



ATTENDANCE RECORD



DATE(S) September 29, 2009 9:30 A.M.	SPONSORING ORGANIZATION COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LOCATION LA WILDLIFE AND FISHERIES Louisiana Room 2000 Quail Dr., Baton Rouge, LA
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PURPOSE: MEETING OF THE CWPPRA TECHNICAL COMMITTEE

PARTICIPANT REGISTER*

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER & EMAIL
OAKLAND ADAMS	PARSONS BRINCKERHOFF CLIENT RELATIONS	504-450-0244 adams.o@pbworld.com
WARREN MYERS	Buck-Klein PFA Director of Coastal Restoration	775-925-0930 wmyers@bkiusa.com
Brad Crawford	EPH	214 665 7257 crawford.brads@epa.gov
TODD FOLSE	OCPR - TFD Scientist Supervisor	985-447-0991 todd.folse@la.gov
JOHN JURGENSEN	USDA NRCS	318 473 7694
Scott Nelson	USGS	337 266 8544
Jennela Visser	UL Lafayette	337 482 6966
Kelley Templett	OCPR	225-342-1592
Greg Steyer	USGS	225-578-7201
Rick Raynie	OCPR	225-342-9436
COLIN P RICHARDS	OCPR	225-342-9430 colin.richards@la.gov
Chris Robertson	OCPR	225-342-0241 christopher.Robertson@la.gov
Cindy Cutrere	Port of Morgan City	985-384-0850 cindy@portofmc.com
KEEGAN ROBERTS	MOFFATT NICHOL	225-927-7793 KROBERTS@MOFFATTNICHOL.com
TIM VINCENT	National Audubon	337 652 5444 raineymanager@audubon.com
LOUANO BROUSSARD	USDA - NRCS	337-291-3060
Ed Haywood	OCPR	225-342-9428 edhaywood@la.gov
GERRY DISCHASH	Fenstermaker	225 344 6701
Joy Mering	NOAA FISHERIES	337 291 2109
Ken Luberger	USFWS	985-882-2000
SUSAN TESTROBT-BERGSON	BTNEP	985-447-0868
PAUL KEMP	Nat'l Audubon	225 768-0820



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PURPOSE MEETING OF THE CWPPRA TECHNICAL COMMITTEE

PARTICIPANT REGISTER*

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER & EMAIL
Karen A Westphal	Nat'l Audubon	768-0921 kwestphal@audubon.org
Quin Kinter	USDA-NRCS	
Kevin Roy	USFWS	
T. DARRYL CHAM	USFWS	
Brian Vosburg	OCPR - Engineering	
Ryan Hearn	OCPR - Project Management	
Michelle Fischer	USGS Geographer	
Gordon Thomson	Vice President - Coastal Planning & Engineering	501-391-8102 gthomson@coastalplanning.net
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Cecelia Linder	NOAA Fisheries	cecilia.linder@noaa.gov
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Rachel Sweeney	NOAA	
Paul Kaspar	EPA RL	
Joe Maryman	LDWF	
Chris Allen	OCPR	chris.allen@la.gov
Marnie Winter	Jefferson Parish	mwinter@jeffparish.net
Lacey Anderson	OCPR	768-0921
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Joe Henn	Dir. Busns. Dev. Providence Engrg & Env. Gp	(225) 766-7400 x120 joehenn@providenceeng.com



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PURPOSE **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER*		
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER & EMAIL
Allen Ensminger	Pointe au Fer + St. Charles ^{Land Manager} _{land}	337-462-0762
Drew LEE	OCPR	985-447-0991
MARK FOM		225-505-5501
Judge Edwards	Vermilion Corporation	337-893-0268
P. J. HAHN	PLAQUEMINES PARISH	504-297-5631
Grant Brown	DCPR	537 482 0690
Leslie Suage	TPCG - lsuaga@tpcg.org	985 813 6889
MIKE CARLOSS	LDWF	225 765 2812
William McCartney	St. Bernard Parish wimcartney@sbpr.org	504 442 2426
Henrich Bahije	OCPR	(225) 342-7362
Rudy Simoncava	OCPR	225-342-6750
John FORET	NMFS	337-291 2107
Danielle Morrill	Gulf STATES MARITIME	504. 833.4190
Virginia Brisley	USACE	504 862 2613
Robert Esenwein	USACE - contractor	504.802.1292
Tyler Ortega	ORA TECHNOLOGIES	225-229-2539

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

Breaux Act

Coastal Wetlands Planning, Protection and Restoration Act



Technical Committee Meeting

September 29, 2009

Baton Rouge, Louisiana

BREAUX ACT

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT TECHNICAL COMMITTEE MEETING

AGENDA

September 29, 2009 9:30 a.m.

Location:

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

Documentation of Technical Committee meetings may be found at:

http://www.mvn.usace.army.mil/pd/cwppra_mission.htm

Tab Number

Agenda Item

1. **Report: Status of Breaux Act Program Funds and Projects (Gay Browning, USACE) 09:30 a.m. to 09:45 a.m.** Ms. Gay Browning will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.
2. **Decision: FY10 Planning Budget Approval, including the PPL 20 Process, and Presentation of FY10 Outreach Budget (Travis Creel, USACE/Scott Wilson, USGS) 9:45 a.m. to 10:05 a.m.**
 - a. The P&E will recommend the FY10 Planning Budget in the amount of \$4,913,588. The Technical Committee will vote on making a recommendation to the Task Force to approve the FY10 Planning Budget.
 - b. The Planning and Evaluation Subcommittee (P&E) is recommending that the PPL 20 Planning Process Standard Operating Procedures include selecting three nominees in the Barataria, Terrebonne, and Pontchartrain Basins, and two nominees in all other basins, except Atchafalaya where only one nominee would be selected. If only one project is presented at the Regional Planning Team meeting for the Mississippi River Delta Basin, then an additional nominee would be selected for the Breton Sound Basin. The Technical Committee will also vote on a recommendation to hold an alternative Virtual RPT Voting meeting, instead of the existing face-to-face RPT Voting meeting.
 - c. The CWPPRA Outreach Committee will present the draft FY10 Outreach Committee Budget in the amount of \$487,148 to the Technical Committee for coordination and discussion purposes only. The outreach budget will be recommended to the Task Force on October 28, 2009 by the Outreach Committee.
3. **Decision: Annual Request for Incremental Funding for FY12 Administrative Costs for Cash Flow Projects (Gay Browning, USACE) 10:05 a.m. to 10:10 a.m.** The U.S. Army Corps of Engineers will request funding approval in the amount of \$23,337 for administrative costs for cash flow projects beyond Increment 1. The Technical Committee will vote to make a recommendation to the Task Force on the request for funds.

4. Decision: Request for FY12 Project Specific Monitoring Funds for Cash Flow Projects, and FY12 Coastwide Reference Monitoring System (CRMS)-Wetlands Monitoring Funds (Greg Steyer, USGS) 10:10 a.m. to 10:25 a.m. Following a presentation by USGS on the status/progress of CRMS over the past year, the Technical Committee will vote on the following requests:

- a. Project specific FY12 monitoring funding for projects on PPLs 9:
 - Coastwide Nutria Control Program (LA-03b), PPL-11, NRCS
Incremental funding in the amount of \$85,170
- b. CRMS FY12 monitoring funds in the amount of \$7,500,000.

5. Decision: Request for Operation and Maintenance (O&M) Incremental Funding and Budget Increases (David Burkholder, OCPR) 10:25 a.m. to 11:25 a.m. The Technical Committee will consider and vote to make a recommendation to the Task Force to approve requests for total FY 12 incremental funding in the amount of \$8,461,520 and O&M budget increases totaling \$7,735,114.

- a. PPL 9+ Projects requesting approval for FY 12 incremental funding in the total amount of \$2,740,375, for the following projects:
 - Freshwater Introduction South of Highway 82 (ME-16), PPL-9, USFWS
Incremental funding amount: \$461,521
 - Four Mile Canal Terracing & Sediment Trapping (TV-18), PPL-9, NMFS
Incremental funding amount: \$12,649
 - Coastwide Nutria Control Program (LA-03b), PPL-11, NRCS
Incremental funding amount: \$2,266,205
- b. PPL 1-8 Projects requesting O&M budget increases totaling \$7,268,166 and FY 12 incremental funding in the amount of \$5,350,904, for the following projects
 - GIWW to Clovelly Hydrologic Restoration (BA-02), PPL-1, NRCS
Budget increase amount: \$1,587,844
Incremental funding amount: \$1,441,742
 - Point au Fer Island Canal Plugs (TE-22), PPL-2, NMFS
Budget increase amount: \$2,309,159
Incremental funding amount: \$2,255,062
 - Brady Canal Hydrologic Restoration (TE-28), PPL-3, NRCS
Budget increase amount: \$1,929,063
Incremental funding amount: \$1,212,572
 - Cote Blanche Hydrologic Restoration (TV-04), PPL-3, NRCS
Budget increase amount: \$1,442,100
Incremental funding amount: \$441,528
- c. PPL 9 Project requesting approval for an O&M budget increase and FY 12 incremental funding:
 - Holly Beach Sand Management (CS-31), PPL-11, NRCS
Budget increase amount: \$466,948
Incremental funding amount: \$370,241

- - - LUNCH BREAK - - - 11:25 am – 12:25 pm

6. Decision: Request to Change the Project Scope to Remove a Water Control Structure at the Lake Chapeau Hydrologic Restoration and Marsh Creation Project (TE-26) (David Burkholder, OCPR) 12:25 p.m. to 12:45 p.m. NMFS and OCPR are requesting to use existing O&M funds on the Lake Chapeau Hydrologic Restoration and Marsh Creation Project (TE-26) to remove a water control structure. On previous funding requests for the TE-26 project, the project sponsors proposed repairing structure #3, which had been breached. However, the breach has expanded to such an extent that the project sponsors deemed the planned repairs to be cost prohibitive. Also, the project sponsors are requesting that any remaining funds approved for breach repair be rolled into the project future O&M budget. Following a presentation by David Burkholder, the Technical Committee will consider the

request to use the existing obligated funds in the O&M budget to remove TE-26 project structure #3. The Technical Committee will also consider the request to adjust the current O&M budget to roll remaining funds into future TE-26 O&M events.

- 7. Decision: Request for O&M Budget Increases and Funding to Temporarily Remove the Bayou Sauvage National Wildlife Refuge Hydrologic Restoration Phase I (PO-16) and Phase II (PO-18) Pump Discharge Pipes in Preparation for the Lake Pontchartrain and Vicinity Hurricane Protection Levee Enlargement. (Darryl Clark, Kenneth Litzenberger, USFWS; Kirk Rhinehart, OCPR) 12:45 p.m. to 1:00 p.m.** The USFWS is requesting an O&M Budget increase for the Bayou Sauvage National Wildlife Refuge Hydrologic Restoration Phase I (PO-16) and Phase II (PO-18). The USACE is proceeding to elevate the hurricane protection levee forming the eastern boundaries of the PO-16 and PO-18 projects. As part of these hurricane protection levee activities, the USACE is requiring that the USFWS remove three 48 inch-diameter discharge pipes associated with the projects pumping stations, to elevate and widen the Pontchartrain and Vicinity Hurricane Protection Levee. In turn, the USACE has agreed to relocate and refurbish the two pumping stations and install new discharge pipes through the elevated levee. The cost estimate for removing the three discharge pipes is \$100,000. Following a presentation by Darryl Clark, the Technical Committee will consider the following request for O&M budget increases totaling \$100,000 and FY 12 incremental funding in the amount of \$100,000, for the following projects:
- Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1 (PO-16), PPL-1
Budget increase amount: \$70,000
Incremental funding amount: \$70,000
 - Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2 (PO-18), PPL-2
Budget increase amount: \$30,000
Incremental funding amount: \$30,000
- 8. Decision: Request to Change the Project Scope due to an Estimated Budget Increase and Phase I Funding for the Shoreline Protection Feature (Construction Unit #2) of the Lake Portage Land Bridge Project (TV-17, PPL 8). (Britt Paul, NRCS) 1:00 p.m. to 1:20 p.m.** NRCS and OCPR are requesting an estimated budget increase in the amount of \$6,888,802 and Phase 1 funding in the amount of \$707,297 to proceed with developing Construction Unit #2 of the TV-17 project. The current approved estimate is \$1,181,129. Construction Unit #2 would consist of 3,630 linear feet of Gulf shoreline protection. When TV-17 was approved on PPL8, the Task Force opted to fund only a portion of the project in the amount of \$1,013,820, which included backfilling an existing pipeline canal. At that time, the Task Force indicated that additional funds would be made available in the future to complete the second phase of the project if studies showed it was necessary. NRCS and OCPR have determined that Construction Unit #2 is needed based on continued shoreline retreat and threat to the integrity of the constructed portion of the project. The Technical Committee will consider and vote to make a recommendation to the Task Force on the request for a scope change to increase the estimated total project budget by \$6,888,802 for a total estimate of \$8,069,931, and for Construction Unit #2, Phase I funding in the amount of \$707,297
- 9. Decision: Request for a Change in the Project Scope for the Bio-Engineered Oyster Reef Demonstration Project (LA-08) Due to an Estimated Budget Increase (Richard Hartman, NMFS) 1:20 p.m. to 1:45 p.m.** The NMFS and OCPR are requesting a change in the project scope due to an estimated budget increase of \$1,383,897. The Bio-Engineered Oyster Reef Demonstration Project was approved on PPL17. The original approved total project cost is \$1,981,822. Following a presentation by John Foret, the Technical Committee will consider and vote to make a recommendation to the Task Force to approve the change in scope for the budget increase in the amount of \$1,383,897 resulting in a total project estimate of \$3,365,719.

10. Decision: Submittal of Final Design Report and Request for Construction Approval for the PPL 17 Sediment Containment Demonstration Project (LA-09) (Britt Paul, NRCS) 1:45 p.m. to 1:50 p.m. The NRCS and OCPR are requesting construction approval. The Sediment Containment Demonstration project (LA-09) was approved on the PPL 17 to implement a demonstration project using the Net Gains, LLC product as an alternative means to contain dredge sediment and as a passive sediment trapping system. Mr. Ron Boustany will provide a presentation on the LA-09 project. The Technical Committee will consider and vote to make a recommendation to the Task Force on the request for construction approval to the LA-09 project.

11. Discussion/Decision: Status of Unconstructed Projects (Travis Creel, USACE) 1:50 p.m. to 2:00 p.m. The Technical Committee will vote to make a recommendation to the Task Force for final deauthorization on the following projects:

- Mississippi River Sediment Trap (MR-12), PPL-12, USACE
The purpose of the project is to create a sediment trap in the bed of the Mississippi River by dredging an area that would force sediment deposition. The sediment deposited into the trap would then be mined to create marsh.
- Castille Pass Channel Sediment Delivery (AT-04), PPL-9, NMFS
The purpose of the project is to re-establish sedimentation processes that would promote sub-delta and marsh development in the area by dredging a system of distributary channels through Castille Pass.

12. Discussion/Decision: Proposed Revision of CWPPRA Standard Operating Procedure Requirement for 30 % and 95% Design review requirements (Travis Creel, USACE/Darryl Clark, USFWS) 2:00 p.m. to 2:20 p.m. The Technical Committee will consider and vote to modify the CWPPRA Standard Operating Procedures (SOP) as follows:

- a. Require project sponsors to respond to written comments within 45 days following 30% Design Review Conferences. Comments and responses shall be provided to the Technical Committee along with notification to proceed to 95% design. Section 8(1) of the CWPPRA SOP only requires that responses to the 30% Design be included in the Final Design Report. It is recommended that the following be added to the second paragraph of SOP Section 6(e)(2) (30% Design Review): "Agencies shall have 15 days after the 30% Design Review meeting to submit comments. Project sponsors shall provide a written response to 30% Design Review comments within 30 days following the end of the commenting period. These responses shall be included in the sponsoring agency's concurrence letter sent to the Technical Committee after the design review meeting."
- b. Modify Section 6(g)(2)(6) to direct all requests for Section 303(e) approvals to be sent to:

ATTN: CEMVN-PM-OR
CWPPRA Program Manager

13. Report/Discussion: Status of the PPL 1 - West Bay Sediment Diversion Project (MR-03) (Melanie Goodman, USACE) 2:20 p.m. to 2:25 p.m. Ms. Melanie Goodman with the U.S. Army Corps of Engineers will provide a status on the West Bay Work Plan and dredging in the Pilottown Anchorage Area.

14. Report: Central and Eastern Terrebonne Complex Project Report (Ronny Paille, USFWS) 2:25 p.m. to 2:40 p.m. Mr. Paille with the U.S. Fish and Wildlife Service will present a final report on the results of the Central and Eastern Terrebonne complex project.

15. Report: Donaldsonville to the Gulf (Virginia Brisely, USACE) 2:40 p.m. to 2:55 p.m. Ms. Brisely with the U.S. Army Corps of Engineers will provide an update on the progress and findings to date from the Donaldsonville to the Gulf Feasibility Study and Environmental Impact Statement.

16. Additional Agenda Items (Tom Holden, USACE) 2:55 p.m. to 3:00 p.m.

- Decision: West Belle Pass Barrier Headland Project (TE-52), request for project scope change approval due to project cost increase over 25%. (Richard Hartman NMFS)
- Decision: Request for a Scope Change for the South Grand Chenier Hydrologic Restoration Project (ME-20). (D. Clark (USFWS), Kirk Rhinehart (OCPR). The FWS and OCPR request Technical Committee approval for a So. Grand Chenier Hydrologic Restoration Project scope change to increase the budget over 25%. The original fully funded cost estimate was \$20,998,000. The fully funded revised budget will exceed that original budget by greater than 25%. The estimate is the revised fully funded budget will be close to \$29 M or 38% over the original budget. The exact amount will be presented before the October Task Force meeting.

17. Request for Public Comments (Tom Holden, USACE) 3:00 p.m. to 3:05 p.m.

18. Announcement: Date of Upcoming CWPPRA Program Meeting (Travis Creel, USACE)

3:05 p.m. to 3:10 p.m. The Task Force meeting will be held October 28, 2009 at 9:30 a.m. at the U.S. Army Corps of Engineers, 7400 Leake Ave., New Orleans, Louisiana in the District Assembly Room (DARM).

19. Announcement: Scheduled Dates of Future Program Meetings (Travis Creel, USACE) 3:10 p.m. to 3:15 p.m.

2009

October 28, 2009	9:30 a.m.	Task Force	New Orleans
November 17, 2009	7:00 p.m.	PPL 19 Public Meeting	Abbeville
November 18, 2009	7:00 p.m.	PPL 19 Public Meeting	New Orleans
December 2, 2009	9:30 a.m.	Technical Committee	Baton Rouge

2010

January 20, 2010	9:30 a.m.	Task Force	New Orleans
January 26, 2010	1:00 p.m.	Region IV Planning Team Meeting	Rockefeller Refuge
January 27, 2010	9:30 a.m.	Region III Planning Team Meeting	Houma
January 28, 2010	9:30 a.m.	Region II Planning Team Meeting	New Orleans
January 28, 2010	1:00 p.m.	Region I Planning Team Meeting	New Orleans
April 14, 2010	9:30 a.m.	Technical Committee	New Orleans
June 2, 2010	9:30 a.m.	Task Force	Lafayette
September 22, 2010	9:30 a.m.	Technical Committee	Baton Rouge
October 27, 2010	9:30 a.m.	Task Force	New Orleans
November 16, 2010	7:00 p.m.	PPL19 Public Meeting	Abbeville
November 17, 2009	7:00 p.m.	PPL19 Public Meeting	New Orleans
December 1, 2010	9:30 a.m.	Technical Committee	Baton Rouge

20. Decision: Adjourn

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

STATUS OF BREAUX ACT PROGRAM FUNDS AND PROJECTS

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

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

**FY10 PLANNING BUDGET APPROVAL, INCLUDING THE PPL 20 PROCESS,
AND PRESENTATION OF FY10 OUTREACH BUDGET**

For Decision:

- a.** The P&E will recommend the FY10 Planning Budget in the amount of \$4,913,588. The Technical Committee will vote on making a recommendation to the Task Force to approve the FY10 Planning Budget.
- b.** The Planning and Evaluation Subcommittee (P&E) is recommending that the PPL 20 Planning Process Standard Operating Procedures include selecting three nominees in the Barataria, Terrebonne, and Pontchartrain Basins, and two nominees in all other basins, except Atchafalaya where only one nominee would be selected. If only one project is presented at the Regional Planning Team meeting for the Mississippi River Delta Basin, then an additional nominee would be selected for the Breton Sound Basin. The Technical Committee will also vote on a recommendation to hold an alternative Virtual RPT Voting meeting, instead of the existing face-to-face RPT Voting meeting.
- c.** The CWPPRA Outreach Committee will present the draft FY10 Outreach Committee Budget in the amount of \$487,148 to the Technical Committee for coordination and discussion purposes only. The outreach budget will be recommended to the Task Force on October 28, 2009 by the Outreach Committee.

Potential Planning Program Funding Requests for 28 October 2009 Task Force			21-Sep-09
	Total Request	TC?	Total Recommended
Funds Available:			
Funds Available, 21 Sep 2009	\$778,580.00		\$778,580.00
Anticipated Return of Funds			\$0.00
FY10 Planning Program Funding (anticipated)	\$5,000,000.00		\$5,000,000.00
Total	\$5,778,580.00		\$5,778,580.00
Agenda Item 2: FY10 - Planning Budget (and Outreach Budget) Recommendation:			
P&E Recommended FY10 Planning Budget	\$4,913,588.00		\$0.00
Outreach Committee Recommended FY10 Budget	\$487,148.00		\$487,148.00
Total	\$5,400,736.00		\$487,148.00
FY10 Planning Budget- Additional Requests Not on Agenda Recommendation:			
			\$0.00
			\$0.00
			\$0.00
			\$0.00
Total	\$0.00		\$0.00
Total Remaining Funds in CWPPRA Planning Program			
			\$5,291,432.00

Coastal Wetlands Planning, Protection, and Restoration Act
Fiscal Year 2010 Planning Schedule and Budget
P&E Committee Recommendation, 31 August 2009
Tech Committee Recommendation,
Approved by Task Force,

\$778,580 = Available Surplus

TASK					CWPPRA COSTS											
Task Category	Task No.	Description	Duration		Dept of Defense	Department of Interior			State of Louisiana			EPA	Department of Agriculture	Department of Commerce	Other	Total
			Start Date	End Date	USACE	USFWS	NWRC	USGS BR	OCPR	LDWF	GOCA	EPA	NRCS	NMFS		
PPL 19 TASKS																
PL	19485	P&E holds 2 Public Meetings	11/17/09	11/18/09	10,830	4,105			4,754	4,506	500	2,226	5,574	2,061		34,558
PL	19490	TC Recommendation for Project Selection and Funding	12/2/09	12/2/09	2,879	6,717			1,829	2,253	1,000	2,284	4,159	3,225		24,345
PL	19600	TF Selection and Funding of the 19th PPL (1 meeting)	1/21/10	1/21/10	5,583	9,679			3,702	1,502	2,000	3,051	5,218	10,402		41,138
PL	19700	PPL 19 Report Development	2/18/10	7/31/10	47,759	2,687			1,862				383	608		53,300
PL	19800	Corps Upward Submittal of the PPL 19 Report	8/1/10	8/1/10	1,318								0			1,318
PL	19900	Corps Congressional Submission of the PPL 19 Report	9/1/10	9/1/10	1,148								0			1,148
FY10 Subtotal PPL 19 Tasks					69,518	23,188	0	0	12,147	8,261	3,500	7,562	15,334	16,296	0	155,806
PPL 20 TASKS																
PL	20200	Development and Nomination of Projects														
PL	20210	DNR/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 (CWPPRA, state, WRDA projects, etc.) NWRC costs captured under SPE 20400.	10/13/09	1/5/10	1,038				4,067				383			5,489
PL	20220	Sponsoring agencies prepare fact sheets (for projects and demos) and maps prior to and following RPT nomination meetings.	10/13/09	2/15/10	65,118	33,584			10,652			34,297	95,340	23,749		262,739
PL	20230	RPT's meet to formulate and combine projects.	1/26/10	1/28/10	21,068	14,926			10,548	4,506	1,000	6,679	12,743	11,825		83,296
PL	20240	Face-to-Face RPT Voting meeting (20 nominees and up to 6 demos)	2/17/10	2/17/10												0
PL	20245	Alternative Virtual RPT Voting meeting (20 nominees and up to 6 demos)	2/17/10	2/17/10	7,856	2,687			2,653	1,502	800	478	378	4,821		21,176

Coastal Wetlands Planning, Protection, and Restoration Act
Fiscal Year 2010 Planning Schedule and Budget
P&E Committee Recommendation, 31 August 2009
Tech Committee Recommendation,
Approved by Task Force,

\$778,580 = Available Surplus

TASK					CWPPRA COSTS											
Task Category	Task No.	Description	Duration		Dept of Defense	Department of Interior			State of Louisiana			EPA	Department of Agriculture	Department of Commerce	Other	Total
			Start Date	End Date	USACE	USFWS	NWRC	USGS BR	OCPR	LDWF	GOCA	EPA	NRCS	NMFS		
PL	20300	Ranking of Nominated Projects														
PL	20320	Engr Work Group prepares preliminary fully funded cost ranges for nominees.	3/5/10	3/20/10	1,217	2,687			4,437			4,079	7,108	5,310		24,838
PL	20330	Environ/Engr Work Groups review nominees	4/2/10	4/3/10	1,376	8,359			4,212	2,253		3,153	5,882	5,310		30,545
PL	20340	WGs develop and P&E distributes project matrix	4/1/10	4/1/10	1,427	3,188			2,658			2,834	209	3,256		13,572
PL	20350	TC selection of PPL 20 candidates (10) and demo candidates (up to 3)	4/15/10	4/15/10	2,491	3,687			2,847	2,253	1,000	3,268	3,589	7,964		27,100
PL	20400	Analysis of Candidates														
PL	20410	Sponsoring agencies coordinate site visits for all projects	5/1/10	7/15/10	38,057	28,437			17,391	13,518		31,899	41,287	32,340		202,928
PL	20420	Engr/Environ Work Group refine project features and determine boundaries	5/1/10	9/30/10	8,902	16,792			9,321	13,518		5,179	8,052	11,371		73,134
PL	20430	Sponsoring agencies develop project information for WVA; develop designs and cost estimates (projects and demos)	5/1/10	9/30/10	39,683	42,149			37,992			39,598	61,943	56,804		278,169
PL	20440	Environ/Engr Work Groups project-wetland benefits (with WVA)	5/1/10	9/30/10	28,655	26,867			15,402	6,759		16,947	10,282	39,798		144,710
PL	20450	Engr Work Group reviews/approves Ph 1 and Ph 2 cost estimates from sponsoring agencies, incl cost estimates for demos	5/1/10	9/30/10	15,560	6,427			8,179			9,961	4,282	15,929		60,338
PL	20460	Economic Work Group reviews cost estimates, adds monitoring, O&M, etc., and develops annualized costs	5/1/10	10/15/10	17,264	1,717			1,630				7,963	5,310		33,884
PL	20480	Prepare project information packages for P&E.	5/1/10	11/10/10	8,298	7,836			2,483			1,968	189	5,310		26,085
FY10 Subtotal PPL 20 Tasks					258,011	199,343	0	0	134,472	44,309	2,800	160,340	259,632	229,096	0	1,288,003
Project and Program Management Tasks																
PM	20100	Program Management--Coordination	10/1/09	9/30/10	496,487	94,781	27,986		61,964	2,253	60,000	102,386	112,749	108,589		1,067,194
PM	20110	Program Management--Correspondence	10/1/09	9/30/10	64,026	27,921	7,900		25,138	2,253		34,153	45,990	47,033		254,415
PM	20120	Prog Mgmt--Budget Development and Oversight	10/1/09	9/30/10	70,175	16,792	6,711		10,973	1,502	4,000	111,134	51,095	50,840		323,223

Coastal Wetlands Planning, Protection, and Restoration Act
Fiscal Year 2010 Planning Schedule and Budget
P&E Committee Recommendation, 31 August 2009
Tech Committee Recommendation,
Approved by Task Force,

\$778,580 = Available Surplus

					CWPPRA 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	USGS BR	OCPR	LDWF	GOCA	EPA	NRCS	NMFS	Other	Total
PM	20130	Program and Project Management--Financial Management of Non-Cash Flow Projects	10/1/09	9/30/10	66,767	10,821			17,718				19,182	24,750		139,238
PM	20200	P&E Meetings (3 meetings preparation and attendance)	10/1/09	9/30/10	23,427	9,679	4,924		5,291	4,506	1,000	9,458	13,836	15,057		87,179
PM	20210	Tech Com Mtngs (4 mtngs including three public and one off-site; prep and attend)	10/1/09	9/30/10	140,318	29,852	7,516		17,303	11,265	7,000	10,445	17,719	26,840		268,259
PM	20220	Task Force mtngs (4 mtngs, including three public and one executive session; prep and attend)	10/1/09	9/30/10	154,073	33,584	8,619		24,151	9,012	10,000	18,124	31,715	43,218		332,496
PM	20400	Agency Participation, Review 30% and 95% Design for Phase 1 Projects	10/1/09	9/30/10	59,982	11,941			10,347	6,008	3,000	12,757	6,172	11,616		121,824
PM	20410	Engineering & Environmental Work Groups review Phase II funding of approved Phase I projects (Needed for adequate review of Phase I.) [Assume 8 projects requesting Ph II funding in FY09. Assume 3 will require Eng or Env WG review; 2 labor days for each.]	10/1/09	9/30/10	12,761	11,941			5,956	7,510	2,000	3,937	6,769	7,744		58,618
PM	20500	Helicopter Support: Helicopter usage for the PPL process.	10/1/09	9/30/10		17,000							0			17,000
PM	20600	Miscellaneous Technical Support	10/1/09	9/30/10	56,143	10,075			81,406		1,500	35,000	50,107	40,000		274,232
FY10 Subtotal Project Management Tasks					1,144,159	274,387	63,656	0	260,247	44,309	88,500	337,395	355,336	375,688	0	2,943,677
FY10 Total for PPL Tasks					1,471,688	496,918	63,656	0	406,866	96,879	94,800	505,297	630,302	621,080	0	4,387,486
SUPPLEMENTAL PLANNING AND EVALUATION TASKS																
SPE	20100	Academic Advisory Group [NOTE: New MOA between USGS and LUMCON] [Prospectus, pg 1-3]	10/1/09	9/30/10											112,200	112,200
SPE	20200	Maintenance of web-based project reports and website project fact sheets. [NWRC Prospectus, pg 4] [Corps Prospectus, pg 5] [LDNR Prospectus, pg 6]	10/1/09	9/30/10	4,345		45,200		14,608							64,153
SPE	20400	Core GIS Support for CWPPRA Task Force Planning Activities. [NWRC Prospectus, pg 7] [LDNR Prospectus, pg 8]	10/1/09	9/30/10			296,294		10,955							307,249
SPE	20700	Workshop to review selected recently constructed projects to aid in transferring lessons learned from design to implementation stage [NMFS Prospectus, pg 9-10]	10/1/09	9/30/10	6,500	6,500			10,000			6,500	6,500	6,500		42,500
FY10 Total Supplemental Planning & Evaluation Tasks					10,845	6,500	341,494	0	35,563	0	0	6,500	6,500	6,500	112,200	526,102

Coastal Wetlands Planning, Protection, and Restoration Act
Fiscal Year 2010 Planning Schedule and Budget
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Approved by Task Force,

\$778,580 = Available Surplus

TASK					CWPPRA 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	USGS BR	OCPR	LDWF	GOCA	EPA	NRCS	NMFS	Other	Total
FY10 Agency Tasks Grand Total					1,482,533	503,418	405,150	0	442,429	96,879	94,800	511,797	636,802	627,580	112,200	4,913,588
Otrch	20100	Outreach - Committee Funding	10/1/09	9/30/10											416,748	416,748
Otrch	20200	Outreach - Agency	10/1/09	9/30/10	6,600	3,300	27,500		6,600		6,600	6,600	6,600	6,600		70,400
FY10 Total Outreach					6,600	3,300	27,500	0	6,600	0	6,600	6,600	6,600	6,600	416,748	487,148
Grand Total FY10					1,489,133	506,718	432,650	0	449,029	96,879	101,400	518,397	643,402	634,180	528,948	5,400,736
Disallowances																

**Coastal Wetlands Planning, Protection and Restoration Act
Fiscal Year 2009 Budget Summary**

**P&E Committee Recommendation, 31 August 2009
Technical Committee Recommendation,
Task Force Revised,**

	FY2007 Amount (\$)	FY2008 Amount (\$)	FY2009 Amount (\$)	FY2010 Amount (\$)
<u>General Planning & Program Participation [Supplemental Tasks Not Included]</u>				
State of Louisiana				
OCPR (formerly DNR)	412,736	412,736	412,736	406,866
LDWF	96,879	96,879	96,879	96,879
Gov's Ofc	86,500	0	94,800	94,800
Total State	<u>596,115</u>	<u>509,615</u>	<u>604,415</u>	<u>598,545</u>
EPA	469,091	487,549	496,519	505,297
Dept of the Interior				
USFWS	476,885	488,196	488,196	496,918
NWRC	63,656	63,656	63,656	63,656
USGS Reston				
USGS Baton Rouge				0
USGS Woods Hole				
Natl Park Service				
Total Interior	<u>540,541</u>	<u>551,852 0</u>	<u>551,852 0</u>	<u>560,574</u>
Dept of Agriculture	596,400	597,504	609,650	630,302
Dept of Commerce	583,134	604,981	602,425	621,080
Dept of the Army	1,259,208	1,305,578	1,455,344	1,471,688
Agencies Total	<u>\$4,044,489</u>	<u>\$4,057,079</u>	<u>\$4,320,205</u>	<u>\$4,387,486</u>
<u>Feasibility Studies Funding</u>				
Barrier Shoreline Study				
WAVCIS (DNR)				
Study of Chenier Plain				
Miss R Diversion Study				
Total Feasibility Studies				
<u>Complex Studies Funding</u>				
Beneficial Use Sed Trap Below Venice (COE)				
Barataria Barrier Shoreline (NMFS)				
Diversion into Maurepas Swamp (EPA/COE)				
Holly Beach Segmented Breakwaters (DNR)				
Central & Eastern Terrebonne Basin (USFWS)	190,000			
Delta Building Diversion Below Empire (COE)				
Total Complex Studies	<u>\$190,000</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

**Coastal Wetlands Planning, Protection and Restoration Act
Fiscal Year 2009 Budget Summary**

**P&E Committee Recommendation, 31 August 2009
Technical Committee Recommendation,
Task Force Revised,**

	FY2007 Amount (\$)	FY2008 Amount (\$)	FY2009 Amount (\$)	FY2010 Amount (\$)
Outreach				
Outreach	463,858	464,470	516,310	487,148
Supplemental Tasks				
Academic Advisory Group	100,100	103,400	112,200	112,200
Database & Web Page Link Maintenance	62,996	63,806	64,026	64,153
Linkage of CWPPRA & LCA				
Core GIS Support for Planning Activities	307,249	307,249	307,249	307,249
Oyster Lease GIS Database-Maint & Anal				
Oyster Lease Program Mgmt & Impl				
Joint Training of Work Groups				
Terrebonne Basin Recording Stations				
Land Loss Maps (COE)				
Storm Recovery Procedures (2 events)				
Landsat Satellite Imagery				
Digital Soil Survey (NRCS/NWRC)				
GIS Satellite Imagery				
Aerial Photography & CD Production				
Adaptive Management				
Development of Oyster Reloc Plan				
Dist & Maintain Desktop GIS System				
Eng/Env WG rev Ph 2 of appr Ph 1 Prjs				
Evaluate & Assess Veg Plntgs Coastwide				
Monitoring - NOAA/CCAP ²³				
High Resolution Aerial Photography (NWRC)				
Coast-Wide Aerial Vegetation Svy				
Repro of Land Loss Causes Map				
Model flows Atch River Modeling				
MR-GO Evluation				
Monitoring -				
Academic Panel Evaluation				
Brown Marsh SE Flight (NWRC)				
Brown Marsh SW Flight (NWRC)				
COAST 2050 (DNR)				
Purchase 1700 Frames 1998				
Photography (NWRC)				
CDROM Development (NWRC)				
DNR Video Repro				
Gov's Office Workshop				
GIWW Data collection				
Evaluation Report to Congress			109,545	
GIWW Distributary Report (FY09)			18,000	
Workshop Construction Projects				42,500
Total Supplemental	\$470,345	\$474,455	\$611,020	\$526,102
Total Allocated	\$5,168,692	\$4,996,004	\$5,447,535	\$5,400,736
Unallocated Balance				(\$400,736)
Total Unallocated	\$778,580			\$377,844

/Planning_2009/

FY10_CWPPRA Planning Budget Final_P&E Recommendation to Tech Com 29 Sep 2009_31 Aug 2009
FY_summary

Coastal Wetlands Planning, Protection and Restoration Act Fiscal Year 2009 Budget Summary

P&E Committee Recommendation, 31 August 2009 Technical Committee Recommendation, Task Force Revised,

FY2007 Amount (\$)	FY2008 Amount (\$)	FY2009 Amount (\$)	FY2010 Amount (\$)
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Footnotes:

- ¹ amended 28 Feb 96
- ² \$700 added for printing, 15 Mar 96 (TC)
- ³ transfer \$600k from '97 to '98
- ⁴ transfer \$204k from MRSNFR TO Barrier Shoreline Study
- ⁵ increase of \$15.1k approved on 24 Apr 97
- ⁶ increase of \$35k approved on 24 Apr 97
- ⁷ increase of \$40k approved on 26 Jul 97 from Corps Planning Funds
- ⁸ Original \$550 in Barrier Shoreline Included \$200k to complete Phase 1 EIS, and \$350k to develop Phase 2 feasibility scope.
- ⁹ Assumes a total of \$420,000 is removed from the Barrier Shoreline Study over 2 years from Phase 1 EIS
- ¹⁰ Excludes \$20k COE, \$5k NRCS, \$5k DNR, \$2k USFWS, and \$16k NMFS moved to Coast 2050 during FY 97 for contracts & @ \$255k absorbed in agency FY 97 budgets for a total of \$303,000. to COAST2050 during FY 97 for contracts & @ \$255k absorbed in agency FY 97 budgets for a total of \$303,000.
- ¹¹ Additional \$55,343 approved by Task Force for video documentary.
- ¹² \$29,765 transferred from DNR Coast 2050 to NWRC Coast 2050 for evaluation of Report.
- ¹³ \$100,000 approved for WAVCIS at 4 Aug 99 Task Force meeting. Part of Barrier Shoreline Study.
- ¹⁴ Task Force approved 4 Aug 99.
- ¹⁵ Task Force approved additional \$50,000 at 4 Aug 99
- ¹⁶ Carryover funds from previous FY's; this number is being researched at present.
- ¹⁷ \$600,000 given up by MRSNFR for FY 2000 budget.
- ¹⁸ Total cost is \$228,970.
- ¹⁹ Task Force approved FY 2000 Planning Budget 7 Oct 99 as follows:
- (a) General Planning estimates for agencies approved.
 - (b) 75% of Outreach budget approved; Agency outreach funds removed from agency General Planning funds; Outreach Committee given oversight of agency outreach funds.
 - (b) 50% of complex project estimates approved.
- ²⁰ Outreach: original approved budget was \$375,000; revised budget \$415,000.
- (a) 15 Mar 2000, Technical Committee approved \$8,000 increase Watermarks printing.
 - (b) 6 Jul 2000, Task Force approved up to \$32,000 for Sidney Coffee's task of implementing national outreach effort.
- ²¹ 5 Apr 2000, Task Force approved additional \$67,183 for preparation of report to Congress. \$32,000 of this total given to NWRC for preparation of report.
- ²² 6 Jul 00: Monitoring - Task Force approved \$30,000 for Greg Steyer's academic panel evaluation of monitoring program.
- ²³ Definition: Monitoring (NWRC) - NOAA/CCAP (Coastwide Landcover [Habitat] Monitoring Program
- ²⁴ 29 Aug 00: Task Force fax vote approves \$29,500 for NWRC for brown marsh southeastern flight
- ²⁵ 1 Sep 00: Task Force fax vote approves \$46,000 for NWRC for brown marsh southwestern flight
- ²⁶ 10 Jan 2001: Task Force approves additional \$113,000 for FY01.
- ²⁷ 30 May 01: Tech Comm approves 86,250 for Coast-Wide Aerial Vegetation Survey for LDNR; T.F. fax vote approves
- ²⁸ 7 Aug 2001: Task Force approves additional \$63,000 in Outreach budget for Barataria Terrebonne National Estuary Foundation Superbowl campaign proposal.
- ²⁹ 16 Jan 2002, Task Force approves \$85,000 for each Federal agency (except COE) for participation in LCA/Coast 2050 studies and collocation. Previous budget was \$45,795, revised budget is \$351,200, an increase of \$305,405. This task is a supplemental activity in each agency's General Planning budget.
- ³⁰ 2 Apr 02: LADNR requested \$64,000 be transferred from its General Planning budget to LUMCON for Academic Assistance on the Adaptive Management supplemental task.
- ³¹ 1 May 02: LADNR requested \$1,500 be transferred from their General Planning (activity ER 12010, Prepare Report to Congress) and given to NWRC for creation of a web-ready version of the CWPPRA year 2000 Report to Congress for printing process.
- ³² 16 Jan 2003: Task Force approves LDWF estimate that was not included in originally approved budget.
- ³³ 4 May 2005: Task Force approves additional \$164,024 funding under General Planning for Programmatic Assessment and Vision task; +\$48,840 (COE); +\$86,938 (NWRC); +\$21,670 (NRCS); +\$6,576 (NMFS)
- ^{33a} 24 Aug 2006: Scott Wilson requests reduction of \$37,000 from the \$86,938 for the Programmatic Assessment; \$45,000 was given for printing but only \$8,000 used.
- ³⁴ 25 Jan 2006: FY2006 budget, \$98,250 for Report to Congress item added to approved budget
- ³⁵ 28 July 2005: Scott Wilson e-mail requests reduction of \$43,113.99 from current \$275,000 FY98 budget.

Coastal Wetlands Planning, Protection and Restoration Act
Fiscal Year 2010 Budget Refinement

Activity	P & E Initial Budget 28-Jul-09 Amount (\$) (1)	P & E Approves / Recommends to Tech 29-Sep-09 Amount (\$) (2a)	Tech Comm Recommends to Task Force 28-Oct-08 Amount (\$) (3)	Task Force Approves 28-Oct-09 Amount (\$) (4)	Tech Committee Recommends Amount (\$) (3)	Task Force Approves Amount (\$) (4)
General Planning & Program Participation (does not include Supplemental Activities)						
State of Louisiana						
DNR	409,519	406,866				
Gov's Ofc	96,879	94,800				
LDWF	94,800	96,879				
Total State	601,198	598,545				
EPA	505,297	505,297				
Dept of the Interior						
USFWS	474,577	496,918				
NWRC	63,656	63,656				
USGS Reston						
USGS-B.R.						
USGS-Woods Hole						
NPS						
Total Interior	538,233	560,574				
Dept of Agriculture	597,598	630,302				
Dept of Commerce	626,390	621,080				
Dept of the Army	1,471,688	1,471,688				
Agency Total	\$4,340,404	\$4,387,486				
Complex Studies Funding						
Beneficial Use Sed Trap Below Venice (COE)						
Barataria Barrier Shoreline (NMFS)						
Diversion into Maurepas Swamp (EPA/COE)						
Holly Beach Segmented Breakwaters (DNR)						
Central & Eastern Terrebonne Basin (USFWS)						
Delta Building Diversion Below Empire (COE)						
Total Complex Studies						
Supplemental Tasks						
Academic Advisory Group	112,200	112,200				
Maint of Web-Based Project Reports	64,153	64,153				
Linkage of CWPPRA and LCA						
Core GIS Support for Planning Activities	307,249	307,249				
GIWW Tributary Report (FY09)						
Report to Congress						
Oyster Lease Database Maint & Analysis						
Oyster Lease Program Mgmt & Impl						
Joint Training						
Update Landloss Maps						
Storm Recovery Procedures (2 events)						
Land-Water Chg Assessment after 2005						
Workshop Construction Projects	42,840	42,500				
Subtotal Supplemental	\$526,442	\$526,102				

Coastal Wetlands Planning, Protection and Restoration Act
Fiscal Year 2010 Budget Refinement

Activity	P & E Initial Budget 28-Jul-09 Amount (\$) (1)	P & E Approves / Recommends to Tech 29-Sep-09 Amount (\$) (2a)	Tech Comm Recommends to Task Force 28-Oct-08 Amount (\$) (3)	Task Force Approves 28-Oct-09 Amount (\$) (4)	Tech Committee Recommends Amount (\$) (3)	Task Force Approves Amount (\$) (4)
Outreach						
Outreach Committee	65,800					
Agency Participation: USACE						
Agency Participation: USFWS						
Agency Participation: NWRRC						
Agency Participation: DNR						
Agency Participation: Ofc of Gov						
Agency Participation: EPA						
Agency Participation: NRCS						
Agency Participation: NMFS						
Agency Administration: NWRRC						
Dedications Support (no helicopters)						
Helicopter Overflights for Special events (no dedications)						
Outreach Committee Operations Budget:						
Outreach Coordinator - Gabrielle Bodin						
Watermarks						
LaCoast Internet Home Page						
Outreach Assistant/Interpretive Specialist						
Printing, Video, & Graphics Support						
Conference/Exhibit Support						
Travel						
Product Reproduction						
Contractural Support for Outreach Dist						
Awareness Poster Development (COE)						
Broadcast Quality B-roll Aerial Video						
Project Sign Development (NRCS)						
Contract Writer (USGS)						
New Initiative-Science of Rest Video/CD						
New Initiative-						
New Initiative-						
and Values CD						
Subtotal - Outreach	\$65,800					
Total Allocated	\$4,932,646	\$4,913,588				
Unallocated Balance	67,354	86,412	5,000,000	5,000,000	5,000,000	5,000,000
Total Unallocated (Carry In = \$778,580)	845,934	864,992	5,778,580	5,778,580	5,778,580	5,778,580
	\$778,580					

CWPPRA FY 10 PLANNING BUDGET

CWPPRA Planning Task (SPE 20100)

University scientists assistance to the
Louisiana Coastal Conservation and Restoration Task Force (PPL20)
Louisiana Universities Marine Consortium, Cocodrie, Louisiana

1. Project Management

The Project Manager for this project is Dr. Jenneke M. Visser, who will be subcontracted through Louisiana State University. The Project Manager's duties have been divided over the following subtasks:

1a. Day-to-day operation

The Project Manager will facilitate execution of the main contract; draft subcontracts to Louisiana universities for implementation by LUMCON Grants and Contracts personnel; approve all spending, including subcontract invoices; and act as a single point of contact for the Task Force, the Scientific Steering Committee, subcontractors, and the broader academic community.

1b. Participation in Task Force activities

The Project Manager will attend all Task Force, Technical Committee, and Planning and Evaluation Subcommittee meetings.

1c. Solicitation of Interest

If necessary due to resignation of existing AAG group members, a solicitation will be developed by the Project Manager and approved by the CWPPRA Academic Assistance Subcommittee. It will describe the types of activities in which university scientist participation is expected (e.g. Regional Planning Teams or Environmental Workgroup). The solicitation will describe the selection process, including the minimum selection criteria for each task, and contracting arrangement. To ensure that those from the university community involved in the CWPPRA process are active wetland scientists aware of contemporary research in their field, the Scientific Steering Committee has developed the following selection criteria. Selected scientists should have a Ph.D. or MSc. and five years of research experience in wetlands/river/coastal-related issues and at least one of the following:

- at least two peer-reviewed publications on wetlands/river/coastal-related issues within the last five years
- at least four presentations at national or international meetings on wetlands/river/coastal-related issues within the last five years
- current grants and/or contracts to conduct research on wetlands/river/coastal-related issues which have been awarded through a peer-review process

The solicitation will include an information sheet. This information sheet will be used to indicate the activities that a scientist wants to participate in and the nature of their

availability. A two page CV for each interested scientist will be requested in the solicitation. The solicitation will be send to all scientists currently in the Academic Assistance database, as well as heads of all biology, geology, and civil engineering departments at Louisiana state universities. A copy of the solicitation will also be provided to all members of the Planning and Evaluation Subcommittee and Technical Committee who may distribute it to any Louisiana state university scientists they wish to ensure are contacted. The deadline for response will be at least two weeks after mailing.

1d. Selection of participating scientists

The Project manager will conduct a preliminary screening of the responses to determine which respondents are currently available for consideration. If sufficient qualified scientists can be identified, the Project Manager will provide the Academic Assistance Subcommittee with a list for consideration which exceeds the number of scientists required by no more than 50%. The Academic Assistance Subcommittee will make the final selection of scientists.

2. Regional Planning Team Assistance

There are four regional planning teams (RPT). These RPTs select projects for nomination on the priority project list. One selected scientist, who has broad familiarity with the region, will be assigned to each RPT. RPT meetings will also be attended by the Project Manager or a designated replacement to provide consistency in assistance to all four regions. The role of the selected ecologist and the Project Manager are to provide the RPTs with the scientific background for any planning activities within the region. The AAG members of the RPTs will review all nominated projects and provide this review to the Technical Committee at least two days prior to the coast-wide voting meeting.

Appropriate Fields of Expertise: Wetland Ecology.

3. Environmental Work Group Assistance

Three scientists will be selected for this task. The role of the selected scientists is to provide advice and assistance to the Task Force personnel and become part of the Wetland Value Assessment (WVA) team. The WVA team will visit each site in the field. Task Force agencies will generally provide boat transportation to field sites. Aspects of the projects will be discussed in the field, and a formal WVA analysis will be conducted by the team after the field visits.

Appropriate Fields of Expertise: Wetland Ecology, Coastal Geomorphology, and Wetland Hydrology.

Current Active Members of the Academic Advisory Group:

Project Management:	Dr. Jenneke Visser, University of Louisiana at Lafayette
Regional Planning Team 1	Dr. Gary Shaffer, Southeastern Louisiana University
Regional Planning Team 2	Dr. Charles Sasser, Louisiana State University
Regional Planning Team 3	Dr. Mark Hester, University of Louisiana at Lafayette
Regional Planning Team 4	Mr. Erick Swenson, Louisiana State University
Environmental Workgroup	Dr. Larry Rouse, Louisiana State University
	Dr. Charles Sasser, Louisiana State University
	Mr. Erick Swenson, Louisiana State University

Academic Advisory Group Budget

Project Management	30,000
Regional Planning Team Assistance	15,000
Environmental Workgroup Assistance	57,000
Subtotal	102,000
<u>LUMCON overhead (10%)</u>	<u>10,200</u>
Total	112,200

SPE 20200 - Maintenance of Web-Based Project Reports and Website Project Fact Sheets



United States Department of the Interior
U.S. GEOLOGICAL SURVEY

National Wetlands Research Center

July 14, 2009

CWPPRA FY10 Planning Task: *CWPPRA Web-Based Project Information System Maintenance (Fact sheet Links projects)*

Background:

The CWPPRA is a large interagency program that depends on current and accurate information for project planning and public interaction. To assist in coordinating and compiling information, CWPPRA has developed a real-time, interactive, internet-based data management system. The Task Force funded an effort to initiate a web-based information management system to provide a consistent and comprehensive mechanism to disseminate current programmatic information. This effort was in response to conflicting information that was being disseminated from different databases and fact sheets that were either not current or accurate. Development of the web-based management system is working with the following programmatic databases: CWPPRA Outreach Committee's standardized public project fact sheets, CWPPRA budget analyst reports and databases, the WVA working group spreadsheets, and the USGS CWPPRA project mapping effort. The net result has been a totally standardized real-time updated system that will be available to all interested parties.

The USGS is requesting funds to maintain the overall system, and develop new automated programmatic fact sheet reports, as needed

Cost: \$45,200

Budget Breakdown	hours	subtotal
Computer Programmer/Database Administrator	275	22,536
Program Management		3,874
Fact Sheet Editing		8,940
Security Review (Firewall access)		2,384
Software Maintenance		3,725
Hardware Maintenance		3,741
total		45,200

CWPPRA FY 10 Planning Budget

CWPPRA Planning Task (SPE 20200)

Maintenance of Web-Based Project Reports and Website Project Fact Sheets
(Corps of Engineers)

July 2009

Description:

The CWPPRA program maintains and utilizes current project information for interagency and public use and information. The system currently in place links together the CWPPRA general public fact sheet information, project manager's quarterly updates, CWPPRA reports and the financial system maintained by the Corps.

The Corps is requesting funds to continue to furnish and insure that project information is current and interactive with the USGS database and the project manager updates, and to create requested reports on the internet-based system.

TASK	DESCRIPTION	COST
SPE 20200	Maintenance of Web-based Project Reports and Website Fact Sheets	\$ 4,345

CWPPRA FY 10 Planning Budget
SPE 20200 Maintenance of Web-Based Project Reports and Website Project Fact Sheets

Louisiana Department of Natural Resources Justification

Description:

The Louisiana Department of Natural Resources (LDNR) generates a large number of reports through their activities performed in support of the CWPPRA program. CWPPRA related documents that are generated by the LDNR include project close-out reports, comprehensive monitoring reports, ecological reviews, monitoring plans, progress reports, and summary data and graphic reports. Moreover, the LDNR maintains a web-based searchable database for these reports that is both available to the CWPPRA community from the LDNR website and is linked to the CWPPRA website. These documents can be viewed on-line and downloaded in Adobe Acrobat PDF format.

The LDNR is requesting funds to continue to furnish CWPPRA documents produced by the Department in a format that is conducive to on-line availability and to maintain this availability through links on the LDNR website and through coordination with the CWPPRA website.

TASK	DESCRIPTION	COST
SPE 20200	Maintenance of Web-based Project Reports and Website Fact Sheets	\$ 14,608

SPE 20400 – Core GIS Support for CWPPRA Task Force Planning Activities [NWRC]



United States Department of the Interior
U.S. GEOLOGICAL SURVEY

National Wetlands Research Center

June 26, 2009

CWPPRA Reoccurring Planning Task: *Core GIS Support for CWPPRA Task Force Planning Activities – Continuation for FY10*

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 17 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 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 19 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 now utilizes data sets created for the LCA Study, providing enhanced spatial data development, analyses and products. A large amount of spatial data has been created to monitor post-hurricane recovery. The NWRC has continued to incorporate available after hurricanes spatial data into the FY09 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 FY10.

Core NWRC GIS support for FY10

Task	Description	Cost
SPE 20400	Continuation of Core GIS Support for CWPPRA Task Force Planning Activities.	\$296,294

Budget Breakdown	
Staff Salaries (2.5 FTEs)	274,305
Server/Workstation Computer & Plotter Maintenance	7,975
Geospatial Software Maintenance	8,700
Supplies	3,139
Travel	2,175
Total	296,294

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.
 - o 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.

CWPPRA FY10 Planning Budget
SPE 20400 – Core GIS Support for CWPPRA Task Force Planning Activities
Louisiana Office of Coastal Protection and Restoration Justification

Description

A detailed description of CWPPRA Planning Task SPE 20400 –*Core GIS Support for CWPPRA Task Force Planning Activities- Continuation for FY10* has been provided in the justification for National Wetlands Research Center (NWRC) activities in support of this task. The Louisiana Office of Coastal Protection and Restoration's (OCPR) use of the SPE 20400 CWPPRA Planning Task Code pertains to administration & management of the contract between the NWRC and the OCPR. This contract is necessary because the OCPR is responsible for maintaining a portion of the data that supports the overall CWPPRA GIS database & information infrastructure. The GIS database/information infrastructure also becomes a resource for the wider Coastal Restoration community via many venues, one being the OCPR's publicly-accessible SONRIS GIS-integrated Map website.

FY 2010 Budget Request

Administration and management of the contract between the NWRC and the OCPR includes writing the actual contract document, reviewing NWRC charges for accuracy, processing invoices, tracking expenditures, and conducting QA/QC of deliverables. Deliverables include updates of the following GIS layers: project boundaries, project infrastructure features, monitoring stations, soil boring sites, biological monitoring program reference areas, Coastwide Reference Monitoring System sites, and OCPR GPS primary & secondary benchmark networks. The charges for many of these database-updating activities should be distributed across all CWPPRA projects because they all benefit, but since there is no practical way to distribute these charges, this is not done. Additional deliverables include the creation of new GIS data layers. Specifically included in this budget request are portions of salaries for the following personnel: the OCPR contract manager, support staff in the OCPR contracts section, support staff in the OCPR accounting section, and support staff at the Division of Administration. The FY 2010 CWPPRA Planning budget request is for \$10,955.00.

Benefit to CWPPRA

As stated above, a detailed description of the benefits to CWPPRA of the CWPPRA Planning Task SPE 20400 – *Core GIS Support for CWPPRA Task Force Planning Activities- Continuation for FY10* has been explained previously in the justification for NWRC activities in support of this CWPPRA Planning Task. Additional benefits include making available through the internet the ability to spatially query and download geotechnical data, soil boring data, environmental data, or detailed project reports through the OCPR's SONRIS GIS-Integrated Map website. The website is an invaluable tool in the planning and design of coastal restoration projects and in the dissemination of coastal restoration project information, and is therefore of enormous benefit to CWPPRA.

Contact

Chris Robertson, Louisiana Office of Coastal Protection and Restoration, Applied Coastal Engineering and Sciences (LACES) Division, (225) 342-0241.

CWPPRA FY 10 Planning Budget

CWPPRA Planning Task (SPE 20700)

Project Implementation and Construction: Transfer of Lesson's Learned
(NMFS)

Conduct a two to three day workshop to allow project managers, agency engineers and environmental team members to review select projects that have been completed over the last several years. The intent is to focus project reviews on projects which have transferable implementation and construction issues to provide "lessons learned." The P&E subcommittee would be responsible for coordinating with the Engineering WG to make the selection of projects with transferable results.

It is anticipated that each agency would present two to three projects selected based on the commonality and transferability of issues. Projects could be grouped by types of issues such as retention dike design and construction, marsh elevation design and construction, shoreline protection design and implementation issues, etc. (attached is a partial list of recently constructed projects).

The federal and state project managers for each selected project would coordinate to develop presentation on each project which would emphasize how the project was initially designed and discuss design changes made during Phase 1 activities resulting from technical or institutional feasibility issues; modifications during final design, and project changes during bidding and construction. Presenters should concentrate on emphasizing details that might be useful for other engineers and project managers. Presentations should also identify design and construction challenges, contract issues, lessons learned, and recommendations.

For the purposes of developing time and cost estimates for this task, each agency should anticipate developing presentations (\pm 30 minutes) on two or three projects. Following that presentation there would be a project specific discussion. A general summary will be conducted after each group of projects or at the end of the workshop. It is anticipated that four to six projects could be reviewed each day.

POC: Rachel Sweeney or Richard Hartman (225)389-0508

Barataria Land Bridge I & II CU#5 (BA-27)
Barataria Land Bridge I & II CU#4 (BA-27)
Lake Borgne Shoreline Protection (PO-30)
Grand-White Lakes Landbridge Protection (ME-19)
Little Lake Marsh Creation and Shoreline Protection (BA-36)
Goose Point/Point Platte Marsh Creation (PO-33)
Dedicated Dredging on the Barataria Basin Landbridge (BA-36)
Sabine Refuge Marsh Creation (CS-28)
West Lake Boudreaux (TE-46)
Replace Sabine Refuge Water Control Structures (CS-23)
Black Bayou Culverts (CS-29)
East Sabine Hydrologic Restoration (CS-32)
Pass La Mer to Pass Chaland Barrier Shoreline (BA-38-2)
Pass Chaland to Grand Bayou Pass Barrier Shoreline (BA-35)
Timbalier Island (TE-40)
New Cut Dune/Marsh Restoration (TE-37)
Raccoon Island (TE-48)

APPENDIX A

PRIORITY LIST 20 SELECTION PROCESS

Coastal Wetlands Planning, Protection and Restoration Act Guidelines for Development of the 20th Priority Project List Final

I. Development of Supporting Information

A. COE staff prepares spreadsheets indicating status of all restoration projects (CWPPRA PL 1-19; Louisiana Coastal Area (LCA) Feasibility Study, Corps of Engineers Continuing Authorities 1135, 204, 206; and State only projects). Also, indicate net acres at the end of 20 years for each CWPPRA project.

B. DNR/USGS staff prepares basin maps indicating:

- 1) Boundaries of the following projects types (PL 1-19; LCA Feasibility Study, COE 1135, 204, 206; and State only).
- 2) Locations of completed projects
- 3) Projected land loss by 2050 with freshwater diversions at Caernarvon and Davis Pond and including all CWPPRA projects approved for construction through January 2010.
- 4) Regional boundary maps with basin boundaries and parish boundaries included.

II. Areas of Need and Project Nominations

A. The four Regional Planning Teams (RPTs) will meet individually by region to examine basin maps, discuss areas of need and Coast 2050 strategies, and accept project nominations by hydrologic basin. Proposed project nominees shall support one or more of the Coast 2050 strategies. Nominations for demonstration projects will also be accepted at any of the four RPT meetings. The RPTs will not vote to select nominee projects at the individual regional meetings. Rather, voting will be conducted via email or facsimile after all of the RPT meetings have been completed. All CWPPRA agencies and parishes will be required to provide the name and contact information during the RPT meetings for the official parish representative that will be submitting nominee voting ballots.

B. The RPTs will select three projects in the Terrebonne, Barataria, and Pontchartrain Basins based on the high loss rates (1985-2006) in those basins. Two projects will be selected in the Breton Sound, Teche/Vermilion, Mermentau, Calcasieu/Sabine, and Mississippi River Delta Basins. Because of low land loss rates, only one project will be selected in the Atchafalaya Basin. If only one project is presented at the Regional Planning Team Meeting for the Mississippi

River Delta Basin, then an additional nominee would be selected for the Breton Sound Basin. A total of up to 20 projects could be selected as nominees. Each officially designated parish representative in the basin will have one vote and each federal agency and the State will have one vote. The RPTs will also select up to six demonstration project nominees at this coast-wide meeting. Selection of demonstration project nominees will be by consensus, if possible. If voting is required, officially designated representatives from all coastal parishes will have one vote and each federal agency and the State will have one vote.

C. Prior to coast-wide voting, the Environmental and Engineering Work Groups will screen each demonstration project nominated at the RPT meetings. Demonstration projects will be screened to ensure that each meets the qualifications for demonstration projects as set forth in Appendix E.

D. A lead Federal agency will be designated for the nominees and demonstration project nominees to assist LDNR and local governments in preparing preliminary project support information (fact sheet, maps, and potential designs and benefits). The Regional Planning Team Leaders will then transmit this information to the P&E Subcommittee, Technical Committee and members of the Regional Planning Teams.

III. Preliminary Assessment of Nominated Projects

A. Agencies, parishes, landowners, and other individuals informally confer to further develop projects. Nominated projects shall be developed to support one or more Coast 2050 strategies. The goals of each project should be consistent with those of Coast 2050.

B. Each sponsor of a nominated project will prepare a brief Project Description (no more than one page plus a map) that discusses possible features. Fact sheets will also be prepared for demonstration project nominees.

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

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

IV. Selection of Phase 0 Candidate Projects

A. Technical Committee meets to consider the project costs and potential wetland benefits of the nominees. Technical Committee will select ten candidate projects for detailed assessment by the Environmental, Engineering, and Economic Work

Groups. At this time, the Technical Committee will also select up to three demonstration project candidates for detailed assessment by the Environmental, Engineering, and Economic Work Groups. Demonstration project candidates will be evaluated as outlined in Appendix E.

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

V. Phase 0 Analysis of Candidate Projects

A. Sponsoring agency coordinates site visits for each project. A site visit is vital so each agency can see the conditions in the area and estimate the project area boundary. Field trip participation should be limited to two representatives from each agency. There will be no site visits conducted for demonstration projects.

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

C. Sponsoring agency develops Project Information Sheets on assigned projects, using formats developed by applicable work groups; prepares preliminary draft Wetland Value Assessment Project Information Sheet; and makes Phase 1 engineering and design cost estimates and Phase 2 construction cost estimates.

D. Environmental and Engineering Work Groups evaluate all projects (excluding demos) using the WVA and review design and cost estimates.

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

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

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

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

H. Technical Committee hosts two public hearings to present information from H above and allows public comment.

VI. Selection of 20th Priority Project List

A. The selection of the 20th PPL will occur at the Winter Technical Committee and Task Force meetings.

B. Technical Committee meets and considers matrix, Project Information Sheets, and public comments. The Technical Committee will recommend up to four projects for selection to the 20th PPL. The Technical Committee may also recommend demonstration projects for the 20th PPL.

C. The CWPPRA Task Force will review the TC recommendations and determine which projects will receive Phase 1 funding for the 20th PPL.

20th Priority List Project Development Schedule (dates subject to change)

December 2009	Distribute public announcement of PPL20 process and schedule
December 2, 2009	Winter Technical Committee Meeting, approve Phase II (Baton Rouge)
January 20, 2010	Winter Task Force Meeting (New Orleans)
January 26, 2010	Region IV Planning Team Meeting (Rockefeller Refuge)
January 27, 2010	Region III Planning Team Meeting (Houma)
January 28, 2010	Regions I and II Planning Team Meetings (New Orleans)
March 12, 2010	Agencies prepare fact sheets for RPT-nominated projects
March 23-24, 2010	Engineering/ Environmental work groups review project features, benefits & prepare preliminary cost estimates for nominated projects (Baton Rouge)
March 25, 2010	P&E Subcommittee prepares matrix of nominated projects showing initial cost estimates and benefits
April 14, 2010	Spring Technical Committee Meeting, select PPL20 candidate projects (New Orleans)
May/June/July	Candidate project site visits
June 2, 2010	Spring Task Force Meeting (Lafayette)
July/August/ September	Env/Eng/Econ work group project evaluations
September 22, 2010	Fall Technical Committee Meeting, O&M and Monitoring funding recommendations (Baton Rouge)
October 27, 2010	Fall Task Force meeting, O&M and Monitoring approvals, announce PPL 20 public meetings (New Orleans)
October 27, 2010	Economic, Engineering, and Environmental analyses completed for PPL20 candidates
November 16, 2010	PPL 20 Public Meeting (Abbeville)
November 17, 2010	PPL 20 Public Meeting (New Orleans)
December 1, 2010	Winter Technical Committee Meeting, recommend PPL20 and Phase II approvals (Baton Rouge)
January 19, 2011	Winter Task Force Meeting, select PPL20 and approve Phase II requests (New Orleans)

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

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

For Decision:

The U.S. Army Corps of Engineers will request funding approval in the amount of \$23,337 for administrative costs for cash flow projects beyond Increment 1. The Technical Committee will vote to make a recommendation to the Task Force on the request for funds.

CWPPRA Cash Flow Management - COE Admin**Anticipated Funding Requests by Fiscal Year**

Last Updated 10 September 2009

Funding Request to Task Force, 28 October 2009 Request = \$23,337

Proj #	Project Name	Agency	PPL	Funding Request
PO-27	Chandeleur Island Restoration	NMFS	9	
TE-41	Mandalay Bank Protection Demo	USFWS	9	
MR-11	Periodic Intro of Sed & Nutrients Demo	COE	9	
TE-37	New Cut Dune Restoration	EPA	9	\$1,332
CS-30	Perry Ridge West	NRCS	9	\$989
TE-45	Terrebonne Bay Shore Protection Demo	USFWS	10	
CS-31	Holly Beach	NRCS	11	
BA-27c(1)	Barataria Basin Landbridge - Ph 3 CU 3	NRCS	9	\$958
LA-03b	Coastwide Nutria	NRCS	11	\$968
BS-11	Delta Management at Fort St. Philip	USFWS	10	\$970
ME-19	Grand-White Lake Landbridge Protection	USFWS	10	\$970
TE-44(1)	North Lake Mechant Landbridge - CU 1	USFWS	10	
BA-27c(2)	Barataria Basin Landbridge - Ph 3 CU 4	NRCS	9	
TV-18	Four-Mile Canal	NMFS	9	\$927
LA-05	Freshwater Floating Marsh Creation Demo	NRCS	12	
TE-40	Timbalier Island Dune/Marsh Restoration	EPA	9	\$927
CS-29	Black Bayou Bypass Culverts	NRCS	9	\$898
	CRMS	USGS/DNR		\$2,000
CS-32(1)	East Sabine Lake Hydrologic Rest- CU 1	USFWS/NRCS	10	\$1,001
BA-37	Little Lake	NMFS	11	\$1,030
BA-38	Barataria Barrier Island	NMFS	11	\$760
BA-27d	Barataria Basin Landbridge - Ph 4 CU 6	NRCS	11	\$999
LA-06	Shoreline Prot Foundation Imprvts Demo	COE	13	
ME-16	Freshwater Intro. South of Hwy 82	USFWS	9	\$821
TE-44(2)	North Lake Mechant Landbridge Rest - CU 2	USFWS	10	
TE-48 (1)	Raccoon Island Shoreline Protection - CU 1	NRCS	11	\$821
ME-22	South White Lake	COE	12	\$1,235
PO-30	Lake Borgne Shoreline Protection	EPA	10	
BA-35	Pass Chaland to Grand Pass	NMFS	11	\$871
TE-46	West Lake Boudreaux SP & MC	USFWS	11	
TE-53	Enhancement of Barrier Island Veg Demo	EPA	16	
BA-36	Dedicated Dredging on Bara Basin LB	USFWS	11	
PO-33	Goose Point	USFWS	13	
ME-21a	Grand Lake Shoreline Protection, Tebo Point Only	COE	11	
ME-21b	Grand Lake Shoreline Protection, O&M Only [CIAP]	COE	11	
LA-08	Bio-Engineered Oyster Reef Demo	NMFS	17	
LA-09	Sediment Containment Demo	NRCS	17	
BA-39	Bayou Dupont Sediment Delivery System	EPA	12	\$834
TE-48 (2)	Raccoon Island Shoreline Protection - CU 2	NRCS	11	
TE-39	South Lake DeCade - CU 1	NRCS	9	
BA-41(1)	South Shore of the Pen - CU 1	NRCS	14	
BA-41(2)	South Shore of the Pen - CU 2	NRCS	14	
TE-50	Whiskey Island Back Barrier M.C.	EPA	13	
TV-21	East Marsh Island	NRCS	14	
BA-42	Lake Hermitage	FWS	15	
LA-16	Non-Rock Alternative SP Demo	NRCS	18	
BA-27c	Barataria Basin LB, Ph 3 - CU 7	NRCS	9	
MR-03	West Bay Sediment Diversion	COE	1	
CS-27	Black Bayou Hydrologic Restoration	NMFS	6	\$1,342
CS-17	Cameron Creole Plugs	FWS	1	\$1,342
ME-13	Freshwater Bayou Bank Stab	NRCS	5	\$1,342
BA-4c	West Point a la Hache	NRCS	3	
				\$23,337

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

REQUEST FOR FY12 PROJECT SPECIFIC MONITORING FUNDS FOR CASH FLOW PROJECTS, AND FY12 COASTWIDE REFERENCE MONITORING SYSTEM (CRMS)-WETLANDS MONITORING FUNDS

For Decision:

Following a presentation by USGS on the status/progress of CRMS over the past year, the Technical Committee will vote on the following requests:

- a.** Project specific FY12 monitoring funding for projects on PPLs 9+:
 - Coastwide Nutria Control Program (LA-03b), PPL-11, NRCS
Incremental funding in the amount of \$85,170
- b.** CRMS FY12 monitoring funds in the amount of \$7,500,000.

**Budget Request for CWPPRA Monitoring
CWPPRA Technical Committee Meeting
September 29, 2009**

Out-year funding (2012)

Project-specific (PPL 9-11)

The following PPL 9-11 cash-flow project will continue to have project-specific monitoring activities and will require addition out-year funding.

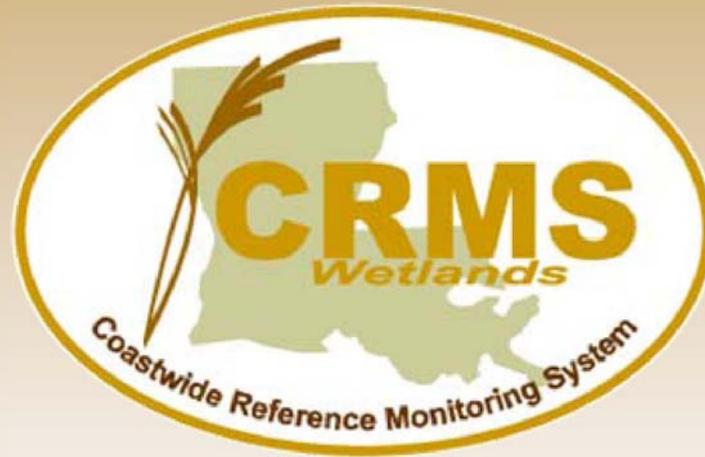
\$85,170 LA-03b Coastwide Nutria Control Program

Coastwide Reference Monitoring System – Wetlands (CRMS-Wetlands)

CRMS-Wetlands has been funded by previous Task Force authorizations through FY11. The following request is for out-year funding through FY-12.

\$7,500,000 CRMS-Wetlands (To maintain a 2-yr balance)

Coastwide Reference Monitoring System (CRMS) - *Wetlands*



**Status Report for the
CWPPRA Technical Committee
September 29, 2009**



CRMS Authorizations and Current Request

Summary Budget and Funding To-Date			
	Total Budget	Approved Funding	Remaining Funding
PPL 1-8	\$6,760,637	\$6,760,637	\$0
CRMS-Wetlands	\$60,129,663	\$25,790,423	\$34,339,240
CRMS Program Total	\$66,890,300	\$32,551,060	\$34,339,240

FUNDING SUMMARY

		Authorizations	Expenditures	Balance
August 14, 2003	Funding for 2003 - 2005 <i>Existing PPL 1-8 projects \$6,760,637</i> <i>From new funding \$5,636,869</i>	\$12,397,506		
January 28, 2004:	Funding for 2006	\$3,101,357	\$532,000	
October 13, 2004:	Funding for 2007	\$532,000 ^a	\$1,036,109	
October 26, 2005:	Funding for 2008	\$1,036,109 ^a	\$3,185,809	
October 18, 2006:	Funding for 2009	\$3,185,809 ^a	\$4,697,824	
October 25, 2007:	Funding for 2010	\$4,697,824 ^a	\$7,600,455	
November 5, 2008:	Funding for 2011	\$7,600,455 ^a	\$8,396,985	
Subtotal	2003-2011	\$32,551,060	\$25,449,182	\$7,101,878
October 28, 2009b	Funding for 2012	\$7,500,000 ^b		
TOTAL	Funding 2003 through 2012	\$40,051,060	\$25,449,182	\$14,601,878

^a (request reduced to only cover expenses to date)

^b (anticipated)



CWPPRA Monitoring FY12 Funding Request

Coastwide Reference Monitoring System – Wetlands

CRMS - <i>Wetlands</i>	\$7,500,000
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Project-specific (PPL 9-11)

LA-03b Coastwide Nutria Control Program	\$85,170
-----------------------------------------	----------

Total	\$7,585,170
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CRMS Funding Request Background

Did not request replacement of prior year expenditures

- Actual FY09 expenditures were \$8.4M

Request based on enough to maintain a 2-yr balance

- Better understanding of annual costs

Outside funding sources

- State will contribute \$1M
 - \$500K to CRMS-*Wetlands*, \$500K to BICM/CRMS-*Waters*
- LCA Program
 - Currently developing monitoring and adaptive management plans
- LCA Science and Technology Program
 - Awaiting appropriations, last funding cycle provided \$750K to SWAMP-related activities



Cost Reduction Strategies

CRMS

Reduced scope

- Number of sites reduced
- Swamp sampling frequency reduced to every three years
- Investigating accretion/elevation collection due to issues in highly organic soils

Data available to perform power analysis

Alternative sampling techniques

- Remote sensing – NDVI
- Flooding algorithms

CWPPRA Monitoring Program

BICM (LCA/USGS/State funded) providing value added

- Existing monitoring plans designed or to be designed around BICM – TE-50, TE-52, BA-35, BA-38, BA-40
- BICM data used or to be used in reports – TE-20, TE-24, TE-25, TE-27, TE-30, TE-37, TE-40

CRMS Waters to provide value added

- Being funded through LCA and State, planning is currently underway

Deauthorized Projects

- Monitoring money returned to CWPPRA



CRMS Implementation Status

Site Construction

- Landrights and construction complete except for three sites recently added/moved

Data Collection (as of August 2009):

- 304 sites collecting all data types
- 387 sites collecting hydrographic data
- 389 sites being monitored for vegetation in 2009
- 304 sites monitored for surface elevation/accretion in March 2008
- 387 sites sampled for soil properties, data available for 347
- coastwide aerial photography and satellite imagery collected in Fall 2005 and Fall 2008
- 389 sites from 2005 have completed land:water analysis, QAQC, and posted on web;

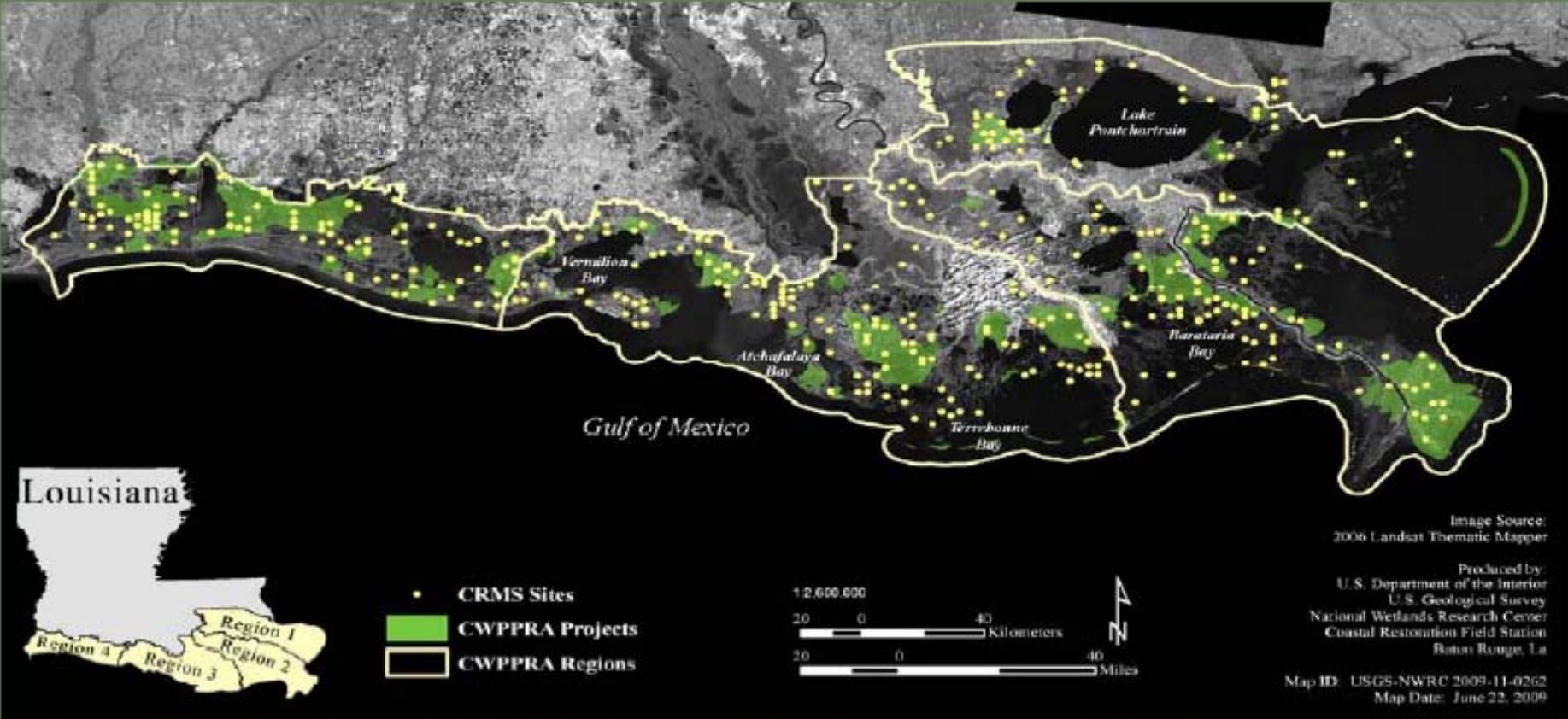
Reporting

- 8 project-specific reports in 2009 (AT-02, AT-03, BA-04, BA-38, ME-14, MR-09, TE-41, and TV- 09)
- Standard Operating Procedures for Data Collection and Management
- CRMS Hydrologic and Vegetation Analytical Framework Documents

Data available through CRMS, DNR/OCPR SONRIS, USGS, or CWPPRA Websites



CRMS Station Distribution



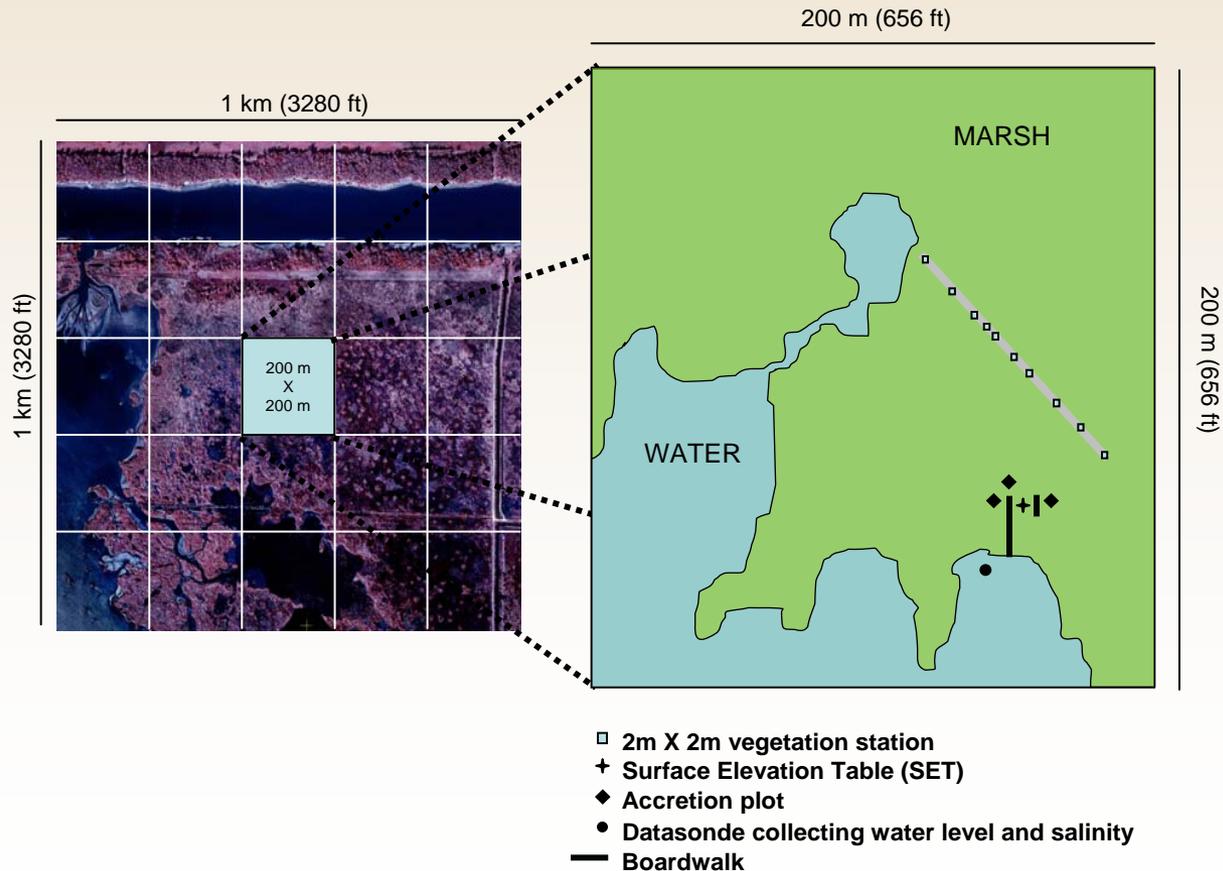
Map of CRMS sites throughout coastal Louisiana in relation to four CWPPRA regions and CWPPRA projects coastwide.



CRMS Site Configuration

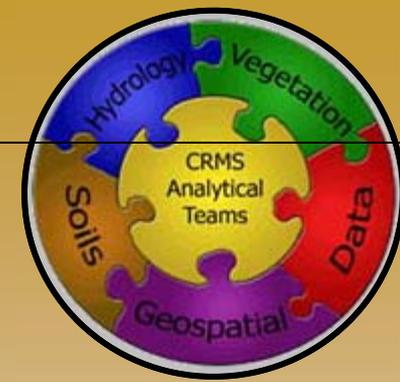
*CRMS-Wetlands Sampling Area:
1 km² aerial photography area*

*CRMS-Wetlands Sampling Area:
200m X 200m area for non-spatial
data collection*





CRMS Analytical



- Analytical Teams are developing indices in order to evaluate sites, restoration projects, and ecological condition at basin and coastwide scales

METRICS

- Vegetation
 - Cover
 - Species composition
 - Relative abundance
 - Dominance/calculated
 - Richness/calculated
 - Height
 - NDVI
- Hydrology
 - Water depth
 - Water duration/calculated
 - Flooding frequency/calculated
 - Salinity
 - Temperature

Soils

- Bulk density
- % organic matter
- Water content
- Sediment elevation
- Sediment accretion
- Shallow subsidence
- Salinity
- Temperature
- pH
- Soil type
- Relative sea level rise
- Deep subsidence

Landscape

- Land:water ratio
- NDVI
- Fragmentation

INDICES DEVELOPMENT

- Hydrologic Index
- Floristic Quality Index
- Sediment Elevation Compensation Index
- Spatial Integrity Index



CRMS Data Delivery & Visualization Tools

Coastwide Reference Monitoring System a CWPPRA funded project

Home Data Mapping Library Visualization Program

Long: -92.20825, Lat: 33.23869 Map **Satellite** Hybrid

Layers Active

- CRMS Sites** ✓
Zoom To: CRMS0002
- 1 Km Buffer
- CWPPRA Projects**
Zoom To: AT-02
- Hydro Basins
- Coastwide Vegetation**
- Points
- Polygons
Fill:
- Legend
- Land/Water
2008
Fill:
- CMS**

Site Info

Single-click the yellow symbology on the map to view CRMS Site information.

Disclaimer

PROVISIONAL DATA SUBJECT TO REVISION.

Imagery ©2009 TerraMetrics - [Terms of Use](#)

- Incorporates CWPPRA partner suggestions and requests to enable multi-scale evaluations
- Continually evolves as data become available and analyses develop



CRMS Site Information

Coastwide Reference Monitoring System a CWPPRA funded project

Home Data Mapping Library Visualization Program

Long: -91.60323, Lat: 29.68336 Map **Satellite** Hybrid

Site Info Water Vegetation Soil Spatial Report Card 2008 DOQQ CIR

Site ID: CRMS0544
Lat, Long: 29.6865, -91.573
Marsh Elevation: 1.38ft NAVD1988
NGS Benchmark: Not currently available.
CWPPRA Project:
 IN: Cote Blanche Hydrologic Restoration (TV-04)
 Type: Hydrologic Restoration
Pre/Post Construction Pictures:



Post Construction



Preliminary Site Visit North



Pre Construction

[Survey Report](#) (3.64 MB)

©2008 DOQQ USGS - [Terms of Use](#)

Layers

CRMS Sites

Zoom To: CRMS0544

1 Km Buffer

CWPPRA Projects

Hydro Basins

CMS

Site Info

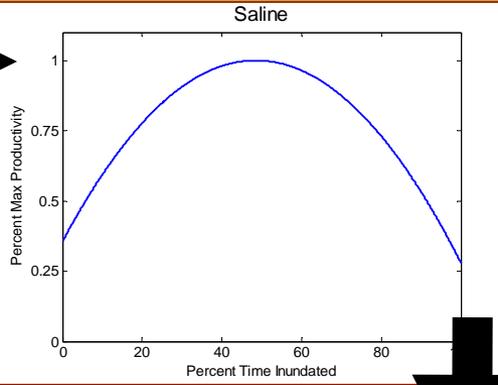
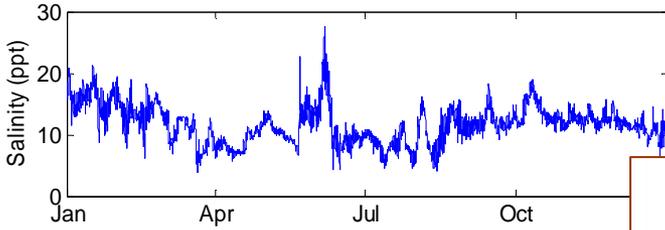
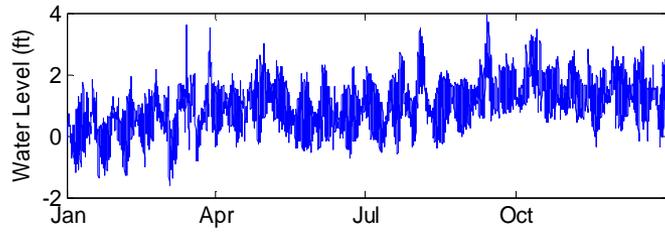
Click the yellow symbology on the map to view CRMS Site information.

Disclaimer

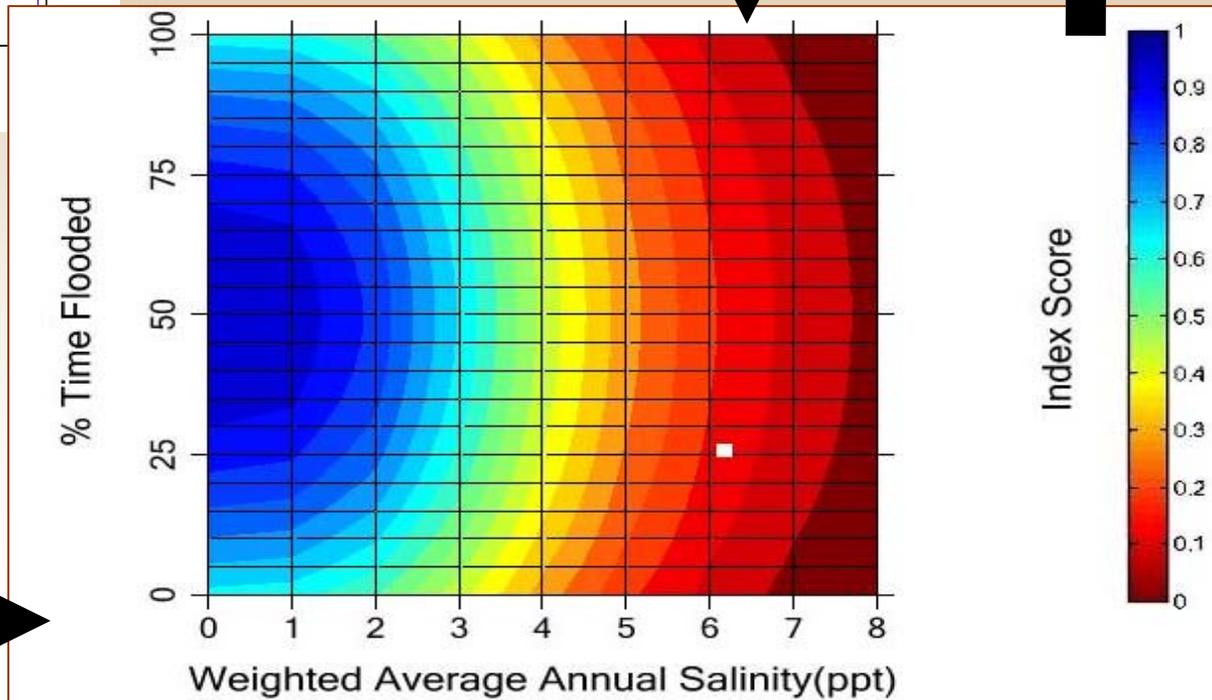
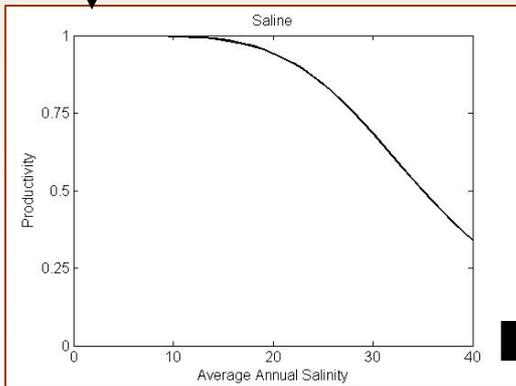
PROVISIONAL DATA SUBJECT TO REVISION.

- General site information
- Summaries of water, vegetation, and soils data
- Links to the SONRIS database
- Displays site specific index scores

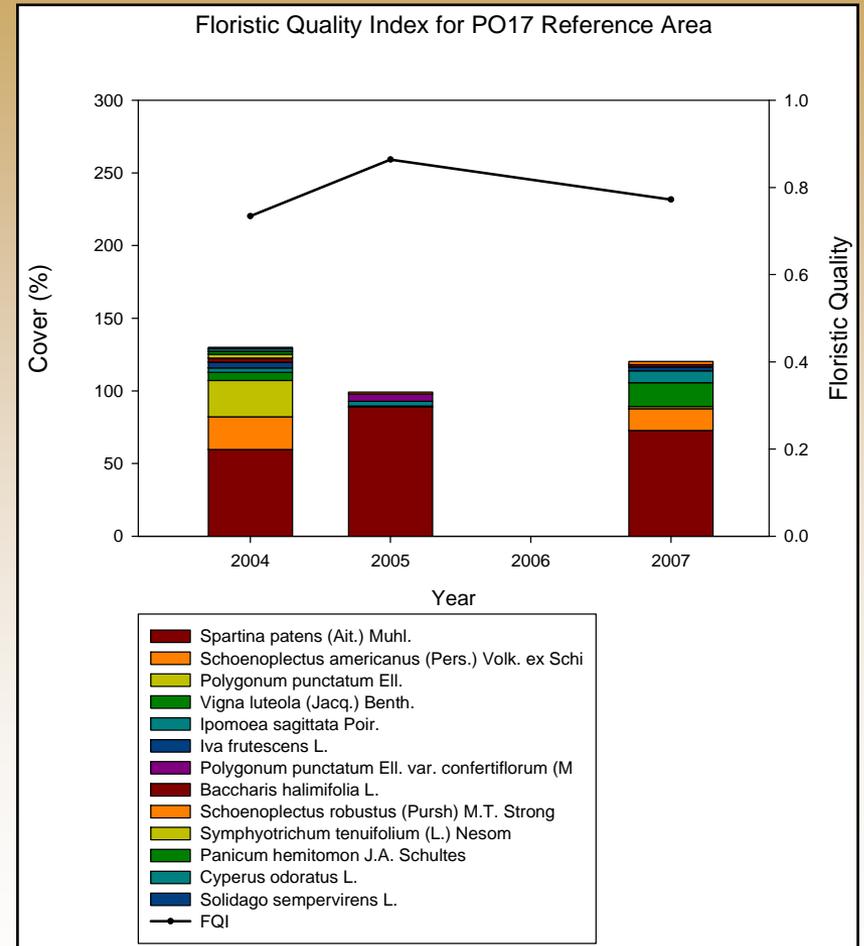
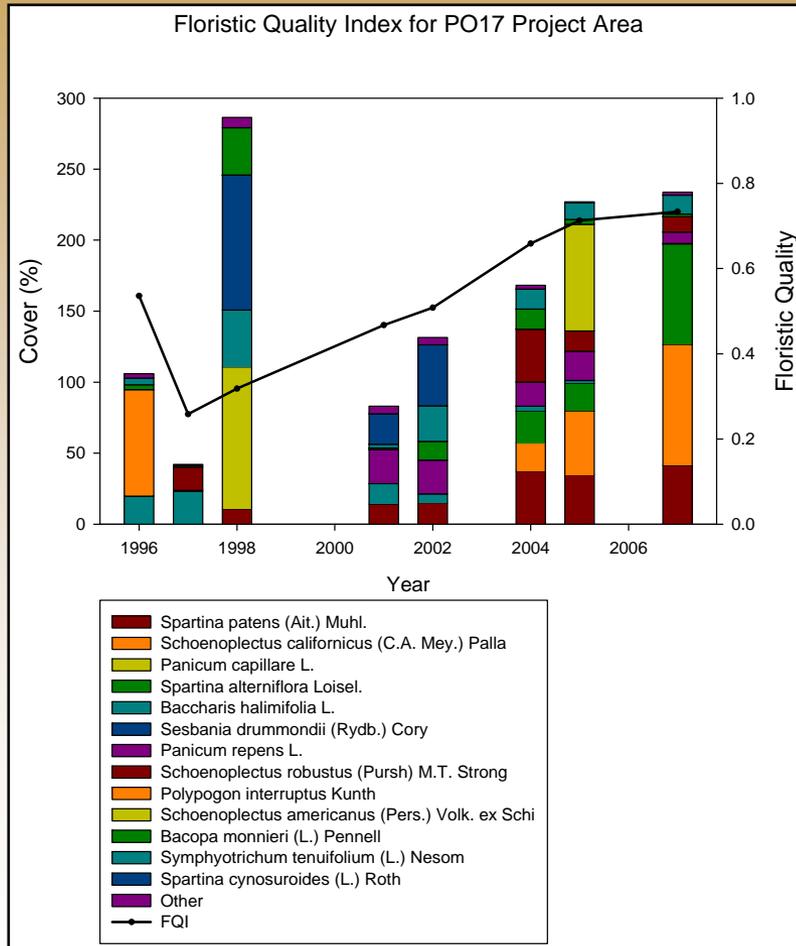
Hydrologic Index



Hydrologic Index
Score = 0.35



Floristic Quality Index



CWPPRA Project Information

Coastwise Reference Monitoring System a CWPPRA funded project

Home Data Mapping Library Visualization Program

Long: -93.47357, Lat: 29.82754 Map **Satellite** Hybrid 2008 DOQQ CIR

Layers **Active**

- CRMS Sites
- 1 Km Buffer
- CWPPRA Projects
- Zoom To: CS-20
- Hydro Basins
- Coastwise Vegetation
- Land/Water
- CMS

Project Info
Single-click inside a red polygon on the map to view CWPPRA Project information.

USGS science for a changing world

- Users can visualize project boundaries and are provided with project summary information and reports

Coastwise Reference Monitoring System a CWPPRA funded project

Home Data Mapping Library Visualization Program

Long: -89.21448, Lat: 29.19293 Map **Satellite** Hybrid

Project Info Water Vegetation Soil Spatial

State ID: MR-09
Name: Delta Wide Crevasses
Sponsor: NMFS
Type: Water Diversion
Links:
[MR-09 General Fact Sheet](#) (1.56 MB)
[MR-09 Monitoring Plan](#) (1.42 MB)
[MR-09 Operations, Maintenance, and Monitoring Report](#) (4.81 MB)

Layers **Active**

- CRMS Sites
- 1 Km Buffer
- CWPPRA Projects
- Zoom To: AT-02
- Hydro Basins
- Coastwise Vegetation
- Land/Water
- CMS

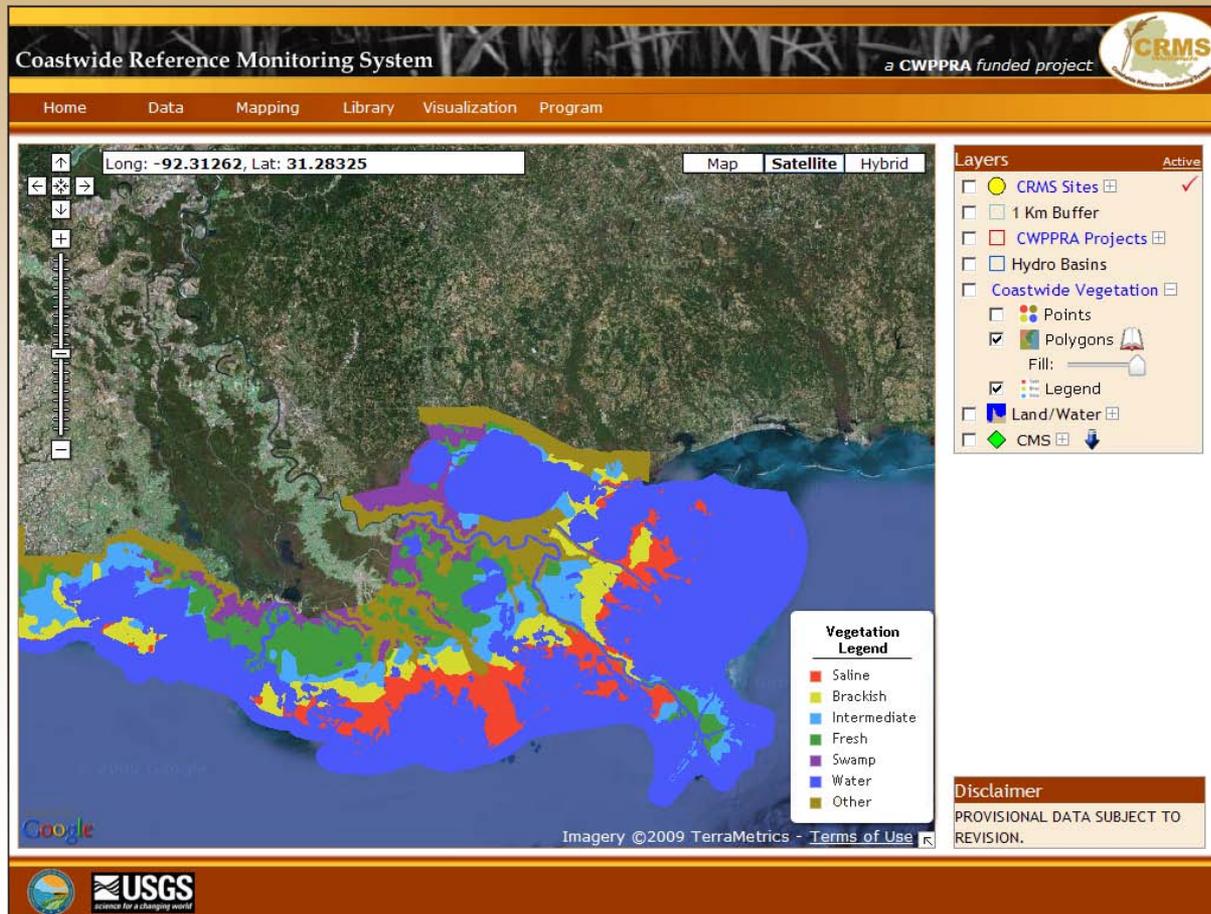
Project Info
Single-click inside a red polygon on the map to view CWPPRA Project information.

Disclaimer
PROVISIONAL DATA SUBJECT TO REVISION.

USGS science for a changing world

Coastwide Information - Vegetation

- The polygon layers transparency can be controlled using the slider tool.



Vegetation Layer

- With the vegetation layer active the vegetation points can be clicked.
- When clicked an info window will display with more information about the point.

Coastwide Reference Monitoring System a CWPPRA funded project 

Home Data Mapping Library Visualization Program

Long: -92.03144, Lat: 29.66434 Map **Satellite** Hybrid
 2008 DOQQ CIR

Point ID: 15A-9
Date: 7/18/2007
Percent Veg: 80%
Marsh Type: Saline
Species List:

Scientific name	Percent Value
<i>Spartina patens</i> (Ait.) Muhl.	51-75%
<i>Spartina alterniflora</i> Loisel.	26-50%
<i>Distichlis spicata</i> (L.) Greene	5-25%

Layers Active

- CRMS Sites
- 1 Km Buffer
- CWPPRA Projects
- Hydro Basins
- Coastwide Vegetation
- Points
- Polygons
- Fill:
- Legend
- Land/Water
- CMS

Vegetation Info

Single-click the white outlined symbology on the map to view Vegetation information.

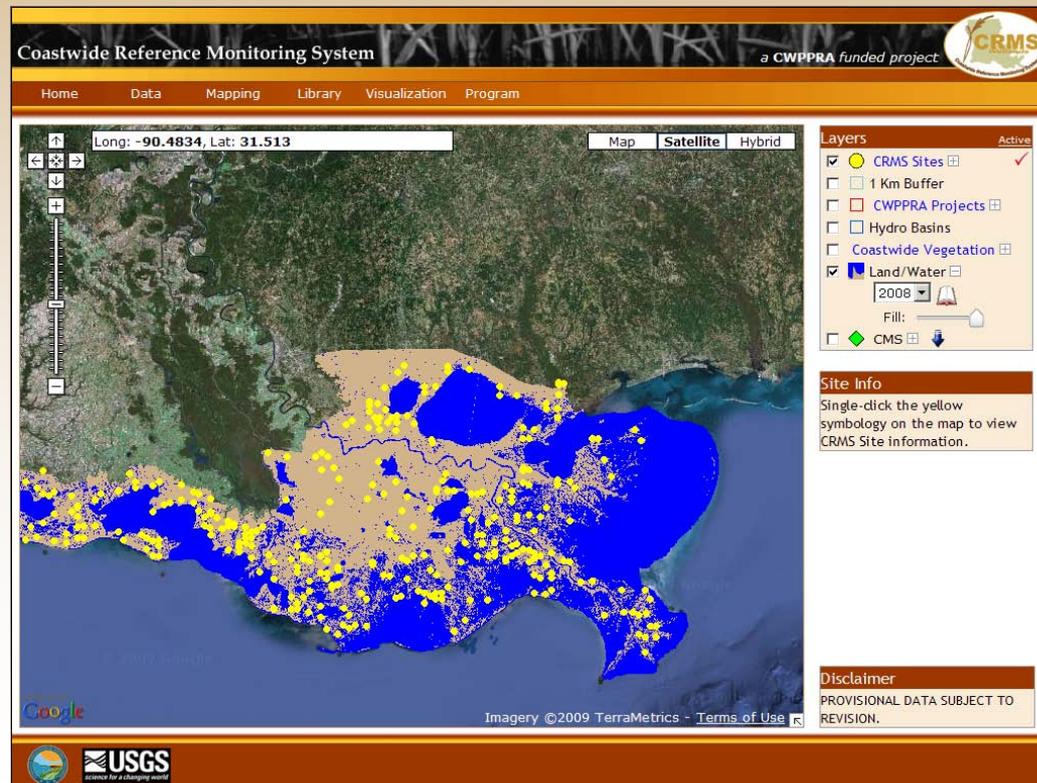
Disclaimer

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© 2008 DOQQ USGS - 

Coastwide Information Land: Water

- The land water layer displays coastal land water data available for coastal louisiana through multiple years.
- Clicking on the reference icon will load a new window or tab with the corresponding reference page.



Land:Water Scale Dependent Visualization

Coastwide Reference Monitoring System *a CWPBRA funded project*

Home Data Mapping Library Visualization Program

Long: -89.25982, Lat: 30.10498

Map **Satellite** Hybrid

2008 DOQQ CIR

Layers Active

- CRMS Sites
- Zoom To: CRMS0003
- 1 Km Buffer
- CWPBRA Projects
- Hydro Basins
- Coastwide Vegetation
- Land/Water @
- CMS ↓

Site Info

Single-click the yellow symbology on the map to view CRMS Site information.

Disclaimer

PROVISIONAL DATA SUBJECT TO REVISION.

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USGS science for a changing world

- Land:water analyses at site and basin scales have been visualized in application



CRMS – Short-term Goals

Training

- Continue training on DNR/OCPR SONRIS and CRMS data access, delivery and new functionality
- Expand training opportunities beyond CWPPRA agencies to broader natural resource, science and stakeholder communities

Feedback

- Continue dialog with CWPPRA agencies on new functionality
 - Fall 2009 meetings to discuss deliverables
- Refine and/or develop new indices and a coastal report card
- Use data to support decisions on program modifications, if necessary

Status and trends

- Coastal land change (incorporate post-hurricane Gustav/Ike into long-term trends)
- Vegetation community change (2006 – 2008)

Project assessments

- Apply CRMS ecological indices to appropriate CWPPRA monitoring data and incorporate findings in OM&M reports



CWPPRA Monitoring FY12 Funding Request

Coastwide Reference Monitoring System – Wetlands

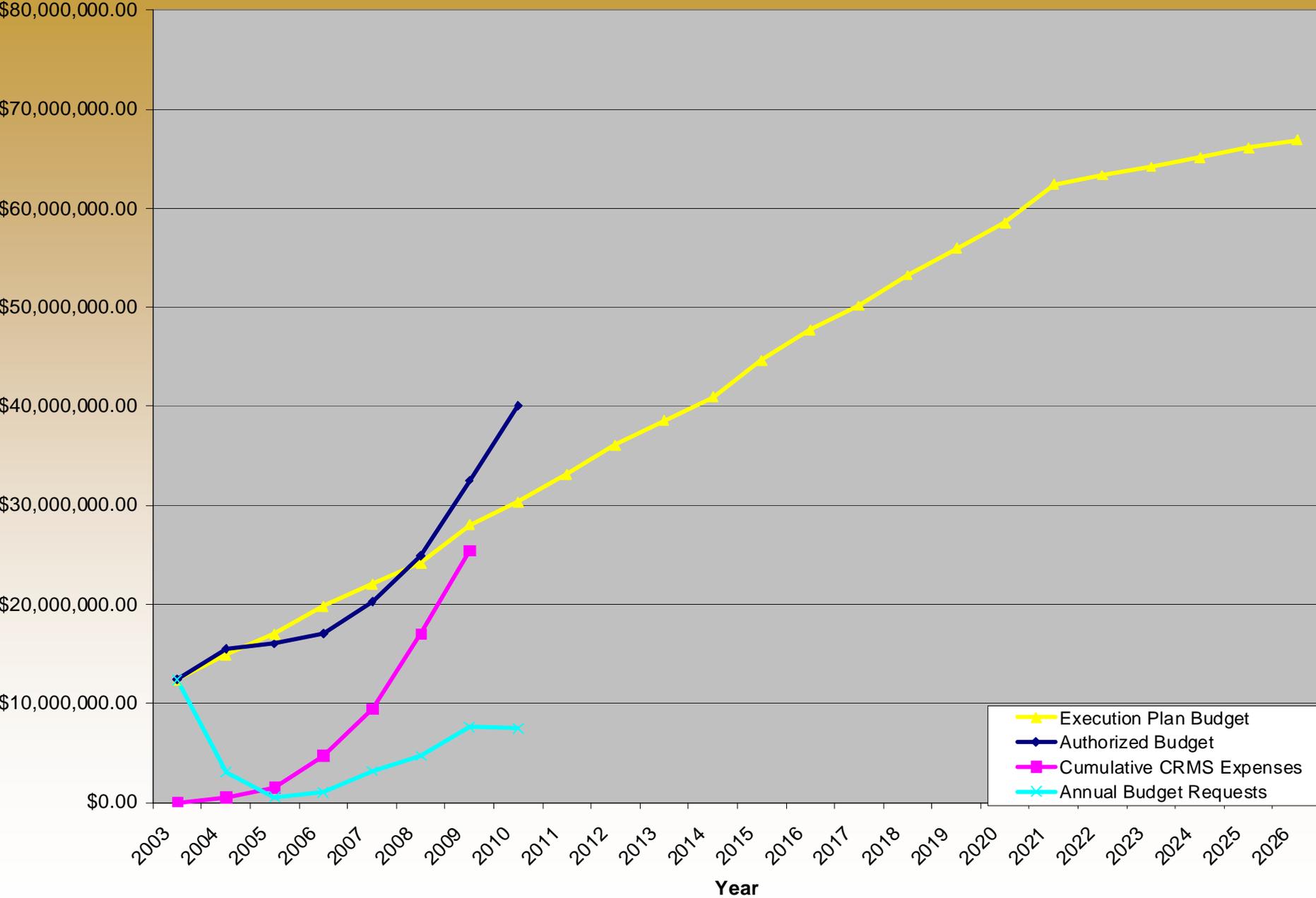
CRMS - <i>Wetlands</i>	\$7,500,000
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Project-specific (PPL 9-11)

LA-03b Coastwide Nutria Control Program	\$85,170
-----------------------------------------	----------

Total	\$7,585,170
--------------	--------------------

CRMS Budget





CRMS Authorizations and Current Request

Summary Budget and Funding To-Date			
	Total Budget	Approved Funding	Remaining Funding
PPL 1-8	\$6,760,637	\$6,760,637	\$0
CRMS-Wetlands	\$60,129,663	\$25,790,423	\$34,339,240
CRMS Program Total	\$66,890,300	\$32,551,060	\$34,339,240

Detailed Funding Authorizations				
Authorization Date	FY	Approved Budget	Expenditures	Difference
Prior Approved				
Project Specific	PPL 1-8	\$6,760,637	\$6,760,637	\$0
CRMS-Wetlands Prior Approved				
August 14, 2003	2003-2006	\$5,636,869	\$5,636,869	\$0
January 28, 2004	2006	\$3,101,357	\$3,101,357	\$0
October 13, 2004 (a)	2007	\$532,000	\$532,000	\$0
October 26, 2005 (a)	2008	\$1,036,109	\$1,036,109	\$0
October 18, 2006 (a)	2009	\$3,185,809	\$3,185,809	\$0
October 25, 2007 (a)	2010	\$4,697,824	\$4,697,824	\$0
November 5, 2008 (a)	2011	\$7,600,455	\$498,577	\$7,101,878
Subtotal	2003-2011	\$25,790,423	\$18,688,545	\$7,101,878
Current Request				
October 28, 2009(b)	2012	\$7,500,000		\$7,500,000
Subtotal CRMS-Wetlands only		\$33,290,423	\$18,688,545	\$14,601,878
TOTAL	2003-2012	\$40,051,060	\$25,449,182	\$14,601,878

(a) request reduced to only cover expenses to date

(b) anticipated

Anticipated Expenses from July 1, 2008 through June 30, 2009	
Supervision and Administration	\$389,843
Landrights	\$49,576
Site Construction, O&M, Engineering Services, Equipment	\$1,712,100
Spatial and Temporal Data Collection	\$5,452,195
Database Management	\$329,720
Analysis and Reporting	\$463,551
TOTAL	\$8,396,985

CRMS-*Wetlands* Status Report Prepared for the
CWPPRA Technical Committee
September 29, 2009

I. Overview of authorization and funding approvals to date

CRMS-*Wetlands* was authorized by the CWPPRA Task Force on August 14, 2003. The following is a summary of budget authorizations and expenditures:

Funding Authorizations			
August 14, 2003	Funding for 2003 - 2006		\$12,397,506
	Existing PPL 1-8 projects	\$ 6,760,637	
	from new funding	\$ 5,636,869	
January 28, 2004:	Funding for 2007		\$ 3,101,357
October 13, 2004:	Funding for 2008		\$532,000 ^a
October 26, 2005:	Funding for 2009		\$1,036,109 ^a
October 18, 2006:	Funding for 2010		\$3,185,809 ^a
October 25, 2007:	Funding for 2011		\$4,697,824 ^a
November 5, 2008:	Funding for 2012		\$7,600,455 ^a
<u>October 28, 2009^b</u>	Funding for 2013		<u>\$7,500,000^b</u>
TOTAL	Funding 2003 through 2013		\$40,051,060

^a(request reduced to only cover expenses to date)

^b(anticipated)

Expenses from July 1, 2008 through June 30, 2009	
Administration and Supervision	\$389,843
Landrights	\$49,576
Site Construction, O&M, Engineering Services, Equipment	\$1,712,100
Spatial and Temporal Data Collection	\$5,452,195
Database Management	\$329,720
<u>Analysis and Reporting</u>	<u>\$463,551</u>
TOTAL Expenditures July 1, 2008 through June 30, 2009	\$8,396,985

Creel, Travis J MVN

From: Goodman, Melanie L MVN
Sent: Tuesday, September 22, 2009 3:34 PM
To: Creel, Travis J MVN
Cc: Wandell, Scott F MVN
Subject: FW: REVISED - CWPPRA Technical Committee 29 September 09 Meeting Agenda DRAFT

Attachments: 2009-09-29 out-year Budget Request for CWPPRA Monitoring.doc; 2009-09-29 Tech Committee Report.doc



2009-09-29



2009-09-29 Tech

ut-year Budget Req. Committee Repo...

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

From: Ed Haywood [mailto:Ed.Haywood@LA.GOV]
Sent: Tuesday, September 22, 2009 2:12 PM
To: Goodman, Melanie L MVN
Cc: David Burkholder; Dona Weifenbach; Todd Folse; 'Scott Wilson'; 'Greg Steyer'; John Troutman; Kelley Templet; Kirk Rhinehart; Bren Haase
Subject: RE: REVISED - CWPPRA Technical Committee 29 September 09 Meeting Agenda DRAFT

Melanie,

Attached is the revised information for the CWPPRA monitoring budget request for this year which was needed because of the confusion surrounding which FY we should be requesting (It is my understanding that the request should be for FY12). In summary, we removed all project-specific requests except for the Nutria Control Project which is provided by NRCS. The CRMS amount did not change.

Please don't hesitate to contact me if you need any additional information.

Thanks,
Ed

Ed Haywood
Coastal Resources Scientist Manager
Office of Coastal Protection and Restoration Louisiana Applied Coastal Engineering and Science (LACES) Division
225-342-9428

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

From: Greg Steyer [mailto:steyerg@usgs.gov]
Sent: Thursday, September 10, 2009 9:21 AM
To: 'Goodman, Melanie L MVN'
Cc: David Burkholder; Ed Haywood; Dona Weifenbach; Todd Folse; 'Scott Wilson'
Subject: RE: CWPPRA Technical Committee 29 September 09 Meeting Agenda DRAFT

Melanie, attached you will find the binder information for CRMS and CWPPRA monitoring. If there is anything else you need, please let me know. Thanks

CRMS-*Wetlands* Status Report Prepared for the CWPPRA Technical Committee
29-Sep-09

Overview of Authorization and Funding Approvals to Date: CRMS-*Wetlands* was authorized by the Task Force on August 14, 2003. The following is a summary of budget authorizations and expenditures:

Summary Budget and Funding To-Date			
	Total Budget	Approved Funding	Remaining Funding
PPL 1-8	\$6,760,637	\$6,760,637	\$0
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CRMS Program Total	\$66,890,300	\$32,551,060	\$34,339,240

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October 25, 2007 (a)	2010	\$4,697,824	\$4,697,824	\$0
November 5, 2008 (a)	2011	\$7,600,455	\$498,577	\$7,101,878
Subtotal	2003-2011	\$25,790,423	\$18,688,545	\$7,101,878
Current Request				
October 28, 2009(b)	2012	\$7,500,000		\$7,500,000
Subtotal CRMS-<i>Wetlands</i> only		\$33,290,423	\$18,688,545	\$14,601,878
TOTAL	2003-2012	\$40,051,060	\$25,449,182	\$14,601,878

(a) request reduced to only cover expenses to date

(b) anticipated

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Landrights	\$49,576
Site Construction, O&M, Engineering Services, Equipment	\$1,712,100
Spatial and Temporal Data Collection	\$5,452,195
Database Management	\$329,720
Analysis and Reporting	\$463,551
TOTAL	\$8,396,985

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

August 14, 2003

REQUEST FOR APPROVAL OF EXECUTION PLAN FOR CRMS AND FY04-06 FUNDING

For Decision

Request CWPPRA Task Force to approve the full implementation of CRMS-*Wetlands* as presented at the April 16, 2003 Task Force meeting, including the following recommendations:

- Create a CWPPRA project called "CRMS-*Wetlands*" with the US Army Corps of Engineers as the federal sponsor.
- Use this project to accept funding from annual cashflow requests to fund the programmatic "CRMS-*Wetlands*" program as outlined in Appendix B.
- Maintain the balance of the PPL 1-8 projects in a dedicated account for those projects. Do not cash-flow those monies.

1. Request approval of project-specific cashflow monitoring in the amount of \$155,914, outlined below:

\$24,055	Cash flow request for CS-30 Perry Ridge to Texas (West) (PPL 9)
\$131,859	Cash flow request for PO-27 Chandeleur Islands (PPL 9)
\$155,914	Total request for Project-specific monitoring from new CWPPRA funding

2. Request approval of CRMS-*Wetlands* monitoring in the amount of \$5,636,869, outlined below:

\$12,397,506	Total for CRMS for FY03-06
-\$6,760,637	Existing money available for CRMS from PPL 1-8 project budgets
\$5,636,869	Requested from new CWPPRA funding

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

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

For Decision:

1. The Technical Committee will consider and vote to make a recommendation to the Task Force to approve requests for total FY 12 incremental funding in the amount of \$8,461,520 and O&M budget increases totaling \$7,735,114.
 - a. PPL 9+ Projects requesting approval for FY 12 incremental funding in the total amount of \$2,740,375, for the following projects:
 - Freshwater Introduction South of Highway 82 (ME-16), PPL-9, USFWS
Incremental funding amount: \$461,521
 - Four Mile Canal Terracing & Sediment Trapping (TV-18), PPL-9, NMFS
Incremental funding amount: \$12,649
 - Coastwide Nutria Control Program (LA-03b), PPL-11, NRCS
Incremental funding amount: \$2,266,205
 - b. PPL 1-8 Projects requesting O&M budget increases totaling \$7,268,166 and FY 12 incremental funding in the amount of \$5,350,904, for the following projects
 - GIWW to Clovelly Hydrologic Restoration (BA-02), PPL-1, NRCS
Budget increase amount: \$1,587,844
Incremental funding amount: \$1,441,742
 - Point au Fer Island Canal Plugs (TE-22), PPL-2, NMFS
Budget increase amount: \$2,309,159
Incremental funding amount: \$2,255,062
 - Brady Canal Hydrologic Restoration (TE-28), PPL-3, NRCS
Budget increase amount: \$1,929,063
Incremental funding amount: \$1,212,572
 - Cote Blanche Hydrologic Restoration (TV-04), PPL-3, NRCS
Budget increase amount: \$1,442,100
Incremental funding amount: \$441,528
 - c. PPL 9+ Project requesting an approval for a O&M budget increase and a FY 12 incremental funding:
 - Holly Beach Sand Management (CS-31), PPL-11, NRCS
Budget increase amount: \$466,948
Incremental funding amount: \$370,241

TECHNICAL COMMITTEE MEETING
29-Sep-09
Agenda Item #4 - Request for Operation & Maintenance Funding

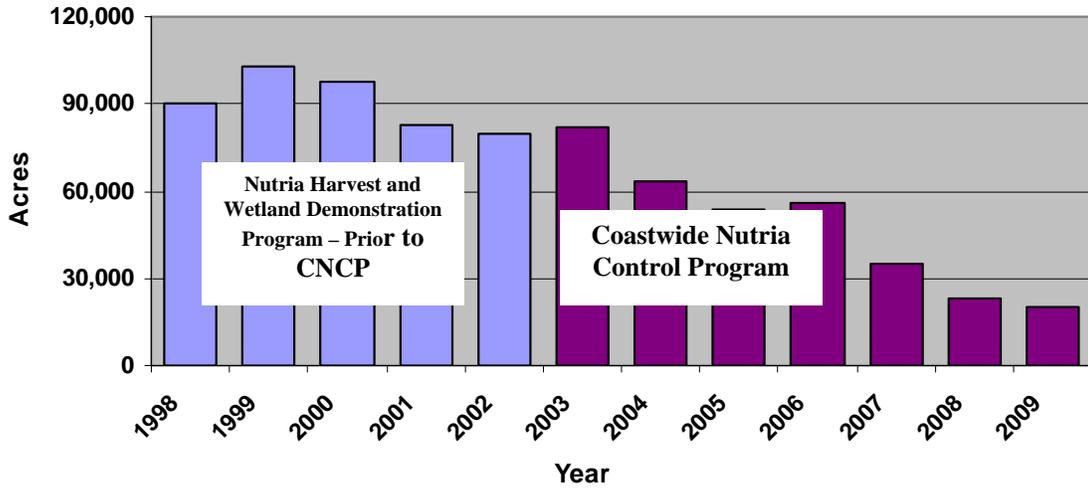
PPL 9+		
Project	Budget Incease Amount	Incremental Funding Amount
Freshwater Introduction South of Highway 82 (ME-16)		\$461,521
Four Mile Canal Terracing & Sediment Trapping (TV-18)		\$12,649
Coastwide Nutria Control Program (LA-03b)		\$2,266,205
Totals		\$2,740,375

PPL 1-8		
Project	Budget Incease Amount	Incremental Funding Amount
GIWW to Clovelly Hydrologic Restoration (BA-02)	\$1,587,844	\$1,441,742
Point au Fer Island Canal Plugs (TE-22)	\$2,309,159	\$2,255,062
Brady Canal Hydrologic Restoration (TE-28),	\$1,929,063	\$1,212,572
Cote Blanche Hydrologic Restoration (TV-04),	\$1,442,100	\$441,528
Totals	\$7,268,166	\$5,350,904

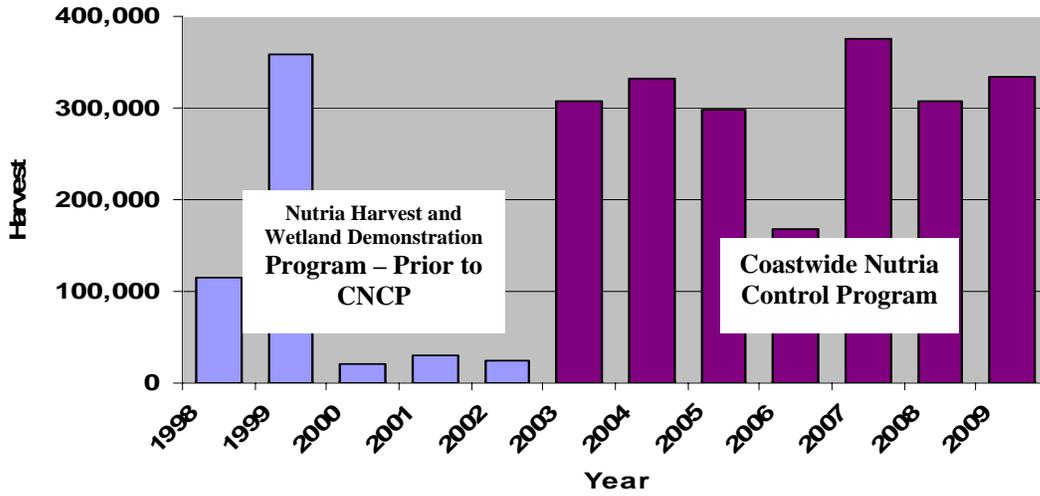
PPL 9+		
Project	Budget Incease Amount	Incremental Funding Amount
Holly Beach Sand Management (CS-31)	\$466,948	\$370,241

Grand Total	\$7,735,114	\$8,461,520
-------------	--------------------	--------------------

Coastwide Nutria Damage



Nutria Harvest



BA-02 GIWW to Clovelly Hydrologic Restoration Project

BA-02 GIWW to Clovelly

PROJECT SPONSORS

- **Federal Sponsor:** National Resource Conservation Service (NRCS)
- **Local Sponsor:** Office of Coastal Protection and Restoration (OCPR)

HISTORICAL INFORMATION

- Construction Unit No. 1 – construction was completed in Nov 1998 and included three (3) fixed crest weirs with boat bays, two (2) riprap plugs, and one (1) plug with flap gate.
- Construction Unit No.2 – constructed was completed in Oct 2000 and included a weir with boat bay, a rock plug, weir with barge bay, a variable crest weir, a rock channel plug, lake rim restoration and earthen embankment stabilization
- Maintenance Event No.1 – replacement of timber pile dolphin at Structure 14A.
- Structure operations and navigational aid maintenance for 20 years

INITIAL CONSTRUCTION DETAILS

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

Construction Unit No.1

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

Construction Unit No.2

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

Total Construction Cost: \$6,444,428

July 13, 2009

Office of Coastal Protection and Restoration

3

MAINTENANCE EVENT No.1 (2006) – DETAILS

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

• **BA-02 Maintenance Cost for Construction: \$14,000**

July 13, 2009

Office of Coastal Protection and Restoration

4

PROPOSED MAINTENANCE DETAILS – EVENT No. 2 (Year 2010)

Maintenance needs recommended for 2010

- Removal and replacement of four (4) timber pile dolphins at Structure No.1
- Recap rock weir Structures No.2 and 4.
- Extend rock plug No.4A approximately 1,500 linear feet to Structure No. 4 to close breach opened during Hurricanes Gustav and Ike.
- Removal and replacement of two (2) timber pile dolphins at Structure 14A.
- Rock riprap lift on approximately 5,000 linear feet of the lake rim of Bay L' Ours
- Repair five (5) earthen breaches in the northern project area.

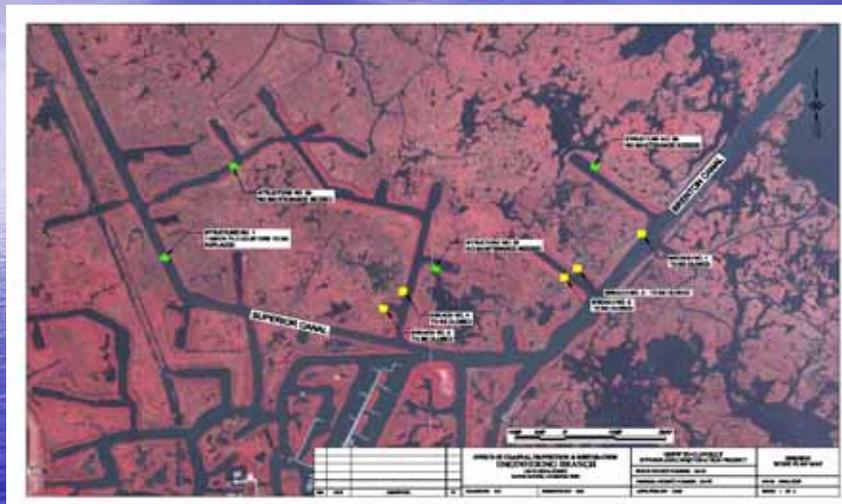
Engineering and Design	\$ 115,827
Surveying	\$ 25,000
Construction	\$ 2,099,647
Construction Oversight & Inspection	\$ 107,100
Construction Administration (OCPR)	\$ 20,000
<hr/>	
Total Project Budget	\$2,367,574

July 13, 2009

Office of Coastal Protection and Restoration

5

Proposed Maintenance Event No.3 (2010) Earthen Breach Closures

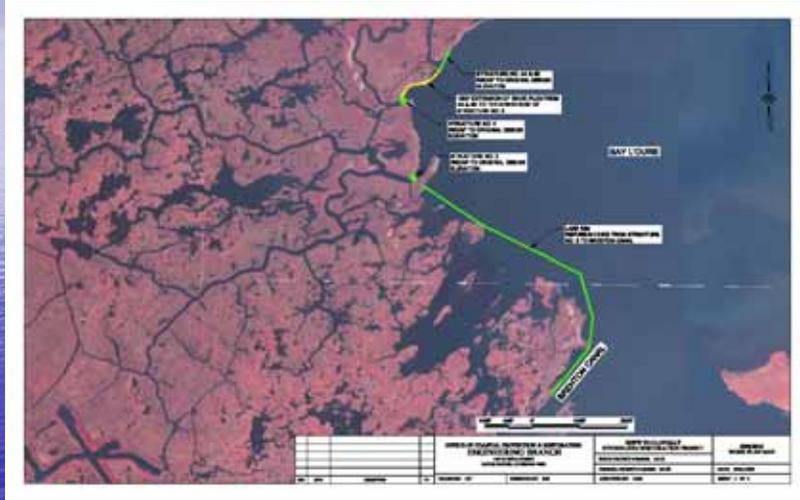


July 13, 2009

Office of Coastal Protection and Restoration

6

BA-02 Proposed Maintenance Event No.3 (2010) Bay L' Ours Breach Closure and Lake Rim Restoration



July 13, 2009

Office of Coastal Protection and Restoration

7

BA-02 Structure 4A Breach Closure Photos Pre and Post Storm Photos



Pre-storm



Post-storm

July 13, 2009

Office of Coastal Protection and Restoration

8

BA-02 Bay L' Ours Lake Rim Restoration



July 13, 2009

Office of Coastal Protection and Restoration

9

BA-02 Timber Pile Dolphin Replacement Structure No. 1 and 14A



Timber Dolphin – Structure No.14A



Typical Timber Dolphin – Structure No.1

July 13, 2009

Office of Coastal Protection and Restoration

10

RECOMMENDED BA-02 MAINTENANCE REQUEST

- Total 20 Year O & M Budget: \$ 1,235,079
- Estimated O & M Expenditures thru 6/09: \$ 244,296
- Estimated O & M funds remaining: \$ 990,783
- Projected O & M Budget (3 year*): \$ 2,432,525
- **Request \$ 1,441,742 for additional three (3) year budget.**

* Projected O & M Budget includes funds needed to construct maintenance event No. 2 (\$ 2,099,647) and 3 years of maintenance inspections, structure operations and navigational aid maintenance

Request for CWPPRA Project O&M Funding Increase
Project Performance Synopsis
July 2009

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

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

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

From the land-water analysis, the project area increased by 21 acres (8.5 hectares) while the reference area lost 7 acres (2.8 hectares) between 1996 and 2002. During this period, both construction units of the project were completed and one of the worst droughts (August 1999-May 2001) was recorded in southeastern Louisiana. Despite the 22-month drought, the project area maintained a fresh marsh community while the reference area

lost the fresh marsh community. In addition, water level and salinity data analyses show the area to be classified as an oligohaline marsh (0.5 – 5.0 ppt), which illustrates the project area has not drastically changed marsh classifications.

The rock dike along the lake rim has reduced the average shoreline erosion rate by 0.57 m/yr (**1.87 ft/yr**) in the immediate vicinity of its position. There were two (2) sampling areas lost during the sampling time frame (1993 – 2005); however, the overall rate of erosion has decreased. During the 2007 annual inspection, shoreline segments along the rim of Little Lake and Bay L'Ours exhibited moderate settlement. The ensuing profile survey in 2008 helped to determine the extent of the settlement and which segments required maintenance and/or rehabilitation. The eminent capping of the lake rim shoreline protection structure is expected to continue to contribute to the overall reduction of the shoreline erosion rate meeting the goal of the project.

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

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

TE-22 POINT AU FER ISLAND HYDROLOGIC RESTORATION PROJECT

TE-22 POINT AU FER ISLAND

PROJECT SPONSORS

- **Federal Sponsor:** National Marine Fisheries (NMFS)
- **Local Sponsor:** Office of Coastal Protection and Restoration (OCPR)

HISTORICAL INFORMATION

- Phase I Construction was completed in Dec 1995 and included the construction of seven (7) channel plugs in Hester and Transco Canals.
- Phase II Construction was completed in May 1997 and included the construction of 3,600 linear feet of rock shoreline along the Gulf of Mexico adjacent to Mobile Canal.
- Phase III Construction was completed in June 2000 and included a rock shoreline extension 3,037 feet east and 625 west of Phase II and a rock lift was placed on 388 feet of Phase II.
- Maintenance event No.1 - completed in June 2000 in conjunction with the construction of Phase III and included the reconstruction of Plug 4A with dredge material and petraflex mats.
- Maintenance Event No.2 – completed in August 2005 and included and eastward extension of Phase III rock, capping of petraflex mats on the east end of Plug 4A, rock tie-in to the shoreline on east end of Plug 4A and vinyl sheetpile bulkhead closure on the south end of Plug 8.

INITIAL CONSTRUCTION DETAILS

Phase I – Designed to restore natural hydrology to the island

- Construction of seven (7) canal plugs in Hester and Transco Canals.
- Four (4) timber bulkhead plugs in Hester Canal.
- Two (2) reef shell and one (1) timber bulkhead plug in Transco Canal.

Phase II – Protect shoreline between Gulf and Mobile Canal

- Construction of 3,600 linear feet of rock shoreline adjacent to Mobile Canal
- Area 1 – 1,800 linear feet of rock dike
- Area 2 – 400 linear feet of rock dike
- Area 3 – 1,400 linear feet between Area 1 and Area 2, constructed with funds provided by Mobil Oil Company.

Phase III – Modifications/ Additions Mobil Canal Shoreline

- Area 4 – 3,037 foot rock extension on the east end of Phase II
- Area 5 – 625 foot rock extension on the west end of Phase II
- 16 inch lift over 388 linear feet of Phase II rock

Total Construction Cost: \$2,292,946

MAINTENANCE EVENT No.1 (2000) – DETAILS

- Maintenance needs on project determined in 1999.
- Maintenance resulting from breaching of existing steel bulkhead along Transco Canal at the Gulf of Mexico.
- Work included rebuilding Plug 4A with dredge material and installation of concrete petraflex mats east (58 mats) and west (67 mats) of the plug. This work was performed in conjunction with Phase III of the Point Au Fer Project (TE-22)
- The project was completed in June 2000.
- Work funded from the O&M budget

TE-22 Maintenance Cost for Construction: \$ 237,874

MAINTENANCE EVENT No. 2 (2004) – DETAILS

- Maintenance need resulting from breaching around the east end of Area 4 rock shoreline and the south end of Plug 8, and potential breaching on the east end of Plug 4A.
- Work included a 300 linear foot rock dike extension on the east end of Area 4, riprap cap above the existing petraflex mats on the east end of Plug 4A and installation of 60 linear feet of vinyl bulkhead on the south end of Plug 8. Submar mats were installed around the end of the vinyl bulkhead to protect against scour.
- Work was designed by Picciola & Associates and constructed by Luhr Bros, Inc.
- The project was completed in August 2005.

- **TE-22 Maintenance Cost for Construction: \$ 391,382**

PROPOSED MAINTENANCE DETAILS – EVENT No. 3 (Year 2012)

Maintenance needs recommended for 2012

- Includes an unplanned maintenance event to cap 7,500 linear feet of rock shoreline along the Gulf of Mexico near Mobile Canal and 450 linear feet of existing petroflex mats on the western side of the Transco Canal bulkhead (Structure 4A). Method of construction includes placement of approximately 25,000 tons of rock rip rap above the existing rock dike and petroflex mats.

Estimated Project Budget

Engineering and Design	\$ 50,000
Surveying	\$ 10,000
Construction	\$ 2,150,390
Construction Oversight	\$ 80,000
Construction Administration (OCPR)	\$ 10,000
Total Project Budget	\$2,300,390

Proposed Maintenance Event No.3 (2012) Mobile Canal Repairs



July 13, 2009

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Rock Shoreline – Mobile Canal Photos



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Proposed Maintenance Event No. 3 (2012)
Plug 4A Repairs



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Plug 4A – East side of Transco Canal



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RECOMMENDED TE-22 MAINTENANCE REQUEST

- Total 20 Year O & M Budget: \$ 829,429
- Estimated O & M Expenditures thru 6/10: \$ 737,004
- Estimated O & M funds remaining: \$ 92,425
- Projected O & M Budget (3 year*): \$ 2,347,487
- Request \$ 2,255,062 for additional three (3) year budget.

* Projected O & M Budget includes funds needed to construct maintenance event No. 3 (\$ 2,300,390) and 3 years of maintenance inspections and 2010 shoreline surveying (\$ 43,375).

Request for CWPPRA Project O&M Funding Increase
Project Performance Synopsis
July 2009

Point Au Fer Island Hydrologic Restoration Project (TE-22)

The objectives of the Point Au Fer Island Hydrologic Restoration (TE-22) Phase I project are to reduce marsh loss and the potential for saltwater intrusion from storm surges and high tides, and restore hydrologic circulation close to historical conditions before access and pipeline canals were dredged. The objective of Phases II and III is to reduce the chance of breaching between the Gulf of Mexico and Mobil Canal during over wash events, consequently reducing the potential for interior marsh loss via shoreline breaching and beach over washing. The goals which contribute to the evaluation of the project are (1.) Reduce the rate of marsh loss (Phase I); (2.) Reduce the rate of canal widening (Phase I); and (3.) Maintain or decrease local shoreline erosion rate within the project area (Phases II and III).

The Point Au Fer Island Hydrologic Restoration Project was constructed in three (3) phases. Phase I consisted of seven (7) canal plugs located in two pipeline canals. Four (4) timber plugs, Plugs No. 1, 2, 7, and 8, were constructed in Hester Canal (east-west). One (1) timber plug, Plug No. 6, and two (2) reef shell plugs, Plugs No. 3A and 4, were constructed in Transco Canal (north-south). Construction of the Phase I canal plugs was completed in December 1995. Phase II consisted of approximately 3,600 linear feet of rock shoreline protection of Areas 1, 2, and 3 along the Gulf of Mexico adjacent to the Mobil Canal. Phase II construction was completed in May 1997. Phase III consisted of extending the rock shoreline protection 3,037 linear feet to the east (Area 4) and 625 linear feet to the west (Area 5). Prior to construction, a change order added an additional lift of rock over 388 linear feet of the Phase II shoreline protection to repair a breach area located near the east end of Phase II. Additionally, Phase I Plug No. 4 was rebuilt with dredged material. Also, the existing Transco Canal steel bulkhead/rock plug (Plug No. 4A), located approximately 200 feet south of Plug No. 4, was reinforced by placing Petraflex mats (articulated concrete mats, 8' x 20' x 9") along the Gulf shoreline to the west and east of the existing Plug No. 4A. A total of 67 mats were placed on the west side and 58 mats were placed on the east side of Plug No. 4A. Phase III construction was completed in June 2000 (Phase III Final Report, 2000).

Monitoring was halted as a result of a joint meeting between the state and federal sponsor in 2003 due to the structural problems with the project features and the difficulties measuring and attributing any effects to the project. However, a land / water analysis was performed on the 2008 aerial photography. Other land / water analysis results include 1994, 1997, and 2000 for this project. Using the 1994, 2000, and 2008 land / water analysis data sets, the number of acres lost/gained, the annual change and the annual change rate were calculated for the time periods 2000 – 2008 (short-term) and 1994 – 2008 (long-term). Table 1 summaries the data for the short-term while table 2 summaries the long-term data for the project and reference areas.

Table 1. Short-term (2000 – 2008) annual changes and change rates for the project and reference areas associated the Point Au Fer Island Hydrologic Restoration Project (TE-22).

	Project Area I	Project Area II	Reference
Lost (-) / Gain (+), Acres	-93	-45	-16
Annual Average Change, Acres	-11.63	-5.6	-2
Annual Change Rate	-0.34%	-0.33%	-1.34%

Table 2. Long-term (1994 – 2008) annual changes and change rates for the project and reference areas associated the Point Au Fer Island Hydrologic Restoration Project (TE-22).

	Project Area I	Project Area II	Reference
Lost (-) / Gain (+), Acres	-101	-67	-23
Annual Average Change, Acres	-7.32	-3.91	-1.67
Annual Change Rate	-0.21%	-0.23%	-1.16%

Based on data from the land / water analysis results and the project area being adjacent to the Gulf of Mexico, it is recommended that the proposed operations and maintenance (O&M) funding be approved for the capping of 7,500 linear feet of rock shoreline along the Gulf of Mexico near Mobile Canal and 450 linear feet of existing petroflex mats on the western side of the Transco Canal bulkhead. Without this O&M event, there is an increase chance of breaching or overtopping which would allow a direct hydrologic connectivity to the Gulf of Mexico that would ultimately increase the potential for interior marsh loss as well as degradation of the shoreline.

TE-28 Brady Canal Hydrologic Restoration Project

TE-28 Brady Canal Hydrologic Restoration

PROJECT SPONSORS

- **Federal Sponsor:** National Resource Conservation Service (NRCS)
- **Local Sponsor:** Office of Coastal Protection and Restoration (OCPR)

HISTORICAL INFORMATION

- Construction was completed in July 2000.
- Maintenance Event No.1 (2003) - consisted of shoreline protection along Bayou Decade, levee refurbishment and timber pile dolphin repairs.
- In-kind Services (2002, 2003, 2006 & 2007) – Apache Minerals repaired breaches and refurbished levees along Turtle Bayou, Superior Canal and Jug Lake.
- In-kind Services (2003) – ConocoPhillips repaired breaches and refurbished levees along Carencro Bayou, Little Carencro Bayou and Brady Canal.
- Structure Operations – Three (3) water controls structures in Jug Lake
- Navigational Aids – maintenance of four (4) navigation lights along south bank of Bayou Decade.

INITIAL CONSTRUCTION DETAILS

The objective of the Brady Canal Project is to maintain and enhance existing marshes in the project area by reducing the rate of tidal exchange and improving the retention of freshwater and sediment retention

Initial construction consisted of the following features:

- Fixed crest weir with barge bay
- Rock plug
- Stabilized rock armored channel liner
- Three (3) water control structures
- Fixed crest weir
- Two (2) stabilization rock armored channel liners
- 4,405 linear feet of rock armored earthen embankment
- 3,660 linear feet of rock dikes
- 8,531 linear feet of earthen embankments

Total Construction Cost: \$2,521,326

July 13, 2009

Office of Coastal Protection and Restoration

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MAINTENANCE EVENT No.1 (2003) – DETAILS

- Maintenance needs on project determined in 2002.
- Maintenance resulting from breaches in the earthen embankment on the south bank of Bayou Decade between Turtle Bayou and Jug Lake, and along the project boundary of Turtle Bayou and Superior Canal, and damage to two (2) timber pile dolphin at Structure No.6.
- Manson Construction, Inc. of Houma, La. awarded contract in January 2003
- Construction included the installation of 9,664 tons of riprap, repair of 2,200 linear feet of existing earthen embankments and replacement of a timber dolphin structure.
- The project was completed in October 2003.
- Work funded from the O&M budget
- **TE-28 2003 Maintenance Cost for Construction: \$471,330**

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ROUTINE MAINTENANCE – INKIND SERVICE DETAILS

- Oct 2002 – Apache contracted Frisco Construction Co. to restore existing spoil banks along Turtle Bayou, Superior Canal and Jug Lake – Total Construction Cost: \$5,310
- Oct 2003 – ConocoPhillips repaired several large breaches along Little Carencro Bayou following Hurricane Lili – Total Construction Cost: \$31,643
- Oct 2004 – Apache contracted Berry Bros. General Contractors to restore approximately 5,000 linear feet of spoil banks along the west bank of Jug Lake. Total Construction Cost: \$39,385
- Sept 2006 – Apache contracted Frisco Construction Co. to repair breaches and refurbish low areas of the spoil bank along Jug Lake and reinforce tie-ins of water control structures. Total Construction Cost: \$9,265
- July 2007 – Apache contracted Dupre Brothers Construction Co. to repair several breaches along the east bank of Jug Lake and reinforce the spoil banks adjacent to the water control structures. Total Construction Cost: \$9,103
- Work funded from the O&M budget.
- Total In-kind Service work: \$94,706

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PROPOSED MAINTENANCE EVENT NO. 2 - DETAILS

Maintenance needs recommended for 2010

- Refurbishment of approximately 20,000 linear feet of earthen embankments along the perimeter of Jug Lake and armor approximately 100 ft of the levee on each side of the water control structures with riprap.
- Closure of eight (8) breaches along the project boundary of Carencro Bayou, Little Carencro Bayou and Brady Canal.
- Replacement of two (2) timber pile dolphins at Structure No.6

Engineering and Design	\$ 68,169
Surveying	\$ 15,000
Permitting	\$ 2,500
Construction	\$ 1,136,160
Construction Oversight & Inspection	\$ 64,750
Construction Administration (OCPR)	\$ 20,000

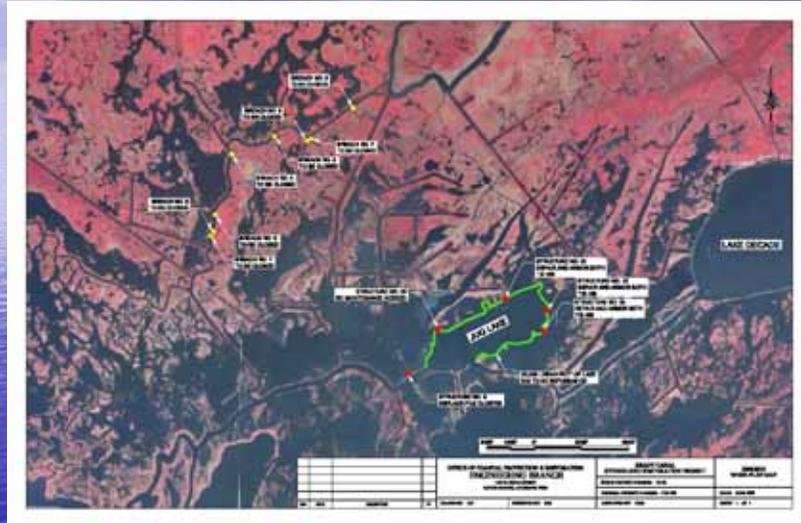
Total Project Budget	\$1,306,579
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July 13, 2009

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Proposed Maintenance Event No.2 (2010) Jug Lake Refurbishment and Breach Repairs



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TE-28 Brady Canal Jug Lake Photos



East Side of Jug Lake



West Side of Jug Lake

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TE-28 Brady Canal Water Control Structure Photos



Structure No. 23



Structure No.21

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TE-28 Brady Canal Timber Pile Dolphin Photos



Southwest side Structure No.6



Southeast side of Structure No.6

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RECOMMENDED TE-28 MAINTENANCE REQUEST

- Total 20 Year O & M Budget: \$ 1,344,038
- Estimated O & M Expenditures thru 6/09: \$ 1,044,574
- Estimated O & M funds remaining: \$ 299,464
- Projected O & M Budget (3 year*): \$ 1,512,036
- **Request \$ 1,212,572 for additional three (3) year budget.**

* Projected O & M Budget includes funds needed to construct maintenance event No. 2 (\$ 1,306,579), routine annual breach repairs, and 3 years of maintenance inspections, structure operations and navigational aid maintenance.

Request for CWPPRA Project O&M Funding Increase
Project Performance Synopsis
July 20, 2008

Brady Canal Hydrologic Restoration (TE-28)

The objectives of the Brady Canal Hydrologic Restoration, (TE-28) are to 1) maintain and enhance existing marshes in the project area by reducing the rate of tidal exchange, and 2) improve the retention of introduced freshwater and sediment. The goals that contribute to the evaluation of these objectives are to 1) decrease the rate of marsh loss, 2) maintain or increase the abundance of plant species typical of a fresh and intermediate marsh, 3) decrease variability in water level within the project area, 4) decrease variability in salinities in the southern portion of the project, and 5) increase vertical accretion within the project area.

The Brady Canal Hydrologic Restoration (TE-28) project was completed in July 2000 and involves the installation and maintenance of fixed crest weirs with barge bays and variable crest sections, construction and maintenance of earthen embankments, rock and rock armored earthen embankments, and the placement of rock armor to stabilize channel cross-sections. These structures are designed to reduce the adverse tidal effects in the project area (that have occurred through man-made channels and the enlarged natural channels) and to promote freshwater introduction to better utilize available freshwater and encourage sediment retention.

Two (2) CWPPRA projects are anticipated to affect the TE-28 project. The North Lake Mechant Landbridge (TE-44) project is currently under construction. This project is located south of the Brady Canal Hydrologic Restoration project. With the creation of marsh and the closing of gaps along the Small Bayou LaPointe ridge, the influence of Lake Mechant to the upper reaches of the basin may be reduced. The second project, Penchant Basin Plan (TE-34), modifies the boat bay structure at the intersection of Bayou Penchant and Brady Canal along with other features throughout the basin. It is anticipated that this structure will allow more freshwater to enter Brady Canal with the hopes of overbank flow into the marsh.

The 2004 Operations, Maintenance, and Monitoring Report was the last comprehensive report composed, while a status and trends report was generated in 2007. In the 2004 report, the southern project and reference areas were experiencing an increase in salinity. Using the Floristic Quality Index (FQI) recently developed for the CRMS-Wetlands project the pre-construction values were similar to the most recently collected 2006 data. The FQI did decrease for the sampling period between these time periods; however, the reduction was a function of the drought south Louisiana experienced in 2002. Also, during the 2006 sampling period more plant species were identified in 2 of the 3 areas than in past sampling events. Habitat Mapping was done in 2002, post construction, but there is no recent data from the project area available for comparison.

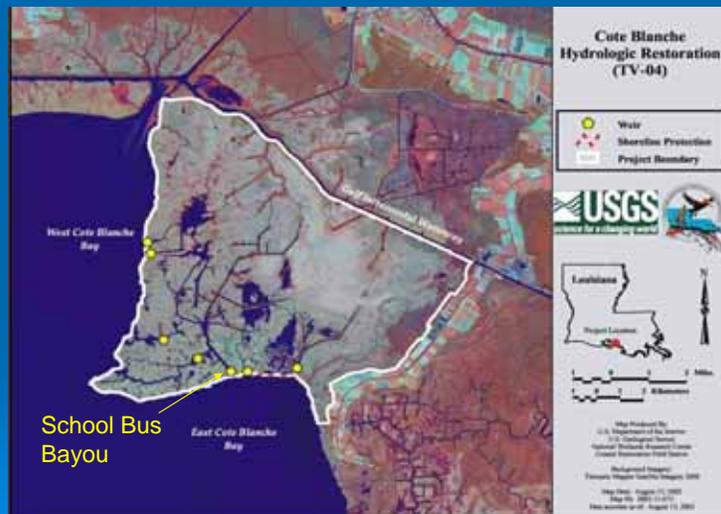
Without the recommended approval of the proposed operations and maintenance (O&M) funding for repair of breaches along the southern boundary of the project, more tidal exchange will occur. Increased tidal exchange will likely cause additional erosion and increased salinity in the project area. The breach repairs along Brady Canal will prevent the direct exchange of water from the

marsh and canal. Because the marshes in this area are floating, the exchange of water needs to be reduced in terms of volume and occur much more slowly such as overbank flow. With the construction of the TE-44 and TE-34 projects and the proposed maintenance, it is anticipated that the project area will begin to benefit ecologically and perform as intended.

TV-04 Cote Blanche Hydrologic Restoration

September 2009

Plan View of TV-04 Cote Blanche



Historical Information

- The Cote Blanche Hydrologic Restoration project area consists of 31,637 acres of freshwater marsh in the Teche/Vermilion Basin in St. Mary Parish. The project boundaries include the GIWW to the north, Hwy 317 to the east, East Cote Blanche Bay to the south, and West Cote Blanche Bay to the west.
- Project goals are to create a lower energy environment by reducing the larger openings that penetrate fragile interior marsh and act as direct conduits for increased tidal influences.
- The project was funded on the CWPPRA PPL 3 list.
- Initial construction was completed in 1999. Maintenance events were completed in 2001, 2005 & 2007.

Initial Construction Details

- The project was completed in January 1999 at a constructed cost of \$3,875,018.
- The project consisted of low level weirs at Mud Bayou, Humble-F Canal, Bayou Long, Bayou Carlin, Humble Canal, Jackson Bayou and British American Canal. Approximately 3,500 L.F. of PVC shoreline protection was constructed along the southern boundary.

2001 Maintenance Event Details

- Work included 1) placement of 12"-14" of paving stone spread out around the wingwalls of the weirs at 6 of the structures 2) replacement of 100 pile caps along the PVC wall 3) replacement of day markers at Humble-F Canal 4) construction of revetment/foreshore dike along the west bank of British American Canal.
- Construction was completed in 2001.
- Total Project Cost: \$320,000

2005 Maintenance Event Details (For Repair of Hurricane Lili Damages)

- Work included 1) Rock repair paving at 6 of the structures 2) Replacement of warning sign and channel marker sign at 2 structures.
- Construction was completed in 2005.
- Total Project Cost: \$84,500*

* Reimbursed by FEMA

2007 Maintenance Event Details (For Schoolbus Bayou Dike)

- Work consisted of installing a foreshore dike approximately 3,300 LF in length in the northern shore of Cote Blanche Bay in front of Schoolbus Bayou.
- Construction of two low level rock weirs at the intersection of Schoolbus bayou and Humble Canal.
- Installation of warning signs.
- Work was completed in Sep. 2007.
- Total Project Cost: \$1,563,328.45

Proposed Maintenance Details for FY 2009/10

- The effects of hurricanes as well as other events over the years have caused some minor damage to several of the structures and signs within the project that will need to be repaired and/or replaced.
- Rock along the base of the low level weir that was constructed on Schoolbus Bayou at it's western intersection with Humble Canal has washed away and will need to be replaced.
- When originally approved for construction, the Schoolbus Bayou dike was expected to settle approximately 1.8 feet during the first year. Funding was secured to raise this dike back to the original constructed elevation one year after initial construction. The cost of the original construction exceeded estimates and funds allocated to raise the dike had to be used for the first construction. The dike has since settled as expected and will need to be brought back to grade in order to function as intended.
- **TOTAL ESTIMATED O&M COST for FY 2009/10: \$691,487**

Recommended TV-04 Maintenance Request

▪ FY 09/10 Projected Budget:	\$	691,487
▪ FY 10/11 Projected Budget:	\$	8,909
▪ FY 11/12 Projected Budget:	\$	9,086
▪ Corps Administration (3 years)	\$	<u>3,722</u>
▪ 3 YEAR BUDGET ESTIMATE:	\$	713,204
▪ REMAINING O&M FUNDS:	\$	271,676
▪ ADDN. FUNDS REQUESTED:	\$	441,528

TV-04/Cote Blanche Hydrologic Restoration Monitoring Conclusions

9/2/2009

Aerial Photography:

Analysis of aerial photography taken in January 1997 pre-construction indicated a land-to-water ratio of 90% land to 10% water within the project area. Approximately 73% of the project area was classified as fresh marsh. Land-to-water ratios in the shoreline reference area, and the hydrographic reference area were 99.6 % land to 0.4% water, and 94.9% land to 5.1% water, respectively. Analysis of aerial photography taken in December of 2002 indicated a land-to-water ratio of 82.8% land and 17.2% water in the project area. The shoreline reference area ratios in 2002 were 76.2 % land and 23.8% water. The hydrographic reference area was 95.5% land to 4.5% water.

The project areas experienced a land loss of 8% while the hydrographic reference area lost 4% land. Most of this loss is likely due to damage from Hurricane Lili and are not project effects.

Shoreline Change:

Wetland gain/loss rates along the project and reference shoreline were determined from the three sets of post-construction data collected in the fall of 2001, 2004, and 2007. Data indicate a nearly stable project shoreline and a net loss of shoreline on the reference shoreline. From 1998 to 2007 project shoreline from Humble Canal to the end of the shoreline protection wall ending at the British American Canal had a net loss of only 0.01 m/yr. The shoreline protection wall extends from Jackson Bayou to the British American Canal so the area from Humble Canal to Jackson Bayou is open tidal energies. The reference shoreline extending west from the Humble Canal had a net loss of 2.66 m/yr from 1998 to 2007. Shoreline position change rates for the project shoreline for the years 2004 through 2007 had a loss of 0.9 m/yr and an average loss on the reference shoreline of 2.5 m/yr.

The project does appear to be accomplishing the goal of reducing the southern boundary's shoreline erosion rate. Shoreline change results suggest that the shoreline protection wall is functioning and providing shoreline protection and stabilization while allowing shoreline stabilization.

Hydrographic/Water Level:

Overall, comparisons of water level ranges revealed there were no differences between the two interior project stations (TV04-02 and TV04-03) or between the reference stations (TV04-04R and TV04-01R). Reference interior station TV04-04R had lower water level range than project station TV04-02 both pre- and post-construction. TV04-04R was affected by weirs and is too far inland to be representative of the reference area for the project.

The project effect was clear in the comparisons of reference station TV04-01R with project station TV04-03, and reference station TV04-01R with project station TV04-02.

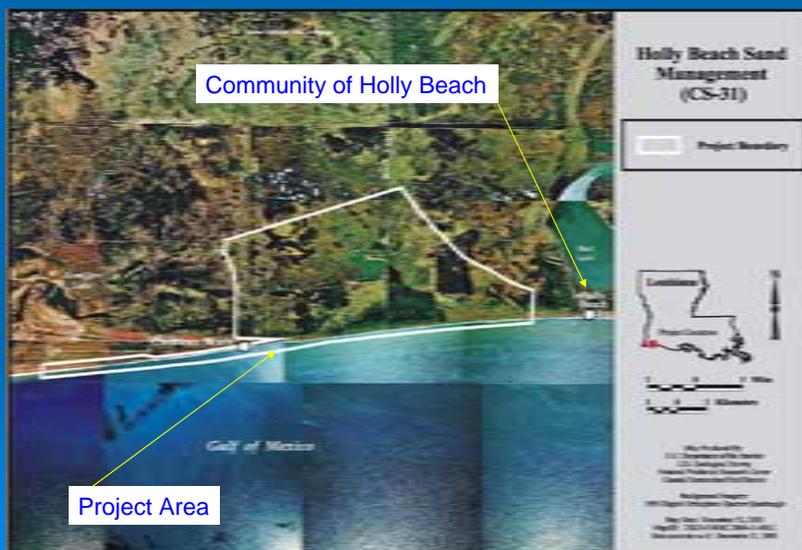
Station TV04-01R had higher water level ranges than the project sondes pre-construction which increased post-construction.

Inundation data for the two interior marsh stations varied greatly. However, water level range data inside the project area was less variable than the two reference stations suggesting that weirs may have had an effect on reducing the range of water level for the year 2004 as compared to pre-construction data.

CS-31 HOLLY BEACH SAND MANAGEMENT PROJECT

September 2009

Plan View of CS-31 Holly Beach



Historical Information

- The Holly Beach Sand Management (CS-31) project area is located west of Calcasieu Pass along the Gulf of Mexico shoreline, extending between Holly Beach and Constance Beach in Cameron Parish, Louisiana.

Historical Information – Cont.

- The goals of the project are to protect approximately 8,600 acres of existing intermediate and brackish wetlands north of La. Hwy. 82 between Holly and Constance Beaches,
- and to protect approximately 300 acres of beach dune and coastal Chenier habitat along the shoreline of the Gulf of Mexico from erosion and degradation due to wave energies.
- The project was funded on the CWPPRA PPL 11 list.
- Initial construction was completed in 2003. A maintenance event was completed in 2006.

Initial Construction Details

- Construction began in July 2002 and was completed in August 2003.
- The project consists of 1.75 M cubic yards of beach fill and 18,797 LF of sand fencing and vegetative plantings.

2006 Maintenance Event Details

- Replace 46,000 LF of sand fencing after Hurricane Rita.
- Construction was completed in November 2006.
- Total Project Cost: \$247,271*
 (*Note: FEMA reimbursed \$222,843)

Holly Beach Sand Fence Damages



Sand Fence and Beach Damages



Proposed Maintenance Details for FY 2009/10

- Hurricane IKE caused major damage to all of the existing sand fencing and vegetative plantings.
- A maintenance event is planned to replace 46,000 LF of sand fencing and install 28,000 vegetative plants.
- TOTAL ESTIMATED O&M COST for FY 2009/10:
\$569,937

Recommended CS-31 Maintenance Request

- FY 09/10 Projected Budget: \$ 569,937
- FY 10/11 Projected Budget: \$ 5,909
- FY 11/12 Projected Budget: \$ 6,086
- Corps Administration (3 years) \$ 3,722
- 3 YEAR BUDGET ESTIMATE: \$ 585,654

- REMAINING O&M FUNDS: \$ 215,413
- ADDN. FUNDS REQUESTED: \$ 370,241

Request for CWPPRA Project O&M Funding Increase
Project Performance Synopsis
July 29, 2009

Holly Beach Sand Management Project (CS-31)

The volume of sand lost from the beach pre Hurricane Rita to post Hurricane Ike totaled 1.2 million cubic yards. A portion of the sand migrated west of the project, a portion was deposited in the marsh north of Highway 82, and a portion washed out to the gulf.

The vegetation plantings were severely impacted by Hurricane Rita. They were replanted by the La Dept of Agriculture and Forestry and were destroyed in Hurricane Ike.

In the marsh north of Highway 82, yearly mean salinity levels were maintained within the intermediate to brackish range and were below 3 ppt for the project area through 2004. Following Hurricane Rita, monthly mean salinity levels within the project area were higher than the brackish range until December 2005. From July to the end of 2006, monthly mean salinities remained below 7 ppt within the project area. In 2007 and most of 2008 salinity remained below the brackish range until September when the storm surge from Hurricane Ike caused salinities to rise to 25 ppt and remain above 15 ppt until November.

Interstitial salinities averaged around 3 ppt before Hurricane Rita. Following Hurricane Rita, these values spiked to 16.59 ppt and were still averaging 13.2 ppt in 2006. In 2007 and early in 2008, soil salinity values were between 5-10 ppt. After Hurricane Ike, they remained around 15 ppt until June of 2009.

Total percent cover of emergent vegetation was high in the surveys preceding Hurricane Rita (87% and 76%). Following Hurricane Rita, the cover dropped to 7%, but appeared to be recovering by the fall of 2006 (63%), and remained at this level in 2008. The marsh vegetation also appears to be meeting the goal of remaining within the intermediate to brackish class dominated by *Spartina patens* (marshhay cordgrass).

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

REQUEST TO CHANGE THE PROJECT SCOPE TO REMOVE A WATER CONTROL STRUCTURE AT THE LAKE CHAPEAU HYDROLOGIC RESTORATION AND MARSH CREATION PROJECT (TE-26)

For Decision:

NMFS and OCPR are requesting to use existing O&M funds on the Lake Chapeau Hydrologic Restoration and Marsh Creation Project (TE-26) to remove a water control structure. On previous funding requests for the TE-26 project, the project sponsors proposed repairing structure #3, which had been breached. However, the breach has expanded to such an extent that the project sponsors deemed the planned repairs to be cost prohibitive. Also, the project sponsors are requesting that any remaining funds approved for breach repair be rolled into the project future O&M budget. Following a presentation by David Burkholder, the Technical Committee will consider the request to use the existing obligated funds in the O&M budget to remove TE-26 project structure #3. The Technical Committee will also consider the request to adjust the current O&M budget to roll remaining funds into future TE-26 O&M events.

TE-26 LAKE CHAPEAU SEDIMENT INPUT AND HYDROLOGIC RESTORATION PROJECT

PROJECT OBJECTIVES AND GOALS

Project Objectives

1. Convert approximately 260 ac (105 ha) of open water to marsh west of Lake Chapeau between the Locust Bayou and Alligator Bayou watersheds using sediments mined from Atchafalaya Bay.
2. Restore natural sediment and hydrologic pathways by plugging canals in the project area.

Specific Goals

The following goals will contribute to the evaluation of the above objectives:

1. Create approximately 260 ac (105 ha) of marsh west of Lake Chapeau.
2. Decrease the water level variability within the project area.

INITIAL CONSTRUCTION DETAILS

Construction Unit I

- Hydraulic dredging of 721,931 cubic yards of material from the Atchafalaya Bay.
- Material was placed to an average thickness of two feet to create approximately 168 acres of marsh.
- A rock plug was constructed at the Atchafalaya Bay shoreline end of the dredge discharge pipeline corridor under a change order.
- 39,396 smooth cord grass plugs were planted over the newly created marsh under a separate contract.

Construction Unit II

- The construction of seven rock weirs across existing oilfield canals.
- Breach repair work was done under a change order to address deterioration of the spoil banks in a canal located southwest of Lake Chapeau just west of weir 9.
- A change order was also done to include the installation of a supplemental warning buoy system at six plug locations.

Construction Unit III

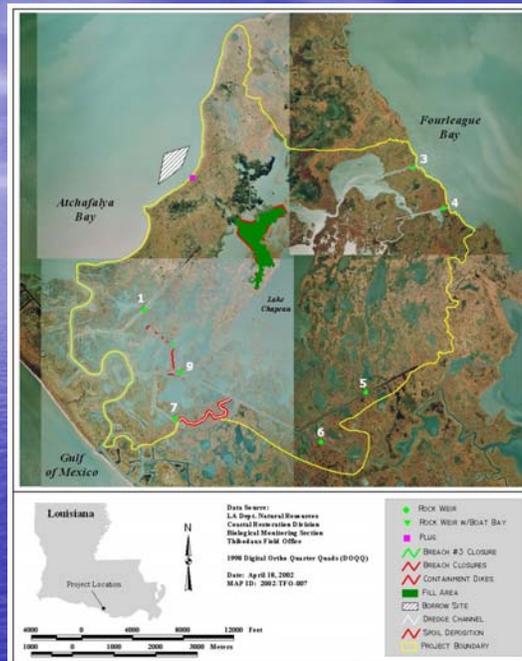
- Dredging of 59,218 cubic yards of material from a 6,400 foot long silted section of Locust Bayou to its original navigable depth of -6.0 ft. NGVD.
- The dredged material was placed along the sides of the bayou in 1.5 foot high by 80 foot wide spoil banks with periodic gaps to allow drainage.

Total Construction Cost: \$3,449,696.50

August 27, 2008

Office of Coastal Protection and Restoration

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August 27, 2008

Office of Coastal Protection and Restoration

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TE-26 LAKE CHAPEAU

Project Sponsors

- **Federal Sponsor:** National Marine Fisheries (NMFS)
- **Local Sponsor:** Office of Coastal Protection and Restoration (OCPR)

Historical Information

- Construction completed in May 1999
- **Maintenance Event No. 1:** Repair of spoil bank breaches by constructing a rock weir (breach site 3) and bucket dredged material (breach sites 4 through 8).
- **Maintenance Event No. 2:** Replacement of the existing warning buoys at six weirs with warning barricades constructed using pilings and steel pipe.
- **Maintenance Event No. 3:** Repair of a breach at Weir No. 3 by placing 250 class rip rap to extend the weir to the bank and the placement of concrete matting to prevent future erosion.

August 27, 2008

Office of Coastal Protection and Restoration

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MAINTENANCE EVENT No. 3 (2005) – DETAILS

- Maintenance need resulting from a breach around the south tie-in of Weir No. 3.
- Work included the placement of 50 linear feet of 250 class limestone rip rap and the placement of 640 square feet of articulated concrete matting to prevent future erosion around the south tie-in.
- This work was performed in conjunction with a maintenance project for the Point Au Fer Project (TE-22) by Luhr Bros. Construction Company using Point Au Fer (TE-22) maintenance funds.
- The project was completed in September 2005.
- **TE-26 Maintenance Cost for Construction: \$ 0**

August 27, 2008

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WEIR No. 3 NORTH TIE-IN PHOTOS (2005)

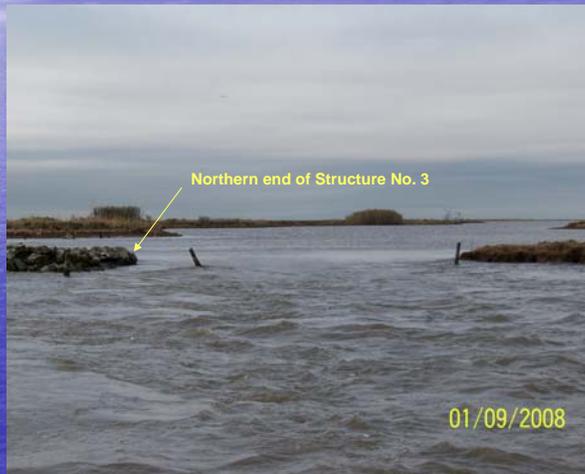


August 27, 2008

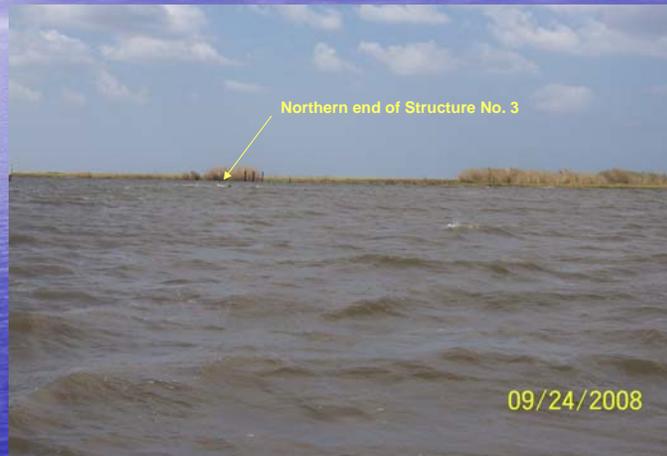
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WEIR No. 3 NORTH TIE-IN PHOTO (2008)
PRE-HURRICANES GUSTAV AND IKE



WEIR No. 3 NORTH TIE-IN PHOTO POST GUSTAV AND IKE (2008)

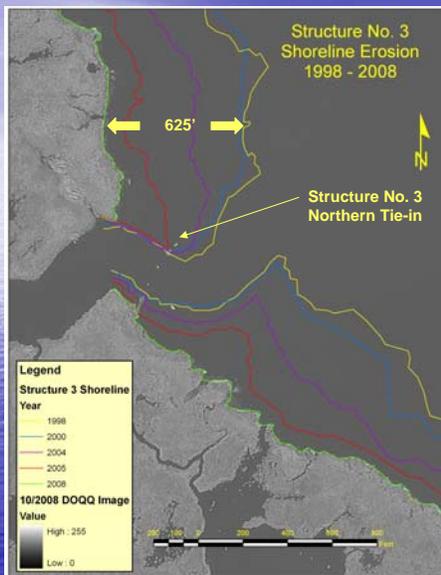


August 27, 2008

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WEIR No. 3 NORTH TIE-IN SHORELINE EROSION RATES



Structure No. 3 was constructed 700 feet west of the bay along the centerline of the canal.

The mouth of the canal is now 200 feet west of the center of the structure.

The erosion rate of the shoreline in the immediate vicinity of Structure No. 3 for the last decade is approximately -62 feet per year.

This amount of shoreline erosion was far greater than what was anticipated.

August 27, 2008

Office of Coastal Protection and Restoration

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WEIR No. 3 – Scope Change

- As a result of Hurricane Gustav and Ike, the breach on the north side of Structure No. 3 has increased from 60' wide in January 2008 to approximately 350' wide in September 2008.
- Three alternatives were evaluated:
 1. Constructing a 350' breach closure and 200' long shoreline revetment northward along the existing bank line. The overall estimated budget for this alternative is approximately \$800,000.
 2. Demolishing the existing structure (Structure No.3) and relocating the weir further inland between Four League Bay and Crab Lake. The overall cost associated with this alternative is \$1,298,000.
 3. Removing the structure entirely. The demolition of Structure No.3 shall include spreading the existing rock material along the bottom of the bay in a manner that will not interfere with marine navigation. The overall cost for this alternative is approximately \$295,000.

WEIR No. 3 – Scope Change (Cont'd)

In evaluation these alternatives, the OCPD considered the initial cost of repairs and/or replacement of the structure, the implications of removing the structure and the affects on the island hydrology, and the anticipated future maintenance of the structure. A review of the conclusions in the 2007 Operation, Maintenance and Monitoring Report revealed that the project objectives and goals of restoring the historical hydrology of the island is inconclusive at this time and that land water analysis indicated continued land loss inside the project boundary (Lear E., T. Folse and B. Babin, 2007). Based on this analysis, the OCPD does not believe that removing Structure No.3 will significantly worsen the hydrologic conditions of the island. Regarding alternatives 1 and 2, the reconstruction of Structure No.3 at the current location or moving further inland towards Crab Lake will most likely require significant maintenance and possible expansion along the shoreline to protect the structure from breaching as the shoreline retreats. As the marsh on the south side of the structure continues to erode at an estimated 60ft/year, it will become more difficult and expensive to prevent breaching around the structure. Considering that project benefits are inconclusive and the cost of maintaining the structure for the remaining 20 year project life will be exorbitant, the OCPD is recommending that the third alternative of complete removal of the structure be implemented.

RECOMMENDED SCOPE MODIFICATION OF EVENT NO. 4 (2009) DEMOLITION OF BREACH NO. 3

Maintenance needs

- Demolition of existing rock weir structure and removal of articulated mats on the south side of the structure
- Spread existing rock material along the bottom of the canal to a depth not to interfere with marine navigation.

Estimated Project Budget

Construction Cost + 25% Contingencies:	\$ 283,750
Engineering and Design:	\$ 10,000
Construction Oversight:	\$ 6,000
OCPR Construction Administration	\$ 5,000
NMFS Construction Administration	\$ 9,080

Total Project Budget	\$ 313,830
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TE-26 O&M BUDGET (AS OF MAY 2009)

Originally Approved O&M Budget	\$ 429,720
2006 Funding Increase (Weir 3 Repair not Constructed)	\$ 225,869
2008 Funding Increase (Weir 3 Repair not Constructed)	<u>\$ 326,764</u>
Current O & M Budget	\$ 982,353
Total Expenditures from Lana Spreadsheet	\$ -418,973
Expenditures from DNR Accounting	<u>\$ -34,872</u>
Estimated Unexpended O&M Obligations	\$ 528,508

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

REQUEST FOR O&M BUDGET INCREASES AND FUNDING TO TEMPORARILY REMOVE THE BAYOU SAUVAGE NATIONAL WILDLIFE REFUGE HYDROLOGIC RESTORATION PHASE I (PO-16) AND PHASE II (PO-18) PUMP DISCHARGE PIPES IN PREPARATION FOR THE LAKE PONTCHARTRAIN AND VICINITY HURRICANE PROTECTION LEVEE ENLARGEMENT.

For Decision:

The USFWS is requesting an O&M Budget increase for the Bayou Sauvage National Wildlife Refuge Hydrologic Restoration Phase I (PO-16) and Phase II (PO-18). The USACE is proceeding to elevate the hurricane protection levee forming the eastern boundaries of the PO-16 and PO-18 projects. As part of these hurricane protection levee activities, the USACE is requiring that the USFWS remove three 48 inch-diameter discharge pipes associated with the projects pumping stations, to elevate and widen the Pontchartrain and Vicinity Hurricane Protection Levee. In turn, the USACE has agreed to relocate and refurbish the two pumping stations and install new discharge pipes through the elevated levee. The cost estimate for removing the three discharge pipes is \$100,000. Following a presentation by Darryl Clark, the Technical Committee will consider the following request for O&M budget increases totaling \$100,000 and FY 12 incremental funding in the amount of \$100,000, for the following projects:

- Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1 (PO-16), PPL-1
 - Budget increase amount: \$70,000
 - Incremental funding amount: \$70,000
- Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2 (PO-18), PPL-2
 - Budget increase amount: \$30,000
 - Incremental funding amount: \$30,000



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HURRICANE PROTECTION OFFICE
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

Hurricane Protection Office

SEP 9 2009

Mr Kenneth Litzenberger
Project Leader
Bayou Lacombe Centre'
U.S. Fish and Wildlife Service
Southeast Louisiana Refuges
61389 Highway 434 Lacombe
Louisiana 70445-2667

Dear Mr. Litzenberger:

This letter is to clarify the impacts of the hurricane protection levee enlargement for LPV 109 and LPV 111 on the Bayou Sauvage National Wildlife Refuge Hydrologic Restoration Project Phase I (PO-16), CWPPRA project and Bayou Sauvage Phase II CWPPRA project (PO-18). Phase 1 consists of two 48 inch-diameter pumping stations and was constructed in 1996. Phase 2 consists of one pumping station and was constructed in 1997. Phase 1 discharge pipes fall within the current footprint of LPV 109 and Phase 2 discharge pipes fall within the current foot print of LPV 111. Phase 1 and Phase 2 discharge pipes that cross the current levee sections in LPV109 and LPV 111 are there by permit. The permit states:

- "That should changes in the location or section of the existing levee, floodwall or in the generally prevailing conditions in the vicinity be required in the future of the public interest. The applicant shall make changes in the project concerned or in the arrangement thereof as may be necessary to satisfactorily meet the situation and shall bear the cost thereof".

Upon evaluation of the previously issued permit and the requirements for additional real estate for the levee enlargement projects LPV 109 and LPV 111, it has been determined that the function of the existing USFWS facilities will be adversely impacted. The impacts to Bayou Sauvage National Wildlife Refuge projects PO-16 and PO-18 are as follows:

- The movement and refurbishing of pumping stations will be a project cost to LPV 111 and 109. These pumping stations are currently outside of the existing Right of Way but are inside the new foot print and requested new Right of Way.
- The installation and material cost of the new discharge pipes to support the pumping stations will be a project cost to LPV 109 and LPV 111. Civil Works funds may be used to pay for such work on other Federal facilities that is necessitated by a Civil Works project.
- The existing drainage structures are project features because they were part of the original levee construction. Project features by definition are cost to the projects. These are not the responsibility of USFWS.

The Discharge pipes that cross the existing foot print that are covered in the permit will be required to be removed by USFWS due to the conditions of the permit. The current estimate for this removal is \$100,000.

If you have any questions or require any additional information on this matter, please contact me or Stephanie Hall, Sr. Project Manager for Orleans Parish at 504-862-2608.

Sincerely,

A handwritten signature in black ink, appearing to read "Richmond R. Kendrick". The signature is stylized and cursive.

Richmond R. Kendrick
Deputy, Program Execution

Copies Furnished:

Melanie Goodman



Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1 (PO-16)

Project Status

Approved Date: 1991 **Cost:** \$1.63 M
Project Area: 3,800 acres **Status:** Completed
Net Benefit After 20 Years: 1,550 acres May 1996
Project Type: Hydrologic Restoration

Location

The project is located in Orleans Parish, approximately 10 miles north of Chalmette, Louisiana. It is bordered by Bayou Sauvage to the north and northwest and by the Gulf Intracoastal Waterway to the south. Both U.S. Interstate 10 and U.S. Highway 90 provide access to the refuge.

Problems

The construction of U.S. Highway 90, canals, railroad lines, and hurricane protection levees has left the historically brackish marsh hydrologically isolated.

Inadequate water inflow and poor drainage subjected the area to periods of prolonged flooding and occasional drying, causing a loss of wetland habitat.

Restoration Strategy

Two 48-inch pumps were installed in northern and southern units of the project area to drain surplus water caused by excess rainfall, promoting the growth of fresh marsh vegetation. A weir in Bayou Thomas will allow the units to be managed independently.



One of the Bayou Sauvage pump stations, facing east across the hurricane protection levee into Bayou Thomas.

Progress to Date

Project effectiveness was monitored by measuring water levels and vegetative growth in both units against those of a reference area over spring-summer and fall-winter periods.

Water levels in the north unit were within target range approximately 57% of the time. Water levels in the south unit, where mechanical problems with the pumps impeded management efforts, were within target range less than 10% of the time. Water levels were below the target range in both units mostly because of drought-induced low water conditions.

Habitat analysis from aerial photography taken 7 months after project construction shows that 297 acres were converted from open water to fresh marsh between 1993 and 1996. Emergent marsh vegetation increased between 1996 and 1997 based on monitoring surveys. Forested wetlands, including black willow habitat, increased by 35 acres. This increase is supported by increases in marsh vegetation measured from ground surveys. This project is on Priority Project List 1.



A Bayou Sauvage pump station in operation, facing west. It is removing water from the project area, depicted in the upper portion of the image.

For more project information, please contact:



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

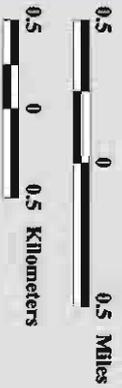


Local Sponsor:
Louisiana Department of Natural Resources
Baton Rouge, LA
(225) 342-7308



Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1 (PO-16)

	Pump
	Weir
	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: 2002-11-537
 Data accurate as of: July 1, 2002



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

Project Status

Approved Date: 1992 **Cost:** \$1.64 M
Project Area: 5,475 acres **Status:** Completed
Net Benefit After 20 Years: 1,280 acres **May 1997**
Project Type: Hydrologic Restoration

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.

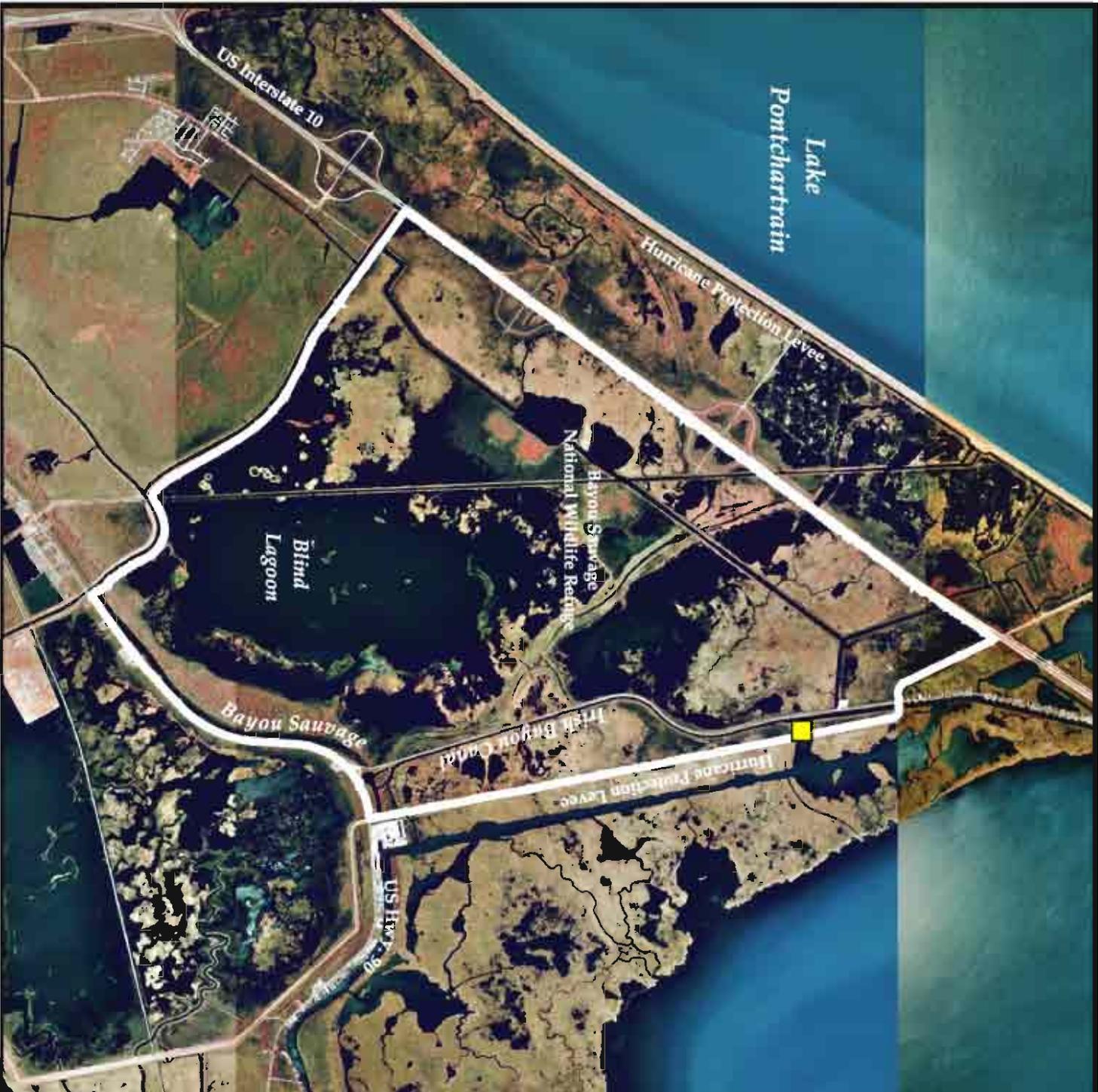
For more project information, please contact:



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



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



**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

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

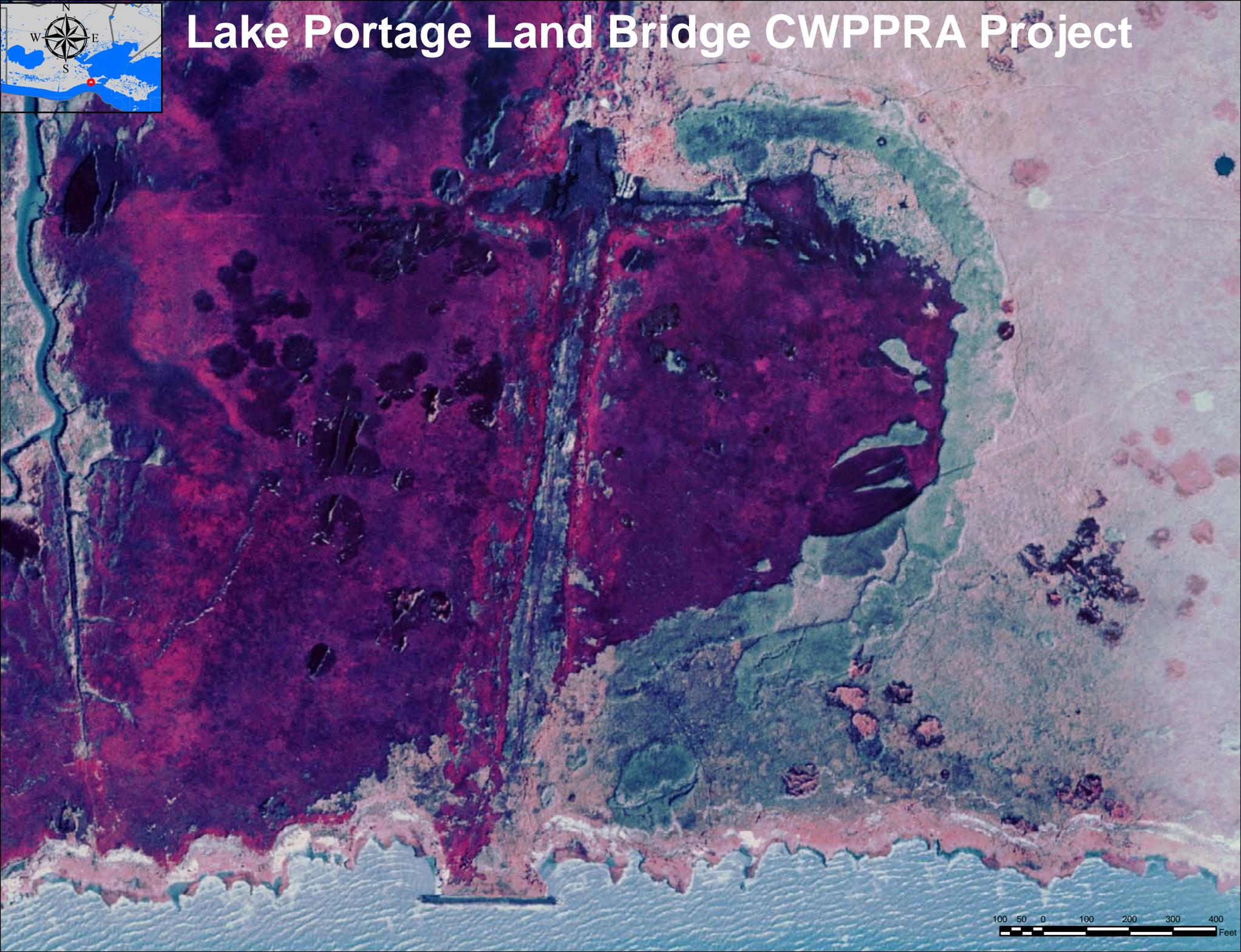
SEPTEMBER 29, 2009

REQUEST TO CHANGE THE PROJECT SCOPE DUE TO AN ESTIMATED BUDGET INCREASE AND PHASE I FUNDING FOR THE SHORELINE PROTECTION FEATURE (CONSTRUCTION UNIT #2) OF THE LAKE PORTAGE LAND BRIDGE PROJECT (TV-17, PPL 8)

For Decision:

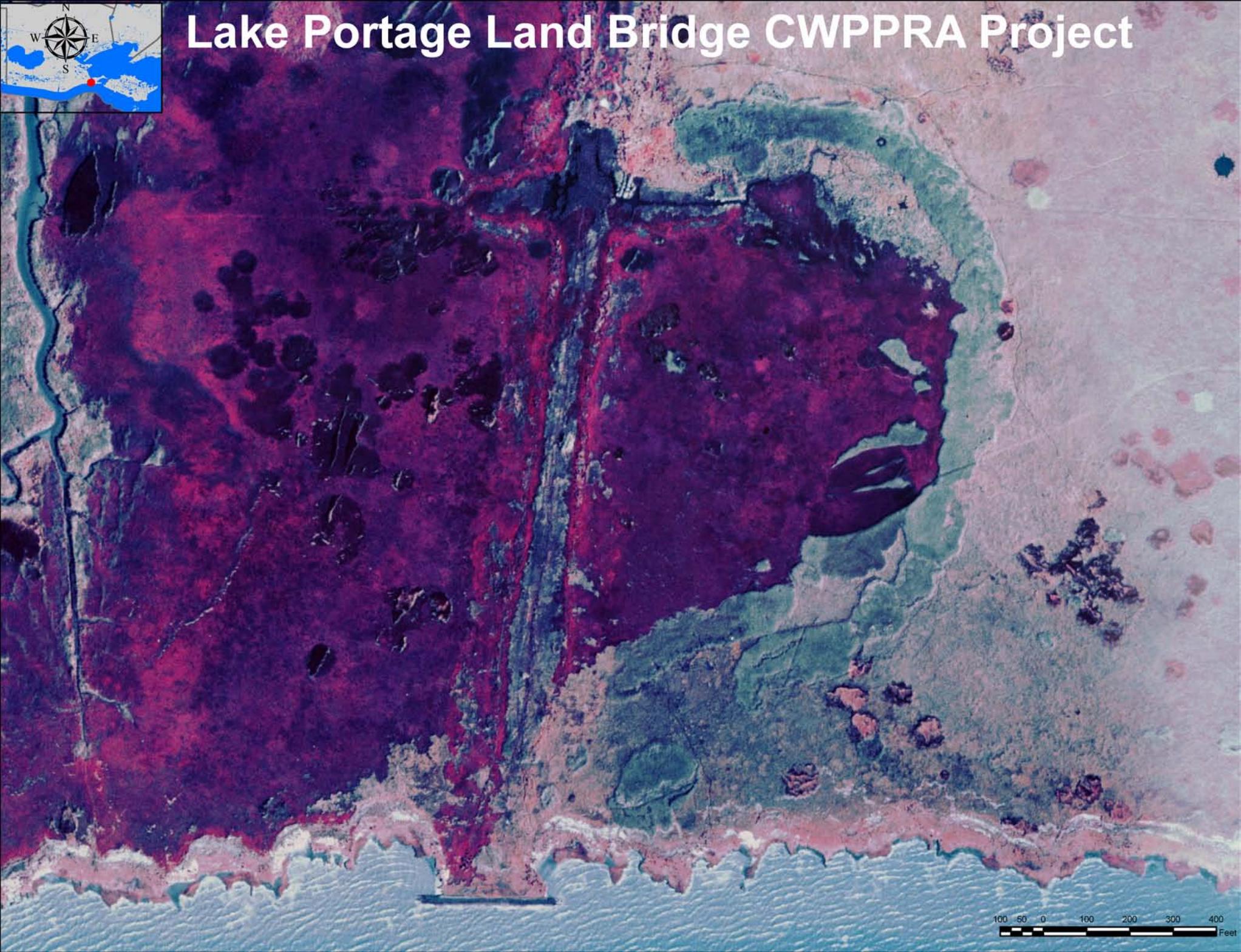
NRCS and OCPR are requesting an estimated budget increase in the amount of \$6,888,802 and Phase 1 funding in the amount of \$707,297 to proceed with developing Construction Unit #2 of the TV-17 project. The current approved estimate is \$1,181,129. Construction Unit #2 would consist of 3,630 linear feet of Gulf shoreline protection. When TV-17 was approved on PPL8, the Task Force opted to fund only a portion of the project in the amount of \$1,013,820, which included backfilling an existing pipeline canal. At that time, the Task Force indicated that additional funds would be made available in the future to complete the second phase of the project if studies showed it was necessary. NRCS and OCPR have determined that Construction Unit #2 is needed based on continued shoreline retreat and threat to the integrity of the constructed portion of the project. The Technical Committee will consider and vote to make a recommendation to the Task Force on the request for a scope change to increase the estimated total project budget by \$6,888,802 for a total estimate of \$8,069,931, and for Construction Unit #2, Phase I funding in the amount of \$707,297.

Lake Portage Land Bridge CWPPRA Project



100 50 0 100 200 300 400 Feet

Lake Portage Land Bridge CWPPRA Project



100 50 0 100 200 300 400 Feet

Lake Portage Land Bridge Project (TV-17)
Shoreline Protection Increment
Priority Project List 8

Report to the Technical Committee

Project Sponsors: {Federal} USDA – Natural Resources Conservation Service; {State} OCPR – Office of Coastal Protection and Restoration.

Project Location & Description: The project is located immediately north and south of Lake Portage within the Paul J. Rainey Wildlife Sanctuary and the Louisiana State Wildlife Refuge, in the southwest portion of Vermilion Bay in Vermilion Parish, Louisiana. The approximate center of the project is at latitude N29°36'9.495" and longitude W92°6'21.827". The main intent of the TV-17 Project is to establish shoreline protection along the gulf coast shoreline in the vicinity of the Sea Robin Pipeline and to minimize the possibility of a tidal channel forming between the Gulf of Mexico and Vermilion Bay during a storm event. Project features included placement of a foreshore rock dike approximately 100 feet offshore and 5,280 ft. in length along the gulf shoreline and then backfilling from the dike shoreward with dredged material obtained from Lake Portage. The pipeline canal would also be backfilled to marsh level with bay bottom material beginning with the canal's confluence with Vermilion Bay on the north end and ending at the armored plug on the gulf shoreline at the south end (~4,500 lf). No dredged material is to be placed in Lake Portage itself.

Project History: The project was authorized for federal and state funding on Priority Project List (PPL) 8 at the CWPPRA Task Force meeting held on January 20, 1999. The fully funded estimate for the project was \$4,544,966. However, for this PPL, the Task Force opted to fully fund four projects and fund only the initial phase of three projects, including TV-17. The initial phase consisted of backfilling an existing pipeline canal. Gulf shoreline protection and placement of fill in the nearshore Gulf was not funded at that time. The January 1999 Task Force meeting minutes express the Task Force's commitment "...that additional funds would be made available on future PPL's to complete the phased projects of the 8th List".

Progress to Date: The backfilling of the pipeline canal has been completed, with final acceptance of that project component occurring on May 24, 2004. The final constructed features of that component included raising approximately 8,527 linear feet of existing spoilbank along the pipeline canal for containment and backfilling the canal with the placement of 40,900 cubic yards of hydraulically dredged material taken from Vermilion Bay.

Since construction, the gulf shoreline has retreated considerably (refer to photos) due to normal wave action and due to several storm events. This erosion raises concern among NRCS, OCPR, Vermilion Parish, Paul J. Rainey Wildlife Sanctuary and the Louisiana State Wildlife Refuge, and private landowners because of the possible breaching of the shoreline into existing waterways that connect to Lake Portage / Vermilion Bay, and compromising the accomplishments of the existing TV-17 Project.

Project Proposal: The approved current total funding for TV-17 is \$1,181,129, of which remaining funds include approximately \$36,500 for Monitoring and \$80,800 for Operation and Maintenance. NRCS and OCPR are requesting the Task Force to make additional funds available to construct the Gulf shoreline protection feature as a second increment of construction for the TV-17 Project. This request is in concert with the Task Force's January 1999 commitment "...that additional funds would be made available on future PPL's to complete the phased projects of the 8th List".

Preliminary surveys and engineering suggest the construction of a foreshore rock dike placed near the gulf shoreline in the vicinity of the -2.0 ft. contour. Construction is scheduled to begin in Target Year 7 of the existing project. The estimated fully funded cost for the second phase of the TV-17 Project is \$6,888,802. The increment 1 cost for this proposal is \$5,369,085.

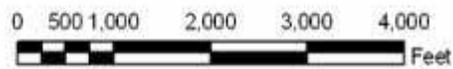
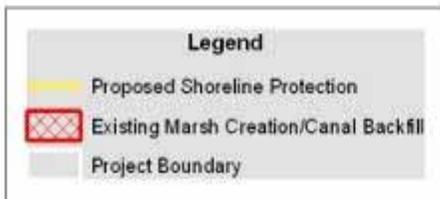
Contact Information:

USDA-NRCS: Loland Broussard (337) 291-3060
LDNR-OCPR: Darrell Pontiff (337) 482-0683

loland.broussard@la.usda.gov
darrell.pontiff@LA.GOV



Lake Portage Shoreline Protection
Vermilion Parish, Louisiana



Gulf of Mexico Shoreline – 1998 Aerial



Gulf of Mexico Shoreline – 2008 Aerial



Project: PTV-20 Lake Portage Land Bridge

Federal Sponsor: Natural Resources Conservation Service/Environmental Protection Agency

Location:

This 1,552 acre project is located immediately south from Lake Portage within the Paul J. Rainey Wildlife Refuge, located to the west of Southwest Pass in Vermilion Parish, LA.

Problems:

In 1971, a gas liquids pipeline was constructed by the Sea Robin Pipeline Company which completely spans this land bridge, thus threatening the creation of a tidal channel throughout this area. The Gobi Mats constructed by Sea Robin are three years old and holding well, however the bulkhead to the north of the lake has failed and the southern bulkhead has recently washed out to a nine foot depth on the western side. Should these structures fail, a tidal channel would occur that could wash out the soils in this area. In addition, it is apparent that significant shoreline erosion is occurring at both the east and west sides of the Gobi Mats, as well as around the edges of the bulkhead entering into southern Lake Portage.

Project Objectives:

The objective of this project is to protect the land bridge south of Lake Portage from breaching and creating another pass from Vermilion Bay to the Gulf of Mexico.

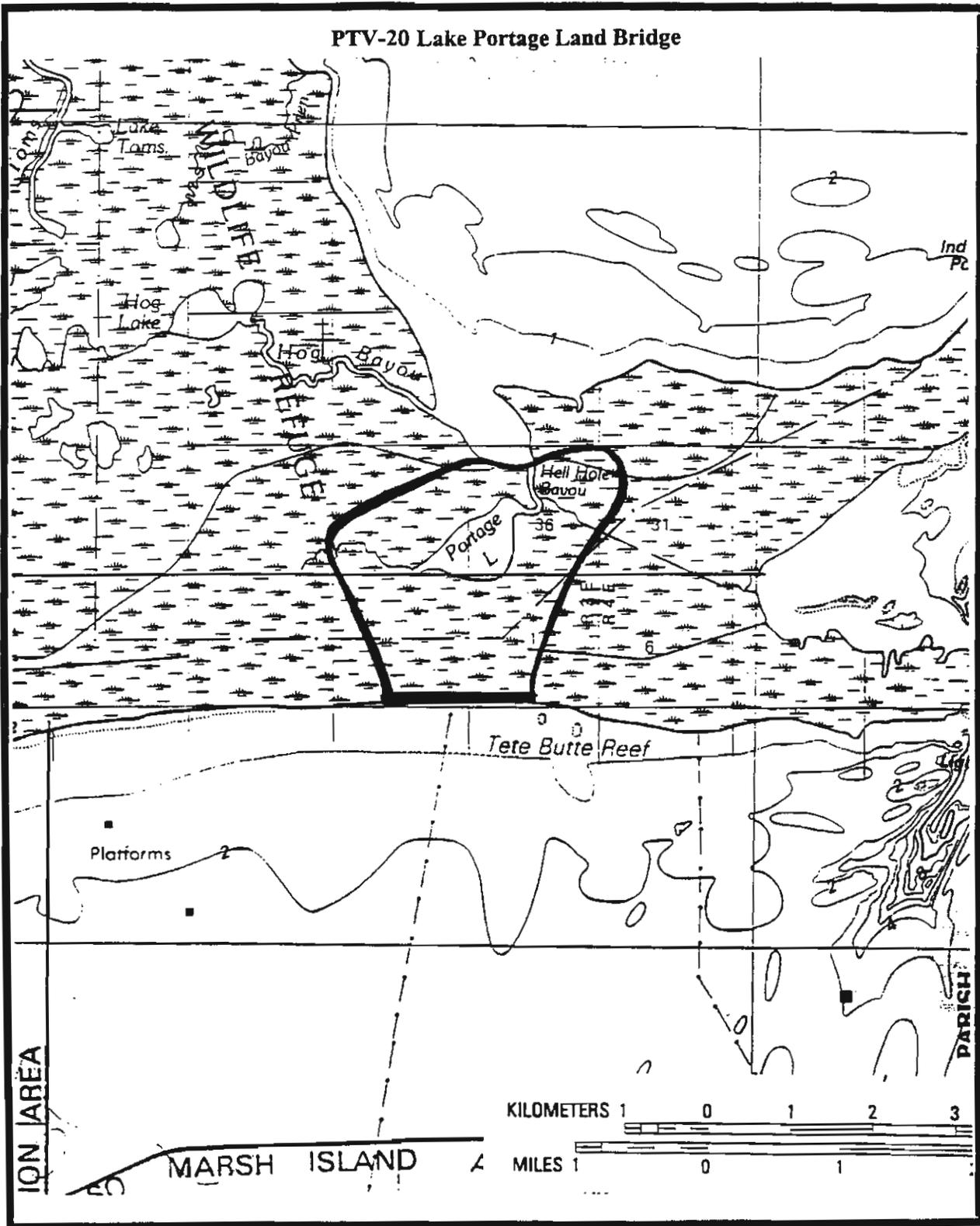
Project Features:

- 1) Placement of a rock containment dike approximately 100 feet off the Gulf shoreline, one mile in length, and then backfilling to marsh level with material dredged from Lake Portage.
- 2) Backfill the pipeline canal to marsh level from the Gulf to Lake Portage with dredge material from the Lake.

Cost and Benefits:

Fully Funded Cost	AAC/AAHU	AAHU	Total Acres Benefitted
\$ 4,559,400	\$25,330	9	24

PTV-20 Lake Portage Land Bridge



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

**REQUEST FOR A CHANGE IN THE PROJECT SCOPE TO INCLUDE A
BUDGET INCREASE AND FUNDING APPROVAL FOR THE BIO-
ENGINEERED OYSTER REEF DEMONSTRATION PROJECT(LA-08)**

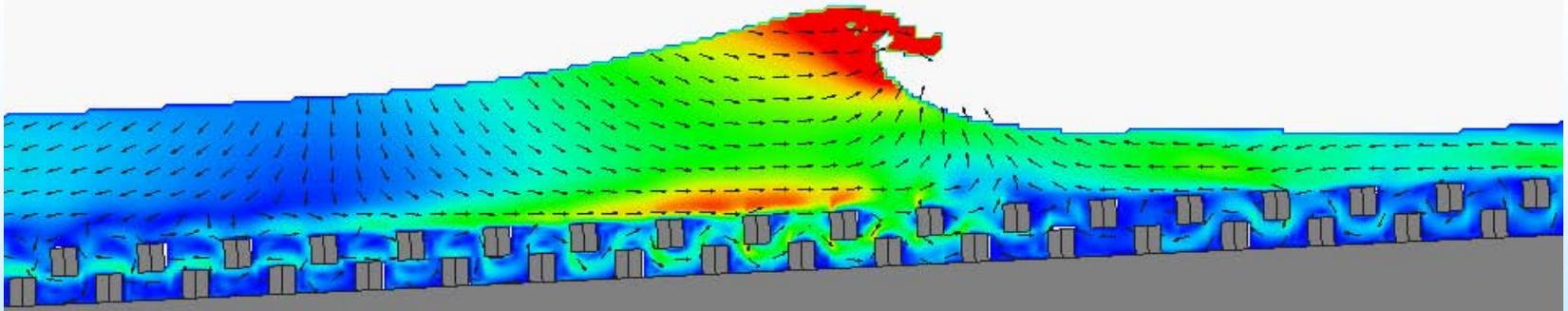
For Decision:

The NMFS and OCPR are requesting a change in the project scope to include a budget increase and funding approval of \$1,383,897. The Bio-Engineered Oyster Reef Demonstration Project was approved on PPL17. The original approved total project cost is \$1,981,822. Following a presentation by John Foret, the Technical Committee will consider and vote to make a recommendation to the Task Force to approve the requested budget increase and funding approval of \$1,383,897.

Bio-Engineered Oyster Reef Demonstration Project LA-08

CWPPRA Technical Committee Meeting

September 29, 2009

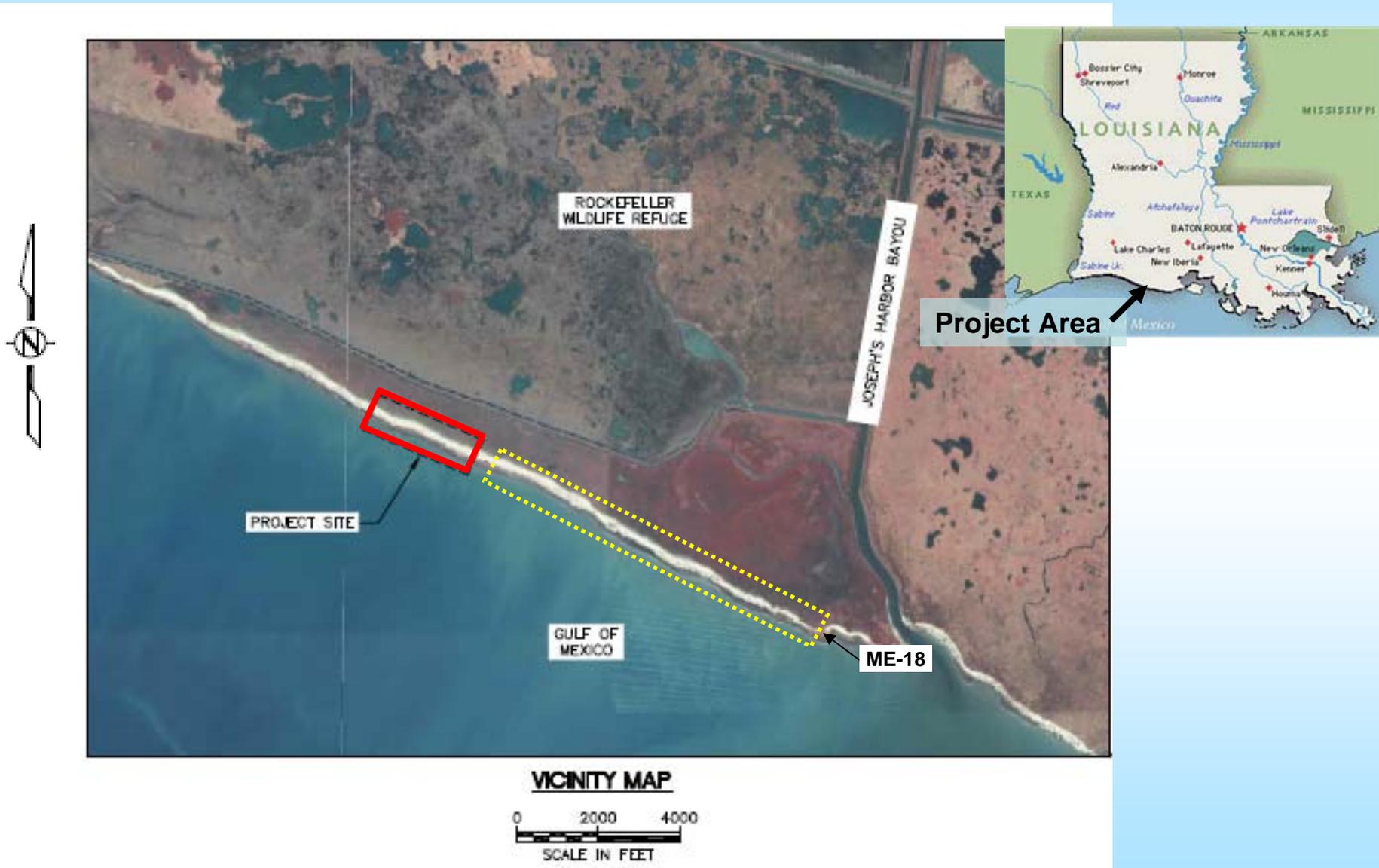


**COAST & HARBOR
ENGINEERING**

Project Goals

- Evaluate the Oysterbreak™ system's capability to reduce and/or prevent shoreline retreat and wetland loss on the open coast of Louisiana.
- Reduce erosion on open Gulf shorelines with weak (low bearing capacity) soils.
- Compare Oysterbreak™ with Rockefeller CIAP test structures as a restoration technique.

Project Location Selection



Coastal Processes at Site

- Primary processes controlling erosion:
 - Day-to-day waves
 - Extra-tropical storms



- Secondary processes controlling erosion:
 - Tropical Storms and Hurricanes
 - Relative sea level rise

Performance Evaluation Criteria

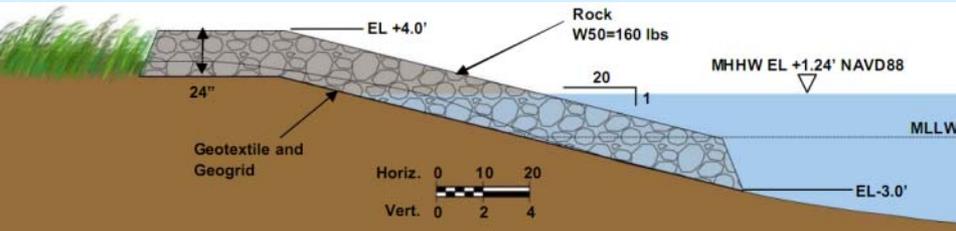
- Positive Shoreline Response
- Structure Stability
 - Geotechnical stability
 - Hydrodynamic stability
 - Unit Durability
- Constructability
- Cost

Alternatives Development

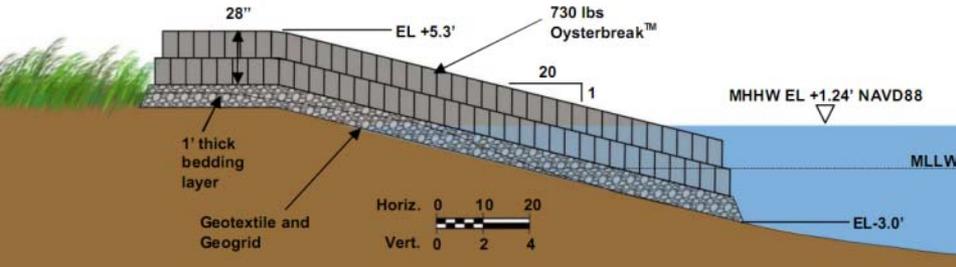
- Design must maximize performance (reduce wave energy) while maintaining stability
- Controlling Parameters
 - Geotech Stability (soil bearing capacity): structure height and unit density
 - Hydrodynamic Stability: unit weight
 - Performance: structure height & width
- Rock and Oysterbreak alternatives
- Cross-Shore structure location

Alternatives Development

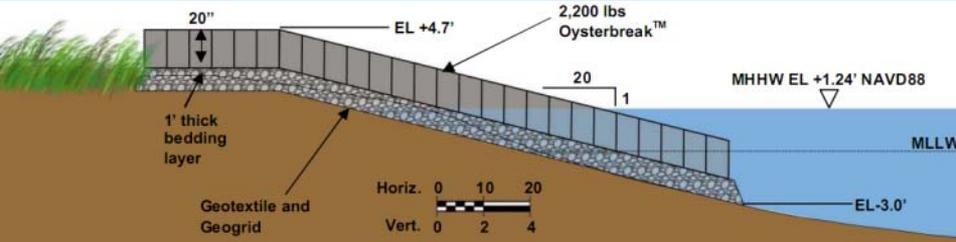
Onshore Alternatives



Alt 1

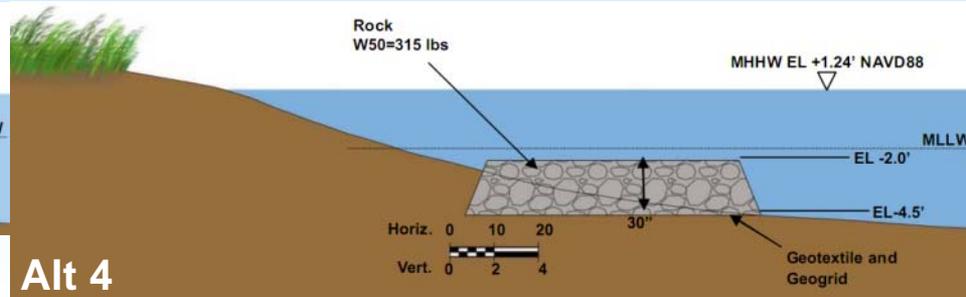


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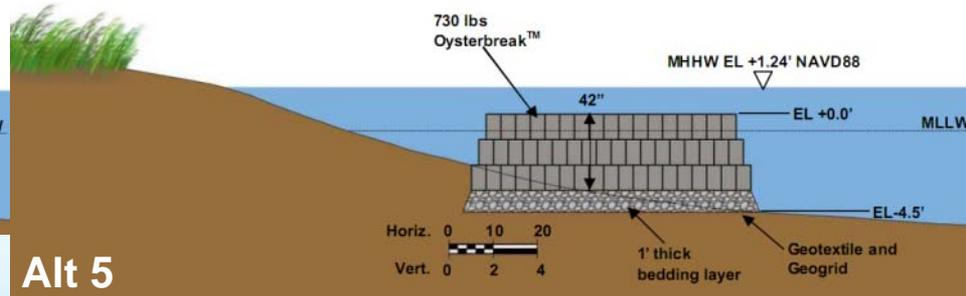


Alt 3

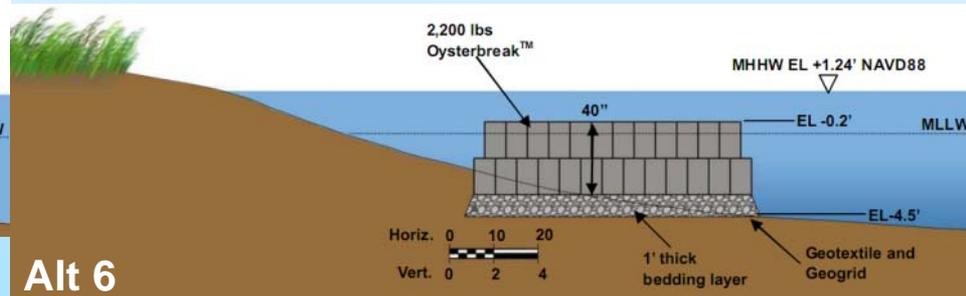
Offshore Alternatives



Alt 4



Alt 5



Alt 6

Alternatives Analysis

- Geotechnical Capacity
 - Initial and Ultimate Bearing Capacity
- Hydrodynamic Stability
 - Withstand Design Criteria (Cat 1 Hurricane)
- Oysterbreak™ Unit Strength
 - Loading during Design Criteria
 - Loading during Construction
- Shoreline Response
 - Wave energy reduction along shoreline

Monitoring Plan

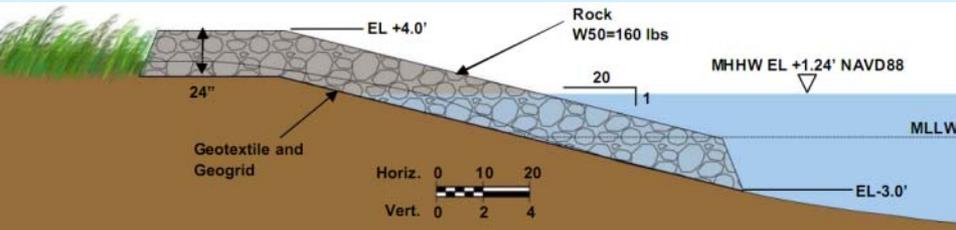
- Objectives:
 - Quantify shoreline response
 - Observe structural survival
 - Quantify oyster growth
- Monitor over 5 year period
- Plan components:
 - Ground-level and Aerial Photography
 - Surveying
 - Biological Monitoring
 - Hydrodynamic Data (Wave) Collection
- Annual monitor reports will be produced
- Total cost of monitoring program estimated at \$307,000 over 5 years

Modifications to Approved Phase 0 Project

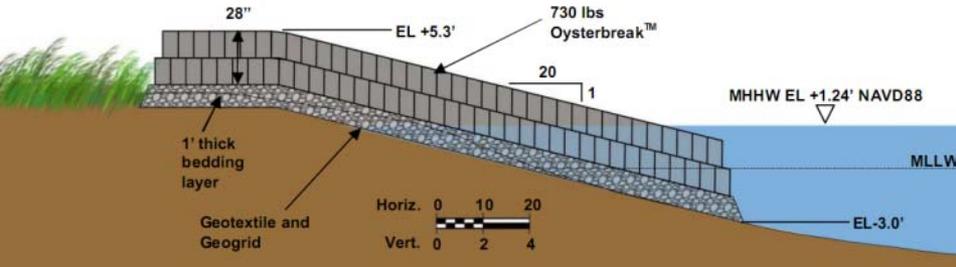
- Phase 0 project length was a continuous 1,000 ft long structure.
- CHE has conducted extensive preliminary engineering study
- CHE recommends preferred alternative presented in report
 - 2 structures 300 ft long with 145 ft gap
 - Each structure is 67.5 ft wide with a crest elevation of -0.2 ft NAVD88
- Construction cost estimate is \$2.6 M (approximately \$1.3 M over current Phase 2 budget)

Alternatives Development

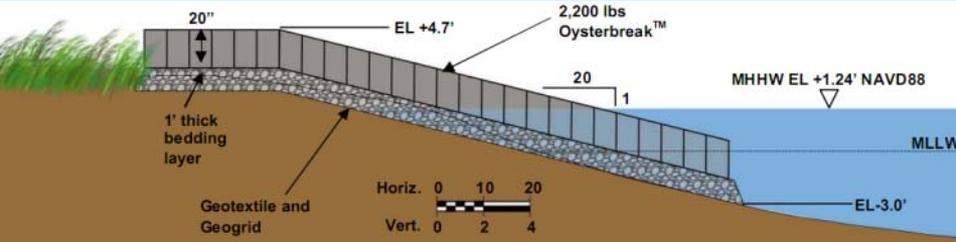
Onshore Alternatives



Alt 1

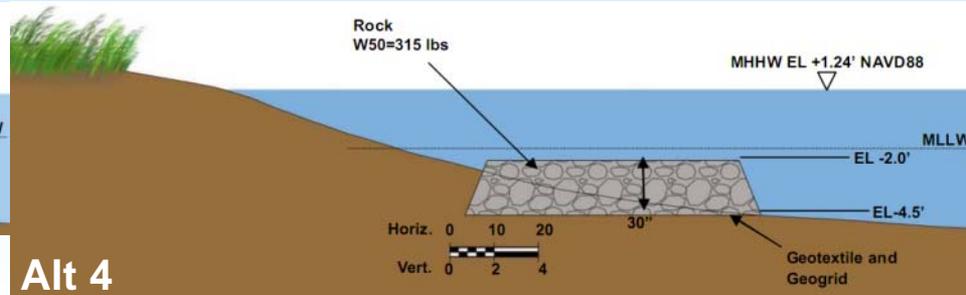


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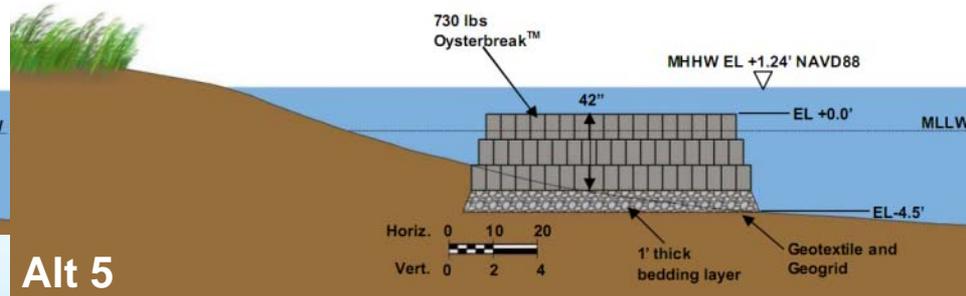


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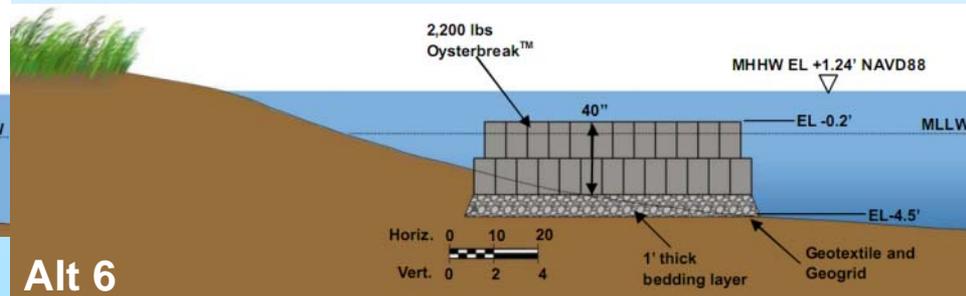
Offshore Alternatives



Alt 4



Alt 5



Alt 6

Trackhoe on timber mats stuck in soft soil while attempting to mobilize for construction of East Terminal Groin. (15 June 2009)



Trackhoe on timber mats stuck in soft soil while attempting to mobilize for construction of East Terminal Groin.



Louisiana Office of Coastal Protection
and Restoration

Bio-Engineered Oyster Reef Breakwater Demonstration Project



Final Design Report

September 9, 2009



**COAST & HARBOR
ENGINEERING**

This document is a Final Design Report and should not be used for construction, bidding, recordation, conveyance, sales, or as the basis for the issuance of a permit.



Hugo E. Bermudez, P.E.
Coast & Harbor Engineering, Inc.

September 9, 2009



EXECUTIVE SUMMARY

This Final Design Report describes the work performed by Coast & Harbor Engineering, Inc. (CHE) and summarizes the coastal engineering analysis results, alternatives analysis, and design for the Bio-Engineered Oyster Reef Breakwater Demonstration Project. The goal of this project is to evaluate the Oysterbreak™ system's capability to reduce and/or prevent shoreline retreat and wetland loss on the open coast of Louisiana and, in this phase of the project, determine the feasibility of the Oysterbreak™ technology at the proposed demonstration site.

The Oysterbreak™ is a patented technology developed by Oyster Restoration Advancement Technologies, L.L.C. (ORA Tech) designed to use the oyster's inherent nature of clustering to form a coastal protection structure. The system's design, as proposed by the developer, is to be used as an alternative to traditional rock structures. The Oysterbreak™ units are to be composed of Oysterkrete®, which is a marine grade cement based material designed to provide a suitable surface for oyster growth.

The project was initiated out of a necessity for measures to reduce erosion on open Gulf shorelines with weak (low bearing capacity) soils. The Oysterbreak™ system was selected to be used on the Gulf shoreline of the Rockefeller Wildlife Management Area and Game Preserve (Rockefeller Refuge) by the Project Team which consists of National Marine Fisheries Service (NMFS) and Louisiana Office of Coastal Protection and Restoration (OCPR). The selected project site is located approximately 2.5 miles west from the mouth of Joseph Harbor Bayou and to the west of the Rockefeller Refuge Gulf Shoreline Stabilization (ME-18) project. The location was selected to utilize geotechnical and survey data collected during the ME-18 project and to reduce cost.

The purpose of this document is to determine if the use of the Oysterbreak™ system is feasible in meeting the project goals. This was done by collecting topographic and hydrographic data, developing an understanding of the coastal processes acting at the project site, developing alternative solutions to meet the project goals, testing the ability of those alternatives to meet the evaluation criteria, selecting the alternative that best meets the project goals, and preparing a design of that alternative.

A coastal engineering analysis was performed to develop an understanding of the coastal processes at the project site and to characterize the conditions under which the project will perform (Section 2). Based on the understanding of the local geotechnical conditions determined during the ME-18 project and coastal processes analyzed during this project, six alternatives were developed (Section 3). Two types of alternatives were developed – an onshore revetment-type structure and an offshore breakwater-type structure. For the onshore revetment alternatives, three material variations were considered: Alternative 1: rock, Alternative 2: smaller 2 layer Oysterbreak™ units, and Alternative 3: larger, single-layer Oysterbreak™ units. For the offshore breakwater alternatives, three material variations were also considered: Alternative 4: rock, Alternative 5: smaller, 3 layer Oysterbreak™ units, and Alternative 6: larger, two-layer Oysterbreak™ units. The alternatives were conceptually designed with the local geotechnical

properties controlling the geometrical parameters of the structure, focusing on balancing the structure weight with the allowable soil bearing capacity. The total bearing pressure of the structure dictated the allowable height. These alternatives were evaluated relative to existing conditions and each other (Section 5). The evaluation included the structures' performance in terms of shoreline response, geotechnical and hydrodynamic stability, and constructability. In addition, cost estimates and maintenance requirements of the structures were developed.

The evaluation of alternatives showed that the Oysterbreak™ structures were more feasible than rock structures. The lower density of structures composed of Oysterbreak™ units allows for higher structure crest heights in the weak soils at the project site when compared with rock structures. Due to the higher crests, the Oysterbreak™ structures performed better than the rock structures, especially in terms of wave energy reduction and shoreline response, for both onshore and offshore structures.

An analysis of the structural integrity of the individual Oysterbreak™ units under loading from average, 1-year, 2-year, and Category 1 hurricane conditions showed that the units should not fail due to the wave forces (Sections 4.2 and 4.3). In terms of overall hydrodynamic structural stability, the Oysterbreak™ units were more stable due to larger unit weights made possible by the lower overall structure density compared to rock. The rock structures were not stable enough to meet the design criteria of withstanding a Category 1 hurricane.

Generally, the onshore structures provide better shoreline protection than the offshore structures (Section 4.4). However, there are many uncertainties about the onshore structures that are difficult to evaluate. The constructability of the onshore structures is challenging due to the weak soils and lack of easy access to the site, as well as the required structure size (Section 4.5). Therefore, onshore structures are expected to lead to higher construction costs.

Through the evaluation process and coordination with Project Team, the preferred alternative and best overall structure was determined to be the offshore, 2-layer Oysterbreak™ breakwater (Alternative 6). The design was refined and design plans for review were developed (Appendix D). The design includes 2 offshore breakwaters (63 ft wide by 300 ft long) with a gap space of 145 ft. The costs for Alternative 6 were revisited and quantities were adjusted based on the refined design. The updated estimate of probable construction cost is \$2,600,554, not including engineering services during construction. The project includes the construction and installation of approximately 3,538 Oysterbreak™ units at an estimated cost of \$325 per unit for the manufacturing and \$105 per unit for transportation and installation.

A detailed monitoring plan (Appendix B) has been developed to quantify the effectiveness of the proposed alternative's ability to prevent shoreline retreat and wetland loss. The objectives of the monitoring plan are to quantify the shoreline response, structural survival, and oyster growth associated with the Oysterbreak™ system over a 4-year period. Annual monitoring reports will be produced summarizing the results of the monitoring efforts and comparing the results to the control site conditions. The total estimated cost for the monitoring program is \$307,000 over four years.

MODIFICATIONS TO APPROVED PHASE 0 PROJECT

As a result of Phase 1 analysis and design, the approved Phase 0 project has undergone modifications. The approved Phase 0 project length was a continuous structure, approximately 1,000 feet long. In Phase 1, Coast and Harbor Engineering Inc (CHE) conducted an extensive preliminary engineering study, which included modeling of various alternative designs. Based on this analysis, CHE recommended the preferred alternative presented in Appendix D. The preferred alternative consists of two 300 x 63 ft structures with a 145 ft gap between the two structures.

Due to rising construction costs as well as logistical access and construction site conditions, the construction estimate for the preferred alternative is approximately \$ 2.6 M, which is approximately \$1.3 M over the current Phase 2 budget of \$ 1.3 M.

LAND OWNERSHIP INVESTIGATION

The Bioengineered Oyster Reef Demonstration Project is being constructed in the same project water depths as the Rockefeller Shoreline Protection Demonstration CIAP Project that is currently under construction. Both projects will be constructed in the Gulf of Mexico in approximately 3 ft of water, adjacent to the Rockefeller Wildlife Refuge. This location is in state water bottoms. The Office of State Lands does not have any objection to the Rockefeller Shoreline Protection Demonstration CIAP Project and is expected not to have any objection to the Bioengineered Oyster Reef Demonstration Project. However, a Grant of Particular Use will need to be signed by the Office of State Lands for this project along with an official request for same. Because the Bioengineered Oyster Reef Demonstration Project is adjacent to and is protecting the Rockefeller Wildlife Refuge, an agreement will be signed with the State Department of Wildlife and Fisheries, which has provided their support and interest to this project and as well as the Rockefeller Shoreline Protection Demonstration CIAP project.

PRELIMINARY CULTURAL RESOURCES ASSESSMENT INVESTIGATION

The Bioengineered Oyster Reef Demonstration Project is being constructed in the same project water depths as the Rockefeller Shoreline Protection Demonstration CIAP Project that is currently under construction. Both projects will be constructed in the Gulf of Mexico in approximately 3 ft of water, adjacent to the Rockefeller Wildlife Refuge. An environmental assessment (EA) was completed for the Rockefeller Refuge Gulf Shoreline Stabilization Project (ME-18) sponsored by the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA). The project boundary for ME-18 encompasses a 9.2-mile reach of Gulf shoreline that includes the project areas for both the Rockefeller CIAP project and LA-08. The EA identified archeological features within the Rockefeller Refuge, however none were identified within the project boundaries. As such, it was determined that no impacts are anticipated to historical or archeological resources within the project area.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

**SUBMITTAL OF FINAL DESIGN REPORT AND REQUEST FOR
CONSTRUCTION APPROVAL FOR THE PPL 17 SEDIMENT CONTAINMENT
DEMONSTRATION PROJECT (LA-09)**

For Decision:

The NRCS and OCPR are requesting construction approval. The Sediment Containment Demonstration project (LA-09) was approved on the PPL 17 to implement a demonstration project using the Net Gains, LLC product as an alternative means to contain dredge sediment and as a passive sediment trapping system. Mr. Ron Boustany will provide a presentation on the LA-09 project. The Technical Committee will consider and vote to make a recommendation to the Task Force on the request for construction approval to the LA-09 project.

United States Department of Agriculture



Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

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

September 14, 2009

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

Dear Mr. Holden:

RE: Sediment Containment Demonstration Project (LA-09)
Construction Approval Request

By this letter, the Natural Resources Conservation Service and the Louisiana Office of Coastal Restoration and Protection request Construction Approval of the Sediment Containment Demonstration Project (LA-09).

The information required by Section 6.i. of Revision 16.0 of the CWPPRA Standard Operating Procedures is attached.

If you or any members of the Planning and Evaluation Subcommittee, Technical Committee, or Task Force have any questions regarding this matter, please call Quin Kinler (225) 382-2047.

Sincerely,

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

William B. Paul
Assistant State Conservationist/Water Resources

Attachment

cc (via email only):

Kirk Rhinehart, OCPD Technical Committee Member
Darryl Clark, USFWS Technical Committee Member
Rick Hartman, NMFS Technical Committee Member
Brad Crawford, EPA, Acting Technical Committee / P&E Subcommittee Member
Melanie Goodman, P&E Subcommittee Chair
Kelly Templet, OCPD P&E Subcommittee Member
Kevin Roy, USFWS P&E Subcommittee Member
Rachel Sweeney, NMFS P&E Subcommittee Member
John Jurgensen, NRCS P&E Subcommittee Member
Garrett Graves, CPRA Chairman
Quin Kinler, Project Manager, NRCS
Brad Miller, Project Manager, OCPD
John Boatman, District Conservationist, NRCS
Mike Trusclair, District Conservationist, NRCA
Brad Sticker, Design Engineer, NRCS
Charles Slocum, Design Engineer, NRCS
Randolph Joseph, Jr., ASTC/FO, NRCS

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Information Required for Construction Request
Sediment Containment Demonstration Project (LA-09)

September 14, 2009

Description of the Project

The Sediment Containment Demonstration project (LA-09) was approved by the CWPPRA Task Force on February 13, 2008 on the 17th Year Priority Project List (PPL 17) and the USDA Natural Resources Conservation Service (NRCS) was authorized as the official sponsoring federal agency in partnership with the Louisiana Department of Natural Resources (LDNR) to engineer, design and build a demonstration of the Net Gains, LLC product as an alternative means to contain dredge sediment and as a passive sediment trapping system.

The Net Gains, LLC product is considered a new and innovative technology that can be used in conditions and circumstances that limit the use of traditional containment. The CWPPRA Engineering and Environmental work groups performed an extensive evaluation of the product and cited several key factors that make the product. The product may be used in areas where soils are of too poor quality to construct containment dikes, in areas considered too sensitive to allow access by heavy equipment to construct containment dikes, and/or in areas where obstructions such as oil and gas pipelines prevent construction of earthen containment. The Eng/Env WGs also determined that because the product does not require heavy equipment to install, it may be more cost effective than traditional containment dikes. The demonstration project will evaluate all of these potential benefits.

The Net Gains, LLC system is a newly patented technology (US 6,827,525 B2 – Dec. 7, 2004) that has yet to be suitably tested in coastal restoration. Because of the high cost of dredging, which often runs in millions of dollars, the use of untested technology is not feasible on a large scale because of the risk of failure and the cost involved. Therefore, a designated demonstration project was funded to specifically test the product and properly evaluate its use in coastal Louisiana.

NRCS currently is planning to test the product in two different configurations on two separate marsh creation projects that will employ the use of hydraulic dredging. A third test site may be included depending on availability of remaining funds and the opportunity to match the demonstration with a third dredge project.

1) South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41) - The first configuration will be a curvilinear containment stretched to connect two approximately parallel earthen containment dikes. This application would test the product's ability to contain material flow across an opening to confine the material within a designated area. This test is planned to take place within the CWPPRA South Shore of

the Pen Shoreline Protection and Marsh Creation Project (BA-41) in Jefferson Parish, Louisiana (**Figures 1, 2, 3**). NRCS has received approval from the landowners to nest the demonstration project within the earthen containment of the BA-41 project. Note that the demonstration project, if successful, will prevent dredge material from flowing to approximately 5 acres of the designated earthen containment area for the BA-41 project and therefore potentially reduce the marsh creation acres by as much as 5 acres.

2) Hanson Marsh Hydrologic Restoration Project – Terrebonne Parish, LA – Mandalay NWR - The second configuration will be circular dredge containment cell planned to take place within the Hanson Marsh HR Project in Terrebonne Parish, Louisiana – Mandalay NWR (**Figures 4, 5**). The construction of the Hanson Canal project is being funded by the North American Waterfowl Conservation Act (NAWCA) and the CWPPRA-funded demonstration component would test the product's ability to contain dredge material in a small cell approximately 2 acres in size.

Both of the LA-09 applications are add-ons to larger parent projects already scheduled for construction and dredge mobilization. The full projects have also completed all geotechnical analyses, land ownership investigations, cultural resource assessments, and any necessary environmental permits as detailed in the design reports for the parent projects. The addition of the LA-09 components to each parent project is currently undergoing consultation with the Corp of Engineers for necessary permit modifications.

The CWPPRA-funded LA-09 demonstration project will pay for the containment material, as well as its installation and removal (if necessary) in both projects. Because the LA-09 containment material will be placed within the confines of the BA-41 containment dikes, there is no additional cost for dredge material. Therefore, at the BA-41 site, the LA-09 cost will be limited only to the production/installation/removal of the Net Gains, LLC material. BA-41 construction is estimated to begin in February 2010.

At the Hanson Marsh HR Project site, LA-09 cost will include the cost of additional dredge material as well as the cost of the containment material production/installation/removal because the project will involve construction of an independent marsh creation cell outside of the original project containment. The Hanson Marsh HR Project absorb most of the mobilization costs and will engage a small (10-12") dredge. The project will be facilitated through modification of an existing contract. Construction is estimated to begin in November 2009.

3) Passive Sediment Trap - A third application of the Net Gains, LLC product will be tested (time and place yet to be determined) using the product as a passive sediment trap to increase efficiency of sediment retention for marsh creation. This application will simply require the placement of the material in an area where river-borne sediment-laden water is moving through an area to trap sediment and promote accretion. This application will determine if this technology effectively improves sediment trapping and accretion in areas where adequate sediment supplies are available yet mostly transient. The project will determine accretion and elevation change due to the application of the material. Site selection and construction time table is unknown at this time.

The passive sediment trapping demonstration is planned to be tested either in the direct outfall of a Mississippi River diversion or in the area of influence of the Atchafalaya River where total suspended solids concentrations are sufficient to potentially build land.

Figure 1 – Plan view map South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41).

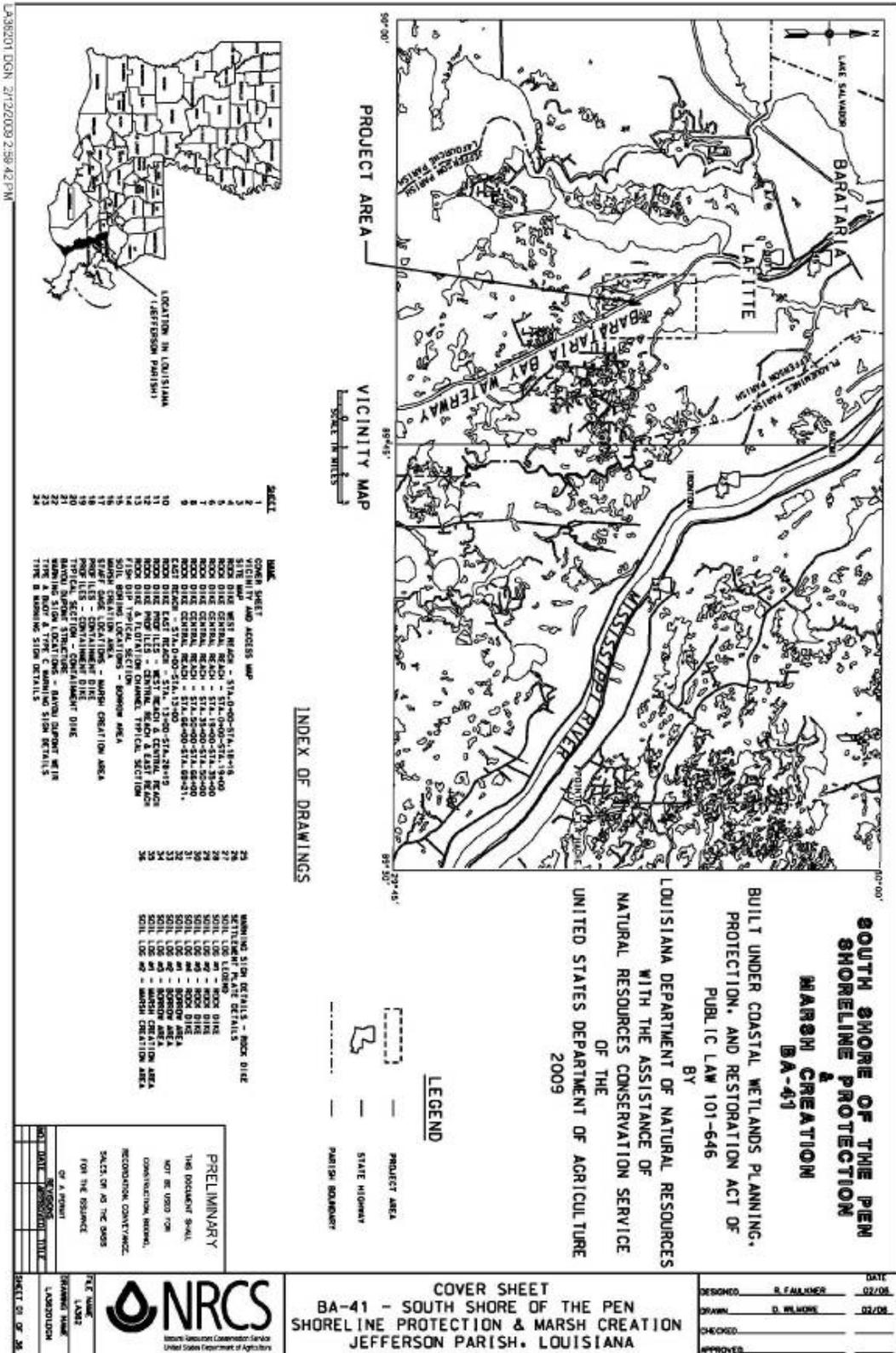


Figure 2. Vicinity and access map for South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41).

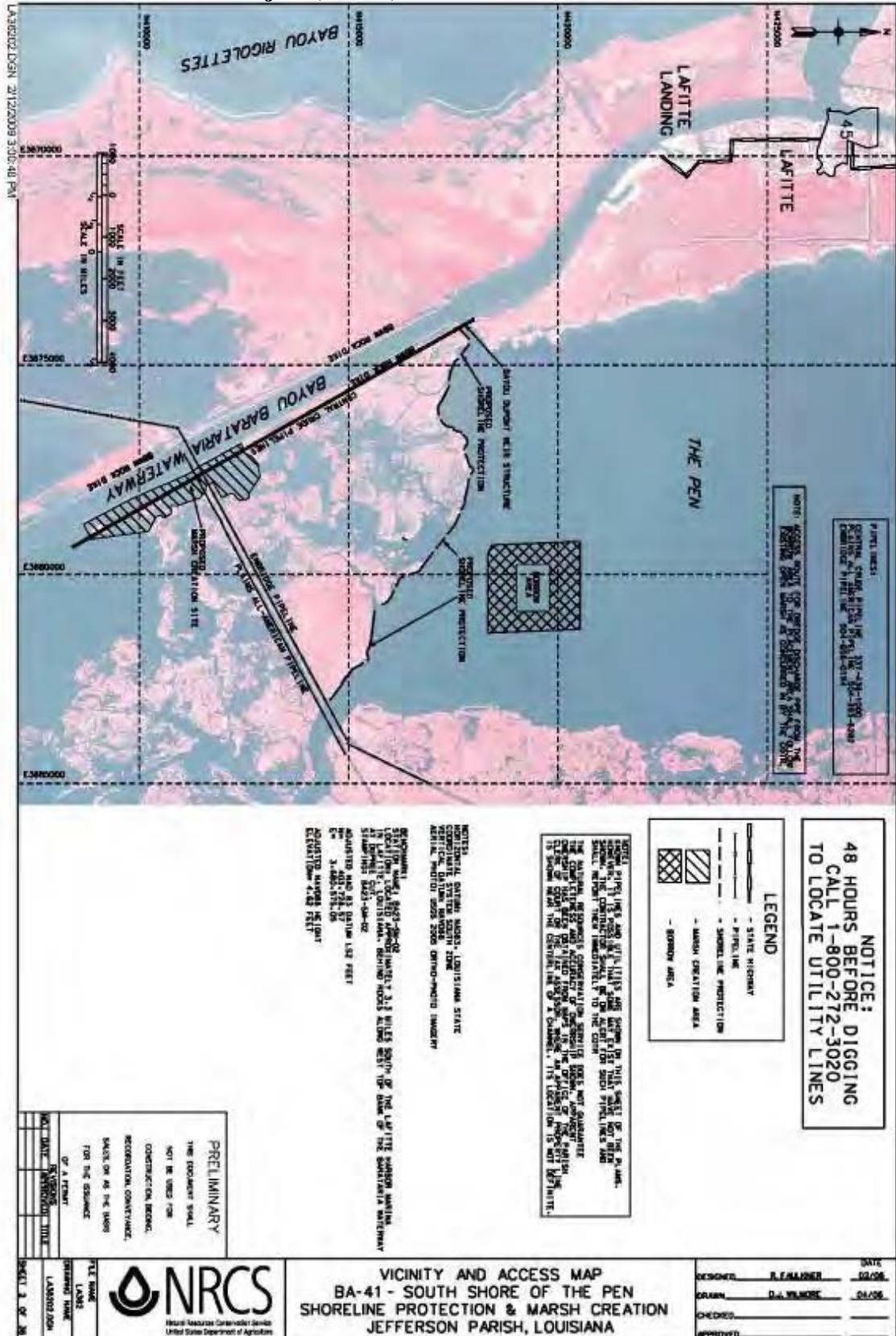


Figure 3. South Shore of the Pen Shoreline Protection and Marsh Creation (BA-41) with curvilinear containment (shown as a semi-circle dashed line on south end of the marsh creation cell).

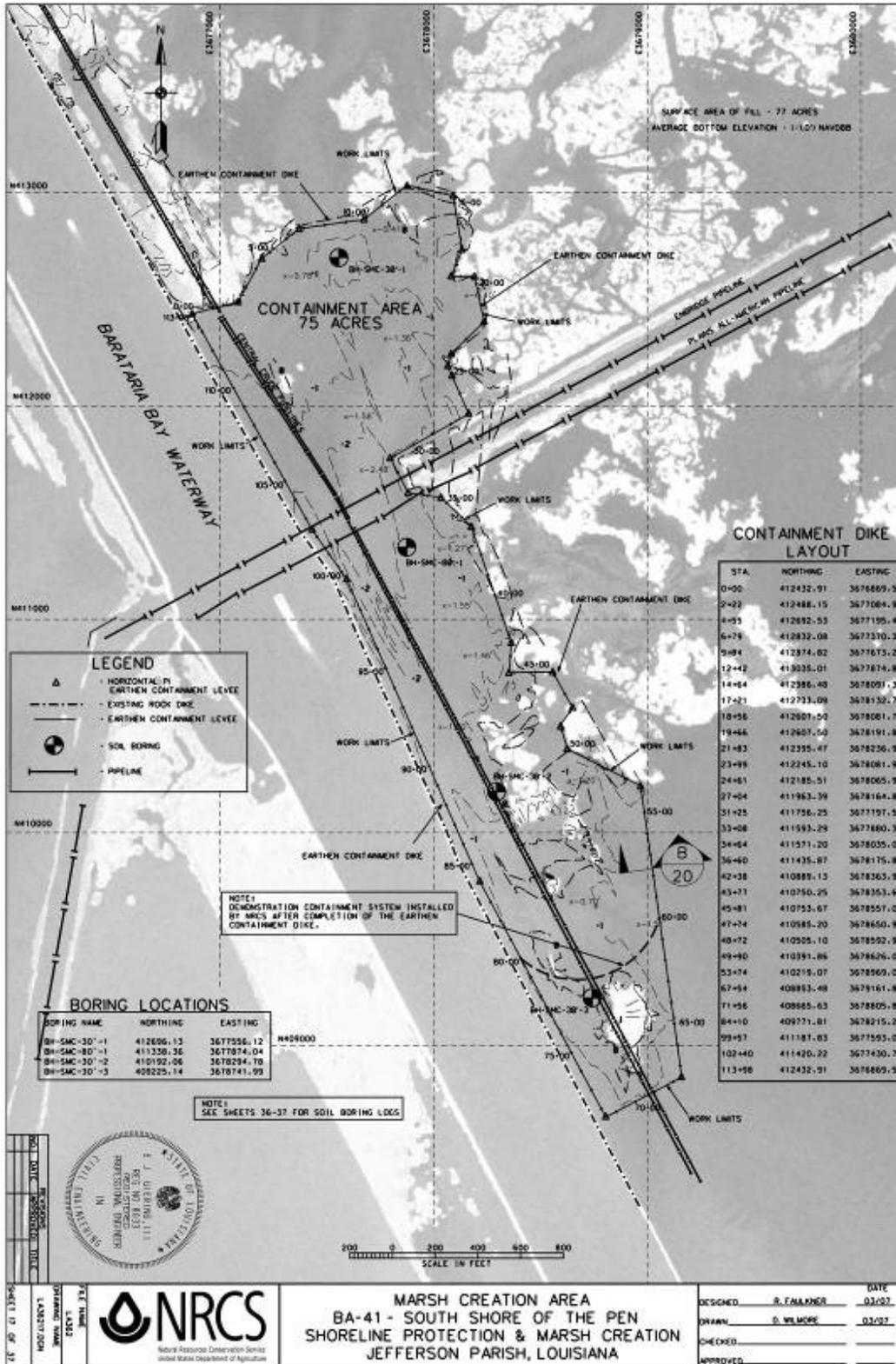


Figure 4. Plan view map of Hanson Marsh HR Project (Mandalay NWR).

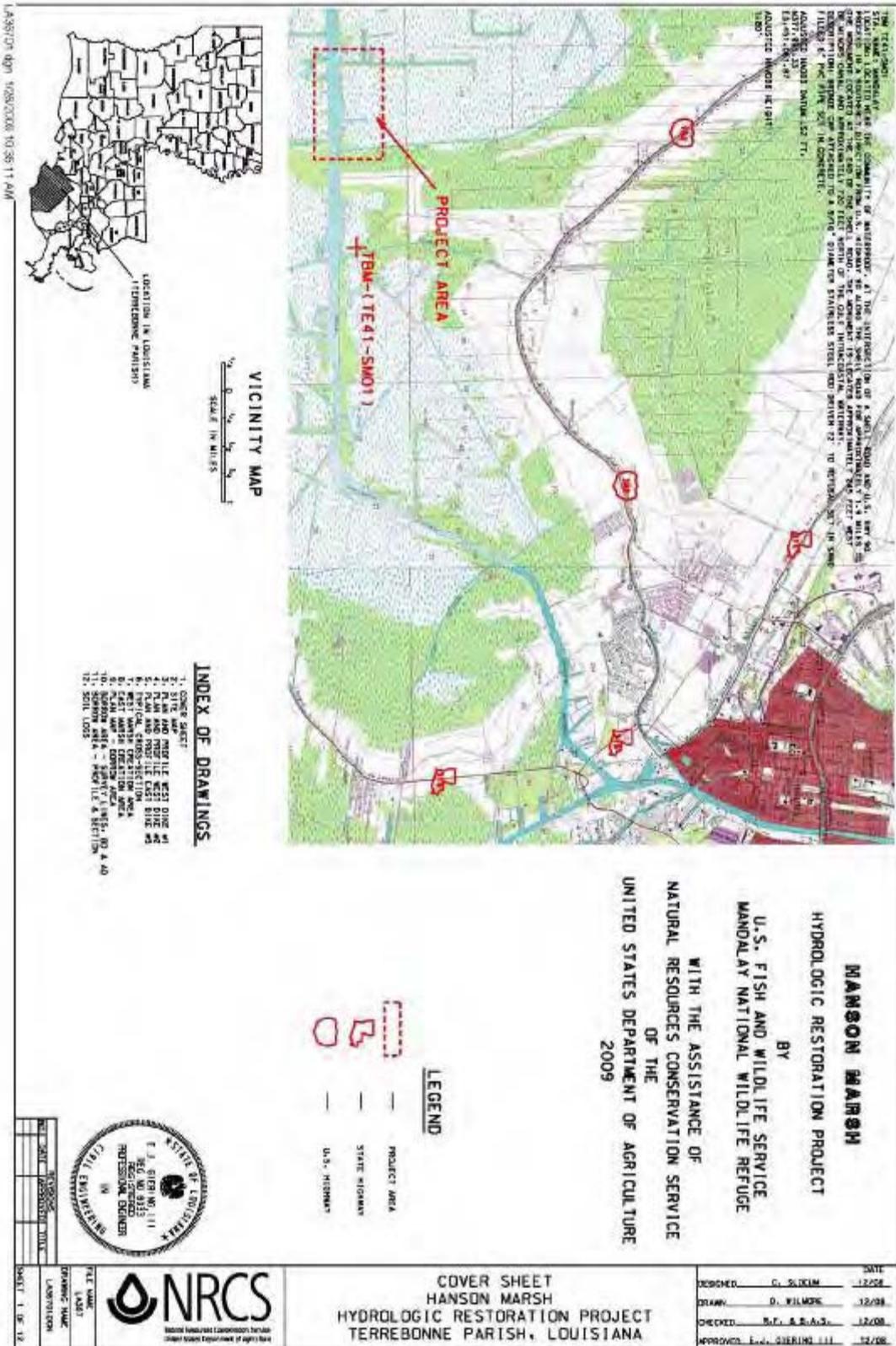


Figure 5. Site view map of Hanson Marsh HR Project borrow and marsh creation areas including the LA-09 Sediment Containment March Creation project cell.



Section 303(e) Certification from the Corps of Engineers

One site for the LA-09 project is within the CWPPRA BA-41 project site, and the BA-41 Section 303(e) Certification was granted by the Corps Real Estate Division on November 27, 2007.

A second site for the LA-09 project is within the Mandalay National Wildlife Refuge. A request for Section 303(e) Certification will be submitted to the Corps of Engineers in September. Because a previous CWPPRA project (LA-05) is also located on Mandalay NWR for which 303(e) Certification was completed, and because similar a landrights instrument will be used LA-09, there are no anticipated problems with the 303(e) Certification.

Overgrazing Determination

NRCS has determined that overgrazing is not, and is not anticipated to be, a problem in the project area.

Fully Funded Cost Estimate

The fully funded cost estimate of \$1,163,343 has not changed since Task Force approval.

Wetland Value Assessment

As a demonstration project, a Wetland Value Assessment is not required.

Cost Share Agreement

A cost share agreement was executed January 28, 2008.

HTRW Assessment

NRCS procedures do not call for an HTRW assessment on this project.

Creel, Travis J MVN

From: Goodman, Melanie L MVN
Sent: Wednesday, September 23, 2009 12:44 PM
To: Creel, Travis J MVN
Subject: FW: CWPPRA Sediment Containment Demonstration Project Request for Construction Approval

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

From: Jurgensen, John - Alexandria, LA [mailto:john.jurgensen@la.usda.gov]
Sent: Tuesday, September 22, 2009 10:55 AM
To: Goodman, Melanie L MVN
Cc: Creel, Travis J MVN; Browning, Gay B MVN; Holden, Thomas A MVN; Paul, Britt - Alexandria, LA; Broussard, Loland - Lafayette, LA; Kinler, Quin - Baton Rouge, LA; Holden, Thomas A MVN; Podany, Thomas J MVN; Gunter, Jackie P MVN; Burdine, Carol S MVN; Hawkins, Gary L MVN; Constance, Troy G MVN; Boustany, Ron - Lafayette, LA
Subject: RE: CWPPRA Sediment Containment Demonstration Project Request for Construction Approval

Melanie,

Please see below for our responses to your comments:

1. I don't have a record that a design review was held. Please provide information to demonstrate that a design review report was prepared and design review conference was held (see CWPPRA SOP Appendix E, Section VI). NRCS conducted a Preliminary Design Review via email to all appropriate participants. A preliminary Design Report was sent to P&E, Engineering and Environmental Work group members for review. Responses to this review were received and all comments addressed in a Final Design Report. The Final Design Report was submitted via email to Melanie Goodman, USACE, on September 10, 2009. (see attached copy)
2. Acquire a Section 303(e) Certification, or waiver thereof, from the Corps of Engineers (CWPPRA SOP Section 6i.(2)). One site for the LA-09 project is within the CWPPRA BA-41 project site, and the BA-41 Section 303(e) Certification was granted by the Corps Real Estate Division on November 27, 2007. A second site for the LA-09 project is within the Mandalay National Wildlife Refuge. A request for Section 303(e) Certification will be submitted to the Corps of Engineers in September, once NRCS receives the draft Special Use Permit from Mandalay NWR. Because a previous CWPPRA project (LA-05) is also located on Mandalay NWR for which 303(e) Certification was completed, and because a similar landrights instrument will be used for LA-09, there are no anticipated problems with the 303(e) Certification.
4. Provide a statement that a draft Environmental Assessment has been completed (CWPPRA SOP Section 6i.(6)(a)). The demonstration project is nested within two larger projects one of which is a CWPPRA project, BA-41 (S.Shore of the Pen MC/SP), and one of which is a NAWCA project (Hanson Marsh Hydrologic Restoration Project) which is a project being facilitated by U.S. Fish and Wildlife Service. NRCS has determined that the NEPA compliance for each of the larger host projects sufficiently covers the LA-09 project. BA-41 has an Environmental Assessment that was completed in April 2008. The 404 permit approval process for the Hanson project includes a NEPA compliance review.
5. Please clarify if NRCS has made a determination that there is no reason to believe that HTRW is a concern for the project and therefore an assessment is not required (reference CWPPRA SOP Section 6i.(6)(a))? If such a determination has not been made, then please clarify why "NRCS procedures do not call for an HTRW assessment on this project" and why these NRCS procedures would apply to CWPPRA Projects. We can only speculate that there may be specific laws that authorize NRCS to cooperate with private landowners that ordinarily exempt NRCS from CERCLA for typical NRCS projects outside of the CWPPRA Program. We would like to verify how these laws may be interpreted to be applied to and exempt CWPPRA Projects. NRCS determined that a Hazardous, Toxic and Radioactive Waste analysis (HTRW) was not required on either of the projects that this demonstration project

is nested within. It is our interpretation of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or Superfund, that the act requires any site identified as a hazardous waste site to be cleaned up in accordance with requirements specified within the act. There have been no sites identified within either project area, or in the proposed borrow area. It is the common practice of our agency to refer to the Resource Conservation and Recovery Act of 1976 to protect human health and environment from potential hazards of waste disposal and ensure waste is managed in an environmentally sound manner. In compliance with this act we use field determinations by a project team consisting of coastal specialists in engineering, biology, and natural resources management to identify any potential concerns with regards to environmental impacts, impacts to wildlife and fisheries, etc. As part of this site investigation we also determined whether there is reason to believe that a potential for exposure to hazardous materials occurs within the project area or borrow site. If the judgment of the project team is that the potential for a hazardous element is not present then the need for an HTRW is determined to be unnecessary, therefore that analysis is not done. In addition if any federal or state partner, regulatory agency, or the public raises a concern, then the area is investigated again. We have, on previous projects, decided to do an HTRW simply on the basis of a voiced public concern over a potential channel enlargement and the potential for any hazardous materials because of the close proximity to a major urban area. That analysis proved to be negative.

It is our interpretation that there must a reason to believe there is a potential for hazardous materials to be present before we are required to do an HTRW. We have also discussed this during our NEPA process with EPA, and have never received any comments to suggest that our interpretation is flawed. This has never been an issue in the 20 years of building CWPPRA Projects, therefore we do not believe it is an issue now. For future projects we can clarify the statement to remove "NRCS procedures do not call for an HTRW assessment", and replace with language such as "field investigations by NRCS personnel and project team have determined that an HTRW assessment is not required for this project."

Please let us know if you would like to discuss in further detail.

John Jurgensen, P.E.
Civil Engineer
Water Resources Office
USDA Natural Resources Conservation Service Louisiana
* Office: (318) 473-7694
* Fax: (318) 473-7747
* Email: john.jurgensen@la.usda.gov

From: Goodman, Melanie L MVN [mailto:Melanie.L.Goodman@usace.army.mil]
Sent: Friday, September 18, 2009 11:48 AM
To: Jurgensen, John - Alexandria, LA
Cc: Creel, Travis J MVN; Browning, Gay B MVN; Holden, Thomas A MVN; Paul, Britt - Alexandria, LA; Broussard, Loland - Lafayette, LA; Kinler, Quin - Baton Rouge, LA; Holden, Thomas A MVN; Podany, Thomas J MVN; Gunter, Jackie P MVN; Burdine, Carol S MVN; Hawkins, Gary L MVN; Constance, Troy G MVN
Subject: CWPPRA Sediment Containment Demonstration Project Request for Construction Approval

John, the CWPPRA SOP for Demonstration projects requires that Non-Cash Flow Procedures are followed. I suggest that the following things be completed before project construction approval is requested for the subject project in order to comply with the SOP:

1. I don't have a record that a design review was held. Please provide information to

demonstrate that a design review report was prepared and design review conference was held (see CWPPRA SOP Appendix E, Section VI).

2. Acquire a Section 303(e) Certification, or waiver thereof, from the Corps of Engineers (CWPPRA SOP Section 6i.(2)).

4. Provide a statement that a draft Environmental Assessment has been completed (CWPPRA SOP Section 6i.(6)(a)).

5. Please clarify if NRCS has made a determination that there is no reason to believe that HTRW is a concern for the project and therefore an assessment is not required (reference CWPPRA SOP Section 6i.(6)(a))? If such a determination has not been made, then please clarify why "NRCS procedures do not call for an HTRW assessment on this project" and why these NRCS procedures would apply to CWPPRA Projects. We can only speculate that there may be specific laws that authorize NRCS to cooperate with private landowners that ordinarily exempt NRCS from CERCLA for typical NRCS projects outside of the CWPPRA Program. We would like to verify how these laws may be interpreted to be applied to and exempt CWPPRA Projects.

Thanks,

Melanie Goodman
CWPPRA Program Manager
US Army Corps of Engineers
New Orleans District
Restoration Branch

Office: 504-862-1940
FAX: 504-862-1892

**Sediment Containment Demonstration Project
(LA-09)**

**17th Priority Project List
of the
Coastal Wetlands Planning, Protection and Restoration Act**



**Final Design Report
CWPPRA Demonstration Project**

September 15, 2009

Prepared by

Natural Resources Conservation Service

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

Sediment Containment Demonstration Project (LA-09) Final Design Report

The Sediment Containment Demonstration project (LA-09) was approved by the CWPPRA Task Force on February 13, 2008 on the 17th Year Priority Project List (PPL 17) and the USDA Natural Resources Conservation Service (NRCS) was authorized as the official sponsoring federal agency in partnership with the Louisiana Department of Natural Resources (LDNR) to engineer, design and build a demonstration of the Net Gains, LLC product as an alternative means to contain dredge sediment and as a passive sediment trapping system.

The Net Gains product is considered a new and innovative technology that can be used in conditions and circumstances that limit the use of traditional containment. The CWPPRA Engineering and Environmental work groups performed an extensive evaluation of the product and cited several key factors that make the product unique (see attached Evaluation Fact Sheet). The product may be used in areas where soils are of too poor quality to construct containment dikes, in areas considered too sensitive to allow access by heavy equipment to construct containment dikes, and/or in areas where obstructions such as oil and gas pipelines prevent construction of earthen containment. The Eng/Env WGs also determined that because the product does not require heavy equipment to install, it may be more cost/effective than traditional containment dikes. The demonstration project will evaluate all of these potential benefits.

The Net Gains, LLC system is a newly patented technology (US 6,827,525 B2 – Dec. 7, 2004) that has yet to be suitably tested in coastal restoration. Because of the high cost of dredging, which often runs in millions of dollars, the use of untested technology is not feasible on a large scale because of the risk of failure and the cost involved. Therefore, a designated demonstration project was funded to specifically test the product and properly evaluate its use in coastal Louisiana.

NRCS currently is planning to test the product in two different configurations on two separate marsh creation projects that will employ the use of hydraulic dredging. A third test site may be included depending on availability of remaining funds and the opportunity to match the demonstration with a third dredge project.

1) South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41) - The first configuration will be a curvilinear containment stretched to connect two approximately parallel earthen containment dikes. This application would test the product's ability to contain material flow across an opening to confine the material within a designated area. This test is planned to take place within the CWPPRA South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41) in Jefferson Parish, Louisiana (**Figures 1, 2, 3**). NRCS has received approval from the landowners to nest the demonstration project within the earthen containment of the BA-41 project. Note that the demonstration project, if successful, will prevent dredge material from flowing to approximately 5 acres of the designated earthen containment area for the BA-41 project and therefore potentially reduce the marsh creation acres by as much as 5 acres.

2) Hanson Marsh Hydrologic Restoration Project – Terrebonne Parish, LA – Mandalay NWR - The second configuration will be circular dredge containment cell planned to take place within the Hanson Marsh HR project in Terrebonne Parish, Louisiana – Mandalay NWR (**Figures 4, 5**). The construction of the Hanson Canal project is being funded by the North American Waterfowl Conservation Act (NAWCA) and the CWPPRA-funded demonstration component would test the product's ability to contain dredge material in a small cell approximately 2 acres in size.

Both of the LA-09 applications are add-ons to larger parent projects already scheduled for construction and dredge mobilization. The full projects have also completed all geotechnical analyses, land ownership investigations, cultural resource assessments, and any necessary environmental permits as detailed in the design reports for the parent projects. The addition of the LA-09 components to each parent project is currently undergoing consultation with the Corp of Engineers for necessary permit modifications.

The CWPPRA-funded LA-09 demonstration project will pay for the containment material, as well as its installation and removal (if necessary) in both projects. Because the LA-09 containment material will be placed within the confines of the BA-41 containment dikes, there is no additional cost for dredge material. Therefore, at the BA-41 site, the LA-09 cost (Figure 6) will be limited only to the production/installation/removal of the Net Gains, LLC material. BA-41 construction is estimated to begin in February 2010.

At the Hanson Marsh Hydrologic Restoration Project marsh creation site, LA-09 cost (Figure 7) will include the cost of additional dredge material as well as the cost of the containment material production/installation/removal because the project will involve construction of an independent marsh creation cell outside of the original project containment. The Hanson Canal project absorb most of the mobilization costs and will engage a small (10-12") dredge. The project will be facilitated through modification of an existing contract. Construction is estimated to begin in November 2009.

3) Passive Sediment Trap - A third application of the Net Gains, LLC product will be tested (time and place yet to be determined) using the product as a passive sediment trap to increase efficiency of sediment retention for marsh creation. This application will simply require the placement of the material in an area where river-borne sediment-laden water is moving through an area to trap sediment and promote accretion. This application will determine if this technology effectively improves sediment trapping and accretion in areas where adequate sediment supplies are available yet mostly transient. The project will determine accretion and elevation change due to the application of the material. Site selection and construction time table is unknown at this time.

The passive sediment trapping demonstration is planned to be tested either in the direct outfall of a Mississippi River diversion or in the area of influence of the Atchafalaya River where total suspended solids concentrations are sufficient to potentially build land.

Figure 1 – Plan view map South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41).

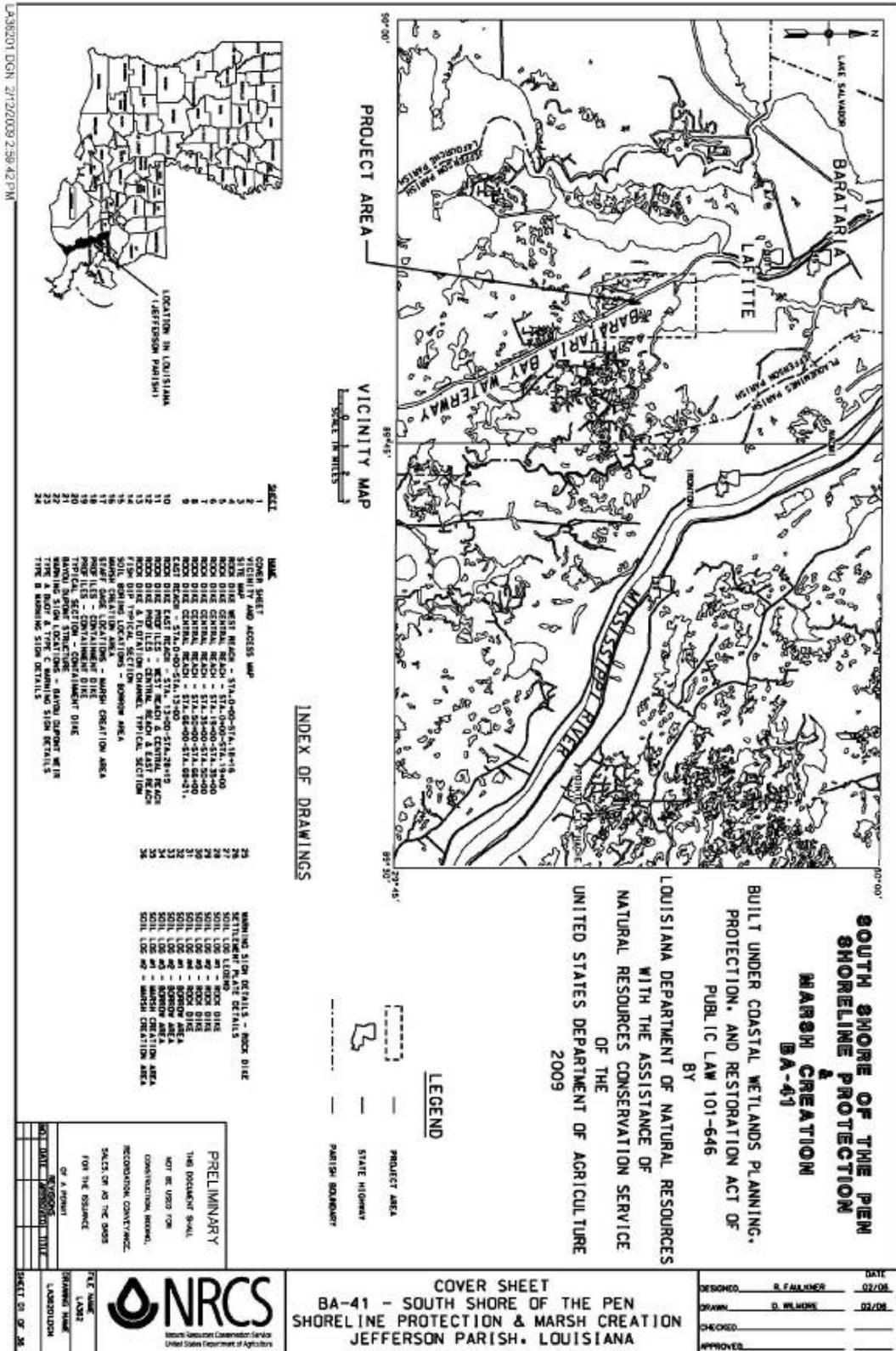


Figure 2. Vicinity and access map for South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41).

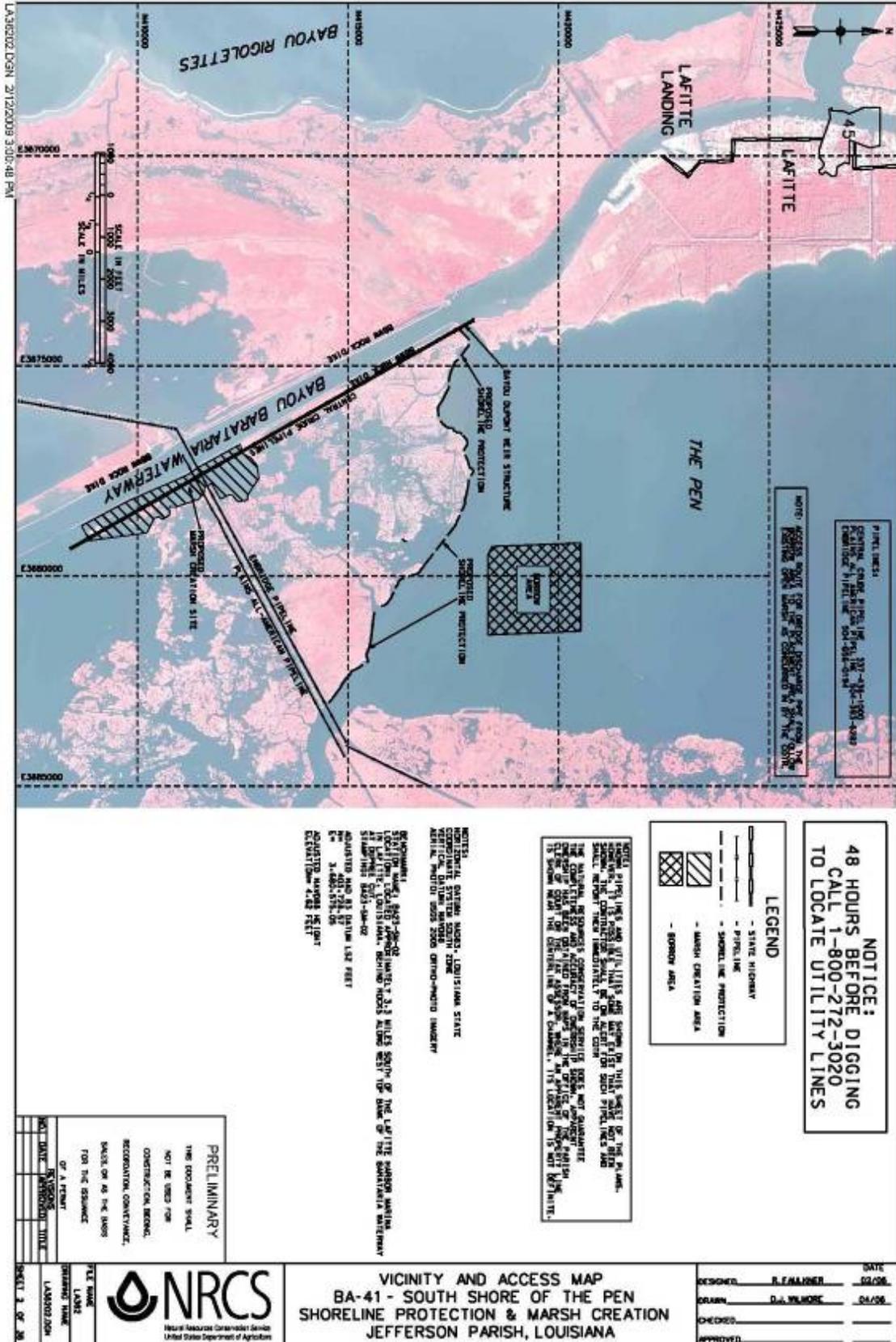


Figure 3. South Shore of the Pen Shoreline Protection and Marsh Creation (BA-41) with curvilinear containment (shown as a semi-circle dashed line on south end of the marsh creation cell).

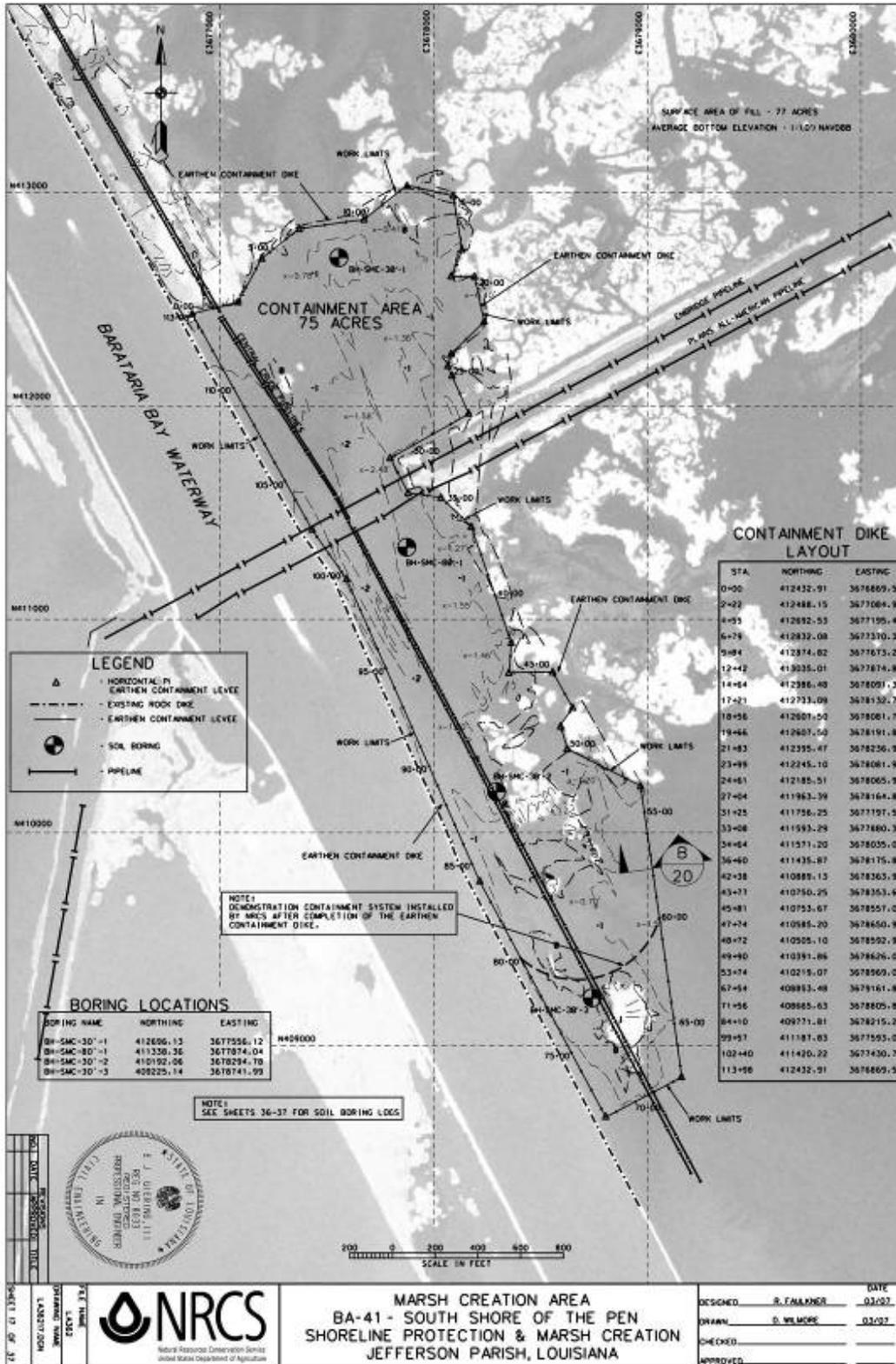


Figure 5. Site view map of Hanson Marsh Hydrologic Restoration Project borrow and marsh creation areas including the LA-09 Sediment Containment March Creation project cell.



Figure 6. LA-09 cost estimates for Hanson Marsh Hydrologic Restoration project marsh creation.

Project:	Sediment Containment System for Marsh Creation - Hanson Canal	Date:	17-Feb-07	Revised:	8-Jul-09
Computed by:	Ron Boustany	<i>Project Priority List 17</i>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$20,000.00	\$20,000
2	Containment System	1,000	LF	\$40.00	\$40,000
3	Removal of Containment System	1	Each	\$10,000.00	\$10,000
4	*Dredge Material (Marsh Creation)	9,680	CY	\$5.00	\$48,400

ESTIMATED CONSTRUCTION COST	<u>\$118,400</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>\$148,000</u>

* Based upon volume of material needed to fill 2 acres with 3 ft of material.

Figure 7. LA-09 cost estimates for South Shore of the Pen Shoreline Protection and Marsh Creation (BA-41) project.

Project:	Sediment Containment System for Marsh Creation - S Shore of Pen	Date:	17-Feb-07	Revised:	8-Jul-09
Computed by:	Ron Boustany	<i>Project Priority List 17</i>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$20,000.00	\$20,000
2	Containment System	1,000	LF	\$40.00	\$40,000
3	Removal of Containment System	1	Each	\$10,000.00	\$10,000

ESTIMATED CONSTRUCTION COST	<u>\$70,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>\$87,500</u>

Monitoring Plan

Dredged Sediment Containment Demonstration - The Dredged Sediment Containment portion of the LA-09 project will test a product designed to contain semi-fluid material transported through a hydraulic dredge for the purposes of marsh creation.

The product (Net Gains, LLC) will be tested as an alternative to traditional earthen containment. The project will test containment performance in two separate applications: 1) curvilinear containment stretched to connect two approximately parallel earthen containment dikes to test the product's ability to contain dredge material flowing across an opening of a partially confined area, and 2) a circular arrangement to test the product's ability to fully contain material within a confined cell. The demonstration project will evaluate the products ability to 1) horizontally contain the material and 2) vertically stack the material to the project's designed elevation.

Monitoring Elements - Because the demonstration project is an evaluation of product performance and is imbedded within larger parent projects, monitoring will be limited mainly to observations of the products ability to contain and stack material. Observations will be documented by photography during and immediately following construction. Follow-up documentation will depend on initial performance. If the product fails to contain material, no follow-up documentation will be necessary; however, if the material performs according to specifications, follow-up monitoring of material performance will continue on an annual basis for three years. Annual inspection will include observations on status of containment and elevation.

Construction performance evaluation will include documentation of dredge size, rate of flow of material across the barriers (i.e. weir structure), direction of flow in relation to containment, location of end of pipeline in relation to containment, product performance with respect to stretching, problems and adjustments, if any, necessary during dredging operation, material stacking capability, and overall cost-effectiveness of the product. In order to evaluate dredge pre-settlement and post-settlement elevations, the site will contain staff gauges within the marsh creation cell. These as well as the adjacent marsh creation cells (Hanson Marsh HR project) contained by earthen dikes will be compared for differences in containment and settlement.

A post construction performance report will be generated for each of the projects, detailing all information on specifications of dredging operation, project sites, and containment performance.

Passive Sediment Trapping Demonstration - Monitoring objectives and elements will be specified for the passive sediment trapping phase of the project when sites have been identified and the specifics of the project site and action are fully determined. NRCS is in the process of determining a location(s) for testing the utility of the product on sediment trapping. The site location will be in either the outfall of a Mississippi River

diversion or in an area of influence of the Atchafalaya River to insure adequate suspended sediments.

Upon site selection, the area will be surveyed to determine pre-treatment conditions including depth of water, marsh type, and general water quality conditions (i.e. TSS and salinity). The pre-treatment site conditions will be compared to post-treatment conditions over a period of three years to determine the effectiveness of sediment trapping. Surveys will be performed annually to measure effects. Observations on vegetation developments will be noted within the sediment trapping units and comparisons will be made to designated reference areas adjacent to the sediment trapping sites.

Project Completion

Because a portion of the containment system will be buried in soil, particularly in the dredge application, some of the material will remain on the project site following the use of the material. In the dredge containment application, the float material, which will be the only remaining emergent portion of the material, will be cut out and removed from the project site following dewatering of the material. The remaining buried material (containment silt curtain and bottom weight chain) will not be recovered unless the product fails during initial dredge application. The cost of removal has been placed into the project construction budget.

The passive sediment trap material will likewise be cut out; however the extent of removal of material will depend on the success of the project. If it is determined that the project is unsuccessful and the material fails to trap sediment, the entire containment system will be removed from the site depending on the extent of burial. At a minimum, the float material will be removed just as with the dredge containment application.

Once the project is complete, NRCS will prepare a full report for the Technical Committee. The report will describe the initial construction details, including actual costs and the current condition of all constructed features. The report will summarize the results and assess the success or failure of the project and its applicability to other similar sites. NRCS will prepare follow-up reports for the Technical Committee if and when additional information becomes available.

Design Review Conference Report LA-09 Sediment Containment Demonstration Project

NRCS executed a Design Review of the LA-09 Sediment Containment Demonstration project via email to the P&E Subcommittee and the Engineering and Environmental Working Groups. The review process was initiated on July 8, 2009, and comments were received on or before July 29, 2009. One additional set of comments received following the due date were also accepted. All comments were received via email and incorporated into the Final Design Report. The following includes agency comments and NRCS responses to comments in italics:

Overall plan, location, and cost for 1st 2 options look ok.

Couple extra comments if not too late:

1. 1st sentence in report - Proposed Project List (PPL 17) should be Priority Project List (PPL 17). *Revised as suggested*
2. paragraph 2, 2nd sentence - "Because the of" should be "Because of the" *Revised as suggested*
3. 1st page, last sentence - "levies" should be "levees" or "dikes" *Revised as suggested.*
4. On the BA-41 job, assuming the containment works as planned, what happens to the project area behind it that will not get any dredge material? *We placed a statement in the project description to note that this will be the case. Approximately 5 acres will be eliminated; the landowner has been informed and has approved.*
5. Cost for site 2 at Hanson Canal seems very reasonable - should you do a larger cell or several cells for repetition of results? *We chose to do a single cell at this site because we will have to cover the cost of the dredge material in this case and because we have other sites to complete the project, including passive sediment trapping, we are being cautious with the budget.*
6. Both estimates include cost for removal and write-up says "if necessary" on BA-41. Nothing is said about Hanson Canal site. *Included wording to clarify that buried material will not be removed.* May want to more clearly address final intention of containment system - is it intended to stay unless it fails or is intended to be removed regardless? *Clarified that if system fails, entire material will be removed; if successful, buried material will remain and top floats will be removed.* Can the whole thing reasonably be removed or only part? Does it have anchors that will be buried under several feet of dredge material? *Yes.*
6. Is the \$5/cy dredge cost for the Hanson Canal project the current dredge unit cost for that project? *Yes.*
7. Suggest your monitoring include good details of construction as built - like direction material flow coming from relative to containment, location of end of pipelines with respect to system, etc. *Added more detail describing monitoring; suggestion is included.*
8. Hanson misspelled on top of 2nd cost estimate. *Corrected*

Will await location and information on passive option portion.

Thanks,
John Petitbon
Cost Engineering Section
U.S.A.C.E., New Orleans District
john.b.petitbon@usace.army.mil
Work: (504) 862-2732
Fax: (504) 862-1356

Ron,

I know the time has passed where you were asking for comments on the draft preliminary design report for the Sediment Containment Demonstration Project, especially if construction is supposed to begin in October/November 2009 as stated in the design report, but I just had the opportunity to read the report for the first time today, and I thought I would send you my comments anyway just in case.

§ First of all, I think it's a great idea to test the product in three different projects, in three different uses (across an opening, in a confined cell, and as a passive sediment trap).

§ Overall, the design report gives a good, brief summary of what is planned for each of these three projects. However, I found all of the figures to have poor resolution, thus they were very difficult to read and interpret.

§ My only other comments are minor editorial comments: *All corrected as suggested.*

§ Page 1, Paragraph 1: comma missing between engineer and design

§ Page 1, Paragraph 2: Second sentence should read "Because of the..." In the draft I read, the and of were switched.

§ Page 1, final paragraph: levies should be spelled levees

§ Page 8, Paragraph 2: Third sentence should read "where adequate supplies of sediment..." In the draft I read, the of was missing.

Thank you for the opportunity to review and provide comments. Please let me know if you have any questions.

Summer Martin
Coastal Resources Scientist
Office of Coastal Protection and Restoration
Planning and Project Management Division
Planning Branch
Environmental Section
Ecological Review Unit

summer.martin@la.gov

Phone: (225) 342-1594; Fax: (225) 242-3337

Comments are imbedded in the attachment and are mostly typos, some of which were already caught by Petitbon. *Corrections made as suggested.*

My two cents on monitoring - Should the product fail, in either application, I think we need some type of short report to document the findings. It should be immediately apparent during construction whether or not it will work so I'm thinking a very short format with photos and a short explanation as to why the product failed (e.g., anchor system failed, fabric tore, material flowed under fabric). *This information will be provided in a post construction report.* Also, if it works, that should also be immediately apparent and continued monitoring on an annual basis may not be necessary. If it holds the material initially, then I'm not sure that we need to go back on an annual basis to inspect it. *We will probably continue to monitor the site just to determine longevity of material containment at the least and compare the marsh creation cells using different containment.* Perhaps just some surveys, site inspection, during the first year after construction as the material dewater/consolidates. *Agreed that not much more will be necessary than as suggested.*

(See attached file: LA-09 Preliminary Design Report roy comments.doc)

Kevin J. Roy
Senior Field Biologist
Ecological Services
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506
337-291-3120
337-291-3139 Fax

Sediment Containment Demonstration Project (LA-09)
EPA R6 Review of Preliminary Design Report

- 1.) In order to further highlight the innovativeness of this demonstration project, consider including discussion on the proposed Net Gains, LLC technology to be utilized, the benefits of the proposed technology and cost comparison on how this technology compares to typical construction. *This is the intent of the project and will be a part of the cost effectiveness review following the construction of the project.*
- 2.) The Preliminary Design Report does not detail engineering or geotechnical designs and surveys, land ownership investigation, or cultural resources evaluation as identified by the CWPPRA SOP as those items have been conducted as part of the larger parent projects that the demo projects will be add-ons to. Consider summarizing these elements

in the report since these are specific SOP criteria. *As stated in the report, because the project is imbedded in larger full scale dredge projects that have been fully developed and permitted, we did not have to include this detailed information to verify the suitability of the project site for construction as designed. By nesting in the larger projects we have been able to test this technology at a greatly reduced cost.*

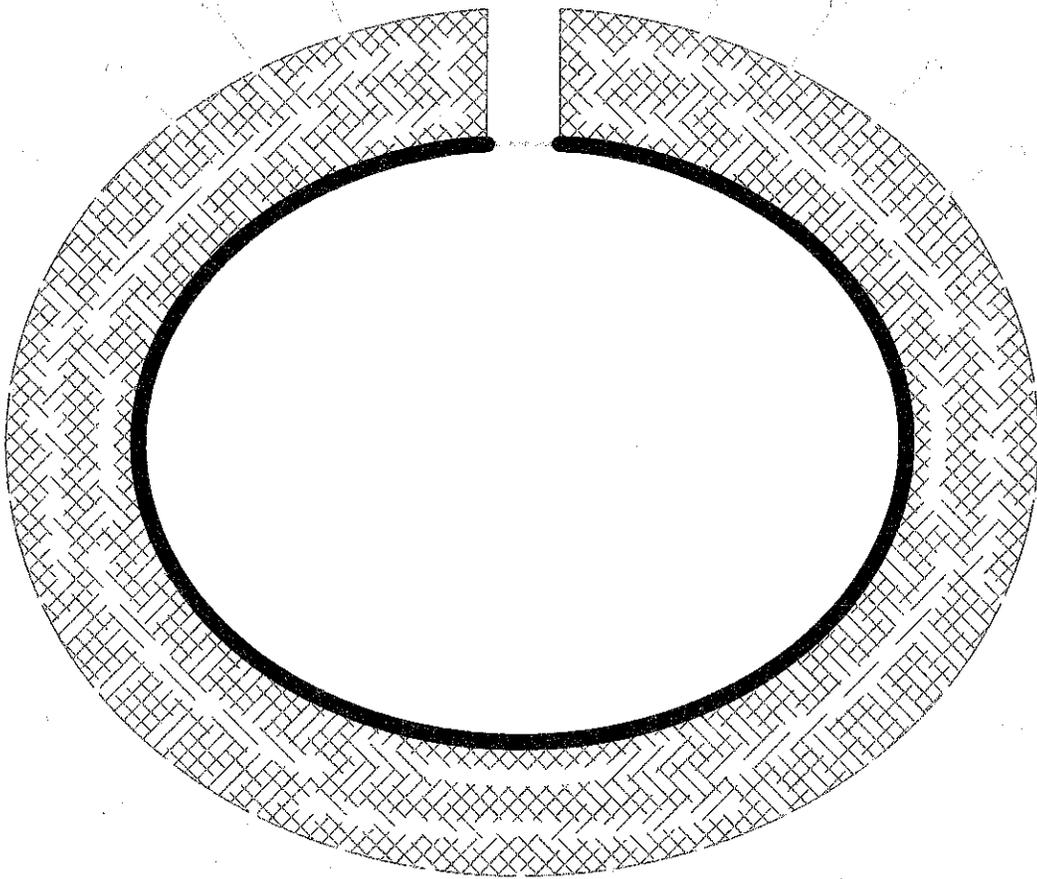
3.) The CWPPRA SOP calls for a detailed monitoring plan. The current monitoring identified is more qualitative in nature as information collected will be limited mainly to observations of the product's ability to contain and stack material. These observations will be documented through photography. Attempt to include additional physical monitoring by obtaining some basic survey information on the areas to be confined by the Net Gains technology for comparison to areas confined using earthen dike construction to establish a quantitative comparison of accretion rates between the two. For the monitoring measures that have been identified, provide more detail on how measurements will be taken along with how cost effectiveness is going to be measured. *We provided more detail as requested.* Finally, describe how the monitoring results will be reported. *We added a section on project completion that clarifies actions to complete the project and report findings.*

Prepared By: Paul Kaspar

Date Prepared: July 21, 2009

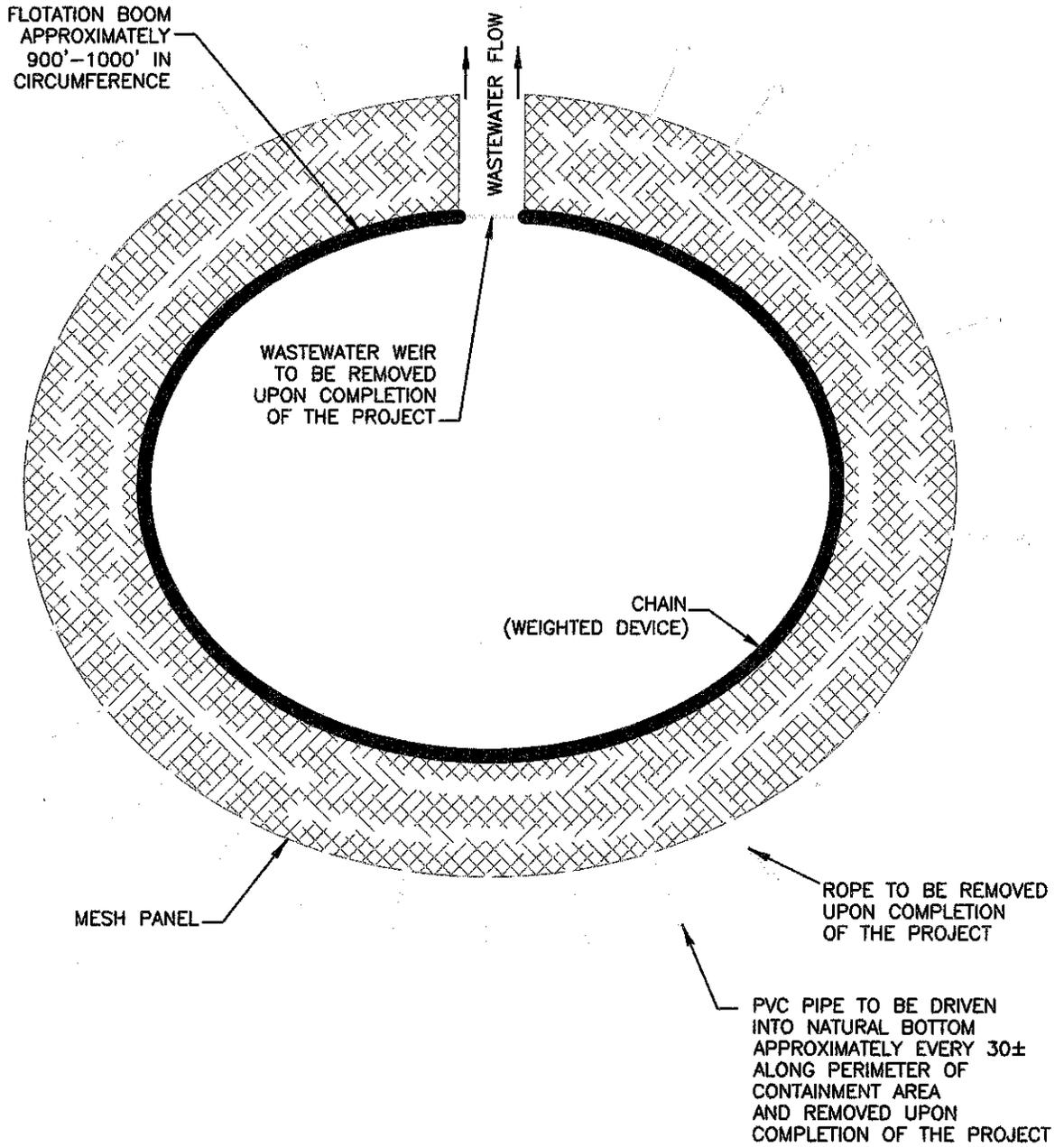
Attachment: Product Brochure with specific design information.

NET GAINS, LLC.

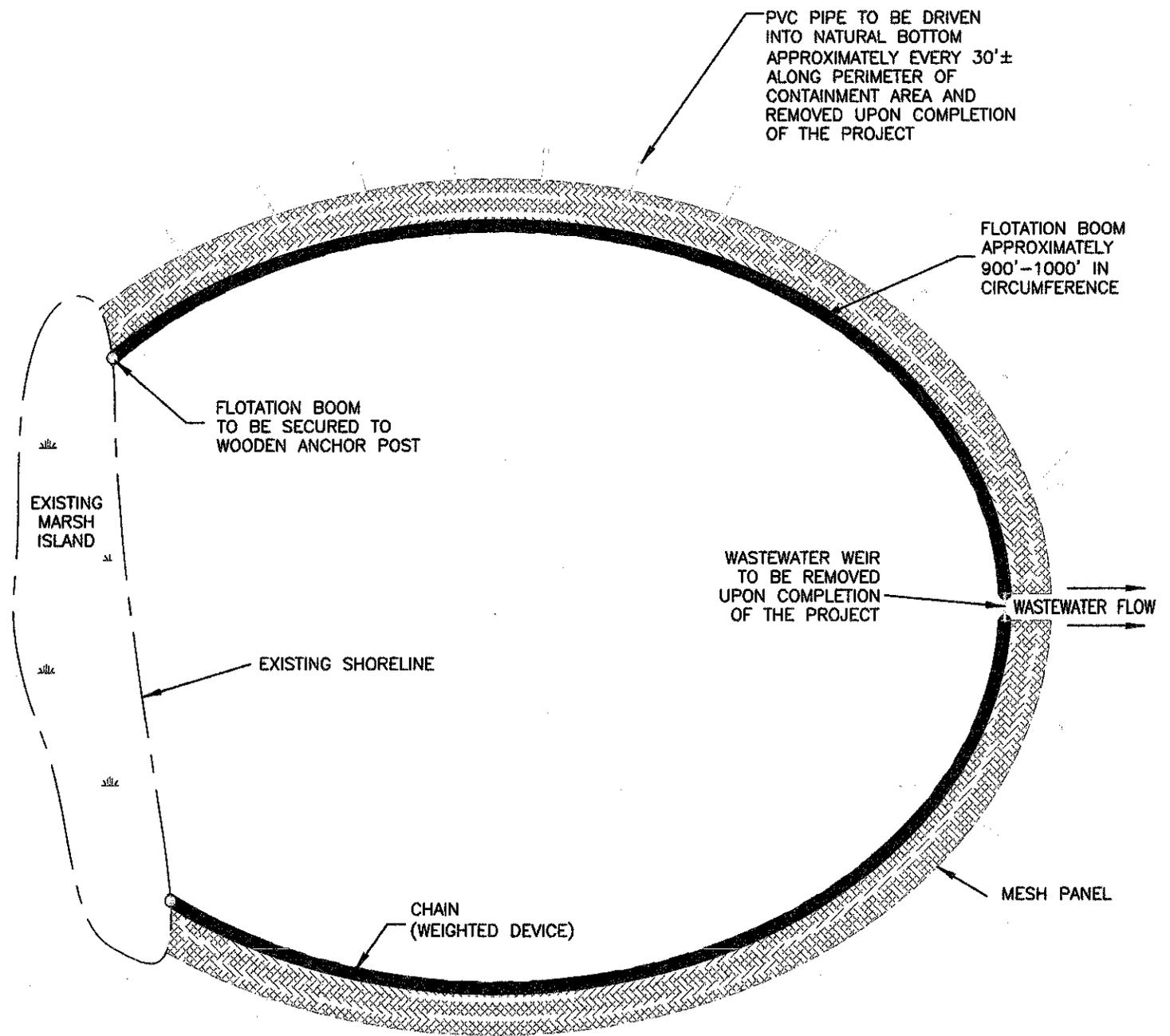


MISSISSIPPI MARSH CREATION PROJECT

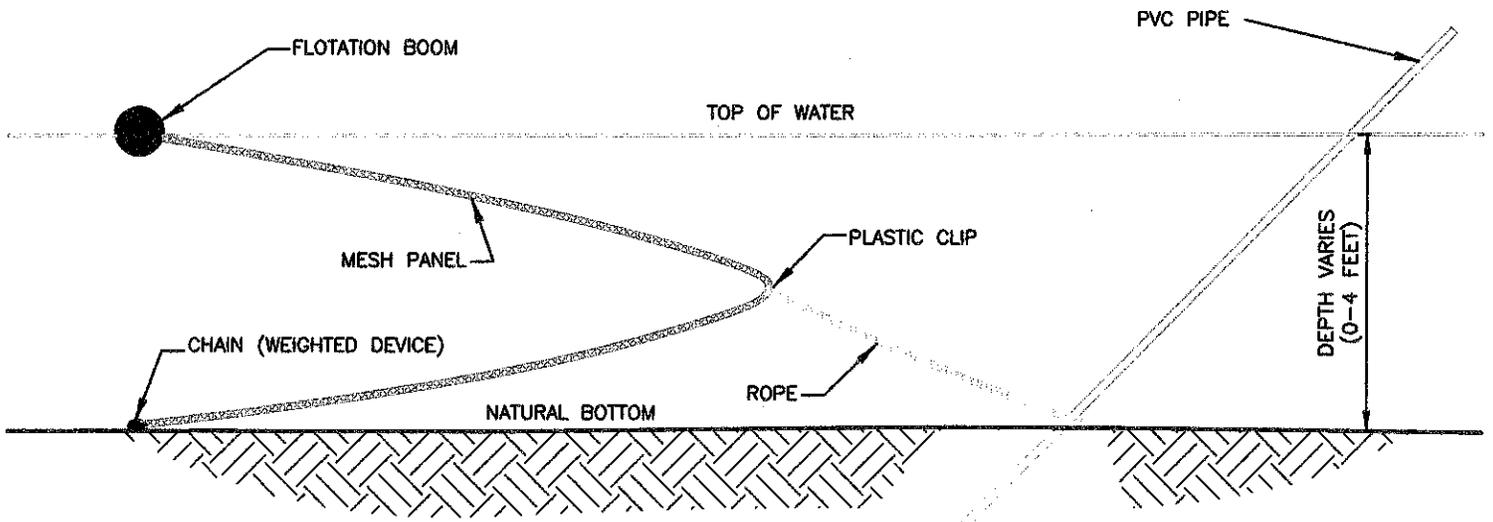
*RICKEY CHERAMIE
GOLDEN MEADOW, LA*



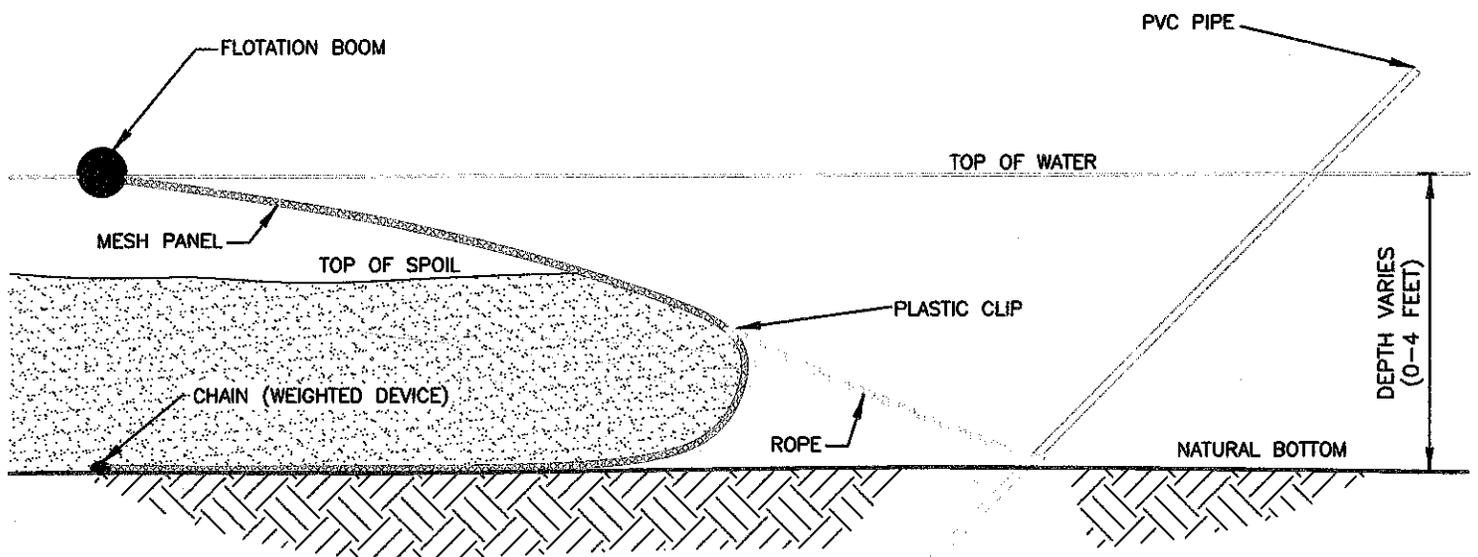
PLANVIEW—" TYPICAL PLANVIEW"



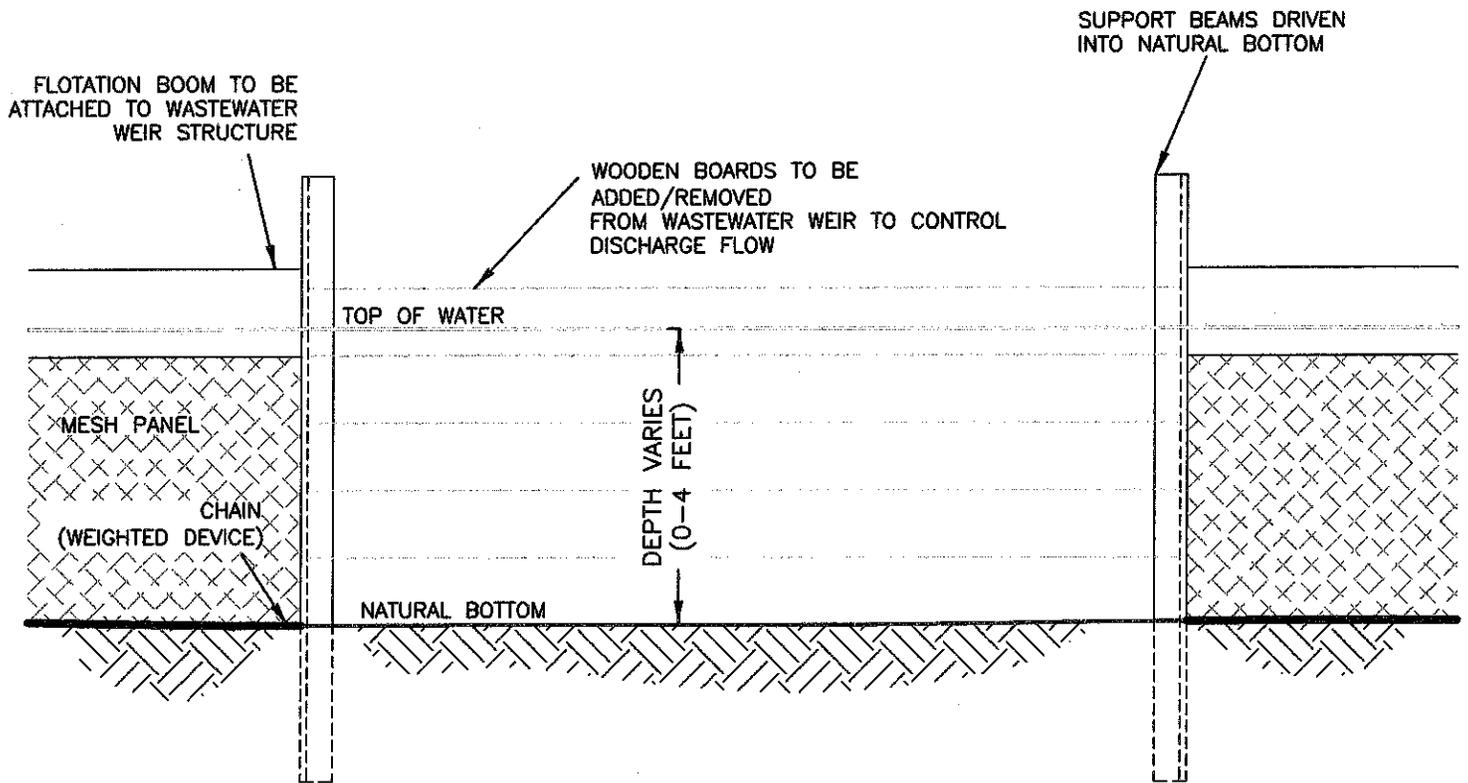
PLANVIEW—"SCENARIO-A"



TYPICAL CROSS-SECTION-"PRE-DREDGE"

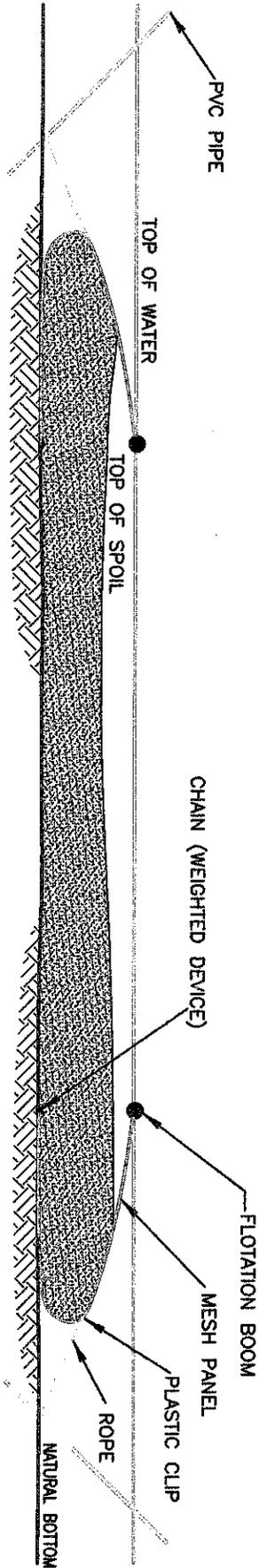


TYPICAL CROSS-SECTION—"DREDGE IN-PROGRESS"

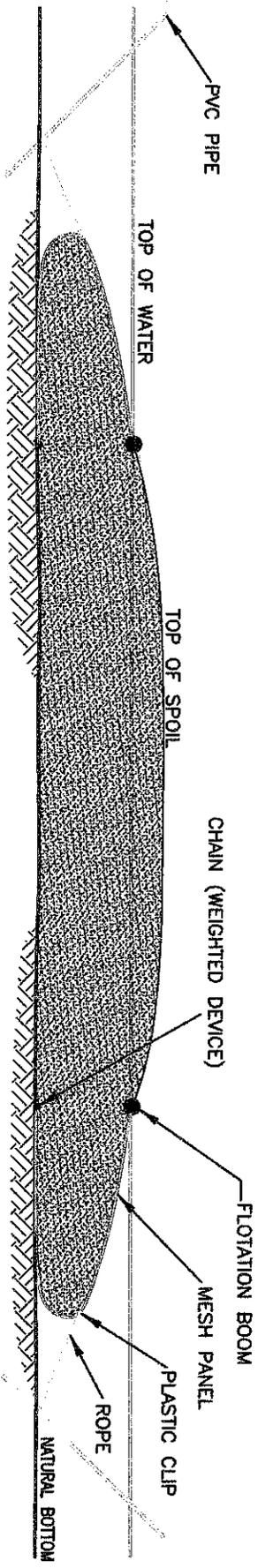


NOTE: BOARDS TO BE ADDED TO WEIR AS SEDIMENT/SPOIL INCREASES

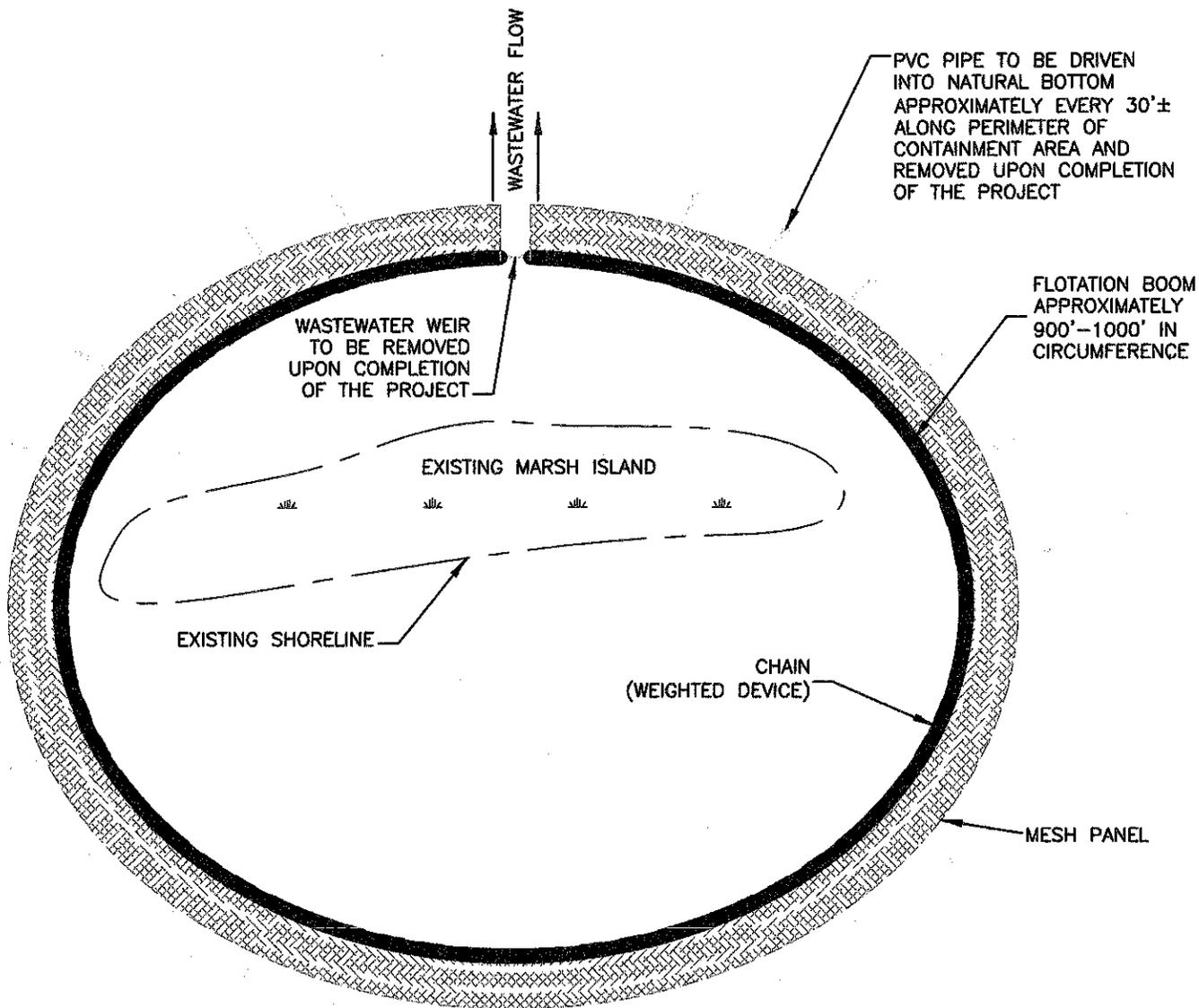
TYPICAL CROSS-SECTION—"WASTEWATER WEIR"



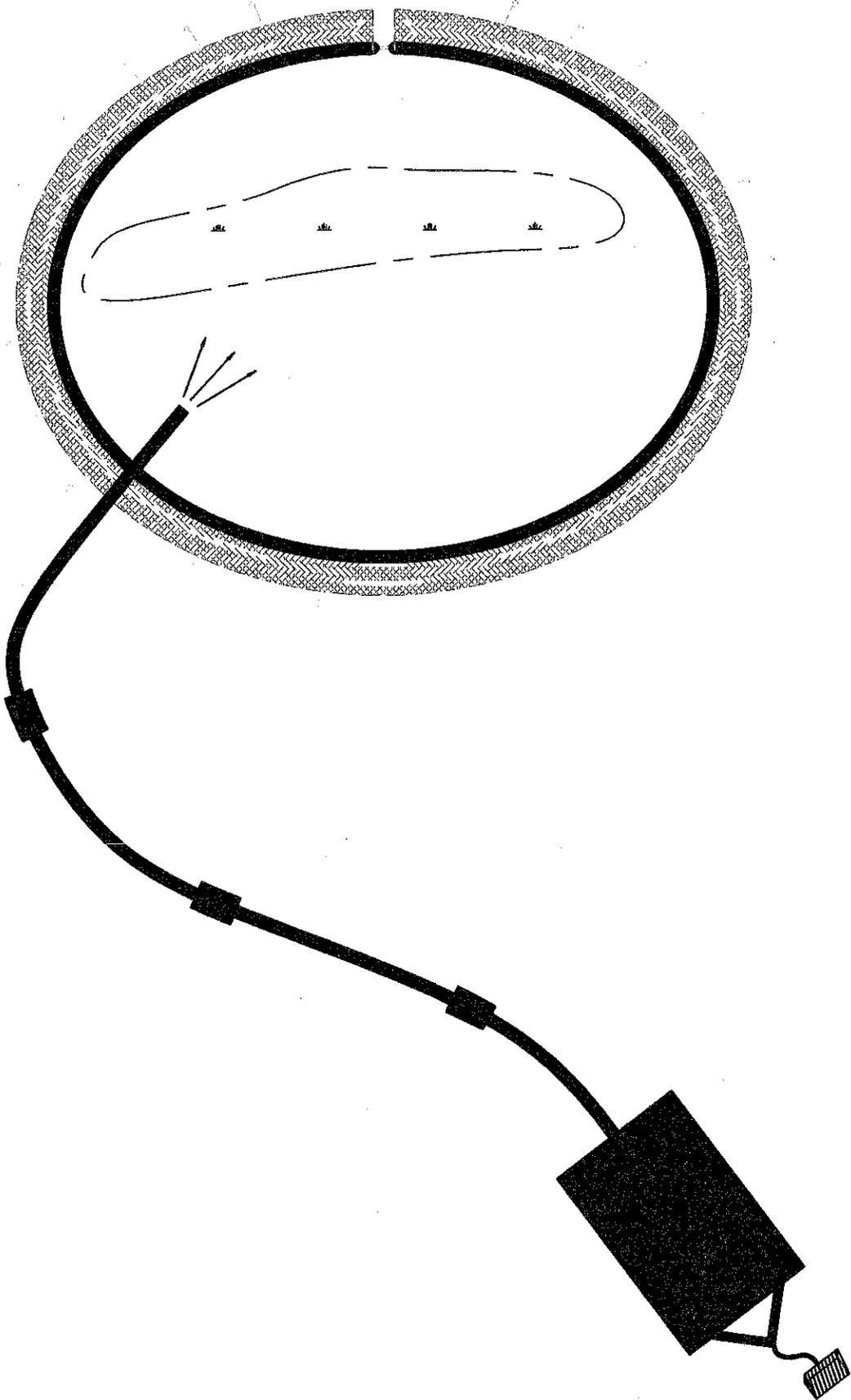
TYPICAL CROSS-SECTION-" DREDGE IN-PROGRESS"



TYPICAL CROSS-SECTION - "POST-DREDGE"



PLANVIEW—"SCENARIO-B"





COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

STATUS OF UNCONSTRUCTED PROJECTS

For Decision:

The Technical Committee will vote to make a recommendation to the Task Force for final deauthorization on the following projects:

- Mississippi River Sediment Trap (MR-12), PPL-12, USACE
The purpose of the project is to create a sediment trap in the bed of the Mississippi River by dredging an area that would force sediment deposition. The sediment deposited into the trap would then be mined to create marsh.
- Castille Pass Channel Sediment Delivery (AT-04), PPL-9, NMFS
The purpose of the project is to re-establish sedimentation processes that would promote sub-delta and marsh development in the area by dredging a system of distributary channels through Castille Pass.



REPLY TO
ATTENTION OF

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

FILE

SEP 8 2009

Planning, Programs, and Project
Management Division
Protection and Restoration
Office - Restoration Branch

Honorable David Vitter
United States Senate
858 Convention Street
Baton Rouge, Louisiana 70802

Dear Senator Vitter:

The Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) is initiating procedures to de-authorize the Mississippi River Sediment Trap Project (MR-12) because the cost to implement, operate and maintain the project is expected to be three times the currently approved project estimate and the Task Force agencies did not concur on the proposed location.

The purpose of this 12th Priority Project List project (Fact Sheet enclosed), located in the Mississippi River between Venice and Head of Passes in Plaquemines Parish, Louisiana, is to create a sediment trap in the bed of the Mississippi River by dredging an area that would force sediment deposition. The sediment deposited into the trap would then be mined to create marsh. The fully funded cost estimate for the project is \$52.2 million.

The Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee will vote at their September 29, 2009 public meeting in Baton Rouge, Louisiana on whether or not to recommend Task Force approval to de-authorize the project as described. The Task Force will consider the Technical Committee's recommendation and make a final decision in a public Task Force meeting in New Orleans on October 28, 2009.

The Task Force is soliciting comments regarding the proposed de-authorization of this project. Comments should be provided within 30 days of the date of this letter to the following address:

Colonel Alvin B. Lee
Department of the Army
New Orleans District, Corps of Engineers
Attention: PPPMD – Restoration Branch (PM-OR), Ms. Susan Hennington
Post Office Box 60267
New Orleans, Louisiana 70160-0267

If you have any questions regarding this action or the CWPPRA Program, please contact Ms. Melanie Goodman, CWPPRA Program Manager at (504) 862-1940.

Sincerely,



Alvin B. Lee
Colonel, US Army
District Commander

Enclosure

Copies Furnished with enclosure:

Mr. Garret Graves
Senior Advisor to the Governor for Coastal Activities
Governor's Office of Coastal Activities
Capitol Annex
1051 North Third Street, Suite 130
Baton Rouge, Louisiana 70802

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

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

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

Copies Furnished Continued:

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

Ms. Marnie Winter
Director
Parishes Against Coastal Erosion
Jefferson Parish Development of Environmental Affairs
1221 Elmwood Park Boulevard, Suite 703
Jefferson, Louisiana 70123

Honorable Mary L. Landrieu
United States Senate
Federal Courthouse
707 Florida Street, Room 326
Baton Rouge, Louisiana 70801

Honorable Charlie Melancon
House of Representatives
404 Cannon House Office Building
Washington, DC 20515

Honorable A.G. Crowe
Louisiana Senate
Post Office Box 94183
Baton Rouge, Louisiana 70804

Honorable Ernest D. Wooton
Representative in Congress
8018 Highway 23, Suite 214
Belle Chasse, Louisiana 70037

Mr. Kerry St. Pe
Barataria Terrebonne National Estuary Program
North Babington Hall
Nichols State University
320 Audubon Street
Thibodaux, Louisiana 70301

Copies Furnished Continued:

Honorable Billy Nungesser
President
Plaquemines Parish
8056 Highway 23, Suite 308
Belle Chasse, Louisiana 70037

Mr. P.J. Hahn
Plaquemines Parish Government
Director
Coastal Zone Management Department
8056 Highway 23, Suite 200
Belle Chasse, Louisiana 70037



Mississippi River Sediment Trap (MR-12)

Project Status

Approved Date: 2002 **Project Area:** 1,920 acres
Approved Funds: \$1.88 M **Total Est. Cost:** \$52.1 M
Net Benefit After 20 Years: 1,190 acres
Status: Engineering and Design
Project Type: Marsh Creation

Location

The sediment trap will be located in the Mississippi River between Venice and Head of Passes in Plaquemines Parish, Louisiana.

Problems

The wetlands in the Mississippi River delta are deteriorating from erosion, subsidence, and insufficient sediment input. More than 116,500 acres of marsh were lost in the area between 1932 and 1990.

Restoration Strategy

Since the 1930s, large areas of deltaic marshes have converted to open water throughout the Mississippi River delta. As a result, numerous shallow water sites located near the main river channel are available for marsh creation and restoration through dedicated dredging. The proximity of shallow bays to the Mississippi River deep draft navigation channel offers an excellent opportunity to coordinate annual channel maintenance operations with a large-scale restoration effort.

The U.S. Army Corps of Engineers dredges the Mississippi River navigation channel to a depth of 45 feet between the mouth of the river and Baton Rouge. Two studies have identified the potential for using material from an in-river sediment trap for use in delta marsh restoration.

A large pit is dug into the bottom of the river to create a sediment trap that captures material transported along the bottom of the river. The sediment deposited into the trap will then be mined with hydraulic dredges that will pump the material to beneficial use areas to create marsh. Hydrologic modeling suggests that a trap 4 miles long, 1,500 feet wide, and 65 feet deep would optimize the deposition of sediment.

Beneficial use sites for the project are on the east and west banks of the river in West Bay, the Delta National Wildlife Refuge, and Pass a Loutre Wildlife Management Area. Initial construction of the sediment trap will create an estimated 1,440 acres of new wetlands in the western project area and 440 acres in the eastern project area.

FILE



Large areas of marsh in the Mississippi River Delta have converted to shallow open water while much of what remains is deteriorated.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force directed the U.S. Army Corps of Engineers to conduct a complex investigation of the construction of a sediment trap in the Mississippi River between Venice and Head of Passes in 1999. The findings from this investigation led to the Task Force's approval of engineering and design for this project in August 2002.

The project work plan is under development.

This project is on Priority Project List 12.

For more project information, please contact:



**US Army Corps
of Engineers**
New Orleans District

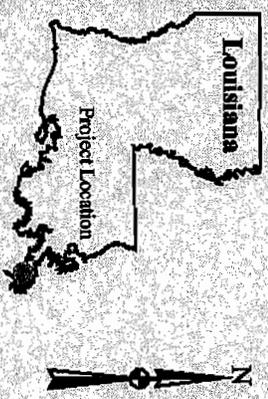
Federal Sponsor:
U.S. Army Corps of Engineers
New Orleans, LA
(504) 862-1597



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



Mississippi River Sediment Trap (MR-12)



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: December 22, 2003
 Map ID: USGS-NWRC 2003-11-221
 Data accurate as of: December 22, 2003



REPLY TO
ATTENTION OF

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

SEP 8 2009

Planning, Programs, and Project
Management Division
Protection and Restoration
Office - Restoration Branch

Honorable David Vitter
United States Senate
858 Convention Street
Baton Rouge, Louisiana 70802

Dear Senator Vitter:

The Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) is initiating procedures to de-authorize the Castille Pass Channel Sediment Delivery Project (AT-04) for multiple reasons, including: lack of availability and approval of construction funding; anticipated project-induced shoaling in the Atchafalaya River navigation channel; and unwillingness of the project sponsors to accept the special conditions of a Department of the Army permit that would be issued in accordance with Section 10 and 404 authorities and other applicable laws and regulations.

The purpose of this 9th Priority Project List project (Fact Sheet enclosed), located off East Pass in the Atchafalaya Delta in St. Mary Parish, Louisiana, is to re-establish sedimentation processes that would promote sub-delta and marsh development in the area by dredging a system of distributary channels through Castille Pass. The currently approved fully funded cost estimate for the project is \$31.2 million.

The Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee will vote at their September 29, 2009 public meeting in Baton Rouge, Louisiana on whether or not to recommend Task Force approval to de-authorize the project as described. The Task Force will consider the Technical Committee's recommendation and make a final decision in a public Task Force meeting in New Orleans on October 28, 2009.

The Task Force is soliciting comments regarding the proposed de-authorization of this project. Comments should be provided within 30 days of the date of this letter to the following address:

Colonel Alvin B. Lee
Department of the Army
New Orleans District, Corps of Engineers
Attention: PPPMD – Restoration Branch (PM-OR), Ms. Susan Hennington
Post Office Box 60267
New Orleans, Louisiana 70160-0267

If you have any questions regarding this action or the CWPPRA Program, please contact Ms. Melanie Goodman, CWPPRA Program Manager at (504) 862-1940.

Sincerely,



Alvin B. Lee
Colonel, US Army
District Commander

Enclosure

Copies Furnished with enclosure:

Mr. Garret Graves
Senior Advisor to the Governor for Coastal Activities
Governor's Office of Coastal Activities
Capitol Annex
1051 North Third Street, Suite 130
Baton Rouge, Louisiana 70802

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

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

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

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

Ms. Marnie Winter
Director
Jefferson Parish Department of Environmental Affairs
Parishes Against Coastal Erosion
1221 Elmwood Park Boulevard, Suite 703
Jefferson, Louisiana 70123

Honorable Mary L. Landrieu
United States Senate
Federal Courthouse
707 Florida Street, Room 326
Baton Rouge, Louisiana 70801

Honorable Charlie Melancon
House of Representatives
404 Cannon House Office Building
Washington, DC 20515

Honorable D. A. "Butch" Gautreaux
Louisiana Senate
P.O. Box 94183
Baton Rouge, Louisiana 70804

Honorable Sam Jones
Representative in Congress
St. Mary Parish Courthouse
Room 304
Franklin, Louisiana 70538

Mr. Kerry St. Pe
Barataria Terrebonne National Estuary Program
North Babington Hall
Nichols State University
320 Audubon Street

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Ms. Carol Vinning
Planning Director
St. Mary Parish Council
Courthouse Building, 5th Floor
Franklin, Louisiana 70538

Mr. Jim Anderson
Iberia Parish Government
Emergency Management
Courthouse Bldg., Suite B-130
300 Iberia Street
New Iberia, Louisiana 70560-4587

Mr. James Miller
CZM Administrator
Terrebonne Parish
Post Office Box 2768
Houma, Louisiana 70361



Castille Pass Channel Sediment Delivery (AT-04)

FILE

Project Status

Approved Date: 2000 **Project Area:** 5,368 acres
Approved Funds: \$1.48 M **Total Est. Cost:** \$31.2 M
Net Benefit After 20 Years: 577 acres
Status: Engineering and Design
Project Type: Water Diversion

Location

Castille Pass is located off of East Pass in the Atchafalaya Delta in St. Mary Parish, Louisiana.

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 overbank areas through crevasse (an opening within a levee) channels.

The open crevasse channels are frequently short-lived because sediment accumulation within the channels decreases flow efficiency. Also, maintenance dredging, the placement of material dredged from the navigation channel has an effect on riverflow efficiency. 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.



This restoration technique is an example of what is proposed in the Castille Pass.

Restoration Strategy

The Castille Pass project will re-establish the sedimentation processes that lead to subdelta development in this area of the Atchafalaya Delta. This project consists of dredging and extending Castille Pass to promote subdelta development. Castille Pass would be dredged, extending it towards Fourleague Bay and ending near South Point. This channel will provide water and sediment through distributary channels to the area among several U.S. Army Corps of Engineers' beneficial use disposal islands located on the east side of the Atchafalaya River. Excavated sediment would be placed to create delta lobes between the confluence of the main and distributary channels. Approximately 150 acres of marsh would be created from the initial construction of the Castille Pass and distributary channels.

Scheduled maintenance activities are expected to create another 73 acres of marsh.

Progress to Date

The cooperative agreement was awarded September 29, 2000. Hydrodynamic modeling and engineering and design are underway.

This project is listed on Priority Project List 9.

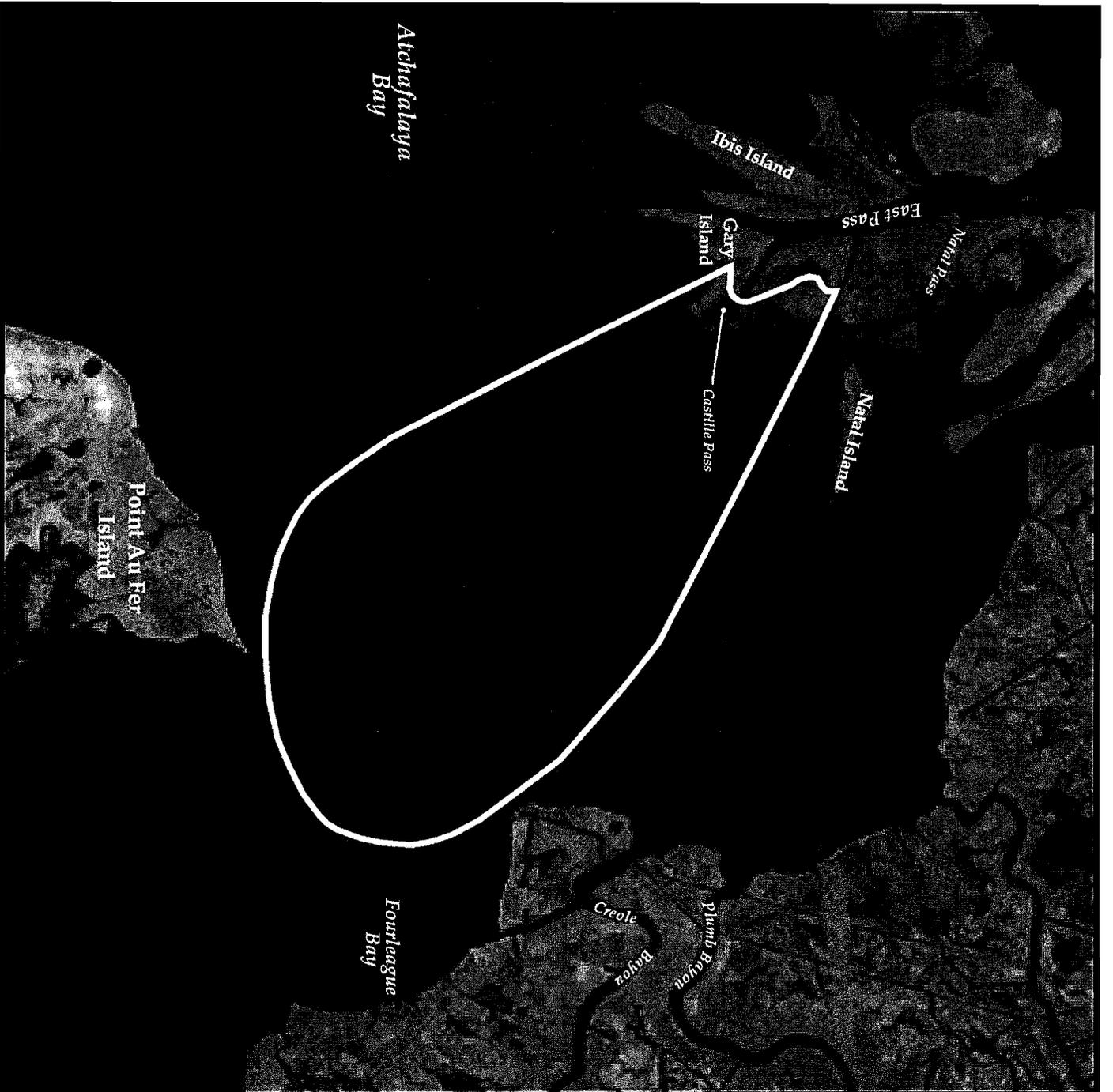
For more project information, please contact:



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



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

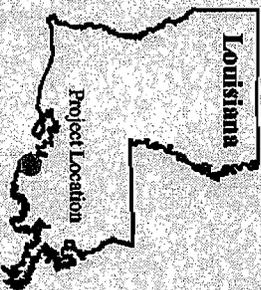


**Castille Pass Channel
Sediment Delivery
(AT-04)**



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:
2002 Thematic Mapper Imagery
Map Date: October 16, 2003
Map ID: USGS-NWRC 2003-11-040
Data accurate as of: April 18, 2003

Atchafalaya
Bay

Point Au Fer
Island

Fourleague
Bay

Creole
Bayou

Plumb
Bayou

Ibis Island

Gary
Island

Castille Pass

East Pass

Natall Pass

Natall Island

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

**PROPOSED REVISION OF CWPPRA STANDARD OPERATING PROCEDURE
REQUIREMENT FOR 30 % AND 95% DESIGN REVIEW REQUIREMENTS**

For Decision:

The Technical Committee will consider and vote to modify the CWPPRA Standard Operating Procedures (SOP) as follows:

- a. Require project sponsors to respond to written comments within 45 days following 30% Design Review Conferences. Comments and responses shall be provided to the Technical Committee along with notification to proceed to 95% design. Section 8(1) of the CWPPRA SOP only requires that responses to the 30% Design be included in the Final Design Report. It is recommended that the following be added to the second paragraph of SOP Section 6(e)(2) (30% Design Review): "Agencies shall have 15 days after the 30% Design Review meeting to submit comments. Project sponsors shall provide a written response to 30% Design Review comments within 30 days following the end of the commenting period. These responses shall be included in the sponsoring agency's concurrence letter sent to the Technical Committee after the design review meeting."
- b. Modify Section 6(g)(2)(6) to direct all requests for Section 303(e) approvals to be sent to:

ATTN: CEMVN-PM-OR
CWPPRA Program Manager

within 3 months following Phase 1 approval and shall be reviewed by the P&E Subcommittee.

(2) 30% Design Review: In order to resolve problems, anticipate cost growth, and identify the best project alternative to meet intended project goals, at the earliest possible point, a 30% Design Review shall be performed upon completion of a Preliminary Design Report. The Preliminary Design Report shall include: 1) Recommended project features, 2) Engineering and Design surveys, 3) Engineering and Design Geotechnical Investigation (borings, testing results, and analysis), 4) Draft Modeling Report (if applicable), 5) Analysis of alternatives to reduce long-term maintenance costs while maintaining project features to function as originally intended (i.e., sponsors should investigate the potential cost savings from investing more in initial construction (over-designing/over-building) in an effort to reduce future maintenance requirements, 6) Draft Ecological Review for cash flow-managed projects (if one or both project sponsors determine one is necessary for more complex projects, projects with little precedent for success, or other projects if necessary) (See APPENDIX B), 7) Land Ownership Investigation, 8) Preliminary Cultural Resources Assessment, 9) Revised project construction, OMRR&R, monitoring, and administrative cost estimates based on the current selected preliminary design, 10) Description of changes from Phase 0 approval, and 11) Map prepared by the Local Sponsor and provided to the Federal Sponsor indicating any oyster leases potentially impacted by the proposed project and a data sheet listing: lease number, lease acreage, lessee name, and other pertinent data.

The Federal Sponsor shall hold a "30% Design Review Conference" with the Local Sponsor to obtain their concurrence to continue with design. However, if the Local Sponsor has responsibility for the design of the project, then both Local and Federal Sponsors shall hold a "30% Design Review Conference" to obtain concurrence to continue with design. The other Agencies shall be notified by the Federal Sponsor at least four weeks prior to the conference of the date, time and place and invited to attend. Any supporting data shall be forwarded to the other Agencies for their review, with receipt two weeks prior to the conference. Invitations and supporting data shall be sent to agency representatives of the Technical Committee, Planning and Evaluation Subcommittee, Project Manager of the Local Sponsor and the Governor's Office of Coastal Activities. Agencies shall have 15 days after the 30% Design Review Conference to submit written comments. Project sponsors shall provide a written response to 30% Design Review comments within 30 days following the end of the commenting period.

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The design review will verify the viability of the project and whether or not the Federal and Local Sponsors agree to continue with the project. This review must indicate the project is viable before there are expenditures of additional Phase 1 funds.

After the conference, the Federal Sponsor shall forward a letter (or e-mail) to the Technical Committee with a copy to the Planning and Evaluation Subcommittee along with the revised estimate, a description of project revisions from the previously authorized project,

agency comments and responses, and a letter of concurrence from the Local Sponsor, informing them of the agreement to continue with the project. The Technical Committee may make a recommendation on whether or not to continue with the project.

For cash flow-managed projects, if the estimate indicates that the Phase 1 cost will exceed the original approved amount, the Federal Sponsor may, with local sponsor concurrence, request approval from the Technical Committee with subsequent approval by the Task Force for additional funds to continue at a quarterly meeting. For non-cash flow-managed projects, if the revised estimate indicates that the total project cost will exceed 125% of the original PPL estimate, the Federal Sponsor shall request approval from the Technical Committee with subsequent approval by the Task Force, at any Task Force meeting, to continue with the project.

In some cases, the Task Force may require an additional formal review, involving all the Agencies, of the project design at an intermediate level to ensure that optimum benefits to wetlands and associated fish and wildlife resources are achieved. In those cases the Federal Sponsor shall be responsible for coordinating the review with the other Agencies and the Local Sponsor.

(3) Changes in Project Scope: If a project undergoes a major change in scope or a change in scope resulting in a variance of 25 percent from the original approved design, in either: (1) the total project cost, (2) the number of acres benefited, or (3) the ratio of the total project cost to the number of acres benefited, the Federal or Local Sponsor will submit a report to the Technical Committee explaining the reason(s) for the scope change, the impact on cost and benefits, and a statement from the Local Sponsor endorsing the change. The Technical Committee will review the report and recommend to the Task Force approval or rejection of the change. Changes in project scope resulting in an increase in total project cost are discussed in paragraph 5.d.

f. PRE-CONSTRUCTION MONITORING

For monitoring plan development and by the preliminary 30% design review, the Federal Sponsor shall provide at a minimum project-specific goals and strategies that the Local Sponsor will use to prepare a monitoring plan and a budget. The monitoring plan and budget must be submitted to the Technical Committee for review and subsequent approval by the Task Force.

g. REAL ESTATE

(1) General

(a) Each Federal or Local Sponsor shall follow the real estate procedures in use by that agency.

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iii. Statement that all standard real estate practices will be followed in acquiring land rights.

iv. Overgrazing determination:

- Statement as to whether overgrazing in the project area is a problem and whether easements restricting grazing are required.
- The Corps of Engineers, in the review of the determination, may request concurrence from the Natural Resource Conservation Service as to the need for any grazing restricting easements.

(d) All requests for Section 303(e) approval shall be sent to the below address with a copy to CEMVN-PM-C for tracking purposes:

U.S. Army Corps of Engineers
ATTN: CEMVN-~~PM-OR~~
CWPPRA Program Manager
P.O. Box 60267
New Orleans, LA 70160-0267

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(3) Real Estate for Non-Cash-Flow Managed Projects: Federal Sponsors shall ensure that real estate acquisition of easements requiring a significant expenditure of funds and pre-construction monitoring are not begun until the Engineering and Design is substantially completed and there is a reasonably high level of certainty that the project will proceed to the next phase.

(4) Real Estate for Cash-Flow Managed Projects: The purchasing of real estate shall not occur until Phase 2. Preliminary real estate investigations, including preliminary ownership determination, should be initiated early in the project design activities.

h. FINAL ENGINEERING AND DESIGN

(1) 95% Design Review: A “95% Design Review Conference”, shall be held at least four weeks prior to the Technical Committee meeting by the Local Sponsor and the Federal Sponsor to review and mutually agree to a Final Design Report. The Final Design Report shall include: 1) a revised project cost estimate (fully-funded, approved by the Economic Work Group); 2) a Wetland Value Assessment (WVA), reviewed/approved by the Environmental Workgroup; 3) constructability; and 4) a draft OMRR&R Plan (named the Projects Operations and Schedule Manual when referring to Corps projects).

The other Agencies shall be notified by the Federal Sponsor at least four weeks prior to the conference of the date, time and place and invited to attend. The Federal Sponsor shall

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

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

For Report:

Ms. Cherie Price with the U.S. Army Corps of Engineers will provide a status on the West Bay Work Plan and the contract award for dredging the Pilottown Anchorage Area.

**ERDC West Bay Sediment Diversion Workplan
Dated 24 April, 2009**

**Monthly Progress Report Prepared by ERDC:
September 11th, 2009**

**Start Date: May 25th, 2009
6 month milestone: November 24th, 2009**

CONTENTS

Monthly Progress Report	1-3
Peer Review Meeting, Sept 2 nd , 2009	4-12

MONTHLY PROGRESS REPORT

TASK 1 Data collection & Analysis

Actions taken:

1. Data collection Trip 1, March 9-12, 22-23 April, 5-6 May, 2009: Multi-beam and hydrodynamic (ADCP) surveys, bed samples and suspended sediment samples.
2. Data collection Trip 2, 27-31 May, 2009: Hydrodynamic surveys, suspended sediment samples and additional bed material samples from below Cubit's Gap to Southwest Pass Jetties.
3. Data collection Trip 3, June 15-18, 2009: Hydrodynamic surveys and suspended sediment samples.
4. Data collection Trip 4, July 21-23, 2009: Hydrodynamic surveys, suspended sediment samples, and bed load samples.
5. Analysis complete on survey data from Trips 1-4; suspended sediment samples; analysis complete for Trips 1-4; and bed samples complete for Trips 1-3.
6. Ancillary multi-beam survey conducted during first week of August, analysis completed
7. Web-cast power-point presentation of data collection effort for Barb and others.
8. Data mining of current velocities, Discharge, and sediment flux calculations.
9. Submitted contracts for Mead Allison and Alexander Kolker.
10. Preparations made for Peer Review Meeting.
11. Draft data summary report (Trips 1-4) 75% complete.

Next steps:

1. Fifth data collection trip planned for the week of September 21st, 2009. Trip to coincide with data collection of Allison and Kolker.
2. Continue with data analysis and data summary report preparation.

TASK 2 Large-Scale/Longer-Term Geomorphic Analysis - Lower Study Limit at East Jetty on Southwest Pass

Actions taken:

1. All hydrographic surveys have been acquired and brought into GIS system. XYZ data converted to TINs, contoured and quality control performed. TINs converted to grids for volumetric analysis.
2. Vertical datum decision reached. All survey data elevations have been converted to NAVD88 using relationships developed from survey data for BM 876 0849 A Tidal at Venice, LA supplied by MVN. Survey contained references for NAVD88, NGVD29 and MLG for the bench mark. Conversion used is NAVD88=NGVD29-1.12 feet and NAVD88=MLG-1.9 feet. Additional vertical datum information has been requested from Rich Campanella of Tulane University at the suggestion of Mead Allison.

3. Reaches to be used for volumetric analysis have been developed. Reaches for the portion of the river above PAA generally encompass the portion of the channel up to approximately the -20 foot contour. Reaches in the vicinity of the PAA encompass the anchorage area and the access area/channel in separate polygons.
4. Computation process for volumetric analysis has been tested and verified. The process uses the cut/fill option for the GIS system.
5. All gage and discharge data has been brought into a single database. Analysis has been initiated.
6. XY location data for dredge material gradation data has been determined and will be put into GIS database. Bed material data from Mead Allison surveys will be obtained and put in database.

Next steps:

1. Volumetric analysis will be completed for all surveys based on defined reaches.
2. Cross section analysis will be initiated. Cross sections will be defined at the endpoints and midpoints of the reaches.
3. Channel pattern analysis will be initiated. Contour patterns of the -45 feet channel will be developed for each survey and analyzed.
4. Gage and discharge data analysis will be completed. Sediment data analysis for Tarbert Landing data will be initiated.
5. Dredge data gradations will be incorporated into GIS and analysis initiated. Assessment of dredge reports from MVN will be initiated.

TASK 3 1D Sedimentation Modeling

Actions taken:

1. Acquired updated MVK HEC-6T model and draft report. Initiated review of report to insure we have a full understanding of model input, assumptions, and calibration.
2. Initiated addition of cross sections within the Belle Chasse to Head of Passes reach to better define channel geometry. Effort includes adding 39 cross sections to increase the cross section density.
3. Have tentatively developed the January 1999 through December 2008 as the typical hydrograph.

Next Steps:

1. Modify sediment concentrations in diversion outflow based on current field data collection results.
2. Verify model calibration with channel geometry and diversion outflow sediment concentration changes.
3. Run both Toffaleti and Madden-Laursen transport functions.
4. Incorporate West Bay Diversion into the model

Task 4: Multi Dimensional Modeling

Actions Taken:

1. Bathymetry has been finalized for both the CH3D and AdH meshes
2. High flow boundary conditions have been developed for the CH3D and AdH models
3. Preliminary hydrodynamic and sediment simulations have been completed for the CH3D model
4. Preliminary hydrodynamic simulations are underway for the AdH model.

Next Steps:

1. Complete verifications of AdH and CH3D models
2. Begin analysis of model results

PEER REVIEW MEETING, SEPT 2nd, 2009

TASK 1 Data collection & Analysis

1. Discharge and sediment flux data have been collected on the CWPPRA diversion opposite West Bay.
2. Evaluation of the sediment flux data using the technique described by Mead Allison (moving boat method) is under way.
3. Channel condition surveys corresponding to the dates of the sediment flux measurements will be reviewed.
4. The sediment flux determinations involved two days of data collection. Day 1, collection of 4 redundant discharge measurements at each transect along the length of the study reach. Day 2, collection of one discharge measurement at each transect at the same time suspended sediment data were collected. During the fifth data collection trip sediment flux data will be obtained in sets; discharge and suspended sediment data will be collection upstream, at the diversion and downstream of a diversion before moving to the next diversion. A diversion set will be collected at the same time each day in order to get the same stage of tide.

TASK 2 Large-Scale/Longer-Term Geomorphic Analysis - Lower Study Limit at East Jetty on Southwest Pass

1. At the suggestion of Mead Allison, Dr. Rich Campanella of Tulane University was contacted regarding additional vertical datum information for the LA coastal region. An email response was received from Dr. Campanella on September 10th, 2009 which stated that his work dealt mainly with conversion of historic datums such as the Cairo and Memphis datums to moderns datums. He indicated that the scale of his work was too coarse and would not be applicable to work being performed as part of this study. He did provide additional contact information for people he felt would be more knowledgeable concerning vertical datums in the coastal area. Contact with these sources will be made to see if any helpful information can be obtained.
2. Report by Allison and Nittrouer (2004) obtained.

Allison and Nittrouer, 2004, Assessing quantity and quality of sand available in the Lower Mississippi River Channel for coastal marsh and barrier island restoration in Louisiana, Final technical report for subcontract C-162523 Governor's applied coastal research and development program, Department of Earth & Environmental Sciences, Tulane University.

Bed material data from the report will be obtained and put in database.

TASK 3 1D Sedimentation Modeling

1. Supply description of HEC-6T model, capabilities and limitations. Discuss how the model will handle the tides and salt wedge. Discuss the sensitivity analysis that can be completed in the 6-month effort.

Model Purpose, Capabilities, and Limitations

For the West Bay Diversion evaluation, a HEC-6T model as developed by the USACE Vicksburg District (MVK) is being used. The HEC-6T Sedimentation in Stream Networks software package is an enhanced version of HEC-6, Scour and Deposition in Rivers and Reservoirs. HEC-6T was developed by Mr. William A. (Tony) Thomas with Mobile Boundary Hydraulics. HEC-6 is public domain software maintained by the U.S. Army Corps of Engineers Hydrologic Engineering Center in Davis, California.

The HEC-6T user's manual is provided as a supplement to the HEC-6 user's manual. The HEC-6 user's manual provides the model purpose, philosophy, application, capabilities, theoretical assumptions, and limitations. This manual describes HEC-6 as "a one-dimensional movable boundary open channel flow numerical model designed to simulate and predict changes in river profiles resulting from scour and/or deposition over moderate time periods, typically years". HEC-6 is designed to simulate long-term trends of scour and/or deposition. Specifically, the HEC-6 sediment transport model calculates water surface and sediment bed surface profiles by computing the interaction between sediment material in the streambed and the flowing water-sediment mixture. HEC-6 is a steady state model that partitions a continuous flow record into a series of steady flows. The HEC-6 user's manual describes the computational process as follows: "For each flow a water surface profile is calculated thereby providing energy slope, velocity, depth, etc. at each cross section. Potential sediment transport rates are then computed at each cross section. These rates, combined with the duration of the flow, permit a volumetric accounting of sediment within each reach. The amount of scour or deposition at each section is then computed and the cross section adjusted accordingly. The computations then proceed to the next flow in the sequence and the cycle is repeated beginning with the updated geometry." Model output includes computed total sediment discharge passing each cross section and the volume of deposits or scour accumulated at each cross section from the beginning of the simulation.

Model input requirements include channel geometry, upstream discharge hydrograph, upstream boundary condition - incoming sediment loads, bed gradations, tributary / diversion outflow and sediment concentration, downstream boundary conditions – water surface elevations, and user specified sediment transport function. A two phase calibration is required. The first phase includes the calibration of computed water surface profiles to observed profiles. This is accomplished by running the model in the fixed-bed mode for a range of steady-state discharges. Manning's roughness coefficients are adjusted so that calculated water surface profiles match measured stages at available gage locations. The USACE Vicksburg District (MVK) model was calibrated to observed stages at nine gage locations, ranging from Red River Landing at RM 302.4 to Venice at River Mile 10.7. The second phase includes sediment calibration. This can be accomplished by simulating observed erosion and deposition and by simulating measured

sediment transport. Also, if dredging records are available, calibration to dredging quantities is an option. For the MVK effort, the model was calibrated to observed deposition downstream of the Old River Control Complex and to observed erosion at Smithland Crossing. The model was also calibrated to measure sediment transport at the Tarbert Landing (RM 306.3) and Belle Chasse (RM 76.0) gages. Calibration also included the simulation of reported dredging volumes in Southwest Pass and Above Head of Passes.

For the West Bay Diversion evaluation, the use of the HEC-6T models provides both advantages and disadvantages. The primary disadvantages include the fact that the model uses average hydraulic and sediment parameters since it is simulating 3-dimensional processes in 1- dimension. HEC-6T includes no provision for specifying a lateral distribution of sediment load across a cross section. Deposition and scour is modeled by moving each cross section point within the movable bed an equal amount (the area that is shifted vertically during each time step due to sediment movement). The advantages include the fact HEC-6T allows for long term simulations (we propose 50 year simulations) where multi dimensional models are limited to much shorter simulations (typically single events to months to possibly 1 year). HEC-6T also has the ability to simulate dredging activities. The dredging option is triggered when a depth of deposition is exceeded or can be triggered on a periodic basis. HEC-6T allows for the diversion of both water and sediment and calculates that impact on downstream sediment transport.

Tidal Considerations

Another factor that impacts sediment transport in coastal regions is tides. For our HEC-6T model, the downstream boundary condition is water surface elevation at Pilots Station. The MVK model includes an average monthly stage. We plan to use the 8:00 AM daily stage for our downstream boundary condition. This daily stage over the period of record will range throughout the daily tidal cycle. NOAA reports that the average difference between high and low tides at Pilots Station is approximately 1.2 feet. The average difference is much higher at other locations around the United States. Considering the relatively small difference at Pilots Station, using the 8:00 AM daily stage is considered reasonable to accurately simulate long term sediment transport. This is verified by the good calibration provided by the HEC-6T model for the October 1990 through September 2002 average monthly stage simulation conducted by MVK.

Saline Wedge

Salinity is an issue that impacts sediment transport. While HEC-6T does not provide for the direct impact of salinity, this impact can be approximated by varying the silt and clay shear threshold deposition coefficients. For the MVK model, the deposition coefficients for both silt and clay were increased downstream of Venice and the coefficient for clay was further increased in Southwest Pass to account for the effects of salinity on sediment deposition. The model allows for varying the threshold coefficients by reach but does not allow for varying the coefficients with discharge or stage. The salinity thought the Pilottown Anchorage Area (PAA) varies greatly with discharge. During low flow, the

salinity is much higher than during high flow periods. The variance is deemed reasonable since the deposition coefficients were determined during model calibration by comparing computed dredge volumes to those reported in Southwest Pass and between Head of Passes and Venice. Therefore, the model adequately accounts for the long term impact of salinity on sediment transport through the reach.

Sensitivity – 6 month workplan

In the 1-D model, sensitivity analysis includes varying specified input parameters to determine what impact changes in those parameters have on model results. Sensitivity analyses conducted in previous Mississippi River 1-D modeling has focused on the sediment concentration in the outflows at diversions / distributaries. For our effort, we propose to utilize two separate sediment transport functions since sediment transport rates and scour / deposition locations and volumes can vary with different functions. We will utilize both the Toffaleti and the Laursen (Madden) functions and compare the results. Both functions were developed for large rivers. The Toffaleti function has been used successfully in previous Mississippi River studies and other large, sand bed streams. The Laursen (Madden) function treats silt as bed load which may be important in the downstream most reaches of the Lower Mississippi River.

Task 4: Multi Dimensional Modeling

1. Supply description of 2/3D models, capabilities and limitations. Discuss how the models will handle the tides and salt wedge. Discuss the sensitivity analysis that can be completed in the 6-month effort.

Model Purpose, Capabilities, and Limitations

Several studies have been conducted concerning sediment processes at West Bay using the CH3D sediment transport model. These studies have yielded valuable information concerning the impacts of the implementation of the West Bay diversion. However, model specific limitations and constraints, associated primarily with grid resolution and boundary condition specifications, have contributed to the limited usefulness of these modeling results.

The ADH sediment transport model (Berger and Stockstill, 1999) is equipped with several features that can serve to mitigate the limitations inherent in the previous efforts. These include the following:

- The model is a fully unstructured model, which allows very dense model resolution to be focused only in areas of interest. This means that the model mesh can be highly resolved in the study area, to capture local vortices and other flow features at the diversion site, and also extended well beyond the study area to cover a very large spatial domain. This spatial extent is important because model

boundaries that are too close in proximity to the study area can essentially prescribe the results, if extreme caution is not taken in the selection and implementation of these boundaries. In other words, model results in the study area would mimic the values being used to drive the boundary of the model if that boundary is too close to the study area.

- The sediment model is based on the CH3D sediment model, except that it is equipped with some improvements to more accurately simulate sediment processes. These include the ability to simulate the hardening of the bed against erosion more effectively, and the ability to include forcing due to bed slope in the direction and magnitude of bedload transport. This latter feature could be of significance with respect to determining how much (if any) bedload transport passes through the diversion.
- The model can simulate fine sediment (grain sizes $< 0.062\text{mm}$) as well as coarse sediment ($>0.062\text{mm}$). This will enable the model to simulate sediment loads passing through the diversion, as well as the fate and transport of fine sediment within West Bay.

Each of these features fills a gap in the previous CH3D efforts, and hence each is desirable for the current effort. However, the ADH model is currently available only in a 2D depth-averaged modeling framework. Although 3D capability is currently being developed, it is not available at this time.

In general, the flow and sediment transport characteristics at a diversion exhibit decidedly 3-dimensional behavior. However, the further question of whether, and to what degree, the behavior at a specific diversion is characterized by the 3-dimensional nature of the flow is a question that cannot be answered from first principles. Rather, the question can be addressed via 2 different modes of analysis.

- Careful field data collection and analysis, to determine the nature of the observed flow and sediment transport patterns in 3 dimensions.
- Comparative model studies, simulating the system with both 2D and 3D models simultaneously, to determine the relative impacts of the 3-dimensional processes.

With this in mind, it is proposed that we conduct simulations using both CH3D and ADH, in order to take advantage of the combined capabilities of each model.

- The ADH model can be used to provide more accurate boundary conditions to the CH3D model (since the ADH boundary will extend far beyond the study area)
- Comparison of the results from both models will provide quantitative and qualitative insights into the need for 3D modeling at West Bay diversion, by demonstrating what a 2D model can and cannot provide.
- Both models can provide insight into the dominant processes governing sediment deposition in the anchorage area, and can be used in conjunction to provide the best possible answers.

The 6-month effort will be focused exclusively on shoaling in the anchorage area, and hence will be primarily focused on coarse-grained sediment transport processes. The further 12-month effort will also address the fine-grained sediment processes associated with sediment diversion, distribution, and retention within West Bay.

The modeling effort will include simulations of several different boundary conditions, each run both with and without the West Bay diversion included in the domain.

Tidal Considerations /Sensitivity – 6 month workplan

A tidal sensitivity simulation will be performed to assess the importance of tides in the system. However, it is believed that in a median to high flow river condition that the effects of the tidal signal are small with respect to the mean flow and are therefore the effect of the tidal signal is unlikely to be a dominant process in the anchorage area shoaling.

Saline Wedge

For the 6 month effort, the focus will be on the high and median flow conditions, since these are conditions where most of the sand transport is expected to occur. Therefore, the presence of the saline wedge at low flow will not be considered in the 6 month effort.

For the 12 month effort, the concern will be the diversion of fine sediment into the receiving area. Galler and Allison (2007) have demonstrated the seasonal trapping efficiency of the saline wedge with respect to fine sediments. The model will have to account for this trapping, and how it will impact the supply of fine sediment through the diversion. The original proposal did not include modeling the salinity wedge directly, since the focus was not on the river but on the receiving area. However, consideration will have to be given as to how the trapping phenomena can be accounted for, with respect to its effect of diversion sediment supply.

2. Discuss plans for consideration of bedload.

The bedload data from Nittrouer et al (2008) has been received and is being evaluated. These data represent direct measurements of bedload data. Therefore, if they are deemed appropriate for our study they will represent the best direct measure of bedload transport rates in the study area.

Apart from these data, we propose to use the data to be collected by ERDC personnel to estimate the bedload contribution in the study area.

During high flows there are sections of the river where the sediment moves almost entirely in suspension. The reach just upstream of West Bay is one of these reaches.

This is evidenced from the lack of sand found in the grab samples, and the lack of bedforms detected in the multibeam surveys.

Therefore, the suspended load collected during this time represents a measure of total load at this section. This measurement can be used to compare the total load from the models with the total load from the field data.

At lower flows, or at other locations on the river during higher flows, the transport mode is mixed or bedload dominant. Ascertaining the amount of sediment moving as bedload at these locations is difficult without direct measurement. However, an attempt can be made by developing a sediment budget for the study area.

We have suspended sediment mass balance data from several ERDC surveys. We also have dredging and time-series bathymetric data. If we combine all of these data, we can create a sediment budget, with the residual term (the net sediment) equal to the net bedload flux.

In summary, we intend to use the direct measured data principally, if it is deemed suitable for our study. Secondly, we intend to develop local sediment budgets, with the net bedload flux estimated as the residual of the suspended load and bed aggradations/degradation budget.

Nittrouer, Allison and Campanella, 2008, Bedform transport rates for the lowermost Mississippi River, Journal of Geophysical Research, Vol. 113, F03004.

WORKPLAN Uncertainty: West Bay Diversion

Previous numerical model studies of the West Bay diversion or other nearby diversions generally fit into two categories:

- long-term one-dimensional (1D) simulations of diversion impacts on the bed profile of the main channel of the Mississippi River, and
- detailed three-dimensional (3D) simulations of flow and sediment transport processes in the immediate vicinity of the diversion.

In 1D simulations, the modeler must specify the diversion of flow and sediment from the main channel, usually as a function of the main channel flow and sediment concentration. While some measured data is available to quantify the flow diversion, the sediment load diversion has generally been based on engineering judgment. A typical assumption is that the diverted suspended sediment concentration (or total load expressed as concentration) is equal to the sediment concentration in the main channel. A more sophisticated approximation may consider the relative depth in the diversion and the main channel and estimates of the vertical variation in sediment concentration. Researchers

have identified this assumption as the major source of uncertainty in 1D model simulations. This approach is adequate to address neither lateral variations in sediment concentration (which may be significant for bed material load in the main channel) nor potential differences in the relative magnitudes of suspended load and bed load diversions. For our current effort, we have initiated as part of the data collection program, the collection of suspended sediment samples in both the Mississippi River channel immediately upstream of the primary diversions / distributaries and in the diversions / distributaries themselves. The diversions include Baptiste Collette Bayou, Grand Pass, West Bay Diversion, and Cubits Gap. This will allow the determination of the sediment concentration ratios for the diversions over a range of flow conditions based on actual measurements rather than on assumptions or approximations. The primary benefits of 1D simulations are that bed material and bed profile responses in the main channel can be economically simulated over long periods of time (decades) and the 1D simulations provide critical upstream boundary conditions (incoming sediment loads) for the multi dimensional models.

In the 3D simulations, flow and sediment diversions are computed from process descriptions using relatively detailed descriptions of channel and diversion geometry and spatial distribution of bed material. Validation of process descriptions, specification of initial conditions, e.g., bed material distribution and properties, and adjustment of model coefficients are data intensive efforts. The limited availability of the data required to verify that models are accurately estimating sediment diversions is one of the primary sources of uncertainty in three-dimensional simulations. In the absence of these data, the research community believes the sediment diversion estimates from three-dimensional models are the best estimates currently available.

The sediment transport module in the 2D shallow water version of ADH implements pseudo-3D transport and has been used to simulate 3D transport in riverine systems. In a river, the vertical variation in velocity and suspended sediment profiles can be reasonably approximated with theoretical profiles associated with fully-developed flow conditions. This assumption is not necessarily valid for a diversion, however, where both horizontal and vertical deviations from these theoretical profile descriptions are likely. Consequently, two-dimensional models generally have not been used to estimate the sediment transport within river diversions.

For this modeling effort, both the 2D model (ADH) and the 3D model (Ch3D) are being used to simulate the effects of the diversion on shoaling in the Anchorage area. This redundancy is deliberate. It serves as a sensitivity test on the models themselves, to determine how and to what degree the modeling assumptions and limitations associated with each model will impact the shoaling predictions associated with the models. This strategy is in keeping with the overall strategy of the West Bay workplan effort: to utilize all of the tools at our disposal, which also includes the geomorphic assessment and 1D modeling, such that the limitations of any one tool do not inhibit the success of the overall effort.

As part of the current effort to evaluate the impact of the West Bay diversion on shoaling in the Mississippi River, field data is being collected for the express purposes of developing a dataset that can be used to validate 3D model estimates of sediment diversion and tighten the bounds on the ratio of diverted sediment load to main channel load. If 3D model validation is successful, the 3D model can be used to further refine estimates of this ratio for use in long-term 1D model simulations. While available time and funding will constrain the field data investigation to analysis of current conditions, we expect this effort to significantly improve confidence in model results.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

CENTRAL AND EASTERN TERREBONNE COMPLEX PROJECT REPORT

For Report:

Mr. Ronny Paille with the U.S. Fish and Wildlife Service will present a final report on the results of the Central and Eastern Terrebonne complex project.

Central and East Terrebonne Freshwater Delivery Project

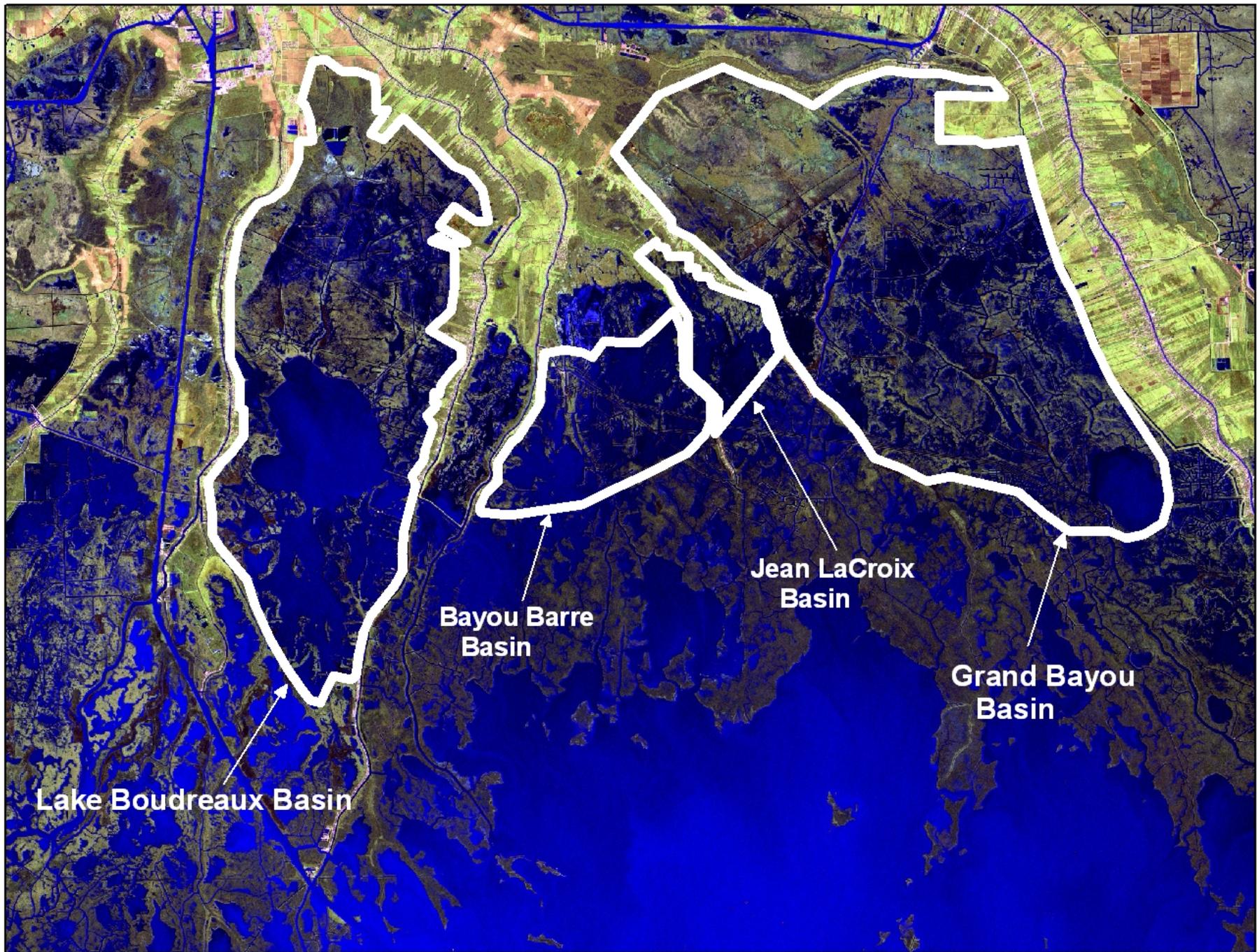
Project Summary

Report to the CWPPRA
Technical Committee
Sept 2009

- Approved as a PPL9 CWPPRA “complex” project – January 2000
- A PDP budget of \$664,000 approved

Central and Eastern Terrebonne Basin Freshwater Delivery Enhancement Project

- Achieves Coast 2050 Regional Strategy # 4
- Has become an LCA Near-Term Plan feature
- Has become a State Master Plan feature

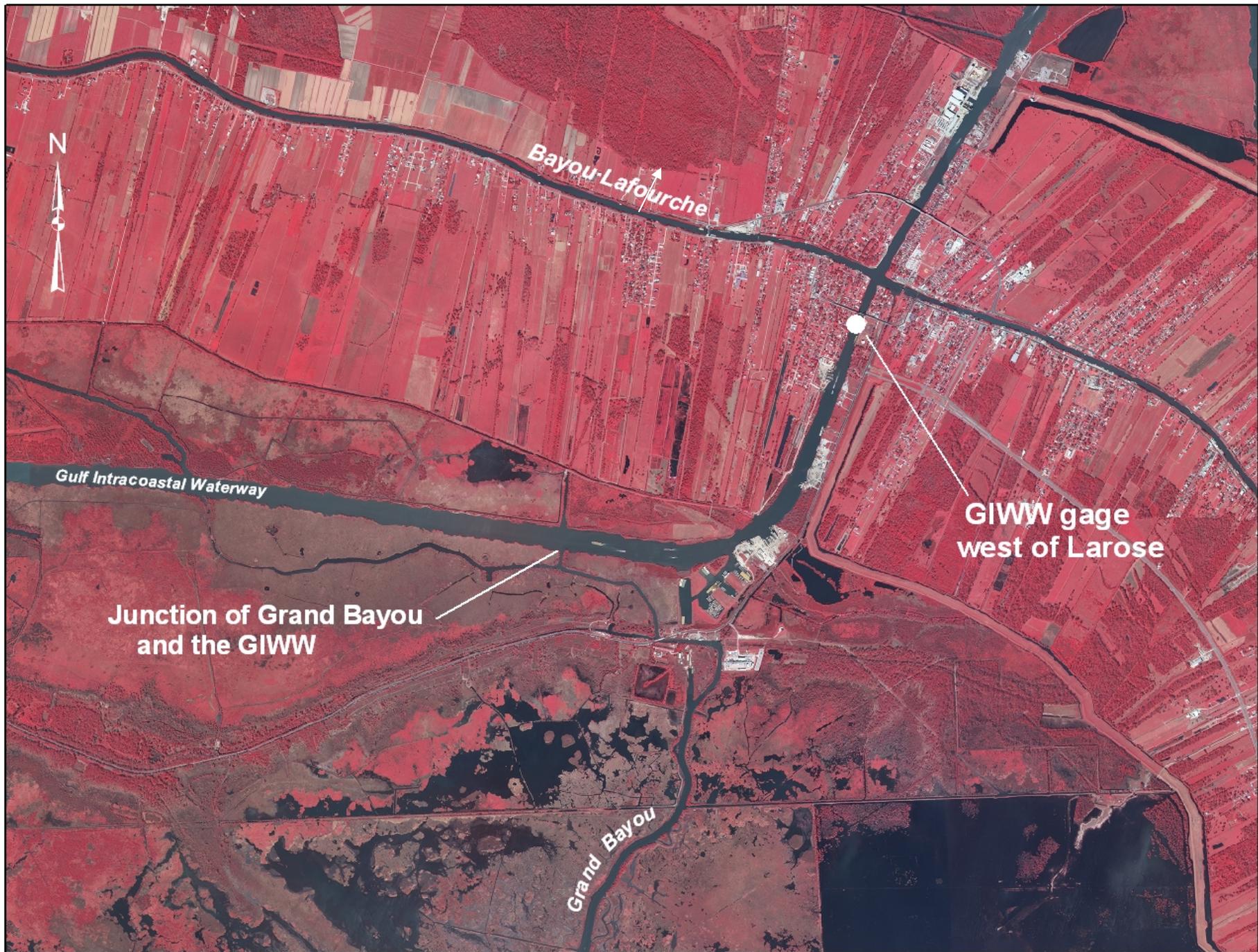


Lake Boudreaux Basin

Bayou Barre Basin

Jean LaCroix Basin

Grand Bayou Basin



Bayou-Lafourche

N

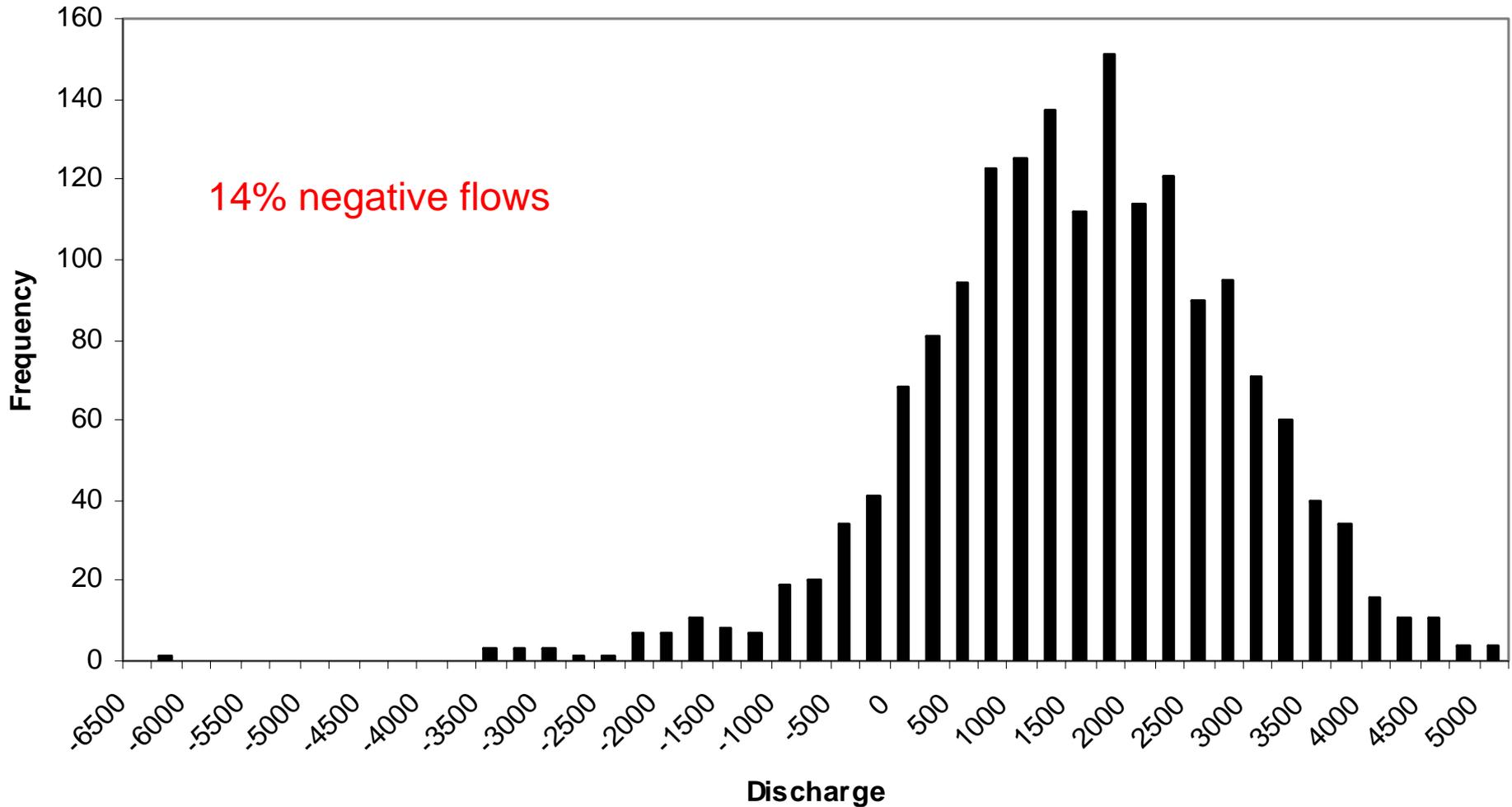
Gulf Intracoastal Waterway

Junction of Grand Bayou
and the GIWW

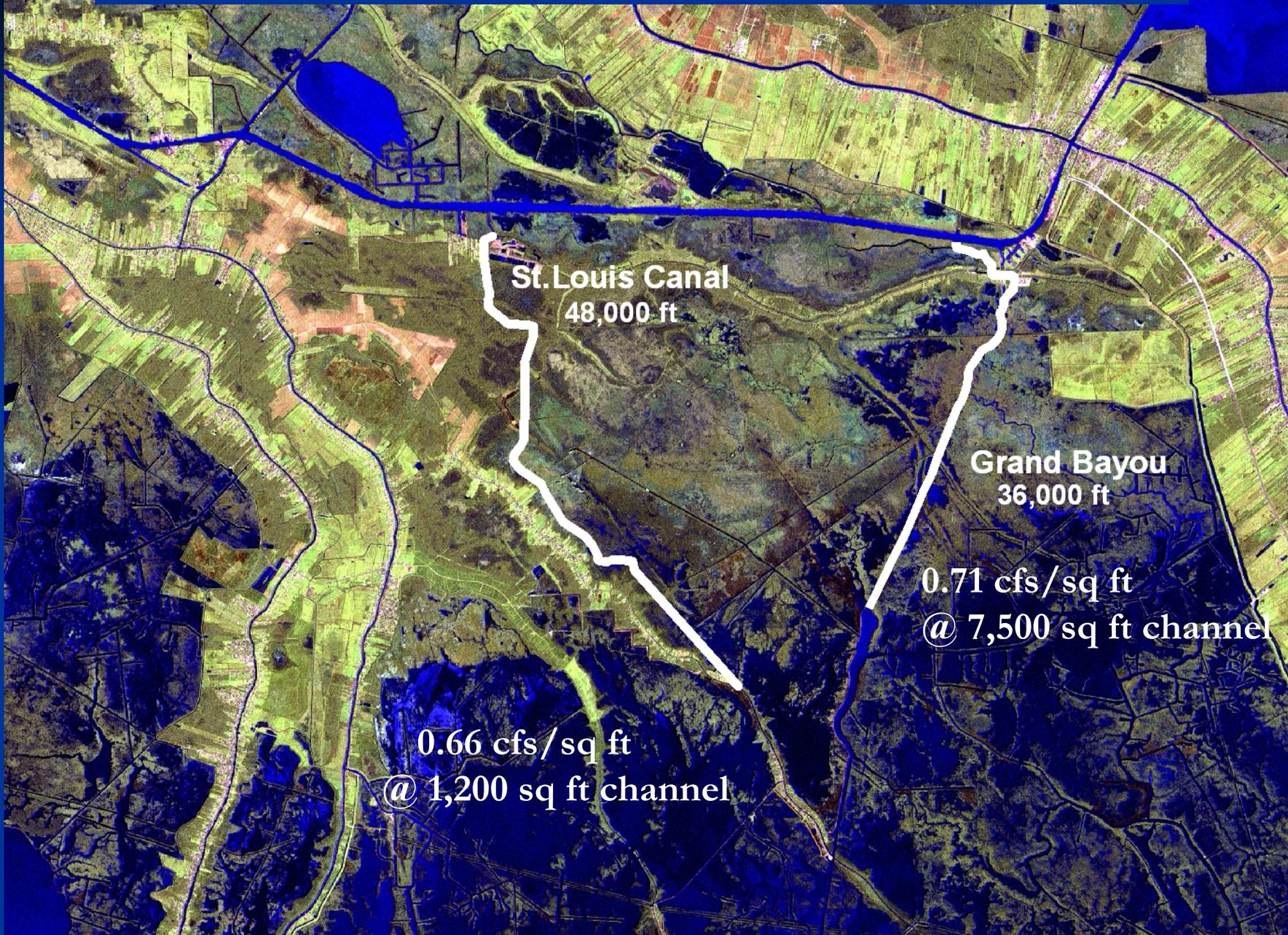
GIWW gage
west of Larose

Grand Bayou

2002-2008 Discharge – USGS Gage, GIWW @ Larose



Conveyance Channel Options for the Grand Bayou Watershed



St. Louis Canal
48,000 ft

Grand Bayou
36,000 ft

0.71 cfs/sq ft
@ 7,500 sq ft channel

0.66 cfs/sq ft
@ 1,200 sq ft channel

CWPPRA Central and East Terrebonne Freshwater Delivery Project



Straight Channel Alternative



Branched Channel Alternative



Branched Channel w Pipelines Alternative



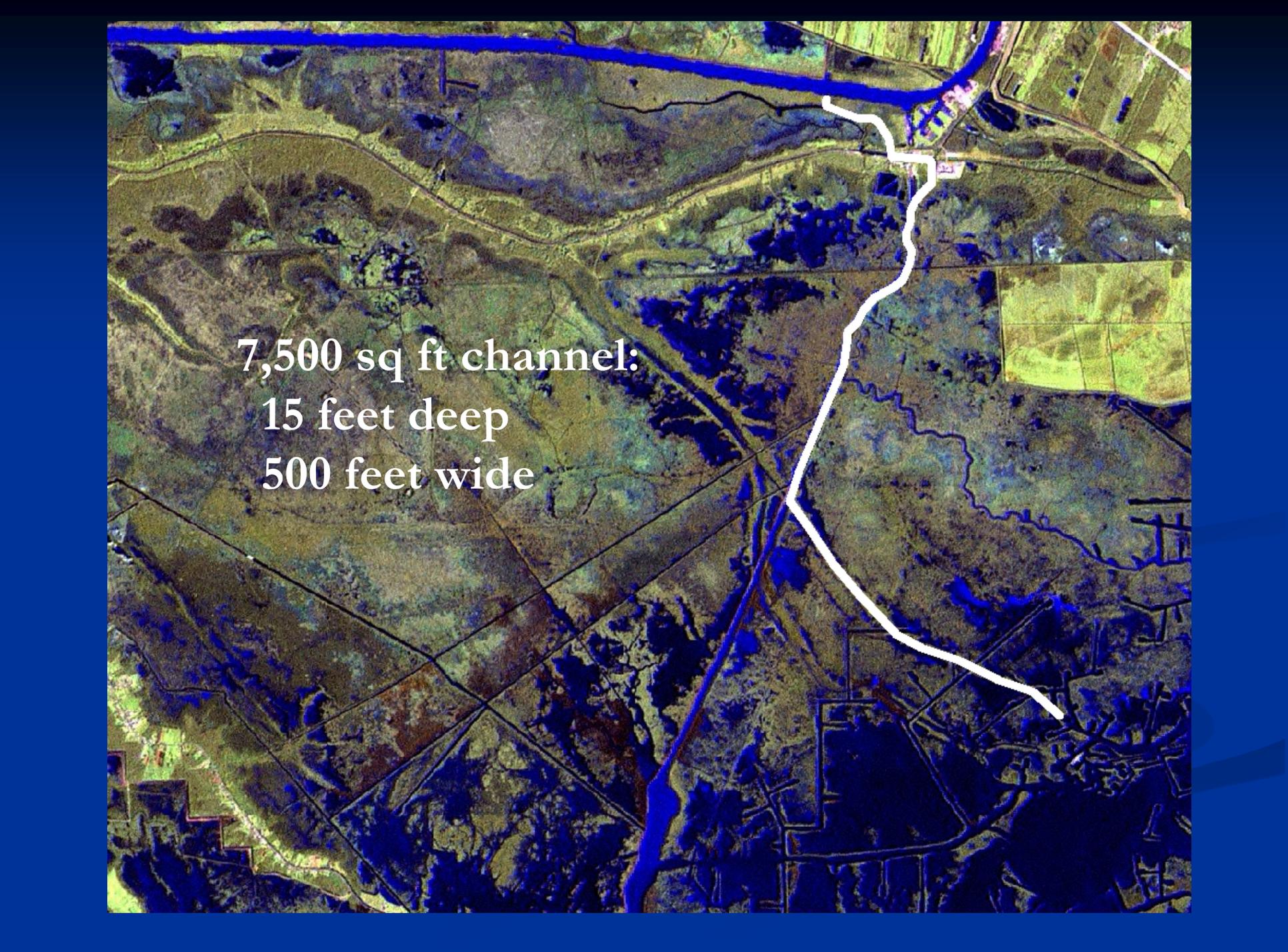
East Straight Channel Alternative

Assessment of Alternative Channel Sizes

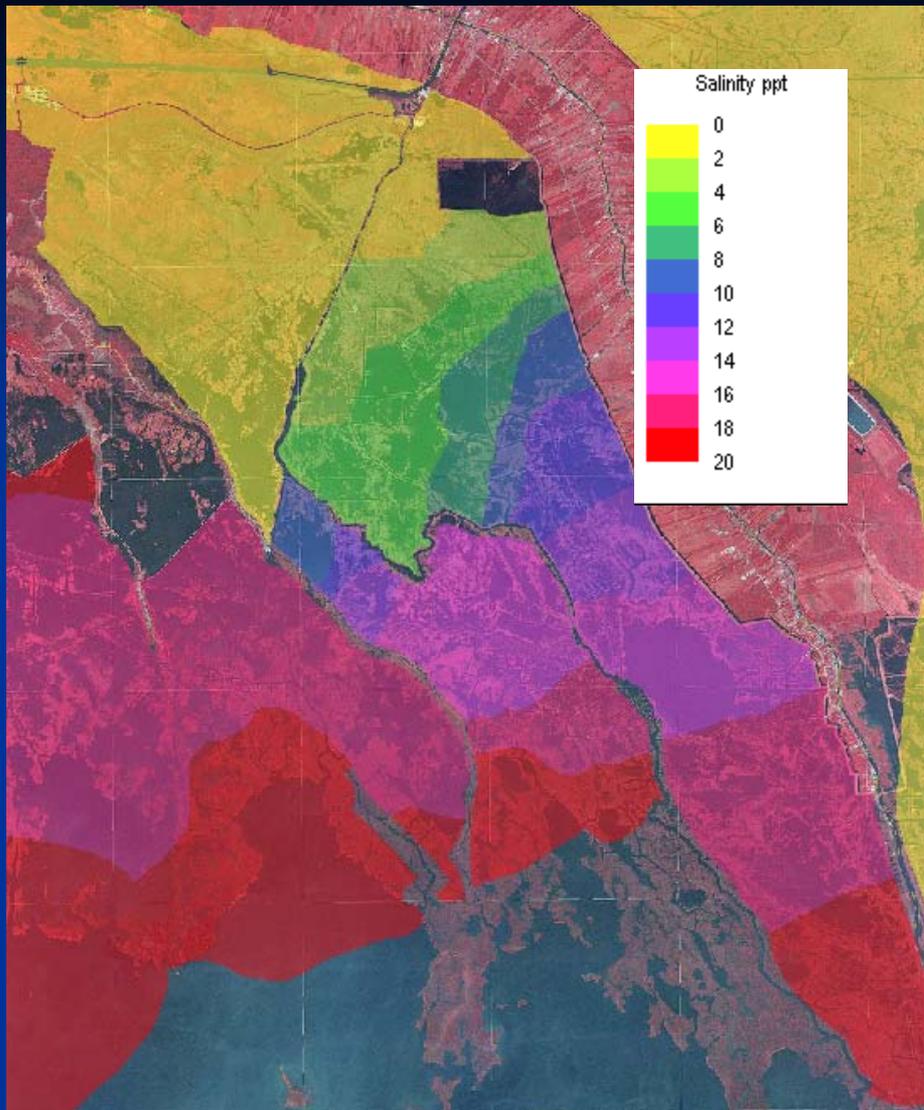
Channel Size (sq ft)	Max. FW Introduction (cfs)	% of GIWW eastward flow	Comparisons
9,500	5,684	84.08 ←	27% larger channel & 6% flow incr.
7,500	5,358	80.07 ←	25% larger channel & 49% flow incr.
6,000	3,585	57.36 ←	33% larger channel & 16% flow incr.
4,500	3,095	50.37 ←	

Initial Task Order #3 Model Runs									
	High GIWW Flow			Medium GIWW Flow			Low GIWW Flow		
	Eastward GIWW cfs	GB Introduction cfs	GB Percent of GIWW	Eastward GIWW cfs	GB Introduction cfs	GB Percent of GIWW	Eastward GIWW cfs	GB Introduction cfs	GB Percent of GIWW
FWOP	5203	-726	-13.95%	2201	-427	-19.40%	208	-220	-105.77%
9500 East Straight	6760	-5684	-84.08%	3171	-3234	-102.01%	962	-1649	-171.41%
9500 Branched	6527	-4656	-71.33%	2997	-2694	-89.91%	841	-1406	-167.18%
7500 East Straight	6691	-5358	-80.07%	3114	-3048	-97.88%	917	-1556	-169.68%
7500 Branched	6395	-4118	-64.39%	2901	-2392	-82.46%	762	-1257	-164.96%
7500 Straight	6211	-3301	-53.15%				554	-860	-155.23%
6000 East Straight									
6000 Branched	6251	-3585	-57.36%	2804	-2090	-74.54%	680	-1103	-162.21%
600 Straight									
4500 East Straight									
4500 Branched	6005	2759	45.95%	2646	-1616	-61.07%	545	-856	-157.06%
4500 Straight	6144	-3095	-50.37%				531	-820	-154.43%
Revised Task Order #3 Model Runs									
	High GIWW Flow			Medium GIWW Flow			Low GIWW Flow		
	Eastward GIWW cfs	GB Introduction cfs	GB Percent of GIWW	Eastward GIWW cfs	GB Introduction cfs	GB Percent of GIWW	Eastward GIWW cfs	GB Introduction cfs	GB Percent of GIWW
FWOP	5330	-755	-14.17%	2254	-443	-19.65%	221	-226	-102.26%
9500 East Straight									
9500 Branched				3035	-2741	-90.31%			
7500 East Straight	6781	-5451	-80.39%	3137	-3085	-98.34%	889	-1517	-170.64%
7500 Branched	6503	-4198	-64.55%	2940	-2426	-82.52%			
7500 Straight	6294	-3392	-53.89%	2713	-1782	-65.68%			
6000 East Straight									
6000 Branched	6371	-3677	-57.71%	2842	-2114	-74.38%	680	-1109	-163.09%
600 Straight									
4500 East Straight									
4500 Branched	6131	-2829	-46.14%	2696	-1653	-61.31%			
4500 Straight	6237	-3197	-51.26%	2674	-1668	-62.38%			

Grand Bayou Channel Alternative	Maximum Freshwater Inflow (cfs)	Average Freshwater Inflow (cfs)	Wetland Loss Rate Reduction (%)	Wetland Benefits (AAHUs)
4500 Branched	2,829	1,419	-6.8%	3,514
4500 Straight	3,197	1,452	-7.0%	3,349
6000 Branched	3,677	1,757	-8.9%	4,481
7500 Branched	4,198	1,956	-10.2%	5,366
7500 East	5,451	2,346	-12.6%	5,745
7500 Straight	3,392	1,527	-7.5%	4,669

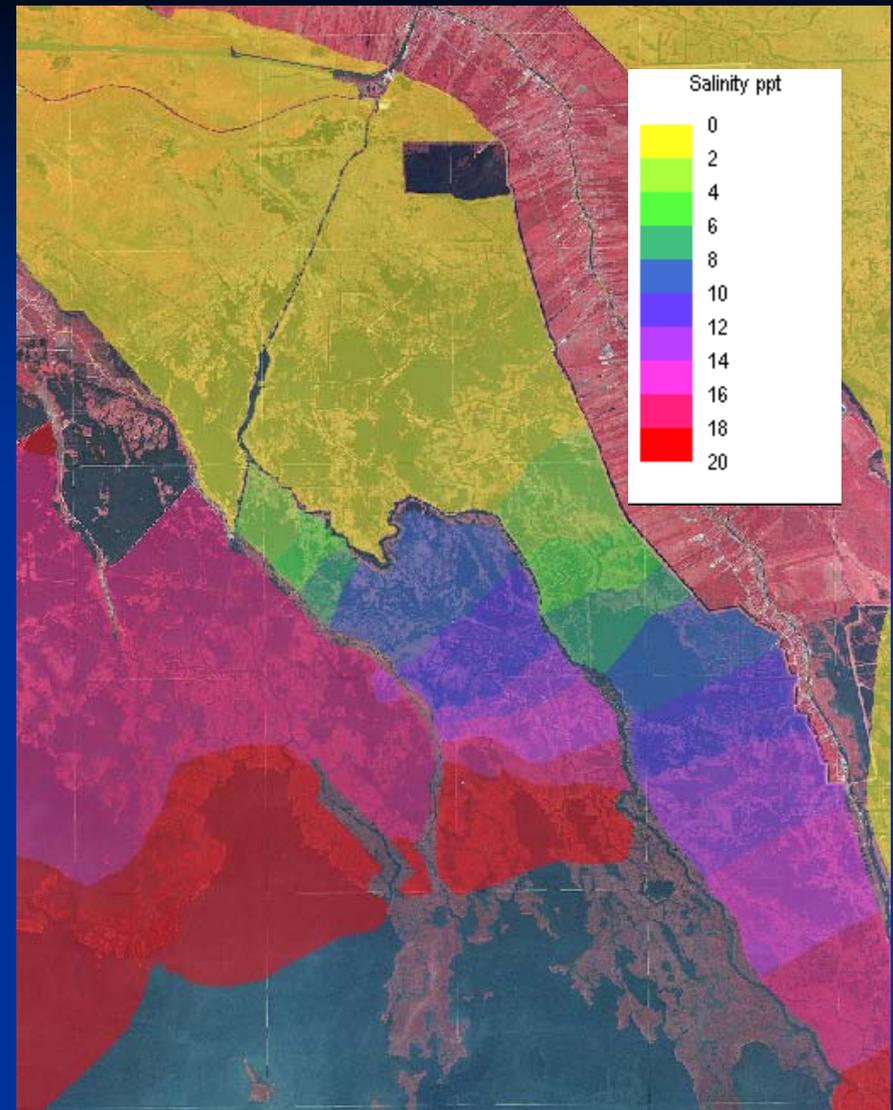
An aerial photograph of a river channel, likely a floodplain or a large-scale irrigation system. The channel is highlighted with a thick white outline. The surrounding area is a mix of brown and green, suggesting agricultural fields and natural vegetation. The channel itself is a dark, winding line that starts from the top left and moves towards the bottom right. The text is overlaid on the left side of the image.

7,500 sq ft channel:
15 feet deep
500 feet wide



FWOP

High Atchafalaya scenario



FWP

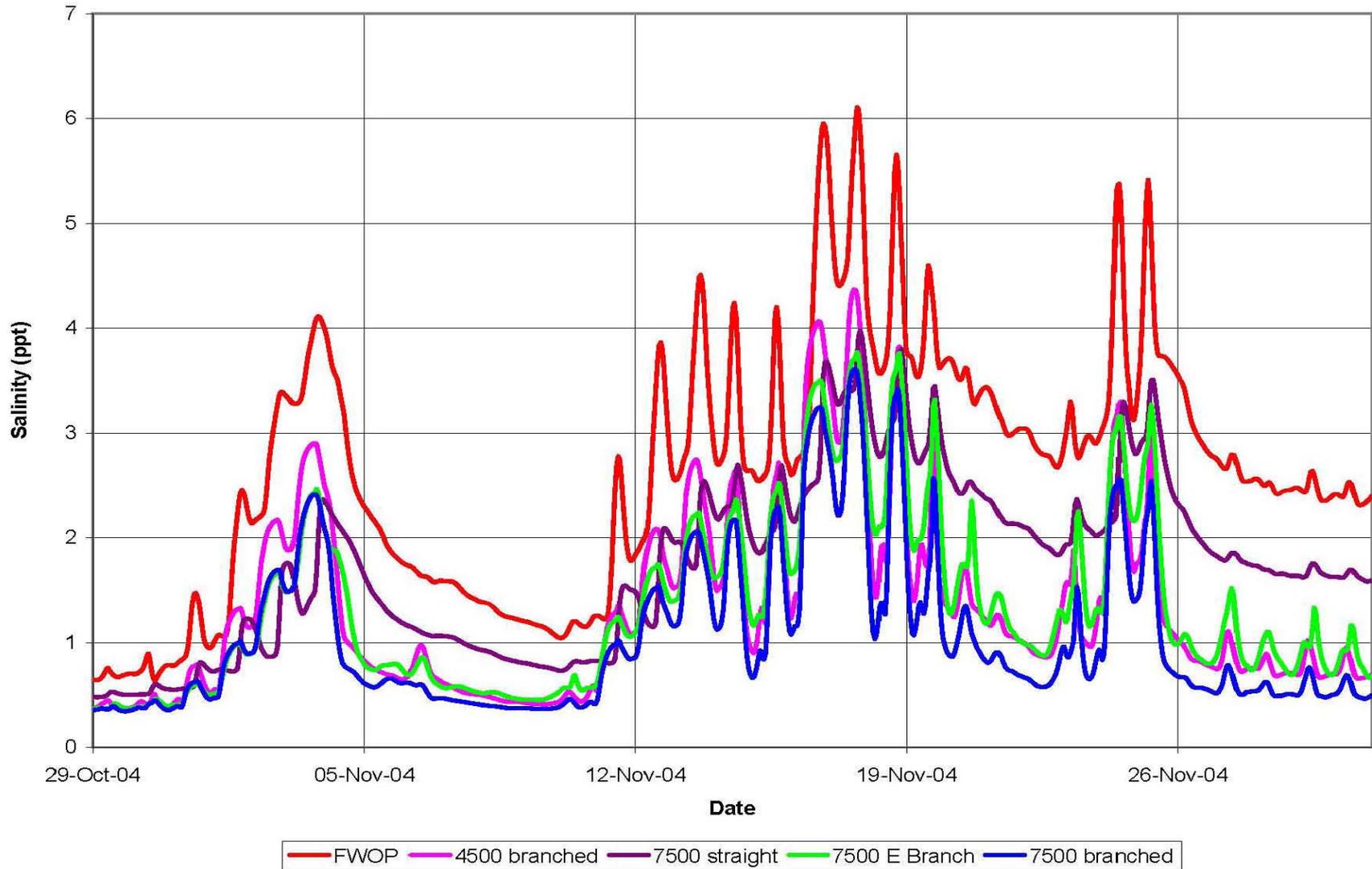
**7500 East Channel Alt
High Atchafalaya scenario**



Average FWOP-FWP Stage Difference

Location	Low Flow (ft)	Medium Flow (ft)	High Flow (ft)
1. Company Canal N of GIWW	-0.09	-0.20	-0.41
2. GIWW N of St. Louis Canal	-0.09	-0.21	-0.44
3. GIWW Just W of Grand Bayou	-0.10	-0.25	-0.59
4. GIWW N of BLF nr open water	-0.07	-0.19	-0.38
5. BLF W of GIWW	-0.09	-0.25	-0.47
6. St. Louis Canal NW of Jct w/B. Pointe Aux Chien	0.02	0.02	0.06
7. Marsh E of Grand Bayou nr Grand Bayou	0.07	0.13	0.24
8. Marsh E of Grand Bayou	0.08	0.14	0.24

Saltwater Intrusion Impact – Low Atchafalaya River Flows



The End

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

DONALDSONVILLE TO THE GULF

For Report:

Ms. Brisely with the U.S. Army Corps of Engineers will provide an update on the progress and findings to date from the Donaldsonville to the Gulf Feasibility Study and Environmental Impact Statement.

Donaldsonville to the Gulf Feasibility Study CWPPRA Technical Committee Briefing

29 September 2009



US Army Corps of Engineers
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Agenda

- Authority
- Sponsors & Study Area Location
- Purpose of and Need for Action
- Status
- Findings to Date:
 - Alternatives
 - Outreach and Public Views
 - Opportunities
- Key Assumptions
- Path Forward
- Schedule



Authority

The study was authorized by resolution by the Committee on Transportation and Infrastructure of the U.S House of Representatives on May 6, 1998:

“...the Secretary of the Army is requested to review the report of the Chief of Engineers on the Mississippi River and Tributaries, published as House document 308, 88th Congress, 2nd Session, and other pertinent reports to determining whether modifications of the recommendations contained therein are advisable at the present time in the interest of flood control, navigation, wetlands conservation and restoration, wildlife habitat, commercial and recreational fishing, salt water intrusion and fresh water and sediment diversion, and other purposes in the area between Bayou Lafourche and the Mississippi River System, from Donaldsonville, to the Gulf of Mexico.”



Project Sponsors

- State of Louisiana Office of Coastal Protection and Restoration
- Lafourche Basin Levee District

Study Area Location

- It is bounded on the west by Bayou Lafourche and on the east and north by the west bank of the Mississippi River, from Donaldsonville, La to the Gulf of Mexico
- Over 2400 square miles and includes portions of nine southeast Louisiana parishes.



Purpose & Need for Action

- The basin is subject to heavy rainfall, tidal surges from the Gulf of Mexico and hurricane flooding resulting in structural, agricultural, and environmental damages.
- The study area has been declared a Federal disaster area eight times since 1985 and has experienced additional storms causing FEMA to provide disaster assistance in 2008.
- The area lacks effective interior drainage and is increasingly vulnerable to the multiple effects of hurricane storm surges.



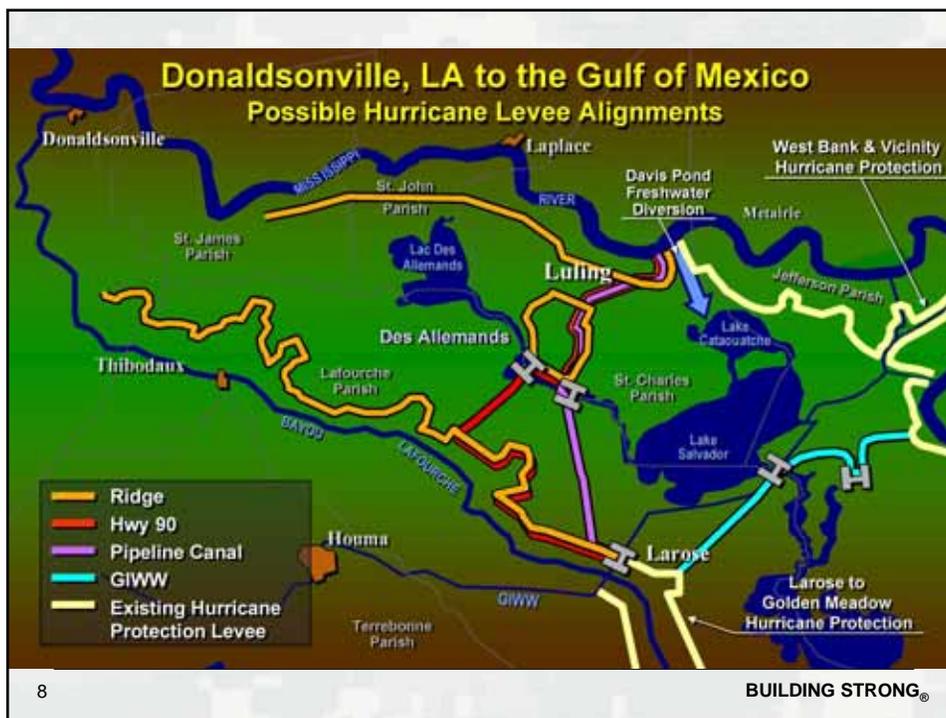
Project Status

- Technical analyses in progress: Environmental, Economics, Engineering Division review of levee system structures and levee design
- Hydrodynamic/salinity modeling of water circulation for all future with project alternatives in progress
 - Information gained from hydrodynamic/salinity model will provide a basis for evaluating impacts of cross-basin levee systems
- Agricultural damages analysis in progress



7

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8

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Outreach & Public Views

- Meetings with research scientists and specialists based in State and Federal government and University departments have been ongoing from August of 2007 through 2008.
- Outreach has included multiple meetings with individual non-governmental organizations and NGO workshop on 6 March 2009
- One workshop (approx 250 attendees) was held on 24 March 2009 for the communities of Lafitte, Barataria, and Crown Point to communicate structural and non-structural flood damage reduction measures and to receive feedback.



Opportunities

- Information gained from hydrodynamic and salinity model will provide a basis for evaluating impacts of cross-basin levee systems
- Outreach to study area Parishes will provide more input to the study process
- Continued communication with science community will provide feedback on technical analyses—economics, hydrology, environmental impact.



Path Forward

- Finalize salinity model
 - Model to include Davis Pond, Myrtle Grove and two small siphons in the upper basin
- Maintain project schedule
- Complete evaluation of recently submitted engineering design of levee systems
- Continue outreach to communities, agencies, stakeholders, and local governments
 - Additional outreach to inform public on the USACE feasibility process to describe the necessary steps to move a project to completion



Schedule - Major Milestones

- Executed FCSA amendment No.1 — June 29, 2009
- Feasibility AFB— June 30,2010
- Draft FS/Environmental Public Notice—October 29, 2010
- Feasibility Report Approval—March 31,2011
- Chief's Report to ASA—December 30, 2011



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

ADDITIONAL AGENDA ITEMS

• **For Decision:**

West Belle Pass Barrier Headland Project (TE-52), request for project scope change approval due to project cost increase over 25%. (Richard Hartman NMFS)

• **For Decision:**

Request for a Scope Change for the South Grand Chenier Hydrologic Restoration Project (ME-20). (D. Clark (USFWS), Kirk Rhinehart (OCPR)). The FWS and OCPR request Technical Committee approval for a So. Grand Chenier Hydrologic Restoration Project scope change to increase the budget over 25%. The original fully funded cost estimate was \$20,998,000. The fully funded revised budget will exceed that original budget by greater than 25%. The estimate is the revised fully funded budget will be close to \$29 M or 38% over the original budget. The exact amount will be presented before the October Task Force meeting.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
 National Marine Fisheries Service
 LSU- Louisiana Sea Grant Building, Room 124C
 Baton Rouge, LA 70803

September 21, 2009

Re: West Belle Pass Barrier Headland Restoration Project (TE-52) Proceeding to 95% Design

Dear Members of the CWPPRA Technical Committee:

On behalf of the NOAA National Marine Fisheries Service (NMFS) and the Louisiana Office of Coastal Protection and Restoration (OCPR), please consider this letter notice of our intent to proceed to 95% design on the above referenced project. The 30% design conference was held July 15, 2009 and did not result in the discovery of any information that should preclude moving ahead with final engineering of the project. Answers to questions submitted either at the conference or during the two-week comment period following the conference is attached. Per the 2009 CWPPRA Standard Operating Procedures (SOP) Section 6.e.2, "...the Federal Sponsor shall forward a letter (or e-mail) to the Technical Committee with a copy to the Planning and Evaluation Subcommittee along with the revised estimate, a description of project revisions from the previously authorized project, and a letter of concurrence from the Local Sponsor, informing them of the agreement to continue with the project." The State has concurred with this request verbally and a letter is in the process of being forwarded to the Technical Committee.

In addition to the above requirement, Section 6.e.3 of the SOP states that if a change in scope results in a 25% or greater variance from the original estimated project benefits or cost, that a report must be submitted to the Technical Committee explaining the reasons for the variance. After completing a robust engineering investigation and selecting a design alternative that best meets the project goals using a cost-based approach, the resulting construction cost is approximately 55% higher than that estimated during Phase 0. The project benefits are improved compared to that determined in Phase 0. The following table summarizes the cost and benefit information.

	Construction Cost (including 25% contingency)	Constructed Acres (beach, dune, marsh)	Net Acres (pending final review of Env WG)	AAHU's (pending final review of the Env WG)
Phase 0	\$23,045,710	270	299 (includes secondary benefits to adjacent shorelines)	180
Phase 1	\$35,871,491	320	280 (does not include secondary benefits)	190

The final engineering cost estimate is in the process of being completed and is expected to be sent to the Engineering Work Group this week. Additionally, the original Wetland Value Assessment is being revised and will be submitted to the Environmental Work Group shortly. It is NMFS and OCPR's intent to host a 95% design review conference on November 3, 2009, unless the Technical Committee feels that the project should not proceed. The design items of the project remain unchanged from Phase 0. The cost increase was necessary given updated market and design information. The end result is a project that will perform better and have a greater likelihood of receiving successful bids.

The NMFS and OCPR respectfully request that the Technical Committee review and approve this request by email, given the short time remaining to execute Phase 2 requests. All other elements of reaching Phase 2 have been completed, and we are anxious to submit this project for construction funds as time is of the essence along this shoreline. Should you feel an audience is warranted, we respectfully request being added to next week's agenda so the matter can be voted on prior to closure of the 95% design conference window.

Thank you in advance for your consideration of our request to move to 95% design. I can be reached at (225) 578-7923, or Kenneth Bahlinger at (225) 342-7362 should you require additional information.

Best wishes,



Cheryl Brodnax, Project Manager

NOAA National Marine Fisheries Service

Attachments: TE-52 Project Boundary

Planform of Preferred Alternative

Comments submitted at 30% design conference

Cc: Members of the CWPPRA Planning and Evaluation Subcommittee

Kenneth Bahlinger, Project Manager, OCPR

Cecelia Linder, Program Officer, NOAA NMFS



Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

September 23, 2009

Cheryl Brodnax
NOAA Restoration Center
LSU Sea Grant Room 124 C
Baton Rouge, LA 70803-6100

Re: 30% Design Review Concurrence for West Belle Pass Barrier
Headland Restoration Project (TE-52)
Statement of Local Sponsor Concurrence

Dear Ms. Brodnax:

The 30% Design Review meeting for the West Belle Pass Barrier Headland Restoration (TE-52) project was held on July 15th, 2009. Based on our review of the technical information compiled to date, the preliminary land ownership investigation, and the preliminary designs, the Office of Coastal Protection and Restoration, as the local sponsor, concurs to proceed with the design of TE-52. In accordance with the CWPPRA Standard Operating Procedures, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee and proceed towards the 95% design level with the selected alternative and revised project cost estimate. We also request that our project manager, Kenneth Bahlinger, be copied on all correspondence concerning this project.

The revised TE-52 project cost estimate reflects a change in scope resulting in a 25% or greater variance from the original project cost estimate. Therefore, OCPR concurs with your report to the Technical Committee (dated September 21, 2009) stating the resultant increase in cost is due to a justifiable increase in benefits and several deficiencies in the Phase 0 cost estimate.

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

Sincerely,

Christopher P. Knotts, P.E.,
OCPR Chief, Engineering and Operations Division

cc: Cecelia Linder, NOAA Fisheries
Kenneth Bahlinger, OCPR Project Manager
Rudy Simoneaux, P.E., OCPR Project Engineer
TE-52 Project File

Comments Submitted at 30% Design Conference: TE-52

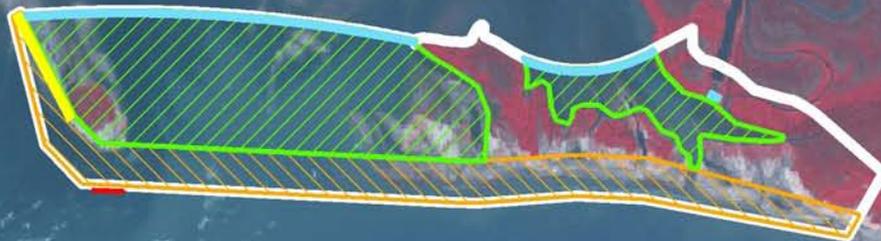
1) Have breakwaters been considered as a design feature for this project?

A breakwater and terminal end structures were modeled and evaluated for this project. Although both were able to help retain sand within the project area, they were marginally cost-effective in terms of construction costs vs. cost savings from material retention. The Delft3D model showed that a single breakwater could help trap sand, but that its success was premised on the addition of beach nourishment; therefore, they could not be interchanged to meet the project's goals. As an additive feature to beach renourishment and marsh creation, breakwaters could improve performance. The decision to omit hard structures from this project was almost exclusively a matter of total project cost, as well as concern over placing hard structures along a migrating shoreline. The cost for one breakwater was estimated at a little over \$1M. With a headland that is over 9,000 lf long, the cost to build a breakwater field would exceed \$10M, not including maintenance costs.

2) Have you looked at the shadow of the terminal structure as to where the sand goes?

According to the models, the sand trends northwest and goes into Raccoon Pass with little bypassing. Some material goes behind the islands into the bays. After reviewing the data the State's contractor (Coastal Planning and Engineering) does not expect any downstream impacts should a terminal end structure be used.

Timbalier Bay



Gulf of Mexico

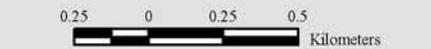
Belle Pass

West Belle Pass Barrier Headland Restoration Project



-  Crested Dune *
-  Containment *
-  Breakwater *
-  Marsh Creation *
-  Dune/Beach Fill *
-  Project Boundary *

* denotes proposed features



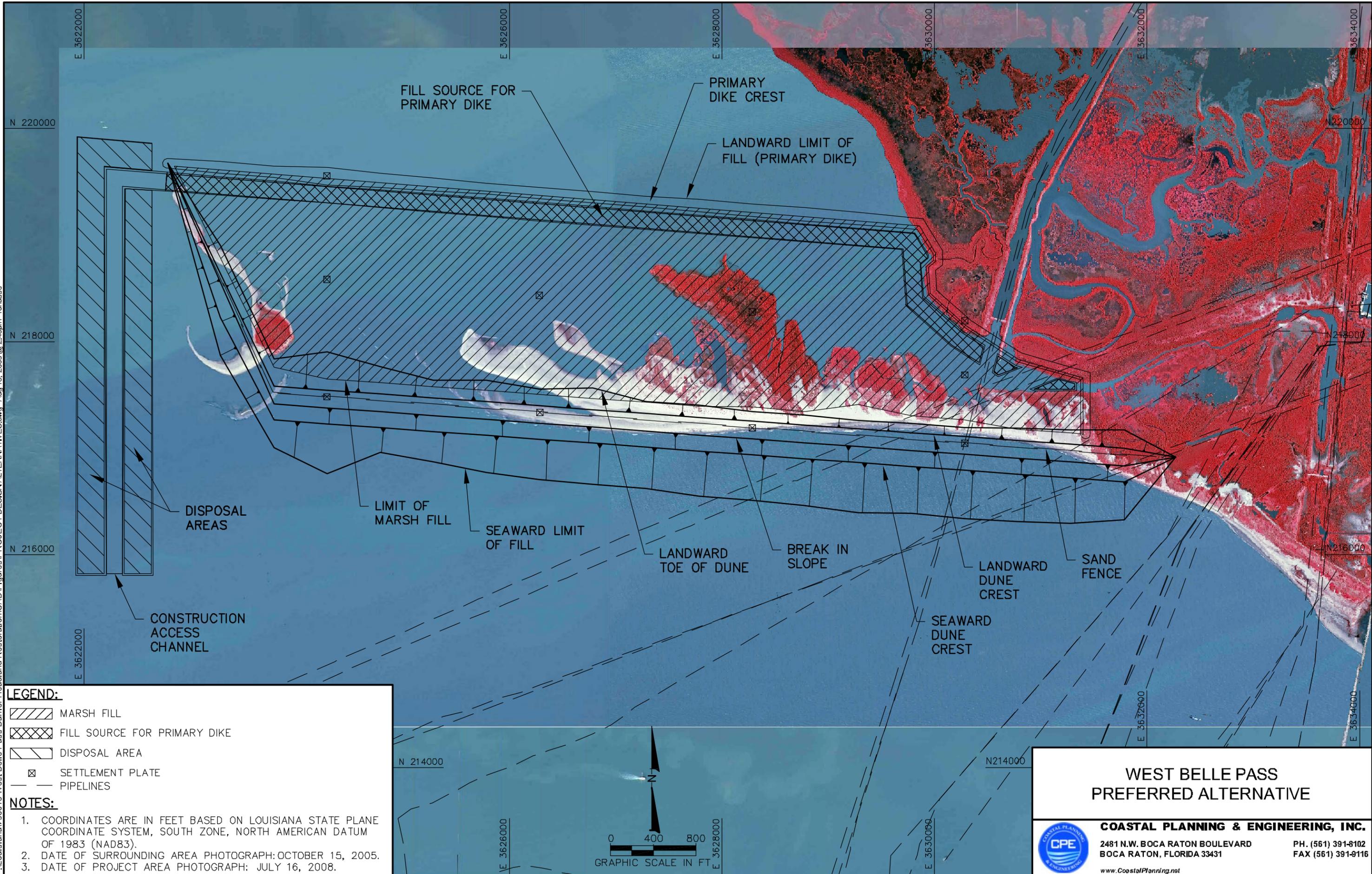
Scale 1:25,000



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 Quadrangle

P:\Louisiana\7900018 West Belle Pass Barrier Headland Restoration\CAD\Figures\PROJECT DESIGN\ALTERNATIVES.dwg - Aug 18, 2009 @ 2:40pm - rchasse

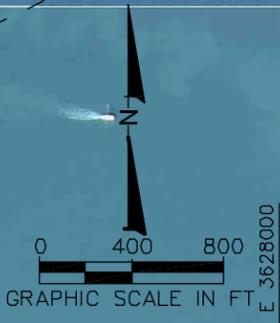


LEGEND:

- MARSH FILL
- FILL SOURCE FOR PRIMARY DIKE
- DISPOSAL AREA
- SETTLEMENT PLATE
- PIPELINES

NOTES:

1. COORDINATES ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83).
2. DATE OF SURROUNDING AREA PHOTOGRAPH: OCTOBER 15, 2005.
3. DATE OF PROJECT AREA PHOTOGRAPH: JULY 16, 2008.



**WEST BELLE PASS
PREFERRED ALTERNATIVE**

COASTAL PLANNING & ENGINEERING, INC.

2481 N.W. BOCA RATON BOULEVARD
BOCA RATON, FLORIDA 33431
PH. (561) 391-8102
FAX (561) 391-9116

www.CoastalPlanning.net

Wandell, Scott F MVN

From: Goodman, Melanie L MVN
Sent: Monday, September 28, 2009 11:48 AM
To: Wandell, Scott F MVN
Subject: FW: Request for Approval to go to 95% design - West Belle Pass Barrier Headland (TE-52)

Attachments: TC letter to proceed to 95% design (9.28.09).pdf



TC letter to
proceed to 95% de..

Please print this email for the binders. The attachment is already included in the binder materials.

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

From: Cheryl Brodnax [mailto:Cheryl.Brodnax@noaa.gov]
Sent: Monday, September 28, 2009 11:46 AM
To: Goodman, Melanie L MVN
Cc: Richard Hartman; Rachel Sweeney; Kevin_Roy@fws.gov; Brad Crawford @ EPA; John Jurgensen @ NRCS; kelley.templet@la.gov; Holden, Thomas A MVN; Cecelia Linder; Kenneth Bahlinger; Kirk Rhinehart; Constance, Troy G MVN; Darryl_Clark@fws.gov; britt.paul@la.usda.gov; Rudy.Simoneaux@LA.GOV
Subject: Re: Request for Approval to go to 95% design - West Belle Pass Barrier Headland (TE-52)

Melanie-

Per your request please find attached a revised letter and summary table that includes the original and revised Phase 1 costs, estimated Phase 2 costs, and long-term O&M and project-specific monitoring budgets. As you have mentioned, the proposed costs have to be finalized by the Eng WG and inflated by the Eco WG. The proposed budget is being forwarded to the Eng WG today to begin this process. In order to compare like budgets, the Phase 0 budget only reflects the fully funded first costs and original O&M budget. As well, the benefits have marginally increased as a result of including the secondary benefits that were part of the original WVA and not reflected in this first letter. The final WVA will be submitted to the Env WG very shortly for their final review and concurrence.

Thank you for your willingness to hear this request. As I will be on mandatory business travel, the presentation will be made by OCPD.
Please let me know if you require additional information.

Best regards-
Cheryl

Goodman, Melanie L MVN wrote:

> Rick, for the subject request, please provide current and estimated
> fully funded project costs. We realize that an economic analysis
> hasn't been conducted, but a rough estimate for future O*M if any plus
> Phase I cost should be included so we can get an idea of the estimated
> total change in project cost effectiveness.

>
> Thanks,
>
> Melanie

>
> -----Original Message-----
> From: Cheryl Brodnax [mailto:Cheryl.Brodnax@noaa.gov]
> Sent: Monday, September 21, 2009 1:16 PM
> To: Holden, Thomas A MVN; Constance, Troy G MVN; Darryl_Clark@fws.gov;

> Kirk Rhinehart; Richard Hartman; britt.paul@la.usda.gov;
> parrish.sharon@epa.gov
> Cc: Goodman, Melanie L MVN; Kevin_Roy@fws.gov; Brad Crawford @ EPA;
> John Jurgensen @ NRCS; kelley.templet@la.gov; Rachel Sweeney; Cecelia
> Linder; Kenneth Bahlinger
> Subject: Request for Approval to go to 95% design - West Belle Pass
> Barrier Headland (TE-52)
>
> Dear Technical Committee Members:
>
> Please find in the attached pdf, a letter requesting approval to
> proceed to 95% design for the West Belle Pass Barrier Headland Project (TE-52).
> Within this letter you will find reference to a cost increase that has
> exceeded the 25% tolerance. The letter discusses the issue and asks
> for your concurrence. With the period for requesting phase 2 funds
> quickly approaching, I respectfully request your attention to this
> matter, with consideration to providing concurrence via email. In the
> absence of this possibility, I request being added to the agenda for next week's
meeting.
> With your approval, it is NMFS and OCP's intent to hold a 95% design
> conference on November 3, 2009. We are in the process of finalizing
> the engineering cost estimate and WVA with the respective work groups,
> and all other Phase 1 components have been completed. For your
> information, I have also attached the project boundary, preferred
> alternative plan form, and answers to questions submitted at the 30% design conference.
>
> Many thanks in advance for your time and consideration.
>
> Best regards,
>
> Cheryl Brodnax
> NOAA National Marine Fisheries Service
>

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

REQUEST FOR PUBLIC COMMENTS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

ANNOUNCEMENT: DATE OF UPCOMING CWPPRA PROGRAM

The Task Force meeting will be held October 28, 2009 at 9:30 a.m. at the U.S. Army Corps of Engineers, 7400 Leake Ave., New Orleans, Louisiana in the District Assembly Room (DARM).

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

SEPTEMBER 29, 2009

ANNOUNCEMENT: SCHEDULED DATES OF FUTURE PROGRAM MEETINGS

2009			
October 28, 2009	9:30 a.m.	Task Force	New Orleans
November 17, 2009	7:00 p.m.	PPL 19 Public Meeting	Abbeville
November 18, 2009	7:00 p.m.	PPL 19 Public Meeting	New Orleans
December 2, 2009	9:30 a.m.	Technical Committee	Baton Rouge
2010			
January 20, 2010	9:30 a.m.	Task Force	New Orleans
January 26, 2010	1:00 p.m.	Region IV Planning Team Meeting	Rockefeller
January 27, 2010	9:30 a.m.	Region III Planning Team Meeting	Houma
January 28, 2010	9:30 a.m.	Region II Planning Team Meeting	New Orleans
January 28, 2010	1:00 p.m.	Region I Planning Team Meeting	New Orleans
April 14, 2010	9:30 a.m.	Technical Committee	New Orleans
June 2, 2010	9:30 a.m.	Task Force	Lafayette
September 22, 2010	9:30 a.m.	Technical Committee	New Orleans
October 27, 2010	9:30 a.m.	Task Force	New Orleans
November 16, 2010	7:00 p.m.	PPL19 Public Meeting	Abbeville
November 17, 2009	7:00 p.m.	PPL19 Public Meeting	New Orleans
December 1, 2010	9:30 a.m.	Technical Committee	Baton Rouge