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Breaux Act

Coastal Wetlands Planning, Protection and Restoration Act

Technical Committee Meeting

September 9, 2004

Baton Rouge, Louisiana

BREAUX ACT

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT (CWPPRA)

Technical Committee Meeting

September 9, 2004, 9:30 a.m.
LA Department of Wildlife and Fisheries -- Louisiana Room
2000 Quail Dr., Baton Rouge, La.

AGENDA

Documentation of Task Force and Technical Committee meetings may be found at:
http://www.mvn.usace.army.mil/pd/cwppra_mission.htm or
http://lacoast.gov/reports/program/index.asp

1. **Decision: FY05 Planning Budget Approval and Presentation of FY05 Outreach Committee Budget (LeBlanc/Wilson) 9:30 to 9:45 a.m.**
   a) The Planning and Evaluation Subcommittee will recommend a planning budget for the upcoming fiscal year in the amount of $4,738,129. The Technical Committee will make a recommendation to the Task Force to approve the FY05 Planning Budget.
   b) The CWPPRA Outreach Committee will present the draft FY05 Outreach Committee Budget to the Technical Committee for coordination and discussion purpose only. The Outreach Committee Budget will be recommended to the Task Force by the Outreach Committee.

2. **Decision: Recommendation to Restrict Phase II Budget Requests for Projects Already Approved for Phase II But Not Yet Under Construction to a Cap of 100% (Including Contingency) (Saia) 9:45 a.m. to 9:55 a.m.** Due to the limited available CWPPRA funds for ongoing approved Phase I and II CWPPRA projects, it is recommended that the 125% cap be lowered to 100% to avoid developing a negative "un-programmed" balance in the CWPPRA program budget and to allow the Corps of Engineers to better estimate available funds in the program. The Task Force previously approved application of this cap to new Phase I & II approvals. If this agenda item were approved by the Technical Committee and Task Force, requests exceeding the 100% cap would require additional approval of the Task Force.

3. **Discussion/Decision: Amount of Funding to "Set Aside" for PPL 14 Phase I Efforts (Saia) 9:55 a.m. to 10:05 a.m.** Due to the anticipated budget constraints the Technical Committee will discuss the amount to "set aside" to fund the Phase I cost of PPL 14 projects. The Technical Committee will make a recommendation to the Task Force.

4. **Decision: Request for Operation and Maintenance (O&M) Funding Increases on Priority Project Lists (PPL) 1-8 (Burkholder) 10:05 a.m. to 10:15 a.m.** The Technical Committee will consider the request for O&M cost increases for projects on PPL's 1-8, in the amount of $935,000.

5. **Decision: Request for Funding for Administrative Costs for those Projects Beyond Increment 1 Funding. (Saia) 10:15 a.m. to 10:20 a.m. (Saia)** The U.S. Army Corps of

Engineers is requesting $21,915 funding approval for administrative costs for those projects beyond Increment 1 funding.

6. **Decision: Request for FY08 Coastwide Restoration Monitoring System (CRMS)-Wetlands Monitoring Funds and Project Specific Monitoring Funds for Projects on PPLs 9-13 (Raynie) 10:20 a.m. to 10:35 a.m.** Following a presentation on the status/progress of CRMS over the past year, the following requests will be discussed by the Technical Committee, for recommendation to the Task Force:
   a) project specific monitoring funding beyond the first 3-years for projects on PPL's 9-11 (in order to maintain a 3-year rolling amount of funding) in the amount of $91,563.
   b) CRMS FY08 monitoring request in the amount of $532,000.

7. **Decision: Request for Re-allocation of Funds for Construction Unit 4 for the Barataria Basin Landbridge Shoreline Protection, Phases 1 and 2 (BA-27), (Paul) 10:35 a.m. to 10:50 a.m.** BA-27 is a non-cash flow project. The Natural Resources Conservation Service and the LA Department of Natural Resources are seeking a re-allocation of $1,510,563 of the existing remaining BA-27 budget to the BA-27 portion of Construction Unit 4. This amount is an increase above 125% of the approved amount for the BA-27 portion of Construction Unit 4.

8. **Decision: Request for Construction Approval and Phase II Authorization for Projects on all PPL's (Saia) 10:50 a.m. to Noon and 1:15 p.m. to 3:30 p.m.** The Technical Committee will consider requests for Phase II approval of projects on PPL's 9-13, for recommendation to the Task Force. Due to limited funding the Technical Committee will provide a recommended list of projects to the Task Force for Phase II approval and project funding within the limited available funding. The projects in the table below will be individually discussed by the sponsoring agency, the Technical Committee and the general public as shown below:

   a) Agency presentation on individual projects
   b) Technical Committee questions and comments on individual projects
   c) Public comments on individual projects (Comments are requested to be limited to 3 minutes)

   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 funding.

Agency	Proj No.	PPL	Project	Constr Start	Phase II, Incr 1 Funding Request	Phase II Total Cost	Acres over 20 years	Prioritization Scores	Priorization "Rank"	30% Design Review Meeting Date	95% Design Review Meeting Date
NRCS	BA-27	8	Barataria Basin Landbridge, Ph 1&2 - CU 5*	Jun-05	$7,441,870	$7,441,870	721	77.25	1	20 Aug 03 (A)	2 Sept 04(A)
NRCS	BA-27c	9	Barataria Basin Landbridge, Ph 3 - CU 5	Jun-05	$12,069,203	$14,074,159	180	45.55	8	20 Aug 03 (A)	2 Sep 04 (A)
COE	TV-11b	9	Freshwater Bayou Bank Stabilization - Belle Isle Bayou to Lock	Jan-05	$13,827,382	$15,697,763	241	42.50	10	27 Jun 02 (A)	22 Jan 04 (A)
FWS	ME-16	9	Freshwater Introduction South of Hwy 82	Jun-05	$4,323,846	$5,444,187	296	57.35	6	14 May 03 (A)	11 Aug 04 (A)
NRCS	TE-39	9	South Lake DeCade - CU 1	Jun-05	$2,511,857	$3,431,285	207	73.45	2	19 Jul 04 (A)	2 Sep 04 (A)
NRCS	TE-43	10	GIWW Bank Rest of Critical Areas in Terre	Jun-05	$20,434,224	$23,641,525	366	43.25	9	14 May 03 (A)	26 Aug 04 (A)
FWS	TE-44(2)	10	North Lake Mechant - CU 2	Feb-05	$32,340,040	$34,283,945	553	53.10	7	7 May 03 (A)	12 Aug 04 (A)
FWS	BA-36	11	Dedicated Dredging on Barataria Basin LB	Jun-06	$33,730,712	$33,855,606	605	61.00	5	17 Dec 03 (A)	29 Jul 04 (A)
COE	ME-21	11	Grand Lake Shoreline Protection	Jan-05	$12,404,517	$14,155,779	540	66.25	4	14 May 04 (A)	16 Aug 04 (A)
NRCS	TE-48	11	Raccoon Island Shoreline Protection, Ph A (CU1)	Jun-05	$6,447,282	$6,748,717	16	42.00	11	19 Jul 04 (A)	2 Sep 04 (A)
COE	ME-22	12	South White Lake	Jan-05	$14,122,834	$18,085,844	844	66.40	3	30 Jun 04 (A)	3 Sep 04 (A)
COE	LA-06	13	Shoreline Protection Foundation Improvements Demo **	Jan-05	NA	NA	NA	NA	NA	NA	NA
				TOTAL:	$159,653,767	$176,860,680					

** An increase of $7,441,870 is needed for this non-cash flow project. Total Phase II cost is $10,035,500.
* The sponsors are seeking construction approval for this demo, which will be constructed in conjunction with South White Lake SP Project

9. Announcement: PPL 14 Public Meetings (LeBlanc) 3:30 p.m. to 3:35 p.m. Public meetings will be held in November to present the results of the PPL14 candidate project evaluations. The meetings are scheduled as follows:

November 17, 2004 7:00 p.m. Vermillion Parish Police Jury Courthouse Bldg, Abbeville, LA
November 18, 2004 7:00 p.m. U.S. Army Corps of Engineers (DARM - A) New Orleans, LA

10. Additional Agenda Items (Saia) 3:35 p.m. to 3:40 p.m.

11. Date of Upcoming Task Force Meeting (Saia) 3:40 p.m. to 3:45 p.m. The fall Task Force meeting will be held October 13, 2004 at the LA Department of Wildlife and Fisheries. The Task Force will approve Phase II (construction) funding requests for 2004 at the October meeting. Agenda items and supporting documents for the meeting should be submitted by September 28, 2004.

12. Proposed Dates of Future Program Meetings (LeBlanc) Several schedules changes are proposed for the CWPPRA program in 2005 to better accommodate the 2005 funding approval process. Changes are indicated below from the previously announced schedule.

**** Schedule or location changes***

October 13, 2004	9:30 a.m.	Task Force	Baton Rouge
December 16, 2004	9:30 a.m.	Technical Committee	New Orleans
January 26, 2005	9:30 a.m.	Task Force	New Orleans
March 16, 2005	9:30 a.m.	Technical Committee	New Orleans
April 13, 2005	9:30 a.m.	Task Force	Lafayette
****June 15, 2005***	9:30 a.m.	Technical Committee	Baton Rouge
****July 13, 2005***	9:30 a.m.	Task Force	New Orleans
*September 14, 2005	9:30 a.m.	Technical Committee	***New Orleans***
*October 19, 2005	9:30 a.m.	Task Force	***New Orleans***
*December 7, 2005	9:30 a.m.	Technical Committee	***Baton Rouge***
*January 25, 2006	9:30 a.m.	Task Force	***Baton Rouge***

Adjourn

Decision: FY05 Planning Budget Approval and Presentation of FY05 Outreach Committee Budget

FY05 CWPPRA Planning Budget
P&E Subcommittee Recommendation
9 Sep 04

As directed by the motion passed by the Technical Committee during the 14 Jul 04 Technical Committee meeting, the P&E Subcommittee has developed a draft FY05 CWPPRA Planning Budget for consideration by the Technical Committee. The P&E Subcommittee met on 24 Aug 04 to complete this task.

A detailed breakdown of the draft FY05 budget recommended by the P&E Subcommittee is included in the Technical Committee binders. A summary of the recommended FY05 Planning Budget is provided:

FY05 Total for PPL14 Tasks	**$ 226,390**
FY05 Total for PPL15 Tasks	**$1,178,941**
FY05 Total for Project Management Tasks	**$2,467,832**
FY05 Total "Core" Budget	**$3,873,163**
FY05 Total Supplemental Planning & Evaluation Tasks	**$ 864,966**
FY05 Agency Tasks Grand Total	**$4,738,129**

The P&E Subcommittee recommends a draft FY05 CWPPRA Planning Budget in the total amount of $4,738,129 to the Technical Committee.

NOTE:
Currently, there is a surplus (available balance) of approximately $688,000 in the CWPPRA Planning program. Taking into account the FY05 allocation of an additional $5,000,000, there will be a total available balance of approximately $5,688,000. Taking into consideration the FY05 Outreach Budget (to be approved directly by the Task Force) of $437,900, the FY05 CWPPRA Planning Budget totals $5,176,029. If approved by the Task Force, there will be a surplus (available balance) of $511,971 in the CWPPRA Planning Program.

Coastal Wetlands Planning, Protection, and Restoration Act

Fiscal Year 2005 Planning Schedule and Budget

P&E Committee Recommendation,
Tech Committee Recommendation,

Approved by Task Force,

NOTE: Number shown in parentheses in line item tasks represents the number of meetings for that task.

					CWPPRA COSTS											
						Dept. of Interior			State of Louisiana							
Task Category	Task No.	Task	Start Date	End Date	USACE	USFWS	NWRC	USGS BR	DNR	DWF	Gov. Ofc.	EPA	USDA	USDC	Other	Total
PPL 14 TASKS																
PL	14200	Envr and Eng WG's prioritization of PPL 14 projects	10/4/04	10/5/04	5,240	8,700	1,025	0	3,053	3,004	1,000	2,500	8,953	3,669	0	37,143
PL	14300	Prepare project information packages for P&E.	10/30/04	11/3/04	4,051	6,960	0	0	4,175	0	0	3,000	2,806	3,669	0	24,661
PL	14400	P&E holds 2 Public Meetings	11/17/04	11/18/04	15,439	3,480	0	0	3,276	1,502	1,000	2,000	7,346	3,669	0	37,712
PL	14500	TC Recommendation for Project Selection and Funding	12/16/04	12/16/04	1,804	5,800	0	0	2,698	1,502	1,000	1,600	4,691	2,917	0	22,012
PL	14600	TF Selection and Funding of the 14th PPL (1)	1/26/05	1/26/05	4,084	4,350	0	0	2,692	1,502	1,500	3,100	8,182	9,465	0	34,875
PL	14700	PPL 14 Report Development	1/11/05	7/31/05	39,091	2,320	0	0	4,813	0	500	1,000	5,994	9,465	0	63,183
PL	14800	Upward Submittal of the PPL 14 Report	8/1/05	8/1/05	1,258	0	0	0	0	0	0	0	0	1,369	0	2,627
PL	14900	Submission of the PPL 14 Report to Congress	8/2/05	9/30/05	1,149	0	0	0	3,028	0	0	0	0	0	0	4,177
		FY05 Subtotal PL 14 Tasks			72,116	31,610	1,025	0	23,735	7,510	5,000	13,200	37,973	34,222	0	226,390

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						Dept. of Interior			State of Louisiana							
Task Category	Task No.	Task	Start Date	End Date	USACE	USFWS	NWRC	USGS BR	DNR	DWF	Gov. Ofc.	EPA	USDA	USDC	Other	Total
PPL 15 TASKS																
PL	**15200**	**Development and Nomination of Projects**														
PL	15210	DNR/USGS prepares base maps of project areas, location of completed projects and projected loss by 2050. Develop a comprehensive coastal LA map showing all water resource and restoration projects (CWPPRA, state, WRDA projects, etc.)	0/13/2004	1/31/05	2,095	0	0	0	58,638	0	0	2,500	4,476	4,606	0	72,316
PL	15220	Sponsoring agencies prepare fact sheets and maps prior to and following RPT nomination meetings.	10/13/04	1/31/05	32,223	29,000	0	0	8,535	0	0	30,000	10,816	22,823	0	133,397
PL	15230	RPT's meet to formulate and combine projects. Each basin nominates no more than 1 project, with exception of 2 in Barataria and Terrebonne (3 meetings) [11 nominees]	2/1/05	2/3/05	26,338	13,050	0	0	7,890	4,506	2,500	10,000	21,803	10,352	0	96,439
PL	**15300**	**Ranking of Nominated Projects**														
PL	15310	Envir and Engr WG's to revise the Prioritization Criteria, WVA Models, etc (1 or 2 meetings).	10/1/04	9/30/05	6,597	7,250	0	0	4,226	1,502	1,000	7,000	3,773	4,620	0	35,968
PL	15320	Engr Work Group prepares preliminary fully funded cost ranges for nominees.	3/8/05	3/9/05	8,145	2,320	0	0	2,239	0	1,000	4,000	5,683	3,669	0	27,055
PL	15330	Environ/Engr Work Groups review nominees	3/8/05	3/9/05	16,388	7,250	0	0	1,755	1,502	1,000	4,000	11,619	6,290	0	49,804
PL	15340	P&E develops and distributes project matrix	3/10/05	3/10/05	1,026	2,030	0	0	739	0	0	3,000	2,549	3,669	0	13,012

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Task Category	Task No.	Task	Start Date	End Date	USACE	USFWS	NWRC	USGS BR	DNR	DWF	Gov. Ofc.	EPA	USDA	USDC	Other	Total
PL	**15400**	**Analysis of Candidates**														
PL	15410	Sponsoring agencies coordinate site visits for all projects	4/1/05	5/31/05	19,293	18,850	0	0	11,238	7,510	0	10,000	31,524	21,125	0	119,540
PL	15420	Engr/Environ Work Group refine project features and determine boundaries	5/1/05	8/30/05	10,979	14,500	5,162	0	5,961	9,012	2,000	8,000	8,749	11,640	0	76,004
PL	15430	Sponsoring agencies develop project information for WVA; develop designs and cost estimates	5/1/05	8/30/05	48,782	33,350	11,748	0	6,576	0	0	15,000	46,107	38,568	0	200,131
PL	15440	Environ/Engr Work Groups project wetland benefits (with WVA)	5/1/05	8/30/05	26,103	23,200	5,182	0	7,346	3,004	2,000	10,000	32,491	13,391	0	122,716
PL	15450	Engr Work Group reviews/approves Ph 1 and Ph 2 cost estimates from sponsoring agencies	5/1/05	8/30/05	21,876	3,480	0	0	5,966	0	1,000	5,000	21,802	13,391	0	72,515
PL	15460	Economic Work Group reviews cost estimates, adds monitoring, O&M, etc., and develops annualized costs	5/1/05	8/30/05	21,973	1,450	0	0	1,410	0	0	2,000	5,937	7,190	0	39,960
PL	15475	Envr and Eng WG's prioritization of PPL 15 projects	5/1/05	8/30/05	8,348	7,250	0	0	2,683	1,502		5,000	11,816	3,669	0	40,268
PL	15480	Prepare project information packages for P&E.	5/1/05	8/30/05	5,298	6,960	0	0	3,220	0		3,000	2,806	3,669	0	24,953
PL	15485	P&E holds 2 Public Meetings	8/30/05	8/31/05	15,439	3,480	0	0	3,276	1,502		2,000	7,346	2,917	0	35,960
PL	15490	TC Recommendation for Project Selection and Funding	9/14/05	9/14/05	1,804	5,800	0	0	739	1,502		1,000	5,141	2,917	0	18,903
		FY05 Subtotal PPL 15 Tasks			272,706	179,220	22,092	0	132,437	31,542	10,500	121,500	234,438	174,505	0	1,178,941

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Task Category	Task No.	Task	Start Date	End Date	CWPPRA COSTS											
						Dept. of Interior			State of Louisiana							
					USACE	USFWS	NWRC	USGS BR	DNR	DWF	Gov. Ofc.	EPA	USDA	USDC	Other	Total
Project and Program Management Tasks																
PM	15100	Program Management--Coordination	10/1/04	9/30/05	378,950	81,200	14,500	0	69,540	0	58,500	100,000	83,629	104,775	0	891,094
PM	15110	Program Management--Correspondence	10/1/04	9/30/05	42,392	23,200	3,400	0	22,152	0	0	33,000	38,713	63,552	0	226,409
PM	15120	Prog Mgmt--Budget Development and Oversight	10/1/04	9/30/05	67,524	14,500	3,800	0	7,225	0	1,000	30,000	42,286	64,346	0	230,681
PM	15130	Program and Project Management--Financial Management of Non-Cash Flow Projects	10/1/04	9/30/05	59,844	9,280	0	0	9,906	0	0	4,000	15,311	25,429	0	123,770
PM	15200	P&E Meetings (3 meetings preparation and attendance)	10/1/04	9/30/05	31,672	7,540	3,788	0	5,328	4,506	500	10,000	16,559	7,691	0	87,585
PM	15210	Tech Com Mtngs (6 mtngs; prep and attend)	10/1/04	9/30/05	96,555	26,100	6,410	0	26,293	9,012	3,500	20,000	23,386	15,776	0	227,032
PM	15220	Task Force mtngs (4 mtngs; prep and attend)	10/1/04	9/30/05	89,596	29,000	6,410	0	24,614	6,008	6,500	20,000	35,277	27,854	0	245,259
PM	15300	Prepare Evaluation Report (Report to Congress) NOTE: next update in FY06 budget	10/1/04	9/30/05	0	0	0	0	10,000	0	0	0	0	0	0	10,000
PM	15400	Agency Participation, Review 30% and 95% Design for Phase 1 Projects	10/1/04	9/30/05	25,749	10,150	0	0	11,238	6,008	3,000	15,000	13,074	8,887	0	93,107
PM	15410	Engineering & Environmental Work Groups review Phase II funding of approved Phase I projects (Needed for adequate review of Phase I.) [Assume 8 projects requesting Ph II funding in FY05 (present schedule indicates 34 projects). Assume 3 will require Eng or Env WG review; 2 labor days for each.]	10/1/04	9/30/05	18,580	10,150	0	0	6,430	7,510	2,500	6,000	7,546	7,691	0	66,408
PM	15500	Helicopter Support: Helicopter usage for the PPL process.	10/1/04	9/30/05	0	20,000	0	0	0	0	0	0	0	0	0	20,000
PM	15600	Miscellaneous Technical Support	10/1/04	9/30/05	47,406	8,700	0	0	111,168	0	1,000	28,000	30,213	20,000	0	246,487
		FY05 Subtotal Project Management Tasks			858,267	239,820	38,308	0	303,894	33,044	76,500	266,000	305,996	346,003	0	2,467,832
		FY05 Total for PPL Tasks			**1,203,089**	**450,650**	**61,425**	**0**	**460,066**	**72,096**	**92,000**	**400,700**	**578,407**	**554,730**	**0**	**3,873,163**

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Task Category	Task No.	Task	Start Date	End Date	CWPPRA COSTS: USACE	Dept. of Interior: USFWS	Dept. of Interior: NWRC	Dept. of Interior: USGS BR	State of Louisiana: DNR	State of Louisiana: DWF	State of Louisiana: Gov. Ofc.	EPA	USDA	USDC	Other	Total
SUPPLEMENTAL PLANNING AND EVALUATION TASKS																
SPE	15100	Academic Advisory Group [NOTE: MOA between sponsoring agency and LUMCON will be necessary to provide funding.] [Prospectus, page 8-9]	10/1/04	9/30/05	0	0	0	0	0	0	0	0	0	0	99,000	99,000
SPE	15200	Maintenance of web-based project reports and website project fact sheets. [Prospectus, page 10]	10/1/04	9/30/05	4,106	0	42,254	0	6,000	0	0	0	0	0	0	52,360
SPE	15300	Establish linkage of CWPPRA and LCA study efforts.	10/1/04	9/30/05	0	30,000	0	0	0	0	0	30,000	30,000	30,000	0	120,000
SPE	15400	Core GIS Support for CWPPRA Task Force Planning Activities. [NWRC Prospectus, pg 11] [LDNR Prospectus, page 12]	10/1/04	9/30/05	0	0	286,940	0	16,790	0	0	0	0	0	0	303,730
SPE	15500	Phase 0 analyze of impacts to oyster leases for PPL project development [NWRC prospectus, pg 13] [DNR Prospectus, pg 14]	10/1/04	9/30/05	0	0	69,734	0	28,975	0	0	0	0	0	0	98,709
SPE	15700	Media Training for CWPPRA Project Managers. [Prospectus, page 15]	10/1/04	9/30/05	4,595	2,088	0	0	0	0	0	8,000	5,701	10,000	0	30,383
SPE	15900	Update Land Loss Maps ($62,500 in FY04, $63,250 in FY05, $63,250 FY06) [Del Britsch] [Prospectus, page 16]	10/1/04	9/30/05	63,250	0	0	0	0	0	0	0	0	0	0	63,250
SPE	15950	Storm Recovery Procedures (2 events) [Prospectus, page 17-19]	10/1/04	9/30/05	0	0	0	0	97,534	0	0	0	0	0	0	97,534
FY05 Total Supplemental Planning & Evaluation Tasks					**71,951**	**32,088**	**398,928**	**0**	**149,299**	**0**	**0**	**38,000**	**35,701**	**40,000**	**99,000**	**864,966**
FY05 Agency Tasks Grand Total					**1,275,040**	**482,738**	**460,353**	**0**	**609,365**	**72,096**	**92,000**	**438,700**	**614,107**	**594,730**	**99,000**	**4,738,129**

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						Dept. of Interior			State of Louisiana							
Task Category	Task No.	Task	Start Date	End Date	USACE	USFWS	NWRC	USGS BR	DNR	DWF	Gov. Ofc.	EPA	USDA	USDC	Other	Total
Otrch	15100	Outreach - Committee Funding	10/1/04	9/30/05											365,500	365,500
Otrch	15200	Outreach - Agency	10/1/04	9/30/05	6,600	3,300	29,500	0	6,600	0	6,600	6,600	6,600	6,600	0	72,400
																0
				FY05 Total Outreach	**6,600**	**3,300**	**29,500**	**0**	**6,600**	**0**	**6,600**	**6,600**	**6,600**	**6,600**	**365,500**	**437,900**
				Grand Total FY05	**1,281,640**	**486,038**	**489,853**	**0**	**615,965**	**72,096**	**98,600**	**445,300**	**620,707**	**601,330**	**464,500**	**5,176,029**
				Disallowances												
				Proposed Revised Grand Total FY05					**615,965**	**72,096**	**98,600**					

SPE 15100, Academic Advisory Group

University scientists assistance to the Louisiana Coastal Conservation and Restoration Task Force (PPL15)

Louisiana Universities Marine Consortium, Cocodrie, Louisiana

1. Project Management

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

1a. Day-to-day operation

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

1b. Participation in Task Force activities

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

1c. Solicitation of Interest

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

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

The solicitation will include an information sheet. This information sheet will be used to indicate the activities that a scientist wants to participate in and the nature of their availability. A two page CV for each interested scientist will be requested in the solicitation. The solicitation will be send to all scientists currently in the Academic Assistance database, as well as heads of all biology, geology, and civil

engineering departments at Louisiana state universities. A copy of the solicitation will also be provided to all members of the Planning and Evaluation Subcommittee and Technical Committee who may distribute it to any Louisiana state university scientists they wish to ensure are contacted. The deadline for response will be at least two weeks after mailing.

1d. Selection of participating scientists

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

2. Regional Planning Team Assistance

There are four regional planning teams (RPT). These RPTs select projects for nomination on the priority project list. One selected scientist, who has broad familiarity with the region, will be assigned to each RPT. RPT meetings will also be attended by the Project Manager to provide consistency in assistance to all four regions. The role of the selected ecologist and the Project Manager are to provide the RPTs with the scientific background for any planning activities within the region.

Appropriate Fields of Expertise: Wetland Ecology.

3. Environmental Work Group Assistance

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

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

Budget

Project Management	38,000
Regional Planning Team Assistance	16,000
Environmental Workgroup Assistance	36,000
Subtotal	90,000
LUMCON overhead (10%)	9,000
Total	99,000

SPE 15200 Maintenance of Web-Based Project Reports and Website Project Fact Sheets

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

National Wetlands Research Center

August 27, 2003

CWPPRA FY04 Planning Task: ***CWPPRA Web-Based Project Information System Maintenance (Fact sheet Links projects)***

Background:

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

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

Cost: $42,254

SPE 15400 – Core GIS Support for CWPPRA Task Force Planning Activities [NWRC]

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

National Wetlands Research Center

July 22, 2004

CWPPRA Reoccurring Planning Task: *Core GIS Support for CWPPRA Task Force Planning Activities – Continuation for FY05*

Description:

The NWRC has provided the Task Force with GIS planning support since 1992. The scope and complexity of this support has increased over the past 12 years and has resulted in the development of a comprehensive GIS that provides the Task Force with annual planning deliverables that include spatial data sets, spatial data analyses, maps, graphics, and technical support. Providing these products and services to the Task Force requires a standardized GIS data management environment and a good deal of coordination with Task Force members. The GIS products and technical services provided by the NWRC for CWPPRA Planning are, far the most part "reusable", designed to support multi-scale applications, and form the core of the GIS data sets used to support CWPPRA monitoring, land rights, and engineering activities. The system that we have today represents 12 years of the Task Force's investment in GIS technology, data development, and skilled staff. The NWRC continues to incorporate updated data sets and spatial analytical techniques to support the task force on an annual basis. The existing GIS now utilizes data sets created for the LCA Study, providing enhanced spatial data development, analyses and products.

The NWRC requests reauthorization of the Core GIS Support Task for FY05. Oyster data base maintenance support and basic WVA Support will remain separate tasks.

Core NWRC GIS support for FY05

Task	Description	Cost
SPE 15400	Continuation of Core GIS Support for CWPPRA Task Force Planning Activities.	$286,940

Benefits:

- ➡ Identifies core CWPPRA Planning GIS support as one reoccurring item, rather than splitting support among various technology or map initiatives introduced on an annual basis.
- ➡ Insures continued spatial data maintenance, management, and coordination for Task Force.
- ➡ Insures incorporation of new spatial data sets and technologies for Task Force.
    - Examples
        - LCA generated datasets are used for PPL 14 planning
        - Multi-date trend assessments have been expanded to include more satellite imagery and aerial photography
        - Provide interactive GIS support at pertinent meetings.

Deliverables:

Annual continued core CWPPRA Planning GIS support and products (data, technical support, data coordination, data distribution, and hard copy products) at present levels.

SPE 15400 – Core GIS Support for CWPPRA Task Force Planning Activities [LDNR]

Description

A detailed description of the CWPPRA Planning Task *SPE 15400 - Core GIS Support for CWPPRA Task Force Planning Activities* has been explained previously in the justification for National Wetlands Research Center (NWRC) activities in support of this task. The Louisiana Department of Natural Resources, Coastal Restoration Division's (LDNR) use of the SPE 15400 CWPPRA Planning Task Code pertains to administration and management of the contract between the NWRC and the LDNR to carry out activities performed under this task.

FY 2005 Budget Request

Administration and management of the contract between the NWRC and the LDNR includes writing the actual contract document, reviewing NWRC charges for accuracy, processing invoices, and tracking expenditures. Specifically included are salaries for the LDNR contract manager and support staff in the contracts section. The FY 2005 CWPPRA Planning budget request is for $16,790.00.

Benefit to CWPPRA

As stated above, a detailed description of the benefits to CWPPRA of the CWPPRA Planning Task *SPE 15400 - Core GIS Support for CWPPRA Task Force Planning Activities* has been explained previously in the justification for NWRC activities in support of this CWPPRA Planning Task.

Contact

William K. Rhinehart, Louisiana Department of Natural Resources, Coastal Restoration Division, (225) 342-2179.

SPE 15500 – Oyster Lease Database Maintenance and Phase 0 Analysis [NWRC]

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

National Wetlands Research Center

July 22, 2004

CWPPRA Reoccurring Planning Task: *Oyster Lease Database Maintenance and Analysis FY05*

Description:

The NWRC has provided the Task Force with Geographic Information System (GIS) planning support since 1992. The scope and complexity of this support has increased over the past 12 years and has resulted in the development of a comprehensive GIS that provides the Task Force with annual planning deliverables that include spatial data sets, spatial data analyses, maps, graphics, and technical support. One of the key spatial databases maintained by the NWRC is the coastal Louisiana oyster lease database. The Task Force and the Louisiana Dept. of Natural Resources (LDNR) use the oyster lease data to assess potential conflicts with proposed and existing restoration projects. The Louisiana Dept. of Wildlife and Fisheries (LDWF) is the source for the oyster lease data and maintains the data in an Intergraph DGN GIS format on a 7.5 minute USGS quadrangle base. The LDWF oyster lease GIS was designed to support an oyster lease survey operation and was not designed to support regional GIS analytical applications required by the Task Force and LA DNR. The USGS merges the individual LDWF DGN files together to create a seamless coast wide polygon oyster lease database for efficient analyses of potential restoration oyster lease issues. An oyster lease attribute table, maintained by LDWF, is attached to the spatial lease data to provide descriptive information for the leases such as lease expiration date and lease status.

The USGS acquires lease update information from LDWF and then modifies the oyster lease database to reflect lease boundary modifications, lease cancellations, lease expirations, and the addition of new leases. The LDWF oyster lease information is constantly updated, requiring that the USGS maintain and update the regional oyster lease data in a consistent manner to provide the Task Force and LA DNR with current lease information for planning activities.

Oyster Lease Database Maintenance and Analysis for FY05

Task	Description	Cost
SPE 15500	Oyster Lease Database Maintenance and Analysis	$69,734

Benefits:

- ➡ Provides Task Force and LA DNR with a critical data set required for restoration project planning and construction.

Deliverables:

- ➡ Provide Task Force and LA DNR with a current coastal Louisiana oyster lease database for required restoration project screening.
- ➡ Update and maintain oyster lease database to reflect changes to the source LDWF oyster lease data on a regular basis.

Provide planning related maps, graphics, and oyster lease analysis support to the Task Force and LA DNR as needed.

SPE 15500 – Oyster Lease Database Maintenance and Phase 0 Analysis [LDNR]

August 19, 2004

CWPPRA Reoccurring Planning Task: Oyster Lease Database Maintenance and Analysis FY05

Description:

LA DNR is the lead agency responsible for implementation of the CWPPRA Oyster Lease Acquisition Program, promulgated under Louisiana state law in April of 2003. As such DNR supplies GIS based oyster lease information and analysis to the Task force and its subcommittees, principally the Environmental and Engineering workgroups. This information is generally provided in the form of maps and spreadsheets. DNR provides this information during all phases of the project from nomination through construction. This task code is necessary in order for DNR to provide this service during the nomination and candidate phases of a project. Oyster lease analysis is especially critical during theses phases do to the dynamic nature of the project. Information provided to the Environmental and Engineering Workgroups under this task are critical to the initial cost estimates of the projects used during the selection phase.

Project specific oyster lease acquisition issues such as attendance at engineering and design meetings and generation of project specific reports will be billed to each project individually. However, during the WVA process there is no project to bill to, therefore this Task Code is necessary in order for DNR to meet its Phase 0 requirements under the current CWPPRA Standard Operating Procedures.

Task	Description	Cost
SPE15500	Oyster Lease Database Maintenance and Analysis	$46,952

Benefits

< Provides Task Force and all Federal and state partners with oyster lease information and analysis critical to the for project planning purposes during the WVA process

Deliverables

< Provide Task Force, its subcommittees, including the Environmental and Engineering Workgroups and other agencies with oyster lease information necessary for planning purposes

< Provide planning related maps and lease information, including oyster lease analysis support to the Task Force and its subcommittees

SPE 15700 – Media Training for CWPPRA Project Managers

The media often contacts CWPPRA project managers for comments about CWPPRA projects. As many project managers have no formal communications training and very little experience in interacting with the media, this training will prepare managers to feel more comfortable and confident when approached by the media. This training will also prepare the managers for how to handle and interact with the media in order to be sure the media gets a favorable and accurate view of CWPPRA.

Formal media trainers, Gordon Helm and Jennifer Koss, will lead two one-day training sessions. They will teach a variety of skills including what to do when a reporter calls, guidelines for delivering the right message to the media, how to handle difficult situations, and what to do before, during, and after an interview. Project managers will be able to participate in a video taped mock interview. Managers will leave with a training binder and summary list of strategies for success in meeting the media. CWPPRA outreach personnel will assist in the training.

Thirty managers from all CWPPRA partners would be invited to participate in the training. A maximum of fifteen managers could attend one day and maximum of fifteen other project managers could attend the second day. We are scheduling two sessions so that managers could chose the day that fits into their schedule more easily. This would mean four managers from each agency (NMFS, COE, EPA, NRCS, FWS, DNR, GOCA) could attend. However if space is still available after all agencies make their commitments, any remaining spaces will be offered on a first come, first served basis.

NMFS will include the cost of the trainers (travel, time, etc.) in their planning budget and the expense associated with the project managers' time for participation will be included under the P&E's supplemental training task.

SPE 15900 – Update Land Loss Database and Maps

Background

The Corps of Engineers land loss maps (Britsch and Dunbar 1996) help document erosion in the coastal plain from 1932 to 1990 over four separate time intervals (1932-58, 1958-74, 1974-83, and 1983-90). The mapping methodology has remained consistent for each interval and relies on interpretation of aerial photography taken during the fall/winter months. The data is maintained in a Geographic Information System for data manipulation and presentation. Mapping land loss during separate time periods assists in determining the spatial and temporal trends in land loss rates coastwide. These trends have also proved invaluable when attempting to determine the cause of specific areas of land loss along the coast.

Support for CWPPRA Planning

The Britsch and Dunbar land loss data set and maps are used on all CWPPRA projects during the annual priority project list planning process and the information is often used as the means to illustrate the need for specific projects. The Environmental Work Group uses the maps and data set to assist in determining project boundaries and in assessing the background land loss rates for candidate projects.

FY 2005/2006 Budget Request

The original map sets were published in 1996 by Britsch and Dunbar using support funds provided through CWPPRA (Britsch and Dunbar 1996). The Corps of Engineers is currently in the process of updating the land loss maps using 2001 photography. By the end of November 2003, the Corps of Engineers completed updates on 16 (most in the Pontchartrain Basin) of the 62 quadrangles covering the coastal area (funded directly by other projects). In FY03, the Corps developed a schedule to complete the updating of the remaining 46 quadrangles at a total cost of $250,000 (approx $5,500/map on average). CWPPRA funding in the amount of $62,500 was provided in FY04 (25% of total needed). At the end of FY04, the Corps will have completed updates on an additional 13 quadrangles. Two of the 13 completed in FY04 were paid for by the Corps' Donaldsonville to the Gulf study. In FY05, it is anticipated that another 10 quadrangles can be paid for by other Corps studies (2 by Houma Navigation Canal study, 2 by Morganza to the Gulf study, and 6 by other projects not yet identified); thus leaving 23 remaining quadrangles to be completed (46-13-10 = 23). The total cost for CWPPRA to complete the remaining 23 quadrangles is $126,500 (**$63,250 in FY05** and $63,250 in FY06). *In summary, the CWPPRA program will have access to and complete use of all 62 quadrangles, but will only directly fund the update of 34/62 quadrangles (55%) at a cost of $189,000.*

Benefit to CWPPRA

The land loss data set and maps have proved to be valuable tools in planning and designing coastal projects. With this update to 2001 the Corps of Engineers will continue to provide recent land loss data consistent with data previously used to develop CWPPRA projects.

Del Britsch, U.S. Army Corps of Engineers, (504) 862-1022

SPE 15950
STORM RECOVERY PROCEDURES (SRP)

Louisiana Department of Natural Resources
Coastal Engineering Division

August 19, 2004

Determine Area of Impact (1st day after event)

Hurricane Response Liaison: Contacts all Field Office Supervisors (FOS) (O&M and Monitoring) from each field office and discusses the severity of the impact in each area. Requests a list of projects affected that will need inspection along with an estimated schedule to perform inspections. Also requests reasoning in determining why some projects in the affected area may not require inspections. Requests to establish charge code to track costs related for this event. Copies CED Director, CRD Administrator, and CED Field Engineering Manager on all information. Prepares a list of projects to be inspected and assembles information for each project affected. Also determines areas to assess (where there are no projects) that have been impacted by the storm, so that assessments can be made in order to assist with future planning efforts under CWPPRA. Information should include contacts for Federal agencies, local governments, and/or involved parties, 11x17 aerial maps with all project features to scale, access routes with procedures and contacts for access, and estimate schedule to perform inspections.

Pre-assessment Briefing (1st-2nd day after event)

Hurricane Response Liaison: Determines level of assessment necessary (boat, plane, or other). Aids in coordination of inspections requiring a plane or non-typical means of travel for efficiency. Via e-mail, informs DNR management and federal contacts of inspection plans and schedule. Ensures that documentation of coordination with federal sponsor is placed in project file and a copy is provided to the appropriate federal sponsor.

Field Office Supervisors: Provide resources available and required for inspections.

Perform Damage Assessment (1st week after event)

Field Office Supervisors: Perform inspections and fills in inspection sheet in Appendices A (will attach a modified version of our annual inspection sheet) for

each damage site. Expedite the inspection process as efficiently as possible and submit inspection sheets, reports, findings, and recommendations to all involved parties ASAP, with a copy to the Hurricane Response Liaison, Field Engineering Manager and the CED Director.

Damage Assessment Reporting (2nd week after event)

Field Office Supervisors: Provides to the FEM and the CED Assistant Administrator with reports of damage assessments.

Position	Name	Office Phone	Home Phone
Hurricane Response-Liaison	Garrett Broussard	(337) 482 0690	
Hurricane Response Assist.	Shane Triche	(985) 449 5073	
	Lafayette Office		
Field Office Supervisor	Patrick Landry	(337) 893 8763	
Assistant	Stanley Aucoin	(337) 893 8536	
Monitoring Supervisor	Donna Weifenbach	(337) 893 2085	
	New Orleans Office		
Field Office Supervisor	George Boddie	(504) 280 4067	
Assistant	Thomas Bernard	(504) 280 4071	
Monitoring Supervisor	John Troutman	(504) 280 4068	
	Thibodaux Office		
Field Office Supervisor	Brian Babin	(985) 447 0956	
Assistant	Shane Triche	(985) 449 5073	
Monitoring Supervisor	Darin lee	(985) 447 0990	
	Vegetation and Xmas tree Projects		
Project Manager	Kenneth Bahlinger	(985) 342 7362	
PM Assistant	Keith Lovell	(985) 342 0202	
	Additional Contacts		
CED Director	Chris Knotts	(225) 342 6871	
Field Engineering Manager	David Burkholder	(225) 342 6814	
CRD Administrator	Kirk Rhinehart	(225) 342 2179	

Cost Estimate for Two (2) Post Storm Events

Plane flight	$1830/day x 2 =		$3,660.00
Helicopter	$4000/day x 2 =		$8,000.00
Initial mtg	10 @8hrs		$3660.00
Follow up	10 @8hrs		$3660.00
Field Trip	4 @$4700		$18,800.00
Reports	8 hrs		$400.00
Indirect costs (39.92%)*			$ 10,587
		Cost/Event	$ 48,767
		Total Cost 2 events	**$ 97,534**

***Indirect costs (39.92%) are not included in the plane flight and the helicopter.**

DRAFT FY 2005 TOTAL OUTREACH BUDGET - Recommendation to Task Force

Personnel

Agencies	Meeting	Review	Admin	Implementation	
NMFS	3,300	3,300			6,600
NRCS	3,300	3,300			6,600
EPA	3,300	3,300			6,600
GOV	3,300	3,300			6,600
DNR	3,300	3,300			6,600
FWS	0	3,300			3,300
NWRC	3,300	0	26,200		29,500
COE	3,300	3,300			6,600
Total Agency Request					72,400
Dedications support (printing, photographs, etc., not helicopters) 2/yr					5,000
Operations Budget (from page 2)					360,500
Total CWPPRA Outreach Budget Request					437,900

FY 2005 PUBLIC OUTREACH COMMITTEE BUDGET
Recommendation to Task Force

Operations	Proposed FY2005
Description	
Outreach Coordinator - Gabrielle Bodin	90,500
Watermarks Newsletter Contract	45,000
LaCoast Internet Home Page	54,000
Outreach Assistant / Educational Specialist -Susan Bergeron- Breaux Act Newsflash, event assistance, Distribution, Teacher Workshops, Administrative Support	64,000
Printing, Video, and Graphics Support	4,000
Conference /Exhibit Support - Display/Registration	10,000
Travel - National / Regional	13,000
CWPPRA Product Reproduction (video, CD-ROMS, fact sheets, slide shows, PowerPoint presentation, posters, brochures, etc)	25,000
Contractual Support for Outreach Distribution (student worker)	13,500
Video News Releases (3)	5,500
Coastal Restoration Screen Saver	6,000
Coastal Zone Sponsorship	9,000
Washington DC /CC Lockwood Wetland Loss Traveling Exhibit	9,000
Article Writing and Placement Service (in addition to carryover from FY04)	2,000
Contract Writer - 12 feature web stories -	10,000
Operations Budget	360,500

Decision: Recommendation to Restrict Phase II Budget Requests for Projects Already Approved for Phase II But Not Yet Under Construction to a Cap of 100% (Including Contingency)

	Agency	Project Name	Total (Ph I + Ph II Incr 1) Baseline Estimate (100%)	Total (Ph I + Ph II Incr 1) Current Estimate	Total (Ph I + Ph II Incr 1) Revised Estimate Needed	Percentage
1	COE	MR-11, Periodic Introduction of Sediments and Nutrients DEMO	$1,502,817	$1,502,817	$1,502,817	100.0%
2	EPA	TE-37, New Cut Dune Restoration	$7,393,626	$10,518,139	$10,518,139	142.3%
3	FWS	TE-45, Terrebonne Bay SP DEMO	$2,006,373	$2,296,721	$2,375,743	118.4%
4	FWS	BS-11, Delta Management at Fort St. Phillip	$2,053,216	$2,053,216	$2,053,216	100.0%
5	NRCS	BA-27c(2), Barataria Basin Landbridge, Ph 3 CU4	$4,825,871	$4,825,871	$6,032,339	125.0%
6	NRCS	LA-05, Freshwater Floating MC DEMO	$1,080,891	$1,080,891	$1,080,891	100.0%
7	NRCS	CS-29, Black Bayou Bypass Culverts	$4,308,921	$5,386,152	$5,087,771	118.1%
8	FWS	CS-32(1), East Sabine Lake HR, CU1	$5,494,843	$5,494,843	$5,494,843	100.0%
9	NMFS	BA-37, Little Lake	$31,488,685	$33,990,151	$33,990,151	107.9%
10	NMFS	BA-38, Barataria Barrier Island	$60,452,296	$66,492,384	$66,492,384	110.0%
11	NRCS	BA-27d, Barataria Basin Landbridge, Ph4, CU6	$18,250,647	$18,250,647	$18,250,647	100.0%
12	COE	LA-06, SP Foundation Improvement DEMO	$1,000,000	$1,055,000	$1,055,000	105.5%
		TOTAL	$139,858,186	$152,946,832	$153,933,941	110.1%

	Agency	Project Name	Phase I Ph 1 Baseline Estimate (100%)	Phase I Ph 1 Current Estimate	Phase I Ph 1 Revised Estimate Needed	Percentage
1	COE	MR-11, Periodic Introduction of Sediments and Nutrients DEMO	$109,730	$109,730	$109,730	100.0%
2	EPA	TE-37, New Cut Dune Restoration	$746,274	$926,637	$926,637	124.2%
3	FWS	TE-45, Terrebonne Bay SP DEMO	$528,894	$528,894	$528,894	100.0%
4	FWS	BS-11, Delta Management at Fort St. Phillip	$363,276	$363,276	$363,276	100.0%
5	NRCS	BA-27c(2), Barataria Basin Landbridge, Ph 3 CU4				
6	NRCS	LA-05, Freshwater Floating MC DEMO	$338,063	$338,063	$338,063	100.0%
7	NRCS	CS-29, Black Bayou Bypass Culverts	$765,150	$956,438	$956,438	125.0%
8	FWS	CS-32(1), East Sabine Lake HR, CU1	$1,425,447	$1,425,447	$1,425,447	100.0%
9	NMFS	BA-37, Little Lake	$2,639,536	$1,139,537	$1,139,537	43.2%
10	NMFS	BA-38, Barataria Barrier Island	$3,083,934	$3,641,059	$3,641,059	118.1%
11	NRCS	BA-27d, Barataria Basin Landbridge, Ph4, CU6	$2,191,808	$2,191,808	$2,191,808	100.0%
12	COE	LA-06, SP Foundation Improvement DEMO	$362,805	$339,837	$339,837	93.7%
		TOTAL	$12,554,917	$11,960,726	$11,960,726	95.3%

	Agency	Project Name	Phase II, Incr 1 Baseline Estimate (100%)	Phase II, Incr 1 Current Estimate	Phase II, Incr 1 Revised Estimate Needed	% incr over baseline
1	COE	MR-11, Periodic Introduction of Sediments and Nutrients DEMO	$1,393,087	$1,393,087	$1,393,087	100.0%
2	EPA	TE-37, New Cut Dune Restoration	$6,647,352	$9,591,502	$9,591,502	144.3%
3	FWS	TE-45, Terrebonne Bay SP DEMO	$1,477,479	$1,767,827	$1,846,849	125.0%
4	FWS	BS-11, Delta Management at Fort St. Phillip	$1,689,940	$1,689,940	$1,689,940	100.0%
5	NRCS	BA-27c(2), Barataria Basin Landbridge, Ph 3 CU4	$4,825,871	$4,825,871	$6,032,339	125.0%
6	NRCS	LA-05, Freshwater Floating MC DEMO	$742,828	$742,828	$742,828	100.0%
7	NRCS	CS-29, Black Bayou Bypass Culverts	$3,543,771	$4,429,714	$4,131,333	116.6%
8	FWS	CS-32(1), East Sabine Lake HR, CU1	$4,069,396	$4,069,396	$4,069,396	100.0%
9	NMFS	BA-37, Little Lake	$28,849,149	$32,850,614	$32,850,614	113.9%
10	NMFS	BA-38, Barataria Barrier Island	$57,368,362	$62,851,325	$62,851,325	109.6%
11	NRCS	BA-27d, Barataria Basin Landbridge, Ph4, CU6	$16,058,839	$16,058,839	$16,058,839	100.0%
12	COE	LA-06, SP Foundation Improvement DEMO	$637,195	$715,163	$715,163	112.2%
			$127,303,269	$140,986,106	$141,973,215	111.5%
				ADDITIONAL $ NEEDED	$987,109	

Discussion/Decision: Amount of Funding to "Set Aside" for PPL 14 Phase I Efforts

CWPPRA PPL12 - as approved

Project Name	Phase I Fully Funded Cost (incl Total Demo Cost)	Cumulative Phase I Fully Funded Cost	Phase II Fully Funded Cost	Cumulative Phase II Fully Funded Cost
South White Lake Shoreline Protection	$1,588,085	$1,588,085	$23,454,215	$23,454,215
Bayou Dupont Sediment Delivery System	$2,192,735	$3,780,820	$22,534,365	$45,988,580
Avoca Island Diversion and Land Building	$2,229,876	$6,010,696	$16,927,324	$62,915,904
Lake Borgne and MRGO Shoreline Protection	$1,348,345	$5,129,165	$23,714,555	$86,630,459
Freshwater Flotant Marsh Demo	$1,080,900	$7,091,596		$86,630,459
	$8,439,941		$86,630,459	

CWPPRA PPL13 - as approved

Project	Phase I Fully Funded Cost (incl Total Demo Cost)	Cumulative Phase I Fully Funded Cost	Phase II Fully Funded Cost	Cumulative Phase II Fully Funded Cost
Spanish Pass Diversion	$1,137,344	$1,137,344	$12,790,456	$12,790,456
Whiskey Island Backbarrier Marsh Creation	$2,293,893	$3,431,237	$19,492,407	$32,282,863
Goose Point/Pointe Platte Marsh Creation	$1,930,596	$5,361,833	$19,816,804	$52,099,667
Bayou Sale Shoreline Protection	$2,254,912	$7,616,745	$29,848,088	$81,947,755
Shoreline Protection Foundation Improvement Demo	$1,000,000	$8,616,745		$81,947,755
	$8,616,745		$81,947,755	

Average Phase I cost: $1,871,973

Decision: Request for Operation and Maintenance (O&M) Funding Increases on Priority Project Lists (PPL) 1-8

PPL 1-8 PROJECTS

1. East Mud Lake Hydrologic Restoration Project (CS-20) PPL-2

   Requested increase in O&M Budget for 2005 through 2007 = $720,000

2. Point au Fer Hydrologic Restoration (TE-22) PPL-2

   Requested increase in O&M budget for 2005 through 2007 = $215,000

PPL 9-13 PROJECTS

No projects require an increase in their O&M budgets for 2005 through 2007.

OPINION OF PROBABLE COST

Contract Number	Project Title	CHF Job Number
2503-03-23	EAST MUD LAKE MARSH MANAGEMENT PROJECT (CS-20)	2010162.01

Item Number	Quantity	Item Description	Unit	Unit Price	Amount
01560.001	1.000	BOAT BARRIER (COMPLETE ASSEMBLY)	LUMP SUM	$20,000.00	$20,000.00
01590.001	1.000	MOBILIZATION & DEMOBILIZATION	LUMP SUM	$110,000.00	$110,000.00
02050.001	398.000	GEOTEXTILE FABRIC	SQUARE YARD	$6.00	$2,388.00
02315.001	1,480.000	GENERAL EXCAVATION (COMMON)	CUBIC YARD	$7.00	$10,360.00
02374.100	400.000	GRADED STONE (650 LB) (BANKLINE PAVING)	TON	$70.00	$28,000.00
02453.100	2.000	TREATED TIMBER PILE (COASTAL TREATMENT) (ROUND) (30' LENGTH)	EACH	$1,000.00	$2,000.00
02454.130	1,880.000	VINYL SHEET PILING (SHOREGUARD 700) (GREY) (20' LENGTH)	SQUARE FOOT	$17.50	$32,900.00
02454.131	3,300.000	VINYL SHEET PILING (SHOREGUARD 700) (GREY) (30' LENGTH)	SQUARE FOOT	$17.50	$57,750.00
02454.132	4.000	VINYL SHEET PILING (SHOREGUARD 700) (GREY) (3-WAY CONNECTION- 90°-45°) (30' LENGTH)	EACH	$800.00	$3,200.00
02454.133	2.000	VINYL SHEET PILING (SHOREGUARD 700) (GREY) (3-WAY CONNECTION- 90°-180°) (30' LENGTH)	EACH	$800.00	$1,600.00
02921.005	3.000	SEEDING	POUND	$6.00	$18.00
02921.146	150.000	TEMPORARY SILT FENCING	LINEAR FOOT	$2.00	$300.00
05505.002	1.000	AUTOMATED METERING GATE (COMPLETE ASSEMBLY)	LUMP SUM	$450,000.00	$450,000.00
16520.101	2.000	DAYMARK NAVIGATION AID (TYPE B)	EACH	$500.00	$1,000.00
			Total Opinion of Cost (Base Bid)		**$719,516.00**

EAST MUD LAKE HYDROLOGIC RESTORATION PROJECT (CS-20)

FEDERAL AGENCY: NRCS
CONSTRUCTION COMPLETED: JUNE 1996

EXISTING OPERATION AND MAINTENANCE (O&M) BUDGET:	$603,955
O&M EXPENDITURES TO DATE (FEDERAL AND STATE):	$253,955
UNEXPENDED O&M FUNDS:	$350,000

PROPOSED 2004/2005 O & M COST

1. MAINTENANCE PROJECT COST			
a. CONSTRUCTION:	$720,000	(SEE ATTACHED)	
b. CONSTRUCTION CONTINGENCY (10%)	$72,000		
c. CONSTRUCTION OVERSIGHT:	$50,000		
d. ADMINISTRATION (LDNR/NRCS):	$43,000		
TOTAL PROJECT COST:			$885,000
2. STRUCTURE OPERATION:			$6,000
3. ANNUAL INSPECTION:			$4,825

TOTAL 2004/2005 O & M COST: $895,825

PROPOSED 2005/2006 O & M COST

1. MAINTENANCE PROJECT COST			
a. ENGINEERING & DESIGN	$15,000		
b. CONSTRUCTION:	$95,000	(SEE ATTACHED)	
c. CONSTRUCTION CONTINGENCY (20%)	$19,000		
d. CONSTRUCTION OVERSIGHT:	$10,000		
e. ADMINISTRATION (LDNR/NRCS):	$8,000		
TOTAL PROJECT COST:			$147,000
2. STRUCTURE OPERATION:			$6,000
3. ANNUAL INSPECTION:			$4,955

TOTAL 2005/2006 O & M COST: $157,955

PROPOSED 2006/2007 MAINTENANCE COST

1. ANNUAL INSPECTION:	$5,500
2. STRUCTURE OPERATION:	$6,000

TOTAL 2006/2007 MAINTENANCE COST: $11,500

TOTAL PROJECTED 2004/2005 O & M BUDGET:	**$895,825**
TOTAL PROJECTED 2005/2006 O & M BUDGET:	**$157,955**
TOTAL PROJECTED 2006/2007 O & M BUDGET:	**$11,500**
TOTAL PROJECTED THREE YEAR (2004-2007)O & M BUDGET:	**$1,065,280**
UNEXPENDED O & M FUNDS AVAILABLE:	**$350,000**
PROJECTED O & M BUDGET SHORTFALL:	**-$715,280**

EAST MUD LAKE HYDROLOGIC RESTORATION PROJECT (CS-20) PPL-2

FEDERAL AGENCY: NRCS

CONSTRUCTION COMPLETED: 6/15/96

EXISTING OPERATION AND MAINTENANCE (O&M) BUDGET:	$603,955		
ESTIMATED O&M EXPENDITURES TO DATE (as of 7/31/04):	$253,955		
ESTIMATED UNEXPENDED O&M FUNDS:	$350,000		
REQUESTED O&M FUNDS FOR 2005 TO 2007	**$715,280**	**>>>>>**	**USE $720,000**

PROJECTED O&M EXPENDITURES

	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Annual Inspection	$4,825	$4,955	$5,500							
Structure Operation	$6,000	$6,000	$6,000							
Engineering & Design	$0	$15,000								
Construction Project	$720,000	$95,000								
Construction Contingency	$72,000	$19,000								
Construction Oversight	$50,000	$10,000								
Construction Administration	$43,000	$8,000								
TOTAL	$895,825	$157,955	$11,500	$0	$0	$0	$0	$0	$0	$0

TOTAL BUDGET 2005-2007 $1,065,280

POINT AU FER ISLAND HYDROLOGIC RESTORATION (TE-22) PPL-2

FEDERAL AGENCY: NMFS

CONSTRUCTION COMPLETED: December 1995 (Phase I); May 1997 (Phase II); and June 2000 (Phase III)

EXISTING OPERATION AND MAINTENANCE (O&M) BUDGET:	$449,429		
ESTIMATED O&M EXPENDITURES TO DATE (as of 6/30/04):	$277,839		
ESTIMATED UNEXPENDED O&M FUNDS:	$171,590		
REQUESTED O&M FUNDS FOR 2005 TO 2007	**$210,407**	**>>>>>**	**USE $215,000**

PROJECTED O&M EXPENDITURES

	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Annual Inspection	$5,090	$5,230	$5,370							
Maintenance Event #2										
Administration	$23,240									
Engineering & Design	$31,119									
Construction	$290,500									
Construction Inspection	$21,448									
TOTAL	$371,397	$5,230	$5,370	$0	$0	$0	$0	$0	$0	$0

TOTAL BUDGET 2005-2007 $381,997

TE-22 POINT AU FER ISLAND HYDROLOGIC RESTORATION PROJECT

TE-22 POINT AU FER ISLAND

PROJECT SPONSORS

- **Federal Sponsor:** National Marine Fisheries (NMFS)
- **Local Sponsor:** La. Department of Natural Resources (LDNR)

HISTORICAL INFORMATION

- **Phase I:** Construction completed in December 1995
- **Phase II:** Construction completed in May 1997 and was a joint financial effort between LDNR, NMFS and Mobil Oil and Exploration Company
- **Phase III:** Construction completed in June 2000 extending the rock armor in the east and west side of Phase II, construction of breakwater Area 4 and 5 and the reconstruction of Plug #4 (TE-22)
- **Maintenance Event No. 1:** Maintenance project to repair breach adjacent to Plug #4 was included in construction documents of Phase III

INITIAL CONSTRUCTION DETAILS

Phase I

- Phase I – Eight (8) canal plugs constructed along Hester and Transco Canals.
- Of the eight (8) canal plugs, six (6) were of timber construction and two (2) were oyster shell construction.
- Timber Canal Plugs designated #1,2,3,6,7 and 8.
- Oyster shell plugs designated #3A and 4.

Phase II

- Area 1 – 1,800 linear feet of rock dike protecting beach along Gulf of Mexico separating Mobil Canal and Gulf.
- Area 2 – 400 linear feet of rock dike protecting beach along Gulf of Mexico near the end of Locust Bayou.
- Between Area 1 and 2 – 1,300 linear feet of rock dike along the shoreline constructed with funds provided by Mobil paid directly to the contractor.

Phase III

- 600 LF rock dike along the Gulf of Mexico on the west end of Phase II.
- 3,000 LF rock dike along the Gulf of Mexico on the east end of Phase II.
- Maintenance event No.1 – Maintenance consisted of reconstructing the original shell Plug 4 with dredge material and armoring the east and west shoreline of the Transco Canal Bulkhead with articulated concrete mats.

Total Construction Cost Phase I, II and III: $2,062,750

MAINTENANCE EVENT No.1 (2000) – DETAILS

- Maintenance needs on project determined in 1999
- Maintenance resulting from damaged Plug #4 from wave energies from Gulf of Mexico
- Method of repair – 67 articulated mats were placed on the west side of the Transco Canal Bulkhead and 58 mats were installed on the east side of the bulkhead. Due to objections of Williams Field Services concerning tracking heavy equipment over four pipelines beneath the plug, Plug 4 was reconstructed using available dredge material from canal.
- **TE-22 Maintenance Cost for Construction: $237,874**

PROPOSED MAINTENANCE DETAILS – EVENT No. 2

Maintenance needs determined in 2004

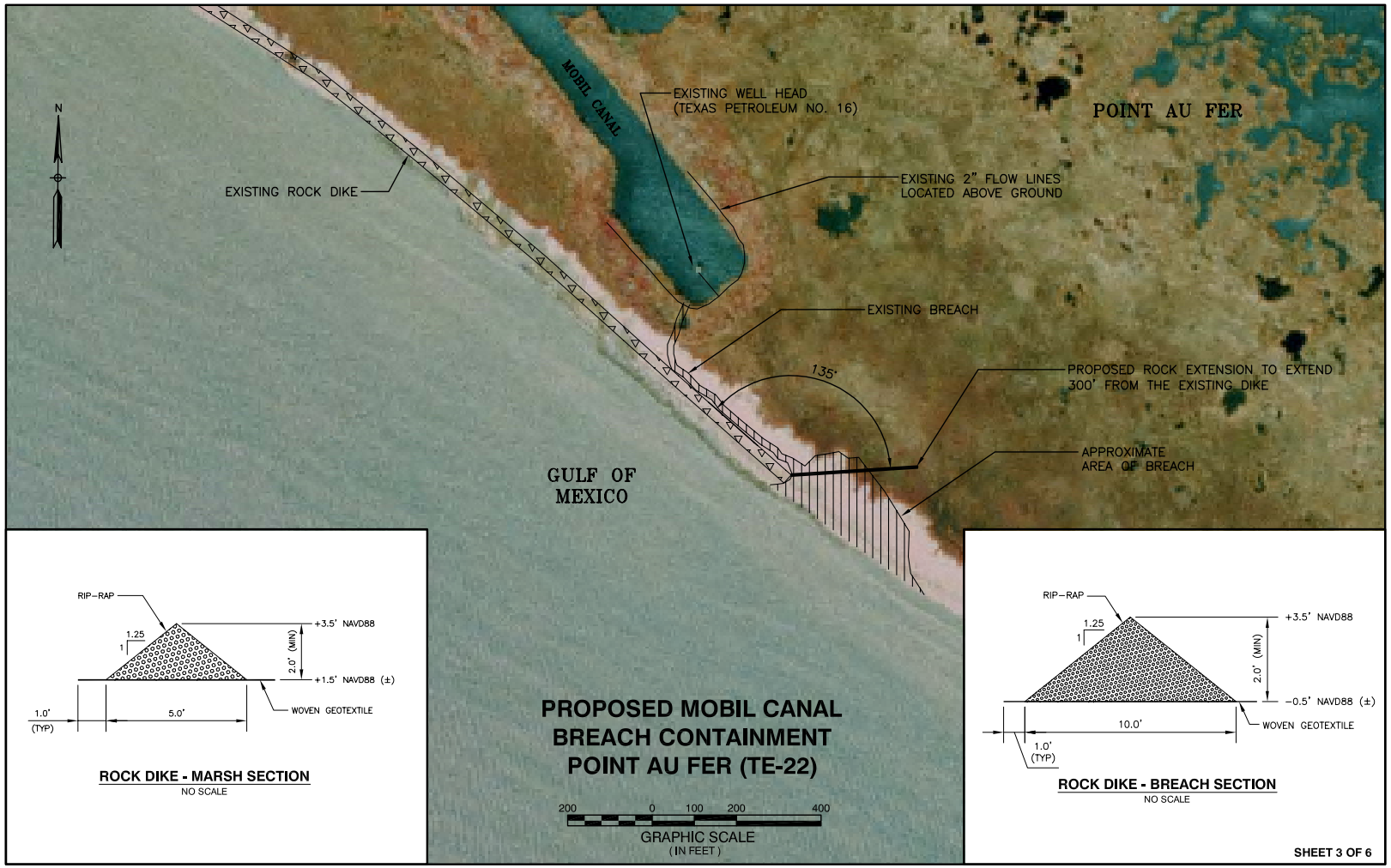
- Repair breach extending around Phase III rock shoreline protection to Mobil Canal. Method of repair shall include installation of rock riprap dike to close breach
- Repair breach around articulated mats on the east side of the Transco Canal Bulkhead south of Plug #4. Method of repair includes rock dike from existing articulated mats on the east to the vegetative marsh.
- Repair breach around timber bulkhead at Plug #8. Method of repair shall include installation of vinyl sheetpile across the breach connecting the timber structure with existing marsh.

Estimated Project Budget

Administration	$ 23,240
Engineering and Design	$ 31,119
Construction	$ 290,500
Construction Inspection	$ 21,448
Total Project Budget	**$ 366,307**

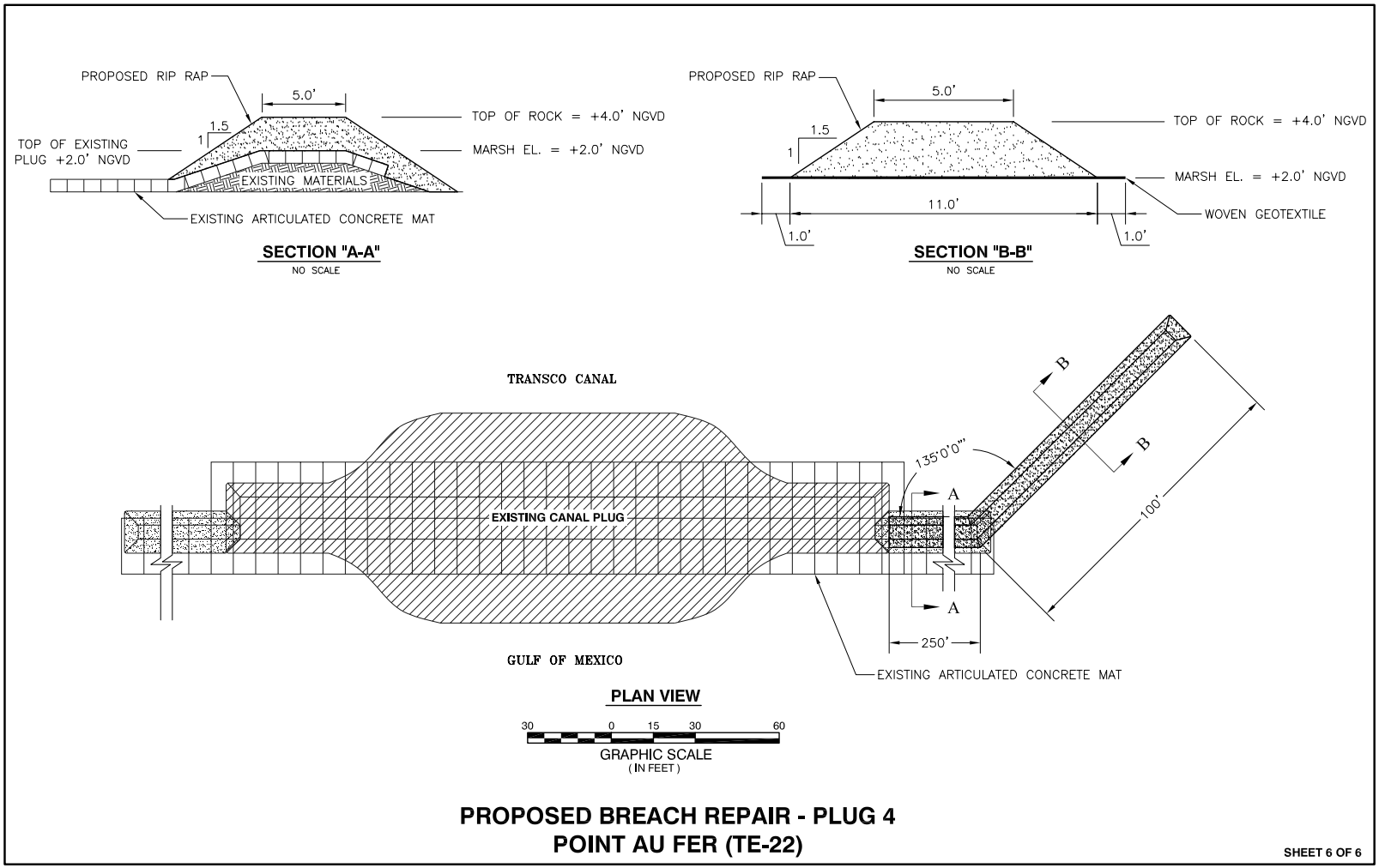
MOBIL CANAL BREACH PHOTOS

PROPOSED MOBIL CANAL BREACH REPAIR



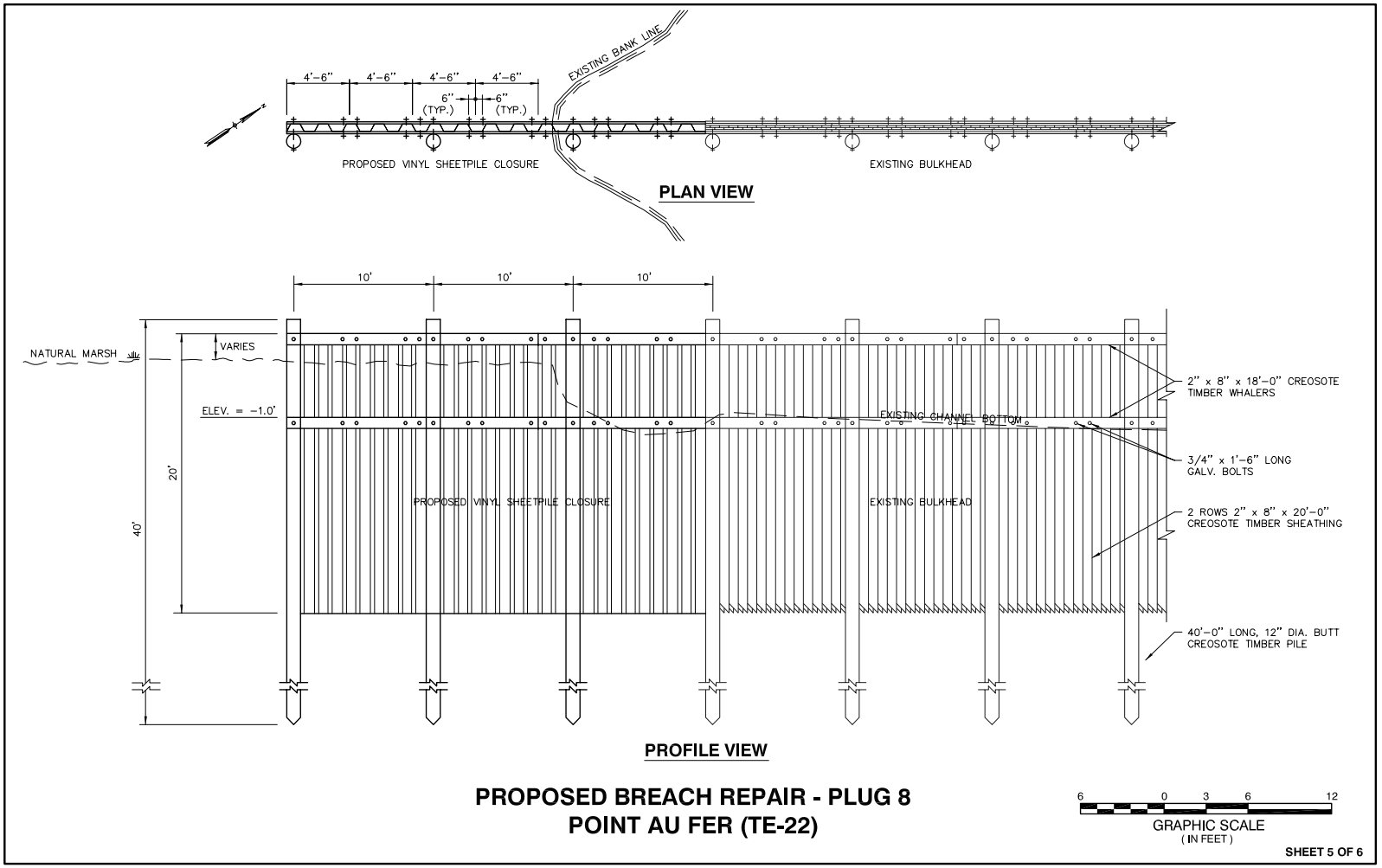
PLUG No. 4 PHOTOS

PROPOSED PLUG No. 4 REPAIR



PLUG No. 8 PHOTOS

PROPOSED PLUG No. 8 REPAIR



RECOMMENDED TE-22 MAINTENANCE REQUEST

- Total 20 Year O & M Budget: $ 449,429
- Estimated O & M Expenditures thru 6/04: $ 277,839
- Estimated O & M funds remaining: $ 171,590
- Projected O & M Budget (3 year*): $ 381,997
- **Request $ 215,000 for additional three (3) year budget.**

* Projected O & M Budget includes funds needed to construct maintenance event No. 2 ($ 366,307) and 3 years of maintenance inspections ($ 15,690).

Decision: Request for Funding for Administrative Costs for those Projects Beyond Increment 1 Funding

CWPPRA Cash Flow Management

Anticipated Funding Requests by Fiscal Year

Last Updated 2 September 2004

Proj #	Project Name	Agency	PPL	Phase II Requ Forecast	Phase II Approved	Construction Start	Construction Completion	Funding Target	Total Funding Approved	Balance Required	Phase 1	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	Total
PO-27	Chandeleur Island Restoration	NMFS	9		11-Jan-00	Jun-01	Jul-01	19,843	19,843		1,277	18,566							
TE-41	Mandalay Bank Protection Demo	USFWS	9		11-Jan-00	Apr-03	Sep-03	4,855	4,855		638	4,217							4,855
MR-11	Periodic Intro of Sed & Nutrients Demo	COE	9		11-Jan-00	Sep-05	Jan-06	4,092	4,092		973	3,119							4,092
TE-37	New Cut Dune Restoration	EPA	9		10-Jan-01			21,125	4,092	17,033	973		3,119	763	788	814	841		7,298
CS-30	Perry Ridge West	NRCS	9		10-Jan-01	Nov-01	Jul-02	21,125	4,092	17,033	973		3,119	763	788	814	841		7,298
TE-45	Terrebonne Bay Shore Protection Demo	USFWS	10		10-Jan-01	Mar-05	May-05	8,603	8,603		665		7,938						8,603
CS-31	Holly Beach	NRCS	11		07-Aug-01	Aug-02	Mar-03	4,312	4,312		663		3,649						4,312
BA-27c(1)	Barataria Basin Landbridge - Ph 3 CU 3	NRCS	9		16-Jan-02	Oct-03	May-04	21,125	4,092	17,033	973			3,119	788	814	841		6,535
LA-03b	Coastwide Nutria	NRCS	11		16-Apr-02	Nov-02		20,060	684	19,376	684			4,592	853	881	909		7,919
BS-11	Delta Management at Fort St. Philip	USFWS	10		07-Aug-02	Apr-05	Jul-05	22,098	4,322	17,776	1,008			3,314	805		829		5,956
ME-19	Grand-White Lake Landbridge Protection	USFWS	10		07-Aug-02	Jul-03	Oct-04	22,098	4,322	17,776	1,351			2,971	805		829		5,956
TE-44(1)	North Lake Mechant Landbridge Rest - C	USFWS	10		07-Aug-02	Apr-03	Feb-06	3,256	3,256		1,008			2,248					3,256
BA-27c(2)	Barataria Basin Landbridge - Ph 3 CU 4	NRCS	9		16-Jan-03	Nov-04	Dec-05												
TV-18	Four-Mile Canal	NMFS	9		16-Jan-03	Jun-03	May-04	21,125	4,092	17,033	973				3,119	763	788		5,643
LA-05	Floating Marsh Creation Demo	NRCS	12		16-Jan-03	Jul-04	Jan-09	3,605	3,605		1,034				2,571				3,605
TE-40	Timbalier Island Dune/Marsh Restoration	EPA	9		16-Jan-03	Jun-04	Mar-05	21,126	4,093	17,033	974				3,119	763	788		5,644
CS-29	Black Bayou Bypass Culverts	NRCS	9		14-Aug-03	Oct-04	Sep-05	21,125	4,092	17,033	973				3,119		763		4,855
CS-32(1)	East Sabine Lake Hydrologic Rest- CU 1	USFWS/NRCS	10		12-Nov-03	Oct-04	Aug-05	24,879	5,953	18,926	1,705					4,248	855		6,808
BA-37	Little Lake	NMFS	11		12-Nov-03	Sep-04	Oct-05	25,611	6,127	19,484	1,755					4,372	880		7,007
BA-38	Barataria Barrier Island	NMFS	11		28-Jan-04	Oct-04	Apr-05	17,833	4,096	13,737	1,755					2,341	696		4,792
BA-27d	Barataria Basin Landbridge - Ph 4 CU 6	NRCS	11		28-Jan-04	Nov-04	Dec-05	24,162	6,129	18,033	1,755					3,521	853		6,129
LA-06	Shoreline Prot Foundation Imprvts Demo	COE	13		28-Jan-04	Mar-05	May-05	4,574	4,574		688					3,886			4,574
							October 2004 Request							**1,526**	**4,827**	**4,849**	**10,713**		**21,915**
							Total Funding Approved	336,632	109,326	227,306	22,798	25,902	17,825	19,296	21,582	28,066	21,426		156,895

Decision: Request for FY08 Coastwide Restoration Monitoring System (CRMS)-Wetlands Monitoring Funds and Project Specific Monitoring Funds for Projects on PPLs 9-13

Budget Request for CWPPRA Monitoring
CWPPRA Technical Committee Meeting
September 9, 2004

Out-year funding (2008)

Project-specific (PPL 9-11)

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

$ 2,712	**CS-30 GIWW Bank Stabil. (Perry Ridge to TX) (PPL 9)**
$82,586	**TE-40 Timbalier Island Dune/Marsh Restoration (PPL 9)**
$ 6,265	**ME-19 Grand-White Lake Landbridge Protection (PPL 10)**
$91,563	**Total**

Coastwide Reference Monitoring System – *Wetlands* (CRMS-*Wetlands*)

CRMS-Wetlands has been funded by previous Task Force authorizations through FY07. The following request is for out-year funding through FY-08.

$532,000 CRMS-*Wetlands*

CWPPRA Technical Committee
September 9, 2004

Status Report
For the
Coastwide Reference Monitoring System – Wetlands (CRMS-Wetlands)

Previous Task Force Authorizations:

August 14, 2003:	Funding for 2003 - 2006
	$ 6,760,637 from existing PPL 1-8 projects
	$ 5,636,869 from new money
	$12,397,506 total
January 28, 2004:	Funding for 2007
	$ 3,101,357 total

TOTAL Authorized to Date: $15,498,863

FY04 Activities (CRMS-*Wetlands* Implementation Status):

Landrights: Securing landrights is the first component in the implementation of CRMS-*Wetlands*. A total of 612 stations will need to be secured by 2007.

Landrights acquisition began with large landowners and state and federal lands. LDNR met with the Louisiana Land Owners Association and has secured landrights with the majority of large landowners. Negotiations are ongoing with approximately 25 small landowners.

The following is a status as of August 19, 2004:

	Secured	Pending	Total
Annual Stations	93	93	186
Year 1 Stations	55	87	142
Year 2 Stations	62	78	140
Year 3 Stations	44	100	144
Total	254	358	612

Cost Share Agreement (CSA):

The Cost Share Agreement (CSA) was finalized between the Federal Sponsor (USGS) and the State Sponsor (LDNR) on June 8, 2004. The CSA is for $8,738,226 (excluding $6,760,637 from existing PPL 1-8 projects) to cover Task Force-approved CRMS-*Wetlands* project costs for 2003 – 2007. The CSA budget will be amended upon each new funding approval from the Task Force. The LDNR and USGS are jointly responsible for activities conducted under CRMS-*Wetlands*.

CRMS-*Wetlands* Standard Operating Procedures Manual:

A Standard Operating Procedures (SOP) manual (Folse and West 2004) was developed by LDNR with input from NWRC and Academia. This 158-page manual expands on the CWPPRA Quality Management Plan (Steyer et al. 2000) and outlines in significant detail activities and procedures for CRMS-*Wetlands* site construction, data collection, QA/QC, data processing, and deliverables requirements. This SOP will be used by all contractors supporting CRMS-*Wetlands* implementation and provides the guidelines and requirements to ensure standardized implementation and consistency.

Request For Proposals (RFP):

The LDNR has prepared through the Louisiana Office of State Purchasing, a Request for Proposals (RFP) to construct and service the CRMS-*Wetlands* stations for the first 3-years of implementation. This RFP was released on June 22, 2004, a pre-bid conference was held on July 7, 2004, and the bid-opening was August 17, 2004. LDNR is currently reviewing these proposals and anticipates selection of a contractor and negotiation of a contract by October 2004.

Anticipated FY05 Activities (CRMS-*Wetlands* Implementation Status):

- Landrights acquisition will continue.
- It is expected that a CRMS-*Wetlands* contractor will be selected in October 2004.
- Data collection equipment (e.g., datasondes) will be bid and purchased by LDNR.
- CRMS-*Wetlands* station construction will be initiated.
- Training of selected contractor to ensure competency in implementation of CRMS-*Wetlands* SOPs.
- Initiate data collection at constructed Annual and Year 1 stations.
- Preparation/flight planning for Fall 2005 coastwide aerial photography and satellite imagery.
- Preparation of standardized data analysis and reporting formats.

Request for Re-allocation of Funds for CU 4 for the Barataria Basin Landbridge Shoreline Protection, Phases 1 and 2 (BA-27)

cc (via email only):

John Saia, COE, Technical Committee Chair
Gerry Duszynski, DNR Technical Committee Member
Darryl Clark, USFWS Technical Committee Member
Rick Hartman, NMFS Technical Committee Member
Sharon Parrish, EPA, Technical Committee Member
Phil Pittman, DNR P&E Subcommittee Member
Martha Segura,USFWS P&E Subcommittee Member
Rachel Sweeney, NMFS P&E Subcommittee Member
Wes McQuiddy, EPA P&E Subcommittee Member
John Jurgensen, NRCS P&E Subcommittee Member
Troy Hill, EPA
Pat Forbes, GOCA
Cynthia Duet, GOCA
Quin Kinler, Project Manager, NRCS
Ismail Merhi, Project Manager, LDNR
Allen Bolotte, District Conservationist, NRCS
Cherie Lafleur, Design Engineer, NRCS
Randolph Joseph, Jr., ASTC/FO, NRCS

October 2003

Barataria Basin Landbridge Shoreline Protection, Phases 1 and 2 (BA-27)

Project Status

Approved Date: 1998
Cost: $17.6 million
Project Area: 3,439 acres
Status: Construction
Net Benefit After 20 Years: 1,304 acres
Project Type: Shoreline Protection

Location

The project is located approximately 3 miles south of Lafitte in western Jefferson Parish and eastern Lafourche Parish, Louisiana, on the western shoreline of Bayou Perot and the east/southeastern shoreline of Bayou Rigolettes.

Problems

Erosion rates of up to 114 feet/year along the western shoreline of Bayou Perot and the eastern shoreline of Bayou Rigolettes are causing severe marsh loss in the area. The Barataria Basin Landbridge is a key feature in the Barataria estuary, and it is likely to be lost if the erosion in the area is not reduced.

Restoration Strategy

Approximately 35,000 feet of shoreline protection will be implemented. Approximately 6,200 feet is a traditional foreshore rock dike. The remainder of the shoreline protection will consist of concrete panel structures.

Concrete panel structures such as this one dramatically reduce the wave energy that can erode fragile shorelines.

Rock dikes, lightweight core dikes, and concrete sheet pile structures were tested to determine constructability, stability, and applicability.

Progress to Date

At the April 14, 1999 meeting, the Louisiana Coastal Wetlands Conservation Restoration Task Force approved combining the Barataria Basin Landbridge, Phase 1 (PPL 7) project and the Barataria Basin Landbridge, Phase 2 (PPL 8) project. The project was recorded on Priority Project List 7. The project is separated into four construction units.

In May 2001, five types of shoreline protection techniques, or "test sections," were installed at two locations in the project area to determine constructability, stability, and applicability for the remainder of the project area.

Approximately 6,200 feet of foreshore rock dike was completed in 2002.

The remainder of the project will be constructed 2003-2005.

This project is on Priority Project List 7.

For more project information please contact:

NRCS Natural Resources Conservation Service

Federal Sponsor:
Natural Resources Conservation Service
Alexandria, LA
(318) 473-7756

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

Barataria Basin Landbridge Protection, Phases 1 and 2 (BA-27)

Shoreline Protection *

Project Boundary

* denotes proposed features

USGS science for a changing world

N

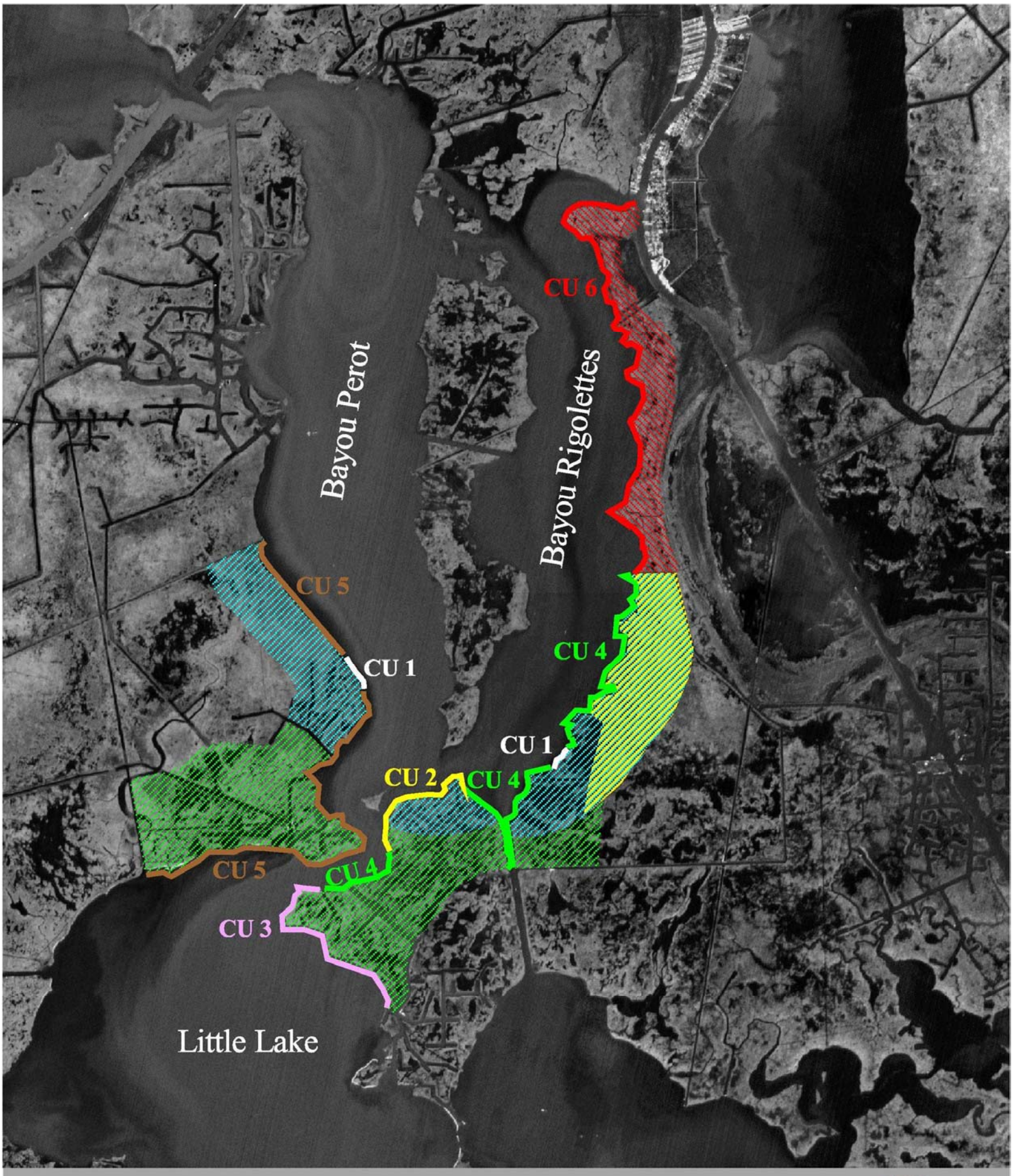
0.5 0 0.5 Miles

0.5 0 0.5 Kilometers

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

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle

Map Date: August 12, 2003
Map ID: USGS-NWRC 2003-11-102
Data accurate as of: April 7, 2003



Barataria Basin Land Bridge SP Project

Construction Unit 1
Construction Unit 2
Construction Unit 3
Construction Unit 4
Construction Unit 5
Construction Unit 6

Phase 1
Phase 2
Phase 3
Phase 4

N

5000 0 5000 Feet

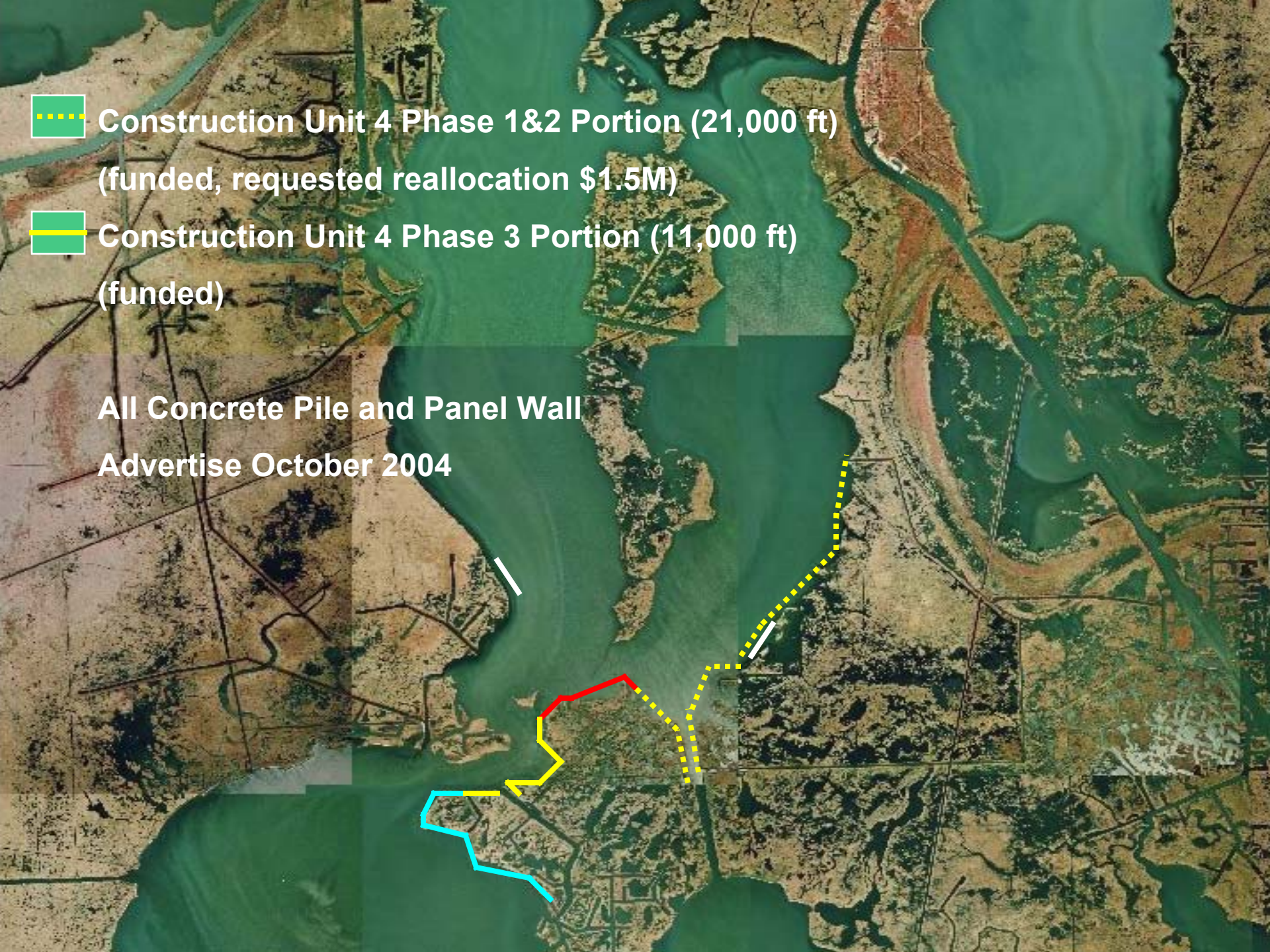
Coastal Wetlands Planning, Protection and Restoration Act

BARATARIA LANDBRIDGE SHORELINE PROTECTION PROJECT

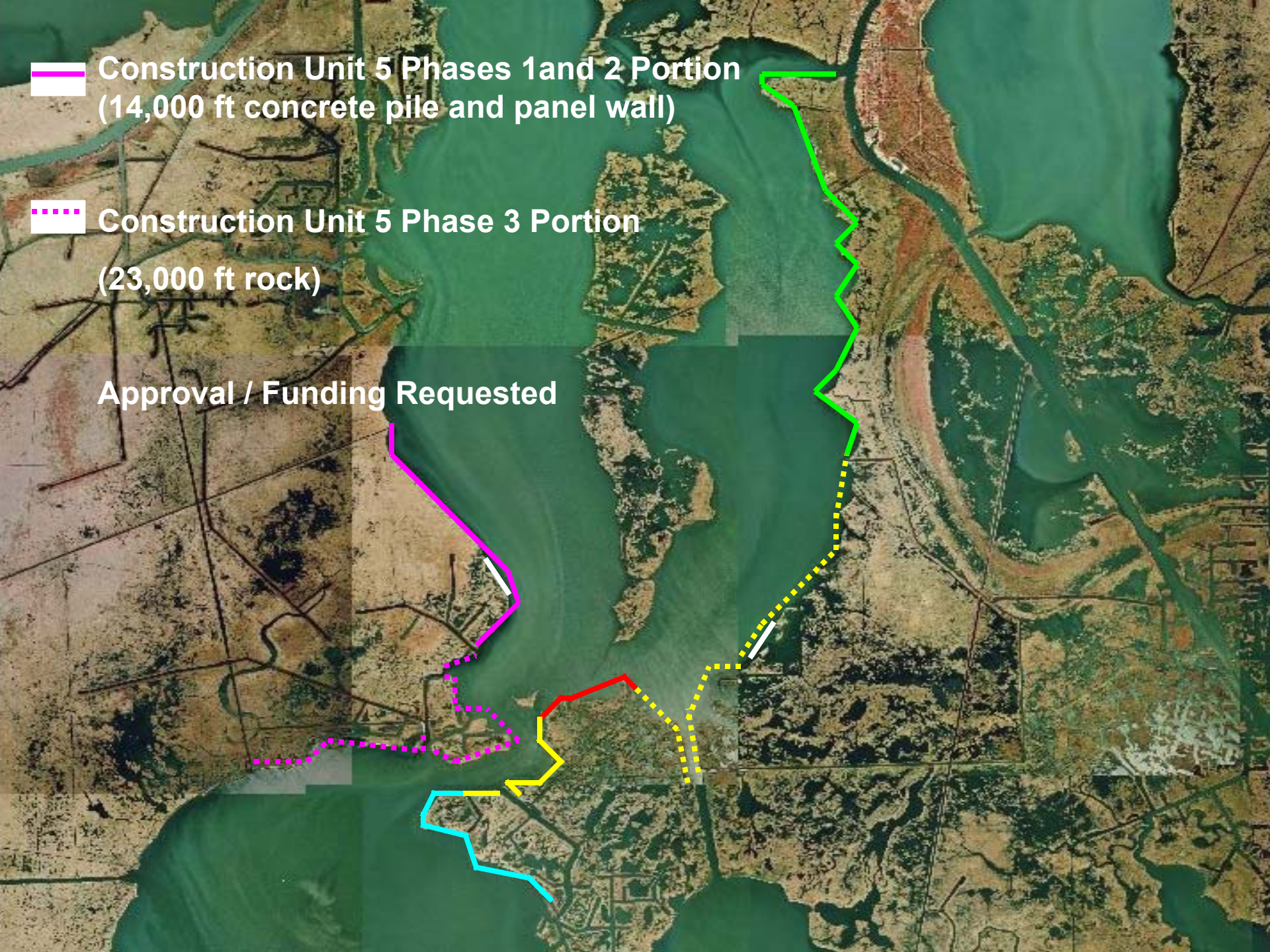
OVERVIEW / CU4 REQUEST

CWPPRA Technical Committee Meeting
September 8, 2004

Construction Unit 1 Completed May 2001 (“Test Sections”)
Construction Unit 2 Completed October 2002 (6,400 ft rock)
Construction Unit 3 Completed June 2004 (10,700 ft rock)


Construction Unit 4 Phase 1&2 Portion (21,000 ft)
(funded, requested reallocation $1.5M)
Construction Unit 4 Phase 3 Portion (11,000 ft)
(funded)
All Concrete Pile and Panel Wall
Advertise October 2004

Construction Unit 6 Phase 4 (28,000 ft rock)
(funded)
Advertise October 2004


Construction Unit 5 Phases 1and 2 Portion
(14,000 ft concrete pile and panel wall)
Construction Unit 5 Phase 3 Portion
(23,000 ft rock)
Approval / Funding Requested

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

Project Phase	Original Estimate	Current Estimate	Percent vs. Original
Phase 1 & 2 (BA-27	21,893,775	30,881,349	141%
Phase 3 (BA-27c)	20,745,106	26,914,631	130%
Phase 4 (BA-27d)	36,541,413	22,787,951	62%
TOTAL All Phases	79,180,254	80,583,931	102%

Construction Unit 4 Phase 1&2 Portion
21,000 ft of Concrete Pile and Panel Wall

BARATARIA LANDBRIDGE

BARATARIA LANDBRIDGE

BARATARIA LANDBRIDGE

BARATARIA LANDBRIDGE PHASES 1&2 (BA-27)
Construction 4

Length of Shoreline	21,000 ft
Net Acres after 20 Years	424+
Construction Approval	January 2003
Approved Amount (125%)	$10,971,788
Available Contingency with Current Estimate	9%
Request Re-allocation within BA-27 Budget	$1,510,562
Anticipated Advertisement Date	October 2004

TOWN OF JEAN LAFITTE
OFFICE OF THE MAYOR

TIMOTHY P. KERNER
MAYOR

YVETTE CRAIN
TOWN CLERK

CLARENCE MATHERNE
CHIEF OF POLICE

Route 1, Box 1
Lafitte, Louisiana 70067
Office: (504) 689-2208
Police: (504) 689-3132
Fax: (504) 689-7801

ALDERMEN

LEO E. KERNER, JR.
MAYOR PROTEM

ELAINE BADEAUX
SHIRLEY GUILLIE
VERNA SMITH
CALVIN LEBEAU

September 8, 2004

Mr. John Saia, Chairman
Coastal Wetlands Planning, Protection and
Restoration Act Technical Committee
U.S. Army Engineer District, New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Saia:

This letter is to request that you, and the other members of the CWPPRA Technical Committee, give favorable consideration to the funding requested for projects that protect and restore the Barataria Basin Landbridge. The critical land mass protects the homes, businesses and infrastructure of the Town of Jean Lafitte. The landbridge also slows saltwater from entering the mostly freshwater marshes of the upper Barataria Basin, preserving intermediate marsh habitat needed to sustain our commercial and recreational fisheries. The Barataria Basin Landbridge protects our lives and our livelihoods.

For years, we have watched the land erode away, converting meandering bayous into large areas of open water. Finally, after passage of the Coastal Wetlands Planning, Protection and Restoration Act, shoreline protection was put in place to slow erosion along many stretches of Bayous Perot and Rigolettes. Now it is time to complete that shoreline protection and fill the open water areas in the interior marsh to create new marsh and nourish existing marshes. Therefore, on behalf of the residents of the Town of Jean Lafitte, and as vice-president of the West Jefferson Levee District, I strongly urge the CWPPRA Technical Committee to approve the U.S. Fish and Wildlife Service's request for construction funding for Dedicated Dredging on the Barataria Basin Landbridge (BA-36), as well as the Natural Resources Conservation Service's request for funding of Construction Unit 4 and Construction Unit 5 to complete the Barataria Landbridge Shoreline Protection (BA-27 and BA-27c(1)). These two projects are critical

to the sustainability of the landbridge in protecting the Town of Jean Lafitte, and indeed the entire west bank of Jefferson Parish, from storm surges.

Thank you for your consideration of this request and for your efforts to protect and restore coastal Louisiana.

Sincerely,

Timothy P. Kerner, Mayor
Town of Jean Lafitte

Cc: Hon. Mary Landrieu
Hon. J. Chris Ullo
Hon. Ernest Wooton
Hon. Aaron Broussard
Mr. Scott Angelle, Secretary LDNR
Mr. Harry Cahill, III, President, WJLD
CWPPRA Technical Committee Members
CWPPRA Task Force Members

JEFFERSON PARISH
LOUISIANA

OFFICE OF PARISH PRESIDENT

AARON F. BROUSSARD
PARISH PRESIDENT

September 8, 2004

Mr. John Saia, Chairman
Technical Committee
Coastal Wetlands Planning, Protection and Restoration Act
U.S. Army Engineer District, New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Saia:

The National Oceanic and Atmospheric Administration (NOAA) predicted that the 2004 hurricane season could bring above normal activity with the possibility of 15 tropical storms, and as many as 8 of these becoming hurricanes, with 2 to 4 becoming major hurricanes. Unfortunately, the past few weeks' storm activity gives credence to this prediction. Fortunately, Louisiana has not been in the path of any of this season's major storms, but we all know that it's just a matter of time. Meanwhile, emergency management personnel are warning that, to ensure the safety of our citizens, an evacuation of this area may be required for even a Category 2 hurricane.

The single most important defense against the devastating effects of a hurricane storm surge is our coastal wetlands, which are being lost in Jefferson Parish at an alarming rate. The Barataria Basin Landbridge has long protected the upper basin from the severe erosion that has devastated the lower basin. But with the loss of more and more land in the lower basin, this critical land mass has been subjected to increased wave energy, and the resulting erosion has severely limited its protective ability.

Therefore, on behalf of the residents of Jefferson Parish, I strongly urge the CWPPRA Technical Committee to approve the U.S. Fish and Wildlife Service's request for construction funding for the Dedicated Dredging on the Barataria Basin Landbridge (BA-36), as well as the Natural Resources Conservation Service's request for funding to complete Construction Units 4 and 5 of the Barataria Landbridge Shoreline Protection (BA-27 and BA-27c (1)). Both projects will help stabilize this critical central landbridge, which protects the entire west bank of Jefferson Parish, particularly Lafitte, from storm surges. These projects are in an area that has one of the fastest erosion rates in the state; thus, it is crucial that these projects be completed as quickly as possible. We can not risk waiting for another funding cycle. These projects will not only protect and restore a critical land mass, but will protect and preserve the valuable freshwater marshes of the upper Barataria Basin and the urbanized areas of Jefferson Parish.

Sincerely,

Aaron F. Broussard
Parish President

cc: All Parish Council Members
Congressional Delegation
Mr. Scott Angelle, Secretary, LDNR
CWPPRA Technical Committee Members
CWPPRA Task Force Members

SUITE 1002 - 1221 ELMWOOD PARK BOULEVARD - JEFFERSON, LOUISIANA 70123
P. O. BOX 10242 JEFFERSON, LOUISIANA 70181-0242 - (504) 736-6400

Decision: Request for Construction Approval and Phase II Authorization for Projects on all PPL's

Agency	Proj No.	PPL	Project	Constr Start	Phase II, Incr 1 Funding Request	Phase II Total Cost	Acres over 20 years	Prioritization Scores	Priorization "Rank"	30% Design Review Meeting Date	95% Design Review Meeting Date
NRCS	BA-27	8	Barataria Basin Landbridge, Ph 1&2 - CU 5*	Jun-05	$7,441,870	$7,441,870	721	77.25	1	20 Aug 03 (A)	2 Sept 04(A)
NRCS	BA-27c	9	Barataria Basin Landbridge, Ph 3 - CU 5	Jun-05	$12,069,203	$14,074,159	180	45.55	8	20 Aug 03 (A)	2 Sep 04 (A)
COE	TV-11b	9	Freshwater Bayou Bank Stabilization - Belle Isle Bayou to Lock	Jan-05	$13,827,382	$15,697,763	241	42.50	10	27 Jun 02 (A)	22 Jan 04 (A)
FWS	ME-16	9	Freshwater Introduction South of Hwy 82	Jun-05	$4,323,846	$5,444,187	296	57.35	6	14 May 03 (A)	11 Aug 04 (A)
NRCS	TE-39	9	South Lake DeCade - CU 1	Jun-05	$2,511,857	$3,431,285	207	73.45	2	19 Jul 04 (A)	2 Sep 04 (A)
NRCS	TE-43	10	GIWW Bank Rest of Critical Areas in Terre	Jun-05	$20,434,224	$23,641,525	366	43.25	9	14 May 03 (A)	26 Aug 04 (A)
FWS	TE-44(2)	10	North Lake Mechant - CU 2	Feb-05	$32,340,040	$34,283,945	553	53.10	7	7 May 03 (A)	12 Aug 04 (A)
FWS	BA-36	11	Dedicated Dredging on Barataria Basin LB	Jun-06	$33,730,712	$33,855,606	605	61.00	5	17 Dec 03 (A)	29 Jul 04 (A)
COE	ME-21	11	Grand Lake Shoreline Protection	Jan-05	$12,404,517	$14,155,779	540	66.25	4	14 May 04 (A)	16 Aug 04 (A)
NRCS	TE-48	11	Raccoon Island Shoreline Protection, Ph A (CU1)	Jun-05	$6,447,282	$6,748,717	16	42.00	11	19 Jul 04 (A)	2 Sep 04 (A)
COE	ME-22	12	South White Lake	Jan-05	$14,122,834	$18,085,844	844	66.40	3	30 Jun 04 (A)	3 Sep 04 (A)
COE	LA-06	13	Shoreline Protection Foundation Improvements Demo **	Jan-05	NA	NA	NA	NA	NA	NA	NA
				TOTAL:	$159,653,767	$176,860,680					

** An increase of $7,441,870 is needed for this non-cash flow project. Total Phase II cost is $10,035,500.

* The sponsors are seeking construction approval for this demo, which will be constructed in conjunction with South White Lake SP Project

CWPPRA, Prioritization Scores

Dated: September 7, 2004

Project Name	Project Number	Region	PPL	Lead Agency	Project Type	(2) Total Acres Benefited	(1) Current Estimate	Cost Per Acre ($/acre)	Prioritization Scores for each Criteria & Corresponding Weight: Cost Effective 20%	Area of Need 15%	Implement-ability 15%	Certainty of Benefits 10%	Sustainability 10%	HGM Riverine Input 10%	HGM Sediment Input 10%	HGM Structure and Function 10%	**Total Weighted Score 100%**	**Anticipated Date of Request For Construction Approval**	**Scheduled Construction Start**
Benneys Bay Sediment Diversion	MR-13	2	10	COE	RD	5,706	$39,295,672	$6,887	10	5	10	9	10	10	10	10	**91.50**	Oct-05	Jan-06
Delta-Building Diversion North of Fort St. Philip	BS-10	2	10	COE	RD	501	$6,008,486	$11,993	10	4.4	10	9	10	10	10	5	**85.60**	Oct-05	Jan-06
Barataria Landbridge Phases 1 & 2 - CU 5	BA-27	2	8	NRCS	SP	721	$11,696,000	$16,222	10	9.5	10	8	10	0	0	10	**77.25**	Oct-04	Jun-05
South Lake DeCade Freshwater Introduction - CU #1	TE-39	3	9	NRCS	SP	207	$3,923,388	$18,954	10	9.3	10	6.5	8	0	0	10	**73.45**	Oct-04	Jun-05
Small Freshwater Diversion to the NW Barataria Basin	BA-34	2	10	EPA	RD	941	$13,340,508	$14,177	10	7.5	10	9	8	4	5	0	**72.25**	Oct-06	Feb-07
Spanish Pass Diversion	MR-14	2	13	COE	SD	433	$13,927,800	$32,166	7.5	5	4	9	10	10	10	0	**67.50**	Oct-06	Jan-07
South White Lake Shore Protection	ME-22	4	12	COE	SP	844	$19,673,929	$23,310	7.5	6	10	9.4	8	0	0	10	**66.40**	Oct-04	Jan-05
Grand Lake Shoreline Protection	ME-21	4	11	COE	SP	540	$15,204,809	$28,157	7.5	7.5	10	10	10	0	0	5	**66.25**	Oct-04	Jan-05
Opportunistic Use of Bonnet Carre Spillway	PO-26	1	9	COE	RD	177	$1,084,080	$6,125	10	4	10	9	10	4	0	0	**64.00**	Oct-05	Dec-05
Penchant	TE-34	3	6	NRCS	HR	1,155	$13,250,937	$11,473	10	5.9	10	2	10	7	0	0	**62.85**	Sep-05	Mar-06
River Reintroduction into Maurepas Swamp	PO-29	1	11	EPA	RD	5,438	$56,469,628	$10,384	10	5	4	9	8	7	5	0	**62.50**	Oct-06	Nov-06
East/West Grand Terre Islands Restoration	BA-30	2	9	NMFS	BI	403	$18,203,486	$45,170	5	8.9	10	7	1	0	5	10	**61.35**	Oct-05	Apr-06
Dedicated Dredging on the Barataria Basin Landbridge	BA-36	2	11	FWS	MC	605	$36,150,070	$59,752	5	10	10	7	4	0	0	10	**61.00**	Oct-04	Jan-06
Avoca Island Diversion & Land Building	TE-49	3	12	COE	RD	143	$18,823,322	$131,632	1	8	10	9	6	7	10	0	**61.00**	Oct-05	Jan-06
Sabine Refuge Marsh Creation - Cycle 5	CS-28	4	8	COE	MC	168	$2,133,439	$12,699	10	5	10	7	8	0	0	0	**57.50**	Oct-06	May-08
Ship Shoal: Whiskey Island West Flank Restoration	TE-47	3	11	EPA	BI	182	$39,302,916	$215,950	1	6.3	10	7	4	0	10	10	**57.45**	Oct-05	Mar-06
Freshwater Introduction South of Highway 82	ME-16	4	9	FWS	FD	296	$6,051,325	$20,444	7.5	4.1	10	5.2	10	6	0	0	**57.35**	Oct-04	Jun-05
Pass Chaland to Grand Bayou Pass	BA-35	2	11	NMFS	BI	161	$19,001,430	$118,021	1	10	10	7	1	0	5	10	**55.00**	Oct-05	Apr-06
Brown Lake	CS-09a	4	2	NRCS	HR	282	$3,154,472	$11,186	10	5	7	5.1	8	3	0	0	**54.10**	Oct-05	Mar-06
North Lake Mechant - CU 2	TE-44	3	10	FWS	MC	553	$36,164,616	$65,397	2.5	7.4	10	6	6	0	0	10	**53.10**	Oct-04	Feb-05
Goose Point/Point Platte Marsh Creation	PO-33	1	13	FWS	MC	436	$21,747,400	$49,879	5	4	10	7	10	0	0	5	**53.00**	Oct-06	Mar-07
Sabine Refuge Marsh Creation - Cycle 4	CS-28	4	8	COE	MC	163	$3,630,831	$22,275	7.5	5	10	7	8	0	0	0	**52.50**	Oct-06	May-07
Mississippi River Sediment Trap	MR-12	2	11	COE	MC	1,190	$52,180,839	$43,849	5	5	10	7	2	0	10	0	**51.50**	Oct-05	Jan-06
Whiskey Island Backbarrier Marsh Creation	TE-50	3	13	EPA	BI	272	$21,786,300	$80,097	1	10	7	7	1	0	5	10	**50.50**	Oct-05	Apr-06
South Grand Cheniere Hydrologic Restoration	ME-20	4	11	FWS	HR	440	$19,930,316	$45,296	5	5	10	6.7	8	3	0	0	**50.20**	Oct-05	unscheduled
Castille Pass Sediment Delivery	AT-04	3	9	NMFS	RD	589	$30,785,603	$52,268	5	0	7	7.7	10	7	0	5	**50.20**	Oct-05	Apr-06
South Lake DeCade Freshwater Introduction - CU #2	TE-39	3	9	NRCS	FD	40	$1,532,400	$38,310	7.5	5	7	5	10	2	0	0	**50.00**	Oct-06	Mar-07
Lake Boudreaux	TE-32a	3	6	FWS	FD	603	$14,450,063	$23,964	7.5	7.5	7	5	6	2	0	0	**49.75**	Jun-05	Sep-05
Bayou Dupont Sediment Delivery System	BA-39	2	12	EPA	MC	400	$24,386,990	$60,967	2.5	10	7	7	2	0	10	0	**49.50**	Oct-05	Nov-05
Rockefeller Refuge Gulf Shoreline Stabilization	ME-18	4	10	NMFS	SP	920	$49,929,888	$54,272	5	7.5	10	6	2	0	0	5	**49.25**	Oct-05	Apr-06
West Lake Boudreaux Shoreline Protection & MC	TE-46	3	11	FWS	SP	145	$14,387,505	$99,224	1	9.2	10	7.6	4	0	0	5	**47.40**	Oct-05	Mar-06
Barataria Landbridge Phase 3 - CU 5	BA-27c	2	9	NRCS	SP	180	$14,711,000	$81,728	1	5.7	10	8	2	0	0	10	**45.55**	Oct-04	Jun-05
Little Pecan Bayou Control Structure	ME-17	4	9	NRCS	HR	144	$14,285,943	$99,208	1	4	10	6	10	6	0	0	**45.00**	Oct-06	Mar-07
GIWW Bank Restoration of Critical Areas in Terrebonne	TE-43	3	10	NRCS	SP	366	$25,438,000	$69,503	2.5	7.5	10	8	4	0	0	0	**43.25**	Oct-04	Jun-05
Lake Borgne and MRGO Shore Protection	PO-32	1	12	COE	SP	266	$24,979,633	$93,908	1	4.7	10	8	6	0	0	5	**43.05**	Oct-05	Jan-06
Freshwater Bayou Canal HR/SP - Belle Isle to Lock	TV-11b	3	9	COE	SP	241	$16,703,276	$69,308	2.5	3	10	10	8	0	0	0	**42.50**	Oct-04	Jan-05
Bayou Sale Ridge Protection	TV-20	3	13	NRCS	SP	329	$32,103,000	$97,578	1	3	10	7.7	8	0	0	5	**42.20**	Oct-06	Mar-07
Raccoon Island Breakwaters - Phase A (CU 1)	TE-48	3	11	NRCS	BI	16	$7,765,475	$485,342	1	6	10	5	1	0	0	10	**42.00**	Oct-04	Jun-05
Lake Borgne Shoreline Protection	PO-30	1	10	EPA	SP	167	$21,030,130	$125,929	1	5	10	8	4	0	0	5	**41.50**	Oct-05	Jun-06
Grand Bayou	TE-10	3	5	FWS	HR	199	$8,209,722	$41,255	5	5.4	7	2	8	2	0	0	**40.60**	Oct-06	Jan-07
Weeks Bay/Commercial Canal/GIWW SP	TV-19	3	9	COE	SP	278	$30,027,305	$108,012	1	4	4	7.2	4	0	0	5	**30.20**	unscheduled	unscheduled

Notes:

1. Current estimate reflects fully-funded estimate for engineering and design, lands, project administration, construction, construction S&I, contingency, 20 years of O&M and 20 years of only project specific monitoring if applicable. Monitoring monies going to CRMS have been removed from the fully-funded estimate. This estimate is the baseline (at the 100% level) estimate.
2. Total acres reflect total acres benefited at end of 20 year project.
3. Bayou Lafourche was not prioritized because there is currently no construction estimate available.
4. Delta Building Diversion at Myrtle Grove (PPL 10) is not included because Phase II will not be funded under CWPPRA.
5. Complex projects not yet approved for Phase I were not prioritized.
6. West Point al la Hache Outfall Management Project (BA 04c) was not prioritized because the project features are not known and project costs and benefits can, therefore, not be determined to apply criteria.
7. When project scores were tied an additional sort by the score of the cost effectiveness criterion was run. When those were tied another sort was run based on the sum of the area of need and implementablity criteria scores.
8. **All projects seeking Phase II or construction approval are highlighted.**

9-Sep-04

CWPPRA Technical Committee Ranking for Construction Approval/Phase II Authorization (PPLs 1-13)

PPL	Project No.	Project	COE	DNR	EPA	FWS	NMFS	NRCS	No. of "Yes" votes (# of weighted scores >= "6")	Sum of Weighted Score
8	BA-27	Barataria Basin Landbridge, Ph 1&2 - CU 5	8	7	9	10	9	9	6	52
9	BA-27c	Barataria Basin Landbridge, Ph 3 - CU 5	3	5	2	2	3	1	0	16
9	TV-11b	Freshwater Bayou Bank Stabilization - Belle Isle Bayou to Lock	7	8	4	1	4	4	2	28
9	ME-16	Freshwater Introduction South of Hwy 82	6	3	11	7	7	8	5	42
9	TE-39	South Lake DeCade - CU 1	5	2	5	6	1	10	2	29
10	TE-43	GIWW Bank Rest of Critical Areas in Terre	2	4	7	4	6	7	3	30
10	TE-44(2)	North Lake Mechant - CU 2	4	11	3	11	11	5	3	45
11	BA-36	Dedicated Dredging on Barataria Basin LB	1	1	6	5	2	2	1	17
11	ME-21	Grand Lake Shoreline Protection	11	6	8	3	5	3	3	36
11	TE-48	Raccoon Island Shoreline Protection	9	10	1	9	8	11	5	48
12 & 13	ME-22 & LA-06	South White Lake Shoreline Protection AND Shoreline Protection Foundation Improvements Demonstration*	10	9	10	8	10	6	6	53
		No. of votes:	11	11	11	11	11	11		
"Yes" votes shown in yellow		Sum of Votes:	66	66	66	66	66	66		

* NOTE: South White Lake SP project has been combined with the Shoreline Protection Foundation Improvements Demo because the demo was designed to be constructed in conjunction with the South White Lake project. If the S White Lake project is recommended by the Technical Committee for Phase II funding approval, the Corps/LDNR will concurrently request a recommendation of construction authorization for the demonstration project (funds are already set-aside as demos are treated like non-cash flow projects). The Demo project is not being considered separately because demos do not receive a prioritization scoring and thus do not lend themselves to "ranking".

The following voting process will be used to rank all projects under consideration for construction approval/Phase II Authorization (PPLs 1-13):

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 ALL projects. All votes must be used.
3. A weighted score will be assigned (11, 10, 9, 8, 7, 6, 5, 4, 3, 2, and 1). (11 highest ranked by agency…1 lowest).
4. The top 6 weighted projects (weighted scores of 11, 10, 9, 8, 7, and 6) will be considered "Yes" votes by individual agencies. This will be used to determine overall agency support for individual projects.
5. "Yes" votes (weighted scores of >= "6") are shown in yellow in the spreadsheet so that "Yes" votes can be seen.
6. Projects are ranked first by the number "Yes" votes received (to determine level of agency consensus/support for individual projects, and then by "Sum" on weighted score (on next page).
7. 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 FY05 funds.

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

September 8, 2004

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

RE: Barataria Basin Landbridge Shoreline Protection Project Phases 1and 2 (BA-27)
Construction Approval Request for BA-27 portion of CU5 and BA-27 Cost Increase

Dear Ms. LeBlanc:

Barataria Basin Landbridge Shoreline Protection Project Phases 1and 2 (BA-27) is being constructed via a series of Construction Units (CUs). See attached map (Attachment A).

CU1 (test sections) and **CU2** (6,400 feet of rock shoreline protection) have been completed.

CU4 was authorized for construction in January 2002. It is anticipated that the construction contract would advertised in October 2004.

The BA-27 portion of **CU5** (13,800 feet of concrete pile and panel wall) would complete BA-27 (Phases 1 and 2) in its entirety. Due to significant increase in the cost of fuel, steel and concrete during that past two years, the cost estimate has gone up considerably since the 30% Design Review. NRCS requests construction approval of the BA-27 portion of CU5 for the estimated amount of $10,035,500, to be funded using the existing remaining BA-27 budget ($2,593,630) plus a BA-27 funding increase of $7,441,870 above the current maximum authorized total project cost for BA-27.

The effect of this requested cost increase, as well as the effect of the requested CU4 cost increase and a potential future increase to the Operation and Maintenance budget, on the currently approved maximum total project cost for the entirety of BA-27 is illustrated in the attached updated cost estimate spreadsheet (Attachment B).

Attachment C consists of a document entitled “Information Required for ‘Non-cash-flow’ Task Force Construction Approval Request” for Barataria Basin Landbridge Shoreline Protection Project Phases 1and 2 (BA-27) Construction Unit 5. This document was prepared pursuant to CWPPRA Standard Operating Procedures (Section 6.i.).

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

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

Sincerely,

Britt Paul
Assistant State Conservationist/Water Resources

cc (via email only):

John Saia, COE, Technical Committee Chair
Gerry Duszynski, DNR Technical Committee Member
Darryl Clark, USFWS Technical Committee Member
Rick Hartman, NMFS Technical Committee Member
Sharon Parrish, EPA, Technical Committee Member
Phil Pittman, DNR P&E Subcommittee Member
Martha Segura,USFWS P&E Subcommittee Member
Rachel Sweeney, NMFS P&E Subcommittee Member
Wes McQuiddy, EPA P&E Subcommittee Member
John Jurgensen, NRCS P&E Subcommittee Member
Troy Hill, EPA
Pat Forbes, GOCA
Cynthia Duet, GOCA
Quin Kinler, Project Manager, NRCS
Ismail Merhi, Project Manager, LDNR
Michael Trusclair, District Conservationist, NRCS
Cherie Lafleur, Design Engineer, NRCS
Randolph Joseph, Jr., ASTC/FO, NRCS

and amended on October 4, 2002, to reflect revised Monitoring and Operation and Maintenance costs.

NEPA, Environmental and Cultural Resources Requirements. The Barataria Basin Landbridge Shoreline Protection Project Phases 1, 2, and 3 (BA-27) Environmental Assessment was completed in February 2000. A Finding of No Significant Impact was published in the Federal Register on February 17, 2000. The Section 404 permit was granted on May 31, 2000, and modified on June 18, 2001. Coastal Zone Consistency was granted on March 23, 2000, and modified on May 8, 2001.

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

Estimate of project expenditures by State fiscal year by project funding category. Required spreadsheet is provided as Attachment D.

Prioritization Score. The Final "Prioritization Fact Sheet" for the BA-27 portion of CU5 only was completed and distributed on September 7, 2004. The Prioritization Score is 77.25.

PRIORITIZATION FACT SHEET
FINAL
September 7, 2004

Project Name and Number
Barataria Landbridge Shoreline Protection Project Construction Unit 5 (BA-27 portion: PPL7&8)

Goals
Reduce or eliminate shoreline erosion along 13,780 feet of the west bank of Bayou Perot and the north shore of Little Lake, Lafourche Parish, Louisiana.

Proposed Solution
The Barataria Landbridge Shoreline Protection Project Phases 1 and 2 (BA-27) portion of Construction Unit 5 consists of 13,780 feet of concrete pile and panel wall. Selection of this technique was based on geotechnical investigations, implementation of the "test sections", and implementation of Construction Units 2 and 3., this construction unit will entail use of a for the BA-27 portion (13,780 feet) and rock riprap shoreline protection for the BA-27c portion (22,811 feet). 75 feet of openings for organism and water exchange will be distributed over a number of sites, plus there will be a 10-foot opening at each Point of Intersection in the wall.

Maintenance is scheduled at TY7 and TY14 and would consist of minor structure repair and/or wall replacement (estimated at 2.5% of wall for each cycle. From TY20 to TY30, only a small degree of concrete panel degradation (slips, chips, or cracks) is anticipated. Such degradation is not expected to compromise the ability of the concrete panels to serve as a breakwater.

Proposed Prioritization Criteria Scores and Justification

Cost Effectiveness (cost/net acre)

The current fully-fund total cost estimate for the BA-27 Portion of CU5 as calculated by the Economic Work Group (September 7, 2004) is 11,696,000.

Net acres are taken from Phase 1 WVA Area A = 721

11,696,000/ 721 net acres = $16,222/net acre or **10 points**

Area of Need, High Loss Area

The BA-27 portion of Construction Unit 5 area contains 650 acres experiencing an average erosion rate of greater than 25 feet per year and 70 acres that has an internal loss rate of 0.18% per year.

.9 X 10 + .10 X 5 = **9.5 points**

Implementability

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

Certainty of Benefits

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

Sustainability of Benefits

For the BA-27 portion of CU5 (13,780 feet), project maintenance is scheduled at TY7 and TY14 and consists of minor concrete structure repair and rock replenishment. The next maintenance could be expected at TY21. With use of concrete pile and panel wall, the project is expected to achieve 100% protection of net acres through TY 20 and 90% protection of net acres for TY 21 through TY 30. The weighted average FWOP erosion rate for BA-27 portion is 94.7 feet/year.

TY	% Effective	Feet Lost Per Year	Acres Lost Per Year
20	100%	0	0.00
21	90%	9.47	3.0
22	90%	9.47	3.0
23	90%	9.47	3.0
24	90%	9.47	3.0
25	90%	9.47	3.0
26	90%	9.47	3.0
27	90%	9.47	3.0
28	90%	9.47	3.0
29	90%	9.47	3.0
30	90%	9.47	3.0
Totals:		94.7	30.0

30 acres lost / 721 net acres at TY20 X 100 = 4.16 % or **10 points**.

Increasing riverine input in the deltaic plain or freshwater input and saltwater penetration limiting in the Chenier plain

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

Increased sediment input

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

Maintaining landscape features critical to a sustainable ecosystem structure and function

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

TOTAL SCORE

(10*2.0)+(9.5*1.5)+(10*1.5)+(8*1.0)+(10*1.0)+(0*1.0)+(0*1.0)+(10*1.0) = 77.25

Preparer of Fact Sheet

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

References

Burns, Colley, and Dennis. 2003. BA-27, BA-27c Supplementary and BA-27d Geotechnical Investigation Report, Jefferson and Lafourche Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service.

Coastal Wetlands Planning, Protection, and Restoration Act Environmental Work Group. 1997. Barataria Landbridge Shoreline Protection Project Phase 1 project information package. 12pp.

Coastal Wetlands Planning, Protection, and Restoration Act Environmental Work Group. 1999. Barataria Landbridge Shoreline Protection Project Phase 3 project information package. 22pp.

Dames and Moore Group. 1995. Geotechnical Investigation Report Land Bridge (BA-27) and Jonathan Davis (BA-20) Projects, Jefferson and Lafourche Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service. 15pp plus Appendices.

Soil Testing Engineers, Inc. 2000. Report of Geotechnical Investigation NRCS-14-LA-00 Barataria Bay Landbridge Project Phase III, Lafourche and Jefferson Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service. 6pp plus Appendices.

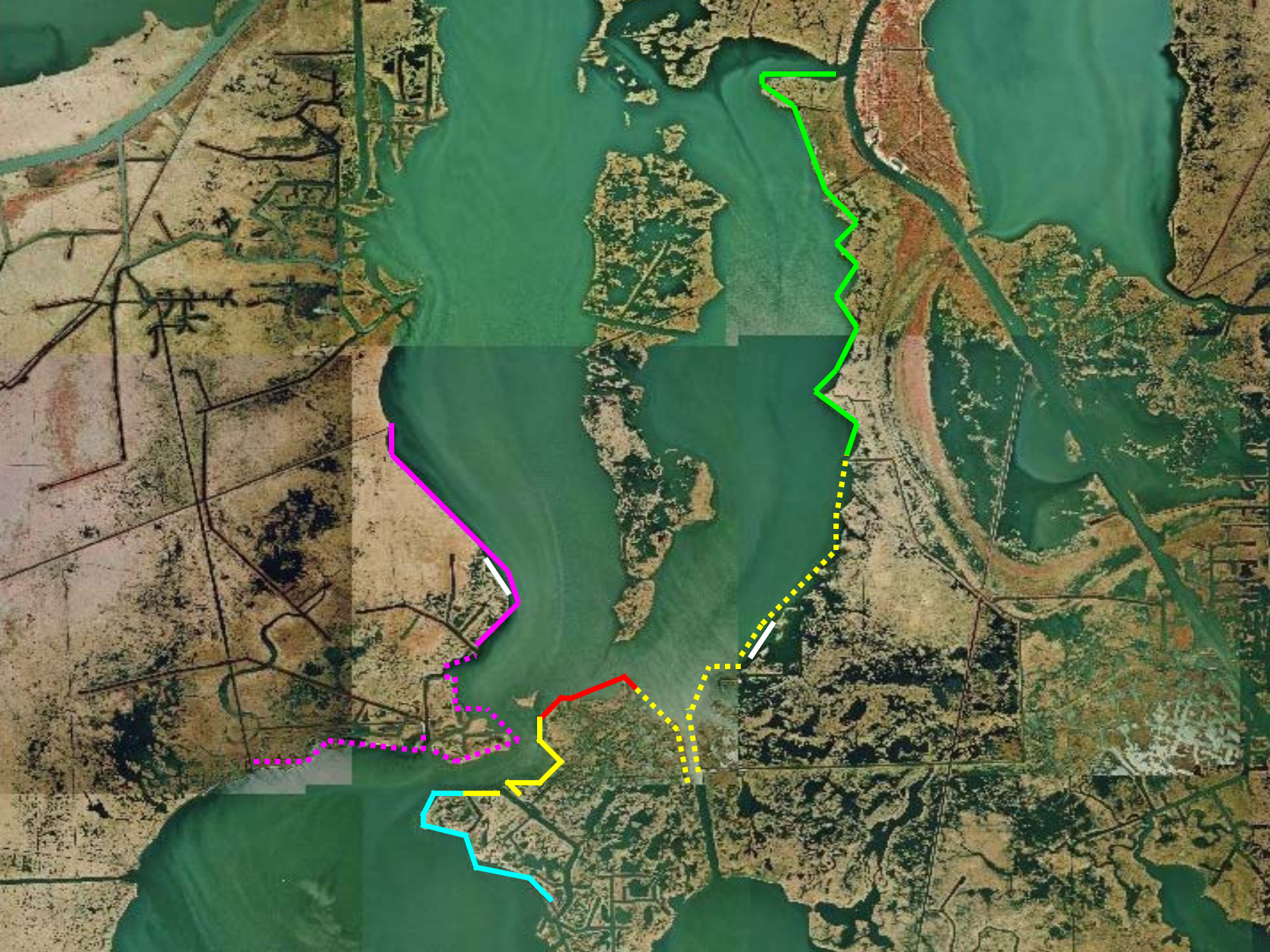
USDA NRCS. 2000. Project Plan and Environmental Assessment for Barataria Basin Landbridge Shoreline Protection Project Phases 1, 2, and 3 (BA-27), Jefferson and Lafourche Parishes, Louisiana. 29pp plus Appendices.

Coastal Wetlands Planning, Protection and Restoration Act

BARATARIA LANDBRIDGE SHORELINE PROTECTION PROJECT PHASES 1&2 (BA-27)

CU5 APPROVAL & COST INCREASE

CWPPRA Technical Committee Meeting
September 8, 2004



Construction Unit 5 Phases 1& 2 Portion
Concrete Pile and Panel Wall

BARATARIA LANDBRIDGE PHASES 1&2 (BA-27) CONSTRUCTION UNIT 5

Length of Shoreline	13,780 feet
Erosion Rate	114 ft /yr for 77% 30 ft/yr for 23%
Net Acres	721
Prioritization Score	77.25

BARATARIA LANDBRIDGE

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

September 8, 2004

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

Dear Ms. LeBlanc:

RE: Barataria Basin Landbridge Shoreline Protection Project Phase 3 (BA-27c)
"Cash-Flow" Phase Two Authorization Request for BA-27c Portion of CU5

This package constitutes the NRCS Phase Two Authorization Request for the Barataria Basin Landbridge Shoreline Protection Project Phase 3 (BA-27c) Portion of Construction Unit 5, consisting of 22,811 feet of shoreline protection located on the west bank of Bayou Perot in Lafourche. See Attachment A map.

Attachment B provides a complete summary of currently **estimated** total project cost for the entirety of BA-27c.

The total Phase II cost for the BA-27c portion of CU 5 is $14,074,159 and the Phase II Increment 1 cost is $12069,203.

Pursuant to Revision 9.0 of the CWPPRA Standard Operating Procedures (Section 6.j. and Appendix C), a document entitled "Information Required in Phase Two Authorization Request" is provided as Attachment C.

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

Sincerely,

Britt Paul
Assistant State Conservationist/Water Resources

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An Equal Opportunity Provider and Employer

cc (via email only):

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Cynthia Duet, GOCA
Quin Kinler, Project Manager, NRCS
Ismail Merhi, Project Manager, LDNR
Michael Trusclair, District Conservationist, NRCS
Cherie Lafleur, Design Engineer, NRCS
Randolph Joseph, Jr., ASTC/FO, NRCS

Overview of Phase One Tasks, Process and Issues

Environmental Compliance Tasks.

The Barataria Basin Landbridge Shoreline Protection Project Phases 1, 2, and 3 (BA-27) Environmental Assessment was completed in February 2000. A Finding of No Significant Impact was published in the Federal Register on February 17, 2000.

The Section 404 permit was issued on December 10, 2002, with revised drawings being approved on February 26, 2004. CZM Consistency Determination was granted December 30, 2003. Water Quality Certification was granted January 30, 2004.

The Ecological Review for the entire Barataria Basin Landbridge Shoreline Protection Project, with specific reference to Construction Unit 5, has been drafted (August 2004). The draft Ecological Review recommends approval subject to a favorable 95% design review. A 95% design review was conducted on September 2, 2004, with favorable results.

Engineering Tasks.

The results of the Engineering Tasks are presented in the Design Report for Barataria Basin Landbridge Shoreline Protection Project, Construction Unit 5, which can be found at:

ftp://ftp.dnr.state.la.us/pub/CED%20Project%20Management/NRCS/BA-27%20CU%205%20Barataria%20Landbridge/BLB%20CU%205%2095%25%20Doc/

Landrights Tasks.

Preliminary ownership reports and title reports have been completed. With the exception of one surface landowner, all have executed easements. The remaining owner has provided written intention to execute an easement once the CU receives funding for construction. All pipeline companies have been identified and contacted; draft agreements have distributed and are presently being negotiated.

Description of the Phase Two Candidate Project

The subject Phase Two Authorization Request is limited to about 22,811 feet of shoreline protection along the along the west bank of Bayou Perot and the northern shoreline of Little Lake. See Attachment A. The shoreline protection will consist of a rock dike and rock revetment, with an elevation of 3.5 feet NAVD88, a top width of 4 feet, and side slopes of 3:1. The revetment will be constructed of COE R-400 (rock specification) and will be underlain with a geotextile cloth. Five site-specific organism/drainage openings, ranging from 20 to 50 feet in width, will be incorporated; the openings will have a sill elevation of 2 feet below average tide. Approximately 36,500 feet of construction access channel, with a bottom elevation of –5.5 feet NAVD88 and bottom width of 80 feet, will be excavated. Excavated material will be deposited

P. Spreadsheet with the categorical breakdown for Phase II costs. The base form of this spreadsheet has been modified to illustrate all **"approved"** and herein requested costs for all BA-27c construction units. The total Phase I and Phase II costs for all construction units on this spreadsheet is $26,917,349. This total differs slightly from that referenced above because it uses the "approved" cost for BA-27c CU3 versus the actual cost, and it uses the 100% cost for BA-27c CU4 versus the 125% cost.

PRIORITIZATION FACT SHEET

FINAL

September 7, 2004

Project Name and Number

Barataria Landbridge Shoreline Protection Project Construction Unit 5 (BA-27c: PPL9)

Goals

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

Proposed Solution

The Barataria Landbridge Shoreline Protection Project Phase 3 (BA-27c) portion of Construction Unit 5 consists of 22,811 feet of rock riprap shoreline protection. Selection of this technique was based on geotechnical investigations, implementation of the "test sections", and implementation of Construction Units 2 and 3. Five site-specific openings, ranging in size from 20 feet to 50 feet, will be incorporated to provide organism and water exchange.

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

Proposed Prioritization Criteria Scores and Justification

Cost Effectiveness (cost/net acre)

The current fully-fund total cost estimate for the BA-27c Portion of CU5 as calculated by the Economic Work Group (September 7, 2004) is 14,711,000.

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

14,711,000/180 net acres = $81,727/net acre or **1 point**

Area of Need, High Loss Area

The BA-27 portion of Construction Unit 5 area contains 111 acres experiencing an average erosion rate of greater than 25 feet per year, 63 acres experiencing an average erosion rate between 10 and 25 feet per year, 6 acres experiencing an average erosion rate of less than 10 feet per year, and 781 acres that has an internal loss rate of 0.18% per year.

.11 X 10 + .07 X 7.5 + .01 X 5 + .81 X 5 = **5.7points**

Implementability

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

Certainty of Benefits

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

Sustainability of Benefits

For the BA-27c portion (22,811 feet), project maintenance is scheduled at TY5 and TY10 and consists of rock replenishment. The next maintenance could be expected at TY21. With use of rock shoreline protection, the project is expected to achieve 100% protection of net acres through TY 20 and 50% protection of net acres for TY 21 through TY 30. The weighted average FWOP erosion rate for BA-27c portion is 19.7 feet/year.

TY	% Effective	Feet Lost Per Year	Acres Lost Per Year
20	100%	0	0.00
21	50%	9.85	5.16
22	50%	9.85	5.16
23	50%	9.85	5.16
24	50%	9.85	5.16
25	50%	9.85	5.16
26	50%	9.85	5.16
27	50%	9.85	5.16
28	50%	9.85	5.16
29	50%	9.85	5.16
30	50%	9.85	5.16
Totals:		98.5	51.6

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

Increasing riverine input in the deltaic plain or freshwater input and saltwater penetration limiting in the Chenier plain

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

Increased sediment input

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

Maintaining landscape features critical to a sustainable ecosystem structure and function

The upper portion of the Barataria Basin is largely a freshwater-dominated system of natural levee ridges, baldcypress - water tupelo swamps, and fresh marsh habitats. The lower portion of the basin is dominated by marine/tidal processes, with barrier islands, saline marshes, brackish marshes, tidal channels, and large bays and lakes. Historically, small meandering Bayous Perot and Rigolettes, and the longer, narrower Bayou Dupont-

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

TOTAL SCORE

(1*2.0)+(5.7*1.5)+(10*1.5)+(8*1.0)+(2*1.0)+(0*1.0)+(0*1.0)+(10*1.0) = 45.5

Preparer of Fact Sheet

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

References

Burns, Colley, and Dennis. 2003. BA-27, BA-27c Supplementary and BA-27d Geotechnical Investigation Report, Jefferson and Lafourche Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service.

Coastal Wetlands Planning, Protection, and Restoration Act Environmental Work Group. 1997. Barataria Landbridge Shoreline Protection Project Phase 1 project information package. 12pp.

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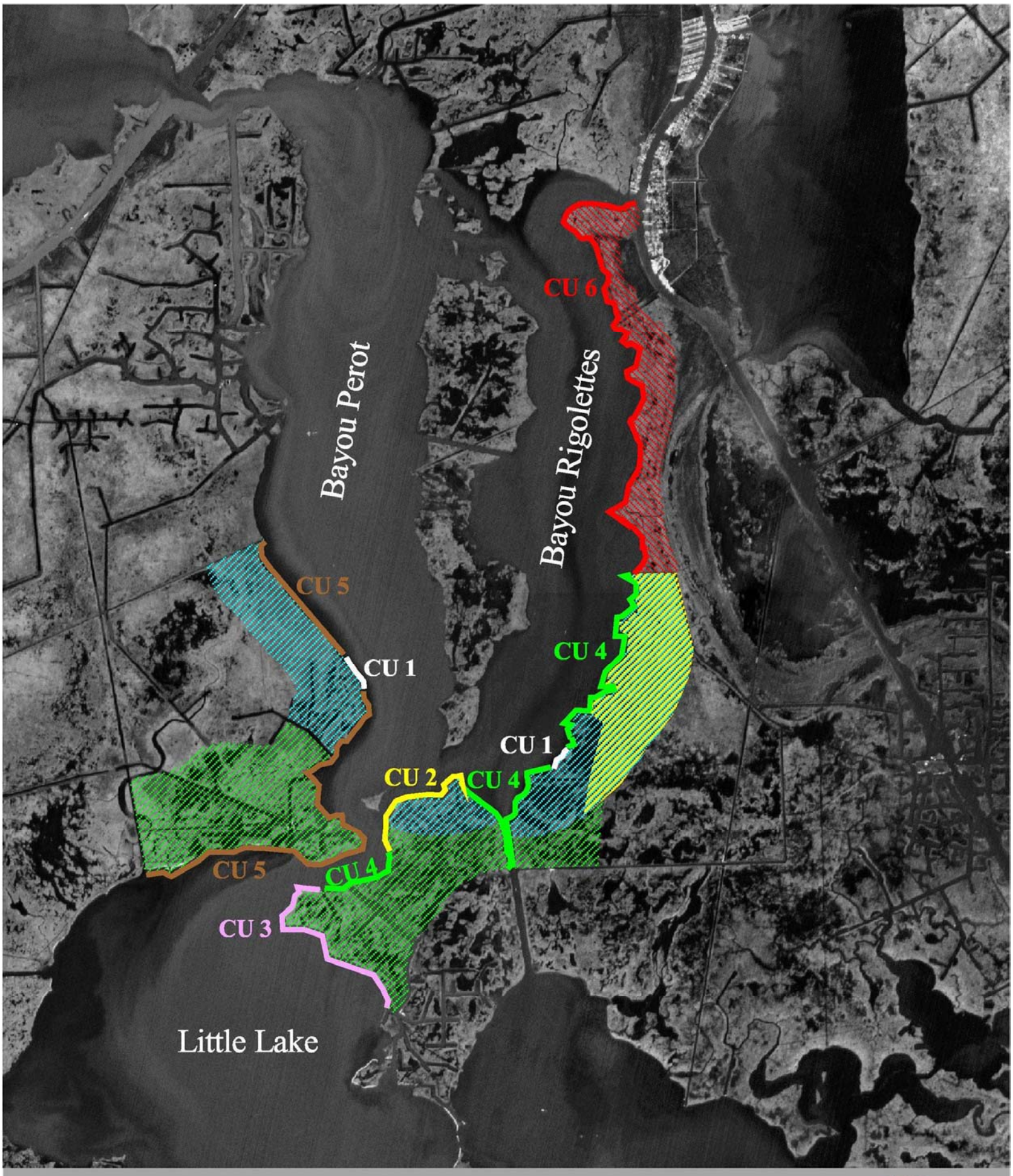
Soil Testing Engineers, Inc. 2000. Report of Geotechnical Investigation NRCS-14-LA-00 Barataria Bay Landbridge Project Phase III, Lafourche and Jefferson Parishes, Louisiana. Prepared for USDA Natural Resources Conservation Service. 6pp plus Appendices.

USDA NRCS. 2000. Project Plan and Environmental Assessment for Barataria Basin Landbridge Shoreline Protection Project Phases 1, 2, and 3 (BA-27), Jefferson and Lafourche Parishes, Louisiana. 29pp plus Appendices.



Barataria Basin Land Bridge SP Project

Construction Unit 1
Construction Unit 2
Construction Unit 3
Construction Unit 4
Construction Unit 5
Construction Unit 6

Phase 1
Phase 2
Phase 3
Phase 4

N

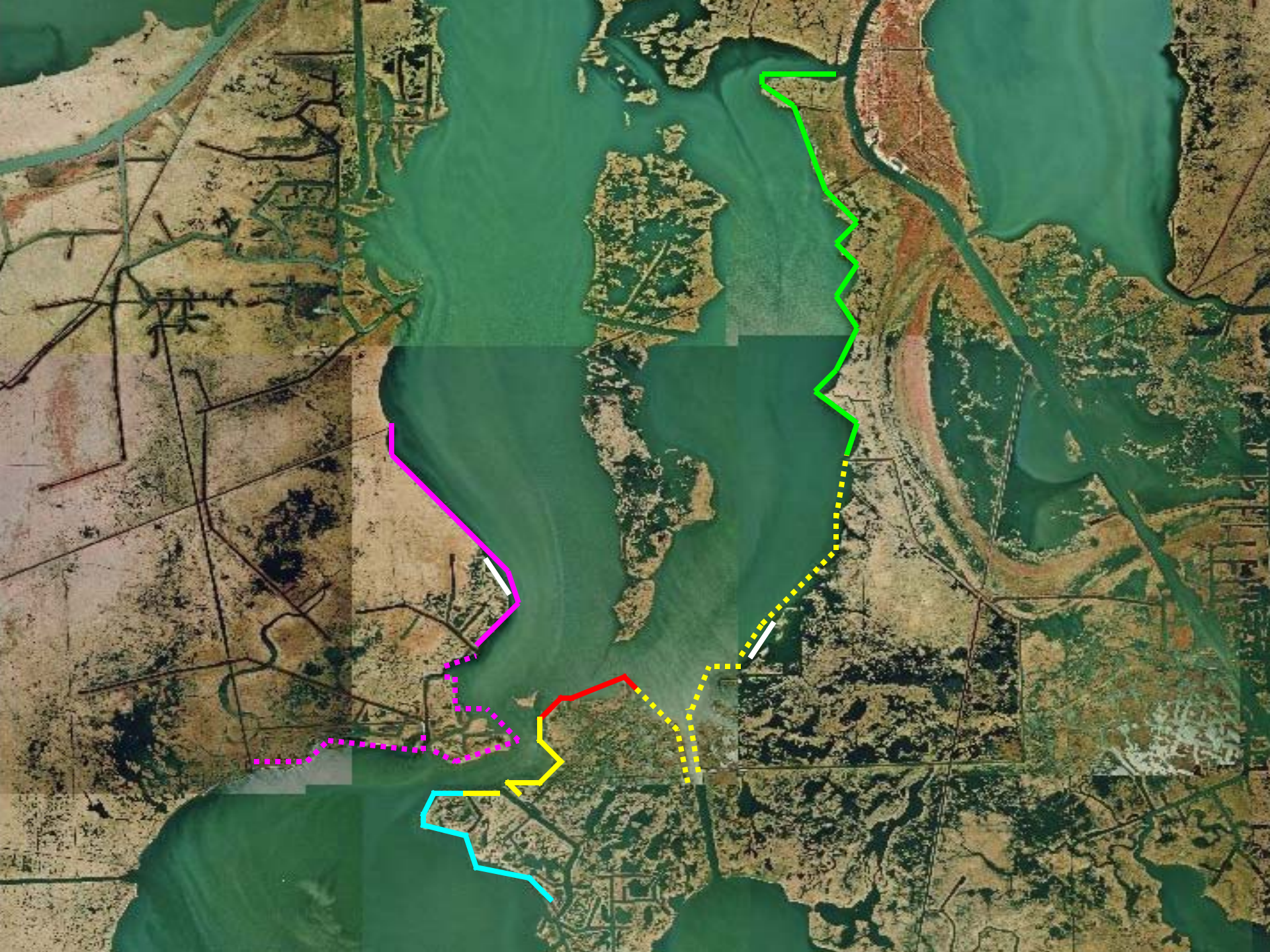
5000 0 5000 Feet

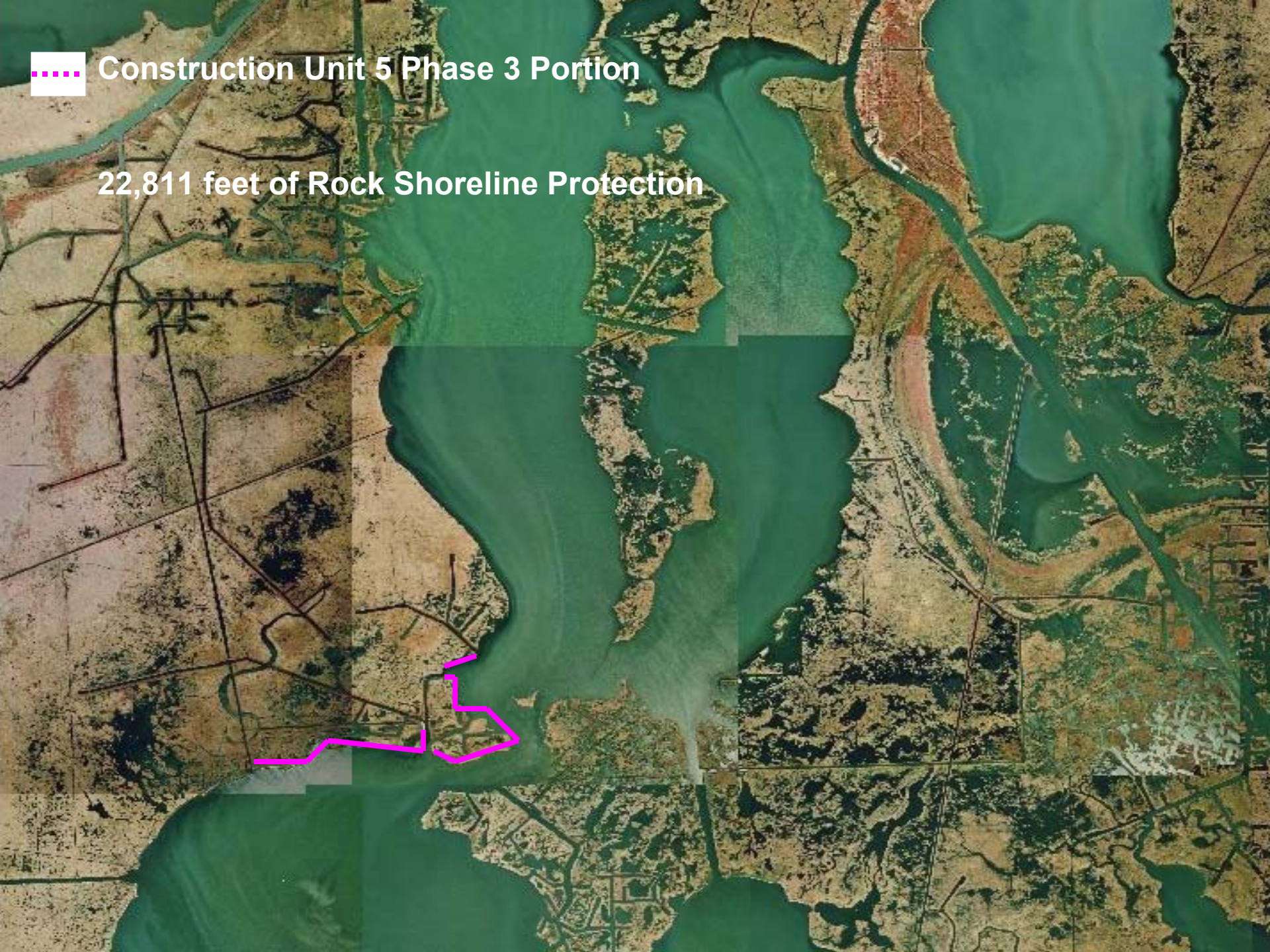
Coastal Wetlands Planning, Protection and Restoration Act

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

PHASE II APPROVAL OF CU5

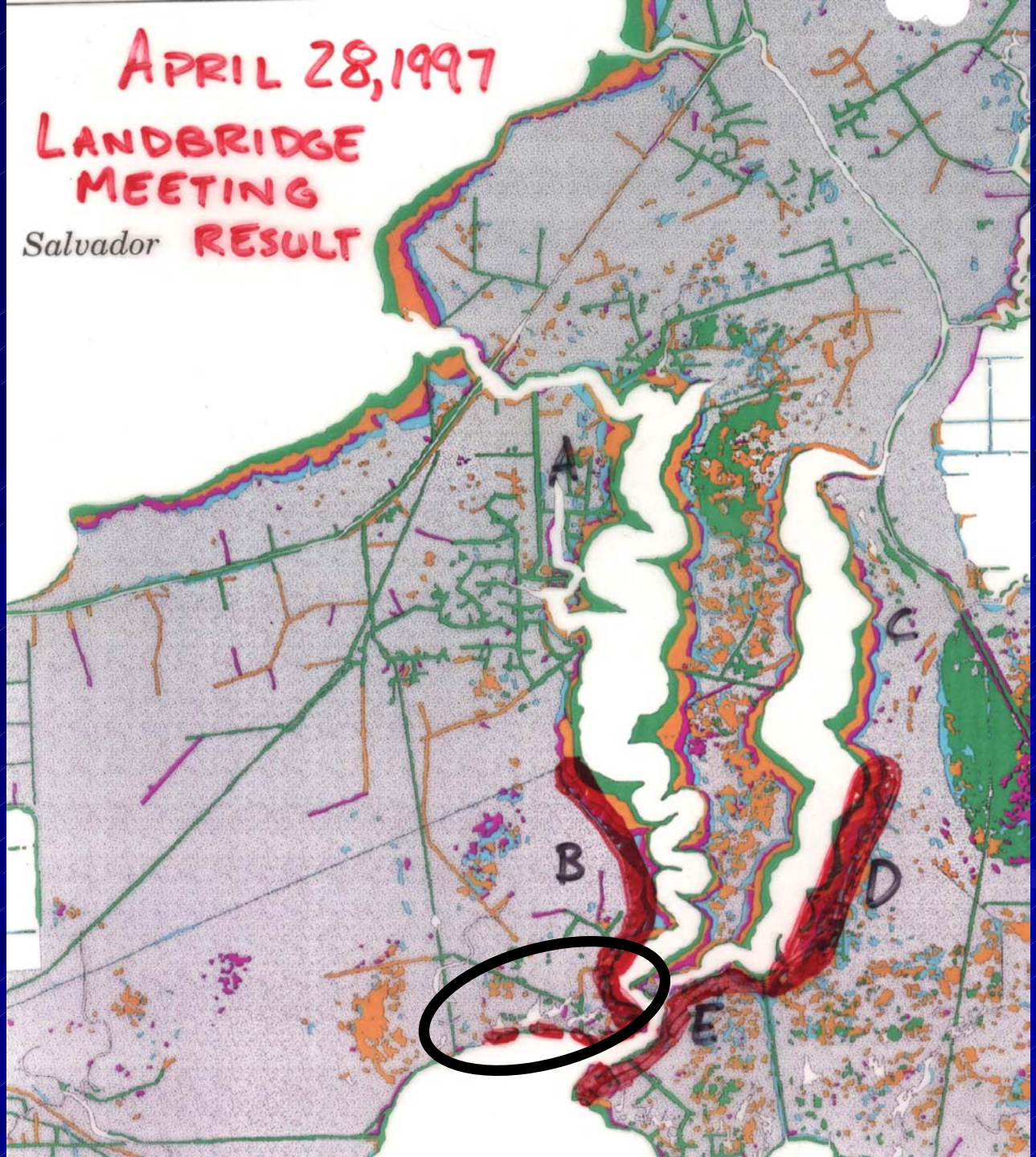
CWPPRA Technical Committee Meeting
September 8, 2004




Construction Unit 5 Phase 3 Portion
22,811 feet of Rock Shoreline Protection

BARATARIA LANDBRIDGE PHASE 3 (BA-27c) CONSTRUCTION UNIT 5

Length of Shoreline	22,811 feet
Erosion Rate	30 ft/yr for 40% 15 ft/yr for 46% 5 ft/yr for 14%
Net Acres	180
Prioritization Score	45.55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LANDBRIDGE
MEETING
Salvador RESULT
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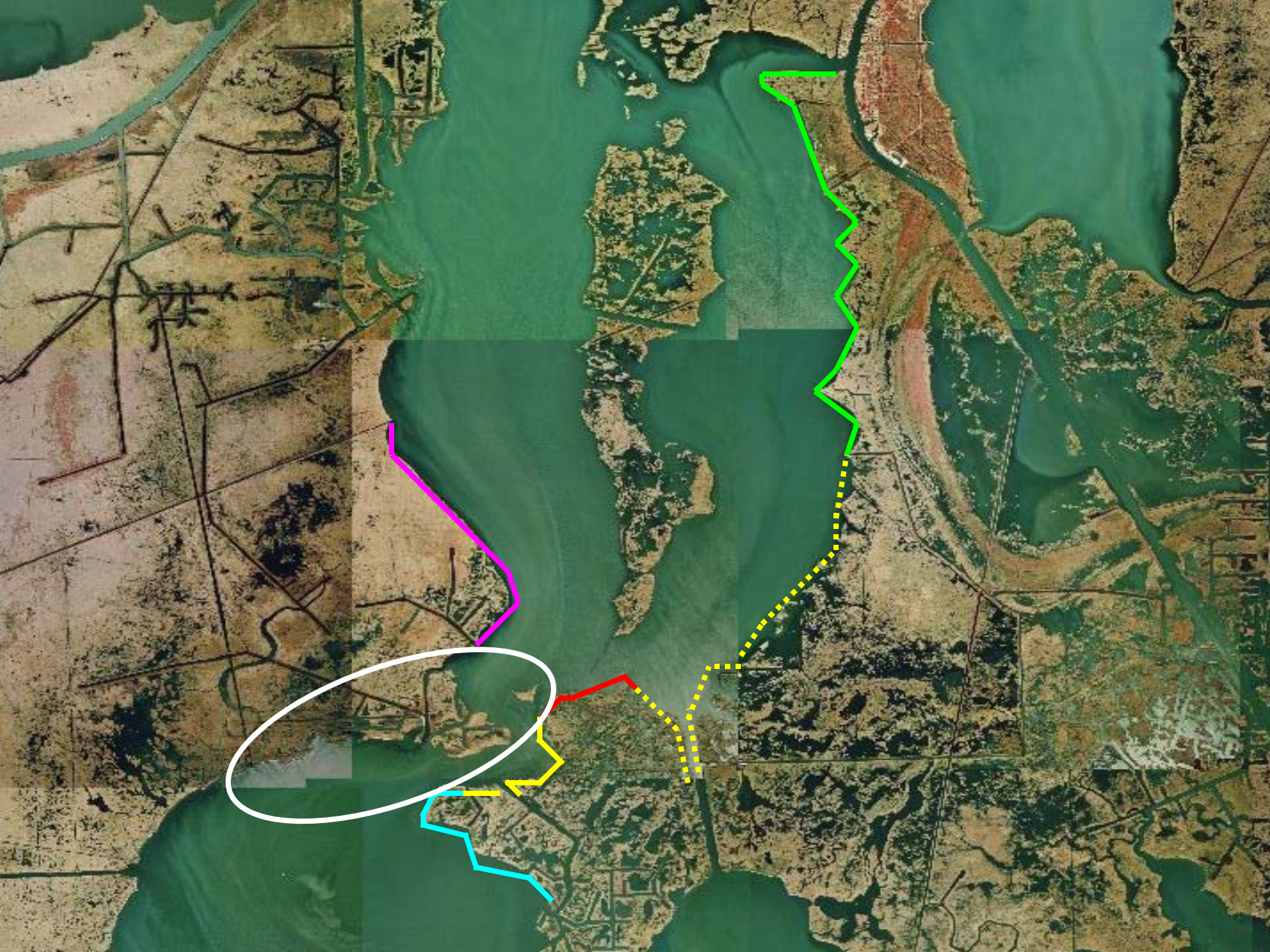


DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO

ATTENTION OF:

CEMVN-PM-C (1110-2-1150a) 31 August 2004

MEMORANDUM FOR Mr. John Saia, Chairman, CWPPRA technical Committee

SUBJECT: Construction Approval Request for Freshwater Bayou Bank Stabilization – Belle Isle Bayou to the Lock (TV-11b/XTV-27), Vermilion Parish, Louisiana.

1. As required by Section 6(j) of the CWPPRA Standard Operating Procedures Manual, the U.S. Army Corps of Engineers (USACE) and Louisiana Department of Natural Resources (LDNR) request approval to construct the subject project.

2. The original project approved on the 9th priority list included shoreline protection and hydrologic restoration components. The hydrologic restoration features were removed during the design phase (see item n for additional details about the removal of this feature). The following information summarizes completion of the tasks required prior to seeking authorization for project construction:

a. List of Project Goals and Strategies.

The goal of the project is to stop shoreline erosion along the east bank of Freshwater Bayou Canal between the Leland Bowman Lock and Belle Isle Bayou (approximately 40,000 feet) using a rock dike.

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

A USACE legal opinion indicates that execution of a cost share agreement requires prior Task Force approval of construction. In line with this requirement, the agreement will be executed following Task Force action on the project.

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

A Real Estate Plan has been completed. The plan outlines all of the necessary real estate instruments required to construct the project and identifies affected landowners. It is estimated that all necessary real estate instruments can be obtained within 90-days of construction approval.

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

A 30% Design Review was held in Abbeville, Louisiana on June 27, 2003 and a memo documenting the completion of the design review was sent to the members of the Technical Committee. In addition, the Louisiana Department of Natural Resources provided a letter of support for proceeding with completion of the design of the project.

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

A 95% design review was completed on 22 January 2004.

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

A Draft Environmental Assessment was released for public comment in May 2002. A Finding of No Significant Impact was signed in November 2002 completing the National Environmental Policy Act compliance requirements.

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

A final Ecological Review was distributed at the 95% Design Review meeting. A summary of the findings is found on page 7 and page 8 of the report.

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

The Corps of Engineers is not required to obtain a permit to construct this project. However, an Environmental Assessment was completed in November 2002 to cover all wetlands conservation and protection issues and other environmental considerations associated with construction and maintenance of the project.

i. A HTRW assessment, if required, has been prepared.

An HTRW assessment was included in the Environmental Assessment completed in November 2002.

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

Section 303(e) approval was provided in February 2004.

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

An overgrazing determination was provided by NRCS on 22 December 2003 and is included as part of the Real Estate Plan. The Natural Resources Conservation Service concluded that overgrazing is not a problem in the project area.

l. Revised cost estimate of Phase 2 activities, based on the revised Project design.

The Economics Work Group prepared a fully funded estimate in January 2004.

m. Estimate of project expenditures by state fiscal year subdivided by funding category.

See attached spreadsheet.

n. A revised Wetland Value Assessment must be prepared if, during the review of the preliminary NEPA documentation, three of the Task Force agencies determine that a significant change in project scope occurred.

Changes in project scope resulted in a reduction in the project area and environmental benefits. As a result, in accordance with standard operating procedures, the project development team coordinated revisions to the WVA with the Chairman of the CWPPRA Environmental Work Group. Project benefits were reduced to 74.26 Average Annual Habitat Units; a 70% reduction from the originally authorized project. However, the elimination of the water control structures also reduced the project construction costs and as a result the revised cost benefit ratio for the shoreline protection feature is not significantly different than the original estimate.

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

A revised Prioritization Criteria ranking score has been prepared and reviewed through the CWPPRA working groups. A fact sheet is included in the Final Design Report.

p. Submit a spreadsheet with the categorical breakdown for Phase 2.

See attached spreadsheet.

3. If you have any questions regarding this project please call Mr. Gregory Miller at 862-2310 or Dr. Ken Duffy at (225) 342-4106.

GREGORY MILLER
Project Manager
Coastal Restoration Branch

Enclosures (2)

Freshwater Bayou Bank Stabilization
(Belle Isle Canal to Lock) (East) (XTV-27)
Vermilion Parish, Louisiana

Lead Agencies: U.S. Army Corps of Engineers and State of Louisiana Department of Natural Resources

Project Location: This 241-acre project area is located in Vermilion Parish along the eastern shoreline of Freshwater Bayou Canal (FBC) between the Freshwater Bayou Lock and Belle Isle Canal.

Project Purpose: The banks of Freshwater Bayou Canal are rapidly eroding, due mainly to boat traffic. In the project area, several breaches have developed in the bankline along the east side of the canal. These breaches allow boat wakes to push turbid, higher salinity waters into interior marsh, causing marsh loss and decreasing SAV coverage. A large area of interior marsh in the northern portion of the project area is fragmenting and turning to open water, in part due to the breaches.

Project Features: A rock dike would be built along the eastern bank of Freshwater Bayou Canal, between Belle Isle Canal and Freshwater Bayou Lock, a distance of approximately 40,000-feet. The dike is designed to halt shoreline erosion along the east bank of the canal. Special features are being incorporated into the project design to allow estuarine organisms to access wetlands behind the rock dike. These special features will leave small gaps in the rock at infrequent intervals to allow natural water exchange behind the dike segments. Shoreline sections at the gap locations will be armored to prevent erosion into the adjacent bankline and marshes.

Project Costs: The estimated cost of the project, including real estate, environmental compliance, engineering and design, relocations, construction, monitoring, and O&M expenses, is $16,703,300.

Project Status: The partnering agencies have completed a 30% design review and a 95% design review. The project schedule calls for seeking construction authorization from the CWPPRA Task Force at the fall 2004 meeting.

Information: Additional information on this project is available on the LACOAST.GOV website or may be obtained by contacting Gregory Miller at 504-862-2310 or via email at Gregory.B.Miller@mvn02.usace.army.mil.

Freshwater Bayou (Belle Isle Canal to Lock - East)
TV-11b

Legend

- Proposed Retaining Dike
- Shut-In Well
- Inactive Well
- Weir Structure

0.7 0 0.7 1.4 Miles

0.8 0 0.8 1.6 Kilometers

N

Data Source:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, La.

2000 SPOT Imagery
Map Date: May 30, 2003
Map ID: USGS-NWRC 2003-04-0248

Freshwater Bayou Bank Stabilization
(Belle Isle Canal to Lock) (East) (XTV-27)
Vermilion Parish, Louisiana

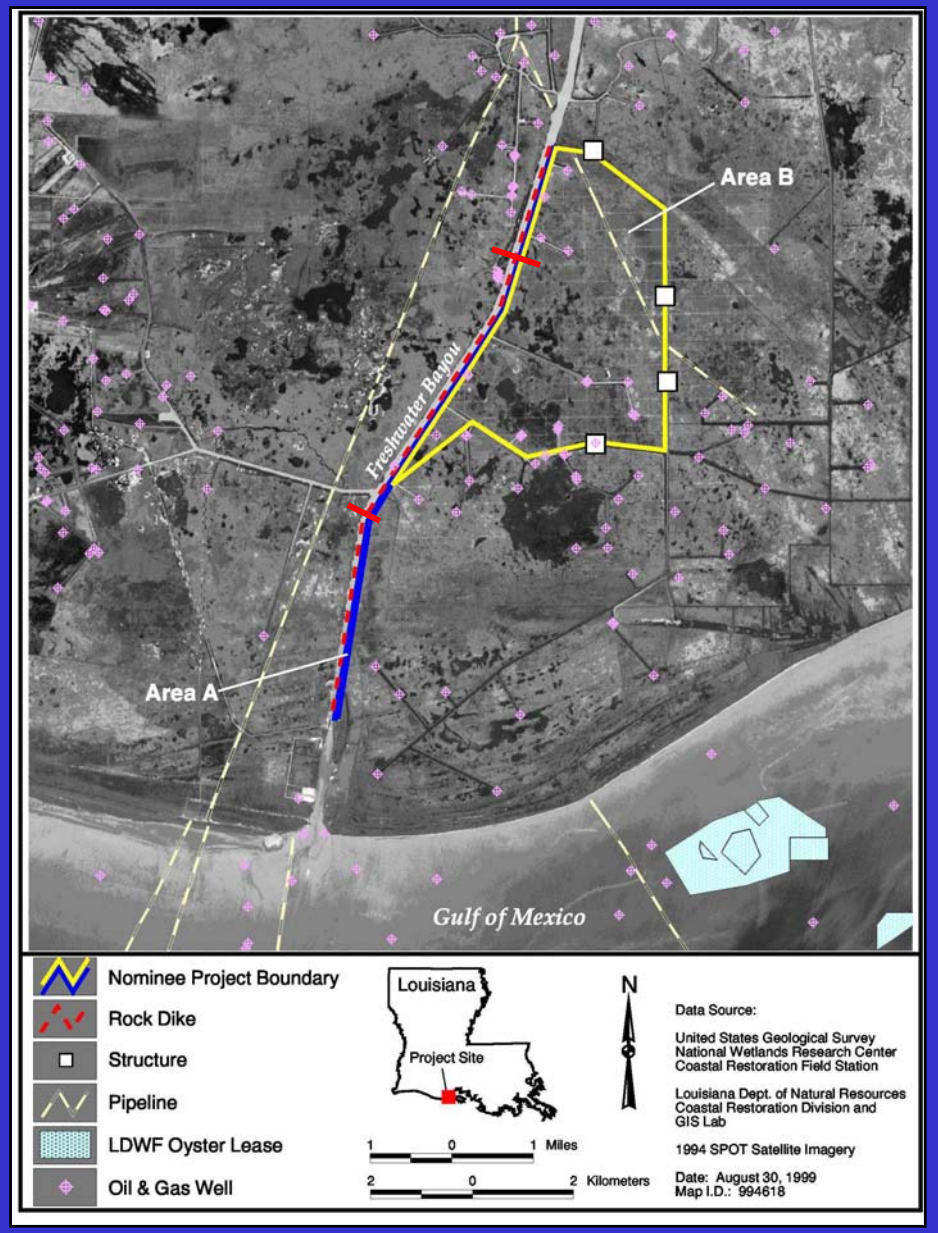
Overview of Presentation

- Project Background
- Current Design Information
- Project Costs

Project Background

- Authorized in January 2000 by Breaux Act (CWPPRA) Task Force for the 9th Priority Project List
- Phase I funding of $1.003 million provided for engineering and design, environmental compliance, real estate planning, and project management (spent $1.005 million).
- Problem: Wake-induced erosion of 12.5 ft/yr
- Initial study proposed ~40,000 linear feet of rock dike to stop shoreline erosion along Freshwater Bayou Canal from the Leland-Bowman Lock to Belle Isle Bayou as well as some hydrologic restoration features. These were later dropped from the project.
- Project length was divided into three reaches based on geotechnical characteristics.

XTV-27/TV-11b Freshwater Bayou Shoreline Stabilization Project Area



Erosion in Project Area

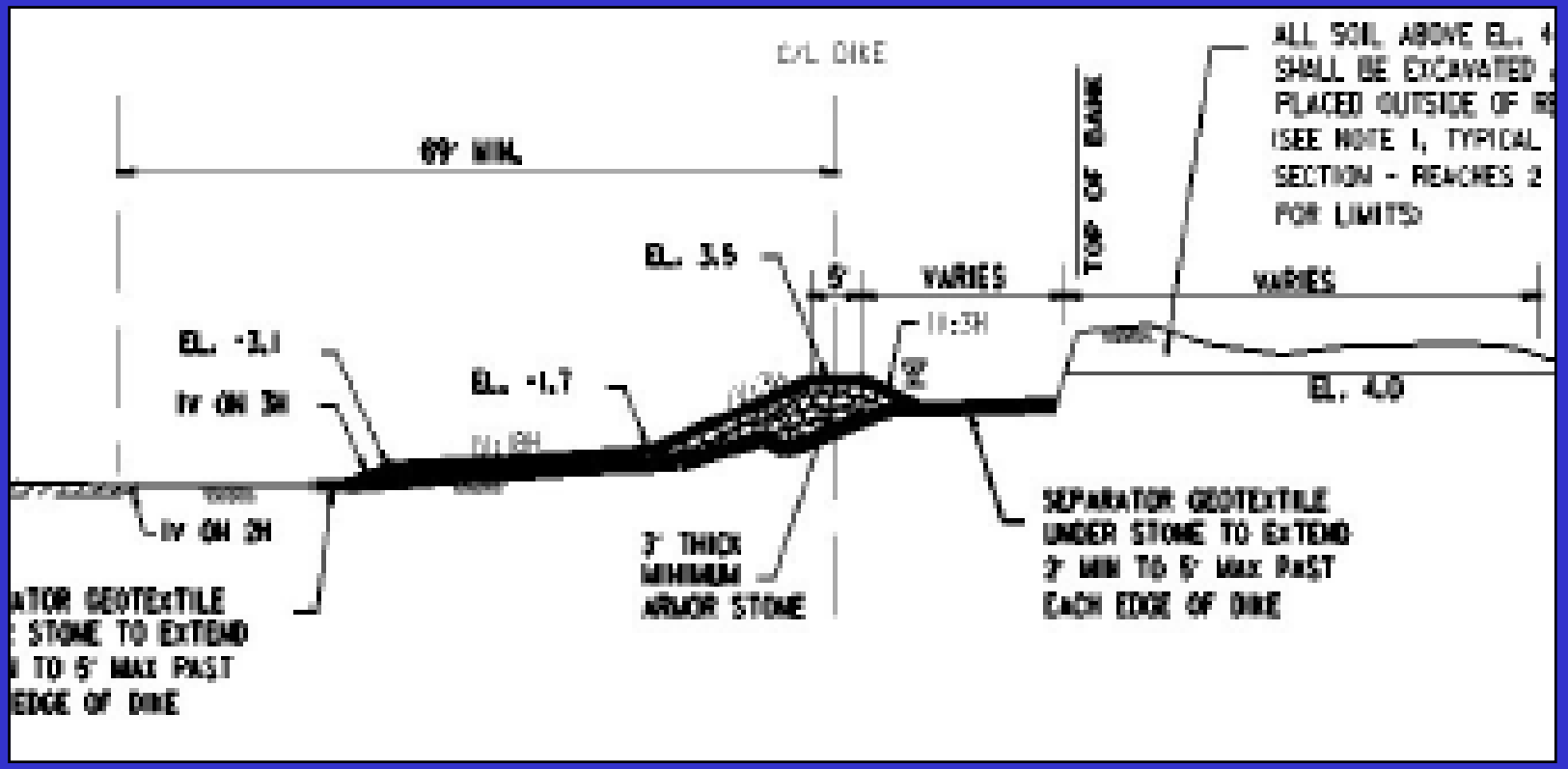
Current Design

- About 40,000 ft of linear rock dike
- Built to +3.5 NAVD88, at -1.0 ft NAVD88 contour (~2.0-2.5 ft water depth)
- 5 ft wide crown, with 1v:3h slopes on the channel side, and 1v:2h or 1v:3h on land side, depending on the reach.
- 36-inch stone gradation (2,200 lbs max)

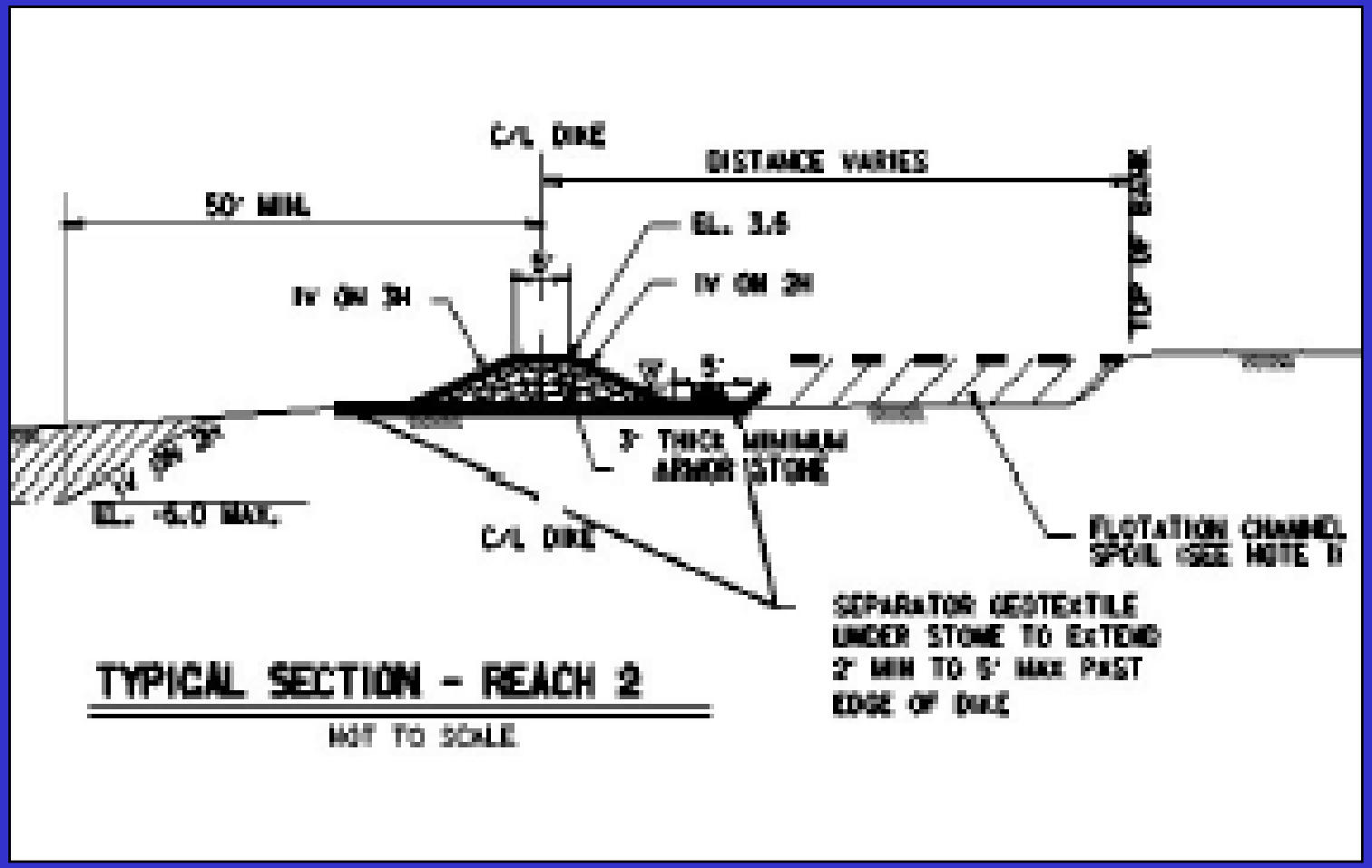
Design Information

- Surveys
- Soil Borings and Geotechnical Investigation
- Typical cross-sections
- Quantity estimates
- O&M events in years 5 and 15

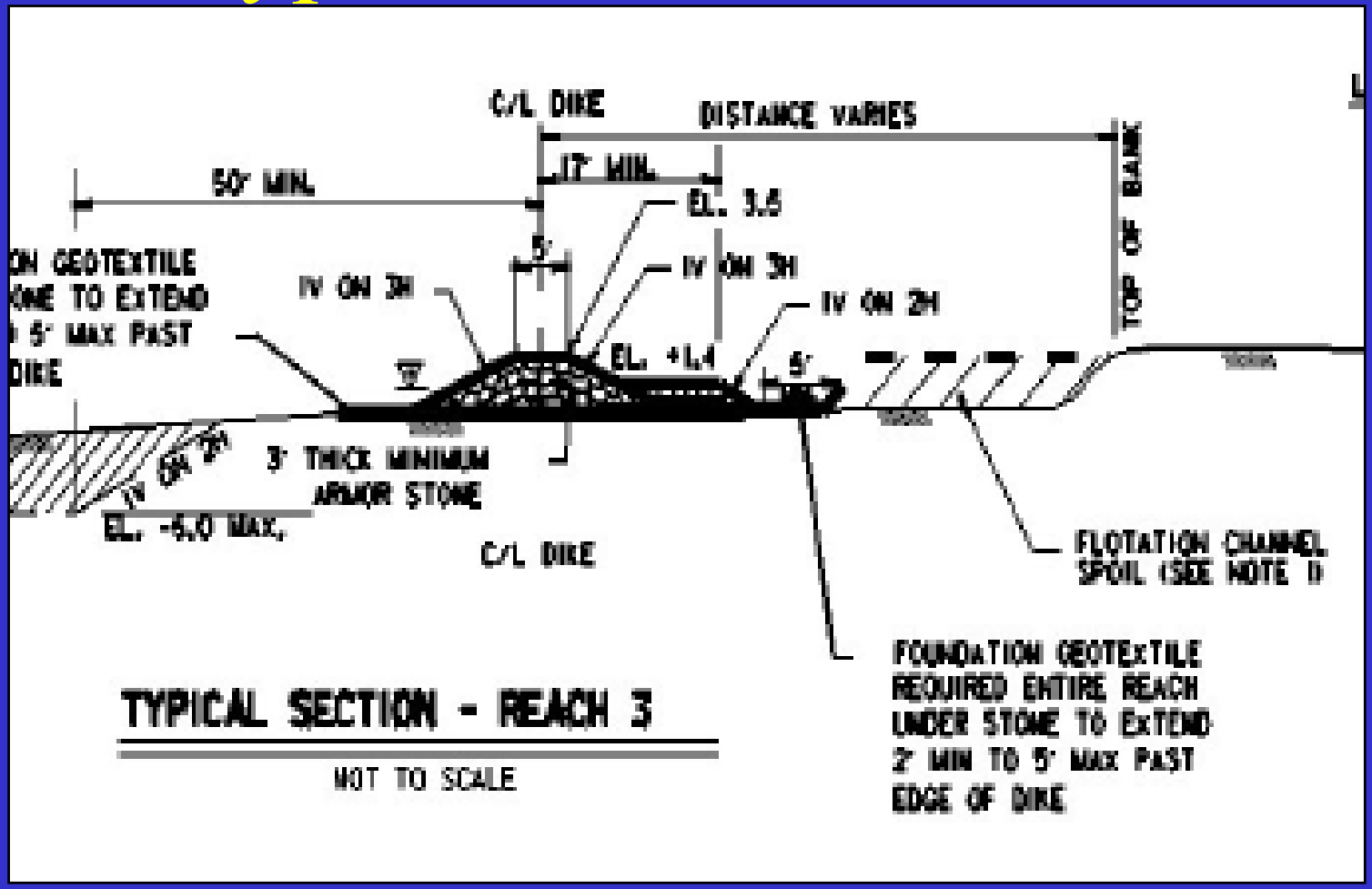
Typical Section – Reach 1



Typical Section – Reach 2



Typical Section – Reach 3



Phase II Authorization Request
Freshwater Introduction South of LA Highway 82
ME-16

Description of Phase I Project

The Freshwater Introduction South of LA Highway 82 Project was approved for Phase I funding by the CWPPRA Task Force on the 9th Priority Project List. At the time of Phase I authorization, project features included:

Project Features

A. Fresh Water Introduction Canal Enlargement-

1. Widen and deepen the existing trenasse and borrow ditch north of Highway 82 (from 8 feet-wide X 1 ft deep to 20 feet-wide X 4 feet-deep X 12,500 feet-long; 16,600 cu. yds.). 2. Widen and deepen the Grand Volle Canal north of Highway 82 (from existing 10 feet-wide X 2 feet-deep to 20 feet-wide X 4 feet-deep X 13,000 feet-long; 47,250 cu. yds), and, 3. Widen and deepen the Unit 14 Canal north of Highway 82 (from existing 10 feet-wide X 2 feet-deep to 20 feet-wide X 4 feet-deep X 13,000 feet-long; 47,250 cu. yds).

B. Fresh Water Introduction Structures -

1. Install six, 48 inch-diameter culverts with flapgates and stop logs in the boundary line canal. 2. Install 2 or 3 - 10 feet-high X 10 feet-wide flapgates at the Big and Little Bayou Constance radial arm gate structures. One existing radial arm gate may remain without a flapgate. 3. Install four, 48 inch-diameter culverts with flapgates and stop logs at Dyson Bayou. 4. Install four, 48 inch-diameter culverts with flapgates and stop logs at Cop Cop Bayou, and, 5. Install four sets of three, 48 inch-diameter culverts with flapgates and stop logs at four sites along the boundary line canal south of Unit 14.

C. Terraces -

Construct and vegetate 150 - 200 feet X 200 feet terrace cells (93,333 cu. yd. total) with 10 foot-wide crowns, 46 foot-wide bases on 6:1 side slopes in the open water of Area B west of Unit 14. Terraces will be vegetated with marsh hay cordgrass sprigs (*Spartina patens*) on the terrace crowns (12,000 plants; 2 rows; 5-foot centers) and bullwhip and/or giant cutgrass (24,000 gallon containers; 5-foot centers) on each side slope (Attachment 1).

Project goals.

Specific project goals were to: 1) restore 54 acres of emergent intermediate marsh in Area B

The following tasks were completed during Phase I:

1) Interagency kickoff meeting and field trip
2) Final Cost Share Agreement executed between FWS and DNR
3) Preliminary landrights
4) Elevation and bathymetric surveys for the channel enlargements, terrace placement and structure placement sites.
5) Geotechnical investigation of terrace borrow and fill sites
6) 30% Design Review
7) 95% Design Review
8) Draft Ecological Review
9) Draft Environmental Assessment (in review by Regional Office)
10) Final construction cost estimate
11) Applications for permits
12) Overgrazing determination from NRCS
13) Cultural resources clearance
14) HTRW assessment

Engineering and Design Tasks

In order to facilitate the design of the terrace borrow and fill areas, a hydrographic and topographic survey was performed in April and May, 2003 by Lonnie Harper and Associates. Soil borings and parameters from the field and laboratory were performed in May 2004 by Professional Service Industries, Inc. (Geotechnical Engineering Report Proposed Earthen Terraces for the Freshwater Introduction South of Highway 82 Project, ME-16, Vermilion Parish, Louisiana). The results of soil geotechnical testing and analysis were used to determine the structural integrity of the proposed earthen terraces. Analyses were performed by evaluating soil bearing capacity, global slope stability and consolidation settlement for the proposed terraces. A total of 4 soil borings to depths of 25 feet were drilled. That soil testing recommended staged construction and placement of a geotextile fabric at the mud line prior to construction to improve stability and bearing capacity. That soil analysis also predicted a soil settlement of 10, 12 and 14 inches for terrace crown elevations of + 3, + 4 and + 5 feet respectively, with 50% of the settlement occurring shortly after construction.

A hydrologic report entitled, "Estimate of the Water Level Gradient across LA Highway 82 in the Grand and White Lake Basin," stated that a water level gradient of 0.5 to 0.75 feet occurs about 75% of the time north to south of LA Highway 82 (Swenson 1999).

Fenstermaker and Associates conducted a 1-Dimensional Hydrodynamic modeling study of the conceptual and Preferred Alternative project components. That report predicted Preferred Alternative monthly salinity reductions for project target areas, for the April 2002 to October 10, 2002 modeling period (Fenstermaker and Associates 2003).

Table 2: Salinity Difference Ranges for the Freshwater Introduction South of LA Highway 82 Project Target Areas Predicted by the Mike 11 1-Dimensional

Hydrodynamic Model.

Area/Month	April	May	June	July	August	Septem ber	October (10 days)
Area A (Big Constance Bayou to Rollover Bayou)	- 1 to - 4	- 1 to - 4	0 to - 3	- 1 to -4 or -5	- 1 to - 5	-1 to - 5	- 1 to - 5
Area A (west of Big Constance Bayou)	0 to - 1	0 to - 1	0 to -1	+ 1 to - 1	0 to - 1	0 to -1	0 to - 1
Area B (west of Unit 14)	- 1 to - 2	+ 2 to - 1	+ 4 to 0	0 to - 2	-1 to -3	1 to -1	- 1 to - 3
Area C (east of Unit 14)	- 1	- 1 to - 3	- 1 to - 3	- 1 to - 3	- 1 to - 4	- 1 to - 3	+ 1 to - 2

[Salinity changes are represented in parts per thousand (ppt); continuous recorder salinity data from April to October 2002 was used; values presented were interpreted from salinity contour maps (Attachment 2).]

The model analysis of predicted project salinity differences indicated the following: 1) the Area A salinity reduction benefited area extended east of the original project boundary from Flat Lake to Rollover Bayou; 2) salinity reductions for Target Area A ranged from - 1 to - 5 ppt; 3) the model predicted only a small (approximately - 1 ppt) Preferred Alternative salinity reduction in the western portion of Area A south of Unit 6; and, 4) monthly average salinity reductions ranged from + 4 to - 3 ppt for Area B and from + 1 to - 4 ppt for Area C. Thus, the hydrodynamic model results predicted that the Preferred Alternative could flow sufficient fresh water southward to significantly reduce target-area marsh salinities from 1 to 5 ppt (Fenstermaker and Associates 2003).

Design meetings were held at the 30% (May 14, 2003) and 95% (August 11, 2004) levels. A revised fully-funded cost estimate has been prepared by the CWPPRA Economics Work Group (Attachment 3).

Landrights, Cultural Resources, Environmental Compliance and Other Tasks

Final landrights agreements have been acquired from area landowners by LDNR.

The State Historic Preservation Officer of the Louisiana Department of Culture, Recreation and Tourism, on August 17, 2004, indicated that no known archaeological sites or historic properties would be affected by this project.

The Corps of Engineers Section 404 permit application was placed on Public Notice on June 18, 2004. A favorable Coastal Zone Consistency Determination was received by the

Louisiana Department of Natural Resources-Coastal Management Division on June 3, 2004. A Water Quality Certification was received on August 11, 2004, from the Louisiana Department of Environmental Quality.

An overgrazing determination was provided by the Natural Resources Conservation Service on December 1, 2003, indicating that overgrazing is not a problem in the project area. An HTRW assessment conducted by the Lafayette Field Office of the U.S. Fish and Wildlife Service indicated that no HTRW materials should be encountered during project implementation.

A draft Ecological Review is available and a draft Environmental Assessment will be released for public comment at least 30 days before the October 13, 2004 Task Force meeting.

Description of the Phase II Candidate Project

Project Features

The revised Phase II LA Highway 82 candidate project consists of enlargement of existing channels north and south of LA Highway 82, installing water control structures to facilitate the movement of freshwater and nutrients from the Grand-White Lake area in the Mermentau Lakes subbasin southward, and the construction of vegetated earthen terraces to protect and restore marshes in the Chenier subbasin. The project would include the installation and maintenance of the following features as shown on Figure 1.

Project components include:

I. Components that move freshwater from White Lake across LA Highway 82: 1) enlarge the trenasse (boat trail) connecting the Superior Canal to the east-west oil and gas canal to the LA Highway 82 northern borrow canal (20-foot bottom width, 4-foot depth, 3:1 side slope, and top width of 44 feet); and, 2) connect the Grand Volle Ditch to Grand Volle Lake of White Lake and enlarge it from Grand Volle Lake to and south of LA Highway 82 (4-foot bottom width, 4-foot depth, 3:1 side slope, and top width of 28 feet (Figure 1).

II. Components that move freshwater from LA Highway 82 to target marshes south of that highway: 1) Remove the plug at the Rockefeller Refuge Boundary Line Canal east of Superior Canal and adjacent to Unit 13; 2) Modify the Little Constance Bayou structure by installing three 10-foot by 10-foot flap gates on the south side, with stop logs on the northern (Unit 6) side to allow fresh water to flow when conditions permit; 3) Install the New Dyson Bayou water control structure consisting of four, 48-inch diameter culverts with stop logs on the north side and flap gates on the south side located approximately 1,000 feet north of Dyson Bayou; 4) Install the New Cop Cop Bayou water control structure consisting of four, 48-inch diameter culverts with stop logs on north side and flap gates on the south side adjacent to the existing Cop-Cop Bayou control structure; and, 5) Install water control structures consisting of three, 48-inch

diameter culverts with stop logs on north side and flap gates on the south side, at each of Sites 10 and 12, in the Boundary Line Levee between Rockefeller Refuge's Units 6 and 14 (Figure 1).

III. Marsh Restoration through Earthen Terraces: 1) Construct and re-vegetate approximately 26,000 linear feet by 24-foot-wide duck-wing shaped earthen terraces in open-water between Rockefeller Refuge's Units 6 and 14 to restore about 14 acres of marsh in shallow open-water (Figure 1).

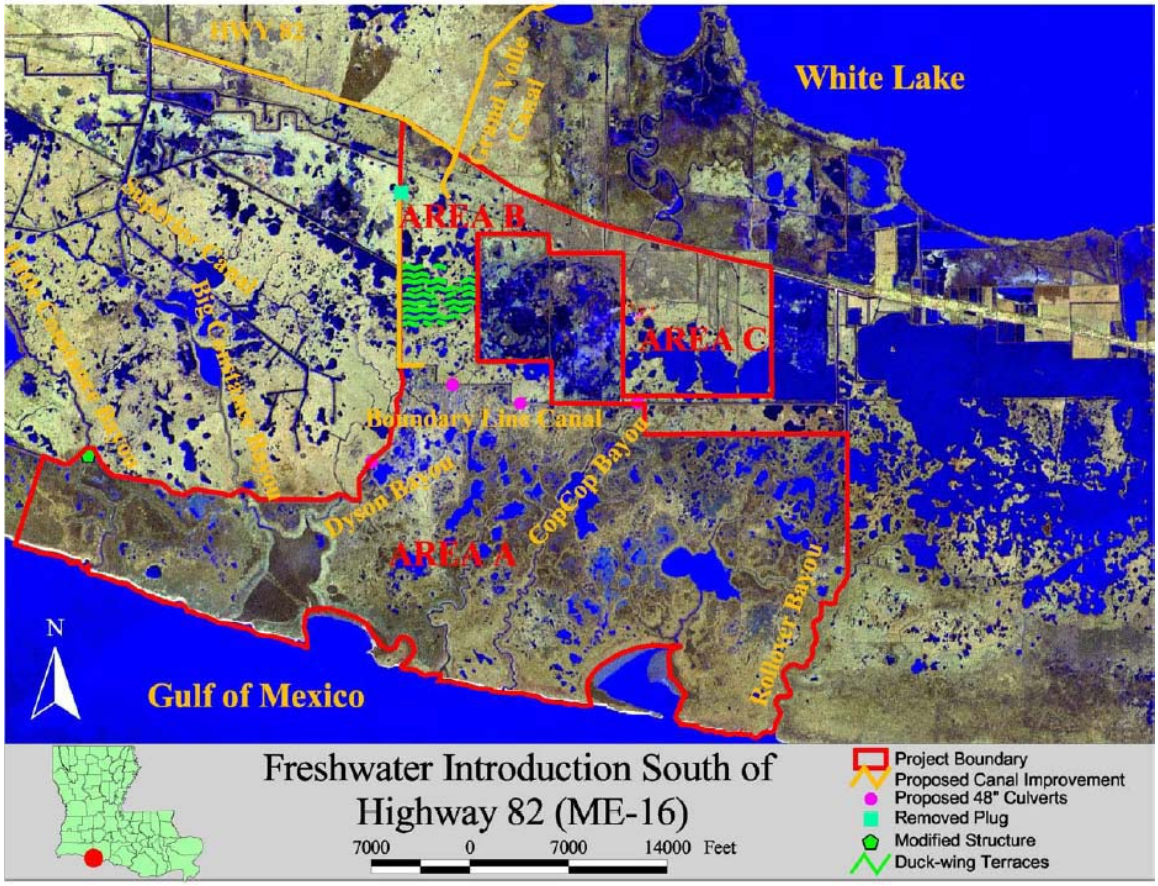


Figure 1 – Freshwater Introduction South of LA Highway 82 Project Features

Updated Assessment of Benefits

A revised Wetland Value Assessment was prepared and reviewed by the Environmental Work Group. The total project area was increased from 19,998 acres to 24,874 acres (4,876 acre increase) due to the results of the 1-D hydrodynamic model (Fenstermaker and Associates 2003). Total Net Acres protected/created/restored by the project increased from 296 acres (Phase 1 project) to 323 acres (Phase 2 project). Net Average Annual Habitat Units increased from 553 to 690 AAHUs.

Checklist of Phase Two Requirements
Freshwater Introduction South of LA Highway 82
ME-16

A. List of Project Goals and Strategies.

The goals of the project are to: 1) restore 14 acres of emergent intermediate marsh in Area B via vegetated earthen terraces, 2) protect 309 acres of emergent intermediate and brackish and saline marsh, and 3) enhance 24,874 acres of emergent marshes at the end of the 20-year project life via the introduction of freshwater southward across LA Highway 82 to project target marshes.

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

A Cost Share Agreement between the U.S. Fish and Wildlife Service and Louisiana Department of Natural Resources was executed on September 12, 2000. A draft amendment, authorizing construction, operation, maintenance, and monitoring, to the Cost Share Agreement will be prepared after Phase 2 approval.

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

FWS received formal notification, on May 10, 2004, from DNR that landrights have been finalized.

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 meeting was held on May 14, 2003, and resulted in favorable reviews of the project design with minor modifications. DNR and FWS agreed on the project design and to proceed with project implementation.

E. Final Project Design Review (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporate elements from the Preliminary Design and the Preliminary Design Review. Final Project Design Review (95%) must be successfully completed prior to seeking Technical Committee approval.

A 95% design meeting was held on August 11, 2004, and resulted in favorable reviews of the project design with minor modifications. DNR and FWS agreed on the project final design

and to proceed with project implementation.

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

A draft EA will be submitted for public comment at least 30 days prior to the October 13, 2004, Task Force meeting.

G. A written summary of the findings of the Ecological Review (See Appendix B).

The following paragraph is from the Recommendations section of the August 2004 draft Ecological Review submitted at the 95% Design Review Meeting:

Based on the investigation of similar restoration projects, a review of engineering principles of the hydrodynamic model output, and other data analyses, the LDNR project team feels that the proposed strategies of the Freshwater Introduction South of Highway 82 project will likely achieve the desired ecological goals for the majority of the 20-year project life. The level of design of the project's physical effects warrant continued progress toward construction authorization pending a favorable 95% Design Review.

H. Application for and/or issuance of the public notices for permits. If a permit has not been received by the agency, a notice from the Corps of when the permit may be issued.

The FWS applied for a Section 404 permit from the Corps of Engineers, a state Coastal Zone Consistency determination from DNR, and a Water Quality Certification from LDEQ. The Section 404 permit application was placed on Public Notice on June 18, 2004. A Section 404 permit is expected to be granted by the end of November 2004. The revised state Coastal Zone Consistency determination was issued by DNR on June 3, 2004. A DEQ Water Quality Certification was received on August 11, 2004.

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

An HTRW assessment/contaminants screening was conducted by the FWS Lafayette Field Office. It was concluded that project implementation would not encounter any of the known wells or associated oil and gas facilities in the project area and that resuspension of contaminants from sediment disturbance is not expected. Based on available information, further study is not warranted.

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

Section 303(e) approval was granted by the Corps via letter dated May 6, 2004.

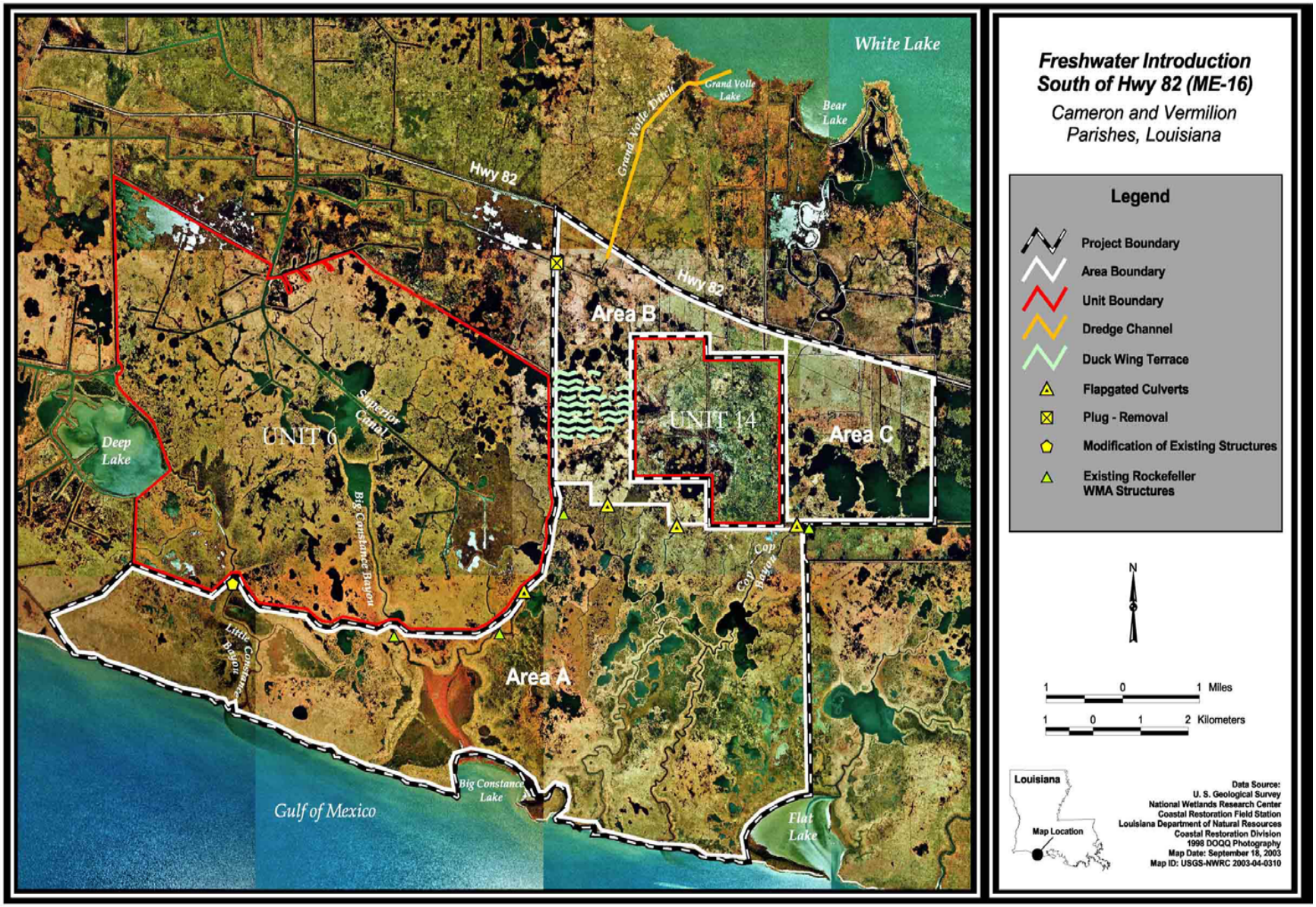
N. A revised Wetland Value Assessment must be prepared if, during the review of the preliminary NEPA documentation, three of the Task Force agencies determine that a significant change in project scope occurred.

A revised Wetland Value Assessment was prepared and reviewed by the Environmental Work Group. The total project area was increased from 19,998 acres to 24,874 acres (increase of 4,876 acres). Total Net Acres protected/created/restored by the project increased from 296 acres (Phase 1 project) to 323 acres (Phase 2 project). Net Average Annual Habitat Units increased from 553 to 690 AAHUs.

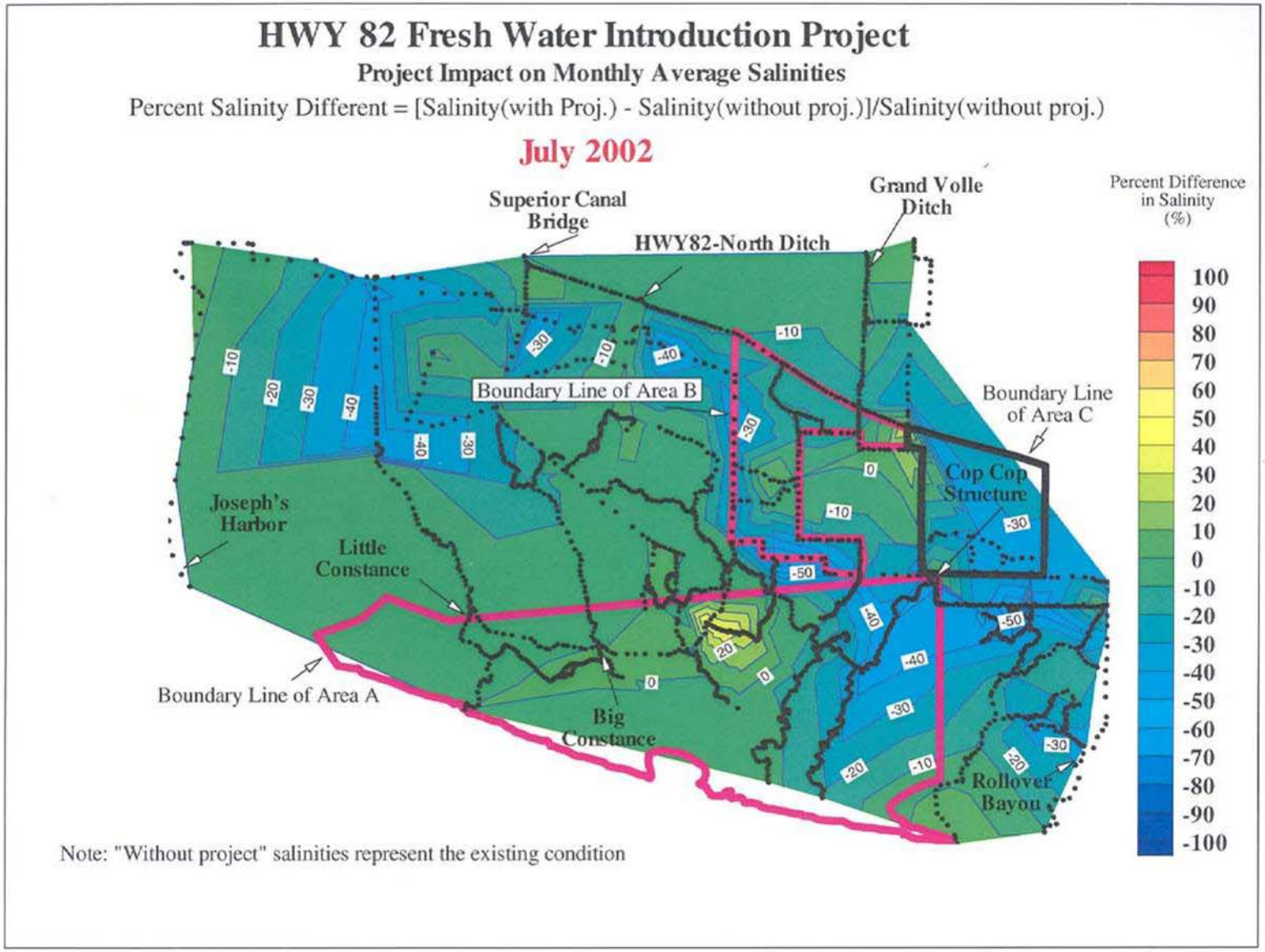
O. A breakdown of the Prioritization Criteria ranking score, finalized and agreed-upon by all agencies during the 95% design review.

The following Prioritization Criteria scores were reviewed and agreed upon by all agencies prior to the 95% design meeting.

Criteria	Score	Weight	Final Score
Cost Effectiveness	10	2	20
Area of Need	4.08	1.5	6.12
Implementability	10	1.5	15
Certainty of Benefits	5.13	1	5.13
Sustainability of Benefits	10	1	10
HGM – Riverine Input	6	1	6
HGM – Sediment Input	0	1	0
HGM – Landscape Features	10	1	10
Total Score			**62.25**



Attachment 1. General Features of the Original Phase 1 Freshwater Introduction South of LA Highway 82 Project.



Attachment 2: 1-Dimentional Hydrodynamic Modeling Results
Showing Hwy 82 Project (ME-16) Average Salinity Reductions for July 2002

Freshwater Introduction South of Highway 82 Project ME-16

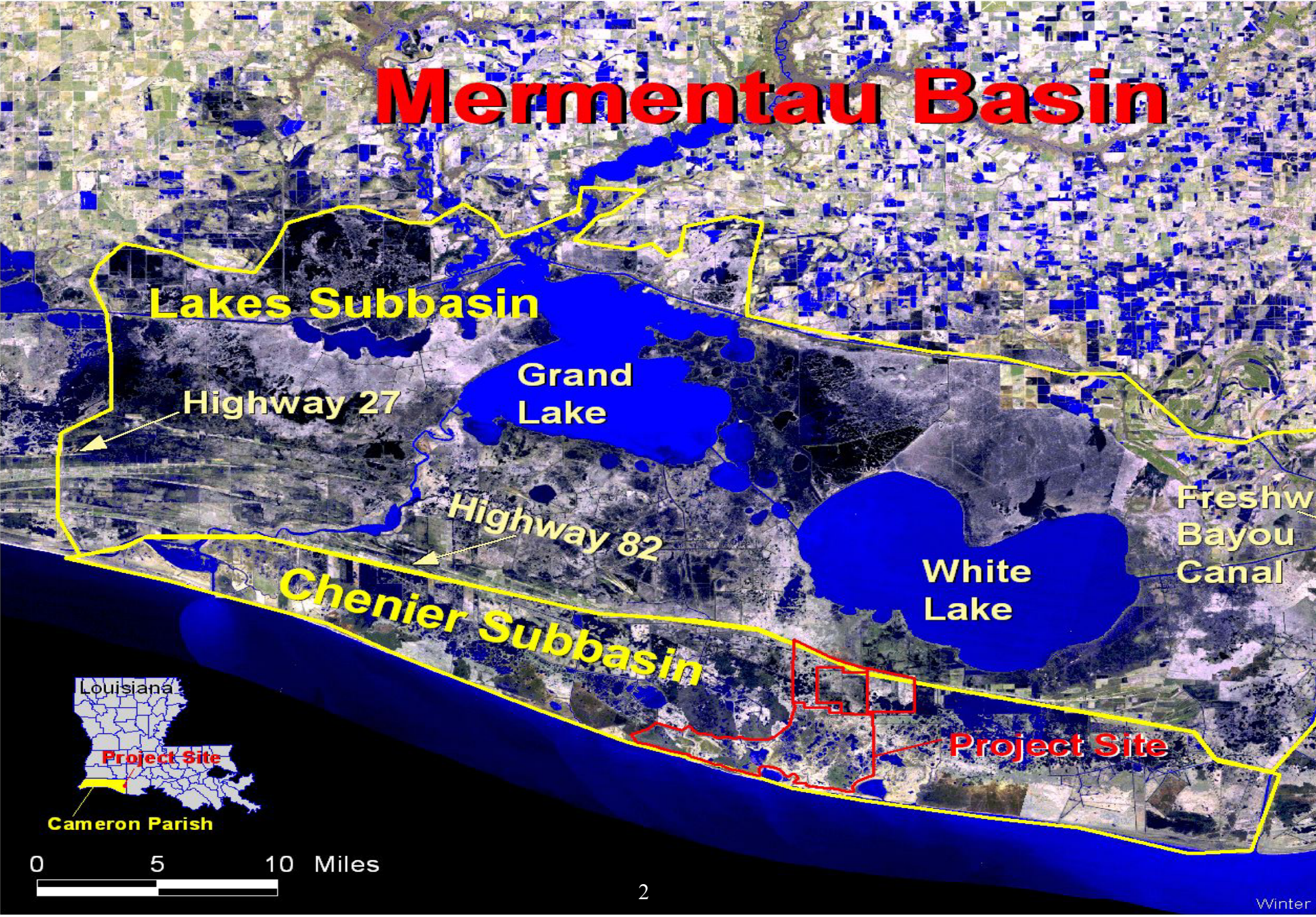
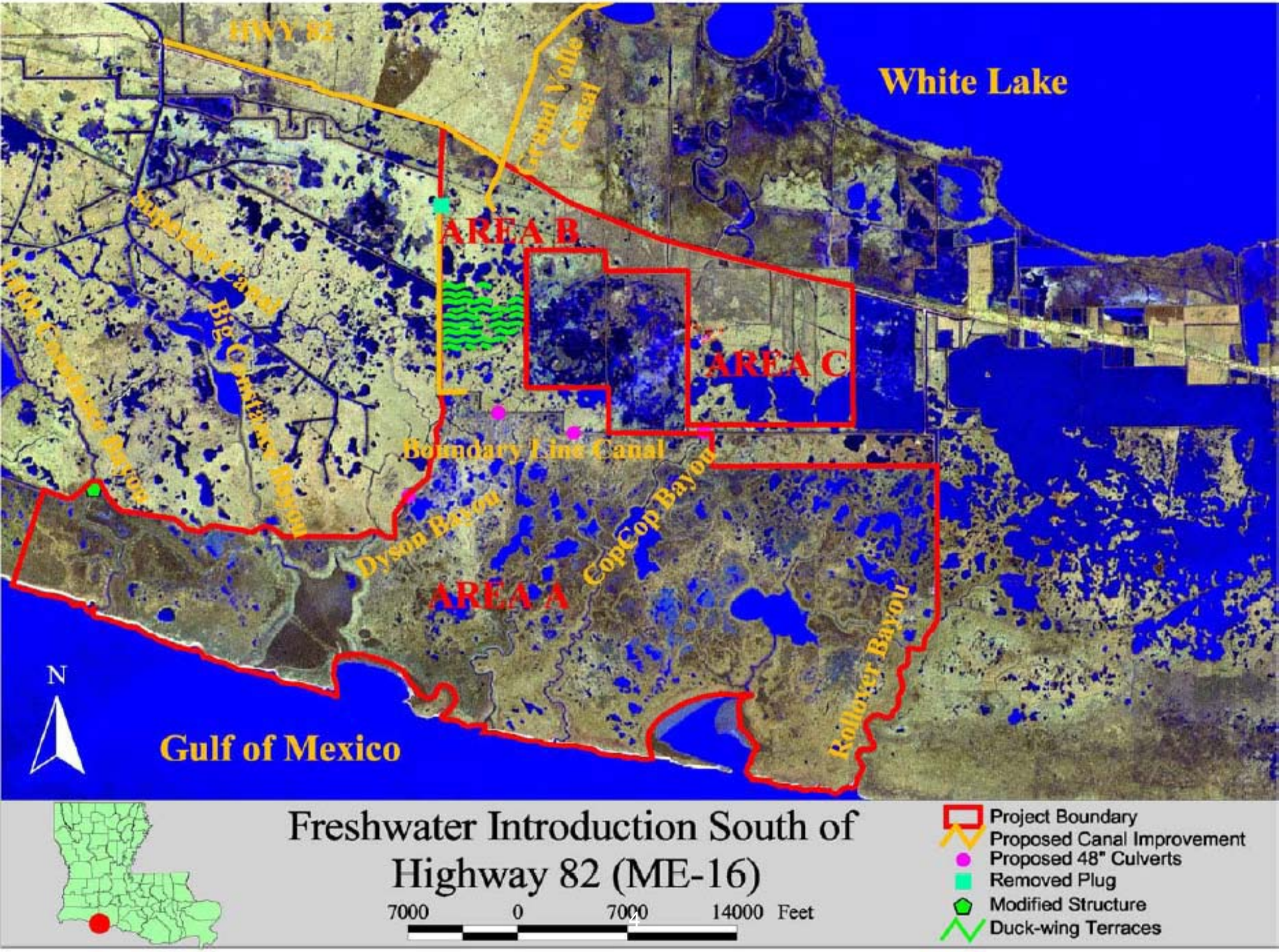


Figure 1. Mermentau Basin including Lakes and Chenier Subbasins.

Problems in the Hwy 82 Project Area

- Increased land loss due to increased salinities caused by reduced freshwater flow
- North–South freshwater flow reduced by Hwy 82, levees, and canals
- Salinities range from 1 to 28 ppt in brackish marsh
- Project area land loss rates ranged from 0.16%/yr to 0.56%/yr; average loss of 0.38%/yr from 1932 to 1990 (22% loss from 1932 to 1990)
- Increased water levels in Mermentau Lakes Subbasin due to impoundment (average of 0.5 ft above marsh level)

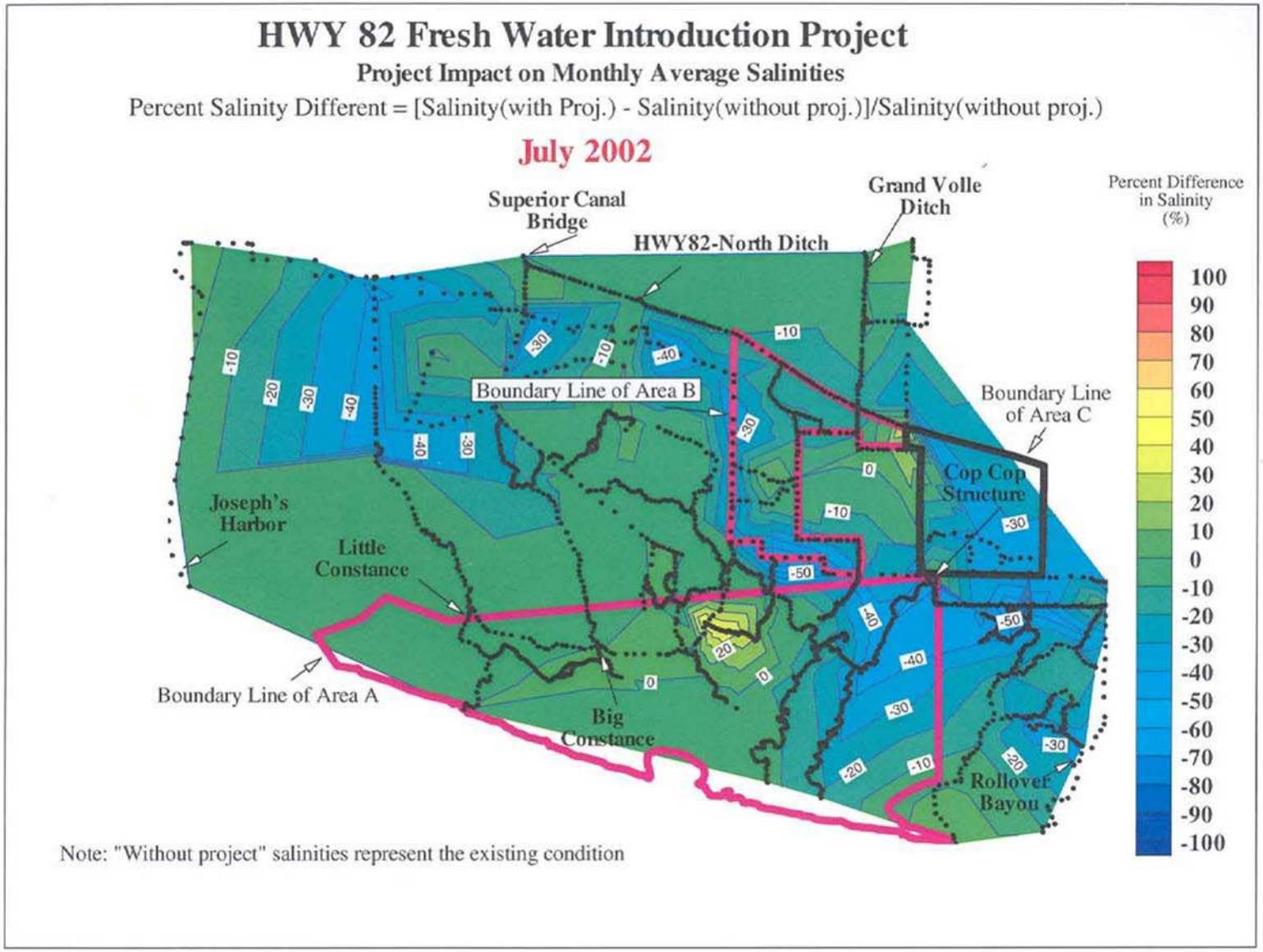

HWY 82
Grand Volle Canal
White Lake
AREA B
AREA C
Boundary Line Canal
Dyson Bayou
CopCop Bayou
Rollover Bayou
AREA A
N
Gulf of Mexico
Freshwater Introduction South of Highway 82 (ME-16)
7000 0 7000 14000 Feet
Project Boundary
Proposed Canal Improvement
Proposed 48" Culverts
Removed Plug
Modified Structure
Duck-wing Terraces

Hwy 82 (ME-16) Project Features

- Enlargement of existing channels north & south of LA Highway 82 (Grand Volle Ditch, Hwy 82 Borrow, Boundary Line Canal).
- Install 4 freshwater inflow structures (3, or 4, 48” diameter culverts), remove one plug, and modify one structure, to facilitate the movement of freshwater southward from the Mermentau Lakes subbasin.
- Construct 26,000 linear-feet of duck-wing vegetated earthen terraces to protect and restore marshes in the Chenier subbasin

Brackish and Saline Marsh (Area A) Looking south to the Gulf

Hwy 82 Project Intermediate Marshes (Area B)
Location of Duck-Wing Terraces
(northward toward White Lake)



1-Dimentional Hydrodynamic Modeling Results Showing Hwy 82 Project (ME-16) Average Salinity Reductions for July 2002

Hwy 82 Project Benefits and Statement of Project Need

- Project supports natural Chenier Subbasin estuary functioning via moving freshwater southward to marshes starved of freshwater.
- Project supports the major Region 4 Coast 2050 Regional Strategy to: “Move water from north to south across Highway 82 …”
- Hydrodynamic Model predicts significant project related salinity reductions of from 0% to 60% (from 0 ppt to 5 ppt)
- 296 net-acres protected and restored (282 ac protected, 14 ac restored); 553 AAHUs; Prioritization Score = 57.4.
- Significantly benefits Rockefeller State Wildlife Refuge and Game Preserve and adjacent lands; a premiere refuge for Louisiana wildlife and fisheries.

Checklist of Phase II Requirements

- ✓ 1) Final FWS-DNR Cost Share Agreement – September 12, 2000
- ✓ 2) Final Landrights - Completed – May 10, 2004
- ✓ 3) Favorable Preliminary (30 %) Design Review Meeting – May 14, 2003
- ✓ 4) Final (95%) Design Review Meeting – August 11, 2004
- ✓ 5) Draft Environmental Assessment – Will be submitted by September 13, 2004
- ✓ 6) Findings of the Ecological Review – The ER concluded that, "… the project will likely achieve the desired ecological goals…"
- ✓ 7) Permits – Corps Section 404 Permit application January 2004, Public notice June 18, 2004; Coastal Zone Consistency issued June 3, 2004; DEQ Water Quality Certification issued August 17, 2004; DCRT Cultural Resources Clearance – July 27, 2004.

Checklist of Phase II Requirements Continued

- ✓ 8) HTRW Assessment – A preliminary review by FWS concluded that there are no know hazardous sites in the project area.
- ✓ 9) Sect. 303(e) Approval – Granted by the Corps on May 6, 2004.
- ✓ 10) Overgrazing Determination – Issued by NRCS on December 1, 2003.
- ✓ 11) Revised Final Cost Estimate - $6,051,325 fully funded, Phase II increment = $4,323,846
- ✓ 12) Revised Expenditures by State FY – $50,000 (See Phase II Request)
- ✓ 13) Revised WVA – Revised WVA review is completed but Env. WG requested revisions. Original WVA = 553 AAHUs, 296 net acres. Due to model results we expect an increase.
- ✓ 14) Prioritization Score – Original = 54.35; Revised score = 57.4 (not including revised WVA).
- ✓ 15) Phase II Cost Spreadsheet - Provided

2 10:41AM

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
646 Cajundome Blvd., Suite 180
Lafayette, Louisiana 70506

September 8, 2004

Ms. Julie LeBlanc, Chairman
CWPPRA Planning and Evaluation Subcommittee
U.S. Army Corps of Engineers
Planning, Programs, and Project Management Division
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Ms. LeBlanc:

RE: TE-39 South Lake Decade Freshwater Introduction – Construction Unit 1
"Cash-Flow" Phase Two Authorization Request

Pursuant to Revision 9.0 of the CWPPRA Standard Operating Procedures (Section 6.j. and Appendix C), please find enclosed the Phase Two Authorization Request package. This request is for the construction of Construction Unit 1 (CU #1) of the South Lake Decade Freshwater Introduction Project (TE-39). This project was authorized in January 2000 by the Louisiana Coastal Wetlands Conservation Task Force under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA).

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

Sincerely,

W. Britt Paul
Assistant State Conservationist
for Water Resources and Rural Development

Enclosures

cc: John Saia, Technical Committee Chair, USACE, New Orleans, Louisiana
Darryl Clark, Technical Committee Member, USFWS, Lafayette, Louisiana
Rick Hartman, Technical Committee Member, NMFS, Baton Rouge, Louisiana
Sharon Parrish, Technical Committee Member, EPA, Dallas, Texas
Phil Pittman, P&E Subcommittee Member, LDNR/CRD, Baton Rouge, Louisiana
Martha Segura, P&E Subcommittee Member, USFWS, Lafayette, Louisiana
Rachel Sweeney, P&E Subcommittee Member, NMFS, Baton Rouge, Louisiana
Wes McQuiddy, P&E Subcommittee Member, EPA, Dallas, Texas
John Jurgensen, P&E Subcommittee Member, NRCS, Alexandria, Louisiana
Ismail Merhi, Project Manager, LDNR, Baton Rouge, Louisiana
Loland Broussard, Project Manager, NRCS, Lafayette, Louisiana
Ronnie Faulkner, Design Engineer, NRCS, Alexandria, 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

Randolph Joseph, Jr., Area Conservationist, NRCS, Lafayette, Louisiana
Michael Trusclair, District Conservationist, NRCS, Thibodaux, Louisiana
Chris Knotts, Administrator Coastal Engineering Activities, LDNR, Baton Rouge, Louisiana
Kirk Rhinehart, Administrator Coastal Restoration Activities, LDNR, Baton Rouge, Louisiana
Gerry Duszynski, Assistant Secretary, LDNR/OCRM, Baton Rouge, Louisiana
Cynthia Duet, Governor's Office of Coastal Activities, Baton Rouge, Louisiana

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

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

Overview of Phase I Tasks, Process and Issues

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

To-date the following tasks have been completed for the Phase 1 portion of this project:

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

Engineering and Design Tasks

Design surveys were completed by NRCS Construction Survey Crews and are included in the 95% Design Report posted on LDNR's ftp server at the following link:

ftp://ftp.dnr.state.la.us/pub/CED%20Project%20Management/NRCS

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

Initial pipeline investigations have been initiated with known pipeline companies as shown on the design drawings. A magnetometer survey will be performed prior to final design. Refer to the Design Drawings and LDNR Landrights Memo in the 95% Design Report for established pipeline information.

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

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

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

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

30% Design Review Meetings were held on September 17, 2003, and July 19, 2004. NRCS received a letter from LDNR, dated August 2, 2004, stating they concur with proceeding with the

design of the project to the 95% design level. A 95% Design Review Meeting was held on September 2, 2004. No outstanding engineering issues were identified and minor comments were made regarding supporting data included in the 95% Design Report.

Supplemental Tasks

Preliminary landrights have been executed with all landowners (2). Both landowners have acknowledged their intent to sign necessary documents once the project has obtained Phase II Task Force approval. Landrights with affected utilities and pipelines are proceeding without interruption and are expected to be finalized in the near future. LDNR has determined that no oyster seed grounds or leases will be affected by project implementation.

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

Comments relative to other significant task items are addressed in the attached "Checklist of Phase Two Requirements".

Construction Unit No. 1 Project Issues

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

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

The 95% Design Review meeting for this candidate project was held on September 2, 2004. At this meeting, reviewing agencies had the opportunity to provide comments regarding the 95% Design Report and supporting documents that were posted on DNR's ftp server on August 19, 2004, at the following link:

ftp://ftp.dnr.state.la.us/pub/CED%20Project%20Management/NRCS

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

A. List of Project Goals and Strategies.

The goals of this project are to reduce interior marsh loss rates and increase the occurrence and abundance of submerged aquatic vegetation (SAV). The strategy proposed to accomplish these goals are the construction of a rock revetment along the south shoreline of Lake Decade, a rock riprap fixed crested weir, and the rehabilitation and armoring of an earthen embankment.

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

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

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

LDNR is preparing a letter to the Chairman of the Planning and Evaluation Subcommittee that will report that substantial progress had been made regarding landrights acquisition, that no significant landrights acquisition problems are anticipated, and that DNR is confident that landrights will be finalized in a reasonable period of time after Phase Two Approval.

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

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

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

A 95% Design Review Meeting was held on September 2, 2004. No substantial outstanding issues were identified and minor comments were made regarding supporting data to the Final Design Report. NRCS requested that official comments, if deemed necessary, from participating agencies on the 95% Design Report and review meeting be submitted within a two (2) week time period.

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

A Final Environmental Assessment of the TE-39 Project was released for public review on June 2001. The Final EA was developed after comments were received and incorporated on a draft Environmental Assessment which was submitted for interagency review in April 2001. Project features have not significantly changed since the release of the Final EA.

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

The draft Ecological Review, submitted August 2004, stated that the "proposed strategies of the South Lake Decade Freshwater Introduction - CU 1 Project will likely achieve the desired ecological goals." A Final Ecological Review shall be completed by DNR after the 95% Design Review phase.

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

A draft 404 & CUP application was prepared for submittal in September 2003. However, due to concerns raised regarding certain project features proposed at the initial 30% Design Review Meeting, a decision was made to postpone submitting a final application package till after the 95% Design Review Meeting. A formal 404 Permit Application is anticipated to be submitted by the landowners (permittee) in early September.

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

NRCS has determined that an HTRW assessment is not required.

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

Section 303e approval was granted by the Corps Real Estate Division on August 4, 2004.

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

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

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

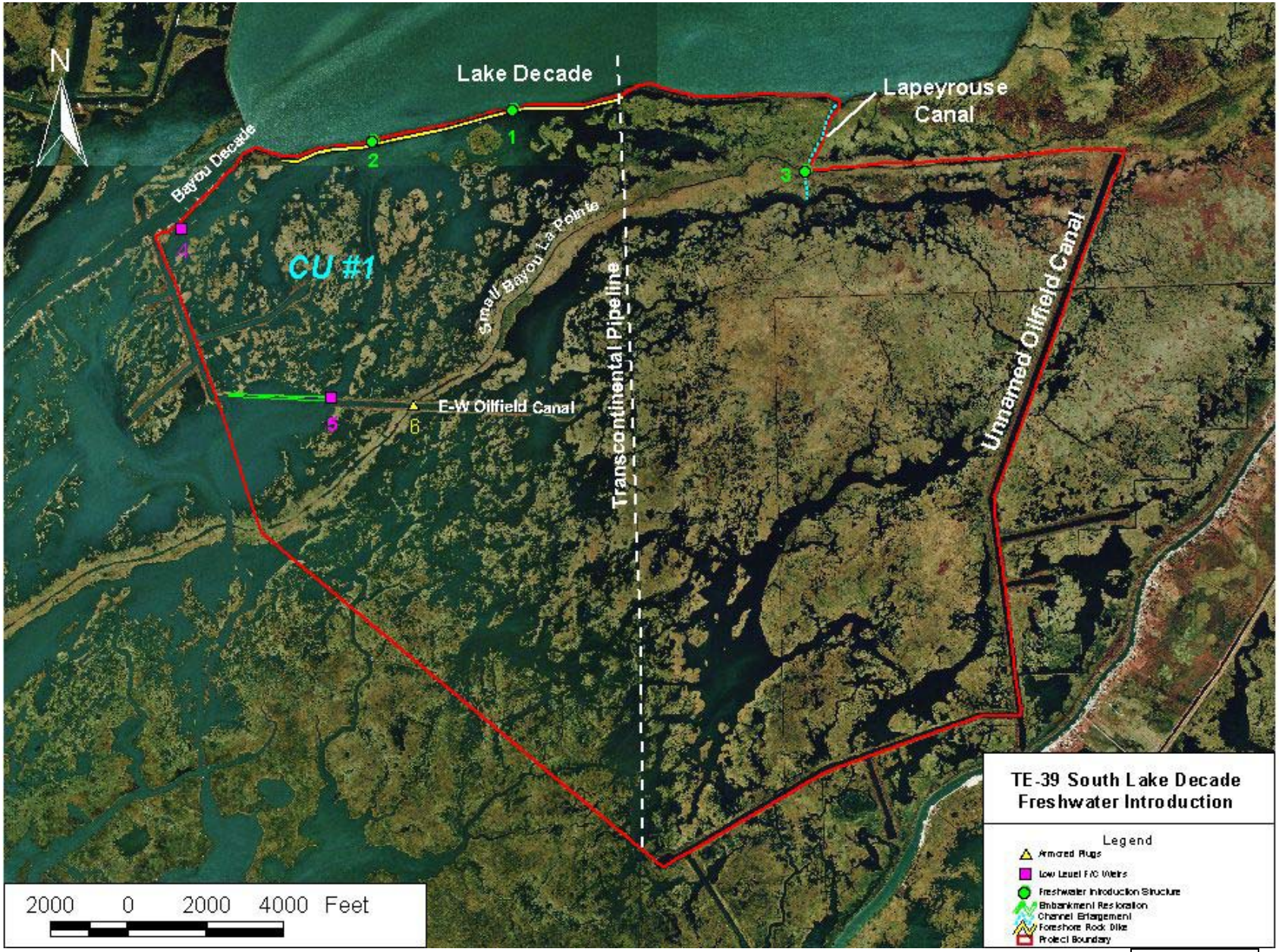
1) The specific Phase 2 funding request (updated construction estimate, three years of monitoring, and O&M) is $2,511,857.

scheduled for September 2, 2004. Based on comments received, no corrections to the submitted fact sheet were recommended, therefore the Prioritization Fact Sheet dated 28 August 2004 will be considered final.

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

Criteria	Score	Weight	Final Score
Cost Effectiveness	10	2	20
Area of Need	9.3	1.5	13.95
Implementability	10	1.5	15
Certainty of Benefits	6.5	1	6.5
Sustainability of Benefits	8	1	8
HGM – Riverine Input	0	1	0
HGM – Sediment Input	0	1	0
HGM – Landscape Features	10	1	10
Total Score			**73.45**

P. Categorical breakdown for Phase 2.


N
Lake Decade
Lapeyrouse Canal
Bayou Decade
1
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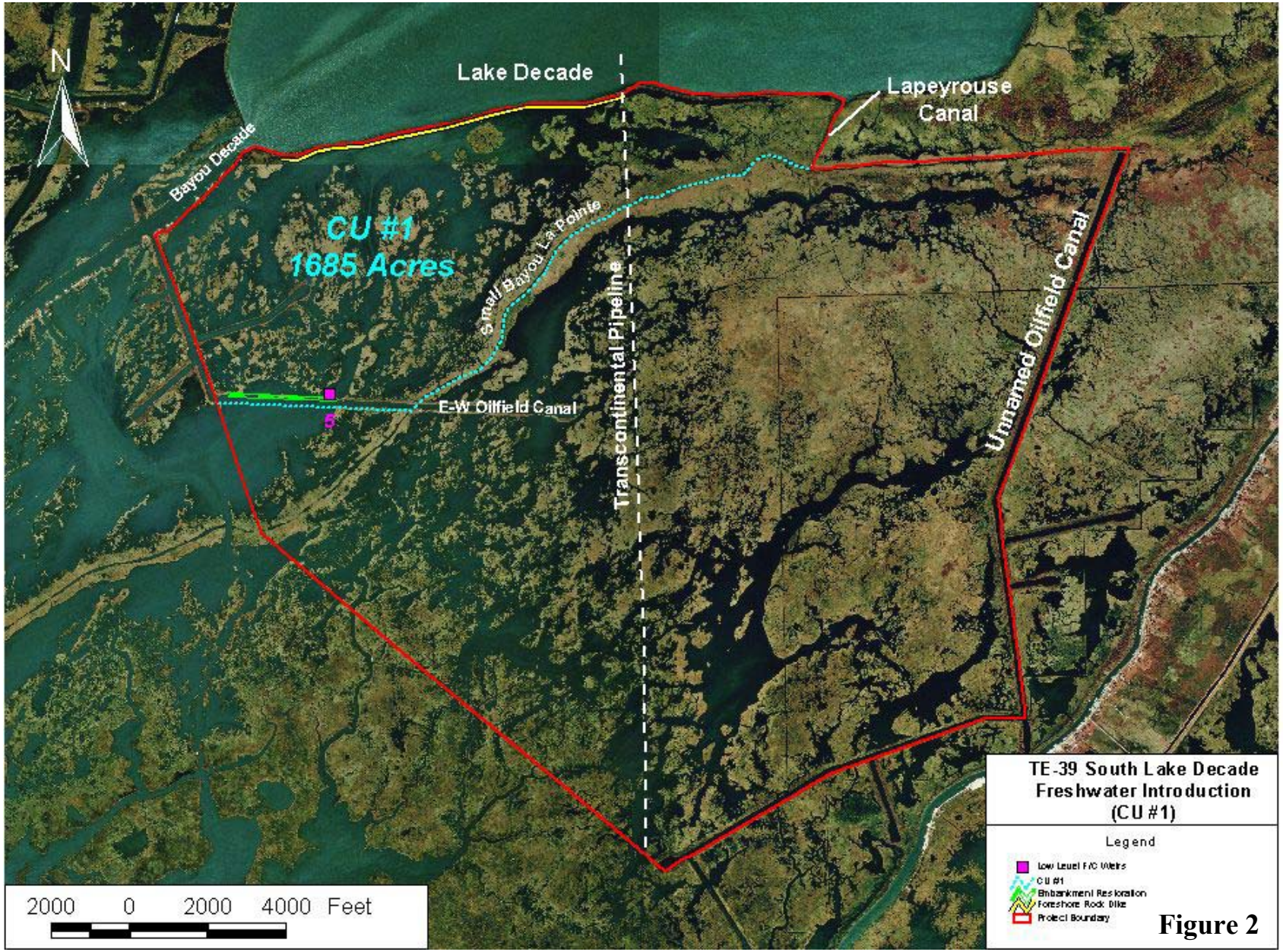
CU #1
Small Bayou La Pointe
Transcontinental Pipeline
Unnamed Oilfield Canal
E-W Oilfield Canal
2000 0 2000 4000 Feet
TE-39 South Lake Decade Freshwater Introduction
Legend
Armored Plugs
Low Level F/C Weirs
Freshwater Introduction Structure
Embankment Restoration
Channel Enlargement
Foreshore Rock Dike
Project Boundary

Figure 1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Bayou Decade
CU #1
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Small Bayou La Pointe
Transcontinental Pipeline
Unnamed Oilfield Canal
E-W Oilfield Canal
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2000 0 2000 4000 Feet
TE-39 South Lake Decade Freshwater Introduction (CU #1)
Legend
Low Level F/C Weirs
CU #1
Embankment Restoration
Foreshore Rock Dike
Project Boundary

Figure 2

October 2003

South Lake De Cade Freshwater Introduction (TE-39)

Project Status

Approved Date: 2000
Project Area: 7,343 acres
Approved Funds: $495,611
Total Est. Cost: $5.8 M
Net Benefit After 20 Years: 201 acres
Status: Engineering and Design
Project Type: Freshwater Diversion and Shoreline Protection

Location

The project is located in Terrebonne Parish, approximately 15 miles southwest of Houma, Louisiana.

Problems

The project area is experiencing marsh deterioration due to subsidence, rapid tidal exchange, and human-induced hydrologic changes that result in increased salinities. Saltwater intrusion has caused a shift in marsh type and a conversion of over 30 percent of emergent vegetation to open water habitat. Shoreline erosion along the south embankment of Lake De Cade threatens to breach the hydrologic barrier between the lake and interior marshes.

Restoration Strategy

Proposed project components include installing three control structures along the south rim of the lake and enlarging Lapeyrouse Canal to allow the controlled diversion of Atchafalaya River water, nutrients, and sediments south into project area marshes. Outfall management structures are planned in the marsh interior to provide better distribution of river water. In addition, approximately 1.6 miles of foreshore rock dike is planned to protect the critical areas of the south lake shoreline from breaching.

Lapeyrouse Canal will function as one of three freshwater introduction sites along the south rim of Lake De Cade after obstructions are removed and the canal reinforced.

Progress to Date

After initial engineer investigation the project was divided into two construction units. Construction unit one will consist of the shoreline protection components. The other will be freshwater introduction components. Engineering and design has begun on the shoreline protection components of the project. Data gathering and analysis is being conducted on the freshwater diversion aspects of the project.

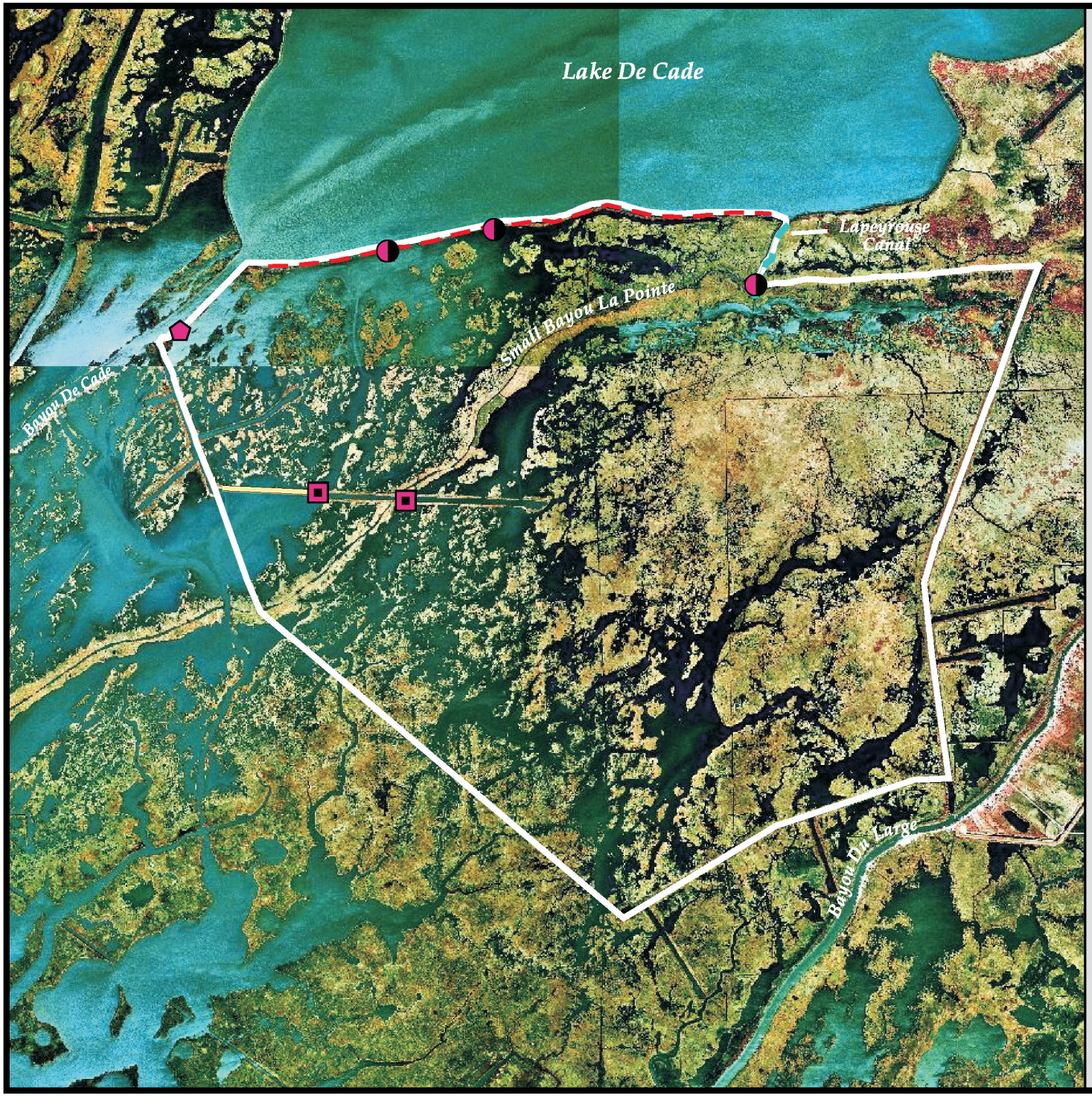
This project is on Priority Project List 9.

For more project information, please contact:

NRCS Natural Resources Conservation Service

Federal Sponsor:
Natural Resources Conservation Service
Alexandria, LA
(318) 473-7756

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



South Lake De Cade Freshwater Introduction (TE-39)

Construction Unit 1

- Shoreline Protection *

Construction Unit 2

- Freshwater Introduction *
- Plug *
- Weir *
- Containment Dike *
- Dredge Channel *
- Project Boundary

* denotes proposed features

USGS science for a changing world

0.5 0 0.5 Kilometers

0.5 0 0.5 Miles

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

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle

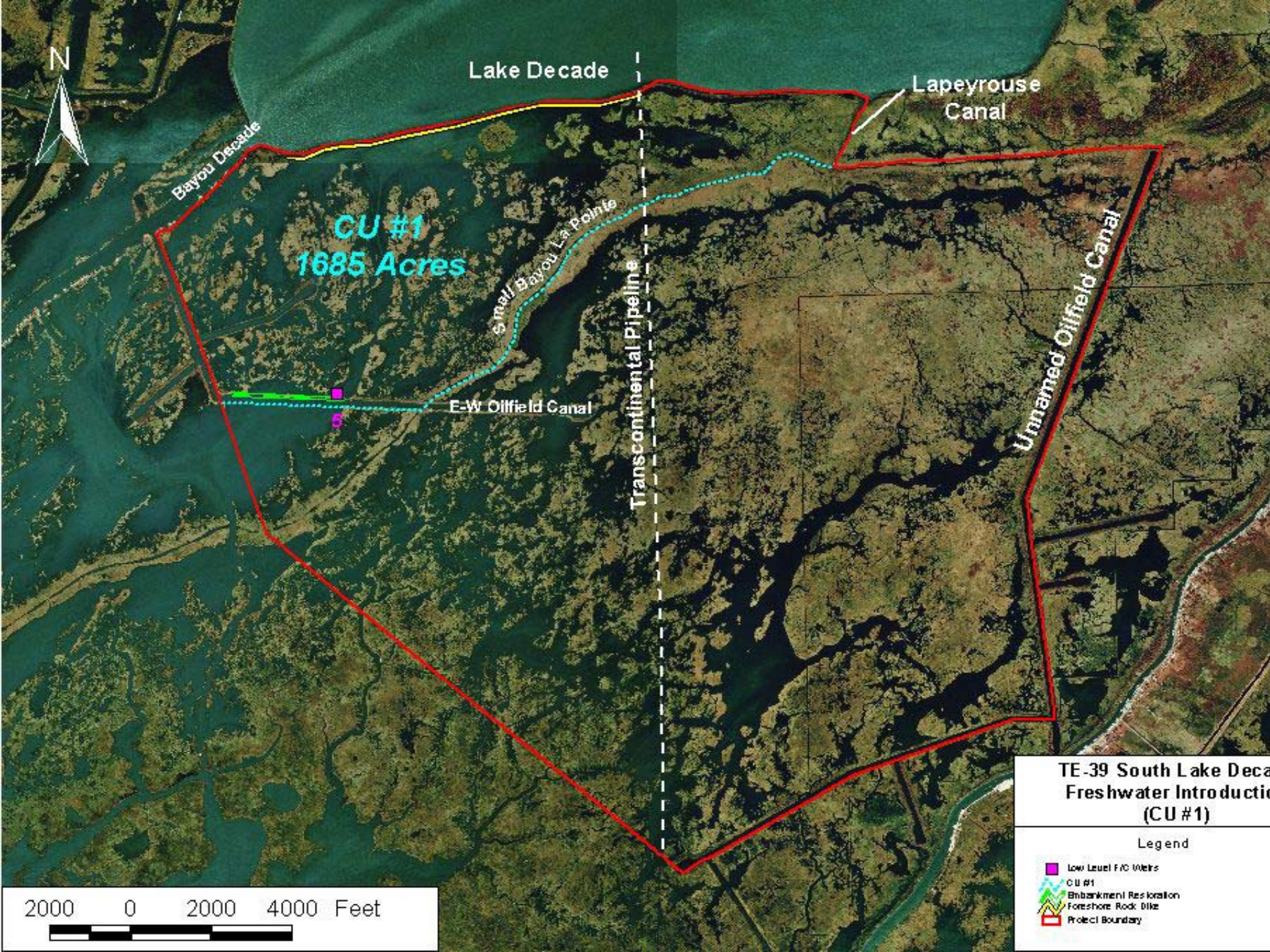
Map Date: October 1, 2003
Map ID: USGS-NWRC 2003-11-067
Data accurate as of: October 1, 2003

Coastal Wetlands Planning, Protection and Restoration Act

SOUTH LAKE DECADE FRESHWATER INTRODUCTION CONSTRUCTION UNIT #1 (TE-39)

CWPPRA Technical Committee Meeting

September 9, 2004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1685 Acres
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(CU #1)
Legend
Low Level F/C Weirs
CU #1
Embankment Restoration
Foreshore Rock Dike
Project Boundary

SOUTH LAKE DECADE – CU #1

CWPPRA SOP Phase II Requirements

Cost Sharing Agreement – July 25, 2000

Land Rights Notification – Letter Pending

Favorable 30% Design Review – July 19, 2004

Favorable 95% Design Review – September 2, 2004

Environmental Assessment – Final June 2001

Ecological Review – Draft August 2004

Permits – Application Pending

Section 303(e) Approval – August 4, 2004

Current Cost Estimate – August 27, 2004

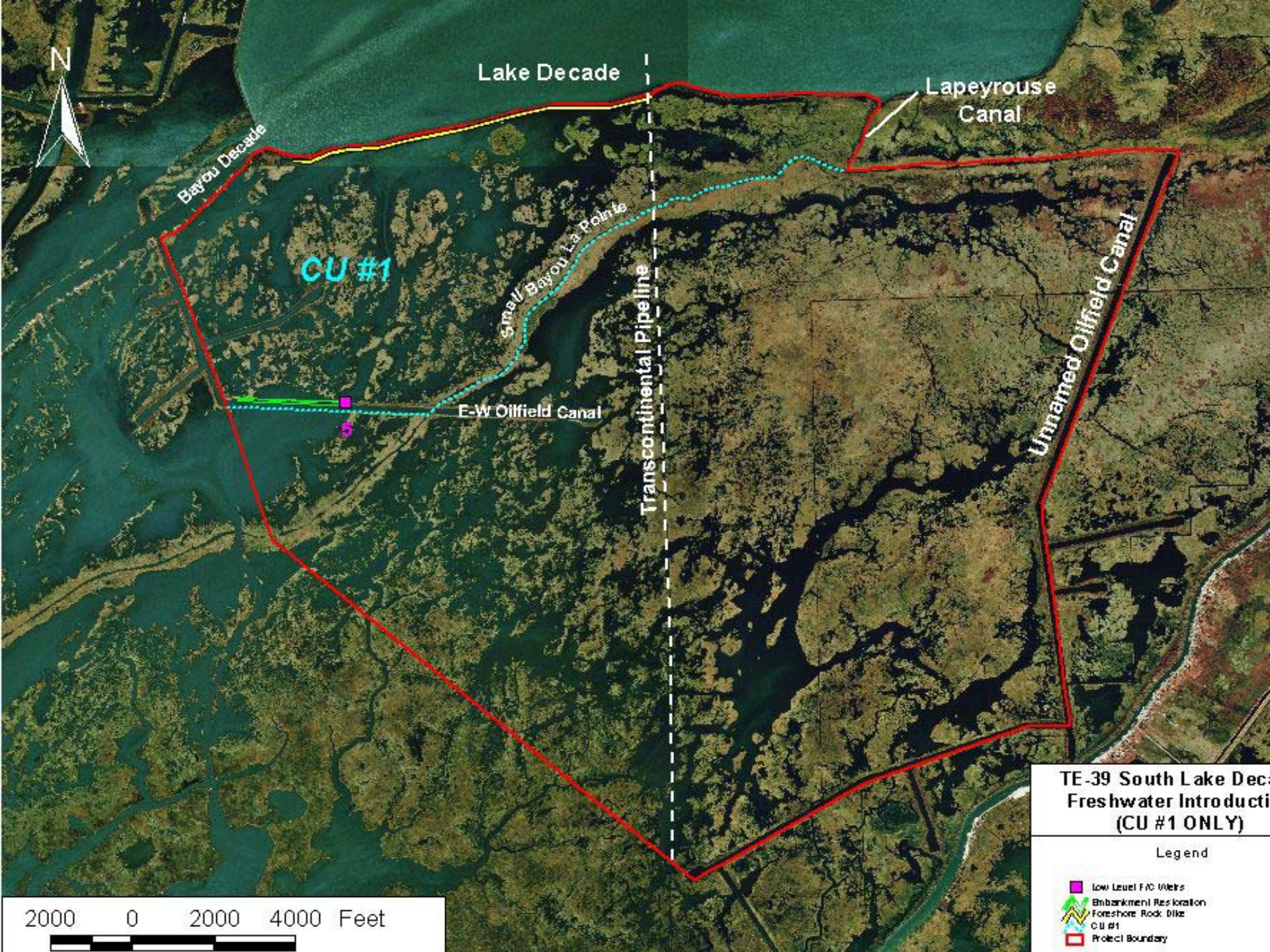
Prioritization Update – August 28, 2004

SOUTH LAKE DECADE – CU #1

WHY NOW?

AND

NOT LATER!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Bayou Decade
CU #1
Small Bayou La Pointe
Transcontinental Pipeline
Unnamed Oilfield Canal
E-W Oilfield Canal
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TE-39 South Lake Dec
Freshwater Introducti
(CU #1 ONLY)
Legend
Low Level F/C Weirs
Embankment Restoration
Foreshore Rock Dike
CU #1
Project Boundary

MAY 28 2004

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
3737 Government Street
Alexandria, Louisiana 71302

September 8, 2004

Ms. Julie LeBlanc, Chairman
CWPPRA Planning and Evaluation Subcommittee
U.S. Army Corps of Engineers
Planning, Programs, and Project Management Division
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Ms. LeBlanc:

RE: TE-43 GIWW Bank Restoration of Critical Areas
"Cash-Flow" Phase Two Authorization Request

Pursuant to Revision 9.0 of the CWPPRA Standard Operating Procedures (Section 6.j. and Appendix C), please find enclosed the Phase Two Authorization Request package. This request is for the construction of 41,000 feet of shoreline protection located on the southern bank of the Gulf Intracoastal Waterway in Terrebonne Parish. This project was authorized in 2001 by the CWPPRA Task Force.

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

Sincerely,

W. Britt Paul
Assistant State Conservationist
for Water Resources and Rural Development

Enclosure

cc: John Saia, Technical Committee Chair, USACE, New Orleans, Louisiana
Darryl Clark, Technical Committee Member, USFWS, Lafayette, Louisiana
Rick Hartman, Technical Committee Member, NMFS, Baton Rouge, Louisiana
Sharon Parrish, Technical Committee Member, EPA, Dallas, Texas
Phil Pittman, P&E Subcommittee Member, LDNR, Baton Rouge, Louisiana
Martha Segura, P&E Subcommittee Member, USFWS, Lafayette, Louisiana
Rachel Sweeney, P&E Subcommittee Member, NMFS, Baton Rouge, Louisiana
Wes McQuiddy, P&E Subcommittee Member, EPA, Dallas, Texas

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

John Jurgensen, P&E Subcommittee Member, NRCS, Alexandria, Louisiana
Cynthia Duet, Governor's Office of Coastal Activities, Baton Rouge, Louisiana
Ismail Merhi, Project Manager, LDNR, Baton Rouge, Louisiana
Andy Tarver, Civil Engineer/Project Manager, NRCS, Alexandria, Louisiana
Ronnie Faulkner, Design Engineer, NRCS, Alexandria, Louisiana
Randolph Joseph, Jr., Area Conservationist, NRCS, Lafayette, Louisiana
Michael Trusclair, District Conservationist, NRCS, Thibodaux, Louisiana
Gerry Duszynski, Assistant Secretary, LDNR/OCRM, Baton Rouge, Louisiana
Chris Knotts, Administrator Coastal Engineering Activities, LDNR, Baton Rouge, Louisiana
Kirk Rhinehart, Administrator Coastal Restoration Activities, LDNR, Baton Rouge, Louisiana

Phase II Authorization Request

TE-43 GIWW BANK RESTORATION OF CRITICAL AREAS INCREMENT 1 – AREA 'G'

Description of Phase I Project

The TE-43 GIWW Critical Areas project was approved relative to the tenth CWPPRA Priority Project List. The Natural Resources Conservation Service (NRCS) is the federal sponsor for this project. The objective of this project is to protect critically eroding portions of the southern bank of the Gulf Intracoastal Waterway (GIWW).

The Gulf Intracoastal Waterway (GIWW) Bankline Restoration Project is located in Terrebonne Parish approximately ten miles east of the Lower Atchafalaya River and ten miles southwest of Houma, Louisiana. The specific location proposed for the structures is the southern bank of the GIWW originating at a point close to mile marker 80 and terminating at a point close to mile marker 70.

In the past 20 years, as the efficiency of the Lower Atchafalaya River has decreased, Lake Verret subbasin flooding and Atchafalaya River flows via the GIWW have increased. Deterioration of fresh and intermediate wetlands, particularly the floating marsh, in the upper Penchant basin has been attributed to sustained elevated water levels. In addition, wave and resorb action from commercial and recreational traffic on the GIWW has caused floating marshes in some areas to become directly exposed to increased circulation through unnatural connections formed where channel banks have deteriorated.

The objective of the GIWW Bankline Restoration project is to protect critically eroding portions of the southern bank of the GIWW that act as an interface between the fragile fresh marshes and the turbulent high velocities that occur within the GIWW. Proposed measures include installing shoreline protection structures along the southern bank of the GIWW. The structures will provide protection to the banks of the GIWW, which have experienced severe erosion since the construction of the GIWW in the early 1950's.

The project goals were: 1) To enable the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to specific locations that would benefit from increased flows of fresh water and nutrients, and 2) To provide relief to marshes connected to the GIWW that are currently suffering from prolonged inundation and wave action while stopping shoreline erosion along the remaining bank of the GIWW.

The proposed solution was to restore critical lengths of deteriorated channel banks, and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials.

The Wetland Value Assessment conducted for the Phase I project estimated a benefited area of 3,324 acres and the net acres created/protected/restored of 366 acres at TY20.

The original project fact sheet is on the following two pages.

October 2003

GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)

Project Status

Approved Date: 2001
Project Area: 3,324 acres
Approved Funds: $2.2 M
Total Est. Cost: $19.7 M
Net Benefit After 20 Years: 366 acres
Status: Engineering and Design
Project Type: Shoreline Protection

Location

The project is located in the Terrebonne basin, in Terrebonne Parish, Louisiana.

Problems

In the past 20 years, as the efficiency of the Lower Atchafalaya River has decreased, Verrett subbasin flooding and Atchafalaya River flows via the Gulf Intracoastal Waterway (GIWW) have increased. Deterioration of fresh and intermediate wetlands, particularly of the floating marshes in the upper Penchant basin, has been attributed to sustained elevated water levels. In addition, floating marshes in some areas have become directly exposed to increased circulation through unnatural connections formed where channel banks deteriorated.

Conversely, losses in the central Terrebonne Parish marshes have been attributed to the elimination of riverine inflow coupled with subsidence and altered hydrology from canal dredging that facilitated saltwater intrusion. Increased flow of the GIWW and wave pulses from navigation traffic are causing additional breakup and loss of floating marshes in unprotected areas.

Restoration Strategy

This project will restore critical lengths of deteriorated channel banks and stabilize/armor selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials.

Progress to Date

Geotechnical soils investigation report is complete. Soils in the area are very soft and fluid.

This project is on Priority Project List 10.

Large mats of floating freshwater marsh, such as this one, detach from their point of origin and enter the GIWW through large breaches in the existing shoreline.

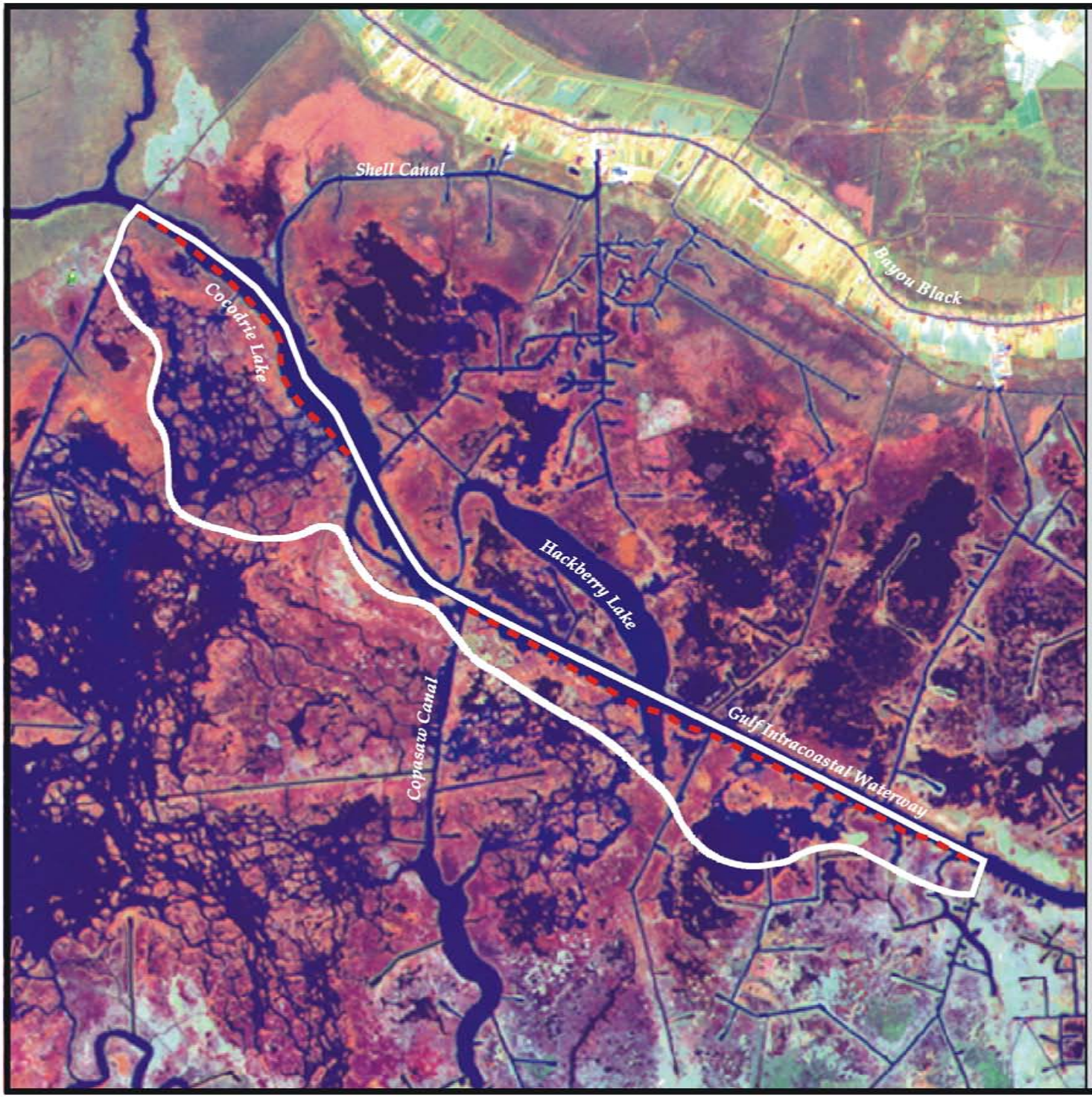
Concrete “H” pile/panel structures, similar to this one, will be installed at locations within the project area where shoreline erosion is critical. Soils with high amounts of organic material, which have poor strength, necessitated the use of a structure such as this.

For more project information, please contact:

NRCS Natural Resources Conservation Service

Federal Sponsor:
Natural Resources Conservation Service
Alexandria, LA
(318) 473-7756

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



GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)

Shoreline Protection

Project Boundary

USGS science for a changing world

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: August 27, 2003
Map ID: 2002-11-547
Data accurate as of: April 4, 2003

frequently flooded, Barbary muck – frequently flooded, Gramercy/Cancienne – silty clay loam, and Allemands muck – very frequently flooded (NRCS 2002, unpublished data).

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

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

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

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

Plastic limits ranged from 20 on a sample of silty clays to 450 percent on a sample of organic clays. However, about 96 percent of the plastic limits were between 20 and 100 percent, and slightly more than 86 percent of the plastic limits were between 20 and 50 percent.

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

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

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

Hydrology and Hydraulics

The water levels in the watershed are influenced by tides and wind. The mean high water is 2.0' NAVD88. The mean low water is 0.5' NAVD88.

Engineering and Design Tasks

The Department of Natural Resources letter "RE: Generalized Guidelines for Coastal Structures Design Parameters" dated January 07, 2000, and its attachment "Design Guidelines for CWPPRA Shoreline Protection Structures" were used to determine the wave heights used to design the rock / rock composite dike. Under the guidelines set forth in the letter a still water elevation (SWE), a wave height, the height of the structure, and the wave forces must be determined. In an effort to be conservative, the SWE was set at the storm water elevation of +2.5 NAVD88. Concurrently, the average bottom elevation was determined to be approximately -1.5 NAVD88.

Minimum and maximum design wave heights are determined according to the guidelines, where the minimum wave height is equal to 2.0 feet unless this is greater than the water depth and the maximum wave height is 0.78 times the water depth. Therefore the minimum and maximum wave heights were set at 2.0 and 3.12 feet respectively.

A wind generated wave height was determined using a 70 mph wind. The maximum peak gust, 70 mph, was chosen out of a comparison of New Orleans, Lake Charles and Baton Rouge wind speeds, provided in NOAA's "Climatic Wind Data for the United States". The wave height for this wind speed was used as an input for the ACES program in which wind in shallow and deep open water conditions was determined. The shallow and deep open water wave conditions return wave heights of 1.44 and 1.67 feet respectively. Along with these wave heights, one other wave height was determined. This is the wave height due to boat traffic. Since most of the traffic in the GIWW is crew boats a wave height of 3.0 feet was used in accordance with the guidelines.

The minimum top elevation of the structure was determined to be 3.5 NAVD88 based on the ability of the structure to be overtopped, and the guidelines. The wave impact forces were determined by deciding if the maximum wave height is breaking or non-breaking. This is done using the Shore Protection Manual (SPM), Chapter 2, Section VI, Part 2. In this case, a wind duration of 2.0 seconds was used, which allowed for the determination of the deepwater wave steepness, 0.024. The deepwater wave steepness is used as an input into Figure 2-72 of the SPM in order to determine the breaker height index, which in turn is used to determine the breaking wave height, 3.0 feet. The breaking wave height was then used as an input in Equation 2-92 of the SPM in order to determine the depth of water that the breaking wave would break at, 4.59 feet. Since the depth of water at which the wave would break at is greater than the depth of water at the structure, the wave will break before it reaches the structure, and thus is not a concern in the design of the structure.

The geotechnical investigation provided the minimum slopes for a composite and a rock dike. With this information in combination with the settlements for each type of section, also provided in the geotechnical investigation, a determination of the most economic design method (rock / composite) was made on a per reach basis. The most economic method per reach was used as the determining factor for which sections of the dike would be composite rather than rock only. These determinations led to the specification of 2:1 (H:V) side slopes for the rock only sections and 2.5:1(H:V) side slopes for the composite sections, based on the minimum slopes provided by the geotechnical investigation.

With the maximum wave height, wave forces, and side slopes determined the size of the rock riprap was determined to be a Corps of Engineers R-1000 gradation. This was done using equation 7-117 from the SPM, with a stability coefficient of 2.2, and the two side slopes (2:1, 2.5:1) that were proposed for this structure. The top width of the structure was determined to be 3.0 feet using equation 7-120 of the SPM, with the median size of the gradation above.

A layer thickness for the composite sections of the structure had to be determined. This was accomplished using equations 7-123 and 7-124 of the SPM. The maximum thickness from these two equations was determined to be 1.6 feet. To be conservative a 2.0 foot layer thickness has been specified for the structure design.

Design meetings were held at the 30% (May 25, 2004) and 95% (August 26, 2004) levels.

Landrights, Cultural Resources, Environmental Compliance and Other Tasks

Preliminary landrights has proceeded smoothly and no problems are anticipated in acquiring final landrights.

No cultural resource sites are located within the project area.

Environmental concerns were considered in the planning and design of this project. A FONSI, Environmental Assessment, and Ecological Review Report have been drafted. A Section 404 permit application is currently under review for submission to the USACE. A Storm Water Pollution Prevention Plan will be required for this project since the disturbed construction site is more than one (1) acre. A permit to dredge material for construction is being obtained by the local sponsors from the U.S. Corps of Engineers and the Louisiana Department of Natural Resources, Coastal Zone Management.

A draft Ecological Review is available and a final EA dated December, 2002 was developed after receiving comments on the draft EA which was submitted for public comment in April, 2002.

Description of the Phase II Candidate Project

Project Features

Final design features are essentially unchanged from the original Phase I project. The project contains shoreline protection by means of a hard shoreline structure. However, the Phase 0 approved length of the structure was approximately 38,000 feet whereas the length of the Designed project is approximately 41,000 feet.

The work to be accomplished will consist of the installation of approximately 41,000 feet of shoreline protection along the southern shoreline of the GIWW by constructing a rock rip-rap dike and in places of poor soil bearing capacities constructing a composite rock rip-rap dike with a lightweight core aggregate as seen in Figures 1-3. For typical rock dike sections refer to Figures 4 and 5.

There is historical knowledge that channelized structures in similar situations are able to be built and adequately withstand the wave forces that they are put up against. Examples of such projects are Perry Ridge CU#1, Perry Ridge CU#2, and Cameron Prairie, all of which are located along the GIWW, as is this project. Other such structures are East Sabine, which is located in the Sabine National Wildlife Refuge, and the Freshwater Bayou CU#2 project. Additionally, the analysis and results included in the geotechnical investigations support the concept that a rock / rock composite structure is capable of being constructed, and establishes the required stable side slopes as well as expected settlements.

See ‘Overview of Phase I Tasks’ above.

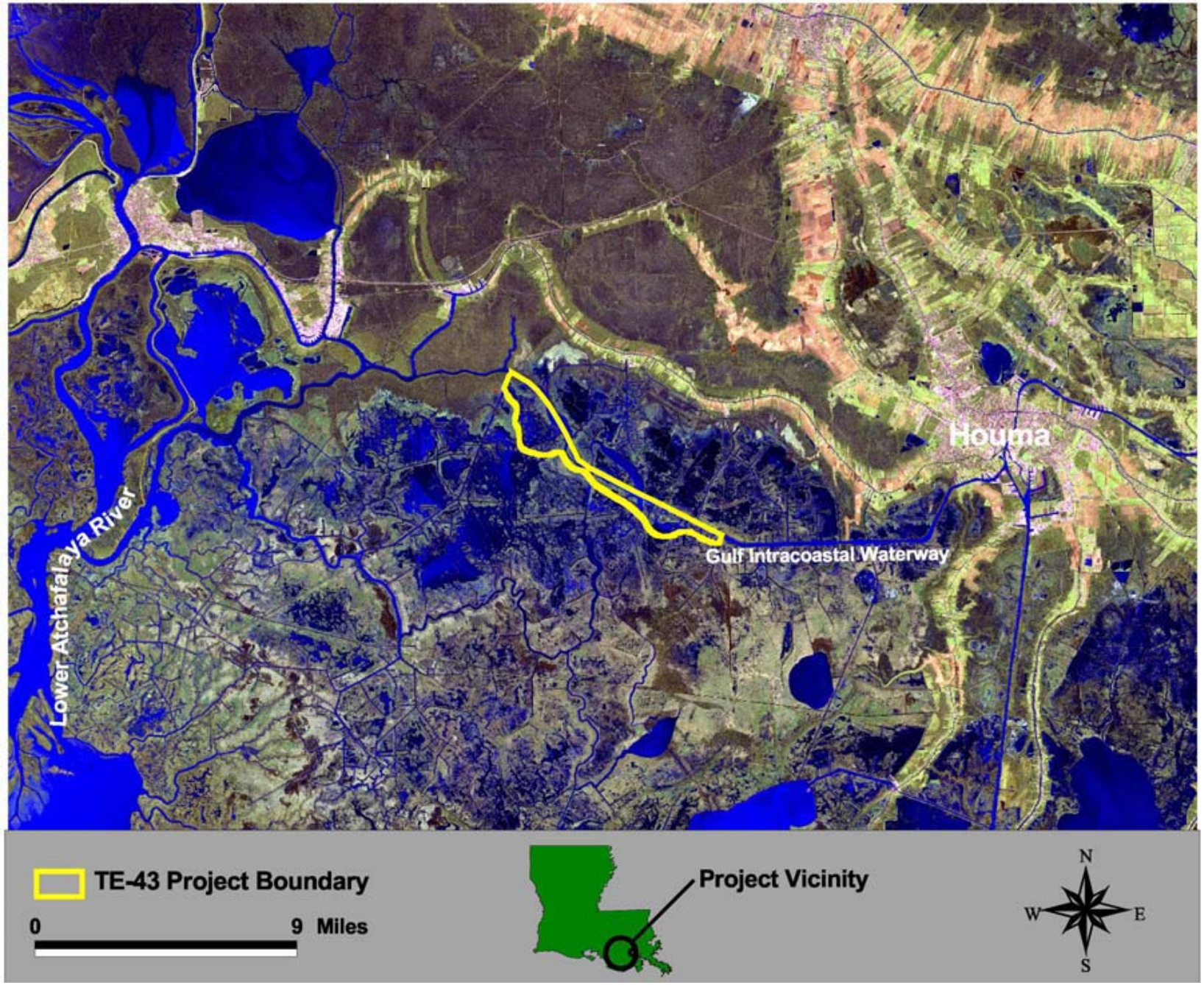


Figure 1. GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43).

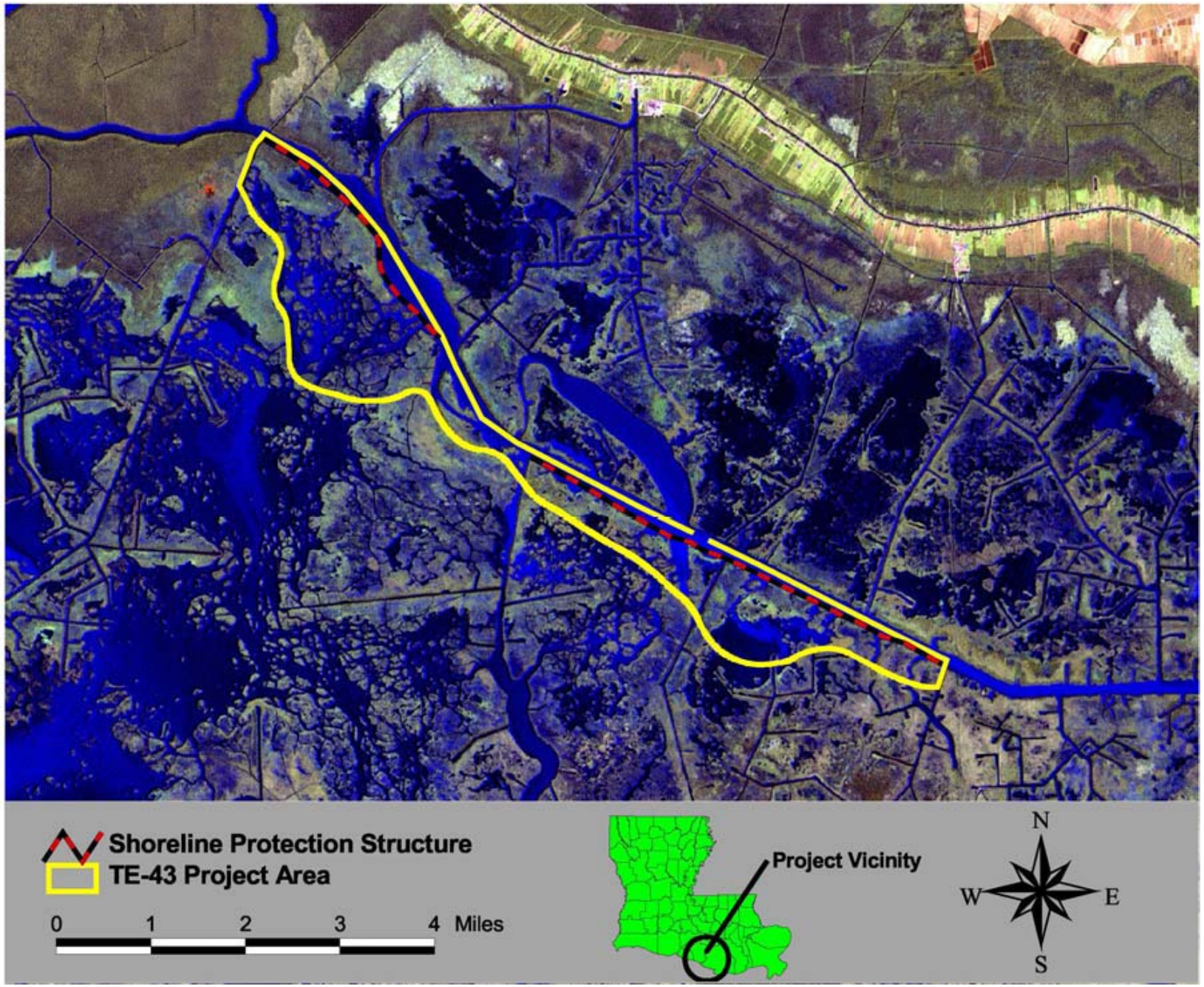
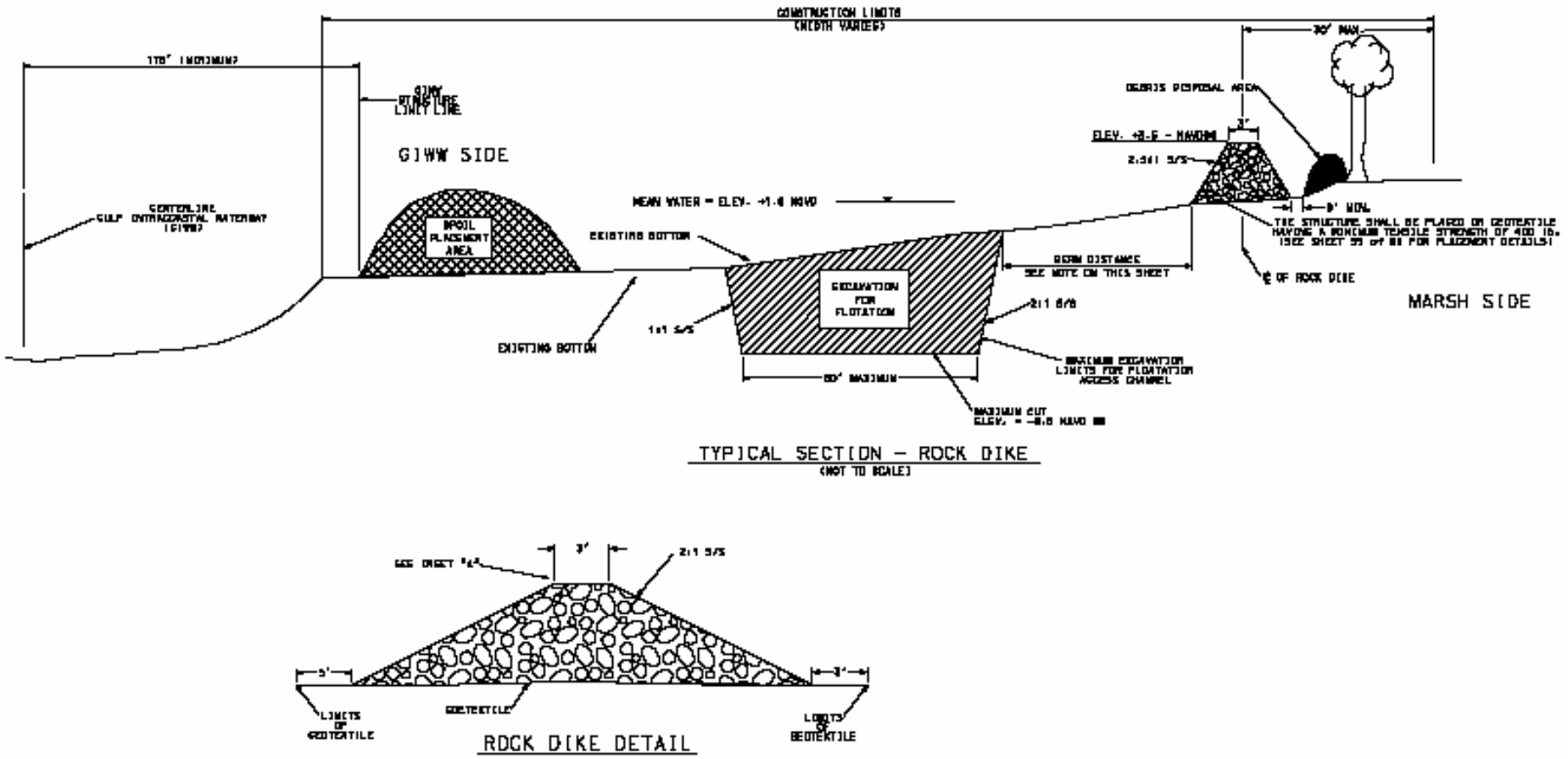


Figure 2. GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43).

Figure 3. GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43).



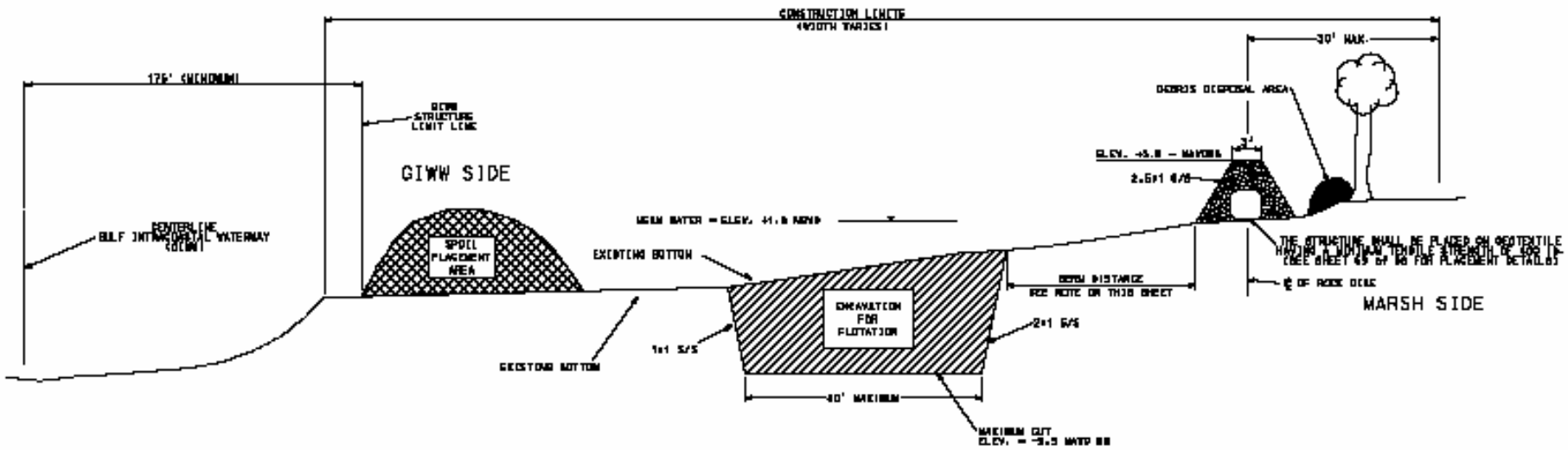
NOTE:

ALL SPOIL SHALL BE PLACED BACK INTO ACCESS CHANNEL AFTER CONSTRUCTION OF DIKE IS COMPLETE.

AS REQUIRED TREES SHALL BE REMOVED AND PLACED ON THE MARSH SIDE OF THE STRUCTURE.

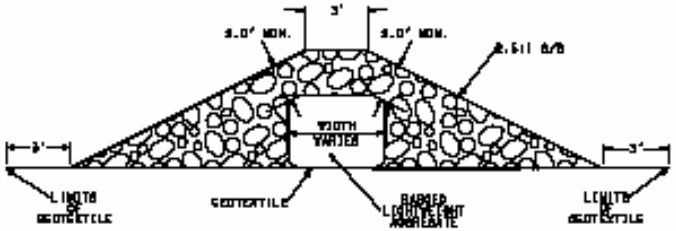
THE BERM DISTANCE SHALL BE 30' EXCEPT FOR THE FOLLOWING REACHES WHICH SHALL BE 40' SEGMENT 3-GTA- 16+00-36+39. SEGMENT 4-GTA- 0+00-6+00. SEGMENT 6-GTA- 10+00-34+00.

Figure 4 – Typical Rock Dike Section.



COMPOSITE REACHES
LIGHT WEIGHT AGGREGATE

SEGMENT	REACH	CY/LF
2	0+00 to 11+00	0.64
2	11+00 to 21+00	0.61
2	21+00 to 30+00	0.65
2	30+00 to 41+00	0.60
2	64+00 to 78+00	0.81
3	0+00 to 13+00	0.58
4	7+00 to 18+00	1.15
4	27+00 to 59+50	1.02
4	59+50 to 50+00	1.09
4	50+00 to 58+00	1.00
5	15+00 to 84+03	1.62
6	0+00 to 4+60	0.61
6	4+60 to 15+00	1.65
6	40+00 to 45+00	1.60
6	45+00 to 58+00	1.62
6	58+00 to 68+00	1.63
8	58+00 to 95+50	1.50
7	0+00 to 7+00	1.47



NOTE:

WIDTH AND HEIGHT OF RANDOM LIGHTWEIGHT AGGREGATE IS VARIABLE. A MINIMUM OF 3' OF ROCK COVERAGE SHALL BE PLACED ON SIDES AND TOP OF RANDOM AGGREGATE.

ALL SPOIL SHALL BE PLACED BACK INTO ACCESS CHANNEL AFTER CONSTRUCTION OF DIKE IS COMPLETE.

AS REQUIRED TREES SHALL BE REMOVED AND PLACED ON THE MARSH SIDE OF THE STRUCTURE.

THE BERM DISTANCE SHALL BE 30' EXCEPT FOR THE FOLLOWING REACHES WHICH SHALL BE 40' SEGMENT 3-STA. 14+00-36+55. SEGMENT 4-STA. 0+00-51+00. SEGMENT 8-STA. 18+00-34+00.

Figure 5 – Typical Composite Rock Dike Section.

Checklist of Phase Two Requirements

TE-43 **GIWW BANK RESTORATION OF CRITICAL AREAS INCREMENT 1 – AREA 'G'**

A. List of Project Goals and Strategies.

The project goals are: 1) To enable the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to specific locations that would benefit from increased flows of fresh water and nutrients, and 2) To provide relief to marshes connected to the GIWW that are currently suffering from prolonged inundation and wave action while stopping shoreline erosion along the remaining bank of the GIWW.

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

A Cost Share Agreement between the Natural Resources Conservation Service and Louisiana Department of Natural Resources was executed on May 16, 2001. A draft amendment, authorizing construction, operation, maintenance, and monitoring, to the Cost Share Agreement has been prepared.

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

NRCS has requested the required letter from DNR relative to landrights being finalized in a relatively short time after Phase 2 approval.

D. A favorable Preliminary Design Review (30% Design Level). The Preliminary Design shall include completion of surveys, borings, geotechnical investigations, data analysis review, hydrologic data collection and analysis, modeling (if necessary), and development of preliminary designs.

A 30% design review meeting was held on May 25, 2004, and resulted in favorable reviews of the project design with minor modifications. DNR and NRCS agreed on the project design and agreed to proceed to the 95% design level and with project implementation.

E. Final Project Design Review (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporate elements from the Preliminary Design and the Preliminary Design Review. Final Project Design Review (95%) must be successfully completed prior to seeking Technical Committee approval.

A 95% design meeting was held on August 26, 2004, and resulted in favorable reviews of the project design with no modifications and few comments. DNR and NRCS agreed on the project design and agreed to proceed with project implementation.

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

A final EA dated December, 2002 was developed after receiving comments on the draft EA which was submitted for public comment in April, 2002.

G. A written summary of the findings of the Ecological Review (See Appendix B).

A favorable 95% Design Review was conducted on August 26, 2004. The following paragraph is from the Recommendations section of the August 2004 draft Ecological Review:

> *Based on information gathered from similar restoration projects, engineering designs, and related literature, the proposed strategies in the GIWW Bank Restoration of Critical Areas in Terrebonne project will likely achieve the desired goals provided Operation and Maintenance funds are available for structure rehabilitation. It is recommended that this project progress towards construction authorization pending a favorable 95% Design Review.*

H. Application for and/or issuance of the public notices for permits. If a permit has not been received by the agency, a notice from the Corps of when the permit may be issued.

A Section 404 permit application is currently under review for submission to the USACE. A Storm Water Pollution Prevention Plan will be required for this project since the disturbed construction site is more than one (1) acre. A permit to dredge material for construction is being obtained by the local sponsors from the U.S. Corps of Engineers and the Louisiana Department of Natural Resources, Coastal Zone Management.

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

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

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

Section 303(e) approval was granted by the Corps via letter dated July 8, 2003.

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

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

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

The following Prioritization Criteria scores were reviewed and agreed upon by all agencies.

Criteria	Score	Weight	Final Score
Cost Effectiveness	2.5	2	5
Area of Need	7.5	1.5	11.25
Implementability	10	1.5	15
Certainty of Benefits	8	1	8
Sustainability of Benefits	4	1	4
HGM – Riverine Input	0	1	0
HGM – Sediment Input	0	1	0
HGM – Landscape Features	0	1	0
Total Score			**43.25**

Coastal Wetlands Planning, Protection and Restoration Act

GIWW Bankline Restoration of Critical Areas (TE-43)

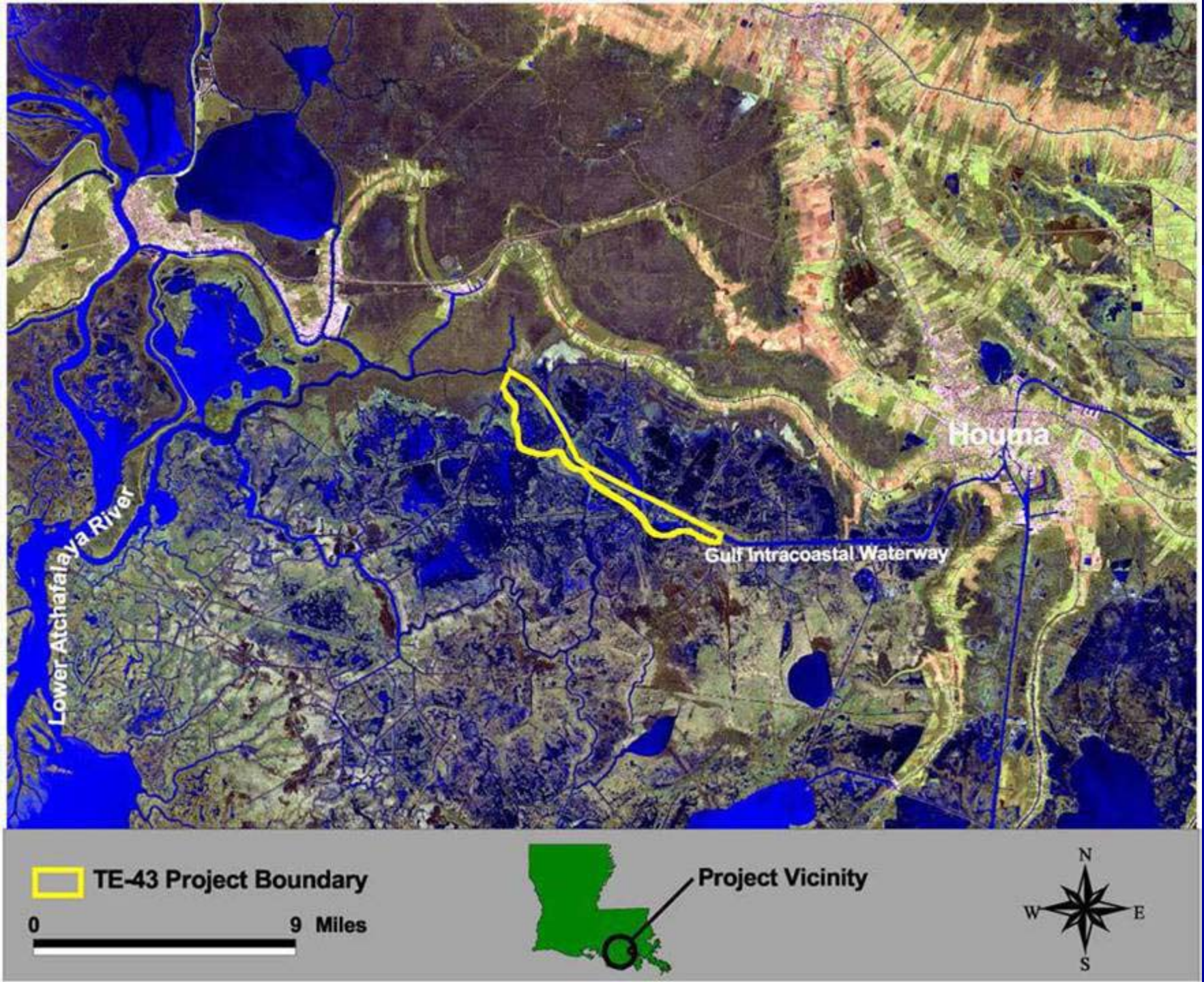
CWPPRA Tech Comm. Meeting
September 9, 2004

GIWW Bankline Restoration of Critical Areas (TE-43)

Project Goals:

- 1) To enable the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to specific locations that would benefit from increased flows of fresh water and nutrients.

- 2) To provide relief to marshes connected to the GIWW that are currently suffering from prolonged inundation and wave action while stopping shoreline erosion along the remaining bank of the GIWW.


Houma
Gulf Intracoastal Waterway
Lower Atchafalaya River
TE-43 Project Boundary
0
9 Miles
Project Vicinity
N
W
E
S

SEGMENT #1
SEGMENT #6
SEGMENT #7
SEGMENT #8

GIWW Bankline Restoration of Critical Areas (TE-43)

	Original Project	*Current Project*
Length of Shoreline	*38,000 ft*	*41,000 ft*
Phase Two Approval	*$17.9M*	*$20.4M*
WVA -- AAHUs	*183*	*183*
Net Acres after Year 20	*366*	*366*
Prioritization Score	*45.65*	*43.25*

GIWW Bankline Restoration of Critical Areas (TE-43)

Selected Check List Items

Cost Sharing Agreement – May 16, 2001

Favorable 30% Design Review – May 25, 2004

Favorable 95% Design Review – August 26, 2004

Ecological Review – August, 2004

Permits Submittal – October, 2004

Final Environmental Assessment – December, 2002

GIWW Bankline Restoration of Critical Areas (TE-43)

"Why do we need to fund this project now - why should we NOT wait for a year?"

- Fragile floating marsh being destroyed.
- 15 ft/yr shoreline erosion rate.
- Enhance a component of the LCA near-term critical restoration features by enabling the GIWW to function as a conveyance channel to direct Atchafalaya River freshwater flow to the east.
- Maintain a vital transportation thoroughfare.

Phase II Authorization Request
North Lake Mechant Landbridge Restoration Project (CU-2)
TE-44

Description of Phase I Project

The North Lake Mechant Landbridge Restoration Project was approved for Phase I funding by the CWPPRA Task Force on the 10th Priority Project List. The purpose of the project is to protect and restore marshes along the north shore of Lake Mechant and the Small Bayou La Pointe Ridge. Those marshes form a critical land bridge barrier between the easily erodible fresh marshes to the north and the brackish waters and marine processes of Lake Mechant to the south. The steep salinity gradient in the project area demonstrates the important hydrologic restriction function performed by this landbridge. The integrity of the landbridge is threatened by a combination of shoreline erosion, interior marsh loss, and several channels and canals that allow flow through the landbridge.

Anticipating delays in the design and implementation of several of the project features, the Breaux Act Task Force on August 7, 2002, authorized implementation of the vegetative plantings component of the project ahead of the other features as a separate construction unit. Over 43,000 linear feet of saltmarsh cordgrass, consisting of 10,000 trade gallons and 20,000 plugs, were planted along the shores of Lake Mechant and Lake Pagie in May, 2003.

At the time of Phase I authorization, project features (excluding the vegetative plantings) included (see Attachment 1):

1. Hydraulically dredge lake-bottom soil to create 534 acres of marsh in 10 separate areas. Potential borrow sites included Lake Mechant, Goose Bay and Lake Pagie.
2. Construct 22,324 linear feet of earthen containment dike and 29 small plugs.
3. Construct 5,996 linear feet of armored containment dike.
4. Construct 3 steel sheetpile plugs.
5. Construct 1 armored earthen plug.
6. Construct 1 rock plug.
7. Armor 610 linear feet of existing spoil bank.
8. Repair one fixed-crest weir.

The Wetland Value Assessment conducted for the Phase I project estimated a benefited area of 8,877 acres and the net creation/restoration of 553 acres of marsh attributed to CU-2 features at the end of the project life.

At the time of Phase I approval, the fully-funded project cost was $26,008,700. That figure included $1,880,671 for Phase I and $23,605,509 for Phase II. The cost breakdown for Phases I and II (at the 100% level) is presented in the following table.

In order to facilitate the design of the marsh creation areas, plug features, and shoreline protection a topographic survey was completed on June 21, 2002 by ABMB Engineers, Inc. After further project development and addition of new project features, it was decided to obtain another survey which was also completed by ABMB Engineers, Inc. on October 13, 2003. The transect intervals for the marsh creation fill areas were either 250 or 500 feet. Borrow-area transects taken in Lake Mechant were spaced at 1000-foot intervals. Lake-bottom elevations were collected directly using a 4 meter antenna pole and a GPS Real-Time Kinematic (RTK) device. This method eliminated the need for any corrections due to water level or wave heights. Other survey transects were taken at irregular intervals specific to individual project features.

To determine the suitability of the soils in the TE-44 project area for the various proposed construction alternatives, Coastal Engineering Division (CED) contracted with Soil Testing Engineers, Inc. (STE) who completed a soils investigation on October 31, 2002. STE was tasked to collect soil borings, perform laboratory tests to determine soil characteristics, calculate settlement of all structures including the dredge fill for different fill elevations, perform stability analyses on the plugs and shoreline protection features, and determine a cut to fill ratio for dredge and fill operations.

A total of seventeen subsurface borings were drilled in the project area from July 29 – August 7, 2002 by STE as shown in Figure 2. Fourteen borings were drilled to a depth of 25 ft and three borings were drilled to a depth of 60 feet. The soil samples were tested in the laboratory for classification, strength, and compressibility. Settlement and slope stability analyses were performed for all of the project features.

In order to locate pipelines and other potential obstructions to construction activities, CED contracted with Neel-Schaffer, Inc. to perform a magnetometer survey in the project area. The survey was completed on November 13, 2003. The data was collected using a G-881 Cesium marine magnetometer. Magnetometer lines were run within the dredging borrow area and in all other areas where dredging or equipment access is anticipated. Where "mag hits" were interpreted as possible pipelines or major obstructions, a probe was used to identify the object and determine its depth.

Hydraulic calculations performed during the design of this project included historical water level and design wave height determinations. These values were used in the design of all project features, including a determination of armoring needs along Raccourci Bay and Lake Pagie.

Design meetings were held at the 30% (May 7, 2003) and 95% (August 12, 2004) levels. A revised fully-funded cost estimate was prepared by the CWPPRA Economics Work Group on August 26, 2004.

Landrights, Cultural Resources, Environmental Compliance and Other Tasks

Preliminary landrights with both landowners and affected utilities and pipelines has proceeded smoothly and no problems are anticipated in acquiring final landrights (see separate section regarding oysters).

A March 6, 2002, review by the Louisiana Office of Cultural Development, Division of Archeology, revealed two recorded prehistoric archaeological sites (shell middens) within the project area; both are located along the eastern shore of Lake Pagie. One of the two sites was identified by the State Historic Preservation Officer as ineligible for listing on the NRHP. The eligibility of the second site was unknown. Consequently, a Phase One resources survey was conducted at the site by Surveys Unlimited Research Associates, Inc. That survey concluded that no surface sign of either site remains, their only manifestations being shells extending westward from the east shore of Lake Pagie. Consequently, the Louisiana Department of Culture, Recreation and Tourism has indicated that they have no objections to project implementation.

Permits for the project are required under Section 404(b)(1) of the Clean Water Act of 1977, as amended, as well as state Water Quality Certification (under Section 401 of that Act.) Those permits, along with a consistency determination from the Coastal Management Division of DNR, have been obtained. However, due to small design changes, such as changes in access channel alignments, a modification to the existing permit will be requested prior to construction.

An overgrazing determination provided by the Natural Resources Conservation Service indicated that overgrazing is not a problem in the project area. An HTRW assessment conducted by the Lafayette Field Office of the U.S. Fish and Wildlife Service indicated that no HTRW materials should be encountered during project implementation.

A draft Ecological Review is available and a draft Environmental Assessment will be released for public comment at least 30 days before the October 13, 2004 Task Force meeting.

Oyster Leases

Engineering and design of this project were delayed while the CWPPRA oyster acquisition policy was developed and implemented. All affected leases within the project area have been surveyed and appraised. Letters indicating the appraised value of the affected leases (or portions of leases) have been sent out to the lease holders. Based on the positive responses received from lease holders to offers in another project in Terrebonne Parish, and the fact that many of those same leaseholders are involved in this project, the outlook on being able to clear these leases is good. The combined appraised value of the oyster leases is $75,550. The phase II budget to pay for those leases is $446,245. Therefore, although the leases are not yet cleared, we do not expect that construction will be further delayed by this issue.

Description of the Phase II Candidate Project

Project Features

Project features are described below. See Attachment 2 for a map of the project features.

1. Create 526 acres of marsh in 8 separate cells. Material will be hydraulically dredged from the northern end of Lake Mechant and placed in semi-confined containment cells. Where possible, cells will rely on existing landscape features to provide some of the needed containment (such as the natural levee of Small Bayou La Pointe, the berm along the Lake Mechant shoreline, and spoil banks along existing canals). Where no existing

containment features exist, containment dikes would be constructed (generally in interior marshes and along degraded sections of shoreline) to retain the dredged material long enough to allow consolidation. All dewatering sites will be located in the marsh interior to avoid release of sediment into open water bodies. Containment dikes exposed to erosive wave action along Raccourci Bayou will be protected with articulated concrete mat armoring. Several existing small channels along the Lake Mechant and Lake Pagie shorelines will be plugged with earthen plugs to prevent the loss of dredged material. Containment dikes will be degraded three years after construction, if needed to allow the natural exchange of material and organisms.

Marsh elevations in the project area were measured at between 0.6 and 1.1 feet North American Vertical Datum (NAVD 88; all elevations herein are reported in NAVD 88). Mean low water was measured as 0.27 feet and mean high water was measured at 1.45 feet. The target elevation of 3.0 feet for the marsh-creation cells is based on the amount of consolidation expected in the dredged material over time. The goal is to achieve intertidal marsh elevation for the 20-year project life.

2. Construct seven plugs and replace one existing fixed-crest weir. Existing oil field access canals will be closed with one earthen plug, three sheetpile plugs, and two rock plugs. A small breach in the Small Bayou La Pointe ridge will be repaired with an earthen plug. Rather then repair the existing washed-under weir, the weir will be replaced with a new sheetpile weir and the old structure will be removed.

3. Material dredged for construction access through Raccourci Bay will be used beneficially to build up the eroding shoreline of that bay north of the project area.

Design Modifications Made During Phase I

The following modifications to project features were made during Phase I Engineering and Design. None of these changes were determined to be substantial modifications to the original conceptual design:

1) Armoring along the shoreline of Lake Pagie was eliminated because the earthen containment dikes used for marsh creation will achieve the goal of protecting that marsh, and the potential harm to the submerged aquatic vegetation in Lake Pagie expected to result from digging access for a rock barge.
2) After inspection of the existing weir, it was determined that it would be more cost-effective to remove and replace the weir rather than to repair it.
3) Rock dikes along Raccourci Bay were removed because a wave analysis indicated that the earthen containment dike was adequate to protect the marsh.
4) Rock armoring along Bayou Raccourci was replaced with earthen dikes armored with articulated concrete mats for access and stability reasons.
5) A rock plug was added to the project in a canal cut through the Small Bayou La Pointe ridge. That plug was originally included in the South Lake Decade Project but was not included in CU-1 of that project. That plug is considered necessary for maintaining the integrity of the ridge. Delays in the implementation of that project lead to the decision to incorporate that plug into this project.
6) Additional containment dikes were added to the marsh creation areas to ensure that no

Checklist of Phase Two Requirements
North Lake Mechant Landbridge Restoration Project (CU-2)
TE-44

A. List of Project Goals and Strategies.

The goal of the proposed project is to protect and restore marshes along the north shore of Lake Mechant and the Small Bayou La Pointe Ridge. Those marshes form a critical land bridge barrier between the easily erodible fresh marshes to the north and the brackish waters and marine processes of Lake Mechant to the south. The strategies used to address the needs in this area include dedicated dredging to create 526 acres of marsh in key areas of loss, and construction of several plugs in channels through the Small Bayou La Pointe ridge to restore the hydrologic function of this landbridge.

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

A Phase I Cost Share Agreement between the U.S. Fish and Wildlife Service and Louisiana Department of Natural Resources was executed on May 16, 2001.

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

FWS has received verbal notification from DNR that landrights will be finalized in a relatively short time after Phase 2 approval.

D. A favorable Preliminary Design Review (30% Design Level). The Preliminary Design shall include completion of surveys, borings, geotechnical investigations, data analysis review, hydrologic data collection and analysis, modeling (if necessary), and development of preliminary designs.

A 30% design meeting was held on May 7, 2003, and resulted in favorable reviews of the project design with minor modifications. DNR and FWS agreed on the project design and to proceed with project implementation.

E. Final Project Design Review (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporate elements from the Preliminary Design and the Preliminary Design Review. Final Project Design Review (95%) must be successfully completed prior to seeking Technical Committee approval.

A 95% design meeting was held on August 12, 2004, and resulted in favorable reviews of the project design with minor modifications. Construction cost estimates were adjusted according to the final design. DNR and FWS agreed on the project design and to proceed with project implementation.

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

A draft EA will be submitted for public comment at least 30 days prior to the October 13, 2004 Task Force meeting.

G. A written summary of the findings of the Ecological Review (See Appendix B).

The following paragraph is from the Recommendations section of the July 2004 draft Ecological Review:

Based on the investigation of similar restoration projects and a review of engineering principles, the proposed strategies of the North Lake Mechant Land Bridge Restoration CU2 project will likely achieve the desired ecological goals.

H. Application for and/or issuance of the public notices for permits. If a permit has not been received by the agency, a notice from the Corps of when the permit may be issued.

The FWS has received a Section 404 permit from the Corps of Engineers, a state Coastal Zone Consistency determination from DNR, and Water Quality Certification from LDEQ. The Section 404 permit (CY-20-040-0014) was received on December 18, 2003. Minor modifications in the final project design will require a modification to that permit prior to construction.

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

An HTRW assessment/contaminants screening was conducted by the FWS Lafayette Field Office=s Environmental Contaminants Specialist. It was concluded that project implementation would not encounter any of the known wells or associated oil and gas facilities in the vicinity of the project area and that re-suspension of contaminants from sediment disturbance is not expected. Based on available information, further study is not warranted.

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

Section 303(e) approval was granted by the Corps via letter dated June 25, 2003.

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

An overgrazing determination was issued on June 11, 2002 by the NRCS and indicated that overgrazing would not be a problem in the project area.

L. Revised cost estimate of Phase 2 activities, based on the revised Project design.

Funding/Budget information:

1) Specific Phase Two funding request (updated construction cost estimate, three years of monitoring and O&M, etc.)

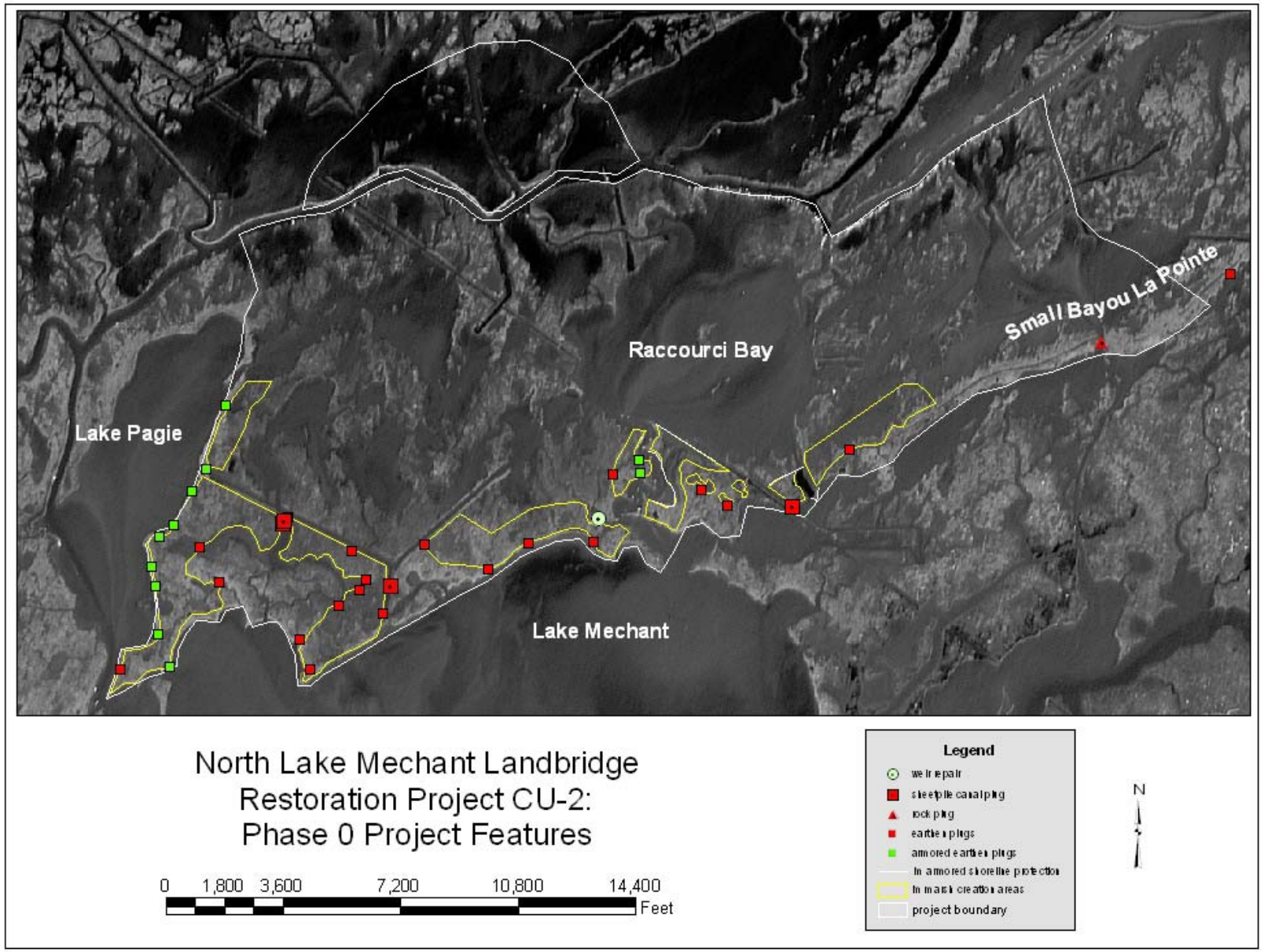
2) Fully funded, 20-year cost projection with anticipated schedule of expenditures

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

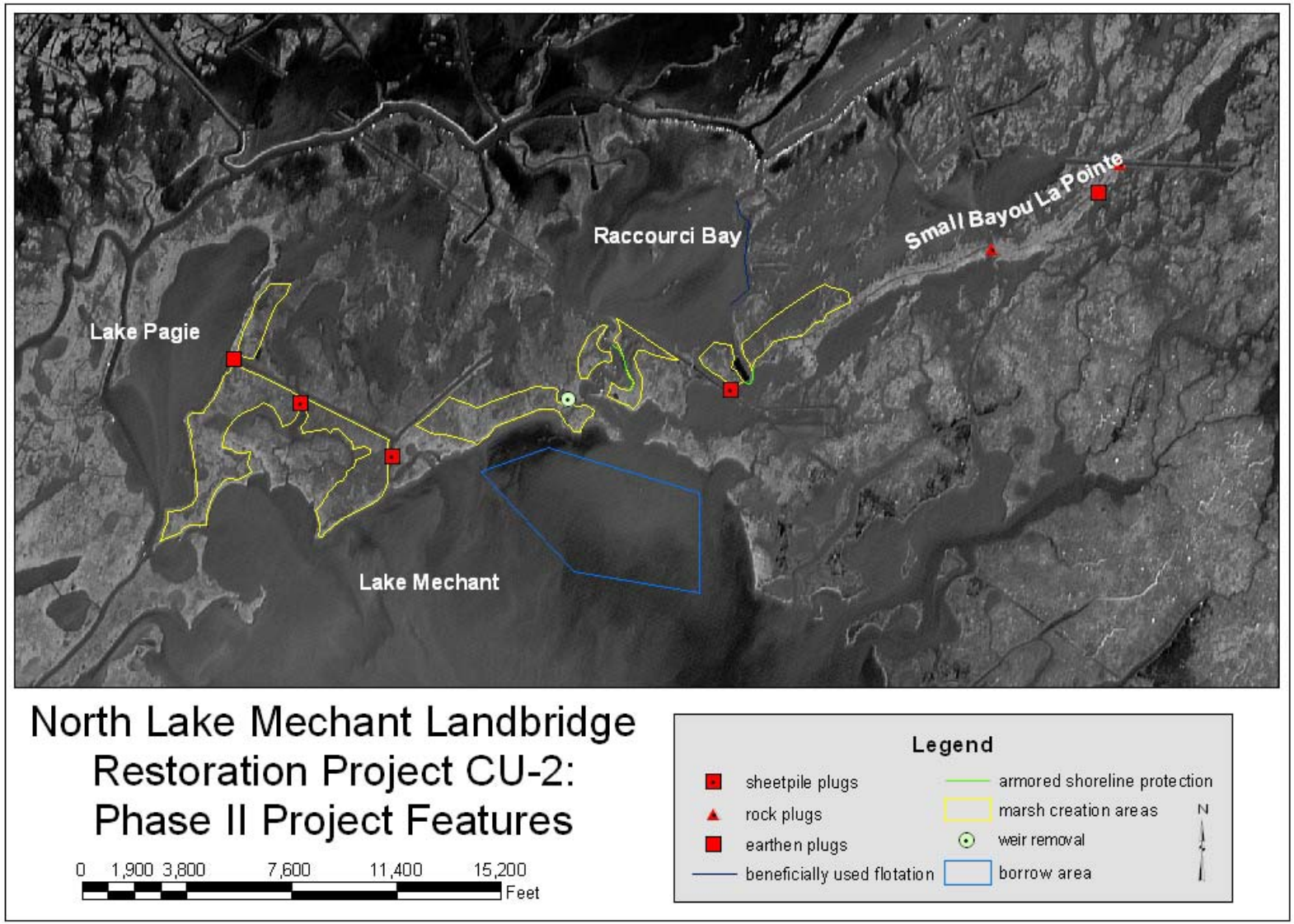
The following Prioritization Criteria scores were reviewed and agreed upon by all agencies prior to the 95% design meeting.

Criteria	Score	Weight	Final Score
Cost Effectiveness	2.5	2	5
Area of Need	7.4	1.5	11.1
Implementability	10	1.5	15
Certainty of Benefits	6	1	6
Sustainability of Benefits	6	1	6
HGM – Riverine Input	0	1	0
HGM – Sediment Input	0	1	0
HGM – Landscape Features	10	1	10
Total Score			**53.1**

Attachment 1



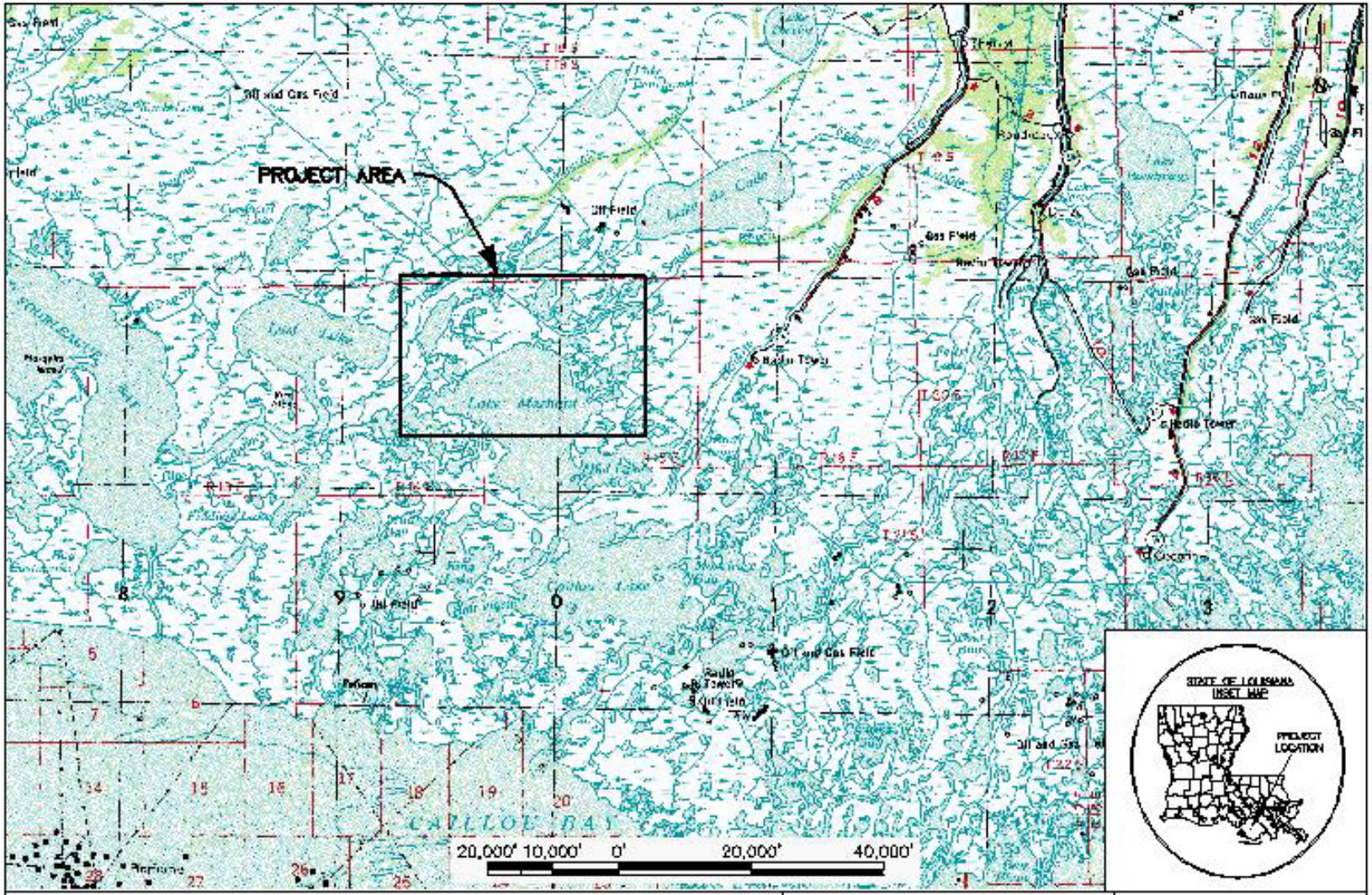
Attachment 2



NORTH LAKE MECHANT LANDBRIDGE RESTORATION PROJECT TE-44

Project Background

- Approved for Phase 1 funding by the CWPPRA Task Force on the 10th Priority Project List in January, 2001.
- CU-1 (Shoreline Vegetative Plantings) completed in June 2003.
- Phase 2 funding currently being requested for CU-2.



APPLICATION BY:

U.S. FISH AND WILDLIFE SERVICE
646 CAJUNDOME BLVD., SUITE 400
LAFAYETTE, LA 70506

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL RESTORATION DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70802

NORTH LAKE MECHANT LANDBRIDGE RESTORATION PROJECT

VICINITY MAP

STATE PROJECT NUMBER: TE-44

DATE: 8/19/03

DRAWN BY: T. MITCH ANDRUS, P.E.

DESIGNED BY: T. MITCH ANDRUS, P.E.

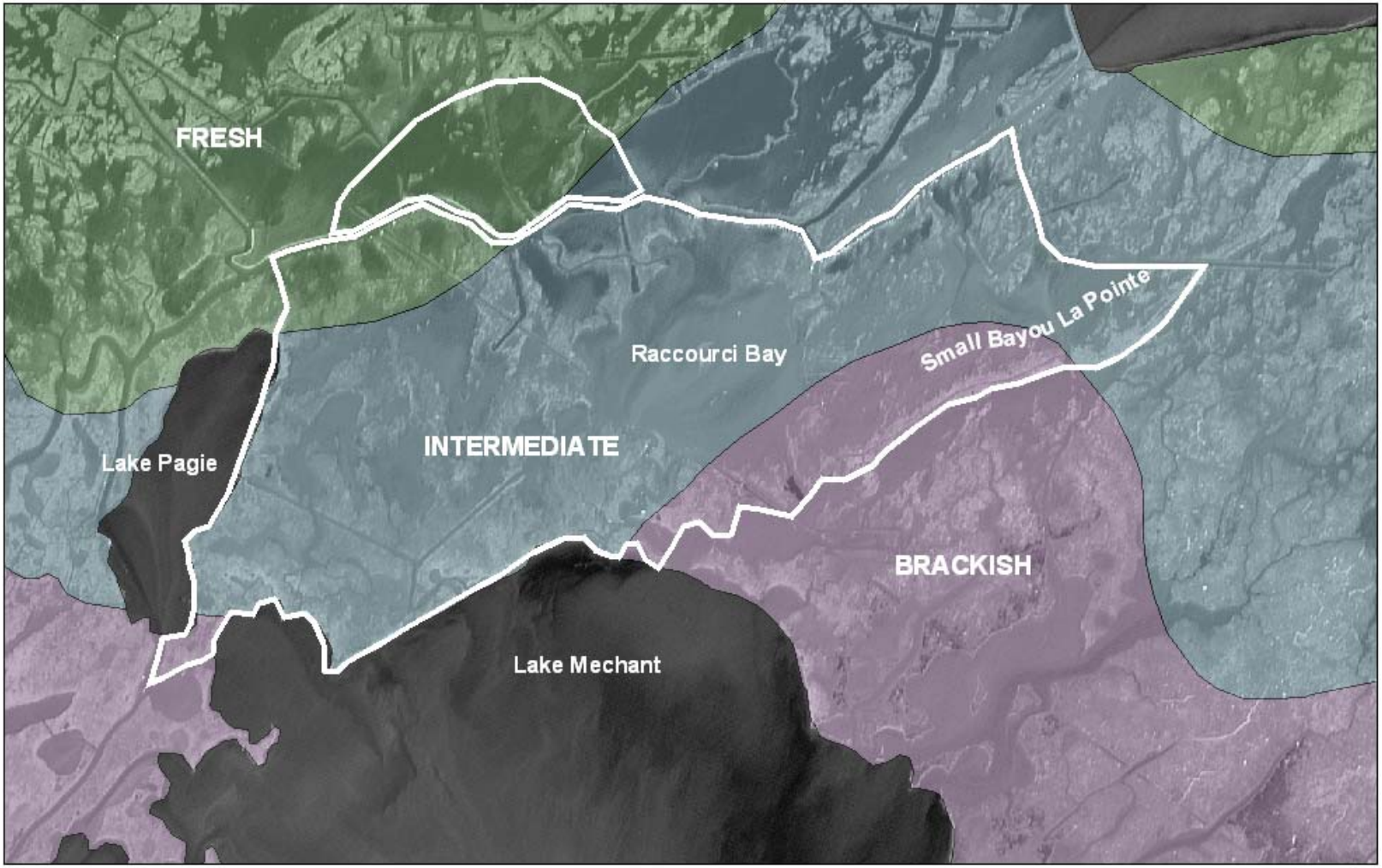
APPROVED BY: CHRIS KNOTTS, P.E.

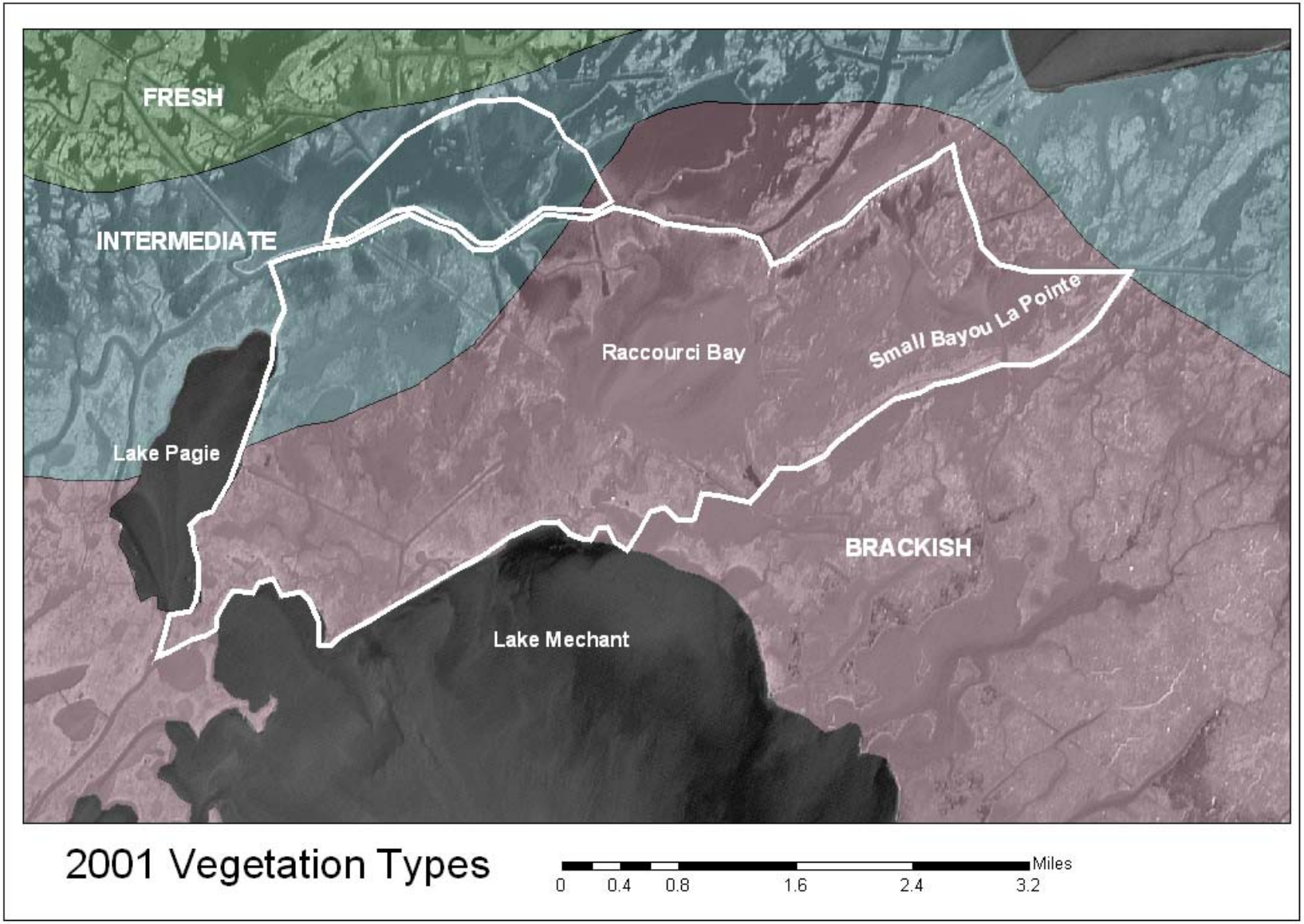
FEDERAL PROJECT NUMBER: NA

SHEET 1 OF 21

Problems in the Project Area

- The north shore of Lake Mechant and the Small Bayou La Pointe natural levee form a critical landbridge barrier between the easily eroded fresh marshes surrounding Bayou Decade and the marine processes of Lake Mechant.
- Marsh loss rates are high and the area was heavily impacted by Hurricane Andrew 1992 and again by Hurricane Lili in 2002.


FRESH
Raccourci Bay
Small Bayou La Pointe
INTERMEDIATE
Lake Pagie
BRACKISH
Lake Mechant
1997 Vegetation Types
Miles
0
0.4
0.8
1.6
2.4
3.2


FRESH
INTERMEDIATE
Raccourci Bay
Small Bayou La Pointe
Lake Pagie
BRACKISH
Lake Mechant
2001 Vegetation Types
Miles
0
0.4
0.8
1.6
2.4
3.2

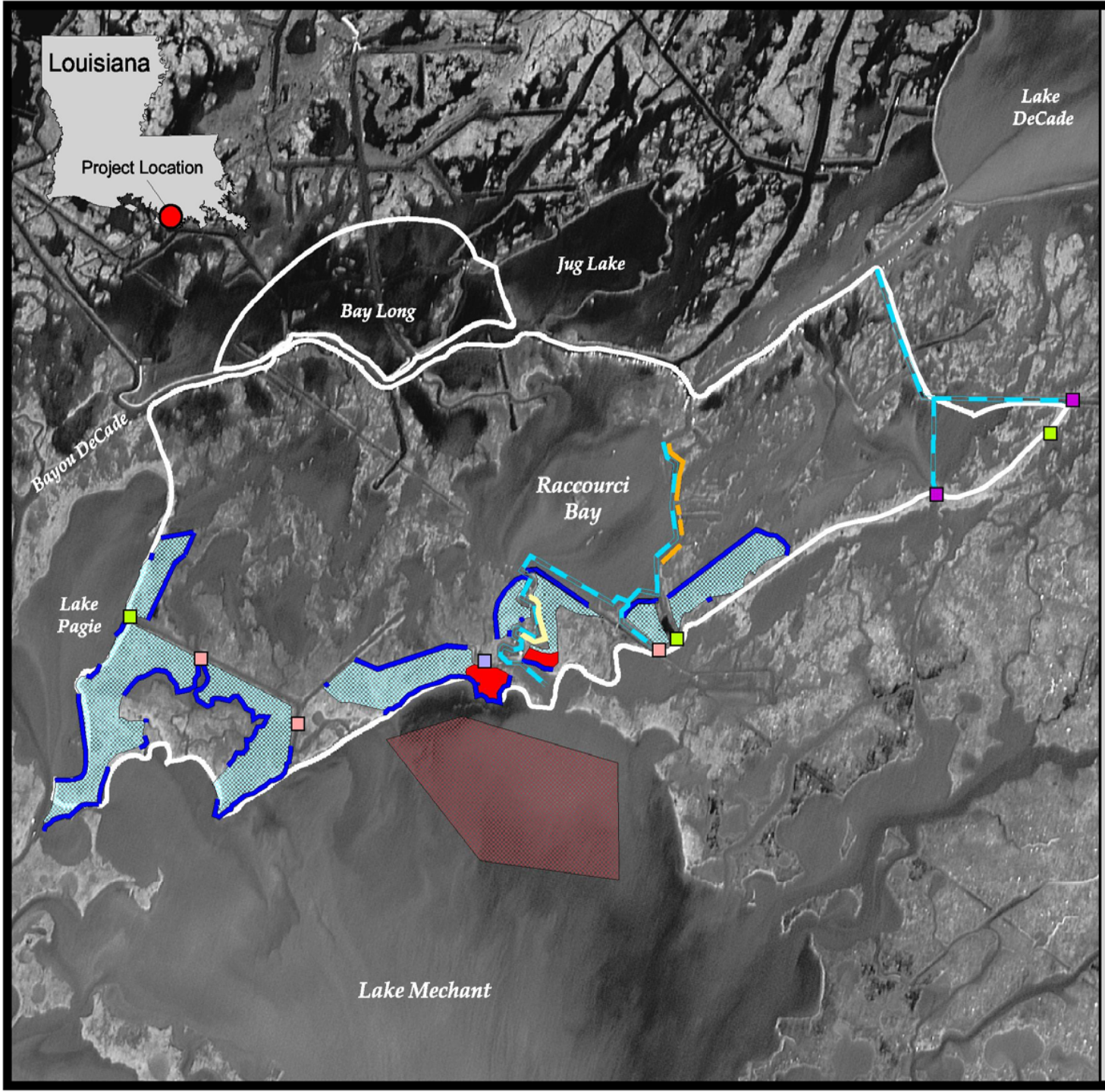
July 2000

November 2002

18 11:00AM
November 2002

TE-44 Project Features

- Create 526 acres of marsh in 8 separate cells north of Lake Mechant and the Small Bayou La Pointe ridge.
- Construct 7 plugs and replace 1 existing weir. Existing oilfield access canals will be closed with 1 earthen plug, 3 sheetpile plugs, and 2 rock plugs. A small breach in the Small Bayou La Pointe ridge will be repaired with an earthen plug.
- Material dredged for construction access through Raccourci Bay will be used beneficially



North Lake Mechant Landbridge Restoration (TE-44)

Terrebonne Parish

LEGEND

- TE-44 Project Boundary
- Rock Plug
- Earthen Plug
- Sheetpile Plug
- Sheetpile Weir
- Spoil Disposal
- Containment For Marsh Creation
- Armored Containment Dike
- Flotation Channel
- Marsh Nourishment Area
- Fill Area
- Borrow Area

NOTE: All project features are proposed as of July 28, 2004

0.5 0 0.5 1 Miles

1 0 1 Kilometers

N

Data Source:
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, LA
Louisiana Dept. of Natural Resources
Coastal Restoration Division
2000 SPOT Imagery
Map Date: July 28, 2004
Map ID: USGS-NWRC 2004-04-0184

Checklist of Phase 2 Requirements

- A. Project Goals and Strategies: The goal of the project is to protect and restore marshes along the north shore of Lake Mechant and the Small Bayou La Pointe ridge. The strategies used include dedicated dredging to create 526 acres of marsh in key areas of loss, and construction of several plugs in channels that threaten the integrity of the landbridge.
- B. Cost Share Agreement: A Phase 1 CSA between FWS and DNR was executed on May 16, 2001.
- C. Landrights: FWS has received verbal notification from DNR that landrights will be finalized in a relatively short time after Phase 2 approval.

Checklist of Phase 2 Requirements (Cont'd)

- D. 30% Design Review: A successful 30% design review was held on May 7, 2003.
- E. 95% Design Review: A successful 95% design review was held on August 12, 2004. The revised Fully Funded Cost is based on that final design.
- F. Draft Environmental Assessment: A draft EA was sent out for public review on September 1, 2004.
- G. Findings of the Ecological Review: The ER concluded that the "project will likely achieve the desired ecological goals."
- H. Permits: All permits have been received. Small design changes since the issuance of the permit will require a modification of the permit prior to construction.

Checklist of Phase 2 Requirements (Cont'd)

- M. Estimate of Project Expenditures by State Fiscal Year: Details provided in the full Phase 2 request.
- N. Revised WVA: No revised WVA was performed. Estimates remain 8,877 acres of benefited area and net creation/restoration of 553 acres of marsh attributed to CU-2.
- O. Prioritization Score: Total prioritization score was revised to 53.1. A breakdown of the criteria is provided in the full Phase 2 request.
- P. Phase 2 Spreadsheet: A breakdown of Phase 2 costs is provided in the full Phase 2 request.

November 2002

Phase II Authorization Request
Dedicated Dredging on the Barataria Basin Landbridge
BA-36

Description of Phase I Project

The Dedicated Dredging on the Barataria Basin Landbridge Project was approved for Phase I funding by the CWPPRA Task Force on the 11th Priority Project List. At the time of Phase I authorization, project features included:

1) Hydraulic dredging in Bayous Perot and Rigolettes to create 780 acres of marsh and nourish 502 acres of existing marsh. The target elevation for the fill material was 2.3 ft NGVD;

2) Shoreline protection features associated with the Barataria Basin Landbridge Shoreline Protection Project (BA-27) would be used for containment along the Bayous Perot and Rigolettes shorelines;

3) Earthen containment would be used around the remainder of the project perimeter where fragmented marsh does not allow adequate containment. Depending on soil stability, containment dikes would be breached upon demobilization;

4) Upon demobilization, the marsh platform would be aerially seeded with a mixture of browntop millet, Japanese millet and/or other species to increase vegetative colonization;

5) Tidal channels would be dredged after construction to allow tidal exchange to interior ponds.

Specific goals of the project were to: 1) create 780 acres of emergent marsh through the deposition of dredged material into open water areas and 2) nourish/enhance 502 acres of emergent marsh by adding a layer of sediment to the marsh surface.

The Wetland Value Assessment conducted for the Phase I project estimated a benefited area of 1,282 acres and the net creation/restoration of 564 acres of marsh at the end of the project life.

At the time of Phase I approval, the fully-funded project cost was $29,692,777. That figure included $2,294,410 for Phase I and $27,398,367 for Phase II. The cost breakdown for Phases I and II is presented in the following table.

Engineering and Design Tasks

In order to facilitate the design of the borrow and fill areas, a hydrographic and topographic survey was performed in April and May, 2003 by SJB Group, Inc. and Coastal Engineering Consultants. A magnetometer survey was performed in April and May, 2003 by SJB Group, Inc. and Alpine Ocean Seismic Survey in order to locate existing pipelines and obstructions.

A total of 19 subsurface borings were drilled within the project area by Soil Testing Engineers, Inc. in April 2003. Existing data was also utilized from 14 subsurface borings by Dames and Moore, Inc. in 1999 and six subsurface borings by Soil Testing Engineers, Inc. in 2000. The soil samples were tested in the laboratory for classification, strength, and compressibility. Settlement consolidation, cut to fill ratios, and dewatering time were estimated for the proposed dikes and hydraulic fill. A cost-benefit analysis was performed on final fill elevations of 1.5, 2.0, 2.5, 3.0, and 3.5 ft using the geotechnical analysis. Slope stability analyses were also performed for the proposed containment dikes.

Design meetings were held at the 30% (December 17, 2003) and 95% (July 29, 2004) levels.

Landrights, Cultural Resources, Environmental Compliance and Other Tasks

Preliminary landrights has proceeded smoothly and no problems are anticipated in acquiring final landrights.

Two cultural resource sites are located within the project area. However, neither site is eligible for the National Register of Historic Places. The Louisiana Department of Culture, Recreation and Tourism and the Chitimacha Tribe of Louisiana have indicated no objections to project implementation.

The Corps of Engineers Section 404 permit application was placed on Public Notice on July 23, 2004. The Louisiana Department of Natural Resources-Coastal Management Division has been contacted for a consistency determination in regards to the Louisiana Coastal Resources Program and a request for water quality certification has been provided to the Louisiana Department of Environmental Quality.

An overgrazing determination provided by the Natural Resources Conservation Service indicated that overgrazing is not a problem in the project area. An HTRW assessment conducted by the Lafayette Field Office of the U.S. Fish and Wildlife Service indicated that no HTRW materials should be encountered during project implementation.

A draft Ecological Review is available and a draft Environmental Assessment will be released for public comment at least 30 days before the October 13, 2004 Task Force meeting.

Description of the Phase II Candidate Project

Project Features

Three areas within Bayou Perot and Rigolettes, designated as Borrow Sites 1, 2, and 3 (Attachment 1), were investigated as potential sources of earthen material to create marsh in Fill Sites 1 and 2, as shown in Figure 1. The volume required for marsh creation areas and the cut to fill ratio regulated the size and shape of the borrow sites. The delineation of the 3 borrow sites was expanded to the greatest extent possible given the geographical (existing marsh) and structural constraints (pipelines) in order to reduce the effective depth of cut. Minimizing the depth of cut also minimizes the change in hydraulic gradient caused by dredging. As a result of calculations, a maximum depth of cut from an average mud level elevation of -6.0' NAVD to elevation -10.0 ft NAVD 88 will achieve the required volume given the delineation of the 3 borrow areas and cut to fill ratio. The typical cross section detail is shown in Figure 2.

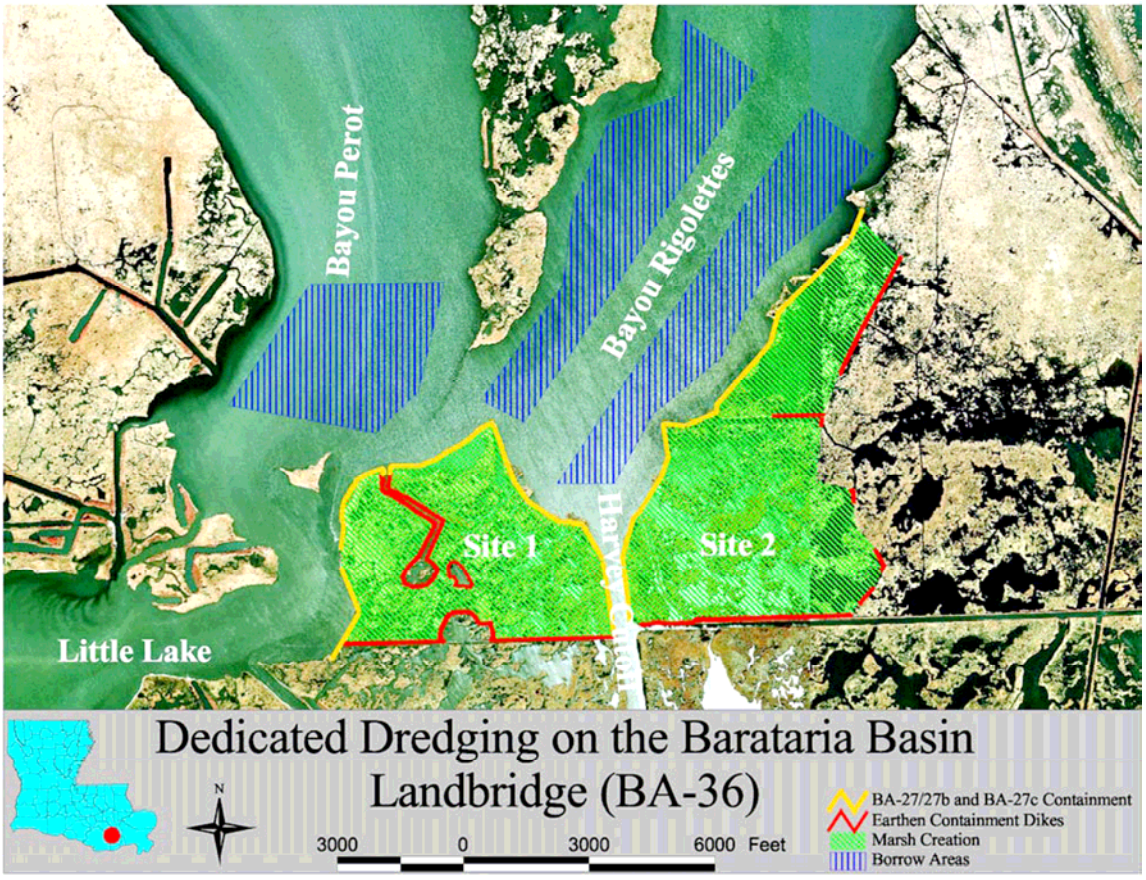


Figure 1 – Locations of Borrow and Fill Sites

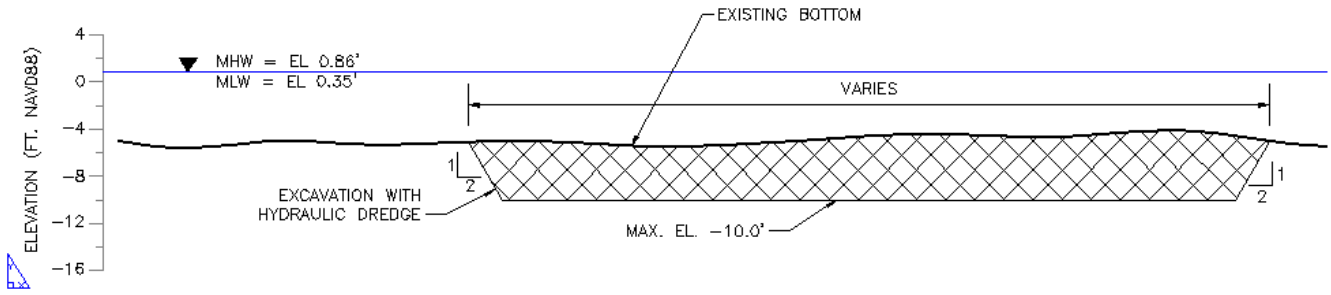


Figure 2 – Typical Cross Section of Borrow Areas

Fill Areas 1 and 2 (Figure 1) are comprised of mostly broken marsh and open water covering approximately 504 acres and 741 acres, respectively. A cost-benefit analysis was performed on final fill elevations of +1.5, +2.0, +2.5, +3.0, and +3.5 ft using information from the geotechnical investigation. Given a project design life of 20 years and an existing average marsh elevation of +1.0 ft NAVD 88, a target elevation of +2.5 ft NAVD 88 was selected (Figure 3). Two construction lifts are proposed to enhance consolidation through improved dewatering and placement. The initial lift will be placed above mean high water at elevation +1.0 ft NAVD88 and must remain dewatered for a minimum of 30 days before more fill is added. The final lift will be placed to achieve the target elevation of +2.5 ft NAVD 88.

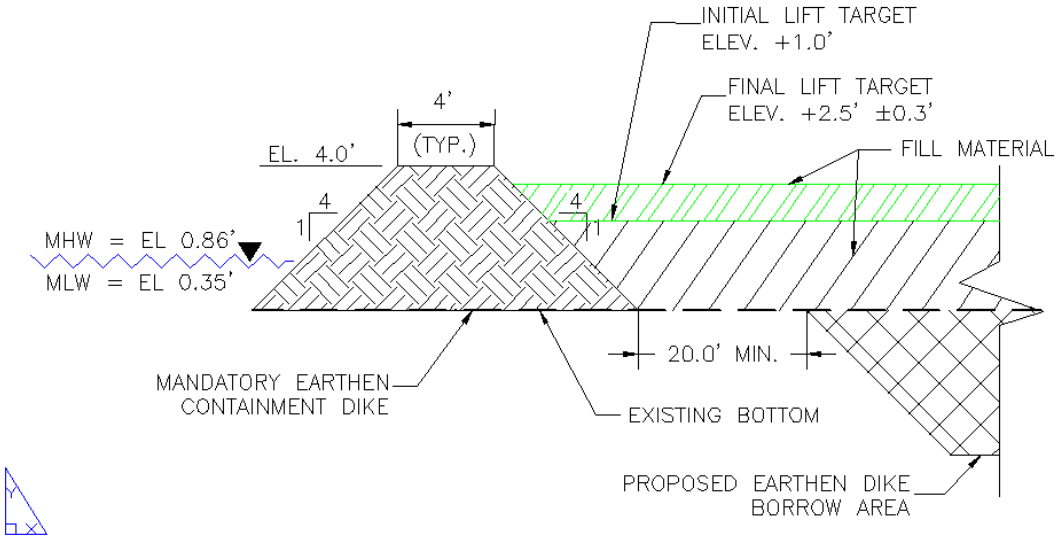


Figure 3 – Typical Cross Section of Mandatory Earthen Containment Dikes

In order to properly contain and dewater fill material, mandatory containment dikes are included in the design. Given a target fill elevation of +2.5 ft NAVD 88, the crown height of the containment dikes is set at +4.0 ft NAVD 88 with side slopes of 4:1 (Figure 3). The containment dikes will tie into the NRCS rock dikes and concrete panels by overlapping the existing structures.

Internal earthen training dikes will be used in conjunction with the other containment structures to create containment cells in order to properly maintain and dewater the fill material. They will also be utilized at all gaps and fish dips in the NRCS concrete panels. The training dikes will have 4:1 side slopes with a 2 ft wide crown set at the same target elevation as the fill (+2.5 ft NAVD88) to ensure proper containment height and eliminate the need for future degrading (Figure 4). The location and alignment of the training dikes will be determined in the field by the construction contractor and pre-approved by the construction inspector.

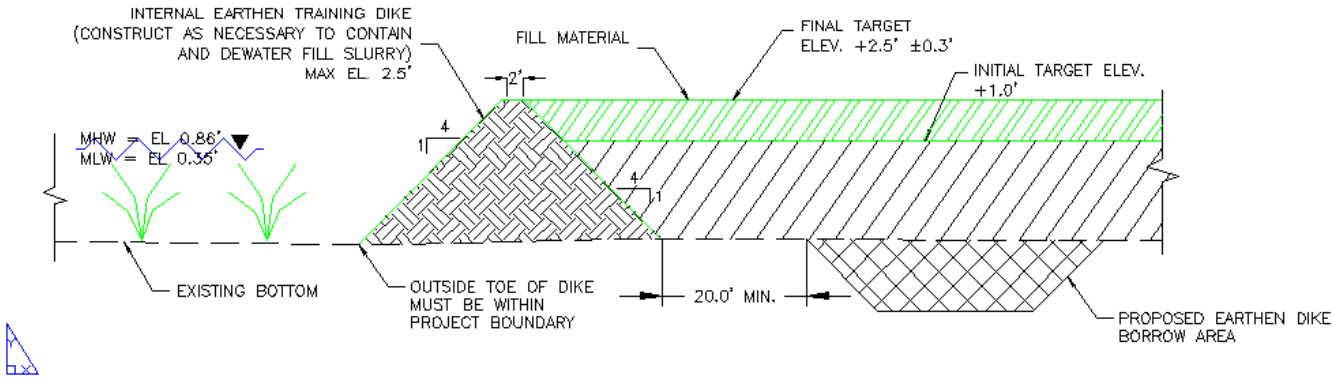


Figure 4 – Typical Cross Section of Internal Earthen Training Dikes

Three existing ponds and one canal within Fill Area 1 will remain in their existing condition as requested by the landowner (Figure 1). Mandatory earthen containment dikes will be constructed around the perimeters of the ponds and canal.

Updated Assessment of Benefits

A revised Wetland Value Assessment was prepared and reviewed by the Environmental Work Group. The total project area was decreased from 1,282 acres to 1,245 acres. Total Net Acres protected/created/restored by the project increased from 564 acres (Phase 1 project) to 605 acres (Phase 2 project). Net Average Annual Habitat Units decreased from 339 to 337.

Modifications to the Phase 1 Project

Final design features are essentially unchanged from the original Phase 1 project. The following changes are noteworthy; 1) additional containment dikes have been added at the landowner's request to retain three ponds in Fill Site 1, 2) additional containment dikes have been added at the landowner's request in Fill Site 2 along the southern boundary to prevent the filling of a small trenasse used for boat access to hunting sites, 3) marsh nourishment has been omitted as a project feature and fill heights (+2.5 NAVD 88) are the same throughout

Checklist of Phase Two Requirements
Dedicated Dredging on the Barataria Basin Landbridge
BA-36

A. List of Project Goals and Strategies.

The goals of the project are to: 1) create 1,217 acres of emergent marsh through the deposition of dredged material into open water and fragmented marsh and 2) maintain 995 acres of emergent marsh at the end of the 20-year project life.

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

A Cost Share Agreement between the U.S. Fish and Wildlife Service and Louisiana Department of Natural Resources was executed on April 3, 2002. A draft amendment, authorizing construction, operation, maintenance, and monitoring, to the Cost Share Agreement has been prepared.

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

FWS has received verbal notification from DNR that landrights will be finalized in a relatively short time after Phase 2 approval.

D. A favorable Preliminary Design Review (30% Design Level). The Preliminary Design shall include completion of surveys, borings, geotechnical investigations, data analysis review, hydrologic data collection and analysis, modeling (if necessary), and development of preliminary designs.

A 30% design meeting was held on December 17, 2003, and resulted in favorable reviews of the project design with minor modifications. DNR and FWS agreed on the project design and to proceed with project implementation.

E. Final Project Design Review (95% Design Level). Upon completion of a favorable review of the preliminary design, the Project plans and specifications shall be developed and formalized to incorporate elements from the Preliminary Design and the Preliminary Design Review. Final Project Design Review (95%) must be successfully completed prior to seeking Technical Committee approval.

A 95% design meeting was held on July 29, 2004, and resulted in favorable reviews of the project design with minor modifications. DNR and FWS agreed on the project design and to proceed with project implementation.

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

A draft EA will be submitted for public comment at least 30 days prior to the October 13, 2004 Task Force meeting.

G. A written summary of the findings of the Ecological Review (See Appendix B).

The following paragraph is from the Recommendations section of the July 2004 draft Ecological Review:

Based on the investigation of similar restoration projects and a review of engineering principles, the LDNR project team feels that the proposed strategies of the Dedicated Dredging on the Barataria Basin Landbridge project will likely achieve the desired ecological goals for the majority of the 20 year project life.

H. Application for and/or issuance of the public notices for permits. If a permit has not been received by the agency, a notice from the Corps of when the permit may be issued.

The FWS has recently applied for a Section 404 permit from the Corps of Engineers, a state Coastal Zone Consistency determination from DNR, and Water Quality Certification from LDEQ. The Section 404 permit application was placed on Public Notice on July 23, 2004. The Corps of Engineers had indicated that the Section 404 permit is expected to be granted by the end of October 2004.

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

An HTRW assessment/contaminants screening was conducted by the FWS Lafayette Field Office=s Environmental Contaminants Specialist. It was concluded that project implementation would not encounter any of the known wells or associated oil and gas facilities in the project area and that re-suspension of contaminants from sediment disturbance is not expected. Based on available information, further study is not warranted.

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

Section 303(e) approval was granted by the Corps via letter dated August 4, 2004.

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

An overgrazing determination was issued on January 12, 2004 by the NRCS and indicated that overgrazing would not be a problem in the project area.

A revised Wetland Value Assessment was prepared and reviewed by the Environmental Work Group. The total project area was decreased from 1,282 acres to 1,245 acres. Total Net Acres protected/created/restored by the project increased from 564 acres (Phase 1 project) to 605 acres (Phase 2 project). Net Average Annual Habitat Units decreased from 339 to 337.

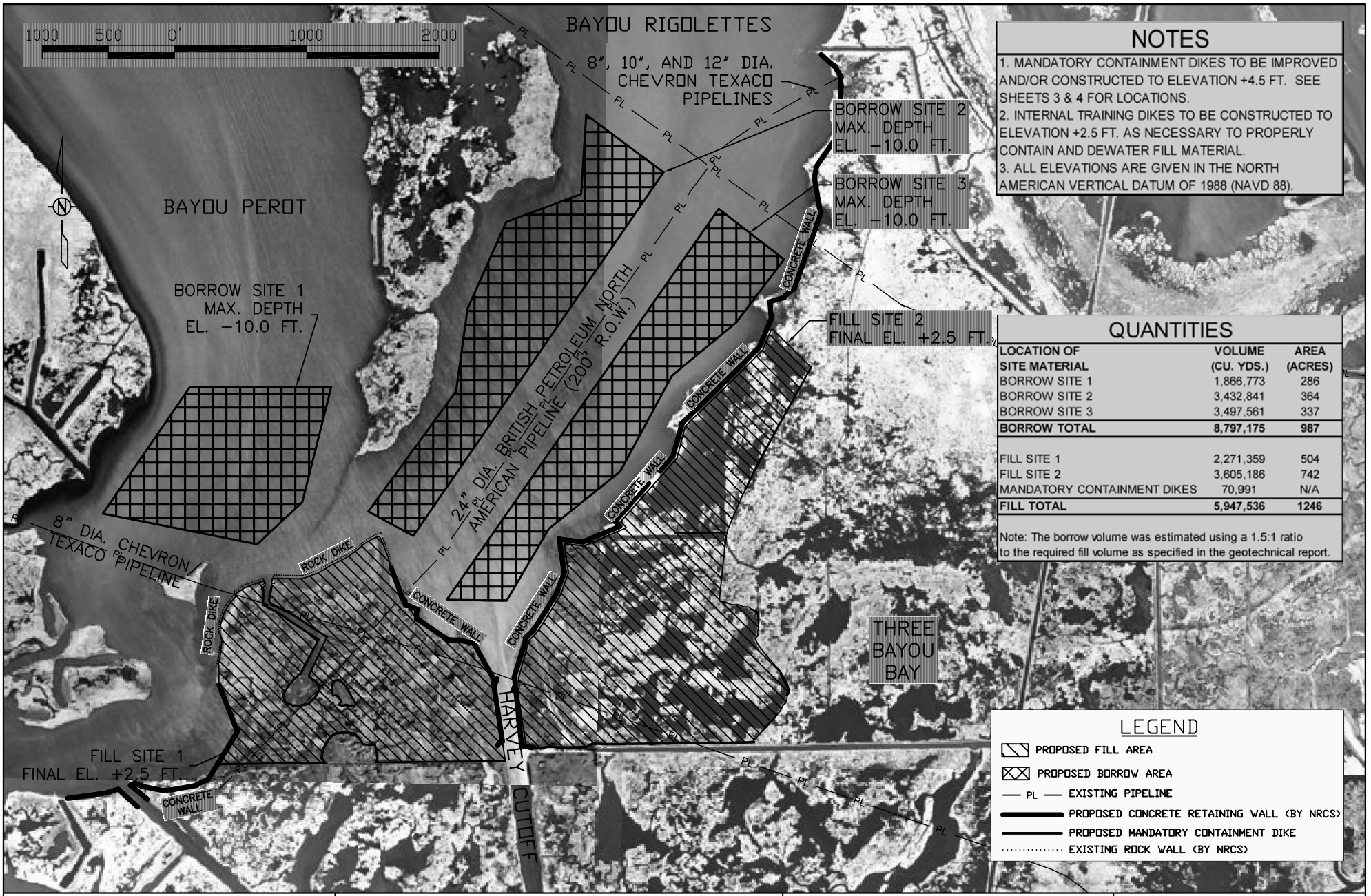
O. A breakdown of the Prioritization Criteria ranking score, finalized and agreed-upon by all agencies during the 95% design review.

The following Prioritization Criteria scores were reviewed and agreed upon by all agencies prior to the 95% design meeting.

Criteria	Score	Weight	Final Score
Cost Effectiveness	5	2	10
Area of Need	10	1.5	15
Implementability	10	1.5	15
Certainty of Benefits	7	1	7
Sustainability of Benefits	4	1	4
HGM – Riverine Input	0	1	0
HGM – Sediment Input	0	1	0
HGM – Landscape Features	10	1	10
Total Score			**61**

Attachment 1

Attachment 2



NOTES

1. MANDATORY CONTAINMENT DIKES TO BE IMPROVED AND/OR CONSTRUCTED TO ELEVATION +4.5 FT. SEE SHEETS 3 & 4 FOR LOCATIONS.
2. INTERNAL TRAINING DIKES TO BE CONSTRUCTED TO ELEVATION +2.5 FT. AS NECESSARY TO PROPERLY CONTAIN AND DEWATER FILL MATERIAL.
3. ALL ELEVATIONS ARE GIVEN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

QUANTITIES

LOCATION OF SITE MATERIAL	VOLUME (CU. YDS.)	AREA (ACRES)
BORROW SITE 1	1,866,773	286
BORROW SITE 2	3,432,841	364
BORROW SITE 3	3,497,561	337
BORROW TOTAL	**8,797,175**	**987**
FILL SITE 1	2,271,359	504
FILL SITE 2	3,605,186	742
MANDATORY CONTAINMENT DIKES	70,991	N/A
FILL TOTAL	**5,947,536**	**1246**

Note: The borrow volume was estimated using a 1.5:1 ratio to the required fill volume as specified in the geotechnical report.

LEGEND

- PROPOSED FILL AREA
- PROPOSED BORROW AREA
- PL — EXISTING PIPELINE
- PROPOSED CONCRETE RETAINING WALL (BY NRCS)
- PROPOSED MANDATORY CONTAINMENT DIKE
- EXISTING ROCK WALL (BY NRCS)

APPLICATION BY:

U.S. FISH AND WILDLIFE SERVICE
646 CAJUNDOME BLVD., SUITE 400
LAFAYETTE, LA. 70506

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
COASTAL ENGINEERING DIVISION
617 NORTH 3RD STREET
BATON ROUGE, LOUISIANA 70804

DEDICATED DREDGING ON THE BARATARIA BASIN LANDBRIDGE

CONSTRUCTION AREA LOCATION

STATE PROJECT NUMBER: BA-36

DATE: MAY 2004

DRAWN BY: SHANE FAUST

DESIGNED BY: SHANNON HAYNES, P.E.

APPROVED BY: LUKE LEBAS, P.E.

FEDERAL PROJECT NUMBER: N/A

SHEET 2 OF 11

G:\Users\Autocad\BASINS\BA\BA-36 Barataria Landbridge\Permit Drawings\Sheet2.dwg

Dedicated Dredging on the Barataria Basin Landbridge BA-36

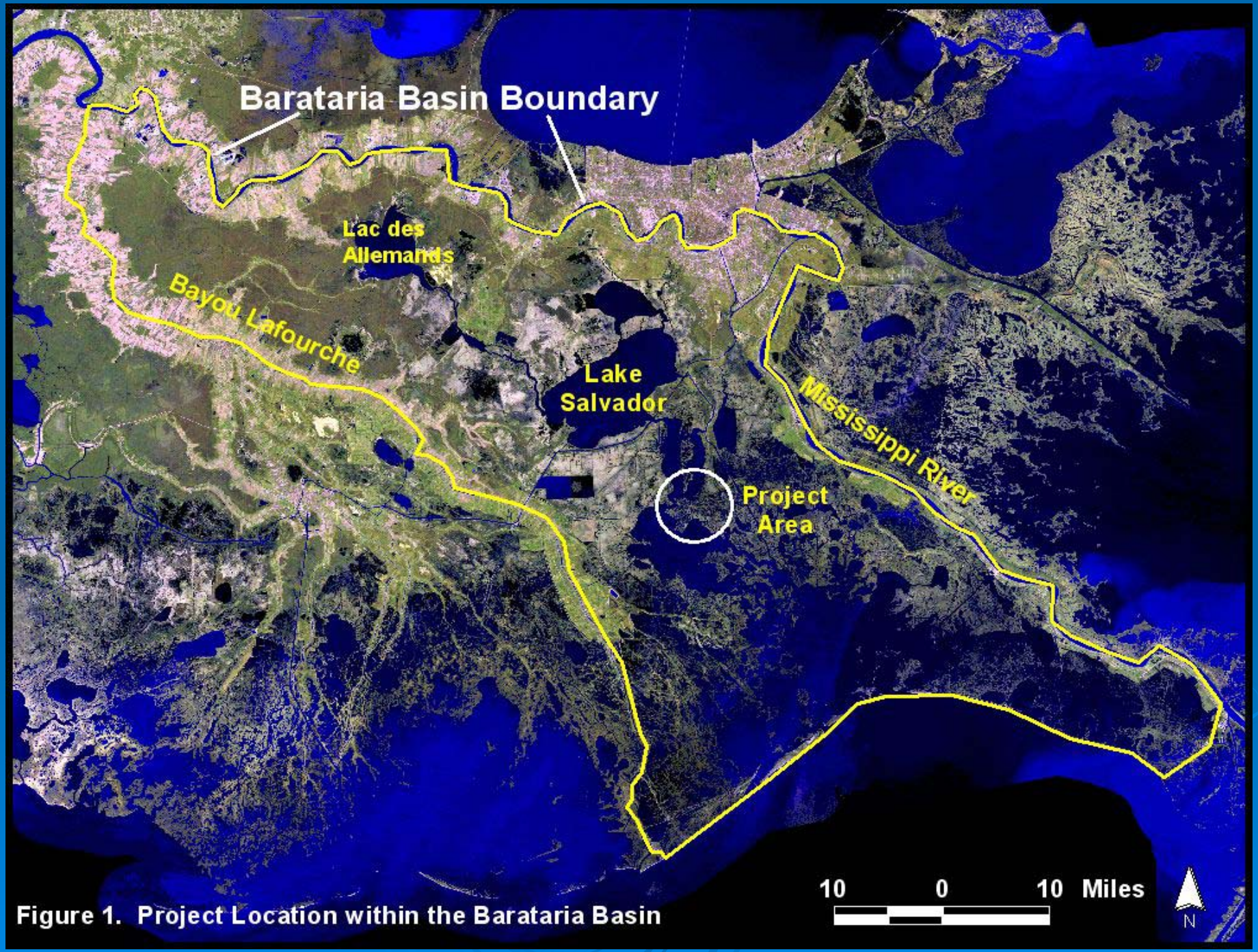


Figure 1. Project Location within the Barataria Basin

APR 16 2001

2003 11 5

Fill Site 1

Fill Site 2

Checklist of Phase 2 Requirements

- A. Project Goals and Strategies: Create 1,217acres of marsh and maintain 995 acres of marsh at the end of the 20-year project life.
- B. Cost Share Agreement: Executed on April 3, 2002.
- C. Landrights: FWS has received verbal notification from DNR that landrights will be finalized in a relatively short time after Phase 2 approval.
- D. 30% Design Review: December 17, 2003.
- E. 95% Design Review: July 29, 2004. The revised Fully Funded Cost is based on that final design.

Checklist of Phase 2 Requirements (Cont'd)

- F. Draft Environmental Assessment: Sept. 3, 2004.
- G. Findings of the Ecological Review: ER concluded that the "project will likely achieve the desired ecological goals."
- H. Permits: Section 404 – October 2004; WQ Certification – Pending; DNR-Consistency – August 2004.
- I. HTRW Assessment: FWS - "no wells or oil and gas facilities would be encountered with project implementation and re-suspension of contaminants is not expected. Further study is not warranted."
- J. 303 (e) Approval: August 4, 2004.

Why do we need to fund this project now?

- Not critical to fund the project at this time
- Sticky Issue – Depends on BA-27/CU4

  Worst Case – June 2006 (CU4 totally complete)

  Best Case – BA-27 completes shoreline protection around Fill Site 1 (25% of total project) - Late 2005/Early 2006
- October 2005 Approval – would not allow late 2005 start
- Restores critical area on landbridge which will continue to deteriorate even with shoreline protection

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

REPLY TO
ATTENTION OF:

CEMVN-PM-C (1110-2-1150a) August 27, 2004

MEMORANDUM FOR: Mr. John Saia, Chair, CWPPRA Technical Committee

SUBJECT: Phase II Authorization Request for the Grand Lake Shoreline Protection Project (ME-21), Cameron Parish, LA

The U.S. Army Corps of Engineers (USACE) and Louisiana Department of Natural Resources (LDNR) request Phase II authorization for the Grand Lake Shoreline Protection Project (ME-21). The project was authorized for Phase I as a part of Priority Project List 11 (PPL 11) on January 16, 2002 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) under the authority of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). This request is submitted in accordance with the CWPPRA Project Standard Operating Procedures (SOP) Manual.

1. Description of Phase I Project:

   A description of the Grand Lake Shoreline Protection candidate project as selected for Phase I authorization is found in Enclosure 1. Enclosure 1 contains the original Fact Sheet and map depicting the project boundary and project features. It includes a description of the conceptual features of the project as authorized for Phase I, a summary of the benefits attributed to the Phase I project and project budget information as estimated at the time of Phase I authorization.

2. Overview of Phase I Tasks, Process and Issues

   After receiving Phase I approval on January 16, 2002, the project delivery team (PDT) was assembled with representatives from the USACE and the LDNR. The PDT developed and submitted a work plan to accomplish Phase I activities to the P&E Subcommittee for their review. The PDT also conducted a kickoff meeting and site visit on June 26-27, 2002. Contracts were awarded to conduct hydrographic surveys, magnetometer surveys, and borings. The Engineering Division of the USACE performed the engineering and design for the project. A 30% design review meeting was held on May 11, 2004, which resulted in a letter from the LDNR concurring to proceed with final design. All NEPA documentation was completed resulting in a final Environmental Assessment and a Finding of No Significant Impact (FONSI). The Plans and Specifications were prepared and the Design Report finalized. The USACE Real Estate Division completed the official Real Estate Plan, which defines the real estate requirements in Phase II. The LDNR prepared the Ecological Review. A 95% Design Review Meeting was held on August 16, 2004. The Final Design Report including all supporting appendices were provided for the 95% Design Review Meeting.

3. Description of the Phase II Candidate Project

A. A description of the Grand Lake Shoreline Protection Phase II candidate project is found in Enclosure 3-A. Enclosure 3-A contains the current Fact Sheet and map depicting the project boundary and project features. It includes a detailed description of the features of the project, a summary of the benefits and project budget information.

B. The originally approved Grand Lake Shoreline Protection project started at Superior Canal and terminated at the beginning of Tebo Point. As a result of the Phase I analyses, the USACE and LDNR concluded that it would be beneficial to extend the project to include all of Tebo Point within the project design. This extension increases the rock dike length by approximately 5,700 lf, the benefits by 45 net acres (+9.1%), and the fully funded cost by $1,370,000 (+9.9%). A table comparing the current project with and without the extension has been enclosed as enclosure 3-B.

C. A table comparing the project at the time of Phase I approval and the current project has been included as enclosure 3-C.

4. Checklist of Phase II requirements:

A. List of Project Goals and Strategies.

Goal #1: To stop shoreline erosion from Superior Canal to Tebo Point.
Goal #2: To promote accretion between the breakwater and the shore.
Coast 2050 Strategy: Regional #16 - Stabilize Grand and White Lakes' shorelines.

B. Since the Cost Sharing Agreement (CSA) between the USACE and the LDNR covers both Phase I and Phase II, it cannot be executed until Phase II approval is given on the day of the Task Force meeting. It will be executed shortly after receiving Phase II approval.

C. The USACE will finalize landrights in a short period of time after Phase II approval. A copy of the approval of the final Real Estate Plan developed by the USACE has been included as Enclosure 4-C.

D. The USACE and the LDNR conducted a favorable 30% Design Review Meeting on May 11, 2004. As a part of that review, the Preliminary Design Report was provided for agency review and comment. The Preliminary Design Report included the results of the surveys, borings, geotechnical investigations, data analysis review, and the preliminary designs. The LDNR sent a letter dated May 12, 2004 that indicated their concurrence to proceed with the final design of the project. A copy of the letter of concurrence and a copy of the sign-in sheet from the meeting have been included as enclosure 4-D.

E. The USACE and the LDNR conducted a favorable 95% Design Review Meeting on August 16, 2004. As a part of that review, the Project plans and specifications and the Final Design Report were provided for agency review and comment. The LDNR sent a letter dated August 30, 2004 that indicated their concurrence to proceed with the Phase II request for the project. A copy of the letter of concurrence and a copy of the sign-in sheet from the meeting has been included as enclosure 4-E.

F. The Environmental Assessment (EA) has been finalized and a copy of the signed FONSI for the project has been included as enclosure 4-F.

G. A summary of the findings of the Ecological Review completed by the LDNR has been included as enclosure 4-G.

H. The application for and/or issuance of the public notices for permits is not applicable to this project. All permits were handled through the NEPA compliance process.

I. The hazardous, toxic and radiological waste (HTRW) assessment, was addressed in the EA.

J. A copy of the signed Section 303(e) approval from the USACE has been included as enclosure 4-J.

K. A copy of the Overgrazing determination from the Natural Resources Conservation Service (NRCS) has been included as enclosure 4-K. The letter indicates that there is no problem with overgrazing within the project area.

L. A revised fully-funded cost estimate of Phase II activities or economic analyses, based on the current Project design has been included as enclosure 4-L and summarized directly below.

Funding/Budget information:

1.) - The specific Phase II funding request (construction cost estimate and three years of O&M) are as follows:

Grand Lake SP with Tebo Point extension: $12,404,517
Grand Lake SP without extension: $11,034,716

2.) - The fully-funded 20-year cost estimates are as follows:

Grand Lake SP with Tebo Point extension: $15,205,000
Grand Lake SP without extension: $13,835,000

The schedule of expenditures is included in enclosure 4-L.

M. An estimate of project expenditures by state fiscal year subdivided by funding category has been included in enclosure 4-L.

N. A revised Wetland Value Assessment (WVA) was not required for the original project limits because there was not a change in scope as defined by the CWPPRA SOP. A WVA for the Tebo Point extension option was prepared and reviewed by the Environmental Workgroup. The resulting benefits have been included in enclosure 3-A in the benefits write-up.

O. The breakdown of the Prioritization Criteria ranking score, finalized and agreed upon by all agencies prior to the 95% design review has been included as enclosure 4-O.

P. The spreadsheet with the categorical breakdown for Phase 2 has been included as enclosure 4-P.

If you have any questions regarding the subject project, please call Mr. Chris Monnerjahn at (504) 862-2415.

Chris Monnerjahn
Project Manager
Coastal Restoration Branch

Enclosures

Enclosure 1

PPLl1 FINAL PROJECT NOMINEE FACT SHEET
Nov 20, 01 pl11NovFS Grand Lake

ME-16-2 Grand Lake Shoreline Protection, from Superior Canal to Tebo Point

Coast 2050 Strategy - Regional #16 - Stabilize Grand and White Lakes shorelines**.**

Project Location - Region 4, Mermentau Basin, Cameron Parish, south shore of Grand Lake.

Problem -According to a comparison of the 1978-79 aerial photography with 1997-98 photography, shoreline erosion rates in this area very from 11 to 32 feet per year.

Goals – 1**)** stop shoreline erosion from Superior Canal to Tebo Point. 2) promote accretion between the breakwater and the shore.

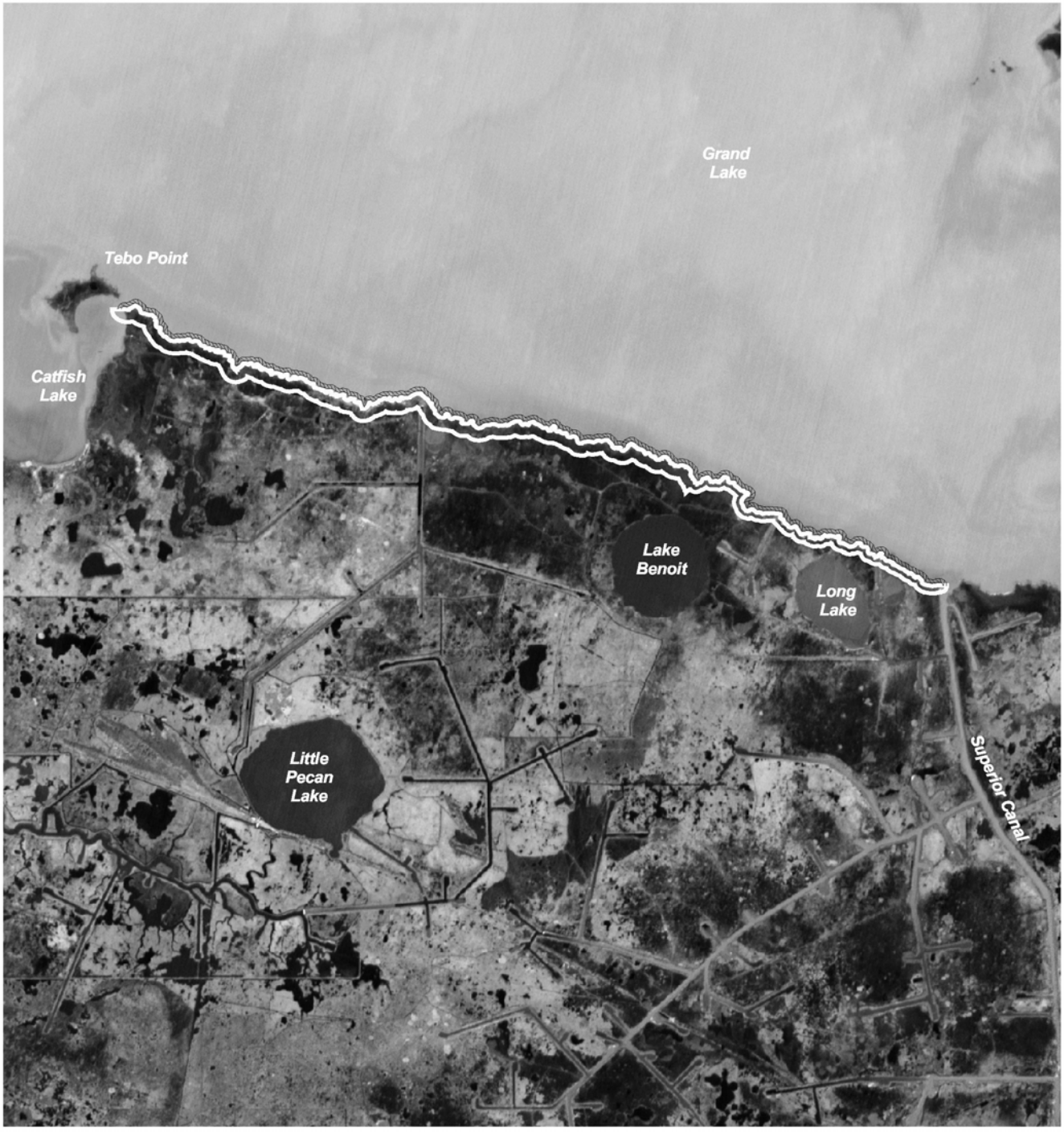
Proposed Solution - Approximately 39,000 feet of stone breakwater will be built in Grand Lake at the outer edge of the –2 foot contour from Superior Canal to Tebo Point. The crest elevation will be +2.0 feet NGVD; crest width 4 feet; front and back slopes 1:3; and stone size 650# maximum. Approximately 163,000 tons of riprap will be used. The stone will be placed on geotextile fabric that is 200 lb/inch. Gaps for fish access will be built every 1,000 feet. They will have a top width of 46 feet and extend to the lake bottom. They will be lined with a concrete apron. A flotation channel will be at least 35 feet from the centerline of the dike with a side slope of 1:4 and a depth of –6 feet. Material from the flotation canal will be cast inside the breakwater.

Project Benefits – The project would benefit 445 acres of fresh marsh and 717 acres of open water (total 1,162 acres). Shoreline loss would be prevented and some marsh would accrete south of the breakwater so at the end of 20 years, 495 acres of marsh would be protected/created.

Preliminary Costs – The total fully funded cost is $13,562,500. The fully funded first cost is **$**9,559,700.

Risk/Uncertainty and Longevity/Sustainability – There will be a low degree of risk associated with this project because monitoring has indicated that breakwaters significantly reduce erosion. The project should continue providing benefits more than 20 years after construction because some rocks will be replaced at years 5 and 15.

Sponsoring Agency and contact Persons – Corps of Engineers
Sue Hawes, COE, 504 862-2518 suzanne.r.hawes@mvn02.usace.army.mil
Christopher Alfonso, 504 862-2401 christopher.d.alfonso@mvn02.usace.army.mil



0.5 0 0.5 Miles

0.5 0 0.5 1 1.5 Kilometers

Project area

Proposed Breakwater

Data Source:
U.S.Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

LA Department of Natural Resources
Coastal Restoration Division

Map Date: November 16, 2001
Map ID: 200204142

Image Data:
1990 SPOT Panchromatic Imagery

CWPPRA PPL11
Region 4

Grand Lake Shoreline Protection Superior Canal to Tebo Point (ME-16-2)

Enclosure 3-A

FINAL PROJECT FACT SHEET
August 25, 2004

Project Name: Grand Lake Shoreline Protection, ME-21

Coast 2050 Strategy: Regional #16 - Stabilize Grand and White Lakes shorelines**.**

Project Location: Region 4, Mermentau Basin, Cameron Parish, south shore of Grand Lake.

Problem: According to a comparison of the 1978-79 aerial photography with 1997-98 photography, shoreline erosion rates in this area very from 11 to 32 feet per year.

Goals: 1**)** stop shoreline erosion from Superior Canal to Tebo Point. 2) promote accretion between the breakwater and the shore.

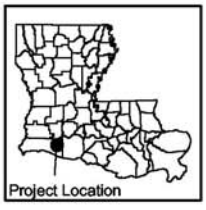
Proposed Solution: The final design consists of constructing approximately 37,800 linear feet of rock dike stretching from Superior Canal to the mouth of Catfish Lake with an option to place up to an additional 5,700 feet of dike to the west of the base project footprint (option reach). The Technical Committee and Task Force will be given the option to fund the increased length. This fact sheet covers both funding alternatives up for consideration. The rock dike will be situated along the –1.0-ft NAVD 88 contour in approximately 2.0 feet to 3.0 feet of water, stage dependant. The dike crown will be constructed to an elevation of +3.0 NAVD88 (+/-0.25') and have a width of approximately 4.0 feet. The dike will have front and back side-slopes of 1.0-foot vertical on 1.5-foot horizontal. It will be constructed by placing 650# maximum stone on a layer of geotextile fabric. Gaps for fish access will be built at approximate 1,000-foot intervals.
A flotation channel will be dredged parallel to and lake-ward of the rock dike, no closer than 45 feet from the centerline of the dike. The maximum allowable dredging depth for the flotation channel is –5.5 feet NAVD 88. All material from the flotation channel will be cast inside of the rock dike.

Project Benefits: The 37,800 lf of rock dike will benefit 445 acres of existing fresh marsh and 717 acres of open water (total 1,162 acres). Shoreline loss will be prevented and some marsh will accrete south of the breakwater so at the end of 20 years, 495 acres of marsh will be protected/created. The proposed extension around Tebo Point will benefit an additional 45 acres of fresh marsh and an additional 32 acres of open water. At the end of 20 years, an additional 45 acres will be protected/created.

Estimated Fully Funded Costs: The total fully funded cost of the project including the Tebo Point option is $15,205,000. The total fully funded cost of the base reach is $13,835,000.

Risk/Uncertainty and Longevity/Sustainability: There will be a low degree of risk associated with this project because monitoring has indicated that breakwaters significantly reduce erosion. The project should continue providing benefits more than 20 years after construction because there is a scheduled maintenance event in year 3 and year 15.

Sponsoring Agency and Contact Persons:
Chris Monnerjahn, USACE PM, 504-862-2415, chris.monnerjahn@mvn02.usace.army.mil
Kenneth Duffy, LDNR PM, 225-342-4106, kend@dnr.state.la.us



0.5 0 0.5 1 1.5 Miles

0.5 0 0.5 1 1.5 Kilometers

Map Source:
US Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, Louisiana

Image Source:
2002 Thematic Mapper Satellite Imagery
January 8, 2002

Map Date: July 29, 2004
Map ID: USGS-NWRC 2004-11-0462

Grand Lake Shoreline Protection
Superior Canal to Tebo Point
(ME-21)

- Proposed Rock Dike
- Project Boundary

Enclosure 3-B

Comparison of Project with and without Tebo Point Extension

Description	Phase II Project Info (without ext. option)	Phase II Project Info (with ext. option)	Difference
Length:	37,800 lf	43,500 lf	Increase of 5,700 lf
Placement Location:	@ -1.0' NAVD 88 contour	@ -1.0' NAVD 88 contour	Same
Crest El.:	+3.0' NAVD88	+3.0' NAVD88	Same
Crest Width:	4 ft	4 ft	Same
Side Slopes:	1V:1.5H	1V:1.5H	Same
Stone Size:	650# max	650# max	Same
Fish Dip Spaces:	every 1,000 lf	every 1,000 lf	Same
Project Benefits:	495 net acres	540 net acres	45 net acres more 9.1%
Total Fully Funded Cost:	$13,835,000	$15,205,000	$1,370,000 9.9%

Enclosure 3-C

Description of Changes From Phase I Approval

There are no changes to project scope from Phase I approval. An option to extend the original project is also up for consideration by the Technical Committee and Task Force. Note the current project with the proposed Tebo Point extension is only 12.1% more than the originally approved fully funded cost.

Comparison to Current Project without extension:

Description	Project Info at the time of Phase 0 approval (PPL 11)	Project Info at 95% Design Review Mtg. (without ext. option)	Difference
Length:	~39,000 lf	37,800 lf	slightly different bc based on actual dike alignment
Placement Location:	@ -2' NGVD contour	@ -1.0' NAVD 88 contour	similar, just difference in datums.
Crest El.:	+2.0' NGVD	+3.0' NAVD88	similar, just difference in datums.
Crest Width:	4 ft	4 ft	
Side Slopes:	1V:3H	1V:1.5H	revised based on geotech info
Stone Size:	650# max	650# max	
Fish Dip Spaces:	every 1,000 lf	every 1,000 lf	
Project Benefits:	495 net acres	495 net acres	No change
Total Fully Funded Cost:	$13,562,500	$13,835,000	2.0%

Comparison to Current Project with Tebo Point extension:

Description	Project Info at the time of Phase 0 approval (PPL 11)	Project Info at 95% Design Review Mtg. (with ext. option)	Difference
Length:	~39,000 lf	43,500 lf	Increase of 4,500 lf
Placement Location:	@ -2' NGVD contour	@ -1.0' NAVD 88 contour	similar, just difference in datums.
Crest El.:	+2.0' NGVD	+3.0' NAVD88	similar, just difference in datums.
Crest Width:	4 ft	4 ft	
Side Slopes:	1V:3H	1V:1.5H	revised based on geotech info
Stone Size:	650# max	650# max	
Fish Dip Spaces:	every 1,000 lf	every 1,000 lf	
Project Benefits:	495 net acres	540 net acres	45 net acres more 9.09%
Total Fully Funded Cost:	$13,562,500	$15,205,000	12.1%

Enclosure 4-C

CEMVN-RE-E 28 June 2004

MEMORANDUM FOR Commander, New Orleans District

SUBJECT: Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA), Grand Lake Shoreline Protection Project, Cameron Parish, Louisiana, Real Estate Plan (REP)

1. Forwarded herewith for review and approval is the REP for the Grand Lake Shoreline Protection Project, a feature of CWPPRA.

2. It is requested that you approve this REP.

Encl

WILLIAM C. LEWIS, JR.
Chief, Real Estate Division

CEMVN-DE

Commander, New Orleans District

FOR Chief, Real Estate Division

APPROVED BOK DISAPPROVED _____ SEE ME _____

Encl

PETER J. ROWAN
Colonel, EN
Commanding

Enclosure 4-D

State of Louisiana

KATHLEEN BABINEAUX BLANCO
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL RESTORATION AND MANAGEMENT
May 12, 2004

Colonel Peter J. Rowan
District Engineer
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Re: 30% Design Review for Grand Lake Shoreline Protection (ME-21)
Statement of Local Sponsor Concurrence

Dear Col. Rowan:

The 30% design review meeting was held on May 11, 2004 for the Grand Lake Shoreline Protection (ME-21) project. Based on our review of the technical information compiled to date, the ecological review, the preliminary land ownership investigation, and the preliminary designs, we, as local sponsor, concur to proceeding with the design of the project, with the understanding that the two increments above baseline, Options A and B, will be contingent on an assessment of the cultural resources site near Tebo Point. Since no oyster leases will be affected by this project, there has been no assessment of potential impacts.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee. We also request that our project manager, Ken Duffy, be copied on this and other correspondence concerning this project.

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

Sincerely,

Christopher P. Knotts, P.E.
Director

cc: David Burkholder, Engineer Manager
Luke Le Bas, Engineer Manager
Ken Duffy, Project Manager

COASTAL ENGINEERING DIVISION
P. O. BOX 44027 • BATON ROUGE, LA 70804-4027 • 617 N. THIRD STREET • 10TH FLOOR • BATON ROUGE, LA 70802
PHONE (225) 342-7308 • FAX (225) 342-9417 • WEB http://www.dnr.state.la.us
AN EQUAL OPPORTUNITY EMPLOYER

SIGN-IN

11 MAY 2004 — 30% Design Review

CWPPRA - GRAND LAKE SHORELINE PROTECTION

1.)	MAURICE "SID" FALK	(504) 862-1834	Maurice.s.falk@mvn02.usace.army.mil
2.)	CHRIS MONNERJAHN	504 862-2415	chris.monnerjahn@mvn02.usace.army.mil
3.)	Ed Blodgett	2481	
4.)	Keith O'Cain	504-862-2746	Keith.J.O'Cain@MVN02.USACE.ARMY.MIL
5	Gary Hannemann	862-1011	gary.a.hannemann@ " " "
6.	LARRY DRESSLER	504-862-2985	LAWRENCE.S.DRESSLER@MVN02.USACE.ARMY.MIL
7.	Robert Dubois	337-291-3127	robert_dubois@fws.gov
8.	Fay Lachney	504-862-2309	Fay.Lachney@mvn02.usace.army.mil
9.	Yvonne Barbier	504-862-1173	barbier@usace.army.mil
10.	PATTY TAYLOR	214-6665-6403	Taylor.Patricia-A@epa.gov
11.	Mark Stead	225-342-9430	Marks@dnr.state.la.us
12.	Will Norman	225-342-9432	charlesn@dnr.state.la.us
13.	AMANDA PHILLIPS	225-219-0380	amanda.phillips@la.gov
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15.	Eric D. Roth	225-342-7329	ericro@dnr.state.la.us
16.	Ken Duffy	225-342-4106	ken.duffy@la.gov
17.	Mark Mouledous	337-482-0661	markm@la.gov
18.	GREG DEBOSE	504-862-2452	gregory.a.debose@MVN02.USACE.ARMY.MIL
A	Beth McCasland	504-862-2021	elizabeth.l.mccasland@mvn02.usace.army.mil
20.	Pat Landry	337 482-0680	patrick.landry@la.gov
21.	STAN AUCOIN	(337) 482-0681	STANLEY.AUCOIN@LA.GOV
22.	RENEE RUSSELL	504-862-2989	RENEE.M.RUSSELL@MVN02.USACE.army.mil
23	Pat Forbes	225-342-3968	pat.forbes@gov.state.la.us
24	Paul Hughbanks	504 862-1100	Paul.J.Hughbanks@mvn02.usace.army.mil
25	Sean Mickal	504 862-2319	sean.p.mickal@ "

Enclosure 4-E

State of Louisiana

KATHLEEN BABINEAUX BLANCO
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL RESTORATION AND MANAGEMENT

August 30, 2004

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

Re: 95% Design Review for Grand Lake Shoreline Protection (ME-21)
Statement of Successful Completion

Dear Mr. Saia:

The 95% design review meeting was successfully completed on August 16, 2004 for the Grand Lake Shoreline Protection (ME-21) project. Based on our review of the Final Design Report, plans and specifications, the Ecological Review, and the environmental compliance documentation, as local sponsor, we concur to request permission from the Technical Committee to proceed to Phase II for this project.

In accordance with the CWPPRA Project Standard Operating Procedures Manual, we request that you forward the items required in Appendix C – Information Required in Phase II Authorization Requests to the CWPPRA Technical Committee for subsequent approval by the CWPPRA Task Force. We also request that our project manager, Kenneth Duffy, be copied on this and all other correspondence concerning this project.

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

Sincerely,

Christopher P. Knotts, P.E.
Director

CPK:KCD:kcd

cc: John Hodnett, P.E., Engineer Manager
Luke LeBas, P.E., Engineer Manager
Kenneth Duffy, Ph.D., Project Manager
Amanda Phillips, P.E., Project Engineer

COASTAL ENGINEERING DIVISION
P. O. BOX 44027 • BATON ROUGE, LA 70804-4027 • 617 N. THIRD STREET • 10TH FLOOR • BATON ROUGE, LA 70802
PHONE (225) 342-7308 • FAX (225) 342-9417 • WEB http://www.dnr.state.la.us
AN EQUAL OPPORTUNITY EMPLOYER

ATTENDANCE RECORD

DATE	SPONSORING ORGANIZATION	LOCATION
16 August 2004	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	U.S. Army Corps of Engineers New Orleans District Room 304

PURPOSE:
95% Design Review Meeting for the Grand Lake Shoreline Protection Project

PARTICIPANT REGISTER*

NAME	JOB TITLE AND ORGANIZATION	E MAIL ADDRESS	TELEPHONE NUMBER
Chris Monnerjahn	USACE, PM	chris.monnerjahn@mvn02.usace.army.mil	504 862-2415
Ken Duffy	DNR, PM	ken.duffy@la.gov	225-342-4106
Amanda Phillips	DNR, ENG.	amanda.phillips@la.gov	225-219-0880
Mark Stead	DNR, CRD	marks@dnr.state.la.us	225-342-4430
LARRY DRESSLER	USACE, GEOTECH	LAWRENCE.DRESSLER@MVN02.USACE.ARMY.MIL	504-862-2985
Christina Kramer	USACE, Cost Eng.	Christina.A.Kramer@mvn02.usace.army.mil	504-862-1218
Beth McCasland	USACE PM-RS	elizabeth.l.mccasland@mvn02.usace.army.mil	504-862-2021
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Gary Hanneman	Lusfer	gary.a.hanneman@mvn02.usace.army.mil	504 862-1014
Charlie Everhardt	CD-CV	charles.everhardt@mvn02.usace.army.mil	504-862-2356
Mike Bourgeois	CD-QM	corps email	862-1520
John Lopez	USACE-PM-C	John.A.Lopez@	862-1945
Mark Mouledous	LDNR-CRD	markm@la.gov	337-482-0661
STAN AUCOIN	LDNR/CED	STANLEY.AUCOIN@LA.GOV	337-482-0681
Dewey Billodeau	LDNR/CED	dewey.billodeau@la.gov	337/482-0664

LMV FORM 583-R

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

Enclosure 4-F

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

REPLY TO
ATTENTION OF:

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Grand Lake Shoreline Protection Project
Cameron Parish, Louisiana
EA # 380

Description of Proposed Action. The proposed action consists of building approximately 39,000 feet of stone breakwater along the south shore of Grand Lake in Cameron Parish, Louisiana. The breakwater will stretch westward from Superior Canal to the mouth of Catfish Lake, ending approximately 1,600 feet east of Tebo Point. This breakwater would be built at the outer edge of the 2-foot depth contour (estimated –1.2 ft North American Vertical Datum 1988 [NAVD 88] equivalent). Dimensions of the breakwater would be a crest elevation of +3.5 feet NAVD 88, a 4-foot crest width, and 1:5 front and back slopes. Stone size for the breakwater would be 650 pounds maximum (largest stones would be approximately 24 inches in diameter), and the dike would require approximately 185,000 tons of stones. The stones would be placed on geotextile separator fabric with a tensile strength of 3,600 pounds per linear foot. Gaps for fish access would be built approximately every 1,000 feet, would have a top width of 50 feet, and would extend to the lake bottom, with an approximate bottom width of 36 feet. A flotation channel for equipment access would be at least 45 feet from the centerline of the dike with side slopes of 1:2 and a depth of 5 feet. Material from the flotation canal would be cast inside the breakwater where feasible. Additional access dredging is likely to be required in the vicinity of the project site in order to allow rock transport from the Mermentau River to the project site. Controlling water depth would be 5 feet. Dredged material would be stockpiled adjacent to the required dredging location during construction, then returned to its pre-project location upon project completion. Shoreline loss would be prevented and some marsh would accrete south of the breakwater so at the end of 20 years, 495 acres of marsh would be protected and/or created.

Factors Considered in Determination. This office has assessed the impacts of the proposed action on significant resources, including Grand Lake, wetlands, fisheries, wildlife, essential fish habitat, endangered or threatened species, cultural resources, recreational resources, aesthetics, and air quality. No significant adverse impacts were identified for any of the significant resources. The risk of encountering HTRW is low. By a letter dated 7 May 2003, the U.S. Fish and Wildlife Service confirmed that the proposed action is not likely to adversely affect any endangered or threatened species. In a letter, dated 11 March 2004, the Louisiana Department of Natural Resources concurred with the determination that the proposed action is consistent, to the maximum extent practicable, with the Louisiana Coastal Resources Program (Coastal Zone Consistency #C20040024).

A Water Quality Certificate, (#030801-08 / AI 117263 / CER20030001) dated 23 January 2004 was received from the Louisiana Department of Environmental Quality. Review of the Section 404(b)(1) Public Notice was completed on 7 November 2003. The Section 404(b)(1) Evaluation was signed on 30 October 2003. In a letter dated 3 March 2004, the Louisiana State Historic Preservation Officer concurred with a recommendation of no effect on historic properties. This office has concurred with, or resolved, all Fish and Wildlife Coordination Act recommendations contained in a letter from the U.S. Fish and Wildlife Service, dated 13 February 2004. This office has concurred with, or resolved, all Essential Fish Habitat recommendations contained in a letter from NOAA Fisheries, dated 11 March 2004.

Environmental Design Commitments. No impacts have been identified that would require compensatory mitigation. The following commitments are an integral part of the proposed action:

1.) If the proposed action is changed significantly or is not implemented within one year, CEMVN will reinitiate coordination with the USFWS to ensure that the proposed action would not adversely affect any Federally listed threatened or endangered species, or their habitat. (USFWS CAR letter dated 13 February 2004)

2.) CEMVN is aware of cultural site 16CM33 on Tebo Point. As the Proposed Action will stop at the mouth of Catfish Lake, approximately 1,600 feet east of Tebo Point, the project should have no effect on this resource. If, during construction, evidence is found that portions of site 16CM33 is located within construction areas, then all construction in the affected areas must cease until an CEMVN-PM-RN archaeologist is notified and appropriate actions can be determined. Furthermore, if in the future, the breakwater would be extended around Tebo Point, then a supplemental EA, including further study of cultural resources, will be required. If any unrecorded cultural resources are determined to exist within the proposed project boundaries, then no work will proceed in the area containing these cultural resources until a CEMVN-PM-RN archeologist has been notified and final coordination with the SHPO and THPO has been completed. (SHPO coordination letter dated 3 March 2004)

3.) Approximately 32 acres of muddy and non-vegetated bottom, would be lost under the footprint of the breakwater; however, the stabilization and creation of approximately 495 acres (or 149 Average Annual Habitat Units) of more desirable freshwater marsh which provides important nursery habitat (essential fish habitat) would make up for this loss. (NOAA Fisheries coordination letter dated 9 February 2004)

Public Involvement. The proposed action has been coordinated with appropriate Federal, state, and local agencies and businesses, organizations, and individuals through distribution of Environmental Assessment # 380 (EA #380) for their review and comment.

Conclusion. This office has assessed the potential environmental impacts of the proposed action. Based on this assessment, and a review of the public comments made on EA #380 a determination has been made that the proposed action would have no significant impact on the human environment. Therefore, an Environmental Impact Statement will not be prepared.

2 Apr 04
Date

Peter J. Rowan
Colonel, U.S. Army
District Engineer

Enclosure 4-G

Draft-August 2004

E C O L O G I C A L R E V I E W

Grand Lake Shoreline Protection

CWPPRA Priority Project List 11
(State No. ME-21)

August 31, 2004

Mark A. Stead
Restoration Technology Section
Coastal Restoration Division
Louisiana Department of Natural Resources

Ecological Review
Grand Lake Shoreline Protection

In August 2000, the Louisiana Department of Natural Resources (LDNR) initiated the Ecological Review to improve the likelihood of restoration project success. This is a process whereby each restoration project's biotic benefits, goals, and strategies are evaluated prior to granting construction authorization. This evaluation utilizes environmental data and engineering information, as well as applicable scientific literature, to assess whether or not, and to what degree, the proposed project features will cause the desired ecological response.

I. Introduction

The proposed Grand Lake Shoreline Protection (ME-21) project is located in the Mermentau Basin in Cameron Parish, Louisiana. The project area encompasses the southern shore of Grand Lake from Superior Canal to the mouth of Catfish Lake and may include an optional structural increment that extends westward to Tebo Point (Figure 1). The total area of the Grand Lake Shoreline Protection project is approximately 1,162 acres and is primarily composed of fresh emergent marsh (445 acres) and open water (717 acres) habitats (USACE 2001). Approximately 37,800 feet of Grand Lake shoreline will be protected through the construction of a foreshore rock dike, with an option to protect 5,700 feet of shoreline around Tebo Point.

Coast 2050 identified elevated water levels and wave energy generated by strong frontal winds as the major factors contributing to the rapid erosion of the southern shore of Grand Lake [Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority (LCWCRTF&WCRA) 1999]. Erosion rates calculated by comparing aerial photographs from 1978-1979 to those taken in 1997-1998 revealed that 11 to 32 feet of shoreline was lost annually (USACE 2001). Construction of the foreshore rock dike will prevent the lake from breaching into adjacent open water areas (Lake Benoit and Long Lake) and will protect interior marsh, which without the structure, will be subjected to increased wave energy (LCWCRTF&WCRA 1999). The proposed strategy of protecting and stabilizing the southern shoreline of Grand Lake is supported by the *Coast 2050* Region 4 Ecosystem Strategies which promote the stability and protection of bay, lake, and gulf shorelines for the preservation of interior wetlands and the maintenance of favorable hydrologic conditions.

II. Goal Statement

- Stop erosion along approximately 37,800 linear feet of the southern bank of Grand Lake and as a result save 445 acres of interior emergent marsh that is expected to be lost over the 20 year project life.
- Increase submerged aquatic vegetation (SAV) coverage to 80% in the open water areas from a baseline of 10% over the 20 year project life.
- Create 50 acres of emergent marsh between the Grand Lake shoreline and the foreshore rock dike over the 20 year project life.
- Stop erosion along the shoreline of Tebo Point and as a result save 28 acres of emergent marsh that is expected to be lost over the 20 year project (optional goal).

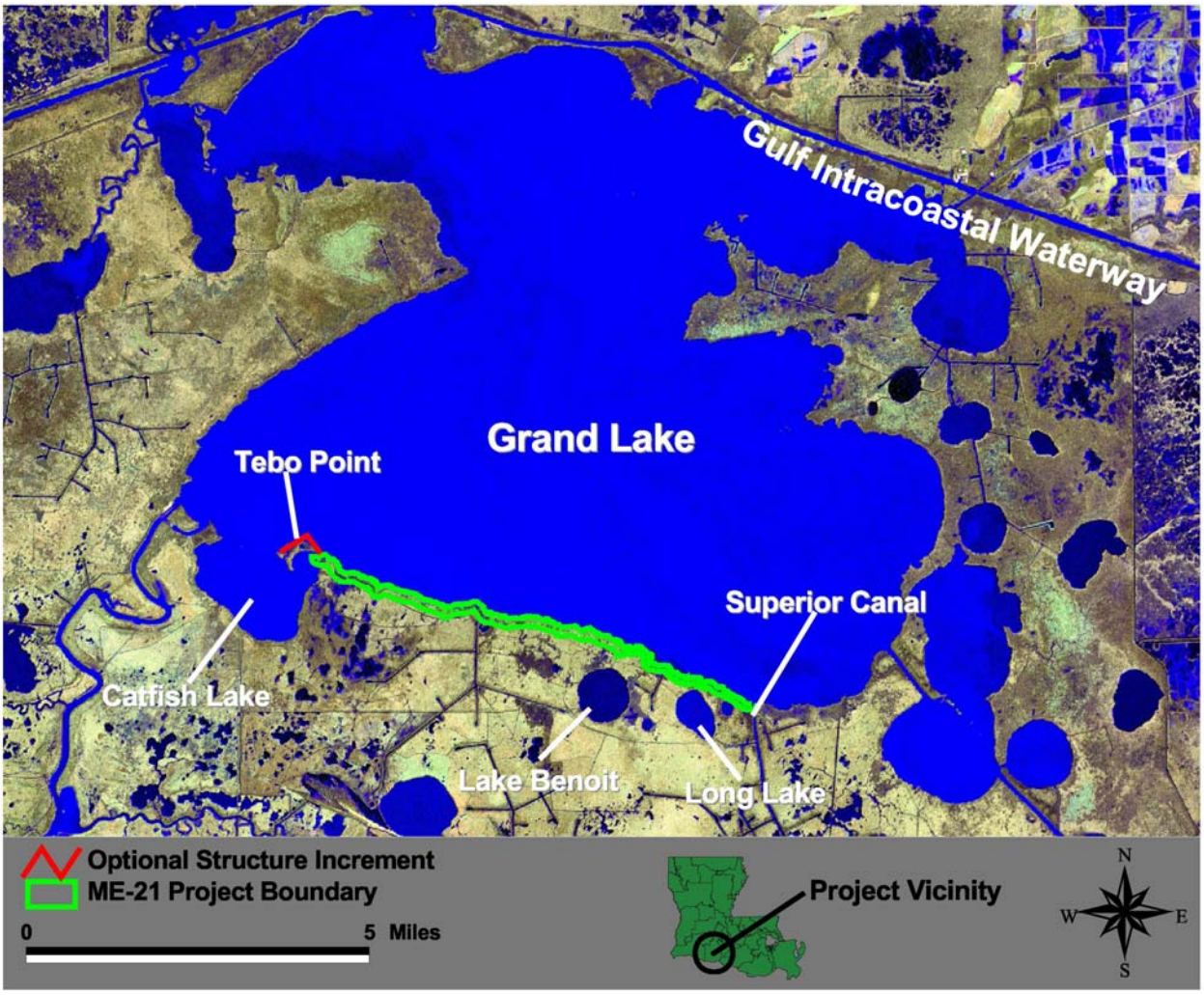

Figure 1. **Grand Lake Shoreline Protection project area.**

III. Strategy Statement

The project goals will be achieved through the construction of an approximately 37,800 foot foreshore rock dike along the southern shore of Grand Lake from Superior Canal to the mouth of Catfish Lake with the option of including an additional 5,700 feet of structure around Tebo Point.

IV. Strategy-Goal Relationship

The construction of a foreshore rock dike will stop erosion along the southern Grand Lake shoreline by dampening wind generated waves. The stabilization of the lake shoreline will in turn protect interior marsh from being exposed to wave energy. Marsh accretion is expected to occur behind the shoreline protection structure due to the occasional overwash of waves and subsequent deposition of sediment. Additional marsh creation benefits will be achieved through the strategic placement of dredged spoil from the digging of the flotation canals.

The construction of the foreshore rock dike is expected to increase the overall percentage of SAV coverage in the area behind the shoreline protection structure from 10% to 80%. SAV

habitat creation is expected to occur due to the reduction of turbidity in the shallow open water areas and the resulting increase in overall light penetration.

V. Project Feature Evaluation

A 37,800 foot foreshore rock dike will be constructed along the southern shore of Grand Lake 200 feet from the existing shoreline at the -1.0 NAVD-88 foot contour from Superior Canal to the mouth of Catfish Lake. In addition, an optional plan is in place to extend the structure an additional 5,700 feet westward around Tebo Point and continuing southwest to protect the entire island (Figure 1). The crest elevation of the rock dike structure will be built at an approximate height of +3.0 ± 0.25 feet NAVD-88 (Figure 2). Settlement is expected to occur during construction. To offset this initial loss, the contractor will add rock material to the structure as needed to achieve the desired design height before demobilization. The breakwater will have front and back side-slopes of 1(V) on 1.5(H) and a crest width of 4 feet. All stone sizing will conform to standard 24 inch rock gradation placed on 200 pound/inch^2 geotextile fabric. Fish dips measuring 50 feet wide and lined with a layer of rock will be constructed every 1,000 feet to allow organism egress and ingress.

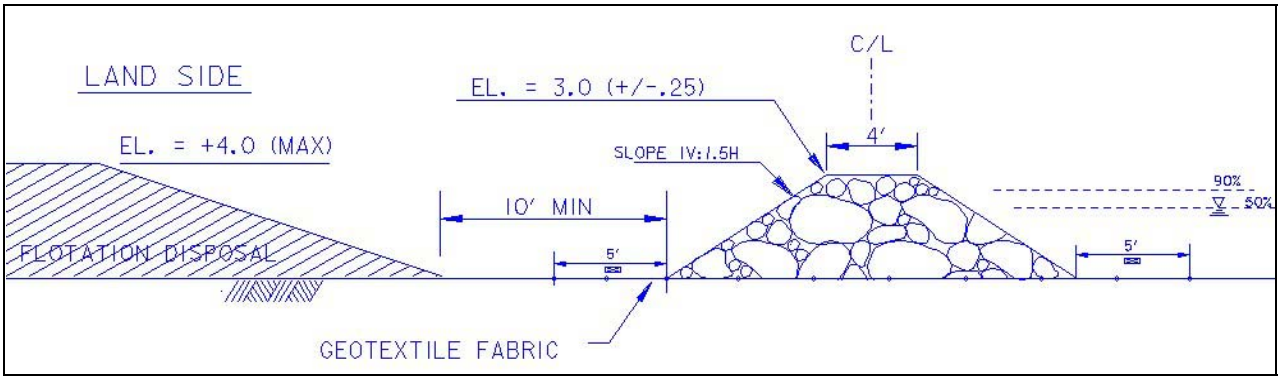

Figure. 2: Typical dike section (USACE 2004).

Originally the crest elevation of the shoreline protection structure for the Grand Lake project was designed at +3.5 feet NAVD-88 which was calculated by adding the following three factors: mean water elevation, 90% wind setup, and 90% wave height. However, protecting against 90% of the wave height was considered a conservative estimation of the conditions in the Grand Lake project area. Project engineers felt that designing the rock dike to protect against ½ of the 90% wave height would reduce the cost and overall pressure on the soil foundation while still providing adequate shoreline protection. As a result, the current structure elevation design of +3.0 feet NAVD-88 was determined through the addition of the Grand Lake mean water level (+1.45 feet), 90% wind setup (0.50 feet), and ½ of the 90% wave height (0.85 feet). This design technique results in 0.2 feet of the rock dike remaining sub-aerial during storm conditions.

The geotechnical analysis (USACE 2003) revealed a relatively poor soil foundation in the project area. The soils near the southern bank of Grand Lake consist of soft and organic clays with occasional lenses of soft clay, silt, silty sand and occasional wood. Pleistocene deposits reside nine feet underneath the upper swampy marsh deposits and consist of interbedded, highly oxidized, stiff clays. The geotechnical analysis indicated that the foundation clays are over consolidated and little consolidation settlement is expected to occur (USACE 2003). After

construction, lateral spreading will cause settlement of approximately 1.76 feet with a second lift expected in three years to maintain a crest elevation of +3.25 NAVD-88. It is estimated that after the three year maintenance lift the structure will ultimately settle to a crest height of +2.56 feet NAVD-88 by year twenty. The initial placement elevation for a the Grand-White Lakes Landbridge Protection (ME-19) project, which is in the vicinity of the Grand Lake Shoreline Protection project, was built at an elevation of +2.5 NAVD-88.

According to the settlement consolidation curves, the structure elevation will fall below mean water level (+1.45 feet NAVD-88) two years post-construction, one full year before the scheduled maintenance lift planned for year three (Figure 3). It is conceivable that once submerged the foreshore rock dike will become somewhat less effective as a shoreline protection structure, and a possible threat to navigation. However, project team members determined that the benefits of the shoreline protection structure would not be significantly reduced in view of the fact that the structure would be submerged for a relatively short period of time. In addition, the dredged material placed on the landward side of the rock dike would offer further protection to the Grand Lake shoreline. To avoid possible threats to navigation, the structure will be adequately marked.

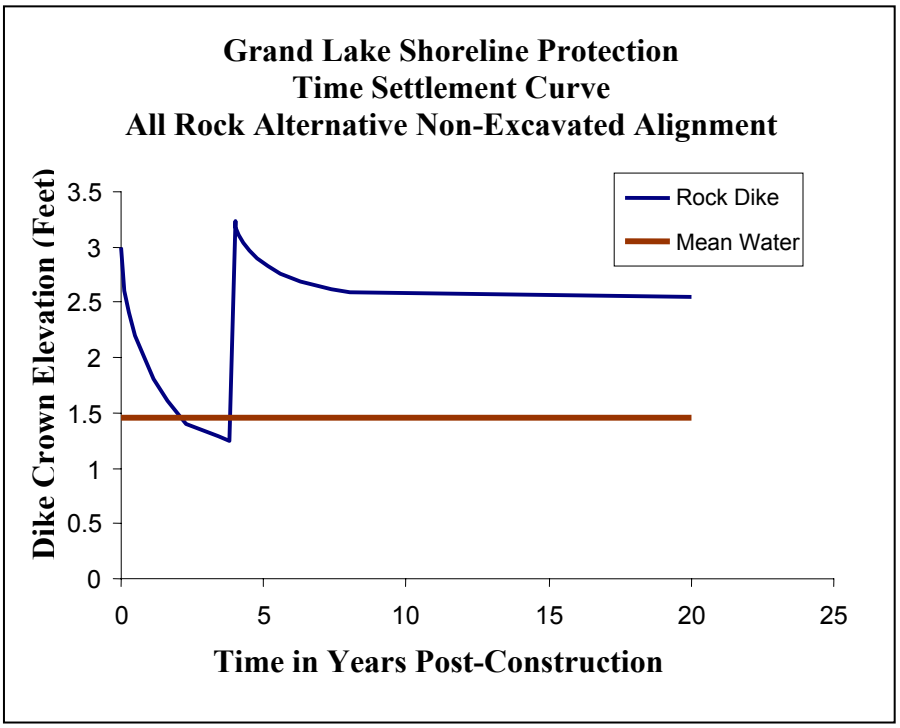

Figure 3. Time settlement curve for proposed Grand Lake foreshore rock dike after construction.

The need for a flotation canal to allow access for construction barges and equipment will produce a significant amount of dredged spoil. It is estimated that approximately 120 acres of fresh emergent marsh will be created through the beneficial use of the dredged material. Maximum allowable dredging depth of the flotation channel will be -5.0 feet NAVD-88. The spoil will be stacked at a target elevation of +3.0 feet NAVD-88 and at a maximum elevation of +4.0 feet NAVD-88. The material will be placed at a minimum of 10 feet landward from the toe

of the foreshore rock dike and 50 feet seaward of the shoreline. It is expected that the dredged spoil, through the dewatering and consolidation process, will settle to a final elevation of +1.5 to +1.9 feet NAVD-88 at year twenty. This elevation is considered optimal for healthy unbroken marsh and is consistent with the surrounding marsh elevation in the Grand Lake project areas (USACE 2004).

A possible cultural resource site (Indian midden mound) exists near the western most edge of Tebo Point. At the 30% Design Review meeting for the Grand Lake Shoreline Protection project, it was believed that dredging a flotation canal near Tebo Point could destroy valuable cultural artifacts. However, a recent United States Army Corps of Engineers archeological survey of the area determined that the footprint of the midden mound at Tebo point was not as large as originally estimated. As a result, the dredging of the flotation canal for placement of the rock material around the shoreline of Tebo Point would not likely endanger any cultural resources. Construction of the rock dike at the shoreline of Tebo Point would likely preserve any cultural resources from erosional forces while providing protection to the western flank of the Grand Lake shoreline (Figure 1). The placement of the shoreline protection structure around Tebo Point is considered optional since the increment was not included in the original project plans or Wetland Value Assessment. The decision to exercise any part of the option will be made by the Contracting Officer of Record, during construction, provided the Coastal Wetlands Conservation and Restoration Task Force approves the project to the maximum length.

VI. Assessment of Goal Attainability

Environmental data and scientific literature documenting the effects of the proposed project features in field application are evaluated below to assess whether or not, and to what degree the project features will the desired ecological response.

Armor Shoreline Protection

A number of projects using traditional shoreline protection structures have been implemented in Louisiana coastal areas to protect lake, bay, and navigational channel shorelines (Table 1). Published results of projects funded under CWPPRA and through the State of Louisiana that have used rock shoreline protection structures constructed in environments similar to the Grand Lake Shoreline Protection project are discussed below.

- The Boston Canal/Vermilion Bay Bank Protection (TV-09) project was designed to abate wind-driven wave erosion along Vermilion Bay and at the mouth of Boston Canal (Thibodeaux 1998). To accomplish that goal a 1,405 foot foreshore rock dike was constructed in 1995 at an elevation of +3.8 feet NGVD-29 along the bank of Boston Canal extending into Vermilion Bay. In 1997, two years after construction, the project was estimated to have protected 57.4 acres of marsh and 1.4 to 4.5 feet of sediment was deposited behind the breakwater while the reference area continued to erode. The rock breakwater at the mouth of Boston Canal was successful in stabilizing the shoreline (Thibodeaux 1998).

- Lake Salvador Shoreline Protection Demonstration (BA-15) project evaluated a series of shoreline protection measures at Lake Salvador, St. Charles Parish, Louisiana. Phase two of this project was conducted in 1998 and evaluated the effectiveness of a rock berm to protect the lake shoreline from higher energy wave erosion. Shoreline

surveys conducted behind the berm five months after construction indicated that the shoreline was still eroding. Subsequent surveys were not conducted due to poor weather conditions (LDNR 2000). The rock structure itself appears to be holding up well, showing little sign of deterioration and subsidence. The structure was designed to be constructed with a crest elevation of +4.0 feet NAVD-88. However, a 2002 survey of the rock dike determined that the average height of the structure was +2.51 feet NAVD-88. The average settlement of the structure, measured from 1998 to 2002, was approximately 0.29 feet. It was concluded that the rock dike was built to an inadequate crest elevation of +2.75 feet NAVD-88 (Darin Lee, LDNR, Personal Communications, July 19, 2002).

Table 1. Design Parameters of Constructed Shoreline Protection Projects (Sorted by Construction Date).

Project Name	Project Number	Region	Construction Date	Depth Contour (NAVD-88)	Length of Structure (feet)	Height	Distance From Shoreline (feet)
Blind Lake	N/A* (State)	4	1989	N/A	2,339	4.0 ft NAVD-88	70
Cameron Prairie National Wildlife Refuge Shoreline Protection	ME-09	4	1994	-1.0 ft	13,200	3.7 ft NAVD-88	0-50
The Freshwater Bayou Bank Protection	TV-11 (State)	3	1994	N/A	25,800	4.0 ft NAVD-88	N/A
Turtle Cove	PO-10 (State)	1	1994	N/A	1,640 (rock gabion)	3 ft (MWL)	300
Bayou Segnette	BA-16 (State)	2	1994,1998	N/A	6,800	3.0-5.0 ft NAVD-88	N/A
Boston Canal/Vermilion Bay Bank Protection	TV-09	3	1995	N/A	1,405	3.8 ft NGVD-29	N/A
Clear Marias Bank Protection	CS-22	4	1997	-1.2 ft	35,000	3.0 ft NGVD-29	0-50
Freshwater Bayou Wetlands Protection	ME-04	4	1998	-1.0 ft	28,000	4.0 ft NAVD-88	0-150
Freshwater Bayou Bank Stabilization	ME-13	4	1998	N/A	23,193	3.7-4.0 ft NAVD-88	N/A
Lake Salvador Shoreline Protection Demonstration	BA-15 Phase II	2	1998	-1.0 to 1.4 ft	8,000	Designed at 4.0 ft NAVD-88 built at 2.75 ft NAVD-88	100
Perry Ridge Shore Protection	CS-24	4	1999	N/A	12,000	3.7 to 4.0 ft NAVD-88	60
Jonathan Davis Wetland Protection	BA-20	2	2001	N/A	34,000	3.5 ft NAVD-88	N/A
Bayou Chevee Shoreline Protection	PO-22	1	2001	N/A	5,690	3.5 ft NGVD-29	300

***N/A indicates that information was not available.**

- Intracoastal Waterway Bank Stabilization and Cutgrass Planting project at Blind Lake was a state only wetland restoration project constructed to prevent the Gulf Intracoastal Waterway (GIWW) and Sweet Lake from coalescing with Blind Lake (LDNR 1992). A limestone foreshore rock dike built at an elevation of +4.0 feet

NGVD-29 was placed 70 feet from the edge of the main channel along 2,339 feet of bank on a six-inch layer of shell and filter cloth. Large stones were used to prevent movement of rocks and to allow sediments and organisms passage. In 1991, two years after project completion an average increase in elevation of 0.32 feet in the area behind the dike was observed along transects from the deposition of suspended sediments. Data indicate that the project was successful in protecting the shoreline at Blind Lake and maintaining the hydrology of the Cameron-Creole watershed.

- The Turtle Cove Shoreline Protection (PO-10) was initiated in 1993 to protect a narrow strip of land in the Manchac Wildlife Management Area which separates Lake Pontchartrain from an area known as "the Prairie" (O'Neil and Snedden 1999). Wind induced waves contributed to a shoreline erosion rate of 12.5 feet per year. A 1,642 foot rock filled gabion was constructed 300 feet from shore at an elevation of 3 feet above mean water level with the goal of reducing erosion and increasing sediment accretion behind the structure. Post construction surveys conducted during the period of October 1994 to December 1997 revealed that the shoreline had prograded at a rate of 3.47 feet per year in the project area. The rate of sediment accretion, as determined from elevation surveys conducted in January 1996 and January 1997, was 0.26 feet per year.

  The soils in The Prairie and Turtle Cove area consist of Allemands-Carlin peat which is described as highly erodible organic peat and muck soils (USDA 1972). Due to the weak and compressible nature of the subsurface soils, the gabions settled 0.59 feet in just over two years (October 1994 to January 1997) (O'Neil and Snedden 1999). Also, five years after construction the rock filled gabion structure exhibited numerous breaches and required extensive maintenance (LDNR 1999).

There are also several examples of successful projects involving the use of shoreline protection to stop erosion along navigation channel banks.

- The Freshwater Bayou Wetlands Protection (ME-04) project is positioned on the western bank of Freshwater Bayou Canal across from the proposed TV-11b project (Vincent et al. 1999). Construction of this project was initiated in January 1995 and includes construction of water control structures and a 28,000 linear foot foreshore rock dike designed with a crown elevation of +4.0 feet NAVD-88. Penland et al. (1990) estimated relatively low rates of subsidence and sea level rise, at 0.13 inches per year. Analysis of initial monitoring data suggests that the rock dike reduced wave-induced shoreline erosion after construction. The average rate of shore progradation between June 1995 and July 1996 was measured at 2.2 feet per year while the reference area continued to erode at an average rate of 6.7 feet per year (Raynie and Visser 2002). In contrast, between March 1998 and May 2001, the protected shoreline eroded an average of 2.6 feet per year while the reference area eroded at an average of 10.0 feet per year (Raynie and Visser 2002). Substandard recycled construction material and inadequate funds for maintenance of the structure, which were not disbursed in a timely manner, are believed to be the reason for the increase in erosion rates in the project area (Raynie and Visser 2002).

- The Cameron Prairie National Wildlife Refuge Shoreline Protection (ME-09) project, constructed in 1994, is located in north-central Cameron Parish and includes 350 acres of freshwater wetlands (Barrilleaux and Clark 2002). A 13,200-foot rock breakwater was constructed at an elevation of +3.7 feet NAVD-88, 50 feet from (and parallel to) the northern shore of the GIWW to prevent wave action from eroding the bank and breaching into the interior marsh. Aerial photography and survey points were used to monitor any changes in land to water ratio and shoreline position. Three years after construction results indicate that the project area shoreline advanced 9.8 ± 7.1 feet per year while the reference area retreated 4.1 ± 3.1 feet per year. A two-sample t-test reveled a significant difference was detected between the shoreline change rate and the project reference areas ($P < 0.001$).

- The Clear Marais Bank Protection (CS-22) project was constructed in 1997 at an elevation of +3.0 feet NGVD-29 to prevent breaches in the GIWW shoreline and subsequent erosion of the interior marsh while preventing saltwater intrusion (Miller Draft Report 2001). Approximately 35,000 linear feet of rip-rap was placed 50 feet from the northern shoreline of the GIWW. Results indicate that the foreshore rock dike has been effective in preventing erosion of the GIWW shoreline. A net gain of 13 feet per year occurred behind the rock structure while the reference area continued to erode (Raynie and Visser 2002).

Submerged Aquatic Vegetation

Submerged Aquatic Vegetation plays a crucial role in the littoral zone of aquatic ecosystems (Wetzel 1983). Submerged Aquatic Vegetation dissipates the energy of wind and wave action, reduces the amount of bottom sediment resuspension, serves as effective traps for inorganic and organic particulates, and provides suitable forage for ducks, invertebrates and larval fish (Spence 1982, Foote and Kadlec 1988, Lodge 1991). It is widely understood that the limiting factor controlling the recovery of SAV in lakes is light attenuation (Sager et al. 1998). Submerged aquatic vegetation habitat creation is expected to occur behind the shoreline protection structure in White Lake due to the reduction of turbidity in the shallow open water areas and the resulting increase in overall light penetration.

Summary/Conclusions

Projects such as TV-09, BA-15, CS-22 and ME-09, that were designed to an adequate elevation and located in areas with relatively good soil foundations, where successful in reducing erosion and promoting accretion due to occasional overwash of waves and subsequent deposition of sediment. However, ME-04 and PO-10 were not as successful over the long term due to poor soil foundations, improper design, the use of substandard materials, and/or inadequate maintenance funds.

According to the geotechnical report (USACE 2004) the soil foundation in the Grand Lake Shoreline Protection project area is considered poor. In an effort to reduce the overall pressure on the soil foundation, the structure will initially be built at an elevation of +3.0 feet NAVD-88. A maintenance lift, which will raise the structure elevation to an approximate height of +3.25 feet NAVD-88, is expected three years post-construction. There is some concern that two years after initial construction the structure will sink below mean water level (+1.45 ft

NAVD-88), one year prior to the scheduled maintenance lift (year three). However, the structure will be submerged for a relatively short period of time before the scheduled lift at year three is implemented and it was determined by the project team that the benefits of the project would not be significantly reduced. In addition, the dredged spoil placed landward of the structure during construction will offer additional protection to the Grand Lake shoreline.

VII 95% Design Review Recommendations

Based on information gathered from similar restoration projects, engineering designs and related literature, the proposed strategies in the Grand Lake Shore Protection project will likely achieve the desired goals. At this time, the Louisiana Department of Natural Resources, Coastal Restoration Division recommends that the Grand Lake Shoreline Protection project be considered for CWPPRA Phase 2 authorization.

This document reflects the current project design as of the 95% Design Review meeting, incorporates all comments and recommendations received following the meeting, and is current as of August 31, 2004.

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Enclosure 4-J

SECTION 303(e) DETERMINATION, CWPPRA

Project: Grand Lake Shoreline Protection Project, Cameron Parish, Louisiana

In accordance with section 303(e) of the Coastal Wetlands Planning, Protection and Planning Act, it has been determined that appropriate land rights will be acquired for construction, operation and maintenance of the project, subject to such terms and conditions as necessary to ensure that wetlands restored, enhanced or managed through this project will be administered for the long-term conservation of the lands and waters and the dependent fish and wildlife population. The proposed real estate rights to be acquired are legally sufficient and meet the long-term conservation objectives discussed above.

By letter dated July 6, 2004, Mr. W. Britt Paul of the Natural Resources Conservation Service advised that overgrazing does not occur on project lands or lands affected thereby, nor does he see the potential for grazing. If overgrazing should occur in the future, a grazing plan must be established for the project.

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

Peter J. Rowan
Colonel, U.S. Army
District Engineer

Date: 17 Aug 04

Enclosure 4-K

NRCS
Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

July 6, 2004

Mr. Chris Monnerjahn
U.S. Army Corps of Engineers
New Orleans District
Planning and Project Management
Coastal Restoration Branch
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Monnerjahn:

RE: Grand Lake Shoreline Protection (ME-21)

I am in receipt of your request for an overgrazing determination for the Grand Lake Shoreline Protection (ME-21). I contacted our local district conservationist and our state resource conservationist to discuss the grazing in the project area. Currently, livestock are not grazing in the area nor do we see a potential for grazing once the project is installed. Therefore, it is our opinion that overgrazing is not a problem in this project area. If you have any questions, please let me know.

Sincerely,

W. Britt Paul
Assistant State Conservationist
for Water Resources and Rural Development

cc: Bruce Lehto, Area Conservationist, NRCS, Leesville, Louisiana
Charles Starkovich, District Conservationist, NRCS, Lake Charles, Louisiana
Kevin Blomquist, State Grazing Lands Specialist, NRCS, Alexandria, Louisiana
John Jurgensen, Civil Engineer, NRCS, Alexandria, Louisiana

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

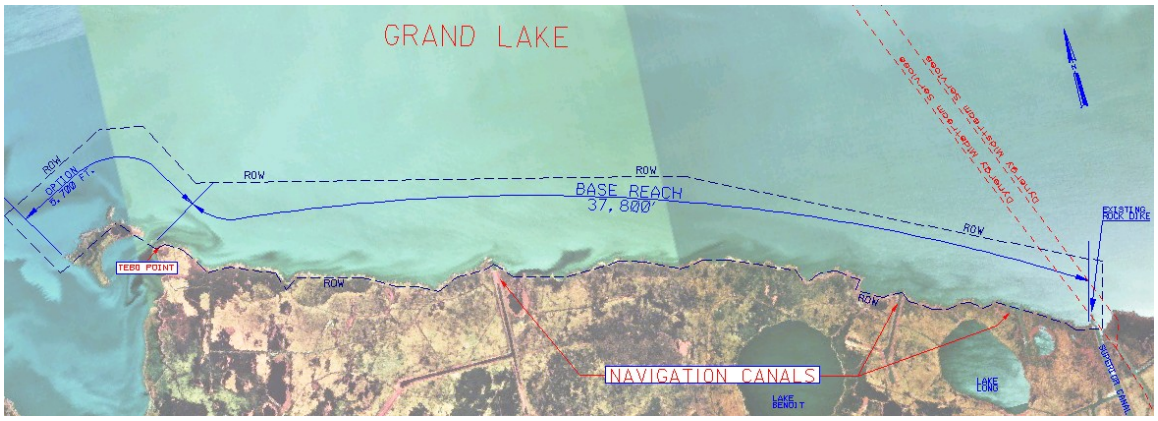
An Equal Opportunity Provider and Employer

Enclosure 4-L

Enclosure 4-O

PRIORITIZATION FACT SHEET
Revised as of August 15, 2004
(Eng. and Env. Workgroups' review completed on August 9, 2004)

Project Name and Number: Grand Lake Shoreline Protection; ME-21



Goals: 1) stop shoreline erosion along the South Shore of Grand Lake from Superior Canal to Tebo Point. 2) promote accretion between the breakwater and the shore.

Proposed Solution:
A final design has been developed and is recommended for construction. That design consists of approximately 37,800 linear feet of stone dike stretching from Superior Canal to the mouth of Catfish Lake with an option to place up to an additional 5,700 feet of dike to the west of the base project footprint (option reach). The Technical Committee and Task Force will be given the option to fund the increased length. This prioritization fact sheet covers both funding alternatives up for consideration. The rock dike will be situated along the –1.0-ft NAVD 88 contour in approximately 2.0 feet to 3.0 feet of water, stage dependant. The dike crown will be constructed to an elevation of +3.0 NAVD88 (+/-0.25') and have a width of approximately 4.0 feet. The dike will have front and back side-slopes of 1.0-foot vertical on 1.5-foot horizontal. The 37,800 lf of rock dike will benefit 445 acres of existing fresh marsh and 717 acres of open water (total 1,162 acres). Shoreline loss will be prevented and some marsh will accrete south of the breakwater so at the end of 20 years, 495 acres of marsh will be protected/created. The proposed extension around Tebo Point will benefit an additional 45 acres of fresh marsh and an additional 32 acres of open water. At the end of 20 years, an additional 45 acres will be protected/created. There will be a low degree of risk associated with this project because monitoring has indicated that breakwaters significantly reduce erosion. The project should continue providing benefits more than 20 years after construction because there is a scheduled maintenance event in year 3 and year 15.

Proposed Prioritization Criteria Scores and Justification

I. Cost Effectiveness (cost/net acre)

Grand Lake SP without extension:
The estimated total fully funded project cost provided by Mr. Allan Hebert, chair of the Economics Workgroup, on July 30, 2004 is $13,835,000. The project benefits 495 total acres. Therefore, the cost per acre for this project is $27,949/acre.

The proposed score for this criterion is 7.5.

Grand Lake SP with extension:
The estimated total fully funded project cost provided by Mr. Allan Hebert, chair of the Economics Workgroup, on July 30, 2004 is $15,205,000. The project benefits 540 (495+45) total acres. Therefore, the cost per acre for this project is $28,157/acre.

The proposed score for this criterion is 7.5.

II. Area of Need, High Loss Area
According to a comparison of the 1978-79 aerial photography with 1997-98 photography, shoreline erosion rates in this area vary from 11 to 32 feet per year. The project is located in the Mermentau Basin. According to Kevin Roy's spreadsheet, the FWOP loss rate is 25 ft/year**.** The score will be the same with or without the extension.

Grand Lake SP without extension: **The proposed score for this criterion is 7.5.**

Grand Lake SP with extension: **The proposed score for this criterion is 7.5.**

III. Implementability
The project has no obvious issues affecting implementablility. The score will be the same with or without the extension.

Grand Lake SP without extension: **The proposed score for this criterion is 10.**

Grand Lake SP with extension: **The proposed score for this criterion is 10.**

IV. Certainty of Benefits
The project is an inland shoreline protection project. The score will be the same with or without the extension.

Grand Lake SP without extension: **The proposed score for this criterion is 10.**

Grand Lake SP with extension: **The proposed score for this criterion is 10.**

V. Sustainability of Benefits

According to the prioritization procedures, the full project benefits are not expected to continue beyond TY 20 because the breakwater would not be maintained beyond the end of the CWPPRA project life. It is, however, anticipated that the breakwater would continue to perform fully from TY21 - TY27, would only prevent 75% of the shoreline erosion between TY28 and TY30.

Grand Lake SP without extension:

TY21-TY27 0 ft/yr eroded = 0 ft/yr X 37,800 ft = 0 acres

TY28-TY30 6.15 ft/yr eroded = 6.15 ft/yr X 37,800 ft = 232,470 $ft^2 \div 43560$ = 5.34 ac/yr

Target Year	Baseline Erosion 24.6 ft/yr
20	495 acres
21	495 acres
22	495 acres
23	495 acres
24	495 acres
25	495 acres
26	495 acres
27	495 acres
28	495 ac - 5.34 ac = 489.66 acres
29	489.66 ac - 5.34 ac = 484.32 acres
30	484.32 ac - 5.34 ac = 478.98 acres

The net change in acres of marsh from TY 20 to TY 30 = -16.02 (495-478.98), which is a 3.24% decrease (16.02 acres/495 acres = 0.0324).

Grand Lake SP without extension: **The proposed score for this criterion is 10.**

Grand Lake SP with extension:

TY21-TY27 0 ft/yr eroded = 0 ft/yr X 43,500 ft = 0 acres

TY28-TY30 6.15 ft/yr eroded = 6.15 ft/yr X 43,500 ft = 267,525 $ft^2 \div 43560$ = 6.14 ac/yr

Target Year	Baseline Erosion 24.6 ft/yr
20	540 acres
21	540 acres
22	540 acres
23	540 acres
24	540 acres
25	540 acres
26	540 acres
27	540 acres

28	540 ac – 6.14 ac = 533.86 acres
29	533.86 ac – 6.14 ac = 527.72 acres
30	527.72 ac – 6.14 ac = 521.58 acres

The net change in acres of marsh from TY 20 to TY 30 = -18.42 (540-521.58), which is a 3.41% decrease (18.42 acres/540 acres = 0.0341).

Grand Lake SP with extension: **The proposed score for this criterion is 10.**

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

The project will not affect freshwater inflow or salinity. The score will be the same with or without the extension.

Grand Lake SP without extension: **The proposed score for this criterion is 0.**

Grand Lake SP with extension: **The proposed score for this criterion is 0.**

VII. Increased sediment input

The project will not increase sediment input over that presently occurring. The score will be the same with or without the extension.

Grand Lake SP without extension: **The proposed score for this criterion is 0.**

Grand Lake SP with extension: **The proposed score for this criterion is 0.**

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

The project serves to protect, for at least the 20-year life of the project, the Grand Lake shoreline (a landscape feature), which is critical to the mapping unit. See prioritization criteria. The score will be the same with or without the extension.

Grand Lake SP without extension: **The proposed score for this criterion is 5.**

Grand Lake SP with extension: **The proposed score for this criterion is 5.**

Weighting per Criteria:

Grand Lake SP without extension: Total Prioritization Score: 66.25

CRITERION		Weight	Score	Weighted Score
I	Cost-Effectiveness	2.0	7.5	15
II	Area of Need	1.5	7.5	11.25
III	Implementability	1.5	10	15
IV	Certainty of Benefits	1.0	10	10
V	Sustainability	1.0	10	10
VI	HGM Riverine Input	1.0	0	0
VII	HGM Sediment Input	1.0	0	0
VIII	HGM Structure and Function	1.0	5	5
TOTAL				66.25

Grand Lake SP with extension: Total Prioritization Score: 66.25

CRITERION		Weight	Score	Weighted Score
I	Cost-Effectiveness	2.0	7.5	15
II	Area of Need	1.5	7.5	11.25
III	Implementability	1.5	10	15
IV	Certainty of Benefits	1.0	10	10
V	Sustainability	1.0	10	10
VI	HGM Riverine Input	1.0	0	0
VII	HGM Sediment Input	1.0	0	0
VIII	HGM Structure and Function	1.0	5	5
TOTAL				66.25

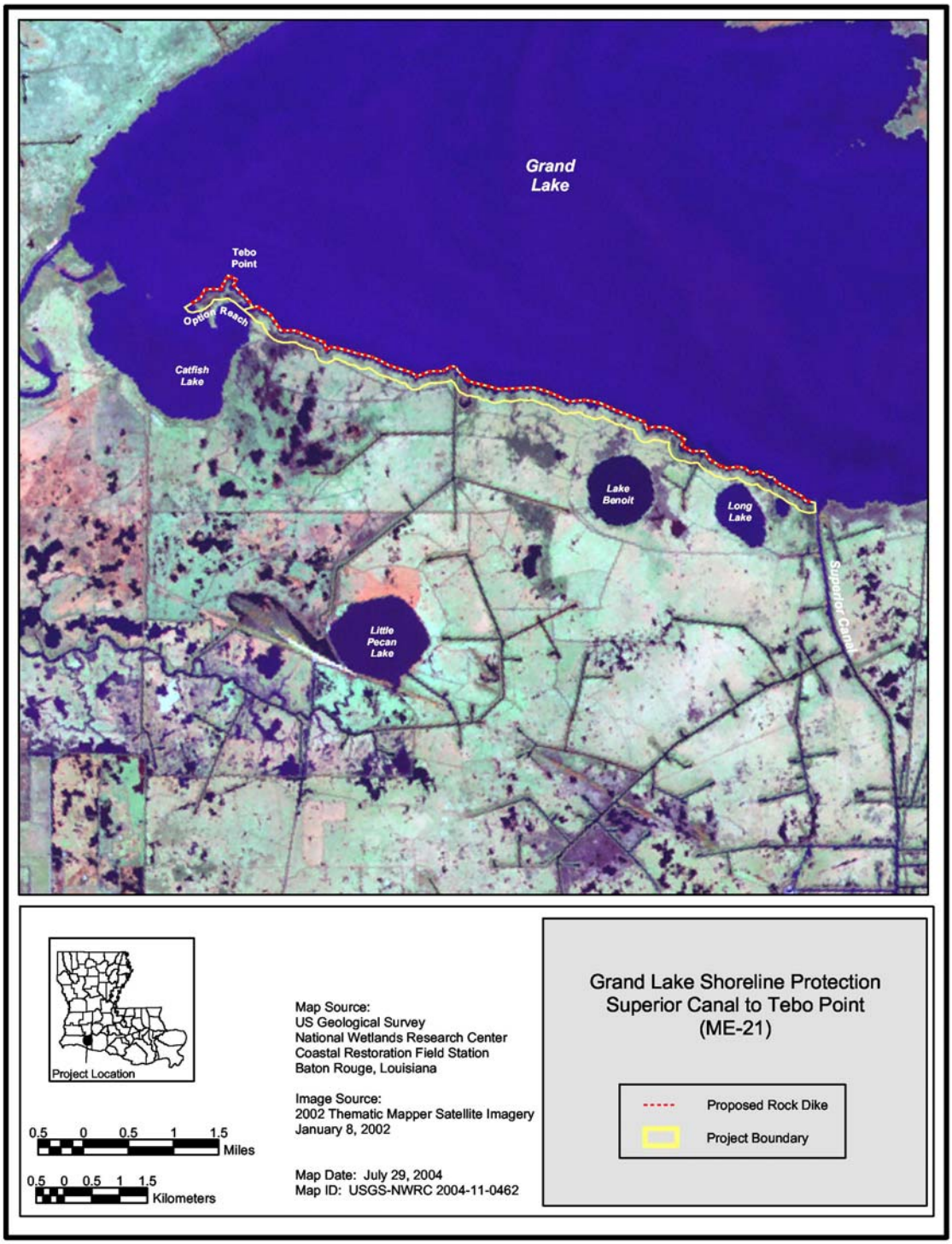
Preparers of Fact Sheet

Chris Monnerjahn, USACE PM, 504-862-2415, chris.monnerjahn@mvn02.usace.army.mil
Kenneth Duffy, LDNR PM, 225-342-4106, kend@dnr.state.la.us

References

None cited

Project Map


Grand Lake
Tebo Point
Opidgi Reach
Catfish Lake
Lake Benoit
Long Lake
Little Pecan Lake
Superior Canal
Project Location
0.5 0 0.5 1 1.5
Miles
0.5 0 0.5 1 1.5
Kilometers
Map Source:
US Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, Louisiana
Image Source:
2002 Thematic Mapper Satellite Imagery
January 8, 2002
Map Date: July 29, 2004
Map ID: USGS-NWRC 2004-11-0462
Grand Lake Shoreline Protection
Superior Canal to Tebo Point
(ME-21)
Proposed Rock Dike
Project Boundary

Enclosure 4-P

CWPPRA
Grand Lake Shoreline Protection (ME-21)

Technical Committee Meeting

September 9, 2004

Baton Rouge, LA

U.S. Army
Corps of Engineers
New Orleans District

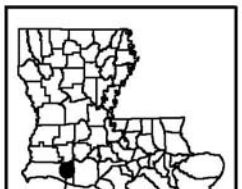
Project Overview

Project Location: Region 4, Mermentau Basin, Cameron Parish, south shore of Grand Lake.

Problem: According to a comparison of the 1978-79 aerial photography with 1997-98 photography, shoreline erosion rates in this area vary from 11 to 32 feet per year.

Goals:

1) stop shoreline erosion from Superior Canal to Tebo Point.
2) promote accretion between the breakwater and the shore.



Map Source:
US Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Grand Lake Shoreline Protection
Superior Canal to Tebo Point
(ME-21)

Project Features Overview

- Construction of 37,800 lf of rock dike stretching from Superior Canal to the mouth of Catfish Lake with an option to place up to an additional 5,700 feet of dike around Tebo Point, to the west of the base project footprint.

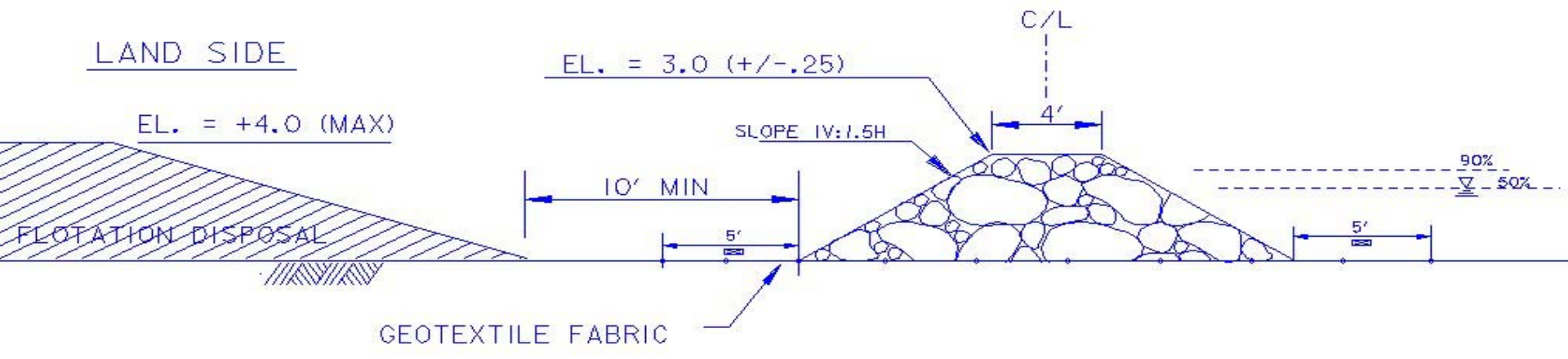
- The rock dike will be situated along the –1.0-ft NAVD 88 contour in approximately 2.0 ft to 3.0 ft of water, stage dependant. The dike crown will be constructed to an elevation of +3.0 NAVD88 and have a width of 4.0 ft. The dike will have front and back side-slopes of 1 ft vertical on 1.5 ft horizontal.

Project Features Overview (continued)

- The rock dike will be constructed by placing 650# max. stone on a layer of geotextile fabric.

- Gaps for fish access will be built at approximate 1,000-foot intervals.

- A flotation channel will be dredged parallel to and lake-ward of the rock dike. All material from the flotation channel will be cast inside of the rock dike and used to create marsh.



Project Benefits

- The 37,800 lf of rock dike will benefit 445 acres of existing fresh marsh and 717 acres of open water (total 1,162 acres). Shoreline loss will be prevented and some marsh will accrete south of the breakwater so that at the end of 20 years, 495 acres of marsh will be protected/created.

- The proposed extension around Tebo Point will benefit an additional 45 acres of fresh marsh and an additional 32 acres of open water. At the end of 20 years, an additional 45 acres will be protected/created.

- All total the project will protect/create over 540 acres of marsh.

Project Benefits (continued)

- We are creating an additional 90 acres of marsh behind the rock dike as a result of using the flotation channel material beneficially that we did NOT claim credit for in the WVA.

- If you count the additional 90 acres of marsh created, then the project would protect/create approximately 630 acres of marsh.

Project History & Status

Jan 2002: Phase I approval by Task Force as a part of PPL 11.

April 2002: Kick-off Meeting & Site Visit conducted

April 2003: Surveys completed

May 2003: Borings & Testing Completed

Oct 2003: Pre-30% design meeting between DNR & COE

March 2004: Magnetometer survey conducted

May 2004: Held 30% Design Review Meeting

August 2004: Held 95% Design Review Meeting

September 2004: Phase II request to TC – TODAY!

Checklist of Phase II Requirements

A. List of Project Goals and Strategies:

Goal #1: To stop shoreline erosion from Superior Canal to Tebo Point

Goal #2: To promote accretion between the breakwater and the shore.

Coast 2050 Strategy: Regional #16 - Stabilize Grand and White Lakes' shorelines.

B. Executed Phase I CSA Status:

Since the Cost Sharing Agreement (CSA) between the USACE and the LDNR covers both Phase I and Phase II, it cannot be executed until Phase II approval is given on the day of the Task Force meeting. It will be executed shortly after receiving Phase II approval.

Checklist of Phase II Requirements (continued)

C. The USACE will finalize landrights in a short period of time after Phase II approval.

D. The 30% Design Review Meeting was held on May 11, 2004. After the meeting, DNR concurred to proceed with the final design of the project.

E. The 95% Design Review Meeting was held on August 16, 2004. After the meeting, DNR concurred to proceed with the Phase II request.

Checklist of Phase II Requirements (continued)

F. The EA is FINAL and the FONSI signed on April 2, 2004.

G. LDNR has finalized and submitted the Ecological Review.

H. 404 permits: Not applicable because the USACE does not permit itself.

I. HTRW was covered in the EA.

J. The 303(e) was completed and signed on August 17, 2004.

Checklist of Phase II Requirements (continued)

K. The Overgrazing Determination was completed on July 6, 2004. Overgrazing is NOT a problem in the project area.

L. The revised fully funded costs were approved by the Economic WG and provided in your binder. The following slide summarizes the fully funded cost breakdown.

Checklist of Phase II Requirements (continued)

M. An estimate of project expenditures by state fiscal year is provided in the binder.

N. A revised WVA was not required because there was no change in scope. A WVA for the Tebo Point extension was prepared and reviewed by the Environmental WG.

O. The Prioritization score is 66.25. The breakdown is provided in the binder.

P. The spreadsheet with the categorical breakdown for Phase II is included in the binder.

Top Ten Reasons to Fund Grand Lake SP now!

#10: It's P-score ranks 4th out the possible 11 projects up for approval.

#9: You really like rock.

#8: The project protects/creates over 540 acres of marsh over the project life.

#7: It has a NO Oyster issues!!

#6: Construction can begin well within 6 months.

Top Ten Reasons to Fund Grand Lake SP now!

#5: The shoreline is eroding at an avg. rate of 25 ft/yr.

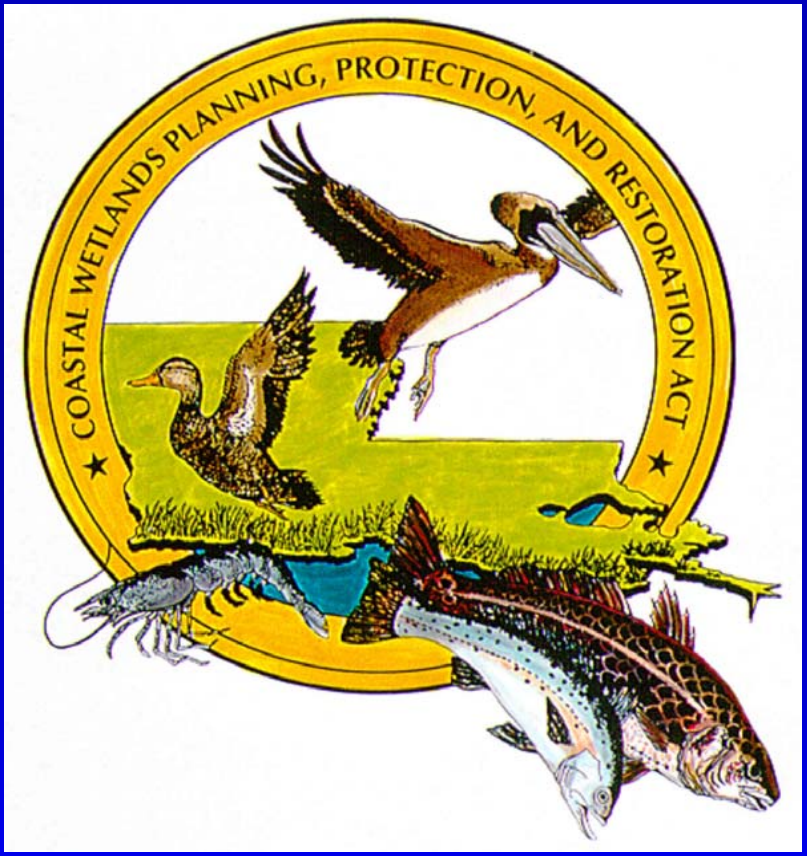
#4: It is not broken up into Construction Units.

#3: I need something to do for the next year.

#2: I had all my paperwork submitted on time.

#1: So I do not have to act like another fellow CWPPRA project manager by crying, begging, and groveling for the project.

Questions?


COASTAL WETLANDS PLANNING, PROTECTION, AND RESTORATION ACT

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

September 8, 2004

Ms. Julie LeBlanc, Chairman
CWPPRA Planning and Evaluation Subcommittee
U.S. Army Corps of Engineers
Planning, Programs, and Project Management Division
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Ms. LeBlanc:

RE: Raccoon Island Shoreline Protection Project (TE-48)

The Natural Resources Conservation Service (NRCS) hereby requests approval to begin construction of the Phase A portion of the Raccoon Island Shoreline Protection / Marsh Creation Project (TE-48). This project was authorized in January 2002 by the Louisiana Coastal Wetlands Conservation and Restoration Task Force (Task Force) under the authority of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). This request is submitted in accordance with Revision 9.0 of the CWPPRA Project Standard Operating Procedures Manual, dated July 14, 2004 (Section 6.j and Appendix C).

If you or any member of the Planning and Evaluation Subcommittee, Technical Committee, or Task Force have any questions regarding this request or the information enclosed, please contact me at (318) 473-7756.

Sincerely,

W. Britt Paul
Assistant State Conservationist
for Water Resources and Rural Development

Enclosures

cc: John Saia, Technical Committee Chair, USACE, New Orleans, Louisiana
Sharon Parrish, Technical Committee Member, EPA, Dallas, Texas
Darryl Clark, Technical Committee Member, USFWS, Lafayette, Louisiana
Rick Hartman, Technical Committee Member, NMFS, Baton Rouge, Louisiana
Wes McQuiddy, P&E Subcommittee Member, EPA, Dallas, Texas
Rachel Sweeney, P&E Subcommittee Member, NMFS, Baton Rouge, Louisiana
Phil Pittman, P&E Subcommittee Member, LDNR/CRD, Baton Rouge, Louisiana
Martha Segura, P&E Subcommittee Member, USFWS, Lafayette, Louisiana
John Jurgensen, P&E Subcommittee Member, NRCS, Alexandria, Louisiana
Ismail Merhi, Project Manager, LDNR, 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

Gerry Duszynski, Assistant Secretary, LDNR/OCRM, Baton Rouge, Louisiana
Loland Broussard, Civil Engineer, NRCS, Lafayette, Louisiana
Randolph Joseph, Jr., Area Conservationist, NRCS, Lafayette, Louisiana
Ronnie Faulkner, Design Engineer, NRCS, Alexandria, Louisiana
Michael Trusclair, District Conservationist, NRCS, Thibodaux, Louisiana
Cynthia Duet, Governor's Office of Coastal Activities, Baton Rouge, Louisiana
Kirk Rhinehart, Administrator Coastal Restoration Activities, LDNR, Baton Rouge, Louisiana
Chris Knotts, Administrator Coastal Engineering Activities, LDNR, Baton Rouge, Louisiana

island could be pursued in an earlier time frame. The unprotected gulf shoreline of Raccoon Island is eroding at an alarming rate (estimates predict 52 feet per year) and is threatened by potentially devastating storms and hurricanes. The vegetated portion of the island, which is to be protected by the proposed breakwaters, is the home for the largest concentration of nesting brown pelicans along the Louisiana coast with 5,000 nests estimated in 2004. It also supports the greatest diversity of nesting wading birds and colonial seabirds in Louisiana.

It was therefore proposed by NRCS/DNR and approved by the Eng & Env Workgroups and Technical Committee (14 July 2004) to separate the TE-48 Project into two "independent" construction units, Phase A and Phase B. Phase A consists of the gulfside shoreline protection components of the project and Phase B involves the backbay marsh creation components. A sand search geotechnical survey and analysis (currently being pursued) required for Phase B will take several months to conduct. Such survey would delay project construction by at least one year due to recent revisions in the Task Force Phase 2 approval process. NRCS, DNR, and LDWF concur that this phased implementation approach offers the best opportunity to sustain Raccoon Island as a functional and intact barrier island. Phase A is currently in the advanced stage of Engineering and Design. 30% Design Review Meetings were held on September 17, 2003, and on July 19, 2004. Concurrence to proceed with design to the 95% level has been received by LDNR via letter dated August 2, 2004. An Environmental Assessment and 404 Permit Application is scheduled for release in September 2004.

Overview of Phase I Tasks, Process and Issues

In order to complete the Phase I portion of this project several tasks were contracted by DNR to obtain additional data before design was completed. The first of these tasks was obtaining topographic and bathymetric surveys. These surveys were conducted by Morris P. Hebert, Inc. and completed in May 2003. The second task completed under DNR contract was for geotechnical borings and analyses. This contract was with SJB Group. They provided the data for eleven boring holes, in September 2003. The final contract was with Coastal Planning & Engineering, Inc for the sediment budget, which determined the appropriate gap widths and distance offshore for the breakwaters and suggested the inclusion of an eastern and western terminal groin. Along with these contracted tasks, DNR also completed the landownership investigation and determined that there are no oyster leases within the project area. Subsequent to these tasks, NRCS completed the cultural resources assessment, and the design of the project features.

A couple of issues have come up during the Phase I portion of this project. The first issue was raised at the first 30% Design Review Meeting (September 2003). At this meeting, DNR requested that a sediment budget be performed in order to determine if there was a more appropriate length or gap size for the breakwaters. The recommendations of the sediment budget report were that the spacing of the breakwaters should be adjusted from the originally proposed 300 foot gap widths to varying gap widths, that an eastern groin should replace closure of the gaps between demonstration breakwaters 0, 1, and 2, and that a western terminal groin should be added to the proposed features of the project. The second issue was raised at the second 30% Design Review Meeting (July 2004). Prior to such meeting, project designs were revised to include all of the recommendations of the sediment budget. At this meeting, several questions were raised regarding the proposed western groin. Due to comments received by the CWPPRA agencies, NRCS has opted to remove the western groin from design consideration and will

Checklist of Phase II Requirements
Raccoon Island Shoreline Protection / Marsh Creation (TE-48) Phase A

A. List of Project Goals and Strategies.

The primary objective of this project is to protect the Raccoon Island Rookery and seabird colonies from an encroaching gulf shoreline by reducing the rate of shoreline erosion along the western end of the island. The project goals are to reduce the rate of shoreline retreat and protect exiting critical habitat. The strategy used to meet project goals is to promote the deposition of sediment along the beach and upper shore face by decreasing incident wave energy landward of the breakwaters.

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

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

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

The State informed NRCS via a letter dated April 6, 2004 that the CRD Land Section has completed all landrights necessary to proceed to construction contracting.

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

A 30% Design Review meeting was held on September 17, 2003. Issues were raised by DNR and federal agencies concerning the requirement of a Sediment Budget model to better predict the shoreline response to NRCS's proposed breakwater field. A Sediment Budget report was completed in June 2004, by Coastal Planning & Engineering, Inc. A second 30% Design Review Meeting was held on July 19, 2004, to address the results of the Sediment Budget report and status of current project features. Concurrence to proceed with project designs to the 95% level was received by DNR in a letter dated August 2, 2004. As a result of the second 30% Design Review Meeting and the comments that followed, the western groin was eliminated from the project's design. All written comments received from the 30% Design Review are addressed in the 95% Design Review Package and will be discussed at the 95% Design Review meeting.

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

A 95% Design Review Meeting is scheduled for September 2, 2004.

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

A draft Environmental Assessment of the project will be submitted on or before September 13, 2004, for interagency review as required by the National Environmental Policy Act.

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

The draft Ecological Review, submitted August 2004, stated that the "project's physical effects and confidence in goal attainability warrant continued progress toward construction authorization". A final Ecological Review shall be completed and provided by DNR after the 95% Design Review phase.

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

A draft 404 & CUP application was prepared for submittal in September 2003. However due to recurring project feature changes, a final application package is contingent on final approval of project features at the 95% Design Review Meeting. A formal 404 Permit Application is anticipated to be submitted by Louisiana Dept. of Wildlife & Fisheries (permittee) in early September

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

NRCS determined that an HTRW assessment is not required.

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

Section 303e approval was granted by the Corps Real Estate Division on May 25, 2004. NRCS requested a revision to the approval letter to clarify ownership statements regarding Raccoon Island. DNR and the Corps are in the process of resolving those ownership statements.

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

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

L. Revised cost estimate of Phase II activities, based on the revised Project design. Funding Budget Information:

1) The specific Phase 2 funding request (updated construction estimate, three years of monitoring, and O&M) is $6,447,282.

2) The current estimated fully funded cost for TE-48 Phase A is $7,765,000. This cost was provided by Allan Hebert, EcoWG, on August 25, 2004. The revised budget sheets, with the anticipated schedule of expenditures, are provided as an attachment.

M. Estimate of projects expenditure by state fiscal year subdivide by funding category.

Estimates are currently being generated by NRCS Financial Section. When available, this report will be updated to reflect current expenditures.

N. A revised Wetland Value Assessment must be prepared if, during the review of the preliminary NEPA documentation, three of the Task Force agencies determine that a significant change in project scope occurred.

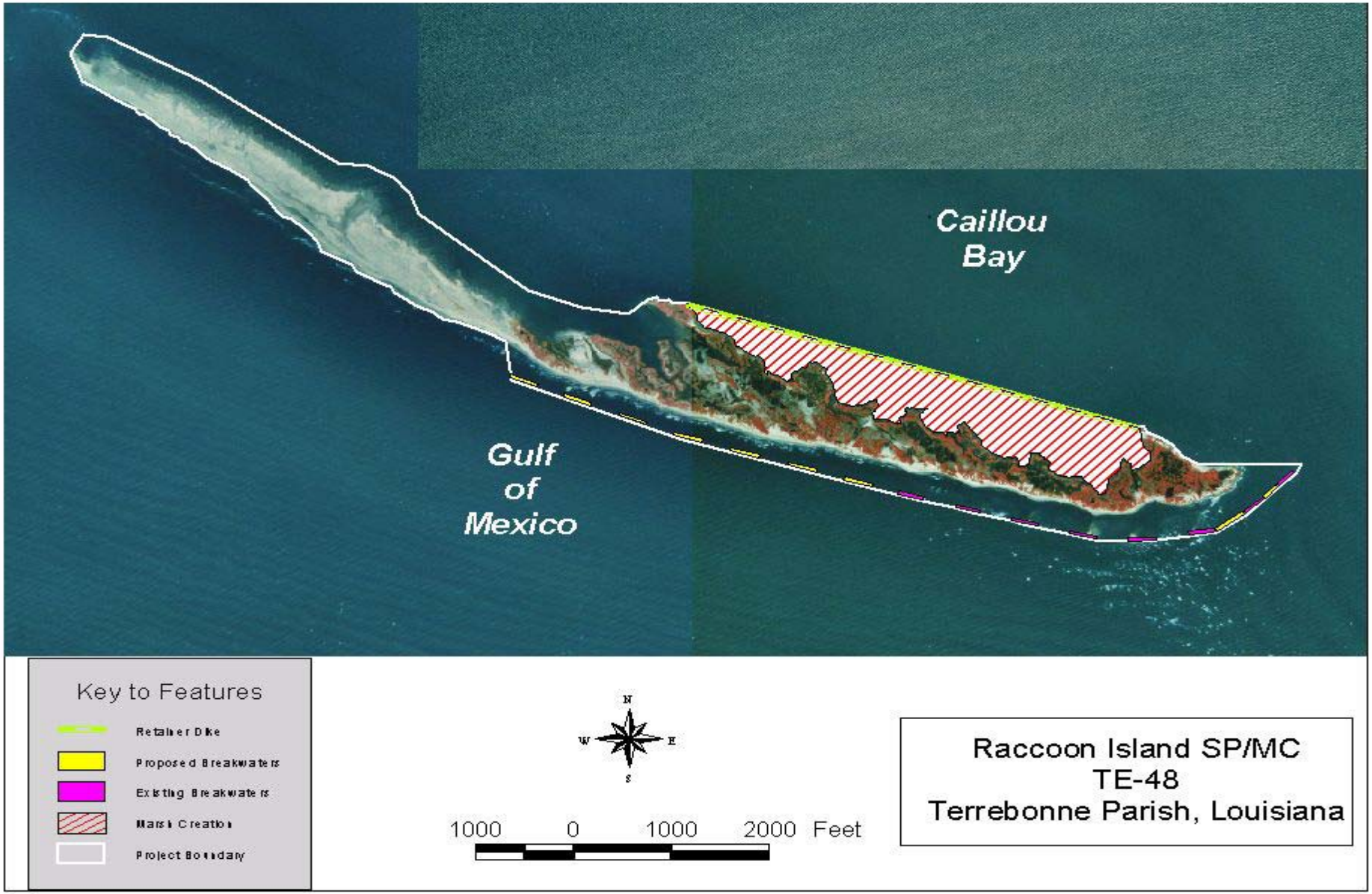
A revised Wetland Value Assessment has been prepared for Phase A of the project due to recent changes made regarding project features. The WVA was submitted for review to CWPPRA agencies by EnvWG Chairman, Kevin Roy, on August 18, 2004, with comments due on August 26th. As a result of comments received, Mr. Roy issued an email on August 31, 2004, stating that he suggest "no changes be made to the revised WVA as a majority of the workgroup members support the assumptions/rationale proposed". NRCS agrees and considers the draft WVA issued for review on August 18th a final for Phase A of the project.

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

A revised Prioritization Fact Sheet was submitted to CWPPRA agencies for review on August 26, 2004. Based on comments received, a final Prioritization Fact Sheet will be developed and sent to appropriate CWPPRA personnel. Listed below are current prioritization criterion and associated scores for 95% review:

Criteria	Score	Weight	Result
Cost Effectiveness	1	2	2
Area of Need	5.95	1.5	8.93
Implementability	10	1.5	15
Certainty of Benefits	5	1	5
Sustainability of Benefits	1	1	1
HGM – Riverine Input	0	1	0
HGM – Sediment Input	0	1	0
HGM – Landscape Features	10	1	10
Total Score			**41.93**

P. Categorical breakdown for Phase 2.


Caillou
Bay
Gulf
of
Mexico
Key to Features
Retainer Dike
Proposed Breakwaters
Existing Breakwaters
Marsh Creation
Project Boundary
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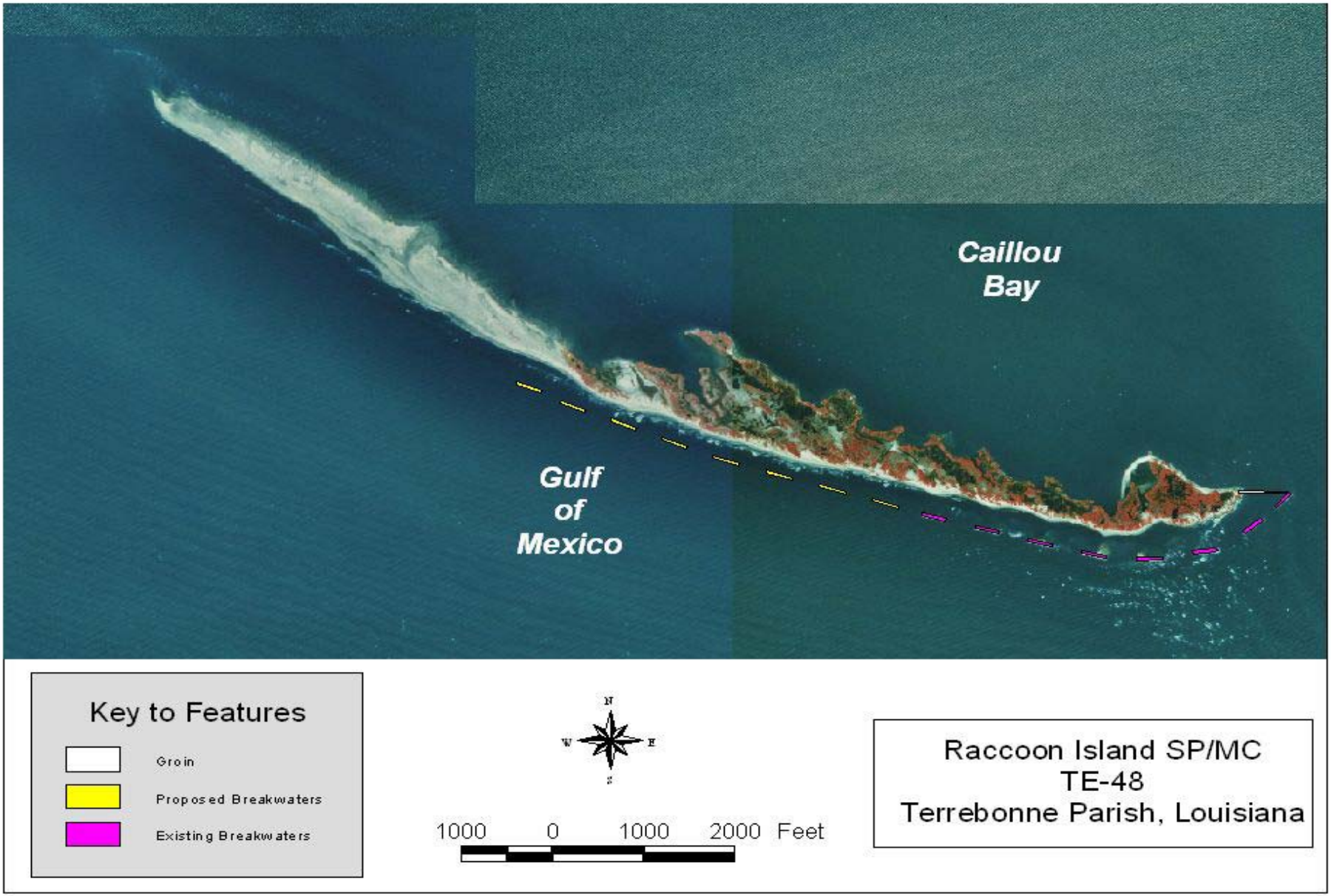
Raccoon Island SP/MC
TE-48
Terrebonne Parish, Louisiana

Figure 1


Caillou
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Key to Features
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Existing Breakwaters
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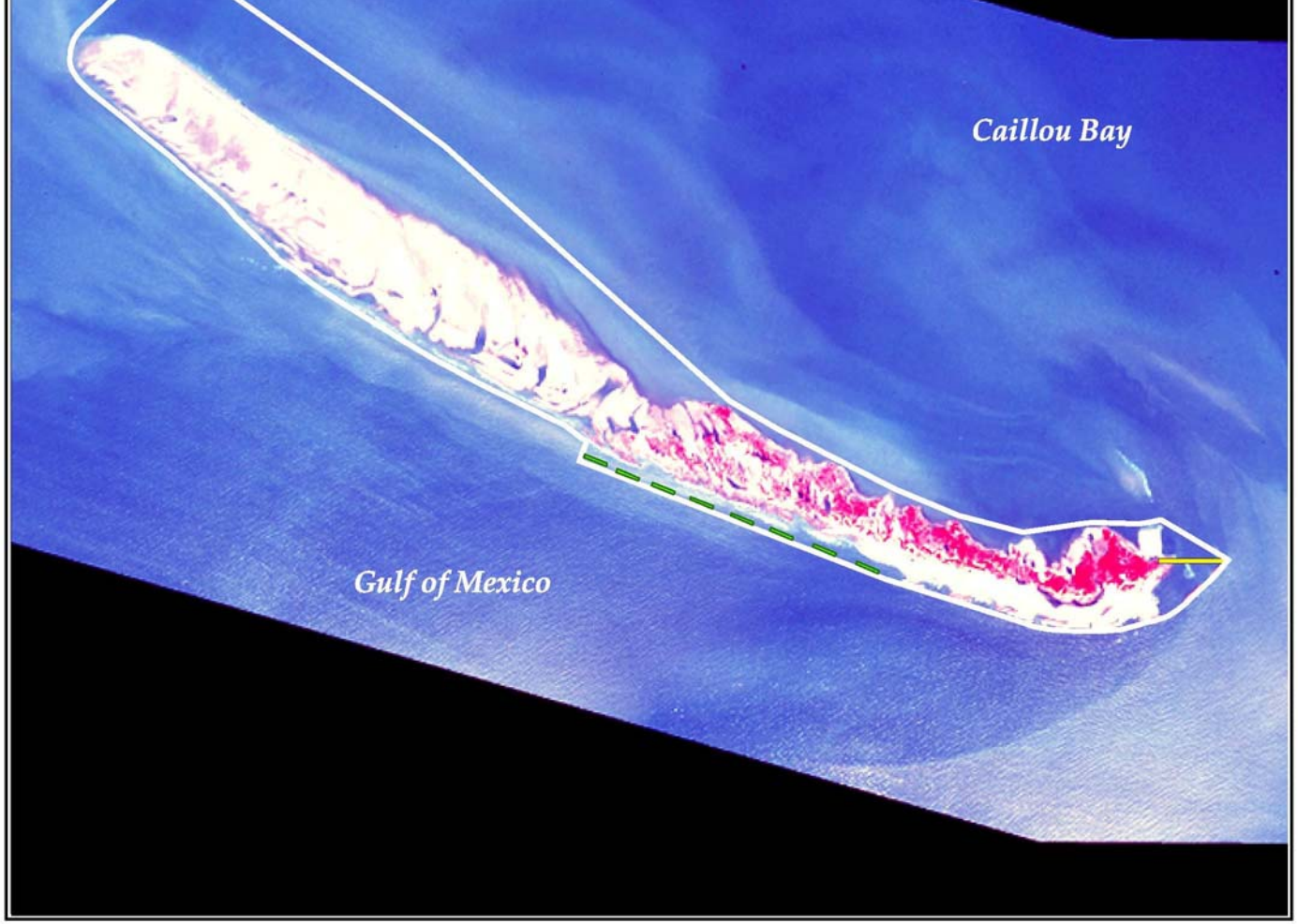
Raccoon Island SP/MC
TE-48
Terrebonne Parish, Louisiana

Figure 2

RACCOON ISLAND
SHORELINE PROTECTION/ MARSH CREATION
TE-48 PHASE A



Project Location

Terminal Groin *

Breakwaters *

Project Boundary

* denotes proposed features

0.4 0 0.4 Kilometers

0.4 0 0.4 Miles

Scale 1:27,000

USGS science for a changing world

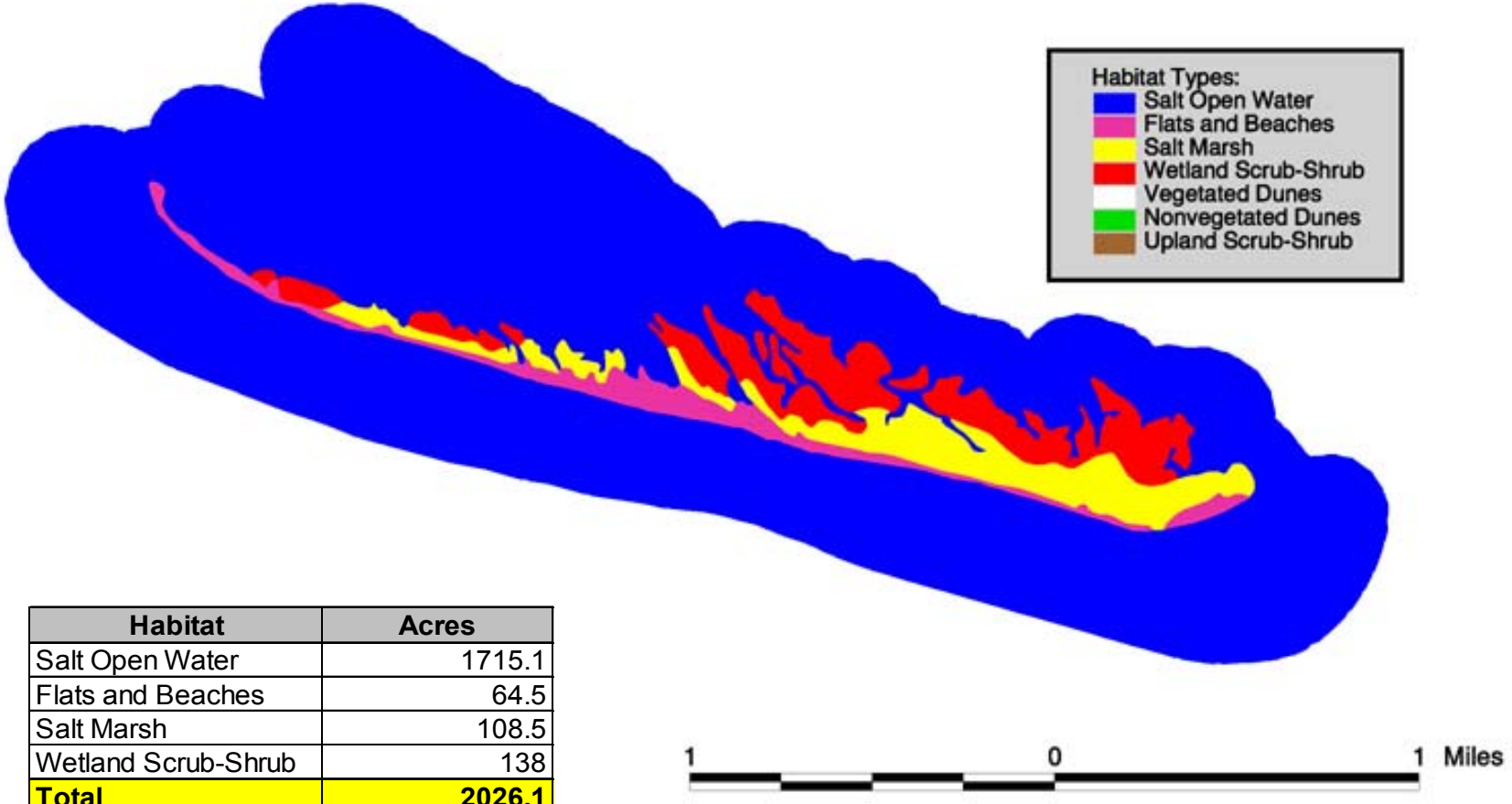
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Baton Rouge, LA

Image Source:
2002 Aerial Photography

Map ID: USGS-NWRC 2004-11-0475
Map Date: August 16, 2004

USGS
science for a changing world

1978

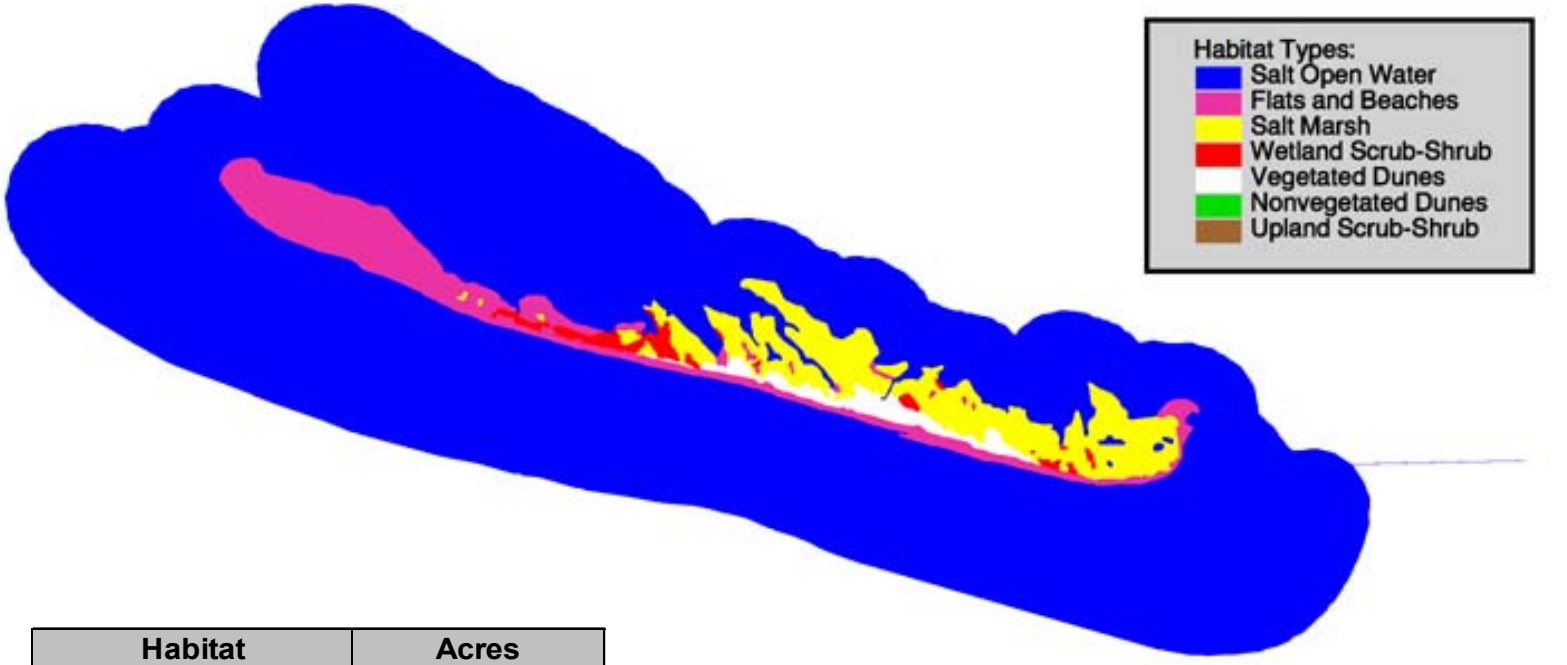


Habitat	Acres
Salt Open Water	1715.1
Flats and Beaches	64.5
Salt Marsh	108.5
Wetland Scrub-Shrub	138
Total	**2026.1**

Photography 1:65K scale CIR - various dates 1978

USGS
science for a changing world

1990

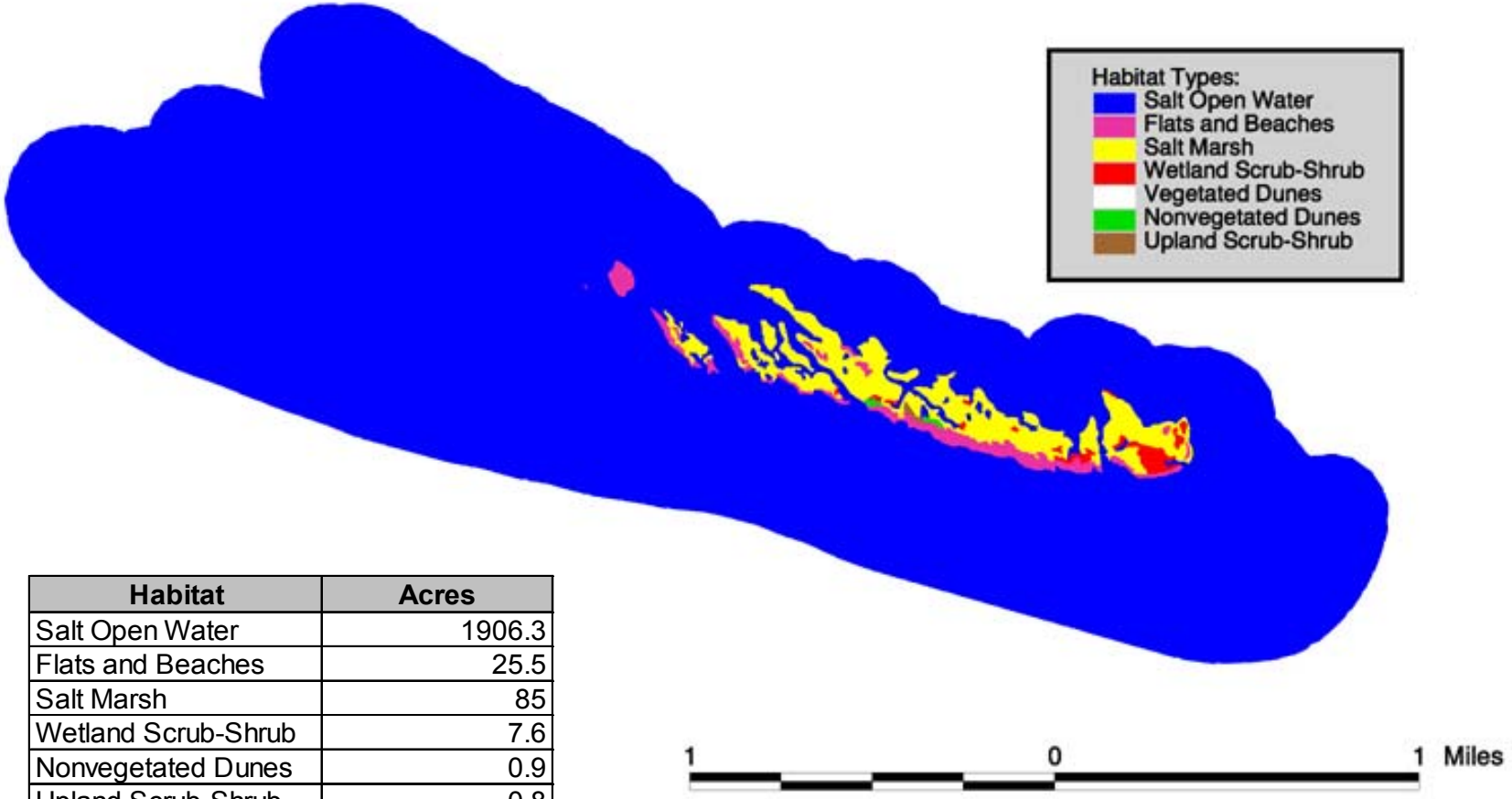


Habitat	Acres
Salt Open Water	1667
Flats and Beaches	205
Salt Marsh	117.7
Wetland Scrub-Shrub	14.7
Vegetated Dunes	21.7
Total	**2026.1**

Photography 1:65K scale CIR - December 1990

USGS
science for a changing world

Post-Hurricane Andrew - 1992

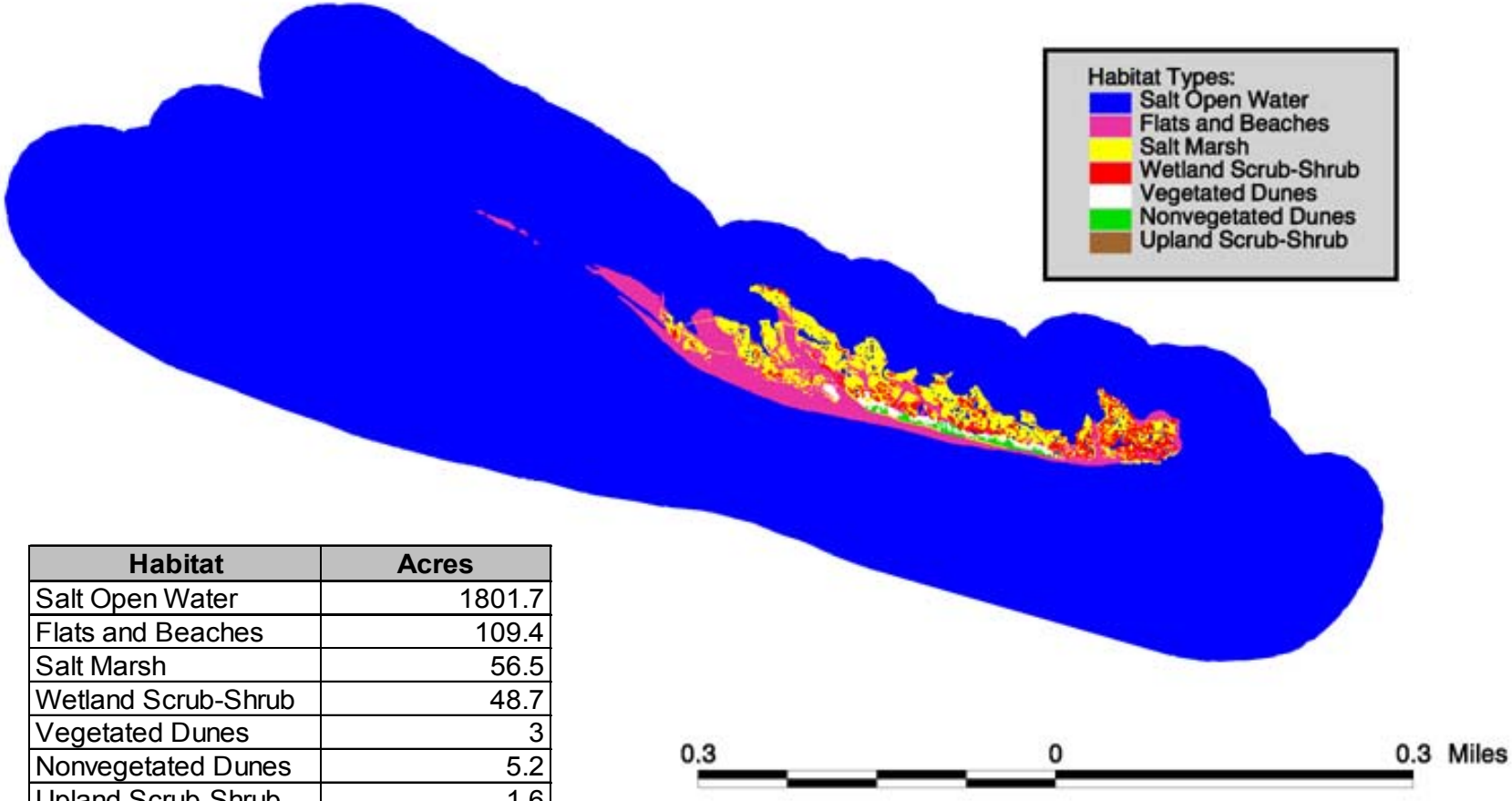


Habitat	Acres
Salt Open Water	1906.3
Flats and Beaches	25.5
Salt Marsh	85
Wetland Scrub-Shrub	7.6
Nonvegetated Dunes	0.9
Upland Scrub-Shrub	0.8
Total	**2026.1**

Photography 1:12K scale CIR - October 12, 1992

USGS
science for a changing world

1995



Habitat	Acres
Salt Open Water	1801.7
Flats and Beaches	109.4
Salt Marsh	56.5
Wetland Scrub-Shrub	48.7
Vegetated Dunes	3
Nonvegetated Dunes	5.2
Upland Scrub-Shrub	1.6
Total	**2026.1**

Photography 1:6K scale CIR - November 30, 1995

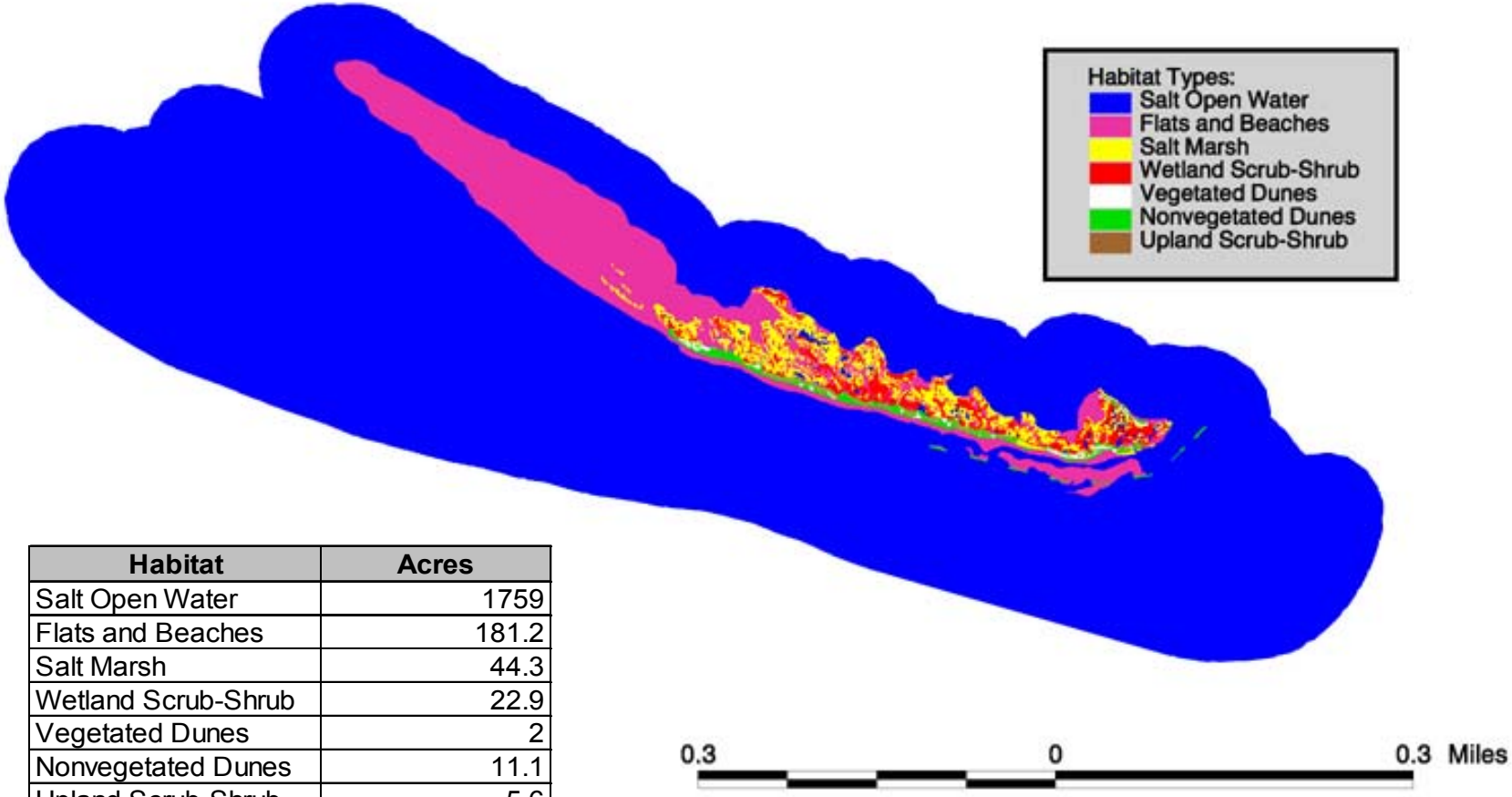
1996

Raccoon Island - East End
February 1994
Restoration Complete
North
A
B

Raccoon Island - East End
October 1994
Erosion Evident
North
A
B

USGS
science for a changing world

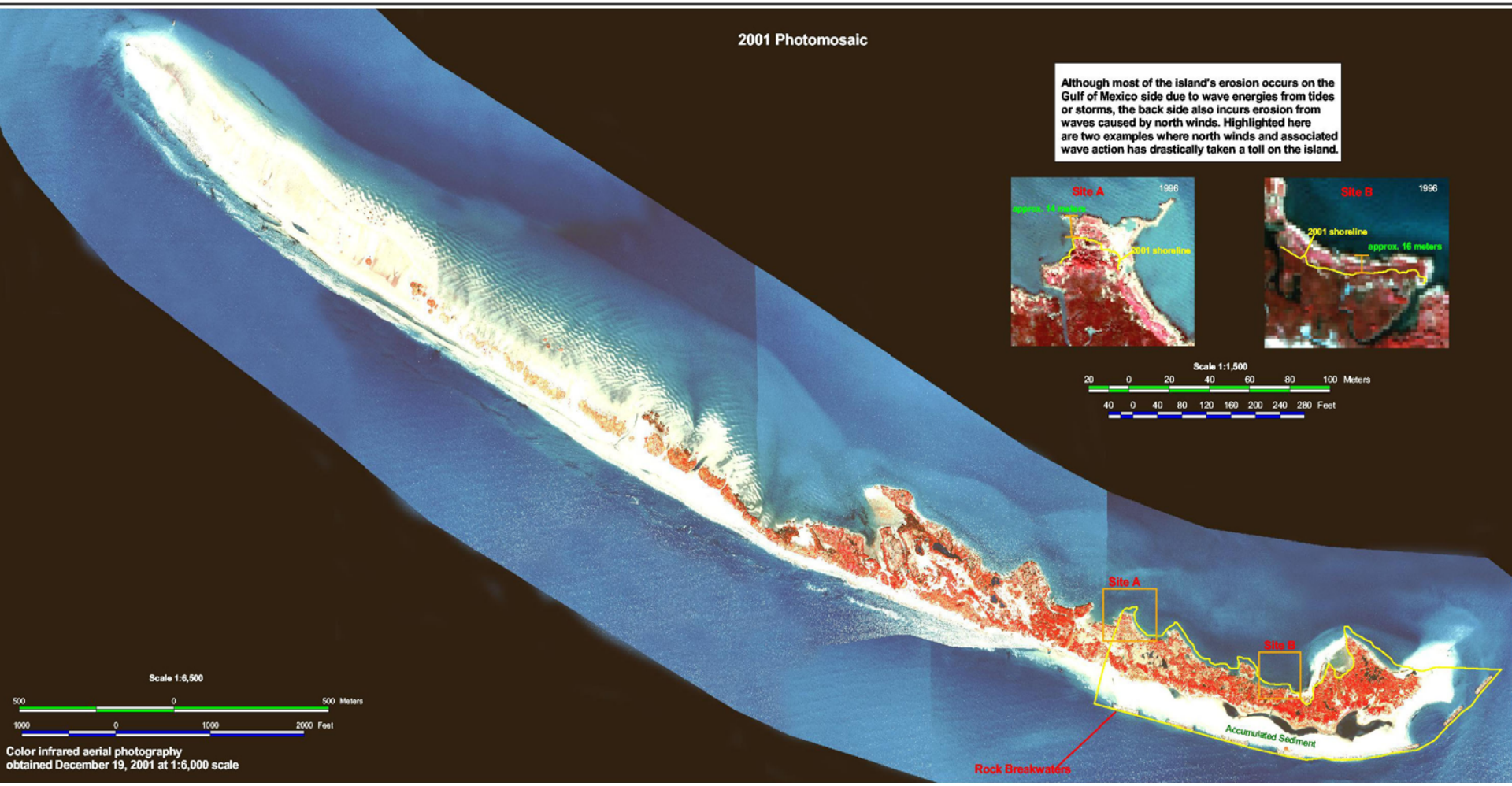
Post Breakwaters - 1997



Habitat	Acres
Salt Open Water	1759
Flats and Beaches	181.2
Salt Marsh	44.3
Wetland Scrub-Shrub	22.9
Vegetated Dunes	2
Nonvegetated Dunes	11.1
Upland Scrub-Shrub	5.6
Total	**2026.1**

Photography 1:12K scale CIR - December 16, 1997

2001


2001 Photomosaic
Although most of the island's erosion occurs on the Gulf of Mexico side due to wave energies from tides or storms, the back side also incurs erosion from waves caused by north winds. Highlighted here are two examples where north winds and associated wave action has drastically taken a toll on the island.
Site A
1996
2001 shoreline
Site B
1996
2001 shoreline
approx. 16 meters
Scale 1:1,500
20 0 20 40 60 80 100 Meters
40 0 40 80 120 160 200 240 280 Feet
Site A
Site B
Accumulated Sediment
Rock Breakwaters
Scale 1:6,500
500 0 500 Meters
1000 0 1000 2000 Feet
Color infrared aerial photography
obtained December 19, 2001 at 1:6,000 scale

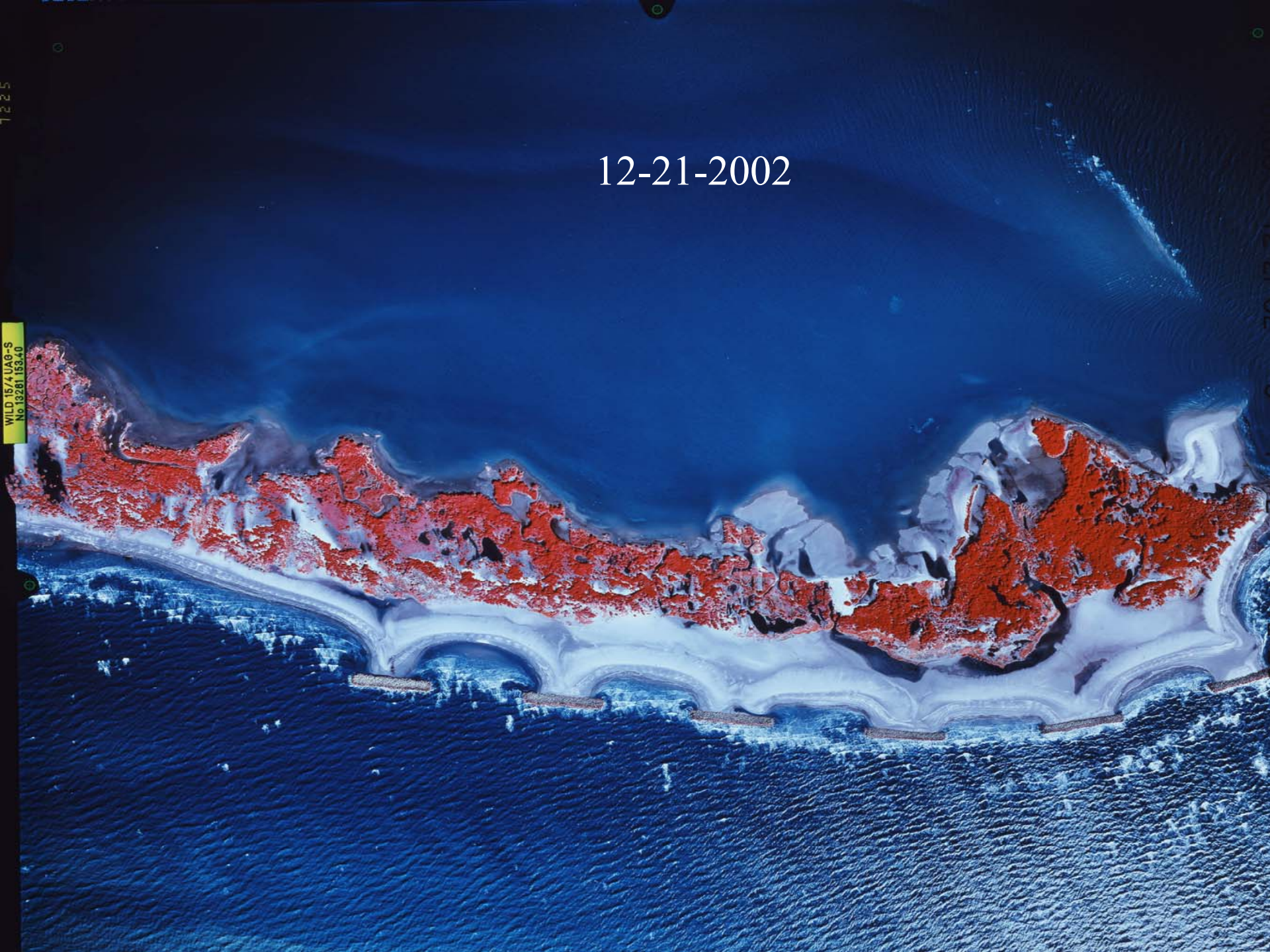
2001

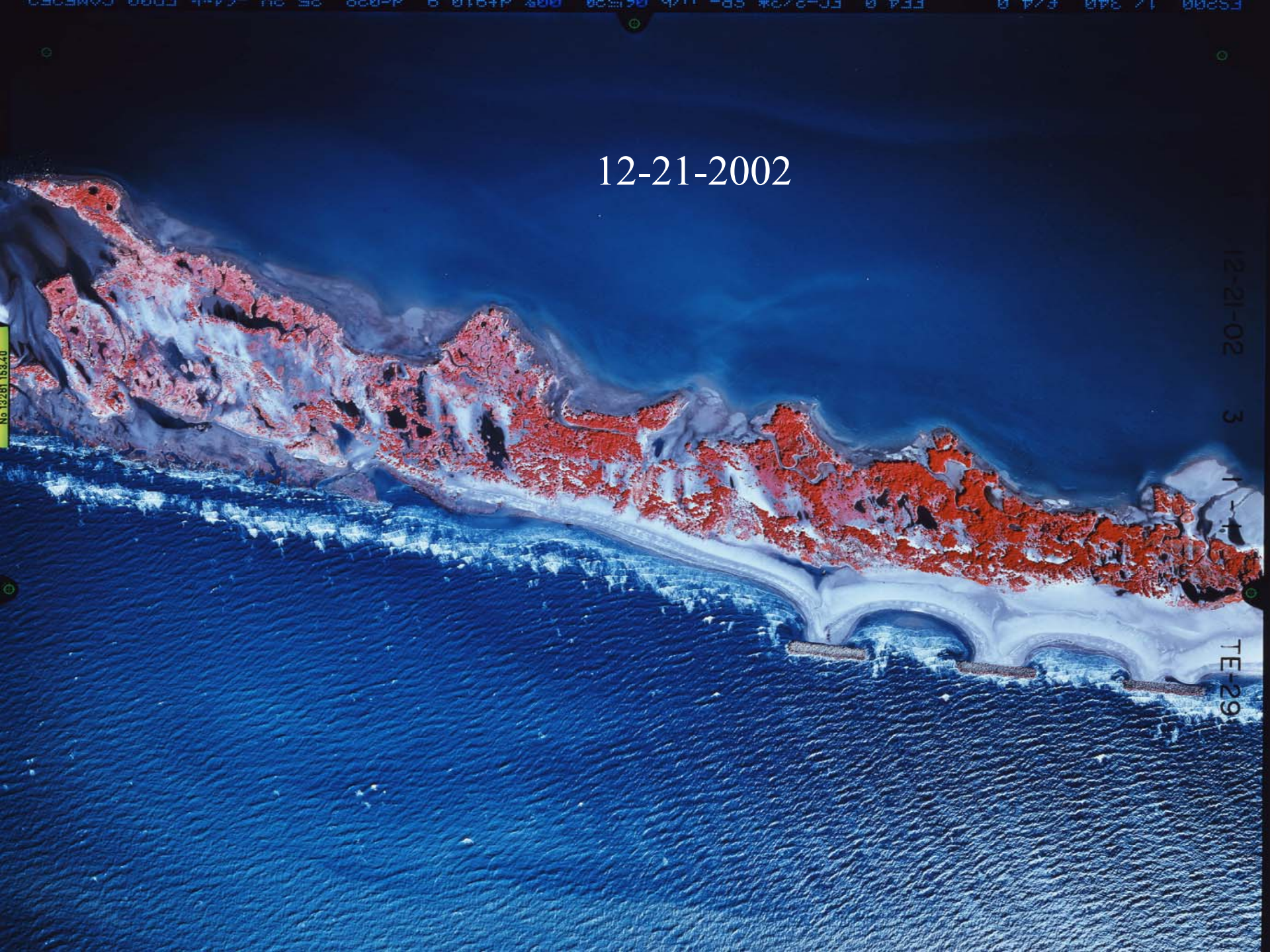
1996

10-10-02

10-10-02

10-10-02


12-21-2002


12-21-2002
12-21-02
TE-29

7-28-04

RACCOON ISLAND

PLACED UNDER LDWF REFUGE MANAGEMENT IN 1992

GREATEST AVAIN SPECIES RICHNESS OF ANY ISLAND ON THE COAST

8 SPECIES OF NESTING WADERS

LARGEST NESTING COLONY OF ROSEATE SPOONBILLS ON THE COAST

LARGEST COLONY OF NESTING
BROWN PELICANS ON THE COAST
MAY 26 2004

5 SPECIES OF
NESTING TERNS

NESTING ROYAL TERNS
ON RACCOON ISLAND

RACCOON ISLAND HAS DIVERSE
HABITAT WE HOPE TO SEE
ON FUTURE RESTORED BARRIER ISLANDS

Floatation channel dredge material properties were analyzed and revealed that spoil disposal could be conducted beneficially to create marsh between the breakwater and existing shoreline. The USACE Engineering Division performed the engineering and design for the project. A 30% design review meeting was held on June 30, 2004, which resulted in a letter from the LDNR concurring to proceed with final design.

The Corps contracted Chutz Surveying to collect additional marsh elevation survey data in August 2004 to substantiate assumptions made during Phase 0 about Subarea A benefits. The Corps received the processed data on August 27, 2004. This data is being compared currently and will be evaluated for the 95% design review meeting.

The CEMVN conducted a value engineering (VE) study in April 2004 to identify potential cost savings alternatives to achieve the equivalent function of the proposed design, while increasing the value and benefit ratio of the project. The VE study recommended planting vegetation in the marsh substrate created from the dredge material; eliminating future operations and maintenance lifts, constructing the dike closer to the shoreline and/or at a lower elevation. The CEMVN project delivery team, along with LDNR determined that the proposed design and operations and maintenance plan is the most cost effective approach to meet the goals of the project. The Corps, in consultation with Kevin Roy of the Fish and Wildlife Service, determined that planting vegetation in the created marsh substrate would not be necessary, since it is reasonable to expect that the protected substrate would naturally colonize with native plant species within one to three years after project construction.

Six pipeline facilities have been identified and surveyed along with one unknown facility in the vicinity of Bear Lake and one unknown facility near a loading dock near the eastern end of the project alignment. All facilities will be avoided during project construction and O&M and relocations will, therefore, not be required.

The project incorporated beneficial use of dredge material from the floatation channel to create marsh substrate in 157 acres of open water between the dike and the existing shoreline.

The project will also host the Shoreline Protection Foundation Improvement Demonstration Project (LA-06).

Land Rights Tasks

The CEMVN Real Estate Division contacted the State Land Office and conducted preliminary real estate activities including tract ownership data (TOD) to identify landowners within the project area. Department of the Army, Right of Entry for Surveys and Exploration Permits were obtained from the State Land Office for State water bottoms in White Lake. Permits were also obtained from private landowners as needed, including right of entry to perform soil borings, environmental and cultural resources investigations, and hazardous, toxic and radiological waste investigations as well as access.

A Real Estate Plan (REP) for estates and/or a Grant of Particular Use to be acquired, including a Gross Appraisal and Attorney's Preliminary Opinion of Compensability, has been prepared.

3. Description of the Phase II Candidate Project

This Phase II Authorization Request is for the entire South White Lake Shoreline Protection Project, which consists of building approximately 61,500-linear feet of stone breakwater along the south shore of White Lake in the Mermentau hydrologic basin, Vermilion Parish, Louisiana. A segmented breakwater would be constructed to prevent erosion along approximately 11.6-miles of the south shore of White Lake, between Will's Point and the west shoreline of Bear Lake.

The current cost estimate fully funded cost estimate is $19,674,000

4. Checklist of Phase II requirements:

A. List of Project Goals and Strategies.
Goal 1: Stop shoreline erosion from Will's Point to Bear Lake to preserve 424 acres of shoreline.
Goal 2: Create 157 acres of marsh substrate between the breakwater and the shore.
Goal 3: Prevent interior loss rates from increasing and thereby preserve 263 acres of additional marsh.
Coast 2050 Strategy: Regional #16 - Stabilize Grand and White Lakes' shorelines.

B. Since the Cost Sharing Agreement (CSA) between the USACE and the LDNR covers both Phase I and Phase II, it cannot be executed until Phase II approval is given on the day of the Task Force meeting. It will be executed shortly after receiving Phase II approval.

C. The USACE will finalize landrights in a short period of time after Phase II approval. A copy of the approval of the final Real Estate Plan developed by the USACE has been included an attachment. The project site is located wholly within lands claimed by the State of Louisiana. The Corps Real Estate Division estimated that it could take up to 5.5 months from Phase II approval to acquire Right of Entry permit from the State.

D. The USACE and the LDNR conducted a favorable 30% Design Review Meeting on June 30, 2004. As a part of that review, the Preliminary Design Report was provided for agency review and comment. The Preliminary Design Report included the results of the surveys, borings, geotechnical investigations, data analysis review, and the preliminary designs. The LDNR sent a letter dated July 7, 2004 that indicated their concurrence to proceed with the final design of the project. A copy of the letter of concurrence and a copy of the sign-in sheet from the meeting are attached.

E. The USACE and the LDNR conducted a favorable 95% Design Review Meeting September 3, 2004. As a part of that review, the project plans and specifications and the Final Design Report were provided for agency review and comment, in accordance with the CWPPRA SOP. A copy of the sign-in sheet from the meeting is included as an enclosure. We received no adverse comments as a result of the Design Review Meeting or the Final Design Report.

F. The Environmental Assessment (EA) was initiated July 16 and is expected to be finalized and a FONSI is expected to be signed on or shortly after September 7, 2004.

G. A summary of the findings of the Ecological Review completed by the Louisiana Department of Natural Resources is attached.

H. Application/Public Notice for Permits: A request for Clean Water Act Section 404 authorization was submitted 16 July 2004, and approved on 25 August 2004. A request for Coastal Zone Management Consistency Determination was submitted on 07 July 2004 and was granted on 03 September 2004. State of Louisiana, Water Quality Certification was submitted on 16 July 2004, and is expected to be granted on or shortly after 31 August 2004.

I. Hazardous, Toxic and Radiological Waste (HTRW) Assessment: A preliminary assessment was conducted and no HTRW concerns are expected at the project site.

J. Section 303e Approval. A Section 303e approval request has been submitted to the Real Estate Division of the Corps of Engineers on 15 August 2004. Approval is expected on 07 September 2004.

K. A copy of the Overgrazing determination from the Natural Resources Conservation Service (NRCS) is attached. The letter indicates that there is no problem with overgrazing within the project area.

L. A revised fully-funded cost estimate of Phase II activities or economic analyses, based on the current Project design is attached and is summarized in Item Number 3 Above.

M. An estimate of project expenditures by state fiscal year subdivided by funding category is attached.

N. A revised Wetland Value Assessment (WVA) was prepared and is attached, since the project was revised to include creating 157 acres of marsh from dredge material and extending the dike 6,500 feet. The breakdown of the Prioritization Criteria ranking score, finalized and agreed upon by all agencies prior to the 95% design review.

P. The spreadsheet with the categorical breakdown for Phase 2 is attached.

If you have any questions regarding the subject project, please call Ms. Melanie Goodman at (504) 862-1940.

Melanie Goodman
Project Manager
Coastal Restoration Branch

Enclosures

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

September 7, 2004

Ms. Melanie Goodman
U.S. Army Corps of Engineers
New Orleans District
Planning and Project Management
Coastal Restoration Branch
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Dear Ms. Goodman:

RE: South White Lake Shoreline Protection Project (ME-22)

I am in receipt of your request for an overgrazing determination for the South White Lake Shoreline Protection Project (ME-22). I contacted our local district conservationist and our state resource conservationist to discuss the grazing in the project area. Currently, livestock are present in the project area; however, project features are located on state water bottoms. Therefore, it is our opinion that overgrazing is not a problem in this project area. If you have any questions please let me know.

Sincerely,

W. Britt Paul
Assistant State Conservationist
for Water Resources and Rural Development

cc: Bruce Lehto, Area Conservationist, NRCS, Leesville, Louisiana
Bart Devillier, District Conservationist, NRCS, Abbeville, Louisiana
Kevin Blomquist, State Grazing Lands Specialist, NRCS, Alexandria, Louisiana
John Jurgensen, Civil Engineer, NRCS, Alexandria, Louisiana
Julie LeBlanc, Senior Project Manager, USACE, New Orleans, 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

ATTENDANCE RECORD

DATE	SPONSORING ORGANIZATION	LOCATION
3 September 2004	US Army Corps of Engineers	New Orleans District

PURPOSE **Coastal Wetlands Planning Protection and Restoration Act**
South White Lake Shoreline Protection Project (ME-22)
95% Engineering Design Review Meeting

PARTICIPANT REGISTER*

NAME	JOB TITLE AND ORGANIZATION	E MAIL ADDRESS	TELEPHONE NUMBER
Russ Joffrion	ENGR - LDNR/CED	russ.joffrion@la.gov	225-342-6850
CLARK ALLEN	ENGR - LDNR/CED	clark.allen@la.gov	225-342-6739
Mark Stead	Eco Review - LDNR/CRD	mark.s@dnr.state.la.us	225-342-9430
Ken Duffy	Proj. Manager - LDNR/CED	ken.duffy@la.gov	225-342-4106
Renee Russell	COE	renee.m.russell@mvn02.usace.army.mil	862-2989
Yvonne Barbier	COE - Real Estate	barbier@usace.army.mil	(504) 862-1173
Beth McCasland	COE - Environmental	elizabeth.l.mccasland@usace.army.mil	504-862-2021
John Lopez	USACE - Coastal Prot. Br.	John.A.Lopez@MVN02.USACE.Army.mil	504 862-1945
Gretchen Hammond	COE - Geotechnical	gretchen.s.hammond@mvn02.usace.army.mil	504
Brian Bonanno	COE - Geotechnical Br.	Brian.P.Bonanno@mvn02.usace.army.mil	862-2983
Sid Falk	COE - Civil Br.	Maurice.S.Falk@mvn02.usace.army.mil	
Kim LeSaicherre	Civil Br.	Kim.m.LeSaicherre@mvn02.usace.army.mil	862-1795
MEL GUIDRY	LDNR/CED	MELVIN.GUIDRY@LA.GOV	482-0662
Troy Barrilleaux	LDNR/CRD	Troy.barrilleaux@la.gov	337-482-0657

LMV FORM 583-R

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

State of Louisiana

KATHLEEN BABINEAUX BLANCO
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL RESTORATION AND MANAGEMENT

September 3, 2004

David F. Carney
Chief, Environmental Planning & Compliance Branch
U.S. Army Corps of Engineers
New Orleans District
P. O. Box 60267
New Orleans, LA 70160-0267

RE: **C20040323,** Coastal Zone Consistency
U.S. Army Corps of Engineers-New Orleans District
Direct Federal Action
EA# 390, South White Lake Shoreline Protection CWPPRA Project ME-22, PPL 12, **Vermilion Parish, Louisiana**

Dear Dr. Carney:

The above referenced project has been reviewed for consistency with the approved Louisiana Coastal Resource Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in the environmental assessment, is consistent with the LCRP. If you have any questions concerning this determination, please contact Brian Marcks of the Consistency Section at (225)342-7939 or 1-800-267-4019.

Sincerely,

David W. Frugé
Administrator

DWF/JDH/bgm

cc: Ken Duffy, CRD
Charles Mestayer, CMD FC
Russell Watson, USFWS
Richard Hartman, NMFS
Michael Bertrand, Vermilion Parish

June 2004

South White Lake Shoreline Protection (ME-22)

Project Status

Approved Date: 2003
Project Area: 5,222 acres
Approved Funds: $1.6 M
Total Est. Cost: $25 M
Net Benefit After 20 Years: 702 acres
Status: Engineering and Design
Project Type: Shoreline Stabilization

Location

The project is located along the southern shoreline of White Lake from Will's Point to the western shore of Bear Lake in Vermilion Parish, Louisiana.

Problems

The south shoreline of White Lake is retreating at an estimated average rate of 15 feet per year as a result of wind-induced wave energy. As the shoreline erodes, it could breach low marsh management levees and increase interior marsh loss rates in the area.

Restoration Strategy

This project calls for construction of segmented breakwaters to protect approximately 55,000 linear feet of shoreline. The breakwaters will be constructed with gaps to allow aquatic organisms and water to move freely. An estimated 270,000 tons of stone will be placed on geotextile fabric. A flotation channel will be required for construction access, and material dredged to build the access channel will be placed either in front of or behind the breakwater.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved engineering and design funding at their January 2003 meeting. Engineering and design development has begun.

This project is on Priority Project List 12.

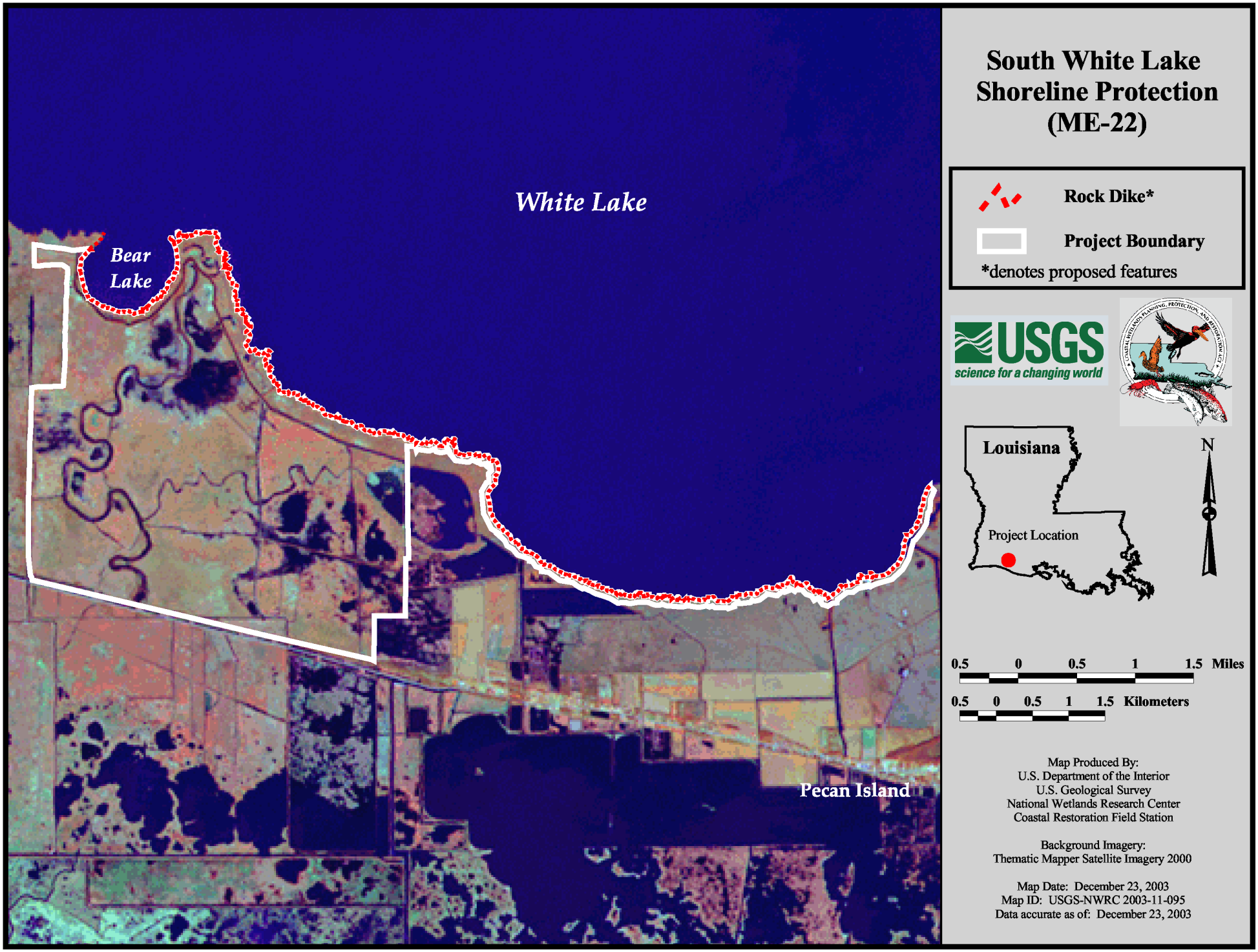
Segmented rock breakwaters such as the one being constructed above will provide protection for White Lake's eroding shoreline.

For more project information, please contact:

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

US Army Corps of Engineers
New Orleans District

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



South White Lake Shoreline Protection (ME-22)

Rock Dike*

Project Boundary

*denotes proposed features

USGS science for a changing world

Louisiana

Project Location

N

0.5 0 0.5 1 1.5 Miles

0.5 0 0.5 1 1.5 Kilometers

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

Background Imagery:
Thematic Mapper Satellite Imagery 2000

Map Date: December 23, 2003
Map ID: USGS-NWRC 2003-11-095
Data accurate as of: December 23, 2003

PM-C

State of Louisiana

KATHLEEN BABINEAUX BLANCO
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL RESTORATION AND MANAGEMENT

July 7, 2004

Colonel Peter J. Rowan
District Engineer
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Re: 30% Design Review for South White Lake Shoreline Protection (ME-22)
Statement of Local Sponsor Concurrence

Dear Col. Rowan:

The 30% design review meeting was held on June 30, 2004 for the South White Lake Shoreline Protection (ME-22) project. Based on our review of the technical information compiled to date, the ecological review, the preliminary land ownership investigation, and the preliminary designs, we, as local sponsor, concur to proceeding with the design of the project. Since no oyster leases will be affected by this project, there has been no assessment of potential impacts.

In accordance with the CWPPRA Project Standard Operating Procedure (Version 8), we request that you forward this letter of concurrence along with the revised project cost estimate to the Technical Committee and the Planning and Evaluation Subcommittee. We also request that our project manager, Ken Duffy, be copied on this and other correspondence concerning this project.

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

Sincerely,

Christopher P. Knotts, P.E.
Director

cc: John Hodnett, Engineer Manager
David Burkholder, Engineer Manager
Luke Le Bas, Engineer Manager
Kirk Rhinehart, Science Manager
Ken Duffy, Project Manager
Clark Allen, Engineer Supervisor

COASTAL ENGINEERING DIVISION
P. O. BOX 44027 • BATON ROUGE, LA 70804-4027 • 617 N. THIRD STREET • 10TH FLOOR • BATON ROUGE, LA 70802
PHONE (225) 342-7308 • FAX (225) 342-9417 • WEB http://www.dnr.state.la.us
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Draft-September 2004

E C O L O G I C A L R E V I E W

South White Lake Shoreline Protection

CWPPRA Priority Project List 12
(State No. ME-22)

September 2004

Mark A. Stead
Restoration Technology Section
Coastal Restoration Division
Louisiana Department of Natural Resources

Ecological Review
South White Lake Shoreline Protection (ME-22)

In August 2000, the Louisiana Department of Natural Resources (LDNR) initiated the Ecological Review to improve the likelihood of restoration project success. This is a process whereby each restoration project's biotic benefits, goals, and strategies are evaluated prior to granting construction authorization. This evaluation utilizes environmental data and engineering information, as well as applicable scientific literature, to assess whether or not, and to what degree, the proposed project features will cause the desired ecological response.

I. Introduction

The proposed South White Lake Shoreline Protection (ME-22) project is located in the Mermentau Basin in Vermilion Parish, Louisiana (Figure 1). The project area encompasses the southern shore of White Lake from Will's Point to the western shore of Bear Lake. The total area of the South White Lake Shoreline Protection project is approximately 5,222 acres and is primarily composed of fresh emergent marsh (2,314 acres) and open water (2,908 acres) habitats (United States Army Corps of Engineers [USACE] 2002).

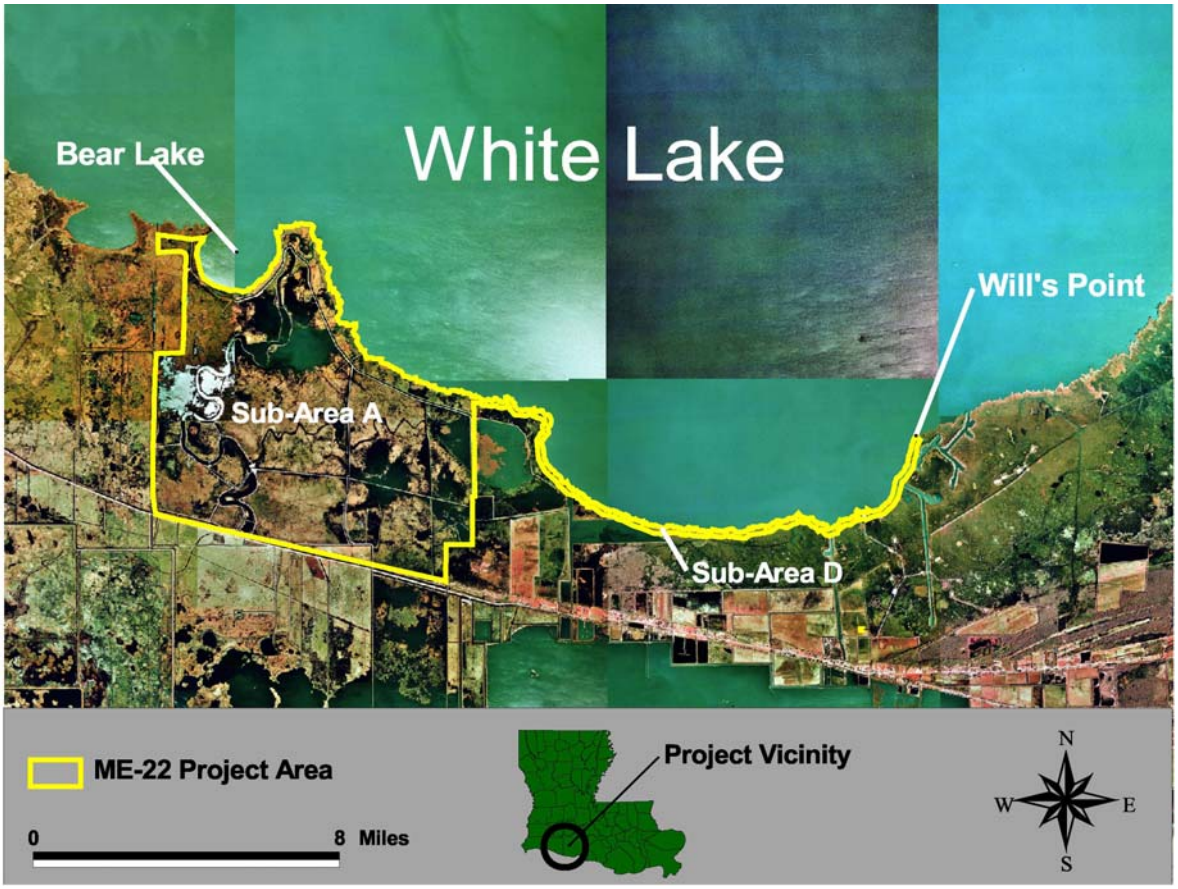

Figure 1. South White Lake Shoreline Protection (ME-22) project area

Coast 2050 identified wave erosion, high water levels, and altered hydrology as the major factors contributing to the rapid erosion of the southern shore of White Lake (Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority [LCWCRTF & WCRA] 1999). Between 1932 and 1990 an estimated 6,525 acres of marsh south of White Lake were lost (LCWCRTF & WCRA 1999). Future land loss projections predicted an additional loss of 4,220 acres of fresh marsh by 2050 or nearly 14% of the remaining 30,270 acres of marsh.

The South White Lake Shoreline Protection project area was originally subdivided into four sections (Sub-Areas A-D) in the project planning and selection process. However, Sub-Area B and C have since been deleted from the project area. It was determined that the marsh in these two Sub-Areas was not experiencing high enough rates of erosion to warrant protection (USACE 2002) (Figure 1). In contrast, Sub-Area D which is located along the shoreline of White Lake from Will's Point to Bear Lake is experiencing erosion rates of approximately 15 feet per year (USACE 2002). Sub-Area A encompasses the western interior section of the project area (Figure 1). As the shoreline of White Lake and Bear Lake erodes, a low levee separating the area from the lakes is anticipated to breach, which is expected to increase the rate of interior marsh loss. Protection of the shoreline will prevent this from occurring.

Protection of the White Lake shoreline will be accomplished through the construction of a 61,500 linear foot foreshore rock dike. The foreshore rock dike will protect interior marsh, which without the structure will be subjected to elevated water levels and increased wave energies (LCWCRTF & WCRA 1999). This project is in keeping with *Coast 2050* Region 4 Ecosystem Strategies which are to promote the stability and protection of bay, lake, and gulf shorelines for the preservation of interior wetlands and the maintenance of favorable hydrologic conditions (LCWCRTF & WCRA 1998).

The Shoreline Protection Foundation Improvement Demonstration (LA-06) project will be incorporated into ME-22 project designs in order to determine the feasibility of constructing rock shoreline protection structures where a relatively poor soil foundation exists.

II. Goal Statement

- Stop shoreline erosion in Sub-Area D and as a result save 379 acres of emergent marsh that is expected to be lost over the 20 year project life.
- Stop the breaching of the levee protecting Sub-Area A and as a result save 263 acres of emergent marsh that would otherwise be lost over the 20 year project life.
- Create 99 acres of emergent marsh between the White Lake shoreline and the foreshore rock dike in Sub-Area D over the 20 year project life.
- Increase submerged aquatic vegetation (SAV) coverage in the open water areas of Sub-Area D from a baseline of 1% to 40% over the 20 year project life.
- Maintain SAV coverage in Sub-Area A over the 20 year project life.

III. Strategy Statement

The project goals will be achieved through the construction of an approximately 61,500 linear foot foreshore rock dike along the southern shore of White Lake from Will's Point to the western end of Bear Lake.

IV. Strategy-Goal Relationship

The construction of a foreshore rock dike will effectively stop erosion along the southern White Lake shoreline by damping wind generated waves. By stabilizing the southern White Lake shoreline, the interior marsh will be maintained at or near current levels. Emergent marsh will be created through the beneficial use of dredged material from the digging of the flotation canal.

The construction of the foreshore rock dike is expected to increase the overall percentage of SAV coverage in the area behind the shoreline protection structure from 1% to 40% in Sub-Area D. Submerged aquatic vegetation habitat creation is expected to occur due to the reduction of turbidity in the shallow open water areas and the resulting increase in overall light penetration.

V. Project Feature Evaluation

Foreshore Rock Dike

The foreshore rock dike will be constructed at the -1.5 foot NAVD-88 contour. The breakwater will have a mean crest elevation of +3.5 feet NAVD-88 (with a +/-0.5 foot tolerance) upon construction completion (Figure 2). The current structure elevation design was determined through the addition of the White Lake mean water level (+1.12 feet NAVD-88), 90% wind setup (+0.50 feet) and the wave height of the 90th percentile wave (+1.70 feet), which will result in 0.18 feet of the rock dike remaining above water in storm conditions (USACE 2004). The dike will be constructed with a 4.0 foot wide crown and 1.0(V) on 1.5(H) side slopes. All stone sizing will correspond to the standard 24-inch rock gradation and be placed on geotextile fabric that will have a 200 pounds per inch minimum tensile strength. Fish dips will be built at approximately 1,000-foot intervals with a top width of 50 feet and the toe will be lined completely with a layer of rock (Figure 3).

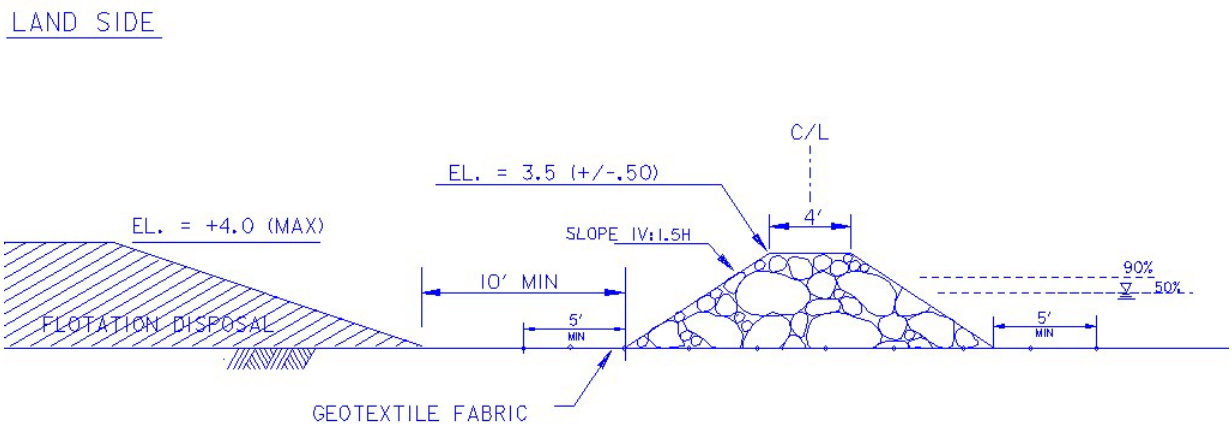

Figure 2. Typical dike section (USACE 2004, updated file from design report).

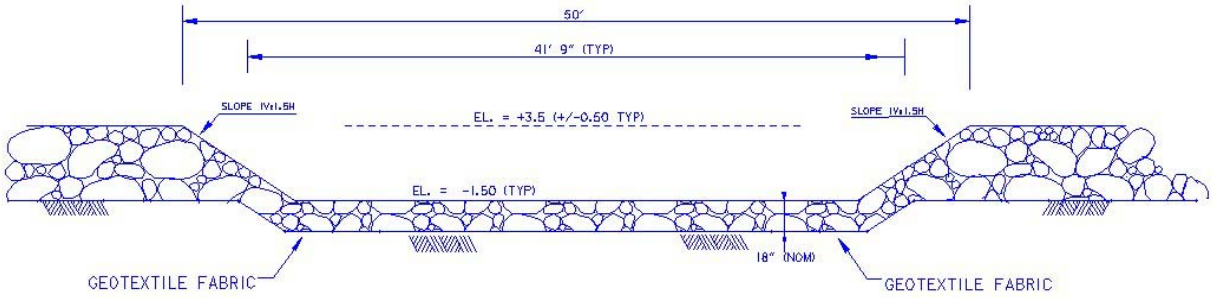

Figure 3.Typical fish dip section (USACE 2004, updated file from design report).

The geotechnical analysis revealed a favorable soil foundation composed of marsh, swamp, Lacustrine, and Pleistocene deposits in the White Lake project area (USACE 2004). With a subsidence rate of 1.25 foot per century included in the settlement calculations, the settlement of the rock dike ranges from 0.7 to 1.3 feet over the life of the project (USACE 2004). However, the relatively high crest elevation (+3.5 feet NAVD-88) will allow the dike to maintain its effectiveness as a wave break despite significant settlement. As a safeguard, maintenance funds will be requested for scheduled lifts, if needed, in years 7 and 15 post-construction in order to ensure that an effective crest height is maintained over the 20 year project life.

The construction of a flotation canal to allow access for barges and equipment will produce a significant amount of dredged spoil. The flotation canal will be dredged 50 feet from the centerline of the dike and the spoil material will be stacked at maximum height of +4.0 feet NAVD-88 and at a target elevation of +3.0 feet NAVD-88 behind the structure for additional marsh creation benefits. The +3.0 feet NAVD-88 target stack elevation was selected based on settlement curves which estimated that the dredge spoil would achieve a height ranging between +1.5 to +1.85 feet NAVD-88 at year 20. Approximately 99 acres of marsh will be created between the shoreline and the breakwater though the beneficial use of this dredged material. Material will be placed at least 10 feet behind the toe of the dike and at least 50 feet from the existing shoreline. Maximum allowable dredging depth for the flotation channel will be -6.0 feet NAVD-88.

Demonstration Project

The Shoreline Protection Foundation Improvement Demonstration (LA-06) project, authorized on the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) 13th priority project list, will be incorporated into the ME-22 project design plan. The goal of this demonstration project is to determine the feasibility of shoreline protection structures where a relatively poor soil foundation exists. The strategy of the Shoreline Protection Foundation Improvements Demonstration is to use sand as a foundation beneath rock dike structures as a means to achieve increased bearing capacity and consolidation settlement design tolerances in a manner that lessens 20-year shoreline protection project costs.

The demonstration project experimental design will include two sub-reaches. Each sub-reach will be divided into two 900-foot treatment sections and one 900-foot control section. Fish dips will be built at approximately 900-foot intervals with a top width of 50 feet. Treatment A will be administered by placing sand directly on top of soil and then placing the rock material on top of the sand foundation. Treatment B will include dredging out the soil foundation, filling the cavity with sand. Rock will then be placed on top of the sand foundation. The treatments (A or B) will be randomly assigned to each of the two sub-reaches (Figure 4).

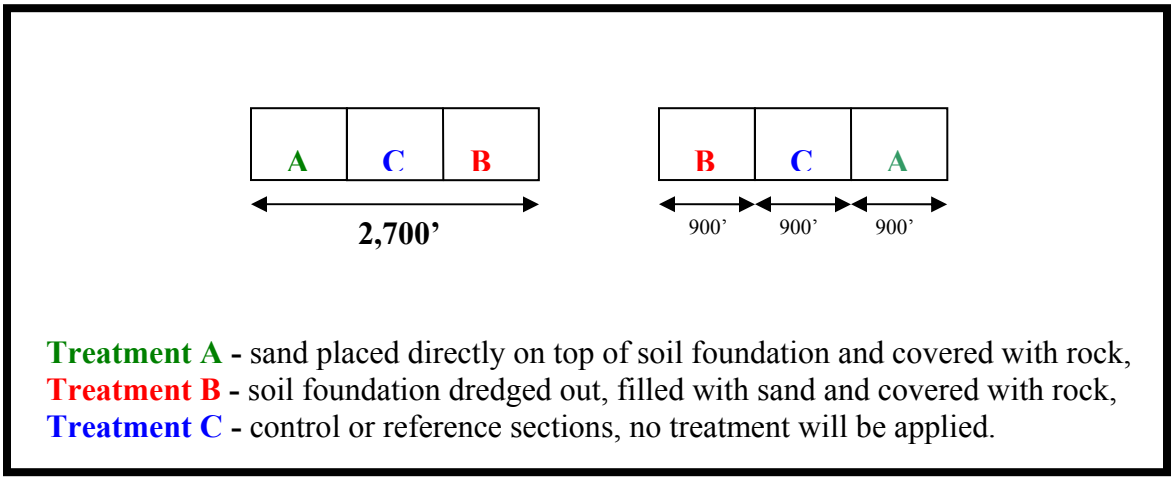

Figure 4. Shoreline protection foundation improvement demonstration (LA-06) layout and treatment regime.

The two sub-reaches will be placed in reach 5 of the ME-22 project area (Figure 5). The geotechnical investigation indicated that this region has a relatively unfavorable soil foundation. All sections will be instrumented with settlement plates, inclinometers, and extensometers at 180 foot intervals to determine the effectiveness of the foundation improvements. Geotechnical borings will be taken at each of the six sample sections during the construction of the demonstration project to determine underlying soil conditions. The benefits of this project may include a more effective and economical method for the design and construction of rock shoreline protection structures. The demonstration test sections will be maintained as part of the operations and maintenance plan for the ME-22 project.

VI. Assessment of Goal Attainability

Environmental data and scientific literature documenting the effects of the proposed project features in field application are evaluated below to assess whether or not, and to what degree the project features will cause the desired ecological response.

Armor Shoreline Protection

A number of projects using traditional shoreline protection structures have been implemented in Louisiana coastal areas to protect lake, bay, and navigational channel shorelines (Table 1). Published results of projects funded under CWPPRA and through the State of Louisiana that have used rock shoreline protection structures constructed in environments similar to the South White Lake Shoreline Protection project are discussed below.

Figure 5. Reach 5 of the South White Lake Shoreline Protection (ME-22) project area (USACE 2004, updated file from design report).

- The Boston Canal/Vermilion Bay Bank Protection (TV-09) project was designed to abate wind-driven wave erosion along Vermilion Bay and at the mouth of Boston Canal (Thibodeaux 1998). To accomplish that goal a 1,405 foot foreshore rock dike was constructed in 1995 at an elevation of +3.8 feet NGVD-29 along the bank of Boston Canal extending into Vermilion Bay. In 1997, two years after construction, the project was estimated to have protected 57.4 acres of marsh and 1.4 to 4.5 feet of sediment was deposited behind the breakwater while the reference area continued to erode. The rock breakwater at the mouth of Boston Canal was successful in stabilizing the shoreline (Thibodeaux 1998).

- Lake Salvador Shoreline Protection Demonstration (BA-15) project evaluated a series of shoreline protection measures at Lake Salvador, St. Charles Parish, Louisiana. Phase two of this project was conducted in 1998 and evaluated the effectiveness of a rock berm to protect the lake shoreline from higher energy wave erosion. The rock structure itself appears to be holding up well, showing little sign of deterioration and subsidence. Recent surveys of the area revealed that the rock dike was successful in stabilizing the shoreline and some accretion is occurring behind the structure (Curole et al. 2001). However, the effectiveness of the structure over the long term may be in

question since it was not built according to design specifications. The rock dike was designed to be constructed with a crest elevation of +4.0 feet NAVD-88. A 2002 survey of the rock dike determined that the average height of the structure was +2.51 feet NAVD-88. The average settlement of the structure, measured from 1998 to 2002, was approximately 0.26 feet. It was concluded that the rock dike was built to an inadequate crest elevation of +2.75 feet NAVD-88 (Darin Lee, Personal Communication 2002).

Table 1. Design parameters of constructed shoreline protection projects (sorted by construction date).

Project Name	Project Number	Coast 2050 Region	Construction Date	Depth Contour (NAVD-88)	Length of Structure (feet)	Height	Distance From Shoreline (feet)
Blind Lake	N/A* (State)	4	1989	N/A	2,339	4.0 ft NAVD-88	70
Cameron Prairie National Wildlife Refuge Shoreline Protection	ME-09	4	1994	-1.0 ft	13,200	3.7 ft NAVD-88	0-50
The Freshwater Bayou Bank Protection	TV-11 (State)	3	1994	N/A	25,800	4.0 ft NAVD-88	N/A
Turtle Cove	PO-10 (State)	1	1994	N/A	1,640 (rock gabion)	3 ft (MWL)	300
Bayou Segnette	BA-16 (State)	2	1994,1998	N/A	6,800	3.0-5.0 ft NAVD-88	N/A
Boston Canal/Vermilion Bay Bank Protection	TV-09	3	1995	N/A	1,405	3.8 ft NGVD-29	N/A
Clear Marias Bank Protection	CS-22	4	1997	-1.2 ft	35,000	3.0 ft NGVD-29	0-50
Freshwater Bayou Wetlands Protection	ME-04	4	1998	-1.0 ft	28,000	4.0 ft NAVD-88	0-150
Freshwater Bayou Bank Stabilization	ME-13	4	1998	N/A	23,193	3.7-4.0 ft NAVD-88	N/A
Lake Salvador Shoreline Protection Demonstration	BA-15 Phase II	2	1998	-1.0 to 1.4 ft	8,000	Designed at 4.0 ft NAVD-88 built at 2.75 ft NAVD-88	100
Perry Ridge Shore Protection	CS-24	4	1999	N/A	12,000	3.7 to 4.0 ft NAVD-88	60
Jonathan Davis Wetland Protection	BA-20	2	2001	N/A	34,000	3.5 ft NAVD-88	N/A
Bayou Chevee Shoreline Protection	PO-22	1	2001	N/A	5,690	3.5 ft NGVD-29	300

***N/A indicates that information was not available.**

- Intracoastal Waterway Bank Stabilization and Cutgrass Planting project at Blind Lake was a state wetland restoration project constructed to prevent the Gulf Intracoastal Waterway (GIWW) and Sweet Lake from coalescing with Blind Lake (LDNR 1992). A limestone foreshore rock dike built at an elevation of +4.0 feet NGVD-29 was placed 70 feet from the edge of the main channel along 2,339 feet of bank on a six-inch layer of shell and filter cloth. Large stones were used to prevent movement of rocks and to allow sediments

and organisms passage. In 1991, two years after project completion an average increase in elevation of 0.32 feet in the area behind the dike was observed along transects from the deposition of suspended sediments. Data indicate that the project was successful in protecting the shoreline at Blind Lake and maintaining the hydrology of the Cameron-Creole watershed.

- The Turtle Cove Shoreline Protection (PO-10) was initiated in 1993 to protect a narrow strip of land in the Manchac Wildlife Management Area which separates Lake Pontchartrain from an area known as "the Prairie" (O'Neil and Snedden 1999). Wind induced waves contributed to a shoreline erosion rate of 12.5 feet per year. A 1,642 foot rock filled gabion was constructed 300 feet from shore at an elevation of 3 feet above mean water level with the goal of reducing erosion and increasing sediment accretion behind the structure. Post construction surveys conducted during the period of October 1994 to December 1997 revealed that the shoreline had prograded at a rate of 3.47 feet per year in the project area. The rate of sediment accretion, as determined from elevation surveys conducted in January 1996 and January 1997, was 0.26 feet per year.

  The soils in The Prairie and Turtle Cove area consist of Allemands-Carlin peat which is described as highly erodible organic peat and muck soils (USDA 1972). Due to the weak and compressible nature of the subsurface soils, the gabions settled 0.59 feet in just over two years (October 1994 to January 1997) (O'Neil and Snedden 1999). Also, five years after construction the rock filled gabion structure exhibited numerous breaches and required extensive maintenance in August 2000 (John Hodnett, LDNR, Personal Communication August 2004).

There are also several examples of successful projects involving the use of shoreline protection to stop erosion along navigation channel banks.

- The Freshwater Bayou Wetlands Protection (ME-04) project is positioned on the western bank of Freshwater Bayou Canal across from the proposed TV-11b project (Vincent et al. 1999). Construction of this project was initiated in January 1995 and includes construction of water control structures and a 28,000 linear foot foreshore rock dike designed with a crown elevation of +4.0 feet NAVD-88. Analysis of initial monitoring data suggests that the rock dike reduced wave-induced shoreline erosion after construction. The average rate of shore progradation between June 1995 and July 1996 was measured at 2.2 feet per year while the reference area continued to erode at an average rate of 6.7 feet per year (Raynie and Visser 2002). In contrast, between March 1998 and May 2001, the protected shoreline eroded an average of 2.6 feet per year while the reference area eroded at an average of 10.0 feet per year (Raynie and Visser 2002). Substandard recycled construction material and inadequate funds for maintenance of the structure, which were not disbursed in a timely manner, are believed to be the reason for the increase in erosion rates in the project area (Raynie and Visser 2002).

- The Cameron Prairie National Wildlife Refuge Shoreline Protection (ME-09) project, constructed in 1994, is located in north-central Cameron Parish and includes 350 acres of freshwater wetlands (Barrilleaux and Clark 2002). A 13,200-foot rock breakwater was constructed at an elevation of +3.7 feet NAVD-88, 50 feet from (and parallel to) the northern shore of the GIWW to prevent wave action from eroding the bank and breaching into the interior marsh. Aerial photography and survey points were used to monitor any changes in land to water ratio and shoreline position. Three years after construction results indicate that the project area shoreline advanced 9.8 ± 7.1 feet per year while the reference area retreated 4.1 ± 3.1 feet per year. A two-sample t-test reveled a significant difference was detected between the shoreline change rate and the project reference areas ($P < 0.001$).

- The Clear Marais Bank Protection (CS-22) project was constructed in 1997 at an elevation of +3.0 feet NGVD-29 to prevent breaches in the GIWW shoreline and subsequent erosion of the interior marsh while preventing saltwater intrusion (Miller 2001). Approximately 35,000 linear feet of rip-rap was placed 50 feet from the northern shoreline of the GIWW. Results indicate that the foreshore rock dike has been effective in preventing erosion of the GIWW shoreline. A net gain of 13 feet per year occurred behind the rock structure while the reference area continued to erode (Raynie and Visser 2002).

Submerged Aquatic Vegetation

Submerged Aquatic Vegetation plays a crucial role in the littoral zone of aquatic ecosystems (Wetzel 1983). Submerged aquatic vegetation dissipates the energy of wind and wave action, reduces the amount of bottom sediment resuspension, serves as effective traps for inorganic and organic particulates, and provides suitable forage for ducks, invertebrates and larval fish (Spence 1982, Foote and Kadlec 1988, Lodge 1991). It is widely understood that the limiting factor controlling the recovery of SAV in lakes is light attenuation (Sager et al. 1998). Submerged aquatic vegetation habitat creation is expected to occur behind the shoreline protection structure in White Lake due to the reduction of turbidity in the shallow open water areas and the resulting increase in overall light penetration.

CWPPRA's Environmental Workgroup estimated that the South White Lake Shoreline Protection structure would increase SAV cover in the open water areas of Sub-Area D from a baseline of 1% to a target of 40% over the 20 year project life (USACE 2002). The structure is also expected to maintain current levels of SAV cover in Sub-Area A over the 20 year project life (USACE 2002). Due to limited availability of monitoring data from previously constructed CWPPRA shoreline protection projects in the Mermentau Basin, attempts to correlate these established targets or to better quantify the effect of the project features on SAV cover within White Lake have been ineffectual

Summary/Conclusions

Projects including TV-09, BA-15, CS-22, PO-10, and ME-09 which were designed to an adequate elevation and located in areas with relatively good soil foundations were successful in reducing shoreline erosion and promoting accretion behind the structure. Projects such as ME-04 and PO-10 were successful in reducing shoreline erosion but experienced some structural failures due to poor soil foundations, the use of recycled materials, and/or inadequate maintenance funds. In contrast, the South White Lake Shoreline Protection project is located in an area where soil bearing capacity is favorable. In addition, a detailed operations and maintenance schedule has been prepared in order to assure that the structure sustains an effective elevation over the entire twenty-year project life

According to the geotechnical report (USACE 2004), the proposed White Lake foreshore rock dike will experience 0.7-1.3 feet of settlement over the life of the project. However, a maintenance lift, which will help to maintain the structure elevation at +3.5 feet NAVD-88, may be conducted, if needed, at years 7 and 15 post-construction. Despite initial and post-construction settlement, the currently proposed rock dike should provide adequate protection against wind driven waves and ultimately prevent breaches in the southern White Lake shoreline.

A demonstration project will be incorporated into the South White Lake project design to test the effectiveness of two foundation improvement strategies in relatively poor soil foundations. Detailed design plans for the demonstration project will be available before the project is presented to the Louisiana Coastal Wetlands Conservation and Restoration Task Force for funding.

VII 95% Design Review Recommendations

Based on information gathered from similar restoration projects, engineering designs and related literature the proposed strategies of the South White Lake Shoreline Protection project will likely achieve the desired goals. It is recommended that this project progress towards construction authorization pending a favorable 95% design review.

- A formal report describing the effectiveness of the Demonstration project should be presented to the project team annually and at the conclusion of the project.

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Project Information Sheet for Wetland Value Assessment
South White Lake, Vermilion Parish, LA

Project Name: South White Lake Shoreline Protection (ME-22)

Sponsoring Agency: U.S. Army Corps of Engineers
Environmental Work Group Contact: Sean Mickal, (504) 862-2319
Engineering Work Group Contact: Chris Monnerjhan, (504) 862-2415
Corps Project Manager Point of Contact: Melanie Goodman, (504) 862-1940
DNR Project Manager Point of Contact: Ken Duffy, (225) 342-4106

Project Area: The project is located in Vermilion Parish, along the south shoreline of White Lake, between Will's Point and the western shore of Bear Lake.

Sub Area A (The Kaplan Tract)
These acres come from USGS 1998 DOQQs. The acreage has been brought forward to 2002 using a loss rate of 1.37%. The reason for using this loss rate is explained later.

Total acres 4,717 acres
Fresh Marsh 1,935 acres
Open water 2,782 acres

There is no change in these acres from the last WVA prepared during Phase 0, dated 18 September 2002.

Sub Area D (The Shoreline)
Protection is based on a 15-foot per year loss rate over 20 years; a shoreline length of 61,500 feet; and the dike placed 250 feet offshore at the -1.5 foot (NAVD 88) contour in approximately 2-3 feet of water, stage dependent. Toe of dike is approximately 235 feet off shore (235 x 61,500) = 14,452,500 = 332 acres

Total acres 756 acres
Fresh Marsh 424 acres
Open water 332 acres

Total Project Acreages: *Areas A and D only*
Total acres 5,473 acres
Fresh Marsh 2,359 acres
Open water 3,114 acres

Net Areas Preserved

Net Areas Preserved		
	Sub Area A	Sub Area D
FWOP TY20	1,150	0
FWP TY20	1,413	424
Net Preserved	**263**	**424**

Total Net Preserved (Sub Area A + Sub Area D) = 687 acres
Total Net Acres Created Sub Area D = 157
Total Net Gain FWP TY20 = 844

Problem:
Sub Area A: This sub area is expected to experience accelerated marsh loss when interior levees are breached as a result of a shoreline levee breach sometime around TY12. The area has subsided due to several years of gravity drainage and portions are below the level of White Lake. This area has been enlarged over the PPL 11 project to take into account the area is hydrologically connected and drained by a single pump in the southeast corner of the boundary area.

Sub Area D: Erosion is believed to be the cause of marsh loss in this Sub Area. USACE land loss maps indicate it is the only cause of loss in a strip about a mile wide along the south shore of White Lake. The old lake rim has eroded away and the more fragile marshes erode more rapidly as evidenced by the severely scalloped shoreline in the Sub Area. The breakwater addresses the erosion problem in Sub Area D. Approximately 157 acres of marsh would be created from beneficial use of material dredged for floatation channel.

Goals:
The project goal is to stop erosion along the South White Lake shoreline between Will's Point and west of Bear Lake, and to build marsh substrate behind the rock breakwaters using dredge material from the project construction floatation channel. A secondary goal is to prevent a breach from occurring between White Lake and the management unit known as the Kaplan Tract.

Project Features:
A segmented breakwater would be constructed at the -1.5-foot NAVD 88 contour in two to three feet of water, stage dependent. The breakwater would be constructed along approximately 61,500 linear feet of shoreline between Will's Point and past the western side of Bear Lake. The breakwater would follow along the shoreline of Bear Lake. The breakwater would have a crown elevation of +3.5 feet NAVD 88, with a 4-foot wide crown and 1V on 1.5H side slopes. The stone section would be placed on geotextile reinforcing fabric. There would be 50-foot wide, rock lined gaps in the breakwater at 1,000-foot intervals. A flotation channel would be necessary to construct the dike. Dredge material removed to construct the floatation channel would be beneficially used to create 157 acres of marsh substrate between the breakwater and the shoreline. The original WVA attributed 60 acres of benefits due to accretion over the 20-year project life. The breakwater design has been revised and is higher than the conceptual plan. Since overtopping of the breakwater is not expected to occur as frequently as the conceptual plan, and the area between the breakwater and the shoreline would be filled with dredge material to create marsh substrate, incremental benefits are no longer being attributed to accretion. However, it is believed that the breakwater would be overtopped periodically, and sufficient accretion would occur over the life of the project to help nourish and sustain the elevation and health of the created marsh.

Monitoring Information:

Cameron Prairie Refuge Protection
A 13,200-foot long rock breakwater was placed on the north bank of the GIWW in January 1994. It was 0-50 feet offshore in 3-4 feet of water. The rocks stopped erosion in the project area and allowed 4.6 feet of horizontal accretion in the first year. This fresh marsh area accreted 1.4 acres per year over 13,200 feet and now completed covers the area between the dike and the shoreline. In the reference area, erosion continued at 4 feet per year.

Freshwater Bayou Wetlands (ME-04) Phase I
A 28,000-foot long rock dike was completed along the western bank of Freshwater Bayou in January 1995. Over the next year 2.3 feet of land accreted behind the rocks while the reference area eroded 6.5 feet.

Boston Canal/Vermilion Bay Sub Area D Protection
Breakwaters were built to a +4 foot elevation in 4-6 feet of water at the mouth of Boston Canal in December 1994. Sediment fences were placed behind the breakwaters. Within less than a year, there was between 1.5 and 4.5 feet of vertical accretion behind the breakwaters.

Blind Lake Shore Protection
In a state only project, a 2,340-foot rock breakwater was built across the mouth of Blind Lake on the south bank of the GIWW in 1989. Giant cutgrass was planted 70 feet from shore. Containerized had 99 % survival at 2.5 months, fresh dug had 82 % survival. In 2.5 years, vertical accretion was .3 feet. By the mid-90s, this entire fresh marsh area had filled and was colonized with giant cutgrass, elephant ear and willow.

Tuttle Cove Gabions
In a state-only project, 1,642 feet of rock –filled gabions were built across the mouth of the Prairie on the western shore of Lake Pontchartrain in 1994. They were 300 feet offshore and 3 feet above mean high water. This intermediate to brackish area prograded an average of 3.5 feet per year while the reference area eroded 6.3 feet per year. There was a 6-foot gap near the south end of the gabions and accretion was greater near this gap. By 1999 the gabions were starting to deteriorate.

V1 Emergent Vegetation

Baseline
Emergent Vegetation - This area has been classified as fresh marsh since O'Neil mapped it. The dominant vegetation has changed from the sawgrass found by O'Neil to mainly *Phragmites communis, Zizaniopsis miliacea, Scirpus californicus,* and *Sagittaria falcata* as noted by Chabreck in 1997. Numerous other fresh marsh species, such as elephant ear, *Sesbania*, and willow were noted.

Soils and Subsidence - The soil type along the White Lake Sub Area D between Bear Lake and Will's Point is mainly Larose muck. Larose Muck is classified as very poorly drained and very slowly permeable, semi-fluid mineral soils. The subsidence rate in this area is low (from 0 to 1

foot per century)[1]. Lake bottom in the project area was former shoreline and consists of very soft to soft fat clay with lenses and layers of lean clay, silt, and peat with relatively high moisture contents and wood. Approximately 4 to 10 feet of lacustrine deposits are found with the marsh/swamp. Lacustrine deposits consist of very soft to soft fat and lean clays with shell fragments. Pleistocene age deposits underlie marsh/swamp and lacustrine deposits and are found 7-25 feet deep, with the much deeper deposits on the western end of the project site. These Pleistocene deposits consist of stiff to very stiff clays, silts, silty sand, and sands with low water content.[2]

Sub Area A

The southwestern portion of this area has opened significantly since the late 1980s when land management strategies in this area changed. The USACE data ends at 1990 therefore, 1998 DOQQs from LDNR were coupled with the USACE data to calculate a loss rate from 1990 to 1998. The DNR acreages were adjusted accordingly to calculate the loss rate. Erosion rates calculated by comparing 1978-79 aerial photography with 1997-98 aerial photographs showed erosion rates averaging 47.62 acres per year or roughly 0.91% per year. A comparison was then done using the 1998 DOQQ compared to the 1993 Land/Water classification. This later comparison showed an erosion rate during this 5 year time period of 8.30% per year. This erosion rate exemplifies the land loss potential when agricultural land is abandoned and allowed to convert back to fresh water marsh after decades of active farming. A weighted average using USGS data from 1956 to 1998 showed an average loss per year of 1.37%. This average was used as the base loss rate. It was determined that a levee breach would occur in TY12. A 25% increase in erosion rate was factored into the PPL 11 candidate project. However, given the calculated land loss from 1993 to 1998 and recent survey data, which suggests that much of Sub Area A is below mean Catfish Lake level, the potential for inundation could be even more severe. As a result, a 50% increase in loss rate (to 2.06%) was applied after year 12.

	Sub Area A
COE % Loss 55-74 per year	0.02
COE % Loss 74-90 per year	0.71
COE % Loss 83-90 per year	1.57
USGS % Loss 56-78 per year	0.05
USGS % Loss 78-98 per year	0.91
USGS Apparent % Loss 93-98 per year	8.30
Weighted Averages	
COE % Loss 55-90 per year	0.34
USGS % Loss 56-90 per year	0.35
USGS % Loss 56-98 per year	1.37

[1] USDA Natural Resources Conservation Service. 1996. Soil Survey of Vermilion Parish, Louisiana
[2] CEMVN. 2004. CWPPRA South White Lake Shoreline Protection Project (#ME-22), Vermilion Parish, LA, Preliminary Design Report.

Sub Area A	Land	%	Water	%	Total	%
1993	4072.92	85.02166	717.53	14.97834	4790.45	100
1998	2058.54	43.53603	2669.82	56.46397	4728.36	100
1998 rec	2085.572	43.53603	2704.878	56.46397	4790.45	100

Loss/Gain 1993-1998	1987.348	acres
% Loss 1993-1998	41.48563	
Acres Lost Per Year	397.4697	
% Lost Per Year	8.297126	
Erosion Rate 93-98	8.30%	

Sub Area D

This area uses the estimated Sub Area D erosion rate instead of land loss from Britsch's maps. Erosion rates were calculated by comparing 1978-79 color IRs and the 1997-98 infragreens. Sub Area D erosion rates averaged approximately 15 feet per year.

Future without project

Sub Area A

With an erosion rate of 15 feet per year on the south shore of White Lake, it was estimated that after TY12 the levee would break in several places bordering Sub Area A. For the first 11 years a loss rate of 1.37% was used. It is doubtful that the landowner would repair the levee. Since a large portion of the leveed area is below the water level in White Lake, a portion of the area would be flooded. It is projected that a rapid loss of marsh would occur following inundation from White Lake. This loss of marsh is expected to occur in TY12 as a 20% loss of the TY11 marsh acreage. Following this instantaneous marsh loss, the land loss rate would be 50% higher than the rate used for TY1 – TY11. A 50% increase in the 1.37% rate is 2.06% per year.

Future with project

The project protects the shoreline and so no breach occurs, therefore the loss rate of 1.37% per year remains constant through TY20.

Future without project			Future with project		
TY0	41%	1,935/4,717	TY0	41%	1,935/4,717
TY1	40%	1,909/4,717	TY1	40%	1,909/4,717
TY11	35%	1,663/4,717			
TY12	28%	1,330/4,717*			
TY20	24%	1,150/4,717**	TY20	30%	1,413/4,717

*Levee breach occurs causing a 20% loss of TY11 acreage

**Loss rate of 2.06% is applied to TY12 acreage

Sub Area D

Future without project

When the average erosion rate of 15 feet per year was applied to the 61,500 feet of Sub Area D over 20 years, a total of 424 acres would be lost without the project. This averages to 21 acres per year.

Future with project
The breakwater is assumed to stop erosion along the Sub Area D. The dredged material from the flotation canal would be beneficially used to create approximately 157 acres of marsh.

Future without project			Future with project *		
TY0	56%	424 acres	TY0	56%	424 acres/756
TY1	52%	403 acres	TY1	58%	440 acres (424 + 16 created)/756
			TY5	77%	581 acres (424 + 157 created)/756
TY20	0%	0 acres	TY20	77%	581 acres (424 + 157 created)/756

*For future with project, 157 acres of marsh substrate created by beneficial disposal of material dredged for floatation channel would produce 10% or 16 acres of emergent vegetation in TY1 and 100% or 157 acres of emergent vegetation at TY5.

V2 Submerged Aquatic Vegetation

Sub Area A
Baseline
TY0 20% - DNR habitat data

Future without project		Future with project
TY1	20%	TY1 – 20%
TY11	20%	
TY12	17%*	
TY20	15%	TY20 – 20%**

*After the levee breaks through, the SAV coverage would likely decrease. The group decided not to decrease the coverage very much since SAV does occur n Bear Lake, demonstrating that the turbid water from White Lake would not eliminate SAV.
**The SAV would remain at 20% since the breakwater would prevent the levee break.

Sub Area D
Baseline
TY0 1% Almost no SAV exists along the shoreline of White Lake, except along the edge of Bear Lake.

Future without project		Future with project	
TY1	1%	TY1	5%
		TY5	60%**
TY20	1%*	TY20	60%

*As erosion continues, the SAV coverage would likely remain at 1% as the area continues to erode and deepen.
**The breakwater and created marsh would protect the approximately 50-foot wide area of open water remaining between the shoreline. The entire open water area is expected to become shallow (less than 1.5 feet deep) and SAV coverage would substantially increase.

V3 Marsh Edge/Interspersion

Sub Area A

Baseline

TY0 Class 1 - 10%
Class 2 - 40%
Class 3 - 20%
Class 4 - 30%

Future without project		Future with project
TY1	Same as existing	Same as existing
TY11	Class 1 - 5% Class 2 - 40% Class 3 - 20% Class 4 - 35%	N/A
TY12	Class 2 - 15% Class 3 - 30% Class 4 - 55%	N/A
TY20	Class 2 - 10% Class 3 - 30% Class 4 - 60%	Class 2 - 40% Class 3 - 20% Class 4 - 40%

Sub Area D

Baseline

The marsh is solid, but its proximity to open water makes about 50% a Class 4.

TY0 Class 1 - 50%
Class 4 - 50%

Future without project		Future with project	
TY1	Class 1 - 50% Class 4 - 50%	TY1	Class 1 - 100%*
		TY5	Class 1 - 100%
TY20	Class 5 - 100%	TY20	Class 1 - 100%

*****The created marsh would increase the actual acreage and percent of Class 1, comparing FWP to FWOP.

V4 Shallow Open Water

Sub Area A
Baseline
TY0 80% 2,226/2,782 acres - According to Mr. Randy Moertle

Future without project		Future with project	
TY1	80%	TY1	80%
TY11	81%		
TY12	75%		
TY20	75%	TY20	83%

Assume all marsh lost becomes SOW

Sub Area D
Baseline
According to transect data furnished by NRCS, shallow water ≤ 1.5-feet deep extends to about 30 feet offshore in this area of White Lake. Thus, about 42 acres of the 332 acres of open water are shallow.
TY0 13% 42/332

Future without project
Sub Area D erosion would continue and the percentage of water in the project area would increase. The strip of shallow water would stay the same size.
TY1 12% 42/353
TY20 6% 42/756

Future with project
Sub Area D erosion would be stopped and marsh would be created in 157 acres of the open water area leaving 175 acres of open water. Most of the remaining 50-foot wide, open water area between the created marsh and the existing shoreline would remain or become shallow (≤1.5 feet). The water depth in and near the areas that would be occupied by the fish gaps is expected to remain > 1.5 feet (approximately 12 acres [41.9 ft x 200 ft (area of water bottom between gap and created marsh) x 61 (number of gaps)]).
TY1 24% 42/175
TY5 93% 163/175
TY20 93% 163/175
By TY3 all remaining open water between the existing shoreline and the newly created marsh, which would average approximately 50 feet wide, would be shallow.

V5 Salinity

Sub Area A
Baseline
TY0 0 ppt

Future without project		Future with project	
TY1	0 ppt	TY1	0 ppt

TY11 0 ppt
TY12 1 ppt *
TY20 1 ppt TY20 0 ppt
* Levee break increases salinity to 1 ppt, same as Catfish Lake.

Sub Area D
Average high salinity at Catfish Point north was about 3.5 ppt during the growing seasons from 1995-98 (HICP, July 2000 draft). As the Mermentau River water moves into Grand Lake, salinity would become diluted. The mean high salinity in White Lake would probably be about 1 ppt. The project would do nothing to change salinity.

Baseline
TY0 1 ppt

Future without project		Future with project	
All TYs	1 ppt	All TYs	1 ppt

V6 Fish Access

Sub Area A
Baseline
TY0 0.0001 The value for fresh marsh without fish access.

Future without project		Future with project	
TY1	0.0001	TY1	0.0001
TY11	0.0001		
TY12	0.1*		
TY20	0.1	TY20	0.0001

*Levee breaks increasing to 0.1, the same as White Lake.

Sub Area D
Baseline
TY0 0.1 The rating for the Catfish Point Control Structure.

Future without project		Future with project		
TY1	0.1	TY1	0.1	Access would remain 0.1 due to the fish dips.
		TY3	0.1	
		TY5	0.1	
TY20	0.1	TY20	0.1	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project: South White Lake Shoreline Protection
Area A - Kaplan Tract
Condition: Future Without Project

Project Area:
Fresh..... 4,717
Intermediate..

Variable		TY 0		TY 1		TY 11	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	41	0.47	40	0.46	35	0.42
V2	% Aquatic	20	0.28	20	0.28	20	0.28
V3	Interspersion	%		%		%	
	Class 1	10	0.48	10	0.48	5	0.44
	Class 2	40		40		40	
	Class 3	20		20		20	
	Class 4	30		30		35	
	Class 5						
V4	%OW <= 1.5ft	80	1.00	80	1.00	81	1.00
V5	Salinity (ppt)						
	fresh	0	1.00	0	1.00	0	1.00
	intermediate						
V6	Access Value						
	fresh	0.0001	0.30	0.0001	0.30	0.0001	0.30
	intermediate						
	Emergent Marsh HSI =		**0.50**	**EM HSI =**	**0.50**	**EM HSI =**	**0.47**
	Open Water HSI =		**0.41**	**OW HSI =**	**0.41**	**OW HSI =**	**0.40**

Future Without Project, continued

Variable		TY 12		TY 20			
		Value	SI	Value	SI	Value	SI
V1	% Emergent	28	0.35	24	0.32		
V2	% Aquatic	17	0.25	15	0.24		
V3	Interspersion	%		%		%	
	Class 1		0.00		0.00		
	Class 2	15		10			
	Class 3	30		30			
	Class 4	55		60			
	Class 5						
V4	%OW <= 1.5ft	75	0.94	75	0.94		
V5	Salinity (ppt)						
	fresh	1	0.00	1	0.00		
	intermediate						
V6	Access Value						
	fresh	0.10	0.00	0.10	0.00		
	intermediate						
	EM HSI =		**0.00**	**EM HSI =**	**0.00**	**EM HSI =**	
	OW HSI =		**0.07**	**OW HSI =**	**0.07**	**OW HSI =**	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project: South White Lake Shoreline Protection
Area A - Kaplan Tract
Condition: Future With Project

Project Area:
Fresh..... 4,717
Intermediate....

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	41	0.47	40	0.46	30	0.37
V2	% Aquatic	20	0.28	20	0.28	20	0.28
V3	Interspersion	%		%		%	
	Class 1	10	0.48	10	0.48		0.40
	Class 2	40		40		40	
	Class 3	20		20		20	
	Class 4	30		30		40	
	Class 5						
V4	%OW <= 1.5ft	80	1.00	80	1.00	83	1.00
V5	Salinity (ppt)						
	fresh	0	1.00	0	1.00	0	1.00
	intermediate						
V6	Access Value						
	fresh	0.0001	0.30	0.0001	0.30	0.0001	0.30
	intermediate						
	Emergent Marsh HSI =		**0.50**	**EM HSI =**	**0.50**	**EM HSI =**	**0.43**
	Open Water HSI =		**0.41**	**OW HSI =**	**0.41**	**OW HSI =**	**0.40**

AAHU CALCULATION - EMERGENT MARSH

Project: South White Lake Shoreline Protection
Area A - Kaplan Tract

Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1935	0.50	973.42	
1	1909	0.50	949.98	961.68
11	1663	0.47	774.62	8609.96
12	1330	0.42	562.23	666.03
20	1150	0.40	456.29	4067.83
			AAHUs =	**715.28**

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1935	0.50	973.42	
1	1909	0.50	949.98	961.68
20	1413	0.43	612.48	14742.57
			AAHUs	**785.21**

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	785.21
B. Future Without Project Emergent Marsh AAHUs	=	715.28
Net Change (FWP - FWOP) =		**69.94**

AAHU CALCULATION - OPEN WATER

Project: South White Lake Shoreline Protection
Area A - Kaplan Tract

Future Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	2782	0.41	1127.50	
1	2808	0.41	1138.04	1132.77
11	3054	0.40	1228.69	11834.82
12	3387	0.38	1300.88	1265.79
20	3567	0.37	1323.16	10499.32
			AAHUs =	**1236.64**

Future With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	2782	0.41	1127.50	
1	2808	0.41	1138.04	1132.77
20	3304	0.40	1319.48	23355.67
			AAHUs	**1224.42**

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	1224.42
B. Future Without Project Open Water AAHUs	=	1236.64
Net Change (FWP - FWOP) =		**-12.21**

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	69.94
B. Open Water Habitat Net AAHUs	=	-12.21
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1		**43.44**

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project: S White Lake, Area D
Revised: Goodman, M
Condition: Future Without Project

Project Area:
Fresh..... 756
Intermediate..

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	56	0.60	52	0.57	0	0.10
V2	% Aquatic	1	0.11	1	0.11	1	0.11
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 50 50 	0.60	% 50 50 	0.60	% 100	0.10
V4	%OW <= 1.5ft	13	0.25	12	0.24	6	0.17
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
	Emergent Marsh HSI =		**0.61**	**EM HSI =**	**0.59**	**EM HSI =**	**0.22**
	Open Water HSI =		**0.25**	**OW HSI =**	**0.25**	**OW HSI =**	**0.21**

Project: S White Lake, Area D
Goodman, M
Condition: Future With Project

Project Area:
Fresh..... 756
Intermediate.

Variable		TY 0		TY 1		TY 5	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	56	0.60	58	0.62	77	0.79
V2	% Aquatic	1	0.11	5	0.15	60	0.64
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 50 50 	0.60	% 100 	1.00	% 100 	1.00
V4	%OW <= 1.5ft	13	0.25	24	0.37	93	0.88
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
	Emergent Marsh HSI =		**0.61**	**EM HSI =**	**0.67**	**EM HSI =**	**0.77**
	Open Water HSI =		**0.25**	**OW HSI =**	**0.32**	**OW HSI =**	**0.65**

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project: S White Lake, Area D

FWP

Variable		TY20 Value	TY20 SI				
V1	% Emergent	77	0.79				
V2	% Aquatic	60	0.64				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	%		%	
V4	%OW <= 1.5ft	93	0.88				
V5	Salinity (ppt) fresh intermediate	1	1.00				
V6	Access Value fresh intermediate	0.10	0.37				
		EM HSI =	**0.77**	**EM HSI =**		**EM HSI =**	
		OW HSI =	**0.65**	**OW HSI =**		**OW HSI =**	

AAHU CALCULATION - EMERGENT MARSH

Project: S White Lake, Area D
Goodman, M

Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	424	0.61	258.94	
1	402	0.59	236.82	247.80
20	0	0.22	0.00	1778.57
			AAHUs =	**101.32**

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	424	0.61	258.94	
1	440	0.67	292.99	275.82
5	503	0.77	385.00	1351.80
20	581	0.77	444.70	6222.78
			AAHUs	**392.52**

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	392.52
B. Future Without Project Emergent Marsh AAHUs =	101.32
Net Change (FWP - FWOP) =	**291.20**

AAHU CALCULATION - OPEN WATER

Project: S White Lake, Area D
Goodman, M

Future Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	332	0.25	83.61	
1	353	0.25	88.60	86.11
20	756	0.21	157.98	2396.14
			AAHUs =	124.11

Future With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	332	0.25	83.61	
1	175	0.32	55.67	71.37
5	175	0.65	113.29	337.92
20	175	0.65	113.29	1699.38
			AAHUs	105.43

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	105.43
B. Future Without Project Open Water AAHUs =	124.11
Net Change (FWP - FWOP) =	**-18.68**

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	291.20
B. Open Water Habitat Net AAHUs =	-18.68
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	**191.24**

PRIORITIZATION FACT SHEET
August 31, 2004

Project Name and Number
South White Lake Shoreline Protection Project (ME-22), PPL-12

Goals
Stop shoreline erosion and secondary wetland losses, and create marsh between a breakwater to be constructed along the south shoreline of White Lake and Bear Lake.

Proposed Solution
The proposed project includes constructing approximately 11.65 miles of segmented breakwater along the southern shoreline of White Lake, between the west end of Bear Lake and Will's Point. The design includes constructing rock dikes in 1,000-foot sections with 50-foot gaps between each section. The breakwater would be installed at the -1.5 foot NAVD 88 contour in approximately 2-3 feet of water, and would extend between 200-300 feet from the shoreline. The crown would be approximately four-feet wide and would extend to +3.5 feet NAVD 88. A floatation channel would be required for access, and access to the project site may need to be dredged as well. Material dredged from the floatation channel would be used beneficially to create approximately 157 acres of marsh substrate.

Proposed Prioritization Criteria Scores and Justification

I. Cost Effectiveness (cost/net acre)
The current estimated total fully funded project cost is $19,674,000. The project would directly create/restore 157-acres of shoreline, and protect 687-acres of additional shoreline and interior marsh. 844 net acres would be created/restored/protected by TY20. The cost per net acre is $23,310 ($19,674,000/844 acres).

The project should receive 7.5 points for this criterion.

II. Area of Need, High Loss Area
The project benefit area is divided into two sub areas. Sub Area A is contained within an inactive water and land management levee system, and is composed of 1,935 acres of fresh marsh and 2,782 acres of open water. Normal South White Lake shoreline erosion processes are not considered to directly influence the baseline land loss rate (1.37%) in Sub Area A. The loss rate is expected to increase by 50%, however, to 2.06% in the future without the project (FWOP) at TY 12, when the interior marsh becomes exposed to external processes after the interior management levees have breached as a direct result of lake influences.

Sub Area D includes 424-acres that are estimated to occur along the 61,500 foot stretch of shoreline that would be lost over the 20-year project life, when factoring in an average erosion rate of 15-feet per year.

Since this project has both shoreline and interior loss rates, and the interior loss rates would change over time in the FWOP, a spatial and temporal weighted average has been calculated for this criterion as follows:

Temporal weighted average based on a 20-year projected internal loss rate for Sub Area A:
55% (12 years) of project life, FWOP, loss rate = 1.37%.
Receives medium score (5): $(0.55 * 5) = 2.75$
45% (eight years) of project life, FWOP, loss rate = 2.06%.

Receives high score (7.5): (0.45∗7.5) = 3.375

Spatial Weighted Average for Sub Area A, which is 86.19% of benefit area:

(2.75 + 3.375)86.19% = 5.28

Spatial Weighted Average for Sub Area D, which is 13.81% of benefit area:

Average Erosion 15 ft/yr. Receives medium score (5): (0.1381∗5) = 0.69

Total Weighted Average for Project:

5.28+0.69=5.97

The project should receive 5.97 points for this criterion.

III. Implementability

All work associated with this project would be constructed on state owned water bottoms. The project would be constructed in shallow water near the shore and would not adversely affect navigation in the lake. There are no anticipated difficulties with Lands, Easements, Rights-of-Ways, Relocations, and/or Disposals and there are no oyster leases in the project area. The project would not adversely affect water levels in the project area. There are no major unaccounted impediments to implementing this project. The project has adjacent landowner and local community support. Adequate funds are provided in the cost estimate for operations and maintenance costs for the 20-year life of the project

The project should receive 10 points for this criterion.

IV. Certainty of Benefits

This is an inland shoreline protection project in the Chenier Plain, and includes constructing a rock breakwater in shallow open water. Material would be dredged for a floatation channel and deposited between the breakwater and the existing shoreline to promote marsh development. The project would be designed to allow some sediment to accrete behind the breakwater to nourish the created marsh. During project construction, 157-acres of marsh substrate would be created/restored along the shoreline, and 687-acres of marsh would be preserved as a direct result of the breakwater.

The project should receive 10 points for this criterion.

V. Sustainability of Benefits

According to the prioritization procedures, the breakwater would only provide 75% of the shoreline protection it was designed for after TY 25, because it would not be maintained beyond the end of the 20-year project life.

Sub Area A

Since it was projected that the interior marsh management levees protecting Sub Area A would not breach until FWOP TY11, it is construed that the levee breach event would not occur until sometime beyond FWP TY 36. The full project benefits of protecting 1,935 acres of fresh marsh in Sub Area A would, therefore, continue throughout the sustainability period and the baseline loss rate (1.37%) would be consistent through TY30. According to the WVA, by TY20 for the FWP there would be a net benefit of 263 acres. The sustainability of benefits for Sub Area A is derived as follows:

For TY20 through TY30, subtract 1.37% of the area iteratively, from the previous year's total net benefit area. e.g., for

TY21: 263-(263∗0.0137) = 259.40

TY22: 259.40-(259.40*0.0137) = 255.84 (see table for complete calculation results)

Target Year	Net Benefited Acres Sub Area A	Acres Lost
20	263.00	
21	259.40	3.60
22	255.84	3.55
23	252.34	3.51
24	248.88	3.46
25	245.47	3.41
26	242.11	3.36
27	238.79	3.32
28	235.52	3.27
29	232.29	3.23
30	229.11	3.18
Net Loss of Benefit Acres	33.89	33.89
Percent Decrease in Net Acres Between TY20 and TY30	12.89 %	

Sub Area D

The WVA projected that approximately 157-acres of shoreline would be created as a result of the breakwater by FWP TY20 in Sub Area D. The benefit area would, therefore, increase to 581 acres at TY20. Erosion would begin to occur at TY26 and continue through TY30 at a rate of 3.75 feet per year (25% of the original 15 feet per year). The net annual decrease in acres from TY20 through TY30 is calculated below:

TY20–TY25 0 ft per year eroded = 0 ft/yr X 61,500 ft = 0 acres
TY26–TY30 3.75 ft per year eroded = 3.75 ft/yr X 61,500 ft = 230625 ft^2÷43560 = 5.29 ac/yr

Target Year	Sub Area D Baseline Erosion 15ft/yr
20	581.00 acres
21	581.00 acres
22	581.00 acres
23	581.00 acres
24	581.00 acres
25	581.00 acres
26	(581.00 ac – 5.29 ac) = 575.71 acres
27	(575.71 ac – 5.29 ac) = 570.42 acres
28	(570.42 ac – 5.29 ac) = 565.13 acres
29	(565.13 ac – 5.29 ac) = 559.84 acres
30	(559.84 ac – 5.29 ac) = 554.55 acres
Net Loss of Benefit Acres	26.45
Percent Decrease in Net Acres Between TY20 and TY30	4.55%

The net change in acres of marsh in project Area D from TY 20 to TY 30 = -26.45, which is a 4.55% decrease (26.45 acres/581 acres =0.04552).

The percent decrease in marsh benefit acres for the entire project area is determined by dividing the sum of the net loss of benefit acres from Sub Areas A and D at TY 30 by the sum of the FWP benefit areas at TY 20

of Sub Areas A and D (i.e., [(33.89 +26.45)/(263 + 581)]100 = (60.34/844)). The resulting decrease in net acres between TY20 and TY30 would be 7.15%.

The project should receive 8 points for this criterion.

VI. Consistent with hydrogeomorphic objective of increasing riverine input in the deltaic plain or freshwater input and saltwater penetration limiting in the Chenier plain

The project would not actively divert freshwater. It would, however, prevent long term adverse impacts from excess freshwater that would occur in Area A, by protecting the interior marsh management levees well beyond the life of the project, which would otherwise be breached by TY 11.

The project should receive 0 points for this criterion.

VII. Consistent with hydrogeomorphic objective of increased sediment input

The project would not increase sediment input into the system.

The project should receive 0 points for this criterion.

VIII. Consistent with hydrogeomorphic objective of maintaining or establishing landscape features critical to a sustainable ecosystem structure and function

The project serves to protect the South White Lake Shoreline for at least the 20-year life of the project, which is a critical mapping unit landscape feature.

The project should receive 10 points for this criterion.

Weighting per Criteria:

CRITERION				
I	Cost-Effectiveness	2.0	7.5	15
II	Area of Need	1.5	5.97	8.96
III	Implementability	1.5	10	15
IV	Certainty of Benefits	1.0	10	10
V	Sustainability	1.0	8	8
VI	HGM Riverine Input	1.0	0	0
VII	HGM Sediment Input	1.0	0	0
VIII	HGM Structure and Function	1.0	10	10
TOTAL				66.96

Preparer of Fact Sheet

Melanie Goodman, CEMVN, (504) 862-1940, Melanie.L.Goodman@mvn.02.usace.army.mil
Kenneth Duffy, LA Department of Natural Resources (225) 342-4106, KenD@dnr.state.la.us

References

Project Information Sheet Format for Wetland Value Assessment, 31 August 2004
Revised Fully Funded Cost Estimate, 24 August 2004

Project Map

CEMVN-RE-E

26 JULY 2004

MEMORANDUM FOR Commander, New Orleans District

SUBJECT: Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA), South White Shoreline Protection Project, Cameron Parish, Louisiana, Real Estate Plan (REP)

1. Forwarded herewith for review and approval is the REP for the South White Shoreline Protection Project, a feature of CWPPRA.

2. It is requested that you approve this REP.

Encl

WILLIAM C. LEWIS, JR.
Chief, Real Estate Division

CEMVN-DE

Commander, New Orleans District

FOR Chief, Real Estate Division

APPROVED FOR DISAPPROVED SEE ME

Encl

PETER J. ROWAN
Colonel, EN
Commanding

REAL ESTATE PLAN
COASTAL WETLANDS PLANNING, PROTECTION, AND RESTORATION ACT
SOUTH WHITE LAKE – SHORELINE PROTECTION PROJECT
VERMILION PARISH, LOUISIANA
20 July 2004

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1. Project Name and Purpose. The purpose of this Real Estate Plan (REP) is to present the overall plan describing the real estate requirements and costs for the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) South White Lake – Shoreline Protection Project (ME-22). This plan also incorporates the real estate requirements for the Shoreline Protection Foundation Improvement Demonstration Project (LA-06). The information contained is tentative and for planning purposes only. The final real property acquisition lines are subject to change even after approval of this report. All exhibits referred to are contained within this plan.

2. Authorization. The proposed project is authorized under the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA), Public Law 101-646, Title III. The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funds to complete all Phase I tasks for the project on its 12th Priority Project List on January 16, 2003. The Shoreline Protection Foundation Improvement Demonstration Project (LA-06) was approved by the Task Force on its 13th Priority Project List on January 28, 2004.

3. Description of Work. The South White Lake Shoreline Protection Project (ME-22) consists of building approximately 61,500 linear feet of stone breakwater along the south shore of White Lake in Vermilion Parish, LA. The breakwater will stretch approximately 11.6 miles along the south shore of White Lake between Will's Point and the west shoreline of Bear Lake. The breakwater will be situated along the –1.5-foot NAVD 88 contour in approximately 2.0 feet to 3.0 feet of water. The dike crown will be approximately 4.0 feet wide and will be set at a minimum elevation of +3.5 feet NAVD 88 with a +/- 0.5-foot tolerance. The breakwater will have front and back side slopes of 1.0-foot vertical on 1.5-foot horizontal. Gaps for fish access will be built at approximately 1,000-foot intervals, with top widths of 50 feet. Each gap will be lined completely with a single layer of rock. The total length of dike, including lining the gaps, will require approximately 267,000 tons of 24-inch rock gradation.

A flotation channel will be dredged parallel to and lakeward of the rock dike with excavation no closer than 50 feet from the centerline of the dike. Maximum allowable dredging depth for the flotation channel will be –6.0 feet NAVD 88. All material dredged from the flotation channel will be placed or cast landward of the rock dike if possible. Placement of the dredged material will be kept a minimum of ten feet from the landside toe of the rock dike and a minimum of 50 feet from the edge of the marsh. Additional off-site access dredging is not anticipated but may become necessary to facilitate rock transport through Schooner Bayou and White Lake. If access dredging is necessary, controlling dredge depth will also be –6.0 feet NAVD 88, and the material will be placed adjacent to the required dredge location in a manner that avoids stacking or navigation hazards. The disposal stack elevation will be 4.0

NAVD 88 based on a final average marsh elevation of +1.5 NAVD 88 between the dike and shoreline. This elevation is considered to be an optimal elevation for healthy, unbroken marsh and is consistent with the surrounding marsh. Placement of disposal material will not be allowed in any of the navigation channels that cross the dike alignment or behind any of the fish dips.

During construction, approximately 247 acres of non-vegetated mud bottom will be disturbed. Approximately 42 acres of non-vegetated water bottom will be lost under the footprint of the actual breakwater. Approximately 157 acres of emergent substrate will be created for natural colonization of marsh vegetation between the breakwater and existing shoreline through the beneficial use of dredged material. Shoreline loss will be prevented and marsh will be created south of the breakwater. Stabilizing the shoreline and allowing sediment to settle out will create and/or protect approximately 702 acres of marsh at the end of the 20-year project life.

The plans include two navigable channels and a design for 100-foot gaps in both the rock dike and dredged material placement to eliminate impacts to navigation. The project plans will also incorporate appropriate signage to warn recreational and commercial navigation interests of the rock dike as well as marking the location of the navigation channels.

The South White Lake Shoreline Protection Project (ME-22) is recommended as the host project for conducting the Shoreline Protection Foundation Improvement Demonstration Project (LA-06). The demonstration project will be conducted along Reach 5 of ME-22 beginning approximately six miles west of Will's point and extending west along the shoreline for a maximum distance of approximately 15,200 linear feet. The demonstration project will be constructed within the same footprint required for ME-22, but will require dredging an additional 1,917 cubic yards of material from the dike footprint and depositing approximately 4,220 cubic yards of clean sand to improve the foundation. To determine the effects of the foundation improvements, sample sections will be instrumented with crown, front and rear settlement plates, inclinometers, and extensometers. Geotechnical borings will also be taken during construction to more accurately determine underlying soil conditions. All of the work associated with the Shoreline Protection Foundation Improvement Demonstration Project (LA-06) will be on State owned land within the footprint of the acreage required for ME-22.

4. Description of Lands, Easements, Rights-of-Way, Relocations, and Dredged Material Disposal Areas (LERRD). White Lake is located in Vermilion Parish in southwest Louisiana. Much of the parish is comprised of marsh and water. Major products produced in the parish are rice, cattle, corn, petroleum, fish, shrimp, wild game, and fur. Several wildlife reserves are located within the parish. Vermilion Parish borders the Gulf of Mexico.

White Lake is approximately 13.8 miles long and 9 miles wide. The south shore of White Lake has been eroding due to a combination of land subsidence, controlled high water levels, and wave action from northerly winds. The breakwater will be built on the southern shore of the lake between Will's Point and the west shoreline of Bear Lake.

Construction of the rock dike will be approximately 61,365 feet. It will require 28.17 acres of rock dike, 190.18 acres of dredging, and 176.09 acres of disposal areas
It may be necessary for the barges to dredge shallow areas in White Lake to facilitate access to the project site. The access channels will be dredged to the same depth as the flotation channel. The dredged material will either be placed between the rock dike and the land or will be backfilled after construction of the project.

Monuments used for surveys are owned by the State and located on private land south of White Lake. Although access to these monuments is not required for construction or maintenance and monitoring of the project, these locations are easily accessible. There are other less conveniently located monuments and/or gages in the project area that are available on and/or accessible via public waterways, such as Schooner Bayou Gage. If access to the monuments located on privately owned land is desired during construction or post-construction, a permit for right of entry will be sought from private landowners. If such permit is not obtained, an alternative location will be used. Current information indicates that the monuments are located on three private ownerships.

5. Non-Federal Sponsor LER Already Owned. A State Land Determination dated 14 July 2004 was received for the project area and is on file. An appropriate real estate instrument will be obtained for this area. The project site is located wholly within lands claimed by the State of Louisiana.

6. Estates. An appropriate real estate instrument will be acquired from the State Land Office for State owned lands and waterbottoms. The document will grant the right to construct and maintain segmented rock breakwaters; dredge a flotation channel; deposit dredged material; construct, locate, maintain, and service monitoring devices; and post signs near project features. The instrument will also include the right of egress and ingress over other properties owned by the State of Louisiana. Approval of the attached estate(s) (Exhibit 1) is requested for use in preparing the real estate instrument to be provided by the State.

7. Existing Federal Interests. The Federal Government does not have existing realty interests in the project area. However, access to the project site will include transporting rock and other materials in the Gulf Intracoastal Waterway and Schooner Bayou. The GIWW reaches from the Mexican border at Brownsville, Texas for over 1,300 miles to Apalachicola, Florida. The inland waterway was constructed from the 1920s to 1949. The Government acquired channel and disposal easements for the waterway. The channel measures 12 feet deep and 125 feet wide. However, in many places, the channel has eroded beyond the 125 feet. In Louisiana, the GIWW experiences its heaviest traffic. Approximately 157 million tons of cargo pass through the Louisiana locks on the GIWW.

The Mermentau Basin lies in the eastern portion of the chenier plain in Cameron and Vermilion parishes. This 734,000-acre basin is bounded on the east by Freshwater Bayou Channel, on the south by the Gulf of Mexico, on the west by Louisiana Highway 27, and on the north by the GIWW. The basin contains about 450,000 acres of wetlands, consisting predominantly of fresh (approximately 190,000 acres), intermediate (approximately 135,000 acres), and brackish marsh (approximately 101,000 acres). The basin is divided into two

distinct sub basins by the Grand Chenier and Pecan Island ridge systems, which are linked by Louisiana Highway 82. The Lakes sub basin lies to the north, and includes Grand and White lakes and the GIWW. The operation of five navigation locks and control structures by the U.S Army Corps of Engineers helps maintain a freshwater reservoir for agricultural use while preserving the basin's environment from the detrimental effects of saltwater intrusion.

8. Navigation Servitude. The navigation servitude will not be asserted for this project.

9. Flooding Induced by the Project. No flooding will be induced by this project.

10. Maps. Maps of the project area are included in Exhibit 2 of this report.

11. Baseline Cost Estimate/Chart of Accounts (COAs). The real estate cost has been estimated to be $25,000 (rounded). A 25% contingency has been included in the estimate. As there is no acquisition of private land required, no appraisal will be necessary. See Exhibit 3 for the Chart of Accounts.

12. Uniform Relocation Assistance (PL 91-646) as amended, Title II. The provisions of Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended, are not currently applicable since the construction of this project does not require the displacement of persons and habitable or commercial structures. However, should current plans change, and the displacement of persons and habitable or commercial structures be required during the construction of the project, Title II of this Act may become relevant.

13. Mineral Activities/Timber Harvesting. Mineral rights will not be affected by the construction of this project. There is no merchantable timber within the project area.

14. Non-Federal Sponsor. The non-Federal Sponsor (NFS) of this project is the State of Louisiana, represented by the Department of Natural Resources (LaDNR). For projects authorized by CWPPRA, the non-Federal sponsor is not obligated to provide LERRD. No private land will be acquired for this project. LaDNR has contractually agreed in all previous Cost Sharing Agreements for CWPPRA projects, to provide the real estate interests that are owned, claimed, or controlled by the State. The Louisiana State Land Office has provided a letter, dated 14 July 2004, claiming its ownership of the required LERRD. A copy of this letter is included as Exhibit 4.

15. Zoning Ordinances. No application or enactment of zoning ordinances is proposed in lieu of, or to facilitate, acquisition in connection with this project. Additionally, no zoning currently exists in the project area, as it is located within a lake.

16. Acquisition Schedule. The Government will receive an authorization for entry for construction to all State lands and waterbottoms required for this project as well as obtaining an appropriate real estate instrument from the State of Louisiana. The acquisition schedule is based on acquiring this document from the State. Additionally, right of entry permits will be requested from private landowners for access to five monuments prior to, during, or post

construction. A deviation from any of these assumptions will affect the schedule. An Acquisition Schedule is provided as Exhibit 5.

17. Facility/Utility Relocations. There are six pipeline facilities within the project area, three of which are abandoned pipelines. One 30-inch Tennessee Gas Pipeline Company pipeline has sufficient cover to allow excavation of the flotation channel and barge traffic, but all other pipelines will require detour of barge to open water of sufficient depth. Gaps will be located 50 feet on each side of the rock dike above all six pipelines and no excavation will be allowed within 50 feet of all known oil and gas related facilities to eliminate impacts to facilities. Therefore, there are no facility or utility relocations required for this project.

18. Cultural/Environmental. Environmental Assessment #390 is scheduled for release to the public on July 19, 2004 for the 30-day comment period.

19. Landowner Concerns. The only landowner within the right of way is the State of Louisiana which is the NFS for this project. Surrounding landowners, contacted for right of entry permits, have expressed support for the project.

20. Non-Federal Sponsor Notification of Risks. The Government will obtain an appropriate real estate instrument from the State of Louisiana for State lands and waterbottoms required for this project. Therefore, no notification of risk letter is required.

21. Access. The most efficient barge and equipment access to the project site would be from the east, via the Gulf Intracoastal Waterway (GIWW) and Schooner Bayou. Deep draft access is available throughout the length of the GIWW. Discussions with MVN lock personnel indicated that vessels requiring similar draft as the rock barges traverse through the Schooner Bayou Lock.

22. Oysters. No oysters will be affected by this project.

23. Operations and Maintenance. Minimal rock placement will be required after initial construction. Maintenance in the form of an approximate 1.5-foot thick lift is anticipated across half the length of the dike in years 7 and 15 with appropriate signage maintenance. Any other maintenance, with the exception of localized dressing of the dike, will require a partial re-dredging of the flotation channel. Operations and Maintenance will be performed by the NFS. All work will be completed in State waterbottoms with the exception of access to five monuments owned by the State and located on privately owned land. If access to these monuments is required, a right of entry for each occurrence will be obtained from the private landowners prior to accessing the monuments.

Prepared by: Yvonne P. Barbier
Real Estate Appraiser
Appraisal and Planning Branch

Reviewed by: Judith Y. Gutierrez
Review Appraiser
Appraisal and Planning Branch

Approved by: WILLIAM C. LEWIS, JR.
Chief, Real Estate Division

Dated: July 2004

PERPETUAL DISPOSAL EASEMENT

A perpetual and assignable right and easement in, on, over and across the land, for use by the United States, its representatives, agents and contractors, to construct, operate, and maintain a disposal area, including the right to construct dikes; to deposit dredged, excavated and sediment material thereon; to accomplish any alterations of contours on said land for the purpose of accommodating the deposit of material as necessary in connection with such work; to borrow, excavate and remove soil, dirt and other materials, including dredged material, from said land; and for such other purposes as may be required in connection with the construction of the project; subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving, however, to the landowner, its successors and assigns, all such rights and as may be used and enjoyed without interfering with the use of the project for the authorized purposes or abridging the rights and easements herein conveyed.

PERPETUAL MONITORING EASEMENT

A perpetual and assignable right and easement in, on, over and across the land, for use by the United States, its representatives, agents, and contractors, to access and/or survey, inspect, appraise, take samples, conduct borings, test and scientific studies and conduct other exploratory work necessary and useful for determining if the project is accomplishing the authorized purposes; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however to existing easements for public roads and highways, public utilities, railroads and pipelines.

ROCK DIKE EASEMENT

A perpetual and assignable right and easement in, on, over and across the land, for the use by the United States, its representatives, agents, and contractors to construct, maintain, repair, operate, patrol and replace a rock dike, including all appurtenances thereto; reserving however, to owners, their heirs and assigns, all such rights and privileges in the land as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however to existing easements for public roads and highways, public utilities, railroads and pipelines.

CHANNEL EASEMENT

A perpetual and assignable right and easement to construct, operate, and maintain a channel and/or channel improvement works on, over and across the water bottom, including the right to excavate, dredge, cut away, and remove any or all of said land and to place thereon dredge or excavated material; to install a dredged material pipeline thereon; and for such other purposes as may be required in connection with said work of improvement; reserving, however, to the owners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

State of Louisiana
DIVISION OF ADMINISTRATION
STATE LAND OFFICE

Kathleen Babineaux Blanco
GOVERNOR

Jerry Luke LeBlanc
COMMISSIONER OF ADMINISTRATION

July 14, 2004

LA Department of Natural Resources
Office of Coastal Restoration & Management
ATTN: Mr. Eric D. Roth
P.O. Box 44027
Baton Rouge, LA 70804-4027

Dear Mr. Roth:

RE: Request for Ownership Determination
South White Lake Shoreline Protection Project ME-22
Vermillion Parish, Louisiana

In a letter to Mr. Charles R. St. Romain dated July 7, 2004, you requested that the State Land Office determine State ownership along a portion of the shorelines of White and Bear lakes. You provided a DOQQ image with the area of interest represented by a checkered line.

We researched the Official U.S. Government Township Plat and various editions of the USGS Quadrangle Maps to make our determination of State ownership of water bottoms within the requested area.

Within your area of interest, the State claims the bed and bottom of White Lake and Bear Lake as historically navigable waterways.

Article 9, Section 3 of the Louisiana Constitution states as follows:

> "The legislature shall neither alienate nor authorize the alienation of the bed of a navigable water body, except for purposes of reclamation by the riparian owner to recover land lost through erosion . . ."

Accordingly this report is limited to the matters discussed here and is based upon the referenced documentation. Any matters of historic usage, navigability in law, public rights of use and access or other matters, which are beyond the purview of this office, are expressly excluded . Therefore, in the event additional evidence is made available, this office reserves the right to review said evidence and amend its claims as deemed appropriate.

Respectfully yours,

Larry Decker
Surveyor 4

C: Mr. Charles R. St. Romain

ACQUISITION SCHEDULE
CWPPRA- SOUTH WHITE LAKE - SHORELINE PROTECTION PROJECT
VERMILION PARISH, LOUISIANA

CSA EXPECTED: OCTOBER 2004

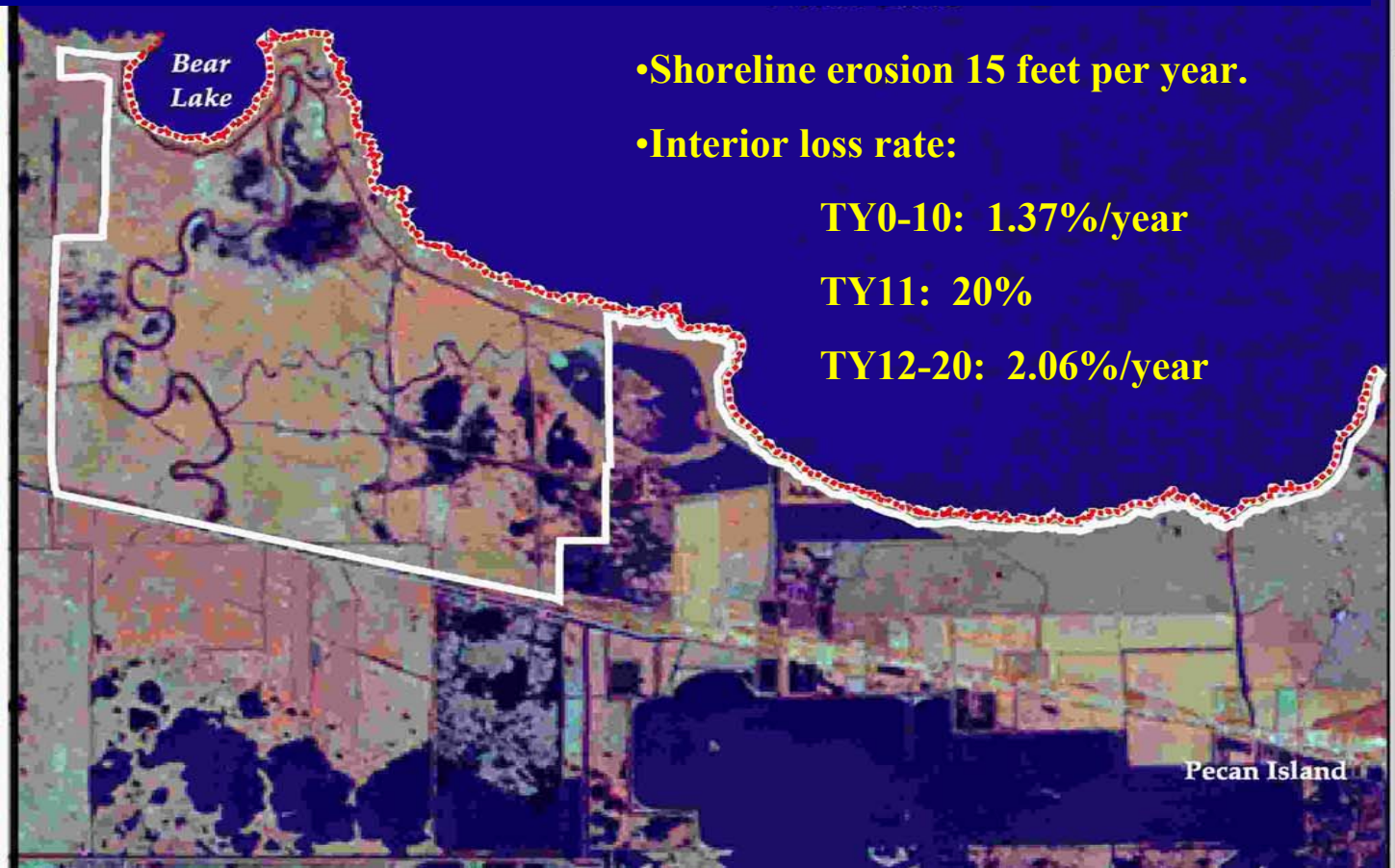
ACTIVITY	DURATION
Receipt of final Request for Right of Entry (R/E) (Unknown at this time) for Construction and Right-of-Way (R/W) drawings from ED	
Request Authorization for Entry for Construction from State of Louisiana	1 month
Review of Authorization for Entry for Construction (Reviewed by MVN)	1 month
Right of Entry Permit for Access to Monuments From Three Private Landowners	3 months
Issue R/E to Contracting Division	10 calendar days
TOTAL DURATION ESTIMATED	**5.50 months ®**

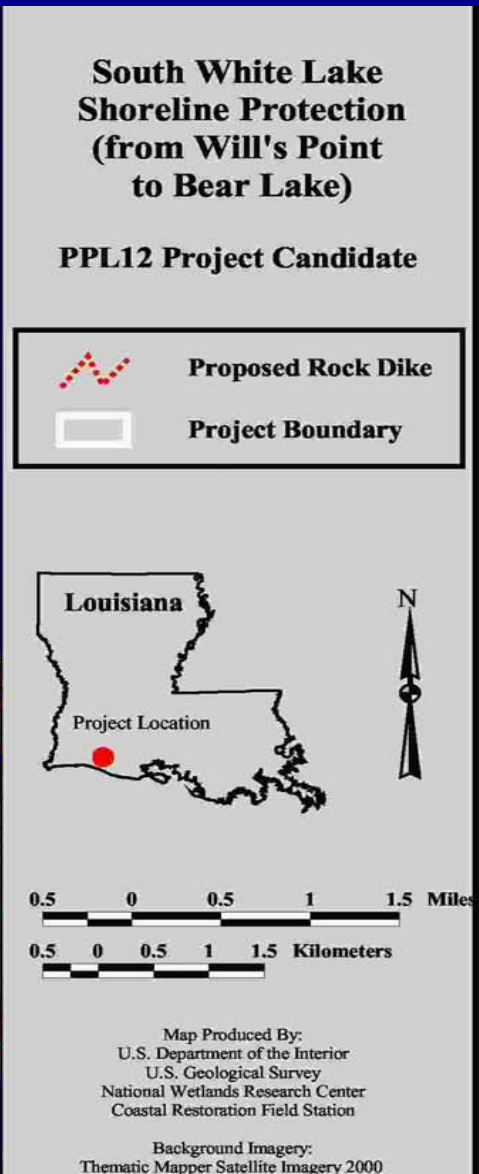
NOTE: The above acquisition schedule is based on the State Land Office providing the Government with an Authorization for Entry for Construction for this project. Also, right of entry permits may be required from three private landowners for access to the monuments prior to, during or post construction.

South White Lake Shoreline Protection (ME-22)
Vermilion Parish, Louisiana
Request for Phase II Construction Funding

Project Background

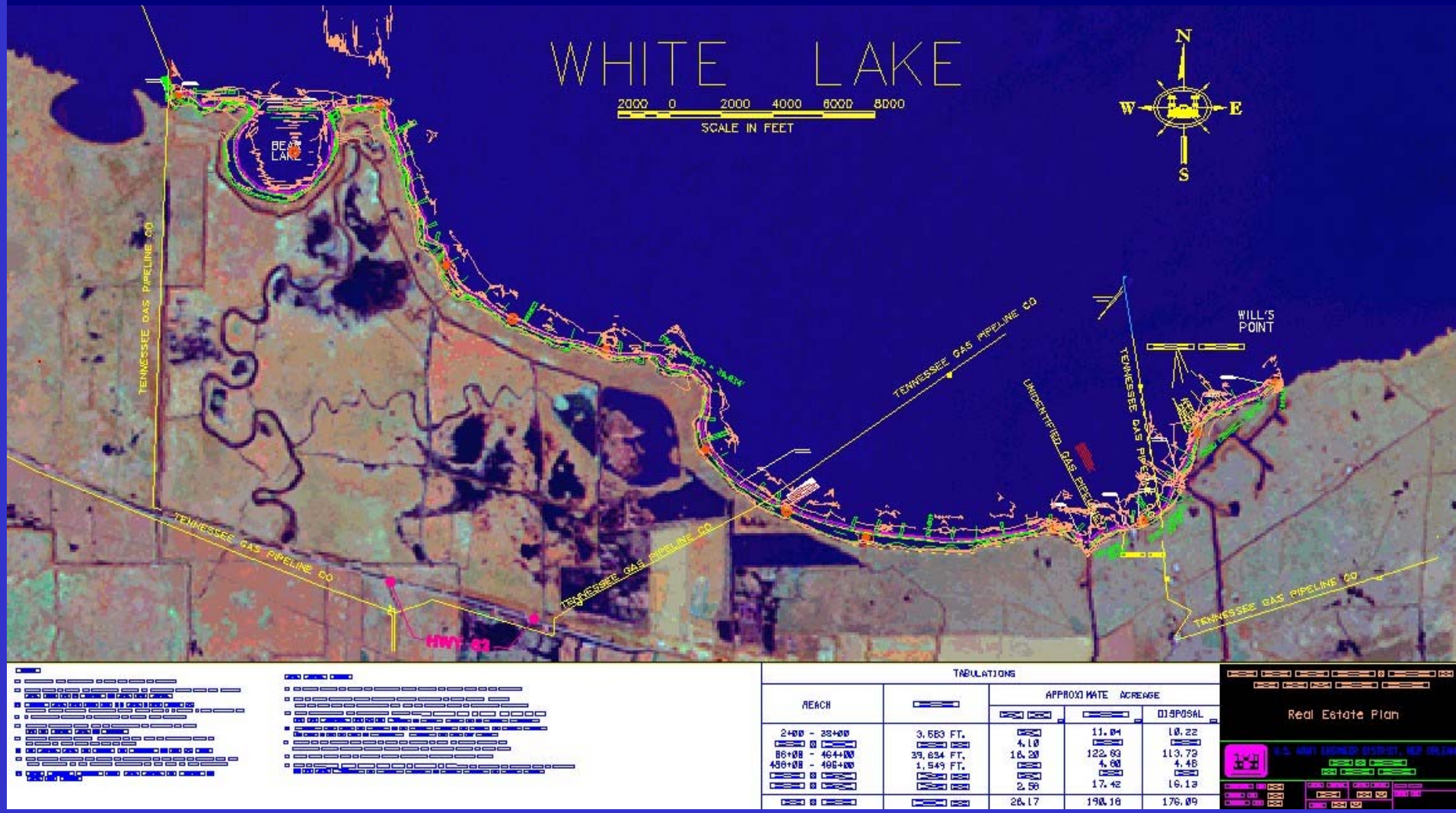
- **Break water to stop erosion along the south shoreline of White Lake authorized for Phase I in January 2003, PPL-12**
- **Prevent Low Marsh Management Levees from Breaching**
- **Phase I Project: 55,000 LF rock dike from Will's Pt. to Bear Lake. Est 642 acres protected + 60 acres accreted**





Phase II Project Request

- 61,500 LF of Protection
- Create 157 acres of marsh with dredge material
- Protect 424 acres of shoreline marsh

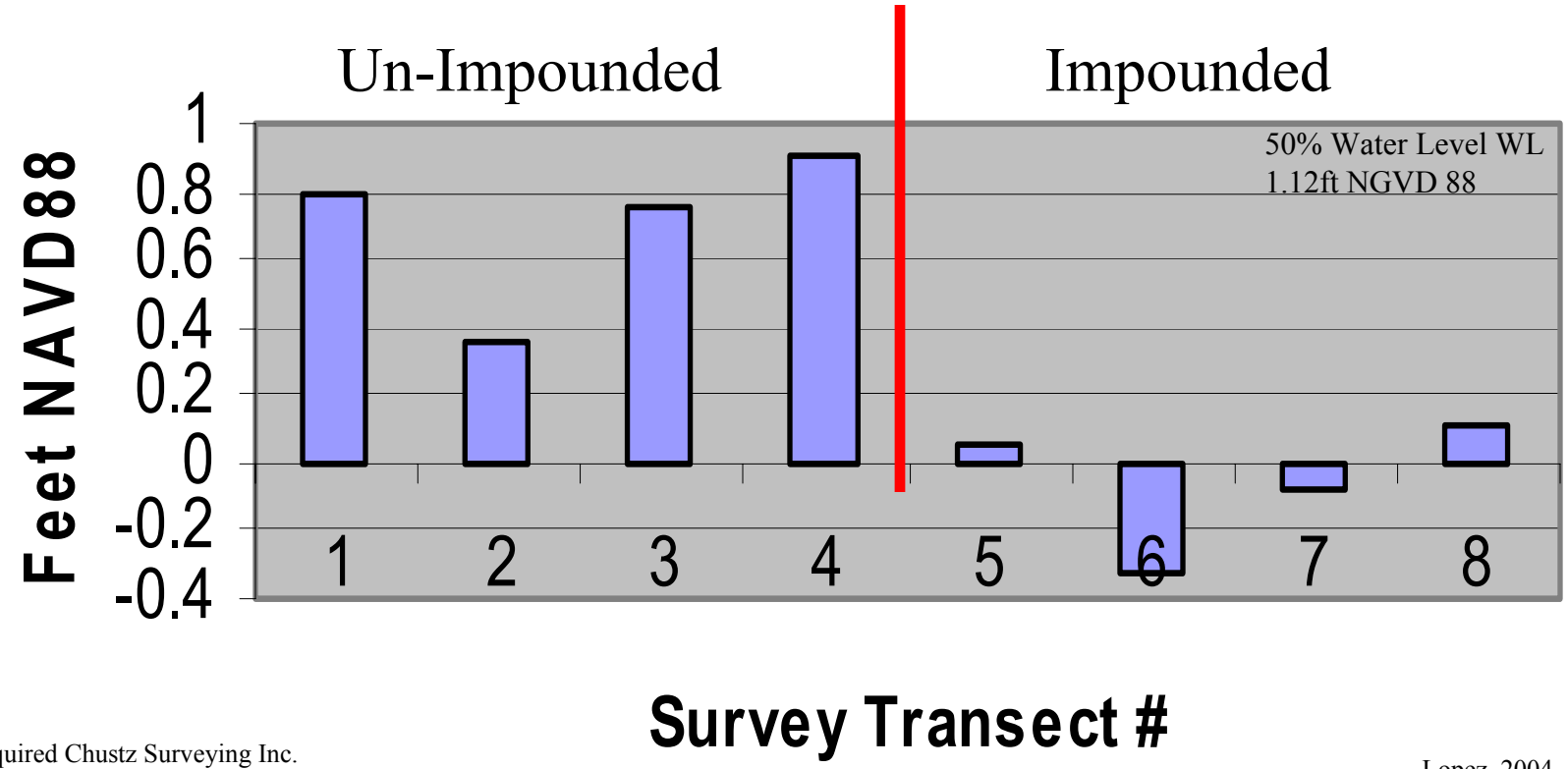


Will's Point

Bear Lake

South White Lake Shoreline Protection ME-22

Average Marsh Elevations from Transect S-1 thru T-8



Acquired Chustz Surveying Inc.

August 2004

Datum NAD 83

Lopez, 2004

Project Changes

Project Feature	Phase I	Phase II	Δ
Linear Ft. Shoreline	55,000	61,500	+ 6,500
Alignment Contour	2-Foot	-1.5 (2-3 feet) NAVD 88	+ 0-1’
Crown Width	5 Feet	4 Feet	- 1’
Crown Elevation	2 Feet NGVD (Est equiv 1.39 NAVD 88)	3.5 feet NAVD 88 (Est equiv 4.11 NGVD 88)	+ 2.11
Segment Length	200 Feet	1,000 Feet	+800’
Acres Accreted	60	0	-60 acres
New Acres Created	0	157	+157 acres
Acres Protected	642	687	+45 acres
Total Wetlands	702	844	+142 acres

Critical for protecting the Community of Pecan Island

Protects LA 82, the only hurricane evacuation route from east to west in the area.

Protects 1,935 acres of impounded subsided marsh, 424 acres of shoreline, and creates 157 acres of marsh.

Is the host for the Foundation Improvement Demo

Favorable 95% Design Review 3 Sept 04

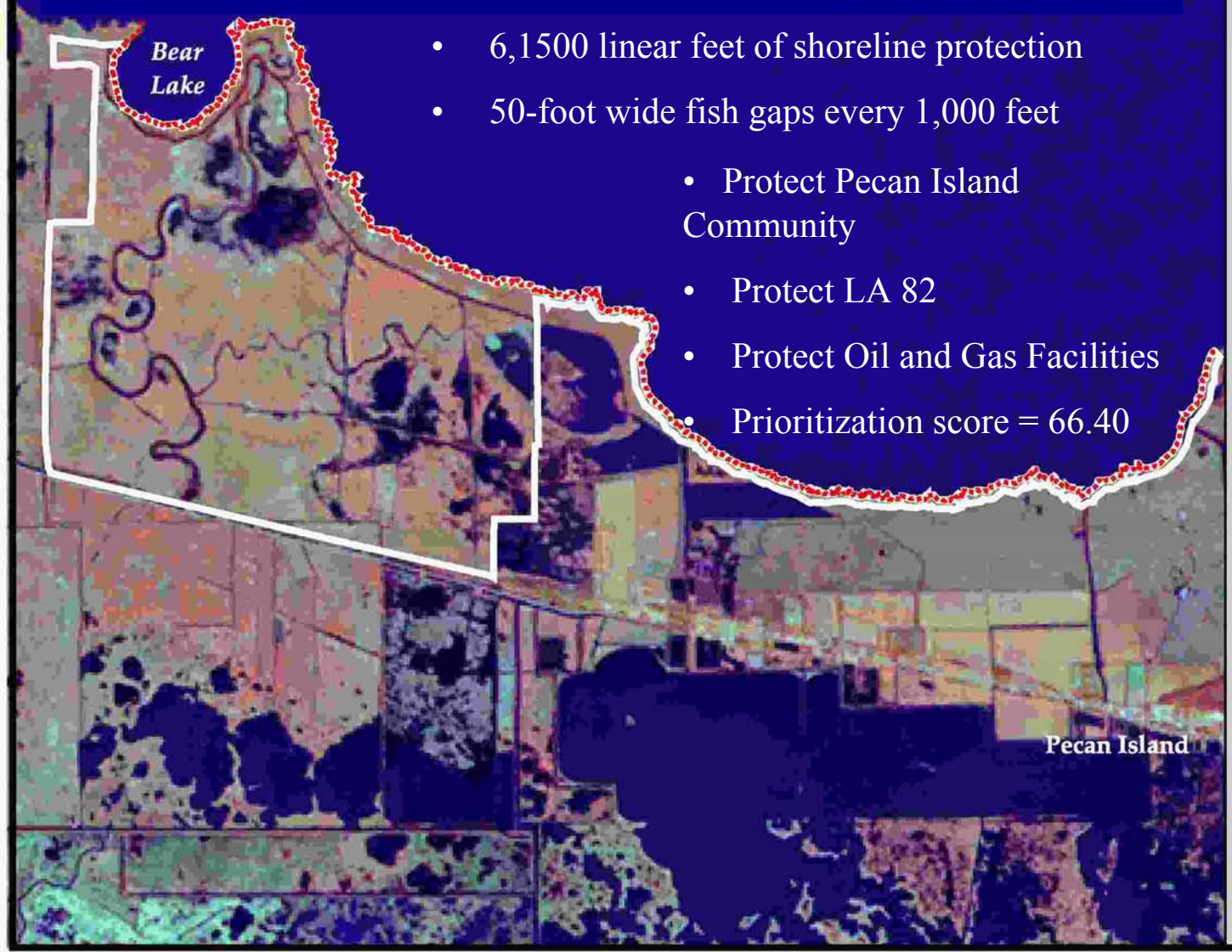
Prioritization Score 66.4, ranks 3rd among projects currently requesting construction funding and 7th on the prioritization list

Ready to start construction in four months

The Mermentau Basin is being over looked by other coastal restoration program efforts like LCA and we shouldn't miss the opportunity to do this now.

Benefits and Costs:

- Protect/benefit 686 acres of marsh over 20-years (424 SL + 262 Int)
- Beneficial use of dredge material to construct 157 acres of marsh
- Current fully funded cost estimate = $19,673,929



- 6,1500 linear feet of shoreline protection
- 50-foot wide fish gaps every 1,000 feet
- Protect Pecan Island Community
- Protect LA 82
- Protect Oil and Gas Facilities
- Prioritization score = 66.40

South White Lake Shoreline Protection (from Will's Point to Bear Lake)

PPL12 Project Candidate

Proposed Rock Dike

Project Boundary

0.5 0 0.5 1 1.5 Miles

0.5 0 0.5 1 1.5 Kilometers

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

Background Imagery:
Thematic Mapper Satellite Imagery 2000

Map Date: October 22, 2002
Map ID: USGS200311019
Data accurate as of: October 22, 2002

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

September 1, 2004

REPLY TO
ATTENTION OF:

CEMVN-PM-C (1110-2-1150a)

MEMORANDUM FOR: Mr. John Saia, Chair, CWPPRA Technical Committee

SUBJECT: Request for Construction Approval for the Shoreline Protection Foundation Improvement Demonstration Project (LA-06).

The U.S. Army Corps of Engineers (USACE) and Louisiana Department of Natural Resources (LDNR) request Construction Approval for the Shoreline Protection Foundation Improvement Demonstration Project (LA-06), to be conducted in conjunction with the South White Lake Shoreline Protection Project (ME-22), in Vermilion Parish, LA. The demonstration project was authorized as a part of Priority Project List 13 (PPL 13) on January 28, 2004 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).

1. Goal of Demonstration Project: Poor soil conditions in coastal Louisiana cause construction consolidation and long-term settlement rates of rock dikes to be high and thereby limit the cost effectiveness and potential success of shoreline protection projects in vulnerable areas. The Goal of the project is to investigate foundation improvement methods to reduce rock dike consolidation and settlement and improve cost effectiveness.

2. Engineering Test Design: The demonstration project would be conducted over 5,400 linear feet of dike and would include two replicates of an engineering test design. The test design includes two different foundation improvement treatments and a control. Each replicate would include three 900-linear foot sample sections, which includes: a control section consisting of unimproved dike (C); an improved section consisting of a sand foundation that would displace soft near-surface material (A); and an improved section consisting of a sand foundation with soft near-surface material removed via dredging (B). The order of the treatments shall be ACB CBA.

Each sample section would be instrumented with settlement plates, inclinometers, Sondexes, and piezometers at approximately 180-foot intervals, which would be monitored, recorded and analyzed to determine the effects of the foundation improvements. Geotechnical borings would be taken at each of the six sample sections during construction to accurately determine underlying soil conditions.

3. Instrumentation Monitoring: All piezometers, inclinometers, Sondexes, and settlement plates

would be monitored for the effectiveness of the placement of sand below the rock dike. Before placement of the rock and after instrument installation, three readings of each instrument shall be recorded to establish a baseline reading. After dike construction is completed, the instruments shall be monitored over a five-year period. In "Year 1" each instrument shall be read once a week for the first month and once a month for the remaining eleven months. In "Year 2" the instrument shall be read six months after the last "Year 1" reading and six months after the first "Year 2" reading. In "Years 3" the instruments shall be read six months after the last "Year 2" reading. In "Years 4" the instruments shall be read one year after the "Year 3" reading and in "Year 5" the instruments shall be read one year after the "Year 4" reading. A total of 18 readings shall be collected after rock placement over 5 years.

The piezometers at the centerline of the dike shall monitor the pore water pressures and shall assist in identifying gains in soil strengths over time. The inclinometers in the centerline of the dike and at the toes of the dike shall measure horizontal movements in the soil and identify possible failure modes. The Sondex's in the centerline of the dike shall measure vertical movements in the individual substrate strata and identify possible failure modes. The settlement plates in the dike centerline and toes shall measure overall settlement of the dike.

4. Location: The South White Lake Shoreline Protection Project has been selected to conduct the demonstration project for the following reasons:

a. Soil borings indicate that part of the project footprint would be overlain on marsh and swamp deposits of soft to very soft fat clay with peat, relatively high moisture contents and wood, which provide a relatively poor foundation of soil conditions;

b. Winds in the vicinity of White Lake generally ranging from 11- to 22-miles per hour with stronger winds occurring less frequently, combined with shallow depths (average 7 feet) and broad fetch potential build up distance (13.8 miles long and about 9 miles wide) provide a relatively harsh wave climate;

c. The shoreline erosion rate has been estimated to be 15-feet per year.

The demonstration project would be conducted along Reach 5 of ME-22 (see enclosed fact sheet), which begins approximately six miles west from Will's point and extends west along the shoreline for a distance of approximately 15,200 linear feet. Reach 5 is recommended because of appropriately poor soil conditions desired for the demonstration project purposes, and because it has sufficient continuous length that would be uninterrupted by obstacles during construction, making it logistically desirable for reliable installation of instrumentation during construction. The reach also provides a relatively consistent angle of front along the dike that wind and waves would attack, which could minimize the amount of variation in test results from such outside influences.

5. The fully funded cost estimate is enclosed.

6. Copies of the original and revised fact sheets for the demonstration project are enclosed.

7. Please contact Melanie Goodman, at 504-862-1940, if you have any questions about the demonstration project or South White Lake Shoreline Protection Project.

Melanie Goodman
Project Manager
Coastal Restoration Branch

Enclosures

SHORELINE PROTECTION FOUNDATION IMPROVMENTS DEMONSTRATION PROJECT

August 1, 2003

Coast 2050 Strategy
n/a

Possible Demonstration Project Location(s):
n/a

Problem
Poor soil conditions in coastal Louisiana limit the effectiveness of shoreline protection dikes because of high rates of subsidence. High subsidence rates require frequent and expensive project maintenance, lowering overall project cost effectiveness.

Goals
The goal of the project is to bring into the realm of feasibility shoreline protection where it is currently challenged in terms of cost effectiveness over a 20-yr project life cycle by investigating a ground improvement method to reduce subsidence.

Proposed Solution
The objective is to develop foundation improvements using a sand foundation beneath rock dikes for application in coastal Louisiana to demonstrate alternative means to achieve bearing capacity and consolidation settlement design tolerances in ways that lessen 20-year project life cycle costs, as compared to traditional approaches.

This demonstration project is proposed to "piggy back" on a funded shoreline protection project, that would be selected by the Task Force, which uses a traditionally designed and constructed rock dike section. The potential test region should be in an environment where soil conditions are very poor; the wave climate is harsh; and wetland loss is high.

This demonstration project proposes eight sections, which would each be approximately 300-ft-long. The first section is a reference section to the ground improvement test sections, having an unimproved foundation. The remaining six sections would consist of a sand foundation involving two construction methods. In the first construction case, containing 3 sections, the sand will displace the soft material near the surface. In the second construction case, containing 3 sections, the soft material near the surface will be dredged prior to sand placement. All of these sections will be instrumented with settlement plates, inclinometers, and extensometers to determine the effectiveness of these foundation improvements.

Project Benefits
From the results of this proposed demonstration project, a more effective and economical method can be established in the design and construction of shoreline protection. Therefore, shoreline protection could be provided in areas not currently protected due to project cost limitations thus protecting precious wetlands by preventing coastal erosion and aiding in marsh creation.

Demonstration Project Costs
The estimated total fully funded cost is $1,055,000.

The demo project test section costs would cover the R&D component of ground improvement, E&D for ground improvement, and the construction component for ground improvement and monitoring. It is assumed that the candidate project would cover costs for rock dike construction, rock dike E&D, environmental compliance, real estate, project management, construction S&A.

Contact
Julie L. Oliphant, U.S. Army Corps of Engineers, (504) 862-2035,
Julie.l.oliphant@mvn02.usace.army.mil
Gretchen S. Hammond, U.S. Army Corps of Engineers, (504) 862-1659,
Gretchen.s.Hammond@mvn02.usace.army.mil
Chris Monnerjahn, U.S. Army Corps of Engineers, (504) 862-2415,
chris.j.monnerjahn@mvn02.usace.army.mil

June 2004

Shoreline Protection Foundation Improvements Demonstration (LA-06)

Project Status

Approved Date: 2004
Cost: $1 M
Project Area: N/A
Status Engineering and Design
Net Benefit After 20 Years: N/A
Project Type: Demonstration: Shoreline Stabilization

Location

The project will be located along the southern shoreline of White Lake, from Will's Point to the western shore of Bear Lake, north of Pecan Island in Vermilion Parish, Louisiana.

Problems

Poor soil conditions in coastal Louisiana limit the cost effectiveness of shoreline protection dikes because of higher consolidation and settlement rates. This results in frequent and expensive project maintenance.

Restoration Strategy

The goal of this project is to investigate foundation improvement methods to reduce rock dike settlement. Shoreline protection in some areas is currently challenged in terms of cost effectiveness over a 20-year project life cycle because of poor soil conditions. The objective is to determine if a sand base can improve rock dike-bearing capacity and consolidation settlement design tolerance.

The demonstration project will be conducted over 5,400 linear feet of dike and will include two replicates of the test design. The test design will include two different foundation improvement treatments and a control. Each replicate will include three 900-linear-foot sample sections as follows: a control section consisting of unimproved dike; an improved section consisting of a sand foundation that would displace soft near-surface material; and an improved section consisting of a sand foundation with soft near-surface material removed via dredging. Each sample section will be instrumented with four sets each of crown, front, and rear settlement plates, inclinometers, and extensometers at approximately 180-foot intervals, which will be monitored, recorded, and analyzed to determine the effects of the foundation improvements. Geotechnical borings will be taken at each of the six sample sections during construction to more accurately determine underlying soil conditions.

Shoreline protection dikes, such as the one above, have been successful in halting shoreline erosion in many parts of coastal Louisiana; however, soft substrates in some areas lead to the structures sinking because of their weight. This project will test designs to solve the problem.

Progress to Date

The Louisiana Coastal Wetlands Conservation and Restoration Task Force approved funding for this demonstration project at the January 2004 meeting.

Another CWPPRA project, the South White Lake Shoreline Protection project (ME-22), has been selected as the host project for conducting this demonstration because it provides an environment where soil conditions are poor to very poor, the wave climate is harsh, and wetland loss is high. The demonstration will be conducted along Reach 5 of ME-22, which begins approximately six miles west from Will's Point and extends west along the shoreline for a maximum distance of approximately 15,200 linear feet.

This demonstration project is expected to provide more effective and economical methods for designing and constructing shoreline protection in areas that are currently not considered for shoreline protection because of their substrate limitations.

This project is on Priority Project List 13.

For more project information, please contact:

US Army Corps of Engineers
New Orleans District

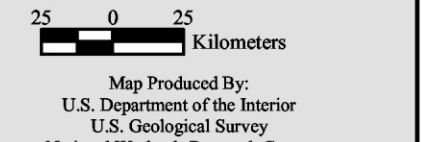
Federal Sponsor:
U.S. Army Corps of Engineers
New Orleans, LA
(504) 862-1597

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

Shoreline Protection Foundation Improvements Demonstration (LA-06)

Project Boundary

USGS science for a changing world



N

25 0 25 Miles

25 0 25 Kilometers

Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Background Imagery:
1998 Digital Orthophoto Quarter Quadrangles
Map Date: June 23, 2004
Map ID: USGS-NWRC 2004-11-0385
Data accurate as of July22, 2004

Shoreline Protection Foundation Improvement Demonstration Project (LA-06) Request for Construction Approval

Purpose:

To improve the cost effectiveness and feasibility of shoreline protection projects by applying a sand foundation beneath rock dikes to be constructed in Coastal Louisiana.

Goal:

To demonstrate alternatives to improve bearing capacity and consolidation settlement design tolerances to reduce 20-year project life cycle costs, as compared to traditional approaches.

Selected Host Project: ME-22

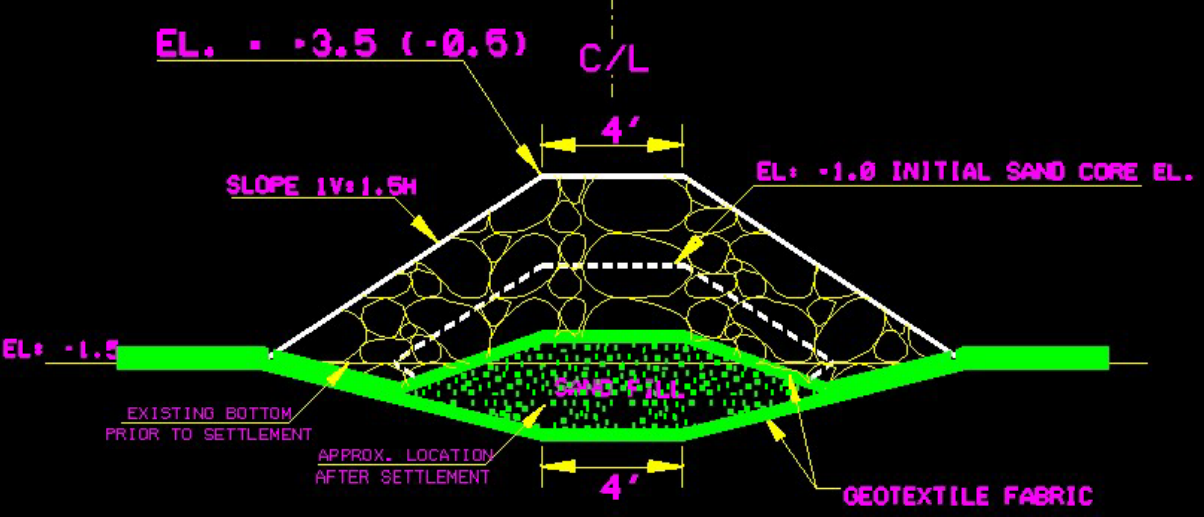
South White Lake Shoreline Protection Project is being recommended to host this demo the following reasons:

1. Evidence of appropriately poor soil foundation desired for demo purposes
2. High winds and strong waves in area provide harsh wave climate
3. Estimated 15-feet per year shoreline erosion rate

ME 22-Reach 5 would be used because:

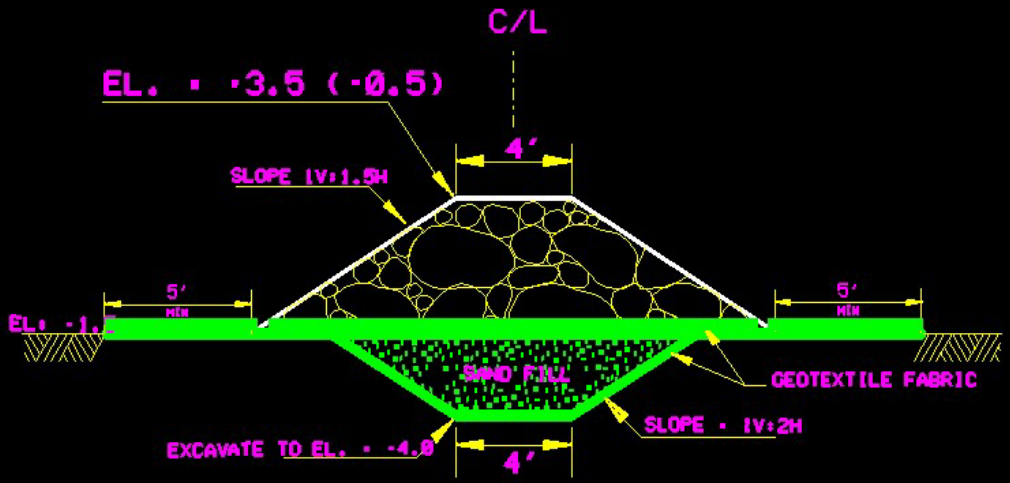
1. Appropriately poor soil foundation desired for demo purposes
2. Sufficient continuous length without obstacles to interrupt construction and instrument installation.
3. Provides relatively consistent front for angle of attack from wind and waves.

Shoreline Protection Foundation Improvement Demo Project



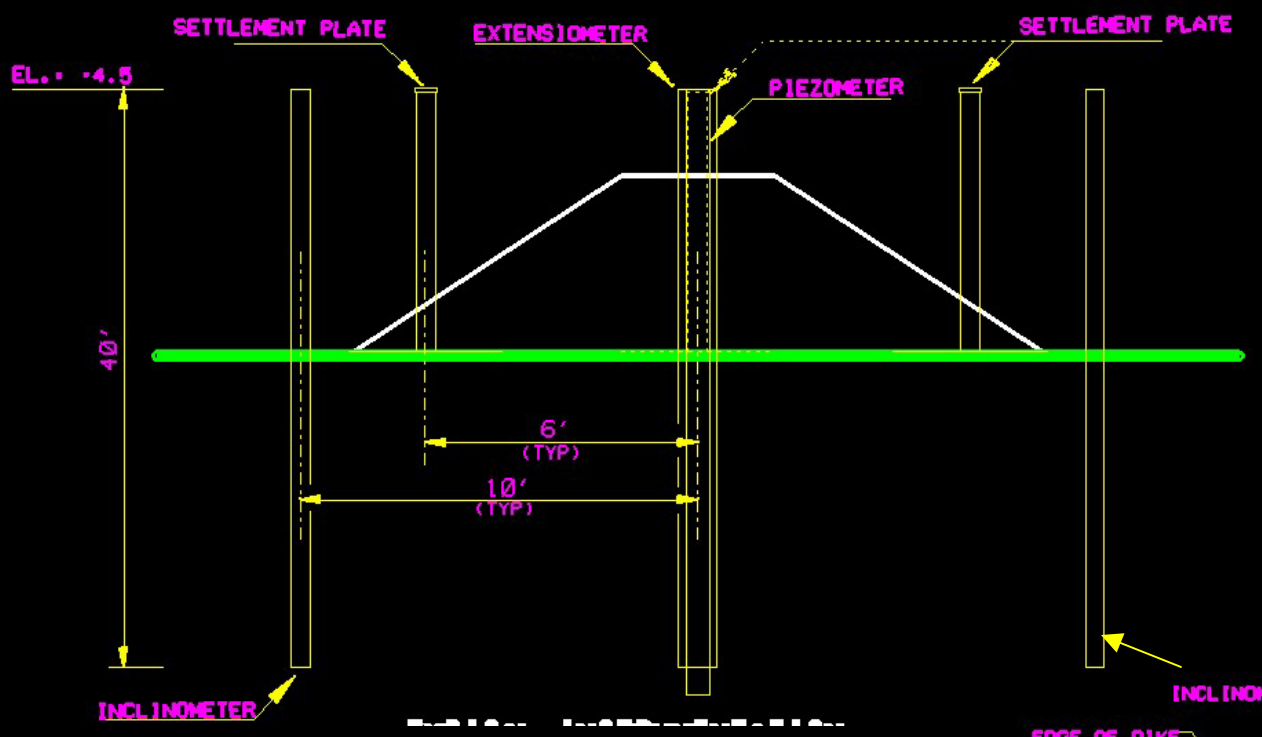
TYPICAL DEMONSTRATION SECTION "A"
STATIONS 139+00 - 148+00, 196+50 - 205+50

SCALE: N.T.S.

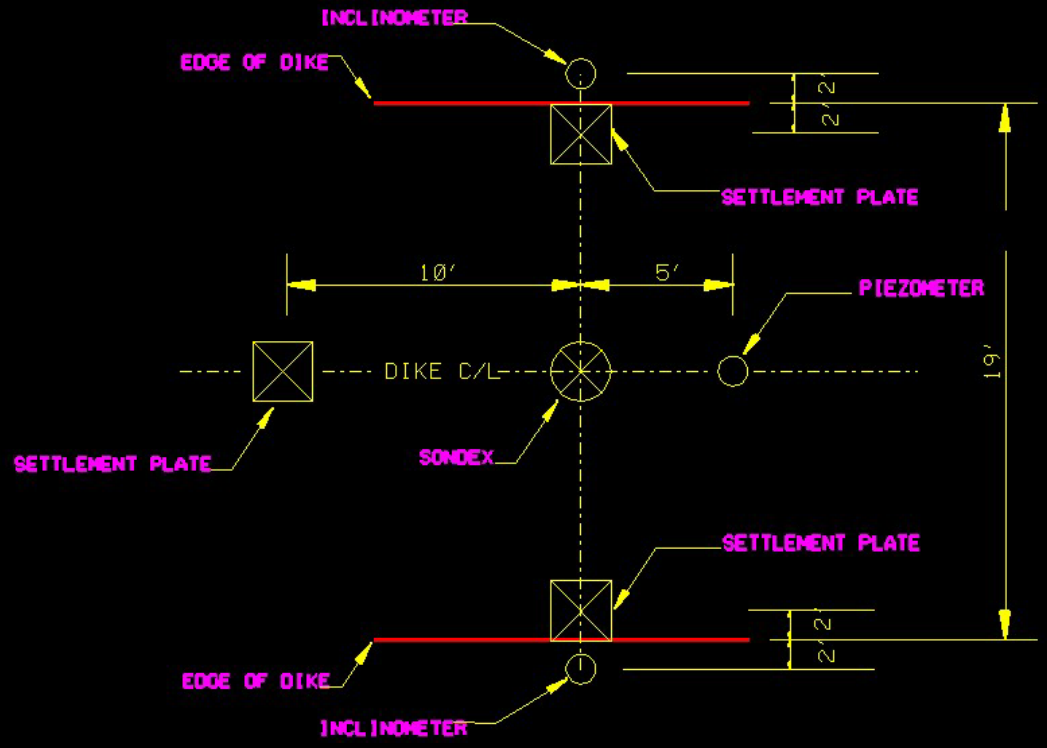


TYPICAL DEMONSTRATION SECTION "B"
STATIONS 158+00 - 167+00, 167+50 - 176+50

SCALE: N.T.S.

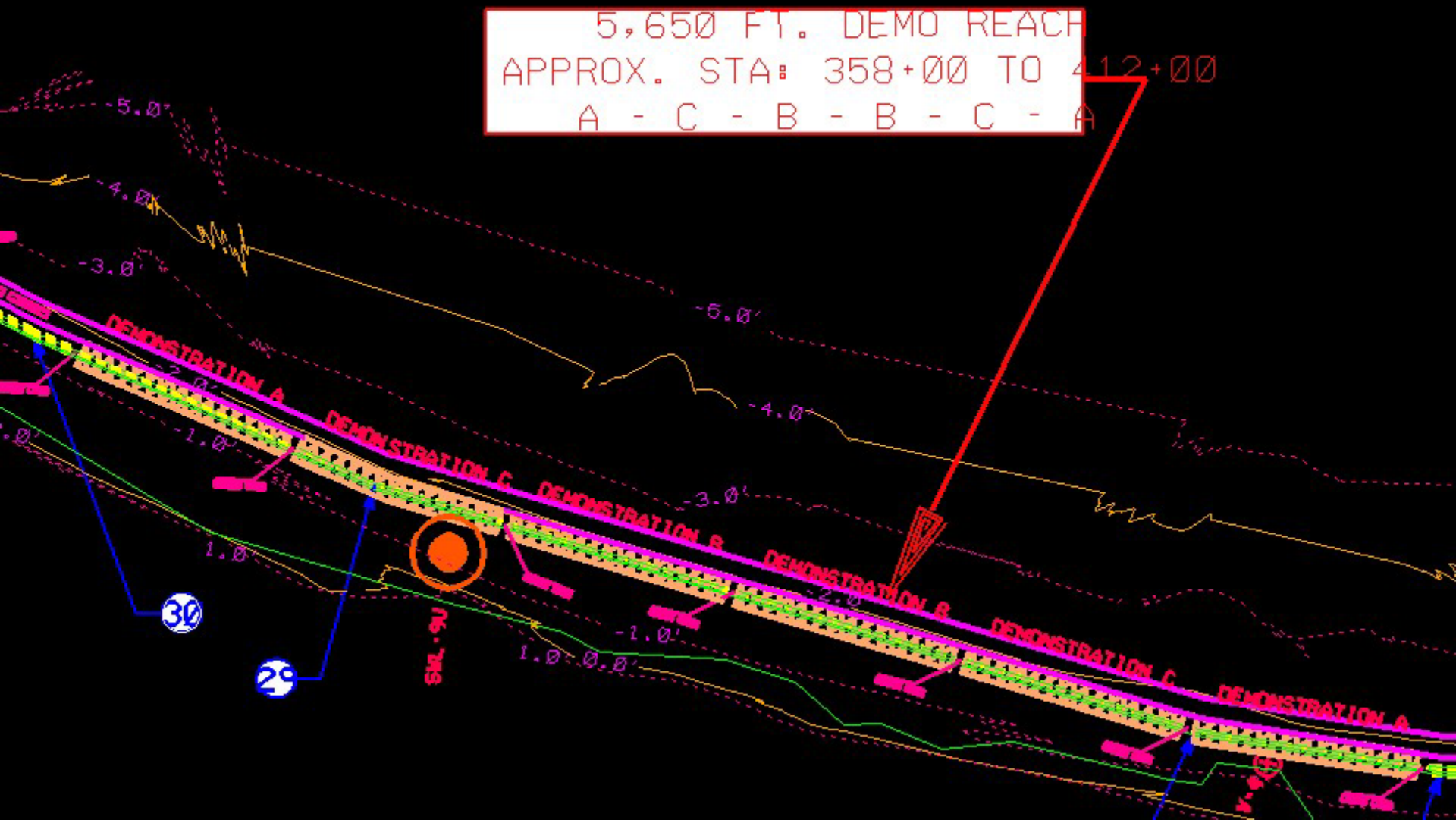


Instrument Cross Section



Instrument Plan View

Treatment Order



Public Support for Projects Requesting Construction Approval/Phase II Approval
Received PRIOR to and DURING
9 Sep 04 Technical Committee Meeting

Updated September 9, 2004

Projects Receiving Letters of Public Support:

BA-27 - Barataria Basin Landbridge, Ph 1&2 – Construction Unit 5, Construction Approval:
- Aaron F. Broussard, Parish President, Jefferson Parish, letter dated 8 Sep 04
- Timothy Kerner, Mayor of Jean Lafitte, LA, letter dated 8 Sep 04

BA-27c - Barataria Basin Landbridge, Ph 3 – Construction Unit 5, Phase II Approval:
- Aaron F. Broussard, Parish President, Jefferson Parish, letter dated 8 Sep 04
- Timothy Kerner, Mayor of Jean Lafitte, LA, letter dated 8 Sep 04

TV-11b - Freshwater Bayou Bank Stabilization – Belle Isle Bayou to Lock, Phase II Approval:

ME-16 - Freshwater Introduction South of Hwy 82, Phase II Approval:
- Cameron Parish Policy Jury Resolution dated 7 Sep 04
- Gerald J. Theunissen, State Senator District 25, letter dated 8 Sep 04
- Dan W. Morrish, State Representative District 37, letter dated 8 Sep 04
- Dan Flavin, State Representative District 36, letter dated 8 Sep 04
- Herman Ray Hill, State Representative District 32, letter dated 8 Sep 04
- James David Cain, State Senator, letter dated 8 Sep 04

TE-39 - South Lake DeCade – Construction Unit 1, Phase II Approval:
- Jeff DeBlieux, Burlington Resources, letter dated 9 Sep 04

TE-43 - GIWW Bank Restoration of Critical Areas in Terrebonne, Phase II Approval:
- Charles Marshall, photos handed out 9 Sep 04
- George Strain, Continental Land and Fur Co., Inc., photos, writeup, and maps

TE-44 (2) – North Lake Mechant, CU2, Phase II Approval:
- David Groner, Law Office of David Groner, P. L. C., letter dated 25 Aug 04
- Jerry Boyce, Nobelstown Road Publishing, Inc., letter dated 26 Aug 04
- Wendel Boudreaux, Houma, LA, letter dated 26 Aug 04
- Jeff DeBlieux, Burlington Resources, letter dated 9 Sep 04
- Drew Luke, Slidell, LA, letter dated 22 Aug 04
- Steven M. Griffin, Director, Bayou L'eau Doux, LLC, letter dated 19 Aug 04

BA-36 – Dedicated Dredging on the Barataria Basin Landbridge, Phase II Approval:
- Aaron F. Broussard, Parish President, Jefferson Parish, letter dated 8 Sep 04

- Timothy Kerner, Mayor of Jean Lafitte, LA, letter dated 8 Sep 04
- Ed Perrin, Sixth Ward Association for Progress (SWAP), Lafitte, LA, typed notes dictated by Vickie Duffourc in a phone conversation on 8 Sep 04
- Ray Champagne, Representative of the Sixth Ward Association for Progress (SWAP), letter dated 8 Sep 04

ME-21 – Grand Lake Shoreline Protection, Phase II Approval:

- Cameron Parish Policy Jury Resolution dated 7 Sep 04
- Gerald J. Theunissen, State Senator District 25, letter dated 8 Sep 04
- Dan W. Morrish, State Representative District 37, letter dated 8 Sep 04
- Dan Flavin, State Representative District 36, letter dated 8 Sep 04
- Herman Ray Hill, State Representative District 32, letter dated 8 Sep 04
- James David Cain, State Senator, letter dated 8 Sep 04

TE-48 - Raccoon Island Shoreline Protection, Phase II Approval:

- Dwight Landreneau, Secretary, Louisiana Department of Wildlife and Fisheries, letter dated 27 Aug 04
- CC Lockwood, Marshmission Team, email dated 7 Sep 04

ME-22 - South White Lake Shoreline Protection, Phase II Approval:

- Michael Bertrand, Secretary-Treasurer of Vermilion Parish Police Jury, letter dated 20 Aug 04
- Duplass, Zwain, Bourgeois & Morton, letter dated 26 Aug 04
- Sherrill J. Sagrera, local landowner, letter dated 26 Aug 04
- Martin O. Miller, III, Rellim Surface Management, LLC, letter dated 26 Aug 04
- Mickey Frith, Louisiana State Representative of District 47, letter dated 24 Aug 04
- Ernest Girouard, Chairman, Vermilion Soil and Water Conservation District, letter dated 8 Aug 04

LETTERS OF SUPPORT FOR

BARATARIA BASIN LANDBRIDGE, PH 1&2 – CU 5

BA-27

JEFFERSON PARISH
LOUISIANA

OFFICE OF PARISH PRESIDENT

AARON F. BROUSSARD
PARISH PRESIDENT

September 8, 2004

Mr. John Saia, Chairman
Technical Committee
Coastal Wetlands Planning, Protection and Restoration Act
U.S. Army Engineer District, New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Saia:

The National Oceanic and Atmospheric Administration (NOAA) predicted that the 2004 hurricane season could bring above normal activity with the possibility of 15 tropical storms, and as many as 8 of these becoming hurricanes, with 2 to 4 becoming major hurricanes. Unfortunately, the past few weeks' storm activity gives credence to this prediction. Fortunately, Louisiana has not been in the path of any of this season's major storms, but we all know that it's just a matter of time. Meanwhile, emergency management personnel are warning that, to ensure the safety of our citizens, an evacuation of this area may be required for even a Category 2 hurricane.

The single most important defense against the devastating effects of a hurricane storm surge is our coastal wetlands, which are being lost in Jefferson Parish at an alarming rate. The Barataria Basin Landbridge has long protected the upper basin from the severe erosion that has devastated the lower basin. But with the loss of more and more land in the lower basin, this critical land mass has been subjected to increased wave energy, and the resulting erosion has severely limited its protective ability.

Therefore, on behalf of the residents of Jefferson Parish, I strongly urge the CWPPRA Technical Committee to approve the U.S. Fish and Wildlife Service's request for construction funding for the Dedicated Dredging on the Barataria Basin Landbridge (BA-36), as well as the Natural Resources Conservation Service's request for funding to complete Construction Units 4 and 5 of the Barataria Landbridge Shoreline Protection (BA-27 and BA-27c (1)). Both projects will help stabilize this critical central landbridge, which protects the entire west bank of Jefferson Parish, particularly Lafitte, from storm surges. These projects are in an area that has one of the fastest erosion rates in the state; thus, it is crucial that these projects be completed as quickly as possible. We can not risk waiting for another funding cycle. These projects will not only protect and restore a critical land mass, but will protect and preserve the valuable freshwater marshes of the upper Barataria Basin and the urbanized areas of Jefferson Parish.

Sincerely,

Aaron F. Broussard
Parish President

cc: All Parish Council Members
Congressional Delegation
Mr. Scott Angelle, Secretary, LDNR
CWPPRA Technical Committee Members
CWPPRA Task Force Members

SUITE 1002 - 1221 ELMWOOD PARK BOULEVARD - JEFFERSON, LOUISIANA 70123
P. O. BOX 10242 JEFFERSON, LOUISIANA 70181-0242 - (504) 736-6400

TOWN OF JEAN LAFITTE
OFFICE OF THE MAYOR

TIMOTHY P. KERNER
MAYOR

YVETTE CRAIN
TOWN CLERK

CLARENCE MATHERNE
CHIEF OF POLICE

Route 1, Box 1
Lafitte, Louisiana 70067
Office: (504) 689-2208
Police: (504) 689-3132
Fax: (504) 689-7801

ALDERMEN

LEO E. KERNER, JR.
MAYOR PROTEM

ELAINE BADEAUX
SHIRLEY GUILLIE
VERNA SMITH
CALVIN LEBEAU

September 8, 2004

Mr. John Saia, Chairman
Coastal Wetlands Planning, Protection and
Restoration Act Technical Committee
U.S. Army Engineer District, New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Saia:

This letter is to request that you, and the other members of the CWPPRA Technical Committee, give favorable consideration to the funding requested for projects that protect and restore the Barataria Basin Landbridge. The critical land mass protects the homes, businesses and infrastructure of the Town of Jean Lafitte. The landbridge also slows saltwater from entering the mostly freshwater marshes of the upper Barataria Basin, preserving intermediate marsh habitat needed to sustain our commercial and recreational fisheries. The Barataria Basin Landbridge protects our lives and our livelihoods.

For years, we have watched the land erode away, converting meandering bayous into large areas of open water. Finally, after passage of the Coastal Wetlands Planning, Protection and Restoration Act, shoreline protection was put in place to slow erosion along many stretches of Bayous Perot and Rigolettes. Now it is time to complete that shoreline protection and fill the open water areas in the interior marsh to create new marsh and nourish existing marshes. Therefore, on behalf of the residents of the Town of Jean Lafitte, and as vice-president of the West Jefferson Levee District, I strongly urge the CWPPRA Technical Committee to approve the U.S. Fish and Wildlife Service's request for construction funding for Dedicated Dredging on the Barataria Basin Landbridge (BA-36), as well as the Natural Resources Conservation Service's request for funding of Construction Unit 4 and Construction Unit 5 to complete the Barataria Landbridge Shoreline Protection (BA-27 and BA-27c(1)). These two projects are critical

to the sustainability of the landbridge in protecting the Town of Jean Lafitte, and indeed the entire west bank of Jefferson Parish, from storm surges.

Thank you for your consideration of this request and for your efforts to protect and restore coastal Louisiana.

Sincerely,

Timothy P. Kerner, Mayor
Town of Jean Lafitte

Cc: Hon. Mary Landrieu
Hon. J. Chris Ullo
Hon. Ernest Wooton
Hon. Aaron Broussard
Mr. Scott Angelle, Secretary LDNR
Mr. Harry Cahill, III, President, WJLD
CWPPRA Technical Committee Members
CWPPRA Task Force Members

LETTERS OF SUPPORT FOR

BARATARIA BASIN LANDBRIDGE, PH 3 – CU 5

BA-27C

JEFFERSON PARISH
LOUISIANA

OFFICE OF PARISH PRESIDENT

AARON F. BROUSSARD
PARISH PRESIDENT

September 8, 2004

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Technical Committee
Coastal Wetlands Planning, Protection and Restoration Act
U.S. Army Engineer District, New Orleans District
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Parish President

cc: All Parish Council Members
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CWPPRA Technical Committee Members
CWPPRA Task Force Members

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September 8, 2004

Mr. John Saia, Chairman
Coastal Wetlands Planning, Protection and
Restoration Act Technical Committee
U.S. Army Engineer District, New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

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Town of Jean Lafitte

Cc: Hon. Mary Landrieu
Hon. J. Chris Ullo
Hon. Ernest Wooton
Hon. Aaron Broussard
Mr. Scott Angelle, Secretary LDNR
Mr. Harry Cahill, III, President, WJLD
CWPPRA Technical Committee Members
CWPPRA Task Force Members

LETTERS OF SUPPORT FOR

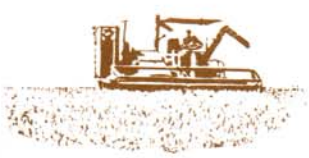
FRESHWATER INTRODUCTION SOUTH OF HWY 82

ME-16

STEVE TRAHAN
PRESIDENT
SCOTT TRAHAN
VICE PRESIDENT
EARNESTINE T. HORN
ADMINISTRATOR
BONNIE W. CONNER
SECRETARY-TREASURER

POLICE JURY
PARISH OF CAMERON
P. O. BOX 366
CAMERON, LOUISIANA 70631
(337) 775-5718
(337) 775-5567 Fax
cppjury@camtel.net

DISTRICT 1
MAGNUS "SONNY" McGEE
DISTRICT 2
STEVE TRAHAN
DISTRICT 3
CHARLES PRECHT III
DISTRICT 4
DOUAINE CONNER
DISTRICT 5
SCOTT TRAHAN
DISTRICT 6
JAMES DOXEY
DISTRICT 7
DARRYL FARQUE



RESOLUTION

STATE OF LOUISIANA
PARISH OF CAMERON

WHEREAS, Cameron Parish has countless coastal and wetland erosion problems; and

WHEREAS, the Coastal Wetland, Planning, Protection and Restoration Act, (CWPPRA), "Breaux Bill Act", can help fund these coastal and wetland erosion projects; and

WHEREAS, the following projects are ready for Phase 2 Funding in the **Mermentau River Basin:** ***ME-16*** "Hwy. 82 Freshwater Introduction" and ***ME-21*** "Grand Lake Shoreline Protection".

NOW THEREFORE BE IT RESOLVED, that the Cameron Parish Police Jury does support and requests funding the above mentioned projects and the Secretary shall send this resolution to the CWPPRA Agencies requesting their support in funding these projects.

ADOPTED AND APPROVED, this 7th day of September, 2004.

APPROVED:

Steve Trahan, President
CAMERON PARISH POLICE JURY

ATTEST:

Bonnie W. Conner, Secretary

GERALD J. THEUNISSEN
State Senator
District 25
Post Office Box 287
Jennings, LA 70546
(337) 824-0376

Senate
State of Louisiana

COMMITTEES:
Agriculture, Vice Chairman
Education
Retirement
Select Committee on Homeland Security, Vice Chairman
Select Committee on Coastal Restoration & Flood Control

September 8, 2004

Coastal Wetland Planning, Protection and Restoration Act
Task Force

Dear Colonel Peter Rowan,

Please accept this letter as our complete support for the funding for Phase 2 in the **Mermentau River Basin**: ME-16 "Hwy. 82 "Freshwater Introduction" and ME-21 "Grand Lake Shoreline Protection".

The status of our coastal wetlands is of great concern to the citizens of our communities. These projects will have a tremendous positive impact on Cameron Parish, Southwest Louisiana and efforts towards the restoration of our coast.

Your favorable consideration for funding of Phase 2 of the **Mermentau River Basin** would be appreciated.

Sincerely,

Gerald J. Theunissen
State Senator
District 25

Dan W. Morrish
State Representative
District 37

LOUISIANA HOUSE OF REPRESENTATIVES

3221 Ryan Street
P. O. Box 6027
Lake Charles, Louisiana 70601
Email: larep036@legis.state.la.us
Phone: 337.477.1334
Fax: 337.477.1336

Commerce
Insurance

DAN FLAVIN
State Representative - District 36

September 8, 2004

Col. Peter Rowan

Re: Cameron Parish Coastal and Wetland Erosion Projects

Dear Col. Rowan:

Please accept this letter as my support for the following coastal and wetland erosion projects in Cameron Parish.

ME-16 "Hwy 82 Freshwater Introduction"
ME-21 "Grand Lake Shoreline Protection"

It is important to note that each of these projects are ready for Phase 2 Funding in the Mermentau River Basin.

Your consideration of these projects is greatly appreciated.

With best personal regards,

Sincerely yours,

Dan Flavin

DF/gg

LOUISIANA HOUSE OF REPRESENTATIVES

529 Tramel Road
Dry Creek, LA 70637
Email: larep032@legis.state.la.us
Phone: 337.639.2118
800.259.2118
Home: 337.639.2341
Fax: 337.639.4045

HERMAN RAY HILL
State Representative - District 32

Vice Chairman, Agriculture, Forestry, Aquaculture and Rural Development
Natural Resources
Ways and Means
Joint Legislative Committee on Capital Outlay
House Executive Committee
House Legislative Services Council
Legislative Rural Task Force

September 8, 2004

To Whom It May Concern:

I am writing this letter to you in support of the request that the Cameron Parish Police Jury has submitted to you in their endeavor to secure funding from the Coastal Wetland, Planning, Protection and Restoration Act, (CWPPRA), "Breaux Bill Act".

These funds would be used on the following projects that are ready for Phase 2 funding in the **Mermentau River Basin: ME-16** "Hwy. 82 Freshwater Introduction" and **ME-21** "Grand Lake Shoreline Protection".

Cameron Parish has countless coastal and wetland erosion problems and are need of these funds to help with this. I would appreciate any help that you could give in securing these funds for Cameron Parish Police Jury.

Sincerely,

Herman Ray Hill

Herman Ray Hill
State Representative
District 32

HRH/cs

James David
CAIN
SENATOR

P.O. BOX 640 • DRY CREEK, LOUISIANA 70637 • TELEPHONE (337) 328-7266

September 8, 2004

To Whom It May Concern:

It is a pleasure for me to offer my wholehearted support to the Cameron Parish Police Jury as they request funding from the Coastal Wetland, Planning, Protection and Restoration Act, (CWPPRA), "Breaux Bill Act."

The funds will be used for Phase 2 of a couple of projects that are very important to Cameron Parish. The Mermentau River Basin: ME-16 "Hwy. 82 Freshwater Introduction: and ME-21 "Grand Lake Shoreline Protection." The countless coastal and wetland erosion problems in Cameron Parish could be eased if these funds were approved.

Please share my interest in Cameron Parish Police Jury and give their application every consideration. Thank you.

Sincerely,

James David Cain
State Senator

JDC/ns

Committees: Insurance, Chairman, Environmental Quality, Natural Resources, Energy Council
Parishes: Beauregard, Calcasieu, Vernon
E-mail: cainjd@legis.state.la.us

LETTERS OF SUPPORT FOR SOUTH LAKE DECADE – CU 1

TE-39

BURLINGTON
RESOURCES

Houma District

HAND DELIVERED

September 9, 2004

CWPPRA Technical Committee Meeting
Baton Rouge, Louisiana

My name is Jeff DeBlieux I am representing The Louisiana Land and Exploration Company, a subsidiary of Burlington Resources.

We appreciate the opportunity to address the committee and express our views regarding the projects under consideration.

We have long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We along with Fina-LaTerre, now Apache were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. Most recently, we issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting our coastal wetlands. Continuing with that effort of cooperation, we stand here before you requesting your support for 2 Projects we feel are important to preservation of coastal wetlands in Terrebonne Parish. We humbly request that the Technical Committee consider and recommend for approval TE-39, the South Lake DeCade Freshwater Project and TE-44, the North Lake Mechant Landbridge Restoration Project. We support both of these Projects and sincerely believe that they will be of great value in enhancing the wetlands of that area in Terrebonne Parish.

We thank your for your consideration in this matter.

P.O. Box 7097 Houma, LA 70361-7097 Telephone: 985.879.1517 Fax: 985.872.1509

LETTERS OF SUPPORT FOR

GIWW BANK RESTORATION OF CRITICAL AREAS IN TERREBONNE

TE-43

Handed out with comments from Mr. Charles Marshall.

CONTINENTAL LAND & FUR CO., INC.
COMMENTS IN SUPPORT OF TE-43
CWPPRA
TECHNICAL COMMITTEE MEETING
SEPTEMBER 9, 2004, 9:30 A.M.
LA DEPARTMENT OF WILDLIFE AND FISHERIES
LOUISIANA ROOM
2000 QUAIL DR., BATON ROUGE, LA

FLOATING MARSH IN GIWW

TOWNSHIP 17 SOUTH, RANGE 15 EAST

SECTION 51

SECTION 52

5-3-99
Float in G.I.W.W.

5-3-99
Float in G.I.W.W.

Float in middle of G.I.W.W. 5-26-99
60' long 35' wide

60' long 35' wide 5-26-99
Float in middle of G.I.W.W.

GIWW BANKLINE STABILIZATION PROJECT

SECTION 58, TOWNSHIP ~~18~~ 17 SOUTH, RANGE ~~14~~ 15 EAST

JULY 2004

INTRODUCTION

The Corps of Engineers (Corps) is conducting the Terrebonne and Lafourche Parishes component of the Louisiana Coastal Area, Land Loss and Marsh Creation Feasibility Study. The purpose of that study is to determine the feasibility of reducing wetland loss and creating marsh with the Terrebonne Hydrologic Unit, bordered by the Atchafalaya River on the west and Bayou Lafourche to the east. The purpose of this report is to identify, for planning purposes, additional wetland conservation and restoration alternatives for evaluation during this study. This report is provided on a planning-aid basis and does not constitute the report of the Secretary of the Interior as required by Section 2(b) of the Fish and Wildlife Coordination Act.

FISH AND WILDLIFE RESOURCE CONDITIONS AND CONCERNS

The coastal wetlands of the study area are being lost at a high rate and fresh marshes are being lost faster than any other marsh type. A habitat mapping study sponsored by the Fish and Wildlife Service (Service) showed that, during the period 1956 through 1978, the study area lost 177,500 acres of fresh marsh and gained 106,000 acres of shallow estuarine open water and 23,000 acres of intermediate, brackish, and saline marsh (Wicker 1980). The gain in area of non-fresh marshes resulted from rapid conversion of fresher marshes to more saline marsh types. Despite this gain, the conversion of marsh to open water continues throughout all marsh types (May and Britsch 1987) and will continue to cause a reduction in commercially and recreationally important fish and wildlife resources.

The rapid loss of low-salinity marshes and associated fish and wildlife resources has been accelerated by human activities which promote saltwater intrusion and/or loss of freshwater and sediment input. Flood control and navigation projects on the Mississippi River prevent deltaic marsh-building processes from occurring throughout the majority of the Mississippi River Deltaic Plain. Large-scale restoration of deltaic processes represents the most successful means of rebuilding deteriorating wetlands. However, the technical constraints, social impacts, and costs of such measures often make them difficult to implement. Marshes can also be artificially created by depositing dredged material in open water. That approach, however, is often constrained by technical and economic limitations.

Preservation of existing wetlands may, at times, be less expensive than artificially creating marsh. A variety of site-specific preservation techniques can be implemented without the need for extensive planning and design. Such measures are often well suited to site-specific problems caused by small scale man-made features such as canals and levees. Implementation of such measures would be especially valuable in saving or prolonging the existence of fresh and low-salinity marshes which are being lost faster than other marsh types (Wicker 1980). Because fresh marshes are being lost at such a rapid rate, it may be possible to achieve greater fish and wildlife resource benefits by preserving those rapidly deteriorating marshes than by creating marsh with dredged material. Furthermore, artificially created marshes may provide lower quality fishery habitat than natural marshes (Minello et al. 1986); in many cases, the costs of marsh creation may exceed that of preserving higher quality natural marshes. Therefore, the Fish and Wildlife Service (Service) recommends that measures designed to preserve existing wetlands receive

priority equal to marsh creation or other measures discussed in the November 1984 Louisiana Coastal Area, Louisiana Land Loss and Marsh Creation Initial Evaluation Report.

The Service, in consultation with landowners and representatives of various parish, state, and Federal agencies, has developed the following array of additional specific alternatives designed to reduce or eliminate adverse wetland impacts associated with canals, levees, or other human activities. Those alternatives are designed primarily to preserve existing wetlands. However, at least two restoration measures are also recommended. It is recommended that the measures discussed below (grouped according to hydrologic sub-unit) be fully evaluated in the ongoing feasibility study.

WETLAND PRESERVATION AND RESTORATION ALTERNATIVES

A. Area Between the Atchafalaya River and Bayou DuLarge

1. Erosion Prevention/Reduction along Bayou Chene, the Avoca Island Cutoff Channel, and the Gulf Intracoastal Waterway (GIWW)

   Where these waterways traverse marshes underlain by deep, semi-fluid organic soils, wave energy generated by commercial vessels has caused substantial shoreline erosion (Figures 1a. through 1f.). Similar problems have been documented along the Mississippi River-Gulf Outlet (Howard et al. 1984). In addition to the direct erosion and loss of shoreline marshes, water displacement and refill cycles associated with the frequent passage of larger vessels and tows promote scouring and erosion of nearby semi-fluid marsh soils, especially where canals and waterways provide sufficient connection to those waterways. This problem is especially severe in marshes along the GIWW where land building/sedimentation processes associated with the Atchafalaya River are virtually non-existent.

   In this area, chronically turbid waters from the GIWW are eliminating formerly thick growths of submerged aquatic vegetation within marsh ponds and deteriorating open marsh areas as openings to the GIWW enlarge and increase. Certain species of submerged aquatic vegetation constitute highly preferred food for gadwall, American widgeon, teal, and other migratory waterfowl. More important, however, is the key role that dense submerged aquatic vegetation plays in reducing wind-induced wave erosion of adjoining marshes. Loss of aquatic vegetation within those waterbodies allows increased wave erosion of shoreline marshes, especially those underlain by unconsolidated organic material.

   Preservation of marshes adjacent to Bayou Chene, the Avoca Island Cutoff Channel, and the GIWW could be enhanced if the existing marsh banks were stabilized. Bank stabilization/marsh preservation should be given top priority in those critical areas along the GIWW where additional bank erosion threatens to create direct hydrologic connections with the interior ponds and water areas (Figure 2). Potential preservation techniques include the deposition of spoil material in key locations, shell or limestone armoring, construction of

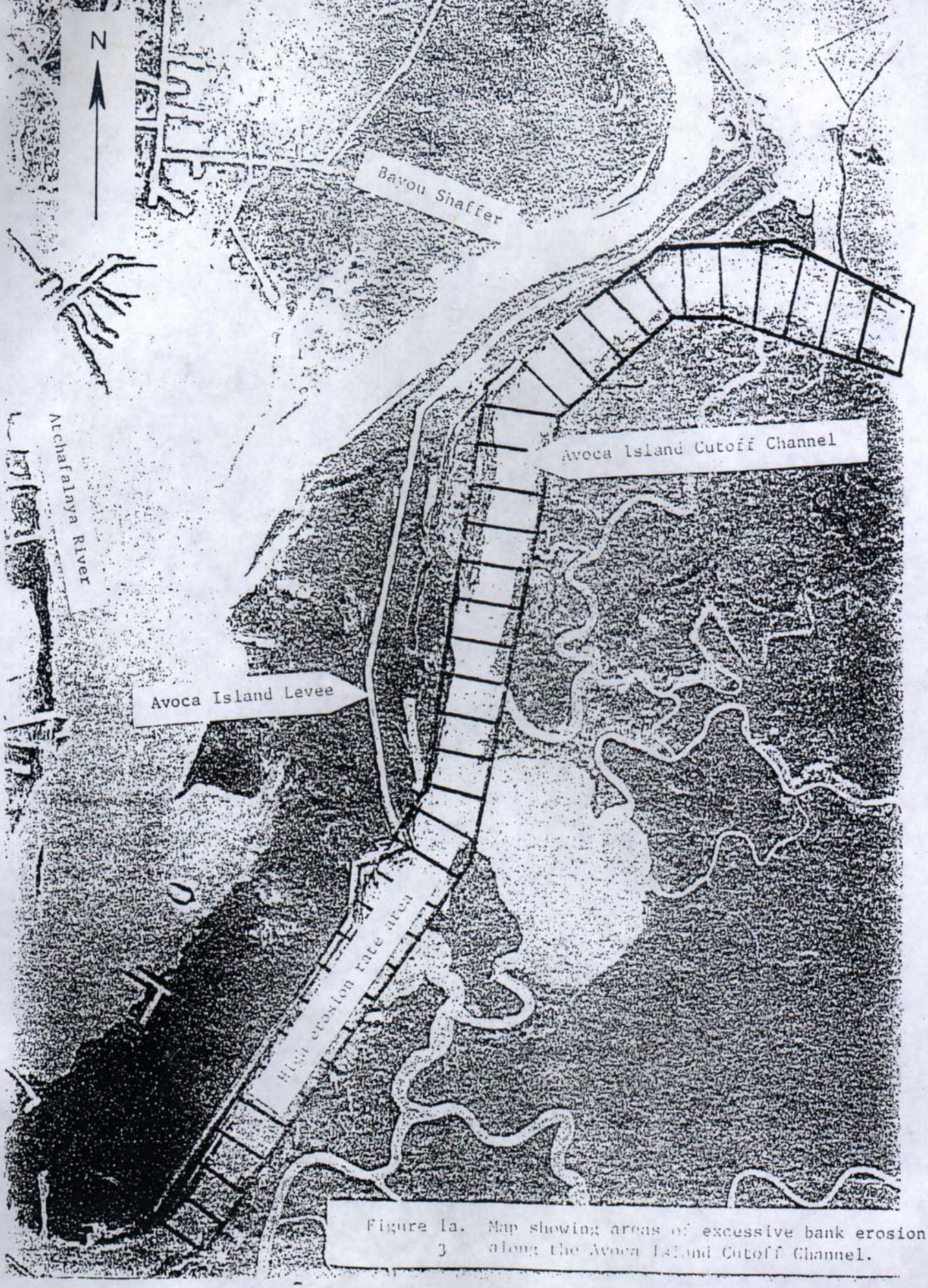


Figure 1a. Map showing areas of excessive bank erosion along the Avoca Island Cutoff Channel.

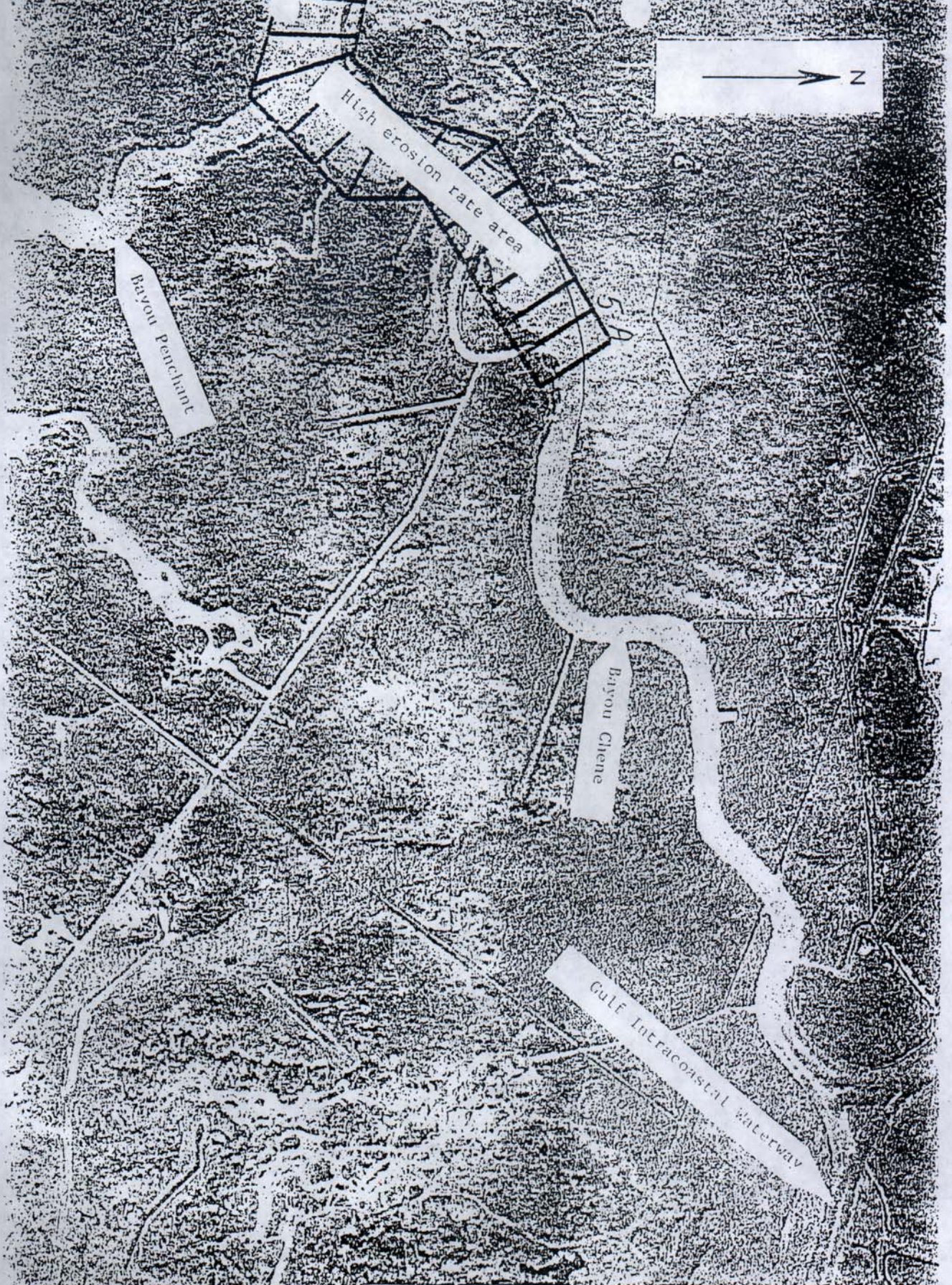


Figure 1b. Map showing areas of excessive bank eros
along the Avoca Island Cutoff Channel.

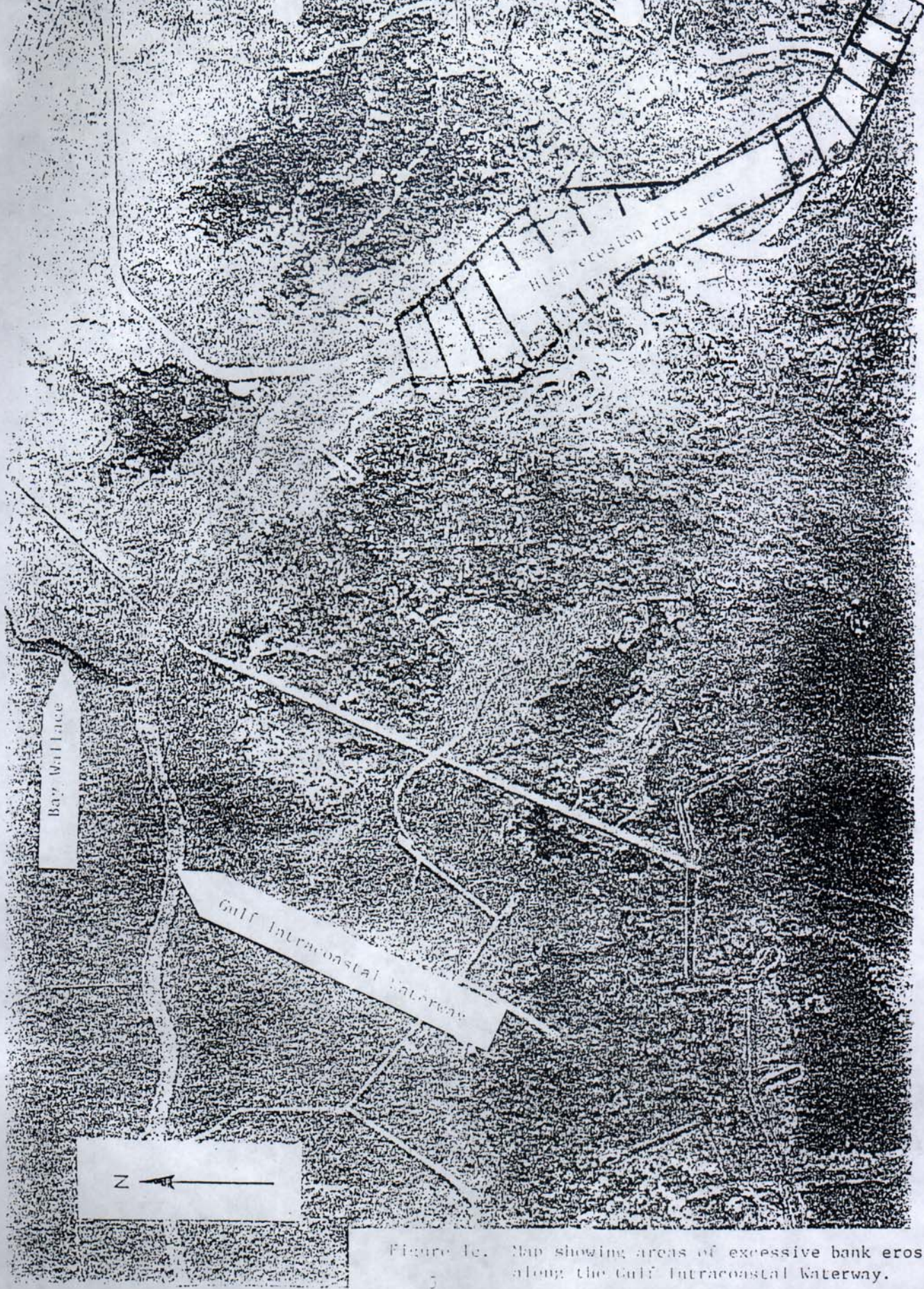


Figure 1c. Map showing areas of excessive bank erosio
along the Gulf Intracoastal Waterway.

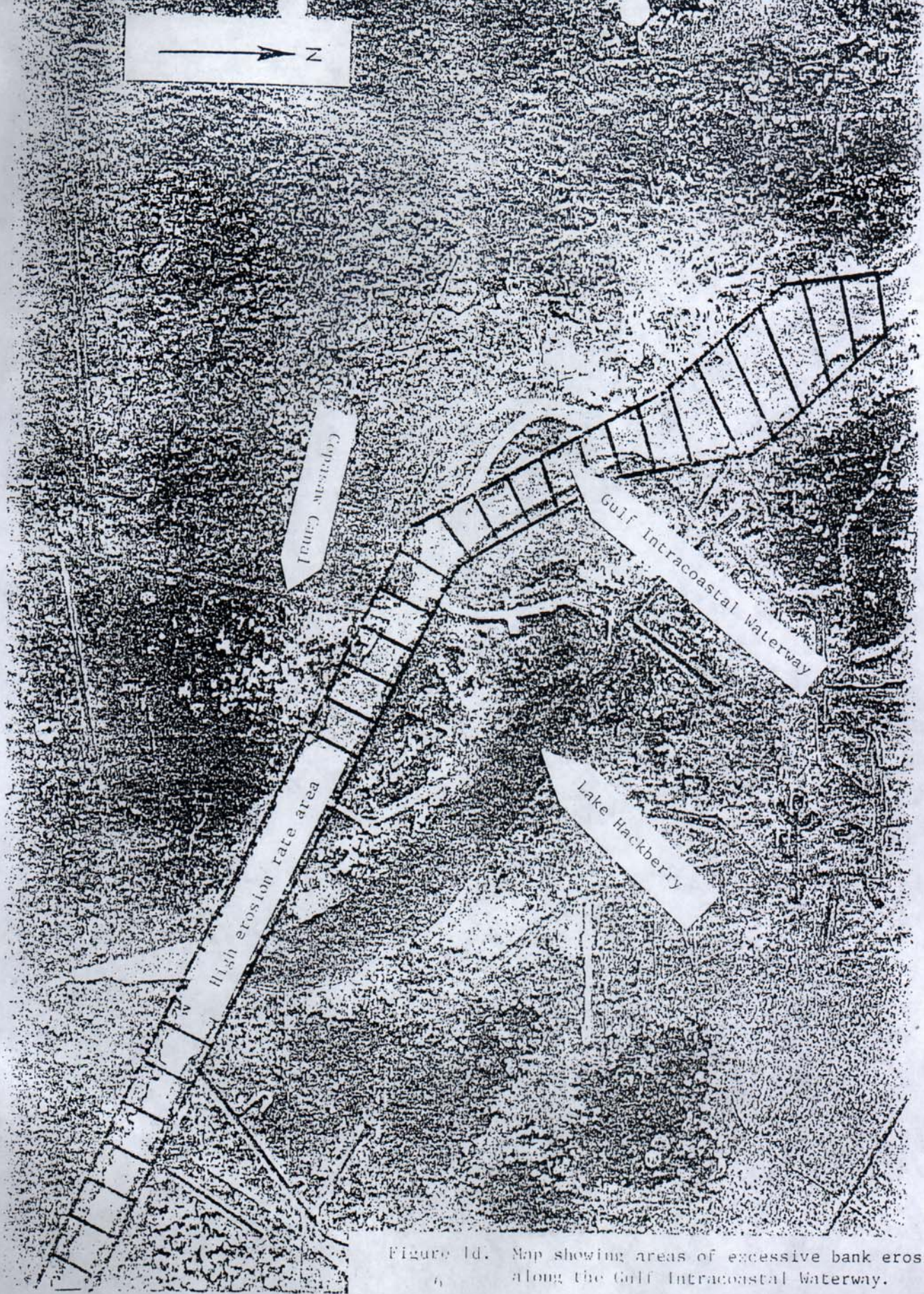


Figure 1d. Map showing areas of excessive bank erosion along the Gulf Intracoastal Waterway.

Figure 1c. Map showing areas of excessive bank erosion
along the Gulf Intracoastal Waterway.

Figure 11. Map showing areas of excessive bank erosi
8 along the Gulf Intracoastal Waterway.

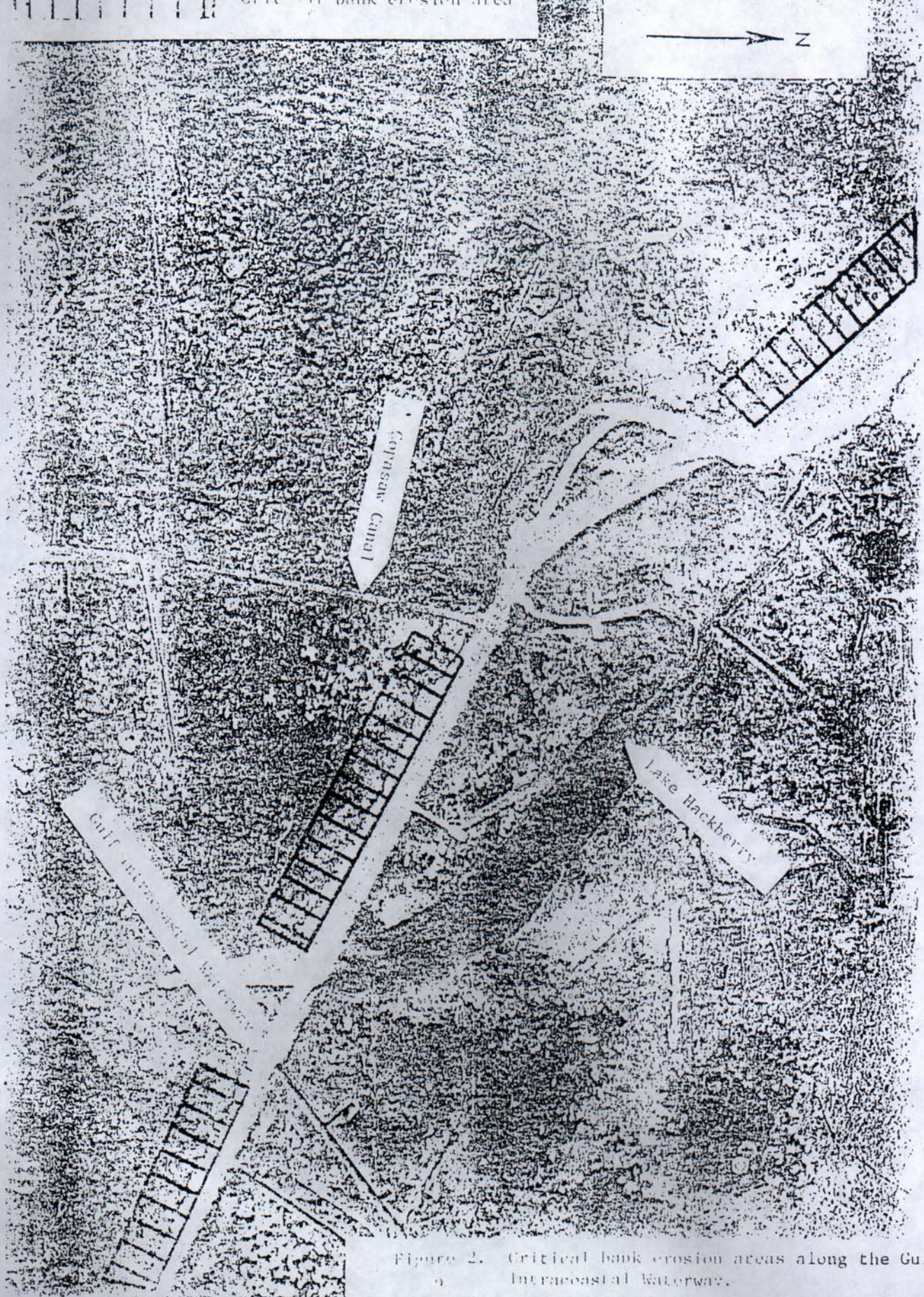


Figure 2. Critical bank erosion areas along the Gulf Intracoastal Waterway.

protective bulkheads or other wave-stilling devices, vegetative plantings, or a combination of those measures.

Preservation of existing marsh would also be aided by sealing off or reducing hydrologic connections between severely eroded marsh areas and the GIWW and Avoca Island Cutoff Channel, especially in areas of deep unconsolidated organic soils (Figures 3a. through 3c.). Potential techniques include spoil deposition, vegetative plantings, bulkhead construction, construction of brush fences or sediment fencing, or a combination of the above. Construction of the above-mentioned marsh preservation features could be accomplished under the authority of Section 906(b) of the Water Resources Development Act, which authorizes mitigation of existing water resource projects, or Section 1135 of that Act, which authorizes modification of projects for environmental improvement.

2. Construct the Avoca Island Freshwater Diversion Structure

The marshes in the Bayou Penchant-Turtle Bayou watersheds have experienced a reduction in nutrient and sediment input due to the construction of the Avoca Island Levee. Severe wetland loss has occurred in this area during the 1970's and 1980's. Construction and operation of the proposed Avoca Island Diversion Structure as a separable feature of the existing Avoca Island Levee would build marshes in Avoca Lake and improve delivery of riverine sediments and nutrients to the Bayou Penchant-Turtle Bayou watersheds. This would preserve existing marshes through enhanced vertical accretion and increased production and accumulation of organic material. Construction of this feature could be accomplished under the authority of Sections 906(b) or 1135 of the Water Resources Development Act.

3. Construct Five Large Water Control Structures in Western Terrebonne Parish

In recent years the marshes in the Bayou Penchant watershed north of the Mauvais Bois Ridge have experienced excessive water levels during the growing season. Such conditions routinely occur during periods of high Atchafalaya River stages, locally heavy precipitation, strong southerly winds, or a combination of the above. Those high water conditions have prohibited revegetation of deteriorated marshes and have contributed to the deterioration of formerly healthy marshes. Currently, landowners fear that the deteriorating floating marsh around the east end of the Mauvais Bois Ridge (between Lake Penchant and Lake Theriot) will be dislodged and washed away if these high water conditions persist.

Installation and operation of two large water control structures in the Mauvais Bois Ridge (Figure 4) would discharge excess fresh water toward the south. A third structure would be located on the east-west pipeline canal near Lake Theriot (Figure 5). For this structure to function, an existing plug which prohibits water exchange between the pipeline canal and Blind Bayou would have to be removed. Those

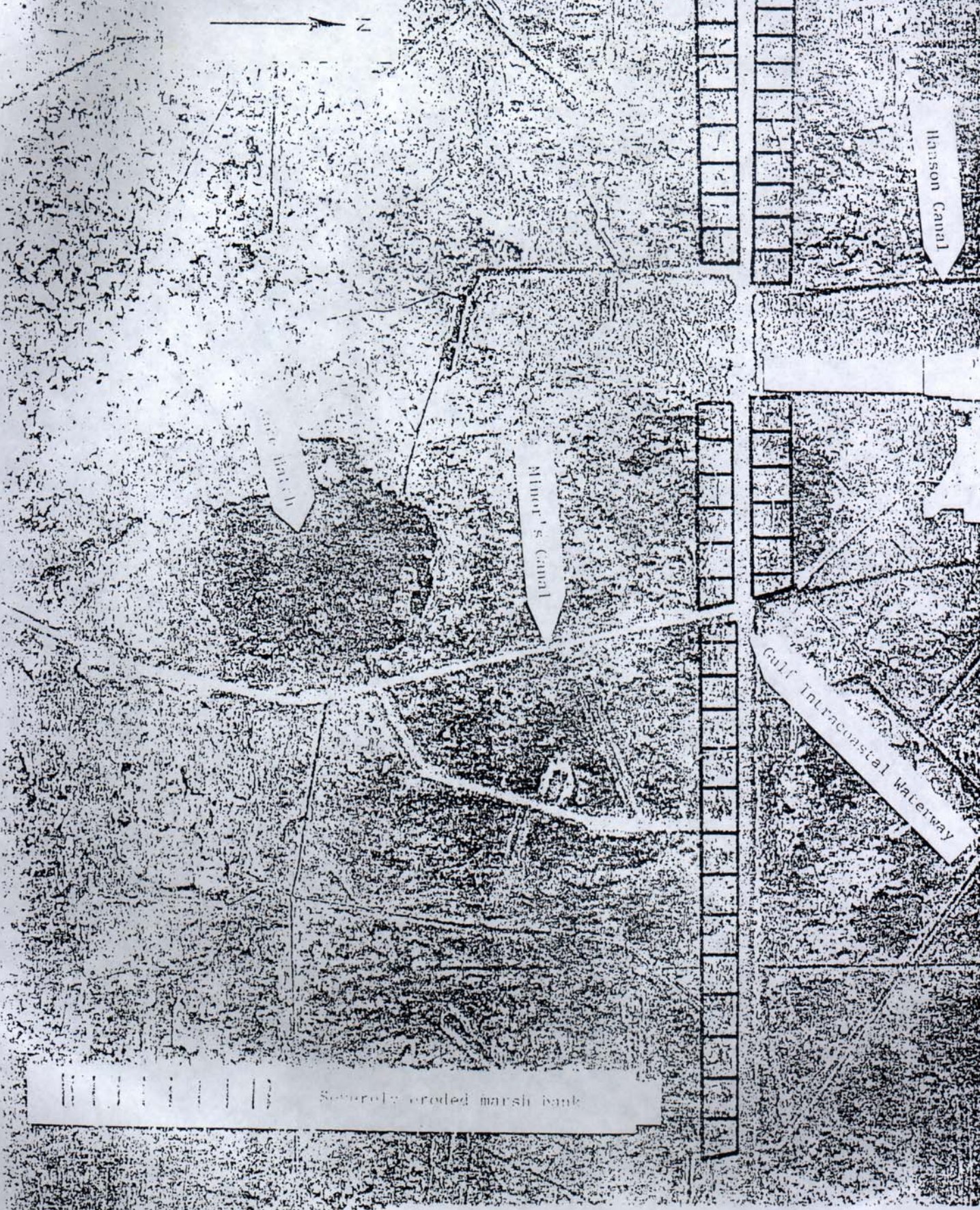


Figure 3a. Severely eroded marsh banks along the Gulf Intracoastal Waterway.

Figure 3b. Severely eroded marsh banks along the Avoca Island Cutoff Channel.

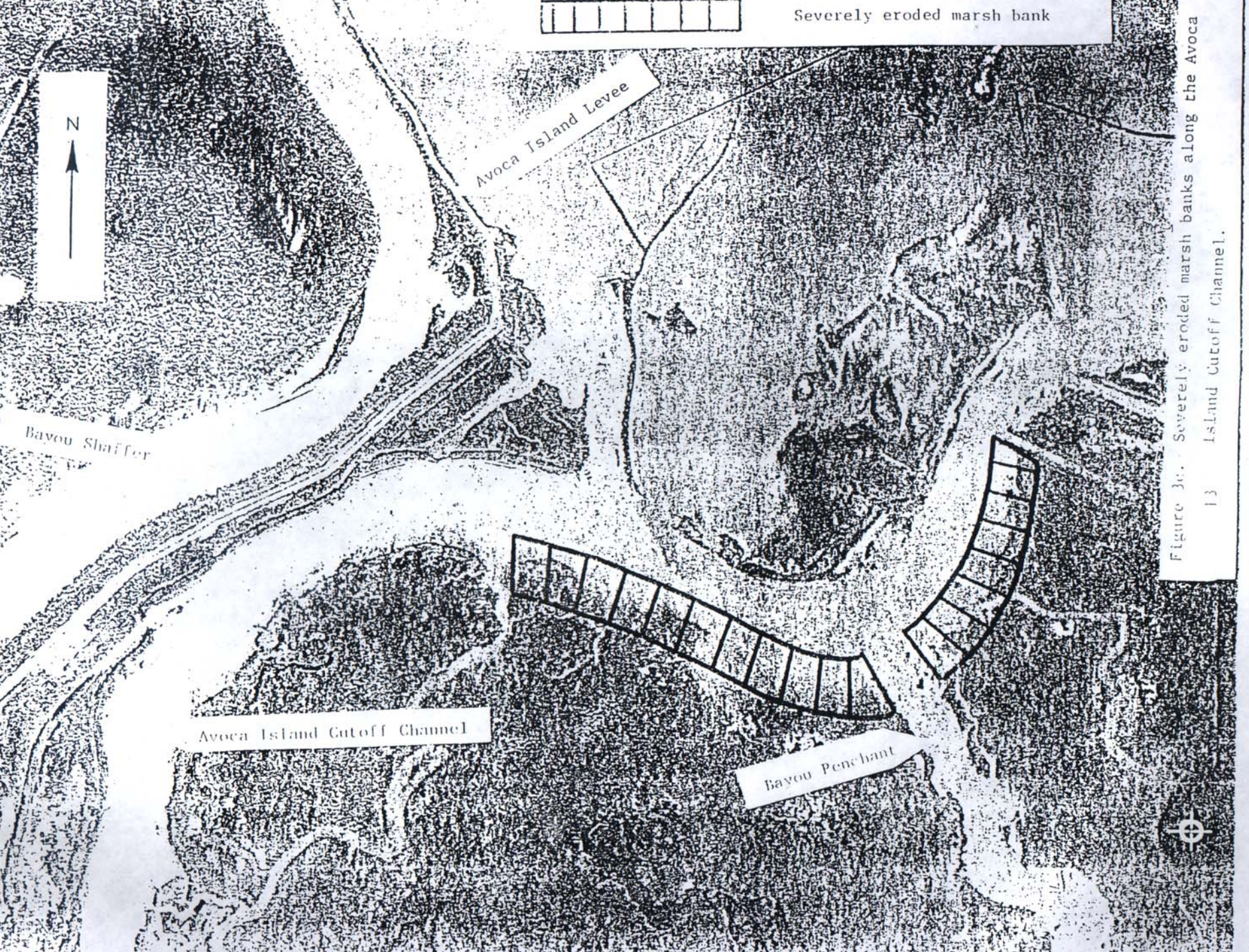


Figure 3c. Severely eroded marsh banks along the Avoca Island Cutoff Channel.

LETTERS OF SUPPORT FOR

NORTH LAKE MERCHANT – CU 2

TE-44(2)

Law Office
of
David Groner, P.L.C.
Trial Attorneys

724 S. Lewis St., 70560
P.O. Box 9207
New Iberia, LA 70562-9207
Phone 337 / 364-3629
Fax 337 / 367-2438
www.davidgroner.com

DAVID W. GRONER
FRANK E. BARBER
APRIL N. PETRY

File:

August 25, 2004

Colonel Peter J. Rowan
Chairman, CWPPRA Task Force
U.S. Corp of Engineers, New Orleans District
Executive Office
Post Office Box 60267
New Orleans, LA 70160-0267

RE: Project #TE-44
North Lake Merchant Land Bridge Restoration Project

Dear Colonel Rowan:

I would like to take this opportunity to express my support of Project #TE-44. Bayou L'eau Doux, LLC has a 30-year lease with Burlington Resources which involves 2,036 acres of the property. This property which is part of the northern boundary of Project #TE-44 is the southern boundary of our lease.

It is our desire that the CWPPRA Task Force will fund it this October. This project will help minimize salt water intrusion and greatly help with the serious land loss which as accelerated since Hurricane Andrew. By closing all the gaps that have been made in the small Bayou LaPointe Ridge, most traffic will have to follow Bayou Decade and Bayou Roccourci and then south instead of using our lease as a short cut.

It will certainly help rebuild the marsh as more fresh water comes in from the north. After the ridge is reinforced and the marsh is rebuilt, it will serve as a natural barrier for hurricane protection.

Taking all of the above into consideration, I therefore, ask for your support to fund this most worthwhile project.

Should you have any questions, please do not hesitate to contact me.

With kind regards, I remain

Sincerely,

DAVID GRONER, P.L.C.

BY: _____
DAVID GRONER

DG/psc

Enclosures

PU-C

Jerry Thibaut Boyce Jr.
Nobelstown Road Publishing Inc.
1625 Silliman Dr.
Baton Rouge, LA 70808

August 26, 2004

FAX 30 Aug 04

Colonel Peter J. Rowan
Chairman, CWPPRA Task Force
U.S. Corp of Engineers, New Orleans District
Executive Office
P.O. Box 60267
New Orleans, LA 70160-0267

RE: Project # TE-44 North Lake Mechant Land Bridge Restoration Project

Dear Colonel Rowan,

As a frequent visitor to the Lake Mechant, Bayou Decade, and Lake Decade areas I have seen a dramatic change in the landscape of those regions since the early 1990's and the affects of Hurricane Andrew. In fact, the amount of coastal erosion in this area is mind numbing, I reviewed the project TE-44 and believe it to be worthwhile, it is my opinion that the project has merit and should be funded by the Corp of Engineers.

Recently, the saltwater intrusion in the area is responsible for huge land loss and this project TE-44 would go along way in correcting the problem. By closing the gaps along the Bayou Lapointe Ridge it will help to rebuild the marsh and provide a lasting barrier in the event of the inevitable hurricane and or tropical storm coming out of the South.

Please consider supporting the funding of project TE-44.

Best Regards,

Jerry Boyce
Nobelstown Road Publishing Inc.

PM-C

August 26, 2004

POR 30 Aug 04

Colonel Peter J. Rowan
Chairman, CWPPRA Task Force
U.S. Corps of Engineers, New Orleans District
Executive Office
P.O. Box 60267
New Orleans, LA 70160-0267

Re: Project #TE-44
North Lake Mechant Land Bridge Restoration Project

Dear Colonel Rowan,

This letter is in support of the above proposed project. Having hunted and fished this area most of my life I have seen first hand the major effects erosion has caused on this beautiful and very fragile ecosystem. The funding and construction of this project is of the utmost importance.

The funding and completion of this project is very important to me and pray that you do whatever you can to see this through.

Sincerely,

Wendel Boudreaux
370 Cleveland St.
Houma, La. 70363
(985) 879-2860

BURLINGTON
RESOURCES

Houma District

HAND DELIVERED

September 9, 2004

CWPPRA Technical Committee Meeting
Baton Rouge, Louisiana

My name is Jeff DeBlieux I am representing The Louisiana Land and Exploration Company, a subsidiary of Burlington Resources.

We appreciate the opportunity to address the committee and express our views regarding the projects under consideration.

We have long been a supporter of coastal restoration activities in Louisiana. We have spent millions in the wetlands trying to stem the tide of coastal erosion. Since enactment of the CWPPRA Program, we have supported whole heartily both State and Federal efforts to restore, enhance or protect coastal wetlands. We along with Fina-LaTerre, now Apache were the first private entities to sponsor a coastal restoration project, the Brady Canal Project. We have also donated thousands of acres for coastal restoration projects namely the Barrier Islands and the West Belle Pass Restoration Projects. Working with public agencies we have issued numerous scientific research permits, servitudes and easements for other restoration projects. Most recently, we issued a permit covering portions of our property in a 7-parish area for the CRMS Study. We sincerely appreciate the cooperative efforts of all parties involved in protecting our coastal wetlands. Continuing with that effort of cooperation, we stand here before you requesting your support for 2 Projects we feel are important to preservation of coastal wetlands in Terrebonne Parish. We humbly request that the Technical Committee consider and recommend for approval TE-39, the South Lake DeCade Freshwater Project and TE-44, the North Lake Mechant Landbridge Restoration Project. We support both of these Projects and sincerely believe that they will be of great value in enhancing the wetlands of that area in Terrebonne Parish.

We thank your for your consideration in this matter.

P.O. Box 7097 Houma, LA 70361-7097 Telephone: 985.879.1517 Fax: 985.872.1509

PA-CN

August 22, 2004

24 Aug 04

Colonel Peter J. Rowan
Chairman, CWPPRA Task Force
U.S. Corp. of Engineers, New Orleans District
Executive Office
P.O. Box 60267
New Orleans, LA 70160-0267

Re: Project # TE-44
North Lake Merchant Land Bridge Restoration Project

Dear Colonel Rowan,

My family uses the area that will be protected by the North Merchant Land Bridge Restoration Project. We are very excited about this project and hope the CWPPRA Task Force will fund it this October. The project will minimize salt-water intrusion and greatly help with the serious land loss, which has accelerated since Hurricane Andrew. It will also help rebuild the marsh as more fresh water comes in from the north. After the ridge is reinforced and the marsh is rebuilt, it will serve as a natural barrier for hurricane protection.

For all of these reasons, I ask for your support to help the funding for this most worthy project. Thank you for your thoughtful consideration.

Sincerely,

Drew Luke

Drew Luke
1059 Marina Drive
Slidell, LA 70458

FM-C

Bayou L'eau Doux, LLC
664 Corporate Drive
Houma, LA 70360
985-876-0194

August 19 ,2004

Rec'd 23 Aug 04

Colonel Peter J. Rowan
Chairman, CWPPRA Task Force
U.S. Corp of Engineers, New Orleans District
Executive Office
P. O. Box 60267
New Orleans, LA 70160-0267

Re: Project #TE-44
North Lake Mechant Land Bridge Restoration Project

Dear Colonel Rowan,

The Bayou L'eau Doux, LLC has entered into a 30 year lease with Burlington Resources which involves 2,036 acres of property. I have enclosed a copy of the map of our area for your review. As you can see, part of the northern boundary of Project #TE-44 is the southern boundary of our lease.

We are very excited about this project and hope that the CWPPRA Task Force will fund it this October. The project will minimize salt water intrusion and greatly help with the serious land loss which has accelerated since Hurricane Andrew. By closing all the gaps that have been made in the small Bayou LaPointe Ridge, most traffic will have to follow Bayou Decade and Bayou Roccourci and then south instead of using our lease as a short cut. It will also help rebuild the marsh as more fresh water comes in from the north. After the ridge is reinforced and the marsh is rebuilt, it will serve as a natural barrier for hurricane protection.

For all of these reasons, I ask for your support to find the funding for this most worthy project. Thank you for your thoughtful consideration.

Sincerely,

Steven M. Griffin
Director
Bayou L'eau Doux, LLC

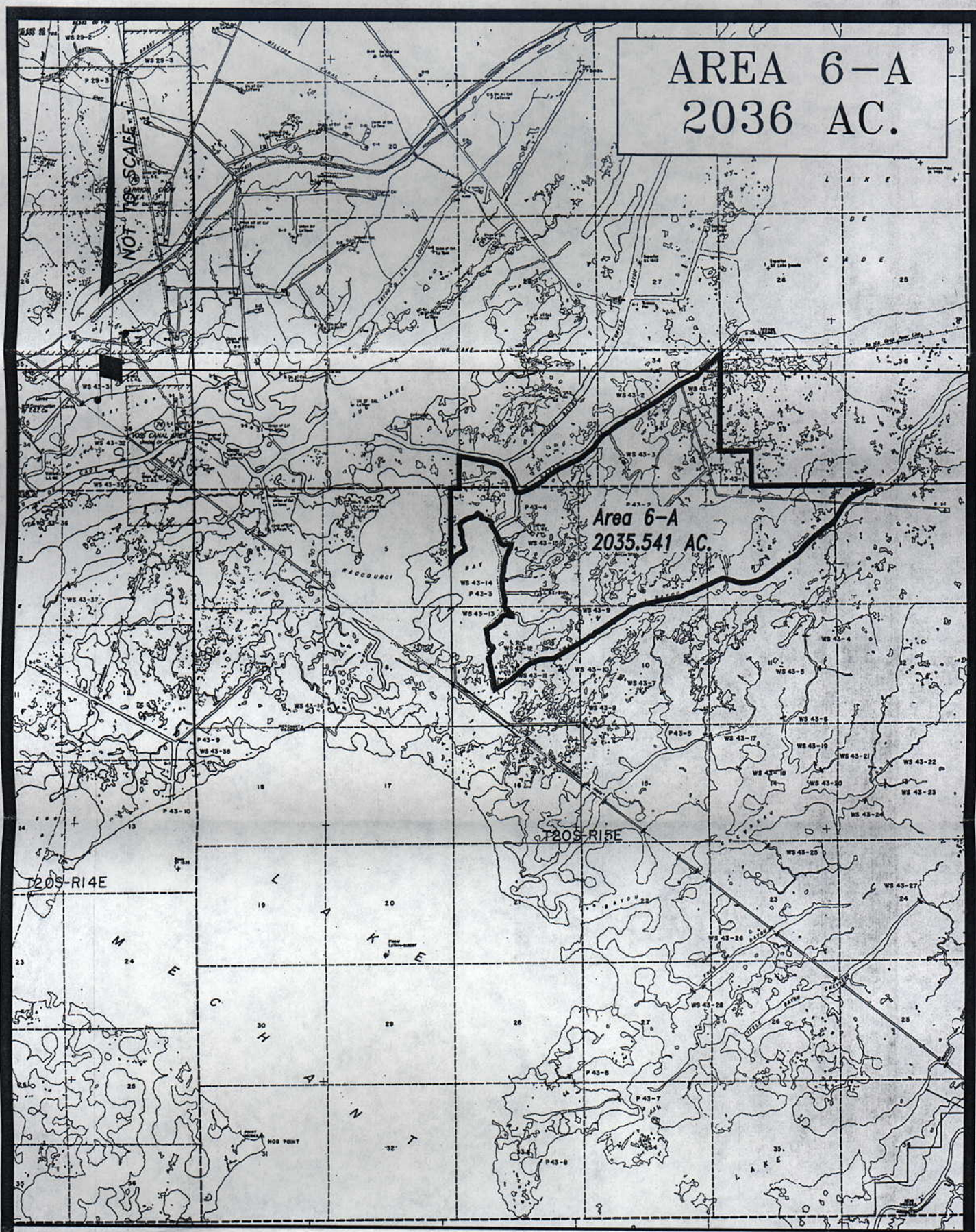


EXHIBIT "B"

MAP SHOWING
BURLINGTON RESOURCES'S
LONG TERM LEASE AREA NO. 6-A

LOCATED IN
SEC. 33,34,35, T19S-R15E
SEC. 1,2,3,4,9,&10, T20S-R15E

TERREBONNE PARISH, LOUISIANA
APRIL 1, 2002

LETTERS OF SUPPORT FOR

DEDICATED DREDGING ON BARATARIA BASIN LB

BA-36

JEFFERSON PARISH
LOUISIANA

OFFICE OF PARISH PRESIDENT

AARON F. BROUSSARD
PARISH PRESIDENT

September 8, 2004

Mr. John Saia, Chairman
Technical Committee
Coastal Wetlands Planning, Protection and Restoration Act
U.S. Army Engineer District, New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Saia:

The National Oceanic and Atmospheric Administration (NOAA) predicted that the 2004 hurricane season could bring above normal activity with the possibility of 15 tropical storms, and as many as 8 of these becoming hurricanes, with 2 to 4 becoming major hurricanes. Unfortunately, the past few weeks' storm activity gives credence to this prediction. Fortunately, Louisiana has not been in the path of any of this season's major storms, but we all know that it's just a matter of time. Meanwhile, emergency management personnel are warning that, to ensure the safety of our citizens, an evacuation of this area may be required for even a Category 2 hurricane.

The single most important defense against the devastating effects of a hurricane storm surge is our coastal wetlands, which are being lost in Jefferson Parish at an alarming rate. The Barataria Basin Landbridge has long protected the upper basin from the severe erosion that has devastated the lower basin. But with the loss of more and more land in the lower basin, this critical land mass has been subjected to increased wave energy, and the resulting erosion has severely limited its protective ability.

Therefore, on behalf of the residents of Jefferson Parish, I strongly urge the CWPPRA Technical Committee to approve the U.S. Fish and Wildlife Service's request for construction funding for the Dedicated Dredging on the Barataria Basin Landbridge (BA-36), as well as the Natural Resources Conservation Service's request for funding to complete Construction Units 4 and 5 of the Barataria Landbridge Shoreline Protection (BA-27 and BA-27c (1)). Both projects will help stabilize this critical central landbridge, which protects the entire west bank of Jefferson Parish, particularly Lafitte, from storm surges. These projects are in an area that has one of the fastest erosion rates in the state; thus, it is crucial that these projects be completed as quickly as possible. We can not risk waiting for another funding cycle. These projects will not only protect and restore a critical land mass, but will protect and preserve the valuable freshwater marshes of the upper Barataria Basin and the urbanized areas of Jefferson Parish.

Sincerely,

Aaron F. Broussard
Parish President

cc: All Parish Council Members
Congressional Delegation
Mr. Scott Angelle, Secretary, LDNR
CWPPRA Technical Committee Members
CWPPRA Task Force Members

SUITE 1002 - 1221 ELMWOOD PARK BOULEVARD - JEFFERSON, LOUISIANA 70123
P. O. BOX 10242 JEFFERSON, LOUISIANA 70181-0242 - (504) 736-6400

TOWN OF JEAN LAFITTE
OFFICE OF THE MAYOR

TIMOTHY P. KERNER
MAYOR

YVETTE CRAIN
TOWN CLERK

CLARENCE MATHERNE
CHIEF OF POLICE

Route 1, Box 1
Lafitte, Louisiana 70067
Office: (504) 689-2208
Police: (504) 689-3132
Fax: (504) 689-7801

ALDERMEN

LEO E. KERNER, JR.
MAYOR PROTEM

ELAINE BADEAUX
SHIRLEY GUILLIE
VERNA SMITH
CALVIN LEBEAU

September 8, 2004

Mr. John Saia, Chairman
Coastal Wetlands Planning, Protection and
Restoration Act Technical Committee
U.S. Army Engineer District, New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Saia:

This letter is to request that you, and the other members of the CWPPRA Technical Committee, give favorable consideration to the funding requested for projects that protect and restore the Barataria Basin Landbridge. The critical land mass protects the homes, businesses and infrastructure of the Town of Jean Lafitte. The landbridge also slows saltwater from entering the mostly freshwater marshes of the upper Barataria Basin, preserving intermediate marsh habitat needed to sustain our commercial and recreational fisheries. The Barataria Basin Landbridge protects our lives and our livelihoods.

For years, we have watched the land erode away, converting meandering bayous into large areas of open water. Finally, after passage of the Coastal Wetlands Planning, Protection and Restoration Act, shoreline protection was put in place to slow erosion along many stretches of Bayous Perot and Rigolettes. Now it is time to complete that shoreline protection and fill the open water areas in the interior marsh to create new marsh and nourish existing marshes. Therefore, on behalf of the residents of the Town of Jean Lafitte, and as vice-president of the West Jefferson Levee District, I strongly urge the CWPPRA Technical Committee to approve the U.S. Fish and Wildlife Service's request for construction funding for Dedicated Dredging on the Barataria Basin Landbridge (BA-36), as well as the Natural Resources Conservation Service's request for funding of Construction Unit 4 and Construction Unit 5 to complete the Barataria Landbridge Shoreline Protection (BA-27 and BA-27c(1)). These two projects are critical

to the sustainability of the landbridge in protecting the Town of Jean Lafitte, and indeed the entire west bank of Jefferson Parish, from storm surges.

Thank you for your consideration of this request and for your efforts to protect and restore coastal Louisiana.

Sincerely,

Timothy P. Kerner, Mayor
Town of Jean Lafitte

Cc: Hon. Mary Landrieu
Hon. J. Chris Ullo
Hon. Ernest Wooton
Hon. Aaron Broussard
Mr. Scott Angelle, Secretary LDNR
Mr. Harry Cahill, III, President, WJLD
CWPPRA Technical Committee Members
CWPPRA Task Force Members

Ed Perrin
Sixth Ward Association for Progress (SWAP)
4637 Jean Lafitte Blvd.
Lafitte, Louisiana 70067
504-689-3747

Mr. Perrin stated that:

He supports the comments made by Mr. Ray Champagne and he spoke with Eddie Sapia, and he also supports Mr. Champagne's comments.

He was in the area of the projects just yesterday and the segments of Barataria Basin Landbridge Shoreline Protection that have been completed are working. There is no settling, and the grasses behind the breakwater are starting to grow good and look real nice. The projects are doing their job around Little Temple and from Humble Canal to Point Lagarde going into Little Lake.

The area where projects are proposed (near the Harvey Cut) is the place that's eroding, and eroding fast. These projects are really needed. This is a high energy area, especially when the wind is from the northeast.

If something is not done, and done real fast, the placement of the rocks will have to be moved back 200 to 300 feet. Otherwise, it will be too far from the shoreline to provide the protection that is intended.

He urges the committee to approve the funding now, because waiting will only increase the cost of the projects.

The above comments were provided for me to read into the record by Mr. Perrin in a 9-8-04 phone conversation.

Vickie Duffourc
504-347-3600

Ray Champagne
541 Westwood Drive
Marrero, Louisiana 70072

September 8, 2004

CWPPRA Technical Committee
U.S. Army Engineer District, New Orleans
P.O. Box 60267
New Orleans, LA 70160-0267

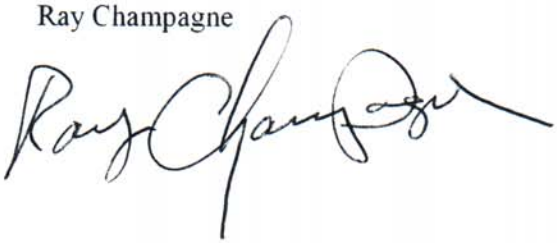
Dear Technical Committee Members:

I represent the members of the sixth ward civic association, known as the Sixth Ward Association for Progress (SWAP), in Jefferson Parish and have been involved in coastal restoration since 1990. The projects that we have introduced are crucial to the community. And this is a thriving community with a high school, concerned citizens and business owners. The danger poised to this community by not addressing the landbridge proposals would be detrimental to the community, since this is a heavy populated area where the landbridge projects are being constructed. The proximity of this community to the site of these projects would be approximately 1 to 2 miles. It is our sincere hopes that the committee would concider the people in this community when making decisions that affect the future of the landbridge projects and the future of the community in which we live.

I would like to thank the committee for their consideration of this request from a concerned property owner and from the concerned citizens of the Sixth Ward.

Sincerely,

Ray Champagne



LETTERS OF SUPPORT FOR

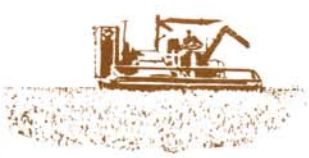
GRAND LAKE SHORELINE PROTECTION

ME-21

STEVE TRAHAN
PRESIDENT
SCOTT TRAHAN
VICE PRESIDENT
EARNESTINE T. HORN
ADMINISTRATOR
BONNIE W. CONNER
SECRETARY-TREASURER

POLICE JURY
PARISH OF CAMERON
P. O. BOX 366
CAMERON, LOUISIANA 70631
(337) 775-5718
(337) 775-5567 Fax
cppjury@camtel.net

DISTRICT 1
MAGNUS "SONNY" McGEE
DISTRICT 2
STEVE TRAHAN
DISTRICT 3
CHARLES PRECHT III
DISTRICT 4
DOUAINE CONNER
DISTRICT 5
SCOTT TRAHAN
DISTRICT 6
JAMES DOXEY
DISTRICT 7
DARRYL FARQUE



RESOLUTION

STATE OF LOUISIANA
PARISH OF CAMERON

WHEREAS, Cameron Parish has countless coastal and wetland erosion problems; and

WHEREAS, the Coastal Wetland, Planning, Protection and Restoration Act, (CWPPRA), "Breaux Bill Act", can help fund these coastal and wetland erosion projects; and

WHEREAS, the following projects are ready for Phase 2 Funding in the **Mermentau River Basin:** ***ME-16*** "Hwy. 82 Freshwater Introduction" and ***ME-21*** "Grand Lake Shoreline Protection".

NOW THEREFORE BE IT RESOLVED, that the Cameron Parish Police Jury does support and requests funding the above mentioned projects and the Secretary shall send this resolution to the CWPPRA Agencies requesting their support in funding these projects.

ADOPTED AND APPROVED, this 7th day of September, 2004.

APPROVED:

Steve Trahan, President
CAMERON PARISH POLICE JURY

ATTEST:

Bonnie W. Conner, Secretary

GERALD J. THEUNISSEN
State Senator
District 25
Post Office Box 287
Jennings, LA 70546
(337) 824-0376

Senate
State of Louisiana

COMMITTEES:
Agriculture, Vice Chairman
Education
Retirement
Select Committee on Homeland Security, Vice Chairman
Select Committee on Coastal Restoration & Flood Control

September 8, 2004

Coastal Wetland Planning, Protection and Restoration Act
Task Force

Dear Colonel Peter Rowan,

Please accept this letter as our complete support for the funding for Phase 2 in the **Mermentau River Basin**: ME-16 "Hwy. 82 "Freshwater Introduction" and ME-21 "Grand Lake Shoreline Protection".

The status of our coastal wetlands is of great concern to the citizens of our communities. These projects will have a tremendous positive impact on Cameron Parish, Southwest Louisiana and efforts towards the restoration of our coast.

Your favorable consideration for funding of Phase 2 of the **Mermentau River Basin** would be appreciated.

Sincerely,

Gerald J. Theunissen
State Senator
District 25

Dan W. Morrish
State Representative
District 37

LOUISIANA HOUSE OF REPRESENTATIVES

3221 Ryan Street
P. O. Box 6027
Lake Charles, Louisiana 70601
Email: larep036@legis.state.la.us
Phone: 337.477.1334
Fax: 337.477.1336

Commerce
Insurance

DAN FLAVIN
State Representative - District 36

September 8, 2004

Col. Peter Rowan

Re: Cameron Parish Coastal and Wetland Erosion Projects

Dear Col. Rowan:

Please accept this letter as my support for the following coastal and wetland erosion projects in Cameron Parish.

ME-16 "Hwy 82 Freshwater Introduction"
ME-21 "Grand Lake Shoreline Protection"

It is important to note that each of these projects are ready for Phase 2 Funding in the Mermentau River Basin.

Your consideration of these projects is greatly appreciated.

With best personal regards,

Sincerely yours,

Dan Flavin

DF/gg

LOUISIANA HOUSE OF REPRESENTATIVES

529 Tramel Road
Dry Creek, LA 70637
Email: larep032@legis.state.la.us
Phone: 337.639.2118
800.259.2118
Home: 337.639.2341
Fax: 337.639.4045

HERMAN RAY HILL
State Representative - District 32

Vice Chairman, Agriculture, Forestry, Aquaculture and Rural Development
Natural Resources
Ways and Means
Joint Legislative Committee on Capital Outlay
House Executive Committee
House Legislative Services Council
Legislative Rural Task Force

September 8, 2004

To Whom It May Concern:

I am writing this letter to you in support of the request that the Cameron Parish Police Jury has submitted to you in their endeavor to secure funding from the Coastal Wetland, Planning, Protection and Restoration Act, (CWPPRA), "Breaux Bill Act".

These funds would be used on the following projects that are ready for Phase 2 funding in the **Mermentau River Basin: ME-16** "Hwy. 82 Freshwater Introduction" and **ME-21** "Grand Lake Shoreline Protection".

Cameron Parish has countless coastal and wetland erosion problems and are need of these funds to help with this. I would appreciate any help that you could give in securing these funds for Cameron Parish Police Jury.

Sincerely,

Herman Ray Hill

Herman Ray Hill
State Representative
District 32

HRH/cs

James David
CAIN
SENATOR

P.O. BOX 640 • DRY CREEK, LOUISIANA 70637 • TELEPHONE (337) 328-7266

September 8, 2004

To Whom It May Concern:

It is a pleasure for me to offer my wholehearted support to the Cameron Parish Police Jury as they request funding from the Coastal Wetland, Planning, Protection and Restoration Act, (CWPPRA), "Breaux Bill Act."

The funds will be used for Phase 2 of a couple of projects that are very important to Cameron Parish. The Mermentau River Basin: ME-16 "Hwy. 82 Freshwater Introduction: and ME-21 "Grand Lake Shoreline Protection." The countless coastal and wetland erosion problems in Cameron Parish could be eased if these funds were approved.

Please share my interest in Cameron Parish Police Jury and give their application every consideration. Thank you.

Sincerely,

James David Cain
State Senator

JDC/ns

Committees: Insurance, Chairman, Environmental Quality, Natural Resources, Energy Council
Parishes: Beauregard, Calcasieu, Vernon
E-mail: cainjd@legis.state.la.us

LETTERS OF SUPPORT FOR

RACCOON ISLAND SHORELINE PROECTION

TE-48

PM-C
TOP

KATHLEEN BABINEAUX BLANCO
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF SECRETARY

DWIGHT LANDRENEAU
SECRETARY

August 27, 2004

FAX 30 Aug 04

Colonel Peter J. Rowan
District Engineer
U.S. Army Corps of Engineers, New Orleans District
Executive Office
P.O. Box 60267
New Orleans, LA 70160-0267

RE: TE-48 Shoreline Protection Project

Dear Colonel Rowan:

I had the opportunity on Thursday, August 19 to visit Raccoon Island, one of several islands within the Louisiana Department of Wildlife and Fisheries' Isles Dernieres Barrier Islands Refuge Complex. The bird habitat and presence of numerous species was quite impressive. I was equally impressed with the success of the existing eight breakwaters constructed as part of the TE-29 Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Demo Project.

While I am aware that the initial project was not supported by several members of the academic community prior to its construction in 1997, my observation of sand accumulation behind breakwaters 2 through 7 clearly demonstrates that results have been achieved. More importantly, I am convinced from my recent visit of the urgent need to get funding approval for the proposed TE-48 Shoreline Protection Project. That funding would extend the breakwaters to the west end of the island, which continues to rapidly erode.

There have been suggestions that sand nourishment without breakwaters is the best remedy and there may be examples of that approach used successfully in other locations. But at Raccoon Island, sand was deposited on the beach in 1994 and most of it was gone before the breakwaters were completed in 1997. Additionally, I do not see evidence of any long-term funding commitments for sand nourishment. I would certainly expect that any LCA (Louisiana Coastal Area) funding for Isle Dernieres would include the entire refuge island chain and LDWF will support such funding.

Although the CWPPRA process for selecting projects has no provision for wildlife species assessment, there can be little question that this project is most significant with respect to the benefit it affords wildlife species, as well as restoration of barrier island land mass.

At the request of the Louisiana Department of Natural Resources, a sediment budget was performed for this project by Coastal Planning and Engineering, Inc., which adequately addressed all previous concerns. Based on the results of their comprehensive study and the favorable results of the existing demonstration breakwaters, LDWF believes that it is imperative that the construction phase of the currently proposed TE-48 project be funded without further delay.

I would appreciate your support in getting this project funded.

Sincerely,

Dwight Landreneau
Secretary

-----Original Message-----
From: Rowan, Peter J Col MVN
Sent: Wednesday, September 08, 2004 7:49 AM
To: LeBlanc, Julie Z MVN
Subject: FW: Thursday'sCWPPRA meeting

-----Original Message-----
From: CACTUSCLYD@aol.com [mailto:CACTUSCLYD@aol.com]
Sent: Tuesday, September 07, 2004 5:46 PM
To: Rowan, Peter J COL
Subject: Thursday'sCWPPRA meeting

Dear Colonel Rowan,

Concerning the CWPPA projects coming up at Thursday's meeting I would like to put in a word in for the project to add eight jetties to Raccoon Island in the Last Island Group. I have had the opportunity to see the wading and sea bird rookery there and know it is one of the most important on the coast due to overall population and diversity of species. I know it has the reddish egret, a rare nester in the state and one of the largest colonies of Roseate Spoonbills. The spoonbill is a valuable asset to the ecotourism in Louisiana. I have seen at least fourteen species of birds nesting there.

The barrier Island of course are our first line of defense to protect the bays and the marsh from the brunt of the storms and waves. Thus protecting fish and wildlife habitat as well as pipelines and people. All-important to me. I am guessing, for I am not a scientist or an economist, that in the priority of saving the coast the best bet would be to protect our barrier islands and work our way in. Never-the-less Raccoon and other barrier islands should be shored up the best and the quickest way you have with the knowledge and science you have accumulated.

CC Lockwood
Marshmission Team

LETTERS OF SUPPORT FOR SOUTH WHITE LAKE

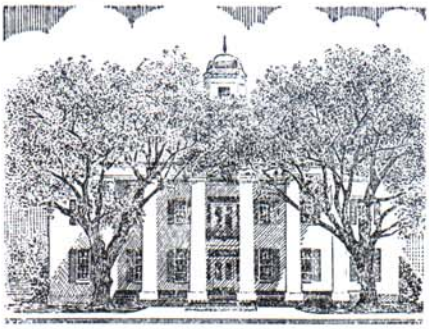
ME-22

PM-C

HUBERT FAULK
PRESIDENT

MARK POCHÉ
VICE-PRESIDENT

MICHAEL J. BERTRAND
SECRETARY-TREASURER



VERMILION PARISH POLICE JURY
Courthouse Bldg.
100 N. State St., Suite 200
Abbeville, Louisiana 70510

337-898-4300
FAX 337-898-4310

MEMBERS

DISTRICT 1
CARROLL DUHON
8305 DUHON ROAD
MAURICE, LA 70555
(337) 893-8282

DISTRICT 2
HUBERT FAULK
11024 LA HWY 697
ABBEVILLE, LA 70510
(337) 893-3197

DISTRICT 3
MINOS BROUSSARD
719 E. LASTIE
ERATH, LA 70533
(337) 937-6462

DISTRICT 4
RONALD DARBY
1617 MAUDE AVE
ABBEVILLE, LA 70510
(337) 893-5145

DISTRICT 5
WAYNE TOUCHET
505 EATON DRIVE
ABBEVILLE, LA 70510
(337) 893-1246

DISTRICT 6
MARK POCHÉ
1013 SOUTH BROADWAY STREET
ERATH, LA 70533
(337) 937-4900

DISTRICT 7
E. J. BROUSSARD
208 NORTH LYMAN STREET
ABBEVILLE, LA 70510
(337) 893-8124

DISTRICT 8
EDVAL SIMON, JR.
103 SUIRE DR.
DELCAMBRE, LA 70528
(337) 685-2226

DISTRICT 9
MAXWELL CHREENE
3146 VETERANS MEMORIAL DR
ABBEVILLE, LA 70510
(337) 893-1370

DISTRICT 10
GAULMAN GASPARD
157 RICHELIEU CIRCLE
KAPLAN, LA 70548
(337) 643-1300

DISTRICT 11
RAVIS MENARD
12620 LA HWY 695
KAPLAN, LA 70548
(337) 643-8502

DISTRICT 12
PURVIS ABSHIRE
802 LEJEUNE
KAPLAN, LA 70548
(337) 643-8874

DISTRICT 13
T. J. PREJEAN, JR.
17507 LA HWY 35
ABBEVILLE, LA 70510
(337) 643-2200

DISTRICT 14
LUTHER "BUSTER" HARDEE
9902 HANNAH (PVT) ROAD
KAPLAN, LA 70548
(337) 536-6970

August 20, 2004

POL 23 Aug 04

Colonel Peter J. Rowan
Chairman
CWPPRA TASK FORCE
P.O. Box 60267
New Orleans, LA 70160-0269

RE: South White Lake Shoreline Protection Project
CWPPRA Project No. MG-22

Dear Colonel Rowan:

In action taken at their August 2, 2004 meeting, the Vermilion Parish Police Jury did resolve to join with the Vermilion Parish Coastal Restoration Advisory Committee in endorsing and supporting the South White Lake Shoreline Protection Project for funding in the current Priority Project Listing.

The Vermilion Parish Police Jury acknowledges this project as its priority funding project in the CWPPRA program cycle.

The Police Jury thanks you for the opportunity to address this matter.

Should you have any questions, or need additional information, please feel free to call on us.

Very truly yours,
Michael J. Bertrand
Michael J. Bertrand
Secretary-Treasurer

Cc: Mr. John Saia @ U.S. Army Corps Of Engineers-New Orleans District
State Senator Nick Gautreaux
State Representative Mickey Frith

DUPLASS
ZWAIN
BOURGEOIS
& MORTON

LAWRENCE J. DUPLASS
GARY M. ZWAIN (1)
DAVID J. BOURGEOIS
JOSEPH B. MORTON, III
C. MICHAEL PFISTER
GREGORY O. CURRIER (2)
ANDREW D. WEINSTOCK (1)
GEOFFREY P. CLEMENT

GUYTON H. VALDIN, JR.
KELLY CAMBRE BOGART
CLAIRE BREAUX VENTOLA
CHRISTIAN B. BOGART
JOSEPH G. GLASS (2)
DANA ANDERSON-CARSON
KEVIN R. DERHAM
MAGALI PUENTE MARTIN

SHANNON CASEY RODRIGUEZ
PETER R. TAFARO
MONICA E. GANT

- OF COUNSEL -
KENNETH J. BERKE

(1) also admitted in Texas
(2) also admitted in Mississippi

August 26, 2004

Colonel Peter J. Rowan
District Engineer, New Orleans
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

Dear Col. Rowan:

It is my understanding that the Coastal Wetland Planning, Protection and Restoration Act (CWPPRA) Task Force will be meeting on October 13, 2004 to authorize several CWPPRA projects for Phase II (construction) funding. I would like to take this opportunity to express my support for the Region 4, South White Lake Shoreline Protection (ME-22) project. This project will not only protect the south shore of White Lake from further wave erosion, it will prevent the breaching of White Lake into management districts to the south. Should White Lake breach the management district protection levees of the Kaplan Tract, Bull Pasture and Green Tract, the existing fresh marsh in these units will rapidly convert to open water as can be demonstrated by similar management units breached south of Pecan Island. There will not only be instantaneous wetland loss, but the shoreline of White Lake will migrate approximately two miles south to LA Hwy. 82. LA Hwy. 82 is the only highway into and out of the area and serves as a major hurricane evacuation route for the Grand Chenier and Pecan Island communities.

This project has broad range support and has been the primary project of importance for Vermilion Parish since its selection as the number one project for PPL-12. The South White Lake Shoreline Protection will create and/or protect approximately 844 acres of marsh, has excellent cost effectiveness, is of low risk and is the only project up for Phase II funding consideration that will provide direct protection to a rural community and its associated infrastructure. In addition, the South White Lake Shoreline Protection Project is being recommended as the host project for conducting the CWPPRA Shoreline Protection Foundation Improvement Demonstration Project (LA-06) because this location provides a relatively harsh wave environment and has a high shoreline erosion rate.

It cannot be stressed enough the importance of this project to the preservation of wetlands in the area and the sustainability of the Pecan Island community. Thank you for your attention in this matter.

Sincerely,

Signature: _____

Title: Trustee; Currier Children Trusts.

Address: see below.

#M-C

Date August 26, 2004

30 Aug 04

Colonel Peter J. Rowan
District Engineer, New Orleans
U. S. Army Corps of Engineers
P. O. Box 60267
New Orleans, LA. 70160

Dear Col. Rowan:

The Coastal Wetland Planning, Protection and Restoration Act (CWPPRA) will meet to authorize projects for Phase II funding. As a resident and landowner in Region 4, I would take this opportunity to express my support for the South White Lake Shoreline Protection Project, (ME22). The project will protect the south shore of White Lake, create marsh, protect management areas and protect Hwy. 82 (the only hurricane route for Grand Cheniere and Pecan Island residents).

The lives and livelihood of the community of Pecan Island depend on the protection the project will provide.

Thanks for your consideration.

Sincerely,

Name: Sherrill J. Sagrera
Title: Local Landowner
Address: 12139 W. LA. Hwy. 82
Abbeville, LA. 70510

Pu-C

RELLIM

SURFACE MANAGEMENT, L.L.C.

P.O. BOX 4207
NEW ORLEANS, LA 70185-4207

504.616.5700
FAX 800.886.2650
rellimsm@bellsouth.net

August 26, 2004 Rec'd 30 Aug 04

Colonel Peter J. Rowan
District Engineer, New Orleans
U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

RE: REGION 4, SOUTH WHITE LAKE SHORELINE PROTECTION (ME-22) PROJECT

Dear Col. Rowan:

It is my understanding that the Coastal Wetland Planning, Protection and Restoration Act (CWPPRA) Task Force will be meeting on October 13, 2004 to authorize several CWPPRA projects for Phase II (construction) funding. I would like to take this opportunity to express my support for the Region 4, South White Lake Shoreline Protection (ME-22) project. This project will not only protect the south shore of White Lake from further wave erosion, it will prevent the breaching of White Lake into management districts to the south. Should White Lake breach the management district protection levees of the Kaplan Tract, Bull Pasture and Green Tract, the existing fresh marsh in these units will rapidly convert to open water as can be demonstrated by similar management units breached south of Pecan Island. There will not only be instantaneous wetland loss, but the shoreline of White Lake will migrate approximately two miles south to LA Hwy. 82. LA Hwy. 82 is the only highway into and out of the area and serves as a major hurricane evacuation route for the Grand Chenier and Pecan Island communities.

This project has broad range support and has been the primary project of importance for Vermilion Parish since its selection as the number one project for PPL-12. The South White Lake Shoreline Protection will create and/or protect approximately 844 acres of marsh, has excellent cost effectiveness, is of low risk and is the only project up for Phase II funding consideration that will provide direct protection to a rural community and its associated infrastructure. In addition, the South White Lake Shoreline Protection Project is being recommended as the host project for conducting the CWPPRA Shoreline Protection Foundation Improvement Demonstration Project (LA-06) because this location provides a relatively harsh wave environment and has a high shoreline erosion rate.

It cannot be stressed enough the importance of this project to the preservation of wetlands in the area and the sustainability of the Pecan Island community. Thank you for your attention in this matter.

Sincerely,

Martin O. Miller, III

cc: Randy Moerlte

YP
PM-C

Courthouse Building
100 North State Street • Suite 130
Abbeville, Louisiana 70510
E-Mail: larep047@legis.state.la.us
Telephone: (337) 893-5035 • (337) 643-2381
Fax: (337) 898-1160

STATE OF LOUISIANA

HOUSE OF REPRESENTATIVES

MICKEY FRITH
District 47

Agriculture
Commerce
Natural Resources

August 24, 2004

Colonel Peter J. Rowan
Chairman
CWPPRA TASK FORCE
P. O. Box 60267
New Orleans, LA. 70160-0269

RE: South White Lake Shoreline Protection Project
CWPPRA Project NO. MG-22

Dear Colonel Rowan:

I am writing concerning the South White Lake Shoreline Protection Project. I fully endorse and support this project for funding in the current Priority Project Listing.

I join the Vermilion Parish Police Jury and the Vermilion Parish Coastal Restoration Advisory Committee in acknowledging this project as its priority funding project in the CWPPRA program cycle.

Your utmost consideration to this project will be greatly appreciated.

If you should have any further questions, or need additional information, please feel free to contact my office.

Thanking you in advance.

Sincerely,

Mickey Frith

Representative Mickey Frith
District 47

MF:jcb

cc: Mr. John Saia @ U. S. Army Corps of Engineers - New Orleans
Mr. Mike Bertrand - Vermilion Parish Police Jury

Vermilion Soil and Water Conservation District
P.O. Box 68 - Abbeville, LA 70511-0068
Phone (337) 893-5664, Ext. 3

August 8, 2004

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

RE: South White Lake Shoreline Protection
Project Number – ME-22
Vermilion Parish, Louisiana

Dear Colonel Rowan,

As a local board of supervisors entrusted by the local people to preserve, protect and enhance cropland, pastureland and marshland, we are very familiar with the above project proposal. We know that the erosion rate on the south shore of White Lake is excessive; and if it continues, that erosion threatens the integrity of low marsh management levees that protect hundreds of acres of marshland and pump-off pastures.

We believe that the construction of a segmented breakwater in White Lake will help protect these marshes, pastureland and Pecan Island; and at the same time create about 700 acres of marshland. Please take this into account when the Task Force votes on PPL-14 project proposals.

Sincerely,

Ernest Girouard

Ernest Girouard
Chairman

cc Donald Gohmert, NRCS State Conservationist
John Saia, U.S. Army Corps of Engineers, Deputy District Engineer
Britt Paul, NRCS Assistant State Conservationist/Water Resources
Senator Nick Gautreaux, State Senator District 26
Representative Mickey Frith, State Representative District 47
Representative Chris John, U.S. Representative
Senator Mary Landrieu, U.S. Senator

ab

Announcement: PPL 14 Public Meetings

The meetings are scheduled as follows:

November 17, 2004 7:00 p.m. Vermillion Parish Police Jury Courthouse Bldg, Abbeville, LA

November 18, 2004 7:00 p.m. U.S. Army Corps of Engineers (DARM - A) New Orleans, LA

Additional Agenda Items

Date of Upcoming Task Force Meeting

The fall Task Force meeting will be held October 13, 2004 at the LA Department of Wildlife and Fisheries.

Proposed Dates of Future Program Meetings

**** Schedule or location changes***

October 13, 2004	9:30 a.m.	Task Force	Baton Rouge
December 16, 2004	9:30 a.m.	Technical Committee	New Orleans
January 26, 2005	9:30 a.m.	Task Force	New Orleans
March 16, 2005	9:30 a.m.	Technical Committee	New Orleans
April 13, 2005	9:30 a.m.	Task Force	Lafayette
****June 15, 2005***	9:30 a.m.	Technical Committee	Baton Rouge
****July 13, 2005***	9:30 a.m.	Task Force	New Orleans
*September 14, 2005	9:30 a.m.	Technical Committee	***New Orleans***
*October 19, 2005	9:30 a.m.	Task Force	***New Orleans***
*December 7, 2005	9:30 a.m.	Technical Committee	***Baton Rouge***
*January 25, 2006	9:30 a.m.	Task Force	***Baton Rouge***