

ATTENDANCE RECORD



| DATE(S) | SPONSORING ORGANIZATION | LOCATION |
|------------------|---------------------------------------|--|
| January 16, 2008 | COASTAL WETLANDS PLANNING, PROTECTION | LA Dept. of Wildlife & Fisheries 2000 Quail Drive |
| 9:30 A.M. | AND RESTORATION ACT | Baton Rouge, LA |
| | | Louisiana Room |

PURPOSE

MEETING OF THE CWPPRA TECHNICAL COMMITTEE

| NAME | PARTICIPANT REGISTER* JOB TITLE AND ORGANIZATION | TELEPHONE NUMBER |
|------------------|---|------------------|
| Kenneth Teague | EPA environmental scients | 214-665-6687 |
| Brad Crowlad | EPA | 2146657255 |
| Duin Kinler | NRCS | 225-382-2047 |
| Edmond Mouton | LOWF | 337,373,0032 |
| Kenneth Bahline | DNA | 225 342-7362 |
| Thim Landers | FPA | 214-665-6608 |
| MARYER MORIMAG | Hausmines Parish Gov + | 501.9125913 |
| P.J. HAHN | PLAQUEMINER PARICH GOUT. | 504286-5679 |
| DAN LLEWELLYN | DNR | 225-347-5169 |
| Knude Vister | 154 | 225-578 6377 |
| Jeff Hill | NOAA | 225 389 0508 |
| Benry Roussell | LN. DNR | 225-329 3552 |
| CHAPLES KILLIRAS | 20- DNR | 225-342-14714 |
| Cecelia Linder | Noma | 301 713 0174 XI |
| WHN FORET | NOAA | 334.291.2107 |
| Susan Hill | LIDUR | 225. 342.1359 |
| Summer Martin | LONR | 225-342-1594 |
| MIKE CARLOSS | LDWF | 337. 373-0033 |
| Kon Dowtan | NRCS | 337-291-3067 |
| OLAND BROUSSARD | NRCS | 337-291-3069 |
| LAYTON BRELAND | LONR/CED | 225-342-6749 |
| Kelley Templet | LONR | 342-1592 |

LMV FORM 583-R JAN 88 * If you wish to be furnished a copy of the attendance record, please indicate so next to your name.



ATTENDANCE RECORD



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| | | LA Dept. of Wildlife & Fisheries |
| January 16, 2008 | COASTAL WETLANDS PLANNING, PROTECTION | 2000 Quail Drive |
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PURPOSE

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| | PARTICIPANT REGISTER* | |
|-------------------|--------------------------------------|------------------|
| NAME | JOB TITLE AND ORGANIZATION | TELEPHONE NUMBER |
| Rence Sanders | LONR-CRD | 225-342-9432 |
| Karin & Kheiashy | KBR | 504-841-0078 |
| Brad Winkler | KBR | 504-841-0077 |
| Sharin Parnish | EPA | 214_665.7275 |
| Jan PORTHOUSE | HALCROW | 225-298-1327 |
| JOHN Stablier | Sil. | 725.5718804 |
| David Cagnolath | Conoco Phillips | 225-344-3201 |
| Tim ALLEN | APACHE LOUISISMS MINERMS | 985-879-3528 |
| DAORAL CLAPA | USFWS | 337-791 3111 |
| Keula Ron | USFWS | 337-29/-3/20 |
| Vicholas Mathem | Pernits Coordinator - LARDPARISM CZM | 985-632-4666 |
| Ismail Mechi | DNR-PM | 225-342-4127 |
| Jue Cancienne | T+ | 383 1780 |
| Brad Miller | LONR | 342-4122 |
| Dain Gillen | LDNR | 342-6307 |
| Whitney The mpson | LDNR-CED | 342-9419 |
| Biannon | LANA CEP | 312-7427 |
| HEATHER FINZEY | LDNF | 225.765.2956 |
| DOHN ETTINGER | EPA | 509 862-1115 |
| Lames Miller | terrebonne CZM | 985-5RE-8145 |
| Maura Wood | Matranal Widle Federation | 225-205-281 |
| KayNall | alt | 205-292-1400 |

LMV FORM 583-R JAN 88 If you wish to be furnished a copy of the attendance record, please indicate so next to your name.



ATTENDANCE RECORD



DATE(S)

SPONSORING ORGANIZATION

January 16, 2008 9:30 A.M.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

LOCATION LA Dept. of Wildlife & Fisheries 2000 Quail Drive Baton Rouge, LA Louisiana Room

PURPOSE

MEETING OF THE CWPPRA TECHNICAL COMMITTEE

| | PARTICIPANT REGISTER* | |
|-----------------|---|------------------|
| NAME | JOB TITLE AND ORGANIZATION | TELEPHONE NUMBER |
| JOH HIED | MOFFATT-NICHOL, BR | 225 927 7723 |
| The Harrer | Coastal science - Eagle ENV | 225-252-287 |
| HNCIL TAYLOR | BEAN | 504 587 8700 |
| Kairen Foster | Battelle | 225-767-4718 |
| Jack Calhum | Solf | 225-9266257 |
| BOR SCHROOTH | FENSTERNAL BR | 504-582-2201 |
| MARK FORD | CRCL | 225-767-4181 |
| Leslie Anazo | TPCG - KNOWOR tpcg. Org | 985-813-6889 |
| Vickie Du Houre | SCI/Jeff Prini | 304-347-3606 |
| Judge Edwards | Vermilian Conservation/Parish | 337.893-0268 |
| Mel Landy | BTNEP | 985-447-0868 |
| Kerry St Pé | BTNEP | 985-447-0868 |
| ONEIR MHUBROUGH | SHAW / Jefferson Ply | 985-868-3434 |
| Marrie Winer | Jefferson Parish | 504-736-6440 |
| Emily Campbell | ConocoPhillips | 504-415-3568 |
| Travis Cred | USACE | 504-862-1071 |
| Michael Turner | DNR | 225-342-4861 |
| | | |
| | | 10 (5.4.2) |
| | | |
| | | |
| LMV FORM 583-R | * If you wish to be furnished a copy of the attendance record | |

LMV FORM 583-R JAN 88 * If you wish to be furnished a copy of the attendance record, please indicate so next to your name.

BREAUX ACT

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

AGENDA

January 16, 2008 9:30 a.m.

Location:

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

Documentation of Task Force and Technical Committee meetings may be found at: http://www.mvn.usace.army.mil/pd/cwppra mission.htm

Tab Number

Agenda Item

- 1. Status of Breaux Act Program Funds and Projects (Gay Browning, USACE/Melanie Goodman, USACE) 9:30 a.m. to 9:40 a.m. Ms. Gay Browning and Ms. Melanie Goodman will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.
- 2. Report: PPL -14 South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41) Fax Vote (Melanie Goodman, USACE) 9:40 a.m. to 9:50 a.m. The Natural Resources Conservation Service and Louisiana Department of Natural Resources requested Task Force Fax Vote approval for a change in project scope and project construction cost for the PPL-14 South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41). The Task Force approved the Technical Committee's recommendation to approve the requested change, which includes increasing the net wetland benefits from 116 acres to 211 acres, and increasing the total fully funded project cost estimate by approximately 69%, from \$17.5 million to \$29.6 million.
- 3. Report: PPL -13 Whiskey Island Back Barrier Marsh Creation Project (TE-50) Fax Vote (Melanie Goodman, USACE) 9:50 a.m. to 10:00 a.m. The U.S. Environmental Protection Agency (EPA) and Louisiana Department of Natural Resources (LDNR) requested Task Force Fax Vote approval for a change in project scope and total cost for the PPL 13 -Whiskey Island Back Barrier Marsh Creation Project (TE-50). The Task Force approved the Technical Committee's recommendation to approve the requested change, which includes a 48 acre dune feature gulfward of the originally approved marsh creation feature. This change in project scope would result in an increase in the net wetland benefits from 300 acres to 316 acres. The fully-funded project cost estimate increased from \$21,786,300 to \$27,914,086, which exceeds the original estimate by 28%.

- **4.** Decision: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding (Troy Constance, USACE) 10:00 a.m. to 11:45 a.m. The Technical Committee will consider requests for Phase II authorization and approval of Phase II Increment 1 funding of projects on PPLs 9 through 15, for recommendation to the Task Force. Due to limited funding, the Technical Committee will recommend a list of projects to the Task Force for Phase II authorization and Increment 1 funding within available program construction funding limits. Each project listed in the below table will be discussed individually by its sponsoring agency, Technical Committee members, and the general public in the following format:
 - a. Agency presentation on individual projects (5 minutes max)
 - b. Technical Committee questions and comments on individual projects
 - c. Public comments on individual projects (Comments should be limited to 1-2 minutes)

Following presentations and discussion on individual projects, the Technical Committee will vote to rank all projects to aid in deciding which ones to recommend to the Task Force for Phase II authorization and approval of Increment 1 funding.

| Agency | Project No. | Tdd | Project Name | Construction Start Date | Phase II Total Cost | Phase II Incr. 1 Funding Request | Acres Benefited Over 20 Years | Prioritization Score | 30% Design Review Meeting Date | 95% Design Review Meeting Date |
|--------|-------------|-----|---|----------------------------|-------------------------|---|----------------------------------|-------------------------|---|---|
| NMFS | AT-04 | 9 | Castille Pass Channel Sediment Delivery | Jun 08 | \$29,805,573 | \$18,478,789 | 577 | 55.0 | 20 Jan 04 | 30 Nov 05 |
| NRCS | TE-39 | 9 | South Lake DeCade-CU 1 | Aug 08 | \$4,553,195 | \$3,040,013 | 202 | 57.6 | 19 Jul 04 | 2 Sep 04 |
| NRCS | BA-27c(3) | 9 | Barataria Basin Landbridge, Phase 3 – CU 7 | Aug 08 | \$31,178,603 | \$25,891,625 | 180 | 40.8 | 20 Aug 03 | 3 Sep 04 |
| NRCS | TE-43 | 10 | GIWW Bank Restoration of Critical Areas in Terre Ph | Aug 08 | \$12,801,403 | \$10,934,322 | 79 | 31.4 | 21 Jan 03 | 26 Aug 04 |
| NRCS | TE-48-B | 11 | Raccoon Island Shoreline Protection – CU 2 | Aug 08 | \$9,370,020 | \$9,182,101 | 55 | 47.0 | 24 Oct 07 | 19 Dec 07 |
| NRCS | BA-41 | 14 | South Shore of the Pen | Aug 08 | \$27,895,603 | \$26,106,598 | 211 | 50.2 | 18 Oct 07 | 12 Dec 07 |
| EPA | BA-39 | 12 | Bayou Dupont Marsh Creation | Apr 08 | \$26,150,144 | \$25,875,686 | 326 | 43.5 | 11 Jul 07 | 7 Nov 07 |
| EPA | TE-47 | 11 | Ship Shoal: Whiskey Island West Flank Rest | May 08 | \$48,111,734 | \$47,962,959 | 195 | 60.0 | 5 Oct 04 | 28 Sep 05 |
| EPA | TE-50 | 13 | Whiskey Island Back Barrier Marsh Creation | May 08 | \$25,159,197 | \$24,883,209 | 272 | 63.0 | 28 Aug 07 | 7 Nov 07 |
| COE | TV-11b | 9 | Freshwater Bayou Bank Stabilization-Belle Isle Canal- Lock | Apr 08 | \$37,060,994 | \$33,411,651 | 241 | 42.5 | 27 Jun 02 | 22 Jan 04 |
| COE | PO-32a | 12 | Lake Borgne MRGO Shoreline Protection, Lake Borgne Segment (O&M only) | started | \$15,900,357 | \$10,470,627 | <u>1*</u> | 42.7 | 11 Aug 04 | 29 Mar 05 |
| | | | | | | | | | | |

^{*}The acre number is a place holder pending a revised WVA to determine benefits of O&M only.

- 5. Discussion: Status of Unconstructed Projects (Melanie Goodman, USACE) 11:45 a.m. to 12:00 p.m. The P&E Subcommittee will report on the status of unconstructed CWPPRA projects that have been experiencing project delays. Discussions will include the status on milestones and the Technical Committee may discuss and recommend to the Task Force potential directions to take on the following projects:
 - a. West Point a la Hache Outfall Management Project (BA-04c), PPL-3, NRCS
 - b. Brown Lake Hydrologic Restoration Project (CS-09), PPL-2, NRCS
 - c. Periodic Introduction of Sediment and Nutrients at Selected Diversion Sites Demonstration Project (MR-11), PPL-9, USACE
 - d. Mississippi River Sediment Trap Project (MR-12), PPL-12, USACE
 - e. Benney's Bay Diversion Project (MR-13), PPL-10, USACE
- 6. Additional Agenda Items (Troy Constance, USACE) 12:00 p.m. to 12:05 p.m.
- 7. Request for Public Comments (Troy Constance, USACE) 12:05 p.m. to 12:10 p.m.
- 8. Announcement: Priority Project List 18 Regional Planning Team Meetings (Melanie Goodman, USACE) 12:10 p.m. to 12:15 p.m.

| February 19, 2008 | 1:00 p.m. | RPT Region IV | Rockefeller Refuge |
|-------------------|-----------|----------------|--------------------|
| February 20, 2008 | 9:00 a.m. | RPT Region III | Morgan City |
| February 21, 2008 | 9:00 a.m. | RPT Region II | New Orleans |
| February 21, 2008 | 1:00 p.m. | RPT Region I | New Orleans |

9. Announcement: Date of Upcoming CWPPRA Program Meetings (Melanie Goodman, USACE) 12:15 p.m. to 12:20 p.m. The next Task Force meeting will be held February 13, 2008 at 9:30 a.m. at the LA Department of Wildlife and Fisheries, Louisiana Room, 2000 Quail Dr., Baton Rouge, LA.

2000

10. Announcement: Scheduled Dates of Future Program Meetings (Melanie Goodman, USACE) 12:20 p.m. to 12:25 p.m.

| | | 2008 | |
|--------------------|-----------|----------------------------|--------------------|
| January 16, 2008 | 9:30 a.m. | Technical Committee | Baton Rouge |
| February 13, 2008 | 9:30 a.m. | Task Force | Baton Rouge |
| February 19, 2008 | 1:00 p.m. | RPT Region IV | Rockefeller Refuge |
| February 20, 2008 | 9:00 a.m. | RPT Region III | Morgan City |
| February 21, 2008 | 9:00 a.m. | RPT Region II | New Orleans |
| February 21, 2008 | 1:00 p.m. | RPT Region I | New Orleans |
| March 5, 2008 | 9:30 a.m. | Coast-wide RPT Voting | Baton Rouge |
| April 16, 2008 | 9:30 a.m. | Technical Committee | New Orleans |
| May 21, 2008 | 9:30 a.m. | Task Force | Lafayette |
| September 10, 2008 | 9:30 a.m. | Technical Committee | Baton Rouge |
| October 15, 2008 | 9:30 a.m. | Task Force | Baton Rouge |
| November 18, 2008 | 7:00 p.m. | PPL 18 Public Meeting | Abbeville |
| November 19, 2008 | 7:00 p.m. | PPL 18 Public Meeting | New Orleans |
| December 3, 2008 | 9:30 a.m. | Technical Committee | Baton Rouge |
| | | | |
| | | 2009 | |
| January 21, 2009 | 9:30 a.m. | Task Force | Baton Rouge |
| Adjourn | | | |

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT TECHNICAL COMMITTEE MEETING

January 16, 2008

STATUS OF BREAUX ACT PROGRAM FUNDS AND PROJECTS

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

| Potential Construction Program Funding Requests for 13 January 2008 Technical Committee | 008 Technical Com | mittee | | 9 Jan 2008 |
|---|-------------------|----------------|------------------|-------------------|
| | Total | TC? Fed | Non-Fed | TC Recommendation |
| Funds Available: | | | | |
| Funds Available, 9 Jan 2008 (including estimated FY08 cost allocation) | \$74,235,076 | | | |
| Total | \$74,235,076 | 3 | \$0 \$74,235,076 | |
| Agenda Item 1: Status of Breaux Act Funds: | | | | |
| Column left blank in case TC wants to "set aside" funds for construction cost increases | | | 0\$ 0\$ | 0\$ |
| Total | 0\$ | | 0\$ 0\$ | |
| Agenda Item 4: Request for Phase II Authorization and Phase II Increment 1 Funding | nding | | | |
| Castille Pass Channel Sediment Delivery (AT-04) [PPL 9] | \$18,478,789 | \$15,706,971 | 1 \$2,771,818 | \$0 |
| South Lake DeCade - CU1 (TE-39) [PPL 9] | \$3,040,013 | \$2,584,011 | 1 \$456,002 | \$0 |
| Barataria Basin Landbridge, Phase 3 - CU 7 (BA-27c(3)) [PPL 9] | \$25,891,625 | \$22,007,881 | \$3,883,744 | \$0 |
| GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43) [PPL 10] | \$10,934,322 | \$9,294,174 | 4 \$1,640,148 | \$0 |
| Raccoon Island Shoreline Protection - CU 2 (TE-48-B) [PPL 11] | \$9,182,101 | у \$7,804,786 | \$1,377,315 | \$9,182,101 |
| South Shore of the Pen Shoreline Protection & Marsh Creation (BA-41) [PPL 14] | \$26,106,598 | \$22,190,608 | \$3,915,990 | \$0 |
| Bayou Dupont Sediment Delivery System (BA-39) [PPL 12] | \$25,875,686 | у \$21,994,333 | \$3,881,353 | \$25,875,686 |
| Ship Shoal: Whiskey West Flank Restoration (TE-47) [PPL 11] | \$47,962,959 | \$40,768,515 | 5 \$7,194,444 | \$0 |
| Whiskey Island Back Barrier Marsh Creation (TE-50) [PPL 13] | \$24,883,209 | у \$21,150,728 | \$3,732,481 | \$24,883,209 |
| Freshwater Bayou Bank Stabilization-Belle Isle Canal-Lock (TV-11b) [PPL 9] | \$33,411,651 | \$28,399,903 | 13 \$5,011,748 | \$0 |
| Lake Borgne-MRGO SP, Lake Borgne Segment (O&M Only) (PO-32a) [PPL 12] | \$10,470,628 | \$9,423,565 | \$1,047,063 | \$0 |
| Total | \$236,237,581 | \$201,325,475 | 5 \$34,912,106 | |
| | | | | |
| January 2008 Potential Approvals | \$236,237,581 | | | \$59,940,996 |
| Available Funds Surplus/(Shortage) | | | | \$14,294,080 |

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT TECHNICAL COMMITTEE MEETING

January 16, 2008

PPL -14 SOUTH SHORE OF THE PEN SHORELINE PROTECTION AND MARSH CREATION PROJECT (BA-41) FAX VOTE

For Report:

The Natural Resources Conservation Service and Louisiana Department of Natural Resources requested Task Force Fax Vote approval for a change in project scope and project construction cost for the PPL-14 South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41). The Task Force approved the Technical Committee's recommendation to approve the requested change, which includes increasing the net wetland benefits from 116 acres to 211 acres, and increasing the total fully funded project cost estimate by approximately 69%, from \$17.5 million to 29.6 million.

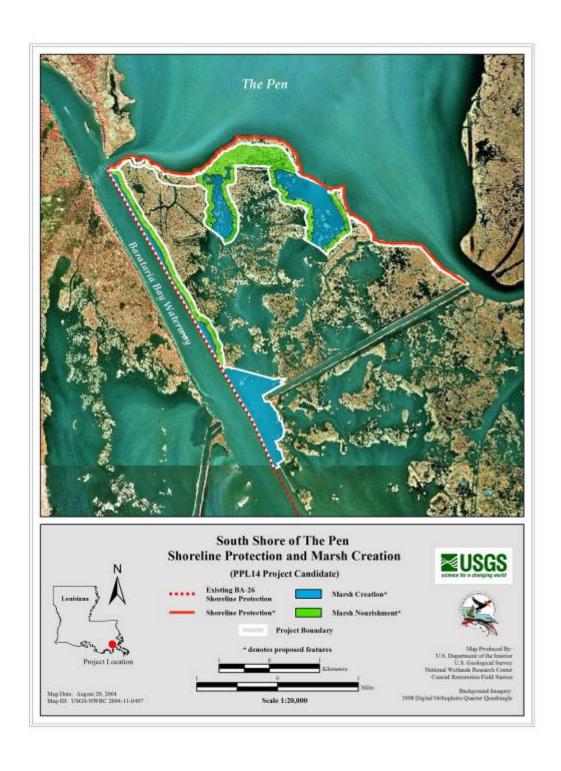


Figure 1. Original project boundary for South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41).

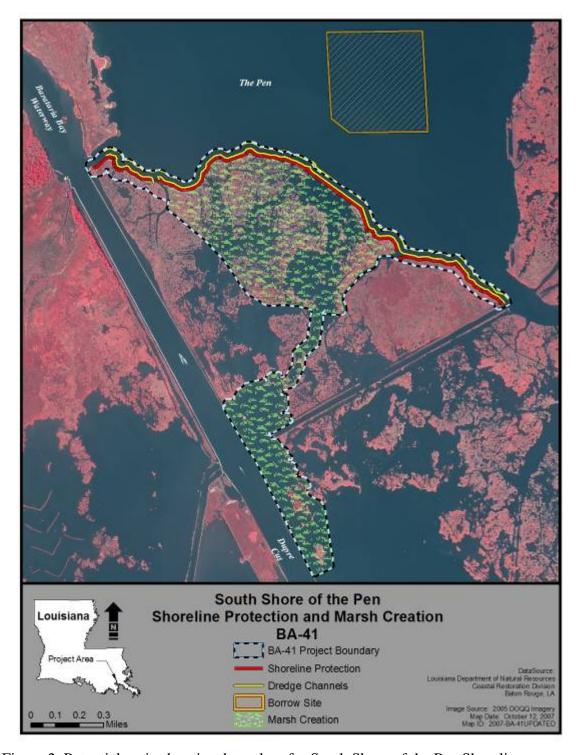


Figure 2. Potential revised project boundary for South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41).

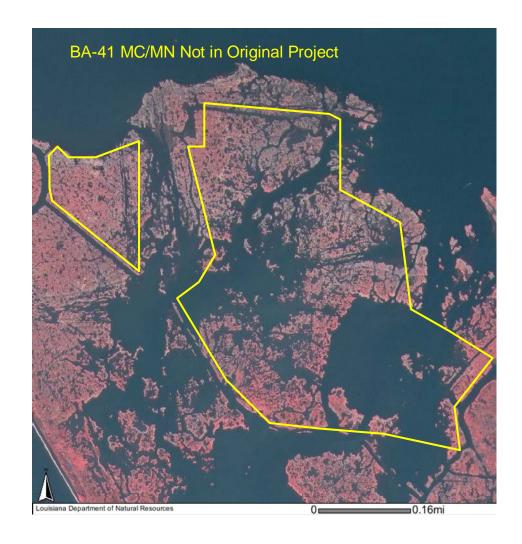


Figure 3. Area that would be excluded from marsh creation / marsh nourishment with original South Shore of the Pen Shoreline Protection and Marsh Creation Project (BA-41).

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT TECHNICAL COMMITTEE MEETING

January 16, 2008

PPL -13 WHISKEY ISLAND BACK BARRIER MARSH CREATION PROJECT (TE-50) FAX VOTE

For Report:

The U.S. Environmental Protection Agency (EPA) and Louisiana Department of Natural Resources (LDNR) requested Task Force Fax Vote approval for a change in project scope and total cost for the PPL 13 -Whiskey Island Back Barrier Marsh Creation Project (TE-50). The Task Force approved the Technical Committee's recommendation to approve the requested change, which includes a 48 acre dune feature gulfward of the originally approved marsh creation feature. This change in project scope would result in an increase in the net wetland benefits from 300 acres to 316 acres. The fully-funded project cost estimate increased from \$21,786,300 to \$27,914,086, which exceeds the original estimate by 28%.

Louisiana Coastal Wetlands Conservation and Restoration Task Force

Cost figures as of: November 2007 Text Revision Date: June 2004

Whiskey Island Back Barrier Marsh Creation (TE-50)

Project Status

Approved Date:2004Project Area:1,038 acresApproved Funds:\$2.29 MTotal Est. Cost:\$27.50 M

Net Benefit after 20 Years: 272 acres Status:Engineering and Design

Project Type: Marsh Creation, Barrier Island Restoration

Location

Whiskey Island, which is one of five islands that make up the Isles Dernieres barrier island chain, is located 18 miles southwest of Cocodrie in Terrebonne Parish, Louisiana. The island is surrounded by Coupe Colin to the west, Whiskey Pass to the east, Lake Pelto, Caillou Boca, and Caillou Bay to the north, and the Gulf of Mexico to the south.



In this aerial view of Whiskey Island facing north, the island's Gulf of Mexico shoreline, as well as its back barrier marsh, is visible.

Problems

Gulfside and bayside erosion has resulted in the narrowing of Whiskey Island (and the entire Isles Dernieres chain) as the two shorelines migrate toward each other, resulting in a 68% decrease in average width for the Isles Dernieres. Within 100 years, the entire subaerial portion of the Isles Dernieres barrier island system is expected to disappear except for small land fragments associated with the western end of Whiskey Island and the eastern end of East Island; however, with some estimates, the Isles Dernieres are projected to disappear much earlier, in 2017. Other predictions suggest that, without restoration, the island will become subaqueous sand shoals between 2007 and 2019.

Another CWPPRA restoration project, Whiskey Island Restoration (TE-27) - which included dredging and placement of dredge material, vegetative planting, and sand fencing - was completed there in June 2000.

Restoration Strategy

The goal of this project is to increase the longevity of the previously restored and natural portions of the island by increasing the island's width. Increasing the island's width will help to retain sand volume and elevation. Approximately 300 acres of intertidal, back barrier marsh will be created by semiconfined disposal and placement of dredged material. The dredged material is expected to come from a sediment source near the island. A minimum of six 1-acre tidal ponds and 10,000 feet of tidal creeks will be constructed. The area will be planted with smooth cordgrass (*Spartina alterniflora*), a native marsh plant valued for its ability to colonize and protect fragile marsh soil.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for engineering and design at the January 2004 Task Force meeting.

This project is on Priority Project List 13.

For more project information, please contact:



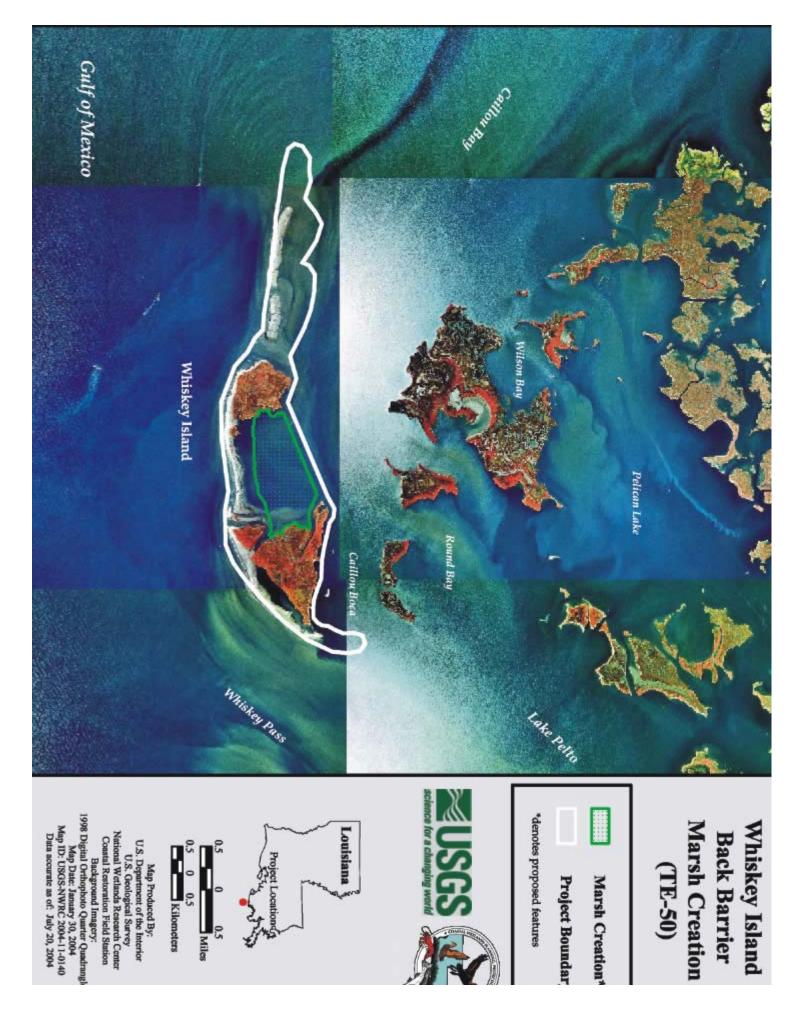
Federal Sponsor: Environmental Protection Agency Baton Rouge, LA (214) 665-6722

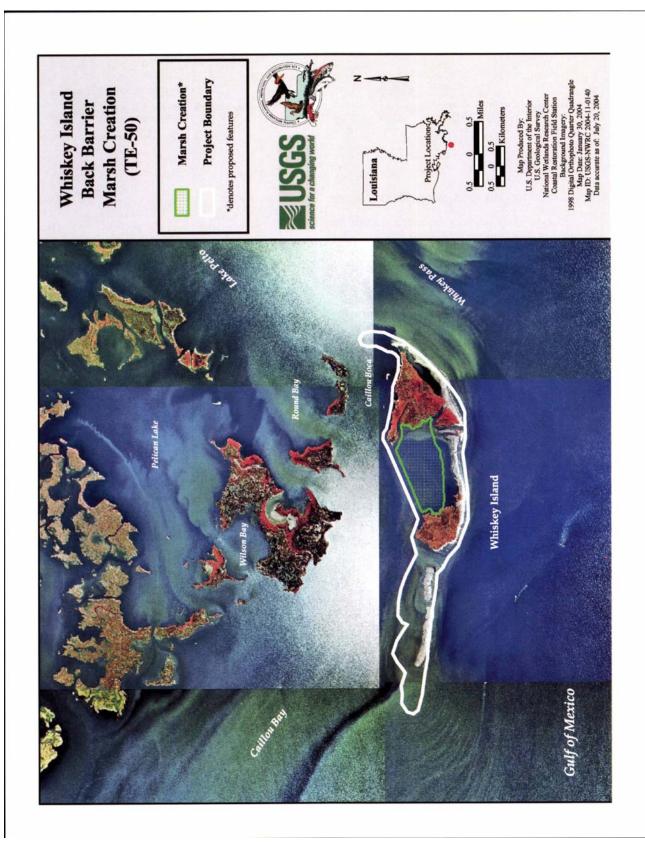


Local Sponsor:Louisiana Department of Natural Resources

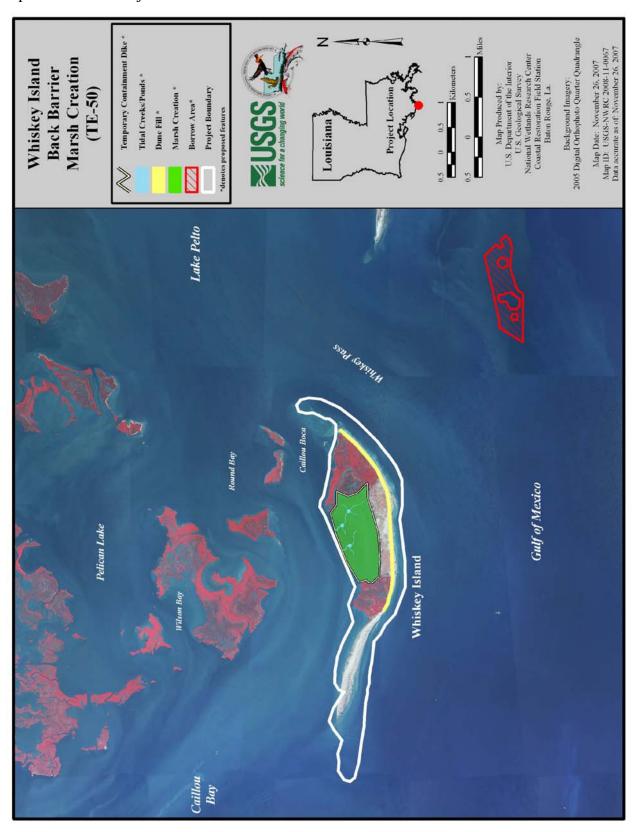
Baton Rouge, LA (225) 342-7308

www.LaCoast.gov





Proposed Revised Project



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

January 16, 2008

REQUEST FOR PHASE II AUTHORIZATION AND APPROVAL OF PHASE II INCREMENT 1 FUNDING

For Decision:

The Technical Committee will consider requests for Phase II authorization and approval of Phase II Increment 1 funding of projects on PPLs 9 through 15, for recommendation to the Task Force. Due to limited funding, the Technical Committee will recommend a list of projects to the Task Force for Phase II authorization and Increment 1 funding within available program construction funding limits. Each project listed in the below table will be discussed individually by its sponsoring agency, Technical Committee members, and the general public in the following format:

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Following presentations and discussion on individual projects, the Technical Committee will vote to rank all projects to aid in deciding which ones to recommend to the Task Force for Phase II authorization and approval of Increment 1 funding.

| Agency | Project No. | PPL | Project Name | Construction Start Date | Phase II Total Cost | Phase II Incr. 1 Funding Request | Acres Benefited Over 20 Years | Prioritization Score | 30% Design Review Meeting Date | 95% Design Review Meeting Date |
|--------|-------------|-----|--|----------------------------|------------------------|--|----------------------------------|-------------------------|--------------------------------------|--------------------------------------|
| NMFS | AT-04 | 9 | Castille Pass Channel Sediment Delivery | Jun 08 | \$29,805,573 | \$18,478,789 | 577 | 55.0 | 20 Jan 04 | 30 Nov 05 |
| NRCS | TE-39 | 9 | South Lake DeCade-CU 1 | Aug 08 | \$4,553,195 | \$3,040,013 | 202 | 57.6 | 19 Jul 04 | 2 Sep 04 |
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| EPA | BA-39 | 12 | Bayou Dupont Marsh Creation | Apr 08 | \$26,150,144 | \$25,875,686 | 326 | 43.5 | 11 Jul 07 | 7 Nov 07 |
| EPA | TE-47 | 11 | Ship Shoal: Whiskey Island West Flank Rest | May 08 | \$48,111,734 | \$47,962,959 | 195 | 60.0 | 5 Oct 04 | 28 Sep 05 |
| EPA | TE-50 | 13 | Whiskey Island Back Barrier Marsh Creation | May 08 | \$25,159,197 | \$24,883,209 | 272 | 63.0 | 28 Aug 07 | 7 Nov 07 |
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| COE | PO-32a | 12 | Lake Borgne-MRGO Shoreline Protection, Lake Borgne Segment (O&M only) | started | \$15,900,357 | \$10,470,627 | 1* | 42.7 | 11 Aug 04 | 29 Mar 05 |
| | | | | | | | | | | |

^{*}The acre number is a place holder pending a revised WVA to determine benefits of O&M only.

CWPPRA, Phase II Approval Forecast for February 2008 - Status of Project Milestones

Updated: 9 January 2008

| | Agency | Proj No. | PPL | Project | Request for Phase II Approval | Construction Start | Total Fully Funded Estimate | Phase II Total Estimate | Phase II Incr 1 Funding Rqst* | 30% Design Review Meeting Date | 95% Design Review Meeting Date | Percent (%) Likelihood to Request Phase II Funds in Feb 2008*** |
|----|--------|-----------|---|--|-------------------------------------|-----------------------|-----------------------------------|-------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---|
| 1 | NMFS | AT-04 | 9 | Castille Pass Channel Sediment Delivery | Feb-08 | Jun-08 | 31,651,899 | \$29,805,573 | \$18,478,789 | 20 Jan 04 (A) | 13 Oct 05 (A) | R 100% |
| 2 | NRCS | TE-39 | 9 | South Lake DeCade - CU 1 | Feb-08 | Aug-08 | 5,223,806 | \$4,553,195 | \$3,040,013 | 19 Jul 04 (A) | 2 Sep 04 (A) | R 100% |
| 3 | NRCS | BA-27c(3) | 9 | Barataria Basin Landbridge, Phase 3 - CU 7 | Feb-08 | Aug-08 | 31,274,833 | \$31,178,603 | \$25,891,625 | 20 Aug 03 (A) | 2 Sep 04 (A) | R 100% |
| 4 | NRCS | TE-43 | 10 | GIWW Bank Restoration of Critical Areas in Terrebonne | Feb-08 | Aug-08 | 14,537,386 | \$12,801,403 | \$10,934,322 | 21 Jan 03 (A) | 26 Aug 04 (A) | R 100% |
| 5 | NRCS | TE-48-2 | 11 | Raccoon Island Shoreline Protection - CU 2 | Feb-08 | Aug-08 | \$10,204,827 | \$9,370,020 | \$9,182,101 | 24 Oct 07 (A) | 19 Dec 07 (A) | 100% |
| 6 | NRCS | BA-41 | 14 | South Shore of the Pen | Feb-08 | Aug-08 | 29,206,749 | \$27,895,603 | \$26,106,598 | 18 Oct 07 (A) | 12 Dec 07 (A) | 100% |
| 7 | EPA | BA-39 | 12 | Bayou Dupont Marsh Creation | Feb-08 | May-08 | 28,881,365 | \$26,150,144 | \$25,875,686 | 11 Jul 07 (A) | 7 Nov 07 (A) | 100% |
| 8 | EPA | TE-47 | 11 | Ship Shoal: Whiskey West Flank Restoration | Feb-08 | May-08 | 51,853,787 | \$48,111,734 | \$47,962,959 | 5 Oct 04 (A) | 28 Sep 05 (A) | R 100% |
| 9 | EPA | TE-50 | 13 | Whiskey Island Back Barrier M.C. | Feb-08 | Apr-08 | 27,914,086 | \$25,159,197 | \$24,883,209 | 28 Aug 07 (A) | 7 Nov 07 (A) | 100% |
| 10 | COE | TV-11b | 9 | Freshwater Bayou Bank Stab-Belle Isle Canal-Loc | Feb-08 | Apr-08 | 38,559,962 | \$37,060,994 | \$33,411,651 | 27 Jun 02 (A) | 22 Jan 04 (A) | R 100% |
| 11 | COE | PO-32a | 12 | Lake Borgne & MRGO Shoreline Prot - Lake Borgne O&M | Feb-08 | In Const | 17,248,702 | \$15,900,357 | \$10,470,628 | 11 Aug 04 (A) | 29 Mar 05 (A) | R 100% |
| , | | | 27c(3) 9 Barataria Basin Landbridge, Phase 3 - CU E-43 10 GIWW Bank Restoration of Critical Areas in Terrebonne E-48-2 11 Raccoon Island Shoreline Protection - CU : A-41 14 South Shore of the Pen A-39 12 Bayou Dupont Marsh Creation E-47 11 Ship Shoal: Whiskey West Flank Restoration E-50 13 Whiskey Island Back Barrier M.C. In the Marsh Creation Ship Shoal: Whiskey West Flank Restoration In the Marsh Creation Ship Shoal: Whiskey West Flank Restoration In the Marsh Creation Ship Shoal: Whiskey West Flank Restoration Ship Shoal: Whiskey Barrier M.C. In the Marsh Creation Ship Shoal: Whiskey West Flank Restoration Ship Shoal: Whiskey Barrier M.C. | | | | \$286,557,402 | \$267,986,823 | \$236,237,581 | | | |

^{*} Amount may change based upon updates to fully funded cost estimates

^{**} Lake Borgne segment of the Lake Borgne & MRGO Shoreline Protection Project constructed udner Corps MRGO O&M funding

^{*** &}quot;R" indicates a repeat request for Phase II funding (Phase II funding was requested in a prior year)

⁽A) = Actual Date

⁽S) = Scheduled/Announced Date

⁽T) = Tentative Date (not yet announced)

CWPPRA - Prioritization Scores for Projects Seeking Phase 2 Approval Dated: January 7, 2007 Prepared for January 16, 2008 Technical Committee Meeting

| 1 | | | | | | | | | | | | | | | | |
|---------|---|---|---|--|--|--|---|---|--|--|---|--|--|--|--|--|
| | | | | | | | | | | | | | | | Total | |
| | | | | | Total | (1) | Cost | Cost | Area of | Implement- | Certainty | | HGM Riverine | HGM Sediment | HGM Structure | Weighte |
| Project | | | Lead | Project | Acres | Current | Per Acre | Effective | Need | ability | of Benefits | Sustainability | Input | Input | and Function | Score |
| Number | Region | PPL | Agency | Type | Benefited | Estimate | (\$/acre) | 20% | 15% | 15% | 10% | 10% | 10% | 10% | 10% | 100% |
| AT-04 | 3 | 9 | NMFS | SD | 577 | \$31,651,899 | \$54,856 | 5 | 1 | 7 | 8 | 10 | 10 | 0 | 5 | 55.0 |
| TE-39 | 3 | 9 | NRCS | SP | 202 | \$5,223,806 | \$25,860 | 7.5 | 4.4 | 10 | 8 | 8 | 0 | 0 | 5 | 57.6 |
| BA-27c | 2 | 9 | NRCS | SP | 180 | \$31,274,833 | \$173,749 | 1 | 2.5 | 10 | 8 | 2 | 0 | 0 | 10 | 40.8 |
| TE-43 | 3 | 10 | NRCS | SP | 79 | \$14,537,386 | \$184,018 | 1 | 2.9 | 10 | 8 | 2 | 0 | 0 | 0 | 31.4 |
| TE-48-2 | 3 | 11 | NRCS | ВІ | 55 | \$10,204,827 | \$185,542 | 1 | 1.3 | 10 | 7 | 6 | 0 | 5 | 10 | 47.0 |
| BA-41 | 2 | 14 | NRCS | SP/MC | 211 | \$29,206,749 | \$138,421 | 2.5 | 5.9 | 10 | 7.3 | 4 | 0 | 0 | 10 | 50.2 |
| BA-39 | 2 | 12 | EPA | MC | 326 | \$28,881,365 | \$88,593 | 2.5 | 5 | 10 | 7 | 4 | 0 | 5 | 0 | 43.5 |
| TE-47 | 3 | 11 | EPA | ВІ | 195 | \$51,853,787 | \$265,917 | 1 | 10 | 10 | 7 | 1 | 0 | 10 | 10 | 60.0 |
| TE-50 | 3 | 13 | EPA | ВІ | 272 | \$27,914,086 | \$102,625 | 2.5 | 10 | 10 | 7 | 1 | 0 | 10 | 10 | 63.0 |
| TV-11b | 3 | 9 | COE | SP | 241 | \$38,559,962 | \$160,000 | 1 | 5 | 10 | 10 | 8 | 0 | 0 | 0 | 42.5 |
| PO-32a | 1 | 12 | COE | SP | 1 | \$17.248.702 | \$17.248.702 | 1 | 5.8 | 10 | 8 | 4 | 0 | 0 | 5 | 42.7 |
| | Project Number AT-04 TE-39 BA-27c TE-43 TE-48-2 BA-41 BA-39 TE-47 TE-50 TV-11b | Project Number Region AT-04 3 TE-39 3 BA-27c 2 TE-43 3 TE-48-2 3 BA-41 2 BA-39 2 TE-47 3 TE-50 3 TV-11b 3 | Project Number Region PPL AT-04 3 9 TE-39 3 9 BA-27c 2 9 TE-43 3 10 TE-48-2 3 11 BA-39 2 12 TE-47 3 11 TE-50 3 13 TV-11b 3 9 | Project Number Region PPL Lead Agency AT-04 3 9 NMFS TE-39 3 9 NRCS BA-27c 2 9 NRCS TE-43 3 10 NRCS TE-48-2 3 11 NRCS BA-41 2 14 NRCS BA-39 2 12 EPA TE-47 3 11 EPA TE-50 3 13 EPA | Project Number Region PPL Agency Lead Type Project Type AT-04 3 9 NMFS SD TE-39 3 9 NRCS SP BA-27c 2 9 NRCS SP TE-43 3 10 NRCS SP TE-48-2 3 11 NRCS BI BA-41 2 14 NRCS SP/MC BA-39 2 12 EPA MC TE-47 3 11 EPA BI TE-50 3 13 EPA BI TV-11b 3 9 COE SP | Project Number Region PPL Lead Agency Project Type C2 Total Acres Benefited AT-04 3 9 NMFS SD 577 TE-39 3 9 NRCS SP 202 BA-27c 2 9 NRCS SP 180 TE-43 3 10 NRCS SP 79 TE-48-2 3 11 NRCS BI 55 BA-41 2 14 NRCS SP/MC 211 BA-39 2 12 EPA MC 326 TE-47 3 11 EPA BI 195 TE-50 3 13 EPA BI 272 TV-11b 3 9 COE SP 241 | Project Number Region PPL Lead Agency Project Type Current Acres Benefited Current Estimate AT-04 3 9 NMFS SD 577 \$31,651,899 TE-39 3 9 NRCS SP 202 \$5,223,806 BA-27c 2 9 NRCS SP 180 \$31,274,833 TE-43 3 10 NRCS SP 79 \$14,537,386 TE-48-2 3 11 NRCS BI 55 \$10,204,827 BA-41 2 14 NRCS SP/MC 211 \$29,206,749 BA-39 2 12 EPA MC 326 \$28,881,365 TE-47 3 11 EPA BI 195 \$51,853,787 TE-50 3 13 EPA BI 272 \$27,914,086 TV-11b 3 9 COE SP 241 \$38,559,962 | Project Number Region PPL Lead Agency Project Type Current Benefited Current Estimate Current (\$/acre) AT-04 3 9 NMFS SD 577 \$31,651,899 \$54,856 TE-39 3 9 NRCS SP 202 \$5,223,806 \$25,860 BA-27c 2 9 NRCS SP 180 \$31,274,833 \$173,749 TE-43 3 10 NRCS SP 79 \$14,537,386 \$184,018 TE-48-2 3 11 NRCS BI 55 \$10,204,827 \$185,542 BA-41 2 14 NRCS SP/MC 211 \$29,206,749 \$138,421 BA-39 2 12 EPA MC 326 \$28,881,365 \$88,593 TE-47 3 11 EPA BI 195 \$51,853,787 \$265,917 TE-50 3 13 EPA BI 272 \$27,914,086 \$102,625 | Project Number Region PPL Lead Agency Project Type Cost Effective Benefited Current Estimate Per Acre (\$/acre) Cost Effective Effective Estimate AT-04 3 9 NMFS SD 577 \$31,651,899 \$54,856 5 TE-39 3 9 NRCS SP 202 \$5,223,806 \$25,860 7.5 BA-27c 2 9 NRCS SP 180 \$31,274,833 \$173,749 1 TE-43 3 10 NRCS SP 79 \$14,537,386 \$184,018 1 TE-48-2 3 11 NRCS BI 55 \$10,204,827 \$185,542 1 BA-41 2 14 NRCS SP/MC 211 \$29,206,749 \$138,421 2.5 BA-39 2 12 EPA MC 326 \$28,881,365 \$88,593 2.5 TE-47 3 11 EPA BI 195 \$51,853,787 \$265,917 <td< td=""><td>Project Number Region PPL Lead Agency Type Type Benefited Benefited Current Estimate Cost Effective (%/acre) Cost Effective (Need 15% Need 15% AT-04 3 9 NMFS SD 577 \$31,651,899 \$54,856 5 1 TE-39 3 9 NRCS SP 202 \$5,223,806 \$25,860 7.5 4.4 BA-27c 2 9 NRCS SP 180 \$31,274,833 \$173,749 1 2.5 TE-43 3 10 NRCS SP 79 \$14,537,386 \$184,018 1 2.9 TE-48-2 3 11 NRCS BI 55 \$10,204,827 \$185,542 1 1.3 BA-41 2 14 NRCS SP/MC 211 \$29,206,749 \$138,421 2.5 5.9 BA-39 2 12 EPA MC 326 \$28,88</td><td> Project Project Project Number Region PPL Lead Project Acres Type Benefited Estimate Estimate (\$\frac{1}{2}\) (\$\f</td><td> Project Project Project Project Project Project Region PPL Agency Type Benefited Estimate Per Acre Estimate Estimate Per Acre Estimate Estimate Per Acre Estimate Estimate Per Acre Estimate Estim</td><td> Project Proj</td><td> Project Number Region PPL Lead Project Lead Number Region PPL Agency Region PPL Region Region PPL Region Region PPL Region PPL Region Region PPL Region Region PPL Region PPL Region Region Region PPL Region Region Region Region PPL Region Region Region Region Region PPL Region Regi</td><td> Project Number Region PPL Lead Project Agency Total Project Number Region PPL Agency Region Region Region PPL Agency Region Region Region PPL Agency Region Reg</td><td> Project Region PPL Agency Agency Agency Agency Project Number Region PPL Agency Region PPL Agency Agency Total Acres Current Agency Total Acres Current Agency Total Acres Current Estimate Estimat</td></td<> | Project Number Region PPL Lead Agency Type Type Benefited Benefited Current Estimate Cost Effective (%/acre) Cost Effective (Need 15% Need 15% AT-04 3 9 NMFS SD 577 \$31,651,899 \$54,856 5 1 TE-39 3 9 NRCS SP 202 \$5,223,806 \$25,860 7.5 4.4 BA-27c 2 9 NRCS SP 180 \$31,274,833 \$173,749 1 2.5 TE-43 3 10 NRCS SP 79 \$14,537,386 \$184,018 1 2.9 TE-48-2 3 11 NRCS BI 55 \$10,204,827 \$185,542 1 1.3 BA-41 2 14 NRCS SP/MC 211 \$29,206,749 \$138,421 2.5 5.9 BA-39 2 12 EPA MC 326 \$28,88 | Project Project Project Number Region PPL Lead Project Acres Type Benefited Estimate Estimate (\$\frac{1}{2}\) (\$\f | Project Project Project Project Project Project Region PPL Agency Type Benefited Estimate Per Acre Estimate Estimate Per Acre Estimate Estimate Per Acre Estimate Estimate Per Acre Estimate Estim | Project Proj | Project Number Region PPL Lead Project Lead Number Region PPL Agency Region PPL Region Region PPL Region Region PPL Region PPL Region Region PPL Region Region PPL Region PPL Region Region Region PPL Region Region Region Region PPL Region Region Region Region Region PPL Region Regi | Project Number Region PPL Lead Project Agency Total Project Number Region PPL Agency Region Region Region PPL Agency Region Region Region PPL Agency Region Reg | Project Region PPL Agency Agency Agency Agency Project Number Region PPL Agency Region PPL Agency Agency Total Acres Current Agency Total Acres Current Agency Total Acres Current Estimate Estimat |

| Project No. | Project | LDNR | COE | EPA | FWS | NMFS | NRCS | No. of Agency Votes | Sum of Weighte Score |
|-------------|--|---|---|---|---|---|---|---|---|
| AT-04 | Castille Pass Channel Sediment Delivery | | | | | | | 0 | 0 |
| TE-39 | South Lake DeCade Freshwater Introduction - CU1 | | | | | | | o | 0 |
| BA-27c(3) | Barataria Basin Landbridge, Phase 3 - CU 7 | 1 | | | | | | 0 | 0 |
| TE-43 | GIWW Bank Restoration of Critical Areas in Terrebonne | Z | | | | | | 0 | 0 |
| TE-48-B | Raccoon Island Shoreline Protection/Marsh Creation - Phase B | 4 | | | | | | 0 | 0 |
| BA-41 | South Shore of the Pen Shoreline Protection and Marsh Creation | 3 | | | | | | 0 | 0 |
| BA-39 | Bayou Dupont Sediment Delivery System | 6 | | | | | | 0 | 0 |
| TE-47 | Ship Shoal: Whiskey Island West Flank Restoration | | | | | | 1 | 0 | 0 |
| TE-50 | Whiskey Island Back barrier Marsh Creation | 5 | | | | | | 0 | 0 |
| TV-11b | Freshwater bayou Bank Stabilization-Belle Isle Canal-Lock | | | | | | | 0 | 0 |
| | AT-04 TE-39 BA-27c(3) TE-43 TE-48-B BA-41 BA-39 TE-47 TE-50 | AT-04 Castille Pass Channel Sediment Delivery TE-39 South Lake DeCade Freshwater Introduction - CU1 BA-27c(3) Barataria Basin Landbridge, Phase 3 - CU 7 TE-43 GIWW Bank Restoration of Critical Areas in Terrebonne TE-48-B Raccoon Island Shoreline Protection/Marsh Creation - Phase B BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation BA-39 Bayou Dupont Sediment Delivery System TE-47 Ship Shoal: Whiskey Island West Flank Restoration TE-50 Whiskey Island Back barrier Marsh Creation | AT-04 Castille Pass Channel Sediment Delivery TE-39 South Lake DeCade Freshwater Introduction - CU1 BA-27c(3) Barataria Basin Landbridge, Phase 3 - CU 7 TE-43 GIWW Bank Restoration of Critical Areas in Terrebonne TE-48-B Raccoon Island Shoreline Protection/Marsh Creation - Phase B BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation BA-39 Bayou Dupont Sediment Delivery System TE-47 Ship Shoal: Whiskey Island West Flank Restoration TE-50 Whiskey Island Back barrier Marsh Creation | AT-04 Castille Pass Channel Sediment Delivery TE-39 South Lake DeCade Freshwater Introduction - CU1 BA-27c(3) Barataria Basin Landbridge, Phase 3 - CU 7 TE-43 GIWW Bank Restoration of Critical Areas in Terrebonne TE-48-B Raccoon Island Shoreline Protection/Marsh Creation - Phase B BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation BA-39 Bayou Dupont Sediment Delivery System TE-47 Ship Shoal: Whiskey Island West Flank Restoration TE-50 Whiskey Island Back barrier Marsh Creation | AT-04 Castille Pass Channel Sediment Delivery TE-39 South Lake DeCade Freshwater Introduction - CU1 BA-27c(3) Barataria Basin Landbridge, Phase 3 - CU 7 TE-43 GIWW Bank Restoration of Critical Areas in Terrebonne TE-48-B Raccoon Island Shoreline Protection/Marsh Creation - Phase B BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation BA-39 Bayou Dupont Sediment Delivery System TE-47 Ship Shoal: Whiskey Island West Flank Restoration TE-50 Whiskey Island Back barrier Marsh Creation | AT-04 Castille Pass Channel Sediment Delivery TE-39 South Lake DeCade Freshwater Introduction - CU1 BA-27c(3) Barataria Basin Landbridge, Phase 3 - CU 7 TE-43 GIWW Bank Restoration of Critical Areas in Terrebonne TE-48-B Raccoon Island Shoreline Protection/Marsh Creation - Phase B BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation BA-39 Bayou Dupont Sediment Delivery System TE-47 Ship Shoal: Whiskey Island West Flank Restoration TE-50 Whiskey Island Back barrier Marsh Creation | AT-04 Castille Pass Channel Sediment Delivery TE-39 South Lake DeCade Freshwater Introduction - CU1 BA-27c(3) Barataria Basin Landbridge, Phase 3 - CU 7 TE-43 GIWW Bank Restoration of Critical Areas in Terrebonne TE-48-B Raccoon Island Shoreline Protection/Marsh Creation - Phase B BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation BA-39 Bayou Dupont Sediment Delivery System TE-47 Ship Shoal: Whiskey Island West Flank Restoration TE-50 Whiskey Island Back barrier Marsh Creation | AT-04 Castille Pass Channel Sediment Delivery TE-39 South Lake DeCade Freshwater Introduction - CU1 BA-27c(3) Barataria Basin Landbridge, Phase 3 - CU 7 TE-43 GIWW Bank Restoration of Critical Areas in Terrebonne TE-48-B Raccoon Island Shoreline Protection/Marsh Creation - Phase B BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation BA-39 Bayou Dupont Sediment Delivery System TE-47 Ship Shoal: Whiskey Island West Flank Restoration TE-50 Whiskey Island Back barrier Marsh Creation | Project No. Project LDNR COE EPA FWS NMFS NRCS Votes AT-04 Castille Pass Channel Sediment Delivery TE-39 South Lake DeCade Freshwater Introduction - CU1 BA-27c(3) Barataria Basin Landbridge, Phase 3 - CU 7 TE-43 GIWW Bank Restoration of Critical Areas in Terrebonne TE-48-B Raccoon Island Shoreline Protection/Marsh Creation - Phase B BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation BA-39 Bayou Dupont Sediment Delivery System TE-47 Ship Shoal: Whiskey Island West Flank Restoration TE-50 Whiskey Island Back barrier Marsh Creation |

No. of votes: 0 0 0 0 0 0 0 0 Sum of Votes: 0 0 0 0 0 0 0

- 1. Each agency represented in the Technical Committee will be provided one ballot for voting.
- 2. Each agency represented in the Technical Committee will cast weighted votes for 6 projects. All votes must be used.
- 3. Weighted scores will be assigned the values of 6, 5, 4, 3, 2, and 1 with 6 being highest and 1 being the lowest ranking.
- 4. Projects are ranked first by the number of agency votes received (to determine level of agency consensus/support for individual projects, and then by "Sum" of the weighted score (on next page).
- 5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

| PPL | Project No. | Project | LONR | COE | EPA | FWS | NMFS | NRCS | No. of Agency Votes | Sum of Weighte Score |
|-----|-------------|--|------|-----|-----|-----|------|------|------------------------|----------------------------|
| 9 | AT-04 | Castille Pass Channel Sediment Delivery | | | | | | | 0 | 0 |
| 9 | TE-39 | South Lake DeCade Freshwater Introduction - CU1 | | 1 | | | | | 0 | 0 |
| 9 | BA-27c(3) | Barataria Basin Landbridge, Phase 3 - CU 7 | | Z | | | | | 0 | 0 |
| 10 | TE-43 | GIWW Bank Restoration of Critical Areas in Terrebonne | | | | | | | 0 | 0 |
| 11 | TE-48-B | Raccoon Island Shoreline Protection/Marsh Creation - Phase B | | 3 | | | | | 0 | 0 |
| 14 | BA-41 | South Shore of the Pen Shoreline Protection and Marsh Creation | | | | | | | 0 | 0 |
| 12 | BA-39 | Bayou Dupont Sediment Delivery System | | 5 | | | | | 0 | 0 |
| 11 | TE-47 | Ship Shoal: Whiskey Island West Flank Restoration | | 4 | | | | | 0 | 0 |
| 13 | TE-50 | Whiskey Island Back barrier Marsh Creation | | 6 | | | | | 0 | 0 |
| 9 | TV-11b | Freshwater bayou Bank Stabilization-Belle Isle Canal-Lock | | | | | | | 0 | 0 |

- 1. Each agency represented in the Technical Committee will be provided one ballot for voting.
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| PPL | Project No. | Project | LDNR | COE | EPA | FWS | NMFS | NRCS | No. of Agency Votes | Sum of Weighte Score |
|-----|-------------|--|------|-----|-----|-----|------|------|------------------------|----------------------------|
| 9 | AT-04 | Castille Pass Channel Sediment Delivery | | | 2 | | | | 0 | 0 |
| 9 | TE-39 | South Lake DeCade Freshwater Introduction - CU1 | | | | | | = | 0 | 0 |
| 9 | BA-27c(3) | Barataria Basin Landbridge, Phase 3 - CU 7 | | | 10 | | | | 0 | 0 |
| 10 | TE-43 | GIWW Bank Restoration of Critical Areas in Terrebonne | | | 1. | | | | 0 | 0 |
| 11 | TE-48-B | Raccoon Island Shoreline Protection/Marsh Creation - Phase B | | | 3 | | | | 0 | 0 |
| 14 | BA-41 | South Shore of the Pen Shoreline Protection and Marsh Creation | | | | | | | 0 | 0 |
| 12 | BA-39 | Bayou Dupont Sediment Delivery System | | | 6 | | | | 0 | 0 |
| 11 | TE-47 | Ship Shoal: Whiskey Island West Flank Restoration | | | 84 | | | | 0 | 0 |
| 13 | TE-50 | Whiskey Island Back barrier Marsh Creation | | | 5 | | | | 0 | 0 |
| 9 | TV-11b | Freshwater bayou Bank Stabilization-Belle Isle Canal-Lock | | | | | | | 0 | 0 |

No. of votes: 0 0 0 0 0 0 0 0 Sum of Votes: 0 0 0 0 0 0

- 1. Each agency represented in the Technical Committee will be provided one ballot for voting.
- 2. Each agency represented in the Technical Committee will cast weighted votes for 6 projects. All votes must be used.
- 3, Weighted scores will be assigned the values of 6, 5, 4, 3, 2, and 1 with 6 being highest and 1 being the lowest ranking,
- 4. Projects are ranked first by the number of agency votes received (to determine level of agency consensus/support for individual projects, and then by "Sum" of the weighted score (on next page).
- 5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

| PPL | Project No. | Project | LDNR | COE | EPA | FWS | NMFS | NRCS | No. of Agency Votes | Sum of Weighter Score |
|-----|-------------|--|------|-----|-----|-----|------|------|------------------------|-----------------------------|
| 9 | AT-04 | Castille Pass Channel Sediment Delivery | | | | 5 | | | 0 | 0 |
| 9 | TE-39 | South Lake DeCade Freshwater Introduction - CU1 | | | | 4 | | | 0 | 0 |
| 9 | BA-27c(3) | Barataria Basin Landbridge, Phase 3 - CU 7 | | | | 1 | | | 0 | 0 |
| 10 | TE-43 | GIWW Bank Restoration of Critical Areas in Terrebonne | | | | | | | 0 | 0 |
| 11 | TE-48-B | Raccoon Island Shoreline Protection/Marsh Creation - Phase B | | | | 3 | | | 0 | 0 |
| 14 | BA-41 | South Shore of the Pen Shoreline Protection and Marsh Creation | | | | 6 | | | 0 | 0 |
| 12 | BA-39 | Bayou Dupont Sediment Delivery System | | | | 2 | | | 0 | 0 |
| 11 | TE-47 | Ship Shoal: Whiskey Island West Flank Restoration | | | | | | | 0 | 0 |
| 13 | TE-50 | Whiskey Island Back barrier Marsh Creation | | | | | | | 0 | 0 |
| 9 | TV-11b | Freshwater bayou Bank Stabilization-Belle Isle Canal-Lock | | | | | | | 0 | 0 |

Sum of Votes:

- 1. Each agency represented in the Technical Committee will be provided one ballot for voting
- 2. Each agency represented in the Technical Committee will cast weighted votes for 6 projects. All votes must be used.
- 3. Weighted scores will be assigned the values of 6, 5, 4, 3, 2, and 1 with 6 being highest and 1 being the lowest ranking.
- 4. Projects are ranked first by the number of agency votes received (to determine level of agency consensus/support for individual projects, and then by "Sum" of the weighted score (on next page).
- 5, This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

| PPL | Project No. | Project | LDNR | COE | EPA | FWS | NMFS | NRCS | No. of Agency Votes | Sum of Weighter Score |
|-----|-------------|--|------|-----|-----|-----|------|------|------------------------|-----------------------------|
| 9 | AT-04 | Castille Pass Channel Sediment Delivery | | | | | 4 | | 0 | 0 |
| 9 | TE-39 | South Lake DeCade Freshwater Introduction - CU1 | | y s | | | 2 | | 0 | 0 |
| 9 | BA-27c(3) | Barataria Basin Landbridge, Phase 3 - CU 7 | | | | | | | 0 | 0 |
| 10 | TE-43 | GIWW Bank Restoration of Critical Areas in Terrebonne | | | | | | | 0 | 0 |
| 11 | TE-48-B | Raccoon Island Shoreline Protection/Marsh Creation - Phase B | | | | | 1 | | 0 | 0 |
| 14 | BA-41 | South Shore of the Pen Shoreline Protection and Marsh Creation | | | | | 3 | | 0 | 0 |
| 12 | BA-39 | Bayou Dupont Sediment Delivery System | | | | | 6 | | 0 | 0 |
| 11 | TE-47 | Ship Shoal: Whiskey Island West Flank Restoration | | | | | | | 0 | 0 |
| 13 | TE-50 | Whiskey Island Back barrier Marsh Creation | | | | | 5 | | 0 | 0 |
| 9 | TV-11b | Freshwater bayou Bank Stabilization-Belle Isle Canal-Lock | | | | | | | 0 | 0 |

- 1 Each agency represented in the Technical Committee will be provided one ballot for voting
- 2. Each agency represented in the Technical Committee will cast weighted votes for 6 projects. All votes must be used.
- 3. Weighted scores will be assigned the values of 6, 5, 4, 3, 2, and 1 with 6 being highest and 1 being the lowest ranking.
- 4. Projects are ranked first by the number of agency votes received (to determine level of agency consensus/support for individual projects, and then by "Sum" of the weighted score (on next page).
- 5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

| PPL | Project No. | Project | LDNR | COE | EPA | FWS | NMFS | NRCS | No. of Agency Votes | Sum of Weighter Score |
|-----|-------------|--|------|-----|-----|-----|------|------|------------------------|-----------------------------|
| 9 | AT-04 | Castille Pass Channel Sediment Delivery | | | | | | 1 | 0 | 0 |
| 9 | TE-39 | South Lake DeCade Freshwater Introduction - CU1 | | | | | | 2 | 0 | 0 |
| 9 | BA-27c(3) | Barataria Basin Landbridge, Phase 3 - CU 7 | - 1 | -1 | | | | 3 | 0 | 0 |
| 10 | TE-43 | GIWW Bank Restoration of Critical Areas in Terrebonne | | | | | | | 0 | 0 |
| 11 | TE-48-B | Raccoon Island Shoreline Protection/Marsh Creation - Phase B | | | | | | 6 | 0 | 0 |
| 14 | BA-41 | South Shore of the Pen Shoreline Protection and Marsh Creation | | | | | | 5 | 0 | 0 |
| 12 | BA-39 | Bayou Dupont Sediment Delivery System | | | | | | 4 | 0 | 0 |
| 11 | TE-47 | Ship Shoal: Whiskey Island West Flank Restoration | | | | | | | 0 | 0 |
| 13 | TE-50 | Whiskey Island Back barrier Marsh Creation | | | | | | | 0 | 0 |
| 9 | TV-11b | Freshwater bayou Bank Stabilization-Belle Isle Canal-Lock | | | | | | | 0 | 0 |

Sum of Votes:

- 1, Each agency represented in the Technical Committee will be provided one ballot for voting
- 2. Each agency represented in the Technical Committee will cast weighted votes for 6 projects. All votes must be used.
- 3. Weighted scores will be assigned the values of 6, 5, 4, 3, 2, and 1 with 6 being highest and 1 being the lowest ranking.
- 4. Projects are ranked first by the number of agency votes received (to determine level of agency consensus/support for individual projects, and then by "Sum" of the weighted score (on next page).
- 5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

| PPL | Project No. | Project | LDNR | COE | EPA | FWS | NMFS | NRCS | No. of Agency Votes | Sum of Weighted Score |
|-----|-------------|--|------|-----|-----|-----|------|------|------------------------|-----------------------------|
| 9 | AT-04 | Castille Pass Channel Sediment Delivery | | | 2 | 5 | 4 | 1 | 4 | 12 |
| 9 | TE-39 | South Lake DeCade Freshwater Introduction - CU1 | | 1 | | 4 | 2 | 2 | 4 | 9 |
| 9 | BA-27c(3) | Barataria Basin Landbridge, Phase 3 - CU 7 | 1 | 2 | | 1 | | 3 | 4 | 7 |
| 10 | TE-43 | GIWW Bank Restoration of Critical Areas in Terrebonne | 2 | | 1 | | | | 2 | 3 |
| 11 | TE-48-B | Raccoon Island Shoreline Protection/Marsh Creation - Phase B | 4 | 3 | 3 | 3 | 1 | 6 | 6 | 20 |
| 14 | BA-41 | South Shore of the Pen Shoreline Protection and Marsh Creation | 3 | | | 6 | 3 | 5 | 4 | 17 |
| 12 | BA-39 | Bayou Dupont Sediment Delivery System | 6 | 5 | 6 | 2 | 6 | 4 | 6 | 29 |
| 11 | TE-47 | Ship Shoal: Whiskey Island West Flank Restoration | | 4 | 4 | | | | 2 | 8 |
| 13 | TE-50 | Whiskey Island Back barrier Marsh Creation | 5 | 6 | 5 | | 5 | | 4 | 21 |
| 9 | TV-11b | Freshwater bayou Bank Stabilization-Belle Isle Canal-Lock | | | | | | | 0 | 0 |
| | | No of votors | | | - | | | | | |

No. of votes: 6 6 6 6 6 6 6 Sum of Votes: 21 21 21 21 21 21 21

- 1. Each agency represented in the Technical Committee will be provided one ballot for voting.
- 2. Each agency represented in the Technical Committee will cast weighted votes for 6 projects. All votes must be used.
- 3. Weighted scores will be assigned the values of 6, 5, 4, 3, 2, and 1 with 6 being highest and 1 being the lowest ranking.
- 4. Projects are ranked first by the number of agency votes received (to determine level of agency consensus/support for individual projects, and then by "Sum" of the weighted score (on next page).
- 5. This ranking will be used by the Technical Committee as a "tool" to determine which projects will be recommended to the Task Force for funding, within available funds.

| PPL | Project No. | Project | DNR | COE | EPA | FWS | NMFS | NRCS | No. of Agency Votes | Sum of Weighted Score | Phase II, Increment 1 Funding Request | Cumulative Phase II, Increment 1 Funding | Amt Remaining |
|-----|----------------|--|-----|-----|-----|-----|------|------|---------------------------|-----------------------------|--|--|----------------|
| 12 | BA-39 | Bayou Dupont Sediment Delivery System | 6 | 5 | 6 | 2 | 6 | 4 | 6 | 29 | \$25,875,686 | \$25,875,686 | \$48,359,390 |
| 11 | TE-48-B | Raccoon Island Shoreline Protection/Marsh Creation - Phase B | 4 | 3 | 3 | 3 | 1 | 6 | 6 | 20 | \$9,182,101 | \$35,057,787 | \$39,177,289 |
| 13 | TE-50 | Whiskey Island Back barrier Marsh Creation | 5 | 6 | 5 | | 5 | | 4 | 21 | \$24,883,209 | \$59,940,996 | \$14,294,080 |
| 14 | BA-41 | South Shore of the Pen Shoreline Protection and Marsh Creation | 3 | | | 6 | 3 | 5 | 4 | 17 | \$26,106,598 | \$86,047,594 | -\$11,812,518 |
| 9 | AT-04 | Castille Pass Channel Sediment Delivery | | | 2 | 5 | 4 | 1 | 4 | 12 | \$18,478,789 | \$104,526,383 | -\$30,291,307 |
| 9 | TE-39 | South Lake DeCade Freshwater Introduction - CU1 | | 1 | | 4 | 2 | 2 | 4 | 9 | \$3,040,013 | \$107,566,396 | -\$33,331,320 |
| 9 | BA-27c(3) | Barataria Basin Landbridge, Phase 3 - CU 7 | 1 | 2 | | 1 | | 3 | 4 | 7 | \$25,891,625 | \$133,458,021 | -\$59,222,945 |
| 11 | TE-47 | Ship Shoal: Whiskey Island West Flank Restoration | | 4 | 4 | | | | 2 | 8 | \$47,962,959 | \$181,420,980 | -\$107,185,904 |
| 10 | TE-43 | GIWW Bank Restoration of Critical Areas in Terrebonne | 2 | | 1 | | | | 2 | 3 | \$10,934,322 | \$192,355,302 | -\$118,120,226 |
| 9 | TV-11b | Freshwater bayou Bank Stabilization-Belle Isle Canal-Lock | | | | | | | 0 | 0 | \$33,411,651 | \$225,766,953 | -\$151,531,877 |
| | | • | | | | | | | | | ,,, | \$225,766,953 | -\$151,531,877 |
| Щ | | | | | | | | | | | \$225,766,953 | , ,, ,,,,,,, | -\$151,531,877 |

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)

AT-04 - Castille Pass Channel Sediment Delivery Project





NATIONAL MARINE FISHERIES SERVICE SEFC/Estuarine Habitats & Coastal Fisheries Center 646 Cajundome Boulevard Lafayette, Lousiana 70506

January 10, 2008

Mr. Troy Constance (Acting Chairman) CWPPRA Technical Committee Assistant Chief of Planning, Programs and Projects Management U.S. Army Engineer District, New Orleans P.O. Box 60267 New Orleans, LA 70160-0267

Dear Mr. Constance,

As the lead federal agency for the Castille Pass Sediment Delivery project authorized by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Task Force on the 9th Project Priority List, the National Marine Fisheries Service (NMFS) is requesting, in accordance with CWPPRA's Standard Operating Procedure (SOP), approval to proceed with construction of this project.

At the Phase I approval meeting in January 2000 the project design consisted of dredging Castille Pass 400 feet wide by 10 feet deep (NGVD) extending it eastward towards Fourleague Bay ending near South Point for a total length of approximately 25,000 feet. This channel would have bifurcated several times to provide water and sediment delivery through four channels that were to be 160 feet wide by 10 feet deep totaling 21,500 feet. As designed, this effort was calculated to create 150 acres initially, and 370 acres after 20 years. As presented at the 95% design meeting, the project will now consist of improving four areas of the East Pass Delta Channel. The entrance to East Pass will be widened and the bottom ramped up to enhance diversion of fresh water and sediments from the Atchafalaya River into East Pass. The existing East Pass channel will be widened and deepened from the entrance to the Castille Pass bifurcation. The dredged material will be placed to create new emergent marsh. The existing Natal Channel branch channel will be extended and diked to direct the channel flows toward the southeast into bay bottoms to extend the Delta Lobe building process. The existing Castille Pass branch channel will be extended southeastward into the bay with diking placed to extend the Delta Lobe and build new marsh acreage. Extending the southeast branch exit channel toward the southeast will also reconfigure the mouth of East Pass. A complete dike will be placed along the southwestern channel bank to redirect flows into the shallow bay bottom to create a stillwater cove area enhancing sediment deposition, eventually leading to the creation of emergent marsh in the newly created bay between Castille Pass and the East Pass extension. As presented, the proposed project is expected to create 570 acres of marsh initially, and an additional 150 acres after 20 years.





UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE SEFC/Estuarine Habitats & Coastal Fisheries Center 646 Cajundome Boulevard Lafayette, Lousiana 70506

Attached please find the statement of local sponsor concurrence for construction approval request and brief description of the status of compliance with the various SOP requirements for construction approval. Please do not hesitate to contact me at 301-713-0174 if you have any questions regarding this matter.

Sincerely,

Cecelia Linder NMFS Program Manager

cc:

Melanie Goodman, USACE Sharon Parrish, EPA Patty Taylor, EPA Britt Paul, NRCS John Jurgensen, NRCS Richard Hartman, NMFS Rachel Sweeney, NMFS Gerry M. Duszynski, DNR Daniel Llewellyn, DNR Kenneth Bahlinger, DNR Darryl Clark, USFWS Kevin Roy, USFWS Project File NMFS, Galveston



Castille Pass Sediment Delivery (AT-04) Phase II Funding Request January 2008

1.) Description of Phase One Project

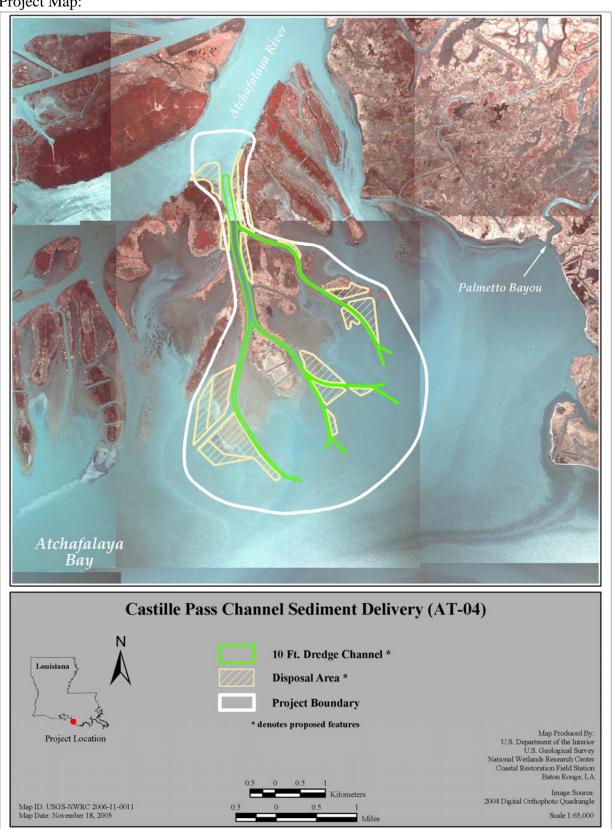
At the Phase I approval meeting in January 2000 the project design consisted of dredging Castille Pass 400 feet wide by 10 feet deep (NGVD) extending it eastward towards Fourleague Bay ending near South Point for a total length of approximately 25,000 feet. This channel would have bifurcated several times to provide water and sediment delivery through four channels that were to be 160 feet wide by 10 feet deep totaling 21,500 feet. As designed, this effort was calculated to create 150 acres initially, and 370 acres after 20 years. Fully funded construction costs were projected to be \$31,084,397 (anticipated costs of construction, O&M, monitoring, etc.)

2.) Overview of Phase One Tasks, Process and Issues

During design, issues incurred were concerns about hydrologic and sedimentation for navigation canals, concern over dredge disposal areas, retention dike materials, and blocking water flow. The revised 95% project configuration is based upon the following design considerations. Minor changes were made between the 30% design channel alignments for East Pass, Natal Pass and Castille Pass. The three cove area configurations created by the extensions of the East, Natal and Castille Passes remain unchanged from the 30% submittal report. Changes were made to the East Pass Extension channel length, width, diking lengths and elevations and alignments between the 30% and final design. The revised design considers only cast earthen dike construction for the channel and disposal area configurations. The computer model was re-run to compare the changes in the East Pass flows, stages and sediment transport, and the contiguous bay areas with and without a dam across the Southwest Branch at the mouth of East Pass. The model results indicated no significant flow or sediment transport benefits either with or without the dam across the Southwest Branch at the mouth of East Pass. As such, this dam was removed from the project.

Landrights were secured from the state without issue. An EA was prepared without issue.

3.) Description of Phase Two Candidate Project Project Map:



Project Features:

As presented at the 30% design meeting, the project will now consist of improving four areas of the East Pass Delta Channel. The entrance to East Pass will be widened and the bottom ramped up to enhance diversion of fresh water and sediments from the Atchafalaya River into East Pass. The existing East Pass channel will be widened and deepened from the entrance to the Castille Pass bifurcation. The dredged material will be placed to create new emergent marsh. The existing Natal Channel branch channel will be extended and diked to direct the channel flows toward the southeast into bay bottoms to extend the Delta Lobe building process. The existing Castille Pass branch channel will be extended southeastwad into the bay with diking placed to extend the Delta Lobe and build new marsh acreage. The mouth of East Pass will also be reconfigured by extending the southeast branch exit channel toward the southeast. A dike will be placed along the southwestern channel bank to redirect flows into the shallow bay bottom to create a still-water cove area enhancing sediment deposition, eventually leading to the creation of emergent marsh in the newly created bay between Castille Pass and the East Pass extension.

The project is expected to create 570 acres of marsh initially, 106 acres during maintenance dredging, and an additional 227 acres after 20 years.

Estimated proposed project totally fully funded costs are \$31,651,899 as provided by the Economic Work Group.

FACT SHEET

December 2007

Project Name and Number: Castille pass Channel Sediment Delivery (AT-04) (Project Priority List 9)

Problem: Spoil dredged form the Atchafalaya River Channel has been placed east of the channel, thus restricting riverine flow into shallow water areas east of the channel, which has substantially reduced natural marsh creation. Without riverine replenishment, subsidence and wave erosion will increase deltaic marsh loss.

Goals: Increase the conveyance of silt laden river flows via East Pass and Castille Pass in the eastern area of the Atchafalaya Bay.

Project Status: The project has reached a 95% design status.

Proposed Solution: At the Phase I approval meeting in January 2000 the project design consisted of dredging Castille Pass 400 feet wide by 10 feet deep (NGVD) extending it eastward towards Fourleague Bay ending near South Point for a total length of approximately 25,000 feet. This channel would have bifurcated several times to provide water and sediment delivery through four channels that were to be 160 feet wide by 10 feet deep totaling 21,500 feet. As designed, this effort was calculated to create 150 acres initially, and 370 acres after 20 years. Fully funded construction costs were projected to be \$14,206,668. As presented at the 95% design meeting, the project will now consist of improving four areas of the East Pass Delta Channel. The entrance to East Pass will be widened and the bottom ramped up to enhance diversion of fresh water and sediments from the Atchafalaya River into East Pass. The existing East Pass channel will be widened and deepened from the entrance to the Castille Pass bifurcation. The dredged material will be placed to create new emergent marsh. The existing Natal Channel branch channel will be extended and diked to direct the channel flows toward the southeast into bay bottoms to extend the Delta Lobe building process. The existing Castille Pass branch channel will be extended southeastwad into the bay with diking placed to extend the Delta Lobe and build new marsh acreage. The mouth of East Pass will also be reconfigured by extending the southeast branch exit channel toward the southeast. A complete dike will be placed along the southwestern channel bank to redirect flows into the shallow bay bottom to create a still-water cove area enhancing sediment deposition, eventually leading to the creation of emergent marsh in the newly created bay between Castille Pass and the East Pass extension. As presented, the proposed project is expected to create 507 acres of marsh initially, and an additional 106 acres after maintenance events over 20 years.

Issues: One pipeline passes through the channel alignment, which will be avoided during construction.

Estimated Costs and Benefits: Fully funded the cost is estimated to be \$31,651,899 which will create a total of 840 acres of wetland over 20-years.

4.) Checklist of phase Two requirements

A. List of Goals and Strategies

- Facilitate natural sub-delta formation in the shallow water areas between East Pass and Fourleague Bay to build approximately 577 acres of land over the 20-year project life.
- Create approximately 570 acres of emergent land suitable for establishment of marsh plant vegetation over the 20-year project life using dredged material.
- As a result of these goals, approximately 2,121 acres of marsh will exist in the project area at the end of the 20-year project life representing an approximate net gain of 577 acres of marsh.

B. Cost Sharing Statement

A cost sharing agreement was signed for Phase I costs October 2000.

C. Notification that landrights will be finalized.

Landrights were secured October 12, 2004 from the Louisiana Department of Wildlife and Fisheries. A landrights status and outlook letter was received by LDNR on November 15, 2005 stating that no landrights acquisition problems are anticipated.

D. A favorable Preliminary Design Review

A preliminary Design Review was held January 20, 2005. Comments are discussed above in item #2 and #3, and are detailed in the 95% report.

E. Final Project Design Review

A favorable 95% design meeting was held October 13, 2005. No comments were made at the meeting, therefore no changes were made to the design.

F. Draft EA

The final EA was distributed on March 7, 2006.

G. Written summary of ER

Castille Pass Channel Sediment Delivery (AT-04)

Ecological Review Summary September 2005

Summary/Conclusions

The following four types of marshlands are expected to be created within the Castille Pass Channel Sediment Delivery project area:

- 1. Uplands having an elevation greater than +3.0 feet NAVD-88.
- 2. Shrub/Scrub marsh having an elevation range from +2.0 feet to +3.0 feet NAVD-88.
- 3. Intertidal marsh having an elevation range from +0.75 feet to +2.0 feet NAVD-88.
- 4. Subaqueous marsh having elevations at less than +0.75 feet NAVD-88.

The planned project diking will be mostly upland acreage with some shrub/scrub acreage along their slopes. The resulting elevation of the hydraulic material in the DAs post-shrinkage (20% anticipated in the first year) will be between +0.75 feet NAVD-88 to +2.0 feet NAVD-88, thereby falling in the intertidal marsh category. This approximates the Penland et al. (1996) conclusion that the maximum elevation for the establishment of intertidal marsh vegetation is +2.0 feet NGVD (~MSL) which can be interpolated as corresponding to +1.8 feet NAVD-88 using USACE CORPSCON for Windows,

Version 5.11.08. The projected accretion within the three cove areas will be classified as subaqueous marsh.

This project is to be constructed in a river-mouth which may be classified as a dynamic area and as such, the impacting conditions (wind, wave, rain, and flow) will cause the channels, diking, and disposal areas to be in states of flux undergoing continuous changes. Thus, to sustain the integrity and effectiveness of this project, maintenance of project features will be required on average of every 6 years with dredging to re-establish dikes and dredging of shoals within the channels. This recommendation is based upon the observations made of the channel shoaling on the Big Island Mining (AT-03) project, which showed that a shoaling of channel bottoms to elevation from -3.0 feet to -5.0 feet NAVD-88 has occurred in six years (BCG 2005).

Recommendations

Based on the evaluation of available ecological, geophysical, and engineering information, in addition to the investigation of similar restoration projects, the proposed strategies of the Castille Pass Channel Sediment Delivery (AT-04) project will likely achieve the desired ecological goals. It is recommended that this project progress toward construction authorization pending a favorable 95% Design Review.

- H. Application for or Issuance of Public Notices for Permits Submitted to the U.S. Army Corps of Engineers November 7, 2005.
- I. HTRW

HTRW is not required for the project location.

J. Section 303

Section 303E approval was received July 12, 2005 from the Corps.

K. Overgrazing

A favorable overgrazing determination was received June 9, 2005.

L. Fully funded cost

See attached worksheet.

M. WVA

A revision to the 1999 WVA was Re-drafted November 2, 2005 and accepted after revision by the Environmental Work Group.

| | Phase I Fully | Phase 2 | AAC/AAHU | AAHU | Acres |
|----------|---------------|--------------|----------|--------|------------|
| | Funded Cost | Fully | | | Protected/ |
| | | Funded Cost | | | Created |
| ORIGINAL | \$1,484,633 | \$29,599,763 | \$6,888 | 296 | 589 ac |
| REVISED | | | \$4,261 | 256.38 | 577 |

N. Prioritization

| | Cost Effectiveness (x2) | Area of Need (1.5) | Implementability (x1.5) | Certainty of Benefits (x1) | Sustainablity (x1) | HGM Riverine Input (x1) | HGM Sediment Input (x1) | HGM Sturcute And Function (x1) |
|-------|-------------------------------|--------------------------|-------------------------|----------------------------------|--------------------|-------------------------------|-------------------------------|---|
| Score | 5 | 1 | 7 | 8 | 10 | 10 | 0 | 5 |
| Total | 55 | | | | | | | |

QuickTime™ and a TIFF (LZW) decompressor are needed to see this picture.

CWPPRA Castille Pass Sediment Delivery (AT-04) Phase II Request

Technical Committee Meeting

January 16, 2008 Baton Rouge, LA

Project Overview

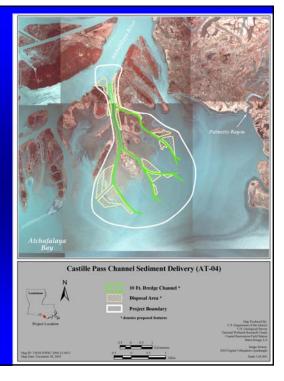
Project Location: Region 3, Atchafalaya Basin, St. Mary Parish Parish, Atchafalaya Delta.

Problem: Dredged spoil placement has restricted natural flow to the eastern delta which has substantially reduced natural marsh creation

Goals:

- Increase riverine flow into the eastern delta into Fourleague bay to promote natural marsh creation
- Initially create 150 acres of marsh (PPL9)
- Create 220 acres of marsh through maintenance activities (PPL9)

Project Map



Project Features Overview

- Hydraulically dredge 2.1 million cubic yards of material from Castille, East and Natal Passes to an elevation of -10.0 NAVD.
- $\bullet Construct$ over 25,000 liner feet of containment dikes to varying elevations and widths.
- •Initially create over 570 acres of intertidal marsh varying in elevation from +2.5 to +3.0 NAVD.

Project Benefits & Costs

- Dredging activities will initially create over 500 acres of marsh with an additional 100+ acres created from maintenance events over 20 years. Anticipated long term (20yr) accretion from increased sediment transport to the project area will create approximately 200 acres
- •The Total Fully Funded Cost is \$31,651,899 (Dec. 2006 = \$30,892,080)

(Dec. 2005 = \$19,657,695)

- The Total Fully Funded Cost is has not changed significantly from what was originally projected while increasing created acres by 60%
- The Prioritization Score is: 55

Project Comparison/Contrast

The Present vs. PPL 9

Authorized Project – PPL 9

- Create a 10 ft deep, 400 ft wide channel 5 miles long extending southerly into Fourleague Bay.
- 150 acres created from initial construction
- 220 acres created from maintenance activities

Currently Proposed Project

- Dredge and extend Castille, East and Natal Channels, including bifurcation channels, in varying widths to elevation -10 NAVD.
- 500+ acres created from initial construction
- 100+ acres created from maintenance activities

Questions?

| TE-39-1 - Sou | ith Lake Decad | e Freshwater | Introduction | Project-CU 1 |
|---------------|----------------|--------------|--------------|--------------|
| | | | | |

United States Department of Agriculture



Natural Resources Conservation Service 3737 Government Street Alexandria, LA 71302

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

December 26, 2007

Mr. Troy Constance
Acting Chairman
CWPPRA Technical Committee
U.S. Army Corps of Engineers
Planning, Programs, and Project Management Division
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Constance:

RE:

South Lake Decade Freshwater Introduction Project (TE-39-1)

Construction Unit No. 1

Phase Two Authorization Request

Pursuant to Revision 13.0 of the CWPPRA Standard Operating Procedures (Section 6.j. and Appendix C), please find enclosed the Phase Two Authorization Request package. This request is for the construction of Construction Unit 1 (CU #1) of the South Lake Decade Freshwater Introduction Project (TE-39). This project was authorized in January 2000 under Priority Project List 9 (PPL9) by the Louisiana Coastal Wetlands Conservation Task Force under the authority of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA).

ð

If you or any members of the Planning and Evaluation Subcommittee, Technical Committee, or Task Force have any questions regarding this matter, please call me at (318) 473-7756.

Sincerely,

W. Britt Paul

Assistant State Conservationist

for Water Resources and Rural Development

Enclosures

cc: Darryl Clark, Technical Committee Member, USFWS, Lafayette, Louisiana Rick Hartman, Technical Committee Member, NMFS, Baton Rouge, Louisiana Sharon Parrish, Technical Committee Member, EPA, Dallas, Texas Gerry Duszynski, Technical Committee Member, LDNR/CRD, Baton Rouge, Louisiana Melanie Goodman, P&E Subcommittee Chair, USCOE, New Orleans, Louisiana Kevin Roy, P&E Subcommittee Member, USFWS, Lafayette, Louisiana Rachel Sweeney, P&E Subcommittee Member, NMFS, Baton Rouge, Louisiana Tim Landers, P&E Subcommittee Member, EPA, Dallas, Texas John Jurgensen, P&E Subcommittee Member, NRCS, Alexandria, Louisiana

Mr. Troy Constance Page 2 December 26, 2007

Dan Llewellyn, P&E Subcommittee Member, LDNR, Baton Rouge, Louisiana Ismail Merhi, Project Manager, LDNR, Baton Rouge, Louisiana Loland Broussard, Project Manager, NRCS, Lafayette, Louisiana Ronnie Faulkner, Design Engineer, NRCS, Alexandria, Louisiana Randolph Joseph, Jr., Area Conservationist, NRCS, Lafayette, Louisiana John Boatman, District Conservationist, NRCS, Thibodaux, Louisiana Chris Knotts, Director, Coastal Engineering Division, LDNR, Baton Rouge, Louisiana Kirk Rhinehart, Administrator, LDNR/CRD, Baton Rouge, Louisiana Sidney Coffee, Governor's Office of Coastal Activities, Baton Rouge, Louisiana John Petitbon, EngWG Chair, USCOE, New Orleans, Louisiana

2007 Phase II Authorization Request

South Lake Decade Freshwater Introduction Project (TE-39) Construction Unit 1

Description of Phase I Project

The South Lake Decade Freshwater Introduction Project (TE-39) was approved for Phase 1 funding by the CWPPRA Task Force on the 9th Priority Project List. This project is located in Terrebonne Parish, Louisiana, within the Terrebonne Hydrologic Basin, approximately ten miles southeast of the community of Theriot. The project is bordered on the north by the southern bank of Lake Decade and Small Bayou LaPointe ridge, to the east and southeast by an unnamed oilfield location canal, on the south and southwest by undifferentiated marsh, and to the west by an unnamed north - south oilfield canal and Bayou Decade. The purpose of the project is to reduce current interior marsh loss rates and increase the occurrence and abundance of submerged aquatic vegetation (SAV).

The proposed project, as selected for Phase I authorization, featured the construction of 5,200 linear feet of shoreline protection along the southern bank of Lake Decade, the installation of a freshwater introduction structure in the southern bank of Lake Decade, and removal of an existing weir in Lapeyrouse Canal. The Wetland Value Assessment (WVA) benefits attributed to these features were a net increase of 201 acres by the end of the 20 year project life.

The total fully funded cost of the project at the time of Task Force approval was \$3,968,577. The estimated amount for Phase 1 costs was \$396,489 and for Phase II costs was \$3,572,088. Individual budget item costs are listed in the second column in the table on page 9.

During the Phase I planning process, NRCS conducted several field trips with an interdisciplinary team of technical specialists to survey, evaluate, and collect data on vegetative marsh types, emergent/submergent vegetative communities and predominance of each, wildlife usage and habitat conditions, hydrologic conditions, and other physical and biological parameters. As a result of this planning effort, the revision of and addition to initial project features were identified (refer to Figure 1). The current proposed features for the TE-39 Project are as follows:

- (A) 3 Multi-gated Diversion Structures on south perimeter of Lake Decade;
- (B) Approximately 8,700 ft. of rock revetment along south shoreline of Lake Decade;
- (C) Enlargement of Lapeyrouse Canal from Lake Decade southward to interior open water areas;
- (D) Approximately 2,900 ft. of oilfield canal embankment restoration;
- (E) Installation of 2 low-level rock weirs;
- (F) Installation of 1 armored plug closure;
- (G) Vegetative protection.

Overview of Phase I Tasks, Process and Issues

It was proposed by NRCS and approved by the Engineering & Environmental Workgroups and Technical Committee (26 Mar 2003) to separate the TE-39 Project into two "independent" construction units. The purpose was to accelerate the E&D timetable on those project components requiring less planning and design effort. Construction Unit No. 1 (CU #1) involves the shoreline protection component of the project and Construction Unit No. 2 (CU #2) will encompass the remaining freshwater introduction and outfall management features.

To-date the following tasks have been completed for the Phase 1 portion of Construction Unit No. 1:

- 1) Plan of Work
- 2) Cost Share Agreement between NRCS and DNR
- 3) Cultural Resources & Oyster Investigations & Assessment
- 4) Landrights Work Plan
- 5) Prioritization Evaluation
- 6) Plan/Environmental Assessment & FONSI
- 7) Section 303(e) Approval
- 8) NRCS Overgrazing Determination
- 9) Draft Ecological Review
- 10) Design Surveys NRCS
- 11) Geotechnical Investigation, Analysis, & Report
- 12) 30% Design Review
- 13) Draft Construction Plans & Specifications
- 14) Current Construction Cost Estimate
- 15) 95% Design Review
- 16) 404 and CUP Permits

Engineering and Design Tasks

Design surveys were completed by NRCS Construction Survey Crews and are included in the 95% Design Report. The surveys were completed using Ashtech Z-Extreme Dual Frequency Receivers operating in RTK (Real-Time Kinematic) mode. The survey occupied DNR benchmark "TE-39-SM-A" for control. Design survey cross sections were taken at approximately 200' intervals along the proposed earthen embankment and at 250' intervals along the lake rim of the project area. From the survey data, an alignment was developed for the revetment and embankment. The survey cross sections, survey profiles, and proposed alignment were used for calculating quantities.

Initial pipeline investigations have been initiated with known pipeline companies as shown on the design drawings. Refer to the Design Drawings and LDNR Landrights Memo in the 95% Design Report for established pipeline information.

Geotechnical investigation and analyses have been performed. The geotechnical reports are included in the 95% Design Report. The initial geotechnical report (August 2001) prepared by Soil Testing Engineers, Inc. (STE) contains all boring and soils analysis along with predicted settlement and stability for the proposed project features. A supplemental report (May 2004) was provided by Burns Cooley Dennis, Inc. (BCD) with respect to additional settlement and

2

1/7/2008

stability analysis on a rock/lightweight aggregate weir section for the proposed fixed crested weir and rock revetment on the earthen embankment.

Evaluation of the two reports cited above resulted in a design decision to utilize the proposed armored earthen embankment to configure the geometry of a proposed weir section with a solid rock over flow section. A consideration given in the selection of the proposed weir design was that the structure could be easily modified in the event an O&M contingency plan must be implemented. The plan would be put in effect if the monitoring of interior wetland conditions showed progressive land loss and deterioration due to increased water levels.

The shoreline protection feature for the south bank of Lake Decade was changed to a foreshore dike during phase 1 planning and was analyzed in the STE report. However, after conducting additional site visits to the project area, an observation was made that the foundation area of the existing earthen embankment is pre-consolidated from the many years of direct loading applied by the embankment. Therefore, a revetment of the existing embankment was chosen as the preferred approach for shoreline protection.

Hydrologic and hydraulic calculations were performed by NRCS to insure that the proposed embankment restoration and weir project features would not adversely affect the marsh interior within construction unit number 1 (CU #1). A conservative approach was taken in the calculations. Only existing significant hydraulic conveyance openings within the system were used to compute discharge. The discharge area of the proposed weir was neglected. The calculations confirm that the existing additional openings along the perimeter of the marsh interior would adequately convey selected storm event capacities. Conversely, it was also determined that the discharge capacity of the weir alone is sufficient to provide adequate drainage for the identified watershed.

30% Design Review Meetings were held on September 17, 2003, and July 19, 2004. NRCS received a letter from LDNR, dated August 2, 2004, stating they concur with proceeding with the design of the project to the 95% design level. A 95% Design Review Meeting was held on September 2, 2004. No outstanding engineering issues were identified and minor comments were made regarding supporting data included in the 95% Design Report.

On October 13, 2004 the CWPPRA Task Force held their first annual funding cycle meeting to select projects for Phase 2 funding. The TE-39-1 South Lake Decade Project was submitted for funding consideration but was not selected. However, the TE-44 North Lake Mechant Project, sponsored by USFWS and serves as a southwest extension of the TE-39 Project, was selected for Phase 2 funding. It's anticipated that the TE-44 Project will have a synergistic effect in abating salinity and tidally induced problems that have direct impact to the CU #1 project area. The two lower structural components in CU #1 (i.e. weir & embankment restoration) were targeted to prohibit the same problems as stated above. As such, NRCS, DNR and landowner representatives have agreed to remove the two lower components from 2005 Phase 2 approval consideration for CU #1. These structural measures however, will remain as components of the project due to their "potential" need as outfall management features for construction unit no. 2.

Supplemental Tasks

Preliminary landrights have been executed with the landowner (Apache Louisiana Minerals Inc.). The landowner has acknowledged intent to sign necessary documents once the project has obtained Phase II Task Force approval. Landrights with affected utilities and pipelines are

proceeding without interruption and are expected to be finalized in the near future. LDNR has determined that no oyster seed grounds or leases will be affected by project implementation.

A review of the Louisiana Department of Culture, Recreation & Tourism, Office of Cultural Development files indicated that two (2) cultural resource sites are located within the boundaries of the TE-39 Project. Both of the sites are described as shell middens experiencing deterioration due to many of the same impacts causing marsh loss (i.e. wave wash, scouring, subsidence, and physical disturbance from canal dredging). A letter, dated May 24, 2001, was received from the Louisiana Department of Culture, Recreation & Tourism stating that, due to the nature of this project the sites will not be affected, therefore they have no objections to its implementation.

Comments relative to other significant task items are addressed in the attached "Checklist of Phase Two Requirements" beginning on page 6 of this report.

Construction Unit No. 1 Project Issues

At the September 17, 2004, 30% Design Review Meeting, concerns were raised and post-meeting comments were received regarding the negative hydrologic impact the proposed embankment restoration and low level weir may have on affected wetlands (i.e. increased water levels). NRCS conducted an engineering survey of the CU #1 area which identified existing perimeter boundary conditions and normal marsh elevations within the interior. An onsite field trip was held on October 22, 2003, with various agency personnel to visually survey the perimeter and interior conditions of the area. NRCS conducted hydrologic and hydraulic mathematical modeling assessments on the proposed project features in question based on collected survey data. Results of these assessments indicated that discharge removal rates of the CU #1 area, with the proposed features in place, would not cause impoundment conditions that would in turn negatively impact emergent wetland vegetation.

A second 30% Design Review Meeting was held on July 19, 2004. DNR and attending federal agencies acknowledged their acceptance of NRCS's modeling assessments. Agency comments and NRCS responses, as a result of the 30% meeting are included in the 95% Design Report.

The 95% Design Review meeting for this candidate project was held on September 2, 2004. At this meeting, reviewing agencies had the opportunity to provide comments regarding the 95% Design Report and supporting documents that were posted on DNR's ftp server on August 19, 2004. No significant outstanding issues were identified at the meeting and only minor comments were made regarding Plans and Specifications in the Final Design Report.

NRCS consulted with DNR regarding the project changes made for CU #1 since the September 2004, 95% Design Review meeting. It was decided that another 95% Design Review meeting was not necessary due to the revisions made were only exclusions to the prior reviewed project.

Description of Phase II Candidate Project

The Phase II candidate project consists of constructing an 8,700 linear foot shoreline protection feature along the southern bank of Lake Decade (Figure 2). This shoreline protection feature shall be a rock revetment that is built upon the existing embankment along the lake shoreline. The revetment shall have 2(H):1(V) side slopes and be built to an elevation of +3.5' NAVD88

with a minimum rock thickness of 2 feet. All rock used in this construction shall be ASTM 6092-97 R-300 gradation.

Phase II Funding

Construction for this project is tentatively scheduled to commence in August 2008 and proceed for approximately 6 months. The total estimated fully funded cost of the project at the 100% funding level is \$5,223,806. Individual budget item costs are listed columns six and seven in the table on page 9.

NRCS will formally request permission for Phase 2 approval and funding at the January 16, 2008 Technical Committee Meeting and subsequent approval from the Task Force at their February 13, 2008 meeting. The total 2007 funding request will be \$3,040,016. Individual budget item costs are listed in the eighth column in the table on page 9.

Apache Louisiana Minerals Inc., major landowner within the project area, has offered a pledge to assume the State of Louisiana's 15% cost share portion of the Phase 2 funding request. A formal letter from Apache is included as Attachment 1 of this authorization request.

5

Sponsoring Agency and Contact Person

"USDA – Natural Resources Conservation Service"
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"La. Department of Natural Resources – Coastal Engineering Division" Ismail Merhi
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1/7/2008

Checklist of Phase II Requirements South Lake Decade Freshwater Introduction (TE-39) CU# 1

A. List of Project Goals and Strategies.

The goals of this project are to reduce interior marsh loss rates and increase the occurrence and abundance of submerged aquatic vegetation (SAV). The strategy proposed to accomplish these goals is the construction of a rock revetment along the south shoreline of Lake Decade.

B. A statement that the Cost Sharing Agreement between the Lead Agency and Local Sponsor has been Executed for Phase I.

A Cost Sharing Agreement has been executed between NRCS (NRCS Agreement No. CWPPRA-00-01) and DNR (DNR Agreement No. 2511-01-02), dated July 25, 2000.

C. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase II approval.

LDNR-CRD Land Manager sent a letter to the Chairman of the Planning and Evaluation Subcommittee, dated September 2, 2004, which stated substantial progress had been made regarding landrights acquisition, that no significant landrights acquisition problems are anticipated, and that DNR is confident that landrights will be finalized in a reasonable period of time after Phase Two Approval. A copy of the letter can be obtained by contacting one of the sponsoring agency persons listed on page 5.

NRCS re-confirmed the above with LDNR Landrights Section via email correspondence on November 9, 2005.

D. A favorable Preliminary Design Review (30% Design Level).

A 30% Design Review meeting was held on September 17, 2003. Issues were raised by DNR and some federal agencies concerning the hydrologic impact that the proposed project measures may have on interior wetlands. NRCS addressed these issues by conducting hydrologic and hydraulic mathematical modeling assessments which concluded no negative impacts are anticipated as a result of project construction. A second 30% Design Review Meeting was held on July 19, 2004, in which DNR and participating agencies concurred with NRCS's assessments. Concurrence to proceed with project designs to the 95% level was received by DNR in a letter dated August 2, 2004. A copy of the letter can be obtained by contacting one of the sponsoring agency persons listed on page 5. All written comments received from the 30% Design Review are addressed in the 95% Design Review Package.

E. Final Project Design Review (95% Design Level).

A 95% Design Review Meeting was held on September 2, 2004. No substantial outstanding issues were identified and minor comments were made regarding supporting data to the Final Design Report. In 2005, NRCS revised the project plans and specifications to reflect recent project changes. A revised construction cost estimate and associated project first costs were submitted to and approved by the Engineering Workgroup in November 2007. Fully-funded project costs were provided by Bill Waits (EconWG Member) and approved by Allan Hebert (EconWG Chairman) in December 2007. Revised cost data are shown in the table on page 9.

F. A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act, must be submitted two weeks before the Technical Committee meeting at which Phase 2 approval is requested.

A Final Environmental Assessment of the TE-39 Project was released for public review on June 2001. The Final EA was developed after comments were received and incorporated in the draft Environmental Assessment which was submitted for interagency review in April 2001. A Finding of No Significant Impact (FONSI) was published in the Federal Register on July 25, 2001, and in the local newspaper on July 31, 2001. No comments were received regarding the FONSI. A copy of the Final Environmental Assessment can be obtained by contacting one of the sponsoring agency personnel listed on page 5 of this package.

G. A written summary of the findings of the Ecological Review.

A draft Ecological Review, submitted August 2004, stated that the "proposed strategies of the South Lake Decade Freshwater Introduction - CU 1 Project will likely achieve the desired ecological goals." A revised draft Ecological Review was submitted in August 2005, in which Section VII – Recommendations of the report concluded "At this time, the level of design of the project's physical effects and confidence in goal attainability warrant continued progress toward construction authorization (pending a second favorable 95% Design Review meeting, if required)".

H. Application for and/or issuance of the public notices for permits.

A Joint Permit Application with appropriate attachments, dated November 4, 2005, was submitted to LDNR-Coastal Management Division (CMD) for processing. A letter, dated January 19, 2006, was received from CMD stating the TE-39-1 Project was reviewed for consistency with the approved Louisiana Coastal Resources Program (LCRP) and complies. The COE 404 Permit was issued on July 17, 2006. The letter of consistency and 404 Permit are available upon request at the sponsoring agency offices listed on page 5.

I. A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.

NRCS has determined that an HTRW assessment is not required.

J. Section 303(e) approval from the Corps.

Section 303e approval was granted by the Corps Real Estate Division on August 4, 2004. A copy of the approval letter can be obtained by contacting one of the sponsoring agency personnel listed on page 5 of this package.

K. Overgrazing determination from the NRCS (if necessary).

NRCS has determined that overgrazing is not a problem within the project area, nor is there future potential for such problem.

L. Revised fully funded cost estimate, approved by the Economic Work Group, based on the revised Project design and the specific Phase 2 funding request as outlined in below spreadsheet.

A revised cost template based on current project designs was sent to the Engineering Work Group for review and comment on November 8, 2007. Comments were received and incorporated in the cost analysis. The cost template was then forwarded to Bill Waits (Economic Workgroup member) and Engineering Work Group members on December 7, 2007, for generating fully funded numbers. Approved final fully funded cost spreadsheets were provided by the Engineering Work Group Chairman on December 20, 2007. The spreadsheet on page 9 contains a cost outline as required by CWPPRA Standard Operating Procedures Manuel, Rev. 13.0, Appendix C.

- 1) The specific Phase 2 funding request (updated Phase 2 costs, three years of Corps Administration and O&M) is \$3,040,016.
- 2) The current estimated fully funded cost for TE-39 CU #1 is \$5,223,806.

M. A Wetland Value Assessment, reviewed and approved by the Environmental Work Group.

A Wetland Value Assessment (WVA) was specifically prepared for the CU #1 portion of the TE-39 South Lake Decade Project on March 20, 2003. A revised WVA was not necessary at the 30% or 95% level of review because no changes were made in project features that would have resulted in a change in projected project benefits.

Due to the removal of 2 structural components from CU #1 in 2005, NRCS revised the 2003 Wetland Value Assessment (WVA) accordingly. The result was a reduction in net acreage from 207 to 202 acres. Kevin Roy, Environmental Workgroup (EnvWG) Chairman, assisted in the re-assessment and determined the WVA revisions were minor enough to negate a review by the EnvWG. A copy of the revised WVA is available upon request by contacting the NRCS Lafayette Water Resources office at (337)291-3060.

N. A breakdown of the Prioritization Criteria ranking score, finalized and agreed upon by all agencies during the 95% review.

A revised Prioritization Fact Sheet was submitted to CWPPRA agencies for review on December 10, 2007. Based on comments received, corrections to the submitted fact sheet were made. A final fully funded cost for the 2007 Phase II request was confirmed by the Economic Work Group on December 20th, therefore the Final Prioritization Fact Sheet dated 20 December 2007 was revised to reflect such cost.

Listed below are current prioritization criterion and associated scores for the TE-39 CU #1 Project:

| Criteria | Score | Weight | Final Score |
|----------------------------|------------------|--------|-------------|
| Cost Effectiveness | 7.5 | 2 | 15 |
| Area of Need | 4.4 | 1.5 | 6.6 |
| Implementability | 10 | 1.5 | 15 |
| Certainty of Benefits | 8 | 1 | 8 |
| Sustainability of Benefits | 8 | 1 | 8 |
| HGM – Riverine Input | 0 | 1 | 0 |
| HGM – Sediment Input | Sediment Input 0 | | 0 |
| HGM – Landscape Features | 5 | 1 | 5 |
| Total Score | | | 57.60 |

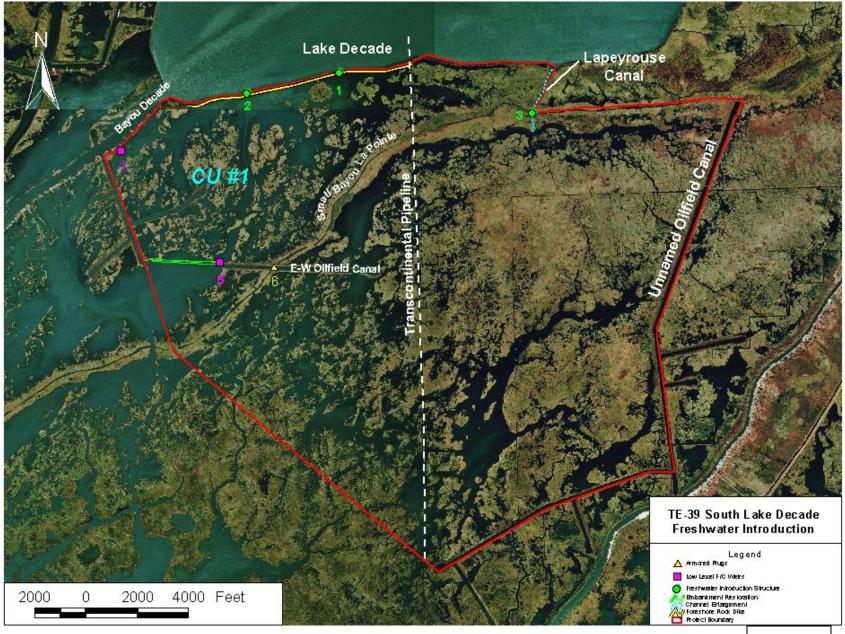


Figure 1

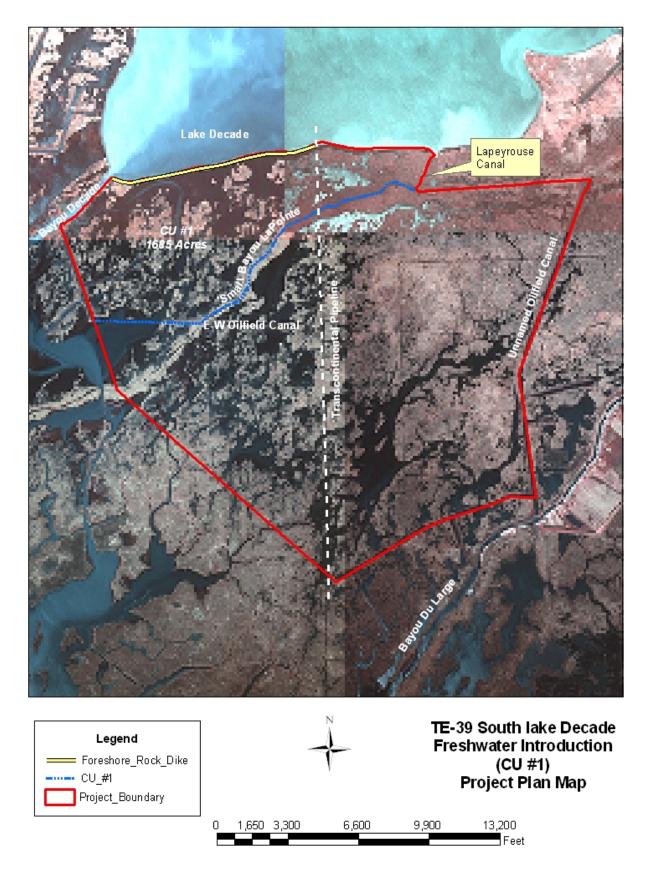


Figure 2



2000 POST OAK BOULEVARD / SUITE 100 / HOUSTON, TEXAS 77056-4400

(713) 296 6000 WWW.APACHECORP.COM

December 1, 2005

Scott Angelle, Secretary
Louisiana Department of Natural Resources
P. O. Box 94396
New Orleans, Louisiana 70804-9396

RE: CWPPRA TE-39

South Lake Decade Project Terrebonne Parish, Louisiana

Dear Mr. Angelle:

Apache Corporation owns approximately 267,000 acres of coastal marsh lands throughout south Louisiana in Cameron, Vermilion, Iberia, Terrebonne, Lafourche and Plaquemines parishes. These lands are managed and operated through the Apache Louisiana Minerals, Inc. office located in Houma, LA. This office staff has consistently conducted activities, with technical assistance from state and federal agencies, to develop and implement comprehensive marsh protection and enhancement programs for over 40 years throughout these properties. A portion of this activity has been to annually refurbish the perimeter shoreline levee of Lake DeCade in an effort to protect the adjacent fragile marshes from saltwater intrusion and erosion.

The extents and features of the subject CWPPRA project will positively affect our lands surrounding Lake DeCade. We have previously given DNR a commitment to provide 'land rights' for this project once selected for construction. This Company is committed to the preservation of these fragile wetlands and would like to see this Project implemented as soon as possible. We are so excited about the positive aspects of this Project that we are willing to provide financial assistance to it. Therefore, I am pleased to hereby pledge Apache's commitment to assume the State's 15% of the cost share for Phase II funding of Conservation Unit #1 for this project.

In light of this offer, we are respectfully requesting that DNR provide this project with suitable ranking during the project selection process to ensure its selection for funding authorization. Your acceptance of our offer and favorable consideration of this request will be a positive reinforcement of the commitment which Apache and DNR share for saving our wetlands.

Sincerely,

APACHE CORPORATION

Sr. Vice President - Gulf Coast Region

FINAL PRIORITIZATION FACT SHEET FY2008 Phase 2 Approval

Revised 1/11/2008

Project Name and Number

South Lake Decade Freshwater Introduction – CU #1 (TE-39-1) PPL 9

Goals

The goals of the project are (1) to reduce current interior marsh loss rates and (2) increase the occurrence and abundance of SAV's (USDA-NRCS 2001).

Proposed Solution

It was proposed by NRCS and approved by the Eng & Env Workgroups and Technical Committee to separate the TE-39 Project into two "independent" construction units. The purpose was to accelerate the E&D timetable on those project components requiring less planning and design effort. Construction Unit No. 1 (CU #1) will involve the shoreline protection component of the project and Construction Unit No. 2 (CU #2) will encompass the freshwater introduction features.

CU #1 is in the advanced Engineering and Design stage. The plan/Environmental Assessment and FONSI are complete and on file. The 404 permit application was submitted for public notice in November 2005. Consistency from LDNR-CMD was received on January 19, 2006, and the COE 404 permit was issued on July 17, 2006. 30% Design Review meetings were held on September 17, 2003, and July 19, 2004. Concurrence to proceed to the 95% design level was received by LDNR via correspondence dated August 2, 2004. A 95% Design Review meeting was conducted on September 2, 2004.

The following changes were considered for the CU #1 portion of the project since Phase 0 Task Force approval: (1) the shoreline protection (rock revetment) along the south bank of Lake Decade has a total length of 8,700 linear feet in lieu of the initial 5,200 lf; and (2) a water control structure and embankment restoration have been added along the southern perimeter of CU #1 to retard the intrusion of higher salinity water into the area. With the 2004 Phase 2 approval of the TE-44 North Lake Mechant Project, it has been determined that the water control structure and embankment restoration features are no longer critical components for the CU #1 project area and was removed from 2005 Phase 2 Approval consideration. The remaining project component for TE-39 CU #1 is the 8,700 linear feet of armored shoreline protection. Refer to the attached Project Plan Map for the proposed structure location.

Rock revetment is planned along the south shoreline of Lake Decade placed on the north slope of the existing earthen embankment. The revetment will extend approximately 8700 ft. from the Transcontinental Pipeline Crossing westward towards the mouth of Bayou Decade. It will have a crest elevation of (+)3.5' NAVD88, blanket width of 2 ft., 2:1 side slope, and an average height of 4 ft. (USDANRCS 2004).

The chart below outlines the Operation, Maintenance, and Rehabilitation measures anticipated for the CU #1 portion of the TE-39 Project:

TE-39 OM&R Considerations

Annual Inspections

Maintenance / Rehabilitation at TY 7

Recap 25% of rock revetment along S Lake Decade

Maintenance / Rehabilitation at TY 14

Recap 25% of rock revetment along S Lake Decade

Reference: LDNR-CED 2007

Revisions

The following revisions were incorporated into the referenced Criterion pursuant to approval of the Final Prioritization Fact Sheet by the Engineering and Environmental Workgroups in December 2007 and finalizing the fully funded cost estimate in January 2008:

I. Cost Effectiveness – The totally fully funded cost for CU #1 has increased from \$3,841,826 to \$5,223,806. The initial cost was based on a fully funded estimate provided by Allan Hebert (EcoWG - COE), dated November 17, 2006. The current fully funded cost is based on an estimate provided by Bill Waits (EcoWG-NRCS) and Loland Broussard (EngWG-NRCS) dated December 7, 2007, confirmed by Matt Napolitano (EcoWG-COE) on December 20, 2007, and revised by Gay Browning on January 7, 2008. Current costs reflect Phase 2 increases in Construction (ref: NRCS 2007 Phase 2 Approval), Fed/State S&A (ref: NRCS 2007 Phase 2 Approval), S&I (ref: NRCS 2007 Phase 2 Approval), O&M (LDNR-CED 2007) and Corps Admin (ref: NRCS 2007 Phase 2 Approval).

Due to the removal of 2 structural components from CU #1, NRCS revised the 2004 Wetland Value Assessment (WVA) accordingly. The result was a reduction in net acreage from 207 to 202 acres. Kevin Roy, Environmental Workgroup Chairman, assisted in the re-assessment and determined the WVA revisions were minor enough to negate a review by the EnvWG (Roy 2005). A copy of the revised WVA is available upon request at the NRCS Lafayette Water Resources office.

II. Area of Need, High Loss Area – Upon adoption of the revised Prioritization Criteria, dated March 14, 2007, the criterion score factors for Interior Loss Rates changed and resulted in a reduced weighted score from 9.3 to 4.4.

Proposed Prioritization Criteria Scores and Justification

<u>I. Cost Effectiveness</u> (cost/net acre)

Score = 7.5

The current estimated fully funded cost for CU #1 of the TE-39 Project is \$5,223,806. The net acreage protected at TY20 is 202 acres. Therefore the cost/net acre for the project is \$25,860 which scores this criterion as a **7.5**.

II. Area of Need, High Loss Area

Score = 4.4

Due to the fact that south of the existing embankment along the south shore of Lake Decade exists large open water areas, shoreline erosion losses were incorporated into interior loss rates. It was projected in the WVA that the existing embankment in FWOP conditions would provide protection till TY 3 and internal loss rates would average 0.26% per year. From TY 3 to TY 20, internal loss rates would increase to 2.0% per year.

The weighted score for this criterion is as follows:

| | Loss | % of | Criteria | Weighted |
|---------|-----------|------|----------|-------------------|
| | Rate | Time | Factor | Score |
| TY 0-2 | 0.26 %/yr | 0.14 | 1 | 0.14 |
| TY 3-20 | 2.0 %/yr | 0.86 | 5 | 4.30 |
| | • | | | $4\overline{.44}$ |

III. Implementability

Score = 10

The separation of the CU #1 segment of the TE-39 project was granted approval by the EngWG, EnvWG, and Technical Committee. Due to the fact the landowners in CU #1 fully support the project and no major utilities are involved within construction areas, it can be concluded that no obvious issues should affect the implementation of CU #1 and therefore scores a **10**.

IV. Certainty of Benefits

Score = 8

The planned project feature of CU #1 is classified as inland shoreline protection and the project is located in the deltaic plain. Therefore the score for this criterion is an **8**.

V. Sustainability of Benefits

Score = 8

The maintenance schedule as specified in "Proposed Solution" has the last maintenance on the rock revetment targeted for TY 14 based on a 7 year schedule (LDNR-CED 2007). Therefore, full effectiveness of the project is credited till TY 21 and the first year to apply the FWOP erosion rate would be TY 22. It is assumed that at TY 22 no levee exists behind the rock revetment and FWOP interior losses are reduced by 50% from the effects of the remnant dike.

Internal Loss Rate

| | TY20 FWP | TY20 FWOP | Net | Rate | Loss |
|----------|----------|-----------|--------|----------|---------|
| TY 22-30 | 781 ac | 579 ac | 202 ac | 1.0 %/yr | 18.2 ac |

% Change in Net Acres @ TY 30

18.2/202 = 0.09 9% Criterion Score = **8**

VI. Increasing riverine input in the deltaic plain or freshwater input and saltwater penetration limiting in the Chenier plain Score = 0

Criterion does not apply to this project therefore score is **0**.

VII. Increased sediment input

Score = 0

Criterion does not apply to this project therefore score is **0**.

VIII. Maintaining landscape features critical to a sustainable ecosystem structure and function

Score = 5

The CU #1 segment of the project serves to protect and maintain, for at least 20 years, the south shoreline of Lake Decade which qualifies as providing critical benefits to maintaining the integrity of the coastal ecosystem. The project however does not qualify as a critical landscape feature or serves to maintain the integrity of the basin. The criterion score is therefore a 5.

Composite Prioritization Score

(7.5*2.0)+(4.4*1.5)+(10*1.5)+(8*1.0)+(8*1.0)+(0*1.0)+(0*1.0)+(5*1.0)=57.6

Preparer of Fact Sheet

NRCS Project Manager: Loland Broussard

(337) 291-3060 offc (337) 291-3085 fax

loland.broussard@la.usda.gov

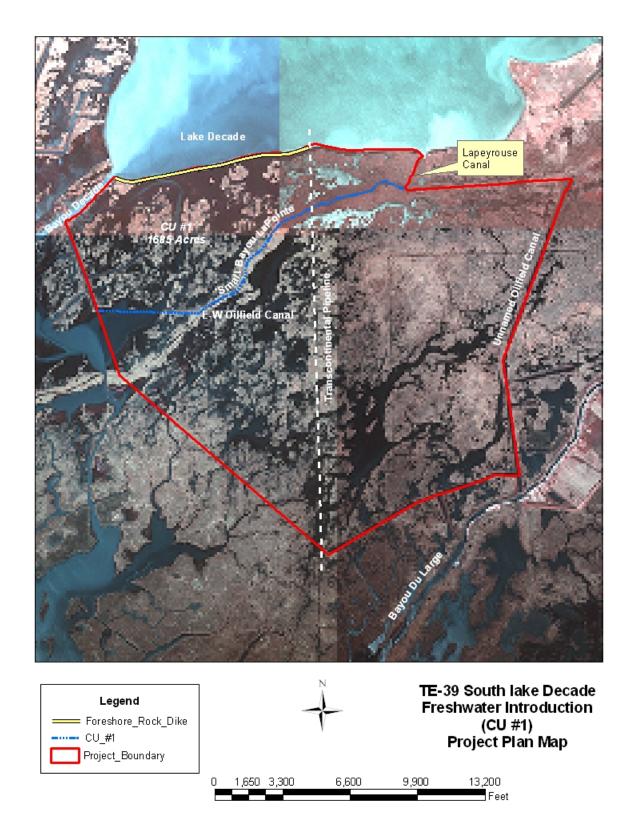
References

Louisiana Department of Natural Resources, Coastal Engineering Division (LDNR-CED). 2007. Draft Operation, Maintenance, and Rehabilitation Plan for the South Lake Decade Freshwater Introduction Project (TE-39), Construction Unit No. 1. November 9, 2007. Unpublished.

Roy, K. 2005. Personal communication with Kevin Roy, Chairman of the CWPPRA Environmental Workgroup, regarding requesting his assistance in revising WVA benefits for CU#1 and his determination that the revised WVA did not require an official review by the Environmental Workgroup prior to posting results.

United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS). 2001. Project Plan and Environmental Assessment for South Lake Decade Freshwater Introduction Project, TE-39, Terrebonne Parish, Louisiana.

United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS). 2004. 95% Design Review, Design Report, TE-39 South Lake Decade Project, Construction Unit #1 (CU #1). August 9, 2004. Revised August 29, 2005. Unpublished.



Gallagher, Anne E MVN-Contractor

From: Broussard, Loland - Lafayette, LA [Loland.Broussard@la.usda.gov]

Sent: Friday, January 11, 2008 12:04 PM

To: Kevin Roy@fws.gov; crawford.brad@epa.gov; Monnerjahn, Christopher J MVN;

daniel.llewellyn@la.gov; eswenson@lsu.edu; hfinley@wlf.louisiana.gov; Jurgensen, John - Alexandria, LA; teaque.kenneth@epa.gov; Irouse@lsu.edu; mruiz@wlf.louisiana.gov;

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mhester@louisiana.edu; jpfloyd@usgs.gov; Goodman, Melanie L MVN;

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Hennington, Susan M MVN; Lachney, Fay V MVN; Creel, Travis J MVN; mcarloss@wlf.louisiana.gov; renee.sanders@la.gov; DainG@dnr.state.la.us

Subject: TE-39-1 S Lake Decade Updated Prioritization Fact Sheet

Follow Up Flag: Follow up Flag Status: Yellow

Attachments: TE-39 S L Decade CU 1 PFS 1 11 08 FINAL.doc



TE-39 S L Decade CU 1 PFS 1_11...

Due to an omission found on the fully funded spreadsheets by Gay, the fully funded cost for the TE-39-1 South Lake Decade Project has increased by \$972. This does not change the score for criterion 1 on the project therefore the composite score remains the same. Attached is an updated Prioritization Fact Sheet reflecting the new cost increase.

However, as much as it seems impossible, Mr. Roy has an error on the spreadsheet he provided on Jan. 8th titled "Prioritization Scores for Feb08 Ph2 requests 1-8-08.xls". The "Area of Need" column for this project shows a score of 9.3. The correct score for this criterion is 4.4 which results in a composite score of 57.6 knocking this project's 3 year hiatus of being top ranked. Darn!

Loland

----Original Message----From: Kevin_Roy@fws.gov [mailto:Kevin_Roy@fws.gov] Sent: Tuesday, January 08, 2008 12:59 PM To: crawford.brad@epa.gov; Christopher.J.Monnerjahn@mvn02.usace.army.mil; daniel.llewellyn@la.gov; eswenson@lsu.edu; hfinley@wlf.louisiana.gov; Jurgensen, John - Alexandria, LA; teague.kenneth@epa.gov; lrouse@lsu.edu; Broussard, Loland - Lafayette, LA; mruiz@wlf.louisiana.gov; mhester@louisiana.edu; jpfloyd@usgs.gov; Melanie.L.Goodman@mvn02.usace.army.mil; patrick.williams@noaa.gov; Taylor.Patricia-A@epa.gov; Ronald_Paille@fws.gov; Suzanne.R.Hawes@mvn02.usace.army.mil; Boustany, Ron - Lafayette, LA; Elizabeth.L.Mccasland@mvn02.usace.army.mil; Mallach, Troy - Lafayette, LA; Robert_Dubois@fws.gov; john.b.petitbon@mvn02.usace.army.mil; honorab@dnr.state.la.us; rachel.sweeney@noaa.gov; John.Foret@noaa.gov; bhutchison@usgs.gov; carol.richards@la.gov; susan.hill@la.gov; michelle_fischer@usgs.gov; Magee.Melanie@epamail.epa.gov; Louis.D.Britsch@mvn02.usace.army.mil; Kroll, Jason - Alexandria, LA; kelley.templet@la.gov; cheryl.brodnax@noaa.gov; Angela_Trahan@fws.gov; Anne.E.Gallagher@mvn02.usace.army.mil; Susan.M.Hennington@mvn02.usace.army.mil;

Fay.V.Lachney@mvn02.usace.army.mil; Travis.J.Creel@mvn02.usace.army.mil; mcarloss@wlf.louisiana.gov; renee.sanders@la.gov; DainG@dnr.state.la.us Cc: Darryl_Clark@fws.gov; David_Castellanos@fws.gov Subject: prior. scores

Revised with some very minor edits to FF costs.

(See attached file: Prioritization Scores for Feb08 Ph2 requests 1-8-08.xls)

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

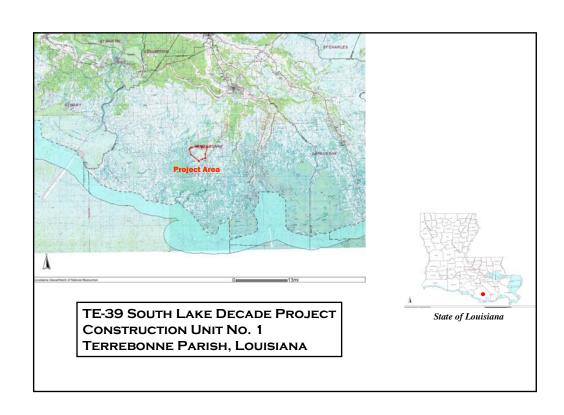
Coastal Wetlands Planning, Protection and Restoration Act



SOUTH LAKE DECADE FRESHWATER INTRODUCTION (TE-39)

Phase II Request

Technical Committee Meeting
January 16, 2008



Project Overview

Project Location: Region 3, Terrebonne Basin, Terrebonne Parish, south shore of Lake Decade.

Problem: Interior marshes have suffered dramatic losses of emergent vegetation and currently consists of fragmented wetlands surrounded by open water areas. Shoreline erosion along the south shore of Lake Decade threatens to breach the existing levee that separates the lake from degraded marshes.

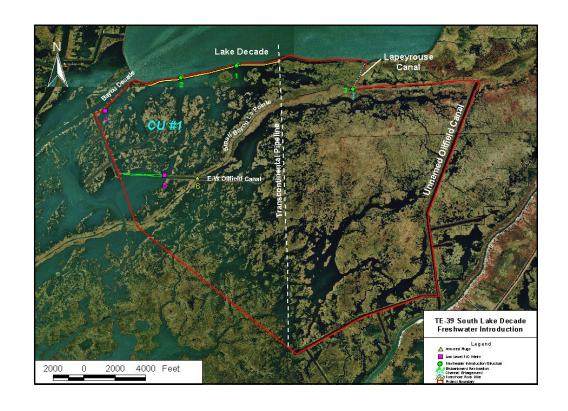
Goals:

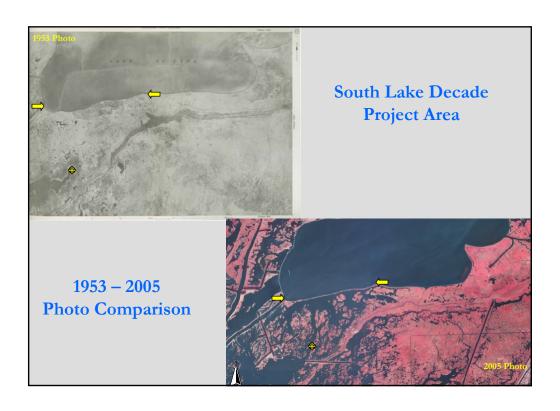
- 1) Reduce interior marsh loss rates.
- 2) Increase the occurrence and abundance of SAV's.

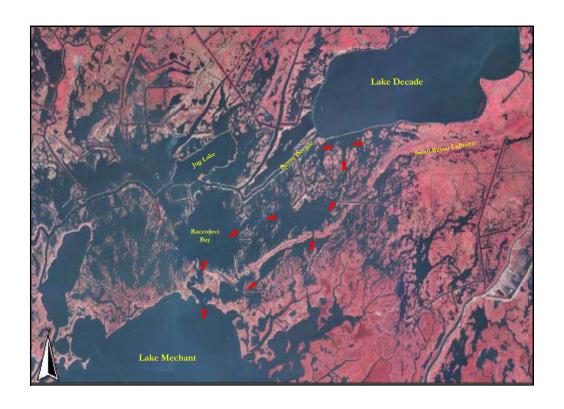
SOUTH LAKE DECADE – CU #1

PROJECT FEATURES

- Construction of 8,700 LF of Shoreline Rock Revetment along the south existing embankment of Lake Decade from the Transcontinental Pipeline crossing extending westward to the mouth of Bayou Decade.
- •The revetment will have a crest elevation of (+)3.5 ft. NAVD88, blanket width of 2 feet, 2:1 side slope, and an average height of 4 feet.







SOUTH LAKE DECADE – CU #1

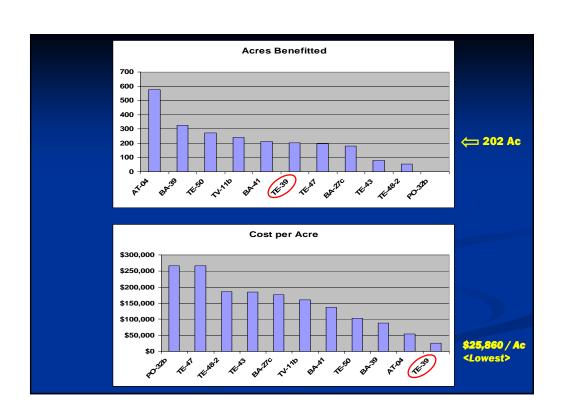
Project Benefits & Costs

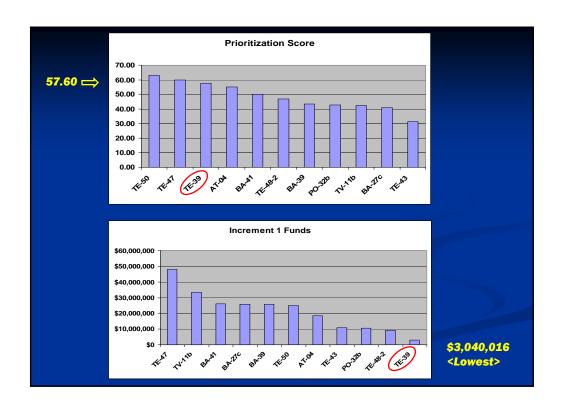
- The 8,700 LF of rock revetment will benefit 823 acres of intermediate/brackish marsh and 862 acres of open water (total 1685 ac.).
- Within the 20 year life of the project (@ TY20), interior marsh loss rates will be reduced and it's projected that 202 acres will be protected.
- The fully funded cost of the project is \$5,223,806. The Phase II request amount is \$3,040,016.
- The Prioritization Score is 57.60.

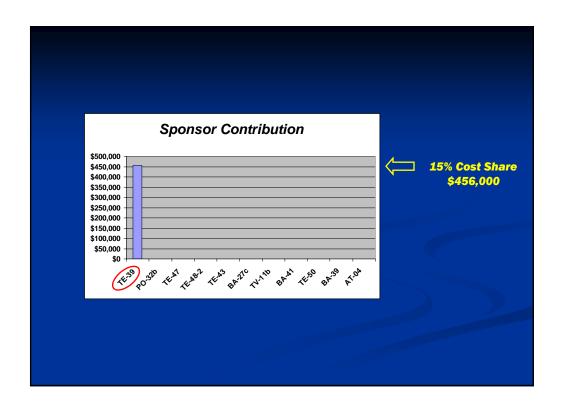
SOUTH LAKE DECADE – CU #1

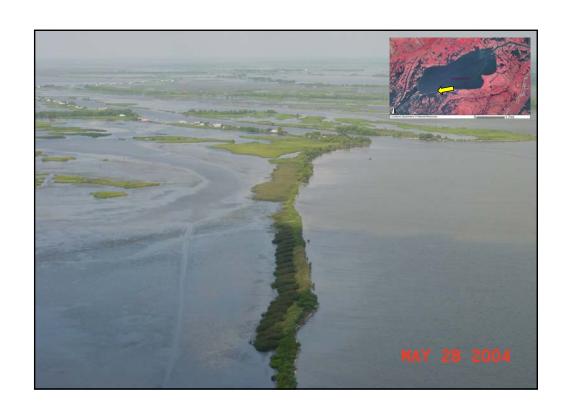
Why Should this Project be Funded This Year?

- Rapid Loss of Fresh/Interm/Brackish Marsh
- Immediate Need
- Initial Attention to a Critically Eroding Area
- 100% Landowner Support
- Low Increment 1 Cost <\$3,040,016>
- High Prioritization Score <57.60>
- Ready for Implementation





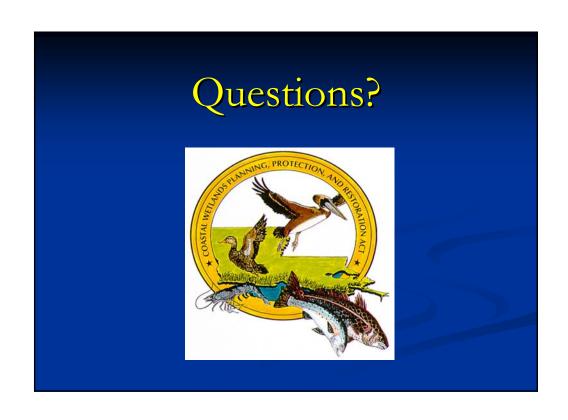












BA-27c(3) - Barataria Basin Landbridge Shoreline Protection Project, Phase 3-CU~7

United States Department of Agriculture



Natural Resources Conservation Service 3737 Government Street Alexandria, LA 71302

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

January 2, 2008

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

Dear Mr. Constance:

RE: Barataria Basin Landbridge Shoreline Protection Project Phase 3 (BA-27c)

Phase Two Authorization Request for Construction Unit 7

By this letter, the Natural Resources Conservation Service and the Louisiana Department of Natural Resources request Phase Two Authorization for the Barataria Basin Landbridge Shoreline Protection Project Phase 3 (BA-27c) Construction Unit 7, consisting of 22,811 feet of rock shoreline protection located on the north shore of Little Lake and the west bank of Bayou Perot in Lafourche Parish, Louisiana.

Å,

Pursuant to Revision 13.0 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 13.0 of the CWPPRA Standard Operating Procedures Appendix C, 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

Assistant State Conservationist/Water Resources

cc (via email only):

Gerry Duszynski, DNR Technical Committee Member Darryl Clark, USFWS Technical Committee Member Rick Hartman, NMFS Technical Committee Member Sharon Parrish, EPA, Technical Committee Member Melanie Goodman, P&E Subcommittee Chair

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 <u>Federal Register</u> 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 CU7 is addressed in the section referred to as CU5 because the previously defined CU5 has been split into two parts; part was approved for Phase Two funding as "CU5" and part has been redefined as "CU7".

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 reach that has been already been approved for Phase Two funding as Construction Unit 5 (13,780 feet of concrete pile and panel wall) and the shoreline protection reach that is now referred to as Construction Unit 7 (22,811 feet of rock shoreline protection). Only two elements presented in the 2004 Design Report associated with the rock shoreline protection (now CU7) 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 has certified that landrights are complete for CU7 (copy enclosed).

Description of the Phase Two Candidate Project

The subject Phase Two Authorization Request is limited to about 22,811 feet of shoreline protection along the 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 elevation of 3.5 feet NAVD88, a top width of 4 feet, and side slopes of 3:1. The dike and revetment will be constructed of COE R-400 (rock specification) and will be underlain with

a geotextile cloth. Five site-specific organism/drainage openings, ranging from 20 to 50 feet in width, will be incorporated; the openings will have a sill elevation of 2 feet below average tide. Approximately 36,500 feet of construction access channel, with a bottom elevation of –5.5 feet NAVD88 and bottom width of 80 feet, may be excavated. As available containment volume in existing ponds permit, excavated material will be used beneficially -- dredged material shall be placed in three shallow ponds along the north shore of Little Lake to a maximum elevation of +2.0 feet NAVD88; as much as 38 acres of marsh could be created.

The current fully-funded cost estimate for Phase II Total of the BA-27c Construction Unit 7 is \$31,274,833. However, because Monitoring and COE Management were approved in full when Construction Unit 3 was approved, the requested Phase II amount for BA-27c CU7 is \$31,178,603. The current fully-funded cost estimate for Phase II, Increment 1 of the BA-27c Construction Unit 7 is \$25,891,625.

There has been no significant change in project scope warranting revisions to the BA-27c project boundary, map, benefits, or fact sheets for the project as a whole. However, for the CU7 portion of BA-27c, the benefits include 180 net acres over 20 years. The "Prioritization Fact Sheet" for the CU7 portion of BA-27c has been updated (December 21, 2007), and it yielded a total prioritization score of 40.45.

Checklist of Phase Two Requirements

- A. List of Project Goals and Objectives. The objective of the BA-27c Construction Unit 7 is to reduce or eliminate shoreline erosion for approximately 22,811 feet of shoreline along the along the west bank of Bayou Perot and the northern shoreline of Little Lake.
- B. Cost Sharing Agreement for Phase One. The Cost Sharing Agreement for Phase One of the Barataria Landbridge Shoreline Protection Phase 3 Project (BA-27c) was executed between DNR and NRCS on July 25, 2000.
- C. Landrights Notification. By letter to Don Gohmert of NRCS, dated January 11, 2006, LDNR has certified that landrights are complete for CU7 (copy enclosed).
- D. Favorable Preliminary Design Review. A favorable 30% Design Review for the work contained in this Construction Unit was conducted on August 20, 2003, and a summary of that review was distributed to the Technical Committee on October 14, 2003.
- E. Final Project Design Review. The 95% design review was conducted on September 2, 2004, with favorable results. A summary of that review, dated October 14, 2004, has been distributed to the Technical Committee.
- F. Environmental Assessment. The Barataria Basin Landbridge Shoreline Protection Project Phases 1, 2, and 3 (BA-27) Environmental Assessment was completed in February 2000. Copies of the Environmental Assessment and FONSI have been provided to the Technical Committee.
- G. Findings of Ecological Review. The Ecological Review for the entire Barataria Basin Landbridge Shoreline Protection Project (Phases 1, 2, 3, and 4) was completed in August 2004. The reach of shoreline included in CU7 is addressed in the section referred to as CU5 because the previously defined CU5 was split into two parts; part was approved for Phase Two funding as "CU5" and part has been redefined as "CU7". The Ecological Review

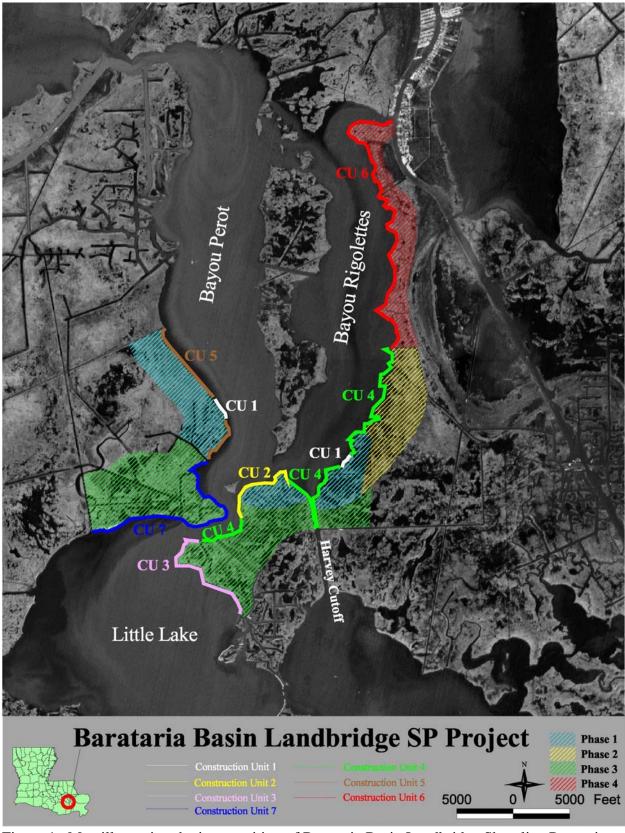


Figure 1. Map illustrating the juxtaposition of Barataria Basin Landbridge Shoreline Protection Project Phases and Construction Units.

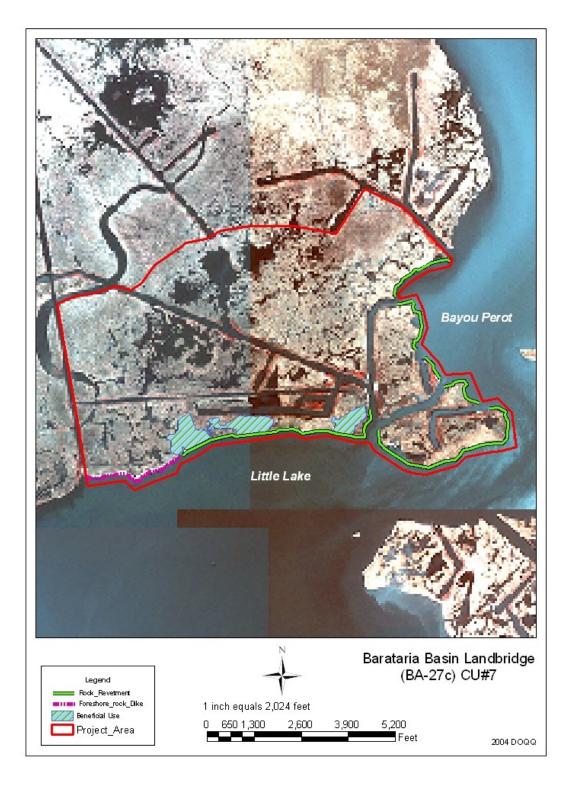


Figure 2. Map of Barataria Basin Landbridge Shoreline Protection Project Phase 3 Construction Unit 7, Lafourche Parish.



KATHLEEN BABINEAUX BLANCO GOVERNOR SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT January 11, 2006

Mr. Donald Gohmert, State Conservationist U. S. Natural Resources Conservation Service 3737 Government Street Alexandria, LA 71302

RE: Barataria Basin LandBridge Shoreline Protection Project BA-27 CU5&7
Assignment of Temporary Easement, Servitude and Right-of-Way Agreements and Pipeline Right of Way Access Agreement
Landrights Certification

Dear Mr. Gohmert:

Enclosed are four (4) originals of the Assignment of Temporary Easement, Servitude and Right-of-Way Agreements and the Pipeline Right-of-Way Access Agreement (Assignment) from the Louisiana Department of Natural Resources (DNR) to the U.S. Natural Resources Conservation Service (NRCS). The Assignment transfers rights and obligations acquired by DNR from Chevron Pipeline Company (CPL) in a Pipeline Right-of-Way Access Agreement and Delta Farms, et al., the William Mason Heirs Committee, Goodrich Petroleum Company, L.L.C., Karen Majoria Gervais, Carolyn Coulon Goodrow, and Robert A. Matherne, et al. all in Temporary Easement, Servitude and Right-of-Way Agreements, hereinafter collectively called the "Agreements." Letters of No Objection were taken with Tennessee Gas Pipeline and Enbridge Pipeline. Please execute the four (4) originals, have them notarized in front of two (2) witnesses and return them in the enclosed envelope. The Assignment will be recorded in the public records of Lafourche and Jefferson Parishes, Louisiana, a certified copy of which will be forwarded to you. The rights assigned pertain to Construction Units 5 and 7.

Through a legal services contract, DNR obtained a Preliminary Ownership Report with Surface Use Reports for the Delta Farms, et al. property. Title Reports with Surface Use Reports were obtained for the William Mason Heirs Committee, Goodrich Petroleum Company, L.L.C., Karen Majoria Gervais, Carolyn Coulon Goodrow, and Robert A. Matherne, et al. Said Reports support DNR's assumption that Delta Farms, et al., the William Mason Heirs, Goodrich Petroleum Company, L.L.C., Karen Majoria Gervais, Carolyn Coulon Goodrow, and Robert A. Matherne, et al. are the true owners of the subject lands, from whom DNR obtained the appropriate agreements. Based on the Surface Use Reports, DNR was able to determine that there are three pipeline Rights-of-Way in or adjacent to the project area, CPL, Tennessee Gas Pipeline and Enbridge Pipeline as previously referenced, from whom DNR obtained the appropriate agreements.

Barataria Basin LandBridge Shoreline Protection Project BA-27 CU4 NRCS Certification Letter Page 2

The Agreements with CPL, Delta Farms, et al., the William Mason Heirs Committee, Goodrich Petroleum Company, L.L.C., Karen Majoria Gervais, Carolyn Coulon Goodrow, and Robert A. Matherne, et al., and the Assignment to NRCS, are legal instruments which provide the rights to construct, maintain, rehabilitate and monitor the project features for the life of the project, and have been executed in accordance with Article III of the project cost share agreements dated Phases 1 and 2 (BA-27): July 16, 1999, Amended October 4, 2002; Phase 3 (BA-27c): July 25, 1999, Amended February 26, 2002, Amended April 17, 2003; Amended July 23, 2003.

Your execution in the space provided below will confirm your understanding of the above described assumption(s) and complete the landrights for Construction Unit 5 and 7 of this project.

If we can be of further assistance to you, please do not hesitate to contact Ms. Joyce M. Montgomery, at (225) 342-5068. Thank you for your cooperation in our coastal restoration efforts.

Sincerely,

William K. Rhinehart

MARKUN

Administrator

Received, Reviewed, and Acknowledged this 2nd day of March, 2006.

U.S. Natural Resources Conservation Service

Title: State Conservationest

c (w/enclosure):

Quin Kinler, NRCS, Baton Rouge Ismail Mehri, CED Project Manager Melissa Hymel, CRD Monitoring Manager Joyce M. Montgomery, CRD Land Specialist

PRIORITIZATION FACT SHEET UPDATED

January 8, 2008

Project Name and Number

Barataria Landbridge Shoreline Protection Project Phase 3 (BA-27c) Construction Unit 7

Goals

Reduce or eliminate shoreline erosion along 22,811 feet of the west bank of Bayou Perot and the north shore of Little Lake, Lafourche Parish, Louisiana.

Proposed Solution

The Barataria Landbridge Shoreline Protection Project Phase 3 (BA-27c) Construction Unit 7 consists of 22,811 feet of rock riprap shoreline protection. Selection of this technique was based on geotechnical investigations, implementation of the "test sections", and implementation of Construction Units 2 and 3. Five site-specific openings, ranging in size from 20 feet to 50 feet, will be incorporated to provide organism and water exchange.

Maintenance is scheduled at TY5 and TY10 and consists of rock replenishment.

Proposed Prioritization Criteria Scores and Justification

<u>Cost Effectiveness</u> (cost/net acre)

The current fully-fund total cost estimate for the BA-27c CU7 as calculated by the Economic Work Group is \$31,801,169. (Updated 1/8/2008)

Net acres are taken from BA-27c (Phase 3) WVA Areas 1, 2a, and 2b = 180 net acres.

\$31,801,169 / 180 net acres = \$176,673 / net acre or **1 point**

Area of Need, High Loss Area

The BA-27c Construction Unit 7 area contains 111 acres experiencing an average erosion rate of 30 feet per year, 63 acres experiencing an average erosion rate of 15 feet per year, 6 acres experiencing an average erosion rate of 5 feet per year, and 781 acres that has an internal loss rate of 0.2% per year.

$$.11 \times 10 + .07 \times 5 + .01 \times 1.0 + .81 \times 1.0 = 2.3$$
 points

Implementability

The project/CU has no obvious issues affecting implementability. 10 points

Certainty of Benefits

As an inland shoreline protection project in the deltaic plain, this project /CU receives **8** points.

Sustainability of Benefits

For the BA-27c Construction Unit 7, project maintenance is scheduled at TY5 and TY10 and consists of rock replenishment. The next maintenance could be expected at TY21. With use of rock shoreline protection, the project is expected to achieve 100% protection of net acres through TY 20 and 50% protection of net acres for TY 21 through TY 30. The weighted average FWOP erosion rate for Construction Unit 7 is 19.7 feet/year.

| TY | % Effective | Feet Lost Per Year | Acres Lost Per Year |
|---------|-------------|--------------------|---------------------|
| 20 | 100% | 0 | 0.00 |
| 21 | 50% | 9.85 | 5.16 |
| 22 | 50% | 9.85 | 5.16 |
| 23 | 50% | 9.85 | 5.16 |
| 24 | 50% | 9.85 | 5.16 |
| 25 | 50% | 9.85 | 5.16 |
| 26 | 50% | 9.85 | 5.16 |
| 27 | 50% | 9.85 | 5.16 |
| 28 | 50% | 9.85 | 5.16 |
| 29 | 50% | 9.85 | 5.16 |
| 30 | 50% | 9.85 | 5.16 |
| Totals: | | | 51.6 |

The TY21 to TY30 loss (0.04 ac) of net acres (2 ac) derived from benefits to interior marsh is negligible and does not impact the score for this criterion.

51.6/180 net acres at TY20 X 100 = 28.7 % or **2 points**.

<u>Increasing riverine input in the deltaic plain or freshwater input and saltwater penetration limiting in the Chenier plain</u>

The project will not result in increases in riverine flows. **0 points**

Increased sediment input

The project will not increase sediment input over that presently occurring. **0 points**

Maintaining landscape features critical to a sustainable ecosystem structure and function

The upper portion of the Barataria Basin is largely a freshwater-dominated system of natural levee ridges, baldcypress - water tupelo swamps, and fresh marsh habitats. The lower portion of the basin is dominated by marine/tidal processes, with barrier islands,

saline marshes, brackish marshes, tidal channels, and large bays and lakes. Historically, small meandering Bayous Perot and Rigolettes, and the longer, narrower Bayou Dupont-Bayou Barataria-Bayou Villars channels provided limited hydrologic connection between the upper and lower basin. The hydrologic connections between upper and lower basin are much greater today due to the Barataria Bay Waterway, Bayou Segnette Waterway, Harvey Cutoff, and the substantial erosion and interior marsh loss along and between the now-enlarged Bayou Perot and Bayou Rigolettes. Fortunately, there still exists a landmass, albeit deteriorating, that extends southwest to northeast across the basin, roughly between Lake Salvador and Little Lake; this landmass is the "Barataria Basin Landbridge". The Barataria Basin Landbridge Shoreline Protection Project represents the consensus of a local-state-federal-academic work group as to what measures should be implemented first in addressing this critical area of the Barataria Basin. 10 points

TOTAL SCORE

$$(1*2.0)+(2.3*1.5)+(10*1.5)+(8*1.0)+(2*1.0)+(0*1.0)+(0*1.0)+(10*1.0)=40.45$$

Preparer of Fact Sheet

Quin Kinler, NRCS 225-382-2047 quin.kinler@la.usda.gov

References

- Burns, Colley, and Dennis. 2003. BA-27, BA-27c Supplementary and BA-27d Geotechnical Investigation Report, Jefferson and Lafourche Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service.
- Coastal Wetlands Planning, Protection, and Restoration Act Environmental Work Group. 1997. Barataria Landbridge Shoreline Protection Project Phase 1 project information package. 12pp.
- Coastal Wetlands Planning, Protection, and Restoration Act Environmental Work Group. 1999. Barataria Landbridge Shoreline Protection Project Phase 3 project information package. 22pp.
- Dames and Moore Group. 1995. Geotechnical Investigation Report Land Bridge (BA-27) and Jonathan Davis (BA-20) Projects, Jefferson and Lafourche Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service. 15pp plus Appendices.
- Soil Testing Engineers, Inc. 2000. Report of Geotechnical Investigation NRCS-14-LA-00 Barataria Bay Landbridge Project Phase III, Lafourche and Jefferson Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service. 6pp plus Appendices.
- USDA NRCS. 2000. Project Plan and Environmental Assessment for Barataria Basin Landbridge Shoreline Protection Project Phases 1, 2, and 3 (BA-27), Jefferson and Lafourche Parishes, Louisiana. 29pp plus Appendices.

Coastal Wetlands Planning, Protection and Restoration Act



BARATARIA BASIN LANDBRIDGE SHORELINE PROTECTION PROJECT PHASE 3 (BA-27c)

PHASE II APPROVAL OF CU7

CWPPRA Technical Committee Meeting January 16,2008

BARATARIA BASIN LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 7

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 30 feet per year. (Some areas lost about 75 feet as a result of 2005 storms.)

Goal: Reduce or eliminate shoreline erosion for about 22,800 feet along west bank of B. Perot and north shore of Little Lake.





BARATARIA BASIN LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 7

Project Features

22,800 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.

Five site-specific organism/drainage openings, ranging from 20 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

Total Area Benefited: 961 Acres

Net Acres after 20 years: 180 Acres

Prioritization Score: 40.45 Pts.

Fully Funded Phase II Total: \$31,178,603

Fully Funded Phase II Increment 1: \$25,891,625

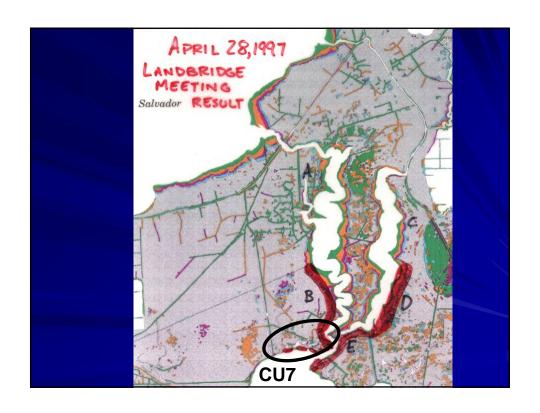
BARATARIA BASIN LANDBRIDGE PHASES 1, 2, 3, & 4 (BA-27, BA-27c, BA-27d)

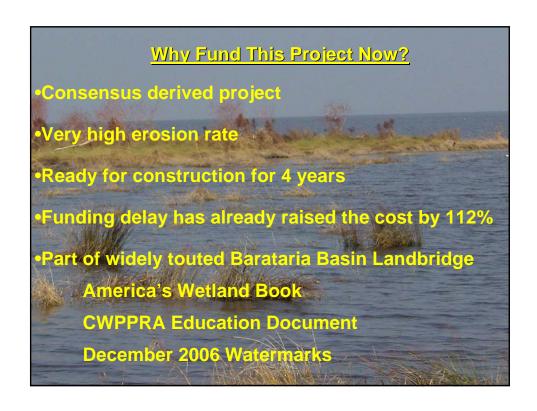
| Project Phase | Original Estimate | Current Estimate | Percent vs. Original |
|--|----------------------|---------------------|-------------------------|
| Phase 1 & 2 (BA-27) (CU1 + CU2 + part CU4 + CU5) 40,250 Feet | 17,515,020 | 30,881,349 | 176% |
| Phase 3 (BA-27c) (CU3+part CU4 + CU7) 43,400 Feet | 20,745,106 | 45,228,262 | 218% |
| Phase 4 (BA-27d) (CU6) 31,120 Feet | 36,541,413 | 22,787,951 | 62% |
| TOTAL All Phases 114,770 Feet | 74,801,539 | 98,897,562 | 132% |

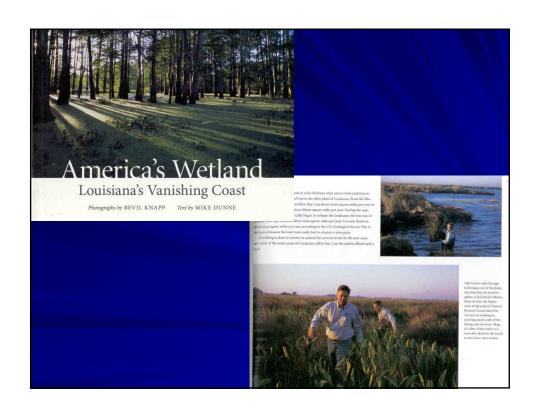
BARATARIA BASIN LANDBRIDGE PHASES 1, 2, 3, & 4 (BA-27, BA-27c, BA-27d)

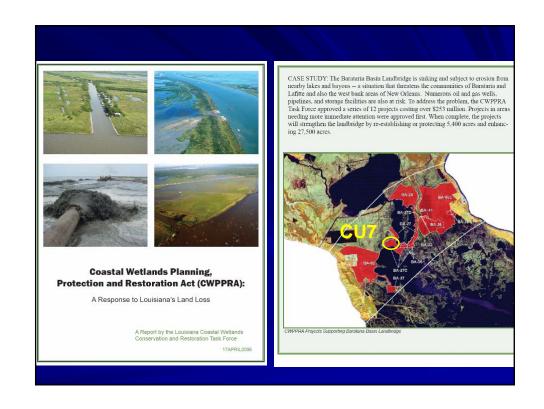
| Year of Request | Phase II Total | Phase II Increment I |
|-----------------|----------------|----------------------|
| 2004 | \$14.7 M | \$12.1 M |
| 2005 | \$18.8 M | \$15.7 M |
| 2006 | \$25.9 M | \$21.5 M |
| 2008 | \$31.2 M | \$25.9 M |

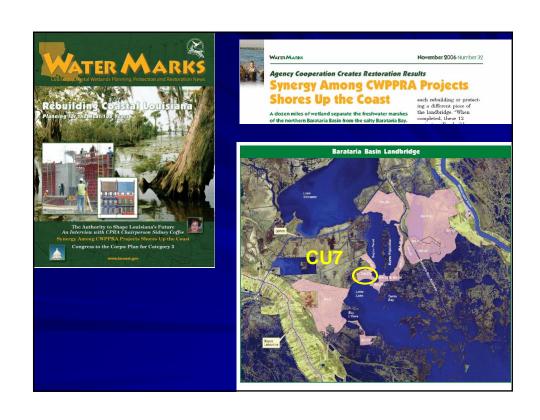
While waiting for Phase II approval, the project cost has gone up by about 112 %.











TE-43 - GIWW Bank Restoration of Critical Areas in Terrebonne Project

United States Department of Agriculture



Natural Resources Conservation Service 3737 Government Street Alexandria, LA 71302

(318) 473-7773 Fax: (318) 473-7747

January 2, 2008

Mr. Troy Constance
Acting Chairman
CWPPRA Technical Committee
U.S. Army Corps of Engineers
Planning, Programs, and Project Management Division
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Constance:

RE: GIWW Bank Restoration of Critical Areas (TE-43)

Phase II Authorization Request

The Natural Resources Conservation Service and Louisiana Department of Natural Resources 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 at (337) 291-3067.

Sincerely,

W. Britt Paul

Assistant State Conservationist for Water Resources and Rural Development

Enclosure

Mr. Constance January 2, 2008 Page 2 of 2

cc: Darryl Clark, Technical Committee, USFWS, Lafayette, Louisiana Rick Hartman, Technical Committee, NMFS, Baton Rouge, Louisiana Sharon Parrish, Technical Committee, EPA, Dallas, Texas Gerry Duszynski, Technical Committee, LDNR/CRD, Baton Rouge, Louisiana Melanie Goodman, P&E Subcommittee Chair, USACE, New Orleans, Louisiana Kevin Roy, P&E Subcommittee, USFWS, Lafayette, Louisiana Rachel Sweeney, P&E Subcommittee, NMFS, Baton Rouge, Louisiana Tim Landers, P&E Subcommittee, EPA, Dallas, Texas John Jurgensen, P&E Subcommittee, NRCS, Alexandria, Louisiana Dan Llewellyn, P&E Subcommittee, LDNR, Baton Rouge, Louisiana

1.

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.

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

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

www.LaCoast.gov



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).

The mudline at the boring locations varied from elevations 0.0 to -3.0 NAVD88 and was located from 1 foot to 4 feet below the water surface at the time of drilling.

The upper soils are typically highly organic, classifying as high plastic clays with organic matter, organic clays, or peats. In general, soft consistencies are not encountered until depths exceed 30 feet with some medium stiff consistencies occurring below approximately 60 feet.

Water contents ranged from 29 percent on a sample of silty sands to 1,004 percent on a sample of peat with approximately two thirds of the water contents exceeding 100 percent.

Liquid limits ranged from 34 on a sample of silty clays to 807 percent on a sample of peat. More than 97 percent of the liquid limits exceeded 50 percent, and approximately 82 percent of the liquid limits exceed 100 percent.

Plastic limits ranged from 20 on a sample of silty clays to 450 percent on a sample of organic clays. However, about 96 percent of the plastic limits were between 20 and 100

percent, and slightly more than 86 percent of the plastic limits were between 20 and 50 percent.

Plasticity indices ranged from non-plastic on a sample of peat to 557 percent on a sample of clays with peat seams and pockets with nearly 90 percent of the plasticity indices exceeding 50 percent and slightly more than 73 percent of the plasticity indices exceeding 100 percent.

Unconfined and triaxial compression tests yielded cohesions ranging from 22 lbs per sq ft to 603 lbs per sq ft, except for one unconfined compression test which yielded a cohesion value of 1,328 lbs per sq ft. Slightly more than 88 percent of the unconfined and triaxial compression tests yielded cohesions below 250 lbs per sq ft, which is the upper limit of a very soft consistency. Slightly more than 36 percent of the unconfined and triaxial compression tests yielded cohesions below 100 lbs per sq ft.

Field vane test performed generally in the upper soils yielded cohesions ranging from 37 lbs per sq ft to 268 lbs per sq ft with nearly 40 percent of the field vane tests yielding cohesions below 100 lbs per sq ft.

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 twofold: 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 (Segment 4) 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.

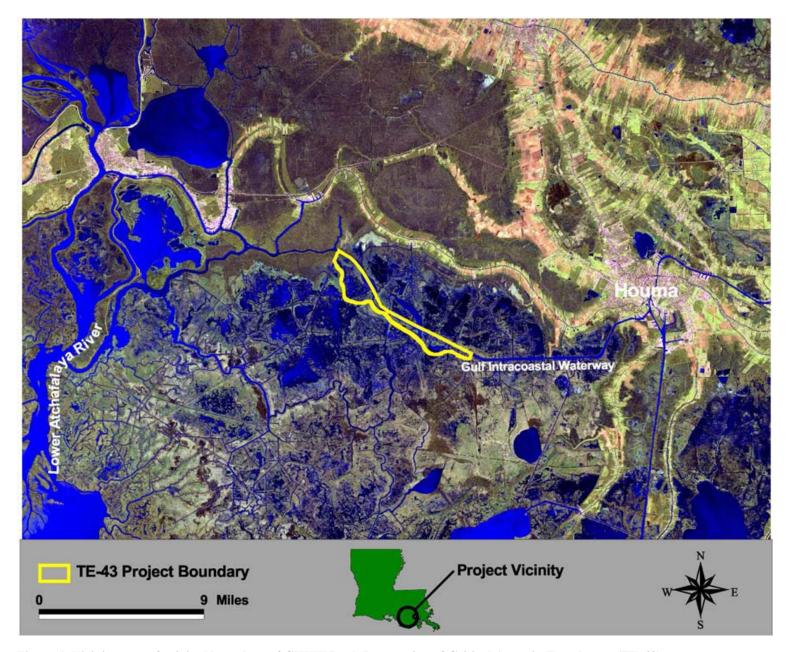


Figure 1. Vicinity map of original boundary of GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43).

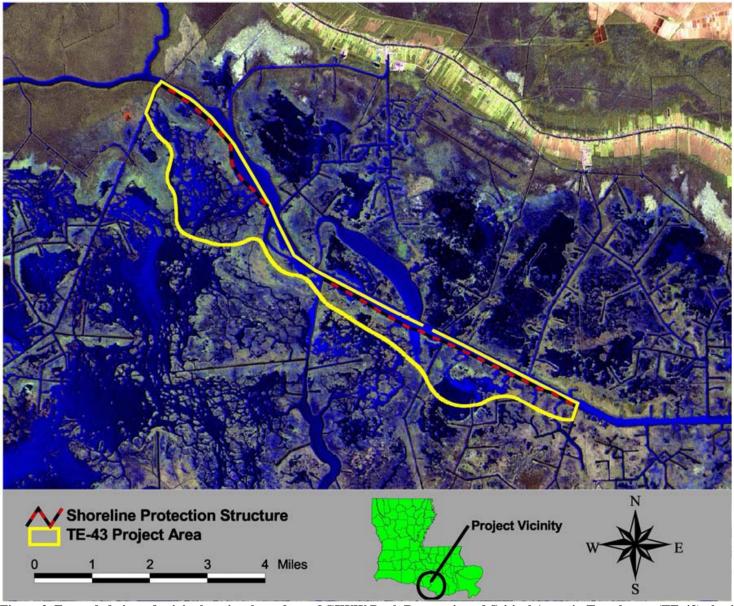


Figure 2. Expanded view of original project boundary of GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43) also indicating extent of shoreline protection coverage.

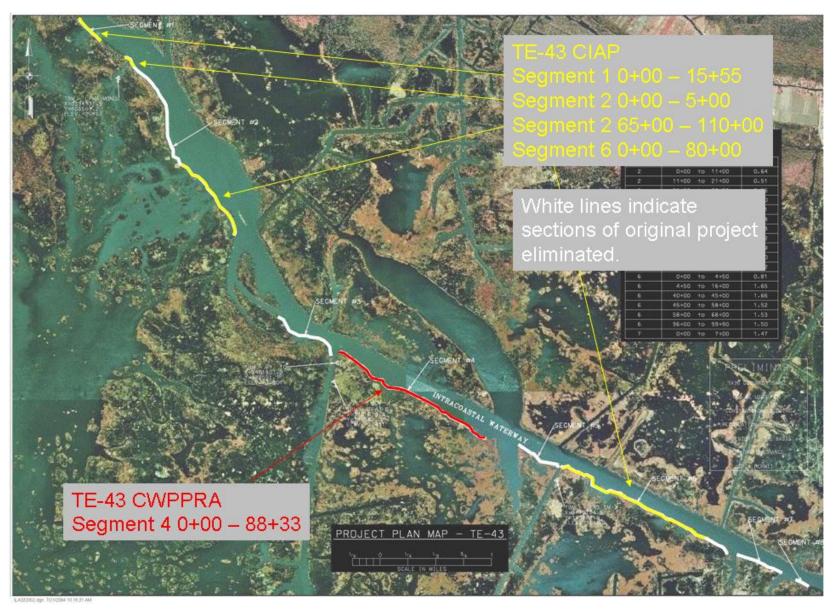
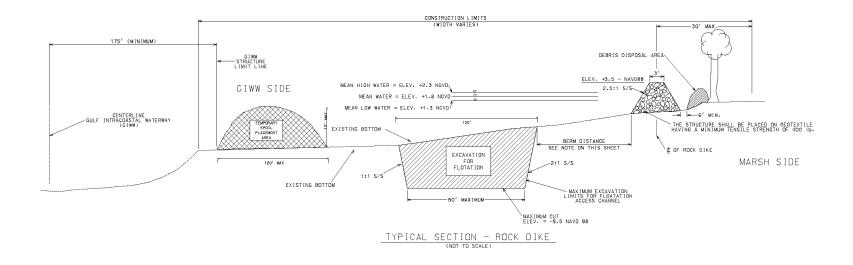


Figure 3. Map showing original TE-43 CWPPRA project with yellow lines indicating positions of CIAP sections, red lines indicating current CWPPRA TE-43 project, and white lines indicating those sections of segments eliminated from the project.



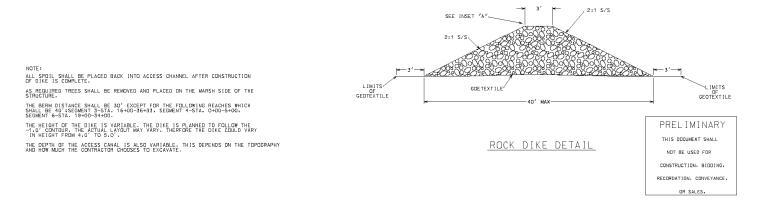


Figure 4 – Typical Rock Dike Section.

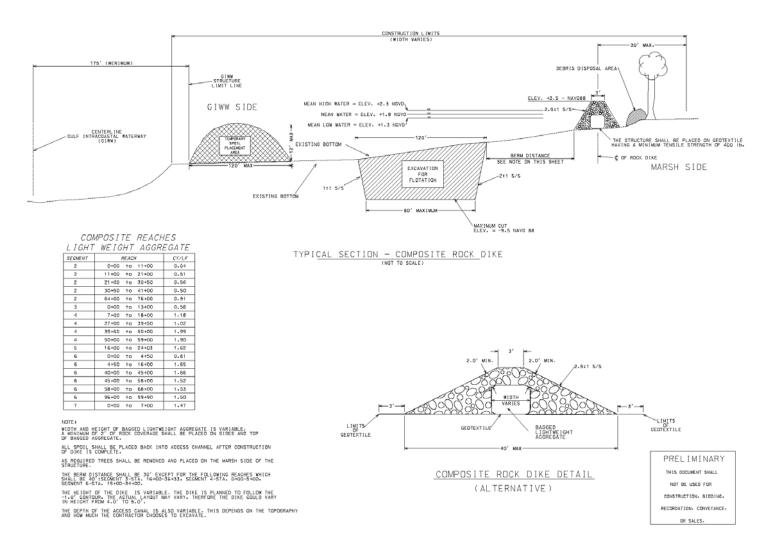


Figure 5 – Typical Composite Rock Dike Section

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 pro-rated benefit area is 345 acres for a net acres created/protected/restored of 79 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 \$14,537,387 (see fully funded cost spreadsheet). The Phase I cost is \$1,735,404. The total Phase II cost is estimated at \$12,670,305 and the Phase II-Increment 1 cost at \$10,934,322.

Final Project Fact Sheet

January 3, 2007

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.

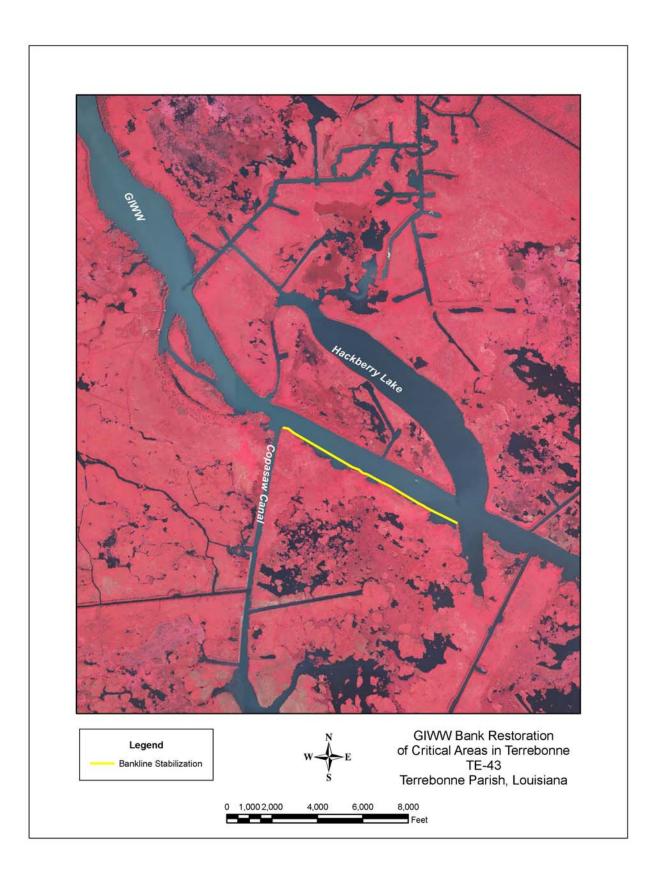
Goals - To enable the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to specific locations that would benefit from increased flows of fresh water and nutrients, and 2) To provide relief to marshes connected to the GIWW that are currently suffering from prolonged 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 345 acres adjacent to the largest floating marsh complex in coastal Louisiana and a predicted net acres created/protected/restored of 79 acres at TY20.

Project Cost – Total fully funded cost is \$14,537,387.

Sponsoring Agency and Contact – Natural Resources Conservation Service (NRCS) Ron Boustany, Project Manager, Lafayette, LA (337) 291-3067, ron.boustany@la.usda.gov



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).

M. A revised Wetland Value Assessment reviewed and approved by the Environmental Work Group.

Because the change in the segment lengths did not significantly alter the objectives of the project, the WVA was revised to reflect pro-rated benefits with respect to the length of the project features. Therefore, the environmental benefits associated with this project are adjusted proportionally to the size. The original Phase I benefited project area was 3,324 acres and the net acres created/protected/restored at TY20 were 366 acres. The revised pro-rated benefit area is 345 acres and the net acres created/protected/restored is 79 acres.

N. A breakdown of the Prioritization Criteria ranking score, finalized and agreed-upon by all agencies during the 95% design review.

The following Prioritization Criteria scores were submitted for reviewed by the Engineering and Environmental Work Groups and agreed upon by all agencies:

| Criteria | Score | Weight | Final Score |
|----------------------------|-------|--------|-------------|
| Cost Effectiveness | 1.0 | 2 | 2 |
| Area of Need | 2.9 | 1.5 | 4.35 |
| Implementability | 10 | 1.5 | 15 |
| Certainty of Benefits | 8 | 1 | 8 |
| Sustainability of Benefits | 4 | 1 | 2 |
| HGM – Riverine Input | 0 | 1 | 0 |
| HGM – Sediment Input | 0 | 1 | 0 |
| HGM – Landscape Features | 0 | 1 | 0 |
| Total Score | | | 31.4 |

CWPPRA GIWW Restoration of Critical Areas (TE-43) Phase II Request

Technical Committee Meeting

January 16, 2008

Baton Rouge, LA

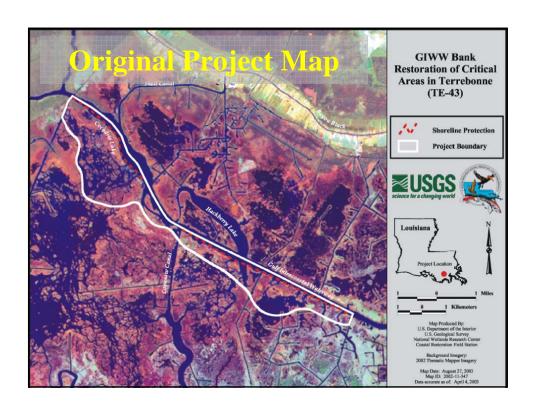
Project Overview

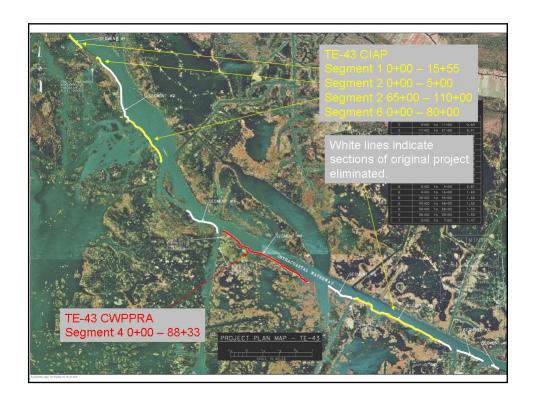
Project Location: Region 3, Terrebonne Basin, Terrebonne Parish, south bank of the GIWW from mile marker 80 to mile marker 70.

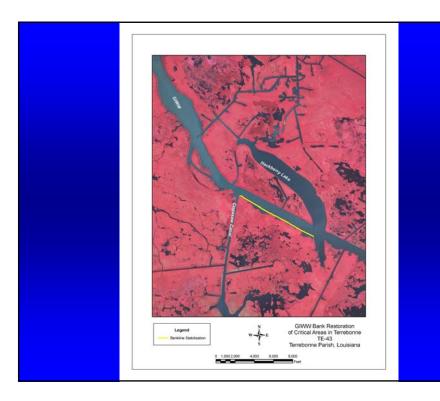
Problem: Deterioration of the southern bankline of the GIWW threatens fragile floating marshes of Penchant Basin and short-circuits freshwater conveyance to the east.

Goals:

- 1) Stop bankline erosion into the fragile floating marshes.
- 2) Maintain freshwater conveyance function of the GIWW.







Project Features Overview

- Installation of approximately 8,833 If 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: 345 acres

• Net acres after 20 yrs: 79 acres

• Prioritization Score: 31.4

• Project Costs:

Fully Funded Phase II \$12,670,322
 Phase II, Increment 1 \$10,934,322
 Total Fully Funded \$14,537,305

Project Comparison/Contrast

The Present vs. PPL # 10

- Original Phase II Funding vs Present Request:
 - •\$17,922,015 original
 - •\$12,801,404 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 345 acres and the acres created/protected/restored from 366 acres to 79 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?



TE-48-B - Raccoon Island Shoreline Protection/Marsh Creation Project $-\,CU~2$

United States Department of Agriculture



Natural Resources Conservation Service 3737 Government Street Alexandria, LA 71302

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

December 26, 2007

Mr. Troy Constance
Acting Chairman
CWPPRA Technical Committee
U.S. Army Corps of Engineers
Planning, Programs, and Project Management Division
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Constance:

RE: Raccoon Island Shoreline Protection/Marsh Creation Project (TE-48-B)

Construction Phase B

Phase Two Authorization Request

Pursuant to Revision 13.0 of the CWPPRA Standard Operating Procedures (Section 6.j. and Appendix C), please find enclosed the Phase Two Authorization Request package. This request is for the construction of Phase B of the Raccoon Island Shoreline Protection/Marsh Creation Project (TE-48). This project was authorized in January 2002 under Priority Project List 11 (PPL11) by the Louisiana Coastal Wetlands Conservation Task Force under the authority of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA).

1

If you or any members of the Planning and Evaluation Subcommittee, Technical Committee, or Task Force have any questions regarding this matter, please call me at (318) 473-7756.

Sincerely,

W. Britt Paul

Assistant State Conservationist

for Water Resources and Rural Development

Enclosures

cc: Darryl Clark, Technical Committee Member, USFWS, Lafayette, Louisiana Rick Hartman, Technical Committee Member, NMFS, Baton Rouge, Louisiana Sharon Parrish, Technical Committee Member, EPA, Dallas, Texas Gerry Duszynski, Technical Committee Member, LDNR/CRD, Baton Rouge, Louisiana Melanie Goodman, P&E Subcommittee Chair, USCOE, New Orleans, Louisiana Kevin Roy, P&E Subcommittee Member, USFWS, Lafayette, Louisiana Rachel Sweeney, P&E Subcommittee Member, NMFS, Baton Rouge, Louisiana Tim Landers, P&E Subcommittee Member, EPA, Dallas, Texas John Jurgensen, P&E Subcommittee Member, NRCS, Alexandria, Louisiana Dan Llewellyn, P&E Subcommittee Member, LDNR, Baton Rouge, Louisiana

Helping People Help the Land

Mr. Troy Constance Page 2 December 26, 2007

Ismail Merhi, Project Manager, LDNR, Baton Rouge, Louisiana Loland Broussard, Project Manager, NRCS, Lafayette, Louisiana Ronnie Faulkner, Design Engineer, NRCS, Alexandria, Louisiana Randolph Joseph, Jr., Area Conservationist, NRCS, Lafayette, Louisiana John Boatman, District Conservationist, NRCS, Thibodaux, Louisiana Chris Knotts, Director, Coastal Engineering Division, LDNR, Baton Rouge, Louisiana Kirk Rhinehart, Administrator, LDNR/CRD, Baton Rouge, Louisiana Sidney Coffee, Governor's Office of Coastal Activities, Baton Rouge, Louisiana John Petitbon, EngWG Chair, USCOE, New Orleans, Louisiana

2007 Phase II Authorization Request

Raccoon Island Shore Protection/Marsh Creation Project (TE-48) Phase B – Marsh Creation

1. Description of Phase I Project

This project is located in Terrebonne Parish, LA on Raccoon Island, which is the westernmost barrier island in the Isles Dernieres chain. The proposed project, as selected for Phase I authorization, featured the construction of eight additional segmented breakwaters along the gulf side of the island just west of the Raccoon Island Breakwaters Demonstration (TE-29) Project, connection of the existing breakwaters no. 0, 1, and 2 with rock riprap, and construction of an earthen dike between two peninsulas along the northern shore (bayside), in which backfill material will be placed between the dike and the island with dredged material from the bay. The benefits attributed to these features were a net increase of 108 acres by the end of the 20 year project life. The original Fact Sheet and Plan Map is included in Enclosure 1.

During Phase I implementation, Natural Resources Conservation Service (NRCS) and Louisiana Department of Natural Resources (LDNR) recognized that certain components of the project were independent of each other and those vital to the preservation and protection of the island could be pursued in an earlier time frame. The unprotected gulf shoreline of Raccoon Island is eroding at an alarming rate (USGS analysis indicates 52 feet per year) and is threatened by potentially devastating storms and hurricanes. The vegetated portion of the island is home to the largest concentration of nesting brown pelicans along the Louisiana coast with 5,000 nests estimated in 2004. It also supports the greatest diversity of nesting wading birds and colonial seabirds in Louisiana.

It was therefore proposed by NRCS and DNR and approved by the Engineering & Environmental Workgroups and Technical Committee (14 July 2004) to separate the TE-48 Project into two "independent" construction units, Phase A and Phase B. Phase A consists of the gulfside shoreline protection components of the project and Phase B involves the backbay marsh creation components. In September of 2005 a contract was awarded to construct the project features included in the Phase A (shoreline protection) portion of the TE-48 Project. Project features included an additional 8 breakwaters continuing westward from the existing TE-29 Demonstration Project and a groin connecting the terminal end of the eastern-most breakwater to the island. Construction was completed in September 2007.

2. Overview of Phase I Tasks, Process and Issues

Upon completion of all Phase I tasks for the Phase A (shoreline protection) portion of the project in September 2005, work on Phase I tasks for Phase B (marsh creation) commenced. A work plan was developed by NRCS and LDNR project team members that outlined outstanding tasks and agency responsibilities. A contract was awarded to SJB Group, LLC and Coastal Engineering Consultants Inc. to conduct offshore geophysical and geotechnical surveys, investigations, and analysis. In addition, a wave modeling analysis of the proposed borrow site relative to the island was also conducted. A final Geophysical and Geotechnical Survey Report

was provided on October 9, 2006. Information from a previous (Phase A) geotechnical investigation conducted by SJB Group, LLC and Soil Testing Engineers Inc. was utilized to evaluate foundation properties of the dredged spoil placement area for settlement and containment dike stability. The NRCS Thibodaux Watershed Office conducted hydrographic and topographic design level surveys and the Alexandria Design Section performed all engineering and designs for the project. The LDNR prepared the draft Ecological Review report. Land ownership and oyster lease investigations were conducted during the Phase A portion of the project. Decisions and results of these investigations were determined valid and applicable for Phase B. Consultation with the U. S. Department of Interior, Mineral Management Service (MMS) was initiated due to the proposed borrow area for dredged material was located in offshore continental waters.

A draft 30% Design Report and supporting materials were submitted to LDNR on June 29, 2007, for their review and comment. Upon receipt of LDNR's comments and a revision of the report, a 30% Design Review conference was held on October 24, 2007. Thereafter, LDNR provided concurrence via letter dated November 7, 2007, to proceed with the design of the project. Design plans and specifications were further developed to the 95% level and resulted in a revised construction cost estimate. Due to the variance in cost (50% reduction) between 30% and 95% estimates, NRCS requested a third-party cost estimate from the USCOE because of their familiarity and experience with similar type construction. The USCOE's estimated costs were inline with the 95% estimate, therefore NRCS/DNR's 95% estimated costs were not changed. A 95% Design Report, including all supporting appendices, was posted for agency review on December 5, 2007. A 95% design review conference was held on December 19, 2007. Minor comments were received from participating agencies, therefore LDNR issued a letter of concurrence dated December 20, 2007, to proceed with final designs of the project.

The only issue to surface during Phase I of this project was the question of whether a closer borrow site to the island than that proposed could possible yield similar, comparable material at a much lesser cost due to the reduction in pumping distance. At the 95% conference, the consulting firms who conducted the geophysical and geotechnical investigations, along with LDNR design personnel, provided detailed, site specific reasons as to why the currently proposed borrow site was the preferred site to obtain suitable material. Comments received at the conference and from post-conference correspondence acknowledged that the explanation provided by the groups mentioned above was sufficient to address stated concerns. Currently there are no outstanding issues regarding the borrow site selected for Phase B. In a postconference email, NMFS elaborated on an unresolved issue regarding the downstream effect that Phase A components (shoreline protection) may have on the western shoal area and the mitigative requirements that may be imposed on Phase B. Due to the recent completion of Phase A construction, such effects have not been determined. However, it is anticipated to take 9 months to a year to obtain an OCS lease from MMS for the mining of OCS material for Phase B construction and in the interim specific bathymetric and topographic monitoring of the eastern shoal will be conducted by LDNR. If required, mitigative compensatory measures will be implemented in Phase B.

3. Description of Phase II Candidate Project

A current Project Fact Sheet and Map for the Phase B portion of the TE-48 Project is included in Enclosure 3 of this report. The Fact Sheet includes a detailed description of the Phase B project

features, a summary of benefits, and the estimated fully funded cost of the project. The Project Map depicts the project boundary, previously installed components of the TE-29 Raccoon Island Demonstration Project and TE-48-A Raccoon Island Shore Protection Project, and currently proposed TE-48-B Raccoon Island Marsh Creation Project components.

4. Checklist of Phase II Requirements

A. List of Project Goals and Strategies.

The project goals specific to Phase B are to reduce the rate of shoreline retreat on the bayside of the island, protect and enhance existing critical habitat, and create over 60 acres of new barrier island habitat for avian species. The strategies developed to meet project goals are to create an intertidal buffer with dredged material to extend the longevity of existing and created bayside dune, supratidal, and intertidal areas and plant newly created areas with woody and herbaceous plant species that are native to gulf coast barrier islands.

B. A statement that the Cost Sharing Agreement between the Lead Agency and Local Sponsor has been executed for Phase I.

A Cost Sharing Agreement has been executed between NRCS (NRCS Agreement No. CWPPRA-02-03) and DNR (DNR Agreement No. 2511-02-20), dated May 1, 2002.

C. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase II approval.

The sole landowner for the TE-48 Project is the Louisiana Department of Wildlife and Fisheries (LDWF). The State informed NRCS via a memorandum dated May 18, 2004, that the CRD Landrights Section has taken a letter of agreement from LDWF and assigned to NRCS. A follow-up email was received from CRD Landrights on June 8, 2006, stating the 18 May 2004, memo is still current and all landrights for the project appear to be in place. Jim Altman, LDNR Landrights Section, confirmed at the 95% Design Review Conference held on December 19, 2007, that all landrights have been secured for Phase B.

D. A favorable Preliminary Design Review (30% Design Level).

A draft 30% Design Report and supporting materials were submitted to LDNR on June 29, 2007, for their review and comment. The report and supporting materials included engineering and design surveys, geophysical/geotechnical investigations and analysis results, wave refraction modeling analysis, draft LDNR Ecological Review, preliminary design drawings, landrights investigations, and a cost estimate of all construction items. Upon receipt of LDNR's comments and a revision of the report, a revised 30% Design Report and supporting information were posted on LDNR's ftp site for agency review on October 10, 2007. A 30% Design Review Conference was held on October 24, 2007. Comments from CWPPRA agencies were received and incorporated into project designs. Thereafter, LDNR provided concurrence via letter dated November 7, 2007, to proceed with the design of the project.

E. Final Project Design Review (95% Design Level).

All oral and written comments received from the 30% Design Review were addressed in the 95% Design Review report. A draft 95% Design Report and supporting information were submitted to LDNR on November 14, 2007, for their review and comment. In addition to information provided at the 30% design level, NRCS included a revised construction cost estimate, 95% design drawings and technical specifications, an updated Wetland Value Assessment, draft Prioritization Fact Sheet, and a draft OMRR&R Plan and budget. Upon receipt of LDNR's comments and a revision of the report, a revised Final Design Report and supporting information were posted on LDNR's ftp site for agency review on December 5, 2007. A 95% Design Review Conference was held on December 19, 2007. All issues and concerns relative to proposed project components raised at the 95% conference were addressed by NRCS and LDNR project team members and participating consultants. As a result of not having any outstanding issues or concerns, LDNR submitted their letter of concurrence, dated December 20, 2007, for NRCS to complete the design of the project and pursue Phase 2 funding. A copy of the letter of concurrence is included in Enclosure 4-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 Phase II approval.

A draft Environmental Assessment (EA) of the project was submitted to state, federal, and local interested parties for review and comment on September 13, 2004, as required by the National Environmental Policy Act. Comments received were incorporated into a final document. A Final Environmental Assessment and Finding of No Significant Impact (FONSI) were released to interested parties on March 24, 2005. A copy of the signed FONSI is included in this report in Enclosure 4-F.

For the Phase B (marsh creation) area on Raccoon Island, SHPO concurrence was obtained in August 2006 that no archaeological sites or historical properties are anticipated to be impacted by project construction. Prior to the mining of any outer continental shelf (OCS) material, Public Law 103-426 requires the U.S. Department of Interior, Mineral Management Service (MMS) to enter into a Memorandum of Agreement (MOA) with the participating federal and state agency which addresses potential uses of OCS sand and gravel resources. Ongoing coordination with MMS is currently taking place due to the proposed offshore borrow site being beyond the 3-mile state limit and considered in federal territory (i.e. outer continental shelf). The next step of the cultural resources coordination will be to determine if a previously conducted survey (SJB/CEC) that targeted the borrow site, is in compliance with MMS archaeological resource requirements. If any procedural methods of collecting the data is in non-compliance, additional field surveys will be required along with the preparation of an archaeological report. Also, MMS requires an environmental assessment of impacts specifically targeted to the borrow site. NRCS has begun this assessment and the results will be included as an addendum to the existing EA mentioned above.

G. A written summary of the findings of the Ecological Review.

A draft Ecological Review, dated December 2007, has been completed by LDNR's Coastal Restoration Division. A copy of the report is available at the following link: the report is available at the following link: the report is available at the following link: the report is available at the following link: the report is available at the following link: the report is available at the following link: the report is available at the following link: the report is available at the following link: the report is available at the following link: the report is available at the following link: the report is available at the following link: <a href="mailto:t

The recommendation of the report states "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 Raccoon Island Shoreline Protection/Marsh Creation, Phase B Project will likely achieve the desired ecological goals". A Final Ecological Review document will be completed and provided by LDNR after the 95% Design Review phase.

H. Application for and/or issuance of the public notices for permits.

A draft joint 404/CUP application was prepared for NRCS, DNR, and LDWF review and comment in December 2007. Final approval of project features for Phase B was solicited and accepted by all parties at the 95% Design Review Conference held on December 19, 2007. A formal Joint 404/CUP Permit Application was submitted for processing by the Natural Resources Conservation Service, serving as the agent for the Louisiana Dept. of Wildlife & Fisheries (permittee), on December 21, 2007.

I. A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.

NRCS determined that an HTRW assessment is not required.

J. Section 303(e) approval from the Corps.

Section 303e approval was granted by the Corps Real Estate Division on May 25, 2004. A copy of the approval letter can be obtained by contacting one of the sponsoring agency personnel.

K. Overgrazing determination from the NRCS (if necessary).

NRCS has determined that overgrazing is not a problem within or near the project area, nor is there future potential for such problem.

L. Revised fully funded cost estimate of Phase II activities based on the revised Project design.

- 1) The specific Phase 2 funding request (updated construction estimate, three years of monitoring, and O&M) for TE-48 Phase B is \$9,182,101.
- 2) The current estimated fully funded cost for TE-48 Phase B is \$10,204,827. This cost reflects a fully funded estimate provided by Allan Hebert, EcoWG Chairman, on December 20, 2007.

M. A Wetland Value Assessment reviewed and approved by the Environmental Workgroup.

A revised Wetland Value Assessment has been prepared for Phase B of the TE-48 Project. The WVA was submitted for review to the Environmental Workgroup (EnvWG) by EnvWG Chairman, Kevin Roy, on November 8, 2007. Comments received were incorporated into a final document dated December 11, 2007. A copy of that document is available at the following link:

ftp://ftp.dnr.state.la.us/pub/CED%20Project%20Management/NRCS/TE-48-B-Raccoon-MC/2007-12-05-95PercentAgenciesReviewPackage/

N. A breakdown of the Prioritization Criteria ranking score, finalized and agreed upon by all agencies during the 95% review.

A Prioritization Fact Sheet for the Phase B portion of the TE-48 Project was submitted to the Environmental and Engineering Workgroups for review on November 16, 2007. Based on comments received and a confirmed fully funded project cost estimate, an updated Prioritization Fact Sheet was provided to appropriate CWPPRA personnel via email on December 21, 2007. Listed below are current prioritization criterion and associated scores:

| Criteria | Score | Weight | Result |
|----------------------------|-------|--------|--------|
| Cost Effectiveness | 1 | 2 | 2 |
| Area of Need | 1.3 | 1.5 | 1.95 |
| Implementability | 10 | 1.5 | 15 |
| Certainty of Benefits | 7 | 1 | 7 |
| Sustainability of Benefits | 6 | 1 | 6 |
| HGM – Riverine Input | 0 | 1 | 0 |
| HGM – Sediment Input | 5 | 1 | 5 |
| HGM – Landscape Features | 10 | 1 | 10 |
| Total Score | | | 46.95 |

A copy of the Final Prioritization Fact Sheet is available at the following link: ftp://ftp.dnr.state.la.us/pub/CED%20Project%20Management/NRCS/TE-48-B-Raccoon-MC/2007-12-05-95PercentAgenciesReviewPackage/

7

Enclosure 1

PPL11 PROJECT NOMINEE FACT SHEET

May 2, 2001 FINAL

Project Name and Number

Raccoon Island SP/MC (TE 14-2)

Coast 2050 Strategy

Region 3, Terrebonne Basin, Regional Strategy #14 – Restore and maintain the barrier islands and gulf shorelines such as Isle Dernieres, Timbalier barrier island chains, Marsh Island, Point au Fer and Chenier au Tigre (including back barrier beaches).

Location

Western-most island on the Isles Dernieres barrier island chain in Region 3, Terrebonne Parish in Terrebonne Basin.

Problem

The Isle Dernieres barrier island chain is experiencing some of the highest rates of erosion of any coastal region in the world. Raccoon Island is experiencing shoreline retreat both gulfward and bayward of the island threatening one of the most productive wading bird nesting area and shorebird habitats along the gulf coast.

Goals

The existing demonstration project on the eastern end of the island has proven that segmented breakwaters can significantly reduce, and perhaps reverse, shoreline erosion rates. The primary goal of this project is to protect the Raccoon Island rookery and seabird colonies from encroaching shoreline by reducing the rate of shoreline erosion along the western gulfward side and extend the longevity of northern backbay areas by creating intertidal wetlands.

Proposed Solution

Construction of eight additional segmented breakwaters along the Gulf side of the island just west of the Raccoon Island Breakwaters Demonstration (TE-29) project, realignment of existing breakwaters 0, 1, and 2, and construction of an earthen dike along the northern shore to create a backbay enclosure which will be filled with sediments dredged from the bay. No maintenance will be required for the proposed features.

Preliminary Project Benefits

The proposed project is expected to reduce and perhaps reverse existing shoreline retreat behind the breakwaters, and create intertidal marsh in the backbay area of the island. This will provide a net gain of 108 acres by the end of the 20-year project life. Within that area, the loss rate reduction is estimated to be >75%.

Compatibility with Coast 2050 Criteria

Wetland Elevation/Sustainability

The project is expected to sustain 166 acres over the life of the project that would otherwise be lost. (10th yr. WVA)

Ecosystem Influence Area

Project area is 213 acres. (10th yr. WVA). There are no near headlands that can be effected by this island.

Structural Framework

This project maintains and restores a major portion of a barrier island and therefore meets the structural component of the coastal ecosystem necessary to sustain the diverse vegetation of the project area.

Infrastructure

This project will have a net positive impact on critical infrastructure.

Organism and Material Linkages

Variable 6 on the 10th yr. WVA had a value of 1.0 with and without project at TY-20 in all areas, therefore is consistent with achieving this objective.

Coast 2050 Habitat Objectives

The Coast 2050 Habitat Object for this area is to restore and maintain a barrier island and this project achieves that goal.

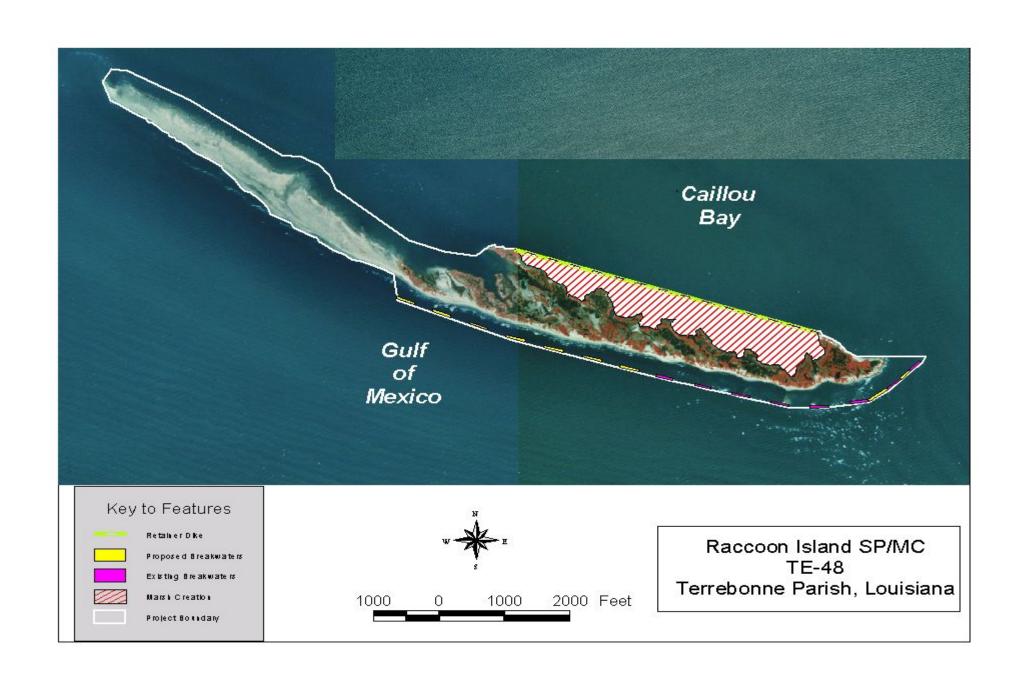
Preliminary Construction Costs

\$7,130,000

Preparer of Fact Sheet

Marty Floyd, NRCS 318-473-7690 marty.floyd@la.usda.gov Loland Broussard, NRCS 337-291-3060 loland.broussard@la.usda.gov

Project Map



Enclosure 3

FINAL PROJECT FACT SHEET

December 20, 2007

Project Name: Raccoon Island Shoreline Protection/Marsh Creation (TE-48)
Phase B – Marsh Creation

Coast 2050 Strategy: Regional # 14 – Restore and maintain the barrier islands and gulf shorelines.

Project Location: This project is located in Terrebonne Parish, LA on Raccoon Island, which is the westernmost barrier island in the Isles Dernieres chain and falls within Region 3 of the Coast 2050 management plan. The project area encompasses approximately 213 acres of beach, shrub, saline marsh habitat and water.

Problem: The Isle Dernieres barrier chain is experiencing some of the highest rates of erosion of any coastal region in the world. This has led to the rapid landward migration (barrier island rollover) and disintegration of the Isle Dernieres, as well as a decrease in the ability of the island chain to protect the adjacent mainland marshes and wetlands from the effects of storm surge, salt water intrusion, an increased tidal prism, and energetic storm waves.

Goals: 1) reduce the rate of shoreline retreat; 2) protect and enhance existing critical habitat; and 3) create over 60 acres of new barrier island habitat for avian species.

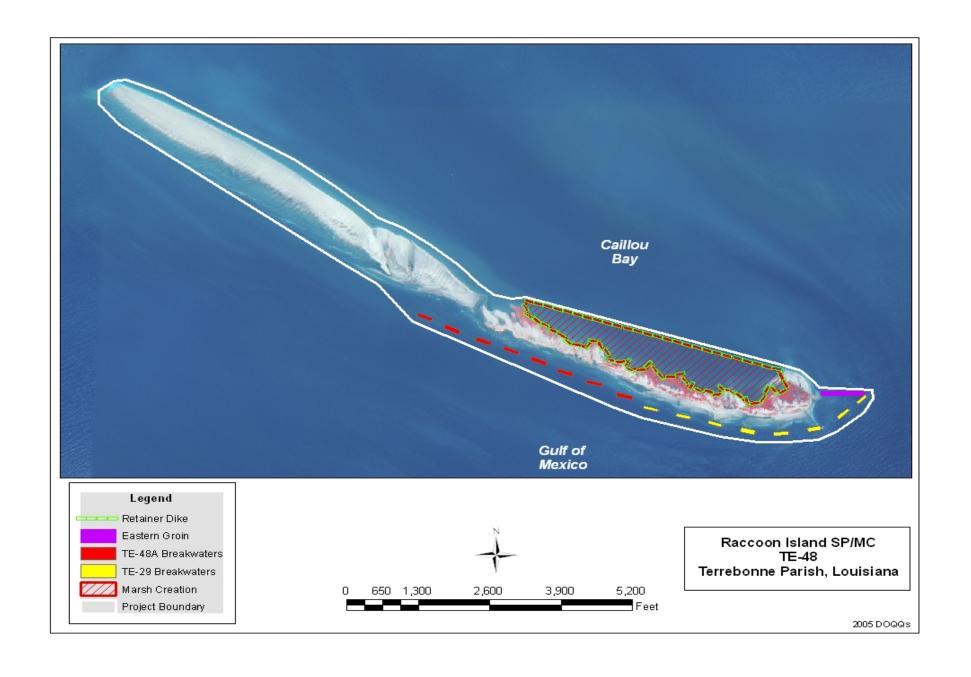
Proposed Solution: Final design features for the Phase B portion of the TE-48 Project include constructing approximately 10,900 linear feet of containment dikes (~14 acres), create a marsh platform of 54 acres with hydraulically dredged material, and plant the newly created area with woody and herbaceous species. The bayside containment dike, located between two peninsulas on the north shore of the island, will be approximately 4,800 feet in length and have the following minimum dimensions: a top width of 20 feet and crest elevation of +5.0' NAVD88, a bayside side slope of 6H:1V and island-side slope of 5H:1V. Several tidal openings will be created post-construction in the bayside retainer dike to allow ebb and flood tidal flows within the created marsh platform. The island-side containment dike, located along the northern shoreline of the island between the two peninsulas mentioned above, will be approximately 6,100 feet in length and have the same minimum dimensions as the bayside dike except both side slopes will be 5H:1V. A marsh platform will be created within the totally contained area with dredged material obtained from an offshore borrow site located approximately 3.8 miles SSE of Raccoon Island. Vegetative plantings will be phased over two or three applications on the marsh platform and on containment dikes to provide cover and nesting habitat for resident avian species.

Project Benefits: The project anticipates creating approximately 68 total acres consisting of 54 acres in subaerial intertidal habitat, 3 acres of subaerial dune habitat (≥ 5 ft NAVD 88) and 11 acres of subaerial supratidal habitat (2.0 to 4.9 ft NAVD 88). The FWP projection for Phase B is that 54.8 acres of the 68 created will remain and that the entire island will lose approximately 56 acres by TY20.

Estimated Fully Funded Costs: The totally fully funded cost of Phase B of the TE-48 Project is estimated at \$10,204,827.

Sponsoring Agency & Contact Persons:

Loland Broussard, NRCS PM, 337-291-3060, <u>loland.broussard@la.usda.gov</u> Ismail Merhi, LDNR PM, 225-342-4027, <u>ismailm@dnr.state.la.us</u>



Enclosure 4-E

Enclosure 4-F



Natural Resources Conservation Service 3737 Government Street Alexandria, Louisiana 71302

FINDING OF NO SIGNIFICANT IMPACT

TE-48 RACCOON ISLAND SHORE PROTECTION/MARSH CREATION PROJECT TERREBONNE PARISH, LOUSIANA 4

Introduction

The Raccoon Island Shore Protection/Marsh Creation Project is a federally assisted action authorized for planning and funding under Public Law 101-646, Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). An Environmental Assessment (EA) was undertaken in conjunction with the development of this project plan. The EA describes the proposed project and evaluates the potential impacts attributed to the proposed features of the project within the Terrebonne Basin. This document was prepared in consultation with local, state, and federal agencies as well as with interested organizations and individuals. Data collected during the assessment are available for public review at the following location:

U.S. Department of Agriculture Natural Resources Conservation Service 3737 Government Street Alexandria, LA 71302

Recommended Action

The United States Department of Agriculture, Natural Resources Conservation Service proposes to protect and restore a portion of the westernmost barrier island in the Isles Dernieres chain in Terrebonne Parish, Louisiana. The project will protect the Raccoon Island rookery and seabird colonies threatened by a retreating shoreline by reducing the rate of erosion along the western end of the island and create more land and avian habitat along the northern shoreline. The recommended plan consists of installing eight segmented breakwaters immediately west of the existing Raccoon Island Breakwater Demonstration Project (TE-29); installing an eastern terminal groin structure extending to existing breakwater 0; and create approximately 60 acres of new habitat for bird species on the northeast portion of the island by backfilling an open water area with suitable dredged material.

Effects of Recommended Action

The project will prevent the loss of 62 acres of beach and saline marsh and create 78 acres of dune, supratidal, and intertidal habitat. It will also encourage littoral sediment deposition and accretion landward of the breakwaters to further reduce wave energy impacts, improve support of wildlife populations by enlarging habitat areas, and substantially improve the recovery potential of lost resources due to severe tropical storm events. This project is not anticipated to cause any long-term, significant, adverse environmental impacts.

Alternatives

Three alternatives were considered, the No Action Alternative, the Shoreline Protection Alternative, and the Shoreline Protection/Marsh Creation Alternative. Investigations of all alternatives indicate that the significant resources within the project area will benefit by implementing the Shoreline Protection/Marsh Creation Alternative. Whereas, the No Action Alternative would allow for the continuing deterioration of shorelines and interior marshes resulting in significant loss of habitat for colonial waterbirds, neotropical migrants, and the endangered brown pelican. Although, the Shoreline Protection Alternative would protect the gulf shoreline from further deterioration, it would not allow for the enlargement of bay side dune and supratidal habitat that is critically important in the continued support of avian species and island longevity.

Consultation - Public Participation

Upon signature of this Finding of No Significant Impact (FONSI), a Notice of Availability will be sent to concerned federal, state, local, and other organizations and individuals known to have an interest in the proposed project. The proposed project has been coordinated with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency - Region VI, U.S. Army Corps of Engineers - New Orleans District, Advisory Council on Historic Preservation, Louisiana Department of Natural Resources - Coastal Management Division and Coastal Restoration Division, Louisiana Department of Wildlife and Fisheries, Louisiana Department of Environmental Quality, and the Louisiana State Historic Preservation Officer.

A draft project Plan/EA was transmitted to federal, state, and local agencies, as well as other interested parties and individuals for review and comment in September 2004. Comments received and responses to those comments are provided in Appendix F of the final Plan/EA.

Project development and selection under the CWPPRA process utilizes input from the public, in addition to local, state, and federal agency input. Public involvement in CWPPRA is achieved through annual public meetings conducted during project development and selection stages. Landowners in the project area are in full support of this project.

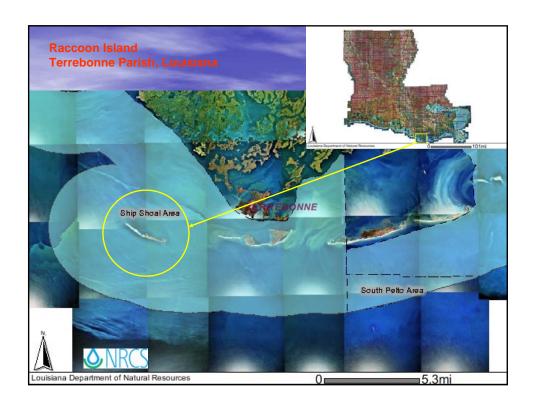
Agency consultation and public participation to date have shown no unresolved conflicts with implementation of the selected plan.

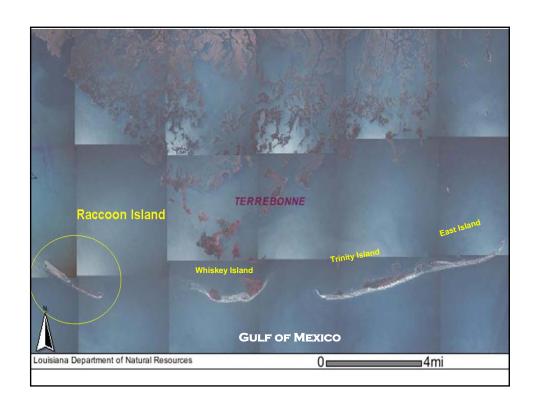
Conclusion

This office has assessed the environmental impacts of the proposed work and has determined that the project will have no significant adverse local, regional, or national impacts on the environment. Therefore, no Environmental Impact Statement (EIS) or Supplemental EIS will be prepared.

Donald W. Gohmert State Conservationist Date







TE-48 Raccoon Island Shoreline Protection & Marsh Creation Project

Project Overview

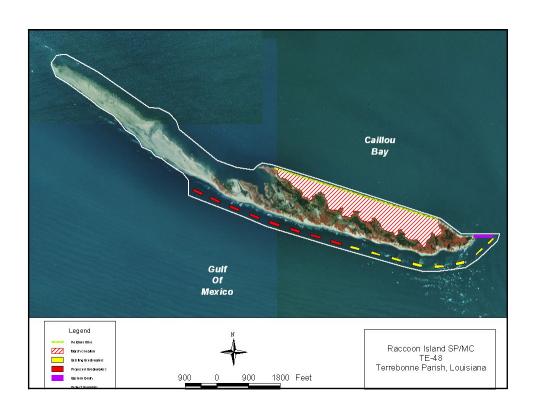
Project Location: Region 3, Terrebonne Basin, Terrebonne Parish, Isles Dernieres Barrier Island Chain.

Problem: The Isle Dernieres barrier island chain is experiencing some of the highest rates of erosion of any coastal region in the world. Raccoon Island is experiencing shoreline retreat both gulfward and bayward and is subjected to severe overwash from tropical storm events due to the low profile of the island.

TE-48 Raccoon Island Shoreline Protection & Marsh Creation Project

Phase A

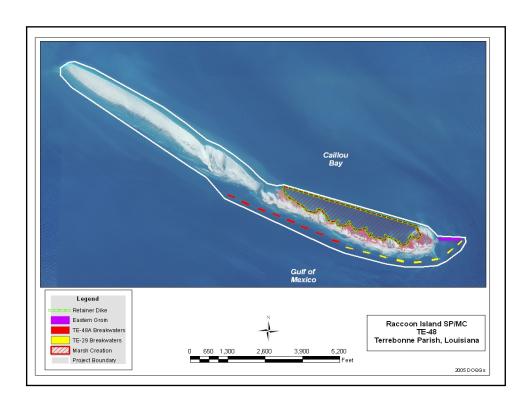
- Bid Opening August 3, 2005
- Construction Bid \$ 4,056,033
 - **8 Segmented Breakwaters**
 - 1 Eastern Groin
- Notice to Proceed December 12, 2005
- Performance Time 208 calendar days
- Construction Ended September 5, 2007

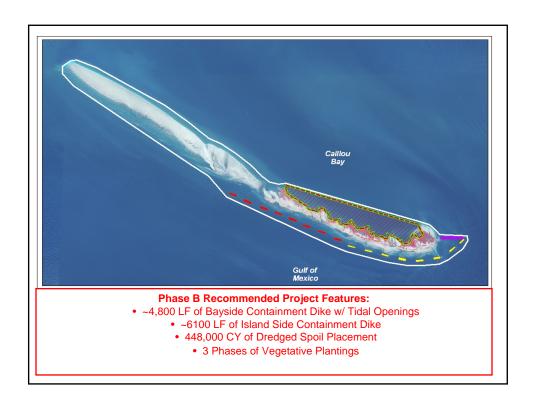


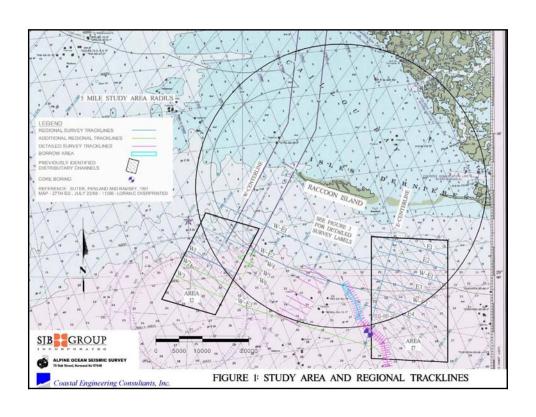
TE-48 Raccoon Island Shoreline Protection & Marsh Creation Project

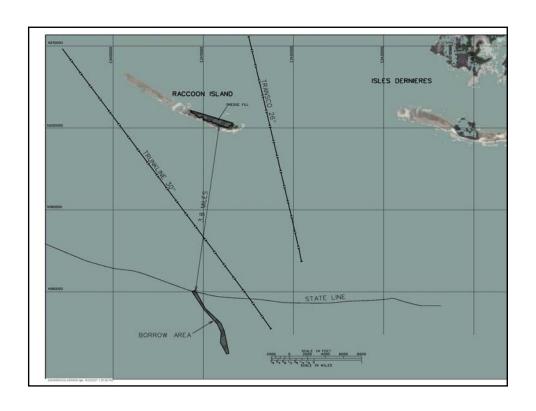
Phase B

- Engineering & Design Complete Sept 26, 2007
- 30% Design Review October 24, 2007
- 95% Design Review December 19, 2007
- Phase 2 Authorization Request
 Technical Committee Mtg January 16, 2008
 Task Force Mtg February 13, 2008









TE-48 Raccoon Island Shoreline Protection & Marsh Creation Project

Project Benefits and Costs

- Total Acres Benefited at TY20 = 55 acres
- The Fully Funded Cost for Phase B = \$10,204,827
- The Phase 2 Requested Amount = \$9,182,101
- Prioritization Score = 47.0

TE-48 Raccoon Island Shoreline Protection & Marsh Creation Project

Why Should this Project be Funded this Year?

- Raccoon Island supports one of the most productive wading bird nesting area and shorebird habitats along the gulf coast.
- The island is also home to the largest nesting colony of brown pelicans (T&E Species) in coastal Louisiana.
- 100% Landowner Support.

Marsh Creation (Ac)

- One of the most vulnerable barrier islands along the La. coast that could completely disappear in the near future.
- The project is synergistic w/ Phase A by providing bayside protection of existing valuable avian habitat and completing the goals and objectives of the TE-48 Project.

TE-48 Raccoon Island Shoreline Protection Marsh Creation Project **CWPPRA PPL11 (2002)** CHANGES FROM PHASE O APPROVAL Item Phase 0 Project **Current Project** % Change **Fully Funded Cost** \$17.813.865 \$10.355.700 + 72% Project Area (Ac) 327 327 0% Proposed Features (#) 4 4 0%

68

0%

68









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

United States Department of Agriculture



Natural Resources Conservation Service 3737 Government Street Alexandria, LA 71302

Alexandria, LA 71302 FAX: (318) 473-7626

(318) 473-7751

January 2, 2008

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

Dear Mr. Constance:

RE: South Shore of The Pen Shoreline Protection and Marsh Creation Project (BA-41)
Phase Two Authorization Request

à,

By this letter, the Natural Resources Conservation Service and the Louisiana Department of Natural Resources request Phase Two Authorization for the South Shore of The Pen Shoreline Protection and Marsh Creation Project (BA-41), consisting of 307 acres of marsh creation and nourishment and 11,750 feet of rock shoreline protection located on the south shore of The Pen in Jefferson Parish, Louisiana.

Pursuant to Revision 13.0 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 13.0 of the CWPPRA Standard Operating Procedures Appendix C, 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,

Britt Paul

Assistant State Conservationist/Water Resources

Mr. Troy Constance Page 2 January 2, 2008

cc (via email only):

Gerry Duszynski, DNR Technical Committee Member Darryl Clark, USFWS Technical Committee Member Rick Hartman, NMFS Technical Committee Member Sharon Parrish, EPA, Technical Committee Member Melanie Goodman, P&E Subcommittee Chair Dan Llewellyn, DNR P&E Subcommittee Member Kevin Roy, USFWS P&E Subcommittee Member Rachel Sweeney, NMFS P&E Subcommittee Member Tim Landers, EPA P&E Subcommittee Member John Jurgensen, NRCS P&E Subcommittee Member Sidney Coffee, GOCA Anne Gallagher, USCOE Contractor Quin Kinler, Project Manager, NRCS Ismail Merhi, Project Manager, LDNR Michael Trusclair, District Conservationist, NRCS Ronnie Faulkner, Design Engineer, NRCS Randolph Joseph, Jr., AC, NRCS

Overview of Phase One Tasks, Process and Issues

Environmental Compliance Tasks.

The South Shore of The Pen Shoreline Protection and Marsh Creation Project (BA-41) Environmental Assessment was distributed for interagency review in December 2007. A final Environmental Assessment is expected to be completed by March 2008.

Application for the Section 404 permit, CZM Consistency Determination, and Water Quality Certification was submitted in December 2007.

The December 19, 2007, draft Ecological Review concludes that the project will likely achieve its ecological goals and recommends that the project be considered for Phase II authorization.

Engineering Tasks.

The results of the Engineering Tasks up to the 95% Design Review Conference are presented in the November 2007 Design Report which has previously been made available to all CWPPRA agencies. Minor revisions will be made to the Design Report in January 2008 as a result of the 95% Design Review Conference.

Landrights Tasks.

By letter to Melanie Goodman, Corps of Engineers, dated December 11, 2007, LDNR has notified the Corps that landrights will be completed in a short period of time after Phase II approval (copy enclosed).

Description of the Phase Two Candidate Project

The South Shore of The Pen Shoreline Protection and Marsh Creation (BA-41) Phase Two Candidate Project consists of approximately 11,750 feet of foreshore rock dike, and approximately 175 and 132 acres of marsh creation and nourishment, respectively. See Figure 2. The current project represents a change in project scope which was approved by the Task Force in November 2007.

The foreshore rock dike shall be constructed to an elevation of 2.0 feet NAVD88. The foreshore rock dike shall have a top width of three feet and side slopes of 2.5:1 (horizontal:vertical). To allow continued aquatic organism ingress and egress and adequate discharge of surface water flow, two existing bayous will remain open and a site-specific opening to The Pen will be incorporated. The opening to The Pen will be approximately 20 feet wide and lined with rock at an elevation at or below -1.32 feet NAVD88.

The marsh creation and nourishment area will be encircled with approximately 25,000 feet of containment dike, built to an elevation of approximately 5 feet NAVD88. Approximately 2,300,000 cubic yards of material will deposited at an initial fill height of 2.8 feet NAVD in the northern site and 3.1 feet NAVD88 in the southern site. Target elevation for marsh creation is 1.3 feet NAVD88 at five years post construction.

The current fully-funded cost estimate for Phase II Total of the The South Shore of The Pen Shoreline Protection and Marsh Creation (BA-41) is \$27,895,605. The current fully-funded cost estimate for Increment 1 is \$26,086,600.

The revised WVA, completed in December 2007, predicts that the project would yield 211 net acres over the 20 year project life and produce 84.22 Average Annual Habitat Units. The "Prioritization Fact Sheet" has been updated (January 8, 2008), and it yielded a total prioritization score of 49.85.

Checklist of Phase Two Requirements

- A. List of Project Goals and Objectives. The objective of BA-41 is to eliminate shoreline erosion along the south shore of The Pen, and to create approximately 175 acres and nourish approximately 132 acres of marsh.
- B. Cost Sharing Agreement for Phase One. The Cost Sharing Agreement for Phase One of BA-41 was executed between DNR and NRCS on December 7, 2005.
- C. Landrights Notification. By letter to Melanie Goodman, Corps of Engineers, dated December 11, 2007, LDNR has notified the Corps that landrights will be completed in a short period of time after Phase II approval (copy enclosed).
- D. Favorable Preliminary Design Review. A favorable 30% Design Review was conducted on October 19, 2007.
- E. Final Project Design Review. The 95% design review was conducted on December 12, 2007, with favorable results.
- F. Environmental Assessment. The BA-41 Environmental Assessment was distributed for interagency review in December 2007. A final Environmental Assessment is expected to be completed by March 2008.
- G. Findings of Ecological Review. The December 19, 2007, draft Ecological Review concludes that the project will likely achieve its ecological goals and recommends that the project be considered for Phase II authorization.
- H. Application / Public Notice for Permits. Application for the Section 404 permit, CZM Consistency Determination, and Water Quality Certification was submitted in December 2007.
- I. HTRW Assessment. NRCS procedures do not call for an HTRW assessment on this project.
- J. Section 303e Approval. Section 303e approval was granted by the Corps Real Estate Division on November 27, 2007.
- K. Overgrazing Determination. NRCS has determined that overgrazing is not, and is not anticipated to be, a problem in the project area.
- L. Revised fully funded cost estimate, generated by the Economic Work Group, is \$29,206,749. The revised fully funded cost estimate for Phase II is \$27,895,605. The revised fully funded

- cost estimate for Phase II Increment 1 is \$26,086,600. The required spreadsheet is enclosed.
- M. Wetland Value Assessment. The Wetland Value Assessment was updated in December 2007, and all Task Force agencies were provided a copy
- N. Prioritization Criteria ranking score. The Prioritization Fact Sheet was updated January 8, 2008, and provided to the Engineering and Environmental Work Groups.

| Criteria | Score | Weight Factor | Contribution to Total |
|--------------------------------|-------|---------------|-----------------------|
| | | | Score |
| Cost Effectiveness | 2.5 | 2 | 5 |
| Area of Need, High Loss Area | 5.7 | 1.5 | 8.55 |
| Implementability | 10 | 1.5 | 15 |
| Certainty of Benefits | 7.3 | 1 | 7.3 |
| Sustainability of Benefits | 4 | 1 | 4 |
| Increasing riverine input | 0 | 1 | 0 |
| Increased sediment input | 0 | 1 | 0 |
| Maintaining landscape features | 10 | 1 | 10 |
| TOTAL SCORE | | | 49.85 |



Figure 1. Original (Phase One) project area map for South Shore of The Pen Shoreline Protection and Marsh Creation Project (BA-41).

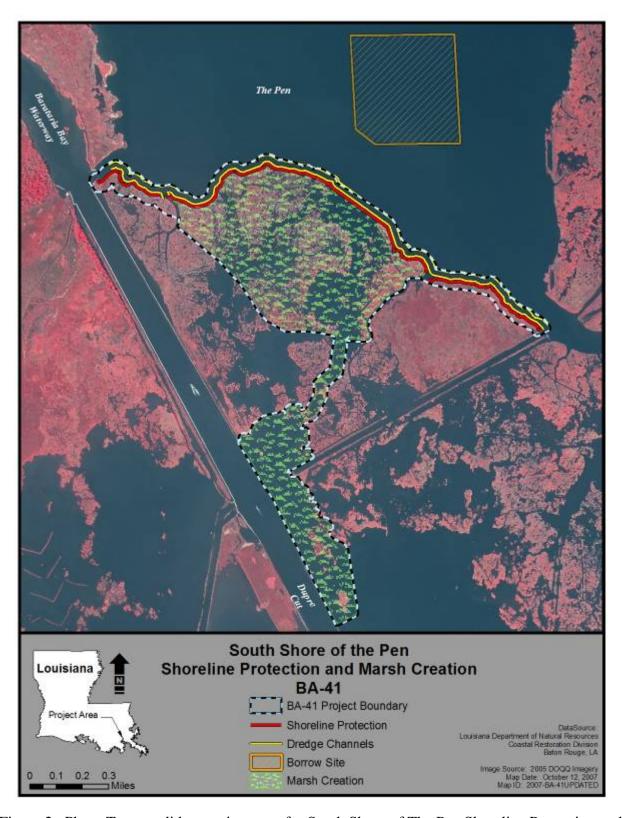


Figure 2. Phase Two candidate project map for South Shore of The Pen Shoreline Protection and Marsh Creation (BA-41).



SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

December 11, 2007

Ms. Melanie Goodman CWPPRA Planning and Evaluation Committee U.S. Army Corps of Engineers P.O. Box 60267 New Orleans Louisiana 70160-0267

RE: South Shore of the Pen Marsh Creation Project BA-41

_andrights 95% Status and Outlook

Dear Ms. Goodman:

KATHLEEN BABINEAUX BLANCO GOVERNOR

Appendix C of the May 29, 2001, CWPPRA SOP requires "Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase II Approval."

The purpose of this letter is to inform the CWPPRA committees and Task Force that landrights acquisition is progressing on the above referenced project. All ownership investigations have been completed. There are two owners and three pipelines. Owners of the tracts have been fully identified, contacted regarding project features, and advised regarding potential easement language; all support the features of the project. Both have approved the language in the Servitude agreement and will execute the documents upon Phase II approval. Of the three Right-of-Way access agreements for pipelines, one is being executed and two are being reviewed by the companies. All have verbally approved the plans and specifications.

At this time, no significant landrights acquisition problems are anticipated. Therefore DNR is conficent that landrights for the above referenced project will be finalized in a reasonable period of time after Phase II Approval. If you have questions regarding this matter, please contact me at (225-342-5068).

Sincerely,

Jeyce M. Montgomery
 CRD Lanc Specialist III

Ismail Merhi, CED Project Manager

BA-41 LR status letter to COE for PH2 approval.wpd

PRIORITIZATION FACT SHEET UPDATED January 8, 2008

Project Name and Number

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

Goals

Eliminate shoreline erosion along 11,750 feet of the south shore of The Pen and Bayou Dupont and to create (175 acres) and nourish marsh (132 acres) located between The Pen and Barataria Bay Waterway.

Proposed Solution

Approximately 11,750 feet of foreshore rock dike would be constructed along the south shore of The Pen and Bayou Dupont. With the shoreline protection, the two existing bayous will remain open and a site-specific opening to The Pen will be incorporated in the northern marsh creation site. The proposed shoreline protection features has been designed to compensate for initial settlement. The draft O&M plan provides for maintenance at Years 3 and 14.

Dedicated dredging would be used to create approximately 175 acres of marsh, and nourish an additional 132 acres of marsh, within the triangular area bounded by the south shore of The Pen, the Barataria Bay Waterway (Dupre Cut) and the Enbridge Pipeline canal. Target elevation is 1.3 feet NAVD88 at about Year 5. Containment dikes will not be degraded at the end of construction. The draft Operation and Maintenance plan includes a provision for breaching the containment dikes within 3 years post-construction, in the event that it is necessary.

.

Proposed Prioritization Criteria Scores and Justification

Cost Effectiveness (cost/net acre)

The current fully-fund total cost estimate for the project is \$29,206,749.

Net acres taken from the WVA is 211.

\$29,206,749 / 211 net acres = \$138,421 / net acre or **2.5 points**.

Area of Need, High Loss Area

The total marsh acres at TY0 is 166. Of that, 56 acres would be lost to shoreline erosion as follows: 26 acres of marsh experiencing an erosion rate of 29 feet per year, 16 acres of

marsh experiencing an average erosion rate of 15 feet per year, 5 acres of marsh experiencing an average erosion rate of 8 feet per year, and 9 acres of marsh experiencing an average erosion rate of 5 feet per year. The remainder of the project area (166 - 56 = 110 acres), has an internal loss rate of 1.73% per year.

$$.16 \times 10 + .10 \times 7.5 + .03 \times 2.5 + .05 \times 1 + .66 \times 5 =$$
5.7 points

Implementability

The project has no obvious issues affecting implementability. 10 points

Certainty of Benefits

The project includes shoreline protection, marsh creation, and marsh nourishment. For this criterion, a weighted average will be used to determine the point value. It is estimated that the project would generate 211 net acres. 56 acres of marsh would be protected from shoreline erosion; the remaining 155 acres is treated as "marsh creation" for this criterion.

$$.27 \times 8 + .73 \times 7 =$$
7.3 points.

Sustainability of Benefits

Maintenance of the rock shoreline protection is projected at TY3 and TY14 and would consist of rock replenishment of 25% and 10%, respectively. The next maintenance could be expected at TY25. With use of rock shoreline protection, the project is expected to achieve 100% of shoreline protection of net acres through TY 25 and 50% shoreline protection of net acres for TY 26 through TY 30. Additionally, all net acres are expected to resume the FWOP interior loss rate of 1.73% per year. Net acres lost to erosion and interior loss are estimated as follows:

| Target Year | Shoreline Erosion Rate (ac/yr) | Net Acres Adjusted for Shoreline Erosion | Interior Loss Rate (%/yr) | Net Acres Adjusted for Int. Loss |
|----------------|--------------------------------------|--|------------------------------|--|
| 20 | | | | 211 |
| 21 | 0 | 211 | -0.0173 | 207.35 |
| 22 | 0 | 207.35 | -0.0173 | 203.76 |
| 23 | 0 | 203.99 | -0.0173 | 200.24 |
| 24 | 0 | 200.69 | -0.0173 | 196.77 |
| 25 | 0 | 197.43 | -0.0173 | 193.37 |
| 26 | 1.4 | 192.84 | -0.0173 | 188.65 |
| 27 | 1.4 | 188.31 | -0.0173 | 184.01 |
| 28 | 1.4 | 183.86 | -0.0173 | 179.45 |
| 29 | 1.4 | 179.48 | -0.0173 | 174.97 |
| 30 | 1.4 | 175.18 | -0.0173 | 170.57 |

40 acres lost / 211 net acres at TY20 X 100 = 19 % or **4 points**.

<u>Increasing riverine input in the deltaic plain or freshwater input and saltwater penetration limiting in the Chenier plain</u>

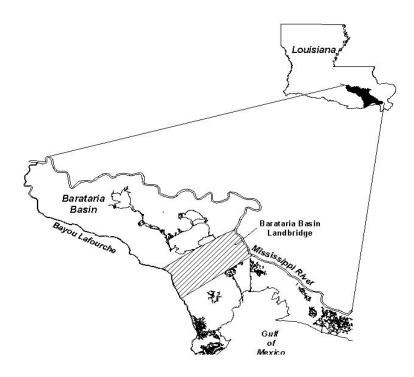
The project will not result in increases in riverine flows. **0 points**

<u>Increased</u> sediment input

The project will not increase sediment input over that presently occurring. **0 points**

Maintaining landscape features critical to a sustainable ecosystem structure and function

The upper portion of the Barataria Basin is largely a freshwater-dominated system of natural levee ridges, baldcypress - water tupelo swamps, and fresh marsh habitats. The lower portion of the basin is dominated by marine/tidal processes, with barrier islands, saline marshes, brackish marshes, tidal channels, and large bays and lakes. Historically, small meandering Bayous Perot and Rigolettes, and the longer, narrower Bayou Dupont-Bayou Barataria-Bayou Villars channels provided limited hydrologic connection between the upper and lower basin. The hydrologic connections between upper and lower basin are much greater today due to the Barataria Bay Waterway, Bayou Segnette Waterway, Harvey Cutoff, and the substantial erosion and interior marsh loss along and between the now-enlarged Bayou Perot and Bayou Rigolettes. Fortunately, there still exists a landmass, albeit deteriorating, that extends southwest to northeast across the basin, roughly between Lake Salvador and Little Lake; this landmass is the "Barataria Basin Landbridge".



The South Shore of the Pen Shoreline Protection and Marsh Creation would complement several other projects on the Barataria Basin Landbridge to help protect and maintain this important landmass. **10 points**

TOTAL SCORE

$$(2.5*2.0)+(5.7*1.5)+(10*1.5)+(7.3*1.0)+(4*1.0)+(0*1.0)+(0*1.0)+(10*1.0)=49.85$$

Preparer of Fact Sheet

Quin Kinler, NRCS 225-382-2047 quin.kinler@la.usda.gov

John Jurgensen 318-473-7694

References

- Burns, Colley, and Dennis. 2003. BA-27, BA-27c Supplementary and BA-27d Geotechnical Investigation Report, Jefferson and Lafourche Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service.
- Coastal Wetlands Planning, Protection, and Restoration Act Environmental Work Group. 1997. Barataria Landbridge Shoreline Protection Project Phase 1 project information package. 12pp.
- Coastal Wetlands Planning, Protection, and Restoration Act Environmental Work Group. 1999. Barataria Landbridge Shoreline Protection Project Phase 3 project information package. 22pp.
- Dames and Moore Group. 1995. Geotechnical Investigation Report Land Bridge (BA-27) and Jonathan Davis (BA-20) Projects, Jefferson and Lafourche Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service. 15pp plus Appendices.
- Soil Testing Engineers, Inc. 2000. Report of Geotechnical Investigation NRCS-14-LA-00 Barataria Bay Landbridge Project Phase III, Lafourche and Jefferson Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service. 6pp plus Appendices.
- USDA NRCS. 2000. Project Plan and Environmental Assessment for Barataria Basin Landbridge Shoreline Protection Project Phases 1, 2, and 3 (BA-27), Jefferson and Lafourche Parishes, Louisiana. 29pp plus Appendices.

Coastal Wetlands Planning, Protection and Restoration Act



SOUTH SHORE OF THE PEN SHORELINE PROTECTION AND MARSH CREATION PROJECT (BA-41)

PHASE II APPROVAL

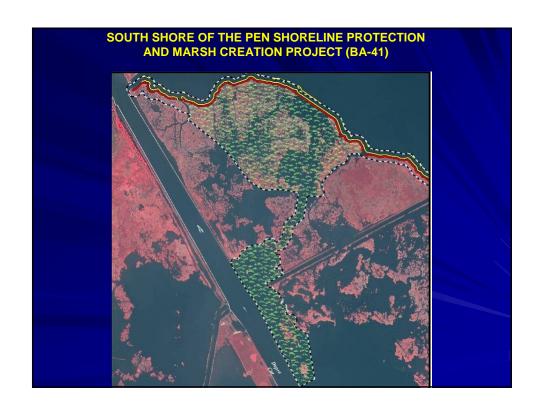
CWPPRA Technical Committee Meeting
January 16,2008

SOUTH SHORE OF THE PEN SHORELINE PROTECTION AND MARSH CREATION PROJECT (BA-41)

Project Location: Region 2, Barataria Basin, Jefferson Parish, south shore of The Pen.

Problem: Shoreline erosion rates in this area vary from 5 to 30 feet per year, plus interior loss rate of 1.7% per year.

Goal: Reduce or eliminate shoreline erosion for about 11,750 feet along south shore of The Pen; create 175 acres and nourish 132 acres of emergent marsh.



SOUTH SHORE OF THE PEN SHORELINE PROTECTION AND MARSH CREATION PROJECT (BA-41)

Project Features

11,750 feet of rock dike along the along the south shore of The Pen.

Dike will have an elevation of 2.0 feet NAVD88, a top width of 3 feet, and side slopes of 2.5:1.

Two bayous will remain open and a 20-foot opening will be incorporated to provide water and organism exchange.

175 acres of marsh creation and 132 acres of marsh nourishment.

Target elevation is 1.3 feet NAVD88 at about year 5.

BARATARIA BASIN LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 7

Benefits and Cost

Total Area Benefited: 348 Acres

Net Acres after 20 years: 211 Acres

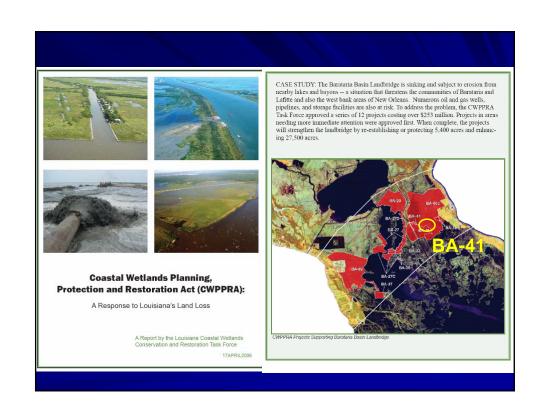
Prioritization Score: 49.85 Pts.

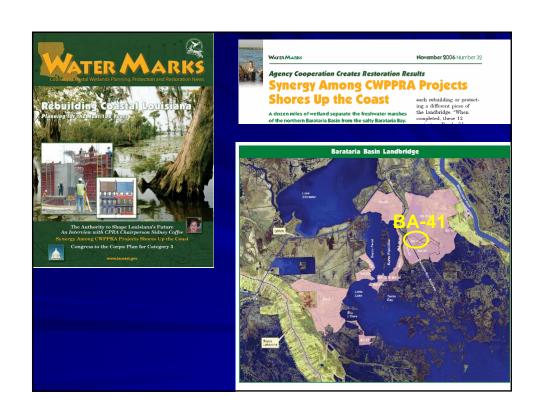
Fully Funded Phase II Total: \$27,895,605

Fully Funded Phase II Increment 1: \$26,086,600

Why Fund This Project Now? Very high erosion rate Significant Interior Loss Help protect community of Lafitte Phase I "Problem-free" – completed in 2.5 years Part of widely touted Barataria Basin Landbridge CWPPRA Education Document December 2006 Watermarks







BA-39 – Mississippi River Sediment Delivery - Bayou Dupont Marsh Creation Project



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

DEC 2 1 2007

Mr. Troy Constance Chief, Restoration Branch U.S. Army Corps of Engineers New Orleans District P.O. Box 60267 New Orleans, Louisiana 70160-0267

RE: Mississippi River Sediment Delivery System – Bayou Dupont Marsh Creation Project

(BA-39) Request for Phase II Construction Authorization

Dear Mr. Constance:

The U.S. Environmental Protection Agency (EPA) and Louisiana Department of Natural Resources (LDNR) hereby request approval to begin construction of the Mississippi River Sediment Delivery System – Bayou Dupont Marsh Creation Project (BA-39). This project was authorized on Priority Project List 12 in January 2003 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 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 feel free to contact me at 214-665-7275, or Tim Landers at 214-665-6608.

Sincerely,

Sharon Fancy Parish

Chief

Marine & Wetlands Section

Enclosures

cc: Mr. Darryl Clark, USFWS

Mr. Britt Paul, NRCS

Mr. Gerry Duszynski, LDNR

Mr. Richard Hartman, NMFS

Ms. Melanie Goodman, USACE

Mr. Kevin Roy, USFWS

Mr. John Jurgensen, NRCS

Mr. Dan Llewellyn, LDNR

Ms. Rachel Sweeney, NMFS

Project Name: Bayou Dupont Sediment Delivery System

Coast 2050 Strategies: Coastwide: Dedicated dredging; Vegetative planting.

Project Location: Region 2, Barataria Basin. In the vicinity of Bayou Dupont (north of Bayou Dupont) and southeast of Cheniere Traverse Bayou to the Mississippi River in the vicinity of Ironton in Plaquemines Parish, and the Town of Jean Lafitte in Jefferson Parish.

Problem: The proposed project would dredge sediment for marsh creation from the Mississippi River, and deliver it to an adjacent area within the Barataria Basin. Project area marshes have degraded to almost entirely open water, due to a combination of causes including lack of natural freshwater and sediment input, subsidence, and the dredging of oil and gas canals. The proximity to the Mississippi River is an excellent opportunity to design a sediment delivery system that will utilize sediment from the river to restore and create wetlands in this area of critical need. Unlike most marsh creation projects, this project will not borrow material from existing shallow bay bottoms, which may have implications for surrounding sediment dynamics and water quality at the borrow area. Ideally this sediment would be transported into areas of need using freshwater/sediment diversions. However, it is difficult to divert large sediment loads using diversion structures in most locations, since smaller structures don't typically capture bedload, and sedimentation in diversion channels is a problem. Dedicated dredging of Mississippi River sediments is one way around this dilemma.

Goals: 1) Create 538 acres of brackish marsh using sediment dredged from the Mississippi River; 2) provide features that would facilitate future marsh creation efforts in surrounding open areas.

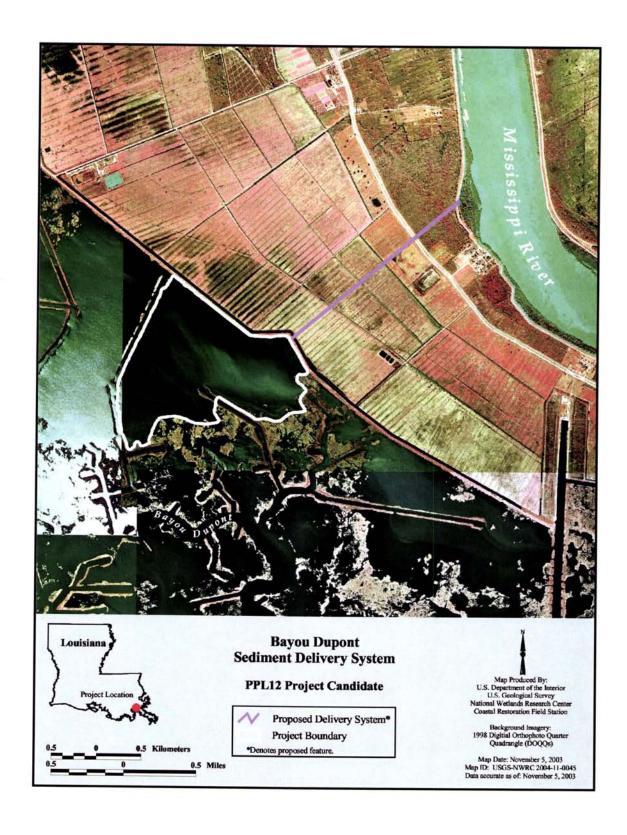
Proposed Solution: Creation/restoration of approximately 538 acres of brackish marsh by delivering sediments dredged from the Mississippi River via pipeline, and planting appropriate marsh vegetation.

Project Benefits: The project would benefit 538 acres of estuarine marsh. Approximately 400 acres of marsh would be created/protected over the 20-year project life.

Project Costs: Total fully funded cost = \$24,727,100. Fully funded first cost = \$24,231,000.

Risk/Uncertainty and Longevity/Sustainability: There is a low degree of risk and uncertainty associated with this project because the methods are reasonably simple and in fairly wide use. The project should continue providing benefits 30-40 years after construction because sufficient sediment will have been delivered to maintain marshes beyond the 20-year project life. Created wetlands may also benefit from the planned Myrtle Grove freshwater diversion.

Sponsoring Agency/Contact Persons: U.S. Environmental Protection Agency Ken Teague (214) 665-6687; teague.kenneth@epa.gov
Tim Landers (214) 665-7533; landers.timothy@epa.gov
Brad Crawford (214) 665-7255; crawford.brad@epa.gov



2. Overview of Phase I Tasks, Process and Issues – The project team, consisting of members of EPA and LDNR, performed a kick-off meeting on April 23, 2004. Based on that meeting, a plan was developed to identify and address all of the project requirements. Topographic, bathymetric, magnetometer and average marsh elevation surveys were performed within the proposed marsh creation areas by T. Baker Smith & Son and were completed in March 2005. Geotechnical investigation of these areas was also conducted. U.S. Army Corps of Engineers (USACE) surveys of the Mississippi River performed in 1992 and 2003 were then used to designate the borrow area. Additional bathymetric, side-scan sonar, high resolution seismic, and magnetometer surveys were completed for the borrow area by the LSU Coastal Studies Institute in August 2007. These surveys showed that volume changes in the borrow site have been negligible in recent years. Geotechnical investigation of the borrow area was also conducted. A tidal datum analysis was performed by LDNR-CED to determine the mean water elevations in the marsh fill areas. This information, in concert with the geotechnical information, was used to evaluate the immediate and long-term properties of the marsh creation material.

As a result of these Phase I activities, the approved Phase 0 project has undergone project area modifications. The Phase 0 project included one fill area totaling 538 acres of marsh creation. The fill area was moved approximately one mile to the northwest to address constructability concerns. Two marsh fill areas approximately 295 and 198 acres in size, respectively, were evaluated for the marsh creation feature of this project. The environmental/ecological implications of this change were considered and discussed among the interagency project team, and a revised WVA for the modified marsh creation area was conducted and approved by the CWPPRA Environmental Work Group. Additionally, it was concluded that from an engineering standpoint, utilizing two marsh fill areas would produce a more successful project.

A 30% Design Review Conference was held on July 11, 2007 at the LDNR office in Baton Rouge, Louisiana. Comments and recommendations from the 30% Design Review were addressed and discussed with the CWPPRA agencies at the November 7, 2007, 95% Design Review Conference.

Upon the evaluation of a tax assessor's report and a title report attained by the LDNR Land Section, four land owners were determined to be affected by BA-39. Pipelines and utilities in the project area were identified and ownership was verified. Land agreements for the two owners of the marsh creation areas, River Rest L.L.C. and The Livaudais Company, L.L.C., have been completed. Agreements are being reviewed or have already been completed with the Plaquemines Parish Government and Conoco-Phillips, the two owners of the dredge pipeline corridor. No problems have been encountered with respect to landrights.

It was determined that no oyster leases exist in the marsh creation areas or borrow area. The State Historic Preservations Office has also confirmed that the BA-39 project will not affect any known historic properties or archaeological sites. A draft EA/FONSI, pursuant to the National Environmental Policy Act, was developed and issued for public comment on December 20, 2007.

3. Description of Phase II Candidate Project – The BA-39 project will demonstrate the feasibility of using a renewable sediment source, i.e., Mississippi River, to create two marsh areas near Bayou Dupont in the Barataria Basin. A hydraulic cutter-head dredge will be used to excavate an estimated 3,502,655 yd³ of sediment from a borrow area located west of the Mississippi River navigation channel between river miles 63.4 and 65.0.

The Mississippi River sediment will be transported via pipeline to the west, underneath the railway and Highway 23, to two marsh creation areas. The marsh creation areas will be filled to an elevation of ± 2.0 ft NAVD88, with a maximum vertical elevation tolerance of ± 0.3 feet. Due to previous oil field canal construction, spoil banks on the west, east and south of the marsh creation areas will nearly meet containment requirements for the fill sediment. A new containment dike will be required on the southern edge of marsh creation area two. Of the estimated total of 26,821 linear feet of marsh containment required, approximately 23,915 linear feet will be the enhancement of existing spoil banks, while only 2,906 linear feet will constitute new containment.

After initial settlement, the marsh is estimated to be inundated 25% of the time. Ultimately, 493 acres of marsh will be created in an area that is mostly open water (448 acres). The containment dikes will be degraded to marsh elevation upon completion of the project construction, and the perimeter of the marsh platforms will be planted with native wetland species. The newly constructed marsh platforms will be reviewed one year after construction to determine if additional vegetative plantings are necessary.

As was discussed in Enclosure 2, a revised Wetland Value Assessment (WVA) was conducted in October 2007, given the movement of the marsh creation areas approximately one mile northwest of the originally proposed project area. As a result of this WVA, it was determined the BA-39 project would restore/create approximately 326 net acres of marsh over the 20-year project life, for a total of 159 AAHUs. A revised BA-39 project fact sheet and map are also enclosed.



Mississippi River Sediment Delivery System - Bayou Dupont Marsh Creation (BA-39)

Project Status

Approved Date: 2003 Project Area: 493 acres

Total Estimated Funding: \$28,881,365 **Status:** Engineering and Design Complete

Project Type: Marsh Creation

Location

The project is located adjacent to Bayou Dupont and southeast of Cheniere Traverse Bayou in the vicinity of Ironton in Plaquemines Parish and Lafitte in Jefferson Parish, Louisiana. The general area lies west of LA Hwy 23 and just north of the Myrtle Grove Marina within the Barataria Basin.



This project will help restore the highly degraded marshes of the Barataria Landbridge.

Problems

Marshes in the project area have degraded to open water with only scattered clumps of low-lying vegetation remaining. Marsh degradation has resulted from a combination of lack of natural fresh water and sediment input, subsidence, and the dredging of oil and gas canals.

Restoration Strategy

The proposed project involves dredging sediment from the Mississippi River for marsh creation and pumping it via pipeline into an area of open water and broken marsh west of the Plaquemines Parish flood protection levee. The material will spread over the project area and be contained primarily with existing land features. Newly-constructed low containment dikes will be necessary only along a limited portion of the project area.

The proximity of the project to the Mississippi River presents a prime opportunity to employ a pipeline delivery system that will utilize the sediment resources from the river to restore and create wetlands. Unlike most marsh creation projects that involve borrowing fill material from adjacent shallow water areas within the landscape, this project will utilize renewable river sediment, thus minimizing disruption of the adjacent water and marsh platform. The Bayou Dupont project represents the first example of pipeline transport of sediment from the river to build marsh as a CWPPRA project. Results from this project should serve to demonstrate the value and efficacy of greater use of pipeline-conveyed river sediments for coastal restoration.

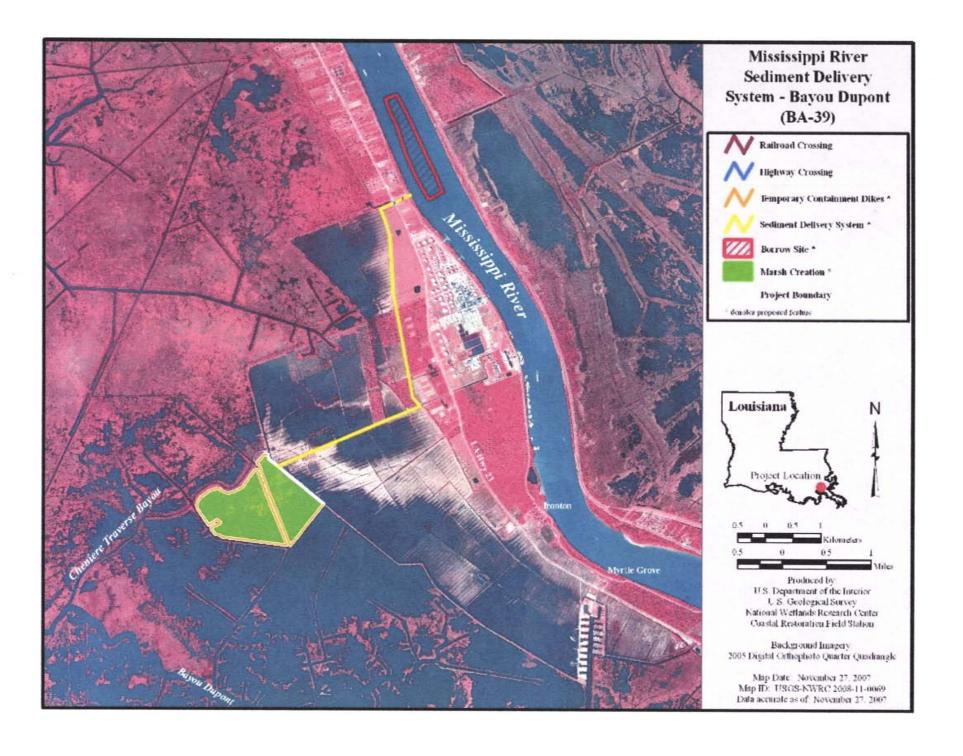
For more project information, please contact:



Federal Sponsor: Environmental Protection Agency Dallas, TX (214) 665-6608



Local Sponsor: Louisiana Department of Natural Resources Baton Rouge, LA (225) 342-4122



4A. List of Project Goals and Strategies -

Goal Statement: Create 493 acres of marsh, by the end of construction, in an area that is currently mostly open water.

Strategy Statement: Marsh creation will be achieved by hydraulically dredging sediment from the Mississippi River and transporting it via pipeline to fill open water and deteriorated marsh in the project area. The perimeter of the marsh platform will be planted with native wetland species upon construction completion, and additional plantings may be installed one year after construction depending on the success of colonization.

Strategy-Goal Relationship: Sediment dredged from the river will be pumped into two marsh creation areas: Area 1 which encompasses approximately 295 acres, and Area 2 which encompasses approximately 198 acres. As the sediment settles and consolidates, the areas should become established with marsh vegetation resulting in 493 acres of marsh habitat.

4B. Cost Sharing Agreement - A cooperative agreement between EPA Region 6 and the State of Louisiana Department of Natural Resources was initially executed in March 2004 then amended April 2004 and March 2006. The agreement remains in full force and effect until March 2008.

4C. Landrights - No significant landright acquisition problems are anticipated. In the enclosed letter dated November 28, 2007, LDNR stated that they are confident that landrights for the BA-39 project will be finalized in a reasonable time after Phase II approval.



KATHLEEN BABINEAUX BLANCO GOVERNOR

SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT November 28, 2007

Ms. Melanie Goodman CWPPRA Planning and Evaluation Committee U.S. Army Corps of Engineers P.O. Box 60267 New Orleans, Louisiana 70160-0267

RE: Mississippi River Sediment Delivery System-Bayou Dupont Project BA-39

Landrights Status and Outlook

Dear Ms. Goodman:

Appendix C of the May 29, 2001, CWPPRA SOP requires "Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase II Approval."

The purpose of this letter is to inform the CWPPRA committees and Task Force that landrights acquisition is progressing on the above referenced project. All ownership investigations have been completed. There are four tracts involved in this Project. Owners of the tracts have been fully identified, contacted regarding project features, and advised regarding potential easement language; all support the features of the project. Of the four tracts, three have been executed and one is reviewing proposed language for the agreement. The Right-of-Way access agreements for three pipelines and one utility company are in the hands of the various companies for execution.

At this time, no significant landrights acquisition problems are anticipated. Therefore, DNR is confident that landrights for the above referenced project will be finalized in a reasonable period of time after Phase II Approval. If you have questions regarding this matter, please contact me at (225-342-5068).

Sincerely.

Joyce M. Montgomery CRD Land Specialist III

c: Brad Miller, CED Project Manager

BA-39 LR status letter to COE for PII2 approval.wpd

4D. Preliminary Design Review (30% Design Level) - A favorable 30% Design Review meeting was held on July 11, 2007, in Baton Rouge, LA. Attendees included representatives from State and Federal CWPPRA agencies and other interested parties. All comments and questions were addressed and incorporated in the 95% design report. In the enclosed letter dated September 26, 2007, EPA and LDNR informed the Technical Committee of the results of the 30% Design Review meeting and our intent to move forward with this project



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

SEP 2 6 2007

Mr. Troy Constance Chief, Restoration Branch U.S. Army Corps of Engineers New Orleans District P.O. Box 60267 New Orleans, LA 70160-0267

Dear Mr. Constance:

As you may know, the U.S. Environmental Protection Agency (EPA) and Louisiana Department of Natural Resources (LDNR) recently conducted 30% Design Review Conferences for the Bayou Dupont Marsh Creation (BA-39) and Whiskey Island Back Barrier Marsh Creation (TE-50) projects, pursuant to Section 6(e)(2) of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Standard Operating Procedures Manual (SOP). The meetings were held at the LDNR in Baton Rouge, Louisiana, on July 11 and August 28, 2007, respectively, and included participants representing the sponsoring agencies and other federal, state, and local partners. At these meetings the agencies discussed all aspects of Phase 1 engineering and design efforts undertaken to date for the subject projects.

In summary, the Bayou Dupont Marsh Creation Project entails using renewable Mississippi River sediment to create approximately 493 acres of marsh in large open water areas within Jefferson and Plaquemines Parishes near Ironton, Louisiana. The Whiskey Island Back Barrier Marsh Creation Project entails using offshore Gulf of Mexico sediment to create approximately 316 acres of bayside marsh, interspersed with tidal creeks and ponds, and a Gulfside dune feature on Whiskey Island in Terrebonne Parish, Louisiana. Upon conclusion of the 30% Design Review Conferences and review of comments received from CWPPRA partner agencies, EPA and LDNR have determined that the BA-39 and TE-50 projects are feasible. We remain committed to successful completion of Phase 1 engineering and design efforts for both projects and are in agreement in recommending proceeding to final design (see enclosures).

Furthermore, we would like to take this opportunity to report out to the agencies, pursuant to Section 6(e)(3) of the CWPPRA SOP, circumstances in which there may be a variance of more than 25% from the original total project cost. The following table presents project features and costs at the 30% Design Review level as compared with those developed during Phase 0. As you can see, EPA and LDNR have worked to meet original project objectives and maintain prior agency commitments in terms of wetland restoration features. Likewise, we have endeavored to keep estimated costs in check. Current cost estimates at the 30% Design Review level reflect increases over those developed previously in 2002-2003 by approximately 14-15%. Reasons for these increases can be attributed in part to a doubling in the

unit cost for hydraulic dredging in the case of BA-39, and consideration of an added Gulfside dune feature for the TE-50 project.

| Project | Phase 0 Features | Phase 1 Features | Phase 0 Estimated Fully Funded Construction Cost | 30% Design Estimated Construction Cost (% of original) | Phase 1 Fully Funded Construction Cost |
|---------|--|---|--|--|---|
| BA-39 | 538 acres marsh creation | 493 acres marsh creation | \$22.0 M | \$25.0 M (1.14) | To be developed for 95% Design Review |
| TE-50 | 300 acres marsh creation; tidal creeks/ponds | 316 acres marsh creation; tidal creeks/ponds; 13,000 LF dune | \$19.4 M | \$22.4 M (1.15) | To be developed for 95% Design Review |

The realities of significant price increases since 2005 are not unfamiliar to the CWPPRA partner agencies. Many of these project increases have most recently not been realized until after Phase 2 authorization. However, as presented at the 30% Design Review Conferences, the engineering and design analyses performed and project decisions made during Phase 1 for the BA-39 and TE-50 projects have provided opportunity to carefully consider both the proposed long term environmental benefits, and associated costs, within the context of this current financial climate. EPA and LDNR want to take this opportunity to inform you that, while the resulting increase in construction costs at this stage have not resulted in a variance of 25% from the original estimated fully funded project cost, efforts to develop fully funded costs for the 95% Design Review may indeed result in costs at or very near this level.

EPA and LDNR will continue to closely evaluate measures to maximize proposed project benefits and minimize costs as we move to final design for the Bayou Dupont Marsh Creation and Whiskey Island Back Barrier Marsh Creation projects. We will also continue to work with the other CWPPRA partner agencies informing you of project developments through the 95% Design Review level and beyond. If you have any questions regarding the BA-39 and TE-50 projects, or would like to discuss these issues further, please do not hesitate to contact me at 214-665-7275 or Tim Landers of my staff at 214-665-6608.

Sincerely,

Sharon Fancy Parrish

Chief

Marine & Wetlands Section

Enclosures



KATHLEEN BABINEAUX BLANCO GOVERNOR

SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

August 20, 2007

Mrs. Sharon Parish Chief Marine and Wetlands Section (6WQ-EM) Environmental Protection Agency 1445 Ross Avenue Dallas, Texas 75202 SCOSYSTEMS PROPRIETIONS

Re: 30% Design Review for Mississippi River Sediment Delivery System – Bayou Dupont (BA-39), Statement of Local Sponsor Concurrence

Dear Mrs. Parish,

The Louisiana Department of Natural Resources, as the local sponsor, has reviewed the technical information compiled to date which includes the Ecological Review, the preliminary land ownership investigation, and preliminary designs. We are in concurrence with proceeding to final design.

In accordance with the CWPPRA Project Standard Operating Procedures, we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee.

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

Sincerely,

Christopher P. Knotts, P. E.

Director

CPK:BJM:dpg

cc: Chris Williams, Engineer Manager Brad Miller, Project Manager

Luke Le Bas, Engineer Manager

4E. Final Project Design Review (95% Design Level) - A favorable 95% Design Review meeting was held on November 7, 2007, in Baton Rouge, LA. Attendees included representatives from State and Federal CWPPRA agencies and other interested parties. All comments and questions were addressed during the meeting. In an email dated December 5, 2007, EPA informed the CWPPRA P&E and Technical Committees of the agreement to proceed with implementation of the BA-39 project, as indicated in LDNR's enclosed letter.



KATHLEEN BABINEAUX BLANCO GOVERNOR

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

November 19, 2007

Mr. Timothy Landers
Acting Chief
Marine and Wetlands Section (6WQ-EM)
Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202

Re: 95% Design Review for Mississippi River Sediment Delivery System – Bayou Dupont (BA-39), Statement of Local Sponsor Concurrence

Dear Mr. Landers:

We are in receipt of your November 19, 2007 e-mail regarding the above captioned project. In that e-mail you indicated that EPA has concluded the project is still viable and is recommending the advancement of the project to construction.

Based on our review of the technical information compiled to date, the Ecological Review, the preliminary land ownership investigation, and the preliminary designs, we, as local sponsor, are in concurrence with proceeding to construction.

In accordance with the CWPPRA Project Standard Operating Procedures manual, we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee.

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

Sincerely,

Christopher P. Knotts, P.F.

Director

CPK:BJM:dpg

cc: Gerald M. Duszynski, OCRM Acting Asst. Secretary Kirk Rhinehart, CRD Administrator Chris Williams, Engineer Manager

Luke Le Bas, Engineer Manager Brad Miller, Project Manager

SCOTT A. ANGELLE

SECRETARY

4F. National Environmental Policy Act - An Environmental Assessment (EA) of the project was prepared and the enclosed Finding of No Significant Impact (FONSI) was signed by EPA Region 6 on December 20, 2007. A public notice was also published on December 20, 2007, and the EA/FONSI was distributed for 30-day review and comment by agencies and other interested parties.

height of approximately +2.0 feet (ft) NAVD88 to allow for settling and compaction to intertidal marsh elevation. The preferred project location has the advantage of 23,915 ft of existing low dikes surrounding the two cells that will be enhanced to serve as containment for the sediment.

CWPPRA provides federal funds for planning and implementing projects that create, protect, restore and enhance wetlands in coastal Louisiana. Under CWPPRA, the project cost must be shared between the federal sponsoring agency and the State of Louisiana. Pursuant to approval of the Louisiana Coastal Wetlands Conservation Plan, the federal government will provide 85 percent of the project cost and the Louisiana Department of Natural Resources (LDNR) would provide the remaining 15 percent non-federal share. Phase 1 funding for the proposed Mississippi River Sediment Delivery System Project was approved for funding on January 16, 2003, and is included on the CWPPRA 12th Priority Project List.

The proposed Mississippi River Sediment Delivery System Project is part of and consistent with the Louisiana Coastal Wetlands Conservation and Restoration Task Force, and the Wetlands Conservation and Restoration Authority Region 2 ecosystem strategy to help stabilize the Barataria Basin Landbridge and protect freshwater marsh of the upper basin from increased marine/tidal influence. Construction of the recommended action is authorized as soon as compliance with the appropriate environmental laws and regulations is achieved and the project plans and specifications are complete.

Finding: On the basis of the EA for the proposed project, EPA Region 6 has determined that the proposed project is not a major Federal action significantly or adversely affecting the quality of the human environment, and that the preparation of an Environmental Impact Statement (EIS) is not warranted. Comments regarding this preliminary decision not to prepare an EIS may be submitted to the U.S. Environmental Protection Agency, Office of Planning and Coordination (6EN-XP), 1445 Ross Avenue, Dallas, Texas 75202-2733.

This preliminary Finding of No Significant Impact (FNSI) will become final after the 30-day comment period expires if no new information is provided to alter this finding. No administrative action will be taken on this decision during the 30-day comment period. Copies of the EA and requests for review of the Administrative Record containing the information supporting this decision may be requested in writing at the above address, or by telephone at (214) 665-8150.

Responsible Official,

John Blevins

Director

Compliance Assurance and Enforcement Division

4G. Ecological Review Summary of Findings - The following is a paragraph from the Recommendations Section of the November 2007 LDNR Ecological Review:

Based on the evaluation of available ecological, geophysical, and engineering information, and a review of similar restoration projects, the proposed strategies of the Mississippi River Sediment Delivery System — Bayou Dupont project will likely achieve the desired ecological goals. It is recommended that this project progress towards Phase 2 construction authorization pending a favorable 95% Design Review. However, we also recommend that plans be made to gap the containment dikes if the created marshes become impounded.

- **4H. Permits -** A joint State/Federal permit application for the BA-39 project was submitted for processing on December 12, 2007.
- **4I. HTRW -** EPA and LDEQ databases were reviewed to determine the potential for hazardous material sites within the BA-39 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.

4J. Section 303(e) Approval - This project has been determined to be consistent with the requirements of Section 303(e) of CWPPRA. The Commander of the USACE New Orleans District granted Section 303(e) approval via the enclosed October 22, 2007, letter.



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

Bill Gane-original

October 22, 2007

Office of Counsel

Mr. William K. Honker, P.E.
Deputy Director, Water Quality Protection Division
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733\

Dear Mr. Honker:

EPA-6WQ-DIR OFC

We have reviewed your request for Section 303(e) approval for Bayou Dupont (BA-39), Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). In addition, we have recently secured a copy of the project map that depicts the current plans for this project.

The request includes a temporary (25 year) easement agreement that the Louisiana Department of Natural Resources (DNR) has acquired from River Rest, LLC, as a landowner for one of the marsh creation areas. It appears that additional acquisition will be necessary from other landowners, not only for the marsh creation areas but also for the proposed pipeline corridor that will traverse public and private properties. It is unclear whether DNR has commenced acquisition of the appropriate pipeline easement/servitude over these lands.

Please be advised that prior to construction of the project, all appropriate real property rights must be acquired, subject to such terms and conditions as necessary to ensure that wetlands restored, enhanced or managed through this project will be administered for the long-term conservation of the lands and waters and the dependent fish and wildlife populations. This includes not only the underlying landowners but also all other persons or entities with ownership or other property interests in the land that may be impacted by the project.

The project map indicates that there are pipelines within the project boundary. The package includes an agreement that DNR proposes to secure from Shell, as an owner of a public utility line that will be impacted by the project. If any other existing pipelines or utilities, such as railroad tracks, will be adversely affected by the project, requiring any relocation, alteration, or lowering of the pipeline, then the appropriate land rights must be acquired from the owners of such facilities, including the subordination of their rights, title, and interests in their facilities to the interests necessary for the construction, operation and maintenance of the CWPPRA project.

Additionally, please note that DNR's agreement with River Rest, LLC includes an indemnification clause. This indemnification responsibility cannot be passed on to the United States, including EPA or any other federal agency.

The package also includes a determination from Natural Resources Conservation Service that overgrazing does not occur on the project lands or lands affected thereby. If overgrazing should occur in the future, then a grazing plan must be established for the project.

Accordingly, by the authority delegated to me by the Secretary of the Army, and given compliance with the provisions set forth above, I approve the project in accordance with Section 303(e) of CWPPRA.

Sincerely,

Ilvin B. Lee

Colonel, US Army District Commander **4K. Overgrazing Determination** – The enclosed overgrazing determination was received from the United States Department of Agriculture's Natural Resources Conservation Service on September 26, 2006. There are currently no livestock grazing in the area and no potential for grazing once the project is constructed.

United States Department of Agriculture



Natural Resources Conservation Service 3737 Government Street Alexandria, Louisiana 71302

September 26, 2006

Ms. Beverly Ethridge Environmental Protection Agency Region 6 Water Quality Protection Division (6WQ-EMC) 1445 Ross Avenue Dallas, Texas 75202-2733

Dear Ms. Ethridge:

RE: Mississippi River Sediment Delivery System - Bayou DuPont (BA-39)

I am in receipt of your request for an overgrazing determination for the Mississippi River Sediment Delivery System – Bayou DuPont (BA-39). I contacted our local District Conservationist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

W. Britt Paul

Assistant State Conservationist

for Water Resources and Rural Development

cc: Randolph Joseph, Area Conservationist, NRCS, Lafayette, Louisiana Allen Bolotte, District Conservationist, NRCS, Boutte, Louisiana Johanna Pate, State Grazing Lands Specialist, NRCS, Alexandria, Louisiana John Jurgensen, Civil Engineer, NRCS, Alexandria, Louisiana Tim Landers, Life Scientist, EPA, Dallas, Texas

4M. Wetland Value Assessment - The Wetland Value Assessment (WVA) for the BA-39 project was revised in advance of the 95% Design Review meeting and approved on October 31, 2007, by the CWPPRA Environmental Work Group. As a result of this WVA, it was determined the BA-39 project would restore/create approximately 326 net acres of marsh over the 20-year project life, for a total of 159 AAHUs. A copy of the revised WVA is still available on the LDNR server at ftp://ftp.dnr.state.la.us/pub/CED%20Engineering.

4N. Prioritization Criteria - The following final Prioritization Criteria scores were reviewed and agreed upon by the Engineering and Environmental Work Groups in November 2007.

| Criterion | Weight | Score | Weighted Score |
|---------------------------------|--------|-------|----------------|
| I Cost-Effectiveness | 2.0 | 2.5 | 5.0 |
| II Area of Need | 1.5 | 5.0 | 7.5 |
| III Implementability | 1.5 | 10.0 | 15.0 |
| IV Certainty of Benefits | 1.0 | 7.0 | 7.0 |
| V Sustainability | 1.0 | 4.0 | 4.0 |
| VI HGM Riverine Input | 1.0 | 0.0 | 0.0 |
| VII HGM Sediment Input | 1.0 | 5.0 | 5.0 |
| VIII HGM Structure and Function | 1.0 | 0.0 | 0.0 |
| Total | | | 43.5 |

CWPPRA

Mississippi River Sediment Delivery System – Bayou Dupont Marsh Creation Project (BA-39) Phase II Request

Technical Committee Meeting



January 16, 2008 Baton Rouge, LA

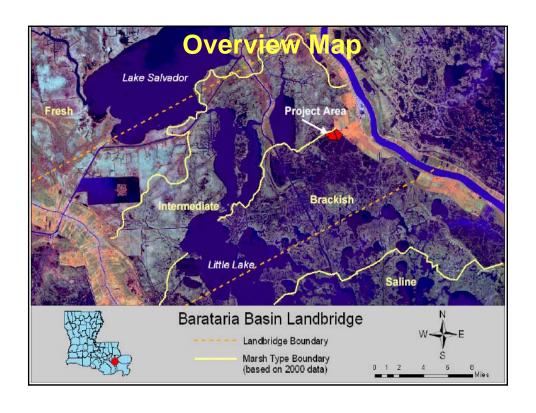


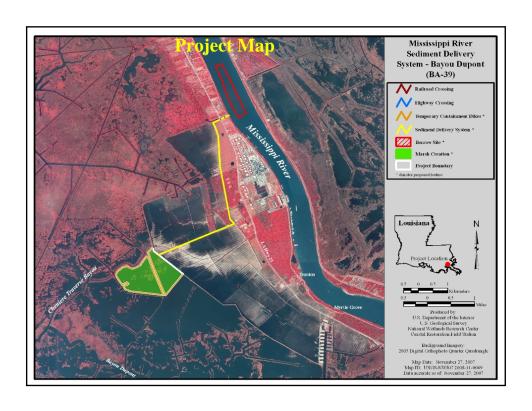
Project Overview

Project Location: Region 2 – Barataria Basin, Jefferson and Plaquemines Parishes, N of Bayou Dupont, SE of Cheniere Traverse Bayou ridge, SW of Parish flood protection levee.

Problem: This project area lies within a rapidly deteriorating section of the Barataria Landbridge. Now converted to mostly open water, the poor condition of this marsh is likely due primarily to a lack of riverine sediment and freshwater input, subsidence, and dredging of canals.

Goal: Restore 493 acres of emergent marsh in an area that is currently mostly open water using renewable Mississippi River sediment.





Project Features Overview

- Restore 493 acres of emergent marsh in an area that is currently mostly open water using renewable Mississippi River sediment.
- A target post-construction marsh elevation of +2.0 ft NAVD88 was determined to be conducive to maintaining healthy intertidal marsh elevation over as long a period of time within the 20-year project life.
- Perimeter of the marsh platform will be planted with native wetland species upon construction completion.

Project Features Overview

- Temporary containment dikes will be required around the perimeter of the marsh creation area to an elevation of +3.0 ft NAVD88 with 1(V):3(H) side slopes.
- Of the total project perimeter (26,821 linear feet) only about a third (8,594 feet) will require new dike construction. The remainder will entail enhancement of existing perimeter features.
- Dikes will be degraded to marsh elevation at the end of construction.

Project Features Overview

- Renewable Mississippi River sediment will be dredged from an expanding point bar between miles 63.6 and 65.0
- 36 inch casing/culverts will remain in place at railroad crossing and Hwy 23 to accommodate future sediment delivery restoration efforts.
- River borrow area will be monitored to determine rate at which it refills with sediment for future use.



Project Benefits & Costs

- In total, the project will benefit 493 acres of marsh and open water habitat.
- At the end of 20 years, there will be 326 net acres of marsh over the without-project condition.
- Wetland Value Assessment: 159 Net AAHUs
- The Total Fully Funded Cost for the project is: \$28,881,365 Phase 2 request is: \$25,875,687
- The Prioritization Score is: 43.5

Why Should We Fund This Project Now?

- Helps immediately restore a significant tract of wetland acreage in the Barataria Landbridge.
- The Bayou Dupont Project represents the first example of pipeline transport of sediment from the Mississippi River to create marsh as a CWPPRA project.
- Proximity of the project to the River presents a prime opportunity to employ a pipeline delivery system that will utilize this renewable resource and add new sediment into the system to restore wetlands.
- Features to remain in place at infrastructure crossings and data gained from post-construction monitoring of borrow area will serve to enhance effectiveness and use of pipeline-conveyed River sediment for coastal restoration.

Questions?



Tim Landers US Environmental Protection Agency (214) 665 - 6608





Brad Miller LA Department of Natural Resources (225) 342 - 4122 **TE-47 - Ship Shoal: Whiskey Island West Flank Restoration Project**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

DEC 2 1 2007

Mr. Troy Constance Chief, Restoration Branch 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. Constance:

The U.S. Environmental Protection Agency (EPA) and Louisiana Department of Natural Resources (LDNR) hereby request approval to begin construction of the Ship Shoal: Whiskey West Flank Project (TE-47). This project was authorized on Priority Project List 11 in January 2002 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). This is the third submittal for Phase II construction 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 feel free to contact me at 214-665-7275, or Tim Landers at 214-665-6608.

Sincerely,

Sharon Fancy Parrish

Chief

Marine & Wetlands Section

Sharon Fancy Parusl

Enclosures

ce: Mr. Darryl Clark, USFWS

Mr. Britt Paul, NRCS

Mr. Gerry Duszynski, LDNR

Mr. Richard Hartman, NMFS

Ms. Melanie Goodman, USACE

Mr. Kevin Roy, USFWS

Mr. John Jurgensen, NRCS

Mr. Dan Llewellyn, LDNR

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

- Restore roughly 400 acres of barrier island habitat into the island's West Flank
- **B.** A cooperative agreement between EPA Region 6 and the State of Louisiana Department of Natural Resources was initially executed in January,27, 2003, then revised February 25, 2004. 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 \$51,853,787 has been reviewed and approved by the economic work group. See Attachment IX.
- M. A revised WVA was completed by EPA and reviewed by the Environmental Work Group. As a result of that effort, EPA received revised benefit numbers from the chairman of the Environmental Work Group in an email dated August 25, 2005. See Attachment X

N. The following Prioritization Criteria scores were reviewed and agreed upon by Engineering and Environmental Work Groups in December 2007. See Attachment XI

| Criterion | Weight | Score | Weighted Score |
|---------------------------------|--------|-------|----------------|
| I Cost-Effectiveness | 2.0 | 1.0 | 2.0 |
| II Area of Need | 1.5 | 10.0 | 15.0 |
| III Implementability | 1.5 | 10.0 | 15.0 |
| IV Certainty of Benefits | 1.0 | 7.0 | 7.0 |
| V Sustainability | 1.0 | 1.0 | 1.0 |
| VI HGM Riverine Input | 1.0 | 0.0 | 0.0 |
| VII HGM Sediment Input | 1.0 | 10.0 | 10.0 |
| VIII HGM Structure and Function | 1.0 | 10.0 | 10.0 |
| Total | | | 60 |

LIST OF ATTACHMENTS

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

ATTACHMENT I

ORIGINAL FACT SHEET AND PROJECT MAP

Project Name - Ship Shoal: Whiskey West Flank Restoration

Coast 2050 Strategy - Regional Ecosystem Strategy #14: Restore and maintain the Isles Dernieres barrier island chain.

Project Location - Region 3 - Terrebonne Basin, Terrebonne Parish, west spit area Whiskey Island.

Problem - The Isles Dernieres Chain, which has been considered one of the most rapidly deteriorating barrier shorelines in the U.S., is losing its structural framework functions for the coastal/estuarine ecosystem including storm buffering capacity and protection for inland bays, estuary and wetlands, human populations and infrastructure. Chain breakup has resulted from both major storm actions and from loss of nourishing sediment from the natural system due to human alterations. Whiskey Island changes from 1978 to 1988 include loss of 31.1 acres per year.

Goals - 1) restore the integrity of the west flank of Whiskey Island to retain its structural function to the coastal/estuary ecosystem; 2) add new offshore prime quality sediment into the west flank; 3) initially restore approximately 387 acres of barrier island habitat to the western flank.

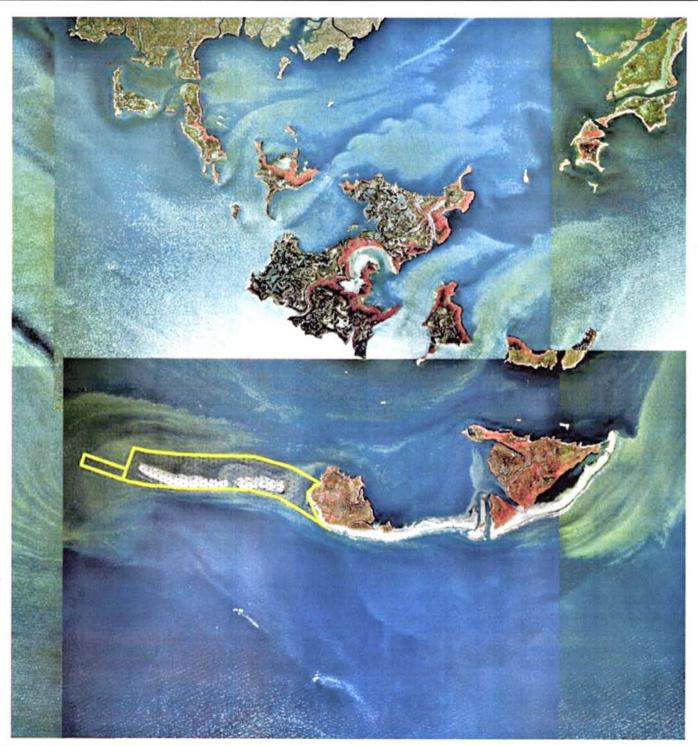
Proposed Solution - The project entails mining and placing Ship Shoal sand from the Minerals Management Service Block 88 by cutterhead or hopper dredge to rebuild the west flank of Whiskey Island, a distance of about 8 miles. The area to be restored includes 57 acres of dunes 7 feet high and 150 feet wide, 114 acres supratidal habitat at 4 feet in elevation, 208 acres intertidal habitat at a 2-foot elevation, and 8 acres subtidal habitat from 0 to minus 1.5 feet in elevation. All areas would be planted and sand fencing placed to trap wind-blown sediment.

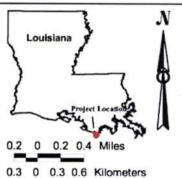
Project Benefits - Benefits include prevention of loss of sediment from the system into deeper Gulf waters or into bayside deeper water. The project would benefit a total of 398 acres of barrier island and shallow water. At the end of 20 years, there would be a net of 182 acres of island over the without-project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

Project Costs - The fully funded first cost is \$38,985,100 and the total fully funded cost is \$39,302,900.

Risk/Uncertainty and Longevity/Sustainability - There is a moderate degree of risk associated with this project due to greater storm effects in this area of the coast and difficulty in engineering and construction. Benefits should continue for more than 20 years due to the high quality and compatibility of Ship Shoal sand.

Sponsoring Agency/Contact Persons - U.S. Environmental Protection Agency Jeanene Peckham (225) 389-0736; peckham.jeanene@epa.gov Wes Mcquiddy (214) 665-6722; mcquiddy.david@epa.gov Brad Crawford (214) 665-7255; crawford.brad@epa.gov





Project area

Data Source:

U.S.Geological Survey National Wetlands Research Center Coastal Restoration Field Station LA Department of Natural Resources

1998 DOQQS

Map Date: October 10, 2001 Map ID: 2002-04-027 CWPPRA PPL11 Nominee: Region 3

Whiskey Island West Flank Extension (TE-14-1b)

II

REVISED FACT SHEET AND PROJECT MAP

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.

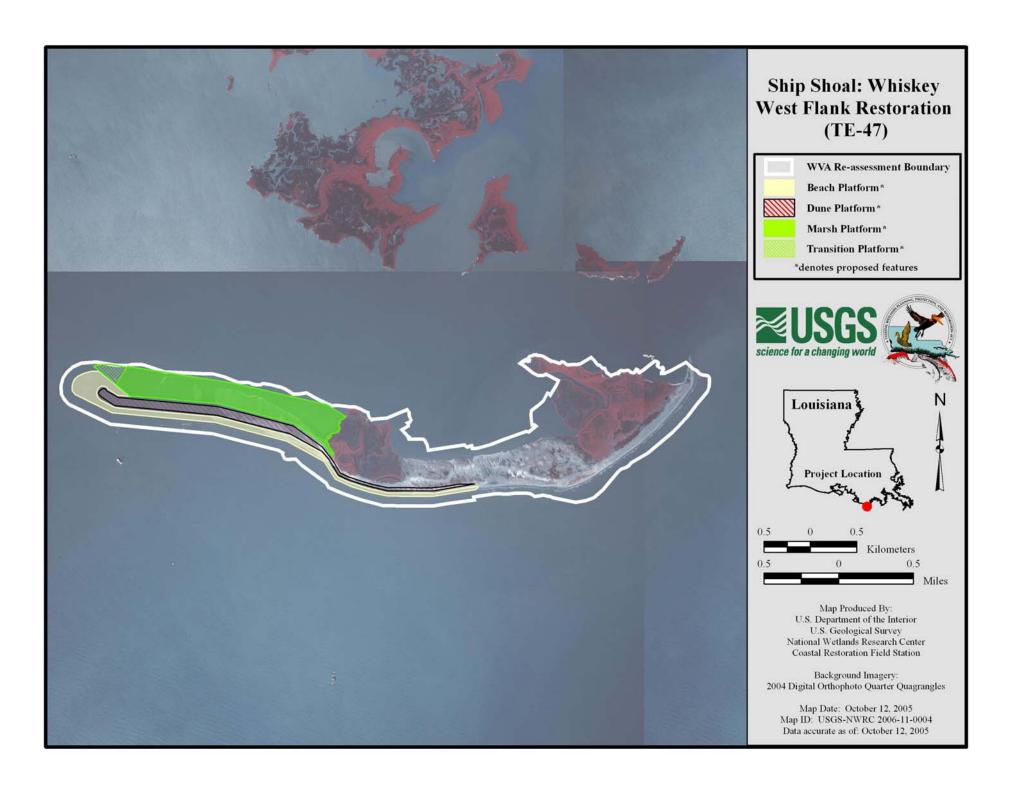
Proposed Solution - The proposed conceptual restoration template would restore the west flank of Whiskey Island through the direct creation of approximately 415 acres of new intertidal, supratidal, and dune habitat plus 134 acres of subtidal habitat. In order to control flow training effects on the western 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



ATTACHMENT III LAND RIGHTS AGREEMENT



KATHLEEN BABINEAUX BLANCO GOVERNOR SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

December 28, 2005

Mr. Wes McQuiddy U. S. Environmental Protection Agency Region 6 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733

Re:

Ship Shoal - Whiskey Island West Flank Project TE-47

DWF Letter Agreement

Terrebonne Parish, Louisiana

Dear Mr. McQuiddy:

Enclosed for your records is a certified original of the captioned document between the Louisiana Department of Wildlife and Fisheries and the Louisiana Department of Natural Resources for the above captioned project. This document has been recorded and certified by the Terrebonne Parish Clerk of Court.

Should you have any questions, please contact me at 225-342-5068.

Sincerely,

Jøyce M. Montgomery

CRD Land Specialist III

JMM

c:(w/o attachment) Chris Williams, CRD Project Manager

Final distribution letter agreement dwf.wpd



KATHLEEN BABINEAUX BLANCO GOVERNOR SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

August 23, 2005

Mr. Dwight Landreneau, Secretary Department of Wildlife and Fisheries Post Office Box 98000 Baton Rouge, La. 70898-9000

RE:

Letter Agreement

Ship Shoal – Whiskey Island West Flank Project TE-47

Isles Dernieres Barrier Islands Refuge -

Terrebonne Parish, Louisiana

Dear Mr. Landreneau:

When executed by you, this letter shall constitute an agreement (the "Agreement") by and between the Louisiana Department of Natural Resources ("DNR") and the Louisiana Department of Wildlife and Fisheries ("DWF") whereby DWF authorizes DNR to conduct construction and monitoring operations for the Ship Shoal – Whiskey Island West Flank Project TE-47 ("Project") being a portion of the Isles Dernieres Barrier Islands Refuge ("IDBIR") as shown on Exhibit B attached hereto and made a part hereof.

DWF has no objection to DNR, or its assigns, proceeding with the proposed Project for the purposes authorized by Federal (16 U.S.C. 3951, et seq.) and State (R.S. 49:213-214) law within the Project area shown on Exhibit A and pursuant to the Project Activity Summary on Exhibit C, both attached hereto and made a part hereof, provided however, that DNR complies with the following stipulations:

- 1. This Agreement pertains to the IDBIR as shown on Exhibit B.
- 2. Prior to any activities on the IDBIR, DNR shall contact Mr. Ed Mouton, or his assignee (Programs Manager), at (337) 373-0032 to coordinate Project details.
- 3. DNR shall abide by the IDBIR regulations as set forth in Exhibit B, attached hereto and made a part hereof, unless otherwise agreed to by DWF.

Ship Shoal – Whiskey Island West Flank Project TE-47 DWF Letter Agreement Page 3

12. In the event any change or condition should develop that affects IDBIR and that would affect DNR's ability to perform the activities granted under this Agreement, DWF agrees to notify DNR at the following address:

Department of Natural Resources Coastal Restoration Division P. O. Box 44027 Baton Rouge, LA 70804-4027

Phone:

225-342-7308

Fax:

225-342-9417

13. The final plans will require approval by DWF and DNR, prior to construction.

The terms of this Agreement, where applicable, and except for Paragraph 7 above, are subject to the availability of funds as stated in the CWPPRA Task Force Standard Operation Procedures. Should funds not be available to comply with the terms of this Agreement, DNR agrees to use its best efforts to secure funding to meet the terms stated herein.

This Agreement shall become effective upon the signature of DWF and shall remain in effect for twenty (20) years from the date hereof unless sooner terminated by the mutual consent of DNR and DWF.

DNR may assign or transfer, in whole or in part, any or all of its rights hereunder, but only to the extent necessary to implement the purposes of the Project on the said Lands.

This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, their successors in interest, transferees and assigns.

If the foregoing accurately reflects your understanding of the agreement between DNR and DWF relative to the referenced Project activities on the IDBIR, please evidence your approval by signing the three (3) originals and returning the executed originals to this office. The documents will be recorded in the public records of Terrebonne Parish, and a certified duplicate will be returned to your office upon completion. Thank you for your cooperation in this matter.

Ship Shoal - Whiskey Island West Flank Project TE-47 **DWF** Letter Agreement Page 5

ACKNOWLEDGMENTS

STATE OF LOUISIANA

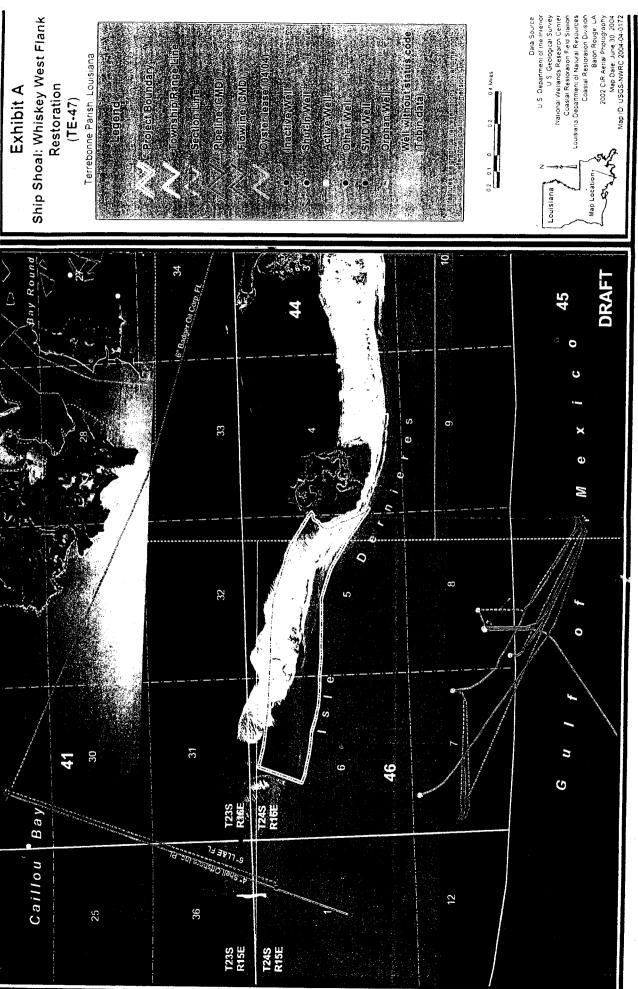
PARISH OF EAST BATON ROUGE

My commission expires: with life

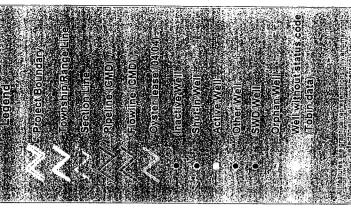
(SEAL)

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| BEFORE ME, the undersigned authority, duly | commissioned and qualified in and for said Parish |
| and State aforesaid, on this 3 day of 0 day | , 20 , personally came and appeared Scott |
| A. Angelle, to me known, who declared that he | is the Secretary of the Department of Natural |
| Resources, State of Louisiana, that he executed the fe | |
| and that the instrument was signed pursuant to the aut | hority granted to him by said State Agency and that |
| he acknowledged the instrument to be the free act and | deed of said State Agency. |
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| | I das I den la |
| | Print Name: John F. Parker |
| Identification Number: 01117 | NOTARY PUBLIC |

NOTARY PUBLIC



Ship Shoal: Whiskey West Flank



2002 CIR Aerial Photography

Map ID: USGS-NWRC 2004-04-0172

Ship Shoal – Whiskey Island West Flank Project TE-47 DWF Letter Agreement Page 7

List of Exhibits

Exhibit A Project Area

Exhibit B Regulations for Isles Dernieres Barrier Islands Refuge

Exhibit C Project Summary

writing by the Secretary or his designee for the uses provided for in Paragraph 2.b. above.

- d. Any member of the public utilizing the designated public use area shall be required to have a portable waste disposal container to collect all human wastes and to remove same upon leaving the island. Discharge of human wastes, including that within the disposal container, onto the island or into Louisiana waters or wetlands is prohibited.
- e. Littering on the island or in Louisiana waters or wetlands is prohibited.
- f. Carrying, possessing, or discharging firearms, fireworks, or explosives in the designated public use area is prohibited.
- g. Boat traffic is allowed adjacent to the island in open waters of the Gulf and bays and within the manmade canal commonly known as California Canal for its entire length to its terminus at the bulkhead on the
- B. Violation of any provision of these regulations shall

be considered a Class Two Violation, as described in R.S.

56:115(D), 56:764, and 56:787.

AUTHORITY NOTE: Promulgated in accordance with R S

56:6(18), R.S. 56:109, and R.S. 56:781 et seq.

HISTORICAL NOTE: Promulgated by the Department of Wildlife and Fisheries, Wildlife and Fisheries Commission, LR 25:

Bill A. Busbice, Jr. Chairman

western end of the canal. No boat traffic is allowed in other man-made or natural waterways extending into the interior of the island or in any land-locked open waters or wetlands of the island.

- h. Fishing from boats or wade fishing in the surf areas of the island is allowed.
- i. Houseboats may be moored in designated areas along the California Canal. An annual permit shall be required to moor a houseboat in the canal. The required permit may be obtained from the Department of Wildlife and Fisheries New Iberia Office.
- j. Proposals to conduct oil and gas activities, including seismic exploration, shall be considered on a case-by-case basis and may be permitted by the Secretary or his designee, consistent with provisions of the Act of Donation executed by the Louisiana Land and Exploration Company on July 24, 1997.

9905#041

ATTACHMENT IV

30% AND 95% DESIGN REVIEW LETTERS



KATHLEEN BABINEAUX BLANCO GOVERNOR SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

December 28, 2004

Mr. Wes McQuiddy Acting Chief Marine and Wetlands Section (6WQ-EM) Environmental Protection Agency 1445 Ross Avenue Dallas, Texas 75202 Via Facsimile

(214) 665-6689

Re:

30% Design Review for Ship Shoal Whiskey Island West Flank, (TE-47)

Statement of Local Sponsor Concurrence

Dear Mr. McQuiddy:

We are in receipt of your November 29, 2004 letter regarding the captioned project. In that letter you indicated that EPA has concluded the project is still viable and is recommending the advancement of the project to the 95 Percent level. Questions were asked in the Ecological Review concerning the projects goals and objectives; these issues will be addressed in the 95 Percent Design report prior to holding the 95 Percent Design Review.

Based on our review of the technical information compiled to date, the Ecological Review, the preliminary land ownership investigation, and the preliminary designs, we, as local sponsor, are in concurrence with proceeding to final design. We have instructed the engineering and design firm (DMJM+Harris) to bring the project to the 95 Percent level.

In accordance with the CWPPRA Project Standard Operating Procedures manual, we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee.

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

Sincerely,

Christopher P. Knotts, P. E.

Director

CPK:LCW:dpg

cc: John Hodnett, Engineer Manager

Chris Williams, Project Manager Luke Le Bas, Engineer Manager

COASTAL ENGINEERING DIVISION



KATHLEEN BABINEAUX BLANCO GOVERNOR SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT October 20, 2005

Mr. Wes McQuiddy
Team Leader
Marine and Wetlands Section (6WQ-EM)
Environmental Protection Agency
1445 Ross Avenue

Via Facsimile

(214) 665-6689

Re:

95% Design Review for Ship Shoal Whiskey Island West Flank, (TE-47)

Statement of Local Sponsor Concurrence

Dear Mr. McQuiddy:

Dallas, Texas 75202

We are in receipt of your October 11, 2005 letter regarding the captioned project. In that letter you indicated that EPA has concluded the project is still viable and is recommending the advancement of the project to construction.

Based on our review of the technical information compiled to date, the Ecological Review, the preliminary land ownership investigation, and the preliminary designs, we, as local sponsor, are in concurrence with proceeding to construction. We have instructed the engineering and design firm (DMJM+Harris) to generate the final construction bid documents.

In accordance with the CWPPRA Project Standard Operating Procedures manual, we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee.

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

Sincerely,

Christopher P. Knotts, P. E

Director

CPK:LCW:dpg

cc: John Hodnett, Engineer Manager

Chris Williams, Project Manager

Luke Le Bas, Engineer Manager

ATTACHMENT V

FINDING OF NO SIGNIFICANT IMPACT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



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

December 1, 2005

FINDING OF NO SIGNIFICANT IMPACT

To All Interested Agencies and Public Groups:

In accordance with the environmental review guidelines of the Council on Environmental Quality at 40 Code of Federal Regulations Part 1500, the U.S. Environmental Protection Agency (EPA) has performed a Supplemental Environmental Assessment for the following proposed action under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) of November 1990, House Document 646, 101st Congress (Public Law 101-646).

Project Name:

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

Sponsors:

U.S. Environmental Protection Agency, Region 6

Louisiana Department of Natural Resources

| Total estimated funding | \$42,175,800 |
|--|--------------|
| Phase 1 (Engineering and Design) funding | \$ 2,999,000 |
| Phase 2 (Construction) funding | \$39,176,800 |

Location:

The proposed project is located on Whiskey Island in the Isles Dernieres Barrier Island chain, centered at approximate coordinates 29° 03′ 45" north latitude, and 90° 49′ 41" west longitude. The proposed sand borrow site is located approximately 10 miles south-southwest of Whiskey Island in the Gulf of Mexico, entirely within Block 88 of Ship Shoal.

Introduction. The EPA prepared an Environmental Assessment (EA) in December1993 for the restoration of Isles Derniers Barrier Island which included Racoon Island, Whiskey Island, Trinity Island and East Island. On September 4, 1997, EPA issued an addendum to the EA and a Finding of No Significant Impact (FNSI) for the Whiskey Island Barrier Island Restoration and Coastal Wetland Creation (TE-27) project, addressing the direct creation of approximately 355 acres (ac) of emergent marsh platform, and four major breach closures, including the Coupe Nouvelle. The Statement of Findings was issued on November 6, 1997. In April 2004, the U.S. Department of the Interior, Minerals Management Service (MMS), prepared an EA analyzing the proposed action to dredge sand within Block 88 in the Ship Shoal area for placement on the west flank of Whiskey Island (TE-47). Based on the EA, the MMS concluded that the proposed action would not significantly affect the quality of the human environment and that preparation of an Environmental Impact Statement (EIS) was not warranted.

Proposed Action. The objective of project TE-47 is to continue the restoration of Isles Dernieres. Offshore Ship Shoal sand would be excavated and transported a distance of

approximately 10 miles to restore the west flank of Whiskey Island. The restoration includes a 600-foot (ft) wide berm at +3 ft North American Vertical Datum of 1988 (NAVD), and 300-ft wide at +6 ft NAVD, and will require about 2.8 million cubic yards (cy) of sand. There is an existing east flank restoration area which includes a 450-ft wide berm at +3 ft NAVD, and a 100-ft wide dune transitioning from the west flank's +6 ft NAVD to the east flank's +4 ft NAVD. Approximately 1.1 million cy of sand will be required for the transition. The existing back barrier marsh habitat will be protected during the transition into the adjacent east dune to mitigate overwash-breaching (i.e., western marsh lobe) and to retain the island structural function.

After the construction, the west flank would be restored to approximately 415 ac of intertidal, supratidal, and dune habitat, and the extension to the east would be restored to approximately 85 ac of additional intertidal, supratidal, and dune habitat, for a total of 500 ac. The total benefits from the project would be the direct creation of approximately 85 ac of dune platform, a net increase of 98 ac of supratidal and a net increase of 131 ac of intertidal habitats. All areas will be planted and sand fencing placed to trap wind-blown sediment.

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The proposed TE-47 project is part of and consistent with the Louisiana Coastal Wetlands Conservation and Restoration Task Force, and the Wetlands Conservation and Restoration Authority ecosystem strategy to restore barrier islands and gulf shorelines. CWPPRA provides Federal funds for planning and implementing projects that create, protect, restore and enhance wetlands in coastal Louisiana. Under CWPPRA, the project cost is shared by the Federal sponsoring agency and the State of Louisiana. The Federal government provides 85 percent of the project cost and the Louisiana Department of Natural Resources (LDNR) provides the remaining 15 percent.

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Finding. On the basis of this Supplemental EA performed by the EPA of the proposed project, and other findings and available information, the Regional Administrator has determined that the proposed project is not a major Federal action significantly adversely affecting the quality of the human environment, and that preparation of an EIS is not warranted. This preliminary FNSI will become final 30 days after the issuance of the public notice if no new information is received to alter this finding. No administrative action will be taken on this decision during the 30-day comment period. Comments regarding this preliminary decision not to prepare an EIS, requests for copies of the EA, or review of the Administrative Record containing the information supporting this decision, may be submitted in writing to the U.S. Environmental Protection Agency; Office of Planning and Coordination (6EN-XP); 1445 Ross Avenue, Suite 1200; Dallas, Texas 75202-2733, or by telephone at (214) 665-8150.

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John Blevins

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ATTACHMENT VI 404 PERMIT



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

REPLY TO ATTENTION OF: Operations Division Central Evaluation Section

JUL 10 may

SUBJECT: MVN-2006-4206-CY

Gentlemen:

Louisiana Department of Wildlife and Fisheries 2415 Darnall Road New Iberia, Louisiana 70560

Enclosed is a permit dated this date, subject as above, authorizing work under the Department of the Army permit program.

You are again reminded that any work not in accordance with the approved plans is subject to removal regardless of the expense and the inconvenience that such removal may involve and regardless of the date when the discrepancy is discovered.

Your attention is directed to all the terms and conditions of the approval. In order to have the work approved in accordance with the issued permit, all terms and conditions of the permit and plans shown on the drawings attached thereto must be rigidly adhered to.

It is necessary that you notify the District Engineer, Attention: Central Evaluation Section, in writing, prior to commencement of work and also upon its completion. The notification must include the permittee's name, as shown on the permit, and the permit number. Please note the expiration date on the permit. Should the project not be completed by that date, you may request a permit time extension. Such requests must be received before, but no sooner than six months before, the permit expiration date and must show the work completed and the reason the project was not finished within the time period granted by the permit.

A copy of Page 1 of the permit (ENG Form 1721) must be conspicuously displayed at the project site. Also, you must keep a copy of the signed permit at the project site until the work is completed.

Sincerely,

Martin S. Mayer

Chief, Central Evaluation Section

Enclosure

DEPARTMENT OF THE ARMY PERMIT

Permittee: Louisiana Department of Wildlife and Fisheries

Permit No. MVN-2006-4206-CY

Issuing Office: New Orleans District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Implement the Ship Shoal: Whiskey Island West Flank Restoration Project (CWPPRA TE-47) by dredging for material and access and creation of dune and marsh habitat to restore the western end of Whiskey Island, in accordance with the drawings enclosed in eight sheets dated June 29, 2005 and one revision dated June 29, 2005.

Project Location: In Terrebonne Parish, Sections 44, 45 and 46, T24S-R16E, at the western end of Whiskey Island and the borrow area located in the Gulf of Mexico, offshore Louisiana.

Permit Conditions:

General Conditions:

- 1. The time limit for completing the work authorized ends on <u>June 30, 2012</u>. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 1 month before the above date is reached.
- 2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
- 3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

- 4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
- 5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
- 6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions: Page 4.

Further Information:

- 1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
- (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
- () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
- 2. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
- 3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.

- e. Damage claims associated with any future modification, suspension, or revocation of this permit.
- 4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
- 5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

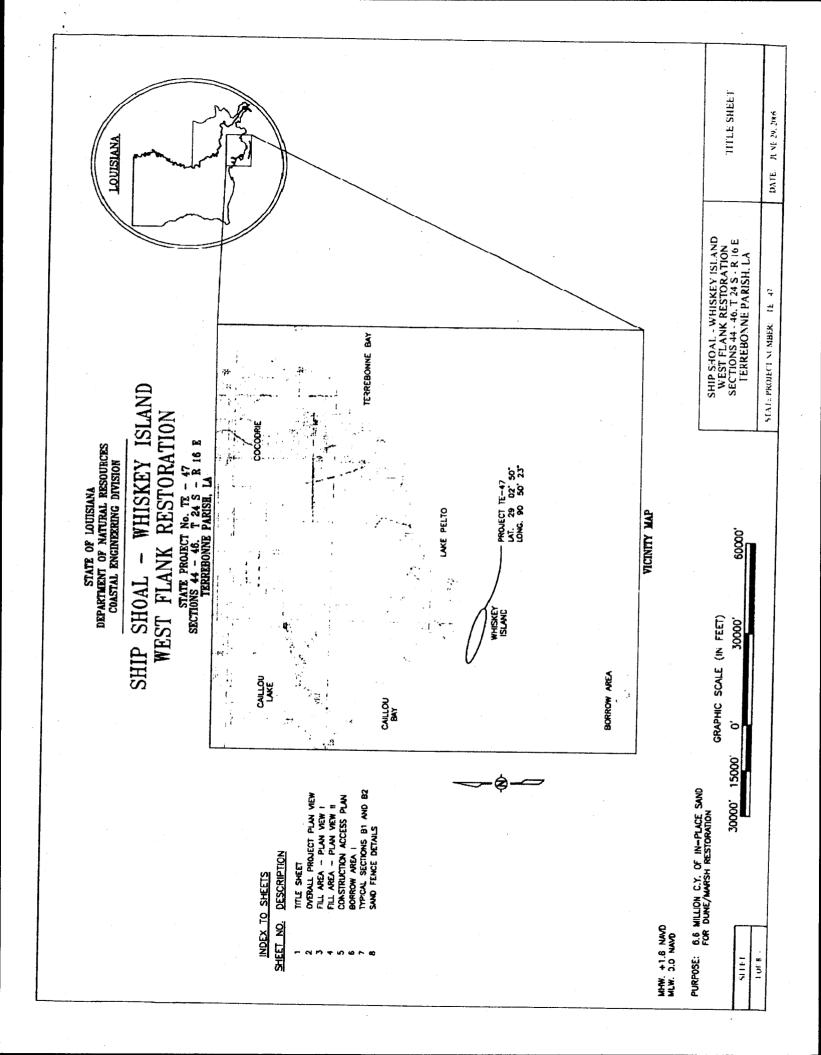
6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

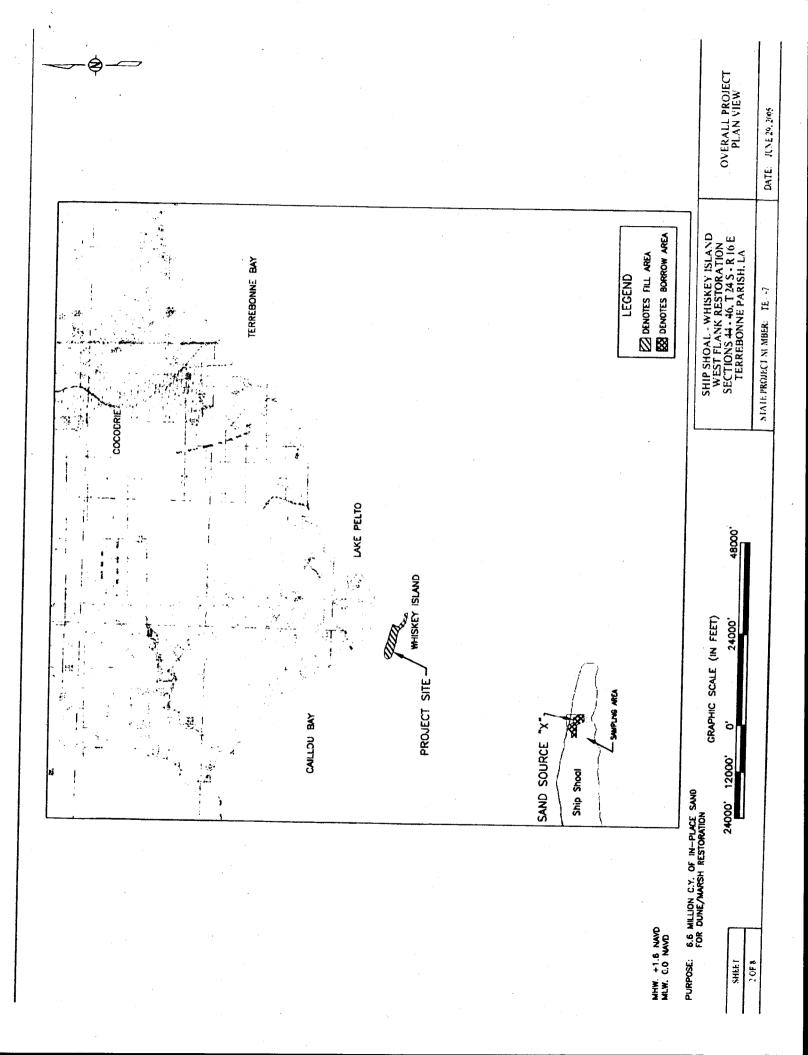
Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

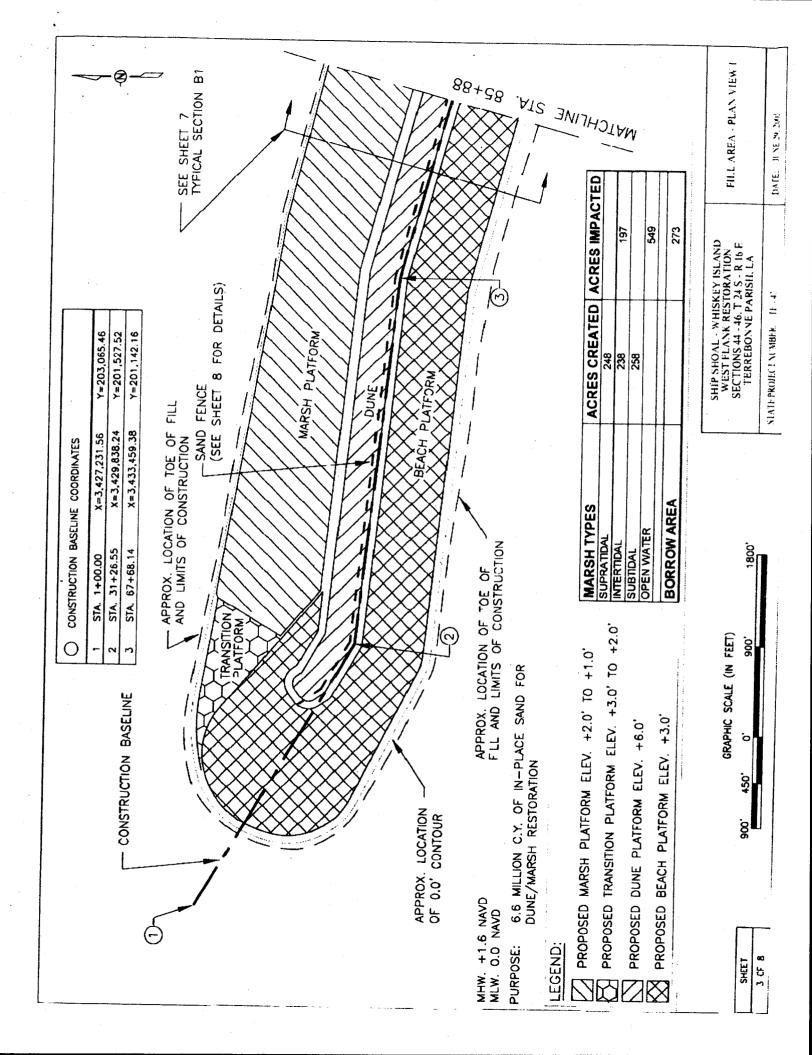
| A LOW Walled | χ 1.9.2007 | |
|--|---|-------------------------|
| (PERMITTEE) | (DATE) | |
| • | designated to act for the Secretary of the Army, has signed belo | W. |
| Martin S. Mayer | 17 July 2007 | |
| Martin S.Mayer, Chief Central | (DAIE) | |
| for Richard P. Wagenaar, District Commander | | · |
| conditions of this permit will continue to be binding on the n | re still in existence at the time the property is transferred, the tenew owner(s) of the property. To validate the transfer of this permiterms and conditions, have the transferee sign and date below. | erms and lit and the |
| (TRANSFEREE) | (DATE) | |

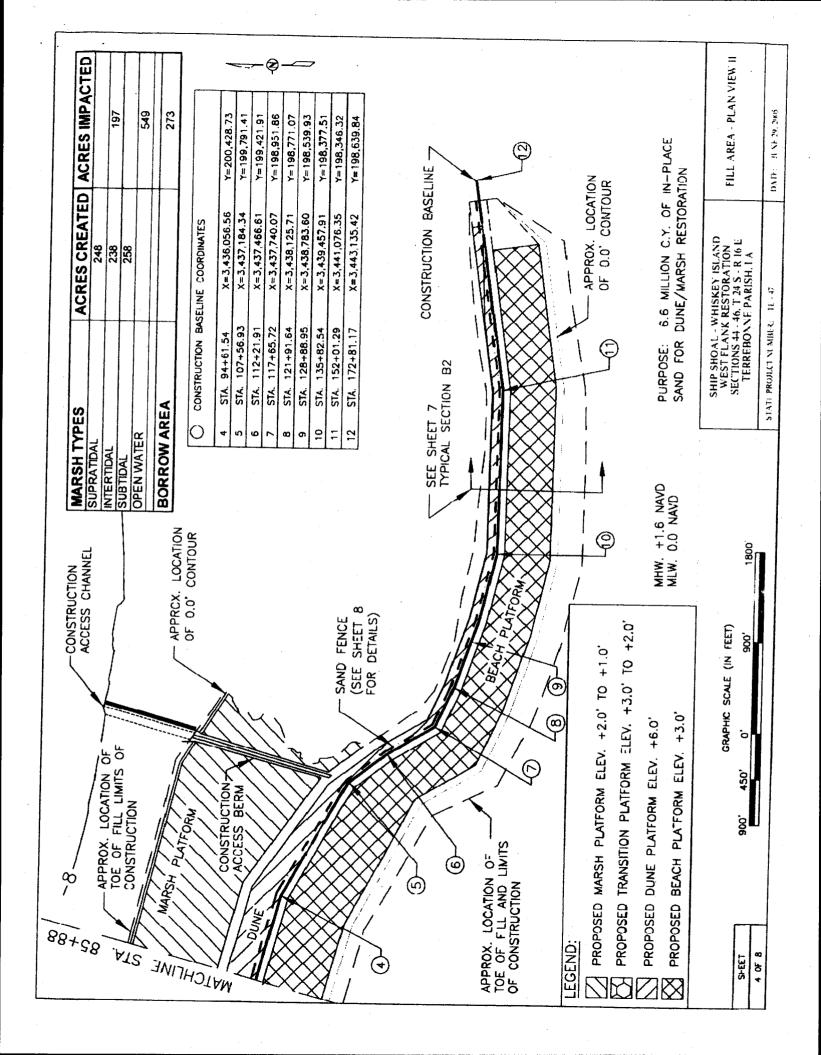
SPECIAL CONDITIONS: 2006-4206-CY

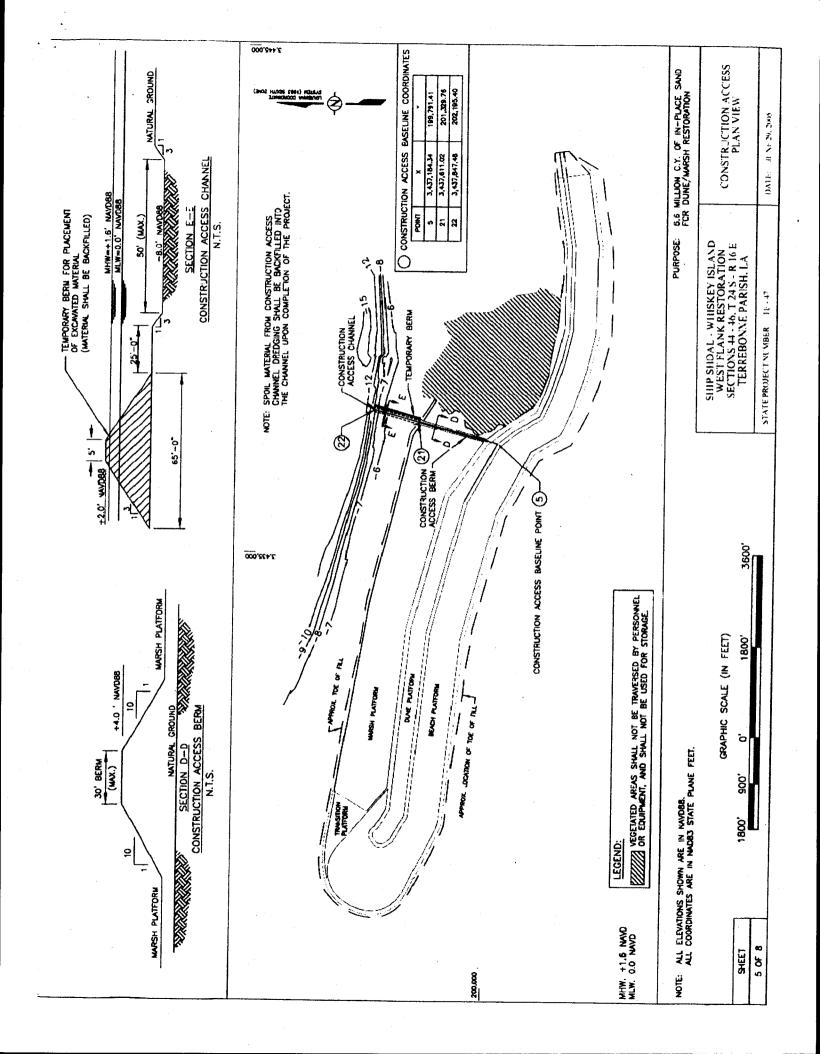
- 7. The permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.
- 8. The permittee must install and maintain, at the permittee's expense, any safety lights, signs, and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on the permittee's authorized facilities.
- 9. The Chitimacha Tribe of Louisiana has stated that the project area is part of the aboriginal Chitimacha homelands. If during the course of work at the site, prehistoric and/or historic aboriginal cultural materials are discovered, the permittee will contact the Chitimacha Tribe of Louisiana at P.O. Box 661, Charenton, LA 70523, and the U. S. Army Corps of Engineers, New Orleans District (CEMVN) Regulatory Branch. CEMVN will initiate the required federal, state, and Tribal coordination to determine the significance of the cultural materials and the need, if applicable, for additional cultural resource investigations.
- 10. If the proposed project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.,) in the waterway, you are advised to notify the U.S. Coast Guard so that a Notice to Mariners, if required, may be prepared. Notification, with a copy of your permit approval and drawings, should be mailed to the U.S. Coast Guard, Sector New Orleans Command Center, 201 Hammond Highway, Metairie, Louisiana 70005, about 1 month before you plan to start work. Telephone inquiries can be directed to (504) 846-5923.
- 11. The time limit to perform dredging to maintain navigability and obtain material for island maintenance, unless specifically revoked or suspended by this office, expires 10 years from the effective dated of this approval.
- 12. The permittee shall limit dredge and fill activities to areas essential to the project. If the proposed project requires any additional work not expressly permitted herein, or impacts any wetlands other than the areas indicated on the attached drawings, the permittee must apply for an amendment to this authorization prior to commencement of work.

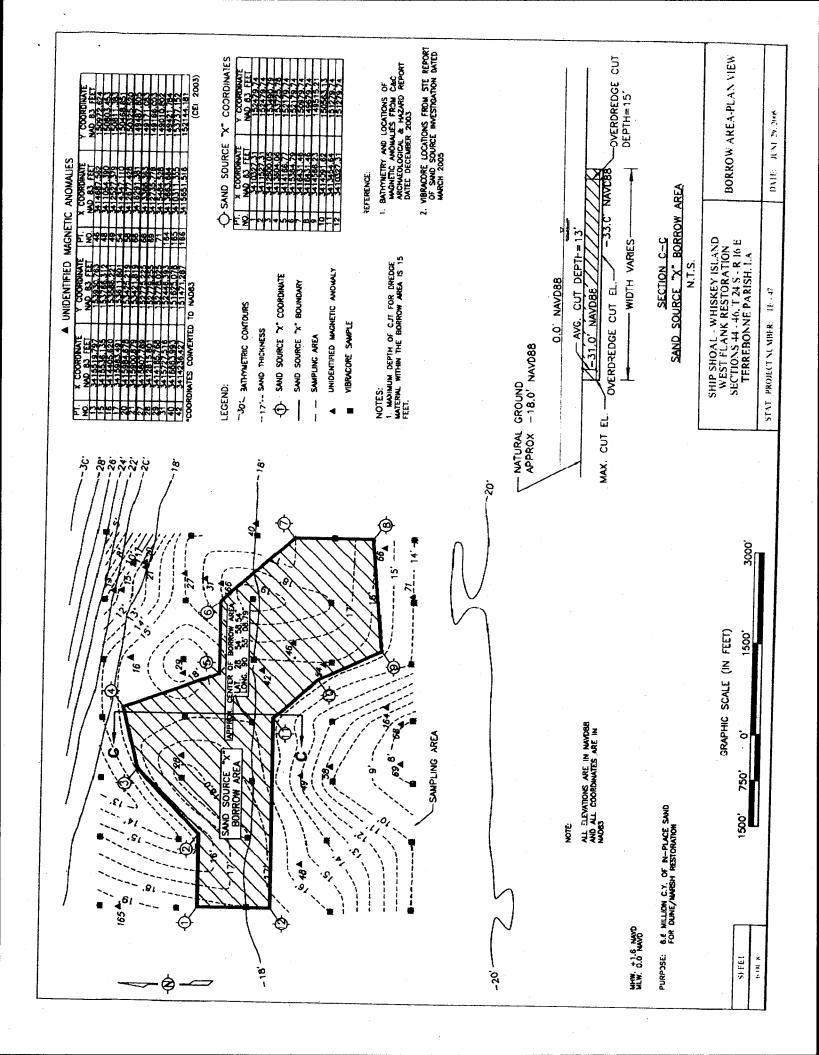


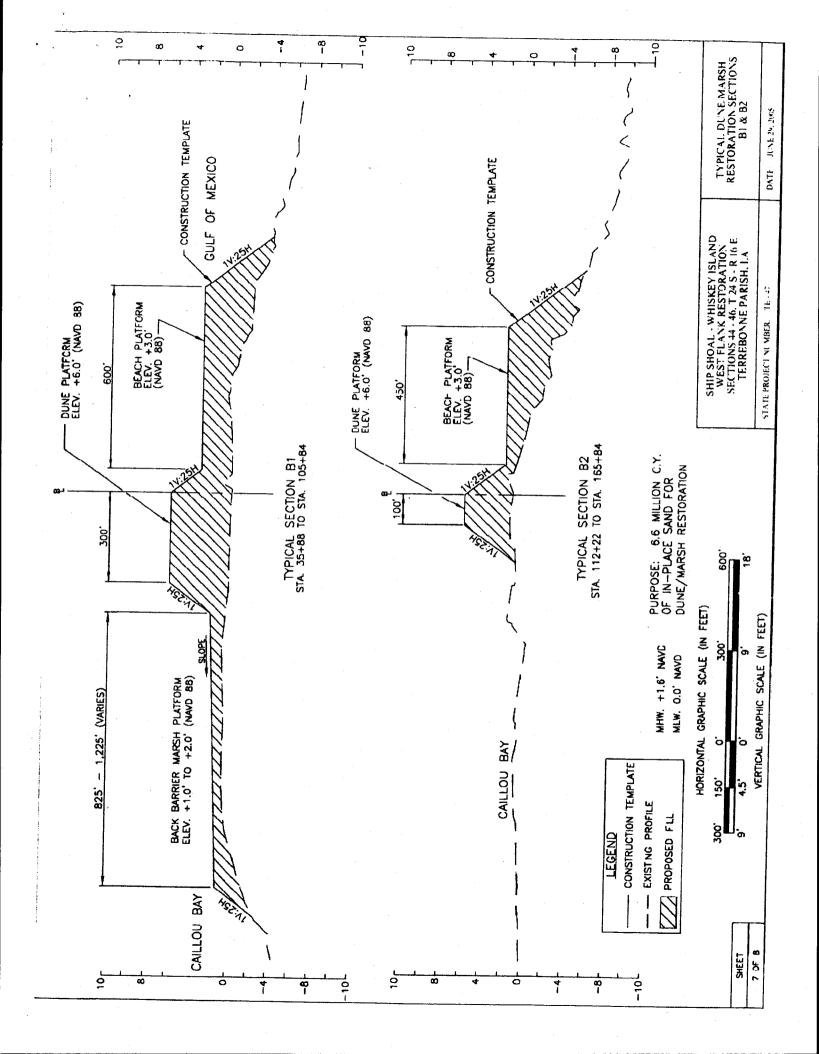


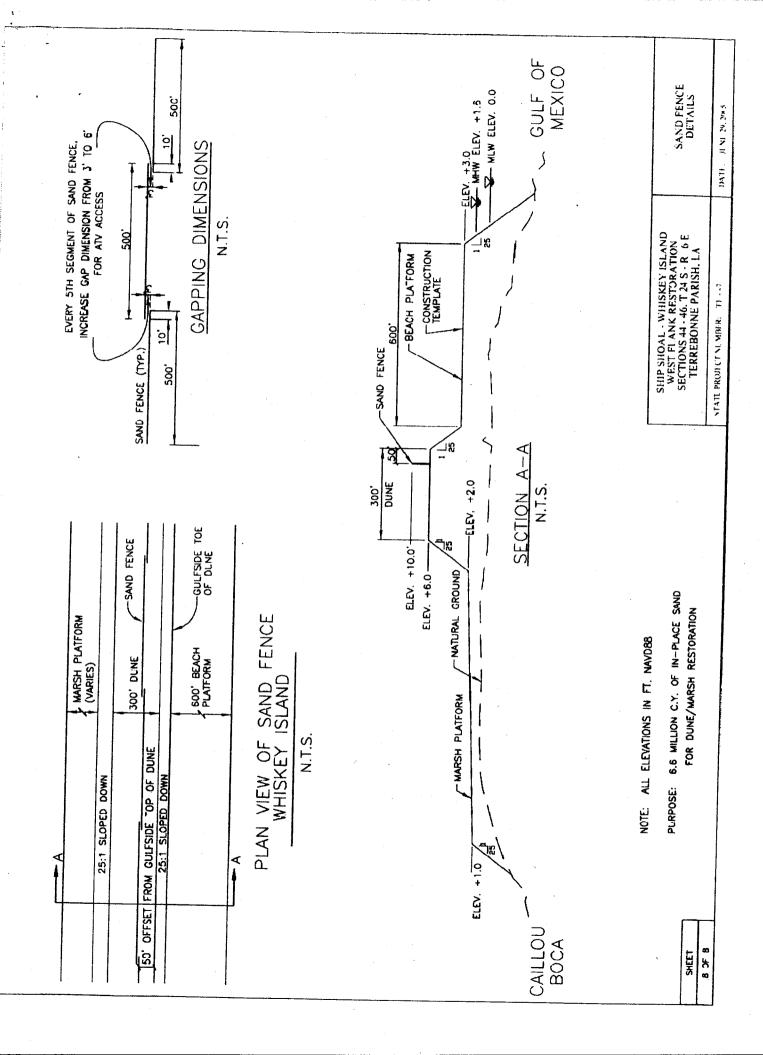












ATTACHMENT VII

SECTION 303 (e) APPROVAL LETTER



DEPARTMENT OF THE ARMY NEW ORLEANS DISTRICT, CORPS OF ENGINEERS 2006 NOV 30 AM 6: 53 P. O. BOX 60267 COASTAL RESTORATION DIVISIV. **NEW ORLEANS, LOUISIANA 70160-0267**

Office of Counsel

NOV 2 7 2006

Mr. William K. Honker United States Environmental Protection Agency Region 6 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733

Dear Mr. Honker:

We have reviewed your request for Section 303(e) approval for the Ship Shoal: Whiskey West Flank Restoration Project TE-47, Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA).

Our Office of Counsel has examined the October 17, 2005, package for this project. The package includes a letter of no objection from the State Land Office and a letter agreement between the Louisiana Department of Natural Resources (DNR) and the Louisiana Department of Wildlife and Fisheries (DWF) as well as an overgrazing determination from the Natural Resources Conservation Service.

Please be advised that prior to construction of the project, appropriate land rights, subject to such terms and conditions as necessary to ensure that wetlands restored, enhanced or managed through this project will be administered for the long-term conservation of the lands and waters and the dependent fish and wildlife populations, must be acquired from all persons or entities with ownership or other property interests of affected land, including oyster leaseholders whose leases will be adversely affected by the project.

If any existing pipeline or utility will be adversely affected by the project, requiring any relocation, alteration, or lowering of the pipeline, the appropriate land rights must be acquired from the owners of such facilities, including the subordination of their rights, title, and interests in their facilities to the interests necessary for the construction, operation and maintenance of the CWPPRA project.

Additionally, please note that the letter agreement includes an indemnification clause. This indemnification responsibility cannot be passed on to the United States, including The Environmental Protection Agency or any other federal agency. Therefore, by accepting this indemnification clause, DNR is accepting all associated risks.

We further note that the letter agreement sets forth a 20 year term. If it is deemed necessary to extend this term in order to meet the long-term conservation objectives, you will need to coordinate such extension with DNR.

We also have considered the determination that overgrazing does not occur on the project lands or lands affected thereby. If overgrazing should occur in the future, a grazing plan must be established for the project.

Accordingly, by the authority delegated to me by the Secretary of the Army, and given compliance with the provisions set forth above, I approve the project in accordance with Section 303(e) of CWPPRA.

Sincerely,

Richard P. Wagenaar Colonel, U.S. Army District Commander

Copies Furnished:

Ms. Helen Hoffpauir Coastal Restoration Division Louisiana Department of Natural Resources Post Office Box 44027 Baton Rouge, LA 70804-4027

Mr. William Rhinehart Coastal Restoration Division Louisiana Department of Natural Resources Post Office Box 44027 Baton Rouge, LA 70804-4027

ATTACHMENT VIII

OVERGRAZING DETERMINATION



August 26, 2005

Mr. Brad Crawford
Environmental Protection Agency
Region VI
Water Quality Protection Division (6WQ-EMC)
1445 Ross Avenue
Dallas, Texas 75202-2733

Dear Mr. Crawford:

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

I am in receipt of your request for an overgrazing determination for the Ship Shoal: Whiskey West Flank Restoration (TE-47). I contacted our local district conservationist and our state resource conservationist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

W. Britt Paul

Assistant State Conservationist

for Water Resources and Rural Development

cc: Randolph Joseph, Area Conservationist, NRCS, Lafayette, Louisiana Michael Trusclair, District Conservationist, NRCS, Thibodaux, Louisiana Johanna Patc, State Grazing Lands Specialist, NRCS, Alexandria, Louisiana John Jurgensen, Civil Engineer, NRCS, Alexandria, Louisiana

ATTACHMENT IX

REVISED FULLY FUNDED COST ESTIMATE

ATTACHMENT X

WETLAND VALUE ASSESSMENT

WETLAND VALUE ASSESSMENT COMMUNITY MODEL **Barrier Island**

Project:

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

Condition: Future Without Project

| | | TY 0 | | TY 1 | | TY 10 | |
|----------|---|---------------------|-------|---------------------|-------|---------------------------|------|
| Variable | | Value | SI | Value | SI | Value | SI |
| V1 | % Dune | 0 | 0.10 | 0 | 0.10 | 0 | 0.10 |
| V2 | % Supratidal | 30 | 1.00 | . 30 | 1.00 | 28 | 1.00 |
| V3 | % Intertidal | 70 | 1.00 | 70 | 1.00 | 72 | 0.94 |
| V4 | % Vegetative Cover | 33 | 0.56 | 33 | 0.56 | 36 | 0.60 |
| V5 | % Woody Cover | 15 | 1.00 | 15 | 1.00 | 16 | 1.00 |
| V6 | Interspersion Class 1 Class 2 Class 3 Class 4 Class 5 | % 44 26 30 | 0.72 | % 44 26 30 | 0.72 | % 28 15 13 44 | 0.65 |
| V7 | Beach/surf Zone | 1 | 1.00 | 1 | 1.00 | 1. | 1.00 |
| | Ĺ | HSI = | 0.742 | HSI = | 0.742 | HSI = | 0.73 |

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

| | TY 20 | | TY | | TY 20 TY | | TY TY | |
|--|--|---|--|--|--|---|-------|--|
| | Value | SI | Value | SI | Value | SI | | |
| % Dune | 0 | 0.10 | | | | | | |
| % Supratidal | 22 | 1.00 | | | | | | |
| % Intertidal | 81 | 0.67 | | | | | | |
| % Vegetative Cover | 20 | 0.38 | | | | | | |
| % Woody Cover | 16 | 1.00 | | | | | | |
| Interspersion Class 1 Class 2 Class 3 Class 4 Class 5 | % 30 10 60 | 0.54 | % | | % | | | |
| Beach/surf Zone | 1 | 1.00 | | | | | | |
| | % Supratidal % Intertidal % Vegetative Cover % Woody Cover Interspersion Class 1 Class 2 Class 3 Class 3 Class 4 Class 5 | % Dune 0 % Supratidal 22 % Intertidal 81 % Vegetative Cover 20 % Woody Cover 16 Interspersion % Class 1 Class 2 Class 2 30 Class 3 10 Class 4 60 Class 5 60 | % Dune 0 0.10 % Supratidal 22 1.00 % Intertidal 81 0.67 % Vegetative Cover 20 0.38 % Woody Cover 16 1.00 Interspersion % 0.54 Class 1 0.54 0.54 Class 2 30 0.54 Class 3 10 0.54 Class 4 60 0.54 Class 5 0.54 0.54 Beach/surf Zone 1 1.00 | % Dune 0 0.10 % Supratidal 22 1.00 % Intertidal 81 0.67 % Vegetative Cover 20 0.38 % Woody Cover 16 1.00 Interspersion % 0.54 % Class 1 0.54 % Class 2 30 0.54 % Class 3 10 0.54 % Class 4 60 0.54 % Class 5 10 0.54 % Beach/surf Zone 1 1.00 1.00 | % Dune 0 0.10 % Supratidal 22 1.00 % Intertidal 81 0.67 % Vegetative Cover 20 0.38 % Woody Cover 16 1.00 Interspersion % 0.54 % Class 1 0.54 % Class 2 30 0.54 % Class 3 10 0.54 % Class 4 60 0.54 0.54 Class 5 10 0.54 0.54 Beach/surf Zone 1 1.00 1.00 | % Dune 0 0.10 % Supratidal 22 1.00 % Intertidal 81 0.67 % Vegetative Cover 20 0.38 % Woody Cover 16 1.00 Interspersion % 0.54 % Class 1 Class 2 30 30 Class 2 30 30 30 Class 3 10 10 10 Class 4 60 60 60 Class 5 1 1.00 | | |

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Barrier Island

Project:

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

Condition: Future With Project

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

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

FWP

| | . [| TY 3 | 1 | TY 5 | | TY 10 | |
|------------|---|--------------------|------|---------------------|-----------------------|---------------------------|-----------------------|
| Variable | | Value | SI | Value | SI | Value | SI |
| V1 | % Dune | 7 | 1.00 | 7 | 1.00 | 5 | 1.00 |
| V2 | % Supratidal | 30 | 1.00 | 30 | 1.00 | 29 | 1.00 |
| V3 | % Intertidal | 63 | 1.00 | 64 | 1.00 | 65 | 1.00 |
| V4 | % Vegetative Cover | 30 | 0.51 | 45 | 0.72 | 46 | 0.73 |
| V5 | % Woody Cover | 12 | 1.00 | 12 | 1.00 | 12 | 1.00 |
| V 6 | Interspersion Class 1 Class 2 Class 3 Class 4 Class 5 | % 27 68 5 | 0.70 | % 40 30 30 | 0.82 | % 30 30 25 15 | 0.75 |
| V7 | Beach/surf Zone | HSI = | 1.00 | HSI = | 1.00 0.91 7 | HSI = | 1.00 0.90 9 |

AAHU CALCULATION

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

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

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

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

ATTACHMENT X

PRIORITIZATION FACT SHEET

FINAL PRIORITIZATION FACT SHEET

January 8, 2008

Project Name

Whiskey West Flank Restoration (TE-47)

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 longshore transport system of sediment for continuous island building.
 - 8. Provide a unique and sustainable barrier island habitat for numerous species of plants and animals.
 - 9. Restore roughly 500 acres of barrier island habitat into the island's West Flank

Proposed Solution

The Whiskey West Flank Restoration Project has completed the Phase 1 engineering and design evaluations. The project entails mining and transporting offshore Ship Shoal sediment to restore the west flank of Whiskey Island. A cutterhead suction dredge and/or hopper dredge would be used at Ship Shoal. Material would be transported a distance of approximately 8-10 miles with pipeline and booster pumps or as necessary to the island area. The proposed design features include: a 600 ft wide beach berm at +3 ft, a 300 ft wide dune at +6 ft elevation, and, a marsh platform which varies between 825 to 1225 ft wide. Transition to existing east flank restoration includes: a 450 ft wide berm at +3 ft and 100 ft wide dune that will transition in elevation from +6 ft from the west flank dune to +4 ft onto the adjacent east dune.

Proposed Prioritization Criteria Scores and Justification

Cost Effectiveness (cost/net acre)

The estimated total fully funded project cost is \$51,853,787. The project protects/creates 195 net acres. Therefore, the cost per acre for this project is \$265,917/net acre.

The proposed score for this criterion is 1.

Address Area of Need, High Loss Area

Based on the Memo Dated May 27, 2005, from Moffatt & Nichol, the projected historic shoreline erosion rate for the West Flank for FWOP, is 80 ft/yr and 86 ft/yr for the dune extension. The FWOP modeled shoreline erosion rates are 30 ft/yr for both the West Flank and the extension.

The proposed score for this criterion is 10.

Implementability

There are no known implementability issues.

The proposed score for this criterion is 10.

Certainty of Benefits

This project is a traditional barrier island project creating marsh and dune habitat and does not contain a shoreline protection component so no weighting is required.

The proposed score for this criterion is 7.

Sustainability of Benefits

Net acres benefited TY20: 195 acres

FWOP acres at TY1, 10, and 20 were taken from the wva (in turn, these were generated via modeling), and analyzed using the "Forecast" Statistical function in Excel (linear regression), resulting in a predicted value for FWOP acres at TY30, of 117 ac:

| TY | Acres |
|----|-------|
| 1 | 825 |
| 10 | 621 |
| 20 | 358 |

We then applied the relationship between the FWOP estimated acres at TY20 (358 ac; from the wva), the predicted acres at FWOP TY30 (117 ac; from the above approach), and the estimated acres FWP at TY20 (554 ac; from the wva), to the estimation of TY30 FWP (note- this is the same approach we took for East Island during PPL17):

Since this criterion requires application of FWOP rates to FWP net acres TY20-TY30, to get net acres at TY30 then:

FWP TY30- FWOP TY30= net acres TY30 181 ac- 117 ac= 64 net acres TY30

% decrease in net acres TY20-30= 195 ac-64 ac/195 ac=67% decrease in net acres The proposed score for this criterion is 1.

Consistent with hydrogeomorphic objective of increasing riverine input in the deltaic plain or freshwater input and saltwater penetration limiting in the Chenier plain The project will not result in increases in riverine flows.

The proposed score for this criterion is 0.

Consistent with hydrogeomorphic objective of increased sediment input

The project will result in the significant placement of sediment (> 1 million cubic yards) from an offshore sediment source. The proposed project would input approximately 3.85 MCY (in place) of Ship Shoal sediment into the Louisiana nearshore system.

The proposed score for this criterion is 10.

Consistent with hydrogeomorphic objective of maintaining or establishing landscape features

This project protects and creates a portion of a barrier island (Whiskey Island) and so significantly protects and creates a **critical** landscape feature.

The proposed score for this criterion is 10.

Weighting per criteria:

| Criterion | | Weight | Score | Weighted Score |
|-----------|----------------------------|--------|-------|----------------|
| | Cost-Effectiveness | 2.0 | 1.0 | 2.0 |
| | Area of Need | 1.5 | 10.0 | 15.0 |
| | Implementability | 1.5 | 10.0 | 15.0 |
| IV | Certainty of Benefits | 1.0 | 7.0 | 7.0 |
| V | Sustainability | 1.0 | 1.0 | 1.0 |
| VI | HGM Riverine Input | 1.0 | 0.0 | 0.0 |
| VII | HGM Sediment Input | 1.0 | 10.0 | 10.0 |
| VIII | HGM Structure and Function | 1.0 | 10.0 | 10.0 |
| Total | | | | 60.0 |

Preparer of Fact Sheet

Ken Teague, EPA, 214-665-6687, Teague.Kenneth@epa.gov

References

CWPPRA Economic Work Group. 2007. Phase 2 fully-funded cost estimate.

EPA. 2005. Ship Shoal- Whiskey Island West Flank Restoration (TE-47). Wetland Value Assessment Project Information Sheet Revised Draft Final for Phase II Request.

FINAL PRIORITIZATION FACT SHEET

January 8, 2008

Project Name

Whiskey West Flank Restoration (TE-47)

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.
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Proposed Prioritization Criteria Scores and Justification

<u>Cost Effectiveness</u> (cost/net acre)

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The proposed score for this criterion is 1.

Address Area of Need, High Loss Area

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The proposed score for this criterion is 10.

Implementability

There are no known implementability issues.

The proposed score for this criterion is 10.

Certainty of Benefits

This project is a traditional barrier island project creating marsh and dune habitat and does not contain a shoreline protection component so no weighting is required.

The proposed score for this criterion is 7.

Sustainability of Benefits

Net acres benefited TY20: 195 acres

FWOP acres at TY1, 10, and 20 were taken from the wva (in turn, these were generated via modeling), and analyzed using the "Forecast" Statistical function in Excel (linear regression), resulting in a predicted value for FWOP acres at TY30, of **117 ac**:

| TY | Acres |
|----|-------|
| 1 | 825 |
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% decrease in net acres TY20-30= 195 ac-64 ac/195 ac=67% decrease in net acres The proposed score for this criterion is 1.

Consistent with hydrogeomorphic objective of increasing riverine input in the deltaic plain or freshwater input and saltwater penetration limiting in the Chenier plain The project will not result in increases in riverine flows.

The proposed score for this criterion is 0.

Consistent with hydrogeomorphic objective of increased sediment input

The project will result in the significant placement of sediment (> 1 million cubic yards) from an offshore sediment source. The proposed project would input approximately 3.85 MCY (in place) of Ship Shoal sediment into the Louisiana nearshore system.

The proposed score for this criterion is 10.

Consistent with hydrogeomorphic objective of maintaining or establishing landscape features

This project protects and creates a portion of a barrier island (Whiskey Island) and so significantly protects and creates a **critical** landscape feature.

The proposed score for this criterion is 10.

Weighting per criteria:

| Criterion | | Weight | Score | Weighted Score |
|-----------|----------------------------|--------|-------|----------------|
| - 1 | Cost-Effectiveness | 2.0 | 1.0 | 2.0 |
| II | Area of Need | 1.5 | 10.0 | 15.0 |
| III | Implementability | 1.5 | 10.0 | 15.0 |
| IV | Certainty of Benefits | 1.0 | 7.0 | 7.0 |
| V | Sustainability | 1.0 | 1.0 | 1.0 |
| VI | HGM Riverine Input | 1.0 | 0.0 | 0.0 |
| VII | HGM Sediment Input | 1.0 | 10.0 | 10.0 |
| VIII | HGM Structure and Function | 1.0 | 10.0 | 10.0 |
| Total | | | | 60.0 |

Preparer of Fact Sheet

Ken Teague, EPA, 214-665-6687, Teague.Kenneth@epa.gov

References

CWPPRA Economic Work Group. 2007. Phase 2 fully-funded cost estimate.

EPA. 2005. Ship Shoal- Whiskey Island West Flank Restoration (TE-47). Wetland Value Assessment Project Information Sheet Revised Draft Final for Phase II Request.

CWPPRA

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

Technical Committee Meeting



January 16, 2008 Baton Rouge, LA



Project Overview

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

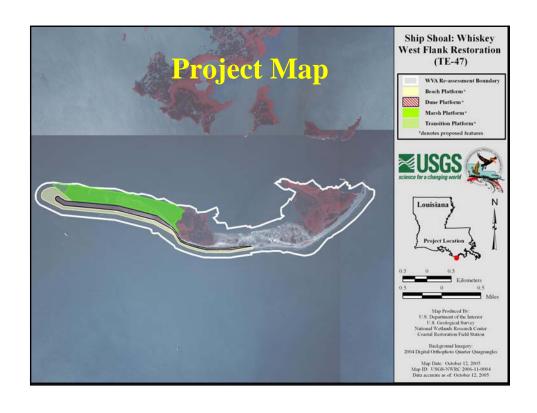
Problem: The Isles Dernieres, considered one of the most rapidly deteriorating barrier shorelines in the US, is losing its structural framework functions for the coastal/estuarine ecosystem including storm buffering capacity and protection for inland bays, estuaries and wetlands, human populations, and 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.

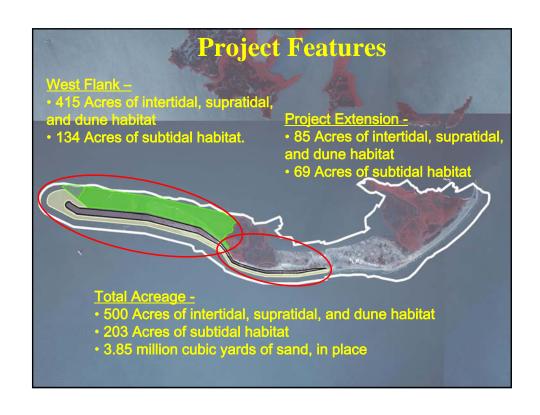
Project Overview

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 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: \$51,853,787 Phase 2 request is: \$47,962,959
- The Prioritization Score is: 60

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 Department of Natural Resources (225) 342 - 4122

TE-50 - Whiskey Island Back Barrier Marsh Creation Project

AGENCY SENCE COLUMN AGENCY OF THE PROPERTY OF

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

DEC 2 1 2007

Mr. Troy Constance Chief, Restoration Branch U.S. Army Corps of Engineers New Orleans District P.O. Box 60267 New Orleans, Louisiana 70160-0267

RE:

Whiskey Island Back Barrier Marsh Creation Project (TE-50) Request for

Phase II Construction Authorization

Dear Mr. Constance:

The U.S. Environmental Protection Agency (EPA) and Louisiana Department of Natural Resources (LDNR) hereby request approval to begin construction of the Whiskey Island Back Barrier Marsh Creation Project (TE-50). This project was authorized on Priority Project List 13 in January 2004 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 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 feel free to contact me at 214-665-7275, or Tim Landers at 214-665-6608.

Sincerely,

Shuon Firey Parish
Sharon Fancy Parrish

Chief

Marine & Wetlands Section

Enclosures

cc: Mr. Darryl Clark, USFWS

Mr. Britt Paul, NRCS

Mr. Gerry Duszynski, LDNR

Mr. Richard Hartman, NMFS

Ms. Melanie Goodman, USACE

Mr. Kevin Roy, USFWS

Mr. John Jurgensen, NRCS

Mr. Dan Llewellyn, LDNR

Ms. Rachel Sweeney, NMFS

Project Name: Whiskey Island Back Barrier Marsh Creation (TE-50)

Coast 2050 Strategy: Regional #14 - Restore and maintain the barrier islands and gulf shoreline such as Isle Dernieres, Timbalier barrier island chains, Marsh Island, Point au Fer, and Cheniere au Tigre (including backbarrier beaches).

Project Location: Region 3, Terrebonne Basin, Terrebonne Parish, Lake Pelto Mapping Unit, north of the previous restoration project (TE-27).

Problem: Gulfside and bayside erosion combined has resulted in Whiskey Island (and the entire Isles Dernieres) narrowing as the two shorelines migrate toward each other, resulting in a 68% decrease in average width for the Isles Dernieres (McBride and Byrnes 1997). Within 100 years, the entire subaerial portion of the of the Isles Dernieres barrier island system is projected to disappear except small land fragments associated with the western end of Whiskey Island and the eastern end of East Island. However, if the area change extrapolation method is used, the Isles Dernieres are projected to disappear much earlier, in 2017 (McBride and Byrnes 1997). Other predictions suggest that without restoration, the island would become subaqueous sand shoals between 2007 (McBride et al. 1991) and 2019 (Penland et al. 1988). In June, 2000 a CWPPRA restoration project (TE-27) was completed here, including dredging/placement (February, 1998), vegetative planting (July, 1998 and June, 1999), and sand fencing (June 2000).

Goals: 1) To create approximately 300 acres of backbarrier, intertidal marsh; 2) To create a minimum of six 1-acre tidal ponds and 10,000 ft of tidal creeks; 3) To increase the longevity of the previously-restored and natural portions of the island by increasing the island width; 4) To maintain the longevity of the island by conserving sand volume and elevation by increasing the island width.

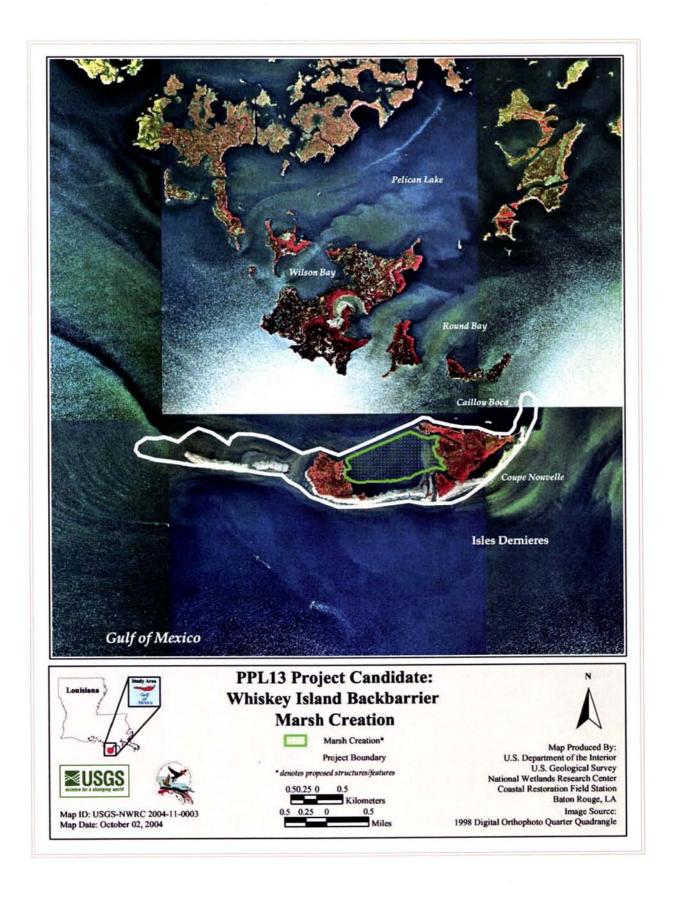
Proposed Solution: Approximately 300 acres of intertidal, back barrier marsh would be created by semi-confined disposal and placement of dredged material to +2 ft NAVD 88 (! 0.5ft). A minimum of six 1-acre tidal ponds and 10,000 ft of tidal creeks would be constructed. The area would be planted with smooth cordgrass (*Spartina alterniflora*). The boundary of the disposal area generally would follow the -3.5' contour. Because the project only involves marsh creation, high quality sand is not needed. This will allow sediment to be mined from a sediment source nearer the island than Ship Shoal, for example. A large area of silty sand lies directly to the south of the island, at a distance of three or four kilometers, at a depth of two to four meters.

Project Benefits: The project would benefit about 1,038 acres of barrier island habitat. Approximately 272 acres of intertidal saltmarsh would be created/protected over the 20-year project life.

Project Costs: Total fully funded cost = \$21,786,300. Fully funded first cost = \$21,645,900.

Risk/Uncertainty and Longevity/Sustainability: There is a high degree of risk associated with this project because barrier islands have high loss rates due to their role in absorbing/dissipating energy from the Gulf. The project should continue providing benefits 20-30 years after construction.

Sponsoring Agency/Contact Person: U.S. Environmental Protection Agency Ken Teague (214) 665-6687; teague.kenneth@epa.gov
Brad Crawford (214) 665-7255; landers.timothy@epa.
Patricia Taylor (214) 665-6403; crawford.brad@epa.gov



2. Overview of Phase I Tasks, Process and Issues – During the period February 2006 through June 2007, a team of scientists and engineers collected field data on Whiskey Island and the nearshore and offshore waters in the vicinity of the island as part of the TE-50 project. This field data was performed by T. Baker Smith, Inc. (TBS), Moffatt & Nichol (M&N), Ocean Surveys, Inc. (OSI), Eustis Engineering Company, Inc. (Eustis), the Department of Geology and Geophysics at the University of New Orleans (UNO), Soil Testing Engineers, Inc. (STE), and Archaeological Research, Inc. (ARI) working under contract with LDNR-CED.

The field data collection was a multi-task program to support the design of proposed construction features on Whiskey Island. Data collection consisted of land and shallow water surveys, grab samples of native beach and marsh material, bio-benchmark surveys of existing marsh habitats, geotechnical borings and laboratory testing, and offshore geophysical surveys to identify and map potential fill source materials.

Information presented at the August 28, 2007, 30% Design Review Conference and November 7, 2007, 95% Design Review Conference summarized the engineering and analysis performed subsequent to the data collection effort. At these conferences, the team discussed with Federal and State agencies the geology of the project location, presented the coastal processes in the project area that were analyzed as a basis for design, offered design and alternative analysis of the project features, summarized the offshore borrow area and presented a borrow area plan, and provided quantity takeoffs and cost estimates for the recommended project.

Although the initial restoration strategy only included back barrier marsh restoration, as a result of these Phase I activities, the recommended project includes the addition of a dune feature. The Phase 0 Project goals were to create approximately 300 acres of back barrier intertidal marsh, six 1-acre tidal pond, and 10,000 feet of tidal creeks. The revised project includes approximately 316 acres of back barrier intertidal marsh, three 1-acre tidal ponds, 5,800 feet of tidal creeks, and approximately 13,000 feet of dune. Qualitative/quantitative discussion of the support for and decision-making process behind the recommendation to include a dune feature as part of the project design were presented to the CWPPRA agencies in the enclosed November 21, 2007, letter and subsequently approved by the Task Force.

All construction activities for this project will occur on State lands or in State waters. The land rights determinations for this project have been completed by LDNR. All of Whiskey Island is State land owned by the Louisiana Department of Wildlife and Fisheries (LDWF). A letter agreement has been executed between LDNR and LDWF for the restoration project. The identified borrow area is also within State of Louisiana waters.

The identification of oyster leases in and around the project site including the borrow areas was coordinated with LDWF. There are no identified oyster leases which will be impacted by this project. Discussions have also been ongoing with LDWF, the U.S. Fish and Wildlife Service, and National Marine Fisheries Service regarding potential issues related to threatened and endangered species. A draft Biological Assessment for the project was developed with assistance

from these agencies and submitted by EPA on December 20, 2007. Ocean Surveys, Inc (OSI), together with Archeological Resources, Inc. (ARI), performed detailed obstruction/cultural resource surveys within the identified borrow areas. This task revealed the presence of several magnetic anomalies and sonar targets/features. Dredge plans were then established to avoid the presence of any potential cultural resources. A draft EA/FONSI, pursuant to the National Environmental Policy Act, was developed and issued for public comment on December 20, 2007.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

NOV 2 1 2007

Mr. Troy Constance Chief, Restoration Branch U.S. Army Corps of Engineers New Orleans District P.O. Box 60267 New Orleans, LA 70160-0267

Dear Mr. Constance:

The U.S. Environmental Protection Agency (EPA) and Louisiana Department of Natural Resources (LDNR) have recently worked to bring the Whiskey Island Back Barrier Marsh Creation (TE-50) project from the 30% to 95% Design Review level, consistent with the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Standard Operating Procedures Manual (SOP). We indicated in our September 26, 2007 correspondence to the CWPPRA Technical Committee and Planning & Evaluation Subcommittee that the process of developing a fully-funded project cost estimate in reaching the 95% milestone might yield a variance of 25% from the originally estimated fully funded project cost. In working with the Engineering and Economic Workgroup agencies on this matter, we have indeed determined the total fully funded project cost for the TE-50 project exceeds the original estimate by 28%. Therefore, I would like to take this opportunity to report out to the agencies, pursuant to Section 6(e)(3) of the CWPPRA SOP, the details of the change in scope for this project.

As currently proposed, the Whiskey Island Back Barrier Marsh Creation Project entails using Gulf sediment to create approximately 316 acres of bayside marsh, interspersed with tidal creeks and ponds, and a dune feature on Whiskey Island of the Isles Dernieres Barrier Islands Refuge. The following table presents project features and fully funded costs prepared during Phase 1 for the 95% Design Review as compared with those developed during Phase 0. Project cost increases for the TE-50 project can be attributed to a number of factors. These include higher project costs due to increases for mobilization/demobilization and vegetative plantings over those estimated in 2003. Additionally, EPA and LDNR have recommended incorporating project-specific monitoring (\$0 budgeted previously) focused on measuring the effectiveness of project features, particularly tidal creek and pond development within the marsh platform.

| Phase 0 Features | Phase 1 Features | Phase 0 Total Fully Funded Project Cost | Phase 1 Total Fully Funded Project Cost (% of original) |
|--|--|---|--|
| 300 acres marsh creation; 10,000 LF tidal creeks; Six 1-acre ponds | 316 acres marsh creation; 5,800 LF tidal creeks; Three 1-acre ponds; 13,000 LF dune | \$21,786,300 | \$27,914 ,08 6 <i>(1.28)</i> |

Another important change is the project team's recommendation to include a dune feature Gulfward of the constructed marsh platform on Whiskey Island. The Isles Dernieres, considered one of the most rapidly deteriorating barrier shorelines in the United States, is losing its barrier functions for the coastal/estuarine ecosystem. Chief among these are the islands' storm buffering capacity and the protection they provide human populations, oil and gas infrastructure, and inland bays, estuaries and wetlands. Island breakup has resulted from both major storm actions and, due to human alterations, the loss of nourishing sediment from the natural system. The initial restoration strategy for the TE-50 project only included back barrier marsh restoration. A dune feature to restore the relatively low barrier elevations along the front of the island was recommended based on determinations made during Phase 1 that a dune would enhance the structural integrity of the island, increasing the longevity of the marsh restoration and the island as a whole.

A healthy dune is a critical element of the barrier island system both in terms of physical protection against storm impacts and as a valuable natural resource. Dunes provide island habitat diversity and reduce the frequency of overwashes and breaches by maintaining the structural integrity of the island and allowing for the establishment and growth of back-barrier marsh vegetation. Of the six barrier island restoration projects constructed to date under CWPPRA, East, Trinity, Whiskey, New Cut, Timbalier, and East Timbalier Islands all include a dune feature. In particular, low profile dunes, similar to that proposed for the TE-50 project, were constructed in 1998 on the east end of Whiskey Island as part of the TE-27 project and were found to resist breaching during Tropical Storm Isidore and Hurricane Lili in 2002.

Geotechnical investigations conducted during Phase 1 discovered a number of potential sediment borrow areas suitable for constructing the TE-50 project. Subarea 2a, preferred because of its proximity to the island and therefore lower cost of dredging relative to other identified borrow areas, was found to contain an estimated volume of mixed overburden material suitable for the marsh creation component of the project. Underlying this material is a thin, relatively clean sand layer suitable for potential use as dune or beach material. Under EPA and LDNR's proposed scenario, the marsh platform would be constructed first utilizing excavated overburden material. This would then leave an exposed sand resource for dune construction.

The estimated total cost to construct the 48-acre dune component of the proposed TE-50 project is approximately \$2.9 million. Projected benefits developed by the project team as presented in the 30% and 95% Design Review Reports conservatively estimate an additional net benefit of approximately 13 acres to Whiskey Island as a whole over the 20-year project life when comparing the marsh plus dune scenario versus marsh creation only. Moreover, the proposed plan for this project would opportunistically utilize all or most of the available sediment in Subarea 2a, thus eliminating the possibility of leaving behind a small, yet consequential, volume of sand which, when exposed, will become contaminated with finer material through infilling of silts and clays. Federal and State efforts are underway to begin identifying an inventory of valuable sand resources which, at present, appear to be in limited quantity in some areas of the coast. Potentially wasting the resource identified for use in this project would seem counter to these efforts, which are intended to improve the efficiency and effective use of available sediment resources.

Although the proposed TE-50 dune feature is relatively small and is projected to provide an incremental increase in structural integrity and island longevity, the \$2.9 million total cost is also relatively small. The expense (\$2.5 million at today's cost) of mobilizing an ocean class dredge with installed dredge pipeline would already be paid for as part of this project. The cost just to re-mobilize a dredge for future utilization of this sand resource would likely exceed the total construction cost of the entire dune feature proposed as a component of the TE-50 project. The limited volume of this sand layer makes it very unlikely that it would be cost-effective to specifically target it for use on a future dune or beach restoration project. Therefore, unless this resource is used as part of this current project, its potential for use in coastal restoration will effectively be lost.

EPA and LDNR realize the pressure increasing unit and project costs have on overall program budgets. We also recognize that as fewer projects are authorized for construction, opportunities, when identified, to maximize use of available resources should be capitalized upon to the benefit of the environment and to the overall coastal restoration effort. The change in scope for the TE-50 project is fully consistent with ongoing interagency efforts to more effectively manage Louisiana and Gulf coast sediment resources. The dune feature is also consistent with past/present Federal and State barrier island restoration objectives and has the full support of the Louisiana Department of Wildlife and Fisheries who own and manage Whiskey Island as part of the Isles Dernieres Refuge system. If the CWPPRA Technical Committee concurs, we recommend this issue be put before the Task Force for a fax vote at your earliest convenience. I appreciate your consideration of this project scope change and total cost. If you have any questions regarding the TE-50 project, or would like to discuss this issue further, please do not hesitate to contact me at 214-665-7275 or Tim Landers of my staff at 214-665-6608.

Sincerely,

Sharon Fancy Parrish

Chief

Marine & Wetlands Section

Shawn Fancy Parus L

cc: Mr. Britt Paul, NRCS

Mr. Richard Hartman, NMFS

Mr. Gerry Duszynski, LDNR

Mr. Darryl Clark, USFWS

Ms. Melanie Goodman, USACE

Mr. John Jurgensen, NRCS

Ms. Rachel Sweeney, NMFS

Mr. Dan Llewellyn, LDNR

Mr. Kevin Roy, USFWS

Mr. Michael Carloss, LDWF

3. Description of Phase II Candidate Project – The project consists of marsh and dune construction using material from a nearby borrow area. Specifically, the project would create 316 acres of intertidal back barrier marsh, three 1-acre tidal ponds, 5,800 feet of tidal creeks, and 13,000 linear feet of Gulfside dune. A hydraulic cutter-head dredge will be used to excavate sediment from the borrow site. It has been determined the borrow site contains more than enough available material of sufficient quality that may be dredged for marsh construction. The required in-place marsh fill volume for this project is approximately 2.3 million cy and the required in-place dune fill volume is approximately 225,000 cy.

Survey data collected over both existing marsh lobes at Whiskey Island suggested that healthy marsh elevations are on the order of +1.2 to +1.6 ft NAVD88 under present sea level conditions. These elevations fall in the upper half of the tidal range, which is typically the case for healthy saltwater marshes in coastal Louisiana. Therefore, this project will construct a back barrier marsh that will remain within this range of elevations over as long as period of time as possible within the project's 20 year life. To achieve this, the marsh platform has to be initially built to an elevation such that after initial fill consolidation and foundation settlement, it will settle into the optimal range. After additional review and analysis, a target post-construction marsh fill elevation of +2.5 ft NAVD88 was selected as providing the optimum combination of suitable marsh elevation. After construction and consolidation, the newly created marsh will be planted with smooth cordgrass (*Spartina alterniflora*), and black mangrove (*Avicennis nitida*).

Containment dikes will be constructed around the perimeter of the marsh creation area to an elevation of +4.5 ft NAVD88 with 1(V):5(H) side slopes. In order to reduce the impacts of waves and currents, the northern containment dike will be constructed with a crest width of 20 ft. This dike will be breached at the location of the two tidal creeks to allow for increased tidal exchange. The east, west and south containment dikes will not be exposed to direct action from winds and waves and will be built with a 10 ft crest width. The east and west dikes will be constructed such that existing tidal creeks on the east and west lobes of the island will remain connected to open water. All dikes will be degraded after sufficient consolidation has occurred to allow for more efficient and natural water exchange between the back bay and the new marsh.

In order to establish tidal connectivity as soon as possible after project construction is completed, the design of this project includes the construction of a network of tidal creeks and ponds. Creeks will be pre-excavated to a depth of -6.0 feet NAVD 88 and will be constructed with side slopes of 1(V):3(H). Primary, secondary, and tertiary creeks will be constructed with a bottom width of 50 feet, 30 feet, and 20 feet, respectively. Three, round tidal ponds will be built at the intersections of the creeks and will be excavated to -6.0 feet NAVD 88, with a constructed diameter of 240 feet. The depth of pre-excavation has been estimated and optimized based on a settlement analysis to yield final channels and ponds at a depth of -0.5 to -1.0 ft NAVD88, which is roughly within the range of depths along the existing creeks in the east and west marsh lobes. The project design includes 5,800 feet of tidal creeks and three 1-acre tidal ponds. The tidal creek layout is comprised of 1,040 feet of primary creeks, 2,560 feet of secondary creeks, and 2,200

feet of tertiary creeks. The northern containment dike will be breached at the location of the two pre-excavated tidal creeks.

Two tidal creek and pond scenarios will be tested for the purpose of collecting data to determine whether tidal creeks need to be pre-excavated in future projects or whether tidal creeks will develop naturally. Lessons learned from observations and analysis of monitoring data from the two scenarios will provide guidance for the design of future marsh creation projects. The two tidal creek and pond scenarios are as follows:

- 1. With tidal features At the eastern end of the marsh platform, a tidal creek system consisting of primary, secondary, and tertiary creeks and 2 tidal ponds will be preexcavated. Near the center of the platform, the pre-excavated creek system will consist of a primary creek, secondary creeks, and a tidal pond.
- 2. Without tidal features At the western end of the marsh platform, no tidal features will be constructed. This area will provide an opportunity to observe whether tidal creeks will form naturally.

When the project was originally authorized it did not include a dune feature. Dunes exist or are planned on either side of the island reach proposed for construction of backbarrier marsh, but not on the reach itself, leaving the proposed backbarrier marsh highly vulnerable to erosion and overwash without a dune feature. Along the Gulf side of the island, approximately 13,000 linear feet of dune will be created to restore the relatively low barrier elevation, using sandy material determined to be a component of the nearby marsh creation borrow area. Overtopping analysis suggested a minimum dune elevation of +6.0 ft NAVD88 and crest width of 100 ft. A single row of sand fencing will be constructed approximately 30 ft back from the southern toe of the dune along the dune's length. After construction, the newly created dune will be planted with bitter panicum (*Panicum amarum*), seacoast bluestem (*Schizachyrium scoparium*), seashore dropseed (*Sporobollus virginicus*), marshhay cordgrass (*Spartina patens*), and sea oats (*Uniola paniculata*).

Given the level of detailed analysis of proposed features in the design review reports, it was determined a revised Wetland Value Assessment (WVA) was not necessary for the TE-50 project. As a result, benefits for this project are the same as those at the time of Phase I approval, i.e., the TE-50 project would restore/create approximately 272 net acres over the 20-year project life, for a total of 292 AAHUs. A revised TE-50 project fact sheet and map are also enclosed.



Whiskey Island Back Barrier Marsh Creation (TE-50)

Project Status

Approved Date: 2004 Project Area: 1,038 acres

Total Estimated Funding: \$27,914,086 Status: Engineering and Design Complete Project Type: Barrier Island Restoration /

Marsh Creation

Location

Whiskey Island, one of five islands that make up the Isles Dernieres barrier island chain, is located 18 miles southwest of Cocodrie in Terrebonne Parish, Louisiana. The island is surrounded by Coupe Colin to the west, Whiskey Pass to the east, Lake Pelto, Caillou Boca, and Caillou Bay to the north, and the Gulf of Mexico to the south.



In this aerial view of Whiskey Island facing north, the island's Gulf of Mexico shoreline, as well as its back barrier marsh, is visible.

Problems

Gulfside and bayside erosion has resulted in the narrowing of Whiskey Island (and the entire Isles Dernieres chain) as the two shorelines migrate toward each other, resulting in a 68% decrease in average width for the Isles Dernieres. Within 100 years, the entire subaerial portion of the Isles Dernieres barrier island system is expected to disappear except for small land fragments associated with the western end of Whiskey Island and the eastern end of East Island. However, some estimates project the Isles Dernieres will disappear much earlier. Other predictions suggest that, without restoration, Whiskey Island could become a subaqueous sand shoal by 2019.

Another CWPPRA restoration project, Whiskey Island Restoration (TE-27), which included placement of dredge material, vegetative planting, and sand fencing, was completed in 2000.

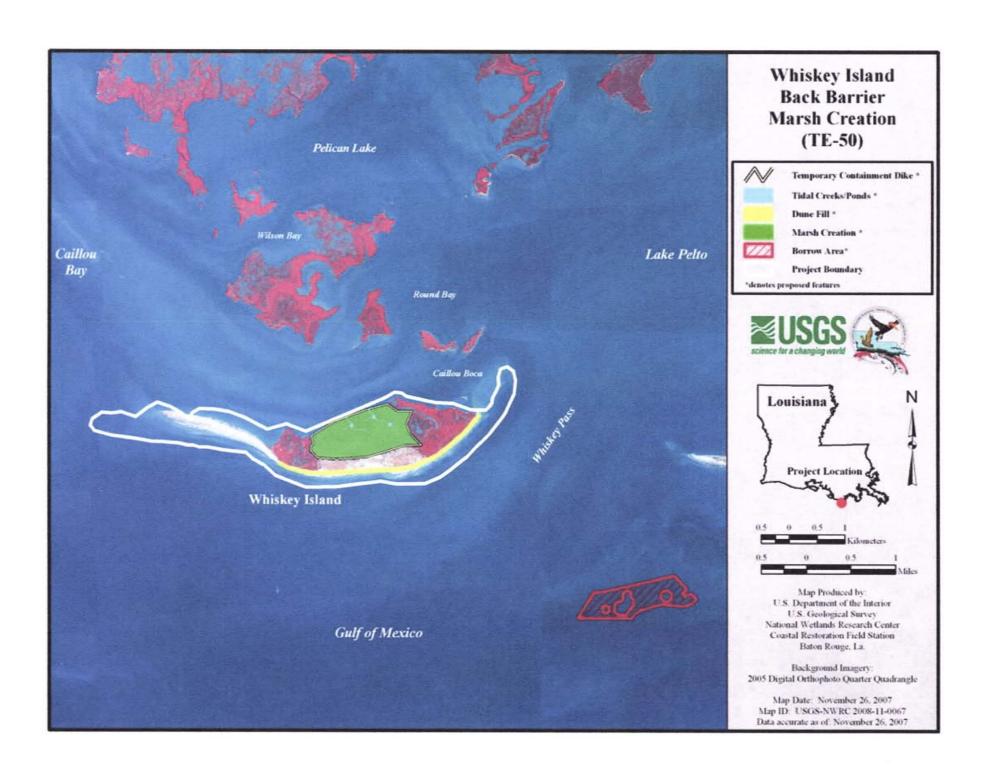
Restoration Strategy

The goal of the TE-50 project is to increase the longevity of the previously restored and natural portions of the island by increasing the island's width. Increasing the island's width will help to retain sand volume and elevation. Approximately 316 acres of back barrier intertidal marsh habitat, 5,800 linear feet of tidal creeks, three 1-acre tidal ponds and 13,000 linear feet of protective sand dune will be created by semiconfined disposal and placement of dredged material. The dredged material will come from a sediment source near the island. The area will be planted with native marsh vegetation to colonize and protect the newly-placed marsh soil.

For more project information, please contact:







4A. List of Project Goals and Strategies -

Goal Statement:

- Create 316 acres of back barrier, intertidal marsh by the end of project construction.
- Establish tidal connectivity throughout the newly placed material with the construction of tidal creeks and ponds.
- Enhance the existing dune if a sufficient quantity of borrow material remains after the construction of the marsh platform.
- Increase the longevity of the natural and previously-restored portions of the island by increasing the width of the island to help retain sand volumes and maintain elevations.

Strategy Statement:

- Construction of a back barrier marsh platform through the use of material dredged in the vicinity of Whiskey Island.
- Creation of approximately 5,800 feet of tidal creeks and 3, 1-acre tidal ponds to establish tidal connectivity.
- Placement of sand on top of the existing dune to increase the height and width.
- Planting of vegetation and construction of sand fencing to stabilize and conserve newly placed sediments.

IV. Strategy-Goal Relationship

Material will be dredged, hydraulically pumped, and placed on the bayside of the island to an elevation of +2.5 feet NAVD 88. The created marsh will extend from the northern vicinity of the existing island to approximately the -3.5 foot NAVD 88 contour to create 316 acres of back barrier marsh. Sand will be placed on the existing dune to increase the elevation of the dune to +6.0 feet NAVD 88. Three, 1-acre tidal ponds and approximately 5,800 linear feet of tidal creeks will be constructed to establish tidal connectivity within the newly created marsh in order to provide habitat and maintain marsh. The created marsh will be planted to maximize the retention of sediment. In order to increase the height and width of the dune, sand fencing will be placed 30 feet south of the centerline of the dune and vegetation will be planted on the dune.

4B. Cost Sharing Agreement - A cooperative agreement between EPA Region 6 and the State of Louisiana Department of Natural Resources was executed in September 2004. The agreement remains in full force and effect until June 2009.

4C. Landrights - There are no land rights concerns associated with this project. Whiskey Island is State land owned by the Louisiana Department of Wildlife and Fisheries (LDWF). The borrow area is also located in State waters. The enclosed landrights certification letter indicates a letter of no objection was received on June 14, 2004 from the State Land Office, and an agreement has been executed between LDNR and LDWF for the TE-50 project.



KATHLEEN BABINEAUX BLANCO GOVERNOR SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

December 3, 2007

Ms. Sharon Parrish U.S. Environmental Protection Agency Region 6 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733

RE: Landrights Certification Letter

Letter of No Objection and Louisiana Department of Wildlife and Fisheries Letter Agreement

Whiskey Island Back Barrier Marsh Creation Project TE-50

Terrebonne Parish, Louisiana

Dear Ms. Sharon Parrish:

Enclosed for your file is a copy of the Letter of No Objection from the State Land Office and of the fully executed original of the Louisiana Department Wildlife and Fisheries Letter Agreement for the Whiskey Island Back Barrier Marsh Creation Project TE-50.

The above referenced letter and agreement are the legal instruments which provide the rights to construct, maintain, rehabilitate and monitor the project features for the life of the project, and have been executed in accordance with Phase I, Task 2, B. 1. of the Scope of Services associated with that certain Cooperative Agreement dated September 15, 2004.

Please sign both copies of this letter and return one (1) copy to this office. Your execution will confirm your understanding of the above described assumption(s) and complete the landrights for construction of this project.

If we can be of further assistance to you, please do not hesitate to contact Mr. Jim Altman at (225) 342-1934. Thank you for your cooperation in our coastal restoration efforts.

Sincerely,

William K. Rhinehart Administrator, CRD

U.S. Environmental Protection Agency Whiskey Island Back Barrier Marsh Creation Project TE-50 Terrebonne Parish, Louisiana

Received, Reviewed, and Acknowledged this 20th day of Wecenber

U.S. Environmental Protection Agency

By: Sharon Fancy Farrish
Sharon Parrish
Title: Chief Marine Methods Section

c (w/o enclosure):

Tim Landers, EPA, Dallas, TX Brad Miller, CRD Project Manager

Todd Folse, CRD Monitoring Manager - Thibodaux

TE-50 - Project File

4D. Preliminary Design Review (30% Design Level) - A favorable 30% Design Review meeting was held on August 28, 2007, in Baton Rouge, LA. Attendees included representatives from State and Federal CWPPRA agencies and other interested parties. All comments and questions were addressed and incorporated in the 95% design report. In the enclosed letter dated September 26, 2007, EPA and LDNR informed the Technical Committee of the results of the 30% Design Review meeting and our intent to move forward with this project.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

SEP 2 6 2007

Mr. Troy Constance Chief, Restoration Branch U.S. Army Corps of Engineers New Orleans District P.O. Box 60267 New Orleans, LA 70160-0267

Dear Mr. Constance:

As you may know, the U.S. Environmental Protection Agency (EPA) and Louisiana Department of Natural Resources (LDNR) recently conducted 30% Design Review Conferences for the Bayou Dupont Marsh Creation (BA-39) and Whiskey Island Back Barrier Marsh Creation (TE-50) projects, pursuant to Section 6(e)(2) of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Standard Operating Procedures Manual (SOP). The meetings were held at the LDNR in Baton Rouge, Louisiana, on July 11 and August 28, 2007, respectively, and included participants representing the sponsoring agencies and other federal, state, and local partners. At these meetings the agencies discussed all aspects of Phase 1 engineering and design efforts undertaken to date for the subject projects.

In summary, the Bayou Dupont Marsh Creation Project entails using renewable Mississippi River sediment to create approximately 493 acres of marsh in large open water areas within Jefferson and Plaquemines Parishes near Ironton, Louisiana. The Whiskey Island Back Barrier Marsh Creation Project entails using offshore Gulf of Mexico sediment to create approximately 316 acres of bayside marsh, interspersed with tidal creeks and ponds, and a Gulfside dune feature on Whiskey Island in Terrebonne Parish, Louisiana. Upon conclusion of the 30% Design Review Conferences and review of comments received from CWPPRA partner agencies, EPA and LDNR have determined that the BA-39 and TE-50 projects are feasible. We remain committed to successful completion of Phase 1 engineering and design efforts for both projects and are in agreement in recommending proceeding to final design (see enclosures).

Furthermore, we would like to take this opportunity to report out to the agencies, pursuant to Section 6(e)(3) of the CWPPRA SOP, circumstances in which there may be a variance of more than 25% from the original total project cost. The following table presents project features and costs at the 30% Design Review level as compared with those developed during Phase 0. As you can see, EPA and LDNR have worked to meet original project objectives and maintain prior agency commitments in terms of wetland restoration features. Likewise, we have endeavored to keep estimated costs in check. Current cost estimates at the 30% Design Review level reflect increases over those developed previously in 2002-2003 by approximately 14-15%. Reasons for these increases can be attributed in part to a doubling in the

unit cost for hydraulic dredging in the case of BA-39, and consideration of an added Gulfside dune feature for the TE-50 project.

| Project | Phase 0 Features | Phase 1 Features | Phase 0 Estimated Fully Funded Construction Cost | 30% Design Estimated Construction Cost (% of original) | Phase 1 Fully Funded Construction Cost |
|---------|--|---|--|--|---|
| BA-39 | 538 acres marsh creation | 493 acres marsh creation | \$22.0 M | \$25.0 M (1.14) | To be developed for 95% Design Review |
| TE-50 | 300 acres marsh creation; tidal creeks/ponds | 316 acres marsh creation; tidal creeks/ponds; 13,000 LF dune | \$19.4 M | \$22.4 M (1.15) | To be developed for 95% Design Review |

The realities of significant price increases since 2005 are not unfamiliar to the CWPPRA partner agencies. Many of these project increases have most recently not been realized until after Phase 2 authorization. However, as presented at the 30% Design Review Conferences, the engineering and design analyses performed and project decisions made during Phase 1 for the BA-39 and TE-50 projects have provided opportunity to carefully consider both the proposed long term environmental benefits, and associated costs, within the context of this current financial climate. EPA and LDNR want to take this opportunity to inform you that, while the resulting increase in construction costs at this stage have not resulted in a variance of 25% from the original estimated fully funded project cost, efforts to develop fully funded costs for the 95% Design Review may indeed result in costs at or very near this level.

EPA and LDNR will continue to closely evaluate measures to maximize proposed project benefits and minimize costs as we move to final design for the Bayou Dupont Marsh Creation and Whiskey Island Back Barrier Marsh Creation projects. We will also continue to work with the other CWPPRA partner agencies informing you of project developments through the 95% Design Review level and beyond. If you have any questions regarding the BA-39 and TE-50 projects, or would like to discuss these issues further, please do not hesitate to contact me at 214-665-7275 or Tim Landers of my staff at 214-665-6608.

Sincerely,

Sharon Fancy Parrish

Chief

Marine & Wetlands Section

Enclosures



KATHLEEN BABINEAUX BLANCO GOVERNOR SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

September 19, 2007

Mr. Timothy Landers
Acting Chief
Marine and Wetlands Section (6WQ-EM)
Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202

Re:

30% Design Review for Ship Shoal Whiskey Island Back Barrier Marsh Creation,

(TE-50) Statement of Local Sponsor Concurrence

Dear Mr. Landers:

We are in receipt of your September 13, 2007 email regarding the above captioned project. In that letter you indicated that EPA has concluded the project is still viable and is recommending the advancement of the project to the 95 Percent level.

Based on our review of the technical information compiled to date, the Ecological Review, the preliminary land ownership investigation, and the preliminary designs, we, as local sponsor, are in concurrence with proceeding to final design. We have instructed the engineering and design firm, T. Baker Smith and Sons, Inc., to bring the project to the 95 Percent level.

In accordance with the CWPPRA Project Standard Operating Procedures manual, we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee.

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

Sincerely,

Christopher P. Knotts, P.E.

Director

CPK:LCW:dpg

cc: Gerald M. Duszynski, OCRM Acting Asst. Secretary Kirk Rhinehart, CRD Administrator

Chris Williams, P.E., Engineer Manager

Luke LeBas, P.E., Engineer Manager Brad Miller, Project Manager **4E. Final Project Design Review (95% Design Level) -** A favorable 95% Design Review meeting was held on November 7, 2007 in Baton Rouge, LA. Attendees included representatives from State and Federal CWPPRA agencies and other interested parties. All comments and questions were addressed during the meeting and through the subsequent scope change authorization request included in Enclosure 2.



KATHLEEN BABINEAUX BLANCO GOVERNOR SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

December 3, 2007

Mr. Timothy Landers
Acting Chief
Marine and Wetlands Section (6WQ-EM)
Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202

Re: 95% Design Review for Whiskey Island Back Barrier Marsh Creation (TE-50), Statement of Local Sponsor Concurrence

Dear Mr. Landers:

We are in receipt of your December 3, 2007 e-mail regarding the captioned project. In that e-mail you indicated that EPA has concluded the project is still viable and is recommending the advancement of the project to construction.

Based on our review of the technical information compiled to date, the Ecological Review, the preliminary land ownership investigation, and the preliminary designs, we, as local sponsor, are in concurrence with proceeding to construction.

In accordance with the CWPPRA Project Standard Operating Procedures manual, we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee.

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

Sincerely,

Christopher P. Knotts, P. E.

Director

CPK:BJM:dpg

cc: Gerald M. Duszynski, OCRM Acting Asst. Secretary Kirk Rhinehart, CRD Administrator Chris Williams, Engineer Manager Luke Le Bas, Engineer Manager Brad Miller, Project Manager **4F. National Environmental Policy Act** - An Environmental Assessment (EA) of the project was prepared and the enclosed Finding of No Significant Impact (FONSI) was signed by EPA Region 6 on December 20, 2007. A public notice was also published on December 20, 2007, and the EA/FONSI was distributed for 30-day review and comment by agencies and other interested parties.

THE STATEST TO STATEST

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

DEC 2 9 2007

FINDING OF NO SIGNIFICANT IMPACT

To All Interested Agencies and Public Groups:

In accordance with the environmental review guidelines of the Council on Environmental Quality at 40 Code of Federal Regulations Part 1500, the U.S. Environmental Protection Agency (EPA) has performed an Environmental Assessment (EA) for the following proposed action under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) of November 1990, House Document 646, 101st Congress (Public Law 101-646).

Project Name:

Whiskey Island Back Barrier Marsh Creation (TE-50)

Sponsors:

U.S. Environmental Protection Agency, Region 6

Louisiana Department of Natural Resources

Total estimated funding \$ 27,914,086.00

Phase I (Engineering and Design) funding \$ 2,754,889.00

Phase 2 (Construction) funding \$ 25,159,197.00

Location:

On Whiskey Island, within the Isles Dernieres Barrier Island chain, approximately 18 miles southwest of Cocodrie, Louisiana, in Terrebonne Parish. The project area is located between Coupe Colin, Whiskey Pass, Lake Pelto, Caillou Boca, and Caillou Bay to the north, and the Gulf of Mexico to the south. The proposed sand borrow site is located approximately 2.8 to 4.5 miles southeast of Whiskey Island and

encompasses about 230 acres.

Background: The EPA prepared an Environmental Assessment (EA) in December 1993 for the restoration of Isles Derniers Barrier Island, which included Racoon Island, Whiskey Island, Trinity Island and East Island. On September 4, 1997, EPA issued an addendum to the EA and a Finding of No Significant Impact (FNSI) for the Whiskey Island Barrier Island Restoration and Coastal Wetland Creation (TE-27) project. This project was completed in June 2000, addressing the direct creation of approximately 355 acres of emergent marsh platform, and four major breach closures, including the Coupe Nouvelle. Continuing this effort to create additional back barrier marsh habitat north of the TE-27 project, in 2004, the CWPPRA Task Force approved Phase I funding for Engineering and Design of the Whiskey Island Back Barrier Marsh Creation (TE-50).

Proposed Action: The goals of the project are to construct a sand dune along the gulf side beach shore, to create approximately 316 acres of back barrier intertidal habitat, to construct a minimum of 5,800 linear feet of tidal creeks and three 1-acre tidal ponds to allow hydraulic exchange and circulation within the new back barrier marsh, and to increase the longevity of the

natural and previously-restored portions of the island by increasing the width of the island to help retain sand volumes and elevations. The newly created intertidal habitat will be planted with smooth cordgrass (Spartina alterniflora), and black mangrove (Avicennis nitida). Additionally, the constructed sand dunes will be planted with bitter panicum (Panicum amarum), seacoast bluestem (Schizachyrium scoparium), seashore dropseed (Sporobollus virginicus), marshhay cordgrass (Spartina patens), and sea oats (Uniola paniculata).

The proposed project is part of and consistent with the ecosystem strategy of the Louisiana Coastal Wetlands Conservation and Restoration Task Force, and the Wetlands Conservation and Restoration Authority to restore barrier islands and gulf shorelines. Under CWPPRA, the project cost is shared between the sponsoring federal agency and the State of Louisiana, with the federal government providing 85 percent of the cost and the Louisiana Department of Natural Resources providing the remaining 15 percent.

Finding: On the basis of this EA for the proposed project and other findings and available information, EPA Region 6 has determined that the proposed project is not a major Federal action significantly or adversely affecting the quality of the human environment and that preparation of an EIS is not warranted. This preliminary FNSI will become final 30 days after the issuance of the public notice if no new information is received to alter this finding. No administrative action will be taken on this decision during the 30-day comment period. Comments regarding this preliminary decision not to prepare an EIS, requests for copies of the EA, or review of the Administrative Record containing the information supporting this decision, may be submitted in writing to the U.S. Environmental Protection Agency; Office of Planning and Coordination (6EN-XP); 1445 Ross Avenue, Suite 1200; Dallas, Texas 75202-2733, or by telephone at (214) 665-8150.

Responsible Official,

John Blevins

Director

Compliance Assurance and Enforcement Division

4G. Ecological Review Summary of Findings - The following is a paragraph from the Recommendations Section of the November 2007 LDNR Ecological Review:

Based on the evaluation of available ecological, geological, and engineering information, as well as scientific literature and environmental data, and a review of similar restoration projects, the proposed strategies of the Whiskey Island Back Barrier Marsh Creation (TE-50) project will likely achieve the desired ecological goals. Therefore, it is recommended that this project progress towards Phase 2 authorization.

4H. Permits - A joint State/Federal permit application for the TE-50 project was submitted for processing on December 14, 2007.

4I. HTRW - EPA and LDEQ databases were reviewed to determine the potential for hazardous material sites within the TE-50 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.

4J. Section 303(e) Approval – Whiskey Island is State land owned by the Louisiana Department of Wildlife and Fisheries (LDWF). The borrow area is also located in State waters. Therefore, there are no land rights concerns associated with this project. All of the necessary project information required for a CWPPRA Section 303(e) approval determination were provided to the Corps on September 7, 2007. As of this time, coordination with the Corps has indicated the package is in process and approval is eminent.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

SEP -7 2007

Col. Alvin B. Lee
District Engineer
U.S. Army Corps of Engineers, New Orleans District
ATTN: CEMVN-OC
P.O. Box 60267
New Orleans, LA 70160-0267

RE: CWPPRA Section 303(e) Approval Request for the Whiskey Island Back Barrier

Marsh Creation Project (TE-50)

Dear Col. Lee:

In accordance with Section 303(e) of the Coastal Wetlands, Planning, Protection and Restoration Act (CWPPRA), the U.S. Environmental Protection Agency (EPA) and the Louisiana Department of Natural Resources (LDNR) are seeking approval that the Whiskey Island Back Barrier Marsh Creation Project is "subject to such terms and conditions as necessary to ensure that the wetlands restored, enhanced or managed through that project will be administered for the long-term conservation of such lands and waters and dependent fish and wildlife populations."

The project entails restoration efforts on Whiskey Island of the Isles Dernieres Barrier Islands Refuge managed by the Louisiana Department of Wildlife and Fisheries (LDWF). EPA is enclosing for use in your Section 303(e) approval the following documents:

- 1. Letter Agreement between LDWF and LDNR
- 2. Letter of No Objection from the State Land Office
- 3. Overgrazing Determination from the Natural Resources Conservation Service

Thank you for your efforts in regard to the Whiskey Island Back Barrier Marsh Creation Project. Please feel free to contact Tim Landers of my staff at 214-665-6608 if you have any questions concerning this request.

Sincerely,

William K. Honker Deputy Director

Water Quality Protection Division

Enclosures

cc: Melanie Goodman, USACE CEMVN-PM-C

Troy Constance, USACE CEMVN-PM-C

William K. Rhinehart, LDNR (w/o enclosures)

Brad Miller, LDNR (w/o enclosures)

Enclosure 4K

4K. Overgrazing Determination – The enclosed overgrazing determination was received from the United States Department of Agriculture's Natural Resources Conservation Service on August 21, 2007. There are currently no livestock grazing in the area and no potential for grazing once the project is constructed.

United States Department of Agriculture



Natural Resources Conservation Service 3737 Government Street Alexandria, Louisiana 71302

August 21, 2007

Mr. Tim Landers **Environmental Protection Agency** Region VI

Water Quality Protection Division (6WQ-EMC)
1445 Ross Avenue
Dallas, Texas 75202-2733

Dear Mr. Landers:

RE: Whiskey Island Back Barrier Marsh Creation (TE-50)

I am in receipt of your request for an overgrazing determination for the Whiskey Island Back Barrier Marsh Creation (TE-50). I contacted our local district conservationist and our resource conservationist and our resources conservationist and our resources conservationist and our resources conservationist and our resources. resource conservationist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

W. Britt Paul

Assistant State Conservationist

for Water Resources and Rural Development

cc: Randolph Joseph, Area Conservationist, NRCS, Lafayette, Louisiana Michael Trusclair, District Conservationist, NRCS, Boutte, Louisiana Johanna Pate, State Grazing Lands Specialist, NRCS, Alexandria, Louisiana John Jurgensen, Civil Engineer, NRCS, Alexandria, Louisiana

4L. Fully Funded Cost Estimate - A revised fully funded cost estimate has been reviewed and approved by the Engineering and Economic Work Groups and is enclosed. The revised Total Fully Funded Cost of the TE-50 project is \$27,914,086. The specific Phase II Increment 1 funding request is \$24,883,207 and is also detailed in the enclosed spreadsheet.

4M. Wetland Value Assessment - Given details presented in the 30% and 95% Design Review reports, the Environmental Work Group has determined a revised Wetland Value Assessment (WVA) is not necessary for this project. Benefits for this project are the same as those at the time of Phase I approval, i.e., the TE-50 project would restore/create approximately 272 net acres over the 20-year project life, for a total of 292 AAHUs. A copy of the original WVA is still available on the LDNR server at trip://ftp.dnr.state.la.us/pub/CED%20Engineering.

4N. Prioritization Criteria - The following final Prioritization Criteria scores were reviewed and agreed upon by the Engineering and Environmental Work Groups in November 2007.

| Criterion | Weight | Score | Weighted Score |
|---------------------------------|--------|-------|----------------|
| I Cost-Effectiveness | 2.0 | 2.5 | 5.0 |
| II Area of Need | 1.5 | 10.0 | 15.0 |
| III Implementability | 1.5 | 10.0 | 15.0 |
| IV Certainty of Benefits | 1.0 | 7.0 | 7.0 |
| V Sustainability | 1.0 | 1.0 | 1.0 |
| VI HGM Riverine Input | 1.0 | 0.0 | 0.0 |
| VII HGM Sediment Input | 1.0 | 10.0 | 10.0 |
| VIII HGM Structure and Function | 1.0 | 10.0 | 10.0 |
| Total | | | 63.0 |

CWPPRA

Whiskey Island Back Barrier Marsh Creation Project (TE-50) Phase II Request

Technical Committee Meeting



January 16, 2008 Baton Rouge, LA



Project Overview

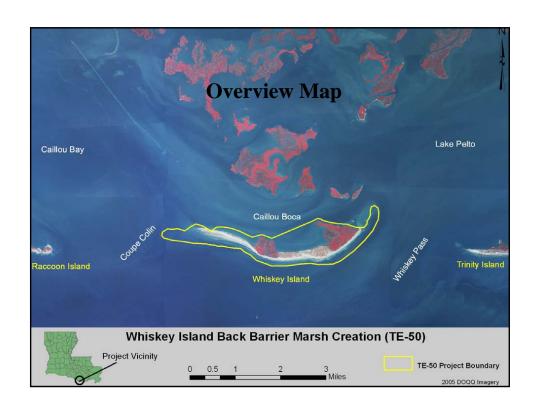
Project Location: Region 3 - Terrebonne Basin, Terrebonne Parish, Isles Dernieres Barrier Islands Refuge, central portion of Whiskey Island.

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:

- Create 316 acres of intertidal back barrier marsh by the end of project construction.
- Establish tidal connectivity throughout the newly placed material with the construction of tidal creeks and ponds.
- Enhance the existing dune if a sufficient quantity of borrow material remains after the construction of the marsh platform.
- Increase the longevity of the natural and previouslyrestored portions of the island by increasing the width of the island to help retain sand volumes and maintain elevations.





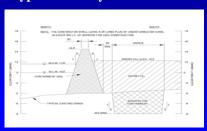
Project Features Overview

- Creation of 316 acres of intertidal back barrier marsh.
- A target post-construction marsh fill elevation of +2.5 ft NAVD88 was determined to be conducive to maintaining a healthy intertidal marsh elevation over as long a period of time as possible within the 20-year project life.
- The newly created marsh will be planted with smooth cordgrass (*Spartina alterniflora*) and black mangrove (*Avicennis nitida*).

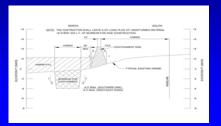
Project Features Overview

• Temporary containment dikes will be constructed around the perimeter of the marsh creation area to an elevation of +4.5 ft NAVD88 with 1(V):5(H) side slopes. The N containment dike will be constructed with a crest width of 20 ft, while the E, W, and S dikes will be built with a 10 ft crest width.

Typical Primary Dike X-Section

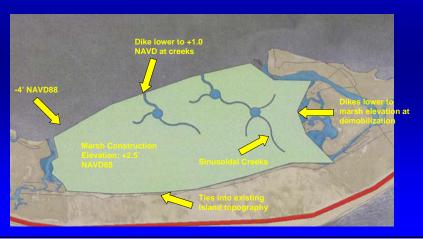


Typical Secondary Dike Cross-Section



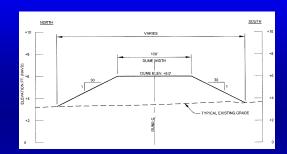
Project Features Overview

- Tidal features constructed over only E portion of island. A total of three 1-acre ponds and 5,800 linear feet of tidal creeks.
- Allows for comparison of tidal features: natural formation vs. mechanical construction.



Project Features Overview

- 13,000 linear feet of protective Gulf-side dune w/sand fence.
- Dune will be planted with bitter panicum, sea oats, marshhay cordgrass.





Project Benefits & Costs

- The project would benefit 1,038 acres of barrier island habitat. Specifically, benefits include creation of 316 acres back barrier marsh; 5,800 feet of tidal creeks; three 1-acre ponds; and 13,000 foot dune feature along the length of the island.
- At the end of 20 years, there would be a net of 272 acres of island habitat over the without-project condition.
- Wetland Value Assessment: 292 Net AAHUs
- The Total Fully Funded Cost for the project is: \$27,914,086 Phase 2 request is: \$24,883,207
- The Prioritization Score is: 63

Why Should We Fund This Project Now?

- Barrier Islands are first line of defense against storm surge
- Constructed tidal creeks and ponds will provide unique habitat function for fish and dependent wildlife resources
- Allows for monitoring and analysis of construction techniques vs. natural development of barrier island tidal creek and pond systems
- Infuses new sediment into barrier island nearshore system
- Maximizes use of both fine and sandier material from nearby borrow area to accomplish project objectives
- Rapidly changing shoreline of the Isles Dernieres



TV-11b - Freshwater Bayou Bank Stabilization-Belle Isle Bayou on the Lock Project

DEPARTMENT OF THE ARMY



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

ATTENTION OF:

CEMVN-PM-C (1110-2-1150a)

27 December 2007

MEMORANDUM FOR Mr. Troy Constance, 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. A copy of the draft cost sharing agreement can be provided upon request.

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 Real Estate Plan can be provided upon request.

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. A copy of the letter can be provided upon request.

e. Final Project Design Review (95% Design Level).

A 95% design review was completed on 22 January 2004. 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 draft Environmental Assessment can be provided upon request.

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 can be provided upon request.

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. A copy of the letter can be provided upon request.

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 can be provided upon request.

1. Revised cost estimate of Phase 2 activities, based on the revised Project design.

The Economics Work Group prepared a fully funded estimate in January 2004. The estimate was updated in December 2007 detailing a fully funded cost of \$38,559,962. 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. A copy of the WVA can be provided upon request.

n. A breakdown of the Prioritization Criteria ranking score, finalized and agreed-upon by all agencies during the 95% design review.

A revised Prioritization Criteria ranking score has been prepared and reviewed through the CWPPRA working groups. A prioritization fact sheet is included in the Final Design Report. A copy of the revised prioritization fact sheet based on the new cost estimate of Phase 2 activities has been included in enclosure N.

3. If you have any questions regarding this project please call Mr. Travis Creel at (504) 862-1071 or Mr. Andrew D. Beall at 225-342-6690.

Travis Creel

Project Manager Coastal Restoration Branch

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.

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.

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 \$ 38,559,962.

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 spring 2008 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.



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 E

95% Design Review Letter



PM-C

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:

KATHLEEN BABINEAUX BLANCO

GOVERNOR

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

Enclosure L

Revised Cost Estimate

Enclosure N

Prioritization Fact Sheet

PRIORITIZATION FACT SHEET

Freshwater Bayou Shoreline Stabilization (Belle Isle Canal to the Lock) (XTV-27/TV-11b) Revised 3 December 2007

Project Name and Number

This 9th priority list project was originally called "Freshwater Bayou Shoreline Stabilization and Hydrologic Restoration (Belle Isle to the Lock) (XTV-27)". The hydrologic restoration features were dropped at the request of the local sponsor. The current project name is "Freshwater Bayou Shoreline Stabilization (Belle Isle Canal to the Lock) (XTV-27)".

Goals

Prevent shoreline and wetlands erosion through the construction of a rock breakwater along the east bank of the Freshwater Bayou Canal from Belle Isle Canal to the Lock.

Proposed Solution

A rock dike will 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. Periodically spaced gaps are incorporated into the project design to allow estuarine organisms to access wetlands behind the rock dike. In some cases shoreline sections at the gap locations may be armored to prevent erosion into the adjacent bankline and marshes.

Changes in project scope resulted in a reduction in the project area and environmental benefits. As a result, in accordance with program procedures, the project development team coordinated revisions to the WVA with the Chairman of the CWPPRA Environmental Work Group. Project benefits were reduced to 75 Average Annual Habitat Units; a 70% reduction from the originally authorized project. However, the elimination of the water control structures and other design changes reduced the project construction costs and as a result the revised cost benefit ratio is not expected to be significantly different than the original estimate.

Proposed Prioritization Criteria Scores and Justification

I. Cost Effectiveness (cost/net acre)

Project features have been dropped reducing the acres protected and restored to 241 acres. The revised cost per net acre is $$160,000 (38,559,962 \div 241 \text{ acres} = 160,000/\text{acre})$.

Based upon these numbers, the project should receive 1 point for this criterion.

II. Area of Need, High Loss Area

• Area A has a shoreline erosion rate of 12.5 feet per year. The project is located on the boundary between the Teche/Vermilion and the Calcasieu/Sabine/Mermentau basins but technically falls within the Teche/Vermilion basin. Based upon the prioritization criteria, this loss rate is considered medium and would receive a score of 5 points.

Based upon these numbers, the project should receive 5 points for this criterion.

III. Implementability

There are no major, unaccounted, impediments to implementing this project. Adequate funds are provided in the cost estimate for operations and maintenance costs.

Based upon this information, the project has no obvious issues affecting implementability and should receive 10 points for this criterion.

IV. Certainty of Benefits

This project will build a shoreline protection dike in the chenier plain.

Based upon the proposed plan and location, the project should receive 10 points for this criterion.

V. Sustainability of Benefits

This project proposes to employ a 40,000 foot-rock dike to prevent shoreline erosion. Under the assumptions of the prioritization procedures, the full project benefits are expected to continue beyond TY 20 until the next required maintenance cycle after which benefits would be reduced to 75% effectiveness. This project has maintenance events scheduled in years 5 and 15 and based upon that cycle would have another event in TY 25.

| | % | Feet Lost | Acres Lost |
|---------|-----------|-----------|------------|
| TY | Effective | Per Year | Per Year |
| 20 | 100% | 0 | 0.00 |
| 21 | 100% | 0 | 0.00 |
| 22 | 100% | 0 | 0.00 |
| 23 | 100% | 0 | 0.00 |
| 24 | 100% | 0 | 0.00 |
| 25 | 100% | 0 | 0.00 |
| 26 | 75% | 3.125 | 2.87 |
| 27 | 75% | 3.125 | 2.87 |
| 28 | 75% | 3.125 | 2.87 |
| 29 | 75% | 3.125 | 2.87 |
| 30 | 75% | 3.125 | 2.87 |
| Totals: | | 15.625 | 14.35 |

Using these shoreline erosion rates and assumptions, the acres of marsh in project Area A will decrease 6.0% (14.35 acres/241 acres = .059) between TY20 – TY30.

Based upon the percent change in project area wetland acres from TY20 -TY30, the project should receive 8 points for this criterion.

VI. HGM Riverine Input (Increasing riverine input in the deltaic plain or freshwater input and saltwater penetration limiting in the Chenier plain)

This project will not affect freshwater inflow or salinity.

Based upon the prioritization process, the project should receive 0 points for this criterion.

VII. HGM Sediment Input (Increased sediment input)

This project will not increase sediment input over that presently occurring.

Based upon the prioritization process, the project should receive 0 points for this criterion.

VIII. HGM Structure and Function (Maintaining landscape features critical to a sustainable ecosystem structure and function)

The project would not protect any landscape features critical to the mapping units.

Based upon the prioritization process, the project received 0 points for this criterion.

Weighted Prioritization Score

$$(1*2.0)+(5*1.5)+(10*1.5)+(10*1.0)+(8*1.0)+(0*1.0)+(0*1.0)+(0*1.0)=42.5$$
 points

Preparers of Fact Sheet

Gregory Miller, Corps of Engineers, (504) 862-2310, gregory.b.miller@mvn02.usace.army.mil Travis Creel, Corps of Engineers, (504) 862-1071, Travis.J.Creel@mvn02.usace.army.mil



Freshwater Bayou Bank Stabilization (Belle Isle Canal to Lock) (East) (TV-11b/XTV-27) Vermilion Parish, Louisiana



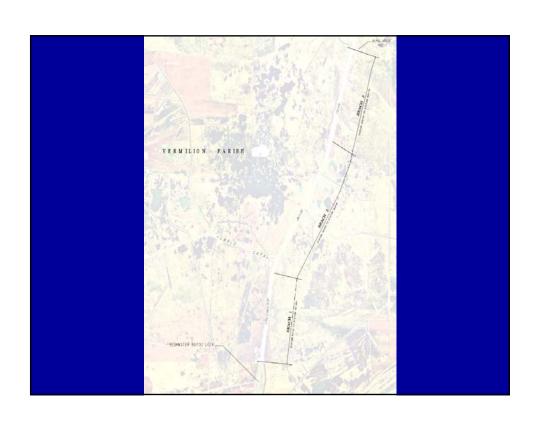
January 2008

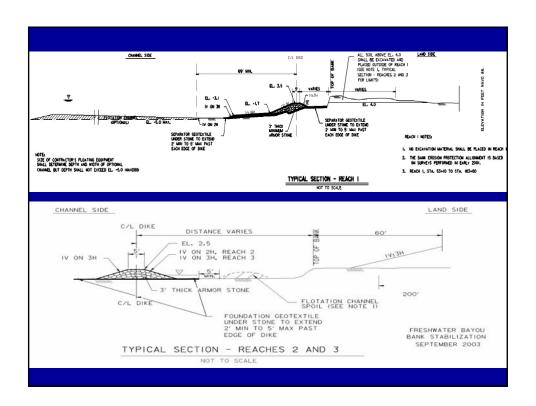
Project Background

- 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 \$38,559,962.







PO-32a - Lake Borgne-MRGO Shoreline Protection Project, Lake Borgne Segment

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-C (1110-2-1150a)

03 January 2008

MEMORANDUM FOR Mr. Troy Constance, Chairman, CWPPRA Technical Committee

SUBJECT: Request for Phase II Approval and Increment 1 Funding (O&M only) for the Lake Borgne/MRGO Shoreline Protection Project, Lake Borgne Segment, (PO-32a), St. Bernard Parish, Louisiana.

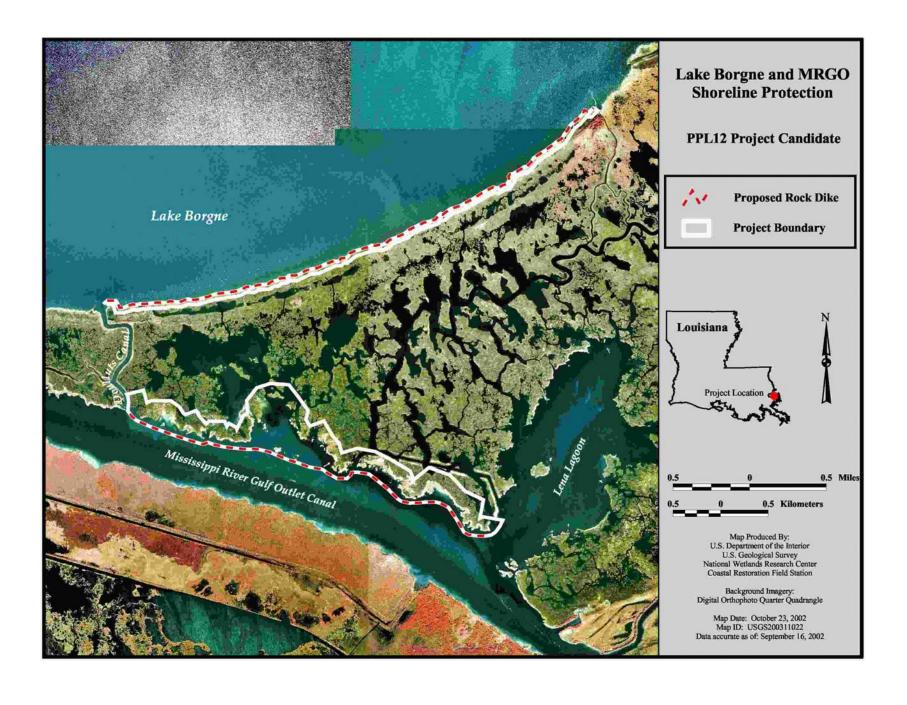
- 1. The original project approved for Phase I on the 12th Priority Project List (PPL 12) included shoreline protection along the south shore of Lake Borgne between Doullut's Canal and Jahncke's Ditch and along the north bank of the MRGO between Doullut's Canal and Lena Lagoon. As directed by the Task Force, the two project reaches were designed as separable elements: 1) Lake Borgne/MRGO Shoreline Protection Project, Lake Borgne Segment (PO-32a); and 2) Lake Borgne/MRGO Shoreline Protection Project, MRGO Segment (PO-32b).
- 2. The US Army Corps of Engineers (USACE) is currently constructing the segment along Lake Borgne (PO-32a) using federal FY 06 Emergency Supplemental Disaster Appropriations for Hurricane Katrina Relief (3rd Supplemental Funding). A contract for this work was awarded in September 2006, and 75 percent of the work has been completed as of January 2008. The Technical Committee, at their December 2006 funding meeting, deferred a request for Phase II approval and Increment 1 funding for O&M only on the Lake Borgne Segment of the Lake Borgne/MRGO Shoreline Protection Project (PO-32a) until the CWPPRA 2008 funding cycle. As such, the USACE and the Louisiana Department of Natural Resources are requesting Phase II approval and Increment 1 funding for O&M for PO-32a. The Increment 1 cost estimate, which includes the first three years of monitoring, O&M, and State/Federal S&A, is \$10,470,627. The estimated total fully funded cost is \$17,248,702.
- 3. The WVA is being updated to calculate the net benefits associated with maintaining the project. Benefits gained from the segment constructed along Lake Borgne using 3rd Supplemental Funding will not be applied to the CWPPRA program.
- 4. The US Army Corp of Engineers and LDNR are not requesting Phase II approval or funding for the MRGO Segment, (PO-32b) at this time.

6. If you have any questions regarding this project please call Mr. Travis Creel at (504) 862-1071.

> Travis Creel Project Manager

The Col

Coastal Restoration Branch



INFORMATION REQUIRED IN PHASE 2 AUTHORIZATION REQUESTS

Lake Borgne – MRGO Shoreline Protection (PO-32a) (O&M only)

1. Description of Phase One Project

Describe the candidate project as selected for Phase One authorization, including PPL/Fact Sheet scale map depicting the project boundary and project features, written description of the conceptual features of the project as authorized for Phase One, a summary of the benefits attributed to the Phase One project (e.g., goals/strategies, WVA results and acreage projections) and project budget information as estimated at Phase One authorization (e.g., anticipated costs of construction, O&M, monitoring, etc.).

STATUS – COMPLETE see PO-32a Ph2 request item #1

2. Overview of Phase One Tasks, Process and Issues

Brief description of Phase One analyses and tasks (engineering, land rights, environmental compliance (cultural resources, NEPA, and HTRW, etc.), including significant problems encountered or remaining issues.

STATUS – COMPLETE see PO-32a Ph2 request item #2

3. Description of the Phase Two Candidate Project

Project has been built using 3rd Supplemental Funds

The total cost listed is the Phase I cost & O&M cost

Note the MRGO segment (PO-32b) was removed from the fact sheet, since it was separated into two elements

STATUS – COMPLETE see PO-32a Ph2 request item #3

- 4. Checklist of Phase Two requirements:
 - A. List of Project Goals and Strategies.

STATUS – COMPLETE see PO-32a Ph2 request item 4A

B. A Statement that the Cost Sharing Agreement between the Lead Agency and the Local Sponsor has been executed for Phase I.

STATUS – Execution of the CSA requires Phase II approval see PO-32a Ph2 request item 4B.

C. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase 2 approval.

STATUS – COMPLETE see PO-32a Ph2 request item 4C.

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.

STATUS – COMPLETE. Held August 11, 2004. No significant comments were received from other Federal agencies. see PO-32a Ph2 request item 4D

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.

STATUS – COMPLETE. Held March 29 2005. Project has been build using the existing PO-32a design. see PO-32a Ph2 request item 4E

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.

STATUS – COMPLETE. A draft Environmental Assessment was mailed out for public review on August 12, 2004. Project has been build using the existing PO-32a EA. A copy of the draft Environmental Assessment can be provided upon request.

G. A written summary of the findings of the Ecological Review.

STATUS - COMPLETE. A copy of the report can be provided upon request.

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.

STATUS – Not applicable –handled through the NEPA compliance process.

I. A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.

STATUS – Not applicable – HTRW was addressed in the draft EA.

J. Section 303(e) approval from the Corps.

STATUS – COMPLETE. A copy of the letter can be provided upon request.

K. Overgrazing determination from the NRCS (if necessary).

STATUS -COMPLETE A copy of the letter can be provided upon request.

L. Revised cost estimate of Phase 2 activities, based on the revised Project design.

Funding/Budget information:

- 1.) Specific Phase Two funding request (updated construction cost estimate, three years of monitoring and O&M, etc.)
- 2.) Fully funded, 20-year cost projection with anticipated schedule of expenditures

STATUS – COMPLETE – see PO-32 Ph2 request item 4L, Note: O&M only

M. Estimate of project expenditures by state fiscal year subdivided by funding category.

STATUS - COMPLETE. see PO-32 Ph2 request item 4L

N. 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.

STATUS – The WVA has been updated to calculate the benefits for conducting the just O&M events. Benefits gained from the constructed the segment along Lake Borgne using 3rd Supplemental Funding will not be applied to the CWPPRA program (see attached updated WVA). see PO-32a Ph2 request item 4N

O. A breakdown of the Prioritization Criteria ranking score, finalized and agreed-upon by all agencies during the 95% design review.

STATUS – COMPLETE. The project has been build already. The Prioritization Criteria ranking score will be based on the O&M cost and benefits. see PO-32a Ph2 request item 4O

| 1. Description of Phase One Projects. |
|---------------------------------------|
| |
| |

PO-32a Ph2 request item #1

Lake Borgne and MRGO Shoreline Protection (R1-3)

Coast 2050 Strategies

- maintain Lake Borgne shoreline integrity
- stabilize the entire north bank of the MRGO

Project Location

Region 1, Pontchartrain Basin. St. Bernard Parish. Along the Lake Borgne shoreline between Doullut's Canal and Jahncke's Ditch and along the north bank of the Mississippi River Gulf Outlet between Doullut's Canal and Lena Lagoon.

Problem

Shoreline erosion rates along Lake Borgne were estimated at 9 ft/yr along Lake Borgne and 24 ft/yr along the MRGO.

Goals

This project would help preserve marsh between Lake Borgne and the MRGO by preventing shoreline erosion.

Proposed Solutions

Two features will be constructed. 1) An 18,500 linear foot rock dike along the Lake Borgne shoreline from Doullut's Canal to Jahncke's Ditch. The dike will be 4 feet high, with a 5-foot crown and side slopes of 1V on 2H. 2) A 14,250 linear foot rock dike along the north bank of the MRGO from Doullut's Canal to Lena Lagoon. The dike will be 6 feet high, with a 5-foot crown and side slopes of 1V on 1.25H. Both dikes will have a 3-foot layer of armor stone placed on top of a crushed stone core resting on a layer of geotextile. Any flotation channel needed will be excavated with the spoil being placed behind the rock dikes. Fish dips will be constructed so as to allow organism and water exchange.

Project Benefits

The project would benefit about 465 acres of estuarine marsh. Approximately 266 acres of marsh would be created/protected over the 20-year project life.

Risk/Uncertainty and Longevity/Sustainability

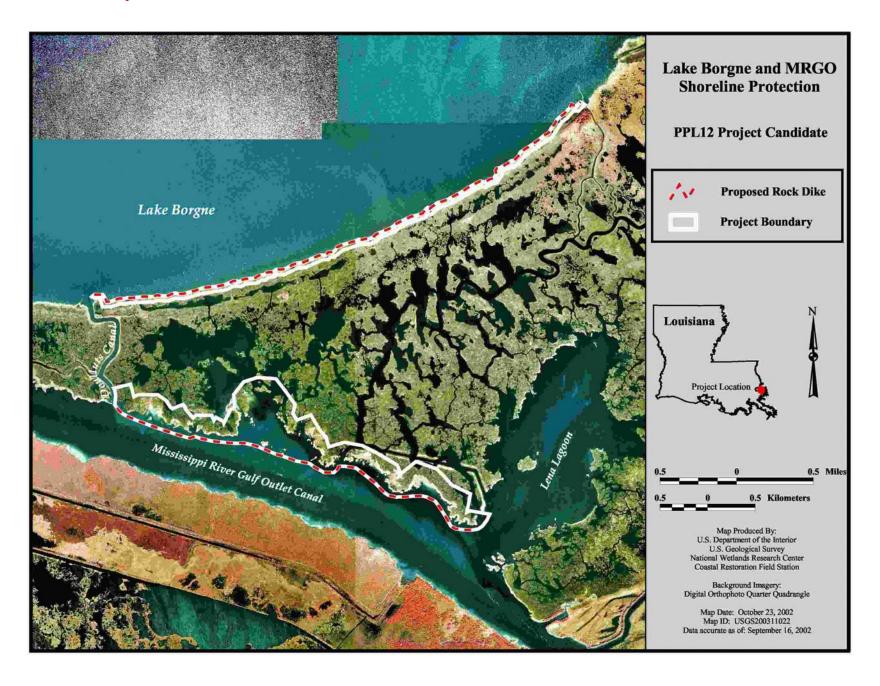
There is a low degree of risk associated with this project because rocks are effective at stopping shoreline erosion. The project should continue providing benefits 20-30 years after construction because adequate O&M funds are budgeted.

Project Costs

The estimated total fully funded cost is \$25,062,900.

Sponsoring Agency and Contact Persons

Gregory Miller, Corps of Engineers, (504) 862-2310 Chris Monnerjahn, Corps of Engineers, (504) 862-2415



| 2. | Overview of Phase One Tasks process and issues. |
|----|---|
| | |
| | |
| | |

Overview of Phase One Tasks, Process and Issues Lake Borgne – MRGO Shoreline Protection (PO-32)

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, surveying the sites, drilling to obtain soil samples for geotechnical investigations, analyzing the engineering data, and producing a recommended design template, alignment, and cost estimate for the proposed breakwaters.

Initial attempts to secure right of entry permissions from all of the project area landowners were not fully successful. To accommodate this situation and to maintain the project design schedule, adjustments to the data collection effort were required and the Corps of Engineers modified the survey and geotechnical scopes of work to avoid work in the areas that lacked necessary permissions. Subsequently full right of entry permissions were obtained through cooperation with the Port of New Orleans to conduct engineering data collection for the project design work. Topographic and bathymetric surveys were collected throughout both sites to assist in developing the preliminary project designs. Subsurface drilling operations were performed to obtain thirteen soil samples for geotechnical investigations.

Preliminary designs have been developed for two restoration project features that are recommended for construction.

- The first feature is an 18,820 linear foot rock breakwater to be located along the southern Lake Borgne shoreline from Doullut's Canal to Jahncke's Ditch. The dike would be located along the -2.0 foot NAVD88 contour in approximately 2.5 3.5 feet of water, stage dependent. The breakwater along Lake Borgne will be set at an elevation of +4.0 ft. NAVD 88, with a 5-foot crown width and side slopes of 1V on 2H. The breakwater will have a 3-foot layer of armor stone placed on top of a crushed stone core resting on a layer of geotextile fabric.
- The second feature recommended is a 14,360 linear foot rock breakwater to be located along the north bank of the MRGO from Doullut's Canal to Lena Lagoon. The dike would be located along the -2.0 to -5.3 foot NAVD88 contour in approximately 2.5 3.5 feet of water, stage dependent. The breakwater along the MRGO will be set at an elevation of +5.0 ft after the third lift, with a 5-foot crown and side slopes of 1V on 2H. The breakwater will have a 3-foot layer of armor stone placed on top of a crushed stone core resting on a layer of geotextile fabric.

Any flotation channels needed to access the construction sites would be excavated using a barge-mounted bucket dredge. All of the dredged spoil from the flotation channels will be placed between the rock breakwaters and the shorelines to create wetlands.

Along the MRGO dike there are two lined fish dips. These fish dips will be built with a bottom width of 20 feet, and will be lined completely with a single layer of armor stone, placed at a top

PO-32a Ph2 request item #2

elevation –2.0 NAVD88. There are also two fish access openings at natural tidal channels along the shoreline.

Construction of the two proposed rock dikes would benefit over 465 acres of marsh. Approximately 266 acres of marsh would be protected over 20-years by preventing shoreline erosion. No changes in design features or locations over the originally approved project are proposed as a result of completing this design milestone. However, the total fully funded cost of the project has increased an estimated 52%.

| 3 | 3. Description of Phase Two candidate projects. | |
|---|---|--|
| | | |
| | | |

PO-32a Ph2 request item #3

Lake Borgne and MRGO Shoreline Protection (PO-32a)

Coast 2050 Strategies

• maintain Lake Borgne shoreline integrity

Project Location

Region 1, Pontchartrain Basin. St. Bernard Parish. Along the Lake Borgne shoreline between Doullut's Canal and Jahncke's Ditch

Problem

Shoreline erosion rates along Lake Borgne were estimated at 9 ft/yr along Lake Borgne

Goals

This project would help preserve marsh between Lake Borgne and the MRGO by preventing shoreline erosion.

Proposed Solutions

An 18,820 linear foot rock dike along the Lake Borgne shoreline from Doullut's Canal to Jahncke's Ditch has been built using FY2006 Emergency Supplemental Disaster appropriations for Hurricane Katrina Relief (3rd Supplemental Funding). Using CWPPRA O&M funds the dike will be built to a final elevation of +5.0 ft NAVD88, with a 5-foot crown and side slopes of 1V on 2H. CWPPRA O&M funds would be used to maintain the dike for the 20-year project life.

Project Benefits

The project would benefit about XXX acres of estuarine marsh. Approximately XXX acres of marsh would be created/protected over the 20-year project life.

Risk/Uncertainty and Longevity/Sustainability

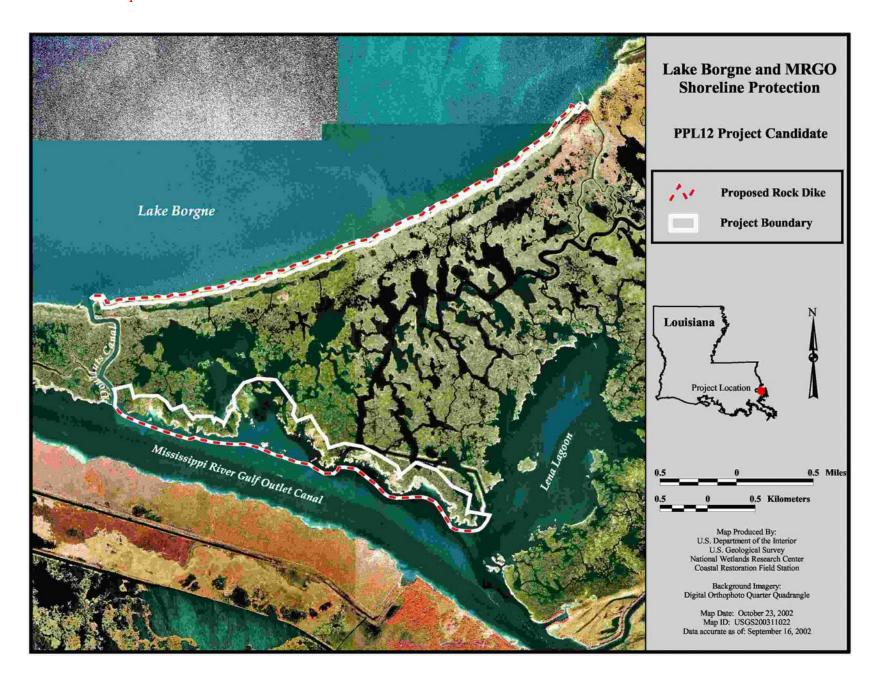
There is a low degree of risk associated with this project because rocks are effective at stopping shoreline erosion. The project should continue providing benefits 20-30 years after construction because adequate O&M funds are budgeted.

Project Costs

The estimated total fully funded cost is \$17,248,702

Sponsoring Agency and Contact Persons

Travis Creel, Corps of Engineers, (504) 862-1071



| 4. | Checklist of Phase Two requirements | |
|----|-------------------------------------|--|
| | | |
| | | |

4A. List of Project goals and strategies

Lake Borgne – MRGO Shoreline Protection (PO-32a)

Project Goals and Strategies

Goal Statement: Stop shoreline erosion along approximately 18,820 feet of Lake Borgne

Strategy Statement: A continuous foreshore rock dike has been built along the shoreline of Lake Borgne (-2 foot contour NAVD 88). This rock dike will be maintained using O&M funds from CWPPRA.

4B. A Statement that the Cost Sharing Agreement between the Lead Agency and the Local Sponsor has been executed for Phase One.

Lake Borgne – MRGO Shoreline Protection (PO-32)

Cost Share Agreement (CSA)

A Corps of Engineers, New Orleans District, Office of Counsel legal opinion indicates that execution of the CSA requires Phase II approval from the Task Force prior to the District Engineer signing the CSA. As such, the CSA will remain a draft until Task Force action in February 2008. Following approval of Phase II by the Task Force, the District Engineer and the Secretary of LDNR will execute the CSA. A cost share agreement template has been developed for use at the appropriate time.

4C. Notification from the State or the Corps that the Land Rights will be finalized in a short period of time after Phase Two approval.

Lake Borgne – MRGO Shoreline Protection (PO-32a)

Land Rights

The Corps of Engineers has completed a Real Estate Plan, and was used in the construction of the Lake Borgne shoreline. The same Real Estate Plan will be used for operations and maintenance and monitoring. A copy of the Real Estate Plan is available in the project files of both the Corps of Engineers and the Louisiana Department of Natural Resources.

4D. 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.



KATHLEEN BABINEAUX BLANCO GOVERNOR SCOTT A. ANGELLE SECRETARY

OFFICE OF COASTAL RESTORATION AND MANAGEMENT
August 24, 2004

Colonel Peter J. Rowan

District Engineer

U.S. Army Corps of Engineers

P.O. Box 60267

New Orleans, LA 70160-0267

Re:

30% Design Review for Lake Borgne/MRGO Shoreline Protection (PO-32)

Statement of Local Sponsor Concurrence

Dear Col. Rowan:

The 30% design review meeting was held on August 11, 2004 for the Lake Borgne/MRGO Shoreline Protection (PO-32) project. Based on our review of the technical information compiled to date, the ecological review, the preliminary land ownership investigation, and the preliminary designs, we, as local sponsor, concur to proceeding with the final design of the project, with the understanding that the project design will include a maintenance event in project year 15 to address areas of high settlement in addition to the scheduled O&M lifts detailed in the design report (year 3 for Lake Borgne and years 2 and 7 for MRGO). The oyster leases that will potentially be affected by this project are in the process of being assessed for possible compensation. That information will be forwarded to USACE-MVN staff when it becomes available.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee. We also request that our project manager, Ken Duffy, 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.

Director

cc: Luke Le Bas, Engineer Manager

Ken Duffy, Project Manager

4E. Final Project Design Preview (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporated elements from the Preliminary Design and Preliminary Design Review.



KATHLEEN BABINEAUX BLANCO GOVERNOR SCOTT A. ANGELLE SECRETARY

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL RESTORATION AND MANAGEMENT

May 12, 2005

Mr. Tom Podany Acting 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 Lake Borgne and MRGO Shoreline Protection Project (PO-32)

Statement of Successful Completion

Dear Mr. Podany:

The 95% design review meeting was successfully completed on March 29, 2005 for the Lake Borgne and MRGO Shoreline Protection (PO-32) 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.B.

Director

CPK:KCD:kcd

cc: Kirk Rhinehart, CRD Administrator
John Hodnett, P.E., Engineer Manager
Luke LeBas, P.E., Engineer Manager
Kenneth Duffy, Ph.D., Project Manager

Shannon Haynes, P.E., Project Engineer

COASTAL ENGINEERING DIVISION

4L. Revised cost estimate of Phase Two activities based on the Project design.

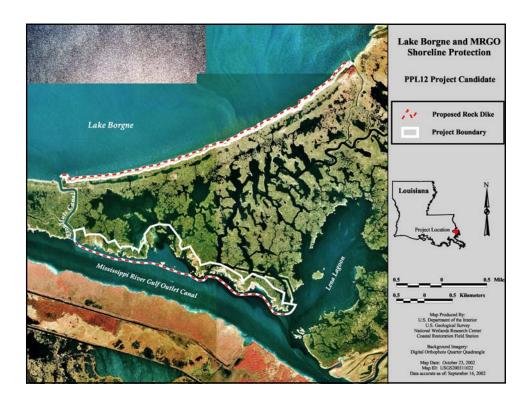
4N. A revised Wetland Value Assessment must be prepared if, during the review of the preliminary NEPA documentation, three of the TASK Force agencies determine that a significant change in project scope occurred.

4O. A breakdown of Prioritization Criteria ranking score, finalized and agreed upon by all agencies during the 95% design review.



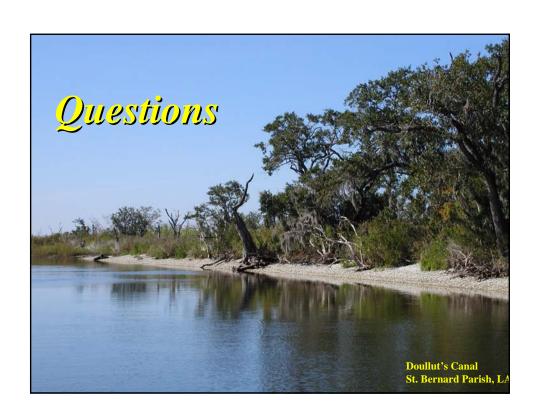
Project Background

- Authorized in January 2003 by Breaux Act (CWPPRA) Task Force on PPL12
- Originally two segments totaling ~32,750 linear feet of rock dike to stop shoreline erosion along the southern shoreline of Lake Borgne and the north bank of the Mississippi River Gulf Outlet
- Task Force directed that the projects be designed as separable reaches in Phase I
- USACE building Lake Borgne segment with hurricane recovery funds Congress provided in the 3rd Supplemental



Wetlands Loss Problems

- The shoreline of Lake Borgne is eroding
- Annual rate of erosion is ~ -10 ft/yr
- Mainly due to wind driven waves associated with winter frontal passage and tropical storms and hurricanes
- Project area fell directly in Hurricane Katrina's eye-path



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

January 16, 2008

STATUS OF UNCONSTRUCTED PROJECTS

For Discussion:

The P&E Subcommittee will report on the status of unconstructed CWPPRA projects that have been experiencing project delays. Discussions will include the status on milestones and the Technical Committee may discuss and recommend to the Task Force potential directions to take on the following projects:

- a. West Point a la Hache Outfall Management Project (BA-04c), PPL-3, NRCS
- b. Brown Lake Hydrologic Restoration Project (CS-09), PPL-2, NRCS
- c. Periodic Introduction of Sediment and Nutrients at Selected Diversion Sites Demonstration Project (MR-11), PPL-9, USACE
- d. Mississippi River Sediment Trap Project (MR-12), PPL-12, USACE
- e. Benney's Bay Diversion Project (MR-13), PPL-10, USACE

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT TECHNICAL COMMITTEE MEETING

January 16, 2008

ADDITIONAL AGENDA ITEMS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT TECHNICAL COMMITTEE MEETING

January 16, 2008

ANNOUNCEMENT: DATE AND LOCATION OF UPCOMING TASK FORCE MEETING

Announcement:

The next Task Force meeting will be held February 13, 2008 at 9:30 a.m. at the LA Department of Wildlife and Fisheries, Louisiana Room, 2000 Quail Drive, Baton Rouge, LA.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

January 16, 2008

ANNOUNCEMENT: SCHEDULED DATES OF FUTURE PROGRAM **MEETINGS**

| Announcement: | | | |
|----------------------|-----------|----------------------------|--------------------|
| | | 2008 | |
| February 13, 2008 | 9:30 a.m. | Task Force | Baton Rouge |
| February 19, 2008 | 1:00 p.m. | RPT Region IV | Rockefeller Refuge |
| February 20, 2008 | 9:00 a.m. | RPT Region III | Morgan City |
| February 21, 2008 | 9:00 a.m. | RPT Region II | New Orleans |
| February 21, 2008 | 1:00 p.m. | RPT Region I | New Orleans |
| March 5, 2008 | 9:30 a.m. | Coast-wide RPT Voting | Baton Rouge |
| April 16, 2008 | 9:30 a.m. | Technical Committee | New Orleans |
| May 21, 2008 | 9:30 a.m. | Task Force | Lafayette |
| September 10, 2008 | 9:30 a.m. | Technical Committee | Baton Rouge |
| October 15, 2008 | 9:30 a.m. | Task Force | Baton Rouge |
| November 18, 2008 | 7:00 p.m. | PPL 18 Public Meeting | Abbeville |
| November 19, 2008 | 7:00 p.m. | PPL 18 Public Meeting | New Orleans |
| December 3, 2008 | 9:30 a.m. | Technical Committee | Baton Rouge |
| | | 2009 | |
| January 21, 2009 | 9:30 a.m. | Task Force | Baton Rouge |

^{*} Dates in **BOLD** are new or revised dates.