ATTENDANCE RECORD

DATE(S)	SPONSORING ORGANIZATION	LOCATION
December 10, 2015 9:30 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LA Dept of Wildlife and Fisheries Louisiana Room 2000 Quail Drive Baton Rouge, LA

PURPOSE **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER*

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
MARK WINGATE	USACE	862 2512
JOHN FORET	NOAA	337 291-2107
Kevin Roy	USFWS	337-291-3120
ARCHIE CHAISSON	LAFOURCHE PARISH	985-446-8427
Randy Moertle	McIlhenny Closuly	(985) 856-3630
Hil Lheu	COP / LLE, LLC	337-304-3704
James Harris	USFWS	985-882-2000
Kevin Sagrera	UPPJ.	337-303-4585
Bill Bronessard	Vermilion Corp GM	337 893 0268
R.P. BOUTTE	FENSTERMAKER	337 237 2200
David Brand	St Tammany Parish	985-898-2552
Rene Escuriex	FENSTERMAKER	337-654-9584
Brandon Samson	NRCS	318-473-7793
Ashley Buller	Cameron Parish Police Jury	337-775-5718
RALPH LIBERST	Vermillion Parish	337-652-6557
Janet Rhodus	Launch Leeville 501(c) 3 Non-Profit	225-413-4414
Sharon Osowski	EPA	214-665-7506
Kenneth Bahlinger	CPRA	225 342-7362
Dustin White	CPRA	225 342 4512
Mel Landry	NOAA	225-778-7380
Quin Kinler	NRCS	225-~~[illegible]~~665-4253
Steve Dartez	Coastal Engineering Consultants	225-706-5640

LMV FORM 583-R
JAN 88

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

William McCartney Coastal Zone Administrator St. Bernard Parish Government 504 442-2426
Scott Wilson USGS 337 66 8644

ATTENDANCE RECORD

DATE(S)	SPONSORING ORGANIZATION	LOCATION
December 10, 2015 9:30 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LA Dept of Wildlife and Fisheries Louisiana Room 2000 Quail Drive Baton Rouge, LA

PURPOSE **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER*

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Jason Kroll	NOAA	225 757 5411
Donna Rogers	NOAA	225-636-2095
Tuja Cheatwood	NOAA Fisheries	225 389 0508
DAWN DAVIS	NOAA Fisheries	225-389-0508
Barbara Aldridge	EPA R6	214 665-2712
Gerwin Rittman	CPRA	225-228-3568
Greg Mattan	CPRA	225-342-4496
Phillip Travelair	LDWF	337-491-2000
Michelle Fischer	USGS	225-578-7485
Robert Spears	Plaquemines Parish CZM	504-491-1607
DARREN PONTIFF	CPRA	337 482-0683
MEL GUIDRY	CPRA	337-482-0682
Scott Rousselle	Plaquemines Parish CZM	504-450-9803
BARRY HEBERT	LDWF	225-765 0233
MARTIN O. MILLER II,	LANDOWNER - Please send Attendance Record copy of	504-832-7936
" "	PO Box 9206 - Met 70055-9206	
SUSAN TESTROET-BERGESON	BTNEP	985-447-0868
Troy Mallach	NRCS	337 291-3064
Cassidy Lejeune	LDWF	337-373-0032
Logan Boudreaux	CPRA	225-342-2639
GABE GIFFIN	LDWF	985-351-2783
Laurie Cormier	CPPJ	337 721-3645
		225-588-2090
Buddy Baker	LDWF	
Rick Fontenot	Rockefeller	337-630-1036

LMV FORM 583-R
JAN 88

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ATTENDANCE RECORD

DATE(S)	SPONSORING ORGANIZATION	LOCATION
December 10, 2015 9:30 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	LA Dept of Wildlife and Fisheries Louisiana Room 2000 Quail Drive Baton Rouge, LA

PURPOSE **MEETING OF THE CWPPRA TECHNICAL COMMITTEE**

PARTICIPANT REGISTER*

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Blaise Gravois	St James Parish Director of Operations	225-562-2262
Erik Mayo	Manager Coastal Law Group	225-485-1558
Darryl Clark	USFWS - Senior Fish & Wildlife Biol	337-291-3111
Benjamin Richard	Tetra Tech	225-229-0935
David Richard	Stream	337-433-1055
David Minton	Cypress Engineering	337 504 7755
Nikki Cavalier	CWPPRA Public Outreach	225-505-3813
Victoria Saavera	CWPPRA Public Outreach	337 652 2155
Brad Barth	CPRA - OPs	225-342-4553
Patrick Williams	NOAA Fisheries	225-389-0508
Kim Clements	NOAA	225-389-0508
Glen Curole	CPRA	985-447-0995
Nedra Davis	Chenier Plain Authority	225 333 8234
Chad Courville	Miami Corporation	337 264 1695
Michael Ellis	HDR	225-907-4528
Ron Boustany	NRCS	337 291-3067
Vicki Duffy	JP / CBI	504-832-4882
Marnie Winter	Jeff Parish	504-736-6443
Leslie Suazo	Ducks Unlimited	985-209-3270
Cecelia Linder	NOAA	301-427-8675
Charles Sasser	LSU	225-578-6375
John Reynolds	Retired oilfield / Rockefeller Support	337-298-0012
Edwina Harvey	Allsate exec	225-270-0966
Renee Bennett	CPRA	225-342-4592
[illegible]	CPRA	337-482-0855

LMV FORM 583-R
JAN 88

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

CWPPRA

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
TECHNICAL COMMITTEE MEETING

AGENDA

December 10, 2015, 9:30 a.m.

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

Documentation of Technical Committee meetings (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. **Report/Decision: 25th Priority Project List (Kevin Roy, FWS) 9:50 a.m. to 10:35 a.m.** The Environmental Workgroup Chairman will present an overview of the eleven PPL 25 candidate projects. The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 25 projects for Phase I Engineering and Design.

Region	Basin	PPL 25 Candidates	Agency
1	Pontchartrain	North Shell Beach Marsh Creation	USACE/EPA
1	Pontchartrain	Fritchie Marsh Creation & Terracing	NMFS
2	Barataria	Caminada Headlands Back Barrier Marsh Creation #2	EPA
2	Barataria	Barataria Bay Rim Marsh Creation	NRCS
2	Barataria	East Bayou Lafourche Marsh Creation & Terracing	FWS
2	Barataria	East Leeville Marsh Creation & Nourishment	NMFS
3	Terrebonne	Bayou Terrebonne Ridge Restoration & Marsh Creation	FWS
3	Teche-Vermilion	West Vermilion Bay Shoreline Protection & Marsh Creation	NRCS/EPA
4	Mermentau	Southeast Pecan Island Marsh Creation & Freshwater Enhancement	NRCS
4	Mermentau	Sweeney Tract Marsh Creation & Nourishment	NMFS
4	Calcasieu-Sabine	Oyster Lake Marsh Creation & Nourishment	NMFS

	PPL 25 Demonstration Project Candidate	Agency
DEMO	Shoreline Protection, Preservation, and Restoration (SPPR) Panel	NMFS

4. **Report/Decision: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding (Brad Inman, USACE) 10:35 a.m. to 11:15 a.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	Construct Start Date	Fully-Funded Phase 1 Cost	Fully-Funded Phase II Cost	Total Fully Funded Cost Est.	Net Benefit Acres	Total Cost per Acre
EPA	BA-34-2	10	Hydro Restoration & Planting Des Allemands Swamp	Dec 2016	$2,362,687	$5,524,017	$7,886,704	NA	NA
NMFS	TV-63	21	Cole's Bayou Marsh Restoration	Sep 2016	$3,136,806	$22,498,834	$25,635,640	340	$75,399
NRCS	CS-49	18	Cameron-Creole Freshwater Introduction	Mar 2016	$1,614,405	$25,543,842	$27,158,247	242	$112,224
NMFS	ME-18	10	Rockefeller Gulf Shoreline Stabilization	Mar 2017	$2,408,478	$31,922,045	$34,330,523	256	$134,104

5. **Report: Monitoring Work Group Meeting Held October 21 in Lafayette (Leigh Anne Sharp, CPRA) 11:15 a.m. to 11:20 a.m.** Ms. Leigh Anne Sharp will provide a report on the Monitoring Work Group meeting held October 21 in Lafayette.

6. **Decision: Request for Approval to Initiate Transfer of the PPL 20 – Kelso Bayou Marsh Creation Project (CS-53) to the Chenier Plain Coastal Restoration and Protection Authority (Chenier Plain Authority) (Britt Paul, NRCS) 11:20 a.m. to 11:30 a.m.** The Chenier Plain Authority has requested transfer of the Kelso Bayou Marsh Creation project from CWPPRA to the Chenier Plain Authority. By letter dated 16 November 2015 from the Chenier Plain Authority to the Task Force, the Chenier Plain Authority formally requested that the project be transferred to them in lieu of deauthorization. The Technical Committee will vote to recommend to the Task Force that initiation of deauthorization be rescinded and switched to the transfer process.

7. **Report: Request Approved by Technical Committee Vote to Expend Funds in the Amount of $150,000 for the Black Bayou Culverts (CS-29) Project (Britt Paul, NRCS) 11:30 a.m. to 11:35 a.m.** On May 14, 2015, the Task Force approved placing $500,000 into a MIPR for the Black Bayou Culverts (CS-29) Project with the caveat that the funds not be spent without Technical Committee approval. NRCS requested to expend $150,000, and the Technical Committee approved the request via electronic vote on November 30, 2015.

8. **Additional Agenda Items (Brad Inman, USACE) 11:35 a.m. to 11:40 a.m.**

9. **Request for Public Comments (Brad Inman, USACE) 11:40 a.m. to 11:45 a.m.**

10. **Announcement: Priority Project List 26 Regional Planning Team Meetings (Brad Inman, USACE) 11:45 a.m. to 11:50 a.m.**

January 26, 2016	11:00 a.m.	Region IV Planning Team Meeting	Lafayette
January 27, 2016	9:00 a.m.	Region III Planning Team Meeting	Gray
January 28, 2016	8:00 a.m.	Region I & II Planning Team Meeting	Lacombe
February 23, 2016	10:30 a.m.	Coastwide Electronic Voting	*(via email, no meeting)*

11. **Announcement: Date of Upcoming CWPPRA Program Meeting (Brad Inman, USACE) 11:50 a.m. to 11:55 a.m.** The Task Force meeting will be held January 14, 2016 at 9:00 a.m. at the U.S. Army Corps of Engineers, 7400 Leake Avenue, New Orleans, Louisiana in the District Assembly Room (DARM).

12. **Announcement: Scheduled Dates of Future Program Meetings (Brad Inman, USACE) 11:55 a.m. to 12:00 p.m.**

January 14, 2016	9:00 a.m.	Task Force	New Orleans
January 26, 2016	11:00 a.m.	Region IV Planning Team Meeting	Lafayette
January 27, 2016	9:00 a.m.	Region III Planning Team Meeting	Gray
January 28, 2016	8:00 a.m.	Region I & II Planning Team Meeting	Lacombe
April 5, 2016	9:30 a.m.	Technical Committee	New Orleans
May 12, 2016	9:30 a.m.	Task Force	Lafayette
September 14, 2016	9:30 a.m.	Technical Committee	Baton Rouge
October 19, 2016	9:30 a.m.	Task Force	New Orleans
December 7, 2016	9:30 a.m.	Technical Committee	Baton Rouge

13. **Decision: Adjourn**

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

MEETING INITIATION

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

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

STATUS OF CWPPRA PROGRAM FUNDS AND PROJECTS

For Report:

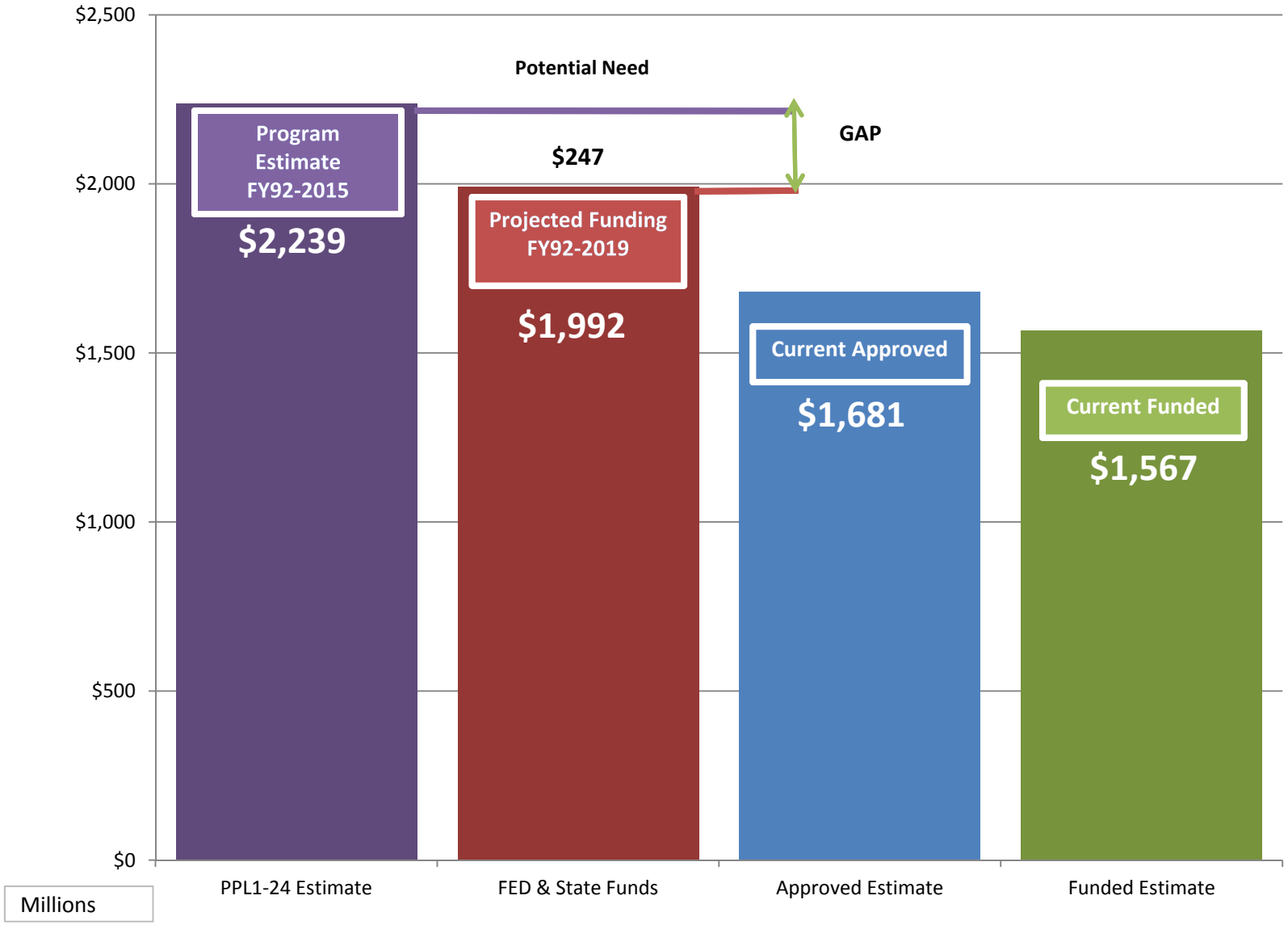
Ms. Jernice Cheavis will provide an overview of the status of CWPPRA accounts and available funding in the Planning and Construction Programs.

Status of CWPPRA Program Funds & Projects

Jernice P. Cheavis

December 10, 2015

CWPPRA CONSTRUCTION PROGRAM



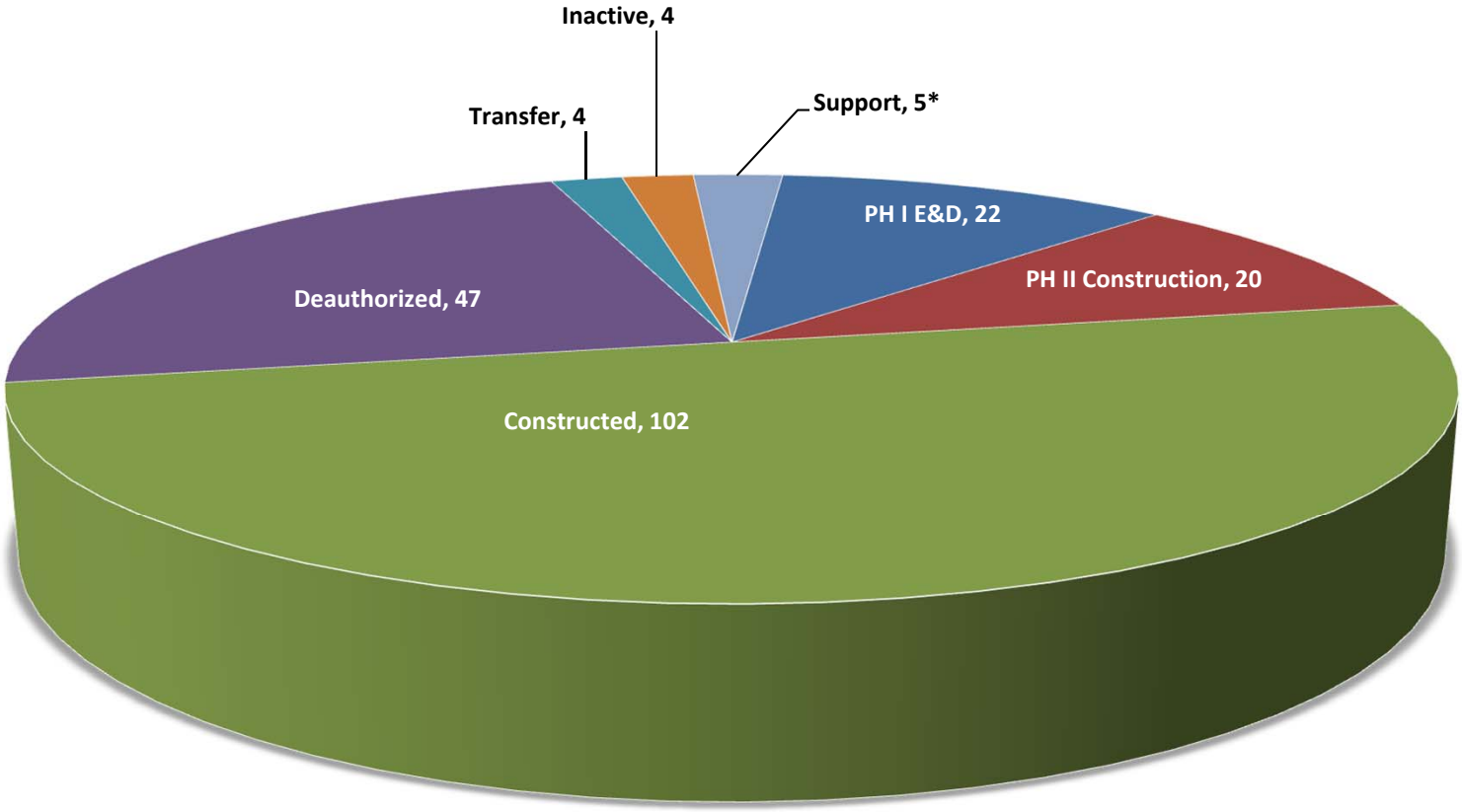
CWPPRA AVAILABLE FUNDS

Approved Funded Estimate PPL 1-24	$2,239,280,110		
Available Funds			$76,698,088
Total Program / Funds Available:	**$2,239,280,110**		**$76,698,088**

CWPPRA PROJECT STATUS

TOTAL CWPPRA PROJECTS: 204

ACTIVE PROJECTS: 149



*(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, 10 December 2015

	PROGRAM ESTIMATE	TC	PROPOSED	TC	PENDING	TC	Fed	Non-Fed
1. Funds Available:								
Approved Funded Estimate PPL 1-24	$2,239,280,110							
Available Funds			$76,698,088		$76,698,088			
Total Program / Funds Available:	**$2,239,280,110**		**$76,698,088**		**$76,698,088**		**$0**	**$0**
2. Agenda Item 3: 25th Priority Project List :								
North Shell Beach Marsh Creation	$24,313,536		$2,906,264				$0	$0
Fritchie Marsh Creation and Terracing	$27,944,102		$3,033,294				$0	$0
Caminada Headlands Back Barrier Marsh Creation Increment #2	$24,977,605		$3,034,310				$0	$0
Barataria Bay Rim Marsh Creation	$23,838,905		$2,693,708				$0	$0
East Bayou Lafourche Marsh Creation	$33,031,016		$3,242,713				$0	$0
East Leeville Marsh Creation and Nourishment	$35,066,972		$4,026,090				$0	$0
Bayou Terrebonne Ridge Restoration and Marsh Creation	$36,867,892		$3,456,191				$0	$0
West Vermilion Bay Shoreline Protection and Marsh Creation	$24,975,860		$2,875,082				$0	$0
Southeast Pecan Island Marsh Creation and Freshwater Enhancement	$33,497,546		$3,597,172				$0	$0
Sweeney Tract Marsh Creation and Nourishment	$30,915,853		$3,150,226				$0	$0
Oyster Lake Marsh Creation and Nourishment	$38,073,046		$3,608,939				$0	$0
DEMO - Shoreline Protection, Preservation, and Restoration (SPPR) Panel	$2,215,514		$2,215,514					
Total	**$309,188,797**		**$32,717,726**		**$0**		**$0**	**$0**
3. Agenda Item 4: Request for Phase II Authorization and Approval of Phase II Increment 1 Funding:								
Cameron-Creole FWI (CS-49, PPL 18) NRCS			$21,109,905				$0	$0
Cole's Bayou Marsh Restoration (TV-63, PPL 21) NMFS			$21,032,685				$0	$0
Rockefeller Gulf Shoreline Stabalization (ME-18, PPL 10) NMFS			$30,928,838				$0	$0
Hydro Restoration & Planting Des Allemand Swamp (BA-34-2), PPL 10) EPA			$2,857,761				$0	$0
Total	**$0**		**$75,929,189**		**$0**		**$0**	**$0**
(1) Funds Available for September 2016 Recommendations	**$2,239,280,110**		**$76,698,088**		**$76,698,088**			
Proposed amount	**$309,188,797**		**$108,646,915**		**$0**			
Program Amount/Available Funds Surplus/Shortage	**$2,548,468,907**		**($31,948,827)**		**$76,698,088**			

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

25TH PRIORITY PROJECT LIST

For Report/Decision:

The Environmental Workgroup Chairman will present an overview of the eleven PPL 25 candidate projects.

The Technical Committee will vote to make a recommendation to the Task Force for selecting PPL 25 projects for Phase I Engineering and Design.

Region	Basin	PPL 25 Candidates	Agency
1	Pontchartrain	North Shell Beach Marsh Creation	USACE/EPA
1	Pontchartrain	Fritchie Marsh Creation & Terracing	NMFS
2	Barataria	Caminada Headlands Back Barrier Marsh Creation #2	EPA
2	Barataria	Barataria Bay Rim Marsh Creation	NRCS
2	Barataria	East Bayou Lafourche Marsh Creation & Terracing	FWS
2	Barataria	East Leeville Marsh Creation & Nourishment	NMFS
3	Terrebonne	Bayou Terrebonne Ridge Restoration & Marsh Creation	FWS
3	Teche-Vermilion	West Vermilion Bay Shoreline Protection & Marsh Creation	NRCS/EPA
4	Mermentau	Southeast Pecan Island Marsh Creation & Freshwater Enhancement	NRCS
4	Mermentau	Sweeney Tract Marsh Creation & Nourishment	NMFS
4	Calcasieu-Sabine	Oyster Lake Marsh Creation & Nourishment	NMFS

	PPL 25 Demonstration Project Candidate	Agency
DEMO	Shoreline Protection, Preservation, and Restoration (SPPR) Panel	NMFS

CWPPRA PPL 25 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing	6	1		6	6		4	19
2	Barataria Bay Rim Marsh Creation		6	2		2	5	4	15
4	Oyster Lake Marsh Creation and Nourishment	3	5			3	4	4	15
2	Caminada Headlands Back Barrier Marsh Creation Increment #2		2	5	5		1	4	13
2	East Leeville Marsh Creation and Nourishment	4	3		1	4		4	12
2	East Bayou Lafourche Marsh Creation			1	4	1	2	4	8
3	West Vermilion Bay Shoreline Protection and Marsh Creation	1		6			3	3	10
4	Sweeney Tract Marsh Creation and Nourishment			3	2	5		3	10
1	North Shell Beach Marsh Creation	5		4				2	9
4	Southeast Pecan Island Marsh Creation and Freshwater Enhancement				3		6	2	9
3	Bayou Terrebonne Ridge Restoration and Marsh Creation	2	4					2	6

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

	PPL 25 Demonstration Project Nominee	Agency	YES	NO
DEMO	(SPPR) Panel	NMFS	5	1

CWPPRA PPL 25 Technical Committee VOTE

10-Dec-15

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing	6						0	0
1	North Shell Beach Marsh Creation	5						0	0
2	Barataria Bay Rim Marsh Creation							0	0
2	East Bayou Lafourche Marsh Creation							0	0
2	East Leeville Marsh Creation and Nourishment	4						0	0
2	Caminada Headlands Back Barrier Marsh Creation Increment #2							0	0
3	Bayou Terrebonne Ridge Restoration and Marsh Creation	2						0	0
3	West Vermilion Bay Shoreline Protection and Marsh Creation	1						0	0
4	Southeast Pecan Island Marsh Creation and Freshwater Enhancement							0	0
4	Sweeney Tract Marsh Creation and Nourishment							0	0
4	Oyster Lake Marsh Creation and Nourishment	3						0	0
		0	0	0	0	0	0	0	0
	check	21	21	21	21	21	21	36	126

RUN MACRO FROM "SORT-Final Vote" WORKSHEET

The following voting process will be used to recommend projects under PPL 25 to the Task Force:

1. Each agency represented in the Technical Committee will be provided one ballot for voting.
2. Each agency represented in the Technical Committee will cast weighted votes for 6 projects. All votes must be used.
3. Each agency will vote for their top projects, hand-written on the above ballot form
4. A weighted score will be assigned (6, 5, 4, 3, 2, and 1), to be used in the event of a tie. (6 highest…1 lowest).
5. Initial rank will be determined based upon the number of votes received for a project (unweighted).
6. The Technical Committee will vote on "up to four" projects for recommendation to the Task Force.
7. In the event of a tie at the cutoff (up to 4), the weighted score may be used as a tie-breaker (if the Technical Committee decides to break the tie).
8. The tied projects will be ranked based upon a sum of the weighted score.

Please check off yes or no to recommend the below Demo

	PPL 25 Demonstration Project Nominee	Agency	YES	NO
DEMO	Shoreline Protection, Preservation, and Restoration (SPPR) Panel	NMFS	~~YES~~	

Mark Wingate
10 Dec 15

10-Dec-15

CWPPRA PPL 25 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing		1					0	0
1	North Shell Beach Marsh Creation							0	0
2	Barataria Bay Rim Marsh Creation		6					0	0
2	East Bayou Lafourche Marsh Creation							0	0
2	East Leeville Marsh Creation and Nourishment		3					0	0
2	Caminada Headlands Back Barrier Marsh Creation Increment #2		2					0	0
3	Bayou Terrebonne Ridge Restoration and Marsh Creation		4					0	0
3	West Vermilion Bay Shoreline Protection and Marsh Creation							0	0
4	Southeast Pecan Island Marsh Creation and Freshwater Enhancement							0	0
4	Sweeney Tract Marsh Creation and Nourishment							0	0
4	Oyster Lake Marsh Creation and Nourishment		5					0	0
		0	0	0	0	0	0	0	0
	check	21	21	21	21	21	21	36	126

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8. The tied projects will be ranked based upon a sum of the weighted score.

Please check off yes or no to recommend the below Demo

	PPL 25 Demonstration Project Nominee	Agency	YES	NO
DEMO	Shoreline Protection, Preservation, and Restoration (SPPR) Panel	NMFS	✓	

10-Dec-15

CWPPRA PPL 25 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	North Shell Beach Marsh Creation			4				0	0
2	Barataria Bay Rim Marsh Creation			2				0	0
2	East Bayou Lafourche Marsh Creation			1				0	0
2	East Leeville Marsh Creation and Nourishment							0	0
2	Caminada Headlands Back Barrier Marsh Creation Increment #2			5				0	0
3	Bayou Terrebonne Ridge Restoration and Marsh Creation							0	0
3	West Vermilion Bay Shoreline Protection and Marsh Creation			6				0	0
4	Southeast Pecan Island Marsh Creation and Freshwater Enhancement							0	0
4	Sweeney Tract Marsh Creation and Nourishment			3				0	0
4	Oyster Lake Marsh Creation and Nourishment							0	0
		0	0	0	0	0	0	0	0
	check	21	21	21	21	21	21	36	126

12/10/15

RUN MACRO FROM "SORT-Final Vote" WORKSHEET

The following voting process will be used to recommend projects under PPL 25 to the Task Force:

1. Each agency represented in the Technical Committee will be provided one ballot for voting.
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Please check off yes or no to recommend the below Demo

	PPL 25 Demonstration Project Nominee	Agency	YES	NO
DEMO	Shoreline Protection, Preservation, and Restoration (SPPR) Panel	NMFS	X	

10-Dec-15

CWPPRA PPL 25 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing				6			0	0
1	North Shell Beach Marsh Creation							0	0
2	Barataria Bay Rim Marsh Creation							0	0
2	East Bayou Lafourche Marsh Creation				4			0	0
2	East Leeville Marsh Creation and Nourishment				1			0	0
2	Caminada Headlands Back Barrier Marsh Creation Increment #2				5			0	0
3	Bayou Terrebonne Ridge Restoration and Marsh Creation							0	0
3	West Vermilion Bay Shoreline Protection and Marsh Creation							0	0
4	Southeast Pecan Island Marsh Creation and Freshwater Enhancement				3			0	0
4	Sweeney Tract Marsh Creation and Nourishment				2			0	0
4	Oyster Lake Marsh Creation and Nourishment							0	0
		0	0	0	0	0	0	0	0
	check	21	21	21	21	21	21	36	126

RUN MACRO FROM "SORT-Final Vote" WORKSHEET

The following voting process will be used to recommend projects under PPL 25 to the Task Force:

1. Each agency represented in the Technical Committee will be provided one ballot for voting.
2. Each agency represented in the Technical Committee will cast weighted votes for 6 projects. All votes must be used.
3. Each agency will vote for their top projects, hand-written on the above ballot form
4. A weighted score will be assigned (6, 5, 4, 3, 2, and 1), to be used in the event of a tie. (6 highest…1 lowest).
5. Initial rank will be determined based upon the number of votes received for a project (unweighted).
6. The Technical Committee will vote on "up to four" projects for recommendation to the Task Force.
7. In the event of a tie at the cutoff (up to 4), the weighted score may be used as a tie-breaker (if the Technical Committee decides to break the tie).
8. The tied projects will be ranked based upon a sum of the weighted score.

Please check off yes or no to recommend the below Demo

	PPL 25 Demonstration Project Nominee	Agency	YES	NO
DEMO	Shoreline Protection, Preservation, and Restoration (SPPR) Panel	NMFS		X

10-Dec-15

CWPPRA PPL 25 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing					6		0	0
1	North Shell Beach Marsh Creation							0	0
2	Barataria Bay Rim Marsh Creation					2		0	0
2	East Bayou Lafourche Marsh Creation					1		0	0
2	East Leeville Marsh Creation and Nourishment					4		0	0
2	Caminada Headlands Back Barrier Marsh Creation Increment #2							0	0
3	Bayou Terrebonne Ridge Restoration and Marsh Creation							0	0
3	West Vermilion Bay Shoreline Protection and Marsh Creation							0	0
4	Southeast Pecan Island Marsh Creation and Freshwater Enhancement							0	0
4	Sweeney Tract Marsh Creation and Nourishment					5		0	0
4	Oyster Lake Marsh Creation and Nourishment					3		0	0
		0	0	0	0	0	0	0	0
	check	21	21	21	21	21	21	36	126

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8. The tied projects will be ranked based upon a sum of the weighted score.

Please check off yes or no to recommend the below Demo

	PPL 25 Demonstration Project Nominee	Agency	YES	NO
DEMO	Shoreline Protection, Preservation, and Restoration (SPPR) Panel	NMFS	X	

W. B

10-Dec-15

CWPPRA PPL 25 Technical Committee VOTE

Region	Project	COE	State	EPA	FWS	NMFS	NRCS	No. of votes	Sum of Point Score
1	Fritchie Marsh Creation and Terracing							0	0
1	North Shell Beach Marsh Creation							0	0
2	Barataria Bay Rim Marsh Creation						5	0	0
2	East Bayou Lafourche Marsh Creation						2	0	0
2	East Leeville Marsh Creation and Nourishment							0	0
2	Caminada Headlands Back Barrier Marsh Creation Increment #2						1	0	0
3	Bayou Terrebonne Ridge Restoration and Marsh Creation							0	0
3	West Vermilion Bay Shoreline Protection and Marsh Creation						3	0	0
4	Southeast Pecan Island Marsh Creation and Freshwater Enhancement						6	0	0
4	Sweeney Tract Marsh Creation and Nourishment							0	0
4	Oyster Lake Marsh Creation and Nourishment						4	0	0
		0	0	0	0	0	0	0	0
	check	21	21	21	21	21	21	36	126

RUN MACRO FROM "SORT-Final Vote" WORKSHEET

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1. Each agency represented in the Technical Committee will be provided one ballot for voting.
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8. The tied projects will be ranked based upon a sum of the weighted score.

Please check off yes or no to recommend the below Demo

	PPL 25 Demonstration Project Nominee	Agency	YES	NO
DEMO	Shoreline Protection, Preservation, and Restoration (SPPR) Panel	NMFS	X	

CWPPRA

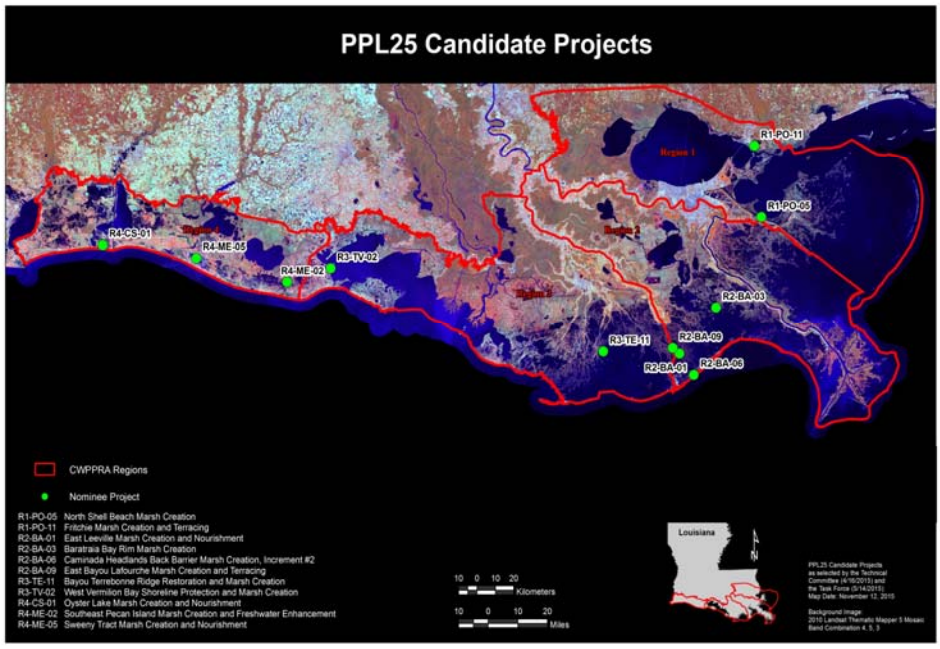
Priority Project List 25

Candidate Project Evaluation Results

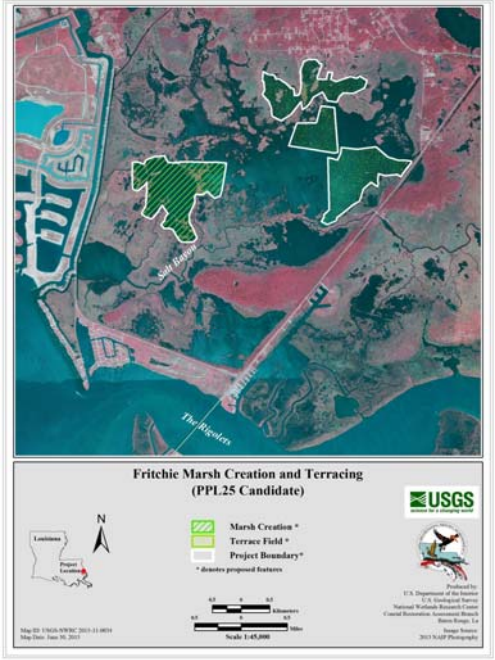
Technical Committee Meeting

December 10, 2015
Baton Rouge, LA

CWPPRA



CWPPRA



340 ac of marsh creation

Lake Pontchartrain borrow area

36,610 linear ft (26 ac) of earthen terraces

290 net acres

$27,944,102

CWPPRA

394 ac of marsh creation

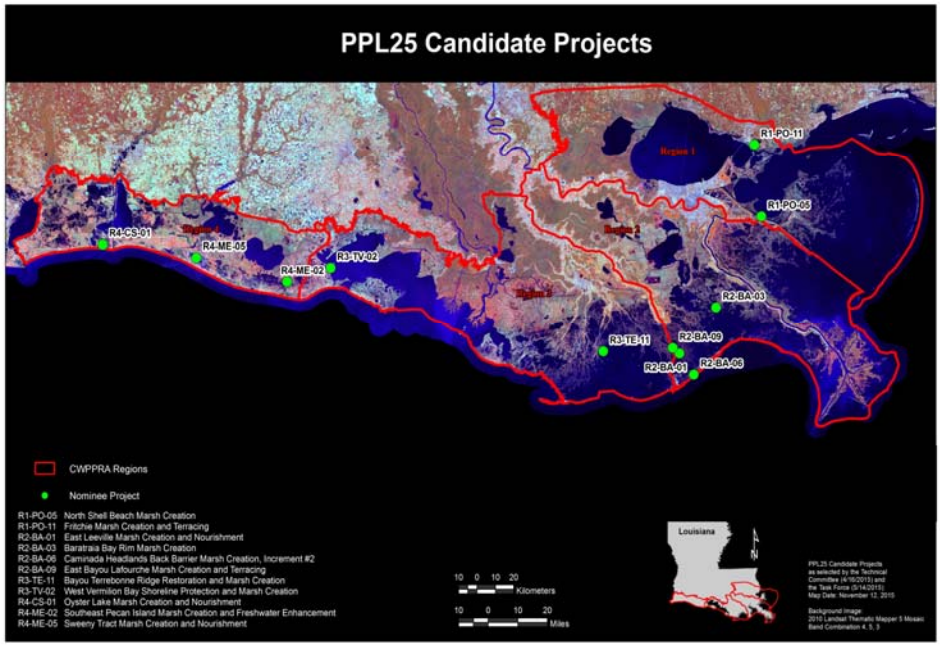
Lake Borgne borrow site

Stabilize the landform separating Lake Borgne from the MRGO

220 net acres

$24,313,536

CWPPRA



CWPPRA

517 ac of marsh creation

Barataria Bay borrow site

Reinforces a portion of the northwestern Barataria Bay shoreline

251 net acres

$23,838,905

CWPPRA

417 ac of marsh creation

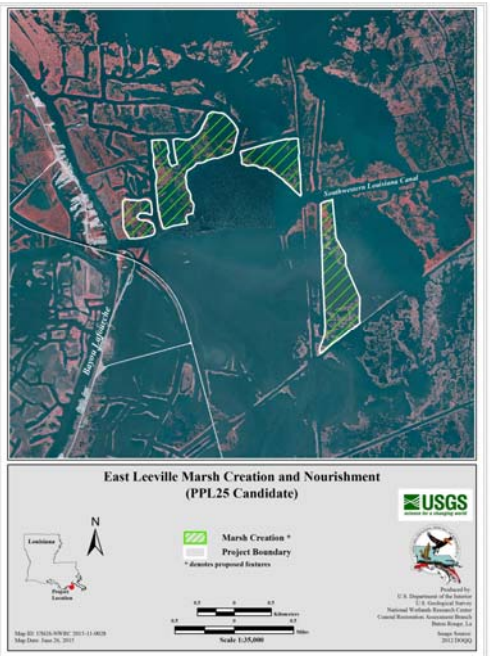
Little Lake (west of Hwy. 1) borrow site

Restores marsh along Bayou Lafourche/Hwy 1 corridor

330 net acres

$33,031,016

CWPPRA



482 ac of marsh creation

Little Lake (west of Hwy 1) borrow site

Re-establish an arc of wetlands east of Leeville around Lake Jesse

322 net acres

$35,066,972

CWPPRA

444 ac of marsh creation

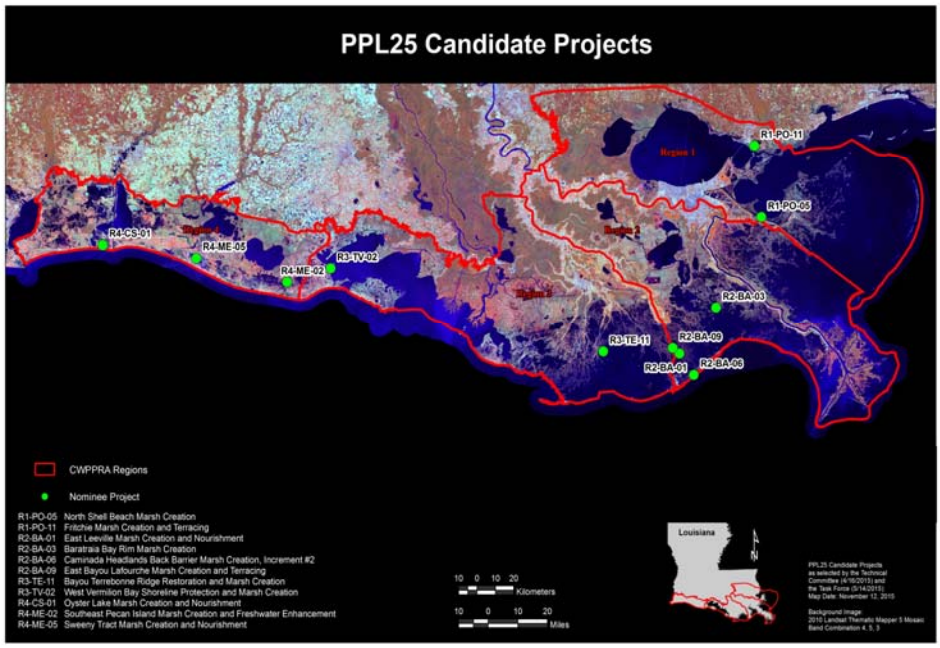
Gulf of Mexico borrow site

Complements previous restoration projects along Caminada Headland

207 net acres

$24,977,605

CWPPRA



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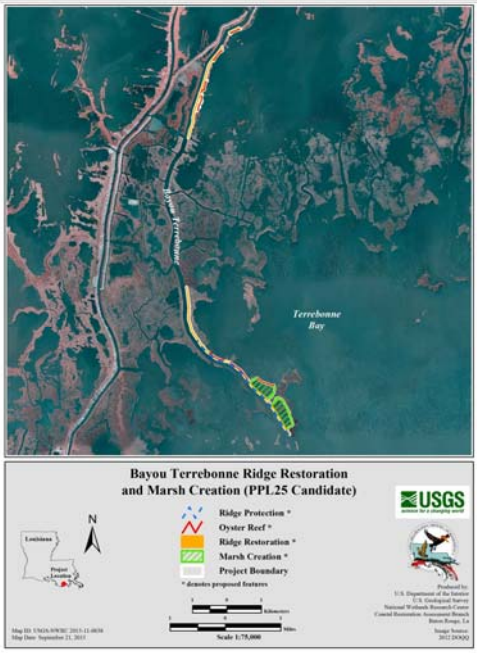


123 ac of marsh creation

Terrebonne Bay borrow site

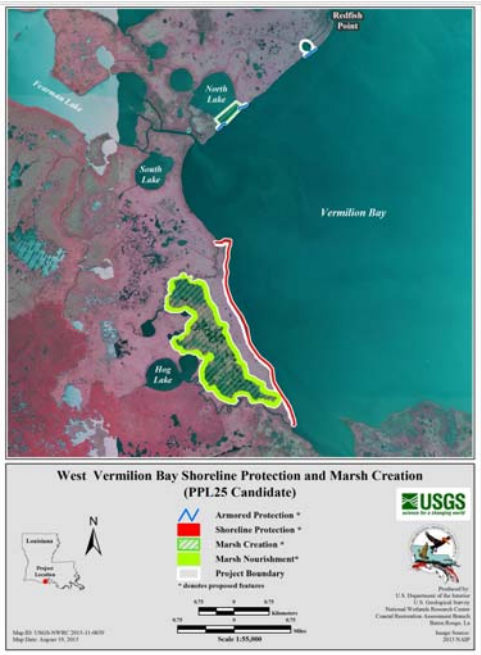
28,501 linear feet (25 ac) of ridge restoration

24,692 linear feet of gabion mats to create artificial oyster reef

126 net acres

$36,867,892

CWPPRA



769 ac of marsh creation

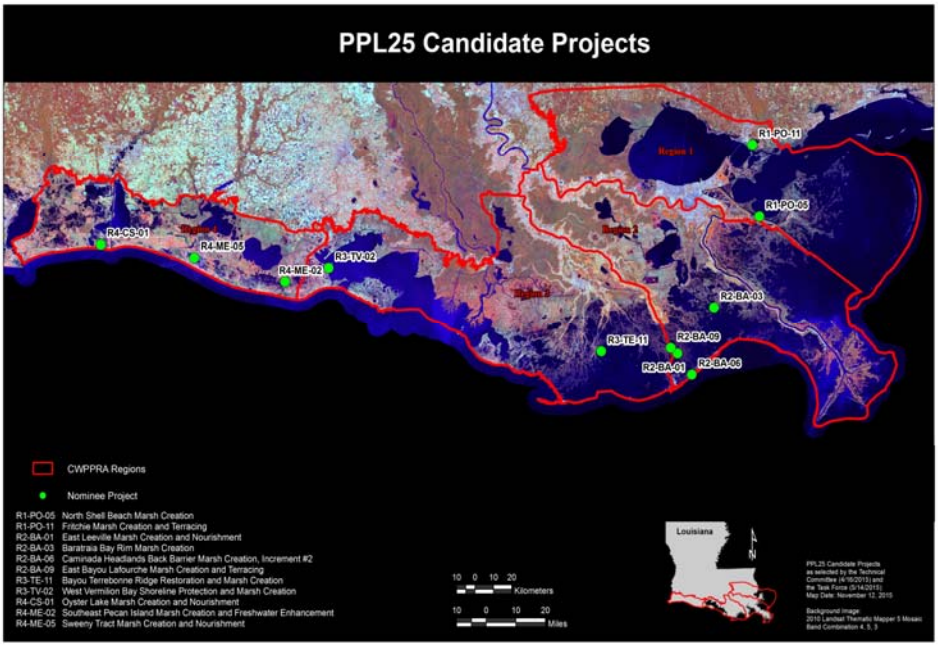
Vermilion Bay borrow site

18,352 linear feet of shoreline protection

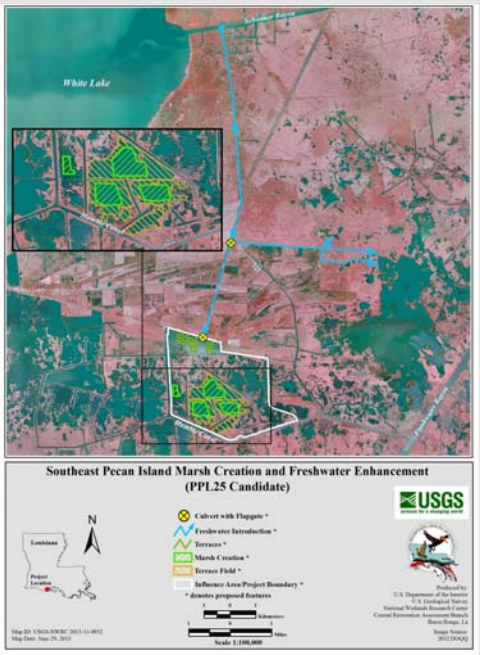
317 net acres

$24,975,860

CWPPRA



CWPPRA



253 ac of marsh creation

Gulf of Mexico borrow site

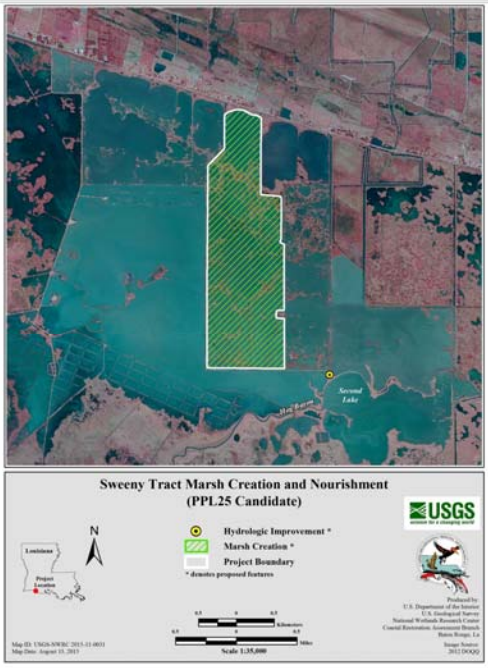
Construction of an outlet structure at Front Ridge and replacement of culverts

55,000 linear feet (41 ac) of terraces

301 net acres

$33,497,546

CWPPRA



730 ac of marsh creation

Gulf of Mexico borrow site

Installation of two 48-inch flap-gated culverts to improve hydrology

524 net acres

$30,915,853

CWPPRA

661 ac of marsh creation

Gulf of Mexico borrow site

Constructed between the CS-59 terrace field and marsh creation platform

438 net acres

$38,073,049

CWPPRA

PPL25 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	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Fritchie Marsh Creation and Terracing	1	St. Tammany	882	141	290	$27,944,102	$3,033,294	$24,910,808	$1,829,778	$12,977	$96,359
North Shell Beach Marsh Creation	1	St. Bernard	394	112	220	$24,313,536	$2,906,264	$21,407,272	$1,591,229	$14,207	$110,516
Barataria Bay Rim Marsh Creation	2	Jefferson & Plaquemines	520	158	251	$23,838,905	$2,693,708	$21,145,197	$1,562,085	$9,887	$94,976
East Bayou Lafourche Marsh Creation	2	Lafourche	417	177	330	$33,031,016	$3,242,713	$29,788,303	$2,173,216	$12,278	$100,094
East Leeville Marsh Creation and Nourishment	2	Lafourche	484	185	322	$35,066,972	$4,026,090	$31,040,882	$2,316,074	$12,519	$108,904
Caminada Headlands Back Barrier Marsh Creation Increment #2	2	Lafourche & Jefferson	444	142	207	$24,977,605	$3,034,310	$21,943,295	$1,644,442	$11,581	$120,665
Bayou Terrebonne Ridge Restoration and Marsh Creation	3	Terrebonne	173	76	126	$36,867,892	$3,456,191	$33,411,701	$2,384,633	$31,377	$292,602
West Vermilion Bay Shoreline Protection and Marsh Creation	3	Vermilion	769	153	294	$24,975,860	$2,875,082	$22,100,778	$1,612,396	$10,539	$84,952
Southeast Pecan Island Marsh Creation and Freshwater Enhancement	4	Vermilion	3,281	189	301	$33,497,546	$3,597,172	$29,900,374	$2,172,021	$11,492	$111,288
Sweeney Tract Marsh Creation and Nourishment	4	Cameron	730	274	524	$30,915,853	$3,150,226	$27,765,627	$2,008,392	$7,330	$59,000
Oyster Lake Marsh Creation and Nourishment	4	Cameron	661	258	438	$38,073,046	$3,608,939	$34,464,107	$2,505,694	$9,712	$86,925

This matrix is also located in the PPL 25 Candidate booklet

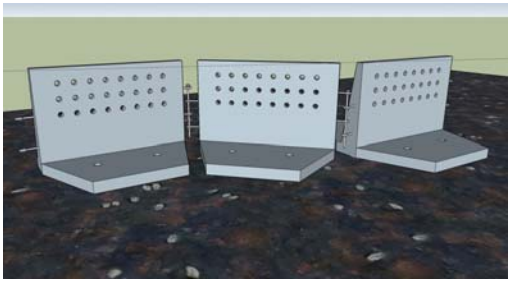
CWPPRA

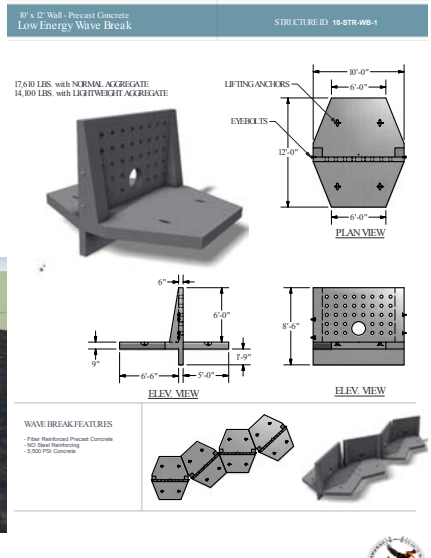
Candidate Demonstration Project – Shoreline Protection, Preservation, and Restoration (SPPR) Panel

- **Goal:** Demonstrate the use and effectiveness of the SPPR panel system as a potential alternative to rock structures for shoreline protection.
- **Features:** The SPPR Panel demonstration project will consist of 2 application sites with water depths ranging from 2 to 5 feet. Each treatment would include 3 replicate 260-foot sections.
- **Cost:** The fully funded cost is $2,215,514.

CWPPRA

Candidate Demonstration Project – Shoreline Protection, Preservation, and Restoration Panel





CWPPRA

PPL 25 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		
Shoreline Protection, Preservation, & Restoration (SPPR) Panel	NMFS	$2,215,514	2	3	2	2	2	2	**13**	12.9

"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.

This matrix is also located in the PPL 25 Candidate booklet

Priority Project List 25
Candidate Projects

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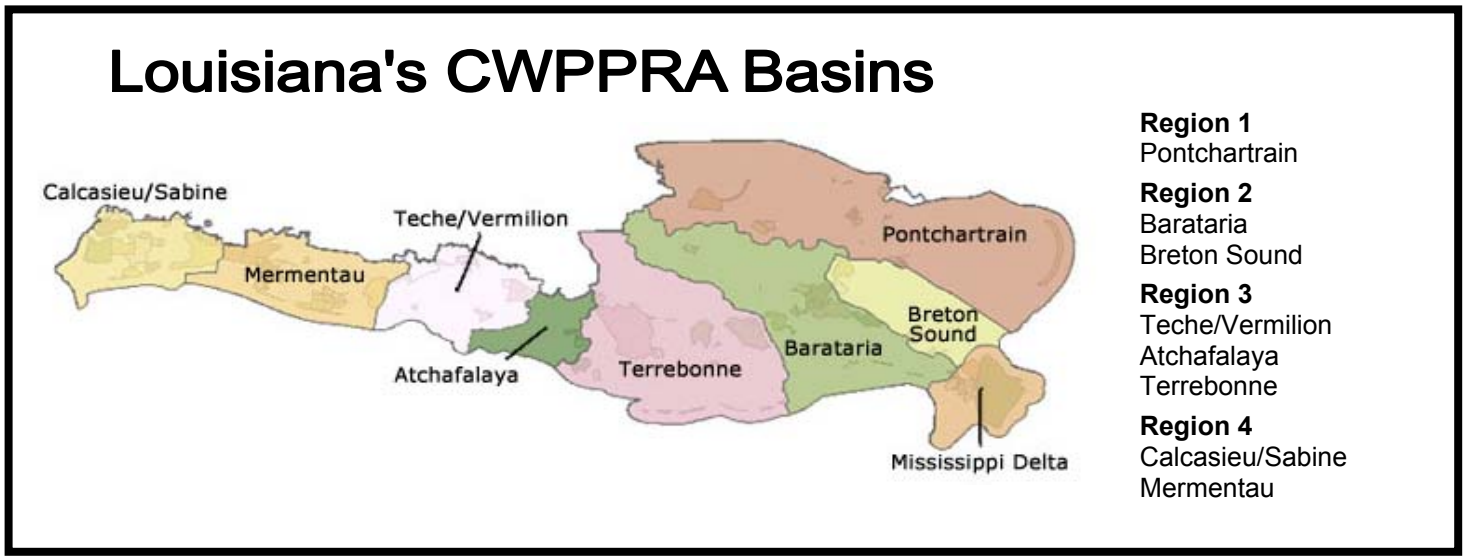
Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA)

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, except the Mississippi River Delta Basin as strategies for this basin are not included in the State Master Plan. *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).

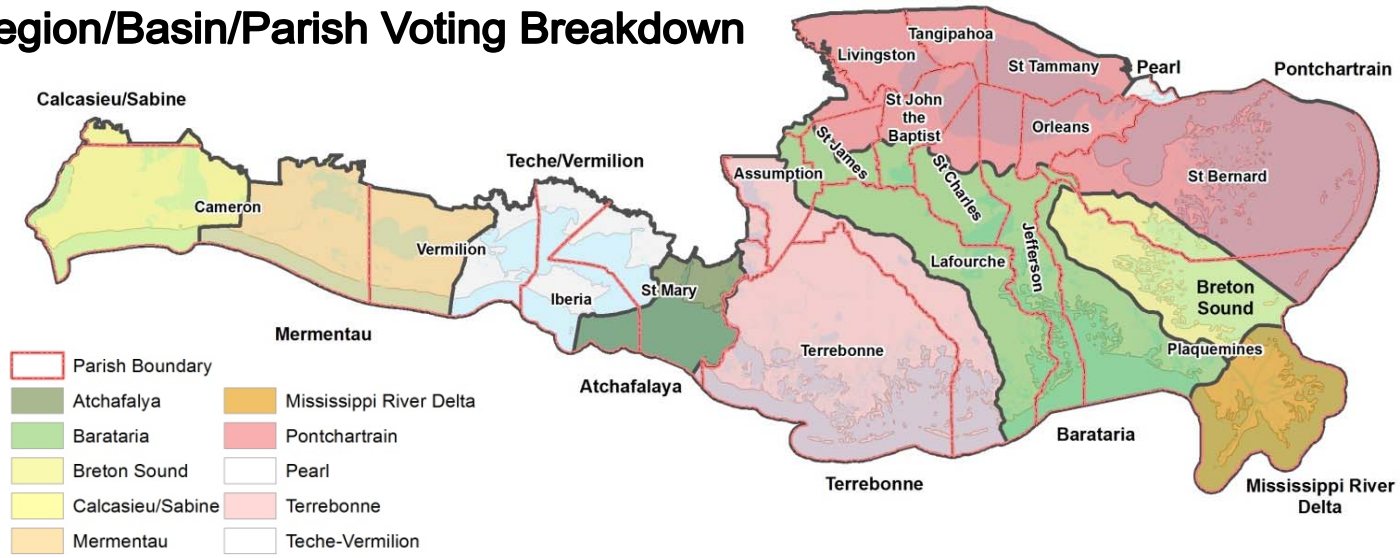
Nominees	Basin
4	Barataria
4	Terrebonne
3	Breton Sound
3	Pontchartrain
2	Mermentau
2	Calcasieu/Sabine
2	Teche/Vermilion
1	Atchafalaya
1	Coastwide
22	TOTAL

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.

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 during the RPT meetings. Each officially designated parish representative in the basin will have one vote and each federal agency and the State will have one vote.

Region/Basin/Parish Voting Breakdown



Region 1
Pontchartrain
Plaquemines
Jefferson
Orleans
St. Bernard
Ascension
Livingston
St. James
St. Charles
St. John the Baptist
St. Tammany
Tangipahoa

Region II
Barataria
Plaquemines
Jefferson
Orleans
Ascension
Assumption
St. James
St. Charles
Lafourche
St. John the Baptist

Breton Sound
Plaquemines
St. Bernard

Region III
Teche-Vermilion
St. Mary
Iberia
Vermilion

Atchafalaya
St. Mary
Iberia
Terrebonne

Terrebonne
St. Mary
Terrebonne
Assumption
Lafourche
Iberia
St. Martin

Region IV
Calcasieu-Sabine
Cameron
Calcasieu

Mermentau
Cameron
Vermilion

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 25 Schedule

January 27, 2015	Region IV Planning Team Meeting (Lafayette)
January 28, 2015	Region III Planning Team Meeting (Houma)
January 29, 2015	Regions I and II Planning Team Meetings (Lacombe)
February 24, 2015	Coastwide RPT Electronic Vote
February - March, 2015	Agencies prepare factsheets for RPT-nominated projects
March 2015	Engineering/Environmental Work Groups review project features, benefits, & prepare preliminary cost estimates for nominated projects (Baton Rouge)
March 2015	P&E Subcommittee prepares matrix of nominated projects showing initial cost estimates and benefits
April 16, 2015	Spring Technical Committee Meeting, select PPL 25 candidate projects (Baton Rouge)
May/June 2015	Candidate project site visits
May 14, 2015	Spring Task Force Meeting (Lafayette)
July/August/ September 2015	Eng/Eng/Econ Work Group project evaluations
September 10, 2015	Fall Technical Committee Meeting, O&M and Monitoring funding recommendations (Baton Rouge)
October 15, 2015	Fall Task Force Meeting, O&M and Monitoring approvals (New Orleans)
October 2015	Economic, Engineering, and Environmental analyses completed for PPL 25 candidates
December 10, 2015	Winter Technical Committee Meeting, recommend PPL 25 and Phase I and II approvals (Baton Rouge)
January 2016	Winter Task Force Meeting, select PPL 25 and approve Phase II requests (New Orleans)

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

Candidate Projects Located in Region 1

PPL25 Fritchie Marsh Creation and Terracing

Project Location:
Region 1, Pontchartrain Basin, St. Tammany Parish, located approximately three miles southeast of Slidell, Louisiana. A substantial portion of the project is located on Big Branch National Wildlife Refuge.

Problem:
A significant portion of the Fritchie Marsh was lost due to Hurricane Katrina. Post storm shallow open water areas dominate the landscape which limits the effectiveness of the PO-06 CWPRRA project. Wetlands in the project vicinity are being lost at the rate -1.09%/year based on USGS data from 1985 to 2015. These marshes cannot recover without replacement of lost sediment, which is critical if the northshore marshes are to be sustained.

Goals:
Project goals include restoring and nourishing marsh. Specific goals of the project are: 1) create approximately 291 acres of marsh; 2) nourish approximately 49 acres of existing marsh; and 3) construct about 36,610 feet of earthen terraces or 26 emergent acres.

Proposed Solution:
An alternatives analysis was conducted leading to the selection of features and configuration to compliment and work synergistically with the existing PO-06 project and planned mitigation and restoration projects in the Fritchie Marsh. A robust engineering cost is included to evaluate increasing the project size if costs allow or adjust the layout, if needed during Phase 1. Approximately 2 million cubic yards of material would be placed confined to restore 291 acres and nourish approximately 49 acres of brackish marsh. Material would be dredged from a borrow site in Lake Pontchartrain. The borrow site would be designed to avoid and minimize impacts to aquatic habitat and existing shorelines. Approximately 26 acres of earthen terraces would be constructed within various locations totaling approximately 36,610 feet or 523 acres of terrace field. All containment dikes would be gapped or degraded no later than three years after construction to facilitate the development of tidal marsh functions supportive of estuarine species. The terraces would be planted as well as 50% of the created marsh acres to expedite colonization and enhance stabilization.

Project Benefits:
The project would result in approximately 290 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $27,944,102.

Preparer of Fact Sheet
Patrick Williams, NOAA's National Marine Fisheries Service, patrick.williams@noaa.gov, (225) 389-0508, extension 208

Fritchie Marsh Creation and Terracing (PPL25 Candidate)

Marsh Creation *

Terrace Field *

Project Boundary*

* denotes proposed features

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

Scale 1:45,000

Map ID: USGS-NWRC 2015-11-0034
Map Date: June 30, 2015

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

Image Source:
2013 NAIP Photography

PPL25 North Shell Beach Marsh Creation

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

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

Goals:
The primary objective of this project is to create and nourish 394 acres of emergent brackish marsh to continue the ongoing efforts to stabilize the landmass separating Lake Borgne from the MRGO.

Proposed Solution:
The proposed project will create and nourish 394 acres of *Spartina* marsh by dredging sediment from designated borrow sources in Lake Borgne, and placing to a target fill elevation of +1.3 feet. Existing high shorelines along Lake Borgne and interior marsh edge could be used for containment where practical. Constructed containment features would be degraded or gapped as needed to promote tidal exchange after dewatering and consolidation of the fill material. The project would create 223 acres of marsh and nourish at least 171 acres of existing fragmented marsh. Additionally, 50% of the newly created area will include vegetative plantings.

Project Benefits:
The project would result in approximately 220 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $24,313,536.

Preparers of Fact Sheet:
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North Shell Beach Marsh Creation
(PPL25 Candidate)

Marsh Creation *

Project Boundary*

* denotes proposed features

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

Scale 1:50,000

Map ID: USGS-NWRC 2015-11-0035
Map Date: July 14, 2015

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

Image Source:
2012 DOQQ Photography

Candidate Projects Located in Region 2

PPL25 Barataria Bay Rim Marsh Creation

Project Location:
Region 2, Barataria Basin, Jefferson and Plaquemines Parish

Problem:
Historic wetland loss in the area occurs in the form of interior marsh loss and shoreline erosion along Barataria Bay. The interior loss is caused by subsidence, sediment deprivation, and construction of access and pipeline canals. Based on the hyper-temporal analysis conducted by USGS for the extended project boundary, loss rates in the project area are estimated to be -0.58% per year for the period 1984 to 2015.

Goals:
The goal of the project is to create approximately 251 acres of marsh and nourish approximately 266 acres of marsh (517 acres total) with dredged material from Barataria Bay.

Proposed Solution:
Sediments from a Barataria Bay borrow site will be hydraulically dredged and pumped via pipeline into three separate fully contained cells to create approximately 236 acres of marsh and nourish 232 acres. The proposed design is to place the dredged material to an initial fill height of +2.9 ft NAVD88, with a target marsh height of +1.6ft NAVD88. Dewatering and compaction of dredged sediments should produce marsh elevations conducive to the establishment of emergent marsh and within the intertidal range. 50% of the contained marsh creation area will be planted if needed. Containment dikes will be constructed as necessary. Perimeter containment dikes exposed to high wave energy will be planted. Containment dikes will be degraded as necessary to reestablish hydrologic connectivity with adjacent wetlands.

Additional sediments from the same borrow site will be hydraulically dredged and pumped via pipeline to a semi-contained area to create approximately 15 acres of marsh and nourish 34 acres. Segments of containment dikes will be constructed as necessary across distinct channels. The proposed design is to place the dredged material to an initial fill height of +2.9ft NAVD88 in two primary ponds and in the pipeline canal that extends toward the east. Because these ponds and pipeline canal will not have full perimeter containment, dredged material fill height is expected to slope downward with distance from their perimeter. Containment segments will be degraded as necessary to reestablish hydrologic connectivity with adjacent wetlands.

Project Benefits:
The project would result in approximately 251 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $23,838,905.

Preparer of Fact Sheet:
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Barataria Bay Rim Marsh Creation
(PPL25 Candidate)

Marsh Creation *

Project Boundary

* denotes proposed features

Scale 1:35,000

Map ID: USGS-NWRC 2015-11-0030
Map Date: June 26, 2015

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

Image Source:
2012 DOQQ

PPL25 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 -1.41% per year for the period 1984 to 2015.

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 (374 acres of marsh creation and 43 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 (Figure 1). 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 330 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $33,031,016.

Preparer of Fact Sheet:
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East Bayou Lafourche Marsh Creation
(PPL25 Candidate)

Marsh Creation *

Project Boundary

* denotes proposed features

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

Scale 1:35,000

Map ID: USGS-NWRC 2015-11-0029
Map Date: August 25, 2015

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

Image Source:
2012 DOQQ

PPL25 East Leeville Marsh Creation and Nourishment

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

Problem:
There is widespread historic and continued rapid land loss within the project site and surrounding areas resulting from subsidence, wind erosion, storms, and altered hydrology. The wetland loss rate for is -1.53%/year based on USGS data from 1984 to 2015. Furthermore, the limits of Southwestern Louisiana Canal are difficult to determine in some areas because land loss is causing the coalescence of the canal with adjacent water bodies. Natural tidal flow and drainage patterns which once existed are currently circumvented by the increasing area of open water. Data suggests that from 1932 to 1990, the basin lost over 245,000 ac of marsh, and from 1978 to 1990, Barataria Basin experienced the highest rate of wetland loss along the entire coast.

Goals:
The project goal is to create approximately 358 acres and nourish 124 acres of saline marsh east of Leeville.

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

Project Benefits:
The project would result in approximately 322 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $35,066,972.

Preparer of Fact Sheet
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East Leeville Marsh Creation and Nourishment (PPL25 Candidate)

Marsh Creation *

Project Boundary

* denotes proposed features

Scale 1:35,000

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2015-11-0028
Map Date: June 26, 2015

PPL25 Caminada Headlands Back Barrier Marsh Creation Increment #2

Project Location:
Region 2, Barataria Basin, Lafourche & Jefferson Parishes

Problem:
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.

Goals:
The goals of this project are to: 1) Create and/or nourish 444 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.

Proposed Solution:
This project would create 246 acres of back barrier intertidal marsh and nourish 198 acres of emergent marsh 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.

Project Benefits:
The project would result in approximately 207 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $24,977,605.

Preparers of Fact Sheet:
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Caminada Headlands Back Barrier Marsh Creation, Increment #2 (PPL25 Candidate)

Marsh Creation *

Project Boundary

Back Barrier Marsh Creation

Beach & Dune Restoration

* denotes proposed features

1 0 1 Kilometers

1 0 1 Miles

Scale 1:110,000

Map ID: USGS-NWRC 2015-11-0033
Map Date: September 29, 2015

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

Image Source:
2012 DOQQ

Candidate Projects Located in Region 3

PPL25 Bayou Terrebonne Ridge Restoration and Marsh Creation

Project Location:
Region 3, Terrebonne Basin, Terrebonne Parish

Problem:
The Terrebonne Basin was historically structured by a series of remnant north-south ridges of the many distributaries of Bayou Lafourche. Much of the habitat function of these ridges has been lost over the last half-century to erosion, subsidence, and development. Based on the hyper-temporal analysis conducted by USGS for the extended project boundary, loss rates in the project area are estimated to be -0.73% per year for the period 1984 to 2015. Land loss projections predict that the ridge and surrounding marshes will be converted to open water by 2050.

Goals:
The primary goals of this project are; 1) restore both the structural and habitat functions of several miles of Bayou Terrebonne ridge; 2) restore marsh habitat via marsh creation and nourishment and 3) protect the existing and newly created marsh and ridge with artificial oyster reefs. Specific goals of the project are: 1) restore approximately 5.4 miles of ridge habitat; 2) create/nourish 135 acres of marsh habitat with material dredged from Terrebonne Bay; and 3) install approximately 24,692 linear feet of artificial oyster reef/ridge armoring to provide habitat and protect the existing/newly created marsh and ridge.

Proposed Solution:
Approximately 28,501 linear feet (25 acres) of ridge will be constructed/restored on the east side of Bayou Terrebonne. The ridge will be constructed with borrow material from Bayou Terrebonne via bucket dredge. The ridge will be planted with seashore paspalum immediately post construction and with seedlings and saplings of appropriate species at TY3.

Sediments from a Terrebonne Bay borrow site will be hydraulically dredged and pumped via pipeline to create/nourish approximately 123 acres of marsh. The proposed design is to place the dredged material to an initial target elevation of +1.7 ft NAVD88. Dewatering and compaction of dredged sediments should produce marsh elevations conducive to the establishment of emergent marsh and within the intertidal range. Created marsh will be 100% planted with smooth cordgrass. Containment dikes will be constructed as necessary. Open water containment dike will be armored with gabion mats.

Gabion mats will be utilized to create approximately 24,692 linear feet of artificial oyster reef, ridge armoring, and shoreline protection.

Project Benefits:
The project would result in approximately 126 net acres of marsh (101 acres) and ridge (25 acres) habitats over the 20-year project life.

Project Costs:
The total fully-funded cost is $36,867,892.

Preparer of Fact Sheet:
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Bayou Terrebonne Ridge Restoration and Marsh Creation (PPL25 Candidate)

Ridge Protection *

Oyster Reef *

Ridge Restoration *

Marsh Creation *

Project Boundary

* denotes proposed features

1 0 1 Kilometers

1 0 1 Miles

Scale 1:75,000

Map ID: USGS-NWRC 2015-11-0038
Map Date: September 21, 2015

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

Image Source:
2012 DOQQ

PPL25 West Vermilion Bay Shoreline Protection and Marsh Creation

Project Location:
Region 3, Teche-Vermilion Basin, Vermilion Parish

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

Goals:
The goals of this project are to: 1) Create and/or nourish 769 acres of marsh, by pumping sediment from Vermilion Bay; 2) Protect/armor the western shoreline of Vermilion Bay between Bayou Prien and Hog Bayou and the Vermilion Bay shoreline adjacent to the proposed marsh creation cell near North Lake.

Proposed Solution:
The project proposes to create a total of 303 acres and nourish a total of 374 acres of emergent marsh by dredging sediment from Vermilion Bay. Approximately 23 acres would be confined marsh creation, and 280 acres would be unconfined marsh creation. Three acres would be confined marsh nourishment on North Lake and approximately 371 acres would be unconfined marsh nourishment in the southern project cell. The project also includes armoring approximately 18,352 linear feet of shoreline (2,474 LF of shoreline protection plus 15,878 LF of gabion mats) along Vermilion Bay between Bayou Prien and Hog Bayou and adjacent to the proposed marsh creation cell located near North Lake. Assuming some natural vegetative recruitment, vegetative plantings are planned at a 50% density at project year one. Containment dikes will be degraded or gapped by year three to allow access for estuarine organisms.

Project Benefits:
The project would result in approximately 317 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $24,975,860.

Preparers of Fact Sheet:
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West Vermilion Bay Shoreline Protection and Marsh Creation (PPL25 Candidate)

Armored Protection *

Shoreline Protection *

Marsh Creation *

Marsh Nourishment*

Project Boundary

* denotes proposed features

0.75 0 0.75 Kilometers

0.75 0 0.75 Miles

Scale 1:55,000

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

Image Source:
2013 NAIP

Map ID: USGS-NWRC 2015-11-0039
Map Date: August 19, 2015

Candidate Projects Located in Region 4

PPL25 Southeast Pecan Island Marsh Creation and Freshwater Enhancement

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

Problem:
The Southeast Pecan Island project area and surrounding marshes have experienced significant land loss from storm impacts, increased tidal exchange, saltwater intrusion, and reduced freshwater retention. Based on USGS data from 1984 to 2010, the wetland loss rate for the proposed project area is 0.99 %/year. Recent land loss, resulting from Hurricanes Rita and Ike, left Louisiana State Highway 3147 and Front Ridge Road exposed to open water wave action and vulnerable to additional storms.

Currently, Highway 82 forms a hydrologic barrier that isolates the Chenier Subbasin from freshwater associated with the Grand and White Lakes Subbasin. Highway 82 traverses cheniers wherever possible, however, low spots between cheniers historically allowed drainage from the Lakes Subbasin south into the Chenier Subbasin.

Goals:
The project goals are to restore/improve hydrologic conditions and increase emergent marsh vegetation throughout the project area. The project would help restore drainage of excess freshwater from the Lakes Subbasin into the Chenier Subbasin. Restoring the hydrology would reduce the exposure of fragile interior marsh to seasonal salinity spikes and increase productivity of marshes.

Proposed Solution:
The project would create/nourish approximately 253 acres of emergent marsh; create 55,000 linear feet (41 acres) of terraces; and promote growth of submerged aquatic vegetation.

The freshwater enhancement feature would improve hydrologic conditions by allowing water from the Lakes Subbasin to drain south into the Chenier Subbasin. The majority of the necessary infrastructure exists and would require channel clean out and the construction of two outlet structures, replacement of four sets of culverts along the conveyance channel, and the potential cleanout of culverts under Highway 82.

Project Benefits:
The project would result in approximately 301 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $33,497,546.

Preparers of Fact Sheet:
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Southeast Pecan Island Marsh Creation and Freshwater Enhancement (PPL25 Candidate)

Culvert with Flapgate *

Freshwater Introduction *

Terraces *

Marsh Creation *

Terrace Field *

Influence Area/Project Boundary *

* denotes proposed features

1 0 1 Kilometers

1 0 1 Miles

Scale 1:100,000

Map ID: USGS-NWRC 2015-11-0032
Map Date: June 29, 2015

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

Image Source:
2012 DOQQ

PPL25 Sweeney Tract Marsh Creation and Nourishment

Project Location:
Region 4, Mermentau Basin, Cameron Parish

Problem:
Marshes within the Hog Bayou Watershed mapping unit are stressed due to limited freshwater input and seasonal salinity spikes exacerbated by construction of the Mermentau Ship Channel. Other contributors to land loss in the area are subsidence, inundation, compaction, and erosion of organic soils. Currently, the project area is characterized as large, open water with degraded areas of wetland vegetation. The dredging of the Mermentau Ship Channel increased tidal amplitude and saltwater intrusion into the watershed. In addition to these direct losses, significant interior marsh loss has resulted from saltwater intrusion and hydrologic changes associated with storm damage and blocked drainages (inundation). The 1984 to 2014 interior marsh loss rate derived from USGS for the area is -1.50 % per year. The subsidence rate provided by the 2012 Louisiana State Master Plan Appendix C indicates a loss of 0.24 ft. of elevation within the 20-yr project life.

Goals:
The primary goals of this project are to restore marsh habitat in open water areas via marsh creation. Specific goals are: 1) Create and nourish approximately 730 acres of saline marsh, and 2) Create approximately 13,000 linear feet (6.9 acres) of tidal creeks to facilitate intertidal flow.

Proposed Solution:
Sediment mined from offshore would be placed to create 590 acres of saline marsh and nourish 133 acres of existing marsh. Material would be placed to achieve a settled target elevation of +1.27 feet NAVD88 (GEOID99) based on CRMS station 0614. Temporary containment dikes will be constructed to contain the fill material. To help facilitate estuarine fisheries access, containment dikes will be degraded within three years if the dikes do not naturally degrade, and approximately 13,000 linear feet (6.9 acres) of tidal creeks will be constructed. To improve hydrology of the area, two 48-inch flap-gated culverts would be installed to replace nonfunctional structures northwest of Second Lake and about 500 linear feet of closed conveyance channel would be cleaned out to facilitate water flow to and from the structures.

Project Benefits:
The project would result in approximately 524 net acres over the 20-year project life.

Project Costs:
The total fully funded cost is $30,915,853.

Preparer(s) of Fact Sheet:
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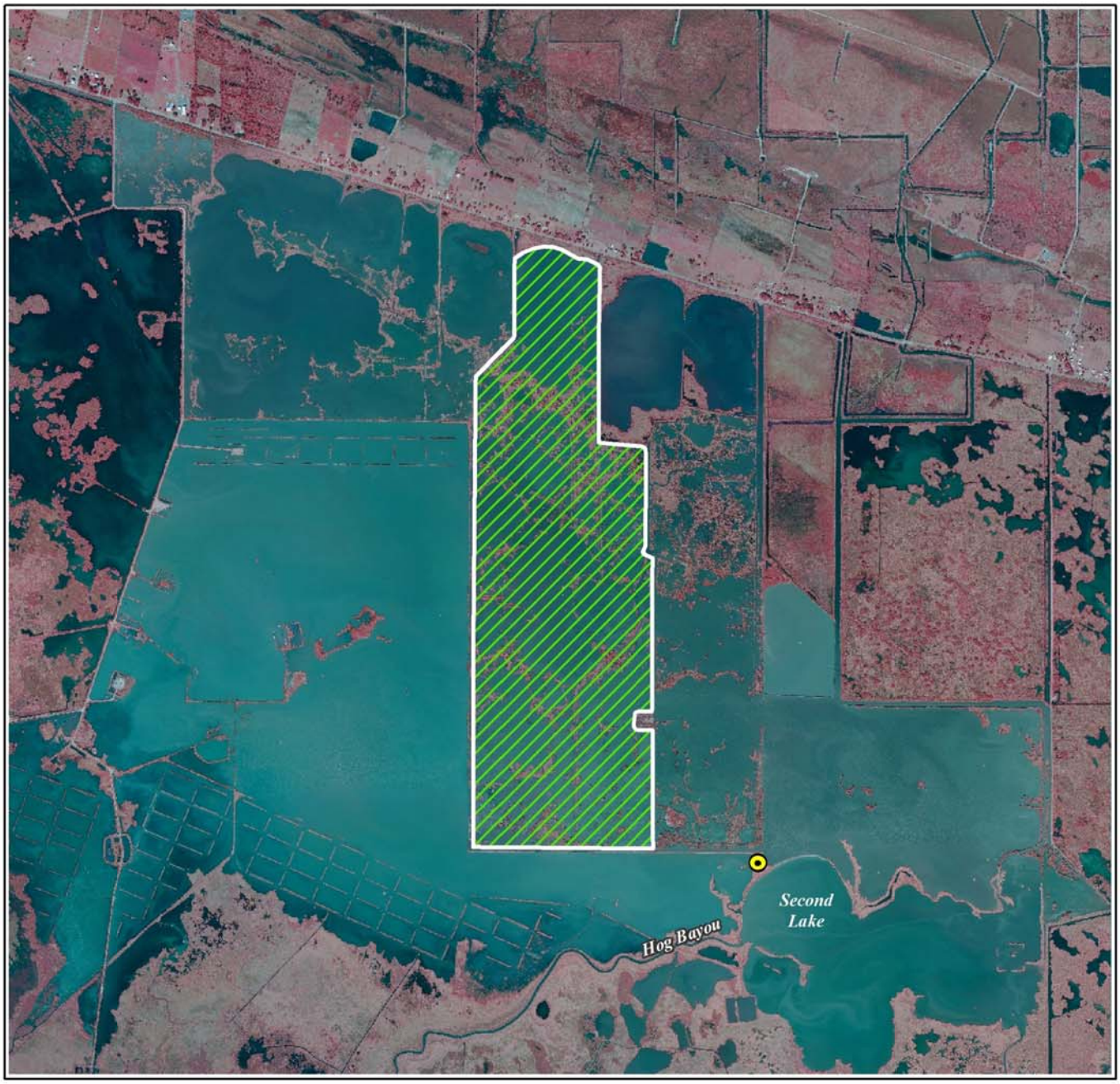


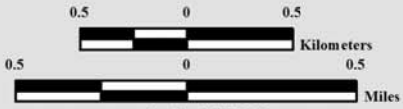
Sweeny Tract Marsh Creation and Nourishment (PPL25 Candidate)

Hydrologic Improvement *

Marsh Creation *

Project Boundary

* denotes proposed features



Scale 1:35,000

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

Image Source:
2012 DOQQ

Map ID: USGS-NWRC 2015-11-0031
Map Date: August 13, 2015

PPL25 Oyster Lake Marsh Creation and Nourishment

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

Problem:
Altered hydrology, drought stress, saltwater intrusion and hurricane induced wetland losses have caused the area to undergo interior marsh breakup. Impacts from Hurricane Rita in 2005 and Hurricane Ike in 2008 have resulted in the coalescence of Oyster Lake with interior water bodies increasing wave/wake related erosion. Based on USGS hyper temporal data analysis (1984 to 2014), land loss for the area is -1.28% 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 661 acres of saline marsh. Half of the created acres will be planted with smooth cordgrass vegetation.

Proposed Solution:
Sediment would be mined from the offshore disposal area used for CS-59 and placed in the project area to create approximately 476 acres and nourish approximately 185 acres of saline marsh. Disposal areas would be constructed between the CS-59 marsh creation areas and terrace field, and extend eastward. Material would be placed to achieve a settled target elevation of +1.4 feet NAVD 88, GEOID 99 based on CRMS station 0655. 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. Half of the created elevations (237 acres) would be planted with smooth cordgrass plugs. Although marsh creation via dedicated dredging of sediment is the primary technique, opportunities may exist to include some terracing where warranted, but not included in the benefit/cost estimates at this time.

Project Benefits:
The project would result in approximately 438 net acres over the 20-year project life.

Project Costs:
The total fully-funded cost is $38,073,046.

Preparer(s) of Fact Sheet:
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Kimberly Clements, NOAA's National Marine Fisheries Service, (225) 389-0508, ext. 204; Kimberly.clements@noaa.gov

Oyster Lake Marsh Creation and Nourishment (PPL25 Candidate)

Marsh Creation/Nourishment *

Project Boundary *

CS-59 Project Boundary

* denotes proposed features

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

Scale 1:35,000

Map ID: USGS-NWRC 2015-11-0027
Map Date: june 26, 2015

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

Image Source:
2013 NAIP Photography

Candidate Demonstration Project

PPL25 Demonstration Project Shoreline Protection, Preservation, and Restoration Panel (*SPPR Panel*)

Project Location:
Coastwide: Navigation Channels/Estuary Shorelines

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

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

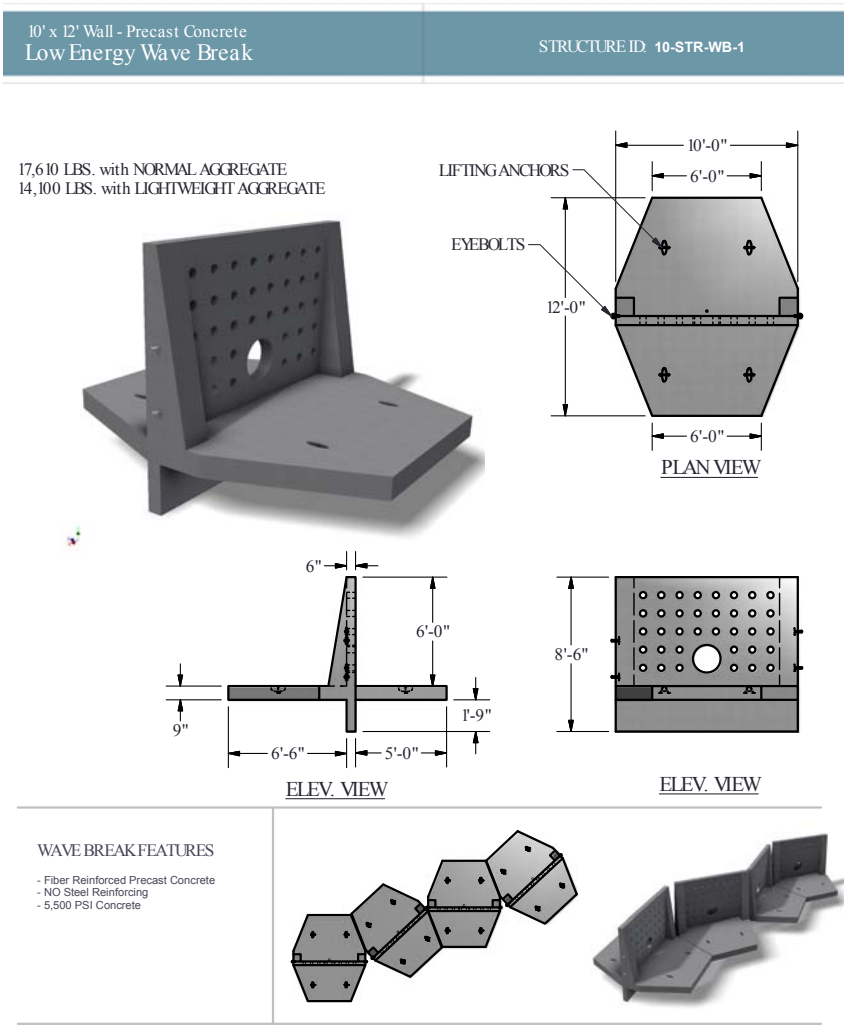
Proposed Solution:
The SPPR Panel is a pre-cast, saltwater tolerant concrete panel system (with ***no carbon steel reinforcement***), the dimensions and density of which can be adjusted to site conditions. The SPPR Panel units resemble a chain when joined together allowing for on site adjustments to irregular shorelines, and has planned openings with the face of the unit that allows for some sediment to penetrate, along with providing ingress/egress of aquatic organisms.

The demonstration would include the selection of 2 diverse application sites for treatment with water depths ranging from 2 to 5 feet. Each treatment would include 3 replicate 260-foot sections for a total project installation of 1,600 linear feet. Project effectiveness would be monitored and evaluated after construction according to the CWPPRA workgroups' recommendation for this product in Phase 0. The conceptual treatment is shown in Figure 1.

Project Costs:
The total fully-funded cost is $2,215,514.

Preparer(s) of Fact Sheet:
John D. Foret, Ph.D. (NMFS), 337.291.2107, John.foret@noaa.gov
Kimberly Clements (NMFS), 225.389.0508, Kimberly.Clements@noaa.gov

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



PPL25 Candidate Project Evaluation Matrix

10/29/2015

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	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Fritchie Marsh Creation and Terracing	1	St. Tammany	882	141	290	$27,944,102	$3,033,294	$24,910,808	$1,829,778	$12,977	$96,359
North Shell Beach Marsh Creation	1	St. Bernard	394	112	220	$24,313,536	$2,906,264	$21,407,272	$1,591,229	$14,207	$110,516
Barataria Bay Rim Marsh Creation	2	Jefferson & Plaquemines	520	158	251	$23,838,905	$2,693,708	$21,145,197	$1,562,085	$9,887	$94,976
East Bayou Lafourche Marsh Creation	2	Lafourche	417	177	330	$33,031,016	$3,242,713	$29,788,303	$2,173,216	$12,278	$100,094
East Leeville Marsh Creation and Nourishment	2	Lafourche	484	185	322	$35,066,972	$4,026,090	$31,040,882	$2,316,074	$12,519	$108,904
Caminada Headlands Back Barrier Marsh Creation Increment #2	2	Lafourche & Jefferson	444	142	207	$24,977,605	$3,034,310	$21,943,295	$1,644,442	$11,581	$120,665
Bayou Terrebonne Ridge Restoration and Marsh Creation	3	Terrebonne	173	76	126	$36,867,892	$3,456,191	$33,411,701	$2,384,633	$31,377	$292,602
West Vermilion Bay Shoreline Protection and Marsh Creation	3	Vermilion	769	153	294	$24,975,860	$2,875,082	$22,100,778	$1,612,396	$10,539	$84,952
Southeast Pecan Island Marsh Creation and Freshwater Enhancement	4	Vermilion	3,281	189	301	$33,497,546	$3,597,172	$29,900,374	$2,172,021	$11,492	$111,288
Sweeney Tract Marsh Creation and Nourishment	4	Cameron	730	274	524	$30,915,853	$3,150,226	$27,765,627	$2,008,392	$7,330	$59,000
Oyster Lake Marsh Creation and Nourishment	4	Cameron	661	258	438	$38,073,046	$3,608,939	$34,464,107	$2,505,694	$9,712	$86,925

PPL 25 Demonstration Project Evaluation Matrix

11/6/2015

(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		
Shoreline Protection, Preservation, & Restoration (SPPR) Panel	NMFS	$2,215,514	2	3	2	2	2	2	**13**	12.9

"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 10, 2015
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 25 candidate projects. The public is invited to attend and provide comments on the candidate projects. The Technical Committee will vote & recommend projects for PPL 25 selection. The Technical Committee will also consider requests for construction (Phase II) approvals.

Written comments may be provided no later than November 25, 2015 to the CWPPRA Task Force by mail or email to:

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

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

Letters of Support

From: JANET Rhodus <janetrhodus@hotmail.com>
Sent: Friday, November 27, 2015 7:04 AM
To: Inman, Brad L MVN
Cc: Bren Haase; patrick.williams@noaa.gov
Subject: [EXTERNAL] CWPPRA PPL25

Brad,

Please distribute for me.

Dear CWPPRA Committee Selection Members:

For the past two years, Launch Leeville, 501(c)(3) Non-Profit, has nominated a CWPPRA project for consideration. Unfortunately, I was diagnosed with Stage 3 Breast Cancer in July. I had a mastectomy in August and have been obtaining chemotherapy therapy as well. My surgery and illness from chemo, has prevented me from advocating on my project's behalf.

Even though I have not been in a position to obtain letters of support, the need for this project should be given utmost consideration. The area involved with PPL25, has been impacted severely with coastal flooding, over the past two months. While the area would normally only be impacted by tropical storm development, we are being affected by strong Southerly winds.

As you know, there has never been a CWPPRA project done in the Leeville area. Any project would help businesses, LA 1, and residents. East Leeville PPL25 would provide a much needed barrier for Leeville. Until the the next phase of the elevated highway is complete, LA 1 will continue to be inundated by high tides. The roadway being flooded, hinders travel to the valuable Port Fourchon.

I have been told, decisions are made prior to the December announcement date. While public comments are allowed at the meeting, it is my understanding, the projects have been selected before the meeting. I'm certain all of the nominated projects are worthy of consideration, but none will have the greatest impact as the East Leeville project nominee.

For clarification, feel free to contact Chett Chiasson of the Port Commission. I am confident he can validate my claims of the recent LA 1 flooding. Had CWPPRA committed projects in the area previously, this situation would not be as dire.

I can't fathom why there has never been a CWPPRA project in the Leeville vicinity, since the programs's inception. In my opinion, CWPPRA has neglected and failed this part of the state. CWPPRA was established in 1990, it is time to give this vital area be given attention and its fair share. Please realize, Leeville is valuable, serving the Port with support services, and a buffer to Golden Meadow. Windell Curole of the South Lafourche Levee District, will tell each and everyone of you, once Leeville is open water; there will be constant wave action impacting the ring levee system. Everyone needs to evaluate the entire situation and realize the critical situation in Leeville, impacts Lafourche Parish greatly.

I look forward to seeing all of you in December.

Regards,

Janet Rhodus, Volunteer
Launch Leeville, 501(c)(3) Non-Profit
225-413-4414

PAT BRISTER, PARISH PRESIDENT
ST. TAMMANY PARISH

P. O. BOX 628
COVINGTON, LA 70434
985-898-2362
FAX: 985-898-5237
E-MAIL: PBRISTER@STPGOV.ORG
WEB SITE: HTTP://STPGOV.ORG

August 14, 2015

Allison Murray, MBA
CWPPRA Program Coordinator
USACE New Orleans District
7400 Leake Avenue
New Orleans, Louisiana 70118

RE: Fritchie Marsh Creation Project, PPL24 Selection

Dear Ms. Murray,

Please accept this letter as our comments for the PPL 24 selection process. St. Tammany Parish would like to strongly support the Fritchie Marsh Creation project as our number one priority. St. Tammany Parish has been largely left out of the 2012 Louisiana State Master Plan. The extreme southeastern portion of the parish is the only portion that is included in the Master Plan for marsh restoration. This project will directly protect over 13,000 homes and 2000 businesses within 5 miles of the project site. Over 25% of these homes are valued at under $125,000. This area has seen large increases in flooding duration and frequency since Hurricane Katrina. The marsh was severely damaged during Hurricane Katrina and has converted to mostly open water. This project is critical for the protection of the southeastern St. Tammany Parish area.

Please feel free to call my office should you have any questions.

Sincerely,

Patricia Brister

Patricia P. Brister
Parish President
St. Tammany Parish

PPB/lo

CHENIER PLAIN
Coastal Restoration & Protection Authority

7515 Jefferson Highway #322
Baton Rouge, LA 70806
225.333.8234
www.cpcrpa.org

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RESTORING & PROTECTING
CALCASIEU, CAMERON,
& VERMILION PARISHES

September 09, 2015

Dear Technical Committee Members,

The Chenier Plain Coastal Restoration and Protection Authority (Chenier Plain Authority) would like the Coastal Wetland Protection, Planning, and Restoration Act Task Force (CWPPRA) Technical Committee to accept this letter of support for Phase I funding:

- Vermilion Parish projects:
  1. Southeast Pecan Island Marsh Creation & Freshwater Enhancement
  2. West Vermilion Bay Shoreline Protection & Marsh Creation
- Cameron Parish projects:
  1. Oyster Lake Marsh Creation & Nourishment
  2. Sweeney Tract Marsh Creation & Nourishment

The Chenier Plain Authority would like to thank CWPPRA for consideration of projects in Southwest Louisiana. Please contact me with any questions or comments at 225.333.8234 or nedra.davis@cpcrpa.org.

Nedra Davis, Executive Director
Chenier Plain Authority

CALCASIEU PARISH POLICE JURY
GOVERNING AUTHORITY OF CALCASIEU PARISH, LOUISIANA

P.O. Drawer 3287 • 1015 Pithon Street • Lake Charles, Louisiana 70602-3287
337/721-3500 • Fax 337/437-3399
www.cppj.net

Nicholas E. Hunter
President

Sandy Treme
Vice President

Bryan C. Beam
Parish Administrator

Shannon Spell
District 1

Marshall Simien, Jr.
District 2

Elizabeth Conway Griffin
District 3

Tony Guillory
District 4

Nicholas E. Hunter
District 5

Dennis Scott
District 6

Chris E. Landry
District 7

Guy Brame
District 8

Kevin Guidry
District 9

Tony Stelly
District 10

Sandy Treme
District 11

Ray Taylor
District 12

Francis Andrepont
District 13

Hal McMillin
District 14

Les Farnum
District 15

MEMORANDUM

TO: Members of CWPPRA Task Force

FROM: Nicholas "Nic" E. Hunter, President NH/ks
Calcasieu Parish Police Jury

DATE: July 24, 2015

RE: Support of Phase I Funding Project

Enclosed is a certified copy of a resolution which was adopted by the Calcasieu Parish Police Jury on July 23, 2015, wherein the Police Jury respectfully requests support by the Coastal Wetland Planning, Protection and Restoration Act (CWPPRA) Task Force for Phase I funding needed for engineering and design of the *Oyster Lake Marsh Creation and Nourishment Project* in the Calcasieu-Sabine Basin.

Your support of the Police Jury in this matter would be greatly appreciated.

ars/s

Enclosure

cc: Ms. Laurie Cormier, Division of Planning and Development

Received By
CEMVN-EX
US Army Corps of Engineers
New Orleans District
JUL 27 2015

PARISH OF CALCASIEU

State of Louisiana

RESOLUTION

A RESOLUTION IN SUPPORT OF THE OYSTER LAKE MARSH CREATION AND NOURISHMENT PROJECT IN THE CALCASIEU-SABINE BASIN.

WHEREAS, the Calcasieu-Sabine Basin marshes have experienced an increased inundation of saltwater intrusion due to Hurricanes Rita and Ike and it is highly unlikely that these marshes will recover from the losses experienced without comprehensive restoration efforts; and

WHEREAS, drought stress and hurricane-induced wetland losses have resulted in the coalescence of Oyster Lake with interior water bodies increasing wave/wake related erosion, and land loss for the area is predicted at -0.75% per year with a subsidence rate estimated at 1.0foot per century; and

WHEREAS, the specific goal of the *Oyster Lake Marsh Creation and Nourishment Project* is to restore coastal marsh habitat through the creation of 400 to 600 acres of saline marsh, wherein sediment would be mined from an offshore disposal area and placed in multiple disposal areas to create the 400 to 600 acres.

NOW, THEREFORE,

BE IT RESOLVED BY THE POLICE JURY OF CALCASIEU PARISH, LOUISIANA, convened in Regular Session on the 23rd day of July, 2015, that it does hereby respectfully request support by the Coastal Wetland Planning, Protection and Restoration Act Task Force, for Phase I funding needed for engineering and design of the *Oyster Lake Marsh Creation and Nourishment Project* in the Calcasieu-Sabine Basin.

THUS DONE AND PASSED on the date above inscribed.

* * * * * * * * * * * *

STATE OF LOUISIANA
PARISH OF CALCASIEU

I HEREBY CERTIFY that the foregoing is a true and correct copy of the original resolution as adopted by the Calcasieu Parish Police Jury in Regular Session convened on the 23rd day of July, 2015.

IN TESTIMONY WHEREOF, witness my official signature and the seal of the Parish of Calcasieu, Louisiana, on this the 24th day of July, 2015.

Kathy P. Smith

Kathy P. Smith, Parish Secretary

KIRK QUINN
PRESIDENT

CURTIS FOUNTAIN
VICE PRESIDENT

RYAN BOURRIAQUE
ADMINISTRATOR

DARRELL WILLIAMS
SECRETARY-TREASURER

POLICE JURY

PARISH OF CAMERON

P.O. BOX 1280
CAMERON, LOUISIANA 70631

(337) 775-5718
(337) 775-5567 Fax
www.parishofcameron.net

DISTRICT 1
CURTIS FOUNTAIN

DISTRICT 2
ANTHONY HICKS

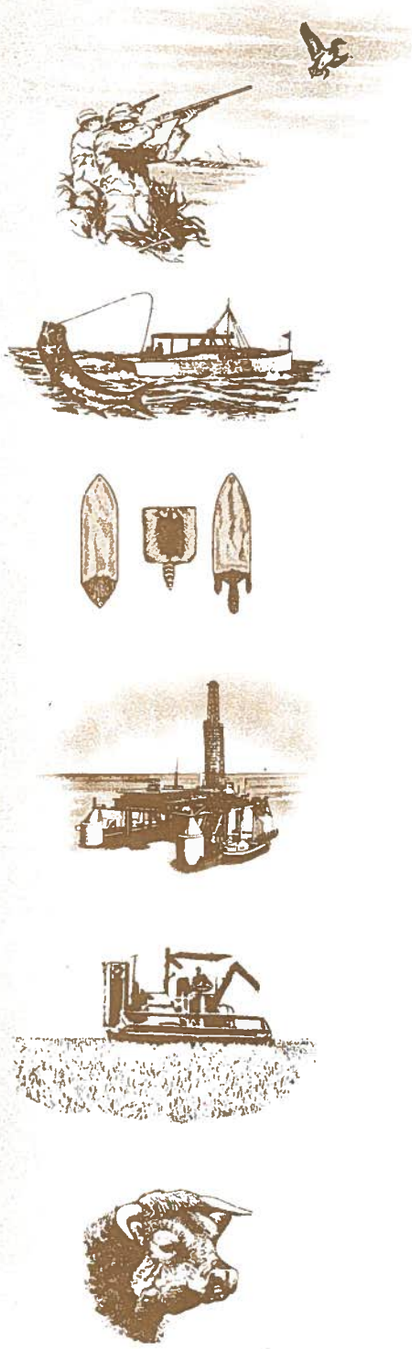
DISTRICT 3
KIRK QUINN

DISTRICT 4
TERRY BEARD

DISTRICT 5
KIRK BURLEIGH

DISTRICT 6
JOE DUPONT

DISTRICT 7
DARRYL FARQUE



RESOLUTION

PARISH OF CAMERON
STATE OF LOUISIANA

WHEREAS, Cameron Parish has two candidate projects Phase I Funding including Sweeney Tract Marsh Creation and Nourishment and Oyster Lake Marsh Creation and Nourishment as well as two candidate projects for Phase II Funding including Cameron/ Creole Freshwater Introduction and Rockefeller Shoreline Protection, and

WHEREAS, the Sweeney Tract Marsh Creation and Nourishment project aims to restore 400-500 acres of saline marsh in the Hog Bayou Watershed mapping unit, in the Mermentau Basin, by mining sediment from an offshore disposal area. This project would promote the expansion of emergent marsh and submerged vegetation throughout the project area, and

WHEREAS, the Oyster Lake Marsh Creation and Nourishment project is designed to combat years of saltwater intrusion, drought stress, and hurricane induced wetland losses that have resulted in interior marsh breakup. The project would mine sediment from an offshore disposal area to create between 400 – 600 acres, and

WHEREAS, the Cameron-Creole Watershed marshes have experienced an increased inundation of saltwater due to Hurricane Rita and Hurricane Ike. It is unlikely that these marshes will recover from the losses experienced without comprehensive restoration efforts. This freshwater introduction project would restore the function, value, and sustainability to approximately 22,247 acres of marsh and open water by improving hydrologic conditions via freshwater input and increasing organic productivity, and

WHEREAS, Rockefeller Wildlife Refuge averages coastal land loss of approximately 46 feet/year with a subsequent direct loss of emergent saline marsh. The Rockefeller Shoreline Protection project entails construction of shoreline protection along the Gulf of Mexico. The proposed structure would be tied into the west bank of Joseph Harbor a rock breakwater with lightweight aggregate core, westward for approximately 3 miles. Demonstration efforts have already proved successful and would simultaneously benefit additional marsh creation projects further inland, and

WHEREAS, each of these projects are vital to the recovery, protection, and sustainability of our coastal wetlands in Cameron Parish, and

NOW, THEREFORE BE IT RESOLVED, by the Cameron Parish Police Jury on this 2nd day of December, 2015, that the Secretary is hereby

authorized, empowered and directed to forward this Resolution of support for the *"Sweeney Tract Marsh Creation and Nourishment Project"* and *"Oyster Lake Marsh Creation and Nourishment Project"* to the Coastal Wetland Planning, Protection and Restoration Act Task Force for Phase I Funding.

BE IT FURTHER RESOLVED, that the Coastal Wetland Planning, Protection and Restoration Act Task Force, thru this Resolution, are requested to support the *"Cameron-Creole Freshwater Introduction Project"* and *"Rockefeller Shoreline Protection Project"* for Phase II Funding to construct these projects.

ADOPTED AND APPROVED this 2nd day of December, 2015.

APPROVED:

KIRK QUINN, PRESIDENT
CAMERON PARISH POLICE JURY

ATTEST:

DARRELL WILLIAMS, SECRETARY

8 December 2015

CWPPRA Technical Committee,

Below is the ranking of the PPL25 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	Barataria Bay Rim Marsh Creation
High	East Leeville Marsh Creation and Nourishment
Medium High	Fritchie Marsh Creation and Terracing
Medium High	East Bayou Lafourche Marsh Creation
Medium High	Caminada Headlands Back Barrier Marsh Creation Increment #2
Medium High	Southeast Pecan Island Marsh Creation and Freshwater Enhancement
Medium	Bayou Terrebonne Ridge Restoration and Marsh Creation
Medium	Sweeney Tract Marsh Creation and Nourishment
Medium	Oyster Lake Marsh Creation and Nourishment
Medium Low	North Shell Beach Marsh Creation
Medium Low	West Vermilion Bay Shoreline Protection and Marsh Creation

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
School of the Coast & Environment
Louisiana State University
Baton Rouge, LA 70803

CHUCK KLECKLEY
SPEAKER

STATE OF LOUISIANA
HOUSE OF REPRESENTATIVES

District 36
130 Jonestown Road
Lake Charles, LA 70605
Email: larep036@legis.la.gov
Phone: 337.475.3016
Fax: 337.475.3016

December 8, 2015

Mr. Mark Wingate, Chairman
Deputy District Engineer
U.S. Army Engineer District, New Orleans
Office of the Chief
P. O. Box 60267
New Orleans, La. 70160

Dear Technical Committee Members,

I am writing you for your consideration of Phase 1 support for the Oyster Lake Marsh Creation and Nourishment, and the Shoreline Protection, Preservation, and Restoration Panel (SPPR Panel) Demonstration Projects, and the Phase 2 support for the Rockefeller Refuge Gulf Shoreline Stabilization Project at your upcoming December 10 Technical Committee Meeting.

The Oyster Lake Marsh Creation and Nourishment project is located in Cameron Parish, west of the Calcasieu Ship Channel, and immediately adjacent to the Oyster Bayou Marsh Restoration (CS-59) Project area. Saltwater intrusion, drought stress, and hurricane induced wetland losses have resulted in interior marsh breakup and coalescence of Oyster Lake with interior water bodies. To offset this loss, Sediment would be mined from the offshore disposal area used for CS-59 and placed in multiple disposal areas to create between 400 to 600 acres of saline marsh. Disposal areas would be constructed between the CS-59 marsh creation areas and terrace field, and where practical, disposal would be semi-confined. This proposed project embodies the very definition of wetland restoration synergy, as the project features adjoin the CS-59 project features, while utilizing the oversized CS-59 borrow area as the project source.

The Shoreline Protection, Preservation, and Restoration Panel (SPPR Panel) Demonstration Project would introduce an innovative solution for shoreline protection and dredge containment projects which can be installed at a significant savings to the project owner. The demonstration project would help reduce shoreline retreat along bay and lake areas that have experienced excessive amounts of erosion and would also have the intent to offset increased rates of land loss to wetlands that become exposed due the loss of protective shorelines features. The SPPR Panel is a pre-cast, saltwater tolerant concrete panel system, the dimensions and density of which can be adjusted to site conditions. The SPPR Panel units resemble a chain when joined together allowing for on-site adjustments to irregular shorelines. The project has several aspects, in that it is shoreline protection and restoration, marsh protection, restoration, and enhancement system that would deflect wave energy, protect and enhance vegetation, trap sediment, protect and create emergent marsh, and provide nursery habitat. While the CWPPRA program has historically supported demonstration projects for the advancement of coastal restoration solutions, it has not done so in the last 2 years, but as the Program has matured, the need for new and innovative solutions has never been greater.

The Rockefeller Refuge Gulf Shoreline Stabilization Project was proposed as a candidate for the Project Priority List 10. Phase 1 was authorized by the CWPPRA Task Force on January 10, 2001. The candidate project envisioned a 9.2 mile rock breakwater that followed the -5' contour from Joseph's Harbor Bayou westward to Beach Prong. Challenging site conditions prompted a Project Scope Change Request, and approval, in April 2013 to a 2.5-mile rock breakwater with lightweight aggregate core (w/LWA). Rockefeller Wildlife Refuge averages coastal land loss of approximately 57 feet/year with a subsequent direct loss of emergent saline marsh. The proposed structure would be tied into the west bank of Joseph Harbor Canal and proceed westward for approximately 3 miles. There is little-to-no maintenance associated with this project, and the Louisiana Department of Wildlife and Fisheries has submitted a letter of intent to be the project permit holder, and assume any maintenance responsibility after the project life. A test-section has already proved successful and would simultaneously benefit addition marsh wetland restoration efforts further inland. For every year not funded, the State of Louisiana will lose an additional 17 acres just within the project footprint.

Any consideration you give to this project will be appreciated.

Sincerely,

Chuck Kleckley, Speaker

CK/gg

David J. Camardelle - MAYOR GRAND ISLE

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

December 7, 2015

Colonel Richard Hansen
District Engineer, New Orleans
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

RE: PPL 25 Recommendations

Dear Colonel Hansen:

The Town of Grand Isle and the Grand Isle Independent Levee District, wish to express our support for the **Caminada Headlands Back Barrier Marsh Creation Increment #2 Project** proposed for PPL 25. The proposed project would create and/or nourish 444 acres of back barrier marsh and create a platform upon which the beach and dune can migrate. This restoration measure will reduce the likelihood of additional breaching on Elmer's Island and protect critical infrastructure including Port Fourchon and LA Highway 1. When tropical weather threatens the island, LA 1 is the only evacuation route available to residents of Grand Isle. It is critical to protect this roadway with healthy marsh to buffer the impact of storms from the gulf.

Additionally, we support the **Barataria Bay Rim Marsh Creation Project** which will create and/or nourish 517 acres of marsh, restore a segment of the Barataria Bay shoreline and thus limit expansion of the bay to the north.

The marsh created from these two projects will benefit the recreational and commercial fishing industries, which are central to Grand Isle's economy and we urge you to approve them for funding on CWPPRA's PPL 25.

Sincerely,

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

JEFFERSON PARISH
LOUISIANA
MARINE FISHERIES ADVISORY BOARD

December 7, 20156

Colonel Richard Hansen
District Engineer, New Orleans
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

RE: PPL 25 Recommendations

Dear Colonel Hansen:

Barataria Bay Rim Marsh Creation and Caminada Headlands Back Barrier Marsh Creation Increment #2 are priority projects for the Jefferson Parish Marine Fisheries Advisory Board because of the benefits they provide to commercial and recreational fisheries in Jefferson Parish.

Interior marsh loss and shoreline erosion along Barataria Bay is accelerating and immediate action is needed to slow erosion and wetland loss. The Barataria Bay Rim Marsh Creation would begin the restoration of the bay rim, and would be the first increment of a larger project that was originally developed through stakeholder meetings with Jefferson Parish, and is included in the 2012 Louisiana State Master Plan for a Sustainable Coast.

The Caminada Headland, which includes Elmer's Island in Jefferson Parish, has experienced some of the highest shoreline retreat in Louisiana. The continued deterioration of the Caminada headland threatens thousands of acres of wetland habitat important to marine fisheries, both commercial and recreational, as well infrastructure including LA Highway 1, which provides the only land based transportation access to Grand Isle in southern Jefferson Parish.

Therefore, we respectfully request that the CWPPRA Technical Committee recommend, and that the CWPPRA Task Force approve, Barataria Bay Rim Marsh Creation and Caminada Headlands Back Barrier Marsh Creation Increment #2 for Phase 1 funding on PPL 25.

Sincerely,

Timothy Kerner, Chairman
Jefferson Parish Marine Fisheries Advisory Board

4901 JEFFERSON HIGHWAY - SUITE E - JEFFERSON. LOUISIANA 70121 - (504) 731-4612

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
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COUNCIL MEMBERS

SHIRLEY GUILLIE
MAYOR PROTEM

BARRY BARTHOLOMEW
CHRISTY CREPPEL
VERNA SMITH
CALVIN LEBEAU

December 7, 2015

Colonel Richard Hansen
District Engineer, New Orleans
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

RE: PPL 25 Recommendations

Dear Colonel Hansen:

The town of Jean Lafitte and the Lafitte Area Independent Levee District strongly support the **Barataria Bay Rim Marsh Creation Project** which will maintain shoreline integrity of the Barataria Bay in the vicinity of Mud Lake and help to protect wetlands that 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. The **Barataria Bay Rim Marsh Creation Project** will create and protect our marshes, which provide economic benefits derived from commercial fishing, recreational fishing and eco-tourism, all of which are essential to sustaining the traditional culture and livelihood of these communities.

We would also like to extend our support to the **Caminada Headlands Back Barrier Marsh Creation Increment # 2** project, which will enhance protection to Louisiana 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

On motion of _____, seconded by _____, the following resolution was offered:

RESOLUTION NO. _____

A resolution requesting that the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee recommend, and that the CWPPRA Task Force approve, the selection of Barataria Bay Rim Marsh Creation and Caminada Headlands Back Barrier Marsh Creation Increment #2 for Project Priority List No. 25 (PPL-25) Phase 1 funding (Council District 2).

WHEREAS, the evaluation results for the PPL 25 candidate projects will be presented at the December 10, 2015 CWPPRA Technical Committee meeting; and

WHEREAS, the Technical Committee will vote and recommend projects for PPL 25 Phase 1 selection; and

WHEREAS, the Task Force will consider the Technical Committee's recommendations and approve up to four (4) projects for Phase I funding when it meets on January 14, 2016; and

WHEREAS, Jefferson Parish is located in CWPPRA Region 2, Barataria Basin, which has the highest land loss rate in Louisiana; and

WHEREAS, PPL 25 candidate projects Barataria Bay Rim Marsh Creation and Caminada Headlands Back Barrier Marsh Creation Increment #2 are located in Region 2, Barataria Basin; and

WHEREAS, Barataria Bay Rim Marsh Creation would create approximately 251 acres of marsh and nourish approximately 266 acres of marsh (517 acres total) to restore the marsh rim of Barataria Bay in the vicinity of Mud Lake in Jefferson Parish, LA; and

WHEREAS, Caminada Headlands Back Barrier Marsh Creation Increment # 2 would use material dredged from the Gulf of Mexico to create 246 acres of back barrier intertidal marsh and nourish 198 across of emergent marsh (444 acres total) to protect wetlands and infrastructure to the north and west, including Elmer's Island and LA Highway 1 in Jefferson Parish, LA;

WHEREAS, the projects will provide synergy with other projects in the Barataria Basin and enhance coastal protection to Jefferson Parish.

NOW, THEREFORE, BE IT RESOLVED by the Jefferson Parish Council, the governing authority of said Parish:

SECTION 1. The Council does hereby request that the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee recommend, and that the CWPPRA Task Force approve the selection of Barataria Bay Rim Marsh Creation and Caminada Headlands Back Barrier Marsh Creation Increment #2 for Project Priority List No. 25 (PPL-25) Phase 1 funding..

SECTION 2. That a copy of this resolution be sent to the U.S. Army Corps of Engineers District Commander, Colonel Richard L. Hansen who serves as Chairman of the CWPPRA Task Force and the other five members of the CWPPRA Task Force, including Mr. Chip Kline, Governor's Executive Assistant for Coastal Activities and Chairman of the Louisiana Coastal Protection and Restoration Authority.

SECTION 3. That the Chairman of the Jefferson Parish Council, or in his absence, the Vice-Chairman, be and is hereby authorized, empowered, and directed to execute any and all documents necessary to give full force and effect to this resolution.

The foregoing resolution having been submitted to a vote, the vote thereon was as follows:

YEAS: 7 **NAYS: None** **ABSENT: None**

This resolution was declared to be adopted on this the **____ day of _____, 2015.**

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

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	Construct Start Date	Fully-Funded Phase 1 Cost	Fully-Funded Phase II Cost	Total Fully Funded Cost Est.	Net Benefit Acres	Total Cost per Acre
EPA	BA-34-2	10	Hydro Restoration & Planting Des Allemands Swamp	Dec 2016	$2,362,687	$5,524,017	$7,886,704	NA	NA
NMFS	TV-63	21	Cole's Bayou Marsh Restoration	Sep 2016	$3,136,806	$22,498,834	$25,635,640	340	$75,399
NRCS	CS-49	18	Cameron-Creole Freshwater Introduction	Mar 2016	$1,614,405	$25,543,842	$27,158,247	242	$112,224
NMFS	ME-18	10	Rockefeller Gulf Shoreline Stabilization	Mar 2017	$2,408,478	$31,922,045	$34,330,523	256	$134,104

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2015

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
10	ME-18	Rockefeller Gulf Shoreline Stabilization	2	2	3	2	2	2	6	13
21	TV-63	Cole's Bayou Marsh Creation	3	1		3	1	3	5	11
10	BA-34-2	Hydro Restoration & Planting Des Allemands Swamp		3	2	1		1	4	7
18	CS-49	Cameron-Creole Freshwater Introduction	1		1		3		3	5

NOTES:

- Projects are sorted by: (1) Agency Support or "Number of Yes Votes" and (2) "Sum of Weighted Score"
- The "Number of Yes Votes" and the Sum of the Total Point Score will be used by the Technical Committee to furmulate a recommendation to the Task Force within available funding limits.

RUN MACRO "sort" TO AUTOMATICALLY COMPLETE STEPS

STEP 1: Information from "VOTE" sheet is automatically copied into "SORT-Final Vote".

STEP 2: Sort columns A..P, descending, first by "No. of Yes Votes" (Column J) and second by "Sum of Point Score" (Column K).

STEP 3: Once projects are sorted, add in formula to add funding requests cumulatively (Column M)

10-Dec-15

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2015

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
10	BA-34-2	Hydro Restoration & Planting Des Allemands Swamp							0	0
21	TV-63	Cole's Bayou Marsh Creation	3						0	0
18	CS-49	Cameron-Creole Freshwater Introduction	1						0	0
10	ME-18	Rockefeller Gulf Shoreline Stabilization	2						0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	0	0	0	0	0	0		

The following voting process will be used to rank all projects under consideration for construction approval/Phase II Authorization:

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

Mark Wright
10 Dec 15

10-Dec-15

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2015

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
10	BA-34-2	Hydro Restoration & Planting Des Allemands Swamp		3					0	0
21	TV-63	Cole's Bayou Marsh Creation		1					0	0
18	CS-49	Cameron-Creole Freshwater Introduction							0	0
10	ME-18	Rockefeller Gulf Shoreline Stabilization		2					0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	0	0	0	0	0	0		

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10/15

Dan Cole

10-Dec-15

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2015

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
10	BA-34-2	Hydro Restoration & Planting Des Allemands Swamp			2				0	0
21	TV-63	Cole's Bayou Marsh Creation							0	0
18	CS-49	Cameron-Creole Freshwater Introduction			1				0	0
10	ME-18	Rockefeller Gulf Shoreline Stabilization			3				0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	0	0	0	0	0	0		

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10-Dec-15

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2015

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
10	BA-34-2	Hydro Restoration & Planting Des Allemands Swamp				1			0	0
21	TV-63	Cole's Bayou Marsh Creation				3			0	0
18	CS-49	Cameron-Creole Freshwater Introduction							0	0
10	ME-18	Rockefeller Gulf Shoreline Stabilization				2			0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	0	0	0	0	0	0		

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W. Bill

10-Dec-15

CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2015

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
10	BA-34-2	Hydro Restoration & Planting Des Allemands Swamp							0	0
21	TV-63	Cole's Bayou Marsh Creation					1		0	0
18	CS-49	Cameron-Creole Freshwater Introduction					3		0	0
10	ME-18	Rockefeller Gulf Shoreline Stabilization					2		0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	0	0	0	0	0	0		

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CWPPRA Technical Committee Ranking for Phase II Approval, Dec 2015

PPL	Project No.	Project	COE	EPA	FWS	NMFS	NRCS	STATE	No. of Agency Votes	Sum of Weighted Score
10	BA-34-2	Hydro Restoration & Planting Des Allemands Swamp						1	0	0
21	TV-63	Cole's Bayou Marsh Creation						3	0	0
18	CS-49	Cameron-Creole Freshwater Introduction							0	0
10	ME-18	Rockefeller Gulf Shoreline Stabilization						2	0	0
		No. of votes:	0	0	0	0	0	0		
		Sum of Votes:	0	0	0	0	0	0		

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Evaluation Matrix for January 2016 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	Average Annual Cost (AAC)	Cost Effectiveness (AAC/AAHU)	Cost Effectiveness (Cost/Net Acre)
Hydro Restoration & Planting Des Allemand Swamp (BA-34-2, PPL 10)	2	St. James	2,394	530	NA	$2,857,761	$7,886,704	$2,362,687	$5,524,017	$471,280	$889	NA
Cole's Bayou Marsh Restoration (TV-63, PPL 21)	3	Vermilion	3,840	157	340	$21,032,685	$25,635,640	$3,136,806	$22,498,834	$1,760,840	$11,216	$75,399
Cameron-Creole Freshwater Introduction (CS-49, PPL 18)	4	Cameron	22,510	468	242	$21,109,905	$27,158,247	$1,614,405	$25,543,842	$1,778,392	$3,800	$112,224
Rockefeller Gulf Shoreline Stabilization (ME-18, PPL 10)	4	Cameron	450	79	256	$30,928,838	$34,330,523	$2,408,478	$31,922,045	$2,405,397	$30,448	$134,104

* 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 12/1/15

Hydrologic Restoration and Vegetative Planting in the Des Allemands Swamp (BA-34-2)

EPA

PPL 10

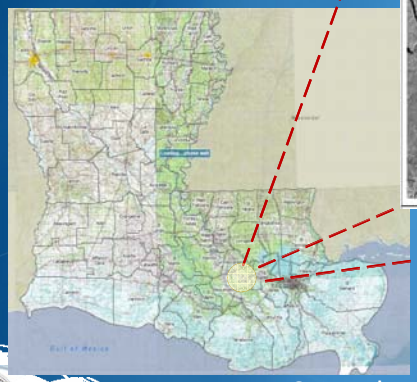
Hydrologic Restoration and Vegetative Plantings in Lac des Allemands Swamp (BA-34-2)

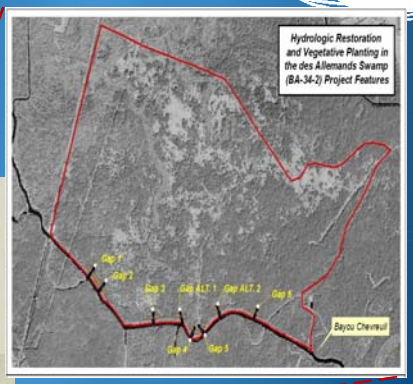
Phase II Request
Tech Committee Meeting, December 10, 2015
Baton Rouge, Louisiana

Coastal Wetlands Planning, Protection and Restoration Act

Project Location

Region 2, Barataria Basin
St. James Parish
West of Lac Des Allemands





Coastal Wetlands Planning, Protection and Restoration Act

Project Timeline Overview

01/10/2001: Phase 1 Approved (PPL10)

06/13/2013: Change in Scope Approved

01/05/2014: Project Kickoff Meeting

07/23/2015: 30% Design Presentation

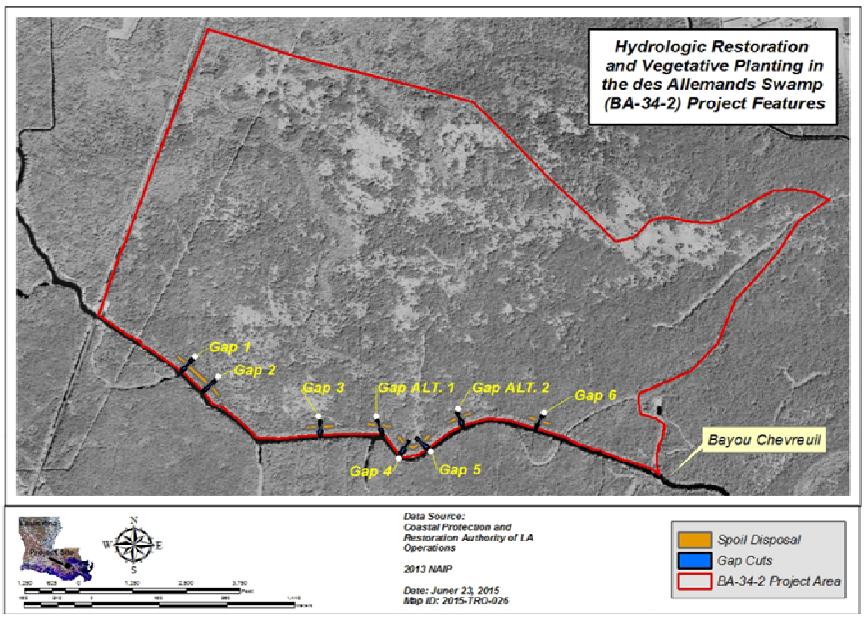
10/28/2015: 95% Design Presentation

Features

- Clear and excavate six gaps to restore hydrology and relieve impoundment
- Spoil placement landward of existing spoil bank
- Cypress and Tupelo Plantings

Coastal Wetlands Planning, Protection and Restoration Act

Features



Project Goals

- Relieve Impoundment
- Restore Natural Hydrology
- Improve Health of Trees
- Increase Canopy Cover
- Improve Regenerative Success
- Enhance Survival of Plantings

Coastal Wetlands Planning, Protection and Restoration Act

Project Benefits and Costs

Restored Hydrology and Reduced Impoundment

2395-acre area

1200 trees planted

529.96 AAHUs

Fully Funded Cost: $7,886,704

Phase II request: $2,575,861

Coastal Wetlands Planning, Protection and Restoration Act

Why Should We Fund This Project Now?

- Low Cost for High Benefit
- Under $2.6 Million for Construction
- Full Support from Parish & Community
- Beneficial Use of Spoil on Site

Coastal Wetlands Planning, Protection and Restoration Act

Questions?

Barbara Aldridge, CWPPRA Team
US Environmental Protection Agency
Water Division, Ecosystems Protection Branch, 6WQ-EC
(214) 665-2712 office, (214) 310-6217 Work Cell

Greg Mattson II and Garvin Pittman
LA Coastal Protection and Restoration Authority
CPRA Engineering Division
(225) 342-4496 (office)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

NOV 20 2015

Mr. Mark Wingate
Deputy District Engineer for Project Management
U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Wingate:

The U.S. Environmental Protection Agency (EPA) and Louisiana's Coastal Protection and Restoration Authority (CPRA), hereby request construction funding for the Hydrologic Restoration and Vegetative Plantings in Lac Des Allemands Swamp (BA-0034-2). This project was authorized for Phase 1 on January 10, 2001 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures Manual (SOP).

Enclosed please find the information required for the Phase II construction funding request and approval pursuant to Appendix C of the SOP (Revision 24). If you have any questions or need additional information about this project, please contact Ms. Barbara J. Aldridge of my staff at (214) 665-2712 or email: aldridge.barbara@epa.gov.

Sincerely yours,

Karen McCormick
Chief
Marine, Coastal and Analysis Section

Enclosures

cc: Mr. Darryl Clark, USFWS
Mr. Britt Paul, NRCS
Mr. Bren Haas, CPRA
Mr. Richard Hartman, NMFS
Mr. Adrian Chavarria, EPA
Ms. Kodi Guillory, CPRA
Mr. Kevin Roy, USFWS
Mr. John Jurgensen, NRCS
Mr. Stuart Brown, CPRA
Ms. Cece Linder, NMFS
Mr. Brad Inman, USACE
Mr. Garvin Pittman, CPRA (Contractor)

Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp, BA 0034-2

Information for Phase II Funding Request

December 10, 2015

I. Phase I Project Description: The original (Phase 0) goal of this project included two small siphons to divert water from the Mississippi River, gapping spoil banks, installing culverts and planting cypress and tupelo seedlings. However, after hydrologic modeling and more detailed engineering/design and cost estimation, it was determined that the siphon would cost far more than originally anticipated for the benefits it would provide. For that reason, the CWPPRA Task Force approved the project sponsors' request to re-scope the project to eliminate the siphon feature, and to focus on the remaining project features. The original Phase 0 fact sheet and map are included in Enclosure I. The following is a summary of the original Fully Funded Cost estimate:

Phase 1 Fully Funded Cost Estimate	
E&D	$1,825,350
Land Rights	$129,000
Federal S&A	$179,955
State S&A	$179,955
Corps Admin	$665
Monitoring	$47,762
Total Phase 1 Cost	**$2,362,687**

Phase 2 Fully Funded Cost Estimate	
Federal S&A	$188,988
State S&A	$188,988
Corps Admin	$1,399
S&I	$253,663
Contingency	$528,615
Construction	$2,114,459
Total Phase 2 Cost	**$3,276,113**
Long Term O&MR	$2,624,931
Total Fully Funded Cost Estimate	**$8,263,731**

II. Overview of Phase I Tasks, Process and Issues: CPRA contracted with FTN Associates and C&C Inc. for Engineering and Design (E&D) tasks. Phase I tasks included:

- Monitoring water and precipitation levels in the swamp and adjacent bayou from August 2004 to April 2005 with three continuous water level recorders and a rain gauge to evaluate existing hydrological conditions.

- Hydrodynamic modeling of three scenarios to inform analysis of design.
- Topographic, magnetometer, and tree count surveys of potential gap locations
- Bathymetric and magnetometer survey of Bayou Chevreuil centerline
- The project management team from EPA, CPRA, and the contractors have met regularly to develop all of the project design requirements.
- Detailed field investigations over the proposed project area, engineering, design, and permitting efforts completed to the 95% design level as required by the CWPPRA Standard Operating Procedures, Revision 24.
- The 30% E&D review meeting was held on July 23, 2015. All comments based on the 30% report have been addressed and incorporated in the 95% design report.
- The 95% E&D review meeting was held on October 28, 2015.
- The project is scheduled to seek Phase II construction funding in December 2015.

The river reintroduction/diversion feature in the original design was eliminated from the original design and the project was re-scoped because this feature was not cost efficient. Planned culverts were removed from the design as St. James Parish installed eight culverts under the board road in 2013 with Parish CIAP funds. The Task Force approved the request for the formal change in scope in June 2013.

The Draft EA is complete and ready for publication. The EPA expects a finding of no significant impact to be issued shortly. In June and July of 2015, Goodwin & Associates conducted a Phase I cultural resources investigation and survey relative to the proposed BA 34-2 project. No archeological sites or historic standing structures were identified within the proposed project area during fieldwork. The proposed project will not affect any known cultural resources. The SHPO concurred with the no findings in a letter dated September 2, 2015, to CPRA. The concurrence letter and the final cultural resources report are included in Appendix G of the 95% E&D report.

III. Description of Phase II Candidate Project: The primary goals and strategies of this project are: restore the natural hydrology, relieving impoundment of the cypress-tupelo forest to mirror the water levels in Bayou Chevreuil; increase the productivity, survivorship, and improve the function of the cypress-tupelo forest; increase the canopy cover of the cypress-tupelo forest by the end of the twenty-year project life; increase regenerative success of both canopy and midstory species; and enhance the survival rate of planted seedlings.

Specific goals of the project are: clear and excavate surveyed gaps/spoil bank areas, remove trees, place removed soil, plant cypress and tupelo seedlings with tree protectors. Marsh buggies, a dozer, a backhoe, and barge-mounted bucket dredge will be utilized for construction.

Phase 1 Fully Funded Cost Estimate	
E&D	$1,825,350
Land Rights	$129,000
Federal S&A	$179,955
State S&A	$179,955
Corps Admin	$665
Monitoring	$47,762
Total Phase 1 Cost	**$2,362,687**

Phase 2 Fully Funded Cost Estimate	
Federal S&A	$253,500
State S&A	$253,500
Corps Admin	$1,345
S&I	$308,775
Contingency	$351,748
Construction	$1,406,992
Total Phase 2 Cost	**$2,575,861**
Long Term O&MR	$2,948,156
Total Fully Funded Cost Estimate	**$7,886,704**

IV. Checklist of Phase II Requirements:

A. The primary goals and strategies of this project are: restore the natural hydrology, relieving impoundment of the cypress-tupelo forest to mirror the water levels in Bayou Chevreuil; increase the productivity, survivorship, and improve the function of the cypress-tupelo forest; increase the canopy cover of the cypress-tupelo forest by the end of the twenty-year project life; increase regenerative success of both canopy and midstory species; and enhance the survival rate of planted seedlings.

Specific goals of the project are: clear and excavate surveyed gaps/spoil bank areas, remove trees, place removed soil, plant cypress and tupelo seedlings with tree protectors. Marsh buggies, a dozer, backhoe, and barge-mounted bucket dredge will be utilized in construction.

B. A cooperative agreement between EPA Region 6 and CPRA was executed on September 13, 2012 and was amended on January 7, 2014. The agreement remains in full force and effect.

C. The CPRA Land Rights Section sees no hindrance to obtaining land rights for the project. To date, all responses from landowners have been positive and in support of the project. CPRA Land Rights Section will initiate the agreement process with landowners following Phase II approval. A 303(e) request was sent to the USACE on October 7, 2015 and included: A copy of the CPRA's Temporary Easement, Servitude and Right-of-Way Agreement, (with map and exhibit) which will be used to acquire the necessary remaining land rights for the project. The team anticipates that the remainder of the land rights will be finalized once Phase II approval and funding are obtained. Enclosure VI.

D. A favorable 30% design review was held on July 23, 2015, in Baton Rouge. Attendees included representatives from state and federal CWPPRA agencies and other interested parties. All comments and questions were addressed in the 95% design report. In an email dated September 2, 2015, EPA and CPRA informed the Technical Committee and P&E of the results of the 30% E&D and our intent to move forward with this project. The email included responses to the 30% design comments which were also included in the 95% design documents. The 30% review comments and responses are included in Enclosure III.

E. A favorable 95% design review was held on October 28, 2015, in Baton Rouge. Attendees included representatives from state and federal CWPPRA agencies and other interested parties. All attendee comments and questions were addressed. Draft project plans and specifications were included in the 95% documents. The 95% review comments and responses as well as the 95% concurrence letter from CPRA are included in Enclosure IV.

F. The Draft NEPA documentation has been completed and a "Finding of No Significant Impact" is expected shortly. The draft Environmental Assessment is included as Enclosure V.

G. An Ecological Review was not required by CPRA for this project.

H. Application for public notices for permits: CPRA has prepared a Joint Permit Application and will submit it with supporting documentation to the USACE upon Phase II funding approval.

I. A hazardous, toxic and radiological waste assessment was not required for this project. See the NEPA documentation for more detail.

J. The EPA submitted a 303(e) approval request with the required documentation to the USACE in a letter dated October 7, 2015, per the requirements of the CWPPRA SOP. Copies of that information was included in the 95% E&D documents. The USACE acknowledged by way of letter dated November 6, 2015, that the USACE 303(e) application review process had been initiated. Enclosure VI.

K. In a letter dated August 31, 2015, the NRCS confirmed there is no potential for overgrazing. A copy of the overgrazing letter was included in the 303(e) request documentation. Enclosure VII.

L. The project has a revised fully funded cost estimate of $7,886,704 reviewed and approved by the economic work group. The Request for Phase II Approval spreadsheet has been completed. See Enclosure VIII.

M. A revised WVA was completed by CPRA and reviewed by the Environmental Work Group. The revised project is projected to have 529.96 Average Annual Habitat Units (AAHUs) at the end of its 20-year life. The WVA Project Information Sheet (PIS) is included in Enclosure IX.

Enclosure I – Original Fact Sheet and Map

June2004
Cost figures as of: April 2013

Mississippi River Reintroduction Into Northwestern Barataria Basin (BA-34)

Project Status

Approved Date: 2001 **Project Area:** 5,134 acres
Approved Funds: $2.36 M **Total Est. Cost:** $14.7 M
Net Benefit After 20 Years: 941 acres
Status: Engineering and Design
Project Type: Freshwater Diversion
PPL #: 10

Location

The project is located northwest of Lac des Allemands with the prospective siphon location identified at Pikes Peak or Dredge Boat Canal in St. James Parish, Louisiana.

Problems

The Lac des Allemands River Basin Initiative identified the following specific problems within the Lac des Allemands Watershed: drainage impairments; water quality impairments; loss of marsh; and decline of cypress forest. Many years of study by Louisiana State University researchers in these swamps have demonstrated that, because of impoundment, subsidence, and inadequate accretion of sediments and organic matter, some areas are already highly stressed and converting to open water, floating aquatic plants, and fresh marsh. Also, the Coast 2050 report suggests that other areas of the swamps throughout the basin will likely convert to open water or floating marsh by the year 2050. These problems are caused by the loss of river water along with the associated sediment and nutrients necessary for swamp health. The loss of river water can be attributed to the leveeing of the Mississippi River. Impoundment caused by roads, drainage canals, and spoil banks is also a major cause of degradation of these swamps.

An impounded cypress and tupelo swamp in the upper Barataria Basin in summer during extreme drought is shown here. The open, park-like nature of the landscape is due to the long-term effects of impoundment along with the recent drought. The impoundment has had a negative effect on the growth of young trees and the drought has led to the luxuriant growth of herbaceous plants in what is normally a deepwater impounded swamp.

Restoration Strategy

The proposed restoration strategy includes installing two small siphons (averaging 400 cubic feet per second) to divert water from the Mississippi River; gapping spoil banks on Bayou Chevreuil; gapping spoil banks along the borrow canal beside Louisiana Highway 20; installing culverts under Louisiana Highway 20; improving drainage in impounded swamps; and planting cypress and tupelo seedlings in highly degraded swamp areas. This diversion from the Mississippi River will bring fresh water, fine-grained sediments, and nutrients into the upper des Allemands swamps. It will help maintain swamp elevation, improve swamp water quality, and increase productivity and regrowth of young trees as older trees die. The spoil bank gaps, culverts, and other hydrologic improvements for the impounded swamps will help ensure the proper distribution of river water, sediments, and nutrients into the swamps, and reverse the impoundment effects that are such serious impediments to swamp health. Planting cypress and tupelo seedlings will help reestablish the swamp forest in highly stressed areas. Over time, project benefits should include reduced swamp submergence, increased swamp productivity, and improved water quality. This strategy will, in turn, provide wildlife, fishery, and storm buffering benefits.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved Phase 1 funding at their January 10, 2001 meeting.

A cooperative agreement between the U.S. Environmental Protection Agency and Louisiana Department of Natural Resources has been negotiated. Engineering and design tasks have begun.

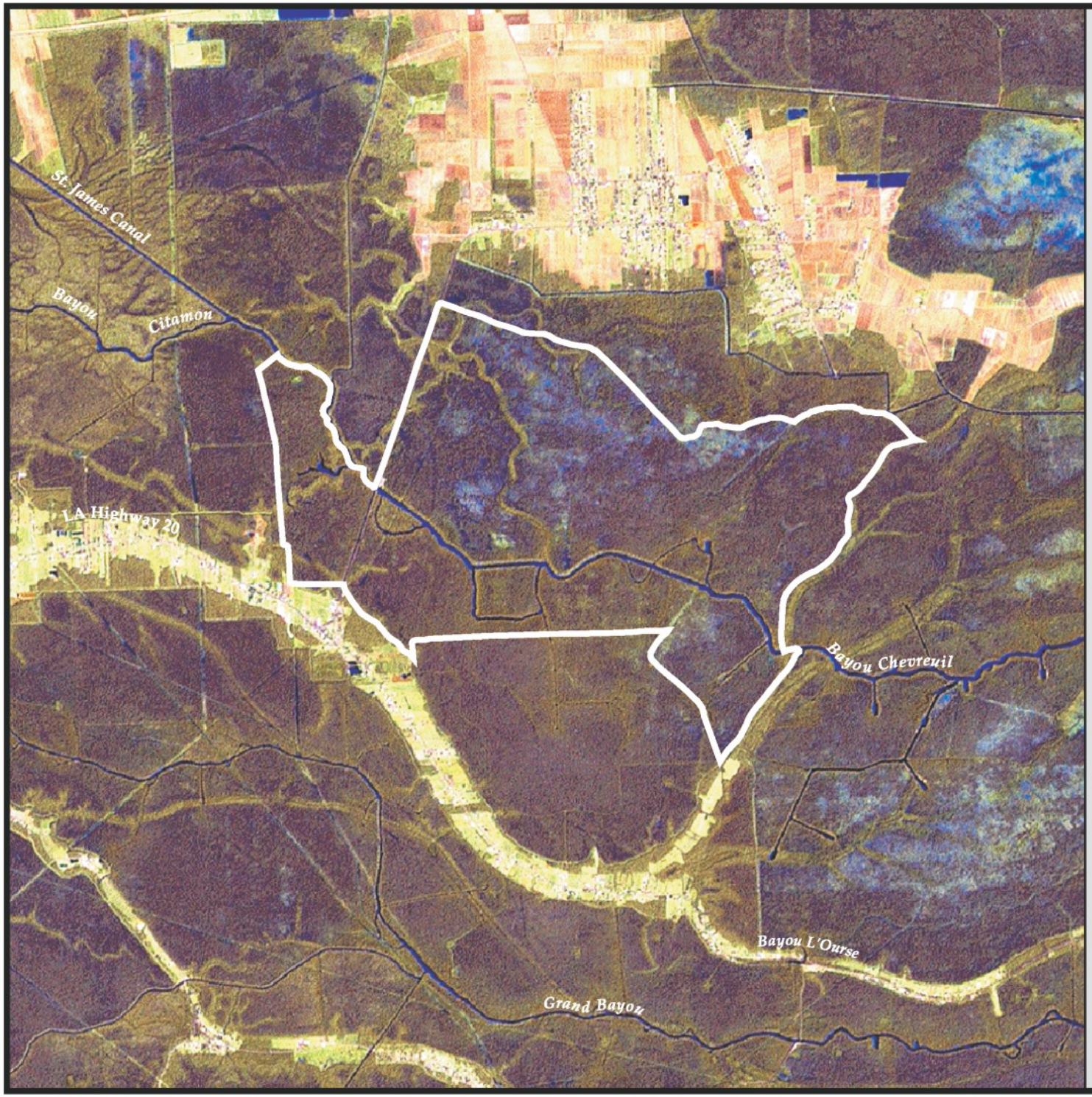
This project is on Priority Project List 10.

* The project will enhance an area of swamp (5,134 acres) that would be substantially degraded without the project.

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



Mississippi River Reintroduction Into Northwestern Barataria Basin (BA-34)

Project Boundary

N

1 0 1 Miles

1 0 1 Kilometers

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

Background Imagery:
LDEQ Landsat Enhanced Thematic Mapper
Pan Sharpened Mosaic Image

Map Date: April 29, 2004
Map ID: USGS-NWRC 2003-11-251
Data accurate as of: April 29, 2004

Enclosure II – Revised Fact Sheet and Map

rev. September 2015
Cost figures as of: aaaDatePadPad

Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp (BA-34-2)

Project Status

Approved Date: 2001 **Project Area:** 2,395 acres
Approved Funds: 2.3 M **Total Est. Cost:** .2 M
Net Benefit After 20 Years: N/A
Status: Engineering and Design
Project Type: Hydrologic Restoration/ Vegetative Planting
PPL #: 10

Location

The project is located west of Lac des Allemands in St. James Parish, Louisiana, south of the town of South Vacherie, bordered on the south by Bayou Chevreuil, and on the east by LA Highway 20.

Problems

The Lac des Allemands River Basin Initiative identified the following specific problems within the Lac des Allemands Watershed: drainage impairments; water quality impairments; loss of marsh; and decline of cypress forest. Many years of study by Louisiana State University researchers in these swamps have demonstrated that, because of impoundment, subsidence, and inadequate accretion of sediments and organic matter, some areas are already highly stressed and converting to open water, floating aquatic plants, and fresh marsh. Also, the Coast 2050 report suggests that other areas of the swamps throughout the basin will likely convert to open water or floating marsh by the year 2050. These problems are caused by the loss of river water along with the associated sediment and nutrients necessary for swamp health. The loss of river water can be attributed to the leveeing of the Mississippi River. Impoundment caused by roads, drainage canals, and spoil banks is also a major cause of degradation of these swamps.

Restoration Strategy

The original proposed restoration strategy included installing two small siphons (averaging 400 cubic feet per second) to divert water from the Mississippi River; gapping spoil banks on Bayou Chevreuil; gapping spoil banks along the borrow canal beside Louisiana Highway 20; installing culverts under Louisiana Highway 20; improving drainage in impounded swamps; and planting cypress and tupelo seedlings in highly degraded swamp areas. The proposed diversion from the Mississippi River was to bring fresh water, fine-grained sediments, and nutrients into the upper des Allemands swamps, which would have helped maintain swamp elevation, improve swamp water quality, and increase productivity and regrowth of young trees as older trees die. However, after hydrologic modeling and more detailed engineering/design and cost estimation, it was determined that the siphon would cost far more than originally anticipated. For that reason, the CWPPRA Task Force approved the project sponsors' request to rescope the project to eliminate the siphon feature, and to focus on the remaining project features (see below).

An impounded cypress and tupelo swamp in the upper Barataria Basin in summer during extreme drought is shown here. The open, park-like nature of the landscape is due to the long-term effects of impoundment along with the recent drought. The impoundment has had a negative effect on the growth of young trees and the drought has led to the luxuriant growth of herbaceous plants in what is normally a deepwater impounded swamp.

The spoil bank gaps, culverts, and other hydrologic improvements for the impounded swamps should reverse the impoundment effects that are such serious impediments to swamp health. Planting cypress seedlings will help reestablish the swamp forest in highly stressed areas. Over time, project benefits should include reduced swamp submergence and increased swamp productivity. This strategy will, in turn, provide wildlife, fishery, and storm buffering benefits.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved Phase 1 funding at their January 10, 2001 meeting.

There is a cooperative agreement between the U.S. Environmental Protection Agency and Louisiana Coastal Protection and Restoration Authority. Engineering & design tasks have been underway for a number of years. Hydrologic modeling, additional development of project features, improved cost estimates, and consultation with an expert swamp ecologist led the project team to conclude that the siphon feature was not sufficiently cost-effective to continue pursuing. In June 2013, the CWPPRA Task Force approved a request to change the scope of the project to eliminate the siphon feature and focus on the remaining original hydrologic restoration and vegetative planting project features.

An on-site kick-off meeting was held in January 2014. Project sponsors have completed hydrologic modeling and recommended a preferred alternative for construction that will best achieve project goals. Topographic, magnetometer, and soil placement survey work is complete. The project team has completed preliminary engineering and design, environmental compliance, real estate negotiations, operation & maintenance and monitoring planning, and a preliminary cultural resources investigation, all to the 30% design level as required by the CWPPRA Standard Operating Procedures, Revision 24. The 30% preliminary design report is complete and the 30% design review meeting was held July 23, 2015. The WVA is being revised using the Swamp Community Model and variables and will be reviewed by the CWPPRA Environmental Work Group. The 95% design review meeting is planned for October 2015.

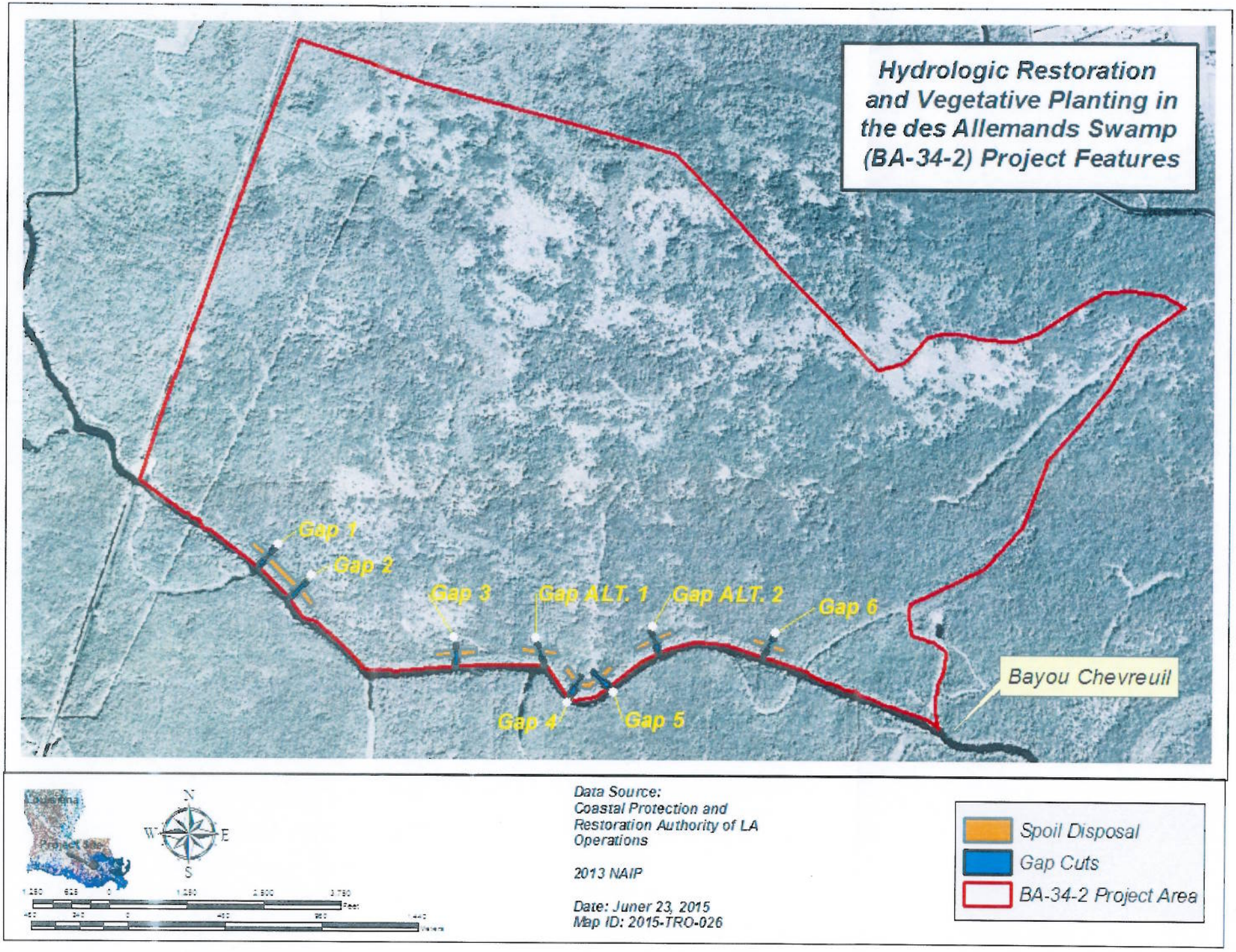
This project is on Priority Project List 10.

* The project will enhance an area of swamp (2,395 acres) that would be substantially degraded without the project.

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


Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp (BA-34-2) Project Features
Gap 1
Gap 2
Gap 3
Gap ALT. 1
Gap ALT. 2
Gap 6
Gap 4
Gap 5
Bayou Chevreuil
Louisiana
Project Site
N
W
E
S
Feet
Meters
Data Source:
Coastal Protection and Restoration Authority of LA Operations
2013 NAIP
Date: Juner 23, 2015
Map ID: 2015-TRO-026
Spoil Disposal
Gap Cuts
BA-34-2 Project Area

Enclosure III – 30% Design Comments and Responses

State of Louisiana

BOBBY JINDAL
GOVERNOR

August 20, 2015

Mr. William K. Honker
Director
U.S. Environmental Protection Agency, Region 6
Water Quality Division
1445 Ross Ave, Suite 1200
Dallas, Texas 75202

Re: 30% Design Review for Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp (BA-34-2)
Statement of Local Sponsor Concurrence

Dear Mr. Honker:

The 30% design review meeting was held on July 23, 2015 for the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp (BA-34-2) 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 contact me if I may be of any assistance.

Sincerely,

Andrew D. Beall
Project Management Administrator

cc: Barbara Aldridge, U.S. Environmental Protection Agency
Adrian Chavarria, U.S. Environmental Protection Agency
Stuart Brown, Coastal Protection and Restoration Authority
Garvin Pittman, Coastal Protection and Restoration Authority - Contractor

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NRCS - Comments

1) Not all tabs in Cost Estimate pertain to the BA-34-2 Project

   Response: – Thank you for catching this. We will correct accordingly.

2) The claim for $300,000 for surveying costs is not broken down to show reasoning for the cost. I understand that the project is potentially more difficult to survey due to canopy issues (although after clearing, intermediate and final surveys could be easier and less expensive), but there is no explanation to show how they came to the conclusion of this price. If possible, can they show the breakdown of the expenses already incurred to show how they concluded this cost?

   Response: The estimated cost was based on surveys performed during engineering and design. We acknowledge the cost may be lower after clearing of the canopy in the cut and disposal area, but there is no guarantee of this. The project team decided to use a conservative figure to ensure that adequate funds were included in the estimate. If the cost is lower than this figure, those funds may be available to be returned to CWPPRA.

3) There is approximately $700,000 for the removal of 1500 trees. This number seems a bit high, and again, I do not clearly see where this estimate or values came from. I also believe that some of the line items may overlap another for the removal.

   Response: The project team does not have adequate amount of data to estimate the cost of tree removal with a high degree of precision. The project team decided to use a conservative figure to ensure that adequate funds were included in the estimate. If the cost is lower than this figure, those funds may be available to be returned to CWPPRA. Through the remainder of the design efforts, we will search for additional data to see if we can refine this estimate, but in the absence of such, we prefer to remain conservative.

4) If we are paying for clearing and grubbing, tree removal, tree disposal, and mob/demob, I would think that $6.25 per cy would be a little high in price to move dirt that doesn't appear it would be handled more than once under the chosen alternative.

   Response: The quantity of soil removed is much smaller than a typical project that the design team is accustomed to. A small project will have a higher than normal cost per yard, so the project team decided to use a conservative figure. If the cost is lower than this figure, those funds may be available to be returned to CWPPRA. Through the remainder of the design efforts, we will search for additional data to see if we can refine this estimate, but in the absence of such, we prefer to remain conservative.

5) Finally, I know that it was stated it is up to the contractor to have a plan for the removal of trees (sold/mulched on site/etc), but I would like to see move investigation and specific pricing for the different scenarios. CPRA claimed at the meeting that powerlines and other utilities could make it difficult to unload offsite spoil material at the landing, so I see a potential for much bigger issues trying to unload marketable size timber which I believe is planned. Also, is there a placement area for the stumps to be removed or are they to be hauled offsite as well?

   Response: It has been our intent to leave such details to the firms providing the construction bids, but it is not our intent to have the contractor use the St. James Parish boat launch near the site for tree removal or even for the import of construction equipment. The potential vendors would have to find larger facilities elsewhere in Barataria Bay for such functions. We investigated the use of the St. James boat launch for spoil handling because of its proximity to the potential St. James Parish property where it could be disposed of without fee. The project team will continue to research the cost of various options, but will ultimately leave that to the contractors' discretion. It is our belief that stumps in the spoil disposal will be left in place and covered over and that stumps in the gap areas will be ground in place and spread along with the spoil.

<u>USFW – Comments</u>

1) Consider planting more species than just bald cypress on the spoil disposal areas. Some of the habitat impacted is bottomland hardwoods and there are many flood-tolerant species that could be planted in addition to bald cypress. Consider planting tupelo gum, green ash, over-cup oak, or bitter pecan.

   Response: Nyssa aquatic will be added to the planting plan. The spoil bank has a lot of red maple and green ash on it. As these species regenerate faster than cypress and tupelo, they will very likely populate the area within a few growing seasons.

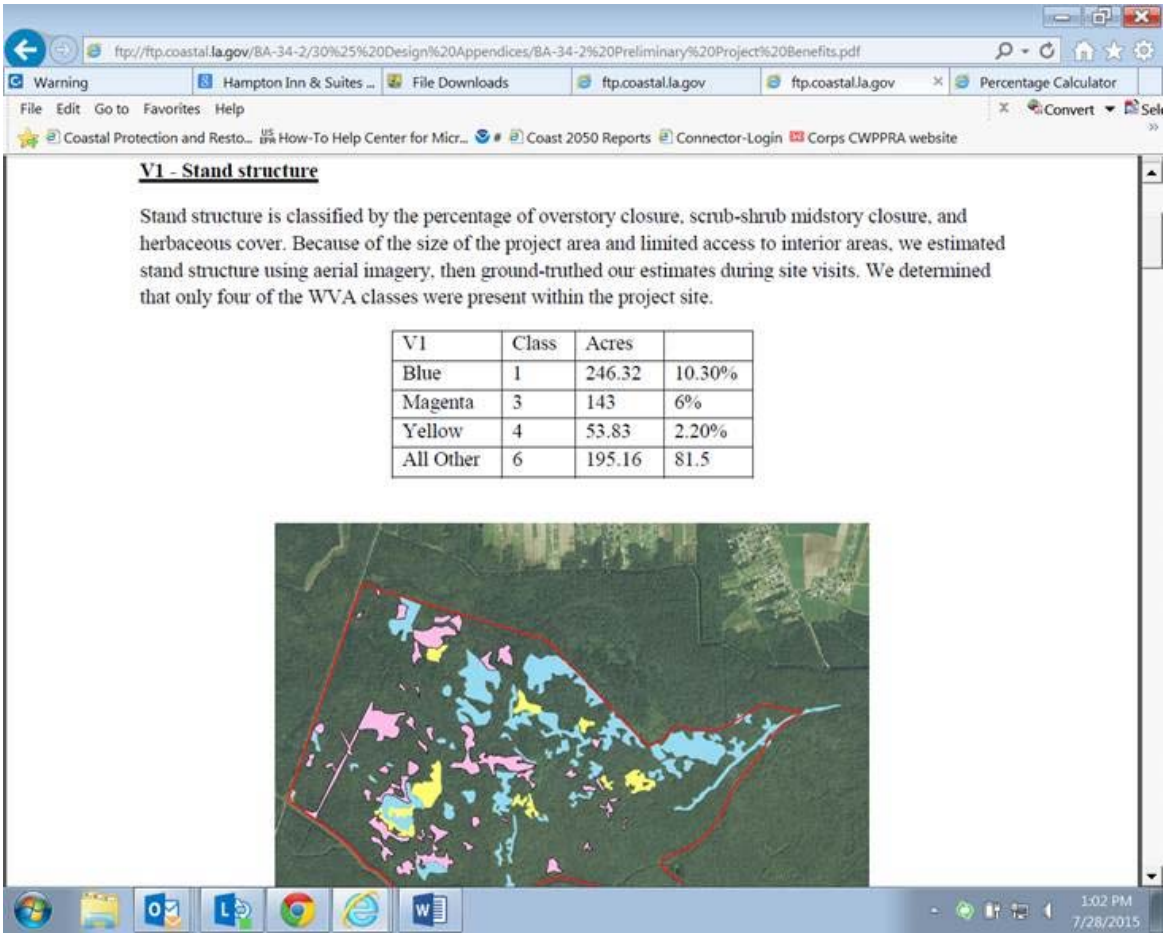
2) Tubex tree protectors should be included with all seedlings/saplings planted to guard against nutria herbivory.

   Response: Tubex tree protectors will be included with all seedlings/saplings.

3) Chinese tallow tree control (i.e., chemical treatment) is recommended as an O&M item for all areas planted.

   Response: Chinese tallow tree control will be added as an O&M item.

4) On page 1 of the Preliminary Project Benefits Discussion, V1 table, the acreages don't seem to match up with the percentages. The "All Other" category has only a few acres but a very high percentage.



V1 - Stand structure

Stand structure is classified by the percentage of overstory closure, scrub-shrub midstory closure, and herbaceous cover. Because of the size of the project area and limited access to interior areas, we estimated stand structure using aerial imagery, then ground-truthed our estimates during site visits. We determined that only four of the WVA classes were present within the project site.

V1	Class	Acres	
Blue	1	246.32	10.30%
Magenta	3	143	6%
Yellow	4	53.83	2.20%
All Other	6	195.16	81.5

Response: Those numbers are incorrect. At this time polygons have been moved and numbers have been updated.

Class	*Acres*	*Percent*
1	*267*	*0.111575*
3	*193*	*0.080652*
4	*96*	*0.040117*
6	*1837*	*0.767656*

Enclosure IV – 95% Design Comments and Responses and 95% Concurrence Letter

State of Louisiana

BOBBY JINDAL
GOVERNOR

November 2, 2015

Ms. Karen McCormick, Chief
United States Environmental Protection Agency, Region 6
Marine & Coastal Section – Water Quality Protection Division
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Re: 95% Design Review- Concurrence for Phase II Funding Request
Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp (BA-34-2)
Statement of Local Sponsor Concurrence

Dear Ms. McCormick:

The 95% Design Review meeting for the Hydrologic Restoration and Vegetative Plantings in the Lac Des Allemands Swamp (BA-34-2) project was held on October 28, 2015. 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, concur to proceed with requesting Phase II construction funding for the project. In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee.

Sincerely,

Andrew D. Beall
Project Management Administrator
Project Management Division

ADB: BKB

cc: Barbara J Aldridge, U.S. Environmental Protection Agency
Stuart Brown, Coastal Protection and Restoration Authority
Garvin Pittman, Coastal Protection and Restoration Authority - Contractor

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11.9.15 - 95% Design Review Comments and Responses

NFMS Comments

1) Suggest consolidating tree removal bid items into one bid item for contracting. Detail breakout can be on a separate page to explain justification.

These items were left broken out because of the nature of the work. There is the potential for some of the trees to be sold for profit, ground in place, or used otherwise.

2) #REF! errors are appearing on the Project Cost Estimate Tab.

PHASE I

Federal Costs

Engineering and Design:

Engineering	$118,845
Geotechnical Investigation	#REF!
Hydrologic Modeling	
Data Collection (incl ….)	#REF!
Cultural Resources	$10,000

These errors are being generated because the Geotechnical Tab has been eliminated because no geotechnical investigation was conducted. These costs have been adjusted to match the Fully Funded Cost Estimate.

O&M Tab:

3) Annual Inspection $11,898 deviates from the standard $9600 at the top of the page. Is there a detail breakout for this number?
Page 6 of the attached O&M Budget Data Sheet shows the state's cost breakdown for annual inspections.

4) How are you coming up with 5000 CY for gap maintenance?
The estimated cubic yards is close to 15,000 for gap construction. We are assuming 1/3 of total original construction quantity for each maintenance event. The actual cubic yard for each maintenance event is unknown at this time.

5) Are you double counting the annual inspection costs further down in the sheet for all the TY years across the page? Are these not the same $11,898 you have at the top for annual inspection?
I do not understand this question. I do not see where we are double counting the annual inspection cost in the "Project O&M" tab.

6) Engineering survey costs are not carried out in the TY years.
The surveying line under "State's costs" is intentionally blank. Engineering surveys for O&M events are included under "State Costs- Misc" for Engineering and Design.

7) Some of the values inserted into the Monitoring data collection are out to 10 decimal places or more.
The values have been revised.

USACE Comments:

1) Note on bid sheet references "Costs based off of BA-25 cost estimate, bids came in double of engineer's cost so rates have been cut in half". I assume "rates" talked about are the production rate and not the unit cost rate? Bid tab for BA-25b is all LS cost items - can you provide insight into the connection between the line item costs of BA-25b and the unit costs of BA-34-2. USACE has done what might appear to be similar work in the Atchafalaya Basin and we have been blown away by very high bids almost every time.
Rates does refer to unit cost rate. The rates from BA-25b were broken down based upon acreages. These rates were then projected to our project. The bids for that particular project were much lower. Other projects were examined as well as a check. No other costs were at our disposal, but we feel the rates are appropriate.

2) Suggest more quantifiable unit of measure on work item list than "Load". How is that measured? For future Ph2 cost updating it is a good idea to have a unit of measure that can be related to similar projects. Work line items at this point do not have to be the same as the actual bid items used when advertised and constructed.
Has been addressed in attached spreadsheet. “Load” was changed to “CY”.

3) "Project Cost Estimate" tab in template has some "REF!" errors that need to be corrected.
See response to comment #2 above

4) For Phase 2 submittal, Phase 1 costs on "Project Cost Estimate" tab should be hard keyed in and should match the current authorized/approved FF costs.
The Phase 1 costs have been updated to match the Fully Funded cost estimate.

O&M Tab:
5) On "Project O&M" tab, rows 32-36, reports costs seems to increase over time based on spreadsheet they came from. Is it being escalated? All costs should be in today's dollars.
Yes, a 2.6% inflation factor was used.

6) Don’t know that affected costs are actually being used anywhere, but should revise State OH rate to 3.12 on "O&M" tab cell D8. Also current State OH rate should be used in any of the monitoring and O&M calcs that are calculated on separate spreadsheets and transferred to the CWPPRA template.
Not sure about this question. Overhead rate is included in the $11,898.

7) No State or Federal Admin/S&A/E&D costs have been included for most of the years there are monitoring efforts? Is this intended? During the PPL planning process it has been noted that there are typically costs associated with monitoring efforts. We recently added a PPL planning line item for "Monitoring Management" $6,240 to all years where a monitoring activity occurs?
State Admin & S&A cost are included in Contract Administration cost. No Federal or E&D cost were included.

8) All O&M costs listed in the file "O&M Cost Estimate.pdf" (titled Attachment VI) do not appear to be captured in the template cost estimate spreadsheet?
Attachment VI does not include the $30,000 for project close-out in year 20. This is an error on my part and the spreadsheet is correct. Attachment VI will be revised to reflect project close-out costs in year 20.

9) Could not find basis of State Costs for E&D ($55,200) and Admin ($46,700) on "Project O&M" tab years 5, 10, 15.

Costs are associated with each maintenance event at years 5, 10, & 15. Below is a breakdown of those costs outlined in Attachment VI:

Total Engineering & Construction Oversight (Year 10): $55,200

Engineering & Design:	$ 13,200
(8.21% x $160,750)(ASCE log Scale)	
Surveying:	$ 10,800
(3 days @ 3,600/day)	
Resident inspection:	$ 24,000
(300 hrs @ $80/hour)	
Construction Administration:	$ 7,200
(60 hrs. @ $120/hr.)	
Total E&D/Construction Oversight:	$ 55,200

CPRA Administration (Direct Expenses) – Year 10: $14,960

2026 Maintenance Event:

Engineer 4 – 150 hrs. @ $60/hr. =	$ 9,000
Engineer 6 – 60 hrs. @ $73/hr. =	$ 4,380
Engineer 7 – 20 hrs. @ $79/hr. =	$ 1,580
	$ 14,960

CPRA Administration (Indirect Expenses) – Year 10: $31,740
(Direct and Indirect Expenses = $46,700)

2026 Maintenance Event:

Engineer 4 – 150 hrs. @ $127.30/hr. =	$ 19,095
Engineer 6 – 60 hrs. @ $154.88/hr. =	$ 9,293
Engineer 7 – 20 hrs @ $167.61/hr. =	$ 3,352
	$ 31,740

EPA Administration – Year 10: **$ 10,000**
($10,000)

10) Could not find basis of Federal Costs for Admin ($10,000) on "Project O&M" tab years 5, 10, 15.

See previous response.

November 10, 2015

BA-34-2 Hydrologic Restoration and
Vegetative Planting in the des Allemands Swamp
95% Design Report
NOAA Fisheries Comments

Section 1.0
Is the project infeasible altogether, or just within the funding constraints of CWPPRA? Please elaborate on such a definitive statement.

A sentence has been added to further explain.

Section 2.0
Did Royal Engineers & Consultants produce a report of the investigation? If so, it would be helpful to have that referenced and attached as an appendix.

The report has been added.

Section 4.2
Did C&C produce a survey report? If so, a reference to the report (and drawings) as an appendix would be helpful.

The report has been added.

Section 5.1
Did FTN produce a report of the modeling effort? If so, a reference to the report as an appendix would be helpful.

The report has been added.

Section 5.2.1 Title
Is "average marsh elevation" the correct terminology to use?

The word “marsh” was changed to “swamp”.

Section 5.2.2
Is "minimum marsh elevation" the correct terminology?

The word “marsh” was changed to “swamp”.

Section 5.2.3
Is "average marsh elevation" the correct terminology?

The word “marsh” was changed to “swamp”.

November 10, 2015

Section 6.4

There is no discussion of why Alternative two doesn't need geotechnical analysis.

A few sentences were added to the report explaining why geotech would not be needed.

Section 7.2

"If monitoring data indicates, additional trees may be planted during the O&M phase." What would monitoring data have to "indicate"? Possibly reword this sentence or elaborate a bit.

The sentence has been re-worded.

General

A section describing the required maintenance and monitoring would be informative.

This is included in a separate report, which is included in the design package and is available on the ftp site.

Because goetechnical analyses are very common on the designs of CWPPRA projects, and this project did not do a geotech investigation, perhaps including a section/paragraph on why it was not needed.

The comments has been considered, however we did not feel this was necessary. A few sentences have been added within the report explain why no geotech was conducted.

There is no discussion or modeling data to support the need for the potential two alternate gaps.

There is no "need" and these gaps were not modeled. However, there would be increased flow to the swamp in the areas surround the two additional gaps.

Enclosure V – Draft Environmental Assessment

DRAFT
ENVIRONMENTAL ASSESSMENT
for the

HYDROLOGIC RESTORATION AND VEGETATIVE PLANTING IN THE LAC DES ALLEMANDS SWAMP

CWPPRA PROJECT BA-34-2

St. James Parish, Louisiana

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

November 20, 2015

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Acronyms

AOI	Area of Interest
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CPRA	Coastal Protection and Restoration Authority of Louisiana
CWA	Clean Water Act
CWPPRA	Coastal Wetlands Planning, Protection and Restoration Act
DBH	Diameter at Breast Height
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FR	Federal Register
GPS RTK	Global Positioning System Real Time Kinematic satellite navigation
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
MSL	Mean Sea Level
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
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
RM	River Mile
RSLR	Relative Sea Level Rise

SCPDC	South Central Planning and Development Commission
SHPO	State Historic Preservation Office
SI	Suitability Index
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

Part 1. Purpose and Need for Proposed Action

1.1 Introduction

Wetland loss is a well-documented and widespread problem throughout coastal Louisiana. The land area loss rate in Louisiana coastal areas was approximately 17 square miles per year from 1985 to 2010. Some 1,883 square miles were lost from 1932 to 2010 (Couvillion et al., 2011). The causes of wetland loss in Louisiana are varied and complex and include subsidence, erosion, sediment deprivation, saltwater intrusion, altered hydrology, and sea level rise (Turner and Cahoon 1987). The effects of natural processes like subsidence and storms have combined with human actions at large and small scales to produce a system on the verge of collapse (LCWCRTF, 1998).

Congress recognized the ongoing severe coastal wetland losses in Louisiana and the increasing impacts on resources when it passed the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) in 1990 (Public Law 101-646, Title III). CWPPRA established a process to identify, assess, design, and fund the construction of coastal wetland restoration projects. CWPPRA seeks to provide long-term conservation of coastal wetlands through the restoration, creation, protection, and enhancement of wetlands. On a yearly cycle, projects are selected from a list of projects ("priority project lists" or PPLs) to fund planning, engineering and design, and construction.

CWPPRA identified five federal agencies as Task Force members to participate in the program. These include the U.S. Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS) and the Natural Resource Conservation Service (NRCS). The other critical partner is the Coastal Protection and Restoration Authority of Louisiana (CPRA), which participates in CWPPRA project selection, planning, analysis, implementation and funding.

There are currently 151 active CWPPRA projects. One hundred and one projects have been completed, benefiting over 112,000 acres. Seventeen (17) projects are currently under active construction with 33 additional projects currently in the engineering and design phase of development, three of which were scheduled for construction in FY2014 (lacoast.gov).

The EPA is the federal sponsor for the Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp Project (BA-34-2) and is responsible for oversight of the project, in partnership with the Coastal Protection and Restoration Authority of Louisiana (CPRA).

The proposed project BA-34-2 was approved for construction on the Tenth Priority Project List of the CWPPRA. The Task Force approved Phase 1 funding in January 2001. Originally authorized as the "Mississippi River Reintroduction into Northwestern Barataria Basin (BA-34)," the project was approved for a scope change by the CWPPRA Task Force in June 2013. The scope change eliminated a planned siphon feature and the project was renamed

“Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp” (BA-34-2) (Project Fact Sheet at lacoast.gov). Project BA-34-2 is located within Region 2, Barataria Basin, in the Coast 2050 management unit, “Des Allemands,” St. James Parish. The project area is bordered on the south by Bayou Chevreuil and on the west by Highway LA 20 (Figure 1), near the town of Vacherie, Louisiana. Forest plant species composition, basal area, and vegetative productivity in the project area reflect a degraded cypress-tupelo swamp.

The CWPPRA Standard Operating Procedure (SOP) requires compliance with the National Environmental Policy Act (NEPA). A draft of the Environmental Assessment of the project is submitted with the approval package to the CWPPRA Technical Committee with the request for authorization of Phase II construction funding.

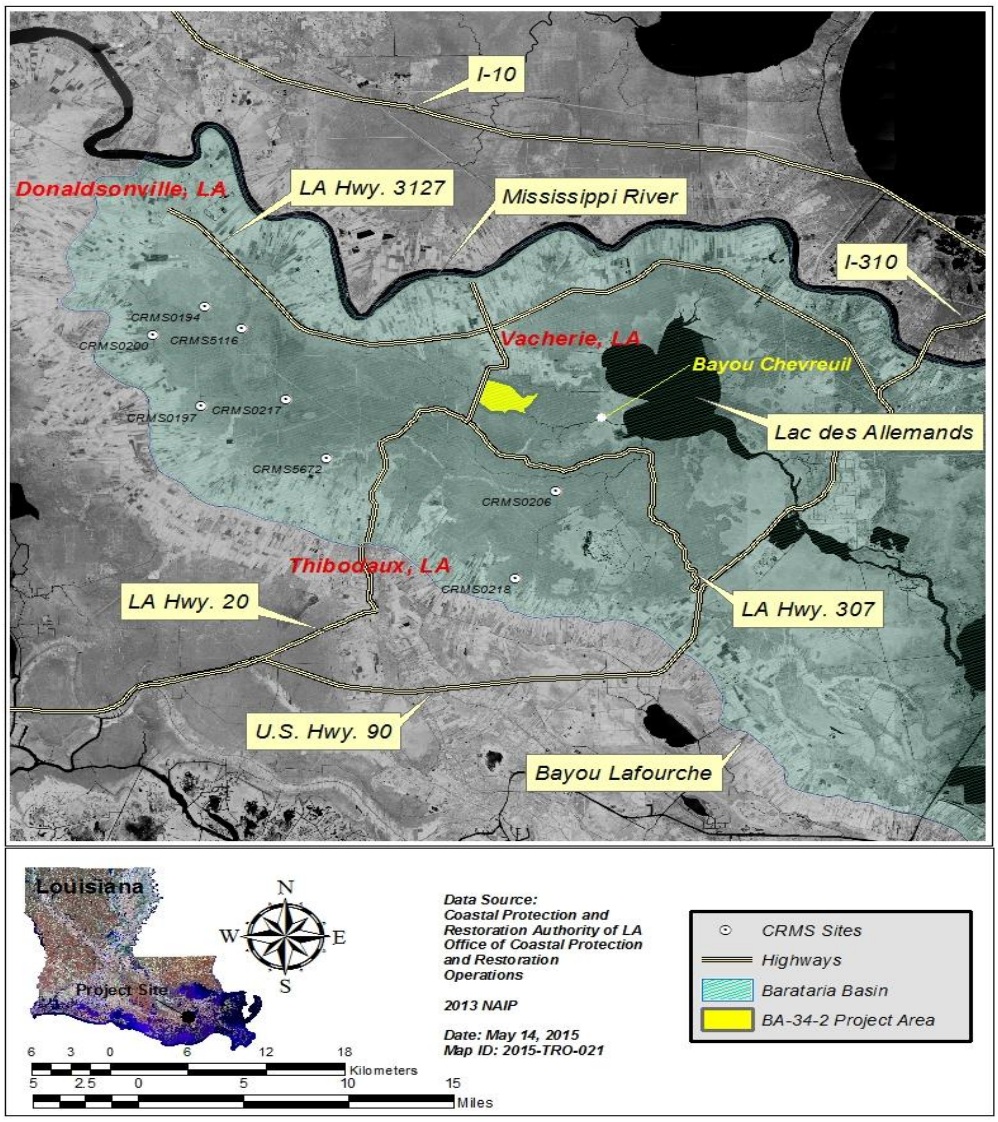

Figure 1. Location Map showing BA 34-2 project area.

1.2 Purpose of Proposed Action

The purpose of this project is to restore and maintain selected cypress-tupelo swamp tracts in the upper Barataria Basin, restore and maintain water quality in the swamp and in Bayou Chevreuil, in support of the coastal restoration objectives of CWPPRA. The project will enhance an area of swamp (2,395 acres with an expected 529.96 Average Annual Habitat Units (AAHUs) of benefit) that would be substantially degraded without the project. The project is expected to continue providing wetland benefits 30 to 40 years after construction. Benefits include reduced swamp submergence, increased regrowth of young trees, denser forests in currently stressed areas, increased swamp productivity, and improved water quality (EPA 2012).

Louisiana is experiencing a land loss crisis that has claimed 1,880 square miles of land since the 1930s. The 2012 Louisiana Master Plan (Master Plan) characterizes this crisis as "nothing short of a national emergency." The Master Plan estimates that expected annual damages from flooding by 2061 would be almost ten times greater than damages in 2012, from a coast-wide total of approximately $2.4 billion to a coast-wide total of $23.4 billion. (Louisiana's Comprehensive Master Plan for a Sustainable Coast, May 23, 2012). Without action to mitigate the factors causing degradation, coastal Louisiana will continue to experience loss of coastal wetland forest functions (SWG, 2005).

The Barataria Basin had a land area of 1,470 square miles in 1932. By 2010, the land area was 1,024, a loss of 455 square miles, or 30 percent over 78 years (Couvillion et al, 2011).

1.3 Problem: The Lac Des Allemands River Basin Initiative identified the following specific problems within the Lac des Allemands Watershed: 1) Drainage impairments; 2) Water quality impairments; 3) Loss of marsh; and 4) Decline of cypress forest. Many years of research in this basin by Louisiana State University and other researchers have demonstrated that the swamps throughout the basin will eventually change to open water, floating aquatic plants, or fresh marsh, due to the effects of subsidence and inadequate accretion of sediments and organic matter. Some areas are already highly stressed and converting to open water, floating aquatic plants, and fresh marsh due to the effects of impoundment, subsidence, and inadequate accretion of sediments and organic matter. The Coast 2050 Plan predicted that 60 percent of the swamps in the basin will change to open water or floating marsh by 2050. These problems are caused by the loss of river water, with its associated sediment and nutrients, due to the Mississippi River levee system. Impoundment caused by roads, drainage canals, and spoil banks is also a major cause of degradation (USDA, 2002).

Forest plant species composition, basal area and vegetative productivity in the project area reflect a degraded cypress-tupelo swamp. Degradation of the swamp forest is due to a combination of historical logging, hydrologic alteration, subsidence, and possibly nutria herbivory. Hydrologic alteration is due to a combination of the elimination of the connection of the swamp to the

Mississippi River, impoundment due to road construction, spoil bank placement, drainage canals, and an impoundment for crawfish aquaculture (EPA 2013).

The area defined as the Des Allemands mapping unit (Figure 2) in the *Coast 2050: Towards a Sustainable Coastal Louisiana* report has undergone rapid land loss rates in the past century. The mapping unit lost some 4,530 acres of the total 23,050 acres of land between 1932 and 1990, which represents approximately 20 percent of the mapping units in the land area. (LCWCRTF 1998).

Historic Land Loss - In 1932, this unit had 23,050 acres of marsh. From 1932 to 1956, approximately 590 acres of wetlands were lost. Most of this loss was due to shoreline erosion in the fresh marshes around Lac Des Allemands and altered hydrology as the Mississippi River levee has severed the flow of freshwater, sediment, and nutrients to the wetlands via natural distributaries and overbank flooding. Canal and levee construction also impeded the natural hydrology, causing impoundment of water which kills wetland vegetation and causes poor regeneration of cypress. The greatest wetland loss in this unit (3,020 acres) occurred from 1956 to 1983. An additional 920 acres of wetlands were lost from 1983 to 1990. The recent loss was caused mainly by wind erosion and altered hydrology. Also, herbivory, primarily by nutria, results in eat-outs of fresh marsh vegetation and poor plant regeneration.
The problems that have led to the wetland loss within the mapping unit are part of a larger problem throughout all of coastal Louisiana. Currently, Louisiana loses approximately 70 km^2 of wetlands per year. The Deltaic Plain accounts for approximately 51 km^2 of these losses (Barras et al. 2008).

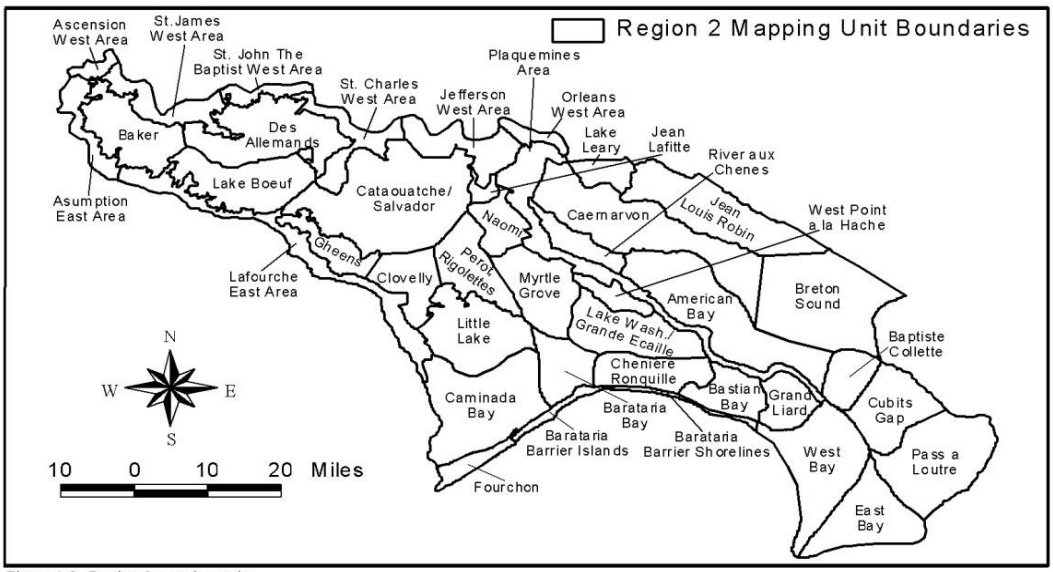

Figure 1-2. Region 2 mapping units.
Figure 2**.** Mapping Units inside CWPPRA Region 2 (LCWCRTF 1998).

Future Land Loss Projections – In 1990, this unit contained 18,520 acres of marsh and 44,560 acres of swamp. By 2050, approximately 6,730 acres of marsh are projected to be lost, primarily due to altered hydrology, wind erosion, herbivory, and subsidence. Over 30 percent of the 1990

marsh will be lost, and over 60 percent (26,740 acres) of the swamp is projected to become open water or floating marsh (LCWCRTF 1998, Appendix D of Coast 2050).

Beneficial Functions - Coastal wetland forests provide a wide range of functions that benefit the human environment and are of significant economic, ecological, cultural, and recreational value to residents of Louisiana and the United States. These beneficial functions include:
-wildlife habitat (including migratory songbirds, waterfowl, and threatened and endangered species;
-flood protection, water quality improvement (including nitrate removal), and storm protection;
-carbon storage and soil stabilization;
-economic benefits of fishing, crawfishing, hunting, timber production, and ecotourism (SWG, 2005).

1.4 Coordination and Consultation

Coordination has been maintained with each of the CWPPRA Task Force agencies, the Louisiana Department of Natural Resources (LDNR), and the Louisiana Coastal Protection and Restoration Authority (CPRA). Consultation has been conducted with the USFWS and Louisiana Department of Wildlife and Fisheries (LDWF), in accordance with the Endangered Species Act of 1973 and the Fish and Wildlife Coordination Act. The EA has been prepared in coordination with NMFS in determining categories of Essential Fish Habitat (EFH) and associated fisheries species within the project vicinity. Submittal of the EA is provided to initiate formal federal consultation requirements pertaining to EFH under the MSFCMA. Federal, State, Tribal and local agencies, as well as other interested stakeholders, will receive a copy of this EA. Consultation has also been conducted with the State Historic Preservation Office (SHPO) in accordance with the National Historic Preservation Act of 1966, and Archaeological and Historic Preservation Act of 1974. Consultation has been initiated with the tribes in regards to cultural resource findings. The final cultural resources investigation report has been shared with those tribes who have requested it.

Under the development of PPL 10, the public, parish representatives, and state and federal agencies, nominated projects across the nine identified hydrologic basins. Ten candidate projects were selected from the list of nominees proposed in the PPL 10 planning year. These PPL 10 candidate projects were evaluated to determine the long-term net wetlands benefits based on a 20-year project life. The candidate projects were also evaluated to determine conceptual project designs and cost estimates. Economic analyses were conducted to determine the total fully funded cost estimate for feasibility planning, construction, and 20 years of operations and maintenance. Cost-effectiveness was calculated for each project using the fully funded cost estimate and net wetland benefits over the 20-year project life. At the end of the PPL 10 development process in 2001, the Task Force authorized the original BA 34 proposed project. The re-scoped BA-34-2 project was approved by the Task Force in June 2013 (LCWCRTF

October 2013). The 30 percent Engineering and Design Review was held in Baton Rouge on July 23, 2015. A 95 percent Engineering and Design Review meeting was held by October 28, 2015. The project management team (PMT) will request approval for construction funding at the CWPPRA Task Force meeting in January 2016.

The PMT has coordinated and consulted with partners and stakeholders - SHPO, tribes, USFWS, LDWLF, USACE, St. James Parish, CPRA, and LDNR throughout the process.

Part 2. Proposed Action and Alternatives

The no-action alternative (Alternative 1) and the proposed action (Alternative 2) are evaluated here. Construction alternatives are designed with a 20-year life span as per the requirements of CWPPRA. The proposed project features and benefits will likely remain after the 20-year life span but detailed analyses beyond the 20-year life span are not completed as a part of this analysis.

There were several alternatives that the project team considered but did not evaluate in greater detail. An explanation of those considered but not evaluated alternatives is given in *Section 2.2, Alternatives Considered But Not Evaluated*.

A number of data-gathering tasks have informed the alternatives analysis. To evaluate the circulation potential in the swamp under various project alternatives, FTN Associates Ltd. developed and utilized a two-dimensional, finite element, hydrodynamic model to simulate movement of water in the Lac des Allemands Swamp (FTN Associates, Ltd., 2015). See Figure 3.

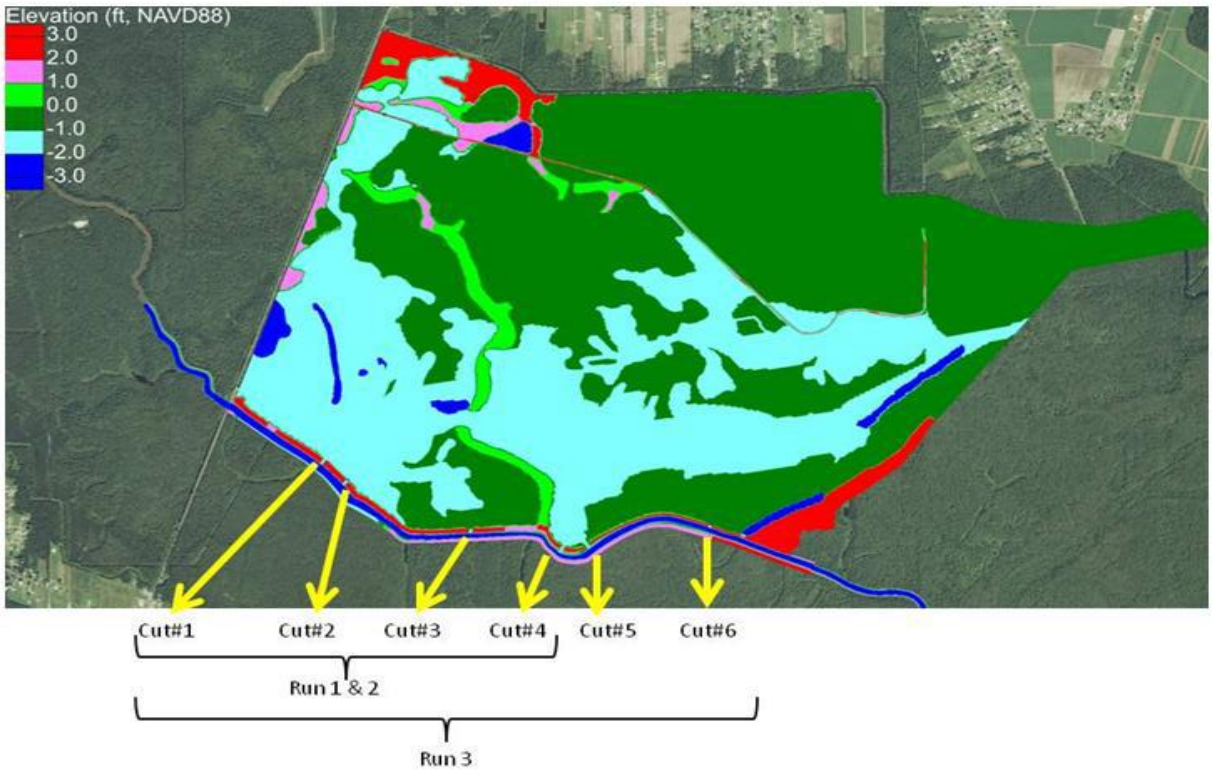

Figure 3. Three scenarios were modeled to show water movement (FTN 2015).

In March and April of 2015, C & C Technologies, Inc., a sub-contractor to Stantec Consultants, conducted detailed topographic, bathymetric, and magnetometer and tree count surveys of the proposed work area (11 gaps), as well as a bathymetry and magnetometer survey of the center line of Bayou Chevreuil. The magnetometer survey was conducted to locate any magnetic anomalies in the project area. (C & C Technologies Inc., 2015a).

A cultural resources survey and investigation was conducted to identify any possible cultural resource sites in the project area. No archeological sites or standing structures were identified within 1.6 km (1.0 mi) of the proposed des Allemands Swamp Project (Royal/RCG&A 2015).

Topographic data was collected for eleven potential gap locations along the northern spoil bank of Bayou Chevreuil. The gaps had five (5) 400 ft. long profiles with the center profile line positioned along the gap centerline and additional profiles positioned at 25 ft. spacing on either side of the centerline. Profiles extended 50 ft. beyond the existing levee into Bayou Chevreuil. Seven (7) 150 ft. long and perpendicular transects spaced at 50 ft. intervals started at the outer levee boundary and extended into the swamp were also taken. Survey transects are shown in Figure 4.

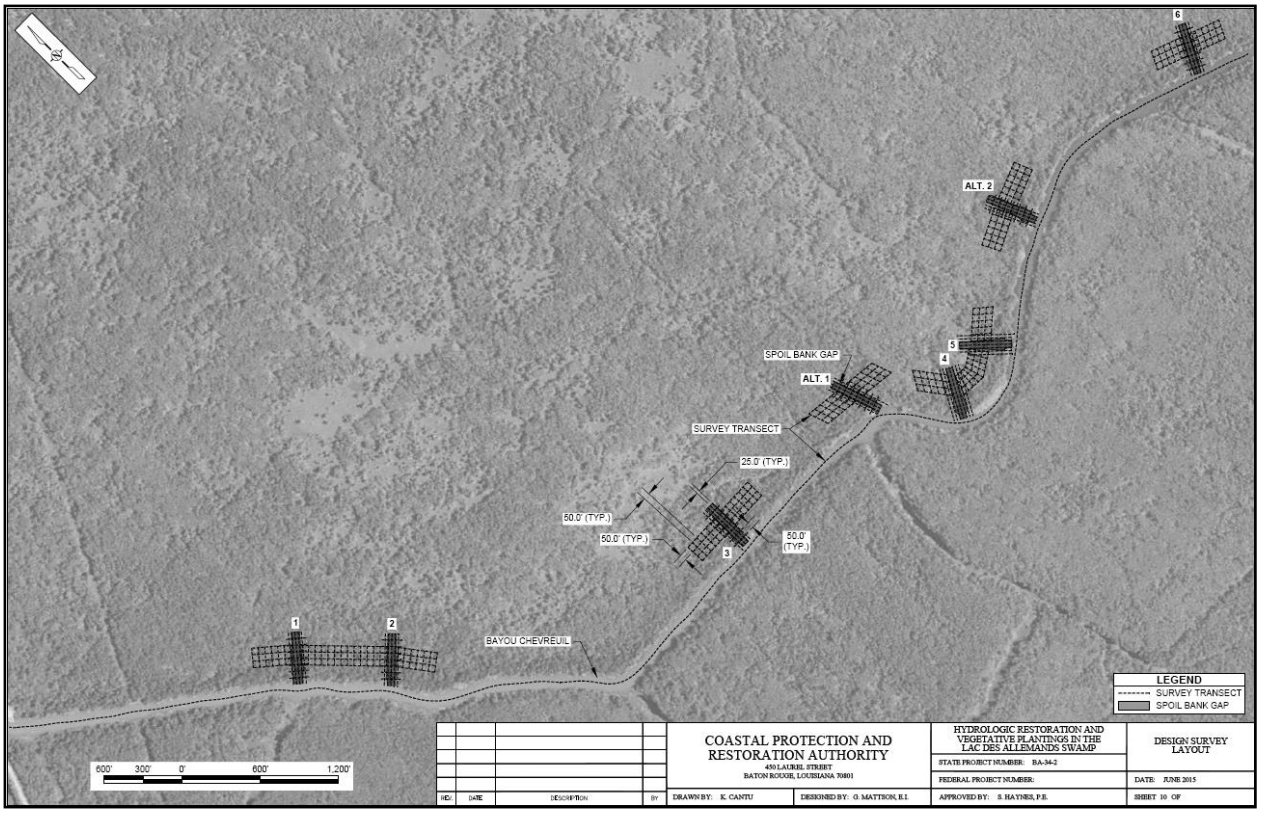

Figure 4. Design Survey Layout (C & C, 2015a).

The design survey was performed from March 2015 to July 2015 by C & C Technologies. All horizontal coordinates are referenced to Louisiana State Plane Coordinate System, North American Datum of 1983 (NAD 83). All elevations are referenced to North American Vertical Datum of 1988 (NAVD 88) GEOID12A. The surveyors verified the Horizontal and Vertical position of the Secondary Monument designated "BA 34 SM 02" which was used as the primary benchmark for the survey (C & C Technologies Inc., 2015a).

2.1 No-Action Alternative 1

Under a no-action alternative, the proposed project would not be constructed. There would be a continuation of baseline conditions in the proposed project area and land loss would be expected to continue, with associated losses of wetland functions and values. The project area would continue to be impounded. Forest plant species composition, basal area, and vegetative productivity in the project area would continue to degrade.

2.2 Alternatives Considered But Not Evaluated

Alternatives that were considered but were eliminated without detailed environmental evaluation are presented here.

Elimination of Siphon Features. The BA 34-2 project was originally funded by the CWPPRA program as the "Mississippi River Reintroduction into Northwestern Barataria Basin, BA 34."

The CWPPRA Task Force approved Phase I engineering and design in January of 2001. The original BA 34 project featured the installation of two siphons to divert water from the MR into the impounded swamp area (Lacoast.gov BA 34 Fact Sheet of June 2004). Modeling and preliminary design efforts conducted between 2001 and 2013 revealed that the planned siphon feature to reintroduce MR water into the project area would not be as efficient in terms of costs and benefits as envisioned (FTN 2011). The project was re-scoped to eliminate the siphon feature and was renamed "Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp Project, BA 34-2" (EPA 2013).

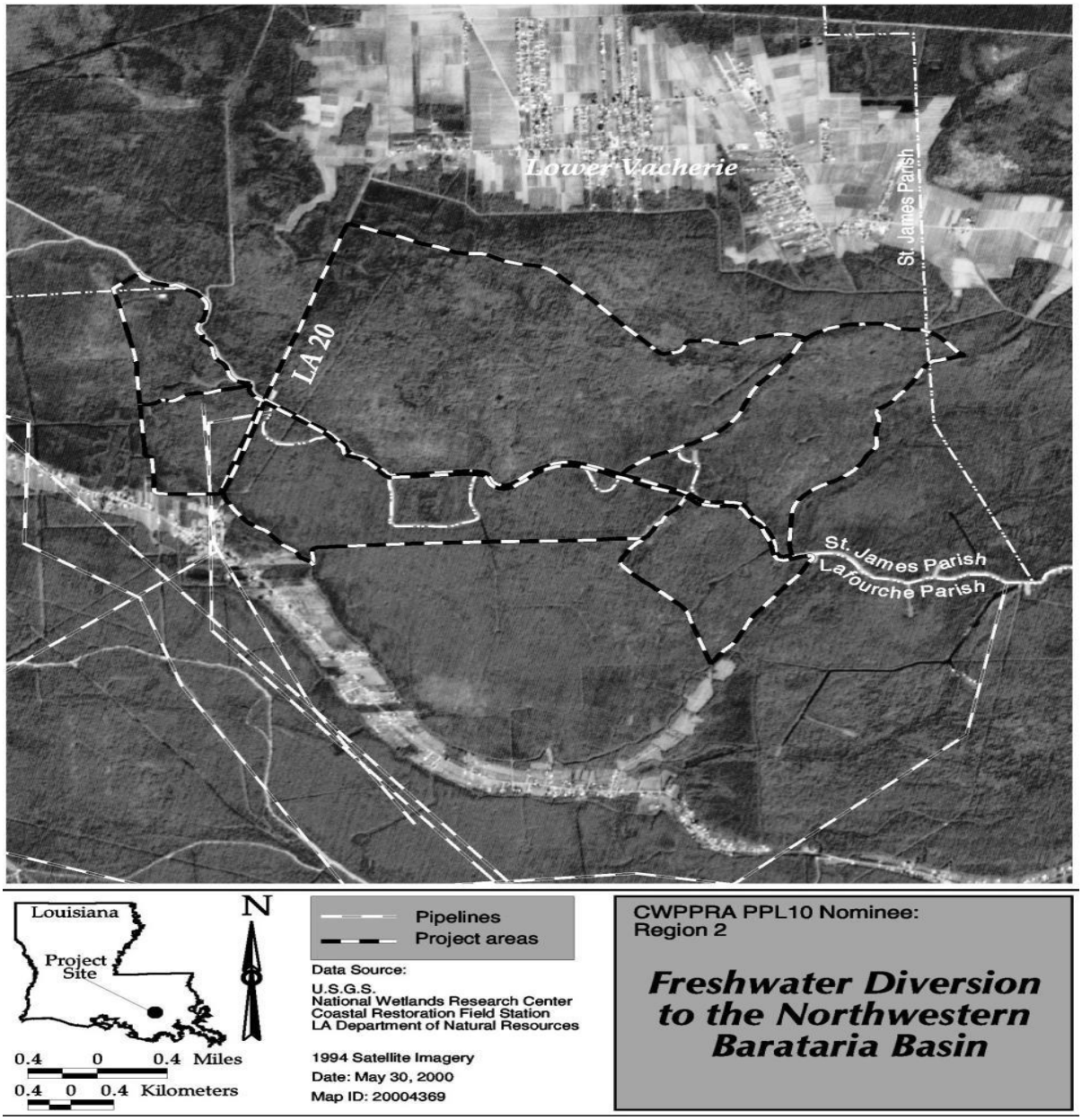

Figure 5. Original BA 34 project, showing the larger project area using a freshwater diversion.

Spoil Bank Cut Analysis. The model evaluated the effectiveness of three project alternatives or scenarios to construct cuts to facilitate the exchange of water between the swamp and Bayou Chevreuil. Of the three scenarios, run number 3 with six cuts at -1.0 ft. NAVD88 produced the greatest water exchange between the swamp and the Bayou and was recommended by the modeling team as the preferred alternative. Two alternate gaps were identified in addition to the initial six gaps, as a fallback in case the cultural resources survey revealed any sites to avoid. The primary and alternate gaps are shown in Figure 6, below. (FTN Associates, 2015).

Spoil Placement Alternatives. The project management team evaluated three soil disposal alternatives for placement: Alternative 1- Offsite Disposal; Alternative 2- Landward of Existing Spoil Bank; Alternative 3- Top of Existing Spoil Bank. Alternative 1 transports the spoil offsite as to reduce the amount of cypress and tupelo trees removed. Alternative 2 places the material landward of the existing spoil bank creating additional upland habitat. Alternative 3 places material atop the existing spoil bank bolstering the existing upland habitat.

Based on cost-benefit analysis and ease of construction, spoil placement alternatives 1 and 3 were eliminated. Alterative 2 is the recommended alternative for the spoil placement portion of the project, and is discussed further in 2.3.1 below (CPRA 2015b).

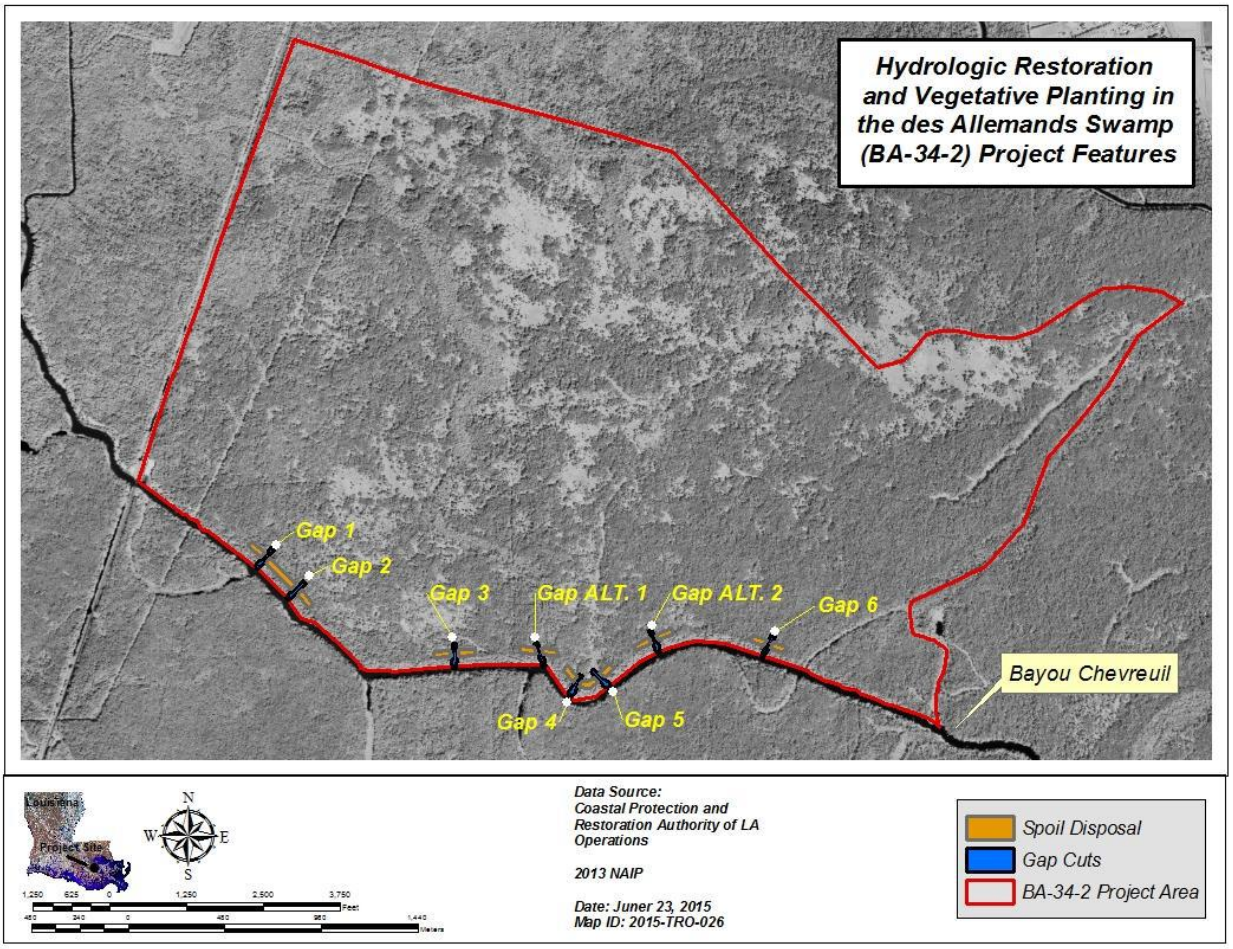

Figure 6. Boundary of Proposed Project Area showing project features.

2.3 Alternative 2 (Proposed Action)

Alternative 2, the proposed action, applies a hydrologic restoration strategy in the form of cuts to spoil banks to open up the impounded swamp. The proposed spoil bank cuts are expected to improve hydrologic circulation and improve swamp health (FTN 2015).

Since the primary goal is to increase water exchange between the swamp and Bayou Chevreuil, Scenario 3 (six (6) gap cuts at -1.0 ft. NAVD88), which produces the greatest exchange, is preferred. The modelers recommended this scenario as the preferred alternative of the three scenarios evaluated during modeling. Six (6) gap cuts induce circulation over a greater swamp area than the alternatives with four cuts (FTN, 2015). As noted above, two alternate gaps were identified in case the cultural resources survey revealed any sites to avoid (Figure 6).

The specifics of each component in this alternative are described below.

2.3.1 Hydrologic Restoration Design

The design of the gaps was determined from existing projects and from the hydrodynamic modeling that was conducted by FTN Associates, Ltd. The model was run for the three

scenarios as described above. Scenario 3, six (6) gaps with -1.0 ft. inverts NAVD 88 and bottom widths of 50 ft. provides the greatest benefit to the existing swamp. The side slopes are based on experience with existing projects with similar characteristics. A side slope of 1V:4H was used. The locations of the proposed gaps are shown in Figure 7 and a typical cross section is shown in Figure 8.

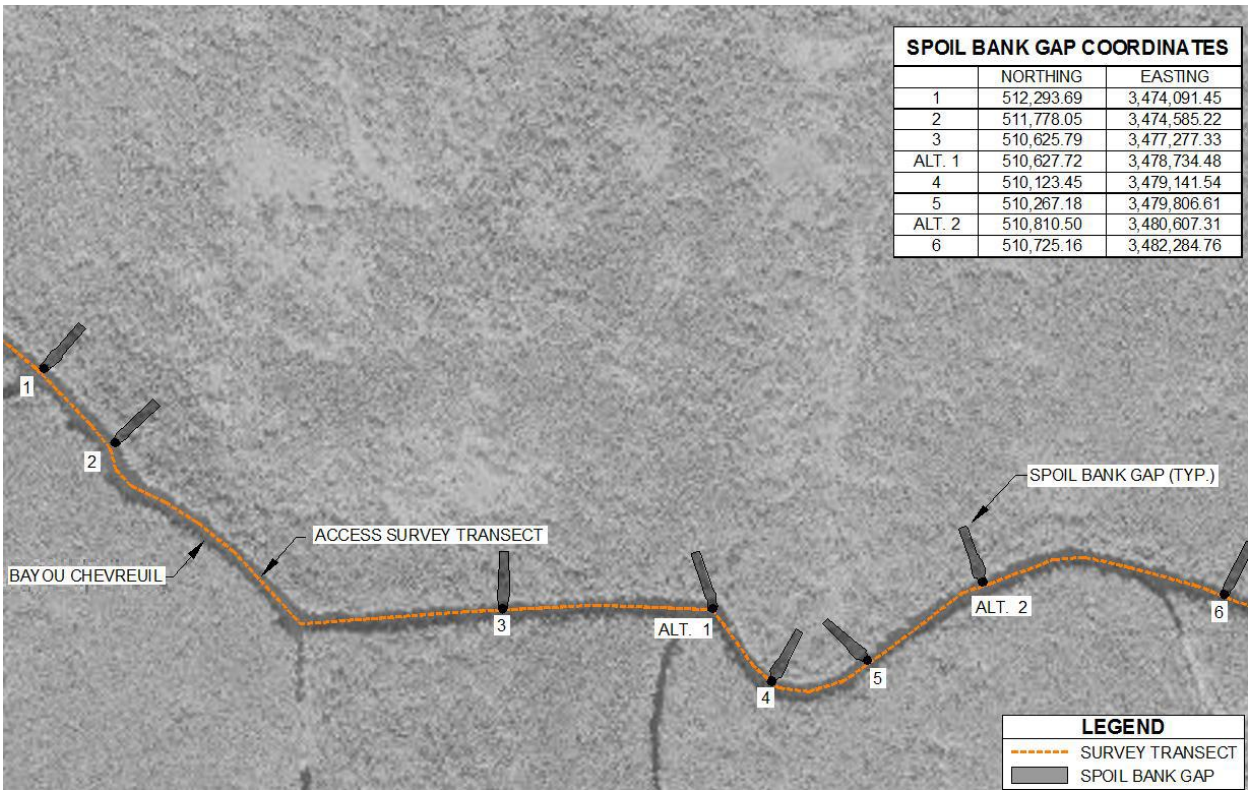

Figure 7. Locations of six (6) proposed gaps (from the 30% Design Report, CPRA, 2015)

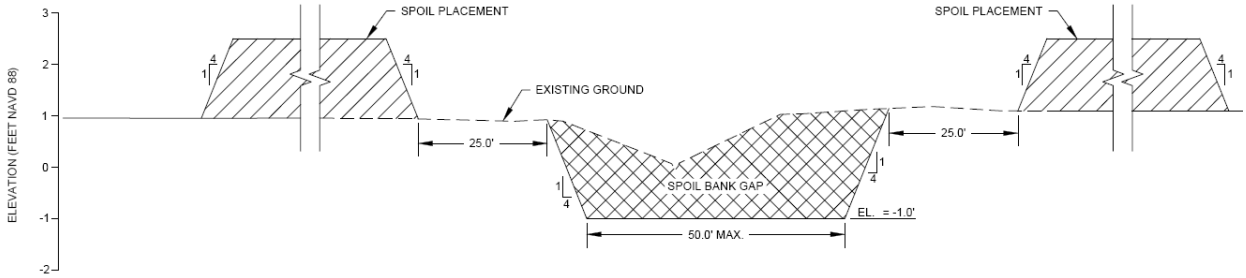

Figure 8. Typical cross-section of spoil bank gap (from the 30% Design Report).

Figure 9. Photo of gap looking towards Bayou Chevreuil taken during field work in March 2015.

Three alternatives were analyzed to determine where to place the spoil that is removed from the gaps. Based on cost-benefit analysis and ease of construction, the alternative chosen places spoil landward of the existing spoil bank to maximum elevation of +2.5 ft. NAVD 88. This alternative offsets spoil placement a minimum 150 ft. landward of the bayou and 25 ft. off the gap, and ensures that no material will slough off into the bayou or excavated gaps (CPRA 2015).

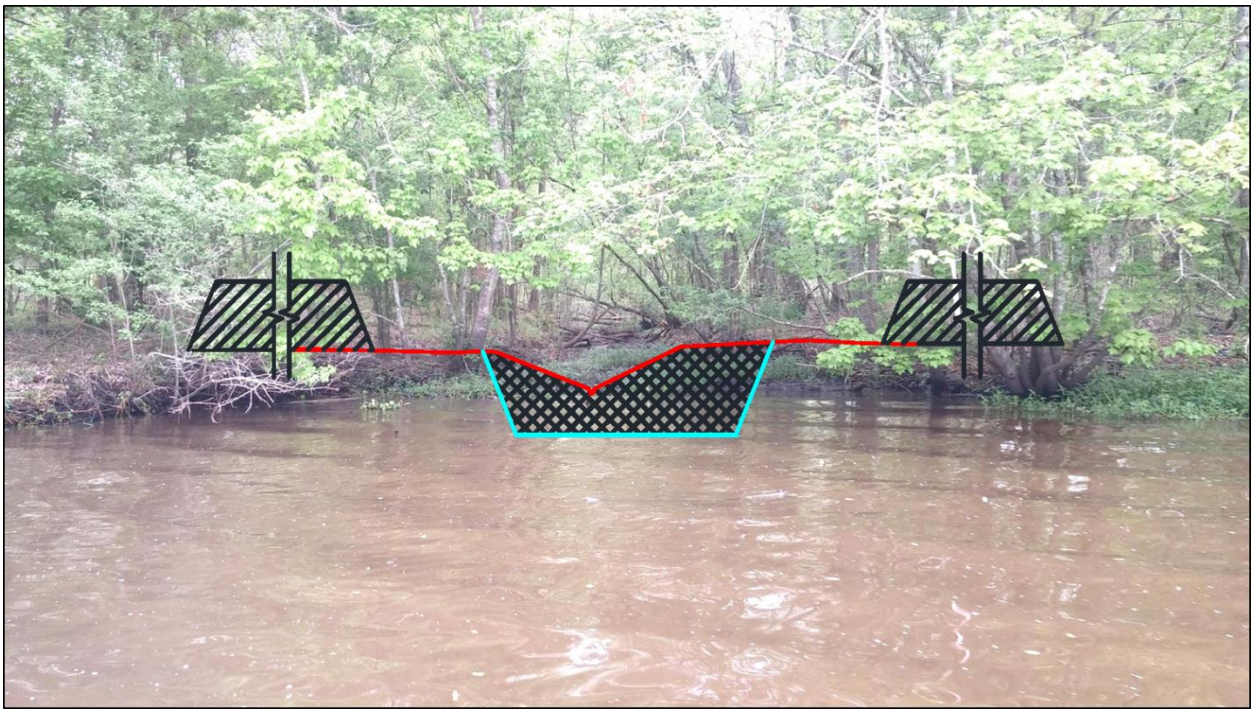

Figure 10. Cross section of design drawing superimposed on photo of typical gap (CPRA 2015).

2.3.2 Vegetative Plantings

Modeling data showed that although hydrodynamic activity will be greatly improved in the project area, the project area will more than likely not ever be completely drained for a period needed to foster the growth of trees. However, for mitigation efforts and increased benefits of the project, some trees will be planted in the spoil disposal areas as shown below. The O&M plan calls for additional trees to be planted during the O&M phase if monitoring data indicates more plantings to be beneficial.

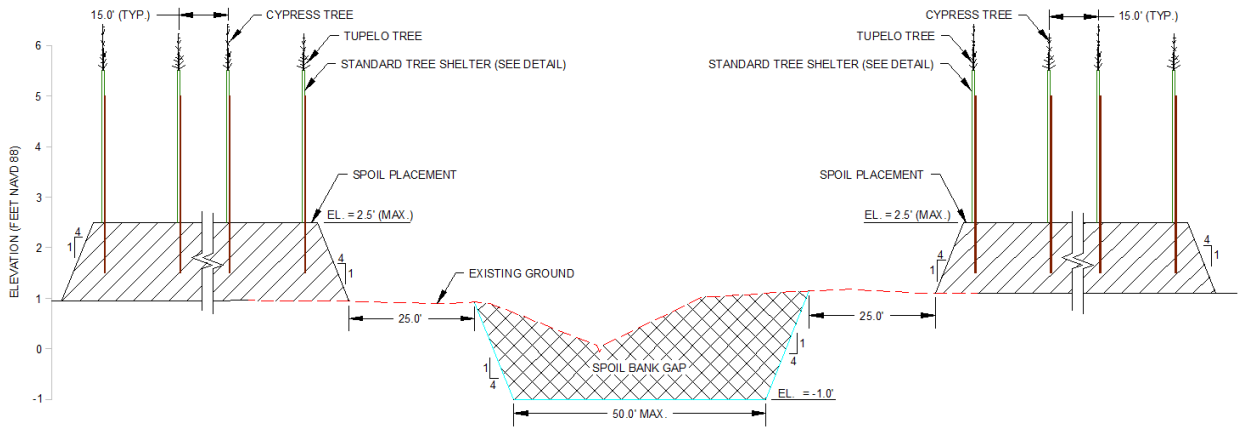

Figure 11. Tree layout, typical section (from 30% Design Report).

Part 3. Affected Environment

3.1 Physical Environment

The Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp proposed project is located in the Lac des Allemands River Basin, in the Mississippi River Alluvial Plain, Southern Holocene Meander Belt Ecoregion (Daigle et al., 2006).

3.1.1 Topography, Geomorphology, and Soils

Topography

The basin is situated between the Mississippi River (MR) and Bayou Lafourche. Elevations range from approximately +15.0 feet mean sea level (MSL) on the flanks of the natural levee of the Mississippi River and gradually decrease away from the river to approximately +1.0 MSL in the swamps and marshes. Elevations gradually increase towards the natural levee of Bayou Lafourche where they again reach +10.0 MSL. The area is laced with several small bayous with natural sand/silt ridges. The average height of these ridges is approximately +5.5 MSL. (USDA 2002).

Geomorphology and Soils

The basin is part of coastal Louisiana which was formed by the MR thousands of years ago as it frequently changed courses. With each course the MR took, the resulting sedimentation created several distinct delta lobes. The size of the soil particle determined when and where it would settle out of the river water. Sand, being the largest and the heaviest soil component of river water, tended to settle out first in a relatively short time frame. Silt and clay particles were respectively lighter and were carried further away from the main flow of the river channel. These processes determined the type of landform (ridge, swamp, marsh) and the corresponding hydrology and vegetative cover it would eventually have. Figure 12 shows a cross-sectional view of a typical successional pattern of land development for a river delta (USDA 2002).

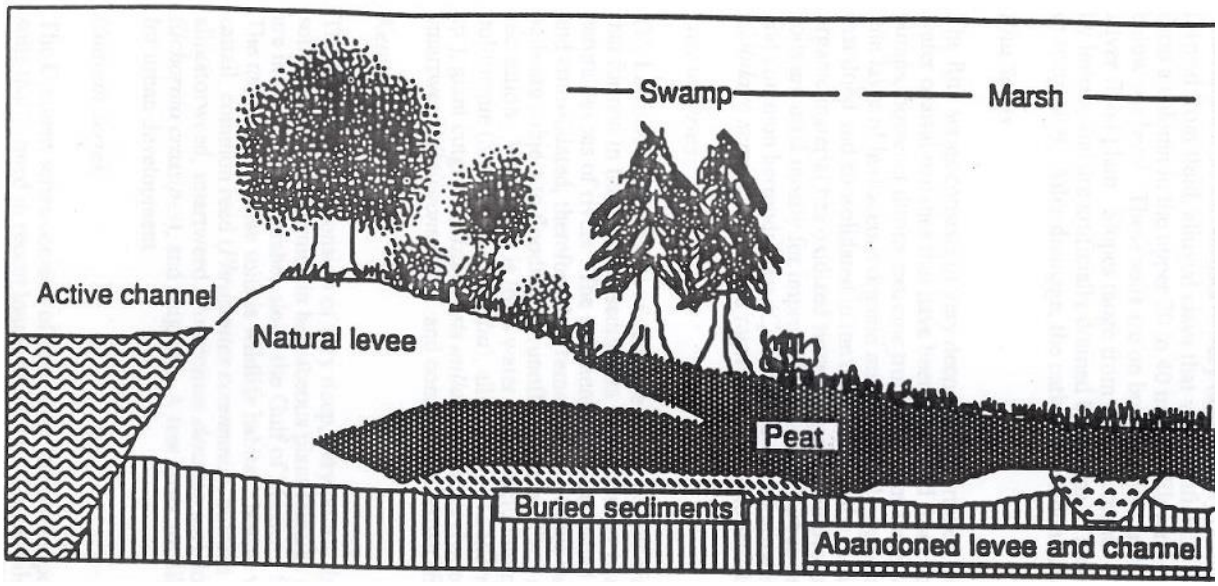

Figure 12. Generalized succession pattern in the delta area (USDA 2002).

The surface and shallow subsurface of the basin is composed of natural levee, marsh, swamp, interdistributary and prodelta deposits. The basin landscape contains a series of old tributary and distributary channels with natural ridges of varying elevations. Sediments deposited as the river overflowed its banks during floods formed these ridges. As these ridges developed and became more elevated, they began to isolate some of the basin areas from regular water movement. These relatively isolated areas became low-energy areas with only seasonal flooding. Floating and submerged aquatic vegetation thrived in these areas and the vegetative remains comprise the fibrous material found in the organic soils.

The soils in the basin are two basic types, organic and mineral. Some organic soils are flotant, or floating soil. This soil is very fragile and is subject to high rates of erosion if increased energy rates are encountered. This could occur when a healthy, protected freshwater, thin mat marsh is subjected to such forces as high winds or strong tidal fluctuations. Mineral soils in the basin are first encountered on the elevated, natural ridges.

This material is usually composed of sand and silt materials. As the ridge progresses down in elevation, loamy soils would be encountered about midway between the swamp areas and the ridge. Finally, the last form of mineral soil would be the heavy clays, which were created by the settling of the fine clay particles in the river water (USDA 2002).

The BA 34-2 proposed project area has mostly Barbary, frequently flooded soils. The Natural Resource Conservation Service (NRCS) produced a Custom Soil Resource Report for the BA 34 project dated December 12, 2012. The BA 34-2 project is contained within the area of interest (AOI) delineated in this report. The Barbary series (BA) consists of very deep, very poorly drained, very slowly permeable soils. These soils formed in recent, slightly fluid to very fluid

clayey sediments that have been deposited in water and are continuously saturated and flooded. These soils are mainly on low, broad, ponded backswamps of the lower Mississippi River Alluvial Plain. Slope is less than one percent. Cancienne silt loam (CmA) and Schriever clay (Sm) soil types also occur in the AOI (USDA 2012).

3.1.2 Climate and Weather

Most of Louisiana has a hot, humid, subtropical climate, and is one of the wettest states, with a yearly average of 57 inches of precipitation. Southern Louisiana has an average January temperature of 55 F˚, and a July average of 82 F˚. Hurricanes sometimes strike the coastal areas of Louisiana, causing loss of life and damage to property. Prevalent winds from the south/southeast bring in warm, moist air from the Gulf, resulting in abundant rainfall. (Crowe and Quayle 2000).

The Lac des Allemands River Basin has long summers which are hot and humid, and mild warm winters occasionally interrupted by incursions of cool air from the north. Rains occur throughout the year with an average annual precipitation of 58 to 62 inches. In winter, the average temperature is 54 degrees F, and the average daily minimum temperature is 44 degrees F. In 50 percent of winters, there is no measurable snowfall, and when snow does occur it is usually of short duration and no more than two to three inches. On occasion, a hurricane impacts the area, which can bring copious amounts of rainfall and strong damaging winds. River fogs are prevalent in the winter and spring, when the temperature of the Mississippi River is somewhat colder than the air temperature (USDA 2002).

3.1.3 Air Quality

National and state ambient air quality standards were developed for specific (criteria) pollutants as a result of the Federal Clean Air Act of 1970. The Clean Air Act Amendments of 1990 mandated a program by which air quality must be improved and maintained so as to meet the National Ambient Air Quality Standards (NAAQS). Under this program, regions are classified as to their attainment status with regard to each criteria pollutant. St. James Parish is currently in attainment of all NAAQS. A Clean Air Act general conformity analysis is not required. (*40 CFR § 93.153(b))*

3.1.4 Surface Water Resources

The proposed project area is in the East Central Louisiana Coastal Watershed. The USGS Hydrologic Unit Code is 08090301. The Barataria Basin, including the subsegment in which the project is located, consists largely of wooded lowlands and fresh to brackish marshes, with some saline marsh on the fringes of Barataria Bay. Elevation in this basin ranges from minus two feet to four feet above sea level. The BA 34-2 project area is located adjacent to Bayou Chevreuil in Louisiana Department of Environmental Quality (LDEQ) Subsegment Number LA020101_00. Subsegment LA020101_00 is defined by LDEQ as “Bayou Verret, Bayou Chevreuil, Bayou

Citamon and Grand Bayou." According to the LA 2014 303(d) list, subsegment LA020101_00 currently supports the following beneficial uses: Agriculture; Primary Contact Recreation; and Secondary Contact Recreation. However, the Fish and Wildlife Propagation Use is not supported due to dissolved oxygen concentrations not meeting the water quality standard (i.e., depressed dissolved oxygen levels) with causes of impairment identified as nutrients and the presence of non-native aquatic species. A total maximum daily load (TMDL) for this segment is in effect to address the low dissolved oxygen levels (LDEQ, Final 2014 Louisiana Water Quality Integrated Report (305(b)/303(d), July 29, 2015).

Jurisdictional Wetlands

In response to EPA's Solicitation of Views of January 17, 2014, the Corps of Engineers, New Orleans District, (USACE) commented in a letter to EPA on February 18, 2014. The USACE noted that the project site may be jurisdictional wetlands or Waters of the U.S., and may require a wetlands delineation. A jurisdictional finding would require a permit from the USACE under CWA Section 404 and Section 10 of the Rivers and Harbors Act. The USACE also noted that the proposed project is in the Louisiana Coastal Zone, and may require a coastal use permit from the Louisiana Department of Natural Resources.

3.1.5 Hydrology

In 1904, a dam was placed at the headwaters of Bayou Lafourche and later in the mid-20th century the Mississippi River was channelized by the construction of artificial levees along its banks for flood control, eliminating the sediment source and substantially impacting the freshwater supply to the northern Barataria forests (Reed 1995). Currently, the only freshwater source in the upper basin is precipitation [150 cm/yr (59 in/yr)] because no rivers or bayous discharge into these northern forests and marshes (Saucier 1994; Reed 1995; Park et al. 2004). The reduced sediment supply has resulted in an increase in subsidence causing water levels in the northern basin to elevate. As a result, the northern Barataria wetland forests have been found to be flooded for longer durations (Conner and Brody 1989; Keim et al. 2006).

The hydrology of the cypress-tupelo forest within the BA-34-2 project area has been further altered by the installation of artificial embankments on three sides. In 1931, an elevated roadbed was built on the western border of the proposed project area during the construction of LA Hwy. 20. In 1956, spoil banks were built along the Bayou Chevreuil shoreline (southern edge of the project area) with material excavated to deepen the channel (Conner and Day 1992a). In 1957, a drainage canal, the Vacherie Canal, was constructed immediately north of the proposed project area and an elevated berm was created with the excavated soil material. In 1969, Board Road was built on the northern perimeter of the proposed project area by excavating local material to build an oil field access road (Conner and Day 1992a). Since 1957, the duration of flooding events has increased to the point of almost constant impoundment of the proposed project area due to these elevated earthen embankments (Conner et al. 1981). Moreover, LA Hwy 20, Board Road, and the Vacherie Canal berm formed the guide levees for a crayfish pond that has since

ceased to operate) (Conner and Day 1992a). In addition, the Cypress Gas Pipeline Company installed a 35.6 cm (14.0 in) gas pipeline and canal within the proposed project area sometime in the 1950's. This pipeline canal bisects the proposed project area and is situated approximately 0.3-0.7 km (0.2-0.4 mi) from LA Hwy. 20. No spoil banks were built along the edges of the canal with the excavated material. Therefore, the pipeline canal is not thought to intensify the drainage restrictions in the project area.

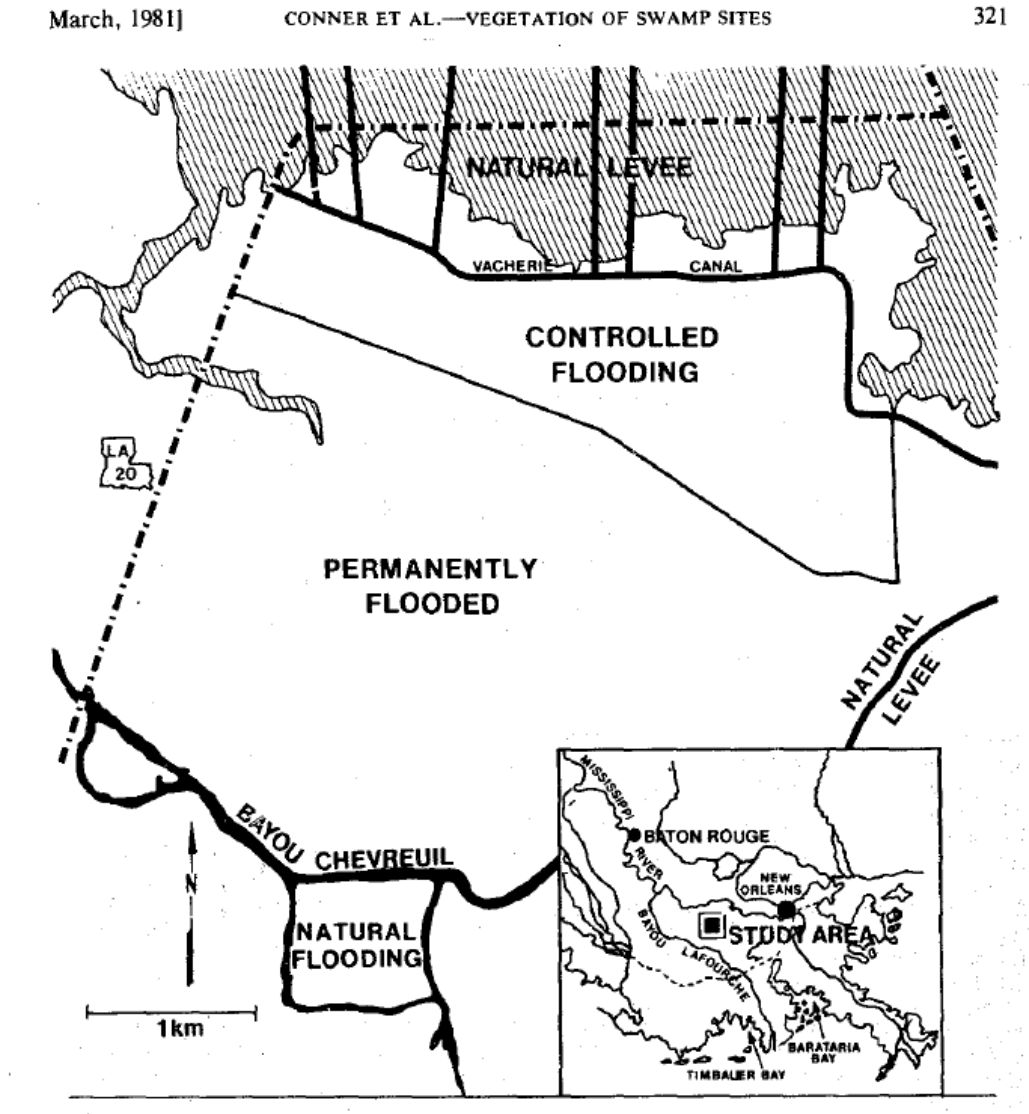

Figure 13. Diagram of proposed project area, and Conner's reference site, ("natural flooding") as well as the adjacent former crawfish farm ("controlled flooding"). From Conner et al. (1981).

The scientific record shows that altered hydrological patterns and increased inundation affect cypress-tupelo habitats. Mature cypress-tupelo wetland forests have been found to be less productive and incur slower vegetative growth in deep-flooded stagnant waters (Conner and Day

1976; Donovan et al. 1988; Conner 1994; Keim et al. 2006; Shaffer et al. 2009; Keim et al. 2012; Keim et al. 2013). Swamp structure and function also have been reported to be inversely impacted in impounded habitats (Conner and Day 1992a; Faulkner et al. 2007; Shaffer et al. 2009). Moreover, tree mortality in cypress-tupelo forest increases under impounded conditions (Conner and Day 1992b; Conner et al. 2002; Shaffer et al. 2009). Vegetative growth in these swamps is greater in flowing water (Conner and Day 1976; Donovan et al. 1988; Shaffer et al. 2009). Regeneration of cypress-tupelo forest is also negatively affected by deep-flooded stagnant waters. Seedlings require drainage to elongate their roots (Pezeshki 1991) and survive (Conner 1988; Pezeshki et al 1993; Keim et al. 2006; Faulkner et al. 2007; Faulkner et al. 2009). Moreover, natural or artificial (planting seedlings) regeneration is not possible in severely impounded swamps without drainage enhancements (Faulkner et al. 2009).

The Bayou Chevreuil swamp area has been the subject of long-term scientific study. Dr. William Conner has chronicled the effects of inundation on the proposed project area and its surroundings since the 1970s (Conner and Day 1976; Conner et al. 1981; Conner and Day 1988; Conner and Brody 1989; Conner and Day 1992a; Conner and Day 1992b; Conner et al. 2002; Conner et al. 2013). He studied three (3) distinct cypress-tupelo habitats - the impounded area (BA 34-2 project area), the crayfish pond (location described above), and the natural site, also known as the "LSU Pocket," located off the south bank of Bayou Chevreuil ("natural flooding," see figure 13).

One of Dr. Conner's studies examined the effects of breaching the Bayou Chevreuil spoil bank (gap creation). This earthen embankment was breached in six (6) locations in 1978. The results of this five (5) year investigation provided evidence that the productivity of cypress-tupelo habitats can be enhanced in the immediate vicinity of gapped locations by improving water exchange. However, productivity in areas progressively further from the gaps did not increase because drainage did not improve (Conner and Day 1992b). Micro-topographical variation in the swamp surface has been suggested as a cause of this inhibited drainage (Conner and Day 1992a). Also, earthen gaps tend to silt in periodically and require maintenance. Currently, these gaps are only partially functioning due to siltation. Gaps alone will not improve drainage throughout most large, impounded swamps. Identification of relief, drainage enhancements, and maintenance are also required to improve cypress-tupelo productivity, survivorship, and regeneration (CPRA, 2015).

The "Controlled Flooding" area, also referred to as the "Crawfish Farm," was previously impounded by the Vacherie Canal and its spoil banks on the north, LA20 on the west, the board road on the south, and a levee constructed to connect the board road and the Vacherie Canal on the east. This impounded area was managed for crawfish production in the 1980s, and the hydrology was managed using pumps. It was flooded to a depth of about 40 cm in the fall and drained from June through August or longer. Vegetation in the "Controlled Flooding" area was a dense, healthy forest when it was actively managed (Conner et al. 1981).

The draft Wetland Value Assessment (WVA) based on the Swamp Model discusses hydrology as 'variable 3 – water regime." As noted in the discussion above, due to the impoundment from dredged material placed along the bayou shoreline, the project area does not naturally drain. Without draining, permanent flooding reduces the likelihood of cypress and tupelo regeneration. The impoundment also limits exchange between the bayou and the project area. This leads to poor water quality and unsuitable habitat for nekton that would normally be present (CPRA 2015c).

Figure 14 below shows the three water level gages for the project area. BA-34-01 and BA34-02 monitor the water levels in Bayou Chevreuil. BA34-08 monitors the water level within the impounded swamp. The existing low spots in the spoil bank along Bayou Chevreuil are currently about +1.5ft. NAVD88. The graph shows that after precipitation events the water level in the bayou rises and falls as expected. In the project area, the water rises, then drains to approximately +1.5ft. Without additional precipitation events, the water level can continue to decrease slowly through evaporation and evapotranspiration. Otherwise, the water level remains fairly consistently around +1.5ft. within the project area while water levels in the bayou fluctuate regularly with tides, precipitation events, and frontal passages.

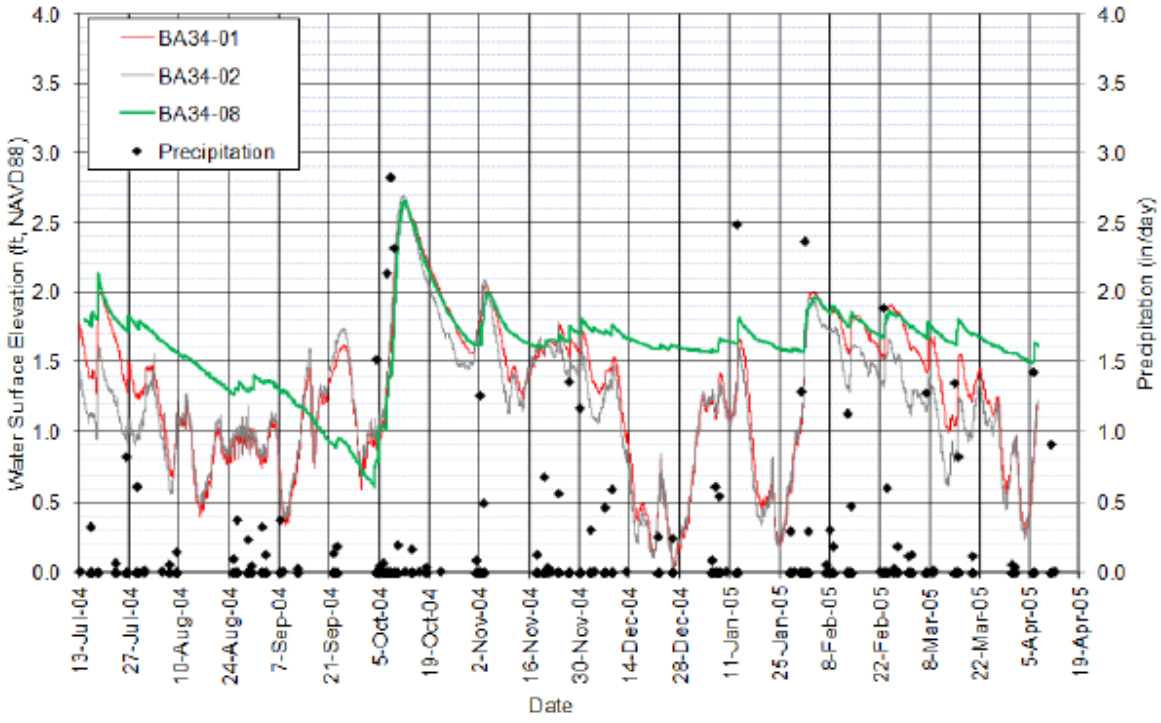

Figure 14. Water level data from July 2004 to April 2005 (FTN 2011).

3.2 Biological Environment

The biological environment of coastal Louisiana is of national importance. The estuarine habitats across coastal Louisiana support approximately 735 species of birds, finfish, shellfish, reptiles, amphibians, and mammals at some point during that organism's life cycle (USACE 2004). The biological characteristics of the proposed project area are described below.

3.2.1 Vegetation

The proposed project area habitats generally consist of cypress-tupelo wetland forest. The dominant soil Barbary association is classified as cypress-tupelo habitat. Reed (1995) cataloged the alluvial river swamps of the upper Barataria Basin as being dominated by *Taxodium distichum* (L.) Rich. (bald cypress) and *Nyssa aquatica* L. (water tupelo) with *Fraxinus profunda* (Bush) Bush (pumpkin ash) and *Acer rubrum* var. *drummundii* L. (swamp red maple) as sub-dominants. Sasser et al. (2007, 2013) classified the area as swamp habitat.

The virgin cypress forests of the upper Barataria Basin were harvested in the late 19th and early 20th centuries. The current wetland forests of the northern basin are second growth. These forests regenerated naturally and were estimated to be approximately 100 years in age in the 1980's (Conner and Day 1976; Conner 1988; Faulkner et al. 2007). Conner and Day noted that in the impounded area, the only trees remaining are those capable of surviving the constant flooding such as *Taxodium distichum* (bald cypress) and *Nyssa aquatica* (water tupelo). Nearly all the *Fraxinus* spp. (ash) and *Acer rubrum* (red maple) had died and those that are surviving are stressed as evidenced by the dead and dying tops (Conner and Day, 1992b).

A mature tree count survey to count bald cypress and tupelo was conducted in June 2015. Mature trees were defined as having a fifteen (15) centimeter diameter measured at roughly six (6) feet above the soil surface. Trees were not catalogued, marked or geo-located. The survey showed 754 mature trees within the six (6) gaps with an average tree count of 92 trees per acre (C & C, 2015b).

The Wetland Value Assessment (WVA) for the proposed project is based on the Swamp Community Model and discusses two variables (V) related to vegetation: stand structure (V1) and stand maturity (V2). A description of the model variables in providing habitat to the modeled community based on available, contemporary peer-reviewed scientific literature can be found in the CWPPRA Wetland Value Assessment Methodology, Swamp Community Model, Version 1.2 (Louisiana Coastal Wetlands Conservation and Restoration Task Force, 2012).

Stand structure (Variable 1 in the model) is the composition of overstory closure, midstory cover, and herbaceous cover. Areas with higher percentages of all three stand components receive a higher suitability index value (SI) (Table 1). To determine stand structure, the PMT used aerial imagery to delineate the project area into different classes (Figure 15). We found that the project

area consisted of classes 1, 3, 4, and 6, with class 6 making up the majority of the project area. Using field data gathered during field work in April-June 2015, the PMT adjusted the preliminary classifications accordingly.

	Overstory Closure		Scrub-shrub/ Midstory Cover		Herbaceous Cover
Class 1.	<33%				
Class 2.	≥33%<50%	and	<33%	and	<33%
Class 3.	≥33%<50%	and	≥33%	or	≥33%
Class 4.	≥50%<75%	and	≥33%	or	≥33%
Class 5.	≥33%<50%	and	≥33%	and	≥33%
Class 6.	≥50%	and	≥33%	and	≥33%
			OR		
	≥75%	and	≥33%	or	≥33%

Table 1. Variable 1 - Stand Structure Classes

The stand maturity variable (V2) is made up of the average diameter at breast height (DBH) of cypress and tupelo, and the basal area in each class. Stands with older, larger trees receive a higher Suitability Index (SI) number representing a more diverse habitat and higher value to wildlife. Suitability Index graphs are unique to each variable and define the relationship between that variable and habitat quality (LCWCRTF 2012). Basal area is the area occupied by tree stems expressed in feet per acre. Stands with higher basal areas receive a higher SI number because they are better suited for nesting, foraging, and other habitat functions.

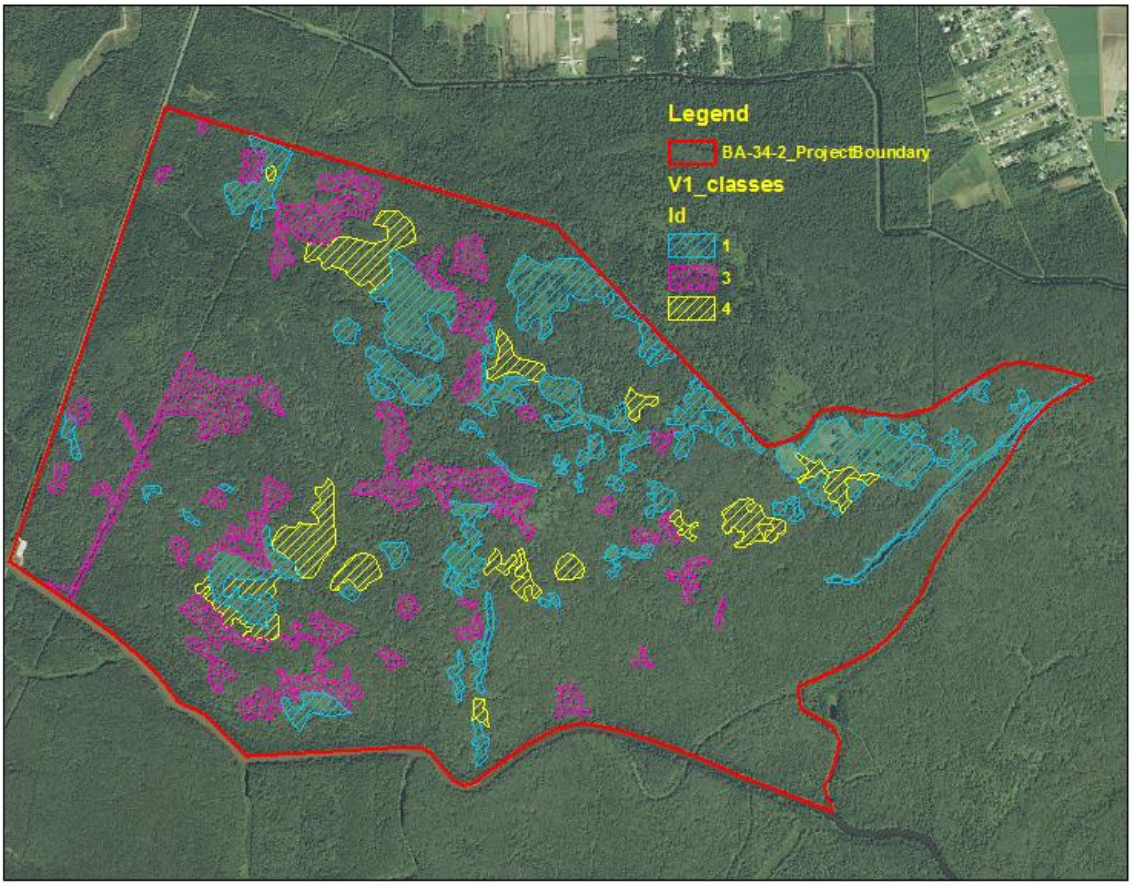

Figure 15. Stand Structure (V1) Classes. Class 6 is the area that is not cross-hatched.

For V2, the PMT sampled twelve plots in 2015 within the proposed project area using the sampling technique recommended in the Swamp Community Model. We measured cypress and tupelo trees DBH of trees that were considered canopy dominant and co-dominant. Using our observed data and the acreage calculated in V1, we were able to extrapolate our findings to the entire project area (Figure 15). The table below shows percentages for each class.

Class	*Acres*	*Percent*
1	267	11.1
3	193	8.0
4	96	4.0
6	1837	76.7

Table 2. Percentages for each stand structure class.

Using growth rates for cypress and tupelo from the 2009 WVA for the Louisiana Coastal Area Amite River Diversion Canal (LCA ARDC) Modification project, we estimated current tree growth rates of .08 in/year for tupelo and .11in/year for cypress (CPRA 2015c).

3.2.2 Essential Fish Habitat

The proposed project area is not in an area identified as essential fish habitat (EFH) by the Gulf of Mexico Fisheries Management Council under the Magnuson-Stevens Fishery Conservation and Management Act, P.L. 104-297; 16 U.S.C. 1801 et seq. (Email from Kimberly Clements, NOAA, July 24, 2015).

3.2.3 Fish and Wildlife Resources

Fisheries

The proposed project area serves as a habitat for freshwater and estuarine species. Freshwater fishes found in the fresh marshes and associated shallow open waters include largemouth bass, yellow bass, black crappie, bluegill, redear sunfish, warmouth, blue catfish, channel catfish, buffalos, freshwater drum, bowfin, and gars. Stable freshwater fisheries occur in the northern portion of the Barataria Basin, especially within the Lac Des Allemands watershed north of U.S. Highway 90. Lac Des Allemands supports a thriving commercial catfish fishery (Clark, 2000).

Fish commonly found in the upper Barataria Estuary may be grouped based on their pattern of movement between aquatic habitats. Species such as gizzard shad (*Dorosoma cepedianum),* buffalo (*Ictiobus* spp*)* and yellow bass (*Morone mississippiensis)* may make seasonal spawning migrations from Lac des Allemands into and up Bayou Chevreuil (Ross 2001; Fontenot 2006). Gizzard shad relative abundance in the upper Barataria Estuary typically increases in January and remains high through the end of April, with spawning occurring from late March through July (Fontenot 2006). Yellow bass make spring spawning runs into tributaries when water temperature reach 16-22 °C (Ross 2001). Buffalo have been reported to congregate in large schools to spawn around the margins of cypress-tupelo swamps on the floodplain of the Yazoo River in Mississippi in April (Ross 2001).

Larval *Dorosoma* spp., *Ictiobus* spp., and *Lepomis* spp. (common sunfish or bluegill) were found to be more abundant in a dredged canal habitat than bayou habitat. *Heterandria formosa* common least killifish) juveniles are more abundant in the bayou habitat than the canal habitat of the upper Barataria Basin, according to a study done in the AOI in 2007 (Jackson, 2009).

Wildlife

Forested lands provide habitat for songbirds such as the mockingbird (*Mimus polyglottos*), yellow-billed cuckoo (*Coccyzus americanus*), northern parula warbler (*Parula Americana*), yellow-rumped warbler (*Densroica coronate*), prothonotary warbler (*Protonotaria citrea*), white-eyed vireo (*Vireo griseus*) and others. Additionally, these areas provide important resting and feeding areas for songbirds migrating across the Gulf of Mexico. Other avian species found in forested habitats include American woodcock (*Philohela minor*), common flicker (*Colaptes auratus*), brown thrasher (*Toxostoma rufum*), belted kingfisher (*Megaceryle alcyon*), loggerhead shrike (*Lanius ludovicianus*), red-headed woodpecker (*Melanerpes erythrocephalus),* and other woodpeckers (Clark 2000).

These habitats also support raptors such as the red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), screech owl (*Otus asio*), great horned owl (*Bubo virginianus*) American kestrel (*Falco sparverius*), and others (Clark 2000). The project management team observed a bald eagle (*Haliaeetus leucocephalus)* over Bayou Chevreuil during a field visit in November 2014. The FWS noted that a bald eagle nest was in the proposed project area. (Figure 15).

Waterfowl found in forested lands and associated water bodies include wood duck (*Aix sponsa*), green-winged teal (*Anas crecca*), mallard (*Anas platyrhynchos*), gadwall (*Anas strepera*), and hooded merganser (*Lophydytes cucullatus*) (Clark 2000).

Wading birds typically occur in wooded swamp and scrub-shrub habitats. Species found in nesting colonies include anhinga (*Anhinga anhinga*), great egret (*Casmerodius albus*), great blue heron (*Ardea Herodias),* yellow-crowned night heron (*Nyctanassa violacea*), black-crowned night heron (*Nycticorax nycticorax*), Louisiana or tricolored heron (*Hydranassa tricolor*), little blue heron (*Florida caerulea*), cattle egret (*Bubulcus ibis*), snowy egret (*Egretta thula*), white-faced ibis (*Plegadis chihi*), glossy ibis (*Plegadis falcinellus*), reddish egret (*Dichromanassa rufescens*) and roseate spoonbill (*Ajaia ajaja*) (Clark 2000). The FWS noted that wading bird rookeries were in the proposed project area. (Figure 15).

Mammals associated with forested lands include nutria (*Myocastor coypus*), muskrat (*Ondatra zibehticus*), raccoon (*Procyon lotor*), swamp rabbit (*Sylvilagus aquaticus),* river otter *(Lutra canadensis),* and white-tailed deer (*Odocoileus virginianus*). Several species of reptiles and amphibians may also occur in the proposed project area. They include the American alligator (*Alligator mississippiensis*), snakes such as the speckled king snake (*Lampropeltis getulus*), snapping turtle (*Chelydra serpentina*), American bullfrog (*Rana catesbeiana*) and the green tree frog (*Hyla cinerea*) (Clark 2000).

3.2.4 Threatened and Endangered Species

Section 7 of the Endangered Species Act, 16 U.S.C. §1536, outlines the requirements for interagency cooperation under the Act. Specifically, Section 7(a)(1), 16 U.S.C. 1536(a)(1), directs Federal agencies to assist in the conservation of endangered species and Section 7(a)(2), 16 U.S.C. 1536(a)(2), requires agencies, through consultation with the U.S. Fish and Wildlife Service, to ensure their activities are not likely to jeopardize the listed species or adversely affect their critical habitat. In compliance with these statutes (Endangered Species Act of 1973, 87 Stat. 884, as amended, 16 U.S.C. 1531 et seq.; the Fish and Wildlife Coordination Act, 48 Stat. 401, as amended, 16 U.S.C. 661 et seq.; and the Migratory Bird Treaty Act (MBTA), 40 Stat. 755, as amended, 16 U.S.C. 703 et seq.), the following Section, in conjunction with Part 2 and *Section 4.2.5*, serve the purpose of a biological assessment as described in *50 CFR 402.12*.

The U.S. Fish and Wildlife Service was consulted regarding any potential threatened and endangered species (T&E) in the proposed project area (USFWS 2015). The USFWS indicated that there are no T&E species in the AOI, but there is a record of a bald eagle nest within the project area, and in proximity to some of the proposed project features (Figure 16). The bald eagle (*Haliaeetus leucocephalus*) was officially removed from the List of Threatened and Endangered Species in August 2007 (72 FR 37346) because their populations had recovered sufficiently to support delisting. Bald eagles are protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Act (Eagle Act).

Credit: Katherine Whitmore, USFWS

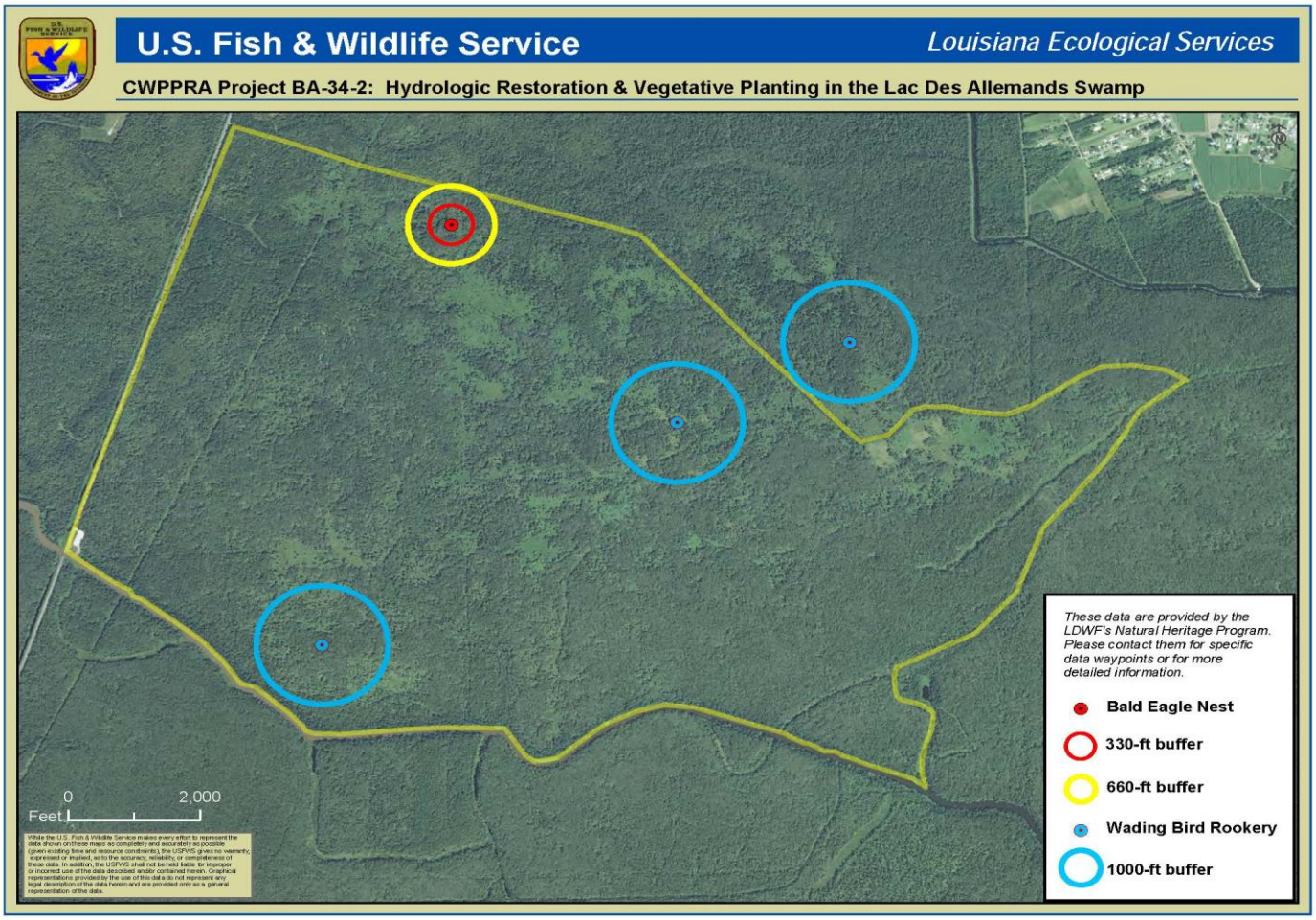

Figure 16. Location of Bald Eagle nest and wading bird rookeries (2008 data) in proposed project area (USFWS, 2015).

Bald Eagles live near rivers, lakes, and marshes where they can find fish, their staple food. Bald Eagles will also feed on waterfowl, turtles, rabbits, snakes, and other small animals and carrion. Bald Eagles require a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering. (Found at FWS website, 2015).

3.3 Other Environmental Considerations

3.3.1 Cultural Resources

The Louisiana State Historic Preservation Office indicates that there are no known existing cultural or historic resources in the project area. The closest archaeological site is 2.5 miles away from the proposed project area. The State Archaeologist recommended that the proposed project area be surveyed if the design featured the excavation of the gap areas to the original ground surface. In June and July 2015, R. Christopher Goodwin & Associates, Inc. conducted a cultural

resource (CR) investigation which included background research and field examination of the locations of eight proposed spoil bank cuts positioned along the north bank of Bayou Chevreuil. The finding is that there are no sites or cultural resources in the proposed project area (R. Christopher Goodwin & Associates, 2015). A Notice of No Findings was issued to tribal entities and to the SHPO. By way of a letter dated September 2, 2015, the SHPO has concurred with the No Findings.

3.3.2 Socioeconomics and Environmental Justice

According to the 2010 Census of the United States, the population of St. James Parish is 22,102. The 2014 estimate is 21,638. This number reflects a 2.1 percent loss of population from 2010-2014. The Parish population diversity profile is:

Black or African-American	49.4 percent
White	49.4 percent
Asian-American	0.3 percent
American Indian	0.2 percent
Hispanic or Latino	1.7 percent
White alone, not Hispanic or Latino	48.0 percent

The percent of the population living below the Census definition of poverty was 16.4 percent in 2009-2013, compared with 19.1 percent for the state of Louisiana. The median household income for 2009-2013 was $55,443. This compares to $44,874 for the state of Louisiana.

The St. James Parish land area is approximately 241.54 square miles, with a population density of 91.5 persons per square mile. In comparison, the population density of Louisiana is 104.9. St. James Parish is considered part of the Metropolitan Statistical Area of the New Orleans-Metairie, Louisiana Metro Area (U.S. Census Bureau 2010).

For a project-specific Census 2010 summary report, a one-mile buffer was added around the proposed project area boundary using EPA's "EJScreen" mapping tool. The report showed a population in the buffered proposed project area of 1,056 which represents approximately 4.7 percent of the Parish population.

In comparison with the Parish profile, the proposed project area with the applied buffer has a population density of 72 persons per square mile. The BA 34-2 area with one-mile buffer population diversity profile is:

Black or African-American	33 percent	
White	66 percent	
Some other race	1 percent	(USEPA, 2015)

3.3.3 Infrastructure

Substantial oil and gas activity presently occurs, and has historically occurred since the early 1900's, in coastal Louisiana. Oil and gas industry activities related to seismic exploration,

drilling, production, pipeline infrastructure, spill control and cleanup, and well site closure have greatly impacted the wetlands of coastal Louisiana. Oil and gas activities negatively affect wetland functions by altering marsh habitat and hydrologic regimes (USEPA 1989).

The one (1) known pipeline in the proposed project area has eight (8) feet of mud cover and 12 feet of water cover (Figure 17, C & C Technologies, Inc., 2015a).

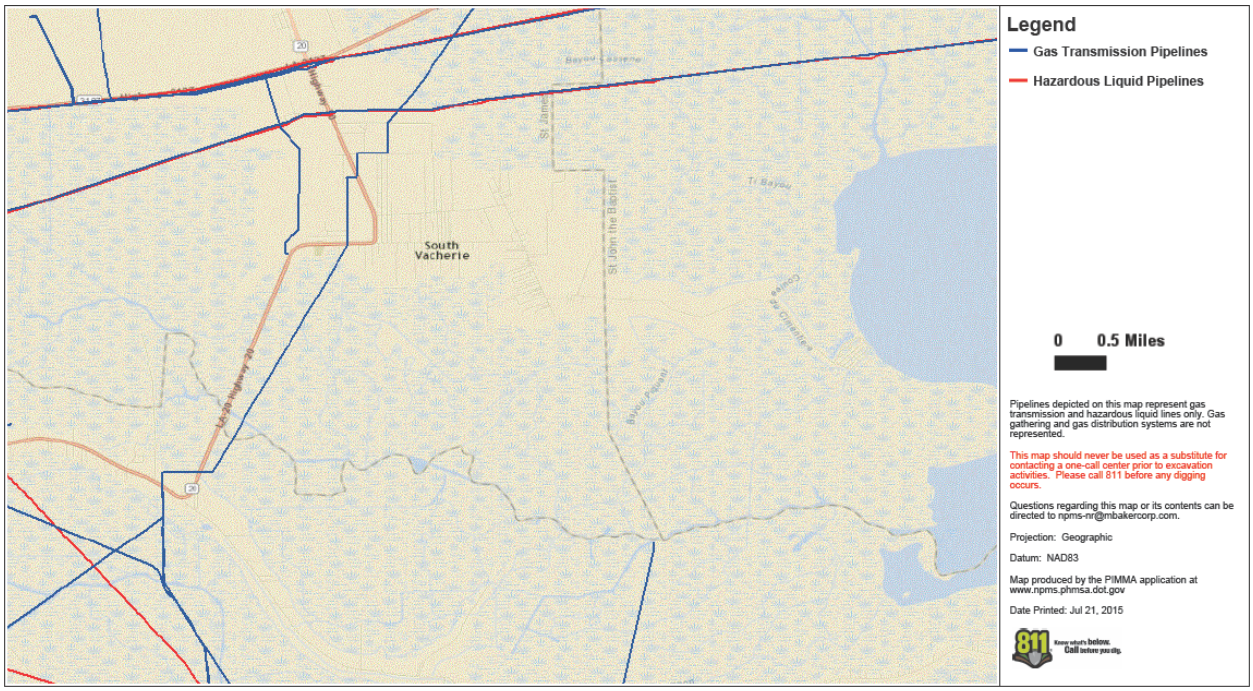

Figure 17. Illustration of oil and gas infrastructure in the proposed project area.

3.3.4 Noise

The proposed project is in a semi-rural area with moderate local traffic on Highway 20. The boat launch area is located at the intersection of Bayou Chevreuil and the highway. Outboard motor boat traffic on Bayou Chevreuil is light to moderate during weekdays and offseason and moderate to heavy on weekends and during fishing season.

3.3.5 Hazardous, Toxic and Radioactive Waste

The discharge of dredged material into waters of the United States is regulated under the Clean Water Act (CWA). In the absence of a known Hazardous, Toxic and Radioactive Waste (HTRW), the proposed project would not qualify for an HTRW investigation.

The USACE Engineer Regulation, ER 1165-2-132, Hazardous, Toxic and Radioactive Waste, states that dredged material and sediments beneath navigable waters proposed for dredging qualify as HTRW only if they are within the boundaries of a site designated by the EPA or a state for a response action (either a removal or a remedial action) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or if they are a part of a

National Priority List (NPL) site under CERCLA. No portion of the project area is included in the NPL.

Based upon a review of the NPL and CERCLA action sites, as well as a review of the Radiation Information Database, the probability of encountering HTRW in connection with this proposed project is very low. The proposed project does not require an HTRW investigation.

3.3.6 Land Use

According to LDEQ, the Land Use/Land Cover in the proposed project area is classified as mostly forested wetland and some shrub/scrub. The Basin Subsegment 020101 land use as a whole is illustrated in figure 18 (LDEQ, 2006).

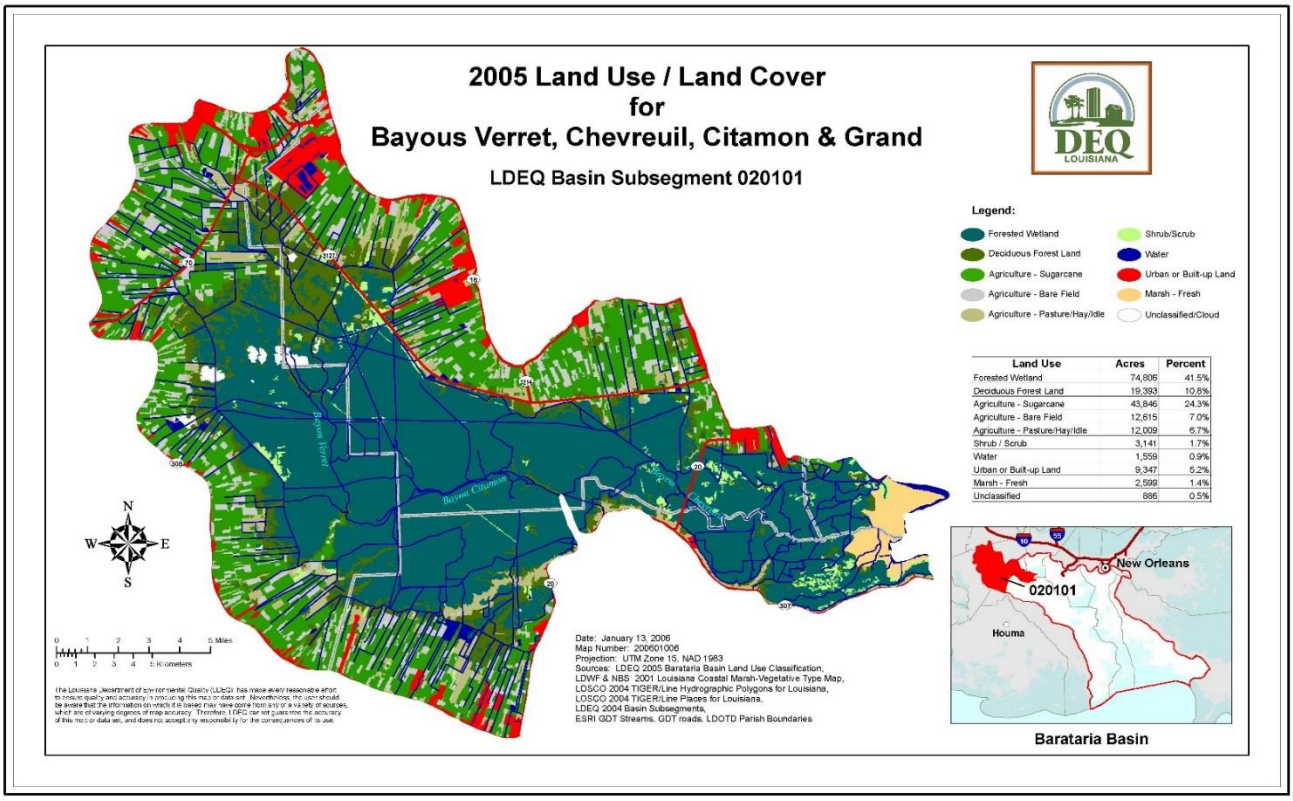

Figure 18. Land Use/Land Cover for Basin Subsegment 020101 (LDEQ 2006).

Part 4. Environmental Consequences

Part 4 evaluates the anticipated environmental impacts that would result from the alternatives evaluated. It includes an analysis of the direct, indirect and cumulative impacts of the proposed project alternatives, including the No-Action Alternative. Alternatives that were considered but not evaluated in Part 2 are not evaluated in this Part.

Each component of the Affected Environment is evaluated across an appropriate spatial and temporal scale (i.e. short term and long term) to determine the environmental impacts associated with each alternative. These impacts are classified as *Direct*, *Indirect* and *Cumulative*. *Direct* and *Indirect* impacts were listed for each alternative and can either be designated as *no impact*, *not significant impact* or *significant impact*.

The assessment of environmental consequences (i.e. impacts) is based upon a review of the best available information and relevant reference materials. Quantitative and qualitative information is used in the assessment. Factors that influence the assessment of impacts include, but are not limited to, the duration of the impact and the abundance or scarcity of the resource.

4.1 Physical Environment

This section describes potential impacts to the physical environment described in *3.1 Physical Environment*. Areas discussed include geomorphology, soils and topography, air quality, climate and weather, hydrology, and surface water resources.

4.1.1 Topography, Geomorphology, and Soils

No Action Alternative 1

Under the no action alternative, the existing wetlands and open water would not experience any construction activity resulting from this proposed project. Under this alternative, the topography of the proposed project area would continue to change as land is lost and converted to open water.

Alternative 2 (Proposed Action)

Direct Impacts: To relieve impoundment and increase movement and interchange between the impounded area and Bayou Chevreuil, six gap/cuts to the spoil bank area will be made. Construction impacts include clearing and grubbing approximately 16 acres, excavating the gaps of approximately 9,500 cubic yards of soil, and removing approximately 1,500 trees. Vegetative plantings will follow the construction activities. The table below shows line items for construction activities and equipment (CPRA, 30% Report, Cost Estimate, 2015).

Work or Material	Quantity	Unit	Notes**
Mobilization/Demobilization	1	LS	3 Marsh Buggies, 1 dozer, 1 barge, 1 tug
Survey	1	LS	Gaps & placement areas + buffer
Clear and Grub	10	Acre	Clearing, grinding and spreading of small to medium brush
Mature Tree Removal	1,700	Each	Tree cutting/stump removal and dropping for pickup
Tree Transport to Dock	150	Load	Loading of 40 cy hopper and transport to staging area
Tree Offsite Disposal	150	Load	40 cy trailer to offsite location + $30 tipping fee per ton (density of tree is 51 pcf)
Gap Excavation/Placement	9,500	CY	Gaps & placement areas
Bald Cypress Tree Plantings	600	Each	$5 per plant, $12.5 for installation; 15 on 15 centers
Water Tupelo Tree Plantings	600	Each	$5 per plant, $12.5 for installation; 15 on 15 centers
Standard Tree Shelters	1,200	Each	Cypress & tupelo trees 15 on 15 centers; 200 trees per acre, tubex protectors

Table 3. Construction Activities and Equipment

Indirect Impacts: It is unlikely that there will be any indirect impacts on topography, geomorphology, and soils resulting from Alternative 2.

4.1.2 Climate and Weather

Neither the No-Action Alternative 1 nor Alternative 2 will impact climate or weather. The scientific record suggests that the improved swamp health from the action alternative may have a beneficial effect and help create a carbon sink and reduce atmospheric carbon dioxide (Burkett and Kusler 2000; Bridgham et al. 2006).

4.1.3 Air Quality

No Action Alternative 1

The No-Action Alternative would not result in any changes in the existing air quality in the area.

Alternative 2 (Proposed Action)

Direct Impacts: Impacts resulting from Alternative 2 would be associated with the emissions of diesel engines that would power the construction equipment, including but not limited to marsh buggies, dozer, electric generators, backhoe, and watercraft. The duration of the impact is limited and will occur over a period of approximately 159 working days or less. Emissions would consist primarily of nitrogen oxides, with smaller amounts of carbon monoxide, sulfur dioxide, particulate matter, and volatile organic compounds.

St. James Parish is currently in attainment of all National Ambient Air Quality Standards (NAAQS). The proposed project is unlikely to affect the Parish's attainment status. However, St. James Parish is represented by the South Central Planning and Development Commission (SCPDC), the metropolitan planning organization (MPO) for the area. The South Central area is at risk for being designated as non-attainment for ozone and particulate matter (PM) NAAQS in the next few years. Due to the sensitivity of ozone and PM levels in the area, the SCPDC has applied to and been accepted by EPA into the EPA Ozone Advance and PM Advance programs. The Advance programs are a collaborative effort between EPA, states, and local

governments to enact expeditious emission reductions to help near non-attainment areas remain in attainment of the NAAQS.

The EPA recommends that to reduce potential short-term air quality impacts associated with construction activities, the agencies responsible for the project should also include a Construction Emissions Mitigation Plan and adopt this plan in the Record of Decision (ROD). In addition to all applicable local, state, or federal requirements, the EPA recommends that the specific mitigation measures be included in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of NOx, CO, PM, SO_2, and other pollutants from construction-related activities (*40 CFR § 1502.14(f) & 1502.16(h))*. Construction emissions will be addressed and minimized with appropriate mitigation measures such as:

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate at active and inactive sites during workdays, weekends, holidays, and windy conditions;
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions; and
- Prevent spillage when hauling material and operating non-earthmoving equipment and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Plan construction scheduling to minimize vehicle trips;
- Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections;
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed;
- If practicable, utilize new, clean equipment meeting the most stringent of applicable Federal or State Standards. In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible;
- Lacking availability of non-road construction equipment that meets Tier 4 engine standards, the responsible agency should commit to using EPA-verified particulate traps, oxidation catalysts and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site; and
- Consider alternative fuels and energy sources such as natural gas and electricity (plug-in or battery).

Administrative controls:

- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking;

- Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips; and
- Identify sensitive receptors in the project area, such as children, elderly, and infirmed, and specify the means by which impacts to these populations will be minimized (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes).

Indirect Impacts: It is unlikely that there will be any indirect impacts on air quality resulting from Alternative 2

4.1.4 Surface Water Resources

No Action Alternative 1

The No-Action Alternative would not have any direct impacts on surface water resources. Impounded conditions would continue and the forest species would continue to degrade. Swamp flooding is assumed to increase due to relative sea level rise.

Alternative 2 (Proposed Action)

Direct Impacts: Future Conditions with the proposed action. With implementation of the proposed action, it is expected that there would be an impact to water quality through a temporary increase in turbidity within the Bayou near construction activity areas. Any increases in turbidity would likely be diminished by the movement of the Bayou, and any free floating sediment would likely settle downstream. Dr. Shaffer noted that hydrologic restoration should improve the water quality of aquatic bodies surrounding the swamp which are often hypoxic in the warm months (Shaffer 2011).

Indirect Impacts: Alternative 2 is not anticipated to negatively impact dissolved oxygen levels within the subsegment or contribute to the causes of the current impairment as identified on the LA 2014 303(d) list. Certain long-term benefits to water quality may be realized in the locale of the proposed project as the increased wetland plant acreage has the ability to take up and sequester nutrients - identified as causative agents of depressed dissolved oxygen levels within the subsegment. However, the impacts of this project are not expected to significantly affect nutrient levels in the subsegment as a whole.

4.1.5 Hydrology

No Action Alternative 1

Under the No-Action Alternative impounded conditions would continue and forest species would continue to degrade. Swamp flooding is assumed to increase due to relative sea level rise.

Alternative 2 (Proposed Action)

Two (2) recent studies completed for the BA-34-2 project indicate that restoration of the cypress-tupelo habitats can be achieved by improving drainage within the proposed project area. Dr. Gary Shaffer (2011) performed an ecological review of the proposed project area through field

investigation and literature review. Dr. Shaffer concluded that it is highly likely that cypress-tupelo habitats of the proposed project area will become sustainable if the impairments to hydrology are removed (Shaffer 2011).

FTN (2015) conducted a 2D hydrodynamic model for the BA 34-2 proposed project using hydrological, topographic, and meteorological data. The model predicted that water levels in the swamp will emulate that of Bayou Chevreuil if the spoil bank is breached in six (6) positions to a depth of -0.3 m (-1.0 ft.) NAVD88. Currently, the water levels in the swamp do not follow that of the bayou due to swamp inundation (FTN 2015).

To quantify the benefits this project will receive for this variable, the PMT used data from the modeling report. Bathymetry along with water level data allowed us to determine how different areas hydrology will be altered. Having this information and knowing the gaps will be excavated to an elevation of -1.0 ft., we can then determine what areas will be relieved of permanent flooding. Areas lower than -1.0 ft. will remain permanently flooded regardless of work. Areas with elevations between -1.0 ft. and +1.5 ft. will be relieved of permanent flooding after the proposed project is constructed. Areas above +1.5 ft. will experience similar flooding regimes with or without the project (CPRA, 2015).

4.2 Biological Environment

This section describes potential impacts to the biological environment described in *3.2 Biological Environment,* which includes vegetation, essential fish habitat, fish and wildlife resources, and threatened and endangered species. The threatened and endangered species section, concurrently with Part 2 and Section 3.2.5 serves as a biological assessment as described in *50 CFR 402.12*.

4.2.1 Vegetation

No Action Alternative 1

Under the no action alternative 1, the project area will continue to be impounded via the spoil bank along Bayou Chevreuil, LA20, and the natural ridge on the east. In addition to flooding caused by impoundment, swamp flooding is assumed to increase due to relative sea level rise (e.g. subsidence+ sea level rise, no accretion).

Vegetation in the project area will continue to degrade. Basal area of both cypress and tupelo will continue to decline as trees die and little or no regeneration occurs in the future. However, the few trees that do survive may grow at a relatively rapid rate due to the lack of competition for light. Stand structure will continue to degrade, with less tree cover over time. Stand maturity will increase over time. As stand maturity increases so will basal area. The basal area will decrease if mortality overcomes regeneration. Water regime continues to be permanently flooded, with little or no flow/exchange.

Alternative 2 (Proposed Action)

Direct Impacts: Under this Alternative, planting of cypress and tupelo trees and alleviation of impoundment will help to slow the rate of degradation of swamp vegetation in the project area, and to reverse it, at least temporarily. Basal area of cypress and tupelo will increase immediately in planted areas, and basal area of all tree species will either decrease more slowly in the future, or increase over time. We expect trees to grow at a slightly lower rate and tree regeneration to increase, particularly episodically during droughts. Stand structure will improve immediately in areas that are planted, and, over time, in all degraded areas, including those areas not planted. Stand maturity and basal area will increase over time throughout the project area, but especially in degraded areas, and even more so in degraded areas that are planted.

As noted in section 4.1.5, we expect that hydrologic restoration will reduce tree mortality, increase regeneration, and improve overall tree health (Shaffer 2011). Combined with the proposed tree plantings, we expect that over time, project features will increase overstory closure in areas with low overstory closure. The spoil bank area has red maple and green ash on it. As these species regenerate faster than cypress and tupelo, they will likely populate the area within a few growing seasons. Tree protectors will be used with all planted seedlings and saplings to guard against nutria herbivory.

Using growth rates for cypress and tupelo from the 2009 WVA for the Louisiana Coastal Area Amite River Diversion Canal (LCA ARDC) Modification project, we estimate future tree growth rates of .1338in/year for tupelo and .1837in/year for cypress for the primary area. For the secondary area we used .1032in/year for tupelo and .1419in/year for cypress. It is assumed that trees in the secondary area will receive reduced benefits and therefore a less than optimal growth rate (CPRA 2015c).

A tallow control program associated with this Alternative should prevent Chinese tallow (*Triadica sebifera*) from becoming established. Chinese tallow is an invasive, non-native species that can prevent or hinder native species such as bald cypress from becoming established. A control program implemented in the O&M phase will help increase the survivability of the bald cypress and tupelo trees planted.

No significant adverse impacts are expected.

Indirect Impacts: Under this Alternative, planted bald cypress and tupelo trees should provide a suitable seed source for additional tree recruitment once the planted trees have reached maturity.

4.2.2 Essential Fish Habitat

As the location of the proposed project is an area that is not identified as EFH, there are no impacts for the No Action nor the Proposed Action and, therefore, no need for consultation.

4.2.3 Fish and Wildlife Resources

No Action Alternative 1

Under a no-action alternative, the proposed project would not be constructed. There would be a continuation of baseline conditions in the proposed project area and land loss would be expected to continue, with associated losses of swamp functions and values. The project area would continue to be impounded. Forest plant species composition, basal area, and vegetative productivity in the project area would continue to degrade and would negatively impact the habitats of the fish and wildlife species which utilize the project area. Continued degradation of the habitat to eventual unvegetated, increasingly open water areas would diminish the habitat value to all species.

Alternative 2 (Proposed Action)

Under this alternative, if the proposed project is constructed, the improved hydrologic and vegetation features will improve the swamp habitat conditions for several species of wildlife including migratory and resident waterfowl, wading birds, raptors, and mammals as described in 3.2.3.

4.2.4 Threatened and Endangered Species

The USFWS identified no species as a threatened or endangered species that may occur within the proposed project area boundary. This section, concurrently with Part 2 and *Section 3.2.5*, serves the function of a biological assessment as described in *50 CFR 402.12*.

No Action Alternative 1 and Alternative 2 (Proposed Action)

Under the No-Action Alternative, no direct or indirect impacts are anticipated for threatened and endangered species. No avoidance measures will be required.

4.3 Other Considerations

4.3.1 Cultural Resources

The No-Action Alternative 1 and Alternative 2 (Proposed Action) will not significantly affect cultural resources. No archeological sites or historic standing structures were identified within the proposed project area during fieldwork. (R. Christopher Goodwin & Associates, Inc. 2015).

4.3.2 Socioeconomics and Environmental Justice

No Action Alternative 1

In the No-Action Alternative, the swamp in the proposed project area would continue to be degrade. The amount of fishery habitat lost in the proposed project area would have no significant impact on the commercial fishery but recreational and subsistence fishermen may be adversely impacted by the conversion of wetlands to open water.

Alternative 2 (Proposed Action)

Direct Impacts: This Alternative may beneficially impact the local economy, Louisiana and some of the other neighboring towns. The Contractor(s) hired to construct the proposed project may need to hire workers locally. Also, the local economy may receive an economic benefit because the workers will likely spend money locally to purchase personal items, food and lodging.

Indirect Impacts: This Alternative may help buffer the AOI from tropical storm impacts (Shaffer, 2011).

This Alternative will have no significant adverse impact and may have a minor beneficial economic impact on the local area. No environmental justice populations will be disproportionately affected by the proposed Action.

4.3.3 Infrastructure

No Action Alternative 1

The No-Action Alternative would not have any direct or indirect effect on infrastructure in the proposed project area.

Alternative 2 (Proposed Action)

Under this Alternative there will be no significant impacts on infrastructure. The pipeline in the proposed project area will not be affected by construction activities.

4.3.4 Noise

No Action Alternative 1

The No-Action Alternative would not cause any change in the existing noise conditions in the proposed project area. There would be no impact to noise levels.

Alternative 2 (Proposed Action)

Under Alternative 2, short-term increases in noise associated with construction activities and equipment use would occur. There would be no long-term changes in the ambient noise levels associated with this project. Hearing protection may be required for construction crew and visitors to the construction site. Noise impacts are limited in to the immediate project area. The closest noise-sensitive receptor is Vacherie Elementary School, which is 2.2 miles northeast of the swamp in a straight line from Bayou Chevreuil. The duration of construction is limited, estimated at approximately 159 working days.

4.3.5 Hazardous, Toxic and Radioactive Waste

There is no hazardous, toxic or radioactive waste within the proposed project area boundary. The No-Action Alternative 1 and the Proposed Action Alternative 2 will not significantly impact Hazardous, Toxic and Radioactive Waste.

4.3.6 Land Use

Under the No-Action Alternative and Action alternative there would be no significant impact on land use in the proposed project area.

4.4 Cumulative Impacts

The cumulative impacts of restoration projects similar to the proposed project are discussed fully in the Louisiana Coastal Wetlands Restoration Plan and the Louisiana Coastal Area Programmatic EIS documents (LCWCRTF 1993; USACE 2004). These documents are incorporated here by reference. To reiterate the problem, coastal Louisiana has been losing land at approximately 70 km^2 per year (Barras et al. 2008). The reasons for this rate of loss include natural subsidence, reduction of riverine inputs of sediment due to the construction of levees and dams (upriver), hurricanes, and hydrologic modification through channelization of marsh habitats. Restoration projects such as the proposed project BA 34-2 seek to offset this land loss through various methods, including hydrologic restoration and vegetative plantings such as the proposed project.

Future restoration projects are not likely to be proposed in the upper Barataria Basin. Agencies are beginning to focus their restoration efforts in other coastal areas as described in the Master Plan in an effort to maximize the limited amount of resources available to restore coastal Louisiana (CPRA, 2012).

4.5 Unavoidable Adverse Impacts

The unavoidable adverse impacts of the Action Alternative 2 are related to construction activities. Construction activities will generate noise and air emissions but their impact is limited and temporary in duration, estimated to be not more than 159 working days.

4.6 Relationship of Short-Term Uses and Long-Term Effects

All action alternatives have some short-term, localized, adverse impacts in the form of lost or disturbed freshwater wetlands and long-term beneficial impacts. These impacts will be mitigated in the short-term through avoidance measures and in the long-term by the creation of additional acres of wetlands. No long-term adverse impacts to the affected resources are expected.

Beneficial impacts in the mid and long-term will be realized by the proposed project. These benefits are expected to be sustained for the duration of the 20-year project life.

Part 5. Conclusion

5.1 Conclusion

Coastal Louisiana is losing wetlands at a rate of approximately 70 km^2 per year (Barras et al. 2008) due to natural and anthropogenic causes. Restoration projects, such as the one proposed, seek to offset these losses in an attempt to slow or prevent the loss of wetland habitat in the future.

This EA finds that the Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp (BA-34-2) proposed project would have long-term beneficial impacts in coastal Louisiana and would not result any significant direct, indirect or cumulative adverse impacts. Construction-related adverse impacts are considered to be minor to moderate and not significant due to their limited duration and best management practices to minimize adverse impacts. This conclusion is based on a comprehensive review of relevant literature, site-specific data, project-specific engineering and environmental reports, as well as cumulative experience gained through other restoration projects in coastal Louisiana. The proposed action is projected to have no significant impacts.

5.2 Interagency Coordination

Coordination in development of the proposed action and its alternative, and the selection of the proposed action has been maintained with each CWPPRA Task Force agency. The project was vetted publicly through the CWPPRA process, which provides opportunities for the public and CWPPRA agencies to comment on the proposed project. Coordination with USFWS and NMFS ensures that impacts to potential threatened or endangered species are evaluated. Coordination with NMFS confirmed that impacts to Essential Fish Habitat were correctly evaluated. In this case, there is no EFH in the project area. The PMT has prepared a Joint Permit Application with supporting documentation on behalf of the landowner as permit holder to submit to the USACE. The Louisiana State Historic Preservation Office (SHPO) also provided guidance on the presence of any historic or cultural resources that may be impacted by the project area, and has reviewed and accepted the No Findings of the Cultural Resources Investigation. Coordination with Tribal entities was initiated. A Notice of No Findings in the project area was sent to the tribal entities on July 23, 2015, with a request for consultation. The Seminole Tribe of Florida, the Choctaw Nation of Oklahoma, the Muscogee (Creek) Nation, and the Jena Band of Choctaw Indians concurred with the No Findings.

5.3 Compliance with Applicable Laws and Regulations

Applicable federal, state and local laws and regulations were taken into account during the development of the proposed action to ensure compliance with these laws and regulations.

5.4 Preparers, U. S. Environmental Protection Agency, Region 6, Dallas, Texas

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Literature Cited

Barras, J.A., J.C. Bernier and R.A. Morton. 2008. Land area change in coastal Louisiana--A multidecadal perspective (from 1956 to 2006). U.S. Geological Survey Scientific Investigations Map 3019, scale 1:250,000, 14 p. pamphlet.

Bridgham, S.D., J.P. Megonigal, J.K. Keller, N.B. Bliss and C. Trettin. 2006. The carbon balance of North American wetlands. Wetlands 26:889-916

Burkett, V. and J. Kusler. 2000. Climate change: Potential impacts and interactions in the wetlands of the United States. Journal of the American Water Resources Association 36:313-320

C & C Technologies, Inc., 2015a. Hydrologic Restoration in Lac des Allemands Swamp Project (BA-34-2), Survey Report, May 19, 2015.

C & C Technologies, Inc., 2015b. Hydrologic Restoration in Lac des Allemands Swamp Project (BA-34-2), Spoil Area & Tree Count Survey Report, August 17, 2015.

Coastal Protection and Restoration Authority of Louisiana. 2012. Louisiana's Comprehensive Master Plan for a Sustainable Coast. 189 pages.

Clark, D.R., 2000. Donaldsonville, Louisiana to the Gulf of Mexico, general investigations—reconnaissance study, a planning aid report. January 2000. USFWS, Lafayette, LA, 18 pp.

Conner, W. H. 1988. Cypress Regeneration in Coastal Louisiana and the Impact of Nutria upon Seedling Survival. P. 130-136 in: Wetlands: Proceedings 13th Annual Conference of the Society of Wetland Scientists, New Orleans, LA 990 p.

Conner, W. H. 1994. Effect of Forest Management Practices on Southern Forested Wetland Productivity. Wetlands 14: 27-40.

Conner, W. H. and M. Brody. 1989. Rising Water Levels and the Future of the Southeastern Louisiana Swamp Forest. Estuaries 12: 318-323.

Conner, W. H. and J. W. Day, Jr. 1976. Productivity and Composition of a Baldcypress-Water Tupelo Site and a Bottomland Hardwood Forest Site in a Louisiana Swamp. American Journal of Botany. 63: 1354-1364.

Conner, W. H. and J. W. Day, Jr. 1992a. Diameter growth of *Taxodium distichum* (L.) Rich. and *Nyssa aquatica* L. from 1979-1985 in Four Louisiana Swamp Stands. American Midland Naturalist 127: 290-299.

Conner, W. H. and J. W. Day, Jr. 1992b. Water Level Variability and Litterfall Productivity of Forested Freshwater Wetlands in Louisiana. American Midland Naturalist 128: 237-245.

Conner, W. H., Gosselink, J. G. and R.T. Parrondo. 1981. Comparison of the Vegetation of Three Louisiana Swamp Sites with Different Flooding Regimes, American Journal of Botany, Vol. 68, No. 3, (March 1981), pp. 320-331.

Conner, W. H., I. Mihalia, and J. Wolfe. 2002. Tree Community Structure and Changes from 1987-1999 in Three Louisiana and Three South Carolina Forested Wetlands. Wetlands 22(1): 58-70.

Couvillion, B.R., Barras, J.A., Steyer, G.D., Sleavin, William, Fischer, Michelle, Beck, Holly, Trahan, Nadine, Griffin, Brad, and Heckman, David. 2011. Land area change in coastal Louisiana from 1932 to 2010: U.S. Geological Survey Scientific Investigations Map 3164, scale 1:265,000, 12 p. pamphlet.

Coastal Protection and Restoration Authority of Louisiana (CPRA), 2012. Louisiana's Comprehensive Master Plan for a Sustainable Coast, effective May 23, 2012.

CPRA, 2015a. Monitoring Plan for BA-34-2 Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp, Glen P. Curole, June 2015.

CPRA, 2015b. 30% Design Report, BA-34-2 Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp, State Project Engineer Gregory A. Mattson, E.I.et al July 13, 2015.

CPRA, 2015c. Draft Project Information Sheet for Wetland Value Assessment, BA-34-2 Hydrologic Restoration and Vegetative Planting in the des Allemands Swamp, August 2015.

Crowe, M. and R. G. Quayle 2000. Observed climate trends for the globe and the southeastern United States. In Current Stress and Potential Vulnerability-Implications of Global Climate Change for the Gulf Coast Region. Ed. Ning, Z. H. and K. K Abdollahi, GCRCC and Franklin Press, Baton Rouge, LA.

Daigle, et al., 2006, Ecoregions of Louisiana (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,000,000).

Donovan, L. A., K. W. McLeod, K. C. Sherrod, Jr., and N. J, Stumpff. 1988. Response of Woody Swamp Seedlings to Flooding and Increased Water Temperatures. I. Growth, Biomass, and Survivorship. American Journal of Botany 75 (8): 1181-1190.

Faulkner, S. P., P. Bhattarai, Y. Allen, J. Barras, and G. Constant. 2009. Identifying Baldcypress-Tupelo Regeneration Classes in Forested Wetlands of the Atchafalaya Basin, Louisiana. Wetlands 29 (3): 809-817.

Faulkner, S. P., J. L. Chambers, W. H. Conner, R. F. Keim, J. W. Day, E. S. Gardiner, M. S. Hughes, S. L. King, K. W. McLeod, C. A. Miller, J. A. Nyman, and G. P. Shaffer. 2007. Conservation and Use of Coastal Wetland Forests in Louisiana. P. 447-460 in: The Ecology of Tidal Freshwater Swamps of the Southeastern United States, W. H. Conner, T. W. Doyle, and K. W. Krauss, Ed. Springer Science.

Fontenot, J. F. 2006. Seasonal abundance, GSI, and age structure of gizzard shad *Dorosoma cepedianum* in the upper Barataria Estuary. Master's thesis. Nicholls State University, Thibodaux, Louisiana.

FTN Associates, Ltd., 2011. Numerical Modeling of the Mississippi River Reintroduction into the Northwest Barataria Basin (BA-34), FTN Associates, Ltd., Baton Rouge, LA. Report submitted to the Coastal Protection and Restoration Authority of Louisiana, Baton Rouge, LA.

FTN Associates, Ltd., 2015, Hydrodynamic Modeling for Hydrologic Restoration of the Lac des Allemands Swamp (BA-34-2), FTN Associates, Ltd., Baton Rouge, LA. Report submitted to the Coastal Protection and Restoration Authority of Louisiana, Baton Rouge, LA.

Jackson, Sean, 2009, Seasonal Diversity and Abundance of Larval and Juvenile Fishes in the Upper Barataria Estuary, Spring 2009, Unpublished master's thesis, Nicholls State University, Thibodaux, Louisiana.

Keim, R. F., J. L. Chambers, M. S. Hughes, J. A. Nyman, C. A. Miller, J. B. Amos, W. H. Conner, J. W. Day Jr., S. P. Faulkner, E. S. Gardiner, S. L. King, K. W. McLeod, and G. P. Shaffer. 2006. Ecological Consequences of Changing Hydrological Conditions in Wetland Forests of Coastal Louisiana. P. 383-395 in: Coastal Environment and Water Quality, Y.J. Xu and V.P. Singh, eds. Challenges in Coastal Hydrology and Water Quality, Water Resource Publications, Highlands Ranch, Colo. 534 p.

Keim, R. F., T. J. Dean, and J. L. Chambers. 2013. Flooding Effects on Stand Development in Cypress-Tupelo. P. 431-437 in: Proceedings, 15th Biennial Southern Silvicultural Research Conference, Hot Springs, AK. USDA Forest Service Technical Report SRS-175.

Keim, R. F., C. W. Izdepski, and J. W. Day, Jr. 2012. Growth Responses of Baldcypress to Wastewater Nutrient Additions and Changing Hydrologic Regime. Wetlands 32: 95-103.

Louisiana Coastal Wetlands Conservation and Restoration Task Force, LCWCRTF. 1993. Louisiana Coastal Wetlands Restoration Plan: Main Report and Environmental Impact Statement.

Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority, LCWCRTF. 1998. Coast 2050: Toward a Sustainable Coastal Louisiana. Louisiana Department of Natural Resources. Baton Rouge, LA. 161pp.

Louisiana Coastal Wetlands Conservation and Restoration Task Force. 2012. Wetland Value Assessment Methodology: Swamp Community Model, Version 1.2. 33 pages.

Louisiana Coastal Wetlands Conservation and Restoration Task Force 2013, 22nd Priority Project List Report, LCWCRTF October 2013.

Louisiana Department of Environmental Quality, Final 2014 Louisiana Water Quality Integrated Report (305(b)/303(d)), July 29, 2015.

Natural Resource Conservation Service, NRCS. 2000. Soil Survey of St. James Parish, Louisiana. U.S. Department of Agriculture.

Natural Resource Conservation Service, NRCS. Custom Soil Resource Report for St. James Parish, Louisiana, Lac des Allemands Swamp, Dec. 10, 2012, U.S. Department of Agriculture.

Park, D., M. Inoue, W. J. Wiseman, Jr., D. Justic, and G. Stone. 2004. High-Resolution Integrated Hydrology-Hydrodynamic Model: Development and Application to Barataria Basin, Louisiana. U. S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS2004 - 063. 74 pp.

Pezeshki, S. R. 1991. Root Responses of Flood-tolerant and Flood-sensitive Tree Species to Soil Redox Conditions. Trees 5: 180-186.

Pezeshki, S. R., R. D. DeLaune, and W. H. Patrick, Jr. 1993. Responses of Forested Wetland Species to Alteration in Soil Hydrology/Chemistry. P. 878-885 in: Wetlands: Proceedings 13th Annual Conference of the Society of Wetland Scientists, New Orleans, LA 990 p.

R. Christopher Goodwin & Associates, Inc., 2015, for Royal Engineering, Negative Findings: Phase I Cultural Resources Investigation of the Proposed Coastal Protection and Restoration Authority (CPRA) Hydrologic Restoration Project Area, St. James Parish, Louisiana, August 2015.

Reed, D., ed. 1995. Status and Trends of Hydrologic Modification, Reduction in Sediment Availability, and Habitat Loss/Modification in the Barataria-Terrebonne Estuarine System. Barataria-Terrebonne National Estuary Program, Thibodaux, LA, 20: 388 pp.

Ross, S.T. 2001. The Inland Fishes of Mississippi. University Press of Mississippi, Jackson, Mississippi.

Sasser, C.E., Visser, J.M., Mouton, E., Linscombe, J., and Hartley, S.B. 2008. Vegetation types in coastal Louisiana in 2007: U.S. Geological Survey Open-File Report 2008–1224, 1 sheet, scale 1:550,000.

Sasser, C. E., J. M. Visser, E. Mouton, J. Linscombe, and S. B. Hartley. 2014. Vegetation Types in Coastal Louisiana in 2013. U.S. Geological Survey Scientific Investigations Map 3290, 1 sheet, scale 1:550,000.

Saucier, R. T. 1994. Geomorphology and Quaternary Geologic History of the Lower Mississippi Valley. U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. 364 pp.

Science Working Group (SWG). Conservation, Protection and Utilization of Louisiana Coastal Wetland Forests: Final Report to the Governor of Louisiana from the Coastal Wetland Forest Conservation and Use Science Working Group, April 30, 2005.

Shaffer, G. P. 2011. Review of Ecological Benefits of the Proposed Mississippi River Reintroduction into Northwest Barataria Basin (BA-34) Project. Contract Report Prepared for the Coastal Protection and Restoration Authority of Louisiana (CPRA), Baton Rouge, LA. 6 pp.

Shaffer, G.P., W.B. Wood, S.S. Hoeppner, T.E. Perkins, J. Zoller and D. Kandalepas. 2009. Degradation of Bald Cypress-Water Tupelo Swamp to Marsh and Open Water in Southeastern Louisiana, USA: An Irreversible Trajectory? Journal of Coastal Research 54: 152-165.

Turner, R.E., and Cahoon, D.R., Causes of wetland loss in the coastal central Gulf of Mexico, 1987.

U.S. Census Bureau, 2010. St. James Parish Quick Facts Report, found at http://quickfacts.census.gov/qfd/states/22/22075.html.

U.S. Department of Agriculture, Lac des Allemands River Basin Initiative Final Report, Prepared for The Citizens of Ascension, Assumption, Lafourche, St. Charles, St. James, and St. John the Baptist Parishes, September 2002**.**

U.S. Department of Agriculture, Natural Resources Conservation Service, Custom Soil Resource Report for St. James Parish, Louisiana, Lac des Allemands Swamp, December 10, 2012.

U.S. Army Corps of Engineers, USACE, Feb. 18, 2014. Letter in response to Solicitation of Views.

U.S. Army Corps of Engineers, USACE. 2004. Final Programamatic Environmental Impact Statement, Louisiana Coastal Area (LCA) Ecosystem Restoration Study. Volume 2.

U.S. Environmental Protection Agency, USEPA. 1989. Onshore Oil and Gas Activities Along the Northern Gulf of Mexico Coast: A Wetland Manager's Handbook. Final Report; Authored by Louisiana Geological Survey, Louisiana State University. USEPA Region 6; Dallas, TX, March 10, 1989.

U.S. Environmental Protection Agency, USEPA. 2012, EPA and State of Louisiana, Scope of Services, Cooperative Agreement for the Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp Marsh Creation (BA-34-2).

U.S. Environmental Protection Agency, USEPA. 2013. Request for a Change in Scope and Name for the PPL 10-Mississippi River Reintroduction into Northwestern Barataria Basin Project (BA-34), presentation at the meeting of the CWPPRA Task Force, June 2013.

U.S. Environmental Protection Agency, USEPA. 2015. EJSCREEN Census 2010 Summary Report for BA 34-2 with 1-mile buffer.

U.S. Fish & Wildlife Service website www.fws.gov/birds/management/managed-species/bald-and-golden-eagle-information, 2015.

U.S. Geological Survey, USGS. 2011. Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp Marsh Creation (BA-34-2) Land/Water analysis.

Enclosure VI – 303(e) Request Cover Letter

State of Louisiana

BOBBY JINDAL
GOVERNOR

September 2, 2015

Ms. Barbara J. Aldridge
Marine & Coastal Section 6WQ-EC
Ecosystems Protection Branch
Water Quality Protection Division
U.S. Environmental Protection Agency (EPA) Region 6
1445 Ross Avenue
Dallas, TX 75202

RE: CWPPRA Section 303(e) Approval
Hydrologic Restoration and Vegetative Plantings in Lac Des Allemands Swamp Project
BA-0034-2

Dear Ms. Aldridge:

By this letter, I am transmitting to you a draft copy of the Coastal Protection and Restoration Authority's ("CPRA") typical Temporary Easement, Servitude, and Right-of-way Agreement (with map and exhibit attached). This document will be used to acquire the necessary landrights for the project. The CPRA Land Rights Division will begin negotiations for landrights in the near future.

This document fulfills the requirements outlined in Section 6(g)(2)(a)(b)(c) of the Standard Operating Procedures Manual for CWPPRA projects: the Document is the "Language of Landrights," and the map and exhibit attached to it describe the "Plan" and the "Project Limits." The document was approved by 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 and document may be forwarded under cover letter from the U.S. Environment Protection Agency (EPA) 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 must also provide to the EPA an overgrazing determination on the project. These two items and a letter requesting 303(e) approval may be sent to the following address:

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 15th Floor Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-4711 • http://www.coastal.la.gov
An Equal Opportunity Employer

ATTN: CEMVN-OC
U. S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

If you need further assistance or have any questions regarding this matter, please contact me at (225) 342-1934. We at CPRA look forward to completing the 303(e) approval process and proceeding with project construction.

Sincerely,

James L. Altman, CPL
CPRA Land Manager

Attachments

c (no attachment): Garvin Pittman- BA-0034-2 Project Manager

F:\users\LAND\Projects\BA\BA34-2 MS River Reintro Expansion\303(e) Approval\BA-0034-2 303(e) Ltr (EPA) 8-21-2015.docx

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, Kyle Graham, domiciled in East Baton Rouge Parish, Louisiana, with offices located at 450 Laurel Street, Suite 1200, Baton Rouge, Louisiana, 70801, 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: _____
Print: _____	**KYLE GRAHAM**
	Title: Executive Director
_____	
Print: _____	Date: _____

CORPORATE ACKNOWLEDGMENT

STATE OF LOUISIANA

PARISH OF_____

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish/County and State aforesaid, on this _____ day of _____, 20___, personally came and appeared _____ , to me known, who, being by me duly sworn, declared and acknowledged to me, Notary, that he/she is _____, of_____, that as such duly authorized officer, by and with authority of the Board of Directors of said corporation, he/she signed, and executed the foregoing instrument, as the free and voluntary act and deed of said corporation, for and on behalf of said corporation, and for the object and purposes therein set forth.

_____

Print:_____
NOTARY PUBLIC

Notary or Bar #_____
My commission expires:_____
(SEAL)

INDIVIDUAL ACKNOWLEDGMENT

STATE OF_____

PARISH/COUNTY OF_____

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish/County and State aforesaid, on this _____ day of _____, 20___, before me personally appeared _____, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he/she executed it as his/her free act and deed.

_____

Print:_____
NOTARY PUBLIC

Bar/Notary #_____
My commission expires: with life
(SEAL)

WITNESS ACKNOWLEDGMENT

STATE OF LOUISIANA

PARISH/COUNTY OF _____

BEFORE ME, the undersigned Notary, duly commissioned and qualified in and for said Parish/ County and State aforesaid, on this _____ day of _____, 20___, personally came and appeared _____, who, known to me, being duly sworn, declared and acknowledged to me, Notary, that he was one of the subscribing witnesses to the foregoing instrument and that the same was signed by _____, who signed and executed the foregoing instrument as his free and voluntary act and deed, in the presence of _____ _____ and in the presence of the other subscribing witness or witnesses.

_____
SUBSCRIBING WITNESS

Print:_____

SWORN TO AND SUBSCRIBED before me this _____ day of _____, 20___.

_____

Print:_____
NOTARY PUBLIC

Notary Number: _____
My commission expires: with life
(SEAL)

ACKNOWLEDGMENT

STATE OF LOUISIANA

PARISH OF EAST BATON ROUGE

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this _____ day of _____, 20___, personally came and appeared **Kyle Graham,** me known, who declared that he is the **Executive Director**, of the Coastal Protection and Restoration Authority, State of Louisiana, that he executed the foregoing instrument on behalf of said State Agency and that the instrument was signed pursuant to the authority granted to him by said State Agency and that he acknowledged the instrument to be the free act and deed of said State Agency.

_____

Print Name: _____
NOTARY PUBLIC

Notary or Bar #_____
My commission expires: with life
(SEAL)

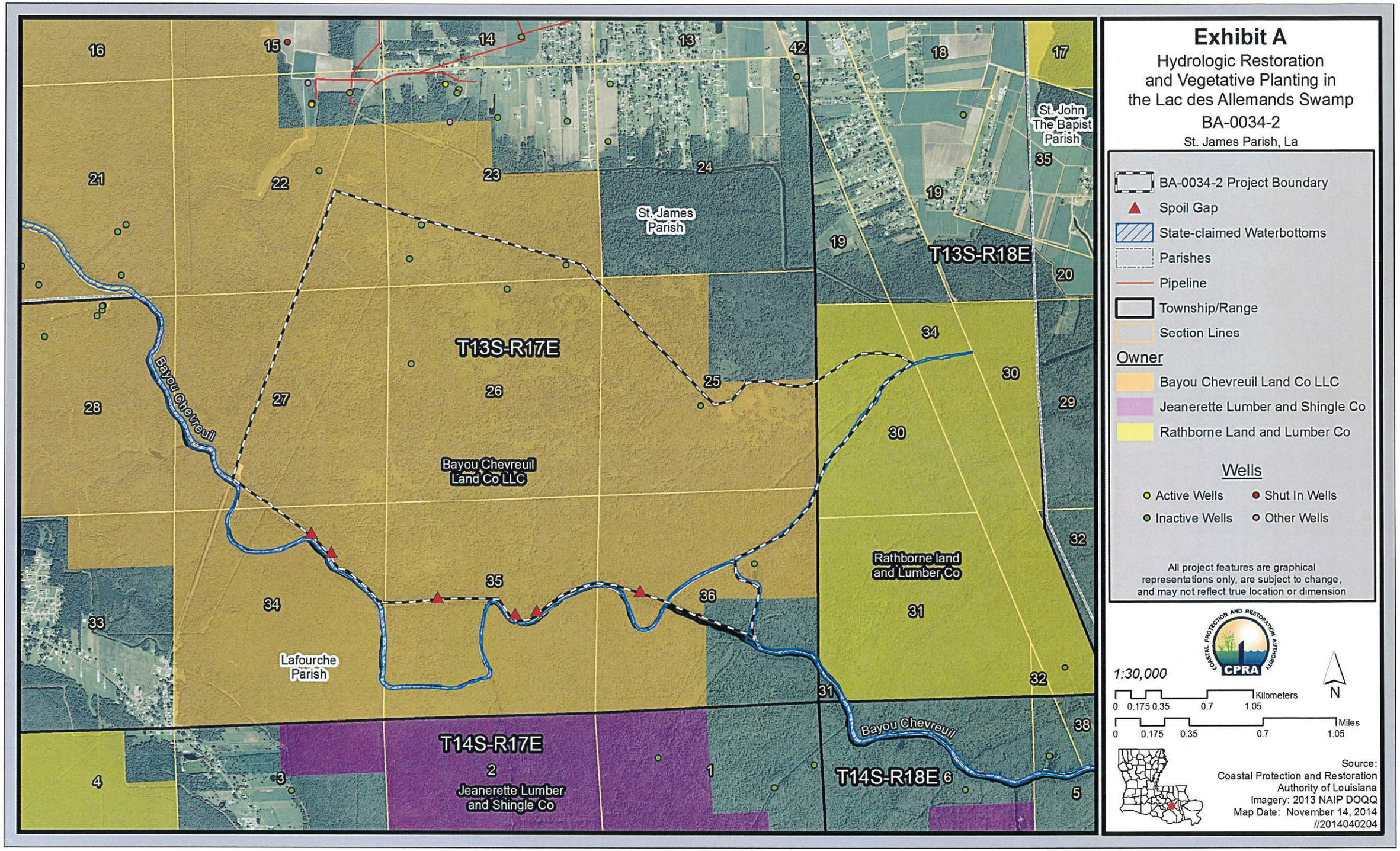
Exhibit A
Hydrologic Restoration and Vegetative Planting in the Lac des Allemands Swamp
BA-0034-2
St. James Parish, La
BA-0034-2 Project Boundary
Spoil Gap
State-claimed Waterbottoms
Parishes
Pipeline
Township/Range
Section Lines
Owner
Bayou Chevreuil Land Co LLC
Jeanerette Lumber and Shingle Co
Rathborne Land and Lumber Co
Wells
Active Wells
Shut In Wells
Inactive Wells
Other Wells
All project features are graphical representations only, are subject to change, and may not reflect true location or dimension
1:30,000
0 0.175 0.35 0.7 1.05 Kilometers
0 0.175 0.35 0.7 1.05 Miles
N
Source:
Coastal Protection and Restoration Authority of Louisiana
Imagery: 2013 NAIP DOQQ
Map Date: November 14, 2014
//2014040204
T13S-R17E
T13S-R18E
T14S-R17E
T14S-R18E
St. James Parish
St. John The Bapist Parish
Lafourche Parish
Bayou Chevreuil
Bayou Chevreuil Land Co LLC
Rathborne land and Lumber Co
Jeanerette Lumber and Shingle Co

THIS EXHIBIT SHOULD BE EDITTED TO REFLECT CURRENT PROJECT NEEDS AND OBJECTIVES

Exhibit B

Attached to and made a part of the certain Temporary Easement, servitude and Right-of-Way Agreement by and between _____ and the Office of Coastal Protection and Restoration, dated the _____ day of _____, 20__.

Project Activities and Features

a. The right to construct (including the necessary excavation and/or filling), operate, maintain and monitor water control structures including all appurtenances thereto, in, over and across the said Lands as shown at Site(s)_____ on Exhibit(s)_____(see detail on Exhibit(s)_____);

b. The right to construct, operate, maintain and monitor structures or improvements to enhance the deposition of sediment upon said Lands as shown at Site(s)_____ on Exhibit(s)_____(see detail on Exhibit(s)_____);

c. The right to plant or cause the growth of vegetation in, on, over and across said Lands, including the right to nourish, replenish and maintain said vegetation at locations shown on Exhibit_____ (see detail on Exhibit(s) _____);

d. The right to plug, close or fill selected channels, canals, ditches, streams or waterbodies located on said Lands as shown at Site(s) _____ on Exhibit(s)_____(see detail on Exhibit(s)_____);

e. The right to construct (including the necessary borrow areas), maintain and monitor overflow banks so as to preclude the exchange of channelized water on, over and across said Lands shown at Site(s) _____ on Exhibit(s)_____(see detail on Exhibit(s)_____);

f. The right to deposit dredged sediment and/or fill material on, over and across said Lands by either natural or mechanical means, including the right to alter land and/or water contours and undertake management practices to enhance or extend the beneficial use of dredged or sediment deposition for wetland creation, restoration and enhancement as shown at Site(s) on Exhibit(s)_____(see detail on Exhibit(s)_____);

g. The right to borrow, excavate, grade, and remove soil, vegetation and associated materials from the said Lands as shown at Site(s)_____ on Exhibit(s)_____(see detail on Exhibit(s)_____);

h. The right to construct, operate, maintain and monitor channel improvements works on, over and across said Lands, including the right to enlarge, improve, deepen or realign existing channels, canals, ditches or other waterways as shown at Site(s)_____ on Exhibit(s)_____(see detail on Exhibit(s)_____);

i. The right to construct and maintain fencing material to encourage the deposition of sand/sediment on said Lands as shown at Site(s)_____ on Exhibit(s)_____(see detail on Exhibit(s)_____);

j. The right to relocate, alter, replace or remove appropriate pipelines, utility lines, facilities or other structures in, on, under, and across said Lands as shown at Site(s) _____ on Exhibit(s)_____(see detail on Exhibit(s)_____);

k. The right to construct, locate, maintain and service required monitoring devices and equipment on said Lands and on other lands as may be owned by GRANTOR;

OR The right to construct, locate, maintain and service required monitoring devices and equipment on said Lands as called for in the Project Monitoring Plan, a copy of which will be provided to GRANTOR for review and concurrence;

OR The right to construct, locate, maintain and service required monitoring devices and equipment on said Lands as shown on Exhibit(s)_____(see detail on Exhibit(s)_);

l. The right to post warning signs or notices on or near appropriate Project features on said Lands, as may be deemed necessary by STATE;

m. The right to alter or remove structures and/or appurtenances constructed on said Lands by STATE pursuant to the Project;

n. The right to enter said Lands for the purpose(s) of conducting surveys, inspections and investigations required by STATE to evaluate the effectiveness of the Project and Project features, including maintaining/improving wetland and/or restored land quantity and quality;

o. The right to enter and traverse said Lands to access Project features located on adjacent Lands;

p. The right, to permanently overflow, flood and submerge the said Lands, *including the right to deposit dredged or sediment material on, over and across said Lands* in connection with the operation and maintenance of the Project, and the continuing right to clear and remove any brush, debris and natural obstructions on said Lands which may be detrimental to the Project as determined by OCPR, its successors and assigns, provided that no excavation shall be conducted and no landfill placed on said Lands without *GRANTOR'S* approval as to the said location and method of excavation and/or placement of landfill; and

q. The right to make modifications to the above, but only insofar as changes pertain to materials for Project features and minor changes to project feature locations, as may be deemed necessary by STATE to fully and properly implement and maintain the Project.

Additional Terms and Conditions

(this section is to be used if any additional terms and conditions are used to modify the original agreement)

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

NOV 6 2015

REPLY TO
ATTENTION OF

Programs and Project Management Division
Projects and Restoration Branch

RECEIVED
EPA REGION VI
15 NOV 16 PM 4:57
ECOSYSTEMS PROTECTION BR

Mr. William K. Honker, P. E.
Director
United States Environmental Protection Agency
Region 6
Water Quality Protection Division
1445 Ross Avenue
Suite 1200
Dallas, Texas 75202

Dear Mr. Honker:

This is in reference to your request dated October 5, 2015, for Section 303(e) approval for the Hydrologic Restoration and Vegetative Planting in the Lac Des Allemands Swamp Project (BA-34-2) (Fact Sheet with map enclosed), located in St. James Parish, Louisiana, in accordance with the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA).

Your 303(e) approval request package includes several documents that appear to satisfy the CWPPRA Standard Operating Procedures Manual requirements for Section 303(e) approval. These documents include a plan showing project limits, type and language of necessary land rights, statement that all standard real estate practices will be followed in acquiring land rights in accordance with applicable laws and regulations, plus an overgrazing determination from Natural Resources Conservation Service.

Our receipt of these materials immediately initiates our 303(e) application review process. Once completed, if found per these documents that the project is satisfactorily subject to such terms and conditions necessary to ensure that wetlands restored, enhanced, or managed through project administration for the long-term conservation of such lands and waters and dependent fish and wildlife populations, then the resultant 303(e) approval letter will be provided to you.

Should you have any questions or comments, please feel free to contact Mr. Mark R. Wingate, P. E., Deputy District Engineer for Programs and Project Management, at (504) 862-2204, or Mr. Brad Inman, CWPPRA Program Manager at (504) 862-2124.

Sincerely,

Richard L. Hansen
Colonel, U. S. Army
District Commander

Enclosure

cc: (w/enclosure)

Mr. James L. Altman, CPL
CPRA Land Manager
Coastal Protection and Restoration
Authority of Louisiana
Post Office Box 44027
Baton Rouge, Louisiana 70804-4027

Mr. Garvin Pittman
Local Sponsor Project Manager
Coastal Protection and Restoration
Authority of Louisiana
450 Laurel Street, Suite 1200
Baton Rouge, Louisiana 70801

Ms. Barbara Aldridge
Federal Sponsor Project Manager
U. S. Environmental Protection Agency,
Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

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

October 5, 2015

Colonel Richard L. Hansen
New Orleans District Commander
U.S. Army Corps of Engineers
ATTN: CEMVN-PM-BC
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Request for CWPPRA Section 303(e) Approval

Dear Colonel Hansen:

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 34-2, the Hydrologic Restoration and Vegetative Planting in the Lac Des Allemands Swamp "...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 entails hydrologic restoration of degraded swamp in St. James Parish, Louisiana. 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 September 2, 2015, 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 Project BA 34-2, the Hydrologic Restoration and Vegetative Planting in the Lac Des Allemands Swamp 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 Ms. Barbara Aldridge of my staff at (214) 665-2712 or by email at aldridge.barbara@epa.gov.

Sincerely yours,

William K. Honker P.E.
Director
Water Quality Protection Division

Enclosures

cc: Greg Mattson (CPRA)
Garvin Pittman (CPRA)
Brad Inman (USACE)

Enclosure VII – Overgrazing Determination

USDA
United States Department of Agriculture

August 31, 2015

Barbara J. Aldridge, CWPPRA Project Manager, BA-34-2
Marine & Coastal Section 6WQ-EC
Ecosystems Protection Branch
Water Quality Protection Division
U.S. Environmental Protection Agency (EPA) Region 6
1445 Ross Avenue, Dallas Tx. 75202

Dear Ms. Alderidge:

RE: des Allemands Swamp Marsh Restoration Project (BA-34-2)

I am in receipt of your request for an overgrazing determination for the des Allemands Swamp Marsh Restoration Project (BA-34-2). 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
Arnelis Crespo, District Conservationist, Donaldsonville, Louisiana
John Jurgensen, Civil Engineer, Alexandria, Louisiana

RECEIVED
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15 SEP 21 PM 5:08

Natural Resources Conservation Service
State Office
3737 Government Street
Alexandria, Louisiana 71302
Voice: (318) 473-7751 Fax: (318) 473-7626
An Equal Opportunity Provider and Employer

Enclosure VIII

Request for Phase II Funding Approval Spreadsheet
And
Fully Funded Cost Estimate

Letters of Support

St. James Parish Government

P. O. Box 106
Convent, Louisiana 70723-0106
(225) 562-2260
FAX (225) 562-2279
TDD: (225) 562-8500

Timothy P. Roussel
Parish President

Michelle N. Octave
Chief Administrative Officer

October 7, 2015

EPA Region 6
6WQ-EC
1445 Ross Avenue
Dallas, TX 75202

Attn: Ms. Barbara Aldridge

Dear Ms. Aldridge:

Please be advised that as President of St. James Parish, I strongly support the Hydrologic Restoration and Vegetative Planting on property in St. James Parish under BA-34-2. The Parish has seen a dramatic decline in this once healthy wetland area, similar to other large tracts of wooded land areas in South Louisiana.

The Parish and its citizens know all too well the importance of maintaining a healthy swamp and wetland environment. Not only does a forested swamp area provide needed animal and fish habitat, but they also provide filtering of our waterways, decrease storm surge and flooding, and reduce wind damages within our communities.

The proposed project should have no adverse impact on the economic, social, or environmental conditions; and, therefore, its construction is welcomed within the Parish.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

Timothy P. Roussel
Parish President

Blaise J. Gravois
Director of
Operations

Chantal T. Waguespack
Director of
Finance

Bedar W. Warren
Director of
Human Resources

Eric S. Deroche
Director of
Emergency Preparedness

St. James Parish Government

P. O. Box 106
Convent, Louisiana 70723-0106
(225) 562-2260
FAX (225) 562-2279
TDD: (225) 562-8500

Timothy P. Roussel
Parish President

Michelle N. Octave
Chief Administrative Officer

October 7, 2015

EPA Region 6
6WQ-EC
1445 Ross Avenue
Dallas, TX 75202

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Attn: Ms. Barbara Aldridge

Dear Ms. Aldridge:

Please be advised that as Director of Operations at St. James Parish, I strongly support the Hydrologic Restoration and Vegetative Planting on property in St. James Parish under BA-34-2. The Parish has seen a dramatic decline in this once healthy wetland area, similar to other large tracts of wooded land areas in South Louisiana.

The Parish and its citizens know all too well the importance of maintaining a healthy swamp and wetland environment. Not only does a forested swamp area provide needed animal and fish habitat, but they also provide filtering of our waterways, decrease storm surge and flooding, and reduce wind damages within our communities.

The proposed project should have no adverse impact on the economic, social, or environmental conditions; and, therefore, its construction is welcomed within the Parish.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

Blaise J. Gravois
Director of Operations

St. James Parish Coastal Zone
Management Advisory Commission
PO Box 106
Convent, La 70723
Phone: (225) 562-2286
Fax: (225) 562-2479

October 7, 2015

EPA Region 6
6WQ-EC
1445 Ross Avenue
Dallas, TX 75202

Attn: Ms. Barbara Aldridge

Re: EPA-Solicitation of Views
Hydraulic Restoration and Vegetative Planting in the Des Allemands Swamp
BA-34-2

Dear Ms. Aldridge:

The St. James Parish Coastal Zone Committee has reviewed the BA-34-2 EPA project and fully supports this long overdue project. The Coastal Zone Committee recognizes the value of maintaining, restoring, and enhancing not only existing wetland areas, but those areas that have been deteriorated by salt water intrusion, lack of adequate hydrology, and oil field exploration impoundments.

The proposed project will provide much needed hydrologic restoration and vegetative planting in an area that previously has seen healthy cypress and tupelo trees, replaced with freshwater marsh and evasive vegetative species.

The Committee can find no adverse impacts to social, economic, or existing environmental conditions and will provide any support and information needed to complete this project's construction.

Sincerely,

Levar A. Joseph, Chairman
St. James Parish Coastal Zone

LOUISIANA STATE SENATE

P.O. Box 974
Napoleonville, LA 70390
Office (985) 369-3333
Fax (985) 369-3334

COMMITTEES:
Environmental Quality, Vice-Chair
Insurance
Transportation, Highways and Public Works

TROY E. BROWN
Senator - District 2

October 7, 2015

EPA Region 6
6WQ-EC
1445 Ross Avenue
Dallas, TX 75202

Attn: Ms. Barbara Aldridge

Dear Ms. Aldridge:

Please be advised, I strongly support the Hydrologic Restoration and Vegetative Planting on property in St. James Parish under BA-34-2. The Parish has seen a dramatic decline in this once healthy wetland area, similar to other large tracts of wooded land areas in South Louisiana.

The Parish and its citizens know all too well the importance of maintaining a healthy swamp and wetland environment. Not only does a forested swamp area provide needed animal and fish habitat, but they also provide filtering of our waterways, decrease storm surge and flooding, and reduce wind damages within our communities.

The proposed project should have no adverse impact on the economic, social, or environmental conditions; and, therefore, its construction is welcomed within the Parish.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

Troy Brown
State Senator District #2

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Satellite Offices
(855) 369-7553

Brusly Office
400 West St. Francis St., Ste. A6
Brusly, LA 70719

Thibodaux Office
353 West Main St.
Thibodaux, LA 70302

LaPlace Office
3205 New Hwy. 51
LaPlace, LA 70068

LOUISIANA HOUSE OF REPRESENTATIVES

2109 South Burnside, Ste. C
Gonzales, LA 70737
Email: pricee@legis.la.gov
Phone: 225.644.6738
Toll Free: 855.844.1430
Fax: 225.644.6750

Commerce
Education
Retirement

EDWARD PRICE
State Representative ~ District 58

October 7, 2015

EPA Region 6
6WQ-EC
1445 Ross Avenue
Dallas, TX 75202

Attn: Ms. Barbara Aldridge

Dear Ms. Aldridge:

Please be advised, I strongly support the Hydrologic Restoration and Vegetative Planting on property in St. James Parish under BA-34-2. The Parish has seen a dramatic decline in this once healthy wetland area, similar to other large tracts of wooded land areas in South Louisiana.

The Parish and its citizens know all too well the importance of maintaining a healthy swamp and wetland environment. Not only does a forested swamp area provide needed animal and fish habitat, but they also provide filtering of our waterways, decrease storm surge and flooding, and reduce wind damages within our communities.

The proposed project should have no adverse impact on the economic, social, or environmental conditions; and, therefore, its construction is welcomed within the Parish.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

Edward Price
State Representative
District 58

RECEIVED
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LOUISIANA HOUSE OF REPRESENTATIVES

6473 Hwy. 44, Suite 205
Gonzales, LA 70737
Email: schexnayderc@legis.la.gov
Phone: 225.473.6016
855.870.8213
Fax: 225.473.6018

Civil Law and Procedure
Natural Resources and Environment
Labor and Industrial Relations
Legislative Audit Advisory Council
Homeland Security

CLAY SCHEXNAYDER
State Representative ~ District 81

October 7, 2015

EPA Region 6
6WQ-EC
1445 Ross Avenue
Dallas, TX 75202

Attn: Ms. Barbara Aldridge

Dear Ms. Aldridge:

Please be advised, I strongly support the Hydrologic Restoration and Vegetative Planting on property in St. James Parish under BA-34-2. The Parish has seen a dramatic decline in this once healthy wetland area, similar to other large tracts of wooded land areas in South Louisiana.

The Parish and its citizens know all too well the importance of maintaining a healthy swamp and wetland environment. Not only does a forested swamp area provide needed animal and fish habitat, but they also provide filtering of our waterways, decrease storm surge and flooding, and reduce wind damages within our communities.

The proposed project should have no adverse impact on the economic, social, or environmental conditions; and, therefore, its construction is welcomed within the Parish.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

CLAY SCHEXNAYDER
State Representative
District 81

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Cole's Bayou Marsh Restoration

(TV-63)

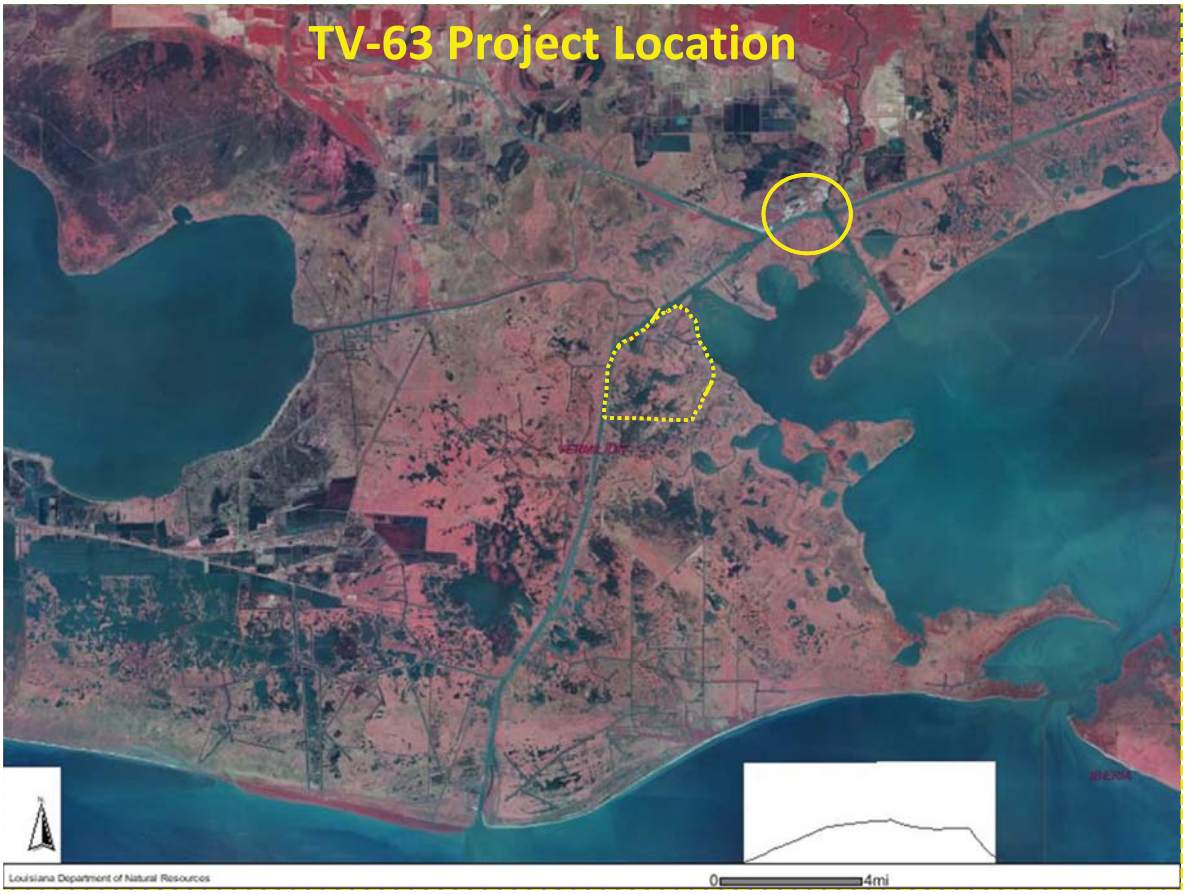
NMFS

PPL 21

Cole's Bayou Marsh Restoration Project (TV-63) Phase II Request

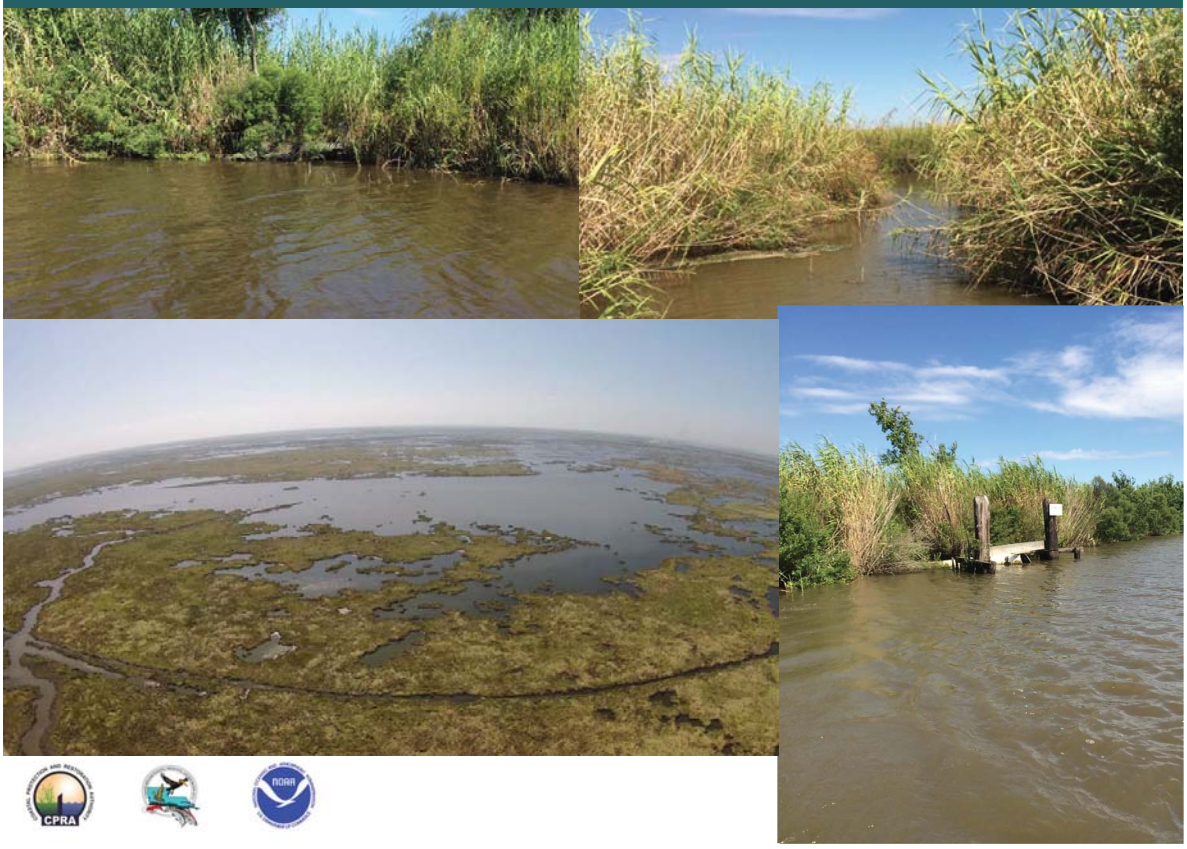
Technical Committee Meeting
December 10, 2015

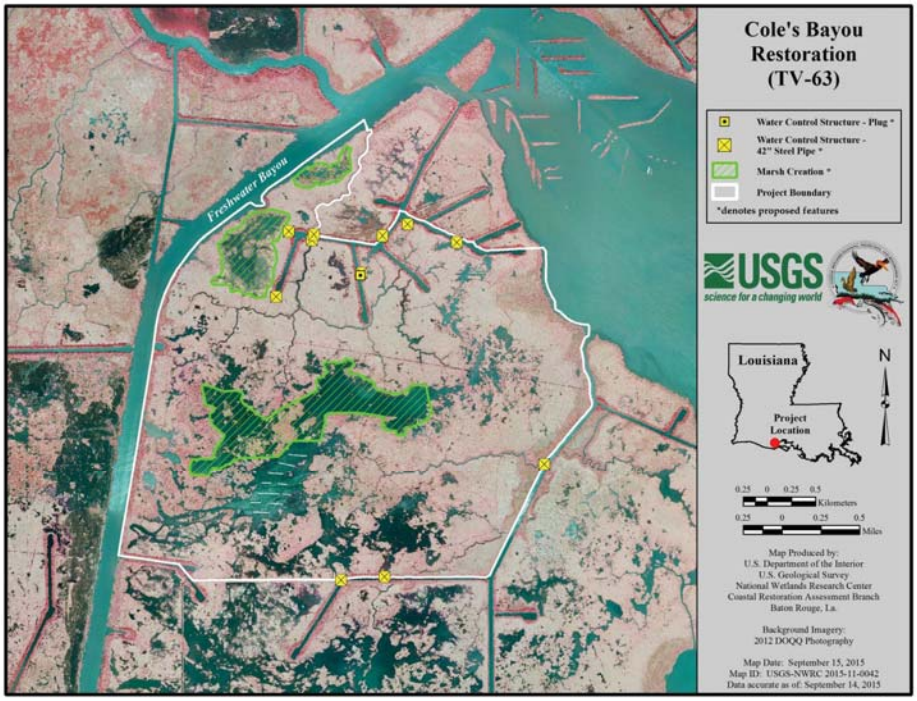
Baton Rouge, LA



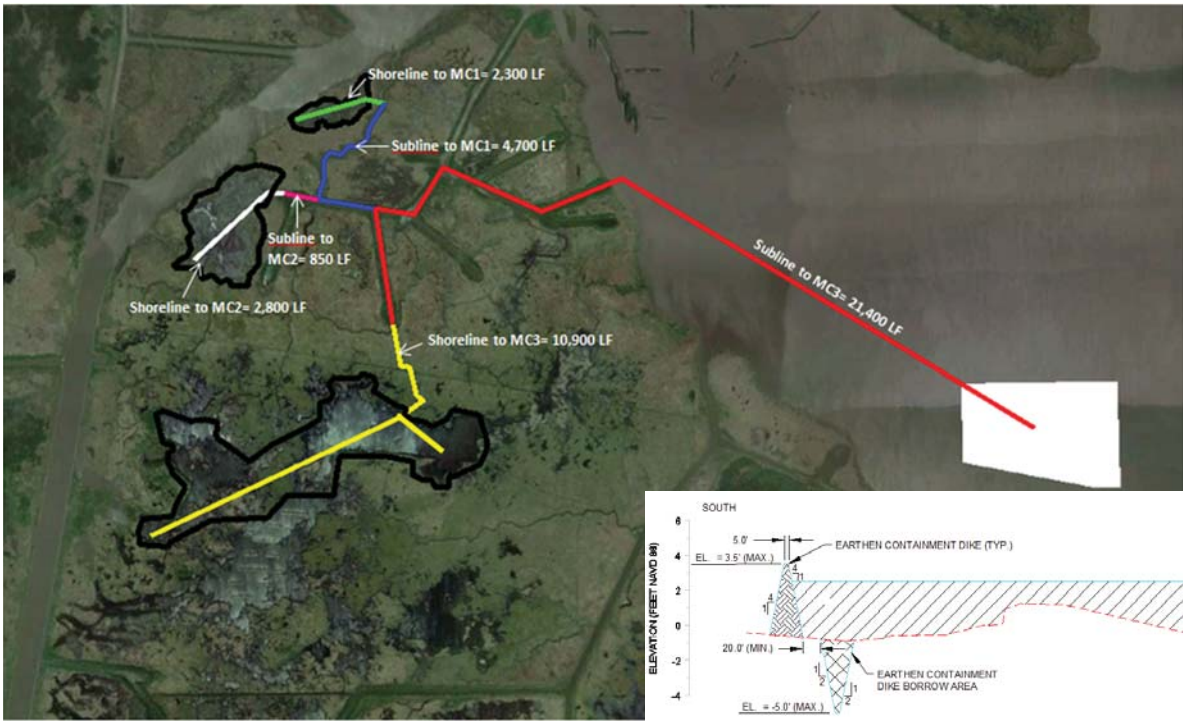
Project Background and Purpose

- Project funded originally through CWPPRA on PPL 21.
- Project area wetlands undergoing loss rate of -0.42% per year based on 1983 to 2011 USGS data.
- Wetland loss processes include subsidence/sediment deficiency and storm impacts resulting in interior ponding and pond enlargement.
- Salt water intrusion and hydrologic changes have resulted in a more flotant marsh with increasing susceptibility to tidal energy and storm damage.
- Project Goals: Create and nourish approximately 418 acres of brackish marsh, and increase freshwater and sediment inflow into interior wetlands by improving the project area hydrology.

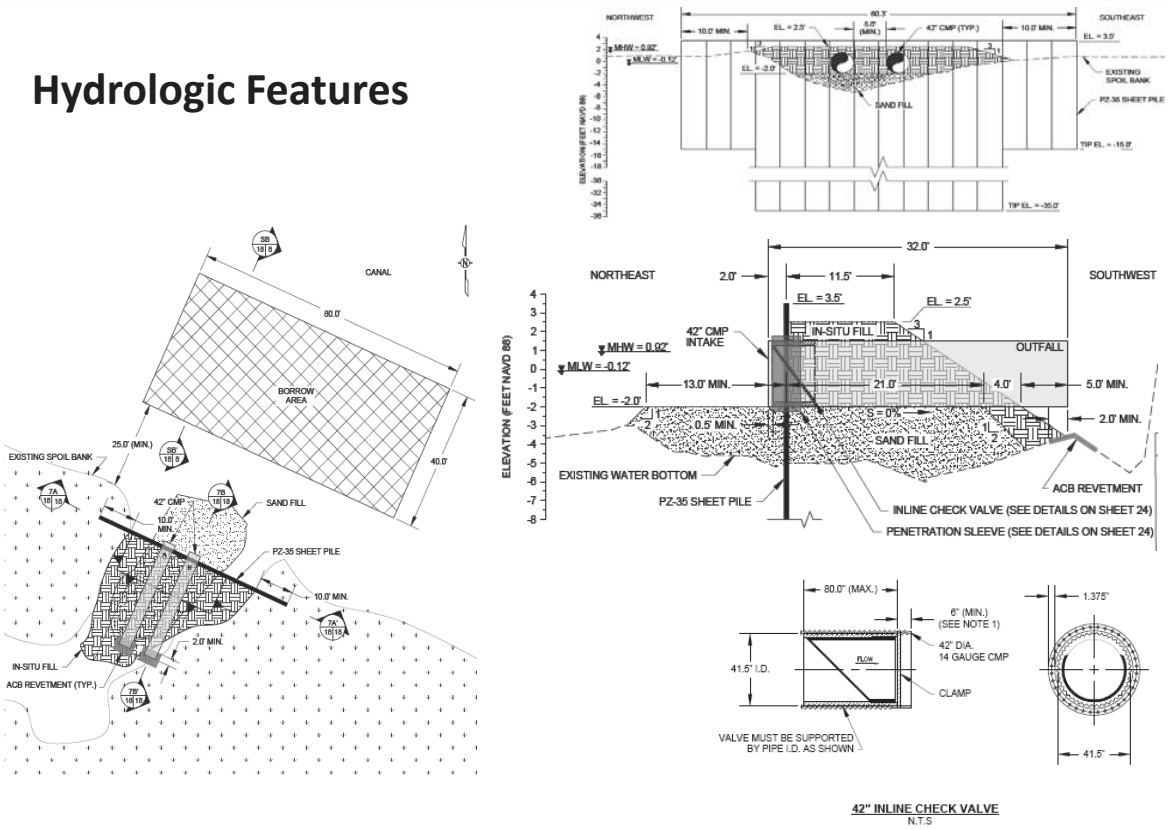




Marsh Creation



Hydrologic Features



Cole's Bayou (TV-63)

Benefits and Costs

- The project benefits 3,840 acres of marsh and open water habitats.
- 340 net acres at the end of the 20-year project life.
- Fully funded cost = $25,635,640.
- Today's Phase II Increment I request = $21,032,685

Cole's Bayou (TV-63)

Why this project, why now?

- Restores interior marshes that separate Vermilion Bay from Freshwater Bayou.
- Reintroduces historical hydrologic patterns of sediment-laden freshwater from north through the interior of the project area.
- For every year not built, the landmass separating Vermilion Bay and Freshwater Bayou will continue to decline and convert to open water.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

November 20, 2015

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 Cole's Bayou Marsh Restoration project (TV-63)

Dear Mr. Wingate:

NOAA Fisheries and the Louisiana Coastal Protection and Restoration Authority (CPRA) hereby request approval for Phase II authorization of the Cole's Bayou Marsh Restoration project (TV-63). Phase I activities were authorized on Priority Project List 21 on January 19, 2012, 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
John Foret, Project Manager, NOAA NMFS
Andrew Beall, CPRA Project Management Administrator

Printed on Recycled Paper

November 20, 2015

I. Description of Phase I Project

The Cole's Bayou Marsh Restoration Project was proposed by the National Oceanic and Atmospheric Administration (NOAA) as a candidate for the Project Priority List 21. Phase 1 was authorized by the CWPPRA Task Force in January 2012. The Project is located in Vermilion Parish between Little Vermilion Bay and Freshwater Bayou Canal. The candidate project envisioned the creation of 365 acres of brackish marsh in recently formed shallow open water, nourishment of 53 acres of existing brackish marsh, and an increase freshwater and sediment inflow into interior wetlands by improving project area hydrology.

A summary of project costs and benefits at Phase 1 is provided below; the candidate project fact sheet and map can be found in ***Attachment A***.

Fully Funded Total Project Cost	$26,631,224
Phase II, Increment 1 Request	$23,881,247
Net Acres at TY20	398
Average Annual Habitat Units	234

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 and 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, development of the draft Environmental Assessment, and review of updated costs and benefits by the Engineering and Environmental Workgroups.

III. Description of the Phase II Candidate Project

There are two major features of the proposed project: 1) the creation/nourishment of 418 acres of brackish marsh, and 2) the installation of water control structures at twelve locations throughout the project area. The marsh creation/nourishment will be accomplished using approximately 1.8 million cubic yards (MCY) of fine-grained material hydraulically dredged from Little Vermilion Bay. Initial (30-day settlement period) fill elevations will be +2.0' NAVD 88 (Marsh Creation Areas 1 and 2) and +2.5' NAVD 88 (Marsh Creation Area 3), with a ± 0.5' tolerance in all three marsh creation areas, which

is anticipated to result in marsh elevations that would remain intertidal for the majoring of the 20-year project life.

As stated, the project includes the installation of water control structures in existing oil/gas canal breaches, existing broken structure locations, and in new locations (i.e. Cole's Bayou) to improve the project area hydrology by reestablishing the historic freshwater and sediment patterns into the interior wetlands. All structures will be set to -2.0' NAVD 88 to maximize available water elevations in and around the project area.

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, and an updated project fact sheet and map can be found in ***Attachment B***.

Fully Funded Total Project Cost	$25,635,640
Phase II, Increment 1 Request	$21,032,685
Net Acres at TY20	340
Average Annual Habitat Units	157

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. Specifically, the northern reach of Cole's Bayou was intended to be dredged to promote north of south flow through the project area. However, the input into the system provided by existing oilfield canals is greater than previously estimated based on subsequent hydrodynamic modeling. Therefore, dredging Cole's Bayou would create an unnecessary expense for the project and is no longer included as a project feature. Vegetative plantings were also dropped as a project feature. As monitoring data collected from other brackish marsh creation projects within this region shows, natural colonization of the newly created areas occurs within two to three growing seasons, or as quickly as planted marsh creation sites.

IV. Checklist of Phase Two Requirements

A. *List of project goals and strategies*

The specific goals of the project are: 1) create 365 acres of brackish marsh in recently formed shallow open water; 2) nourish 53 acres of existing brackish marsh; and 3) increase freshwater and sediment inflow into interior wetlands by improving project area hydrology. The project will encourage additional freshwater nutrient and sediment inflow with the installation of a series of culverts throughout the project area.

B. *Cost Share Agreement*

A cooperative agreement was executed between CPRA and NOAA for Phase I activities on January 16, 2013.

C. *Notification from the State or COE that land rights will be finalized in a short period of time after Phase 2 approval*

CPRA provided assurance on landrights completion to NOAA on September 29, 2015, **Attachment C**.

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

The Preliminary Design Review meeting was held on May 15, 2015. CPRA's Letter of Concurrence to proceed to final design is included in **Attachment D**.

E. *A favorable Final Design Review (95% Design Level)*

The Final Design Review meeting was held on October 8, 2015. In addition to NMFS, CPRA, NRCS, and USFWS participated in the meeting. CPRA's letter of concurrence to proceed to Phase II request is included in **Attachment E**.

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

NOAA sent out the Environmental Assessment to the Technical Committee on September 24, 2015 for 30 day review. Notice of its availability online was published on September 3, 2015 via the Abbeville Meridional. Additionally, hard copies of the EA were available from September 24, 2015 through October 25, 2015 at the Vermilion Parish Library. Beyond regulatory concurrences, with minor edits, no comments were received and NMFS is moving forward to finalize the document.

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

Joint permit application materials (LDNR/CMD, USACE, and LDEQ) were prepared, and are ready for submittal if Phase II funding is approved (**Attachment F**).

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 on August 5, 2015. That review of applicable federal and state regulatory agency records, historical records, interviews with persons knowledgeable about the subject property, and a physical site investigation, revealed no evidence of recognized environmental conditions (**Attachment G**).

I. *Section 303(e) approval*

The letter requesting Section 303(e) approval was submitted to the United States Army Corps of Engineers (USACE) on 10/1/15 (**Attachment H**).

J. *Overgrazing determination from NRCS*

The Overgrazing Determination was received from NRCS on September 23, 2015, stating that overgrazing is not a problem in the project area (**Attachment I**).

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*

NOAA submitted the revised cost estimate to the Engineering Work Group on October 16, 2015. A revised fully funded cost estimate was finalized by the Economic Workgroup on November 18, 2015. The total fully funded cost is $25,635,640. The Phase II funding request is included as **Attachment J**.

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 10, 2015 (**Attachment K**). The project is anticipated to result in 340 net acres and 132 AAHUs.

Attachment A

Candidate Project Factsheet

February 2012
Cost figures as of: January 2012

Cole's Bayou Marsh Restoration (TV-63)

Project Status

Approved Date: 2012 **Project Area:** 3,780 acres
Approved Funds: $3.1 M **Total Est. Cost:** $26.6M
Net Benefit After 20 Years: 398 acres
Status: Engineering and Design
Project Type: Marsh Creation and Hydrologic Restoration
PPL #: 21

Location

This project is located in Region 3, Teche/Vermilion Basin, Vermilion Parish, east of Freshwater Bayou Canal.

Problems

Project area wetlands are undergoing loss at -0.42 %/year based on 1983 to 2011 USGS data from the extended boundary. Wetland loss processes in this area include subsidence/sediment deficit, interior ponding and pond enlargement, and storm impacts resulting in rapid episodic losses. In addition, significant interior marsh loss has resulted from salt water intrusion and hydrologic changes associated with increasing tidal influence. As hydrology in this area has been modified, habitats have shifted to more of a floatant marsh type, resulting in increased susceptibility to tidal energy and storm damages. Habitat shifts and hydrologic stress reduce marsh productivity, a critical component of vertical accretion in wetlands.

Restoration Strategy

The specific goals of the project are: 1) create 365 acres of brackish marsh in recently formed shallow open water; 2) nourish 53 acres of existing brackish marsh; and, 3) increase freshwater and sediment inflow into interior wetlands by improving project area hydrology.

This project aims to create 365 acres and nourish 53 acres of brackish marsh via dedicated dredging with borrow from nearby Vermilion Bay. Although Vermilion Bay is not considered an "external" source of material, significant sediment inflows into this area may result in some borrow area infilling. Half of the marsh creation acres would be planted. The project will encourage additional freshwater nutrient and sediment inflow from Freshwater Bayou Canal by dredging a portion of Cole's Bayou along with the installation of a series of culverts throughout the project area.

Typical equipment used for hydraulically dredged marsh creation site near the dredge pipe discharge location.

The culverts located along the northern project boundary are envisioned to allow the ingress of sediment, water, and fisheries organisms into the semi-impounded project area, but avoid backflow of water and potential loss of interior marsh sediment (i.e., north to south flow only). The culverts located along the southern project boundary are envisioned to allow water to drain out of the marsh.

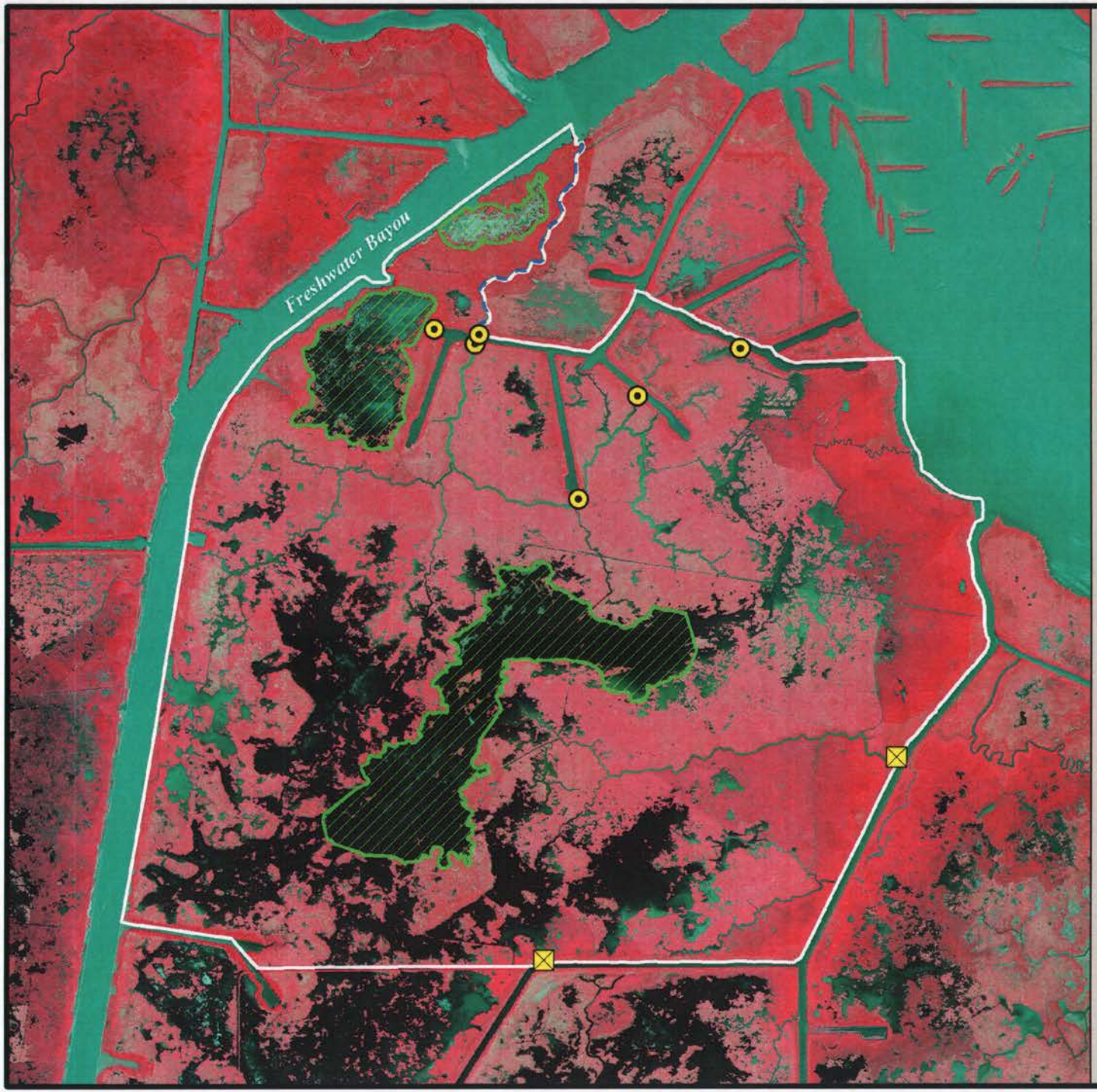
Progress to Date

This project is on Priority Project List 21.

For more project information, please contact:

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

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

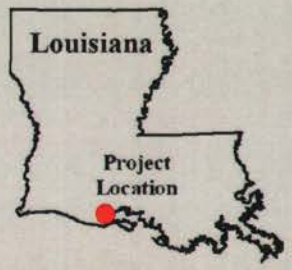


Cole's Bayou Restoration (TV-063)

- 1, 48" culvert with sluice and flap gates *
- 2, 48" culverts with flap gates *
- Channel Improvements *
- Marsh Creation *
- Project Boundary

*denotes proposed features

USGS
science for a changing world



N

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:
2010 NAIP Photography

Map Date: January 31, 2012
Map ID: USGS-NWRC 2012-11-0010
Data accurate as of: August 17, 2011

Attachment B

Revised Project Factsheet

February 2012
Cost figures as of: November 2015

Cole's Bayou Marsh Restoration (TV-63)

Project Status

Approved Date: 2012 **Project Area:** 3,840 acres
Approved Funds: $3.13 M **Total Est. Cost:** $26.6 M
Net Benefit After 20 Years: 398 acres
Status: Engineering and Design
Project Type: Marsh Creation and Hydrologic Restoration
PPL #: 21

Location

This project is located in Region 3, Teche/Vermilion Basin, Vermilion Parish, east of Freshwater Bayou Canal.

Problems

Project area wetlands are undergoing loss at -0.42 %/year based on 1983 to 2011 USGS data from the extended boundary. Wetland loss processes in this area include subsidence/sediment deficit, interior ponding and pond enlargement, and storm impacts resulting in rapid episodic losses. In addition, significant interior marsh loss has resulted from salt water intrusion and hydrologic changes associated with increasing tidal influence. As hydrology in this area has been modified, habitats have shifted to more of a floatant marsh type, resulting in increased susceptibility to tidal energy and storm damages. Habitat shifts and hydrologic stress reduce marsh productivity, a critical component of vertical accretion in wetlands.

Restoration Strategy

The specific goals of the project are: 1) create 365 acres of brackish marsh in recently formed shallow open water; 2) nourish 53 acres of existing brackish marsh; and, 3) increase freshwater and sediment inflow into interior wetlands by improving project area hydrology.

This project aims to create 365 acres and nourish 53 acres of brackish marsh via dedicated dredging with borrow from nearby Vermilion Bay. Although Vermilion Bay is not considered an "external" source of material, significant sediment inflows into this area may result in some borrow area infilling. Half of the marsh creation acres would be planted. The project will encourage additional freshwater nutrient and sediment inflow from Freshwater Bayou Canal by dredging a portion of Cole's Bayou along with the installation of a series of culverts throughout the project area.

Typical equipment used for hydraulically dredged marsh creation site near the dredge pipe discharge location.

The culverts located along the northern project boundary are envisioned to allow the ingress of sediment, water, and fisheries organisms into the semi-impounded project area, but avoid backflow of water and potential loss of interior marsh sediment (i.e., north to south flow only). The culverts located along the southern project boundary are envisioned to allow water to drain out of the marsh.

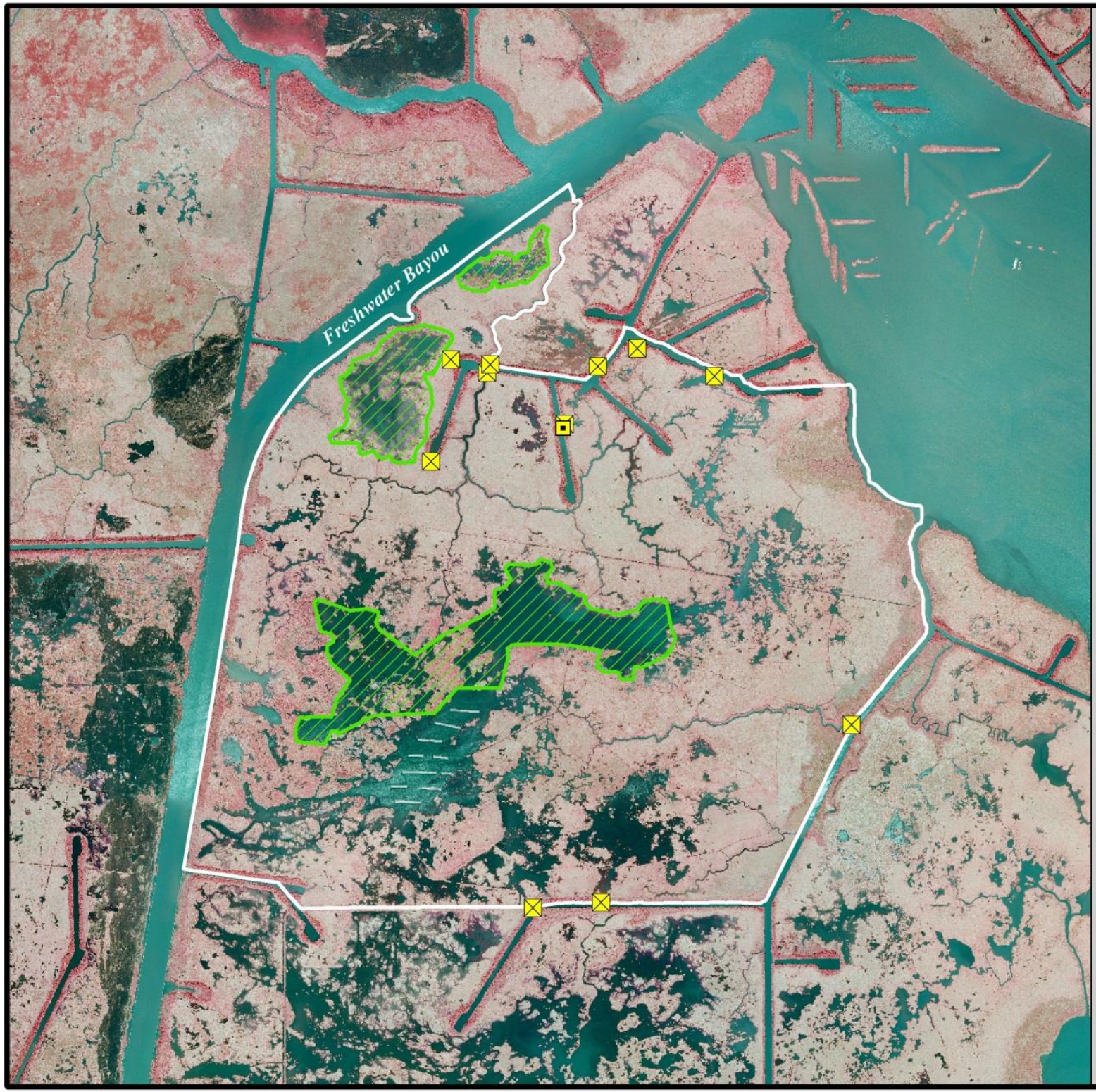
Progress to Date

This project is on Priority Project List 21.

For more project information, please contact:

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

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



Cole's Bayou Restoration (TV-63)

- Water Control Structure - Plug *
- Water Control Structure - 42" Steel Pipe *
- Marsh Creation *
- Project Boundary

*denotes proposed features

USGS
science for a changing world

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
National Wetlands Research Center
Coastal Restoration Assessment Branch
Baton Rouge, La.

Background Imagery:
2012 DOQQ Photography

Map Date: September 15, 2015
Map ID: USGS-NWRC 2015-11-0042
Data accurate as of: September 14, 2015

Attachment C

Project Landrights

Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

September 29, 2015

Cecelia Linder
U.S. Department of Commerce
NOAA Fisheries
SSMC#3 F/HC3, Rm 15861
1315 East West Hwy
Silver Spring, MD 20910

RE: Cole's Bayou Marsh Restoration Project (TV-63)
Landrights 95% Status

Dear Ms. Linder:

Appendix A, Section IV, Part C of the October 2014 CWPPRA SOP requires "Notification from the State or the Corps that land rights will be finalized in a short period of time after Phase II Approval."

The purpose of this letter is to inform the CWPPRA committees and Task Force that the process for landrights acquisition is progressing on the above reference project. All ownership investigations should be completed in approximately six to eight months. There is one major landowner covering the project.

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

Sincerely,

Ben Barnes
CPRA Land Specialist

cc: Dr. John Foret, NOAA Project Manager
Frank Cuccio, CPRA Contract Project Manager

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.lacpra.org/
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Attachment D

Concurrence on 30% Design

State of Louisiana

BOBBY JINDAL
GOVERNOR

July 7, 2015

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 Cole's Bayou Marsh Restoration (TV-63)
Statement of Local Sponsor Concurrence

Dear Mr. Doley:

The 30% Design Review meeting for Cole's Bayou Marsh Restoration Project was held on May 15, 2015. Based on our review of the technical information compiled to date, the land ownership investigation, and the preliminary design, the Coastal Protection and Restoration Authority, as the local sponsor, concurs to proceed with the design of TV-63.

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 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,

Andrew D. Beall
Project Management Administrator

cc: John Foret, National Oceanic and Atmospheric Administration
Stuart Brown, Coastal Protection and Restoration Authority
Cecelia Linder, National Oceanic and Atmospheric Administration
Frank Cuccio, Coastal Protection and Restoration Authority, Contractor

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Attachment E

Concurrence to Proceed to Phase II

State of Louisiana

BOBBY JINDAL
GOVERNOR

November 2, 2015

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: 95% Design Review- Concurrence for Phase II Funding
Cole's Bayou Marsh Restoration (TV-63)
Statement of Local Sponsor Concurrence

Dear Mr. Doley:

The 95% Design Review meeting for Cole's Bayou Marsh Restoration Project was held on October 8, 2015. Based on our review of the technical information compiled to date, the land ownership investigation, and the preliminary design, the Coastal Protection and Restoration Authority, as the local sponsor, concur to proceed with requesting Phase II construction funding for the project.

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

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

Sincerely,

Andrew D. Beall
Project Management Administrator

cc: John Foret, National Oceanic and Atmospheric Administration
Stuart Brown, Coastal Protection and Restoration Authority
Cecelia Linder, National Oceanic and Atmospheric Administration
Frank Cuccio, Coastal Protection and Restoration Authority, Contractor

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Attachment F

Project Permit

Louisiana Department of Natural Resources
Office of Coastal Management (OCM)
Telephone: 1-800-267-4019
Website: http://dnr.louisiana.gov/crm/

U.S. Army Corps of Engineers (COE)
New Orleans District
Telephone: 504-862-2766
Website: www.mvn.usace.army.mil/ops/regulatory

Joint Permit Application

For Work Within the Louisiana Coastal Zone

What is the purpose of the Joint Permit Application?

This Joint Permit Application was developed to facilitate the state and federal permit application process administered by the Louisiana Department of Natural Resources/Office of Coastal Management (OCM) and the U.S. Army Corps of Engineers (COE) for work within the Louisiana Coastal Zone.

To simplify the permit application process, the Joint Permit Application is a multi-purpose application. It may be used to apply for a Coastal Use Permit (CUP) and/or a Department of the Army Permit under Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act. This application may also be used to apply for a Solicitation of Views (SOV) or an OCM Request for Determination (RFD). Review the instructions below, then proceed to Step 1.

Instructions

How do I complete the Joint Permit Application?

There are two parts to the Joint Permit Application package:

1. Joint Permit Application, and
2. Maps and Drawings.

An accurate/complete application is required for processing; inaccurate/missing information may delay processing. Follow the instructions below to complete the application. Specific instructions are provided with each step.

- Type or print clearly using black or blue ink;
- Steps 1 through 16 must be completed; write "N/A" if information does not apply to your proposed project. It is not necessary to write "N/A" on the Steps that you have been asked to skip;
- When additional space is needed, include an 8½ x 11 sheet of paper identifying the Step number.

When you have questions or need assistance in completing the application package:

- Refer to the "Glossary of Terms" (See page 10.);
- Refer to "Frequently Asked Questions" (See page 11.);
- Contact the Office of Coastal Management at 1-800-267-4019 or 225-342-7591; or
- Contact your local coastal parish program (See page 11.). (http://dnr.louisiana.gov/CRM/coastmgt/interagencyaff/lcp/lcp.asp)

Step 1 of 16

Who is the applicant for the proposed project?

Note: Applicants may be either the landowner, person or company that is responsible for the proposed project.

Complete the following information about the applicant.

Applicant/Company Name: Louisiana Coastal Protection and Restoration Authority
Individual Person or Corporation/Company

Mailing Address: 450 Laurel Street
Street Address or P.O. Box

Unit/Apartment #

Baton Rouge — City
LA — State
70801 — Zip

Contact Information: Andrew Beall
Name of Contact Person *(not the agent)*

Andrew.Beall@la.gov
E-Mail Address

(225) 342-4550
Area Code Daytime Telephone Number

( )
Area Code Fax Number

Continue to page 2 for step 2.

Internal Office Use Permit #

Step 2 of 16

Is an agent being used for the proposed project?

Note: An agent is not required.

Is an agent being used for the proposed project?

☐ **NO** (If NO, proceed to Step 3.)
☑ **YES** (If YES, complete the following information.)

Company Name: Louisiana Coastal Protection and Restoration Authority
Corporation/Company

Mailing Address: 450 Laurel Street
Street Address or P.O. Box — Unit/Apartment #

Baton Rouge — City
LA — State
70801 — Zip

Contact Information: Sydney Dobson — Name of Contact Person
Sydney.Dobson@la.gov — E-Mail Address
(225) 342-5374 — Area Code, Daytime Telephone Number
( ) — Area Code, Fax Number

Step 3 of 16

What type of permit or action would you like to request?

Note: You may need the approval of other federal, state or local agencies for your project.

Note: For questions concerning the CUP, SOV or RFD, call OCM at:
- *1-800-267-4019*
  or
- *225-342-7591*

Check ☑ the appropriate box(es) to indicate the type of permit or action that you would like to request.

☑ **Coastal Use Permit (CUP), Clean Water Act Permit (Section 404), Rivers and Harbors Act (Section 10)**
The purpose of the CUP is to ensure that any activity affecting the Coastal Zone is completed in a manner that is consistent with the Louisiana Coastal Resource Program.

The purpose of the Department of the Army permit program under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act is to review and evaluate proposals for dredging, filling, and/or placement of structures in waterways and wetlands in order to determine whether a permit should be granted or denied based on expected impacts to the overall public interest.

☐ **Solicitation of Views (SOV)**
If you wish to find out if your project is in the Coastal Zone or if you wish to determine if there are special features of the area that may impact your project design you may request a SOV. No application fee is assessed for SOV requests. The following Steps must be completed to obtain an informal determination.
- Step 1, Step 2, Step 6, Step 14, Step 16; and
- Step 13 - (Vicinity plat showing project location and extent is required; cross section and plan views are useful, if available.)

☐ **Request for Determination (RFD) - OCM only**
If you wish to obtain a formal determination as to whether or not a CUP would be required for a particular activity, you may submit a RFD. The appropriate application fee will be assessed for RFD requests. The following Steps must be completed to obtain a RFD.
- Step 1, Step 2, Step 5, Step 6, Step 8, Step 10, Step 14, Step 16; and;
- Step 13 - (Vicinity plat showing project location and extent is required; cross section and plan views are useful, if available.)
- If you think that no permit is required, you must provide a statement explaining why you think a permit is not required.

Step 4 of 16

Have you participated in a Pre-Application or Geological Review Meeting or obtained a wetland determination?

Note: To schedule a Pre-Application and/or a Geological Review Meeting, call OCM at 1-800-267-4019.

Note: To apply for a wetland determination, call the COE at 504-862-1627.

a. Have you participated in a Pre-Application or Geological Review Meeting for the proposed project?

☑ **NO** (If NO, proceed to Step 4b.) (If you would like to schedule a pre-application meeting, please call 1-800-267-4019)
☐ **YES** (If YES, complete the following information.)

Date meeting was held: ____/____/_____

Attendees: _____ Individual or Company Representative _____ OCM Representative _____ COE Representative

b. Have you obtained an official wetland determination from the COE for the project site?

☑ **NO** (If NO, proceed to Step 4c.)
☐ **YES** (If YES, include a copy with this application.)

JD Number: _____

c. Is this application a mitigation plan for another CUP?

☑ **NO** (If NO, proceed to Step 5.)
☐ **YES** (If YES, identify the permit number of the project requiring mitigation.)

OCM Permit Number: P _____

Continue to page 3 for step 5.

Step 5 of 16

What permits/ certifications have you previously requested for the proposed project?

Note: Additional sheets may be required for agency name, permit number and status information.

a. Describe the project.

This project consists of 418 acres of marsh creation with material dredged from a 193 acre borrow area in Little Vermilion Bay, a 15,732 LF conveyance channel along the eastern boundary of Marsh Creation Area 3, installation of 12 water control structures with 1-3 corrugated metal pipes 42" in diameter, and the construction of 2 earthen plugs at locations of existing breaches.

b. Is this application a change to an existing permit?

☑ **NO** (If NO, proceed to Step 5c.)
☐ **YES** (If YES, identify the existing permit number.)

OCM Permit Number: _____
Please explain

c. Have you previously applied for a permit or emergency authorization for all or any part of the proposed project?

☐ **NO** (If NO, proceed to Step 6.)
☑ **YES** (If YES, complete the following information for the proposed project.)

Agency Name	Permit Number	Decision Status: Approved	Decision Status: Denied	Decision Status: Pending	Decision Date
OCM		☐	☐	☐	
COE		☐	☐	☐	
Other		☐	☐	☐	

Step 6 of 16

Where will the proposed project be located?

Note: The following websites may provide assistance in completing the latitude/longitude and directions:
- *Sonris on OCM website*
- *MapQuest.com*
- *Topozone.com.*

Complete the following information to identify the exact location of the proposed project.

a. Physical Location:
Parish: Vermilion
City:
Zip:
Street Address (If known):
Water Body (if known): east of Freshwater Bayou Canal

b. Latitude and Longitude:
Must be included in all applications.

	Degrees	Minutes	Seconds
Latitude:	29	43	27.595
Longitude:	92	13	24.179

c. Section, Township, Range: *(if available)*

Section #(s)	Township # (Specify North or South)	Range # (Specify East or West)
13,14,22,23,24,25,26	15S	02E
27	15S	02E

d. Lot #, Tract #, Parcel # or Subdivision Name: *(if known)*

Lot #: N/A
Parcel #: N/A
Tract #: N/A
Subdivision Name: N/A

Note: Directions may include the following:
- *Nearest town/city*
- *Highways*
- *Intersections*
- *Street names*
- *Landmarks*
- *Start/end point*

e. Site Directions: Directions to the proposed project site must be identified in order to process the application.

Example: **START - I-10 toward Baton Rouge. Exit #153 toward Port Allen. US-190 West/LA-1 North ramp. RIGHT onto LA-987 1/Bridge Side Road. RIGHT onto LA-986/North River Road to Popular Grove Plantation directly behind guest parking lot in rear. –END**

Merge onto I-110 S; Take exit 10 to I-10 W toward Lafayette; Continue to exit 103A to I-49 S toward US-90; Turn right on Louisiana Ave; Turn left onto Veteran's Memorial Drive; Take first right onto LA-82 W/N State St.; Turn right onto LA-82 W/Perry Dr.; Continue onto LA-333 S; Turn left onto Pintail Ave;Turn right at first street; This is the public boat launch. Proceed west on the Intracoastal for ~1.4 miles then head south in Freshwater bayou for 3.1 miles. This will bring you to the northern part of the project site.

Continue to page 4 for step 7.

Attachment G

HTRW Analysis

(Full version available upon request)

HAZARDOUS, TOXIC OR RADIOACTIVE WASTE PHASE I ENVIRONMENTAL SITE ASSESSMENT COASTAL PROTECTION AND RESTORATION AUTHORITY COLE'S BAYOU MARSH RESTORATION ABBEVILLE, VERMILION PARISH, LOUISIANA 70510 PROJECT NO. 100-BTR-T34497

Prepared for:

Coastal Protection and Restoration Authority
450 Laurel Street
Baton Rouge, Louisiana 70801

Report Date: August 31, 2015
On-Site Date: July 8, 2015

Prepared by:

Tetra Tech, Inc.
2901 Wilcrest Drive, Suite 400
Houston, Texas 77042
Telephone (832) 251-5160

Attachment H

Section 303(e)

RE: [EXTERNAL] Coles Bayou TV 63 Section 303e Request (UNCLASSIFIED)

1 message

Hennington, Susan M MVN <Susan.M.Hennington@usace.army.mil> Fri, Oct 2, 2015 at 8:20 AM
To: Cecelia Linder - NOAA Federal <cecelia.linder@noaa.gov>
Cc: "Inman, Brad L MVN" <Brad.L.Inman@usace.army.mil>, "Carriere, Kaitlyn M MVN" <Kaitlyn.M.Carriere@usace.army.mil>, John Foret - NOAA Federal <john.foret@noaa.gov>, Benjamin Barnes <Benjamin.Barnes@la.gov>, Frank Cuccio <Frank.Cuccio@la.gov>, James Altman <James.Altman@la.gov>, Stuart Brown <stuart.brown@la.gov>

Classification: UNCLASSIFIED
Caveats: NONE

Hi Cece,

Got your electronic version of the 303(e) application materials for the TV-63 Coles Bayou project & will get it into the "303(e) processing chute" immediately.

Many thanks-

Susie

-----Original Message-----
From: Cecelia Linder - NOAA Federal [mailto:cecelia.linder@noaa.gov]
Sent: Thursday, October 01, 2015 4:48 PM
To: Hennington, Susan M MVN
Cc: Inman, Brad L MVN; Carriere, Kaitlyn M MVN; John Foret - NOAA Federal; Benjamin Barnes; Frank Cuccio; James Altman; Stuart Brown
Subject: [EXTERNAL] Coles Bayou TV 63 Section 303e Request

Susan,

Please see the attached information for fulfillment of Section 303(e) of CWPPRA for the Cole's Bayou (TV 63) project.

I will send the original by mail, but, as in years past, this electronic copy can get the ball rolling.

Thank you-
Cece

--

Cecelia Linder

CWPPRA Program Manager

NOAA Restoration Center

1315 East-West Highway

Attachment I

Overgrazing Determination

USDA
United States Department of Agriculture

September 23, 2015

Dr. John D. Foret
National Oceanic and Atmospheric Administration
Estuarine Habitats & Coastal Fisheries Center
646 Cajundome Boulevard
Lafayette, Louisiana 70508

Dear Dr. Foret:

RE: Cole's Bayou Marsh Restoration Project (TV-63)

I am in receipt of your request for an overgrazing determination for the Cole's Bayou Marsh Restoration Project (TV-63). 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
Mike Perry, District Conservationist, Abbeville, Louisiana
John Pitre, State Resource Conservationist, Alexandria, Louisiana

Natural Resources Conservation Service
State Office
3737 Government Street
Alexandria, Louisiana 71302
Voice: (318) 473-7751 Fax: 1-844-325-6947
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Attachment J

Revised Fully-Funded Cost Estimate

Attachment K

Revised Wetland Value Assessment

(Full version available upon request)

TV-63 Cole's Bayou Marsh Restoration

Twenty First Priority Project List
of the
Coastal Wetlands Planning, Protection and Restoration Act

Proposed by

NOAA National Marine Fisheries Service

FINAL Project Information Sheet for Wetland Value Assessment
PHASE II

November 2015

Contact: Kimberly Clements, NOAA NMFS, (225) 389-0508

Cameron Creole Freshwater Introduction

(CS-49)

NRCS

PPL 18

Coastal Wetlands Planning, Protection and Restoration Act

CAMERON-CREOLE FRESHWATER INTRODUCTION PROJECT (CS-49)

PHASE II APPROVAL

CWPPRA Technical Committee Meeting
December 10, 2015

United States Department of Agriculture -
Natural Resources Conservation Service
"Helping People Help the Land"

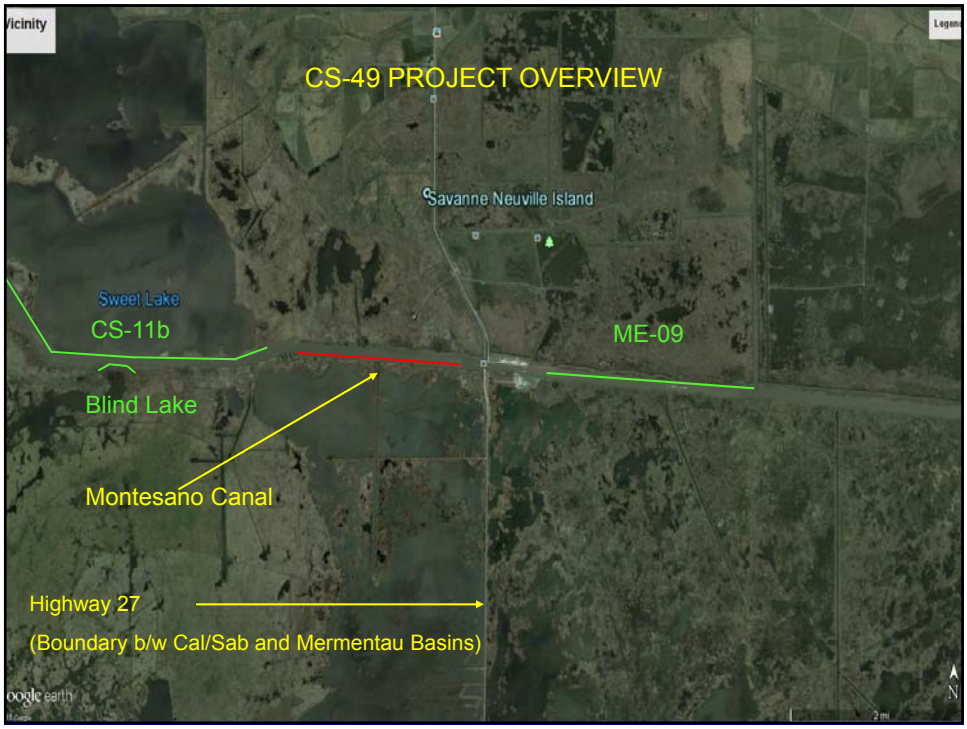
CAMERON-CREOLE FRESHWATER INTRODUCTION (CS-49)

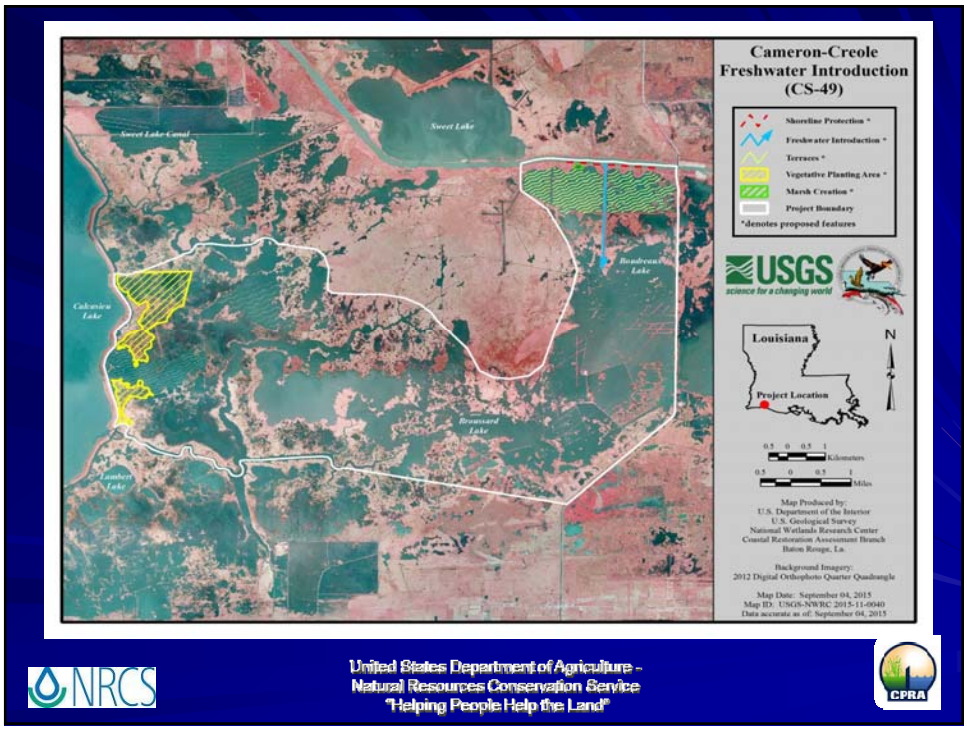
Project Location: Region 4, Cal/Sab Basin, Cameron Parish, east of Calcasieu Lake in the Cameron-Creole Watershed.

Problem: Project area marshes have experienced increased tidal exchange, salt water intrusion, and reduced freshwater retention from hydrologic changes associated with the Calcasieu Ship Channel and the GIWW.

Goals: 1) Reduce the land loss rate and improve the hydrology, function, and value of 22,510 acres of marsh;
2) Construct 103 acres of marsh using terracing and marsh creation practices;
3) Prevent coalescence of Cameron-Creole Watershed into the GIWW and Mermentau Basin.

United States Department of Agriculture -
Natural Resources Conservation Service
"Helping People Help the Land"


CS-49 PROJECT OVERVIEW
Savanne Neuville Island
Sweet Lake
CS-11b
ME-09
Blind Lake
Montesano Canal
Highway 27
(Boundary b/w Cal/Sab and Mermentau Basins)


Cameron-Creole
Freshwater Introduction
(CS-49)
Shoreline Protection *
Freshwater Introduction *
Terraces *
Vegetative Planting Area *
Marsh Creation *
Project Boundary
*denotes proposed features
USGS
science for a changing world
Louisiana
Project Location
N
Kilometers
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 Digital Orthophoto Quarter Quadrangle
Map Date: September 04, 2015
Map ID: USGS-NWRC 2015-11-0040
Data accurate as of: September 04, 2015
Sweet Lake
Calcasieu Lake
Lambert Lake
Brussard Lake
NRCS
United States Department of Agriculture -
Natural Resources Conservation Service
"Helping People Help the Land"
CPRA

CAMERON-CREOLE FRESHWATER INTRODUCTION (CS-49)

Benefits and Cost

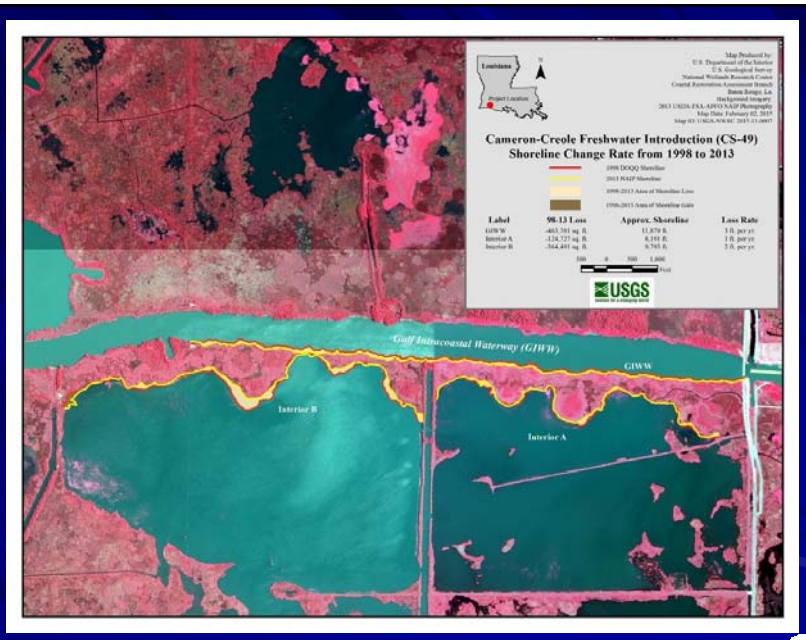
Net Acres after 20 years:	242 Acres
Fully Funded Phase I Cost:	$1,614,405
Current Fully Funded Phase II Request:	$25,543,842
Current Phase II Increment 1Request:	$21,109,905

United States Department of Agriculture -
Natural Resources Conservation Service
"Helping People Help the Land"

Significance of This Project

- **Modeling indicates that project will reduce salinities in intermediate marsh by 30% and in brackish marsh by 9%**
- **Project would increase fish access to approximately 22,510 acres of brackish and intermediate marsh by allowing existing structures to remain open longer**
- **Project would protect or create 242 net acres of marsh and provide 468 Average Annual Habitat Units in a large portion of the Cameron-Creole Watershed**

United States Department of Agriculture -
Natural Resources Conservation Service
"Helping People Help the Land"



NRCS

United States Department of Agriculture -
Natural Resources Conservation Service
"Helping People Help the Land"

CPRA

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

November 24, 2015

Mr. Mark Wingate
Deputy District Engineer
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, Louisiana 70160-0267

RE: Phase II Construction Funds Request for the Cameron-Creole Freshwater Introduction Project (CS-49) Cameron Parish, Louisiana

Dear Mr. Wingate:

NRCS and the Louisiana Coastal Protection and Restoration Authority (CPRA) hereby request approval for Phase II construction authorization of the Cameron-Creole Freshwater Introduction project (CS-49). Phase I activities were authorized on Priority Project List 18 on January 21, 2009, by the Louisiana Coastal Wetlands Conservation Task Force under the authority of the Coastal Wetlands, Planning, Protection and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA 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, please contact W. Britt Paul on my staff at (318) 473-7756, or email britt.paul@la.usda.gov.

Respectfully,

ACTING FOR

Kevin D. Norton
State Conservationist

Enclosures

cc: W. Britt Paul, ASTC/WR/RD. SO, NRCS, Alexandria, Louisiana (w/attach)
Quin Kinler, RC, FOPSS, NRCS, Denhem Springs, Louisiana
Troy Mallach, PM, FOPSS, NRCS, Lafayette, Louisiana
Frank Cuccio, PM, CPRA, Baton Rouge, Louisiana
Loland Broussard, PE, FOPSS, NRCS, Lafayette, Louisiana
Frank Chapman, DC, FO, NRCS, Lake Charles, Louisiana
James Altman, Land Manager, CPRA, Baton Rouge, Louisiana

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer

November 24, 2015

Enclosure 1
Information Required in Phase II Authorization Request

Cameron-Creole Freshwater Introduction (CS-49)

I. Description of Phase I Project

The Cameron-Creole Freshwater Introduction Project (CS-49) was approved relative to the 18th CWPPRA Priority Project List. Phase I was authorized by the CWPPRA Task Force in January 2009. The project is located in Cameron Parish east of Calcasieu Lake and west of the Gibbstown Bridge at Highway 27. The goal of the project is to improve the function, value, and hydrology to approximately 22,247 acres of marsh and open water. The specific location proposed for the structures and the shoreline protection feature is the southern bank of the GIWW originating at the Gibbstown Bridge and continuing approximately 8,000 feet westward. Distributaries considered for the proposed freshwater introduction are the Creole, Montesano, and Hebert Precht canals. The Phase 0 project included ten (10) 48" corrugated metal pipe (CMP) culverts with flapgates.

An additional project feature, the Vegetation Planting Feature, to replant approximately 200 acres of hurricane damaged marsh was funded by CWPPRA for construction in January 2010 at a project cost of $459,205. This Phase II request does not include those previously approved funds.

A summary of project costs and benefits at Phase 1 is provided below; the candidate project fact sheet and map can be found in **Attachment A.**

Fully Funded Total Project Cost	$12,787,044
Phase II, Increment 1 Request	$8,756,026
Net Acres at TY20	473
Average Annual Habitat Units	524

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 and topographic surveys and geotechnical sampling of the project areas), 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, development of the draft Environmental Assessment, and review of updated costs and benefits by the Engineering and Environmental Workgroups.

III. Description of the Phase II Candidate Project

There are three major features of the proposed project: 1) the installation of a water control structure in the Montesano Canal to direct freshwater and nutrients from the GIWW into approximately 22,510 acres of Cameron-Creole marsh; 2) the creation of approximately 125,130 linear feet of terraces, and 3) the construction of approximately 8,000 linear feet of rock dike shoreline protection to stop the shoreline erosion along the remaining bank of the GIWW.

The original goal of the project as described in the planning documents was to introduce an average of 400 cfs into the Cameron-Creole watershed from the GIWW by way of ten 48" corrugated aluminum culverts at three different locations. After modeling it became apparent that a structure with a larger cross sectional flow area of 200 square feet would be required to get closer to target flows. Four structure alternatives were evaluated to determine the most constructible and cost efficient design. Following project site investigations and considering operation and maintenance activities, it was determined that consolidating the structures into one structure location would be best. The Montesano Canal location was chosen for its easy access and its existing channel condition and configuration which is beneficial to the project for distributing water.

The structure type has also changed from CMP culverts to a sheetpile wall with slide gates and flap gates. The terracing areas were re-evaluated and it was agreed that filling the two open water areas completely with terraces would be a more holistic approach to creating a more sustainable terrace field. A summary of current project costs and benefits is provided below, and an updated project fact sheet and map can be found in **Attachment B.**

Fully Funded Total Project Cost	$27,617,452
Current Fully Funded Phase II Request	$25,543,842
Current Phase II, Increment 1 Request	$21,109, 905
Net Acres at TY20	242
Average Annual Habitat Units	468

As a result of Phase I activities, a scope change was requested by NRCS and approved by the CWWPA Task Force in May 2015. Project features originally approved in Phase 0 have been modified to present a more sustainable and holistic restoration project with consideration for maintenance and operation activities.

November 24, 2015

IV. Checklist of Phase II Requirements

A. List of Project Goals and Strategies

The specific goals of the project are: 1) to improve the function, value, and sustainability of the Cameron-Creole Watershed by introducing freshwater from the Gulf Intracoastal Waterway (GIWW) into approximately 22,510 acres of marsh; 2) to increase fisheries ingress and egress to the Cameron-Creole Watershed; 3) to prevent coalescence of the Cameron-Creole Watershed into the Mermentau Basin, and 4) to create approximately 103 acres of intermediate marsh using terracing and marsh creation practices.

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 was executed between CPRA and NRCS for Phase 1 activities on May 4, 2009.

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

CPRA provided assurance on landrights completion to NRCS on November 23, 2015, **Attachment C.**

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 December 10, 2014 and resulted in favorable reviews of the project design with some modifications. CPRA and NRCS agreed on the project design and agreed to proceed to the 95% design level and with project implementation. CPRA's Letter of Concurrence to proceed to final design is included in **Attachment D.**

E. A favorable Final Design Review (95% Design Level)

The Final Design Review meeting was held on October 29, 2015. Representatives from NRCS, NMFS, USFWS, EPA, and USACE participated in the meeting. CPRA's letter of concurrence to proceed to Phase II request is included in **Attachment E.**

November 24, 2015

F. **A draft of the Environmental Assessment of the Project, as required under the National Environmental Policy Act, must be submitted two weeks before the Technical Committee meeting at which Phase 2 approval is requested.**
NRCS will send out the Environmental Assessment to the Technical Committee for review on November 25, 2015. After the 30 day commenting period NRCS will revise and finalize the document.

G. **Application for and/or issuance of the public notices for permits.**
Joint permit application materials (LDNR/CMD, USACE, and LDEQ) were submitted and review is ongoing pending Phase II funding is approval (**Attachment F**).

H. **A hazardous, toxic and radiological waste (HTRW) assessment, if required, has been prepared.**
NRCS procedures do not call for an HTRW assessment on this project.

I. **Section 303(e) approval from the Corps.**
The letter requesting Section 303(e) approval was submitted to the United States Army Corps of Engineers (USACE) on September 18, 2015 (**Attachment G**).

J. **Overgrazing determination from the NRCS.**
NRCS has determined that overgrazing is not, and is not anticipated to be, a problem in the project area (**Attachment H).**

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 2 funding request.**
NRCS submitted the revised cost estimate to the Engineering Work Group on October 28, 2015. A revised fully funded cost estimate was finalized by the Economic Workgroup on November 24, 2015. The total fully funded cost is $27,617,452. The Phase II funding request is included as **Attachment I**.

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 24, 2015 (**Attachment J**). The project is anticipated to result in 242 net acres and 468 AAHUs.

November 24, 2015

Attachment A
Candidate Project Factsheet

September 2009
Cost figures as of: July 2011

Cameron Creole Freshwater Introduction (CS-49)

Project Status

Approved Date: 2009 **Project Area:** 22,247 acres
Approved Funds: $2.54 M **Total Est. Cost:** $12.7 M
Net Benefit After 20 Years: 473 acres
Status: Planning and Design
Project Type: Freshwater Diversion

Location

The project area is located on the east side of Calcasieu Lake and west of Gibbstown Bridge and Highway 27.

Problems

Virtually all of the project area marshes have experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention resulting from hydrologic changes associated with the Calcasieu Ship Channel and the GIWW. In addition, thousands of acres of marsh were damaged by Hurricane Rita and again, more recently, by Hurricane Ike. Because of man-made alterations to the hydrology, it is unlikely that those marshes will recover without comprehensive restoration efforts. The Cameron-Creole Watershed Project has successfully reduced salinities and increased marsh productivity. However, the area remains disconnected from freshwater, sediments, and nutrients available from the GIWW.

Hurricane damaged marsh in the project area to be benefitted by the proposed features.

Restoration Strategy

The freshwater introduction project would restore the function, value, and sustainability to approximately 22,247 acres of marsh and open water by improving hydrologic conditions via freshwater input and increasing organic productivity.

Progress to Date

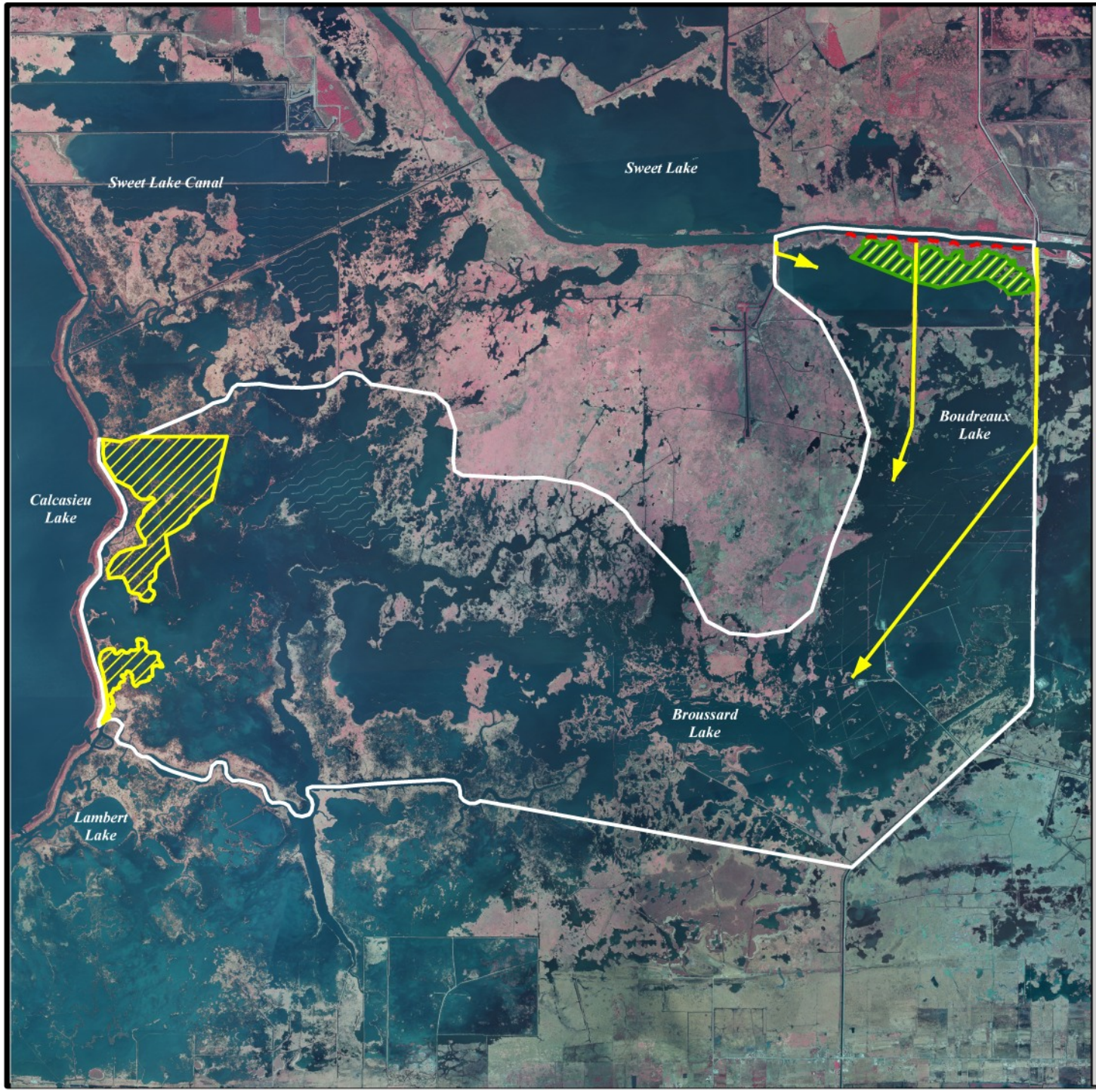
Project is currently in the Planning and Design Phase. Project Team is developing surveying, geotechnical investigations, and modeling requirements necessary to proceed to 30% design review. The planting portion of the project is scheduled to request Phase II funding at the January 2010 Task Force Meeting. Phase II funding for the remaining project features will be requested at the January 2012 Task Force meeting.

This project is on Priority Project List 18.

For more project information, please contact:

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

Local Sponsor:
Office of Coastal Protection and Restoration
Baton Rouge, La.
(225) 342-4122



Cameron-Creole Freshwater Introduction (CS-49)

- Shoreline Protection *
- Freshwater Introduction *
- Terrace Field *
- Vegetative Planting Area *
- Project Boundary

*denotes proposed features

USGS science for a changing world

N

0.5 0 0.5 1 Kilometers

0.5 0 0.5 1 Miles

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

Background Imagery:
2008 Digital Orthophoto Quarter Quadrangle

Map Date: August 27, 2009
Map ID: USGS-NWRC 2009-11-0384
Data accurate as of: August 26, 2009

November 24, 2015

Attachment B
Revised Project Factsheet

September 2009
Cost figures as of: May 2014

Cameron-Creole Freshwater Introduction (CS-49)

Project Status

Approved Date: 2009 **Project Area:** 22,247 acres
Approved Funds: $2.54 M **Total Est. Cost:** $12.7 M
Net Benefit After 20 Years: 473 acres
Status: Planning and Design
Project Type: Freshwater Diversion
PPL #: 18

Location

The project area is located on the east side of Calcasieu Lake and west of Gibbstown Bridge and Highway 27.

Problems

Virtually all of the project area marshes have experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention resulting from hydrologic changes associated with the Calcasieu Ship Channel and the GIWW. In addition, thousands of acres of marsh were damaged by Hurricane Rita and again, more recently, by Hurricane Ike. Because of man-made alterations to the hydrology, it is unlikely that those marshes will recover without comprehensive restoration efforts. The Cameron-Creole Watershed Project has successfully reduced salinities and increased marsh productivity. However, the area remains disconnected from freshwater, sediments, and nutrients available from the GIWW.

Hurricane damaged marsh in the project area to be benefitted by the proposed features.

Restoration Strategy

The freshwater introduction project would restore the function, value, and sustainability to approximately 22,247 acres of marsh and open water by improving hydrologic conditions via freshwater input and increasing organic productivity.

Progress to Date

Project is currently in the Planning and Design Phase. Project Team is developing surveying, geotechnical investigations, and modeling requirements necessary to proceed to 30% design review. The planting portion of the project is scheduled to request Phase II funding at the January 2010 Task Force Meeting. Phase II funding for the remaining project features will be requested at the January 2012 Task Force meeting.

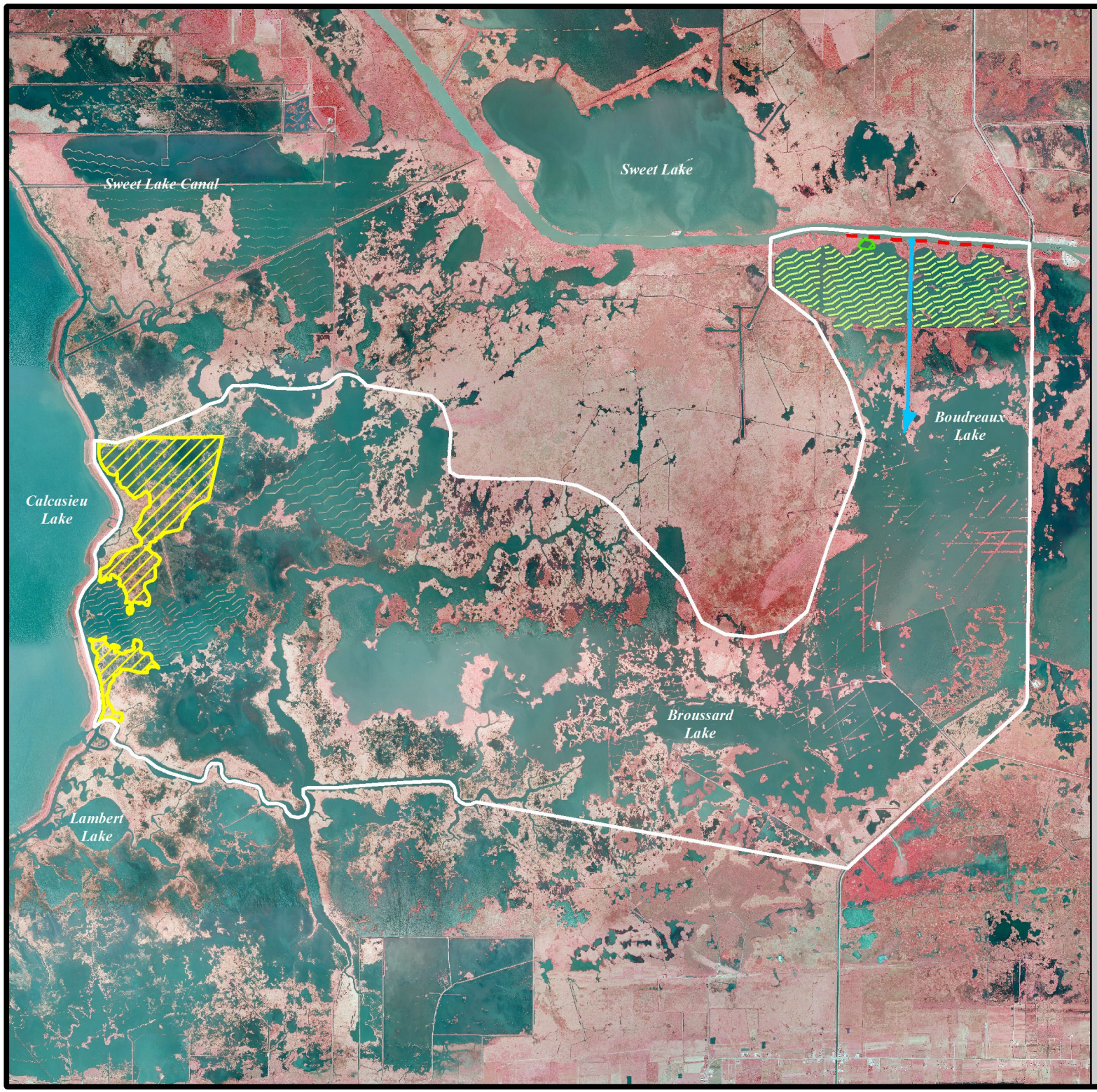
This project is on Priority Project List 18.

For more project information, please contact:

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

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

Cameron-Creole Freshwater Introduction (CS-49)



- Shoreline Protection *
- Freshwater Introduction *
- Terraces *
- Vegetative Planting Area *
- Marsh Creation *
- Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.5 0 0.5 1 Kilometers

0.5 0 0.5 1 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 Digital Orthophoto Quarter Quadrangle

Map Date: September 04, 2015
Map ID: USGS-NWRC 2015-11-0040
Data accurate as of: September 04, 2015

November 24, 2015

Attachment C
Project Landrights

State of Louisiana

BOBBY JINDAL
GOVERNOR

November 23, 2015

Mr. Kevin D. Norton
U.S. Department of Agriculture
National Resource Conservation Service
3737 Government Street
Alexandria, LA 71302

RE: Cameron-Creole Freshwater Introduction Project (CS-0049)
Landrights 95% Status

Dear Mr. Norton:

Appendix A, Section IV, Part C of the October 2014 CWPPRA SOP requires "Notification from the State or the Corps that land rights will be finalized in a short period of time after Phase II Approval."

The purpose of this letter is to inform the CWPPRA committees and Task Force that the process for landrights acquisition is progressing on the above reference project. All ownership investigations should be completed in approximately six to eight months. There are three major landowners covering the project.

At this time, no significant land rights acquisition problems are anticipated. Therefore, CPRA is confident that land rights for the above-referenced project will be finalized in a reasonable period of time after Phase II Approval. If you have questions regarding this matter, please contact me at (225) 342-1934.

Sincerely,

James L. Altman

James L. Altman, CPL
Land Manager

cc: Troy Mallach, NRCS Project Manager
Frank Cuccio, CPRA Contract Project Manager

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 15th Floor Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-4711 • http://www.coastal.la.gov
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November 24, 2015

Attachment D

Concurrence on 30% Design

State of Louisiana

BOBBY JINDAL
GOVERNOR

March 13, 2015

Mr. Kevin Norton
State Conservationist
US Department of Agriculture
Natural Resource Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

Re: 30% Design Review for Cameron Creole Freshwater Introduction (C-49)
Statement of Local Sponsor Concurrence

Dear Mr. Norton:

The 30% design review meeting was held on December 10, 2014 for the Cameron Creole Freshwater Introduction (CS-49) 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, contingent that no more than 25% of the project's total cost be used to maintain federal navigation channels.

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,

Andrew D. Beall
Project Management Administrator

cc: Troy Mallach, Natural Resource Conservation Service, Wildlife Biologist
Garvin Pittman, CPRA Contract Project Manager
Stuart Brown, Coastal Protection and Restoration Authority

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November 24, 2015

Attachment E

Concurrence to Proceed to Phase II

State of Louisiana

BOBBY JINDAL
GOVERNOR

November 24, 2015

Mr. Kevin Norton
State Conservationist
US Department of Agriculture, Natural Resource Conservation Society
3737 Government Street
Alexandria, Louisiana 71302

Re: 95% Design Review- Concurrence for Phase II Funding
Cameron Creole Freshwater Introduction (C-49)
Statement of Local Sponsor Concurrence

Dear Mr. Norton:

The 95% Design Review meeting was held on October 29, 2015 for the Cameron Creole Freshwater Introduction (CS-49) 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, concur to proceed with the 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 do not hesitate to call me if I may be of any assistance.

Sincerely,

Andrew Beall
Project Management Administrator

cc: Troy Mallach, Natural Resource Conservation Society, Wildlife Biologist
Frank Cuccio, CPRA Contract Project Manager
Stuart Brown, Coastal Protection and Restoration Authority

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • 15th Floor Chase Tower North • Baton Rouge, Louisiana 70801
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November 24, 2015

Attachment F
Project Permit

Joint Permit Application For Work Within the Louisiana Coastal Zone

Louisiana Department of Natural Resources
Office of Coastal Management

U.S. Army Corps of Engineers (COE)
New Orleans District

Application Number: 19845 **Permit Number:** **Date Received:** 11/12/2015

Step 1 of 15 - Applicant Information

Applicant Name: Cameron Parish Police Jury **Applicant Type:** GOVERNMENT AGENCY

Mailing Addr : P.O. Box 1280
Cameron, LA 70631

Contact Info: Ryan Bourriaque
Phone: (337) 775-5718 **Fax:** (337) 775-5567 **Email:** ryanb@camtel.net

Step 2 of 15 - Agent Information

Agent Name: NRCS

Mailing Addr: 646 Cajundome Blvd.
Suite 180
Lafayette , LA 70506

Contact Info: Troy Mallach

Phone: (337) 291-3064 **Fax:** (337) 291-3085 **Email:** troy.mallach@la.usda.gov

Step 3 of 15 - Permit Type

☒ Coastal Use Permit (CUP) ☐ Solicitation of Views (SOV) ☐ Request for Determination (RFD)

Step 4 of 15 - Pre- Application Activity

a. Have you participated in a Pre- Application or Geological Review Meeting for the proposed project?

☒ No ☐ Yes Date meeting was held:

Attendees:

(Individual or Company Rep) (OCM Representative) (COE Representative)

b. Have you obtained an official wetland determination from the COE for the project site?

☒ No ☐ Yes **If Yes, Please upload a copy with your application.**

JD Number:

c. Is this application a mitigation plan for another CUP?

☒ No ☐ Yes OCM Permit Number:

Step 5 of 15 - Project Information

a. Describe the project.

The purpose of the Cameron-Creole Freshwater Introduction (CS-49) project is to improve the function, value, and sustainability of the Cameron-Creole Watershed marshes by introducing fresh water from the Gulf Intracoastal Waterway (GIWW) and by preventing coalescence of the Cameron-Creole Watershed into the Mermentau Basin. The features planned include a gated sheet-pile fresh water introduction structure, a rock rip-rap dike to combat shoreline erosion and elevation loss to the bank of the GIWW, and terraces in the marsh to dissipate wave energy and promote the growth of emergent and submerged aquatic vegetation

b. Is this application a change to an existing permit?

☒ No ☐ Yes OCM Permit Number:

c. Have you previously applied for a permit or emergency authoriation for all or any part of the proposed project?

☒ No ☐ Yes

Agency	Contact	Permit Number	Decision Status	Decision Date
OCM				
COE				
Other				

Step 6 of 15 - Project Location

a. Physical Location

Street: west side of Gibbstown Bridge

City: Bell City Parish: Cameron Zip: 70630

Water Body:

b. Latitude and Longitude

Latitude: 29 55 59.49 Longitude: -93 05 57.25

c. Section, Township, and Range

Section #: Township #: Range #:
Section #: Township #: Range #:

d. Lot, Track, Parcel, or Subdivision Name

Lot #: Parcel #:

Tract #: Subdivision Name:

e. Site Direction

START - Take I-10 W 118.83 miles to EXIT 36 the LA-397 and Creole/Cameron exit.
Keep left to take the ramp toward Creole.
Then 0.05 miles turn left onto LA-397/Pujol Rd. Continue to follow LA-397.
Then 6.13 miles
Turn left onto Highway 14 E/LA-14.
Then 4.99 miles Stay straight to go onto Highway 27/LA-27. Continue to follow LA-27.
Then 14.07 miles
To Gibbstown Bridge - END.

Step 7 of 15 - Adjacent Landowners - See attached list

Step 8 of 15 - Project Specifics

a. Project Name and/or Title: Cameron Creole Freshwater Introduction project (CS-49)

b. Project Type: Non-Residential

c. Source of Funding **FEDERAL**

d. What will be done for the proposed project?

☐ Bridge/Road	☐ Home Site/Driveway	☐ Pipeline/Flow Line	☒ Rip Rap/Erosion Control
☐ Bulkhead/Fill	☐ Levee Construction	☐ Plug/Abandon	☐ Site Clearance
☒ Drainage Improvements	☐ Maintenance Dredging	☐ Production Barge/ Structure	☐ Subdivision
☐ Drill Barge/ Structure	☐ Prop Washing	☐ Vegetative Plantings	☐ Wharf/Pier/Boathouse
☐ Drill Site	☐ Pilings	☐ Remove Structures	
☐ Fill	☐ Marina	☐ Major Industrial/Commercial	
☐ Other:			

e. Why is the proposed project needed?

The proposed action is a wetland restoration project affecting approximately 22,510 acres inside of the Cameron-Creole Watershed. The project includes: 1) a freshwater introduction structure; 2) approximately 8,000 linear feet of rock dike shoreline protection; 3) approximately 7 acres of marsh creation, and; 4) approximately 125,130 linear feet of terracing.

Fresh water from the GIWW will be introduced into the Cameron-Creole marsh through the Montesano Canal. The Montesano Canal location was chosen for its easy access and its existing channel condition and configuration which is beneficial to the project for distributing water into the Cameron-Creole Watershed. The Montesano location would also minimize possible construction impacts to the existing marsh.

Step 9 of 15 - Project Status

a. Proposed start date: 10/01/2016 **Proposed completion date:** 12/31/2017

b. Is any of the project work in progress?

☒ No ☐ Yes

c. Is any of the project work completed?

☒ No ☐ Yes

Step 10 of 15 - Structures, Materials, and Methods for the Proposed Project

a. Excavations

257,908 Cubic Yards 10 Acres

b. Fill Areas

257,908 Cubic Yards 114 Acres

c. Fill Materials

☐	Concrete:	Cubic Yards	☒	Rock:	36,152 tons Cubic Yards
☐	Crushed Stone or Gravel:	Cubic Yards	☐	Sand:	Cubic Yards
☒	Excavated and Placed onsite :	257,908 Cubic Yards	☐	Hauled in Topsoil/Dirt:	Cubic Yards

☐	Other: Excavated and hauled offsite:	Cubic Yards	Cubic Yards

d. What equipment will be used for the proposed project?

☒	Airboat	☒	Bulldozer/Grader	☒	Marsh Buggy
☒	Backhoe	☒	Dragline/Excavator	☐	Other Tracked or Wheeled Vehicles
☒	Barge Mounted Bucket Dredge	☐	Handjet	☐	Self Propelled Pipe Laying Barge
☐	Barge Mounted Drilling Rig	☐	Land Based Drilling Rig	☐	Tugboat
☐	Other:				

Step 11 of 15 - Project Alternatives

a. Total acres of wetlands and/or waterbottoms filled and/or excavated.

150 acres

b. What alternative locations, methods, and access routes were considered to avoid impact to wetlands and/or waterbottoms?

The Montesano Canal location was chosen for its easy access and its existing channel condition and configuration which is beneficial to the project for distributing water into the Cameron-Creole Watershed. The Montesano location would also minimize possible construction impacts to the existing marsh.

c. What efforts were made to minimize impact to wetlands and/or waterbottoms?

Restoration features were designed to protect existing emergent marsh and convert open water areas into emergent marsh with terracing and marsh creation

d. How are unavoidable impacts to vegetated wetlands to be mitigated

Project is a restoration project designed to improve hydrologic conditions to approximately 22,510 acres in the Cameron-Creole watershed

Step 12 of 15 - Permit Type and Owners

a. Are you applying for a Coastal Use Permit?

☐ No ☒ Yes

b. Are you the sole landowner / oyster lease holder?

☒ No ☐ Yes

☐ The applicant is an owner of the property on which the proposed described activity is to occur.

☒ The applicant has made reasonable effort to determine the identity and current address of the owner(s) of the land on which the proposed described activity is to occur, which included, a search of the public records of the parish in which the proposed activity is to occur.

☒ The applicant hereby attests that a copy of the application has been distributed to the following landowners / oyster lease holders. See attached list.

c. Does the project involve drilling, production, and/or storage of oil and gas?

☒ No ☐ Yes **If yes, you must attach a list of all state and federal laws and rules and regulations**

Step 13 of 15 - Maps and Drawing Instructions

Note: OCM Compiled Plats consist of a complete and current set of plats that have been pieced together by OCM using only the most current portions of the plat files provided by the applicant/agent. All out-of-date plats have been excluded.

Step 14 of 15 - Payment

The fee for this permit is: $ 100.00

Step 15 of 15 - Payment Processed

Applicant Information

Applicant Name: Cameron Parish Police Jury
Address: P.O. Box 1280
Cameron, LA 70631

To the best of my knowledge the proposed activity described in this permit application complies with, and will be conducted in a manner that is consistent with the Louisiana Coastal Resources Program. If applicable, I also certify that the declarations in Step 12c, oil spill response, are complete and accurate.

Landowners List

Landowner **Miami Corporation** **309 La Rue France** **Suite 201** **Lafayette, LA 70508**
Landowner **Sweet Lake Land and Oil** **7777 Nelson Rd** **Lake Charles, LA 70605**
Adjacent Landowner **Miami Corporation** **309 La Rue France** **Suite 201** **Lafayette, LA 70508**
Adjacent Landowner **Sweet Lake Land and Oil** **7777 Nelson Rd** **Lake Charles, LA 70605**
Adjacent Landowner **USFWS** **1428 Highway 27** **Bell City, LA 70630**

November 24, 2015

Attachment G
Section 303(e)

From: Hennington, Susan M MVN
To: Mallach, Troy - NRCS, Lafayette, LA
Subject: RE: DRAFT "303(e) Certification" & Ph 2/OK to Proceed to Construction FORECASTS for Jan 2016 (UNCLASSIFIED)
Date: Wednesday, October 28, 2015 1:33:31 PM

Classification: UNCLASSIFIED
Caveats: NONE

Hi Troy,

Your 303(e) materials was submitted to the Office of Counsel on 30 Sep 2015 so it is in its 29th day of 303(e) processing- if I remember correctly, it usually takes somewhere between 60 to 90 days to get a signed 303(e) letter (in general). The process includes review by OC/typing & internal review completion with signature by Colonel at the end. Yours was the 1st "of the pack" into OC this year. I will let you know as soon as it is issued (send it to you electronically).

Thx-

Susie

-----Original Message-----
From: Mallach, Troy - NRCS, Lafayette, LA [mailto:Troy.Mallach@la.usda.gov]
Sent: Wednesday, October 28, 2015 1:11 PM
To: Hennington, Susan M MVN
Subject: [EXTERNAL] RE: DRAFT "303(e) Certification" & Ph 2/OK to Proceed to Construction FORECASTS for Jan 2016 (UNCLASSIFIED)

Hi Susie,
I just wanted to get an update on the 303e Certification so I can give an update at the 95% design meeting tomorrow.

Thank you,
Troy

-----Original Message-----
From: Hennington, Susan M MVN [mailto:Susan.M.Hennington@usace.army.mil]
Sent: Monday, September 28, 2015 12:57 PM
To: Mallach, Troy - NRCS, Lafayette, LA <Troy.Mallach@la.usda.gov>
Subject: RE: DRAFT "303(e) Certification" & Ph 2/OK to Proceed to Construction FORECASTS for Jan 2016 (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Got it, Troy! It looks complete- OC (Office of Counsel) will let me know if anything else is needed. Many thx-

Susie

-----Original Message-----
From: Mallach, Troy - NRCS, Lafayette, LA [mailto:Troy.Mallach@la.usda.gov]
Sent: Monday, September 28, 2015 11:56 AM
To: Hennington, Susan M MVN; Hennington, Susan M MVN
Subject: [EXTERNAL] RE: DRAFT "303(e) Certification" & Ph 2/OK to Proceed to Construction FORECASTS for Jan 2016 (UNCLASSIFIED)

November 24, 2015

Attachment H

Overgrazing Determination

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
1400 Hwy 14, Suite B.
Lake Charles, LA 70601
337-436-5020 Ext. 3
337-497-1195 (Fax)

September 10, 2015

Troy Mallach
Biologist
NRCS FOPSS

Re: Cameron Creole Freshwater Introduction Project CS-49

I am in receipt of your request for an overgrazing determination for the Cameron Creole Freshwater Introduction Project CS-49. Currently there are no livestock grazing the project area and nor do we anticipate domestic livestock to ever graze this area. Therefore it is our opinion overgrazing is not a problem in this project area. If you have questions please let me know.

Sincerely,

Frank Chapman
Lake Charles Field Office

Cc: Britt Paul, ASCWR
Randolph Joseph, ASCFO

November 24, 2015

Attachment I

Revised Fully-Funded Cost Estimate

November 24, 2015

Attachment J
Revised Wetland Value Assessment

(Full version available upon request)

Cameron-Creole Freshwater Introduction

CS-49

Eighteenth Priority Project List
of the
Coastal Wetlands Planning, Protection and Restoration Act

Proposed by

Natural Resources Conservation Service

Revised 11/24/15
Final Project Information Sheet for Wetland Value Assessment (WVA)

Contact: Troy Mallach, NRCS (337-291-3064)

Draft
Environmental Assessment

for

Cameron Creole Freshwater Introduction (CS-49)

Cameron Parish, Louisiana

United States Department of Agriculture
Natural Resources Conservation Service

November 2015

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Cameron Creole Freshwater Introduction
CWPPRA Project CS-49
Cameron Parish, Louisiana

SECTION 1.0 PURPOSE AND NEED FOR PROPOSED ACTION

SECTION 1.1 INTRODUCTION

Louisiana accounts for 90 percent of the coastal marsh loss in the lower 48 states (Dahl 2000). A recent assessment of coastal land loss in Louisiana indicates an annual loss rate of approximately 15 square miles per year from 1985 to 2006 (Barras et al. 2008). Previous assessments indicated loss rates from approximately 25 square miles per year (Dunbar et al. 1992) to 35 square miles per year (Barras et al. 1994), and statewide coastal wetland loss is projected to be over 10 square miles per year from 2000 to 2050 (Barras et al. 2003). Causes of Louisiana's coastal wetlands loss include sea level rise, subsidence, sediment deprivation, canalization, saltwater intrusion, and altered hydrology (Turner and Cahoon 1987, Turner 1990). The wetland loss resulting from Hurricanes Katrina and Rita alone is estimated to be 198 square miles (Barras et al. 2008).

Concern over Louisiana's coastal wetland loss prompted President George Bush to sign into law the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) in 1990 (Public Law 101-646). CWPPRA provides over $80 million per year for planning, design and construction of coastal restoration projects in Louisiana. Each year, a list of projects is selected for implementation and funds are approved for engineering and design. That annual list is referred to as the Priority Project List, and the Cameron Creole Freshwater Introduction Project (CS-49) was funded as part of the 18th Priority Project List.

The Cameron Creole Freshwater Introduction Project is located within the Southwest Coast region of the 2012 Louisiana's Comprehensive Master Plan for a Sustainable Coast. The 22,510-acre project area is located in the Calcasieu-Sabine Basin, approximately 1.5 miles north of Cameron, Cameron Parish, in the Cameron-Creole Watershed (Figure 1).

This environmental assessment (EA) is being prepared by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS) under the authority of CWPPRA. Planning, engineering and design of the CS-49 project are funded under authorization of Public Law 101-646, 18th Priority Project List (PPL 18). The Louisiana Coastal Protection and Restoration Authority (CPRA) provided the non-federal share of the total cost of the project. Construction and maintenance of the project would also be funded under the authorization of Public Law 101-646 pending CWPPRA Task Force approval. No significant long term environmental impacts are anticipated as a result of project implementation. This document is intended to fulfill the requirements of the National Environmental Policy Act for the project.

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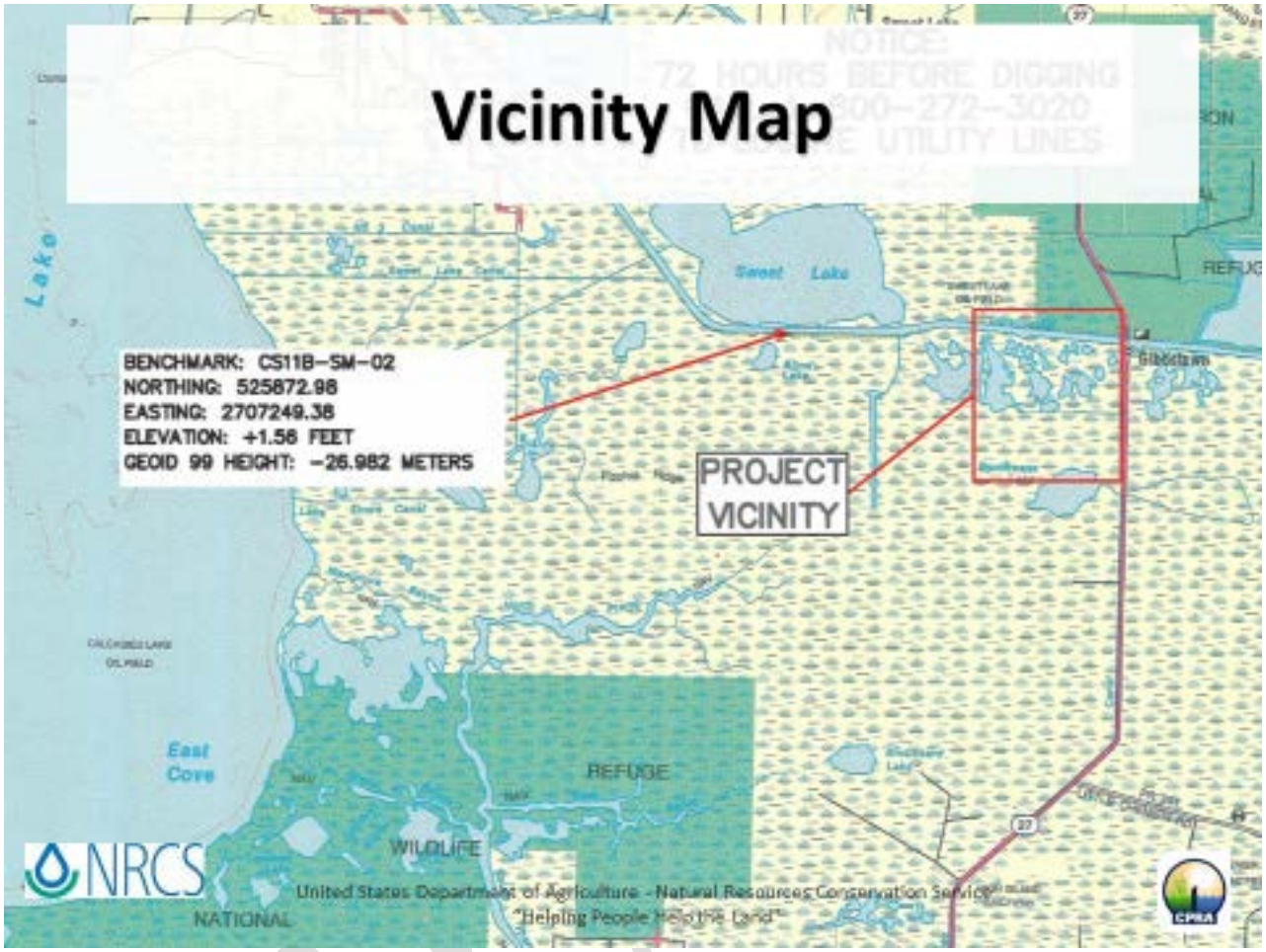

Figure 1. Project Vicinity Map

SECTION 1.2 PURPOSE OF PROPOSED ACTION

The purpose of the CS-49 project is to improve the function, value, and sustainability of the Cameron-Creole Watershed by introducing fresh water from the Gulf Intracoastal Waterway (GIWW) into the marsh and by preventing coalescence of the Cameron-Creole Watershed into the Mermentau Basin. The features planned include fresh water introduction, a rock rip-rap dike to combat shoreline erosion and elevation loss to the bank of the GIWW, and marsh creation and terraces in the marsh to dissipate wave energy and promote the growth of emergent and submerged aquatic vegetation (Figure 2). Vegetative plantings shown in Figure 2 were completed in June 2012.

The Cameron Creole Watershed is an area of approximately 64,000 acres bound by the GIWW to the north, La. Highway 27 to the east, La. Highway 82 to the south, and Calcasieu Lake to the west. Natural and man-made embankments on the GIWW and Calcasieu Lake limit water flow in and out of the marsh. Highway 27 also serves as hydrologic barrier to the watershed limiting input from the east. Freshwater input to the watershed is therefore limited almost solely to rain events. As a result, salinities are often higher than optimum values within the marsh leading to

gradual marsh die-off and conversion to open water. As the marsh converts to open water, the length of fetch that allows waves to grow also increases, further exacerbating marsh loss.

The loss of emergent marsh vegetation from high salinities and increased fetch makes the marsh soils much more susceptible to erosion and loss. The existing spoilbank between the GIWW and the marsh does limit soil loss by limiting the erosive energy associated with free exchange into and out of the Cameron Creole marsh. Current breaches in the spoilbank also threaten the marsh by raising water levels inside the marsh to a level that can no longer support vegetation and by allowing salt water from Calcasieu Lake into the Mermentau Basin during periods of drought.

The proposed project would allow freshwater from the Mermentau Basin into the project area and flapgates would restore the historical drainage pattern of that water through Calcasieu Lake instead of allowing free exchange back and forth into the GIWW.

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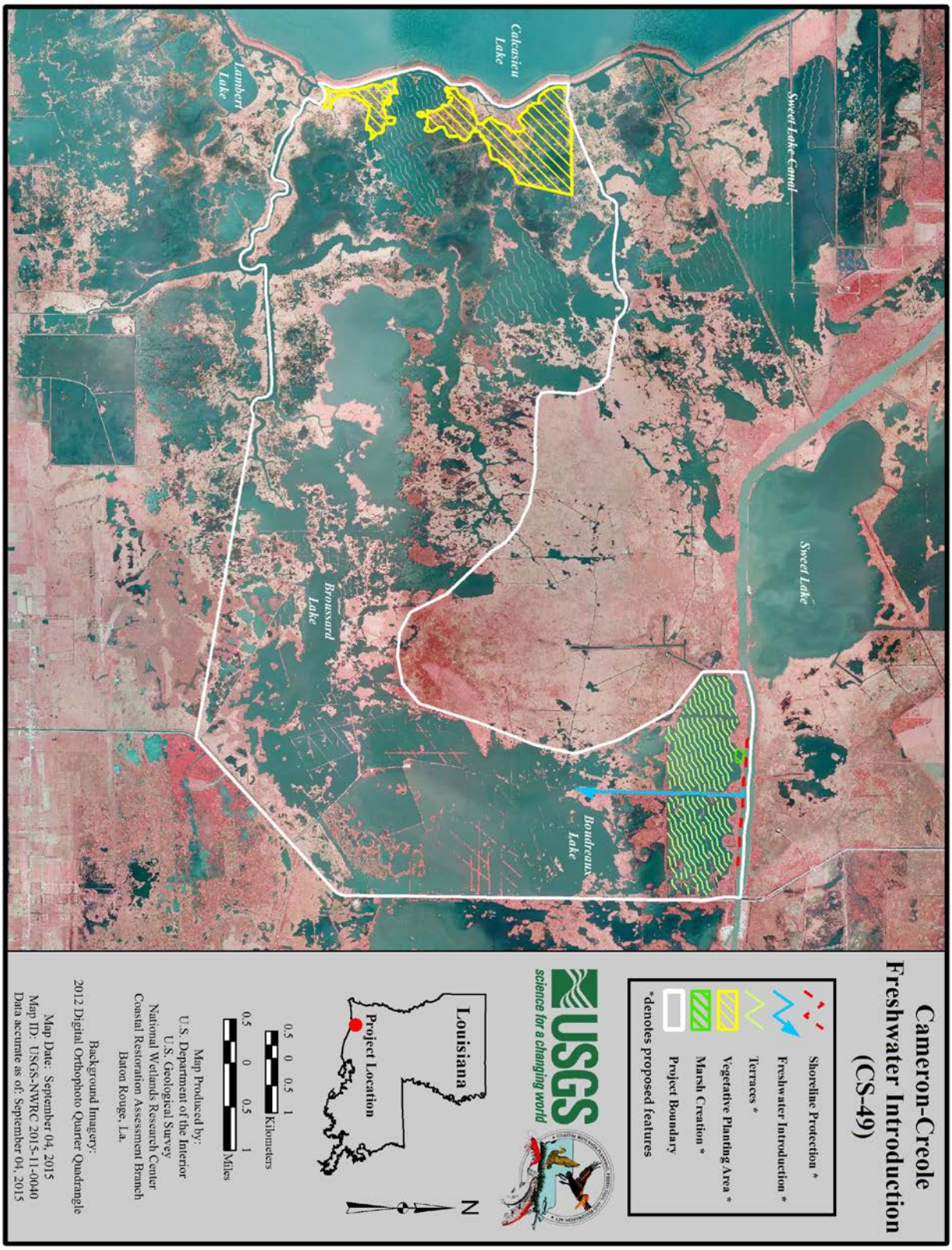

Figure 2. Project Map

SECTION 1.3 PROBLEM

The Cameron-Creole Watershed had 45,460 acres of marsh in 1932 and lost 14,390 acres or 32 % of that emergent marsh between 1932 and 1990. Most of that loss (10,095 acres) occurred from 1956 to 1974, due to the enlargement of the Calcasieu Ship Channel (1951) and Hurricane Audrey (1957). Saltwater intrusion caused by the enlargement of the Calcasieu Ship Channel has been cited as the primary cause of marsh loss in the watershed.

Between 1952 and 1974, this area is thought to have had some of the highest loss rates of any area in coastal Louisiana. Some of that loss is linked to natural disturbances such as Hurricane Audrey, Hurricane Carla, and the severe droughts of the early 1960's. Virtually all of the project area marshes had experienced increased tidal exchange, saltwater intrusion, and reduced freshwater retention associated with the Calcasieu Ship Channel. To reduce impacts associated with the Ship Channel, the Cameron-Creole Watershed Project was completed in 1989. That project has successfully reduced salinities and increased marsh productivity. Recently, Hurricane Rita was responsible for additional marsh loss in the Cameron-Creole area. However, because of man-made alterations to the hydrology those marshes are unable to adapt and repair themselves through natural processes. It is unlikely that the area will recover from those losses without comprehensive restoration efforts.

The Cameron-Creole Watershed Management project constructed in 1989 (Public Law 566) protects approximately 64,000 acres in the watershed. It includes a 16.5 mile levee along Calcasieu Lake and five large concrete water control structures to manage the unit and prevent the effects of saltwater intrusion, by managing salinity, tidal exchange, water levels, and estuarine organism movement into and out of the watershed.

Records indicate that since installation of the water control structures in 1989, marsh loss rates had decreased until impacted by Hurricane Rita in September 2005. Damage from Rita resulted in breaches in the levee in four locations and rendered the water control structures inoperable. The unregulated exchange and direct losses from Rita resulted in large areas of emergent marsh converting to open water. Although the levees have been repaired, it is unlikely that the open water areas will recover from those losses without comprehensive restoration efforts.

The history of the project area indicates that this area is subject to episodes of losses related to salt water intrusion from hydrologic modifications and natural processes (storm damages and/or droughts). It appears that those large land loss episodes are followed by periods of relative stability and some recovery until the next episode. The proposed project will enhance the marshes ability to adapt and repair themseves through natural processes.

SECTION 1.4 REQUIRED DECISIONS

The decision to implement the Preferred Alternative will be made only after a thorough public review and full consideration of all comments. Opportunities for public comment occurred at

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public meetings conducted during the project development and selection stages of the CWPPRA planning process. Opportunity for public comment will also be provided through review of this draft Environmental Assessment (EA) which was sent to the appropriate Federal, State, and local agencies, and other interested parties. Upon review of public and agency comments, NRCS will determine if further environmental documentation (e.g., Environmental Impact Statement) is necessary.

SECTION 2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

SECTION 2.1 ALTERNATIVE 1 - NO ACTION

Inclusion of the No-Action Alternative is prescribed by the Council on Environmental Quality (CEQ) regulations as the benchmark against which Federal actions are evaluated. Under the No-Action Alternative, no freshwater introduction, shoreline protection, or terrace feature would be constructed. Without project installation, current land loss rates are expected to continue and potentially increase as open water areas expand and allow saltwater intrusion to encroaches further into the watershed.

SECTION 2.2 ALTERNATIVE 2 – PREFERRED ALTERNATIVE

Project design information included within this section is taken from the Final (95%) Design Report prepared by the NRCS. Figure 2 displays the project features and detailed drawings of all project features are found in Appendix A.

The proposed action is a wetland restoration project affecting approximately 22,510 acres inside of the Cameron-Creole Watershed. The project includes: 1) a freshwater introduction structure; 2) approximately 8,000 linear feet of rock dike shoreline protection; 3) approximately 7 acres of marsh creation, and; 4) approximately 125,130 linear feet of earthen terraces.

Freshwater from the GIWW will be introduced into the Cameron-Creole marsh through the Montesano Canal. The Montesano Canal location was chosen for its easy access and its existing channel condition and configuration which is beneficial to the project for distributing water into the Cameron-Creole Watershed. The Montesano location would also minimize possible construction impacts to the existing marsh.

Because the canal is blocked at its north end, a channel will be excavated to connect the south bank of the GIWW to the north end of the Montesano Canal, a distance of approximately 340 feet. The north end of the Montesano Canal will be armored with rock riprap placed on geotextile fabric. A gated sheet pile inflow structure will be constructed across the excavated channel at a location approximately 240 feet from the south bank of the GIWW. The structure consists of one sheetpile wall with eight 5-foot by 5-foot openings spaced 5 feet apart. Each opening will be fitted with a gate on the marsh side of the structure to prevent backflow (flow from the marsh into the GIWW). The bottom elevation of the gates will be –5.0 feet.

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A hydrologic model was utilized to evaluate the results of introducing freshwater into the marsh south of the GIWW. Specifically, it was necessary to determine: 1) the amount of water that could be introduced given the head differential between the GIWW and marsh; 2) the potential salinity reduction from any freshwater introduced, and; 3) any resulting increase in water levels in the marsh. Model simulations indicated flows ranging from 0 to 950 cfs, with an average flow of 97 cfs. This value included time periods of no flow when the structure was not operating because of no available head. For times when positive head was available, the average flow was 348 cfs. The modeling indicated that salinity levels inside of the marsh would be reduced by an average of 18% and any increases to water levels would be minimal and have no long term negative impacts to the watershed.

The spoilbank between the GIWW and the marshes has eroded in several locations and has been breached as a result of past storm events. Approximately 8,000 linear feet of rock dike shoreline protection will be constructed to prevent additional shoreline loss and protect the freshwater introduction structure. Breaches to the spoilbank also threaten the marsh by potentially raising water levels inside the marsh to a level that can no longer support vegetation and by allowing sediment to be exported out of the marsh into the GIWW. Breaches also allow backflow from the marsh into the GIWW transporting saltwater into the Mermentau Basin during periods of drought.

The CWPPRA program has constructed several rock dike features to protect similar areas along the GIWW including approximately 14,200 linear feet associated with the CS-11b project, approximately 35,000 linear feet associated with the CS-22 project , approximately 22,704 linear feet associated with the CS-24 project, and approximately 13,200 linear feet associated with the ME-09 project. Monitoring indicates those features have successfully stopped erosion, and in many cases, marsh gains ranging from 9.8 ft/yr.(ME-09) to 15.87 ft/yr. (CS-22) have been recorded. Dimensions of the proposed rock dike are based on lessons learned from previous projects and consist of a +3.5’ crown height, crown width of 5’, side slope of 2H:1V, and a 25’ berm before an access channel with a 1H:1V side slope and bottom elevation of -10.0’.

Foreshore rock dikes have also been successful trapping sediment between the rock and protected shoreline. We expect that marsh will be created in the open water space located between the existing shoreline and the constructed rock dike (see ME-09 and Blind Lake). We anticipate up to 9 acres of wetlands will be created and 11 acres will be protected by this feature. For those reasons, the Project Team elected to move forward with the shoreline restoration feature using a rock dike constructed to +3.5’.

The project team also recognized an opportunity to use dredge material from the GIWW to create approximately 7 acres of marsh in an area where a breach had formed. Repair and fortification of this area is essential to maintaining project effectiveness as continued breaching would circumvent project benefits and threaten the integrity of the Mermentau Basin. The borrow area along the GIWW would then be used as an access channel for the rock dike construction.

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The marsh creation area was sized to accept all the dredged material removed from the GIWW access channel, with a constructed marsh fill elevation of +3.0 feet. Containment dikes will be constructed to a top elevation of + 4.5 feet. One or more water control structures will be placed in the southern containment dike to allow ponded water to flow into the area to be terraced.

Earthen terraces were placed in the open water areas immediately south of the GIWW on both sides of Montesanto Canal. The terraces will total approximately 125,130 linear feet in and serve to reduce fetch and resulting wind driven erosion, promote the growth of emergent and submerged aquatic vegetation, and provide additional wildlife habitat. The "duckwing" terrace configuration for the terraces were selected based on the success of nearby projects (Jim Bel Ducks Unlimited Project, Gum Cove Ducks Unlimited Project) utilizing the same configuration.

Terrace dimensions were also selected based on the previous projects and from parameters that were analyzed as part of the geotechnical investigation. A top elevation of +2.5' was designed with a crown width of 15 feet. Terraces built to a +2.5' elevation are expected to settle and shrink to +2.1' by the end of the 20 year project life. Side slopes were designed as 5H:1V. The terrace height and side slopes parameters are more conservative than the stable parameters that were analyzed during the geotechnical analyses and provide more surface area within and just above the intertidal range where marsh vegetation can grow. A 30-foot berm between the toe of the terrace and the start of the borrow pit was chosen. This distance is twice the distance required in the geotechnical report, but will help facilitate construction equipment without encroaching on the terraces. The borrow pit excavation limits were set at -10.0' with a 25 foot bottom width and 2H:1V side slopes.

SECTION 2.3 OTHER ALTERNATIVES CONSIDERED

Several shoreline protection/restoration alternatives were considered for the shoreline along the GIWW. Those alternatives consisted of a rock revetment, an earthen berm, and different rock dike configurations.

During Phase 1 design, the project team investigated the possible cost savings of shoreline protection using a revetment and found that a revetment may reduce rock quantity somewhat, but cost savings from that reduction would likely be offset by increased excavation and geotextile quantities. Therefore, cost savings would be minimal. Additionally, revetments have not been constructed in this region along the GIWW and have the potential to failure due to undermining and/or overtopping scour.

The project team also investigated the possible cost savings of shoreline protection using an earthen berm and found that there was a high probability of failure due to undermining and overtopping from water level fluctuations, wave erosion, and storm events. The increased cost associated with periodic maintenance events for repair and the stability of repairs were uncertain. To account for periodic storm events, the Project Team predicted the need for contracting, mobilization, and demobilization events at least every 7 years. During the time necessary for repairs (up to 24 months) the project's freshwater introduction feature may not function properly. Therefore, the use of earthen berm was also eliminated from consideration.

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Different dike configurations were evaluated for rock dike slope stability and bearing capacity at each of the 11 borings along the planned shoreline protection feature. The first was a dike with an elevation of +5.5', crown width of 5', side slope 3H:1V, and a 15' berm before an access channel with a 3H. The second configuration was a dike with an elevation of +4.0', crown width of 5', side slope 2H:1V, and a 25' berm before an access channel with a 1H:1V side slope and bottom elevation of -10.0'.

Foundation soil bearing capacity under the rock dikes was evaluated using the guidelines for layered cohesive soils found in NAVFAC DM-7 Figure 11-5, and factors of safety against bearing failure were calculated for the first (larger) dike configuration. Factors of safety were 1.2 for Borings BHSP-1 and BHSP-2. Factors of safety were 1.5 or higher for all other shoreline protection borings.

Estimated settlement of the foreshore rock dike was calculated at each boring located along the planned footprint of the dike. Estimates were made using Terzaghi's one-dimensional consolidation theory. Calculations were completed for a variety of dike heights ranging from +2.0' to +6.0'. A crown width of 5 feet was used for all calculations. Side slopes of 2:1 and 3:1 were used and determined to have similar rates of settlement. In general, the soils were relatively strong and resulted in long term settlement of less than half a foot in most cases.

SECTION 3.0 ENVIRONMENTAL IMPACTS

SECTION 3.1 COASTAL WETLANDS

This resource is institutionally significant because of: the Clean Water Act of 1977, as amended; executive Order 11990 of 1977, Protection of Wetlands; Coastal Zone Management Act of 1972, as amended; and the Estuary Protection Act of 1968. Wetlands are technically significant because of the following: they provide necessary habitat for various species of plants, fish, and wildlife; they serve as ground water recharge areas; they provide storage areas for storm and flood waters; they serve as natural water filtration areas; they provide protection from wave action, erosion, and storm damage; and they provide various consumptive and non-consumptive recreational opportunities. Wetlands are publicly significant because of the high value the public places on the functions and values that wetlands provide.

The project area is located within the Cameron-Creole Watershed and is bounded to the north by the GIWW, to the east by Highway 27 and to the west by Calcasieu Lake. Precipitation is the most significant source of freshwater for project area marshes and construction of the GIWW and Highway 27 effectively cut off drainage into the area from the north and east. Highway 27 currently forms the boundary between the Mermentau and Calcasieu-Sabine Basins.

Construction of the Calcasieu Ship Channel greatly increased the efficiency of water exchange through Calcasieu Pass. Freshwater retention within the project area was consequently reduced and saline water is able to enter in greater quantities and penetrate further north. Saltwater intrusion caused by the construction of the Calcasieu Ship Channel has been cited as the primary

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cause of marsh loss in the watershed as extensive stands of sawgrass marshes and other fresh and intermediate vegetation were unable to tolerate the increased salinity.

The United States Geological Survey (USGS) Cameron-Creole project area Habitat analysis shows historic marsh type trends. Marsh loss in the project areas converted from primarily solid marsh with approximately 62% non-fresh marsh and 38% fresh marsh in 1956, to approximately 13% brackish marsh and water, 45% intermediate marsh and water, and 42% fresh marsh and water in 2005. Based on the site inspection conducted on May 13th, 2008, the brackish and intermediate marshes consist primarily of marshhay cordgrass (*S. patens*) with some smooth cordgrass (*Spartina alterniflora*) and leafy three-square present. The USGS 2005 habitat analysis indicated that the fresh and intermediate marshes and associated open water represent the majority (87%) of the project area. Recent trends show that fresh and intermediate marshes are converting to brackish marsh and by 2013 the habitat analysis indicated that the project area consists of 1% saline marsh, 56% brackish marsh, and 43% intermediate marsh with a trace of freshwater marsh.

Under the No-Action Alternative, the proposed project would not be built by NRCS. Marsh loss would continue at the current rate of -0.87 percent per year and possibly increase to approximately -1.0 percent per year as water exchange increases with predicted shoreline breaching along the GIWW. In twenty years an estimated 1,296 acres of marsh would be converted to open water.

Under the Preferred Alternative, marsh loss within the project area will be reduced by approximately 23% by Target Year 20 and the conversion of fresh and intermediate marshes to brackish marsh will be halted or even reversed during high rainfall years as freshwater from the proposed structure is routed through the wetlands.

The WVA prepared by the CWPPRA Environmental Work Group projected that land loss would be reduced in the project area from a Target Year 20 rate of -1.0 percent per year under the No Action Alternative to approximately -0.77 percent per year under the Preferred Alternative (NRCS 2015). Even with the proposed project, approximately 965 acres of marsh would still be lost in twenty years. However, the Preferred Alternative would result in approximately 242 net acres of emergent marsh and critical GIWW shoreline habitat.

A reduction in salinity and addition of nutrients from the introduced fresh water would also improve submerged aquatic vegetation (SAV) coverage in the open water areas inside of the project from approximately 20% under the No Action Alternative to approximately 32% under the Preferred Action alternative. Terraces would also provide increased SAV habitat by reducing turbidity and organic matter content suspended in water (Canaday 2006).

SECTION 3.2 FISHERIES

This resource is institutionally significant because of the Magnuson Fishery Conservation and Management Act of 1976, as amended, and the Fish and Wildlife Coordination Act of 1958, as amended. Fisheries resources are technically significant because they are a critical element of many valuable freshwater and marine habitats; they are an indicator of the health of various

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freshwater and marine habitats; and many species are important commercial resources. Recreationally and commercially important shellfish and finfish are located in the project area.

Under the No-Action Alternative, the proposed project would not be built by NRCS. Without the protection systems, the intermediate and brackish marsh would continue to erode. Habitat will decrease over time. As marsh loss increases, there would be less nursery habitat available for a variety of aquatic organisms.

Under the Proposed Action Alternative, the introduction of freshwater and the shoreline protection features are expected to reduce or eliminate the erosion of intermediate and brackish marsh. The wetlands protected would provide a diversity of habitat including foraging, breeding, spawning, and cover habitat for a greater variety of adult and juvenile fisheries. Constructed terraces would increase fisheries habitat (Rozas and Minello 2001). Nutrients and detritus would continue to support the existing food web, providing a positive benefit to local area fisheries.

SECTION 3.3 ESSENTIAL FISH HABITAT

This resource is institutionally significant because of the Magnuson-Stevens Fishery Conservation and Management Act of 1996. Essential Fish Habitat (EFH) is technically significant because it includes "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity." EFH is publicly significant because of the high value that the public places on seafood and because of the recreational and commercial fishing opportunities provided.

The proposed project is located in areas designated as Essential Fish Habitat. Project area wetlands provide habitat for a number of managed species including white shrimp juveniles and subadults (year round), brown shrimp juveniles and subadults (year round), and red drum juveniles, subadults, and adults (year round). Additionally, Gulf of Mexico Fishery Management Council-managed species (such as mackerels, red drum, snappers, and groupers) and highly migratory species (such as billfish and sharks) feed upon estuarine-dependent species (such as spotted seatrout, gulf menhaden, striped mullet, and blue crab) that are also supported by the project area wetlands. The essential fish habitats that occur in the CS-49 project area is described in Table 1. and include estuarine emergent wetlands, submerged aquatic vegetation, mud and sand substrates, and estuarine water column.

Table 1. EFH Managed Species that Occur in the Project Area.

Species	Life Stage	Essential Fish Habitat	Occurrence in Project Area
Brown shrimp	postlarval/juvenile	marsh edge, SAV, tidal creeks, inner marsh	All habitats are found throughout the project area
	subadult	mud bottoms, marsh edge	All habitats are found throughout the project area
White shrimp	postlarval/juvenile subadult	marsh edge, SAV, marsh ponds, inner marsh, oyster reefs	All habitats are found throughout the project area (excluding oyster reefs)
Red drum	postlarval/juvenile	SAV, estuarine mud bottoms, marsh/water interface	All habitats are found throughout the project area

	Subadult	mud bottoms, oyster reefs	Mud bottoms are found within open-water areas
	Adult	Gulf of Mexico & estuarine mud bottoms, oyster reefs	Estuarine mud bottoms are found within open-water areas

Over time, the No Action Alternative would allow a substantial decrease in the quality of the project area's essential fish habitat due to the loss of emergent marsh. The project area's ability to support Council-managed species (white shrimp, brown shrimp, and red drum) would be significantly reduced. Furthermore, the No-Action Alternative would adversely impact estuarine-dependent species (such as spotted sea trout, southern flounder, Atlantic croaker, gulf menhaden, striped mullet, and blue crab). Several fisheries species that are managed under the Gulf of Mexico Fishery Management Plan (FMP) such as brown shrimp, white shrimp, and red drum could be impacted.

The proposed CS-49 Project will have a favorable effect on emergent wetlands, submerged aquatic vegetation and the estuarine water column. Additionally, the proposed CS-49 Project will protect and increase the quality of the project area's essential fish habitat by increasing ingress and egress into the marsh by allowing existing structures to remain open for longer periods of time due to salinity reductions. The emergent wetlands protected would provide a diversity of foraging, breeding, spawning, and cover habitat for a variety of adult and juvenile fisheries. Nutrients and detritus would continue to support the existing food web.

SECTION 3.4 WILDLIFE

Wildlife is institutionally significant because of the Fish and Wildlife Coordination Act of 1958, as amended. Wildlife are technically significant because they are a critical element of many valuable aquatic and terrestrial habitats; they are an indicator of the health of various aquatic and terrestrial habitats; and many species are important recreational and commercial resources. Wildlife is publicly significant because of the high priority that the public places on their aesthetic, recreational, and commercial value.

The project area includes valuable habitat for several species of wildlife including wading birds, waterfowl, shorebirds, mammals, amphibians and reptiles. Foraging and potential nesting habitat is provided for wading birds including herons, egrets, night-herons, ibis, roseate spoonbills, anhingas, and/or cormorants. Table 2 is the list of colonial nesting birds that may be found in the project area and the dates construction activities should be restricted to if active rookeries are present. Appropriate surveys of the project area will be conducted and construction activities within 1,000 feet of any rookery would only be conducted during the construction activity window indicated below.

Table 2. Activity window if working within 1000 feet of an active rookery.

Species	**Project Activity Window**
Anhinga	*July 1 to March 1*
Cormorant	*July 1 to March 1*
Great Blue Heron	*August 1 to February 15*

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Great Egret	*August 1 to February 15*
Snowy Egret	*August 1 to February 15*
Little Blue Heron	*August 1 to February 15*
Tricolored Heron	*August 1 to February 15*
Reddish Egret	*August 1 to February 15*
Cattle Egret	*September 1 to April 1*
Green-backed Heron	*September 1 to April 1*
Black-crowned Night-Heron	*September 1 to April 1*
Yellow-crowned Night-Heron	*September 1 to April 1*
Ibis	*September 1 to April 1*
Roseate Spoonbill	*August 1 to April 1*

The project area also contains important wintering habitat for waterfowl such as mallard, pintail, gadwall, blue-winged teal, green-winged teal, American widgeon, northern shoveler, lesser scaup and ring-necked ducks. Mottled ducks are present throughout the year.

Shallow open water and mudflats provide foraging habitat for numerous shorebirds including American avocet, greater and lesser yellowlegs, willet, black-necked stilt, dowitchers, and various species of sandpipers.

Various mammals including white-tailed deer, muskrat, nutria, raccoon, and rabbit are found within the project area and provide both recreational as well as commercially important opportunities. Amphibians, including bullfrog, pig frog, tree frogs, and reptiles including, the American alligator, and various turtles and snakes are also common throughout the project area.

Under the No-Action Alternative, the proposed project would not be built by NRCS. Without the project, the intermediate and brackish marsh would continue to erode at the current loss rate and wildlife habitat will decrease over time.

The installation of the project and the shoreline protection feature is expected to protect the intermediate and brackish marsh vegetation. The wetlands protected would provide a diversity of foraging, breeding, nesting, and cover habitat. Nutrients and detritus would be added to the existing food network.

Prior to and during project implementation, NRCS will conduct reconnaissance of the sites to determine if there is any status change relative to migratory bird nesting.

SECTION 3.5 THREATENED AND ENDANGERED SPECIES

This resource is institutionally significant because of the Endangered Species Act of 1973, as amended; the Marine Mammal Protection Act of 1972; and the Bald and Golden Eagle Protection Act of 1940. Endangered or threatened species are technically significant because the status of such species provides an indication of the overall health of an ecosystem. These species are publicly significant because of the desire of the public to protect them and their habitats.

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The proposed project has been reviewed by NRCS and the U.S. Fish and Wildlife Service (USFWS) relative to the Endangered Species Act of 1973. No species currently protected by the Endangered Species Act of 1973 are known to occur in the project area.

Therefore, NRCS has determined that the project is not likely to adversely affect any listed or proposed endangered species or their critical habitats.

Prior to and during project implementation, NRCS will conduct reconnaissance of the sites to determine if there is any status change relative to endangered species occurrence.

SECTION 3.6 CULTURAL RESOURCES

This resource is institutionally significant because of the National Historic Preservation Act of 1966, as amended; the Native American Graves Protection and Repatriation Act of 1990; and the Archeological Resources Protection Act of 1979; as well as other statutes. Cultural resources are technically significant because of their association or linkage to past events, to historically important persons, and to design and/or construction values; and for their ability to yield important information about prehistory and history. Cultural resources are publicly significant because preservation groups and private individuals support their protection, restoration, enhancement, or recovery.

Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR800 *Protection of Historic Properties*, require that the NRCS, as a Federal agency, take into account the effects of its undertakings on historic properties. NRCS has conducted the cultural resources coordination for this project. A review of the GIS database and site and survey files housed at the Division of Archaeology, Louisiana Department of Culture, Recreation and Tourism (LDCRT), determined that there are no known cultural resource sites located within any of the project work limits. Further, no work associated with the project features is expected to conflict with or impact known cultural resource sites in the project area vicinity, and no further cultural resource investigations are required at this time.

The Chitimacha, Coushatta, Tunica-Biloxi, Choctaw, and Jena Band of Choctaw Indian Tribes of Louisiana have been notified of this determination, and the State Historic Preservation Officer (SHPO) has concurred that no known historic properties will be affected by this project.

If any change is made to the above-described work as project design progresses, NRCS will provide revised information and update this coordination. In the event any potential cultural resource materials or sites are discovered during any phase of project work, NRCS will immediately initiate the required coordination with the SHPO and the Indian Tribes.

SECTION 3.7 RECREATIONAL RESOURCES

This resource is institutionally significant because of the Federal Water Project Recreation Act of 1965, as amended, and the Land and Water Conservation Fund Act of 1965, as amended. Recreational resources are technically significant because of the high economic value of

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recreational activities and their contribution to local, state, and national economies. Recreational resources are publicly significant because of the high value that the public places on fishing, hunting, and boating, as measured by the large number of fishing and hunting licenses sold in Louisiana and the large per-capita number of recreation boat registrations in Louisiana.

Recreational opportunities consist primarily of boating, fishing, hunting, and wildlife observation. A portion of the project area is located on the Sabine National Wildlife Refuge, which offers the public boating access to a portion of the project area.

With the No-Action Alternative, recreational use within the project area would continue at its present level. The intermediate and brackish marshes surrounding the project sites provide abundant hunting and fishing opportunities; however, over time these marshes would erode and subside, creating open-water areas. Persistent marsh loss would equate to less productive fishing and hunting in the future.

With the proposed project, the ecosystem in and around the project would experience limited short term disruption due to the construction activities. Dredging activities associated with construction of the terraces would increase turbidity in the area of work. This turbidity will disrupt water-related recreational activity within the vicinity; however, these adverse impacts would be temporary and short term.

The long-term benefits of the project would be the protection of intermediate and brackish marsh, estimated to be 242 net acres over twenty years when compared to the No-Action Alternative.

SECTION 3.8 AIR QUALITY

This resource is considered institutionally significant because of the Louisiana Environmental Quality Act of 1983, as amended, and the Clean Air Act of 1963, as amended. Air quality is technically significant because of the status of regional ambient air quality in relation to the National Ambient Air Quality Standards (NAAQS). It is publicly significant because of the desire for clean air expressed by practically all citizens.

As required by LAC 33:11.1405B of the Louisiana Department of Environmental Quality (LDEQ) air regulations, an applicability determination was made for current conditions and for separate items of the proposed project. The applicability was based upon direct emissions. Indirect emissions were not considered because no other federal actions such as licensing or subsequent actions related to construction are anticipated from this project. It was assumed that if any indirect emissions would occur they would be negligible. The No-Action Alternative would have no impact on present conditions. The Proposed Action Alternative should have no long-term adverse impact on present conditions, but could have minor short term negative impacts during construction. The analysis of total direct emissions was based upon the estimated construction hours and subsequent horsepower output of equipment used in the construction of the project. Categories of emissions from nitrogen oxides (NO_x) and volatile organic compounds (VOC) are anticipated to be well below the threshold limit applicable to VOC for the parishes with the most stringent requirement (50 tons/yr) in effect. Based on this applicability

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determination, the emissions for the project are classified as *de minimus* and no further action is required.

SECTION 3.9 CUMULATIVE IMPACTS

The CEQ Regulations define cumulative impacts as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impact can result from individually minor, but communally significant actions taking place over a period of time."

The proposed action is expected to have long-term beneficial cumulative impacts. Protecting wetlands within the proposed areas improves the other significant resources described in this EA. Protecting the intermediate and brackish marsh would provide valuable breeding, nesting, foraging, and cover habitat for a variety of fisheries and wildlife species. The net result is an increase in bio-diversity and productivity.

SECTION 4.0 COORDINATION AND CONSULTATION

Planning, engineering and design of this project was coordinated with all CWPPRA agencies, Cameron Parish, and other natural resource agencies. This project was nominated and selected as part of the 18th Priority Project List of CWPPRA. Projects on the 18th Priority Project List were nominated and developed at a series of public meetings held in February of 2008. Meeting participants included the CWPPRA agencies, members of the CWPPRA Academic Advisory Group, landowners, environmental groups, Parish officials, and members of the general public. The CWPPRA Technical Committee met publicly in March of 2008 to consider preliminary costs and project benefits, and selected 10 projects for further evaluation as candidate projects. Interagency evaluations of those projects occurred from May to August 2008. Upon completion of project evaluations, public meetings were held in November 2008 to allow the opportunity for public comment. The CWPPRA Technical Committee again met publicly in December 2008 to select projects for recommendation to the CWPPRA Task Force. The CWPPRA Task Force selected 4 projects, including this one, for funding of engineering and design at a public meeting in January 2006. Details concerning the plan formulation process for the 18th Priority Project List and the CWPPRA Standard Operating Procedures Manual are available at www.mvn.usace.army.mil/pd/cwppra_mission.utm.

An engineering and design review meeting was held on December 11, 2014, and a final design review meeting was held on October 29, 2015. All CWPPRA agencies are invited to attend design review meetings.

The following entities were given the opportunity to review and comment on a draft of this document: U.S. Army Corps of Engineers, Environmental Protection Agency, USFWS, NMFS, Farm Service Agency, CPRA. State of Louisiana – Governor's Office, Louisiana Department of Wildlife and Fisheries (LDWF), Louisiana Department of Natural Resources – Coastal

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Management Division, Louisiana Department of Agriculture and Forestry, LDCRT-SHPO, and LDEQ.

A summary of comments received and responses to substantive comments will be provided below:

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SECTION 9.0 LITERATURE CITED

Barras, J.A., P.E. Bourgeois, and L.R. Handley. 1994. Land loss in coastal Louisiana 1956-90. National Biological Survey, National Wetlands Research Center Open Report 94-01. 4 pp.

Barras, J., Beville, S., Britsch, D., Hartley, S., Hawes, S., Johnston, J., Kemp, P., Kinler, Q., Martucci, A., Porthouse, J., Reed, D., Roy, K., Sapkota, S., and J. Suhayda. 2003. Historical and projected coastal Louisiana land changes: 1978-2050: USGS Open File Report 03-334, 39 pp.

Barras, J.A., Bernier, J.C., and Morton, R.A. 2008. Land area change in coastal Louisiana—A multidecadal perspective (from 1956 to 2006); land changes: 1978-2050: USGS Open File Report 03-334, 39 pp.

Canaday C.D. 2006. Effects of Terraces on Submerged Aquatic Vegetation in Shallow Marsh Ponds in Coastal Southwest Louisiana. M.S. Thesis. Louisiana State University.

Dahl, T.E. 2000. Status and trends of wetlands in the conterminous United States 1986 to 1997. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 82 pp.

Dunbar, J.B., L.D. Britsch and E.B. Kemp, III. 1992. Land loss rates, report 3, Louisiana coastal plain. Technical Report GL-90-2. Vicksburg, MS.: U.S. Army Corps of Engineers, U.S. Waterways Experiment Station.

Natural Resources Conservation Service. 2015. Cameron Creole Freshwater Introduction: project information sheet for wetland value assessment. 23 pages.

Rozas, L. P. and T. J. Minello. 2001. Marsh terracing as a wetland restoration tool for creating fishery habitat. Wetlands. Vol. 21, No. 3, pp. 327-341.

Turner, R.E., and D.R. Cahoon, eds. 1987. Causes of wetland loss in the coastal central Gulf of Mexico. Volume II: Technical Narrative. Final report submitted to Mineral Management Service, New Orleans, Louisiana. Contract No. 14-12-0001-30252. OCS Study/MMS 87-0120. 400 pp.

Turner, R.E. 1990. Landscape development and coastal wetland losses in the northern Gulf of Mexico. Amer. Zool. 30:89-105.

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Letters of Support

KIRK QUINN
PRESIDENT

CURTIS FOUNTAIN
VICE PRESIDENT

RYAN BOURRIAQUE
ADMINISTRATOR

DARRELL WILLIAMS
SECRETARY-TREASURER

POLICE JURY

PARISH OF CAMERON

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DISTRICT 1
CURTIS FOUNTAIN

DISTRICT 2
ANTHONY HICKS

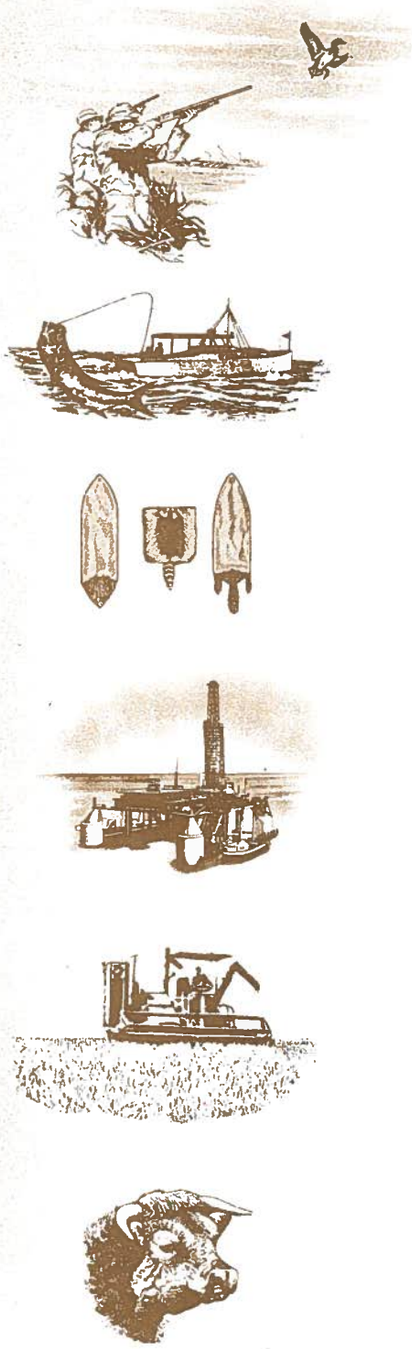
DISTRICT 3
KIRK QUINN

DISTRICT 4
TERRY BEARD

DISTRICT 5
KIRK BURLEIGH

DISTRICT 6
JOE DUPONT

DISTRICT 7
DARRYL FARQUE



RESOLUTION

PARISH OF CAMERON
STATE OF LOUISIANA

WHEREAS, Cameron Parish has two candidate projects Phase I Funding including Sweeney Tract Marsh Creation and Nourishment and Oyster Lake Marsh Creation and Nourishment as well as two candidate projects for Phase II Funding including Cameron/ Creole Freshwater Introduction and Rockefeller Shoreline Protection, and

WHEREAS, the Sweeney Tract Marsh Creation and Nourishment project aims to restore 400-500 acres of saline marsh in the Hog Bayou Watershed mapping unit, in the Mermentau Basin, by mining sediment from an offshore disposal area. This project would promote the expansion of emergent marsh and submerged vegetation throughout the project area, and

WHEREAS, the Oyster Lake Marsh Creation and Nourishment project is designed to combat years of saltwater intrusion, drought stress, and hurricane induced wetland losses that have resulted in interior marsh breakup. The project would mine sediment from an offshore disposal area to create between 400 – 600 acres, and

WHEREAS, the Cameron-Creole Watershed marshes have experienced an increased inundation of saltwater due to Hurricane Rita and Hurricane Ike. It is unlikely that these marshes will recover from the losses experienced without comprehensive restoration efforts. This freshwater introduction project would restore the function, value, and sustainability to approximately 22,247 acres of marsh and open water by improving hydrologic conditions via freshwater input and increasing organic productivity, and

WHEREAS, Rockefeller Wildlife Refuge averages coastal land loss of approximately 46 feet/year with a subsequent direct loss of emergent saline marsh. The Rockefeller Shoreline Protection project entails construction of shoreline protection along the Gulf of Mexico. The proposed structure would be tied into the west bank of Joseph Harbor a rock breakwater with lightweight aggregate core, westward for approximately 3 miles. Demonstration efforts have already proved successful and would simultaneously benefit additional marsh creation projects further inland, and

WHEREAS, each of these projects are vital to the recovery, protection, and sustainability of our coastal wetlands in Cameron Parish, and

NOW, THEREFORE BE IT RESOLVED, by the Cameron Parish Police Jury on this 2nd day of December, 2015, that the Secretary is hereby

authorized, empowered and directed to forward this Resolution of support for the *"Sweeney Tract Marsh Creation and Nourishment Project"* and *"Oyster Lake Marsh Creation and Nourishment Project"* to the Coastal Wetland Planning, Protection and Restoration Act Task Force for Phase I Funding.

BE IT FURTHER RESOLVED, that the Coastal Wetland Planning, Protection and Restoration Act Task Force, thru this Resolution, are requested to support the *"Cameron-Creole Freshwater Introduction Project"* and *"Rockefeller Shoreline Protection Project"* for Phase II Funding to construct these projects.

ADOPTED AND APPROVED this 2nd day of December, 2015.

APPROVED:

KIRK QUINN, PRESIDENT
CAMERON PARISH POLICE JURY

ATTEST:

DARRELL WILLIAMS, SECRETARY

MIAMI CORPORATION

309 La Rue France
Suite 201
Lafayette, Louisiana 70508

Date: December 7, 2015

To: CWPPRA Committee Members

Re: PPL-18 Cameron Creole Freshwater Introduction
Region 4
Cameron Parish, Louisiana

It is our understanding that the **Cameron Creole Freshwater Introduction** project has advanced in the Coastal Wetlands Planning Protection and Restoration Program (CWPPRA) and is to be considered for Phase II (Construction Funding) on December 10, 2015 by the CWPPRA Technical Committee.

Miami Corporation wishes to go on record in continued support of the Cameron Creole Freshwater Introduction Project. Over the last several months significant analysis has occurred on this project and we are encouraged to see that it appears even with very conservative figures the project features will allow for an increase in fisheries access by nearly 20%. This is significant especially when you factor in the fact that the Cameron Creole Watershed is over 50,000 acres in size. Fisheries access has always been a challenge in this area and that improvement in that region will certainly be beneficial to the overall estuary.

It is also our understanding the earthen berm concept has been encouraged by a few agencies. We have significant concerns over trying to apply this technique when the concept is speculative at best. We have heard CWPPRA is attempting to install an earthen berm currently in the SE part of the state and is experiencing numerous challenges. While admittedly the soils vary between SE and SW Louisiana, it would be ill advised to try to apply an unproven technique in a place where the stretch of shoreline that the project is intended to protect is so critical to the overall project goals. Further, it is our understanding that an analysis has been conducted on an earthen berm only feature as it relates to initial cost and maintenance, and that conservative analysis shows installing rocks is more cost effective than an earthen berm only feature when comparing the benefits and maintenance of both. It is a bad decision to implement an earthen berm instead of a rock feature when the costs are similar when evaluated over 20 years since the rocks will almost certainly yield benefits long after the life of this project. To see the effectiveness of shoreline stabilization with rocks one only needs to look directly to the east and west of this project area to see how successful those projects are even after experiencing several high water events and two recent hurricanes. It is our understanding that little to no maintenance of those rock projects has occurred since installation.

I hope the CWPPRA Technical Committee and associated working groups have been able to see the potential benefits of the concept identified and vote favorably for this project. I know that modeling and the CWPPRA evaluations have a difficult time capturing all the benefits that this freshwater introduction project can provide. However, modeling does indicate that salinity would be reduced up to 30% and that would allow the 5 structures along the Calcasieu

Lake rim to remain open significantly longer. Lower salinities and increased fisheries access to the Cameron Creole Watershed provided by the **Cameron Creole Freshwater Project** are examples of benefits that will be quickly realized upon project completion.

Successful implementation of this project would be another step in ensuring that those marshes have the tools in place to move towards a sustainable Louisiana Coast.

If we can be of any assistance for this project, or any additional needs, please feel free to contact me at 337.264.1695.

Thanking you for your continued support of coastal restoration, I remain...

Very truly yours,

MIAMI CORPORATION

Chad J. Courville
Land Manager

Sweet Lake Land & Oil Company, LLC
7777 Nelson Road
Lake Charles, LA 70607

DATE: December 9, 2015

TO: CWPPRA Committee Members

RE: PPL – 18 Cameron Creole Freshwater Introduction Project
Region 4
Cameron Parish, LA

It is our understanding that the Cameron Creole Freshwater Introduction project will be considered for Phase 2 - Construction Funding on December 10, 2015 by the CWPPRA Technical Committee. Due to scheduling conflicts, I will not be able to attend the meeting in person. However, Chad Courville with Miami Corporation will speak on behalf of Sweet Lake Land and Oil Company at that meeting. As adjacent landowners we share the same issues and goals that this project will address.

Maintaining the integrity of this narrow stretch of shoreline is vital to the survival of the Cameron Creole watershed. Rocks on both Sweet Lake and Willow Lake shorelines, as well as along Cameron Prairie National Wildlife Refuge, demonstrate the success, longevity, and little to no maintenance of this type of shoreline protection. We feel experimenting with an unproven method of shoreline protection at this stage of CWPPRA funding would not be advisable.

The freshwater introduction component will address several resource concerns. One of great interest to Sweet Lake Land and Oil Company is the backflow of saltwater from the Cameron Creole Watershed into the Gulf Intracoastal Waterway (GIWW). We have seen on multiple occasions where salinities high enough to affect rice growth have been pulled up to the GIWW from Calcasieu Lake during periods of low rainfall. The construction of these new structures along with the shoreline protection will insure quality surface water for thousands of acres of rice fields east of the project area.

We appreciate the opportunity to comment on this project. We thank you for your consideration to move this project to the construction phase. Feel free to call me at (337) 540-0839 should you have any questions or comments.

Sincerely,

Doug Miller

Doug Miller
Field Operations Manager

CC: Claude A. Leach, SLLO, President

Rockefeller Gulf Shoreline Stabilization

(ME-18)

NMFS

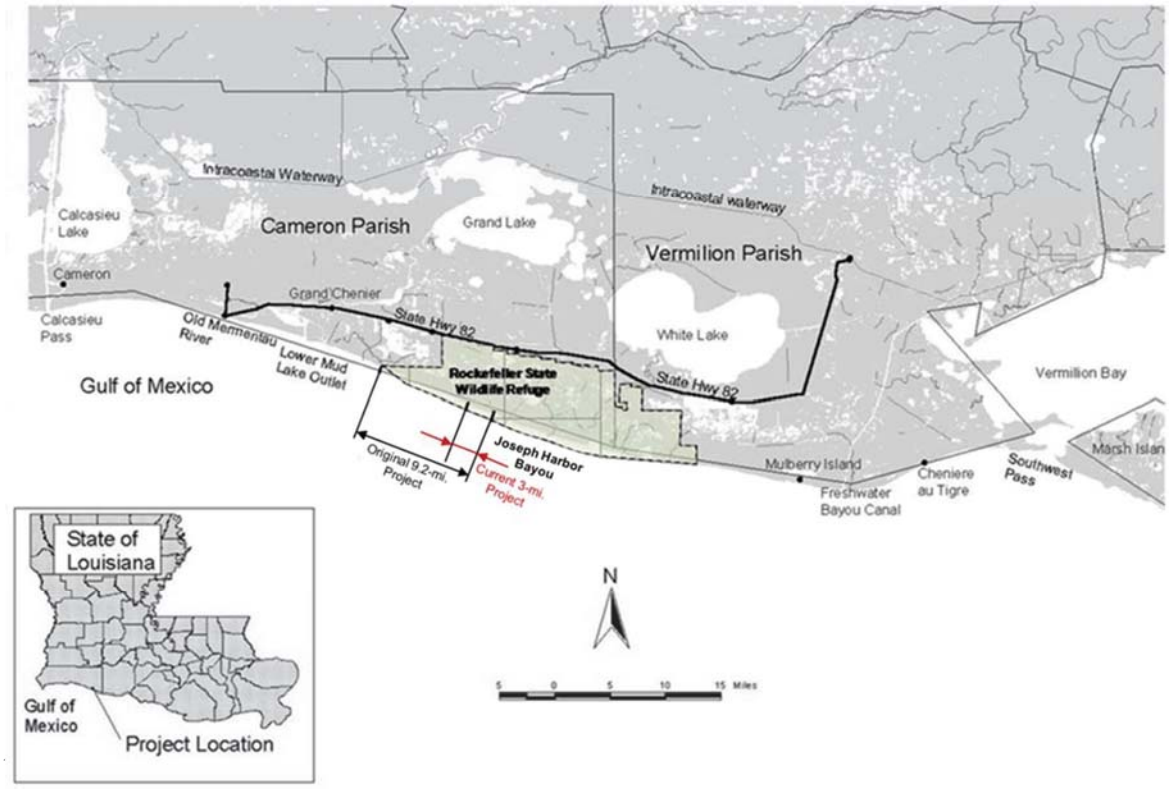
PPL 10

Rockefeller Refuge Gulf Shoreline Stabilization Project (ME-18) Phase II Request

Technical Committee Meeting
December 10, 2015

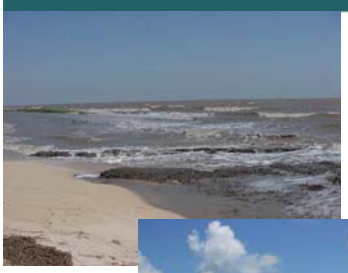
Baton Rouge, LA

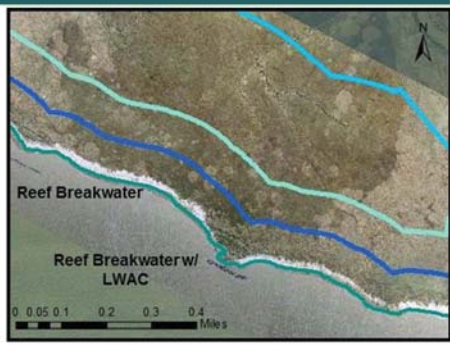
ME-18 Project Location

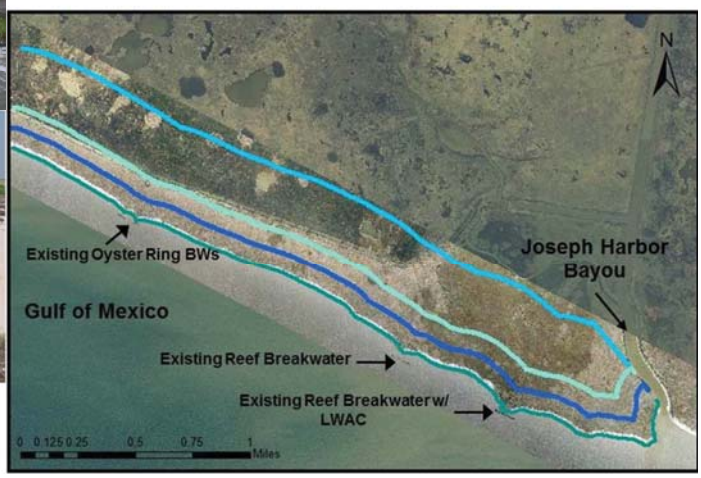


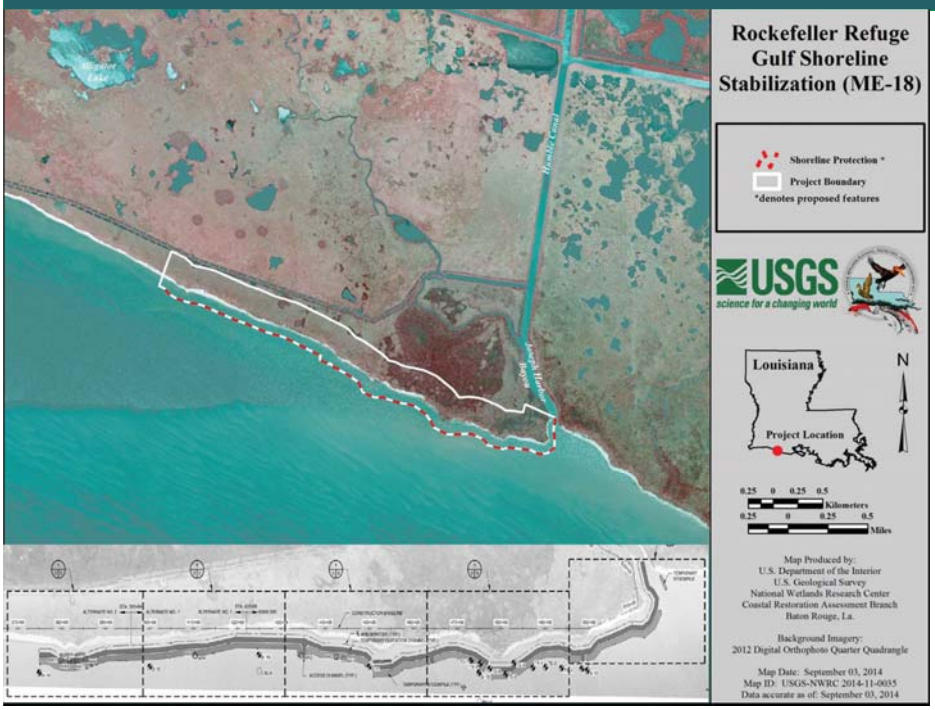
Project Background and Purpose

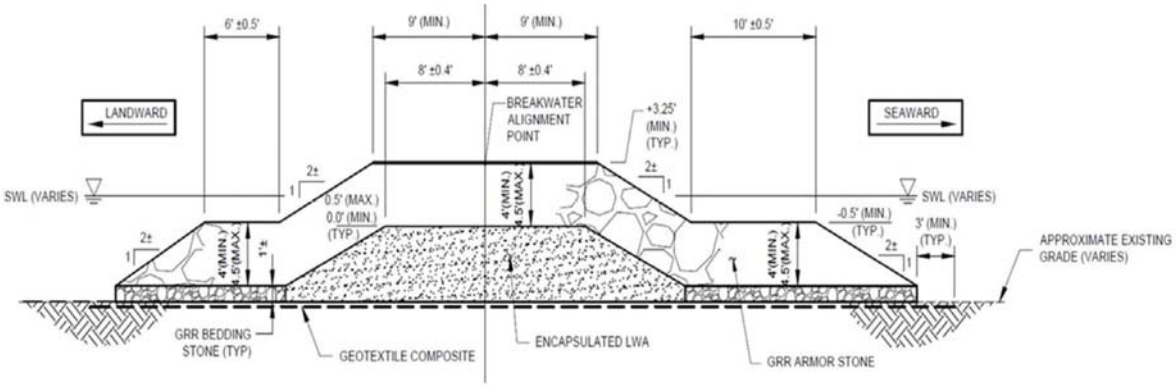
- Project funded originally through CWPPRA on PPL 10 to address shoreline retreat rate of 46 feet/year.
- Project Goals: halt Gulf shoreline retreat; protect saline marsh habitat; and enhance fish and wildlife habitat.
- 84 different shoreline protection designs were evaluated.
- Due to challenging soil conditions at site, a demonstration project was implemented.
- Construction and monitoring of demonstration project funded through CIAP.
- Project scope change to reduce project size approved in April 2013.








Rockefeller Refuge
Gulf Shoreline
Stabilization (ME-18)
Shoreline Protection *
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
National Wetlands Research Center
Coastal Restoration Assessment Branch
Baton Rouge, La.
Background Imagery:
2012 Digital Orthophoto Quarter Quadrangle
Map Date: September 03, 2014
Map ID: USGS-NWRC 2014-11-0035
Data accurate as of: September 03, 2014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9' (MIN.)
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LANDWARD
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SWL (VARIES)
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4.5'(MAX.)
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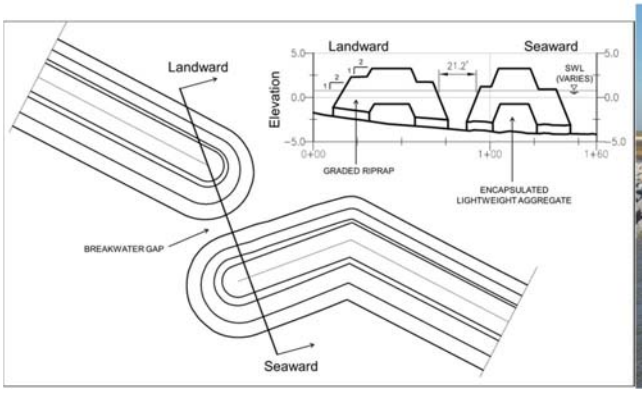
GEOTEXTILE COMPOSITE
ENCAPSULATED LWA
GRR ARMOR STONE


Landward
Seaward
Elevation
5.0
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GRADED RIPRAP
ENCAPSULATED LIGHTWEIGHT AGGREGATE
BREAKWATER GAP
Landward
Seaward

Rockefeller Refuge (ME-18)

Benefits and Costs

- The project benefits 450 acres of marsh and open water habitats
- 256 net acres at the end of the 20-year project life
- Fully funded cost = $34,330,523
- Today's Phase 2 Increment 1 request = $30,928,839

Rockefeller Refuge (ME-18)

Why this project, why now?

- Little maintenance associated with this project.
- Current design incorporates two existing shoreline features (ME-18 test sections and LA-08)
- LDFW is the proposed project permit holder, and has already submitted a letter to Program accepting maintenance responsibility after project life.
- For every year not built, the project area loses another 17 acres of functioning wetlands to erosion.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

November 20, 2015

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 Rockefeller Refuge Gulf Shoreline Stabilization project (ME-18)

Dear Mr. Wingate:

NOAA Fisheries and the Louisiana Coastal Protection and Restoration Authority (CPRA) hereby request approval for Phase II authorization of the Rockefeller Refuge Gulf Shoreline Stabilization project (ME-18). Phase I activities were authorized on Priority Project List 10 on January 10, 2001, 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
John Foret, Project Manager, NOAA NMFS
Andrew Beall, CPRA Project Management Administrator

Printed on Recycled Paper

I. Description of Phase I Project

The Rockefeller Refuge Gulf Shoreline Stabilization Project was proposed by the National Oceanic and Atmospheric Administration (NOAA) as a candidate for the Project Priority List 10. Phase 1 was authorized by the CWPPRA Task Force on January 10, 2001. The candidate project envisioned a 9.2 mile rock breakwater that followed the -5' contour from Joseph's Harbor Bayou westward to Beach Prong. Challenging site conditions prompted a Project Scope Change Request, and approval, in April 2013 to a 2.5-mile rock breakwater with lightweight aggregate core (w/LWA). The nearly continuous breakwater follows the -4' contour from Joseph's Harbor Bayou westward, and have breakwater gaps at approximate 1,500 foot intervals to ensure tidal exchange and fisheries support functions.

A summary of project costs and benefits at the Phase I scope change is provided below; the candidate project fact sheet and map can be found in ***Attachment A***.

Fully Funded Total Project Cost	$28,515,025
Phase II, Increment 1 Request	$27,558,543
Net Acres at TY20	198
Average Annual Habitat Units	113

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) survey, data acquisition and analyses, hydrodynamic modeling of the project area, oyster biological assessment of the borrow area/equipment access corridor, development and evaluation of project alternatives at the Preliminary (30%) Design level and completion of the Final Design (95%) of the preferred alternative. Other tasks included the development of the landrights workplan, the preliminary ownership report, application for appropriate permits and regulatory clearances, consultations with the State Historic Preservation Office, 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 major feature of the proposed project is construction of a nearly 3.0 mile continuous rock breakwater w/LWA that follows the -3.5' contour of the Gulf of Mexico from Joseph's Harbor Bayou westward. Breakwater gaps at approximate 1,500-foot intervals are planned to ensure tidal exchange and fisheries support functions. The design incorporates two (2) rock breakwater test sections (constructed under CIAP), and two (2) oyster demonstration project features (LA-08). The proposed breakwater

dimensions are an initial construction elevation of +3.5', with an 18' crown. The breakwater is anticipated to ultimately settle to +1.9' after 20 years; this elevation coupled with the 18' crown width will result in the protection of the Gulf Shoreline for the 20-year project life.

A summary of current project costs and benefits is provided below and updated project fact sheet and map can be found in ***Attachment B***.

Fully Funded Total Project Cost	$34,330,523
Phase II, Increment 1 Request	$30,928,839
Net Acres at TY20	256
Average Annual Habitat Units	79

A few design challenges were encountered during Phase I that resulted in small modifications of the original project features. Design challenges included how to incorporate existing test sections and demonstration project features into the breakwater; given the geotechnical limitations. The current design reflects the following modifications;

- Align the breakwater to the -3.5' contour to reduce project material costs;
- Existing LWA test section is at the design elevation and will be tied into on either side;
- Existing rock breakwater test section is at approximately 0.5', and will be tied into on either side;
- Existing oyster ring demonstration features will be tied into the proposed feature on either side, and in the approximate 150' gap between the two oyster ring features, the proposed design cross-section will be constructed. This will create two breakwater gaps. However, current cost estimates reflect enough stone to overtop both features should future geotechnical analysis indicate sufficient consolidation.

IV. Checklist of Phase II Requirements

A. List of project goals and strategies

The primary project goals are to halt shoreline retreat and direct marsh loss, protect saline marsh habitat, and enhance fish and wildlife habitat. Specific project objectives are to 1) protect 330 acres of saline marsh to provide fish and wildlife habitat through the prevention of beach erosion for up to Category 1 storm conditions, which are estimated to have a return interval of about 10 years at the project site; and 2) where practicable, the protection should remain stable for more severe storm conditions up to an event having a 100-year return period.

B. Cost Share Agreement

A cooperative agreement was executed between CPRA and NOAA for Phase I activities on December 27, 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 assurances on landrights completion to NOAA (October 7, email; Attachment C).

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

The Preliminary Design Review meeting was held on May 15, 2014. The response to design review comments and CPRA's Letter of Concurrence to proceed to final design to proceed to final design are included in Attachment D.

E. A favorable Final Design Review (95% Design Level)

The Final Design Review meeting was held on October 1, 2014. In addition to the federal and non-federal sponsors, NRCS, EPA, and COE participated in the meeting. Response to design review comments and the State's letter of concurrence to proceed to Phase II request are included in Attachment E.

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 Environmental Assessment to Program on November 25, 2014 for 30 day review. Notice of its availability online was published on December 3, 2014 via the Lake Charles American Press.. Additionally, hard copies of the EA were available between November 25, 2014 and December 25, 2014 at the Cameron Parish Library.

G. Written summary of the findings of the Ecological Review

N/A

H. *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 (Attachment F).

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

Not required.

J. *Section 303(e) approval*

The letter requesting Section 303(e) has been submitted to the United States Army Corps of Engineers (USACE) as of October 15, 2014 (Attachment G).

K. *Overgrazing determination from the NRCS*

NRCS has determined that overgrazing by livestock is not a problem in the project area (Attachment H).

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

NOAA submitted the revised cost estimate to the Engineering Work Group on October 16, 2015. A revised fully funded cost estimate was finalized by the Economic Workgroup on November 5, 2015. The total fully funded cost is $34,330,523. The Phase II funding request is included in Attachment I.

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

A revised WVA reflecting the final project design was completed on October 29, 2014 (Attachment J). The project is anticipated to result in 256 net acres and 79 AAHUs.

Attachment A

Candidate Project Factsheet

October 2003
Cost figures as of: April 2013

Rockefeller Refuge Gulf Shoreline Stabilization (ME-18)

Project Status

Approved Date: 2001 **Project Area:** 1,373 acres
Approved Funds: $2.40 M **Total Est. Cost:** $96.4 M
Net Benefit After 20 Years: 920 acres
Status: Engineering and Design
Project Type: Shoreline Protection
PPL #: 10

Location

The project is located along the Rockefeller Wildlife Refuge Gulf of Mexico shoreline from Beach Prong to Joseph Harbor in Cameron Parish, Louisiana.

Problems

The project is designed to address Rockefeller Wildlife Refuge gulf shoreline retreat that averages approximately 39 feet/year with a subsequent direct loss of emergent saline marsh.

Restoration Strategy

The project entails construction of shoreline protection along the Gulf of Mexico. The proposed structure would be tied into the west bank of Joseph Harbor and the east bank of Beach Prong. It would be designed to reduce shoreline retreat along this stretch of gulf shoreline, as well as promote shallowing, settling out, and natural vegetative colonization of the overwash material landward of the proposed structure. Gaps within the shoreline protection feature are also proposed to facilitate material and organism linkages.

Progress to Date

The cooperative agreement between the National Marine Fisheries Service and the Louisiana Department of Natural Resources has been executed.

Construction feasibility report has been completed.

This project is listed on Priority Project List 10.

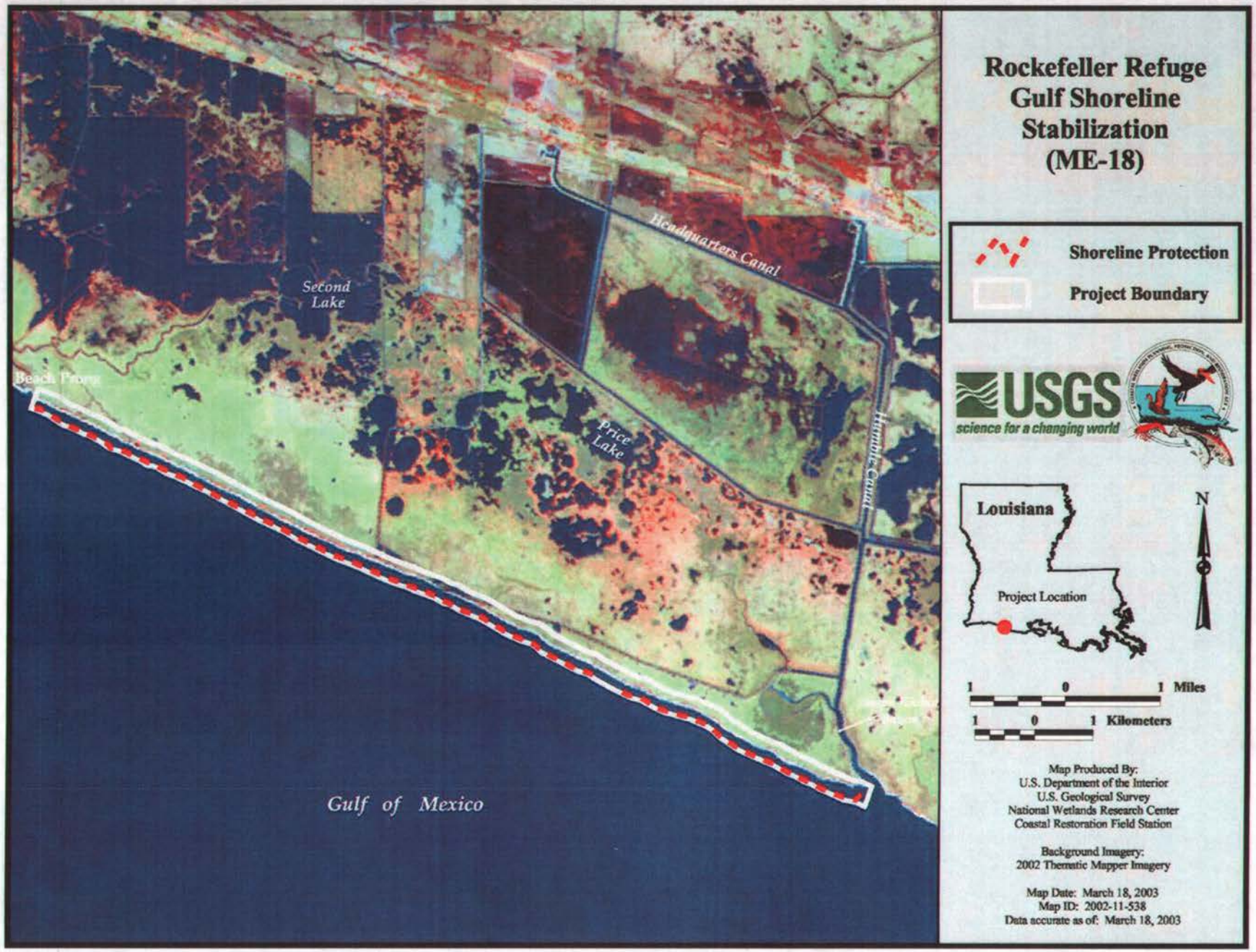
Existing beach formation at Rockefeller Wildlife Refuge gulf shoreline. Beach material is primarily made up of lightweight oyster shell fragments (hash).

An example of ongoing shoreline erosion on Rockefeller Wildlife Refuge. Dark areas in photo are remnant organic marsh.

For more project information, please contact:

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

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


Rockefeller Refuge
Gulf Shoreline
Stabilization
(ME-18)
Shoreline Protection
Project Boundary
USGS
science for a changing world
Louisiana
Project Location
N
1 0 1 Miles
1 0 1 Kilometers
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Background Imagery:
2002 Thematic Mapper Imagery
Map Date: March 18, 2003
Map ID: 2002-11-538
Data accurate as of: March 18, 2003
Headquarters Canal
Second Lake
Price Lake
Beach Prairie
Gulf of Mexico

Attachment B

Revised Project Factsheet

rev. November 2014
Cost figures as of: November 2014

Rockefeller Refuge Gulf Shoreline Stabilization (ME-18)

Project Status

Approved Date: 2001 **Project Area:** 450 acres
Approved Funds: $2.40 M **Total Est. Cost:** $28.0 M
Net Benefit After 20 Years: 256 acres
Status: Engineering and Design
Project Type: Shoreline Protection
PPL #: 10

Location

The project is located along the Rockefeller Wildlife Refuge Gulf of Mexico shoreline from Joseph's Harbor canal, westward 3 miles in Cameron Parish, Louisiana.

Problems

The project is designed to address Rockefeller Wildlife Refuge gulf shoreline retreat that averages approximately 46 feet/year with a subsequent direct loss of emergent saline marsh.

Restoration Strategy

The project entails construction of shoreline protection along the Gulf of Mexico. The proposed structure would be tied into the west bank of Joseph Harbor a rock breakwater with lightweight aggregate core, westward for approximately 3 miles. It would be designed to reduce shoreline retreat along this stretch of gulf shoreline, as well as promote shallowing, settling out, and natural vegetative colonization of the overwash material landward of the proposed structure. Gaps within the shoreline protection feature are also proposed to facilitate material and organism linkages.

Progress to Date

The cooperative agreement between the National Marine Fisheries Service and the Louisiana Department of Natural Resources has been executed.

Construction feasibility report has been completed.

Project has completed engineering and design.

This project is listed on Priority Project List 10.

Existing beach formation at Rockefeller Wildlife Refuge gulf shoreline. Beach material is primarily made up of lightweight oyster shell fragments (hash).

An example of ongoing shoreline erosion on Rockefeller Wildlife Refuge. Dark areas in photo are remnant organic marsh.

For more project information, please contact:

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

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

Rockefeller Refuge Gulf Shoreline Stabilization (ME-18)

Shoreline Protection *

Project Boundary

*denotes proposed features

USGS
science for a changing world

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
National Wetlands Research Center
Coastal Restoration Assessment Branch
Baton Rouge, La.

Background Imagery:
2012 Digital Orthophoto Quarter Quadrangle

Map Date: September 03, 2014
Map ID: USGS-NWRC 2014-11-0035
Data accurate as of: September 03, 2014

Attachment C

Project Landrights

Subject: RE: Phase 2 Request Checklist>> Appendix C of the CWPPRA SOP required "Notification from the State or the Corps that landrights will be finalized in a short period of time after Phase II Approval."
From: V J Marretta <Victor.Marretta@LA.GOV>
Date: 10/7/14, 10:55 AM
To: "john.foret@noaa.gov" <john.foret@noaa.gov>
CC: Garvin Pittman <Garvin.Pittman@la.gov>, James Altman <James.Altman@LA.GOV>

Hi John,

Per your request:

This is to inform the CWPPRA committees and Task Force that the process for landrights acquisition is progressing for the Rockefeller Refuge Shoreline Stabilization Project (ME-18), and the CPRA is confident that landrights will be finalized in a reasonable amount of time after Phase II Approval.

I will provide the 303e letter, as early as, possible. Then, I will prepare, circulate for approval and have executed the Grant of Particular Use (for the state water bottoms), and, provide the landrights certification (once landrights has been completed), pending Phase II funding approval in December, 2014.

Garvin will let me know if the funding has been approved for this project. IF approved, the process for the Grant of Particular Use should not take very long. It will simply depend on how long each party takes to execute the document. I will do my best to expedite CPRA's approval/execution, as well as, State Lands. Hopefully, NOAA/NMFS will also expedite returning the executed document (four originals), as well.

Please feel free to contact me, if you have any questions and/or need additional information.

Thanks,

VJ

V. J. Marretta
Land Rights Division

Coastal Protection and Restoration
Authority of Louisiana
P. O. Box 44027
Baton Rouge, LA 70804-4027
Physical Address:
Chase Building - North Tower
450 Laurel Street, 12th Floor, Suite 1200
Baton Rouge, LA 70801

Phone: (225) 342-5260
Fax: (225) 242-3574
Cell: (225) 485-6222
victor.marretta@la.gov

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

Attachment D

Concurrence on 30% Design

State of Louisiana

BOBBY JINDAL
GOVERNOR

August 1, 2014

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 Rockefeller Shoreline Stabilization (ME-18)
Statement of Local Sponsor Concurrence

Dear Mr. Doley:

The 30% design review meeting was held on May 15, 2014 for the Rockefeller Shoreline Stabilization (ME-18) 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,

Andrew Beall
Project Management Administrator

cc: John Foret, National Oceanic and Atmospheric Administration
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 • 15th Floor Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-4711 • http://www.coastal.la.gov
An Equal Opportunity Employer

Attachment E

Concurrence to Proceed to Phase II

Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

October 13, 2014

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
Rockefeller Refuge Shoreline Stabilization Project (ME-18)
Statement of Local Sponsor Concurrence

Dear Mr. Doley:

The 95% Design Review meeting for the Rockefeller Refuge Shoreline Stabilization (ME-18) project was held on October 1, 2014. 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, concur to proceed with requesting Phase II construction funding for the project. In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence to the Technical Committee and the Planning and Evaluation Subcommittee.

Sincerely,

Andrew D. Beall
Project Management Administrator
Project Management Division

ADB: GDP

cc: John Foret, National Oceanic and Atmospheric Administration
Cecelia Linder, National Oceanic and Atmospheric Administration
Stuart Brown, Coastal Protection and Restoration Authority
Garvin Pittman, Coastal Protection and Restoration Authority - Contractor

Post Office Box 44027 • Baton Rouge, Louisiana 70804-4027 • 450 Laurel Street • Suite 1200, Chase Tower North • Baton Rouge, Louisiana 70801
(225) 342-7308 • Fax (225) 342-9417 • http://www.lacpra.org/
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Attachment F

Project Permit

(Full version available upon request)

Louisiana Department of Natural Resources
Office of Coastal Management (OCM)
Telephone: 1-800-267-4019
Website: http://dnr.louisiana.gov/crm/

U.S. Army Corps of Engineers (COE)
New Orleans District
Telephone: 504-862-2766
Website: www.mvn.usace.army.mil/ops/regulatory

Joint Permit Application

For Work Within the Louisiana Coastal Zone

What is the purpose of the Joint Permit Application?

This Joint Permit Application was developed to facilitate the state and federal permit application process administered by the Louisiana Department of Natural Resources/Office of Coastal Management (OCM) and the U.S. Army Corps of Engineers (COE) for work within the Louisiana Coastal Zone.

To simplify the permit application process, the Joint Permit Application is a multi-purpose application. It may be used to apply for a Coastal Use Permit (CUP) and/or a Department of the Army Permit under Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act. This application may also be used to apply for a Solicitation of Views (SOV) or an OCM Request for Determination (RFD). Review the instructions below, then proceed to Step 1.

Instructions

How do I complete the Joint Permit Application?

There are two parts to the Joint Permit Application package:

1. Joint Permit Application, and
2. Maps and Drawings.

An accurate/complete application is required for processing; inaccurate/missing information may delay processing. Follow the instructions below to complete the application. Specific instructions are provided with each step.

- Type or print clearly using black or blue ink;
- Steps 1 through 16 must be completed; write "N/A" if information does not apply to your proposed project. It is not necessary to write "N/A" on the Steps that you have been asked to skip;
- When additional space is needed, include an 8½ x 11 sheet of paper identifying the Step number.

When you have questions or need assistance in completing the application package:

- Refer to the "Glossary of Terms" (See page 10.);
- Refer to "Frequently Asked Questions" (See page 11.);
- Contact the Office of Coastal Management at 1-800-267-4019 or 225-342-7591; or
- Contact your local coastal parish program (See page 11.). (http://dnr.louisiana.gov/CRM/coastmgt/interagencyaff/lcp/lcp.asp)

Step 1 of 16

Who is the applicant for the proposed project?

Note: Applicants may be either the landowner, person or company that is responsible for the proposed project.

Complete the following information about the applicant.

Applicant/Company Name: Louisiana Department of Wildlife and Fisheries (LDWF)
Individual Person or Corporation/Company

Mailing Address: 5476 Grand Chenier Hwy
Street Address or P.O. Box

Unit/Apartment #

Grand Chenier — City
LA — State
70643-3100 — Zip

Contact Information: Philip Trosclair
Name of Contact Person *(not the agent)*

ptrosclair@wlf.la.gov
E-Mail Address

(337) 491-2593
Area Code Daytime Telephone Number

(337) 491-2595
Area Code Fax Number

Continue to page 2 for step 2.

Internal Office Use Permit #

Step 2 of 16

Is an agent being used for the proposed project?

Note: An agent is not required.

Is an agent being used for the proposed project?

☐ **NO** (If NO, proceed to Step 3.)
☑ **YES** (If YES, complete the following information.)

Company Name: Coastal Protection and Restoration Authority (CPRA)
Corporation/Company

Mailing Address: 450 Laurel St. — Suite 1501
Street Address or P.O. Box — Unit/Apartment #

Baton Rouge — LA — 70801
City — State — Zip

Contact Information: Garvin Pittman — Garvin.Pittman@la.gov
Name of Contact Person — E-Mail Address

(225) 342-4576 — (225) 342-9417
Area Code Daytime Telephone Number — Area Code Fax Number

Step 3 of 16

What type of permit or action would you like to request?

Note: You may need the approval of other federal, state or local agencies for your project.

Note: For questions concerning the CUP, SOV or RFD, call OCM at:
- *1-800-267-4019*
  or
- *225-342-7591*

Check ☑ the appropriate box(es) to indicate the type of permit or action that you would like to request.

☑ **Coastal Use Permit (CUP), Clean Water Act Permit (Section 404), Rivers and Harbors Act (Section 10)**

The purpose of the CUP is to ensure that any activity affecting the Coastal Zone is completed in a manner that is consistent with the Louisiana Coastal Resource Program.

The purpose of the Department of the Army permit program under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act is to review and evaluate proposals for dredging, filling, and/or placement of structures in waterways and wetlands in order to determine whether a permit should be granted or denied based on expected impacts to the overall public interest.

☐ **Solicitation of Views (SOV) – OCM only**

If you wish to find out if your project is in the Coastal Zone or if you wish to determine if there are special features of the area that may impact your project design you may request a SOV. No application fee is assessed for SOV requests. The following Steps must be completed to obtain an informal determination.

- Step 1, Step 2, Step 6, Step 14, Step 16; and
- Step 13 - (Vicinity plat showing project location and extent is required; cross section and plan views are useful, if available.)

☐ **Request for Determination (RFD)**

If you wish to obtain a formal determination as to whether or not a CUP would be required for a particular activity, you may submit a RFD. The appropriate application fee will be assessed for RFD requests. The following Steps must be completed to obtain a RFD.

- Step 1, Step 2, Step 5, Step 6, Step 8, Step 10, Step 14, Step 16; and;
- Step 13 - (Vicinity plat showing project location and extent is required; cross section and plan views are useful, if available.)
- If you think that no permit is required, you must provide a statement explaining why you think a permit is not required.

Step 4 of 16

Have you participated in a Pre-Application or Geological Review Meeting or obtained a wetland determination?

Note: To schedule a Pre-Application and/or a Geological Review Meeting, call OCM at 1-800-267-4019.

Note: To apply for a wetland determination, call the COE at 504-862-1627.

a. Have you participated in a Pre-Application or Geological Review Meeting for the proposed project?

☑ **NO** (If NO, proceed to Step 4b.) (If you would like to schedule a pre-application meeting, please call 1-800-267-4019)
☐ **YES** (If YES, complete the following information.)

Date meeting was held: ___/___/_____

Attendees: _____ _____ _____
Individual or Company Representative — OCM Representative — COE Representative

b. Have you obtained an official wetland determination from the COE for the project site?

☑ **NO** (If NO, proceed to Step 4c.)
☐ **YES** (If YES, include a copy with this application.)

JD Number: _____

c. Is this application a mitigation plan for another CUP?

☑ **NO** (If NO, proceed to Step 5.)
☐ **YES** (If YES, identify the permit number of the project requiring mitigation.)

OCM Permit Number: P_____

Continue to page 3 for step 5.

Step 5 of 16

What permits/ certifications have you previously requested for the proposed project?

Note: Additional sheets may be required for agency name, permit number and status information.

a. **Describe the project.**

Construction of an offshore breakwater along the Rockefeller Wildlife Refuge Gulf of Mexico shoreline to protect the rapidly eroding shoreline in the vicinity of Joseph Harbor Bayou.

b. **Is this application a change to an existing permit?**

☑ **NO** (If NO, proceed to Step 5c.)
☐ **YES** (If YES, identify the existing permit number.)

OCM Permit Number: P

Please explain

c. **Have you previously applied for a permit or emergency authorization for all or any part of the proposed project?**

☑ **NO** (If NO, proceed to Step 6.)
☐ **YES** (If YES, complete the following information for the proposed project.)

Agency Name	Permit Number	Decision Status: Approved	Denied	Pending	Decision Date
OCM		☐	☐	☐	
COE		☐	☐	☐	
Other		☐	☐	☐	

Step 6 of 16

Where will the proposed project be located?

Note: The following websites may provide assistance in completing the latitude/longitude and directions:
- *Sonris on OCM website*
- *MapQuest.com*
- *Topozone.com*

Complete the following information to identify the exact location of the proposed project.

a. **Physical Location:** Cameron (Parish) Grand Chenier (City) 70643 (Zip)

Street Address (If known)

Gulf of Mexico (Water Body (if known))

b. **Latitude and Longitude:** ⚠ Must be included in all applications.

Latitude: 29 (Degrees) 38 (Minutes) 10.860 (Seconds) Longitude: 92 (Degrees) 46 (Minutes) 41.030 (Seconds)

c. **Section, Township, Range:** *(if available)*

Section #(s)	Township # (Specify North or South)	Range # (Specify East or West)
16, 17, 20, 21, 22	16S	4W

d. **Lot #, Tract #, Parcel # or Subdivision Name:** *(if known)*

Lot # Parcel #

Tract # Subdivision Name

Note: Directions may include the following:
- *Nearest town/city*
- *Highways*
- *Intersections*
- *Street names*
- *Landmarks*
- *Start/end point*

e. **Site Directions:** Directions to the proposed project site must be identified in order to process the application.

Example: START - I-10 toward Baton Rouge. Exit #153 toward Port Allen. US-190 West/LA-1 North ramp. RIGHT onto LA-987 1/Bridge Side Road. RIGHT onto LA-986/North River Road to Popular Grove Plantation directly behind guest parking lot in rear. -END

START- From Lafayette: US-167 South toward Maurice. LEFT onto Veterans Memorial Dr. after approximately 20 miles. RIGHT onto LA-82 W/N State St. after approximately 0.5 miles. Follow signs for LA-82 W for approximately 60 miles. The boat launch will be on the left hand side. Travel South through Humble Canal and Joseph Harbor Bayou by boat to Gulf of Mexico- END.

Continue to page 4 for step 7.

Attachment G
Section 303(e)

Subject: Rockefeller Refuge Gulf Shoreline Stabilization ME-18 303(e) Certification
From: Cecelia Linder - NOAA Federal <cecelia.linder@noaa.gov>
Date: 10/15/14, 8:27 AM
To: "Hennington, Susan M MVN" <Susan.M.Hennington@usace.army.mil>
CC: angelae.thomas@la.gov, Benjamin Barnes <Benjamin.Barnes@la.gov>, James Altman <James.Altman@la.gov>, Stuart Brown <stuart.brown@la.gov>, "Inman, Brad L MVN" <Brad.L.Inman@usace.army.mil>, Garvin Pittman <garvin.pittman@la.gov>, John Foret - NOAA Federal <john.foret@noaa.gov>

Susan,

Please see the attached information for fulfillment of Section 303(e) of CWPPRA for the Rockefeller Refuge Gulf Shoreline Stabilization Project, ME-18 . Once I receive the hard copy version of CPRA's letter, then I will send a hard copy version to you.

Thank you so much,

Cece

--

Cecelia Linder

NOAA CWPPRA Program

1315 East-West Highway

SSMC #3, F/HC3, Rm 15861

Silver Spring, MD 20910

301-427-8675

www.restoration.noaa.gov

— Attachments: —

ME 18 Rockefeller Refuge 303e Request.pdf 27 bytes

Attachment H
Overgrazing Determination

USDA

United States Department of Agriculture

August 19, 2014

Mr. John D. Foret
National Oceanic and Atmospheric Administration
Estuarine Habitats & Coastal Fisheries Center
646 Cajundome Boulevard
Lafayette, Louisiana 70508

Dear Mr. Foret:

RE: Rockefeller Refuge Gulf Shoreline Stabilization Project (ME-18)

I am in receipt of your request for an overgrazing determination for the Rockefeller Refuge Gulf Shoreline Stabilization Project (ME-18). 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
Frank Chapman, District Conservationist, Lake Charles, Louisiana
John Jurgensen, Civil Engineer, Alexandria, Louisiana
Johanna Pate, 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
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Attachment I

Phase II Funding Request

Attachment J

Revised Project Wetland Value Assessment

(Full version available upon request)

Rockefeller Refuge Gulf Shoreline Stabilization (ME-18)

Coastal Wetlands Planning, Protection and Restoration Act

Proposed by

NOAA National Marine Fisheries Service

FINAL Project Information Sheet for Wetland Value Assessment
Phase Two Revision

October 22, 2014

Contact: Kimberly Clements, NOAA NMFS, (225) 389-0508

Letters of Support

-----Original Message-----
From: Brenda Vallier [mailto:lilcajungirl31@yahoo.com <mailto:lilcajungirl31@yahoo.com>
<mailto:lilcajungirl31@yahoo.com <mailto:lilcajungirl31@yahoo.com> >]
Sent: Tuesday, November 24, 2015 4:16 PM
To: Bo Boehringer
Subject: coastal erosion

Hi my name is Canyon Vallier and i am a Boy Scout that camped a Rockefeller Refuge. I'm writing to the Louisiana Department of Wildlife and Fisheries about the importance and approval to construct the costal erosion project, ME-18, to protect a portion of the coastline of the Rockefeller Wildlife Refuge. We need to protect the coast because we need the coast to stay were it is. I'm only 12, and I want to play at Rockefeller refuge for a very long time!!

Thank you,
Canyon Vallier

KIRK QUINN
PRESIDENT

CURTIS FOUNTAIN
VICE PRESIDENT

RYAN BOURRIAQUE
ADMINISTRATOR

DARRELL WILLIAMS
SECRETARY-TREASURER

POLICE JURY

PARISH OF CAMERON

P.O. BOX 1280
CAMERON, LOUISIANA 70631

(337) 775-5718
(337) 775-5567 Fax
www.parishofcameron.net

DISTRICT 1
CURTIS FOUNTAIN

DISTRICT 2
ANTHONY HICKS

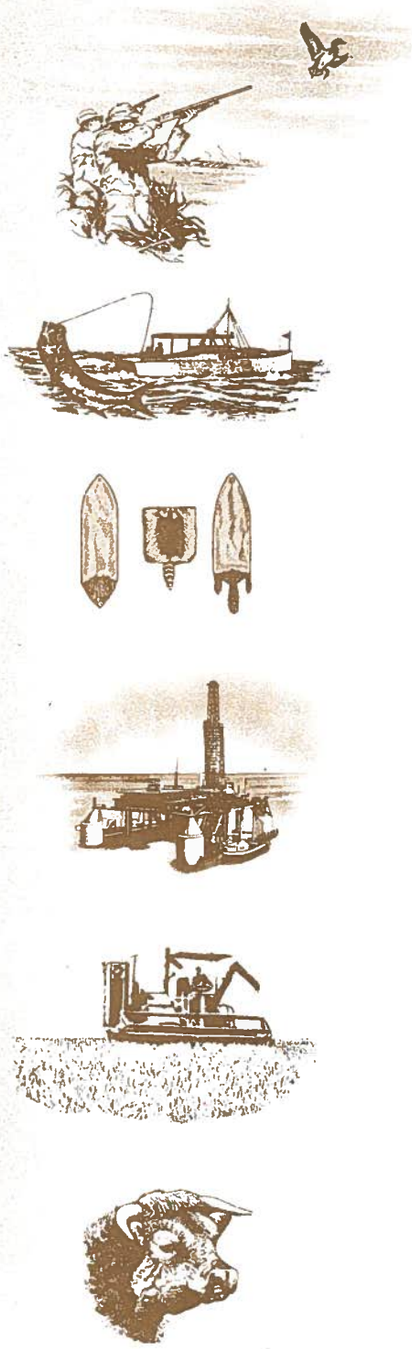
DISTRICT 3
KIRK QUINN

DISTRICT 4
TERRY BEARD

DISTRICT 5
KIRK BURLEIGH

DISTRICT 6
JOE DUPONT

DISTRICT 7
DARRYL FARQUE



RESOLUTION

PARISH OF CAMERON
STATE OF LOUISIANA

WHEREAS, Cameron Parish has two candidate projects Phase I Funding including Sweeney Tract Marsh Creation and Nourishment and Oyster Lake Marsh Creation and Nourishment as well as two candidate projects for Phase II Funding including Cameron/ Creole Freshwater Introduction and Rockefeller Shoreline Protection, and

WHEREAS, the Sweeney Tract Marsh Creation and Nourishment project aims to restore 400-500 acres of saline marsh in the Hog Bayou Watershed mapping unit, in the Mermentau Basin, by mining sediment from an offshore disposal area. This project would promote the expansion of emergent marsh and submerged vegetation throughout the project area, and

WHEREAS, the Oyster Lake Marsh Creation and Nourishment project is designed to combat years of saltwater intrusion, drought stress, and hurricane induced wetland losses that have resulted in interior marsh breakup. The project would mine sediment from an offshore disposal area to create between 400 – 600 acres, and

WHEREAS, the Cameron-Creole Watershed marshes have experienced an increased inundation of saltwater due to Hurricane Rita and Hurricane Ike. It is unlikely that these marshes will recover from the losses experienced without comprehensive restoration efforts. This freshwater introduction project would restore the function, value, and sustainability to approximately 22,247 acres of marsh and open water by improving hydrologic conditions via freshwater input and increasing organic productivity, and

WHEREAS, Rockefeller Wildlife Refuge averages coastal land loss of approximately 46 feet/year with a subsequent direct loss of emergent saline marsh. The Rockefeller Shoreline Protection project entails construction of shoreline protection along the Gulf of Mexico. The proposed structure would be tied into the west bank of Joseph Harbor a rock breakwater with lightweight aggregate core, westward for approximately 3 miles. Demonstration efforts have already proved successful and would simultaneously benefit additional marsh creation projects further inland, and

WHEREAS, each of these projects are vital to the recovery, protection, and sustainability of our coastal wetlands in Cameron Parish, and

NOW, THEREFORE BE IT RESOLVED, by the Cameron Parish Police Jury on this 2nd day of December, 2015, that the Secretary is hereby

authorized, empowered and directed to forward this Resolution of support for the *"Sweeney Tract Marsh Creation and Nourishment Project"* and *"Oyster Lake Marsh Creation and Nourishment Project"* to the Coastal Wetland Planning, Protection and Restoration Act Task Force for Phase I Funding.

BE IT FURTHER RESOLVED, that the Coastal Wetland Planning, Protection and Restoration Act Task Force, thru this Resolution, are requested to support the *"Cameron-Creole Freshwater Introduction Project"* and *"Rockefeller Shoreline Protection Project"* for Phase II Funding to construct these projects.

ADOPTED AND APPROVED this 2nd day of December, 2015.

APPROVED:

KIRK QUINN, PRESIDENT
CAMERON PARISH POLICE JURY

ATTEST:

DARRELL WILLIAMS, SECRETARY

Carriere, Kaitlyn M MVN

From: Inman, Brad L MVN
Sent: Monday, December 07, 2015 3:25 PM
To: Carriere, Kaitlyn M MVN
Subject: FW: [EXTERNAL] Please support ME-18

-----Original Message-----
From: Wingate, Mark R MVN
Sent: Monday, December 07, 2015 3:21 PM
To: Inman, Brad L MVN <Brad.L.Inman@usace.army.mil>
Subject: Fw: [EXTERNAL] Please support ME-18

Sent from my BlackBerry 10 smartphone.
From: Stephen Hennigan <shennigan@peiinc.com>
Sent: Monday, December 7, 2015 1:39 PM
To: Wingate, Mark R MVN; britt.paul@la.usda.gov; mccormick.karen@epamail.epa.gov; Bren.Haase@la.gov; Richard.Hartman@noaa.gov; Darryl_Clark@fws.gov
Cc: Ellis Guilbeau
Subject: [EXTERNAL] Please support ME-18

Task Force Members

Your positive consideration of the implementation of ME-18 would be appreciated. Although I do not live in SW LA, Rockefeller has been a very important part of my life growing up and during my work in the oil and gas industry. Re the latter I worked with the former Supervisor to “re-build” water control barriers that had been damaged by either nature or years of manmade issues. Several years later he reported to me that they were working very well.

I have friends who travel to that area frequently who lament about what needs to be done. I “rarely” hunt and fish but I am a member of DU (on chapter committees) and my wife lets me contribute because my focus is all about “saving the land”. With this project we may can “rescue” some for the future.

I encourage your support.

Thank you and have a blessed day!

Stephen F. Hennigan, MS Emgt

Project Manager/Engineer

*: 500 Dover Boulevard, Suite 310 | Lafayette, LA 70503

(: 337-984-2603

(: 337-849-5345 (mobile)

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Carriere, Kaitlyn M MVN

From: Inman, Brad L MVN
Sent: Monday, December 07, 2015 3:25 PM
To: Carriere, Kaitlyn M MVN
Subject: FW: [EXTERNAL] ME-18

-----Original Message-----
From: Wingate, Mark R MVN
Sent: Monday, December 07, 2015 3:20 PM
To: Inman, Brad L MVN <Brad.L.Inman@usace.army.mil>
Subject: Fw: [EXTERNAL] ME-18

Sent from my BlackBerry 10 smartphone.
From: Tommy Jackson <tjackson@ducks.org>
Sent: Monday, December 7, 2015 2:26 PM
To: Wingate, Mark R MVN
Cc: Bren.Haase@la.gov; Darryl_Clark@fws.gov; Richard.Hartman@noaa.gov; mccormick.karen@epamail.epa.gov; mailto:britt.paul@la.usda.gov
Subject: [EXTERNAL] ME-18

CWPPRA Task Force,

On December 10th, you are taxed with a very important decision regarding the future of one of our greatest state resources & refuges, the ME-18 project on Rockefeller Wildlife Refuge. Rockefeller Refuge is a world-renowned research center for the American Alligator and marsh management in our state. It is in the center of the Mississippi Flyway and has millions of birds migrating through this area annually. According to the Coastal Education and Research Foundation, Rockefeller is the erosional hot spot of the Chenier Plain in West Louisiana.

This area receives one of the highest rates of erosion in the state. These segmented breakwaters proposed in ME-18 is the answer to slow/stop this erosion and to protect this critical area for wintering waterfowl. As a member of Ducks Unlimited with over 23,000 members in Louisiana and sportsman of this state, we want to voice our support for this project, and we ask that you vote for ME-18 and invest in protecting the refuge for future generations and wildlife to enjoy.

Thank you for the work you put into this committee & your support for ME-18.

For the ducks

Tommy Jackson

Regional Director North Louisiana

Ducks Unlimited

108 Country Club Rd

Monroe, La 71201

tjackson@ducks.org <mailto:tjackson@ducks.org>

318-235-8273

Carriere, Kaitlyn M MVN

From: Inman, Brad L MVN
Sent: Monday, December 07, 2015 4:09 PM
To: Carriere, Kaitlyn M MVN
Subject: FW: [EXTERNAL] ME-18

-----Original Message-----
From: Wingate, Mark R MVN
Sent: Monday, December 07, 2015 4:08 PM
To: Inman, Brad L MVN <Brad.L.Inman@usace.army.mil>
Subject: Fw: [EXTERNAL] ME-18

Sent from my BlackBerry 10 smartphone.
From: John O Harris <johnoharris@bellsouth.net>
Sent: Monday, December 7, 2015 3:58 PM
To: Wingate, Mark R MVN; Bren.Haase@la.gov; 'Daryl'; Richard.Hartman@noaa.gov; mccormick.karen@epamailepa.gov; britt.paul@la.usda.gov
Subject: [EXTERNAL] ME-18

ALL – MY NAME IS JOHN O. HARRIS AND I AM AN AVID OUTDOORSMAN AND ALSO A MEMBER OF DUCKS UNLIMITED . I LIVE IN LAFAYETTE , LA. WHERE I AM AN INDEPENDENT PETROLEUM GEOLOGIST AND I CERTAINLY ENJOY OUR WETLANDS WHETHER I AM BOATING , FISHING , OR HUNTING . UNFORTUNATELY OUR WETLANDS ARE SLOWLY DISAPPEARING TO COASTAL EROSIN AND SALT WATER INTRUSION .BECAUSE I BELIEVE ME-18 IS A VERY IMPORTANT AND CRITICAL PROPOSAL , I AM WRITING TO ASK EACH OF YOU TO SUPPORT THIS PROJECT. WE NEED TO START THIS PROJECT AS SOON AS POSSIBLE …..THE SOONER WE START THIS PROJECT THE SOONER WE WILL BEGIN TO SEE POSITIVE RESULTS IN THE WAY OF STOPPING COASTAL EROSIN AND LOSS OF WETLANDS . THIS VERY WORTHWHILE PROJECT WILL BE ADMINISTERED TO AND OVERSEN BY A VERY CONSCIENTIOUS CONSERVATION GROUP , THE ROCKEFELLER WILDLIFE REFUGE . THIS PROJECT DESPERATELY NEEDS YOUR SUPPORT AND YOUR VOTE TO ACHIEVE THE NECESSARY FUNDING NEEDED TO PROCEED SO PLEASE SHOW YOUR SUPPORT FOR ME-18 BY VOTING FOR ME-18 ON THURSDAY. I WOULD APPRECIATE THAT SUPPORT VERY MUCH…. THANK YOU .

JOHN O. HARRIS

337-983-6322

From: Jeremy Hutchinson <jrmyhutchinson@yahoo.com>
Sent: Monday, December 7, 2015 9:52 PM
To: Wingate, Mark R MVN; Bren.Haase@la.gov; DarrylClark@fws.gov; Richard.Hartman@noaa.gov; mccormick.karen@epamail.epa.gov; britt.paul@la.usda.gov
Subject: [EXTERNAL] ME-18

CWPPRA Task Force,

On December 10th, you are tasked with a very important decision regarding the future of one of our greatest state resources and refuges, the ME-18 project on Rockefeller Wildlife Refuge. Rockefeller Refuge is a world renowned research center for the American Alligator and marsh management in our state. It is the center of the Mississippi Flyway and has millions of birds migrating through this area annually. According to the Coastal Education and Research Foundation,
Rockefeller is the erosional hot spot of the Chenier Plain in West Louisiana.

This area receives one of the highest rates of erosion in the state. These segmented breakwaters proposed in ME-18 are the answer to slow/stop this erosion and to protect this critical area for wintering waterfowl. As a member of Ducks Unlimited with over 23,000 members in Louisiana and sportsmen of this state, we want to voice our support for this project and we ask that you vote for ME-18 and invest in protecting the refuge for future generations and wildlife to enjoy.

Thank you for the work you put into this committee and for your support for ME-18.

For the ducks,
Jeremy Hutchinson
Sent from my iPhone

CHUCK KLECKLEY
SPEAKER

STATE OF LOUISIANA
HOUSE OF REPRESENTATIVES

District 36
130 Jonestown Road
Lake Charles, LA 70605
Email: larep036@legis.la.gov
Phone: 337.475.3016
Fax: 337.475.3016

December 8, 2015

Mr. Mark Wingate, Chairman
Deputy District Engineer
U.S. Army Engineer District, New Orleans
Office of the Chief
P. O. Box 60267
New Orleans, La. 70160

Dear Technical Committee Members,

I am writing you for your consideration of Phase 1 support for the Oyster Lake Marsh Creation and Nourishment, and the Shoreline Protection, Preservation, and Restoration Panel (SPPR Panel) Demonstration Projects, and the Phase 2 support for the Rockefeller Refuge Gulf Shoreline Stabilization Project at your upcoming December 10 Technical Committee Meeting.

The Oyster Lake Marsh Creation and Nourishment project is located in Cameron Parish, west of the Calcasieu Ship Channel, and immediately adjacent to the Oyster Bayou Marsh Restoration (CS-59) Project area. Saltwater intrusion, drought stress, and hurricane induced wetland losses have resulted in interior marsh breakup and coalescence of Oyster Lake with interior water bodies. To offset this loss, Sediment would be mined from the offshore disposal area used for CS-59 and placed in multiple disposal areas to create between 400 to 600 acres of saline marsh. Disposal areas would be constructed between the CS-59 marsh creation areas and terrace field, and where practical, disposal would be semi-confined. This proposed project embodies the very definition of wetland restoration synergy, as the project features adjoin the CS-59 project features, while utilizing the oversized CS-59 borrow area as the project source.

The Shoreline Protection, Preservation, and Restoration Panel (SPPR Panel) Demonstration Project would introduce an innovative solution for shoreline protection and dredge containment projects which can be installed at a significant savings to the project owner. The demonstration project would help reduce shoreline retreat along bay and lake areas that have experienced excessive amounts of erosion and would also have the intent to offset increased rates of land loss to wetlands that become exposed due the loss of protective shorelines features. The SPPR Panel is a pre-cast, saltwater tolerant concrete panel system, the dimensions and density of which can be adjusted to site conditions. The SPPR Panel units resemble a chain when joined together allowing for on-site adjustments to irregular shorelines. The project has several aspects, in that it is shoreline protection and restoration, marsh protection, restoration, and enhancement system that would deflect wave energy, protect and enhance vegetation, trap sediment, protect and create emergent marsh, and provide nursery habitat. While the CWPPRA program has historically supported demonstration projects for the advancement of coastal restoration solutions, it has not done so in the last 2 years, but as the Program has matured, the need for new and innovative solutions has never been greater.

The Rockefeller Refuge Gulf Shoreline Stabilization Project was proposed as a candidate for the Project Priority List 10. Phase 1 was authorized by the CWPPRA Task Force on January 10, 2001. The candidate project envisioned a 9.2 mile rock breakwater that followed the -5' contour from Joseph's Harbor Bayou westward to Beach Prong. Challenging site conditions prompted a Project Scope Change Request, and approval, in April 2013 to a 2.5-mile rock breakwater with lightweight aggregate core (w/LWA). Rockefeller Wildlife Refuge averages coastal land loss of approximately 57 feet/year with a subsequent direct loss of emergent saline marsh. The proposed structure would be tied into the west bank of Joseph Harbor Canal and proceed westward for approximately 3 miles. There is little-to-no maintenance associated with this project, and the Louisiana Department of Wildlife and Fisheries has submitted a letter of intent to be the project permit holder, and assume any maintenance responsibility after the project life. A test-section has already proved successful and would simultaneously benefit addition marsh wetland restoration efforts further inland. For every year not funded, the State of Louisiana will lose an additional 17 acres just within the project footprint.

Any consideration you give to this project will be appreciated.

Sincerely,

Chuck Kleckley, Speaker

CK/gg

Carriere, Kaitlyn M MVN

From: Inman, Brad L MVN
Sent: Wednesday, December 09, 2015 12:16 PM
To: Carriere, Kaitlyn M MVN
Subject: FW: [EXTERNAL] Support of ME-18 on Rockefeller Wildlife Refuge

-----Original Message-----
From: Wingate, Mark R MVN
Sent: Wednesday, December 09, 2015 12:09 PM
To: Inman, Brad L MVN <Brad.L.Inman@usace.army.mil>
Subject: Fw: [EXTERNAL] Support of ME-18 on Rockefeller Wildlife Refuge

Sent from my BlackBerry 10 smartphone.
From: Thomson, Andy (AS) <David.Thomson@ngc.com>
Sent: Wednesday, December 9, 2015 9:37 AM
To: Wingate, Mark R MVN; Bren.Haase@la.gov; Darryl_Clark@fws.gov; Richard.Hartman@noaa.gov; mccormick.karen@epamail.epa.gov; britt.paul@la.usda.gov
Subject: [EXTERNAL] Support of ME-18 on Rockefeller Wildlife Refuge

CWPPRA Task Force,

On December 10th, you are taxed with a very important decision regarding the future of one of our greatest state resources & refuges, the ME-18 project on Rockefeller Wildlife Refuge. Rockefeller Refuge is a world-renowned research center for the American Alligator and marsh management in our state. It is in the center of the Mississippi Flyway and has millions of birds migrating through this area annually. According to the Coastal Education and Research Foundation, Rockefeller is the erosional hot spot of the Chenier Plain in West Louisiana.

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Thank you for the work you put into this committee & your support for ME-18.

Merry Christmas…and for the ducks…regards,

Andy Thomson

DU District Chairman, NW Louisiana

(o) 318-841-1723

(c) 318-205-0279

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

REPORT ON THE MONITORING WORK GROUP MEETING HELD OCTOBER 21 IN LAFAYETTE

For Report:

Ms. Leigh Anne Sharp will provide a report on the Monitoring Work Group meeting held October 21 in Lafayette.

CWPPRA Technical Committee Update

Leigh Anne Sharp
Coastal Protection and Restoration Authority of Louisiana
December 10, 2015

Overview of Monitoring Workgroup Meeting 10/21/15

1. **Standardization of Monitoring Frequency, Measures, and Costs across CPRA Regional Offices:**
   - We were asked by the Engineering Workgroup to provide base measures and standardized costs for Phase 0 monitoring budget estimation.
   - We used the opportunity to come to general consensus within monitoring across CPRA Regional Offices on what to measure when by project type.
   - We presented proposed standardizations of monitoring frequency by project type and measure.
   - We anticipate that proposed measures and timing would be adjusted to fit each project's individual needs in Phase 1.
2. **State Overhead Costs and the impact on Monitoring Budgets**
   - We discussed the impact of increased overhead costs on monitoring budgets. We will continue to track project budgets and will deal with each project individually. We intend to provide the same level of service as initially agreed to and will request funds or transfer funds from O&M as needed.

Overview of Monitoring Workgroup Meeting 10/21/15

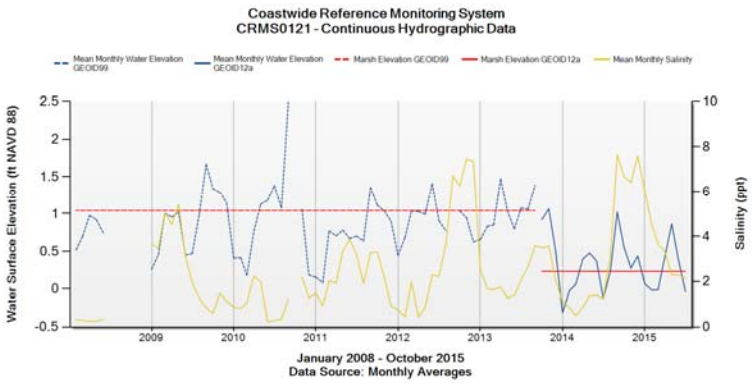
3. **USGS Spatial Analysis for CWPPRA Projects**
   - We are recommending that CWPPRA extend the Automated Delineation Method utilized for CRMS in 2012 to project specific analyses where appropriate. The method is less expensive and products are comparable to Manual Delineation.
   - CRMS intends to fund coastwide flights every three years. We recommend that CWPPRA projects utilize CRMS coastwide flights for project specific analysis so that projects do not have to pay for flight acquisition.

4. **Project Goals**
   - We discussed project goals, our need for them to be measureable, and our preference that they cite specific targets and target ranges. Monitoring staff are available to discuss potential goals early in Phase 1 planning.

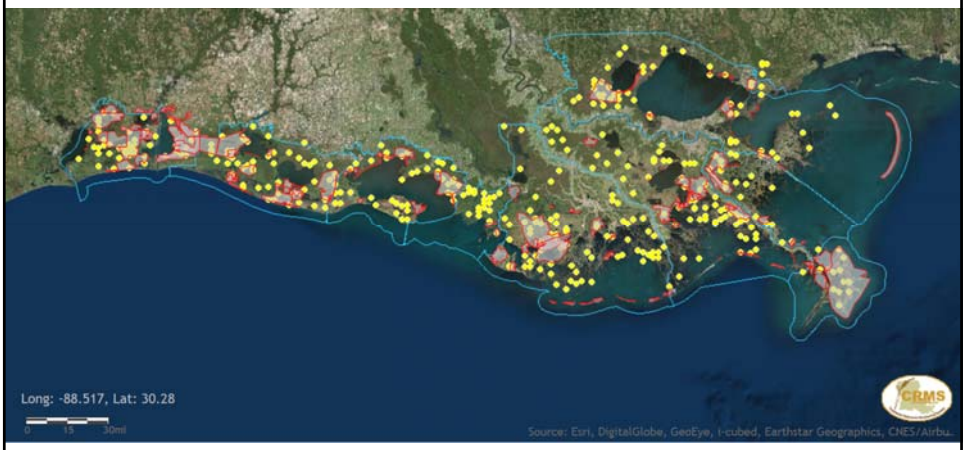
5. **Programmatic Analyses**
   - We reviewed analytical tools currently available on the CRMS website and those in development including a new predictive model for marsh loss that utilizes all CRMS data.

Overview of Monitoring Workgroup Meeting 10/21/15

6. **Coastwide Elevation Survey Update**
   - We provided an update on the 2014 re-survey of all CRMS elevations.
   - The database now includes water elevations in both Geoid 99 and 12a so Geoid is indicated for every elevation on the website.
   - CPRA monitoring staff are available to answer survey questions.



Louisiana's Coastwide Reference Monitoring System (CRMS) Sites *and* Coastal Wetland Planning Protection and Restoration Act (CWPPRA) Projects



www.lacoast.gov/crms_viewer2/Default.aspx

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

REQUEST FOR APPROVAL TO INITIATE TRANSFER OF THE PPL 20 – KELSO BAYOU MARSH CREATION PROJECT (CS-53) TO THE CHENIER PLAIN COASTAL RESTORATION AND PROTECTION AUTHORITY (CHENIER PLAIN AUTHORITY)

For Decision:

The Chenier Plain Authority has requested transfer of the Kelso Bayou Marsh Creation project from CWPPRA to the Chenier Plain Authority. By letter dated 16 November 2015 from the Chenier Plain Authority to the Task Force, the Chenier Plain Authority formally requested that the project be transferred to them in lieu of deauthorization.

The Technical Committee will vote to recommend to the Task Force that initiation of deauthorization be rescinded and switched to the transfer process.

CHENIER PLAIN
Coastal Restoration & Protection Authority

CWPPRA Task Force
Colonel Richard L. Hansen, Chairman
P.O. Box 60267
New Orleans, LA 70106

November 16, 2015

RE: Kelso Bayou Marsh Creation (CS-53)

Dear Colonel Hansen,

Please accept this letter as a request for the CWPPRA Task Force to transfer the (CS-53) Kelso Bayou Marsh Creation Project to the Chenier Plain Coastal Restoration & Protection Authority (Chenier Plain Authority). This project is one of Cameron Parish's critical projects located as a first line of defense along the Gulf Coast. As Cameron Parish is inclusive of the parishes within Chenier Plain's Authority, we would like to keep the project active so as to enable us to seek funding for its construction.

As you are aware CS-53 will substantially decrease marsh loss for the communities within Cameron Parish and make great strides towards achieving a sustainable coast, and is included in the 2012 Coastal Master Plan.

With that in mind, we are requesting that this project be transferred to the Chenier Plain Authority in lieu of being "de-authorization".

After reviewing this request, if there is any additional information required, please do not hesitate to contact me at (225) 333-8234, or email me at nedra.davis@cpcrpa.org

Sincerely,

Nedra S. Davis,
Executive Director
Chenier Plain Authority
7515 Jefferson Hwy, #322
Baton Rouge, LA 70806

January 2011
Cost figures as of: November 2015

Kelso Bayou Marsh Creation (CS-53)

Project Status

Approved Date: 2011 **Project Area:** 319 acres
Approved Funds: $2.36 M **Total Est. Cost:** $16.6 M
Net Benefit After 20 Years: 274 acres
Status: Engineering and Design
Project Type: Marsh Creation
PPL #: 20

Location

This project is located in Region 4, Calcasieu-Sabine Basin, Cameron Parish. The project features are located in an area south of the Gulf Intracoastal Waterway and just west of the Calcasieu Ship Channel.

Problems

The most significant environmental problem affecting the marshes in this area is deterioration and conversion to open water. Marsh loss has and continues to occur as a result of salt water intrusion and sediment export (erosion). The construction of the Calcasieu Ship Channel and the Gulf Intracoastal Waterway greatly increased the efficiency of water exchange through Calcasieu Pass. Freshwater retention was consequently reduced and salt water is able to enter interior marshes and penetrate further north and west. Project-area marshes are connected to the navigation channels through a network of canals and bayous including Kelso Bayou and Alkali Ditch. Unvegetated substrate is vulnerable to increased tidal exchange and immense quantities of organic substrate are being exported.

Recent marsh loss and scouring at the mouth of Kelso Bayou from impacts related to Hurricanes Rita and Ike allow increased salt water intrusion, tidal exchange, and storm surge impacts.

Restoration Strategy

The goal of this project is to restore and protect approximately 319 acres of critically important marsh and the numerous functions provided by those areas. The proposed project will restore a portion of the historic meandering channel of Kelso Bayou and provide direct protection to Louisiana State Highway 27, the region's only northward hurricane evacuation route. Project features include creating/nourishing 319 acres of marsh, 3,200 linear feet of shoreline protection, and rock armor at the mouth of Kelso Bayou to prevent additional tidal scour.

Progress to Date

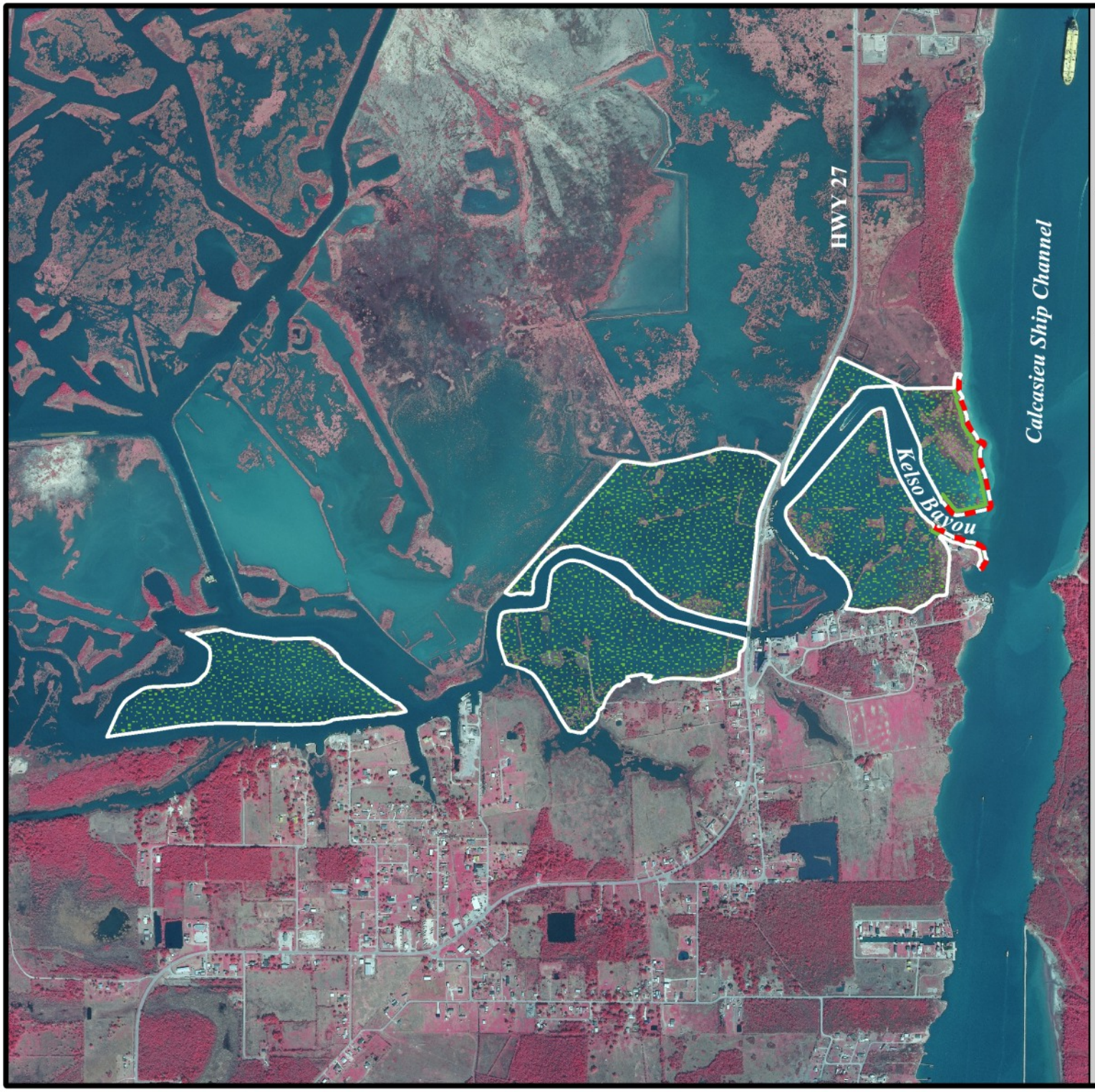
This project is on Priority Project List 20. Phase 1 funding approval for engineering and design was given by the Task Force in January 2011.

Interior marsh loss along Louisiana Highway 27 exposes the areas only hurricane evacuation route to increased storm impacts.

For more project information, please contact:

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

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



Kelso Bayou Marsh Creation (CS-53)

Shoreline Protection *

Marsh Creation *

Project Boundary

*denotes proposed features

USGS
science for a changing world

N

0.2 0 0.2 0.4 Kilometers

0.2 0 0.2 0.4 Miles

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

Background Imagery:
2008 Digital Orthophoto Quarter Quadrangle

Map Date: February 8, 2011
Map ID: USGS-NWRC 2011-11-0015
Data accurate as of: January 3, 2011

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

REQUEST APPROVED BY TECHNICAL COMMITTEE VOTE TO EXPEND FUNDS IN THE AMOUNT OF $150,000 FOR THE BLACK BAYOU CULVERTS (CS-29) PROJECT

For Report:

On May 14, 2015, the Task Force approved placing $500,000 into a MIPR for the Black Bayou Culverts (CS-29) project with the caveat that the funds not be spent without Technical Committee approval. NRCS requested to expend $150,000, and the Technical Committee approved the request via electronic vote on November 30, 2015.

Carriere, Kaitlyn M MVN

From: Paul, Britt - NRCS, Alexandria, LA <britt.paul@la.usda.gov>
Sent: Monday, November 30, 2015 3:26 PM
To: Bren Haase; Darryl Clark (darryl_clark@fws.gov); hartman@noaa. gov (richard.hartman@noaa.gov); Wingate, Mark R MVN; Karen McCormick (mccormick.karen@epa.gov)
Cc: Supler, Vicki - NRCS, Alexandria, LA; Jurgensen, John - NRCS, Alexandria, LA; Kinler, Quin - NRCS, Denham Springs, LA; Carriere, Kaitlyn M MVN; Inman, Brad L MVN
Subject: [EXTERNAL] Request for Technical Committee approval to use a portion of the funds approved for modifications on CS-29 (Black Bayou Culverts)

CWPPRA Technical Committee,

As you recall, the Task Force approved the issuance of a MIPR for $500,000 to be used for modifications to the ongoing contract for repair of the CS-29 (Black Bayou Culverts) project with the caveat requiring Technical Committee approval to expend the funds. By way of this email, we are requesting approval to expend $100,000 to cover the cost of quantity overrun on the steel sheet piles due to a calculation error from the design contractor and $50,000 to cover a change needed in order to tie in the wale beams to the structure due to the inability to tie in to the pile caps as originally designed. This is a time sensitive issue so please respond as soon as possible with your approval or disapproval.

Thanks,

Britt

****

W. Britt Paul, P.E.
Assistant State Conservationist WR
USDA-NRCS
318-473-7756

cell 318-613-7988
britt.paul@la.usda.gov

Carriere, Kaitlyn M MVN

From: Richard Hartman - NOAA Federal <richard.hartman@noaa.gov>
Sent: Monday, November 30, 2015 3:34 PM
To: Paul, Britt - NRCS, Alexandria, LA
Cc: Bren Haase; Darryl Clark (darryl_clark@fws.gov); Wingate, Mark R MVN; Karen McCormick (mccormick.karen@epa.gov); Supler, Vicki - NRCS, Alexandria, LA; Jurgensen, John - NRCS, Alexandria, LA; Kinler, Quin - NRCS, Denham Springs, LA; Carriere, Kaitlyn M MVN; Inman, Brad L MVN
Subject: [EXTERNAL] Re: Request for Technical Committee approval to use a portion of the funds approved for modifications on CS-29 (Black Bayou Culverts)

approved.

rick

On Mon, Nov 30, 2015 at 3:26 PM, Paul, Britt - NRCS, Alexandria, LA <britt.paul@la.usda.gov <mailto:britt.paul@la.usda.gov> > wrote:

CWPPRA Technical Committee,

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Thanks,

Britt

****

W. Britt Paul, P.E.
Assistant State Conservationist WR
USDA-NRCS
318-473-7756 <tel:318-473-7756>

cell 318-613-7988 <tel:318-613-7988>
britt.paul@la.usda.gov <mailto:britt.paul@la.usda.gov>

Carriere, Kaitlyn M MVN

From: Clark, Darryl <darryl_clark@fws.gov>
Sent: Monday, November 30, 2015 3:37 PM
To: Paul, Britt - NRCS, Alexandria, LA
Cc: Richard Hartman - NOAA Federal; Bren Haase; Wingate, Mark R MVN; Karen McCormick (mccormick.karen@epa.gov); Supler, Vicki - NRCS, Alexandria, LA; Jurgensen, John - NRCS, Alexandria, LA; Kinler, Quin - NRCS, Denham Springs, LA; Carriere, Kaitlyn M MVN; Inman, Brad L MVN
Subject: [EXTERNAL] Re: Request for Technical Committee approval to use a portion of the funds approved for modifications on CS-29 (Black Bayou Culverts)

Britt,

We approve the request.

Darryl

On Mon, Nov 30, 2015 at 3:33 PM, Richard Hartman - NOAA Federal <richard.hartman@noaa.gov <mailto:richard.hartman@noaa.gov> > wrote:

approved.

rick

On Mon, Nov 30, 2015 at 3:26 PM, Paul, Britt - NRCS, Alexandria, LA <britt.paul@la.usda.gov <mailto:britt.paul@la.usda.gov> > wrote:

CWPPRA Technical Committee,

As you recall, the Task Force approved the issuance of a MIPR for $500,000 to be used for modifications to the ongoing contract for repair of the CS-29 (Black Bayou Culverts) project with the caveat requiring Technical Committee approval to expend the funds. By way of this email, we are requesting approval to expend $100,000 to cover the cost of quantity overrun on the steel sheet piles due to a calculation error from the design contractor and $50,000 to cover a change needed in order to tie in the wale beams to the structure due to the inability to tie in to the pile caps as originally designed. This is a time sensitive issue so please respond as soon as possible with your approval or disapproval.

Thanks,

Britt

****
W. Britt Paul, P.E.
Assistant State Conservationist WR
USDA-NRCS
318-473-7756 <tel:318-473-7756>

Carriere, Kaitlyn M MVN

From: McCormick, Karen <McCormick.Karen@epa.gov>
Sent: Monday, November 30, 2015 3:46 PM
To: Paul, Britt - NRCS, Alexandria, LA; bren.haase@la.gov; Darryl Clark (darryl_clark@fws.gov); hartman@noaa. gov (richard.hartman@noaa.gov); Wingate, Mark R MVN
Cc: Supler, Vicki - NRCS, Alexandria, LA; Jurgensen, John - NRCS, Alexandria, LA; Kinler, Quin - NRCS, Denham Springs, LA; Carriere, Kaitlyn M MVN; Inman, Brad L MVN
Subject: [EXTERNAL] RE: Request for Technical Committee approval to use a portion of the funds approved for modifications on CS-29 (Black Bayou Culverts)

Approved….thanks

From: Paul, Britt - NRCS, Alexandria, LA [mailto:britt.paul@la.usda.gov]
Sent: Monday, November 30, 2015 3:26 PM
To: bren.haase@la.gov; Darryl Clark (darryl_clark@fws.gov); hartman@noaa. gov (richard.hartman@noaa.gov); Mark R MVN Wingate (Mark.R.Wingate@usace.army.mil); McCormick, Karen
Cc: Supler, Vicki - NRCS, Alexandria, LA; Jurgensen, John - NRCS, Alexandria, LA; Kinler, Quin - NRCS, Denham Springs, LA; Carriere, Kaitlyn M MVN; Inman, Brad L MVN (Brad.L.Inman@usace.army.mil)
Subject: Request for Technical Committee approval to use a portion of the funds approved for modifications on CS-29 (Black Bayou Culverts)

CWPPRA Technical Committee,

As you recall, the Task Force approved the issuance of a MIPR for $500,000 to be used for modifications to the ongoing contract for repair of the CS-29 (Black Bayou Culverts) project with the caveat requiring Technical Committee approval to expend the funds. By way of this email, we are requesting approval to expend $100,000 to cover the cost of quantity overrun on the steel sheet piles due to a calculation error from the design contractor and $50,000 to cover a change needed in order to tie in the wale beams to the structure due to the inability to tie in to the pile caps as originally designed. This is a time sensitive issue so please respond as soon as possible with your approval or disapproval.

Thanks,

Britt

****

W. Britt Paul, P.E.
Assistant State Conservationist WR
USDA-NRCS
318-473-7756

cell 318-613-7988
britt.paul@la.usda.gov <mailto:britt.paul@la.usda.gov>

Carriere, Kaitlyn M MVN

From: Wingate, Mark R MVN
Sent: Monday, November 30, 2015 5:55 PM
To: Paul, Britt - NRCS, Alexandria, LA; Bren Haase; Darryl Clark (darryl_clark@fws.gov); hartman@noaa. gov (richard.hartman@noaa.gov); Karen McCormick (mccormick.karen@epa.gov)
Cc: Supler, Vicki - NRCS, Alexandria, LA; Jurgensen, John - NRCS, Alexandria, LA; Kinler, Quin - NRCS, Denham Springs, LA; Carriere, Kaitlyn M MVN; Inman, Brad L MVN
Subject: RE: Request for Technical Committee approval to use a portion of the funds approved for modifications on CS-29 (Black Bayou Culverts)

Britt,

I see that Karen, Darryl and Rick have approved. We have a majority vote approving this action. The below request is approved.

Thanks
Mark

_____

Mark Wingate, P.E.
Deputy District Engineer for Programs and Project Management
Executive Office
New Orleans District
United States Army Corps of Engineers

504-862-2204 (w)
504-858-8122 (c)

-----Original Message-----
From: Paul, Britt - NRCS, Alexandria, LA [mailto:britt.paul@la.usda.gov]
Sent: Monday, November 30, 2015 3:26 PM
To: Bren Haase; Darryl Clark (darryl_clark@fws.gov); hartman@noaa. gov (richard.hartman@noaa.gov); Wingate, Mark R MVN; Karen McCormick (mccormick.karen@epa.gov)
Cc: Supler, Vicki - NRCS, Alexandria, LA; Jurgensen, John - NRCS, Alexandria, LA; Kinler, Quin - NRCS, Denham Springs, LA; Carriere, Kaitlyn M MVN; Inman, Brad L MVN
Subject: [EXTERNAL] Request for Technical Committee approval to use a portion of the funds approved for modifications on CS-29 (Black Bayou Culverts)

CWPPRA Technical Committee,

As you recall, the Task Force approved the issuance of a MIPR for $500,000 to be used for modifications to the ongoing contract for repair of the CS-29 (Black Bayou Culverts) project with the caveat requiring Technical Committee approval to expend the funds. By way of this email, we are requesting approval to expend $100,000 to cover the cost of quantity overrun on the steel sheet piles due to a calculation error from the design contractor and $50,000 to cover a change needed in order to tie in the wale beams to the structure due to the inability to tie in to the pile caps as originally designed. This is a time sensitive issue so please respond as soon as possible with your approval or disapproval.

Thanks,

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

ADDITIONAL AGENDA ITEMS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

REQUEST FOR PUBLIC COMMENTS

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

PRIORITY PROJECT LIST 26 REGIONAL PLANNING TEAM MEETINGS

For Announcement:

January 26, 2016	11:00 a.m.	Region IV Planning Team Meeting	Lafayette
January 27, 2016	9:00 a.m.	Region III Planning Team Meeting	Gray
January 28, 2016	8:00 a.m.	Region I & II Planning Team Meeting	Lacombe
February 23, 2016	10:30 a.m.	Coastwide Electronic Voting	*(via email, no meeting)*

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

TECHNICAL COMMITTEE MEETING

DECEMBER 10, 2015

DATE OF UPCOMING CWPPRA PROGRAM MEETING

For Announcement:

The Task Force meeting will be held January 14, 2016 at 9:00 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 10, 2015

SCHEDULED DATES OF FUTURE PROGRAM MEETINGS

For Announcement:

January 14, 2016	9:00 a.m.	Task Force	New Orleans
January 26, 2016	11:00 a.m.	Region IV Planning Team Meeting	Lafayette
January 27, 2016	9:00 a.m.	Region III Planning Team Meeting	Gray
January 28, 2016	8:00 a.m.	Region I & II Planning Team Meeting	Lacombe
April 5, 2016	9:30 a.m.	Technical Committee	New Orleans
May 12, 2016	9:30 a.m.	Task Force	Lafayette
September 14, 2016	9:30 a.m.	Technical Committee	Baton Rouge
October 19, 2016	9:30 a.m.	Task Force	New Orleans
December 7, 2016	9:30 a.m.	Technical Committee	Baton Rouge