ATTENDANCE RECORD

DATE(S)	SPONSORING ORGANIZATION	LOCATION
January 20, 2010 9:30 P.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	U.S. Army Corps of Engineers New Orleans District District Assembly Room 7400 Leake Ave.,New Orleans, La.

PURPOSE **MEETING OF THE CWPPRA TASK FORCE**

PARTICIPANT REGISTER

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

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Kenneth Bahr	OCPR	225 342-1362

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NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER & EMAIL
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Nancy Woodlock	Jefferson Parish Gov.	504-731-4612
Amanda Moore	NWF	225-229-1944
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William McCartney	St. Bernard Parish Gov't	504-442-2426
Michelle Fischer	USGS	225-578-7483
DAISY CAMARDELLE	JJG	504-427-5130
Dora Wrifenbarh	OCPR	337 482-0686

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PURPOSE **MEETING OF THE CWPPRA TASK FORCE**

PARTICIPANT REGISTER

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

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Cecelia Linder	NOAA Fisheries	cecelia.linder@noaa.gov 301 713-0174 X 162
Sylvie Smith	ASEC LLC	985-852-3485 sylvie.smith4258@yahoo
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PURPOSE **MEETING OF THE CWPPRA TASK FORCE**

PARTICIPANT REGISTER

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

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER & EMAIL
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Susan Henningson	PM/CEMVN-PM-W	X.2504

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JAN 88

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BREAUX ACT

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TASK FORCE MEETING

AGENDA

January 20, 2010 9:30 a.m.

Location:
U.S. Army Corps of Engineers Office
7400 Leake Ave.
New Orleans, Louisiana
District Assembly Room (DARM)

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

Tab Number	Agenda Item

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

2. **Discussion/Decision: Adoption of Minutes from the October 28, 2009 Task Force Meeting (Melanie Goodman, USACE) 9:40 a.m. to 9:45 a.m.** Ms. Melanie Goodman will present the minutes from the last Task Force meeting. Task Force members may provide suggestions for additional information to be included in the official minutes.

3. **Report: Status of Breaux Act Program Funds and Projects (Gay Browning, USACE/Melanie Goodman, USACE) 9:45 a.m. to 10:00 a.m.** Ms. Gay Browning will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs. Ms. Melanie Goodman will provide an overview of program funding and commitment projections.

4. **Report: Public Outreach Committee Report (Susan Bergeron, USGS). 10:00 a.m. to 10:10 am.** Ms. Bergeron will present the quarterly Public Outreach Committee Report.

5. **Report: Status of the PPL 12 - Floating Marsh Creation Demonstration Project (LA-05) (Dr. Jenneke Visser). 10:15 a.m. to 10:20 a.m.** Dr. Jenneke Visser will present the major findings from Floating Marsh Creation Demonstration Project (LA-05). The project has reached the end of its final growing season and data collection.

6. **Report/Discussion/Decision: Status of Technical Committee Scope of Work for Review of the CWPPRA Monitoring Program (Richard Hartman, NMFS) 10:20 a.m. to 10:40 a.m.** At their October 28, 2009 meeting, the Task Force directed the Technical Committee to develop a scope of work (SOW) and schedule, to be completed by December 3, 2009, for a plan to look at the estimated life cycle cost of CRMS; and whether or not CRMS and project specific monitoring are meeting CWPPRA Program needs in terms of being able to demonstrate if the program investment in coastal restoration projects has been successful. The Task Force will review and consider approving the Technical Committee's SOW and schedule, and recommendation to increase the CWPPRA FY10 Planning Budget in the amount of $21,450 for a supplemental task to have the Academic Advisory Group participate in executing the SOW.

7. **Report/Discussion: Status of the PPL 8 - Sabine Refuge Marsh Creation Project, Cycle II, IV, & V (CS-28-4&5) (Scott Wandell, USACE) 10:40 a.m. to 10:50 a.m.** Mr. Scott Wandell will provide a status on the construction of the permanent pipeline (Cycle II) and potential construction schedule for Cycles IV and V to meet the Calcasieu Ship Channel FY 11 maintenance cycle in winter 2010/2011.

8. **Report/Discussion: Status of the PPL 17 - Bio-Engineered Oyster Reef Demonstration Project (LA-08) (Dr. John Foret, NMFS) 10:50 a.m. to 11:00 a.m.** Dr. John Foret will provide a status on the engineering and design and a potential change in the project scope for the Bio-Engineered Oyster Reef Demonstration Project (LA-08) due to an estimated budget increase.

9. **Report/Discussion/Decision: Status of the PPL 1 - West Bay Sediment Diversion Project (MR-03) (Cherie Price, USACE) 11:00 a.m. to 11:30 a.m.** Ms. Cherie Price will provide a status of the Pilottown Anchorage Area dredging and a summary of the West Bay Work Plan, 6 month effort results. The Task Force will discuss and make decisions on recommendations for the path forward on the West Bay project and work plan effort.

10. **Report/Discussion/Decision: Status of Unconstructed Projects (Melanie Goodman, USACE) 11:30 a.m. to 11:45 a.m.** The P&E will report on the status of unconstructed projects, including Weeks Bay Marsh Creation and Shoreline Protection Project/Fresh Water Redirection Project. The Task Force will consider approving the Technical Committee's recommendation to initiate procedures to deauthorize the PPL 12 Lake Borgne/MRGO Shoreline Protection Project (PO-32).

11. **Discussion/Decision: 19th Priority Project List (Kevin Roy, USFWS and Melanie Goodman, USACE) 11:45 a.m. to 12:10 p.m.** The Environmental Workgroup Chairman will present an overview of four candidate projects being recommended by the Technical Committee for PPL 19 and Phase I approval. The Task Force will consider approving the Technical Committee's recommendation on the following projects for PPL 19 and Phase I funding approval in the amount of $10,736,747:
    - Lost Lake Marsh Creation and Hydrologic Restoration, $2,320,214
    - Freshwater Bayou Marsh Creation, $2,425,997
    - LaBranche East Marsh Creation, $2,571,273
    - Cheniere Ronquille Barrier Island Restoration, $3,419,263

12. **Discussion/Decision: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding (Melanie Goodman, USACE) 12:10 p.m. to 12:35 p.m.** The Task Force will consider the Technical Committee's recommendation to approve requests for Phase II Authorization and Increment 1 funding. The Technical Committee reviewed project information, and took public comments on requests for Phase II approval on the seven projects shown in the following table. The Technical Committee ranked the seven projects based on individual agency votes. Based on the voting results, the Technical Committee recommends Phase II authorization and Increment 1 funding for the top four projects (Cameron-Creole Fresh Water Intro, Vegetative Plantings - CU 1, Barataria Basin Landbridge, Phase 3 - CU 8, West Belle Pass Barrier Headland Restoration, and South Grand Chenier Hydrologic Restoration) indicated in the table below that are within the construction program's available funding limits.

Recommended Approval by Tech Committee	Agency	Project No.	PPL	Project Name	No. Of Agency Votes	Sum of Weighted Score	Total Fully Funded Cost Est.
X	NRCS	CS-49 (1)	18	Cameron-Creole Fresh Water Intro, Vegetative Plantings - CU 1	6	14	$1,147,096
X	NRCS	BA-27c(4)	9	Barataria Basin Landbridge, Phase 3 - CU 8	5	10	$20,498,664
X	NMFS	TE-52	16	West Belle Pass Barrier Headland Restoration	4	12	$42,250,417
X	FWS	ME-20	11	South Grand Chenier Hydrologic Restoration	4	8	$29,046,128
	NRCS	TE-43	10	GIWW Bank Restoration of Critical Areas in Terrebonne	2	7	$13,022,246
	COE	TV-11b	9	Freshwater Bayou Canal, Freshwater Bayou Lock and Belle Isle Canal	2	5	$38,065,335
	EPA	TE-47	11	Ship Shoal: Whiskey West Flank Restoration	1	4	$61,750,785

13. **Additional Agenda Items (Col. Al Lee, USACE) 12:35 p.m. to 1:05 p.m.**

    Discussion, Decision: Request for O&M Funding Increase for the East Mud Lake Marsh Management Project (Melanie Goodman, USACE). Ms. Goodman will present the Technical Committee recommendation to the Task Force to approve a request by NRCS and the State for an O&M budget increase in the amount of $199,451, and incremental funding approval in the amount of $361,690 for the East Mud Lake Marsh Management Project (CS-20). This request will follow Agenda Item 8.

14. **Request for Public Comments (Col. Al Lee, USACE) 1:05 p.m. to 1:10 p.m.**

15. **Announcement: Priority Project List 20 Regional Planning Team Meetings (Melanie Goodman, USACE) 1:10 p.m. to 1:15 p.m.**

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
February 24, 2010	10:00 a.m.	RPT Voting Meeting	Baton Rouge

16. **Announcement: Date of Upcoming CWPPRA Program Meeting (Melanie Goodman, USACE) 1:15 p.m. to 1:20 p.m.** The Technical Committee meeting will be held April 20, 2010 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).

17. **Announcement: Scheduled Dates of Future Program Meetings (Melanie Goodman, USACE) 1:20 p.m. to 1:25 p.m.**

2010

April 20, 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.	PPL 20 Public Meeting	Abbeville
November 17, 2010	7:00 p.m.	PPL 20 Public Meeting	New Orleans
December 1, 2010	9:30 a.m.	Technical Committee	Baton Rouge

Decision: Adjourn

Task Force Members

Col Alvin B. Lee
District Commander and District Engineer
U.S. Corp of Engineers, New Orleans District

Mr. Jim Boggs
Field Supervisor
U.S. Fish and Wildlife Service

Mr. Garret Graves
Senior Advisor to the Governor for Coastal Activities
Governor's Office of Coastal Activities

Mr. William K. Honker
Deputy Director, Water Quality Protection Division
Environmental Protection Agency

Mr. Christopher Doley
Office of Habitat Conservation
National Marine and Fisheries Service

Mr. Kevin Norton
State Conservationist
Natural Resources Conservation Service

Technical Committee Members

Mr. Thomas A. Holden
Deputy District Engineer
U.S. Army Corps of Engineers

Mr. Darryl Clark
Senior Field Biologist
U.S. Fish and Wildlife Service

Mr. Kirk Rhinehart
Planning Administrator
Office of Coastal Protection and Restoration
State of Louisiana OCPR

Mr. Brad Crawford
Civil Engineer
Environmental Protection Agency

Mr. Rick Hartman
Fishery Biologist
National Marine and Fisheries Service

Mr. Britt Paul
Assistant State Conservationist/Water Resources
Natural Resources Conservation Service

Planning & Evaluation Committee

Ms. Melanie Goodman
CWPPRA Program and Senior Project Manager
U.S. Army Corps of Engineers

Mr. Kevin Roy
Senior Field Biologist
U.S. Fish and Wildlife Service

Ms. Kelley Templet
Coastal Resources Scientist
State of Louisiana OCPR

Mr. Brad Crawford
Civil Engineer
Environmental Protection Agency

Ms. Rachel Sweeney
Ecologist
National Marine and Fisheries Service

Mr. John Jurgensen
Civil Engineer
Natural Resources Conservation Service

January 2010

Summary of Organizational Structure and Responsibilities

1.0 Introduction.

Section 303(a)(1) of the CWPPRA directs the Secretary of the Army to convene the Louisiana Coastal Wetlands Conservation and Restoration Task Force, to consist of the following members:

- the Secretary of the Army (Chairman)
- the Administrator, Environmental Protection Agency
- the Governor, State of Louisiana
- the Secretary of the Interior
- the Secretary of Agriculture
- the Secretary of Commerce

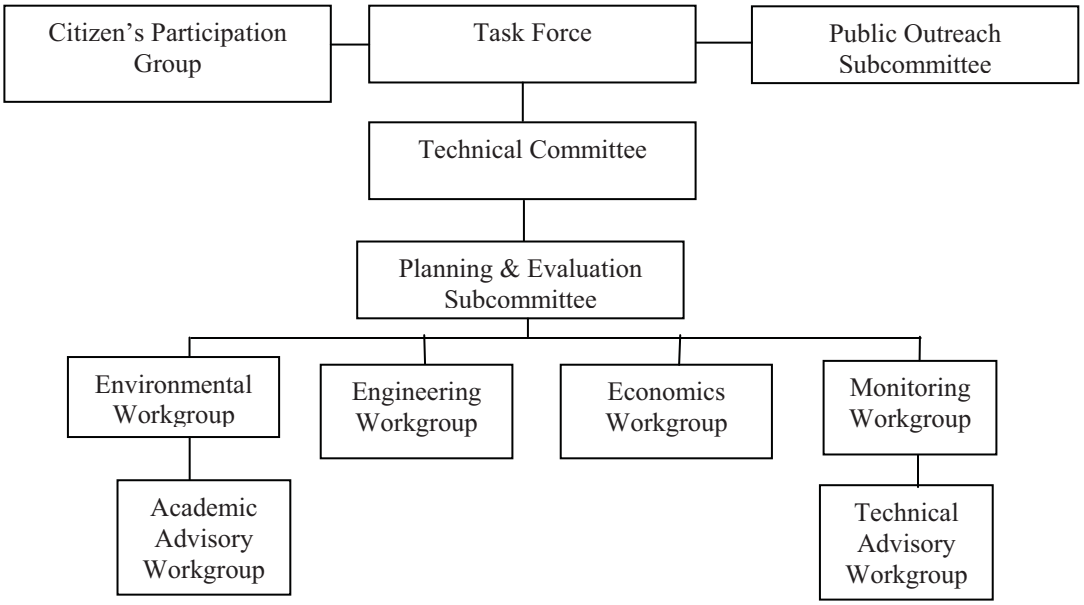
The State of Louisiana is a full voting member of the Task Force except for selection of the Priority Project List [Section 303(a)(2)], as stipulated in President Bush's November 29, 1990, signing statement of the Act. In addition, the State of Louisiana may not serve as a "lead" Task Force member for design and construction of wetlands projects on the priority project list.

In practice, the Task Force members named by the law have delegated their responsibilities to other members of their organizations. For instance, the Secretary of the Army authorized the commander of the New Orleans District, U.S. Army Corps of Engineers, to act in his place as chairman of the Task Force.

A summary is presented of the structure and description of duties of the organizations formed under CWPPRA to manage the program is presented in the following pages.

Figure 1

CWPPRA Organizational Structure



2.0 Coastal Wetlands Conservation and Restoration Task Force.

Typically referred to as the "Task Force" (TF), it is comprised of one member of each, respectively, from five Federal Agencies and the Local Cost Share Sponsor, which is the State of Louisiana. The Federal Agencies of CWPPRA include: the U.S. Fish & Wildlife Service (USFWS) of the US Department of the Interior, the Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture (USDA), the National Marine Fisheries Service of Department of Commerce (USDC), the U.S. Environmental Protection Agency (USEPA), and the U.S. Army Corps of Engineers (USACE). The Governor's Office of the State of Louisiana represents the state on the TF. The TF provides guidance and direction to subordinate organizations of the program through the Technical Committee (TC), which reports to the TF. The TF is charged by the Act to make final decisions concerning issues, policies, and procedures necessary to execute the Program and its projects. The TF makes directives for action to the TC, and the TF makes decisions in consideration of TC recommendations. Table 1 lists the membership of the TF.

Table 1
Membership of the Task Force

Member's Representative	Mailing Address of Representative
Secretary of the Army (Chairman) Colonel Alvin B. Lee District Commander TEL (504) 862-2077 FAX (504) 862-1259	U.S. Army Corp of Engineers, New Orleans District Executive Office 7400 Leake Ave., New Orleans, Louisiana 70160-0267 Mailing Address: P.O. Box 60267 New Orleans, Louisiana 70160-0267 alvin.b.lee.col@usace.army.mil
Governor, State of Louisiana Mr. Garret Graves Senior Advisor to the Governor for Coastal Activities, Governor's Office of Coastal Activities TEL (225) 342-3968 FAX (225) 342-5214	Capitol Annex 1051 North Third Street, Suite 138 Baton Rouge, Louisiana 70802 garret@la.gov
Administrator, Environmental Protection Agency Mr. William K. Honker Deputy Director, Water Quality Protection Division TEL (214) 665-3187 FAX (214) 665-7373	Environmental Protection Agency, Region 6 Water Quality Protection Division (6WQ) 1445 Ross Avenue Dallas, Texas 75202-2733 honker.william@epa.gov
Secretary, Department of the Interior Mr. Jim Boggs Field Supervisor TEL (337) 291-3115 FAX (337) 291-3139	U.S. Fish and Wildlife Service Louisiana Field Office 646 Cajundome Blvd., Suite 400 Lafayette, Louisiana 70506 jim_boggs@fws.gov
Secretary, Department of Agriculture Mr. Kevin Norton State Conservationist TEL (318) 473-7751 FAX (318) 473-7682	Natural Resources Conservation Service 3737 Government Street Alexandria, Louisiana 71302 Kevin.Norton@la.usda.gov
Secretary, Department of Commerce Mr. Christopher Doley Director, NOAA Restoration Center Office of Habitat Conservation TEL (301) 713-0174 FAX (301) 713-0184	National Oceanic and Atmospheric Administration National Marine Fisheries Service 1315 East-West Highway, Room 14853 Silver Spring, Maryland 20910 chris.doley@noaa.gov

The District Commander of the USACE, New Orleans District, is the Chairman of the TF. The TF Chairman leads the TF and sets the agenda for action of the TF to execute the Program and projects. At the direction of the Chairman of the TF, the New Orleans District: (1) provides administration, management, and oversight of the Planning and Construction Programs, and acts as accountant, budgeter, administrator, and disburser of all Federal and non-Federal funds under the Act, (2) acts as the official manager of financial data and most information relating to the CWPPRA Program and projects. Under the direction of the District Commander, the Planning & Project Management - Coastal Restoration Branch of the Corps functions as lead agency and representatives of the Program.

2.1 Technical Committee.

The TC is established by the TF to provide advice and recommendations for execution of the Program and projects from a number of technical perspectives, which include: engineering, environmental, economic, real estate, construction, operation and maintenance, and monitoring. The TC provides guidance and direction to subordinate organizations of the program through the Planning & Evaluation Subcommittee (P&E), which reports to the TC. The TC is charged by the TF to consider and shape decisions and proposed actions of the P&E, regarding its position on issues, policy, and procedures towards execution of the Program and projects. The TC makes directives for action to the P&E, and the TC makes decisions in consideration of the P&E recommendations. The TC Members are shown in Table 2.

Table 2
Membership of the Technical Committee

Member's Representative	Mailing Address of Representative
Mr. Tom Holden (Chairman) Deputy District Engineer TEL (504) 862-2204 FAX (504) 862-1259	U.S. Army Corps of Engineers, New Orleans District Office of the Chief 7400 Leake Ave., New Orleans, Louisiana 70160-0267 Mailing Address: P.O. Box 60267 New Orleans, Louisiana 70160-0267 thomas.a.holden@usace.army.mil
Mr. Darryl Clark Senior Field Biologist TEL (337) 291-3111 FAX (337) 291-3139	U.S. Fish and Wildlife Service 646 Cajundome Blvd. Suite 400 Lafayette, Louisiana 70506 darryl_clark@fws.gov
Mr. Kirk Rhinehart Acting Asst. Secretary TEL (225) 342-2179 FAX (225) 342-1377	Dept. of Natural Resources 617 North 3rd Street, Baton Rouge, Louisiana 70804-4027 Mailing Address: P.O. Box 44027, Capitol Station Baton Rouge, Louisiana 70804-4027 kirk.rhinehart@la.gov
Mr. Richard Hartman Fishery Biologist Chief, Baton Rouge Field Office TEL (225) 389-0508, x203 FAX (225) 389-0506	National Marine Fisheries Service Rm 266 Military Science Bldg South Stadium Drive LSU Baton Rouge LA 70803-7535 richard.hartman@noaa.gov
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Mr. Britt Paul, P.E. Assistant State Conservationist/Water Resources TEL (318) 473-7756 FAX (318) 473-7682	Natural Resources Conservation Service 3737 Government Street Alexandria, Louisiana 71302 britt.paul@la.usda.gov

The Chair's seat of the TC resides with the USACE, New Orleans District. The TC Chairman leads the TC and sets the agenda for action of the TC to make recommendations to the TF for executing the Program and projects. At the direction of the Chairman of the TF, the Chairman of the TC guides the management and administrative work charged to the TF Chairman.

2.11 Planning and Evaluation Subcommittee.

The P&E is the working level committee established by the TC to form and oversee special technical workgroups to assist in developing policies and processes, and recommend procedures for formulating plans and projects to accomplish the goals and mandates of CWPPRA. Table 3 contains a list of the P&E Members.

Table 3
Membership of the Planning and Evaluation Subcommittee

P&E Subcommittee Member	Mailing Address of Representative
Ms. Melanie L. Goodman (Acting Chairman) Senior Project Manager TEL (504) 862-1940 FAX (504) 862-1892	U.S. Army Corps of Engineers, New Orleans District Protection and Restoration Office, Restoration Branch 7400 Leake Ave., New Orleans, Louisiana 70160-0267 Mailing Address: P.O. Box 60267 New Orleans, Louisiana 70160-0267 melanie.l.goodman@usace.army.mil
Mr. Kevin Roy Senior Field Biologist TEL (337) 291-3120 FAX (337) 291-3139	U.S. Fish and Wildlife Service 646 Cajundome Blvd. Suite 400 Lafayette, Louisiana 70506 kevin_roy@fws.gov
Mr. Brad Crawford, P.E. Civil Engineer TEL (214) 665-7255 FAX (214) 665-6689	Environmental Protection Agency, Region 6 Water Quality Protection Division (6WQ-EMC) 1445 Ross Avenue Dallas, Texas 75202-2733 crawford.brad@epa.gov
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Mr. Dan Llewellyn Coastal Resources Scientist Supervisor TEL (225) 342-5159 FAX (225) 342-9417	DNR/Coastal Restoration Division 617 North 3rd Street, Baton Rouge, Louisiana 70804-4027 Mailing Address: P.O. Box 44027, Capitol Station Baton Rouge, Louisiana 70804-4027 daniel.llewellyn@la.gov
Ms. Rachel Sweeney Ecologist TEL (225) 389-0508, x206 FAX (225) 389-0506	National Oceanic and Atmospheric Administration National Marine Fisheries Service c/o Louisiana State University Baton Rouge, Louisiana 70803-7535 rachel.sweeney@noaa.gov

Table 3 (Continued)
Membership of the Planning and Evaluation Subcommittee

Other Representatives	Mailing Address of Representative

The seat of the Chairman of the P&E resides with the USACE, New Orleans District. The P&E Chairman leads the P&E and sets the agenda for action of the P&E to make recommendations to the TC for executing the Program and projects. At the direction of the Chairman of the TC, the Chairman of the P&E executes the management and administrative work directives of the TC and TF Chairs.

2.111 Environmental Work Group (EnvWG).

The EnvWG, under the guidance and direction of the P&E, reviews candidate projects to: (1) suggest any recommended measures and features that should be considered during engineering and design for the achievement/enhancement of wetland benefits, and (2) determine the estimated annualized wetland benefits (Average Annual Habitat Units) of those projects. A list of primary contacts of the EnvWG Members is presented in Table 4.

Table 4
Membership of the Environmental Work Group

EnvWG Member	Mailing Address of Representative
Mr. Kevin Roy (Chairman) Senior Field Biologist TEL (337) 291-3120 FAX (337) 291-3139	U.S. Fish and Wildlife Service 646 Cajundome Blvd, Suite 400 Lafayette, Louisiana 70506 kevin_roy@fws.gov
Ms. Beth McCasland Biologist TEL (504) 862-2021 FAX (504) 862-2572	U.S. Army Corps of Engineers, New Orleans District Environmental Planning and Compliance Branch P.O. Box 60267 New Orleans, Louisiana 70160-0267 elizabeth.l.mccasland@usace.army.mil
Mr. Dan Llewellyn Coastal Resources Scientist Supervisor TEL (225) 342-5159 FAX (225) 342-9417	DNR/Coastal Restoration Division 617 North 3rd Street, Baton Rouge, Louisiana 70804-4027 Mailing Address: P.O. Box 44027, Capitol Station Baton Rouge, Louisiana 70804-4027 daniel.llewellyn@la.gov
Mr. Ron Boustany Wildlife Biologist TEL (337) 291-3067 FAX (337) 291-3085	Natural Resources Conservation Service 646 Cajundome Blvd., Suite 180 Lafayette, Louisiana 70506 ron.boustany@la.usda.gov

Mr. Ken Teague Environmental Scientist TEL (214) 665-6687 FAX (214) 665-6689	Environmental Protection Agency, Region 6 Water Quality Protection Division (6WQ-EMC) 1445 Ross Avenue Dallas, Texas 75202-2733 teague.kenneth@epamail.epa.gov
Mr. Patrick Williams Fisheries Biologist TEL (225) 389-0508, x208 FAX (225) 389-0506	National Marine Fisheries Service c/o Louisiana State University Baton Rouge, Louisiana 70803-7535 patrick.williams@noaa.gov

The seat of Chairman of the EnvWG resides with the USFWS. The EnvWG Chairman leads the EnvWG to accomplish its work.

Table 4 (Continued)
Membership of the Environmental Work Group

Other Agency Representatives	Mailing Address of Representative
Mr. Ronny Paille Senior Field Biologist TEL (337) 291-3117 FAX (337) 291-3139	U.S. Fish and Wildlife Service 646 Cajundome Blvd., Suite 400 Lafayette, Louisiana 70506 ronald_paille@fws.gov
Mr. Robert Dubois Fish and Wildlife Biologist TEL (337) 291-3127 FAX (337) 291-3139	U.S. Fish and Wildlife Service 646 Cajundome Blvd., Suite 400 Lafayette, Louisiana 70506 robert_dubois@fws.gov
Mr. Troy Mallach Biologist TEL (337) 291-3064 FAX (337) 291-3085	Natural Resources Conservation Service 646 Cajundome Blvd., Suite 180 Lafayette, Louisiana 70506 troy.mallach@la.usda.gov
Susan M. Hennington Biologist/Project Manager Restoration Branch TEL (504) 862-2504	U.S. Army Corps of Engineers New Orleans District P.O. Box 60267 New Orleans, LA 70160-0267
Mr. Manuel Ruiz Fishery Biologist Marine Habitat Program TEL (225) 765-2373 FAX (225) 765-2489	Louisiana Department of Wildlife and Fisheries P.O. Box 98000 Baton Rouge, LA 70898-9000 mruiz@wlf.louisiana.gov
Mr. Michael Carloss Wildlife Biologist Coastal Refuges Program Manager TEL (337) 373-0032 FAX (337) 373-0181	Louisiana Department of Wildlife and Fisheries 2415 Darnell Rd New Iberia, LA 70560-9622 mcarloss@wlf.louisiana.gov
Ms. Honora Buras Coastal Resources Scientist DCL-A TEL 225-342-4103 FAX (225) 342-9417	DNR/Coastal Restoration Division P.O. Box 44027, Capitol Station Baton Rouge, Louisiana 70804-4027 honora.buras@la.gov

Ms. Sue Hawes Project Manager for the Environment TEL (504) 862-2518 FAX (504) 862-1892	U.S. Army Corps of Engineers, New Orleans District Office of the Chief P.O. Box 60267 New Orleans, Louisiana 70160-0267 suzanne.r.hawes@usace.army.mil
Mr. Travis Creel Project Manager TEL (504) 862-1071 FAX (504) 862-1892	U.S. Army Corps of Engineers, New Orleans District Protection and Restoration Office, Restoration Branch P.O. Box 60267 New Orleans, Louisiana 70160-0267 Travis.J.Creel@usace.army.mil
Ms. Heather Warner-Finley Fishery Biologist Marine Habitat Program Manager TEL (225) 765-2956 FAX (225) 765-2489	Louisiana Department of Wildlife and Fisheries P.O. Box 98000 Baton Rouge, LA 70898-9000 hfinley@wlf.louisiana.gov

2.112 Engineering Work Group (EngWG).

The EngWG, under the guidance and direction of the P&E, provides engineering standards, quality control/assurance, and support, for the review and comment of the cost estimates for: engineering, environmental compliance, economic, real estate, construction, construction supervision and inspection, project management, operation and maintenance, and monitoring, of candidate and demonstration projects considered for development, selection, and funding under the Act. A list of the primary contacts for the EngWG is presented in Table 5.

Table 5
Membership of the Engineering Work Group

EngWG Members	Mailing Address of Representative
Mr. John Petitbon, E.I. (Chairman) Civil Engineer TEL (504) 862-2732 FAX (504) 862-1356	U.S. Army Corps of Engineers, New Orleans District General Engineering Branch – Cost Engineering Section P.O. Box 60267 New Orleans, Louisiana 70160-0267 john.b.petitbon@usace.army.mil
Mr. Dain Gillen Engineer Intern TEL (225) 342-6307 FAX (225) 342-6801	DNR/Coastal Engineering Division 617 North 3rd Street, Rm. 1036F Baton Rouge, Louisiana 70804-4027 dain.gillen@la.gov
Mr. Brad Crawford, P.E. Civil Engineer TEL (214) 665-7255 FAX (214) 665-6689	Environmental Protection Agency, Region 6 Water Quality Protection Division (6WQ-EMC) 1445 Ross Avenue Dallas, Texas 75202-2733 crawford.brad@epa.gov

Mr. John Jurgensen, P.E. Civil Engineer TEL (318) 473-7694 FAX (318) 473-7747	Natural Resources Conservation Service 3737 Government Street Alexandria, Louisiana 71302 john.jurgensen@la.usda.gov
Mr. Ronny Paille Senior Field Biologist TEL (337) 291-3117 FAX (337) 291-3139	U.S. Fish and Wildlife Service 646 Cajundome Blvd., Suite 400 Lafayette, Louisiana 70506 ronald_paille@fws.gov
Mr. Patrick Williams Fisheries Biologist TEL (225) 389-0508, x208 FAX (225) 389-0506	National Marine Fisheries Service c/o Louisiana State University Baton Rouge, Louisiana 70803-7535 patrick.williams@noaa.gov

The EngWG Chairman leads the EngWG in its tasks. The seat of Chairman of the EngWG resides with the USACE New Orleans District.

Table 5 (Continued)
Membership of the Engineering Work Group

Other Agency Representatives	Mailing Address of Representative
Mr. Loland Broussard Civil Engineer TEL (337) 291-3069 FAX (337) 291-3085	Natural Resources Conservation Service 646 Cajundome Blvd. Suite 180 Lafayette, Louisiana 70506 loland.broussard@la.usda.gov
Ms. Patty Taylor, P.E. Environmental Engineer TEL (214) 665-6403 FAX (214) 665-6689	Environmental Protection Agency, Region 6 Water Quality Protection Division (6WQ-EMC) 1445 Ross Avenue Dallas, Texas 75202-2733 taylor.patricia-a@epa.gov
Ms. Melanie Magee Environmental Engineer TEL (214) 665-7161 FAX (214) 665-6689	Environmental Protection Agency, Region 6 Water Quality Protection Division (6WQ-EMC) 1445 Ross Avenue Dallas, Texas 75202-2733 magee.melanie@epa.gov
Mr. Jason Kroll Water Resources Staff TEL (318) 473-7816 FAX (318) 473-7747	Natural Resources Conservation Service 3737 Government Street Alexandria, LA 71303 jason.kroll@la.usda.gov
Mr. Rudolph A. Simoneaux III, E. I. Engineer Intern II TEL (225) 342-6750 FAX (225) 342-6801	DNR/Coastal Engineering Division 617 North 3rd Street, Rm. 1036F Baton Rouge, Louisiana 70804-4027 rudy.simoneaux@la.gov

2.113 Economics Work Group (EcoWG).

The EcoWG, under the guidance and direction of the P&E, reviews and evaluates candidate projects that have been completely developed, for the purpose of assigning the fully funded first cost of projects, based on the estimated 20-year stream of project costs. A list of primary contacts of the EcoWG Members is presented in Table 6.

Table 6
Membership of the Economics Work Group

EcoWG Members	Mailing Address of Representative
Mr. Matthew Napolitano (Chairman) Economist TEL (504) 862-2445 FAX (504) 862-1299	U.S. Army Corps of Engineers, New Orleans District Economic and Social Analysis Branch P.O. Box 60267 New Orleans, Louisiana 70160-0267 Matthew.P.Napolitano@usace.army.mil
Mr. Bill Waits Agricultural Economist TEL (318) 473-7686 FAX (318) 473-7747	Natural Resources Conservation Service 3737 Government Street Alexandria, Louisiana 71302 bill.waits@la.usda.gov
Mr. Gary Barone Financial Scientist TEL (301) 713-0174 FAX (301) 713-0184	National Oceanic and Atmospheric Administration National Marine Fisheries Service 1315 East-West Highway, Room 14226 Silver Spring, Maryland 20910 gary.barone@noaa.gov
Ms. Honora Buras Coastal Resources Scientist DCL-A TEL 225-342-4103 FAX (225) 342-9417	DNR/Coastal Restoration Division P.O. Box 44027, Capitol Station Baton Rouge, Louisiana 70804-4027 honora.buras@la.gov

The USACE New Orleans District holds the EcoWG Chairman seat. The EcoWG Chairman leads the EcoWG to complete their evaluations.

2.114 Monitoring Work Group (MWG).

The MWG, under the guidance and direction of the P&E, develops standard operating procedures and oversees the development and implementation of field monitoring programs for the CWPPRA program. A list of primary contacts of the MWG Members is presented in Table 7.

Table 7
Membership of the Monitoring Work Group

MWG Members	Mailing Address of Representative
Mr. Rick Raynie (Co-Chairman) Biological Monitoring Section Manager TEL (225) 342-9436 FAX (225) 242-3632	DNR/Coastal Restoration Division P.O. Box 44027, Capitol Station Baton Rouge, Louisiana 70804-4027 rickr@dnr.state.la.us

Mr. Greg Steyer (Co-Chairman)
Ecologist
TEL (225) 578-7201
FAX (225) 578-7478

U. S. Geological Survey (representing USFWS)
National Wetlands Research Center
Coastal Restoration Field Station
P.O. Box 25098
Baton Rouge, Louisiana 70894
gsteyer@usgs.gov

Ms. Beth McCasland
Biologist
TEL (504) 862-2021
FAX (504) 862-2572

U.S. Army Corps of Engineers, New Orleans District
Environmental Planning and Compliance Branch
P.O. Box 60267
New Orleans, Louisiana 70160-0267
elizabeth.l.mccasland@usace.army.mil

Dr. John D. Foret
Wetland Ecologist
TEL (337) 291-2107
FAX (337) 291-2106

NOAA Fisheries Service
Estuarine Habitats & Coastal Fisheries Center
646 Cajundome Blvd
Lafayette, Louisiana 70506
John.foret@noaa.gov

Mr. Robert Dubois
Fish and Wildlife Biologist
TEL (337) 291-3127
FAX (337) 291-3139

U.S. Fish and Wildlife Service
646 Cajundome Blvd., Suite 400
Lafayette, Louisiana 70506
robert_dubois@fws.gov

Ms. Cindy Steyer
Coastal Vegetative Specialist
TEL (225) 389-0334
FAX (225) 382-2042

USDA Natural Resources Conservation Service
P.O Box 16030, LSU
Baton Rouge, Louisiana 70893
Cindy.steyer@la.usda.gov

Mr. Ron Boustany
Wildlife Biologist
TEL (337) 291-3067
FAX (337) 291-3085

Natural Resources Conservation Service
646 Cajundome Blvd., Suite 180
Lafayette, Louisiana 70506
ron.boustany@la.usda.gov

Susan M. Hennington
Biologist/Project Manager
Restoration Branch
TEL (504) 862-2504

U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Mr. Ken Teague
Environmental Scientist
TEL (214) 665-6687
FAX (214) 665-6689

Environmental Protection Agency, Region 6
Water Quality Protection Division (6WQ-EMC)
1445 Ross Avenue
Dallas, Texas 75202-2733
teague.kenneth@epa.gov

The seats of Co-Chairman of the MWG resides with the Louisiana Department of Natural Resources (LADNR) and the U.S. Geological Survey (USGS). These Chairmen lead the MWG in monitoring program activities.

2.1141 Technical Advisory Group (TAG).

The TAG, under the guidance and direction of the MWG, reviews projects selected and funded for implementation, for the purpose of designing a project-specific monitoring plan to evaluate and report the level of project effectiveness. A list of primary contacts of the TAG

Members is presented in Table 8.

Table 8
Membership of the Technical Advisory Work Group

TAG Members	Mailing Address of Representative
Mr. Rick Raynie Biological Monitoring Section Manager TEL (225) 342-9436 FAX (225) 342-9417	DNR/Coastal Restoration Division P.O. Box 44027, Capitol Station Baton Rouge, Louisiana 70804-4027 rickr@dnr.state.la.us
Mr. Greg Steyer Ecologist TEL (225) 578-7201 FAX (225) 578-7478	U. S. Geological Survey (representing USFWS) National Wetlands Research Center Coastal Restoration Field Station P.O. Box 25098 Baton Rouge, Louisiana 70894 gsteyer@usgs.gov
Ms. Beth McCasland Biologist TEL (504) 862-2021 FAX (504) 862-2572	U.S. Army Corps of Engineers, New Orleans District Environmental Planning and Compliance Branch P.O. Box 60267 New Orleans, Louisiana 70160-0267 elizabeth.l.mccasland@usace.army.mil
Mr. Ken Teague Environmental Scientist TEL (214) 665-6687 FAX (214) 665-6689	Environmental Protection Agency, Region 6 Water Quality Protection Division (6WQ-EMC) 1445 Ross Avenue Dallas, Texas 75202-2733 teague.kenneth@epa.gov
Ms. Joy Merino Fisheries Biologist TEL (337) 291-2109 FAX (337) 291-2106	National Marine Fisheries Service Estuarine Habitats and Coastal Fisheries Center 646 Cajundome Blvd., Room 172 Lafayette, Louisiana 70506 Joy.merino@noaa.gov
Ms. Cindy Steyer Coastal Vegetative Specialist TEL (225) 389-0334 FAX (225) 382-2042	USDA Natural Resources Conservation Service P.O Box 16030, LSU Baton Rouge, Louisiana 70893 Cindy.steyer@la.usda.gov
Mr. Robert Dubois Fish and Wildlife Biologist TEL (337) 291-3127 FAX (337) 291-3139	U.S. Fish and Wildlife Service 646 Cajundome Blvd., Suite 400 Lafayette, Louisiana 70506 robert_dubois@fws.gov
Ms. Sue Hawes Project Manager for the Environment TEL (504) 862-2518 FAX (504) 862-1892	U.S. Army Corps of Engineers, New Orleans District Office of the Chief P.O. Box 60267 New Orleans, Louisiana 70160-0267 suzanne.r.hawes@usace.army.mil
Mr. Ron Boustany Wildlife Biologist TEL (337) 291-3067	Natural Resources Conservation Service 646 Cajundome Blvd., Suite 180 Lafayette, Louisiana 70506

FAX (337) 291-3085	ron.boustany@la.usda.gov
Ms. Melanie Goodman Project Manager/Biologist TEL (504) 862-1940 FAX (504) 862-1892	U.S. Army Corps of Engineers, New Orleans District Protection and Restoration Office, Restoration Branch P.O. Box 60267 New Orleans, Louisiana 70160-0267 melanie.l.goodman@usace.army.mil

The Chairman of the TAG resides with the LADNR. The Chairman leads the TAG in project-specific monitoring activities.

2.115 Academic Advisory Group (AAG).

While the agencies sitting on the TF possess considerable expertise regarding Louisiana's coastal wetlands problems, the TF recognized the need to incorporate another invaluable resource: the state's academic community. The TF therefore retained university services to provide scientific advisors to support the Program. A list of primary contacts of the AAG Members is presented in Table 9.

Table 9
Membership of the Academic Advisory Group

AAG Members	Mailing Address of Representative
Dr. Jenneke Visser (Chairman) Associate Professor - Research TEL (225) 578-6377 FAX (225) 578-6326	Coastal Ecology Institute Louisiana State University Baton Rouge, Louisiana 70803 comvss@lsu.edu
Dr. Larry Rouse Associate Professor TEL (225) 578-2953 FAX (225) 578-2520	Oceanography and Coastal Sciences Louisiana State University Baton Rouge, LA 70803 lrouse@lsu.edu
Dr. Charles Sasser Professor of Research TEL (225) 578-6375 FAX (225) 578-6326	Coastal Ecology Institute Louisiana State University Baton Rouge, Louisiana 70803 csasser@lsu.edu
Dr. Gary Shaffer Associate Professor TEL (985) 549-2865 FAX (985) 549-3851	Department of Biological Sciences Southeastern Louisiana University Hammond, Louisiana 70402 shafe@selu.edu
Mr. Erick Swenson Research Associate TEL (225) 578-2730 FAX (225) 388-6326	Coastal Ecology Institute Louisiana State University Baton Rouge, Louisiana 70803 eswenson@lsu.edu

The AAG, under the guidance and direction of the P&E; provides support during the

screening and development, and ranking of candidate and demonstration projects. The AAG works with the EnvWG and MWG in support of their respective work in project development. The AAG also assists the FC in carrying out the feasibility studies authorized by the TF.

The AAG Chairman seat, which is traditionally held by a university academic, leads this group in completing their work.

2.116 Financial Administration Team.

As stated previously, the New Orleans District: (1) provides administration, management, and oversight of the Planning and Construction Programs, and acts as accountant, budgeter, administrator, and disburser of all Federal and non-Federal funds under the Act, (2) acts as the official manager of financial data and most information relating to the CWPPRA Program and projects. Under the direction of the District Commander, the Planning & Project Management - Coastal Restoration Branch of the Corps functions as lead agency and representatives of the Program. The list of contacts in the Financial Administration Team is presented in Table 10.

Table 10
Financial Administration Team

Member's Representative	Mailing Address of Representative
Ms. Gay B. Browning (Lead) Program Analyst TEL (504) 862-2755 FAX (504) 862-1892	U.S. Army Corps of Engineers, New Orleans District Protection and Restoration Office, Restoration Branch P.O. Box 60267 New Orleans, Louisiana 70160-0267 gay.b.browning@usace.army.mil
Mr. Darryl Clark Senior Field Biologist TEL (337) 291-3111 FAX (337) 291-3139	U.S. Fish and Wildlife Service 646 Cajundome Blvd. Suite 400 Lafayette, Louisiana 70506 darryl_clark@fws.gov
Ms. Lana Humphries Accountant Manager TEL (225) 342-4077 FAX (225) 242-3518	DNR/Office of Management & Finance P.O. Box 44277 Baton Rouge, Louisiana 70804 lanah@dnr.state.la.us
Mr. Gary Barone TEL (301) 713-0174 FAX (301) 713-0184	National Oceanic and Atmospheric Administration National Marine Fisheries Service Office of Habitat Conservation Silver Spring, Maryland 20910 gary.barone@noaa.gov
Ms. Sondra McDonald TEL (214) 665-7187 FAX (214) 665-6490	Environmental Protection Agency, Region 6 Water Quality Management Division (6WQ-AT) 1445 Ross Avenue Dallas, Texas 75202-2733 mcdonald.sondra@epamail.epa.gov

Mrs. Mitzi Gallipeau Program Assistant TEL (318) 473-7607 FAX (318) 473-7747	Natural Resources Conservation Service 3737 Government Street Alexandria, Louisiana 71302 mitzi.gallipeau@la.usda.gov

2.2 Public Outreach Committee (OC).

The OC is comprised of members from the participating Federal agencies, the State of Louisiana, other coastal programs, and non-profit organizations. Only the core group members, representing the CWPPRA entities, are eligible to vote on budget matters. The committee is currently responsible for formulating information strategies and public education initiatives, maintaining a web site of complex technical and educational materials, developing audio-visual presentations, exhibits, publications and news releases, conducting special events and project dedications and groundbreakings. Additionally, the committee represents the CWPPRA task force at expositions and workshops to promote coastal wetlands restoration.

A list of primary contacts of the OC Members is presented in Table 11.

Table 11
Membership of the Public Outreach Committee

OC Members	Mailing Address of Representative
Mr. Scott Wilson, Chairman Electronics Engineer TEL (337) 266-8644 FAX (337) 266-8513	United States Geological Survey National Wetlands Research Center 700 Cajundome Blvd. Lafayette, Louisiana 70506 Scott_Wilson@usgs.gov
Mr. Andre Williams Outreach Coordinator TEL (337) 266-8623 FAX (337) 266-8513	United States Geological Survey National Wetlands Research Center 700 Cajundome Blvd. Lafayette, Louisiana 70506 williamsa@usgs.gov
Ms. Adele Swearingen Public Affairs Specialist TEL (318) 473-7686 FAX (318) 473-7682	United States Department of Agriculture Natural Resources Conservation Service 3737 Government Street Alexandria, Louisiana 71302 Adele.Swearingen@la.usda.gov
Dr. Rex Caffey Associate Professor, Wetlands & Coastal Resources TEL (225) 578-2266 FAX (225) 578-2716	LSU AgCenter and Louisiana Sea Grant Department of Agriculture Economics Room 179 Baton Rouge, Louisiana 70803-5604 Rcaffey@agcenter.lsu.edu

Ms. Minnie Rojo Environmental Scientist TEL (214) 665-3139 FAX (214) 665-6689	Environmental Protection Agency, Region 6 Water Quality Protection Division (6WQ-EMC) 1445 Ross Avenue Dallas, Texas 75202-2733 Rojo.Minerva@epa.gov
Ms. Cheryl Brodnax Marine Fisheries Habitat Specialist TEL (225) 578-7923 FAX (225) 578-7926	NOAA Fisheries Service Louisiana State University Sea Grant Building, Room 125 Baton Rouge, LA 70803-6100 cheryl.brodnax @noaa.gov
Ms. Susan Testroet-Bergeron, BTNEP Formal Education Coordinator TEL (985) 447-0836 TEL (800) 259-0869 FAX (985) 447-0870	Barataria-Terrebonne National Estuary Program P.O. Box 2663 Thibodaux, Louisiana 70310 susan@btnep.org
Mr. Steven Peyronnin Coalition to Restore Coastal Louisiana Communications Director TEL (225) 344-6555 FAX (225) 344-0590	Coalition to Restore Coastal Louisiana 746 Main Street, Suite B-101 Baton Rouge, Louisiana 70802 stevenp@crcl.org
Ms. Honora Buras Coastal Resources Scientist TEL (225) 342-4103 FAX (225) 342-9417	Louisiana Department of Natural Resources P.O. Box 44027, Capitol Station Baton Rouge, Louisiana 70804-4027 honora.buras@la.gov

The Public Outreach Committee performs the functions of communications and public relations for the program on behalf of the Task Force. The primary function of the OC is to coordinate ongoing and future outreach activities with the CWPPRA agencies and the various partner groups and stakeholders. The OC reports to and takes direction from the Task Force. Yearly budgetary planning is coordinate with the Technical Committee.

The Chairman and coordinator for the outreach are located in Lafayette, Louisiana at the USGS National Wetlands Research Center. The Chairman manages OC functions and budgetary issues. The budget allocation for the outreach program is forecasted, submitted for approval, and managed by the chairman. The Chairman and coordinator manage all outreach activities for the TF. The coordinator position interprets for general audiences the scientific functions and values of wetlands, the scientific causes for Louisiana's coastal land loss, and the various approaches underway or being considered to reduce the land loss rate and create new vegetated wetlands. The outreach coordinator also develops and arranges presentations and provides information material for other officials making public comments as well as providing liaison with local officials and media. The outreach coordinator also manages the educational program, which provides information and materials for classroom use throughout the state. The Chairman and coordinator for outreach serve on local and regional planning efforts and act as the liaisons between the public, parish governments, and the various Federal agencies involved in CWPPRA.

2.3 Citizen's Participation Group (CPG).

The TF also established a CPG to provide general input from the diverse interests across the coastal zone: local officials, landowners, farmers, farmers, sportsmen, commercial fishermen, oil and gas developers, navigation interests, ad environmental organizations. The CPG was formed to promote citizen participation and involvement in formulating priority project lists and the restoration plan. The group meets at its own discretion, but may at times meet in conjunction with other CWPPRA elements, such as the TC. The purpose of the CPG is to maintain consistent public review and input into the plans and projects being considered by the TG and to assist and participate in the public involvement program. The membership of the CPG is shown in Table 12. The Coalition to Restore Coastal Louisiana holds CPG Chairman seat. The CPG Chairman leads this group in their charge.

Table 12
Membership of the Citizen's Participation Group

Coalition to Restore Coastal Louisiana
Mr. Mark Davis, Executive Director (Chairman)
200 Lafayette Street, Suite 500
Baton Rouge, Louisiana 70801-1200
TEL (225) 344-6555
FAX (225) 344-0590

Gulf Intracoastal Canal Association
Doug Svendson, Executive Director
1539 Jackson Avenue, Suite 410
New Orleans, Louisiana 70130
TEL (504) 586-1473
FAX (504) 586-1634

Lake Pontchartrain Basin Foundation
Mr. Carlton Dufrechou, Executive Director
Three Lakeway Building, Suite 2070
3838 North Causeway Boulevard
Metairie, Louisiana 70002
TEL (504) 836-2215
FAX (504) 836-7283

Louisiana Association of Soil and Water Conservation Districts
Earl Garber
5229 Evangeline Hwy
Basile, La 70515

Louisiana Farm Bureau Federation, Inc.
9516 Airline Highway
Baton Rouge, Louisiana 70815
TEL (225) 922-6200
FAX (225) 922-6229

Louisiana Landowners Association
Newman Trowbridge, Agent
200 Willow Street
Franklin, Louisiana 70538-6166
TEL (337) 828-5480
FAX (337) 828-1160

Louisiana League of Women Voters
850 North 5th Street, Apartment 103
Baton Rouge, Louisiana 70802
TEL 1-(800) 288-VOTE
FAX (225) 344-3326

Louisiana Oyster Growers and Dealers Association
Al Sunseri, President
1039 Toulouse Street
New Orleans, Louisiana 70112
TEL (504) 523-2651
FAX (504) 522-4960

Steamship Association of Louisiana
Channing Hayden, President
2440 World Trade Center
2 Canal Street
New Orleans, Louisiana 70130
TEL (504) 522-9392
FAX (504) 523-2140

Louisiana Wildlife Federation, Inc.
Randy Lanctot, Executive Director
P.O. Box 65239 Audubon Station
Baton Rouge, Louisiana 70896-5239
TEL (225) 344-6707
FAX (225) 344-6707

Mid-Continent Oil and Gas Association
Mr. B. Jim Porter, President
801 North Boulevard, Suite 201
Baton Rouge, Louisiana 70802-5727

Nature Conservancy of Louisiana
Dr. Keith Ouchley, Director
P.O. Box 4125
Baton Rouge, Louisiana 70821

TEL (504) 387-3205
FAX (504) 344-5502

Oil and Gas Task Force (Regional Economic Development Council)
Mr. Bill Berry
P.O. Box 60350
New Orleans, Louisiana 70160
TEL (504) 566-6425

Police Jury Association of Louisiana
James Hays, Executive Secretary
707 North 7th Street
Baton Rouge, Louisiana 70805-5315
TEL (225) 343-2835
FAX (225) 336-1344

TEL (225) 338-1040
FAX (225) 338-0103

Organization of Louisiana Fishermen
Mr. Robert Fritchey, Secretary
P.O. Box 71651
New Orleans, Louisiana 70172-1651
TEL (504) 523-2472

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

ADOPTION OF MINUTES FROM THE OCTOBER 28, 2009 TASK FORCE MEETING

Ms. Melanie Goodman will present the minutes from the last Task Force meeting. Task Force members may provide suggestions for additional information to be included in the official minutes.

BREAUX ACT
Coastal Wetlands Planning, Protection and Restoration Act

TASK FORCE MEETING
28 October 2009

Minutes

I. INTRODUCTION

Colonel Alvin Lee convened the 73rd meeting of the Louisiana Coastal Wetlands Conservation and Restoration Task Force. The meeting began at 9:45 a.m. on October 28, 2009 at the U.S. Army Corps of Engineers Office, District Assembly Room, 7400 Leake Avenue, New Orleans, LA. The agenda is shown as Enclosure 1. The Task Force was created by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA, commonly known as the Breaux Act), which was signed into law (PL 101-646, Title III) by President George Bush on November 29, 1990.

II. ATTENDEES

The attendance record for the Task Force meeting is presented as Enclosure 2. Listed below are the six Task Force members present.

Mr. Jim Boggs, U.S. Fish and Wildlife Service (USFWS)
Mr. Christopher Doley, National Marine Fisheries Service (NMFS)
Mr. Jerome Zeringue, State of Louisiana, Governor's Office of Coastal Activities [Mr. Zeringue sat in for Mr. Garrett Graves]
Colonel Alvin Lee, Chairman, U.S. Army Corps of Engineers (USACE)
Mr. Kevin Norton, Natural Resources Conservation Service (NRCS)
Dr. Jane Watson, U.S. Environmental Protection Agency (EPA) [Dr. Watson sat in for Mr. William Honker]

III. OPENING REMARKS

Colonel Lee presented Dr. Jane Watson with a Certificate of Appreciation for exemplary service to CWPPRA from June 2008 to November 2009 as representative for the Administrator of the EPA on the Task Force.

Mr. Thomas Holden, USACE, gave an overview of the agenda items. He stated that Agenda Items 7(a) and 7(c) have been removed by request of the State and that some of the requested budget amounts under Agenda Item 7 have been updated as related to Agenda Item 6. Mr. Holden also noted that Agenda Item 14 was different than usual and may warrant discussion.

Colonel Lee opened the floor to comments from the Task Force. There were no further comments.

Mr. Norton made a motion to accept the agenda. Mr. Zeringue seconded. The motion was passed by the Task Force.

IV. ADOPTION OF MINUTES FROM JUNE 2009 TASK FORCE MEETING

Colonel Lee called for a motion to adopt the minutes from the June 3, 2009 Task Force Meeting. Mr. Holden presented the meeting minutes and reviewed the Task Force's decisions from that meeting.

Colonel Lee opened the floor to comments from the Task Force. There were no further comments.

Mr. Zeringue moved to adopt the minutes and Mr. Boggs seconded. The motion was passed by the Task Force.

V. TASK FORCE DECISIONS

A. Agenda Item #4 – Report/Discussion/Decision: FY10 Planning Budget Approval including the PPL 20 Process and Presentation of the Public Outreach Committee Report and the FY10 Outreach Budget

1. Mr. Travis Creel, USACE, reviewed the Technical Committee recommendation that the PPL 20 Planning Process Standard Operating Procedures (SOP) 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 (RPT) Meeting for the Mississippi River Delta Basin, then an additional nominee would be selected for the Breton Sound Basin. He explained that electronic voting had been discussed with the parishes, but that the parishes would prefer a face to face RPT meeting as conducted in the past so the electronic voting recommendation has been removed. He also presented a newly recommended process to vote on all basins up front with any tie held as a re-vote between the two tied projects and a second tie resulting in carrying the additional nominee forward. In the event of a double tie, 21 projects will be carried forward instead of the usual 20.

Mr. Darryl Clark, USFWS, asked about reordering the nominees in a tie situation. Mr. John Jurgensen, NRCS, explained that the RPT does not have a set amount of votes like the Task Force and Technical Committee. Mr. Creel further answered that if there is a tie then there will be a re-vote on the two tied nominees and that if there is a tie again, then both nominees will carry forward. Colonel Lee clarified that the 21 nominees will only carry forward after a second tie.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Boggs made a motion to approve the Technical Committee's recommendation for the FY 10 Planning Budget including the PPL 20 Process. Mr. Zeringue seconded. The motion was passed by the Task Force.

2. The Task Force considered the Technical Committee's recommendation to approve the FY10 Planning Budget in the amount of $4,913,588.

Mr. Boggs made a motion to approve the Technical Committee's recommendation for the FY 10 Planning Budget in the amount of $4,913,588. Mr. Zeringue seconded. The motion was passed by the Task Force.

3. Mr. Holden reported that the Technical Committee tasked the P&E Subcommittee to look at ways to reduce the FY11 Planning Budget with a recommendation to the Technical Committee by the September 3, 2010 meeting. The task included reviewing ways to further reduce the Planning Budget moving forward, looking at the Outreach Budget, and considering GIS and web-based information and expenditures. Mr. Holden asked if there was any guidance from the Task Force on this item.

Colonel Lee stated that it is a good action moving forward.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

4. Mr. Wilson introduced Ms. Susan Bergeron, the new Outreach Committee Coordinator, to present the quarterly CWPPRA Outreach Committee report. Ms. Bergeron gave a presentation of upcoming activities planned for 2010 and the 20th anniversary of the CWPPRA Program. She stated that the Outreach Committee wants to show people what is going on with a project after dedication and is striving for more public involvement at the dedications. She introduced Ms. Cheryl Brodnax who is working on the Outreach Committee's Portfolio of Success. Ms. Bergeron also listed the various partnership projects the Committee has underway, including creating eight barrier island posters, a new educational CD, and partnering with organizations such as the Barataria-Terrebonne National Estuary Program (BTNEP), USDA-Natural Resources Conservation Service (NRCS), National Park Service and the Louisiana Science Teachers Association. Ms. Bergeron also shared an example of non-cost, eco-tourism outreach efforts where a tour guide gives tours that go past CWPPRA projects, including areas of wetland restoration. She also stated that the Outreach Committee had worked to give a Louisiana Outdoor Writers Association award to those writing about coastal restoration.

Ms. Bergeron asked the Task Force help to figure out ways to better reach the public and to help evaluate the Outreach Committee's strategic plan. She also introduced Ms. Susan Laudeman with the Historic New Orleans Collection and a partnership program called "In the Blink of an Alligator's Eye Wetlands Vanish" where the Collection is gathering oral histories related to coastal land loss and restoration by having children interview the eldest person in their family

Mr. Wilson asked if there were any further Task Force questions or comments.

Mr. Doley stated that he appreciated the solicitation of input from the Task Force regarding outreach programs and strategies. Mr. Wilson responded that the Outreach Committee is attempting to strike a balance between the need for restoration and the success of CWPPRA. He stated that the successes need to be known, but not emphasized to the point that further restoration resources seem unnecessary. He suggested that further Task Force input be gathered offline and that while each agency has its own specific outreach focus, the Outreach Committee is looking to find common goals.

Mr. Doley said that the next step is to work through comments on the strategic plan.

Colonel Lee asked that the Task Force and Technical Committee be given a copy of the Outreach Committee's current strategic plan before the Task Force provides guidance. He further stated that outreach problems include how to communicate the successes and importance of CWPPRA both within and outside of Louisiana.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public.

Mr. Lee Forbes with KBR stated that he finds it amazing that everyone still thinks there is only an economic benefit in saving the Louisiana coast and that the value stretches across the entire Mississippi River Valley and U.S. He stated that the rest of the country does not feel money is being well spent in Louisiana and that CWPPRA needs a national campaign, perhaps a one minute commercial stating that saving the Louisiana coastline matters to the entire country. He stated examples of national spending such as the Great Lakes, the Everglades and Iraq where local benefits have a country-wide impact.

Mr. Doley asked Ms. Bergeron if the Outreach Committee was reaching out to the America's Wetlands campaign. Ms. Bergeron responded that the Save America's Wetland campaign is a partner and that maybe the Outreach Committee should ask them to highlight CWPPRA more often.

5. The CWPPRA Outreach Committee requested Task Force approval for the FY10 Outreach Committee budget in the amount of $487,148. Mr. Wilson presented the budget and stated that the overall request is $29,000 less than the FY 09 budget. He also clarified that the budget is in two parts, $416,748 for operations and $70,000 for agency participation for a total request of $487,148. Mr. Wilson also stated that the *Watermarks* publication has been reduced from three times to twice a year and emphasized that the Committee is making an effort to reevaluate the distribution list to ensure that only those who want the publication are receiving it. He also said there has been discussion on making *Watermarks* digital, but the consensus was to leave it as a hard copy publication.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public.

Mr. Nic Matherne with the Lafourche Parish government stated that they have been looking at going electronic for newspapers and have found that all members of the public have access to the internet through public libraries.

Mr. Boggs made a motion to approve the Outreach Committee FY 10 budget in the requested amount of $487,148. Mr. Doley seconded. The motion was passed by the Task Force.

Colonel Lee opened the floor to comments from the Task Force regarding the FY 10 Planning Budget.

Mr. Norton stated concern that the Public Outreach Committee status is presented to the Technical Committee, but that the Technical Committee does not have a say in the Outreach budget. He suggested that the Outreach Committee go through the same process as the Planning and Evaluation (P&E) Subcommittee for budget approvals.

Mr. Scott Wilson, with the United States Geological Survey (USGS), answered that in the past, the Outreach budget went through the Technical Committee, but that the Technical Committee had cut their budget by 50 percent so it was decided that the Outreach budget go directly to the Task Force because there was concern that the engineers were not prioritizing outreach activities. Therefore, the new procedure allows the Technical Committee and P&E Subcommittee to comment, but not reduce the Outreach budget before it is presented to the Task Force. He recommended that the Task Force put a direct cap on the Outreach budget rather than allowing the Technical Committee to reduce it at their discretion.

Mr. Norton suggested that there be more of a process to vet the Outreach budget. Mr. Wilson responded that such vetting would be better served by having the Outreach Committee Representatives review the budget rather than the Technical Committee.

Mr. Norton re-emphasized that the surplus amount in the CWPPRA Program budget is being lost by overspending. Mr. Wilson replied that in the past there were no other programs, such as America's Wetlands, conducting outreach activities.

Mr. Zeringue stated that he can appreciate the engineers not prioritizing money for outreach activities, but that it is still good to the let the P&E Subcommittee look at the Outreach budget and provide input.

Colonel Lee agreed that a vetting process is needed for the Outreach budget before it is presented to the Task Force. He recommended that the Outreach Committee Members develop a process to review the Outreach strategic plan and make recommendations to the Task Force regarding reevaluating changes to that strategy. He also added that the P&E Subcommittee and Technical Committee may have good input.

Mr. Norton stated that CWPPRA is a heavy construction program, but that now all agencies have outreach staff that can better balance outreach versus engineering. The Technical Committee could be reintegrated into the process to vet and discuss the Outreach budget.

Colonel Lee recommended that the Outreach Committee modify the process to track its budget similar to the P&E Subcommittee and that while cutting the budget will remain with the Task Force, the Technical Committee and P&E Subcommittee will evaluate the budget before it is presented to the Task Force. Mr. Doley supported the recommendation.

Mr. Norton proposed a motion to ask the Technical Committee to work with the Outreach Committee and propose an amendment to the Standard Operating Procedures at the next Task Force Meeting, to pass the Public Outreach Committee budget through the Technical Committee on a similar path to the P&E Subcommittee, and to include a review of the Outreach Committee's strategic plan. Mr. Boggs seconded. The motion was passed by the Task Force.

Mr. Doley asked to clarify the motion such that the Technical Committee be tasked with recommending cost savings measures in the Outreach budget in time for the June 2010 Task Force meeting so that action could be taken in time for FY 11. Mr. Holden agreed that the timeline change was fine.

B. Agenda Item #5 – Discussion/Decision: Annual Request for Incremental Funding for Administrative Costs for Cash Flow Projects

Ms. Gay Browning, USACE, gave an overview of the annual request for cash flow projects.

Mr. Holden stated that the Technical Committee recommends the administrative cost request be approved in the amount of $23,337.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Boggs moved to approve the annual request for incremental funding for administrative costs for cash flow projects in the amount of $23,337. Mr. Doley seconded. The motion was passed by the Task Force.

C. Agenda Item #6 – Report/Discussion: Status of FEMA Claims

Mr. Garrett Broussard with the Louisiana Office of Coastal Protection and Restoration (OCPR) gave a report on the status of past and present FEMA claims. He explained that FEMA makes a field trip with CWPPRA representatives to the project and then writes a Project Worksheet (PW) for each project, which is a scope of work with cost estimate. FEMA then determines whether to obligate or decline funds. If funds are declined, there is an appeal process. He further explained FEMA terminology: "obligated" is when FEMA approves the PW, "processing" is prior to a FEMA decision, "retracted" is when a project has been discussed with FEMA but does not fit into the FEMA regulations so a PW is never written, "rejected" is when funds are denied but an appeal can be made, and "declined" means that a PW has been rejected and the State is in the process of deciding whether or not to appeal.

Mr. Broussard stated that after Hurricane Katrina four projects had PW's: three were retracted and one (Hopedale) was obligated. At this time the Hopedale project is 100 percent complete. After Hurricane Rita 15 projects had PW's: four were declined, one was retracted, and eight were obligated. Of the eight obligated, Sabine Structures, Holly Beach Sand, Cameron-Creole Structures, Cameron-Creole Breaches, Marsh Island, and East Sabine Lake are 100 percent complete. Humble Canal is getting ready for construction and East Mud Lake should start construction by January 1, 2010. The State is in the process of obtaining a PW for the Cameron-Creole Levees and should receive the PW soon. He explained that other barrier island project claims were declined because there was no maintenance program for them, but that the Timbalier Barrier Island Project was within 12 months of construction so it is under appeal right now; the State is expecting an approximate claim of $7 million. Both the Cameron-Creole Breaches and East Mud Lake Projects requested funding from CWPPRA because of delays with FEMA, but after the request from CWPPRA was made FEMA obligated funding so the CWPPRA money was never used and is currently still in the O&M budgets. These unused amounts are $2,778,715 and $155,304 which can be returned to CWPPRA. No FEMA claims were made after Hurricane Gustav.

After Hurricane Ike, 17 total claims were made. Four are in the PW process, 11 have been declined, and two have been obligated. Originally, FEMA approved none of the claims, but Brady Canal and the Freshwater Introduction South of Highway 82 are Category B so they have been approved. The State is deciding whether to appeal the 11 declined projects.

Colonel Lee asked if the CWPPRA requested funds in the amounts of $2.7 million and $155,000 were fully reimbursed by FEMA. Mr. Broussard answered that FEMA obligated the money for the projects so the CWPPRA funds were never used.

Mr. Doley asked if the approved money was not needed, is there a process for putting that money back into the CWPPRA budget? Ms. Browning answered that money in the approved budget is not yet obligated and the sponsoring agency should request a reduction of project budget by that amount. She stated that this was the first time this had happened so the process was unclear.

Mr. Boggs made a motion to return the unused O&M funds in the amounts of $2,778,715 and $155,304 back into the CWPPRA budget. Dr. Watson seconded. The motion was passed by the Task Force.

Mr. Norton suggested that in the future the Task Force create a protocol for the sponsoring agency and State to request a return of money before the Task Force return the funds to the CWPPRA budget.

Mr. Holden agreed that a process needs to be developed to accommodate FEMA funding in the future to include a sponsor recommendation and address any dual compensation issues.

D. Agenda Item #7 – Discussion/Decision: Request for Operation and Maintenance (O&M) Incremental Funding

Mr. Holden explained that updated information was available for Agenda Item 7 based on a teleconference with the State and that the requested amounts for item 7(a) Freshwater Introduction South of Highway 82 has been removed based on the FEMA funding discussion in Agenda Item 6.

PPL 9+ Projects Requesting Approval for FY12 Incremental funding

Mr. Holden presented the requests for O&M incremental funding for the following projects:

1. Freshwater Introduction South of Highway 82 (ME-16), PPL-9, USFWS – Request removed from agenda.
2. Four Mile Canal Terracing and Sediment Trapping (TV-18), PPL-9, NMFS – Requesting approval for FY12 incremental funding request amount $12,649.
3. Coast-wide Nutria Control Program (LA-03b), PPL-11, NRCS – Requesting approval for FY12 incremental funding request amount $2,266,205.

Ms. Browning clarified that the Four Mile Canal and Coast-wide Nutria Control Projects are asking for yearly funding.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Norton made a motion to approve the request for O&M incremental funding for the Four Mile Canal Terracing and Sediment Trapping (TV-18) in the amount of $12,649 and for the Coast-wide Nutria Control Program (LA-03b) in the amount of $2,266,205. Mr. Boggs seconded. The motion was passed by the Task Force

PPL 1-8 Projects Requesting O&M Budget Increases and FY12 Incremental Funding

Mr. Holden presented the PPL 1-8 Projects requesting O&M budget increases totaling $6,352,096 and FY 12 incremental funding in the amount of $4,434,834, for the following projects. He clarified that the revised Agenda Item 7(b) still includes four projects, but that the amounts for three have changed due to the State's analysis as presented in Agenda Item 6. Mr. Holden clarified that the Technical Committee has not voted on the changed budget request amounts and that the State will explain the revised amounts to the Task Force.

Mr. David Burkholder, OCPR, stated that the issue of dual compensation in the Stafford Act for FEMA claims has resulted in a decrease of the O&M amounts requested.

1. GIWW to Clovelly Hydrologic Restoration (BA-02), PPL-1, NRCS – Mr. Burkholder explained that the storm damage was primarily erosion around one of the structure sites. The O&M is to repair a large breach along the lake rim between the structures, rock displacement and settlement at a number of the structures, and the rock dike along the lake. They have revised the amount based on removal of the storm related damage cost estimate. The revised requested amounts are: Budget increase amount of $795,124 and Incremental funding amount of $649,022.

Colonel Lee opened the floor to comments from the Task Force on the GIWW project.

Mr. Doley asked if the non-hurricane driver is rock settlement. Mr. Burkholder answered: Yes, and added that the driver is anticipated rock settlement. Mr. Burkholder also said that this project has had minimal maintenance to date, but that rock costs have risen.

2. Point au Fer Island Canal Plugs (TE-22), PPL-2, NMFS – Mr. Holden stated that the requested amounts are as shown in the original agenda and have not changed. These amounts are: Budget increase amount of $2,309,159 and Incremental funding of amount $2,255,062.

3. Brady Canal Hydrologic Restoration (TE-28), PPL-3, NRCS – Mr. Burkholder presented the reduced request amounts. He explained that this project has an approved FEMA claim for damage erosion around one of the structures so that amount has been subtracted from the O&M request. The remaining O&M action is along the Jug Lake Rim which has been exposed to wind on both sides and has become narrow presenting a breach danger. This O&M activity was not originally anticipated as maintenance for the project. Other project maintenance includes repairing breaches along canals in the project area and storm damage related repairs at the project control structures. The revised requested budget amounts are: Budget increase amount of $1,845,463 and Incremental funding amount of $1,128,972.

Colonel Lee asked if the O&M budget request is for canal breaches and rock work along Jug Lake. Mr. Burkholder answered: Yes.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

4. Cote Blanche Hydrologic Restoration (TV-04), PPL-3, NRCS – Mr. Burkholder stated that the request stems from not having enough money left to do a second lift on the rock dike. This project sustained minor storm damage at the weir structures which has been FEMA approved and that amount has been subtracted from the budget request for revised requested budget amounts of: Budget increase amount of $1,402,350 and Incremental funding amount of $401,778.

Colonel Lee clarified that this request is for a second lift for the rock dike because the original contract cost increased and the project ran out of money.

Colonel Lee opened the floor to comments from the Task Force. There were no comments.

Mr. Holden stated that while the Technical Committee has not reviewed the revised request amounts, the Task Force has been presented with an analysis of the changes today.

Mr. Clark stated that the Technical Committee members have discussed the changed amounts and have no issues with reducing the requested amounts.

Colonel Lee advised that the Task Force could either approve the revised requested amounts or send the revisions back to the Technical Committee and hold a fax vote at a later time.

Mr. Norton suggested that the Task Force move forward with approving the budget requests. He asked if the State would fund the FEMA claim work and then be reimbursed by FEMA and if the FEMA and other O&M repairs would be done at the same time. Mr. Burkholder answered that the State was trying to find the money to conduct all of the work at the same time and that this split funding will make the FEMA process cleaner and remove any potential dual compensation issues.

Mr. Holden stated that he objected to recommending budget requests for FEMA work at the last Technical Committee Meeting due to the potential dual funding issue and would have liked more time to review the revised amounts. Mr. Holden believes the State has made a sincere effort to address this issue and that his objection point has been addressed satisfactorily.

Mr. Doley asks what happens if FEMA does not approve the funds. Mr. Norton pointed out that if FEMA declines the request, then the project funding can be dealt with through CWPPRA because any dual compensation issue would be resolved.

Mr. Holden reviewed the budget increase and incremental funding request amounts in Agenda Item 7 (b).

Mr. Doley pointed out that $10 million is 1 percent of the remaining $1 billion left in the CWPPRA Program budget.

Colonel Lee opened the floor to comments from the public. There were none.

Mr. Boggs moved to approve the requested PPL 1-8 Projects O&M budget increases totaling $6,352,096 and FY 12 incremental funding in the amount of $4,434,834. Mr. Doley seconded. The motion was passed by the Task Force.

PPL 9 Project Requesting Approval for O&M Budget Increase and FY 12 Incremental Funding

Mr. Holden stated that the PPL 9 Project request for approval of an O&M budget increase and FY12 incremental funding for Holly Beach Sand Management (CS-31), PPL-11, NRCS, has been removed at the request of the State based on the FEMA claim as discussed above so no action is required by the Task Force.

E. Agenda Item #9 – Discussion/Decision: Request for FY12 Project-Specific Monitoring Funds for Coast-wide Nutria Control Program (LA-03b)

The Task Force considered the Technical Committee's recommendations to approve a request for specific monitoring funds for the Coast-wide Nutria Control Program in the amount of $85,170. Mr. Greg Steyer, USGS, stated that the funding request was to continue the nutria monitoring program.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Boggs moved to approve the Technical Committee's recommendation to approve the request for $85,170 for specific monitoring funds for the Coast-wide Nutria Control Program (LA-03b). Mr. Zeringue seconded. The motion was passed by the Task Force.

F. Agenda Item #10 – Discussion/Decision: Request for FY12 Coast-wide Reference Monitoring System (CRMS) – Wetland Monitoring Funds

At the September 29, 2009 Technical Committee Meeting, the Technical Committee tasked the P&E Subcommittee and the Academic Advisory Group to work with Mr. Greg Steyer to develop options to decrease the cost of the CRMS program to the original budget and report on findings at the fall 2010 Technical Committee meeting. Following a presentation by USGS on the status/progress of CRMS over the past year, the Task Force will vote on the Technical Committee's recommendation to approve the CRMS FY 12 monitoring funds in the amount of $7,500,000.

Mr. Greg Steyer, with USGS the Federal sponsor (with OCPR) on the CRMS project, gave an overview of the budget. He stated that it is a cash flow project so an annual budget request is made. The 2004 to 2006 request was based on expenditures to date, but this year's request of $7.5 million is not based on the actual expenditures. He explained that the budget was set up to be a three year cash flow, but that as costs have risen, they now only request a two year budget each time. Last year monitoring costs rose similar to construction costs, so the program is now looking at ways to reduce the scope such as reducing data types and other reductions based on data driven decisions. The program is also looking at ways to use remote sensing technologies to gather data since hydrologic data is the most costly portion of the program in addition to integrating other program support to obtain additional funding and data. The entire 389 site program has complete construction. Mr. Steyer explained that accretion data at some swamp sites and floating marshes are not providing data as expected so the program is also looking at methods of reducing sites that are not providing useful data.

Mr. Steyer explained that one focus of CRMS is to obtain better data and find ways to better deliver that information. There has been a large investment into data visualization tools on the CRMS website, including a Google application and training on how to use the website. In the past, the program has focused on site-specific information, but over the past year has been moving toward providing project scale information, expanding types of applications, and presenting data differently based on partner feedback. CRMS is focusing on status and trends and will work with the P&E and Academic Advisory Group to look at cost-cutting measures based on the Technical Committee's recommendation.

Mr. Doley asked if the increase in cost has reached the 25 percent threshold to request a change in project scope from the Task Force. Mr. Steyer answered that a programmatic threshold was set at the beginning of the CRMS program based on 8.8 percent of total construction dollars through 2009, but not through 2019. He explained that one of the goals of the programmatic budget was to look at system level needs of other programs and reduce costs based on contributions from other programs. He stated that now the program is not over the 25 percent threshold, but that costs moving forward are double from what they were before and the 25 percent will be met if other programs do not contribute.

Mr. Doley asked what other programs are expected to contribute because it appears that CWPPRA is now bearing all of the CRMS costs. Mr. Steyer answered that the Louisiana Coastal Area (LCA) is integrating CWPPRA into their plans, but is only at the planning stage. Also, monitoring is being conducted under other programs that CWPPRA is currently using. He agreed that CWPPRA should not bear the burden of all costs, but that the CRMS program is only at 3.8 percent of construction costs and not the 8.8 percent that was originally intended when the program was first initiated in the 1990's. He emphasized that CRMS is looking at all possible avenues to engage other partners to contribute.

Mr. Rick Hartman, NMFS, asked if CRMS is gathering information that can be used to make better budget and management decisions. Mr. Steyer answered: Yes, but that there was not previously a report card process which is now being developed. Mr. Steyer added that data sets are now available to make data driven decisions and representative project level evaluations with help and input from CRMS partners and the Technical Committee.

Mr. Clark stated that he appreciated CRMS working with the other committees, but expressed concern that it is difficult for a project manager to determine if a project is working if there is no CRMS station located in the vicinity of a project and that this information is critical when requesting O&M funds. He said that more stations are needed near projects to help determine project performance. Mr. Steyer answered that after 2003, for projects PPL 9 and above, when an agency evaluated project monitoring needs they could have determined whether or not to incorporate CRMS monitoring and that some agencies added such monitoring to their projects and some did not.

Mr. Doley stated that CWPPRA items are not discussed on a basin level and that the program is vulnerable with such a causal relationship between the CRMS data and project performance. He stated that CRMS indices indicate what is happening in the system, but not how an individual project is impacting the system. Mr. Steyer answered that in the past different data were being measured, but now CRMS is getting better information because they are measuring the same variables.

Mr. Doley stated that it is difficult to show project progress and there is not enough data to determine the investment return on projects. Mr. Steyer answered that regional based targets would help and that there has been discussion of setting broader targets at the State and Regional level.

Mr. Zeringue stated that he understands there is vulnerability in the data, but that the Task Force needs to work with the CRMS program to determine those vulnerabilities and fix the problems.

Mr. Doley clarified that he did not want to lose CRMS, but that more monitoring is needed on project-specific activities and it is uncertain where funding for project based monitoring will come from.

Mr. Zeringue agreed that efficiency needs to be maximized for project monitoring.

Mr. Clark recommended that project managers and agencies evaluate their projects and when asking for O&M funds, determine if the data needed to show project success can be obtained from the current CRMS monitoring or if more stations should be requested.

Colonel Lee agreed that this was a good discussion and recommended the Task Force review the initial assumptions for the CRMS program and determine if these assumptions are materializing since construction has been completed on all CRMS stations.

Mr. Steyer added that CRMS construction costs are different since the contractor that builds the stations also conducts the monitoring. He stated that monitoring costs have leveled, but have not decreased since prior to the 2005 hurricanes. He said the CRMS program is looking at ways to reduce sample frequency without diminishing quality data and will work with other committees to find solutions.

Colonel Lee asked what type of surveying is conducted. Mr. Steyer answered that surveying for benchmark and marsh elevations is conducted on the ground and that surveying was initiated on the front end of the program and is revisited every five years due to subsidence.

Ms. Browning asked about the change in budget request from three years to two years. Mr. Steyer clarified that costs are still on a three year basis, but that since costs have increased the $14 million really only represents two years worth of budget.

Mr. Doley stated concern over the large cost increase. Mr. Steyer answered that the budget is currently less than anticipated and that it is not practical to ask for a future increase in budget without knowing what those future costs will be.

Mr. Doley recommended that the Technical Committee or Academic Advisory Group evaluate the CWPPRA monitoring program and determine if it is sufficient to meet CWPPRA program goals focusing on project based needs and costs. Dr. Michelle Fischer, the Academic Advisory Chair, stated that additional budget would be required to perform a comprehensive reevaluation of the CWPPRA monitoring program.

Colonel Lee restated that the question remains: Does the monitoring meet the management goals and needs of the CWPPRA program? Mr. Doley added that CRMS is part of the monitoring program, but CRMS may not be meeting all CWPPRA monitoring needs.

Mr. Hartman recommended that this item be sent to the Technical Committee for action and that additional funding would not be needed for the Academic Advisory Group if a Monitoring Work Group could be created within the Planning budget to find ways to expand monitoring to be more project-specific.

Mr. Clark added that project managers should be asked for input on monitoring needs for their projects.

Mr. Hartman stated that the Technical Committee should conduct an evaluation of monitoring needs at a program level before focusing on project-specific needs.

Mr. Boggs moved to recommend that the CWPPRA monitoring needs evaluation be referred to the Technical Committee for additional analysis and that a scope of work, cost estimate, and schedule be presented to the Task Force at its January 2010 meeting with a report to follow at the June or fall Task Force Meeting. Mr. Doley seconded. The motion was passed by the Task Force

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Boggs moved to approve the FY 12 Coast-wide Reference Monitoring System (CRMS) Wetlands Monitoring Funds in the amount of $7,500,000. Mr. Norton seconded. The motion was passed by the Task Force.

G. Agenda Item #11 – Discussion/Decision: Status of Unconstructed Projects

Request for Approval for Final Deauthorization

Colonel Lee presented the request for final deauthorization for the following two projects:

1. 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.
2. 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.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Norton moved to approve final deauthorization of the Mississippi River Sediment Trap (MR-12) and Castille Pass Channel Sediment Delivery (AT-04) Projects. Mr. Boggs seconded. The motion was passed by the Task Force.

Request for Approval to Initiate Deauthorization

Colonel Lee presented the request to initiate deauthorization of the PPL 2 Brown Lake Hydrologic Restoration Project (CS-09) sponsored by NRCS. The purpose of the project is to restore, to the extent possible, the altered hydrology of approximately 2,800 acres of wetlands in the area of Brown Lake.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Norton moved to approve to initiate deauthorization on the Brown Lake Hydrologic Restoration Project (CS-09). Mr. Zeringue seconded. The motion was passed by the Task Force.

H. Agenda Item #12 – Discussion/Decision: Request for Operations and Maintenance (O&M) Budget Increase and Incremental 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

Mr. Clark gave a brief project overview. The USACE is requiring that the USFWS remove two discharge pipes that cross the hurricane protection levee. In return, the USACE will remove the existing pump stations and reconstruct new pumping stations after refurbishment of the levee. The USACE will also put in new discharge pipes. The requested amounts are:

Phase I: Budget increase of $50,000 and Incremental funding of $50,000
Phase II: Budget increase of $50,000 and Incremental funding of $50,000

Mr. Clark commented that the USFWS contributed about a quarter million dollars to fix these pumping stations after Hurricane Katrina.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Boggs moved to approve the request for O&M budget increase and incremental 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 in the amounts of $100,000 for each Phase. Mr. Doley seconded. The motion was passed by the Task Force.

I. Agenda Item #13 – Discussion/Decision: Request to Change Project Scope to Remove a Water Control Structure at the Lake Chapeau Hydrologic Restoration and Marsh Creation Project (TE-26)

Colonel Lee presented the request to change the project scope and stated that the request was to use existing project funds.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Zeringue moved to approve the request to change project scope to remove a water control structure at the Lake Chapeau Hydrologic Restoration and Marsh Creation Project (TE-26). Mr. Boggs seconded. The motion was passed by the Task Force.

J. Agenda Item #14 – Discussion/Decision: Request to Change Project Scope for the West Belle Pass Barrier Headland Project (TE-52), due to a project cost increase of over 25 percent

Mr. Rick Hartman and Cheryl Brodnax, with NMFS, gave an overview of the requested change. At the 30 percent design meeting a design was selected that exceeded the 25 percent allowance from Phase Zero. A scope change was requested at the previous Technical Committee meeting to give the project an opportunity to proceed to the 95 percent design. The Economic Work Group submitted a draft cost estimate yesterday that was within the 25 percent allowance so a scope increase may not be necessary. However, final numbers are not yet available from the Work Group.

Mr. Hartman clarified that the request is for contingent approval in case the final Economic Work Group estimate surpasses the 25 percent threshold which would require waiting for voting approval because this is a time critical barrier shoreline project.

Mr. Norton recommended that the Task Force table the motion until the QA process has been completed and then the Task Force could conduct a fax vote. He stated that he did not want to delay the project, but wanted to vote on numbers that were more certain.

Colonel Lee agreed and asked how much longer it would take to get final numbers. Mr. Holden answered that it would take a few more days.

Mr. Hartman stated that the 95 percent review meeting will be held November 2, 2009 and that a request in change in scope can still be made up until the next Technical Committee meeting per the CWPPRA SOP. Ms. Brodnax said that the final information would be available before binder materials are due for the next Technical Committee meeting.

Mr. Norton moved to table the motion on the request for a change in project scope for the West Belle Pass Barrier Headland Project (TE-52) due to a project cost increase of over 25 percent until additional information can be obtained. Dr. Watson seconded. The motion was passed by the Task Force.

K. Agenda Item #15 – Discussion/Decision: Request to Change Project Scope for the South Grand Chenier Hydrologic Restoration Project (ME-20), due to a project cost increase of over 25 percent

Mr. Clark gave an overview of the impacts of the requested change in project scope, including the cost and benefit impacts and acreage changes. He stated that the final cost numbers

have not been received from the Environmental Work Group and that the fully funded cost estimate may increase. Mr. Clark added that the project changes includes removal of one freshwater introduction site and an increase in marsh creation which means that the benefits are likely to increase as well. He said that this request is for the 95 percent design and that the meeting on the 95 percent design will take place November 3, 2009.

Colonel Lee asked if the fully funded budget request has been approved by the Economic Work Group. Mr. Clark responded: Yes.

Colonel Lee asked if the additional benefits were still expected with the removal of the freshwater introduction. Mr. Clark answered that the project had two freshwater introduction areas and one was removed. The project scope change is due to the costs and while the costs have increased, the increased marsh creation component will increase the benefits which are not expected to go over 25 percent.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Boggs moved to approve the change in project scope for the South Grand Chenier Hydrologic Restoration Project (ME-20). Mr. Norton seconded. The motion was passed by the Task Force.

L. Agenda Item #17 – Discussion/Decision: Revision of CWPPRA Standard Operating Procedure Requirement for 30 percent and 95 percent Design review requirements

Mr. Holden summarized the proposed SOP requirement revisions.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Boggs moved to approve the SOP change to the requirements for 30 percent and 95 percent design review requirements. Mr. Doley seconded. The motion was passed by the Task Force.

VI. INFORMATION

A. Agenda Item #3 – Status of Breaux Act Program Funds and Projects

Ms. Browning briefed the Task Force on the current and projected funding situation. Three projects began construction in 2009, and 13 are scheduled to begin in 2010. The unencumbered Federal and non-Federal funding in the Construction Program as of September 2009 is negative $5.9 million and with potential returned funds of approximately $27 million, $21 million, but that these amounts will be affected by Task Force decisions made at this meeting. The program carries over available funds each year. Ms. Browning gave an overview and comparison of obligated program funds, unobligated balances and unencumbered funds.

Mr. Doley asked what drives the unobligated balance. Ms. Browning answered that getting contracts in place does and that projects have become larger as the program has grown which increases the obligated funds.

Ms. Browning then gave an overview of total anticipated funds over the CWPPRA program life and how available funds may adjust based on future projects, today's decisions, and projections made by the Department of the Interior.

Colonel Lee opened the floor to comments from the Task Force. There were no comments.

Mr. Creel presented an overview of committed funds and what-if scenarios based on future funding projections, budget increases, deauthorizations, and past years' budgets. The available program funds, or the gap between total funding and total costs, are decreasing.

Colonel Lee opened the floor to comments from the Task Force. There were no comments.

Mr. Creel continued that if the two deauthorizations on today's agenda are approved then the available funds amount of $22 million would increase to $102 million. He also stated that there is a potential to remove the West Bay Project which would further increase the available funds to $213 million. If the West Bay Project remains, but the Maurepas Swamp Project is removed, the available funds would increase to $247 million and if both projects are removed, this number increases to $358 million. Overall, the available funds decrease as PPL 19 projects are added.

Mr. Clark commented that many of the costs presented include Phase I projects being fully funded and that not all of these costs have been approved. He stated that the Task Force is approving more projects for engineering and design than there is money to construct and that there are going to be projects not chosen for construction. Therefore, the numbers do not mean the program is running out of money next year because there are projects under design that will not be constructed, but that the costs represented assume all projects will be constructed.

Mr. Norton commented that some projects, such as the Maurepas Swamp Project, are also anticipated to be assumed by other programs and will not be constructed with CWPPRA funds.

Colonel Lee stated that it is difficult to have cash flow projects on an annual basis and represent how those funding decisions will affect the overall CWPPRA program. He said that this presentation was not meant to cause alarm, but just make the Task Force aware of where the overall program budget stands.

Mr. Doley commented that the program has about $1 billion left over the next ten years and that the Task Force needs to be thoughtful as to how that money is spent based on past spending because the program only has a finite amount of funding.

Colonel Lee stated that it is important to drive down the unobligated funds balance and keep the program moving forward because when this balance is great, questions arise as to why funds are not being used.

Mr. Holden recommended that the Technical Committee start evaluating the O&M funds required once a project is constructed because currently the O&M funds are evaluated incrementally. Once a project is authorized for construction, the O&M funds should be considered over the project life.

B. Agenda Item #8 – Report: Coast-wide Nutria Control Program – Annual Report

Mr. Edmond Mouton with the Louisiana Department of Wildlife and Fisheries (LDWF) presented the annual report on the LA-03b Coast-wide Nutria Control Program (CNCP). The 2008-2009 total tails collected was 334,038 worth $1,670,190 in incentive payments. The 2009 Vegetative Damage Survey yielded 20,333 acres of nutria damage coast-wide which is a 12 percent decrease from 2008 (23,141 acres).

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

C. Agenda Item #16 – Report: NRCS and Louisiana OCPR Request for Task Force Fax Vote to begin Construction of the PPL 17-Sediment Containment Demonstration Project (LA-09)

Mr. John Jurgensen, NRCS, reported that the Technical Committee voted by email to recommend Task Force approval of a construction project sponsored by the NRCS and the OCPR. The Task Force approved the Technical Committee's recommendation to approve construction of the Sediment Containment Demonstration Project (LA-09) in order to avoid delaying North American Waterfowl Conservation Act (NAWCA) Hanson Marsh Hydrologic Restoration Project construction activities.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

D. Agenda Item #18 – Report: Status of the PPL 1 – West Bay Sediment Diversion Project (MR-03)

Mr. Creel gave a status report on the West Bay Work Plan and ongoing beneficial use dredging activities in the Pilottown Anchorage Area (PAA). He stated that Work Plan efforts are on schedule and submission dates are expected to be met. He added that monthly project reports will be submitted and that a special Technical Committee briefing will take place on December 1, 2009.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public. There were none.

Mr. Creel continued that dredging for the project commenced on September 20, 2009 at the PAA and that dredging will move to deep draft for the remainder of the dredge cycle. The dredged material will be placed in an island formation perpendicular to flow. He stated that the work is expected to be completed before the dredging contract ends on December 15, 2009.

Colonel Lee opened the floor to comments from the Task Force. There were no comments. Colonel Lee opened the floor to comments from the public.

Mr. Sean Duffy, Gulf States Maritime Association (GSMA), asked if the islands will be placed in the receiving area and if there will be monitoring that will allow the effectiveness of those islands to be determined. Mr. Creel responded that he was unsure and would have to get the answer for Mr. Duffy after the meeting.

Mr. Duffy then asked how many acres were being created during this dredge cycle. Mr. Creel responded that he was unsure and would follow up with Mr. Duffy after the meeting. Colonel Lee responded that another project has currently dredged eight million cubic yards of material and created 800 acres of marsh with that material. Colonel Lee estimates that the PAA dredging would create approximately 100 acres of marsh. He continued that Ms. Cherie Price, USACE, will have to give the true numbers for the project, but the belief is that the perpendicular island will perform similar to the shreds that were originally in the project and that they may even see better performance, but will have to monitor the area to be sure.

Mr. Duffy asked how much dredged material has been removed. Mr. Creel answered that as of October 24, 2009, 1.4 million cubic yards has been dredged.

Mr. Duffy then stated that he is looking at the amount of acres created through the beneficial use of dredged material versus the lack of accretion due to the diversion itself. He stated that GSMA is working with the maritime industry and are in the process of following up on a letter sent to the delegation to get USACE permission to dredge in the PAA. GSMA is seeking authority and appropriations from a RAMP fund for beneficial use that is a trust with a $5 billion surplus that may be able to help CWPPRA maintain the diversion. He stated that he is glad there is beneficial use happening and that it is good to have the Anchorage restored.

VII. ADDITIONAL AGENDA ITEMS

There were no additional agenda items.

VIII. REQUEST FOR PUBLIC COMMENTS

No additional public comments were made.

IX. CLOSING

A. Announcement: Dates of Upcoming CWPPRA Program Meetings

Mr. Creel announced that the next Technical Committee Meeting will be held on December 2, 2009 in Baton Rouge. The next Task Force Meeting will be held on January 20, 2010 in New Orleans. The PPL 19 Public Meetings will be held November 17, 2009 at 7:00 p.m. at the Vermilion Parish Police Jury Courthouse Building, Courtroom #1, 2nd Floor, 100 North State Street, Abbeville, LA and on November 18, 2009 at 7:00 p.m. at the USACE, 7400 Leake Avenue, New Orleans, LA in the District Assembly Room.

B. Announcement: Scheduled Dates of Future Program Meetings

Mr. Creel announced that the schedule for upcoming 2010 meetings is listed in the agenda.

C. Adjournment

Colonel Lee adjourned the meeting at 2:50 p.m.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

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. Ms. Melanie Goodman will provide an overview of program funding and commitment projections.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

REPORT: PUBLIC OUTREACH COMMITTEE REPORT

For Report:

Ms. Bergeron will present the quarterly Public Outreach Committee Report.

Coastal Wetlands Planning, Protection and Restoration Act
Public Outreach Committee (POC)
Report to the Breaux Act Task Force
October – December 2009

REPORT SUMMARY:

- ***CWPPRA is partnering with the Barataria National Estuary Program (BTNEP) and the Historic New Orleans Collection on an oral history project. Through this project, "In the Slow Blink of an Alligator's Eye: Wetlands Vanish," students will conduct intergenerational interviews in which they explore Louisiana wetlands. These interviews will help preserve an oral history account of Louisiana wetlands through the voices of people who have inhabited these lands for several years.***

- ***CWPPRA is partnering with LSU Sea Grant, USGS, and other coastal restoration entities to create an online calendar that will highlight any event related to the restoration and protection of Louisiana wetlands.***

- ***CWPPRA's POC is currently in the process of planning events to commemorate 20 years of collaborative coastal restoration efforts. The Task Force will be notified of planning and coordination of all events that are scheduled to take place throughout 2010.***

- ***WaterMarks No. 42 is in the final stages of production. This issue focuses on CWPPRA demonstration projects and explains how the process allows for cost-efficient ways of exploring and developing innovative approaches to coastal restoration.***

- ***The CWPPRA Web site is currently in design stage. A new Breaux Act Newsflash that complements the Web site is also being created.***

- ***The CWPPRA POC staff is currently producing a fact sheet catalogue of CWPPRA projects that will be distributed to Congressional Leaders.***

- ***The CWPPRA POC will continue to build support for its projects and other coastal restoration efforts by providing information and support to its partners and stakeholders.***

CWPPRA POC Meetings / Conference Calls:

CWPPRA POC – Workgroup Conference Call
10/06/09 Agenda:
- ✓ WaterMarks #42

CWPPRA POC – Workgroup Conference Call
11/09/09 Agenda:
- ✓ WaterMarks #42

CWPPRA POC – Workgroup Conference Call
11/18/09 Agenda:
- ✓ WaterMarks #42

CWPPRA POC – Meeting
12/03/09 Agenda:
- ✓ Fact Sheets
- ✓ Strategic Plan
- ✓ CWPPRA 20th Anniversary Celebration
- ✓ Portfolio of Success
- ✓ WaterMarks
- ✓ Conferences
- ✓ Breaux Act Newsflash
- ✓ Web site design

Electronic Media / National and International Outreach:

- **LaCoast Web site statistics for October – December 2009:**
  - Successful requests: 3,429,924
  - Successful requests for pages: 1,299,025
  - Data transferred: 954.96 gigabytes
  - Average data transferred per day: 10.38 gigabytes

- **Breaux Act Newsflash** subscribers: 1,779

- **WaterMarks** subscribers: 7,478

- **Daily requests and information distributions** *(10/01/09 - 12/31/09)*
  - Responding to requests for information/material/photos by telephone, email, LaCoast- 32
  - Breaux Act Newsflashes - 23
    - October - 11
    - November - 4
    - December - 8

- LaCoast.gov calendar - 4

- **Request for Photographs, Maps, Images**
  - June Mire, Tertra Tech EM, Inc.
  - Michael Miner, UNO
  - Iris Blundell
  - Villere Cross
  - Michele Aleina, UNO
  - Leslie Suazo, Terrebonne Parish

Partnerships / Regional Outreach:

Presentations, Exhibits, Fieldtrips, Meetings and Conferences:

- 10/17/09 Exhibit: Southeast Louisiana Refuge "Wild Things"
- 10/28/09 Meeting: CWPPRA Task Force Meeting
- 11/2-4/09 Conference/Exhibit: Louisiana Math and Science Teachers
- 11/03/09 Meeting: GOMA UUP conference call
- 11/10/09 Meeting: Louisiana Environmental Education Commission
- 12/08/09 Meeting: BTNEP Management Conference
- 12/09/09 Meeting: Conference call with BTNEP and Mindy Meyer
- 12/10/09 Meeting: CWPPRA Web site planning meeting
- 12/16/09 Meeting: Louisiana Environmental Education Commission
- 12/17/09 Meeting: LSU Sea Grant calendar conference call
- 12/18/09 Meeting: Historic New Orleans Collection

- **Partnerships**:
  - **Ongoing:**
    - Louisiana EEC
    - Historic New Orleans Collection
    - LSU Sea Grant
    - BTNEP Education Action Plan
    - GOMA Underserved/Underrepresented
    - GOMA Environmental Education Network

- **Placement of kiosks:**
  - 10/01/05 - present Atchafalaya Welcome Center on I-10
  - 12/21/06 - present Audubon Zoo (Education Center), New Orleans
  - 01/05/07 - present Sci-Port, Shreveport

- **Placement of CWPPRA Educational Materials/Publications**
  - NOAA, Baton Rouge, LA
  - Coalition to Restore Coastal Louisiana, Baton Rouge, LA
  - LSU Ag Economics Bldg., Baton Rouge, LA
  - EPA, Dallas, TX

- NOAA, National Marine Fisheries, Silver Spring, MD
- BTNEP, Thibodaux, LA
- Koupal Communications, Pierre, SD
- Louisiana Sea Grant College Program, Baton Rouge, LA
- LSU Educational Theory, Policy and Practice, Baton Rouge, LA
- Pontchartrain Institute for Environmental Sciences, New Orleans, LA
- CCA Louisiana, Baton Rouge, LA
- CCA, Livingston, LA
- CCA, Lake Charles, LA
- U.S. Fish and Wildlife Service, Lafayette, LA
- Audubon Zoo, New Orleans, LA
- USGS National Wetlands Research Center, Lafayette, LA
- Louisiana Department of Wildlife and Fisheries, Lafayette, LA
- Lafourche Parish Tourist Commission, Raceland, LA
- For the Bayou, Inc., Mill Valley, CA

Upcoming Workshops, Trainings, Presentations and Educational Meetings:

- 01/14/10 "Slow Blink of an Eye" teacher workshop
- 02/26-27/10 Louisiana EEC Symposium

Media Coverage Mentioning CWPPRA or CWPPRA Projects
October – December 2009

Source of Article:	Date	Title of Article
Daily Comet.com	Oct. 1, 2009	In 2009 Louisiana may break even on wetlands built versus wetlands lost
HoumaToday.com	Oct. 1, 2009	La's endangered brown pelicans make a recovery
NOLA.com	Oct. 5, 2009	Wetlands loss linked to Outer Continental Shelf oil and gas pipelines in new study
NOLA.com	Oct. 6, 2009	Coastal restoration advocates prepare push for President Barack Obama
The Advocate	Oct. 7, 2009	Diversion project changes urged
The Advocate	Oct. 9, 2009	Bob Stewart steps down as ULL vice president
The Advocate	Oct. 11, 2009	4 universities team up on coastal issues
The Advocate	Oct. 12, 2009	Funding puts levee feasibility study on track
The Daily Advertiser	Oct. 13, 2009	Wetlands program receives $1.5M
The New York Times	Oct. 15, 2009	On Gulf Coast, Praise for Obama, Criticism of Visit
The Advocate	Oct. 15, 2009	Federal level coordination to help goal to combat Gulf Coast erosion
WWLTV.com	Oct. 15, 2009	State leaders to White House: Coastal restoration is priority one
NOLA.com	Oct. 15, 2009	Environmental official promises review of coastal restoration program
Daily Comet.com	Oct. 17, 2009	Bill has federal money for local levees and coastal studies
Houma Today.com	Oct. 19, 2009	Promises from Obama's visit
NOLA.com	Oct. 24, 2009	Delaying pump stations for New Orleans is not an option
The Advocate	Oct. 25, 2009	Regulations require reuse of more dredged material
Houmatoday.com	Oct. 27, 2009	New law means more dredged dirt will be used to rebuild land
DailyComet.com	Nov. 1, 2009	Industry, environmental groups unite to save coast
DailyComet.com	Nov. 2, 2009	Nutria: It's not just for Louisiana anymore
Tri-Parish Times.com	Nov. 16, 2009	Feds provide grant to close GIWW breaches
DailyComet.com	Nov. 17, 2009	Rules aim to use dredged mud to save coast
NOLA.com	Nov. 19, 2009	Corps' MR-GO claims should be settled, and fast, attorneys say
WWLTV.com	Nov. 23, 2009	State asks feds to use dredged sediment for wetland repairs
NOLA.com	Nov. 23, 2009	Corps could be helping rebuild coast with dredged river sediment, state says
DailyComet.com	Nov. 30, 2009	Streamlining commission suggesting coastal changes
The Daily Advertiser	Nov. 30, 2009	Coastal projects lag
NOLA.com	Dec. 7, 2009	Coastal restoration meeting becomes venue for venting frustration with federal agencies
DailyComet.com	Dec. 9, 2009	Public seashore possible for Lafourche
Houmatoday.com	Dec. 11, 2009	Governor highlights $400 million in coastal work
Houmatoday.com	Dec. 13, 2009	Glad tidings during visit by Jindal
The Daily Advertiser	Dec. 16, 2009	Coast credits may boost area
Tri-Parish Times.com	Dec. 16, 2009	Jindal: We don't need studies, we need… a partnership
Examiner.com	Dec. 29, 2009	U.S. Wetlands to be supported with nearly $45 million in grants and funding
The Advocate	Dec. 29, 2009	Legal policy affects coastal projects

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COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

FLOATING MARSH CREATION DEMONSTRATION PROJECT (LA-05) – PRESENTATION OF MAJOR FINDINGS

For Report:

Dr. Jenneke Visser will present the major findings from Floating Marsh Creation Demonstration Project (LA-05). The project has reached the end of its final growing season and data collection.

FLOATING MARSH CREATION DEMONSTRATION PROJECT (LA-05)

Natural Resources Conservation Service
Louisiana Department of Natural Resources

LSU Agricultural Center: Charles Sasser, Mike Materne, and Jenneke Visser. Subcontractor Mark Hester

Objective

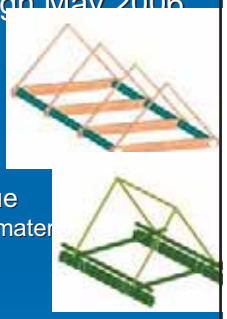
To develop methods for the restoration of open water areas within existing thin and deteriorated floating marsh habitat.

Test Sites at Mandalay National Wildlife Refuge

Construction March through May 2006

Treatments

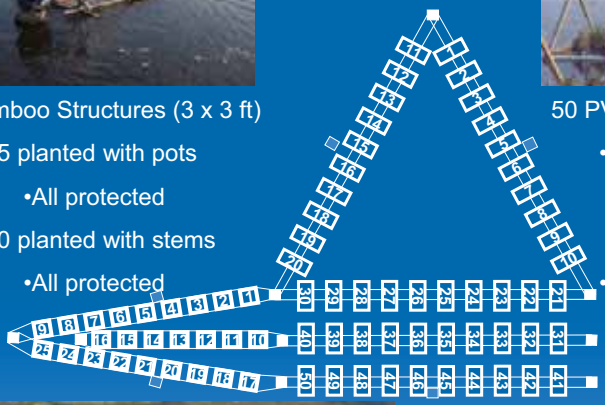
- Wave Exposure
  - Open or Protected
- Structure Type
  - PVC or Bamboo
- Establishment Technique
  - Potted plants or stem mater
- Grazing
  - Fenced or unfenced



Site Layout

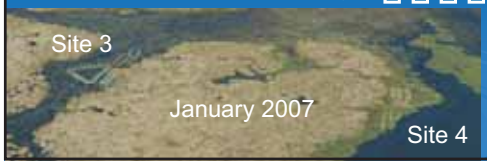
25 Bamboo Structures (3 x 3 ft)

- •15 planted with pots
  - •All protected
- •10 planted with stems
  - •All protected



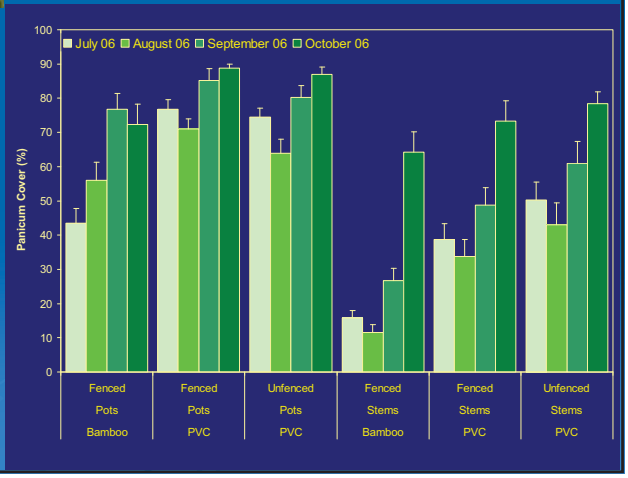
50 PVC Structures (3 x 8 ft)

- 25 planted with pots
  - 5 grazed
  - 20 protected
- 25 planted with stems
  - 5 grazed
  - 20 protected



Panicum hemitomon Growth July-October 2006

Establishment with potted plants resulted in quicker cover increases than establishment from stems. However by the end of the first growing season, differences in cover between establishment techniques were small, especially in the sites that had the longest growing season



Lost one PVC string after Gustav (Fall 2008)

Site 1

June 2006

September 2006

July 2008

May 2009

All structures survived Gustav (Fall 2008)

Site 2

Panicum did not survive in most structures. Salinity intrusion. Other species provide some cover.

Site 3

Site 4

Several bamboo structures failed due to boat hit. Outer structures *P. hemitomon* suffered from adjacent herbicide application.

Findings

Creation of floating marshes in open water areas can be accomplished.

- Establishment with potted plants resulted in quicker cover increases than establishment from stems. However by the end of the first growing season, differences in cover between establishment techniques were small, especially in the sites that had the longest growing season.
- *P. hemitomon* cover decreased during the third growing season as the fences that protected it from grazing rusted. However several other species* colonized and total cover remained high. Tropical storms at the end of the 2008 growing season resulted in decreased cover at the southern sites

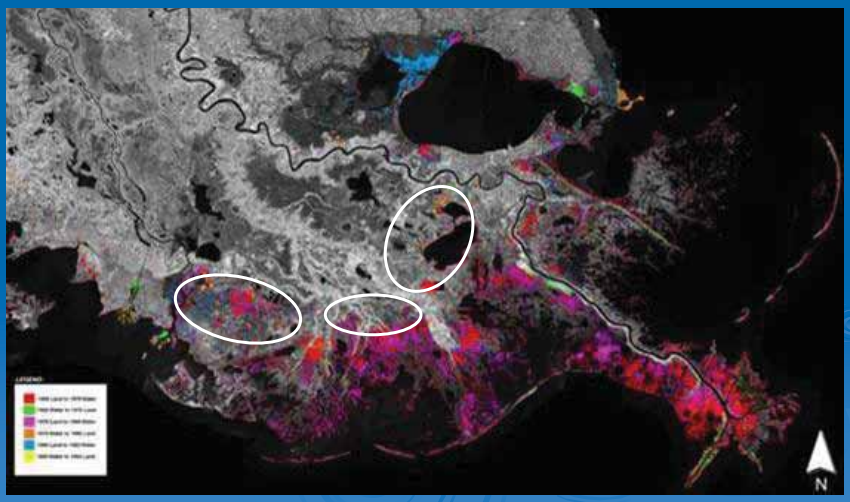
*37 Species besides *P. hemitomon* have been documented to occur in the structures

Findings (continued)

- All structures remained buoyant and structurally intact in the first two growing seasons. An apparent boat strike near the beginning of the third growing season affected the buoyancy and structural integrity of some of the bamboo structures at site 4, ultimately leading to the sinking of three structures. One string of ten PVC structures vanished from site 1 after Hurricane Gustav, but 81% of the monitored structures and 100% of the unmonitored remained structural intact after four growing seasons .

Restoration Potential

33,000 ha (82,000 acres) of shallow freshwater areas.



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

STATUS OF TECHNICAL COMMITTEE SCOPE OF WORK FOR REVIEW OF THE CWPPRA MONITORING PROGRAM

For Report/Discussion:

At their October 28, 2009 meeting, the Task Force directed the Technical Committee to develop a scope of work (SOW) and schedule, to be completed by December 3, 2009, for a plan to look at the estimated life cycle cost of CRMS; and whether or not CRMS and project specific monitoring are meeting CWPPRA Program needs in terms of being able to demonstrate if the program investment in coastal restoration projects has been successful. The Task Force will review and consider approving the Technical Committee's SOW and schedule, and recommendation to increase the CWPPRA FY10 Planning Budget in the amount of $21,450 for a supplemental task to have the Academic Advisory Group participate in executing the SOW.

Task Force mandate

- Examine the estimated life cycle costs of CRMS in an effort to determine if there are potential cost savings
- Evaluate whether CRMS or project specific monitoring efforts are meeting CWPPRA needs in terms of being able to determine if the projects are achieving their goals
- Identify other potential CRMS cost-sharing partners

Action 1: Determine if there are potential programmatic cost savings by reducing the frequency of some monitoring efforts, reducing stations, etc.

Action 2: Evaluate alternatives to improve monitoring input into decision-making. By CWPPRA project, determine if current data collection is adequate to determine if the project has met, or is on a trajectory toward meeting, its goals so that the decision making process can be an informed one. Where data collection is inadequate for that purpose, identify and evaluate alternatives to remedy that shortcoming.

Action 3: Identify potential partners and level of support for sharing of CRMS funding responsibility.

Action 4: Evaluate existing level of use by various agencies

Cost reduction analysis

- OCPR has provided itemized costs for various monitoring elements
- AAC and MWG will evaluate whether some items could be dropped or delayed
- USGS is undertaking coherence analyses on station pairs to determine if some stations, or monitoring elements at some stations, can be dropped

Evaluate adequacy of monitoring in support of decision-making

- Determine what projects are lacking both CRMS and project-specific monitoring
- Evaluate adequacy of project-specific monitoring and CRMS in providing information to support decision-making (federal sponsors and OCPR)
- Where monitoring is determined to be inadequate, recommend solutions and quantify costs

Identification of cost-sharing partners

- COE is evaluating what CRMS sites are within, or directly adjacent to, LCA project areas
- Technical Committee will identify other potential funding streams that could support CWPPRA monitoring costs

Evaluate use by agencies

- Technical Committee will query own agencies to develop a list of existing uses
- USGS will review list and recommend additional uses/methodologies
- Training of federal and state staff in the use and manipulation of CRMS data

Actions not being considered

- CWPPRA paying for only those CRMS sites within project areas
- CWPPRA funding only those monitoring elements useful in evaluating project success
- CWPPRA not changing random design of stations
- Project goal issues not a part of the evaluation

CWPPRA Monitoring Program Review
Scope of Work

During the Fall, 2009, Technical Committee (TC) and Task Force (TF) meetings, there was much discussion regarding the CWPPRA, Coast-wide Reference Monitoring System (CRMS) effort. Concern were primarily related to: 1) the significant increase in the overall cost of the CRMS program; 2) a perception that CRMS was not providing project-specific monitoring information that would assist in the decision-making process supporting requests for operations and maintenance funding; and 3) other likely sources of funds to support CRMS were not providing such funding. As a result of that discussion, the TF passed the following motion tasking the TC to undertake an evaluation of the CWPPRA monitoring program.

Based on reading through the transcripts of the Task Force meeting, the charge to the Technical Committee is to develop a scope of work to be completed by December 3, 2009, for a plan to look at the estimated life cycle cost of CRMS in an effort to determine if there are potential cost savings, and to evaluate whether CRMS or project specific monitoring are meeting CWPPRA program needs in terms of being able to answer the question "Are our projects working to achieve their goals?"

In light of the charge from the TF to the TC, the following draft scope of work has been developed:

Action 1: Determine if there are potential programmatic cost savings by reducing the frequency of some monitoring efforts, reducing stations, etc.

a. OCPR is providing an itemized spreadsheet showing CRMS costs broken down by monitoring item (sediment erosion table, water level recorders, maintenance of platforms, etc). This information will be broken down by the past 5 years and the expected cost for the next three will be provided. The information also should quantify the level of staffing being funded at each agency and in the consulting contract in support of the CRMS program
b. Technical Committee, Academic Advisory Committee (AAC) and Monitoring Work Group (MWG) will review the information and evaluate if some items could be dropped or their schedules extended. The benefits in terms of cost reductions will be quantified by such efforts. As part of this effort, the MWG and AAC will determine what the implications of potential changes considered in this action may be to the type, quality, and quantity of data and information that CRMS could provide. This should include consideration of potential changes in statistical validity and statistical power, as well as ecological relevance. These analyses to be conducted by the MWG with assistance of the AAG, and any other appropriate outside assistance that can be obtained.
c. USGS is undertaking hydrologic coherence and power analyses on adjacent CRMS sites to determine level of redundancy. Those that are similar can be dropped, or where specific monitoring efforts show similar results, those items will be dropped while other monitoring items at the same station will be kept.

Action 2: Evaluate alternatives to improve monitoring input into decision-making. By CWPPRA project, determine if current data collection is adequate to determine if the project has met, or is on a trajectory toward meeting, its goals so that the decision making process can be an informed one. Where data collection is inadequate for that purpose, identify and evaluate alternatives to remedy that shortcoming.

a. OCPR is identifying CRMS sites located in each CWPPRA project area. OCPR is also reviewing CWPPRA projects to determine the adequacy of existing project specific and CRMS monitoring efforts. The TC and MWG will review this information.
b. In consultation with the federal sponsors for each CWPPRA project, OCPR will make a preliminary determination as to whether the existing CRMS monitoring efforts and project specific monitoring are adequate to determine if the project has met, or is on a trajectory toward meeting, its goals.
c. For each project where the existing monitoring efforts are determined to be inadequate to determine whether the project has met, or is on a trajectory toward meeting, its goals, OCPR and the Federal sponsor shall identify and estimate the cost of alternative(s) for evaluation or additional monitoring to remedy the inadequacy. The TC and MWG shall review this information. Alternative evaluations / monitoring might include:
    a. An approach similar to the method used to forecast future land loss for CWPPRA candidate projects in the WVA process, except that the USGS land/water analysis could be used to hindcast land trajectories to determine project effectiveness. Basically this would be a reanalysis of V1 post construction. This would require several years of post construction aerial photography and/or satellite data.
    b. For projects where significant increase in SAV coverage was anticipated, a one-time growing field reconnaissance could be conducted to estimate SAV to compare to the TY0 estimate.
    c. For shoreline protection projects, USGS could perform a shoreline erosion analysis similar to that used for WVA purposes, except that analysis would be done for pre- and post-project periods.
d. OCPR and the Federal sponsor shall jointly make a project-specific decision whether to pursue additional funding for monitoring and / or evaluation, and submit funding request(s) to the TC.
e. The TC shall make project-specific recommendations to the Task Force as to whether additional funding should be provided.

Action 3: Identify potential partners and level of support for sharing of CRMS funding responsibility.

a. The COE will evaluate what CRMS sites are located within, or in close proximity to, Louisiana Coastal Area projects. This information will be provided to the TC for their evaluation of the potential for those projects to financially support the CRMS effort for those sites.

b. The TC will evaluate and recommend other funding streams that should help financially support the CRMS effort.

Action 4: Evaluate existing level of use by various agencies

a. TC members will query their agency to determine how CRMS data are currently being utilized.
b. USGS will recommend specific uses of the CRMS data to better evaluate project benefits and successes.
c. USGS will train staff of all agencies in the manipulation/evaluation of CRMS data for both CWPPRA and other purposes.

At the moment, the following actions are not being considered as they relate to the CRMS program.

1. CWPPRA paying only for CRMS sites within or immediately adjacent to CWPPRA project areas.
2. CWPPRA only funding those monitoring elements that can help identify project-specific success.
3. project goal issues may be discussed between monitoring and project managers but will not be a part of the evaluation

Summary of November 16, 2009, meeting to discuss CWPPRA monitoring

There was some discussion on the charge to the group from the Task Force. NMFS had sent out a draft work plan and, to date, only FWS had provided any recommended revisions. NRCS and EPA staff had just received the document and would review. RH is incorporating FWS revisions and will send out a draft for use/discussion at the Dec. 2 Technical Committee (TC) meeting.

Action 1 discussions:

Greg Steyer provided a powerpoint presentation summarizing the history of the CRMS efforts, a breakdown of costs by monitoring items, and future budget projections. It is his belief that costs for the CRMS program have been similar for the last two years and that major budget increases in the near future are unlikely. During discussions, it was estimated that each CRMS site costs CWPPRA approximately $20,000 per year, but dropping a number of sites wouldn't necessary result in a $20,000 per site cost savings. The funding is not necessarily linear.

Contractors are visiting each site 9 times per year to download data and maintain the platforms. There was some discussion about reducing the number of trips per year to reduce costs, but there is concern that reducing them too much would result in data being lost as some equipment breaks down.

A 3-yr contract has just been issued by the state to support the CRMS program. This is a service contract based on rates. There is a cost per item of support, and therefore, if the frequency of monitoring of that item goes down, there should be reduced costs to the CWPPRA program.

USGS is just beginning to undertake coherence analysis of adjacent stations. USGS will identify station pairs for such an analysis. Not sure if it will be a worthwhile undertaking and they are still evaluating the likely benefits of the effort. The analysis will take at least 3 months to complete. Staff of OCPR said there likely was a 10-15% cost savings on the hydrography data by dropping stations. At present, those stations cost approximately $4.6 million annually.

There was some discussion of CWPPRA dropping stations in habitats it doesn't really have projects in (swamp was mentioned). It was emphasized that such actions were not being recommended at this time, but could be identified as an alternative to reduce costs.

The Monitoring Work Group (MWG) and Academic Advisory Group (AAG) were tasked with evaluating alternatives to reduce costs. Alternatives to be evaluated include: 1) reducing the frequency of trips to the CRMS platforms; 2) collecting vegetative data every 2 or 3 years, instead of annually; 3) undertaking spatial analysis of wetland loss every 5 years instead of every 3 years; 4) using TM data for spatial analysis instead of

aerial photography; and 5) surveying to measure elevations as compared to Dokka methodology.

USGS and OCPR were also tasked with identifying cost-saving ideas. The MWG and AAG will report to the TC on all options evaluated to reduce costs. It is not the intent to reduce costs if changes made rendered the program ineffective in evaluating the program or projects. In terms of funding this effort, the agency participants are expected to use existing planning funds. The AAG may have to request additional funds if this effort involves more than a cursory review.

Action 2 discussions

OCPR staff indicated they had already initiated a review of monitoring efforts for all CWPPRA projects and such a review had started before the last Technical Committee meeting. Staff indicated the intent of the review is to evaluate whether CRMS and/or project specific monitoring has the potential to provide information to assist in a determination of project performance.

Information was provided identifying CWPPRA projects with project specific monitoring and summarizing that monitoring effort, and CWPPRA projects having no CRMS sites were identified. 42 CWPPRA projects have no CRMS sites within their project boundaries.

NRCS mentioned that they thought project specific monitoring for shoreline protection projects had been programmatically discontinued. FWS indicated an agency could request project specific monitoring be undertaken for a project, if there was a good reason to do so and funds were available in the construction budget to support the effort. It just required a discussion between the federal and state sponsors and having money in the budget.

Given that approval of future 0&M requests may be based on project performance, agencies are going to evaluate projects they sponsor to determine if additional monitoring may be warranted. They may request CRMS sites be added to a project area or project specific monitoring be funded. There will be no discussion of moving CRMS sites from other areas to CWPPRA project areas to provide the desired monitoring. While this may improve the decision-making on O&M issues, it was clearly recognized it would also increase the monitoring costs.

In the future, when an agency requests increases in O&M costs, as a standard practice, the federal and state sponsors will initiate evaluations of project specific and CRMS data in an effort to determine project effects.

USGS and OCPR indicated that a CRMS report card is due out this year. While that report will summarize the status of the program, it may not be able to summarize much

about projects having CRMS sites. The CWPPRA program will still continue to get project specific analyses every three years.

Action 3 discussions

COE staff indicated the LCA program was unlikely to fund CRMS sites in their project areas if CWPPRA was already paying for them. There was also some concern that the CRMS sites that are in project areas may not be optimally sited to best evaluate project effectiveness. NMFS voiced the opinion that since the LCA program is based on a programmatic EIS to evaluate wetland restoration needs coast-wide, because CRMS sites in and adjacent to LCA projects help provide that information, that LCA would be an appropriate cost share for those CRMS locations.

It was also mentioned that the LCA Science and Technology office would be an appropriate entity to help financially support the CRMS program. Unfortunately, they have not received much funding in recent years and there are some issues with the signing of cost-share agreements between the State and COE that may have to be resolved before LCA could be used to fund the CRMS program.

The TC will evaluate the information provided by OCPR to identify potential cost savings to CWPPRA from LCA picking up projects in the future. Since the implementation and funding dates of those projects is not known, the dates those savings could begin can not be estimated.

Action 4 discussions

TC members will query their agencies to determine how they are using CRMS data. Most are using it to get hydrography data in support of wetland value assessments. Most of the interest in this information comes from USGS to allow them to plan future training efforts to match the needs of the agencies. If some data also aren't being utilized, it may be that future evaluations will suggest dropping those efforts to save money. USGS does provide agency-wide training every six months.

SCOPE OF SERVICES

University scientists' assistance to the Louisiana Coastal Conservation and Restoration Task Force (CRMS Review)

Louisiana Universities Marine Consortium, Cocodrie, Louisiana

Coast-wide Reference Monitoring System (CRMS) Review

Technical Committee, Academic Advisory Group (AAG) and Monitoring Work Group (MWG) will review cost and monitored parameters in the CRMS Program. The group will evaluate if some items could be dropped or their schedules extended. The benefits in terms of cost reductions will be quantified by such efforts. As part of this effort, the MWG and AAG will determine what the implications of potential changes considered in this action may be to the type, quality, and quantity of data and information that CRMS could provide. This should include consideration of potential changes in statistical validity and statistical power, as well as ecological relevance. These analyses to be conducted by the MWG with assistance of the AAG, and any other appropriate outside assistance that can be obtained.

Three Louisiana academics will be selected to provide input. At a cost of $ 6500 per member

Budget

CRMS Review	19,500
LUMCON overhead (10%)	1,950
Total	21,450

Wandell, Scott F MVN

From: Goodman, Melanie L MVN
Sent: Thursday, December 10, 2009 2:15 PM
To: (Cecelia.Linder@noaa.gov); britt.paul@la.usda.gov; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Darryl Clark; Goodman, Melanie L MVN; Holden, Thomas A MVN; Kaspar.Paul@epamail.epa.gov; Kinsey, Mary V MVN; kirk.rhinehart@la.gov; Lachin, Donna A MVN; Richard.Hartman@noaa.gov; Teague.Kenneth@epamail.epa.gov; Wandell, Scott F MVN; Wingate, Mark R MVN; (Chris.Allen@LA.GOV); Bren Haas (Bren.Haase@LA.GOV); Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); John Jurgensen; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@la.gov
Subject: Request for Task Force Vote to approve FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Follow Up Flag: Follow up
Flag Status: Red

Attachments: Scope and Budget AAG CRMS Review.doc; RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation; RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation; RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation; Re: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation; RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation; RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Scope and Budget AAG CRMS Revi... | RE: FY10 Planning Budget Adjus... | RE: FY10 Planning Budget Adjus... | RE: FY10 Planning Budget Adjus... | Re: FY10 Planning Budget Adjus... | RE: FY10 Planning Budget Adjus... | RE: FY10 Planning Budget Adjus...

Technical Committee, please see attached scope and budget for new Academic Advisory Group task to participate in CWPPRA CRMS and Monitoring Program evaluation. The P&E recommends approval of the scope of work and an increase of $21,450 to the CWPPRA FY10 Planning Budget for AAG participation.

Please provide questions, comments and/or your concurrence/non-concurrence via email by December 18, 2009 on whether or not you recommend the Task Force to approve the scope of work and increase the CWPPRA FY10 Planning Budget in the amount of $21,450 for AAG participation in the CWPPRA CRMS and Monitoring Program evaluation.

If the Technical Committee approves, we will include for Task Force decision on the January 20, 2010 Task Force meeting agenda.

Thanks,

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

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

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

-----Original Message-----
From: Goodman, Melanie L MVN
Sent: Monday, December 07, 2009 12:21 PM
To: 'Dr. Jenneke M. Visser'
Cc: 'Scott A Wilson'; 'Cecelia.Linder@noaa.gov'; 'Chris.Allen@LA.GOV'; 'Bren.Haase@LA.GOV'; Browning, Gay B MVN; 'Crawford.Brad@epamail.epa.gov'; Creel, Travis J MVN; 'Cynthia.duet@gov.state.la.us'; 'Jerome Zeringue (jzee@tlcd.org)'; 'John Jurgensen'; 'Kelley.Templet@LA.GOV'; 'Kevin_Roy@fws.gov'; 'rachel.sweeney@noaa.gov'; 'renee.sanders@LA.GOV'; Wandell, Scott F MVN
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Jenneke, can you explain the conflicts of interests briefly?

P&E, please advise if you have any objections to the subject and attached proposal. Recall that the Technical Committee recommended that the AAG provide a request for a funding increase if necessary to participate in the subject effort. If the P&E has no objection, we will forward the proposal to the Technical Committee for email approval with possible Task Force FAX vote if deemed necessary.

Thanks,

Melanie

-----Original Message-----
From: Dr. Jenneke M. Visser [mailto:jvisser@louisiana.edu]
Sent: Monday, December 07, 2009 11:25 AM
To: Goodman, Melanie L MVN; Goodman, Melanie L MVN
Cc: Scott A Wilson; Cecelia.Linder@noaa.gov; Chris.Allen@LA.GOV; Bren.Haase@LA.GOV; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); John Jurgensen; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@LA.GOV; Wandell, Scott F MVN
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Melanie,

Attached is a scope and budget ($21,450) for the AAG contribution to the CRMS review. As part of the SOP, I am required to provide a list of scientist to be selected for a new task by the Academic Assistance Committee consisting of CWPPRA P&E members. So here is my list:

- Dr. Gary Shaffer, Southeastern Louisiana University
- Dr. Charles Sasser, Louisiana State University
- Dr. Andy Nyman, Louisiana Sate University
- Dr. Mark Hester, University of Louisiana
- Mr. Erick Swenson, Louisiana State University*
- Dr. Jenneke Visser, University of Louisiana*

*These scientists are currently part of the CRMS Analytical Team and may have a conflict of interest.

I haven't been able to contact everyone to see if they are available. But I can do that before Christmas.

Jenneke

Wandell, Scott F MVN

From: Rachel Sweeney [Rachel.Sweeney@noaa.gov]
Sent: Wednesday, December 09, 2009 7:30 AM
To: Crawford.Brad@epamail.epa.gov
Cc: Goodman, Melanie L MVN; Bren.Haase@LA.GOV; Cecelia.Linder@noaa.gov; Chris.Allen@LA.GOV; Cynthia.duet@gov.state.la.us; Browning, Gay B MVN; John Jurgensen; Dr. Jenneke M. Visser; Jerome Zeringue (jzee@tlcd.org); Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; renee.sanders@LA.GOV; Wandell, Scott F MVN; Creel, Travis J MVN; Scott A Wilson
Subject: Re: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Attachments: Rachel_Sweeney.vcf

Rachel_Sweeney.vcf (374 B)

Ditto for NOAA

Crawford.Brad@epamail.epa.gov wrote:
> EPA has no objections to the proposal or the list of scientists...
>
> <>< ><> <>< ><> <>< ><>
> Brad Crawford, P.E.
> US EPA (6WQ-EC)
> 1445 Ross Ave.
> Dallas, TX 75202
> 214.665.7255
> 214.665.6689 fax
> <>< ><> <>< ><> <>< ><>
>
>
> From: "Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>
> To: "Dr. Jenneke M. Visser" <jvisser@louisiana.edu>
> Cc: "Scott A Wilson" <wilsons@usgs.gov>, <Cecelia.Linder@noaa.gov>,
> <Chris.Allen@LA.GOV>, <Bren.Haase@LA.GOV>, "Browning, Gay B MVN"
> <Gay.B.Browning@usace.army.mil>, Brad Crawford/R6/USEPA/US@EPA,
> "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>,
> <Cynthia.duet@gov.state.la.us>, "Jerome Zeringue (jzee@tlcd.org)"
> <jzee@LA.GOV>, "John Jurgensen" <john.jurgensen@la.usda.gov>,
> "Kelley.Templet@LA.GOV" <kelley.templet@LA.GOV>, <Kevin_Roy@fws.gov>,
> <rachel.sweeney@noaa.gov>, <renee.sanders@LA.GOV>, "Wandell, Scott F
> MVN" <Scott.F.Wandell@usace.army.mil>
> Date: 12/07/2009 12:20 PM
> Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on
> CRMS/Monitoring Program Evaluation
>
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> approval with possible Task Force FAX vote if deemed necessary.
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> Thanks,
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> Melanie
>
> -----Original Message-----
> From: Dr. Jenneke M. Visser [mailto:jvisser@louisiana.edu]
> Sent: Monday, December 07, 2009 11:25 AM
> To: Goodman, Melanie L MVN; Goodman, Melanie L MVN
> Cc: Scott A Wilson; Cecelia.Linder@noaa.gov; Chris.Allen@LA.GOV;
> Bren.Haase@LA.GOV; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov;
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> Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@LA.GOV;
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> Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on
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> Jenneke
> [attachment "Scope and Budget AAG CRMS Review.doc" deleted by Brad
> Crawford/R6/USEPA/US]
>

Wandell, Scott F MVN

From: Jurgensen, John - Alexandria, LA [john.jurgensen@la.usda.gov]
Sent: Monday, December 07, 2009 12:24 PM
To: Goodman, Melanie L MVN; Dr. Jenneke M. Visser
Cc: Scott A Wilson; Cecelia.Linder@noaa.gov; Chris.Allen@LA.GOV; Bren.Haase@LA.GOV; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@LA.GOV; Wandell, Scott F MVN
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

NRCS agrees with the AAG recommendations and budget. We don't see any conflict of interest with the two members. In fact they may be able to offer more insight and answers to questions from the rest of the AAG because of their involvement with CRMS.

_____
John Jurgensen, P.E.
Civil Engineer
Water Resources Office
USDA Natural Resources Conservation Service Louisiana
(Office: (318) 473-7694
(Fax: (318) 473-7623
* Email: john.jurgensen@la.usda.gov

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[mailto:Melanie.L.Goodman@usace.army.mil]
Sent: Monday, December 07, 2009 12:21 PM
To: Dr. Jenneke M. Visser
Cc: Scott A Wilson; Cecelia.Linder@noaa.gov;
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Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov;
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Subject: RE: FY10 Planning Budget Adjustment for AAG
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Sent: Monday, December 07, 2009 11:25 AM
To: Goodman, Melanie L MVN; Goodman, Melanie L MVN
Cc: Scott A Wilson; Cecelia.Linder@noaa.gov;
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John Jurgensen; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov;
rachel.sweeney@noaa.gov; renee.sanders@LA.GOV; Wandell, Scott
F MVN
Subject: RE: FY10 Planning Budget Adjustment for AAG
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Jenneke

Wandell, Scott F MVN

From: Kelley Templet [Kelley.Templet@LA.GOV]
Sent: Tuesday, December 08, 2009 7:42 AM
To: Goodman, Melanie L MVN; Dr. Jenneke M. Visser
Cc: Scott A Wilson; Cecelia.Linder@noaa.gov; Chris Allen; Bren Haase; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Cynthia Duet; Jerome Zeringue; John Jurgensen; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; Renee Sanders; Wandell, Scott F MVN; Richard Raynie; Ed Haywood; Dona Weifenbach; Bren Haase; Kirk Rhinehart
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

The OCPR does not have any conflict with the proposed budget or the list of scientists that will be involved with the new task assigned to the Academic Assistance Committee on the CRMS/Monitoring Program Evaluation.

Kelley Templet
Coastal Resources Scientist Supervisor
Office of Coastal Protection and Restoration Planning Branch 450 Laurel Street, 12th floor
Baton Rouge, LA 70801

Phone: (225) 342-1592
Fax: (225) 342-9417
kelley.templet@la.gov

-----Original Message-----
From: Goodman, Melanie L MVN [mailto:Melanie.L.Goodman@usace.army.mil]
Sent: Monday, December 07, 2009 12:21 PM
To: Dr. Jenneke M. Visser
Cc: Scott A Wilson; Cecelia.Linder@noaa.gov; Chris Allen; Bren Haase; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Cynthia Duet; Jerome Zeringue; John Jurgensen; Kelley Templet; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; Renee Sanders; Wandell, Scott F MVN
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Jenneke, can you explain the conflicts of interests briefly?

P&E, please advise if you have any objections to the subject and attached proposal. Recall that the Technical Committee recommended that the AAG provide a request for a funding increase if necessary to participate in the subject effort. If the P&E has no objection, we will forward the proposal to the Technical Committee for email approval with possible Task Force FAX vote if deemed necessary.

Thanks,

Melanie

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From: Kevin_Roy@fws.gov
Sent: Tuesday, December 08, 2009 8:27 AM
To: Crawford.Brad@epamail.epa.gov
Cc: Bren.Haase@LA.GOV; Cecelia.Linder@noaa.gov; Chris.Allen@LA.GOV; Cynthia.duet@gov.state.la.us; Browning, Gay B MVN; John Jurgensen; Dr. Jenneke M. Visser; Jerome Zeringue (jzee@tlcd.org); Kelley.Templet@LA.GOV; Goodman, Melanie L MVN; rachel.sweeney@noaa.gov; renee.sanders@LA.GOV; Wandell, Scott F MVN; Creel, Travis J MVN; Scott A Wilson
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Attachments: pic08365.gif; graycol.gif; ecblank.gif

pic08365.gif (1 KB) graycol.gif (169 B) ecblank.gif (109 B)

No objections here.

Kevin J. Roy
Senior Field Biologist
Ecological Services
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506
337-291-3120
337-291-3139 Fax
Inactive hide details for Crawford.Brad@epamail.epa.govCrawford.Brad@epamail.epa.gov

Crawford.Brad@epamail.epa.gov

12/08/2009 08:14 AM

To

"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>

cc

Bren.Haase@LA.GOV, Cecelia.Linder@noaa.gov, Chris.Allen@LA.GOV, Cynthia.duet@gov.state.la.us, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>, "John Jurgensen" <john.jurgensen@la.usda.gov>, "Dr. Jenneke M. Visser" <jvisser@louisiana.edu>, "Jerome Zeringue (jzee@tlcd.org)" <jzee@LA.GOV>, "Kelley.Templet@LA.GOV" <kelley.templet@LA.GOV>, Kevin_Roy@fws.gov, rachel.sweeney@noaa.gov, renee.sanders@LA.GOV, "Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>, "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>, "Scott A Wilson" <wilsons@usgs.gov>

Subject

RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

EPA has no objections to the proposal or the list of scientists...

<>< ><> <>< ><> <>< ><>
Brad Crawford, P.E.
US EPA (6WQ-EC)
1445 Ross Ave.
Dallas, TX 75202
214.665.7255
214.665.6689 fax
<>< ><> <>< ><> <>< ><>

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Cc: "Scott A Wilson" <wilsons@usgs.gov>, <Cecelia.Linder@noaa.gov>, <Chris.Allen@LA.GOV>, <Bren.Haase@LA.GOV>, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>, Brad Crawford/R6/USEPA/US@EPA, "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>, <Cynthia.duet@gov.state.la.us>, "Jerome Zeringue (jzee@tlcd.org)" <jzee@LA.GOV>, "John Jurgensen" <john.jurgensen@la.usda.gov>, "Kelley.Templet@LA.GOV" <kelley.templet@LA.GOV>, <Kevin_Roy@fws.gov>, <rachel.sweeney@noaa.gov>, <renee.sanders@LA.GOV>, "Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>
Date: 12/07/2009 12:20 PM
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

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Jenneke
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Wandell, Scott F MVN

From: Paul, Britt - Alexandria, LA [britt.paul@la.usda.gov]
Sent: Sunday, December 13, 2009 7:30 PM
To: Goodman, Melanie L MVN; 'Cecelia.Linder@noaa.gov'; Browning, Gay B MVN; 'Crawford.Brad@epamail.epa.gov'; Creel, Travis J MVN; 'Darryl Clark'; Holden, Thomas A MVN; 'Kaspar.Paul@epamail.epa.gov'; Kinsey, Mary V MVN; 'kirk.rhinehart@la.gov'; Lachin, Donna A MVN; 'Richard.Hartman@noaa.gov'; 'Teague.Kenneth@epamail.epa.gov'; Wandell, Scott F MVN; Wingate, Mark R MVN; 'Chris.Allen@la.gov'; 'Bren.Haase@la.gov'; 'Cynthia.duet@gov.state.la.us'; 'Jerome Zeringue (jzee@tlcd.org)'; Jurgensen, John - Alexandria, LA; 'Kelley.Templet@LA.GOV'; 'Kevin_Roy@fws.gov'; 'rachel.sweeney@noaa.gov'; 'renee.sanders@la.gov'
Subject: RE: Request for Task Force Vote to approve FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Melanie,
NRCS concurs.

Britt

-----Original Message-----
From: Goodman, Melanie L MVN [mailto:Melanie.L.Goodman@usace.army.mil]
Sent: Thursday, December 10, 2009 2:15 PM
To: Cecelia.Linder@noaa.gov; Paul, Britt - Alexandria, LA; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Darryl Clark; Goodman, Melanie L MVN; Holden, Thomas A MVN; Kaspar.Paul@epamail.epa.gov; Kinsey, Mary V MVN; kirk.rhinehart@la.gov; Lachin, Donna A MVN; Richard.Hartman@noaa.gov; Teague.Kenneth@epamail.epa.gov; Wandell, Scott F MVN; Wingate, Mark R MVN; Chris.Allen@la.gov; Bren.Haase@la.gov; Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); Jurgensen, John - Alexandria, LA; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@la.gov
Subject: Request for Task Force Vote to approve FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

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Please provide questions, comments and/or your concurrence/non-concurrence via email by December 18, 2009 on whether or not you recommend the Task Force to approve the scope of work and increase the CWPPRA FY10 Planning Budget in the amount of $21,450 for AAG participation in the CWPPRA CRMS and Monitoring Program evaluation.

If the Technical Committee approves, we will include for Task Force decision on the January 20, 2010 Task Force meeting agenda.

Thanks,

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

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

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

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Cc: 'Scott A Wilson'; 'Cecelia.Linder@noaa.gov'; 'Chris.Allen@LA.GOV'; 'Bren.Haase@LA.GOV'; Browning, Gay B MVN; 'Crawford.Brad@epamail.epa.gov'; Creel, Travis J MVN; 'Cynthia.duet@gov.state.la.us'; 'Jerome Zeringue (jzee@tlcd.org)'; 'John Jurgensen'; 'Kelley.Templet@LA.GOV'; 'Kevin_Roy@fws.gov'; 'rachel.sweeney@noaa.gov'; 'renee.sanders@LA.GOV'; Wandell, Scott F MVN
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From: Kirk Rhinehart [Kirk.Rhinehart@LA.GOV]
Sent: Thursday, December 10, 2009 2:32 PM
To: Goodman, Melanie L MVN; Cecelia.Linder@noaa.gov; britt.paul@la.usda.gov; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Darryl Clark; Holden, Thomas A MVN; Kaspar.Paul@epamail.epa.gov; Kinsey, Mary V MVN; Lachin, Donna A MVN; Richard.Hartman@noaa.gov; Teague.Kenneth@epamail.epa.gov; Wandell, Scott F MVN; Wingate, Mark R MVN; Chris Allen; Bren Haase; Cynthia Duet; Jerome Zeringue; John Jurgensen; Kelley Templet; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; Renee Sanders
Subject: RE: Request for Task Force Vote to approve FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

The State concurs.

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From: Goodman, Melanie L MVN [mailto:Melanie.L.Goodman@usace.army.mil]
Sent: Thursday, December 10, 2009 2:15 PM
To: Cecelia.Linder@noaa.gov; britt.paul@la.usda.gov; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Darryl Clark; Goodman, Melanie L MVN; Holden, Thomas A MVN; Kaspar.Paul@epamail.epa.gov; Kinsey, Mary V MVN; Kirk Rhinehart; Lachin, Donna A MVN; Richard.Hartman@noaa.gov; Teague.Kenneth@epamail.epa.gov; Wandell, Scott F MVN; Wingate, Mark R MVN; Chris Allen; Bren Haase; Cynthia Duet; Jerome Zeringue; John Jurgensen; Kelley Templet; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; Renee Sanders
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Sent: Thursday, December 10, 2009 4:43 PM
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Attachments: pic28503.gif; graycol.gif; ecblank.gif; 34273708.gif

pic28503.gif (1 KB) graycol.gif (169 B) ecblank.gif (109 B) 34273708.gif (1 KB)

The FWS concurs with the Academic Advisory Group's CWPPRA Monitoring Program review budget.

Darryl

Inactive hide details for "Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>

"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>

12/10/2009 02:14 PM

To

<Cecelia.Linder@noaa.gov>, <britt.paul@la.usda.gov>, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>, <Crawford.Brad@epamail.epa.gov>, "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>, "Darryl Clark" <darryl_clark@fws.gov>, "Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>, "Holden, Thomas A MVN" <Thomas.A.Holden@usace.army.mil>, <Kaspar.Paul@epamail.epa.gov>, "Kinsey, Mary V MVN" <Mary.V.Kinsey@usace.army.mil>, <kirk.rhinehart@la.gov>, "Lachin, Donna A MVN" <Donna.A.Lachin@usace.army.mil>, <Richard.Hartman@noaa.gov>, <Teague.Kenneth@epamail.epa.gov>, "Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>, "Wingate, Mark R MVN" <Mark.R.Wingate@usace.army.mil>, <Chris.Allen@LA.GOV>, <Bren.Haase@LA.GOV>, <Cynthia.duet@gov.state.la.us>, "Jerome Zeringue (jzee@tlcd.org)" <jzee@la.gov>, "John Jurgensen" <john.jurgensen@la.usda.gov>, "Kelley.Templet@LA.GOV" <kelley.templet@la.gov>, <Kevin_Roy@fws.gov>, <rachel.sweeney@noaa.gov>, <renee.sanders@la.gov>

cc

Subject

Request for Task Force Vote to approve FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Technical Committee, please see attached scope and budget for new Academic Advisory Group task to participate in CWPPRA CRMS and Monitoring Program evaluation. The P&E recommends approval of the scope of work and an increase of $21,450 to the CWPPRA FY10 Planning Budget for AAG participation.

Please provide questions, comments and/or your concurrence/non-concurrence via email by December 18, 2009 on whether or not you recommend the Task Force to approve the scope of work and increase the CWPPRA FY10 Planning Budget in the amount of $21,450 for AAG participation in the CWPPRA CRMS and Monitoring Program evaluation.

If the Technical Committee approves, we will include for Task Force decision on the January 20, 2010 Task Force meeting agenda.

Thanks,

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

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

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

-----Original Message-----
From: Goodman, Melanie L MVN
Sent: Monday, December 07, 2009 12:21 PM
To: 'Dr. Jenneke M. Visser'
Cc: 'Scott A Wilson'; 'Cecelia.Linder@noaa.gov'; 'Chris.Allen@LA.GOV'; 'Bren.Haase@LA.GOV'; Browning, Gay B MVN; 'Crawford.Brad@epamail.epa.gov'; Creel, Travis J MVN; 'Cynthia.duet@gov.state.la.us'; 'Jerome Zeringue (jzee@tlcd.org)'; 'John Jurgensen'; 'Kelley.Templet@LA.GOV'; 'Kevin_Roy@fws.gov'; 'rachel.sweeney@noaa.gov'; 'renee.sanders@LA.GOV'; Wandell, Scott F MVN
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Jenneke, can you explain the conflicts of interests briefly?

P&E, please advise if you have any objections to the subject and attached proposal. Recall that the Technical Committee recommended that the AAG provide a request for a funding increase if necessary to participate in the subject effort. If the P&E has no objection, we will forward the proposal to the Technical Committee for email approval with possible Task Force FAX vote if deemed necessary.

Thanks,

Melanie

-----Original Message-----
From: Dr. Jenneke M. Visser [mailto:jvisser@louisiana.edu]
Sent: Monday, December 07, 2009 11:25 AM
To: Goodman, Melanie L MVN; Goodman, Melanie L MVN
Cc: Scott A Wilson; Cecelia.Linder@noaa.gov; Chris.Allen@LA.GOV; Bren.Haase@LA.GOV; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN;

Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); John Jurgensen; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@LA.GOV; Wandell, Scott F MVN
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

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- Dr. Charles Sasser, Louisiana State University
- Dr. Andy Nyman, Louisiana Sate University
- Dr. Mark Hester, University of Louisiana
- Mr. Erick Swenson, Louisiana State University*
- Dr. Jenneke Visser, University of Louisiana*

*These scientists are currently part of the CRMS Analytical Team and may have a conflict of interest.

I haven't been able to contact everyone to see if they are available. But I can do that before Christmas.

Jenneke
[attachment "Scope and Budget AAG CRMS Review.doc" deleted by Darryl Clark/R4/FWS/DOI]
----- Message from "Dr. Jenneke M. Visser" <jvisser@louisiana.edu> on Mon, 7 Dec 2009 14:46:07 -0600 -----
To:
"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>
cc:
"Scott A Wilson" <wilsons@usgs.gov>, <Cecelia.Linder@noaa.gov>, <Chris.Allen@LA.GOV>, <Bren.Haase@LA.GOV>, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>, <Crawford.Brad@epamail.epa.gov>, "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>, <Cynthia.duet@gov.state.la.us>, "Jerome Zeringue (jzee@tlcd.org)" <jzee@LA.GOV>, "John Jurgensen" <john.jurgensen@la.usda.gov>, "Kelley.Templet@LA.GOV" <kelley.templet@LA.GOV>, <Kevin_Roy@fws.gov>, <rachel.sweeney@noaa.gov>, <renee.sanders@LA.GOV>, "Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>
Subject:
RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation
Melanie,

Both Erick and I are part of the USGS/State CRMS Analytical Team, which is developing the methods for the analysis of the CRMS data, including the report card development. For this we are under contract with USGS. I just wanted you to be aware of that fact. Also, everyone on my list has had some part in the development of CRMS, with Gary Shaffer having the smallest part.

Jenneke

At 12:20 PM 12/7/2009, Goodman, Melanie L MVN wrote:
>Jenneke, can you explain the conflicts of interests briefly?
>
>P&E, please advise if you have any objections to the subject and
>attached proposal. Recall that the Technical Committee recommended
>that the AAG provide a request for a funding increase if necessary to
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>Melanie
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>From: Dr. Jenneke M. Visser [mailto:jvisser@louisiana.edu]
>Sent: Monday, December 07, 2009 11:25 AM
>To: Goodman, Melanie L MVN; Goodman, Melanie L MVN
>Cc: Scott A Wilson; Cecelia.Linder@noaa.gov; Chris.Allen@LA.GOV;
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Creel,
>Travis J MVN; Cynthia.duet@gov.state.la.us; Jerome Zeringue
>(jzee@tlcd.org); John Jurgensen; Kelley.Templet@LA.GOV;
>Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@LA.GOV;
>Wandell, Scott F MVN
>Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on
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>But I can do that before Christmas.
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>Jenneke
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----- Message from <Crawford.Brad@epamail.epa.gov> on Tue, 8 Dec 2009 08:14:11 -0600 -----
To:
"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>
cc:
<Bren.Haase@LA.GOV>, <Cecelia.Linder@noaa.gov>, <Chris.Allen@LA.GOV>,
<Cynthia.duet@gov.state.la.us>, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>,
"John Jurgensen" <john.jurgensen@la.usda.gov>, "Dr. Jenneke M. Visser"
<jvisser@louisiana.edu>, "Jerome Zeringue (jzee@tlcd.org)" <jzee@LA.GOV>,
"Kelley.Templet@LA.GOV" <kelley.templet@LA.GOV>, <Kevin_Roy@fws.gov>,

<rachel.sweeney@noaa.gov>, <renee.sanders@LA.GOV>, "Wandell, Scott F MVN"
<Scott.F.Wandell@usace.army.mil>, "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>,
"Scott A Wilson" <wilsons@usgs.gov>
Subject:
RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation
EPA has no objections to the proposal or the list of scientists...

<>< ><> <>< ><> <>< ><>
Brad Crawford, P.E.
US EPA (6WQ-EC)
1445 Ross Ave.
Dallas, TX 75202
214.665.7255
214.665.6689 fax
<>< ><> <>< ><> <>< ><>

From: "Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>
To: "Dr. Jenneke M. Visser" <jvisser@louisiana.edu>
Cc: "Scott A Wilson" <wilsons@usgs.gov>, <Cecelia.Linder@noaa.gov>, <Chris.Allen@LA.GOV>,
<Bren.Haase@LA.GOV>, "Browning, Gay B MVN"
<Gay.B.Browning@usace.army.mil>, Brad Crawford/R6/USEPA/US@EPA, "Creel, Travis J MVN"
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<kelley.templet@LA.GOV>, <Kevin_Roy@fws.gov>, <rachel.sweeney@noaa.gov>,
<renee.sanders@LA.GOV>, "Wandell, Scott F MVN"
<Scott.F.Wandell@usace.army.mil>
Date: 12/07/2009 12:20 PM
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

---

Jenneke, can you explain the conflicts of interests briefly?

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Sent: Monday, December 07, 2009 11:25 AM
To: Goodman, Melanie L MVN; Goodman, Melanie L MVN
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*These scientists are currently part of the CRMS Analytical Team and may have a conflict of interest.

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Jenneke
[attachment "Scope and Budget AAG CRMS Review.doc" deleted by Brad Crawford/R6/USEPA/US]

----- Message from <Kevin_Roy@fws.gov> on Tue, 8 Dec 2009 08:26:55 -0600 -----
To:
<Crawford.Brad@epamail.epa.gov>
cc:
<Bren.Haase@LA.GOV>, <Cecelia.Linder@noaa.gov>, <Chris.Allen@LA.GOV>, <Cynthia.duet@gov.state.la.us>, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>, "John Jurgensen" <john.jurgensen@la.usda.gov>, "Dr. Jenneke M. Visser" <jvisser@louisiana.edu>, "Jerome Zeringue (jzee@tlcd.org)" <jzee@LA.GOV>, "Kelley.Templet@LA.GOV" <kelley.templet@LA.GOV>, "Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>, <rachel.sweeney@noaa.gov>, <renee.sanders@LA.GOV>, "Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>, "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>, "Scott A Wilson" <wilsons@usgs.gov>
Subject:
RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation
No objections here.

Kevin J. Roy
Senior Field Biologist
Ecological Services
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506
337-291-3120
337-291-3139 Fax
Inactive hide details for Crawford.Brad@epamail.epa.govCrawford.Brad@epamail.epa.gov

Crawford.Brad@epamail.epa.gov

12/08/2009 08:14 AM

To

"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>

cc

Bren.Haase@LA.GOV, Cecelia.Linder@noaa.gov, Chris.Allen@LA.GOV, Cynthia.duet@gov.state.la.us, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>, "John Jurgensen" <john.jurgensen@la.usda.gov>, "Dr. Jenneke M. Visser" <jvisser@louisiana.edu>, "Jerome Zeringue (jzee@tlcd.org)" <jzee@LA.GOV>, "Kelley.Templet@LA.GOV" <kelley.templet@LA.GOV>, Kevin_Roy@fws.gov, rachel.sweeney@noaa.gov, renee.sanders@LA.GOV, "Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>, "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>, "Scott A Wilson" <wilsons@usgs.gov>

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[attachment "Scope and Budget AAG CRMS Review.doc" deleted by Brad Crawford/R6/USEPA/US]

----- Message from "Rachel Sweeney" <Rachel.Sweeney@noaa.gov> on Wed, 9 Dec 2009 07:30:03 -0600 -----
To:
<Crawford.Brad@epamail.epa.gov>
cc:
"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>, <Bren.Haase@LA.GOV>, <Cecelia.Linder@noaa.gov>, <Chris.Allen@LA.GOV>, <Cynthia.duet@gov.state.la.us>, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>, "John Jurgensen" <john.jurgensen@la.usda.gov>, "Dr. Jenneke M. Visser" <jvisser@louisiana.edu>, "Jerome Zeringue (jzee@tlcd.org)" <jzee@LA.GOV>, "Kelley.Templet@LA.GOV" <kelley.templet@LA.GOV>, <Kevin_Roy@fws.gov>, <renee.sanders@LA.GOV>, "Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>, "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>, "Scott A Wilson" <wilsons@usgs.gov>
Subject:
Re: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation
Ditto for NOAA

Crawford.Brad@epamail.epa.gov wrote:
> EPA has no objections to the proposal or the list of scientists...
>
> <>< ><> <>< ><> <>< ><>
> Brad Crawford, P.E.
> US EPA (6WQ-EC)
> 1445 Ross Ave.
> Dallas, TX 75202
> 214.665.7255
> 214.665.6689 fax
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> <rachel.sweeney@noaa.gov>, <renee.sanders@LA.GOV>, "Wandell, Scott F
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> Date: 12/07/2009 12:20 PM
> Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on
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> To: Goodman, Melanie L MVN; Goodman, Melanie L MVN
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> Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@LA.GOV;
> Wandell, Scott F MVN
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> [attachment "Scope and Budget AAG CRMS Review.doc" deleted by Brad
>Crawford/R6/USEPA/US] [attachment "Rachel_Sweeney.vcf" deleted by
>Darryl Clark/R4/FWS/DOI]
----- Message from "Kelley Templet" <Kelley.Templet@LA.GOV> on Tue, 8 Dec 2009 07:41:34
-0600 -----
To:
"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>, "Dr. Jenneke M. Visser"
<jvisser@louisiana.edu>
cc:
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<Travis.J.Creel@usace.army.mil>, "Cynthia Duet" <Cynthia.Duet@GOV.STATE.LA.US>, "Jerome
Zeringue" <Jerome.Zeringue@LA.GOV>, "John Jurgensen" <john.jurgensen@la.usda.gov>,
<Kevin_Roy@fws.gov>, <rachel.sweeney@noaa.gov>, "Renee Sanders" <Renee.Sanders@LA.GOV>,
"Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>, "Richard Raynie"
<Richard.Raynie@LA.GOV>, "Ed Haywood" <Ed.Haywood@LA.GOV>, "Dona Weifenbach"
<Dona.Weifenbach@LA.GOV>, "Bren Haase" <Bren.Haase@LA.GOV>, "Kirk Rhinehart"
<Kirk.Rhinehart@LA.GOV>
Subject:
RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program
Evaluation
The OCPR does not have any conflict with the proposed budget or the list of scientists
that will be involved with the new task assigned to the Academic Assistance Committee on
the CRMS/Monitoring Program Evaluation.

Kelley Templet
Coastal Resources Scientist Supervisor
Office of Coastal Protection and Restoration Planning Branch 450 Laurel Street, 12th floor
Baton Rouge, LA 70801

Phone: (225) 342-1592
Fax: (225) 342-9417
kelley.templet@la.gov

-----Original Message-----
From: Goodman, Melanie L MVN [mailto:Melanie.L.Goodman@usace.army.mil
<mailto:Melanie.L.Goodman@usace.army.mil>]
Sent: Monday, December 07, 2009 12:21 PM
To: Dr. Jenneke M. Visser
Cc: Scott A Wilson; Cecelia.Linder@noaa.gov; Chris Allen; Bren Haase; Browning, Gay B MVN;
Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Cynthia Duet; Jerome Zeringue; John
Jurgensen; Kelley Templet; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; Renee Sanders;
Wandell, Scott F MVN
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring
Program Evaluation

Jenneke, can you explain the conflicts of interests briefly?

P&E, please advise if you have any objections to the subject and attached proposal. Recall
that the Technical Committee recommended that the AAG provide a request for a funding
increase if necessary to participate in the subject effort. If the P&E has no objection,
we will forward the proposal to the Technical Committee for email approval with possible
Task Force FAX vote if deemed necessary.

Thanks,

Melanie

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From: Dr. Jenneke M. Visser [mailto:jvisser@louisiana.edu <mailto:jvisser@louisiana.edu>]

Sent: Monday, December 07, 2009 11:25 AM
To: Goodman, Melanie L MVN; Goodman, Melanie L MVN
Cc: Scott A Wilson; Cecelia.Linder@noaa.gov; Chris.Allen@LA.GOV; Bren.Haase@LA.GOV; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); John Jurgensen; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@LA.GOV; Wandell, Scott F MVN
Subject: RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Melanie,

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o Dr. Gary Shaffer, Southeastern Louisiana University

o Dr. Charles Sasser, Louisiana State University

o Dr. Andy Nyman, Louisiana Sate University

o Dr. Mark Hester, University of Louisiana

o Mr. Erick Swenson, Louisiana State University*

o Dr. Jenneke Visser, University of Louisiana*

*These scientists are currently part of the CRMS Analytical Team and may have a conflict of interest.

I haven't been able to contact everyone to see if they are available. But I can do that before Christmas.

Jenneke
----- Message from "Jurgensen, John - Alexandria, LA" <john.jurgensen@la.usda.gov> on Mon, 7 Dec 2009 12:23:49 -0600 -----
To:
"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>, "Dr. Jenneke M. Visser" <jvisser@louisiana.edu>
cc:
"Scott A Wilson" <wilsons@usgs.gov>, <Cecelia.Linder@noaa.gov>, <Chris.Allen@LA.GOV>, <Bren.Haase@LA.GOV>, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>, <Crawford.Brad@epamail.epa.gov>, "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>, <Cynthia.duet@gov.state.la.us>, "Jerome Zeringue (jzee@tlcd.org)" <jzee@LA.GOV>, "Kelley.Templet@LA.GOV" <kelley.templet@LA.GOV>, <Kevin_Roy@fws.gov>, <rachel.sweeney@noaa.gov>, <renee.sanders@LA.GOV>, "Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>
Subject:
RE: FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation
NRCS agrees with the AAG recommendations and budget. We don't see any conflict of interest with the two members. In fact they may be able to offer more insight and answers to questions from the rest of the AAG because of their involvement with CRMS.

_____
John Jurgensen, P.E.
Civil Engineer
Water Resources Office
USDA Natural Resources Conservation Service Louisiana (Office: (318) 473-7694 (Fax: (318) 473-7623
* Email: john.jurgensen@la.usda.gov

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[mailto:Melanie.L.Goodman@usace.army.mil <mailto:Melanie.L.Goodman@usace.army.mil>]
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Jenneke

Wandell, Scott F MVN

From: Goodman, Melanie L MVN
Sent: Monday, December 21, 2009 4:28 PM
To: Goodman, Melanie L MVN; ' (Cecelia.Linder@noaa.gov)'; 'britt.paul@la.usda.gov'; Browning, Gay B MVN; 'Crawford.Brad@epamail.epa.gov'; Creel, Travis J MVN; 'Darryl Clark'; Holden, Thomas A MVN; 'Kaspar.Paul@epamail.epa.gov'; Kinsey, Mary V MVN; 'kirk.rhinehart@la.gov'; Lachin, Donna A MVN; 'Richard.Hartman@noaa.gov'; Wandell, Scott F MVN; Wingate, Mark R MVN; ' (Chris.Allen@LA.GOV)'; 'Bren Haas (Bren.Haase@LA.GOV)'; 'Cynthia.duet@gov.state.la.us'; 'Jerome Zeringue (jzee@tlcd.org)'; 'John Jurgensen'; 'Kelley.Templet@LA.GOV'; 'Kevin_Roy@fws.gov'; 'rachel.sweeney@noaa.gov'; 'renee.sanders@la.gov'
Subject: RE: Technical Committee Email Vote results to recommend Task Force approval of FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Attachments: (6) FY10_CWPPRA Planning Budget Final_Task Force Draft Revised for AAG_ Dec 2009.xls

(6) FY10_CWPPRA Planning Budge...

Technical Committee, we have received concurrence from all agency Technical Committee Reps on the subject and below described budget FY10 AAG Planning Budget adjustment. We will include this on the Task Force Jan 20, 2009 meeting agenda for final decision. See attached draft revised FY10 Planning Budget.

Thanks

Melanie

-----Original Message-----
From: Goodman, Melanie L MVN
Sent: Thursday, December 10, 2009 2:15 PM
To: (Cecelia.Linder@noaa.gov); britt.paul@la.usda.gov; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Darryl Clark; Goodman, Melanie L MVN; Holden, Thomas A MVN; Kaspar.Paul@epamail.epa.gov; Kinsey, Mary V MVN; kirk.rhinehart@la.gov; Lachin, Donna A MVN; Richard.Hartman@noaa.gov; Teague.Kenneth@epamail.epa.gov; Wandell, Scott F MVN; Wingate, Mark R MVN; (Chris.Allen@LA.GOV); Bren Haas (Bren.Haase@LA.GOV); Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); John Jurgensen; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@la.gov
Subject: Request for Task Force Vote to approve FY10 Planning Budget Adjustment for AAG coordination on CRMS/Monitoring Program Evaluation

Technical Committee, please see attached scope and budget for new Academic Advisory Group task to participate in CWPPRA CRMS and Monitoring Program evaluation. The P&E recommends approval of the scope of work and an increase of $21,450 to the CWPPRA FY10 Planning Budget for AAG participation.

Please provide questions, comments and/or your concurrence/non-concurrence via email by December 18, 2009 on whether or not you recommend the Task Force to approve the scope of work and increase the CWPPRA FY10 Planning Budget in the amount of $21,450 for AAG participation in the CWPPRA CRMS and Monitoring Program evaluation.

If the Technical Committee approves, we will include for Task Force decision on the January 20, 2010 Task Force meeting agenda.

Thanks,

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

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

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

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*These scientists are currently part of the CRMS Analytical Team and may have a conflict of interest.

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Jenneke

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

STATUS OF THE PPL8 – SABINE REFUGE MARSH CREATION PROJECT, II, IV, & V (CS-28-4&5)

For Discussion:

Mr. Scott Wandell will provide a status on the construction of the permanent pipeline (Cycle II) and potential construction schedule for Cycles IV and V to meet the Calcasieu Ship Channel FY 11 maintenance cycle in winter 2010/2011.

Sabine Refuge Marsh Creation Project Status on Construction Schedules

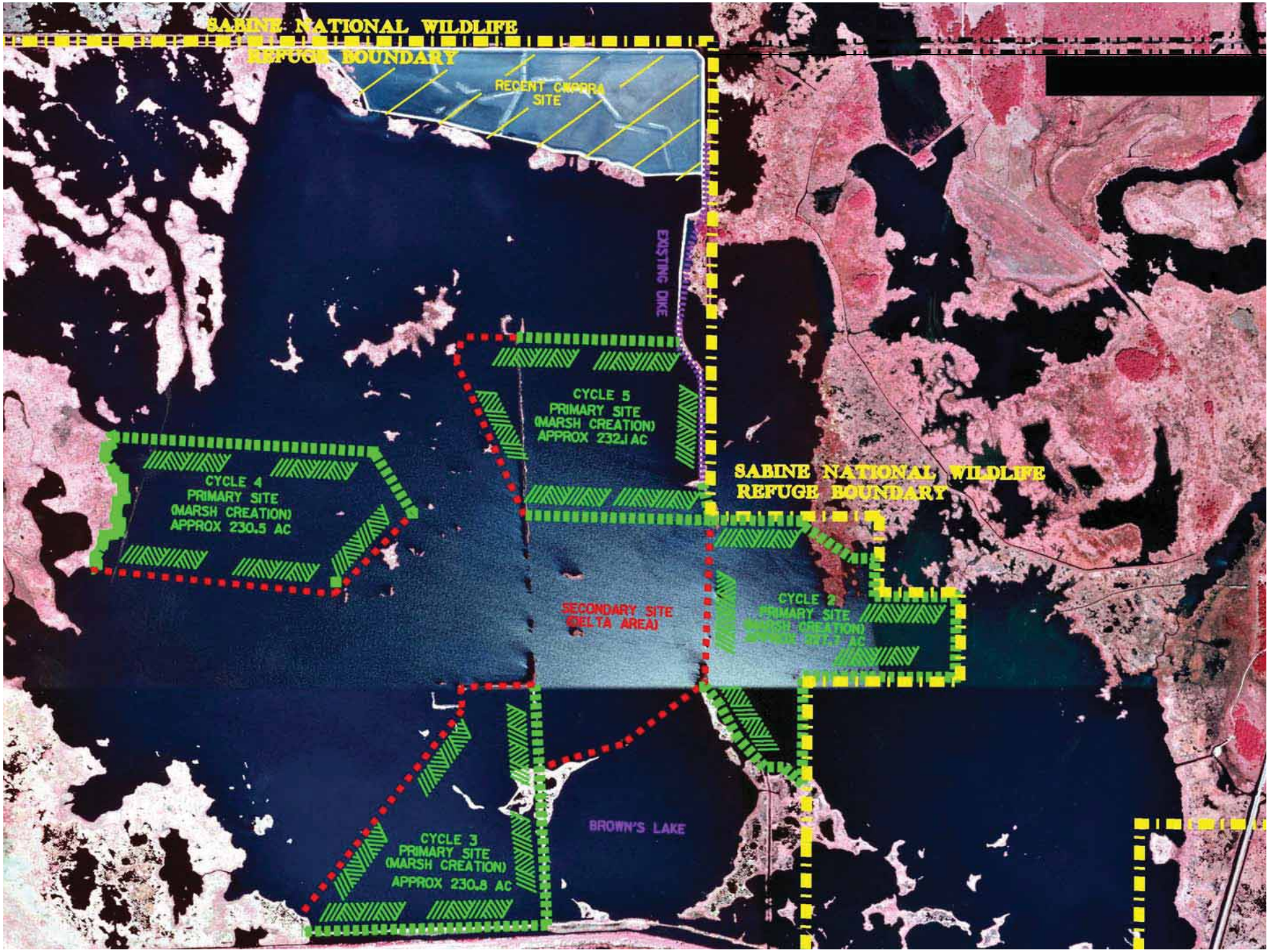
CWPPRA Task Force Meeting
January 20, 2010

Presented by:

Scott Wandell
Project Manager, USACE

Sabine Refuge Marsh Creation Project Background

- **Approved on PPL 8 in January 1999.**
- **Project consists of 5 marsh creation sites on the Sabine National Wildlife Refuge to create ≈ 1,120 acres**
- **Using dredge material from Calcasieu River Ship Channel maintenance dredging.**
- **The COE Ops Div. pays for dredging the Calcasieu River and CWPPRA only pays for the incremental cost of pumping to the Sabine Refuge.**
- **Later broken up into 5 separate cycles**

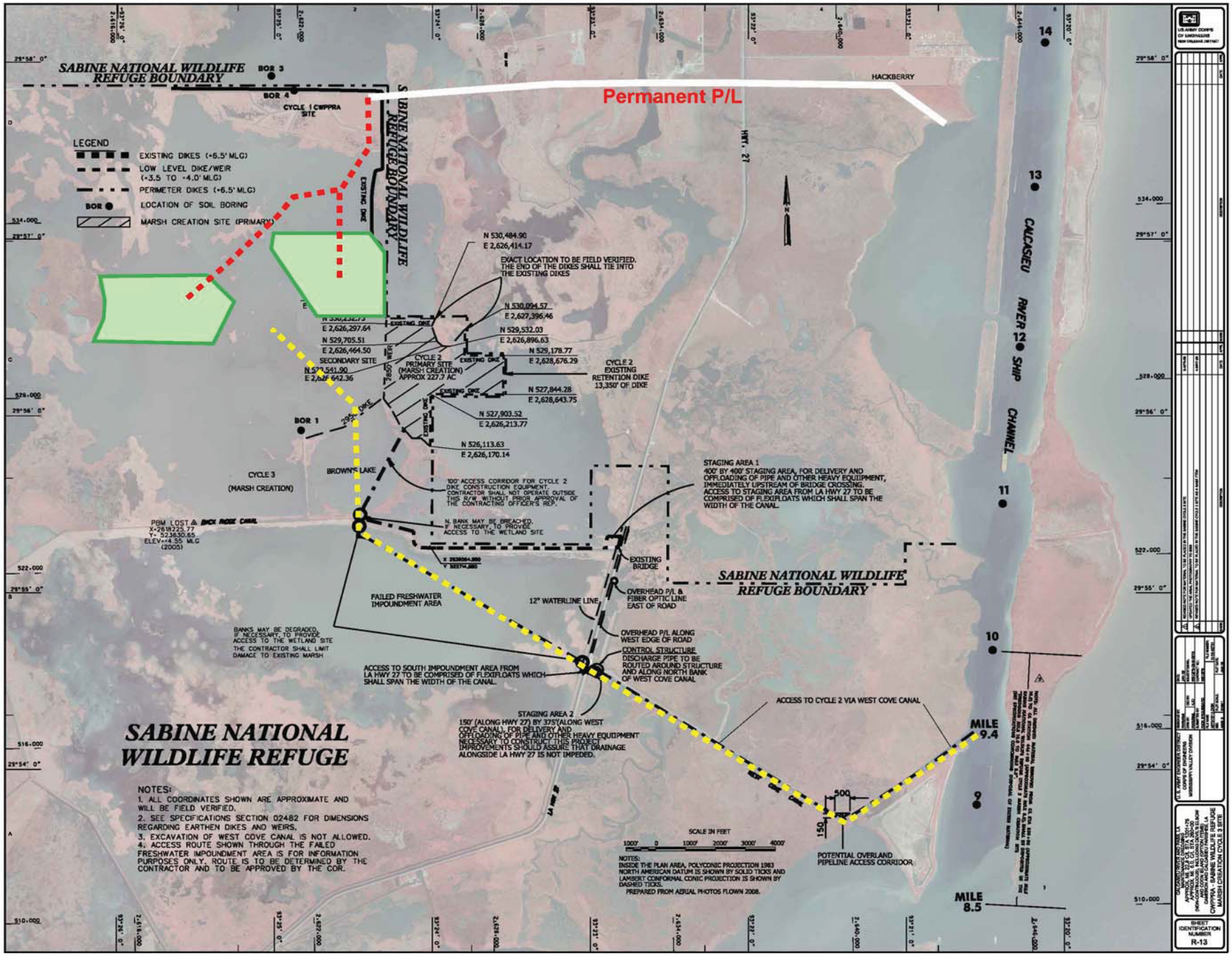

SABINE NATIONAL WILDLIFE
REFUGE BOUNDARY
RECENT CWPPRA
SITE
EXISTING DIKE
CYCLE 5
PRIMARY SITE
(MARSH CREATION)
APPROX 232.1 AC
CYCLE 4
PRIMARY SITE
(MARSH CREATION)
APPROX 230.5 AC
SABINE NATIONAL WILDLIFE
REFUGE BOUNDARY
SECONDARY SITE
(DELTA AREA)
CYCLE 2
PRIMARY SITE
(MARSH CREATION)
BROWN'S LAKE
CYCLE 3
PRIMARY SITE
(MARSH CREATION)
APPROX 230.8 AC

Current Work Update

- Cycle 1
  - Completed Jan 2002
  - Created 200 acres marsh at a cost of $3.4 M
- Cycle 2
  - Until recently, included a permanent pipeline feature and a marsh creation site of ≈227 acres
  - Marsh creation site was removed from Cycle 2 in 2008
    - State will pay for marsh creation component
    - Construction scheduled to start in March and should be completed by May
  - Permanent Pipeline recently completed, currently under inspection
    - 4 months ahead of schedule
- Cycle 3
  - Initial construction completed in March 2007
  - Constructed ≈ 230 acres
  - COE and State currently surveying the site for gapping and degrading containment dikes around marsh creation site

Sabine Refuge Marsh Creation Project
Cycles 4&5

- **Cycles 4-5 would construct 460 acres of marsh at an estimated cost of $4-5 M**
- **2 alternative construction schedules based on 3 possible construction scenarios:**
  - **Construction Schedule 1**
    - Cycle 4 constructed in FY11 using permanent pipeline and dredge material from River Mile 14-12.5
    - Cycle 5 constructed in FY13 using permanent pipeline and dredge material from River Mile 14-12.5


SABINE NATIONAL WILDLIFE REFUGE BOUNDARY
BOR 3
BOR 4
CYCLE 1 CWPPRA SITE
Permanent P/L
HACKBERRY
LEGEND
EXISTING DIKES (+6.5' MLG)
LOW LEVEL DIKE/WEIR (+3.5 TO +4.0' MLG)
PERIMETER DIKES (+6.5' MLG)
BOR
LOCATION OF SOIL BORING
MARSH CREATION SITE (PRIMARY)
SABINE NATIONAL WILDLIFE REFUGE BOUNDARY
EXISTING DIKE
HWY. 27
CALCASIEU RIVER SHIP CHANNEL
N 530,484.90
E 2,626,414.17
EXACT LOCATION TO BE FIELD VERIFIED. THE END OF THE DIKES SHALL TIE INTO THE EXISTING DIKES
N 530,094.57
E 2,627,396.46
N 529,532.03
E 2,626,896.63
N 529,178.77
E 2,628,676.29
E 2,626,297.64
N 529,705.51
E 2,626,464.50
SECONDARY SITE
CYCLE 2 PRIMARY SITE (MARSH CREATION) APPROX 227.7 AC
CYCLE 2 EXISTING RETENTION DIKE 13,350' OF DIKE
N 527,844.28
E 2,628,643.75
N 527,903.52
E 2,626,213.77
N 526,113.63
E 2,626,170.14
BOR 1
CYCLE 3 (MARSH CREATION)
BROWN'S LAKE
100' ACCESS CORRIDOR FOR CYCLE 2 DIKE CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL NOT OPERATE OUTSIDE THIS R/W, WITHOUT PRIOR APPROVAL OF THE CONTRACTING OFFICER'S REP.
N. BANK MAY BE BREACHED, IF NECESSARY, TO PROVIDE ACCESS TO THE WETLAND SITE
STAGING AREA 1
400' BY 400' STAGING AREA, FOR DELIVERY AND OFFLOADING OF PIPE AND OTHER HEAVY EQUIPMENT, IMMEDIATELY UPSTREAM OF BRIDGE CROSSING. ACCESS TO STAGING AREA FROM LA HWY 27 TO BE COMPRISED OF FLEXIFLOATS WHICH SHALL SPAN THE WIDTH OF THE CANAL.
PBM LOST ⚠ BICK RIDGE CANAL
X-2619225.77
Y- 523830.85
ELEV=+4.55 MLG
(2005)
EXISTING BRIDGE
SABINE NATIONAL WILDLIFE REFUGE BOUNDARY
FAILED FRESHWATER IMPOUNDMENT AREA
12" WATERLINE LINE
OVERHEAD P/L & FIBER OPTIC LINE EAST OF ROAD
OVERHEAD P/L ALONG WEST EDGE OF ROAD
CONTROL STRUCTURE
DISCHARGE PIPE TO BE ROUTED AROUND STRUCTURE AND ALONG NORTH BANK OF WEST COVE CANAL
BANKS MAY BE DEGRADED, IF NECESSARY, TO PROVIDE ACCESS TO THE WETLAND SITE
THE CONTRACTOR SHALL LIMIT DAMAGE TO EXISTING MARSH
ACCESS TO SOUTH IMPOUNDMENT AREA FROM LA HWY 27 TO BE COMPRISED OF FLEXIFLOATS WHICH SHALL SPAN THE WIDTH OF THE CANAL.
STAGING AREA 2
150' (ALONG HWY 27) BY 375'(ALONG WEST COVE CANAL), FOR DELIVERY AND OFFLOADING OF PIPE AND OTHER HEAVY EQUIPMENT NECESSARY TO CONSTRUCT THIS PROJECT. IMPROVEMENTS SHOULD ASSURE THAT DRAINAGE ALONGSIDE LA HWY 27 IS NOT IMPEDED.
ACCESS TO CYCLE 2 VIA WEST COVE CANAL
MILE 9.4
MILE 8.5
500
150
POTENTIAL OVERLAND PIPELINE ACCESS CORRIDOR
SABINE NATIONAL WILDLIFE REFUGE
NOTES:
1. ALL COORDINATES SHOWN ARE APPROXIMATE AND WILL BE FIELD VERIFIED.
2. SEE SPECIFICATIONS SECTION 02482 FOR DIMENSIONS REGARDING EARTHEN DIKES AND WEIRS.
3. EXCAVATION OF WEST COVE CANAL IS NOT ALLOWED.
4. ACCESS ROUTE SHOWN THROUGH THE FAILED FRESHWATER IMPOUNDMENT AREA IS FOR INFORMATION PURPOSES ONLY. ROUTE IS TO BE DETERMINED BY THE CONTRACTOR AND TO BE APPROVED BY THE COR.
SCALE IN FEET
1000' 0 1000' 2000' 3000' 4000'
NOTES:
INSIDE THE PLAN AREA, POLYCONIC PROJECTION 1983 NORTH AMERICAN DATUM IS SHOWN BY SOLID TICKS AND LAMBERT CONFORMAL CONIC PROJECTION IS SHOWN BY DASHED TICKS.
PREPARED FROM AERIAL PHOTOS FLOWN 2008.
U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
U.S. ARMY CORPS OF ENGINEERS
MISSISSIPPI VALLEY DIVISION
CWPPRA - SABINE WILDLIFE REFUGE MARSH CREATION CYCLE 3 SITE
SHEET IDENTIFICATION NUMBER
R-13

Sabine Refuge Marsh Creation Project Cycles 4&5 (cont'd)

- **Construction Schedule 2**
  - Construct both Cycles 4 and 5 during next COE maintenance dredging event in FY11
  - **Alternative #1**
    - Construct Cycles 4 and 5 using permanent pipeline and dredge material from Calcasieu River Miles 15-12
  - **Alternative #2**
    - Construct Cycle 4 using permanent pipeline and dredge material from Calcasieu River Miles 14-12.5
    - Construct Cycle 5 using temporary pipeline via West Cove Canal Corridor and dredge material from River Miles 10-8.5

Summary

- **Recently received engineering cost estimates**
- **Estimates ranged from 4 M – 5.5 M**
  - **Cost Effectiveness Ranking:**
    - **1) Option 1**
    - **2) Option 2**
    - **3) Option 3**
- **Next steps:**
  - **Coordinate with State and USFWS to come up with a recommendation**
  - **Requesting Task Force approval**

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

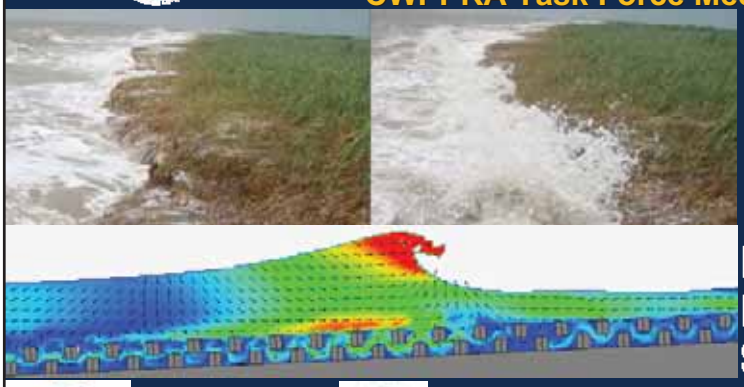
STATUS OF THE PPL17- BIO-ENGINEERED OYSTER REEF DEMONSTRATION PROJECT (LA-08)

For Discussion:

Dr. John Foret will provide a status on the engineering and design and a potential change in the project scope for the Bio-Engineered Oyster Reef Demonstration Project (LA-08) due to an estimated budget increase

Science, Service, Stewardship

Bio-Engineered Oyster Demonstration Project LA-08 CWPPRA Task Force Meeting



NOAA FISHERIES SERVICE

COAST & HARBOR ENGINEERING

NOAA FISHERIES SERVICE

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.
- Enhance nutrient conditions conducive to rapid oyster growth.

NOAA
FISHERIES
SERVICE

Project Location Selection

NOAA
FISHERIES
SERVICE

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

NOAA
FISHERIES
SERVICE

Performance Evaluation Criteria

- Positive Shoreline Response
- Structure Stability
  - —Geotechnical stability
  - —Hydrodynamic stability
  - —Unit durability
- Oyster Growth
- Constructability
- Cost

NOAA
FISHERIES
SERVICE

Alternatives Development

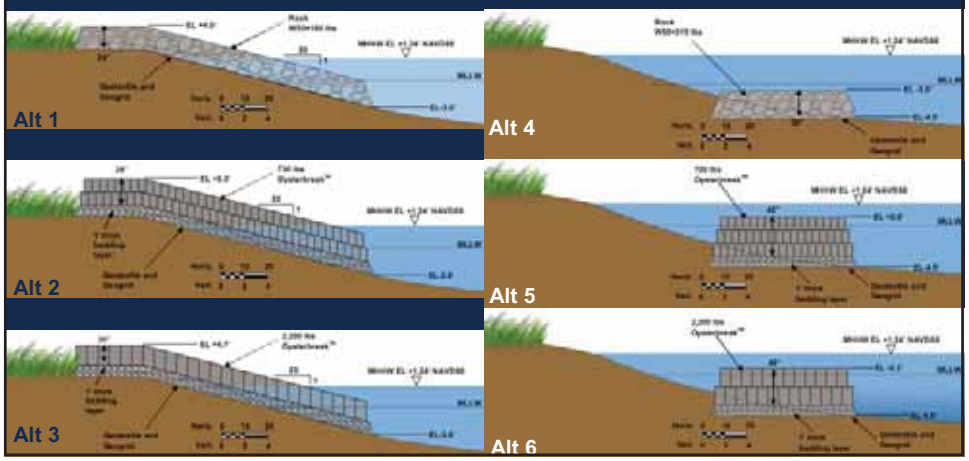
- Design must maximize performance (reduce wave energy) while maintaining stability
- Controlling Parameters
  - —Geotech Stability (soil bearing capacity): structure height and unit density
  - —Hydrodynamic Stability: unit weight
  - —Performance: structure height & width
- Rock and Oysterbreak alternatives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

NOAA FISHERIES SERVICE

Alternatives Development

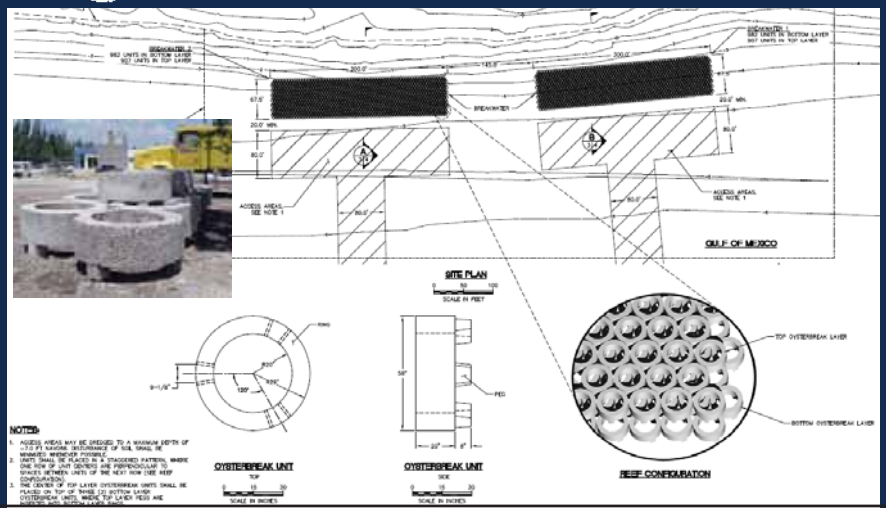
Onshore Alternatives

Offshore Alternatives



NOAA FISHERIES SERVICE

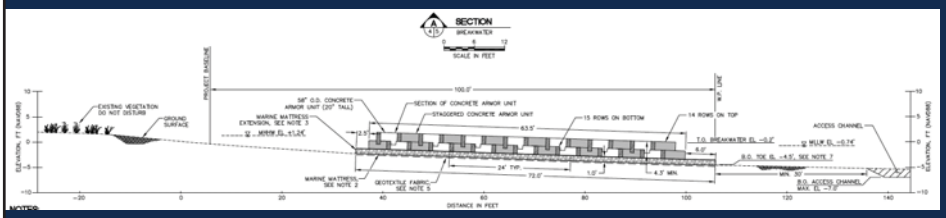
Recommended Alternative Preliminary Design



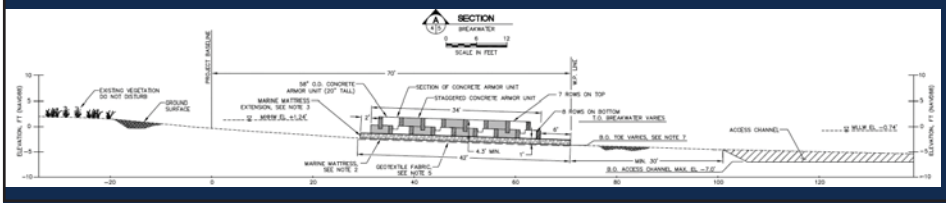
NOAA
FISHERIES
SERVICE

Design Template

October 2009



December 2009



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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

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Modifications to Approved Phase 0 Project

- Approved January 2008, the Phase 0 project length was a continuous 1,000 ft long structure.
- Preferred alternative
  - 2 structures 300 ft long with 145 ft gap
  - Each structure is 34 ft wide with a crest elevation of -0.2 ft NAVD88
- Construction cost estimate is $1.5 M (approximately $0.25 M over current Phase 2 budget)
- Fully funded cost estimate is $2,325,535 (approximately $343,713 over approved project)
- Plan to proceed to TC/TF fax vote request following this meeting
  - To take advantage of early summer spat settlement
  - Timing of comparison with Rockefeller Refuge structures

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

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

Wandell, Scott F MVN

From: Goodman, Melanie L MVN
Sent: Monday, November 23, 2009 1:15 PM
To: (Cecelia.Linder@noaa.gov); britt.paul@la.usda.gov; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Darryl Clark; Goodman, Melanie L MVN; Holden, Thomas A MVN; Kaspar.Paul@epamail.epa.gov; Kinsey, Mary V MVN; kirk.rhinehart@la.gov; Richard.Hartman@noaa.gov; Teague.Kenneth@epamail.epa.gov; Wandell, Scott F MVN; Wingate, Mark R MVN; (Chris.Allen@LA.GOV); Bren Haas (Bren.Haase@LA.GOV); Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); John Jurgensen; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@la.gov
Cc: 'John.Foret@noaa.gov'
Subject: CWPPRA Technical Committee Dec 2 Meeting additional agenda item - Bio-Engineered Oyster Reef Demonstration Project

Follow Up Flag: Follow up
Flag Status: Red

Attachments: LA-08 Details.doc

LA-08 Details.doc
(92 KB)

Technical Committee, we will be adding the subject and below request report/discussion to the agenda. Please see the attached, which will be included as binder materials.

Thanks,

Melanie

-----Original Message-----
From: Cecelia.Linder [mailto:Cecelia.Linder@noaa.gov]
Sent: Thursday, November 19, 2009 12:19 PM
To: Goodman, Melanie L MVN
Cc: John Foret; Richard Hartman
Subject: additional agenda item

Melanie-

Can we still add this item to the agenda for the December 2 Tech Committee meeting?:

Report/Discussion: Update on a Potential Change in the Project Scope for the Bio-Engineered Oyster Reef Demonstration Project (LA-08) Due to an Estimated Budget Increase (Richard Hartman, NMFS) Since the September Technical Committee meeting, the NMFS and OCPR have been working to modify the design for the Bio-Engineered Oyster Reef Demonstration Project. The current design is going through engineering work group review so final numbers are not yet available. Dr. John Foret will make a presentation on the current status of the engineering and design and the estimated increase in project construction cost. The Technical Committee will have the opportunity to discuss and ask questions at this time. An increase in project costs and construction approval would be requested at a later date.

Also, in case people wanted something solid, the attached could be used as "binder materials" - not sure if it is formal enough but I wanted to get you something before you had to send stuff out.

Call me at (240) 535-2334 if there are any issues.

Cece

	Goals	Performance Criteria	Features	Construction Cost +25%
As Funded	Evaluate the proposed technique as a cost effective technique for protecting areas of Coastal Louisiana's Gulf of Mexico Shoreline with poor load bearing capacities.	Shoreline movement monitored for 4 years post construction.	1,000 LF, or approximately 3,600 concrete units placed at the -3' contour on geo-grid, stacked to approximately mean Gulf.	$1,249,875
September TC	Evaluate the Oysterbreak system to reduce or prevent shoreline retreat and wetland loss on the open coast of LA Reduce erosion on Open Gulf shoreline with weak soils Compare Oyster break section to CIAP test structures.	<u>Design Criteria:</u> Survive Cat 1 (10 yr storm) with less than 10% damage. <u>Performance:</u> Provide **at least 50% reduction in wave height** at average conditions, 1-yr, and 2-yr storms. Project monitored for 5 years.	2 structures 300 ft long with 145 ft gap, or approximately 3,838 concrete rings. Each structure is **67.5 ft wide** with a crest elevation of -0.2 ft NAVD88	$2,942,675
Final	Evaluate the Oysterbreak system to reduce or prevent shoreline retreat and wetland loss on the open coast of LA Reduce erosion on Open Gulf shoreline with weak soils Compare Oyster break section to CIAP test structures.	<u>Design Criteria:</u> Survive Cat 1 (10 yr storm) with less than 10% damage. <u>Performance:</u> Provide **at least 45% reduction in wave height** at average conditions, 1-yr, and 2-yr storms. Project monitored for 5 years.	2 structures 300 ft long with 145 ft gap, or approximately 1,832 concrete units Each structure is **35 ft wide** with a crest elevation of -0.2 ft NAVD88	$1,555,100

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

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

For Report:

Ms. Cherie Price will provide a status of the Pilottown Anchorage Area dredging and a summary of the West Bay Work Plan, 6 month effort results. The Task Force will discuss and make decisions on recommendations for the path forward on the West Bay project and work plan effort.

West Bay Diversion Evaluation
Integration of Results
6 Month Progress

ERDC West Bay Analysis Team

20 Jan 2010

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Results

- The PAA is located on a building point bar in the Mississippi River. This point bar was building prior to the opening of the West Bay Diversion and would have continued to build, to some degree, even without the West Bay Diversion.
- The primary factors that influence the rate of development of the point bar include: (1) the diversion of flow through outlets (including West Bay Diversion), (2) the maintaining of the 750 foot wide, -45 foot navigation channel, and (3) enlargement of the Baptise Collette Bayou and Grand Pass.
- The ERDC field data collection program indicates that approximately 45% of the flow upstream of Baptiste Collette Bayou is diverted and approximately 50% of the suspended sediment load is either diverted or deposited in the reach downstream to Head of Passes. This agrees well with the results of the HEC-6T model that indicates that approximately 46% of the total sediment load is either diverted or deposited within this reach.

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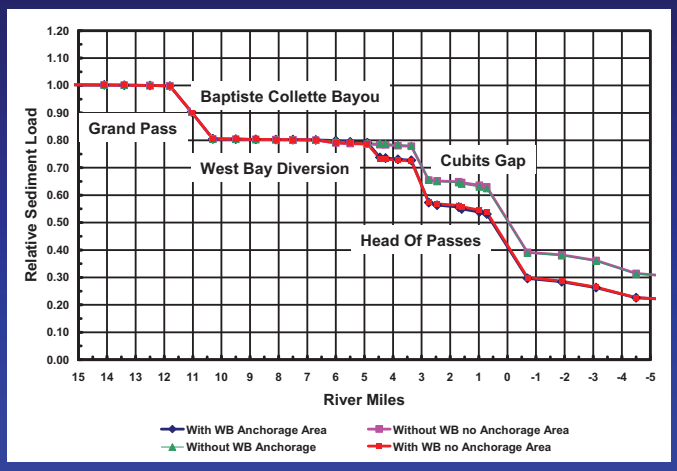
1-Dimensional Modeling – Results

Total Sediment Load for the Ms River Between RM 15 and RM -5 Relative to Total Sediment Load at RM 12.5



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Results

- The HEC-6T model also indicates that the reach from about RM 7 downstream to the West Bay Diversion, the reach from West Bay Diversion to Cubits Gap, and the reach from Cubits Gap to Head of Passes are all aggradational, with or without the West Bay Diversion open.
- This agrees well with the geomorphic assessment that indicates these reaches were aggradational before the West Bay Diversion was opened and continues to be aggradational.

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Results

- The multi-dimensional modeling has shown that the addition of West Bay diversion results in a shift of the deposition closer to the center of the navigation channel, effectively contracting the cross-section of the navigation channel.
- This contraction and point bar development results in additional dredging requirements. The contraction occurs along both sides of the navigation channel.
- This result is consistent with observations of the morphological response since the construction of West Bay Diversion, which indicates a narrowing of the channel downstream of WBD.
- The multi-dimensional modeling has also shown that during flood events, some scouring of the face of the point bar can occur. This observation is also consistent with the geomorphic analysis.

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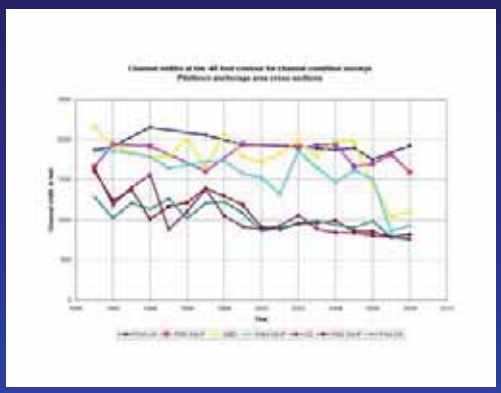

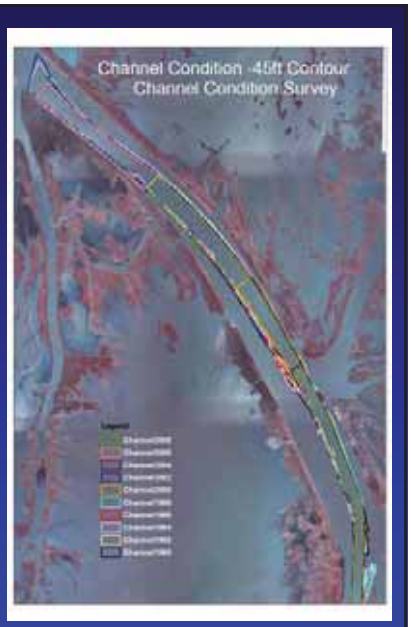

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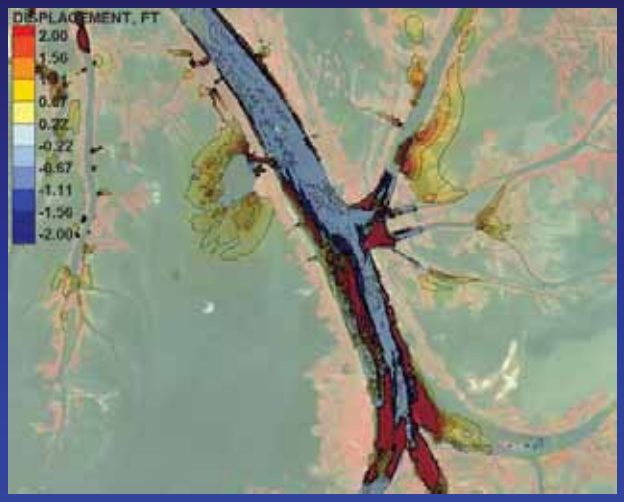
AdH 2-D Model Computed Bed Change
March 2009 – August 2009



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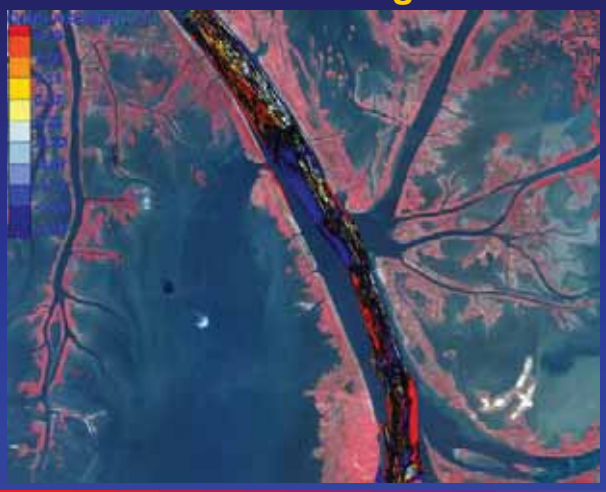
Observed Bed Change
Channel Condition Surveys
March 2009 – August 2009



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Results

- The multi-dimensional model indicates that scouring is only evident when the sediment bed upstream of the study area is relatively sediment starved.
- This implies that the morphological changes in the study area are strongly dependent on both the current year's hydrographs, and the antecedent conditions of the river from previous years.

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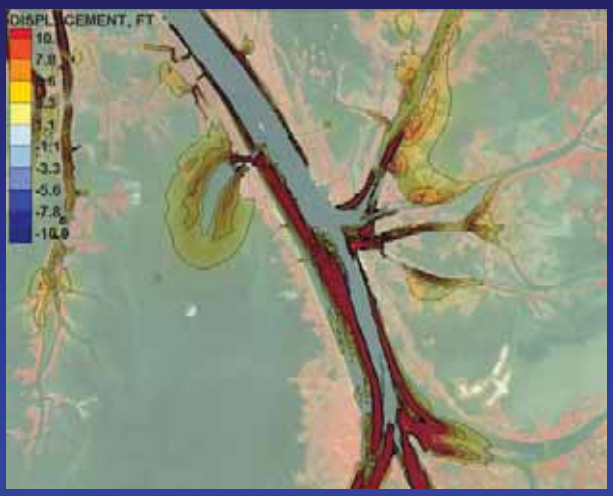
AdH 2-D Model Cumulative Bed Change With West Bay Diversion Slug Test (Sediment Rich) Run



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Results

- The HEC-6T model consistently indicates that the West Bay Diversion accounts for 20-25% of the dredging required in the combined footprint of the PAA and the adjacent navigation channel. The 1-D results represent a 50 year simulation.
- The CH3D modeling indicates that 18% of the deposition in the combined PAA and adjacent navigation channel footprint is attributable to the West Bay Diversion. The CH3D results represent a 12 day steady high flow.
- The AdH 2-D modeling results indicate that 40% of the deposition in the combined PAA and adjacent navigation channel footprint is attributable to the West Bay Diversion. The AdH results represent a single 6-month hydrograph, with 2 different sediment loading conditions: a sediment starved bed, and a sediment rich bed.

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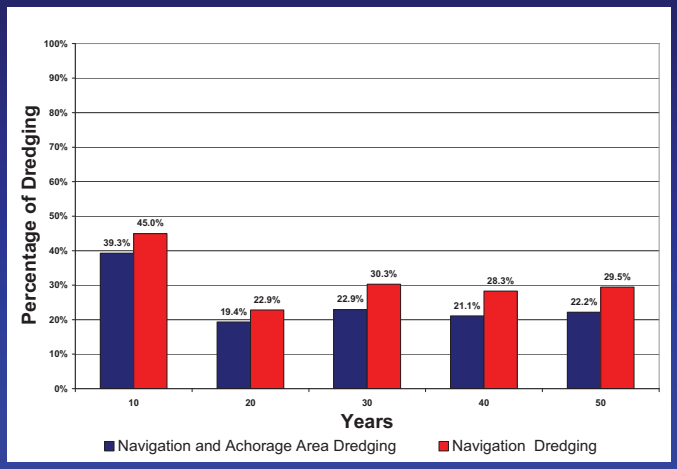
1-Dimensional Modeling – Results

Percentage of Current Dredging Due to Opening West Bay Diversion



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Results

- The differences in the modeling results may be indicative of real inter-annual variations in the distribution and availability of sediment in the river.
- The results may also be a consequence of the different modeling assumptions and uncertainties inherent in different methods of analysis.
- Therefore, the modeling results indicate a range of 20-40% for the likely percentage of deposition in the combined PAA and adjacent navigation channel footprint due to the West Bay Diversion.
- We intend to further refine the sources and estimates of this uncertainty as the product of additional ongoing work

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Results

- The 2-D AdH model indicates that the distribution of impacts between the PAA and the adjacent navigation channel varies as a function of the available upstream sediment supply.
- For the base case (a sediment starved condition), West Bay Diversion has almost no impact on the adjacent navigation channel deposition, but is responsible for almost 100% of the PAA dredging.
- For the slug test case (sediment rich condition) about 18% of the deposition in the adjacent navigation channel and about 55% of the deposition in the PAA is attributable to the diversion.
- Note that the sediment rich condition deposits a much greater volume of sediment than the sediment starved condition, so the percentages associated with the sediment rich condition represent a much larger fraction of the total deposition.

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Results

- The CH3D model results indicate that 11% of the deposition in the adjacent navigation channel and 22% of the deposition in the PAA is attributable to the West Bay Diversion.
- Taking these results together with the results from the HEC 6T model for the composite section, the bounds of reasonable uncertainty can be estimated for the percentage of deposition in each of the footprints that can be attributed to the West Bay Diversion:
  - **15-55% for the PAA**
  - **10-30% for the adjacent navigation channel**
- Again, we intend to further refine the sources and estimates of this uncertainty as a product of additional ongoing work.

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West Bay Diversion Evaluation Results To Date – 6 Month Progress

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West Bay Sediment Diversion
CWPPRA Task Force Meeting

Cherie Price, E.I.
US Army Corps of Engineers
New Orleans District
Planning Division
cherie.price@us.army.mil
504-862-2737

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2009 Pilottown Dredging

- Dredging Complete on December 31, 2009
- Final Dredge Quantity – 1.8 mcy
- Constructed 2 Beneficial Use Sites Approximately 180 total acres
- Sediment Retention Island – Approx. 1 mile wide, 3-4 ft. elevation

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Six Month Work Plan

- Assessed Shoaling quantity being induced in the Pilottown Anchorage Area and the MR navigation channel by the West Bay Diversion
- Evaluated the Receiving Area Changes since construction
- Six Month work plan report complete on November 25, 2009
- Presented Results to Technical Committee on December 1, 2009
- Peer Review and Agency Review Completed on December 31, 2009

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Peer Review

- LCA Science Board Comments (Dr. John Wells, Dr. Bob Dean, and Dr. Joe Fernando)
- In full agreement with the contents of the report and stated that ERDC performed a “heroic” effort.
- Strongly recommend the additional 6-12 month effort
- Recommended that the diversion remain open as long as possible and that monitoring of the island be performed

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Recommendations

- Continue the Next Six Month Work Plan Effort to improve on model predictions and uncertainty.
- Continue Data Collection
- Perform Monitoring (bathymetry, fathometer) of the island in the receiving area

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Review of ERDC Draft Workplan Report
November, 2009

"West Bay Sediment Diversion Effects"

Robert Dean, Joseph Fernando, and John T. Wells
Members, Science Board, LCA Science and Technology Program

Report Date: December 31, 2009

1.0 Introduction

An investigation of the *West Bay Sediment Diversion Effects* has been underway since March 2009, culminating in a 6-month draft report to examine whether or not the West Bay Diversion is inducing shoaling in the Pilottown Anchorage Area (PAA) and in the navigation channel of the lower Mississippi River. The West Bay Diversion (WBD) Project, authorized under the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA), was initiated as part of a cost-sharing agreement between the State of Louisiana and the U.S. Army Corps of Engineers, in August 2002. The goal of the project was to restore an estimated 9831 acres of vegetated wetlands over the next 20-years and to stimulate deltaic deposition of river sediments. The original WBD plan called for a two- phase construction process: the construction of an interim channel to accommodate a diversion of 20,000 cfs at the 50% duration stage of the river (Phase I); and, the modification of interim diversion channel design to accommodate a full-scale diversion of 50,000 cfs at the 50% duration stage (Phase II). A contingency plan for closing the diversion channel was to be implemented if the river thalweg migrated towards the diversion channel or if the river shoaling increased substantially downstream of the diversion (Miller 2004). Previous research has shown that downstream shoaling is intrinsic to diversions, given that they remove flow and sediments, thus reducing the capacity of the flow to carry sediments (Letter et al. 2008).

After negotiations with the navigation industry, an agreement was developed between the State of Louisiana and the USACE for maintaining the PAA, and a cost sharing agreement was executed. Accordingly, *"Below the conveyance channel, the anchorage and access areas shall be maintained at the depths existing at the time the Phase One interim conveyance channel is constructed. Above the cut, three 45-ft. deep by 1,500-ft long anchorage berths shall be constructed and/or maintained".* The WBD project is responsible for this channel maintenance as a direct project cost through the project life, which ends in 2023 unless a new project cost sharing agreement is negotiated between the State of Louisiana and USACE. The maintenance of the PAA, however, has fallen short of the requirements of the agreement, and critically needed dredging within the PAA is inadequate, thus posing safety concerns for shallow- and deep-draft vessels transiting in this reach. The USACE is specifically authorized to operate and maintain navigable channel depths in the Mississippi River, but it is not specifically authorized to dredge the PAA. The USACE has agreed to absorb the cost of dredging shoaled material

from the navigation channel induced by the West Bay Diversion Project using its authorized Operations and Maintenance appropriations. An important and central question, therefore, is what portion of the dredged material from the navigation channel and PAA can be attributed to the WBD Project.

In late February 2009, the CWPPRA Task Force approved a motion requiring the USACE and the State of Louisiana, with participation of stakeholders, to finalize a work plan on river shoaling in the WBD area. The work plan was to include: an analysis of current and historic bathymetry and other relevant data on WBD area; quantification of total historic and recent shoaling that has occurred in the area before and after the construction of the project; estimates on the volume of shoaling resulting from the project and from natural processes, and an estimate of the volume of sediment that has been removed from the river resulting in a decrease in the dredging required in the vicinity of and down river from the WBD; a final report resulting from the work plan within six months. The draft and final work plan as well as the report were to be independently reviewed by a team of experts within 30 days of completion of each document. The independent review teams consisted of a CWPPRA Academic Advisory Group and a subset of the Science Board of the LCA Science and Technology Program.

In early June 2009, the CWPPRA Task Force formally agreed to an ERDC-led study that would evaluate the effects of the West Bay Diversion on sedimentation in the vicinity of the diversion. In response to a request from the Director of the LCA Science and Technology Program, three members of the Science Board (who have authored this report) were asked to provide an "over-the-shoulder" academic review of the work as it progressed and an in-depth review of the final report. We submitted an interim review on September 14, 2009 with our combined comments on the progress of the West Bay study as well as specific recommendations for bringing the work to successful conclusion. Our comments in that review were based on 1) monthly progress reports, 2) a site visit to West Bay on September 1, 2009, 3) presentations at the September 2, 2009 Peer Review Meeting in New Orleans, and 4) numerous informal conversations with scientists and engineers associated with the project. Two of the Science Board members were able to attend the presentation of the Workplan at the December 1, 2009 Special Technical Committee Meeting in Baton Rouge.

The following pages of this document constitute our review of the final draft report. Broadly stated, our interpretation of the charge was to 1) critique the four primary tasks (data collection, geomorphic assessment, 1-D modeling, multi-D modeling) that were undertaken as part of the workplan, 2) determine whether the conclusions in the study, in particular those related to quantitative cause-and-effect estimates, were supported by the results, and to 3) offer recommendations that could be used to finalize the 6-month draft report as well as for the follow-on full 12-month effort. Our review represents an assessment by Science Board members who have expertise in coastal engineering (Dean), sediment transport and modeling (Fernando) and coastal geology (Wells). This report has not been reviewed by, nor was the intent to have endorsement from, the full LCA Science Board.

2.0 Review of Report Introduction and Data Collection

2.1 Study Area The study area and history of the West Bay Diversion are adequately described in the Introduction to the report and, should it be needed, there is reference to a more detailed account in Andrus (2007). However, this section of the report should also include a brief explanation of why mechanical enlargement of the project did not take place as planned and why the SREDS were not constructed. There is also a pressing need in this early section of the report for a high quality and sufficiently detailed study area map (as opposed to the satellite image in Figure 1.2) that shows the project area, river thalweg, outline of the PAA, locations of diversions, and any other information that may be relevant to the project. Although there are maps and images throughout the report, there is no single clearly-labeled and complete index map that includes the above information together with river miles, location names, land-water boundaries, and geographic orientations.

2.2 West Bay Issues The report identifies and discusses five issues that were considered important to sedimentation effects on the lower Mississippi River in the vicinity of the West Bay Diversion and in the receiving area. The issues are comprehensive and important but presented poorly in the first paragraph of this section. The text describes the issues in passive terms: *"…related to…concerned with... considers…looks at…".* This section should be rewritten to better reflect on the level of effort and significance of the work that went into the study. Another minor point is that the subheadings for each of the issues do not read well *"Issues A"* through *"Issues E*" should be replaced with more direct reference to the science associated with each issue, for example, Issue A: Decrease in Shoaling; Issue B: Longer-Time and Spatial-Scale Changes; Issue C: Characteristics of Flow and Sediment; Issue D: West Bay Receiving Area; and, Issue E: Ecological Benefits.

2.3 Rationale for 12-Month Study Issue D should contain a much stronger statement of, and rationale for, conducting the full 12-month workplan study. There are many compelling reasons for continuing the effort as originally proposed, and it does not do justice to the importance of gaining the information sought under Issue D by simply stating that the *"…bulk of the answers to Issue D will be gained from the 12-month ERDC workplan effort"*. What would be lost if the work does not continue? What are the logical next steps? In fact, consideration should be given to adding a separate paragraph at the end of the issues section that discusses the importance of continuing the study, focusing also on the benefits to the modeling work and in refining the estimates of the role of the West Bay Diversion in shoaling in the PAA and in the navigation channel. Moreover, the results of this completed study will provide invaluable guidance to the consideration and design of future diversions, a major approach to control of wetland restoration and reestablishment in the Mississippi Delta region.

2.4 Reference to Spatial Change Study A separate report on aerial and bathymetric spatial change analysis of the West Bay Diversion receiving area was included with the review materials for the ERDC Workplan Report. It is not clear to us whether this report has already been published and was thus being provided as

background on recent work in the receiving area, or whether it is under review and will be published as a companion document to the ERDC Workplan Report. Either way, it should be referenced in the workplan Introduction or perhaps included as an Appendix. One of the recommendations in our Interim Review (September 14, 2009) was *"...that the diversion cut and receiving basin be monitored with full annual surveys and updated quarterly along selected bathymetric cross sections using a fathometer".* It is thus important that the work conducted to date within West Bay be connected insofar as possible to the ERDC Workplan Report.

2.5 Data Collection Overview A rigorous data collection effort was conducted from March 9 to September 25, 2009 covering the lower Mississippi River from Venice to the Head of Passes and in Southwest Pass, West Bay, Baptiste Collette Bayou and Cubits Gap. Field data of this genre have not been reported previously, especially on the diversion ratios of sediments and flow. Previous modeling efforts have assumed such ratios and presented sensitivity of results to the assumptions made. Major concerns of the study were: the amount and characteristics of sediment that passes through each diversion as a function of river conditions, stage and rising and falling limb; the amount of sediment retained in West Bay; sediment budgets (for different sediment classes); and, the distribution of velocity and sediments in river cross sections and diversion inlets. The historic and recent data have also been studied in the context of a long-term perspective of the WBD evolution. The work plan calls for maps of bathymetry of the river channel in the proximity of and entrances to WBD; 3-D velocity field; suspended sediment concentrations and types; salinity measurements; sediment measurements, including bottom types, grain type distributions and fluxes.

The design of the measurement program has been carefully done, balancing research needs and logistical constraints. Some issues of concern were the salt wedge formation (at < 300000 ft^3/s), the utility of previous bathymetry and flow measurements and existing monitoring stations and the need to encompass different river conditions. State-of-the-art and standard instrumentation has been used in the field campaign: GPS augmented Interferometric Swath Sonar for bathymetry; vessel mounted broadband ADCP for currents (which also gives the vessel velocity, water temperature, bathymetry and acoustic backscatter); grab sampling of water; optical backscatter devices for sediments; and push-core sampling or drag buckets for bottom sediments. Typical problems associated with navigation, instrumentation drift and orientation changes, secondary currents, and abnormally high sediment concentrations from impingement of instruments on the bottom were considered appropriately in data processing. The field team has thus been able to collect an extensive set of data that are of broad scientific interest as well as invaluable in calibrating and developing models. It is unfortunate that only a fraction of the data collected has been effectively used in the subsequent analyses and model calibration. Well calibrated predictive models are the best tool for extrapolating to the future, although at present there are large uncertainties associated with models (see section on modeling).

2.6 OBS Calibration As an optical sensor, the OBS is known to be sensitive to size, composition and shape of suspended particles and thus requires calibration. The

section of the report (p.14) that describes the OBS measurements needs to discuss the calibration techniques and provide a summary of potential errors arising from variations in grain size or other factors that may affect the application and output of the OBS to this environment (e.g. sediment flocculation or agglomeration). There is extensive literature on OBS calibration and application, and there must be confidence that the OBS results can be used for their intended purpose.

2.7 Grain Size Analysis Bottom sediments that were obtained with a PVC pipe (p. 14) were *"...brought to the surface and classified by visual inspection or transported back to ERDC for more detailed analysis".* There is little that can be gained from visual inspection other than perhaps whether the sediments were sand-size or primarily silts and clays. What was the purpose of the visual inspection and what criteria were used to determine if the samples warranted more detailed analysis in the laboratory? Were some of the samples not analyzed in the laboratory? With regard to laboratory analysis of suspended sediment samples, clarification as to why the instrumentation was changed (Coulter versus Malvern) should be provided and what effects, if any, this change could have on the results (p. 37).

2.8 Discharge Methodology The section on Data Processing and Analysis, beginning on p. 36, should include a brief description of how discharge was determined using ADCP measurements, even if seemingly obvious to those who work with ADCP data routinely. This will serve the dual purpose of showing that state-of-the-art techniques were used to obtain these very important numbers and, secondly, it could help alleviate concerns in several cases where percentages of unaccounted for (and unexplained) discharges were high (up to 33%). In terms of report organization, the comparison of results of discharge methodology (GPS versus bottom track in ADCP) should occur in the text after the description of the discharge methodology itself.

2.9 Data Quality and Results Data have been quality-controlled and cross-checked (e.g. for mass balance), and except for few instances quality is acceptable. The velocity measurements have been carried out to an unprecedented detail, showing the formation of eddies, secondary currents and (unexpected) vertical motions at the diversion inlet that will be of high scientific value in interpreting results and model calibrations (Figs. 2.31 - 2.34). The results clearly point to the problems of using 1-D models in that they bypass sediment re-entrainment and distribution mechanisms associated with secondary and eddying motions. Measurements show that the flow entering WBD is contributed mainly by a region west of a stagnation stream line, which has major implications in that the sediments entering the diversion also come from the same area, and that specification of sediment diversion ratio needs to account for such strong three dimensionalities. The vertical flow appears to be a result of the eddying motions, which induce radial pressure gradients. The vertical motions are expected to trigger additional sediment entrainment, which is evident from the multi-beam survey at the diversion cut shown in Figure 2.38.

2.10 Salinity Profiles Salinity was noted to be one of the issues that impacted how surveys were conducted. The possibility of a salt wedge entering the river at

discharges below 30,000 ft^3/s and thus becoming an effective sediment trap warranted acquisition of salinity profiles to detect the presence of the wedge. These data were appropriately collected as part of the work plan. It would be useful to show representative salinity profiles made at different flow rates in order to estimate the vertical extent of the salt wedge. This information is valuable in 3-D modeling.

2.11 Flux Measurements The flux measurements have been conducted using two methods. The first uses acoustic backscatter with an elaborate calibration between distribution function of backscatter energy and measured total suspended sediment concentration (TSM). The Rouse equation is used to correct for the concentration values near the ground. These fluxes have been compared with those measured using the "boat' method, where the mean concentration corresponding to each cross section has been used together with individual flow rates at vertical bins to calculate TSM and fluxes of individual sediment classes. The latter is found to be somewhat larger, which is attributed to the use of mean concentration over the cross section. To remedy this, instead of using a mean concentration over an entire cross section, the mean profile (e.g. Fig. 2.26) can be used to obtain concentration at each vertical (ADCP) bin. Nevertheless, as shown in Figure 2.36, the correlation between the backscatter and boat methods is reassuring.

2.12 Text and Figures There were some rough sections of this part of the report, and careful editing should be undertaken. The following additions and corrections need to be made to the text and figures: 1) figures that show colored multi-beam survey results need to have a legend (Figs. 2.2, 2.37, 2.38); 2) blue squares that appear in many of the figures need an explanation in the figure captions; 3) data points in figures of concentration profiles that are connected by curved lines (Figs. 2.25, 2.26, 38 (apparently mis-numbered; should be 2.35) need to be connected by straight lines unless there is justification for doing otherwise; 4) the x-axis on Figures 2.27 and 2.28 should be labeled (are they simply core numbers? If so, why present the data in graphical form which has no meaning?); and again, 5) the entire section needs to be reviewed carefully for spelling and other grammatical problems (e.g. p. 40, para. 4, change *"were this obviously happened"* to "where this obviously happened"; p. 53, para. 2, change *"usually dose not match"* to "usually does not match"; capitalize *"rouse";* p. 54, para. 2, change *"pier reviewers"* to "peer reviewers"; change *"make and"* to "make an".

3.0 Review of Geomorphic Assessment

3.1 Overview The overarching goal of the Geomorphic Assessment was to identify long-term morphological trends to help better understand the processes, both natural and human induced, that could have an affect on the PAA and river channel in the vicinity of the WBD. The work brings together all known information (p. 61) to see how the system has changed historically, looking especially at changes from one time period to another. The Introduction appropriately points out that changes may be cumulative responses, and that one of the challenges is to sort out the multiple factors that have varying degrees of influence. The assessment used a mix of "tools", but most were unable to provide the definitive results and level of understanding that were desired. The results were thus basically inconclusive and limited by 1) the qualitative nature of the analyses

because of temporal limitations in the data or failure to apply even rudimentary statistical techniques, and 2) variability that often masked the underlying signal in the data or otherwise made it difficult to determine cause and effect. In several instances the findings in the body of report need to be reconciled with Integration of Results and Conclusions at the end of the Geomorphic Assessment .

3.2 TIN and Comprehensive Hydrographic Surveys Considerable discussion at the Peer Review Meeting in September 2009 was devoted to the establishment of a triangular irregular network (TIN). This network, which allows extraction of necessary information from the comprehensive surveys that were conducted with linear ranges, is appropriately noted as being *"…less than ideal for TIN development"*. Given this unavoidable feature of the survey data, a more complete discussion of the TIN technique and assessment of errors should be provided.

3.3 Temporal Adjustment of Data Correction of the horizontal and vertical survey data to a standard datum is a complicated yet important adjustment that was necessary in order to reduce uncertainty among surveys taken over long periods of time using different monuments and gauges for datum reference. We concur that the channel condition surveys have been adjusted as well as possible. However, the comprehensive surveys, which could not be adjusted, almost certainly under-represent the effects of sea level rise and subsidence. No indication is given for the magnitude of error that may occur as a result. Combined sea level rise and subsidence at, say, 0.75 inch/year, could lead to ~3 ft of change over the 50-yr period of analysis. The importance of this very real variable has received inadequate attention in the local sense (assessment of effects of WBD) and in the regional sense (river sedimentation processes from Belle Chase to the East Jetty).

3.4 Availability of Discharge Data The section on discharge data (p. 66) is inadequately presented and lacks specificity. Water and sediment discharge are absolutely of fundamental importance to understanding the processes of sedimentation and the dynamic changes in the river system, obviously including those in the vicinity of the WBD. A brief comment on the lack of data after 1998 is needed, and it would not be inappropriate to use this section of the report to extol the importance of discharge data and the woeful inadequacies that now exist. A reference (report?) should be given for the "additional data" that were obtained from MVN since construction of the WBD. Finally, this section should specifically cross-reference calculation of discharge in the Data Collection part of the report (which is now absent), and highlight how it will be used in the Geomorphic Assessment. Finally, the report is silent on the potential impact of the considerable decrease in average annual suspended sediment load (Fig. 3.71) that has occurred over the past 30 years, almost certainly leading to a significant reduction in transport of sand-size sediment through the river system.

3.5 Cross-Section Analysis The cross-section analysis is interesting, and was an important undertaking, but reveals little beyond highlighting channel shape and variability. The discussion repeatedly refers to this analysis as a qualitative tool and has correctly pointed out the influence of the point bar as a complicating factor. We concur

that the anchorage area has been undergoing a reduction in depth both prior to and after construction of the WBD. The post-construction surveys in Figure 3.12 (cross section at Cubits Gap) show as much as 10 ft of filling since construction, but it is important to note that, although the most recent survey (2008) is the shallowest, there were post-construction periods when the depths actually increased and, notably, a particularly shallow pre-construction period in 2001 along the eastern part of the PAA. In order to assess trends, if present, will require additional time series measurements and a better understanding of the relationship between the point bar, dredging and the channel. We concur with the statement on p. 83 that with regard to the channel *"...determination of rates is problematic due to the variability in the survey data".*

3.6 Average Channel Bed Elevations Average channel bed elevations were computed for a 500-ft (westward-extending) section of the PAA using both comprehensive and channel condition surveys in an attempt to provide quantitative, as opposed to qualitative, measures of change within the anchorage area. The results of this analysis were mixed. Whereas the upstream limit of the PAA shows a post-construction bed elevation increase of 1.1 ft/yr, this is essentially the same as the rather uniform pre-construction increase from 1995-2002. High variability in the data at RM 5.8 (Fig. 3.18) makes it impossible to detect any trends and, although the average rate of post-construction increase at WBD (Fig. 3.19) is 1.2 ft/yr, the data are noisy and the time series is short. Other cross sections (RM 4.0, Cubits Gap, RM 2.5, downstream limit of PAA) show pre- and post-construction elevation increases to be essentially the same. As a result of these analyses, the report concludes that *"It does appear that there is notable difference in the pre- and post-construction rates of channel bed elevation change in the vicinity of the diversion channel".* Recognizing that the word "notable" is not the same as "statistically significant", it is nevertheless questionable whether this conclusion is valid because of the large year-to-year variations in pre-construction elevations (e.g., there is a single pre-construction increase from 1996-1997 that is just as big as the single large post-construction increase from 2004-2005).

3.7 Cross Section Focus on WBD Construction The attempt here, which was to examine the maximum extent of the location of the channel bed (without reference to rate of change), created a set of cross-section envelopes for the PAA. This was an interesting exercise but should have offered a better contextual sense of what the envelopes might reveal in terms of the effects of the WBD, as opposed to simply looking for pre- and post-construction differences. In the seven cases examined from the upper limit to the lower limit of the PAA, all were inconclusive. The report concludes that *"...results are somewhat inconclusive".* The word "somewhat" does not describe the outcome of this effort and should be removed; if anything, the results were very inconclusive.

3.8 Average Channel Bed Elevations fromVolume The report correctly points out that individual cross sections may be influenced by local irregularities, such as sand waves, and thus may not be representative of the average channel bed. Computation of average bed displacement, which is proportional to and varies with volume changes, was an important analysis to undertake. Little could be learned from the comprehensive surveys that was of direct relevance to WBD because of the temporal averaging, and no

further comment is given here. However, the channel condition surveys, summarized in Figure 3.56, do show some increases in bed elevation in some reaches after construction of WBD that are appropriately described as *"…does indicate a slight increase…"*. It is noted that a fairly large dredging occurred in 2006 and this is evident in some of the cross-section results in Figure 3.56. However, these affected cross-sections do not appear to reflect the full amount of the dredging (1.2 million CY below WBD) and thus it is difficult to ascertain the effect of the dredging.

3.9 Channel Widths Channel condition surveys indicate an impressive loss of channel width at WBD and RM 4.0 after construction of WBD (Fig. 3.63). As is the case with most of the cross section and volume plots, the channel width data are quite variable, and in the absence of any attempt to establish statistically which changes are actually real, there is an inclusive nature to the findings. It is clear from earlier sections of the report that the point bar, channel, channel crossing, and dredging are very fundamentally linked. This section of the report thus needs more discussion on the implications of the loss of channel width based on the entire body information that has been generated in the geomorphic analysis. In short, this is a case where increased understanding may be pertinent to the modeling and to the conclusions made on the basis of best professional judgment.

3.10 Historic Events Timeline Discussion of the flow distribution between WBD, Baptiste Collette and Grand Pass (p. 149) indicates that it is *"…probable that the diversion has had an impact on the morphology of the river, in a manner similar to that resulting from the enlargement of Baptiste Collette and Grand Pass"*. The relationship between morphology and diversions may be generally true, as shown from other work (Letter, et al., 2008), but the word "probable" does not fit with the results from analyses in the current study. Results were inconclusive in the geomorphic assessment. It is critical to separate what ought to be happening from what can be shown as actually happening.

3.11 Text, Figures and Tables There are numerous places in the Geomorphic Assessment where corrections or additions are needed: 1) on p. 64 the Integration of Results refers to tasks that will (future tense) take place when, in fact, at the time of writing that have already taken place (all need to be past tense); 2) Black Hawk, LA is mentioned on p. 65 but for reference RM needs to be indicated; 3) on p. 80 the text indicates that the six channel condition surveys prior to construction are shown in black and red when it should say that they are shown in black and green; 4) Figure 3.65 needs larger labels for the red and blue data points, and an indication of what they are (single observations?); 5) the reference for Nordin and Queen (1992) does not match that in the references section; and, 6) Table 3.4 needs better description of the sample data, in particular whether they are individual samples or composites and, for those who may not have immediate access to Nordin and Queen (1992), more about the analysis.

3.12 Integration of Results and Conclusions Integration of results was the best possible way to put all of the findings into their proper perspective and, despite the inconclusive nature of the findings, they add to our collective understanding of the lower Mississippi River. The discussion in this section was a good overall analysis. However,

several statements did not accurately reflect the findings. First, the statement that the average channel bed elevations in the PAA (500 ft westward section) *"…indicates an increase in post-construction deposition rates for location at the diversion and downstream to Cubits Gap"* is overstated (p. 151). The data are too variable to reach this conclusion. Figure 3.56 does show a 4-5 ft increase at three locations but in two of the three locations it is a single jump and not followed by real increases in subsequent years. The third location shows very slight increases for the following two years but then a decrease.

Second, it is stated (p. 152) that *"…it appears that the flow distribution through the outlets may be the primary physical agent for the observed morphological change in the study area. Given this, it is reasonable to assume that the construction of West Bay diversion, or any other diversion, will influence the trends of deposition in the anchorage area".* While this is reasonable and perhaps even quite likely, it has not been shown to be the case with respect to the WBD. This is an assumption and one that could have been made prior to even undertaking the geomorphic assessment. Best professional judgment could have been exercised without the study. In other words, we know it is reasonable, but has it been shown to the case? Finally, the fifth conclusion says *"Construction of the West Bay diversion most likely resulted in increases in deposition rates in the anchorage area…".* The words "most likely" should be replaced with the words "could have".

4.0 One-Dimensional and Multi-Dimensional Modeling

4.1 Brief Description One-Dimensional of Model The one-dimensional modeling was used as a tool for estimating long term impacts of the WBD and for providing upstream boundary conditions for the multidimensional modeling. Because of its relative simplicity and moderate computing demands, 1-D modeling can be used for simulating tens of years into the future, compared to days to months of predictability of multidimensional models (due to computational limitations). The model used was a modified version of an USACE model HEC-6 of which a modified commercial version HEC-6T is available with user support (MBH Software, Inc., 2002). It is a movable boundary, steady state, open channel flow numerical model for the prediction of water surface and bed surface profiles. To represent the processes in 1-D, the model uses averaged hydraulic and sediment parameters. The time evolution is calculated by partitioning the continuous flow into a series of steady flows. It simulates five basic processes of sedimentation: erosion, entrainment (moving particles from the boundary into the water column), sediment transport (moving particles along with the flow of water), deposition (particles settling out of the water column onto the boundary) and compaction of the deposits (squeezing the water out and making the deposits more dense). Dredging also can be specified at any segment of the hydrograph at specified cross sections. Two dredging options (fixed template option, where dredging is performed when the bed elevation exceeds the template bottom, and vessel draft option (dredging is triggered when the water depth drops below that required for navigation) are available. The model is used for water surface and energy profile simulations, sediment scour and deposition modeling, sediment transport modeling and river geometry simulation.

The model input requirements include channel geometry, boundary conditions (water discharge, sediment discharge and grain sizes and downstream water surface elevation), bed gradations, outflows from distributaries/diversions, sediment concentration, water temperature, downstream boundary conditions and user specified sediment transport functions. A two tier calibration is used. In the first, the Manning's coefficient is calibrated to match the observed profile, and in the second a sediment calibration is conducted at available gage locations. An option to calibrate using dredging data is also available.

HEC-6T has been previously used for numerous river hydraulic problems, and was available with a set up for a regional application of Mississippi with a reach of 455.28 miles (201 cross sections along the way), from Vicksburg to Southwest Pass. Given the emphasis of the PAA area (RM 1.5 to 6.7), however, more resolution was necessary therein, and therefore the model was refined with additional 28 cross sections from Bell Chase (RM 75) to Head of Passes (RM 0) with PAA (RM 1.5 to 6.7) containing 12 cross sections, with data from the 1992 cross section survey.

The calibration runs were performed for the period 1992-2002. Percentages of diversions were derived using the measured data (e.g., Bonnet Carres and Morganza) without Davis pond (construction finished 2002) and West Bay (2003). The model required the sediment concentrations to the diversion as a percentage of the immediate upstream concentration separated by grain class size, and the Rouse equation was used to calculate the vertical distribution of the suspended component required for the adjustment to the inlet channel elevation (coarse sediments are mostly at the river bottom and hence are not diverted to a channel with an elevated inlet). The initial bed gradations were derived based on river thalweg data taken in 1989 and then running the model for the sediment to adjust; the new values were used as the model input. The model channel geometry was derived using the 1992 Mississippi river hydrographic data set, with adjustments for dikes where present. The upstream boundary condition consists of a mean daily flow hydrograph at Vicksburg (October 1990 to September 2002) and incoming sediment loads (sands and fine material) derived. The downstream water surface elevation was specified using monthly averages from the NOAA gage at Grand Isle East Point. The other inputs were the Toffaleti-Mayer-Peter Muller bed load sediment transfer function and the average (1992-2002) water temperature at Talbert landing.

Calibrations for the water surface elevations (via adjusting model roughness coefficients) and sediments were done by comparing with nine available gage stations all upstream of WBD. Sediment calibrations were conducted by running a hydrograph and comparing computed sediment transport and bedload erosion/deposition with observations (at Talbert Landing and Belle Chase). Calibrations for dredging were also done if available.

The model was run for a 50 year discharge hydrograph, with four scenarios: (i) no WBD and no dredging in PAA, (ii) no WBD but with PAA dredging (with an available

template), (iii) with WBD and no dredging and (iv) with WBD and with dredging. All included the required dredging in the navigation channel. There is no doubt that within the time available the team has done an excellent job in modifying the model to obtain required finer resolution and preparing up- and downstream boundary conditions for the model. The results represent the best possible predictions that one could hope for given the time constraints and data availability. While the model output is useful for providing input conditions for the multi-dimensional model, the following caveats and uncertainties should be borne in mind in the decision making process.

1. HEC-6T uses averaged parameters over cross sections along the river and no possibilities exist for specifying lateral distribution of sediment loads, gradations and velocities. This may have induced significant errors, since detailed data taken in Figures (2.32-2.33) show that the flow and sediments to the diversion comes from west of a stagnation streamline, and thus cannot be represented by an average sediment concentration of the entire river cross section. The Rouse equation has been used to correct for the vertical distribution of sediments, but the significant up and down vertical flow present in the diversion area (Figure 2.33) suggest that Rouse distribution may not be applicable. A comparison of measured profiles with Rouse equation may help to estimate such errors, although any rigorous correction to the equation will be a long term undertaking. Given the importance of spatio-temporal sediment distributions upstream, it is suggested that the report include profiles of concentration taken at various verticals in the area. This will be invaluable not only for this project but for the future scientific work as well.

2. The percentage sediment concentration diverted is an important model input. The bane of data shortage on diverted sediment concentration has been addressed in this study, which is commendable. As stated in (1), the utility of Rouse equation in determining the diverted sediment concentration should be investigated. It will be difficult to determine a single diversion ratio (diverted sediments as a fraction of the upstream sediments) using multiple samples taken at Baptiste Collette Bayou, Grand Pass, WBD and Cubits gap, as this ratio is a function of various factors such as local geometry and flow rate. The ADH 2D model has been used to obtain the cross sectional distribution, and some validation of this model or a statement of model performance ought to be included.

3. The model considered 7% diversion of the upstream flow to WBD, but the increase of dredging required is found to be disproportionally large (20-25%). This is plausible given the non-linear relationships imbedded in the model, but it would be interesting to delve into mechanisms of such causations as discussed further below. A systematic evaluation of deposition quantities in the reaches surrounding the WDB with and without WBD may provide useful clues.

4. Unresolved issues remain on upstream sediment concentrations. For example, measurements at Vicksburg and Natchez (1992-2000) are not consistent with Union Point and Coochie, and in the model the latter have been used with

adjustments that produce values as high as 33% above the measured concentrations (p 161). The reasons for such disparities are unknown.

5. Monthly average tidal data have been used, and hence the effects of tides have been moderated. The tidal effects (high-low tidal variation ~ 1ft) are accounted for only via implicit adjustments of coefficients. The replacement of monthly average with daily stages did not change long term deposition, in which case 8:00 am daily stage at Grand isle was used as the downstream BC, capturing both high and low tides. The effects of hourly diurnal changes, however, can be significant as the tides affect salinity intrusions and sedimentation. The model includes tides and salinity intrusions via adjustment to model coefficients rather than using physics-based parameterizations. For example, the impact of salinity was approximated by varying the silt and clay shear threshold deposition coefficients. Downstream of Venice, the deposition coefficients were increased, but the adjustment was dependent on the reach rather than the cfs or stage. Since salinity in the PAA changes substantially, especially at low flow, the use of a single coefficient is questionable.

6. The flow reversals that recirculate sediments are not included. Flocculation due to high salinities is not included either, but it leads to shoaling and an increase of sediment concentration in spite of the decrease of river flow.

7. A moderate sea level rise is included (eustatic rise of about 1.25 mm/yr), but the actual value is about twice this value (2-2.4 mm/yr). The IPCC predictions are that the sea-level rise can accelerate over the next fifty years. The subsidence in the area concerned varies over 3-22 mm/yr, but a single value has been used based on the sea level rise. This creates a large uncertainly on dredging requirements. Relative sea level rise application is discussed further later.

8. The percent flow leaving the diversions is an input parameter to the model, and the data taken during 2003 and 2009 were used, expressed as a fraction of the cfs at Venice. Although this fraction is considered as a constant with an uncertainly of about 20%, at the WBD the data is still sparse and the diversion fraction appeared to have significant variability (Fig. 4.2).

9. The 25 year hydrograph (1984-2009) was repeated for the 50 year simulations, which include different frequency flows. The assumption of flow repetition is questionable. Man-made impacts such as dredging may vary, depending on the requirements. Currently the USACE maintains a 750 ft navigation channel (-51 ft); some areas (e.g., Cubits gap to Head of Passes) may require annual or more frequent dredging whereas a 250 width swath of pilot town area is dredged approximately every three years to various depths (-48, -44 and -41 upstream, mid and downstream respectively). Such variability of dredging cannot be used in the dredge option of HEC-6T, and hence a composite template needed to be developed (constant -50ft depth and bottom width varying between 940 and 970 feet). With

this template, both navigational channel and PAA were dredged twice a year (Jan 1 and July 1), which overestimates the required dredging.

10. The sediment deposition quantities are generally in agreement with the observations except at the Southwest Pass where the model severely under-predicts the observations. Total sediment loads (as a function of that at RM 12.5) show a reduction at the inlets to the diversions and tributaries, which is not unexpected since the model formulation explicitly specifies sediment partition. In addition to presenting the percentage loads (e.g., Figure 4.12) it would be useful to present absolute values of sediment fluxes passing to the diversions and compare with the measurements. This will help the credibility of predictions, although the expected final answers from the model are in the form of percentages.

11. A curious aspect is the sharp decrease of sediment concentration starting from RM 7 to the reach just upstream of the WBD. Given that significant amount of sediment is not leaving this reach, one may wonder the reason for the sharp drop. An explanation is needed if there is a sharp increase of the sedimentation.

12. Various dredging options were considered and some produced unrealistic fill rates. The option that fills the dredge cut before allowing uniform deposition over the entire movable bed produced reasonable changes in cross section and thus was used in the calculations. Where possible the predictions with this option should be compared with available data, after all the major results this study is dependent on the predictions of the models and their validations are central to establishing the reliability of results. This is especially important given that the model produced some unexpected changes of the upstream behavior.

4.2 Calibration and Calibration Requirements Prior to application for a particular segment of river, the model requires both hydraulic and sediment transport calibration. The hydraulic calibration was based on nine gages from River Mile (RM) 10.7 to RM 302.4 by adjusting the channel roughness coefficients (Manning "n" values). No results from this hydraulic calibration were provided in the report nor is the time period over which the calibration was conducted. It is stated (Page 167): "Roughness coefficients determined during the initial fixed bed calibration produced reasonable results during the movable bed simulation."

The sediment calibration efforts (Pages 167 and 168) do not appear to be closely related to the area of interest. Pages 167 and 168: "For the MVK effort, the model was calibrated to observed deposition downstream of the Old River Complex and to observed erosion at Smithland crossing. The model was also calibrated to measured sediment transport at 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." With this brief description and no detailed presentation of local and quantitative calibration results, it is not possible to assess neither the quality nor the extent of sediment calibration.

Sediment transport in the model is represented by the Toffaleti/Meyer-Peter Muller relationship for the bedload and the Toffaleti relationship for the suspended load. Each of these relationships includes one or more "tunable" coefficients.

4.3 Duration of Simulations The 25 year record from 1 January 1984 to 31 September 2008 was used. To obtain 50 year simulations, the hydrographs for this period were repeated. The discharge at Vicksburg over this period is shown in Figure 4.1.

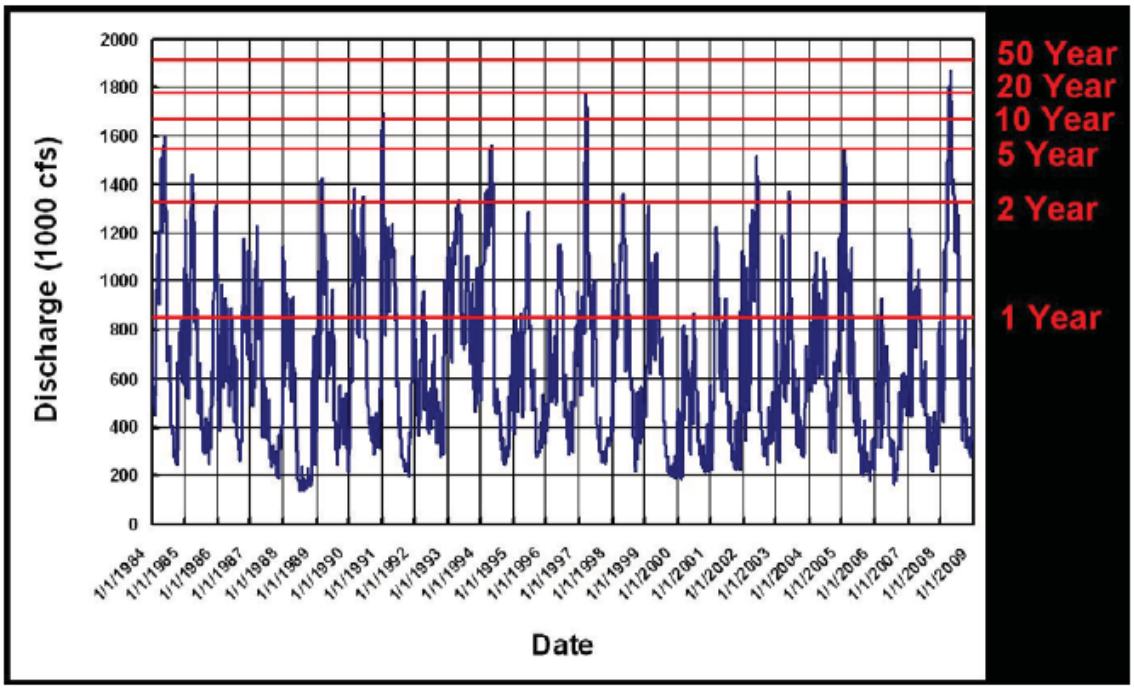

Figure 4.1. River Discharge at Vicksburg from 1984 to 2009. (Figure 4.11, ERDC Report).

4.4 Accounting for Subsidence and Sea Level Rise Subsidence and sea level rise were included in the model. As noted, subsidence ranged from 22 mm/yr at RM 22 to 3 mm/yr at RM 306. The subsidence at Venice was taken as 16 mm/yr. It is stated (Page 184) that "subsidence rates in NOAA Technical Report NOS/NGS 50 were computed with a eustatic sea level rise of 1.25 mm/year at Grand Isle.". By definition, the eustatic sea level rise rate represents the world wide average. Thus, the reference to Grand Isle is puzzling. Further, the rate of Relative Sea Level Rise at Gage 8761724 at Grand Isle is 9.24 $\pm$ 0.59 mm/yr as shown in Figure 4.2 below. Finally on this issue, it is stated in referring to the manner of treating subsidence "The daily stages were increased by this amount." It is not clear whether the differences in subsidence along the channel were taken into consideration. Finally, the Corps now has recently provided guidance for representing sea level rise in projects. Shouldn't that guidance be applied in this project or, at least recognized?

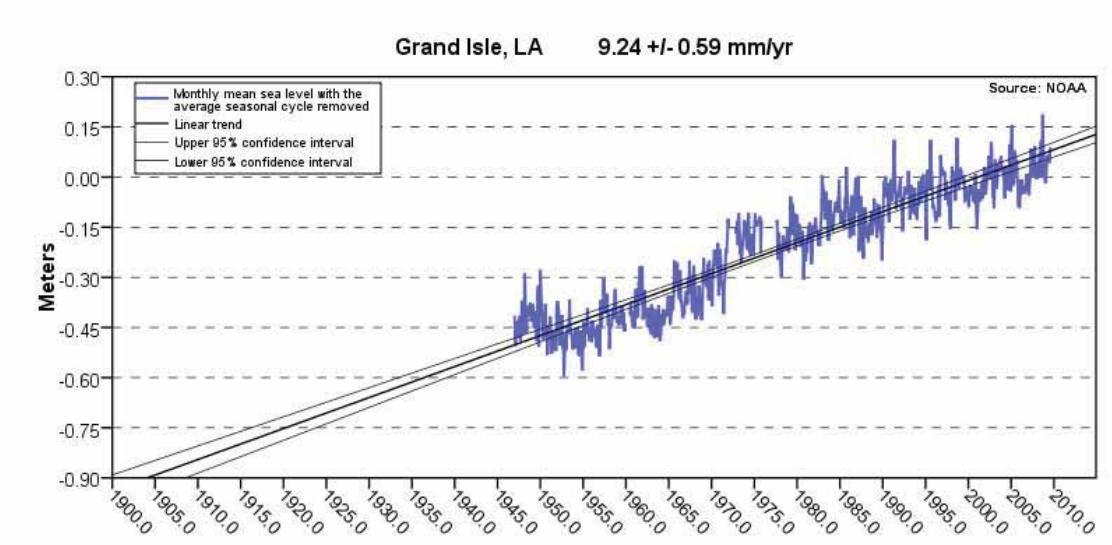

Figure 4.2. Trend of Relative Sea Level Rise from Grand Isle, LA Gage.

4.5 Results The model was considered to behave reasonably in the area of interest. However, as noted, deposition quantities do not agree well with measurements in the Southwest Pass area with less deposition predicted than actually occurs. Figure 4.3 presents the calculated sediment transport results vs. River Miles for the four scenarios.

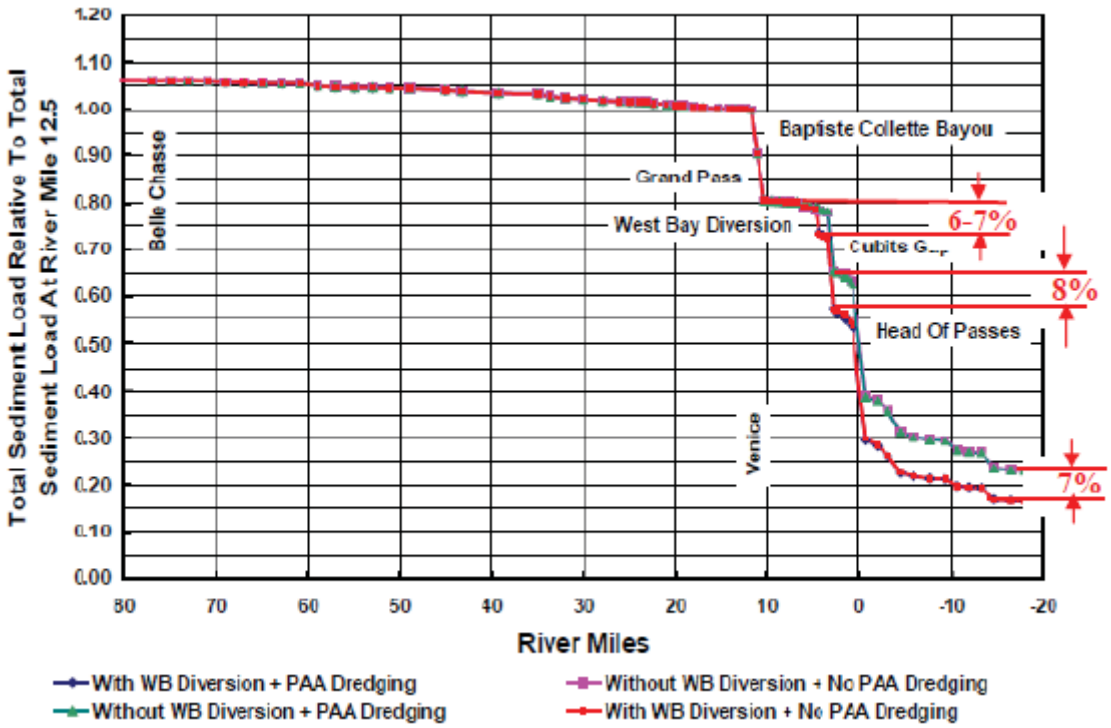

Figure 4.3 Calculated Normalized Sediment Transport vs. River Mile for the Four Scenarios (Figure 4.12 of ERDC Report), annotated with Differences in Sediment Transport Rates.

4.6 Critique of 1-Dimensional Modeling A main conclusion of Chapter 4 is (Page 199):

> *"Although the West Bay Diversion diverts only 7% (as modeled) of the total flow, the computed impact on dredging is disproportionately large. The 1-D model consistently indicates that the West Bay Diversion accounts for a 20-25% of the dredging required in the reach above Head of Passes including the Pilottown Anchorage Area. If only the navigation channel is maintained, the West Bay Diversion accounts for an even larger portion of the required dredging."*

Two main concerns with this conclusion are discussed below.

Without presentation of local quantitative calibration results, both hydraulic and sedimentation, it is impossible for the ITR to ascertain the adequacy of the numerical model in representing the hydraulics and sedimentation characteristics of the model. This is particularly noteworthy in view of the strong three dimensionality of the flow, boundary conditions and dredging. We strongly recommend that the full and detailed calibration results be included in the final version of the ERDC report. Specifically, the question of the degree of some representative measure (say, rms) of the deviations of the changes represented by the model be compared with the deviations about the mean. The ITR will be pleased to discuss measures of model capability further with the Authors of the report.

It is expected that any increase in required dredging would first occur immediately downstream of the WBD and then propagate downstream over long time scales. Therefore, we suggest that the final version of the report show the computed depositional patterns with space and time and compare those results with those of Chapter 3 for the average elevations and volumes.

Inspection of Figure 4.12 of the ERDC report (Figure 4.3 herein) indicates that the reduction of sediment transport immediately downstream of WBD is approximately 6-7% as expected due to the ratio of sediment diversion factors of approximately unity and a modeled WBD discharge of 7%. At the downstream limit of the PAA (RM 1.6), the difference in sediment transport due to the WBD is approximately 8%. At the downstream limit of the domain at Southwest Pass (RM – 18.0), the differences are approximately 7%. As these values are all so close to the discharge ratio (7%), we question whether the models can be considered to be accurate. We suggest that a greatly expanded version of Figure 4.12 (of the ERDC report) in the area of interest be included in the final report and discussed in the context of sediment budgets. Additionally, the apparent lack of significant difference between sediment discharge with and without dredging requires discussion. Finally, it is not clear whether the reduction in dredging in the PAA due to the reduction of discharge through the Cubits Gap and associated reduction in dredging in the PAA were taken into consideration.

4.7 Overview of Multi-Dimensional Modeling The strong three-dimensional nature of flow in WBD area requires the use of multi-dimensional modeling, and to this end two modeling tools have been used; the two-dimensional ADH (ADaptive Hydrology/Hydraulics) model and the three-dimensional CH3D model. These systems are expected to alleviate unrealistic simplifications of 1-D modeling, but their run time and areal extent are limited by extensive computational demands. ADH is a modular, parallel, adaptive finite-element model for one-, two-, and three-dimensional flow and transport processes developed by CHL/ERDC, and CH3D is a Curvilinear-grid Hydrodynamics 3-D model developed by Sheng (1986) and modified extensively thereafter. Note that the high resolution and robustness of these models allow comprehensive predictions of sedimentation in the WBD area, including capabilities for process studies. The complexity of these models and underlying assumptions, however, require that they be thoroughly evaluated/quantitatively calibrated against detailed data in the area of interest. Comments on the use of these models in the WBD study are listed below.

4.8 ADH Model Simulations The ADH employs 3-D Navier-Stokes Equations, 2- and 3-D shallow water equations and ground water equations. It is linked to the SEDLIB sediment model (developed by ERDC), and overall the system is a 2-D depth averaged model. The system uses analytical and semi-empirical methods (e.g., streamwise vorticity implementation) to empower it for making quasi 3-D predictions, and the unstructured mesh allows changes of spatial resolution according to scientific needs. The possibility of placing domain boundaries far away from features of interest permits reduction of boundary bias of results. The capabilities of including tidal variations make ADH appealing for applications to shallow water mashes.

The simulations have been conducted with (i) a bathymetry derived using ADCIRC SL-15, USACE conditional surveys and ERDC multi-beam bathymetry, (ii) 2009 hydrograph from February to August, (iii) (adjusted) upstream inflow boundary conditions specified at Talbert Landing and downstream water surface at the Southwest Pass, and (iii) three sediment classes, accounting for cohesive mud. Although HRC-6T was intended to provide upstream boundary conditions, due to mismatch of sediments and the flow conditions, in the present simulations the model was allowed to calculate the inflow that is in equilibrium with the sediment concentration. Two cases were run: the base case (same as 2009 river conditions used for model evaluation; sediment starved) and the slug test run (with surplus sediments in the upstream of the study area, similar to 2008 conditions). The following are some comments and observations on ADH simulations.

1. The model evaluations shown in Figures 5.8 – 5.11 indicate that the flow structures between the model and observations do not match satisfactorily. There is an outflow at the southern boundary of the model WBD that is not evident in the observations. The stagnation downstream of WBD appears to be captured well by the model, but given the influence of shoaling far downstream it will be instructive to extend the presentation of results to include a region far downstream of WBD.

2. Since ADCP data are available in the WBD inlet area, a detailed comparison of vertical sections between model and observations is warranted. The flow patterns and their gradients are paramount in identifying shoaling, and thus such a comparison is expected to help immensely.

3. The comparison between the observed and predicted vertical sediment profiles is commendable. Note, however, that the vertical profile shapes are gently parameterized in the model and hence the reliability of calculations must be borne out by comparisons of absolute sediment concentration values. The data in Figs 5.13 to 5.15 (discharge 700,000 cfs) are scattered more than one would like to see, but such is not unusual in sediment transport studies. There is significant lack of agreement in the suspended sediment concentrations for the period May 29-30 (discharge 1,000,000 cfs) with the near-bottom predictions 3 to 4 or more times greater than measured. This raises the question of the effects of this difference on deposition.

4. The most important depictions of the model are in Figures 5.23 to 5.28, which show enhanced shoaling downstream of the WBD in the area of the point bar. The results show increased shoaling due to WBD, and it would be interesting to overlay the bathymetry (scour) plots with velocity vectors. This will allow understanding the role of flow patterns in shoaling behavior. A plausible hypothesis would be that the adjustment of downstream flow patterns due to stagnation streamline (induced by WBD) has caused a change of shoaling patterns. It appears that Figure 5.28 is mislabeled and should read "Cumulative bed change difference, slug test run."

5. The sediment deposition plots in Figs. 5.31-5.40 are instructive and illustrate changes of different footprints shown in Figure 5.29. In the base runs, without WBD, virtually there is no deposition in PAA after 150 days, but there is continuous deposition in the adjacent channel. With WBD, the channel deposition remains approximately the same but there is an increase of PAA deposition, indicating substantial flow modification in the PAA area due to WBD. The results of the slug tests show otherwise, in that there is an increase of deposition in both footprints after 150 days. Did the flow structure change so much by changing the upstream sediment conditions? -- An explanation is welcome here. The percentage increase of deposition for both the anchorage and channel combined remains around 40% in all cases, although the behaviors of individual runs are different. How general is this result for longer hydrographs? Figure 5.30 shows that the initial deposition in the PAA with WBD closed is nearly equal to that with WBD open (up to Day 140). However, after Day 140, this deposition with WBD closed is eroded, even though the river discharge had dropped to 600,000 cfs, approximately 55% of the peak flow. Is this realistic? Also, the caption indicates that these figures apply for "February – July, 2009, yet results are shown for 200 days. February through July is 181 days. The "OWB" and "CWB" should be clear from these figures.

6. Figures 5.21 and 5.22 provide a comparison between the measured and observed bed change for the period March to August 2009. The report states: *"The depositional patterns observed in the field are in general agreement with those observed in the model,…"*. However, while deposition is predicted along the Right Descending Bank immediately downstream of WBD, apparently field measurements were not conducted in this area. These two figures are reproduced below for easy reference.

Figure 5.1. Computed sediment bed change by AdH, March to August, 2009. Note deposition on Right Descending Side immediately downstream of WBD. (Figure 5.21 of ERDC Report).

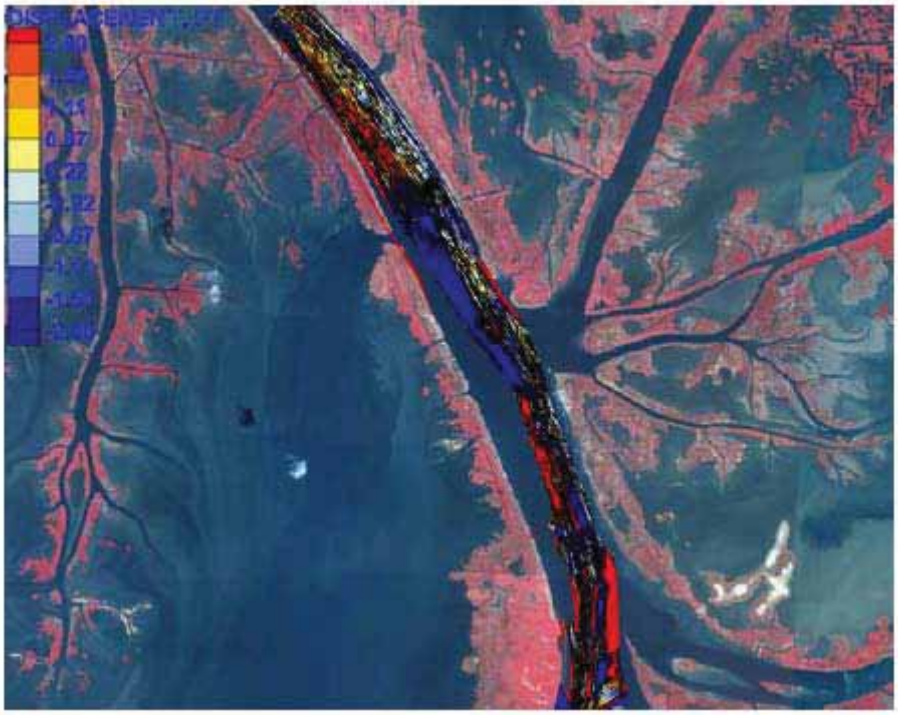

Figure 5.1. Observed sediment bed change, March to August, 2009. (Figure 5.22 of ERDC Report).

7. Results from the "Base Run" are presented in Figures 5.37 and 5.38 from RM 5.2 to HOP. These results show a deposition of approximately 4,000,000 cy with WBD present. Do data exist to compare with this computation? For the "Slug Test", the predicted deposition in this reach with WBD open is approximately 32,000,000 cy which amounts to a uniform deposition of more than 6 feet across the entire plan area of this reach. Is this considered realistic?

4.9 CH3D-SED Model Simulations In this model, the governing equation are solved using a boundary fitted, non-orthogonal, finite difference approximation in the horizontal plane and a sigma-stretched approximation in the vertical direction. The hydrodynamic model solves the depth averaged Reynolds equations for velocity, and the depth averaged mass conservation equation for water surface elevation. The 3-D velocity field is determined by computing the deviation from the depth averaged velocity by solving the mass conservation equation in conjunction with a k-e closure for vertical momentum diffusion. The sedimentation computations are based on a 2-D solution to the mass conservation for the channel bed, and 3-D advection-diffusion equation for suspended sediment transport.

The sediment transport algorithms independently account for the movement of sediment as either bed load or suspended load or a combination thereof, including capability for exchange of sediment between the two modes of transport. The model is generalized for application to mixed grain size sediments, with appropriate bed material

sorting and armoring routines. The formulation to a user specified multiple grain size distribution uniquely allows the simulation of erosion, entrainment, transport, and deposition of contaminated sediments on the bed and in the water column. (http://gcmd.nasa.gov/records/CHL-CH3D-SED.html).

In the calculations, the upper boundary is stated to have been set *"at RM 7.5 (above Venice)",* extending down to approximately 3 miles south of the Head of Passes. Actually, River Mile 7.5 is downriver of Venice, LA so this must be a typographic error. The grid is sufficiently fine and unstructured (30x30 m with highest resolution of 7x7 m at the diversion). The inflow boundary values were taken from the ERDC measurements (May 29-30) and the water surface elevations downstream were specified as in ADH model. The model validations were conducted against ERDC field data in a 12 day simulation, and a comprehensive model evaluation has been conducted by comparing data taken just upstream and downstream of the WBD and at the mouth of WBD. Some comments on the simulations and results are listed below.

1. Although the model verification using ADCP data is commendable, the comparison is more qualitative and no statistical measures have been used to evaluate the model performance. Only a limited number of features related to scour and transport such as vertical velocities (Fig 2.31) are compared. It is, however, instructive to note that the predicted flow patterns have good similarity with that observed, an improvement from the ADH model predictions discussed above. As in the case of ADH model, the vertical profiles of sediments do not compare well with the measurements, and associated errors on sediment distributions are expected to be substantial (although the report says that the agreement is favorable). Perhaps a more rigorous evaluation of CH3D is warranted in the future work, given that the final recommendations of the study are heavily relied on modeling results.

2. The model predicts that the effects of the diversion are largely local to PAA area. There is an increase of erosion just upstream of the WBD on the same side, increased shoaling in PAA and a reduction of scour in the navigation channel area. An impressive set of multi-beam surveys are available and it is recommended that a detailed comparison of model results with bathymetry evolution (e.g. Figs 2.37-2.38) be conducted.

3. Under CH3D Results, it is mentioned that the data were collected at a much lower flow than what were simulated. It seems something is missing here as the antecedent discussion does not mention anything about such simulations.

4. Figure 5.50 caption refers to an ADH mode, which is confusing. An explanation is in order. Also, considering that the caption should reference the CH3D model, it is noted that the bed change pattern immediately downstream of the WBD differs significantly from that based on AdH (Figure 5.26). Although the hydrodynamic conditions for these two computations differed both in magnitude and duration, the difference points out the need to intercompare models where the possibility exists.

5. The simulations show that the increase of shoaling due to WBD is about 22% in PAA, 11% in the navigation channel and 18% for both combined. This is merely a 12 day simulation, and does not represent general shoaling characteristics. It is advisable to run several kindred simulations for other depositional conditions to document how this percentage varies over various stages of the hydrograph. The ADH simulations over several months show that this impact (at the end of the hydrograph) can be twice as that of CH3D, and one would wonder which values ought to be used for decision making.

In the Conclusions section, it is mentioned that ADH and CH3D models show consistent results, but our reading indicates that this agreement is only qualitative. Marked disparities exist with regard to quantitative predictions, and this should be emphasized in the report. Perhaps a summary statement in the form of a plot or a table can help the reader to make their own judgments with regard to different forms of simulations. On a minor issue, the CH3D section has a number of spelling errors, and needs careful proofreading.

5.0 Summary, Recommendations and a Possible Interim Alternative

5.1 Summary The study in point was conducted to investigate the impacts of the West Bay Diversion (WBD) on shoaling in the Pilottown Anchorage Area (PAA) and adjacent navigational channel. Five issues were of interest, which included (i) the role of WBD on depositional and sediment transport patterns in the PAA area, including a quantitative assessment of the change of shoaling and its dependence on the river stage, dredging, other diversions, river hydrograph, subsidence and sea level rise, (ii) the spatial and temporal scales of morphological changes and long-term perspective of bay evolution based on observations and modeling, (iii) the amount of sediment passing through the diversions, especially the diversion ratio of sediments and flow expressed as a percentage of upstream quantities, (iv) retention of sediments in the West Bay, their composition, dynamics and the dependence on variables such as river stage, waves, location, and (v) ecological benefits of the WBD project.

The WBD study represents the most comprehensive study thus far conducted on river diversions, and has yielded unprecedented information on flow and sediment transport adjustments occurring at diversions. While this is a case study, the data can be used to verify and develop a repertoire of models of varying complexity that have general applicability. Unfortunately, the work remains far from completion due to a six month time restriction imposed, yet the team involved has been able to complete an impressive amount of work during this period. The data collected will be invaluable in future work and it is hoped that ERDC will be funded to continue this work.

The task of quantifying the proportion of additional dredging that is required in the PAA and navigation channel due to the West Bay Diversion (WBD) is challenging because of the natural noisy system coupled with significant anthropogenic effects. The natural variability is a result, in part, of the long term trends of migration and changes in

channel geometry associated with meanders and their tendency to migrate downstream. Additionally, the effects of major inland and Gulf storms can affect the river erosional and depositional patterns. Anthropogenic effects include upstream dam construction, the earlier sealing of natural diversions and the more recent creation of artificial diversions, and the enlargement of natural diversions within the area of interest. Indeed, it is possible that the "signal" of any increase in shoaling from WBD may be nearly submerged in the noise due to the other causes listed above.

Decadal scale geomorphic surveys show significant bathymetric changes in the area downstream of Venice (RM 10.7), particularly after the throughputs to Baptiste Collette and Grand Pass distributaries (near Venice) were increased from 5 to 16-20% following the enlargement of the outlets in the late 1970s. It was hypothesized that this modification may have been the physical agent of change. Downstream of Grand Pass, a point bar is present, first close to the left descending bank and then crossing over to the right bank approximately upstream of the PAA. The point bar has rapidly grown along the PAA while encroaching on the navigational channel, thus reducing the channel width. The point bar appears to have a significant effect on the sedimentation in PAA. The river thalweg responds to this by shifting toward the left bank, with a point bar starting in the upper part of PAA and developing downstream until the Head of Passes. Over the study period, the thalweg has been reduced in depth by about 20 feet from Venice to Cubits Gap, the short term depth variations being sensitive to river events such as floods. Because of the continuous channel modifications due to regular dredging, no trends could be delineated downstream of the Cubits Gap.

Because of the complex geomorphology and hydrodynamics, the flow patterns and sedimentation in the area are expected to be sensitive to perturbations, and thus it is physically plausible that the WBD has an effect on shoaling in the area. The present study was expected to quantify this effect using field data and modeling. Since its construction, the flow through WBD has increased from 2% to 7-8% and the flow to Cubits Gap has decreased correspondingly, which are also agents of change. About 40-50% of the flow passing Venice is diverted to distributaries and diversions, and thus PAA is a dynamically active area. The reduction of downstream flow makes the navigational channel and PAA effective sediment traps. The observations show instances where the sedimentation rate has increased after the construction of WBD as was the case for the rate of decrease of channel width. Nevertheless, there is no significant effect downstream of the Cubits Gap.

It is our opinion that the 1-D model is unsuitable for quantitative predictions of diversion effects as it averages out many important physical and hydrodynamic processes. The complex interplay between geomorphologic, hydrodynamic and sedimentologic processes of diversions can only be studied using multidimensional models, with proper calibrations and validations. Although the team has collected an array of data for model validation, the multi-dimensional modeling work remains essentially incomplete. Much of the effort has been devoted to 1-D and 2-D modeling, but inspection shows that the flow patterns in the diversion area are best predicted by 3-D modeling. We strongly support continuation of the 3-D work for an additional (6-12

month) period with quantitative model validations in the area of interest being a significant part of the work. The report should be a "stand alone" product including documented demonstration of calibration/verification such that the reader can judge the basis for the later quantification of effects. Various river scenarios ought to be considered and how shoaling is sensitive to such scenarios should be delineated.

The 1-D model indicates that there is a disproportionate influence of flow on shoaling (7% flow is diverted but there is a 20-25% increase in dredging in the area; if dredging is confined to the river channel, this increase is about 40%). The 2-D and 3-D modeling produces more acceptable results, and both 2-D and 3-D model validations were in general satisfactory (however, the 3-D model appears to perform best). A consistent impact of WBD is predicted by the models, and the predicted increases of deposition for various models are listed in Table 1. Note that the period of model run varies according to the model complexity, and the 3-D model ought to be run for several cases representing characteristic river conditions. Note that the models employed are complex with numerous assumptions, parameterizations, formulations and numerical errors, and their predictions should be viewed with caution. They, however, can be considered as models based on state of the science. The conclusions are subjected to future changes with further development of the models.

TABLE 1:

		HEC-6T	ADH Base case	ADH Slug test	CH3D	Bounds from all
Modeling period		50 years	6 mos.	6mos.	12 days	
% of deposition due to WBD	Anchorage area footprint	NA	100%	55%	22%	15-55%
	Navigational Channel Footprint	NA	0%	18%	11%	10-30%
	Combined Footprint	20-25% increase of dredging	40%	40%	18%	20-40%

Based on the results in Table 1, the study proposes the bounds of uncertainty for the percentage deposition in each footprint (navigational channel, PAA and both). In all, the likely percentage increase of deposition in combined anchorage and adjacent footprint is proposed as 20-40%. However, these estimates should be considered as tentative given the caveats of 1-D modeling and the short run times of multidimensional modeling.

5.2 Specific Recommendations for Future Work

- First, we strongly support extension of a modified program for an additional 6-12 month period. The program should have greater emphasis on multi-dimensional models. Additional recommended details are provided below.
- Conduct specific and quantitative calibrations in the area of interest based on the excellent data base produced in the Geomorphic Assessment. Include details of these calibrations such that the report is a "stand alone" product. Provide a quantitative basis for assessing the quality of the calibration.
- Focus on the geographic area of concern. This should be a natural consequence of the stronger emphasis on multi-dimensional models.
- If the deposition in the PAA is proportionately larger than the discharge, address the physics associated with this ratio difference. Do the other diversions have a similar proportionately larger effect?
- Address the fact that the PAA was shoaling prior to construction of the WBD. How is this accounted for in the numerical models? Can modeling verify the initial hypothesis that the changes made upstream in the Venice area (increased flow in tributaries) in the 1970s was the physical agent of shoaling in the PAA area?
- Compare the multidimensional models for the same forcing conditions and periods.
- Provide details of the predicted WBD induced shoaling. For example, does the shoaling start immediately downstream of the WBD diversion and then progress downstream? What are the associated sediment sizes and/or other characteristics?
- Conduct annual surveys of the WBD receiving area so as to better document the deposition patterns and rates.
- Include greater detail on the dredging requirements, timing and locations. These are essential in attempting to understand more completely the results developed in the Geomorphic Assessment.
- Develop improved estimates of subsidence for incorporation in the model predictions and ensure that relative sea level is realistically utilized.

5.3 A Possible Interim Alternative We agree, based on accepted understanding of the underlying physics of hydraulic flows and sediment transport mechanics, that a diversion should result in downstream shoaling and the difficulty of quantifying such a finding based on field data may be due to the extremely noisy system. A possible and reasonable interim alternative would be to apportion the overall shoaling based on the ratio of the discharge of the WBD to the total diversions at Baptiste Collette Bayou and those downstream diversions to the downstream limits of the PAA. Examination of Figure 4.12 of the ERDC report indicates that at the downstream limit of the modeling, the differences in the simulations of sediment transport with and without WBD present, are 7%, the same as the water discharge considered in the modeling through WBD and that this difference is affected only to a minor degree due to dredging. Finally, if WBD has decreased the flows through Cubits Gap and the associated contribution of that diversion to shoaling, should WBD receive credit for that decrease?

6.0 References

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Academic Advisory Group West Bay Peer review

Dr. Lawrence Rouse, Dr. Charles E. Sasser, Mr. Erick M. Swenson

School of the Coast and Environment, Louisiana State University

December 30, 2009

This document presents our comments regarding the ERDC Draft Workplan Report and the Mobile District Spatial Data Report (both from November, 2009) the results of which were presented at the December 1, 2009 meeting in Baton Rouge.

The Draft Workplan Report is well written and contains both detailed and complete information on the modeling as well as the field data collection efforts. The report would benefit by the inclusion of figures and tables that clearly summarize the technical data presented, particularly the range in the estimates of the percent of increased dredging due to the West Bay Diversion. The Executive Summary should include the pertinent figures (or tables) that support the statements being made.

As we stated in our previous peer review comments, the bottom line of the study is to estimate the impact, if any, of the West Bay Diversion on shoaling in the Anchorage area. Methods to tighten up the fairly large estimates of the percent of increased dredging due to the West Bay Diversion need to be investigated. These items were discussed as part of the "Path Forward" at the meeting and we agree that the additional efforts discussed should help resolve the issues. We agree with the proposal put forth to re-distribute the field data collection funds to allow for improvement in model calibration while still retaining some additional field data collection. This additional effort should provide the needed additional replication to help resolve the uncertainty issues.

The bathymetry analysis report would benefit from an overall summary which should be linked to the results from the Aerial data analysis. Although the report attributes the land gain in the area to placement of dredged material as opposed to sediment from the West Bay Diversion, we think that it is still premature to say the West Bay is not going to build land. Is it possible that the area has not deepened as fast as it would have without the West Bay Diversion. This could be estimated from the bathymetric analysis. The effect of the addition of the island (under construction) to help slow down the flow and trap sediment needs to be followed for some time.

There are several questions that need to be answered: Would the anchorage have been dredged, and when, even if the West Bay diversion had not been built? Are there any non-linear effects that may occur should additional water (and sediment) be removed from the river. Are there any structural changes that could be made in the river to decrease dredging in the anchorage area (decrease cross-section to increase velocity. This comment was made at the meeting, we don't remember who made it (someone from ERDC, Freddie Pinkard?) but it is worth investigating as a conceptual plan.

We agree with the inclusion of the following specific items discussed as part of the "Path Forward" section of the meeting:

1. Improve (or refine) the model calibration by running additional sensitivity analysis.
2. Extend the geomorphic analysis to include more of the river.
3. Tighten up the model uncertainties. These uncertainties need to be well documented in order for the final results to be acceptable.
4. Run additional model scenarios. The current estimates of the West Bay effect is based on limited model runs. Additional runs for different river conditions will give us a better estimate of the uncertainty.
5. Include more detail on the anchorage to better define CWPPRA's responsibilities regarding any increased dredging cost.
6. Synthesize all the peer review comments for inclusion in the final report.
7. Look at West Bay effects on dredging thresholds as opposed to just erosion and accretion.
8. Implement additional data collection at 2 rising limbs, 2 falling limbs, and an additional high water event.

The following are comments from the Louisiana Office of Coastal Protection and Restoration (OCPR) made in regards to the:

ERDC Workplan Report-Draft
Westbay Sediment Diversion Effects
November 2009

The above mentioned report has been read and reviewed. Due to the lack of availability or disclosure of all of the relevant data used to create it, a full technical review of this report was not possible. Comments provided below are based on the information that was provided. The comments have been categorized by the report's main sections, and where necessary, specified a specific page (Pg.), paragraph (pgr.) and sentence (s.). Direct quotes taken from the report are in italics.

Executive Summary

Pg. vi, pgr. 2, s. 3:
States that *"a geomorphic assessment of the entire lower Mississippi River south of Belle Chase;"* was conducted. This statement is incorrect, as geomorphic assessments of South Pass and Pass a Loutre were not conducted, even though decadal surveys exist for both passes, and channel condition surveys exist for South Pass. These passes are a major component of the Lower Mississippi River south of Belle Chasse, and geomorphic analysis is necessary for a complete assessment of this system.

Pg. vii, pgr. 3, s. 1:
"Point bar" is not the correct term for the geomorphic feature referenced. Point bars form in response to active channel meandering, a process not historically or currently operating in this study area. "Lateral bar" is the preferred nomenclature for this fluvial-deltaic sedimentary deposit. Although this may seem merely semantic, using the term "point bar" infers that a specific set of physical processes are responsible for the formation of this deposit, when in fact, they are not. It is suggested that "point bar" be replaced by "lateral bar" throughout the entire text of this report when referencing this feature.

Pg. vii, pgr. 3, s. 2:
States that the *"point bar has been building for many years previous to the establishment of the West Bay Diversion"*. How many is "many"? Is it 5 years, 10 years, multiple decades? Please provide some quantitative estimate of this amount of time.

Pg. vii, pgr. 3, s. 3:
Dates are given for deepening of Grand Pass, Baptiste Collette, and the navigation channel, but not for the West Bay Diversion. Please reference the year of construction for the West Bay Diversion (2003) in this sentence.

Pg. viii, pgr. 1-3:
Given the wide range of results from the three numerical modeling analyses, discrepancies in the format of results from the individual models, possible discrepancies in the spatial domain used to make the calculations, and the stated high degree of uncertainty both within individual models, and between models, it seems arbitrary and premature at this point to declare that the diversion is responsible for 20-40% of the deposition in the combined dredging footprint of the anchorage area and the adjacent navigation channel.

(Additional comments on the models will be made in a following section.)

A statement is made that any future increases in flow captured by the diversion will likely influence the impact of the diversion on downstream shoaling. It should also be stated that any future increase (or decrease for that matter) in flow captured by *any* outlet in the vicinity (anthropogenic or natural) will likely influence its impact on downstream shoaling.

Introduction

Pg. 2, pgr. 1, s. 6:
The fact that the initial target discharge of 20,000 cfs at 50% duration stage was not achieved with the initial construction, calls into question the validity of *all* initial assumptions and calculations made regarding discharge, and shoaling induced by the project.

Pg. 4, pgr. 1, s. 3:
Please provide a reference for the statement that the PAA is *"the first federally authorized deep-draft anchorage"*. The history of the PAA is unclear. It seems that an initial anchorage was established pre- 1960, and a new, smaller, "deep draft" anchorage area was established in the early 1980's. This "new" anchorage seemed to be geographically located outside of the existing PAA, including a portion of what is referred to as the "access area". This issue needs further clarification.

Pg. 6, pgr. 1:
From results of some of the initial modeling done for this project, it is evident that advanced maintenance dredging of the PAA and access area is responsible for a large percentage of the anticipated "induced shoaling" due to the project. This advanced maintenance dredging should be included in the bulleted list of causes for shoaling.

Data Collection

Pg. 12, pgr. 2, s. 2:
When, how and by whom was this *"previously conducted multi-beam survey"* conducted? This paragraph states that this survey was sufficient to fulfill the purposes of the work plan, but additional multi-beam data seems to have been collected. Where and when was this survey conducted? How were these two data sets processed and combined?

Pg. 16, fig. 2.2:
This map contains no vertical or horizontal scale. It does not delineate where the two above mentioned multi-beam surveys were stitched. Please provide scale and survey stitching information.

Geomorphic Assessment:

Geometric Data Analysis:

Pg. 65, pgr. 3:
States: *"The 5 comprehensive surveys used in the geomorphic assessment were 1961-1963, 1973-1975, 1983-1985, 1991-1992 and 2003-2004. It should be noted that each survey period spans several years, and the survey data may have been collected at any point within that time span."*

While this is quite true, the date that a range or group of ranges was surveyed is indicated on the hard copy of the map. It appears that data obtained from these surveys is plotted incorrectly in the figures that display the comprehensive survey data, specifically figures 3.17-3.23. For example, Figures 3.17-3.23 represent the bathymetry data from the 2003-2004 comprehensive survey as being collected in 2004. Inspection of the maps indicates that the ranges represented in these figures were surveyed August 24 &25 of 2003. Thus, all 7 figures appear to be incorrect with respect to this survey (other decadal surveys were not checked for this problem). This temporal discrepancy will introduce error into any attempt to calculate "annualized" or "average" rates of change that uses this incorrect information. This discrepancy should be examined for all comprehensive survey data, rectified to plot the correct date on any figures, and utilize the correct date in any calculations that use this data or information derived from it.

In addition, these figures are presented with varying vertical scale/range, making visual comparison difficult. Please rectify the figures using the same vertical scale/range for all figures.

Pg. 66, pgr. 2:
States: *"Channel condition surveys are collected by MVN on a regular basis for the area from Venice to East Jetty. These surveys are collected to evaluate the condition of the navigation channel and to determine maintenance dredging requirements. For the geomorphic assessment a channel condition survey was selected for October of each year from 1990 to 2008. The October period was selected because it corresponds to the start of a water year, and conditions are generally representative of a complete annual hydrologic cycle."*

Dredging of the PAA during the initial construction of the project was conducted in October and early November of 2003. Thus, the October 2003 condition survey may not be the best choice, as it may not depict dredging that occurred in the PAA after the survey date. This may introduce some error into any plots or calculations made using this data. The actual survey dates used for this study were not provided, so this issue can not be investigated any further.

In addition, the "average channel bed elevation" analysis, which uses both types of surveys, does not contain any discussion of how the dredging in PAA in 2003 and 2006 was considered in the analysis. Please provide discussion on this matter.

Pg. 84, pgr. 1, s. 4:
States: *"To quantify the observed changes, the average channel bed elevation was computed over the portion of the cross section extending 500 foot westward (towards the right descending bank) from the anchorage area line."*

This portion of the cross section does not correspond spatially to the portion of the channel/anchorage that is to be dredged according to the project CSA. Additionally, due to the confusion regarding the spatial extents of what are possibly two designated anchorages, this portion of the cross section may not include the entire eastern extent of the anchorage(s). This specific area may not correspond to the area of interest delineated in the model studies.

Discharge Data Analysis:
This section seems to limit investigation to long term trends. There is no discussion of how the discharges of various outlets are affected by variables other than main stem discharge in shorter time scales. Thus, a complete analysis has not been conducted. Other variables that should be considered are river elevation/bay elevation (head) differences which may be driven by fluctuations in river stage, lunar tides, and wind set-up, as well as cross sectional area of outlets altered by sediment deposition/erosion and maintenance dredging (not just initial enlargement). Given the unique alignment of the lowermost river and bird's foot delta, and variation in tidal signal and seasonal prevailing wind direction, outlets discharging to the east may be affected in a different manner than those discharging to the west. Also, it is mentioned that changes in one outlet's discharge may be offset by changes in a downstream outlet's discharge, making this inter-relationship crucial to investigate in detail.

It is noted in the report that Pass a Loutre has experienced the most drastic reduction in discharge. However no serious attempt to explain this reduction is made. The conclusion of this section mentions enlargement of upstream passes and deep draft channel as possible causes, but ignores completely the disposal of dredged material from SWP at the head of this pass. This is relevant, as ERDC was asked to complete a study of the impacts of this disposal for the NOD in 2007-08.

Dredge Data Analysis and Results:
This section focused only on dredging in the Southwest Pass reach. South Pass, Tiger Pass and Baptiste Collette records were not reviewed. Thus, a complete analysis has not been conducted. These passes have all been dredged multiple times in the period of analysis, and should have been reviewed. Also the practice of dumping hopper dredged material at the HOP HDDA was not considered in this review. These issues are important to an overall understanding of this system, especially disposal at the HOP HDDA. This practice has been invoked as a primary mechanism for massive shoaling in Pass a Loutre and the resulting decrease in discharge. This change in flow distribution at HOP could easily disrupt flow distribution at Cubit's Gap, resulting in an increase in shoaling and thus dredging in this reach of the river.

General:
It is evident that several multi-beam surveys of the main channel in the vicinity of the West Bay Diversion, as well as entrances to Grand Pass, Baptiste Collette, and Cubits Gap exist and are in the possession of ERDC for the purposes of this study. Why was analysis of these detailed surveys not included in this geomorphic analysis?

While cross sections are often the best way to visually convey bathymetric information, this section lacks graphics that would be extremely helpful to visualize changes in the bathymetry in the PAA over the time period studied. It is recommended that a decadal time series of color coded contour maps of the channel from just above the upstream limit of the PAA to just above HOP, with the anchorage area(s) clearly delineated be developed and included in this report. It may even be helpful to use GIS to estimate how many individual "anchorage positions" were available for use by vessels of various draft at each time interval.

1-Dimensional Modeling Analysis:

At the December 1st, 2009 CWPPRA Special Technical Committee Meeting, the results of this modeling effort were presented. A question was raised about the actual spatial extent of the anchorage/access area delineated for the purpose of this model. The partial answer given to this question seemed to indicate that the delineated area did not spatially correspond to the area defined in the project CSA. No description of this area was given in this report, thus, no conclusions relating to the validity of the model in this regard can be accurately drawn.

Please provide an accurate definition of the area delineated for deposition/dredging calculations computed from this model.

Pg. 157, pgr. 3:
States: *"The primary disadvantage is that HEC-6T is a 1-dimensional model which means that the model uses average hydraulic and sediment parameters since it is simulating 3-dimensional processes in 1dimension. HEC-6T includes no provision for specifying a lateral distribution of sediment load or bed material gradation across a cross section. Normally, deposition and scour are 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). For this study, an option was selected that preferentially deposits sediment within the dredging template before deposition is distributed over the rest of the moveable bed."*

Please provide references to the use and validity of this technique in other studies.

Pg. 187, pgr. 2, s. 8-16:
States: *"HEC-6T does not allow for separate dredging templates or for a complex template with varying depths in the template. Therefore, for the West Bay Diversion evaluation, a composite template was developed. This template attempts to simulate the combined navigation channel and anchorage area dredging. Developed by combining the areas of the navigation channel and anchorage area the dredging template uses a composite width. The bottom elevation of the composite template is -50 feet with a bottom width between 940 and 970 feet dependent on the depth of dredging in the anchorage area. This template is used for both simulations where dredging in the Pilottown Anchorage Area scenarios are turned on. For the model both the*

navigation channel and anchorage area are dredged twice a year, on January 1 and July 1. However, the anchorage area is dredged on a three year cycle. This results in an over estimation of the required dredging, since the model fills the dredge channel before deposition is allowed in the remainder of the channel."

Please provide references to the use and validity of this technique in other studies.

Pg. 188, pgr. 4, s. 1-4:
States: *"All 4 scenarios included required dredging in the navigation channel. Currently the model behaves appropriately in the area of interest. However; sediment deposition quantities and therefore, dredge quantities in Southwest Pass do not match observed quantities. The model is computing less than observed."*

Pg. 197, pgr. 1, s. 1:
States: *"Modification of the dredging template dimensions and the moveable bed width produced the most significant changes in computed dredging rates."*

The four preceding statements seem to indicate that the HEC-6T model is not capable of reproducing the actual natural physical processes and anthropogenic modifications that are occurring in the study area. The model does not replicate actual dredging conditions in the PAA spatially or temporally. The solution employed, a composite dredging template with deposition preferential to the template, is stated to produce the most significant changes in computed dredging rates when modified.

The report states clearly that the inability to replicate true dredging conditions in the PAA results in an over estimation of the required dredging in this reach. This is followed with a statement that computed dredge quantities in SWP are less than observed.

This seems to indicate that that the model is not producing valid results in its current configuration.

Pg. 166, pgr. 1:
States:
"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 throughout 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 accounts for the long term impact of salinity on sediment transport through the reach."

Please provide references to the use and validity of this technique in other studies.

Pg. 183, pgr. 1, s. 1-3:
States: *"When said cohesive particles mix with an abundance of ions, due to salinity, flocculation can occur resulting in shoaling. Although sand transport is impeded due to the decrease in fresh water inflow, fine grain sedimentation can actually increase. Here it is important to understand that the model does not account for this process even with the shear stress threshold adjustments."*

Particle flocculation is not induced solely by salinity. Organic material suspended in the water column may also induce flocculation. Regardless of this fact, the two previous statements from the report also illustrate that the HEC-6T model is not capable of replicating complex tidal interaction and resultant geochemical changes in the water column that influence sediment transport in the study area.

Pg. 199, pgr. 2:
States: *"The West Bay Diversion can not be analyzed in isolation. It is a part of a complex interacting system of diversions which influence the morphology of the Mississippi River and Passes. An understanding of the response of the system to changes at any one diversion requires an understanding of the response of the system to each and every significant diversion."*

This model (as well as the 2-D and 3-D) do in fact analyze the West Bay Diversion in isolation. All other diversions are held constant for the analyses reported, with only West Bay being open or closed. The impact of each and every significant diversion was not studied.

Pg 198-199:
States: *"For the ERDC model, the size of the West Bay Diversion was held constant throughout the 50 year simulations. The current diverted flow rate of 7% of the Mississippi River flow was used. Potential future development of the West Bay Diversion would increase the diverted flow rate well above 7% which would impact the sediment load and aggradation rates through the reach. A sensitivity analysis should be run to determine the impact of projected future development."*

Once again, it should be stated that an increase (or decrease) in the flow diverted into *any* outlet in the vicinity would impact the downstream sediment load and aggradation rates, not just the West Bay Diversion.

Pg. 189, pgr. 2, s. 7:
States: *"Since there are no major distributaries / diversions between Belle Chasse and RM 12.5, the reduced total sediment loads would indicate that this reach is slightly aggradational."*

However, **Pg. 149, pgr. 1, s. 1-2**, from the Geomorphic Assessment Conclusions, states:

"The geometric data analyses indicate that in general there has been little change to a slight lowering of the river channel bed upstream of Venice. Results from cross section comparisons

and reach average channel bed displacement and elevation comparisons agree reasonably and verify this trend."

There is no discussion of this discrepancy between the 1-D modeling and Geomorphic assessment. It is stated in the report that all results are evaluated in an integrated manner to arrive at the most accurate and complete assessment. Not only is this issue not discussed, there is no substantial discussion anywhere in the report upon the integration of results from all of the analyses.

This may indicate that significant loss of water and sediment is occurring between Belle Chasse and RM 12.5. If so, this issue needs to be addressed in relation to model accuracy and validity.

Pg. 158, pgr. 1, s. 16:
States: *"Once all the runs are complete, the final step is to compare sediment deposition locations and quantities and dredging locations and quantities through the Pilottown Anchorage Area reach for the four 50 year simulation scenarios to determine the impact that the West Bay Diversion has on the Pilottown Anchorage Area."*

The presentation and discussion of results appear vague and seemingly incomplete. The distinction between dredged and deposited quantities of sediment is unclear. Also no actual quantities are reported, only % increases in dredging. There is no comparison of % increase in dredging between the four scenarios modeled. There seems to be no comparison of sediment deposition locations and quantities and dredging locations and quantities through the PAA reach for the four 50 year simulation scenarios.

Given the stated high degree of uncertainty, and inability of this model to replicate actual conditions without manipulation of the dredging template and the sediment shear threshold co-efficient, it does not seem prudent to accept that this model is producing valid results in its current state.

Multi-Dimensional Modeling Analysis:

General:
Neither the 2-D nor 3-D models simulate the condition of a dredged anchorage both with and without the diversion at West Bay. Thus, no conclusions can be drawn regarding the influence of this bathymetric configuration alone, or in conjunction with the diversion, on sediment deposition in the PAA. Previous model studies indicate that the advanced maintenance dredging of the PAA actually "induces" the majority of deposition observed in the model calculations. Thus, this modeling effort cannot be considered complete, as it does not analyze all possible scenarios.

While graphics are presented that indicate the spatial extents of the anchorage/access/channel areas used for calculations, these graphics differ between the two models, and no written description of the area(s) are offered. Thus, we have no way to verify that the geomorphic assessment, 1-D, 2-D, and 3-D models are assessing the same geographic area. Please provide a detailed description of this geographic area delineated for each of these two models.

There is no discussion of what bathymetric data set(s) was used to create the CH3D mesh. Please provide this information.

As in the 1-D results, there is no clear distinction as to what is being reported. % dredging, % increase in dredging, shoaling increase fraction, and % deposition are all used seemingly interchangeably. Also no actual quantities are reported for the CH3D model. Earlier analyses using CH3D for West Bay provided actual sediment quantities partitioned into anchorage/access/channel areas. Have these current model results been compared with the prior efforts?

Pg. 207, pgr. 4 & 5:

States: *"Note that the assumption of noncohesive behavior is not necessarily valid in all cases, and cohesive properties can and apparently do affect the transport of sand in this reach. A study by Allison and Nittrouer (2004) indicates that the sand supply in the river is limited, and the river bottom can be scoured free of sand at high flows. However, below Venice, the geomorphological analysis conducted for this study indicates a long term trend of aggradation: therefore, the sand should be in plentiful supply here. Galler and Allison (2008) have noted that, during low flows, significant mud deposit is trapped in the channel thalweg by the presence of a persistent salt wedge. These muds likely mix with the sand deposit, and create a paved layer that is more resistant to erosion than sand alone. Hence, this cohesive behavior can limit the supply of sandy sediment available for transport.*

For the purposes of this effort, it was assumed that this cohesive layer acts as a nonerodable armor layer. However, this assumption is a simplification of the real character of the bed, and indicates that the available sediment supply is a significant source of uncertainty in the simulations."

Galler and Allison (2008) go on to state that this significant mud deposit is ephemeral, and is usually re-suspended with the onset of the spring freshet. Please provide a reference for the basis of the assumption that the mud mixes with the sand and creates a paved, non-erodible layer. This assumption most certainly introduces a significant source of uncertainty into the simulations.

Pg. 209, pgr. 1, s. 2-5:

States: *"Under high and median flow conditions, the stage in the river is significantly higher than the stage on the downstream side of each of the cuts. Hence, the flow through the cuts is essentially a local loss problem, with the magnitude of the flow governed by the geometry of the cuts themselves. Tidal signals and bed friction losses are of less significance. A significant wind set-up could have some influence, but this was not examined for this study."*

Please provide a reference for the basis of the above assumptions, and rational for not including the influences of a significant wind set up.

Discussion and Conclusions:

This section is surprisingly sparse given the massive amount of data that was collected, compiled, and analyzed. It seems to consist mostly of text previously presented in the prior sections. There is no significant attempt to integrate all of the results of the different analyses, and thoroughly explain discrepancies between the various analyses.

In early discussions regarding the West Bay Workplan, the operation of the Bonnet Carre spillway was brought up multiple times as a possible major influence on the geomorphology and sedimentology of the Mississippi River below this diversion. There is, however, no significant discussion of this phenomenon and its downstream effects. What insight have the geomorphic assessment and 1-D modeling efforts provided for this issue? What type of error would improperly simulating the actual effects of this diversion have on the 1-D model? It seems that the operation of the spillway provides an excellent natural laboratory to study the effect of a massive diversion on downstream sedimentation patterns.

The report provides discussion of increased rates of deposition due to the diversion, but does not explore the possibility that while rates of sedimentation may appear to have increased, there is a terminal threshold for deposition that would eventually be reached without the West Bay Diversion albeit at a later time. Please provide discussion on this possibility.

It should be noted that none of the modeling analyses actually reproduce the specific conditions and modifications that have occurred in the study area in the time after the construction of the West Bay Diversion. The 1-D modeling investigates long term trends with a constant diversion ratio for West Bay, but to date, the diversion has been evolving, and is not in a steady state condition. 2-D modeling attempts to replicate the conditions present in a portion of the 2009 water year. There is no discussion of how frequently these exact conditions exist, or to what degree the condition modeled is representative of an "average year." The 3-D model replicates a very short period of time, and no discussion is made as to how frequently these exact conditions occur nor to what degree the condition modeled is representative of average "high flow" conditions. Please provide discussion on these matters, as well as discussion on how the highly variable nature of these conditions is or is not represented in the modeling studies.

It should also be noted that throughout the report as well as this section, it is stated that the modeling results are highly uncertain, and that further analysis must be performed to refine and reduce uncertainty. If this is the case, how can the statement be made, at this time, that the West Bay Diversion is responsible for 20-40% of the deposition in the area of interest? This seems arbitrary and premature.

It is recognized that ERDC intends to refine the models and reduce the associated uncertainty in the "12 month effort". To that end the Louisiana OCPR requests a thorough discussion of what additional information, level of specificity, and degree of certainty the additional six months of study will provide the Task Force. OCPR also requests a detailed budget analysis for the work completed to date, and for the additional work requested, as well as detailed scope of work for the additional six month effort.

NOAA Fisheries thanks you for the opportunity to comment on "ERDC Workplan Report - DRAFT, West Bay Sediment Diversion Effects, November 2009". As others expressed at the December 1, 2009 meeting, ERDC should be commended for completing a large work scope in a short period of time. Our assessment is that the work, overall, is technically sound for this stage in the analyses. Like others have expressed, some level of assurance is given by the general convergence of results produced by the various methods.

We do have a few comments of a technical nature, but most are presentation-oriented and/or editorial (versus typos/style). Some recommendations for the next 6-month work phase are included at the end. Comments in **bold** have some bearing on estimating study uncertainty/error, which is something ERDC has recognized as a key task for the next phase.

General

- There are many acronyms in the report that are not defined. Examples include: CTS, TSM, AHP, BHP. The reader can largely figure out what they mean, but shouldn't have to.
- Many of the figures in the report are poor quality. North arrows, scales, etc., are non-existent on many maps. Legends are often illegible.
- The use of figures and tables, in general, is poor. Many times the narrative could have benefitted from small-scale figures that showed the main reference points being discussed in a given chapter. Also, some sections of text could be better presented in tables. Conversely, some tables are not necessary. Examples are called out in specific comments below.
- The report, in general, assumes a lot of geographic knowledge. While most people reading the report will have intimate knowledge of the referenced locations, it should be written for a broader audience. The issues in the lower Mississippi River are national issues and the report shouldn't unduly hamper a reader with less geographic familiarity. Good location figures should be included.
- Each model description in Sections 5 and 6 should include simple descriptions of the model time step, calibration data set, and validation data set. This information can be found (or inferred) in the narratives, but it is sometimes confusing and laborious to piece together. Including the information in clear, discrete language as early as possible in the sections would help the reader.
- The report alternates between reporting changes in bed elevation and depths. To avoid confusion, changes should be reported as changes in elevation. This will eliminate any confusion regarding the direction of change.

Specific

Main Report

- p.2, Figure 1.1: This project area map could be much more detailed and show more relevant, referenced landmarks (e.g., Venice, West Bay Diversion, etc.). Use insets to show varying scales.
- p.3, Figure 1.2: This is a good example of a poor visual quality figure.

-p.9/10, sections regarding Issues D and E – see comments specific to “receiving area report” below, and provide reference or incorporate this work into the main report

- p.10, last para: "Kolker et al. (date)"
- p.11: **Why was bedload sampling not part of the ERDC data collection effort?**
- p.11, 5th bullet: "..., and samples for additional analyses at the same locations." Please clarify.
- p.12, 3rd para: It is not clear if real time discharge stations, sediment stations, or both are being referred to in this paragraph. A map showing the referenced stations would also be useful.
- p.12, 3rd para: "Given what has been recently learned about sediment storage..." Citation?
- p.12, 3rd para: "...six surveys within a single flood year." Can you explain what "flood year" means? Is this being used synonymously with "water year"?
- p.12: This section could benefit by including a simple table showing sample dates, sampling activities on those dates, etc.
- p.13, 1st para: The second paragraph on p. 12 makes it sound as if existing bathymetry would be used for this study.
- p.15, 1st para: The language here also appears to contradict the language on p.12 about using existing bathy.
- p.16: Figure 2.2: This figure should use the same reference points as Figure 2.3.
- p.32, Table 2.1: I think this table could be replaced with the simple table recommended above for p.12.
- p.37, 3rd para: Please explain the rationale for analyzing only the top 1 cm.
- p.45, Table 2.10: Table axes are reversed from the previous tables, which is confusing. Not clear why it is necessary.
- p.46, Figure 2.27 and 2.28: Clarify the units for the x-axes.
- p.49: "The cross sections are displayed from south (right side) to north (left side)..." I believe this is backwards. Isn't south on the left side?
- p.51, Figure 2.32 and 2.33: What are the units for the color ramps?
- p.56, Figure 38: Should this be "Figure 2-35"? Also, shouldn't the x-axis for the upper plot also be mg/L? Finally, consider using the same scale on the x-axis for both plots.
- p.57, last sentence: Again, clarify. If the orientation were as written (north on the left), aren't you looking into the LMR?
- p.62: Have a general figure showing the study area with the important reference points called out.
- p.63, 2nd bullet: What guided the reach partitioning?
- p.63, last para: Include a simple table showing stations, parameters, and periods of record.
- p.67: How do the data for the channel condition surveys compare with the comprehensive surveys where they overlap?
- p.69-72, Figures 3.1-3.4: Dashes in cross-section names could be mistaken to mean "negative"
- p.105, 1st para: Unless I am interpreting these plots incorrectly, Figures 3.34-3.40 appear to suggest that post-WBD accretion rates are less than pre-WBD accretion rates.
- p.105, 2nd para: How were the reaches chosen for the volumetric analyses?
- p.121, last para: "The curve for Reach PAA2a, the reach immediately downstream of West Bay diversion, does indicate a slight increase in the rate of bed elevation change observed after the

construction of the diversion in 2003." I'm not sure I completely agree with this interpretation of the Figure 3.56 plot.
- p.133, "Discharge Data Analysis" section: Show a basic map with stations.
- p.134, Figures 3.64-3.69: Axes and legends barely legible.
- p.141, Table 3.4: Show also the ERDC 2009 data for comparison.
- p.146, Figure 3.74: Choose colors that contrast more so the distinction between Very Fine Sand and Medium Sand can be detected.
- p.157, 2nd para: "For this study, an option was selected that preferentially deposits sediment with the dredging template before deposition is distributed..." How may this bias the PAA results?
- p.160, last para: This paragraph could be considerably clarified. How was sand transport by size class calculated at Vicksburg? How was sand transport measured at Union Point and Coochie?
- p.161, 4th para: Give NOAA gage #.
- p.162, Table 4.2: Isn't this the same as Table 3.4? Why not just reference that table?
- p.170, Table 4.6: I am not clear about the value of this (long) table.
- p.176: "...the sediment diversion concentration ratios used in the 1-dimensional model were derived from the ADH 2 dimensional model." So the field data weren't used at all to inform these model-derived estimates?
- p.176, Figure 4.3: The "Ratio of West Bay Diversion Flow to Venice Discharge" is in the legend but doesn't appear to be on the plot.
- p.182, first para: "...bed material gradations in the model were not modified." Meaning not modified from the original MVK model?
- p.188, first para: "This results in an overestimation..." How is this handled in the results?
- p.191-196: The text on these pages is very confusing and doesn't present the material in straightforward manner. Please try to clarify. Three examples follow.
- p.195, first para: "This interpretation must be tempered by remembering that the model is dredging the anchorage area every year..." But what exactly does this mean? Do you expect this results in a model estimate that is an overestimate or an underestimate?
- p.195, 2nd para: Isn't this confounded by the composite dredge template?
- p.196, first para: What does "total dredging" mean in this paragraph? Does it have two different meanings in two different places? Is the 1st use Total = PAA + NC and the 2nd use Total = NC only?
- p.197, first para: What is described here about how the model is simulating this reach, in particular the dredging, does not give one confidence. This is an area where a robust uncertainty analysis is needed, as is a better understanding of why the model is performing the way it does.
- p.199, last para: I think this conclusion about the 1-D model results should be caveated by some statement about the estimated error on account of the model's limitations for simulating dredging in the PAA reach (see other comments above for pages 197, 195, and 188).
- p.203, top of page: Reference to Appendix D appears in error.
- p.205, 2nd para, and Figure 5.4: Are the differences in the two hydrographs accounted for by losses at Bohemia, Morganza, Bonnet Carre, and Caernarvon?
- p.205, 3rd para: Doesn't the rest of the study use NGVD29?
- p.212: "The medium flow concentrations compare reasonably well." Perhaps that is so for this type of modeling, but the plots themselves do not appear to compare very well. Can you create a table

that shows the delta between modeled and observed in %?
- p.218, Figure 5.22: This is a good example of a very poor quality graphic.
- p.222, Figure 5.28 caption: Should this say "slug test run"?
- p.227, Figure 5.36: No legend to show what the colors mean?
- p.230, 2nd para: Another erroneous reference to Appendix D?
- p.232, last para: Is the 12 day simulation linked with any specific dates?
- p.232, last para: "...the model produced a favorable verification of suspended sediment." Same comment as above for p.212.

Receiving Area Analysis

General –this work should be referenced or exist as some sort of appendix to the West Bay Sediment Diversion Effects report and/or the format should more closely match that of the larger report; if that is not pursued, then consider including an executive summary that makes conclusions based on both reports (land change and bathymetry change) and cites that the work was task 8 in the work plan and how it helps inform the issues identified on p.4/5 of the Work Plan (Appendix A of main report); not enough conclusions based on what the group needs to inform management decisions, although we recognize that this work task is not near completion

-p. 2, TOC is somewhat confusing as this is two reports bundled together - consider adding “West Bay 1956 to 2009 Land Area Trends” just as the heading “Process Report” is called out in TOC; “Process Report” should be referenced as “West Bay Depth Analysis Process Report”; TOC needs page references updated

-p.18-20; these figures need to use the same increments so that the figures can be compared across years

-p22-24, need to better indicate units on diagram – assume cubic ft not feet – also includes commas for 1,000s to make it more readable; why are there “contour” lines on only figure 10?

-p.30, unclear what color difference represents – is this a delta between 2003 and 2009? Need units to differentiate what this means.

-p.31-39, this way of representing the figures makes it difficult to determine the various profiles across the years; while the color gradient is maintained within the yearly analysis, many profiles “bleed together”; is this the best way of representing this data?

Recommendations for next 6-month work phase

We think the chief task for the next phase of the work is to conduct a robust uncertainty analysis. Matt Collins of NMFS made the following comment on the workplan in March 2009 and is still interested to see this done:

"ERDC should therefore consider presenting an uncertainty analysis with their sedimentation/sediment transport predictions (as well as the other predictions). This will assist stakeholders with understanding the results. For example, if in attempts to address Issue B, ERDC presents estimates along the lines that approximately 80% of the shoaling below the West Bay diversion is attributable to the project and 20% is related to larger-scale issues, we'll want to know if their estimates are ± 50% or ± 20%, for example."

His understanding is that ERDC intends to do such an analysis in the next phase. Comments in **bold** above suggest some of the topics that should be looked at closely in an uncertainty analysis.

Additionally, the receiving area report(s) could use some serious attention, realizing that this was an interim product given the time of the early December review with elements outside the 6 month report scope. Many of the important management questions focus on the behavior within the receiving area, and the report writers need to focus on addressing the issues cited in the work plan from April 2009 on pages 4/5 and in incorporating the work between the “main” report and the “receiving area” report. Unless there is a specific reason to keep them separate, the reports should be consolidated as the work plan itself was, even if much of the “conclusions” are preliminary or remain so.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

STATUS OF UNCONSTRUCTED PROJECTS

For Report/Discussion:

The P&E will report on the status of unconstructed projects, including Weeks Bay Marsh Creation and Shoreline Protection Project/Fresh Water Redirection Project. The Task Force will consider approving the Technical Committee's recommendation to initiate procedures to deauthorize the PPL 12 Lake Borgne/MRGO Shoreline Protection Project (PO-32).

Projects On Schedule

Project Name	Project No.	Agency	PPL	Milestones
Sabine Refuge Marsh Creation, Cycle 4	CS-28-4	COE	8	Overall project was broken into five construction units. Task Force deferred construction funding approval for Cycles IV and V until construction of cycles II and II are complete. E&D 95% complete and environmental compliance complete. Plan to request construction approval for Cycle IV to meet Calcasieu Ship Channel FY 10 maintenance cycle in winter 2010.
Sabine Refuge Marsh Creation, Cycle 5	CS-28-5	COE	8	Project was broken into five construction units. Task Force deferred construction funding approval for Cycles IV and V until construction of cycles II and II are complete. E&D 95% complete and environmental compliance complete. Plan to request construction approval for Cycle IV to meet Calcasieu Ship Channel FY 10 maintenance cycle in winter 2011.
South Grand Chenier Hydrologic Restoration	ME-20	FWS	11	Engineering and design work is nearly complete. A 95% design review meeting is scheduled for November 3, 2009. Phase 2 request is planned for the January 2010 Task Force meeting.
Venice Ponds Marsh Creation & Crevasses	MR-15	EPA	15	
East Marsh Island Marsh Creation	TV-21	EPA/NRCS	14	Project Team has sent the proposed project to DOA for bidding. It is anticipated that the pre-bid and bid will be in November 2009, and the NTP will be issued in early 2010.
South Shore of the Pen	BA-41	NRCS	14	Advertised construction contract in October 2009.
Bayou Sale Shoreline Protection	TV-20	NRCS	13	Project reduced scope eliminating 123 acres of marsh due to borrow complications. Geotechnical Investigations will begin soon. Results will determine appropriate engineering solutions for shoreline protection. Many pipelines.

Projects Delayed by Project Delivery Team Issues

Project Name	Project No.	Agency	PPL	Project Issue Delays	Critical Milestone(s)	Current Phase
Grand Lake Shoreline Protection, O&M Only [CIAP]	ME-21b	COE	11	CSA	The actual cost estimate for the different work segments are not consistent with the way the Task Force broke the project up when approved for construction. CWPPRA invested $6,300,000 in the first three yrs of O&M for both segments. As of Aug 09 the CIAP program has started construction on the CIAP reach. The Tebo Point portion has yet to be built. Before proceeding with the O&M event a CSA would have to be signed.	II
Grand Lake Shoreline Protection, Tebo Point	ME-21a	COE	11	CSA	• The Tebo Point portion will have to be built separately. It is highly unlikely that the CWPPRA Tebo Point portion will be under the approved $2.7 M amount, 4 yrs later. • Over the last two yrs Tebo Point portion has been on hold pending approval of the Cost Share Agreement, which is presently being negotiated between the State and the USACE. The CWPPRA SOP states that if a project does not go to construction in two yrs the Task Force could ask that the funds be returned to the program. The project will continue to be on hold until the CSA issue is resolved.	II
Avoca Island Diversion and Land Building	TE-49	COE	12	Project features/ CSA	Potential Change in project scope for dedicated dredging marsh creation being considered. Decision to change scope and move toward 30% design review pending resolution of OCPR's geotechnical concerns and concurrence on final project features. Lack of CSA between COE and OCPR limiting progress somewhat.	I
Fort Jackson Sediment Diversion (complex project)	NA	COE			Meet with LDNR to discuss if the project is in the State's Master Plan, and if it is still a viable and fundable project in the CWPPRA program, if not the project would be closed out. The project will need to develop final fully funded cost estimate and revise WVA if the project would request Phase I funding in the future.	0
North Lake Boudreaux Basin Freshwater Intro and Hydro Mgt	TE-32a	FWS	6	Project Features	Delays due to E&D of forced drainage feature which will now be permitted with restoration measures. EA Review in Jan 2010, 95% Design Review in Mar2010, and Funding request in April 2010	N/A
Lake Hermitage Marsh Creation	BA-42	FWS	15	Landrights	Since receiving Phase 2 approval in January 2009, the project has encountered landrights problems which will prevent going to construction in 2009. At best, the project will go to construction in summer 2010.	2
Small FW Diversion to the NW Barataria Basin	BA-34	EPA	10	Modeling Results	The primary landowner is now fully supportive of the project and has given approval to continue Phase I studies. Hydrodynamic modeling results should be available soon. Upon completion of modeling results, next steps will be to confirm project viability/feasibility, revise general project features and cost estimate if necessary, and initiate E&D work.	I
River Reintroduction into Maurepas Swamp	PO-29	EPA	11	Gap Analysis	30% Design Review in July 08, 95% Design Review in Dec 11, Request Phase II in Jan 13. EPA, OCPR and COE working on details to perform "Gap Analysis" to determine what is needed should the project be moved to LCA.	
White Ditch Resurrection	BS-12	NRCS	14		2005 - 2008 – Setbacks include impacts and changes to hydrology associated with Hurricanes Katrina, Rita, and Gustav. Project Team is developing surveying, geotechnical investigations, and modeling requirements necessary to proceed to 30% design review. Project is scheduled to request Phase II funding at the January 2012 Task Force Meeting.	
West Pointe a la Hache Outfall Management	BA-04c	NRCS	3	Scope Change in Past	Surveys completed, geotechnical analysis underway. Project is scheduled to request construction approval in January 2011.	
Penchant Basin Natural Resources Plan, Incr 1	TE-34	NRCS	6	Scope Change in Past	Project is ready to be advertised for construction, pending agency authorization for new fiscal year.	
Little Pecan Bayou Hydrologic Restoration	ME-17	NRCS	9	Landowner concerns in Past	Design surveys are completed. The project will not perform geotechnical investigation as previously scheduled, instead the analysis for ME-20 will be used. Pipeline coordination ongoing. Anticipated date of 30% review is June 2010. Phase II funding request in January 2011.	I
South Lake Decade Freshwater Introduction	TE-39	NRCS	9		Project scheduled to be advertised in November 2009.	
South Pecan Island FW Intro	ME-23	NMFS	15	Landrights	The project design team is concluding the 95% Design and NEPA compliance. The projected completion for both is December 2009.	
Riverine Sand Mining/Scofiekd Island Restoration	BA-40	NMFS	14	Scope Change	Preliminary Design review delayed until January/February 2010.	
Barataria Barier Shoreline, Pelican Island to Chaland Pass (CU2)	BA-38	NMFS	11	Landrights/ Oysters	Spring construction contract advertisement	

Projects Delayed by Programmatic Issues (e.g., CSAs, Induced Shoaling, Funding Availability)

Project Name	Project No.	Agency	PL	Issue Category	Critical Milestone(s)	Current Phase
Delta Building Diversion North of Fort St. Philip	BS-10	COE	10	Emergency Closure Plan/Induced Shoaling Issue/CSA	Corps proposed an emergency closure plan in draft O&M plan. DNR objects to this and indicated that they do not wish to move forward with completing design review requirements for the project until the overall programmatic issue on "induced shoaling" is resolved. Project otherwise ready for 95% design review.	I
Spanish Pass Diversion	MR-14	COE	13	CSA	Benefits to be realized changed from 334 to 190 acres. A smaller diversion is proposed along with dedicated dredging/marsh creation to result in an equivelent amount of acreage as originally proposed. Lack of CSA between Corps and DNR limiting project progress.	I
Freshwater Bayou Bank Stab - Belle Isle Canal to Lock	TV-11b	COE	9	CWPPRA Program Funding Limitations	2007 WRDA Authorization for 16 ft channel depth and may not include shoreline stabilization Will seek construction authorization in January 10 from CWPPRA Task Force for the 5th time since Fall 2004.	I
Ship Shoal: Whiskey West Flank Restoration	TE-47	EPA	11	CWPPRA Program Funding Limitations	Phase 1 E&D has been completed, but the project has yet to be selected for Phase 2 construction funding. EPA & OCPR are in the process or resurveying the island to verify whether revisions are required to the current plans and specifications. The survey is planned for after the 2009 Hurricane Season. Results of the survey could determine the direction of the project. The sponsors will prepare the current project for another Phase 2 request in January 2010.	I
GIWW Bank Rest of Critical Areas in Terrebonne	TE-43	NRCS	10	CWPPRA Program Funding Limitations	Will seek construction authorization in January 10 from CWPPRA Task Force for the 4th time	I
Rockefeller Refuge Gulf Shoreline Stabilization	ME-18	NMFS	10	CWPPRA Program Funding Limitations	Prototype test sections will be conducted under CIAP. When analysis of monitoring complete in August 2010, will pursue full project implementation under CWPPRA based on results.	I

Projects Recommended for Deauthorization or Transfer to Other Program

Project Name	Project No.	Agency	PL	Transfer or Deauthorize	Reason(s) for Potential De-authorization
Lake Borgne and MRGO Shoreline Protection	PO-32	COE	12	MRGO Rest. Plan/CSA	MVN Operations Division constructed Lake Bornge reach using 3rd supplemental funds. MRGO Deauthorization Study, Chief's Report DNR is expected to fund 100% of the O&M on this segment. With the closure of the MRGO channel, the portion along the north bank of the MRGO between Doullut's Canal and Lena Lagoon is being evaluated as a part of the MRGO Restoration Plan. The USACE recommends that this portion of the project be placed on hold until after MRGO Restoration Plan has been finalized. A determination will be made at that time on whether or not to request Phase II funding.
Benneys Bay Diversion	MR-13	COE	10	Induced Shoaling/CSA	95% Design submitted to LDNR in October 2006. Project delayed by LDNR disagreement with the overall O&M funding approach associated with induced sholing in the Mississippi River.
Weeks Bay MC/SP/Commercial Canal/FW Redirection	TV-19	COE	9	Deauthorize	Extensive study of the area conducted under numerous authorities failed to find sufficient environmental benefits to justify the project. As a result of project cost increases, there is no longer a constructable/ cost-effective project. Task Force had given local interest until Spring 2008 to test effectiveness of HESCO baskets as shoreline protection. It was indicated that the HESCO basket demonstration failed. The Project delivery team provided local interest with all technical engineering data collected under the CWPPRA Program. Local interest decided to initiate a redesign and engineering of the project using restoration techniques addressed in the Value Engineering Study (VES) for the Weeks Bay project (TV-19). The Technical Committee has requested that the local interest provide a six month progress report at the December 2009 Technical Committee and the January 2010 Task Force meeting.
Brown Lake Hydrologic Restoration (PENDING DEAUTH)	CS-09	NRCS	2	Deauthorize	Landowners refused to accept project change from hydrologic restoration to terraces, and therefore no longer support the project. Deauthorization procedures began at October 2009 Task Force meeting.

Projects with Phase II Estimate > $50 Million

Project Name	Project No.	Agency	PPL	Phase I Estimate	Phase II Estimate	Total Estimate*
Benneys Bay Diversion	MR-13	COE	10	$1,076,328	$52,626,553	$53,702,881
Fort Jackson Sediment Diversion (Complex Project)	NA	COE	N/A	$7,447,505	$101,409,795	$108,857,300
River Reintroduction into Maurepas Swamp	PO-29	EPA	11	$6,780,307	$171,346,693	$178,127,000
Ship Shoal: Whiskey West Flank Restoration	TE-47	EPA	11	$3,114,433	$57,142,254	$60,256,687
Rockefeller Refuge Gulf Shoreline Stabilization	ME-18	NMFS	10	$2,408,478	$94,058,749	$96,467,227
				$20,827,051	$476,584,044	$497,411,095

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

19th PRIORITY PROJECT LIST

For Discussion/Decision:

The Environmental Workgroup Chairman will present an overview of four candidate projects being recommended by the Technical Committee for PPL 19 and Phase I approval.

Technical Committee's Recommendation:

The Technical Committee recommends Phase I funding approval in the amount of $10,736,747 for four candidate projects:

- Lost Lake Marsh Creation and Hydrologic Restoration, $2,320,214
- Freshwater Bayou Marsh Creation, $2,425,997
- LaBranche East Marsh Creation, $2,571,273
- Cheniere Ronquille Barrier Island Restoration, $3,419,263

CWPPRA PPL19 Technical Committee VOTE

2-Dec-09

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score	Phase I Fully Funded Cost	Cumulative Phase I Fully Funded Cost	Phase II Fully Funded Cost	Cumulative Phase II Fully Funded Cost	Total Fully Funded Cost
3	Lost Lake Marsh Creation and Hydrologic Restoration	2	3	2	6	6	1	6	20	$2,320,214	$2,320,214	$20,623,652	$20,623,652	**$22,943,866**
4	Freshwater Bayou Marsh Creation	3	5	4		2	6	5	20	$2,425,997	$4,746,211	$23,097,758	$43,721,410	**$25,523,755**
1	LaBranche East Marsh Creation	4	2	3	2		5	5	16	$2,571,273	$7,317,484	$29,752,018	$73,473,428	**$32,323,291**
2	Cheniere Ronquille Barrier Island Restoration		6	5	1	4		4	16	$3,419,263	$10,736,747	$40,409,022	$113,882,450	**$43,828,285**
4	Cameron-Creole Watershed Grand Bayou Marsh Creation	6	1		5	1		4	13	$2,101,653		$21,278,833		
1	Fritchie Marsh Terracing and Marsh Creation	1			4	5	2	4	12	$2,430,448		$21,843,206		
2	Monsecour Siphon			6			4	2	10	$1,873,637		$8,734,268		
2	Breton Marsh Restoration	5			3			2	8	$1,507,397		$13,092,258		
2	Bayou Dupont to Bayou Barataria Marsh Creation		4				3	2	7	$2,536,927		$35,094,623		
2	Dedicated Sediment Delivery and Water Conveyance for Marsh Creation Near Big Mar			1		3		2	4	$2,143,994		$18,299,398		
									Total	$23,330,803		$232,225,036		

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

Priority Project List Number 19
Candidate Projects

Public Meetings – November 2009

Abbeville	New Orleans
November 17th	November 18th

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APPENDIX A

PRIORITY LIST 19 SELECTION PROCESS

Coastal Wetlands Planning, Protection and Restoration Act Guidelines for Development of the 19th Priority Project List Final

I. Development of Supporting Information

A. COE staff prepares spreadsheets indicating status of all restoration projects (CWPPRA PL 1-18; 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 1-18; 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 2009.
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) meet, examine basin maps, discuss areas of need and Coast 2050 strategies, and accept nomination of projects by hydrologic basin. Nominations for demonstration projects will also be accepted at the four RPT meetings. The RPTs will not vote at their individual regional meetings, rather voting will be conducted during a separate coast-wide meeting. At these initial RPT meetings, parishes will be asked to identify their official parish representative who will vote at the coast-wide RPT meeting.

B. One coast-wide RPT voting meeting will be held after the individual RPT meetings to vote for nominees (including demonstration project nominees). The RPTs will select three projects in the Terrebonne, Barataria, and Pontchartrain Basins based on the high loss rates (1985-2006) in those basins. Two projects will be selected in the Breton Sound, Teche/Vermilion, Mermentau, Calcasieu/Sabine, and Mississippi River Delta Basins. Because of 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 the coast-wide RPT voting meeting, the Environmental and Engineering Work Groups will screen each demonstration project nominated at the RPT meetings. Demonstration projects will be screened to ensure that each meets the qualifications for demonstration projects as set forth in 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 should 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. Environmental and Engineering Work Groups apply the Prioritization Criteria and develop prioritization scores for each candidate project.

H. 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), cost effectiveness (average annual cost/AAHU), and the prioritization score.

3) qualitative discussion of supporting partnerships and public support; and

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

VI. Selection of 19th Priority Project List

A. The selection of the 19th PPL will occur at the Winter Technical Committee and Task Force meetings.

B. Technical Committee meets and considers matrix, Project Information Sheets, and pubic comments. The Technical Committee will recommend up to four projects for

selection to the 19th PPL. The Technical Committee may also recommend demonstration projects for the 19th PPL.

C. The CWPPRA Task Force will review the TC recommendations and determine which projects will receive Phase 1 funding for the 19th PPL.

19th Priority List Project Development Schedule (dates subject to change)

December 2008	Distribute public announcement of PPL19 process and schedule
December 3, 2008	Winter Technical Committee Meeting, approve Phase II Baton Rouge)
January 21, 2009	Winter Task Force Meeting (New Orleans)
January 27, 2009 January 28, 2009 January 29, 2009	Region IV Planning Team Meeting (Rockefeller Refuge) Region III Planning Team Meeting (Morgan City) Regions I and II Planning Team Meetings (New Orleans)
February 18, 2009	Coast-wide RPT Voting Meeting (Baton Rouge)
February 19- March 13, 2009	Agencies prepare fact sheets for RPT-nominated projects
March 24-25, 2009	Engineering/ Environmental work groups review project features, benefits & prepare preliminary cost estimates for nominated projects (Baton Rouge)
March 26, 2009	P&E Subcommittee prepares matrix of nominated projects showing initial cost estimates and benefits
April 15, 2009	Spring Technical Committee Meeting, select PPL19 candidate projects (New Orleans)
May/June/July	Candidate project site visits
June 3, 2009	Spring Task Force Meeting (Lafayette)
July/August/ September	Env/Eng/Econ work group project evaluations
September 9, 2009	Fall Technical Committee Meeting, O&M and Monitoring funding recommendations (Baton Rouge)
October 14, 2009	Fall Task Force meeting, O&M and Monitoring approvals, announce PPL 19 public meetings (New Orleans)
October 14, 2009	Economic, Engineering, and Environmental analyses completed for PPL19 candidates
November 17, 2009	PPL 19 Public Meeting (Abbeville)
November 18, 2009	PPL 19 Public Meeting (New Orleans)
December 2, 2009	Winter Technical Committee Meeting, recommend PPL19 and Phase II approvals (Baton Rouge)
January 20, 2010	Winter Task Force Meeting, select PPL19 and approve Phase II requests (New Orleans)

PPL19 Fritchie Marsh Terracing and Marsh Creation

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

Project Location:
Region 1, Pontchartrain Basin, St. Tammany Parish, within the Fritchie Marsh watershed bordered by Hwy 90.

Problem:
Although the CWPPRA PO-06 project was completed in 2001 and resulted in improved hydrology and marsh restoration throughout the area, a significant portion of the Fritchie Marsh was lost due to Hurricane Katrina. This once stable land mass was severely damaged by the passing storm that in some locations marsh was stacked over nine feet high along the tree line. Now shallow open water areas dominate the landscape which reduces the effectiveness of the PO-06 project. Wetlands in the project vicinity are being lost at the rate of –1.31%/year based on USGS data from 1985 to 2006. These marshes cannot recover without replacement of lost sediment, which is critical if the northshore marshes are to be sustained.

Goals:
Project goals include 1) creating 400 acres of intermediate marsh, 2) creating 130,000 linear feet of vegetated, earthen terraces, 3) reducing wave fetch and erosion of adjacent interior marshes, and 4) improving tidal connection and ingress/egress of marine organisms within the marsh creation area.

Proposed Solution:
The project will construct approximately 400 acres of marsh platform, with 270 acres being created south of Salt Bayou in the southeastern corner of the Fritchie watershed, and 130 acres being created just north of Salt Bayou adjacent to the terrace field. Additionally, 130,000 linear feet of earthen terraces occupying 1,200 acres of open water will be constructed just north of Salt Bayou. Approximately 2 million cubic yards of material will be dredged from Lake Pontchartrain to build the marsh. The containment dikes will be degraded within three years of construction to allow for tidal exchange. The terraces are proposed with ten foot crowns and +3 ft elevation. The terraces will be planted immediately following compaction of the soil.

Project Benefits:
The project would benefit 1726 acres of brackish fresh marsh and open water. Approximately 449 net acres of intermediate marsh would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 24,273,654.

Preparer(s) of Fact Sheet:
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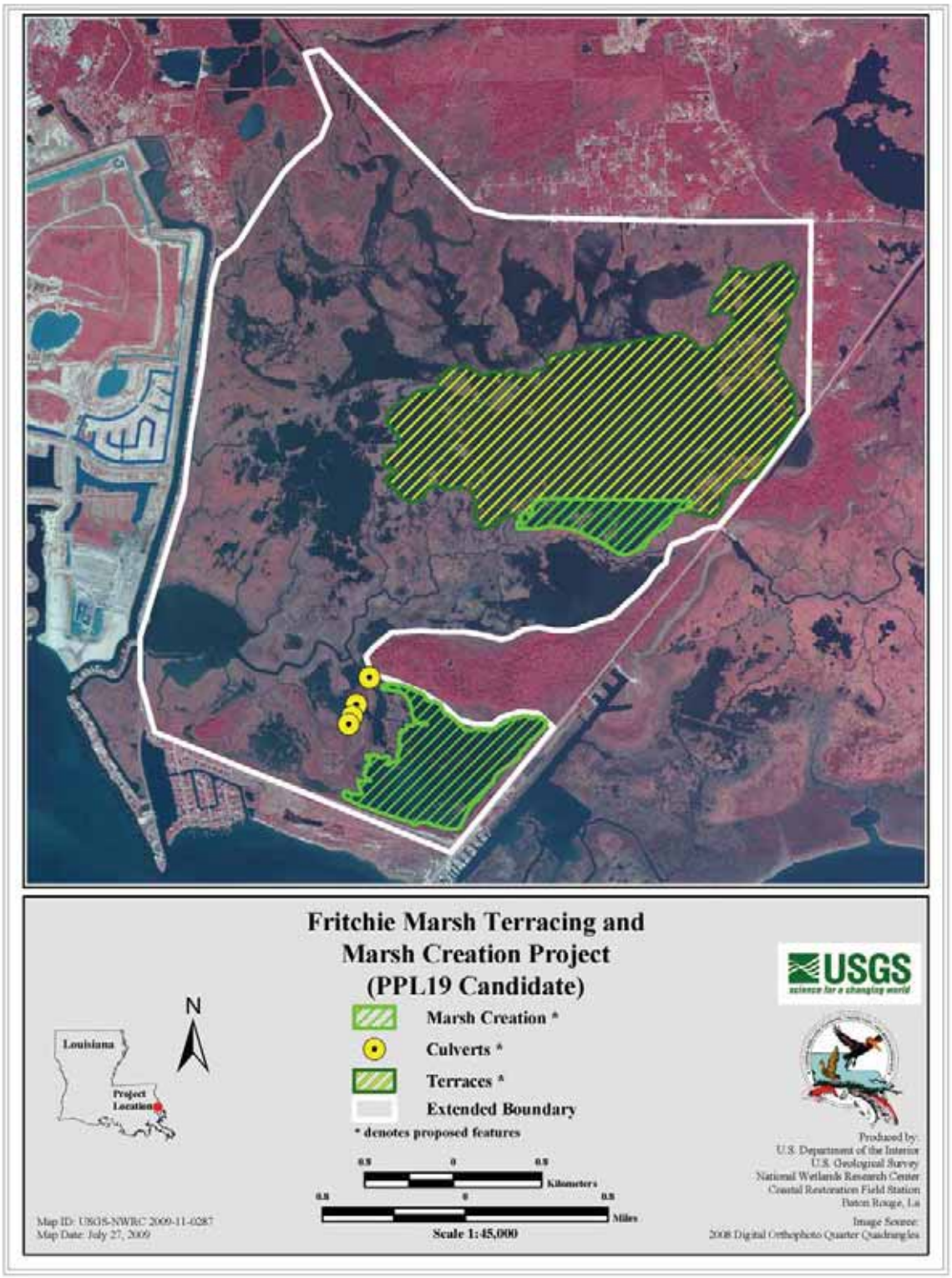
cheryl.brodnax@noaa.gov


Fritchie Marsh Terracing and
Marsh Creation Project
(PPL19 Candidate)
Marsh Creation *
Culverts *
Terraces *
Extended Boundary
* denotes proposed features
Louisiana
Project Location
N
0.5 0 0.5
Kilometers
0.5 0 0.5
Miles
Scale 1:45,000
USGS
science for a changing world
Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2008 Digital Orthophoto Quarter Quadrangles
Map ID: USGS-NWRC 2009-11-0287
Map Date: July 27, 2009

PPL19 LaBranche East Marsh Creation

Coast 2050 Strategy:
Coastwide Common Strategies: Dedicated Dredging for Wetlands Creation, Vegetative Planting, and Maintain or Restore Ridge Functions
Region 1 Regional Ecosystem Strategies: Dedicated delivery of sediment for marsh creation;
Region 1 Mapping Unit Strategies: Dedicated Dredging

Project Location:
Region 1, Pontchartrain Basin, St. Charles Parish, between Lake Pontchartrain and I-10, bounded to the west by the Fall Canal and the initial Bayou LaBranche Wetland Creation Project (PO-17) and to the east by a pipeline canal.

Problem:
Dredging of access/flotation canals for construction of I-10 resulted in increased salinity & altered hydrology that exacerbated conversion of wetland vegetation into shallow open water bodies.

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

Proposed Solution:
Proposed solution consists of the creation of ± 729 acres of marsh and the nourishment of ± 202 acres of existing marsh using dedicated dredging from Lake Pontchartrain. In addition, 10,000 linear ft of tidal creeks would be created by pre-dredging water bottom before dredge material is placed. The marsh creation area would have a target elevation the same as average healthy marsh. It is proposed to place the dredge material in the target area with the use of low level retention dikes along the edge of the project area allowing overtopping of material to nourish the marsh fringe. Vegetative plantings would be utilized in the areas designated to be emergent marsh. Either ¼ of the area would be planted at full density or ¼ the density would be planted over the entire acreage.

Project Benefits:
This project would benefit 931 acres of intermediate marsh and open water. The project will result in 715 net acres of marsh over the 20-year project life.

Project Cost:
The total fully funded cost for the project is $ 32,323,291.

Preparer(s) of Fact Sheet:
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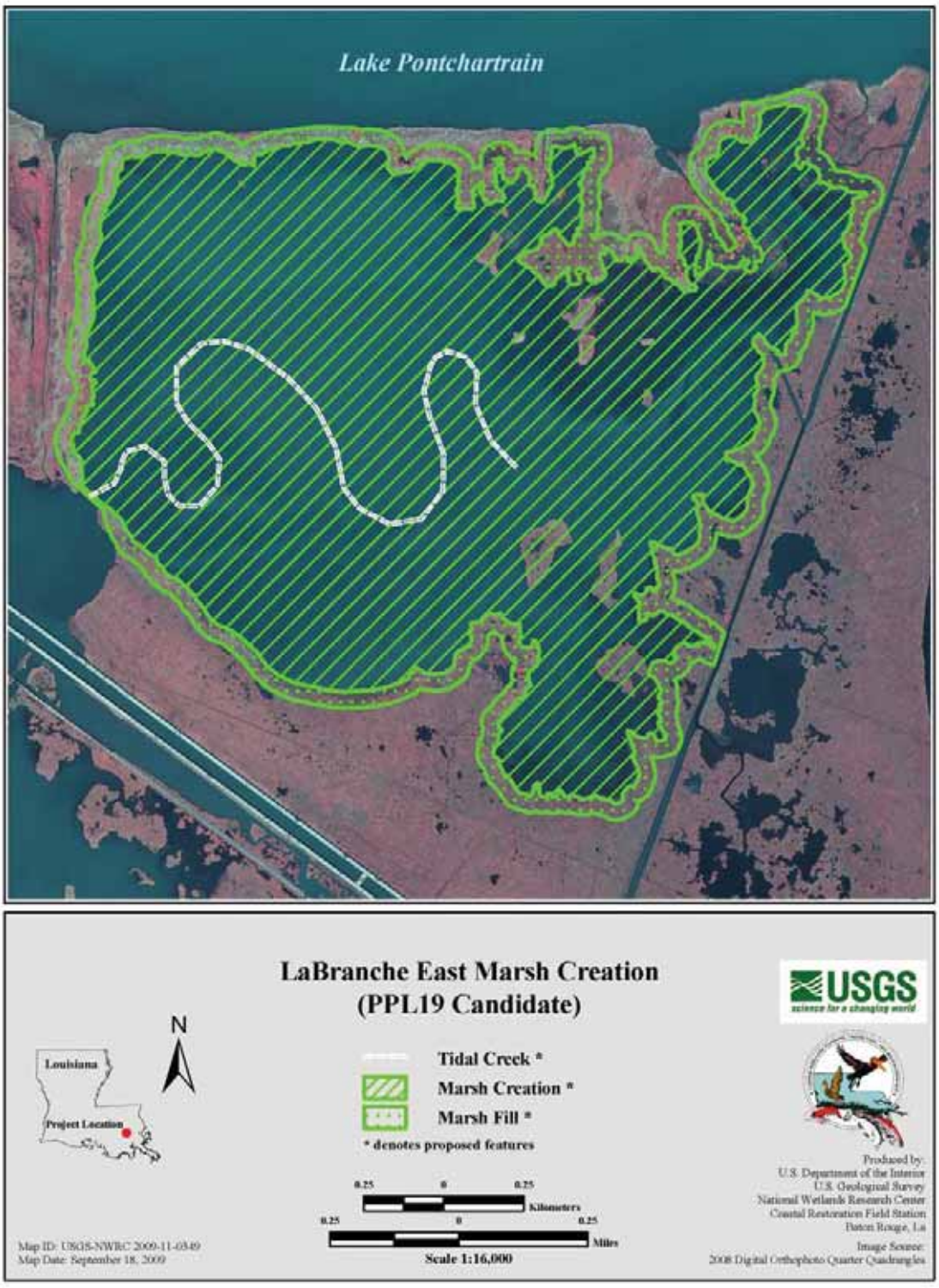
Ed Fike, agent for St. Charles Land Syndicate, 225-383-7455 x128, efike@coastalenv.com


Lake Pontchartrain
LaBranche East Marsh Creation
(PPL19 Candidate)
USGS
science for a changing world
N
Louisiana
Project Location
Tidal Creek *
Marsh Creation *
Marsh Fill *
* denotes proposed features
0.25
0
0.25
Kilometers
0.25
0
0.25
Miles
Scale 1:16,000
Map ID: USGS-NWRC 2009-11-0349
Map Date: September 18, 2009
Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2008 Digital Orthophoto Quarter Quadrangles

PPL19 Monsecour Siphon

Coast 2050 Strategy:
Coastwide Common Strategies: Diversions and river discharge; Management of diversion outfall for wetland benefits.
Region 2 Regional Ecosystem Strategies: Restore and Sustain Marshes; Construct most effective small diversions.

Project Location:
Region 2, Breton Sound Basin, Plaquemines Parish, north of Phoenix, LA.

Problem:
This area has been disconnected from the Mississippi River since levees were constructed during the early 20th century. The lack of overbank flooding/crevasses ensures that wetlands here do not have sufficient sediment input to maintain elevation against subsidence. In addition, drainage canals and oil and gas canals and associated spoil banks probably create some undesirable impoundment and tidal scour/saltwater intrusion in the area. In addition to impoundment caused by canals and spoil banks, the area is probably somewhat naturally impounded due to natural ridges. Aerial photography clearly demonstrates the significant loss of marsh in this area.

Goals:
The project goal is to reduce wetland loss rates by reintroducing an average of 1,145 cfs, and a maximum of 2,000 cfs, of Mississippi River water into the project area to increase sediment and nutrient loading.

Proposed Solution:
Construct a siphon from the Mississippi River, with 2000 cfs maximum capacity (estimated average flow=1145 cfs). The project may require additional features for delivery and outfall management.

Project Benefits:
The project would benefit 12,255 acres of intermediate marsh and open water. Approximately 990 net acres of intermediate and/or fresh marsh would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 10,607,905.

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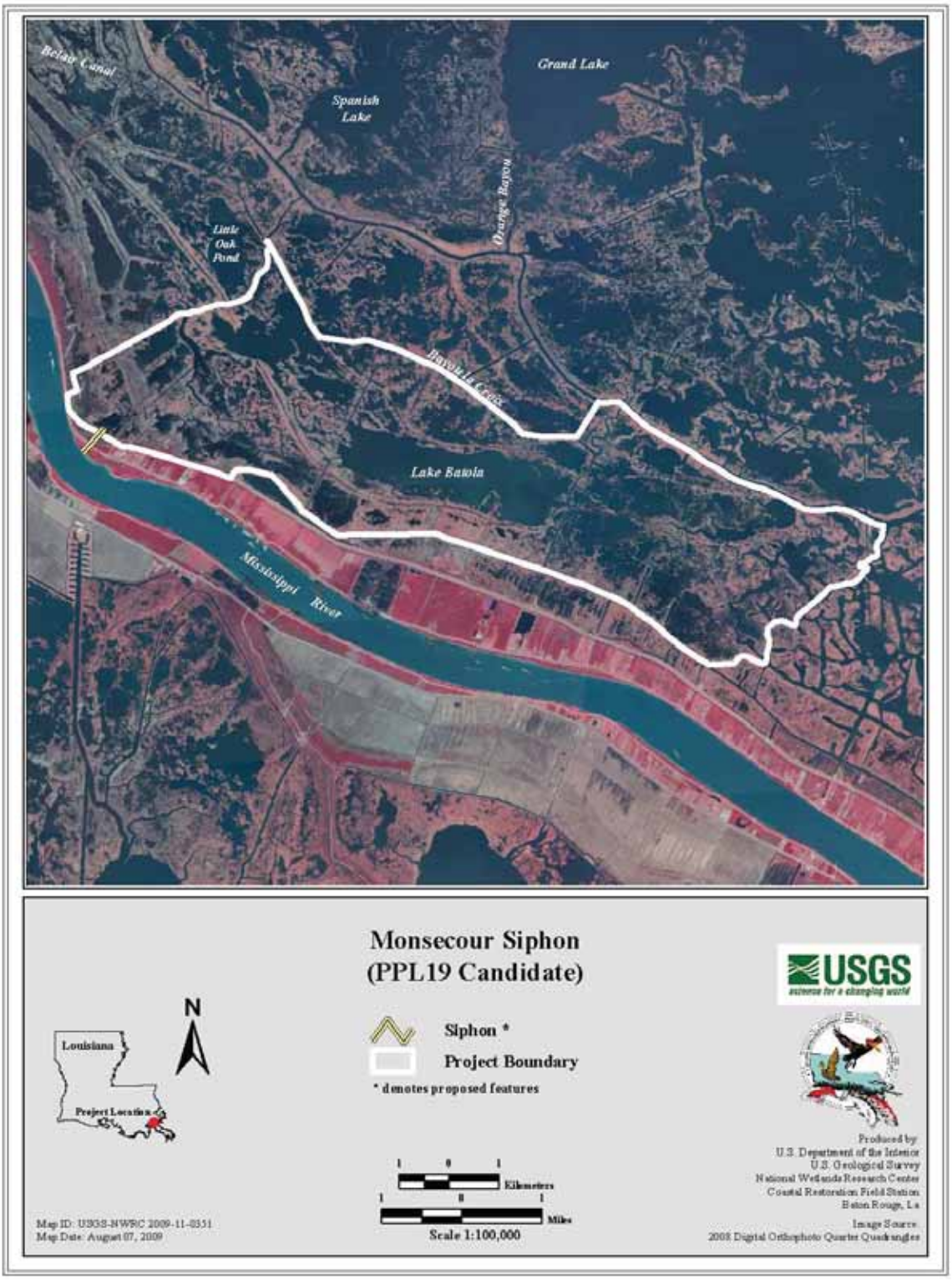
Belair Canal
Spanish Lake
Grand Lake
Orange Bayou
Little Oak Pond
Bayou Cross
Lake Batola
Mississippi River
Monsecour Siphon
(PPL19 Candidate)
Siphon *
Project Boundary
* denotes proposed features
Louisiana
Project Location
N
Kilometers
Miles
Scale 1:100,000
USGS
science for a changing world
Produced by
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source
2008 Digital Orthophoto Quarter Quadrangles
Map ID: USGS-NWRC 2009-11-0551
Map Date: August 07, 2009

PPL19 Dedicated Sediment Delivery and Water Conveyance for Marsh Creation Near Big Mar

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

Project Location:
Region 2, Breton Sound Basin, Plaquemines Parish, the marsh creation is located along the western shoreline of Lake Lery and the conveyance channel is located within Big Mar.

Problem:
The upper Breton Sound marshes have long been subjected to subsidence, salt water intrusion, altered hydrology, and storm damage. After the passing of Hurricane Katrina in 2005, the Breton Sound marshes were devastated and land loss rates increased in the upper sound from 0.69%/yr to 1.74%/yr (USGS). The Caernarvon Freshwater Diversion Project is helping to reverse land loss in this area; however, as Big Mar fills in, flow that used to go down Delacroix Canal and into the marshes southwest of Big Mar is now mostly taking the path of least resistance into Lake Lery. Furthermore, the shoreline of Lake Lery is almost indistinguishable where the lake is coalescing with hundreds of acres of open water. Reestablishment of the Breton Sound marshes is dependent upon the direct reconstruction of lost marsh, reestablishing the lake rim, and optimizing the flow and outfall of the Caernarvon structure.

Goals:
Project goals include, 1) creating approximately 434 acres of fresh to intermediate marsh via dredging the center of Lake Lery, 2) excavating a channel 7,850 ft long, 75 ft bottom width, and 7 ft deep through the Big Mar to facilitate Caernarvon outfall to 6,300 acres of marshes west and southwest of Big Mar, and 3) reducing the loss rate of adjacent interior marshes.

Proposed Solution:
Project features include approximately 434 acres of marsh creation via dredging from Lake Lery. In addition, a 7,850 ft long conveyance channel will be dredged from the northeast confluence of Caernarvon Canal and Big Mar to near the southwest corner of Big Mar where it joins with Delacroix Canal. The excavated material will be beneficially used to build marsh in the Big Mar. Construction of this channel will help redirect flow from the Caernarvon diversion to the southwest wetlands of upper Breton Sound.

Project Benefits:
The project would benefit 6,311 acres of fresh marsh and open water. Approximately 853 net acres of marsh would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 20,443,392.

Preparer(s) of Fact Sheet:
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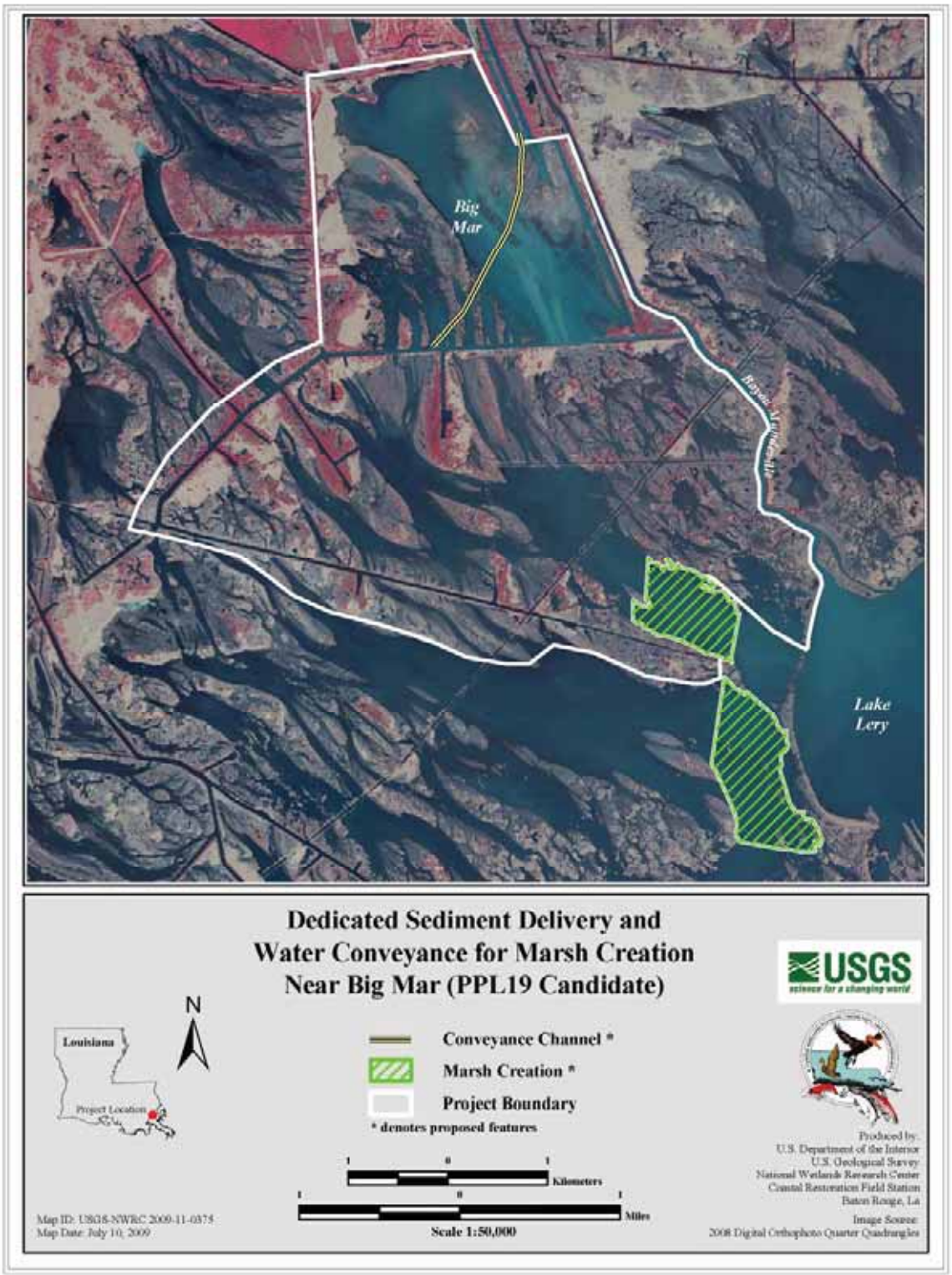
Big Mar
Lake Lery
Dedicated Sediment Delivery and
Water Conveyance for Marsh Creation
Near Big Mar (PPL19 Candidate)
USGS
science for a changing world
N
Louisiana
Project Location
Conveyance Channel *
Marsh Creation *
Project Boundary
* denotes proposed features
1 0 1
Kilometers
1 0 1
Miles
Scale 1:50,000
Map ID: USGS-NWRC 2009-11-0375
Map Date: July 10, 2009
Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2008 Digital Orthophoto Quarter Quadrangles

PPL19 Breton Marsh Restoration

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

Project Location:
The project area is located in Region 2, Breton Basin, Plaquemines Parish, southeast of Delacroix, LA.

Problem:
A major cause of loss in the Region 2, Caernarvon Mapping Unit has been storm related. Prior to Katrina the greatest land loss (6,560 acres) occurred from 1956-1974 and coincided with Hurricane Betsy and extensive canal building. It is estimated that 40.9 square miles of marsh were converted to open water in the Breton Sound Basin as a result of Hurricane Katrina in 2005. Land loss rates for this area are currently estimated at –2.5%/year based on USGS data from 1985 to 2006.

Goals:
The goal of this project is to restore marsh that was damaged by Hurricane Katrina in 2005. Reestablishing this marsh will help to restore the western shoreline of Bayou Gentilly and moderate the effects of the brackish waters from the Black Bay system moving north into the more intermediate marshes. Initial project construction includes the creation of 337 acres and nourishment of 99 acres of brackish marsh.

Proposed Solution:
Approximately 337 acres of marsh will be restored and 99 acres of marsh will be nourished through hydraulic dredging. It is estimated that 1.6 million cubic yards of material would be dredged hydraulically from Lake Lery and pumped via pipeline to create marsh. Dredged material would be pumped into containment dikes to achieve an average height of 1.4 ft NAVD 88. Tidal creeks will be constructed prior to placement of dredge material and retention levees would be gapped for estuarine fisheries access and to achieve a functional marsh.

Project Benefits:
The project would benefit 436 acres of brackish marsh and open water. Approximately 275 acres of brackish marsh would be created/protected over the 20-year project life.

Preliminary Construction Costs:
The total fully-funded cost for the project is $ 14,599,655.

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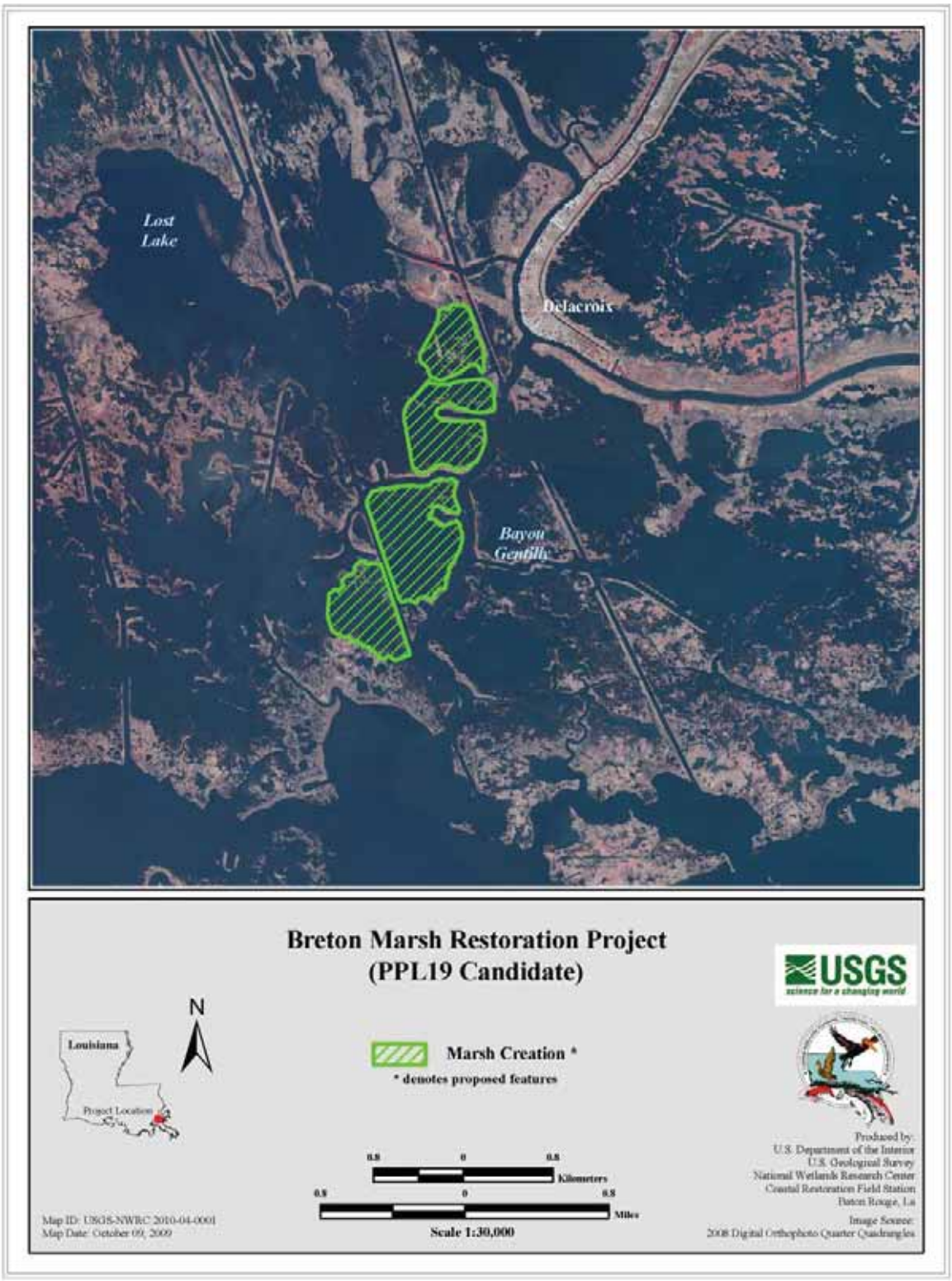
Lost Lake
Delacroix
Bayou Gentilly
Breton Marsh Restoration Project
(PPL19 Candidate)
USGS
science for a changing world
N
Louisiana
Project Location
Marsh Creation *
* denotes proposed features
0.8 0 0.8
Kilometers
0.8 0 0.8
Miles
Scale 1:30,000
Map ID: USGS-NWRC 2010-04-0001
Map Date: October 09, 2009
Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2008 Digital Orthophoto Quarter Quadrangles

PPL19 Bayou Dupont to Bayou Barataria Marsh Creation

Coast 2050 Strategy:
Region 2 Regional Strategy#26. Dedicated dredging to create marsh on the land bridge.

Project Location:
Region 2, Barataria Basin, Jefferson Parish, extending southward from the PPL17 Bayou Dupont Project (BA-48) to the Bayou Barataria ridge.

Problem:
The marshes located between Bayou Dupont and Bayou Barartaria are very deteriorated. The deteriorated marsh, along with numerous canals, allows a level of tidal exchange that is considerably greater than historic conditions.

Goals:
The proposed project will re-establish a landmass between Bayou Dupont and Bayou Barataria, aid in storm surge reduction, provide bottomland hardwood habitat, and partially restore the area's hydrology.

Proposed Solution:
Approximately 311 acres of marsh creation, 200 acres of marsh nourishment, and 19 acres of bottomland hardwood ridge restoration would be performed using dredged material. Target marsh creation and nourishment height is 1.4 NAVD88. Marsh creation containment dikes will be breached as needed to re-establish tidal exchange at about year 3 post construction.

The ridge perimeter containment dike will be constructed to height of 8.0 NAVD88, have a crest width of 5 feet, and outside slope of 6:1, and inside side slope of 4:1. Inside the containment dike, the ridge restoration target elevation is 6.0 NAVD88. Above 3.0 NAVD88, the ridge will be planted to bottomland hardwood tree species. The outside containment dike toe (below 3.0 NAVD88) with be planted with marsh species.

Along the east bank of the Barataria Bay Waterway, approximately 1,740 feet of rock dike bankline protection will be constructed. The rock dike will be constructed to a height of 4.0 NAVD88, with a crest width of 4 feet and side slopes of 2:1.

Project Benefits:
The project will result in 513 acres of created/nourished marsh and 17 acres of bottomland hardwood ridge restoration, resulting in 292 net acres over the project life.

Project Costs:
The total fully funded cost for the project is $ 37,631,550.

Preparer(s) of Fact Sheet:
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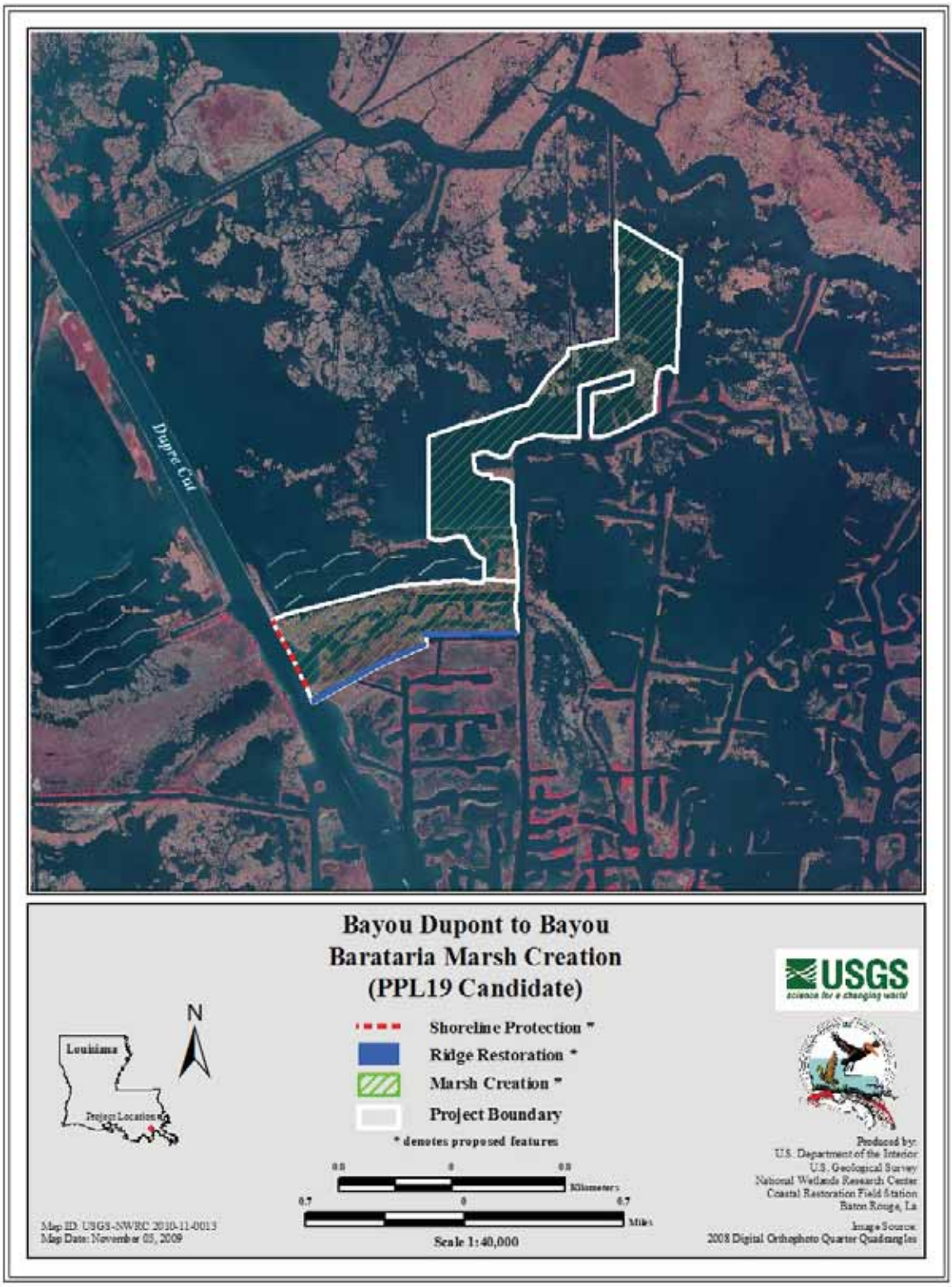
Dupre Cut
Bayou Dupont to Bayou
Barataria Marsh Creation
(PPL19 Candidate)
Shoreline Protection *
Ridge Restoration *
Marsh Creation *
Project Boundary
* denotes proposed features
Louisiana
Project Location
N
Kilometers
Miles
Scale 1:40,000
Map ID: USGS-NWRC 2010-11-0013
Map Date: November 05, 2009
USGS
science for a changing world
Produced by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2008 Digital Orthophoto Quarter Quadrangles

PPL19 Cheniere Ronquille Barrier Island Restoration

Coast 2050 Strategy:
Regional Strategy 21 – extend and maintain barrier headlands, islands, and shorelines

Project Location:
Region 2, Barataria Basin, Plaquemines Parish, between Pass Ronquille and Pass Chaland

Problem:
The area is undergoing shoreline erosion, interior wetland loss, overwash, and breakup. The Gulf shoreline erosion rate has increased from -14.6 ft/yr in 1988 to 2000 to -38 ft/yr in 1988 to 2006. Project area marshes also are being eroded at -11.8 ft/yr during 2003 to 2006 as well as being converted to open water from internal breakup at an estimated rate of 3.16%/yr.

Goals:
The general project goal is to maintain shoreline integrity including preventing breaching/formation of tidal inlets for 20 years by repairing and reinforcing the existing shoreline with sand and marsh restoration. A minimum dune elevation of +4.0 ft NAVD 88 at the end of the 20-yr project life was selected as a design performance goal.

Proposed Solution:
Cheniere Ronquille restoration would expand the Gulf shoreline structural integrity and associated protection by tying into two recently constructed projects to the east and address one of the remaining reaches of the Barataria/Plaquemines shoreline. The design includes fill for a beach and dune plus 20-years of advanced maintenance fill, as well as fill for marsh creation/nourishment. The location of the type and amount of sediment needed to construct this project already has been identified under the East Grand Terre Project that is presently under construction. Approximately 127 acres of beach/dune fill would be constructed with a dune crest at +6 feet, NAVD 88. Approximately 259 acres of marsh creation/nourishment would be constructed. Intensive dune plantings would be conducted by seeding and installing approved nursery stock. About half of the marsh platform would be planted with cordgrass and portions of the dune, swale, and marsh would be planted with appropriate woody species. Containment dikes would be breached no later than year three to allow tidal exchange with the created marsh.

Project Benefits:
The project would benefit 408 acres of island beach/dune and back barrier marsh and adjacent open water. Approximately 234 acres of beach/dune and back barrier marsh would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 43,828,285.

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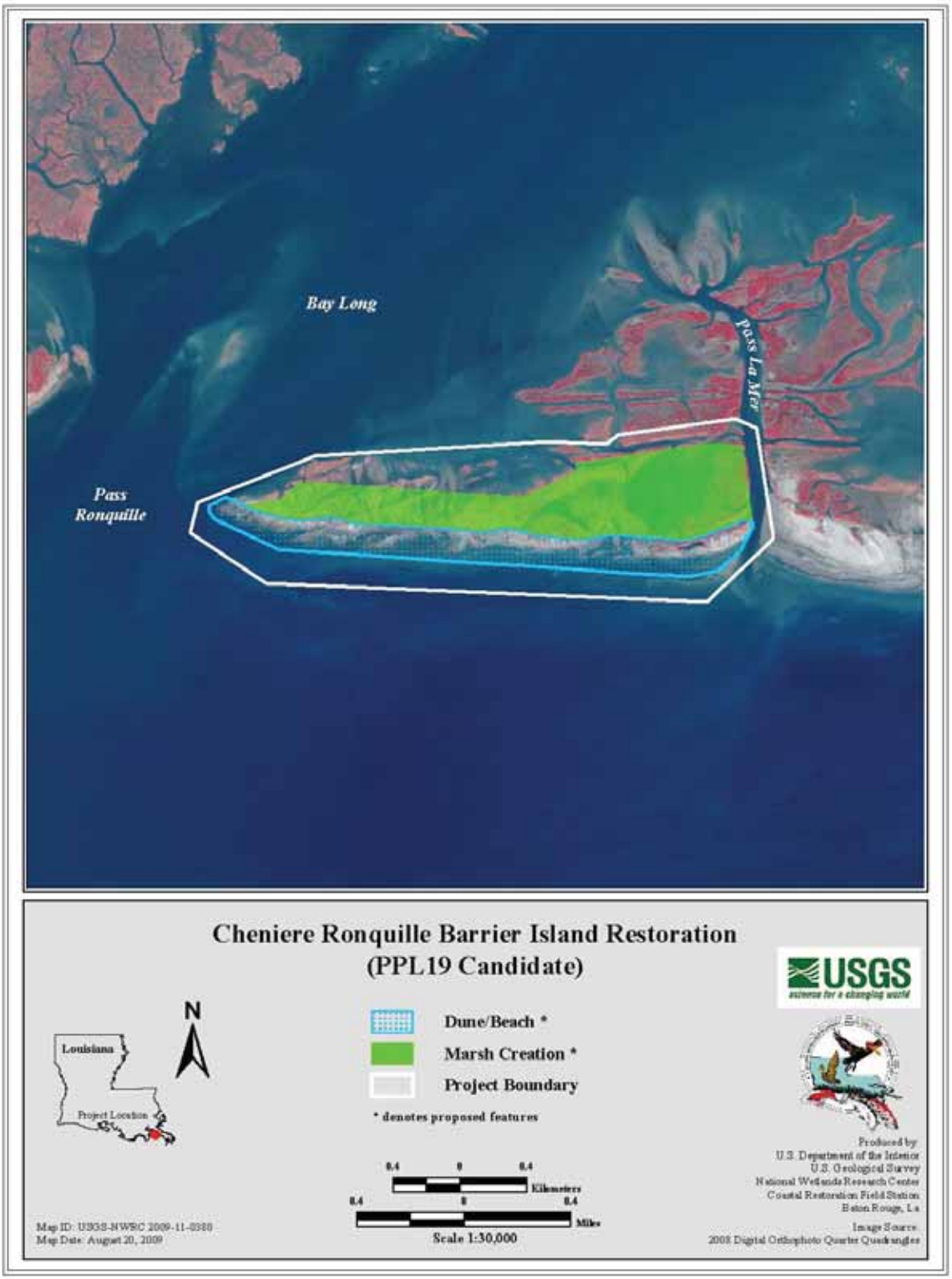
Bay Long
Pass La Mer
Pass Ronquille
Cheniere Ronquille Barrier Island Restoration
(PPL19 Candidate)
USGS
science for a changing world
N
Louisiana
Project Location
Dune/Beach *
Marsh Creation *
Project Boundary
* denotes proposed features
0.4 0 0.4
Kilometers
0.4 0 0.4
Miles
Scale 1:30,000
Map ID: USGS-NWRC 2009-11-0380
Map Date: August 20, 2009
Produced by
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2008 Digital Orthophoto Quarter Quadrangles

PPL19 Lost Lake Marsh Creation and Hydrologic Restoration

Coast 2050 Strategy:
Regional Strategy – Dedicated delivery of sediment for marsh building
Regional Strategy – Increase transfer of Atchafalaya River water to lower Penchant tidal marshes

Project Location:
Region 3, Terrebonne Basin, Terrebonne Parish, near the vicinity of Lost Lake

Problem:
Significant marsh loss has occurred between Lake Pagie and Bayou DeCade to the point that little structural framework remains separating those two waterbodies. Northeast of Lost Lake, interior marsh breakup has resulted in large, interior ponds where wind/wave energy continues to result in marsh loss. West of Lost Lake, interior breakup has occurred as a result of ponding and the periodic entrapment of higher salinity waters during storm events.

Goals:
Project goals include 1) restore an important feature of structural framework between Lake Pagie and Bayou Decade to prevent the coalescence of those two water bodies, 2) increase the delivery of fresh water, sediments, and nutrients into marshes north and west of Lost Lake, 3) reduce fetch in open water areas via construction of a terrace field. Specific Phase 0 goals include creating approximately 465 acres of marsh, increasing the delivery of fresh water into project area marshes by replacing 6 fixed-crest weirs and two plugs with variable-crest structures, and creating approximately 26 acres of marsh via the construction of 30,000 feet of terraces.

Proposed Solution:
Approximately 465 acres of marsh will be created between Lake Pagie and Bayou DeCade, north of Bayou DeCade, and along the northwestern Lost Lake shoreline. In addition, 30,000 linear feet (26 acres) of terraces will be constructed to reduce fetch in an area of deteriorated marsh. Approximately 20,000 linear feet of tidal creeks will be constructed within the marsh creation cells. Four fixed-crest weirs and two plugs will be replaced with variable-crest structures to increase freshwater flow into surrounding marshes.

Project Benefits:
The project would benefit 7,312 acres of marsh and open water habitats. A total of 749 net acres of marsh would be protected/created over the 20-year project life.

Project Costs:
The total fully-funded cost for the project is $ 22,943,866.

Preparer(s) of Fact Sheet:
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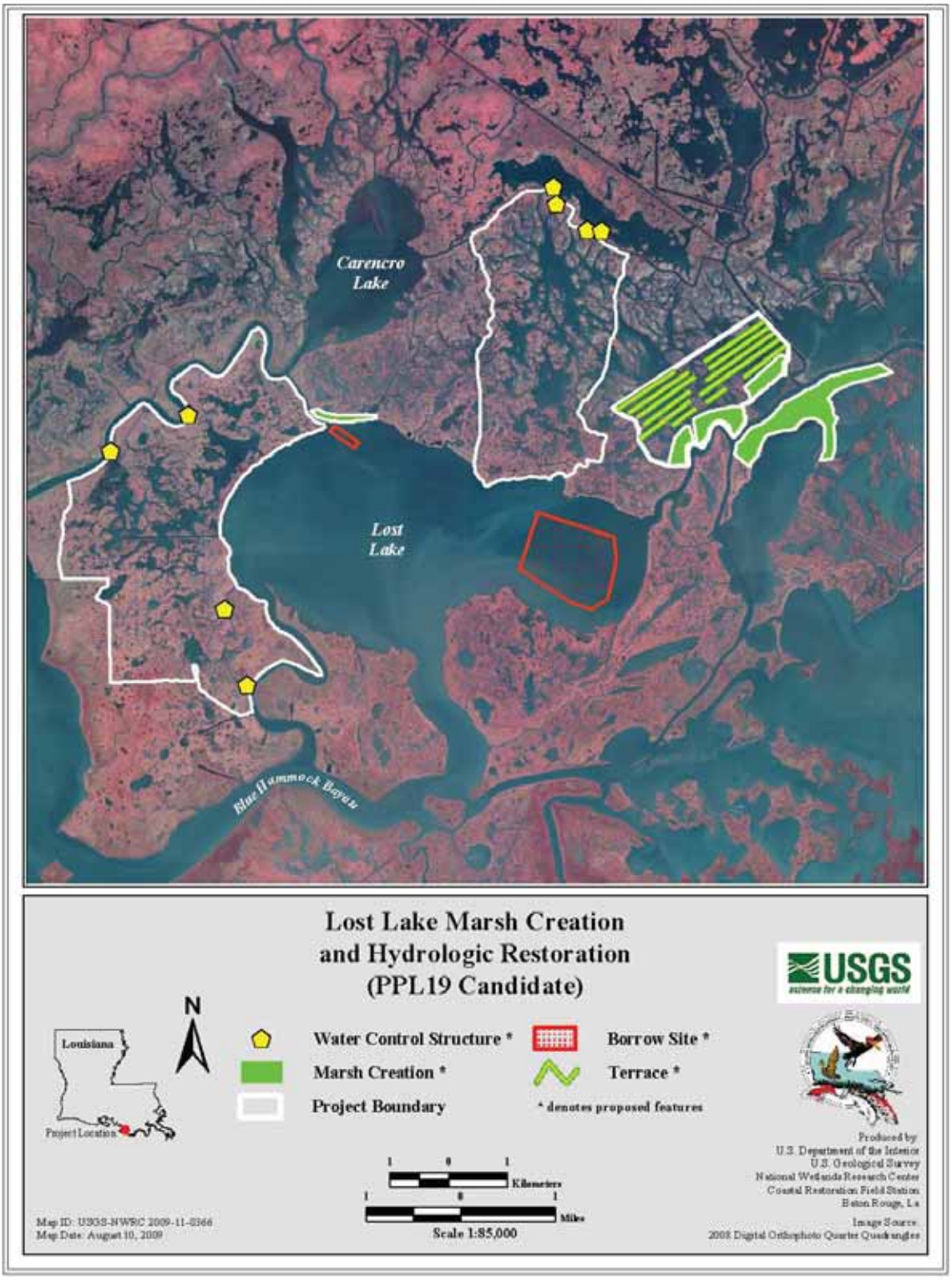
Carencro Lake
Lost Lake
Blue Hammock Bayou
Lost Lake Marsh Creation
and Hydrologic Restoration
(PPL19 Candidate)
USGS
science for a changing world
N
Louisiana
Project Location
Water Control Structure *
Marsh Creation *
Project Boundary
Borrow Site *
Terrace *
* denotes proposed features
Kilometers
Miles
Scale 1:85,000
Map ID: USGS-NWRC 2009-11-0366
Map Date: August 10, 2009
Produced by
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2008 Digital Orthophoto Quarter Quadrangles

PPL19 Freshwater Bayou Marsh Creation

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

Project Location:
Region 4, Mermentau Basin, Vermilion Parish, Big Marsh Mapping Unit, area west of Freshwater Bayou and north of the Freshwater Bayou lock.

Problem:
This area was damaged by Hurricanes Rita, Gustav, and Ike. Currently, Freshwater Bayou threatens to breach into the large interior open water and establish a hydrologic connection that previously did not exist. This would exacerbate the environmental problems affecting marshes in this area. Additionally, interior marsh loss has increased and organic soils are being exported into Freshwater Bayou. Interior marsh loss will increase without construction of the proposed project.

Goals:
The project goals include: 1) creating/nourishing marsh and associated edge habitat for aquatic species through pipeline sediment delivery via dedicated dredging from the Gulf of Mexico or beneficial use of maintenance dredging from the Freshwater Bayou Canal; 2) restoring a wetland buffer between the large open water areas in the Mermentau Basin and Freshwater Bayou.

Proposed Solution:
The project would beneficially use dredge material and/or dedicated dredge material to rebuild/nourish approximately 401 acres of marsh that was damaged or converted to shallow open water by Hurricanes Rita, Gustav, and Ike. Approximately 2 million cubic yards of dredged material from the Gulf of Mexico would be dedicated to two hurricane damaged areas in the Big Marsh unit (Figure 1). If possible, material and/or equipment would be used from the maintenance dredging of Freshwater Bayou to the maximum extent practical to reduce cost during construction. However, since that material is not available every year the proposed project costs and benefits are conservatively based on dedicated dredging offshore. Approximately 162 acres of marsh would be created and 24 acres would be nourished in the North Area, and approximately 149 acres of marsh would be created and 66 acres would be nourished in the South Area. Average water depths are approximately 1.7 ft.

Project Benefits:
The project would benefit approximately 401 acres of fresh/intermediate marsh. Approximately 279 net acres would be created/protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 25,523,755.

Preparer(s) of Fact Sheet
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Judge Edwards, Vermilion Corporation, vermilioncorporation@connections-lct.com

Freshwater Bayou Marsh Creation
(PPL19 Candidate)

N

Marsh Creation *

Project Boundary

* denotes proposed features

0.4 0 0.4 Kilometers

0.4 0 0.4 Miles

Scale 1:30,000

Map ID: USGS-NWRC 2009-11-0276
Map Date: July 24, 2009

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

Image Source:
2008 Digital Orthophoto Quarter Quadrangles

PPL19 Cameron-Creole Watershed Grand Bayou Marsh Creation

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

Project Location:
Region 4, Calcasieu-Sabine Basin, Cameron Parish, 6 miles northeast from Cameron, LA, on the Cameron Prairie NWR and Miami Corporation north of Grand Bayou.

Problem:
Approximately 14,390 acres (32%) of the Cameron-Creole Watershed Project (CCWP) marshes were lost from 1932 to 1990 at an average loss rate of 248 ac/year (0.55%/year) due to subsidence and saltwater intrusion from the Calcasieu Ship Channel. The CCWP was implemented by the NRCS in 1989 to reduce saltwater intrusion and stimulate restoration through revegetation. Hurricanes Rita and Ike in 2005 and 2008 breached the watershed levee scouring the marsh and allowing higher Calcasieu Lake salinities to enter the watershed causing more land loss. The Calcasieu-Sabine Basin lost 28 mi^2 (17,920 acres) (4.4%) as a result of Hurricane Rita (Barras et al. 2006). Land loss is estimated to be -0.87%/year based on USGS data from 1985 to 2006.

Goals:
Project goals include restoring and nourishing marsh with dedicated dredged material from Calcasieu Lake to benefit fish and wildlife resources within the Cameron Prairie NWR and adjacent brackish marshes. Specific phase 0 goals include creating 604 acres brackish marsh and nourishing 13 acres of brackish marsh.

Proposed Solution:
Place approximately 3 million cubic yards of material dredged from a Calcasieu Lake borrow site located approximately 2,000 feet west of Grand Bayou, away from existing oyster reefs, into two marsh creation areas north of Grand Bayou to restore 604 acres and nourish 13 acres of brackish marsh. The hurricane-scoured marsh, within the project area, is very shallow (averaging 1.2 feet deep) making it ideal for marsh restoration with sediment because more marsh per volume of dredged material could be restored. Tidal creeks will be constructed prior to placement of dredge material and retention levees would be gapped for estuarine fisheries access and to achieve a functional marsh.

Preliminary Project Benefits:
The project would restore 604 acres and nourish 13 acres of brackish marsh in the 617-acre project area. Approximately 550 acres of brackish marsh would be created and protected over the 20-year project life.

Project Costs:
The total fully funded cost for the project is $ 23,380,486.

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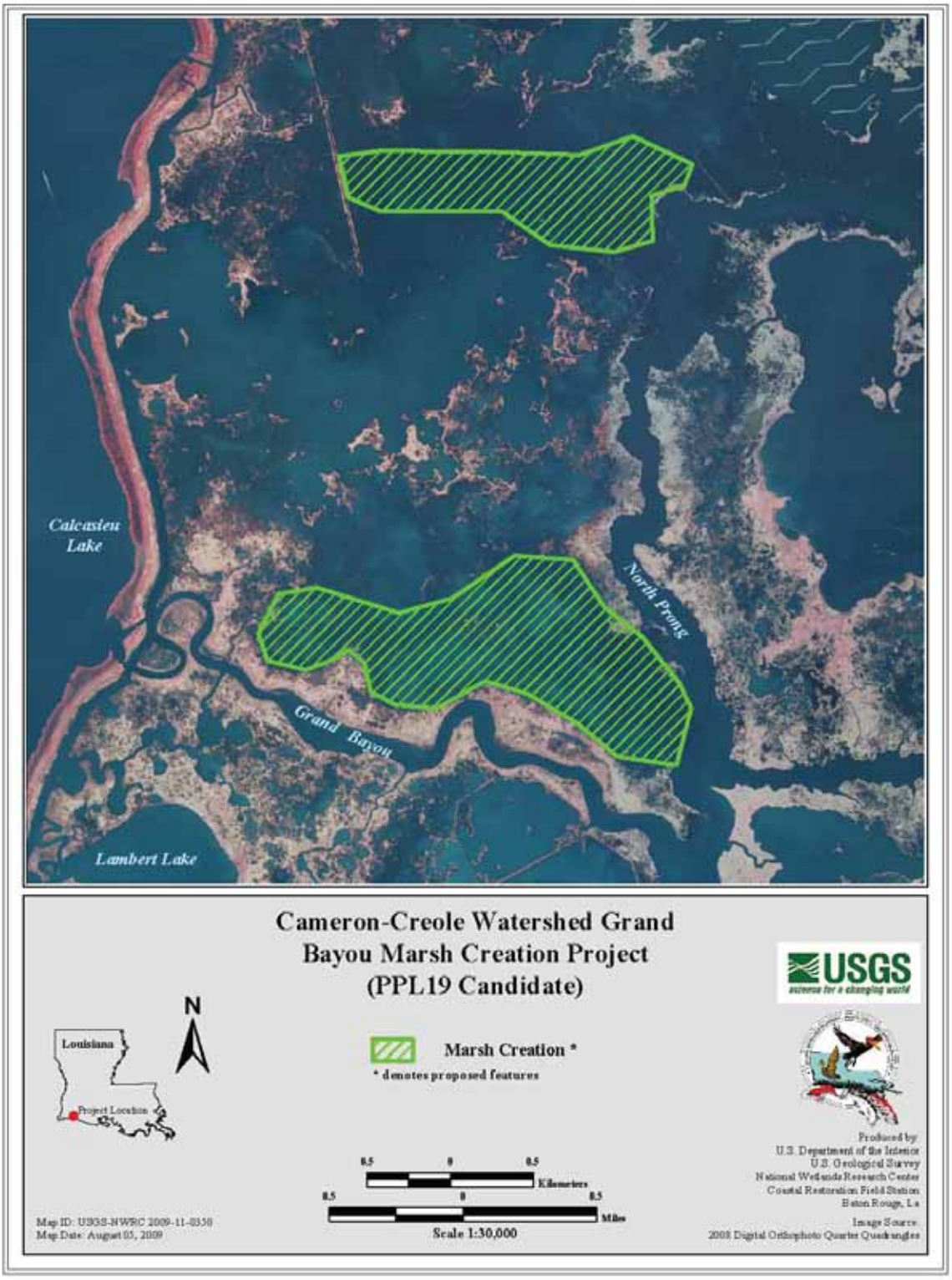
Calcasieu Lake
North Prong
Grand Bayou
Lambert Lake
Cameron-Creole Watershed Grand Bayou Marsh Creation Project (PPL19 Candidate)
USGS
science for a changing world
N
Louisiana
Project Location
Marsh Creation *
* denotes proposed features
0.5 0 0.5
Kilometers
0.5 0 0.5
Miles
Scale 1:30,000
Map ID: USGS-NWRC 2009-11-0358
Map Date: August 05, 2009
Produced by
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La
Image Source:
2008 Digital Orthophoto Quarter Quadrangles

DEMONSTRATION PROJECTS

Section 303(a) of the CWPPRA states that in the development of Priority Project List, ". . . [should include] due allowance for small-scale projects necessary to demonstrate the use of new techniques or materials for coastal wetlands restoration."

The CWPPRA Task Force, on April 6, 1993, stated that: "The Task Force directs the Technical Committee to limit spending on demonstration projects to $2,000,000 annually. The Task Force will entertain exceptions to this guidance for projects that the Technical Committee determines merit special consideration. The Task Force waives the cap on monitoring cost for demonstration projects."

The CWPPRA Task Force, on April 12, 2006, passed a motion concerning the selection of demonstration projects. The Task Force agreed to consider funding, upon review, at least one credible demonstration project annually with estimates not to exceed $2 million.

What constitutes a demonstration project:

1. Demonstration projects contain technology that has not been fully developed for routine application in coastal Louisiana or in certain regions of the coastal zone.

2. Demonstration projects contain new technology, which can be transferred to other areas of the coastal zone.

3. Demonstration projects are unique and are not duplicative in nature.

PPL 19 Demonstration Project Candidates

Demonstration projects were nominated at the 4 Regional Planning Team (RPT) meetings. Regional Planning Teams selected six (6) demonstration project nominees at the February 18, 2009 Coastwide RPT voting meeting. Demonstration project nominees were reviewed by the Environmental and Engineering Workgroups to verify that they met demonstration project criteria. On April 15, 2009 the Technical Committee selected three (3) demonstration project candidates for detailed assessments by the workgroups.

The following proposed demonstration projects were evaluated as candidates for the 19th Priority Project List:

- ViperWall Demo
- EcoSystems Wave Attenuator Demo
- Bayou Backer

PPL19 ViperWall Demonstration Project

Coast 2050 Strategy:
Coastwide: Maintenance of Gulf, Bay and Lake Shoreline Integrity

Project Location:
Applicable Statewide

Problem:
Several shoreline/bankline areas within coastal Louisiana consist of unstable soil conditions, subsurface obstructions, accessibility problems, etc., which severely limit the alternatives of shoreline protection. The adopted standard across the state, where conditions allow, is the use of rock aggregate in either a revetment or foreshore installation. The major advantages of using rock are durability, longevity, and effectiveness. However, in areas where rock is not conducive for use and site limitations exist, current "proven" alternatives that provide equivalent advantages are limited.

Goals:
The goal of this demonstration project is to fund Research and Development (R&D) through a local university or ERDC to test various configurations of ViperWall technology in a scientific lab under controlled conditions. This research would result in determining the most effective and efficient manner in which to dissipate wave action, reduce shoreline erosion, and encourage the entrapment of alluvial material. If R&D results in a viable, effective product, a field trial will be conducted testing various materials under various wave climate conditions.

Proposed Solution:
In Year 1 a wave tank analysis will be conducted to test effectiveness of current design. If proven effective, a field installation will take place in a low energy environment at Location 1 (TBD) and monitored for 1 year. Contingent on the results and performance at Location 1, a second installation will take place in a high energy environment at Location 2 (GOM). Each location will be inspected and surveyed bi-annually to monitor shoreline and bathymetry changes for a minimum of 2 years. A close-out report will be provided in Year 5.

Project Benefits:
The primary benefit expected from this project is the finding of a product that effectively reduces or eliminates wave action in areas where current standards are either non-acceptable or not economically justified.

Project Costs:
The total fully funded cost for the project is $ 1,427,154.

Preparer(s) of Fact Sheet:
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PPL19 EcoSystems Wave Attenuator Demonstration Project

Coast 2050 Strategy:
Maintenance of Bay and lake Shoreline Integrity

Demonstration Project Location:
Region 4, Gulf shoreline at Rockefeller Refuge

Problem:
Coastal Louisiana consists of areas with unstable soil conditions, subsurface obstructions, accessibility limitations, etc. which limit the types of shoreline protection suitable to provide adequate relief of shoreline erosion. Traditional methods that have shown the most success are though the use of rock riprap. The major advantages of rock are the effectiveness and durability of protection that is provided. The disadvantages are the cost, supply, and site-specific problems with placement and handling of material. However, the same problems are also associated with other "non-rock" alternatives that have been tried as substitutes to provide equivalent protection against shoreline erosion.

Goals:
The primary goal of this demonstration is to manufacture, deploy and test an alternative method of shoreline protection equivalent to traditional methods in areas where site conditions limit or preclude traditional methods.

Proposed Solution:
Walter Marine has developed a method of protection against shoreline erosion using the EcoSystems Wave Attenuator. This product is a unit of EcoSystems discs mounted on piling with an innovative anchoring system, which dissipates wave action. The EcoSystems Wave Attenuator could be applicable for u se as a shoreline protection or in place of a channel plug. The intent of this demonstration project is to place the EcoSystems Wave Attenuator in an area where traditional restoration strategies would have used a rock plug or sheetpile for a channel closure. As a shoreline protection feature, a double row of pilings (5' OC) would be driven and 4 foot diameter disks mounted on each piling along approximately 600 LF of shoreline. A second treatment will have a double row of pilings (7' OC) driven and disks mounted on each piling along an adjacent 730 LF of shoreline. The project will evaluate the effectiveness of reducing wave energy and shoreline erosion at the two prescribed spacing between disks.

Project Benefits:
If successful the project benefits include: 1) reduction in shoreline erosion associated with wave energy; 2) information obtained would allow a comparison with riprap structures; 3) identification of other applications of EcoSystems Wave Attenuators.

Project Costs:
The total fully funded cost for the project is $ 2,214,945.

Preparer of Fact Sheet:
John D. Foret. Ph.D., NOAA Fisheries Service, (337) 291-2107, john.foret@noaa.gov.

PPL19 Bayou Backer Demonstration Project

Coast 2050 Strategy:
Maintenance of Bay and lake Shoreline Integrity

Project Location:
Region 3, Vermilion Bay or Weeks Bay shoreline

Problem:
Bayou Backer is a long lasting wave energy reducer that is suited for wetlands protection and re-vegetation. Plugs are dispensed from rolls of 3" to 6" wide plastic strip. In very loose ground plugs **up to** 12' long are pushed 3' deep. This leaves two 3' long blades above the surface. Below the surface, a 6' long loop forms the anchor. In a recent test of the product, the plastic strips were 8' long with a 4' long loop in the mud and 2' long blades within the water column. Thus, the application is adaptable to site conditions. It is expected to last several years in our waters, and assist in abating shoreline erosion to allow plants recovery and establishment time. Wave pool testing was recently performed at Louisiana State University and can be seen in photos and videos at http://www.grastic.com/backer

Goals:
(1) Test the effectiveness of the bio-grass to reduce shoreline erosion
(2) Determine the applicability of the bio-grass in coastal Louisiana shores.
(3) Test two spacing design for evaluation of shoreline protection versus cost effectiveness.
(4) Allow existing plants recovery and establishment time.

Proposed Solution:
Install triplicate plots of the following two spacing plans at two different types of shorelines; 8 rows of plugs, 1 foot spacing, or 3,000 plugs, along approximately 375 linear feet of shoreline (8 rows at 1'OC = 8 plugs/ LF of shoreline * 375 LF of shoreline = 3,000 plugs). Each plug will be inserted up to a 16 ft depth. A second, equivalent, section of shoreline, 5 rows of plugs will be spaced 3' OC (5 rows at 3'OC = 8 plugs/3 LF of shoreline * 375 LF of shoreline = 1,000 plugs). Total shoreline impacted is 4,500 linear feet with 24,000 plugs installed.

Project Benefits:
If successful the product could be a low cost option in shoreline protection until vegetation establishes, direct creation of habitat in shallow waters where turbidity could be decreased, and used as an addition to both interior lake and exposed coastal bay shorelines and open bay waters.

Project Costs:
The total fully funded cost for the project is $ 910,893.

Preparer(s) of Fact Sheet:
John D. Foret. Ph.D., NOAA Fisheries Service, (337) 291-2107, john.foret@noaa.gov

LETTERS OF SUPPORT

Las Conchas Partnerships
Route 1, 15 Treasure Isle
Slidell, Louisiana 70461

November 6, 2009

Coastal Wetlands Planning, Protection and Restoration Act Task Force
US Army Corp of Engineers/New Orleans District
Protection and Restoration Office
P.O. Box 60267
New Orleans, LA 70160-0267
Attention: Ms. Melanie Goodman

Re: Fritchie Marsh Terracing and Marsh Creation Project

Dear Task Force,

Las Conchas Partnership, LLC is looking forward to the possibility that the Fritchie Marsh Terracing and Marsh Creation Project will be selected for implementation in the current Coastal Wetlands Planning Protection and Restoration Act priority list. This marsh has been subject to erosion and degradation for decades and recent storms have virtually destroyed what was left after years of slow land loss. We had begun to see progress and beneficial impacts from the installation of the culvert under Highway 90, with new sediment and fresh water moving through the Salt Bayou area. And the area south of the weir installed on the W-14 has remained healthy and productive, and saw very little damage from Katrina. However, our property south of Salt Bayou is now, particularly on the eastern side, virtually all open water with little emergent marsh habitat remaining.

Fritchie Marsh is critical to the Slidell area and Lake Pontchartrain. It provides protection for Slidell from storm surge and helps slow storm tides as water tries to enter Lake Pontchartrain from the open Gulf of Mexico. It also receives storm water and urban discharge from the City of Slidell, and should be as healthy as possible to treat this discharge and prevent the degradation of the water quality of Lake Pontchartrain and the Rigolets. Waterfowl and fisheries habitat is also important, and this marsh has traditionally been excellent waterfowl wintering area and provides a significant contribution to the area crabbing industry.

This property has been in our family for over 100 years. We have seen it as a remarkably healthy and productive wetland system, and we have also watched it decline into the poor health it has today. We support this group's effort to restore Louisiana's coastal wetlands and hope that you find it appropriate to select this Fritchie Marsh project for implementation this year.

Sincerely,

Richard P. Kelley

Mr. Richard P. Kelley, President
Las Conchas Partnership, LLC.

KEVIN DAVIS, PARISH PRESIDENT
ST. TAMMANY PARISH

P. O. BOX 628
COVINGTON, LA 70434
985-898-2362
FAX: 985-898-5237
E-MAIL: KDAVIS@STPGOV.ORG
WEB SITE: HTTP://STPGOV.ORG

November 4, 2009

Coastal Wetlands Planning, Protection and Restoration Act Task Force
US Army Corp of Engineers/New Orleans District
Protection and Restoration Office
Restoration Branch
P.O. Box 60267
New Orleans, LA 70160-0267
Attention: Ms. Melanie Goodman

Re: Support for Fritchie Marsh Terracing and Marsh Creation Project

Dear Task Force Members,

I write to express the strong support that St. Tammany Parish Government has for the Fritchie Marsh Terracing and Marsh Creation Project being reviewed for selection under Project Priority List 19. This coastal wetland has long experienced a decline in general health with high loss rates, peaking when Hurricane Katrina wiped out many hundreds of acres of overnight. This project, with its marsh building, terracing, and hydrologic restoration elements, will help restore the wetland functions of this marsh on which our community has come to rely.

Fritchie Marsh is a very important area to our north shore community and the entire basin for a number of reasons. It contributes to the seafood industry, which since Katrina has returned to Salt Bayou and grown to over its pre-storm scale. It provides surge moderation for the interior basin by acting as a northern component of the East Orleans Land Bridge. As part of the US Fish and Wildlife Service's Big Branch Marsh National Wildlife Refuge, Fritchie provides fish and wildlife habitat, and recreational opportunities to citizens of the greater metro area and all of the north shore. It also contributes to the water quality and general health of Lake Pontchartrain as do all of the fringe marshes and swamps along its shores.

This project will create over 400 acres of new emergent marsh, construct over 24 miles of emergent terraces, and re-establish natural hydrology and marine organism access to improved portions of the marsh system. A healthy marsh in this location will provide improved wildlife habitat and water quality in the basin and help protect Lake Pontchartrain Basin residents from tropical storm surges.

Dm DC
Melanie

3453 Meadowlake Lane
Houston, TX 77027
November 2, 2009

Colonel Alvin B. Lee
District Commander & Chairman, CWPPRA Task Force
U. S. Army Corps of Engineers, New Orleans District
Executive Office
P. O. Box 60267
New Orleans, LA 70160-0267

RE: Landowner Support for the Revised LaBranche East Marsh Creation Habitat Enhancement Project (R1-PO-9), PPL-19 Candidate Project; St. Charles Parish, LA

Dear Colonel Lee:

As spokesman for the majority of owners of the St. Charles Land Syndicate, I am respectfully submitting this letter to reaffirm SCLS's support for the aforementioned project.

The SCLS continues to understand alterations in project features and/or construction methodologies may be required during Phase 0 CWPPRA evaluations and remains supportive of adjustments to project features that may be beneficial and/or necessary in moving the project forward.

Should you have any questions and/or need additional information, please contact Ed Fike, Coastal Environments, Inc., (225) 383-7455, ext. 128. Thank you.

Sincerely yours,

William A. Monteleone, Jr.
St. Charles Land Syndicate

xc: Garret Graves, State of Louisiana
William Honker, EPA Region 6
Jim Boggs, USDI, USFWS
Kevin Norton, USDA, NRCS
Christopher Doley, NOAA, NMFS
Tom Holden, USACOE-NOD
Troy Constance, USACOE-NOD
Darryl Clark, USDI, USFWS
Kirk Rhinehart, State of Louisiana
Richard Hartman, NOAA, NMFS
Tim Landers, EPA Region 6
Britt Paul, USDA, NRCS

It is our hope that the CWPPRA Task Force sees the value in this project and selects it for funding and implementation under PPL-19. It is important to the people of St. Tammany Parish and all of the residents of the Pontchartrain Basin.

Sincerely,

KEVIN C. DAVIS
President, St. Tammany Parish

LaBranche East Marsh Creation Habitat Enhancement Project
St. Charles Parish, LA
(R1-PO-9)
PPL-19 Candidate Project
November 18, 2009

Ed Zhe 11/18/09

- When nominated the project included the restoration of ± 365 ac of marsh vegetation and the creation of + 165 ac of shrub scrub wetlands and ± 240 ac of subtidal water bottoms using dredged material from Lake Pontchartrain. Because of the shallow depth of the open water to be filled, the project was revised to include the restoration of ± 729 acres of emergent wetlands and ± 202 acres of existing marsh that would be nourished. In addition, the revised project includes a 10,000 linear ft of tidal creek.

- The proposed wetland restoration in LaBranche is consistent with Louisiana's *Integrated Ecosystem Restoration and Hurricane Protection: Master Plan for a Sustainable Coast.*

- The proposed project is similar and adjacent to the LaBranche Wetland Creation Project (PO-17) where 300+ ac of marsh was restored in 1994. The initial Po-17 project is arguably one of the most successful CWPRRA projects constructed to date.

- The PO-17 project, constructed in 1994, has required zero maintenance and is poised to provide wetland habitat benefits well beyond its 20-year prescribed project life.

- Technical data collected and lessons learned from the construction of PO-17 can be applied to R1-PO-9.

- Possible re-use of the same borrow area would save time and CWPPRA funding.

- The borrow area, dredged in Lake Pontchartrain for the initial project, has filled in as the result of two openings of the Bonnet Carre' Spillway and constitutes a renewable natural resource.

- There are no pipelines in the footprint of the proposed restoration area. One pipeline was previously identified within the initial borrow area in the lake. It was mapped prior to and avoided during the dredging operation.

- New marsh habitat would reduce storm surge and increase flood protection in St. Charles Parish for existing infrastructure including the Lake Pontchartrain and Vicinity Hurricane Protection Levee and assets it protects.

- The St. Charles Land Syndicate and the Pontchartrain Levee District, the two landowners of the entire R1-PO-9 project area, fully support the project.

- Unlike most CWPPRA projects that are located in more remote settings, the R1-PO-9 project area is easily observed from I-10. Its high profile location represents a unique and fabulous public relations opportunity. The most recent average daily traffic count on I-10, west of I-310 is 50,955 vehicles (2008).

- There are currently 120 daily flights with approximately 15,000 passengers flying into and out of Louis Armstrong New Orleans International Airport. Placards and/or brochures could be placed in pilots' lounges at the airport with a map and one or two sentence description, asking the pilots to advise their passengers of the work below. While less than half of the passengers would probably see the project area on any given flight, the pilot's announcement in itself would reinforce the state doing something positive about its land loss problem.

The Board of Commissioners
OF THE
Pontchartrain Levee District

PROTECTING YOU AND YOUR FAMILY

2204 ALBERT STREET • P.O. BOX 426 • LUTCHER, LA 70071

TEL: 225-869-9721 FAX: 225-869-9723 LA WATTS: 800-523-3148

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JERRY SAVOY
ALLEN J. ST. PIERRE, SR.

DWIGHT D. POIRRIER
SPECIAL COUNSEL

SUSAN M. SHEETS
BOARD SECRETARY

MONICA T. SALINS
EXECUTIVE DIRECTOR

October 19, 2009

Colonel Alvin B. Lee
District Commander
Chairman, CWPPRA Task Force
U. S. Army Corps of Engineers, New Orleans District
Executive Office
P. O. Box 60267
New Orleans, LA 70160-0267

RE: LaBranche East Marsh Creation Habitat Enhancement Project (R1-PO-9), PPL-19 Candidate Project; St. Charles Parish, LA

Dear Colonel Lee:

As an affected landowner and public agency, the Pontchartrain Levee District (PLD) fully supports revisions made to the LaBranche East Marsh Creation Habitat Enhancement Project. It is our understanding that the project has been revised to include the restoration of approximately 729 acres of wetlands and the nourishment of approximately 202 acres.

Not only is this project consistent with the restoration of marsh habitat in LaBranche as described in *Integrated Ecosystem Restoration and Hurricane Protection: Master Plan for a Sustainable Coast*, but we believe it will reduce storm surge and increase flood protection in St. Charles Parish. To quote benefits cited in the project's initial CWPPRA fact sheet:

> *As with the PO-17 (initial LaBranche Marsh Restoration) project, the proposed project would not only provide wildlife and fisheries and water quality benefits, but the restored wetland vegetation would buffer/weaken storm surge, providing additional protection to existing infrastructure including the Lake Pontchartrain and Vicinity Hurricane Protection Levee, I-10, the Canadian National Illinois Central Railroad embankment, aerial electrical lines, and non-essential infrastructure. The rail embankment and the two camps that are located south of PO-17 escaped significant damage from Hurricane Katrina while most of the camps and several portions of the rail embankment to the east were either lost or heavily damaged.*

THE BOARD OF COMMISSIONERS

OF THE

PONTCHARTRAIN LEVEE DISTRICT

As the result of Phase 0 CWPPRA evaluations, the PLD continues to understand that project features and/or construction techniques may need to be revised in order to refine and improve the project. To achieve wetland restoration within the current project scope, the PLD is supportive of adjustments to project features that may be beneficial and/or necessary in moving the project forward.

Please do not hesitate to contact me or the PLD if you need any additional information regarding this project. Thank you.

Sincerely yours,

Steve Wilson
President

xc: Garret Graves, State of Louisiana
Kirk Rhinehart, State of Louisiana
Tom Holden, COE-NOD
Troy Constance, COE-NOD
William Honker, EPA
Tim Landers, EPA
Christopher Doley, NMFS
Richard Hartman, NMFS
Kevin Norton, NRCS
Britt Paul, NRCS
Jim Boggs, USFWS
Darryl Clark, USFWS

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LABRANCHE EAST MARSH CREATION HABITAT ENHANCEMENT PROJECT (R1-PO-9), PPL-19 CANDIDATE PROJECT ST. CHARLES PARISH, LOUISIANA

Moved by Mr. William Addison and seconded by Mr. Jerry Savoy:

To adopt a Resolution of Support by the Board of Commissioners of the Pontchartrain Levee District specific to the CWPPRA LaBranche East Marsh Creation Habitat Enhancement Project, PPL-19 Candidate Project, St. Charles Parish, LA to be forwarded to members of the CWPPRA Task Force and CWPPRA Technical Committee .

RESOLUTION OF SUPPORT

WHEREAS, approximately 100,000 vehicles travel daily along Interstate 10 through the LaBranche Wetlands in St. Charles Parish; AND

WHEREAS, because of its panoramic view and beauty, the LaBranche Wetlands are one of the most recognizable wetland areas in the State of Louisiana; AND

WHEREAS, the LaBranche Wetlands continue to provide a number of important and valuable wetland functions including, but not limited to, flood storage and storm buffer for the Greater New Orleans Metropolitan Area; AND

WHEREAS, reductions in said functions have been experienced during the past 50 years in the LaBranche Wetlands because of wetland degradation; AND

WHEREAS, the LaBranche East Marsh Creation Project has been proposed as a CWPPRA project to restore approximately 729 acres of wetlands and nourish approximately 202 acres of existing wetlands in an area that currently consists of a mostly large open water area; AND

WHEREAS, a similar CWPPRA project (PO-17), constructed in 1994 and not requiring any maintenance to date since its implementation, continues to provide important and valuable wetland functions and will continue to do so in the foreseeable future, well past its 20-year life expectancy; AND

WHEREAS, aside from providing a plethora of natural resource functions, the LaBranche East Marsh Creation Project will help attenuate the effects of severe storms and increase storm protection for Interstate 10 and the Lake Pontchartrain and Vicinity Hurricane Protection System which includes the LaBranche Wetlands Levee in St. Charles Parish and the West Return Floodwall in Jefferson and St. Charles Parishes; AND

WHEREAS, the LaBranche East Marsh Creation Project is consistent with current and ongoing federal and state coastal wetland restoration and flood prevention protection efforts; AND

BE IT FURTHER RESOLVED, the Pontchartrain Levee District formally requests support of the LaBranche East Marsh Creation Project in the form of a favorable vote from members of the CWPPRA Task Force; AND

BE IT FURTHER RESOLVED, that certified copies of this resolution shall be furnished to all members of the CWPPRA Task Force, being Colonel Alvin B. Lee, Secretary of the Army (Chairman), Governor Bobby Jindal, State of Louisiana, through Mr. Garret Graves, Senior Advisor to the Governor for Coastal Activities, Mr. William K. Honker, Administrator, Environmental Protection Agency, Mr. Jim Boggs, Secretary, Department of the Interior, Mr. Kevin Norton, Secretary, Department of Agriculture, Mr. Christopher Doley, Secretary, Department of Commerce and to all members of the CWPPRA Technical Committee, being Mr. Tom Holden (Chairman), Mr. Troy Constance (Acting Chairman), Mr. Darryl Clark, Mr. Kirk Rhinehart, Mr. Richard Hartman, Mr. Tim Landers and Mr. Britt Paul, P.E.

The foregoing resolution was read in full, the roll was called on the adoption thereof, and the resolution was adopted by the following votes:

Yeas: Mr. Addison, Mr. Poche, Mr. St. Pierre, Mr. Irving, Mr. Savoy, Mr. Delaune and Mr. Wilson
Nays: None
Abstain: None
Absent: None

I hereby certify that the foregoing is a true and exact copy of the resolution adopted at a regular meeting of the Board of Commissioners for the Pontchartrain Levee District held on Monday, October 19, 2009, at which meeting a quorum was present and voting.

St. James Parish, Lutcher, Louisiana, this 19th day of October, 2009.

Susan M. Sheets, Secretary
Pontchartrain Levee District

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JEFFERSON PARISH
LOUISIANA
MARINE FISHERIES ADVISORY BOARD

November 19, 2009

Colonel Alvin B. Lee
District Engineer, New Orleans
c/o: Melanie Goodman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

RE: Bayou Dupont to Bayou Barataria Marsh Creation Project
CWPPRA PPL-19 Candidate Project

Dear Colonel Lee:

The Jefferson Parish Marine Fisheries Advisory Board strongly supports the Bayou Dupont to Bayou Barataria Marsh Creation Project for CWPPRA PPL-19 Phase 1 funding. The historical forested ridges and marshes south of Bayou Dupont and east of Bayou Barataria have undergone significant land loss, and the area is quickly converting to open water. The land mass between Bayou Dupont and Bayou Barataria is so severely eroded that the historical ridges and marshes are barely recognizable. If swift action is not taken to reduce erosion south of Bayou Dupont, the remaining ridges and marshes within the area will quickly become open water, thus, allowing continued salt water intrusion and easy access for storm surge to threaten the Jean Lafitte and Barataria communities, as well as the New Orleans Metropolitan area.

Restoration of this critical habitat will serve to sustain the coastal resources which are the economic base of the fisheries and eco-tourism industries of Jefferson Parish. The seafood industry is critical to the economic vitality of Jefferson Parish, especially to the communities of Lafitte and Barataria, which are located near the proposed project. The loss of these wetlands depletes fisheries nursery grounds that are so important to the livelihood of commercial fisherman and recreational fisheries.

Thank you for this opportunity to comment on this important coastal restoration project which will restore the area's natural hydrology and provide a first line of defense from storm surge.

Sincerely,

Jason Smith

Jason Smith, Board Coordinator
Jefferson Parish Marine Fisheries Advisory Board

cc: Board Members

4901 JEFFERSON HIGHWAY - SUITE E - JEFFERSON, LOUISIANA 70121 - (504) 731-4612

Bayou Segnette Community and Boaters Association, Inc.
760 Oak Avenue ■ Westwego, LA 70094 ■ (504) 236-4811

November 20, 2009

Colonel Alvin B. Lee
District Engineer, New Orleans
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Attention: Ms. Melanie Goodman, CWPPRA Program Manager

Subject: PPL-19 Project Selection

Dear Colonel Lee:

This letter is to express our support for the Bayou Dupont to Bayou Barataria Marsh Creation Project for CWPPRA PPL-19 Phase 1 funding. Restoring marsh from Bayou Dupont to Bayou Barataria will help to reduce rapid tidal exchange that is accelerating erosion north of the historic location of the Barataria Ridge and restore critical ridge habitat.

One need only look at an aerial photo of the project area to see that the scarce ridge habitat that remains is the skeletal structure of what was once a healthy and varied wetland habitat. These ridges once teamed with wildlife and were populated by hardwood trees that provided safe haven for migratory birds. Healthy marsh surrounded the ridges and narrow, winding bayous reduced the tidal prism, preventing salt water from getting to the upper basin. Working in synergy, these varied wetlands also served as a buffer to protect area communities from storm surge during tropical weather events.

Therefore, we respectfully request that you lend you support to this worthy project and thank you for the opportunity to have input into the selection process.

Sincerely,

Vickie Duffourc
President

TOWN OF JEAN LAFITTE
OFFICE OF THE MAYOR

TIMOTHY P. KERNER
MAYOR

YVETTE CRAIN
TOWN CLERK

MARY JO HARGIS
CHIEF OF POLICE

2654 Jean Lafitte Blvd.
Lafitte, Louisiana 70067
Office: (504) 689-2208
Police: (504) 689-3132
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COUNCIL MEMBERS

SHIRLEY GUILLIE
MAYOR PROTEM

SLOANE KERNER
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CALVIN LEBEAU

November 19, 2009

Colonel Alvin B. Lee
District Engineer, New Orleans
c/o: Melanie Goodman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

RE: Bayou Dupont to Bayou Barataria Marsh Creation Project
Candidate for CWPPRA PPL-19

Dear Colonel Lee:

The Town of Jean Lafitte is in full support of the Bayou Dupont to Bayou Barataria Marsh Creation Project and urges the CWPPRA Task Force to select this project for PPL-19 Phase 1 funding. The marshes and historical ridges between Bayou Dupont and Bayou Barataria, components of the Barataria Landbridge, are severely deteriorated and their ability to buffer the Town of Jean Lafitte and surrounding communities from elevated storm surge has been greatly diminished. The Barataria Landbridge is an important landmass that serves as a key line of defense that not only protects the citizens in Jean Lafitte, but provides much needed protection to the New Orleans Metropolitan area.

The project is designed to mimic the historical function of the Barataria Ridge which once served as a barrier to reduce storm surge and saltwater intrusion into the upper reaches of the Barataria Basin. Saltwater intrusion has destroyed much of the coastal forests that once existed in this area. The Naomi Siphon is providing freshwater to the area, but the deteriorated condition of the marsh retards freshwater retention in the central basin. The combined benefits of reduced saltwater intrusion and increased storm surge protection make this project the number one CWPPRA PPL-19 priority for the Town of Jean Lafitte.

Thank you for allowing the Town of Jean Lafitte to comment on such a worthy project.

Sincerely,

Timothy Kerner

AARON F. BROUSSARD
PARISH PRESIDENT

JEFFERSON PARISH
LOUISIANA

OFFICE OF PARISH PRESIDENT

Our Mission Is:
"Provide the services, leadership, and vision to improve the quality of life in Jefferson Parish."

November 19, 2009

Colonel Alvin B. Lee
District Engineer, New Orleans
c/o: Melanie Goodman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160

RE: Bayou Dupont to Bayou Barataria Marsh Creation Project
CWPPRA PPL-19 Candidate Project

Dear Colonel Lee:

Creating a sustainable deltaic system requires that we reestablish the processes that original created the landscape. Ridges are important natural processes that once sustained the landscape of the Barataria basin and formed the fundamental structure of the Barataria landbridge.

The Bayou Dupont to Bayou Barataria Marsh Creation Project proposed for Phase 1 CWPPRA funding on the PPL-19 list provides the opportunity to reestablish very important processes that will help sustain the Mississippi River deltaic system. The project will restore an important segment of the bottomland hardwood Barataria ridge at Dupre Cut as well as create marsh between the Barataria Waterway and Bayou Dupont, restoring a critical landbridge in an area that has experienced some of the highest land loss in the state. The historical forested ridges and marshes south of Bayou Dupont and east of Bayou Barataria have undergone significant land loss, and the area is quickly converting to open water. The land mass between Bayou Dupont and Bayou Barataria is so severely eroded that the historical ridges and marshes are barely recognizable. This area is crucial as it will stop saltwater intrusion into the fresher marshes to the north. It will also help retain sediments from the Naomi siphon in this area where it is much needed. The project will restore the natural hydrology and is synergistic with CWPPRA projects to the west and north east that together recreate an important landbridge that separates fresh water marsh from the more saline waters to the south.

Aside from the critical habitat that will be created and enhanced and its important fisheries implications, the project will serve as a speed bump – a line of defense – protecting the Jefferson Parish communities of Lafitte, Barataria, and Crown Point from storm surge. Action is needed now to provide protection to these communities, which are still recovering from the 2005 (Katrina and Rita) and 2008 (Gustav and Ike) hurricanes. These recent hurricanes have accelerated the erosion rate within the area south of Bayou Dupont and left these communities more vulnerable than ever. If swift action is not taken to reduce erosion south of Bayou Dupont, the remaining ridges and marshes within the area will quickly become open water, thus, allowing easy access for storm surge to threaten these communities, as well as the entire west bank of the metropolitan New Orleans area.

SUITE 1002 - 1221 ELMWOOD PARK BOULEVARD - JEFFERSON, LOUISIANA 70123
P. O. BOX 10242 JEFFERSON, LOUISIANA 70181-0242 - (504) 736-6400

Printed on Recycled Paper.

Thus, I strongly urge the CWPPRA Task Force to support the Bayou Dupont to Bayou Barataria Marsh Creation Project for PPL-19 phase 1 funding.

Thank you for this opportunity to comment on this important coastal restoration and protection project.

Sincerely,

Aaron F. Broussard
Jefferson Parish President

ARLANDA J. WILLIAMS, CHAIRWOMAN

JOHNNY PIZZOLATTO, VICE-CHAIRMAN

DISTRICT 1
ALVIN TILLMAN, SR.
DISTRICT 2
ARLANDA J. WILLIAMS
DISTRICT 3
BILLY HEBERT
DISTRICT 4
TERI CAVALIER

PARISH COUNCIL
PARISH OF TERREBONNE
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Government Towers, 8026 Main Street, Suite 600
Houma, Louisiana 70360
PHONE (985) 873-6519 FAX (985) 873-6521
plabat@tpcg.org www.tpcg.org

PAUL A. LABAT, CLERK

DISTRICT 5
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DISTRICT 7
CLAYTON J. VOISIN
DISTRICT 8
JOEY CEHAN
DISTRICT 9
PETE LAMBERT

November 19, 2009

Colonel Alvin B. Lee
Chairman, CWPPRA Task Force
CEMVN-PM-OR
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Lost Lake Project, Terrebonne Parish, LA

Dear Colonel Lee:

The Terrebonne Parish Council fully agrees with the Terrebonne Coastal Zone Management Committee in its decision to fully endorse and support funding for the Lost Lake Marsh Creation and Hydrologic Restoration Project. The importance of this project cannot be understated to help protect the environment and the citizens of this parish.

The Council unanimously adopted the attached resolution concurring with the CZM Advisory Committee and requesting that the CWPPRA Technical Committee consider the North Lost Lake Project as a high priority when selecting projects for Phase I (E&D) funding. As always, your favorable consideration of the Council's request will be greatly appreciated. Thank you.

Sincerely,

PAUL A. LABAT, Council Clerk
Terrebonne Parish Council

PAL

Attachment

cc: Mrs. Leslie R. Suazo (with attachment)

OFFERED BY: Mr. J. Pizzolatto.
SECONDED BY: Mr. J. Cehan.

RESOLUTION NO. 09-622

WHEREAS, the Coastal Zone Management and Restoration Advisory Committee is committed to providing aggressive leadership, direction and consonance in the development and implementation of comprehensive policies, plans and programs which encourage multiple uses of the coastal zone and achieve a proper balance between the multiple needs of coastal resources in Terrebonne Parish; and

WHEREAS Terrebonne Parish currently experiences one of the highest rates of coastal land loss in Louisiana, and is in urgent need of projects to restore and protect our fragile wetlands, and

WHEREAS, the Technical Committee of the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) has previously selected the Lost Lake Marsh Creation and Hydrologic Restoration Project as one of 10 projects for further evaluation; and

WHEREAS, Project is now a candidate for Engineering and Design funding; and

WHEREAS this project will provide synergistic benefits to the following CWPPRA projects:

1) Brady Canal Hydrologic Restoration (construction completed);
2) North Lake Mechant Land bridge Project (construction at or near completion);
3) Penchant Basin Project (construction start in 2010);
4) Central Terrebonne Freshwater Enhancement (currently in Engineering and Design) and
5) South Lake Decade Shoreline Protection and Marsh Creation (construction to begin in 2010) ; and

WHEREAS, the implementation of this project, as a compliment to other CWPPRA projects, will restore and protect area marshes and will also serve as a buffer zone separating the fresher marshes to the north and the more saline marshes to the south

NOW, THEREFORE BE IT RESOLVED that the Terrebonne Parish Council (Natural Resources and Coastal Restoration Committee), on behalf of the Terrebonne Parish Consolidated Government, concurs with the Coastal Zone Management and Restoration Advisory Committee and does urge and request that the CWPPRA Technical Committee consider the North Lost Lake Project and assign it a high priority when selecting projects for Phase I (E&D) funding; and,

BE IT FURTHER RESOLVED that these comments be directed to the Terrebonne Levee and Conservation District and other civic organizations as appropriate, and the Chairman of the CWPPRA Technical Committee, Mr. Tom Holden, USACOE, as well as other members of the committee, prior to its meeting on December 2, 2009.

THERE WAS RECORDED:
YEAS: T. Cavalier, J. Cehan, B. Hebert, P. Lambert, J. Pizzolatto, A. Tillman and K. Voisin.
NAYS: None.
ABSTAINING: None.
ABSENT: C. Voisin and A. Williams.
The Chairman declared the resolution adopted on this, the 16th day of November, 2009.
* * * * * * * * *

I, PAUL A. LABAT, Clerk of the Terrebonne Parish Council, do hereby certify that the foregoing is a true and correct copy of a resolution adopted by the Natural Resources and Coastal

Restoration Committee on November 16, 2009 and subsequently ratified by the Assembled Council in Regular Session on November 18, 2009 at which meeting a quorum was present.

GIVEN UNDER MY OFFICIAL SIGNATURE AND SEAL OF OFFICE THIS 19TH DAY OF NOVEMBER, 2009.

PAUL A. LABAT, COUNCIL CLERK
TERREBONNE PARISH COUNCIL

P.O. BOX 6097
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(985) 868-5050

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TERREBONNE PARISH
CONSOLIDATED GOVERNMENT

COASTAL ZONE MANAGEMENT & RESTORATION ADVISORY COMMITTEE

November 3, 2009

OFFERED BY: Gerald Schouest

SECOND BY: Allan Gibson

WHEREAS, the Coastal Zone Management and Restoration Advisory Committee is committed to providing aggressive leadership, direction and consonance in the development and implementation of comprehensive policies, plans and programs which encourage multiple uses of the coastal zone and achieve a proper balance between the multiple needs of coastal resources in Terrebonne Parish; and

WHEREAS Terrebonne Parish currently experiences one of the highest rates of coastal land loss in Louisiana, and is in urgent need of projects to restore and protect our fragile wetlands, and

WHEREAS, the Technical Committee of the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) has previously selected the Lost Lake Marsh Creation and Hydrologic Restoration Project as one of 10 projects for further evaluation; and

WHEREAS, Project is now a candidate for Engineering and Design funding; and

WHEREAS this project will provide synergistic benefits to the following CWPPRA projects:

1) Brady Canal Hydrologic Restoration (construction completed);
2) North Lake Mechant Landbridge Project (construction at or near completion);
3) Penchant Basin Project (construction start in 2010);
4) Central Terrebonne Freshwater Enhancement (currently in Engineering and Design) and
5) South Lake Decade Shoreline Protection and Marsh Creation (construction to being in 2010) ; and

WHEREAS, the implementation of this project, as a compliment to other CWPPRA projects, will restore and protect area marshes and will also serve as a buffer zone separating the fresher marshes to the north and the more saline marshes to the south

THEREFORE BE IT RESOLVED that the Coastal Zone Management and Restoration Advisory Committee does urge and request that the CWPPRA Technical Committee does consider the North Lost Lake Project and assign it a high priority when selecting projects for Phase I (E&D) funding.

BE IT FURTHER RESOLVED that these comments be directed to the Parish Council for consideration and concurrence, the Terrebonne Levee and Conservation District and other civic organizations as appropriate, and the Chairman of the CWPPRA Technical Committee, Mr. Tom Holden, USACOE, as well as other members of the committee, prior to its meeting on December 2, 2009.

THERE WAS RECORDED:

YEAS: 7

NAYS: 0

ABSTAINING: 0

ABSENT: 2

The Chairman declared the resolution adopted.

I, Leslie R. Suazo, Director of Coastal Restoration and Preservation, do hereby certify that the foregoing is a true and correct copy of a resolution adopted by the Coastal Zone Management and Restoration Advisory Committee at its regular monthly meeting on Tuesday, November 3, 2009 at which a quorum was present.

Leslie R. Suazo, Director
Coastal Restoration and Preservation

PPL19 PROJECT NOMINEE FACT SHEET
January 28, 2009

Project Name
Lost Lake Marsh Creation and Hydrologic Restoration

Coast 2050 Strategy
Regional Strategy – Dedicated delivery of sediment for marsh building
Regional Strategy – Increase transfer of Atchafalaya River water to lower Penchant tidal marshes

Project Location
Region 3, Terrebonne Parish, southwestern Terrebonne Basin near Lost Lake

Problem
Significant marsh loss has occurred between Lake Pagie and Bayou DeCade to the point that little structural framework remains separating those two waterbodies. Northeast of Lost Lake, interior marsh breakup has resulted in large, interior ponds where wind/wave energy continues to result in marsh loss. West of Lost Lake, interior breakup has occurred as a result of ponding and the periodic entrapment of higher salinity waters during storm events.

Goals
1) Prevent the coalescence of Bayou DeCade and Lake Pagie and extend the landbridge function of the North Lake Mechant Landbridge Project.
2) Address interior marsh loss with terraces and marsh creation.
3) Increase fresh water and sediment delivery to marshes north and west of Lost Lake.

Proposed Project Features
The proposed project consists of several features to protect marsh, create marsh, and extend the landbridge function of the North Lake Mechant Landbridge Project to the west. Marshes north, east, and west of Lost Lake serve an important function as an intermediate zone buffering fresh marshes to the north from the higher salinities to the south. Features include:

1) Marsh creation (300 acres) between Lake Pagie and Bayou DeCade to prevent the coalescence of those two waterbodies and restore/protect some key features of structural framework (i.e., lake rim and bayou bank) in the area. This feature will compliment features currently being built under the North Lake Mechant Landbridge Project. In addition, 150 acres of marsh will be created north of Bayou DeCade.

2) Terracing (approximately 30,000 linear feet or 16 acres) to reduce fetch in deteriorated marsh northeast of Lost Lake.

3) At certain times of the year, Carencro Bayou is an excellent source of fresh water and sediments from the Atchafalaya River/Four League Bay system. However, delivery of that water into the marshes west of Lost Lake is limited by a series of fixed-crest weirs which limit water exchange. An opportunity exists to increase freshwater and sediment delivery by removing some of the fixed-crest weirs and installing structures with bays/gates.

4) The Penchant Basin Natural Resources Plan Project will provide an additional 500 cfs of freshwater flow into Brady Canal which will increase flows into Carencro Bayou north of Lost

Lake. An opportunity exists to increase freshwater and sediment delivery south of Carencro Bayou and to take advantage of excess fresh water north of Carencro Bayou by removing some of the plugs and fixed-crest weirs and installing structures with bays/gates.

Preliminary Project Benefits

1) The total acreage benefited directly would be 466 acres (450 acres of marsh creation/nourishment and 16 acres of terraces). Indirect benefits would occur over approximately 9,000 additional acres of marsh as a result of increased fresh water and sediment delivery.

2) The total net acres protected/created over the project life would be between 400-500 acres.

3) Background loss rates would be reduced by 50% in the marsh creation and marsh nourishment areas. Increased fresh water and nutrients would reduce marsh loss in the areas west and north of Lost Lake. The assumed reduction in marsh loss in those areas is approximately 20%. Overall, the reduction in marsh loss across the project area would be in the range of 25% to 50%.

4) The project would help maintain the Lake Pagie shoreline and the southern bank of Bayou DeCade.

5) The project would not protect any significant infrastructure.

6) The project would provide a synergistic effect with the North Lake Mechant Landbridge Restoration Project located to the east. The concept of protecting this important landbridge would be extended westward. Other CWPPRA projects which protect marsh in this important area include the Brady Canal Hydrologic Restoration Project and the Penchant Basin Natural Resources Plan. This project would work synergistically with those projects to protect marsh in this portion of the western Terrebonne Basin.

Identification of Potential Issues

At this time, no significant issues have been identified for this project. Lost Lake contains no oyster leases and maintenance costs for the project would be low.

Preliminary Construction Costs

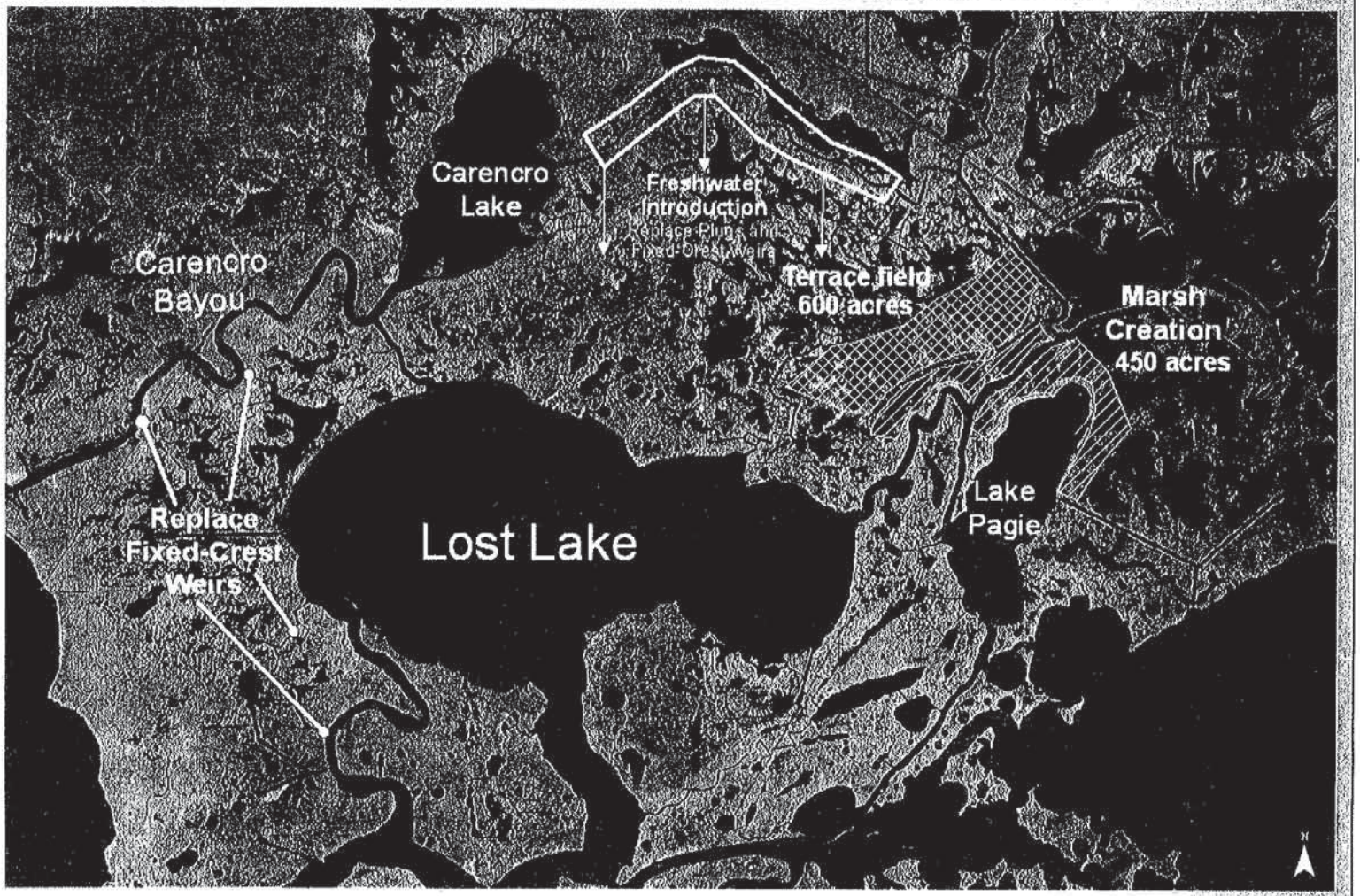
The estimated construction cost with a 25% contingency is approximately $25,725,000.

Preparer of Fact Sheet

Kevin Roy, U.S. Fish and Wildlife Service, 337-291-3120 email: kevin_roy@fws.gov

U.S. Fish & Wildlife Service — *Louisiana Ecological Services Field Office*

Lost Lake Marsh Creation and Hydrologic Restoration



OFFICE OF THE PARISH PRESIDENT

TERREBONNE PARISH CONSOLIDATED GOVERNMENT
P. O. Box 6097
HOUMA, LOUISIANA 70361-6097

MICHEL H. CLAUDET
PARISH PRESIDENT

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

November 20, 2009

Colonel Alvin B. Lee, Chairman
CWPPRA Task Force
U.S. Army Corps of Engineers, NOD
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Re: Lost Lake Marsh Creation and Hydrologic Restoration Project
Viper Wall Demonstration Project

Dear Colonel Lee:

As you are aware, the Lost Lake marsh Creation and Hydrologic Restoration Project, located in the western portion of the Terrebonne Basin, is one of ten candidate projects for Engineering and Design (Phase I) funding on the PPL 19 of the CWPPRA program. The Technical Committee will be meeting on December 2, 2009 in Baton Rouge to discuss these ten projects and to make its recommendation for up to four projects for Phase I funding, and may also be making recommendations regarding demonstration projects.

Attached you will find a resolution passed by the Terrebonne Parish Coastal Zone Management and Restoration Advisory Committee, expressing support for the project and requesting that the Technical Committee assign the project a high priority when considering the candidate projects. The Terrebonne Parish Council concurred with this recommendation on November 16, 2009 and has also expressed its support for the project. In addition, by motion of the Council at a regular meeting on October 22, 2008, the Council expressed its support at that time for the Viper Wall Demonstration Project. The support for this project has been expressed at the planning rounds, as well as subsequent voting meetings.

As you are aware, Terrebonne Parish faces many challenges in the planning and implementation of restoration projects, and at the same time, we continue to experience one of the higher rates of average annual coastal land loss in Louisiana. As proposed, the Lost Lake Project will capitalize on benefits from adjacent CWPPRA projects in various phases of planning and implementation (see projects identified in attached resolution) and will serve to protect vulnerable habitats from the threat of increasing salinities. This project would also function synergistically with LCA projects currently being evaluated for future construction: "Stabilize Gulf Shoreline at Point-Au-Fer Island" and "maintain Landbrdige between Caillou Lake and the Gulf of Mexico".

On behalf of the residents and coastal stakeholders in Terrebonne Parish, I urge you to give every favorable consideration possible to the Lost Lake Marsh Creation and Hydrologic

Restoration Project when selecting priority projects for Phase I funding for PPL 19, and assigning this project a high priority score when ranking projects for consideration.

In addition, we also request your support for the continued evaluation of the Viper Wall System, as submitted by Mr. Vincent Liner of Terrebonne Parish as a demonstration project should the Technical Committee make recommendations on demonstration projects this year.

I do hope that you will share these comments with the members of the CWPPRA Technical Committee as well as members of the Task Force. Please do not hesitate to contact me should you have any questions or require additional information.

Sincerely,

Michel H. Claudet
Parish President

Cc: Council Reading File

P.O. BOX 6097
HOUMA, LOUISIANA 70361
(985) 868-5050

P.O. BOX 2768
HOUMA, LOUISIANA 70361
(985) 868-3000

TERREBONNE PARISH
CONSOLIDATED GOVERNMENT

Office of Coastal Restoration and Preservation

November 19, 2009

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

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Viper Wall Demonstration Project

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

Sincerely,

Leslie R. Suazo, Director

Cc: CWPPRA Technical Committee
Michel Claudet
Al Levron
Council Reading File

APACHE LOUISIANA MINERALS LLC
A Subsidiary of APACHE Corporation

POST OFFICE BOX 206 / HOUMA, LOUISIANA 70361-0206

Apache CORPORATION

TEL (985) 879-3528
FAX (985) 876-5267

November 17, 2009

Tom Holden, Chairman
CWPPRA Technical Committee
US Army Corps of Engineers – NOD
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Lost Lake Marsh Creation and Hydrologic Restoration Project, Terrebonne Parish, LA

Dear Mr. Holden:

Apache Louisiana Minerals LLC (ALM) is one of the major landowners, along with ConocoPhillips/LL&E, in the vicinity of the subject project. Over the past 40+ years, our offices have made concerted efforts in wetlands conservation by implementing restoration projects throughout our fee lands, including having also provided private funding assistance to certain State and Federal projects.

We have reviewed the subject project plan and features and are excited to see such a project being proposed to protect and enhance this area. The area north of Lost Lake has suffered from the lack of freshwater inflow. The opportunity to provide more fresh water via this project would be a positive stance in defending further land loss.

ALM stands firm in supporting such a project and strongly urge your favorable efforts to approve appropriate funding and resources to see this project through to completion. Thank you in advance for your favorable consideration of this request.

Sincerely,

APACHE LOUISIANA MINERALS LLC

Timothy J. Allen, PLS
General Manager

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OFFICE OF THE PARISH PRESIDENT

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P. O. Box 6097
HOUMA, LOUISIANA 70361-6097

MICHEL H. CLAUDET
PARISH PRESIDENT

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DC
DD
DPM
MeG

November 20, 2009

Colonel Alvin B. Lee, Chairman
CWPPRA Task Force
U.S. Army Corps of Engineers, NOD
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Re: Lost Lake Marsh Creation and Hydrologic Restoration Project
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Sincerely,

Michel H. Claudet
Parish President

Cc: Council Reading File

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TERREBONNE PARISH
CONSOLIDATED GOVERNMENT

COASTAL ZONE MANAGEMENT & RESTORATION ADVISORY COMMITTEE

November 3, 2009

OFFERED BY: Gerald Schouest

SECOND BY: Allan Gibson

WHEREAS, the Coastal Zone Management and Restoration Advisory Committee is committed to providing aggressive leadership, direction and consonance in the development and implementation of comprehensive policies, plans and programs which encourage multiple uses of the coastal zone and achieve a proper balance between the multiple needs of coastal resources in Terrebonne Parish; and

WHEREAS Terrebonne Parish currently experiences one of the highest rates of coastal land loss in Louisiana, and is in urgent need of projects to restore and protect our fragile wetlands, and

WHEREAS, the Technical Committee of the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) has previously selected the Lost Lake Marsh Creation and Hydrologic Restoration Project as one of 10 projects for further evaluation; and

WHEREAS, Project is now a candidate for Engineering and Design funding; and

WHEREAS this project will provide synergistic benefits to the following CWPPRA projects:

1) Brady Canal Hydrologic Restoration (construction completed);
2) North Lake Mechant Landbridge Project (construction at or near completion);
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5) South Lake Decade Shoreline Protection and Marsh Creation (construction to being in 2010) ; and

WHEREAS, the implementation of this project, as a compliment to other CWPPRA projects, will restore and protect area marshes and will also serve as a buffer zone separating the fresher marshes to the north and the more saline marshes to the south

THEREFORE BE IT RESOLVED that the Coastal Zone Management and Restoration Advisory Committee does urge and request that the CWPPRA Technical Committee does consider the North Lost Lake Project and assign it a high priority when selecting projects for Phase I (E&D) funding.

BE IT FURTHER RESOLVED that these comments be directed to the Parish Council for consideration and concurrence, the Terrebonne Levee and Conservation District and other civic organizations as appropriate, and the Chairman of the CWPPRA Technical Committee, Mr. Tom Holden, USACOE, as well as other members of the committee, prior to its meeting on December 2, 2009.

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TERREBONNE PARISH
CONSOLIDATED GOVERNMENT

COASTAL ZONE MANAGEMENT & RESTORATION ADVISORY COMMITTEE

November 3, 2009

OFFERED BY: Gerald Schouest

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THERE WAS RECORDED:

YEAS: 7

NAYS: 0

ABSTAINING: 0

ABSENT: 2

The Chairman declared the resolution adopted.

I, Leslie R. Suazo, Director of Coastal Restoration and Preservation, do hereby certify that the foregoing is a true and correct copy of a resolution adopted by the Coastal Zone Management and Restoration Advisory Committee at its regular monthly meeting on Tuesday, November 3, 2009 at which a quorum was present.

Leslie R. Suazo, Director
Coastal Restoration and Preservation

PPL19 PROJECT NOMINEE FACT SHEET
January 28, 2009

Project Name
Lost Lake Marsh Creation and Hydrologic Restoration

Coast 2050 Strategy
Regional Strategy – Dedicated delivery of sediment for marsh building
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Project Location
Region 3, Terrebonne Parish, southwestern Terrebonne Basin near Lost Lake

Problem
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Goals
1) Prevent the coalescence of Bayou DeCade and Lake Pagie and extend the landbridge function of the North Lake Mechant Landbridge Project.
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Preliminary Project Benefits

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4) The project would help maintain the Lake Pagie shoreline and the southern bank of Bayou DeCade.

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6) The project would provide a synergistic effect with the North Lake Mechant Landbridge Restoration Project located to the east. The concept of protecting this important landbridge would be extended westward. Other CWPPRA projects which protect marsh in this important area include the Brady Canal Hydrologic Restoration Project and the Penchant Basin Natural Resources Plan. This project would work synergistically with those projects to protect marsh in this portion of the western Terrebonne Basin.

Identification of Potential Issues

At this time, no significant issues have been identified for this project. Lost Lake contains no oyster leases and maintenance costs for the project would be low.

Preliminary Construction Costs

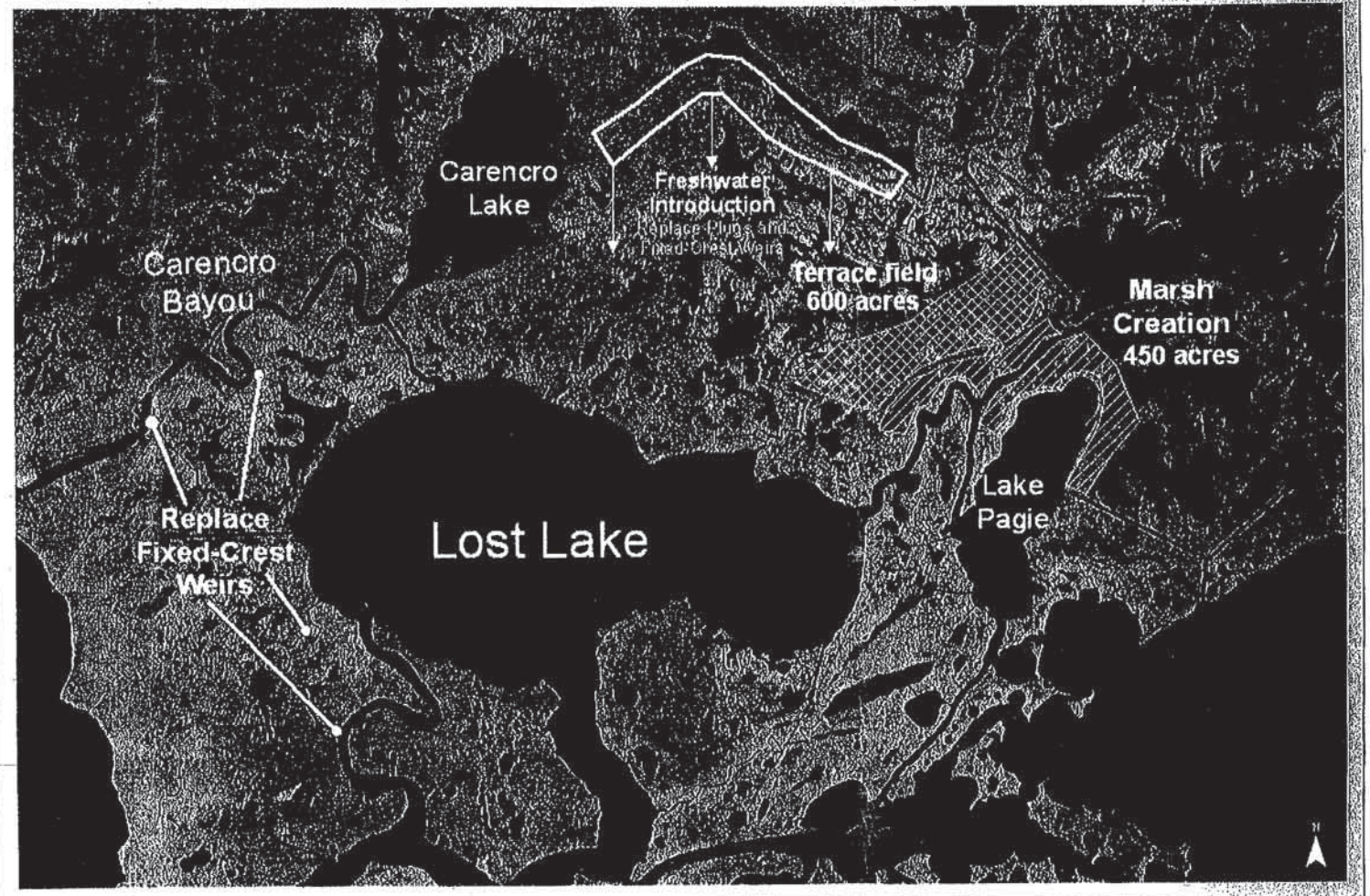
The estimated construction cost with a 25% contingency is approximately $25,725,000.

Preparer of Fact Sheet

Kevin Roy, U.S. Fish and Wildlife Service, 337-291-3120 email: kevin_roy@fws.gov

U.S. Fish & Wildlife Service — *Louisiana Ecological Services Field Office*

Lost Lake Marsh Creation and Hydrologic Restoration



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

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

For Discussion/Decision:

The Task Force will consider the Technical Committee's recommendation to approve requests for Phase II Authorization and Increment 1 funding. The Technical Committee reviewed project information, and took public comments on requests for Phase II approval on the seven projects shown in the following table. The Technical Committee ranked the seven projects based on individual agency votes.

Technical Committee Recommendation:

Technical Committee recommends Phase II authorization and Increment 1 funding for the top four projects (Cameron-Creole Fresh Water Intro, Vegetative Plantings - CU 1, Barataria Basin Landbridge, Phase 3 - CU 8, West Belle Pass Barrier Headland Restoration, and South Grand Chenier Hydrologic Restoration) indicated in the table below that are within the construction program's available funding limits.

Recommended Approval by Tech Committee	Agency	Project No.	PPL	Project Name	No. Of Agency Votes	Sum of Weighted Score	Total Fully Funded Cost Est.
X	NRCS	CS-49 (1)	18	Cameron-Creole Fresh Water Intro, Vegetative Plantings - CU 1	6	14	$1,147,096
X	NRCS	BA-27c(4)	9	Barataria Basin Landbridge, Phase 3 - CU 8	5	10	$20,498,664
X	NMFS	TE-52	16	West Belle Pass Barrier Headland Restoration	4	12	$42,250,417
X	FWS	ME-20	11	South Grand Chenier Hydrologic Restoration	4	8	$29,046,128
	NRCS	TE-43	10	GIWW Bank Restoration of Critical Areas in Terrebonne	2	7	$13,022,246
	COE	TV-11b	9	Freshwater Bayou Canal, Freshwater Bayou Lock and Belle Isle Canal	2	5	$38,065,335
	EPA	TE-47	11	Ship Shoal: Whiskey West Flank Restoration	1	4	$61,750,785

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2009

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score	Phase II, Increment 1 Funding Request	Cumulative Phase II, Increment 1 Funding	Amt Remaining
NRCS	CS-49 (1)	Cameron-Creole Fresh Water Intro, Vegetative Plantings - CU 1	2	3	1	3	1	4	6	14	$990,199	$990,199	$93,123,054
NRCS	BA-27c	Barataria Basin Landbridge, Phase 3 - CU 8	1		2	1	4	2	5	10	$16,645,710	$17,635,909	$76,477,344
NMFS	TE-52	West Belle Pass Barrier Headland Restoration		2	3	4		3	4	12	$38,874,727	$56,510,636	$37,602,617
FWS	ME-20	South Grand Chenier Hydrologic Restoration		1	4		2	1	4	8	$24,911,754	$81,422,390	$12,690,863
NRCS	TE-43	GIWW Bank Restoration of Critical Areas in Terrebonne	4				3		2	7	$9,522,400	$90,944,790	$3,168,463
COE	TV-11b	Freshwater Bayou Canal, Freshwater Bayou Lock and Belle Isle Canal	3			2			2	5	$33,411,651	$124,356,441	-$30,243,188
EPA	TE-47	Ship Shoal: Whiskey West Flank Restoration		4					1	4	$57,851,781	$182,208,222	-$88,094,969
											$182,208,222		

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

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

BARATARIA BASIN
LANDBRIDGE, PHASE 3 CU8
BA-27c(4)

Coastal Wetlands Planning, Protection and Restoration Act

BARATARIA BASIN LANDBRIDGE SHORELINE PROTECTION PROJECT PHASE 3 (BA-27c)

PHASE II APPROVAL OF CU8

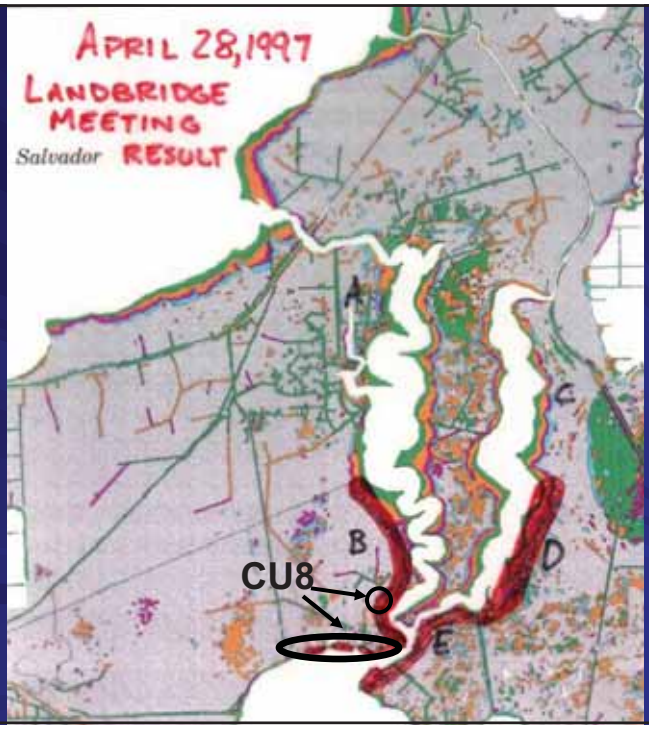
CWPPRA Technical Committee Meeting
December 2, 2009

BARATARIA BASIN LANDBRIDGE PHASE 3 (BA-27c)
CONSTRUCTION UNIT 8

Project Location: Region 2, Barataria Basin, Lafourche Parish, west bank of Bayou Perot and north shore of Little Lake.

Problem: Shoreline erosion rates in this area vary from 5 to 15 feet per year.

Goal: Reduce or eliminate shoreline erosion for about 14,800 feet along west bank of B. Perot and north shore of Little Lake.



BARATARIA BASIN LANDBRIDGE SHORELINE PROTECTION

ALL PHASES AND CONSTRUCTION UNITS

BARATARIA BASIN LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 8

BARATARIA BASIN LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 7

Project Features

14,800 feet of rock dike / revetment along the along the west bank of Bayou Perot and the north shore of Little Lake.

Dike and revetment will have an elevation of 3.5 feet NAVD88, a top width of 4 feet, and side slopes of 3:1.

Four site-specific organism/drainage openings, ranging from 25 to 50 feet .

Beneficial Use of dredge material could result in creation of 38 acres of marsh.

BARATARIA BASIN LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 7

Benefits and Cost

Net Acres after 20 years:	107 Acres
Average Annual Habitat Units:	47.3
Fully Funded Phase II Total:	$20,498,664
Fully Funded Phase II Increment 1:	$16,645,710

onsensus derived project

igh erosion rate

eady for construction for 6 years

unding delay has already raised the cost by about 120

tegral Piece of the "Barataria Basin Landbridge" that
s been a widely touted example of how numerous sma
ojects can be combined to accomplish a basin goal

America's Wetland Book

CWPPRA Education Document

December 2006 Watermarks

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

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

November 17, 2009

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

RE: Barataria Basin Landbridge Shoreline Protection Project Phase 3 (BA-27c)
Phase Two Authorization Request for Construction Unit 8

Dear Mr. Holden:

By this letter, the Natural Resources Conservation Service and the Louisiana Office of Coastal Protection and Restoration requests Phase Two Authorization for the Barataria Basin Landbridge Shoreline Protection Project Phase 3 (BA-27c) Construction Unit 8, consisting of approximately 14,811 feet of rock shoreline protection located on the north shore of Little Lake and the west bank of Bayou Perot in Lafourche Parish, Louisiana.

Pursuant to Revision 16.0 of the CWPPRA Standard Operating Procedures, Appendix C, a document entitled "Information Required in Phase Two Authorization Request" is provided as Attachment A.

Pursuant to Revision 16.0 of the CWPPRA Standard Operating Procedures, Section 6.j.(2), a project estimate and spending schedule based on the 5 budget subcategories is provided as Attachment B.

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

Sincerely,

W. Britt Paul
ASTC/WR & RC&D

Attachments

cc: (via email only):
Kirk Rhinehart, OCPR Technical Committee Member
Darryl Clark, USFWS Technical Committee Member
Rick Hartman, NMFS Technical Committee Member
Brad Crawford, EPA, Technical Committee Member
Melanie Goodman, P&E Subcommittee Chair
Kelly Templet, OCPR 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
Travis Creel, USCOE
Quin Kinler, Project Manager, NRCS
Dustin White, Project Manager, OCPR
John Boatman, DC, FO, NRCS
Brad Sticker, DE, NRCS
Randolph Joseph, Jr., AC, NRCS

Overview of Phase One Tasks, Process and Issues

Environmental Compliance Tasks.

The Barataria Basin Landbridge Shoreline Protection Project Phases 1, 2, and 3 (BA-27) Environmental Assessment was completed in February 2000. A Finding of No Significant Impact was published in the Federal Register on February 17, 2000.

The Section 404 permit was issued on December 10, 2002, with revised drawings being approved on February 26, 2004. CZM Consistency Determination was granted December 30, 2003. Water Quality Certification was granted January 30, 2004.

The Ecological Review for the entire Barataria Basin Landbridge Shoreline Protection Project was completed in August 2004. The reach of shoreline included in CU8 is addressed in the section referred to as CU5 because the previously defined CU5 has been split into three parts; two parts were approved for Phase Two funding as "CU5" and "CU7", and part has been redefined as "CU8".

Engineering Tasks.

The results of the Engineering Tasks are presented in the July 2004 Design Report for Barataria Basin Landbridge Shoreline Protection Project, Construction Unit 5 which has previously been made available to all CWPPRA agencies.

This design report covers the shoreline protection reaches that has been already been approved for Phase Two funding as Construction Unit 5 (13,780 feet of concrete pile and panel wall) and Construction Unit 7 (8,000 feet of the rock revetment) and the shoreline protection reach that is now referred to as Construction Unit 8 (about 14,811 feet of rock shoreline protection). Only two elements presented in the 2004 Design Report associated with the rock shoreline protection (now CU8) have changed: 1) the engineer's estimate has been updated; and 2) for the beneficial use areas, the maximum elevation of dredged material placement has been revised from +1.0 to +2.0 feet NAVD88.

Landrights Tasks.

By letter to Don Gohmert of NRCS, dated January 11, 2006, LDNR certified that landrights are complete for CU5 and CU7, which covers the area that is now defined as CU5, CU7 and CU8.

Description of the Phase Two Candidate Project

The subject Phase Two Authorization Request is limited to about 14,811 feet of shoreline protection along the west bank of Bayou Perot and the northern shoreline of Little Lake. See Figure 2. The shoreline protection will consist of a rock dike and rock revetment, with an

Ecological Review recommended continued progress toward construction authorization pending a favorable 95% Design Review.

H. Application / Public Notice for Permits. The Section 404 permit was issued on December 10, 2002, with revised drawings being approved on February 26, 2004. CZM Consistency Determination was granted December 30, 2003. Water Quality Certification was granted January 30, 2004.

I. Field investigations by NRCS personnel and the project team have determined that an HTRW assessment is not required for this project.

J. Section 303e Approval. Section 303e approval was granted by the Corps Real Estate Division on October 21, 2002.

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

L. The revised fully-funded cost estimate for BA-27c CU8 Phase II, generated by the Economic Work Group, is $20,498,664. The revised fully-funded cost estimate for Phase II, Increment 1 of the BA-27c CU8 is $16,645,710. The required spreadsheet is enclosed.

M. Wetland Value Assessment. The Wetland Value Assessment was completed in August 1999, and all Task Force agencies were provided a copy. While no significant change in project scope had occurred warranting a revised WVA, the benefits of CU8 were partitioned as of October 27, 2009. For the CU8 portion of BA-27c, the benefits include 107 net acres over 20 years and 47.26 AAHUs.

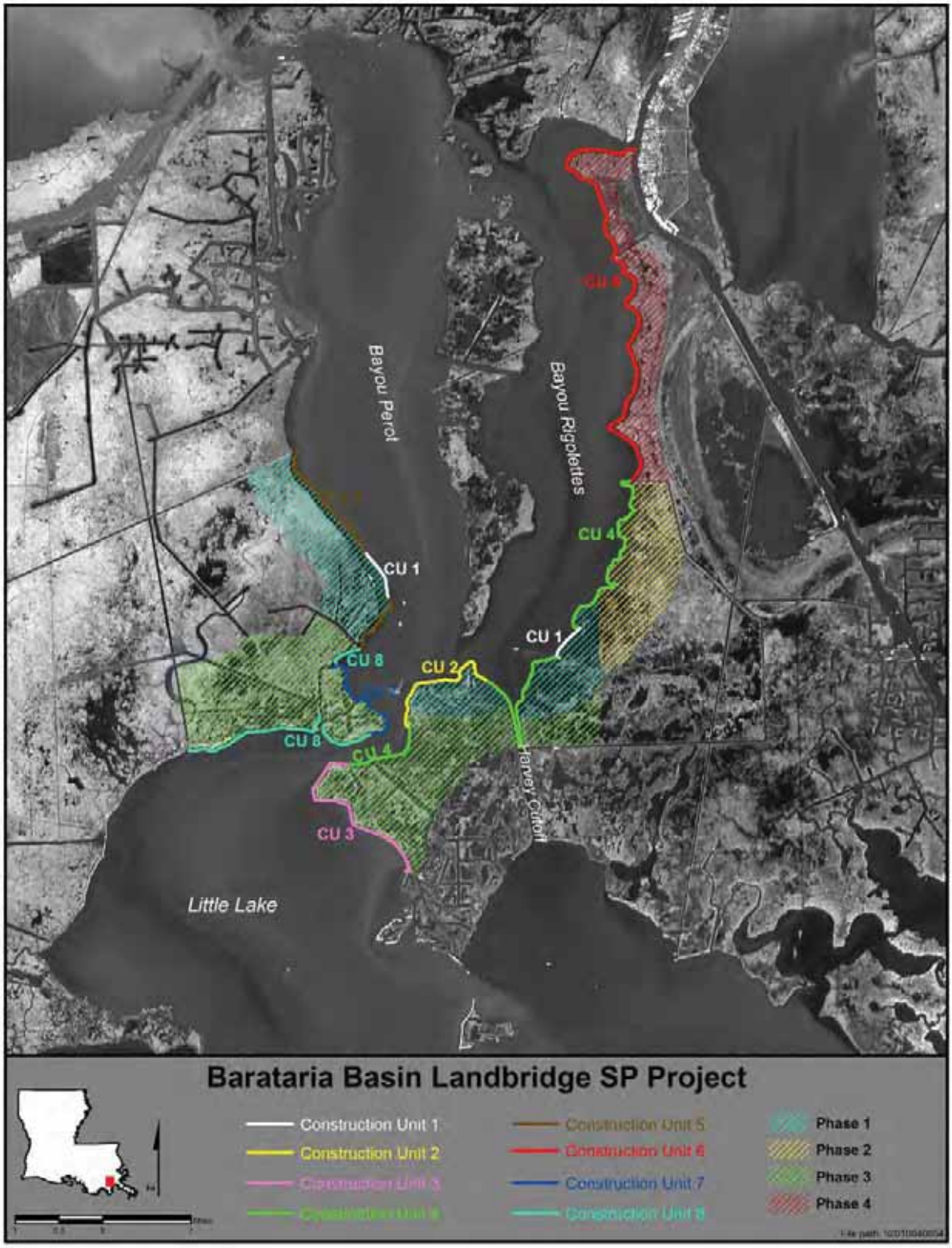


Figure 1. Map illustrating the juxtaposition of Barataria Basin Landbridge Shoreline Protection Project Phases and Construction Units.

Figure 2. Map of Barataria Basin Landbridge Shoreline Protection Project Phase 3 Construction Unit 8, Lafourche Parish.

CAMERON-CREOLE FRESHWATER INTRO, VEGETATIVE PLANTINGS CU1 CS-49 (1)

Coastal Wetlands Planning, Protection and Restoration Act

CAMERON-CREOLE FRESHWATER INTRODUCTION PROJECT (CS-49)

PHASE II APPROVAL OF VEGETATIVE PLANTING FEATURE

CWPPRA Technical Committee Meeting
December 2, 2009

CAMERON-CREOLE FRESHWATER INTRODUCTION (CS-49)
VEGETATIVE PLANTING FEATURE

Project Location: Region 4, Cal/Sab Basin, Cameron Parish, east of Calcasieu Lake in the Cameron-Creole Watershed.

Problem: Persistent flooding from impacts associated with Hurricane Rita continued until April 2006. Once the storm waters receded, much of the proposed planting area appeared as mudflats that have yet to revegetate.

Goal: Revegetate approximately 200 acres of suitable marsh substrate by expediting vegetative plantings.

Vegetative Planting Feature

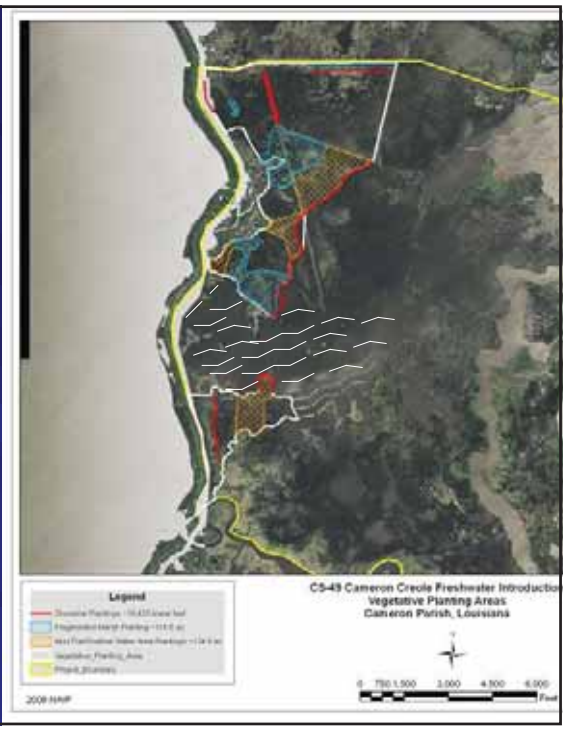
2004 DOQQ with Proposed Planting Feature Identified prior to Hurricane Rita

2008 DOQQ with Proposed Planting Feature Identified post Hurricane Rita

Thousands of marsh acres in the Cameron-Creole were converted to open water

Approximately 800 acres were surveyed in August 2009

Those surveys identified approximately 200 acres with elevation suitable for planting



CAMERON-CREOLE FRESHWATER INTRODUCTION (CS-49)
VEGETATIVE PLANTING FEATURE

Project Features

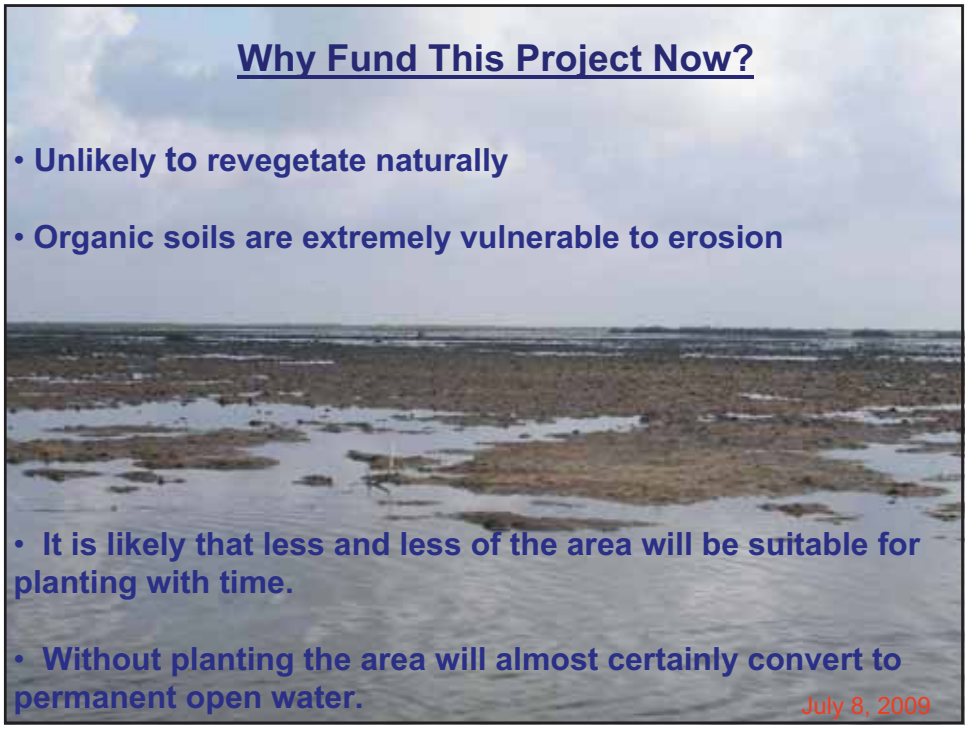
Targeted plantings, in two applications, are recommended in order to accelerate the re-establishment of plant cover and prevent continued soil and elevation loss

- Application 1 will mostly consist of plugs of *Spartina alterniflora* 'Vermilion' in three areas identified as shoreline, fragmented marsh, and open water
- Application 2 is to establish vegetation in additional areas or areas that remain unvegetated via natural colonization or expansion of Application I plantings.

CAMERON-CREOLE FRESHWATER INTRODUCTION (CS-49)
VEGETATIVE PLANTING FEATURE

Benefits and Cost

Net Acres after 20 years:	40 Acres
Fully Funded Phase II Total:	$1,147,090
Fully Funded Phase II Increment 1:	$990,199


Why Fund This Project Now?
• Unlikely to revegetate naturally
• Organic soils are extremely vulnerable to erosion
• It is likely that less and less of the area will be suitable for planting with time.
• Without planting the area will almost certainly convert to permanent open water.
July 8, 2009

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

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

November 18, 2009

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

RE: Cameron Creole Freshwater Introduction CU#1 (CS-49)
Phase II Authorization Request

Dear Mr. Holden:

The Natural Resources Conservation Service (NRCS) and Louisiana Department of Natural Resources (LDNR) request Phase II authorization for the Cameron Creole Freshwater Introduction Project Construction Unit #1 Vegetative Plantings feature (CS-49). The project was authorized for Phase I as a part of Priority Project List 18 (PPL 18) in January 2009 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force), under the authority of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures (SOP) Manual. Questions regarding this project may be referred to Troy Mallach, Project Manager, at (337) 291-3064.

Sincerely,

W. Britt Paul
ASTC/WR & RC&D

Attachments

cc: (via email only)
Kirk Rhinehart, OCPR Technical Committee Member
Darryl Clark, USFWS Technical Committee Member
Rick Hartman, NMFS Technical Committee Member
Brad Crawford, EPA, Technical Committee Member
Melanie Goodman, USACOE, P&E Subcommittee
Kelly Templet, DNR P&E Subcommittee Member
Kevin Roy, USFWS P&E Subcommittee Member
Rachel Sweeney, NMFS P&E Subcommittee Member
Garrett Graves, CPRA Chairman

John Jurgensen, NRCS P&E Subcommittee Member
Troy Mallach, Project Manager, NRCS
Bill Feazel, Project Manager, OCPR
Frank Chapman, DC, NRCS
Brad Sticker, DE, NRCS
Steve Cruse, AC, NRCS

Enclosure 1
Information Required in Phase II Authorization Request

Cameron-Creole Freshwater Introduction (CS-49)
Vegetative Planting Feature

Description of Phase I Project

The CS-49 Cameron-Creole Freshwater Introduction Project was approved relative to the 18th CWPPRA Priority Project List. The Natural Resources Conservation Service (NRCS) is the federal sponsor for this project. The goal of this project is to restore the function, value, and sustainability to approximately 22,247 acres of marsh and open water by improving hydrologic conditions via freshwater input and increasing organic productivity. Three freshwater introduction structures and approximately 8,000 linear feet of shoreline protection are proposed along the southern bank of the GIWW. Additionally, approximately 65,000 linear feet of terraces are proposed in open water areas south of the GIWW. However, E & D for those features has not been completed.

An additional project feature, the Vegetation Planting Feature, is to replant approximately 200 acres of hurricane damaged marsh. Replanting those acres must be done as quickly as possible to prevent/reduce erosion of exposed soils. E & D for this feature is being completed and separate funding will be requested.

The Cameron-Creole Freshwater Introduction Project is located in Cameron Parish east of Calcasieu Lake and west of the Gibbstown Bridge at Highway 27. The specific location proposed for the structures and the shoreline protection feature is the southern bank of the GIWW originating at the Gibbstown Bridge and continuing approximately 8,000 feet westward. Distributaries that are currently being considered for the proposed freshwater introduction are the Creole, Montesano, and Hebert Precht canals. The proposed terraces would be constructed in the open water areas just south of the GIWW shoreline. Vegetated plantings are proposed for the hurricane damaged marsh east of Calcasieu Lake and their success are not contingent on the other project features (see attached map).

Virtually all of the project area marshes have experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention resulting from hydrologic changes associated with the Calcasieu Ship Channel and the GIWW. Because of man-made alterations to the hydrology, it is unlikely that those marshes will recover without comprehensive restoration efforts. The Cameron-Creole Watershed Project has successfully reduced salinities and increased marsh productivity. However, the area remains disconnected from freshwater, sediments, and nutrients available from the GIWW. In addition, thousands of acres of marsh were damaged by Hurricane Rita and again, more recently, by Hurricane Ike.

The project objectives are: 1) to use the GIWW as a conveyance channel to

Geologic Information

According to the Cameron Parish Soils Survey, soil types in the project area include Allemands muck in the freshwater area and Banker and Clovelly muck in the intermediate and brackish areas. Allemands soils consist of level, very poorly drained organic soils that have approximately 30 inches of very fluid muck. The next layer is very fluid mucky clay to approximately 37 inches. Banker soil is a very poorly drained mineral soil found in brackish marshes. They contain a very fluid, mucky surface layer approximately 6 inches thick. The next layer, to a depth of approximately 18 inches, is very fluid mucky clay. Clovelly soil is a very poorly, very fluid, organic soil found in brackish marshes. It contains a very fluid muck to about 24 inches. The next layer, to a depth of approximately 36 inches is very fluid mucky clay (USDA, Natural Resources Conservation Service 1995).

Hydrology and Hydraulics

The water levels in the watershed are influenced by tides and wind. Looking at the 2008 CRMS data at Station 1743, it appears that mean high water is approximately 1.3 ft NAVD88 and the mean low water is approximately 0.70 ft NAVD88.

Engineering and Design Tasks

The Project Marsh Planting Area is composed 135 and 650 acre areas = 785 acres total project area. The affected area was too large to cover 100% of the impacted sites cost effectively so targeted plantings, in a phased application, are recommended. The project area was evaluated and suitable elevations and appropriate species were determined for approximately 200 acres.

Engineering and Design of the structures, shoreline protection, and terrace features are ongoing and will not likely be completed until December 2011.

Design meetings for the Vegetative Planting Feature were held at the 30% (30 September 2009) and 95% (30 October 2009) levels.

Landrights, Cultural Resources, Environmental Compliance and Other Tasks

Preliminary landrights has proceeded smoothly and no problems are anticipated in acquiring final landrights. Section 303e approval request has been initiated.

No cultural resource sites are located within the project area proposed for the Vegetative Planting Feature.

It has been determined that the Vegetative Planting Feature of this project qualifies for a categorical exclusion for the National Environmental Policy Act (NEPA). Documentation of the categorical exclusion will be included in the project files.

A Section 404 and Coastal Use permit application has been submitted. An Ecological Review will not be required for this project.

Description of the Phase II Candidate Project

The final design of the project features is essentially unchanged from the original Phase I project (Figure 1). However, the CS-49 project authorized for Phase I authorization includes several features that require traditional Engineering and Design (E &D). The necessary time to complete E & D of those features will jeopardize the potential restoration of hurricane damaged marshes proposed for vegetative plantings. Ultimately, the freshwater introduction features will benefit the areas proposed for planting. However, it is essential that vegetation be established on those areas quickly to prevent additional soil loss. It is, therefore, our request that funding of the Vegetative Planting Feature be expedited and considered separately from the freshwater introduction, shoreline protection, and terrace features.

Marshes in the Cameron-Creole area experienced severe impacts in August 2005 from Hurricane Rita and again in September 2008 from Hurricane Ike that were likely intensified by the pre- and post-storm drought conditions. Prior to Rita, the mean water salinity was 8ppt in the proposed project area, which was composed of brackish marsh communities, primarily dominated by marshhay cordgrass (*Spartina patens*). The project area lies within intermediate and brackish marshes bordering the east-central and southeastern Calcasieu Lake shoreline where Barras reported that particularly persistent flooding from Rita's surge continued until April 2006 (Farris, et al. 2007). Once drained, much of the designated project areas appeared as mudflat areas that have yet to revegetate (Figures 2 – 5).

This Phase II funding request is only to expedite the Vegetative Planting Feature. There are many examples of marsh loss associated with hurricanes in this area and it is unlikely that the area proposed for plantings will recover without the proposed project. Thousands of acres of open water between Sabine and Calcasieu Lake have existed since Hurricane Audrey (1957) and Carla (1961) (Valentine 1988). Those areas remain large lakes (approximately 1 – 2 feet deep) and continue to expand as organic soils break up and are exported into Calcasieu Lake.

Success of the proposed plantings is expected to be high and is based on the Cameron-Creole Watershed Management Preliminary Report (DeLany 1988). That report quantified a 91% survival rate for *Spartina alterniflora* planted on dead *Spartina patents* root mat in the targeted area. However, it is likely that less and less of the area will be suitable for planting with time.

Targeted plantings, in two applications, are recommended in order to accelerate the re-establishment of plant cover and prevent continued soil and elevation loss. The affected area is too large to cover 100% of the impacted sites cost effectively, and conditions may still be changing. Therefore, approximately 200 acres were selected for plantings based on elevation surveys conducted August 26 – 31st (Figure 6).

Application 1 – TY0: The goal of the first planting application is to establish a sufficient amount of the desired species to serve as parent material to effectively "jump-start" regeneration of emergent marsh where elevations are sufficient. The plantings will especially target strategic areas, i.e. critical sites where loss is most imminent and would permanently eliminate recovery opportunities or allow expanded loss. This includes sites furthest away from existing natural communities, where substrate is most vulnerable to erosion, such as along newly forming or expanding drainage channels and to prevent coalescence of interior open water areas from continued substrate collapse.

The Vegetative Planting Feature will mostly consist of plugs of *Spartina alterniflora* 'Vermilion', commonly known as 'Vermilion' smooth cordgrass. This planting may also include trade-gallon sized 'Vermilion' smooth cordgrass. The final selection and placement of species size will depend upon existing site-specific conditions including substrate elevations and potential wave impacts.

Three types of areas have been identified for targeted planting as a result of the Phase 1 evaluation of an elevation survey of transects, aerial photography, and water level information. Actual planting density and arrangement is dependent on the specific need for each site type, as follows:

1) Plantings will be installed on canal banks or shorelines along stretches of vulnerable areas that are exposed to greater wave or water energy, and therefore subject to accelerated edge erosion. Plantings will be arranged in a double row configuration with 2.5-foot alternating centers to form a continuous vegetative buffer that will stabilize edges and prevent coalescence of ponds or expansion of adjacent deeper water areas. Estimated quantities and costs have been calculated for the installation of smooth cordgrass along approximately 17,500 linear feet of bank or shoreline plantings.

   Vegetative plugs:
   17,500 lf x 2 rows = 35,000 lf ÷ 1 plt /2.5 lf = 14,000 plts x $5 per plt = $70,000
   or,
   Trade gallons:
   17,500 lf x 2 rows = 35,000 lf ÷ 1 plt/4 lf = 8,750 x $8 per plt = $70,000

2) Plantings will be installed on areas where some existing emergent vegetation remains but are badly fragmented, and therefore those bare areas are subject to substrate collapse to elevations too low to be re-colonized by adjacent existing species. A combination planting will be installed that consists of a double row configuration to form a continuous vegetative perimeter along sections of the delineated boundaries (included in bank or shoreline planting footage above), and multiple rows planted with alternating centers on interior bare areas. Target planting density for these areas is approximately 50 to 100 plants per acre. Estimated quantities and costs for this site type have been calculated for the installation of approximately 100 acres of plantings of smooth cordgrass plugs

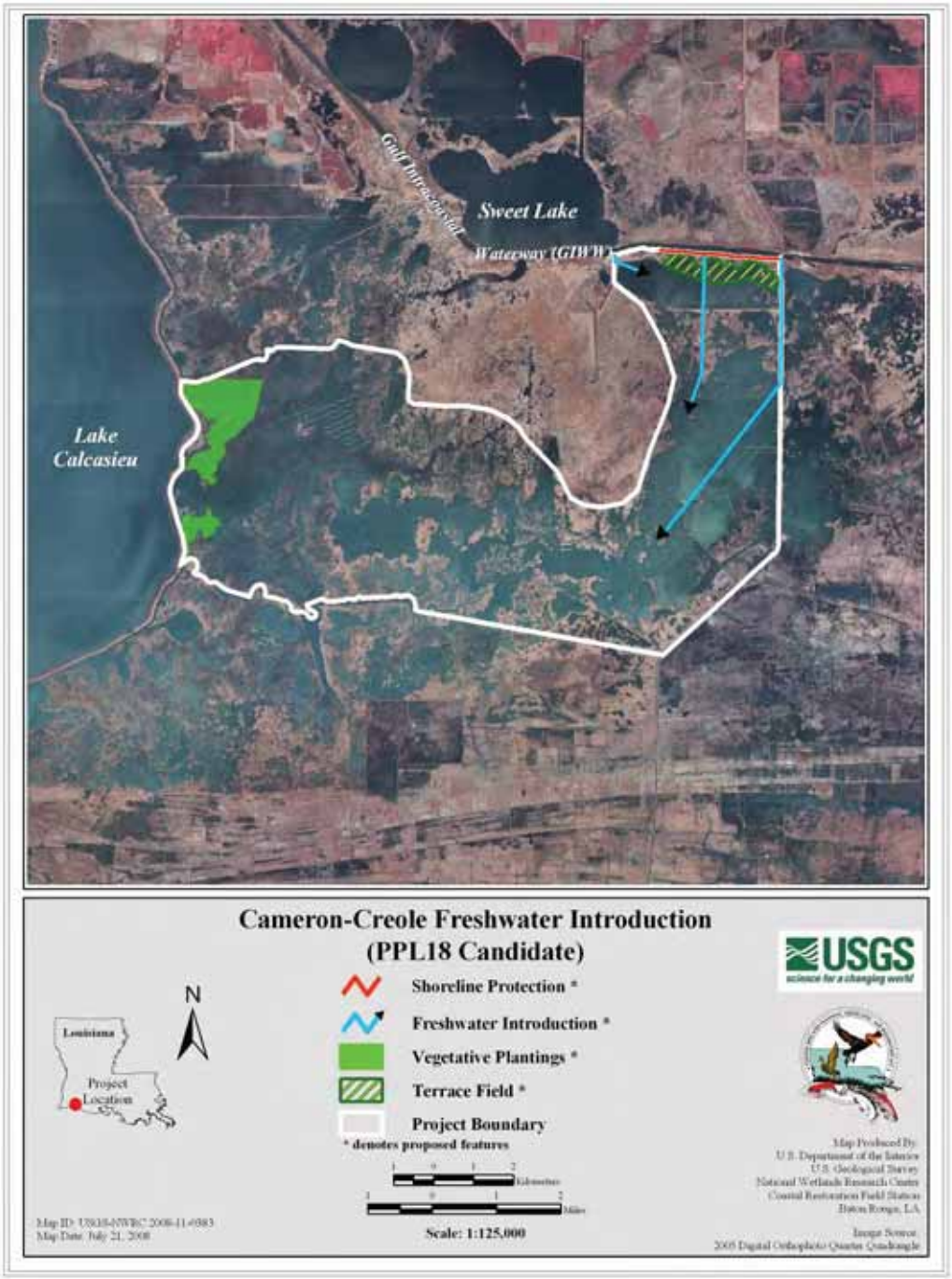


Figure 1. Approved CS-49 project map identifying the project boundaries and features including vegetative plantings.

Figure 2. Proposed planting area damaged by Hurricane Rita (September 2005). Photo taken in November of 2007.

Figure 3. Expanded view of area proposed for planting. Photo taken October 2007 (Tommy Michot)

Figure 4. Proposed planting area damaged by Hurricanes Rita and Ike (September 2005 and 2008). Photo taken in July of 2009.

Figure 5. Proposed planting area damaged by Hurricanes Rita and Ike (September 2005 and 2008). Photo taken in July of 2009.

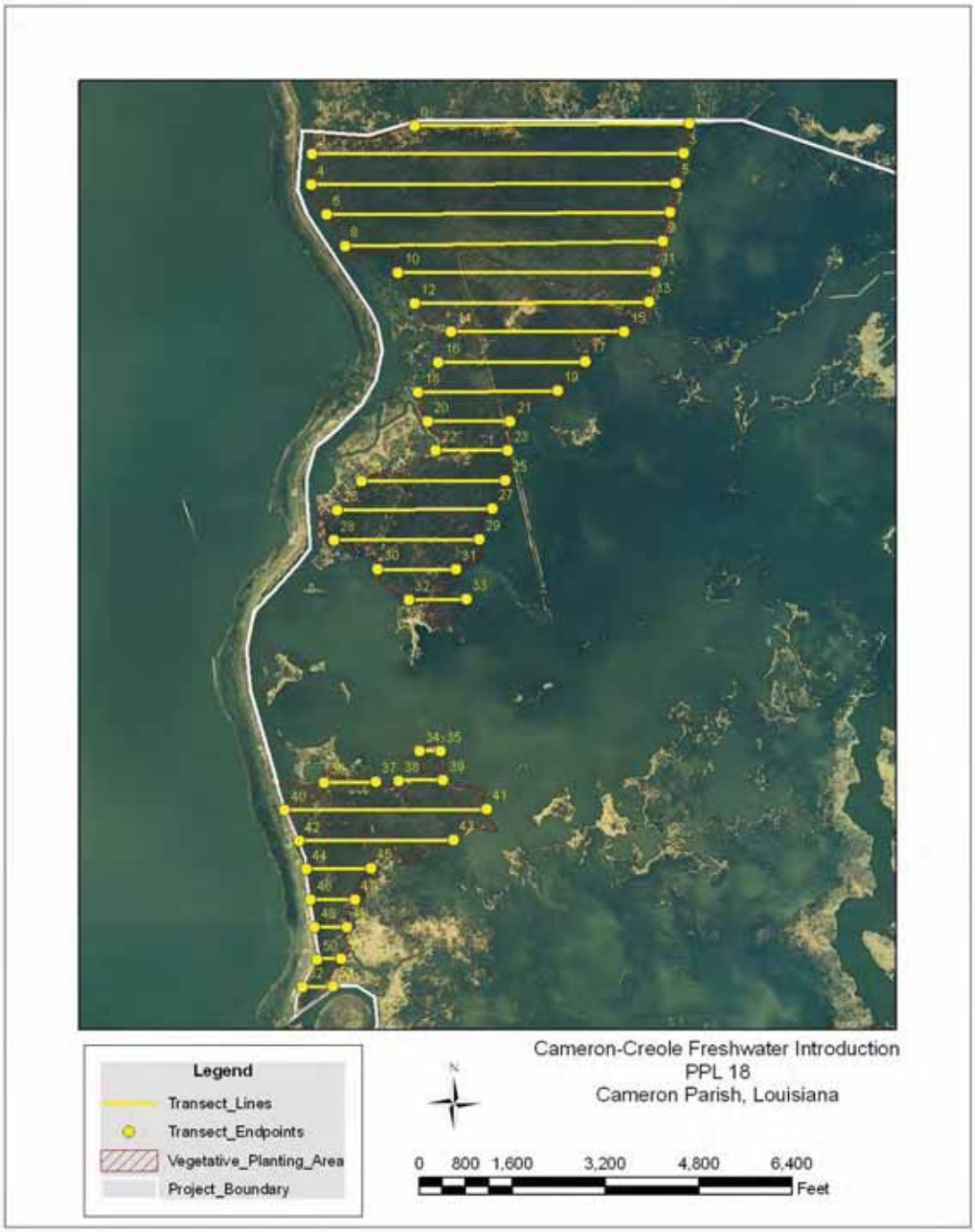


Figure 6. NRCS surveys of the proposed Vegetative Planting Feature.

Checklist of Phase II Requirements

CS-49 Cameron-Creole Freshwater Introduction
Vegetative Planting Feature

A. List of Project Goals and Strategies.
The goal of the Vegetative Planting Feature is to quickly re-establish emergent marsh vegetation on areas damaged by Hurricanes Rita and Ike. The strategy is to replant those acres as quickly as possible to prevent/reduce erosion of exposed soils

B. A Statement that the Cost Sharing Agreement between the Lead Agency and the Local Sponsor has been executed for Phase I.
A Cost Share Agreement between the Coastal Protection and Restoration Authority (CPRA) of Louisiana and NRCS was executed on 4 May 2009. A draft amendment, authorizing construction, operation, maintenance, and monitoring, to the Cost Share Agreement has been prepared.

C. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase 2 approval.
By way of letter received (22 September 2009) OCPR stated that they anticipated no landrights acquisition problems with the project. At this time all landowners have indicated approval of project and signatures pending funding approval, and no pipeline companies would be impacted.

D. A favorable Preliminary Design Review (30% Design Level). The Preliminary Design shall include completion of surveys, borings, geotechnical investigations, data analysis review, hydrologic data collection and analysis, modeling (if necessary), and development of preliminary designs.
A 30% design review meeting was held on 30 September 2009, and resulted in favorable reviews of the project design with minor modifications. OCPR and NRCS agreed on the project design and agreed to proceed to the 95% design level and with project implementation.

E. Final Project Design Review (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporate elements from the Preliminary Design and the Preliminary Design Review. Final Project Design Review (95%) must be successfully completed prior to seeking Technical Committee approval.
A 95% design meeting was held on 30 October 2009, and resulted in favorable reviews of the project design with no modifications and few comments. OCPR and NRCS agreed on the project design and agreed to proceed with project implementation.

F. A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act, must be submitted two weeks before the Technical Committee meeting at which Phase 2 approval is requested.

It has been determined that the Vegetative Planting Feature of this project qualifies for a categorical exclusion for the National Environmental Policy Act (NEPA). Documentation of the categorical exclusion will be included in the project files.

G. A written summary of the findings of the Ecological Review if completed (See APPENDIX B).
OCPR and NRCS agreed that no Ecological Review would be conducted for this project.

H. Application for and/or issuance of the public notices for permits at least two weeks before the Technical Committee meeting at which Phase 2 approval is requested.
Section 404 Permit and Coastal Use Permit has been applied for.

I. A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.
Field investigations by NRCS personnel and the project team have determined that an HTRW assessment is not required for this project.

J. Section 303(e) approval from the Corps.
The Section 303(e) approval request has been initiated.

K. Overgrazing determination from the NRCS (if necessary).
NRCS has determined that overgrazing is not, and is not anticipated to be, a problem in the project area.

L. Revised fully funded cost estimate, reviewed and approved by the Engineering Work Group prior to fully funding by the Economic Work Group, based on the revised Project design and the specific Phase 2 funding request as outlined in below spreadsheet.
The Phase I cost of the Cameron-Creole Freshwater Introduction Project (CS-49) remains unchanged at $1,549,832. The fully-funded Phase II estimate for the Vegetative Planting Feature prepared by the CWPPRA Economic Work Group is $1,147,096; the Phase II-Increment 1 cost for the Vegetative Planting Feature is $990,199.

M. A Wetland Value Assessment, reviewed and approved by the Environmental Work Group.
The Wetland Value Assessment (WVA) conducted for the Phase I project estimated a benefited area of 22,247 acres and the net acres created/protected/restored of 471 acres at TY20. The net acres attributed to the Vegetative Planting Feature were separated in the WVA and totaled 40 net acres at TY20.

References

DeLany, Billy. 1988. Cameron-Creole Watershed Management Preliminary Report *in Proc. Symp. Marsh Management in coastal Louisiana: Effects and Issues.* 1989. Duffy, W.G., and D. Clark editors.

Valentine, Jacob. 1988. The vegetation of Units 1, 2, 3, 4, 5, and 6 on the Sabine National Wildlife Refuge, Cameron Parish, Louisiana.

FRESHWATER BAYOU CANAL, FRESHWATER BAYOU LOCK AND BELLE ISLE CANAL (TV-11b)

Freshwater Bayou Bank Stabilization
(Belle Isle Canal to Lock) (East) (TV-11b/XTV-27)
Vermilion Parish, Louisiana

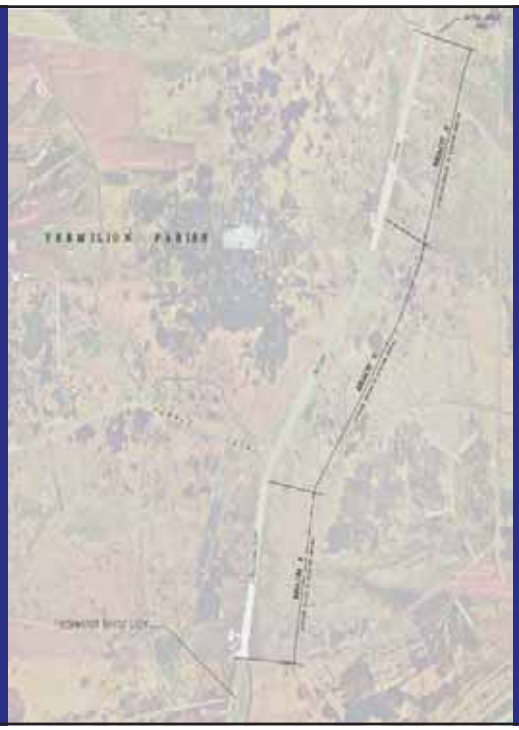
December 2009

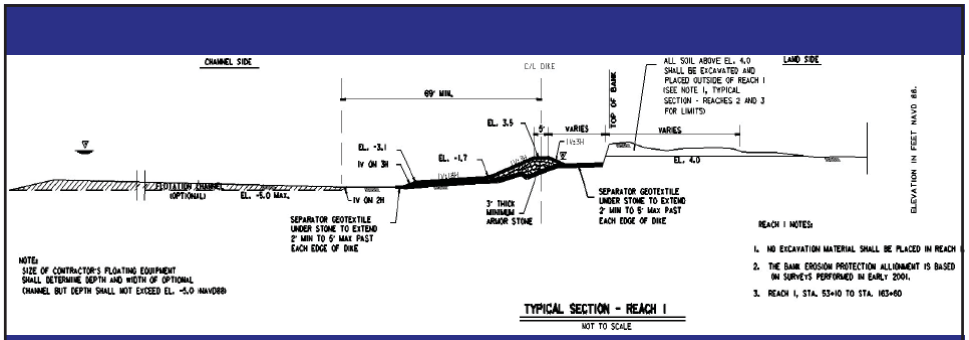
Project Background

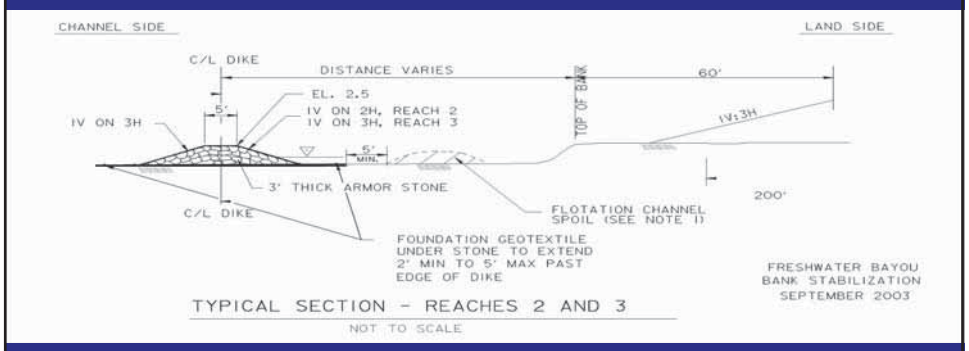
- Authorized in January 2000 by Breaux Act (CWPPRA) Task Force on PPL9
- ~40,000 linear feet of rock dike to stop shoreline erosion along Freshwater Bayou Canal from Belle Isle Bayou to the Lock
- Original project included hydrologic restoration features but those were dropped after initial review by the design team

Wetlands Loss Problems

- The banks of Freshwater Bayou Canal are rapidly eroding (-10ft/yr), due mainly to boat traffic.
- Breaches in the bankline allow boat wakes to push turbid, higher salinity waters into interior wetlands, causing marsh loss and decreasing SAV coverage.
- A large area of interior marsh in the northern portion of the project area is fragmenting and turning to open water, in part due to the breaches.







Benefits and Costs

- Rock dike will protect and benefit 241 acres of marsh over 20-years
- Project will extend shoreline protection from the lock to a completed state-only project (TV-11)
- Fully funded cost estimate is $$38,065,335.

Benefits

- Will be another key component in stabilizing Freshwater Bayou:
- TV-11 (State)
- CWPPRA
- CIAP (Area 1, 2, and 3)
- Port of Iberia

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

REPLY TO

ATTENTION OF:

CEMVN-PM-W (1110-2-1150a) 6 November 2009

MEMORANDUM FOR Mr. Tom Holden, Chairman, CWPPRA Technical Committee

SUBJECT: Construction Approval Request for Freshwater Bayou Bank Stabilization – Belle Isle Bayou to the Lock (TV-11b/XTV-27), Vermilion Parish, Louisiana.

1. As required by Section 6(j) of the CWPPRA Standard Operating Procedures Manual, the U.S. Army Corps of Engineers (USACE) and Louisiana Department of Natural Resources (LDNR) request approval to construct the subject project.

2. The original project approved on the 9th priority list included shoreline protection and hydrologic restoration components. The hydrologic restoration features were removed during the design phase (see item m for additional details about the removal of this feature). The following information summarizes completion of the tasks required prior to seeking authorization for project construction:

a. List of Project Goals and Strategies.

The goal of the project is to stop shoreline erosion along the east bank of Freshwater Bayou Canal between the Leland Bowman Lock and Belle Isle Bayou (approximately 40,000 feet) using a rock dike. A copy of the project goals and strategies are included in enclosure A.

b. A Statement that the Cost Sharing Agreement between the Lead Agency and the Local Sponsor has been executed for Phase I.

A USACE legal opinion indicates that execution of a cost share agreement requires prior Task Force approval of construction. In line with this requirement, the agreement will be executed following Task Force action on the project.

c. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase 2 approval.

A Real Estate Plan has been completed. The plan outlines all of the necessary real estate instruments required to construct the project and identifies affected landowners. It is estimated that all necessary real estate instruments can be obtained within 90-days of construction approval. A copy of the Draft Real Estate Plan is included in Enclosure C.

d. A favorable Preliminary Design Review (30% Design Level).

A 30% Design Review was held in Abbeville, Louisiana on June 27, 2003 and a memo documenting the completion of the design review was sent to the members of the Technical Committee. In addition, the Louisiana Department of Natural Resources provided a letter of support for proceeding with completion of the design of the project.

e. Final Project Design Review (95% Design Level).

A 95% design review was completed on 22 January 2004. The Louisiana Department of Natural Resources provided a letter of support for proceeding with Phase II of the project. A copy of the letter is included in enclosure E.

f. A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act must be submitted thirty days before the request for approval.

A Draft Environmental Assessment was released for public comment in May 2002. A Finding of No Significant Impact was signed in November 2002 completing the National Environmental Policy Act compliance requirements. A copy of the Finding of No Significant Impact letter is included in enclosure F.

g. A written summary of the findings of the Ecological Review.

A final Ecological Review was distributed at the 95% Design Review meeting. A summary of the findings is found on page 7 and page 8 of the report. A copy of the report is included in enclosure G.

h. Application for and/or issuance of the public notices for permits.

The Corps of Engineers is not required to obtain a permit to construct this project. However, an Environmental Assessment was completed in November 2002 to cover all wetlands conservation and protection issues and other environmental considerations associated with construction and maintenance of the project.

i. A HTRW assessment, if required, has been prepared.

An HTRW assessment was included in the Environmental Assessment completed in November 2002.

j. Section 303(e) approval from the Corps.

Section 303(e) approval was provided in February 2004.

k. Overgrazing determination from the NRCS (if necessary).

An overgrazing determination from the NRCS was provided on 22 December 2003 and is included as part of the Real Estate Plan. The Natural Resources Conservation Service concluded that overgrazing is not a problem in the project area. A copy of the overgrazing determination letter provided by NRCS is included in enclosure G.

l. Revised cost estimate of Phase 2 activities, based on the revised Project design.

The Economics Work Group prepared a fully funded estimate in January 2007 in the amount of $38,559,962. The estimate was updated in November 2009 detailing a fully funded cost of $38,065,335. A copy of the revised estimate is included in enclosure L.

m. A revised Wetland Value Assessment must be prepared if, during the review of the preliminary NEPA documentation, three of the Task Force agencies determine that a significant change in project scope occurred.

Changes in project scope resulted in a reduction in the project area and environmental benefits. As a result, in accordance with standard operating procedures, the project development team coordinated revisions to the WVA with the Chairman of the CWPPRA Environmental Work Group. Project benefits were reduced to 74.26 Average Annual Habitat Units; a 70% reduction from the originally authorized project. However, the elimination of the water control structures also reduced the project construction costs and as a result the revised cost benefit ratio for the shoreline protection feature is not significantly different than the original estimate.

Comparison of Original and Revised Wetland Value Assessments

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)
Candidate Project	529	252
Phase II Revised Project	241	74.26
Difference	-288	-177.74

3. If you have any questions regarding this project please call Mr. Travis Creel at (504) 862-1071.

Travis Creel
Project Manager

Enclosure A

Original Phase I Project
Fact Sheet

Overview of Phase I Tasks,
Process and Issues

Updated Phase II Project
Fact Sheet

Project Goals and Strategies

Description of Original Phase I Project
Freshwater Bayou Canal Bank Stabilization (Belle Isle to Lock)

Authority: Coastal Wetlands Planning, Protection and Restoration Act

Sponsors: U.S. Army Corps of Engineers and LA Department of Natural Resources

Location: Vermilion Parish, LA.

Problem: The banks of Freshwater Bayou Canal are rapidly eroding, due mainly to boat traffic. In the project area, several breaches have developed in the bankline along the east side of the canal. These breaches allow boat wakes to push turbid, higher salinity waters into interior marsh, causing marsh loss and decreasing SAV coverage. A large area of interior marsh in the northern portion of the project area is fragmenting and turning to open water, in part due to the breaches.

Features: 1) A rock dike would be built along the eastern bank of Freshwater Bayou Canal, between Belle Isle Canal and Freshwater Bayou Lock, a distance of approximately 40,000-ft. The dike is designed to halt shoreline erosion along the east bank of the canal. Special features are being incorporated into the project design to allow estuarine organisms to access wetlands behind the dike. 2) Four water control structures would be built in the spoil banks of canals running along the eastern and southern boundary of the project area. The structures would be flap-gated variable crest weirs.

Benefits: Over 20-years, the project will benefit approximately 529 ac of wetlands.

Cost: The preliminary estimated cost to construct, maintain, and monitor this project is $25.1 million.

Contact: For additional information contact Gregory Miller at (504) 862-2310.

TV-11b Ph2 request item #2

Overview of Phase One Tasks, Process and Issues
Freshwater Bayou Bank Stabilization (TV-11b)

Task Overview

The Corps of Engineers and the Louisiana Department of Natural Resources project delivery team developed a work plan to guide the project design efforts. The work plan called for identifying landowners in the area, obtaining right of entry permissions to conduct engineering data collection for design work including site surveys and geotechnical investigations. The engineering data was collected and analyzed to produce a recommended design template, alignment, and cost estimate for the proposed project. Environmental compliance actions were initiated in accordance with NEPA regulations and a draft Environmental Assessment was produced. A real estate plan was developed identifying project area landowners and the easements necessary for construction.

Final designs have been developed for approximately 40,000 linear feet of bank protection that is recommended for construction.

Issues

No significant issues arose during the Phase I design process. However, an incorrect conversion of initial survey elevations to the NAVD 88 datum resulted in design modifications between the preliminary and final design reviews.

Design Changes

A hydrologic restoration component of the project that was included in the original concept approved on the priority list has been dropped. The feature was removed because of lack of support from the local sponsor. In addition, three typical sections for rock dikes and bank paving will be used to protect the shoreline. These sections differ from the initial cross sections developed for the candidate project that was selected to the priority project list. Changing the cross sections resulted in increasing the amount of rock that will be required for construction. All of these design changes were reviewed by the Environmental Work Group and detailed in the project 30% and 95% design reviews.

TV-11b Ph2 request item #3

Freshwater Bayou Bank Stabilization
(Belle Isle Canal to Lock) (East) (XTV-27)
Vermilion Parish, Louisiana

Lead Agencies: U.S. Army Corps of Engineers and State of Louisiana Department of Natural Resources

Project Location: This 241-acre project area is located in Vermilion Parish along the eastern shoreline of Freshwater Bayou Canal (FBC) between the Freshwater Bayou Lock and Belle Isle Canal.

Project Purpose: The banks of Freshwater Bayou Canal are rapidly eroding, due mainly to boat traffic. In the project area, several breaches have developed in the bankline along the east side of the canal. These breaches allow boat wakes to push turbid, higher salinity waters into interior marsh, causing marsh loss and decreasing SAV coverage. A large area of interior marsh in the northern portion of the project area is fragmenting and turning to open water, in part due to the breaches.

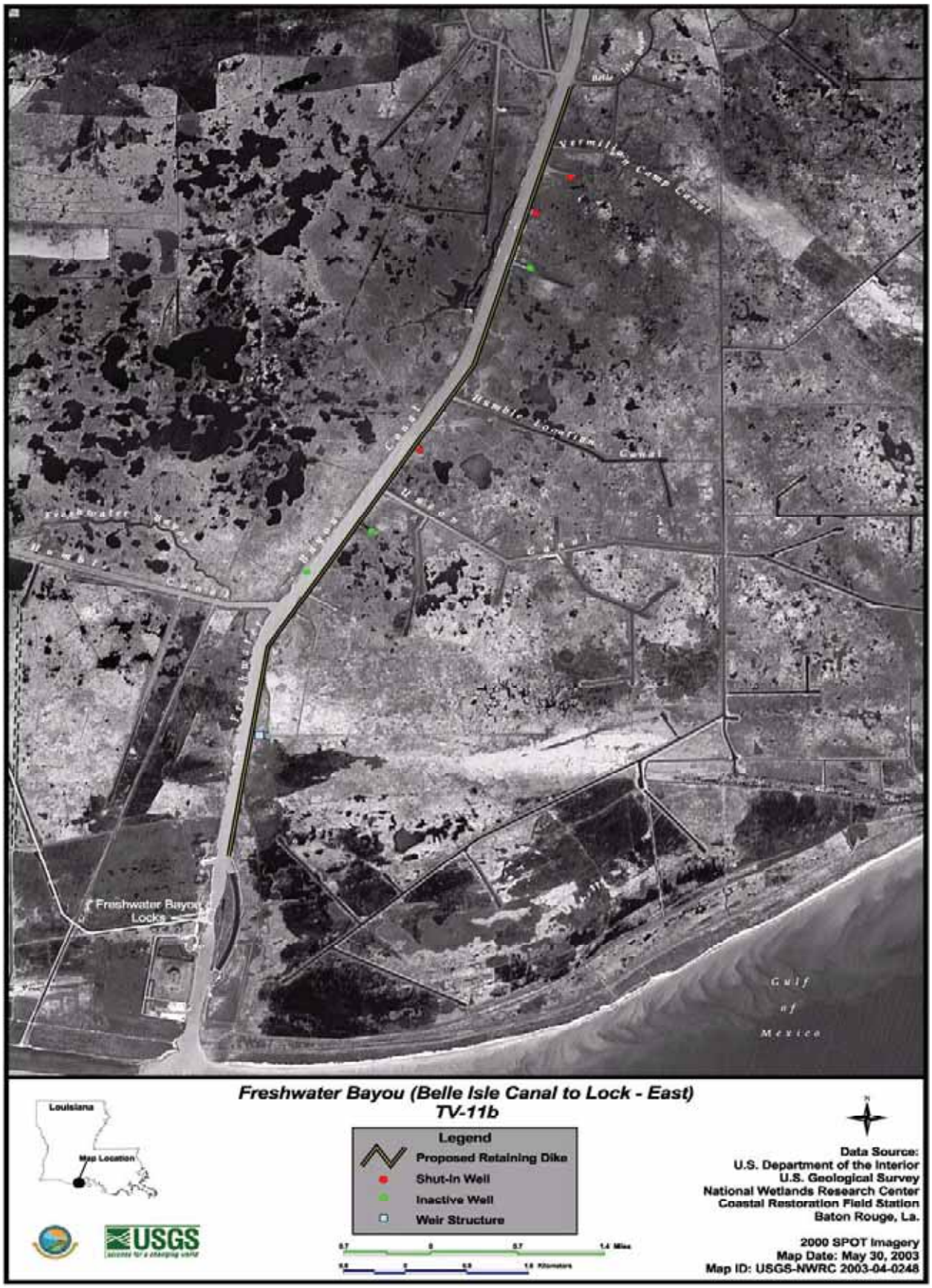
Project Features: A rock dike would be built along the eastern bank of Freshwater Bayou Canal, between Belle Isle Canal and Freshwater Bayou Lock, a distance of approximately 40,000-feet. The dike is designed to halt shoreline erosion along the east bank of the canal. Special features are being incorporated into the project design to allow estuarine organisms to access wetlands behind the rock dike. These special features will leave small gaps in the rock at infrequent intervals to allow natural water exchange behind the dike segments. Shoreline sections at the gap locations will be armored to prevent erosion into the adjacent bankline and marshes.

Project Costs: The estimated cost of the project, including real estate, environmental compliance, engineering and design, relocations, construction, monitoring, and O&M expenses, is $38,065,335.

Project Status: The partnering agencies have completed a 30% design review and a 95% design review. The project schedule calls for seeking construction authorization from the CWPPRA Task Force at the January 2009 meeting.

Information: Additional information on this project is available on the LACOAST.GOV website or may be obtained by contacting Travis Creel at 504-862-1071 or via email at Travis.J.Creel@usace.army.mil.

TV-11b Ph2 request item #3



Freshwater Bayou Bank Stabilization (TV-11b)

Project Goals and Strategies

Goal Statement

The overall goals of this project are to:

• Halt shoreline erosion along the east bank of the canal

Strategy Statement

The project goals will be achieved through the implementation of the following strategies/project features:

• construction a rock dike along the eastern bank of Freshwater Bayou Canal

Enclosure C

Draft Real Estate
Plan

REAL ESTATE PLAN
COASTAL WETLANDS PLANNING, PROTECTION, AND RESTORATION ACT
FRESHWATER BAYOU SHORELINE STABILIZATION (EAST)
(BELLE ISLE BAYOU TO THE LOCK)
VERMILION PARISH, LA

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1. PROJECT NAME AND PURPOSE. The purpose of this Real Estate Plan (REP) is to present the overall plan describing the real estate requirements and costs for the Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA) Freshwater Bayou Shoreline Stabilization (East) (Belle Isle Bayou to the Lock) project. The information contained herein is tentative in nature for planning purposes only. The final real property acquisition lines are subject to change even after approval of this report. All exhibits referred to are within this plan.

2. Authorization. This project was authorized on the 9th Priority Project List selected by the Task Force on January 11, 2000.

3. Description of Work. The banks of Freshwater Bayou Canal are rapidly eroding, due mainly to boat traffic. In the project area, several breaches have developed in the bank line along the east side of the canal. These breaches allow boat wakes to push turbid, higher salinity waters into interior marsh, causing marsh loss and decreasing submerged aquatic vegetation coverage. A large area of interior marsh in the northern portion of the protect area is fragmenting and turning to open water, in part due to the breaches.

The proposed rock dike will be constructed to elevation +3.5 feet NAVD88, along the eastern bank of Freshwater Bayou Canal, between Belle Isle Canal and Freshwater Bayou Lock (the lock), a distance of approximately 7.5 miles. The dike is designed to halt shoreline erosion along the east bank of the canal. Shoreline sections at the gap locations will be armored to prevent erosion into the adjacent bank line and marshes. Approximately 380,000 tons of rock will be placed upon approximately 215,000 square feet of geo-textile fabric to a height of +3.5 feet NAVD88.

The construction of this CWPPRA project does not foresee having to excavate a flotation access channel for the placement of the rock. However, it has been included in the project as a possible feature. If necessary, a 130-foot-wide flotation channel may be excavated to a maximum depth of elevation -8.0 NAVD88. All material excavated for the project will be placed along the east bank of the canal, within the water between the newly constructed dike and the bank.

There are several oil and gas canals located along Freshwater Bayou and the proposed project construction would allow all to remain open with the exception of two. The two sites designated for closure, and also determined to be non-active canals, are depicted as (1) stations 284+66 and 281+54, and (2) stations 204+00 and 189+40 on the right-of-way maps as provided at Exhibit 1.

Equipment anticipated for use on this project will include conventional construction equipment such as barge mounted draglines and cranes, a material barge for the rock, excavators, marsh buggies, and backhoes. The survey equipment that will be required is survey boats and standard hand-held survey equipment.

The project life is 20 years.

4. Description of LERRD's. The proposed project area, which can be viewed using the rights-of-way maps provided at Exhibit 1, is located along the left descending bank of the Freshwater Bayou Navigation Channel in Vermilion Parish, Louisiana. The area to be acquired is encumbered with a channel easement in favor of the United States and the land has eroded into the water. Under the routine operation and maintenance of the Freshwater Bayou Navigation Channel, the channel is currently maintained to 12 feet in depth by 125 feet in width from the Gulf Intracoastal Waterway to the 12-foot contour of the Gulf of Mexico. The outer reach from the lock through the bar channel (Mile 1.3 to -4.0) is usually dredged every 3 to 4 years, the last time being in 2001. The inland reach from mile 1.6 to 19.8 is usually dredged every 8 to 10 years, the last maintenance event taking place in 1980. The Freshwater Bayou Lock, a feature of the navigation channel project, is located at the southern most end of the inland reach in the navigation channel near the Gulf of Mexico.

The lock is only opened to allow access for waterborne traffic to and from the navigation channel and to alleviate elevated water levels due to periodic heavy rains occurring in the Mermentau and Vermilion drainage basins. Freshwater Bayou is popular with regard to commercial and recreational activities that include fishing, boating, and bird watching. No camps are affected by this project.

Approximately 235.28 acres of rights-of-way are needed for the project. The project area consists of open water. It is currently assumed that approximately two (2) ownerships will be impacted by the project if constructed.

5. Non-Federal Sponsor LER Already Owned. According to the Department of Natural Resources (DNR), they do own LER within the project area. However, a State Land Office determination has been ordered for confirmation.

6. Estate. This project will require the acquisition of a non-standard perpetual Channel Improvement, Disposal, and Bank Stabilization Easement. The subordination verbiage has been inserted at the end of the estate, to ensure the integrity of the canal alteration. We would not want the preexisting canal right-of-way to "prime" the canal alteration work. See Exhibit 2 for a description of the estate.

7. Existing Federal Interests. The Federal Government does have existing realty interests in the project area. As authorized in 1960, the Vermilion Parish Police Jury conveyed to the United States a perpetual channel and dredged material disposal easement that was acquired for the Freshwater Bayou Navigational Channel project. However, given the fact that the proposed bank stabilization of Freshwater Bayou will be constructed under a different authority, we will not assert the use of the existing real estate interests.

8. Navigational Servitude. The Freshwater Bayou Canal is a man-made channel, therefore, the navigation servitude will not be asserted for construction of this project.

9. Flooding Induced by the Project. This project will not induce flooding.

10. Maps. Maps showing the project rights-of-way limits are provided at Exhibit 1, Drawings 2 of 23 through 8 of 23, of this report.

11. Baseline Cost Estimate/Chart of Accounts (COAs). See Exhibit 3, entitled "CWPPRA, Freshwater Bayou Shoreline Stabilization (East) (Belle Isle Bayou to the Lock), Vermilion Parish, LA." Because the cost of the LERRD value was under $10,000, a gross appraisal is not required. The real estate acquisition cost has been estimated at $132,000. A 25 percent contingency has been included in that estimate.

12. Uniform Relocation Assistance (PL 91-646) as amended, Title II. Benefit payments under the provisions of Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended, are not currently applicable since the construction of this project does not require the displacement of persons and habitable or commercial structures. However, should current plans change, and the displacement of persons and habitable or commercial structures be required during the construction of this project, Title II of this Act may become relevant. Title III procedures are applicable.

13. Mineral Activities/Timber Harvesting. There are no mineral activities or timber harvesting within the project footprint.

14. Non-Federal Sponsor. The non-Federal Sponsor (NFS) for this project is the Louisiana Department of Natural Resources (LaDNR). For projects authorized by CWPPRA, the NFS is not obligated to provide lands, easements, rights-of-way, relocations, or dredged material disposal areas (LERRDs). LaDNR does not have quick take authority. It is the agency's policy not to condemn private property. The sponsor has been assessed as insufficiently capable of acquiring real estate interests from the private landowners. Therefore, the Federal Government will conduct acquisition activities. However, LaDNR, as the NFS, has contractually agreed in all previous Cost Sharing Agreements for CWPPRA projects, to provide the real estate interests that are owned, claimed, or controlled by the State. If LaDNR decides otherwise, the Federal Government would have to acquire all of the real estate interests necessary for construction, operation and maintenance of

the CWPPRA, Freshwater Bayou Shoreline Stabilization (East)(Belle Isle Bayou to the Lock) project. An Assessment of the Non-Federal Sponsor's Real Estate Acquisition Capability has been completed and was coordinated with Ms. Helen Hoffpauir of LaDNR, Coastal Restoration on 12 February 2003. A copy is provided as Exhibit 4.

15. Zoning Ordinances. No application of zoning ordinances is proposed in lieu of, or to facilitate, acquisition in connection with this project.

16. Acquisition Schedule. The Federal Government will acquire all lands, easements, rights-of-way, relocations, and dredged material disposal areas (LERRD's) determined to be necessary for construction of the project. The acquisition schedule is based on having the CWPPRA, Freshwater Bayou Shoreline Stabilization (East) (Belle Isle Bayou to the Lock) project authorized, the Cost-Sharing Agreement signed with the non-Federal sponsor, and receipt of the rights-of-way maps. A deviation from any of these assumptions will affect the schedule. This schedule shows the duration of each event, as well as the cumulative duration from the beginning of real estate activities. An Acquisition Schedule is provided as Exhibit 5.

17. Facility/Utility Relocations. There are facilities and/or utilities within the proposed project rights-of-way. At this time, the construction of this project does not require relocation and/or removal of those facilities and/or utilities. Facilities and/or utilities known at this time to be located within the project rights-of-way include a Trunkline Gas Company 6" HP gas pipeline located at baseline station (B/L Sta.) 453+11; a SLEMCO overhead power line and subterranean power cable below canal located at B/L Sta. 448+54; a Texas Gas Transmission, LLC 12' natural gas pipeline located at B/L Sta. 440+99; a UNOCAL 2 ½-inch water line and six 6" HP gas lines at B/L Sta. 425+44; an unknown pipeline at B/L Sta. 394+48; an ExxonMobile 10" oil, gas, and water pipeline located at B/L Sta. 377+30; a Transcontinental (Williams Olefins, LLC) 8" natural gas pipeline located at B/L Sta. 291+25; an unknown pipeline at B/L Sta. 260+97 and another at B/L Sta. 228+46; and a Tennessee Gas 16" and 12" natural gas pipelines located at B/L Sta. 193+65.

A statement that the pipelines are a "no work area" will be added to the specifications anticipating that additional rock over some or all of the pipelines shown on the drawings (to close in the gaps) will be completed by future modifications. The rock dike will either avoid or be placed at selected utilities depending on the permissions received from the respective owner. If no permissions are received, no excavation or disposal of materials will be allowed within 50-feet of any subterranean utilities as shown on the maps provided at Exhibit 1. This pertains to both the construction of the dike, and, if required, the flotation channel.

A Preliminary Attorney's Investigation and Report of Compensable Interest was not prepared at this time. However, if it is determined during Phase II that the pipelines will be affected, a report will be prepared.

18. Environmental. All environmental investigations have been completed. An Environmental Assessment #327 has been prepared. A Finding of No Significant Impact was signed on 29 October 2002. A Hazardous, Toxic, and Radioactive Waste (HTRW) Land Use History and a Phase I HTRW Initial Site Assessment have been completed for the proposed action and the risk of encountering HTRW for the proposed project is low. It has been determined that the proposed action would have no impact upon cultural resources and no significant impact on the Freshwater Bayou Navigation Channel, Wetlands, Fisheries, Wildlife, Essential Fish Habitat, Endangered or Threatened Species, or Recreational Resources. No real estate acquisition will take place prior to the approval of this Real Estate Plan or the execution of the Cost Sharing Agreement (CSA). No impacts have been identified that would require compensatory mitigation.

19. Landowner Concerns. The Vermilion Parish School Board and the Exxon/Mobil Oil Corporation are the assumed owners of the project area. Property ownership will be confirmed in Phase II. In addition to the property owners, the Vermilion Corporation (represented by Mr. "Judge" Edwards) has a 100-year surface lease to the area. It is believed they have somewhere in the vicinity of 40-50 years left on this lease. Mr. Greg Miller, Corps of Engineers Project Manager, has stated that the Vermilion Corporation is familiar with and in his conversations with Mr. Edwards, is in favor of the project.

20. Non-Federal Sponsor Notification of Risks. The Federal Government will acquire on behalf of the non-Federal Sponsor, LaDNR. Therefore, no notification of risk letter is necessary.

21. Access. Access to the area is via the Mississippi River, Grand Pass Mississippi River outlet, and Freshwater Bayou Canal. The area can only be reached by boat or hydroplane.

22. Oysters. There are no oyster leases in the Freshwater Bayou project area. Nor will the project have secondary impacts to leases during construction or operation and maintenance.

23. Operations and Maintenance. Operation and maintenance of the project is a non-Federal sponsor responsibility.

_____
Prepared by: MICHELLE S. MARCEAUX
Appraisal & Planning Branch
Real Estate Division

_____
Reviewed by: JOSEPH G. KOPEC
Chief, Appraisal & Planning Branch

_____
Approved by: WILLIAM C. LEWIS, JR.
Chief, Real Estate Division

Dated: December 2003

EXHIBIT 1

PROJECT MAPS

EXHIBIT 2

PROPOSED ESTATE

Proposed Estate for Freshwater Bayou, CWPPRA

NON-STANDARD

PERPETUAL CHANNEL IMPROVEMENT, DISPOSAL AND BANK STABILIZATION EASEMENT

A perpetual and assignable right and easement in Tract Number ____ to dredge the existing channel; construct, operate, and maintain dikes and flotation access channels; deposit dredged material; construct, maintain, repair, operate, patrol and replace bank stabilization works, including all appurtenances thereto; and for such other purposes as may be required in connection with the Freshwater Bayou, CWPPRA project, including the right to alter or close those portions of the following two canals that are located within this tract: the canal approximately between Stations 284+66 and 281+54 and the canal located approximately between Stations 204+00 and 189+40, but without the right to alter, close or otherwise obstruct access to all other canals and waterways within this tract; provided that no structures for human habitation shall be constructed or maintained on the land, and that no other structures shall be constructed or maintained on the land except as may be approved in writing by (the District Engineer of the U.S. Army Engineer District, New Orleans or the State of Louisiana, as represented by the Louisiana Department of Natural Resources; subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving, however, to the Grantors, (their heirs) (its successors) and assigns, all such rights and privileges as may be used and enjoyed without interfering with the use of the project for the purposes authorized by Congress or abridging the rights and easements herein conveyed.

Prepared by:

_____

Maurya Kilroy
Attorney-Advisor
Local Sponsor & Inleasing Acquisition Branch

_____

William C. Lewis, Jr.
Chief, Real Estate Division

EXHIBIT 3

BASELINE COST ESTIMATE (COA's)

EXHIBIT 4

ASSESSMENT OF NON-FEDERAL SPONSOR'S REAL ESTATE ACQUISITION CAPABILITY

EXHIBIT 5
ACQUISITION SCHEDULE

Enclosure E

95% Design Review Letter

PM-C

State of Louisiana

KATHLEEN BABINEAUX BLANCO
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL RESTORATION AND MANAGEMENT

May 11, 2004

Mr. John Saia
Deputy District Engineer for Project Management
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Re: 95% Design Review for Freshwater Bayou Canal Shoreline Protection – Belle Island to Lock (TV-11b)
Statement of Successful Completion

Dear Mr. Saia:

The 95% design review meeting was successfully completed on January 22, 2004 for the Freshwater Bayou Canal Shoreline Protection – Belle Island to Lock (TV-11b) project. Based on our review of the Final Design Report, plans and specifications, the Ecological Review, and the environmental compliance documentation, as local sponsor, we concur to request permission from the Technical Committee to proceed to Phase II for this project.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward the items required in Appendix C – Information Required in Phase II Authorization Requests to the CWPPRA Technical Committee for subsequent approval by the CWPPRA Task Force. We also request that our project manager, Kenneth Duffy, be copied on this and all other correspondence concerning this project.

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

Sincerely,

Christopher P. Knotts, P.E.
Director

cc: David Burkholder, P.E., Engineer Manager
Kenneth Duffy, Ph.D., Project Manager
Shannon Dupont, P.E., Project Engineer

CPK:KCD:kcd

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

FONSI

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

REPLY TO
ATTENTION OF:

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

FRESHWATER BAYOU BANK STABILIZATION PROJECT

VERMILION PARISH, LOUISIANA

EA #327

Description of Proposed Action. The New Orleans District, U.S. Army Corps of Engineers, proposes to construct a bankline stabilization structure. The proposed action is located along the left descending bank of the Freshwater Bayou Navigation Channel in Vermilion, Parish, Louisiana. The proposed action consists of placing approximately 240,000 tons of rock on approximately 180,000 square-yards of geotextile fabric to a crown height of +3.5 feet NGVD along the left descending bank of Freshwater Bayou benefiting approximately 285 acres of wetland habitat (see attached figure). The rock dike would extend approximately 41,000 feet from Belle Isle Bayou to the lock bypass channel adjacent to the Freshwater Bayou Lock. Rock would be placed parallel to the existing bankline, while maintaining fisheries access to aquatic habitat found behind the existing spoilbank. A floatation channel would be excavated (approx 262,000 cubic yards) in open water in Freshwater Bayou to construct the rock dike. Material excavated from the flotation channel would be placed between the rock dike and the bankline; the material would not be stockpiled and would be placed no higher than the existing bankline.

Factors Considered in Determination. This office has assessed the impacts of the proposed action on significant resources, including Freshwater Bayou, Wetlands, Fisheries, Wildlife, Essential Fish Habitat (EFH), Endangered Species, Air Quality, and Cultural Resources. It is noted herein that EFH, for pink shrimp and the Gulf stone crab, is not designated in coastal Louisiana as incorrectly listed in EA #327 (page EA - 5). No significant adverse impacts were identified for any of the significant resources. The risk of encountering HTRW is low. No impacts were identified that would require compensatory mitigation.

Environmental Design Commitments. The following commitment is an integral part of the proposed action: Design and construction of the rock dike would be done in a manner to minimize impacts to fisheries access into wetlands located behind the proposed alignment. The terminal ends of each segment of rock dike would be left open, not tied into the existing bankline, to maintain access.

Public Involvement. The proposed action has been coordinated with appropriate Federal, state, and local agencies and businesses, organizations, and individuals through distribution of Environmental Assessment #327 (EA #327) for their review and comment.

Conclusion. This office has assessed the potential environmental impacts of the proposed action. Based on this assessment, and a review of the public comments made on EA #327 a determination has been made that the proposed action would have no significant impact on the human environment. Therefore, an Environmental Impact Statement will not be prepared.

29 Oct 02
Date

Peter J. Rowan
Colonel, U.S. Army
District Engineer

General Features of Proposed Action

Enclosure G

Ecological Review

E C O L O G I C A L R E V I E W

Freshwater Bayou Bank Stabilization (Belle Isle to Lock)
CWPPRA Priority Project List 9
(State No. TV-11b)

January 2004

Agaha Y. Brass and Kyle F. Balkum
Restoration Technology Section
Coastal Restoration Division
Louisiana Department of Natural Resources

Draft – January 2004

ECOLOGICAL REVIEW

Freshwater Bayou Bank Stabilization (Belle Isle to Lock)

In August 2000, the Louisiana Department of Natural Resources (LDNR) initiated the Ecological Review to improve the likelihood of restoration project success. This is a process whereby each restoration project's biotic benefits, goals, and strategies are evaluated prior to granting construction authorization. This evaluation utilizes monitoring and engineering information, as well as applicable scientific literature, to assess whether or not, and to what degree, the proposed project features will cause the desired ecological response.

I. Introduction:

The Freshwater Bayou Canal, constructed between 1965 and 1967, provides major shipping access from the Gulf of Mexico to Intracoastal City on the Gulf Intracoastal Waterway (GIWW). In 1968, a lock was built at the southern-most end of the inland reach of the navigation channel near the Gulf of Mexico to control the intrusion of saltwater into Freshwater Bayou Canal. It is opened only to allow access for shipping traffic and to alleviate elevated water levels caused by periodic heavy rains. Between 1979 and 1986, approximately 300,000 tons of cargo were transported along the Freshwater Bayou Canal [United States Army Corps of Engineers (USACE) 1989], demonstrating the importance of this highly used channel.

The purpose of the proposed Freshwater Bayou Bank Stabilization (Belle Isle to Lock), TV-11b project is to stop shoreline erosion along the east bank of Freshwater Bayou Canal in Vermilion Parish, Louisiana. Between 1968 and 1992, the Freshwater Bayou Canal shoreline eroded at an average rate of 12.5 feet per year (Brown and Root 1992). Monitoring data, collected from shoreline reference stations as part of the Freshwater Bayou Wetland Protection (ME-04) project indicated that the shoreline eroded at an average of 6.69 feet per year between 1995 and 1996, and 11.15 feet per year between 1996 and 1998 (Vincent et al. 2000a). Ongoing LDNR monitoring efforts have indicated that from 1995 to 1998 the eastern shoreline of Freshwater Bayou Canal eroded at an average rate of 9.17 feet/year (Vincent et al. 2000a). Continued shoreline erosion, caused by vessel wakes, has breached the spoil bank in many areas, subjecting interior marshes to increased water salinities, wave energies, and tidal scour. Tidal scour has eroded organic soils of interior marshes, resulting in emergent vegetation loss within the project area (Vincent et al. 2000b).

The Freshwater Bayou Bank Stabilization project involves the construction of a foreshore rock dike along the east bank of Freshwater Bayou Canal. The project encompasses 11,000 acres of intermediate and brackish marsh and extends approximately 39,330 feet from the Freshwater Bayou Lock north to Belle Isle Bayou (Figure 1). It is anticipated that this strategy will stop erosion in this area, and reduce deterioration of interior marshes. *Coast 2050*, Louisiana's guiding document for the restoration of a sustainable coastal ecosystem, identifies the stabilization of major navigation channels as both a "Coastwide Common Strategy" and a "Regional Ecosystem Strategy" which will reduce future wetland loss (Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority 1998).

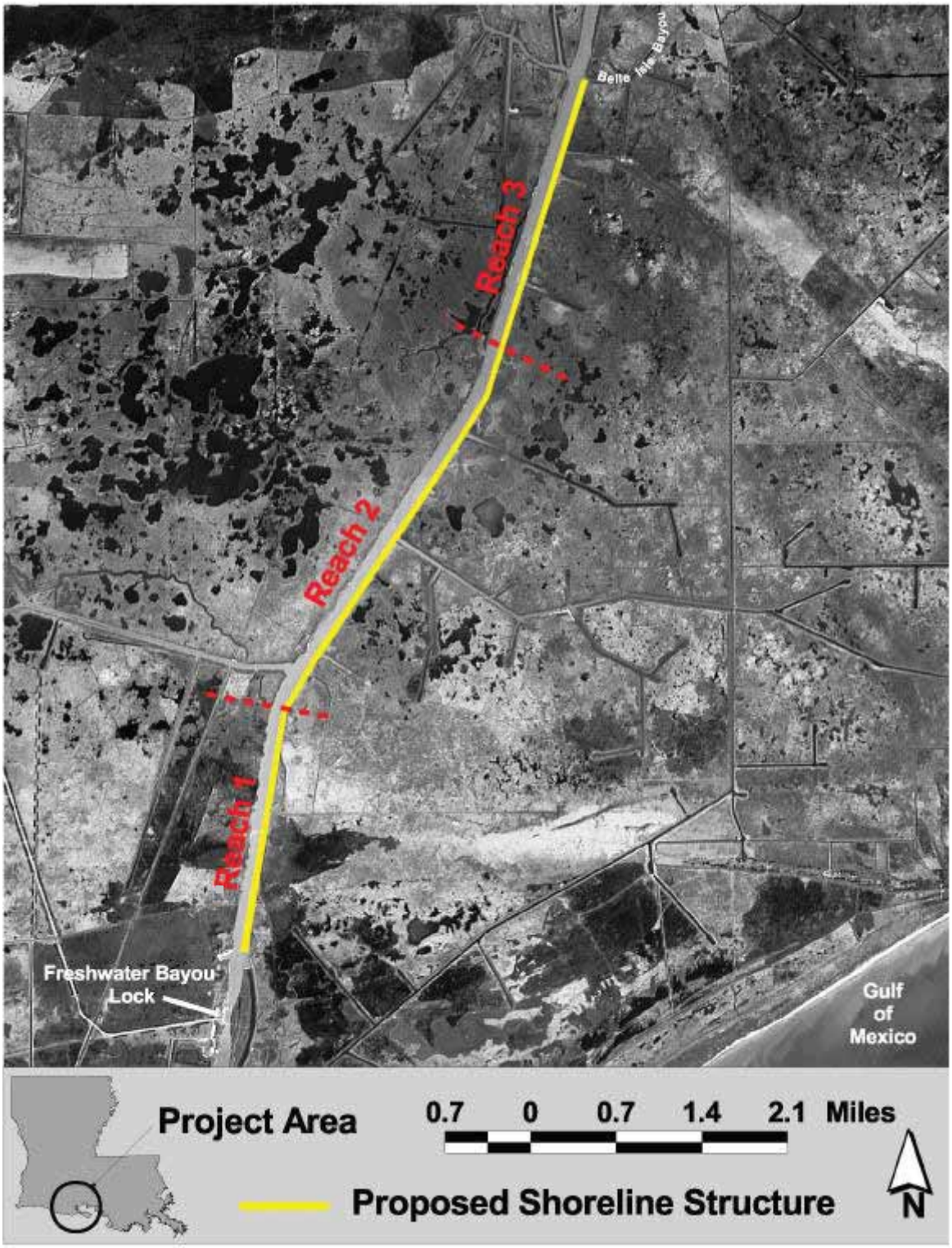

Figure 1: Freshwater Bayou Bank Stabilization (Belle Isle to Lock) project area.

II. Goal Statement:

The goal of this project is to stop shoreline erosion along the east bank of Freshwater Bayou Canal from the Freshwater Bayou Lock to Belle Isle Bayou.

III. Strategy Statement:

The project goal will be achieved through the construction of a foreshore rock dike along a 39,330-foot stretch of Freshwater Bayou Canal from Freshwater Bayou Lock to Belle Isle Bayou.

IV. Strategy-Goal Relationship:

Construction of a foreshore rock dike will restore the integrity of the Freshwater Bayou Canal bank which has continued to erode and breach into the marsh to the east of the project area. The proposed permeable barrier will dissipate wave energy, and effectively halt shoreline/bankline erosion.

V. Project Feature Evaluation:

A geotechnical investigation was performed to assess the native soil's ability to withstand the designed weight of the proposed rock structure. Based on the results of this analysis, it was determined that the project area contained three distinct soil reaches which required the design of three separate shoreline protection features for each reach (Figure 1). Below is a summary of a geotechnical investigation that describes the settlement and slope stability suggestions associated with the different types of proposed project features. The accepted measure of a slope's stability is its "safety factor" or minimum factor of safety (FSmin), which is the ratio of the forces or moments tending to prevent failure (soil strength, primarily) to those that cause failure [soil and surcharge weights plus seepage forces, primarily (Soil Testing Engineers, Inc. 2001)]. The recommended safety factor that should be adhered to for rock structures built in this project area is a FSmin = 1.20. Table 1 summarizes the stability analyses for the three project reaches at +3.5 feet NAVD-88. Table 2 summarizes predictions of long-term structure settlement along the three reaches.

The general design for Reach 1 [the southernmost region (Station 40+10 to Station 163+60)] will include an onshore dike with 1 vertical (V) on 3 horizontal (H) side slopes for the land and channel sides of the reach. A 1V on 18H channel side berm is required for stability at locations where the mud line dips below -2 feet NAVD-88. This berm will act as a counterbalance against slope stability failure. At these locations, the adjacent top bank will be degraded to +2.5 feet NAVD-88. As currently designed the structure along Reach 1 meets the minimum factor of safety (Table 1). Reach 2 (centrally located between Reaches 1 and 3) of the project area (from Station 163+60 to Station 354+40) met the required factors of safety and soil stability requirements necessary for a successful structure. The rock dike was designed using slopes of 1V on 3H for the channel side and 1V on 2H for the bank side. Reach 3 [the northernmost reach (Station 358+19 to Station 469+77)] will have side slopes of 1V on 3H on both sides. Reach 3 will also contain an embedment berm to act as a counterbalance in certain areas of the reach. The embedment berm will be placed behind the primary structure built to +1.4 feet NAVD-88 with 1V on 2H side slopes. The geotechnical investigation determined that geotextile reinforcement and embedment berm are required to achieve the minimum factor of safety (Table1).

Table 1. Description of Safety Factors for Proposed Project Features (USACE 2003a)

Reach Number	Minimum Factor of Safety for Extreme Low Water Elevation -4	Minimum Factor of Safety for Average Low Water Elevation -2.3
1 Bank Paving	1.20	(see note below)
2 Rock Dike	1.34	(see note below)
	1.33	(see note below)
3 Rock Dike	0.88*	(see note below)
	0.88**	(see note below)
	0.94***	(see note below)
	0.94****	(see note below)

* Geotextile reinforcement (tensile strength 300 #/in at 5% strain) required for FSmin = 1.20 for extreme low water case and embedment is insufficient, a berm must be added.

** Geotextile reinforcement (tensile strength 300 #/in at 5% strain) and embedment berm are required for FSmin = 1.20 for extreme low water case.

*** Reduced composite excludes the following sections: Sta.354+41, 358+19, 365+75, 408+08, 418+90, 422+50, 438+35, and 457+77. Geotextile reinforcement (tensile strength 240 #/in at 5% strain) required for FSmin = 1.20 for extreme low water case and embedment is sufficient FSmin = 1.20.

**** Geotextile reinforcement (tensile strength 320 #/in at 5% strain) required for FSmin = 1.20 for extreme low water case and embedment is sufficient FSmin = 1.20.

Note: For re-design at grade Elevation +3.5, only controlling cases were analyzed.

Table 2. Long-term structure settlement predicted for the 20-year project life (USACE 2002 and USACE 2003b).

Reach	Baseline Stations	20 Year Settlement	Ultimate Long Term Settlement
1	Station 40+10 to Station 163+60	6 inches	12 inches
2	Station 163+60 to Station 354+40	2 to 7 inches	7 to 12.5 inches
3	Station 354+40 to Station 469+78	1.5 to 5.5 inches	4.5 to 8 inches

All of the stone structures will be underlain by geotextile fabric and built to an elevation of +3.5 feet NAVD-88 with crown widths of 5 feet. The aforementioned geotextile fabric will be used to reduce potential stability failure and construction settlement. Material excavated from the floatation channel (dredged for access to the project area) will be beneficially placed between the dike and the existing shoreline no higher than the top of the adjacent rock dike.

A total of 13 proposed pipeline and canal openings along the rock dike's length will also serve as fisheries access points. The gaps at pipeline crossings are 100 feet wide (50 feet on each side of the pipeline). Gaps at canals and natural creeks vary in width depending upon the site. The rock dike terminus, created by each opening, will be built to the same side slopes and elevation as the rest of the dike within each respective reach; however, the crown widths at those positions will be wider (7 feet).

VI. Assessment of Goal Attainability:

Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) shoreline protection projects similar to Freshwater Bayou Bank Stabilization (Belle Isle to Lock), have been implemented on Freshwater Bayou (Figure 2) and other navigation canals as a means of protecting those banks from further erosive elements. Monitoring results and anecdotal information from these projects indicate that shoreline protection measures have been effective at preventing or reducing further erosion.

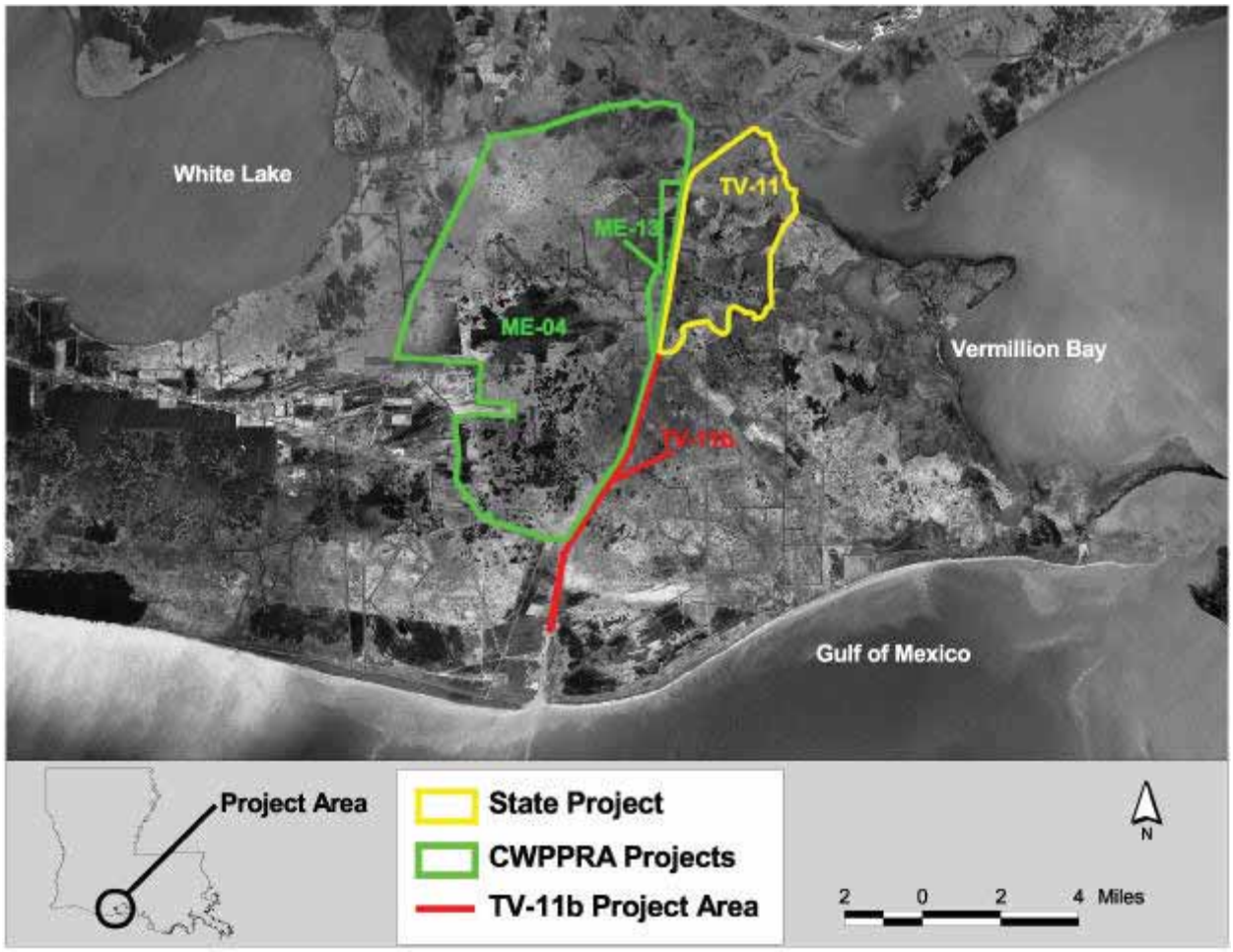

Figure 2: Freshwater Bayou Bank Stabilization (Belle Isle to Lock) and other CWPPRA and State projects along Freshwater Bayou Canal.

Projects on Freshwater Bayou Canal:

? Freshwater Bayou Wetlands Protection (ME-04) is a CWPPRA project located on the

western bank of Freshwater Bayou Canal directly across from the proposed TV-11b project (Figure 2). This project was initiated in January 1995 and included the construction of water control structures and a 28,000 linear foot foreshore rock dike at +4.0 feet NAVD-88. The rates of subsidence and sea level rise in the project area were estimated to be relatively low, 0.13 inches per year and 0.25 inches per year, respectively (Penland et al. 1989). Although monitoring efforts are still ongoing, data analyses suggest that the rock dike significantly reduced wave-induced shoreline erosion after construction. Between June 1995 and July 1996, the shoreline behind the constructed dike actually prograded at an average rate of 2.17 feet per year while the reference area eroded at a rate of 6.69 feet per year (Raynie and Visser 2002). Between August 1996 and February 1998, the protected shoreline continued to prograde at an average rate of 0.89 feet per year as the reference area eroded at an average rate of 11.15 feet per year (Raynie and Visser 2002). However, between March 1998 and May 2001, the protected shoreline eroded an average of 2.62 feet per year while the reference area eroded an average of 9.99 feet per year (Raynie and Visser 2002). The steady decrease in the effectiveness of the project features over time is due in large part to the "substandard nature of the original construction material used, and the logistics of implementing a cost-effective maintenance lift to the structure" (Raynie and Visser 2002).

? Freshwater Bayou Bank Stabilization (ME-13), located in Vermilion Parish on the west bank of Freshwater Bayou Canal, is directly opposite from the TV-11 state project and northwest of the proposed TV-11b project (Figure 2). The main cause of wetland loss in the ME-13 project area is boat wake-induced shoreline erosion of the canal spoil banks and organic soils of the interior marsh (USACE and LDNR 1994). A 23,193 linear foot continuous rock dike, built to an elevation of +3.7 to +4.0 feet NAVD-88, was installed parallel to the western shoreline in 1998 to address this loss. Pre-construction data at the ME-13 reference areas on the east bank indicate that the canal eroded at an average rate of 6.54 feet per year between April 1995 and July 1996 (Vincent and Sun 1997). Post-construction data collected from July 1998 through July 2003 revealed that the shoreline behind the constructed rock dike prograded on average 0.84 feet per year (Vincent 2003). During the same period, the unprotected reference areas eroded on average 11.94 feet per year (Vincent 2003).

? The Freshwater Bayou Bank Protection (TV-11) state project, constructed in 1994, is located on the east bank of Freshwater Bayou Canal, immediately north of the proposed TV-11b project and consists of 25,800 linear feet of shoreline protection constructed at +4.0 feet NAVD-88 (Figure 2). Due to manpower deficiencies and budgetary constraints, little monitoring information exists for this project; therefore, no specific conclusions can be drawn regarding the performance of the breakwaters. The lack of post-construction aerial photography precludes any definitive analysis of shoreline movement and changes in land to water ratios within the project area (LDNR 1996).

CWPPRA Projects on other Navigation Channels:

? The Cameron Prairie National Wildlife Refuge Shoreline Protection (ME-09) project was designed to protect 247 acres of marsh by preventing further widening of the GIWW. The shoreline erosion rate was estimated to be 2.5 feet per year prior to project construction in 1994 (United States Fish and Wildlife Service 1991). Since construction of the 13,200 linear foot rock dike (built to an initial elevation of +3.7 feet NAVD-88), shoreline erosion in the project area has been halted, and the shoreline behind the structure has prograded. From 1995 to 2000, the shoreline within the project area prograded an average of 9.8 feet per year (Barrilleaux and Clark 2002). Meanwhile, the reference areas continued to erode at an average rate of 4.1 feet per year (Barrilleaux and Clark 2002). In addition, 3.03 acres of vegetated wetland were created behind the rock dike on the navigation channel, indicating that low sediment availability does not prohibit wetland creation (Courville 1997).

? The Clear Marias Bank Protection (CS-22) project in Cameron Parish is similar to the proposed TV-11b project. It is located along the north bank of the GIWW between the Alkali Ditch and Goose Lake. Pre-construction shoreline erosion rates along the northern shoreline of the GIWW were 3.9 feet per year (USDA 1994). Erosion rates along the southern shoreline were 16.0 feet per year (National Marine Fisheries Service 1996). In March of 1997, a 35,000 foot limestone breakwater, built to an elevation of +3.0 feet NGVD-29, was completed from the northern bank of the GIWW to prevent continued erosion of the management levee and the encroachment of the GIWW into the project area (LDNR 1998b). Post-construction shoreline data collected in 1997 and 2000 indicated that the total project area shoreline had prograded 12.99 feet per year Miller 2001). The reference area for the same time intervals eroded 20.52 feet (Miller 2001).

? Perry Ridge Shore Protection (CS-24) and GIWW-Perry Ridge West Bank Stabilization (CS-30) projects were constructed in 1999 and 2001, respectively, along the northern bank of the GIWW in Cameron Parish. Both projects involved the construction of rock dikes to elevations of +3.7 to +4.0 feet NAVD-88 to prevent further shoreline erosion, but recent construction has precluded a definitive evaluation of project features. However, field observations indicate that the rock dike has halted shoreline erosion within the CS-24 project area (LDNR 2002).

VII. Summary and Conclusions:

The goal of the proposed Freshwater Bayou Bank Stabilization (TV-11b) project is to stop shoreline erosion along the east bank of Freshwater Bayou Canal from Freshwater Bayou Lock north to Belle Isle Bayou. The geotechnical investigation of the TV-11b project area concluded that soil characteristics within Reach 2 met all the soil stability requirements necessary for the construction of a foreshore dike. However, the data indicted that soil characteristics along Reaches 1 and 3 were not stable enough to support the initially proposed dike structure. Therefore, the designs were modified to incorporate an onshore pavement structure for Reach 1 and the use of both embedment berms and

geotextile reinforcement for Reach 3. These project modifications will improve structure stability.

Data collected from constructed shoreline protection projects along Freshwater Bayou Canal and the GIWW indicate that foreshore rock dikes are successful at stopping and/or reducing shoreline erosion rates. The decreasing effectiveness of the ME-04 project features, located on the opposite bank from TV-11b, reinforces the need for the appropriate rock gradation for use in dike construction.

Recommendations:

Based on the investigation of similar restoration projects and a review of engineering principles, the proposed strategies of the Freshwater Bayou Bank Stabilization (TV-11b) project will likely achieve the desired goal of stopping shoreline erosion. At this time, the level of design of the project's physical effects warrant continued progress toward construction pending a favorable 95% Design Review and resolution of the following issue:

? The Operations and Maintenance budget should be significant enough to provide for a maintenance lift to the structure should the dike's integrity be compromised.

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Enclosure K

Overgrazing Determination

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

December 22, 2003

Mr. Gregory Miller
Project Manager/Biologist
U.S. Army Corps of Engineers
New Orleans District
Coastal Restoration Branch
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Miller:

RE: Freshwater Bayou Bank Stabilization and Hydrologic Restoration-Belle Isle Canal To Lock TV-11b

I am in receipt of your request for an overgrazing determination for the Freshwater Bayou Bank Stabilization and Hydrologic Restoration-Belle Isle Canal to Lock TV-11b. I contacted our local district conservationist and our state resource conservationist to discuss the grazing in the project area. Currently, livestock are not grazing in the area nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion that overgrazing is not a problem in this project area. If you have any questions, please let me know.

Sincerely,

W. Britt Paul
Assistant State Conservationist
For Water Resources and Rural Development

cc: Bruce Lehto, Area Conservationist, Leesville, NRCS, Louisiana
Charles Starkovich, District Conservationist, NRCS, Lake Charles, Louisiana
Bart Devillier, District Conservationist, NRCS, Abbeville, Louisiana

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

An Equal Opportunity Provider and Employer

Enclosure L

Revised Cost Estimate

GIWW BANK RESTORATION OF CRITICAL AREAS IN TERREBONNE (TE-43)

CWPPRA
GIWW Restoration of Critical Areas (TE-43)
Phase II Request

Technical Committee Meeting

December 3, 2009

New Orleans, LA

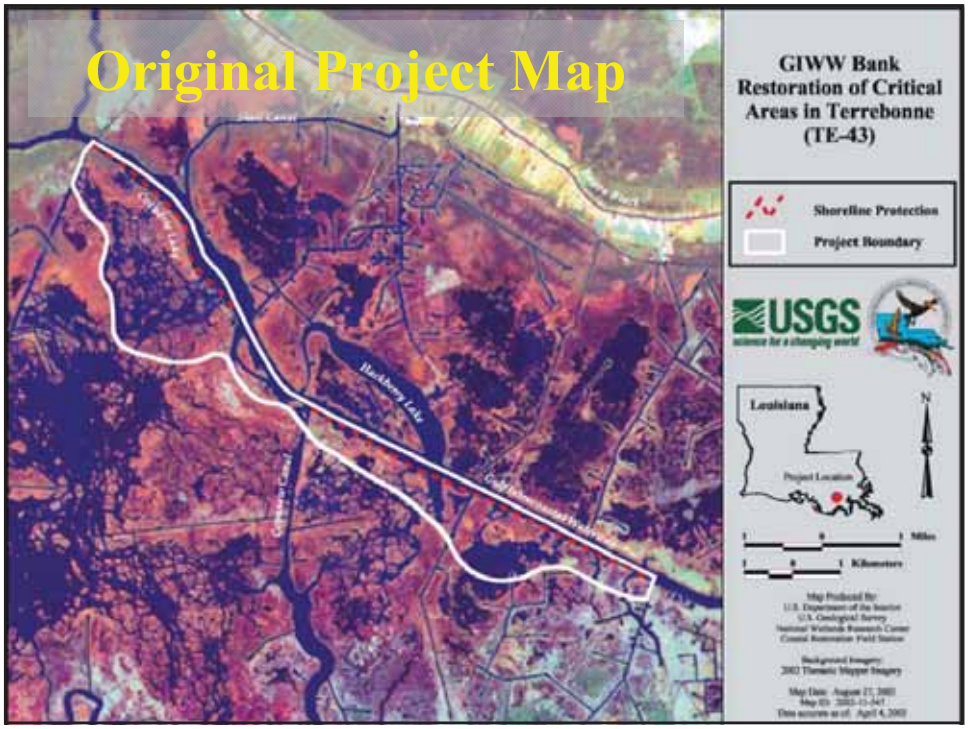
Project Overview

Project Location: Region 3, Terrebonne Basin, Terrebonne Parish, south bank of the GIWW from mile marker 80 to mile marker 70.

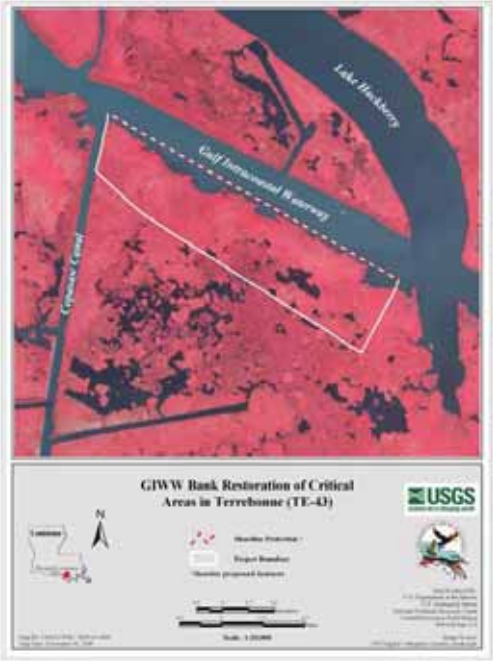
Problem: Deterioration of the southern bankline of the GIWW threatens fragile floating marshes of Penchant Basin and short-circuits freshwater conveyance to the east.

Goals:

1) Stop bankline erosion into the fragile floating marshes.
2) Maintain freshwater conveyance function of the GIWW.


Original Project Map
GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)
Shoreline Protection
Project Boundary
USGS
Louisiana
Project Location
N
Miles
Kilometers
Barataria Lake

TE-43 CIAP
Segment 1 0+00 – 15+58
Segment 2 0+00 – 5+00
Segment 3 65+00 – 110+00
Segment 5 0+00 – 80+00
White lines indicate sections of original project eliminated
TE-43 CWPPRA
Segment 4 0+00 – 88+33
PROJECT PLAN MAP – TE-43



Project Features Overview

- Installation of approximately 8,833 lf of shoreline protection along the southern bank of the GIWW by constructing a foreshore rock rip-rap dike and in places of poor soil bearing capacities using composite rock rip-rap with lightweight core aggregate.

- The foreshore rock dike will be situated along the –1.0-ft NAVD 88 contour in approximately 2.0 ft to 3.0 ft of water, stage dependant. The dike crown will be constructed to an elevation of +3.5 NAVD88 and have a width of 3.0 ft. The dike will have front and back side-slopes of 2.5:1.

Project Benefits & Costs

- Total Area Benefited: 355 acres
- Net acres after 20 yrs: 65 acres
- Prioritization Score: 34.2
- Project Costs:
  - Fully Funded Phase II $11,258,383
  - Phase II, Increment 1 $9,522,400
  - Total Fully Funded $13,022,246

Project Comparison/Contrast

The Present **vs.** PPL # 10

- Original Phase II Funding vs Present Request:
  - $17,922,015 original
  - $11,258,383 present (reflects inflationary costs and adjustments to length and design of features)
- Changes in Project Features
  - 37,000 linear feet to 8,833 linear feet
- Changes in WVA – Benefit area reduced from 3324 acres to 355 acres and the acres created/protected/restored from 366 acres to 65 acres.

Why Should You Fund this Project Now?

- Unique opportunity to partner with another program (CIAP)
- CWPPRA is being asked to construct only 38% of the project to complete the objective
- The project will help to accomplish the regional strategy of improving Atchafalaya River water conveyance to central and east Terrebonne marshes
- Help restore/protect Penchant Basin floating marshes

Questions?

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

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

November 18, 2009

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

RE: GIWW Bank Restoration of Critical Areas (TE-43)
Phase II Authorization Request

Dear Mr. Holden:

The Natural Resources Conservation Service (NRCS) and Louisiana Department of Natural Resources (LDNR) request Phase II authorization for the GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43). The project was authorized for Phase I as a part of Priority Project List 10 (PPL 10) in January 2001 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force), under the authority of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures (SOP) Manual. Please be advised that because the Coastal Impact Assistance Program (CIAP) elected to build a portion of this project, the Task Force approved a change in scope of this project on October 25, 2007, to include only the remaining 8833 ft that was not incorporated in the CIAP plan (see Description of Phase II project in Enclosure 1 for details). Questions regarding this project may be referred to Ron Boustany, Project Manager, at (337) 291-3067.

Sincerely,

W. Britt Paul
ASTC/WR & RC&D

Attachments

cc: (via email only)
Kirk Rhinehart, OCPR Technical Committee Member
Darryl Clark, USFWS Technical Committee Member
Rick Hartman, NMFS Technical Committee Member
Brad Crawford, EPA, Technical Committee Member
Melanie Goodman, USACOE, P&E Subcommittee
Kelly Templet, DNR P&E Subcommittee Member
Kevin Roy, USFWS P&E Subcommittee Member
Rachel Sweeney, NMFS P&E Subcommittee Member
Garrett Graves, CPRA Chairman

John Jurgensen, NRCS P&E Subcommittee Member
Ron Boustany, Project Manager, NRCS
Dustin White, Project Manager, OCPR
John Boatman, DC, NRCS
Brad Sticker, DE, NRCS
Randolph Joseph, Jr., AC, NRCS

Enclosure 1
Information Required in Phase II Authorization Request

GIWW BANK RESTORATION OF CRITICAL AREAS IN TERREBONNE (TE-43)

Description of Phase I Project

The TE-43 GIWW Critical Areas project was approved relative to the 10th CWPPRA Priority Project List. The Natural Resources Conservation Service (NRCS) is the federal sponsor for this project. The objective of this project is to protect critically eroding portions of the southern bank of the Gulf Intracoastal Waterway (GIWW).

The Gulf Intracoastal Waterway (GIWW) Bankline Restoration Project is located in Terrebonne Parish approximately ten miles east of the Lower Atchafalaya River and ten miles southwest of Houma, Louisiana. The specific location proposed for the structures is the southern bank of the GIWW originating at a point close to mile marker 80 and terminating at a point close to mile marker 70.

In the past 20 years, as the efficiency of the Lower Atchafalaya River has decreased, Lake Verret subbasin flooding and Atchafalaya River flows via the GIWW have increased. Deterioration of fresh and intermediate wetlands, particularly the floating marsh, in the upper Penchant basin has been attributed to sustained elevated water levels. In addition, wave action from commercial and recreational traffic on the GIWW has caused floating marshes in some areas to become directly exposed to increased circulation through unnatural connections formed where channel banks have deteriorated.

The objective of the GIWW Bankline Restoration project is to protect critically eroding portions of the southern bank of the GIWW that act as an interface between the fragile fresh marshes and the turbulent high velocities that occur within the GIWW. Proposed measures include installing shoreline protection structures along the southern bank of the GIWW. The structures will provide protection to the banks of the GIWW, which have experienced severe erosion since the construction of the GIWW in the early 1950's.

The project goals are: 1) To enable the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to specific locations that would benefit from increased flows of fresh water and nutrients, and 2) To provide relief to marshes connected to the GIWW that are currently suffering from prolonged inundation and wave action while stopping shoreline erosion along the remaining bank of the GIWW.

The proposed solution is to restore critical lengths of deteriorated channel banks, and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials.

The Wetland Value Assessment (WVA) conducted for the Phase I project estimated a benefited area of 3,324 acres and the net acres created/protected/restored of 366 acres at TY20.

At the time of Phase I approval, the fully-funded project cost was $19,657,998. That figure included $1,735,983 for Phase I and $17,922,015 for Phase II. The original cost breakdown for Phases I and II is presented in the following table:

Task Name	Phase I Costs	Phase II Costs
Engineering and Design	$1,113,611	
Land Rights	$52,529	
DNR Administration	$267,256	$279,601
NRCS Administration	$286,282	$299,506
Monitoring	$14,954	$83,493
Corps Project Management	1,351	$20,740
Construction		$11,981,341
Contingency		$2,995,335
Supervision and Inspection		$182,451
Operations and Maintenance		$2,079,548
Total	**$1,735,983**	**$17,922,015**

The original project fact sheet and map depicting the project boundary and project features is provided below.

October 2003

GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)

Project Status

Approved Date: 2001 **Project Area:** 3,324 acres
Approved Funds: $2.2 M **Total Est. Cost:** $19.7 M
Net Benefit After 20 Years: 366 acres
Status: Engineering and Design
Project Type: Shoreline Protection

Location

The project is located in the Terrebonne basin, in Terrebonne Parish, Louisiana.

Problems

In the past 20 years, as the efficiency of the Lower Atchafalaya River has decreased, Verrett subbasin flooding and Atchafalaya River flows via the Gulf Intracoastal Waterway (GIWW) have increased. Deterioration of fresh and intermediate wetlands, particularly of the floating marshes in the upper Penchant basin, has been attributed to sustained elevated water levels. In addition, floating marshes in some areas have become directly exposed to increased circulation through unnatural connections formed where channel banks deteriorated.

Conversely, losses in the central Terrebonne Parish marshes have been attributed to the elimination of riverine inflow coupled with subsidence and altered hydrology from canal dredging that facilitated saltwater intrusion. Increased flow of the GIWW and wave pulses from navigation traffic are causing additional breakup and loss of floating marshes in unprotected areas.

Restoration Strategy

This project will restore critical lengths of deteriorated channel banks and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials.

Progress to Date

Geotechnical soils investigation report is complete. Soils in the area are very soft and fluid.

This project is on Priority Project List 10.

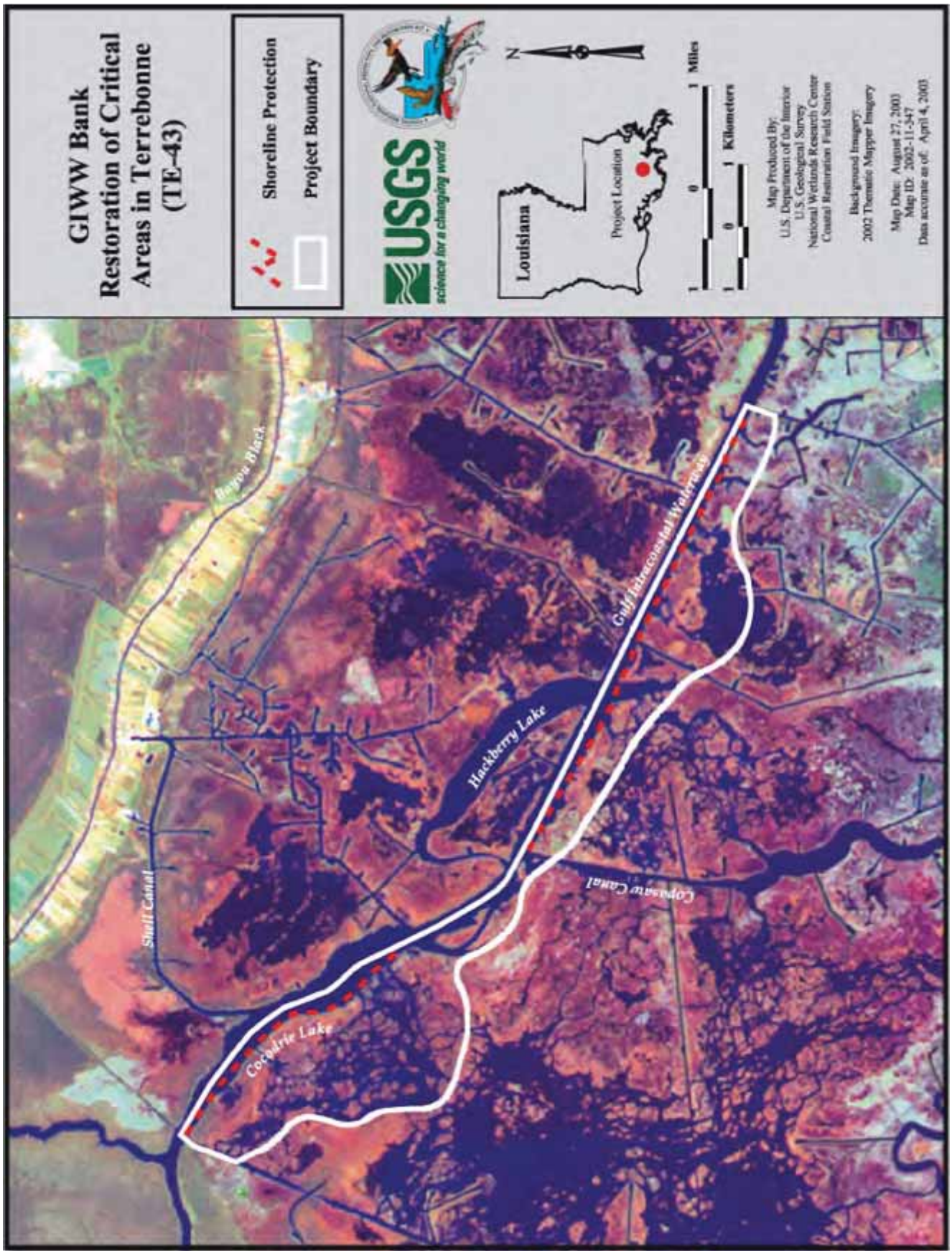
Large mats of floating freshwater marsh, such as this one, detach from their point of origin and enter the GIWW through large breaches in the existing shoreline.

Concrete "H" pile/panel structures, similar to this one, will be installed at locations within the project area where shoreline erosion is critical. Soils with high amounts of organic material, which have poor strength, necessitated the use of a structure such as this.

For more project information, please contact:

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

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


GIWW Bank
Restoration of Critical
Areas in Terrebonne
(TE-43)
Shoreline Protection
Project Boundary
USGS
science for a changing world
Louisiana
Project Location
N
1 Miles
1 Kilometers
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Background Imagery:
2002 Thematic Mapper Imagery
Map Date: August 27, 2003
Map ID: 2002-11-347
Data accurate as of: April 4, 2003
Bayou Black
Shell Canal
Cocodrie Lake
Hackberry Lake
Gulf Intracoastal Waterway
Copasaw Canal

Overview of Phase I Tasks, Process, and Issues

The following tasks were completed during Phase I:

1) Interagency kickoff meeting and field trip
2) Final Cost Share Agreement executed between NRCS and DNR
3) Preliminary landrights
4) Magnetometer survey
6) Geotechnical investigation of the proposed alignment
7) 30% design review
8) 95% design review
9) Ecological Review
10) Environmental Assessment
11) Final construction cost estimate
12) Section 404 Permit complete
13) Overgrazing determination from NRCS
14) Cultural resources clearance

Geologic Information

The predominant soil that occurs along the existing bankline of the GIWW is Aquents, Dredged, occasionally flooded. For the remainder of the project area, Kenner muck – very frequently flooded, makes up the majority of the soil type. Other soil types present within the project area are Fausse Clay – frequently flooded, Barbary muck – frequently flooded, Gramercy/Cancienne – silty clay loam, and Allemands muck – very frequently flooded (NRCS 2002, unpublished data).

Hydrology and Hydraulics

The water levels in the watershed are influenced by tides and wind. The mean high water is 2.0' NAVD88. The mean low water is 0.5' NAVD88.

Engineering and Design Tasks

The Department of Natural Resources letter "RE: Generalized Guidelines for Coastal Structures Design Parameters" dated January 07, 2000, and its attachment "Design Guidelines for CWPPRA Shoreline Protection Structures" were used to determine the wave heights used to design the rock / rock composite dike. Under the guidelines set forth in the letter a still water elevation (SWE), a wave height, the height of the structure, and the wave forces must be determined. In an effort to be conservative, the SWE was set at the storm water elevation of +2.5 NAVD88. Concurrently, the average bottom elevation was determined to be approximately -1.5 NAVD88.

Minimum and maximum design wave heights are determined according to the guidelines, where the minimum wave height is equal to 2.0 feet unless this is greater than the water

depth and the maximum wave height is 0.78 times the water depth. Therefore the minimum and maximum wave heights were set at 2.0 and 3.12 feet respectively.

A wind generated wave height was determined using a 70 mph wind. The maximum peak gust, 70 mph, was chosen out of a comparison of New Orleans, Lake Charles and Baton Rouge wind speeds, provided in NOAA's "Climatic Wind Data for the United States". The wave height for this wind speed was used as an input for the ACES program in which wind in shallow and deep open water conditions was determined. The shallow and deep open water wave conditions return wave heights of 1.44 and 1.67 feet respectively. Along with these wave heights, one other wave height was determined. This is the wave height due to boat traffic. Since most of the traffic in the GIWW is crew boats a wave height of 3.0 feet was used in accordance with the guidelines.

The minimum top elevation of the structure was determined to be 3.5 NAVD88 based on the ability of the structure to be overtopped, and the guidelines. The wave impact forces were determined by deciding if the maximum wave height is breaking or non-breaking. This is done using the Shore Protection Manual (SPM), Chapter 2, Section VI, Part 2. In this case, a wind duration of 2.0 seconds was used, which allowed for the determination of the deepwater wave steepness, 0.024. The deepwater wave steepness is used as an input into Figure 2-72 of the SPM in order to determine the breaker height index, which in turn is used to determine the breaking wave height, 3.0 feet. The breaking wave height was then used as an input in Equation 2-92 of the SPM in order to determine the depth of water that the breaking wave would break at, 4.59 feet. Since the depth of water at which the wave would break at is greater than the depth of water at the structure, the wave will break before it reaches the structure, and thus is not a concern in the design of the structure.

The geotechnical investigation provided the minimum slopes for a composite and a rock dike. With this information in combination with the settlements for each type of section, also provided in the geotechnical investigation, a determination of the most economic design method (rock / composite) was made on a per reach basis. The most economic method per reach was used as the determining factor for which sections of the dike would be composite rather than rock only. These determinations led to the specification of 2:1 (H:V) side slopes for the rock only sections and 2.5:1(H:V) side slopes for the composite sections, based on the minimum slopes provided by the geotechnical investigation.

With the maximum wave height, wave forces, and side slopes determined the size of the rock riprap was determined to be a Corps of Engineers R-1000 gradation. This was done using equation 7-117 from the SPM, with a stability coefficient of 2.2, and the two side slopes (2:1, 2.5:1) that were proposed for this structure. The top width of the structure was determined to be 3.0 feet using equation 7-120 of the SPM, with the median size of the gradation above.

A layer thickness for the composite sections of the structure had to be determined. This was accomplished using equations 7-123 and 7-124 of the SPM. The maximum

thickness from these two equations was determined to be 1.6 feet. To be conservative a 2.0 foot layer thickness has been specified for the structure design.

Design meetings were held at the 30% (May 25, 2004) and 95% (August 26, 2004) levels.

Landrights, Cultural Resources, Environmental Compliance and Other Tasks

Preliminary landrights has proceeded smoothly and no problems are anticipated in acquiring final landrights.

No cultural resource sites are located within the project area.

Environmental concerns were considered in the planning and design of this project. A FONSI, Environmental Assessment, and Ecological Review Report have been completed. A Section 404 permit has been approved by the USACE. A Storm Water Pollution Prevention Plan has been developed for this project since the disturbed construction site is more than one (1) acre. A permit to dredge material for construction has been obtained by the local sponsors from the U.S. Corps of Engineers and the Louisiana Department of Natural Resources, Coastal Zone Management.

A draft Ecological Review is available and a final EA dated December, 2002 was developed after receiving comments on the draft EA, which was submitted for public comment in April, 2002.

Description of the Phase II Candidate Project

The original candidate for Phase I authorization of TE-43 involved a near complete armoring of a section of the GIWW bankline (referred to as Area G) **(Figure 1)** totaling 37,000 feet where the bankline had deteriorated significantly and at several points breached into the adjacent floating marshes of the upper Penchant Basin. The two major breach areas are located at the NW and SE extents of the project area **(Figure 2)**. In Fall 2005 and Spring 2006, NRCS and LDNR with the consent of Terrebonne Parish and a major landowner reevaluated the project. Based upon new USGS data and joint NRCS and LDNR field analysis, a revised downsized project was agreed upon that removed portions of segments along intact banks and targeted only the two major breach areas within the project boundary **(Figure 3)**. NRCS and LDNR criteria for downsizing required that the revised project not add any new areas to the project and would not significantly alter the overall project goals. The purposes of the downsizing were two-fold: 1) to concentrate efforts on those critical areas where the bankline had breached or were not imminently threatening to breach into adjacent fragile floating marshes, and 2) to identify a portion of the project to be proposed for Coastal Impact Assistance Program (CIAP) consideration. In 2006, CIAP elected to construct the portion of the project that was submitted for consideration. Therefore, the TE-43 project candidate for Phase II funding request currently consists of the remaining critical segment of the project area **(Figure 3)**.

The final design of the project features are essentially unchanged from the original Phase I project with exception to the total length. The project contains shoreline protection by means of a hard shoreline structure. The Phase 0 approved length of the structure was approximately 37,000 ft, the CIAP project will construct 14,555 ft, the CWPPRA project will construct 8,833 ft, and the remaining 13,612 ft has been eliminated from the project.

The work to be accomplished will consist of the installation of approximately 8,833 feet of shoreline protection along the southern shoreline of the GIWW by constructing a rock rip-rap dike and in places of poor soil bearing capacities constructing a composite rock rip-rap dike with a lightweight core aggregate as seen in **Figures 4 and 5** (typical and composite rock dike sections).

Previous projects involving similar bankline structures that have been successfully constructed along the GIWW and other similar type areas include Perry Ridge Shore Protection (CS-24), GIWW-Perry Ridge West Bank Stabilization (CS-30), Cameron Prairie NWR Shoreline Protection (ME-09), Freshwater Bayou Bank Stabilization (ME-13) and Freshwater Bayou Wetland Protection (ME-04). Additionally, the analysis and results included in the geotechnical investigations support the concept that a rock/rock composite structure is capable of being constructed, and establishes the required stable side slopes as well as expected settlements.

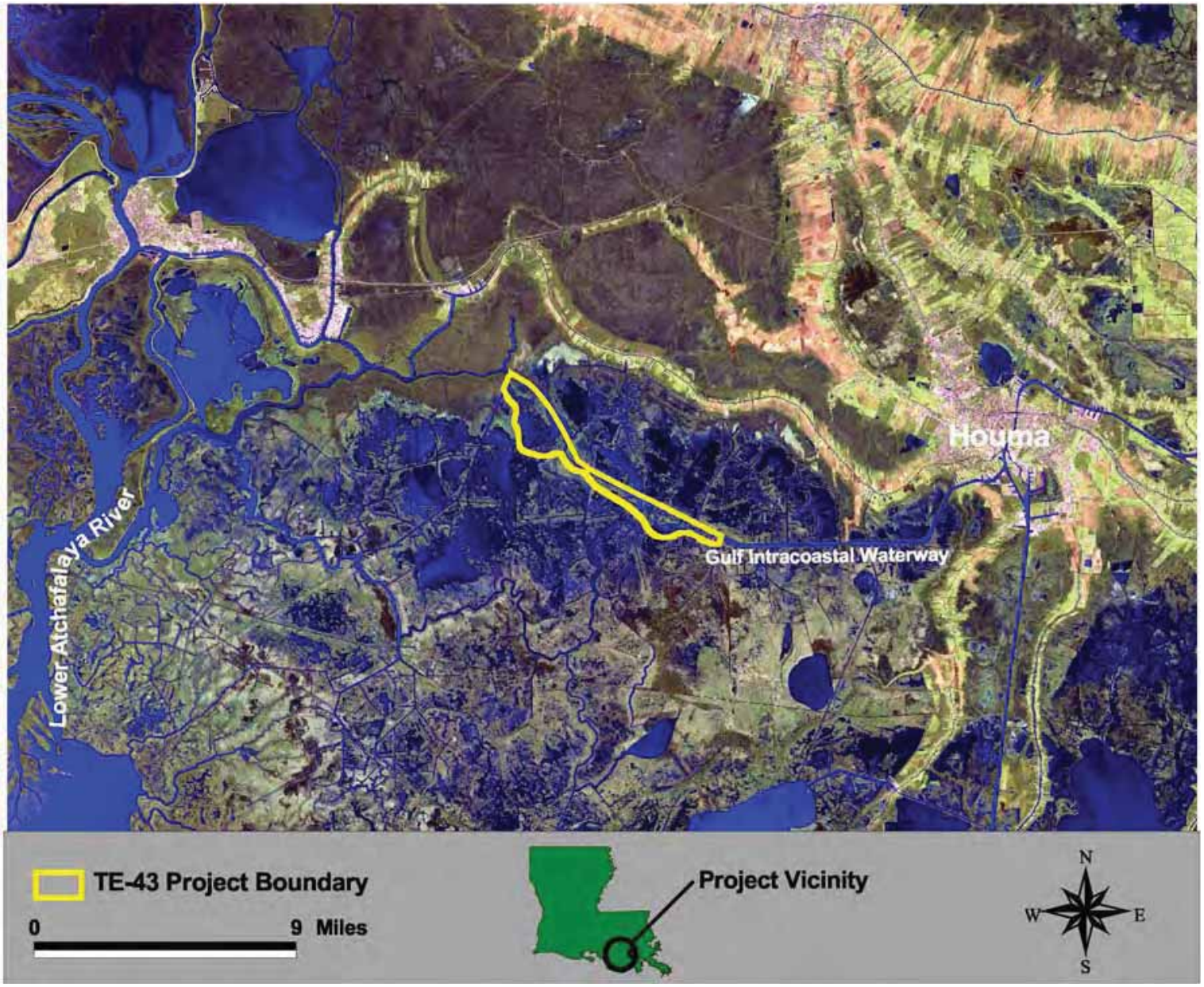


Figure 1. Vicinity map of original boundary of GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43).

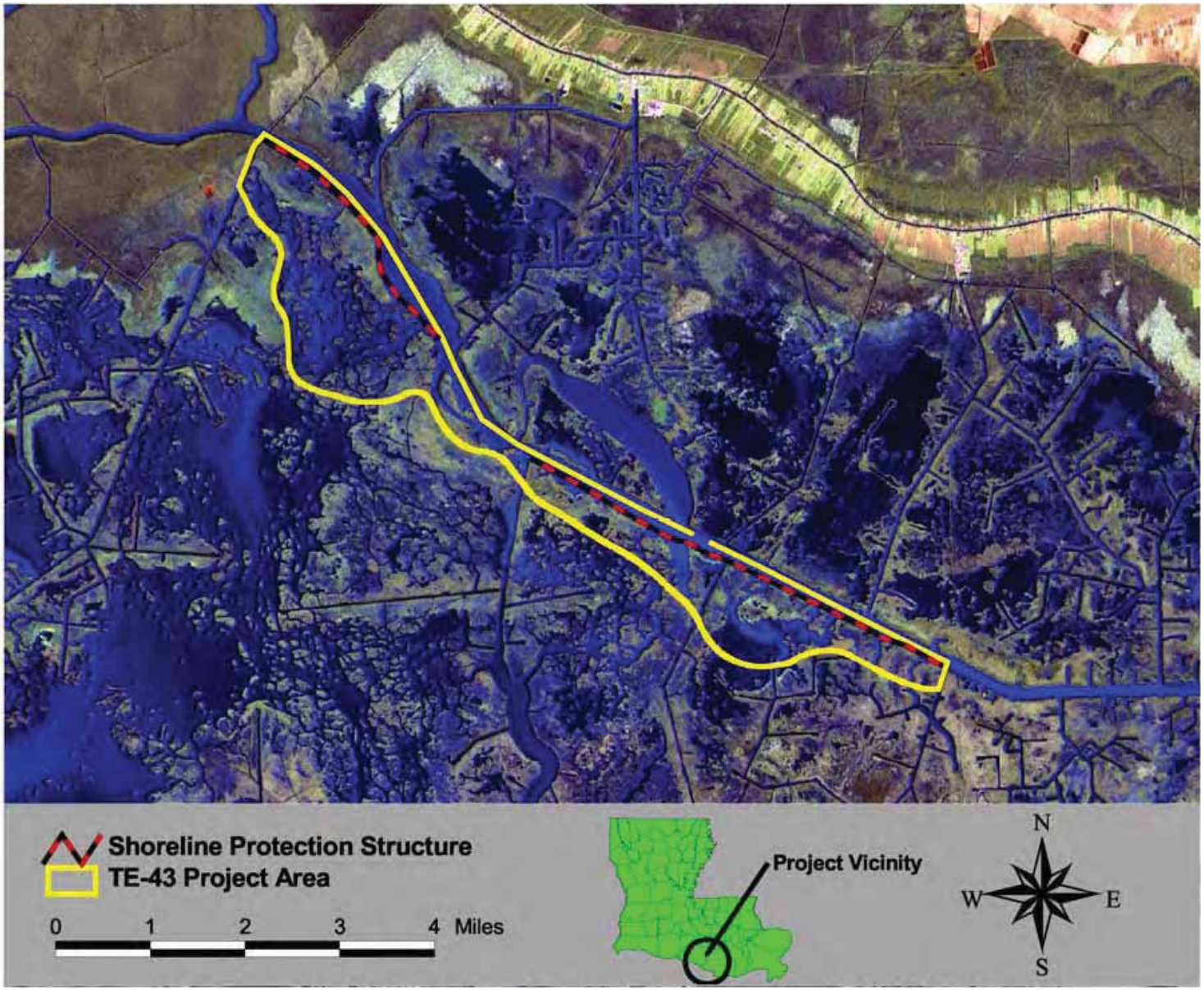


Figure 2. Expanded view of original project boundary of GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43) also indicating extent of shoreline protection coverage.

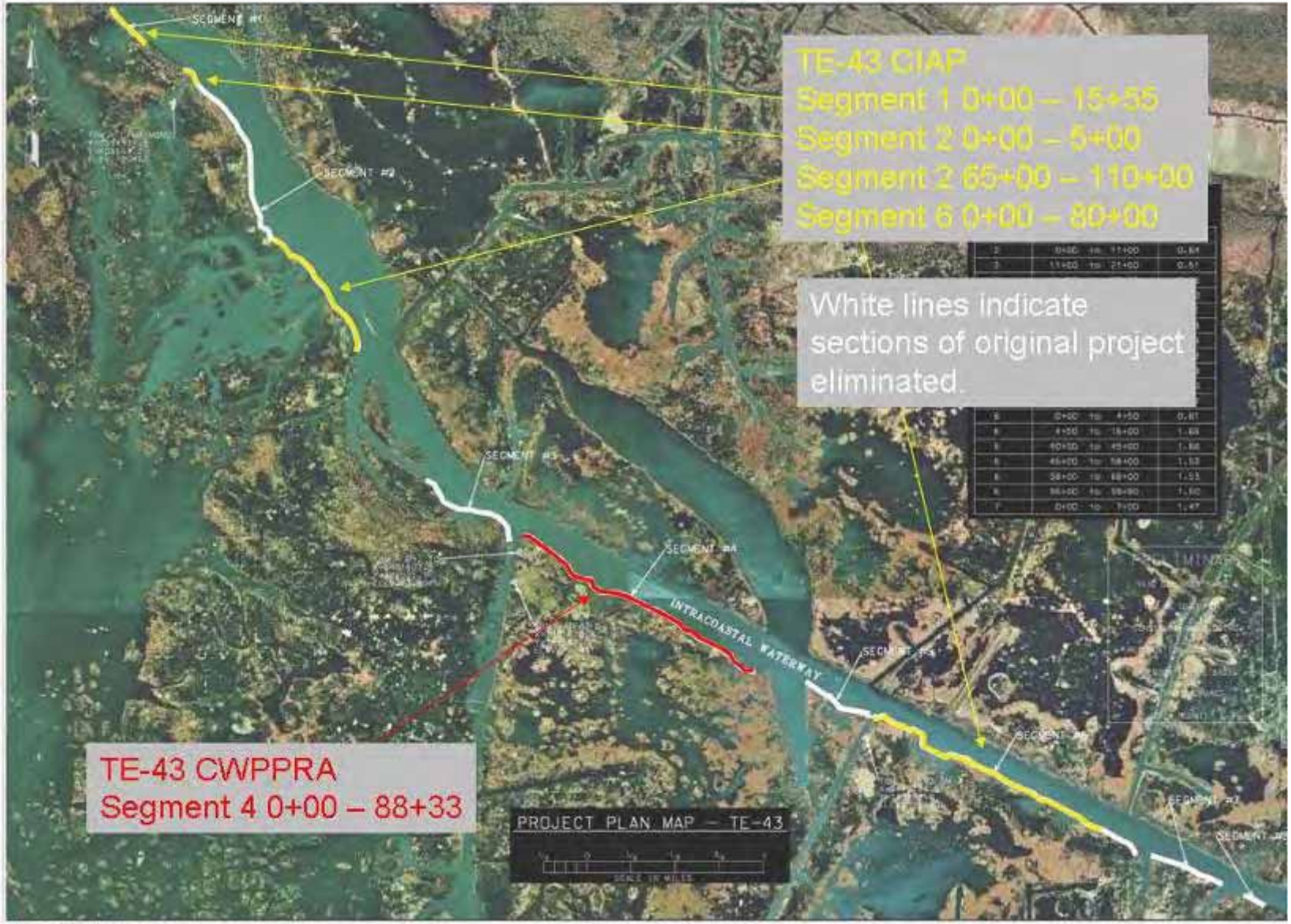


Figure 3. Map showing original TE-43 CWPPRA project with yellow lines indicating positions of CIAP sections, red lines indicating current CWPPRA TE-43 project, and white lines indicating those sections of segments eliminated from the project.

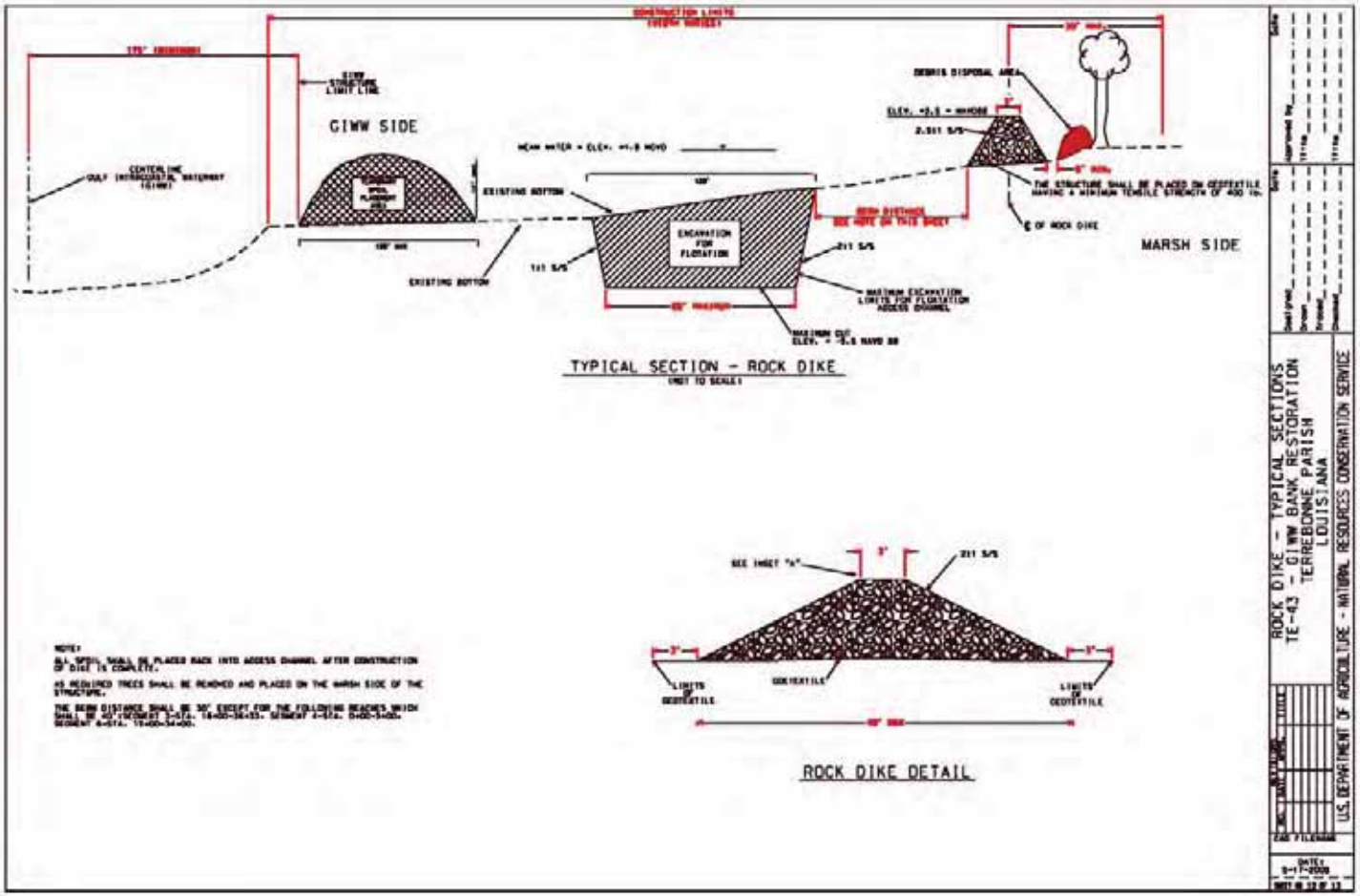
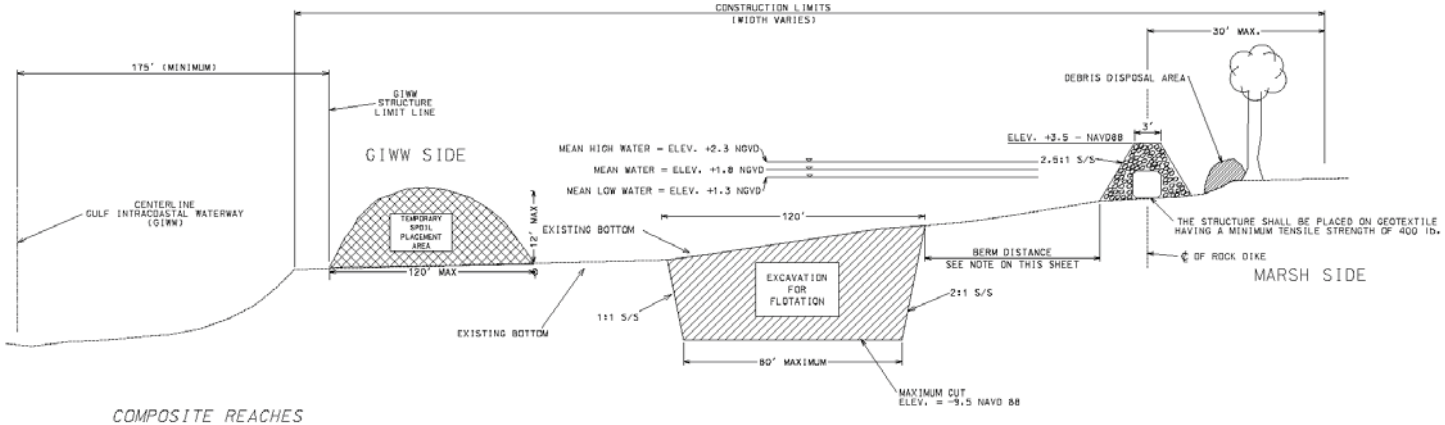


Figure 4 – Typical Rock Dike Section.



TYPICAL SECTION - COMPOSITE ROCK DIKE
(NOT TO SCALE)

COMPOSITE REACHES
LIGHT WEIGHT AGGREGATE

SEGMENT	REACH	CY/LF
2	0+00 to 11+00	0.64
2	11+00 to 21+00	0.51
2	21+00 to 30+50	0.56
2	30+50 to 41+00	0.50
2	64+00 to 76+00	0.91
3	0+00 to 13+00	0.58
4	7+00 to 18+00	1.18
4	27+00 to 39+50	1.02
4	38+50 to 50+00	1.99
4	50+00 to 59+00	1.90
5	16+00 to 24+03	1.62
6	0+00 to 4+50	0.81
6	4+50 to 16+00	1.65
6	40+00 to 45+00	1.66
6	45+00 to 58+00	1.52
6	58+00 to 68+00	1.53
6	96+00 to 99+90	1.50
7	0+00 to 7+00	1.47

NOTE:

WIDTH AND HEIGHT OF BAGGED LIGHTWEIGHT AGGREGATE IS VARIABLE. A MINIMUM OF 2' OF ROCK COVERAGE SHALL BE PLACED ON SIDES AND TOP OF BAGGED AGGREGATE.

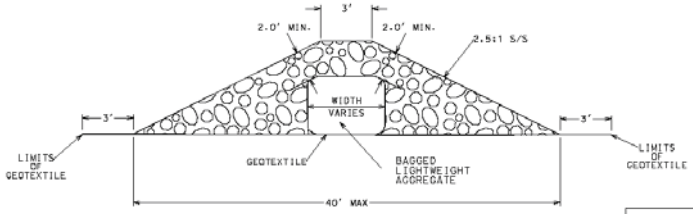
ALL SPOIL SHALL BE PLACED BACK INTO ACCESS CHANNEL AFTER CONSTRUCTION OF DIKE IS COMPLETE.

AS REQUIRED TREES SHALL BE REMOVED AND PLACED ON THE MARSH SIDE OF THE STRUCTURE.

THE BERM DISTANCE SHALL BE 30' EXCEPT FOR THE FOLLOWING REACHES WHICH SHALL BE 40':SEGMENT 3-STA. 16+00-36+33. SEGMENT 4-STA. 0+00-5+00. SEGMENT 6-STA. 19+00-34+00.

THE HEIGHT OF THE DIKE IS VARIABLE. THE DIKE IS PLANNED TO FOLLOW THE -1.0' CONTOUR. THE ACTUAL LAYOUT MAY VARY. THERFORE THE DIKE COULD VARY IN HEIGHT FROM 4.0' TO 5.0'.

THE DEPTH OF THE ACCESS CANAL IS ALSO VARIABLE. THIS DEPENDS ON THE TOPOGRAPHY AND HOW MUCH THE CONTRACTOR CHOOSES TO EXCAVATE.



COMPOSITE ROCK DIKE DETAIL
(ALTERNATIVE)

PRELIMINARY
THIS DOCUMENT SHALL NOT BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, OR SALES.

Figure 5 – Typical Composite Rock Dike Section

Updated Assessment of Benefits

The original WVA conducted for the Phase I project estimated a benefited area of 3,324 acres and the net acres created/protected/restored of 366 acres at TY20. The downsized project benefit area is 355 acres for a net acres created/protected/restored of 65 acres at TY 20.

Modifications to the Phase I Project

The Phase 0 approved length of the structure was approximately 37,000 feet, whereas the length of the designed project has been reduced to approximately 8,833 feet. The final design of the project structures are essentially unchanged from the original Phase I project with exception to the total bankline coverage of the project. The project contains shoreline protection by means of a hard shoreline structure.

Current Cost Estimate

The revised total fully-funded cost prepared by the CWPPRA Economics Work Group is **$13,022,246** (see fully funded cost spreadsheet). The Phase I cost is **$1,735,983**. The total Phase II cost is estimated at $13,568,940 and the Phase II-Increment 1 cost at **$9,522,400**.

Final Project Fact Sheet
November 10, 2008

Project Name - GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)

Coast 2050 Strategy – Region 3 - #6 Stabilize navigation channel banks or cross sections for water conveyance.

Project Location – Region 3, Terrebonne Basin, Terrebonne Parish, south shore of GIWW.

Problem - In the past 20 years, as the efficiency of the Lower Atchafalaya River has decreased, Lake Verret subbasin flooding and Atchafalaya River flows via the GIWW have increased. Deterioration of fresh and intermediate wetlands, particularly the floating marsh, in the upper Penchant basin has been attributed to sustained elevated water levels. In addition, wave action from commercial and recreational traffic on the GIWW has caused floating marshes in some areas to become directly exposed to increased circulation through unnatural connections formed where channel banks have deteriorated.

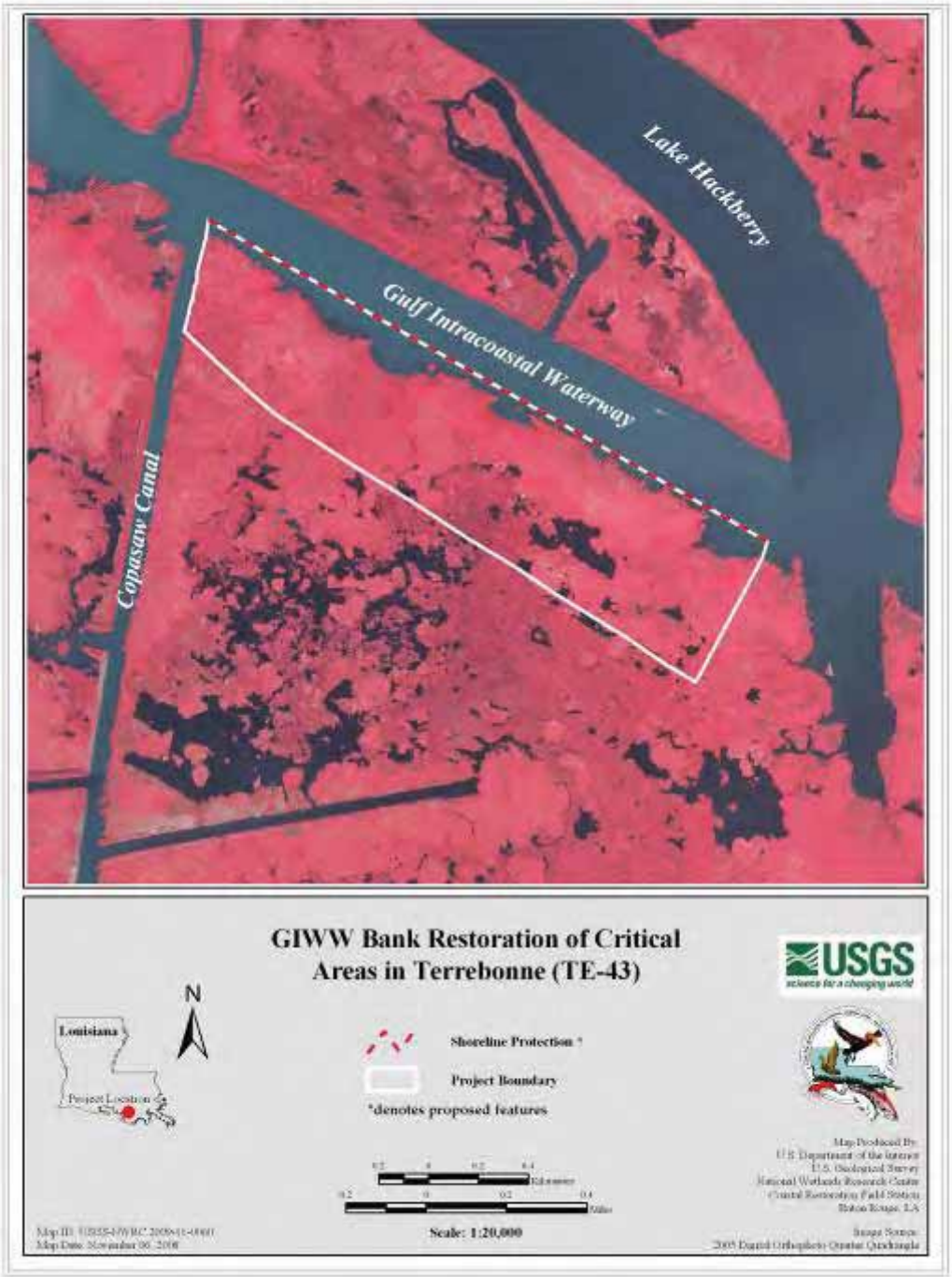
Goals - To enable the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to specific locations that would benefit from increased flows of fresh water and nutrients, and 2) To provide relief to marshes connected to the GIWW that are currently suffering from prolonged inundation and wave action while stopping shoreline erosion along the remaining bank of the GIWW.

Proposed Solution - The proposed solution is to restore critical lengths of deteriorated channel banks, and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials.

Project Benefits – The project would benefit approximately 355 acres adjacent to the largest floating marsh complex in coastal Louisiana and a predicted net acres created/protected/restored of 65 acres at TY20.

Project Cost – Total fully funded cost is $13,022,246.

Sponsoring Agency and Contact – Natural Resources Conservation Service (NRCS)
Ron Boustany, Project Manager, Lafayette, LA (337) 291-3067,
ron.boustany@la.usda.gov


Lake Hackberry
Gulf Intracoastal Waterway
Copasaw Canal
GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)
USGS
science for a changing world
N
Louisiana
Project Location
Shoreline Protection *
Project Boundary
*denotes proposed features
Scale: 1:20,000
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, LA

Enclosure 2

Checklist of Phase II Requirements

TE-43 GIWW BANK RESTORATION OF CRITICAL AREAS INCREMENT 1 – AREA 'G'

A. List of Project Goals and Strategies.

The project goals are: 1) To enable the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to specific locations that would benefit from increased flows of fresh water and nutrients, and 2) To provide relief to marshes connected to the GIWW that are currently suffering from prolonged inundation and wave action while stopping shoreline erosion along the remaining bank of the GIWW.

B. A Statement that the Cost Sharing Agreement between the Lead Agency and the Local Sponsor has been executed for Phase I.

A Cost Share Agreement between the Natural Resources Conservation Service and Louisiana Department of Natural Resources was executed on May 16, 2001. A draft amendment, authorizing construction, operation, maintenance, and monitoring, to the Cost Share Agreement has been prepared.

C. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase 2 approval.

NRCS has requested the required letter from DNR relative to landrights being finalized in a relatively short period of time after Phase 2 approval. By way of letter received Septemper 2, 2004, DNR stated that they anticipated no landrights acquisition problems with the project. At this time all landowners have indicated approval of project and signatures pending funding approval, and all pipeline companies have given consent.

D. A favorable Preliminary Design Review (30% Design Level). The Preliminary Design shall include completion of surveys, borings, geotechnical investigations, data analysis review, hydrologic data collection and analysis, modeling (if necessary), and development of preliminary designs.

A 30% design review meeting was held on May 25, 2004, and resulted in favorable reviews of the project design with minor modifications. DNR and NRCS agreed on the project design and agreed to proceed to the 95% design level and with project implementation.

E. Final Project Design Review (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporate elements from the Preliminary Design and the Preliminary Design Review. Final Project Design Review (95%) must be successfully completed prior to seeking Technical Committee approval.

A 95% design meeting was held on August 26, 2004, and resulted in favorable reviews of the project design with no modifications and few comments. DNR and NRCS agreed on the project design and agreed to proceed with project implementation.

F. A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act must be submitted thirty days before the request for Phase 2 approval.

A final EA dated December, 2002 was developed after receiving comments on the draft EA, which was submitted for public comment in April, 2002.

G. A written summary of the findings of the Ecological Review.

A favorable 95% Design Review was conducted on August 26, 2004. The following paragraph is from the Recommendations section of the August 2004 draft Ecological Review:

> *Based on information gathered from similar restoration projects, engineering designs, and related literature, the proposed strategies in the GIWW Bank Restoration of Critical Areas in Terrebonne project will likely achieve the desired goals provided Operation and Maintenance funds are available for structure rehabilitation. It is recommended that this project progress towards construction authorization pending a favorable 95% Design Review.*

H. Application for and/or issuance of the public notices for permits. If a permit has not been received by the agency, a notice from the Corps of when the permit may be issued.

Section 404 Permit has been received dated January 18, 2006. Water Quality Certification (LDEQ) has been granted via letter dated September 20, 2005. A letter notifying consistency with Louisiana Coastal Resources Program (LCRP) has been issued, dated December 7, 2004.

I. A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.

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

J. Section 303(e) approval from the Corps.

Section 303(e) approval was granted by the Corps via letter dated July 8, 2003.

K. Overgrazing determination from the NRCS (if necessary).

SHIP SHOAL: WHISKEY WEST FLANK RESTORATION (TE-47)

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

Technical Committee Meeting

December 2, 2009

Baton Rouge, LA

Project Overview

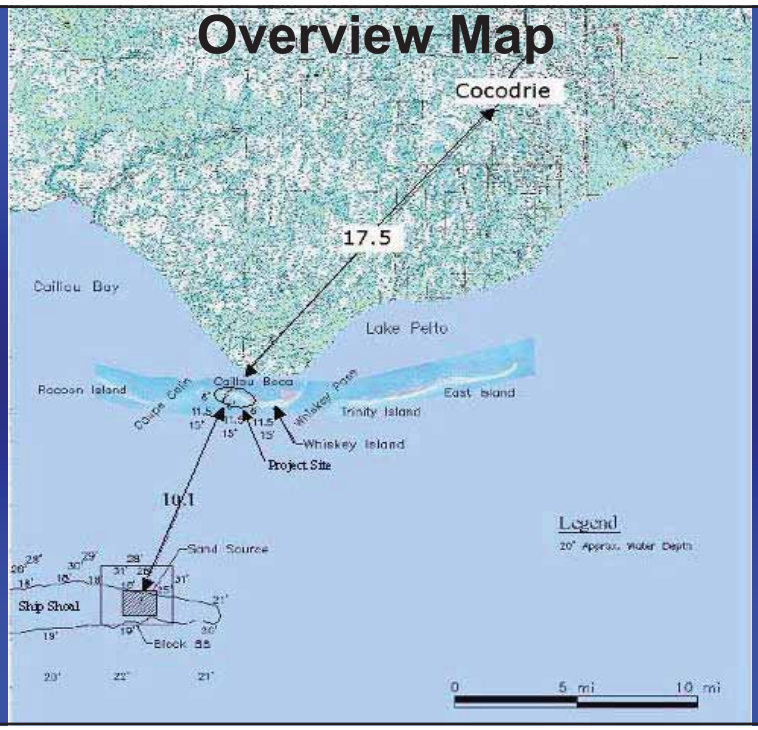
Project Location: Region 3 - Terrebonne Basin, Terrebonne Parish, Isles Dernieres Barrier Islands Refuge, western spit of Whiskey Island.

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

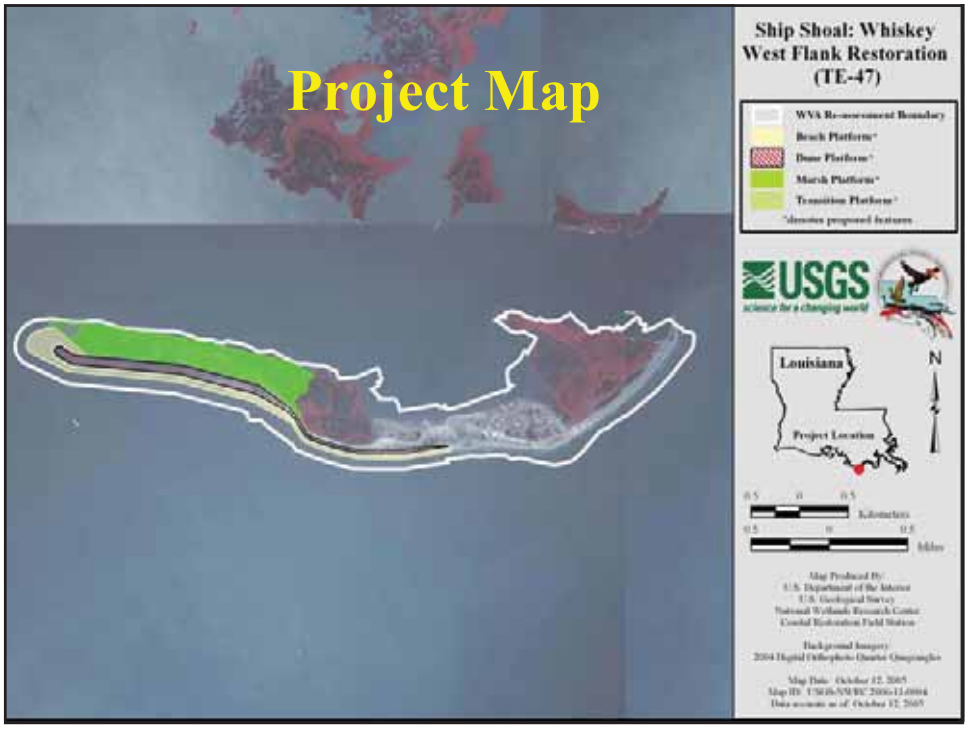
Project Overview

Goals:

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



Project Map



Project Features

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

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

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

Project Benefits & Costs

- Benefits include evaluation of the feasibility of using Ship Shoal sand for coastal restoration.
- The project would benefit a total of 703 acres of barrier island and shallow water habitat.
- At the end of 20 years, there would be a net of 195 acres of island habitat over the without-project condition.
- Wetland Value Assessment: 269 Net AAHUs
- The Fully Funded Cost for the project is: $61,750,784
  Phase 2 request is: $57,851,781

Why Should We Fund This Project Now?

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

Questions?

Brad Crawford
US Environmental
Protection Agency
(214) 665 - 7255

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

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

November 18, 2009

Mr. Thomas A. Holden
Deputy District Engineer
U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, Louisiana 70160-0267

RE: Ship Shoal: Whiskey West Flank Project (TE-47)
Request for Phase II Construction Authorization

Dear Mr. Holden;

The U.S. Environmental Protection Agency (EPA) and Louisiana Office of Coastal Restoration and Protection (OCPR), hereby request approval to begin construction of the Ship Shoal: Whiskey West Flank Project (TE-47). This project was authorized January 2002 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). This is the fifth submittal for Phase II funding for this project. This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures Manual (SOP).

Enclosed please find all of the information required for Phase II construction funding request and approval, pursuant to Appendix C of the SOP. If you have any questions or need additional information about this project, please contact Brad Crawford 214-665-7255.

Sincerely,

Paul Kaspar
Acting Chief
Marine & Coastal Section

Enclosures

cc: Mr. Darryl Clark, USFWS
Mr. Britt Paul, NRCS
Mr. Kirk Rhinehart, CPRA
Mr. Richard Hartman, NMFS
Ms. Melanie Goodman, USACE
Mr. Kevin Roy, USFWS
Mr. John Jurgensen, NRCS
Ms. Kelley Templet, CPRA
Ms. Rachel Sweeney, NMFS

Overview of Phase I Tasks, Process and Issues – LDNR contracted with the company of DMJM Harris for the Engineering and Design (E&D). DMJM Harris conducted the following tasks:

- Delineated a borrow area on Ship Shoal by conducting a geophysical investigation.
- Surveyed the project area.
- Applied the appropriate modeling to optimize the cross section and to ensure the project does not have a negative impact on adjacent areas.
- Developed project Plans, Specifications, Permit Drawings and Design Report.

Compliance with the National Environmental Policy Act (NEPA) is being addressed in two separate tracks. To address potential impacts to the dredging borrow site, the MMS completed an Environmental Assessment (EA) dated April 2004 addressing both this project and the Morganza to the Gulf Levee project. That EA included information regarding cultural resources obtained from the remote sensing survey completed by EPA in December 2003. NEPA compliance regarding the island fill site is being addressed in a separate EA developed by EPA. The Draft EA was posted along with the 95% E&D documents, and the NEPA documentation was completed with the issuance of a Finding of No Significant Impact dated December 1, 2005. LDNR and EPA investigated the potential for cultural resource areas and determined there are not any in the delineated borrow area or the project footprint.

The project site was affected by hurricanes Katrina and Rita in 2005. EPA and LDNR surveyed the island via aerial flights after each event and LDNR and EPA re-surveyed the island in August 2006. While the storms disturbed the existing sediments, the quantities were not significantly affected. However, the cost estimates based on current market conditions have been revised. The original fact sheet and project map are provided in Attachment I.

Description of Phase II Candidate project – The overall project objectives as enumerated in the 95% E&D report are:

I. Demonstrate the feasibility of moving Ship Shoal sand to the Isles Dernieres for future restoration projects;
II. Restore the integrity of the West Flank of Whiskey Island to retain its structural function;
III. Add offshore sediment to the West Flank of Whiskey Island from Ship Shoal to increase sediment supply and strengthen island formation;
IV. Rebuild the natural structural framework within the coastal ecosystem to provide for separation of the gulf and the estuary;
V. Create a continuous protective barrier for back bays and inland marshes;
VI. Reduce wave energies thereby helping to reduce land loss;
VII. Strengthen the longshore transport system of sediment for continuous island building;
VIII. Provide a unique and sustainable barrier island habitat for numerous biological species; and,
IX. Restore roughly 500 acres of barrier island habitat on the island's West Flank.

The proposed restoration template would restore the west flank of Whiskey Island through the direct creation of approximately 415 acres of new intertidal, supratidal, and dune habitat plus 134 acres of subtidal habitat. Information gathered during the initial phase of this project indicated the project may concentrate over-wash toward existing marsh. Based on this information, it was decided to extend the dune feature to protect this existing marsh. The project extension to the east will create approximately 85 acres of additional new intertidal, supratidal, and dune habitat plus 69 acres of additional subtidal habitat. The preferred alternative (Alternate "B" Extended) will create 500 acres of new intertidal, supratidal, and dune habitat plus 203 acres of subtidal habitat. The estimated volume of sand needed, based on fill

B. A cooperative agreement between EPA Region 6 and the State of Louisiana Department of Natural Resources was initially executed in January,27, 2003, then revised February 25, 2004. The agreement remains in full force and effect.

C. The project property is owned by the State of Louisiana and is managed by the Louisiana Department of Wildlife and Fisheries (LDWF). A landrights agreement between the Louisiana Department of Wildlife and Fisheries and the Louisiana Department of Natural Resources was sign and approved on October 26, 2005. See Attachment III

D. A favorable 30% design review was held on November 8, 2004, in Baton Rouge. Attendees included representatives from state and federal CWPPRA agencies and other interested parties. All comments and questions were addressed in the 95% design report. In an email dated January 12, 2005, EPA and LNDR informed the Technical Committee of the results of the 30% E&D and our intent to move forward with this project. See Attachment IV.

E. A favorable 95% design review was held on September 28, 2005. Attendees included representatives from state and federal CWPPRA agencies and other interested parties. All attendee comments and questions were addressed during the meeting. See Attachment IV.

F. The NEPA documentation was completed with the issuance of a "Finding of No Significant Impact" dated December 1, 2005. See Attachment V.

G. The final ER was posted as required prior to the 95% Design review. The document stated the following:

> *Based on information gathered from similar restoration projects, engineering designs and related literature, the proposed strategies in the Ship Shoal: Whiskey West Flank Restoration project will likely achieve all of the desired goals. It is therefore recommended that this project progress towards construction following a favorable 95% Design Review. However, prior to construction the following needs to be addressed.*
>
> > *It is believed that the sandy material used to create the back barrier marsh component will experience minimal settlement and consolidation over the life of the project. However, a settlement analysis may be useful to determine how long the restored area will remain at the intertidal target elevation range of 1.0-2.0 feet NAVD-88.*

1. *Answer: The mash construction elevation ranges from +2' NAVD 88 to a +1' NAVD. Instantaneous settlement of this high quality sand will occur prior to construction being complete. If the material settles beyond the range of marsh elevation more material can be placed to offset this settlement. Other barrier island processes such as island rollover and cross shore sediment transport will far out weigh settlement of the underlying materials. The question concerning settlement was raised after the field data was collected. The design team did not feel the cost to remobilize equipment out weighted the benefits from the data. Permitting and regulations prevent LDNR from constructing marsh platforms at significantly higher elevations than +2' in the anticipation of settlement of the underlying materials. Also, with no money for maintenance or re-nourishment, settlement of the marsh can not be addressed once it settles out of the healthy marsh range. Based on the quality of material being placed, and the minimal amount of material being placed (less than 2' on average) the design team did not feel a geotechnical investigation on the marsh platform was warranted.*

H. A 404 permit was issued on July 18, 2007. See Attachment VI

I. EPA and LDEQ databases were reviewed to determine the potential for hazardous material sites within the project area. No hazardous material sites were found along the project area or alternative alignments, including the borrow area. Based on this information, EPA Region 6 has determined that a Hazardous, Toxic, and Radiological Waste (HTRW) assessment is not needed for this project.

J. This project is consistent with the requirements of Section 303(e) of CWPPRA. The Commander of the USACE New Orleans District granted section 303e approval on November 27, 2006. See Attachment VII.

K. In a letter dated August 26, 2005, NRCS concluded that overgrazing is not of concern in this area. See Attachment VIII.

L. A revised fully funded cost estimate of $61,750,785 has been reviewed and approved by the economic work group. See Attachment IX. *(NOTE: OCPR has recently issued a Notice to Proceed to resurvey the project area to verify quantities. The survey was intentionally targeted for after the 2009 hurricane season to get the best information possible for the Task Force decision. The results of that survey were not available at the time the FFC estimate, however, they are expected prior to Task Force approvals scheduled for January 2010.)*

M. *A* revised WVA was completed by EPA and reviewed by the Environmental Work Group. As a result of that effort, EPA received revised benefit numbers from the chairman of the Environmental Work Group in an email dated August 25, 2005. See Attachment X

Ship Shoal: Whiskey West Flank Restoration

Eleventh Priority Project List
of the
Coastal Wetlands Planning, Protection and Restoration Act

Proposed by

U.S. Environmental Protection Agency

and

LA Department of Natural Resources

Contacts: Brad Crawford - US EPA - (214) 665-7255
Kenneth Teague - US EPA - (214) 665-6687
Brad Miller - LDNR - (225) 342-4122

Project Name - Ship Shoal: Whiskey West Flank Restoration

Coast 2050 Strategy - Regional Ecosystem Strategy #14: Restore and maintain the IslesDernieres barrier island chain.

Project Location - Region 3 - Terrebonne Basin, Terrebonne Parish, west spit area
Whiskey Island.

Problem - The Isles Dernieres Chain, which has been considered one of the most rapidly deteriorating barrier shorelines in the U.S., is losing its structural framework functions for the coastal/estuarine ecosystem including storm buffering capacity and protection for inland bays, estuary and wetlands, human populations and infrastructure. Chain break up has resulted from both major storm actions and from loss of nourishing sediment from the natural system due to human alterations. Whiskey Island changes from 1978 to 1988 include loss of 31.1 acres per year.

Goals - 1) Demonstrate the feasibility of moving Ship Shoal sands to the Isles Dernieres for future restoration projects; 2) Restore the integrity of the West Flank of Whiskey Island to retain its structural function; 3) Add offshore sediment to the West Flank of Whiskey Island from Ship Shoal to increase sediment supply and strengthen island formation; 4) Rebuild the natural structural framework within the coastal ecosystem to provide for separation of the gulf and the estuary; 5) Create a continuous protective barrier for back bays and inland marshes; 6) Reduce wave energies thereby helping to reduce land loss; 7) Strengthen the long shore transport system of sediment for continuous island building; 8) Provide a unique and sustainable barrier island habitat for numerous biological species; and, 9) Restore roughly 500 acres of barrier island habitat into the island's West Flank.

Proposed Solution - The proposed conceptual restoration template would restore the west flank of Whiskey Island through the direct creation of approximately 415 acres of new intertidal, supratidal, and dune habitat plus 134 acres of subtidal habitat. In order to control flow training effects on the western most existing marsh lobe, the project footprint includes an extension the dune feature eastward. The project extension to the east would create approximately 85 acres of additional new intertidal, supratidal, and dune habitat plus 69 acres of additional subtidal habitat. Therefore, the total acreage created for the preferred alternate (Alternate "B"-Extended) would be 500 acres of new intertidal, supratidal, and dune habitat plus 203 acres of subtidal habitat.

Project Benefits - Benefits include evaluation of the feasibility of using Ship Shoal sand for coastal restoration as well as, adding sediment to the longshore transport system. The project would benefit a total of 703 acres of barrier island and shallow water. At the end of 20 years, there would be a net of 195 acres of island over the without-project condition.

Project Costs - The fully funded first cost is $51,683,571 and the total fully funded cost is $51,853,787.

Risk/Uncertainty and Longevity/Sustainability - There is a moderate degree of risk associated with this project due to greater storm effects in this area of the coast and difficulty in construction. Benefits should continue for more than 20 years due to the high quality and compatibility of Ship Shoal sand.

Sponsoring Agency/Contact Persons - U.S. Environmental Protection Agency
Brad Crawford, P.E., (214) 665-7255; crawford.brad@epa.gov
Kenneth Teague (214) 665-6687: teague.kenneth@epa.gov
Brad Miller (225)342-4122

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

WVA Re-assessment Boundary
Beach Platform*
Dune Platform*
Marsh Platform*
Transition Platform*
*denotes proposed features

USGS
science for a changing world

N

0.5 0 0.5 Kilometers
0.5 0 0.5 Miles

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

Background Imagery:
2004 Digital Orthophoto Quarter Quagrangles

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

SOUTH GRAND CHENIER HYDROLOGIC RESTORATION (ME-20)

South Grand Chenier Hydrologic Restoration Project (ME-20)
Phase II Construction Request

Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA)

Project Management Team

Darryl Clark (USFWS), Andrew Beall
Rudy Simoneaux, Darrell Pontiff, David Lindquist,
V. J. Marretta, Troy Barrilleaux, & Ralph Libersat (OCPR)
Charles Slocum, Dale Garber, Ronnie Faulkner, Jason Kroll (NRCS)
Guthrie Perry, Tom Hess (LDWF), Miller Family

NRCS Natural Resources Conservation Service

Hog Bayou Watershed Problems

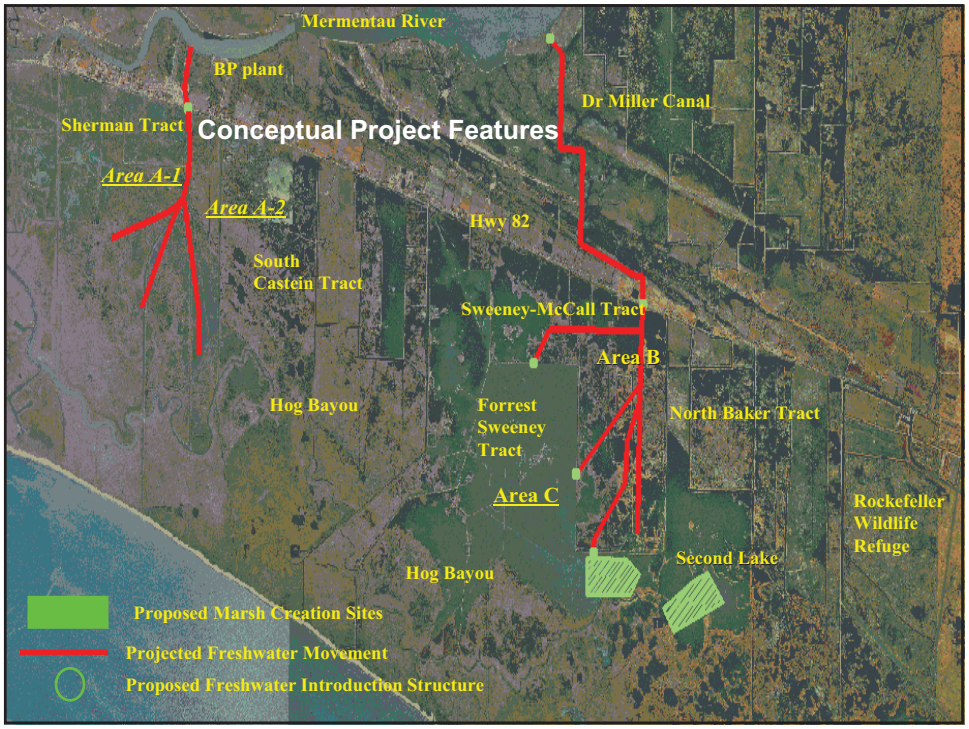
- Altered Hydrology – Saltwater intrusion, impoundment, & increased subsidence caused by channelization (Mermentau River Ship Channel), levees, & roads.
- Saltwater Intrusion Causes – Mermentau Ship Channel connected the river to the Gulf via a deeper channel 15 feet deep. (Mean salinities of 14.8 ppt in Area B & highs of 35 ppt at Hwy 82 Thibodeaux Bridge.)
- Marsh Loss – Hog Bayou Watershed (32,000 ac) - 38% marsh loss (9,222 ac) [1932 to 1990, (0.65 %/yr)].
- Project Area Marsh Loss – 4%/year (1978 to 1988); 2.45%/yr (1985-2006).
- Caused by failed agricultural impoundments increasing subsidence, saltwater intrusion, & impoundment.

South Grand Chenier Project Goals & Strategies

- Goals – Restore marsh (453 acres), Reduce marsh loss & improve marsh productivity.
- Strategies –

1) Introduce fresh water, nutrients & sediment from Mermentau River to protect marsh by reducing salinities, increasing marsh productivity, & increasing submerged aquatic vegetation.

2) Marsh restoration via dredged material (453 ac) from the Gulf of Mexico.


Mermentau River
BP plant
Sherman Tract
Conceptual Project Features
Dr Miller Canal
Area A-1
Area A-2
Hwy 82
South
Castein Tract
Sweeney-McCall Tract
Area B
Hog Bayou
Forrest
Sweeney
Tract
North Baker Tract
Area C
Rockefeller
Wildlife
Refuge
Second Lake
Hog Bayou
Proposed Marsh Creation Sites
Projected Freshwater Movement
Proposed Freshwater Introduction Structure

Grand Lake
Catfish Point
Control
Structure
Upper Mud Lake
Mermentau
River
Grand Chenier
Dr. Miller Canal
Navigation
Channel
CRMS 0614
Area C
Second Lake
Hog Bayou
Rockefeller
Wildlife
Refuge and
Game Preserve
Beach Prong
Gulf of Mexico
South Grand Chenier Hydrologic Restoration (ME-20)

South Grand Chenier
Revised Project Features

Fresh Water Introduction Channel Improvements

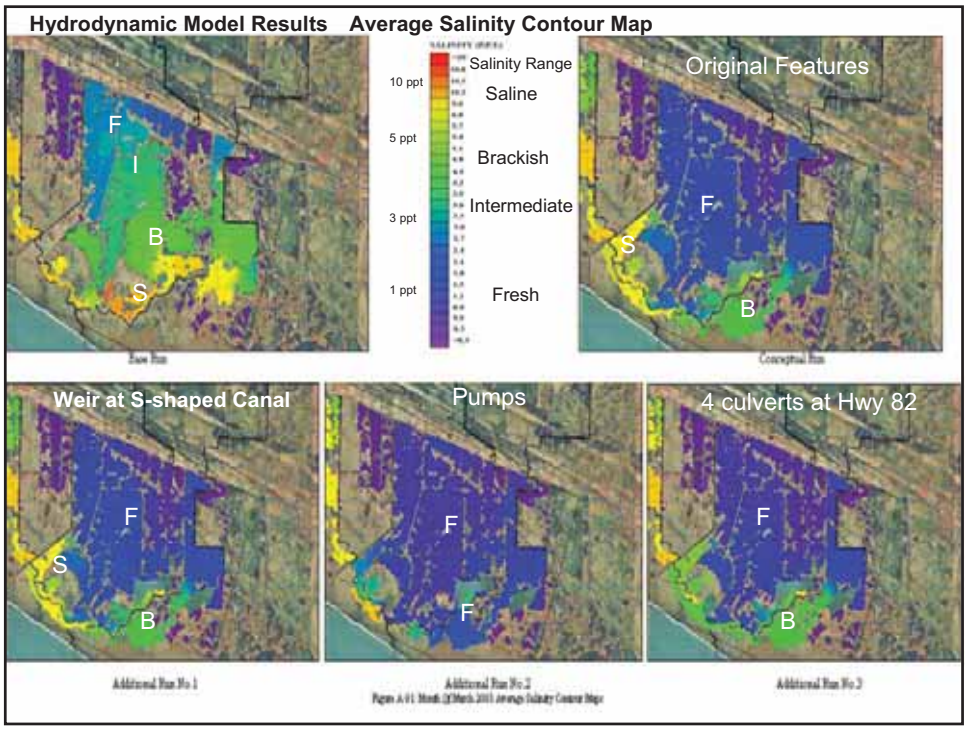
- Widen, deepen, & levee the Dr. Miller Canal from Upper Mud Lake to near Hwy 82.

Structures

- FW Intake Structure - Install 3, 48-inch diameter culverts at Dr. Miller Canal at Upper Mud Lake to flow water N. & S.
- Install plugs & culverts in a waterway & 9, 36 inch-diameter culverts adjacent to the canal to maintain area drainage.
- Install 4, 42-inch diameter culverts with flapgates under Hwy. 82.
- Place culverts in board roads & Miller-McCall levee for water flow to Areas B & C.

Marsh Restoration

- Restore 176 acres in SE Area C, & 277 acres (total 453 acres) E of Second Lake from Gulf dredged material.



So. Grand Chenier Model Results

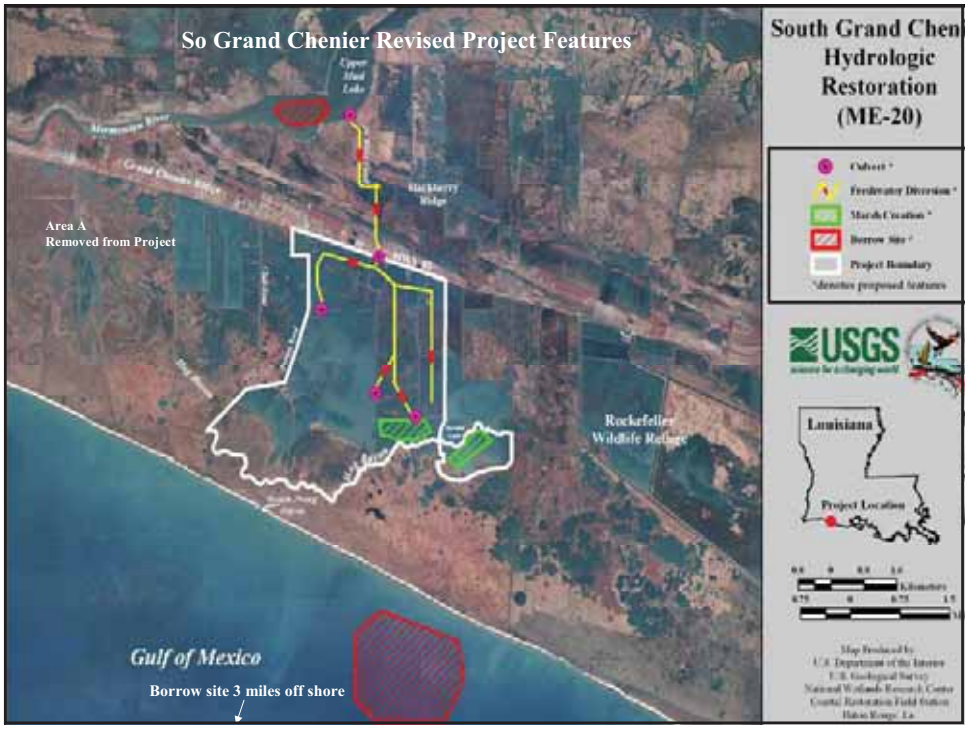
- Dr. Miller Canal FW Intro feature reduced salinities in target marshes an average of 60% (3 ppt) (from 5 to 2 ppt).
- BP Plant FW Alternative (Area A) did not lower salinities.
- A weir at S-shaped canal was not beneficial.
- Dr. Miller Canal modeled water levels were + 1.0 to 2.0 ft NAVD 88 (marsh level = + 1.5 NAVD 88)
- Pumps delivered water faster with more control & increased water levels more, but salinity reduction was equal to or slightly greater than culverts.
- Increasing the capacity of Hwy 82 structures (from 2 to 4, 48" culverts) reduced salinities ~ 20% more than the conceptual run (< 1 ppt).

South Grand Chenier Benefits & Need

- Restores 453 acres initially; 352 over 20 yrs.
- Cost Effectiveness = $82,517/acre; Ranks 2nd of Phase II projects; 2nd only to Cam-Creole Veg. Planting.
- Hydrologic model predicted 60% reduction in salinities.
- "Sustainable Restoration" - Diversion will sustain marshes (FW, nutrients, sediment) for project life.
- Restores & protects part of Hog B. Watershed with significant land loss (> 40% lost from 1932; 2.5% to 4%/yr loss).
- Helps mitigate Hurricanes Rita & Ike marsh damages.
- Marsh restoration retention levees degraded, tidal creeks & vegetative plantings; monitoring.
- Increases fisheries access in management area.

South Grand Chenier Questions??

Extra Slides



Hydrodynamic Model

- Used a coupled 1 & 2-dimensional (MIKE FLOOD: MIKE 11 & MIKE 21) model.
- Performed a comparison of the Base Run (Existing Conditions), Conceptual Design Run (proposed project features), & added runs.
- Predicted project area salinities, water levels, velocities, & discharges.

South Grand Chenier Modeled Features

- Diversion at the BP Plant across Hwy 82
- Diversion through the Dr. Miller Canal & existing canal E. to Canic Pond.
- 2-48" flapgated culverts at Hwy. 82 for each diversion.
- Levees on each side of Dr. M. Canal with 24" culverts every 500 ft.
- Install 2, 48" culvert intake structures at U. Mud Lake/Dr. Miller & BP Plant canals to introduce "fresher" water <= 5 ppt.
- Culverts placed in the existing Miller-McCall Tract levees to convey freshwater southward & westward.
- SE Area C & Second Lake marsh restoration sites.

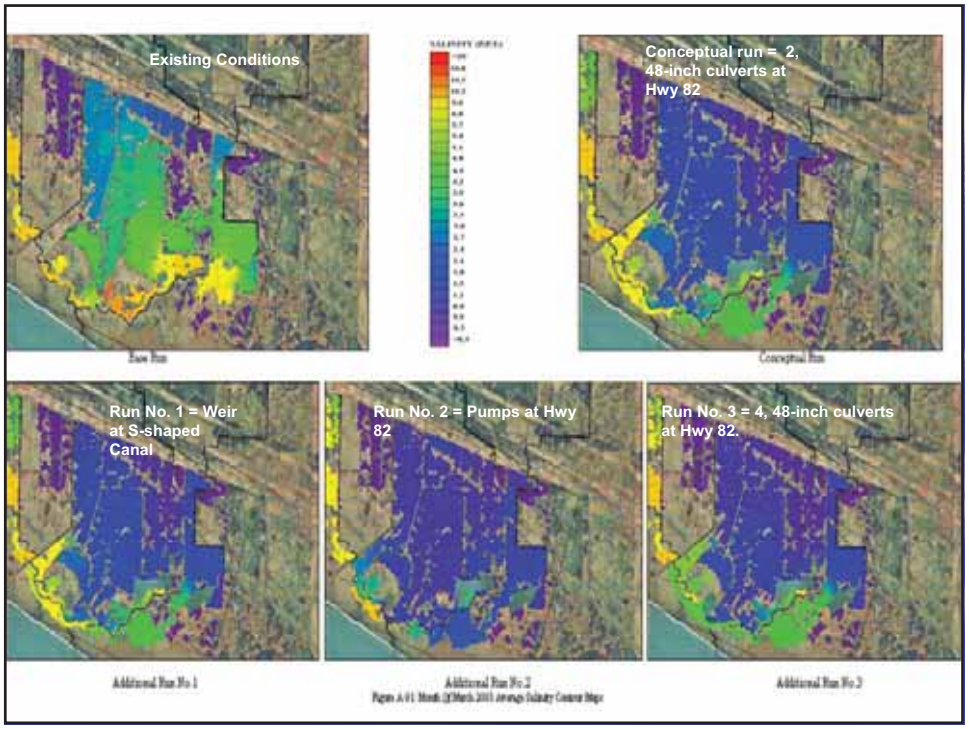
Hydrodynamic Model Runs

- Conceptual Run – Conceptual project features included.

- Run No. 1 - S-Shaped Canal Weir. - Weir with a sill at 1 ft below marsh across canal at Hog Bayou.

– Run No. 2 - Model Run with Pumps. - Run No. 1 with 48 diameter pumps (approximately 22,000 GPM) at the BP/Tennessee Gas Canal & Dr. Miller Canal N of Hwy. 82

– Run No. 3 - More Hwy 82 Culverts. - Increase Hwy. 82 structure capacity from 2, 48" to 4, 48" diameter culverts



Modeling Conclusion

"The Dr. Miller Canal component of the project was beneficial in terms of reducing salinities in the target areas with an average salinity reduction of 3 parts per thousand (p.p.t.) (from 5 p.p.t. to 2 p.p.t., base salinity).

The anticipated results of providing fresh water from the Mermentau River to the open water bodies south of Hwy.82 were accomplished and the proposed control structures prevented the salinity from exceeding five parts per thousand south of LA Hwy. 82. Water levels along the length of Dr. Miller Canal was in the order of 1.0 to 2.0 ft N.A.V.D.88, which is slightly higher than the average marsh elevation in this area (average marsh = 1.5 ft N.A.V.D.88).

The impact of this increase in water level on the surrounding marshes should be taken into account when constructing the project features" (Meselhe et al., Fenstermaker and Associates 2005).

Hwy 82 & Chenier Ridge
Area B
Area C

Area C looking N.

Gulf
Area C
Area B
2 10:59AM

East MC area

From Area B to C

Chenier Ridge
Area C
Area B Looking West

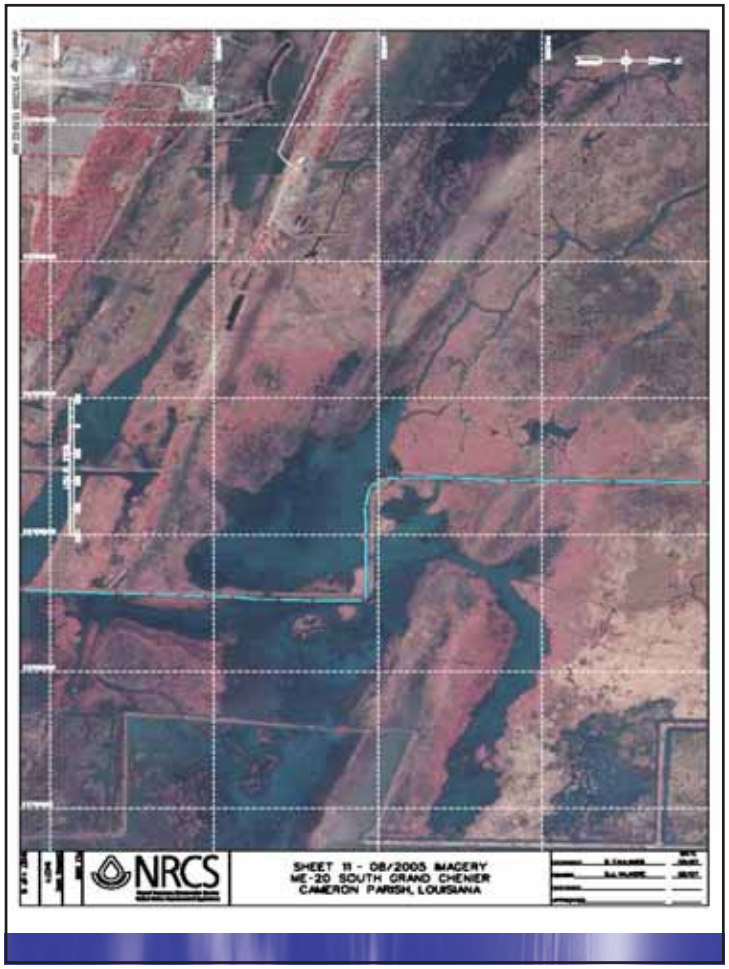
Hog Bayou Watershed
Area & Marsh Loss

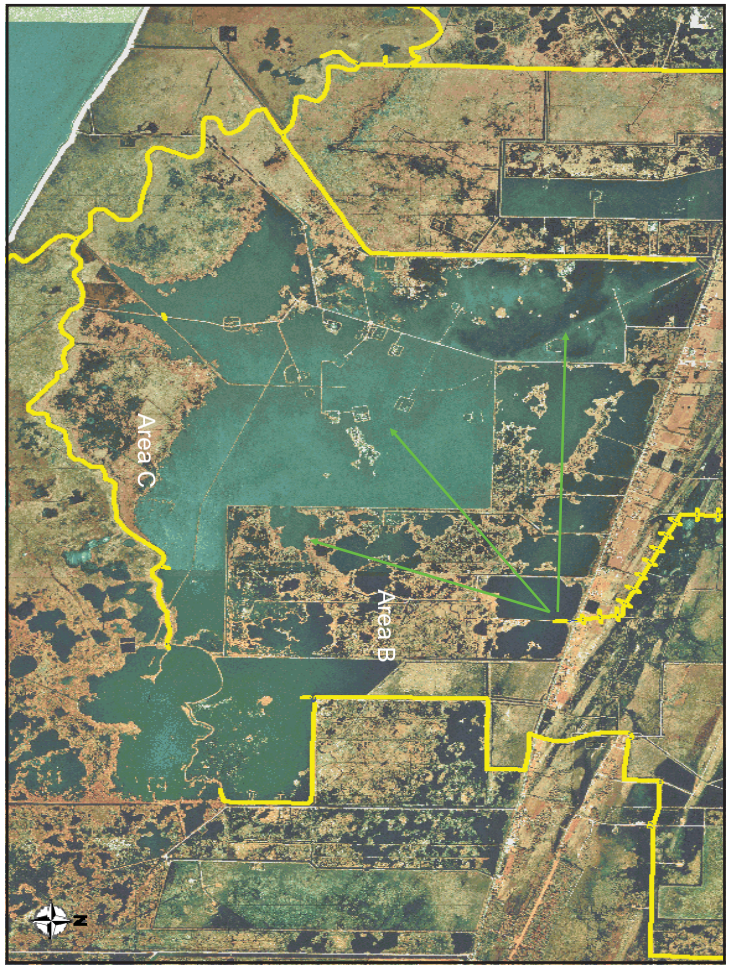
- Watershed = 23,315 acres
- Marsh - 63% (14,780 ac) (5% fresh - 1,270 ac, 33 % brackish - 7,610 ac, & 25% saline - 5,900 ac)
- Open Water - 34% (7,927 ac), 3% developed & agricultural

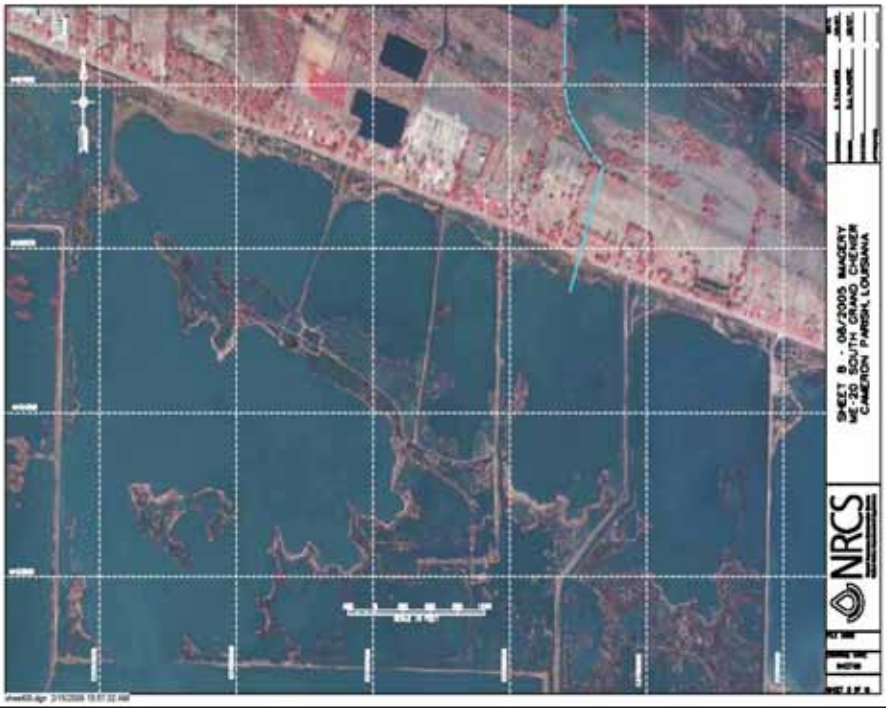
  Marsh Loss
- 1932 to 1990 = 38% loss, 159 ac/year (0.65 %/yr).
- 1956 and 1974 = 225 ac/yr lost (0.94%/yr) (Marsh loss in 100 yrs)
- 1974 to 1983 = 220 acres lost (0.13%/yr).
- 1974 to 1990 = 111 ac/yr lost (0.55%/yr). (Marsh lost in 182 yrs)
- 1990 to 2050 projected loss = a relatively low 20 ac/year (0.13 %/year) <u>if</u> CWPPRA projects constructed.

Hog Bayou Watershed
Marsh Loss

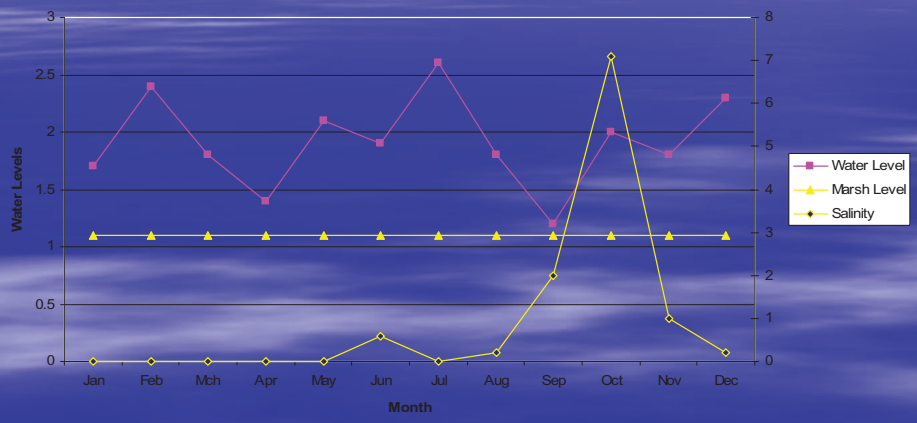
Period	Acres/year	%/year	Years to Total Loss
1932-1990	159 ac	0.65 %	154 yrs
1956-1974	225 ac	0.94 %	100 yrs
1974-1983	24 ac	0.13 %	769 yrs
1974-1990	111 ac	0.55 %	182 yrs
1990-2050 projected	20 ac	0.13 %	769 yrs


NRCS
SHEET 11 - 08/2005 IMAGERY
ME-20 SOUTH GRAND CHENIER
CAMERON PARISH, LOUISIANA


Area C
Area B
N



Mermentau R. Salinities & Water Levels at Catfish Point 1993 (Flow 11 Mos.)



United States Department of the Interior

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

November 17, 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:

The U.S. Fish and Wildlife Service (Service) and the Louisiana Office of Coastal Protection and Restoration (OCPR) hereby requests Phase II approval to begin construction of the South Grand Chenier Hydrologic Restoration Project (ME-20). The project was authorized for Phase I engineering and design by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) on Priority Project List 11 on January 16, 2002. This request and required enclosures are submitted in accordance with the provisions of CWPPRA Project Standard Operating Procedures Manual.

The project received favorable 30% and 95% Design Reviews on August 6, 2009, and November 3, 2009, respectively, and is, to our knowledge, without controversy; we anticipate favorable National Environmental Policy Act reviews within 45 days. Phase II Authorization Request Information and the checklist of Phase II requirements are enclosed. Should you have any further questions, please contact Darryl Clark (337/291-3111) of this office.

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

Enclosures

cc: via e-mail
Britt Paul, NRCS, Alexandria, LA
Melanie Goodman, Corps, New Orleans, LA
Kirk Rhinehart, LA OCPR, Baton Rouge, LA

TAKE PRIDE IN AMERICA

Brad Crawford, EPA, Dallas, TX
Richard Hartman, NMFS, Baton Rouge, LA
Kelley Templet, LA OCPR, Baton Rouge, LA
Paul Kaspar, EPA, Baton Rouge, LA
John Jurgensen, NRCS, Alexandria, LA
Rachel Sweeney, NMFS, Baton Rouge, LA
Kevin Roy, USFWS, Lafayette, LA
Andrew Beall, LA OCPR, Baton Rouge, LA
Gay Browning, Corps, New Orleans, LA
Charles Slocum, NRCS, Alexandria, LA

CPRA
Coastal Protection and Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

November 10, 2009

Mr. James F. Boggs
Supervisor, Louisiana Field Office
U.S. Fish and Wildlife Service
646 Cajundome Boulevard, Suite 400
Lafayette, LA 70506

Re: 95% Design Review for South Grand Chenier Hydrologic Restoration (ME-20) Statement of Local Sponsor Concurrence

Dear Mr. Boggs:

The 95% design review meeting was held on November 3, 2009 for the South Grand Chenier Hydrologic Restoration (ME-20). Based on our review of the technical information compiled to date, the ecological review, the land ownership investigation, and the final designs, we, as local sponsor, concur to proceed with requesting Phase II construction funding for the project.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee. We also request that our project manager, Andrew Beall, be copied on this and other correspondence concerning this project.

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

Sincerely,

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

CPK:ADB:adb

cc: Darryl Clark, U.S. Fish and Wildlife Service
Andrew Beall, Office of Coastal Protection and Restoration

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.lacpra.org/
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South Grand Chenier Hydrologic Restoration (ME-20)

Project Status

Approved Date: 2002
Project Area: 7,496 acres
Net Benefit After 20 Years: 440 acres
Project Type: Hydrologic Restoration
Cost: $21 million
Status Engineering and Design

Location

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

Problems

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

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

Restoration Strategy

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

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

Looking west along the northern levee.

Progress to Date

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

For more project information, please contact:

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

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

South Grand Chenier Hydrologic Restoration (ME-20)

- Culvert *
- Freshwater Diversion *
- Marsh Creation *
- Borrow Site *
- Project Boundary

*denotes proposed features

USGS science for a changing world

N

0.8 0 0.8 1.6 Kilometers

0.75 0 0.75 1.5 Miles

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

Background Imagery:
2005 Digital Orthophoto Quarter Quadrangle

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

South Grand Chenier Hydrologic Restoration Project (ME-20)

Phase II Authorization Request Information

Revised November 27, 2009

Phase I Project Description

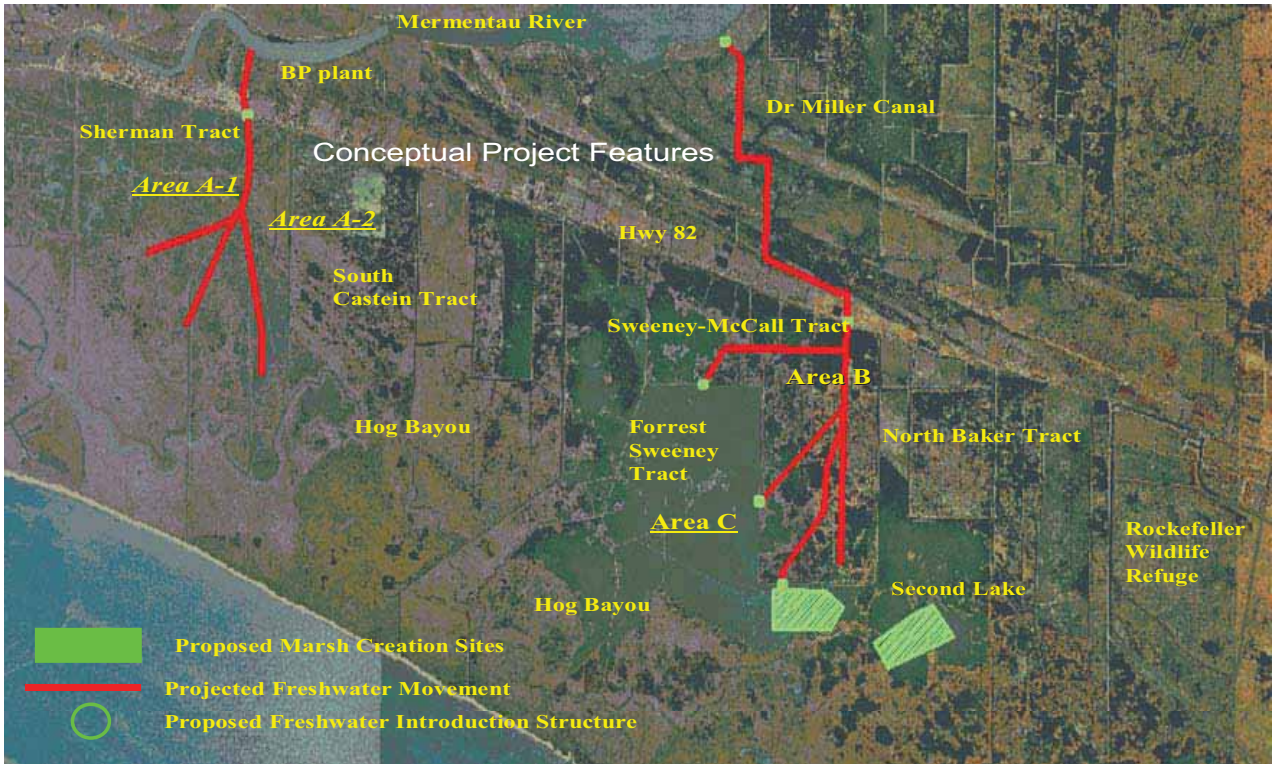
The project was approved by the Task Force on January 16, 2002, as part of Priority Project List 11. The project's goals are to, 1) nourish or enhance emergent marshes south of Highway 82 (Hwy 82) with freshwater, nutrients, and sediment via fresh water from the Mermentau River, and 2) restore marsh via dedicated dredging from the Gulf of Mexico.

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

The original project features consisted of; 1) fresh water introduction, to brackish marshes south of Hwy 82, at the BP Plant and the Dr. Miller Canals, 2) enlarge the east-west drainage ditch east of the Dr. Miller Canal to Canic's Pond then southward across Hwy 82, 3) install 2, 48 inch-diameter culverts under Hwy 82 at both locations, and 4) marsh restoration using Gulf dredged material in two 200-acre cells totaling 400 acres (Figure 1).

The Environmental Work Group determined that the original project components would result in a net increase of 440 acres and 322 Average Annual Habitat Units (AAHUs) of intermediate and brackish marsh, as a result of reduced erosion and marsh establishment over the 20-year project life.

Figure 1: South Grand Chenier Hydrologic Restoration Project Conceptual Features.



The total original project budget, submitted during Phase I funding approval, at the 100 percent funding level, was as follows (See attached Request for Phase II Cost Estimate Table):

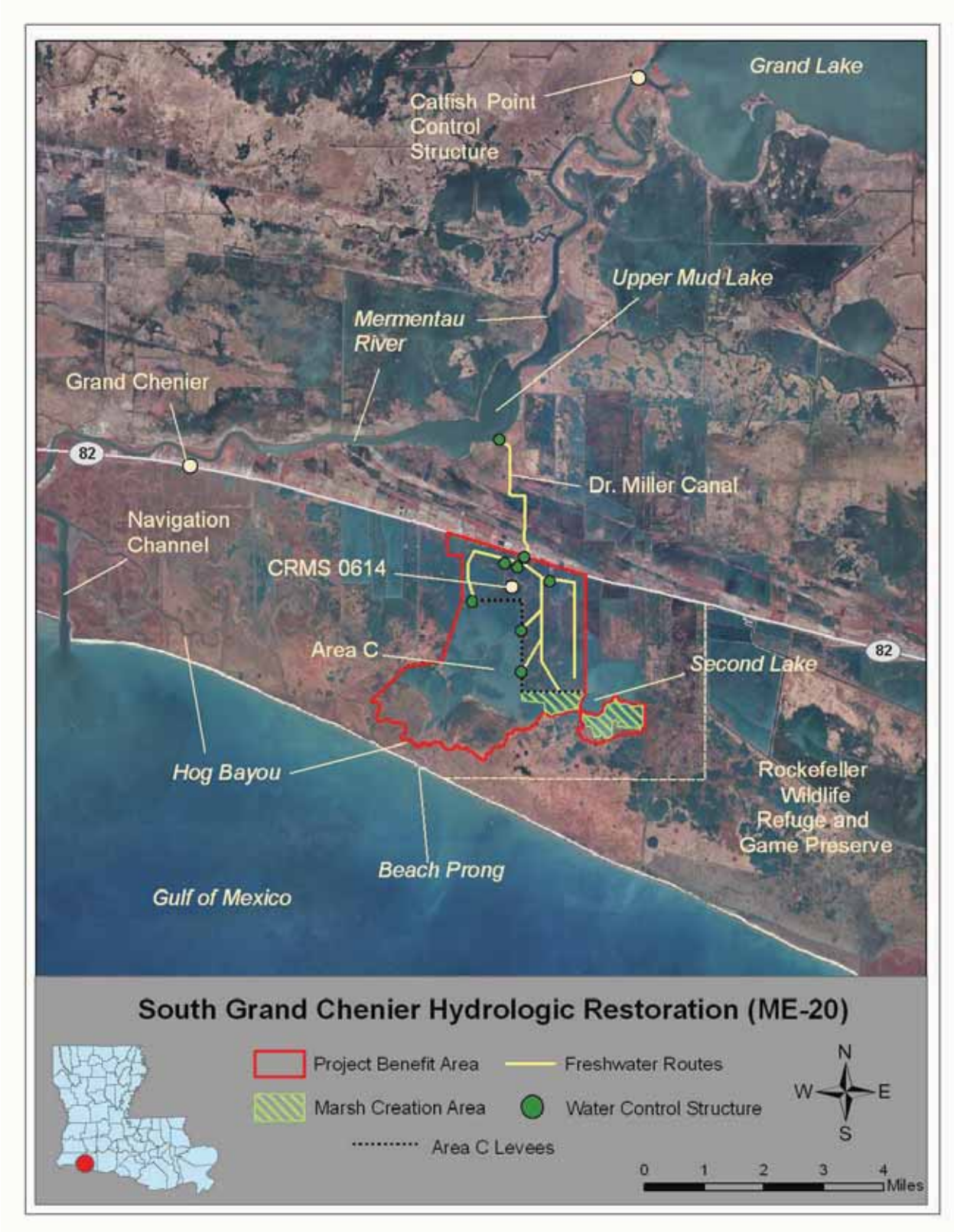
Phase I	
Engineering and Design	$ 1,607,535
Easements and Land Rights	$ 108,106
Pre-Construction Monitoring	$ 62,997
Federal Supervision & Administration	$ 298,913
DNR Supervision & Administration	$ 278,373
Corps Project Management	$ 2,496
Total Estimated Phase I Costs	**$ 2,358,420**
Phase II	
Construction	$12,801,378
Contingency	$ 3,200,344
Supervision and Inspection	$ 249,022
Land Rights Coordination	$ 0
FWS Supervision & Administration	$ 320,121
DNR Supervision & Administration	$ 298,124
Corps Project Management	$ 23,152

impacts to the Gulf shoreline. The U. S. Army Corps of Engineers Engineer Research Development Center (ERDC) dredged material model predicted quantities and slurry heights needed for the two marsh restoration areas. Surveys indicated that one existing pipeline is crossed by the Dr. Miller Canal and two others would be crossed by the proposed fresh water introduction culverts. Negotiations with the pipeline companies yielded crossing tolerances and specifications that were included in the final designs. Geotechnical and surveying information indicated that soil conditions and water depths were favorable for construction of the project features as planned.

Description of the Revised (Current) Phase II Project

The revised project features include maintaining the Dr. Miller Canal to flow fresh water from Upper Mud Lake across Hwy 82 via 4, 42 inch-diameter culverts under that highway. The project also includes the restoration of 453 acres of marsh in two cells (176 acres and 277 acres) via dedicated dredging in the Gulf of Mexico, 4 miles south of the project area. Marsh restoration retention levees will be degraded and tidal creeks constructed one year post construction to restore the area's natural hydrology and estuarine organism access (Figure 2, Table 1).

Figure 2: South Grand Chenier Hydrologic Restoration Project Revised Features



The existing Dr. Miller Canal fresh water introduction channel will have a 40 foot-wide bottom width, 2:1 side slopes, with the bottom elevation at - 3.0 feet NAVD 88 and be fully contained by levees east and west of the channel. Corrugated aluminum culverts will be installed at 9 natural drainage areas along the canal to provide drainage from the adjacent marsh to the freshwater introduction channel. The hydrodynamic modeling report concluded that a Dr. Miller channel bottom elevation of - 3.0 feet NAVD 88 would flow sufficient freshwater southward to reduce salinities in target marshes. That elevation was also chosen because the top of Bridgeline Holdings pipeline crosses that channel at an elevation of - 5.0 feet NAVD 88, and a minimum of 2 feet of cover must be maintained over that pipeline (Table 1).

Table 1: South Grand Chenier Hydrologic Restoration Project Features.

<u>Channel Improvements</u>
1. Widen, deepen, levee, and install 1-way flapgated drainage culverts in the Dr. Miller Canal (20 feet X 4 feet deep; - 3 feet NAVD) and install 4, 42 inch-diameter culverts under the Grand Chenier ridge and Hwy 82.

<u>Structures</u>
2. Install/replace a 3 barreled, 48-inch diameter control structure with flapgates at the Dr. Miller Canal and Upper Mud Lake to flow water north and south.

3. Install plugs and 2, 48 inch-diameter culverts in the east-west waterway at its intersection with the Dr. Miller Canal and maintenance dredge that canal to its terminus.

4. Install levees and 1-way flapgated 36-inch-diameter drainage culverts (at 9 natural drainage areas) on each side of the Dr. Miller Canal.

5. Extend the Dr. Miller Canal 50 to 150 feet southeastward to enable culverts to be installed southward without bends in the pipe.

6. Install 4, 42-inch diameter culverts with 1-way south flowing flapgates under Grand Chenier and Hwy 82.

7. Place 48 inch-diameter culverts or openings in board roads in Area B, and flapgated culverts in the Miller-McCall levee for freshwater flow to Areas B and C south of Hwy 82.

<u>Marsh Restoration</u>
8. Restore 176 acres of marsh in southeast Area C and 277 acres of marsh (total 453 acres) east of Second Lake from Gulf dredged material.

Checklist of Phase II Request Requirements
South Grand Chenier Hydrologic Restoration Project (ME-20)

A. A List of Project Goals and Strategies

Goals

1. Restore 453 acres of marsh in shallow open water areas initially, and 352 net acres by the end of the 20-year project life.

2. Increase fresh water, nutrients, and sediment to target marshes south of Hwy 82 to protect 30 acres of brackish marsh within the 20-year project life.

3. Reduce excessive elevated salinities within Areas B and C.

4. Maintain fisheries and estuarine organism access to the marsh restoration areas.

Objectives/Strategies

1. Reduction in salinity in target marshes via fresh water introduction from Upper Mud Lake via the Dr. Miller Canal and culverts under Hwy 82 and other fresh water introduction features.

2. Restoration of 402 acres of brackish marsh from shallow open water and nourishment of 51 acres of marsh (total 453 acres) in two cells (176 and 277 acres) via 1.55 M cubic yards of dredged material from a Gulf of Mexico borrow site.

3. Maintain fisheries and estuarine organism access to the marsh restoration areas via the degradation of retention dikes and construction of 5 miles of tidal creeks.

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

Table 2. Comparison of Original and Revised Project Features (or Strategies).

Strategies/Features	Original Project	Current Revised Project
A. Salinity reduction, nutrient and sediment introduction	1.) Fresh water introduction to target marshes via two channels, the BP Plant and the Dr. Miller Canals.	1.) Fresh water introduction from Upper Mud Lake via the Dr. Miller Canal.
B. Marsh restoration via dredged material	2) Construct two 200-acre marsh restoration cells (total 400 acres) from Gulf of Mexico or Upper Mud Lake borrow sites.	2.) Construct two marsh restoration cells (176 acres and 277 acres, total 453 acres) from a Gulf of Mexico borrow site.

C. Water Control Structures	3) Install 2, 48-inch diameter culverts at Hwy 82 and two fresh water diversion sites. 4) Install 24-inch diameter drainage culverts in the Dr. Miller Canal levee every 500 feet.	3) Install 4, 42-inch diameter culverts at Hwy 82 at the Dr. Miller Canal fresh water diversion site. 4) Install 9, 36-inch diameter drainage culverts in the Dr. Miller Canal levee.

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

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

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

The Service received notification from the Louisiana Department of Natural Resources on July 18, 2002, and July 13, 2009, transmitting draft temporary easement, servitude and right-of-way agreements for CWPPRA Section 303(e) purposes. The LA OCPR has acquired landrights from many major landowners and the State Land Office (Grant of Particular Use).

The State of Louisiana, through its Office of Coastal Protection and Restoration (CPRA/OCPR) Lands Section provided a landrights report that consisted of ownership tract maps and lists of names, addresses and phone numbers of more than 100 landowners in the project area. Landowner meetings were held at Rockefeller State Refuge (2003), New Orleans (2003), and the Cameron Prairie National Wildlife Refuge (2006) to present proposed project features and access routes, and to discuss the hydrodynamic modeling results. The Service secured letter agreements from the affected landowners for surveying and geotechnical field work. It is anticipated that the majority of the landrights efforts for the ME-20 project should be completed within a reasonable time-frame. Landrights will be finalized prior to construction.

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

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

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

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

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

The FWS submitted a draft Environmental Assessment for preliminary agency review on October 22, 2009, as part of the 95% Design Review materials. That review is expected to be completed in January 2010.

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

The draft Ecological Review was completed in July 2009. A revised semi-final draft Ecological Review was distributed at the November 3, 2009, 95 Percent Design Meeting. The Ecological Review concluded that based on the evaluation of available ecological, geological, and engineering information, and a review of scientific literature and similar restoration projects, the proposed strategies of the South Grand Chenier Hydrologic Restoration (ME-20) project will likely achieve the desired ecological goals. At this time, it is recommended that this project be considered for Phase 2 authorization. However, the following recommendations should improve project success:

- The project's operational plan should be coordinated with the management plan for Area C.

- Plans should be made to further degrade containment dikes and/or reopen trenasses, if needed, to maintain hydrologic exchange to the created marshes.

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

Application for the Corps of Engineers permit and the Louisiana Coastal Resources Program consistency determination were submitted on November 16, 2009. DNR will forward the application to the LA Department of Environmental Quality for Water Quality Certification Review.

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

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

J. Section 303(e) Approval from the Corps

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

K. Overgrazing Determination from the NRCS

The Service received an overgrazing determination from the NRCS on July 10, 2008. Over 70 percent of the project area consists of shallow open water with very limited to no grazing.

L. Revised Project Cost Estimate

The revised total 100% budget for Phase II is $ 29 M. This amount represents an increase of

38 percent ($8,048,128) over the original Phase II cost estimate ($ 20,998,000) (See attached Request of Phase II Cost Estimate Table).

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

A revised WVA of revised project features was submitted to and reviewed by the Environmental Working Group. The initial Wetland Value Assessment (WVA) completed in 2001 yielded 440 net acres and 322 Average Annual Habitat Units (AAHUs). The Phase II revised project scope changed from the original project by removing the BP Plant fresh water introduction component and adjacent project influence area and adding 53 acres of marsh restoration at the Second Lake site. The revised WVA yielded 352 net acres and 162 AAHUs.

Table 2: Comparison of Original and Revised Wetland Value Assessments

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)
Candidate Project	440	322
Phase II Revised Project	352	162
Difference	-88	-160

Phase II Request

Based on the above information, the FWS and OCPR hereby request CWPPRA Task Force Phase II funding approval for the South Grand Chenier Hydrologic Restoration Project (ME-20) in the 3-year incremental amount of **$24,921,491**. That amount includes $18,417,131 for construction; $478,853 for supervision and inspection; $4,604,283 for contingencies; $252,400 for administration by the Federal sponsor and $201,920 for State administration; $27,132 for monitoring (3 years); $927,642 for operations and maintenance (3 years); and $5,693 for Corps project management (See attached Request for Phase II Approval Cost Estimate Table).

DC 11-27-09

WEST BELLE PASS BARRIER HEADLAND RESTORATION (TE-52)

West Belle Pass Barrier Headland Restoration Project (TE-52)

Phase 2 Request to the CWPPRA Technical Committee

December 2, 2009

Sponsored by:

Louisiana Office of Coastal Protection and Restoration
And
NOAA National Marine Fisheries Service

Project Development Timeline

- Approved for Phase 1 funding by CWPPRA Task Force in October 2006
- CSA executed and engineering contractor selected in 2007
- Data acquisition, modeling, and project design completed over 18 months
- 30% Design Conference July 15, 2009
- 95% Design Conference November 3, 2009

Project Goals

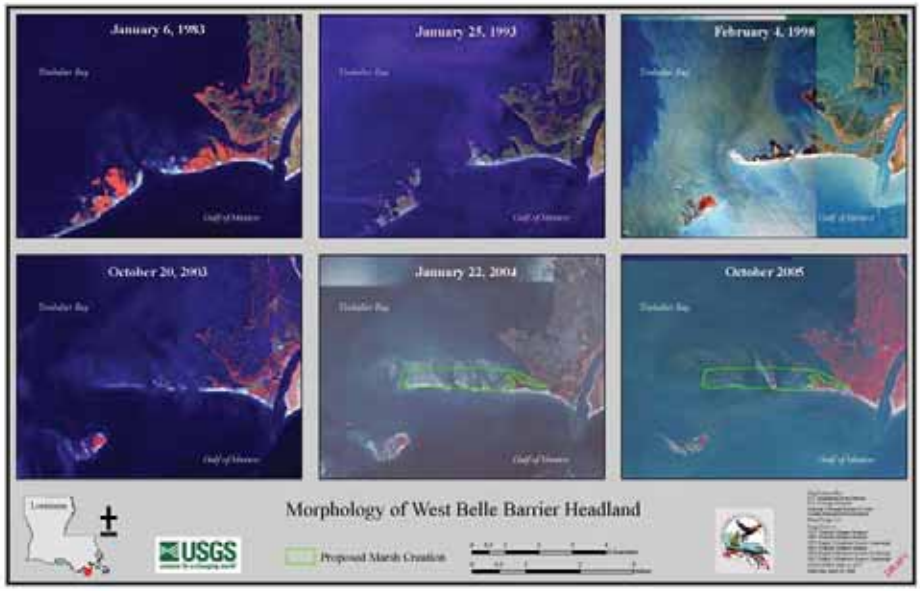
1) To reestablish a continuous headland west of Belle Pass, which is currently eroding at 55 ft per year

2) To repair several tidal inlets that have formed in the headland and prevent breaching over the project life

3) To reestablish lost back barrier marsh

4) To reduce shoreline erosion along adjacent, interior marshes

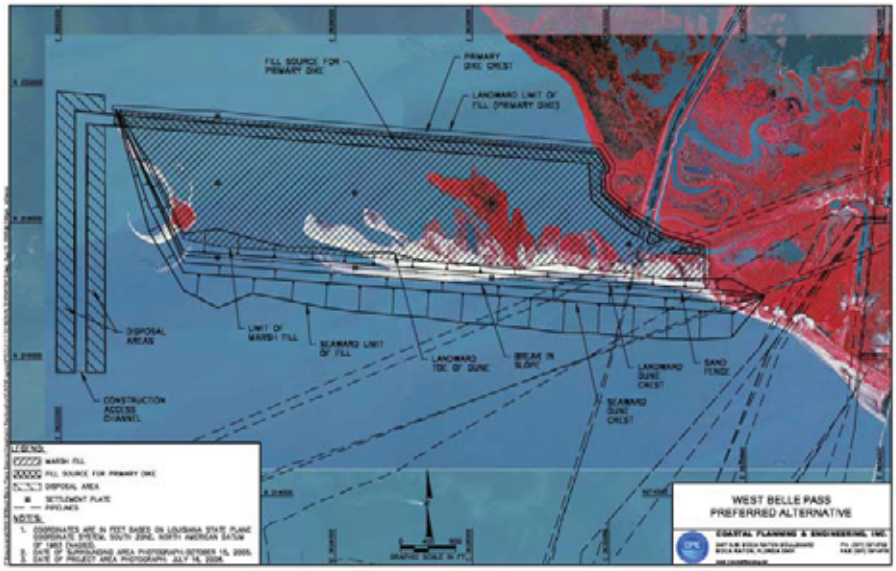
5) To buffer adjacent major infrastructure from storms and land loss



TE-52 Project Area – 2008 Imagery

Project Features

- Reconstruct 92 acres of beach, dune, and supratidal habitat across 8,500 linear feet of barrier headland west of Belle Pass
  - The dune will have a +6 ft elevation
  - Sand fencing and vegetative plantings will be installed after consolidation
- Reconstruct 227 acres of intertidal, back-barrier marsh
  - The marsh will have an initial fill elevation of +3 ft
  - Vegetative plantings will be installed after consolidation
  - The containment dike will be degraded and tidal creeks constructed, if necessary, post construction



Comparison of Phase 0 and Phase 1

- Phase 0
  - Fully Funded Cost = $32.5 M
  - Total AAHU's = 180 AAHU's
  - Total Net Acres = 299 acres
- Phase 1
  - Fully Funded Cost = $42.2 M
  - Total AAHU's = 184 AAHU's
  - Total Net Acres = 305 acres

No Major Changes in Design from Phase 0

UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

National Marine Fisheries Service/Restoration Center

1315 East-West Highway

Silver Spring, MD 20910

November 16, 2009

Mr. Thomas A. Holden
Deputy District Engineer
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Re: Phase 2 Construction Funds Request for West Belle Pass Barrier Headland Restoration Project (TE-52)

Dear Mr. Holden:

The NOAA National Marine Fisheries Service (NMFS) and the Louisiana Office of Coastal Protection and Restoration (OCPR) hereby request approval to begin Phase II construction of the West Belle Pass Barrier Headland Restoration Project (TE-52). This project was authorized on Priority Project List 16 in October 2006 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures Manual (SOP).

Enclosed please find the information required for Phase 2 requests and approval pursuant to Appendix C of the SOP. Should additional information be required for this project I can be reached at (301) 713-0174, ext. 162. Thank you for your consideration of this request.

Sincerely,

Cecelia Linder

Cecelia Linder
Program Officer
NOAA National Marine Fisheries Service

Enclosures

Cc: Members of the CWPPRA Technical Committee
Cheryl Brodnax, Project Manager, NOAA NMFS
Kenneth Bahlinger, Project Manager, OCPR

West Belle Pass Barrier Headland Restoration Project (TE-52)

Phase 2 Request

November 18, 2009

I) Description of Phase 1 Project

This project was selected by the Task Force for Phase 1 in October, 2006. The original project proposal included the restoration of the western terminus of Chenier Caminada, such that the project will result in a single, substantial headland and marsh platform over a 9,300-foot lineal distance. Specifically, the project will construct 120 acres of beach/dune habitat and 150 acres of marsh habitat. The berm/dune crest width of the constructed island is a constant 275 feet. The post construction island elevation is +6 feet NAVD. A 1V:45H construction slope has been adopted for the front and back of the beach/dune feature, which is commensurate with the anticipated natural slope obtained through hydraulic placement of fine sand. Approximately 1.6 MCY of sand material is estimated for the berm/dune component. A marsh construction elevation of +2.6 feet NAVD was assumed based on the required marsh elevations for similar projects within the Barataria basin. Approximately 850,000 CY of material is estimated for the marsh platform component. Immediately after settlement and compaction, dune, woody species, and intertidal marsh vegetation will be planted, in addition to the installation of sand fencing. A boundary map including project features is included as Figure 1.

The goals outlined at the time of Phase 1 approval were as follows:

1. Nourish the Gulf shoreline and create, after initial equilibration and settlement (i.e., at TY3) 66 acres of dune and 46 acres of supratidal habitat with sand and create 150 acres of back-barrier marsh platform settled to intertidal elevation with unrestricted tidal exchange.
2. To establish marsh vegetation (both planted and natural colonization). There would be approximately 50% vegetative planting of the total subaerial acreage at the end of TY1 and 100% at the end of TY3.
3. Fill tidal inlets and overwash breaches, restore and create dune and marsh to increase headland longevity and maintain shoreline integrity.
4. Prevent breaching defined as failure of the beach/dune resulting in an opening of the island to tidal exchange between the Gulf and the bay.
5. Prevent increase in current shoreline erosion rate along adjacent shorelines.

The WVA was finalized in the summer of 2006, and resulted in a project boundary encompassing 389 acres, with a net benefit after twenty years to 299 acres. The original project WVA totaled a benefit of 180 AAHU's. The cost estimate break-down as provided by the Economic Work Group in 2006 is as follows:

Original Cost Estimate

Phase I:	
Estimated Engineering and Design:	$1,806,661
Estimated Easements and Land Rights:	$42,556
Estimated Pre-Construction Monitoring:	$0
Estimated Federal Supervision & Administration:	$420,997
Estimated OCPR Supervision & Administration:	$420,997
Corps Project Management:	$3,192
Total Estimated Phase I Costs	$2,694,363
Phase II:	
Estimated Construction:	$20,486,453
Contingency:	$5,121,613
Estimated Supervision & Inspection:	$224,793
Estimated Land Rights Coordination:	$0
Estimated NOAA Supervision & Administration:	$439,681
Estimated OCPR Supervision & Administration:	$439,681
Corps Project Management:	$19,683
Estimated Monitoring Costs:	$0
Estimated O&M Costs:	$3,137,480
Total Estimated Phase II Costs:	$29,869,384
Total Fully Funded Phase I & Phase II Cost:	$32,563,747

Figure 1: Original TE-52 Project Boundary as Authorized for Phase 1

II) Overview of Phase 1 Tasks, Process, and Issues

The project received Phase 1 approval in late 2006 as part of PPL-16. Throughout 2007, the major tasks involved processing MIPR's, establishing a Cost Share Agreement between NOAA and OCPR, and creating a scope of work (SOW) and Request for Statement of Interest and Qualifications (RSIQ) as part of a public solicitation for engineering services on this project. A contract was ultimately awarded to Coastal Planning and Engineering, and a project kick off meeting was held in June, 2008. Over the next 15 months, the project team has completed a suite of tasks that cover the engineering and administrative requirements of bringing this project to Phase 2-readiness. These tasks included:

- Field reconnaissance and data acquisition (hydrologic data, bathytopo surveys, and geotechnical investigations)
- Borrow site investigation and delineation
- Hydrodynamic modeling to determine fill volumes and project performance
- Alternatives analysis and ultimate design selection
- Completion of plans and specifications
- Cultural resources investigation and clearance
- Submittal of permit application
- NEPA clearance and completion of Environmental Assessment and consultations
- Completion of design conferences (30% design held July 2009, 95% design held November 2009)
- Completion of land rights
- Completion of revised project benefits and budget

Each of these tasks was completed successfully and in a timely manner in order to qualify for Phase 2 funding this year. As a result of changing market conditions and changes to fill volumes and borrow sites, a scope change was requested of the Task Force in November 2009 due to a projected 30% increase in total project cost (see table below). The full request and explanation for the cost increase can be found in the September 28, 2009 letter to the Technical Committee. Other than this projected cost increase and subsequent scope change request, the project has not had any issues impeding implementation.

Summary Table Comparing Phase 0 and Phase 1 Cost and Benefits:

	Fully Funded Cost	**Total AAHU's**	**Net Acres**	**Cost Effectiveness ($/AAHU)**	**Percent Cost Increase from Phase 0**
Phase 0	$32,563,747	180	299	$180,909	
Phase 1	$42,250,417	203	305	$208,130	30%

III) Description of the Phase 2 Candidate Project

After robust engineering and design, the preferred alternative that was selected followed a cost-based approach that streamlined the construction budget while maintaining performance to meet project goals. The preferred alternative will result in a single, substantial headland and marsh platform over an 8,500-foot lineal distance. Specifically, the project will initially construct 93 acres of dune and supratidal habitat and 227 acres of marsh habitat. The berm/dune crest width of the constructed island is a constant 125 feet. The post construction dune elevation is +6 feet NAVD. A 1V:30H construction slope has been adopted for the front and back of the dune feature, with a gulfward beach slope of 1V:60H. This slope is commensurate with the anticipated natural slope obtained through hydraulic placement of fine sand. Approximately 1.2 MCY of sand material is estimated for the berm/dune component. A marsh construction elevation of +3.0 feet NAVD has been selected, based on the required marsh elevations for similar projects within the Barataria basin and as needed to prevent breaching. Approximately 1,903,000 CY of material is estimated for the marsh platform component. Immediately after settlement and compaction, dune, woody species, and intertidal marsh vegetation will be planted, in addition to the installation of sand fencing. A revised boundary map including project features is included as Figure 2.

The goals outlined for proceeding into Phase 2 are as follows:

- Nourish the Gulf shoreline and create 42 acres of dune and 49 acres of supratidal habitat with sand, and create 363 acres of back-barrier marsh platform settled to intertidal elevation with unrestricted tidal exchange by TY3.
- To establish marsh and dune vegetation (both planted and natural colonization). There would be approximately 50% vegetative planting of the total subaerial acreage at the end of TY1 and 100% at the end of TY3.
- Fill tidal inlets and overwash breaches, restore and create dune and marsh to increase headland longevity and maintain shoreline integrity.
- Prevent breaching defined as failure of the beach/dune resulting in an opening of the island to tidal exchange between the Gulf and the bay.
- Prevent increase in current shoreline erosion rate along adjacent shorelines.

The revised WVA for Phase 2 was finalized in November 2009 by the Environmental Work Group, and resulted in a project boundary encompassing 411 acres, with a net benefit after twenty years to 305 acres. The revised project WVA totaled a benefit of 203 AAHU's. The cost estimate break-down as provided by the Economic Work Group in 2009 is as follows:

Revised Cost Estimate (finalized 10/29/09)
Phase I: (Actual Costs)

Estimated Engineering and Design:	$1,806,661
Estimated Easements and Land Rights:	$42,556
Estimated Pre-Construction Monitoring:	$0
Estimated Federal Supervision & Administration:	$420,977
Estimated OCPR Supervision & Administration:	$420,977
Corps Project Management:	$3,192
Total Estimated Phase I Costs	$2,694,363

Figure 2: Revised TE-52 Project Boundary

IV) Checklist of Phase 2 Requirements

A. List of Project Goals and Strategies

- Nourish the Gulf shoreline and create 42 acres of dune and 49 acres of supratidal habitat with sand, and create 363 acres of back-barrier marsh platform settled to intertidal elevation with unrestricted tidal exchange by TY3.
- To establish marsh and dune vegetation (both planted and natural colonization). There would be approximately 50% vegetative planting of the total subaerial acreage at the end of TY1 and 100% at the end of TY3.
- Fill tidal inlets and overwash breaches, restore and create dune and marsh to increase headland longevity and maintain shoreline integrity.
- Prevent breaching defined as failure of the beach/dune resulting in an opening of the island to tidal exchange between the Gulf and the bay.
- Prevent increase in current shoreline erosion rate along adjacent shorelines.

B. The Cost Share Agreement between NOAA and the OCPR for Phase 1 activities was executed on May 31, 2007.

C. Landrights

In a letter from OCPR to NOAA dated September 25, 2009, the State confirms that the requirements of Section 6(g)(2) of the SOP have been fulfilled. This letter can be found as Attachment A.

D. Project Design Review (30% Design Level)

A 30% design review was held on July 15, 2009. Comments and responses received at the conference, as well as a letter from the State concurring with moving to 95% design, can be found as Attachment B.

E. Final Project Design Review (95% Design Level).

A 95% design review was held on November 2, 2009. Comments and responses received at the conference, as well as a letter from the State concurring with moving to Phase 2, can be found as Attachment C.

F. NEPA

A draft Environmental Assessment for this project was submitted to the Technical Committee in September 2009. The comment period has closed, and agency responses received were incorporated into a draft final document. The final EA with FONSI and consultation letters is currently being routed for signature. Given the size of the document it is not included as an appendix in this package, but can rather be provided upon request. Consultation letters and agency responses to the EA can be found as Attachment D.

G. No Ecological Review was completed for this project.

H. The joint permit application was filed with the State on November 18, 2009.

I. An in-house, cursory level hazardous, toxic and radiological waste (HTRW) assessment was conducted, and can be found in Attachment E. There was no data to indicate that a further HTRW investigation was warranted.

J. A request for Section 303(e) approval was submitted to the USACE on October 13, 2009. As of November 17, 2009 the 303(e) was granted and the letter was being routed internally for signature. The request letter can be found as Attachment F.

K. The overgrazing determination from the NRCS was completed and the letter from NRCS can be found in Attachment G.

L. A revised fully funded cost estimate, reviewed and approved by both the Engineering and Economic Work Groups, has been completed. The specific Phase 2 funding request, as outlined in the spreadsheet labeled Attachment H, was generated using the Fully Funded Cost Estimate provided by the Economic Work Group.

M. A revised Wetland Value Assessment was completed and approved in October 2009. Due to its size, a copy is not being attached to this request, but rather can be submitted upon request.

Attachment A: Landrights

Coastal Protection and Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

September 25, 2009

Ms. Cecelia Linder
National Marine Fisheries Service
Office of Habitat Protection
1315 East West Highway, Restoration Center, Room 7120
Silver Spring, MD 20910

RE: West Belle Pass Barrier Headland Restoration Project TE-52
CWPPRA Section 303(e) Approval

Dear Ms. Linder:

By this letter, I am transmitting to you a copy of the **Letter of No Objection** (with map labeled Exhibit A attached) from the State of Louisiana, through its Division of Administration, State Land Office (State Lands) to the Louisiana Office of Coastal Protection and Restoration (OCPR) for the West Belle Pass Barrier Headland Restoration Project TE-52 (Project). State Lands is the sole, codified landowner within the Project.

The document fulfills the requirements outlined in Section 6(g)(2) of the Standard Operating Procedures Manual for CWPPRA projects: the document is the "Language of Land Rights," and the map attached to same describes the Project, including the "Project Limits." By this letter, OCPR certifies that land rights efforts have been and will be in accordance with all applicable Federal and State laws and regulations, and all standard real estate practices have been and will be followed.

This letter and document may be forwarded under cover letter from the National Marine Fisheries Service (NMFS) to the U. S. Army Corps of Engineers (Corps) as part of your request for CWPPRA Section 303(e) approval. NMFS must also obtain an overgrazing determination from the U. S. D. A. Natural Resources Conservation Service (NRCS). These items and a letter requesting 303(e) approval may be sent to the following address:

U. S. Army Corps of Engineers
ATTN: CEMVN-OC
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Office of Coastal Protection and Restoration
Post Office Box 44027, Baton Rouge, LA 70804-4027 • 450 Laurel Street, 12th Floor, Baton Rouge, LA 70801
Phone: 225.342-7308 • Fax: 225.342.9417 • http://www.lacpra.org
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If you need further assistance or have any questions regarding this matter, please contact Mr. V.J. Marretta in the OCPR Land Section at (225) 342-5260. We, at the OCPR, look forward to completing the 303(e) approval process and proceeding with project construction.

Sincerely,

James Altman, CPL
OCPR Land Section Manager

JA/VJM

Enclosure

c(no enclosure): Kenneth Bahlinger, OCPR Project Manager
V.J. Marretta, OCPR TE-52 Landrights Manager

TE-52\TE-52 NMFS 303e Letter.doc

Appendix B: 30% Design Comments and Concurrence

CPRA
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

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
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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.

Appendix C: 95% Design Comments and Concurrence

State of Louisiana

BOBBY JINDAL
GOVERNOR

CPRA
Coastal Protection and Restoration Authority of Louisiana

November 10th, 2009

Ms. Cecelia Linder
NMFS Restoration Center, F/HC3
1315 East West Highway
Silver Spring, MD 20910

Re: 95% Design Review Concurrence for West Belle Pass Barrier Headland Restoration Project (TE-52)
Statement of Local Sponsor Concurrence

Dear Ms. Linder:

The 95% Design Review meeting for the West Belle Pass Barrier Headland Restoration (TE-52) project was held on November 3rd, 2009. Based on our review of the technical information compiled to date, the land ownership investigation, and the final design material, the Office of Coastal Protection and Restoration, as the local sponsor, concurs to proceed with requesting Phase II construction funding.

In accordance with the CWPPRA Standard Operating Procedures, we request that you forward this letter of concurrence, along with the final project cost estimate, to the Technical Committee and the Planning and Evaluation Subcommittee. We also request that our project manager, Kenneth Bahlinger, be copied on all correspondence concerning this project.

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

Sincerely,

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

CPK:ras

cc: Richard Hartman, NOAA Fisheries
Cheryl Brodnax, NOAA Fisheries
Chris Williams, P.E., OCPR Administrator
Kirk Rhinehart, OCPR Administrator
Kenneth Bahlinger, OCPR Project Manager
Rudy Simoneaux, P.E., OCPR Project Engineer
TE-52 Project File

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WEST BELLE PASS BARRIER HEADLAND RESTORATION (TE-52)

CWPPRA 95% DESIGN MEETING COMMENTS

NOVEMBER 3, 2009

The only significant comment was brought up by Rick Smith with Weeks Marine, Inc. His stated that the dredge pipeline from the marsh and dune borrow areas will be placed over existing oil and gas pipelines. Mr. Smith was concerned that some of these pipelines may not be buried.

Pending Phase II approval, OCPR will conduct a side scan survey of the proposed pipeline corridor to see if there are any exposed pipelines. If any exposed pipelines are found, OCPR will work with the pipeline companies to see that pipelines are buried prior to construction.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

September 16, 2009 F/SER46/RS:jk
225/389-0508

Ms. Cheryl Brodnax
National Oceanic and Atmospheric Administration
LSU Sea Grant Building, Room 124C
Baton Rouge, Louisiana 70803

Dear Ms. Brodnax:

NOAA's National Marine Fisheries Service has received the draft Environmental Assessment (EA) titled "West Belle Pass Barrier Headland Restoration (TE-46)." The draft EA evaluates the potential impacts associated with restoration of 9,200 feet of beach and dune and creation of about 365 acres of saline marsh in Lafourche Parish, Louisiana. The proposed project would involve excavation from two borrow areas located in Timbalier Bay and the Gulf of Mexico to generate over three million cubic yards of dredged material required for project construction.

We offer the following general comments regarding the draft EA:

Page 15, Section 3.1.1, Geology, Soils and Topography. This section of the document does not describe existing wave conditions in the vicinity of the proposed borrow areas. Summary wave climate data would provide background for interpretation of results provided in later sections of the document. Also, potential changes in wave climate are addressed in Section 4.2.1, Impacts on Geology, Topography, and Physical Oceanographic Processes, and again in Section 4.2.4, Impacts on Water Resources. We recommend that information regarding existing conditions be incorporated into the appropriate section of the document and that the discussion regarding anticipated wave climate changes be consolidated into one part of the Environmental Consequences section.

Page 11, Table 1, and throughout. The document presents information regarding projected benefits in terms of Average Annual Habitat Units and Net Acres. Typically, these data would be generated after project review by the Environmental Work Group. We recommend that the final EA be held in abeyance until such data has been reviewed and approved by the appropriate work group.

Based on our review of the draft EA, we find that the document adequately assesses potential impacts to resources of concern. The EA also analyzes the potential effects of the proposed action on essential fish habitat (EFH). We concur with the document's conclusion that the proposed project is not likely to adversely affect EFH and furthermore, that the project should result in the creation and restoration of intertidal marsh and surf zone habitats. As such, we have no EFH Conservation Recommendations to provide and no further comments to offer on the draft EA.

We appreciate the opportunity to review and comment on the draft EA.

Sincerely,

for Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

c:
F/SER46, Swafford
Files

The Final Report has been reviewed and accepted.
22-3276
Scott Hutcheson 8/7/09
Scott Hutcheson Date
State Historic Preservation Officer

TIDEWATER ATLANTIC RESEARCH, INC.

GORDON P. WATTS JR., DIRECTOR
VOICE: 252.975.6659 FAX: 252.975.2828
EMAIL: jimr@coastalnet.com

POST OFFICE BOX 2494
WASHINGTON
NORTH CAROLINA 27889

27 July 2009

Dr. Scott Hutcheson
State Historic Preservation Officer
Division of Archaeology
1051 N. 3rd Street, Room 405
Baton Rouge, Louisiana 70802-5239

Dear Dr. Hutcheson:

Per your request, two archival-quality final reports entitled *Phase I Remote-Sensing Submerged Cultural Resource Survey of Offshore Borrow Sites located in Lafourche and Terrebonne Parish, Louisiana in Association with the West Belle Pass Barrier Headland Restoration Project* are enclosed for the Division of Archaeology library. A CD version is attached to the back cover of both reports to facilitate reproduction.

On behalf of Tidewater Atlantic Research, we appreciate the opportunity to work with the State of Louisiana and the firm of Coastal Planning & Engineering to support this important coastal restoration project.

Best regards,

Robin Arnold
Senior Historian

Enclosures-2

Copy: Jeffrey Andrews [Coastal Planning & Engineering]

AUG 3 2009

cc: Cheryl Broadnax

MITCHELL J. LANDRIEU
LIEUTENANT GOVERNOR

State of Louisiana

OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF ARCHAEOLOGY

PAM BREAUX
SECRETARY

SCOTT HUTCHESON
ASSISTANT SECRETARY

June 16, 2009

Ms. Cheryl Brodnax
Federal Project Manager
NOAA National Marine Fisheries Service
NOAA Restoration Center
LSU Sea Grant Building, Room 124C
Baton Rouge, LA 70803

Re: Draft Remote-Sensing Report
LA Division of Archaeology Report No. 22-3276
Remote-Sensing Submerged Cultural Resources Survey of Offshore Borrow Sites Associated with the West Belle Pass Barrier Headland Restoration Project [Lafourche And Terrebonne Parishes, Louisiana]
Tidewater Atlantic Research, Inc.

Dear Ms. Brodnax:

We acknowledge the receipt of your letter dated May 13, 2009, and two copies of the above-referenced draft report. We have completed our review of this document and offer the following comments.

The report is concise and well written. Based on the information provided in the 1994 Report *Cultural Resources Investigation Related to the West Belle Pass Headland Restoration Project, Lafourche Parish, Louisiana* and the current remote sensing survey results along with the recommendation of avoidance of areas WBPA-5, WBPE-1, and WBPE-2, we concur that the proposed project will have no effect on historic properties.

We have provided a few technical comments for your consideration and look forward to receiving two copies of the final report for our library. If you should have any questions, please contact Stacie Palmer in the Division of Archaeology by email at spalmer@crt.state.la.us or by phone at (225) 342-5737.

Sincerely,

Scott Hutcheson
State Historic Preservation Officer

SH:SP:s

Enclosures: as stated

CPRA
Coastal Protection and Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

September 14, 2009

To: Cheryl Brodnax, Project Manager

From: David Lindquist, Coastal Resources Scientist III

RE: West Belle Pass Barrier Headland Restoration Environmental Assessment

Cheryl,

The following is a list of comments (mostly editorial) on the Environmental Assessment prepared for the West Belle Pass Barrier Headland Restoration (TE-52) project.

- Replace "Louisiana Department of Natural Resources" and the acronym "LDNR" with "Office of Coastal Protection and Restoration" and "OCPR" where appropriate.
- The word "offshore" should replace "off shore" where it occurs throughout the document.
- In several places in the first few pages of the Introduction the phrase "west of West Belle Pass" is used in descriptions of the project location. Is "West Belle Pass" an actual place-name? Also, "West Belle Pass" seems to be used interchangeably with "Belle Pass". For example, on Page 6, Section 1.4.2, the first sentence reads "Shoreline retreat rates immediately west of West Belle Pass…". Then in the next paragraph it is mentioned that "Hurricanes Katrina and Rita removed almost all the subaerial headland west of Belle Pass." I suggest that "west of West Belle Pass" be replaced with the simpler and geographically accurate "west of Belle Pass".
- Page 4, Section 1.3, Paragraph 2: I think the scientific name of black mangrove is *Avicennia germinans*. Also the phrase "Black mangrove were frozen badly…" sounds odd. I suggest this sentence be reworded to say something like: "Black mangrove (*Avicennia germinans*), the abundance of which is controlled by periodic freezing events, has proliferated since the last hard freeze in 1990 and is now common in the intertidal zone of the project site."
- Page 4, Section 1.3.1, Paragraph 1: The eastern portion of the Terrebonne Basin is hydrologically isolated from what? Freshwater input?
- Page 5, Section 1.3.2, Paragraph 4: Mention when beneficial placement of material dredged from Belle Pass began.
- Page 18, Section 3.2.2.2, Paragraph 2: "…sea turtles drift with the *Sargassum* and feed off their living organisms" sounds odd. Perhaps reword to: "sea turtles drift with the *Sargassum* and prey on biota associated with the algae."
- Page 20, Table 4: Delete the space between "*Farfante*" and "*penaeus*".
- Page 20 and 21: Spanish mackerel and gray snapper are probably more likely to occur in the project and borrow areas than their congeners king mackerel and lane snapper. Why weren't these species discussed?

Planning Branch
Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 12th Floor Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-6801 • http://www.lacpra.org/
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- Page 22, blacknose shark paragraph, last sentence: Should this read "Neonates or juveniles…"?
- Page 23, Section 3.2.5, Paragraph 5: Edit the last sentence. "More importantly, barrier islands and headlands provide…"?
- Page 24, Section 3.2.6.1, Paragraph 2: What barrier island is immediately east of Belle Pass?
- Page 24, Section 3.2.6.1, Paragraph 4: Replace "samipalmated plover" with "semipalmated plover" and "hudsonian godwit" with "Hudsonian godwit".
- Page 24, Section 3.2.6.1, Paragraph 6: Replace "savannah sparrow" with "Savannah sparrow".
- Page 26, Section 3.2.7: You may have received different information from USFWS, but based on the LDWF's Natural Heritage website neither sturgeon species are listed for Lafourche Parish (or Terrebonne for that matter). Also, manatees are not listed for Lafourche Parish but are for Terrebonne, although it is reasonable to assume that the odds of manatee appearing in Lafourche are the same as for Terrebonne.
- Page 39, Socioeconomics row, No Action column: Edit the last sentence.
- Page 52, Section 4.3.2, Paragraph 2: What does "re-assorting" mean? Perhaps a different word.
- Page 53, Section 4.3.2, Paragraph 4 or 5: Perhaps re-emphasize that the current benthic communities are representative of an early successional stage due to frequent perturbation, and therefore it shouldn't take long for the post-dredging assemblages to attain pre-dredging levels.
- Page 56, Section 4.3.6, Paragraph 4, second sentence: Replace "planning vegetation" with "planting vegetation".
- Page 57, Section 4.3.6, Paragraph 9: This paragraph (starting "Based on the long-term benefits…") should be placed at the end of the subsection (i.e., after the subsequent paragraph about sea turtles).
- Page 58, Section 4.4.2, Paragraph 2: Edit last sentence. "There are no known, significant terrestrial cultural resources in either proposed project site." Delete comma and replace "either" with "the".
- Page 59, Section 4.4.4, Paragraph 2: Delete the second "long-term".
- Page 61, Section 4.4.6, Paragraph 4: The third sentence is unclear. Please edit.
- Page 62, Section 4.5.1.1, Paragraph 1, last sentence: Replace "Bell Pass" with "Belle Pass".

Thank you for the opportunity to review. If you have any questions please don't hesitate to contact me.

David Lindquist
Coastal Resources Scientist
Environmental Section
Planning and Project Management Division
Office of Coastal Protection and Restoration
David.Lindquist@la.gov
phone: (225) 342-9683

United States Department of the Interior

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

September 22, 2009

Ms. Cheryl Brodnax
NOAA
LSU Sea Grant Building, Room 124C
Barton Rouge, LA 70803

Dear Ms. Brodnax:

The U.S. Fish and Wildlife Service (Service) has reviewed the National Marine Fisheries Service's (NMFS) draft Environmental Assessment (EA) for the West Belle Pass Barrier Headland Restoration Project (TE-52) located in Lafourche Parish, Louisiana. The preferred alternative plan consists of constructing a 36-acre, 169 foot by 9,200 linear foot dune 6.0 feet (NAVD 88) high with 1.18 M cubic yards of fill material, and restoring approximately 310 acres of saline marsh with 1.9 M cubic yards of material placed in an 1,880 foot-wide by 9,200 foot long area north of the dune. A total of 346 acres of dune and saline marsh will be restored immediately after construction. The Service provides the following comments in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), and the National Environmental Policy Act (83 Stat. 852, as amended; 42 U.S.C. 4321-4347).

General Comments

The EA is well written, comprehensive, and generally accurate in its assessment of impacts to fish and wildlife resources. Specific comments on the EA and information regarding federally listed threatened and endangered species are provided below.

Specific Comments

Page ES-2, First Paragraph – The preferred alternative should be clearly described in this paragraph. Only partial information concerning the preferred alternative's features is presented in this and the following paragraphs. Table 1 (page 11) shows more information concerning the preferred alternative features than any preceding narrative.

Page 5, Paragraph 3, Land Sentence – A borrow area located 9 miles west of the project site will increase dredging costs over that of a borrow area located closer to the project site. We assume that closer borrow sites were investigated. The reason this dune borrow site was selected over one closer should be provided.

TAKE PRIDE IN AMERICA

Page 8, Figure 2 – The Service agrees that using fill from inside the marsh creation area is a better design than constructing the borrow area outside of the marsh fill area.

Page 11, Table 1 – The table should also show net dune and marsh acres restored in addition to Average Annual Habitat Unit (AAHU) benefits.

Page 18, Last Paragraph, Essential Fish Habitat – The EFH sections and table are well prepared.

Page 27, First Paragraph – We recommend that the first sentence of this paragraph be revised to state that although brown pelicans may nest on barrier islands in the vicinity of the project area, there are no known nesting colonies within 2,000 feet of the project area. We also recommend that the last sentence be revised to state that brown pelicans use the current project area for foraging and roosting only.

Page 27, Second Paragraph – We recommend that this paragraph be revised to state that bald eagles generally utilize bald cypress trees but will nest in mature trees of other species. We also recommend that the last sentence be revised to state that there are no known bald eagle nesting locations within or in the vicinity of the project area due to lack of suitable nesting habitat.

Page 32, Paragraph 3 Bullets – The items listed, except for wetland benefits and costs, are considered subjectively by CWPPRA agencies, but they are no longer included in a formal Prioritization Criteria analysis.

Page 32, Paragraph 4, Last Sentence – The "WVA Team" described consists of the combined Environmental and Engineering Work Groups.

Page 34, Table 6, Net Acres – AAHU values are shown below the column heading, "net acres benefitted". The heading should be revised to state, "Net AAHU's benefitted". Another column should be added that lists net acres benefitted.

Page 38, Table 7, Threatened, Endangered, and Sensitive Species – We recommend that the rationale for impacts to the piping plover and its designated critical habitat include the following statement: "Construction of the proposed project would temporarily affect piping plover critical habitat by depositing new material in intertidal and supratidal areas, which would render those areas unsuitable for foraging until benthic prey species re-colonize the project area."

Page 53, Paragraph 3, Sentence 2 – The sentence implies that "tidal features" would be constructed after construction, yet there is no description of those features. We would recommend construction of limited fisheries access tidal creeks post construction.

Page 62, Paragraph 6, Sentence 2 – The sentence stating that 1.5 million cubic yards of dredged material has been placed west of Belle Pass seems to contradict the last sentence of Paragraph 7 that states, "The western half of the headland does not receive any dredge disposal, . . .".

Endangered Species Comments

As you know, the Service and NMFS share Section 7 ESA consultation responsibilities for federally listed sea turtles and the threatened Gulf sturgeon (*Acipenser oxyrhynchus desotoi*). When sea turtles leave the aquatic environment and come onshore to nest, the Service is responsible for consultation. Based upon our records and the information provided in the EA, there are no known sea turtle nesting sites within the project area; therefore, no further consultation with the Service for listed sea turtles is necessary. Based upon the critical habitat designation for Gulf sturgeon, the NMFS is responsible for its own intra-agency consultation for that species; thus, no further consultation with the Service is necessary for the Gulf sturgeon.

According to the EA and our species records, the endangered West Indian manatee (*Trichechus manatus*) rarely occurs along the Louisiana Gulf coast during summer months. In addition, as standard operating procedures, all of NMFS' contractor personnel would follow the standard manatee sighting and avoidance protocol (as described on page 57 of the EA) to further reduce the likelihood of affecting that species. Based upon that information, the Service concurs with the NMFS's determination that the proposed project is not likely to adversely affect the West Indian manatee.

Based on our records, the proposed project would not be located within 2,000 feet of any known nesting colonies of endangered brown pelicans (*Pelecanus occidentalis*). According to the EA, any pelicans foraging and/or roosting in the area would be temporarily displaced to nearby suitable habitat during project construction, but they would benefit from the newly created foraging and roosting habitat throughout the life of the project. Based upon that information, the Service also concurs with the NMFS' determination that the proposed project is not likely to adversely affect the brown pelican.

The EA also provides a discussion of potential project effects to the threatened piping plover (*Charadrius melodus*) on pages 56 and 57 of the document. That section indicates that approximately 75 acres of suitable plover habitat currently exist within the project area (based upon 2008 aerial photography). That section also indicates that human activities on the beach during construction of the dune and beach portions of the project would temporarily (approximately 5 months) displace piping plovers to nearby suitable habitat areas and placement of sand fill would smother benthic prey communities within that portion of the project area. The NMFS anticipates that benthic prey communities on the Gulf side of the project area would naturally recover while project work on the bay side of the project area would continue. Based upon their calculations, the NMFS expects that piping plovers would be able to resume foraging and roosting within that portion of the project area once the newly created dune area is planted and sand fencing is installed. Because those effects would be temporary, insignificant, and discountable, the Service concurs with the NMFS' determination that the proposed project is not likely to adversely affect the piping plover.

The EA does not, however, provide an adequate discussion of project effects to designated critical habitat for the piping plover. Although the EA states that approximately 75 acres of suitable plover habitat currently exist within the project area and that an additional 69 AAHU of

barrier headland would be created, it does not provide an analysis of project effects to the primary constituent elements of existing critical habitat and whether the proposed project is, or is not, likely to adversely affect those elements. Tables 9 and 10 discuss total project benefits in terms of acres and AAHUs, respectively; however, the Service is unable to use those numbers to determine acres of impacts and/or benefits to critical habitat because the supratidal and intertidal acreages also include marsh (which is not a primary constituent element of piping plover critical habitat). The Service, therefore, recommends that the NMFS contact this office for further consultation regarding their analysis of potential project effects to piping plover critical habitat.

Summary Comments

The Service concurs with the EA that the preferred plan will have benefits to coastal wetlands and estuarine fish and wildlife resources by reducing shoreline erosion along the West Belle Pass Gulf shoreline and restoring eroded saline marshes. We strongly support implementation of the preferred plan as indicated in the draft EA, especially one in which tidal creeks are implemented post construction for greater fisheries access to the created marsh platform north of the restored dune.

Thank you for the opportunity to provide comments on the above-referenced EA. If your staff has any questions regarding our comments, please have them contact Mr. Darryl Clark (337/291-3111). For specific questions regarding federally listed species and/or Section 7 ESA consultation, please contact Ms. Brigette Firmin (337/291-3108) of this office.

Sincerely,

for James F. Boggs
Supervisor
Louisiana Field Office

cc: Corps of Engineers, New Orleans, LA
NMFS, Baton Rouge, LA
EPA, Dallas, TX
NRCS, Alexandria, LA
LA Office of Coastal Protection and Restoration, Baton Rouge, LA
LA Department of Wildlife and Fisheries, Baton Rouge, LA
LA Office of Coastal Protection and Restoration, Baton Rouge, LA
LA Department of Natural Resources (CMD), Baton Rouge, LA

Attachment E: HTRW Review

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

October 2, 2009

To: TE-52 West Belle Pass Barrier Headland Restoration Project File

Cc: Cecelia Linder, CWPPRA Program Officer, NOAA/NMFS

Kenneth Bahlinger, State Project Manager, LOCPR

From: Cheryl Brodnax, Federal Project Manager, NOAA/NMFS CB

Re: Contaminants Screen for the West Belle Pass Barrier Headland Restoration Project (TE-52); HTRW analysis

Per Section 6.j of the CWPPRA Standard Operating Procedures, consideration should be made regarding the potential for contaminants to be located on restoration project sites prior to seeking construction funds. This assessment is not meant to be exhaustive, rather is serving as a cursory review that may trigger a more in-depth investigation should the preliminary review indicate a high risk of contaminants. This review was limited to what is available on public databases, in addition to field reconnaissance on the project site. Sample collections or in-depth literature reviews have not been made. The databases screened include:

Superfund/CERCLIS EPA Superfund information
Landview/U.S. Census Department
RCRA Information System
Toxics Release Inventory
Emergency Response Notification System (ERNS)
LA Office of the Governor, Oil Spill Coordinator's Office
SONRISE database for oil and gas wells and pipelines

All searches of the above databases came up negative for known oil spills, toxic releases, or Superfund sites. Furthermore, the field reconnaissance and databases are showing no active or producing wells within the borrow area or project area.

The project site is located along an undeveloped barrier headland that is currently owned by the State of Louisiana. There are no signs of dumping or contamination, and with the absence of well heads within the project and borrow areas, there is very little likelihood of heavy metal contamination within the dredged sediments. Although there are three pipelines that traverse the project, two are long abandoned and one is located beneath a canal that is not within the excavation footprint of the project.

Considering the hazards information available at this time, and that there is no indication of present or historic contaminated sediments within the project or borrow areas, it is my opinion that further HTRW studies are not warranted.

Attachment F: 303e Approval Request and Overgrazing Determination

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

OCT 1 3 2009

Melanie Goodman
U.S. Army Corps of Engineers
New Orleans District Protection and
Restoration Office, Restoration Branch
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Ms. Goodman,

As Lead Agency for the West Belle Pass Barrier Headland Restoration Project (State Project Number TE-52), the National Marine Fisheries Service is requesting approval from the U.S. Army Corps of Engineers in accordance with Section 303(e) of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). Enclosed for your review are a letter from the State's Office of Coastal Protection and Restoration containing information for Section 303(e) approval, including a land rights determination with supporting letter from the State's Land Office and a map showing the general project limits and proximity of pipelines. In addition, we are enclosing the determination from the U.S. Natural Resources Conservation Service that overgrazing is not a problem for the project.

If you have any questions concerning this request and/or any submitted materials, please do not hesitate to contact me at (301)713-0174 X 162 or via email at cecelia.linder@noaa.gov.

Sincerely,

Cecelia Linder
NOAA Fisheries CWPPRA Program Manager

Cc: Cheryl Brodnax, NOAA Fisheries
V.J. Marretta, OCPR
Kenneth Bahlinger, OCPR

Attachments

Printed on Recycled Paper

Attachment G: NRCS Overgrazing Determination Letter

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

(318) 473-7773
Fax: (318) 473-7747

October 8, 2009

Ms. Cheryl Brodnax
National Oceanic and Atmospheric Administration
LSU Sea Grant Building
Room 124C
Baton Rouge, Louisiana 70803

Dear Ms. Brodnax:

RE: West Belle Pass Barrier Headland Project (TE-52)

I am in receipt of your request for an overgrazing determination for the West Belle Pass Barrier Headland Project (TE-52). I contacted our local district conservationist and our state rangeland management specialist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

W. Britt Paul
Assistant State Conservationist
for Water Resources and Rural Development

cc: Randolph Joseph, AC, AO, NRCS, Lafayette, LA
John Boatman, DC, FO, NRCS, Thibodaux, LA
Johanna Pate, SRMS, SO, NRCS, Alexandria, LA
John Jurgensen, CE, SO, NRCS, Alexandria, LA

LETTERS OF SUPPORT

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Charlotte A. Randolph, *Parish President*

Department of Coastal Energy & Environment

November 9, 2009

Mr. Tom Holden
Coastal Wetlands Planning, Protection and Restoration Act
Technical Commitee
7400 Leake Avenue
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Holden:

On December 2, 2009, the CWPPRA Technical Committee will convene to discuss a number of items, one of those being Phase II Funding for the West Belle Pass Barrier Headland Restoration Project (TE-52). After entertaining a detailed presentation of the project by Cheryl Brodnax of NOAA National Marine Fisheries Service and engaging in a lengthy discussion about this project and its vital importance to our area with Mrs. Brodnax and also with Mr. Kenneth Bahlinger of the Louisiana Office of Coastal Protection and Restoration, the Lafourche Parish Coastal Zone Management Committee has decided to put its full support behind this project and its receiving Phase II Funding for its immediate construction.

The TE-52 West Belle Pass Barrier Headland Restoration Project will rebuild eight thousand, five hundred (8,500) linear feet of barrier headland along Chenier Caminada west of the Belle Pass jetties in lower Lafourche Parish. This area has long experienced heightened shoreline loss and has reached a rapidly deteriorating state due to large tidal inlets and storm damage that impacted the area in 2005 and 2008. The loss of this headland will result in fragile interior marshes becoming the new gulf shoreline, which will increase erosion within the marshes that flank Port Fourchon—an energy hub of vital importance not only to Lafourche Parish and its residents, but to the entire nation, as nearly twenty percent (20%) of the nation's oil and natural gas comes through this facility.

The project will also build three hundred twenty (320) acres of dune, upland, and intertidal marsh that will close the tidal inlets and prevent breaching of the headland during the project life. Protection of this headland is absolutely critical for reducing the tidal exchange and wave energy that enters Timbalier Bay from the Gulf of Mexico. The loss of barrier islands and headlands reduces estuarine productivity and pushes the natural line of defense back to less stable, inland marshes. We need to restore this barrier headland before it becomes too late to make a difference in this vulnerable area.

The risk to major infrastructure, including Port Fourchon, is catastrophic if the buffering headlands and surrounding marshes are left to deteriorate. After the 2008 storm season, the timeliness and need for this project, as well as for the rest of Chenier Caminada, could not be better demonstrated.

Charlotte A. Randolph	Parish President	Matt Matherne	District 5
Jerry Jones	District 1	Lindel Toups	District 6
Michael Delatte	District 2	Phillip Gouaux	District 7
Louis Richard	District 3	Rodney Doucet	District 8
Joseph "Joe" Fertitta	District 4	Daniel Lorraine	District 9

We, therefore, on behalf of all those affected by this project, strongly urge you to, in turn, give your support to this project and suggest that the Task provide Phase II funding for the West Belle Pass Barrier Headland Restoration Project (TE-52)

Sincerely,

Nicholas P. Matherne
Director of Coastal Energy & Environment
Lafourche Parish Government

Ted Falgout
Lafourche CZM Advisory Committee Chair

Vince Guillory
Lafourche CZM Advisory Committee

Daniel Lafont
Lafourche CZM Advisory Committee

Kerry St. Pe
Lafourche CZM Advisory Committee

Lonnie Rousse
Lafourche CZM Advisory Committee

Wayne Martin
Lafourche CZM Advisory Committee

Brent Constranstich
Lafourche CZM Advisory Committee

David Bourgeois
Lafourche CZM Advisory Committee

Nicholas Cheramie
Lafourche CZM Advisory Committe

ARLANDA J. WILLIAMS, CHAIRWOMAN

JOHNNY PIZZOLATTO, VICE-CHAIRMAN

DISTRICT 1
ALVIN TILLMAN, SR.
DISTRICT 2
ARLANDA J. WILLIAMS
DISTRICT 3
BILLY HEBERT
DISTRICT 4
TERI CAVALIER

PARISH COUNCIL
PARISH OF TERREBONNE
POST OFFICE BOX 2768 HOUMA, LOUISIANA 70361
Government Towers, 8026 Main Street, Suite 600
Houma, Louisiana 70360
PHONE (985) 873-6519 FAX (985) 873-6521
plabat@tpcg.org www.tpcg.org

PAUL A. LABAT, CLERK

DISTRICT 5
JOHNNY PIZZOLATTO
DISTRICT 6
KEVIN VOISIN
DISTRICT 7
CLAYTON J. VOISIN
DISTRICT 8
JOEY CEHAN
DISTRICT 9
PETE LAMBERT

November 19, 2009

Colonel Alvin B. Lee
Chairman, CWPPRA Task Force
CEMVN-PM-OR
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Lost Lake Project, Terrebonne Parish, LA

Dear Colonel Lee:

The Terrebonne Parish Council fully agrees with the Terrebonne Coastal Zone Management Committee in its decision to fully endorse and support funding for the Lost Lake Marsh Creation and Hydrologic Restoration Project. The importance of this project cannot be understated to help protect the environment and the citizens of this parish.

The Council unanimously adopted the attached resolution concurring with the CZM Advisory Committee and requesting that the CWPPRA Technical Committee consider the North Lost Lake Project as a high priority when selecting projects for Phase I (E&D) funding. As always, your favorable consideration of the Council's request will be greatly appreciated. Thank you.

Sincerely,

PAUL A. LABAT, Council Clerk
Terrebonne Parish Council

PAL

Attachment

cc: Mrs. Leslie R. Suazo (with attachment)

OFFERED BY: Mr. J. Pizzolatto.
SECONDED BY: Mr. J. Cehan.

RESOLUTION NO. 09-622

WHEREAS, the Coastal Zone Management and Restoration Advisory Committee is committed to providing aggressive leadership, direction and consonance in the development and implementation of comprehensive policies, plans and programs which encourage multiple uses of the coastal zone and achieve a proper balance between the multiple needs of coastal resources in Terrebonne Parish; and

WHEREAS Terrebonne Parish currently experiences one of the highest rates of coastal land loss in Louisiana, and is in urgent need of projects to restore and protect our fragile wetlands, and

WHEREAS, the Technical Committee of the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) has previously selected the Lost Lake Marsh Creation and Hydrologic Restoration Project as one of 10 projects for further evaluation; and

WHEREAS, Project is now a candidate for Engineering and Design funding; and

WHEREAS this project will provide synergistic benefits to the following CWPPRA projects:

1) Brady Canal Hydrologic Restoration (construction completed);
2) North Lake Mechant Land bridge Project (construction at or near completion);
3) Penchant Basin Project (construction start in 2010);
4) Central Terrebonne Freshwater Enhancement (currently in Engineering and Design) and
5) South Lake Decade Shoreline Protection and Marsh Creation (construction to begin in 2010) ; and

WHEREAS, the implementation of this project, as a compliment to other CWPPRA projects, will restore and protect area marshes and will also serve as a buffer zone separating the fresher marshes to the north and the more saline marshes to the south

NOW, THEREFORE BE IT RESOLVED that the Terrebonne Parish Council (Natural Resources and Coastal Restoration Committee), on behalf of the Terrebonne Parish Consolidated Government, concurs with the Coastal Zone Management and Restoration Advisory Committee and does urge and request that the CWPPRA Technical Committee consider the North Lost Lake Project and assign it a high priority when selecting projects for Phase I (E&D) funding; and,

BE IT FURTHER RESOLVED that these comments be directed to the Terrebonne Levee and Conservation District and other civic organizations as appropriate, and the Chairman of the CWPPRA Technical Committee, Mr. Tom Holden, USACOE, as well as other members of the committee, prior to its meeting on December 2, 2009.

THERE WAS RECORDED:
YEAS: T. Cavalier, J. Cehan, B. Hebert, P. Lambert, J. Pizzolatto, A. Tillman and K. Voisin.
NAYS: None.
ABSTAINING: None.
ABSENT: C. Voisin and A. Williams.
The Chairman declared the resolution adopted on this, the 16th day of November, 2009.
* * * * * * * * *

I, PAUL A. LABAT, Clerk of the Terrebonne Parish Council, do hereby certify that the foregoing is a true and correct copy of a resolution adopted by the Natural Resources and Coastal

Restoration Committee on November 16, 2009 and subsequently ratified by the Assembled Council in Regular Session on November 18, 2009 at which meeting a quorum was present.

GIVEN UNDER MY OFFICIAL SIGNATURE AND SEAL OF OFFICE THIS 19TH DAY OF NOVEMBER, 2009.

PAUL A. LABAT, COUNCIL CLERK
TERREBONNE PARISH COUNCIL

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

ADDITIONAL AGENDA ITEMS

For Discussion/Decision:

Ms. Goodman will present the Technical Committee recommendation to the Task Force to approve a request by NRCS and the State for an O&M budget increase in the amount of $199,451, and incremental funding approval in the amount of $361,690 for the East Mud Lake Marsh Management Project (CS-20). This request will follow Agenda Item 8.

Wandell, Scott F MVN

From: Goodman, Melanie L MVN
Sent: Wednesday, December 16, 2009 3:26 PM
To: (Cecelia.Linder@noaa.gov); britt.paul@la.usda.gov; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Darryl Clark; Goodman, Melanie L MVN; Holden, Thomas A MVN; Kaspar.Paul@epamail.epa.gov; Kinsey, Mary V MVN; kirk.rhinehart@la.gov; Lachin, Donna A MVN; Richard.Hartman@noaa.gov; Rodi, Rachel MVN; Teague.Kenneth@epamail.epa.gov; Wandell, Scott F MVN; Wingate, Mark R MVN
Cc: 'Kinler, Quin - Baton Rouge, LA'; 'patrickl@dnr.state.la.us'; 'KIRKR@dnr.state.la.us'; 'David.Burkholder@LA.GOV'; Wandell, Scott F MVN; Browning, Gay B MVN; (Chris.Allen@LA.GOV); Bren Haas (Bren.Haase@LA.GOV); Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); John Jurgensen; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@la.gov
Subject: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

Follow Up Flag: Follow up
Flag Status: Red

Attachments: CS-20 Proposed OM Budget Adjustment Template Dec 2009 rev to show return of funds.xls; CS-20 O&M Funding Request Fact Sheet 15Dec09.doc; CS-20_synopsis_12_16_2009.doc

CS-20 Proposed OM Budget Adjus... CS-20 O&M Funding Request Fact... CS-20_synopsis_12_16_2009.doc ...

Technical Committee, NRCS and OCPR are requesting Task Force Fax Vote approval for an O&M budget increase in the amount of $199,451, and incremental funding approval in the amount of $361,690 for the East Mud Lake Marsh Management Project (CS-20).

At the October 28, 2009 Task Force Meeting, the Task Force approved a motion to return $155,304 to the CWPPRA Construction Program from the CS-20 O&M Budget, which was previously approved by the Task Force to cover hurricane damage repairs. The funds were returned to the CWPPRA Construction Program because the cost of these repairs are being reimbursed to the state by FEMA. Since that time, OCPR has received bids for non-storm related maintenance activities. To award the bid and maintain the 3-yr 0&M incremental funding, NRCS and OCPR request O&M incremental funding in the amount of $361,690. Additionally, NRCS and OCPR request an O&M Budget increase of $199,451. Supporting documents are attached.

Please provide your concurrence, non-concurrence, and/or comments via email on whether or not you recommend Task Force Fax Vote approval on the request for an O&M Budget increase of $199,451, and incremental funding in the amount of $361,690 for the CS-20 Project.

Since this is a time sensitive request, please submit your final response by Tuesday, December 29, 2009.

Thanks,

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

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

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

-----Original Message-----
From: Paul, Britt - Alexandria, LA [mailto:britt.paul@la.usda.gov]
Sent: Wednesday, December 16, 2009 10:36 AM
To: Goodman, Melanie L MVN; Wandell, Scott F MVN
Cc: Kinler, Quin - Baton Rouge, LA; 'patrickl@dnr.state.la.us'; 'KIRKR@dnr.state.la.us'; 'David.Burkholder@LA.GOV'
Subject: Fw: CS-20 O&M Tech Comm Fax Vote Request

Melanie,
Please submit this fax vote to the Tech Committee.
Thanks,

Britt

Sent using BlackBerry

_____

From: Kinler, Quin - Baton Rouge, LA
To: Paul, Britt - Alexandria, LA
Sent: Wed Dec 16 07:56:43 2009
Subject: CS-20 O&M Tech Comm Fax Vote Request

Britt:

OCPR has concurred with the following Tech Comm fax vote motion:

East Mud Lake (CS-20) Operation and Maintenance Current Funding Increase and Total Approved Budget Increase. At the October Task Force Meeting, $155,304 was returned from the CS-20 O&M Budget to the CWPPRA Program. Since that time, OCPR has received bids for non-storm related maintenance activities. To award the bid and maintain the 3-yr 0&M funding, NRCS and OCPR request O&M incremental funding in the amount of $361,690. Additionally, NRCS and OCPR request an O&M Total Approved Budget (total life budget) increase of $199,451.

The supporting documents are attached.

Please call to discuss if you get a chance. I'll be in the office until noon today, then available on cell phone (225-413-1382).

When you send to Melanie, please cc: Pat, David, and Kelley or cc: me and I will forward to them.

Quin

Wandell, Scott F MVN

From: Crawford.Brad@epamail.epa.gov
Sent: Monday, January 04, 2010 3:53 PM
To: Goodman, Melanie L MVN
Cc: Paul, Britt - Alexandria, LA; Darryl Clark; Jurgensen, John - Alexandria, LA; Kelley Templet; Kevin_Roy@fws.gov; kirk.rhinehart@la.gov; Kinler, Quin - Baton Rouge, LA; rachel.sweeney@noaa.gov; Richard.Hartman@noaa.gov; Holden, Thomas A MVN
Subject: RE: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

Melanie..
After a review of the material (and an explanation of the spreadsheet by Quin), EPA recommends approval of the request for a TF fax vote.

Sorry for the delay, I was out on "use or loose" when the request came thru. btw....this was too much to think about for a first day back in the office...Take care...

Later...

<>< ><> <>< ><> <>< ><>
Brad Crawford, P.E.
US EPA (6WQ-EC)
1445 Ross Ave.
Dallas, TX 75202
214.665.7255
214.665.6689 fax
><> ><> <>< ><> <>< ><>

From: "Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>
To: "Paul, Britt - Alexandria, LA" <britt.paul@la.usda.gov>, <Richard.Hartman@noaa.gov>, Brad Crawford/R6/USEPA/US@EPA, "Darryl Clark" <darryl_clark@fws.gov>
Cc: "Kinler, Quin - Baton Rouge, LA" <quin.kinler@la.usda.gov>, "Jurgensen, John - Alexandria, LA" <john.jurgensen@la.usda.gov>, "Holden, Thomas A MVN" <Thomas.A.Holden@usace.army.mil>, <kirk.rhinehart@la.gov>, "Kelley Templet" <Kelley.Templet@LA.GOV>, <rachel.sweeney@noaa.gov>, <Kevin_Roy@fws.gov>
Date: 01/04/2010 08:58 AM
Subject: RE: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

---

Rick, Brad and Darryl, I don't have a record of responses to the below/subject from you. Please provide/resend your response so we can get the Fax vote moving.

Thanks,

Melanie

-----Original Message-----
From: Paul, Britt - Alexandria, LA [mailto:britt.paul@la.usda.gov <mailto:britt.paul@la.usda.gov>]
Sent: Monday, January 04, 2010 8:11 AM
To: Goodman, Melanie L MVN
Cc: Kinler, Quin - Baton Rouge, LA; Jurgensen, John - Alexandria, LA
Subject: RE: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

Melanie,
What was the outcome of this request?

Britt

-----Original Message-----
From: Goodman, Melanie L MVN [mailto:Melanie.L.Goodman@usace.army.mil
<mailto:Melanie.L.Goodman@usace.army.mil>]
Sent: Wednesday, December 16, 2009 3:26 PM
To: Cecelia.Linder@noaa.gov; Paul, Britt - Alexandria, LA; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Darryl Clark; Goodman, Melanie L MVN; Holden, Thomas A MVN; Kaspar.Paul@epamail.epa.gov; Kinsey, Mary V MVN; kirk.rhinehart@la.gov; Lachin, Donna A MVN; Richard.Hartman@noaa.gov; Rodi, Rachel MVN; Teague.Kenneth@epamail.epa.gov; Wandell, Scott F MVN; Wingate, Mark R MVN
Cc: Kinler, Quin - Baton Rouge, LA; patrickl@dnr.state.la.us; KIRKR@dnr.state.la.us; David.Burkholder@la.gov; Wandell, Scott F MVN; Browning, Gay B MVN; Chris.Allen@la.gov; Bren.Haase@la.gov; Cynthia.duet@gov.state.la.us; Jerome Zeringue (jzee@tlcd.org); Jurgensen, John - Alexandria, LA; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; renee.sanders@la.gov
Subject: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

Technical Committee, NRCS and OCPR are requesting Task Force Fax Vote approval for an O&M budget increase in the amount of $199,451, and incremental funding approval in the amount of $361,690 for the East Mud Lake Marsh Management Project (CS-20).

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Since that time, OCPR has received bids for non-storm related maintenance activities. To award the bid and maintain the 3-yr 0&M incremental funding, NRCS and OCPR request O&M incremental funding in the amount of $361,690.
Additionally, NRCS and OCPR request an O&M Budget increase of $199,451.
Supporting documents are attached.

Please provide your concurrence, non-concurrence, and/or comments via email on whether or not you recommend Task Force Fax Vote approval on the request for an O&M Budget increase of $199,451, and incremental funding in the amount of $361,690 for the CS-20 Project.

Since this is a time sensitive request, please submit your final response by Tuesday, December 29, 2009.

Thanks,

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

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

http://www.lacoast.gov/cwppra/ <http://www.lacoast.gov/cwppra/>
http://www.mvn.usace.army.mil/pd/cwppra_mission.htm
<http://www.mvn.usace.army.mil/pd/cwppra_mission.htm>

-----Original Message-----
From: Paul, Britt - Alexandria, LA [mailto:britt.paul@la.usda.gov
<mailto:britt.paul@la.usda.gov>]

Sent: Wednesday, December 16, 2009 10:36 AM
To: Goodman, Melanie L MVN; Wandell, Scott F MVN
Cc: Kinler, Quin - Baton Rouge, LA; 'patrickl@dnr.state.la.us'; 'KIRKR@dnr.state.la.us'; 'David.Burkholder@LA.GOV'
Subject: Fw: CS-20 O&M Tech Comm Fax Vote Request

Melanie,
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Thanks,

Britt

Sent using BlackBerry

_____

From: Kinler, Quin - Baton Rouge, LA
To: Paul, Britt - Alexandria, LA
Sent: Wed Dec 16 07:56:43 2009
Subject: CS-20 O&M Tech Comm Fax Vote Request

Britt:

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When you send to Melanie, please cc: Pat, David, and Kelley or cc: me and I will forward to them.

Quin

Wandell, Scott F MVN

From: Kirk Rhinehart [Kirk.Rhinehart@LA.GOV]
Sent: Monday, December 21, 2009 10:53 AM
To: Goodman, Melanie L MVN
Cc: Bren Haase; Kelley Templet
Subject: RE: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

The State concurs with recommending Task Force fax vote approval.

-----Original Message-----
From: Goodman, Melanie L MVN [mailto:Melanie.L.Goodman@usace.army.mil]
Sent: Wednesday, December 16, 2009 3:26 PM
To: Cecelia.Linder@noaa.gov; britt.paul@la.usda.gov; Browning, Gay B MVN; Crawford.Brad@epamail.epa.gov; Creel, Travis J MVN; Darryl Clark; Goodman, Melanie L MVN; Holden, Thomas A MVN; Kaspar.Paul@epamail.epa.gov; Kinsey, Mary V MVN; Kirk Rhinehart; Lachin, Donna A MVN; Richard.Hartman@noaa.gov; Rodi, Rachel MVN; Teague.Kenneth@epamail.epa.gov; Wandell, Scott F MVN; Wingate, Mark R MVN
Cc: Kinler, Quin - Baton Rouge, LA; Patrick Landry (DNR); Kirk Rhinehart; David Burkholder; Wandell, Scott F MVN; Browning, Gay B MVN; Chris Allen; Bren Haase; Cynthia Duet; Jerome Zeringue; John Jurgensen; Kelley Templet; Kevin_Roy@fws.gov; rachel.sweeney@noaa.gov; Renee Sanders
Subject: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

Technical Committee, NRCS and OCPR are requesting Task Force Fax Vote approval for an O&M budget increase in the amount of $199,451, and incremental funding approval in the amount of $361,690 for the East Mud Lake Marsh Management Project (CS-20).

At the October 28, 2009 Task Force Meeting, the Task Force approved a motion to return $155,304 to the CWPPRA Construction Program from the CS-20 O&M Budget, which was previously approved by the Task Force to cover hurricane damage repairs. The funds were returned to the CWPPRA Construction Program because the cost of these repairs are being reimbursed to the state by FEMA.
Since that time, OCPR has received bids for non-storm related maintenance activities. To award the bid and maintain the 3-yr O&M incremental funding, NRCS and OCPR request O&M incremental funding in the amount of $361,690.
Additionally, NRCS and OCPR request an O&M Budget increase of $199,451.
Supporting documents are attached.

Please provide your concurrence, non-concurrence, and/or comments via email on whether or not you recommend Task Force Fax Vote approval on the request for an O&M Budget increase of $199,451, and incremental funding in the amount of $361,690 for the CS-20 Project.

Since this is a time sensitive request, please submit your final response by Tuesday, December 29, 2009.

Thanks,

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

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

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

-----Original Message-----
From: Paul, Britt - Alexandria, LA [mailto:britt.paul@la.usda.gov]
Sent: Wednesday, December 16, 2009 10:36 AM
To: Goodman, Melanie L MVN; Wandell, Scott F MVN
Cc: Kinler, Quin - Baton Rouge, LA; 'patrickl@dnr.state.la.us'; 'KIRKR@dnr.state.la.us'; 'David.Burkholder@LA.GOV'
Subject: Fw: CS-20 O&M Tech Comm Fax Vote Request

Melanie,
Please submit this fax vote to the Tech Committee.
Thanks,

Britt

Sent using BlackBerry

_____

From: Kinler, Quin - Baton Rouge, LA
To: Paul, Britt - Alexandria, LA
Sent: Wed Dec 16 07:56:43 2009
Subject: CS-20 O&M Tech Comm Fax Vote Request

Britt:

OCPR has concurred with the following Tech Comm fax vote motion:

East Mud Lake (CS-20) Operation and Maintenance Current Funding Increase and Total Approved Budget Increase. At the October Task Force Meeting, $155,304 was returned from the CS-20 O&M Budget to the CWPPRA Program. Since that time, OCPR has received bids for non-storm related maintenance activities.
To award the bid and maintain the 3-yr 0&M funding, NRCS and OCPR request O&M incremental funding in the amount of $361,690. Additionally, NRCS and OCPR request an O&M Total Approved Budget (total life budget) increase of $199,451.

The supporting documents are attached.

Please call to discuss if you get a chance. I'll be in the office until noon today, then available on cell phone (225-413-1382).

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Quin

Wandell, Scott F MVN

From: Darryl_Clark@fws.gov
Sent: Monday, January 04, 2010 3:48 PM
To: Goodman, Melanie L MVN
Cc: Bren.Haase@LA.GOV; britt.paul@la.usda.gov; Cecelia.Linder@noaa.gov; Chris.Allen@LA.GOV; Crawford.Brad@epamail.epa.gov; Cynthia.duet@gov.state.la.us; David.Burkholder@LA.GOV; Lachin, Donna A MVN; Browning, Gay B MVN; John Jurgensen; Jerome Zeringue (jzee@tlcd.org); Kaspar.Paul@epamail.epa.gov; Kelley.Templet@LA.GOV; Kevin_Roy@fws.gov; KIRKR@dnr.state.la.us; kirk.rhinehart@la.gov; Wingate, Mark R MVN; Kinsey, Mary V MVN; Goodman, Melanie L MVN; patrickl@dnr.state.la.us; Kinler, Quin - Baton Rouge, LA; Rodi, Rachel MVN; rachel.sweeney@noaa.gov; renee.sanders@la.gov; Richard.Hartman@noaa.gov; Wandell, Scott F MVN; Teague.Kenneth@epamail.epa.gov; Holden, Thomas A MVN; Creel, Travis J MVN; PatrickL@dnr.state.la.us; Troy.Mallach@la.usda.gov
Subject: Re: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

Follow Up Flag: Follow up
Flag Status: Red

Attachments: pic30145.gif; graycol.gif; ecblank.gif

pic30145.gif (1 KB) graycol.gif (169 B) ecblank.gif (109 B)

Melanie and the TC,

The FWS concurs with the NRCS/OCPR request for a total O&M budget increase of $199,451 and an incremental increase of $361,690 which was had been included in earlier requests.

Darryl

Inactive hide details for "Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>

"Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>

12/16/2009 03:25 PM

To

<Cecelia.Linder@noaa.gov>, <britt.paul@la.usda.gov>, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>, <Crawford.Brad@epamail.epa.gov>, "Creel, Travis J MVN" <Travis.J.Creel@usace.army.mil>, "Darryl Clark" <darryl_clark@fws.gov>, "Goodman, Melanie L MVN" <Melanie.L.Goodman@usace.army.mil>, "Holden, Thomas A MVN" <Thomas.A.Holden@usace.army.mil>, <Kaspar.Paul@epamail.epa.gov>, "Kinsey, Mary V MVN" <Mary.V.Kinsey@usace.army.mil>, <kirk.rhinehart@la.gov>, "Lachin, Donna A MVN" <Donna.A.Lachin@usace.army.mil>, <Richard.Hartman@noaa.gov>, "Rodi, Rachel MVN" <Rachel.Rodi@usace.army.mil>, <Teague.Kenneth@epamail.epa.gov>, "Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>, "Wingate, Mark R MVN" <Mark.R.Wingate@usace.army.mil>

cc

"Kinler, Quin - Baton Rouge, LA" <quin.kinler@la.usda.gov>, <patrickl@dnr.state.la.us>, <KIRKR@dnr.state.la.us>, <David.Burkholder@LA.GOV>, "Wandell, Scott F MVN" <Scott.F.Wandell@usace.army.mil>, "Browning, Gay B MVN" <Gay.B.Browning@usace.army.mil>, <Chris.Allen@LA.GOV>, <Bren.Haase@LA.GOV>, <Cynthia.duet@gov.state.la.us>, "Jerome Zeringue (jzee@tlcd.org)" <jzee@la.gov>, "John Jurgensen" <john.jurgensen@la.usda.gov>, "Kelley.Templet@LA.GOV" <kelley.templet@la.gov>, <Kevin_Roy@fws.gov>, <rachel.sweeney@noaa.gov>, <renee.sanders@la.gov>

Subject

CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

Technical Committee, NRCS and OCPR are requesting Task Force Fax Vote approval for an O&M budget increase in the amount of $199,451, and incremental funding approval in the amount of $361,690 for the East Mud Lake Marsh Management Project (CS-20).

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Since this is a time sensitive request, please submit your final response by Tuesday, December 29, 2009.

Thanks,

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

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

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

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Sent: Wednesday, December 16, 2009 10:36 AM
To: Goodman, Melanie L MVN; Wandell, Scott F MVN
Cc: Kinler, Quin - Baton Rouge, LA; 'patrickl@dnr.state.la.us'; 'KIRKR@dnr.state.la.us'; 'David.Burkholder@LA.GOV'
Subject: Fw: CS-20 O&M Tech Comm Fax Vote Request

Melanie,
Please submit this fax vote to the Tech Committee.
Thanks,

Britt

Sent using BlackBerry

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Sent: Wed Dec 16 07:56:43 2009
Subject: CS-20 O&M Tech Comm Fax Vote Request

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Quin

[attachment "CS-20 Proposed OM Budget Adjustment Template Dec 2009 rev to show return of funds.xls" deleted by Darryl Clark/R4/FWS/DOI] [attachment "CS-20 O&M Funding Request Fact Sheet 15Dec09.doc" deleted by Darryl Clark/R4/FWS/DOI] [attachment "CS-20_synopsis_12_16_2009.doc" deleted by Darryl Clark/R4/FWS/DOI]

Wandell, Scott F MVN

From: Goodman, Melanie L MVN
Sent: Wednesday, January 06, 2010 4:34 PM
To: Goodman, Melanie L MVN; ' (Cecelia.Linder@noaa.gov)'; 'britt.paul@la.usda.gov'; Browning, Gay B MVN; 'Crawford.Brad@epamail.epa.gov'; Creel, Travis J MVN; 'Darryl Clark'; Holden, Thomas A MVN; 'Kaspar.Paul@epamail.epa.gov'; Kinsey, Mary V MVN; 'kirk.rhinehart@la.gov'; Lachin, Donna A MVN; 'Richard.Hartman@noaa.gov'; Rodi, Rachel MVN; 'Teague.Kenneth@epamail.epa.gov'; Wandell, Scott F MVN; Wingate, Mark R MVN
Cc: 'Kinler, Quin - Baton Rouge, LA'; 'patrickl@dnr.state.la.us'; 'KIRKR@dnr.state.la.us'; 'David.Burkholder@LA.GOV'; Wandell, Scott F MVN; Browning, Gay B MVN; ' (Chris.Allen@LA.GOV)'; 'Bren Haas (Bren.Haase@LA.GOV)'; 'Cynthia.duet@gov.state.la.us'; 'Jerome Zeringue (jzee@tlcd.org)'; 'John Jurgensen'; 'Kelley.Templet@LA.GOV'; 'Kevin_Roy@fws.gov'; 'rachel.sweeney@noaa.gov'; 'renee.sanders@la.gov'
Subject: RE: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

Follow Up Flag: Follow up
Flag Status: Red

Attachments: RE: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase; Re: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase; RE: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase; RE: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

RE: CWPPRA East Mud Lake Marsh... | Re: CWPPRA East Mud Lake Marsh... | RE: CWPPRA East Mud Lake Marsh... | RE: CWPPRA East Mud Lake Marsh...

We have received responses from all agencies except NMFS, on the request for Task Force Fax Vote approval for an O&M budget increase in the amount of $199,451, and incremental funding approval in the amount of $361,690 for the East Mud Lake Marsh Management Project (CS-20). All responses received were affirmative. As such, we will proceed with requesting Task Force Fax Vote approval.

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US Army Corps of Engineers
New Orleans District
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Quin

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Sent: Friday, January 15, 2010 6:01 PM
To: Goodman, Melanie L MVN; ' (Cecelia.Linder@noaa.gov)'; 'britt.paul@la.usda.gov'; Browning, Gay B MVN; 'Crawford.Brad@epamail.epa.gov'; Creel, Travis J MVN; 'Darryl Clark'; Holden, Thomas A MVN; 'Kaspar.Paul@epamail.epa.gov'; Kinsey, Mary V MVN; 'kirk.rhinehart@la.gov'; Lachin, Donna A MVN; 'Richard.Hartman@noaa.gov'; Rodi, Rachel MVN; 'Teague.Kenneth@epamail.epa.gov'; Wandell, Scott F MVN; Wingate, Mark R MVN
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Subject: RE: CWPPRA East Mud Lake Marsh Management Project (CS-20) Task Force Fax Vote Request for O&M Funding Increase

Technical Committee, due to technical difficulties, in lieu of a Task Force fax vote, the subject request and Technical Committee recommendation will be added as an additional item on the Task Force meeting agenda.

Thanks,

Melanie

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Quin

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

REQUEST FOR PUBLIC COMMENTS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

ANNOUNCEMENT: PRIORITY PROJECT LIST 20 REGIONAL PLANNING TEAM MEETINGS

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
February 24, 2010	10:00 a.m.	RPT Voting Meeting	Baton Rouge

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TASK FORCE MEETING

JANUARY 20, 2010

ANNOUNCEMENT: DATE OF UPCOMING CWPPRA PROGRAM MEETING

The Technical Committee meeting will be held April 20, 2010 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

TASK FORCE MEETING

JANUARY 20, 2010

ANNOUNCEMENT: SCHEDULED DATES OF FUTURE PROGRAM MEETINGS

2010

April 20, 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.	PPL 20 Public Meeting	Abbeville
November 17, 2010	7:00 p.m.	PPL 20 Public Meeting	New Orleans
December 1, 2010	9:30 a.m.	Technical Committee	Baton Rouge