force.

BE IT FURTHER RESOLVED that a certified copy of this Resolution be forwarded to the Coastal Wetland Planning, Protection and Restoration Act (CWPPRA) Technical Committee and Task Force, respectfully requesting said Committee to support the engineering and design funding for this project.

STATE OF LOUISIANA
PARISH OF CALCASIEU

I HEREBY CERTIFY that the foregoing is a true and correct copy of the original resolution as adopted by the Calcasieu Parish Police Jury in Regular Session convened on the 5th day of March, 2015.

IN TESTIMONY WHEREOF, witness my official signature and the seal of the Parish of Calcasieu, Louisiana, on this the 16th day of March, 2015.


Kathy P. Smith, Parish Secretary

CHARLES W. BOUSTANY, JR., MD
3RD DISTRICT, LOUISIANA

COMMITTEE ON WAYS AND MEANS
SUBCOMMITTEES:
CHAIRMAN ON OVERSIGHT
TRADE
HUMAN RESOURCES



Congress of the United States

House of Representatives

Washington, DC 20515-1803

March 20, 2015

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

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

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

Colonel Richard L. Hansen
Commander and District Engineer
New Orleans District
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA)
Project Priority List 25 - East Holly Beach Gulf Shoreline Protection Project

Dear Colonel Hansen:

As the Member of Congress representing Louisiana's Third Congressional District, I would like to offer my support for the East Holly Beach Gulf Shoreline Protection Project proposed on the PPL-25 list. Cameron Parish was the beneficiary of a direct allocation of \$45,000,000.00 in State Surplus funds from 2007 to fund a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach. The project mined nearly 2,000,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and constructed new dunes and a new beach for a five mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community.

The benefits of this vital sand nourishment project will be short lived if no other protection is provided to the area. Similar projects in Cameron Parish have had significant success in reducing land loss rates along our coastline, but more work is needed to determine the particular type of shoreline protection required. It is clear the accretion of sediment in relation to the breakwaters has increased the footprint of the shoreline and thus provided more of a barrier for storms and sustainability of Highway 82. It should also be noted that the area to be protected by this project has been designated as critical habitat for the endangered Piping Plover.

I respectfully request the CWPPRA Technical Committee's support of the East Holly Beach Gulf Shoreline Protection Project. This worthwhile project will prove vital in sustaining Louisiana's coastline, and protecting our coastal eco-system.

Thank you for your assistance with this matter.

Sincerely,

A handwritten signature in blue ink that reads "C.W. Boustany, Jr." with a stylized flourish at the end.

Charles W. Boustany, Jr., MD
Member of Congress

Dear CWPPRA Task Force, Please vote for the East Leeville Project- PPL25. It is time to invest in a restoration effort in Leeville. Businesses, Highway, and Residents of Leeville are impacted by erosion and flooding. This project would provide a much needed barrier on the fragile East side of Leeville.

Pollybbaet

Dwight Treadaway

Carroll Chapman

maurice Sasser

Bradley

mary Fortado

Carol Richards

Crystal Franks

Cynthia P. Baker

Buddy Beagle

Magen Culp

Tina Charpentier

Wade Burkett

Julie M. Mout

Sarah Terrebonne

Nick Moore

FREDDIE SANDERS

Buddy Townsend

Anthony Charpentier

Manuel Barchi

Randy Byrnes

Jane Allmand

Doug Duncanson

John W. Duncanson

Sandra Wilson

Ronald Moore, Jr.

Sammi Carter

Kelly Bousse

Karen Valence

Randy Valence

Nadia Cocoy

Gettine Furl

Sinda Melama

Allison Goldman

Leah Castillo

Lally Castillo

Germaire Castillo

Lally Castillo Jr

Angel Castillo

Kristin Terrebonne

LARRY DUCO JR

Mary L. Duncanson

LINDA LORRAINE DUNCANSON

Lee Duncanson

Benny Grace

Mike Adams

Wayne Thomas

Dear CWPPRA Task Force, Please vote for the East Leeville Project- PPL25. It is time to invest in a restoration effort in Leeville. Businesses, Highway, and Residents of Leeville are impacted by erosion and flooding. This project would provide a much needed barrier on the fragile East side of Leeville.

Alexise Autin

Garrison Autin Jr.

W. C. Johnson

Walter Johnson Jr.

Gladys Alexander

Amy Richardello

Goyetta Aralio

Katha Dearman

Tri Nguyen

Jackie Robinson

Bradley Began

Craig Victor

John Mc

Edie Carr

Cabier Dupree

Jeanette Duprene

Evlyn Tyler

John Tyler

Louise Brauer

~~John Tyler~~

Tiger Billie Toups

Melanie & Bone

Jeddy LeBlanc

Kinda Arceneuf

John Jambon

Sarah Giles

Ken DeFolice

Maria Dymond

Brook Crosby

Jennifer Brantley

Destin Crosby

Saul Crosby

Laura Naco

Bella Sellers

Swane Bond

Yvonne V. Luster

CHARLES W. BOUSTANY, JR., MD
3RD DISTRICT, LOUISIANA

COMMITTEE ON WAYS AND MEANS
SUBCOMMITTEES:
CHAIRMAN ON OVERSIGHT
TRADE
HUMAN RESOURCES



Congress of the United States

House of Representatives

Washington, DC 20515-1803

March 20, 2015

15-005
WASHINGTON, DC OFFICE:

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

LAFAYETTE DISTRICT OFFICE:

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

LAKE CHARLES DISTRICT OFFICE:

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

Colonel Richard L. Hansen
Commander and District Engineer
New Orleans District
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA)
Project Priority List 25 - East Holly Beach Gulf Shoreline Protection Project

Dear Colonel Hansen:

As the Member of Congress representing Louisiana's Third Congressional District, I would like to offer my support for the East Holly Beach Gulf Shoreline Protection Project proposed on the PPL-25 list. Cameron Parish was the beneficiary of a direct allocation of \$45,000,000.00 in State Surplus funds from 2007 to fund a Sand Nourishment Project (CS-33) for a stretch of beach east of Holly Beach. The project mined nearly 2,000,000 cubic yards of sand from a borrow site approximately twenty-one miles offshore and constructed new dunes and a new beach for a five mile stretch from the Cameron jetties westward to the eastern end of the Holly Beach community.

The benefits of this vital sand nourishment project will be short lived if no other protection is provided to the area. Similar projects in Cameron Parish have had significant success in reducing land loss rates along our coastline, but more work is needed to determine the particular type of shoreline protection required. It is clear the accretion of sediment in relation to the breakwaters has increased the footprint of the shoreline and thus provided more of a barrier for storms and sustainability of Highway 82. It should also be noted that the area to be protected by this project has been designated as critical habitat for the endangered Piping Plover.

I respectfully request the CWPPRA Technical Committee's support of the East Holly Beach Gulf Shoreline Protection Project. This worthwhile project will prove vital in sustaining Louisiana's coastline, and protecting our coastal eco-system.

Thank you for your assistance with this matter.

Received By
CEM/N-EX
US Army Corps of Engineers
New Orleans District

Sincerely,

Charles W. Boustany, Jr., MD
Member of Congress

APR 02 2015

Brad Inman
CWPPRA Program Manager
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

April 10, 2015

Dear Mr. Inman:

This letter is in Support for PPL25 SW LA Salvinia Weevil Propagation Facility Project. As is eloquently described in the project proposal the coastal wetlands of Louisiana are threatened by another aquatic invasive pest. Giant salvinia has several very important negative effects on our wetlands. When this plant is allowed to flourish it completely blocks all sunlight from the water column. The total shading effect of this plant destroys all living organisms both plant and animal under it. No submerged aquatic vegetation can survive without sunlight. Without sunlight the primary productivity necessary for the food chain to exist is destroyed. With it all forms of life are destroyed no micro organisms, no small fish, no larger fish, no submerged aquatic vegetation to lessen wave action on shorelines that causes much of our coastal erosion.

The project proposal if anything is conservative on the negative effects of giant salvinia on our coastal wetlands. In my professional opinion this plant has the potential to be much worse than described in the project proposal.

The existing propagation methodology for the giant salvinia weevil, developed by LSU Ag. Center, has been successful in southeast Louisiana, but there is a urgent need for a facility in southwest Louisiana where the problem is growing due to exponential spread of invasive giant salvinia.

Therefore I very strongly support the funding and implementation of the PPL25 SW LA Salvinia Weevil Propagation Facility Project.

Sincerely,

Paul Yakupzack
Wildlife Consulting
244 St. Paul Street
Houma, LA 70364
pyak@comcast.net
985-232-6929

Executive Committee

Timothy J. Allen
President
Houma, Louisiana

Greg Lier
Vice President
Harvey, Louisiana

Vic Blanchard
2nd Vice President
Plaquemine, Louisiana

Mark Murrell
Secretary-Treasurer
Bayou Goula, Louisiana

N. Buckner Barkley, Jr.
Marrero, Louisiana

Lane M. Kincannon
New Orleans, Louisiana

David M. Richard
Lake Charles, Louisiana

Rudy C. Sparks
Patterson, Louisiana

George A. Strain
New Orleans, Louisiana

James H. Trewin
Plano, Texas

Gordon L. Wogan
New Orleans, Louisiana

Directors

Chris Clayton
Alexandria, Louisiana

Mark Cody
Houston, TX

J. Warren Doyle
New Orleans, Louisiana

Cynthia Dupree
Lafayette, Louisiana

Jimmy Ewing, Jr.
Bayou Goula, Louisiana

Jim Hooper
Luling, Louisiana

William L. Johnson, Jr.
Mandeville, Louisiana

Durwood Keller
Baton Rouge, Louisiana

Greg Linscombe
Gueydan, Louisiana

Randall J. Moertle
Lockport, Louisiana

Denis Murrell
Bayou Goula, Louisiana

Claude V. Perrier, III
Houston, Texas

William B. Rudolf
Metairie, Louisiana

John F. Schneider
Ponchatoula, Louisiana

Cyrus Theriot
Dulac, Louisiana

Shane Verrett
Breux Bridge, Louisiana

Glenn J. Vice
Franklin, Louisiana



Louisiana Landowners Association, Inc.

8982 Darby Avenue
Baton Rouge, Louisiana 70806
Telephone: (225) 927-5619
Fax No.: (225) 928-7339
Email: bayouboo@aol.com

Paul D. Frey
Executive Director
Asst. Secy./Asst. Treasurer

M. Taylor Darden, General Counsel

Kevin Hayes, Legislative Counsel

Directors Emeritus
Allan Ensminger
Robert J. Kinler
Charles Leblanc, Jr.

April 13, 2015

Brad Inman
CWPPRA Program Manager
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

sent via e-mail to: Brad.L.Inman@usace.army.mil

Re: PPL25 Nominee Salvinia Weevil Propagation

Dear Mr. Inman:

I am writing to express support for the above referenced project which is coming before the CWPPRA Tech Committee for possible selection at your April meeting. As you and members of the Tech Committee and Task Force know, this plant species prevents sunlight from penetrating the water column, thus completely destroying submerged aquatic vegetation and the food chain it supports. The presence of this noxious plant in our landscape not only imposes ecological concerns, but it has a negative economic impact on coastal landowners who can no longer lease their property for recreational hunting, fishing and fur and alligator trapping. Income from those surface uses enable landowners to fund and perpetuate their restoration and conservation projects on their land.

Members of our association own thousands of acres of coastal wetlands which are infected with this invasive species. In addition to the small facility operated by the LSU Ag Center near Houma, this proposed facility to be located in southwest Louisiana would greatly enhance our ability to reduce the spread of this invasive plant species.

Please distribute this letter of support to other members of the Tech Committee and I urge your favorable consideration of the selection of this important project to combat the spread of giant salvinia in coastal southwest Louisiana.

Yours truly,

Paul D. Frey
Executive Director

PDF/bab



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

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

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

April 9, 2015

Brad Inman
CWPPRA Program Manager
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

- sent via e-mail to: Brad.L.Inman@usace.army.mil

Re: PPL25 Nominee Salvinia Weevil Propagation

Dear Mr. Inman:

I am writing to express support for the above referenced project which is coming before the CWPPRA Tech Committee for possible selection at your April meeting. As you and members of the Tech Committee and Task Force know, this plant species prevents sunlight from penetrating the water column, thus completely destroying submerged aquatic vegetation and the food chain it supports. This project is much needed in the southwest part of the state since the only operating facility to obtain weevils which kill giant salvinia is located in Houma in coastal southeast Louisiana.

Apache owns approximately 34,000 acres of coastal wetlands in southwest Louisiana near this proposed project and the availability of the weevils in that area would greatly enhance our ability to reduce the spread of this invasive plant species.

Please distribute this letter of support to other members of the Tech Committee and I urge your favorable consideration of the selection of this important project to combat the spread of giant salvinia in coastal southwest Louisiana.

Sincerely,

APACHE LOUISIANA MINERALS LLC

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

Timothy J. Allen, PLS
General Manager

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

UPCOMING 20-YEAR LIFE PROJECTS

For Report/Decision:

The project sponsors will present recommended paths forward for projects nearing the end of their 20 year lives. The Technical Committee will vote on a recommendation to the Task Force on the path forward for the following projects:

- a. Projects requesting approval for project closeout with no additional cost increase:

CS-22	Clear Marais Bank Protection	USACE	Mar 2017
TE-22	Point au Fer Canal Plugs	NMFS	May 2017
MR-06	Channel Armor Gap Crevasse	USACE	Nov 2017
AT-02	Atchafalaya Sediment Delivery	NMFS	Mar 2018
TE-23	West Belle Pass Barrier Headland Restoration	USACE	Aug 2018
AT-03	Big Island Mining	NMFS	Oct 2018
PO-19	MRGO Disposal Area Marsh Protection	USACE	Jan 2019
TE-26	Lake Chapeau Sediment Input & Hydrologic Restoration	NMFS	May 2019

- b. Projects requesting approval to pursue project extension through formal evaluation:

CS-04a	Cameron-Creole Maintenance	NRCS	Sep 2017
CS-17	Cameron Creole Plugs	FWS	Jan 2017

- c. Projects requesting approval for no-cost extension:

PO-18	Bayou Sauvage Hydrologic Restoration #2	FWS	May 2017
-------	---	-----	----------

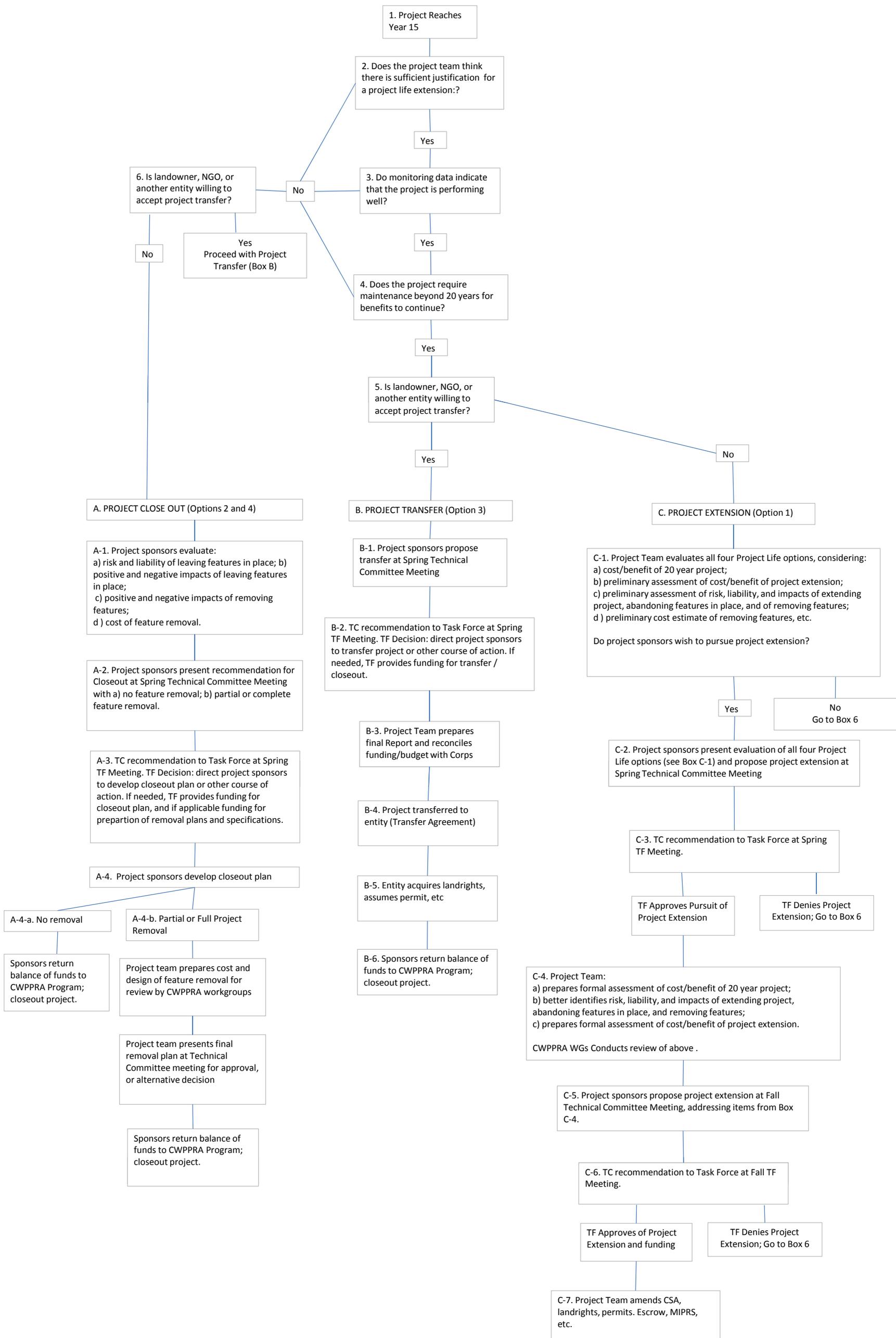
- d. Projects requesting approval for project closeout pending final O&M cost increases in the amount of \$1,274,967:

TV-09	Boston Canal/Vermilion Bay Bank Protection	NRCS	Nov 2015	\$630,891
CS-20	East Mud Lake Marsh Management	NRCS	Jun 2016	\$643,986

- e. Projects requesting approval for 20-year extension and cost increases in the amount of \$7,056,150:

ME-04	Freshwater Bayou Wetland Protection	NRCS	Mar 2015	\$3,789,112
ME-13	Freshwater Bayou Bank Stabilization	NRCS	Jun 2018	\$3,267,038

CWPPRA: Project 20-Year Life Dates								
Type	Proj No.	Project	Agency	Construction Complete	20 year Life Expires	Recommendation Due (yr 15)	Funds Remaining	Status
Marsh Creation	PO-17	Bayou-LaBranche Wetland Creation	COE	7-Apr-94	7-Apr-14	7-Apr-09	\$0	Closed-out
Shoreline Protection	ME-09	Cameron Prairie National Wildlife Refuge SP	FWS	9-Aug-94	9-Aug-14	9-Aug-09	\$172,404	TF approved close-out (need financial close-out)
Shoreline Protection	CS-18	Sabine National Wildlife Refuge Erosion Protection	FWS	1-Mar-95	1-Mar-15	1-Mar-10	\$292,669	TF approved close-out (need financial close-out)
Protection	ME-04	Freshwater Bayou Wetland Protection	NRCS	19-Mar-95	19-Mar-15	15-Aug-13	\$2,604,785	Evaluated & request extension
Shoreline Protection	TV-09	Vermillion Bay/Boston Canal SP	NRCS	30-Nov-95	30-Nov-15	30-Nov-10	\$156,323	Request closeout w/ final O&M cost increase
Shoreline Protection	TV-03	Vermillion River Cutoff Bank Protection	COE	11-Feb-96	11-Feb-16	11-Feb-11	\$0	Closed-out
Hydrologic Restoration	PO-16	Bayou Sauvage Hydrologic Restoration #1	FWS	30-May-96	30-May-16	30-May-11	\$96,959	6-year no-cost extension
Marsh Management	CS-20	East Mud Lake Marsh Management	NRCS	15-Jun-96	15-Jun-16	15-Jun-11	\$398,092	Request closeout w/ final O&M cost increase
Marsh Creation	BA-19	Barataria Bay Waterway Wetland Creation	COE	15-Oct-96	15-Oct-16	15-Oct-11	\$0	Closed-out
Hydrologic Restoration	CS-17	Cameron Creole Plugs	FWS	28-Jan-97	28-Jan-17	28-Jan-12	\$168,191	Request to purse extension/final evaluation
Shoreline Protection	CS-22	Clear Marais Shoreline Protection	COE	3-Mar-97	3-Mar-17	3-Mar-12	\$740,208	Request to closeout
Stabilization	TE-22	Point au Fer Canal Plugs	NMFS	8-May-97	8-May-17	8-May-12	\$2,142,589	Request to closeout
Hydrologic Restoration	PO-18	Bayou Sauvage #2	FWS	28-May-97	28-May-17	28-May-12	\$185,612	Request 6-year no cost extension
Hydrologic Restoration	CS-04a	Cameron-Creole Maintenance	NRCS	30-Sep-97	30-Sep-17	30-Sep-12	\$2,247,906	Request to purse extension/final evaluation
Sediment Diversion	MR-06	Channel Armor Gap Crevasse	COE	2-Nov-97	2-Nov-17	2-Nov-12	\$129,674	Request to closeout
Dredged Material	AT-02	Atchafalaya Sediment Delivery	NMFS	21-Mar-98	21-Mar-18	21-Mar-13	\$330,639	Request to closeout
Shoreline Protection	ME-13	Freshwater Bayou Bank Stabilization	NRCS	15-Jun-98	15-Jun-18	15-Jun-13	\$3,010,102	Evaluated & request extension
Shoreline Protection, Dredged Material	TE-23	West Belle Pass Barrier Headland Restoration	COE	15-Aug-98	15-Aug-18	15-Aug-13	\$178,715	Request to closeout
Dredged Material	AT-03	Big Island Mining	NMFS	8-Oct-98	8-Oct-18	8-Oct-13	\$278,212	Request to closeout
Hydrologic Restoration	TV-04	Cote Blanche Hydrologic Restoration	NRCS	15-Dec-98	15-Dec-18	15-Dec-13	\$1,822,030	Request to purse extension/final evaluation
Marsh Creation	PO-19	MRGO Disposal Area Marsh Protection	COE	29-Jan-99	29-Jan-19	29-Jan-14	\$0	Request to closeout
Shoreline Protection	CS-24	Perry Ridge Shore Protection	NRCS	15-Feb-99	15-Feb-19	15-Feb-14	\$389,894	
Hydrologic Restoration, Marsh Creation	TE-26	Lake Chapeau Sediment Input & Hydrologic Restoration	NMFS	18-May-99	18-May-19	18-May-14	\$1,194,771	
Barrier Island Restoration	TE-20	Isles Dernieres East Island	EPA	15-Jun-99	15-Jun-19	15-Jun-14	\$98,469	
Barrier Island Restoration	TE-24	Isles Dernieres Trinity Island	EPA	15-Jun-99	15-Jun-19	15-Jun-14	\$0	
Shoreline Protection, Sediment Trapping	TV-12	Little Vermillion Bay Sediment Trapping	NMFS	20-Aug-99	20-Aug-19	20-Aug-14	\$146,903	
Hydrologic Restoration	CS-21	Highway 384 Hydrologic Restoration	NRCS	7-Jan-00	7-Jan-20	7-Jan-15	\$290,644	
Barrier Island Restoration	TE-30	East Timberlier Island, Ph 2	NMFS	15-Jan-00	15-Jan-20	15-Jan-15	\$56,691	
Hydrologic Restoration	TE-28	Brady Canal Hydrologic Restoration	NRCS	22-May-00	22-May-20	22-May-15	\$973,671	
Barrier Island Restoration	TE-27	Whiskey Island Restoration	EPA	15-Jun-00	15-Jun-20	15-Jun-15	\$0	
Hydrologic Restoration	BA-02	BA2-GIWW to Clovelly	NRCS	31-Oct-00	31-Oct-20	31-Oct-15	\$2,479,553	
Shoreline Protection	BA-23	Barataria Bay Waterway West Side Shoreline Protection	NRCS	1-Nov-00	1-Nov-20	1-Nov-15	\$207,356	
Hydrologic Restoration	PO-06	Fritch Marsh Restoration	NRCS	1-Mar-01	1-Mar-21	1-Mar-16	\$339,546	
Barrier Island Restoration	TE-25	East Timbalier Island Sediment Restoration (Phase 1)	NMFS	1-May-01	1-May-21	1-May-16	\$30,755	
Shoreline Protection	BA-26	Barataria Bay Waterway East Side Shoreline Protection	NRCS	31-May-01	31-May-21	31-May-16	\$387,549	
Barrier Island Restoration	PO-27	Chandeleur Islands Marsh Restoration	NMFS	31-Jul-01	31-Jul-21	31-Jul-16	\$0	
Hydrologic Restoration	TV-14	Marsh Island Hydrologic Restoration	COE	12-Dec-01	12-Dec-21	12-Dec-16	\$695,312	
Shoreline Protection	PO-22	Bayou Chevee Shoreline Protection	COE	17-Dec-01	17-Dec-21	17-Dec-16	\$230,109	
Marsh Creation	CS-28-1	Sabine Refuge Marsh Creation, Cycle 1	COE	26-Feb-02	26-Feb-22	26-Feb-17	\$0	
Outfall Management	BS-03a	Caernarvon Diversion Outfall Management	NRCS	19-Jun-02	19-Jun-22	19-Jun-17	\$619,970	
Outfall Management	BA-03c	Naomi Outfall Management	NRCS	15-Jul-02	15-Jul-22	15-Jul-17	\$303,607	
Shoreline Protection	CS-30	GIWW-Perry Ridge West Bank Stabilization	NRCS	31-Jul-02	31-Jul-22	31-Jul-17	\$471,753	
Shoreline Protection	CS-11b	Sweet Lake/Willow Lake Hydrologic Restoration	NRCS	2-Oct-02	2-Oct-22	2-Oct-17	\$481,407	
Hydrologic Restoration	TV-13a	Oaks/Avery Canal Hydrologic Restoration	NRCS	11-Oct-02	11-Oct-22	11-Oct-17	\$385,853	
Hydrologic Restoration	ME-11	Humble Canal Hydrologic Restoration	NRCS	1-Mar-03	1-Mar-23	1-Mar-18	\$412,973	
Shoreline Protection	CS-31	Holly Beach Sand Management	NRCS	31-Mar-03	31-Mar-23	31-Mar-18	\$141,091	
Marsh Management	CS-23	Sabine Refuge Structure Replacement (Hog Island)	FWS	10-Sep-03	10-Sep-23	10-Sep-18	\$445,162	
Sediment & Nutrient Trapping	ME-14	Pecan Island Terracing	NMFS	10-Sep-03	10-Sep-23	10-Sep-18	\$7,980,763	
Hydrologic Restoration	CS-27	Black Bayou Hydrologic Restoration	NMFS	3-Nov-03	3-Nov-23	3-Nov-18	\$532,025	
Water Diversion	MR-03	West Bay Sediment Diversion	COE	28-Nov-03	28-Nov-23	28-Nov-18	\$6,873,468	
Shoreline Protection	TV-17	Lake Portage Land Bridge	NRCS	15-May-04	15-May-24	15-May-19	\$70,383	
Sediment & Nutrient Trapping	TV-18	Four Mile Canal Terracing and Sediment Trapping	NMFS	23-May-04	23-May-24	23-May-19	\$1,682,265	
Shoreline Protection	ME-19	Grand-White Lake Landbridge Restoration	FWS	1-Oct-04	1-Oct-24	1-Oct-19	\$4,830,546	
Hydrologic Restoration	PO-24	Hopedale Hydrologic Restoration	NMFS	15-Jan-05	15-Jan-25	15-Jan-20	\$361,020	
Water Diversion	MR-09	Delta Wide Crevasses	NMFS	1-May-05	1-May-25	1-May-20	\$1,840,973	
Sediment & Nutrient Trapping	TV-15	Sediment Trapping at the Jaws	NMFS	19-May-05	19-May-25	19-May-20	\$277,042	
Shoreline Protection	BA-27d	Barataria Basin Landbridge Shoreline Protection, Phase 4	NRCS	26-Apr-06	26-Apr-26	26-Apr-21	\$10,674,509	
Shoreline Protection	ME-22	South White Lake Shoreline Protection	COE	29-Aug-06	29-Aug-26	29-Aug-21	\$3,963,551	
Hydrologic Restoration	ME-16	Freshwater Introduction South of Highway 82	FWS	13-Dec-06	13-Dec-26	13-Dec-21	\$1,145,181	
Sediment & Nutrient Trapping, Outfall M	BS-11	Delta Management at Fort St. Phillip	FWS	14-Dec-06	14-Dec-26	14-Dec-21	\$1,060,351	
Marsh Creation, Shoreline Protection	BA-37	Little Lake Shoreline Protection/Dedicated Dredging near Round La	NMFS	30-Mar-07	30-Mar-27	30-Mar-22	\$7,492,880	
Barrier Island Restoration	TE-37	New Cut Dune and Marsh Restoration	EPA	30-Sep-08	30-Sep-28	30-Sep-23	\$438,909	
Marsh Creation	PO-33	Goose Point/Point Platte Marsh Creation	FWS	12-Feb-09	12-Feb-29	12-Feb-24	\$832,200	
Shoreline Protection	BA-27	Barataria Basin Landbridge Shoreline Protection, Phase 1&2	NRCS	5-Mar-09	5-Mar-29	5-Mar-24	\$1,318,200	
Barrier Island Restoration	TE-40	Timbalier Island Dune & Marsh Restoration	EPA	19-Mar-09	19-Mar-29	19-Mar-24	\$72,230	
Hydrologic Restoration	CS-32	East Sabine Lake Hydrologic Restoration	FWS	11-Aug-09	11-Aug-29	11-Aug-24	\$1,373,334	
Barrier Island Restoration	BA-35	Pass Chalard to Grand Bayou Pass Barrier Shoreline Restoration	NMFS	25-Aug-09	25-Aug-29	25-Aug-24	\$3,164,672	
Marsh Creation, Vegetative Planting, Dre	TE-44	North Lake Mechant Landbridge Restoration	FWS	16-Dec-09	16-Dec-29	16-Dec-24	\$2,494,625	
Hydrologic Restoration	CS-29	Black Bayou Culverts Hydrologic Restoration	NRCS	26-Jan-10	26-Jan-30	26-Jan-25	\$1,500,846	
Shoreline Protection	PO-30	Lake Borgne Shoreline Protection	EPA	12-Apr-10	12-Apr-30	12-Apr-25	\$7,174,077	
Marsh Creation	BA-36	Dedicated Dredging on the Barataria Basin Landbridge	FWS	15-Apr-10	15-Apr-30	15-Apr-25	\$604,766	
Marsh Creation	CS-28-3	Sabine Refuge Marsh Creation, Cycle 3	COE	30-Sep-10	30-Sep-30	30-Sep-25	\$274,446	
Marsh Creation, Shoreline Protection	TE-46	West Lake Boudreaux Shoreline Protection and Marsh	FWS	4-Apr-11	4-Apr-31	4-Apr-26	\$3,546,967	
Freshwater Diversion, Shoreline Protectio	TE-39	South Lake Decade Freshwater Introduction	NRCS	12-Jul-11	12-Jul-31	12-Jul-26	\$1,723,201	
Marsh Creation	TV-21	East Marsh Island Marsh Creation	EPA	22-Jul-11	22-Jul-31	22-Jul-26	\$7,529,126	
Hydrologic Restoration	BA-20	Jonathan Davis Wetland Restoration	NRCS	12-Jan-12	12-Jan-32	12-Jan-27	\$6,067,352	
Shoreline Protection	BA-41	South Shore of the Pen Shoreline Protection & Marsh Creation	NRCS	6-Jun-12	6-Jun-32	6-Jun-27	\$4,676,493	
Barrier Island Restoration	BA-38	Pelican Island and Pass La Mer to Chalard Pass	NMFS	28-Nov-12	28-Nov-32	28-Nov-27	\$7,980,763	
Marsh Creation, Barrier Headland	TE-52	West Belle Pass Barrier Headland Restoration Project	NMFS	4-Jun-13	4-Jun-33	4-Jun-28	\$5,162,092	
							\$130,457,406	
Project in Decision Matrix process								
Project overdue & close to 20YL								
Project is in or past Year 15								



**Projects requesting approval for project close out
with no additional cost increase**



Clear Marais Bank Protection (CS-22)

Project Status

Approved Date: 1992 **Project Area:** 4,637 acres
Approved Funds: \$3.69 M **Total Est. Cost:** \$3.69 M
Net Benefit After 20 Years: 1,067 acres
Status: Completed March 1997
Project Type: Shoreline Protection
PPL #: 2

Location

The project is located north of the Gulf Intracoastal Waterway (GIWW), approximately 10 miles northwest of Hackberry in Calcasieu Parish, Louisiana. It encompasses 4,637 acres of fresh marsh and open water.

Problems

Breaches in the GIWW have led to marsh loss in the Clear Marais area because of its increased exposure to saltwater intrusion, boat wakes, and tidal scour. As a result, erosion of the north bank of the GIWW threatens not only the water management levee to its north, but also the marshes protected by the levees.

Restoration Strategy

This project plan consisted of placing 6.7 miles of limestone riprap shoreline protection on the north bank of the GIWW to reduce erosion and fill the breaches. The project provides levee protection by placing stone riprap along the waterway and planting vegetation in the sheltered area between the riprap and the levee.



Pictured above is the GIWW at Clear Marais, with the rock riprap running along the right bank. To the immediate right of the riprap is the sheltered area that was the focus of the planting effort, with the management levee forming a boundary between it and the project area's marsh, which is visible on the far right.



Rock riprap provides shoreline protection from wave energy produced by shipping vessels on the GIWW.

Progress to Date

In March 1997, a 35,000-foot limestone breakwater was completed along the GIWW's northern bank. It was designed to prevent the continued erosion of the management levee and the encroachment of the GIWW into the project area.

Shoreline gains have occurred at 24 of the 34 sampling sites established behind the breakwater, but shoreline losses have occurred at all of the project's unprotected reference sites. Overall, the project has produced an average land gain of 4.85 feet per year as opposed to the loss of 15.87 feet per year observed in the reference areas.

The construction phase of the project is complete. The monitoring plan has been completed and monitoring initiated. Operation and maintenance is scheduled for the future.

This project is on Priority Project List 2.

For more project information, please contact:



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

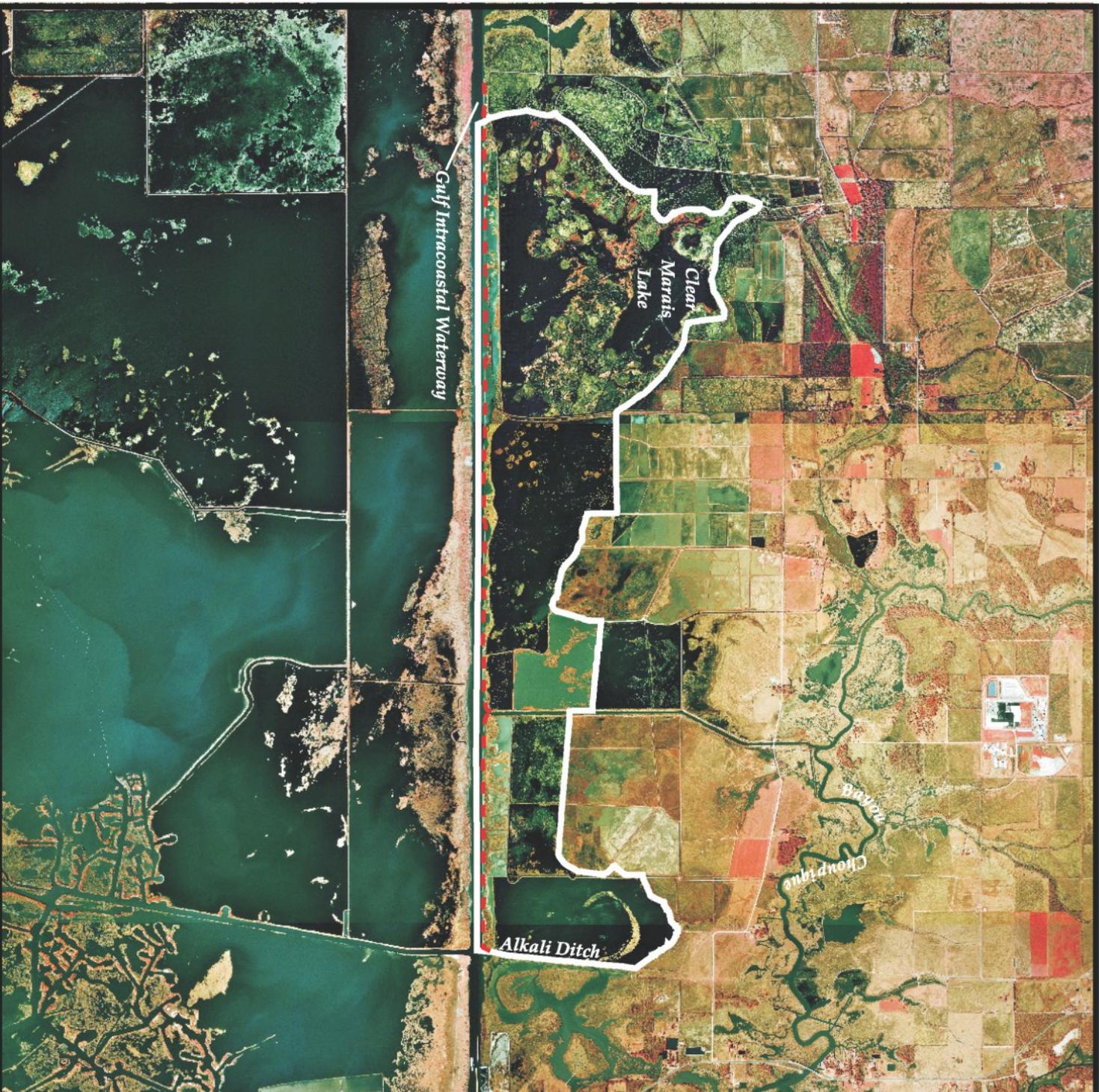


Local Sponsor:
 Coastal Protection and Restoration Authority
 Baton Rouge, LA
 (225) 342-4736

Clear Marais Bank Protection (CS-22)

 Shoreline Protection

 Project Boundary



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

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle
Map Date: August 20, 2002
Map ID: 2002-11-699
Data accurate as of: August 20, 2002



Point Au Fer Canal Plugs (TE-22)

Project Status

Approved Date: 1992 **Project Area:** 5,230 acres
Approved Funds: \$5.51 M **Total Est. Cost:** \$5.54 M
Net Benefit After 20 Years: 375 acres
Status: Completed May 2000
Project Type: Shoreline Stabilization and
 Hydrologic Restoration
PPL #: 2

Location

The project is located on Point Au Fer Island, approximately 30 miles south of Morgan City, Louisiana, in Terrebonne Parish. The project is divided into two areas. Area 1 consists of saline and brackish marshes on the southeastern portion of the island between Mosquito Bay and the Gulf of Mexico. Area 2 consists of brackish marsh on the southwestern portion of Point Au Fer.

Problems

Pipeline canals and access channels on Point Au Fer Island are conduits for saltwater intrusion into the island's interior marshes. During periods of low river flow in which the input of fresh water declines, the elevated salinity levels cause the breakup of the island's marshes. In addition, storm-induced breaches along sections of the gulf shoreline immediately adjacent to oilfield canals also allow salt water to penetrate the island's interior.

Restoration Strategy

Under Phase 1, a series of wooden plugs reinforced with oyster shells was constructed in two major natural gas/oil pipeline canals on the eastern half of the island. Under Phase 2, a rock shoreline stabilization structure was built along a thin stretch of beach separating the Gulf of Mexico from a minerals access canal. The project has reestablished the natural hydrology of the island, preventing saltwater intrusion into the island's interior brackish marshes and protecting over 4,000 acres of wetlands habitat.

Progress to Date

The shoreline erosion rate along the plugged canals (Phase/Area 1) has not been reduced. Visual observations indicate that the shoreline stabilization project (Phase/Area 2) has halted erosion, but monitoring data is still under analysis. This project is on Priority Project List 2.



The beach where a pipeline canal meets the Gulf of Mexico has been stabilized with concrete mats thus preventing saltwater intrusion into the interior wetlands of Point au Fer Island.



This section of Mobil Canal was backfilled and armored with rock to reestablish the separation between the canal and the gulf so that salt water would be prevented from damaging the intermediate marshes in the interior of the island.

For more project information, please contact:



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



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

Atchafalaya Bay

Point Au Fer Island

Mosquito Bay

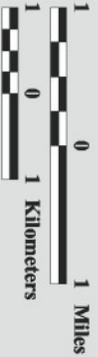
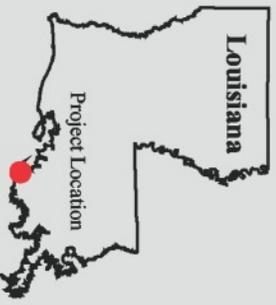
Bay
Castagner

Gulf of Mexico

Point Au Fer Canal Plugs (TE-22)

-  Plug
-  Shoreline Protection
-  Project Boundary

USGS
science for a changing world



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

Background Imagery:
 Thematic Mapper Satellite Imagery 2000

Map Date: June 10, 2002
 Map ID: 2002-11-449
 Data accurate as of: June 10, 2002



Channel Armor Gap Crevasse (MR-06)

Project Status

Approved Date: 1993 **Project Area:** 2,097 acres
Approved Funds: \$0.88 M **Total Est. Cost:** \$0.88 M
Net Benefit After 20 Years: 936 acres
Status: Completed Dec. 1997
Project Type: Sediment Diversion
PPL #: 3

Location

The project is located on the eastern side of the Mississippi River Delta in the Delta National Wildlife Refuge in Plaquemines Parish, Louisiana. It is west of the eastern delta's Main Pass and north of Pilottown.

Problems

Because of the revetment that runs along the Mississippi River shoreline, the area adjacent to the river no longer receives marsh nourishing sediment, nutrients, or fresh water.

During levee construction, a shallow gap was created in the stone armor along the riverbank to allow overflow during high river stages. Inadequate width and depth in the original design led to an infrequent and ineffective amount of water entering the marsh. The emergent delta originally anticipated did not materialize.

Restoration Strategy

The project plan consisted of deepening an existing 200-foot wide gap in the Mississippi River channel bank armor. In addition, the existing channel from the gap to Mary Bowers Pond was enlarged.

The implementation of this project will restore vegetated wetlands by increasing fresh water and sediment from the Mississippi River to the Delta National Wildlife Refuge area.

This project promotes sediment accretion and marsh creation by increasing the introduction of sediment and fresh water into the project area. The average flow of water is approximately 2,500 cubic feet per second and is expected to create 936 acres of emergent marsh over the 20-year life span of the project.



A crevasse is shown providing the marsh nourishing sediment necessary for delta production. The crevasse is the channel-like feature intersecting with the Mississippi River, seen here with ship traffic at the top of the image. The Mary Bowers Pond, being fed by the crevasse, can be seen in the foreground.

Progress to Date

Surveys have identified a Shell pipeline in the crevasse area that would be negatively impacted. Shell is lowering it at their expense.

The construction phase of the project is complete. The Louisiana Department of Natural Resources is monitoring the project with further operation and maintenance scheduled for the future. This project is on Priority Project List 3.

For more project information, please contact:



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

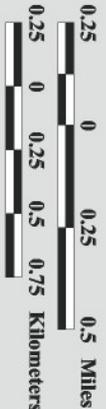
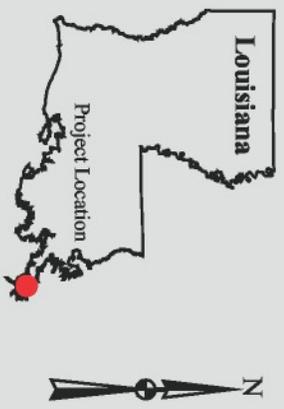


Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736



Channel Armor Gap Crevasse (MR-06)

-  Spoil Gap
-  Dredge Channel
-  Project Boundary



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

Background Imagery:
 1998 Digital Orthophoto Quarter Quadrangle
 Map Date: August 20, 2002
 Map ID: 2002-11-443
 Data accurate as of: August 20, 2002



Atchafalaya Sediment Delivery (AT-02)

Project Status

Approved Date: 1992 **Project Area:** 4,248 acres
Approved Funds: \$2.45 M **Total Est. Cost:** \$2.45 M
Net Benefit After 20 Years: 2,232 acres
Status: Completed March 1998
Project Type: Dredged Material/Marsh Creation and Hydrologic Restoration
PPL #: 2

Location

The project is located east of the lower Atchafalaya River navigation channel in the Atchafalaya River Delta, approximately 19 miles southwest of Morgan City, Louisiana, in St. Mary Parish.

Problems

Growth of the lower Atchafalaya Delta has been reduced as a result of maintenance of the Atchafalaya River navigation channel. Delta development in the shallow waters of Atchafalaya Bay is dependent on distributary flows and the diversion of sediments into over-bank areas through crevasse channels.

Because of the placement of material dredged from the navigation channel and sediment accumulation within the channels that decrease flow efficiency, the open crevasse channels are frequently short-lived. As riverflow through a crevasse channel is reduced, the amount of sediment that can be deposited in the delta is likewise reduced, resulting in decreased marsh development.

Restoration Strategy

The purpose of this project is to promote natural delta development by reopening two silted-in channels and using those dredged sediments to create new wetlands. Approximately 720,000 cubic yards of sediment were dredged from Natal Channel and Castille Pass in 1998. Over 12,000 feet of channel were reopened, and more than 280 acres of new habitat were created by the strategic placement of the dredged channels' sediments. By reestablishing water and sediment flow into the eastern part of the Atchafalaya Delta, an additional 1,200 acres of new habitat are expected to be naturally created over the life of the project.



A bucket dredge is shown removing sediment from a shoaled-in channel in order to help reestablish water and sediment flow within the Atchafalaya Delta.

Progress to Date

Construction was completed in 1998. A pre- versus post-construction habitat analysis using aerial photography indicated that, while there was an increase in land of 78.4 acres, the majority of the habitat created was represented by forested wetland (50.1 acres), while fresh marsh and upland barren habitats accounted for 14 acres gain each. Although many of the dominant plant species are present in both created and reference areas, the created areas contained different plant communities when compared to any time period in the development of a natural crevasse splay that served as a reference area for this project. Although the long-term effects on submerged aquatic vegetation (SAV) are unclear, habitat mapping indicated an increase in SAV habitat of 221.5 acres from 1997 to 1998, but this is very close to the increases that were reported in the project area pre-construction. Satellite imagery indicates that there have been significant increases in emergent acreage from 1998 to 2008. This project is on Priority Project List 2.

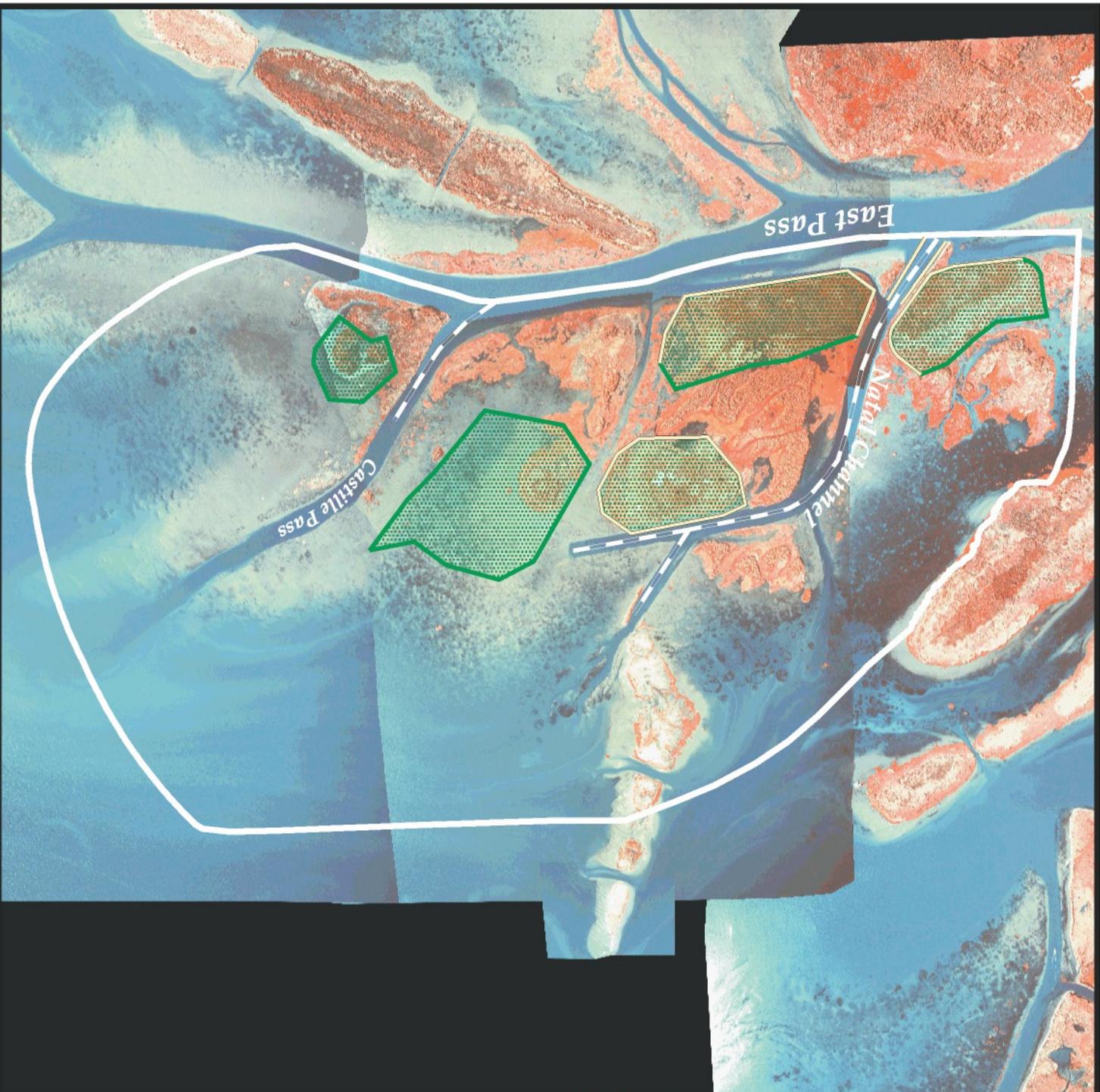
For more project information, please contact:



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

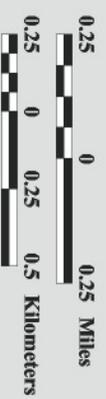


Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736



Atchafalaya Sediment Delivery (AT-02)

-  Dredge Channel
-  Containment Dike
-  Marsh Creation Area
-  Project Boundary



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

Background Imagery:
 Color Infrared Aerial Photography 2000
 Map Date: June 03, 2002
 Map ID: 2002-11-439
 *Data accurate as of: June 03, 2002



West Belle Pass Headland Restoration (TE-23)

Project Status

Approved Date: 1992 **Project Area:** 2,459 acres
Approved Funds: \$6.82 M **Total Est. Cost:** \$6.82 M
Net Benefit After 20 Years: 474 acres
Status: Completed July 1998
Project Type: Dredged Material and Shoreline Protection
PPL #: 2

Location

The project is located just west of Port Fourchon, Louisiana, in Lafourche Parish. It covers 2,459 acres of saline marsh. The project is bounded by Belle Pass to the east, the Gulf of Mexico shore to the south, and Timbalier Bay to the west.

Problems

The encroachment of Timbalier Bay into the marshes west of Belle Pass, and ultimately its connection with Bayou Lafourche, threatens the physical integrity of the entire Fourchon headland. Timbalier Bay is encroaching into the marshes on the west side of Bayou Lafourche, and wave action is eroding its banks.

Breaches in the Bayou Lafourche and Belle Pass banks were causing tidal scour in the interior marshes. The project reduced the encroachment of Timbalier Bay into the interior marshes by using dedicated dredged materials to create wetlands. Dams and controls were constructed on channel cross sections.

Restoration Strategy

Approximately 1.5 million cubic yards of material were dredged from Bayou Lafourche and used to build 184 acres of marsh on the west side of Belle Pass. Another 240,000 cubic yards of material were placed on the shore for beach nourishment.

A water control structure was placed in the Evans Canal, and plugs were placed in other canals. Almost 17,000 feet of riprap were placed on the west side of Belle Pass and Bayou Lafourche to protect the shoreline from persistent wave-induced erosion.



In the photo above, the Gulf of Mexico is in the foreground, and Belle Pass is the wide channel that can be seen curving off to the right near the top of the image. The riprap dike that was constructed runs along its western bank. The brown, white, and green areas just above the gulf's shoreline and to the left of Belle Pass is where the deposited dredge material has promoted newly emergent marsh.

Progress to Date

Oyster leases in the project area were purchased by the Greater Lafourche Port Commission to expedite implementation of the project. Louisiana Land and Exploration Company project lands were deeded to the state of Louisiana and approved by the state legislature on August 14, 1997.

Construction was completed in July 1998. Monitoring is underway by the Louisiana Department of Natural Resources and operation and maintenance are scheduled for the future. This project is on Priority Project List 2.

For more project information, please contact:



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



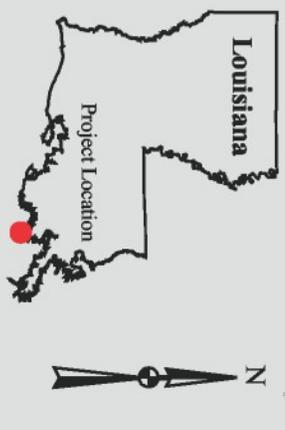
Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736



West Belle Pass Headland Restoration (TE-23)

-  Plug
-  Weir
-  Containment Dike/
Spoil Bank
-  Shoreline Protection
-  Project Boundary

USGS
science for a changing world



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

Background Imagery:
 1998 Digital Orthophoto Quarter Quadrangle

Map Date: August 22, 2002
 Map ID: 2002-11-707
 Data accurate as of: August 22, 2002



Big Island Mining (AT-03)

Project Status

Approved Date: 1992 **Project Area:** 3,400 acres
Approved Funds: \$7.00 M **Total Est. Cost:** \$7.00 M
Net Benefit After 20 Years: 1,560 acres
Status: Completed October 1998
Project Type: Dredged Material/Marsh Creation and Hydrologic Restoration
PPL #: 2

Location

The project is located west of the lower Atchafalaya River navigation channel in the Atchafalaya River Delta, northwest of Big Island and approximately 19 miles southwest of Morgan City, Louisiana, in St. Mary Parish.

Problems

In the newly emergent Atchafalaya Delta, navigation channel development and maintenance created the large spoil island known as Big Island along the upper west bank of the Atchafalaya River Delta channel. Big Island's elevation of more than 20 feet above mean sea level is not conducive to the formation of marsh habitat and consequently has adversely affected delta growth.

Restoration Strategy

The project was an opportunity to increase marsh habitat in the northwestern portion of the Atchafalaya Delta. In 1998, over 3.4 million cubic yards of sediment north of Big Island were dredged to create several distributary channels that reestablished water and sediment flows into shallow water areas in the delta. The sediment was strategically placed to mimic natural delta lobe formation at an elevation suitable for marsh growth. Over 922 acres of new habitat were directly created by construction, and the reestablished water and sediment flows are expected to add an additional 2,000 acres over the life of the project.



A hydraulic dredge pumps sediment to create new wetland habitat in the project area south of Morgan City.

Progress to Date

Construction was completed in 1998. Monitoring indicates the channels are maintaining adequate depth and still delivering sediments into the delta. Visual inspection indicates that these sediments are settling in the constructed disposal areas. It also suggests that a forthcoming vegetative survey will show a significant increase in emergent marsh habitat. This project is on Priority Project List 2.

For more project information, please contact:



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



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



Big Island Mining (AT-03)

-  Dredge Channel
-  Containment Dike
-  Marsh Creation Area
-  Project Boundary



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

Background Imagery:
 1998 Digital Orthophoto Quarter Quadrangle

Map Date: June 10, 2002
 Map ID: 2002-11-440
 Data accurate as of: June 10, 2002



Mississippi River Gulf Outlet (MRGO) Disposal Area Marsh Protection (PO-19)

Project Status

Approved Date: 1993 **Project Area:** 855 acres
Approved Funds: \$0.31 M **Total Est. Cost:** \$0.31 M
Net Benefit After 20 Years: 755 acres
Status: Completed Jan. 1999
Project Type: Hydrologic Restoration
PPL #: 3

Location

The project is located south of Bayou La Loutre Ridge in St. Bernard Parish, Louisiana, on the existing south bank disposal area of the Mississippi River Gulf Outlet (MRGO) between mile markers 30 and 36. The project area is approximately 855 acres.

Problems

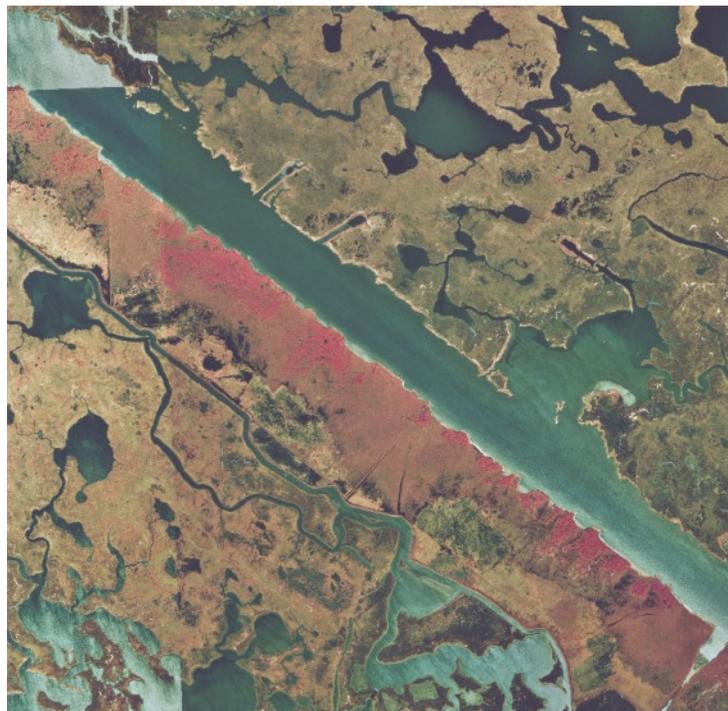
The project area consists of a 4,000-foot wide diked disposal area originally used for placement of dredged material during construction of MRGO in the early 1960's.

During MRGO maintenance dredging operations, only the 2,000 feet nearest the waterway have been used for disposal purposes. Over the years, because of settling and water ponding, the back 2,000 feet reverted to high-elevation fresh marsh. Because the project area is 1-4 feet higher than the surrounding brackish marshes, marine organisms have no access into the area; however, this fresh "perched" marsh is an excellent habitat for migratory waterfowl.

Restoration Strategy

This project repaired the wave and storm damage to MRGO's earthen back dike south of La Loutre Ridge, and it is expected to preserve approximately 755 acres of valuable wetlands.

As a result of field investigations, only two breaches along the back dike were closed. The breaches prevented water from ponding in the disposal area. Since the ponded area is higher in elevation than the surrounding saline marshes, the ponded area drained and undesirable vegetation began to take over. The breaches were repaired by using a barge-mounted crane that removed sediment from the back canal and used it to rebuild the levee.



The project involved closing two small gaps in the dredged-material retaining dikes to protect the marsh in the project area.

Progress to Date

The scope of projected work was greatly reduced from the original design. Vicksburg District of the U.S. Army Corps of Engineers completed construction on January 29, 1999. No operation, maintenance, or monitoring is scheduled. This project is on Priority Project List 3.

For more project information, please contact:



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



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



Mississippi River Gulf Outlet (MRGO) Disposal Area Marsh Protection (PO-19)

 Project Boundary



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

Background Imagery:
 1998 Digital Orthophoto Quarter Quadrangle
 Map Date: August 22, 2002
 Map ID: 2002-11-704
 Data accurate as of: August 22, 2002



Lake Chapeau Sediment Input and Hydrologic Restoration, Point Au Fer Island (TE-26)

Project Status

Approved Date: 1993 **Project Area:** 13,024 acres
Approved Funds: \$6.81 M **Total Est. Cost:** \$6.84 M
Net Benefit After 20 Years: 509 acres
Status: Completed May 1999
Project Type: Hydrologic Restoration and Marsh Creation
PPL #: 3

Location

The project encompasses approximately 13,000 acres of intermediate marsh, brackish marsh, and open water near Lake Chapeau on Point Au Fer Island, some 30 miles south of Morgan City, Louisiana in Terrebonne Parish. It is bounded by Fourleague Bay to the north, Atchafalaya Bay to the West, Locust Bayou's network of canals to the south, and by Wildcat Bayou and a single oilfield canal to the east.

Problems

Existing canal networks that extend into the center of Point Au Fer Island have considerably altered its hydrology. Specifically, excessive tidal water exchange has increased erosion, creating a 30% loss of the island's interior marsh over the past 60-70 years.



An aerial close-up view of the created wetlands with a prominent lobe in the foreground.

Restoration Strategy

The project reestablishes hydrologic control points, reducing the tidal fluctuations that cause the erosion and scouring of the island's interior marsh. It also promotes conditions that will sustain communities of aquatic vegetation.

The project's first component, sediment input, restored marshes west of Lake Chapeau and reestablished a land bridge between two existing bayous. An estimated 850,000 cubic yards of material were hydraulically dredged from Atchafalaya Bay and spread to a thickness of approximately 2 feet to create 160 acres of marsh.

The project's second component, hydrologic restoration, included the construction of seven weirs in man-made channels around the perimeter of the project area. In addition, existing spoil banks were gapped in one channel, and a 6,700-foot section of natural bayou was dredged. One rock plug was also installed at the dredge pipeline access corridor to address damage which occurred during construction and two additional weirs were installed in an existing canal to address spoil bank breaches that occurred after installation of the seven weirs. The weirs, gapping, and dredging restored the natural circulation and drainage patterns within the central portion of Point Au Fer Island.

Progress to Date

In the spring of 2000, 40,000 plugs of smooth cordgrass (*Spartina alterniflora*) were planted in the area where the dredged sediments had been placed. Monitoring indicates that the plants are vigorously growing and spreading. Additional monitoring of water flows and salinities is underway. This project is on Priority Project List 3.

For more project information, please contact:



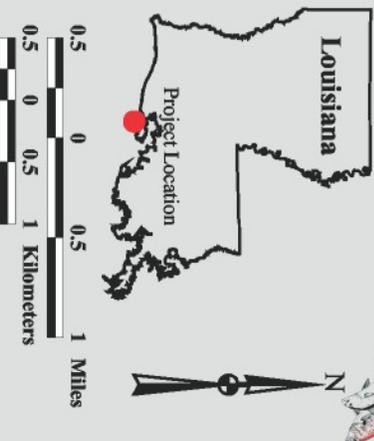
Federal Sponsor:
National Marine Fisheries Service
Baton Rouge, LA
(225) 389-0508



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

Lake Chappeau Sediment Input and Hydrologic Restoration, Point Au Fer Island (TE-26)

-  Plug
-  Spoil Gap
-  Weir
-  Vegetative Planting
-  Containment Dike
-  Dredge Channel
-  Marsh Creation Area with Vegetative Planting
-  Dedicated Dredging Area
-  Project Boundary



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

Background Imagery:
 Thematic Mapper Satellite Imagery 2000
 Map Date: June 10, 2002
 Map ID: 2002-11-450
 Data accurate as of June 10, 2002



**Projects requesting approval to pursue project extension
through formal evaluation**

CWPPRA

20YL Path Forward Report

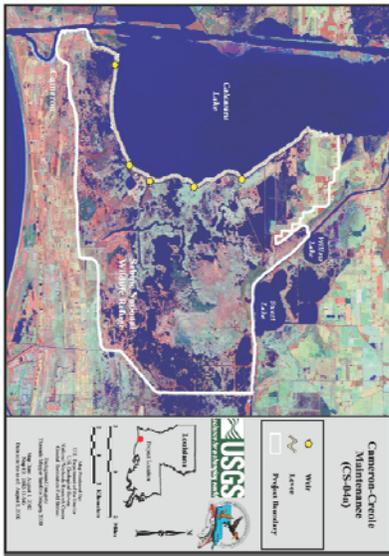
Project: Cameron-Creole Maintenance (CS-04a)

Federal Sponsor: NRCS

20YL Date: September 2017

Project Location: Cal/Sab Basin
Cameron Parish, east of Calcasieu Lake.
It encompasses approximately 54,076 ac. of fresh-to-saline marsh and open water.

Project Features:
CS-04a project was established to maintain the Cameron-Creole Watershed Management Project. A fund was created to provide for the operations and maintenance of the project for the next 20 years.





CWPPRA

20YL Path Forward Report

CWPPRA Maintenance Events:

• 2004 – Structure vandalism	\$38,525
• 2007 – Structure storm damage	\$365,279
• 2013 – Structure vandalism	\$115,372
• 2015 – Rock armoring repair in design (Grand, Mangrove, and Peconi)	<u>\$1,990,000</u>
Total:	\$2,509,176

Additional Maintenance Events funded by other sources:

• 2008 – Breach closure (Rita)	\$4,044,921
• 2010 – Levee repair (FEMA phase 1)	\$1,120,071
• 2011 – Levee repair (FEMA phase 2)	<u>\$14,045,436</u>
Total:	\$19,210,428




CWPPRA

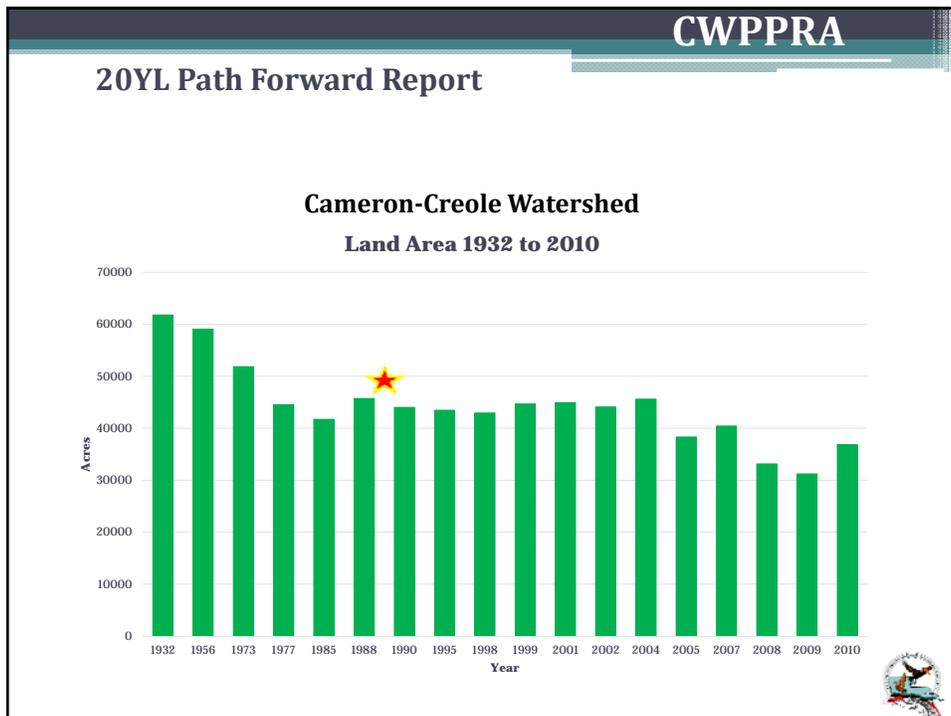
20YL Path Forward Report

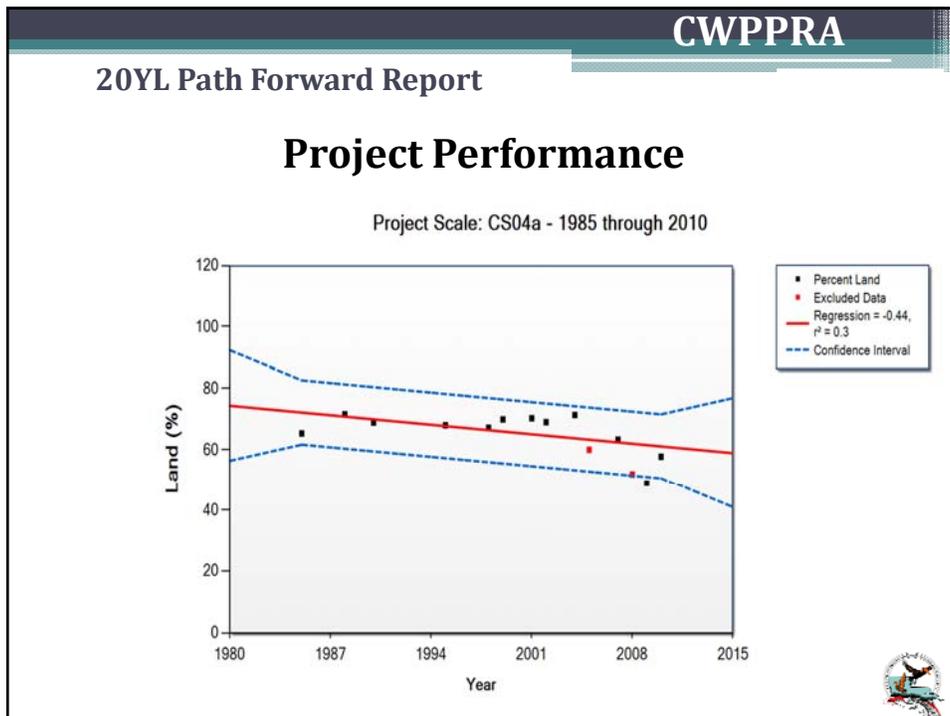
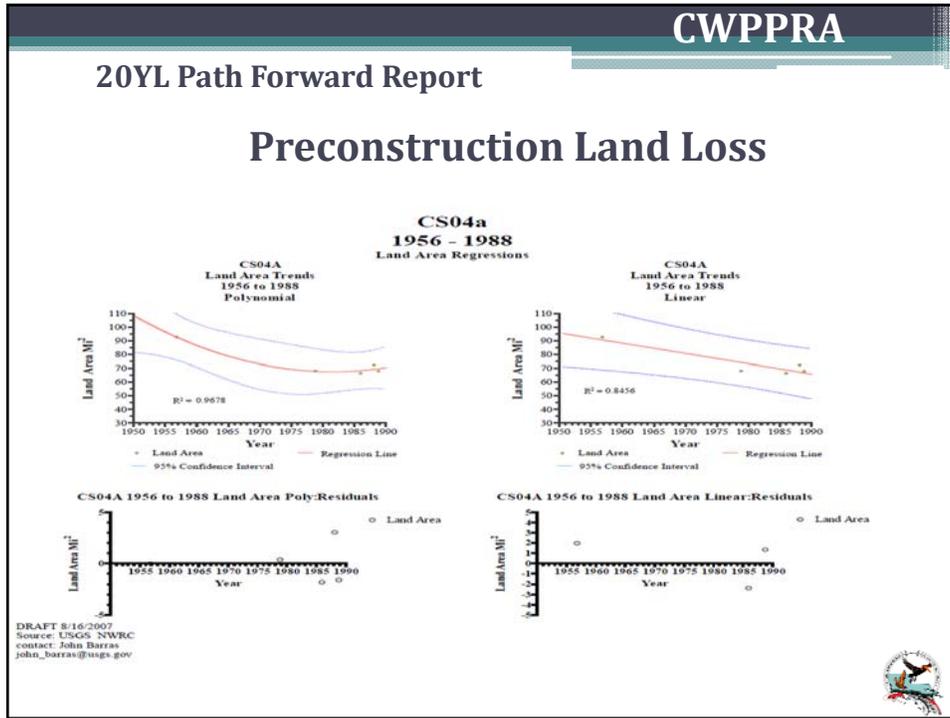
CWPPRA Remaining Operation Costs:

- 2015 – \$121,255
- 2016 – \$127,184
- 2017 – \$133,407

CWPPRA Fully Funded Cost:
\$4,644,371

CWPPRA Funds Remaining: approximately \$2,480,720 (scheduled maintenance and operation cost \$2,371,816) will leave approximately \$108,904 in the project budget.



CWPPRA

20YL Path Forward Report

CS-04a Performance

- From 1956 to 1988 the area within the watershed was losing land at a rate of -0.6%/y (Barras 2007).
- Post-project construction, USGS determined from the period 1984 to 2004 that a 22,510 acre area within the watershed (CS-49) was gaining land at a rate of + 0.6%/y or 135 acres per year (Couvillion 2013) prior to Hurricanes Rita and Ike.
- CRMS data determined post-project construction and management (1985-2010) that the loss rate had decreased to approximately - 0.44%/yr. (1,249 net acres).



CWPPRA

20YL Path Forward Report

Benefits of the 20 year project (1997-2017)

	Preconstr. Land Change %/Year	Postconstr. (2010) Land Change %/Year	Estimated Loss (Acres) Thru 2017	Estimated Net Acres Thru 2017	CWPPRA Cost Thru 2017	Tot. Cost/Acre
Cameron- Creole	-0.6	-0.44	-4,918	997	\$4,644,371	\$4,658

*Combined costs of all maintenance events (\$23,854,799 or \$23,927/acre)



CWPPRA

20YL Path Forward Report

CS-04a Additional 20 YR. O&M Budget				
Year	FY	Annual Inspection	Operations Contract	Maintenance Events*
21	2018	\$7,267	\$55,000	\$0
22	2019	\$7,485	\$56,650	\$0
23	2020	\$7,710	\$58,350	\$0
24	2021	\$7,941	\$60,100	\$0
25	2022	\$8,179	\$61,903	\$360,000
26	2023	\$8,424	\$63,760	\$0
27	2024	\$8,677	\$65,673	\$0
28	2025	\$8,937	\$67,643	\$0
29	2026	\$9,206	\$69,672	\$0
30	2027	\$9,482	\$71,763	\$480,000
31	2028	\$9,766	\$73,915	\$0
32	2029	\$10,059	\$76,133	\$0
33	2030	\$10,361	\$78,417	\$0
34	2031	\$10,672	\$80,769	\$0
35	2032	\$10,992	\$83,192	\$600,000
36	2033	\$11,322	\$85,688	\$0
37	2034	\$11,661	\$88,259	\$0
38	2035	\$12,011	\$90,907	\$0
39	2036	\$12,372	\$93,634	\$0
40	2037	\$12,743	\$96,443	\$720,000
Total		\$195,267	\$1,477,871	\$2,160,000

*Assume general maintenance and/or vandalism every five years.
(Includes E&D and Construction Oversight.)

TOTAL ESTIMATED O&M BUDGET **\$3,833,138**

CWPPRA

20YL Path Forward Report

Estimated Benefits

	Preconstr. Land Change %/Year	Postconstr. (2010) Land Change %/Year	Estimated Loss (Acres) Thru 2037	Estimated Net Acres Thru 2037	Estimated Cost Thru 2037	Tot. Cost/Acre
Cameron- Creole	-0.6	-0.44	-4,918	997	\$3,833,138	\$3,845

CWPPRA

20YL Path Forward Report

Projects	Cost/ Net Acre
PPL18 Average	46,822
PPL19 Average	88,656
PPL20 Average	50,682
PPL21 Average	60,622
PPL22 Average	89,578
PPL23 Average	132,661
PPL24 Average	85,088
OVERALL AVG PPL18-24	78,177
2009 Phase II Approvals Average	120,303
2010 Phase II Approvals Average	140,462
2011 Phase II Approvals Average	206,094
2012 Phase II Approvals Average	70,429
2013 Phase II Approvals Average	67,618
2014 Phase II Approvals Average	54,646
2015 Phase II Approvals Average	62,095
OVERALL AVG PHASE II APPROVALS 2009-2015	103,017
AVERAGE ALL PPL AND PHASE II APPROVALS 2009-2015	87,690

20YL Recommendation

NRCS and CPRA recommends pursuing project extension.





Cameron-Creole Maintenance (CS-04a)

Project Status

Approved Date: 1993 **Project Area:** 54,076 acres

Approved Funds: \$4.64 M **Total Est. Cost:** \$4.64 M

Net Benefit After 20 Years: 2,602 acres

Status: Completed July 1998

Project Type: Hydrologic Restoration

PPL #: 3

Location

This project is located about 6 miles northeast of Cameron, Louisiana, in Cameron Parish. It is bordered on the west by the eastern shore of Calcasieu Lake, on the north by the Gulf Intracoastal Waterway, and to the east and south by Louisiana Highway 27. It encompasses approximately 54,076 acres of fresh-to-saline marsh and open water.

Problems

Saltwater intrusion and increased tidal activity from the Calcasieu Ship Channel have caused marsh loss within the project area.

Restoration Strategy

The Cameron-Creole Watershed Management Project, a Natural Resources Conservation Service project completed in 1974, consists of five large control structures and a 19-mile levee along the eastern rim of Calcasieu Lake. The project has reduced salinities and increased marsh productivity; however, funding for maintenance of the project was not included in the original construction costs.

The current project, Cameron-Creole Maintenance (CS-04a), involves establishment of a fund to provide for the maintenance of the Cameron-Creole Watershed for the next 20 years. Funds set aside for the maintenance work total approximately \$4 million.

Almost 1,500 acres of wetlands will be created or restored, and an additional 1,071 acres will be protected.

Progress to Date

The first three contracts updating the operating mechanisms are complete. The project provides for maintenance on an as-needed basis. Hurricane Rita repairs are ongoing.

This project is on Priority Project List 3.



Structures such as this one help regulate the amount of salt water that enters the marsh, improving the health of wetland vegetation.



The salty environment of the project area leads to severe corrosion of unprotected pipes, fittings, and valves. This corrosion can eventually leave the water control structures inoperable.

For more project information, please contact:



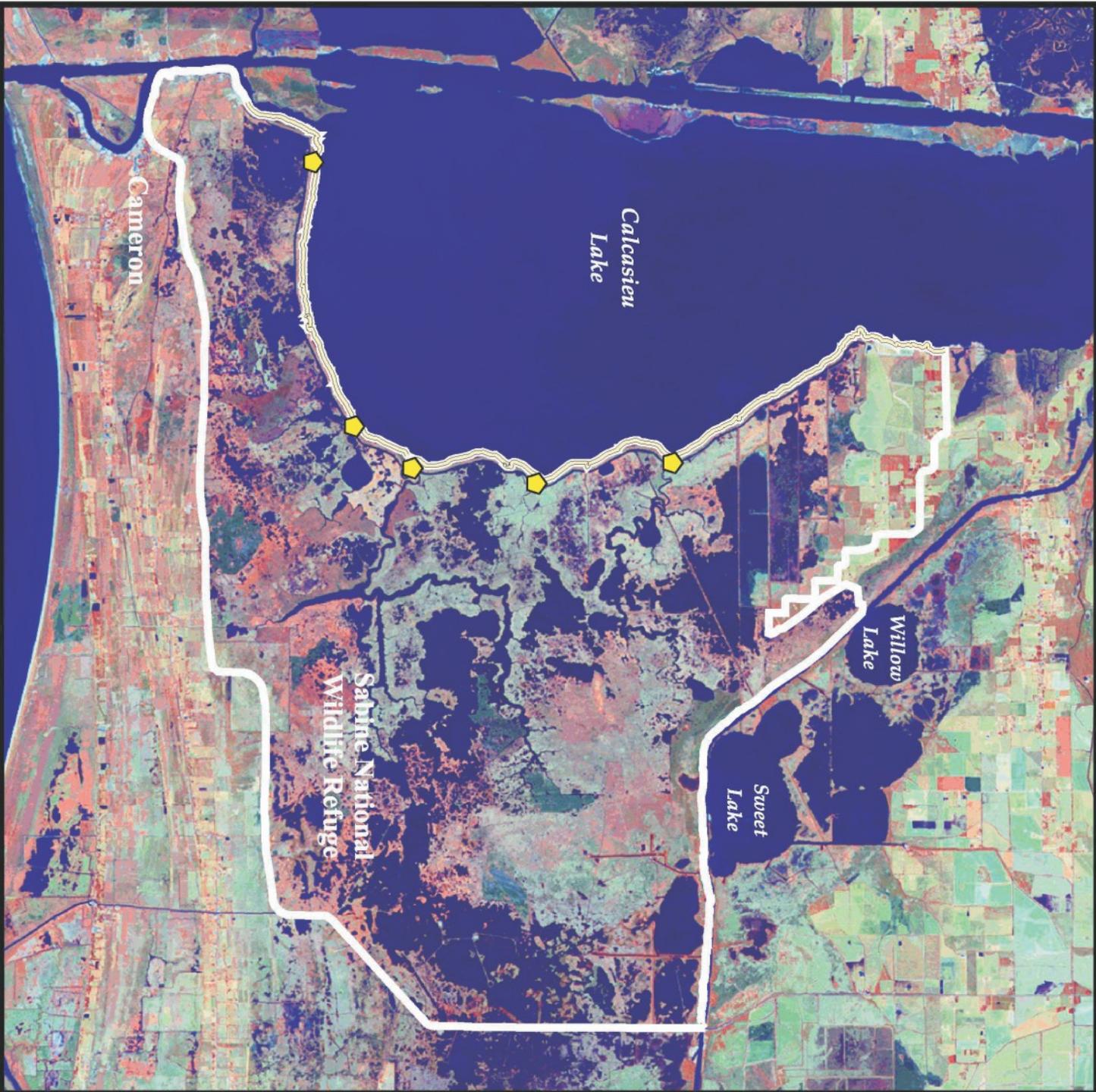
Federal Sponsor:

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



Local Sponsor:

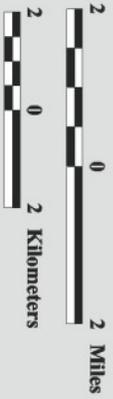
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736



Cameron-Creole Maintenance (CS-04a)

	Weir
	Levee
	Project Boundary

USGS
science for a changing world

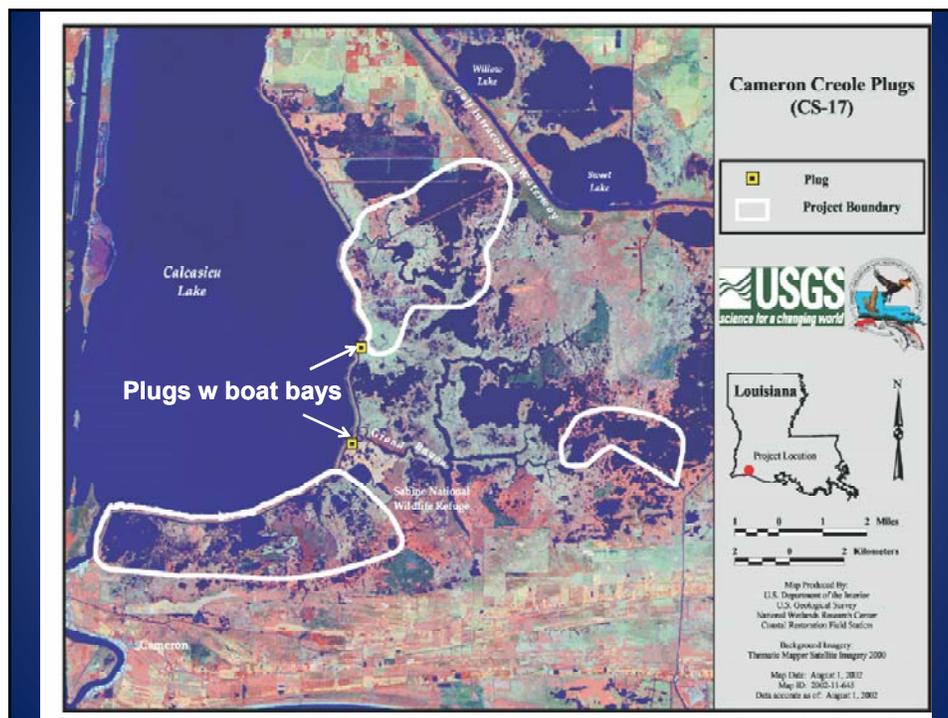


Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
Thematic Mapper Satellite Imagery 2000
Map Date: August 1, 2002
Map ID: 2002-11-643
Data accurate as of: August 1, 2002

Cameron Creole Plugs (CS-17)

- Two sheet pile plugs w boat bays on Cameron Prairie NWR & Miami Corporation
- Controls borrow canal hydrology; reduces north-south movement & circulation of high-salinity water
- Fully-funded Cost = \$1,258,101
- Constructed in 1997
- 20-Year Life ends in January 2017
- Estimated O&M balance = \$101,000





O&M History & 20-Year Life Recommendation

- 2005 – Replaced handrails & 1 boat-guide - \$77,910
- 2009 – Boat guides & rock rip-rap - \$212,892
- 2012 – Replaced boat guides & 1 hand rail - \$4,450
- It is recommended that the project be extended for 20 years w/n the existing budget. If approved, it is further recommended to be transferred to the NRCS-sponsored Cameron-Creole Maintenance Project (CS-04a).

Cameron Creole Plugs 20-Year Life Extension

- Justification for Project Life Extension**
 Maintain benefits of reducing water flow/circulation in the borrow canal. Structure maintenance of signs, railings, & boat guides is needed for boating public in this area of high public use. Project extension can occur within the existing O&M budget without a cost increase.
- Does monitoring data indicate project is performing?**
 “. . . It was not possible to differentiate ecological responses due to the project plugs & the pre-existing water control structures. Due to these complications, we have been unable to document significant ecological responses to the project design.” (2003 & 2007 Monitoring Reports).
- Does Project require maintenance?**
 Yes. Approximately \$364,000 has been expended to maintain boat guides, railings, & rock (\$20,222/year).
- Is Landowner, NGO or another willing to accept transfer?**
 Neither Cameron Prairie NWR nor Miami Corp. are willing to accept project transfer at this time.

Cameron Creole Plugs 20-Year Life Options

	Option 1 Project Extension (Year 21-Year 40)	Option 2 Project Closeout Without Removal	Option 3 Project Transfer w/n CWPPRA (To the CS-04a CWPPRA project)	Option 4 Project Closeout With Removal
Cost to CWPPRA	\$85,000 (\$4,250/year w/n the estimated Jan. 2017 O&M budget)	\$25,000 (w/n existing budget)	\$85,000 (w/n the estimated Jan. 2017 O&M budget)	\$350,000 to \$450,000 (additional funds would have to be approved)
Benefits (net acres)	865 acres	<865 acres	865 acres	0 acres
Cost Effectiveness (\$/acre)	\$98/acre	?	\$98/acre	Negative Impact; water circulation to resume
"Pros"	<ul style="list-style-type: none"> • Benefits continue • Structures maintained for boating public (signs, guide rails, boat guides) 	<ul style="list-style-type: none"> • Benefits continue at reduced rate with possible future plug failure • No added cost to CWPPRA 	<ul style="list-style-type: none"> • More efficient management under CWPPRA because the project becomes a feature of a larger CWPPRA project. 	<ul style="list-style-type: none"> • Relieves CWPPRA of responsibility
"Cons"	<ul style="list-style-type: none"> • CWPPRA retains responsibility • Landrights agreement(s) would need to be extended, but would not be a problem • Some additional costs 	<ul style="list-style-type: none"> • CWPPRA retains current responsibility • Benefits would be reduced by Year 40 	<ul style="list-style-type: none"> • CWPPRA retains responsibility because the features would be part of CS-04a. 	<ul style="list-style-type: none"> • Total Expenditure of \$1.6M w/o benefits beyond Year 20 • Loss rate resumes to pre-project level • By Year 40 the land preserved through Year 20 may be lost

20-YEAR LIFE INFORMATION PACKAGE
April 16, 2015

Project Name

Cameron-Creole Plugs (CS-17)

Project Sponsors

U. S. Fish and Wildlife Service (FWS) and Louisiana Coastal Protection and Restoration Authority (CPRA)

Project Location

Calcasieu-Sabine Basin, Cameron Parish, Cameron-Creole Watershed, Lakeshore Borrow Canal (see map)

Primary Project Goal

Moderate water circulation and flow in the Cameron-Creole Watershed borrow canal; specifically, 1) reduce flooding duration in the southern project area, 2) reduce south to north water flow through the borrow canal, 3) increase marsh vegetative cover in the north and south project areas, and 4) increase submerged aquatic vegetation (SAV) in the eastern project area (2007 CPRA Monitoring Report).

Constructed Feature(s)

Two navigable sheet pile plugs with boat bays were installed in the Cameron-Creole Watershed lakeshore borrow canal, one each south of Grand and Mangrove Bayous to isolate management areas and improve hydrologic control. The plug south of Mangrove Bayou, set at 1.5 feet NGVD, will affect 2,500 acres in the northern project area. The plug south of Grand Bayou, set at 1.0 feet NGVD, will allow separate operation of the Grand Bayou and Lambert Bayou structures, affecting 8,000 acres of brackish marsh in the southern project area (2012/2013 CPRA O&M Inspection Report).

Construction Date / 20-Year Life Date

January 1997 / January 2017

Maintenance Events

Repair/ replacement of boat guides, one railing, and placement of added rip rap on structure wing walls after Hurricanes Rita and Ike.

2005 – Removal and replacement of existing handrails with hot dipped galvanized handrails, and installation of a boat guide in the existing boat bay; completed in May 2006 at a cost of \$77,910.57.

2009 – Installation of a boat guide in the existing boat bay for Mangrove and Grand Bayou and placement of 513 tons of 30# Class rock at Grand Bayou and 366 tons of 30# Class rock at Mangrove Bayou; completed in March 2009 at a cost of \$212,892 (2012/2013 CPRA O&M Inspection Report).

2012 – Replacement of boat guides at Grand Bayou Plug at a cost of \$6,267 (2012/2013 CPRA O&M Inspection Report).

2014 – Railing replacement - \$4,450.

Current Fully Funded Cost

\$1,258,101

Current O&M Budget Balance

~ \$101,000 [\$156,737 - \$56,000 (Actual CPRA O&M FY 2014 & FY 2015 expenditures to January 2015 and estimated to October 2015)]

\$85,000 estimated balance by January 2017 (Note: a 3-year O&M funding request may be made at the September 2015 Technical Committee meeting.)

20-Year Life Decision Matrix

Matrix Box 1: Project Reaches Year 15

Project reaches Year 20 in January 2017.

Matrix Box 2: Does the project team think there is sufficient justification for a project life extension?

Yes. We propose to extend the project for another 20 years with minor maintenance (signs, railings, boat guides) and transfer the CS-17 features to the NRCS-CPRA sponsored Cameron-Creole Maintenance project (CS-04a), within the existing O&M budget.

Project Benefits Through Year 20 Based on Monitoring Data: 865 Net Acres (Note see Box 3 - Monitoring data cannot corroborate benefits)

Cost Effectiveness: \$1,326 per net acre. The project benefits extend over a 20,392-acre project area in the western portion of the Cameron–Creole Watershed.

Note: Project effectiveness estimates for projects approved 2004-2008: \$85,651

Note: Project effectiveness estimates for projects approved 2009-2014: \$89,192

Matrix Box 3: Does monitoring data indicate that the project is performing well?

Inconclusive. Difficult to determine because CS-17 is inside the Cameron-Creole Watershed Project control structures and benefits overlap.

The response of emergent and submerged aquatic vegetation, duration of flooding, and salinity to hydrologic alterations in the Calcasieu/Sabine Basin were evaluated at the Cameron Creole Plugs project area and reported in 2003 and 2007.

The 2003 CPRA monitoring report concluded that, “. . . It was not possible to differentiate

ecological responses due to the project plugs and the pre-existing water control structures, and it may not be possible to duplicate conditions for measurement of water level, salinity, and water flow because preconstruction samples were taken during the worst drought in 20 years. Therefore, we recommend that monitoring for this project as written in the monitoring plan be discontinued and future monitoring of the Cameron-Creole Watershed and the Calcasieu Basin be conducted through CRMS-*Wetlands* monitoring approach. . . .(2003 CPRA CS-17 Monitoring Report).

The 2007 CPRA O&M and Monitoring report concluded that, “. . . It was not possible to differentiate ecological responses due to the project plugs and the preexisting water control structures. Due to these complications, we have been unable to document significant ecological responses to the project design. The reference areas for vegetation and SAV have been deemed inappropriate for the project areas because they are not independent of any possible effects of the plugs on vegetation and hydrology. . . .” (2007 CPRA CS-17 Monitoring Report)

Matrix Box 4: Does the project require maintenance beyond 20 years for benefits to continue?

Yes. During the 18-year project life approximately \$364,000 has been expended for O&M, averaging \$20,222 per year. It is anticipated that future O&M could be at least \$50,000/year (including replacement of both plugs), but we propose future O&M to be limited to \$4,250/year (\$85,000 over 20 years) for minor maintenance (boater safety items consisting of signs, boat guides, and railing repair/replacement), within the existing budget.

Matrix Box 5. Is landowner, NGO, or another entity willing to accept project transfer?

The project is on Cameron Prairie National Wildlife Refuge and Miami Corporation property. Neither the refuge, nor Miami Corporation, is willing at this time to accept project transfer.

Matrix Box C-1. C-1. Project Team evaluates all four Project Life options, considering:

- a) cost/benefit of 20 year project;*
- b) preliminary assessment of cost/benefit of project extension;*
- c) preliminary assessment of risk, liability, and impacts of extending project, abandoning features in place, and of removing features;*
- d) preliminary cost estimate of removing features, etc.*

Do project sponsors wish to pursue project extension?

Yes. For project benefits to continue, we propose extension for minor maintenance within the existing fully-funded O&M budget and transfer to the NRCS-CPRA CS-04a project. Transfer to CS-04a would allow future O&M to be more efficient. See table below for evaluation results.



Cameron-Creole Plugs (CS-17)

Project Status

Approved Date: 1991 **Project Area:** 20,392 acres
Approved Funds: \$1.14 M **Total Est. Cost:** \$1.25 M
Net Benefit After 20 Years: 865 acres
Status: Completed January 1997
Project Type: Hydrologic Restoration
PPL #: 1

Location

This project is located approximately 6 miles northeast of Cameron in Cameron Parish, Louisiana. It encompasses 14,471 acres of intermediate-to-brackish marsh dominated by marshhay cordgrass (*Spartina patens*).

Problems

High rates of marsh loss have resulted from saltwater intrusion from the Gulf of Mexico via the Calcasieu Ship Channel and Calcasieu Lake.

Excessive salt water pooling from hydrologic alterations in the southern end of the project area has caused vegetation death.

Shoreline erosion from wind-driven wave action threatens fragile, broken marsh in the eastern project area.

Restoration Strategy

In 1989, a levee and five water control structures were constructed along the east shore of Calcasieu Lake as part of the Cameron-Creole Watershed Management Project. In the current project (CS-17), two plugs were installed in the Lakeshore Borrow Canal to moderate water circulation and flow, as well as reduce the duration of inundation in the southern project area.

Project effectiveness will be determined by monitoring salinity, water flow, water level, and vegetation in the project area and reference area.

Progress to Date

Based on emergent vegetation surveys, the total percent of vegetative cover was highest in the reference area at 96% in 1996, increasing to 98% in 1997 and to 99% in 2000. Cover in the northern project area increased from 95% in 1996 to 96% in 1997 before decreasing slightly to 92% in 2000. The southern project area experienced a slight decrease in cover from 83% in 1996 to 78% in 1997, followed by a slight increase to 81% in 2000.



The northeastern portion of the Cameron Creole watershed is bordered by Louisiana Highway 27.

The frequency of occurrence of submerged aquatic vegetation decreased dramatically in both the project and reference areas. In the project area, it declined from 69% in 1996 to 18% in 2000; in the reference area, the frequency decline was from 86% to 23% across the same period. There was a change in species composition over all three sampling years (1996, 1997, and 2000) caused by drought-induced changes in water level and salinity. Widgeongrass (*Ruppia maritima*) dominated in 1996 and 2000 when lowered water level increased salinities; however, watercely (*Vallisneria americana*) dominated in 1997 when water levels were higher and salinities remained low.

The project and reference areas are within the boundaries of the Cameron-Creole Watershed Management Project, which was funded by the Natural Resources Conservation Service's Small Watershed Program.

This project is on Priority Project List 1.

For more project information, please contact:



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



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

Cameron Creole Plugs (CS-17)

	Plug
	Project Boundary



USGS
science for a changing world



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

Background Imagery:
Thematic Mapper Satellite Imagery, 2000

Map Date: August 1, 2002
Map ID: 2002-11-645
Data accurate as of: August 1, 2002

Projects requesting approval for no-cost extension

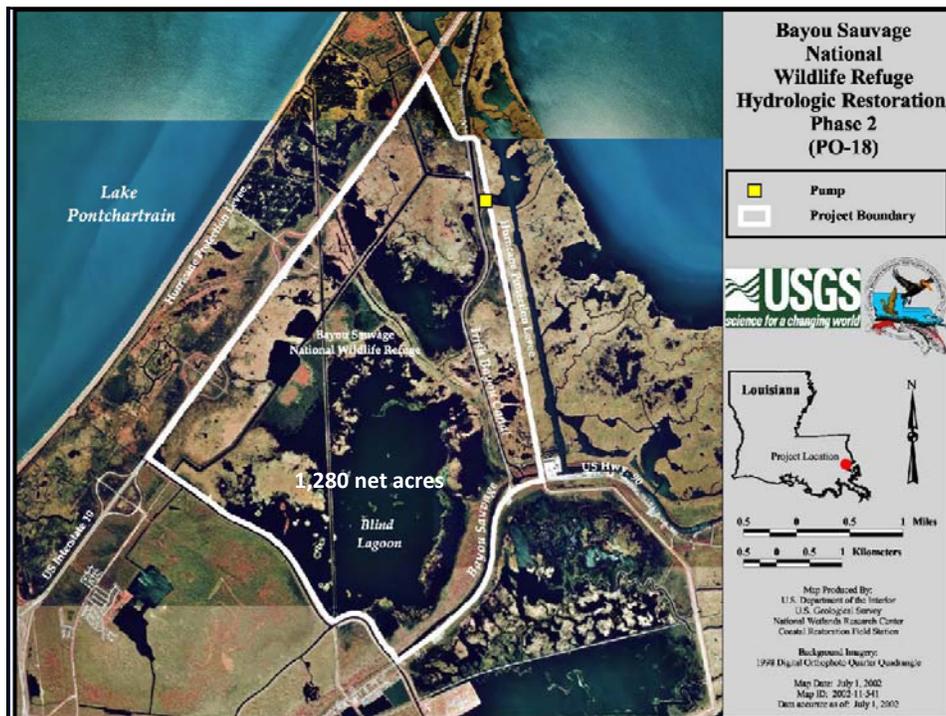
Bayou Sauvage National Wildlife Refuge Hydrologic Restoration Phase II (PO-18) 20-Year Life Report

Goal

- Regulate water levels; 0.00 to -0.5 feet marsh level (ML) (Spring-Sum); 0.00 feet to + 0.5 feet ML (Fall-Winter).

Features

- 1) 2, 36-inch-diameter pumps & discharge pipes.
- 1,280 net acres fresh marsh protected
- Total cost = \$1,692,552
- O&M balance = \$174,422 (2014)
- Constructed - May 1997; 20-Year Life - May 2017



Bayou Sauvage NWR Hydrologic Restoration (PO-18)



Bayou Sauvage Phase I 20-Year Life Project Close-Out Steps

- 2. Justification for Project Life Extension

The pumps, when operational, have been successful in managing Bayou Sauvage water levels.

No operation for 6 years post-Katrina due to Corps N. O. East Levee Enlargement. Levee transferred to CPRA in 7-2014; pumps not transferred to FWS. The FWS requests a 6-year project extension to May 2023 due to in-operation.

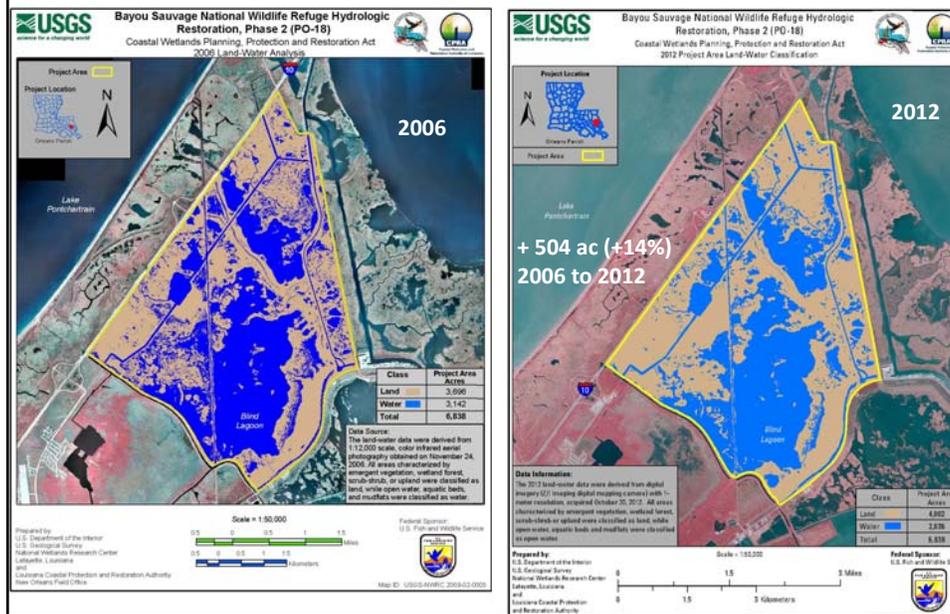
- 3. Does monitoring data indicate project is performing?

Monitoring indicated project was somewhat successful in maintaining target water levels.

Land/water analyses = land increase of 198 acres (+ 6%) from 1996 to 2006, & 504 acres (+ 14%) from 1996 to 2012.

Refuge staff monitored water levels & other parameters after the State ceased monitoring. No CRMS stations are in the project area.

B. Sauvage PO-18 2006-2012 Land Water Analysis



Bayou Sauvage Phase I 20-Year Life Project Close-Out Steps

- **4. Does Project require maintenance?**
Yes. Preventative pump maintenance.
(Currently ~ \$22,000/year)

- **5. Is Landowner, NGO or another willing to accept transfer?**

The FWS prefers for CWPPRA to continue O&M within the current O&M budget until May 2023. At that time, the FWS will reconsider whether Federal refuge funds will be available to continue O&M & be a refuge feature.

Bayou Sauvage Phase II Operating Period

Time Period	Operating	Not Operating	Comments
May 1997 to 8-2005	8 years, 4 months		H. Katrina (8-2005) inundated & damaged pump station
8-2005 to 2007		1 year, 4 months	Post Katrina FWS repairs.
2007 to 9-2010	2 years, 9 mos.		FWS repaired pumps; pumps operating. Last recorded operation – Jan. 2010
10-2010 to 12-2011		1 year, 2 months	Corps removed & replaced pumps for N. O. East levee Enlargement
8-2011 to 4-2015		under Corps, not FWS, control; 3 years, 4 months	Non-operating – Corps transferred the levee to CPRA, but has not transferred pumps to FWS.
Number of Years Operating/Not Operating	Operating 11 years of 18-year life	Not operating <u>5 years 10 months</u> of 18-year life	

Bayou Sauvage Phase II (PO-18) 20-year Life

	Option 1 Project Extension (Year 21-Year 26)	Option 2 Project Closeout Without Removal	Option 3 Project Transfer (Note: Possibly Bayou Sauvage NWR)	Option 4 Project Closeout With Removal
Cost to CWPPRA	\$174,422 (2014 O&M balance)	\$25,000 (w/n existing budget)	\$25,000 (w/n existing budget)	\$150,000 to \$200,000
Benefits (net acres)	1,280 acres	1,280 acres	1,280 acres	0 acres
Cost Effectiveness (\$/acre)	\$136/acre	\$20/acre	\$20/acre	Negative CE
"Pros"	<ul style="list-style-type: none"> Benefits continue No Navigation hazards; low risk 	<ul style="list-style-type: none"> Benefits at reduced rate w possible future pump failure w/o FWS O&M No added CWPPRA cost 	<ul style="list-style-type: none"> Relieves CWPPRA of maintenance responsibility No added CWPPRA cost 	<ul style="list-style-type: none"> Relieves CWPPRA of responsibility.
"Cons"	<ul style="list-style-type: none"> CWPPRA retains responsibility for 6 years after 2017 Landrights agreement with refuge needs to be extended 	<ul style="list-style-type: none"> CWPPRA retains current responsibility Benefits may be reduced if FWS cannot O&M 	<ul style="list-style-type: none"> Benefits unknown CWPPRA retains some level of responsibility 	<ul style="list-style-type: none"> Total Expenditure of \$1.84 M to \$1.89 M w/o benefits beyond Year 20 Loss rates may resume & wetlands lost due to high water levels if gravity control cannot manage rising sea levels

PO-18 O&M History & 20-Year Life Recommendation

- **\$242,817 in O&M required during 11 years of operation (~\$22,000/year).**
- **FWS funded post-Katrina repairs. Corps replaced pump stations in 2011.**

Project Extension Recommendation

- **That the project be extended within budget 6 years to 2023 due to in-operation post-Katrina & during Corps N. O. East Levee enlargement.**

20-YEAR LIFE INFORMATION PACKAGE

April 16, 2015

Project Name

Bayou Sauvage National Wildlife Refuge Hydrologic Restoration Phase II (PO-18)

Project Sponsors

U. S. Fish and Wildlife Service (FWS) and Louisiana Coastal Protection and Restoration Authority (CPRA)

Project Location

Pontchartrain Basin, Orleans Parish, New Orleans East, Bayou Sauvage NWR, Blind Lagoon Unit, between Hwy 90 and Lake Pontchartrain, southeast Lake Pontchartrain (see map)

Primary Project Goal

Regulate water levels in the Bayou Sauvage NWR Blind Lagoon impoundment by pumping excess water to achieve Spring-Summer levels of 0.00 feet to -0.5 feet below marsh level and Fall-Winter water levels of 0.00 feet to + 0.5 feet above marsh elevation. The water level control schedule is intended to preserve black willow habitat to maintain wading bird rookeries.

Constructed Feature(s)

The Corps replaced the two existing, 33-inch-diameter pumps, with 2, 36-inch-diameter pumps and discharge pipes in December 2011 as a result of the New Orleans East Levee Enlargement project. The larger pumps were needed to evacuate water over the larger levees. The pump platform is elevated with a roof and access walkway.

Construction Date / 20-Year Life Date

May 1997 / May 2017

Maintenance Events

Minor maintenance had been performed including roof repair, pump lubrication, and battery charging and replacement until 2005 when Hurricane Katrina inundated SE Louisiana and overtopped the pumping station. The Katrina damage was repaired with post-Katrina FWS funds. The Corps replaced the pumping station with larger 36-inch-diameter pumps and discharge pipes in 2011 as a result of the New Orleans East Levee Enlargement project.

Current Fully Funded Cost

\$1,692,552

Current Monitoring and O&M Budget Balance

O&M balance = \$174,422 (to June 2014); Monitoring Balance = \$65,255; total balance = \$239,677 (to June 2014)

O&M Expenditures = \$242,817/11 years of operation (1997-2010) = \$22,074/year (Major maintenance was funded by FWS in 2009 and replacement funded by the Corps in 2011.)

20-Year Life Decision Matrix

Matrix Box 1: Project Reaches Year 15

Project reaches Year 20 in May 2017.

Matrix Box 2: Does the project team think there is sufficient justification for a project life extension?

Decision: Yes. When the pumps have been operational, they have been successful in managing water levels within the Bayou Sauvage Blind Lagoon management unit.

The pumps were not operated for 6 years post-Katrina (2005 to 2011) due to Katrina damage and replacement needed because of construction of the New Orleans East Levee Enlargement Corps project. The Corps transferred the New Orleans East Levee to the State CPRA in July 2014, but the FWS has not been transferred operational control of the pump station. Upon transfer, the refuge will assume daily operations and maintenance; ownership will continue to reside with the CWPPRA program. The FWS requests a 6-year project extension from May 2017 to May 2023 due to the in-operation caused by H. Katrina and post Katrina levee enlargement (Table 1). Once operational, FWS will share O&M data if and when it is collected for refuge management purposes.

The remaining O&M budget balance is \$174,422 (as of 6-2014). O&M expenditures for 11-year operations equal \$242,817, or \$22,074 per year.

Table 1: Bayou Sauvage National Wildlife Refuge Hydrologic Restoration Phase II Operations

Time Period	Operating	Not Operating	Comments
May 1997 to Aug 2005	8 years, 4 months		Katrina – 8-2005 inundated and damaged pump station
Aug 2005 to 2007		1 year, 4 months	Post Katrina FWS repairs.
2007- Sept 2010	2 years, 9 mos.		FWS repaired pumps; pumps operating. Last recorded operation – Jan. 2010.
Oct 2010 to Dec2011		1 year, 2 months	Removal/replacement by Corps for N. O. East Levee enlargement
Dec 2011 to Apr 2015 (projected Corps transfer)		under Corps, not FWS, control; 3 years, 4 months	Non-operating because the pump station has not been transferred by the Corps to FWS.
Number of Years Operating/Not Operating	Operating ~ 11 years of 18-year life	Not operating ~ <u>5 years 10 months</u> of 18-year life	

Project Benefits Through Year 20 Based on WVA: 1,280 Net Acres

Cost Effectiveness: \$1,322 net acre.

Note: Project effectiveness estimates for projects approved 2004-2008: \$85,651
Note: Project effectiveness estimates for projects approved 2009-2014: \$89,192

Matrix Box 3: Does monitoring data indicate that the project is performing well?

Decision: Inconclusive. The Monitoring Data has had mixed results regarding the regulation of water levels within the target elevations. Weekly water levels were intensely monitored from 1997-1999, but data were collected intermittently thereafter. Water level and operation data has been collected by FWS from 2009 to 2011 when the pump stations were replaced by the Corps. A vegetation survey in 1997 indicated dry conditions conducive to marsh plant growth. These conditions, however, were probably the result of drought rather than project efforts. Water levels were naturally low and pumps were only used once in the spring-summer period. Target water levels were achieved approximately 32% of the time in the spring-summer period and 48% in the fall/winter. Water levels were below the target range much of the time because of the low water levels associated with the drought (CPRA PO-18 Monitoring Report, 1998).

Mean level of marsh inundation was higher in the reference area than in the project area for both the Spring/Summer and Fall/Winter time periods. For both areas, mean water level during the Fall/Winter was higher than during the Spring/Summer, although, for the reference area, the difference in water level between these two periods was minimal (0.02 feet [0.006 m]). In the project area, mean inundation was within the target range for the Fall/Winter, but was slightly above the target range for the Spring/Summer (CPRA PO-18 Monitoring Report, 1998).

Vegetation surveys in 1997, 2001 and 2012 indicated the loss of black willow (*Salix nigra*) habitat within the sample plots. Total percent cover of vegetation declined sharply in 2001 following a year of intense drought, but rebounded by 2012. Mean cover of the dominant species, *Spartina patens*, was nearly the same in 1997 and 2012, however a concurrent decline in *Salix nigra* and increase in *Baccharis halimifolia* were observed during this time period. Land/water analyses showed an increase in land within the project area of 198 acres (+ 6%) from 1996 to 2006, and 504 acres (+ 14%) from 1996 to 2012 (USGS Land Water Analysis).

The 1998 monitoring report indicates the project was moderately successful at reducing and maintaining water levels at target levels. Following cessation of project specific monitoring by the State, Bayou Sauvage Refuge staff continued to monitor water levels and select other parameters on an as needed basis for refuge management purposes. There are no CRMS stations in the project area, but CRMS 3626 is just east of the project area.

Matrix Box 4: Does the project require maintenance beyond 20 years for benefits to continue?

Decision: Yes. The PO-18 pumps are new; replaced by the Corps in 2011. Preventative maintenance is required with some medium maintenance possibly required on the pump engines and peripheral features in the future with age.

Matrix Box 5. Is landowner, NGO, or another entity willing to accept project transfer?

The project is on the U. S. Fish and Wildlife Service-managed Bayou Sauvage National Wildlife Refuge. The refuge agrees to continue operation and maintenance under the CWPPRA program

until May 2023 (6 years after the May 2017 20-year life date). After that time, the refuge would not be willing, at this time, to accept project transfer. At the end of the 6-year extension, the FWS will reconsider whether Federal refuge funds will be available to continue O&M.

Matrix Box C-1. C-1. Project Team evaluates all four Project Life options, considering:

- a) cost/benefit of 20 year project;*
- b) preliminary assessment of cost/benefit of project extension;*
- c) preliminary assessment of risk, liability, and impacts of extending project, abandoning features in place, and of removing features;*
- d) preliminary cost estimate of removing features, etc.*

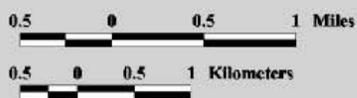
Do project sponsors wish to pursue project extension?

Decision: Yes. The FWS requests a 6-year project extension from May 2017 to May 2023, using the existing \$174,422 O&M budget balance (2014 balance), due to the in-operation caused by H. Katrina and post Katrina levee enlargement (Table 1). See Table 2 for 20-year life evaluation results. At an average of \$22,000 annual operations, the project could operate for 8 years if no moderate or large maintenance is needed on the new 2011 pumps.



**Bayou Sauvage
National
Wildlife Refuge
Hydrologic Restoration,
Phase 2
(PO-18)**

Pump
 Project Boundary



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

Background Imagery:
 1998 Digital Orthophoto Quarter Quadrangle

Map Date: July 1, 2002
 Map ID: 2002-11-541
 Data accurate as of: July 1, 2002



Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2 (PO-18)

Project Status

Approved Date: 1992 **Project Area:** 5,475 acres
Approved Funds: \$1.69 M **Total Est. Cost:** \$1.69 M
Net Benefit After 20 Years: 1,280 acres
Status: Completed May 1997
Project Type: Hydrologic Restoration
PPL #: 2

Location

The project is located in Orleans Parish, approximately 10 miles north of Chalmette, Louisiana. It is situated between Lake Pontchartrain and the Gulf Intracoastal Waterway. The project encompasses approximately 5,475 acres of fresh marsh and open water.

Problems

The construction of U.S. Interstate 10, a railroad line, and hurricane protection levees left the historically brackish marsh hydrologically isolated. In addition to this isolation, poor drainage subjected the area to periods of prolonged flooding, resulting in land loss.

Restoration Strategy

Pumps were installed in the project area to lower water levels during the growing season so that vegetative growth would be promoted.

Progress to Date

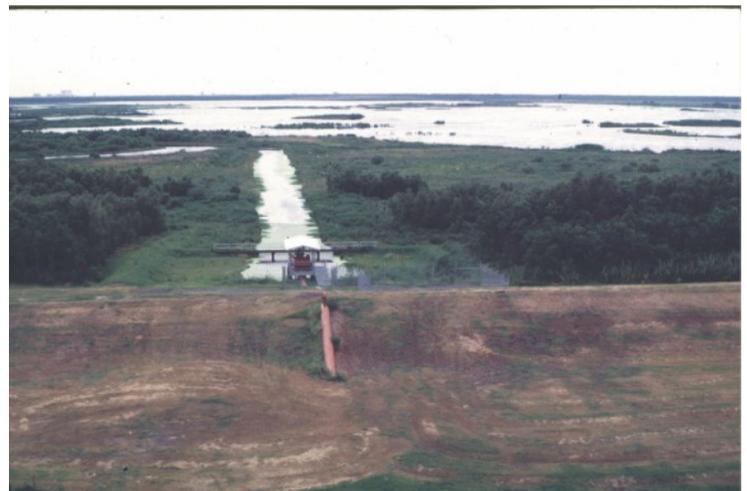
Initial problems with the pumps were corrected, and the project was accepted at a final inspection conducted May 28, 1997. Project effectiveness was evaluated by monitoring water levels and vegetative growth in both the project and reference areas over spring-summer and fall-winter periods.

A vegetation survey in 1997 indicated dry conditions conducive to marsh plant growth. These conditions, however, were probably the result of drought rather than project efforts. Water levels were naturally low and pumps were only used once in the spring-summer period.

Target water levels were achieved approximately 32% of the time in the spring-summer period and 48% in the fall-winter. Water levels were below the target range much of the time because of the low water levels associated with the drought. This project is on Priority Project List 2.



Aerial view of the Bayou Sauvage project's northwestern area.



A Bayou Sauvage pump station, facing west into the management area.

For more project information, please contact:



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

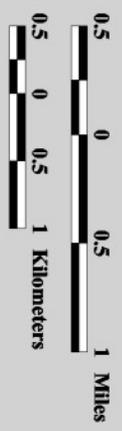


Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736



**Bayou Sauvage
National
Wildlife Refuge**
**Hydrologic Restoration,
Phase 2
(PO-18)**

 Pump
 Project Boundary



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

Background Imagery:
 1998 Digital Orthophoto Quarter Quadrangle
 Map Date: July 1, 2002
 Map ID: 2002-11-541
 Data accurate as of: July 1, 2002

**Projects requesting approval for project closeout
pending final O&M cost increases**

TV-09 Boston Canal Shore Protection Project

CWPPRA Technical Committee Meeting

April 16, 2015

CWPPRA

20YL Path Forward Report

Project: Boston Canal/Vermilion Bay Bank Protection (TV-09)

Federal Sponsor: NRCS

20YL Date: November 2015

Project Location: Vermilion Parish

Project Features:

- 1,405 LF of Rock Riprap Dikes
- 13.25 Miles of Vegetative Shoreline Plantings

Boston Canal and Vermilion Bay Shoreline Change 1998-2013

Legend

1998 shoreline	2013 shoreline	98-13 transects Change in (ft)
—	—	+2.0
—	—	+1.0-1.9
—	—	0.0-0.9
—	—	-0.9-0.0
—	—	-1.0-1.9
—	—	-2.0

CWPPRA**20YL Path Forward Report****Maintenance Events:**

- Removal of Sediment Fencing behind Dikes [no cost]

Funds Remaining: \$115,211

20YL Recommendation: Project Close Out with Project Left in Good Repair and Fit Condition

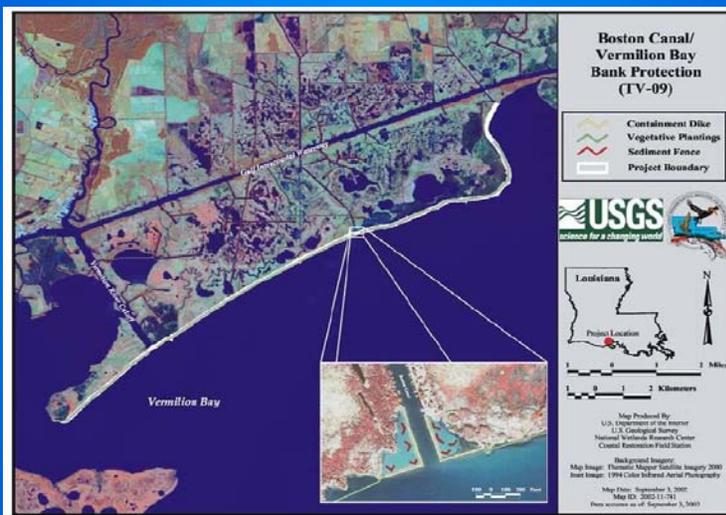
To end CWPPRA involvement with the project in good repair and in a fit condition, NRCS and CPRA propose to tie-in the east and west wingwalls of the current dikes to the existing shoreline at the mouth of the Boston Canal.



TV-09 Recent Actions

- September 2014 -- Technical Committee recommended against additional funding for proposed work, partially based on comments regarding effectiveness of project over its life.
- October 2014 – Additional information regarding project benefits/effectiveness presented to Task Force. Task Force directed the funding request back to the Technical Committee for a recommendation to be presented to Task Force at the May 2015 Meeting

Plan View of TV-09 Boston Canal



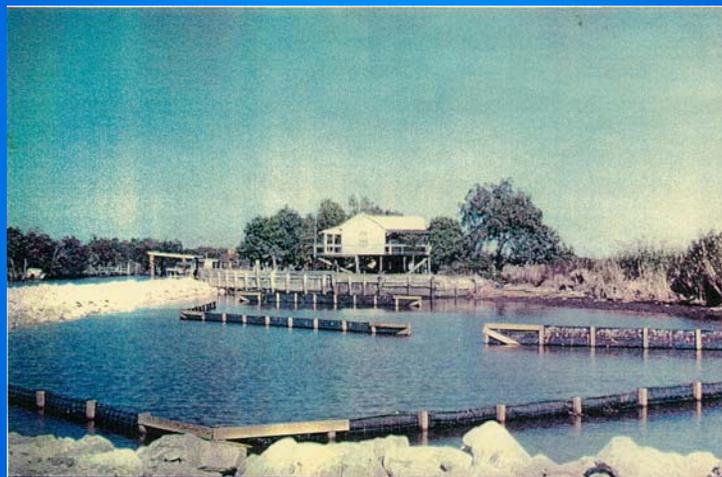
Historical Information

- The Boston Canal/Vermilion Bay Shore Restoration Project consists of approximately 466 acres of brackish marsh and open water. It is located in Vermilion Parish, approximately 12 miles south of Delcambre, LA on the northern bank of Vermilion Bay and at the mouth of Boston Canal. It is bounded on the south by Vermilion Bay, on the west by Mud Point, and on the east by Oaks Canal.
- The purpose of the project is to maintain the integrity of approximately 466 acres of wetlands in the vicinity of Boston Canal by stabilizing the northern bank of the Vermilion Bay shoreline and to prevent further regression of the banks at the mouth of Boston Canal.
- The project was funded on the CWPPRA PPL 2 list.
- Initial construction was completed in November, 1995 at a construction cost of \$1,012,691.

View of Rock Dike Looking East



From East Dike Looking North



Performance of TV-09 Dikes (with no Additional Work over the Project Life)



West of Dike: 1.1 Ac created

Shoreline Protected: 500 ft X 5.2 ft/yr X 20 years / 43,560 = 1.2 acres



East of Dike: 1.1 Ac created

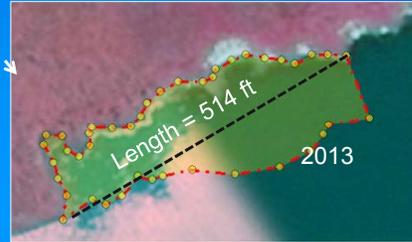
Shoreline Protected: 450 ft X 6.3 ft/yr X 20 years / 43,560 = 1.3 acres

Total Acres = 4.7 acres

Proposed Closeout Event



Anticipated Benefits of Proposed Closeout Work (East)



Loss from 1998 to 2013 = 1.1 acre over an average (1998/2013) shoreline length of 506 ft. That yields a shoreline erosion rate of 6.3 ft/year.

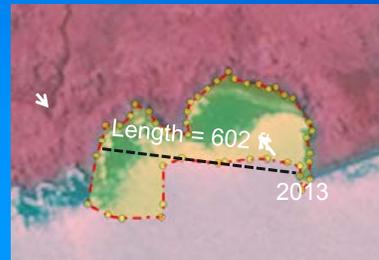
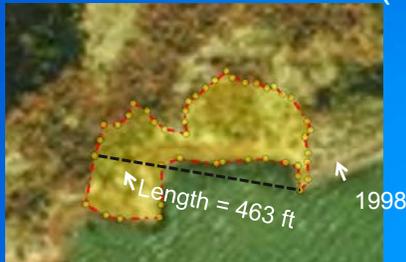
Apply 6.3 ft /year to shoreline length of 506 ft to be protected for 20 years. That would yield 1.5 acres protected



Through a combination of beneficial use of access channel material and accretion, the 0.6 acres between dike and shoreline would become marsh.

1.5 ac protected + 0.6 ac created = 2.1 Ac net for East side

Anticipated Benefits of Proposed Closeout Work (West)



Loss from 1998 to 2013 = .95 acre over an average (1998/2013) shoreline length of 533 ft. That yields a shoreline erosion rate of 5.2 ft/year.

Apply 5.2 ft /year to shoreline length of 533 ft to be protected for 20 years. That would yield 1.3 acres protected.



Through a combination of beneficial use of access channel material and accretion, the 0.8 acres between dike and shoreline would become marsh.

1.3 ac protected + 0.8 ac created = 2.1 Ac net for West side

Cost Effectiveness of Proposed Closeout Work

Based on performance of original TV-09 rock dikes, it is anticipated that the proposed additional rock would provide benefits for at least 20 years.

Treat TV-09 "Closeout" as a Stand-alone 20-Year Project:

	Acres Protected	Acres Created	Total Acres
East	1.5	0.6	2.1
West	1.3	0.8	2.1
Total	2.8	1.4	4.2

Cost Effectiveness : $\$746,102 / 4.2 \text{ Acres} = \$177,643$

Based on performance of original TV-09 rock dikes, it is anticipated that the original dikes would provide benefits for an additional 20 years.

Consider TV-09 Dikes + Proposed Closeout Work as a 40-year project

	Acres Protected	Acres Created	Total Acres
TV-09 Years 1-20	2.5	2.2	4.7
TV-09 Years 21-40	2.5	0	2.1
Proposed TV-09 Closeout Years 21-40	2.8	1.4	4.2
Total	7.8	3.6	11.4

Total Cost of Dikes = Total FFC – Vegetative Contract + Proposed Closeout Cost

$\$1,043,748 - \$131,642 + \$630,891 = \$1,542,997$

Cost Effectiveness : $\$1,542,997 / 11.4 \text{ Acres} = \$135,351$

Proposed Closeout Details for FY 2015/16

- Perform design surveys and preparation of plans & specifications.
- Extend rock dike each side of Boston Canal, approximately 4,208 tons.
- TOTAL ESTIMATED O&M COST for FY 2015/16: \$746,102

TV-09 Closeout Request

- FY 15/16 Projected Budget: \$ 746,102
- FINAL BUDGET ESTIMATE: \$ 746,102
- REMAINING FUNDS: \$ 115,211
- ADDN. FUNDS REQUESTED: \$ 630,891



Boston Canal/Vermilion Bay Bank Protection (TV-09)

Project Status

Approved Date: 1992 **Project Area:** 466 acres
Approved Funds: \$1.04 M **Total Est. Cost:** \$1.04 M
Net Benefit After 20 Years: 378 acres
Status: Completed Nov. 1995
Project Type: Shoreline Protection and
 Vegetative Planting

PPL #: 2

Location

The project encompasses 466 acres of brackish marsh along approximately 16 miles of Vermilion Bay's northern shoreline adjacent to Boston Canal. Running from the Oaks Canal to Mud Point, the project is located roughly 6 miles southeast of Intracoastal City, Louisiana, in Vermilion Parish.

Problems

Construction of the Gulf Intracoastal Waterway, Boston Canal, and oilfield canals has greatly increased tidal exchange between Vermilion Bay and the adjacent marshlands to the north, particularly near their confluence with Vermilion Bay. This tidal exchange, combined with the effects of wave action from the bay and boat wake from traffic on the canal, has contributed to significant shoreline erosion along the Vermilion Bay shoreline. This same set of problems has also caused shoreline erosion along Boston Canal, particularly near its confluence with Vermilion Bay.

Restoration Strategy

Rock dikes configured as sediment traps were constructed along the shoreline at the mouth of Boston Canal to promote sediment deposition and protect the shoreline and adjacent wetlands from continued wave-induced erosion.

Vegetation was planted along 14 miles of the Vermilion Bay shoreline to act as a wave buffer and decrease shoreline erosion rates.



Planted smooth cordgrass (*Spartina alterniflora*) protecting the Vermilion Bay shoreline.

Progress to Date

Following the construction of the rock dikes, as much as 4.5 feet of sediment has vertically accreted in the lee, or wind-sheltered regions, of the structures. The dikes and vegetative plantings have increased vegetation cover, resulting in 57 acres of land growth.

The shoreline has been stabilized at the mouth of Boston Canal.

The survivorship and vegetation cover percentage along the shoreline were more pronounced in areas where native vegetation did not exist. Survivorship and percent cover were least pronounced when marshhay cordgrass (*Spartina patens*) was planted in established stands of roseau cane (*Phragmites australis*). Overall survivorship of planted smooth cordgrass (*Spartina alterniflora*) was over 90% after 12 months. Current coverage is nearing 100%. The 2005 OM&M Report concluded the sediment build-up behind the dike on the east and west sides is continuing and vegetation has taken over the exposed mud flats. Elevation data show an increase in sedimentation behind the rock breakwater. This project is on Priority Project List 2.

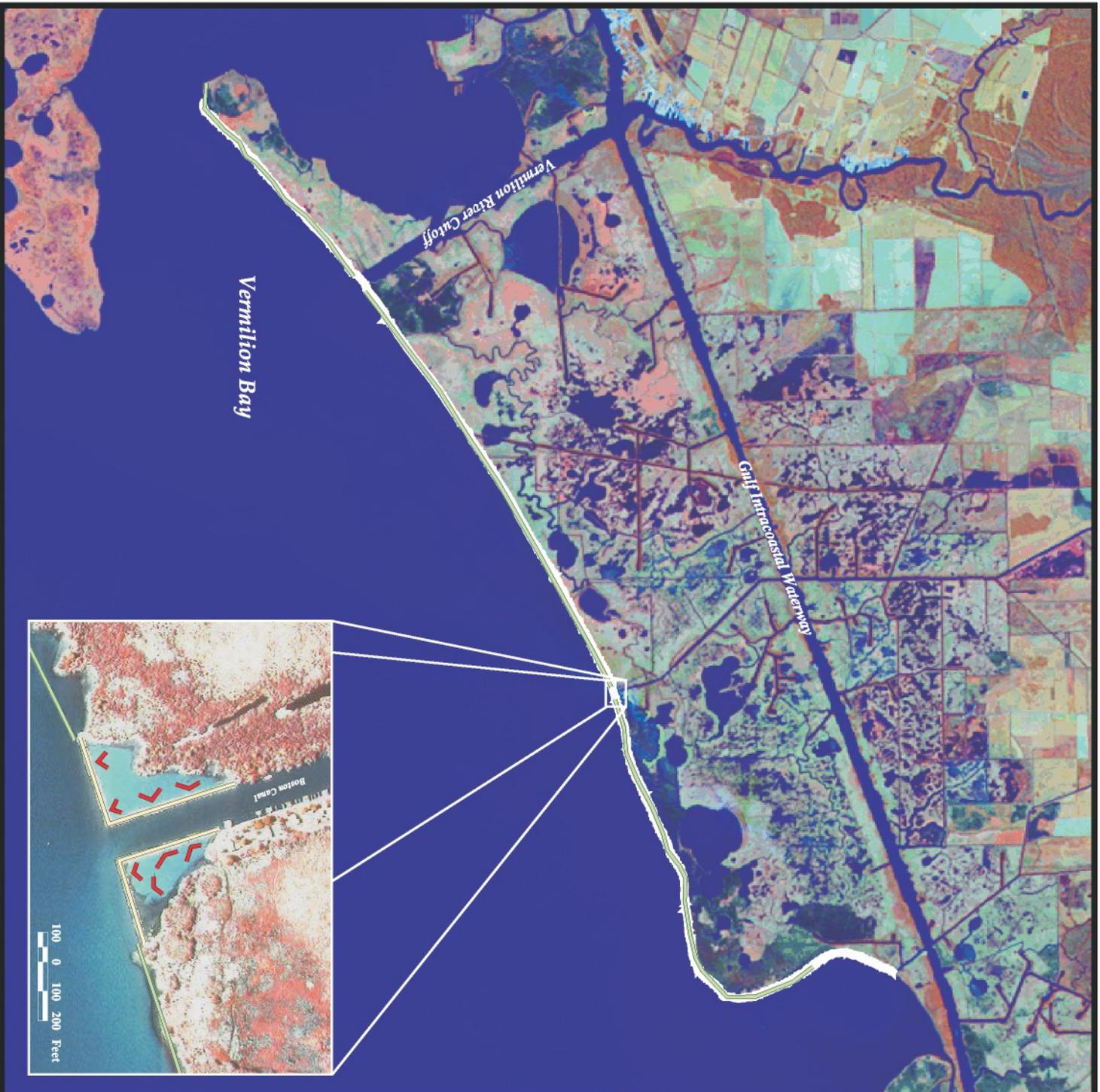
For more project information, please contact:



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



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



Boston Canal/ Vermilion Bay Bank Protection (TV-09)

-  Containment Dike
-  Vegetative Plantings
-  Sediment Fence
-  Project Boundary

USGS
Science for a changing world



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

Background Imagery:

Map Image: Thematic Mapper Satellite Imagery 2000
Inset Image: 1994 Color Infrared Aerial Photography

Map Date: September 3, 2002

Map ID: 2002-11-741

Data accurate as of: September 3, 2002

CWPPRA

20YL Path Forward Report

Project: East Mud Lake Marsh Management (CS-20)

Federal Sponsor: NRCS

20YL Date: June 2016

Project Location: Cal/Sab Basin
Cameron Parish, approximately 3 miles north of Holly Beach, Louisiana. It encompasses 8,054 acres of open water and brackish marsh.

CWPPRA

20YL Path Forward Report

Project Features: The project area is divided into two units (CTU's) and features consist of shoreline repair, vegetative plantings, earthen plugs, culverts with flapgates, gated culverts, and variable crest culverts. CTU #2 has drawdown capabilities to encourage shallow water areas to revert to emergent vegetation

Maintenance Events:

- 2009 - 700 tons total of stone riprap around structures #4, 6, 7, 8, 9, 9a, and 9b; 950 linear feet of earthen levee repair; Aluminum fabrication and installation of flap gate lifting devices and a stop log channel repair at Structure #4.

Total = \$125,750.49

CWPPRA

20YL Path Forward Report

Maintenance Events:

- 2010 – Replacement of Structure No.4; 3,800 tons of 30# class rock repair/replace at Structure Nos. 1, 3, 4, 5, 6, 7, 8, and 11; Repairs to structure 9a & 9b (gear box, flap gate) and 175 LF of pile cap replacement at structure No.13.

Total = \$1,653,524.00

- 2011 – Replacement of stoplogs stolen from Structure 4.

Total = \$2,600.00

Recommended Maintenance for Closeout:

Repair structures #4 and #13. Replace structure #17 (\$720,851).

Funds Remaining: \$76,865



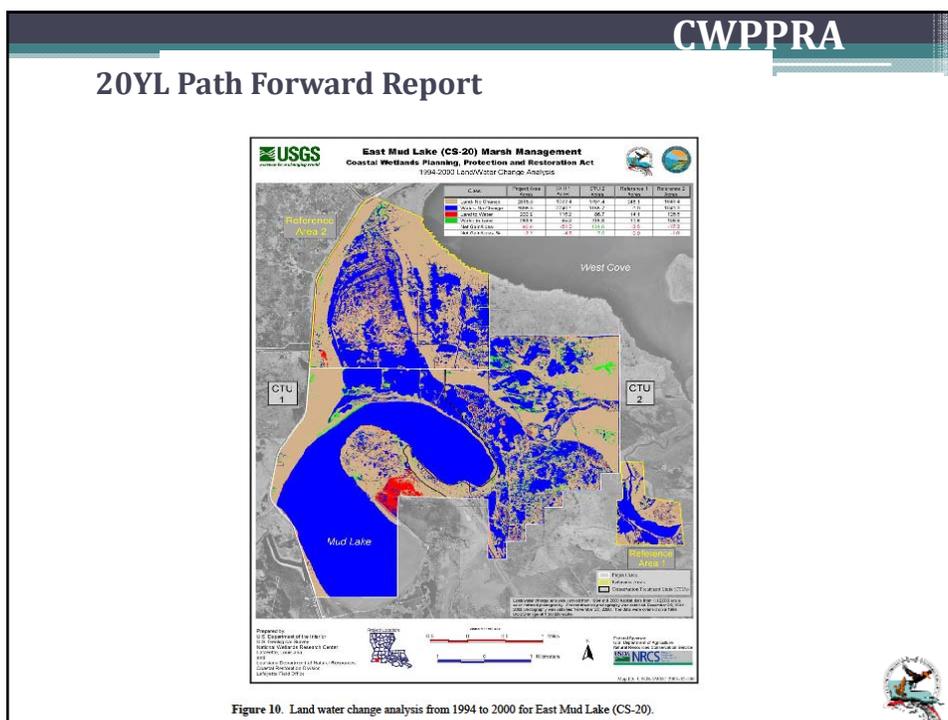
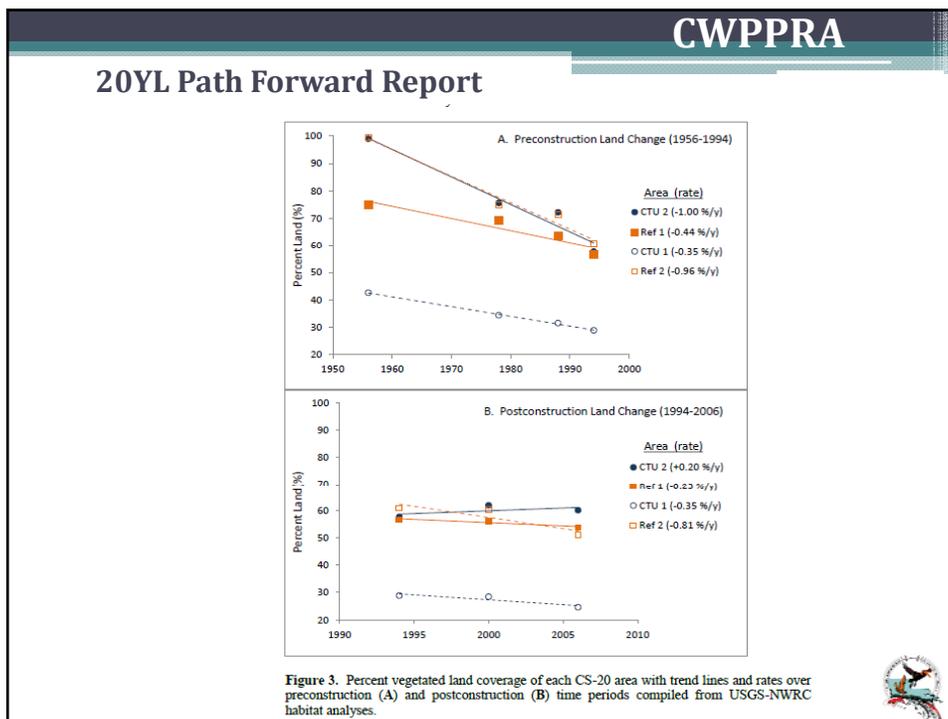
CWPPRA

20YL Path Forward Report

CS-20 Performance

- The CS-20 project has prevented wetland degradation in the project area by reducing vegetative stress, thereby improving the abundance of emergent and submerged vegetation (2013 OM&M Report).
- CS-20 has been effective at decreasing the rate of marsh loss (2013 OM&M Report).
- CTU 2 went from the area losing the most land preconstruction to reversing land-loss as it gained land after the drawdowns in 1996 and 1997. Land water map 1994-2000 (0.70% %/y) (2013 OM&M Report).
- Dominant plant species changed to more salt tolerant plant species.
- The low water levels and more oxygenated soils allow vegetation to expand from shorelines and into broken marsh (2013 OM&M Report).
- CS-20 has been achieving the surface elevation goal as accretion in CTU2 has increased since the beginning of the project and outpaced relative sea-level rise (2013 OM&M Report).





CWPPRA						
20YL Path Forward Report						
Estimated Benefits						
	Preconstr. Land Change %/Year	Postconstr. (2006) Land Change %/Year	Estimated Loss (Acres) Thru 2015	Estimated Net Acres Thru 2015	Tot. Cost Thru 2012	Tot. Cost/Ac
CTU1	-0.35	-0.35	-77	0		
CTU2	-1.00	+0.20	-343	463		
					\$6,035,584	\$13,036



CWPPRA	
20YL Path Forward Report	
Projects	Cost/ Net Acre
PPL18 Average	46,822
PPL19 Average	88,656
PPL20 Average	50,682
PPL21 Average	60,622
PPL22 Average	89,578
PPL23 Average	132,661
PPL24 Average	85,088
OVERALL AVG PPL18-24	78,177
2009 Phase II Approvals Average	120,303
2010 Phase II Approvals Average	140,462
2011 Phase II Approvals Average	206,094
2012 Phase II Approvals Average	70,429
2013 Phase II Approvals Average	67,618
2014 Phase II Approvals Average	54,646
2015 Phase II Approvals Average	62,095
OVERALL AVG PHASE II APPROVALS 2009-2015	103,017
AVERAGE ALL PPL AND PHASE II APPROVALS 2009-2015	87,690

20YL Recommendation: Closeout with repair/replacement of 3 structures (#4, #13, and #17) so the project will be left in good repair and fit condition.

Additional funds requested for closeout: \$643,986





East Mud Lake Marsh Management (CS-20)

Project Status

Approved Date: 1992 **Project Area:** 8,054 acres

Approved Funds: \$5.38 M **Total Est. Cost:** \$5.39 M

Net Benefit After 20 Years: 1,520 acres

Status: Completed October 1997

Project Type: Marsh Management

PPL #: 2

Location

This Priority Project List 2 project is located in Cameron Parish, approximately 3 miles north of Holly Beach, Louisiana, surrounding East Mud Lake immediately north of Louisiana Highway 82 and bordered to the west by Louisiana Highway 27. It encompasses 8,054 acres of open water and brackish marsh dominated by marshhay cordgrass (*Spartina patens*).

Problems

The Calcasieu Ship Channel, immediately east of the project area, provides an avenue for the rapid movement of high-salinity water into the Mud Lake project area. This movement increased salinity in the area, resulting in plant death and marsh loss.

Also, the input of fresh water from all directions was reduced by the construction of highways and levees around the project area. Because there are limited drainage avenues, there was prolonged flooding in the project area. Some of the existing water control structures had collapsed or otherwise were damaged in a cross-sectional area, thereby decreasing flow capacity.

Restoration Strategy

The project was designed to stabilize salinity and water levels while ensuring the movement of commercial fish species into and out of the project area. Earthen plugs, flapgated culverts, variable crest culverts, and gated culverts were constructed and can be used to manage the flow of water into and out of the project area. In treatment unit 1, the structures have slots allowing ingress and egress of commercial fish species. Treatment unit 2 structures have drawdown capabilities, encouraging shallow water areas to revert to emergent vegetation. In both treatment units, the structures are closed when salinities exceed 15 parts per thousand (ppt).

Smooth cordgrass (*Spartina alterniflora*) was planted to stabilize canal shorelines and encourage marsh regeneration. A reference area was chosen, and project area success will be determined by monitoring and comparing both before and after construction, land-to-water ratios, vegetation planting success, existing vegetation, soil bulk density, water quality, vertical accretion, surface elevation, and fisheries.

Progress to Date

Survival of planted vegetation after 1 year was above 90% in the canals, 46% on the step levee, and 15% along the lake (because of high wave energy). As a result of extreme drought, total vegetation cover in the project area decreased from 89% in 1995 to 65% in 1997, but stabilized at 62% in 2000. Reference area cover was 87% in both 1995 and 1997 and dropped to 77% by 2000. Marshhay cordgrass cover is decreasing, and saltgrass (*Distichlis spicata*) is increasing in both project and reference areas. Species richness increased in both areas but remains higher in the project area.

Water salinities remained under the 15 ppt threshold over 80% of the time from June 1996 to December 1998 and 60% of the time from January 1999 to January 2000. Water levels were low for most of the post-construction period because of two consecutive drawdown years and four consecutive dry years.

From 1995-2003 (preconstruction to pre Hurricane Rita), the project and reference areas had similar vertical accretion rates (VA; ~5 mm/yr) while the project area had a slightly higher rate of shallow subsidence (SS; -3 mm/yr) and a resultant lower rate of elevation change (EC; 2 mm/yr). From 2003-2006, the project and reference areas experienced dramatic increases in VA, SS, and EC caused by sedimentation via Hurricane Rita.

Fish and crustacean abundance patterns did not change from pre-construction to post-construction. Transient species were more abundant in the reference area, and resident species were more abundant in the project area both pre-construction and post-construction. The 2005 Monitoring Report concludes that a positive aspect of the drought experience is that it seems to show that lowering the water level did allow expansion of vegetation from the marsh edge. Another drawdown, conducted during more normal environmental conditions may be beneficial and should be considered. The new vegetation extending from the marsh edge can increase the amount of valuable emergent marsh.

During the 2000-2006 interval, which included Hurricane Rita, the project area lost less land (6%) than the reference area (13%), overall.

This project is on Priority Project List 2.



A gate in operation. A healthy stand of cordgrass protects the gate's flanks.

For more project information, please contact:



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



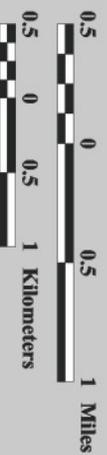
Local Sponsor:
Coastal Protection and Restoration Authority
Baton Rouge, LA
(225) 342-4736



East Mud Lake Marsh Management (CS-20)

-  Water Control Structure
-  Project Boundary

USGS
science for a changing world



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

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle

Map Date: September 23, 2002
Map ID: 2002-11-739
Data accurate as of: September 23, 2002



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

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

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

April 13, 2015

Brad Inman
CWPPRA Program Manager
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

- sent via e-mail to: Brad.L.Inman@usace.army.mil

Re: CS-20 Mud Lake Project Repairs

Dear Mr. Inman:

Apache Louisiana Minerals is the landowner where the CS-20 project was constructed nearly twenty years ago. I am writing to urge the Technical Committee to support the proposal by NRCS and CPRA to provide funding for rehabilitation and repairs to certain water control structures which are integral components of the CS-20 project. Two of the three structures planned for repairs are in poor shape due to age and normal wear and tear, rendering them unable to function as designed. Facilitating the requested repairs will allow this project to provide the intended habitat benefits well into the future.

This project is nearing the end of its 20 year life and “project closeout” is being proposed. It would be inexcusable for CWPPRA Technical Committee and Task Force to allow a project to be closed out without first making that project whole and functional to the greatest extent possible. Landowners upon whose property these CWPPRA projects were constructed should have the confidence that the CWPPRA program will not leave them with a removal liability upon project abandonment. To do otherwise will set a bad precedent and give landowners pause when contemplating proposed CWPPRA projects on their property in the future.

Please distribute this letter of support to other members of the Tech Committee and I urge your favorable consideration of the request for additional funding for this project and the recommendation to the Task Force that this rehabilitation work be authorized.

Sincerely,

APACHE LOUISIANA MINERALS LLC

Timothy J. Allen, PLS
General Manager

**Projects requesting approval for
20-year extension and cost increases**

CWPPRA

20YL Path Forward Report

Project: Freshwater Bayou Wetland (ME-04)

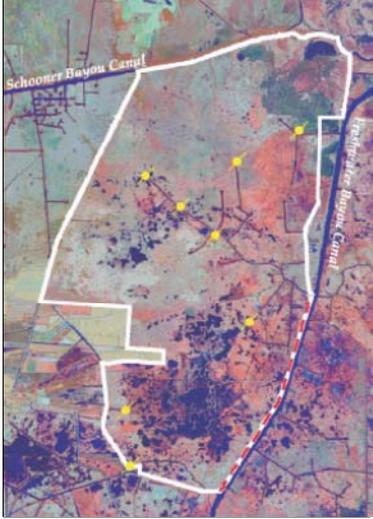
Federal Sponsors: NRCS and CPRA

20YL Date: March 2015

Project Location: Mermentau Basin, Vermilion Parish, west bank of Freshwater Bayou Canal

Project Features:

- 28,000 linear feet of foreshore rock dike along the west bank of Freshwater Bayou Canal



CWPPRA

20YL Path Forward Report

Maintenance Events:

- 2002: 26,750 tons of 1,000# stone covering 15,263 LF
- 2005: 21,370 tons of 1,250# stone covering 11,426 LF
- 2015: 30,740 tons of 1,250# stone covering 23,100 LF

Funds Remaining: < \$300K

20YL Recommendation: 20-year Project Extension



20YL Path Forward Report

October 2014 Task Force Meeting: Task Force approved NRCS and CPRA proposal to continue through formal evaluation of project extension as called for by Box C-4 of the 20 Year life Decision Matrix

C-4. Project Team:

- a) prepares formal assessment of cost/benefit of 20 year project;**
- b) better identifies risk, liability, and impacts of extending project, abandoning features in place, and removing features;**
- c) prepares formal assessment of cost/benefit of project extension.**

CWPPRA WGs Conducts review of above .

20YL Path Forward Report



20YL Path Forward Report

Formal Assessment of Cost/Benefit of 20-Year Project

Fully Funded Cost:	\$6,035,584
Benefit:	68.3 net acres
Cost Effectiveness	\$ 88,368 per net acre

20YL Path Forward Report

**Formal Assessment of Cost/Benefit
of an Additional 20-Year Period**

Fully Funded Cost:	\$3,835,646
Benefit:	26.7 net acres
Cost Effectiveness	\$ 143,657 per net acre

20YL Path Forward Report

Consider ME-04 as a 40-Year Project

Fully Funded Cost: \$9,871,230

Benefit: 95.0 net acres

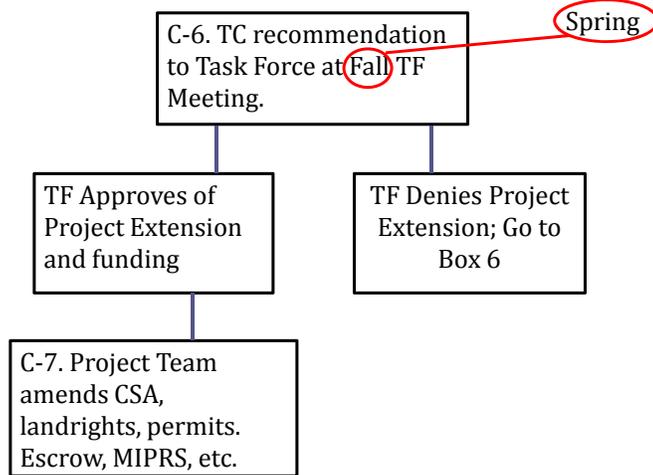
Cost Effectiveness \$ 103,908 per net acre

20YL Path Forward Report

Projects	Cost/ Net Acre
ME-04 Years 1-20	88,368
ME-04 Years 21-40	143,657
ME-04 Years 1-40	103,908
PPL18 Average	46,822
PPL19 Average	88,656
PPL20 Average	50,682
PPL21 Average	60,622
PPL22 Average	89,578
PPL23 Average	132,661
PPL24 Average	85,088
OVERALL AVG PPL18-24	78,177
2009 Phase II Approvals Average	120,303
2010 Phase II Approvals Average	140,462
2011 Phase II Approvals Average	206,094
2012 Phase II Approvals Average	70,429
2013 Phase II Approvals Average	67,618
2014 Phase II Approvals Average	54,646
2015 Phase II Approvals Average	62,095
OVERALL AVG PHASE II APPROVALS 2009-2015	103,017
AVERAGE ALL PPL AND PHASE II APPROVALS 2009-2015	87,890

20YL Path Forward Report

20YL Recommendation: NRCS and CPRA Recommend a 20-year Project Extension at a cost of \$3,835,646



Freshwater Bayou Wetland (ME-04)

Coastal Wetlands Planning, Protection and Restoration Act



Formal Assessment of Costs and Benefits for Consideration of Project Life Extension

Prepared by

**Natural Resources Conservation Service
and
Louisiana Coastal Protection and Restoration Authority**

**Final
March 31, 2015**

Project Name

Freshwater Bayou Wetland (ME-04)

Project Sponsors

Natural Resources Conservation Service (NRCS) and State of Louisiana / Coastal Protection and Restoration Authority (CPRA)

Project Location

Mermentau Basin, Vermilion Parish, west bank of Freshwater Bayou Canal (see map in Appendix A)

Project Description / Project Features

ME-04 consists of 28,000 linear feet of foreshore rock dike along the west bank of Freshwater Bayou Canal with construction being completed in March 1995. Additionally, eight water control structures were installed by the landowner at no cost to the CWPPRA program.

Maintenance events are summarized as follows:

2002: 26,750 tons of 1,000# stone covering 15,263 LF

2005: 21,370 tons of 1,250# stone covering 11,426 LF

2015: 30,740 tons of 1,250# stone covering 23,100 LF

Current Status

ME-04 is approaching the end of its initial 20 year project life. The CWPPRA Task Force has approved pursuit of a project life extension for the foreshore rock dike component of ME-04, prompting formal assessment of costs and benefits of both the initial 20 year period and a potential project extension. There is no proposed extension of the water control structures referenced above.

Cost of Initial 20 Year Period

The current fully funded cost of ME-04 is \$6,035,584.

Benefits of Initial 20 Year Period

Monitoring elements for the overall ME-4 project included:

- 1) aerial photography for land:water and habitat analysis;
- 2) shoreline change along the west bank of Freshwater Bayou Canal;

- 3) water level analysis to determine water level variability and the frequency, duration, and range of marsh inundation in the project area as it related to the eight water level control structures;
- 4) salinity analysis to characterize the spatial variation in salinity throughout the project area and to determine if project area salinity was being maintained within a target range;
- 5) emergent vegetation marsh types, percent cover by species, and Floristic Quality Index;
- 6) soil properties, including bulk density and percent organic matter; and
- 7) soil surface elevation change analysis to establish accretion/subsidence rates.

As indicated above, a project life extension is being considered for only the foreshore rock dike component of ME-04. The shoreline change monitoring element is the only element that pertains directly to the foreshore rock dike component of the project.

The ME-04 2014 Operation, Maintenance, and Monitoring Report (Wood and Guidry 2014) indicated that from 1998 through 2014 the erosion rate in the reference area was nearly five times greater than the project area (project -1.6 ft/yr; reference -7.5 ft/yr).

Time Period	Shoreline Change Rate (ft/yr)				
	1998-2005	2005-2008	2008-2011	2011-2014	1998-2014
Project	-1.8	-1.1	-4.0	-0.4	-1.6
Reference	-5.1	-15.0	-6.5	-9.5	-7.5
Project (Settled Rock)			-5.2	-1.3	-1.9
Project (Stable Rock)			-1.3	+0.6	

It is estimated that 90% of this affected area is emergent marsh. This data can be used to estimate the benefits of the initial 20 years of ME-04 using a few simple calculations.

Without the ME-04 project, it can be estimated that the area behind the dike would have experienced a shoreline change rate equal to that of the reference area (-7.5 ft/yr). Over 20 years, this would have been a loss of 86.8 acres (-7.5 ft X 28,000 feet X 20 years / 43,560 sq ft / acre X .90 = -86.8 acres).

With the ME-04 project shoreline change rate of -1.6 ft/yr, it can be estimated that the area behind the dike has experienced a loss of 18.5 acres over 20 years (-1.6 ft X 28,000 feet X 20 years / 43,560 sq ft / acre X .90 = -18.5 acres).

Therefore, the benefits of the initial 20 years of ME-04 is estimated to be 68.3 net acres (-18.5 acres minus -86.8 acres = 68.3 net acres).

Cost Effectiveness of Initial 20 Year Period

The cost effectiveness of the initial 20 year period of ME-04 is \$88,368 per net acre (\$6,035,584 / 68.3 net acres).

Cost of a Potential Additional 20 Year Period

Operation and Maintenance cost assumptions over a potential additional 20 year period for ME-04 would be as follows:

- O&M Inspections at Years 21, 24, 27, 30, 33, 36, and 38
- 35% cap replacement at Year 28 (including engineering and design, mobilization/demobilization, administration)
- 35% cap replacement at Year 35 (including engineering and design, mobilization/demobilization, administration)

Monitoring cost assumptions over a potential additional 20 year period for ME-04 would be as follows:

- Erosion rate measurements and basic analysis at Year 27
- Erosion rate measurements at Year 37
- Comprehensive Operation, Maintenance, and Monitoring Report at Year 38

The nominal (present) cost of individual operation, maintenance, and monitoring costs for a potential additional 20 year period for ME-04 are provided in Appendix B.

The fully funded cost of operation, maintenance, and monitoring for a potential additional 20 year period for ME-04 is \$3,835,646 with additional detail provided in Appendix C.

Benefits of a Potential Additional 20 Year Period

As indicated above, a project life extension is being considered for only the foreshore rock dike component of ME-04. The shoreline change monitoring element is the only element that pertains directly to the foreshore rock dike component of the project.

During previous Technical Committee meetings, some members of the committee had suggested that the ME-04 rock dike may need to be removed at the end of the initial 20 years. Therefore, previous assessments of benefits had included a comparison of project removal versus project extension. However, with a Task Force approved maintenance event scheduled for 2015, suggestions for project removal now seem to have dissipated and this assessment will not address a project removal option, but will focus on comparison of “project with no additional maintenance” versus “project extension”.

Estimating the benefits of the initial 20 years of ME-04 was a straightforward extrapolation of observed shoreline change rates in the project area versus the reference area. Projecting the benefits of a potential additional 20 years of ME-04 is more complicated due to the observations that 1) the shoreline change rate behind “settled” sections of the rock dike is greater than behind

“stable” sections of rock dike (2008-2011 and 2011-2014), and 2) the portion of dike that is “stable” decreases between maintenance events. The ME-04 2014 Operation, Maintenance, and Monitoring Report (Wood and Guidry 2014) indicated that for the 2008-2011 period, the shoreline change rate was -5.2 ft/yr for the “settled” sections and -1.3 ft/yr for the “stable” sections; and for the 2011-2014 period, the shoreline change rate was -1.3 ft/yr for the “settled” sections and there was a shoreline gain of 0.6 ft/yr for “stable” sections.

Assumptions / Estimates / Calculations

1. For the assessment of benefits, the shoreline change rates from the two time periods (2008-2011 and 2011-2014) will be averaged. The average shoreline change rate behind “settled” sections of the rock dike is -3.25 ft/yr $[(-5.2 + -1.3)/2 = -3.25 \text{ ft/yr}]$. The average shoreline change rate behind “stable” sections of the rock dike is -0.35 ft/yr $[(-1.3 + 0.6)/2 = -0.35 \text{ ft/yr}]$.
2. Because the dike will be refurbished in 2015 (Year 20), it is assumed that 100% of the dike will be stable in Year 21. Under both scenarios, portions of the dike will begin to experience rock displacement and possibly subsidence (referred to as “settled”) in Year 22. The rate at which portions of the dike will “settle” is estimated as follows: Previously, the dike was refurbished in 2005; a 2014 design survey identified that 23,100 feet of the 28,000 feet or 82.5% of the dike had “settled” to a point of needing maintenance. By dividing 82.5% by 9 years, it is estimated that 9.2% of the dike becomes “settled” each year. Under the project with no additional maintenance scenario, it is estimated that an additional 9.2% of the dike becomes “settled” each year until 100% of the dike is “settled” in Year 32 and remains “settled” through Year 40. Under the project extension scenario, it is estimated that an additional 9.2% of the dike becomes “settled” each year through Year 28 (64% settled) when a maintenance event is projected; the proposed maintenance at this time is to recap 35% of the dike; therefore, 29% of the dike will be settled in Year 29 and then the “settling” rate would resume (an additional 9.2% each year) until the next projected maintenance event (35% recap in Year 35), etc.
3. The dike will be refurbished in 2015 (Project Year 20). It is assumed that the Year 21 shoreline change rate behind the entire dike would be equal to the average “stable” section rate calculated in Assumption #1 above (-0.35 ft/yr) for both scenarios (project with no additional maintenance and project extension). Portions of the dike will begin to experience rock displacement and possibly subsidence (referred to as “settled”) in Year 22 and greater erosion will begin to occur. The shoreline change rate will change over time and that is estimated as follows: The average shoreline change rate for the “settled” sections for ME-04 over the period of 2008-2014 is -3.25 ft/yr. The mid-point of this period (2011) is six years after the previous maintenance event (2005). Using these data points, the shoreline change rate can be estimated to increase at a rate of -0.483 ft/yr $[(-3.25 + .35) / 6 = -0.483]$. Under the project with no additional maintenance scenario, it is estimated that the shoreline change rate would increase by -0.483 ft/yr until Year 36 when the shoreline change rate reaches the reference area shoreline change rate of -7.5 ft/yr, and remains at -7.5 ft/yr through Year 40. Under the project extension scenario, it is

estimated that the shoreline change rate would increase by -0.483 ft/yr through Year 28 when a maintenance event is projected (64% of dike settled with an shoreline change rate of -3.73; after a 35% recap of the dike, 29% of the dike will be settled in Year 29, with a corresponding shoreline change rate of -1.8. After that, the shoreline change rate would begin increasing again by -0.483 ft/yr until the next projected maintenance event (Year 35), etc.

4. It is estimated that 90% of the affected area is emergent marsh.

As illustrated in the following tables, with no additional maintenance, the ME-04 project is estimated to experience a loss of 48.6 acres for Years 21-40; and with project extension, the ME-04 project is estimated to experience a loss of 21.9 acres over that same period. Therefore, the benefits of an ME-20 20 year project extension is 26.7 net acres (48.6 acres minus 21.9 acres = 26.7 net acres).

Project Without Additional Maintenance							
Calendar Year	Project Year	No. of years after maintenance event	Percent of Dike "Settled"	"Settled" Erosion Rate (ft/yr)	Percent of Dike "Stable"	"Stable" Erosion Rate (ft/yr)	Marsh Acres
2016	21	1	0%	-0.35	100%	-0.35	-0.20
2017	22	2	9%	-0.83	91%	-0.35	-0.23
2018	23	3	18%	-1.32	82%	-0.35	-0.31
2019	24	4	28%	-1.80	73%	-0.35	-0.43
2020	25	5	37%	-2.28	63%	-0.35	-0.61
2021	26	6	46%	-2.77	54%	-0.35	-0.84
2022	27	7	55%	-3.25	45%	-0.35	-1.13
2023	28	8	64%	-3.73	36%	-0.35	-1.46
2024	29	9	73%	-4.22	27%	-0.35	-1.84
2025	30	10	83%	-4.70	18%	-0.35	-2.28
2026	31	11	92%	-5.18	8%	-0.35	-2.77
2027	32	12	100%	-5.67	0%	-0.35	-3.28
2028	33	13	100%	-6.15	0%	-0.35	-3.56
2029	34	14	100%	-6.63	0%	-0.35	-3.84
2030	35	15	100%	-7.12	0%	-0.35	-4.12
2031	36	16	100%	-7.50	0%	-0.35	-4.34
2032	37	17	100%	-7.50	0%	-0.35	-4.34
2033	38	18	100%	-7.50	0%	-0.35	-4.34
2034	39	19	100%	-7.50	0%	-0.35	-4.34
2035	40	20	100%	-7.50	0%	-0.35	-4.34
Total Acres Eroded							-48.58

Project Extension							
Calendar Year	Project Year	No. of years after maintenance event	Percent of Dike "Settled"	"Settled" Erosion Rate (ft/yr)	Percent of Dike "Stable"	"Stable" Erosion Rate (ft/yr)	Marsh Acres
2016	21	1	0%	-0.35	100%	-0.35	-0.20
2017	22	2	9%	-0.83	91%	-0.35	-0.23
2018	23	3	18%	-1.32	82%	-0.35	-0.31
2019	24	4	28%	-1.80	73%	-0.35	-0.43
2020	25	5	37%	-2.28	63%	-0.35	-0.61
2021	26	6	46%	-2.77	54%	-0.35	-0.84
2022	27	7	55%	-3.25	45%	-0.35	-1.13
2023	28	8	64%	-3.73	36%	-0.35	-1.46
2024	29	1	29%	-1.80	71%	-0.35	-0.45
2025	30	2	38%	-2.28	62%	-0.35	-0.63
2026	31	3	48%	-2.77	53%	-0.35	-0.87
2027	32	4	57%	-3.25	43%	-0.35	-1.15
2028	33	5	66%	-3.73	34%	-0.35	-1.49
2029	34	6	75%	-4.22	25%	-0.35	-1.88
2030	35	7	84%	-4.70	16%	-0.35	-2.32
2031	36	1	49%	-2.77	51%	-0.35	-0.89
2032	37	2	58%	-3.25	42%	-0.35	-1.18
2033	38	3	68%	-3.74	33%	-0.35	-1.52
2034	39	4	77%	-4.22	23%	-0.35	-1.92
2035	40	5	86%	-4.70	14%	-0.35	-2.36
Total Acres Eroded							-21.88

Cost Effectiveness of a Potential Additional 20 Year Period

The cost effectiveness of a potential additional 20 year period of ME-04 is \$143,657 per net acre (\$3,835,646 / 26.7 net acres).

Cost Effectiveness of ME-04 as a 40 Year Project

Forty years of ME-04 would have a fully funded cost of \$9,871,230 (\$6,035,584 + \$3,835,646 = \$9,871,230). The benefits of forty years of ME-04 would be 95.0 net acres (68.3 net acres + 26.7 net acres). The cost effectiveness of a 40 year ME-04 would be \$103,908 per net acre (\$9,871,230 / 95.0 net acres).

Cost Effectiveness of ME-04 Versus Other Recently Approved CWPPRA Projects

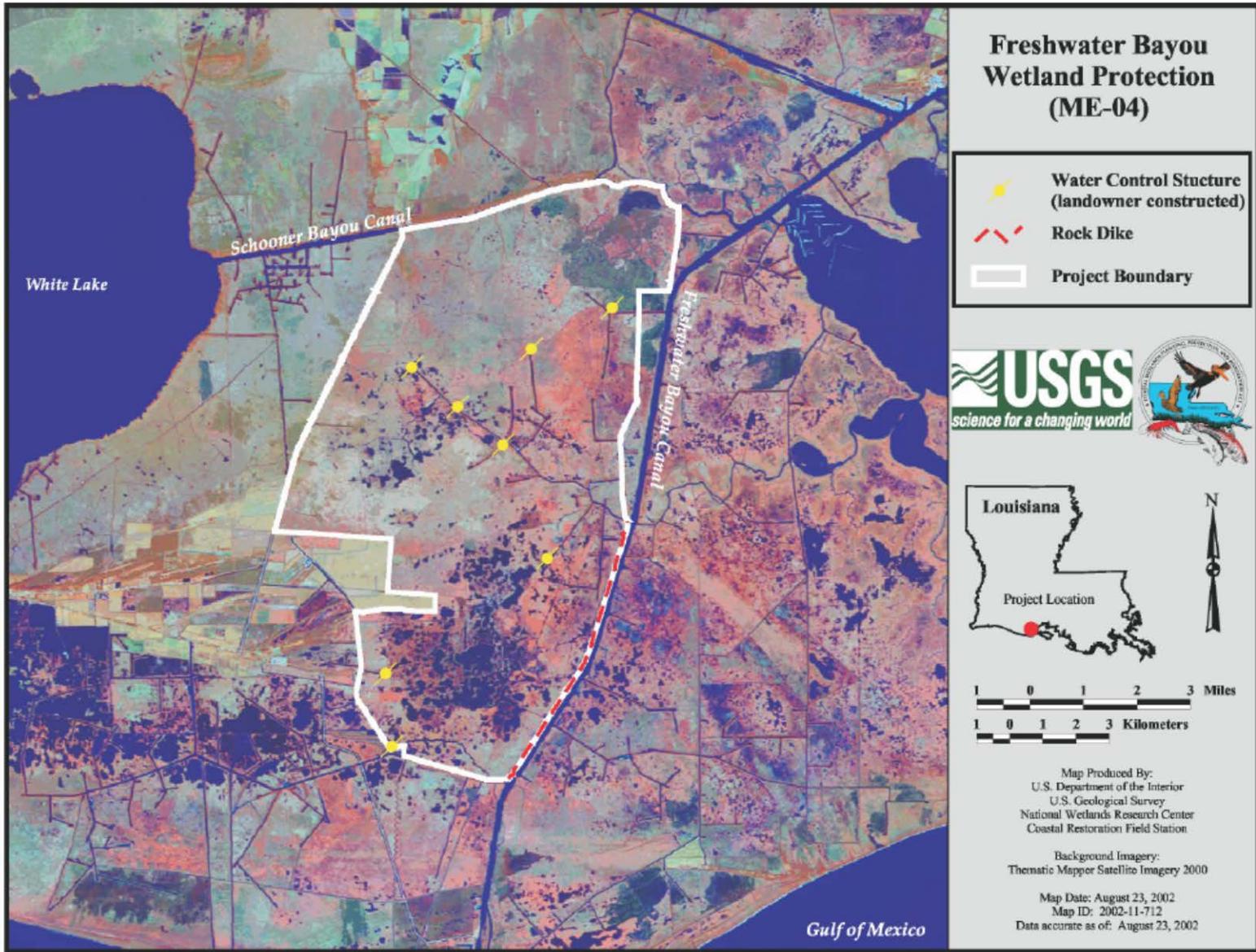
Projects	Cost/ Net Acre
ME-04 Years 1-20	88,368
ME-04 Years 21-40	143,657
ME-04 Years 1-40	103,908
PPL18 Average	46,822
PPL19 Average	88,656
PPL20 Average	50,682
PPL21 Average	60,622
PPL22 Average	89,578
PPL23 Average	132,661
PPL24 Average	85,088
OVERALL AVG PPL18-24	78,177
2009 Phase II Approvals Average	120,303
2010 Phase II Approvals Average	140,462
2011 Phase II Approvals Average	206,094
2012 Phase II Approvals Average	70,429
2013 Phase II Approvals Average	67,618
2014 Phase II Approvals Average	54,646
2015 Phase II Approvals Average	62,095
OVERALL AVG PHASE II APPROVALS 2009-2015	103,017
AVERAGE ALL PPL AND PHASE II APPROVALS 2009-2015	87,690

Literature Cited

Wood, B. and Guidry, M. 2014. 2014 Operations, Maintenance, and Monitoring Report for Freshwater Bayou Wetland Protection (ME-04), Coastal Protection and Restoration Authority of Louisiana, Lafayette 47pp and appendices.

APPENDIX A

ME-04 Project Map



APPENDIX B

Nominal Operation, Maintenance, and Monitoring Costs for Potential ME-04 Project Extension

APPENDIX C

Fully Funded Operation, Maintenance, and Monitoring Costs for Potential ME-04 Project Extension



Freshwater Bayou Wetland Protection (ME-04)

Project Status

Approved Date: 1992 **Project Area:** 14,381 acres

Approved Funds: \$6.05 M **Total Est. Cost:** \$6.05 M

Net Benefit After 20 Years: 1,593 acres

Status: Completed June 1998

Project Type: Hydrologic Restoration and
Shoreline Protection

PPL #: 2

Location

The project is located on the west bank of the Freshwater Bayou Canal, approximately 8 miles northeast of Pecan Island, Louisiana. It encompasses 36,928 acres of intermediate marsh and open water in Vermilion Parish.

Problems

Boat wake-induced shoreline erosion, which averaged 12.5 feet per year along each bank of Freshwater Bayou Canal, has deteriorated the spoil banks along the canal, creating multiple breaches that allow tidal erosion of the organic soils in the adjacent wetlands.

Between 1968 and 1990, the bank width of this navigation canal increased threefold (from 172 feet to 583 feet), resulting in the loss of 1,124 acres of coastal wetlands.

Restoration Strategy

Approximately 28,000 linear feet of freestanding, continuous rock dike were built along the west bank of Freshwater Bayou Canal. The USDA Natural Resources Conservation Service and Louisiana Department of Natural Resources worked with the landowner to develop other preservation features in the area. The landowner installed several other structures that were not funded by CWPPRA but will complement CWPPRA project features.

Project effectiveness is being determined by monitoring vegetation, water quality, and changes in vegetated and non-vegetated areas in the project area with aerial photography taken before and after construction. In addition, shoreline change is being measured by comparing pre-construction and post-construction shoreline surveys.

For more project information, please contact:



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



This continuous rock dike will drastically reduce boat wake-induced shoreline erosion.

Progress to Date

Shoreline surveys taken 1 year after construction show that while reference area sites *eroded* at a rate of 9.00 feet per year, the project area *built* land at an average rate of 1.53 feet per year. These data indicate that the rock dike has successfully prevented or significantly reduced erosion of the protected segment of canal bank for the year following construction.

In both the project area and the reference area, monthly mean post-construction salinities were higher at all stations than pre-construction salinities, but project area salinities generally remained within the target range of zero to five parts per thousand. Higher salinities in the post-construction period could be a result of drought and tropical storm activity.

Control of the water level within the project area is being compromised by breeches in the spoil banks along the Freshwater Bayou Canal adjacent to the rock dike. The first post-construction survey of emergent vegetation took place in October 2001, and the data are still under analysis.

Maintenance surveys of the rock dike were completed in February 1998 and May 2001. Maintenance of the rock dike is currently being implemented.

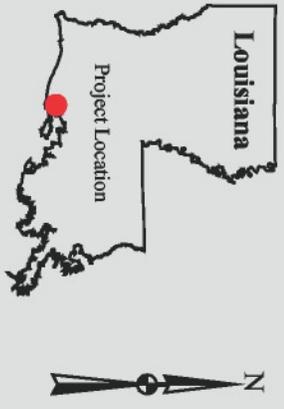
The 2003 OM&M report concluded that the ME-04 rock dike along the Freshwater Bayou Canal adjacent to CTU1 has worked quite well to reduce erosion along this shoreline, but since the structure is water permeable, it does very little to prevent tidal exchange during high tides and storm surges. This project is on Priority Project List 2.



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

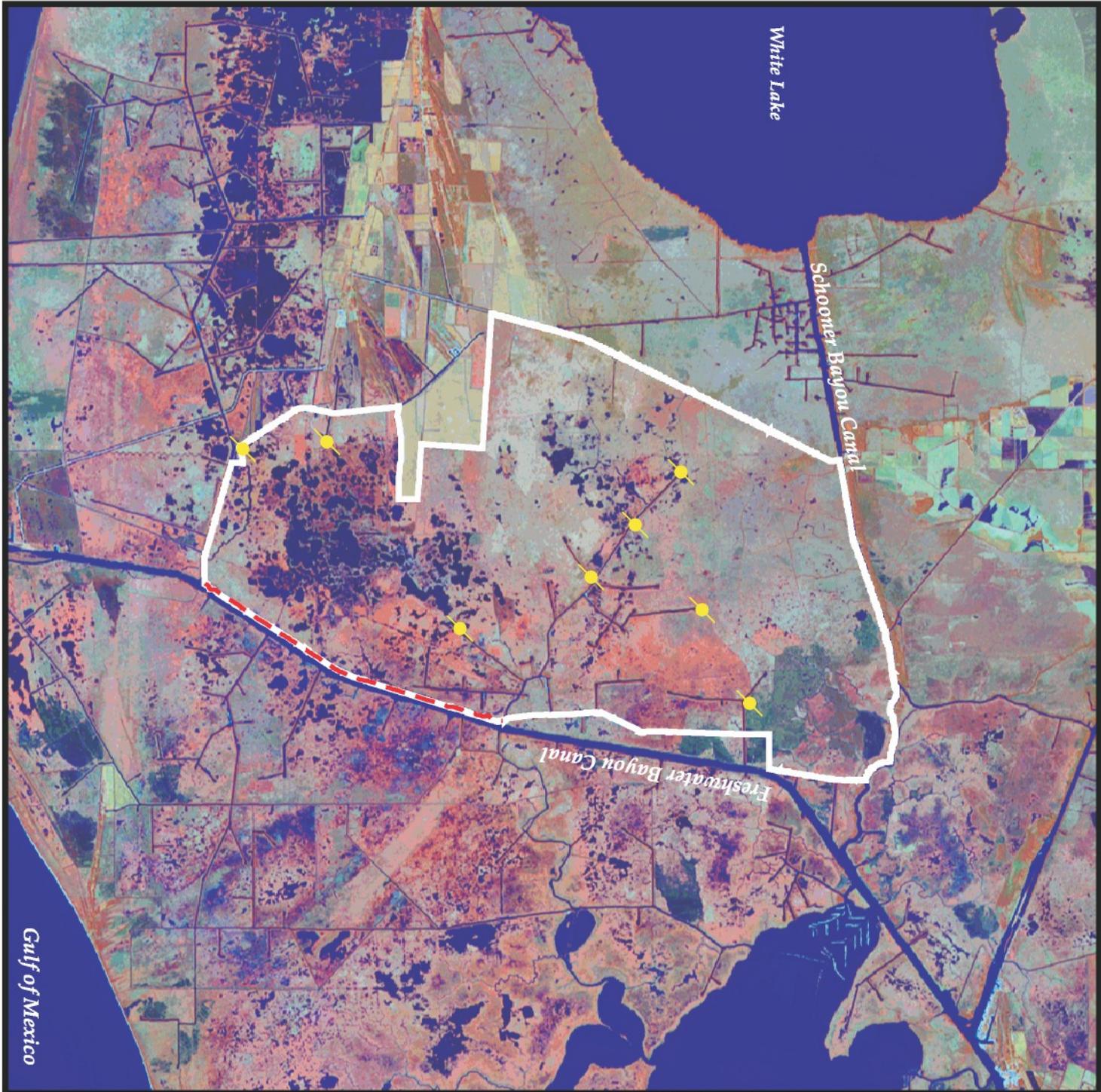
Freshwater Bayou Wetland Protection (ME-04)

-  Water Control Structure (landowner constructed)
-  Rock Dike
-  Project Boundary



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

Background Imagery:
 Thematic Mapper Satellite Imagery 2000
 Map Date: August 23, 2002
 Map ID: 2002-11-712
 Data accurate as of: August 23, 2002



CWPPRA

20YL Path Forward Report

Project: Freshwater Bayou Bankline Stabilization Project (ME-13)

Federal Sponsors: NRCS and CPRA

20YL Date: March 2018

Project Location: Mermentau Basin, Vermilion Parish, west bank of Freshwater Bayou Canal

Project Features:

- 23,193 linear feet of foreshore rock dike along the west bank of Freshwater Bayou Canal



CWPPRA

20YL Path Forward Report

Maintenance Events:

- 2005: 21,000 tons of 1,250# stone covering 9,130 LF
- 2015: 39,400 tons of 1,250# stone covering 21,943 LF

Funds Remaining: <\$500,000K

20YL Recommendation: 20-year Project Extension



20YL Path Forward Report

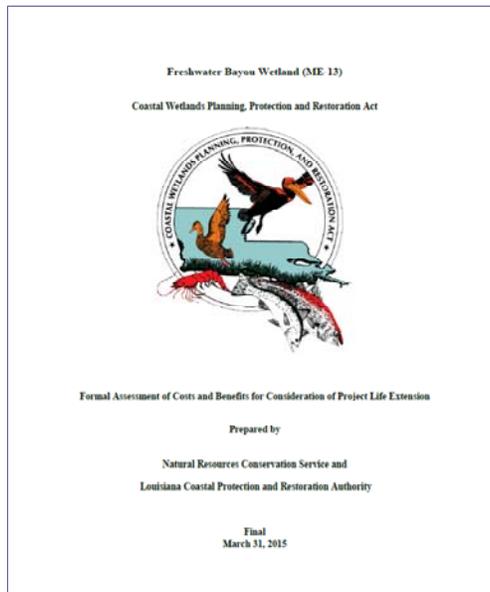
October 2014 Task Force Meeting: Task Force approved NRCS and CPRA proposal to continue through formal evaluation of project extension as called for by Box C-4 of the 20 Year life Decision Matrix

C-4. Project Team:

- a) prepares formal assessment of cost/benefit of 20 year project;**
- b) better identifies risk, liability, and impacts of extending project, abandoning features in place, and removing features;**
- c) prepares formal assessment of cost/benefit of project extension.**

CWPPRA WGs Conducts review of above .

20YL Path Forward Report



20YL Path Forward Report

Formal Assessment of Cost/Benefit of 20-Year Project

Fully Funded Cost:	\$5,609,584
Benefit:	81.9 net acres
Cost Effectiveness	\$ 68,493 per net acre

20YL Path Forward Report

**Formal Assessment of Cost/Benefit
of an Additional 20-Year Period**

Fully Funded Cost:	\$3,303,773
Benefit:	22.2 net acres
Cost Effectiveness	\$148,819 per net acre

20YL Path Forward Report

Consider ME-04 as a 40-Year Project

Fully Funded Cost: \$8,913,357

Benefit: 104.1 net acres

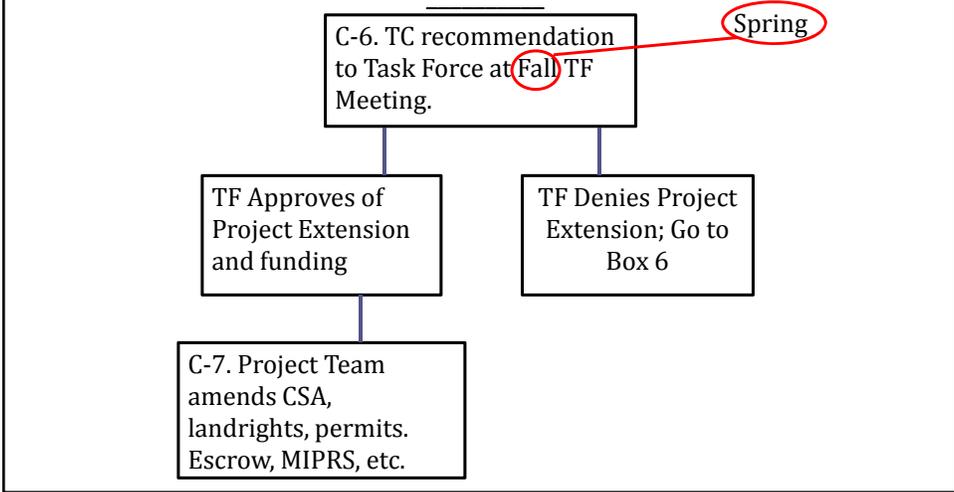
Cost Effectiveness \$ 85,623 per net acre

20YL Path Forward Report

Projects	Cost/ Net Acre
ME-13 Years 1-20	68,493
ME-13 Years 21-40	148,819
ME-13 Years 1-40	85,623
PPL18 Average	46,822
PPL19 Average	88,656
PPL20 Average	50,682
PPL21 Average	60,622
PPL22 Average	89,578
PPL23 Average	132,661
PPL24 Average	85,088
OVERALL AVG PPL18-24	78,177
2009 Phase II Approvals Average	120,303
2010 Phase II Approvals Average	140,462
2011 Phase II Approvals Average	206,094
2012 Phase II Approvals Average	70,429
2013 Phase II Approvals Average	67,618
2014 Phase II Approvals Average	54,646
2015 Phase II Approvals Average	62,095
OVERALL AVG PHASE II APPROVALS 2009-2015	103,017
AVERAGE ALL PPL AND PHASE II APPROVALS 2009-2015	87,690

20YL Path Forward Report

20YL Recommendation: NRCS and CPRA Recommend a 20-year Project Extension at a cost of \$3,303,773



Freshwater Bayou Wetland (ME-13)

Coastal Wetlands Planning, Protection and Restoration Act



Formal Assessment of Costs and Benefits for Consideration of Project Life Extension

Prepared by

Natural Resources Conservation Service and

Louisiana Coastal Protection and Restoration Authority

**Final
March 31, 2015**

Project Name

Freshwater Bayou Bank Stabilization Project (ME-13)

Project Sponsors

Natural Resources Conservation Service (NRCS) and State of Louisiana / Coastal Protection and Restoration Authority (CPRA)

Project Location

Mermentau Basin, Vermilion Parish, west bank of Freshwater Bayou Canal (see map in Appendix A)

Project Description / Project Features

ME-13 consists of 23,193 linear feet of foreshore rock dike along the west bank of Freshwater Bayou Canal with construction being completed in March 1998.

Maintenance events are summarized as follows:

2005: 21,000 tons of 1,250# stone covering 9,130 LF
2015: 39,400 tons of 1,250# stone covering 21,943 LF

Current Status

ME-13 will reach the end of its initial 20 year project life in March 2018. The CWPPRA Task Force has approved pursuit of a project life extension for of ME-13, prompting formal assessment of costs and benefits of both the initial 20 year period and a potential project extension

Cost of Initial 20 Year Period

The current fully funded cost of ME-13 is \$5,609,584.

Benefits of Initial 20 Year Period

Monitoring elements for the ME-13 project included:

- 1) aerial photography for land:water analysis, and
- 2) shoreline change along the west bank of Freshwater Bayou Canal.

The shoreline change monitoring element provides sufficient data to assess the benefits of the foreshore rock dike.

The last published shoreline change data is presented in the ME-13 2010 Operation, Maintenance, and Monitoring Report (Barrilleaux and Guidry 2010). However, CPRA collected shoreline change data in 2014 and prepared the following table (Leigh Anne Sharpe, personal communication):

	Shoreline Change Rate (ft/yr)			
	1998 - 2003	2003 - 2009	2009 - 2014	1998 - 2014
Project	0.8	-0.6	-2.2	-0.6
Reference	-11.9	-7.3	-10.4	-8.7
Project (Settled Rock)		-1.7	-3.5	
Project (Stable Rock)		0.8	-0.6	

From construction in 1998 through 2014, the shoreline change rate has been -8.7 ft/yr in the reference area and -0.6 ft/yr in the project area. It is estimated that 95% of this affected area is emergent marsh. This data can be used to estimate the benefits of the through 20 years of ME-13 using a few simple calculations.

Without the ME-13 project, it can be estimated that the area behind the dike would have experienced a shoreline change rate equal to that of the reference area (-8.7 ft/yr). Over 20 years, this would be a loss of 88.0 acres $(-8.7 \text{ ft} \times 23,193 \text{ feet} \times 20 \text{ years} / 43,560 \text{ sq ft} / \text{acre} \times .95) = -88.0 \text{ acres}$.

With the ME-13 project shoreline change rate of -0.6 ft/yr, it can be estimated that the area behind the dike has experienced a loss of 6.1 acres over 20 years $(-0.6 \text{ ft} \times 23,193 \text{ feet} \times 20 \text{ years} / 43,560 \text{ sq ft} / \text{acre} \times .95 = -6.1 \text{ acres})$.

Therefore, the benefits through 20 years of ME-13 is estimated to be 81.9 net acres $(-6.1 \text{ acres} \text{ minus } -88.0 \text{ acres} = 81.9 \text{ net acres})$.

Cost Effectiveness of Initial 20 Year Period

The cost effectiveness of the initial 20 year period of ME-13 is \$68,493 per acre $(\$5,609,584 / 81.9 \text{ acres})$.

Cost of a Potential Additional 20 Year Period

Operation and Maintenance cost assumptions over a potential additional 20 year period for ME-13 would be as follows:

- O&M Inspections at Years 21, 24, 27, 30, 33, 36, and 38
- 35% cap replacement at Year 25 (including engineering and design, mobilization/demobilization, administration)
- 35% cap replacement at Year 32 (including engineering and design, mobilization/demobilization, administration)

Monitoring cost assumptions over a potential additional 20 year period for ME-13 would be as follows:

- Erosion rate measurements and basic analysis at Year 27
- Erosion rate measurements at Year 37
- Comprehensive Operation, Maintenance, and Monitoring Report at Year 38

The nominal (present) cost of individual operation, maintenance, and monitoring costs for a potential additional 20 year period for ME-13 are provided in Appendix B.

The fully funded cost of operation, maintenance, and monitoring for a potential additional 20 year period for ME-13 is \$3,303,773 with additional detail provided in Appendix C.

Benefits of a Potential Additional 20 Year Period

During previous Technical Committee meetings, some members of the committee had suggested that the ME-13 rock dike may need to be removed at the end of the initial 20 years. Therefore, previous assessments of benefits had included a comparison of project removal versus project extension. However, with a Task Force approved maintenance event scheduled for 2015, suggestions for project removal now seem to have dissipated and this assessment will not address a project removal option, but will focus on comparison of “project with no additional maintenance” versus “project extension”.

Estimating the benefits of the initial 20 years of ME-13 was a straightforward extrapolation of observed shoreline change rates in the project area versus the reference area. Projecting the benefits of a potential additional 20 years of ME-13 is more complicated due to the observations that 1) the shoreline change rate behind “settled” sections of the rock dike is greater than behind “stable” sections of rock dike (2003-2009 and 2009-2014), and 2) the portion of dike that is “stable” decreases between maintenance events. ME-13 shoreline change for the 2003-2009 period was -1.7 ft/yr for the “settled” sections and +0.8 ft/yr for the “stable” sections; and for the 2009-2014 period, the shoreline change rate was -3.5 ft/yr for the “settled” sections and -0.6 ft/yr for “stable” sections.

Assumptions / Estimates / Calculations

1. For the assessment of benefits, the shoreline change rates from the two time periods (2003-2009 and 2009-2014) will be averaged. The average shoreline change rate behind “settled” sections of the rock dike is -2.6 ft/yr $[(-1.7 + -3.5)/2 = -2.6 \text{ ft/yr}]$. The average shoreline change rate behind “stable” sections of the rock dike is +0.1 ft/yr $[(+0.8 + -0.6)/2 = +0.1 \text{ ft/yr}]$.
2. Because the dike will be refurbished in 2015 (Year 17), it is assumed that 100% of the dike will be stable in Year 18. Under both scenarios, portions of the dike will begin to experience rock displacement and possibly subsidence (referred to as “settled”) in Year 19. The rate at which portions of the dike will “settle” is estimated as follows: Previously, the dike was refurbished in 2005; a 2014 design survey identified that 21,943 feet of the 23,193 feet or 94.6% of the dike had “settled” to a point of needing maintenance. By dividing 94.6% by 9 years, it is estimated that 10.5% of the dike becomes “settled” each year. By Year 21, it is estimated that 31.5% of the dike will have settled under both scenarios. Under the project with no additional maintenance scenario, it is estimated that an additional 10.5% of the dike becomes “settled” each year until 100% of the dike is “settled” in Year 28 and remains “settled” through Year 40. Under the project extension scenario, it is estimated that an additional 10.5% of the dike becomes “settled” each year through Year 25 (74% settled when a maintenance event is projected; the proposed maintenance at this time is to recap 35% of the dike; therefore, 39% of the dike will be settled in Year 26 and then the “settling” rate would resume (an additional 10.5% each year) until the next projected maintenance event (35% recap in Year 32), etc.
3. The dike will be refurbished in 2015 (Project Year 17), it is assumed that the Year 18 shoreline change rate behind the entire dike would be equal to the average “stable” section rate calculated in Assumption #1 above (+0.1 ft/yr) for both scenarios (project with no additional maintenance and project extension). Portions of the dike will begin to experience rock displacement and possibly subsidence (referred to as “settled”) in Year 19 and erosion will begin to occur. The shoreline change rate will change over time and that is estimated as follows: The average shoreline change rate for the “settled” sections for ME-13 over the period of 2003-2014 is -2.6 ft/yr. The mid-point of this period (mid-way of 2008) is 3.5 years after the previous maintenance event (2005). Using these data points, the shoreline change rate can be estimated to increase at a rate of -0.77 ft/yr $[(-2.6 - 0.1) / 3.5 = -0.77]$. Under the project with no additional maintenance scenario, it is estimated that the shoreline change rate would increase by -0.77 ft/yr until Year 30 when the shoreline change rate reaches the reference area shoreline change rate of -8.7 ft/yr, and remains at -8.7 ft/yr through Year 40. Under the project extension scenario, it is estimated that the shoreline change rate would increase by -0.77 ft/yr through Year 25 when a maintenance event is projected (74% of dike settled with an shoreline change rate of -3.73; after a 35% recap of the dike, 39% of the dike will be settled in Year 26 with a corresponding shoreline change rate of -2.76. After that, the shoreline change rate would

begin increasing again by -0.77 ft/yr until the next projected maintenance event (Year 32), etc.

4. It is estimated that 95% of the affected area is emergent marsh.

As illustrated in the following tables, with no additional maintenance, the ME-13 project is estimated to experience a loss 54.4 acres for Years 21-40; and with project extension, the ME-13 project is estimated to experience a loss 32.2 acres over that same period. Therefore, the benefits of an ME-13 20 year project extension is 22.2 net acres (54.4 acres minus 32.2 acres = 22.2 net acres).

Project Without Additional Maintenance							
Calendar Year	Project Year	No. of years after maintenance event	Percent of Dike "Settled"	"Settled" Erosion Rate (ft/yr)	Percent of Dike "Stable"	"Stable" Erosion Rate (ft/yr)	Marsh Acres
2016	18	1	0%	0.10	100%	0.10	
2017	19	2	11%	-0.67	89%	0.10	
2018	20	3	21%	-1.44	79%	0.10	
2019	21	4	32%	-2.21	68%	0.10	-0.32
2020	22	5	42%	-2.99	58%	0.10	-0.61
2021	23	6	53%	-3.76	47%	0.10	-0.97
2022	24	7	63%	-4.53	37%	0.10	-1.43
2023	25	8	74%	-5.30	26%	0.10	-1.96
2024	26	9	84%	-6.07	16%	0.10	-2.57
2025	27	10	95%	-6.84	5%	0.10	-3.27
2026	28	11	100%	-7.61	0%	0.10	-3.85
2027	29	12	100%	-8.39	0%	0.10	-4.24
2028	30	13	100%	-8.70	0%	0.10	-4.40
2029	31	14	100%	-8.70	0%	0.10	-4.40
2030	32	15	100%	-8.70	0%	0.10	-4.40
2031	33	16	100%	-8.70	0%	0.10	-4.40
2032	34	17	100%	-8.70	0%	0.10	-4.40
2033	35	18	100%	-8.70	0%	0.10	-4.40
2034	36	19	100%	-8.70	0%	0.10	-4.40
2035	37	20	100%	-8.70	0%	0.10	-4.40
2036	38	21	100%	-8.70	0%	0.10	-4.40
2037	39	22	100%	-8.70	0%	0.10	-4.40
2038	40	23	100%	-8.70	0%	0.10	-4.40
Total Acres Eroded							-54.43

Project Extension							
Calendar Year	Year	No. of years after maintenance event	Percent of Dike "Settled"	"Settled" Erosion Rate (ft/yr)	Percent of Dike "Stable"	"Stable" Erosion Rate (ft/yr)	Marsh Acres
2016	18	1	0%	0.10	100%	0.10	
2017	19	2	11%	-0.67	89%	0.10	
2018	20	3	21%	-1.44	79%	0.10	
2019	21	4	32%	-2.21	68%	0.10	-0.32
2020	22	5	42%	-2.99	58%	0.10	-0.61
2021	23	6	53%	-3.76	47%	0.10	-0.97
2022	24	7	63%	-4.53	37%	0.10	-1.43
2023	25	8	74%	-5.30	26%	0.10	-1.96
2024	26	1	39%	-2.76	61%	0.10	-0.51
2025	27	2	49%	-3.53	51%	0.10	-0.85
2026	28	3	60%	-4.30	40%	0.10	-1.28
2027	29	4	70%	-5.07	30%	0.10	-1.78
2028	30	5	81%	-5.85	19%	0.10	-2.37
2029	31	6	91%	-6.62	9%	0.10	-3.05
2030	32	7	100%	-7.39	0%	0.10	-3.74
2031	33	1	65%	-4.53	35%	0.10	-1.47
2032	34	2	76%	-5.30	24%	0.10	-2.01
2033	35	3	86%	-6.07	14%	0.10	-2.64
2034	36	4	97%	-6.84	3%	0.10	-3.34
2035	37	5	100%	-7.62	0%	0.10	-3.85
2036	38	6	100%	-8.39	0%	0.10	-4.24
2037	39	7	100%	-8.70	0%	0.10	-4.40
2038	40	8	100%	-8.70	0%	0.10	-4.40
Total Acres Eroded							-32.18

Cost Effectiveness of a Potential Additional 20 Year Period

The cost effectiveness of a potential additional 20 year period of ME-13 is \$148,819 per acre (\$3,303,773 / 22.2 acres).

Cost Effectiveness of ME-13 as a 40 Year Project

Forty years of ME-13 would have a fully funded cost of \$8,913,357 (\$5,609,584 + \$3,303,773). The benefits of forty years of ME-13 would be 104.1 net acres (81.9 net acres + 22.2 net acres). The cost effectiveness of a 40 year ME-13 would be \$85,623 per net acre (\$8,913,357 / 104.1 net acres).

Cost Effectiveness of ME-04 Versus Other Recently Approved CWPPRA Projects

Projects	Cost/ Net Acre
ME-13 Years 1-20	68,493
ME-13 Years 21-40	148,819
ME-13 Years 1-40	85,623
PPL18 Average	46,822
PPL19 Average	88,656
PPL20 Average	50,682
PPL21 Average	60,622
PPL22 Average	89,578
PPL23 Average	132,661
PPL24 Average	85,088
OVERALL AVG PPL18-24	78,177
2009 Phase II Approvals Average	120,303
2010 Phase II Approvals Average	140,462
2011 Phase II Approvals Average	206,094
2012 Phase II Approvals Average	70,429
2013 Phase II Approvals Average	67,618
2014 Phase II Approvals Average	54,646
2015 Phase II Approvals Average	62,095
OVERALL AVG PHASE II APPROVALS 2009-2015	103,017
AVERAGE ALL PPL AND PHASE II APPROVALS 2009-2015	87,690

Literature Cited

Wood, B. and Guidry, M. 2014. 2014 Operations, Maintenance, and Monitoring Report for Freshwater Bayou Wetland Protection (ME-04), Coastal Protection and Restoration Authority of Louisiana, Lafayette 47pp and appendices.

APPENDIX A

ME-13 Project Map



Freshwater Bayou Bank Stabilization (ME-13)

-  Shoreline Protection
-  Project Boundary



0.5 0 0.5 1 Miles

0.5 0 0.5 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:
1998 Digital Orthophoto Quarter Quadrangle

Map Date: August 23, 2002
Map ID: 2002-11-709
Data accurate as of: August 23, 2002

APPENDIX B

Nominal Operation, Maintenance, and Monitoring Costs for Potential ME-13 Project Extension

APPENDIX C

Fully Funded Operation, Maintenance, and Monitoring Costs for Potential ME-13 Project Extension



Freshwater Bayou Bank Stabilization (ME-13)

Project Status

Approved Date: 1996 **Project Area:** 1,724 acres
Approved Funds: \$5.60 M **Total Est. Cost:** \$5.60 M
Net Benefit After 20 Years: 511 acres
Status: Completed June 1998
Project Type: Shoreline Protection
PPL #: 5

Location

This project is located along the west bank of Freshwater Bayou Canal near Little Vermilion Bay, 4 miles southwest of Intracoastal City, Louisiana, in Vermilion Parish. It extends north from North Prong and Belle Isle Bayou to Sixmile Canal.

Problems

Increased tidal action, saltwater intrusion, and boat wakes have accelerated erosion along the banks of the Freshwater Bayou Canal.

The spoil banks have completely eroded in some areas. The remaining spoil banks along the southern reach of the project area separate Freshwater Bayou Canal from several interior marsh ponds. If the banks breach, shoreline erosion will accelerate interior marsh loss.

Restoration Strategy

The objective of this project was to prevent further wetland loss through the reduction of bank erosion and subsequent tidal scour of shoreline marshes.

Approximately 23,193 linear feet of freestanding rock dike were constructed in shallow water along the west bank of Freshwater Bayou Canal (from its confluence with Sixmile Canal on the northern end and North Prong to the south).



By placing riprap in front of the existing shoreline, further wetland loss will be decreased dramatically. It is anticipated that open water areas behind the rock structure will accumulate sediments and eventually become vegetated.

Progress to Date

The local cost share for this project was provided by Acadian Gas Company. Construction began in March 1998 and was completed in May 1998. The monitoring plan was approved in February 1997. To date, monitoring has consisted of documenting the pre-construction shoreline position relative to the rock dike and a land-to-water analysis of the pre-construction aerial photography that was taken in January 1997. This project is on Priority Project List 5.

For more project information, please contact:



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



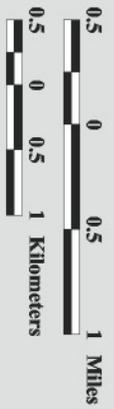
Local Sponsor:
 Coastal Protection and Restoration Authority
 Baton Rouge, LA
 (225) 342-4736



Freshwater Bayou Bank Stabilization (ME-13)

 Shoreline Protection
 Project Boundary


 science for a changing world



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

Background Imagery:
 1998 Digital Orthophoto Quarter Quadrangle
 Map Date: August 23, 2002
 Map ID: 2002-11-709
 Data accurate as of: August 23, 2002

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

FY16 PLANNING BUDGET APPROVAL, INCLUDING THE PPL 26 PROCESS, AND PRESENTATION OF FY16 OUTREACH BUDGET (PROCESS, SIZE, FUNDING, ETC.)

For Decision:

The P&E Subcommittee will present their recommended FY16 Planning Program Budget development, including the PPL 26 Process.

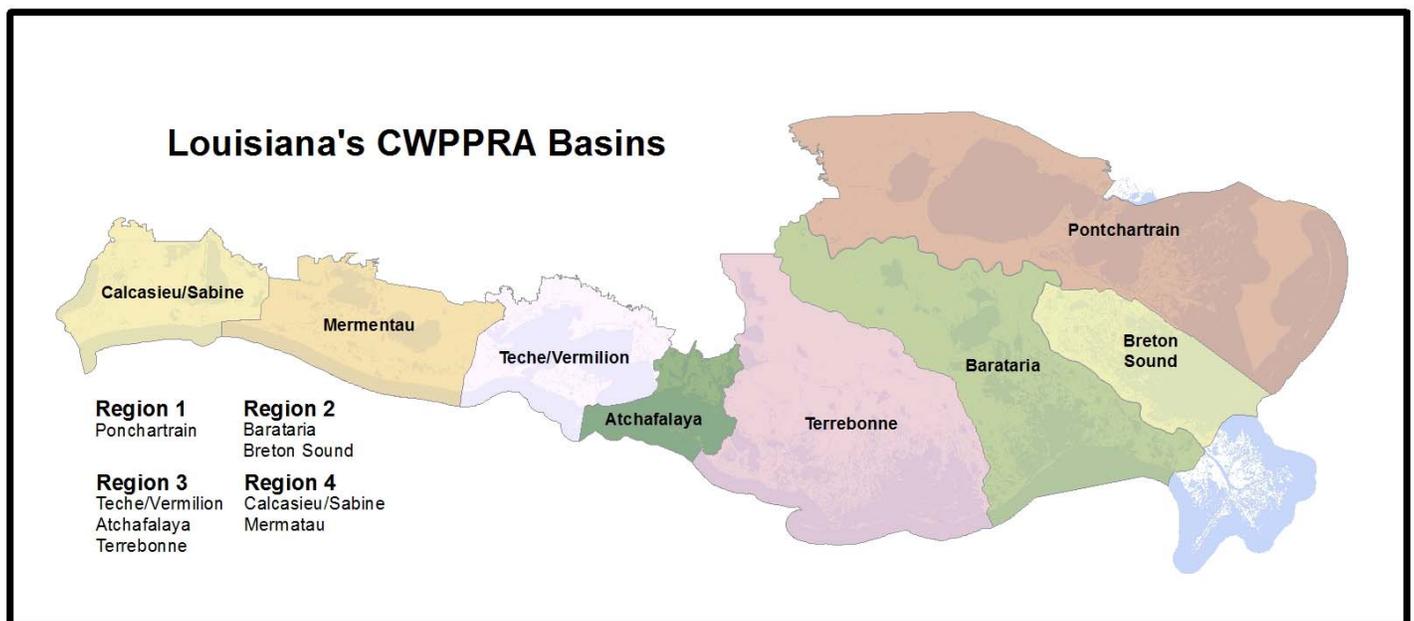
- a. The Technical Committee will vote on a recommendation to the Task Force to approve that the PPL 26 Process Standard Operating Procedures include selecting four nominees in the Barataria and Terrebonne Basins; three projects in the Breton Sound and Pontchartrain Basins; two nominees in the Mermentau, Calcasieu/Sabine, and Tech/Vermilion Basins; and one nominee will be selected in the Atchafalaya Basin.
- b. The Technical Committee will vote on a recommendation to the Task Force to approve the FY16 Outreach Committee Budget, in the amount of \$446,113.
- c. The Technical Committee will vote on a recommendation to the Task Force to approve the FY16 Planning Budget (includes Outreach Committee Budget), in the amount of \$5,002,132.



Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Priority Project List (PPL) Selection Process

Project Nominations

The 4 Regional Planning Teams (RPTs) will meet to propose projects to be included on the new PPL. Project nominations will be accepted in all the hydrologic basins below. *All proposals must be consistent with the 2012 State Master Plan to be considered as possible nominees; therefore, those wishing to propose projects are encouraged to work with representatives of the Louisiana Coastal Protection and Restoration Authority prior to the RPT meetings to develop projects that are consistent.* A lead agency will be assigned to each nominated project to prepare preliminary project support information (factsheet, maps, and potential designs, and benefits).



- 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.
- Multi-basin projects can be broken into multiple projects to be considered individually in the basins which they occur.
- Project nominations that are legitimate coastwide applications will be accepted separate from the 8 basins at any of the 4 RPT meetings.
- If similar projects are proposed within the same area, the RPT representatives will determine if those projects are sufficiently different to allow each of them to move forward. If not sufficiently different, such projects will be combined into one project nominee.

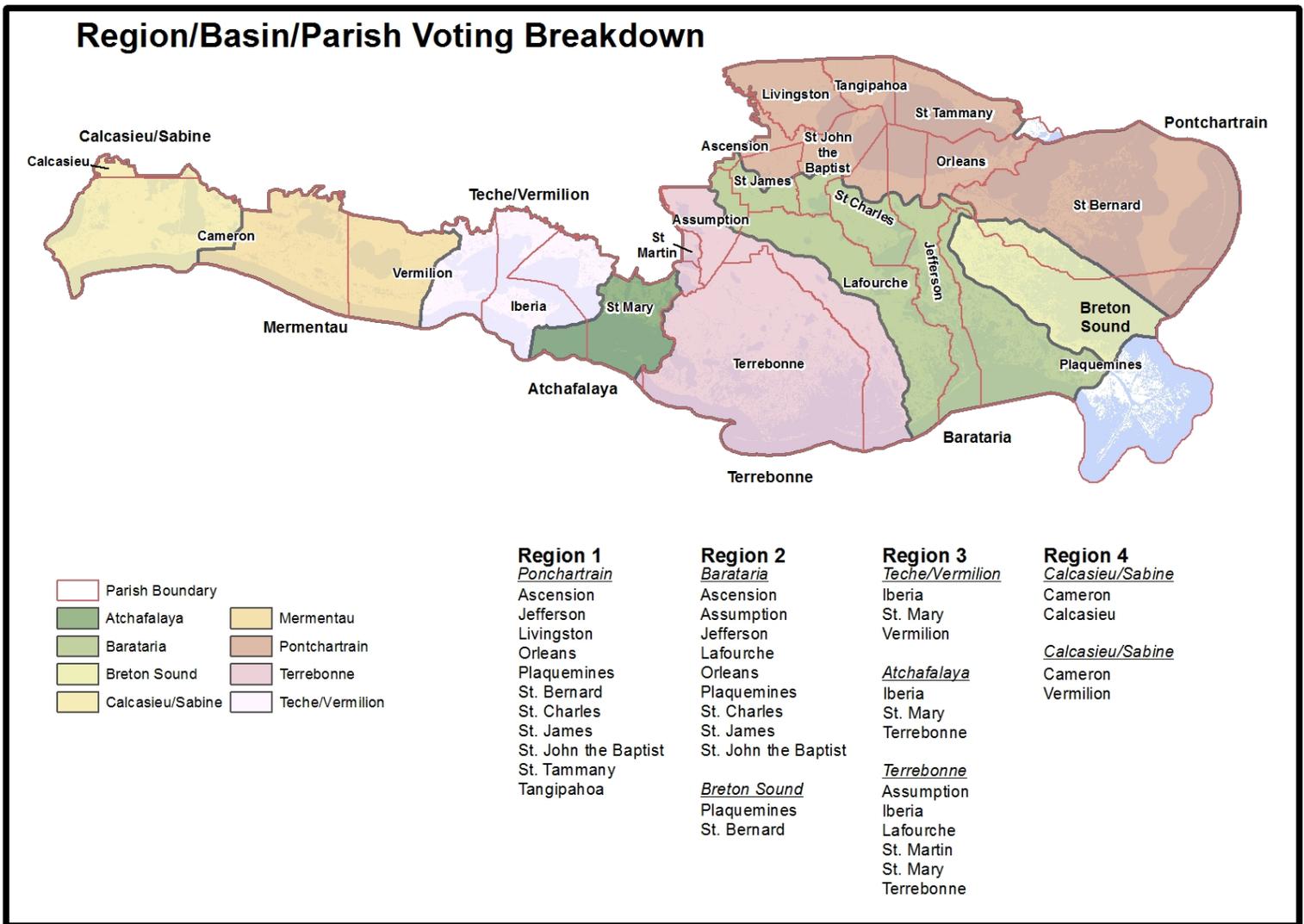
Prior to voting on project nominees, the Environmental Work Group (EnvWG) and Engineering Work Group (EngWG) will screen coastwide project and demonstration project nominations to ensure that each qualifies for its respective category as set forth in the CWPPRA Standard Operating Procedures (SOP).

Nominees	Basin
4	Barataria
4	Terrebonne
3	Breton Sound
3	Pontchartrain
2	Mermentau
2	Calcasieu/Sabine
2	Teche/Vermilion
1	Atchafalaya
1	Coastwide
22	TOTAL

Coastwide Electronic Vote

The RPTs will vote after the individual RPT meetings via email or fax to select nominee projects. The RPTs will select projects per basin based on land loss rates (see table on left) and up to 6 demonstration projects.

During the RPT meetings, all CWPPRA agencies and parishes will be required to provide the name and contact information for the official representative who will vote to select nominee projects. Each officially designated parish representative in the basin will have one vote and each federal agency and the State will have one vote.



Preliminary Assessment of Nominated Projects

Agencies, parishes, landowners, and other individuals will informally confer to further develop projects. The lead agency designated for each nominated project will prepare a brief project description that discusses possible features. Factsheets will also be prepared for demonstration project nominees.

During this preliminary assessment, the EngWG and EnvWG meet to review project features, discuss potential benefits, and estimate preliminary fully funded cost ranges for each project. The Work Groups also review the nominated demonstration projects. If it is determined that a demonstration project is unlikely to be utilized in restoration or has been evaluated previously, the Work Groups may recommend to the Technical Committee that these projects not move forward.

The P&E Subcommittee prepares a matrix of cost estimates and other pertinent information for nominees and demonstration project nominees.

Selection of Phase 0 Candidate Projects

The selection of the Phase 0 candidate projects occurs at the spring Technical Committee meeting. The Technical Committee meets to consider the project costs and potential wetland benefits of the nominees. They will select 10 candidate projects regardless of basin and may select up to 3 demonstration project candidates for detailed assessment by the EngWG, EnvWG, and Economic Work Group (EcoWG).

Phase 0 Analysis of Candidate Projects

During Phase 0 analysis, the EngWG, EnvWG and Academic Advisory Group meet to refine project features and develop boundaries for the project and extended boundaries for estimating land loss.

The sponsoring agencies coordinate site visits for each project to observe the conditions in the project area. There will be no site visits conducted for demonstration projects. The sponsoring agencies develop draft WVAs and prepare Phase 1 engineering and design cost estimates and Phase 2 construction cost estimates, using formats approved by the applicable work group. Demonstration project candidates will be evaluated as outlined in Appendix E of the SOP.

The EngWG reviews and approves Phase 1 and 2 cost estimates, the EcoWG reviews cost estimates and develops annualized (fully funded) costs, and the EnvWG reviews and approves all draft WVAs.

The Corps of Engineers staff prepares an information package for Technical Committee review and public distribution consisting of:

- 1) Updated project factsheets;
- 2) A matrix that lists projects, fully funded cost, average annual cost, WVA results in net acres and Average Annual Habitat Units (AAHUs), and cost effectiveness (average annual cost/AAHU);
- 3) A qualitative discussion of supporting partnerships and public support.

Selection of the PPL

The selection of the PPL will occur at the winter Technical Committee and Task Force meetings. The Technical Committee meets and considers matrix, project factsheets, and public comments, then recommends up to 4 projects and up to one demonstration project for selection to the PPL. The Task Force will review the Technical Committee recommendations and determine which projects will receive Phase 1 (design) funding for the PPL.

Once a project completes Phase I, Phase II (construction) funding must be requested from the Task Force and much of the evaluation is updated using additional information gained since original analysis.



Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA)

PPL 26 Schedule

January #, 2016	Region IV Planning Team Meeting (Lafayette)
January #, 2016	Region III Planning Team Meeting (Houma)
January #, 2016	Regions I and II Planning Team Meetings (Lacombe)
February #, 2016	Coastwide RPT Electronic Vote
February - March, 2016	Agencies prepare factsheets for RPT-nominated projects
March 2016	Engineering/Environmental Work Groups review project features, benefits, & prepare preliminary cost estimates for nominated projects (Baton Rouge)
March 2016	P&E Subcommittee prepares matrix of nominated projects showing initial cost estimates and benefits
April #, 2016	Spring Technical Committee Meeting, select PPL 26 candidate projects (New Orleans)
May/June 2016	Candidate project site visits
May #, 2016	Spring Task Force Meeting (Lafayette)
July/August/ September 2016	Eng/Eng/Econ Work Group project evaluations
September #, 2016	Fall Technical Committee Meeting, O&M and Monitoring funding recommendations (Baton Rouge)
October #, 2016	Fall Task Force Meeting, O&M and Monitoring approvals (New Orleans)
October 2016	Economic, Engineering, and Environmental analyses completed for PPL 26 candidates
December #, 2016	Winter Technical Committee Meeting, recommend PPL 26 and Phase I and II approvals (Baton Rouge)
January 2017	Winter Task Force Meeting, select PPL 26 and approve Phase II requests (New Orleans)

****DATES SUBJECT TO CHANGE****

Visit www.lacoast.gov/calendar for up-to-date information regarding meetings dates, times, & locations.

CWPPRA FY 2016 Public Outreach Budget DRAFT



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

RESTORING COASTAL LOUISIANA SINCE 1990

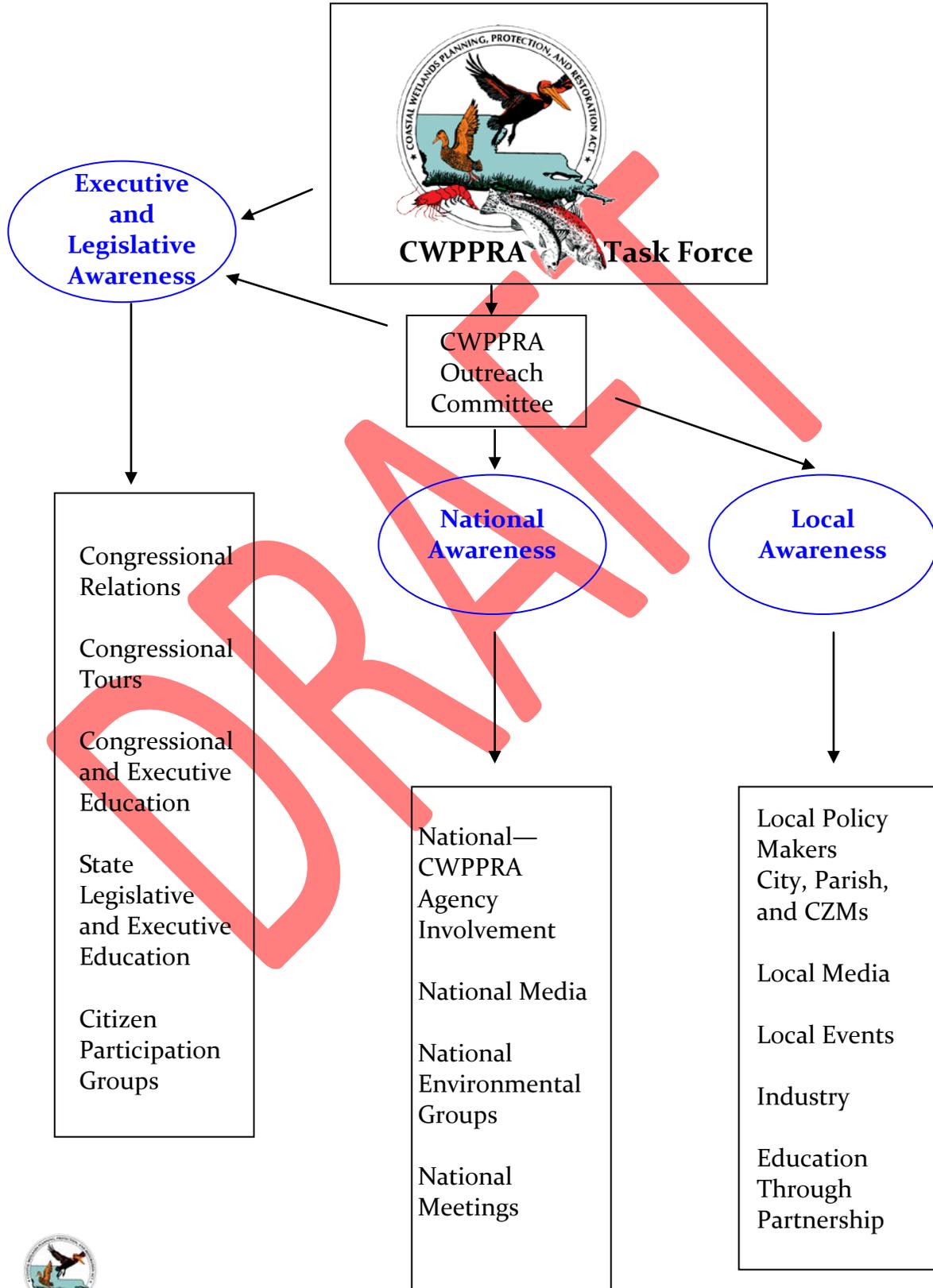
MANAGING
AGENCIES :



Includes:
CWPPRA Audience Chart
Line Items of Budget – One per page
CWPPRA 2016 Public Outreach Budget Summary Sheet



CWPPRA Audiences



Line Item: CWPPRA Web site –www.LAcoast.gov

CWPPRA Funding Request: \$0 requested from Outreach budget-funding from construction budget (Identical to last year)
Web Application Developer / Applications Security Services and Web Server Hardware and Software Maintenance

Time Line: October 1, 2015 – September 30, 2016

Brief Description:

This includes the web server hardware and software, system management, backup and recovery maintenance, and ongoing programming efforts for the www.LaCoast.gov web site. This site currently provides a continuous online presence for federal/state partners and the general public to access the latest information on CWPPRA, its projects, partners, and other pertinent information related to Louisiana's coastal wetlands conservation and restoration. This funding also includes the cost related to storing and distributing WaterMarks, fact sheets, videos, legislative links, educational materials, social media, and CWPPRA Newsflash via the web. It includes daily maintenance and update of text and links. The LaCoast.gov web site is an interface between the public and the program.

Goal:

- Maintain the LaCoast.gov web site on CWPPRA projects and activities

Objectives:

- Provide the public with research-based information about CWPPRA and CWPPRA projects.
- Provide a digital copy of information that highlights the programs successes and activities
- Provide a tool to share information with others about CWPPRA activities
- Provide a resource for a variety of audiences including media, federal agencies, legislative audiences, educators, and general public
- Provide current and historic information related to CWPPRA and wetland loss and restoration

Deliverables:

- Summary of CWPPRA Web site activities (Three times per year-at Task Force Meetings)



Line Item: CWPPRA Dedication Ceremony

CWPPRA Funding Request: \$ 3,000 (agency TBA)

Time Line: October 1, 2015 – September 30, 2016

Brief Description:

This amount includes costs associated with the planning and coordination of one CWPPRA Dedication Ceremony. It includes amounts related to the printing of invitations, posters, programs and the production of photographs that record the event.

Goal:

- Annually host one CWPPRA dedication to provide a variety of audiences a chance to have a hands-on experience with CWPPRA.

Objectives:

- Provide the public, media, legislative delegates, federal agency staff, and CWPPRA agency staff with an opportunity to visit a CWPPRA project, meet CWPPRA project managers and scientists, and learn more about CWPPRA activities

Deliverables:

- Digital and hard copy of invitations
- Digital and hard copy of posters related to CWPPRA projects being highlighted
- Digital and hard copy of the programs for the dedication
- Digital photographs that record the event



Line Item: Federal and State Legislative Education

CWPPRA Funding Request: \$0 CWPPRA Outreach Staff Time and Local Travel Only
Time Line: October 1, 2015 – September 30, 2016

Brief Description:

This includes preparing an organized approach to meeting and educating several of the Nation's and Louisiana's legislative delegates in their home offices outside of the annual session or during session upon request.

Targeted delegates include those working on one or more of the following committees:

- Natural Resource Committee – Senate
- Select Committee on Coastal Restoration and Flood Control – Senate
- Environment Quality-Senate
- Natural Resources and the Environment – House
- Joint Legislative Committee on the Budget

Materials that will be prepared for the federal legislative audience will also be used with Louisiana state delegates.

Goals:

- To reach the legislative audience in a concentrated and targeted approach to education on land loss, the restoration and preservation of Louisiana wetlands, and CWPPRA's role in restoration for the last 20 years
- To explain the organizational and fiscal structure of CWPPRA
- To explain the citizen involvement role in coastal restoration

Objectives:

- To provide contemporary delegates with current up to date information about CWPPRA and the CWPPRA program activities and projects
- To create effective CWPPRA briefing packets
- Create appropriate digital and hard copies of materials
- To deliver materials to state legislative delegates in a face to face meeting
- Create a resource for legislative delegates

Deliverables:

- Digital copy of materials created
- Digital copy of briefing packets
- Digital copy of list of meeting that CWPPRA outreach staff and agency partners participate in



Line Item: Meeting Attendance, Exhibits, and Travel

CWPPRA Funding Request: \$ 25,000 (Example: USGS or NOAA)

Time Line: October 1, 2015 – September 30, 2016

Brief Description:

This amount includes costs associated with support of at least one national discussion and up to two state symposia to be identified by the CWPPRA Task Force in conjunction with the CWPPRA Public Outreach Committee. These funds support all of the CWPPRA agencies and the appropriate agency will facilitate transfer. (Example: NOAA has used funds to help with RAE and CNREP) Exhibits and presentations provide excellent venues for CWPPRA public outreach efforts to reach a concentrated, target audience that is highly involved in the preservation and restoration of America's coastal lands as well as to provide CWPPRA with an opportunity to reach out to other people inside the CWPPRA managing federal agencies in attendance. Support from CWPPRA for past sessions have led to many partnerships with entities that have helped with collaborative outreach efforts. This amount includes all cost associated with meetings, exhibition, and symposium participation. It includes the cost for registration, exhibit space, display shipping and handling, and any other fees associated with regional events.

Goals:

- To reach a concentrated and target audience that specific interest in the restoration and preservation of Louisiana wetlands
- To reach a audiences including partner agency personnel that are unaware of CWPPRA and the restoration and preservation of Louisiana wetlands
- Provide hard copies of materials to various audiences including industry, the general public, NGOs, and CWPPRA partnering agency staff unfamiliar with the CWPPRA program

Objectives:

- Provide the scientifically accurate information about CWPPRA in a meeting setting preferably one national and one state meeting
- Exhibit and present where appropriate in order to provide accurate information about CWPPRA

Deliverable:

- Digital and hard copy of list of meetings, exhibits, and presentations



Line Item: CWPPRA Product Creation and Reproduction

CWPPRA Funding Request: \$18,000 (USDA NRCS)

Time Line: October 1, 2015 – September 30, 2016

Brief Description:

This includes all cost associated with production, or reproduction, of materials and products used for CWPPRA education and public outreach efforts. The amount is used to produce: Videos, CD-ROMS, Fact Sheets, Slide Shows, PowerPoint Presentations, Posters, Brochures, etc. These funds go through USDA NRCS to a GPO contractor

Goals:

- To reach a concentrated and target audience that specific interest in the restoration and preservation of Louisiana wetlands
- To reach a audiences that are unaware of CWPPRA and the restoration and preservation of Louisiana wetlands

Objective:

- Provide hard copies of materials to various audiences

Deliverables:

- Digital and hard copy of list of Meeting, exhibits, and presentations etc.
- Digital and hard copy of list of materials printed

Examples of possible materials to be printed:

New Children's Activity Booklet
CWPPRA Fact Sheets
CRMS Beginner's Guide
Turning the Tide Curriculum document
I Remember... Louisiana Reflections and Stories of the Past materials



Line Item: Special Projects (such as photo, video, writing)

CWPPRA Funding Request: \$5,000 (LUMCON)

Time Line: *October 1, 2015 – September 30, 2016*

Brief Description:

Work with professional photographer or writer to create new outreach products of interest for publications. Also, provides funding for the annual outdoor writers awards event.

Goal:

- To provide the public with a lay person's view of coastal restoration activities performed by CWPPRA and their value to the nation.

Objective:

- Provide digital copies of photos, videos, or writing for various audiences

Deliverables:

- Digital copy of list of articles
- Digital and hard copy of the articles



Line Item: CWPPRA Fact Sheets

CWPPRA Funding Request: *\$0 Part of printing budget and CWPPRA Staff salaries*
Time Line: *October 1, 2015- September 30, 2016*

Brief Description:

This includes: the creation and update of the CWPPRA fact sheet, posting fact sheets to the Web and printing fact sheets.

Goals:

- To reach a concentrated and target audience that specific interest in the restoration and preservation of Louisiana wetlands
- To reach a audiences that are unaware of CWPPRA and the restoration and preservation of Louisiana wetlands

Objective:

- Provide digital and hard copies of fact sheets to various audiences

Deliverable:

- Digital and hard copy of fact sheets



Line Item: Print Communications, Development, Printing, Mailing and Distribution

CWPPRA Funding Request: \$ 62,000
 (\$60,000 –USDA NRCS - Development and Printing)
 (\$2,000 - USACE - Mailing and Distribution)

Time Line: October 1, 2015 – September 30, 2016

Brief Description:

This includes all costs associated with the current approved contract for the production of CWPPRA's print communications. The cost includes writing, layout and design, printing and mailing. The publishing is managed by USDA NRCS, and the amount includes all fees associated with the printing of the publication through the US Government Printing Office and the current contract - currently responsible for the: planning, information gathering and research, detailed content outline, writing, editing, submission of material, graphic design services, editorial and graphics standards, and pre-flight file. All costs associated with the mail-out preparation and distribution of the print communications publication are currently managed by the USACE with the database of over 7,500 addresses that receive each published newsletter by mail.

Goal:

- Create informational print communications that can be used in a variety of venues and for a variety of audiences.

Objectives:

- Provide the public with research-based information about CWPPRA and CWPPRA projects.
- Provide a hard copy of information that highlights the programs successes
- Provide a tool to share information with others

Example Deliverables:

- **2 issues of WaterMarks per calendar year**
- **13,500 copies or a total of 27,000 copies per year distributed to various users**

That works out to \$2.30 per issue.

Print communications are distributed as follows: USACE receives 8,500 directly. Of those 8,000, about 7,000 are mailed out directly by the USACE to members of the public who are on the mailing list. CPRA receives 1,000 copies. USDA NRCS receives 1,000 copies



CWPPRA Outreach Staff receives 3,000 copies and they are mailed out or brought to various partners including: NOAA, USFWS, CRCL, LSU Ag Center, EPA, BTNEP, LA Sea Grant, LSU Ed. Theory Dept., UNO PIES, CCA, Audubon Zoo, USGS NWRC, LDWF, and Lafourche Parish Tourist Commission.

Line Item: CWPPRA Student Worker

CWPPRA Funding Request: \$19,900 (USGS)

Time Line: October 1, 2015 – September 30, 2016

Brief Description:

This amount includes all cost associated with the salary, and management over-head rates for one part-time student worker; and the mailing of materials requested through CWPPRA’s public outreach office. The student worker provides support and assistance to the Outreach Coordinator and Media Specialist by monitoring media clips, responding to material requests, and conducting any other administrative tasks that may help improve outreach efforts. The amount also includes costs allocated to mail materials to the public, managing agencies, partners and anyone else who requests information on CWPPRA.

Goal:

- To provide support to CWPPRA program for outreach activities

Objectives:

- Provide quick responses to requests for materials
- Provide support for preparation of outreach activities

Deliverables:

- List of mail outs organized by student worker
- Digital and hard copy of timesheet for student worker
- Quarterly report of student activities



Line Item: CWPPRA Public Outreach Staff

CWPPRA Funding Request: \$ 262,413 (USGS)

Time Line: October 1, 2015 – September 30, 2016

Brief Description:

Organizes outreach activities through the CWPPRA Public Outreach Committee and CWPPRA Task Force. Position is housed at the National Wetlands Research Center (NWRC) in Lafayette, LA. Responsible for the management of all day-to-day public outreach committee efforts, and acts as the liaison between the public, parish governments, and the various Federal agencies and partners associated with CWPPRA. Provides support for creating outreach/education materials that are distributed and used by a variety of audiences. Providing guidance, expertise, and support in communicating CWPPRA strategies and progress with the public

Works to reach three target audiences: 1) executive and legislative; 2) national leaders and partners; and 3) local leaders, partners and individuals. Audiences include policy-makers, environmental managers, or opinion-leaders, coastal zone environmental managers, civic leaders, educators, state legislators, statewide and national media, our national congressional delegation, CWPPRA committees, national environmental managers, environmental scientists, and energy, navigation, agriculture and tourism leaders.

Provides support for conducting educational and information workshops for teachers and the public. Participate and present at regional and national environmental workshops. Update CWPPRA outreach materials in order to reach target audience. Develop curricula and new outreach material. Update CWPPRA on-line calendar, develop and deliver the Breaux Act Newsflash. Respond to information requests. Work with microcomputer specialist to update current website and electronic educational material. Perform duties associated with outreach coordinator and media specialist.

This includes one full time outreach coordinator, one full time outreach assistant/media specialist, and part time for support of fact sheet development and activities related to text updates and changes.

Deliverables:

- Summary of CWPPRA Web site activities (Three times per year-at Task Force Meetings)
- CWPPRA Newsflash activity
- WaterMarks activities
- Requests for information
- List of media that mentions CWPPRA press releases and other publicity
- Major accomplishments, list of activities, and list of meetings
- Lists of exhibits, presentations, field trips and Meeting
- Active and updated CWPPRA Web site, CWPPRA Newsflash, CWPPRA Calendar, CWPPRA Facebook page, and YouTube site maintained daily or as needed.



Line Item: CWPPRA Public Outreach Committee Personnel by Agency

CWPPRA Funding Request: \$50,800

NMFS \$6,600

USDA NRCS \$6,600

EPA \$6,600

CPRA \$6,600

USFWS \$3,300

USACE \$6,600

NWRC \$14,500

Time Line: *October 1, 2015 – September 30, 2016*

Brief Description:

Each agency of the CWPPRA team is represented on the CWPPRA Public Outreach Committee by a member of each of the agencies' staff. The funds identified are used by outreach committee members to attend meetings and review CWPPRA materials. Many CWPPRA Public Outreach Committee members also participate in a variety of outreach events.

Deliverables:

- Minutes from CWPPRA Public Outreach Committee Meetings
- List of deliverables that have been reviewed by the committee members



CWPPRA 2016 Public Outreach Budget Summary

Recommendation to the CWPPRA Task Force

Operations

<u>Description</u>	<u>Agency</u>	<u>FY2016</u>	
CWPPRA Annual Dedication Ceremony	USACE	3,000	
Meeting Attendance, Exhibits, and Related Travel	Ex: USGS or NOAA	25,000	
CWPPRA Product Creation and Reproduction	USDA NRCS	18,000	
Special Projects (such as photo, video, or writing)	LUMCON	5,000	
Print Communications, Development, Printing, Mailing and Distribution	USDA NRCS/USACE	62,000	
CWPPRA Student Worker and Mail Out Support	USGS/ ULL	19,900	
CWPPRA Public Outreach Staff	USGS	<u>262,413</u>	
CWPPRA Federal Public Outreach Committee Members			395,313
NFMS		6,600	
USDA NRCS		6,600	
EPA		6,600	
CPRA		6,600	
USFWS		3,300	
USACE		6,600	
NWRC		<u>14,500</u>	
			+ <u>50,800</u>
Total Budget			446,113



**Coastal Wetlands Planning, Protection, and Restoration Act
Fiscal Year 2016 Planning Schedule and Budget
P&E Committee Recommendation,
Tech Committee Recommendation,
Task Force Approval,**

4/8/2015

Carry Over Funds \$120,255

CWPBRA COSTS														
TASK			Duration		Dept of Defense	Department of Interior			State of Louisiana		EPA	Department of Agriculture	Department of Commerce	
Task Category	Task No.	Description	Start Date	End Date	USACE	USFWS	NWRC	CPRA/GO	LDWF	EPA	NRCS	NMFS	Other	Total
PPL 24 TASKS														
PL	24500	TC Recommendation for Project Selection and Funding	12/1/14	12/11/14	2,879	6,717	0	1,829	2,253	2,952	4,159	3,225	0	24,013
PL	24600	TF Selection and Funding of the 24th PPL	1/17/15	1/27/15	5,583	9,679	0	3,702	1,502	4,632	5,218	10,402	0	40,718
PL	24700	PPL 24 Report Development	2/17/15	7/29/15	50,225	2,687	0	1,862	0	0	383	608	0	55,766
FY16 Subtotal PPL 24 Tasks					58,688	19,083	0	7,393	3,755	7,584	9,760	14,235	0	120,497
PPL 25 TASKS														
PL	25200	Development and Nomination of Projects												
PL	25210	CPRA/USGS prepares base maps of project areas, location of completed projects and projected loss by 2050. Develop a comprehensive coastal LA map showing all water resource and restoration projects	10/12/14	10/31/15	1,038	0	0	4,067	0	0	383	0	0	5,488
PL	25220	Sponsoring agencies prepare fact sheets (for projects and demos) and maps prior to and following RPT nomination meetings.	10/13/14	9/3/15	65,118	33,584	0	9,652	0	36,520	95,340	23,749	0	263,963
PL	25230	RPT's meet to formulate and combine projects.	1/26/15	1/31/15	21,068	14,926	0	10,548	4,506	8,928	12,743	12,800	0	85,519
PL	25300	Ranking of Nominated Projects												
PL	25320	Engr Work Group prepares preliminary fully funded cost ranges for nominees.	3/4/15	3/21/15	1,217	2,687	0	4,437	0	4,928	7,108	5,310	0	25,687
PL	25330	WGs develop and P&E distributes project matrix	3/31/15	3/31/15	1,427	3,188	0	2,658	0	3,520	209	3,256	0	14,258
PL	25340	Environ/Engr Work Groups review nominees	4/1/15	4/1/15	1,376	8,359	0	4,212	2,253	3,952	5,882	5,310	0	31,344
PL	25350	TC selection of new PPL candidates and demo candidates	4/14/15	4/14/15	2,491	3,687	0	2,847	2,253	3,916	3,589	7,964	0	26,747

**Coastal Wetlands Planning, Protection, and Restoration Act
Fiscal Year 2016 Planning Schedule and Budget
P&E Committee Recommendation,
Tech Committee Recommendation,
Task Force Approval,**

4/8/2015

Carry Over Funds \$120,255

CWPRA COSTS															
TASK			Duration		Dept of Defense	Department of Interior			State of Louisiana		EPA	Department of Agriculture	Department of Commerce		
Task Category	Task No.	Description	Start Date	End Date	USACE	USFWS	NWRC	CPRA/GO	LDWF	EPA	NRCS	NMFS	Other	Total	
PL	25400	Analysis of Candidates													
PL	25410	Sponsoring agencies coordinate site visits for all projects	5/2/15	7/14/15	38,057	28,437	0	17,391	15,019	35,244	41,287	32,340	0	207,774	
PL	25420	Engr/Environ Work Group refine project features and determine boundaries	5/2/15	9/29/15	8,902	16,792	0	9,321	15,019	5,904	8,052	12,800	0	76,790	
PL	25430	Sponsoring agencies develop project information for WVA; develop designs and cost estimates (projects and demos)	5/2/15	9/29/15	39,683	42,149	0	37,992		40,684	61,943	56,804	0	279,255	
PL	25440	Environ/Engr Work Groups project-wetland benefits (with WVA)	5/2/15	9/29/15	28,655	26,867	0	15,402	6,759	18,464	10,282	39,798	0	146,227	
PL	25450	Engr Work Group reviews/approves cost estimates from sponsoring agencies, incl cost estimates for demos	5/2/15	10/14/15	15,560	6,427	0	8,179	0	11,408	4,282	15,929	0	61,785	
PL	25460	Economic Work Group reviews cost estimates, adds monitoring, O&M, etc., and develops annualized costs	5/2/15	10/14/15	17,264	1,717	0	1,630	0		7,963	5,310	0	33,884	
PL	25480	Prepare project information packages for P&E.	5/2/15	11/9/15	8,298	7,836	0	2,483	0	1,968	189	5,310	0	26,085	
FY16 Subtotal PPL 25 Tasks					250,154	196,656	0	130,819	45,809	175,436	259,253	226,679	0	1,284,807	
Project and Program Management Tasks															
PM	25100	Program Management Coordination, Budget Development and Oversight	10/1/14	9/30/15	643,959	144,233	39,568	123,105	12,767	250,710	213,000	203,670	0	1,631,011	
PM	25200	Program and Project Management--Financial Management of Non-Cash Flow Projects	10/1/14	9/30/15	66,767	10,821	0	17,718	0	0	19,182	24,750	0	139,238	
PM	25300	P&E Meetings (meetings preparation and attendance)	10/1/14	9/30/15	23,427	9,679	2,895	5,291	4,506	11,616	13,836	15,057	0	86,308	
PM	25400	Tech Com Mtngs (meetings including public and off-site; preparation and attendance)	10/1/14	9/30/15	140,318	29,852	4,825	17,303	11,265	12,352	17,719	26,840	0	260,475	
PM	25500	Task Force mtngs (meetings, including public and executive session; preparation and attendance)	10/1/14	9/30/15	154,073	33,584	8,619	24,151	9,012	20,528	31,715	43,218	0	324,900	
PM	25600	Agency Participation, Review 30% and 95% Design for Projects	10/1/14	9/30/15	59,982	11,941	0	10,347	0	14,784	6,172	12,800	0	116,026	
PM	25700	Engineering & Environmental Work Groups review	10/1/14	9/30/15	12,761	11,941	0	5,956	10,512	3,937	6,769	12,800	0	64,676	
PM	25800	Miscellaneous Technical Support	10/1/14	9/30/15	52,953	10,075	0	81,406	0	35,000	50,107	40,000	0	269,541	
FY16 Subtotal Project Management Tasks					1,154,240	262,126	55,907	285,277	48,062	348,926	358,501	379,136	0	2,892,175	
FY16 Total for PPL Tasks					1,463,082	477,865	55,907	423,489	97,626	531,947	627,514	620,049	0	4,297,479	

**Coastal Wetlands Planning, Protection, and Restoration Act
Fiscal Year 2016 Planning Schedule and Budget
P&E Committee Recommendation,
Tech Committee Recommendation,
Task Force Approval,**

4/8/2015

Carry Over Funds \$120,255

CWPBRA COSTS															
TASK			Duration		Dept of Defense	Department of Interior			State of Louisiana		EPA	Department of Agriculture	Department of Commerce		
Task Category	Task No.	Description	Start Date	End Date	USACE	USFWS	NWRC	CPRA/GO	LDWF	EPA	NRCS	NMFS	Other	Total	
SUPPLEMENTAL PLANNING AND EVALUATION TASKS															
SPE	25100	Academic Advisory Group [NOTE: New MOA between USGS and LUMCON] [Prospectus, pg 5-7]	10/1/14	9/30/15	0	0	0	0	0	0	0	0	112,200	112,200	
SPE	25200	Core GIS Support for CWPBRA Task Force Planning Activities. [NWRC Prospectus]	10/1/14	9/30/15	0	0	146,340	0	0	0	0	0	0	146,340	
FY16 Total Supplemental Planning & Evaluation Tasks					0	0	146,340	0	0	0	0	0	112,200	258,540	
FY16 Agency Tasks Grand Total					1,463,082	477,865	202,247	423,489	97,626	531,947	627,514	620,049	112,200	4,556,019	
OUTREACH															
Otrch	25100	Outreach - Committee Funding	10/1/14	9/30/15	0	0	0	0	0	0	0	0	396,113	396,313	
Otrch	25200	Outreach - Agency	10/1/14	9/30/15	6,600	3,300	14,500	6,600	0	6,600	6,600	6,600	0	50,800	
FY16 Total Outreach					6,600	3,300	14,500	6,600	0	6,600	6,600	6,600	396,113	446,113	
Grand Total FY16					1,469,682	481,165	216,747	430,089	97,626	538,547	634,114	626,649	508,313	5,002,132	

NOTE: Transfer of funds between tasks is allowed as long the total budgeted amount per agency is not exceeded. Federal and State agencies shall abide by their fiscal accounting policies.

Coastal Wetlands Planning, Protection and Restoration Act

Fiscal Year 2015 Budget Summary

P&E Committee Recommendation,
 Technical Committee Recommendation,
 Task Force Approval,

	FY2010 Amount (\$)	FY2011 Amount (\$)	FY2012 Amount (\$)	FY2013 Amount (\$)	FY2014 Amount (\$)	FY2015 Amount (\$)	FY2016 Amount (\$)
General Planning & Program Participation [Supplemental Tasks Not Included]							
State of Louisiana							
CPRA	406,866	405,866	405,866	405,866	403,489	423,489	423,489
LDWF	96,879	99,879	99,879	99,879	97,626	97,626	97,626
Gov's Ofc	94,800	54,000	54,000	54,000	54,000	0	0
Total State	598,545	559,745	559,745	559,745	555,115	521,115	521,115
EPA	505,297	505,297	505,297	533,495	531,947	531,947	531,947
Dept of the Interior							
USFWS	496,918	479,918	479,918	479,918	477,865	477,865	477,865
NWRC	63,656	55,907	55,907	55,907	55,907	55,907	55,907
Total Interior	560,574	535,825	535,825	535,825	533,772	533,772	533,772
Dept of Agriculture	630,302	630,302	630,302	630,301	627,514	627,514	627,514
Dept of Commerce	621,080	621,081	621,081	621,080	620,049	620,049	620,049
Dept of the Army	1,471,688	1,468,497	1,468,497	1,468,497	1,463,082	1,463,082	1,463,082
Agencies Total	\$4,387,486	\$4,320,746	\$4,320,747	\$4,348,943	\$4,331,479	\$4,297,479	\$4,297,479
Outreach							
Outreach	487,148	452,400	452,400	452,400	445,800	445,800	446,113
Supplemental Tasks							
Academic Advisory Group	133,650	112,200	112,200	112,200	112,200	112,200	112,200
Database & Web Page Link Maintenance	64,153						
Linkage of CWPPRA & LCA							
Core GIS Support for Planning Activities	307,249	167,327	157,295	146,340	146,340	146,340	146,340
Evaluation Report to Congress			110,000			110,000	
Workshop Construction Projects							
Total Supplemental	\$505,052	\$279,527	\$379,495	\$258,540	\$258,540	\$368,540	\$258,540
Total Allocated	\$5,379,686	\$5,052,672	\$5,152,642	\$5,059,883	\$5,035,819	\$5,111,819	\$5,002,132

		08-Apr-15							
		Coastal Wetlands Planning, Protection and Restoration Act							
		FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	
		Total	Amount (\$)						
General Planning & Program Participation									
State of Louisiana									
	CPRA	10,841,878	406,866.00	405,866.00	405,866.00	405,866.00	413,489.00	423,489.00	423,489.00
	LDWF	1,815,109	9,499.03	54,000.00	54,000.00	99,879.00	97,626.00	97,626.00	97,626.00
	GOCA	1,120,357	96,879.00	99,879.00	99,879.00	54,000.00	54,000.00	0.00	0.00
Total State		13,777,345	513,244.03	559,745.00	559,745.00	559,745.00	565,115.00	521,115.00	521,115.00
EPA									
		11,468,269	505,297.00	505,297.00	505,297.00	533,494.54	531,947	531,947	531,947
Dept of the Interior									
	USFWS	10,190,206	496,918.00	479,918.00	479,918.00	479,918.00	477,865.00	477,865.00	477,865.00
	NWRC	2,256,596	63,607.26	55,907.00	55,907.00	55,907.00	55,907.00	55,907.00	55,907.00
Total Interior		13,051,525	560,525.26	535,825.00	535,825.00	535,825.00	533,772.00	533,772.00	533,772.00
Dept of Agriculture									
		15,064,658	630,302.00	630,302.00	630,302.00	630,302.00	627,514	627,514	627,514
Dept of Commerce									
		13,001,187	621,080.00	621,081.00	621,081.00	621,081.00	620,049	620,049	620,049
Dept of the Army									
		30,228,838	1,471,688.00	1,468,497.00	1,468,497.00	1,468,497.00	1,463,082	1,463,082	1,463,082
Agency Total		96,591,821	4,302,136.29	4,320,746.00	4,320,746.00	4,348,944	4,341,479	4,297,479	4,297,479
Miscellaneous Funding									
Public Outreach		8,877,790	487,148.00	452,400.00	452,400.00	452,400.00	445,800.00	445,800.00	446,113.00
Gen Program		180,089							
Coordinator		2,313,787	79,440.20	216,000.00	216,000.00	216,000.00	216,000.00	216,000.00	234,313.00
Outreach Assistant / Educational Specialist		560,017	55,238.68						
NWRC Administration		333,016	24,199.99	14,500.00	14,500.00	14,500.00	14,500.00	14,500.00	14,500.00
Agency Assistance - COE		97,970	4,361.42	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00
Agency Assistance - EPA		91,200	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00
Agency Assistance - FWS		40,855	3,290.47	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00	3,300.00
Agency Assistance - NMFS		95,972	6,514.69	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00
Agency Assistance - NRCs		99,182	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00
Agency Assistance - DNR		78,809	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00	6,600.00
Agency Assistance - Ofc of Gov		27,073	0.00	6,600.00	6,600.00	6,600.00	0.00	0.00	0.00
Contractual Support		291,495	21,500.00	21,000.00	21,000.00	21,000.00	21,000.00	21,000.00	21,000.00
Watermarks (Development & Printing)		1,296,658	60,000.00	60,000.00	60,000.00	60,000.00	60,000.00	60,000.00	60,000.00
Watermarks (Distribution)		133,258	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00	20,000.00	2,000.00
Articles for Print-Writing & Public Pubs		13,500			2,700.00	2,700.00	2,700.00	2,700.00	2,700.00
Dedication Support		62,730	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
Video & Photo Acquisition (USGS/BTNEP)		76,500		15,000.00	12,300.00	12,300.00	12,300.00	12,300.00	12,300.00
Product Reproduction		243,668	24,618.11	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00
Conference / Exhibits		211,627	8,000.00	14,000.00	24,000.00	24,000.00	24,000.00	24,000.00	24,000.00
Legislative Education (USGS/NOAA)		60,000		10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Total Outreach		8,426,017	423,263.56	452,400.00	452,400.00	452,400.00	446,113.00	445,800.00	446,113.00
Academic Advisory Group									
		2,217,287	133,650.00	112,200.00	112,200.00	112,200.00	112,200.00	112,200.00	112,200.00
Report to Congress		220,000			110,000.00			110,000.00	
Core GIS Support for Planning Activities (NWRC)		3,196,941	296,294.00	156,372.00	146,340.00	146,340.00	146,340.00	146,340.00	146,340.00
Core GIS Support for Planning Activities (DNR)		114,183	10,955.00	10,955.00	10,955.00	10,955.00	0.00	0.00	0.00
Total Miscellaneous		11,965,110	505,050.45	279,527.00	489,495.00	269,495.00	258,540.00	368,540.00	258,540.00
Total Allocated		124,879,745	5,294,335	5,052,673	5,262,641	5,070,839	5,045,819	5,111,819	5,002,132
Over/Under Balance		28,106,001	(294,335)	(52,673)	(262,641)	(70,839)	(45,819)	(111,819)	(2,132)
Funds Allocated		125,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Total Funds Allocated (Cumulative)			95,000,000	100,000,000	105,000,000	110,000,000	115,000,000	120,000,000	125,000,000
Carry over funds		120,255							



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

National Wetlands Research Center

April 10, 2015

Scope of Work

CWPPRA Reoccurring Planning Task: SPE 26400 *Core GIS Support for CWPPRA Task Force Planning Activities – Continuation for FY16*

Description:

The NWRC has provided the Task Force with GIS planning support since 1992. The scope and complexity of this support has increased over the past 23 years and has resulted in the development of a comprehensive GIS that provides the Task Force with annual planning deliverables that include spatial data sets, spatial data analyses, maps, graphics, and technical support. Providing these products and services to the Task Force requires a standardized GIS data management environment and a good deal of coordination with Task Force and Work Group members. The GIS products and technical services provided by the NWRC for CWPPRA Planning are, for the most part “reusable”, designed to support multi-scale applications, and form the core of the GIS data sets used to support CWPPRA monitoring, land rights, and engineering activities. The system that we have today represents 23 years of the Task Force’s investment in GIS technology, data development, and skilled staff. The NWRC continues to incorporate updated data sets and spatial analytical techniques to support the task force on an annual basis. The existing GIS datasets provide enhanced spatial data development, analyses, and products. The NWRC has continued to incorporate updated techniques and spatial data into the PPL process and will continue to incorporate new data as required to assist the Task Force.

The NWRC requests reauthorization of the Core GIS Support Task for FY16.

CORE NWRC GIS Support for FY16

Task	Description	Cost
SPE 26400	Continuation of Core GIS Support for CWPPRA Task Force Planning Activities	\$150,000

Benefits:

- Identifies core CWPPRA Planning GIS support as one reoccurring item, rather than splitting support among various technology or map initiatives introduced on an annual basis.
- Insures continued spatial data maintenance, management, and coordination for Task Force.
- Insures incorporation of new spatial data sets and technologies for Task Force.
 - Examples
 - Provide more detailed PPL project analyses incorporating a wider variety of data types.
 - Provide interactive GIS support at pertinent meetings.

Deliverables: Annual continued core CWPPRA Planning GIS support and products (data, technical support, data coordination, data distribution, and hard copy products) at present levels.

- Regional Planning Team meeting technical support – Region and Basin Maps depicting selected State and CWPPRA projects, on site GIS support for meetings, nominee project analysis as requested by agencies.
- Coastwide voting meeting technical support – Nominee project maps by Region, as well as, for the coast.
- Boundary meeting support – On site GIS support and delineations of project and extended boundaries.
- WVA meeting support – Shoreline and habitat analysis of Candidate projects, an excel workbook containing area numbers by available dataset with supporting trend analyses for updated In Phase and PPL candidate projects, and on site GIS support for meetings.
- Digital maps of the units, including habitat types, land/water boundaries, shoreline analysis, etc. suitable for inclusion based on the WVA template.
- Updated Selected Coastal Restoration Projects map based on new PPL selections.
- Maps for PPL Report to the CWPPRA Task Force.

Point of Contact:

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

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

STATUS OF THE 2015 REPORT TO CONGRESS

For Report:

Mr. Darryl Clark will provide a status update on the 2015 Report to Congress.

2015 Draft Report to Congress Progress Report

April 16, 2015

The FWS, USGS, and CPRA are preparing the first draft of the 2015 Report to Congress (RTC) using the 2012 RTC outline, but including new restoration information, such as “How CWPPRA Fits”, the RESTORE Act, and updated 2012 to 2015 program and project information. Rough drafts have been completed for most of the items below. The first draft will be ready for agency review by May 2015.

1. Executive Summary – Executive Summary will be made bolder and more “eye catching”.
2. Introduction - Coastal LA land loss & other issues – Included “How CWPPRA Fits into the Current LA Restoration Landscape”, Updated and relocated to front “Current Program Developments” (Sport Fish Trust Fund, CWPPRA Reauthorization, 20-Year Life, RESTORE Act), and added “Benefits to Fish and Wildlife”.
3. CWPPRA Overview - Program Overview, CWPPRA Act (funding, Task Force, PPL process), LA Coastal Restoration Techniques; Land Loss Map and Restoration Project Maps (completed); “CWPPRA as an Incubator” Section.
4. CWPPRA Project Planning & Implementation - Lists & Tables of approved 2013-2015 Phase I & Phase II projects; Highlight 3 projects (Lake Hermitage Marsh Creation, Sabine Refuge Cycles 4&5 Marsh Creation, West Belle Pass Headland Restoration).
5. CWPPRA Monitoring Program – CRMS and Project specific; CRMS Narrative.

Highlighted Project Monitoring Narratives/ Synopses

- East Mud Lake Marsh Management (CS-20)
 - Bioengineered Oyster Reef Demonstration Project (LA-08)
 - East Marsh Island Marsh Creation Project (TV-21)
 - North Lake Mechant Landbridge Restoration (TE-44)
 - Bayou LaBranche Wetland Creation Project (PO-17)
 - Mississippi River Sediment Delivery System–Bayou Dupont (BA-39)
6. Conclusions – Emphasize Major Program Accomplishments (especially from 2012 to 2015)
 7. Revise References and Appendices
 8. Add “Infographics” Section (6 panels, 1 for each agency)

Added and Revised Sections and Features

1. “How CWPPRA Fits Into the Current LA Restoration Landscape” with comprehensive LA coastal restoration project map

2. “Benefits to Fish and Wildlife” Section
3. Relocate “Current Program Developments” to front of document
4. Add an “Infographics” section consisting of 6 panels (front-back) highlighting -
 - “Saving Wetlands Saves Threatened and Endangered Species” (FWS),
 - “Wetlands Provide Habitat for Important Commercial Fisheries” (NMFS),
 - “Healthy Wetlands Contain Native Plants” (NRCS),
 - “Wetlands Help Improve Water Quality” (EPA),
 - “Wetlands Provide Activities for People” (CPRA), and
 - “Wetlands Provide Hurricane Protection” (Corps).

2015 Report to Congress Schedule

First Draft – May 1 - 15, 2015

Semi-final Draft – July 15, 2015

Final Draft – August 15, 2015

Technical Committee Approval – September 2015

Task Force Approval – October 2015

Printing and Publishing – January 2016 (60 to 70 days are needed for printing)

dc 4-8-2015

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

**SEDIMENT CONTAINMENT FOR MARSH CREATION DEMONSTRATION
PROJECT (LA-09) FINAL REPORT**

For Report:

NRCS will present the Final Report for the Sediment Containment for Marsh Creation Demonstration Project (LA-09). A brief PowerPoint presentation will be provided along with information on how to access the Final Report.



Timeline

2007 – Approved in PPL 17

2009 through 2011 – Attempted to identify a “host” project that would allow execution of the demonstration project embedded within a larger project.

Requirements:

- Project could be performed within budget allowed
- Project would allow for embedding of demonstration
- Failure of demonstration would not compromise host project
- Project would allow for sufficient demonstration of Net Gains product

Host Projects considered:

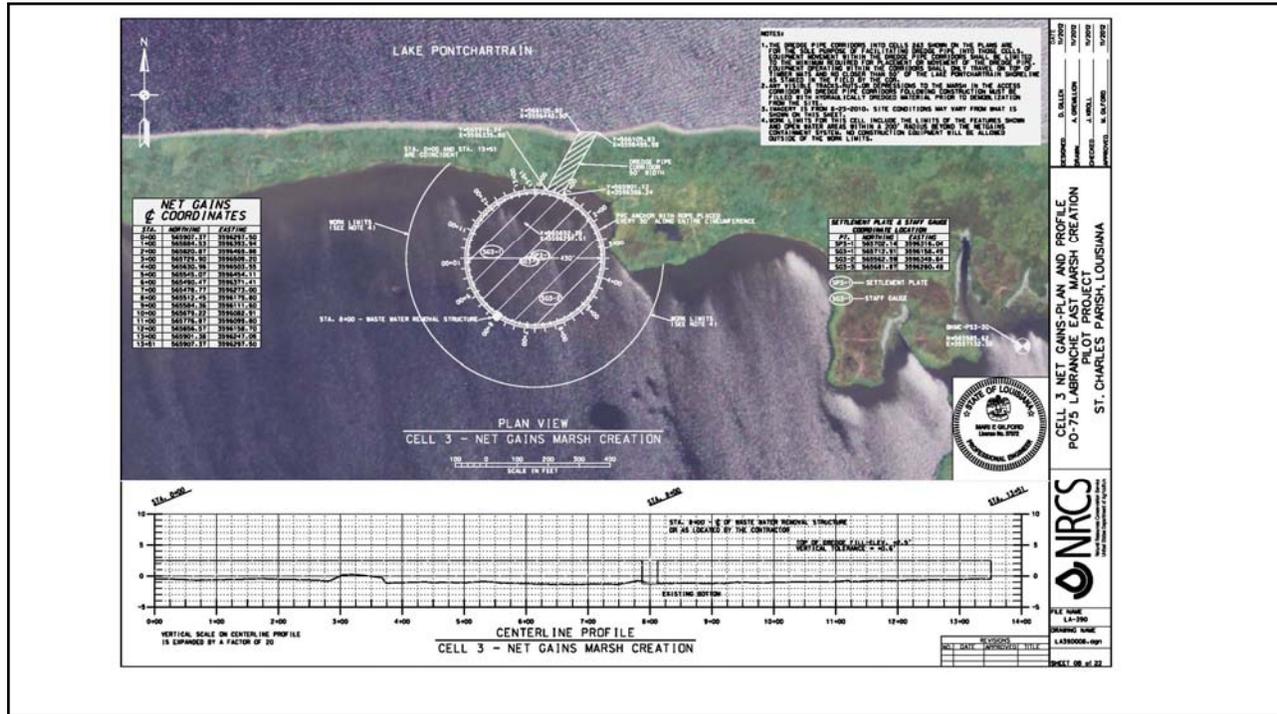
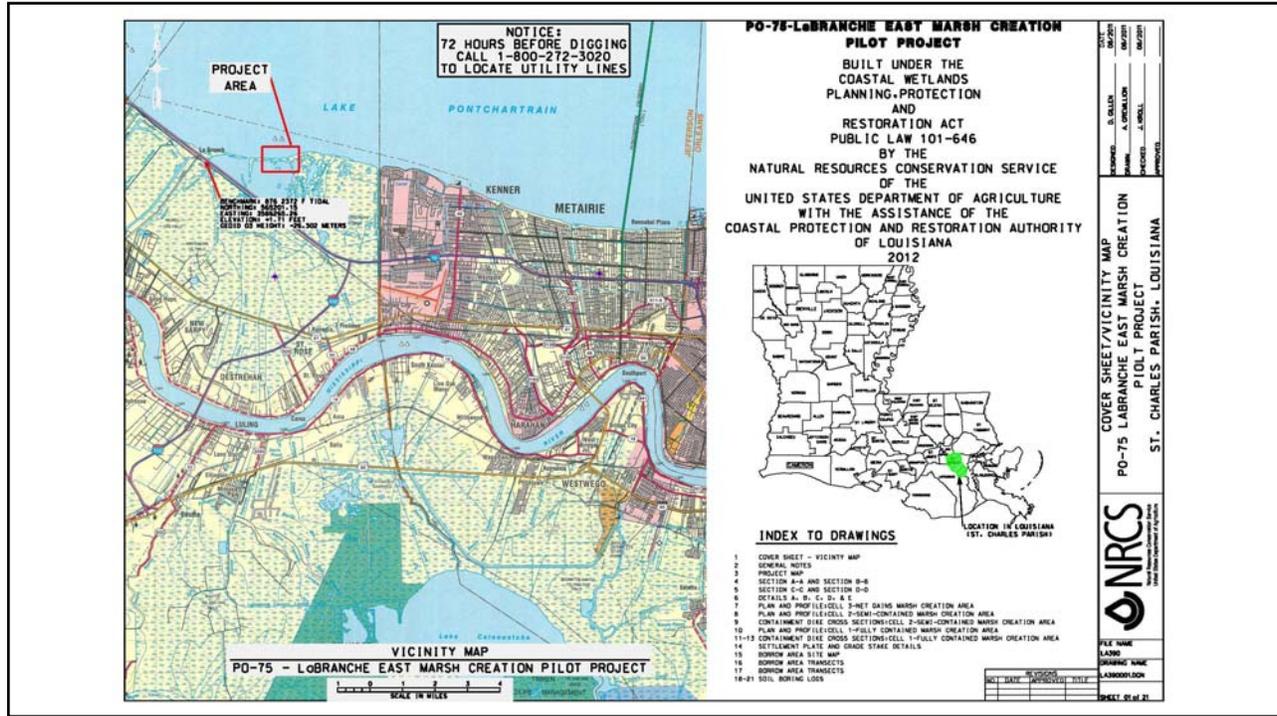
Hanson Canal HR (Mandalay NWR) - 2009

BA-41 South Shore of the Pen Marsh Creation - 2011

BA-27 Barataria Basin Landbridge CU7&8 - 2011

2012-2013 – PO-75 LaBranche East Marsh Creation Pilot Project – Construction began in June 2013 and completed in August 2013.

2015 Final Report Completed



6/10/13 – Installation of Net Gains



6/10/13 – Installation of Net Gains; weir installation



6/17/13 – Fully installed Net Gains prior to dredge pump initiation



7/18/13 – Dredge initiation





8/15/13 – completed project



8/15/13 – edge of completed project

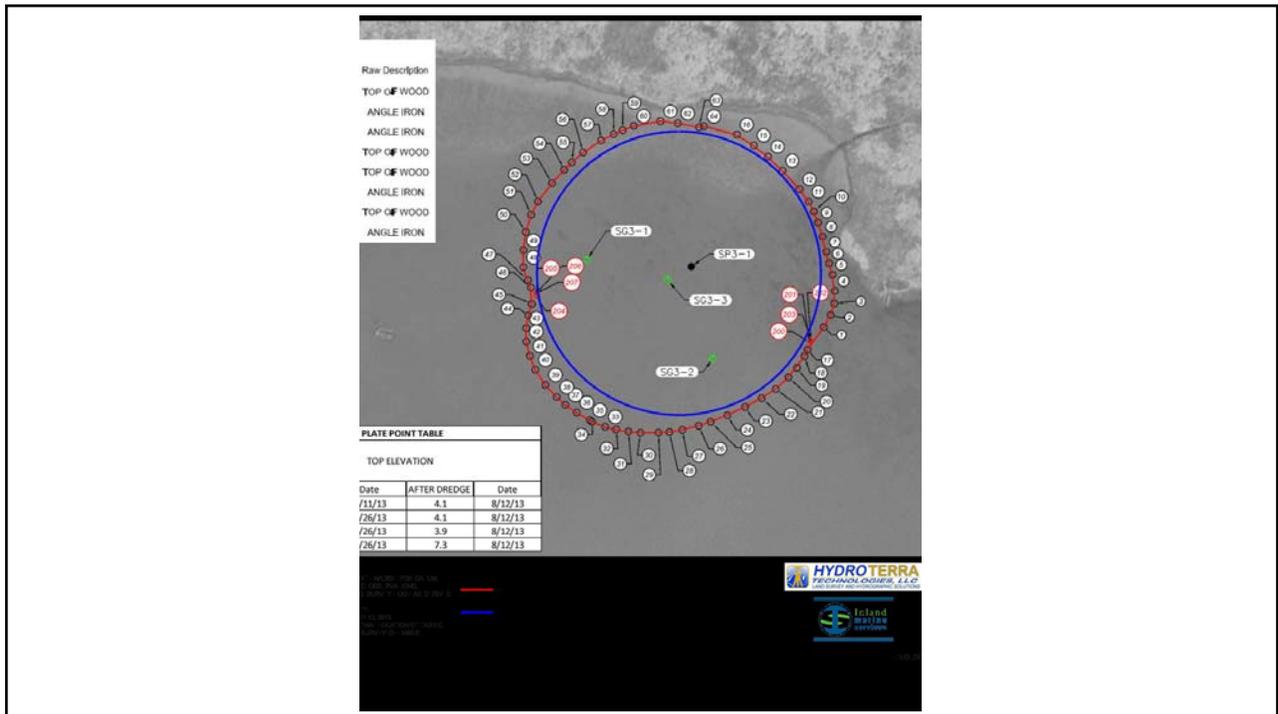


7/22/14 – Project team walking on newly created marsh platform approximately 12 months after construction



7/22/14 – View of LA-09 created marsh 12 months after construction.







Sediment Containment System for Marsh Creation Demostration (LA-09)

Project Status

Approved Date: 2007 **Project Area:** N/A
Approved Funds: \$1.16 M **Total Est. Cost:** \$1.16 M
Net Benefit After 20 Years: N/A
Status: Engineering and Design
Project Type: Demonstration: Marsh Creation
PPL #: 17

Location

The project area is coastwide.

Problems

Marsh creation through both sediment diversions and dredging require some level of containment of suspended materials to allow for settling and accretion. While dredged materials are generally highly concentrated, containment is critical to the efficiency of confinement. Likewise, confinement of flows into diversion outfalls affects efficiency of landbuilding. Methods that improve efficiency of land building in both applications are needed in areas where containment is limited.



Restoration Strategy

The project will demonstrate the effectiveness of a sediment containment system designed as an alternative to earthen containment in dredging to demonstrate the ability of the system to perform in small dredge applications. The project will also test the containment systems ability to facilitate both sediment retention and accumulation in freshwater diversions that are located in broad open-water areas where the efficiency of sediment capture is limited.

Progress to Date

The project is currently in planning phase in which sites are being selected and arrangements are being made to demonstrate the containment system. It is anticipated that the demonstration project will be nested within a larger project to offset dredging costs.

This project is on Priority Project List 17.

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

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

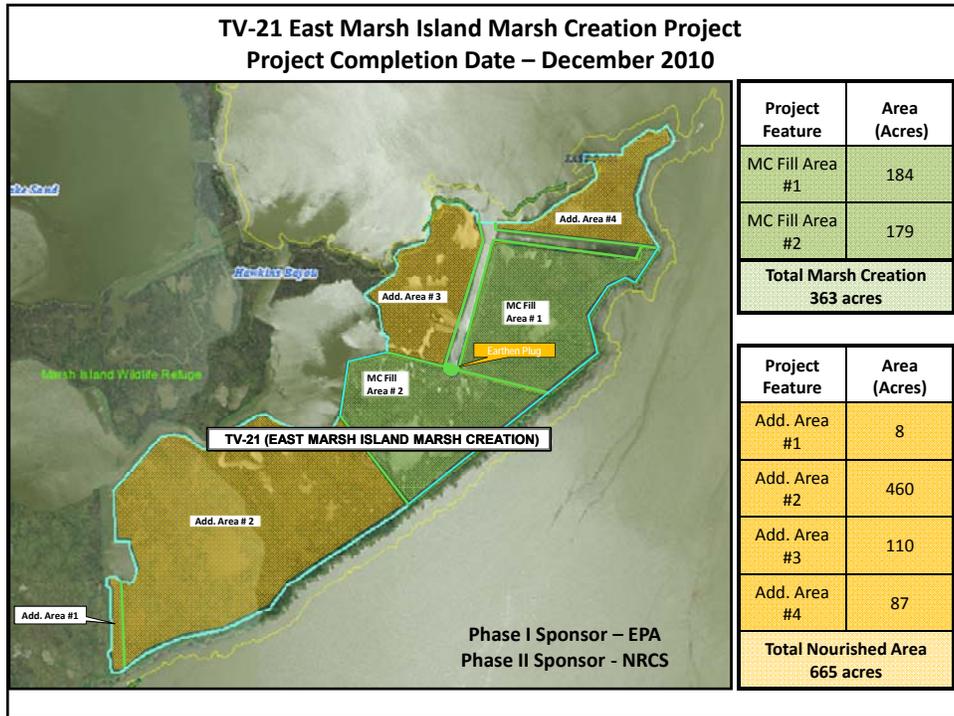
APRIL 16, 2015

**REQUEST TO TRANSFER FUNDS WITHIN PPL 14 – EAST MARSH ISLAND MARSH
CREATION (TV-21) FROM PHASE I AND PHASE II CONTINGENCY TO PHASE II
MONITORING AND O&M**

For Decision:

CPRA and NRCS propose to transfer funds from Phase I and from Phase II contingency to Phase II Monitoring and O&M, reducing overall project costs by \$32,537. The revised total project cost would be decreased to \$22,992,913.

The Technical Committee will vote on a recommendation to the Task Force to approve the funds transfer for TV-21.





East Marsh Island Marsh Creation (TV-21)

Project Status

Approved Date: 2005 **Project Area:** 362 acres
Approved Funds: \$22.6 M **Total Est. Cost:** \$23.0 M
Net Benefit After 20 Years: 169 acres
Status: Construction
Project Type: Marsh Creation
PPL #: 14

Location

The project is located in the Teche/Vermilion Basin at the east end of Marsh Island Wildlife Refuge southeast of Lake Sand in Iberia Parish, Louisiana.

Problems

Substantial areas of interior emergent marsh on Marsh Island have been converted to open water, primarily because of Hurricane Lili (2002). Areas targeted under this project are those with the greatest historical land loss and within close proximity to East Cote Blanche Bay.

Restoration Strategy

This project is designed to re-create brackish marsh habitat in the open water areas of the interior marsh primarily caused by hurricane damage. Based on 2007 aerial photography analysis, approximately 197 acres of marsh will be nourished and 165 acres of open water will be restored to interior emergent marsh habitat. The loss rates for the interior ponded areas are estimated to be reduced by 50 percent. This project provides a synergistic effect with CWPPRA's Marsh Island Hydrologic Restoration (TV-14), a project constructed in December 2001.



Aerial view of the east end of Marsh Island after commencement of construction activity.



Aerial view of the east end of Marsh Island where material dredged from East Cote Blanche Bay will be deposited to fill in open ponds and nourish marsh.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design at their February 2005 meeting. The U.S. Environmental Protection Agency and the Natural Resources Conservation Service, working through the Louisiana Department of Natural Resources, completed the engineering and design of the project and construction began in March 2010.

This project is on Priority Project List 14.

For more project information, please contact:



Federal Sponsors:
 U.S. Environmental Protection Agency
 Dallas, TX
 (214) 665-7459



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



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

West Cote Blanche Bay

Marsh Island Wildlife Refuge

East Cote Blanche Bay

East Marsh Island Marsh Creation (TV-21)

-  Marsh Creation/Nourishment *
-  Project Boundary

*denotes proposed features

 **USGS**
science for a changing world



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: June 20, 2008
 Map ID: USGS-NWRC 2008-11-0289
 Data accurate as of: June 11, 2008

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

**REQUEST FOR O&M BUDGET AND INCREMENTAL FUNDING INCREASE FOR
THE BLACK BAYOU CULVERTS PROJECT (CS-29)**

For Decision:

The CS-29 Black Bayou Culverts structure was experiencing tidal salt water ingress at the project site through voids that developed underneath the culvert structure. To address the problem, NRCS and CPRA requested funding for the formulation of a design to permanently repair the structure. Lonnie Harper & Associates was chosen to perform the design of the proposed repair. At the January 16, 2014 Task Force meeting, the Task Force approved a project increase to fund the repair work. The contract award for these repairs was \$6,920,303, which is within the budgeted allocation for this work, but it leaves very little funds available for modification and contingencies. Due to the nature of the repair work and to allow timely potential modifications through the completion of the contract, NRCS and CPRA request a project budget and funding increase of \$500,000 for the Black Bayou Culverts Project (CS-29). The revised total project cost would be \$16,899,059.

The Technical Committee will vote on a recommendation to the Task Force to approve an O&M budget and incremental funding increase for CS-29.



Black Bayou Culverts Hydrological Restoration (CS-29)

Project Status

Approved Date: 2000 **Project Area:** 72,378 acres
Approved Funds: \$15.3 M **Total Est. Cost:** \$16.3 M
Net Benefit After 20 Years: 540 acres
Status: Construction Completed
Project Type: Hydrologic Restoration
PPL #: 9

Location

The project features are located in southern Calcasieu Parish, Louisiana. The majority of the project area is located east of Calcasieu Lake and includes areas north of the Gulf Intracoastal Waterway and west of Grand Lake in Cameron Parish, Louisiana.

Problems

The marsh within this area has been suffering from excessive water levels within the lakes subbasin that kills vegetation, prevents growth of desirable annual plant species, and contributes to shoreline erosion. Black Bayou offers a unique location in the basin where the water in the lakes subbasin and the outer, tidal waters are separated by only a narrow highway corridor.

Restoration Strategy

Project components include installing ten 10 foot by 10 foot concrete box culverts in Black Bayou at the intersection of Louisiana Highway 384. The structure discharge will be in addition to the discharges provided by Calcasieu Locks, Schooner Bayou, and Catfish Point water control structures.

Progress to Date

Construction has been completed.

This project is on Priority Project List 9.



The construction of Black Bayou Culverts included ten 10 foot by 10 foot concrete box culverts under Highway 384 to help with drainage from Black Bayou to the Calcasieu River. The construction of Highway 384 had altered and effectively blocked the original drainage system.



The construction of the Black Bayou Culverts will help the flow of floodwater out of the Calcasieu-Sabine basin while preventing saltwater intrusion from Calcasieu Lake.

For more project information, please contact:



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

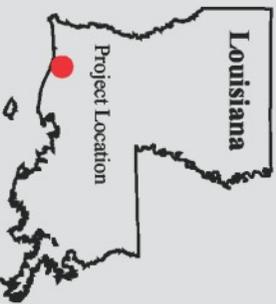


Local Sponsor:
 Coastal Protection and Restoration Authority
 Baton Rouge, LA
 (225) 342-4736

Black Bayou Culverts Hydrologic Restoration (CS-29)

-  Culverts *
-  Project Boundary

* denotes proposed feature



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

Background Imagery:
 2002 Thematic Mapper Imagery

Map Date: August 27, 2003
 Map ID: USGS-NWRC 2003-11-115
 Data accurate as of: April 4, 2003

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

**SCOPE CHANGE REQUEST FOR CAMERON CREOLE FRESHWATER
INTRODUCTION PROJECT (CS-49)**

For Decision:

NRCS has completed 30% design of the Cameron Creole Freshwater Introduction Project (CS-49) and CPRA has concurred with proceeding to 95% Design. Based on revisions to costs and benefits, NRCS requests approval of a scope change and to proceed with the project.

The Technical Committee will vote on a recommendation to the Task Force regarding the scope change and whether to proceed with the project.

Cameron-Creole Freshwater Introduction Project (CS-49)

Change in Project Scope

CWPPRA Technical Committee Meeting
April 16, 2015

CURRENT PROJECT





**Cameron-Creole Freshwater
Introduction Project (CS-49)**

Change in Project Scope

	Current Project	Revised Project	% Change
Fully Funded Cost	\$12.8M	\$23.5M	+84%
Net Acres	433	263	-40%
Cost – \$89,533/acre			

Cameron-Creole Freshwater Introduction Project (CS-49)

Change in Project Scope

Projects	Cost/ Net Acre
PPL18 Average	46,822
PPL19 Average	86,656
PPL20 Average	50,682
PPL21 Average	60,622
PPL22 Average	89,578
PPL23 Average	132,661
PPL24 Average	85,088
OVERALL AVG PPL18-24	76,177
2009 Phase II Approvals Average	120,303
2010 Phase II Approvals Average	140,462
2011 Phase II Approvals Average	206,094
2012 Phase II Approvals Average	70,429
2013 Phase II Approvals Average	67,618
2014 Phase II Approvals Average	54,646
2015 Phase II Approvals Average	62,095
OVERALL AVG PHASE II APPROVALS 2009-2015	103,017
AVERAGE ALL PPL AND PHASE II APPROVALS 2009-2015	87,690

Cameron-Creole Freshwater Introduction (CS-49)

Change in Project Scope

Report to the Technical Committee

April 16, 2015

The strategy for the CS-49 project is to restore the function, value, and sustainability of the Cameron-Creole Watershed by introducing fresh water from the GIWW into the marsh and by preventing coalescence of the Cameron-Creole Watershed into the Mermentau Basin (Figure 1).

The original Cameron-Creole Freshwater Introduction project predicted a year-round average flow of 400 cubic feet per second (CFS). The assumptions and historical data used at the Phase 0 level indicated this would be possible. During Phase 1, a much more sophisticated hydrodynamic model (along with a different dataset) was used to predict that flows would have a year-round average of approximately 97 CFS (predicted for the year 2012). Based on that data a 13.6% reduction in landloss rate was predicted using the NSED2 model instead of the 21.7% reduction in loss rate calculated in Phase 0.

Due to concerns about siltation and operation and maintenance activities, the structure type has also changed from ten (10) corrugated metal pipe culverts, located in three different locations along the GIWW, to one sheetpile wall with combination slide/flap gates located in the Montesano Canal. The Montesano Canal location was chosen for its easy access and its existing channel condition and configuration which is beneficial to the project for distributing water. The Montesano location would also minimize possible construction impacts to the existing marsh.

The terracing areas were also re-evaluated in Phase 1 and the total length of terracing was increased from 65,000 linear feet to 125,130 linear feet to provide a more holistic approach and create a more sustainable terrace field.

During Phase 1, the project team also recognized an opportunity to hydraulically dredge material from the GIWW and create approximately 18 acres of marsh in an area where a breach had formed. Fortification of this area is essential to maintaining project effectiveness as continued breaching would circumvent project benefits and threaten the integrity of the Mermentau Basin. The borrow area along the GIWW could then be used as an access channel for the rock dike construction.

Additionally, repairs to the Cameron-Creole watershed project levees have reduced the post Rita and Ike landloss rate in the project area from -1.45%/yr. to -0.76%/yr. The reduced land loss rate suggests that this area will respond well to the proposed increased freshwater input, but it has also reduced the estimated benefits calculated in Phase 0.

As a result, NRCS and the Louisiana CPRA concluded that the CS-49 project should be revised in scope. The proposed revised project would still restore the function, value, and sustainability to approximately 22,247 acres of marsh and open water by improving

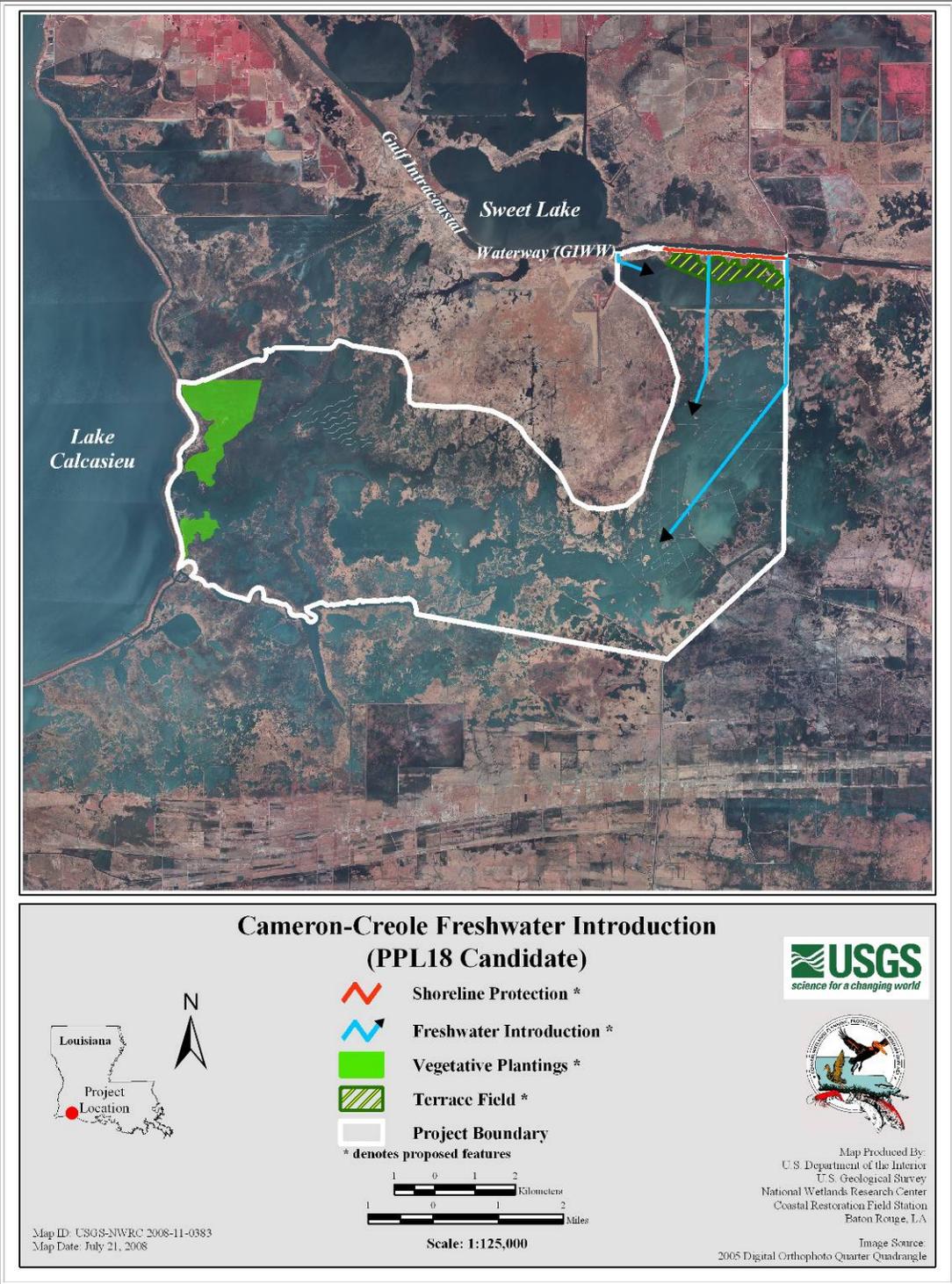


Figure 1. Original Cameron-Creole Freshwater Introduction Project (CS-49).



Figure 2. Proposed revised Cameron-Creole Freshwater Introduction Project (CS-49).

From: [Garvin Pittman](#)
To: [Mallach, Troy - NRCS, Lafayette, LA](#)
Cc: [Amanda Taylor](#); [Stuart Brown](#); [Andrew Beall](#); [Jurgensen, John - NRCS, Alexandria, LA](#)
Subject: CS-49 Cameron Creole Freshwater Introduction Scope Change
Date: Friday, April 10, 2015 7:27:21 AM

Troy,

CPRA has reviewed the proposed Scope Change Report for the Cameron Creole Watershed Freshwater Introduction Project (CS-49). We have no comments on the Change Report and concur with its submission to the CWPPRA Technical Committee, contingent upon NRCS designing the project with no more than 25% of the project budget being used to maintain a federal navigation channel.

Garvin D Pittman, PMP
CPRA PM Contractor
450 Laurel St, Suite 1500
P.O. Box 44027
Baton Rouge, LA 70804-4027
garvin.pittman@la.gov
Cell: 225-229-3569 (preferred)
Office: 225-342-4744
fax: 225-987-3240



Cameron-Creole Freshwater Introduction (CS-49)

Project Status

Approved Date: 2009 **Project Area:** 22,247 acres
Approved Funds: \$2.54 M **Total Est. Cost:** \$12.7 M
Net Benefit After 20 Years: 473 acres
Status: Planning and Design
Project Type: Freshwater Diversion
PPL #: 18

Location

The project area is located on the east side of Calcasieu Lake and west of Gibbstown Bridge and Highway 27.

Problems

Virtually all of the project area marshes have experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention resulting from hydrologic changes associated with the Calcasieu Ship Channel and the GIWW. In addition, thousands of acres of marsh were damaged by Hurricane Rita and again, more recently, by Hurricane Ike. Because of man-made alterations to the hydrology, it is unlikely that those marshes will recover without comprehensive restoration efforts. The Cameron-Creole Watershed Project has successfully reduced salinities and increased marsh productivity. However, the area remains disconnected from freshwater, sediments, and nutrients available from the GIWW.



Hurricane damaged marsh in the project area to be benefitted by the proposed features.

Restoration Strategy

The freshwater introduction project would restore the function, value, and sustainability to approximately 22,247 acres of marsh and open water by improving hydrologic conditions via freshwater input and increasing organic productivity.

Progress to Date

Project is currently in the Planning and Design Phase. Project Team is developing surveying, geotechnical investigations, and modeling requirements necessary to proceed to 30% design review. The planting portion of the project is scheduled to request Phase II funding at the January 2010 Task Force Meeting. Phase II funding for the remaining project features will be requested at the January 2012 Task Force meeting.

This project is on Priority Project List 18.

For more project information, please contact:



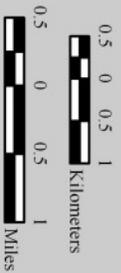
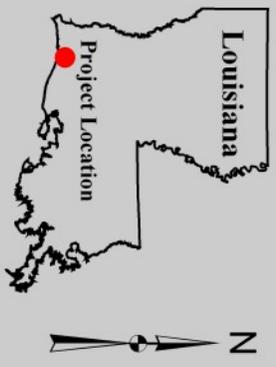
Federal Sponsor:
 Natural Resources Conservation Service
 Alexandria, LA
 (318) 473-7756



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

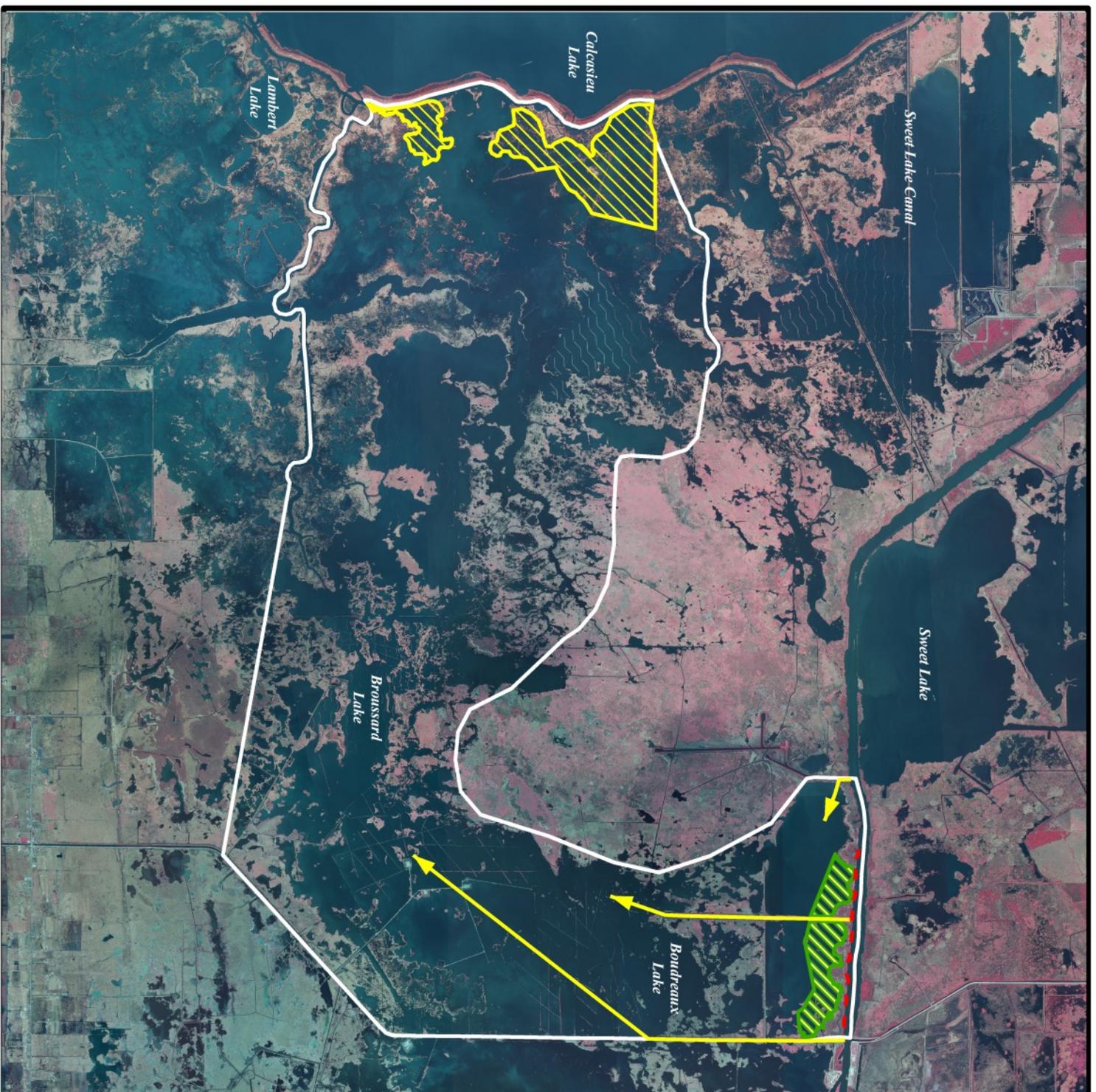
Cameron-Creole Freshwater Introduction (CS-49)

-  Shoreline Protection *
 -  Freshwater Introduction *
 -  Terrace Field *
 -  Vegetative Planting Area *
 -  Project Boundary
- *denotes proposed features



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

Background Imagery:
 2008 Digital Orthophoto Quarter Quadrangle
 Map Date: August 27, 2009
 Map ID: USGS-NWRC 2009-11-0384
 Data accurate as of: August 26, 2009



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

**REQUEST FOR APPROVAL FOR FINAL DEAUTHORIZATION OF THE PPL 19 –
CHENIER RONQUILLE BARRIER ISLAND RESTORATION PROJECT (BA-76)**

For Decision:

NMFS and CPRA are requesting approval for final deauthorization for the Chenier Ronquille Barrier Island Restoration Project (BA-76) due to securing of construction funds for this project from the Deepwater Horizon Oil Spill Phase III Early Restoration Plan in October 2014. This project had a favorable 95% design review through the CWPPRA process but did not secure phase 2 funding approval in 2012 and 2013.

The Technical Committee will vote on a recommendation to the Task Force to approve final deauthorization of the Chenier Ronquille Barrier Island Restoration project.



CWPPRA Newsflash



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

RESTORING COASTAL LOUISIANA SINCE 1990

Follow us:     

PUBLIC NOTICE

The Louisiana Coastal Wetlands Conservation and Restoration Task Force is initiating procedures to deauthorize the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Cheniere Ronquille Barrier Island Restoration (BA-76) project as requested by the Federal project sponsor, the National Marine Fisheries Service, and the local project sponsor, the Louisiana Coastal Protection and Restoration Authority, due to the availability of an alternate source of funds to cover its construction. Deauthorization of the BA-76 project would allow any unused Phase 1 funds to be returned to the CWPPRA program for other use. This 19th Priority Project List project is located in Region 2, within the Barataria Basin portion of Plaquemines Parish.

Prior to making a final decision, the Task Force will consider written comments on the request to deauthorize the BA-76 project. Written comments should be provided by April 23, 2015 to the following address:

Colonel Richard L. Hansen
District Commander
U. S. Army Corps of Engineers, New Orleans District
Attention: Projects and Restoration Branch, CWPPRA Program Manager
P. O. Box 60267
New Orleans, Louisiana 70160-0267

If you need further information, please contact Mr. Troy G. Constance, Acting Deputy District Engineer for Project Management, at (504) 862-2204 or Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

###

To **subscribe**, send an email from the address you want subscribed to:

ListServer@nwrccom.cr.usgs.gov with the subject "**subscribe cwppra**" without the quotation marks.

Submit CWPPRA Newsflash Requests to: ruckstuhlc@usgs.gov

Connect with us:

 facebook.com/CWPPRA

 twitter.com/CWPPRA

 [Landmarks eNewsletter](#)

 [Flickr Photo Album](#)

See what's new on the CWPPRA Web site! Visit LaCoast.gov

Tell Us What you Think

We welcome your comments! Contact us at lacoast@nwrccom.cr.usgs.gov

Spread the Word

Tell your friends they can receive this free newsflash by subscribing at:

<http://www.lacoast.gov/news/newsletter.htm>

For More Program Information:

Subscribe to WaterMarks, the CWPPRA magazine, by contacting lacoast@nwrccom.cr.usgs.gov

To view on-line issues visit

<http://www.lacoast.gov/WaterMarks>

CWPPRA Managing Agencies:



Other Related Coastal Restoration Web Sites:



Unsubscribe

This newsflash has been sent to you because you are either a participant in our program or you have provided your e-mail address to us in a request to receive it. If you prefer not to receive this newsflash, you can unsubscribe by sending an email to: ListServer@nwrccom.cr.usgs.gov with "unsubscribe cwppra" as the subject without the quotation marks.



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

November 19, 2014

Mr. Troy G. Constance
Acting Deputy District Engineer
US Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Initiation of Deauthorization for Chenier Ronquille Barrier Island Restoration (BA-76)

Dear Mr. Constance:

In accordance with the CWPPRA Standard Operating Procedures (SOP) Section (6)(q)(1), this letter serves as the National Oceanic and Atmospheric Administration's request to initiate deauthorization procedures for the Chenier Ronquille Barrier Island Restoration project (BA-76). This Project Priority List 19 project completed its 95% design review in October 2011 and was unsuccessful in receiving phase 2 approval in January of 2012 and 2013.

The conceptual plan for Chenier Ronquille was included as a project for construction under the final Phase III early restoration plan for the Deepwater Horizon Oil Spill. The restoration plan and Environmental Impact Statement was released by the Federal and State natural resource trustee agencies in June 2014. Following the signing of the Record of Decision for the Plan, stipulation agreements were signed in the first week of October 2014 that funded construction of this project. As there is now an alternate source of funds to cover the construction of this project, NOAA and CPRA wish to proceed with deauthorization of the CWPPRA project and return of any unused funds from phase 1.

Please direct questions regarding this matter to the NOAA Project Manager, Cecelia Linder (301-427-8675) or the CPRA Project Manager, Kenneth Bahlinger (225-342-7362).

Sincerely,

Cecelia Linder
NOAA CWPPRA Program Manager

cc: Richard Hartman, NMFS, Baton Rouge, LA
Britt Paul, NRCS, Alexandria, LA
Karen McCormick, EPA, Dallas, TX
Darryl Clark, USFWS, Lafayette, LA
Bren Haase, CPRA, Baton Rouge, LA
Kenneth Bahlinger, CPRA, Baton Rouge, LA





REPLY TO
ATTENTION OF

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

MAR 23 2015

Programs and Project Management Division
Projects and Restoration Branch

The 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) Cheniere Ronquille Barrier Island Restoration (BA-76) project as requested by the Federal project sponsor, the National Marine Fisheries Service, and the local project sponsor, the Louisiana Coastal Protection and Restoration Authority (see letter dated November 19, 2014, provided as enclosure 1), due to the availability of an alternate source of funds to cover its construction. Deauthorization of the BA-76 project would allow any unused Phase 1 funds to be returned to the CWPPRA program for other use.

This 19th Priority Project List project (see Fact Sheet with map provided as enclosure 2) is located in Region 2, within the Barataria Basin portion of Plaquemines Parish.

Prior to making a final decision, the Task Force will consider written comments on the request to deauthorize the BA-76 project. Written comments should be provided within 30 days of the date of this letter to the following address:

Colonel Richard L. Hansen
District Commander
U. S. Army Corps of Engineers, New Orleans District
Projects and Restoration Branch, CWPPRA Program Manager
P. O. Box 60267
New Orleans, Louisiana 70160-0267

If you need further information, please contact Mr. Troy G. Constance, Acting Deputy District Engineer for Project Management, at (504) 862-2204 or Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

Sincerely,



Richard L. Hansen
Colonel, U. S. Army
District Commander

Enclosures

cc (w/enclosures):

Mr. Chip Kline
Chairman
Office of Coastal Activities
1051 North Third Street
Capitol 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. Jeff Weller
Field Supervisor
U. S. 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

The Honorable Bill Cassidy
United States Senate
703 Hart Senate Office Building
Washington, DC 20510

The Honorable Steve Scalise
House of Representatives
2338 Rayburn House Office Building
Washington, DC 20515

The Honorable John A. Alario
Louisiana Senate
1063 Muller Parkway
Westwego, Louisiana 70094-5616

The Honorable Christopher J. Leopold
Louisiana House of Representatives
1500 Woodland Highway, Suite A
Belle Chasse, Louisiana 70037

The Honorable Gordon E. Dove, Sr.
Louisiana House of Representatives
P. O. Box 629
Houma, Louisiana 70361

The Honorable Gerald Long
Louisiana Senate
P. O. Box 151
Winnfield, Louisiana 71483

Ms. Betsy Brien
ConocoPhillips
806 Bayou Black Drive
Houma, Louisiana 70360

The Honorable Amos Cormier, Jr.
President
Plaquemines Parish Government
8056 Highway 23, Suite 200
Belle Chasse, Louisiana 70037

Ms. Albertine M. Kimble
Manager
Local Coastal Program
333 F. Edward Hebert Boulevard
Belle Chasse, Louisiana 70037

Mr. Vincent Frelich
Director
Coastal Zone Management
8056 Highway 23, Suite 307
Belle Chasse, Louisiana 70037



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

November 19, 2014.

Mr. Troy G. Constance
Acting Deputy District Engineer
US Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Initiation of Deauthorization for Chenier Ronquille Barrier Island Restoration (BA-76)

Dear Mr. Constance:

In accordance with the CWPPRA Standard Operating Procedures (SOP) Section (6)(q)(1), this letter serves as the National Oceanic and Atmospheric Administration's request to initiate deauthorization procedures for the Chenier Ronquille Barrier Island Restoration project (BA-76). This Project Priority List 19 project completed its 95% design review in October 2011 and was unsuccessful in receiving phase 2 approval in January of 2012 and 2013.

The conceptual plan for Chenier Ronquille was included as a project for construction under the final Phase III early restoration plan for the Deepwater Horizon Oil Spill. The restoration plan and Environmental Impact Statement was released by the Federal and State natural resource trustee agencies in June 2014. Following the signing of the Record of Decision for the Plan, stipulation agreements were signed in the first week of October 2014 that funded construction of this project. As there is now an alternate source of funds to cover the construction of this project, NOAA and CPRA wish to proceed with deauthorization of the CWPPRA project and return of any unused funds from phase 1.

Please direct questions regarding this matter to the NOAA Project Manager, Cecelia Linder (301-427-8675) or the CPRA Project Manager, Kenneth Bahlinger (225-342-7362).

Sincerely,

Cecelia Linder
NOAA CWPPRA Program Manager

cc: Richard Hartman, NMFS, Baton Rouge, LA
Britt Paul, NRCS, Alexandria, LA
Karen McCormick, EPA, Dallas, TX
Darryl Clark, USFWS, Lafayette, LA
Bren Haase, CPRA, Baton Rouge, LA
Kenneth Bahlinger, CPRA, Baton Rouge, LA





Cheniere Ronquille Barrier Island Restoration (BA-76)

Project Status

Approved Date: 2010 **Project Area:** 463 acres
Approved Funds: \$3.41 M **Total Est. Cost:** \$43.8 M
Net Benefit After 20 Years: 308 acres
Status: Engineering and Design
Project Type: Barrier Island Restoration
PPL #: 19

Location

The project is located in Region 2, within the Barataria Basin portion of Plaquemines Parish.

Problems

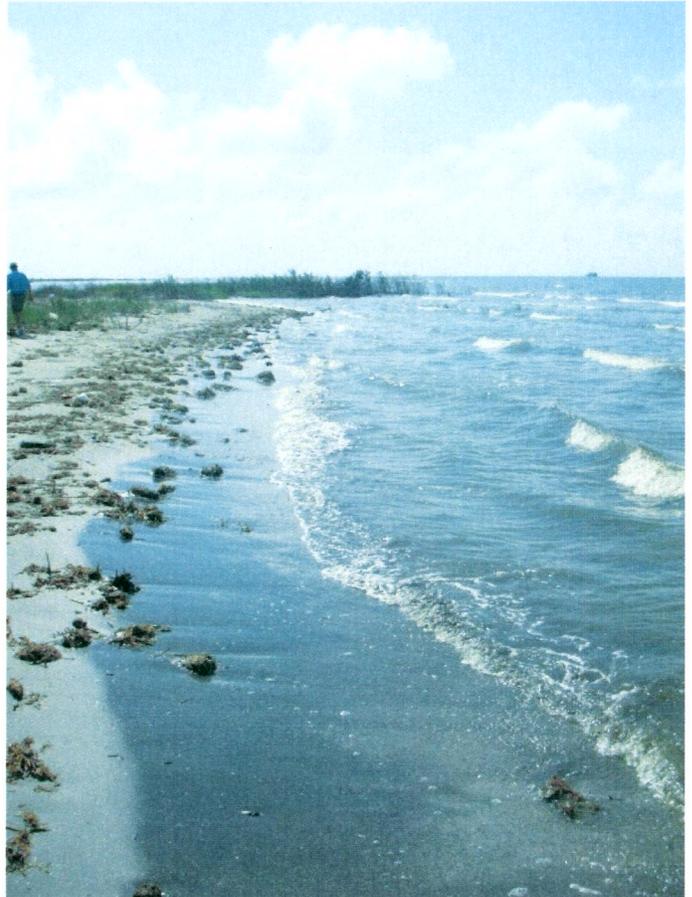
This area is undergoing shoreline erosion, interior wetland loss, overwash, and breakup. The Gulf shoreline erosion rate has doubled from 1988 to 2006. Project area marshes also are being eroded at -11.8 ft/yr between 2003 to 2006 as well as being converted to open water from internal breakup.

Restoration Strategy

Restoration would expand the Gulf shoreline structural integrity and associated protection by tying into two recently constructed projects to the east and address one of the remaining reaches of the Barataria/Plaquemines shoreline. The design includes fill for a beach and dune plus 20-years of advanced maintenance fill, as well as fill for marsh creation/nourishment. The location of the type and amount of sediment needed to construct this project already has been identified under the East Grand Terre Project that is presently under construction. Approximately 127 acres of beach/dune fill would be constructed and approximately 259 acres of marsh creation/nourishment would be constructed. Intensive dune plantings would be conducted by seeding and installing approved nursery stock. About half of the marsh platform would be planted with cordgrass and portions of the dune, swale, and marsh would be planted with appropriate woody species. Containment dikes would be breached no later than year three to allow tidal exchange with the created marsh.

Progress to Date

This project is on Priority Project List 19.



This photo shows the current condition of the Chenier Ronquille shoreline, which is in a deteriorated state after being subjected to years of storms, subsidence, and sediment deprivation. Once restored, this island will provide critical habitat, and help reconnect the barrier island chain that provides a first line of defense to inland communities.

For more project information, please contact:



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



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

Cheniere Ronquille Barrier Island Restoration (BA-76)

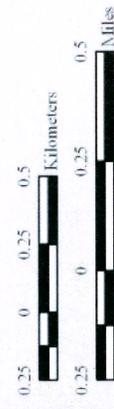
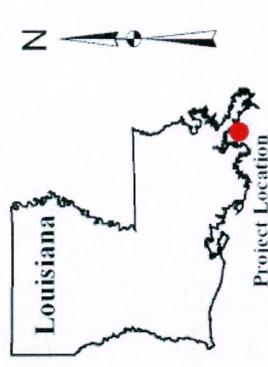


 Dune/Beach *

 Marsh Creation *

 Project Boundary

 *denotes proposed features



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

Background Imagery:
 2008 Digital Orthophoto Quarter Quadrangle
 Map Date: February 9, 2010
 Map ID: USGS-NWRC 2010-11-0022
 Data accurate as of: February 9, 2010



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

**REQUEST FOR APPROVAL FOR FINAL DEAUTHORIZATION OF THE PPL 17 –
WEST POINTE A LA HACHE MARSH CREATION PROJECT (BA-47)**

For Decision:

CPRA and NRCS are requesting approval for final deauthorization for the West Pointe a la Hache Marsh Creation (BA-47) Project. This project is currently being constructed utilizing remaining CWPPRA funds from the Lake Hermitage Marsh Creation project (BA-42).

The Technical Committee will vote on a recommendation to the Task Force to approve final deauthorization of the West Pointe a la Hache Marsh Creation project.

Murry, Allison N CONTRACTOR @ MVN

From: CWPPRA Newsflash [CWPPRA@nwrccom.cr.usgs.gov]
Sent: Monday, February 23, 2015 1:46 PM
To: Murry, Allison N CONTRACTOR @ MVN
Subject: [EXTERNAL] CWPPRA Newsflash - PUBLIC NOTICE: Deauthorization Procedures Initiated for BA-47 - West Pointe a la Hache Marsh Creation

Cannot view this mail with images? [View in a browser](#)



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

RESTORING COASTAL LOUISIANA SINCE 1990

Follow us:     

PUBLIC NOTICE

The Louisiana Coastal Wetlands Conservation and Restoration Task Force is initiating procedures to deauthorize the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) West Pointe a la Hache Marsh Creation (BA-47) project as requested by the Federal project sponsor, the Natural Resources Conservation Service and the local project sponsor, the Louisiana Coastal Protection and Restoration Authority. This BA-47 project is currently being constructed using remaining CWPPRA funds from the nearby Lake Hermitage Marsh Creation project (BA-42).

The BA-47 project, from CWPPRA's 17th Priority Project List, is located near Louisiana Highway 23 at West Pointe a la Hache in Plaquemines Parish, Louisiana, in the Barataria Basin.

Prior to making a final decision, the Task Force will consider written comments on the request to deauthorize the BA-47 project. Written comments should be provided by March 20, 2015 to the following address:

Colonel Richard L. Hansen

District Commander

U. S. Army Corps of Engineers, New Orleans District

Attention: Projects and Restoration Branch, CWPPRA Program Manager

P. O. Box 60267

New Orleans, Louisiana 70160-0267

If you need further information, please contact Mr. Troy G. Constance, Acting Deputy District Engineer for Project Management, at (504) 862-2204 or Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

###

To **subscribe**, send an email from the address you want subscribed to: ListServer@nwrccom.cr.usgs.gov with the subject "**subscribe cwppra**" without the quotation marks.

Submit CWPPRA Newsflash Requests to: ruckstuhlc@usgs.gov

Connect with us:

-  facebook.com/CWPPRA
-  twitter.com/CWPPRA
-  [Landmarks eNewsletter](#)
-  [Flickr Photo Album](#)

See what's new on the CWPPRA Web site! Visit LaCoast.gov

Tell Us What you Think

We welcome your comments! Contact us at lacoast@nwrccom.cr.usgs.gov

Spread the Word

Tell your friends they can receive this free newsflash by subscribing at:
<http://www.lacoast.gov/news/newsletter.htm>

For More Program Information:

Subscribe to WaterMarks, the CWPPRA magazine, by contacting lacoast@nwrccom.cr.usgs.gov
To view on-line issues visit
<http://www.lacoast.gov/WaterMarks>

CWPPRA Managing Agencies:



Other Related Coastal Restoration Web Sites:



Unsubscribe

This newsflash has been sent to you because you are either a participant in our program or you have provided your e-mail address to us in a request to receive it. If you prefer not to receive this newsflash, you can unsubscribe by sending an email to:

ListServer@nwrcom.cr.usgs.gov.

with "unsubscribe cwppra" as the subject without the quotation marks.



State of Louisiana

BOBBY JINDAL
GOVERNOR

December 1, 2014

Mr. Troy G. Constance
Acting Deputy District Engineer
US Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Initiation of Deauthorization for West Pointe a la Hache Marsh Creation Project (BA-47)

Dear Mr. Constance:

In accordance with the CWPPRA Standard Operating Procedures (SOP) the Louisiana Coastal Protection and Restoration Authority (CPRA) and the USDA Natural Resources Conservation Service (NRCS) request that the Technical Committee initiate deauthorization procedures for the West Pointe a la Hache Marsh Creation Project (BA-47).

West Pointe a la Hache Marsh Creation (BA-47) is a PPL 17 project that has been engineered and designed by NRCS. This project is currently being constructed utilizing remaining CWPPRA funds from the Lake Hermitage Marsh Creation project (BA-42). As of November 24, 2014, approximately 25% of the BA-47 project area has been filled, and construction is projected to be completed by the end of January, 2015.

NRCS and CPRA wish to proceed with deauthorization of the BA-47 CWPPRA project and the return of any unused funds from Phase 1.

Please direct questions regarding this matter to the CPRA Project Manager, Devyani Kar (225-342-6412).

Sincerely,

Bren Haase
Deputy Chief, Planning and Research Division
Coastal Protection and Restoration Authority

cc: Richard Hartman, NMFS, Baton Rouge, LA
Britt Paul, NRCS, Alexandria, LA
Karen McCormick, EPA, Dallas, TX
Darryl Clark, USFWS, Lafayette, LA
Bren Haase, CPRA, Baton Rouge, LA
Devyani Kar, CPRA, Baton Rouge, LA



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
P.O. BOX 60267
NEW ORLEANS LA 70160-0267
FEB 18 2015

REPLY TO
ATTENTION OF

Programs and Project Management Division
Projects and Restoration Branch

The 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) West Pointe a la Hache Marsh Creation (BA-47) project as requested by the Federal project sponsor, the Natural Resources Conservation Service and the local project sponsor, the Louisiana Coastal Protection and Restoration Authority (see letter dated December 1, 2014, provided as enclosure 1). This BA-47 project is currently being constructed using remaining CWPPRA funds from the nearby Lake Hermitage Marsh Creation project (BA-42) (see Fact Sheets with maps for both projects provided as enclosures 2 and 3, respectively).

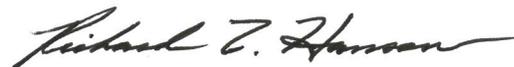
The BA-47 project, from CWPPRA's 17th Priority Project List, is located near Louisiana Highway 23 at West Pointe a la Hache in Plaquemines Parish, Louisiana, in the Barataria Basin.

Prior to making a final decision, the Task Force will consider written comments on the request to deauthorize the BA-47 project. Written comments should be provided within 30 days of the date of this letter to the following address:

Colonel Richard L. Hansen
District Commander
U. S. Army Corps of Engineers, New Orleans District
Projects and Restoration Branch, CWPPRA Program Manager
P. O. Box 60267
New Orleans, Louisiana 70160-0267

If you need further information, please contact Mr. Troy G. Constance, Acting Deputy District Engineer for Project Management, at (504) 862-2204 or Mr. Brad Inman, CWPPRA Program Manager, at (504) 862-2124.

Sincerely,



Richard L. Hansen
Colonel, U. S. Army
District Commander

Enclosures

cc (w/enclosures):

Mr. Jerome Zeringue
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. Jeff Weller
Field Supervisor
U. S. 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

The Honorable Bill Cassidy
United States Senate
703 Hart Senate Office Building
Washington DC 20510

The Honorable Charles W. Boustany, Jr.
House of Representatives
1431 Longworth House Office Building
Washington DC 20515-2031

The Honorable John A. Alario
Louisiana Senate
1063 Muller Parkway
Westwego, Louisiana 70094

The Honorable Christopher J. Leopold
Louisiana House of Representatives
1500 Woodland Highway, Suite A
Belle Chasse, Louisiana 70037

The Honorable Gordon E. Dove, Sr.
Louisiana House of Representatives
P. O. Box 629
Houma, Louisiana 70361

The Honorable Gerald Long
Louisiana Senate
P. O. Box 151
Winnfield, Louisiana 71483

The Honorable Rick Ward, III
Louisiana Senate
3741 Highway 1
Port Allen, Louisiana 70767

Ms. Camille Jones Strachan
Bradish-Johnson Company, Ltd
1113 St. Andrew Street
New Orleans, Louisiana 70130

Ms. Yvette Nan Provosty
3975 Fieldstone Drive
Medford, Oregon 97504-9435

Mr. Savare Deflice
DeFelice Family Company
P. O. Box 696
Belle Chase, Louisiana 70037-0696

The Honorable Amos Cormier
President
Plaquemines Parish Government
8056 Highway 23, Suite 200
Belle Chase, Louisiana 70037

Mr. Vincent Frelich
Coastal Restoration Director
Plaquemines Parish Government
8056 Highway 23, Suite 307
Belle Chase, Louisiana 70037

Ms. Albertine Kimble
Local Coastal Program Manager
Plaquemines Parish Government
8056 Highway 23, Suite 307
Belle Chase, Louisiana 70037

Mr. George H. Provosty
738 Milldenhall Road
Mount Pleasant, South Carolina 29464

Ms. Joan R. Brown, et al.
Attn: Ms. Joan R. Brown
134 Maximilion Lane
Shreveport, Louisiana 71105

Mr. Rene L. Provosty
320 Hudson Street
West Columbia, South Carolina 29169

Mr. Mark A. Pivach
Shingle Point, LLC
P. O. Box 7125
8311 Hwy 23, Suite 104
Belle Chase, Louisiana 70037

Mr. Spencer Robinson
Public Lands Administrator
State of Louisiana
Office of State Lands
State Lands & Water Bottoms Section
P. O. Box 44124
Baton Rouge, Louisiana 70804

Ms. Christie M. Simon
Vice President of Operations
c/o Gerald Roser, Area Business Leader
Gulf South Pipeline Company, LP
520 Alliance Street
Kenner, Louisiana 70062



State of Louisiana

BOBBY JINDAL
GOVERNOR

December 1, 2014

Mr. Troy G. Constance
Acting Deputy District Engineer
US Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Initiation of Deauthorization for West Pointe a la Hache Marsh Creation Project (BA-47)

Dear Mr. Constance:

In accordance with the CWPPRA Standard Operating Procedures (SOP) the Louisiana Coastal Protection and Restoration Authority (CPRA) and the USDA Natural Resources Conservation Service (NRCS) request that the Technical Committee initiate deauthorization procedures for the West Pointe a la Hache Marsh Creation Project (BA-47).

West Pointe a la Hache Marsh Creation (BA-47) is a PPL 17 project that has been engineered and designed by NRCS. This project is currently being constructed utilizing remaining CWPPRA funds from the Lake Hermitage Marsh Creation project (BA-42). As of November 24, 2014, approximately 25% of the BA-47 project area has been filled, and construction is projected to be completed by the end of January, 2015.

NRCS and CPRA wish to proceed with deauthorization of the BA-47 CWPPRA project and the return of any unused funds from Phase 1.

Please direct questions regarding this matter to the CPRA Project Manager, Devyani Kar (225-342-6412).

Sincerely,

Bren Haase
Deputy Chief, Planning and Research Division
Coastal Protection and Restoration Authority

cc: Richard Hartman, NMFS, Baton Rouge, LA
Britt Paul, NRCS, Alexandria, LA
Karen McCormick, EPA, Dallas, TX
Darryl Clark, USFWS, Lafayette, LA
Bren Haase, CPRA, Baton Rouge, LA
Devyani Kar, CPRA, Baton Rouge, LA

Enclosure 1



West Pointe a la Hache Marsh Creation (BA-47)

Project Status

Approved Date: 2007 **Project Area:** 352 acres
Approved Funds: \$1.62 M **Total Est. Cost:** \$16.1 M
Net Benefit After 20 Years: 203 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 17

Location

The project area is located in Plaquemines Parish in the Barataria Basin. The site is located near Hwy 23 at West Pointe a la Hache.

Problems

As a result of leveeing the Mississippi River for navigation and flood control, the West Pointe a la Hache wetlands were cut off from the historic overbank flooding of the river. Without continued sediment input, marshes couldn't maintain viable elevations due to ongoing subsidence. In addition, oil and gas canals disrupted hydrology and facilitated saltwater intrusion further degrading the marsh. Beginning in 1993, the siphons at West Pointe a la Hache were operated to re-introduce Mississippi River water, fine sediments, and nutrients into this area. However, land loss rates have continued to be high. An opportunity exists to create marshes directly in the influence area of the siphons using sediment from the nearby Mississippi River. The created marshes should benefit from the effects of the re-introduced Mississippi River water from the siphons.



Open water area being restored to emergent marsh.

Restoration Strategy

This project will recreate marsh habitat in the area just west of the Jefferson Lake Canal by harvesting sediment from the Mississippi River and pumping it via pipeline to the proposed site. The goals of this project include converting approximately 250 acres of open water habitat to intermediate marsh, nourishing approximately 102 acres of existing intermediate marsh with dredged material, and maintaining 203 acres of created/nourished marsh over the 20-year project life.

Progress to Date

Project is currently in the Planning and Design Phase. A 30% review meeting is anticipated for June 2010. Project is scheduled to request Phase II funding at the January 2011 Task Force meeting. Construction is anticipated to begin September 2011 with a completion date of September 2012.

This project is on Priority Project List 17.

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



**West Pointe
a la Hache
Marsh Creation
(BA-47)**



Marsh Creation *
Project Boundary

*denotes proposed features

USGS
science for a changing world



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:

2005 Digital Orthophoto Quarter Quadrangle

Map Date: November 08, 2007

Map ID: USGS-NWRC 2008-1-0058

Data accurate as of: August 23, 2007



Lake Hermitage Marsh Creation (BA-42)

Project Status

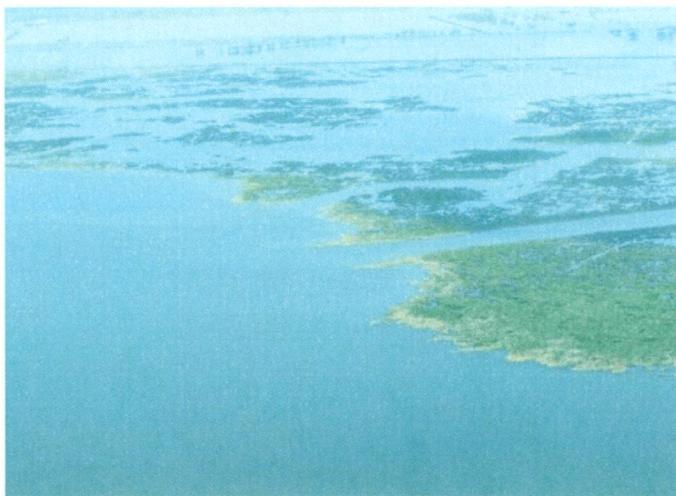
Approved Date: 2006 **Project Area:** 1,600 acres
Approved Funds: \$37.9 M **Total Est. Cost:** \$38.3 M
Net Benefit After 20 Years: 447 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 15

Location

The project area is located in the Barataria Basin in an area referred to as the "West Pointe a la Hache Mapping Unit," which is south and east of Lake Hermitage in Plaquemines Parish, Louisiana.

Problems

The West Pointe a la Hache Mapping Unit lost 38 percent of its marsh from 1932 to 1990. By the year 2050, 28 percent of the 1990 marsh acreage is expected to be lost. That loss is expected to occur even with operation of the West Pointe a la Hache Siphon (State project BA-04) and implementation of the West Pointe a la Hache Outfall Management Project (CWPPRA project BA-04c). Significant marsh loss has occurred south and east of Lake Hermitage and along the eastern lake shoreline. Deterioration of the lake rim will expose interior marshes to the wave energy of Lake Hermitage and increase tidal exchange.



The battered eastern Lake Hermitage shoreline following Hurricane Katrina. Flooded fastlands can be seen in the background.

Restoration Strategy

The goals of this project are to create approximately 593 acres of wetlands, reduce tidal exchange in marshes surrounding Lake Hermitage, and reduce fetch and turbidity to promote submerged aquatic vegetation.

Several restoration techniques will be utilized to accomplish these goals. Riverine sediments will be hydraulically dredged and pumped via pipeline to create approximately 593 acres of marsh in the project area. Approximately 25,000 linear feet of terraces (16 acres) will also be constructed to reduce fetch and turbidity and promote submerged aquatic vegetation. In addition, approximately 6,000 linear feet of rock dike will be constructed along the eastern Lake Hermitage shoreline. An earthen plug will also be constructed in an oil and gas canal to return tidal exchange to natural waterways within the project area.

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.

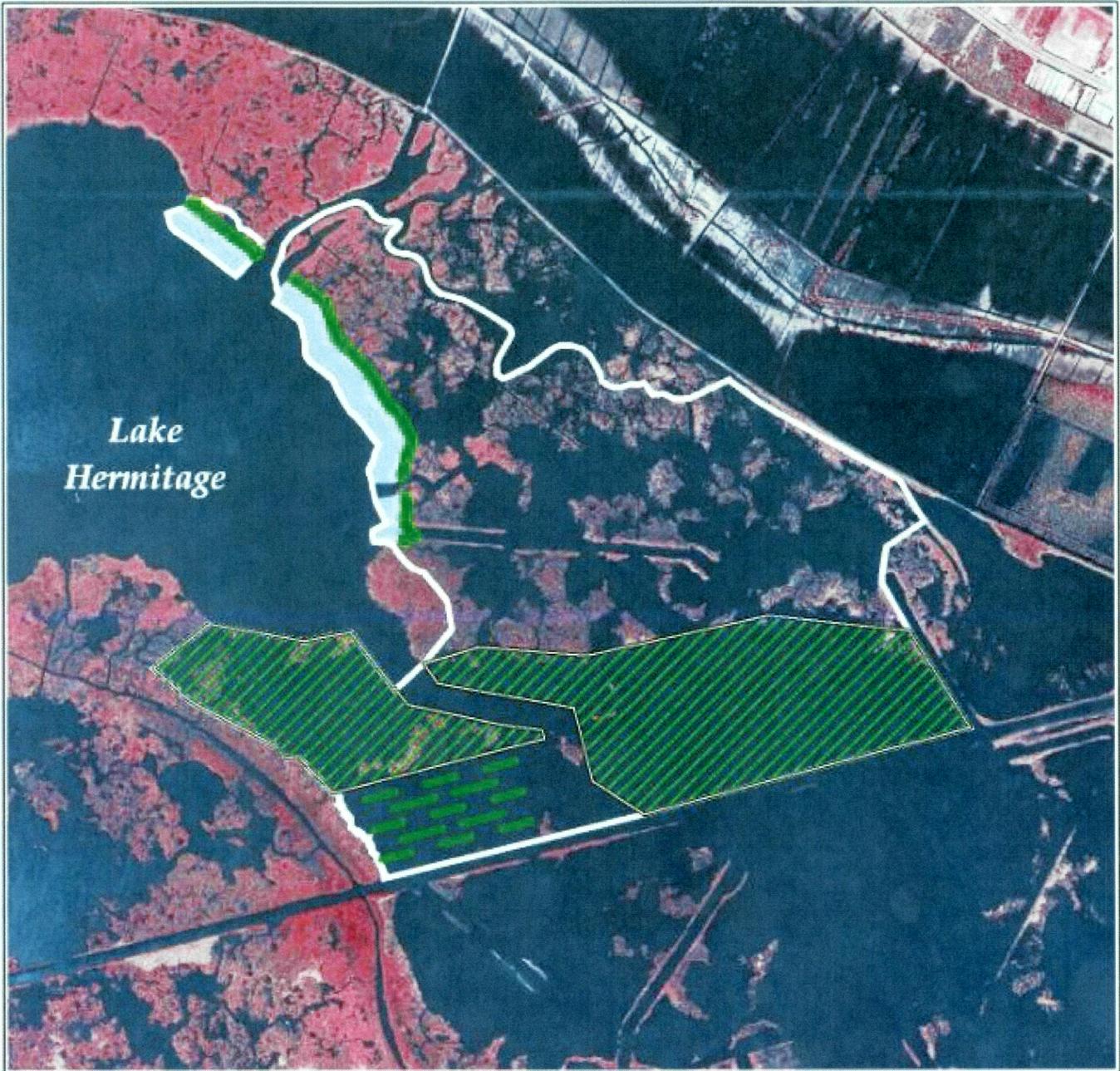
For more project information, please contact:



Federal 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



Lake Hermitage Marsh Creation (BA-42)



-  Containment Dike *
-  Marsh Creation *
-  Terracing *
-  Project Boundary
-  Shoreline Restoration *

*denotes proposed features



Scale: 1:30,000



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

Image Source

2005 Digital Orthophoto Quarter Quadangles

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

ADDITIONAL AGENDA ITEMS

**REQUEST TO REDISTRIBUTE FUNDS FOR PPL 4 – BARATARIA WATERWAY
WEST BANK PROTECTION PROJECT (BA-23)**

For Decision:

The Barataria Waterway West Bank Protection Project's (BA-23) first costs (E&D, Lands, and Construction) have been reconciled and \$291,422 was returned to the program. CPRA and NRCS request those funds be returned to the BA-23 Operation and Maintenance budget. The total project cost previously approved by the Task Force would remain at \$3,304,787.

The Technical Committee will vote on a recommendation to the Task Force to approval the request to redistribute funds for BA-23.

Barataria Bay Waterway West Shoreline Protection (BA-23)

CWPPRA Technical Committee
Request to Re-Distribute Funds



April 16, 2015
Baton Rouge, LA

BA-23 Project Overview

Project Features:

- 9,400 linear feet of rock shoreline protection along the western shore of the Barataria Bay Waterway
- Water control structure with variable-crest weir

Project Purpose:

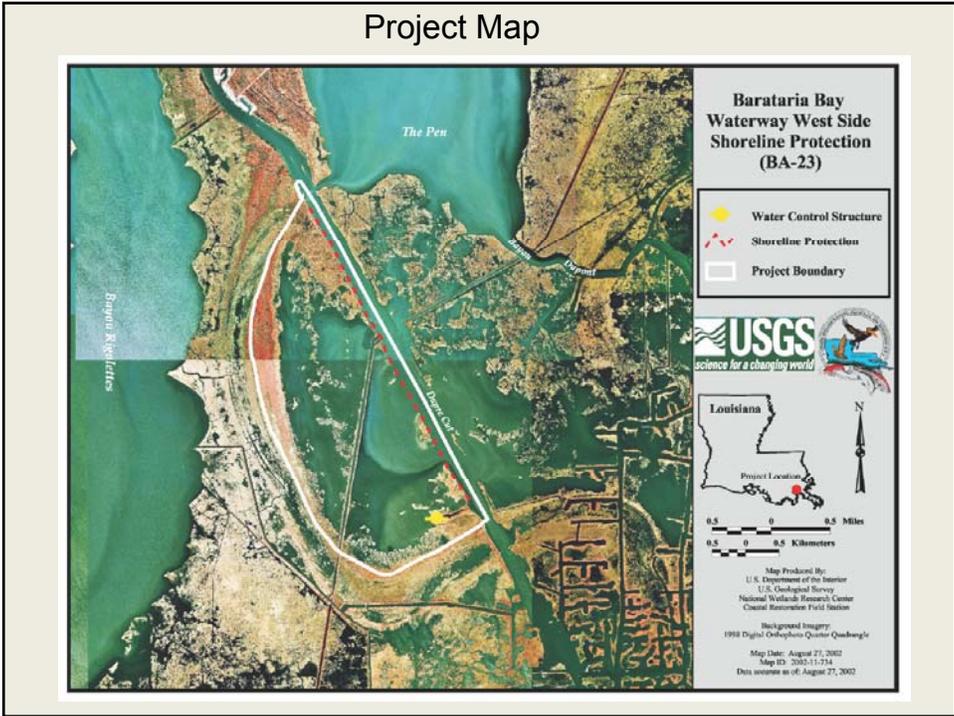
- Re-establish hydrologic barrier to protect 2,200 acres of marsh and open-water habitat from excessive wave energy, water level fluctuations, and saltwater intrusion.

Project Effectiveness:

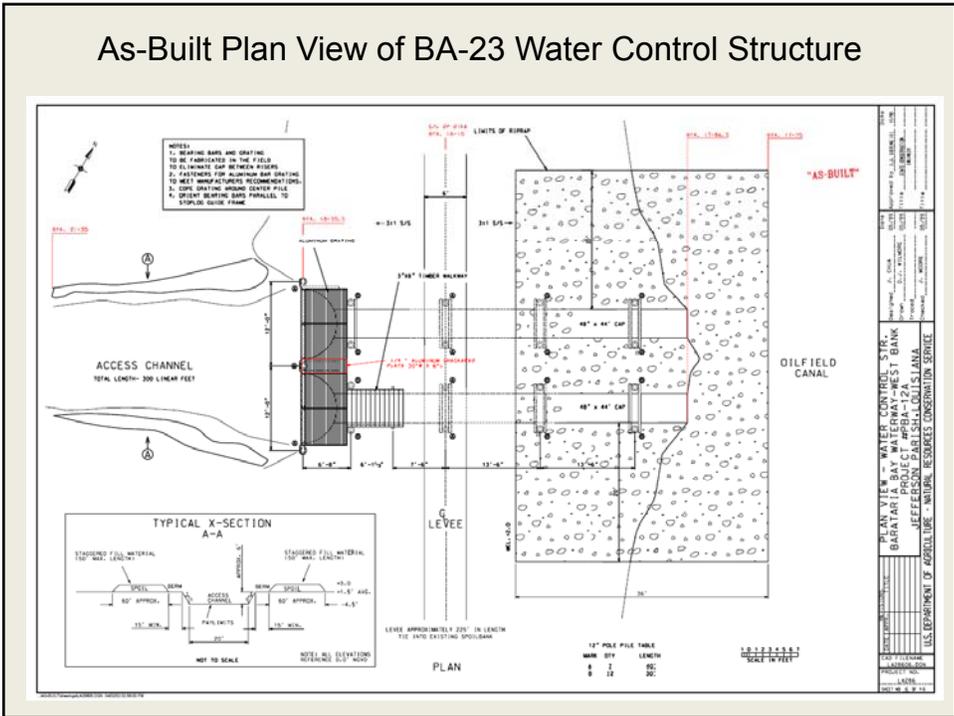
- “...(T)he rate of land loss has been reduced greatly when compared to pre-construction rates.” (1.89% annually pre-construction, 0.20% annually post-construction, *nearly an order of magnitude in rate reduction*)
- “The water control structure has been effective in retaining water(...), increasing available habitat for wintering waterfowl.”

- Gossman, B.P. and B.J. Richard, 2011.

Project Map



As-Built Plan View of BA-23 Water Control Structure



Why are we here?



Sinkhole caused by perforations in culvert



Bank scour on marsh side of structure



Barataria Bay Waterway West Side Shoreline Protection (BA-23)

Project Status

Approved Date: 1994 **Project Area:** 1,789 acres
Approved Funds: \$3.01 M **Total Est. Cost:** \$3.01 M
Net Benefit After 20 Years: 232 acres
Status: Completed November 2000
Project Type: Shoreline Protection
PPL #: 4

Location

The project is located in Jefferson Parish, Louisiana, on the west bank of the Dupre Cut portion of the Barataria Bay Waterway, north of the Lafitte Gas and Oil Field and south of the subsided land reclamation effort known as "the Pen." The project encompasses 1,789 acres of brackish marsh and open-water habitat on the west bank of the Barataria Bay Waterway.

Problems

The banks of the Dupre Cut have eroded considerably as a result of vessel wakes. Large breaches in the banks have exposed the adjacent marsh to increased water exchange and rapid changes in salinity.

Restoration Strategy

9,400 linear feet of foreshore rock dike were constructed on the west bank of Dupre Cut to reduce excessive water exchange in the adjacent marshes. A water control structure was also installed to limit saltwater intrusion into the marsh area and to aid in the maintenance of favorable water levels for wintering waterfowl.

Progress to Date

This project was coordinated with the U.S. Army Corps of Engineers maintenance-dredging program to provide beneficial use of dredged material by placing it behind the armored levee in order to create new marsh. Construction was completed in November 2000. The O&M Plan was signed in July 2002. This project is on Priority Project List 4.



In order to prevent the heavy rock riprap from settling too deep in the organic soil, geo-textile cloth was first put down and used as a base.



Where existing structures were encountered, such as the crossing of the freshwater delivery system to Grand Isle pictured above, the alignment of the structure was altered.

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



Barataria Bay Waterway West Side Shoreline Protection (BA-23)

-  Water Control Structure
-  Shoreline Protection
-  Project Boundary

USGS
Science for a changing world



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

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle
Map Date: August 27, 2002
Map ID: 2002-11-734
Data accurate as of: August 27, 2002

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

REQUEST FOR PUBLIC COMMENTS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

DATE OF UPCOMING CWPPRA PROGRAM MEETING

For Announcement:

The Task Force meeting will be held May 14, 2015 at 9:30 a.m. at the Estuarine Habitats and Fisheries Center, 646 Cajundome Blvd., Lafayette, Louisiana.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

DATE OF UPCOMING CWPPRA 25TH ANNIVERSARY DEDICATION EVENT

For Announcement:

A Dedication Ceremony will be held on October 14, 2015 to celebrate the 25th Anniversary of the CWPPRA Program. The ceremony will begin at 10:00 a.m. in Grand Isle, Louisiana. More details will be provided via the CWPPRA Newsflash.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

APRIL 16, 2015

SCHEDULED DATES OF FUTURE PROGRAM MEETINGS

For Announcement:

May 14, 2015	9:30 a.m.	Task Force	Lafayette
September 10, 2015	9:30 a.m.	Technical Committee	Baton Rouge
October 15, 2015	9:30 a.m.	Task Force	Grand Isle
December 10, 2015	9:30 a.m.	Technical Committee	Baton Rouge