ATTENDANCE RECORD

DATE(S)	SPONSORING ORGANIZATION	LOCATION
December 7, 2016 9:30 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LA Department of Wildlife and Fisheries Louisiana Room 2000 Quail Drive Baton Rouge, Louisiana

PURPOSE: **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Adrian Chavarria	EPA	214-665-3103
Carol Giardina	LCCA	504 331 5326
Quin Kinler	NRCS	225-665-4253
KAREN McCORMICK	EPA	214-665-8365
TED MARTIN	MARTIN Ecosystems	225-292-6750
Sharon Osowski	EPA	214-665-7506
RICHIE BLINK	NATIONAL WILDLIFE FEDERATION	(225) 287-2643
Mac Haddox	Pte. to. of Morgan City	985 499 9337
Patrick Williams	NOAA Fisheries	225-389-0508
Kevin J. Roy	FWS	337-291-3120
Randy Moertle	McIlhenny/Cloverly/PAF	985-856-3630
Cody Colvin	NRCS	225-278-2732
Angela Trahan	FWS	337-291-3137
Garvin Pittman	CPRA	225-229-3569
Kate Freer	CPRA	225-342-4635
Kent Bollfrass	CPRA	342-4733
Jennifer Mouton	CPRA	342-1452
Robert Spears	Plaquemines Parish CZM	504-491-1607
DARRYL MARK	US FWS	337-291-3111
Renée Bennett	CPRA	225-342-4592
Andrew Beall	CPRA	225 342-4550
Dirk Broussard	CPRA	337-482-0686
Tami St. Germain	SAME	337-352-0567

LMV FORM 583-R
JAN 88

ATTENDANCE RECORD

DATE(S)	SPONSORING ORGANIZATION	LOCATION
December 7, 2016 9:30 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LA Department of Wildlife and Fisheries Louisiana Room 2000 Quail Drive Baton Rouge, Louisiana

PURPOSE: **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Nikki Cavalier	CWPPRA Outreach	337-266-8626
Victoria Sagrera	" "	" "
Mirka Zapletal	CWPPRA Outreach	337-266-8623
RALPH LIBERSAT	Vermilion Parish	337-652-6557
JOHN FORET	FENSTERMAKER	337.237.2200
Cay LeBlanc	Fenstermaker	337-350-0416
ANDY WYMAN	LSU	225 578-4220
David Brunet	St. Tammany	985-898-2442
Sara Piazza	Court Reporter-Verbatim Reporting	225 772-6108
Kenneth Bahlinger	CPRA	225 342-7362
BARRY HERBERT	LDWF	225.763.0258
Lonnie Fontenot	JESCO - minute-taker	337-802-7508
Laurie Cormier	CPPJ - Calcasieu Parish	337-721-3645
DARREN PONTIFF	CPRA - LRO	337-482-0683
Michelle Fischer	USGS	225-578-7483
Cecelia Linder	NOAA Fisher	301 [illegible] 8675
Jason Kroll	NOAA	225 757 5411
Brandon Howard	NOAA	225-308-0509
DARIN DAVIS	NOAA	225-308-0508
ROD BAHAR	USCG	337-491-7824
JAIME TAYLOR	USCG	" "
Michael Hosky	USCG	" "

LMV FORM 583-R
JAN 88

Angela Love SIME 337-408-3103

ATTENDANCE RECORD

DATE(S)	SPONSORING ORGANIZATION	LOCATION
December 7, 2016 9:30 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LA Department of Wildlife and Fisheries Louisiana Room 2000 Quail Drive Baton Rouge, Louisiana

PURPOSE: **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Donna Rogers	NOAA	225-316-8958
Kylee Lewis	GeoEngineers	
Twyla Cheatwood	NOAA Fisheries / NMFS	
Terry Dugas	PCS	337-517-1292
Jennifer Smith	CB&I	225.571.9030
Todd Baker	LDWF	225 765 2814
Alma Rohnchaux	BTNEP	985447-0868
Leslie Suzze	Ducks Unlimited	985-209-3276
Mark Black	Terrebonne Parish	985/873-6839
John Lane	SBPG	5045792173
Capt. George Ricks	SBPG	985 630-2423
Dustin White	CPRA	225-342-4512
Mike Bergeron	Delacroix Corporation	504-523-2241
Murnie Winter	Jeff Parish	504-736-6443
Charles Sasser	LSU	225-578-6375
Blaise Pezold	LDAF CRVP	504-264-8125
Amanda Voisin	Lafourche Parish Govt	985-493-6616
Joni Tuck	Greater Lafourche Port Commission	985 632 1122
Tyler Ortego	tyler@coastalearies.com	285.229.2539
Greg Grandpre	Coastal Engineering Consultants	(225) 278-7068
Burt Bruticel	Delta Land Services	225-614-4110
Amanda Phillips	Edward Wisner Donation	504.210.1152
Michael Boutrist	Marine Cardens	504 430 8900
Josh McNemar	Lt. Governor	225-342-8110

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CWPPRA

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

AGENDA

December 7, 2016, 9:30 a.m.

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

Documentation of Technical Committee meetings (including minutes, attendance records, PowerPoint Presentations, and meeting binders) may be found at:
http://www.mvn.usace.army.mil/Missions/Environmental/CWPPRA.aspx

Tab Number **Agenda Item**

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

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

3. **Additional Agenda Items (Brad Inman, USACE) 9:50 p.m. to 9:55 p.m.**
    - **Decision: Request Budget Increase for Black Bayou Hydrologic Restoration (CS-27) (Cecelia Liner, NOAA)** The Operation and Maintenance (O&M) budget increase amount and the incremental funding amount were incorrectly stated in the 18 October 2016 Task Force meeting agenda and minutes for the Black Bayou Hydrologic Restoration project. The correct item language is presented below. This will result in an overall budget increase of $47,668, but not an increase in the incremental request.
        - Black Bayou Hydrologic Restoration (CS-27), PPL-6, NOAA Fisheries
          Budget increase amount: $6,197,515
          Incremental funding amount: $5,964,971

4. **Report/Decision: Request for a Change in Scope for the PPL 21 – Northwest Turtle Bay Marsh Creation Project (BA-125) (Kevin Roy, FWS) 9:55 a.m. to 10:05 a.m.** The FWS and CPRA request approval for a project scope change for the BA-125 project. The 30% design project was modified to avoid pipelines and oil/gas canals that posed numerous construction-related issues. The modified project area includes an area which requires a

greater fill quantity than the original 30% design. FWS will report on the latest project costs and benefits.

5. **Report/Decision: Request for a Change in Scope for the PPL 22 – Terracing and Marsh Creation South of Big Mar Project (BS-24) (Angela Trahan, FWS) 10:05 a.m. to 10:15 a.m.** The FWS and CPRA request approval for a project scope change for the BS-24 project due to increased costs and modification of project layout. The project's terrace fields were modified to avoid pipeline crossings that posed construction-related issues. Increased costs can be attributed to the need for barge mounted draglines to construct the terraces, construction time, and an increase in material needed for the terraces due to including a loss in calculating the dike and terrace quantities. FWS will report on the latest project costs and benefits.

6. **Report/Decision: Request for a Change in Scope for the PPL 23 – Bayou Grande Cheniere Marsh and Ridge Restoration Project (BA-173) (Angela Trahan, FWS) 10:15 a.m. to 10:25 a.m.** The FWS and CPRA request approval for a project scope change for the BA-173 project due to increased costs. The project area requires a greater fill quantity than originally estimated due to poor soils and water depths. FWS will report on the latest project costs and benefits.

7. **Report/Decision: Request for a Change in Scope for the PPL 22 – Cameron Meadows Marsh Creation and Terracing Project (CS-66) (Patrick Williams, NOAA) 10:25 a.m. to 10:35 a.m.** The National Oceanic and Atmospheric Agency (NOAA) and CPRA request approval of a project scope change for the CS-66 project. The Phase 0 project layout was revised in order to avoid existing pipelines that posed high construction risks. In addition, the estimated amount of sediment required to meet project goals (and associated cost) has increased substantially, due to existing bottom elevations that are over a foot deeper than Phase 0 predictions. The estimated cost increase also reflects the anticipated effort required to secure land rights along the sediment pipeline corridor. NOAA will report out the latest estimated cost increases, project features, and expected benefits.

8. **Report/Decision: Proposed CWPPRA Project Bid Underruns SOP (Darryl Clark, FWS) 10:35 a.m. to 10:45 a.m.** The FWS recommends Technical Committee approval of a project bid underrun SOP for use in cases where the construction contract and final costs are lower than the approved construction budget and sponsoring agencies request use of the surplus construction budgets for project expansion. The SOP procedure calls for a Technical Committee vote on the expansion request and a post-construction report if the expansion request is approved.

9. **Decision: Request for Approval for Final Transfer on the PPL 18 - Central Terrebonne Freshwater Enhancement (TE-66) (Stuart Brown, CPRA) 10:45 a.m. to 10:50 a.m**. NRCS and CPRA are requesting approval for the final transfer of Central Terrebonne Freshwater Enhancement (TE-66) to the RESTORE Council. The TE-66 features will be designed by NRCS under the RESTORE Act project: "Bayou Dularge Ridge, Marsh and Hydrologic Restoration."

10. **Decision: Request for Approval for Final Deauthorization on the PPL 20 - Terrebonne Bay Marsh Creation-Nourishment project (TE-83) (Stuart Brown, CPRA) 10:50 a.m. to 10:55a.m.** USFWS and CPRA are requesting approval of final deauthorization of the Terrebonne Bay Marsh Creation-Nourishment project (TE-83). Geotechnical investigations revealed very poor soils, which made the original design of the project very expensive and difficult to construct. The project team evaluated multiple alternatives and did not find a viable path forward for this project. In July, the CWPPRA Planning and Evaluating Subcommittee recommended that this project be deauthorized. The Technical Committee recommended that the Task Force approve the deauthorization in September 2016, and on October 18, 2016, the Task Force approved the initiation of the deauthorization process.

11. **Report/Decision: 26th Priority Project List (Kevin Roy, FWS) 10:55 a.m. to 11:40 a.m.** The Environmental Workgroup Chairman will present an overview of the ten PPL 26 candidate projects as well as the three demonstration project candidates. The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 26 projects for Phase I Engineering and Design.

Region	Basin	PPL 26 Candidates	Agency
1	Pontchartrain	Bayou La Loutre Ridge and Marsh Restoration	NRCS
1	Pontchartrain	St. Catherine Island Marsh Creation and Shoreline Protection	FWS
2	Barataria	Elmer's Island Backbarrier Marsh Creation	NMFS
2	Barataria	East Bayou Lafourche Marsh Creation	FWS
3	Terrebonne	Bayou Terrebonne Freshwater Diversion	NRCS
3	Terrebonne	West LA Hwy 1 Marsh Creation and Terracing	NMFS
3	Terrebonne	Bayou DeCade Ridge and Marsh Creation	NMFS
4	Mermentau	East Pecan Island Marsh Creation	EPA/USACE
4	Calcasieu-Sabine	North Mud Lake Marsh Creation and Nourishment	NMFS
Coastwide		Salvinia Weevil Propagation Facility	FWS
PPL 26 Demonstration Project Candidates			**Agency**
DEMO	Ecobale Shoreline Protection		USACE
DEMO	Enhancing Restoration Transplant Survival via Stress Acclimation		CPRA
DEMO	Shore-links		NRCS

12. **Report/Decision: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding (Sarah Bradley, USACE) 11:40 a.m. to 12:20 p.m.** The Technical Committee will consider requests for Phase II authorization and approval of Increment 1 funding for cash flow projects for recommendation to the Task Force. Due to limited funding, the Technical Committee will recommend a list of projects for Task Force approval within available program construction funding limits. Each project listed in the following table will be discussed individually by its sponsoring agency. Following presentations and discussion on individual projects, the Technical Committee will rank all projects to aid in deciding which to recommend to the Task Force for Phase II authorization and funding

Agency	Project No.	PPL	Project Name	Phase II, Increment 1 Request	Fully-Funded Phase 1 Cost	Fully-Funded Phase II Cost incl O&M	Total Fully Funded Cost Est.	Net Benefit Acres	Total Cost per Acre
FWS	BS-24	22	Terracing & Marsh Creation South of Big Mar	$37,921,282	$2,308,599	$38,890,199	$41,198,798	314	$131,206
FWS	BA-173	23	Bayou Grand Cheniere Marsh & Ridge Restoration	$34,687,366	$2,742,302	$35,848,586	$38,590,888	237	$162,831
FWS	BA-125	21	Northwest Turtle Bay Marsh Creation	$30,252,307	$2,354,789	$31,309,882	$33,664,671	432	$77,927
EPA	BA-171	23	Caminada Headland Back Barrier Marsh Restoration	$29,087,196	$3,354,935	$30,519,050	$33,873,985	165	$205,297
NMFS	CS-66	22	Cameron Meadows Marsh Creation and Terracing	$35,129,706	$3,108,025	$36,125,614	$39,233,639	326	$120,349

13. **Request for Public Comments (Brad Inman, USACE) 12:20 p.m. to 12:25 p.m.**

14. **Announcement: Priority Project List 27 Regional Planning Team Meetings (Brad Inman, USACE) 12:25 p.m. to 12:35 p.m.**

January 31, 2017	12:30 p.m.	Region IV Planning Team Meeting	Abbeville
February 1, 2017	9:30 a.m.	Region III Planning Team Meeting	Morgan City
February 2, 2017	10:00 a.m.	Region I & II Planning Team Meeting	Lacombe
March 7, 2017	10:30 a.m.	Coastwide Electronic Voting	*(via email, no meeting)*

15. **Announcement: Date of Upcoming CWPPRA Program Meeting (Brad Inman, USACE) 12:35 p.m. to 12:40 p.m.** The Task Force meeting will be held January 12, 2017 at 9:30 a.m. at the U.S. Army Corps of Engineers, 7400 Leake Avenue, New Orleans, Louisiana in the District Assembly Room (DARM).

16. **Announcement: Scheduled Dates of Future Program Meetings (Brad Inman, USACE) 12:40 p.m. to 12:45 p.m.**

January 12, 2017	9:30 a.m.	Task Force	New Orleans
January 31, 2017	12:30 p.m.	Region IV Planning Team Meeting	Abbeville
February 1, 2017	9:30 a.m.	Region III Planning Team Meeting	Morgan City
February 2, 2017	10:00 a.m.	Region I & II Planning Team Meeting	Lacombe
April 27, 2017	9:30 a.m.	Technical Committee	New Orleans
May 11, 2017	9:30 a.m.	Task Force	Lafayette
September 14, 2017	9:30 a.m.	Technical Committee	Baton Rouge
October 12, 2017	9:30 a.m.	Task Force	New Orleans
December 7, 2017	9:30 a.m.	Technical Committee	Baton Rouge

17. **Decision: Adjourn**

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

MEETING INITIATION

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

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

STATUS OF CWPPRA PROGRAM FUNDS AND PROJECTS

For Report:

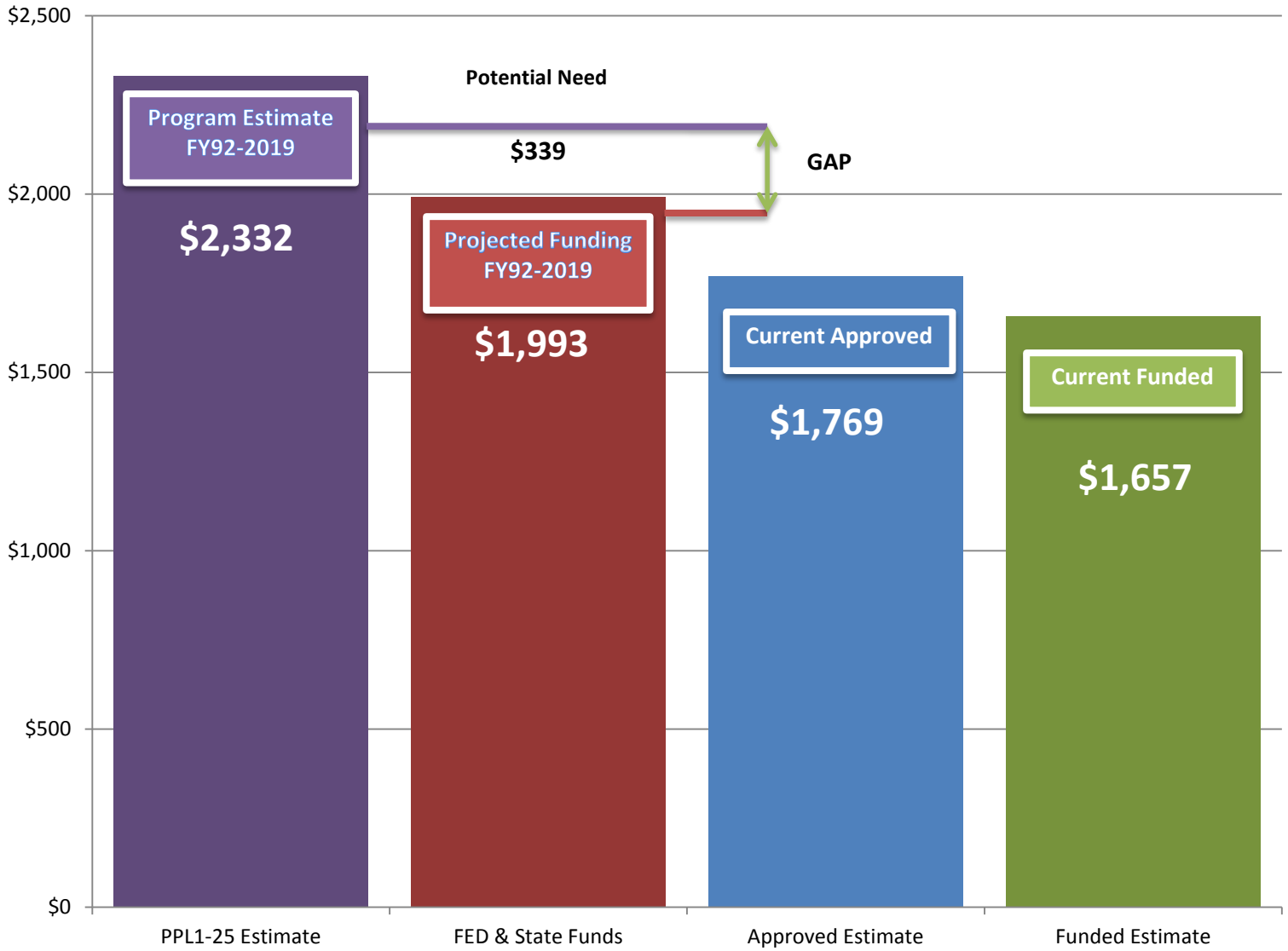
Ms. Jernice Cheavis will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.

Status of CWPPRA Program Funds & Projects

Jernice P. Cheavis

December 7, 2016

CWPPRA CONSTRUCTION PROGRAM



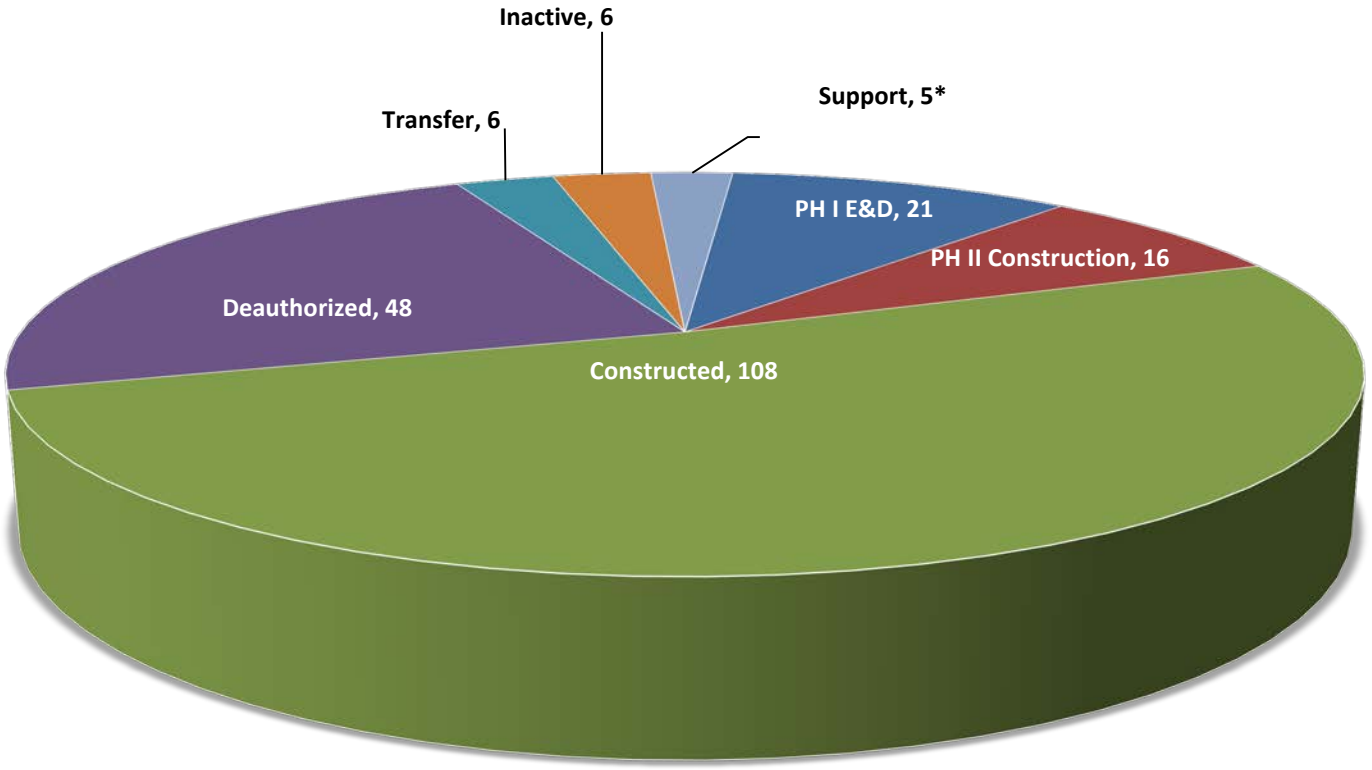
CWPPRA AVAILABLE FUNDS

	PROGRAM ESTIMATE		FUNDING
Approved Funded Estimate PPL 1-25	$2,332,080,224		
Available Funds (Carried forward from October 2016 TF Meeting)			$9,168,296
FY17 DOI Funds Estimate			$76,884,571
Total Program / Funds Available:	**$2,332,080,224**		**$86,052,867**

CWPPRA PROJECT STATUS

TOTAL CWPPRA PROJECTS: 210

ACTIVE PROJECTS: 150



*(1) CRMS (2) Monitoring Contingency Fund (3) Storm Recovery Procedures (4) Construction Program Technical Support (5) Wetland Conservation Plan

Construction Program Funding Requests: Tech Committee Meeting, 7 December 2016

	PROGRAM ESTIMATE	PROPOSED	PENDING	Fed	Non-Fed
1. Funds Available:					
Approved Funded Estimate PPL 1-25	$2,332,080,224				
Available Funds (Carried forward from October 2016 TF Meeting)		$9,168,296	$9,168,296		
FY17 DOI Funds Estimate		$76,884,571	$76,884,571		
Total Program / Funds Available:	**$2,332,080,224**	**$86,052,867**	**$86,052,867**	**$0**	**$0**
2. Agenda Item 8: 26th Priority Project List :					
Bayou La Loutre Ridge and Marsh Restoration	$29,762,138	$3,236,952		$0	$0
St. Catherine Island Marsh Creation and Shoreline Protection	$35,996,522	$2,389,308		$0	$0
Elmer's Island Backbarrier Marsh Creation	$27,774,583	$2,813,856		$0	$0
Bayou Terrebonne Freshwater Diversion	$22,636,335	$2,885,986		$0	$0
East Bayou Lafourche Marsh Creation	$36,784,975	$3,137,510		$0	$0
West LA Hwy 1 Marsh Creation and Terracing	$31,868,399	$3,351,303		$0	$0
Bayou DeCade Ridge and Marsh Creation	$34,403,849	$3,282,292		$0	$0
East Pecan Island Marsh Creation	$54,825,078	$4,205,285		$0	$0
North Mud Lake Marsh Creation and Nourishment	$59,930,304	$4,542,955		$0	$0
Salvinia Weevil Propagation Facility	$3,802,748	$934,967		$0	$0
DEMO - Enhancing Restoration Transplant Survival via Stress Acclimation	$1,044,632	$1,044,632		$0	$0
DEMO - Shore-links	$3,404,704	$3,404,704		$0	$0
DEMO - Ecobale Shoreline Protection	$2,714,293	$2,714,293		$0	$0
Total	**$344,948,560**	**$37,944,043**	**$0**	**$0**	**$0**
3. Agenda Item 9: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding:					
Terracing & Marsh Creation South of Big Mar (BS-24, PPL 22) FWS		$37,921,282		$0	$0
Bayou Grand Cheniere Marsh & Ridge Restoration (BA-173, PPL 23) FWS		$34,481,555		$0	$0
Northwest Turtle Bay Marsh Creation (BA-125, PPL 21) FWS		$30,252,307		$0	$0
Caminada Headland Back Barrier Marsh Restoration (BA-171, PPL 23) EPA		$29,087,196			
Cameron Meadows Marsh Creation and Terracing (CS-66), PPL 22) NMFS		$35,129,706		$0	$0
Total	**$0**	**$166,872,046**	**$0**	**$0**	**$0**
Funds Available for December 2016 Recommendations	**$2,332,080,224**	**$86,052,867**	**$86,052,867**		
Proposed amount	**$344,948,560**		**$0**		
Adjusted Program Amount/Available Funds	**$2,677,028,784**	**$86,052,867**	**$86,052,867**		

Construction Program Funding Requests: Tech Committee Meeting, 7 December 2016

	PROGRAM ESTIMATE		PROPOSED		PENDING		Fed	Non-Fed
1. Funds Available:								
Approved Funded Estimate PPL 1-25	$2,332,080,224							
Available Funds (Carried forward from October 2016 TF Meeting)			$9,168,296		$9,168,296			
FY17 DOI Funds Estimate			$76,884,571		$76,884,571			
Total Program / Funds Available:	**$2,332,080,224**		**$86,052,867**		**$86,052,867**		**$0**	**$0**
2. Agenda Item 8: 26th Priority Project List :								
Bayou La Loutre Ridge and Marsh Restoration	$29,762,138		$3,236,952				$0	$0
St. Catherine Island Marsh Creation and Shoreline Protection	$35,996,522		$2,389,308				$0	$0
Elmer's Island Backbarrier Marsh Creation	$27,774,583		$2,813,856				$0	$0
Bayou Terrebonne Freshwater Diversion	$22,636,335		$2,885,986				$0	$0
East Bayou Lafourche Marsh Creation	$36,784,975		$3,137,510				$0	$0
West LA Hwy 1 Marsh Creation and Terracing	$31,868,399		$3,351,303				$0	$0
Bayou DeCade Ridge and Marsh Creation	$34,403,849		$3,282,292				$0	$0
East Pecan Island Marsh Creation	$54,825,078		$4,205,285				$0	$0
North Mud Lake Marsh Creation and Nourishment	$59,930,304		$4,542,955				$0	$0
Salvinia Weevil Propagation Facility	$3,802,748		$934,967				$0	$0
DEMO - Enhancing Restoration Transplant Survival via Stress Acclimation	$1,044,632		$1,044,632				$0	$0
DEMO - Shore-links	$3,404,704		$3,404,704				$0	$0
DEMO - Ecobale Shoreline Protection	$2,714,293		$2,714,293				$0	$0
Total	**$344,948,560**		**$37,944,043**		**$0**		**$0**	**$0**
3. Agenda Item 9: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding:								
Terracing & Marsh Creation South of Big Mar (BS-24, PPL 22) FWS			$37,921,282				$0	$0
Bayou Grand Cheniere Marsh & Ridge Restoration (BA-173, PPL 23) FWS			$34,481,555				$0	$0
Northwest Turtle Bay Marsh Creation (BA-125, PPL 21) FWS			$30,252,307				$0	$0
Caminada Headland Back Barrier Marsh Restoration (BA-171, PPL 23) EPA			$29,087,196					
Cameron Meadows Marsh Creation and Terracing (CS-66), PPL 22) NMFS			$35,129,706				$0	$0
Total	**$0**		**$166,872,046**		**$0**		**$0**	**$0**
Funds Available for December 2016 Recommendations	**$2,332,080,224**		**$86,052,867**		**$86,052,867**			
Proposed amount	**$344,948,560**				**$0**			
Adjusted Program Amount/Available Funds	**$2,677,028,784**		**$86,052,867**		**$86,052,867**			

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

REQUEST FOR A CHANGE IN SCOPE FOR THE PPL 21 – NORTHWEST TURTLE BAY MARSH CREATION PROJECT (BA-125)

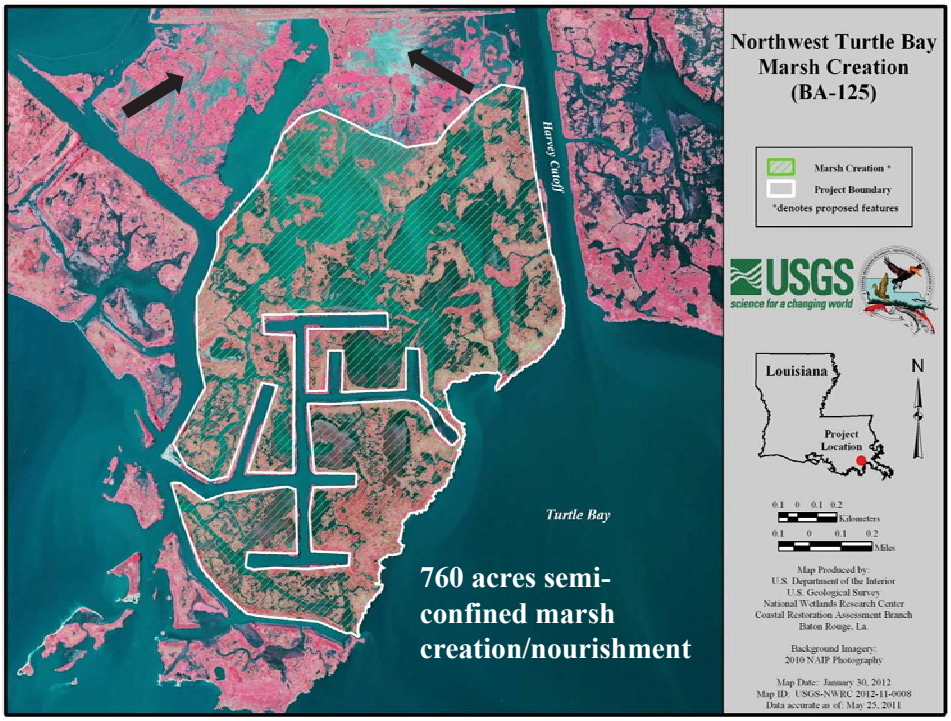
For Report/Decision:

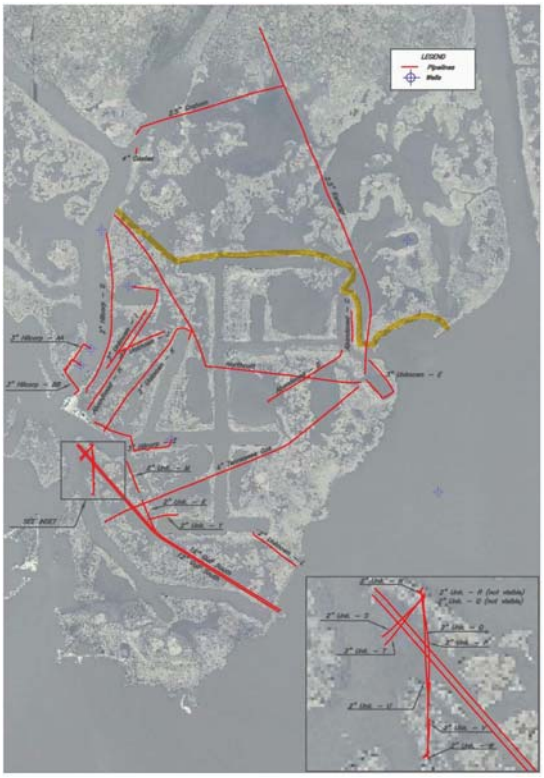
The FWS and CPRA request approval for a project scope change for the BA-125 project. The 30% design project was modified to avoid pipelines and oil/gas canals that posed numerous construction-related issues. The modified project area includes an area which requires a greater fill quantity than the original 30% design. FWS will report on the latest project costs and benefits.

Project Background

- Nominated in January 2011
- Approved for Phase 1 in January 2012
- Kickoff Meeting and Site Visit in May 2012
- 30% Design Review Meeting on March 27, 2014
- 95% Design Review Meeting on November 27, 2016
- Scope Change and Phase 2 request – December 2016

Phase 1 Project

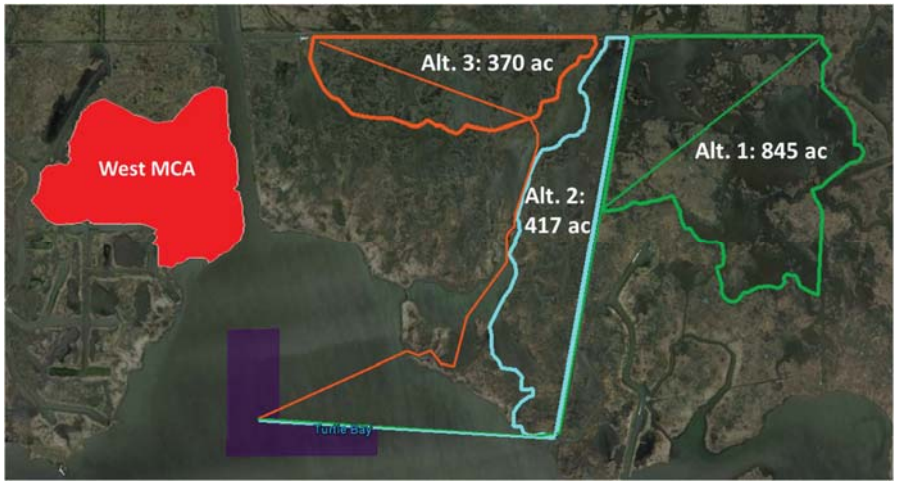




Post 30% Design Modification

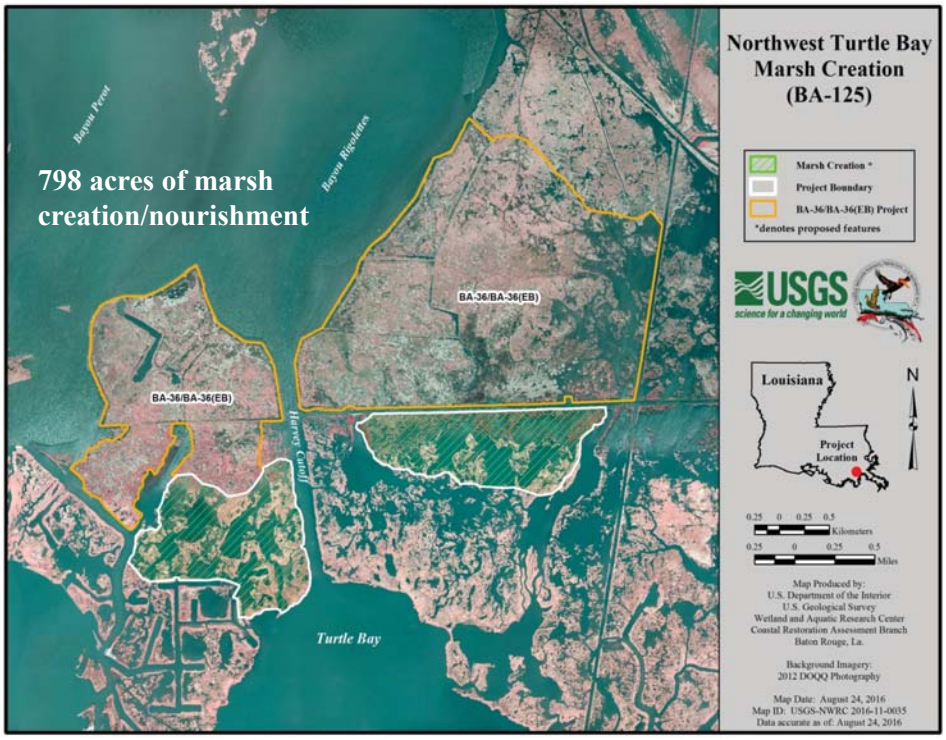
- Numerous pipelines, flow lines, and canals in southern half of project area
- Access and constructability issues
- Southern half of project area removed
- Alternative location sought to achieve project goals and maintain project footprint

Eastern Marsh Creation Area Selection



Alternative	Area (acres)	Pumping Distance (miles)
1	845	4.3
2	417	3.7
3	370	3.8

Phase 2 Project



Phase 1 vs Phase 2

	Phase 1	Phase 2	Percent Change
Fully-Funded Cost	$23,198,758	$33,664,671	+45%
Project Area (ac)	807	798	-1%
Net Acres	407	432	+6%
Net AAHUs	187	211	+13%

Northwest Turtle Bay Marsh Creation (BA-125)

Change in Project Scope

Report to the Technical Committee

November 21, 2016

The Fish and Wildlife Service and Louisiana Coastal Protection and Restoration Authority request Technical Committee and Task Force approval for a project scope change for the BA-125 Northwest Turtle Bay Marsh Creation Project. A scope change is required due an increase in the total project cost of more than 25%.

The Northwest Turtle Bay Marsh Creation Project was approved on Priority Project List 21 with a total fully-funded cost of $23,198,758. The current fully-funded cost is $33,664,671 which is an increase of 45%. The primary reason for the cost increase is an increase in marsh creation fill quantities after modifications were made to the fill areas between the 30% and 95% design. The 30% design project included one fill site west of the Harvey Cutoff (Figure 1). In the southern half of the fill site, numerous pipelines and oil/gas canals presented problems for equipment access and required several discharge locations for dredging operations. Therefore, the southern half of the fill site was removed from the project area and an alternative fill site east of the Harvey Cutoff (Figure 2) was selected to maintain the marsh creation footprint and achieve project goals. Due to an increase in water depths and open water acreage, the eastern fill site requires a greater fill quantity than the area removed from the Phase 1 project.

A comparison of Phase 1 and Phase 2 costs and benefits is found in the table below.

	Phase 1 Project	**Phase 2 Project**	**Increase/Decrease**
Fully-funded Cost	$23,198,758	$33,664,671	45%
Project Area	807	798	-1%
Net Acres	407	432	+6%
AAHUs	187	211	+13%

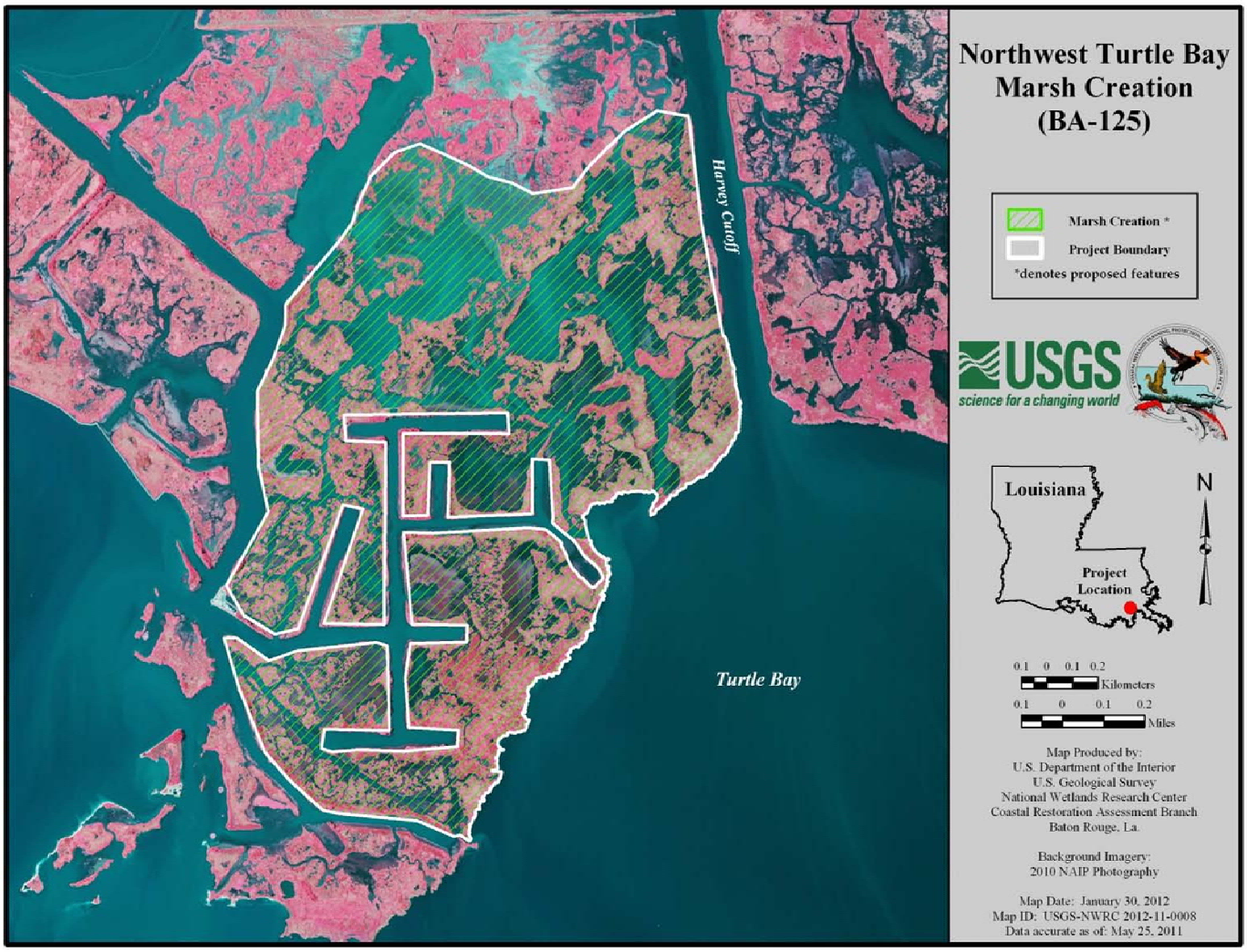


Figure 1. Phase 1 Project Boundary.

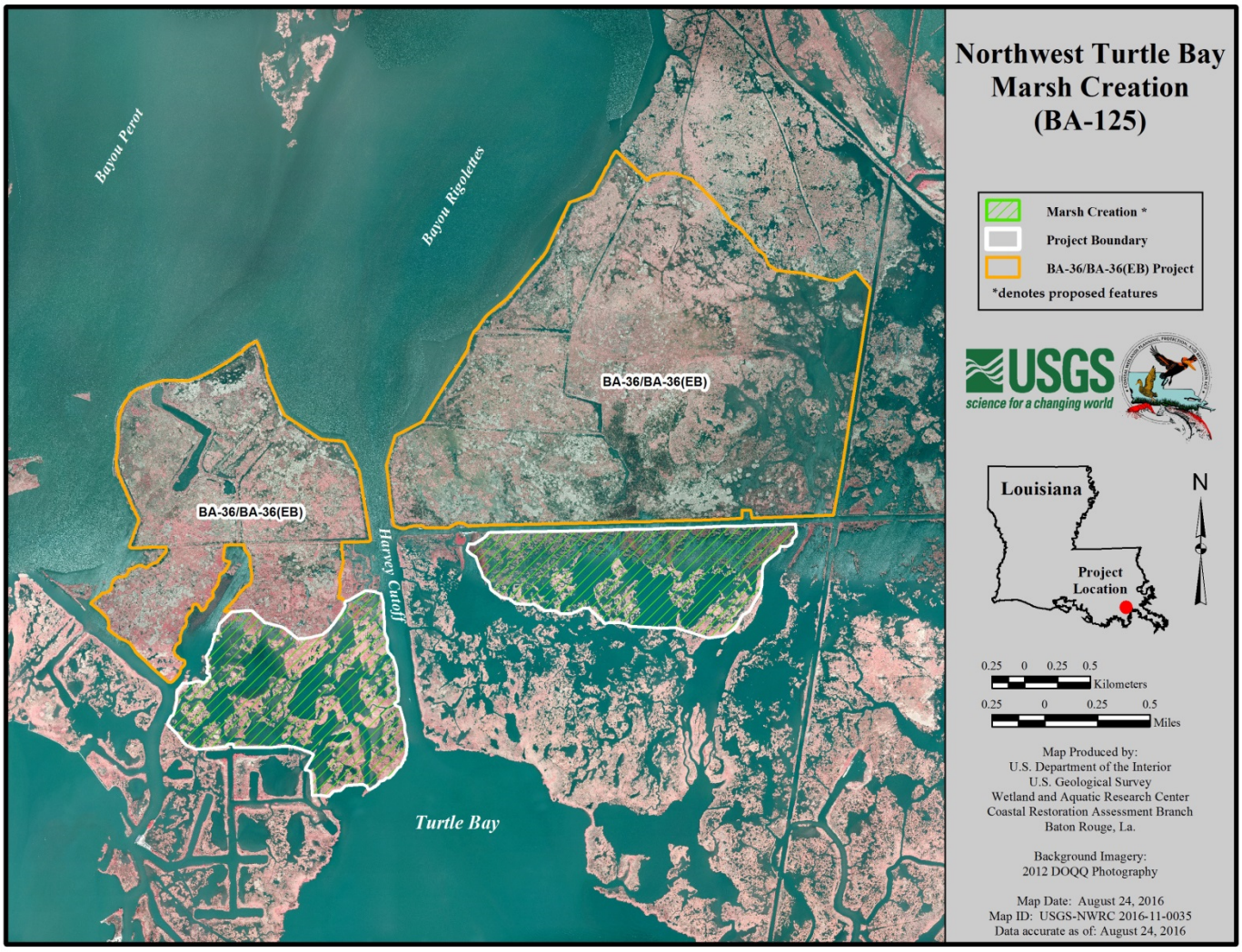


Figure 2. Phase 2 Project Boundary.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

REQUEST FOR A CHANGE IN SCOPE FOR THE PPL 22 – TERRACING AND MARSH CREATION SOUTH OF BIG MAR PROJECT (BS-24)

For Report/Decision:

The FWS and CPRA request approval for a project scope change for the BS-24 project due to increased costs and modification of project layout. The project's terrace fields were modified to avoid pipeline crossings that posed construction-related issues. Increased costs can be attributed to the need for barge mounted draglines to construct the terraces, construction time, and an increase in material needed for the terraces due to including a loss in calculating the dike and terrace quantities. FWS will report on the latest project costs and benefits.

Terracing and Marsh Creation South of Big Mar (BS-24)

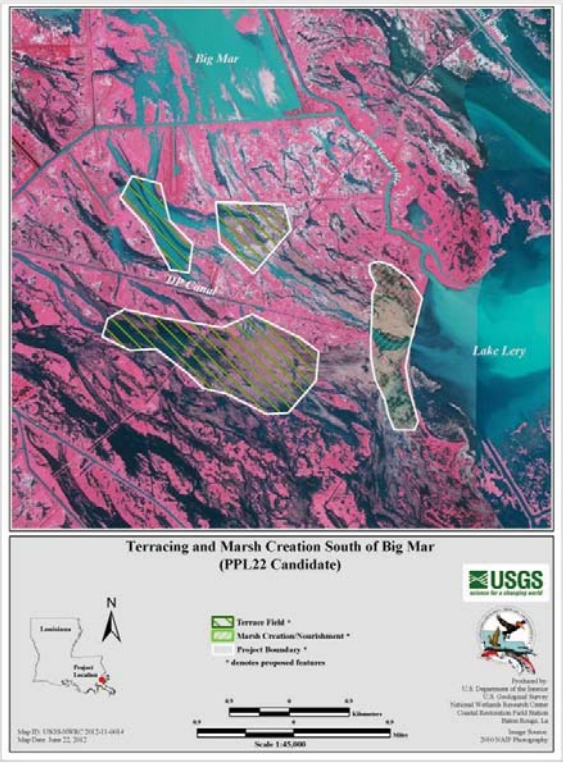
Scope Change Request

December 7, 2016

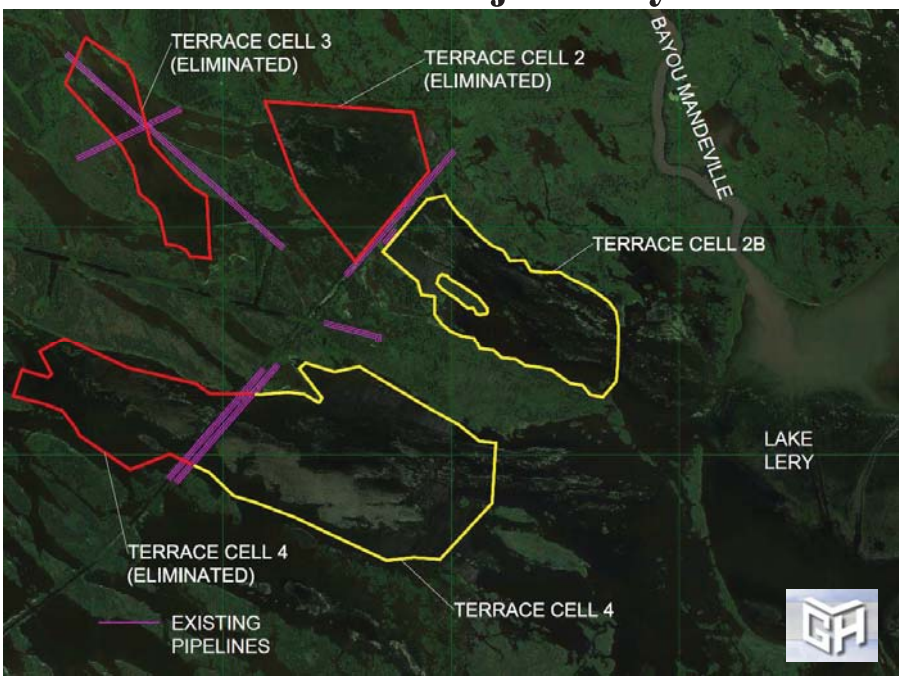
Project Background

- Nominated in February 2012
- Approved for Phase 1 in January 2013
- Kickoff Meeting and Field Trip in April 2013
- 30% Design Review Meeting on July 7, 2016
- 95% Design Review Meeting on October 27, 2016
- Scope change and Phase 2 request – December 7, 2016

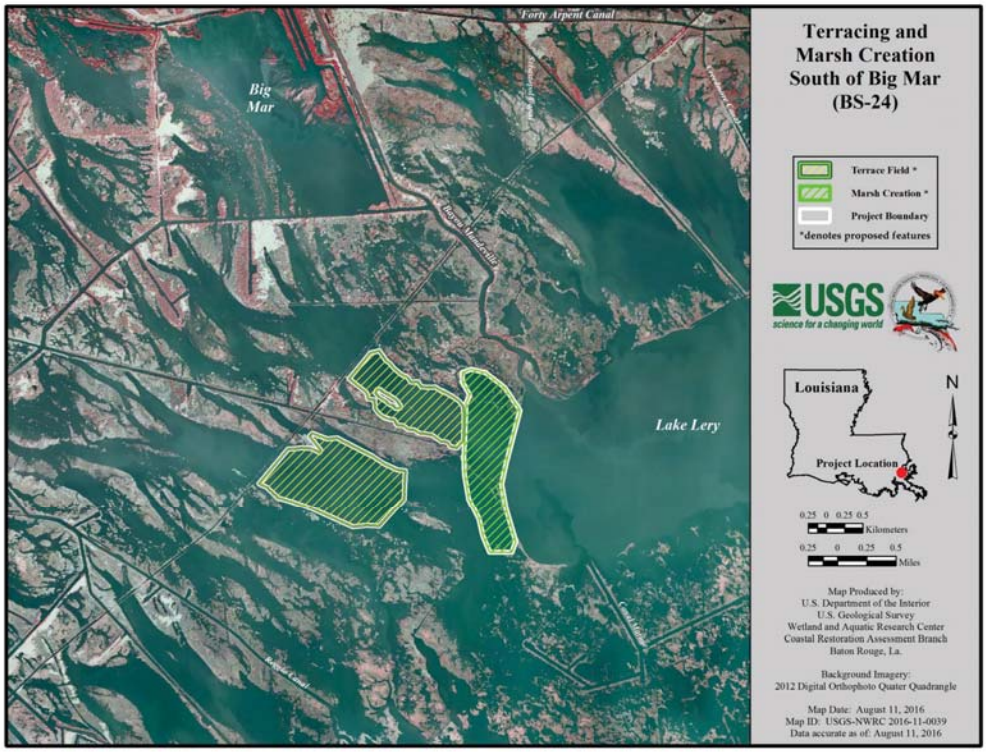
Phase 1 Project



Alternative Project Layout



Phase 2 Project



Cost Estimate Considerations

Table 1.3 –Terrace Construction Quantity Summary

Terrace Cell Area	Total length of Terrace, LF	Fill Volume Required, yd³ (in-place)		Fill Volume w/ Settlement & Losses, yd³	Fill Volume Available, yd³
Cell 4	45,807	427,055		640,583	1,718,156
Cell 2B	22,677	237,111		355,666	745,396
Total	68,484	664,166	1:1.5	996,249	2,463,552

Table 1.4 – Preliminary MCA Construction Quantity Summary

Marsh Creation Cell Area	Total Acreage	Containment Dike Volume, yd³ (in-place)		Containment Dike Volume w/ Settlement & Losses, yd3	MCA Volume, yd³	MCA Volume, yd³ (1.6 C:F)
Cell 3A	133	183,130		274,695	1,032,693	1,652,309
Cell 3B	80	43,199		64,799	557,853	892,565
Cell 3C	126	162,152	1:1.5	243,228	960,116	1,536,186
Total	339	388,481		582,722	2,550,662	4,081,059

1:1.6

Phase 1 vs Phase 2

	Phase 1 Project	Phase 2 Project	Increase/Decrease
Fully-funded Cost	$23,692,706	$41,198,798	+74%
Construction Cost	$15,632,185	$30,878,688	+98%
Project Area	1,396	969	-31%
Net Acres	303	314	+4%
AAHUs	86	63	-27%

Terracing and Marsh Creation South of Big Mar (BS-24)

Change in Project Scope

Report to the Technical Committee

November 21, 2016

The Fish and Wildlife Service and Louisiana Coastal Protection and Restoration Authority request Technical Committee and Task Force approval for a project scope change for the BS-24 Terracing and Marsh Creation South of Big Mar Project. A scope change is required due an increase in the total project cost of more than 25 percent (%).

The Terracing and Marsh Creation South of Big Mar Project was approved on Priority Project List 22 with a total fully-funded cost of $23,692,706. The current fully-funded cost is $41,198,798, which is an increase of 74%. Increased costs can be primarily attributed to a conservative estimated increase in volume of material needed. An estimated increase of 50 percent (10 % for settlement, 40% for losses) was used to determine fill volume needed to construct the proposed terraces and dikes based on settlement and losses of material during construction. Further a conservative cut-to-fill estimate of 1.6:1 is used for the marsh creation fill volume. The Phase 1 project's terrace fields (Figure 1) were modified to avoid pipeline crossings that posed construction-related issues. The terraces were shifted east closer to Lake Lery (Figure 2). A reduction in benefits can be attributed to a reduced project area and considerations of temporal losses associated with initial constructed marsh elevations and settlement periods. A comparison of Phase 1 and Phase 2 costs and benefits is found in the table below.

Comparison of Phase 1 and Phase 2 Projects.

	Phase 1 Project	**Phase 2 Project**	**Increase/Decrease**
Fully-funded Cost	$23,692,706	$41,198,798	+74%
Construction Cost	$15,632,185	$30,878,688	+98%
Project Area	1,396	969	-31%
Net Acres	303	314	+4%
AAHUs	86	63	-27%

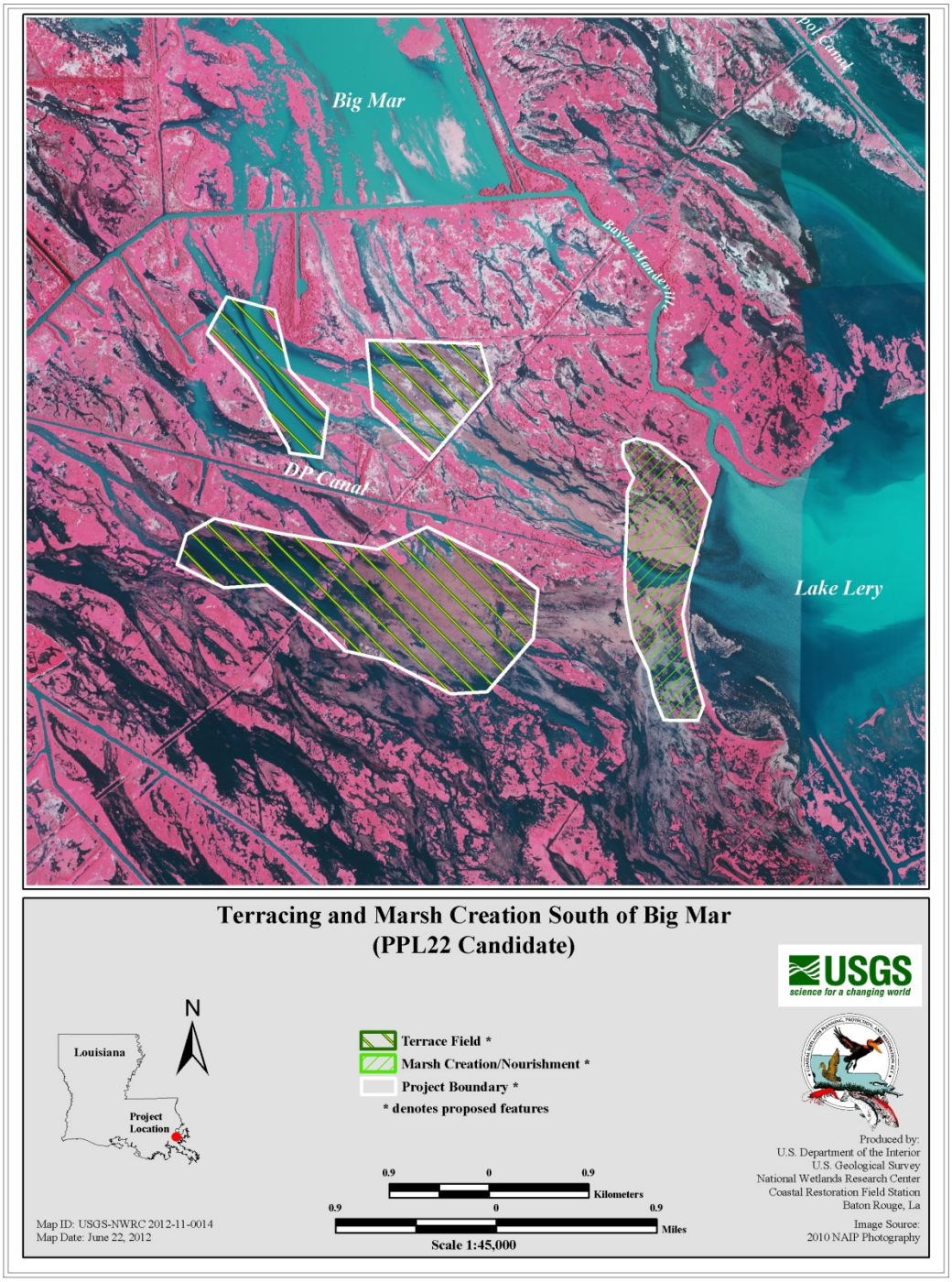


Figure 1. Phase 1 Project Boundary.

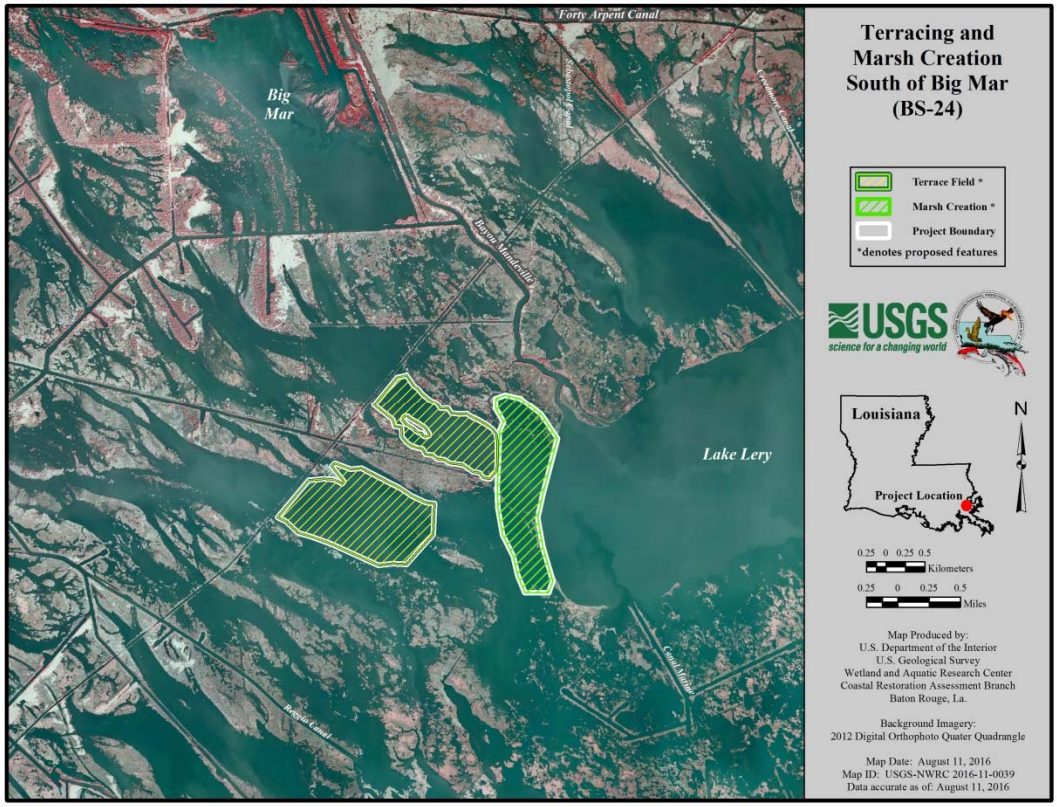


Figure 2. Phase 2 Project Boundary.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

REQUEST FOR A CHANGE IN SCOPE FOR THE PPL 23 – BAYOU GRANDE CHENIERE MARSH AND RIDGE RESTORATION PROJECT (BA-173)

For Report/Decision:

The FWS and CPRA request approval for a project scope change for the BA-173 project due to increased costs. The project area requires a greater fill quantity than originally estimated due to poor soils and water depths. FWS will report on the latest project costs and benefits.

Bayou Grand Cheniere Marsh Creation and Ridge Restoration Project

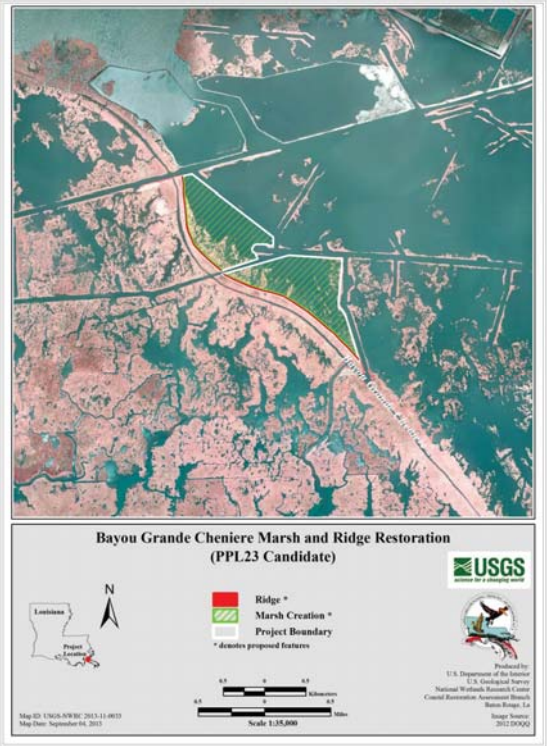
Scope Change Request

December 7, 2016

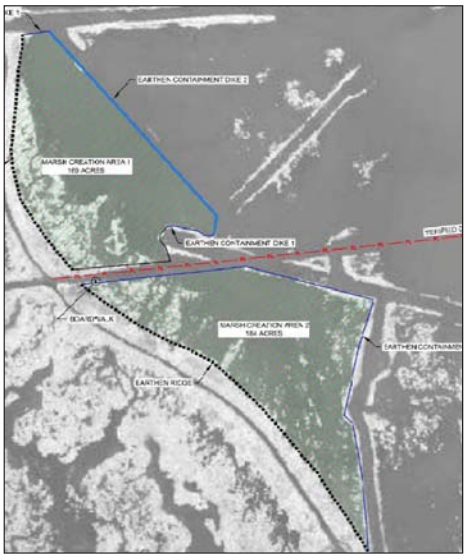
Project Background

- Nominated in February 2013
- Approved for Phase 1 funding in January 2014
- Kickoff Meeting and Field Trip conducted in April 2014
- 30% Design Meeting held May 3, 2016
- 95% Design Review Meeting on September 20, 2016
- Scope change and Phase 2 request – December 7, 2016

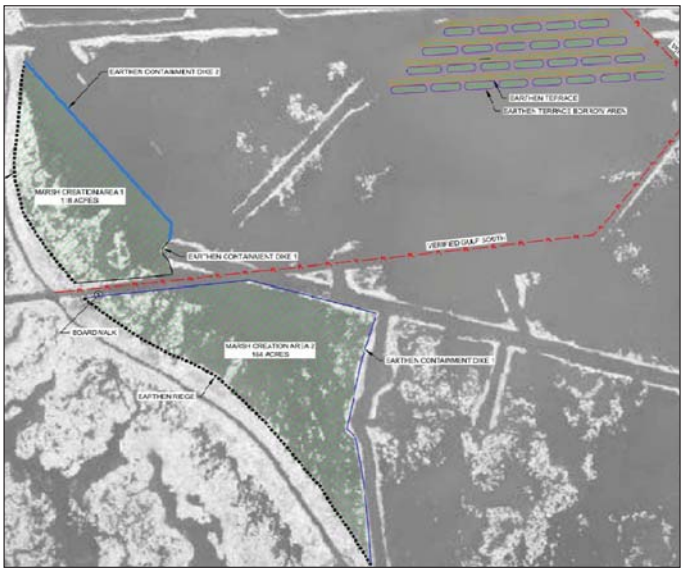
Phase 1 Project



30% Alternative Project Layouts



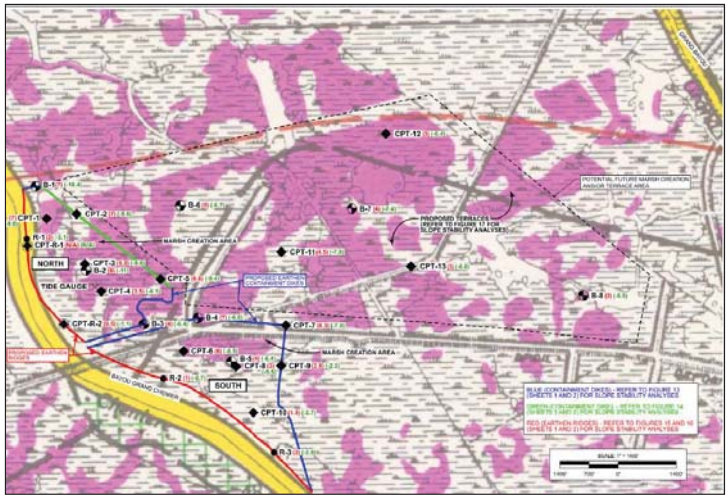
Alternative 1 (Phase 0 Layout):
353 acres marsh creation
$34.2M (est)



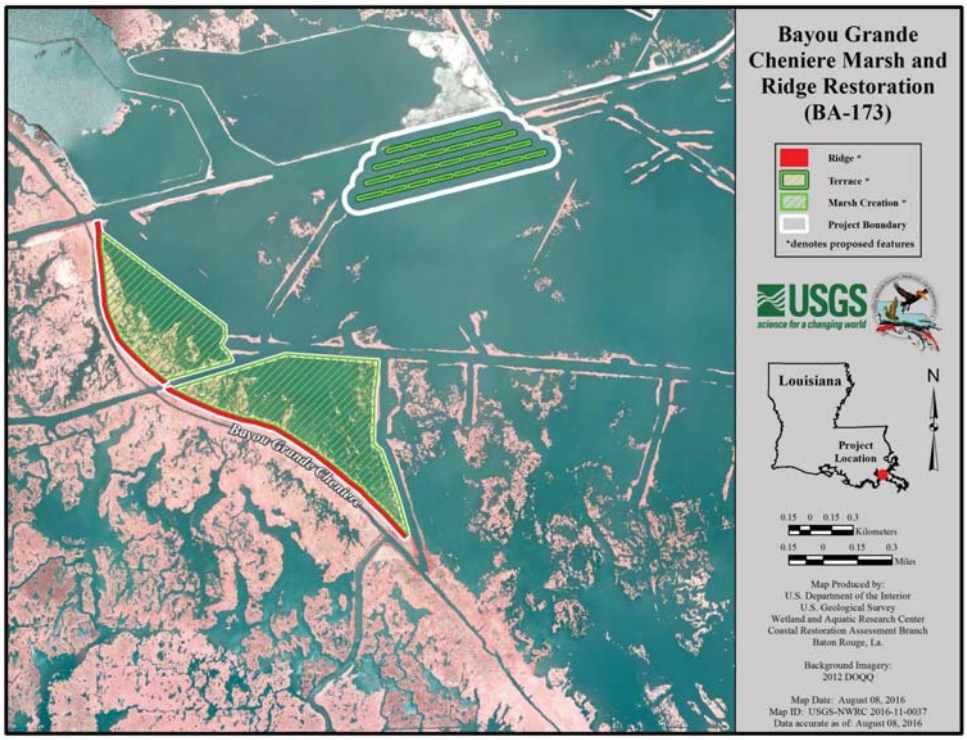
Alternative 2:
302 acres marsh creation + 11,700LF terraces
$31.1M (est)

Inshore Geotechnical Investigation

- Marsh deposits composed of extremely soft organics
- Peat layers up to eight feet thick



Phase 2 Project



Phase 1 vs Phase 2

	Phase 1 Project	Phase 2 Project	Increase/Decrease
Fully-funded Cost	$29,937,575	$38,590,888	+29%
Construction Cost	$20,280,030	$28,714,690	+42%
Project Area	354	486	+37%
Net Acres	264	237	-10%
AAHUs	146	129	-12%

Bayou Grande Cheniere Marsh and Ridge Restoration (BA-173)

Change in Project Scope

Report to the Technical Committee

November 22, 2016

The Fish and Wildlife Service and Louisiana Coastal Protection and Restoration Authority request Technical Committee and Task Force approval for a project scope change for the BA-173 Bayou Grande Cheniere Marsh and Ridge Restoration Project. A scope change is required due an increase in the total project cost of more than 25 percent (%).

The Bayou Grande Cheniere Marsh and Ridge Restoration Project was approved on Priority Project List 23 with a total fully-funded cost of $29,937,575. The current fully-funded cost is $38,388,834 which is an increase of 28%. The primary reason for the cost increase is an increase in marsh creation fill quantities due to settlement of subsurface soils and increased target fill elevations. The Phase 1 design project included two marsh creation areas (Figure 1). The northern marsh creation area was reduced in size by 40 acres to avoid deeper water depths associated with an historic oil and gas canal, and high organic soils. To achieve project benefits not realized due to the reduction in the marsh creation area a terrace field feature was added to the project design (Figure 2) increasing the total project area by 37%.

A comparison of Phase 1 and Phase 2 costs and benefits is found in the table below.

Comparison of Phase 1 and Phase 2 Projects.

	Phase 1 Project	**Phase 2 Project**	**Increase/Decrease**
Fully-funded Cost	$29,937,575	$38,590,888	+29%
Construction Cost	$20,280,030	$28,714,690	+42%
Project Area	354	486	+37%
Net Acres	264	237	-10%
AAHUs	146	129	-12%

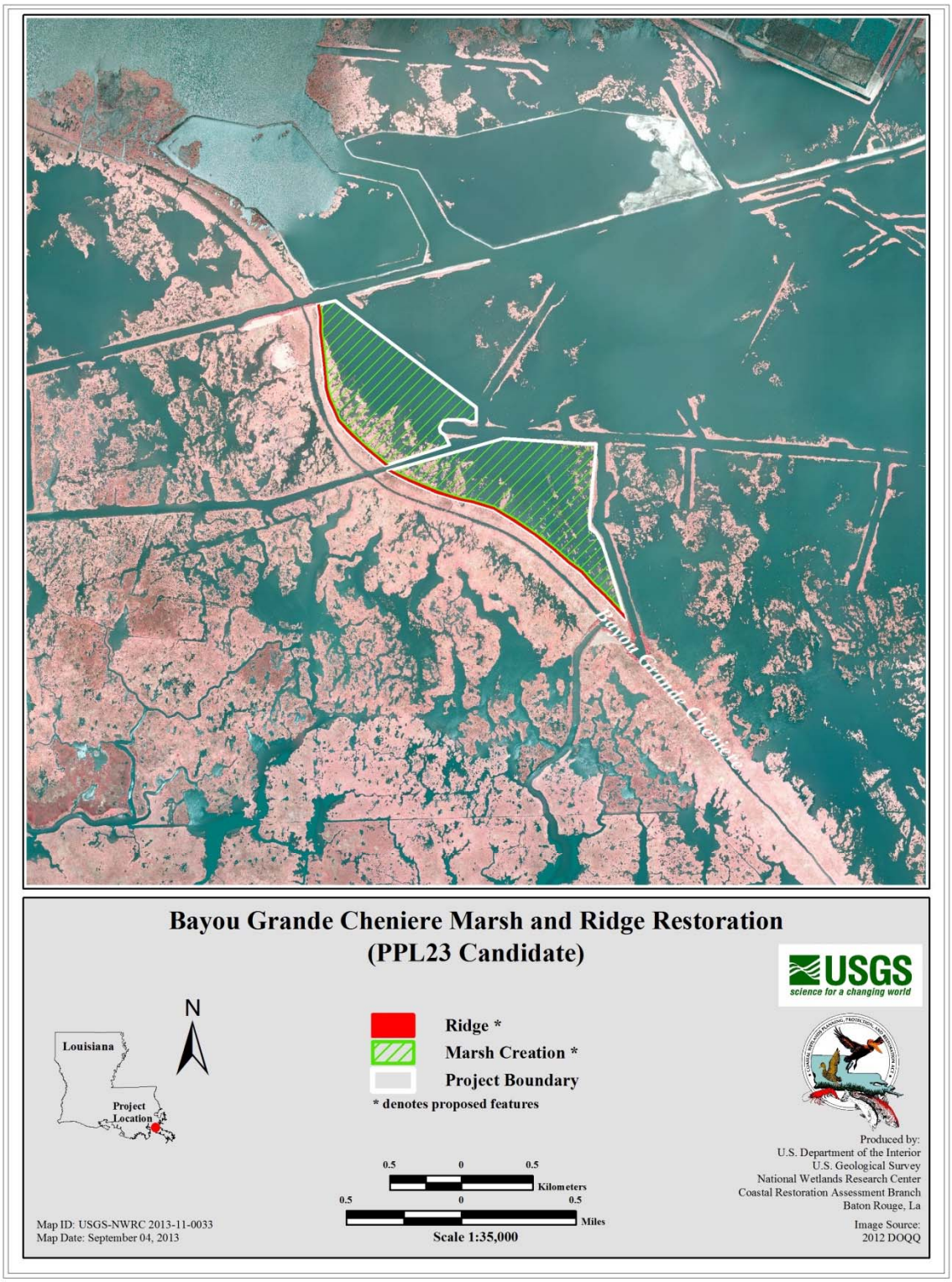


Figure 1. Phase 1 Project Boundary.

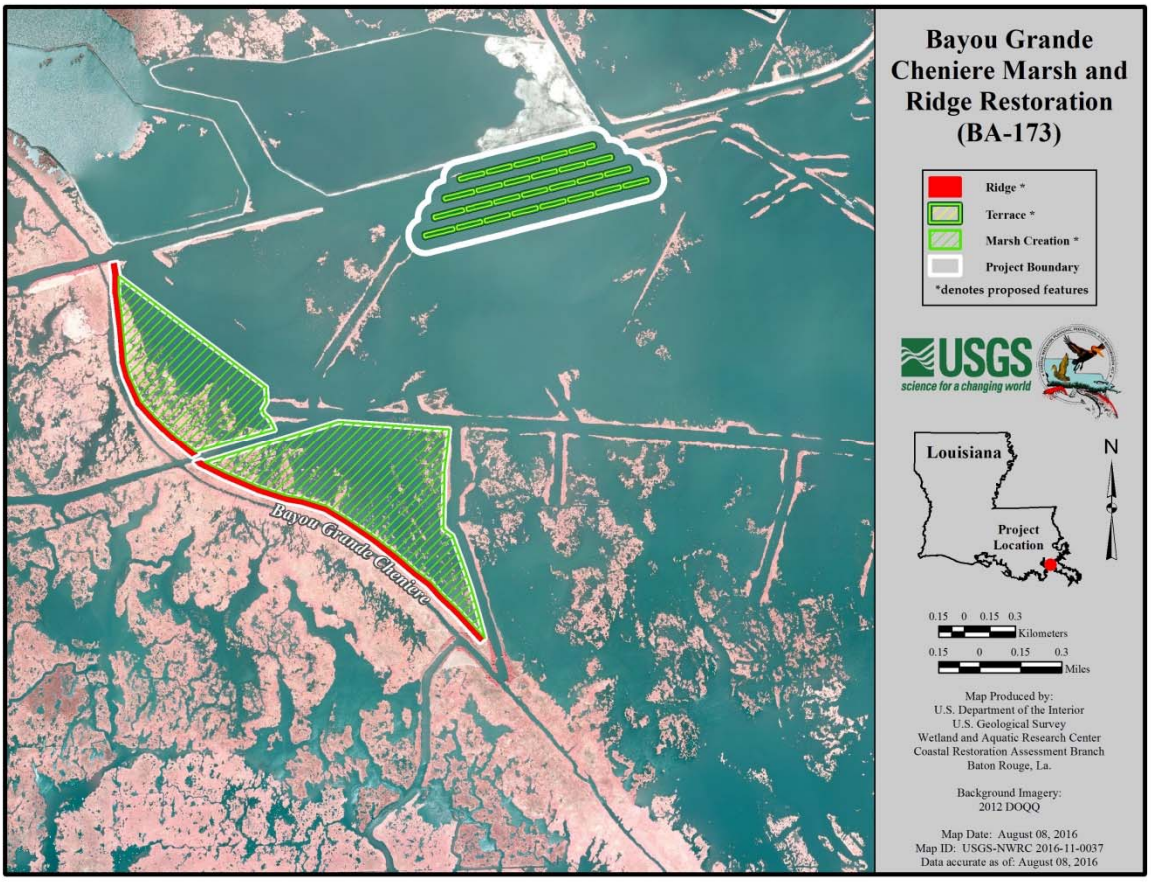


Figure 2. Phase 2 Project Boundary.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

REQUEST FOR A CHANGE IN SCOPE FOR THE PPL 22 –CAMERON MEADOWS MARSH CREATION AND TERRACING PROJECT (CS-66)

For Report/Decision:

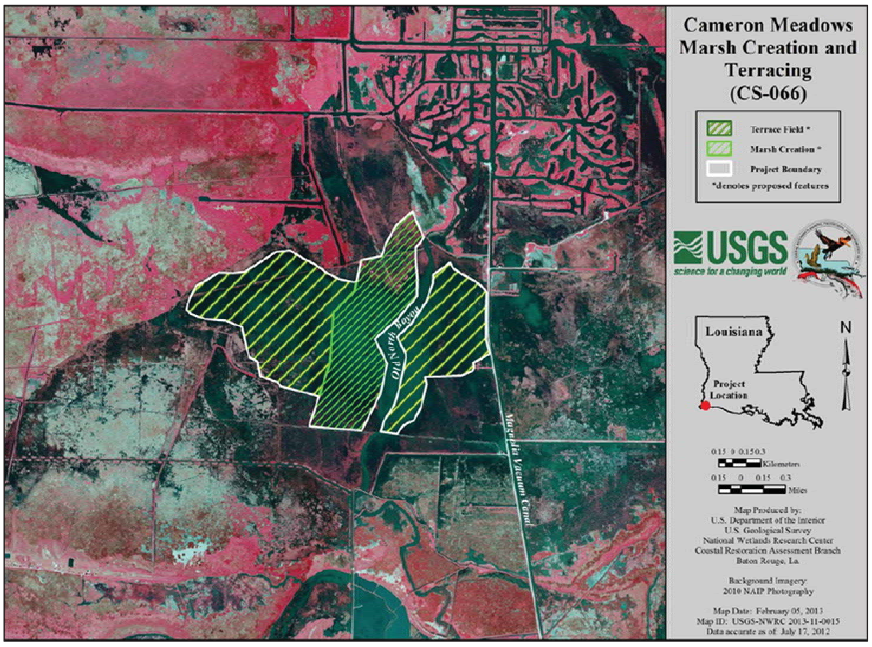
The National Oceanic and Atmospheric Agency (NOAA) and CPRA request approval of a project scope change for the CS-66 project. The Phase 0 project layout was revised in order to avoid existing pipelines that posed high construction risks. In addition, the estimated amount of sediment required to meet project goals (and associated cost) has increased substantially, due to existing bottom elevations that are over a foot deeper than Phase 0 predictions. The estimated cost increase also reflects the anticipated effort required to secure land rights along the sediment pipeline corridor. NOAA will report out the latest estimated cost increases, project features, and expected benefits.

Cameron Meadows Marsh Creation and Terracing (CS-66) Scope Change Report

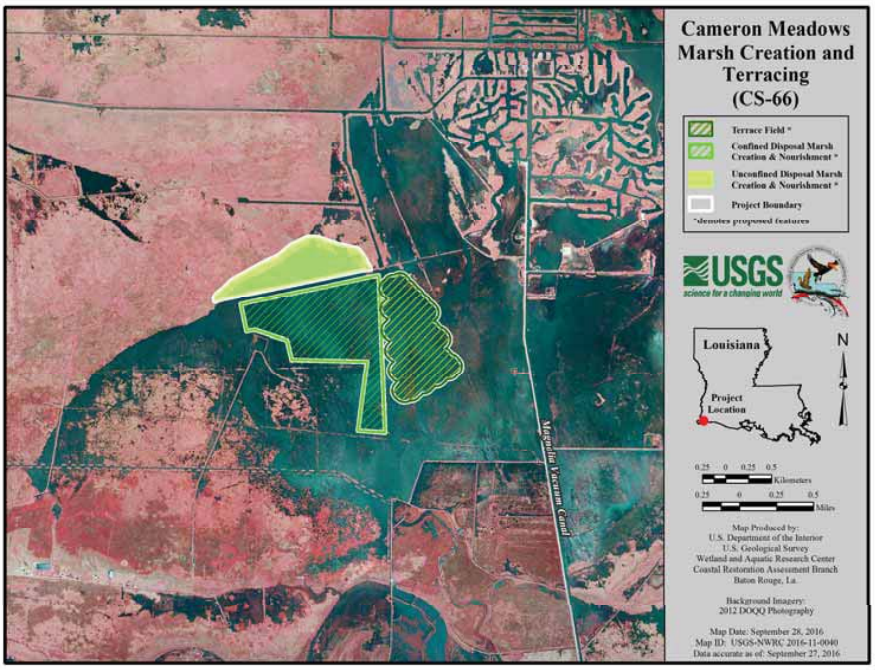
CWPPRA Technical Committee Meeting

December 7, 2016

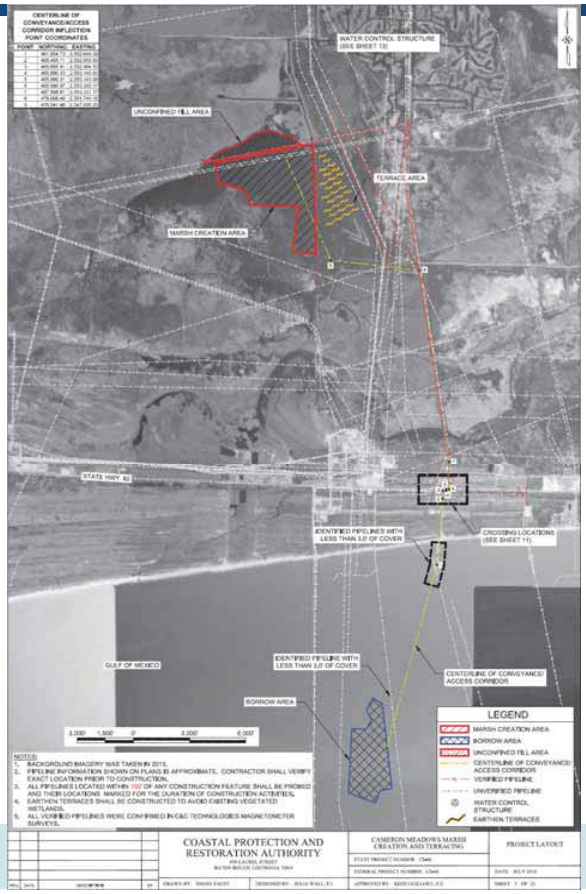
Phase 0



Phase 1 – 95% Design



Pipeline Corridor



Change in Project Scope

	Features	Fully Funded Cost	Net Acres	Cost/Net Acres
Phase 0	• 334 Marsh Acres • 35K LF Terraces • 30K LF Canal Cleanout	**$27.6M**	**264**	**$104,900**
95%	• 295 Acres Confined Marsh • 85 Acres Unconfined Marsh • 12K LF Terraces	**$39.2M**	**326**	**$120,300**

Landrights

- The sediment pipeline will cross approximately 37 pipelines owned by approximately 22 different companies.
- All but one of the approximately 50 relevant landowners will receive no direct benefit from the project.
- Over two dozen stakeholders attended project meetings on Nov. 15th, provided recommendations, and expressed strong support for the project.

COASTAL WETLANDS PLANNING, PROTECTION, AND RESTORATION ACT
TASK FORCE MEETING
DECEMBER 7, 2016

SCOPE CHANGE REQUEST FOR CAMERON MEADOWS MARSH CREATION AND TERRACING (CS-66)

The National Oceanic and Atmospheric Agency (NOAA) and Coastal Protection and Restoration Authority of Louisiana (CPRA) have completed 95% design of the Cameron Meadows Marsh Creation and Terracing Project (CS-66). Based on cost increases exceeding the Phase 1 estimate by more than 25% due to reasons listed below, NOAA seeks scope change approval. No additional funds are needed to complete Phase 1 of this project, and NOAA will also seek Phase 2 funding at the December Technical Committee meeting.

Changes to Project Features

The original CS-66 (Phase 0) project included restoring 352-acres of coastal marsh habitat. 334-acres of marsh would be created from sediment from the Gulf of Mexico and 35,000 linear feet (18-acres) of terraces were planned to be constructed. The Phase 0 plans also included re-establishment of hydrologic conductivity by cleaning out over 30,000 linear feet of canals. Approaching 95% design, the Phase 1 design has been modified to avoid existing infrastructure. The marsh creation cell was shifted to the west in order to avoid numerous pipelines which posed high construction risks. In addition, the estimated amount of sediment required to meet project goals (and associated cost) have increased substantially due to existing bottom elevations that are over a foot deeper than Phase 0 predictions.

The project layout has been altered to include 295 acres of confined marsh creation. The layout includes 12,150 linear feet (11 acres) of terraces to the west of the marsh creation area. An unconfined marsh creation cell was added that totals 85 acres of marsh creation. A final project layout is recommended to avoid existing pipelines, promote the growth of emergent marsh, and reduce wind induced waves. Table 1 compares the features, net acreage benefits, and costs associated with the original and current project designs.

	Project Features	Fully Funded Cost	Net Acres	Cost/Net Acre
Phase 0	334-acres marsh creation 35,000 lf of terraces 30,000 lf of canal clean out	$27,685,820	264	$104,870
95%	295-acres confined marsh creation 85-acres unconfined marsh creation 12,150 lf of terraces	$39,233,639	326	$120,349

Table 1. Comparison of original and revised project benefits and costs.

Landrights

The estimated Cameron Meadows project Phase 2 landrights costs are significantly higher than originally estimated to account for two major challenges, which are explained below. The current estimate of $2 million dollars and two years to complete landrights assumes a nearly worst-case scenario for addressing each challenge. CPRA hopes that this estimate is much higher than what will be needed for Phase 2 landrights work, but recognizes that this estimate could be a realistic reflection of the time and effort required to overcome these challenges. CPRA will make every effort to reduce costs and, if the challenges are more easily addressed than assumed for this estimate, all unused funds will be returned to the program.

Challenges

1. The sediment pipeline from the borrow area to the marsh creation site will cross approximately 37 pipelines owned by approximately 22 different companies. While the project team does not anticipate that the CS-66 sediment pipeline will adversely affect any existing pipelines because the CS-66 pipeline will be laid upon existing roadways that are traversed by vehicles daily and the only accommodation the pipeline companies have requested so far will be easy to fulfill, it will take time and persistent effort to obtain responses and signatures from the relevant pipeline companies.

2. The sediment pipeline crosses six tracts of land and a road co-owned by twelve neighbors. All but one of the relevant landowners will receive no direct benefit from the project, so CPRA Legal will require 100% of approximately 50 landowners to sign the servitude agreements for this pipeline corridor. It will take time and persistent effort to contact and obtain signatures from all of these landowners.

After identifying these challenges, the project team considered alternate sediment pipeline routes that might minimize the number of pipeline crossings and landowners, but no cost effective alternatives were found.

<u>Risk Mitigation Accomplishments</u>

To mitigate these risks while maintaining the current design, the project team conducted two stakeholder meetings in Cameron Parish on November 15, 2016. With minimal cost and on short notice, we saw strong turnout, active engagement, and consistent expressions of support for the Cameron Meadows project demonstrated by over two dozen key stakeholders at that meeting. The meeting attendees included pipeline owners, land managers, land owners, utilities, and local government. The stakeholders in attendance voiced support for the project and a desire to work with us to clarify and address their requirements so we could get this project done well. All who voiced concerns about potential negative impacts of the project on their property also clearly stated their confidence that we could find solutions to those challenges because they want this project built, and for more projects to follow in their area.

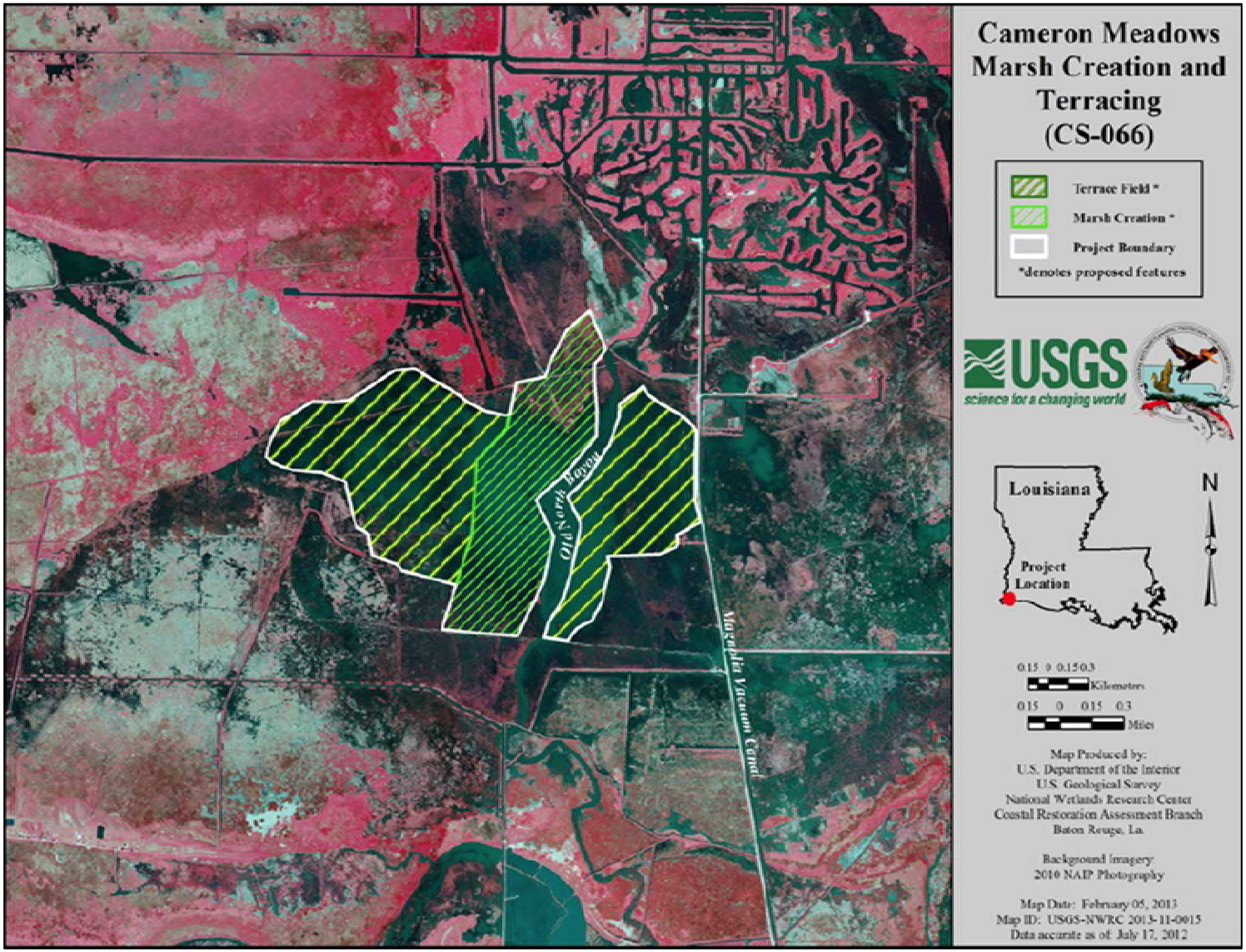


Figure 1: Phase 0 Project Layout

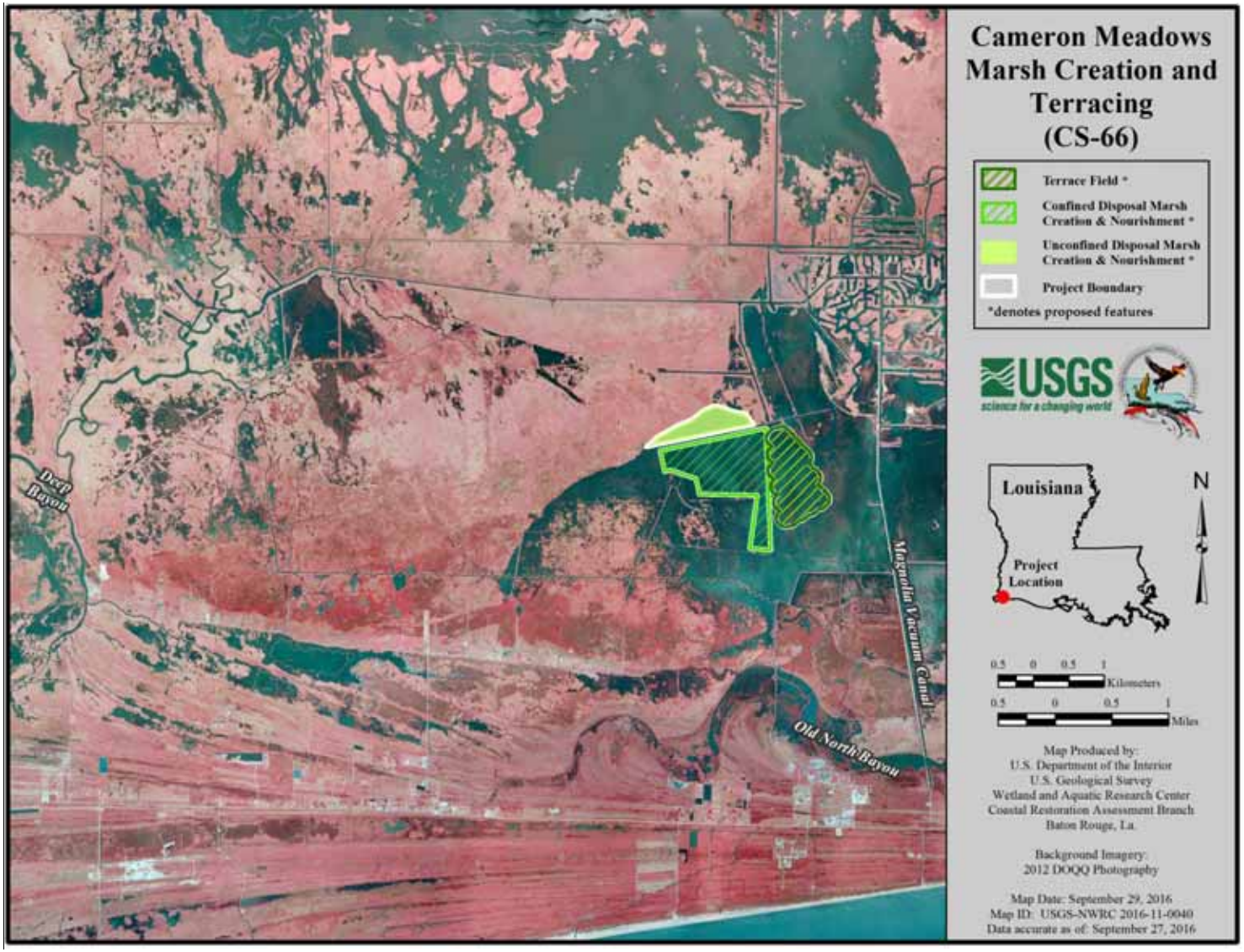


Figure 2: Phase 1, 95% Design Layout

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

PROPOSED CWPPRA PROJECT BID UNDERRUNS SOP

For Report/Decision:

The FWS recommends Technical Committee approval of a project bid underrun SOP for use in cases where the construction contract and final costs are lower than the approved construction budget and sponsoring agencies request use of the surplus construction budgets for project expansion. The SOP procedure calls for a Technical Committee vote on the expansion request and a post-construction report if the expansion request is approved.

New CWPPRA SOP Section

Project Bid Underruns

11-9-2016

6(l) PROJECT BID OVERRUNS/UNDERRUNS

6(l)(b) PROJECT BID UNDERRUNS

(1) Required Procedure:

(a) In cases where the construction contract and final costs are lower than the approved construction budget, CWPPRA sponsoring agencies may either, 1) return the unexpended construction funds to the program, or 2) with Technical Committee approval, expand the project in a cost effective manner with the unexpended construction funds.

(b) Project sponsors should send the Technical Committee a request to expand the project. That request should include; 1) the expansion project description and map, 2) expected amount of unexpended construction funds to be used, 3) estimate of additional benefits due to the proposed expanded project, and 4) an estimate of existing and project expansion cost effectiveness.

(c) The Technical Committee shall hold an e-mail vote, within 1 week of the request. If the request is not approved by majority vote, the unexpended construction funds are returned to the CWPPRA program. If the expansion request is approved, the sponsoring agencies can alert the construction contractor to begin work and the sponsoring agencies shall provide a post-construction report to the Technical Committee and Task Force concerning the expansion benefits and final costs.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

REQUEST FOR APPROVAL FOR FINAL TRANSRER ON PPL 18 – CENTRAL TERREBONNE FRESHWATER ENHANCEMENT (TE-66)

For Decision:

NRCS and CPRA are requesting approval for the final transfer of Central Terrebonne Freshwater Enhancement (TE-66) to the RESTORE Council. The TE-66 features will be designed by NRCS under the RESTORE Act project: "Bayou Dularge Ridge, Marsh and Hydrologic Restoration."

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

REQUEST FOR APPROVAL FOR FINAL DEAUTHORIZATION ON PPL 20 – TERREBONNE BAY MARSH CREATION-NOURISHMENT PROJECT (TE-83)

For Decision:

USFWS and CPRA are requesting approval of final deauthorization of the Terrebonne Bay Marsh Creation-Nourishment project (TE-83). Geotechnical investigations revealed very poor soils, which made the original design of the project very expensive and difficult to construct. The project team evaluated multiple alternatives and did not find a viable path forward for this project. In July, the CWPPRA Planning and Evaluating Subcommittee recommended that this project be deauthorized. The Technical Committee recommended that the Task Force approve the deauthorization in September 2016, and on October 18, 2016, the Task Force approved the initiation of the deauthorization process.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

26TH PRIORITY PROJECT LIST

For Report/Decision:

The Environmental Workgroup Chairman will present an overview of the ten PPL 26 candidate projects and the three PPL 26 demonstration candidate projects.

The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 26 projects for Phase I Engineering and Design.

Region	Basin	PPL 26 Candidates	Agency
1	Pontchartrain	Bayou La Loutre Ridge and Marsh Restoration	NRCS
1	Pontchartrain	St. Catherine Island Marsh Creation and Shoreline Protection	FWS
2	Barataria	Elmer's Island Backbarrier Marsh Creation	NMFS
2	Barataria	East Bayou Lafourche Marsh Creation	FWS
3	Terrebonne	Bayou Terrebonne Freshwater Diversion	NRCS
3	Terrebonne	West LA Hwy 1 Marsh Creation and Terracing	NMFS
3	Terrebonne	Bayou DeCade Ridge and Marsh Creation	NMFS
4	Mermentau	East Pecan Island Marsh Creation	EPA/USACE
4	Calcasieu-Sabine	North Mud Lake Marsh Creation and Nourishment	NMFS
Coastwide		Salvinia Weevil Propagation Facility	FWS
PPL 26 Demonstration Project Candidates			**Agency**
DEMO	Ecobale Shoreline Protection		USACE
DEMO	Enhancing Restoration Transplant Survival via Stress Acclimation		CPRA
DEMO	Shore-links		NRCS

CWPPRA

Priority Project List 26

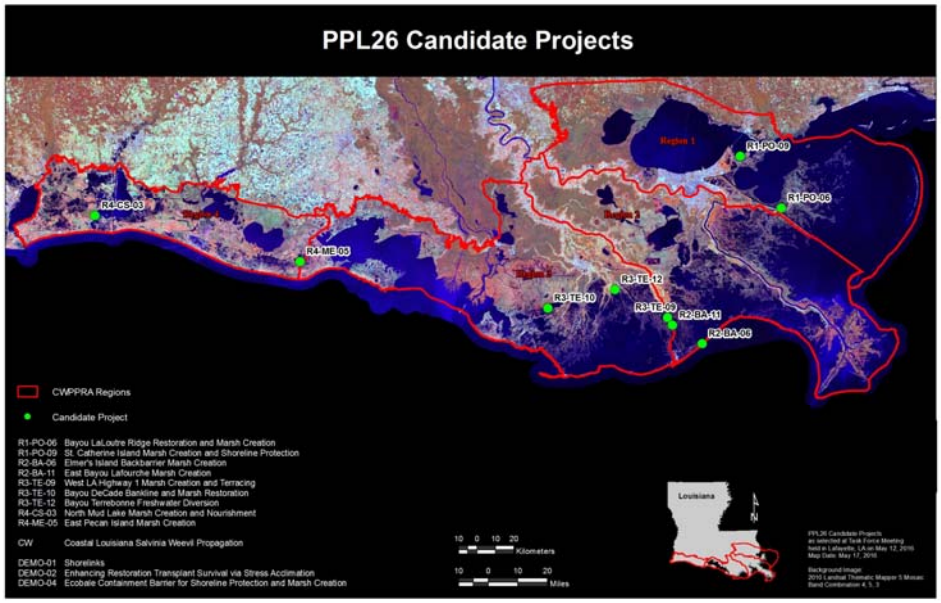
Candidate Project Evaluation Results

Technical Committee Meeting

December 7, 2016
Baton Rouge, LA

CWPPRA

Candidate Projects by Region



CWPPRA

421 ac of marsh creation

Lake Borgne borrow area

5.5 miles (20 ac) of forested ridge along the southern bank of Bayou La Loutre

187 net acres

$29,762,138

CWPPRA

219 ac of marsh creation

Lake Pontchartrain borrow site

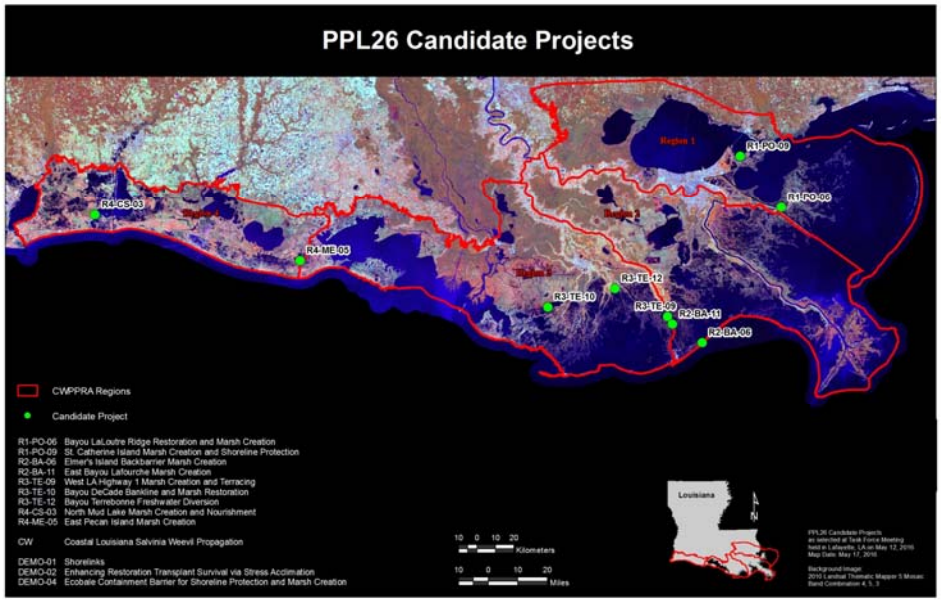
20,000 ft of shoreline protection

214 net acres

$35,996,522

CWPPRA

Candidate Projects by Region



CWPPRA

265 ac of marsh creation

Gulf of Mexico borrow site

Culverts installed at 4 locations to improve hydrology

222 net acres

$27,774,583

CWPPRA

417 ac of marsh creation

Little Lake (west of Hwy. 1) borrow site

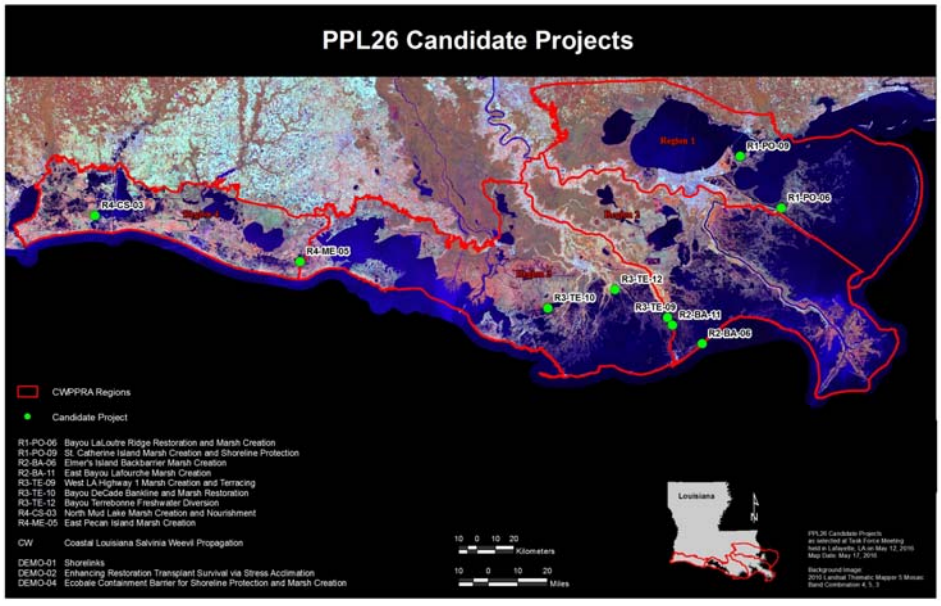
Restores marsh along Bayou Lafourche/Hwy 1 corridor

325 net acres

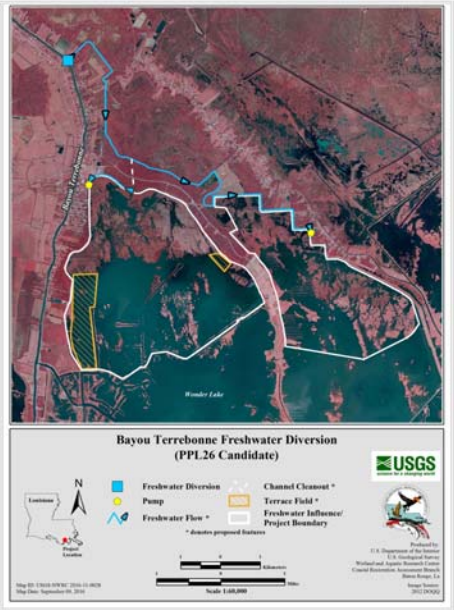
$36,784,975

CWPPRA

Candidate Projects by Region



CWPPRA



Freshwater diversion structure on Bayou Terrebonne

Utilizes existing canal network to deliver water to two pump stations

26,000 ft (16 acres) of terraces

173 net acres

$22,636,335

CWPPRA

346 ac of marsh creation

Catfish Lake borrow site

Protection for Bayou Lafourche-Hwy 1 corridor

267 net acres

$31,868,399

CWPPRA

501 ac of marsh creation

Lake De Cade borrow site

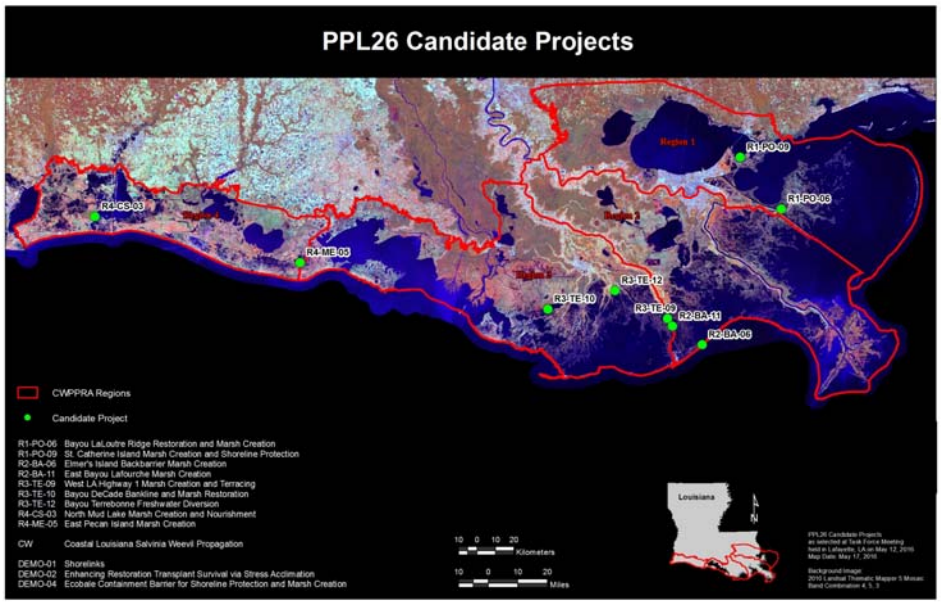
11,726 ft (12 ac) of forested ridge restoration

378 net acres

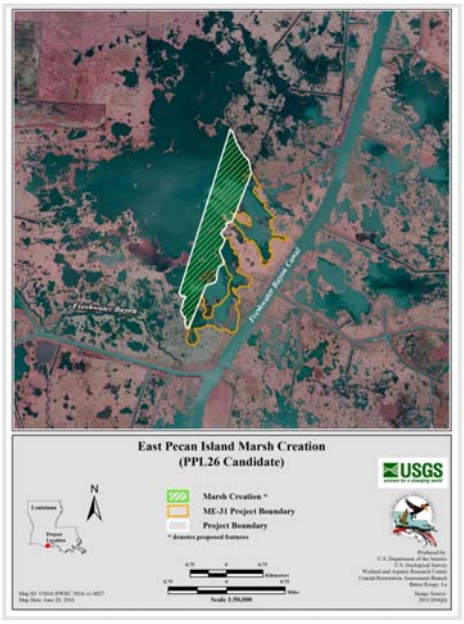
$34,403,849

CWPPRA

Candidate Projects by Region



CWPPRA



521 ac of marsh creation

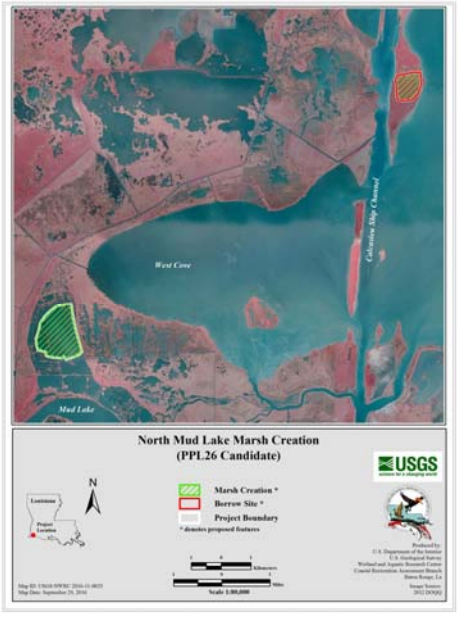
Gulf of Mexico borrow site

Complements ME-31 project

459 net acres

$54,825,078

CWPPRA



492 ac of marsh creation

Upland disposal site utilized as borrow site

Upland disposal site (168 ac) mined to a lower elevation to establish marsh

590 net acres

$59,930,304

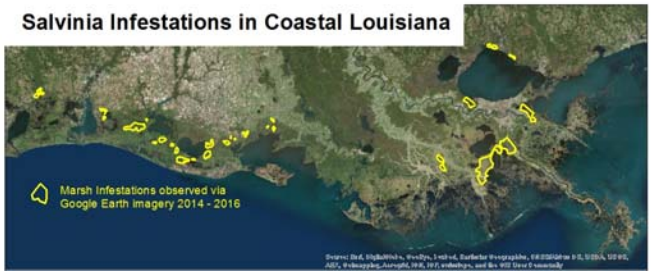
CWPPRA

Salvinia Weevil Propagation Facility

Construction, operation, and maintenance of a facility to propagate the *Salvinia* weevil

Located on LSU AgCenter property south of Lafayette

Salvinia Infestations in Coastal Louisiana



Weevils distributed to landowners across the coast

26 net acres

$3,802,748

CWPPRA

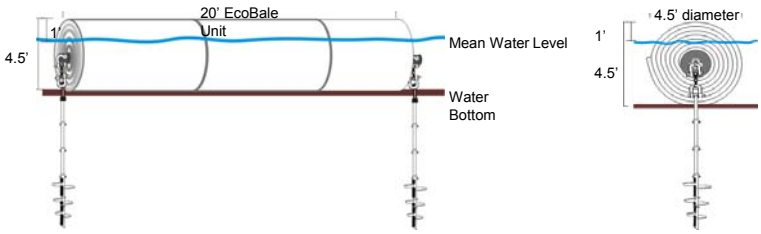
PPL26 Candidate Project Evaluation Matrix

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost incl O&M	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Bayou La Loutre Ridge Restoration and Marsh Creation	1	Pontchartrain	453	104	187	$29,762,138	$3,236,952	$26,525,186	$1,882,905	$18,105	$159,156
St. Catherine Island Marsh Creation and Shoreline Protection	1	Pontchartrain	339	91	214	$35,996,522	$2,389,308	$33,607,214	$1,974,900	$21,702	$168,208
Elmer's Island Back Barrier Marsh Creation	2	Barataria	265	121	222	$27,774,583	$2,813,856	$24,960,727	$1,759,298	$14,540	$125,111
East Bayou Lafourche Marsh Creation	2	Barataria	417	175	325	$36,784,975	$3,137,510	$33,647,465	$2,326,760	$13,296	$113,185
Bayou Terrebonne Freshwater Diversion	3	Terrebonne	6,309	55	173	$22,636,335	$2,885,986	$19,750,349	$1,290,130	$23,457	$130,846
West LA Hwy 1 Marsh Creation	3	Terrebonne	346	148	267	$31,868,399	$3,351,303	$28,517,096	$2,029,315	$13,712	$119,357
Bayou DeCade Ridge and Marsh Creation	3	Terrebonne	517	133	378	$34,403,849	$3,282,292	$31,121,557	$2,166,067	$16,286	$91,015
East Pecan Island Marsh Creation	4	Mermentau	521	177	459	$54,825,078	$4,205,285	$50,619,793	$3,552,003	$20,068	$119,445
North Mud Lake Marsh Creation and Nourishment	4	Calcasieu-Sabine	665	298	590	$59,930,304	$4,542,955	$55,387,349	$3,883,605	$13,032	$101,577
Salvinia Weevil Propagation Facility		Coastwide	33,262	597	26	$3,802,748	$158,300	$3,644,448	$169,877	$285	$146,260

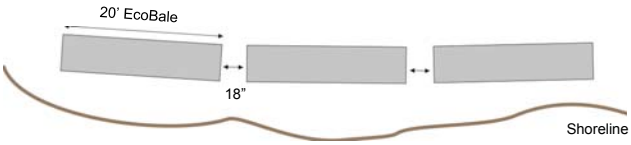
This matrix is located in the PPL 26 Candidate booklet

CWPPRA

EcoBale Shoreline Protection



- Alternative method of shoreline protection
- Plastic matrix rolled onto 4-inch diameter pipe with helical anchor system
- Tested along 2,700 ft of marsh shoreline
- $2,714,293



CWPPRA

Enhancing Restoration Transplant Survival via Stress Acclimation

- New approach to condition plants for barrier island plantings
- Pre-planting salt and drought conditioning to enhance survival
- Two phases – 1) Greenhouse conditioning and 2) Greenhouse and field transplant
- $1,044,632

Phase I
Stress Conditioning

Dune and swale plant species will be grown in a controlled greenhouse setting and exposed to each of six combinations of stress conditioning treatments (3 salinity conditioning treatments and 3 drought conditioning treatments).

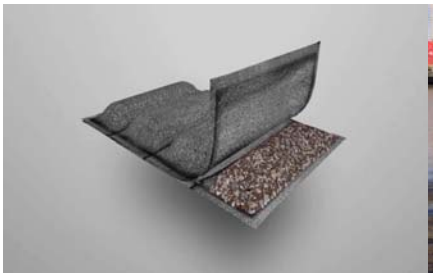
Phase II
Transplant

The plants grown under Phase I stress conditioning treatments will be concurrently transplanted to each of (4) four different transplant scenarios.

Ambient Conditions in a controlled greenhouse	**Stressful Conditions** in a controlled greenhouse	**Field Transplant Location 1**	**Field Transplant Location 2**

CWPPRA

SHORE|LINKS®



- Alternative method of armoring and vegetating shorelines
- Lightweight, clay aggregate in poly mesh fabric casing
- Tested along 1,500-ft berm and 1,500-ft marsh shoreline
- $3,404,704

CWPPRA

PPL 26 Demonstration Project Evaluation Matrix

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

Demonstration Project Name	Lead Agency	Total Fully Funded Cost	Parameter (P_n)						Total Score	Averaging of Agency Scores
			P_1 Innovativeness	P_2 Applicability or Transferability	P_3 Potential Cost Effectiveness	P_4 Potential Env Benefits	P_5 Recognized Need for Info	P_6 Potential for Technological Advancement		
Ecobale Shoreline Protection DEMO Project	USACE	$2,714,293	2	2	2	2	2	2	**12**	11.6
Enhancing Restoration Transplant Survival via Stress Acclimation DEMO Project	CPRA	$1,044,632	1	2	1	2	1	2	**9**	9.3
SHORE|LINKS® DEMO Project	NRCS	$3,404,704	2	2	3	2	2	2	**13**	12.3

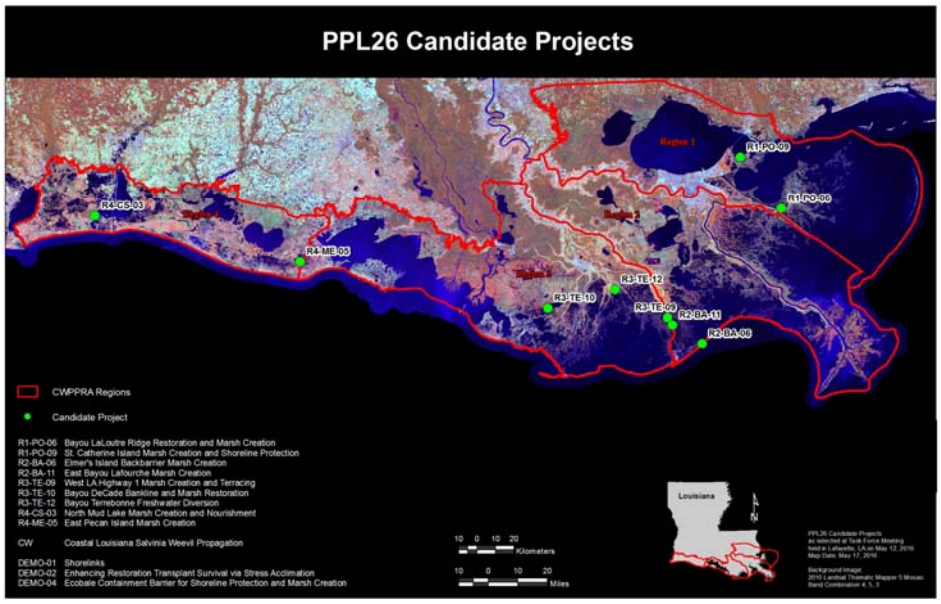
"Total Score" calculation: Individual parameter scores were determined from the score having the majority of the vote.
Example - if 4 agencies cast a vote of "3" and 3 agencies cast a vote of "2", then a score of "3" was given.

"Averaging of Agency Scores" calculation: Calculated by averaging the Total Scores from each Agency.

This matrix is located in the PPL 26 Candidate booklet

CWPPRA

Candidate Projects by Region



Priority Project List 26
Candidate Projects

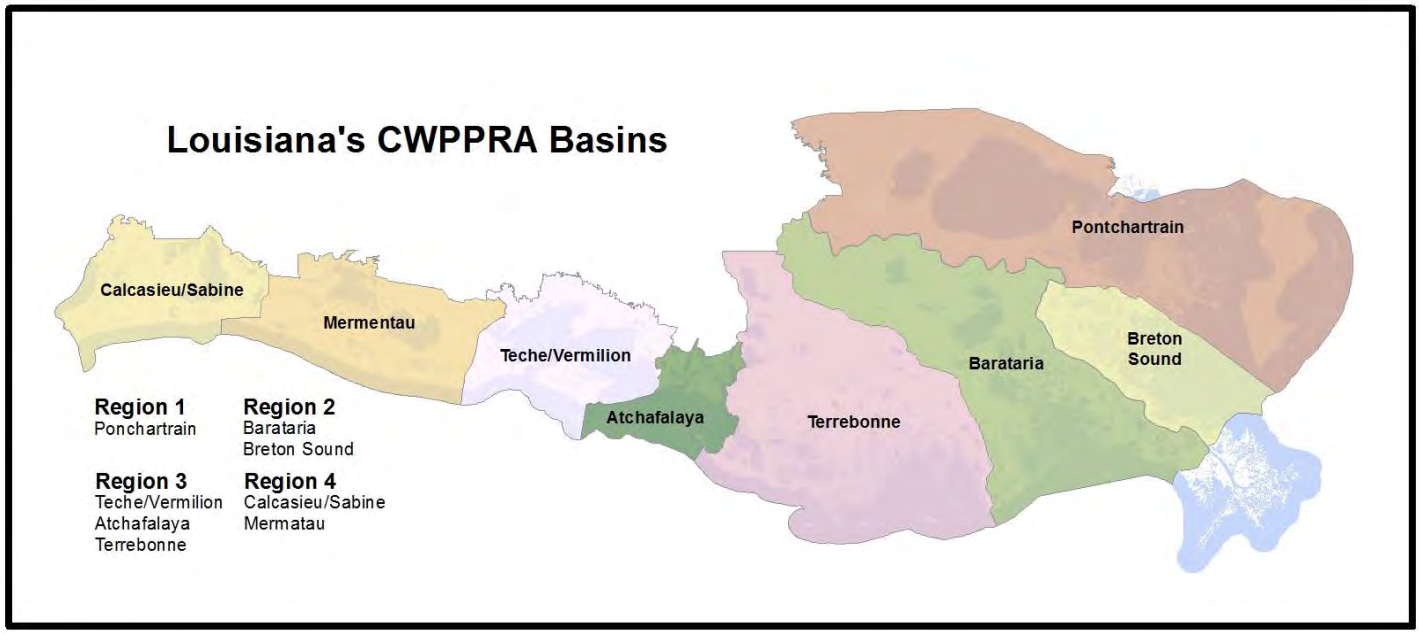
Table of Contents

Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA)

Priority Project List (PPL) Selection Process

Project Nominations

The 4 Regional Planning Teams (RPTs) will meet to propose projects to be included on the new PPL. Project nominations will be accepted in all the hydrologic basins below. *All proposals must be consistent with the 2012 State Master Plan to be considered as possible nominees; therefore, those wishing to propose projects are encouraged to work with representatives of the Louisiana Coastal Protection and Restoration Authority prior to the RPT meetings to develop projects that are consistent.* A lead agency will be assigned to each nominated project to prepare preliminary project support information (factsheet, maps, and potential designs, and benefits).



- Project nominations that provide benefits or construct features in more than one basin shall be presented in the basin receiving the majority of the project's benefits.
- Multi-basin projects can be broken into multiple projects to be considered individually in the basins which they occur.
- Project nominations that are legitimate coastwide applications will be accepted separate from the 8 basins at any of the 4 RPT meetings.
- If similar projects are proposed within the same area, the RPT representatives will determine if those projects are sufficiently different to allow each of them to move forward. If not sufficiently different, such projects will be combined into one project nominee.

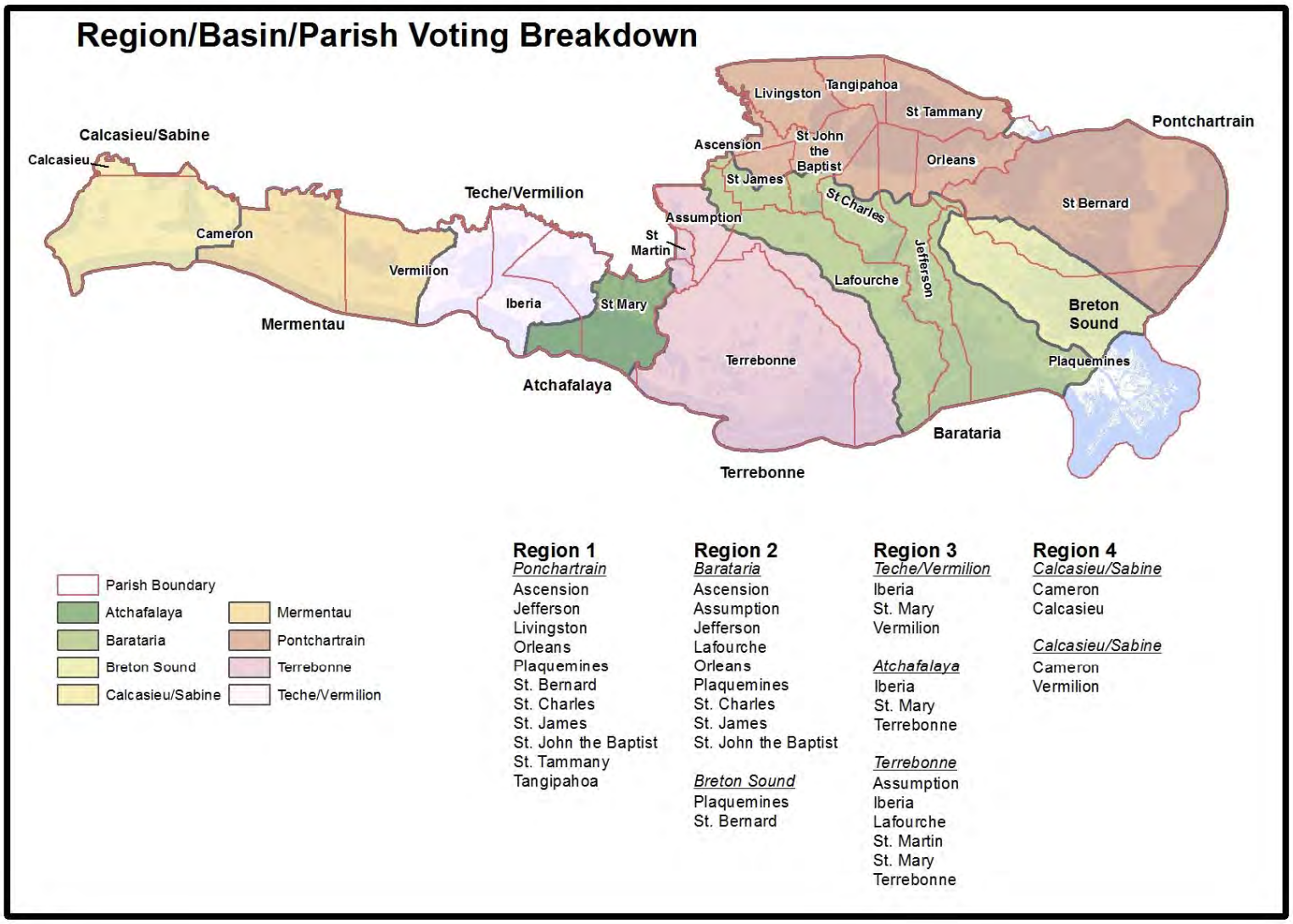
Prior to voting on project nominees, the Environmental Work Group (EnvWG) and Engineering Work Group (EngWG) will screen coastwide project and demonstration project nominations to ensure that each qualifies for its respective category as set forth in the CWPPRA Standard Operating Procedures (SOP).

Nominees	Basin
4	Barataria
4	Terrebonne
3	Breton Sound
3	Pontchartrain
2	Mermentau
2	Calcasieu/Sabine
2	Teche/Vermilion
1	Atchafalaya
1	Coastwide
22	TOTAL

Coastwide Electronic Vote

The RPTs will vote after the individual RPT meetings via email or fax to select nominee projects. The RPTs will select projects per basin based on land loss rates (see table on left) and up to 6 demonstration projects.

During the RPT meetings, all CWPPRA agencies and parishes will be required to provide the name and contact information for the official representative who will vote to select nominee projects. Each officially designated parish representative in the basin will have one vote and each federal agency and the State will have one vote.



Preliminary Assessment of Nominated Projects

Agencies, parishes, landowners, and other individuals will informally confer to further develop projects. The lead agency designated for each nominated project will prepare a brief project description that discusses possible features. Factsheets will also be prepared for demonstration project nominees.

During this preliminary assessment, the EngWG and EnvWG meet to review project features, discuss potential benefits, and estimate preliminary fully funded cost ranges for each project. The Work Groups also review the nominated demonstration projects. If it is determined that a demonstration project is unlikely to be utilized in restoration or has been evaluated previously, the Work Groups may recommend to the Technical Committee that these projects not move forward.

The P&E Subcommittee prepares a matrix of cost estimates and other pertinent information for nominees and demonstration project nominees.

Selection of Phase 0 Candidate Projects

The selection of the Phase 0 candidate projects occurs at the spring Technical Committee meeting. The Technical Committee meets to consider the project costs and potential wetland benefits of the nominees. They will select 10 candidate projects regardless of basin and may select up to 3 demonstration project candidates for detailed assessment by the EngWG, EnvWG, and Economic Work Group (EcoWG).

Phase 0 Analysis of Candidate Projects

During Phase 0 analysis, the EngWG, EnvWG and Academic Advisory Group meet to refine project features and develop boundaries for the project and extended boundaries for estimating land loss.

The sponsoring agencies coordinate site visits for each project to observe the conditions in the project area. There will be no site visits conducted for demonstration projects. The sponsoring agencies develop draft WVAs and prepare Phase 1 engineering and design cost estimates and Phase 2 construction cost estimates, using formats approved by the applicable work group. Demonstration project candidates will be evaluated as outlined in Appendix E of the SOP.

The EngWG reviews and approves Phase 1 and 2 cost estimates, the EcoWG reviews cost estimates and develops annualized (fully funded) costs, and the EnvWG reviews and approves all draft WVAs.

The Corps of Engineers staff prepares an information package for Technical Committee review and public distribution consisting of:

1) Updated project factsheets;
2) A matrix that lists projects, fully funded cost, average annual cost, WVA results in net acres and Average Annual Habitat Units (AAHUs), and cost effectiveness (average annual cost/AAHU);
3) A qualitative discussion of supporting partnerships and public support.

Selection of the PPL

The selection of the PPL will occur at the winter Technical Committee and Task Force meetings. The Technical Committee meets and considers matrix, project factsheets, and public comments, then recommends up to 4 projects and up to one demonstration project for selection to the PPL. The Task Force will review the Technical Committee recommendations and determine which projects will receive Phase 1 (design) funding for the PPL.

Once a project completes Phase I, Phase II (construction) funding must be requested from the Task Force and much of the evaluation is updated using additional information gained since original analysis.

Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA)

PPL 26 Schedule

January 26, 2016	Region IV Planning Team Meeting (Lafayette)
January 27, 2016	Region III Planning Team Meeting (Gray)
January 28, 2016	Regions I and II Planning Team Meetings (Lacombe)
February 23, 2016	Coastwide RPT Electronic Vote
February - March, 2016	Agencies prepare factsheets for RPT-nominated projects
March 2016	Engineering/Environmental Work Groups review project features, benefits, & prepare preliminary cost estimates for nominated projects (Baton Rouge)
March 2016	P&E Subcommittee prepares matrix of nominated projects showing initial cost estimates and benefits
April 5, 2016	Spring Technical Committee Meeting, select PPL 26 candidate projects (New Orleans)
May/June 2016	Candidate project site visits
May 12, 2016	Spring Task Force Meeting (Lafayette)
July/August/ September 2016	Eng/Eng/Econ Work Group project evaluations
September 14, 2016	Fall Technical Committee Meeting, O&M and Monitoring funding recommendations (Baton Rouge)
October 19, 2016	Fall Task Force Meeting, O&M and Monitoring approvals (New Orleans)
October 2016	Economic, Engineering, and Environmental analyses completed for PPL 26 candidates
December 7, 2016	Winter Technical Committee Meeting, recommend PPL 26 and Phase I and II approvals (Baton Rouge)
January 2017	Winter Task Force Meeting, select PPL 26 and approve Phase II requests (New Orleans)

DATES SUBJECT TO CHANGE

Visit www.lacoast.gov/calendar for up-to-date information regarding meetings dates, times, & locations.

Candidate Projects Located in Region 1

PPL26 Bayou La Loutre Ridge Restoration and Marsh Creation

Project Location:
Region 1, Lake Pontchartrain Basin and Breton Basin, St. Bernard Parish

Problem:
Historic and current ridge habitat loss occurs in the form of subsidence and shoreline erosion along Bayou La Loutre. The shoreline erosion is caused by increased boat traffic diverted due to the closure of the MRGO channel. Ridge habitat consists of Live Oak Hackberry Maritime forest which is utilized by trans-gulf migratory bird species as a first and last stop when crossing the Gulf of Mexico. This critical habitat is rated as S1-Most Critically Imperiled (State Natural Heritage Program) and S2 priority by the state of Louisiana. Interior marsh loss along Lena Lagoon is caused by subsidence, sediment deprivation, increased wave fetch and construction of access and navigational canals. The integrity of the Lena Lagoon shoreline has been breached, and loss of this wetland buffer will expose the La Loutre ridge to highly erosional winter storm events.

Goals:
The goal of the project is to create and approximately 31.7 acre ridge feature with material from bucket dredging Bayou La Loutre. Additionally dredged material from Lake Borgne will create 163 acres of marsh and nourish approximately 258 acres of marsh along Lena Lagoon (421 acres total).

Proposed Solution:
The proposed project will create approximately 5.46 miles (28,855 ft) of ridge along Bayou La Loutre and 24.4 acres of Live Oak/Hackberry Maritime forest habitat (Figure 1). The ridge habitat will be built centerline along the bank of the bayou. The structure will have a +4 elevation with a 5:1 slope on the bayou side and 3:1 slope on the marsh side. Additionally the newly created ridge will include herbaceous and woody plantings with smooth cord plantings along the toe. The Lena Lagoon site will create and nourish approximately 421 acres of marsh using sediment dredged from Lake Borgne. Lena Lagoon will have a semi-confined south and east flank and a fully confined north flank. Containment will be degraded as necessary to re-establish hydrologic connectivity with adjacent wetlands.

Project Benefits:
The project would result in approximately 167 net acres of marsh and approximately 20 acres of forested ridge over the 20-year project life.

Project Costs: The total fully-funded cost is $29,762,138.

Preparer of Fact Sheet
Ron Boustany, NRCS, (337) 291-3067, ron.boustany@la.usda.gov
Cody Colvin, NRCS-Engineer, (225) 665-4253, cody.colvin@la.usda.gov
Blaise Pezold, LDAF-CRVP, 985-447-3871 ext. 3, Blaise.Pezold@la.nacdnet.net

Bayou La Loutre Ridge Restoration and Marsh Creation (PPL26 Candidate)

Ridge Restoration *

Marsh Creation *

Project Boundary

* denotes proposed features

1 0 1 Kilometers

1 0 1 Miles

Scale 1:60,000

USGS science for a changing world

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2016-11-0030
Map Date: June 30, 2016

PPL26 St. Catherine Island Marsh Creation and Shoreline Protection

Project Location:
Region 1, Pontchartrain Basin, St. Tammany Parish

Problem:
The eastern shoreline of Lake Pontchartrain experienced extensive loss of interior emergent wetlands and severe damage to the lake shorelines from Hurricane Katrina passing directly over the area in 2005. The continued loss of the weakened project area shorelines has increased the vulnerability of the New Orleans Landbridge and U.S. Highway 90. Based on the hyper-temporal analysis conducted by USGS for the extended project boundary, interior loss rates in the project area are estimated to be -0.26% per year for the period 1984 to 2016.

Goals:
The primary goals of this project are to protect a portion of the Lake Pontchartrain shoreline and restore/protect interior marsh habitat with the placement of dredged material (hydraulic dredge).

The specific goals of the project are; 1) halt shoreline erosion by protecting approximately 13,000 ft. of Lake Pontchartrain shoreline with shoreline revetment and construct approximately 7,000 ft. of foreshore dike and 2) create approximately 93 acres of marsh and nourish an additional 126 acres of marsh with material dredged from Lake Pontchartrain.

Proposed Solution:
Sediments from a Lake Pontchartrain borrow site will be hydraulically dredged and pumped via pipeline to create/nourish approximately 219 acres of marsh. The proposed design is to place the dredged material to a fill height of +0.85 ft. NAVD88 based on CRMS station 002. Dewatering and compaction of dredged sediments should produce marsh elevations conducive to the establishment of emergent marsh and within the intertidal range. Containment dikes will be constructed as necessary. Perimeter containment dikes exposed to high wave energy (Lake Pontchartrain) will be overlain with articulated concreate mats (ACM) and planted.

Approximately 13,000 ft. of Lake Pontchartrain shoreline would be protected with the construction of shoreline revetment. In areas that do not contain existing marsh, approximately 7,000 ft. of rock foreshore dike would be constructed. Along the open water areas adjacent to the marsh creation cells, approximately 4,000 feet of containment dike will be constructed and armored with ACM.

Project Benefits:
The project would result in approximately 214 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $35,996,522.

Preparer of Fact Sheet:
Robert Dubois, FWS, Robert_Dubois@fws.gov, 337-291-3127

St. Catherine Island Marsh Creation and Shoreline Protection (PPL26 Candidate)

Shoreline Protection *
Marsh Creation *
Marsh Nourishment *
Borrow Site *
Project Boundary
* denotes proposed features

0.5 0 0.5 Kilometers
0.5 0 0.5 Miles
Scale 1:35,000

USGS science for a changing world

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2016-11-0034
Map Date: August 29, 2016

Candidate Projects Located in Region 2

PPL26 Elmer's Island Back Barrier Marsh Creation

Project Location:
Region 2, Barataria Basin, Jefferson Parish

Problem:
As part of an erosional headland, Elmer's Island is dominated by marine processes including over wash. The island narrowed and decreased in elevation escalating the rate of over wash and breaching near the confluence with the headland as well as along Caminada Pass. The spit along the pass is breached. Resiliency to over wash and breaching is related to both island height and width. Construction of beach and dune under Caminada Beach and Dune Restoration Increment 2 Project (BA-143) is addressing sand and dune height needs. Residual vulnerability from breaching may remain due to island width. The 1985 to 2009 USGS loss rate for the Port Fourchon mapping unit is -0.92% per year. The loss rate in the project area is estimated to be -0.79%/yr based on USGS hyper temporal data from 1984 to 2016.

Goals:
The project goal is to create/nourish approximately 265 acres (ac) of back-barrier marsh and maintain or improve hydrology by connecting the lagoon to the Bayou Thunder Von Tranc and Moreau watershed west of Elmer's Road.

Proposed Solution:
Marsh creation via dedicated dredging of sediment is the primary technique along with culvert placement to restore hydrologic connectivity to marsh located west of the project area. Sediment would be mined from an offshore borrow site and placed in the project area to create approximately 228 acres and nourish approximately 37 acres of saline marsh. The borrow site would be located to avoid inducing wave refraction/diffraction impacts on the shoreline. Material would be placed to achieve a settled target elevation of +0.87 feet NAVD 88, GEOID 12A based on CRMS station 0167. The marsh creation would be confined disposal with the dike along the lagoon gapped no later than three years after construction at a rate of 25 ft wide every 250 ft. Half of the created elevations (228 acres) would be planted with smooth cordgrass plugs. Two 36 inch culverts would be installed in four locations under Elmer's Road (total of eight culverts) to improve connection of marsh with the lagoon and vice versa.

Project Benefits:
The project would result in approximately 222 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $27,774,583.

Preparer(s) of Fact Sheet:
Twyla Cheatwood, NOAA's National Marine Fisheries Service, (225) 389-0508, ext 209; Twyla.Cheatwood@noaa.gov.
Brandon Howard, NOAA's National Marine Fisheries Service, (225) 389-0508, ext. 207; Brandon.Howard@noaa.gov

Elmer's Island Back Barrier Marsh Creation (PPL26 Candidate)

Culverts *

Marsh Creation *

Project Boundary

* denotes proposed features

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

Scale 1:40,000

USGS science for a changing world

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2016-11-0036
Map Date: August 01, 2016

PPL26 East Bayou Lafourche Marsh Creation

Project Location:
Region 2, Barataria Basin, Lafourche Parish

Problem:
The Leeville area has experienced extensive loss of emergent wetlands from subsidence, storms, oil/gas canal dredging, and altered hydrology. Wetland loss has increased the vulnerability of Leeville and Louisiana Highway 1 to damage from tropical storms. Based on the hyper-temporal analysis conducted by USGS for the extended project boundary, loss rates in the project area are estimated to be -1.42% per year for the period 1984 to 2016.

Goals:
The primary goal of this project is to restore marsh habitat in open water and in deteriorated marsh via hydraulic dredging and placement of dredged material.

The specific goal of the project is create approximately 417 acres (368 acres of marsh creation and 49 acres of marsh nourishment) of marsh with dredged material.

Proposed Solution:
Sediments from a Little Lake borrow site will be hydraulically dredged and pumped via pipeline to create/nourish approximately 417 acres of marsh. Dewatering and compaction of dredged sediments should produce elevations conducive to the establishment of emergent marsh and within the intertidal range. Perimeter containment dikes will be constructed. Containment dikes exposed to open water will be planted with appropriate vegetation. Containment dikes will be gapped at the end of construction or by target year 3.

Project Benefits:
The project would result in approximately 325 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $36,784,975.

Preparer of Fact Sheet:
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East Bayou Lafourche Marsh Creation (PPL26 Candidate)

Marsh Creation *

Project Boundary

* denotes proposed features

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

Scale 1:35,000

USGS science for a changing world

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2016-11-0026
Map Date: June 20, 2016

Candidate Projects Located in Region 3

PPL26 Bayou Terrebonne Freshwater Diversion

Project Location:
Region 3, Terrebonne Basin, Terrebonne Parish along Bayou Terrebonne between the towns of Montegut and Pointe aux Chenes in Terrebonne Parish. The primary project area is located within the Louisiana Department of Wildlife and Fisheries Pointe aux Chenes WMA.

Problem:
The Central and Eastern Terrebonne marshes are greatly deprived of freshwater, nutrients and sediments from riverine sources. Consequently, subsidence and saltwater intrusion have resulted in high rates of land loss. More recently, efforts have been underway to try to optimize freshwater flows to some of these areas where possible; however, the sources of freshwater are greatly limited. The Gulf Intracoastal Waterway (GIWW) has been recognized as a lateral source of freshwater from the Atchafalaya River extending from west to east across the entire Terrebonne Basin. This resource provides the potential to reroute freshwater through the bayous to the Central and East Terrebonne marshes.

Goals:
The project goals are 1) convey freshwater, nutrients and sediments from the Atchafalaya River east via the GIWW and Bayou Terrebonne into the Central and Eastern Terrebonne marshes and 2) create marsh habitat through construction of marsh terracing.

Proposed Solution:
Freshwater Diversion: The project will construct a freshwater diversion to move freshwater, nutrients and sediments originating largely from the Atchafalaya River via the GIWW and Bayou Terrebonne into the Montegut Unit and Pointe aux Chenes marshes in Central and Eastern Terrebonne Parish. The project will include rerouting water from Bayou Terrebonne through an existing canal system where a series of forced drainage pumps will be used to move freshwater into two adjacent marsh complexes. Two additional project-specific pumps will be installed at existing pump facilities to divert freshwater when forced drainage systems are not in service.

Terraces: Approximately 26,000 linear feet of terraces will be constructed in the Montegut Unit to create approximately 16 acres of marsh.

Project Benefits:
The project would result in approximately 173 net acres of marsh over the 20-year project life.

Project Costs:
The total fully-funded cost is $22,636,335.

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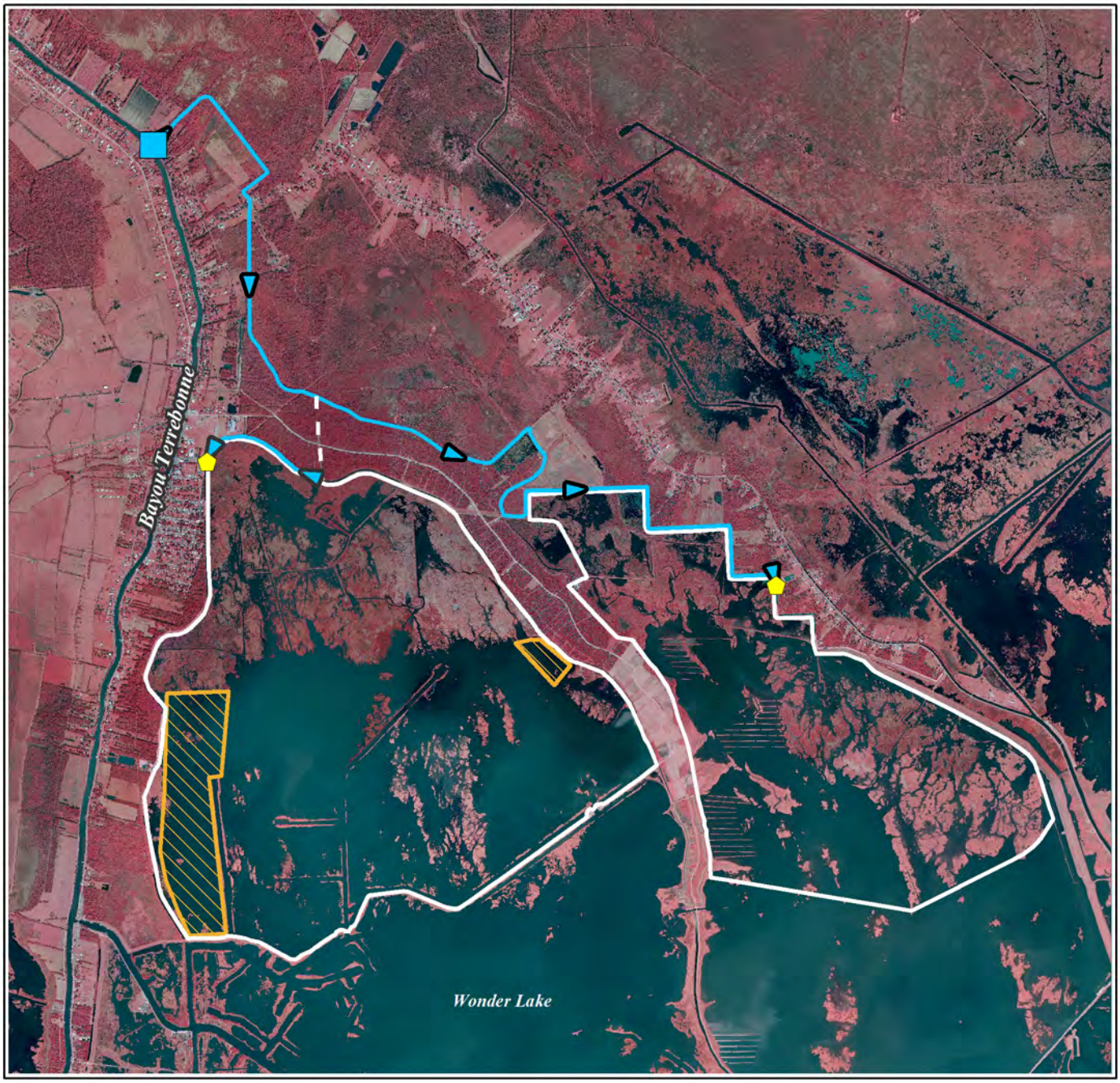

Bayou Terrebonne Freshwater Diversion (PPL26 Candidate)

Freshwater Diversion
Pump
Freshwater Flow *
Channel Cleanout *
Terrace Field *
Freshwater Influence/ Project Boundary

* denotes proposed features

1 0 1 Kilometers
1 0 1 Miles

Scale 1:60,000

USGS science for a changing world

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2016-11-0028
Map Date: September 09, 2016

PPL26 West Louisiana Highway 1 Marsh Creation

Project Location:
Region 3, Terrebonne Basin, Lafourche Parish

Problem:
The Terrebonne Basin is an abandoned delta complex, characterized by a thick section of unconsolidated sediments that are undergoing dewatering and compaction contributing to high subsidence, and a network of old distributary ridges extending southward from Houma. Historically, subsidence and numerous oil and gas canals and pipelines in the area have contributed significantly to wetland losses. Since 1932, the Terrebonne Basin has lost approximately 20% of its wetlands. Current loss rates range from approximately 4,500 to 6,500 acres/year. This loss amounts to up to 130,000 acres during the next 20 years. One-third of the Terrebonne Basin's remaining wetlands would be lost to open water by the year 2040. The wetland loss rate for the project area is -1.05%/year based on USGS hyper temporal data from 1984 to 2016.

Goals:
The project goal is to create and/or nourish up to 346 acres of saline marsh.

Proposed Solution:
Sediment will be hydraulically pumped from a borrow source in Catfish Lake to create and/or nourish approximately 346 acres of emergent marsh (292 acres of marsh creation and 54 acres of marsh nourishment). Material would be placed to achieve a settled target elevation of +0.64 ft NAVD88 Geoid 12A. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. The containment dikes will be degraded and/or gapped no later than three years post construction. The project will include planting smooth cordgrass plugs installed in strategic locations based on 10% of the acreage. A robust engineering and design cost is included for full flexibility during Phase 1 to investigate additive or alternate marsh creation features to the west and possibly north of the proposed project.

Project Benefits:
The project would result in approximately 267 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $31,868,399.

Preparer(s) of Fact Sheet:
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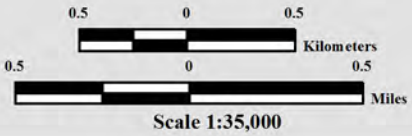
West Louisiana Highway 1 Marsh Creation (PPL26 Candidate)

Marsh Creation *

Project Boundary

* denotes proposed features



Scale 1:35,000

USGS science for a changing world

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2016-11-0032
Map Date: July 01, 2016

PPL26 Bayou DeCade Ridge and Marsh Creation

Project Location:
Region 3, Terrebonne Basin, Terrebonne Parish, Lake Mechant Mapping Unit

Problem:
The Terrebonne Basin is an abandoned delta complex, characterized by a thick section of unconsolidated sediments that are undergoing dewatering and compaction, contributing to high subsidence, and a network of old distributary ridges extending southward from Houma. Historically, subsidence and numerous oil and gas canals and pipelines in the area have contributed to wetland loss. Since 1932, the Terrebonne Basin has lost approximately 20% of its wetlands. Current loss rates range from approximately 4,500 to 6,500 acres/year. This loss amounts to up to 130,000 acres during the next 20 years. One-third of the Terrebonne Basin's remaining wetlands would be lost to open water by the year 2040. The wetland loss rate for the project area is -0.79%/year based on USGS data from 1984 to 2016.

Goals:
The project goals are to construct 11,726 linear feet of ridge along the northern bank of Bayou DeCade and create and/or nourish approximately 501 acres of intermediate marsh along the northern bank of Bayou DeCade.

Proposed Solution:
The proposed project's primary feature is to restore 11,726 feet of Bayou DeCade northern ridge, create approximately 398 acres, and nourish approximately 107 acres of intermediate marsh adjacent to Lake DeCade. The ridge will be constructed to a crown elevation of +5.0 feet NAVD88, 15 feet wide, and will be planted on the crown and slopes. The ridge will be constructed by bucket dredging material from inside the marsh creation area and/or within Bayou DeCade. Sediment for marsh creation will be hydraulically pumped from a borrow source in Lake DeCade. The borrow area in Lake DeCade will be located and designed in a manner to avoid and minimize environmental impacts to the maximum extent practicable. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. Containment dikes will be gapped within three years post construction.

Project Benefits:
The project is would result in approximately 378 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $34,403,849.

Preparer(s) of Fact Sheet:
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Bayou De Cade Ridge and Marsh Creation (PPL26 Candidate)

Bankline Restoration *

Marsh Creation *

Project Boundary

* denotes proposed features

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

Scale 1:35,000

USGS science for a changing world

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2016-11-0031
Map Date: September 20, 2016

Candidate Projects Located in Region 4

PPL26 East Pecan Island Marsh Creation

Project Location:
Region 4, Mermentau Basin, Vermilion Parish, and west of the Freshwater Bayou Navigation Channel

Problem:
The marshes to the west of the Freshwater Bayou Navigation Channel have experienced severe land loss and habitat conversion. What was once a productive freshwater marsh has been converted to open water due to the negative effects of exchange from the Freshwater Bayou Navigation Canal on soils followed by major hurricane impacts. Based on USGS hyper temporal data analysis (1984 to 2014), land loss for the area is -0.85% per year. The subsidence rate is estimated at 3.8 mm per year according to the 2012 Louisiana State Master Plan Appendix C.

Goals:
The primary goal of this project is to create marsh through dedicated dredging and vegetative plantings on the western side of the Freshwater Bayou Navigation Channel. This project will also help to reduce the potential for exchange between the target marshes and the Freshwater Bayou Navigation Channel by working synergistically with the ME-31 Freshwater Bayou Marsh Creation Project.

Proposed Solution:
This project will create and/or nourish 521 acres of marsh using approximately 3.5 million cubic yards of dredged fill material from an offshore borrow site within state waters. Once material is in place and adequately dewatered, containment dikes will be adequately gapped to allow tidal exchange of nutrients and aquatic organisms with the marsh. Additionally the project site would be planted at a 50% density at project year one in order to reestablish the plant productivity within the marsh. Material would be placed to achieve a settled target elevation of +1.1 feet NAVD88 based on CRMS station 0580. Temporary dikes, where necessary, would be constructed to contain the fill. If the dikes do not naturally degrade to marsh elevation within three years, they would be gapped.

Project Benefits:
The project would result in approximately 459 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $54,825,078.

Preparer(s) of Fact Sheet:
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East Pecan Island Marsh Creation
(PPL26 Candidate)

Marsh Creation *

ME-31 Project Boundary

Project Boundary

* denotes proposed features

0.75 0 0.75 Kilometers

0.75 0 0.75 Miles

Scale 1:50,000

USGS science for a changing world

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2016-11-0027
Map Date: June 20, 2016

PPL26 North Mud Lake Marsh Creation and Nourishment

Project Location:
Region 4, Calcasieu-Sabine Basin, Cameron Parish

Problem:
Altered hydrology, saltwater intrusion, conversion of marsh to open water, and other anthropogenic changes have caused the area to undergo interior marsh breakup. Impacts from Hurricane Rita in 2005 and Hurricane Ike in 2008 increased wetland loss north of Mud Lake. Based on USGS data from the extended boundary during 1984 to 2016, the Mud Lake project area loss rate was −0.76% per year. The subsidence rate is estimated at 3.8 mm per year according to the 2012 Louisiana State Master Plan Appendix C.

Goals:
The primary goals of the project are to create and nourish approximately 492 acres of brackish marsh and convert 168 acres of an upland disposal area to saline marsh. One quarter of the created acres in the CDF marsh creation area will be planted with vegetation.

Proposed Solution:
Sediment would be mined from an upland former confined disposal facility (CDF) along the Calcasieu Ship Channel to create 466 acres and nourish 26 acres of brackish marsh; an additional 168 acres of saline marsh would be created in the upland disposal area. Material would be placed to achieve a settled target elevation of +1.5 feet NAVD88 (GEOID12A) based on CRMS station 0685. Containment dikes would be constructed around the marsh creation area to keep material on-site during pumping. To facilitate estuarine fisheries access, containment dikes will be degraded and/or gapped no later than three years post-construction if the dikes do not naturally degrade, and approximately 10,000 linear feet (5.3 acres) of tidal creeks will be constructed. A portion of the former CDF will be mined to approximately +1.5 feet NAVD88 (GEOID12A), reestablishing approximately 168 acres as emergent saline marsh from its current state (upland disposal). The CDF containment dike at the borrow area marsh creation area would be gapped on the Calcasieu Lake side to improve hydrologic access to the created marsh. A quarter of the CDF marsh creation area will be planted using bare root plugs.

Project Benefits:
The project would result in approximately 590 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $59,930,304.

Preparer(s) of Fact Sheet:
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North Mud Lake Marsh Creation
(PPL26 Candidate)

Marsh Creation *

Borrow Site *

Project Boundary

* denotes proposed features

1 0 1 Kilometers

1 0 1 Miles

Scale 1:80,000

USGS science for a changing world

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2016-11-0033
Map Date: September 29, 2016

Coastwide Candidate Project

PPL26 *Salvinia* Weevil Propagation Facility

Project Location:
Coastwide project in fresh and low salinity marshes

Problem:
The invasive plant, giant *Salvinia*, was first observed in Chenier Plain marshes in 2009. Since then it has spread throughout most the Louisiana Chenier Plain marshes. This plant can stack up above the water surface to as much as 6 to 12 inches. Under such conditions, oxygen exchange is greatly reduced, and decay of shaded *Salvinia* can easily cause anoxic conditions in affected areas. As a result, habitat quality of badly infested areas is severely degraded, and may affect many species typical of fresh and intermediate marshes, including many species of management concern (alligator snapping turtle, mottled duck [including critical brood rearing habitat], wintering migratory waterfowl, black rail, king rail, little blue heron, whooping crane, and peregrine falcon). Because of anoxic conditions, estuarine-dependent fish and shellfish that would normally use these marshes may be precluded from using them.

Goals:
Operate a weevil propagation facility in Jeanerette, like that previously operated by LSU in Houma, to make weevils available free of charge to landowners in coastal Louisiana.

Proposed Solution:
The project would fund the LSU Ag. Center to operate a pond in Jeanerette to produce weevil-infested *Salvinia*. Costs associated with this project consist primarily of supplies and one part-time position to operate the pond, coordinate public weevil harvests, keep records of release locations, monitor *Salvinia* problem areas, assist landowners conduct weevil releases, relay infested *Salvinia* to new locations, and conduct public outreach to promote the program.

Project Benefits:
Although *Salvinia* mats deposited on the marsh surface may smother and kill marsh vegetation, its primary impact is to severely degrade the fish and wildlife habitat functions provided by marsh ponds and waterbodies. The proposed project would help to prevent marsh smothering impacts and restore habitat and fisheries nursery functions lost as a result of *Salvinia* infestations. The project is projected to result in 26 net acres over the 20-year project life.

Project Costs:
The total fully funded cost is $3,802,748.

Preparer of Fact Sheet:
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Candidate Demonstration Projects

PPL26 EcoBale Shoreline Protection Demonstration Project

Potential Demonstration Project Location:
Coastwide: Eroding Shorelines

Problem:
Louisiana is experiencing rapid land loss along the shorelines of lakes, bays, and channels. Historically, heavy materials such a rock and rip rap have been used to protect shorelines from erosion. Yet, in many shoreline areas, underlying soils are poor and not able to support the weight of rock and rip rap. The demonstration project would introduce an innovative solution for protecting shores from erosive wave energy and help prevent nearby broken marsh areas from converting to larger open water areas, maintaining and enhancing marsh habitat & function.

Goals:
The goal of an EcoBale demonstration project would be to demonstrate its application and versatility for protecting shorelines by reducing wave energy and aid in restoring marshes and shorelines by re-establishing or creating new growth of vegetation in areas protected from erosion. The EcoBale would serve as an alternative to rock, rip rap & concrete shoreline protection applications.

Proposed Solution:
One EcoBale unit consists of 20 ft of plastic matrix rolls positioned onto a 4" diameter x 21' marine coated schedule 40 pipe (FIGURE 1). A pad eye welded onto each end serves as the anchor point. Each EcoBale is anchored in place using a helical anchor system. Standard roll diameter is four and a half feet however the diameter can be customized to project site water depths (FIGURE 2). The pre-installed weight of one EcoBale unit is 40 pounds per foot or 800 pounds. A vegetated matrix strip will be attached to the surface of each EcoBale. The plugs are planted in 2 rows with 4 plants/ft. There will be 2520' of pre-planted strip for 2700' of EcoBales (20' of strip per EcoBale). 10,080 total plugs are planted in 2520' of pre-planted strips. The demonstration would include 3-900' sections of EcoBale (42 units in each 900' section). Each 20' EcoBale unit would be separated by an 18" gap. Water depths would range from 2 to 4 feet. The total project would be 2700 linear feet. Project effectiveness would be monitored and evaluated. See conceptual treatment in Figure 3.

Project Benefits:
Project benefits include a non-rock alternative to shoreline protection in locations where underlying soils will not support traditional rock or other hard structures.

Project Costs:
The total fully-funded cost is $2,714,293.

Preparer of Fact Sheet:
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Susan M. Hennington, (504) 862-2504, susan.m.hennington@usace.army.mil

FIGURE 1: Front View

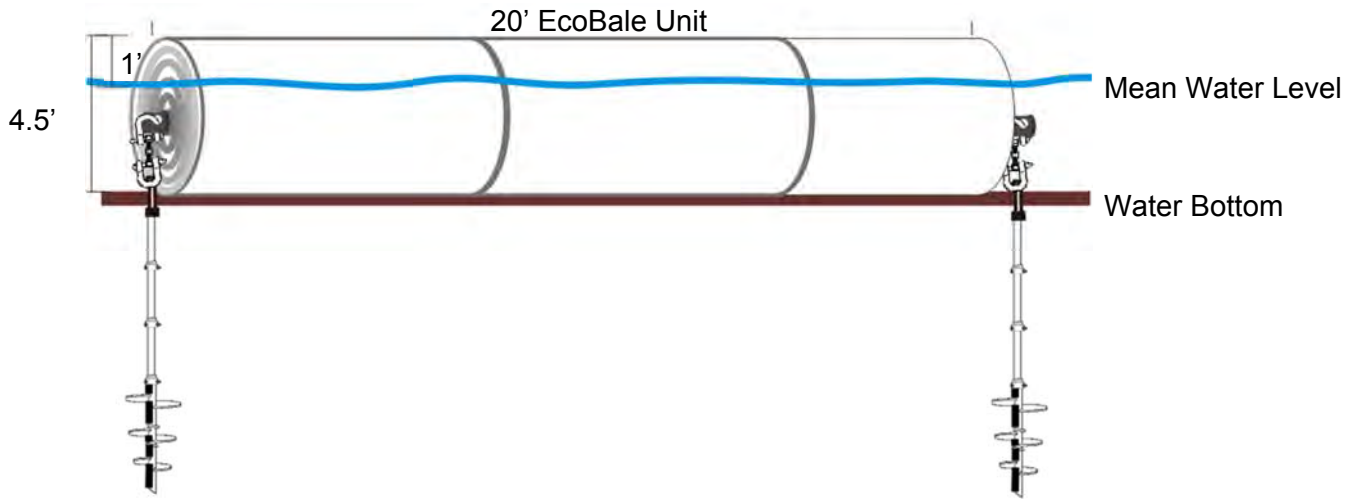


FIGURE 2: Side View

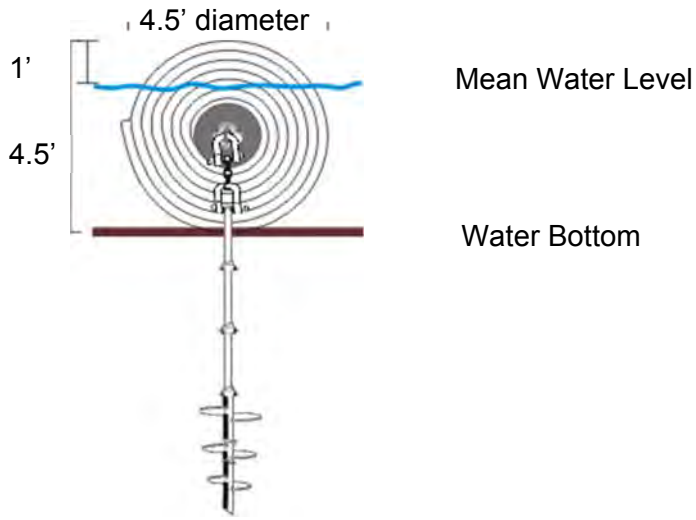
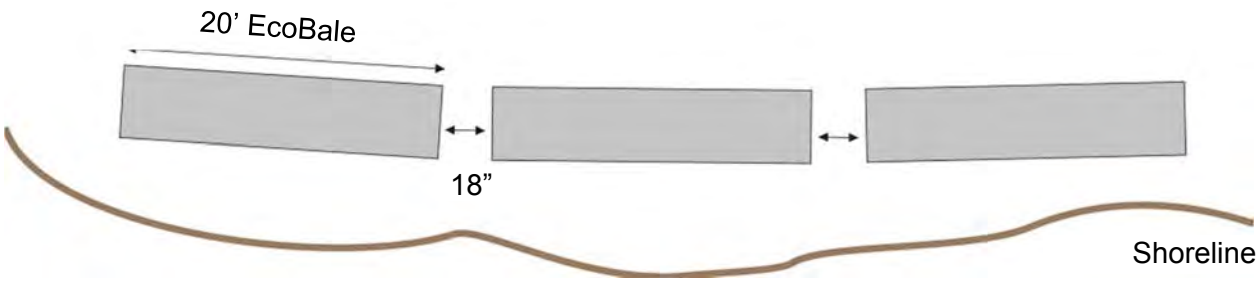


FIGURE 3: Placement near shoreline (900’ = 42 EcoBale Units)



PPL26 Enhancing Restoration Transplant Survival via Stress Acclimation Demonstration Project

Potential Demonstration Project Location:
Coastwide

Problem:
Barrier island restoration projects represent a $1B investment to provide important habitat for migrating bird species and storm protection for coastal Louisiana. The success of these projects depends of the successful installation and survival of vegetation to secure freshly established dredge spoil sediment. This demonstration project would explore the use of drought and salt conditioning in dune and swale species to improve transplant success and survival.

Goals:
Incorporate a barrier island planting effort with an experimental approach to determine the effect of using pre-transplantation salt and drought conditioning techniques to enhance survival of five barrier island dune and swale species.

Proposed Solution:
Scientifically test the practice of salt conditioning and progressive drought conditioning as a means to enhance barrier island transplant survival through stress acclimation in five plant species commonly used for barrier island restoration plantings. Salinity treatments would characterize various durations of pre-transplant salinity exposure, including gradual increments of salinity. Drought conditioning would consist of three watering regimes representing ambient conditions and two degrees of drought. Following the stress conditioning period, plants will be relocated to each of four transplant scenarios. Scientific monitoring of plant survival, morphology, and physiology will be done to assess and compare experimental units. Findings from these studies are expected inform restoration practices and enhance restoration planting success in future efforts.

Project Benefits:
1. Enhanced knowledge of stress physiology of common restoration species
2. Development of new plant nursery methods or justification of current methods
3. Enhance transplant survival success in future restoration efforts

Project Costs:
The total fully-funded cost is $1,044,632.

Preparer(s) of Fact Sheet:
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PPL26 SHORE|LINKS® Demonstration Project

Potential Demonstration Project Location:
Coastwide

Problem:
Many Louisiana coastal restoration projects are faced with the combined challenges of foundation issues and shallow, environmentally sensitive access routes. Often, shorelines and similar man-made features are subject to erosion from waves and currents. Combating erosion with heavy materials (e.g. rock) often requires access dredging. Depending on the project scale, the equipment and dredging requirements may make projects impracticable. Additionally, poor foundations may not support heavier stabilization materials.

Goals:
The specific goal of this proposal is to equip the CWPPRA program with the SHORE|LINKS® system, a scalable tool for economically and effectively mitigating the effects of scour and erosion. SHORE|LINKS® will allow the CWPPRA program to efficiently create vegetated earthen-core berms resistant to erosion.

Proposed Solution:
Patented by the LSU AgCenter with exclusive license rights to Delta Land Services, SHORE|LINKS® consists of lightweight, clay aggregate in a poly mesh fabric casing. The mesh contains multiple, aggregate-filled lobes, which minimizes the weight of the units while maximizing unit height. These features allow for interlocking of the units and the entrapment of sediments. The SHORE|LINKS® system offers Articulating Revetments (10' x 10' x 3") and Tiling Mats (26" x 17" x 3") for armoring and vegetating shorelines and embankments and a Breakwater Log (10" height x 6' long) to aid in dissipation of wave energy at earthen berms, terraces or containment dikes. More information can be found at www.shore-links.com.

Project Benefits:
Project benefits include:

1) A non-rock alternative for armoring earthen berms, terraces or containment dikes in locations where wave energy makes these features vulnerable to excessive erosion.
2) Combines armored protection with living shoreline by allowing for easy planting and establishment of vegetation.
3) Offers at least three configurations of the material (articulation revetments, tiling mats and breakwater logs) for flexible design to suite location.

Project Costs:
The fully-funded cost is $3,404,704.

Preparer of Fact Sheet:
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SHORE|LINKS®

1 Year Later

Laying out SHORE|LINKS® on newly constructed berm and planting smooth cord-grass and seashore paspalum

PPL26 Candidate Project Evaluation Matrix

11/3/2016

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost incl O&M	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Bayou La Loutre Ridge Restoration and Marsh Creation	1	Pontchartrain	453	104	187	$29,762,138	$3,236,952	$26,525,186	$1,882,905	$18,105	$159,156
St. Catherine Island Marsh Creation and Shoreline Protection	1	Pontchartrain	339	91	214	$35,996,522	$2,389,308	$33,607,214	$1,974,900	$21,702	$168,208
Elmer's Island Back Barrier Marsh Creation	2	Barataria	265	121	222	$27,774,583	$2,813,856	$24,960,727	$1,759,298	$14,540	$125,111
East Bayou Lafourche Marsh Creation	2	Barataria	417	175	325	$36,784,975	$3,137,510	$33,647,465	$2,326,760	$13,296	$113,185
Bayou Terrebonne Freshwater Diversion	3	Terrebonne	6,309	55	173	$22,636,335	$2,885,986	$19,750,349	$1,290,130	$23,457	$130,846
West LA Hwy 1 Marsh Creation	3	Terrebonne	346	148	267	$31,868,399	$3,351,303	$28,517,096	$2,029,315	$13,712	$119,357
Bayou DeCade Ridge and Marsh Creation	3	Terrebonne	517	133	378	$34,403,849	$3,282,292	$31,121,557	$2,166,067	$16,286	$91,015
East Pecan Island Marsh Creation	4	Mermentau	521	177	459	$54,825,078	$4,205,285	$50,619,793	$3,552,003	$20,068	$119,445
North Mud Lake Marsh Creation and Nourishment	4	Calcasieu-Sabine	665	298	590	$59,930,304	$4,542,955	$55,387,349	$3,883,605	$13,032	$101,577
Salvinia Weevil Propagation Facility		Coastwide	33,262	597	26	$3,802,748	$158,300	$3,644,448	$169,877	$285	$146,260

PPL 26 Demonstration Project Evaluation Matrix

11/1/2016

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

Demonstration Project Name	Lead Agency	Total Fully Funded Cost	Parameter (P_n)						**Total Score**	Averaging of Agency Scores
			P_1 Innovativeness	**P_2** Applicability or Transferability	**P_3** Potential Cost Effectiveness	**P_4** Potential Env Benefits	**P_5** Recognized Need for Info	**P_6** Potential for Technological Advancement		
Ecobale Shoreline Protection DEMO Project	USACE	$2,714,293	2	2	2	2	2	2	**12**	11.6
Enhancing Restoration Transplant Survival via Stress Acclimation DEMO Project	CPRA	$1,044,632	1	2	1	2	1	2	**9**	9.3
SHORE|LINKS® DEMO Project	NRCS	$3,404,704	2	2	3	2	2	2	**13**	12.3

"Total Score" calculation: Individual parameter scores were determined from the score having the majority of the vote.
Example - if 4 agencies cast a vote of "3" and 3 agencies cast a vote of "2", then a score of "3" was given.

"Averaging of Agency Scores" calculation: Calculated by averaging the Total Scores from each Agency.

Demonstration Project Parameters

(P_1) *Innovativeness* - The demonstration project should contain technology that has not been fully developed for routine application in coastal Louisiana or in certain regions of the coastal zone. The technology demonstrated should be unique and not duplicative in nature to traditional methods or other previously tested techniques for which the results are known. Techniques which are similar to traditional methods or other previously tested techniques should receive lower scores than those which are truly unique and innovative.

(P_2) *Applicability or Transferability* - Demonstration projects should contain technology which can be transferred to other areas of the coastal zone. However, this does not imply that the technology must be applicable to all areas of the coastal zone. Techniques, which can only be applied in certain wetland types or in certain coastal regions, are acceptable but may receive lower scores than techniques with broad applicability.

(P_3) *Potential Cost Effectiveness* - The potential cost-effectiveness of the demonstration project's method of achieving project objectives should be compared to the cost-effectiveness of traditional methods. In other words, techniques which provide substantial cost savings over traditional methods should receive higher scores than those with less substantial cost savings. Those techniques which would be more costly than traditional methods, to provide the same level of benefits, should receive the lowest scores. Information supporting any claims of potential cost savings should be provided.

(P_4) *Potential Environmental Benefits* - Does the demonstration project have the potential to provide environmental benefits equal to traditional methods? somewhat less than traditional methods? above and beyond traditional methods? Techniques with the potential to provide benefits above and beyond those provided by traditional techniques should receive the highest scores.

(P_5) *Recognized Need for the Information to be Acquired* - Within the restoration community, is there a recognized need for information on the technique being investigated? Demonstration projects which provide information on techniques for which there is a great need should receive the highest scores.

(P_6) *Potential for Technological Advancement* - Would the demonstration project significantly advance the traditional technology currently being used to achieve project objectives? Those techniques which have a high potential for completely replacing an existing technique at a lower cost and without reducing wetland benefits should receive the highest scores.

Coastal Wetlands Planning, Protection and Restoration Act

Technical Committee Meeting Announcement

Date: December 7, 2016

Time: 9:30 a.m.

Location: LA Dept of Wildlife and Fisheries
Louisiana Room
2000 Quail Drive
Baton Rouge, Louisiana

Technical Committee Meeting

The evaluation results will be presented for all the PPL 26 candidate projects. The public is invited to attend and provide comments on the candidate projects. The Technical Committee will vote & recommend projects for PPL 26 selection. The Technical Committee will also consider requests for construction (Phase II) approvals.

Written comments may be provided no later than November 30, 2016 to the CWPPRA Task Force by mail or email to:

Colonel Michael Clancy
District Engineer, New Orleans
c/o: Brad Inman
U.S. Army Corps of Engineers
7400 Leake Avenue
New Orleans, Louisiana 70118

Email:
Brad.L.Inman@usace.army.mil

Letters of Support

St. Bernard Parish Government
8201 West Judge Perez Drive Chalmette, Louisiana, 70043
(504) 278-4227 Fax (504) 278-4330
www.sbpg.net

Guy McInnis
Parish President

November 22, 2016

Colonel Michael Clancy
District Engineer, New Orleans District
U.S. Army Corps of Engineers
7400 Leake Avenue
New Orleans, Louisiana 70118

Re: Bayou La Loutre Ridge Restoration (CWPPRA PPL 26)

Dear Colonel Clancy:

St. Bernard Parish Government is proud to have worked with the Natural Resources Conservation Service and Environmental Protection Agency on nominating the above project for the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Project Priority List 26. The below table provides a snapshot of how this project has progressed over the past decade:

Voted #6 by the CWPPRA Technical Committee	**April 2016**
Endorsed by 18 NGOs and Scientists	**March 2016**
Voted #1 (PPL 26) in the Lake Pontchartrain Basin	**February 2016**
Designated as a Tier 1 Priority by St. Bernard Parish	**December 2015**
Included in the CPRA Master Plan	**March 2012**
Included in the USACE MRGO Restoration Study	**June 2011**
Included in the Biloxi Marsh Restoration Plan	**June 2006**
Included in LPBF Multiple Lines of Defense Strategy	**January 2006**

The proposed project has been widely supported by the coastal science community for over a decade (please see the attached letters of support). We believe that this project will provide a wide range of benefits to the region, including storm surge reduction and habitat creation. Additionally, we recognize the synergy between the proposed project and other recent efforts to mitigate the impacts of the Mississippi River Gulf Outlet.

On behalf of the residents of St. Bernard Parish, I respectfully request your support for this critical project as we approach the December 7th CWPPRA Technical Committee vote. In the interim, please feel free to contact John Lane at jlane@sbpg.net if you would like more details regarding the project.

Thanks again for your continued support.

Sincerely,

Guy McInnis
Parish President

March 21, 2017

St Bernard Parish Government
8201 West Judge Perez Dr
Chalmette LA 70043
Attn: Guy McInnis St. Bernard Parish President

Dear President McInnis,

We the Meraux Foundation fully support the Bayou La Loutre project. The Bayou La Loutre ridge is a critical hydrological barrier for the Pontchartrain basin. As well this project establishes 10 acres of Live oak hackberry ridge forest habitat, which is highly important to Trans Gulf migratory bird species. Many of which are endangered or threatened. This is aligned with the Meraux Foundation's mission of bettering the Parish by making it safer and sustainable. The proposed Bayou La Loutre Ridge Restoration and Marsh creation project, (CWPPRA), is a vital component for dampening of storm surge, as well as enhancing biodiversity in an area of St. Bernard Parish that has been severely damaged by erosion. It will also restore precious marsh habitat. And, because this project has been included in the 2012 Comprehensive Plan for a Sustainable Coast, and it is also been classified as a Tier 1 Priority Project in St. Bernard Government's list of Coastal Projects.

Sincerely,

Rita Gue
President

Floyd Gue
1ST Vice President

Bill Haines
Vice President

Chris Haines
Tresurer

DOCVILLE FARM
5128 E. SAINT BERNARD HWY.
VIOLET, LOUISIANA 70092

MERAUXFOUNDATION.ORG

March 23, 2016

Coastal Wetlands Planning, Protection, and Restoration Act Technical Committee

Colonel Richard Hansen
District Engineer, New Orleans
c/o: Brad Inman
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana

Fax: 504-862-2572
Email: Brad.L.Inman@usace.army.mil

RE: *Letter of Support for the Bayou La Loutre Ridge Restoration and Marsh Creation Project*

Dear Coastal Wetlands Planning, Protection, and Restoration Act Technical Committee –

We are writing to express our support for the Bayou La Loutre Ridge Restoration and Marsh Creation project, a candidate on the Coastal Wetlands Planning, Protection, and Restoration Act's (CWPPRA) 26th Project Priority List (PPL26). Ridge restoration and marsh creation in this area will re-establish part of the ridge that serves as a structural underpinning of the Biloxi Marshes. The construction of the MRGO breached the ridge and resulting saltwater intrusion degraded the remaining ridgeline, which had not only provided a buffer for storm surges, but also served as resting habitat for migratory birds.

To address this issue, the proposed project will re-establish 5.46 miles of the ridge and create 10 acres of Live Oak Hackberry Maritime forest habitat. The project will also create 129 acres of nearby marsh in Lena Lagoon and will nourish 254 acres in the area as well. This project will improve hydrology in the area, reduce saltwater intrusion, and re-establish important wildlife habitat.

The Bayou La Loutre Ridge Restoration and Marsh Creation project is an important component of storm protection for the immediate surrounding communities in St. Bernard and for nearby levees that make up the Hurricane and Storm Surge Damage Risk Reduction System, which protects the Greater New Orleans area. This project will help maintain the integrity of the Biloxi Marshes, a critical landscape feature for storm protection for the region. Finally, this project will repair a portion of the damage caused by the MRGO which is a high priority for the State of Louisiana, the U.S. Army Corps of Engineers, and the communities and conservation organizations that have advocated for restoration in this area. As part of the MRGO Ecosystem Area, this project area has enjoyed strong public support over the last few years. Tens of thousands of people have commented in support of a suite of restoration projects along the MRGO, which include the Bayou La Loutre Ridge.

We strongly recommend that this project be chosen by CWPPRA.

Sincerely,

American Rivers
Citizens Against Widening the Industrial Canal
Environmental Defense Fund
G. Paul Kemp, PhD
Global Green
Gulf Restoration Network
Holy Cross Neighborhood Association
Lake Pontchartrain Basin Foundation

Levees.org
Lower 9th Ward Center for Sustainable Engagement and Development
Lower Mississippi Riverkeeper
Louisiana Environmental Action Network
Louisiana Wildlife Federation
Mary Queen of Vietnam Community Development Corporation
National Wildlife Federation
Sierra Club-Delta Chapter

Cc:
CWPPRA Technical Committee

Troy Constance, Chairman
Deputy District Engineer
Troy.g.constance@usace.army.mil

Darryl Clark
Senior Field Biologist
Darryl_Clark@fws.gov

Bren Haase
Deputy Chief - Studies & Environmental Branch
Bren.Haase@la.gov

Richard Hartman
Fishery Biologist
Chief, Baton Rouge Field Office
Richard.Hartman@noaa.gov

Karen McCormick
Section Chief
mccormick.karen@epamail.epa.gov

Britt Paul, P.E.
Assistant State Conservationist/Water Resources
britt.paul@la.usda.gov

THE SAVE LOUISIANA COALITION

March 17, 2017

To:

Guy McInnis

St. Bernard Parish President

Dear President McInnis,

The proposed Bayou La Loutre Ridge Restoration and Marsh creation project, (CWPPRA), is a vital component for dampening of storm surge, as well as enhancing biodiversity in an area of St. Bernard Parish that has been severely damaged by erosion. It will also restore precious marsh habitat. And, because this project has been included in the 2012 Comprehensive Plan for a Sustainable Coast, and it is also been classified as a Tier 1 Priority Project in St. Bernard Government's list of Coastal Projects, The Save Louisiana Coalition whole heartedly supports this project.

The Save Louisiana Coalition applauds St. Bernard Parish Government for its ongoing efforts in protecting and restoring our wetlands as well as protecting valuable fishing and seafood resources.

Sincerely,

Capt. George Ricks

President/CEO Save Louisiana Coalition

P.O. Box 385, St. Bernard, LA 70085 · Phone: 985-630-2923 · Email: TheSaveLouisianaCoalition@gmail.com
TheSaveLouisianaCoalition.com

CWPPRA Members

This letter is to express continued support for the St Catherine Island Marsh Creation and Shoreline Protection project for Region I, PPL 26. This project aligns with the State Master Plan and is critical to marsh, habitat, shoreline and infrastructure protection.

Residents and property owners of the Lake Catherine Community, see and live the effects of diminished coast lines and marshes. Hurricane Katrina accelerated the destruction and devastation of nearby marsh, resulting in increased frequency and volume of flooding, even during smaller storms. This has a direct effect on the remaining marsh, wild life, fisheries, property owners, businesses, commercial shrimpers and other natural resources.

This project will provide long term protection to the Lake Catherine community residents, businesses, wild life, natural resources, infrastructure and the Highway 90 Hurricane evacuation route. It will add protection and stabilization to the shorelines of Lake Catherine, Lake Pontchartrain and to other areas outside of levee systems.

Projects that restore, protect and create marsh will incrementally minimize wave/surge action, while protecting natural resources and wild life. Healthy marsh acts as a buffer to storms and high waters.

The Lake Catherine land bridge is one of the last solid land barriers between Lake Pontchartrain and the open waters leading to the Gulf of Mexico. It is vital to maintain and improve this natural land bridge. Support to this area will provide added protection to life, land, natural habitats and resources for all parishes along the shores of Lake Pontchartrain. This project supports the goal of a sustainable Louisiana coast.

In strong support of this project,

The Lake Catherine Civic Association

David J. Camardelle - MAYOR GRAND ISLE

POST OFFICE BOX 200 • LUDWIG LANE • GRAND ISLE, LOUISIANA 70358 • PHONE (985) 787-3196

November 17, 2016

Brad L. Inman, Chief
Programs & Project Management Division
Projects and Restoration Branch
US Army Corps of Engineers - New Orleans District
7400 Leake Ave
New Orleans, LA 70118

RE: CWPPRA Phase I Funding Recommendation – Elmer's Island Marsh Creation

Dear Mr. Inman:

The town of Grand Isle and the Grand Isle Independent Levee District strongly support the **Elmer's Island Marsh Creation** project for Phase 1 engineering and design funding. This project will create marsh in an area that has breached several times during past storm events. It will complete the two CWPPRA Caminada Headlands Back Barrier Marsh Creation Projects and the NFWF Caminada Headland Beach and Dune Restoration project. It will also provide critical protection to LA Highway 1, the only evacuation route for the residents of Grand Isle.

Grand Isle urges the CWPPRA Technical Committee to select this vital project for Phase I funding.

Thank you for providing this opportunity to provide our support for this important project that will protect Louisiana's only inhabited Barrier Island.

Sincerely,

David Camardelle
Mayor, Town of Grand Isle
President, Grand Isle Independent Levee District

JEFFERSON PARISH
Office of the President

Michael S. Yenni
Parish President

November 18, 2016

Mr. Brad L. Inman, Chief
Programs & Project Management Division
Projects and Restoration Branch
US Army Corps of Engineers - New Orleans District
7400 Leake Avenue
New Orleans, LA 70118

RE: CWPPRA Phase II Funding Recommendation - Northwest Turtle Bay Marsh Creation
CWPPRA PPL-26 Phase I Funding Recommendation - Elmer's Island Marsh Creation

Dear Mr. Inman:

Jefferson Parish strongly supports the approval of the **Northwest Turtle Bay Marsh Creation (BA-125)** project for Phase 2 construction funding. This project, which will create 484 acres of marsh and nourish 216 acres of marsh, is critical to the restoration of the Barataria Landbridge, a critical landform between Little Lake and Bayous Perot and Rigolettes southwest of Lafitte. Restoration of this marsh will help provide a protective buffer for residents in the communities of Lafitte, Barataria, and Crown Point. This is of critical importance to the Town of Jean Lafitte and surrounding communities, which are located outside of the hurricane protection system and rely heavily on the storm surge reduction provided by wetlands.

Jefferson Parish also urges the approval of the **Elmer's Island Marsh Creation** project for Phase I design and engineering funding. This project will enhance protection to LA Highway 1, the only evacuation route for the Town of Grand Isle.

Joseph S. Yenni Building – 1221 Elmwood Park Blvd – Suite 1002 – Jefferson, LA 70123 – PO Box 10242 – Jefferson, LA 70181-0242
Office 504.736.6400 – Fax 504.736.6638
General Government Building – 200 Derbigny St – Suite 6100 - Gretna, LA 70053 – PO Box 9 – Gretna, LA 70054
Office 504.364.2700 – Fax 504.364.2828
Email: MYenni@jeffparish.net Website: www.jeffparish.net

Thank you for providing this opportunity to provide our support for these two projects located in the Barataria Basin, an area experiencing the highest rate of land loss in Louisiana.

Sincerely,

MICHAEL S. YENNI
President

TOWN OF JEAN LAFITTE
OFFICE OF THE MAYOR

TIMOTHY P. KERNER
MAYOR

YVETTE CRAIN
TOWN CLERK

MARCELL RODRIGUEZ
CHIEF OF POLICE

2654 Jean Lafitte Blvd.
Lafitte, Louisiana 70067
Office: (504) 689-2208
Police: (504) 689-3132
Fax: (504) 689-7801

COUNCIL MEMBERS

SHIRLEY GUILLIE
MAYOR PROTEM

BARRY BARTHOLOMEW
CHRISTY CREPPEL
VERNA SMITH
CALVIN LEBEAU

November 18, 2016

Brad L. Inman, Chief
Programs & Project Management Division
Projects and Restoration Branch
US Army Corps of Engineers - New Orleans District
7400 Leake Ave
New Orleans, LA 70118

RE: CWPPRA PPL-26 Recommendations

Dear Mr. Inman:

The town of Jean Lafitte and the Lafitte Area Independent Levee District strongly support the approval of **Northwest Turtle Bay Marsh Creation (BA-125)** project for Phase 2 construction funding. This project will create 484 acres of marsh and nourish 216 acres of marsh on a critical landform between Little Lake and Bayous Perot and Rigolettes southwest of Lafitte. Restoration of this marsh will help provide a protective buffer for residents in the communities of Lafitte, Barataria, and Crown Point. The Town of Jean Lafitte and surrounding communities are located outside of the hurricane protection system and rely heavily on the storm surge reduction provided by wetlands.

We would also like to extend our support to the **Elmer's Island Marsh Creation** project for Phase 1 design and engineering funding. This project will enhance protection to LA Highway 1. This highway is the only evacuation route for the Town of Grand Isle, and Lafitte area residents being in a similar situation with LA Highway 45, can certainly appreciate the importance of protecting this vital roadway.

Thank you for providing this opportunity to provide our support for these two projects located in the Barataria Basin, which has the highest rate of land loss in Louisiana.

Sincerely,

Timothy P. Kerner
Mayor, Town of Jean Lafitte
President, Laffite Area Independent Levee District

JB Mouton
BUILDERS SINCE 1915

October 3, 2016

Mr. Mark Wingate
Deputy District Engineer
U.S. Army Corps Of Engineers
P.O. Box 60267
New Orleans, LA 70160

Re: PPL26 Salvinia Weevil Propagation Proposal

Dear Mr. Wingate:

As an avid outdoorsman who participates in hunting and fishing in our wetland areas on a frequent basis I have witnessed firsthand the negative effects of giant salvinia on our waterbodies.

Our one square mile duck lease in Vermilion parish has been overrun with salvinia for the past 2 years. In fact, this past year all of our ponds and canals were covered 100% with salvina. Prior to the arrival of salvinia, widgeon grass a favorite food of ducks, was prolific in these ponds but has since been choked out.

With the help of the LSU Ag Department we were able to locate and collect some weevil infested salvinia at the beginning of this summer and I am happy to report that in the past 4 months the weevils have almost completely eradicated the salvina on our lease. The majority of our ponds and canals are now open water once again and the weevils are continuing to work on the few remaining patches.

Please support the USFWS PPL26 proposal to create additional salvinia weevil breeding ponds in Southwest Louisiana as they are much needed.

Thank you for your consideration.

Sincerely,

J.B. Mouton, LLC

Kim Martin Nehrbass

Kim Martin Nehrbass
Vice President

P. O. Box 60790, Lafayette, LA 70596 • 202 Toledo Drive, Lafayette, LA 70506 • (337) 235-9401 • Fax (337) 235-9496

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

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

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

November 28, 2016

Colonel Michael Clancy
District Engineer, New Orleans District
c/o: Brad Inman
U.S. Army Corps of Engineers
7400 Leake Avenue
New Orleans, Louisiana 70118

(Sent via e-mail c/o: Brad Inman)

Re: PPL26 Nominee Salvinia Weevil Propagation

Dear Col. Clancy:

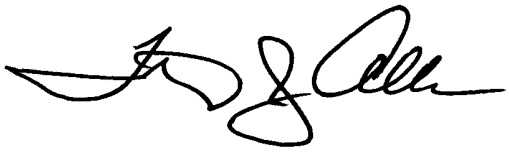
I am writing to express support for the above referenced project which is coming before the CWPPRA Tech Committee for possible selection at your December meeting. As you and members of the Tech Committee and Task Force know, Giant Salvinia has become an increasingly widespread problem in Louisiana. This noxious, invasive plant is blocking waterways and having an adverse effect on the fishing/hunting/boating public. On a more personal note, this plant severely restricts the ability of coastal landowners to lease their wetland properties for recreational hunting and fishing. We have observed this plant continue to spread rapidly across the coast. Save for the La Dept. of Wildlife and Fisheries and LSU Ag. Center, state and federal resource agencies have been absent in the battle against Salvinia.

Apache Louisiana Minerals LLC is a large coastal landowner, comprising approx. 270,000 acres of wetland property in Cameron, Vermilion, Iberia, Terrebonne, Lafourche and Plaquemines Parishes. We have been fortunate at times to acquire weevils from the LSU Ag. ponds when they were located in Terrebonne Parish. We have deployed this biological control tool on our property and have witnessed firsthand the success the weevils have with controlling Giant Salvinia. We have also witnessed the smothering of healthy marsh when high water events dump Salvinia mats over vegetated wetlands.

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

Sincerely,

APACHE LOUISIANA MINERALS LLC



Timothy J. Allen, PLS
General Manager

DCME
DDE
DPM
PAR
INMAN

VERMILION SOIL & WATER CONSERVATION DISTRICT
3221 Veterans Memorial Drive Suite H
Abbeville, LA 70510

October 25, 2016

Col. Richard L. Hansen, District Commander
U.S. Army Corps of Engineers, NOD
Executive Office
PO Box 60267
New Orleans, LA 70160-0267

Dear Mr. Hansen: RE: PPL26 Salvinia Weevil Propagation Proposal

Giant Salvinia has become a severe problem in lower Vermilion Parish and its coastal areas. It is blocking some irrigation canals, completely covering some duck ponds and severely restricting the use of large areas from recreational hunting and fishing. It is also spreading at an alarming rate and is problem across much of Louisiana.

Vermilion Soil and Water Conservation District (VSWCD) works with landowners to implement conservation practices to protect the natural resources, and we are aware of the damage this invasive weed is causing on their property. We are also aware of the cost of herbicides used to control Salvinia and the environmental issues with using them, so we are attempting to use biological controls such as the Salvinia Weevil.

We are aware of USFWS PPL26 proposal to create additional weevil propagation facilities in southwest Louisiana and believe that the use of Salvinia Weevils is an environmental friendly component to a management plan to control or reduce Salvinia's impact on wetland properties in most of Louisiana. Please fund this project which could be a tremendous newsworthy effort of how a biological tool can be used to control an invasive weed.

Thank you in advance for your time and attention to consider this proposal.

Sincerely,

Ernest Girouard

Dr. Rustum Ernest Girouard
Vermilion SWCD Chairman

cc: Senator Jonathon Perry
Representative Bob Hensgens
Representative Blake Miguez

REG:md

30 November 2016

CWPPRA Technical Committee,

Below is the ranking of the PPL26 candidate projects based on AAG consensus. The candidates are all good projects with environmental benefits. Our ranking was primarily driven by the urgency of need for restoration in the different project areas. Please note that the order of the projects with the same score does not indicate a priority in the ranking.

Priority Score	**Project Name**
High	Elmer's Island Back Barrier Marsh Creation
High	West LA Hwy 1 Marsh Creation
High	Bayou DeCade Ridge and Marsh Creation
Medium High	East Bayou Lafourche Marsh Creation
Medium High	St. Catherine Island Marsh Creation and Shoreline Protection
Medium High	Bayou Terrebonne Freshwater Diversion
Medium High	East Pecan Island Marsh Creation
Medium	North Mud Lake Marsh Creation and Nourishment
Medium	Bayou La Loutre Ridge Restoration and Marsh Creation
NA	Salvinia Weevil Propagation Facility

We hope that this information helps in your decision on which projects to move forward in the process.

Charles

Charles Sasser, Ph.D
Department of Oceanography & Coastal Sciences
College of the Coast & Environment
Louisiana State University
Baton Rouge, LA 70803

JOHN BEL EDWARDS
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES

CHARLES J. MELANCON
SECRETARY

Colonel Michael Clancy
District Engineer, New Orleans District
c/o: Brad Inman
U.S. Army Corps of Engineers
7400 Leake Avenue
New Orleans, Louisiana 70118

Dear Colonel Clancy:

As the owner and manager of Elmer's Island, the Louisiana Department of Wildlife and Fisheries strongly supports the Elmer's Island Marsh Creation Project.

A publicly accessible property, Elmer's Island is well known for the excellent fishing opportunities it has offered over the years for speckled and white trout, flounder, redfish, channel mullet, black drum, croaker, Spanish mackerel, and many other popular species that frequent Louisiana's coastal beaches and passes. It also provides non-consumptive outdoor opportunities to observe wading, shore, and sea birds as well as coastal marine life.

By creating and nourishing approximately 265 acres of back-barrier marsh and restoring hydrologic connectivity to the marsh, the Elmer's Island Marsh Creation Project would improve habitat for fish and wildlife populations, provide additional opportunities to the public for recreational fishing and wildlife viewing and related economic benefits, and enhance coastal protection from hurricanes and other storms. Because of the significant public use of this area, this project would help demonstrate the importance of investing in coastal restoration through the benefits it offers. This project would also build upon the success of the recently completed Caminada Beach and Dune Restoration Project, which restored hundreds of acres of beach and dune habitat.

The potential benefits of this project to Louisiana's coastal natural resources and the public that uses them are tremendous. The Department highly recommends that the Technical Committee and Task Force select the Elmer's Island Marsh Creation Project for implementation.

Sincerely,

Charles J. Melancon

Secretary

Louisiana Department of Wildlife and Fisheries

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

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

For Report/Decision:

The Technical Committee will consider requests for Phase II authorization and approval of Increment 1 funding for cash flow projects for recommendation to the Task Force. Due to limited funding, the Technical Committee will recommend a list of projects for Task Force approval within available program construction funding limits. Each project listed in the following table will be discussed individually by its sponsoring agency.

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

Agency	Project No.	PPL	Project Name	Phase II, Increment 1 Request	Fully-Funded Phase 1 Cost	Fully-Funded Phase II Cost	Total Fully Funded Cost Est.	Net Benefit Acres	Total Cost per Acre
FWS	BS-24	22	Terracing & Marsh Creation South of Big Mar	$37,921,282	$2,308,599	$38,890,199	$41,198,798	314	$131,206
FWS	BA-173	23	Bayou Grand Cheniere Marsh & Ridge Restoration	$34,687,366	$2,742,302	$35,848,586	$38,590,888	237	$162,831
FWS	BA-125	21	Northwest Turtle Bay Marsh Creation	$30,252,307	$2,354,789	$31,309,882	$33,664,671	432	$77,927
EPA	BA-171	23	Caminada Headland Back Barrier Marsh Restoration	$29,087,196	$3,354,935	$30,519,050	$33,873,985	165	$205,297
NMFS	CS-66	22	Cameron Meadows Marsh Creation and Terracing	$35,129,706	$3,108,025	$36,125,614	$39,233,639	326	$120,349

Evaluation Matrix for January 2017 Phase 2 Requests

Project Name	Region	Parish	Project Area (acres)	Average Annual Habitat Units (AAHU)	Net Acres	Phase II, Increment 1 Request*	Total Fully Funded Cost	Fully-Funded Phase I Cost	Fully-Funded Phase II Cost incl O&M	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
BS-24 - Terracing and Marsh Creation South of Big Mar (PPL 22)	2	Plaquemines	969	63	314	$37,921,282	$41,198,798	$2,308,599	$38,890,199	$2,697,115	$42,811	$131,206
BA-173 - Bayou Grande Cheniere Marsh and Ridge Restoration (PPL 23)	2	Plaquemines	486	129	237	$34,687,366	$38,590,888	$2,742,302	$35,848,586	$2,540,914	$19,697	$162,831
BA-125 - Northwest Turtle Bay Marsh Creation (PPL 21)	2	Jefferson	798	211	432	$30,252,307	$33,664,671	$2,354,789	$31,309,882	$2,222,248	$10,532	$77,927
BA-171 - Caminada Headland Back Barrier Marsh Restoration (PPL 23)	2	Lafourche	386	122	165	$29,087,196	$33,873,985	$3,354,935	$30,519,050	$2,236,931	$18,336	$205,297
CS-66 - Cameron Meadows Marsh Creation and Terracing (PPL 22)	4	Cameron	575	109	326	$35,129,706	$39,233,639	$3,108,025	$36,125,614	$2,606,990	$23,917	$120,349

* Phase II, Increment 1 Request = Phase II FF First Cost + first 3 yrs of State & Fed O&M, monitoring, S&A, admin, and inspection

rev 11/22/16

Terracing and Marsh Creation
South of Big Mar
BS-24

Terracing and Marsh Creation South of Big Mar (BS-24)
Phase II Request

December 7, 2016
Baton Rouge, LA

U.S. FISH & WILDLIFE SERVICE

CPRA
Louisiana Coastal Protection and Restoration Authority

NRCS
Natural Resources Conservation Service

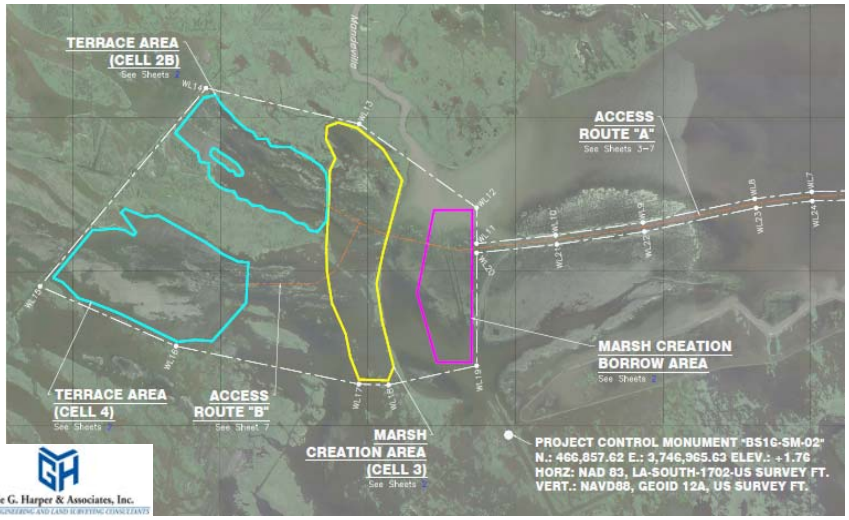
Lonnie G. Harper & Associates, Inc.
CIVIL ENGINEERING AND LAND SURVEYING CONSULTANTS

Project Location

Project Background and Purpose

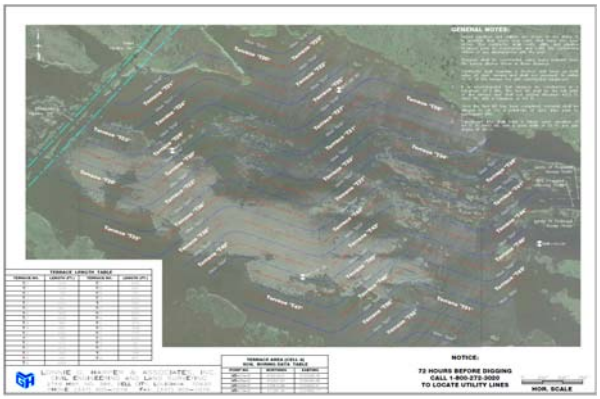
- Phase 1 approval in January 2013 as part of the 22nd Priority Project List
- Restore marsh platform scoured by Hurricane Katrina
- Construct terraces in large open water areas to reduce wave fetch
- Potential additional benefits could be achieved through capturing suspended sediments and nutrients during operation of the Caernarvon Diversion
- Synergistic with the Lake Lery Shoreline Protection Project (BS-16)

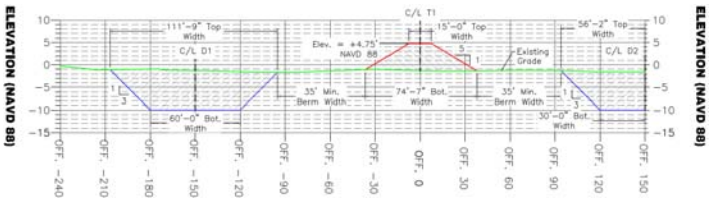
Project Features



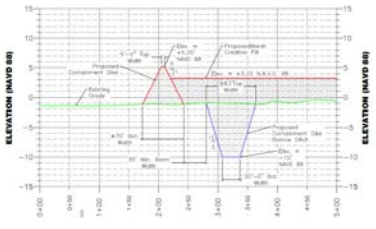
Terraces: 68,484 linear feet (46 acres)
Marsh Creation and Nourishment: 335 acres of marsh

Terraces

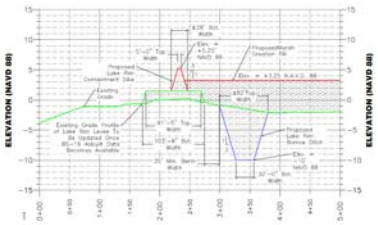




Marsh Creation



TYPICAL CONTAINMENT DIKE CROSS SECTION (INTERIOR MARSH)



TYPICAL LAKE RIM CROSS SECTION

Project Benefits and Costs

- The project benefits 969 acres of marsh and open water habitats
- 314 Net Acres at the end of the 20-year project life
- Wetland Value Assessment – 63 net AAHUs
- Fully Funded Cost: $41,198,798
- **Today's Phase 2 Increment 1 Request - $37,921,282**

Why Fund This Project Today?

Breton Sound Basin

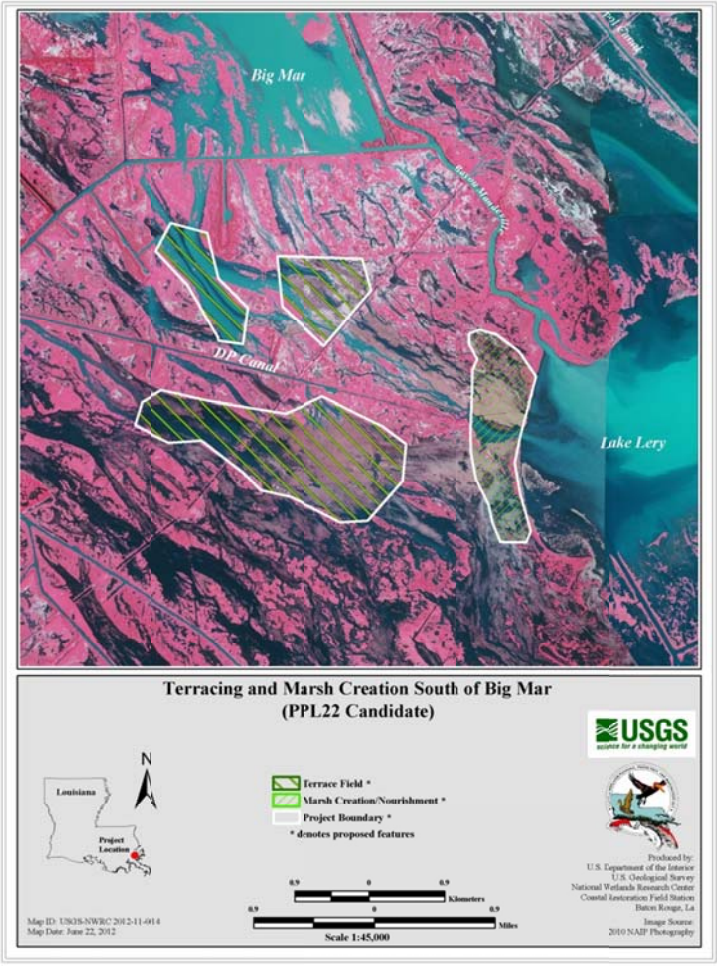
- H. Katrina impacts
- Protects the New Orleans
- Area of Need
  - Awarded 12 projects through CWPPRA (compared to the Barataria Basin's 41 projects)
  - Of those 12 projects, 7 have been de-authorized, 3 have been constructed

Phase II Authorization Request
Terracing and Marsh Creation South of Big Mar
BS-24

Description of Phase I Project

The BS-24 Project was approved for Phase I funding on the 22nd Priority Project List of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). At the time of Phase 1 approval the project's goals were to create 335 acres of intermediate marsh with dedicated dredged material from Lake Lery and to create approximately 65,000 linear feet of terraces using *in-situ* material to benefit fish and wildlife resources. The following figure illustrates the project features and project boundary at the time of Phase I authorization.

Figure 1: Phase 1 Project Features and Boundary.



The original project included the construction of approximately 65,000 linear feet of terraces using *in-situ* material to reduce fetch and turbidity and capture suspended sediment in approximately 900 acres of shallow open water, resulting in 37 acres of marsh creation, as

The following tasks were completed during Phase I engineering and design: 1) Interagency kickoff meeting and field trip; 2) Final Phase I Cost Share Agreement executed between FWS and OCPR; 3) Letter A Agreement NRCS 4) Preliminary Landrights; 5) Elevation Surveys; 6) Oyster Assessment; 7) Magnetometer Survey of lake borrow and fill area; 8) Wave Analysis of lake borrow; 9) Geotechnical Investigation of fill areas and terrace area; 10) 30% Design Review meeting; 11) Revised Wetland Value Assessment (WVA); 12) Draft Environmental Assessment; 13) Final Fully Funded Cost Estimate; 14) Section 303(e) review; 15) Draft Section 404 Permit Application; 16) NRCS Overgrazing Determination; and 17) 95% Design Review meeting. The details of those E&D tasks were presented and discussed at the 30% and 95% Design Review meetings.

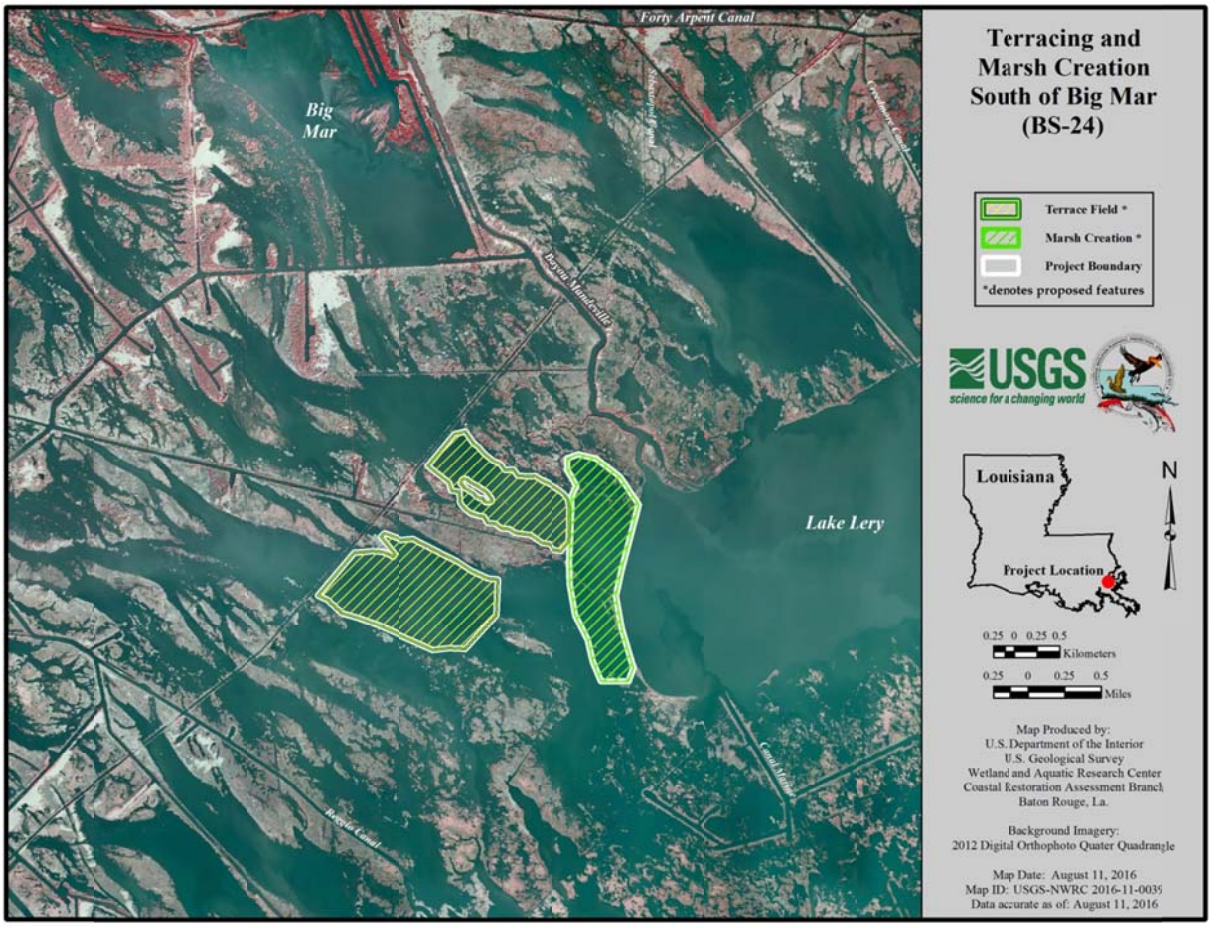
The original project footprint consisted of three terrace fields in areas that were influenced by diversion waters during high flow events. After further investigations during the engineering and design phase it was determined that construction of the terraces would require a barge mounted dragline that required a 6-foot draft depth. Numerous pipelines throughout the project area prevented access of the barge mounted dragline to the terraces fields originally identified. The terrace fields were shifted east of the pipeline rights-of-way and in large open water areas. Additional survey and geotechnical work was completed in the alternative areas.

The revised Phase 1 design includes approximately 70,000 linear feet of terraces in two large open water areas immediately west of the proposed marsh creation area. The marsh creation area remains the same as proposed in the phase 0 and consists of approximately 335 acres of marsh creation.

Description of the Revised (Current) Project Features

The currently proposed project consists of hydraulically dredging bottom sediments from Lake Lery and pumping that material into an open-water area within the project area to create and nourish approximately 335 acres of marsh. Approximately 175 acres of lake bottom would be dredged to a maximum depth of -20 feet NAVD 88. Earthen containment dikes will be constructed around the fill sites to contain the dredged material slurry. An initial constructed elevation of +3.25 feet North American Vertical Datum of 1988 (NAVD 88) with a +0.5 foot tolerance is proposed for the marsh creation area to achieve a final target elevation between 1.0 and 1.4 at the end of the project life. Mechanically dredged (i.e., bucket dredged) material will be excavated to create 68,484 linear feet of terraces in two large open water areas resulting in the creation of approximately 46 acres of wetlands. The terraces would have a top width of fifteen (15) feet and will be built to an elevation of +4.75 feet NAVD 88, with a tolerance of ±0.5 feet and side slopes of 5 horizontal to 1 vertical (5H:1V). The +4.75 foot elevation is calculated based on a target elevation of +2.0 feet at target year 20 and an estimated settlement of approximately 2.75 feet. A total of 634 acres of open water would benefit from the creation of those terraces.

Figure 2: Currently Proposed Project Layout


Forty Arpent Canal
Big Mar
Bayou Mandeville
Lake Lery
Bayou Canal
Canal Access
Terracing and Marsh Creation South of Big Mar (BS-24)
Terrace Field *
Marsh Creation *
Project Boundary
*denotes proposed features
USGS
science for a changing world
Louisiana
Project Location
N
0.25 0 0.25 0.5
Kilometers
0.25 0 0.25 0.5
Miles
Map Produced by:
U.S.Department of the Interior
U.S. Geological Survey
Wetland and Aquatic Research Center
Coastal Restoration Assessment Branch
Baton Rouge, La.
Background Imagery:
2012 Digital Orthophoto Quater Quadrangle
Map Date: August 11, 2016
Map ID: USGS-NWRC 2016-11-0035
Data accurate as of: August 11, 2016

Checklist of Phase II Request Requirements
Terracing and Marsh Creation South of Big Mar (BS-24)

A. List of Project Goals and Strategies

The goal is to restore marshes impacted by Hurricane Katrina through the restoration of marsh and creation of terraces to benefit fish and wildlife resources and provide storm surge protection. Terraces will be constructed in the shallow open water area south of Big Mar within the Caernarvon Diversion outfall area, will reduce wave fetch in the large open water areas, and will promote conditions conducive to the growth of marsh vegetation and submerged aquatic vegetation. Additional benefits may be achieved through capturing suspended sediments. Marsh creation is also proposed to reestablish the western shoreline of Lake Lery in association with the Lake Lery Shoreline Restoration Project (BS-16).

Objectives/Strategies

1) Construct 70,000 linear feet of terraces (46 acres) with in-situ material to reduce fetch and turbidity and capture suspended sediment.
2) Sediments will be hydraulically dredged from Lake Lery and pumped via pipeline to create and restore approximately 335 acres of marsh in the project area.

The goals and objectives will be achieved by the project features described above. With the exception of shifting the terraces to the east to avoid pipelines, project strategies and features have, for the most part, remained as proposed during Phase 0.

B. A Statement that the Cost-Sharing Agreement Between the Lead Agency and Local Sponsor has been Executed for Phase I.

Cost Share Agreement between CPRA and FWS was executed on October 11, 2013.

C. Notification from the State that Land Rights will be Finalized in a Short Period of Time after Phase II Approval.

The Service forwarded a copy of CPRA's Temporary Easement, Servitude, and Right-of-Way agreement (unsigned) for the BS-24 project to the Corps along with NRCS's Overgrazing Determination for their 303(e) determination on October 21, 2016.

By letter dated October 24, 2016, the State of Louisiana, through its Coastal Protection and Restoration Authority (CPRA) Lands Section also provided a land rights status letter. CPRA has indicated that all ownership investigations should be completed in a reasonable period of time, approximately 1 year after Phase II approval.

D. A Favorable Preliminary Design Review (30 Percent Design Level)

A 30 Percent Design Meeting was held in July 2016, and resulted in favorable reviews of the project design. Responses to all meeting and post-meeting comments were provided. The

Service and CPRA agreed to proceed with the project.

E. A Favorable Final Project Design Review (95 Percent Design Level)

A favorable 95 Percent Design Meeting was held on October 28, 2016. No major design issues were identified.

F. A Draft of the Environmental Assessment for the Project, as Required under the National Environmental Policy Act, must be Submitted 30 days Before the Request for Phase II Approval

The FWS will submit a preliminary draft Environmental Assessment for agency review prior to the December 7, 2016, technical committee meeting.

G. Application for and/or Issuance of the Public Notices for Permits

Application for the Corps of Engineers permit and the Louisiana Coastal Resources Program consistency determination has been prepared and will be submitted should Phase II funding be awarded. DNR will forward the application to the LA Department of Environmental Quality for Water Quality Certification Review.

H. A Statement that a Hazardous, Toxic and Radiological Waste (HTRW) Assessment has been Prepared, if Required

The USFWS does not have the ability to issue HTRW Assessment at this time. A cursory screening of in-house databases and Environmental Protection Agency and Louisiana Department of Environmental Quality databases did not reveal any HTRW issues.

I. Section 303(e) Approval from the Corps

The project is currently being reviewed for consistency with the requirements of CWPPRA Section 303(e).

J. Overgrazing Determination from the NRCS

The Service received an Overgrazing Determination from the NRCS on September 21, 2016.

K. Revised Project Cost Estimate

The revised total budget for Phase II is $41,198,798. This amount represents an increase of 74 percent ($17,506,091) over the original Phase II cost estimate ($23,692,706) (See attached Request of Phase II Cost Estimate Table).

L. A Revised Wetland Value Assessment (WVA) must be Prepared if, During the Review of the Preliminary NEPA Documentation, Three of the Task Force Agencies Determine

that a Significant Change in the Project Scope Occurred

A revised WVA was submitted to and reviewed by the Environmental Working Group. While the project features have not significantly changed, methods in conducting the WVA have been revised by the Environmental Workgroup. The initial WVA completed in October 2012 yielded 303 net acres with a project boundary of 1,396 acres. The revised WVA completed in October 2016 yielded 314 net acres for a project boundary of 969 acres.

Table 2: Comparison of Original and Revised Wetland Value Assessments

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)
Candidate Project	303	86
Phase II Revised Project	314	63
Difference	+11	-23

Phase II Request

Based on the above information, the FWS and CPRA hereby request CWPPRA Task Force Phase II funding approval for the Cameron Creole Watershed Grand Bayou Marsh Creation Project (CS-54) in the 3-year incremental amount of **$37,921,282**. That amount includes $30,878,688 for construction; $900,690 for supervision and inspection; $4,631,803 for contingencies; $163,755 for administration by the Federal sponsor and $354,587 for State administration; $211,721 for monitoring; $559,528 for operations and maintenance (State and Federal); and $6,891 for Corps project management (See attached Request for Phase II Approval Cost Estimate Table).

AT 11-22-2016

State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

October 31, 2016

Mr. Darryl Clark
Acting Field Supervisor
Louisiana Ecological Services Office
U.S. Fish and Wildlife Service
646 Cajundome Boulevard, Suite 400
Lafayette, LA 70506

Re: 95% Design Review Concurrence for Terracing and Marsh Creation South of Big Mar (BS-24)
Statement of Local Sponsor Concurrence

Dear Mr. Clark:

The 95% Design Review meeting for the Terracing and Marsh Creation South of Big Mar Project (BS-24) project was held on October 27, 2016. Based on our review of the technical information compiled to date, the land ownership investigation, and the final design, the Coastal Protection and Restoration Authority, as the local sponsor, concurs to proceed with requesting Phase II construction funding for the project. In accordance with the CWPPRA Standard Operating Procedure Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee. Please keep me copied on all correspondence concerning this project.

Sincerely,

Andrew Beall
Project Management Administrator

cc: Angela Trahan, USFWS
Stuart Brown, CPRA, CRS Supervisor
BS-024 Project File

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 12th Floor Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.coastal.la.gov
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Letters of Support

DELACROIX CORPORATION

206 DECATUR STREET
NEW ORLEANS, LA. 70130-1016

TELEPHONE (504) 523-2245

November 30, 2016

Via Email: Brad.L.Inman@usace.army.mil

Mr. Brad Inman
U.S. Army Corps of Engineers
New Orleans District
CWPPRA Program Manager
7400 Leake Avenue
New Orleans, LA 70118

RE: Letter of Support for Terracing and Marsh Creation South of Big Mar (BS-24)

Dear Mr. Inman:

I am writing to you today to express the Delacroix Corporation's support for the above-referenced project sponsored federally by the U.S. Fish and Wildlife Service and locally by the Coastal Protection and Restoration Authority. As a large private landowner of approximately 100,000 acres in St. Bernard and Plaquemines Parishes since 1929, the Delacroix Corporation is very aware of the toll erosion and the forces of nature have taken on the land in the area.

As President of the Delacroix Corporation and someone who has hunted and fished the area over my entire life, I have witnessed the devastating losses over time with Hurricane Katrina leaving the area scoured and mostly open water over submerged marshlands. I and my land manager have watched this project with interest from its inception believing that it would be beneficial to the area.

As I am sure you are aware, Lake Lery has become a very shallow bed trapping the sediment from the Caernarvon Freshwater Diversion and not allowing for it to build marsh. What was once a fairly deep lake in the area has become a shallow expanse of water today. By funding this project, the terracing would create an environment more conducive to marsh creation. In addition, the encouragement of growth of both marsh vegetation and submerged aquatic vegetation would be beneficial to the eco-system of the area. The last years have seen less waterfowl stopping in Louisiana due to the lack of feed which impacts the entire eco-system and threatens the very idea of Louisiana as the "Sportsmen's Paradise" that I grew up with as a young man.

However, my support for this project isn't only about hunting and fishing, it is about restoring the marsh and stopping the sediments that are suspended in the waters of the Caernarvon Freshwater Diversion from "falling out" into the expanse of Lake Lery which creates nothing except a shallow lake. The terraces would seem to be an optimal vehicle for trapping these suspended sediments, so they are put to a useful purpose rather than being for all intents and purposes lost. Lake Lery has the material for use on site, and this project would be a way to fully utilize the sediments that are already there.

In addition, the ongoing U.S. Fish and Wildlife Project to reestablish the western shoreline of Lake Lery (BS-16) would seem to dovetail perfectly with the proposed project for terracing. The proposed project would aid in the reestablishment of the Lake Lery area and by dovetailing with the ongoing shoreline project seem to get "more bang for the buck" rather than a project that didn't have another already ongoing project so near. Any step toward reestablishing Lake Lery to its more historic nature would benefit the entire area and the communities nearby.

Therefore, the Delacroix Corporation supports the Terracing and Marsh Creation South of Big Mar (Project BS-24). As our corporation has had a marsh restoration and shoreline stabilization program for years, I realize that money is always tight and funds need to be allocated to their best use; however, I believe that this project is a worthwhile expenditure of funds and has my full support.

Very truly yours,

Robert M. Benge
President

RMB:pat

Bayou Grand Cheniere Marsh and Ridge Restoration BA-173

Bayou Grande Cheniere Marsh Creation and Ridge Restoration Project (BA-173)

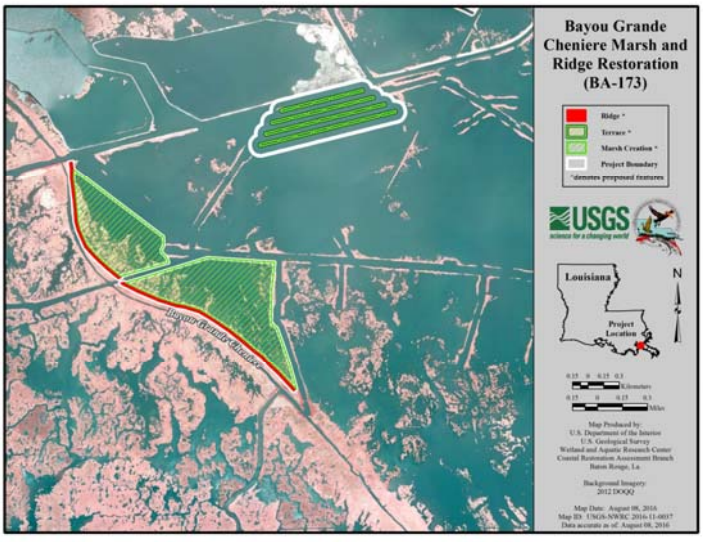
Phase II Request

December 7, 2016

Project Location

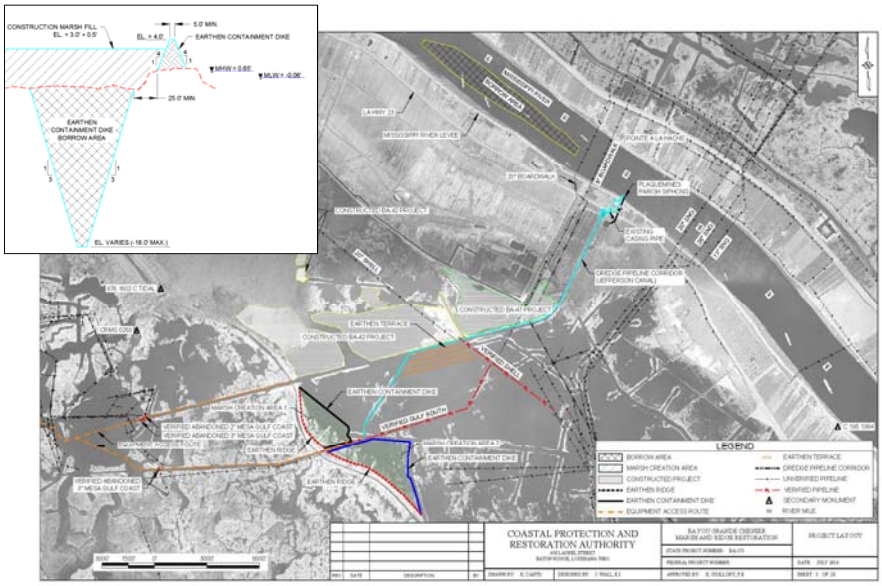
Project Background and Purpose

- Phase 1 approval in January 2014 as part of the 23rd Priority Project List
- Restore marsh habitat adjacent to the eastern shoreline of Bayou Grande Cheniere
- Reestablish the corresponding section of the bayou's forested ridge habitat along this shoreline
- Create terraces to restore marsh in open water habitat

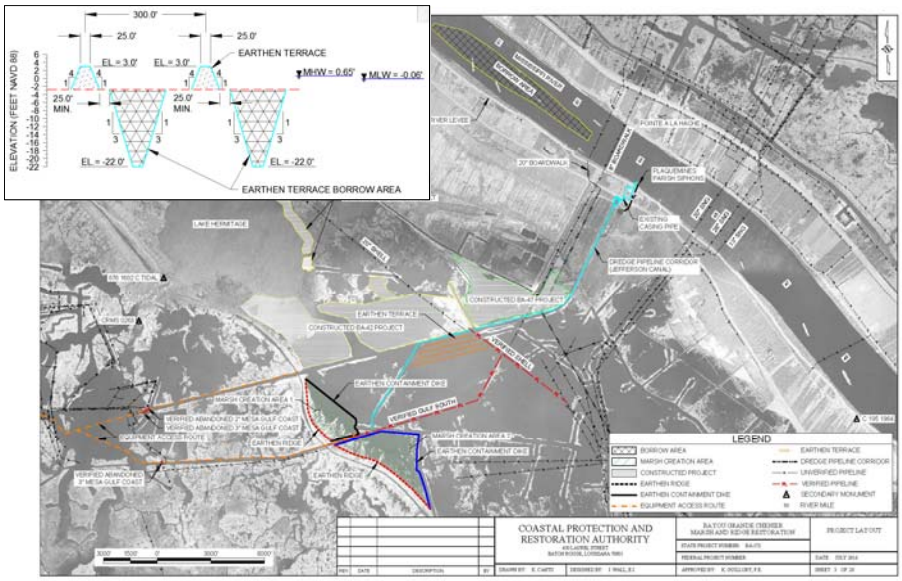


Marsh Creation/Nourishment: 302 acres
10,625 LF Ridge (21 acres)
11,700 LF terraces within 154 acres (10 acres)

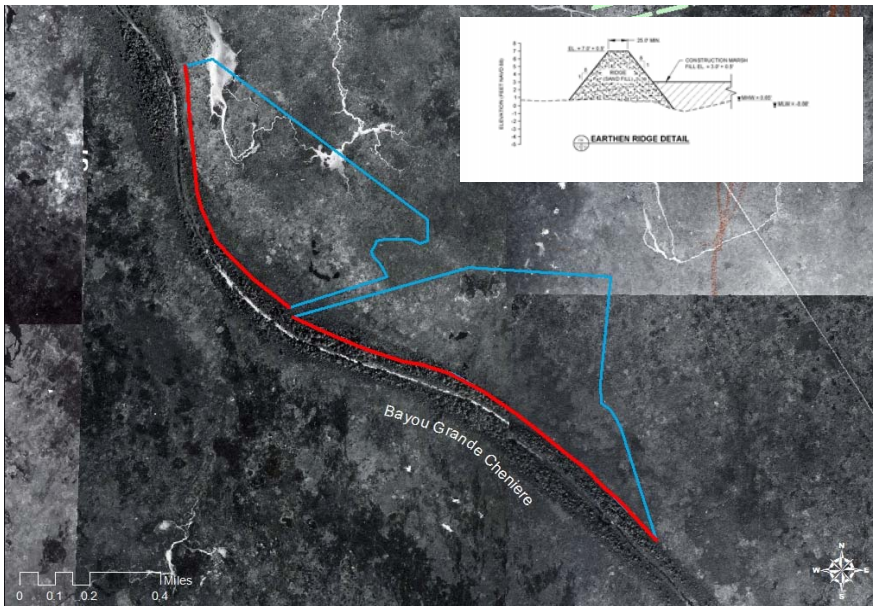
BA-173 Marsh Creation



BA-173 Terrace Design



BA-173 Ridge Detail

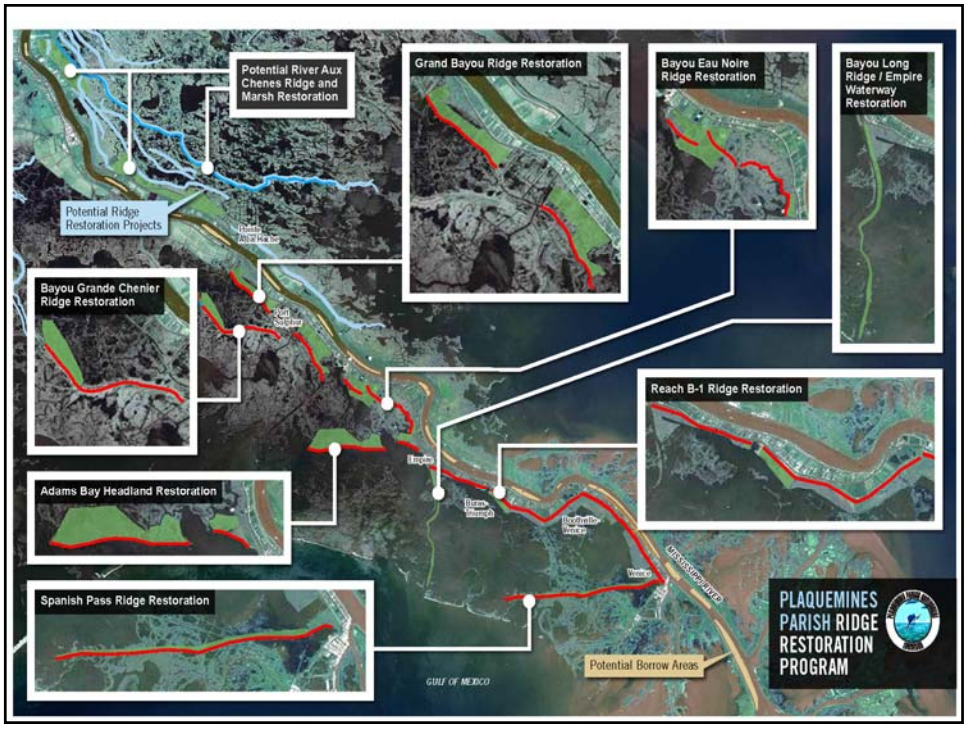


Project Benefits and Costs

- The project benefits 486 acres of marsh, chenier ridge, and open water habitats
- 237 net acres at the end of the 20-year project life
- Wetland Value Assessment – 129 net AAHUs
- Fully funded cost of $38,590,888
- **Today's Phase 2 Increment 1 request - $34,687,366**

Why Fund This Project Today?

- Synergy
  - Lake Heritage Marsh Creation project (BA-42)
  - West Point a la Hache siphons
  - Plaquemines Ridge Restoration Plan
- Restores marsh and historic ridge habitat that supports fish and wildlife resources
- Would help to buffer tidal exchange within the watershed and provide a multiple lines of defense strategy

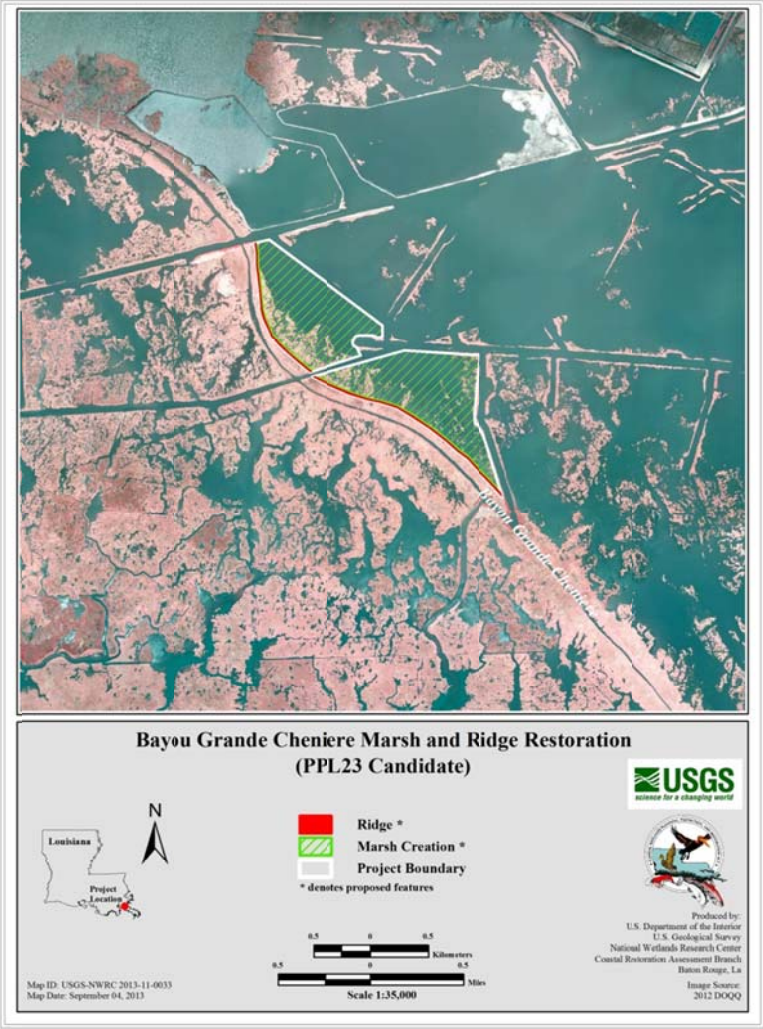


Phase II Authorization Request
Bayou Grande Cheniere Marsh and Ridge Restoration
BA-173

Description of Phase I Project

The BA-173 Project was approved for Phase I funding on the 23rd Priority Project List of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). At the time of Phase 1 approval the project's goals were to create approximately 342 acres of marsh with dredged material from the Mississippi River, and create 10,820 linear feet (12 acres) of forested coastal ridge habitat to benefit fish and wildlife resources along the eastern side of the historic Bayou Grande Cheniere. The following figure illustrates the project features and project boundary at the time of Phase I authorization.

Figure 1: Project Features and Boundary.



The following tasks were completed during Phase I engineering and design: 1) Interagency kickoff meeting and field trip; 2) Final Phase I Cost Share Agreement executed between FWS and CPRA; 3) Preliminary Landrights; 4) Elevation Surveys; 5) Preliminary Oyster Assessment; 6) Magnetometer Survey of access right-of-way and fill area; 7) Geotechnical Investigation of project features; 8) Wind Analysis; 9) 30% Design Review meeting; 10) Revised Wetland Value Assessment (WVA); 11) Draft Environmental Assessment; 12) Final Fully Funded Cost Estimate; 13) Section 303(e) review; 14) Section 404 Permit Application; 15) NRCS Overgrazing Determination; and 16) 95% Design Review meeting. The details of those E&D tasks were presented and discussed at the 30% and 95% Design Review meetings.

During Phase I development the northern marsh creation area was reduced by approximately 40 acres to avoid deeper bottom elevations. To offset the loss of potential benefits associated with those acres, 11,700 linear feet of terraces has been incorporated into the project design.

Description of the Revised (Current) Project Features

The currently proposed project consists of hydraulically dredging bottom sediments in the Mississippi River and pumping that material into open-water and fragmented marsh of the project area to create approximately 302 acres of marsh in two marsh creation cells. Containment dikes will be constructed around the fill sites to contain the dredged material slurry. Hydraulically-dredged river sediments will also be used to restore 10,625 linear feet of the Bayou Grande Cheniere Ridge. In addition, 11,700 linear feet of earthen terraces will be constructed from *in situ* borrow material resulting in the creation of approximately 10 acres of wetlands.

An initial fill elevation of 3.0 feet is proposed for the marsh creation area and would ultimately settle to an elevation at or near healthy marsh elevations (i.e., +0.75 feet) at target year (TY) 20. Containment dikes will be built to +4.0 feet with a 5-foot crown width and 1(V):4(H) side slopes. A side slope of 1V:5H is recommended for the eastern portion of the north cell containment dike in order to maintain adequate stability due to the variation in subsoil conditions and deeper bottom elevations.

For the earthen ridge a target elevation of 4.5 feet at TY5 was chosen based on 80th percentile of existing ridge elevation surveys. Based on this elevation, slope and stability analyses were performed, and it was determined that an initial constructed elevation of +7.0 feet, a side slope of 1V:8H, and a 25-foot crown width will be required in order to maintain adequate stability. The ridge alignment was based on the existing Bayou Grande Chenier Ridge. In order to avoid negatively impacting the existing marsh and vegetation, the BA-173 ridge will be constructed on the eastern side of existing marsh fringe. The total fill volume necessary to construct the earthen ridge is 230,906 cubic yards (CY) based on the above design parameters and a cut to fill ratio of 1.5.

Each terrace segment will be approximately 450 feet long and built to an elevation of +3.0 feet, with a 0.5 foot construction tolerance, with a 25-foot crown width and 1(V):4(H) side slopes. The terraces will be constructed with a bucket dredge using *in situ* material from within the terrace field.

It is anticipated that several lifts will be required to obtain the desired elevation of +3.0 feet. The terrace slopes will be planted with three rows (17,000 plugs) of smooth cordgrass, on 2.5-ft centers. The perimeter of the terrace crowns will be planted with one row (4,000 four-inch containers) of seashore paspalum on 5-ft centers.

Borrow Site

The identified borrow area will be the same Point Celeste Borrow Area that was used to construct the Lake Hermitage Marsh Creation (BA-42) project. Point Celeste is located between Mississippi River miles (RM) 49.5 and 52. This stretch of the river is located near the marsh fill site and the depths are shallow enough to be reached using a large hydraulic dredge. This borrow site contains sufficient sediment for the marsh fill sites and ridge construction. The BA-42 post-construction surveys show that over six million cubic yards remain in the borrow area as of June 2015. In addition, the borrow area is expected to infill, meaning even more volume will be available by the time the BA-173 project could go to construction. The maximum depth of cut in the borrow area was permitted for the BA-42 project at -90.8 feet NAVD 88 (Geoid 12A). The maximum expected volume to be dredged from the river to create the BA-173 project was estimated to be 4,415,115 CY under the Phase 0 preliminary design which included a larger marsh creation footprint.

Checklist of Phase II Request Requirements
Bayou Grande Cheniere Marsh and Ridge Restoration Project (BA-173)

A. List of Project Goals and Strategies

Goals:

1. Restore marsh habitat adjacent to the eastern shoreline of Bayou Grande Chenier,
2. Reestablish the corresponding section of the bayou's forested ridge habitat along this shoreline; and,
3. Create terraces to restore marsh in open water habitat.

Objectives/Strategies

1. Restore 302 acres of marsh habitat adjacent to the eastern shoreline of Bayou Grande Chenier.
2. Construct the marsh platform to an elevation that supports healthy marsh.
3. Reestablish the historic Bayou Grande Chenier Ridge to an elevation that supports healthy woody vegetation.
4. Establish the ridge with diverse native woody species.
5. Construct 11,700 linear feet of terraces to an elevation that will support healthy marsh.

The goals and objectives will be achieved by the project features described above. Project strategies and features have, for the most part, remained as proposed during Phase 0. The project team decided to add 11,700 linear feet of terraces to compensate for the reduction of the northern marsh creation area by 40 acres.

B. A Statement that the Cost-Sharing Agreement Between the Lead Agency and Local Sponsor has been Executed for Phase I.

Cost Share Agreement between CPRA and FWS was executed on January 23, 2015.

C. Notification from the State that Land Rights will be Finalized in a Short Period of Time after Phase II Approval.

The Service forwarded a copy of CPRA's Temporary Easement, Servitude, and Right-of-Way agreement (unsigned) for the BA-173 project to the Corps along with NRCS's Overgrazing Determination for their 303(e) determination by letter dated October 19, 2016.

By letter dated October 24, 2016, the State of Louisiana, through its Coastal Protection and Restoration Authority (CPRA) Lands Section. Certifies that land acquisitions have been and will be in accordance with all applicable Federal and State laws and regulations, and all standard real estate practices have been and will be followed. There are two major landowners within the project area and several landowners within the construction access corridors. No significant landrights problems are anticipated.

D. A Favorable Preliminary Design Review (30 Percent Design Level)

A 30 Percent Design Meeting was held in May 3, 2016, and resulted in favorable reviews of the project design. Responses to all meeting and post-meeting comments were provided. The Service and CPRA agreed to proceed with the project.

E. A Favorable Final Project Design Review (95 Percent Design Level)

A favorable 95 Percent Design Meeting was held on September 20, 2016. No major design issues were identified.

F. A Draft of the Environmental Assessment for the Project, as Required under the National Environmental Policy Act, must be Submitted 30 days Before the Request for Phase II Approval

The FWS submitted a preliminary draft Environmental Assessment for agency review on October 18, 2016.

G. Application for and/or Issuance of the Public Notices for Permits

Application for the Corps of Engineers permit and the Louisiana Coastal Resources Program consistency determination has been prepared and will be submitted should Phase II funding be awarded. DNR will forward the application to the LA Department of Environmental Quality for Water Quality Certification Review.

H. **A Statement that a Hazardous, Toxic and Radiological Waste (HTRW) Assessment has been Prepared, if Required**

The USFWS does not have the ability to issue HTRW Assessment at this time. A cursory screening of in-house databases and Environmental Protection Agency and Louisiana Department of Environmental Quality databases did not reveal any HTRW issues.

I. Section 303(e) Approval from the Corps

The project is currently being reviewed for consistency with the requirements of CWPPRA Section 303(e).

J. Overgrazing Determination from the NRCS

The Service received an Overgrazing Determination from the NRCS on August 15, 2016.

K. Revised Project Cost Estimate

The revised total budget for Phase II is $ 38,590,888. This amount represents an increase of 29 percent ($8,653,313) over the original Phase II cost estimate ($29,937,575) (See attached Request of Phase II Cost Estimate Table).

L. A Revised Wetland Value Assessment (WVA) must be Prepared if, During the Review of the Preliminary NEPA Documentation, Three of the Task Force Agencies Determine that a Significant Change in the Project Scope Occurred

A revised WVA was submitted to and reviewed by the Environmental Working Group. While the project scope has not significantly changed, methods in conducting the WVA have been revised by the Environmental Workgroup. The initial WVA completed in October 2013 yielded 264 net acres with a project boundary of 354 acres. The revised WVA completed in November 2016 yielded 237 net acres with a project boundary of 486 acres.

Table 2: Comparison of Original and Revised Wetland Value Assessments

Project Phase	Net Acres	Average Annual Habitat Units (AAHUs)	USGS Loss Rate
Phase I Project	264	146	-1.16%/year
Phase II Revised Project	237	129	-1.65%/year
Difference	-27	-17	-0.49%/year

Phase II Request

Based on the above information, the FWS and CPRA hereby request CWPPRA Task Force Phase II funding approval for the Bayou Grande Cheniere Marsh and Ridge Restoration Project (BA-173) in the 3-year incremental amount of $34,687,366. That amount includes $28,714,690 for construction; $665,173 for supervision and inspection; $4,307,204 for contingencies; $154,253 for administration by the Federal sponsor and $411,342 for State administration; $268,545 for monitoring; $160,242 for operations and maintenance (State and Federal); and $5,918 for Corps project management (See attached Request for Phase II Approval Cost Estimate Table).

AT 11/22/2016

State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

October 20, 2016

Mr. Darryl Clark
Acting Field Supervisor
Louisiana Ecological Services Office
U.S. Fish and Wildlife Service
646 Cajundome Boulevard, Suite 400
Lafayette, LA 70506

Re: 95% Design Review Concurrence for Bayou Grande Cheniere Marsh & Ridge Restoration Project (BA-173)
Statement of Local Sponsor Concurrence

Dear Mr. Clark:

The 95% Design Review meeting for the Bayou Grande Cheniere Marsh & Ridge Restoration Project (BA-173) project was held on September 20, 2016. Based on our review of the technical information compiled to date, the land ownership investigation, and the final design, the Coastal Protection and Restoration Authority, as the local sponsor, concurs to proceed with requesting Phase II construction funding for the project. In accordance with the CWPPRA Standard Operating Procedure Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee. Please keep me copied on all correspondence concerning this project.

Sincerely,

Dustin White
Project Manager

cc: Angela Trahan, USFWS
Stuart Brown, CPRA, CRS Supervisor
BA-173 Project File

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 12th Floor Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.coastal.la.gov
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Letters of Support

Dear Mr. Inman:

On behalf of the Board of Directors of the Bradish Johnson Co. (BJCo), I a writing in support of the Bayou Grande Cheniere Marsh and Ridge Restoration Project (BA-173).

The board admires the work of the Fish and Wildlife Service and the State, through the Coastal Protection and Restoration Authority, on the Lake Hermitage Project. That effort clearly illustrates that the methodology works and the benefits are sustainable.

Although the earlier work has been terrific, there is still much to be done in this area. Additional marsh restoration is critical to the natural environment and to provide greater protection from disastrous storm surges. Given these needs, we strongly support fully funding this project for construction.

From its earlier work and the work that has gone into this proposal, we know that this is a tested solution designed and ready to go. In addition, its costs are closely calculated and based on practical experience.

Please let me know if you have any questions or need additional information. We hope that the CWPPRA program will consider this project favorably as an important part of Louisiana Coastal Restoration and the protection of the citizens of our state.

Yours very truly,
Camille Strachan, BJCo Corporate Secretary and General Manager
--

Camille Jones Strachan
Conner & Strachan, L.L.P.
1113 St. Andrew Street
New Orleans, LA 70130
Tel: (504) 523-7784
Fax: (504) 525-3985
cjstrachan@gmail.com <mailto:cjstrachan@gmail.com>

Northwest Turtle Bay Marsh Creation
BA-125

BA-125
Northwest Turtle Bay Marsh Creation

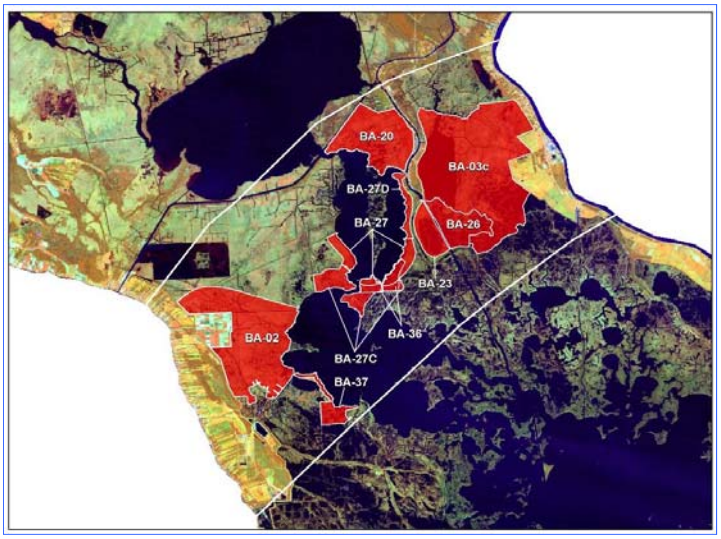
Phase II Request
Technical Committee Meeting
December 7, 2016

Project location within the Barataria Basin

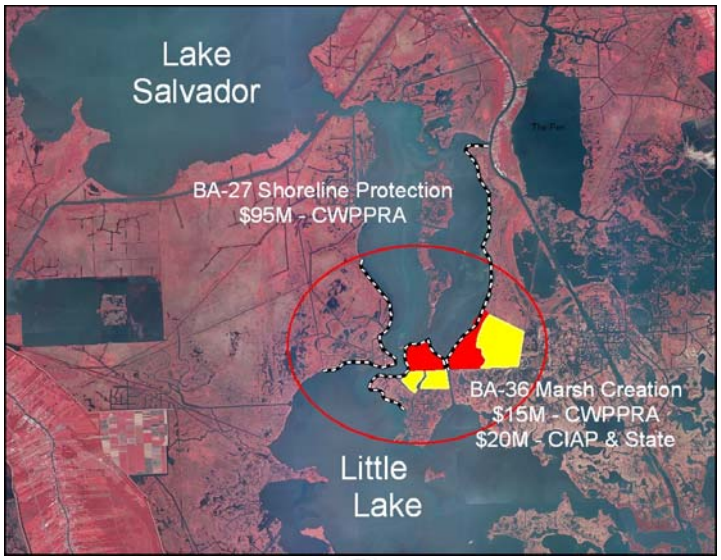
Project Background

- Nominated in January 2011
- Approved for Phase 1 in January 2012
- Kickoff Meeting and Site Visit in May 2012
- 30% Design Review Meeting on March 27, 2014
- 95% Design Review Meeting on November 27, 2016
- Scope Change and Phase 2 request – December 2016

Barataria Basin Landbridge Concept



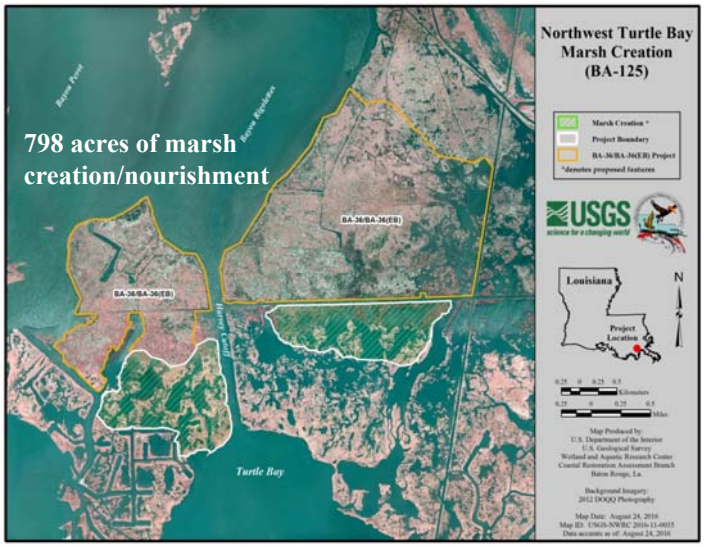
Past Regional Investment



Project Purpose

- Developed to complement other restoration projects in restoring/protecting intermediate marsh on the Barataria Basin Landbridge
  - BA-27 Barataria Basin Landbridge Shoreline Protection (Phases 1-4)
  - BA-36 Dedicated Dredging on the Barataria Basin Landbridge
- Restores marsh on a critical landmass between Little Lake and Bayou Perot/Rigolettes

Phase 2 Project



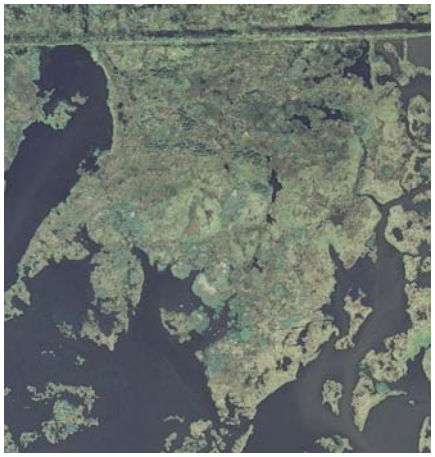
BA-36 Semi-Confined Expansion Areas

BA-36 Semi-Confined Expansion Areas

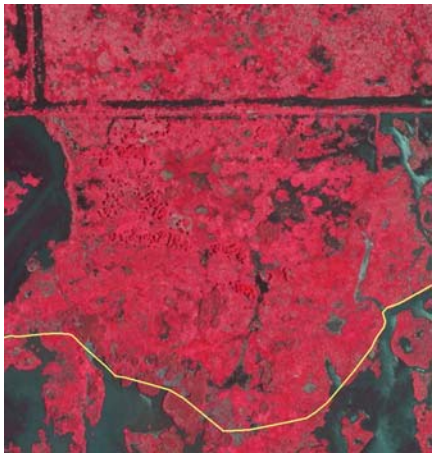
Pre-project

4 months post construction

BA-36 Semi-Confined Expansion Areas



3.5 years post construction



5 years post construction

BA-36 Semi-Confined Expansion Areas

BA-36 Semi-Confined Expansion Areas

Marsh Conditions in the Eastern Fill Area

Benefits and Costs

- Benefits 798 acres of marsh and open water habitats
- 432 net acres at the end of the 20-year project life
- Wetland Value Assessment – 211 net AAHUs
- Fully funded cost of $33,664,671
- **Today's Phase 2 Increment 1 request - $30,252,307**

Why Fund This Project Today?

- Builds upon several other restoration efforts aimed at protecting and restoring marsh on the Barataria Basin Landbridge
- Complements the BA-27d Barataria Landbridge Shoreline Protection Projects (Phases 1-4) , and BA-36 Dedicated Dredging on the Barataria Basin Landbridge
- Provides an excellent opportunity to construct a designed semi-confined marsh creation cell and compare results to an adjacent site
- The Eastern Fill Area could be one storm away from significantly deteriorating into a large interior open water area

Phase II Authorization Request
Northwest Turtle Bay Marsh Creation
BA-125

Description of Phase I Project

The BA-125 Project (Figure 1) was approved for Phase I funding on the 21st Priority Project List of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA).

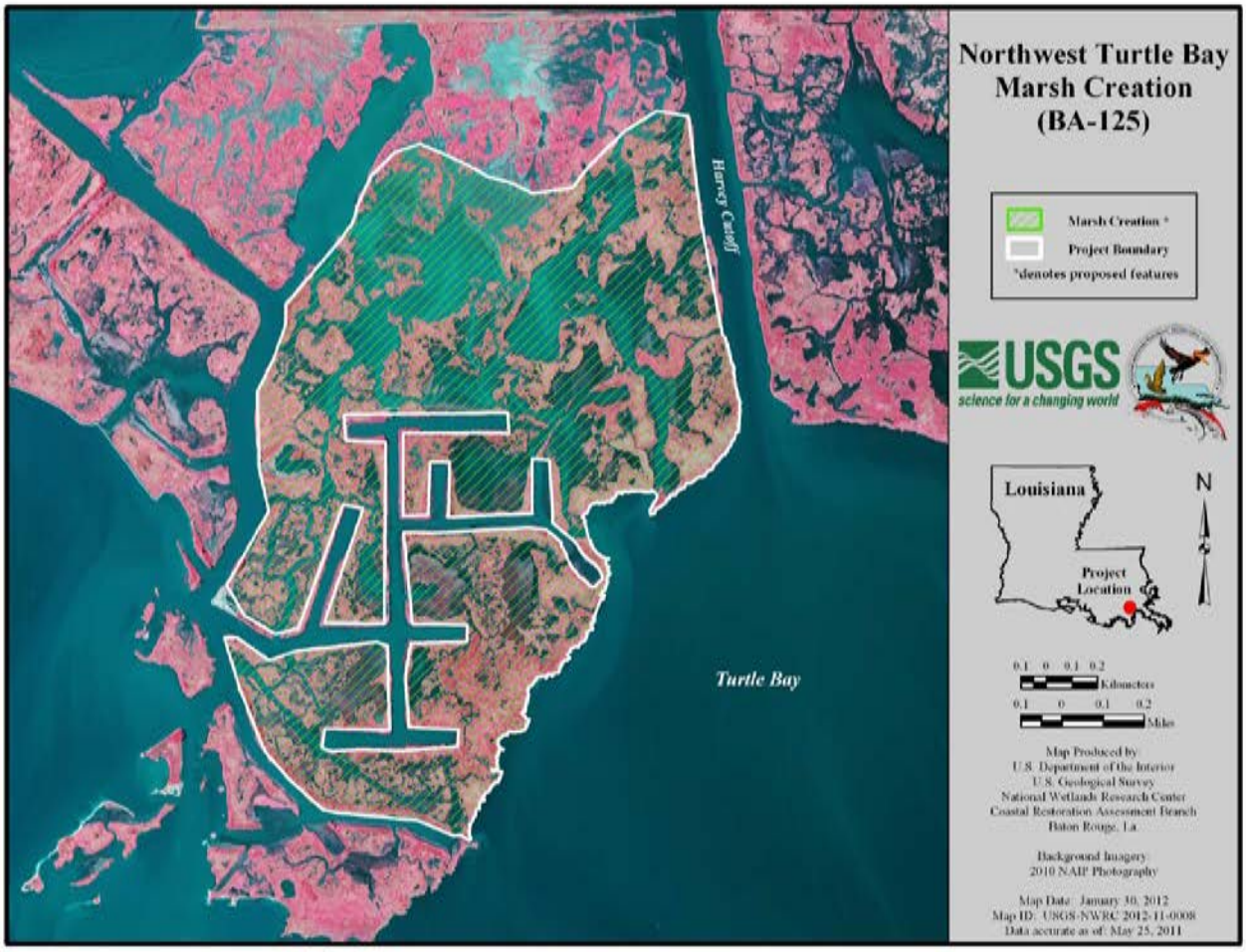


Figure 1. Phase 1 Project.

At the time of Phase 1 authorization, project features included:

1) Creation of 760 acres of marsh (423 acres of marsh creation and 337 acres of marsh nourishment) with dredged material from Turtle Bay using semi-confined disposal of the dredged material. It is believed that semi-confined disposal will result in the creation of a more natural marsh, increased tidal connectivity, and greater habitat diversity than traditional marsh creation utilizing full perimeter containment. This construction technique was successfully utilized in

4) Topographic and bathymetric surveys of the borrow and fill sites
5) Magnetometer surveys of borrow and fill sites
6) Geotechnical investigation of the borrow and fill sites
7) Oyster seed ground assessment
8) 30% design review
9) 95% design review
10) Revised Wetland Value Assessment
11) Revised fully funded cost estimate
12) Cultural resources clearance from Department of Culture, Recreation and Tourism
13) HTRW assessment (pending)
14) Overgrazing determination
15) Draft Environmental Assessment
16) Section 303e approval (pending)

Engineering and Design Tasks

Topographic, bathymetric, and magnetometer surveys were performed in the project area to facilitate the design of the marsh creation cells and borrow area. A geophysical, bathymetric, and magnetometer survey was performed in the borrow site to determine the available quantity of sediment and verify existing pipelines and detect any unknown and/or abandoned pipelines or other underwater obstructions.

In order to determine the suitability of the soils in the project area for marsh creation, a geotechnical investigation was performed which included collection of soil borings, cone penetrometer tests, and laboratory tests to determine soil characteristics. A total of 21 subsurface borings and 12 cone penetrometer tests were drilled in the project area and within the borrow. Analyses performed include; 1) a general geologic evaluation, 2) slope stability analyses for the containment dikes, and 3) a settlement analysis to determine the target fill elevations for the marsh creation cells.

A 30% design interagency review meeting was held on March 27, 2014. A 95% design interagency review meeting was held on October 27, 2016.

Landrights, Cultural Resources, Environmental Compliance and Other Tasks

Preliminary landrights work has proceeded smoothly and no problems are anticipated in acquiring final landrights. Correspondence from CPRA dated November 9, 2016, indicates no significant landrights acquisition problems are anticipated and that all remaining landrights tasks should be completed in approximately nine to ten months following Phase 2 funding approval.

The Louisiana Department of Culture, Recreation and Tourism reviewed the project information to determine if any cultural resources may be impacted by project implementation. In a March 16, 2016 email, they indicated that no known historic properties will be affected by this project and indicated no objection to project implementation.

An application for a Section 404 permit from the Corps of Engineers has not been submitted. It is anticipated that a permit application will be submitted shortly after Phase 2 approval.

Correspondence dated May 7, 2014, and email dated July 11, 2016, from the Natural Resources Conservation Service indicated that overgrazing is not a problem within the project area.

A request for Section 303e approval was submitted to the Corps of Engineers on July 21, 2016. As of November 21, 2016, a determination has not been received from the Corps of Engineers.

A hazardous, toxic, and radiological waste (HTRW) assessment is currently being conducted by the FWS. It is not anticipated that HTRW materials will be encountered during project implementation.

A draft Environmental Assessment will be issued for public comment prior to the December 7, 2016, Technical Committee meeting.

Project Scope Change

Due to an increase in the project cost, a change in scope is being requested per the CWPPRA Standard Operating Procedures. The fully funded project cost has increased from the original Phase 1 approved estimate of $23,198,758 to the current estimate of $33,664,671 an increase of 45%. The primary reason for the cost increase is an increase in marsh creation fill quantities after modifications were made to the fill areas between the 30% and 95% design. The 30% design project included one fill site west of the Harvey Cutoff (Figure 1). In the southern half of the fill site, numerous pipelines and oil/gas canals presented problems for equipment access and required several discharge locations for dredging operations. Therefore, the southern half of the fill site was removed from the project area and an alternative fill site east of the Harvey Cutoff (Figure 2) was selected to maintain the marsh creation footprint and achieve project goals. Due to an increase in water depths and open water acreage, the eastern fill site requires a greater fill quantity than the area removed from the Phase 0 project.

Although costs have increased, the project still remains a viable, cost-effective project. With a total cost per net acre of $77,927 and an average annual cost per net AAHU of $10,532, it is the most cost effective project of those requesting Phase 2 funds. Both measures of cost effectiveness place this project well within the range of projects funded by the CWPPRA program.

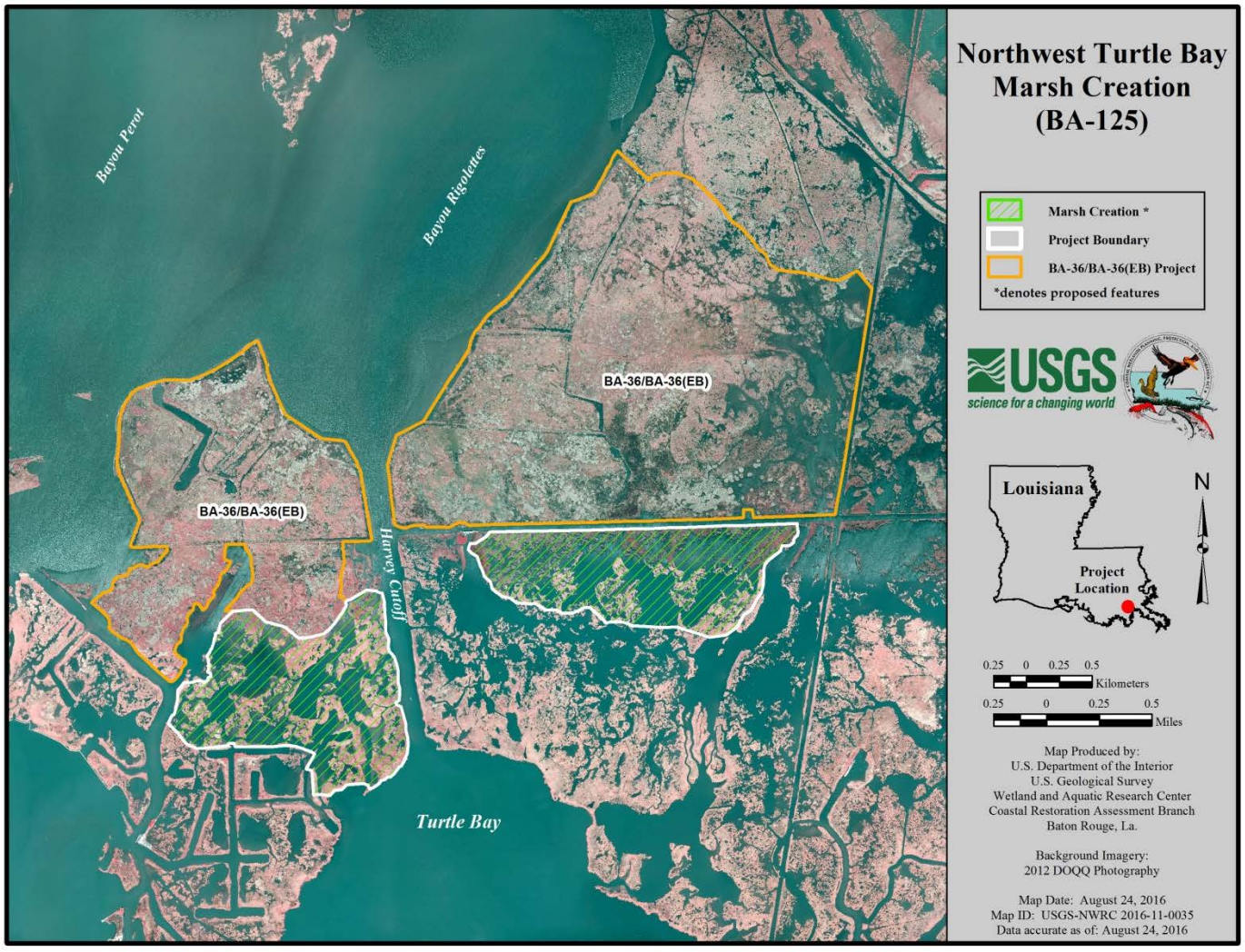


Figure 2. Phase 2 Project Boundary.

Description of the Phase II Candidate Project

Project Features

1) Sediment will be hydraulically dredged in Turtle Bay and pumped into a fully-contained marsh creation cell north of Turtle Bay and east of the Harvey Cutoff (Figure 2). Approximately 282 acres of marsh will be created and 87 acres nourished for a total of 369 acres. Dredged material (2.5M cubic yards) will be placed to a fill height of +1.5 ft (all elevations are NAVD88 and reference Geoid 12A) with a vertical tolerance of +0.5 ft. According to geotechnical analyses, dewatering and compaction of dredged sediments will produce elevations conducive to the establishment of marsh vegetation throughout the project life. Perimeter containment dikes will be constructed to +3.0 ft with a top width of 5 ft and 6:1 side slopes. Containment dikes will be gapped at the end of construction or no later than target year (TY) 3 to reestablish hydrologic connectivity with adjacent wetlands.

2) Sediment will be hydraulically dredged in Turtle Bay and pumped into a marsh creation cell northwest of Turtle Bay and west of the Harvey Cutoff (Figure 2). This cell encompasses 429 acres and includes 164 acres of marsh and 265 acres of open water. Full perimeter containment will not be utilized for this cell. Semi-confined containment of the dredged material is proposed. Existing canal spoil banks, dense marsh, and limited segments of containment dikes will be constructed in breaches and tidal cuts to contain the dredged material. Dredged material (2.0M cubic yards) will be pumped at specified discharge locations and allowed to "mound" to an elevation of +1.5 ft with a +0.5 ft vertical tolerance. According to geotechnical analyses, dewatering and compaction of dredged sediments will produce elevations conducive to the establishment of marsh vegetation throughout the project life.

Updated Assessment of Benefits

An updated WVA was reviewed and approved by the Environmental Workgroup. Project benefits include 211 net AAHUs and 432 net acres.

Modifications to the Phase 1 Project

As a result of comments to the 30% design, the 95% design included modifications to produce a more constructible project. The project was redesigned to avoid the numerous pipelines and oil/gas canals in the southern portion of the original project area. The northern portion of the original project area was retained and designated as the western marsh creation cell (MCA). The western MCA was designed to utilize a semi-confined construction method. To replace the lost acreage due to the modification of the original project footprint, an additional marsh creation area east of the Harvey Cutoff was created and designated as the eastern MCA. Due to the significantly deteriorated marsh along the southern boundary of the eastern MCA, it will be constructed using traditional fully contained construction methods. Overall, the project location, acreage, and features remain similar to the Phase 0 project.

Current Cost Estimate

The fully-funded cost estimate prepared by the CWPPRA Economics Work Group is $33,664,671.

Checklist of Phase Two Requirements

A. List of Project Goals and Strategies.

The overall goal of the proposed project is to restore marsh on the Barataria Basin Landbridge. Extensive marsh loss has occurred in the area between Lake Salvador and Little Lake from shoreline erosion and interior marsh loss. This area is important in that it provides a critical landmass separating the lower salinity, upper Barataria Basin from the lower basin which is dominated by marine processes. This project was developed to complement the Barataria Basin Landbridge Shoreline Protection projects along Bayous Perot and Rigolettes and the Dedicated Dredging on the Barataria Basin Landbridge Project (BA-36).

Specific goals of the project are: 1) Create approximately 700 acres (484 acres of marsh creation and 216 acres of marsh nourishment) of marsh with dredged material from Turtle Bay. The total project area is 798 acres but will not be completely filled.

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 FWS and the State of Louisiana was executed on May 10, 2012.

C. Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase 2 approval.

Correspondence from CPRA dated November 9, 2016, indicates no significant landrights acquisition problems are anticipated and that all remaining landrights tasks should be completed in approximately nine to ten months following Phase 2 funding approval.

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 March 27, 2014. CPRA (via letter dated September 27, 2016) agreed on the project design and to proceed 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 review meeting was held on October 27, 2016, and resulted in favorable reviews

of the project design with minor modifications. CPRA agreed (see Attachment 1) on the project design and to proceed with a Phase 2 funding request.

F. A draft of the Environmental Assessment, as required under the National Environmental Policy Act must be submitted thirty days before the request for Phase 2 approval.

A draft EA will be issued for public comment prior to the December 7, 2016, Technical Committee meeting.

G. A written summary of the findings of the Ecological Review, if completed.

An Ecological Review is no longer required by the CWPPRA program.

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.

An application for a Section 404 permit from the Corps of Engineers will be submitted soon after Phase 2 approval.

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

An HTRW assessment/contaminants screening is being conducted by the Service and should be completed during December 2016. Based on preliminary information and previous experience, it not anticipated that HTRW materials will be encountered during project implementation.

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

A request for Section 303e approval was submitted to the Corps of Engineers in July 2016. Section 303e approval has not been received as of November 21, 2016.

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

Correspondence dated May 7, 2014, and email dated July 11, 2016, from the Natural Resources Conservation Service indicated that overgrazing is not a problem within the project area.

L. Revised fully funded cost estimate, reviewed and approved by the Engineering Work group prior to fully funding by the Economics Work Group, based on the revised project design and the specific Phase 2 funding request as outlined in below spreadsheet.

The revised fully-funded cost of the project is $33,664,671. The Phase 2 Increment 1 funding request (construction estimate and three years of monitoring and O&M) is $30,252,307. The budget sheets, with the anticipated schedule of expenditures, are provided in Attachment 1.

Attachment 1

State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

November 10, 2016

Mr. Jeffrey D. Weller
U.S. Fish and Wildlife Service
Louisiana Ecological Services Office
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506

Re: Phase 2 Request for Northwest Turtle Bay Marsh Creation Project (BA-125)
Statement of Local Sponsor Concurrence

Dear Mr. Weller,

The 95% Design Review meeting for Northwest Turtle Bay Marsh Creation project (BA-125) was held on October 27, 2016. Based on the project information compiled to date, the Coastal Protection and Restoration Authority, as the local sponsor, concurs to proceed with the Phase 2 request for BA-125.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee. We concur with proceeding to Phase 2 request with the preferred design and revised project cost estimate and benefits.

Please call me at (225) 342 6412 if you have any questions.

Sincerely,

Devyani Kar
Project Manager

cc: Kevin Roy, Project Manager, U.S. Fish and Wildlife Service
Stuart Brown, Coastal Protection and Restoration Authority
Thomas McLain, Coastal Protection and Restoration Authority

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Letters of Support

JEFFERSON PARISH
Office of the President

Michael S. Yenni
Parish President

November 18, 2016

Mr. Brad L. Inman, Chief
Programs & Project Management Division
Projects and Restoration Branch
US Army Corps of Engineers - New Orleans District
7400 Leake Avenue
New Orleans, LA 70118

RE: CWPPRA Phase II Funding Recommendation - Northwest Turtle Bay Marsh Creation
CWPPRA PPL-26 Phase I Funding Recommendation - Elmer's Island Marsh Creation

Dear Mr. Inman:

Jefferson Parish strongly supports the approval of the **Northwest Turtle Bay Marsh Creation (BA-125)** project for Phase 2 construction funding. This project, which will create 484 acres of marsh and nourish 216 acres of marsh, is critical to the restoration of the Barataria Landbridge, a critical landform between Little Lake and Bayous Perot and Rigolettes southwest of Lafitte. Restoration of this marsh will help provide a protective buffer for residents in the communities of Lafitte, Barataria, and Crown Point. This is of critical importance to the Town of Jean Lafitte and surrounding communities, which are located outside of the hurricane protection system and rely heavily on the storm surge reduction provided by wetlands.

Jefferson Parish also urges the approval of the **Elmer's Island Marsh Creation** project for Phase I design and engineering funding. This project will enhance protection to LA Highway 1, the only evacuation route for the Town of Grand Isle.

Joseph S. Yenni Building – 1221 Elmwood Park Blvd – Suite 1002 – Jefferson, LA 70123 – PO Box 10242 – Jefferson, LA 70181-0242
Office 504.736.6400 – Fax 504.736.6638
General Government Building – 200 Derbigny St – Suite 6100 - Gretna, LA 70053 – PO Box 9 – Gretna, LA 70054
Office 504.364.2700 – Fax 504.364.2828
Email: MYenni@jeffparish.net Website: www.jeffparish.net

Thank you for providing this opportunity to provide our support for these two projects located in the Barataria Basin, an area experiencing the highest rate of land loss in Louisiana.

Sincerely,

MICHAEL S. YENNI
President

TOWN OF JEAN LAFITTE
OFFICE OF THE MAYOR

TIMOTHY P. KERNER
MAYOR

YVETTE CRAIN
TOWN CLERK

MARCELL RODRIGUEZ
CHIEF OF POLICE

2654 Jean Lafitte Blvd.
Lafitte, Louisiana 70067
Office: (504) 689-2208
Police: (504) 689-3132
Fax: (504) 689-7801

COUNCIL MEMBERS

SHIRLEY GUILLIE
MAYOR PROTEM

BARRY BARTHOLOMEW
CHRISTY CREPPEL
VERNA SMITH
CALVIN LEBEAU

November 18, 2016

Brad L. Inman, Chief
Programs & Project Management Division
Projects and Restoration Branch
US Army Corps of Engineers - New Orleans District
7400 Leake Ave
New Orleans, LA 70118

RE: CWPPRA PPL-26 Recommendations

Dear Mr. Inman:

The town of Jean Lafitte and the Lafitte Area Independent Levee District strongly support the approval of **Northwest Turtle Bay Marsh Creation (BA-125)** project for Phase 2 construction funding. This project will create 484 acres of marsh and nourish 216 acres of marsh on a critical landform between Little Lake and Bayous Perot and Rigolettes southwest of Lafitte. Restoration of this marsh will help provide a protective buffer for residents in the communities of Lafitte, Barataria, and Crown Point. The Town of Jean Lafitte and surrounding communities are located outside of the hurricane protection system and rely heavily on the storm surge reduction provided by wetlands.

We would also like to extend our support to the **Elmer's Island Marsh Creation** project for Phase 1 design and engineering funding. This project will enhance protection to LA Highway 1. This highway is the only evacuation route for the Town of Grand Isle, and Lafitte area residents being in a similar situation with LA Highway 45, can certainly appreciate the importance of protecting this vital roadway.

Thank you for providing this opportunity to provide our support for these two projects located in the Barataria Basin, which has the highest rate of land loss in Louisiana.

Sincerely,

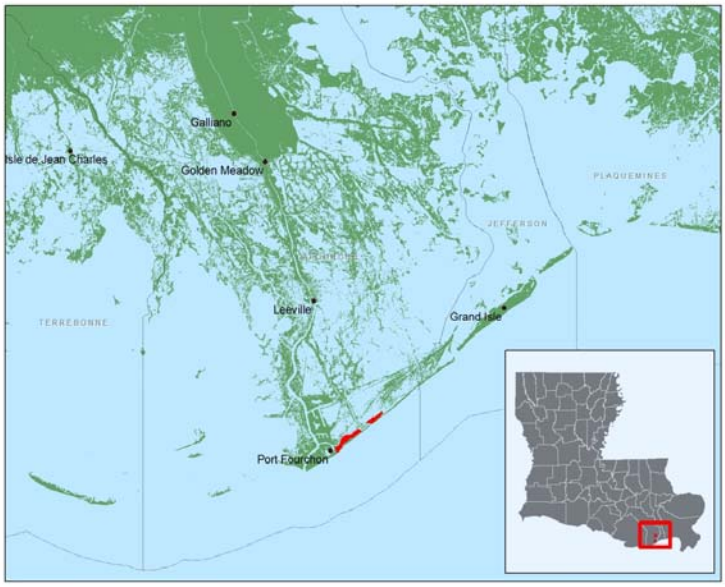
Timothy P. Kerner
Mayor, Town of Jean Lafitte
President, Laffite Area Independent Levee District

Caminada Headland Back Barrier Marsh Creation BA-171

BA-171 Caminada Headlands Back Barrier Marsh Creation Project (CWPPRA PPL23)

Technical Committee Meeting
December 7, 2016

BA-171 Project Location



Coastal Protection and Restoration Authority of Louisiana

BA-171 Project Timeline Overview

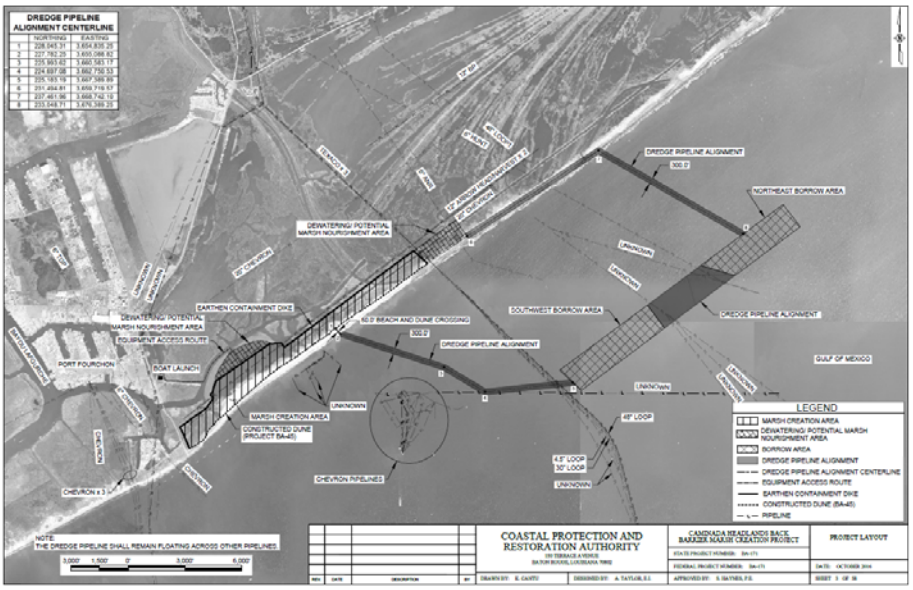
BA-171 Project Goals

- Create/nourish 385 acres of back barrier intertidal marsh and emergent marsh using material dredged from the Gulf of Mexico
- Create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, improving the longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west.

BA-171 Project Features

- Create/nourish 385 acres of back barrier intertidal marsh and emergent marsh
- Earthen containment dike (portions with woven geotextile fabric)
- Dewatering/marsh nourishment towards Bay Champagne and east of BA-171
- Vegetative plantings at Years 1 and 3

BA-171 Project Plan



BA-171 Project Benefits

- 385 acres of created/nourished marsh
  - 248 acres of marsh creation
  - 137 acres of marsh nourishment
- One continuous marsh platform behind the beach and dune, which provides a more easily and more cost effective project
- Protects infrastructure and cities to the north more effectively as the beach and dune migrates landward
- Works synergistically with Caminada Headland Beach and Dune project (BA-45)
- Reduces the risk of breaches through BA-45, especially at Bayou Moreau.
- 122 AAHUs

BA-171 Project Costs

- Fully Funded Cost: $33,873,985
- Phase II Request: $29,087,196

Why should we fund BA-171 now?

- Vital habitat for red knot, piping plover, and migratory birds
- Reduces the loss of overwashed sediment into open water (i.e. Bay Champagne)
- Works synergistically with Caminada Headland Beach and Dune project (BA-45) by increasing its longevity and value
- Reduces the risk of breaches through BA-45, especially at Bayou Moreau
- Strengthens storm-buffering functions for infrastructure to the north and west
- Strong landowner and community support
- Increases habitat for fisheries and wildlife

Questions?

CPRA
Mrs. Renee Bennett (PM)
225-342-4592
Renee.S.Bennett@la.gov

CPRA
Ms. Amanda Taylor, EI (Engineer)
225-342-9419
Amanda.Taylor@la.gov

EPA
Mr. Adrian Chavarria (PM)
214-665-3103
Chavarria.Adrian@epa.gov

Enclosure I – Original Fact Sheet and Map

February 2014
Cost figures as of: May 2014

Caminada Headlands Back Barrier Marsh Creation (BA-171)

Project Status

Approved Date: 2014 **Project Area:** 430 acres
Approved Funds: $3.35 M **Total Est. Cost:** $31.0 M
Net Benefit After 20 Years: 181 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 23

Location

The project area is defined as the area south of Louisiana Highway 1 between Belle Pass and Caminada Pass and includes the area in and around Bay Champagne and area to the east and west of Bayou Moreau along the coast. The Caminada Headlands Back Barrier Marsh Creation project is located along the Louisiana coastline in LaFourche Parish in CWPPRA Planning Region 2.

Problems

The Caminada Headland has experienced some of the highest shoreline retreat rates in Louisiana. Historically the shoreline has migrated landward at about 40 feet per year. Between 2006 and 2011, shoreline migration increased dramatically, exceeding 80 feet per year in near Bay Champagne and 110 feet per year in the Bayou Moreau area. The increased losses occurred in the wake of Hurricanes Katrina and Rita in 2005 as the breaches remained open for an extended length of time. The losses were exacerbated by Tropical Storm Fay and Hurricanes Gustav and Ike in 2008. Significant prolonged breaches greatly increase the net export of sediment from the headland.

In addition to the shoreline migration, the area is also experiencing high loss rates of interior marshes. As the beach and dune continue to migrate landward, overwashed sediment will be lost into newly formed open water and land loss rates will be exacerbated. The continued deterioration of Caminada headland threatens thousands of acres of wetland habitat as well as critical infrastructure, including Port Fourchon, LA Highway 1, and the lower Lafourche levee system.

Restoration Strategy

The goals of this project are to: 1) Create and/or nourish 430 acres of back barrier marsh, by pumping sediment from an offshore borrow site; 2) Create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, improving the longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west. The proposed project is expected to slow the current trend of degradation in the headland.

Dredge material from the Gulf of Mexico will be pumped into open-water areas which will create 300 acres of back barrier marsh and nourish 130 acres of emergent marsh behind 3.5 miles of the Caminada beach.

This project would create 300 acres of back barrier intertidal marsh and nourish 130 acres of emergent marsh behind 3.5 miles of the Caminada beach using material dredged from the Gulf of Mexico. The marsh creation and nourishment cells are designed to minimize impacts on existing marsh and mangroves. Assuming some natural vegetative recruitment, vegetative plantings are planned at a 50% density, with half planned at project year one and half planned at project year 3. Containment dikes will be degraded or gapped by year three to allow access for estuarine organisms.

Progress to Date

This projects is on Priority Project List 23.

For more project information, please contact:

Federal Sponsor:
U.S. Environmental Protection Agency
Dallas, TX
(214) 665-6722

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

Caminada Headlands Back Barrier Marsh Restoration (BA-171)

Marsh Creation *

Project Boundary

*denotes proposed features

USGS science for a changing world

Louisiana

N

Project Location

0.2 0 0.2 0.4 Kilometers

0.2 0 0.2 0.4 Miles

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

Background Imagery:
2012 DOQQ

Map Date: February 10, 2014
Map ID: USGS-NWRC 2014-11-0007
Data accurate as of: August 17, 2013

Enclosure II – Revised Fact Sheet and Map

rev. November 2016
Cost figures as of: aaaDatePadPad

Caminada Headlands Back Barrier Marsh Creation (BA-171)

Project Status

Approved Date: 2014 **Project Area:** aaaArea
Approved Funds: aaaAF **Total Est. Cost**: aaaTEC
Net Benefit After 20 Years: aaaNB
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 23

Location

The project area is defined as the area south of Louisiana Highway 1 between Belle Pass and Caminada Pass, directly behind Caminada Headland beach covering areas in and around Bay Champagne and areas east of Bayou Moreau. The Caminada Headlands Back Barrier Marsh Creation project is located along the Louisiana coastline in LaFourche Parish in CWPPRA Planning Region 2.

Problems

The Caminada Headland has experienced some of the highest shoreline retreat rates in Louisiana. Historically the shoreline has migrated landward at about 40 feet per year. Between 2006 and 2011, shoreline migration increased dramatically, exceeding 80 feet per year in near Bay Champagne and 110 feet per year in the Bayou Moreau area. The increased losses occurred in the wake of Hurricanes Katrina and Rita in 2005 as the breaches remained open for an extended length of time. The losses were exacerbated by Tropical Storm Fay and Hurricanes Gustav and Ike in 2008. Significant prolonged breaches greatly increase the net export of sediment from the headland.

In addition to the shoreline migration, the area is also experiencing high loss rates of interior marshes. As the beach and dune continue to migrate landward, overwashed sediment will be lost into newly formed open water and land loss rates will be exacerbated. The continued deterioration of Caminada Headland threatens thousands of acres of wetland habitat as well as critical infrastructure, including Port Fourchon, LA Highway 1, and the lower Lafourche levee system.

Restoration Strategy

The goals of this project are to: 1) Create and/or nourish 385 acres of back barrier marsh, by pumping sediment from an offshore borrow site; 2) Create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, improving the longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west. The proposed project is expected to slow the current trend of degradation in the headland.

Dredge material from the Gulf of Mexico will be pumped into the project area to create 210 acres of back barrier marsh and nourish 175 acres of emergent marsh behind 3.5 miles of the Caminada beach.

This project would create 210 acres of back barrier intertidal marsh and nourish 175 acres of emergent marsh behind 3.5 miles of the Caminada beach using material dredged from the Gulf of Mexico. The marsh creation and nourishment cells are designed to minimize impacts on existing marsh and mangroves. Assuming some natural vegetative recruitment, vegetative plantings are planned at a 50% density, with half planned at project year one and half planned at project year 3. Containment dikes will be degraded or gapped by year three to allow access for estuarine organisms.

Progress to Date

A kick-off meeting was held in June 2014. The project team has completed preliminary engineering and design, environmental compliance, real estate negotiations, operation & maintenance and monitoring planning, and a cultural resources investigation, all to the 95% design level as required by the CWPPRA standard operating procedures. The 30% design review meeting was held July 28, 2016 and the 95% design review was held on October 28, 2016. The Phase II Request for construction funding will be presented to the CWPPRA Tech Committee on December 7, 2016.

This project is on Priority Project List 23.

For more information, please contact:

Federal Sponsor:
U.S. Environmental Protection Agency
Dallas, TX
(214) 665-2712

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

Caminada Headlands Back Barrier Marsh Restoration (BA-171)

Marsh Creation *

Project Boundary

*denotes proposed features

USGS science for a changing world

0.2 0 0.2 0.4 Kilometers

0.2 0 0.2 0.4 Miles

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

Background Imagery:
2012 DOQQ

Map Date: August 08, 2016
Map ID: USGS-NWRC 2016-11-0038
Data accurate as of: August 02, 2016

Enclosure III – Landrights Finalization

State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

October 13, 2016

Adrian Chavarria
Environmental Engineer
U.S. Environmental Protection Agency (6WQ-EC)
1445 Ross Ave.
Dallas, TX 75202

RE: CWPPRA Section 303(e) Approval
Caminada Headlands Back Barrier Marsh Creation (BA-171)
Lafourche Parish, Louisiana

Dear Mr. Chavarria:

By this letter, I am transmitting to you a copy of the Coastal Protection and Restoration Authority (CPRA) of Louisiana's Temporary Easement, Servitude and Right-of-Way Agreement which will be used to acquire the necessary landrights for the Caminada Headlands Back Barrier Marsh Creation (BA-171) Project's construction; and a map depicting the Caminada Headlands Back Barrier Marsh Creation (BA-171) Project Limits.

The enclosed documents and statements provided below fulfill the requirements as outlined in Section 6(g) (2)(b) of the *Standard Operating Procedures Manual* for CWPPRA projects: the "Language of land rights" which states the "type of land rights required", and a map to describe the "Plan showing project limits." The "Language of land rights" document is approved by the CPRA counsel. *By this letter, CPRA certifies that land acquisitions have been and will be in accordance with all applicable Federal and State laws and regulations, and all standard real estate practices have been and will be followed.*

Pursuant to Section 6(g) (2)(b)(v): the Environmental Protection Agency must also provide to the COE a statement from NRCS "as to whether overgrazing in the project area is a problem and whether easements restricting grazing are required" for this project.

In accordance with Section 6(g) (2)(b): Please provide "One hard copy of the Section 303(e) request materials shall be sent to the below address. In addition, submit one copy of the 303(e) request materials electronically to the COE CWPPRA 303(e) point of contact (or the P&E Chairman and he will distribute accordingly)."

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 12th Floor Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.coastal.la.gov
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U.S. Army Corps of Engineers
ATTN: CEMVN-PM-BC (CWPPRA Program)
7400 Leake Ave.
New Orleans, LA 70118

If you need further assistance or have any questions regarding this matter, please contact me at (225) 342-5068. We at CPRA look forward to completing the 303(e) approval process and proceeding with project construction.

Sincerely,

Ben Barnes, PMP
CPRA Land Specialist

Attachments: Two (2)

TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT

PROJECT NAME

PARISH, LOUISIANA

STATE OF LOUISIANA

PARISH OF _____

THIS AGREEMENT, made and entered into this _____ day of _____, 20___, by and between: (Grantor name), a _____ corporation, tax identification number _____, with the business address of _____ _____, herein represented by _____, its _____ _____ hereinafter called the "GRANTOR" (whether one or more), as owner(s) of the below described property; and

The STATE OF LOUISIANA herein represented by and appearing as follows through:

The **COASTAL PROTECTION AND RESTORATION AUTHORITY ("CPRA")**, as authorized and directed by the policy of the Coastal Protection and Restoration Authority Board, herein represented by and appearing through the Executive Director of CPRA, Michael Ellis, domiciled in East Baton Rouge Parish, Louisiana, with offices located at 150 Terrace Street, Baton Rouge, Louisiana, 70802, and whose mailing address is P.O. Box 44027, Baton Rouge, Louisiana, 70804-4027, appearing pursuant to the provisions of La. R.S. 49:214.1, *et seq*., as amended by Act 523 of the 2009 Regular Session and as amended by Act 604 of the 2012 Regular Session of the Louisiana Legislature;

The above mentioned hereinafter collectively referred to as **"STATE"**.

WITNESSETH: For and in consideration of the promises and undertakings by STATE to GRANTOR herein, and further for other good and valuable consideration, including the potential benefits to GRANTOR'S property interests resulting from the hereinafter described project, the receipt and adequacy of which are hereby acknowledged, GRANTOR hereby grants unto STATE, its successors, assigns or transferees, the temporary rights-of-way, servitudes and easements (hereinafter called "the Agreement"), together with the right to enter in, on, and over, GRANTOR'S property interests, for integrated coastal protection purposes as defined in La. R.S. 49:214.2(11) as part of the _____ Project (hereinafter called the "Project") located in, on, or over GRANTOR'S property interests. The Project will be publicly funded and shall be located on the following described property interest, including expressly, but not limited to, any interest in lands or water-covered lands which might be owned by GRANTOR (hereinafter called "said Lands"), to-wit:

(PROPERTY DESCRIPTION)

GRANTOR hereby warrants that GRANTOR understands the Project and accepts any and all impacts to said Lands resulting from construction and implementation of the Project.

I. This Agreement grants the rights to enter said Lands, (further identified on Exhibit A, attached hereto), to perform construction, operation, modification, monitoring, and maintenance and such other activities described on Exhibit B, (attached hereto), necessary to complete the Project.

II. STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.

III. To the extent permitted by Louisiana law, STATE shall, indemnify, and hold GRANTOR harmless against and from all costs, expenses, claims, demands, penalties, suits, fines, and actions of any kind and nature arising from the Project and caused by the actions and fault of STATE or its agents, employees, contractors, successors, assigns and transferees, including any court costs and reasonable and actual litigation expenses and attorneys' fees. However, nothing herein shall be construed as indemnifying or holding GRANTOR or any third person not a party hereto harmless against its own fault or negligence or that of its agents, employees, contractors, successors, assigns and transferees. Should work on said Lands be performed via contract, STATE shall ensure that the contractor lists GRANTOR as additional insured on any policies carried by the contractor, including completed operations coverage. The STATE acknowledges, declares and stipulates that GRANTOR has provided this Agreement at no cost to the STATE under the provisions of La. R.S. 49:214.6.10(C), as amended by Act No. 734 of the 2010 Regular Session of the Louisiana Legislature. This clause shall survive the term of this agreement.

IV. STATE shall be responsible for repair in like manner of any fences, bridges, roads, and other similar facilities and appurtenances located on said Lands which may be damaged or destroyed by STATE, or its designees while on said Lands, but such repair shall be to that condition which existed immediately prior to STATE's activities. STATE shall remove or dispose of all debris associated with construction, operation and maintenance of the Project.

V. STATE acknowledges that La. R.S. 49:214.5.5 provides that no rights whatsoever shall be created in the public, whether such rights be in the nature of ownership, servitude or use, with respect to any private lands or waters utilized, enhanced, created, or otherwise affected by activities of any governmental agency, local, state, or federal, or any person contracting with same for the performance of any activities, funded in whole or in part, by expenditures through the Coastal Protection and Restoration Fund or other sources of funding in accordance with the provision of La. R.S. 49:214.6.2. The STATE further agrees that in the event legal proceedings are instituted by any person seeking recognition of a right of ownership, servitude, or use in or over private property solely on the basis of the expenditure of funds through the Coastal Protection and Restoration Fund or other sources of funding in accordance with the provision of La. R.S. 49:214.6.2, that the State shall indemnify and hold harmless the owner of such property for any costs, expense, or loss related to such proceeding, including court costs and attorney fees. To the extent permitted by La. R.S. 49:214.5.5, the servitude and right-of-way rights granted herein shall be considered real rights and covenants running with the land.

VI. It is understood GRANTOR shall retain the limits of its title and all property rights (subject to the rights of STATE herein) in and to said Lands, and all minerals in, on and under said Lands are not affected in any way hereby. However, no structures and/or appurtenances constructed hereunder pursuant to the Project on said Lands shall be adjusted, removed and/or interfered with by GRANTOR, or anyone holding rights by, through or under GRANTOR.

VII. Subject to the above, in its exercise of the rights herein granted, STATE agrees not to unreasonably interfere with (a) oil and gas operations, (b) agricultural operations, and (c) hunting, trapping and alligator egg operations, (d) fishing, crabbing, or shrimping, now occurring, or authorized to occur, on said Lands. STATE specifically acknowledges the continuing right of GRANTOR, its heirs, successors, assigns, transferees or lessees, to use, occupy and enjoy all of said Lands, for all purposes, in such manner at such times as they, or any of them, shall desire to use same, including, but without limitation, for the purpose of conducting oil, gas or other mineral operations on any of said Lands, for the exploration, discovery, production, storage, transportation and disposition of oil, gas, sulphur or other minerals, under oil, gas and mineral leases or otherwise, and for the purpose of farming, grazing, hunting and trapping fur-bearing animals, alligator egg operations, fishing, crabbing, or shrimping thereon, provided, however, that such use, occupation, and enjoyment shall not unreasonably interfere with the lawful activities of STATE pursuant to this Agreement.

VIII. GRANTOR does not warrant title. GRANTOR specifically does not warrant or represent the correctness of any survey, or any of the plats attached hereto which purport to show the location of said Lands. If at any time any questions or litigation should arise as to the ownership of any part of the property covered hereby, or as to any boundary or limit of any part of the

separate and various Lands covered by this Agreement, this Agreement shall not be construed to be, or permitted to serve as, evidence or as a basis of waiver of any legal rights against any party hereto, or prevent any party hereto from establishing its ownership, or having the boundaries or limits of its property determined, in any lawful manner, anything herein contained to the contrary notwithstanding.

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

X. This Agreement shall become effective upon the date of the signature of STATE, and shall remain in effect for a term of _____ years unless sooner released by STATE.

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

XII. This Agreement may be executed in any number of counterparts, each of which shall constitute an original document which shall be binding upon any of the parties executing same. To facilitate recordation of this agreement, the parties hereto agree that individual signature and acknowledgment pages from the various counterparts may be merged and combined with signature and acknowledgment pages from other counterparts.

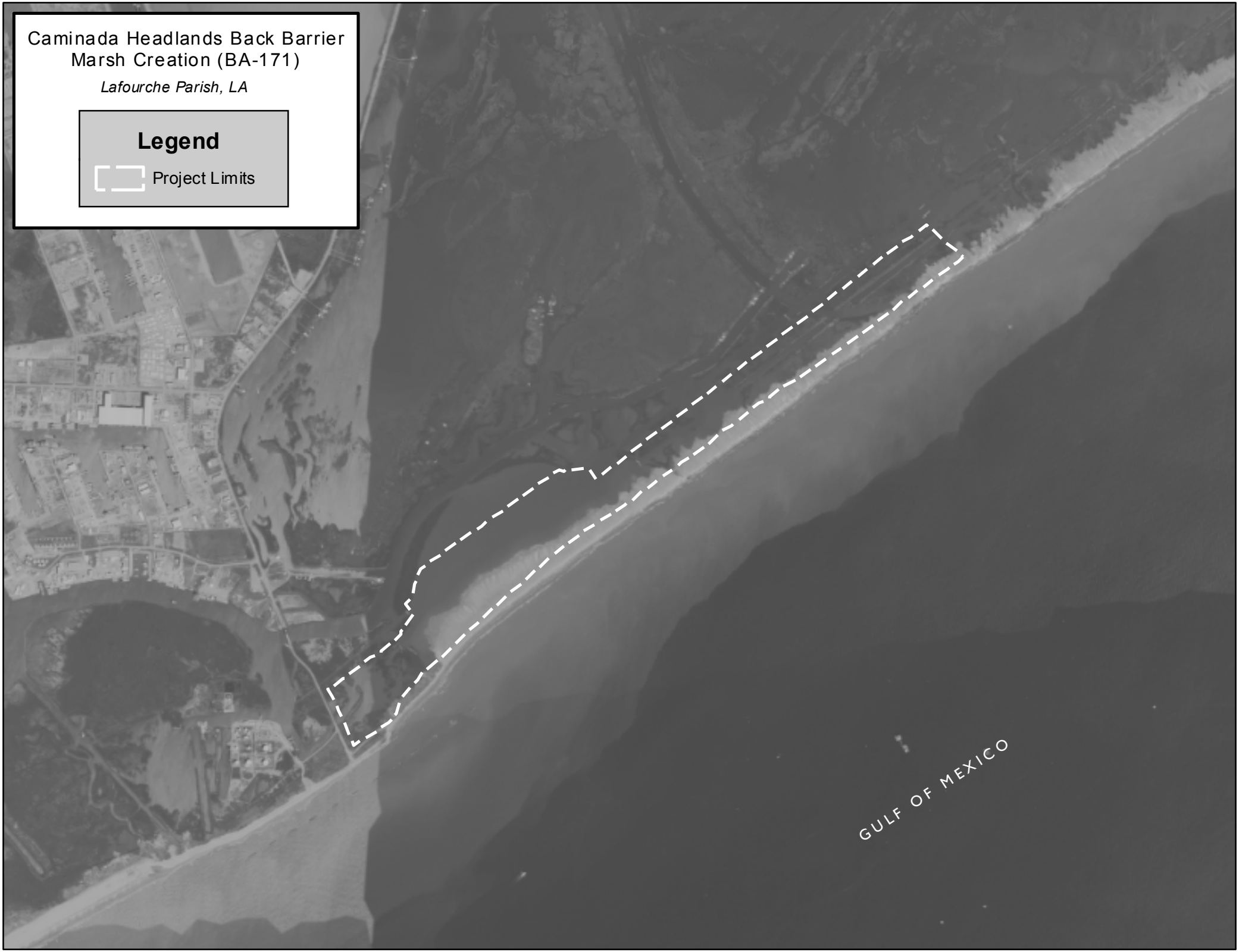
XIII. This Agreement does not confer or waive any rights except as provided herein.

IN WITNESS WHEREOF, GRANTOR has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:	**GRANTOR**
_____	By: _____
Print:_____	Print: _____
_____	Title: _____
Print:_____	Date:_____

IN WITNESS WHEREOF, STATE has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:	**COASTAL PROTECTION AND RESTORATION AUTHORITY**
_____	By: _____
	MICHAEL ELLIS
Print: _____	
	Title: Executive Director
_____	
Print: _____	Date: _____


Caminada Headlands Back Barrier Marsh Creation (BA-171)
Lafourche Parish, LA
Legend
Project Limits
GULF OF MEXICO

Enclosure IV – 30% Design Comments and Responses and Concurrence Letter

State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

August 30, 2016

Mr. William K. Honker
Director, Water Quality Protection Division
U.S. Environmental Protection Agency, Region 6
Water Division (6WQ)
1445 Ross Avenue
Dallas, Texas 75202

Re: 30% Design Review for Caminada Back Barrier Marsh Creation Project (BA-171)
Statement of Local Sponsor Concurrence

Dear Mr. Honker,

The 30% Design Review meeting for Caminada Back Barrier Marsh Creation project was held on July 28, 2016. Based on the project information compiled to date, the Coastal Protection and Restoration Authority, as the local sponsor, concurs to proceed with the design of BA-171 to 95% Design.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee. We concur with proceeding to 95% Design level with the preferred design and revised project cost estimate and benefits.

Please call me if you have any questions.

Sincerely,

Renee S. Bennett
Project Manager

Cc: Adrian Chavarria, Project Manager, U.S. Environmental Protection Agency,
Stuart Brown, CWPPRA Program Manager, Coastal Protection and Restoration Authority

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Enclosure V – 95% Concurrence Letter

State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

November 1, 2016

Mr. William K. Honker
Director, Water Quality Protection Division
U.S. Environmental Protection Agency, Region 6
Water Division (6WQ)
1445 Ross Avenue
Dallas, Texas 75202

Re: 95% Design Review – Concurrence for Phase II Funding
Caminada Back Barrier Marsh Creation Project (BA-171)
Statement of Local Sponsor Concurrence

Dear Mr. Honker,

The 95% Design Review meeting for Caminada Back Barrier Marsh Creation project was held on October 28, 2016. Based on the project information compiled to date, the land ownership investigation, and design to date, the Coastal Protection and Restoration Authority, as the local sponsor, concurs to proceed with requesting Phase II construction funding for the project.

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

Please call me if you have any questions.

Sincerely,

Renee S. Bennett
Project Manager

Cc: Adrian Chavarria, Project Manager, U.S. Environmental Protection Agency,
Stuart Brown, CWPPRA Program Manager, Coastal Protection and Restoration Authority

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 12th Floor Chase Tower North • Baton Rouge, Louisiana 70801
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Enclosure VI – Draft Environmental Assessment

Draft Environmental Assessment

Caminada Headlands Back Barrier Marsh Creation

CWPPRA PROJECT BA-171

Lafourche Parish, Louisiana

Prepared by: U.S. Environmental Protection Agency, Region 6

November 18, 2016

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Contents

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Acronyms

BBBS	Barataria Basin Barrier Shoreline
CBRA	Coastal Barrier Resources Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CPRA	Coastal Protection and Restoration Authority of Louisiana
CRMS	Coastwide Reference Monitoring System
CWA	Clean Water Act
CWPPRA	Coastal Wetlands Planning, Protection and Restoration Act
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FR	Federal Register
HTRW	Hazardous, Toxic and Radiological Waste
LCA	Louisiana Coastal Area
LCWCRTF	Louisiana Coastal Wetlands Conservation and Restoration Task Force
LDEQ	Louisiana Department of Environmental Quality
LDNR	Louisiana Department of Natural Resources
LDWF	Louisiana Department of Wildlife and Fisheries
LOOP	Louisiana Offshore Oil Port
MSL	Mean Sea Level
MPH	Morris P. Hebert
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MBTA	Migratory Bird Treaty Act
MR	Mississippi River
MSFCMA	Magnuson–Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standards
NAVD 88	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
NPL	National Priority List
NRCS	Natural Resource Conservation Service
O&M	Operations and Maintenance
PPL	Priority Project List (CWPPRA)

PMT	Project Management Team
RSLR	Relative Sea Level Rise
SAV	Submerged aquatic vegetation
SCPDC	South Central Planning and Development Commission
SHPO	State Historic Preservation Office
T&E	Threatened and Endangered Species
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
WVA	Wetland Value Assessment

Units of Measure

ac	Acres
ft	Feet
ha	Hectares
lbs	Pounds
mi^2	Square Miles
MSL	Mean Sea Level
ppb	Parts Per Billion
ppm	Parts Per Million
yd^3	Cubic Yards

Appendix A:
Coordination and Consultation Correspondence

SOLICITATION OF VIEWS (SOV)

March 2, 2016

The U.S. Environmental Protection Agency (EPA), Region 6 is preparing an Environmental Assessment for the proposed project "Caminada Headland Back Barrier Marsh Creation" (BA-171) under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). By this SOV notice, EPA is requesting your views and comments on any potential economic, social, or environmental adverse or beneficial impacts in the area of this project.

As shown in the enclosed fact sheet, the project BA-171 area is in an area south of Louisiana Highway 1 between Belle Pass and Caminada Pass, including the area in and around Bay Champagne and an area to the east and west of Bayou Moreau along the Louisiana coast, Lafourche Parish, CWPPRA Planning Region 2. The project will create and nourish 430 acres of marsh behind 3.5 miles of the Caminada beach using material dredged from the Gulf of Mexico. The project is funded through CWPPRA and has been approved by the Task Force.

Please provide EPA with your views and comments within 15 working days of your receipt of this SOV notice. Comments can be sent by mail to: EPA Region 6, 6WQ-EC, to the attention of Ms. Barbara Aldridge, 6WQ-EC, 1445 Ross Avenue, Dallas, TX 75202, or by e-mail to aldridge.barbara@epa.gov. If you have questions or require further information, please contact Ms. Aldridge, NEPA Coordinator, at (214) 665-2712, or Mr. Adrian Chavarria, EPA Project Manager, at (214) 665-3103.

Karen McCormick
Section Chief (6WQ-EC)
Marine, Coastal, & Analysis Section

Enclosure: Fact Sheet

Christopher Knotts, P.E., Administrator
Public Works and Water Resources Division
Louisiana Department of Transportation and Development
Post Office Box 94245
Baton Rouge, Louisiana 70804

Kyle Balkum
Biologist Director
Louisiana Dept. of Wildlife and Fisheries
P.O. Box 98000
Baton Rouge, LA 70804-9000

Brad Spicer
Assistant Comissioner
Office of Soil and Water Conservation
LA Department of Agriculture and Forestry
P.O. Box 3554
Baton Rouge, LA 70821

Dr. Linda Langley, THPO
Coushatta Tribe of Louisiana
PO Box 10
Elton, LA 70532

Vincent W. Frelich
Director of Coastal Zone Management
Plaquemines Parish
8056 Hwy 23, Suite 307
Belle Chasse, LA 70037

Richard Hartman
National Marine Fisheries Service
Habitat Conservation Division
c/o Louisiana State University
Military Science Building, Room 266
South Stadium Drive
Baton Rouge, LA 70803

Bryant Celestine
Historic Preservation Officer
Alabama Coushatta Tribe of Texas
571 State Park Rd. 56
Livingston, TX 77351

Mike Lockwood, Director
Environmental Affairs
Jefferson Parish
4901 Jefferson Highway, Suite E
Jefferson, LA 70121

Chief Thomas Dardar
United Houma Nation
20986 Hwy. 1
Golden Meadow, LA 70357

Ian Thompson, THPO
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74702

Kimberly Walden, THPO
Cultural Director
Chitimacha Tribe of Louisiana
P.O. Box 661
Charenton, LA 70523

Michael Ellis
Executive Director
Coastal Protection and Restoration Authority
P.O. Box 44027
Baton Rouge, LA 70804-4487

Johnny Bradberry
CPRA Chairman
Governor's Office of Coastal Activities
P.O. Box 94095
Baton Rouge, LA 70804

Earl J. Barbry, Jr.
Tunica-Biloxi THPO
Tunica-Biloxi Tribe of Louisiana
PO Box 1589
Marksville, LA 71351

Louisiana Department of Environmental Quality
Attn: NEPA Review Office
P.O. Box 82135
Baton Rouge, LA 70884

Charlie Melancon
Secretary
Louisiana Dept. of Wildlife and Fisheries
P.O. Box 98000
Baton Rouge, LA 70804-9000

Mari Gilford
State Conservation Engineer
Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

James Cantrelle
Lafourche Parish Government
Thibodaux Government Complex
402 Green Street
Thibodaux, LA 70301

Chief Randy Verdun
Bayou Lafourche Band
Biloxi-Chitimacha
Confederation
PO Box 856
Zachary, LA 70791

Chief Shirell Parfait-Dardar
Grand Caillou/Dulac Band
Biloxi-Chitimacha-Choctaw
5057 Bayouside Drive
Chauvin, LA 70344

Jeff Weller
Field Supervisor
U.S. Fish and Wildlife Service
646 Cajundome Blvd., Suite 400
Lafayette, LA 70506

Miles Croom
Deputy Regional Administrator
Habitat Conservation Division
NOAA National Marine Fisheries Service
263 13th Avenue South
St. Petersburg, FL 33701

Martin Mayer
Chief, Regulatory Branch
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Mr. Kenneth Carleton
Tribal Archaeologist & THPO
Mississippi Band of Choctaw Indians
P.O. Box 6257
Philadelphia, MS 39350

Alina Shively, Deputy THPO
Jena Band of Choctaw Indians
PO Box 14
Jena, LA 71342

Mike Varnado
State Historic Preservation Office
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-4247

W. Britt Paul
Assistant State Conservationist
Water Resources Section
Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

Chief Charles Verdin, Sr.
Point-au-Chien Indian Tribe
793 Aragon Road
Montegut, LA 70377

Chief Albert Naquin
Isle de Jean Charles Band
Biloxi-Chitimacha-Choctaw
Confederation of Muskogees
100 Dennis Street
Montegut, LA 70377

Section Chief
NEPA Coordination 6EN-XP
EPA Region 6
1445 Ross Ave
Dallas TX 75202

February 2014
Cost figures as of: January 2016

Caminada Headlands Back Barrier Marsh Creation (BA-171)

Project Status

Approved Date: 2014 **Project Area:** 430 acres
Approved Funds: $3.35 M **Total Est. Cost:** $31.0 M
Net Benefit After 20 Years: 181 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 23

Location

The project area is defined as the area south of Louisiana Highway 1 between Belle Pass and Caminada Pass and includes the area in and around Bay Champagne and area to the east and west of Bayou Moreau along the coast. The Caminada Headlands Back Barrier Marsh Creation project is located along the Louisiana coastline in LaFourche Parish in CWPPRA Planning Region 2.

Problems

The Caminada Headland has experienced some of the highest shoreline retreat rates in Louisiana. Historically the shoreline has migrated landward at about 40 feet per year. Between 2006 and 2011, shoreline migration increased dramatically, exceeding 80 feet per year in near Bay Champagne and 110 feet per year in the Bayou Moreau area. The increased losses occurred in the wake of Hurricanes Katrina and Rita in 2005 as the breaches remained open for an extended length of time. The losses were exacerbated by Tropical Storm Fay and Hurricanes Gustav and Ike in 2008. Significant prolonged breaches greatly increase the net export of sediment from the headland.

In addition to the shoreline migration, the area is also experiencing high loss rates of interior marshes. As the beach and dune continue to migrate landward, overwashed sediment will be lost into newly formed open water and land loss rates will be exacerbated. The continued deterioration of Caminada headland threatens thousands of acres of wetland habitat as well as critical infrastructure, including Port Fourchon, LA Highway 1, and the lower Lafourche levee system.

Restoration Strategy

The goals of this project are to: 1) Create and/or nourish 430 acres of back barrier marsh, by pumping sediment from an offshore borrow site; 2) Create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, improving the longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west. The proposed project is expected to slow the current trend of degradation in the headland.

Dredge material from the Gulf of Mexico will be pumped into open-water areas which will create 300 acres of back barrier marsh and nourish 130 acres of emergent marsh behind 3.5 miles of the Caminada beach.

This project would create 300 acres of back barrier intertidal marsh and nourish 130 acres of emergent marsh behind 3.5 miles of the Caminada beach using material dredged from the Gulf of Mexico. The marsh creation and nourishment cells are designed to minimize impacts on existing marsh and mangroves. Assuming some natural vegetative recruitment, vegetative plantings are planned at a 50% density, with half planned at project year one and half planned at project year 3. Containment dikes will be degraded or gapped by year three to allow access for estuarine organisms.

Progress to Date

This projects is on Priority Project List 23.

For more project information, please contact:

Federal Sponsor:
U.S. Environmental Protection Agency
Dallas, TX
(214) 665-3103

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

Caminada Headlands Back Barrier Marsh Restoration (BA-171)

Marsh Creation *

Project Boundary

*denotes proposed features

USGS
science for a changing world

Louisiana

N

Project Location

0.2 0 0.2 0.4
Kilometers

0.2 0 0.2 0.4
Miles

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

Background Imagery:
2012 DOQQ

Map Date: February 10, 2014
Map ID: USGS-NWRC 2014-11-0007
Data accurate as of: August 17, 2013

USDA

United States Department of Agriculture

October 4, 2016

Mr. Adrian Chavarria
Environmental Engineer (6WQ-EC)
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Mr. Adrian:

RE: Caminada Headland Back Barrier Marsh Creation (BA-171)

I am in receipt of your request for an overgrazing determination for Caminada Headland Back Barrier Marsh Creation (BA-171). I contacted our local district conservationist and our state grazing land specialist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

W. Britt Paul
Assistant State Conservationist/Water Resources

Cc: (electronic distribution only)
Randolph Joseph, Assistant State Conservationist/Field Operations, Lafayette, Louisiana
John Boatman, District Conservationist, Donaldsonville, Louisiana
Richard Rice, State Grazing Land Specialist, Alexandria, Louisiana

Natural Resources Conservation Service
State Office
3737 Government Street
Alexandria, Louisiana 71302
Voice: (318) 473-7751 Fax: (318) 473-7626

Caminada Headlands Back Barrier Marsh Restoration (BA-171)

Marsh Creation *

Project Boundary

*denotes proposed features

USGS
science for a changing world

Louisiana

N

Project Location

0.2 0 0.2 0.4
Kilometers

0.2 0 0.2 0.4
Miles

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

Background Imagery:
2012 DOQQ

Map Date: August 08, 2016
Map ID: USGS-NWRC 2016-11-0038
Data accurate as of: August 02, 2016

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
http://sero.nmfs.noaa.gov

March 15, 2016 F/SER46/RH:jk
225/389-0508

Ms. Barbara Aldridge,
NEPA Coordinator
US Environmental Protection Agency
Region 6, 6WQ-EC
1445 Ross Avenue
Dallas, Texas 75202

Dear Ms. Aldridge:

NOAA's National Marine Fisheries Service (NMFS) has received the March 2, 2016, Solicitation of Views (SOV) notice pertaining to the preparation of a draft Environmental Assessment (EA) for the Caminada Headland Back Barrier Marsh Creation (BA-171) Project funded under the auspices of the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA). The purpose of the project is to create and nourish 430 acres of marsh using sediment dredged from offshore borrow sources for placement behind the Caminada shoreline in Lafourche Parish, Louisiana. This letter provides our recommendations on issues and resources NMFS believes should be addressed in the draft EA for the project.

Both the area to be dredged and the marsh creation sites are located in areas designated as essential fish habitat (EFH) under provisions of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). Both dredging and fill placement have the potential to adversely impact EFH. The Magnuson-Stevens Act requires federal agencies proposing to undertake any action which could adversely impact EFH to coordinate with NMFS on the impacts of their actions and evaluate less damaging alternatives. The NMFS has a findings with the CWPPRA program that coordination requirements of the Magnuson-Stevens Act would be fulfilled through our review and comment on documents completed in compliance of NEPA.

The NMFS recommends the EA completed for this project include a section entitled "Essential Fish Habitat" which describes the federally managed fishery species and life stages having EFH in the project areas, and the habitat categories potentially impacted by project implementation. Detailed information on federally managed fishery species and their EFH is provided in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico prepared by the Gulf of Mexico Fishery Management Council. The generic amendment was prepared as required by the Magnuson-Stevens Act. The EFH section should analyze the potential impacts and benefits of the project on federally managed species and life stages utilizing these categories of EFH and fully evaluate alternative measures to avoid, minimize, and offset adverse impacts to EFH and marine fishery species. The evaluation of impacts should quantify acreages of all habitat categories impacted by project implementation as well as categories to be created. Descriptive and analytical information, coupled with a statement of the agency's conclusions regarding the effects of the

action on EFH and marine fishery species would provide the basic details necessary for an EFH assessment pursuant to the requirements of 50 CFR 600.920(e).

The draft EA also should contain a section entitled "Marine Fishery Resources" which describes the use of borrow and fill sites by economically important shellfish and finfish not being managed under provisions of the Magnuson-Stevens Act, as well as aquatic resources supportive of the aquatic food web. Similar information on impacts to habitat categories as provided for the EFH section should be provided in this section of the EA as well.

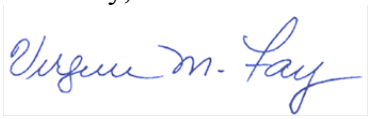
While NMFS supports the use of dredged material to create marsh, we are concerned about the potential for project implementation to result in the conversion of water bottoms and water column categorized as EFH to upland habitats. Such a loss of EFH would occur if supratidal elevations resulted from fill placement. The draft EA should identify initial and final elevations which are based on geotechnical analyses of site conditions from both borrow and marsh creation areas. The draft EA should provide a general description of the methodology supporting the geotechnical analysis. Additionally, the draft EA should discuss adaptive management actions which may be taken if fill placement results in elevations exceeding those of the target elevations.

The draft EA also should discuss the temporal loss of EFH resulting from the construction of containment dikes around the marsh creation area, if such features are planned. The project design should not assume the containment dikes would breach naturally and at the appropriate places to restore drainage, tidal connectivity, and marine fishery access to the project area. Rather, the document should identify the design and method of construction of containment dikes and discuss how, when, and where the dikes would be breached to restore tidal influence to the project area.

Please note that our Protected Resources Division is responsible for all issues regarding threatened and endangered species and marine mammals for which NMFS is responsible. The draft EA should analyze the potential impacts of the proposed project on endangered species and fully evaluate alternative measures to avoid adverse impacts to those species. For information regarding those resources and alternatives to minimize adverse impacts, please coordinate with Mr. David Bernhart of the NMFS' Protected Resources Division at (727) 824-5312.

We appreciate the opportunity to comment on this SOV notice. If you wish to discuss our comments further, please contact Richard Hartman of our Habitat Conservation Division, Baton Rouge Office at (225) 389-0508, extension 203.

Sincerely,



Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

c:
FWS, Lafayette, Clark
EPA, Dallas, McCormick
NRCS, Paul
F/SER46, Swafford
Files

JOHN BEL EDWARDS
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES

CHARLES J. MELANCON
SECRETARY

March 16, 2016

Ms. Karen McCormick, Section Chief
Marine, Coastal, & Analysis Section
United States Environmental Protection Agency
1445 Ross Avenue
Dallas, TX 75202

RE: *Application Number: BA-171*
Applicant: Environmental Protection Agency
Notice Date: March 4, 2016

Dear Ms. McCormick:

The professional staff of the Louisiana Department of Wildlife and Fisheries (LDWF) has reviewed the above referenced notice for the proposed Caminada Headland Back Barrier Marsh Creation project located in Lafourche Parish, Louisiana. Based upon this review, the following has been determined:

It is anticipated that this proposed Coastal Wetlands Planning, Protection and Restoration Act project will benefit wildlife resources; therefore, Ecological Studies has no objection.

Louisiana Natural Heritage Program:
The piping plover (*Charadrius melodus*) may occur within one mile of the project area. This species is federally listed as threatened with its critical habitat designated along the Louisiana coast. Piping plovers winter in Louisiana feeding at intertidal beaches, mudflats, and sand flats with sparse emergent vegetation. Primary threats to this species are destruction and degradation of winter habitat, habitat alteration through shoreline erosion, woody species encroachment of lake shorelines and riverbanks, and human disturbance of foraging birds. For more information on piping plover critical habitat, visit the U.S. Fish and Wildlife website: http://endangered.fws.gov.

Our database also indicates that Wilson's Plover (*Charadrius wilsonia*) may occur in your project area. This species holds a state rank of S1S3B, S3N and is considered critically imperiled to rare in Louisiana. This species is found year round in Louisiana, breeding along the Gulf coast and wintering in southwest Louisiana. This colonial nester has a breeding season that begins in early April and extends into August, and is commonly found on beaches, sand flats, and fresh dredged-material. Threats to Wilson's plover include habitat loss/degradation due to coastal development, beach stabilization and re-nourishment, sediment diversion, disturbance by humans, environmental contaminants, and un-naturally high populations of predators. We recommend that you take the necessary precautions to protect the breeding/wintering habitat of this species. If you have any questions or need additional information, please call Louisiana Natural Heritage Program at 225-763-3554.

Our database indicates the presence of bird nesting colonies within one mile of this proposed project. **Please be aware that entry into or disturbance of active breeding colonies is prohibited by the Louisiana Department of Wildlife and Fisheries (LDWF). In addition, LDWF prohibits work within a certain radius of an active nesting colony.**

Nesting colonies can move from year to year and no current information is available on the status of these colonies. If work for the proposed project will commence during the nesting season, conduct a field visit to the worksite to look for evidence of nesting colonies. This field visit should take place no more than two weeks before the project begins. If no nesting colonies are found within 400 meters (700 meters for brown pelicans) of the proposed project, no further consultation with LDWF will be necessary. If active nesting colonies are found within the previously stated distances of the proposed project, further consultation with LDWF will be required. In addition, colonies should be surveyed by a qualified biologist to document species present and the extent of colonies. Provide LDWF with a survey report which is to include the following information:

1. qualifications of survey personnel;
2. survey methodology including dates, site characteristics, and size of survey area;
3. species of birds present, activity, estimates of number of nests present, and general vegetation type including digital photographs representing the site; and
4. topographic maps and ArcView shapefiles projected in UTM NAD83 Zone 15 to illustrate the location and extent of the colony.

Please mail survey reports on CD to: Louisiana Natural Heritage Program
La. Dept. of Wildlife & Fisheries
P.O. Box 98000
Baton Rouge, LA 70898-9000

To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

- For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, roseate spoonbills, anhingas, and/or cormorants), all project activity occurring within 300 meters of an active nesting colony should be restricted to the non-nesting period (i.e., September 1 through February 15).

- For colonies containing nesting gulls, terns, and/or black skimmers, all project activity occurring within 400 meters (700 meters for brown pelicans) of an active nesting colony should be restricted to the non-nesting period (i.e., September 16 through April 1).

The Louisiana Department of Wildlife and Fisheries submits these recommendations to the U.S. Army Corps of Engineers in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.). Please do not hesitate to contact Habitat Section biologist Zachary Chain at 225-763-3587 should you need further assistance.

Sincerely,

Kyle F. Balkum
Biologist Director

zc/cm

United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

August 22, 2016

Ms. Barbara Aldridge
NEPA Coordinator
U.S. Environmental Protection Agency
Region 6, 6WQ-EC
1445 Ross Avenue
Dallas, Texas 75202

Dear Ms. Aldridge:

The Fish and Wildlife Service (Service) received the Environmental Protection Agency's (EPA) March 2, 2016, Solicitation of Views notice via electronic mail on July 21, 2016, regarding the preparation of a draft Environmental Assessment (EA) for the Caminada Headland Back Barrier Marsh Creation Project (BA-171) in Lafourche Parish, Louisiana. That project is authorized and funded under the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) (104 Stat. 4779; 16 U.S.C. 3951 et seq.). The proposed project would involve creating and nourishing 430 acres of marsh north of and adjacent to 3.5 miles of the Caminada Headland Beach and Dune Restoration Project – Increments I and II using sediment dredged from an offshore borrow source. The Service has reviewed the information provided and offers the following comments in accordance with the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 et seq.), the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and the Coastal Barrier Resources Act of 1982 (CBRA) (96 Stat. 1653, as amended; 16 U.S.C. 3501 et seq.).

The recently constructed Caminada Headland Beach and Dune Restoration Project – Increments I and II has created habitat that supports federally listed species and nesting migratory birds. The Service recommends that the forthcoming draft EA for the subject marsh creation project include a thorough discussion of potential impacts to federally listed threatened and endangered species, migratory birds, and wetlands, as well as any compensatory mitigation and minimization measures that would be implemented for those resources. The Service provides the following information to aid the EPA in preparing their discussion of potential effects (both unfavorable and beneficial) to those resources.

Federally Listed Species

West Indian manatee

The endangered West Indian manatee (*Trichechus manatus*) is known to regularly occur in Lakes Pontchartrain and Maurepas and their associated coastal waters and streams. It also can be

found less regularly in other Louisiana coastal areas, most likely while the average water temperature is warm. Based on data maintained by the Louisiana Natural Heritage Program (LNHP), over 80 percent of reported manatee sightings (1999-2011) in Louisiana have occurred from the months of June through December. Manatee occurrences in Louisiana appear to be increasing and they have been regularly reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of southeastern Louisiana. Manatees may also infrequently be observed in the Mississippi River and coastal areas of southwestern Louisiana. Cold weather and outbreaks of red tide may adversely affect these animals. However, human activity is the primary cause for declines in species number due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution.

During in-water work in areas that potentially support manatees all personnel associated with the project should be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All personnel should be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. Additionally, personnel should be instructed not to attempt to feed or otherwise interact with the animal, although passively taking pictures or video would be acceptable.

- All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impacts to manatees in areas of their potential presence:

- All work, equipment, and vessel operation should cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in-water work can resume under careful observation for manatee(s).

- If a manatee(s) is sighted in or near the project area, all vessels associated with the project should operate at "no wake/idle" speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels should follow routes of deep water whenever possible.

- If used, siltation or turbidity barriers should be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.

- Temporary signs concerning manatees should be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities should display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8½ " X 11" reading language similar to the following: "CAUTION BOATERS: MANATEE AREA/ IDLE SPEED IS REQUIRED IN CONSRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT". A second

temporary sign measuring 8½ " X 11" should be posted at a location prominently visible to all personnel engaged in water-related activities and should read language similar to the following: "CAUTION: MANATEE AREA/ EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION".

- Collisions with, injury to, or sightings of manatees should be immediately reported to the Service's Louisiana Ecological Services Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821). Please provide the nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.

Should a proposed action directly or indirectly affect the West Indian manatee, further consultation with this office will be necessary.

Piping Plover

Both the threatened piping plover (*Charadrius melodus*) and its designated critical habitat occur along the Caminada headland within and/or in the vicinity of the proposed project area. The piping plover is a small (7 inches long), pale, sand-colored shorebird that winters in coastal Louisiana and may be present for 8 to 10 months annually. Piping plovers arrive from their northern breeding grounds as early as late July and remain until late March or April. They feed on polychaete marine worms, various crustaceans, insects and their larvae, and bivalve mollusks that they peck from the top of or just beneath the sand. Piping plovers forage on intertidal beaches, mudflats, sand flats, algal flats, and wash-over passes with no or very sparse emergent vegetation. They roost in unvegetated or sparsely vegetated areas, which may have debris, detritus, or micro-topographic relief offering refuge to plovers from high winds and cold weather. They also forage and roost in wrack (i.e., seaweed or other marine vegetation) deposited on beaches. In most areas, wintering piping plovers are dependent on a mosaic of sites distributed throughout the landscape, because the suitability of a particular site for foraging or roosting is dependent on local weather and tidal conditions. Plovers move among sites as environmental conditions change, and studies have indicated that they generally remain within a 2-mile area. Major threats to this species include the loss and degradation of habitat due to development, disturbance by humans and pets, and predation.

On July 10, 2001, the Service designated critical habitat for wintering piping plovers (Federal Register Volume 66, No. 132); a map of the seven critical habitat units in Louisiana can be found at http://criticalhabitat.fws.gov/crithab. Their designated critical habitat identifies specific areas that are essential to the conservation of the species. The physical and biological features (PBFs) for piping plover wintering habitat are those habitat components that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support those habitat components. The PBFs are found in geologically dynamic coastal areas that contain intertidal beaches and flats (between annual low tide and annual high tide), and associated dune systems and flats above annual high tide. Important components of intertidal flats include sand and/or mud flats with no or very sparse emergent vegetation. Adjacent

unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting plovers.

Further consultation with this office will be necessary if the proposed action may directly or indirectly affect the piping plover and/or its designated critical habitat.

Red Knot

The threatened red knot (*Calidris canutus rufa*) also occurs along the Caminada headland within and/or adjacent to the proposed project area. The red knot is a medium-sized shorebird about 9 to 11 inches in length with a proportionately small head, small eyes, short neck, and short legs. The black bill tapers steadily from a relatively thick base to a relatively fine tip; bill length is not much longer than head length. Legs are typically dark gray to black, but sometimes greenish in juveniles or older birds in non-breeding plumage. Non-breeding plumage is dusky gray above and whitish below. The red knot breeds in the central Canadian arctic but is found in Louisiana during spring and fall migrations and the winter months (generally September through May).

During migration and on their wintering grounds, red knots forage along sandy beaches, tidal mudflats, salt marshes, and peat banks. Observations along the Texas coast indicate that red knots forage on beaches, oyster reefs, and exposed bay bottoms, and they roost on high sand flats, reefs, and other sites protected from high tides. In wintering and migration habitats, red knots commonly forage on bivalves, gastropods, and crustaceans. Coquina clams (*Donax variabilis*), a frequent and often important food resource for red knots, are common along many gulf beaches. Major threats to this species along the Gulf of Mexico include the loss and degradation of habitat due to erosion, shoreline stabilization, and development; disturbance by humans and pets; and predation.

If implementation of the proposed action has the potential to directly or indirectly affect the red knot or its habitat, further consultation with this office will be necessary.

Sea Turtles

There are five species of federally listed threatened or endangered sea turtles that forage in the near shore waters, bays, and estuaries of Louisiana. The National Marine Fisheries Service (NMFS) is responsible for aquatic marine threatened or endangered species that occur in the marine environment. Please contact Kelly Shotts (727-824-5312) at the NMFS Regional Office in St. Petersburg, Florida, for information concerning those species in the marine environment.

When sea turtles leave the marine environment and come onshore to nest, the Service is responsible for those species. Two species, the threatened loggerhead sea turtle (*Caretta caretta*) and the endangered Kemp's ridley *(Lepidochelys kempii*) could potentially nest in Louisiana during the summer months (i.e., May through November). Historical records indicate that loggerheads nested on the Chandeleur Islands and recent data indicate rare nesting attempts along Fourchon Beach in Lafourche Parish. The Kemp's ridley is known to nest in coastal Texas and Alabama; thus, nesting attempts could possibly occur in Louisiana as that species achieves recovery. The primary threats to nesting beaches include coastal development and construction,

placement of erosion control structures and other barriers to nesting, beachfront lighting, vehicular and pedestrian traffic, sand extraction, beach erosion, beach nourishment, beach pollution, removal of native vegetation, and planting of non-native vegetation (USFWS 2007). We recommend that you contact this office if your activities would occur on coastal beaches during the summer months (i.e., May through November).

Migratory Birds

The proposed project would be located in an area where colonial nesting waterbirds may be present. Colonies may be present that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season. To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

1. For colonies containing nesting brown pelicans, all activity occurring within 2,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 15 through March 31). Nesting periods vary considerably among Louisiana's brown pelican colonies, however, so it is possible that this activity window could be altered based upon the dynamics of the individual colony. The Louisiana Department of Wildlife and Fisheries' Fur and Refuge Division should be contacted to obtain the most current information about the nesting chronology of individual brown pelican colonies. Brown pelicans are known to nest on barrier islands and other coastal islands in St. Bernard, Plaquemines, Jefferson, Lafourche, and Terrebonne Parishes, and on Rabbit Island in lower Calcasieu Lake, in Cameron Parish.

2. For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present).

3. For colonies containing nesting gulls, terns, and/or black skimmers, all activity occurring within 650 feet of a rookery should be restricted to the non-nesting period (i.e., September 16 through April 1, exact dates may vary within this window depending on species present).

In addition, we recommend that on-site contract personnel be trained to identify colonial nesting birds and their nests, and avoid affecting them during the breeding season (i.e., the time period outside the activity window).

Given the nature of the project and potential issues with timing and logistics, the Service realizes that the EPA may not be able to ensure that the nesting season is avoided during project construction. If that situation occurs the EPA should develop an abatement plan, in coordination with the Service, to discourage birds from nesting in proposed construction areas. Please note

that the abatement measures would need to begin prior to the nesting season and/or as soon as breeding behaviors are noticed (generally prior to February 15).

Wetlands

While the Service supports the proposed project and marsh creation using dredged material in general, we recommend that every effort be made to minimize impacts to nearby wetlands to the maximum extent practicable when planning the design and location of pipeline corridors, access corridors, and staging areas for construction equipment and personnel. Should unavoidable impacts to wetlands be anticipated, we recommend that the EPA include in the draft EA a discussion of how those unavoidable impacts would be mitigated, whether through additional project acreage onsite or through other methods.

CBRA

The CBRA is intended to protect fish and wildlife resources and habitat, prevent loss of human life, and preclude the expenditure of Federal funds that may induce development on coastal barrier islands and adjacent near-shore areas. The proposed project area would be located in CBRA Caminada Unit S03. We recommend that the EPA submit a request for our determination as to whether the proposed project would qualify for an exemption under the CBRA. The results of that determination should be included in the draft and/or final EA.

We appreciate the opportunity to provide scoping comments on the proposed project, and we look forward to continuing to work with the EPA as the NEPA process continues. If you have any question regarding the content of this scoping letter, please contact Ms. Brigette Firmin (337-291-3108) of the Service's Louisiana Ecological Services Office.

Sincerely,

Jeffrey D. Weller
Program Supervisor
Alabama, Arkansas,
Louisiana, and Mississippi

cc: NMFS, St. Petersburg, FL (Attn: Kelly Shotts)
NMFS, Baton Rouge, LA (Attn: Rick Hartman)
LDWF, Baton Rouge, LA (Attn: Kyle Balkum)
LDWF, Natural Heritage Program, Baton Rouge, LA (Attn: Beau Gregory)
CPRA, Baton Rouge, LA

Literature Cited

USFWS. 2007. Loggerhead sea turtle (Caretta caretta) 5 year review: summary and evaluation. Jacksonville, FL.

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

REPLY TO
ATTENTION OF

JUL 0 6 2016

Operations Division
Operations Manager,
Completed Works

Ms. Barbara Aldridge
US EPA Region 6
1445 Ross Avenue
Dallas, Texas 75202

Dear Ms. Aldridge:

This is in response to your Solicitation of Views request dated March 02, 2016, concerning the Caminada Headland Back Barrier Marsh Creation in Lafourche Parish, Louisiana.

We have reviewed your request for potential Department of the Army regulatory requirements and impacts on any Department of the Army projects.

We do not anticipate any adverse impacts to any Corps of Engineers projects.

We have reviewed your project as proposed and determined that a Department of the Army (DA) permit under Section 404 of the Clean Water Act and a DA permit under Section 10 of the Rivers and Harbors Act will be required.

You are advised that this approved jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date or the District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

Please be advised that this property is in the Louisiana Coastal Zone and a Coastal Use Permit may be required prior to initiation of any activities on this site. For additional information, contact Ms. Christine Charrier, Office of Coastal Management, Louisiana Department of Natural Resources at (225) 342 7953.

Off-site locations of activities such as borrow, disposals, haul-and detour-roads and work mobilization site developments may be subject to Department of the Army regulatory requirements and may have an impact on a Department of the Army project.

You should apply for said permit well in advance of the work to be performed. The application should include sufficiently detailed maps, drawings, photographs, and descriptive text for accurate evaluation of the proposal.

Please contact Mr. Robert Heffner, of our Regulatory Branch by telephone at (504) 862-1288, or by e-mail at Robert.A.Heffner@usace.army.mil for questions concerning wetlands determinations or need for on-site evaluations. Questions concerning regulatory permit requirements may be addressed to Mr. John Herman by telephone at (504) 862-1581 or by email at John.M.Herman@usace.army.mil.

Future correspondence concerning this matter should reference our account number MVN-2016-00784-SA. This will allow us to more easily locate records of previous correspondence, and thus provide a quicker response.

Sincerely,

Karen L. Clement

Karen L. Clement
Solicitation of Views Manager

Copy Furnished:

Ms. Christine Charrier
Coastal Zone Management
Department of Natural Resources
Post Office Box 44487
Baton Rouge, Louisiana 70804-4487

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

October 3, 2016

Field Supervisor
U.S. Fish and Wildlife Service
646 Cajundome Blvd.
Suite 400
Lafayette, LA 70506

Dear Field Supervisor,

This letter is in response to the recommendations from the U.S. Fish and Wildlife Service in Mr. Jeffrey D. Weller's August 22, 2016, scoping comments letter. The Environmental Protection Agency (EPA) is hereby requesting a determination as to whether the EPA-sponsored project under the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA), Caminada Headland Back Barrier Marsh Creation Project (BA-171), qualifies for an exemption under the Coastal Barrier Resources Act (CBRA).

The BA-171 project is located in CBRA Caminada Unit S03. We have attached a copy of the most recent project fact sheet for your information.

A federal expenditure is allowable within the CBRS, if it meets any of the exceptions (16 U.S.C. § 3505(a)(6)) and is also consistent with the three purposes of the CBRA. Those purposes are to minimize the loss of human life; wasteful expenditure of federal revenues; and the damage to fish, wildlife, and other natural resources associated with coastal barriers.

The EPA has determined that the BA-171 project meets the three purposes. The exception which applies to the BA-171 project is the following:

> Projects for the study, management, protection, and enhancement of fish and wildlife resources and habitats, including acquisition of fish and wildlife habitats, and related lands, stabilization projects for fish and wildlife habitats, and recreational projects.

Please contact Ms. Barbara Aldridge, NEPA Coordinator at (214) 665-2712, or Mr. Adrian Chavarria, CWPPRA project manager at (214) 665-3103, if you have any questions.

Sincerely yours,

Karen McCormick, Chief
Marine, Coastal, & Analysis Section

Enclosure

USDA

United States Department of Agriculture

October 4, 2016

Mr. Adrian Chavarria
Environmental Engineer (6WQ-EC)
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Mr. Adrian:

RE: Caminada Headland Back Barrier Marsh Creation (BA-171)

I am in receipt of your request for an overgrazing determination for Caminada Headland Back Barrier Marsh Creation (BA-171). I contacted our local district conservationist and our state grazing land specialist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

W. Britt Paul
Assistant State Conservationist/Water Resources

Cc: (electronic distribution only)
Randolph Joseph, Assistant State Conservationist/Field Operations, Lafayette, Louisiana
John Boatman, District Conservationist, Donaldsonville, Louisiana
Richard Rice, State Grazing Land Specialist, Alexandria, Louisiana

Natural Resources Conservation Service
State Office
3737 Government Street
Alexandria, Louisiana 71302
Voice: (318) 473-7751 Fax: (318) 473-7626

Chavarria, Adrian

From: Kimberly Walden <kim@chitimacha.gov>
Sent: Thursday, May 05, 2016 2:23 PM
To: Aldridge, Barbara
Cc: Renee Bennett (CPRA); Chavarria, Adrian; Elizabeth Davoli
Subject: RE: Caminada Headlands Back Barrier Marsh Creation (BA-171) CWPPRA project consultation

Dear Ms. Aldridge,

Thank you for following up. As I explained on the phone earlier, we have had our share of technical and staffing issues lately and are currently working to clear the resulting backlog.

I was able to find the letter and report you referenced. After review, we have no unaddressed concerns since the "previously proposed access corridors will no longer be used in order to avoid impacts to archaeological site 16LF274" and the borrow and fill areas have been surveyed.

Should any unanticipated discoveries be made, please contact me immediately.

Please keep in touch regarding start and completion dates. We have not yet reburied the human remains that need to be returned. If your project "may be years in the future", we may choose to rebury them prior to the start of this project.

Please let me know if you need anything else.

Sincerely,
Kimberly S. Walden

From: Aldridge, Barbara [mailto:aldridge.barbara@epa.gov]
Sent: Tuesday, April 26, 2016 8:26 AM
To: Kimberly Walden
Cc: Renee Bennett (CPRA); Chavarria, Adrian; Elizabeth Davoli
Subject: FW: Caminada Headlands Back Barrier Marsh Creation (BA-171) CWPPRA project consultation

Dear Ms. Walden,
Just a follow-up reminder – the project team would like to set up a conference call with you. Please let me know your availability to have a call. We look forward to hearing from you.
Thank you,

Barbara J Aldridge
Barbara J. Aldridge, CWPPRA Team, NEPA Coordinator
Marine, Coastal, & Analysis Section, 6WQ-EC
Ecosystems Protection Branch, Water Division
U.S. Environmental Protection Agency (EPA) Region 6
1445 Ross Avenue, Dallas TX 75202
(214) 665-2712 Office; (214) 310-6217 Work Cell

From: Aldridge, Barbara
Sent: Thursday, March 17, 2016 2:59 PM
To: Kim Walden <kim@chitimacha.gov>
Cc: Chavarria, Adrian <chavarria.adrian@epa.gov>; Renee Bennett (CPRA) <renee.s.bennett@la.gov>; 'Elizabeth Davoli'

<Elizabeth.Davoli@LA.GOV>; McCormick, Karen <McCormick.Karen@epa.gov>
Subject: Caminada Headlands Back Barrier Marsh Creation (BA-171) CWPPRA project consultation

Ms. Walden,

The EPA recently sent out a Solicitation of Views, dated March 2, 2016, requesting comments on the CWPPRA project, "Caminada Headlands Back Barrier Marsh Creation," (BA-171). By way of background, the project management team had a call with you back on June 18, 2014, to discuss your concerns (notes attached). On June 19, 2014, Ms. Renee Bennett, CPRA project manager, sent you a map by email showing the project footprint with an overlay of previously recorded archaeological sites. On June 10, 2014, Adrian Chavarria, EPA project manager, sent you a letter requesting your comments on potential issues in the project area (attached). We have no further correspondence with you or the Chitimacha Tribe in our records.

Previous consultation with the Chitimacha Tribe was undertaken in 2014 in regard to repatriation of human remains. The EPA is the federal sponsor for the next increment of Caminada Headlands Marsh, BA-193, (adjacent and to the east of the BA-171 project), which was recently approved for engineering and design by the CWPPRA Task Force. Both EPA and CPRA recommend that the Chitimacha not wait for either Caminada project constructions to be completed before repatriating remains, as that may be years in the future.

We are sending you, under separate cover, a copy of the final archaeological report for the conveyance corridors. Please note one of the previously proposed access corridors will no longer be used in order to avoid impacts to archaeological site 16LF274. The borrow area was previously surveyed by R. Christopher Goodwin and Associates and the fill area was previously surveyed by Coastal Environments, Inc. for USACE's LCA project (see attached letters).

After you receive the archaeological report, the BA-171 project management team would like to set up a follow-up call with you to make sure that we have addressed all the Chitimacha Tribe's concerns in order to complete consultation under Section 106.

Please let me know your availability to have a call. Please feel free to contact me if you have any questions or need any more information. I look forward to hearing from you.

Thank you,

Barbara J Aldridge
Barbara J. Aldridge, CWPPRA Team, NEPA Coordinator
Marine, Coastal, & Analysis Section, 6WQ-EC
Ecosystems Protection Branch, Water Division
U.S. Environmental Protection Agency (EPA) Region 6
1445 Ross Avenue, Dallas TX 75202
(214) 665-2712 Office; (214) 310-6217 Work Cell

Kimberly Walden

Cultural Director / Tribal Historic Preservation Officer
3287 Chitimacha Trail
P.O. Box 661
Charenton, Louisiana 70523
Phone:(337) 923-9923
Fax: (337) 923-6848
Email: kswalden@chitimacha.gov
Website: http://www.chitimacha.gov

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

Ms. Pam Breaux
State Historic Preservation Officer
Division of Archeology
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-4247

The proposed undertaking will have no adverse effect on historic properties. This effect determination could change should new information come to our attention.

Pam Breaux 5-26-15
Pam Breaux Date
State Historic Preservation Officer

Dear Ms. Breaux:

The U.S. Environmental Protection Agency (EPA), Region 6 is requesting consultation for the proposed fill areas that are to receive sediment dredged from an offshore borrow site for the Caminada Headland Back Barrier Marsh Creation Project (BA-171) provided for under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). The proposed borrow site for BA-171 was previously evaluated for the Louisiana Coastal Area (LCA) Barataria Basin Barrier Shoreline Restoration Project.

The primary goal of the project is to create/nourish 430 acres of back barrier marsh behind 3.5 miles of the Caminada beach using material dredged from a previously approved borrow site for the Louisiana Coastal Area (LCA) Barataria Basin Barrier Shoreline Restoration Project, located in the Gulf of Mexico. This project will create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, improving longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west of the project area.

The U.S. Army Corps of Engineers (USACE) New Orleans District evaluated a 10,345 acre (4,186.62 hectare) of land and water situated between Caminada Pass to the east and Belle Pass to the west, between Louisiana Highway No. 1 (LA 1) on the north and the Gulf of Mexico on the south.

Coastal Environments, Inc. conducted a cultural resource survey within the study area of the Caminada Headlands. A total of 1,006 acres of the 10, 345 acre project area was examined during the survey. The survey began on March 6, 2006 and was completed on April 19, 2006 and included data collection of all relict chenier ridges and natural levees within the marsh creation and ridge restoration portion of the study area, an examination of the study area slated for shoreline restoration and additional marsh creation, and an examination of known sites, possible sites and newly discovered sites in the study area in an effort to acquire information on each site's size, condition and possible cultural affiliation. A total of four new archeological sites 16LF271, 272, 273, and 274, were recorded during the current survey.

A copy of the survey titled *Cultural Resources Survey of the Caminada Headlands Restoration Feasibility Study, LaFourche and Jefferson Parishes, Louisiana*, prepared by Coastal Environments, Inc., has been enclosed for your reference.

Thank you for your assistance in this matter. Should you require further information, please feel free to contact me at (214) 665-3103 or email at chavarria.adrian@epa.gov.

Sincerely,

3/27/15

Adrian Chavarria
Environmental Engineer (6WQ-EC)
Marine and Wetlands Section

Enclosures: 2

JAY DARDENNE
LIEUTENANT GOVERNOR

State of Louisiana

OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT

CHARLES R. DAVIS
DEPUTY SECRETARY

PHIL BOGGAN
INTERIM ASSISTANT SECRETARY

21 September 2015

Adrian Chavarria
Environmental Engineer
EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Re: Draft Report
La Division of Archaeology Report No. 22-5051
Geohazard and Archaeological Assessment for Caminada Headlands Back Barrier Marsh Creation Project, Lafourche, Louisiana

Dear Mr. Chavarria:

We acknowledge receipt of your letter dated 8 September 2015 and two copies of the above-referenced report. We have completed our review of this report and offer the following comments.

Our office concurs that no historic properties will be impacted by construction and use of the West Access Area, and we have no further concerns for this area.

We also concur that in the North Access Area magnetic anomalies M04 through M10 should be avoided by a 300 foot buffer unless they are investigated by a diver to determine the nature of the anomaly. If diver investigations are conducted, we request the opportunity to review the diver's report and evaluate whether the anomaly is a cultural resource or a modern object.

Of greater concern is the potential for the North Access Area to cross a submerged archaeological site. Our office maintains an online GIS with the location of known archaeological sites plotted; site 16LF274 appears to lie within the project area. Furthermore, the "Hard Return" mapped under the Sand Waves on Figure 8 of the Archaeological Analysis report appears to be positioned approximately where the site is reported. This hard return is likely a shell deposit (see page 40 of the report) and may represent a prehistoric shell midden. Numerous artifacts wash up on the modern Caminada beach (site 16LF282), including occasional human remains, and it is our opinion that they are being eroded from a site currently submerged offshore. This is mostly likely 16LF274 situated on a now submerged natural levee of Bayou Moreau. The fact that the hard return lies in close proximity to a buried channel just to the north further suggests the return represents a cultural deposit associated with the former Bayou Moreau. Our office recommends that the North Access Area be moved to avoid the location of 16LF274, or if this is not possible, that additional investigations be undertaken to determine whether the site lies in the project area, if so, whether any intact deposits are present, and whether it is eligible for nomination to the National Register of Historic Places.

Our office requests a revised report that addresses the location of sites 16LF274 and 16LF282, and their position relative to the proposed North Access Area and to potential archaeological deposits mapped by the sub-bottom profiler data.

We concur with the proposed Unanticipated Discoveries Plan.

We look forward to receiving two copies of the revised report. If you have any questions, please contact Chip McGimsey in the Division of Archaeology by email at cmcgimsey@crt.la.gov or by phone at 225-219-4598.

Sincerely,

Phil Boggan
Deputy State Historic Preservation Officer

Chavarria, Adrian

From: Dana Masters <danammasters@aol.com>
Sent: Friday, September 05, 2014 3:24 PM
To: Chavarria, Adrian
Subject: CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT

Thank you for providing information associated to this projects. We have reviewed all of the information and concur with the determinations found within the reports provided. Thanks again for your efforts in helping us protect our cultural resources.

Dana Masters
Jena Band of Choctaw Indians
Tribal Council Member
THPO/ Cultural Director
318-992-1205 (o)
318-374-0268 (c)
318-992-8244 fax
P.O. Box 14
Jena, La 71342

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

2014-08-14

Ms. Pam Breaux
State Historic Preservation Officer
Division of Archeology
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-4247

No known historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.

Pam Breaux 8-28-14
Pam Breaux Date
State Historic Preservation Officer

Dear Ms. Breaux:

The U.S. Environmental Protection Agency (EPA), Region 6 is requesting consultation for the proposed borrow site for the Caminada Headland Back Barrier Marsh Creation Project (BA-171) provided for under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). The proposed borrow site for BA-171 was previously evaluated for the Louisiana Coastal Area (LCA) Barataria Basin Barrier Shoreline Restoration Project.

The primary goal of the project is to create/nourish 430 acres of back barrier marsh behind 3.5 miles of the Caminada beach using material dredged from a previously approved borrow site for the Louisiana Coastal Area (LCA) Barataria Basin Barrier Shoreline Restoration Project, located in the Gulf of Mexico. This project will create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, improving longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west of the project area.

The U.S. Army Corps of Engineers (USACE) New Orleans District evaluated a 520 acre (210.4 hectare) borrow area located 4.7 miles (7.6 km) southwest of Caminada Pass in LaFourche Parish as part of the investigations conducted for the Louisiana Coastal Area (LCA) Barataria Basin Barrier Shoreline Restoration project. The borrow area was surveyed by R. Christopher Goodwin and Associates (Goodwin) in 2006. Goodwin's survey included data collection with a *Trimble* AG132 differential global positioning system, a *Marine Sonic* 600 kHz digital side scan sonar, a *Geometrics* digital marine cesium magnetometer, an *Imagenex* 1030F digital sub bottom profiler, and a *Cetrek* digital echosounder. A total of 30 transects spaced at 50-foot intervals were surveyed for a total of 453,000 linear feet (138,074.4 linear meters). The survey registered a total of 100 magnetic anomalies, 40 acoustic anomalies, and 19 sub-bottom profiler anomalies; all of the identified anomalies appeared to represent modern debris and/or geological features. Your office concurred with results documented in Goodwin's report on September 20, 2007.

A copy of the survey titled *Phase I Underwater Remote Sensing Survey of The Caminada Headlands Borrow Area for the Louisiana Coastal Area Barrier Shoreline Restoration Project*, prepared by R. Christopher Goodwin and Associates, has been enclosed along with the approval

Jena Band of Choctaw Indians

P. O. Box 14 • Jena, Louisiana 71342-0014 • Phone: 318-992-2717 • Fax: 318-992-8244

July 29, 2014

EPA Region 6, 6WQ-EC
Attn: Adrian Chavarria
1445 Ross Avenue
Dallas, TX 75202

Re: Caminada Headland Back Barrier Marsh Creation Project

To Whom It May Concern:

In order to properly comment on the above-mentioned project, The Jena Band of Choctaw Tribal Historic Preservation Office is requesting any cultural and historic site files that may be available in terms of the project area. Also, please explain the undertaking and any ground disturbance that will occur. Thank you for your cooperation in this matter.

Sincerely,

Dana Masters
JBC THPO
P.O. Box 14
Jena, LA 71342-0014
(318)-992-1205

Prepared By:
Alina J. Shively
Alina J. Shively, Deputy THPO
jbc.thpo106@aol.com

Choctaw Nation of Oklahoma

P.O. Box 1210 • Durant, OK 74702-1210 • (580) 924-8280

Gregory E. Pyle
Chief

Gary Batton
Assistant Chief

June 26, 2014

United States Environmental Protection Agency
Region 6
Attn: Adrian Chavarria, Environmental Engineer (6WQ-EC)
Marine and Wetlands Section
1445 Ross Ave., Suite 1200
Dallas, TX 75202-2733

RE: Caminada Headlands Back Barrier Marsh Creation (BA-171), Lafourche Parish, LA

Dear Adrian Chavarria:

The Choctaw Nation of Oklahoma thanks the United States Environmental Protection Agency, Region 6, for the correspondence regarding the above referenced project. Lafourche Parish, LA lies outside of the Choctaw Nation of Oklahoma's area of historic interest. The Choctaw Nation of Oklahoma respectfully defers to the other Tribes that have been contacted. If you have any questions, please contact our office at 580-924-8280 ext. 2631.

Sincerely,

Dr. Ian Thompson, Ph.D., RPA
Tribal Historic Preservation Officer
Tribal Archaeologist, NAGPRA Specialist

By: Lindsey Bilyeu

Lindsey Bilyeu
NHPA Senior Section 106 Reviewer
lbilyeu@choctawnation.com
Choctaw Nation of Oklahoma
P.O. Drawer 1210
Durant, OK 74701

Enclosure VII – Hazardous, Toxic, Radiological Waste (HTRW) Assessment

August 2015

CAMINADA HEADLANDS BACK BARRIER MARSH CREATION PROJECT (BA-171)

SEDIMENT SAMPLING AND ANALYSIS ASSESSMENT REPORT

Proposed Offshore Borrow Area

Prepared for

Coastal Protection and Restoration Authority
Baton Rouge, Louisiana

Prepared by

G.E.C., Inc.
Baton Rouge, Louisiana

August 2015

CAMINADA HEADLANDS BACK BARRIER MARSH CREATION PROJECT (BA-171)

SEDIMENT SAMPLING AND ANALYSIS ASSESSMENT REPORT

Proposed Offshore Borrow Area

GEC Project #0027.8500510.000

Prepared for

Coastal Protection and Restoration Authority
Baton Rouge, Louisiana

Prepared by

G.E.C., Inc.
8282 Goodwood Boulevard
Baton Rouge, Louisiana 70806
225/612-3000

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EPA MEMO TO CPRA
June 30, 2015

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

MEMO

Date: June 30, 2015

From: Karen McCormick, Chief
Marine and Coastal Section (6WQ-EC)

To: Renee Bennett, Project Manager
Coastal Protection and Restoration Authority (CPRA)

Subject: Caminada Headlands Back Barrier Marsh Creation Project (BA-171)

The Caminada Headlands Back Barrier Marsh Creation Project (BA-171) is funded under Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) in Priority Project List 23. The Coastal Protection and Restoration Authority (CPRA), in partnership with the Environmental Protection Agency (EPA), have been authorized to execute Phase I (Engineering and Design) of BA-171. The objective of this project is to create, maintain, and nourish existing deteriorating wetlands through hydraulic dredging.

During consultation on a path forward for BA-171 with EPA and CPRA, it was brought to EPA's attention that there was a reasonable concern that potentially elevated levels of nickel concentration could be of concern in the proposed offshore borrow area site. This potential was based on historical information from past projects within the general area. CPRA contracted service to collect soil samples within the offshore borrow site to determine the presence or absence of constituents of concern. After reviewing the analytical data, EPA has determined that the constituents of concern within the project area/borrow site are within acceptable limits and will not have an adverse effect in the immediate area for plants, aquatic life, and human exposure.

EPA is using the National Oceanic and Atmospheric Administration (NOAA) sediment quality benchmarks to assess the potential for harm to aquatic life. NOAA cites the effects range low (ERL) and effects range median (ERM) to aid in the categorization and comparison of marine sediments. The ERL is the 10^{th} percentile concentration over the range of endpoint concentrations and is considered the concentration below which harm to aquatic life rarely occurs. The ERM is the 50^{th} percentile concentration over the range of endpoint concentrations and is indicative of a concentration above which harm frequently occurs. The ERL and ERM for nickel are found at a concentration of 20.9 mg/kg and 51.6 mg/kg, respectively. The NOAA sediment quality benchmarks can be found on the Screening Quick Reference Tables (SQuiRTS) at http://response.restoration.noaa.gov/environmental-restoration/environmental-assessment-tools/squirt-cards.html. The NOAA ERL and ERM of 20.9 mg/kg and 51.6 mg/kg, respectively,

are the same values that were used during the BP oil spill response as the chronic and acute benchmarks, respectively.

In addition, the National Coastal Condition Assessment (NCCA) examined the nickel concentrations at 95 sites across the State of Louisiana. The NCCA is an EPA state partnership which is designed to provide statistically valid regional estimates of the condition of U.S. coastal waters. The NCCA evaluates five indices of condition – water quality, sediment quality, benthic community condition, and fish tissue contaminants. Consistent sample and analytical procedures ensure that the results can be compared across the country. The NCCA Louisiana sites as well as other monitoring sites where targeted during the BP spill of 2010 to assist the agency for historical data collection for coastal monitoring consistency. Nearly 30% of the NCCA Louisiana sites sampled exceed the nickel ERL or chronic benchmark of 20.9 mg/kg with a maximum concentration of 34.5 mg/kg. This information indicates that the nickel concentrations of 21 mg/kg to 26 mg/kg is within the prevailing sediment nickel concentration found along the coast of Louisiana.

The nickel concentrations detected within the proposed offshore borrow site sediment ranged from 21 mg/kg to 26 mg/kg. This range of nickel concentrations are not anticipated to cause harm to aquatic life. Therefore, EPA has determined that the concentration range is between the ERL and ERM concentration and is not substantially above the nickel concentration where harm to aquatic life is rare (ERL).

Enclosure VIII – Section 303(e) Approval Request

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

October 14, 2016

Colonel Michael N. Clancy
New Orleans District Commander
U.S. Army Corps of Engineers – New Orleans District
ATTN: CEMVN-PM-BC (CWPPRA Program)
7400 Leake Ave
New Orleans, LA 70160-0267

RE: Request for CWPPRA Section 303(e) Approval

Dear Colonel Clancy:

In accordance with Section 303(e) of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA), the U.S. Environmental Protection Agency and the Louisiana Coastal Protection and Restoration Authority (CPRA) are requesting approval that the CWPPRA Project BA-171, the Caminada Back Barrier Marsh Creation Project "...is subject to such terms and conditions as necessary to ensure that 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 area is defined as the area south of Louisiana Highway 1 between Belle Pass and Caminada Pass in LaFourche Parish and is located directly behind the Caminada headland beach covering areas in and around Bay Champagne and areas east of Bayou Moreau. The goals of this project are to create and nourish 385 acres of emergent back barrier marsh, by pumping sediment from an offshore borrow site and to create a platform upon which the beach and dune can migrate, reducing the likelihood of breaching, increasing the retention of over-washed sediment, improving the longevity of the barrier shoreline, and protecting wetlands and infrastructure to the north and west.

Per Section 6(g)(2) of the CWPPRA Standard Operating Procedures Revision 24, we are enclosing the following documents for your use in the Section 303(e) approval process:

1. CPRA transmittal letter of October 13, 2016, containing a statement certifying that all standard real estate practices will be followed in acquiring land rights;
2. Temporary Easement, Servitude and Right-of-Way Agreement;
3. Map depicting the Caminada Back Barrier Marsh Creation Project, BA-171, Limits; and
4. Overgrazing Determination from the Natural Resources Conservation Service.

If you have any questions or concerns, please feel free to contact me at the above address or telephone Mr. Adrian Chavarria of my staff at (214) 665-3103 or by email at chavarria.adrian@epa.gov.

Sincerely yours,

William K. Honker, P.E.
Director
Water Quality Protection Division

Enclosures

cc: Renee Bennett (CPRA)
Greg Grandy (CEC)
Brad Inman (USACE)

Enclosure IX – Overgrazing Determination

USDA

United States Department of Agriculture

October 4, 2016

Mr. Adrian Chavarria
Environmental Engineer (6WQ-EC)
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Mr. Adrian:

RE: Caminada Headland Back Barrier Marsh Creation (BA-171)

I am in receipt of your request for an overgrazing determination for Caminada Headland Back Barrier Marsh Creation (BA-171). I contacted our local district conservationist and our state grazing land specialist to discuss the grazing in the project area. Currently, livestock are not grazing in the area, nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion, overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

W. Britt Paul
Assistant State Conservationist/Water Resources

Cc: (electronic distribution only)
Randolph Joseph, Assistant State Conservationist/Field Operations, Lafayette, Louisiana
John Boatman, District Conservationist, Donaldsonville, Louisiana
Richard Rice, State Grazing Land Specialist, Alexandria, Louisiana

Natural Resources Conservation Service
State Office
3737 Government Street
Alexandria, Louisiana 71302
Voice: (318) 473-7751 Fax: (318) 473-7626

Enclosure X – Request for Phase II Funding Approval Spreadsheet and Fully Funded Cost Estimate

Letters of Support

EDWARD WISNER DONATION ADVISORY COMMITTEE

L. AMANDA PHILLIPS
SECRETARY TREASURER
AND LAND MANAGER

935 GRAVIER STREET
SUITE 825
NEW ORLEANS, LA 70112
(504) 210-1152
FAX (504) 210-1156
WISNERDONATION@AOL.COM

MAILING ADDRESS
P. O. BOX 52204
NEW ORLEANS, LA 70152-2204

Wisner

REPRESENTING

CHARITY HOSPITAL / MEDICAL CENTER
OF LOUISIANA
CITY OF NEW ORLEANS
THE SALVATION ARMY
TULANE UNIVERSITY
THE WISNER FAMILY

18 October 2016

Colonel Michael N. Clancy
District Commander
US Army Corps of Engineers, New Orleans District
Executive Office
7400 Leake Avenue
New Orleans, LA 70118

RE: CAMINADA HEADLANDS BACK BARRIER MARSH RESTORATION, INCREMENT I (BA-171)
VOTE FOR PHASE II CONSTRUCTION FUNDING
LAFOURCHE PARISH, LOUISIANA

Dear Col. Clancy-

Wisner would like to thank you and the CWPPRA committee members for moving the above referenced project forward to Phase I two years ago and to ask you to move it to Phase II construction at this year's vote. Large portions of this project are located on property owned and managed by the Edward Wisner Donation.

Wisner has worked closely with Adrian Chavarria (EPA sponsor) and Renee Bennett (CPRA Project Manager) to get this project to this point. We have facilitated bringing our tenants within the project footprint together with the project team, provided air boats for field trips, and secured the land rights early on (October 31, 2014), among other efforts.

This beach and back barrier marsh area is critical protection for the nation's oil and gas infrastructure which is at risk from some of the fastest retreating shoreline in Louisiana. West and northwest of the project is the Greater Lafourche Port Commission which services 90% of the deepwater rigs. LOOP Pipeline is adjacent to the project footprint. Chevron and Harvest Pipelines run through the project footprint. Highway LA 1, the only road into and out of Grand Isle, is protected by this area as well.

Endangered and threatened species, as well as nesting and migratory birds, make their home on the beach front and back marsh areas. As an example, 25% of the Louisiana population of Piping Plovers, which is 1% of the global population, nest on the Headland.

The environmental and financial importance of this area was recognized by the Louisiana Coastal Ecosystem Restoration (LCA) Study's Barataria Basin Barrier Shoreline Restoration Project (BBBS) which was authorized under WRDA 2007. Funding was never appropriated. BBBS was in the top 5 LCA projects and is in the Louisiana Master Plan. The State, with Wisner's full support, has broken

BBBS into four smaller components: CAM I and CAM II, and the Caminada Back Barrier Marsh Creation Project Increments I and II (CAM BBM I and CAM BBM II).

CAM I and CAM II are complete. CAM BBM II moved into Phase I Design and Engineering last December. Construction of CAM BBM I would bring a larger portion of the original BBBS to completion.

Wisner has been a vigorous proponent of coastal restoration for more than half a century. Since the 1990's we have worked closely with coastal scientists to promote research and to restore Wisner's property. BTNEP has several surveys and research projects on the newly restored beach. Their results will help craft restoration projects.

Wisner, funded by a NOAA Community-based Restoration grant (Lafourche Parish Wisner Restoration Project), built 45-acres of marsh, planted 18,500 plugs of Smooth Cordgrass and 2,500 Black Mangroves, installed 7,000 linear feet of sand fencing, and restored hydrology to over 1850-acres between 2003 – 2004.

In 2004 Wisner created the Fourchon Region Restoration Initiative (FRRI) to focus stakeholders' efforts on restoring the Fourchon Region's coast. Wisner raised $150,000 from partners at Chevron, Shell Oil Company, LOOP, UNO, the Greater Lafourche Port Commission, the South Lafourche Levee District and the Barataria Terrebonne National Estuary Program. FRRI commissioned research that reduced the scientific uncertainties for the LCA BBBS project.

I, and the undersigned Committee members, urge the Task Force to move this project to the Construction Phase. CWPPRA has our full support for BA-171. Thank you for your consideration.

Sincerely,

L. Amanda Phillips
Secretary Treasurer and Land Manager

Suchitra Satpathi
Representative, City of New Orleans

William Peneguy
Alternate Representative, Wisner Heirs

Rhonda Green
Representative, Charity Hospital

Patrick J. Norton
Representative, Tulane University

Major David Worthy
Representative, The Salvation Army

Cc: Ms. Renee Bennett, Louisiana Coastal Protection and Restoration Authority
Mr. Adrian Chavarria, Environmental Protection Agency, Region 6
Mr. Brad Inman, US Army Corps of Engineers
Mr. Darryl Clark, US Fish and Wildlife Service
Mr. Bren Haase, Louisiana Coastal Protection and Restoration Authority
Mr. Richard Hartman, National Marine Fisheries Service
Ms. Karen McCormick, Environmental Protection Agency, Region 6
Mr. Britt Paul, P.E., Natural Resource Conservation Service

LOUISIANA WILDLIFE FEDERATION
". . . conserving our natural resources and your right to enjoy them."

November 29, 2016

Colonel Michael N. Clancy
District Commander
U.S. Army Corps of Engineers, New Orleans District
Executive Office
7400 Leake Avenue
New Orleans, LA 70118

Re: Comments on CWPPRA Caminada Back Barrier Marsh Project Increment I (BA-171)

Dear Colonel Clancy,

On behalf of the Louisiana Wildlife Federation (LWF), I am writing this letter in support of the Caminada Headlands Back Barrier Marsh Creation project proceeding to 95% Design. The Caminada Headland in Lafourche Parish is experiencing shoreline retreat at some of the highest rates in the state, with landward migration doubling or nearly tripling in some areas when compared to historical rates of 40 feet per year.

In addition to landward migration, the interior marshes of this area are also being lost at high rates. The Caminada Headland is an important feature of Louisiana's coast because it consists of important habitat for nesting shorebirds, migratory birds, and threatened and endangered species including piping plovers and Kemp's Ridley sea turtles. This habitat is also crucial for the protection of infrastructure such as Port Fourchon and LA Highway 1. Port Fourchon, Louisiana's largest oil and gas drilling services port, supplies 18% of our country's oil. Port Fourchon connects to the rest of the nation through LA Highway 1. This highway also serves as the only evacuation route for residents of Grand Isle. Flooding causes Highway 1 to frequently close. Because of this, this infrastructure is important for the economies of both the state and the nation.

The Caminada Headlands Back Barrier Marsh Creation project aims to create and/or nourish 380 acres of back barrier marsh and create a platform for beach and dune migration that reduces breaching, improves shoreline longevity, and protects wetlands and infrastructure.

LWF is a non-profit organization representing over 7,000 members, many whom enjoy the plentiful hunting and fishing opportunities that Louisiana's wetlands and marshes provide. Many of our members depend on the health of the Caminada Headland not only for the benefits to wildlife, but also for protection of the places where they live and work. We support the request for construction funding of this project. It's vital that we protect the citizens, wildlife, and infrastructure of our state with projects such as Caminada Headlands Back Barrier Marsh Creation. Thank you for your consideration of these comments.

Sincerely,

Rebecca Triche

Rebecca Triche
Executive Director

CC: Brad Inman, CWPPRA Program Manager, U.S. Army Corps of Engineers, New Orleans District
Adrian Chavarria, Environmental Engineer, EPA - Region 6 (6WQ-EC)
Renee Bennett, Project Manager, Coastal Protection and Restoration Authority

337 S. Acadian Thruway, Baton Rouge, LA 70806
P.O. Box 65239 Audubon Station, Baton Rouge, LA 70896-5239
Phone/Fax: (225) 344-6707
www.lawildlifefed.org

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

November 30, 2016

US Army Corps of Engineers – NOD
7400 Leake Avenue
New Orleans, LA 70118
Attn: Colonel Michael N. Clancy, District Commander

RE: PPL23 Project
BA-171 Caminada Back Barrier Marsh Creation Project
Lafourche Parish, Louisiana

Dear CWPPRA Task Force,

The Louisiana Land & Exploration Company LLC (LL&E) and ConocoPhillips believe that the West Fourchon Marsh Creation and Nourishment project is needed between the Belle Pass and Caminada Pass areas to create and nourish the existing marsh areas, and Bay Champagne area which is subject to shoreline erosion.

LL&E has long been a supporter of coastal restoration activities in Louisiana. Since enactment of the CWPPRA Program, we have supported whole heartedly both State and Federal efforts to restore, enhance or protect coastal wetlands.

We sincerely appreciate the cooperative efforts of all parties involved in protecting Louisiana coastal wetlands. Continuing with that effort of cooperation, we request that the Technical Committee consider and recommend BA-171 Caminada Back Barrier Marsh Creation Project for Phase II construction funding.

We support the BA-171 Caminada Back Barrier Marsh Creation Project and sincerely believe that it will be of great value in enhancing the wetlands in Lafourche Parish.

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

Sincerely,

Phillip R. Precht
Attorney-in-Fact
The Louisiana Land and Exploration Company LLC

Cc: Brad Inman
Cc: Adrian Chavarria
Cc: Renee Bennett

BILL CASSIDY, M.D.
LOUISIANA

WASHINGTON, DC OFFICE:
SUITE SH-703
HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510
(202) 224-5824

United States Senate

COMMITTEES:
APPROPRIATIONS
ENERGY AND NATURAL RESOURCES
HEALTH, EDUCATION, LABOR, AND PENSIONS
VETERANS' AFFAIRS
JOINT ECONOMIC COMMITTEE

November 9, 2016

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

Dear Mr. Constance:

The Edward Wisner Donation has brought to my attention that the Caminada Headlands Back Barrier Marsh Restoration (BA-171) project will be considered in December by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee. The group has requested that I relay their support for these projects located on their land near Port Fourchon.

The Edward Wisner Donation believes that this project will protect Port Fourchon as well as the existing CWPPRA projects and other vital infrastructure in the area. Wisner further notes that this project is a component of the larger Barataria Basin Barrier Shoreline Restoration Project (BBBS) authorized by WRDA 2007. The BBBS project was broken into four parts. Two of the parts have been completed and a third component is in Phase 1 Design and Engineering. Due to the interconnection and near completion of these components, Wisner believes BA-171 has added benefits.

I am thankful for the CWPPRA Technical Committee's consideration of these projects. Should you have any questions, please feel free to contact Michael Eby in my Baton Rouge Office at (225) 929-7711.

Sincerely,

Bill Cassidy, M.D.

Bill Cassidy, M.D.
United States Senator

BC\ME

3600 JACKSON STREET
SUITE 115A
ALEXANDRIA, LA 71301
(318) 448-7176

5555 HILTON AVENUE
SUITE 100
BATON ROUGE, LA 70808
(225) 929-7711

101 LA RUE FRANCE
SUITE 505
LAFAYETTE, LA 70508
(337) 261-1400

1 LAKESHORE DRIVE
SUITE 1155
LAKE CHARLES, LA 70629
(337) 261-1400

3421 N. CAUSEWAY BOULEVARD
SUITE 204
METAIRIE, LA 70002
(504) 838-0130

1651 LOUISVILLE AVENUE
SUITE 123
MONROE, LA 70201
(318) 324-2111

6425 YOUREE DRIVE
SUITE 415
SHREVEPORT, LA 71105
(318) 798-3215

Cameron Meadows Marsh Creation and Terracing
CS-66

Cameron Meadows Marsh Creation and Terracing (CS-66)

Phase 2 Request

CWPPRA Technical Committee Meeting

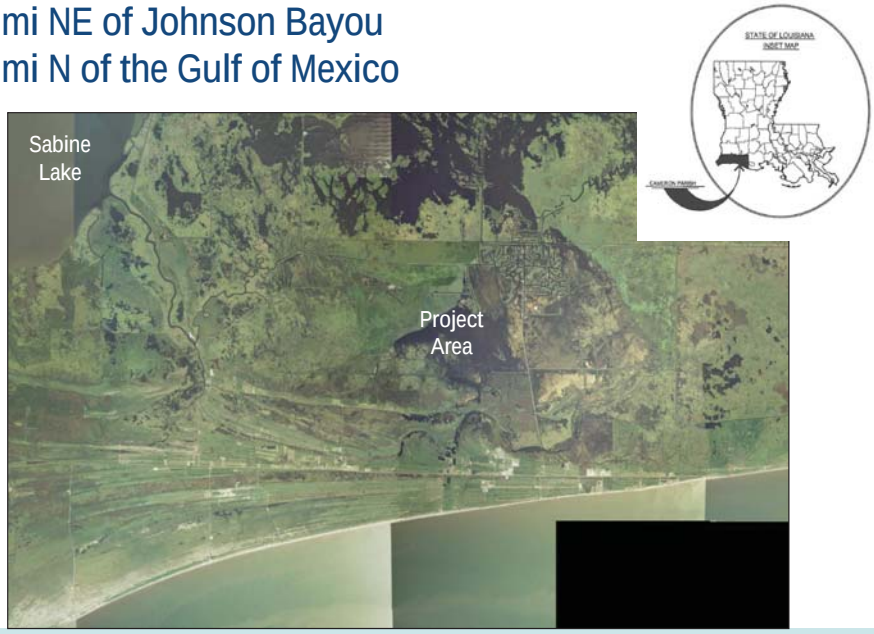
December 7, 2016

Project Background

- Selected by CWPPRA Technical Committee as PPL22 Candidate in Spring of 2012
- Approved for Phase I funding by CWPPRA Task Force January 2013
- 30% Design Meeting held July 2015
- 95% Design Meeting held October 2016

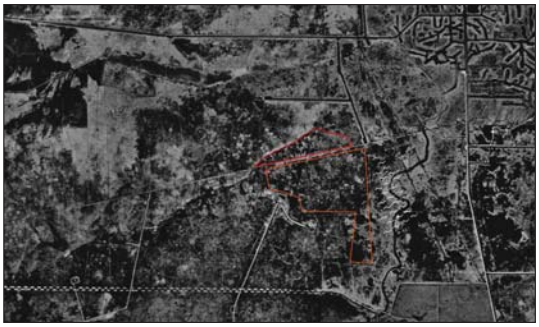
Project Location

- Cameron Parish
- 5 mi NE of Johnson Bayou
- 5 mi N of the Gulf of Mexico



Project Background

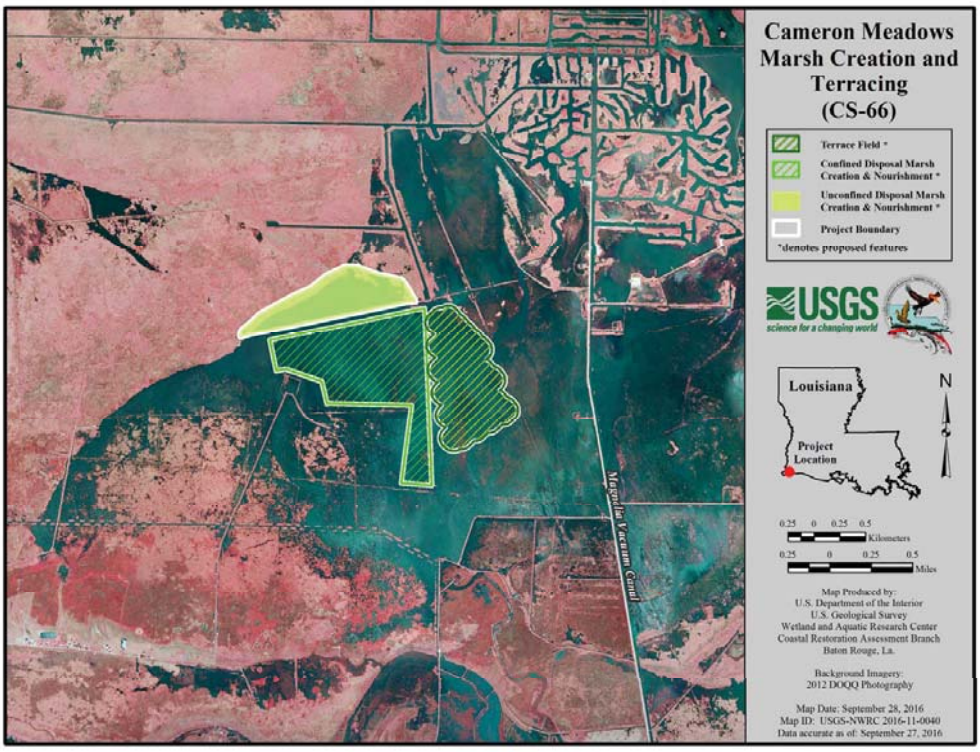
- Land loss rate of -0.92% per year based on 1984 to 2016 USGS data
- Marsh loss attributed to:
  - Rapid fluid and gas extraction since 1931
  - Hurricanes Rita and Ike
  - Saltwater intrusion
  - Loss of hydrologic connectivity



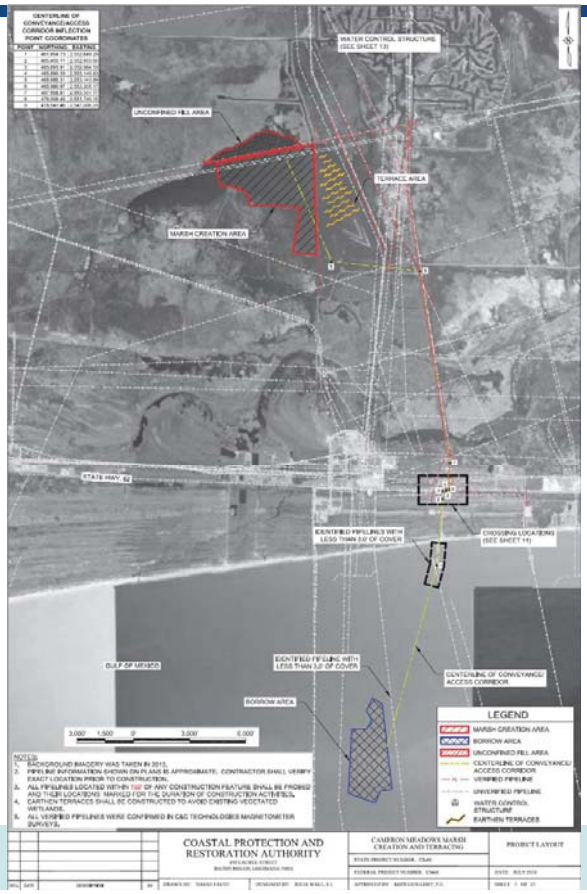
January 1998

January 2015

Middle of the project area looking west towards the fault line.



Pipeline Corridor



NOAA FISHERIES

Landrights

- The sediment pipeline will cross approximately 37 pipelines owned by approximately 22 different companies.
- All but one of the approximately 50 relevant landowners will receive no direct benefit from the project.
- Over two dozen stakeholders attended project meetings on Nov. 15th, provided recommendations, and expressed strong support for the project.

Why Here? Why Now?

- The project will address wetland losses from hurricanes and fluid withdrawal.

- Summary
  - 295 acres confined marsh creation
  - 85 acres unconfined marsh creation
  - 12K LF of terraces
  - 326 net acres
  - $39.2 M Fully Funded Cost
  - $35.1 M Phase II, increment 1 request

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

November 23, 2016

Mr. Mark Wingate
Deputy District Engineer
US Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Re: Phase II Construction Funds Request for the Cameron Meadows Marsh Creation and Terracing project (CS-66)

Dear Mr. Wingate:

NOAA Fisheries and the Louisiana Coastal Protection and Restoration Authority (CPRA) hereby request approval for Phase II authorization of the Cameron Meadows Marsh Creation and Terracing project (CS-66). Phase I activities were authorized on Priority Project List 22 on January 24, 2013, by the Louisiana Coastal Wetlands Conservation and Restoration Task Force under the authority of the Coastal Wetlands, Planning, Protection and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures Manual (SOP).

Enclosed please find the information required for Phase II requests and approval pursuant to Appendix A of the SOP. Should additional information be required for this project, I can be reached at (301) 427-8675. Thank you for your consideration of this request.

Sincerely,

Cecelia Linder
NOAA CWPPRA Program Manager
NOAA Fisheries Service

Enclosures

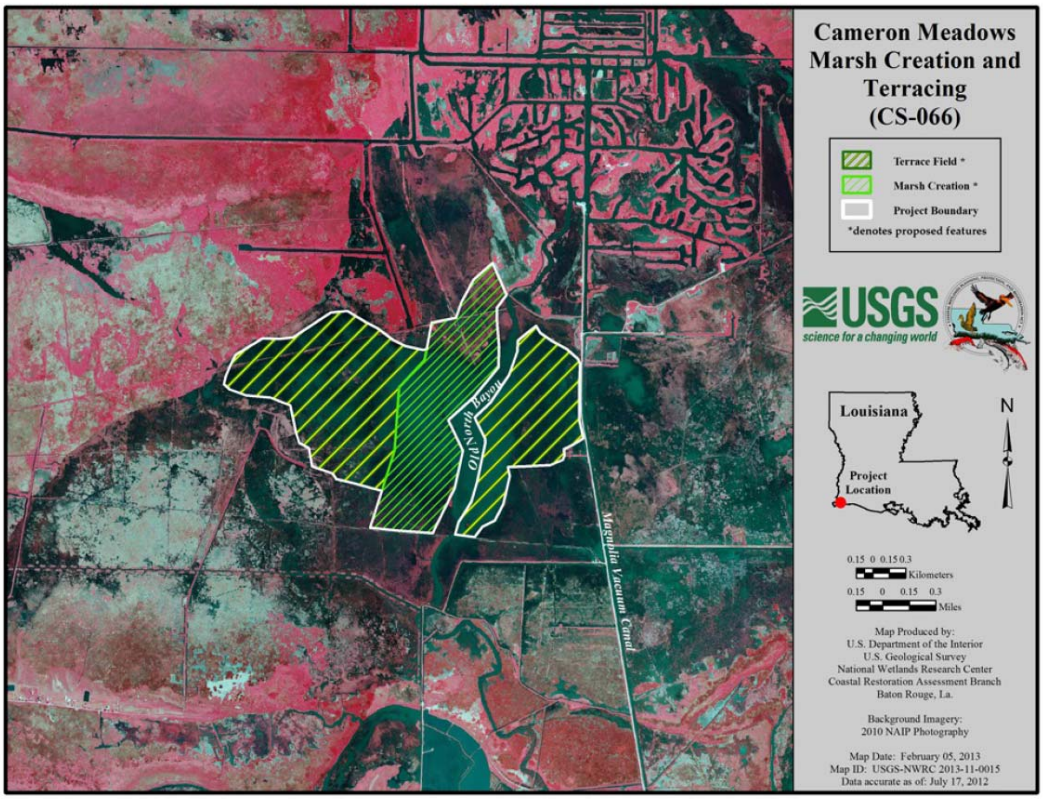
Cc: Members of the CWPPRA Technical Committee
Pat Williams, Project Manager, NOAA NMFS
Katie Freer, Project Manager, CPRA
Andrew Beall, CPRA Project Management Administrator

I. Description of Phase I Project

The Cameron Meadows Marsh Creation and Terracing Project (CS-66) was proposed by the National Oceanic and Atmospheric Administration (NOAA) as a candidate for Project Priority List 22. Phase I was authorized by the CWPPRA Task Force in January 2013. The Project is located in Cameron Parish approximately 18 miles west of Cameron and northeast of Johnson Bayou. The candidate project envisioned the creation of 350 acres of brackish marsh in recently formed shallow open water, and creation of 21 acres of earthen terraces to reduce wave fetch, and an increase in freshwater and sediment inflow into interior wetlands by improving project area hydrology. Hydrological improvements were largely envisioned through cleaning out over 30,000 linear feet of canals to re-establish drainage patterns filled in as a result of the hurricanes.

A summary of project costs and benefits at the Phase I level are provided below, followed by the phase 1 project feature map.

Fully Funded Total Project Cost	$27,685,820
Phase II, Increment 1 Request	$23,967,925
Net Acres at TY20	265
Average Annual Habitat Units	106



II. Overview of Phase I Tasks, Process and Issues

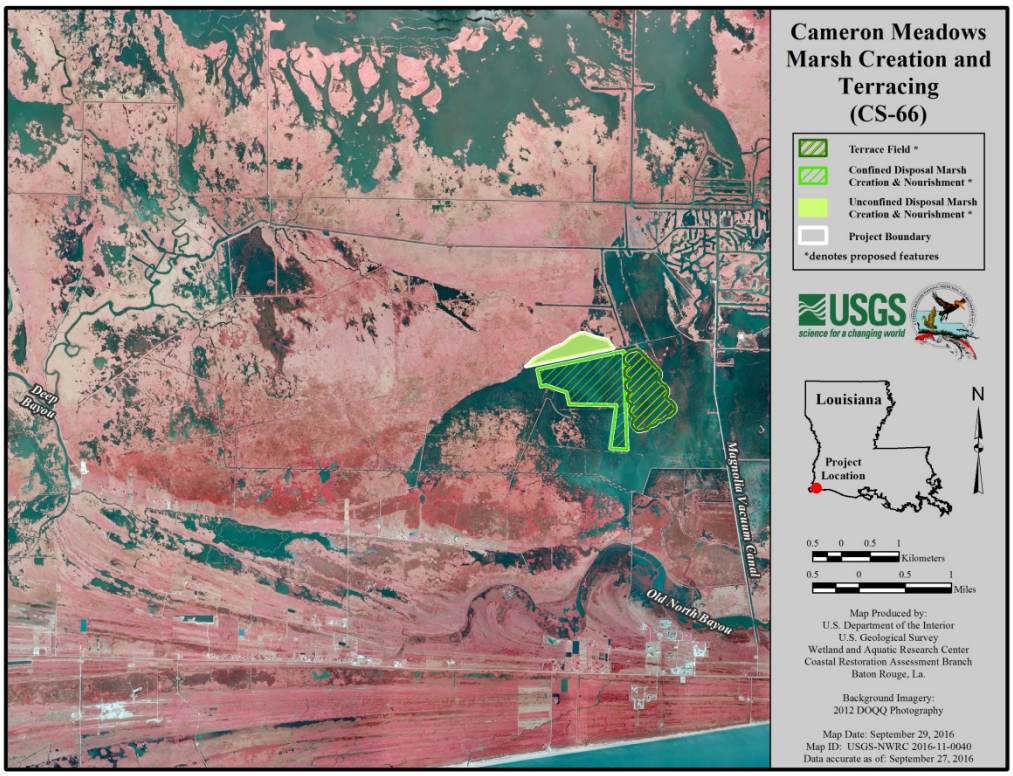
Phase I activities included formation of project goals and objectives, pre-design investigations (i.e., bathymetric, topographic surveys, and geotechnical sampling of the project/borrow areas), a Hazardous, Toxic, and Radioactive Waste Survey (HTRW), data acquisition and analyses, hydrodynamic modeling of the project area, development and evaluation of project alternatives at the Preliminary Design (30%) level and completion of the Final Design (95%) of the preferred alternative. Other tasks included the development of the landrights work plan, the preliminary ownership report, application for appropriate permits and regulatory clearances, consultations with the State Historic Preservation Office (SHPO), development of draft Environmental Assessment, and review of updated costs and benefits by the Engineering and Environmental Workgroups.

III. Description of the Phase II Candidate Project

The primary features consist of 295 acres of marsh creation, 85 acres of unconfined marsh creation, and 12,150 linear feet of earthen terraces. The marsh creation/nourishment will be accomplished using approximately 2.3 million cubic yards (mcy^3) of fine-grained material hydraulically dredged from just offshore in the Gulf of Mexico. Initial (30-day settlement period) fill elevations will be +2' NAVD 88 (with a + 0.5' tolerance) in marsh creation areas, which is anticipated to result in marsh elevations that would remain intertidal for the majority of the 20-year project life.

Other project components include installation of settlement plates, retention dike gapping as needed to ensure tidal exchange and fisheries support functions, and project-specific monitoring to inform performance assessment and future project designs. A summary of current project costs and benefits is provided below, , followed by the updated project feature map.

Fully Funded Total Project Cost	$39,233,639
Phase II, Increment 1 Request	$35,129,706
Net Acres at TY20	326
Average Annual Habitat Units	109



As a result of Phase I activities, the features originally approved in Phase 0 have been modified to present a more cost effective and competitive project for consideration of Phase II funding. One of the project goals developed from Phase 0 initiation was to restore hydrologic connectivity to the project area. Initially, it was assumed this would entail dredging of the northern canals to clear debris that was deposited from hurricanes. Debris has been removed from B1 Canal and is not inhibiting exchange. Interim goals were revised from restoring hydrologic connectivity to increasing drainage from the project area. Alternatives were investigated to increase drainage with a goal of reducing the number of days of marsh inundation per year. The most optimal hydrologic alternative, however, is not predicted to provide enough benefits to offset the costs nor detriment to fisheries, and, therefore, was dropped from the final design.

IV. Checklist of Phase II Requirements

A. List of project goals and strategies

The specific goals of the project are: 1) create 295 acres of brackish marsh in recently formed shallow open water; 2) nourish 85 acres of existing brackish marsh; and 3) reduce wind generated wave fetch through the installation of 12,150 linear feet of earthen terraces.

B. Cost Share Agreement

A cooperative agreement was executed between CPRA and NOAA for Phase I activities on August 16, 2013.

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

CPRA provided assurance on landrights completion to NOAA on November 18, 2016, **Attachment A**.

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

The Preliminary Design Review meeting was held on July 13, 2015. CPRA's Letter of Concurrence to proceed to final design to proceed to final design are included in **Attachment B**.

E. *A favorable Final Design Review (95% Design Level)*

The Final Design Review meeting was held on October 25, 2016. In addition to the sponsors NMFS and CPRA, all other CWPPRA participating agencies attended the meeting. CPRA's letter of concurrence to proceed to Phase II request is included in **Attachment C**.

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 II approval is requested*

NOAA sent out the draft Environmental Assessment to the Technical Committee and Planning and Evaluation Committee on November 22, 2016.

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

Joint permit application materials (LDNR/CMD; COE and LDEQ) were prepared, and are ready for submittal if Phase II funding is approved.

H. *A hazardous, toxic and radiological waste (HTRW) assessment, if required*

The HTRW analysis was completed in accordance with Phase I ESA scope and limitations of American Society for Testing and Materials Standard Practice E 1527-05 in October 2014. That review of applicable federal and state regulatory agency records, historical records, interviews with persons knowledgeable about the subject (and adjacent) property, and a physical site investigation, revealed no evidence of recognized environmental conditions. (**Attachment D**)

I. *Section 303(e) approval*

The letter requesting Section 303(e) was submitted to the United States Army Corps of Engineers (USACE) on November 22, 2016 (**Attachment E**)

J. *Overgrazing determination from the NRCS*

The Overgrazing Determination was received from NRCS on October 17, 2016, stating that overgrazing is not a problem in the project area (**Attachment F**).

K. Revised fully funded cost estimate, reviewed and approved by the Engineering Work Group prior to fully funding by the Economic Work Group, based on the revised project design and the specific Phase II funding request

CPRA submitted the revised cost estimate to the Engineering Work Group on November 2, 2016. A revised fully funded cost estimate was finalized by the Economic Workgroup on November 15, 2016. The total fully funded cost is $39,233,639. The Phase II, increment 1 funding request is $35,129,706 as illustrated in **Attachment G**.

L. *A Wetland Value Assessment reviewed and approved by the Environmental Work Group.*

A revised WVA reflecting the final project design was completed on November 3, 2016. The project is anticipated to result in 326 net acres and 109 AAHUs.

Attachment A

Project Landrights

COASTAL PROTECTION AND RESTORATION AUTHORITY
CPRA

State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

November 17, 2016
(Sent via email and U.S. Mail)

Ms. Cecelia Linder
U.S. Department of Commerce
National Marine Fisheries Service
Office of Habitat Protection
1315 East West Highway, Restoration Center, Room 7120
Silver Spring, MD 20910

RE: CWPPRA Section 303(e) Approval
Cameron Meadows Marsh Creation and Terracing (CS-0066)
Cameron Parish, Louisiana

Dear Ms. Linder:

By this letter, I am transmitting to you a copy of the Coastal Protection and Restoration Authority (CPRA) of Louisiana's standard form Temporary Easement, Servitude and Right-of-Way Agreement, which will be used to acquire the necessary land rights for the above-referenced project. There are oil and gas wells along with pipeline infrastructure in the project area.

The enclosed documents and statements provided below fulfill the requirements as outlined in Section 6(g) (2)(b) of the *Standard Operating Procedures Manual* for CWPPRA projects: the "Language of land rights" which states the "type of land rights required", and a map and to describe the "Plan showing project limits." The "Language of land rights" documents were approved by the CPRA counsel and the technical sections of the document and map(s) were overseen by the project engineer and project monitoring biologist. By this letter, CPRA certifies that land acquisitions have been and will be in accordance with all applicable Federal and State laws and regulations, and all standard real estate practices have been and will be followed.

This letter is also being provided to inform you that the landrights process is progressing on the project. Although there are numerous landowners, pipelines and utilities in the project area, no significant landrights problems are anticipated at this phase of the project. CPRA is hopeful that all landrights tasks should be completed within a reasonable period of time, pending Phase II construction funding approval. Please note that the use of private property on at least portions of the dredge pipeline corridor may potentially require compensation to landowners who will not receive benefits from the project.

This letter and accompanying documents may be forwarded under cover letter from the National Marine Fisheries Service (NMFS) to the U. S. Army Corps of Engineers (Corps) as part of your request for CWPPRA Section 303(e) approval. The Natural Resources Conservation Service (NRCS) must also provide to NMFS a statement "as to whether overgrazing in the project area is a problem and whether easements restricting grazing are required" for this project.

In accordance with Section 6(g) (2)(b): Please provide "One hard copy of the Section 303(e) request materials shall be sent to the below address. In addition, submit one copy of the 303(e) request materials electronically to the COE CWPPRA 303(e) point of contact (or the P&E Chairman and he will distribute accordingly)."

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

If you need further assistance or have any questions regarding this matter, please contact me at (225) 342-5260. We at CPRA look forward to completing the 303(e) approval process and proceeding with project construction.

Sincerely,

V.J. Marretta
CPRA Land Specialist

VJM

Enclosures

cc: Katie Freer, CPRA Project Manager
Julia Wall, CPRA Project Engineer
James Altman, CPRA Land Manager

Attachment B

Concurrence on 30% Design

State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

August 5, 2016

Mr. Christopher Doley
Director, Habitat Restoration Division
NOAA Restoration Center
The National Oceanic and Atmospheric Administration
National Marine Fisheries
1315 East-West Highway, Room 14853
Silver Spring, MD 20910

Re: 30% Design Review for Cameron Meadows Marsh Creation and Terracing (CS-66)
Statement of Local Sponsor Concurrence

Dear Mr. Doley:

The 30% design review meeting was held on July 13, 2015 for the Cameron Meadows Marsh Creation and Terracing (CS-66) project. Based on our review of the technical information compiled to date, the preliminary land ownership investigation, and the preliminary design, the Coastal Protection and Restoration Authority, as the local sponsor, concurs to proceed with the design of the project.

In accordance with the CWPPRA Standard Operating Procedures Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee and proceed to 95% design level with the selected design and revised project cost estimate.

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

Sincerely,

Katie Freer
Project Manager

cc: Cecelia Linder, National Oceanic and Atmospheric Administration
Stuart Brown, Coastal Protection and Restoration Authority

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 12th Floor Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.coastal.la.gov
An Equal Opportunity Employer

Attachment C

Concurrence to Proceed to Phase II

State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

November 2, 2016

Mr. Christopher Doley
Director, NOAA Restoration Center
National Oceanic and Atmospheric Administration
National Marine Fisheries
1315 East-West Highway, Room 14853
Silver Spring, MD 20910

Re: 95% Design Review- Concurrence for Phase II Funding Request
Cameron Meadows Marsh Creation and Terracing (CS-66)
Statement of Local Sponsor Concurrence

Dear Mr. Doley:

The 95% Design Review meeting for the Cameron Meadows Marsh Creation and Terracing (CS-66) project was held on October 25, 2016. Based on our review of the technical information compiled to date, the land ownership investigation, and the final designs, the Coastal Protection and Restoration Authority, as the local sponsor, concurs to proceed with requesting Phase II construction funding for the project. In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee.

Sincerely,

Katie Freer
Project Manager

cc: Cecelia Linder, National Oceanic and Atmospheric Administration
Stuart Brown, Coastal Protection and Restoration Authority

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 12th Floor Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.coastal.la.gov
An Equal Opportunity Employer

Attachment D

HTRW Analysis

(Full version available upon request)

Cameron Meadows Phase I Environmental Site Assessment
Cameron Meadows Marsh Creation and Terracing (CS-66) Project
Cameron Parish, Louisiana

Contract 2503-13-43, Task Order 5

Prepared for

State of Louisiana Coastal Protection and Restoration Authority
450 Laurel Street, Suite 1200
Baton Rouge, LA 70801

Submitted by

BEM Systems, Inc.
8550 United Plaza Blvd., Suite 702
Baton Rouge, LA 70809

Cameron Meadows Phase I Environmental Site Assessment
Cameron Meadows Marsh Creation and Terracing (CS-66) Project
Cameron Parish, Louisiana

Prepared for

State of Louisiana Coastal Protection and Restoration Authority
450 Laurel Street, Suite 1200
Baton Rouge, LA 70801

Submitted by

BEM Systems, Inc.
8550 United Plaza Blvd., Suite 702
Baton Rouge, LA 70809

13-DNR05CSES

October 2014

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Attachment E

Section 303(e)

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

November 22, 2016

Brad Inman
U.S. Army Corps of Engineers
New Orleans District Protection and
Restoration Office, Restoration Branch
P.O. Box 60267
New Orleans, LA 70160-0267

RE: CWPPRA Section 303(e) Request for Approval
Cameron Meadows Marsh Creation and Terracing (CS-66)
Cameron Parish, Louisiana

Dear Mr. Inman,

As Lead Agency for the Cameron Meadows Marsh Creation and Terracing Project (CS-66), the National Marine Fisheries Service is requesting approval from the U.S. Army Corps of Engineers in accordance with Section 303(e) of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). Enclosed for your review are letters from the State's Coastal Protection and Restoration Authority (CPRA) containing information for Section 303(e) approval. In addition, we are enclosing the determination from the U.S. Natural Resources Conservation Service that overgrazing is not a problem for the project.

If you have any questions concerning this request and/or any submitted materials, please do not hesitate to contact me at (301) 427-8675 or via email at cecelia.linder@noaa.gov.

Sincerely,

Cecelia Linder
NOAA Fisheries CWPPRA Program Manager

Cc: Susan Hennington, US Army Corps of Engineers
Patrick Williams, NOAA Fisheries
VJ Marretta, CPRA
James Altman, CPRA
Katie Freer, CPRA
Julia Wall, CPRA

Attachments

Attachment F

Overgrazing Determination

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
290 Pico St.
Many, LA 71449

Date: 10/17/2016

To: W. Britt Paul, P.E.
Assistant State Conservationist WR
USDA-NRCS

Re: Cameron Meadows Marsh Creation and Terracing (CS-66) Overgrazing Determination

There are no issues with overgrazing in the proposed project boundary of CS-66 CWPPRA Project.

Frank Chapman
District Conservationist
USDA NRCS
Lake Charles Field Office

CC:
Dwayne Rice, La. State Range Conservationist
Cecelia Linder, CWPPRA Program Manager, NOAA Restoration Center

Attachment G

Revised Fully-Funded Cost Estimate

Letters of Support

Office of the Lieutenant Governor
State of Louisiana

BILLY NUNGESSER
LIEUTENANT GOVERNOR

P. O. BOX 44243
BATON ROUGE, LOUISIANA 70804-4243
(225) 342-7009

October 17, 2016

Dear Members of the CWPPRA Task Force & Technical Committee:

I am respectfully writing this letter to ask for your support of the Cameron Meadows Marsh Creation and Terracing Project (CS-66) which will be considered for Phase II funding by the CWPPRA Technical Committee at the upcoming meeting in December.

The CS-66 project is located on Cameron Meadows, a tract of coastal marsh and open water that is located north of the Gulf of Mexico and immediately south of, and adjacent to, the Sabine National Wildlife Refuge (SNWR). Sabine is the largest coastal marsh refuge on the entire Gulf of Mexico. Not only home to more than 300 species of birds, 26 species of mammals and 41 species of reptiles and amphibians, the SNWR is utilized by 132 species of fish and 68 species of marine invertebrates. As you know, natural resource productivity is enhanced as the diversity of species increases. Productive coastal marshes are second only to rain forests in terms of species diversity.

The refuge attracts visitors from around the world, who spend money in Cameron and Calcasieu Parishes and possibly elsewhere in Louisiana. The SNWR also provides the public with fishing and waterfowl hunting opportunities with the latter being important to Louisiana residents who cannot afford expensive waterfowl leases. It is extremely important to the State of Louisiana that the SNWR, a national treasure, is protected for its long-term natural resource productivity and its recreational potential, appeal and fulfillment.

The CS-66 project, if constructed, would result in restored coastal marsh habitat that would be utilized by all or most of the species observed in the SNWR. The Cameron Meadows tract serves as an important protective buffer between the gulf and the SNWR. The CS-66 project would provide additional protection to the SNWR, ensuring its continued bountifulness, the public's use and enjoyment of the refuge and income streams for local businesses and local and state tax bases.

Your favorable vote for this project would be very much appreciated.

Sincerely,

Billy Nungesser
Lieutenant Governor

WHN/jm

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

ADDITIONAL AGENDA ITEMS

CWPPRA Technical Committee

There was an error in the agenda that was carried over into the minutes for item 14.c. for Black Bayou Hydrologic Restoration (CS-27).

The item language read:

- Black Bayou Hydrologic Restoration (CS-27), PPL-6, NOAA Fisheries
  Budget increase amount: $5,964,971
  Incremental funding amount: $6,149,847

The correct values, which were reflected in the binder materials for this item, are:

- Black Bayou Hydrologic Restoration (CS-27), PPL-6, NOAA Fisheries
  Budget increase amount: $6,197,515
  Incremental funding amount: $5,964,971

This will raise the overall budget for the project by $47,668, but not the incremental request.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

REQUEST FOR PUBLIC COMMENTS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

PRIORITY PROJECT LIST 27 REGIONAL PLANNING TEAM MEETINGS

For Announcement:

January 31, 2017	12:30 p.m.	Region IV Planning Team Meeting	Abbeville
February 1, 2017	9:30 a.m.	Region III Planning Team Meeting	Morgan City
February 2, 2017	10:00 a.m.	Region I & II Planning Team Meeting	Lacombe
March 7, 2017	10:30 a.m.	Coastwide Electronic Voting	*(via email, no meeting)*

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

DATE OF UPCOMING CWPPRA PROGRAM MEETING

For Announcement:

The Task Force meeting will be held January 12, 2017 at 9:30 a.m. at the US Army Corps of Engineers, 7400 Leake Avenue, New Orleans, Louisiana in the District Assembly Room (DARM).

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 7, 2016

SCHEDULED DATES OF FUTURE PROGRAM MEETINGS

For Announcement:

January 12, 2017	9:30 a.m.	Task Force	New Orleans
January 31, 2017	12:30 p.m.	Region IV Planning Team Meeting	Abbeville
February 1, 2017	9:30 a.m.	Region III Planning Team Meeting	Morgan City
February 2, 2017	10:00 a.m.	Region I & II Planning Team Meeting	Lacombe
April 27, 2017	9:30 a.m.	Technical Committee	New Orleans
May 11, 2017	9:30 a.m.	Task Force	Lafayette
September 14, 2017	9:30 a.m.	Technical Committee	Baton Rouge
October 12, 2017	9:30 a.m.	Task Force	New Orleans
December 7, 2017	9:30 a.m.	Technical Committee	Baton Rouge