

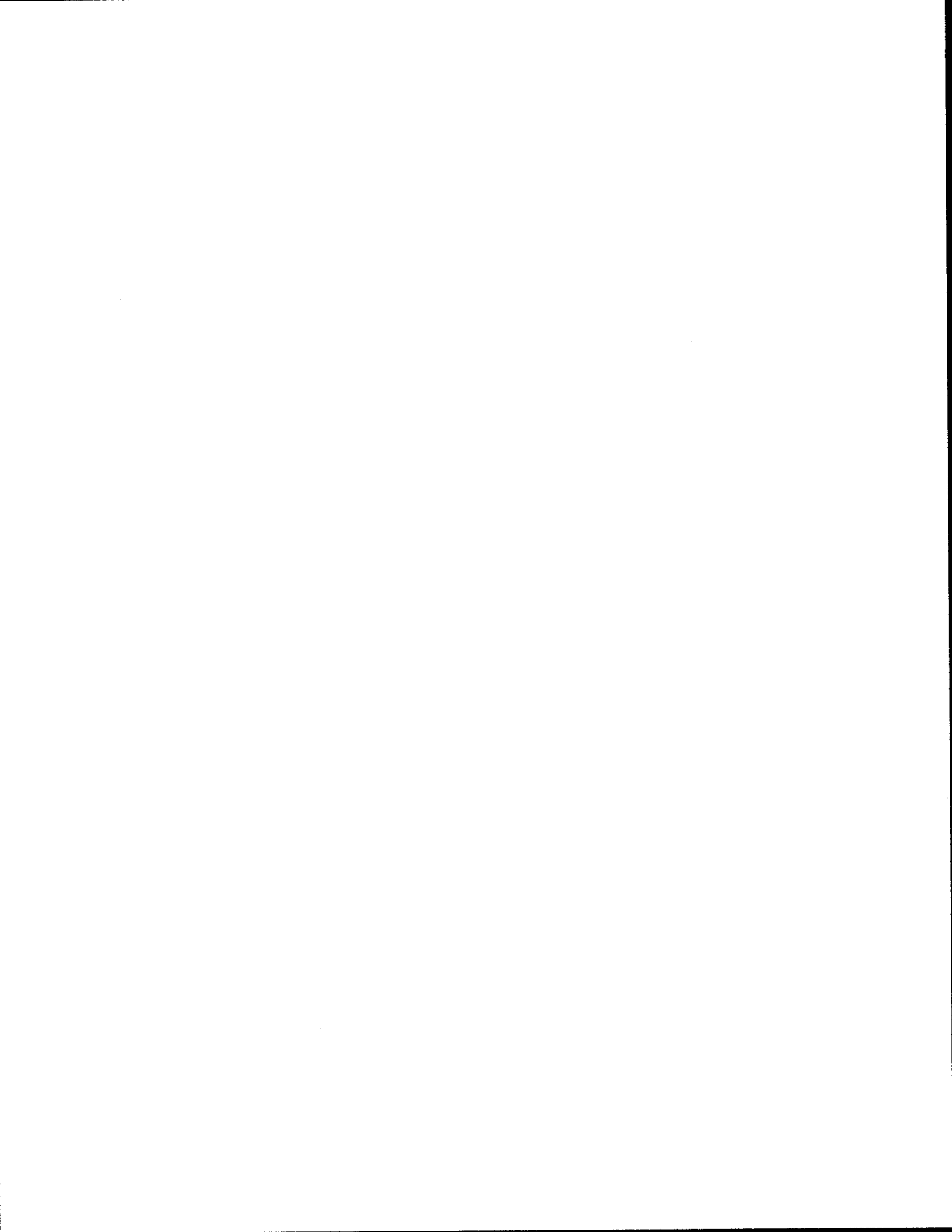


7th PRIORITY PROJECT LIST REPORT

PREPARED BY:

**LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION
TASK FORCE**

September 1998



Coastal Wetlands Planning, Protection and Restoration Act

7th Priority Project List Report

Table of Contents

Volume 1	Main Report
Volume 2	Appendices

Main Report -- Text

<u>Section</u>	<u>Page</u>
INTRODUCTION.....	1
Study Authority	1
Study Purpose	2
Project Area	2
Study Process	2
The Interagency Planning Groups	2
The Citizen Participation Group	3
Involvement of the Academic Community	4
Public Involvement	4
PLAN FORMULATION PROCESS FOR THE 7 TH PRIORITY PROJECT LIST	5
Background	5
Identification of Projects	6
Selection of Candidate Projects	6
Evaluation of Candidate Projects	10
Benefit Analysis (Wetland Value Assessment)	10
Designs and Cost Analysis	11
Economic Analysis	12
Description of Candidate Projects	13
XBA 1a "i", Vegetative Planting on Grand Terre Island	14
XME-22, Pecan Island Terracing	15
XCS-48/(SA-1), Sabine Refuge Marsh Creation, Alt. Nos. 1 thru 5	16
XBA-63/BA-27, Barataria Basin Land Bridge Shoreline Stabilization Along Bayou Perot and Rigoletttes, Phases 0 & 1	17
PO-11, Cut Off Bayou Marsh Restoration	18
PBS-1, Upper Oak River Freshwater Introduction Siphon	19
XME-42, South Grand Cheniere Freshwater Introduction (Hog Bayou)	20
XTE-62, Wine Island Eastward Expansion	21
TE-11aaii, Lake Pelto Dedicated Dredging and New Cut Closure ..	22
PPO-2dh, Lake Borgne Shore Protection, Base, Base + East, and Base + East + West	23
CW-(Demo), Effects of Sediment and Nutrients on Thin-Mat Floatant Marsh	24
Project Selection Process	25
Background and Rationale of Ranking Criteria Development.....	25
Cost Effectiveness.....	26
Longevity/Sustainability.....	27
Support for Restoration Plan.....	27
Supporting Partnerships.....	28

Coastal Wetlands Planning, Protection and Restoration Act

7th Priority Project List Report

Table of Contents (continued)

<u>Section</u>	<u>Page</u>
Public Support.....	28
Risk/Uncertainty.....	28
Rationale for Selection.....	30
Description of Selected and Funded Projects	35
XBA 1a "i", Vegetative Planting on Grand Terre Island	36
XME-22, Pecan Island Terracing	38
XCS-48/(SA-1), Sabine Refuge Marsh Creation, Alt. Nos. 1 thru 5.....	40
XBA-63/BA-27, Barataria Basin Land Bridge Shoreline Stabilization Along Bayou Perot and Rigoletttes, Phases 0 & 1	42
PO-11, Cut Off Bayou Marsh Restoration	44
PBS-1, Upper Oak River Freshwater Introduction Siphon	46
XME-42, South Grand Cheniere Freshwater Introduction (Hog Bayou)	48
XTE-62, Wine Island Eastward Expansion	50
TE-11aii, Lake Pelto Dedicated Dredging and New Cut Closure ..	52
PPO-2dh, Lake Borgne Shore Protection, Base, Base + East, and Base + East + West	54
CW-(Demo), Effects of Sediment and Nutrients on Thin-Mat Floatant Marsh	56
SUMMARY AND CONCLUSIONS.....	58
BIBLIOGRAPHY.....	59

Main Report -- List of Tables

<u>No.</u>	<u>Title</u>	<u>Page</u>
1	Membership of the Citizen Participation Group	4
2	Meetings for Project Nominations and Selection of Candidate Projects	7
3	Planning and Evaluation Subcommittee Vote of Nominee Projects for Selection of Candidate Projects on the 7 th Priority Project List	8
4	Candidate Project Ranking Criteria	26
5	Candidate Project Rankings and Systemic Effects Categorization on the 7 th Priority Project List	29
6	Technical Committee's Vote for Selection of the 7 th Priority Project List	33
7	Project Selection for the 7 th Priority Project List by the Louisiana Coastal Wetlands Conservation and Restoration Task Force	34

Coastal Wetlands Planning, Protection and Restoration Act

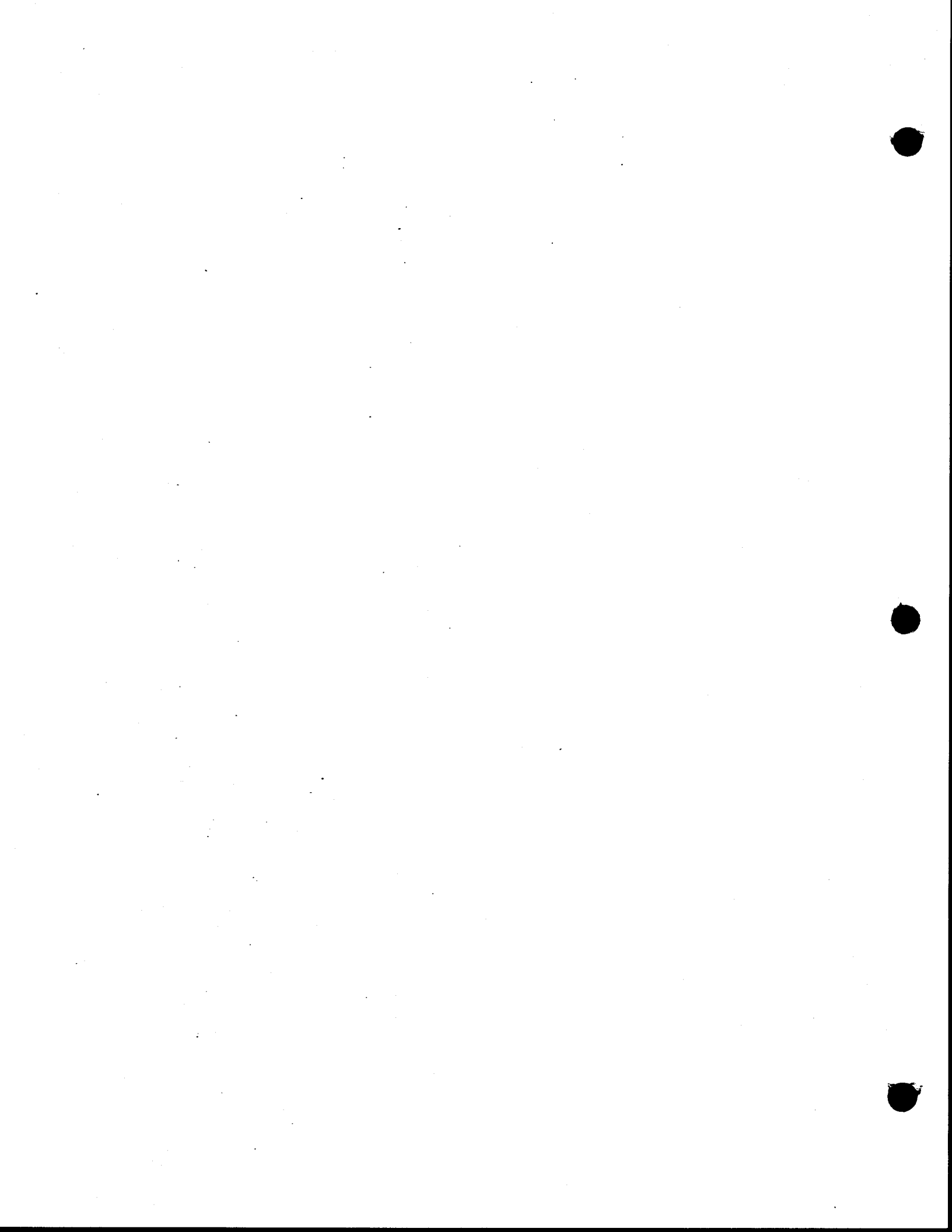
7th Priority Project List Report
Table of Contents
(continued)

Main Report -- List of Plates

Map of Coastal Louisiana,
1st thru 7th Priority Project Lists Plate 1
Summary of Projects,
1st thru 7th Priority Project Lists..... Plate 2

Appendices

Appendix A..... Summary and Complete Text of the CWPPRA
Appendix B..... Wetland Value Assessment Methodology
and Community Models
Appendix C..... Engineering Designs and Cost Estimates
for Candidate Projects
Appendix D..... Economics Computational Summary
for Candidate Projects
Appendix E..... Wetland Value Assessment
for Candidate Projects
Appendix F..... Public Support for Candidate Projects
Appendix G..... Status of Projects from
Previous Priority Project Lists



Coastal Wetlands Planning, Protection and Restoration Act

7th Priority Project List Report

Main Report - Volume 1

INTRODUCTION

The State of Louisiana contains about 40 percent of the Nation's coastal wetlands. Louisiana's coastal wetlands are experiencing losses at a rate of approximately 80 percent of the Nation's total coastal wetland loss rate. This is a disproportionately high level of loss, compared to nation-wide rates. In addition, the coastal wetland loss problem in Louisiana is extensive and complex in nature. Agencies of diverse purpose and mission that are involved with addressing the problem have proposed many alternative solutions. These proposals have had a wide spectrum of approach for diminishing, neutralizing, or reversing these losses. A global observation of these efforts by Federal, state, and local governments and the public has led to the conclusion that a comprehensive approach is needed to address this significant environmental problem. In response to this, the Coastal Wetlands Planning, Protection and Restoration Act (Public Law 101-646) was signed into law by President Bush on November 29, 1990. This report documents the implementation of Section 303(a) of the cited legislation.

STUDY AUTHORITY

Section 303(a) of the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA, or the Breaux-Johnston Act), displayed in Appendix A, directs the Secretary of the Army to convene the Louisiana Coastal Wetlands Conservation and Restoration Task Force to:

. . . initiate a process to identify and prepare a list of coastal wetlands restoration projects in Louisiana to provide for the long-term conservation of such wetlands and dependent fish and wildlife populations in order of priority, based upon the cost-effectiveness of such projects in creating, restoring, protecting, or enhancing coastal wetlands, taking into account the quality of such coastal wetlands, with due allowance for small-scale projects necessary to demonstrate the use of new techniques or materials for coastal wetlands restoration.

STUDY PURPOSE

The purpose of this study effort was to prepare the 7th Priority Project List (PPL) and transmit the list to Congress, as specified in Section 303(a)(3) of the CWPPRA. Section 303(b) of the act calls for preparation of a comprehensive restoration plan for coastal Louisiana; that effort was completed in November 1993, with the submission of the Louisiana Coastal Wetlands Restoration Plan.

PROJECT AREA

A map of the Louisiana coastal zone is presented in Plate 1, which indicates project locations by number of Priority Project Lists 1 through 7. Plate 2 contains a listing of these project names, referenced by number and grouped by sponsoring agency, for each Priority Project List. The entire coastal area, which comprises all or part of 20 Louisiana parishes, is considered to be the CWPPRA project area. To facilitate the study process, the coastal zone was divided into nine hydrologic basins (refer to map of Plate 1).

STUDY PROCESS

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

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

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

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

The Task Force established the Technical Committee and the Planning and Evaluation Subcommittee, to assist it in putting the CWPPRA into action. Each of these bodies contains the same representation as the Task Force -- one member from each of the five Federal agencies and one from the State. The Planning and Evaluation Subcommittee is responsible for the actual planning of projects and preparation of the November 1993 comprehensive restoration plan, as well as the other details involved in the CWPPRA process (such as development of schedules, budgets, etc.). This subcommittee makes recommendations to the Technical Committee and lays the groundwork for decisions that will ultimately be made by the Task Force. The Technical Committee reviews all materials prepared by the subcommittee, makes appropriate revisions, and provides recommendations to the Task Force. The Technical Committee operates at an intermediate level between the planning details considered by the subcommittee and the policy matters dealt with by the Task Force, and often formalizes procedures and formulates policy for the Task Force.

The Planning and Evaluation Subcommittee established several working groups to evaluate projects for priority project lists and the restoration plan. The Environmental Work Group was charged with estimating the benefits (in terms of wetlands created, protected, enhanced, or restored) associated with various projects. The Engineering Work Group reviewed project cost estimates for consistency. The Economic Work Group performed the economic analysis, which permitted comparison of projects on the basis of their cost effectiveness. The Monitoring Work Group established a standard procedure for monitoring of CWPPRA projects and developed a monitoring cost estimating procedure based on project type.

The Citizen Participation Group. The Task Force also established a Citizen Participation Group to provide general input from the diverse interests across the coastal zone: local officials, landowners, farmers, sportsmen, commercial fishermen, oil and gas developers, navigation interests, and environmental organizations. The Citizen Participation Group was formed to promote citizen participation and involvement in formulating priority project lists and the restoration plan. The group meets at its own discretion, but may at times meet in conjunction with other CWPPRA elements, such as the Technical Committee. The purpose of the Citizen Participation Group is to maintain consistent public review and input into the plans and projects being considered by the Task Force and to assist and participate in the public involvement program. The membership of the Citizen Participation Group is shown in Table 1.

Table 1
Membership of the Citizen Participation Group

Gulf Coast Conservation Association	Concerned Shrimpers of America
Coalition to Restore Coastal Louisiana	Gulf Intracoastal Canal Association
Lake Pontchartrain Basin Foundation	Louisiana Association of Soil and Water Conservation Districts
Louisiana Farm Bureau Federation, Inc.	Louisiana Landowners Association
Louisiana League of Women Voters	Louisiana Nature Conservancy
Louisiana Oyster Growers and Dealers Association	Louisiana Wildlife Federation, Inc.
Midcontinent Oil and Gas Association	New Orleans Steamship Association
Oil and Gas Task Force (Regional Economic Development Council)	Police Jury Association of Louisiana
Organization of Louisiana Fishermen	

Involvement of the Academic Community. While the agencies sitting on the Task Force possess considerable expertise regarding Louisiana's coastal wetlands problems, the Task Force recognized the need to incorporate another invaluable resource: the state's academic community. The Task Force therefore retained the services of the Louisiana Universities Marine Consortium (LUMCON) to provide scientific advisors to aid the Environmental Work Group in performing Wetland Value Assessments. This Academic Assistance Group also assists the Task Force in carrying out the two feasibility studies authorized by the Task Force in March 1995: the Louisiana Barrier Shoreline study (managed by the Louisiana Department of Natural Resources) and the Mississippi River Sediment, Nutrient, and Freshwater Redistribution study (managed by the Corps of Engineers).

Public Involvement. Even with its widespread membership, the Citizen Participation Group cannot represent all of the diverse interests affected by Louisiana's coastal wetlands. The CWPRA public involvement program provides an opportunity for all interested parties to express their concerns and opinions and to submit their ideas concerning the problems facing Louisiana's wetlands. The Task Force has held at least seven public meetings each of the last seven years to obtain input from the public. In

addition, the Task Force distributes a semiannual newsletter with information on the CWPPRA program and on individual projects.

PLAN FORMULATION PROCESS FOR THE 7th PRIORITY PROJECT LIST

BACKGROUND

The planning effort associated with the CWPPRA initially proceeded simultaneously along two tracks. Section 303(b) of the act calls for the development of a comprehensive restoration plan for Louisiana's coastal wetlands. This long term plan was developed over a three-year period, with the report (the *Louisiana Coastal Wetlands Restoration Plan*) completed in November 1993. Section 303(a), on the other hand, deals with projects that can be implemented within a short period of time. This section requires that any project selected for a priority project list be substantially complete within five years of its appearance on a list. The intent of this section is to provide a rapid response to the loss of coastal wetlands. The first Priority Project List was to be submitted within one year of enactment of the CWPPRA, with subsequent lists to be prepared annually.

Section 303(a) actually requires that priority project lists be submitted only until such time as the comprehensive restoration plan called for in section 303(b) has been prepared. Projects can then be drawn from the comprehensive plan. In practice, however, the Task Force has found the annual priority list process to be an effective means of developing projects and has continued to use that process -- without the five-year implementation limit.

Typically, Priority Project Lists are completed within a one-year time limit. However, the 7th Priority Project List time period was abbreviated to a 6-month timeframe. Whether six months or one year, the relatively short time period associated with developing a priority project list necessitated a deviation from the usual plan formulation process. Rather than beginning with a clean slate, it was preferable to begin with projects that were already developed to some degree. The emphasis was to develop where possible projects on which some planning had already been done, although this was not absolutely required for a project to receive consideration. The projects on the First Priority Project List submitted in November 1991 fell into the former category of these.

Preparation of subsequent lists involved somewhat more lead time than did the first list and employed a more traditional approach. This section describes the process by which the 7th Priority Project List was developed.

Development of the 7th list was a three-stage process: selection of candidate projects, evaluation of candidate projects, and selection of the priority project list.

IDENTIFICATION OF PROJECTS

Projects considered for the 7th list were mostly derived from the *Louisiana Coastal Wetlands Restoration Plan*, with some altogether new projects being presented for consideration. In the restoration plan, an identification number was assigned to each project to help keep track through the screening and evaluation process. Each project received a two-letter code to identify its basin; these codes are shown below.

PO	Pontchartrain	AT	Atchafalaya
BS	Breton Sound	TV	Teche/Vermilion
MR	Mississippi River Delta	ME	Mermentau
BA	Barataria	CS	Calcasieu/Sabine
TE	Terrebonne		

Projects that were originally part of the State's Coastal Wetlands Conservation and Restoration Plan use these two letters followed by a number. Projects that were derived from the scoping meetings held in the fall of 1991 are identified by a "P" ("public") preceding the two-letter code (e.g., PPO-52, PTV-18).

Plan formulation meetings held from February through May 1992 were an additional source of projects for consideration for priority project lists. Projects that were proposed during and after these meetings are identified with an "X" (e.g., XTE-41).

The CWPPRA provides for revision of the comprehensive restoration plan as appropriate, and the Task Force considers such revisions on an annual basis. Some projects that have been added to the plan are not specific to one project area, but rather may be applied at any appropriate site on a coastwide basis. These projects are designated "CW," followed by a numerical identifier.

SELECTION OF CANDIDATE PROJECTS

Candidate projects are those that the Task Force will evaluate in some detail in order to choose a priority project list. The Planning and Evaluation Subcommittee selects a number of candidate projects as the first step in priority project list development.

In June 1997 the Planning and Evaluation Subcommittee held a series of meetings for project nominations and the selection of candidate projects. The meetings were held according to the schedule shown in Table 2.

Table 2
Meetings for Project Nominations
and Selection of Candidate Projects

Purpose and Location	Date	Hydrologic Basins
Abbeville, Louisiana	June 17, 1997	Teche-Vermilion Mermentau Calcasieu/Sabine
Hahnville, Louisiana	June 18, 1997	Atchafalaya Barataria Terrebonne
New Orleans, Louisiana	June 19, 1997	Pontchartrain Mississippi River Delta Breton Sound

The public was invited to participate in these meetings to nominate projects of their own. An emphasis was placed on nomination of projects listed in the *Louisiana Coastal Wetlands Restoration Plan*, although altogether new projects could also be nominated. A meeting was conducted on June 24 and 25, 1997, for the CWPPRA agencies to review and discuss the publicly nominated projects and also to nominate projects of their own. The subcommittee selected the candidate projects from among the nominees at a meeting conducted on July 10, 1997.

The Planning and Evaluation Subcommittee established in advance that the nominee projects to be selected as candidates were to be the top ten by closed-ballot agency popular vote. The subcommittee considered the qualitative benefits of each nominee project to establish project value to the ecosystem and respective popular vote. In the voting process, the projects having highest- to lowest-value to the ecosystem respectively received the highest- to lowest-numerical vote. The popular vote for the nominees are displayed in Table 3.

Of the nominees, 10 projects were chosen as candidates to be evaluated in detail; these were the projects from which the 7th Priority Project List would be selected. In addition, the Planning and Evaluation Subcommittee decided 3 demonstration projects (some proposed by the agencies, others proposed by the public) merited consideration for the 7th Priority Project List. By Task Force decision, the total cost of the 7th Priority Project List was to be in the range of between \$10 to 12 million. As in prior lists, the Task Force agreed that demonstration projects would generally be limited to about \$2 million.

Upon candidate project selection from the list of nominees, a lead federal agency was then assigned to the development of each candidate project. During project development, the lead agency was responsible for more fully producing designs and cost estimates. The Engineering Work Group met and reviewed each agency's design and cost estimate for the projects.

Table 3
Planning and Evaluation Subcommittee Vote
of Nominee Projects for the 7th Priority Project List^a

Project No.	Nominee Project Name	DNR	EPA	NRCS	FWS	NMFS	COE	Total
PBS-1	Upper Oak R. FW Introduction Siphon ^b	13	4	10	14	14	9	64
	Selected Shoreline Stab. Along Bay. Perot and							
XBA-63, BA-27	Rigoletttes Ba. Basin Land Bridge, Phase 2 ^b	12	0	11	15	13	10	61
PPO-2dh	L. Borgne Shore Prot., E&W. of Shell Beach ^b	11	10	7	6	7	11	52
XCS-48, (SA-1)	Sabine Refuge Marsh Creation ^b	8	6	0	13	6	14	47
PO-11	Cut Off Bayou Marsh Restoration ^b	5	9	3	0	11	15	43
	Vegetative Planting of Dredge Material Disposal Site							
	on Grand Terre Island ^b	4	11	0	0	15	8	38
TE-11a"ii"	Lake Pelto Dedicated Dredging and New Cut Closure ^b	0	15	15	0	0	7	37
XTE-62	Wine Island Eastward Expansion ^b	15	8	0	3	10	0	36
XME-22	Pecan Island Terracing ^b	10	0	0	11	12	3	36
XME-42	South Grand Cheniere Freshwater Intro. (Hog Bayou) ^b	6	0	13	4	8	2	33
XME-40	North Little Pecan Bayou	3	3	0	12	3	6	27
PBA-"67"	Highway 1 Marsh Creation and Reef Protection	0	13	0	0	0	13	26
XBA-73a	Ft. Jackson Marsh Creation	0	12	0	0	0	12	24
C/A-1A&C	Holly Beach Breakwaters Enlargement	14	1	0	9	0	0	24
TE-2"a"	Falgout Canal Wetland(Modified)	0	0	12	8	0	0	20
PO-14	Green Point/Goose Point Marsh Restoration	0	2	0	7	9	1	19
CW-6"a"	LaFourche Dedicated Dredging(Modified)	0	14	0	0	0	0	14
PTV-"20"	Tom's Bayou	0	0	14	0	0	0	14
PME-15	Humble Canal Structure	0	0	8	5	1	0	14
TE-22	Mobil Canal Shore Protection	7	0	0	0	5	0	12
TE-6"a"	Pointe Au Chien Wetland(Modified)	9	0	2	0	0	0	11
PO-3c	LaBranche Shoreline Stabilization	0	0	0	10	0	0	10
XAT-4	Bateman Island	0	0	9	0	0	0	9
XCS-48, (SO-8)	Oyster Bayou/Lake Unit	1	0	6	0	2	0	9
PBA-"68"	Fifi Island Restoration	0	7	0	0	0	0	7
XTE-58	South Bully Camp Hydrologic Restoration	0	0	5	0	0	0	5
TE	Houma Wastewater Treatment Plant	0	5	0	0	0	0	5
	Complete Shoreline Stabilization along Freshwater							
	Bayou Canal	0	0	0	0	0	5	5
XTE-45"a"	Dedicated Dredging at Timbalier Island	0	0	0	0	4	0	4
PTV-13"a"	Bayou Hebert	0	0	4	0	0	0	4
PT/V-20	Little White Lake and Vicinity Terracing Project	0	0	0	0	0	4	4
	Detached Segmented Breakwaters at East Grand Terre							
	Is., Near Pass Abel	2	0	0	0	0	0	2
C/S-16	Black Bayou Culverts(Modified)	0	0	0	2	0	0	2
TE	West Grand Bayou Freshwater Introduction	0	0	0	1	0	0	1
	Freshwater Bayou Bank Stabilization from Intracoastal							
	City to Schooner Bayou	0	0	1	0	0	0	1
PO-15	Alligator Point Marsh Restoration	0	0	0	0	0	0	0
PPO-2b	L. Borgne Shore Prot., So. of B.Bienvenue	0	0	0	0	0	0	0
PPO-2c	L. Borgne Shore Prot., Proctor Point	0	0	0	0	0	0	0
PPO-2d	L. Borgne Shore Prot., E. of Shell Beach	0	0	0	0	0	0	0
PPO-2e	L. Borgne Shore Prot., Pt. aux Marchettes	0	0	0	0	0	0	0
PPO-2f	L. Borgne Shore Prot., S. of Malheureaux Pt.	0	0	0	0	0	0	0
PPO-2h	L. Borgne Shore Prot., W. of Shell Beach	0	0	0	0	0	0	0
PPO-9	LaBranche Marsh Creation, East	0	0	0	0	0	0	0
XPO-74	Bienvenue Marsh Restoration	0	0	0	0	0	0	0
XPO-81	Point aux Herbes Shore Protection	0	0	0	0	0	0	0
XPO-94	Lake Pontchartrain Grass Beds	0	0	0	0	0	0	0
PPO	Water Control Structure in Hopedale	0	0	0	0	0	0	0
PPO-9"b"	Water Control Structure in Central Wetlands	0	0	0	0	0	0	0
PPO-2"i"	Marsh Grass Plantings along L. Borgne	0	0	0	0	0	0	0
PO	Bayou Chevee Shore Protection	0	0	0	0	0	0	0

(continued on next page)

Table 3
Planning and Evaluation Subcommittee Vote
of Nominee Projects for the 7th Priority Project List^a

Project No.	Nominee Project Name	DNR	EPA	NRCS	FWS	NMFS	COE	Total
	Freshwater Diversion of Industrial Discharge: Union Carbide at Taft	0	0	0	0	0	0	0
BA (DEMO)	Carbide at Taft	0	0	0	0	0	0	0
XBA-1f	Bay Champagne Segmented Breakwaters	0	0	0	0	0	0	0
	Lake Pelto Dedicated Dredging New Cut Closure, and Shore Stabilization	0	0	0	0	0	0	0
TE-11a"i"	Lake Pelto Dedicated Dredging New Cut Closure, and Shore Stabilization	0	0	0	0	0	0	0
TE (DEMO)	Mandalay Erosion Demo Project	0	0	0	0	0	0	0
TE (DEMO)	Enhancement/Restoration of Floaton Marsh	0	0	0	0	0	0	0
XAT-3	Sediment Retention/Shoreline Protection	0	0	0	0	0	0	0
T/V-16, CW-7	Cheniere au Tigre Sediment Trapping	0	0	0	0	0	0	0
XTV-27	Freshwater Bayou Humble Wetlands (modified)	0	0	0	0	0	0	0
PTV-"21"	Indian Point Breakwaters	0	0	0	0	0	0	0
PTV-8	Avery Canal to Weeks Island Vegetative Plantings	0	0	0	0	0	0	0
TV-1	Shark Island Shoreline Protection	0	0	0	0	0	0	0
PME-5	Grand Lake South Shore	0	0	0	0	0	0	0
PME-"17"	Grand/White Lake Stabilization	0	0	0	0	0	0	0
XME-20"a"	Catfish and Schooner Locks Operation	0	0	0	0	0	0	0
XME-26	Warren Canal Structures	0	0	0	0	0	0	0
PME-"17"	Mermentau River Cut	0	0	0	0	0	0	0
ME (DEMO)	Innovative Shoreline Protection along Cheniere Plains	0	0	0	0	0	0	0
ME (DEMO)	Innovative Dredge Dike/Bank Protection along GIWW	0	0	0	0	0	0	0
C/S-8, XCS-48, (NO-2A)	North Black Lake Management Area	0	0	0	0	0	0	0
CS-10	Grand Lake Ridge Project	0	0	0	0	0	0	0
XCS-42	GIWW Spoil Bank Maintenance	0	0	0	0	0	0	0
XCS-48	Green Lake Unit	0	0	0	0	0	0	0
PC/S	Lighthouse Bayou Structure	0	0	0	0	0	0	0
XCS-53	Alkali Ditch Structure	0	0	0	0	0	0	0

Cumulative Project Votes of Each Agency: 120 120 120 120 120 120

Proposed Demonstration Projects with No Federal Sponsor:

XPO-94	Lake Pontchartrain Grass Beds
TE-DEMO	Mandalay Erosion Control
PO-DEMO	Oyster Reef Development using Fly Ash for Shoreline Stabilization
TE-DEMO	Larose to Golden Meadow Pump Outfall

^a Nominee votes were compiled on July 10, 1997.

^b Selected for evaluation as a Candidate project on the 7th Priority Project List.

CWPPRA Agencies:

DNR = Louisiana Dept. of Natural Resources
 COE = US Army Corps of Engineers
 EPA = Environmental Protection Agency
 NMFS = National Marine Fisheries Service
 NRCS = Natural Resources Conservation Service
 USFWS = US Fish and Wildlife Service

Basin Project Identification Codes:

PO = Pontchartrain TV = Teche/Vermilion
 BS = Breton Sound ME = Mermentau
 MR = Mississippi River Delta CS = Calcasieu/Sabine
 BA = Barataria
 TE = Terrebonne
 AT = Atchafalaya

After finalization of the designs and cost estimates, the lead agencies furnished this information to the Environmental Work Group. The Environmental Work Group performed a Wetland Value Assessment (WVA) for each candidate project. The section of this report entitled "Evaluation of Candidate Projects" summarizes the information developed by the lead agencies in this process.

EVALUATION OF CANDIDATE PROJECTS

Benefit Analysis (WVA). The WVA is a quantitative, habitat-based assessment methodology developed for use in prioritizing project proposals submitted for funding under the Breaux-Johnston Act. The WVA quantifies changes in fish and wildlife habitat quality and quantity that are projected to emerge or develop as a result of a proposed wetland enhancement project. The results of the WVA, measured in Average Annual Habitat Units (AAHUs), can be combined with economic data to provide a measure of the effectiveness of a proposed project in terms of annualized cost per AAHU protected and/or gained.

The Environmental Work Group developed the WVA for each project. The Environmental Work Group is assembled under the Planning and Evaluation Subcommittee of the CWPPRA Technical Committee. The Environmental Work Group includes members from each agency represented on the CWPPRA Task Force. The WVA was designed to be applied, to the greatest extent possible, using only existing or readily obtainable data.

The WVA has been developed strictly for use in ranking proposed CWPPRA projects; it is not intended to provide a detailed, comprehensive methodology for establishing baseline conditions within a project area. Some aspects of the WVA have been defined by policy and functional considerations of the CWPPRA; therefore, user-specific modifications may be necessary if the WVA is used for other purposes.

The WVA is a modification of the Habitat Evaluation Procedures (HEP) developed by the U.S. Fish and Wildlife Service (U.S. Fish and Wildlife Service, 1980). HEP is widely used by the Fish and Wildlife Service and other Federal and State agencies in evaluating the impacts of development projects on fish and wildlife resources. A notable difference exists between the two methodologies. The HEP generally uses a species-oriented approach, whereas the WVA uses a community approach.

The WVA was developed for application to the following coastal Louisiana wetland types: fresh marsh (including intermediate marsh), brackish marsh, saline marsh, and cypress-tupelo swamp. Future reference in this document to "wetland" or "wetland type" refers to one or more of those four communities.

The WVA operates under the assumption that optimal conditions for fish and wildlife habitat within a given coastal wetland type can be characterized, and that existing or predicted conditions can be compared to that optimum to provide an index of habitat

use of a mathematical model developed specifically for each wetland type. Each model consists of the following components:

1. a list of variables that are considered important in characterizing fish and wildlife habitat:
 - a. V_1 --percent of wetland covered by emergent vegetation,
 - b. V_2 --percent open water dominated by submerged aquatic vegetation,
 - c. V_3 --marsh edge and interspersions,
 - d. V_4 --percent open water less than or equal to 1.5 feet deep,
 - e. V_5 --salinity, and
 - f. V_6 --aquatic organism access.
2. a Suitability Index graph for each variable, which defines the assumed relationship between habitat quality (Suitability Index) and different variable values; and
3. a mathematical formula that combines the Suitability Index for each variable into a single value for wetland habitat quality; that single value is referred to as the Habitat Suitability Index, or HSI.

The Wetland Value Assessment models have been developed for determining the suitability of Louisiana coastal wetlands for providing resting, foraging, breeding, and nursery habitat to a diverse assemblage of fish and wildlife species. Models have been designed to function at a community level and therefore attempt to define an optimum combination of habitat conditions for all fish and wildlife species utilizing a given marsh type over a year or longer.

The output of each model (the HSI) is assumed to have a linear relationship with the suitability of a coastal wetland system in providing fish and wildlife habitat.

A comprehensive discussion of the WVA methodology is presented in Appendix E.

Designs and Cost Analysis. During the plan formulation process, each of the Task Force agencies assumed responsibility for developing designs, and estimates of costs and benefits for a number of candidate projects. The cost estimates for the projects were to be itemized as follows:

1. Construction Cost
2. Contingencies Cost
3. Engineering and Design
4. Environmental Compliance
5. Supervision and Administration (Corps and the Louisiana Department of Natural Resources (LADNR) Project Management)
6. Supervision and Inspection (Construction Contract)
7. Real Estate
8. Operation and Maintenance
9. Monitoring

In addition, each lead agency provided a detailed itemized construction cost estimate for each project. These estimates are shown in Appendix C.

An Engineering Work Group was established by the Planning and Evaluation Subcommittee, with each Federal agency and the State of Louisiana represented. The work group reviewed each estimate for accuracy and consistency.

When reviewing the construction cost estimates, the work group verified that each project feature had an associated cost and that the quantity and unit price for those items were reasonable. In addition, the work group reviewed the design of the projects to determine whether the method of construction was appropriate and the design was feasible.

All of the projects were assigned a contingency cost of 25 percent because detailed information such as soil borings, surveys, and -- to a major extent -- hydrologic data were not available, in addition to allowing for variations in unit prices.

Engineering and design, environmental compliance, supervision and administration, and supervision and inspection costs were reviewed for consistency, but ordinarily were not changed from what was presented by the lead agency.

Economic Analysis. The Breaux Act directed the Task Force to develop a prioritized list of wetland projects "based on the cost-effectiveness of such projects in creating, restoring, protecting, or enhancing coastal wetlands, taking into account the quality of such coastal wetlands." The Task Force satisfied this requirement through the integration of a traditional time-value analysis of life-cycle project costs and other economic impacts and an evaluation of wetlands benefits using a community-based version of the U.S. Fish and Wildlife Service's Habitat Evaluation Procedure. The product of these two analyses was an Average Annual Cost per Average Annual Habitat Unit figure for each project, which was used as the primary ranking criterion. The method permits incremental analysis of varying scales of investment and also accommodates the varying salinity types and habitat quality characteristics of project wetland outputs.

The major inputs to the cost effectiveness analysis are the products of the lead Task Force agencies and the Engineering and Environmental Work Groups. The various plans were refined into estimates of annual implementation costs and respective AAHUs.

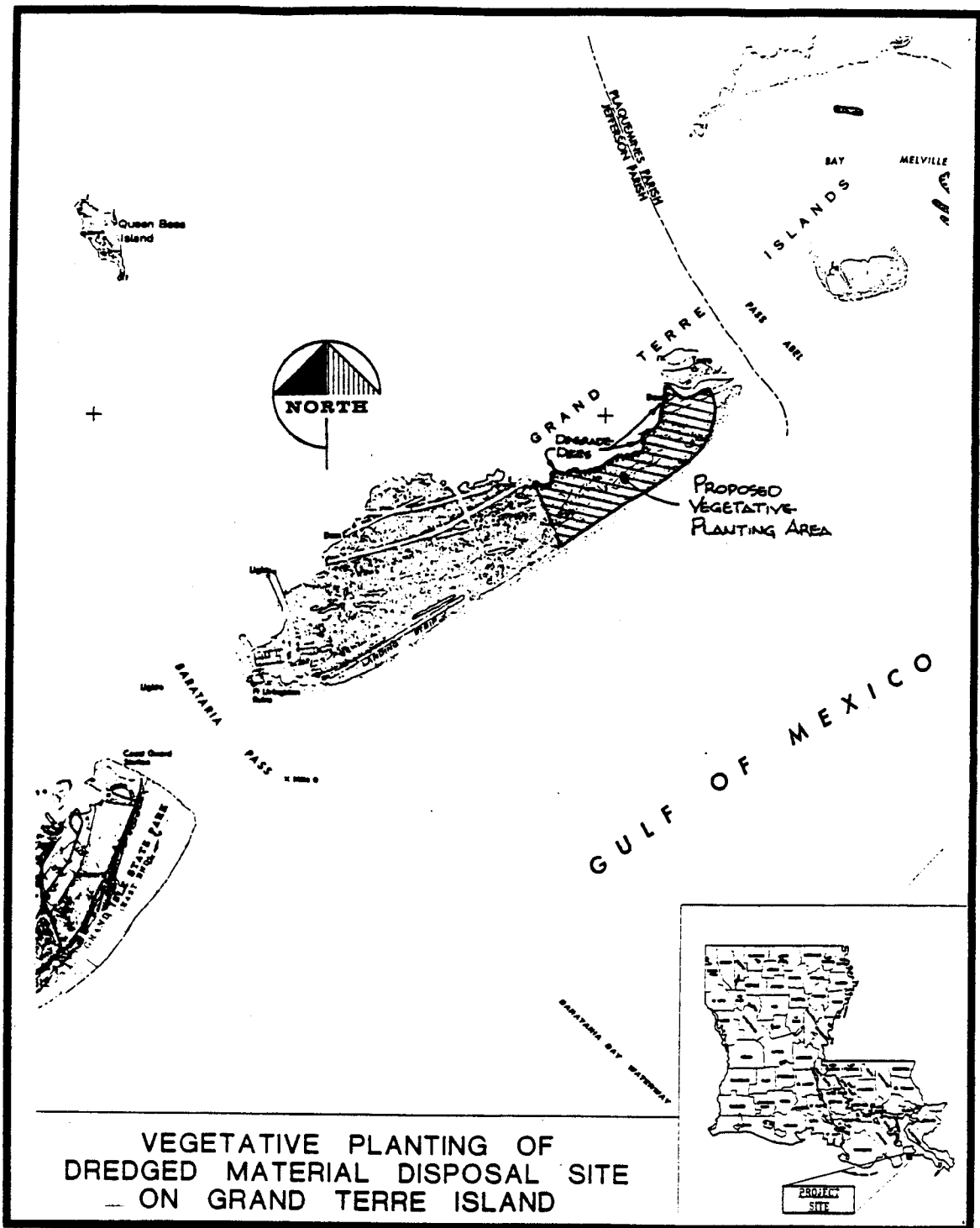
Implementation costs were used to calculate the economic and financial costs of each wetland project. Financial costs chiefly consist of the resources needed to plan, design, construct, operate, monitor, and maintain the project. These are the costs, when adjusted for inflation, which the Task Force uses in budgeting decisions. The economic costs include, in addition to the financial cost, monetary indirect impacts of the plans not accounted for in the implementation costs. Examples would include impacts on dredging in nearby commercial navigation channels, effects on water supplies, and effects on nearby facilities and structures not reflected in right-of-way and acquisition costs.

The stream of economic costs for each project was brought to present value and annualized at the current discount rate, based on a 20-year project life. Beneficial environmental outputs were annualized at a zero discount rate and expressed as AAHUs. These data were then used to rank each plan based on cost per AAHU produced. Annual economic costs were also calculated on a per acre basis. Financial costs were adjusted to account for projected levels of inflation and used to monitor overall budgeting and any future cost escalations in accordance with rules established by the Task Force.

Following the review by the Engineering Work Group, costs were expressed as first costs, fully funded costs, present worth costs, and average annual costs. The Cost per Habitat Unit criterion was derived by dividing the average annual cost for each wetland project by the Average Annual Habitat Units (AAHU) for each wetland project. The average annual costs figures are based on 1998 price levels, a discount rate of 7.13 percent, and a project life of 20 years. The fully funded cost estimates developed for each project were used to determine how many projects could be supported by the funds expected to be available in fiscal year 1998. The fully funded cost estimates include operation and maintenance and other compensated financial costs.

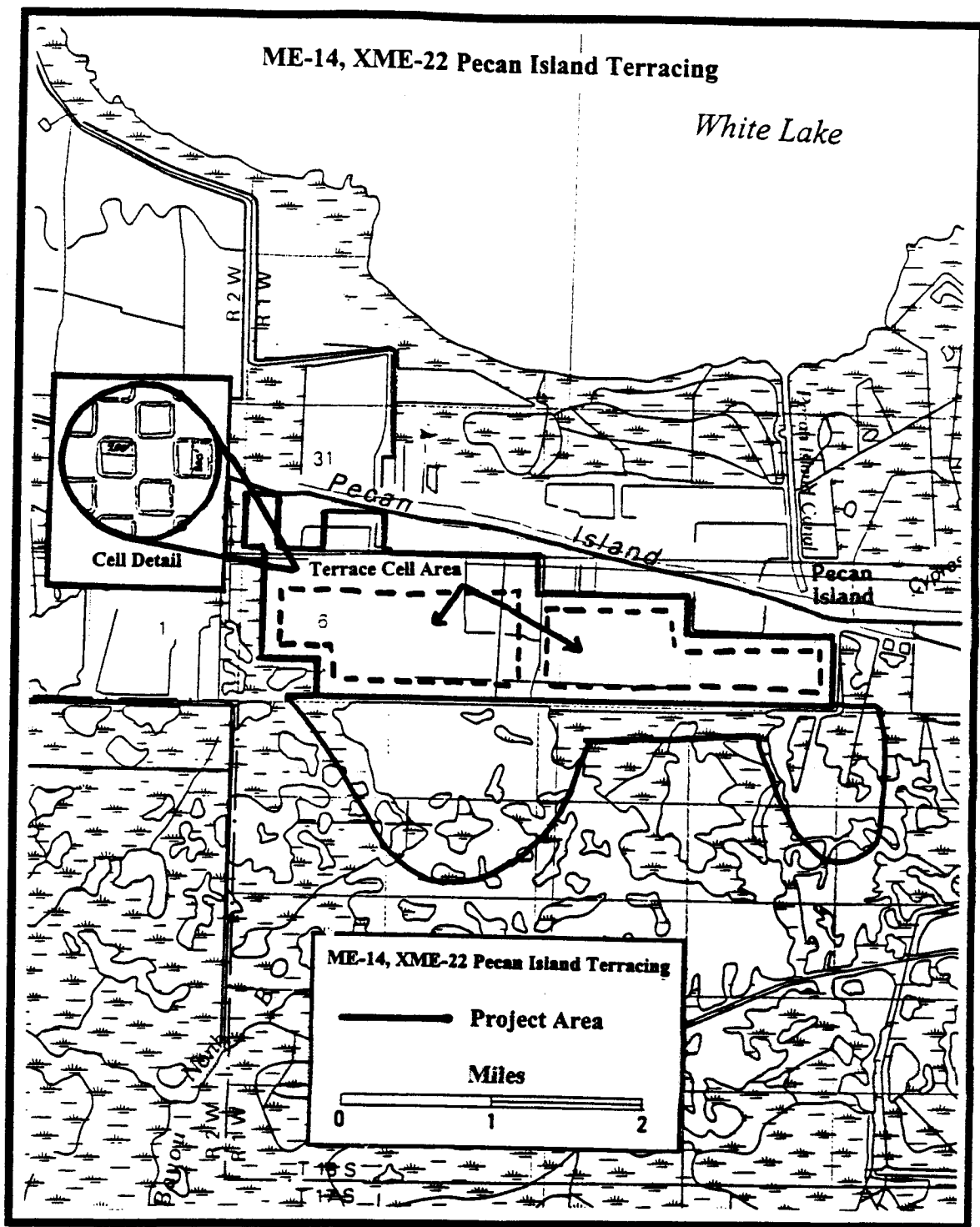
DESCRIPTION OF CANDIDATE PROJECTS

This section provides a brief description of each candidate project. The descriptions include the project location, features, anticipated benefits, and a map identifying the project area and project features.



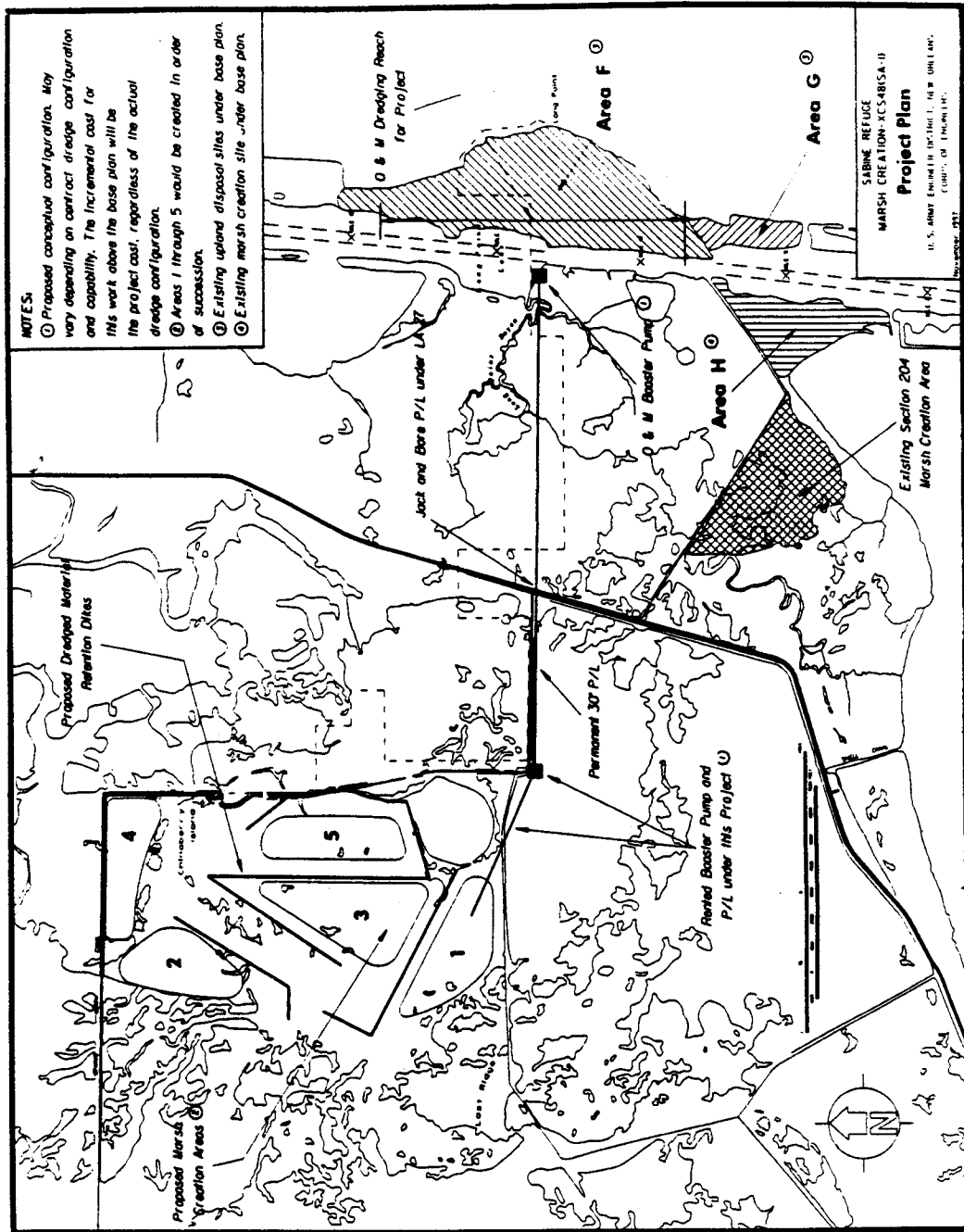
**Vegetative Planting of a Dredged Material Disposal Site on
Grand Terre Island (XBA-1a "i")**

This project is located on Grand Terre Island at the mouth of Barataria Bay Waterway, east of Grand Isle, in Jefferson Parish, LA. The objectives of this project are to stabilize the dredged material platform via vegetative planting and remove all cattle from the island and purchase grazing rights for the duration of the project (20 years).



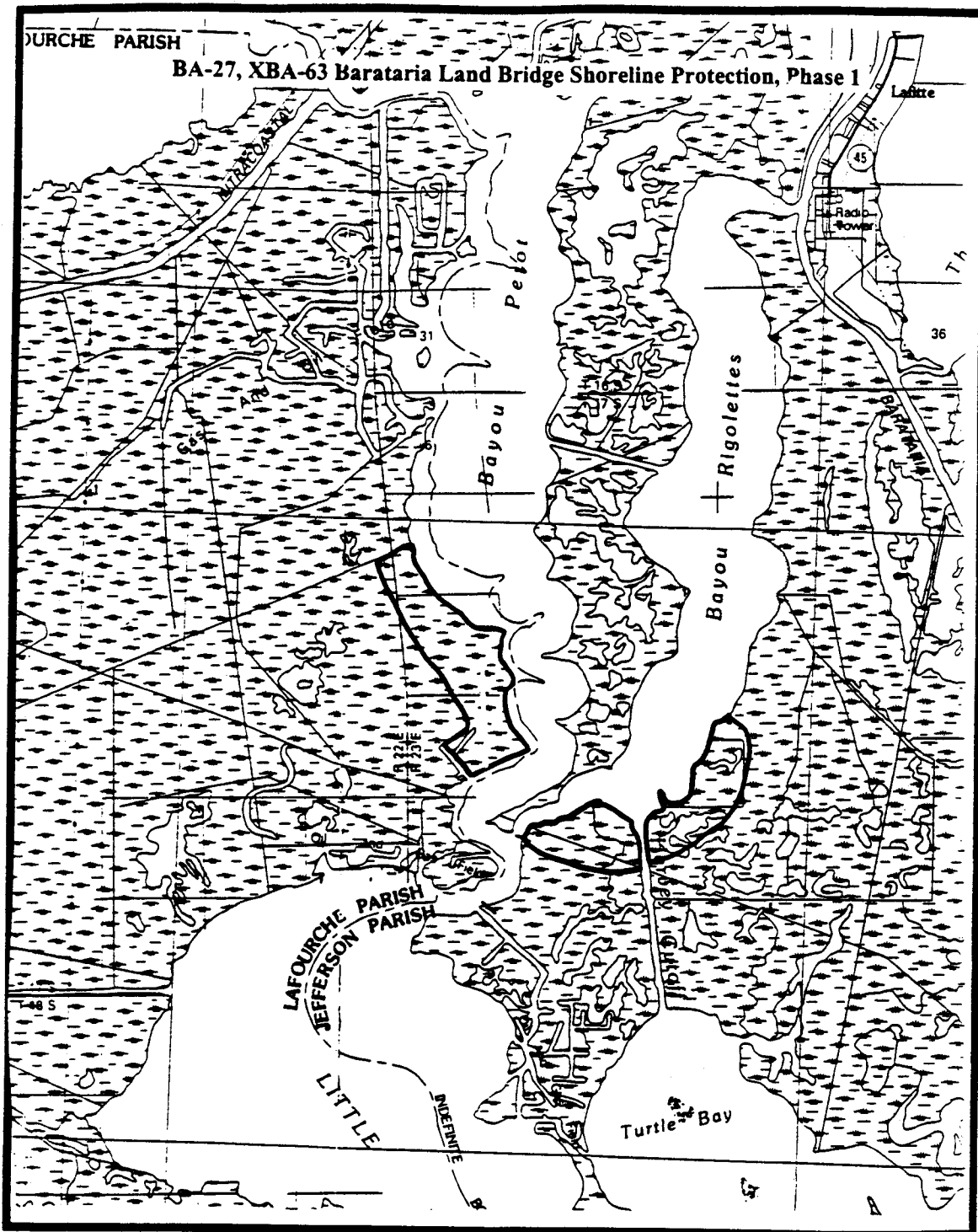
Pecan Island Terracing (XME-22)

This project is located in Vermilion Parish approximately 5 miles north of the Gulf of Mexico just south of Pecan Island and Hwy. 82. Deterioration and loss of the perimeter levees in recent years has converted the entire area into a shallow, open water lake with a few small marsh islands. This project will convert areas of open water back to vegetated marsh through the construction of earthen terraces. The total project area is approximately 3,440 acres.



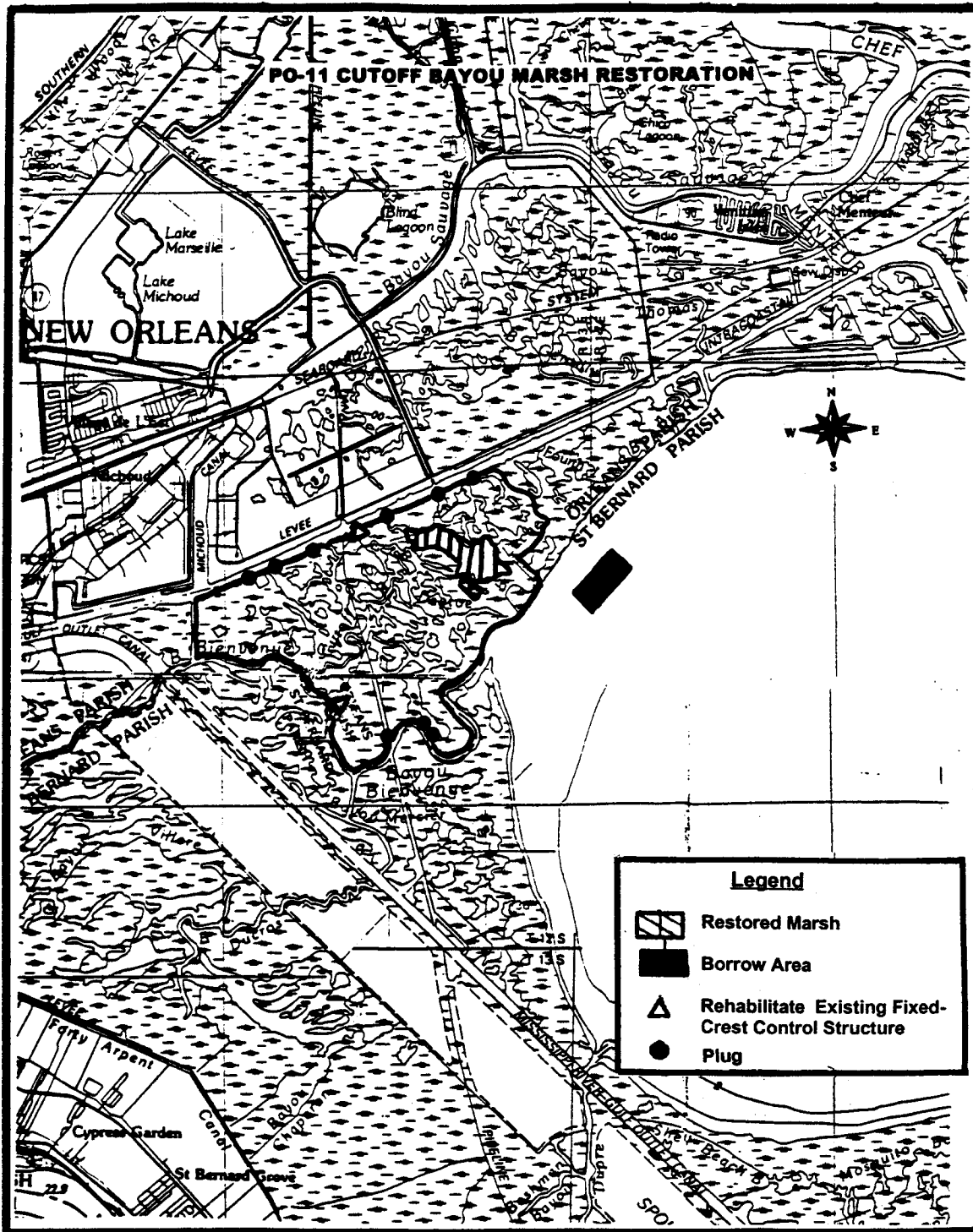
Sabine Refuge Marsh Creation (XCS-48)

This project is located on the Sabine National Wildlife Refuge, west of Hwy. 27, in large, open water areas north and northwest of Brown's Lake in Cameron Parish, LA. The objectives of this project are to create marsh in large, open water areas in a strategic manner to block wind-induced saltwater introduction and freshwater loss and reduce open water fetch and erosion of marsh edges. This project encompasses approximately 5,766 acres.



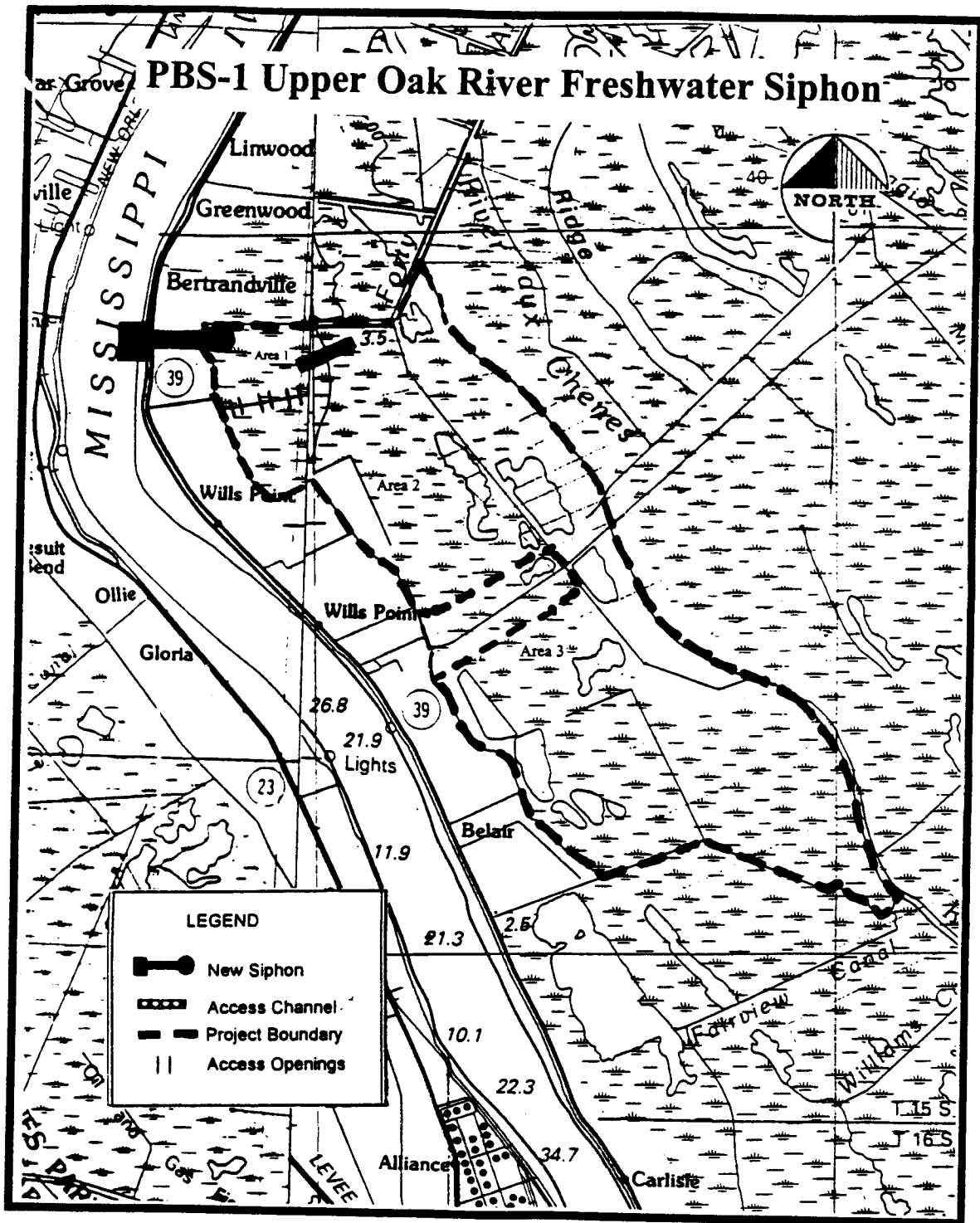
Barataria Land Bridge Shoreline Protection, Phase 1 (XBA-63)

The project is located approximately 3 miles south of Lafitte in western Jefferson Parish and eastern Lafourche Parish on the southwestern shoreline of Bayou Perot and the southeastern shoreline of Bayou Rigolettes. The Barataria Land Bridge a key feature in the Barataria estuary is likely to be lost if erosion in the area is not reduced. The conceptual design of this project will incorporate three or four techniques: rock riprap or reinforced matting, PVC sheetpile, and rock breakwater with a shell core.



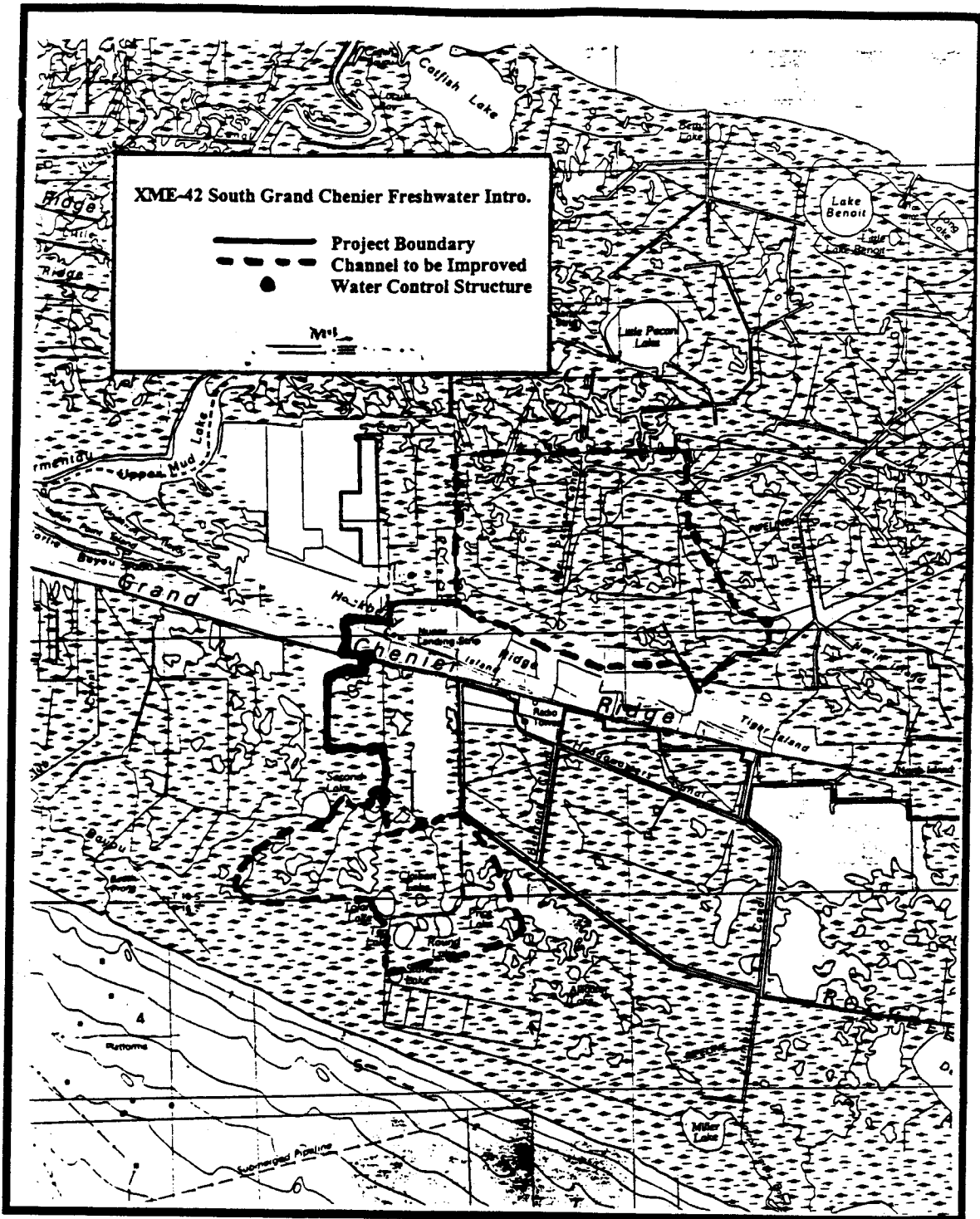
Cut Off Bayou Marsh Restoration (PO-11)

The project is bordered on the north by the GIWW, on the south by Bayou Bienvenue, and on the East by Lake Borgne in Orleans Parish approximately 1 mile south of Michoud. The project objectives are to reduce the land/water interface area subject to erosion, reduce tidal scouring and deepening of open water areas, elevate the substrate and restore marsh, allow for continued navigation along the GIWW, enhance water quality, and close the breaches on the GIWW to facilitate future marsh creation in the area with maintenance dredged material from the MRGO and GIWW. The project area is approximately 3,756 acres.



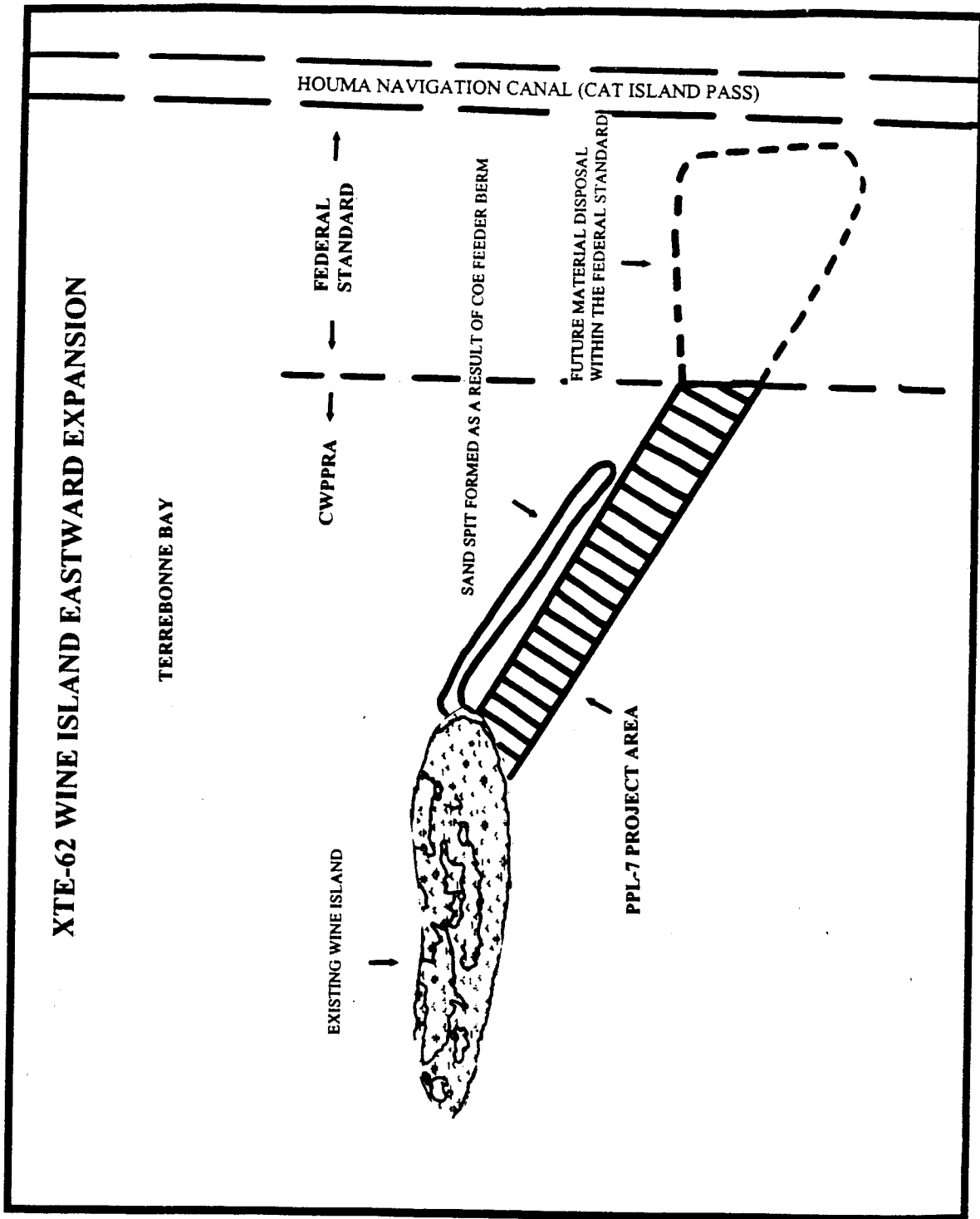
Upper Oak River Freshwater Siphon (PBS-1)

This project is located on the east bank of the Mississippi River in Plaquemines Parish 6 miles south of the Belle Chase Ferry and approximately 1/2 mile south of Bertrandville. The project area consists of approximately 4,618 acres. The objective of this project is to introduce freshwater and sediment from the Mississippi River through a siphon system, reduce the rate of land loss, increase vegetative diversity and submerged aquatic vegetation, and increase dissolved oxygen levels in the water.



South Grand Chenier Freshwater Introduction (XME-42)

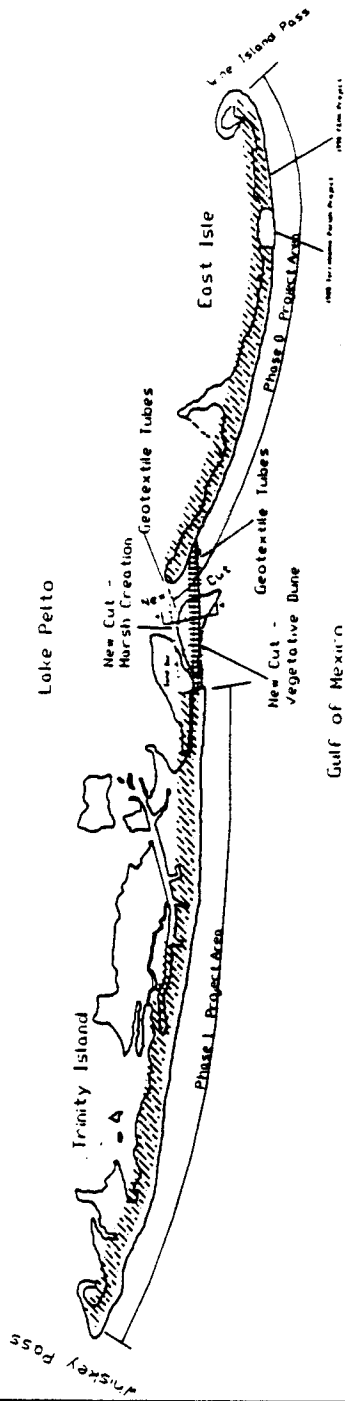
This project is located west of the Rockefeller State Wildlife Refuge within both the Lakes and Chenier Sub-Basins in Cameron Parish, at Grand Chenier, LA. This project will provide a source of freshwater south of Hwy. 82 from the Lakes Sub-Basin to reduce saltwater intrusion in the Chenier Sub-Basin, as well as reduce excessive flooding north of Hwy. 82 in the Lakes Sub-Basin. It encompasses approximately 15,231 acres.



Wine Island Eastward Expansion (XTE-62)

The project is located in Terrebonne Parish, in the southwestern region of Terrebonne Bay, west of Timbalier Island, east of Isles Denieres, southwest of Houma Navigation Canal, approximately 30 miles southeast of Cocodrie, LA. The objective of this project is to increase the size of Wine Island from 28 acres to 108 acres using unconfined disposal of approximately 1 million cubic yards of dredged material from the Houma Navigation Channel's 5.5 mile Cat Island Pass reach. The project encompasses approximately 108 acres

LAKE PELTO DEDICATED DREDGING, NEW CUT CLOSURE, AND SHORELINE STABILIZATION

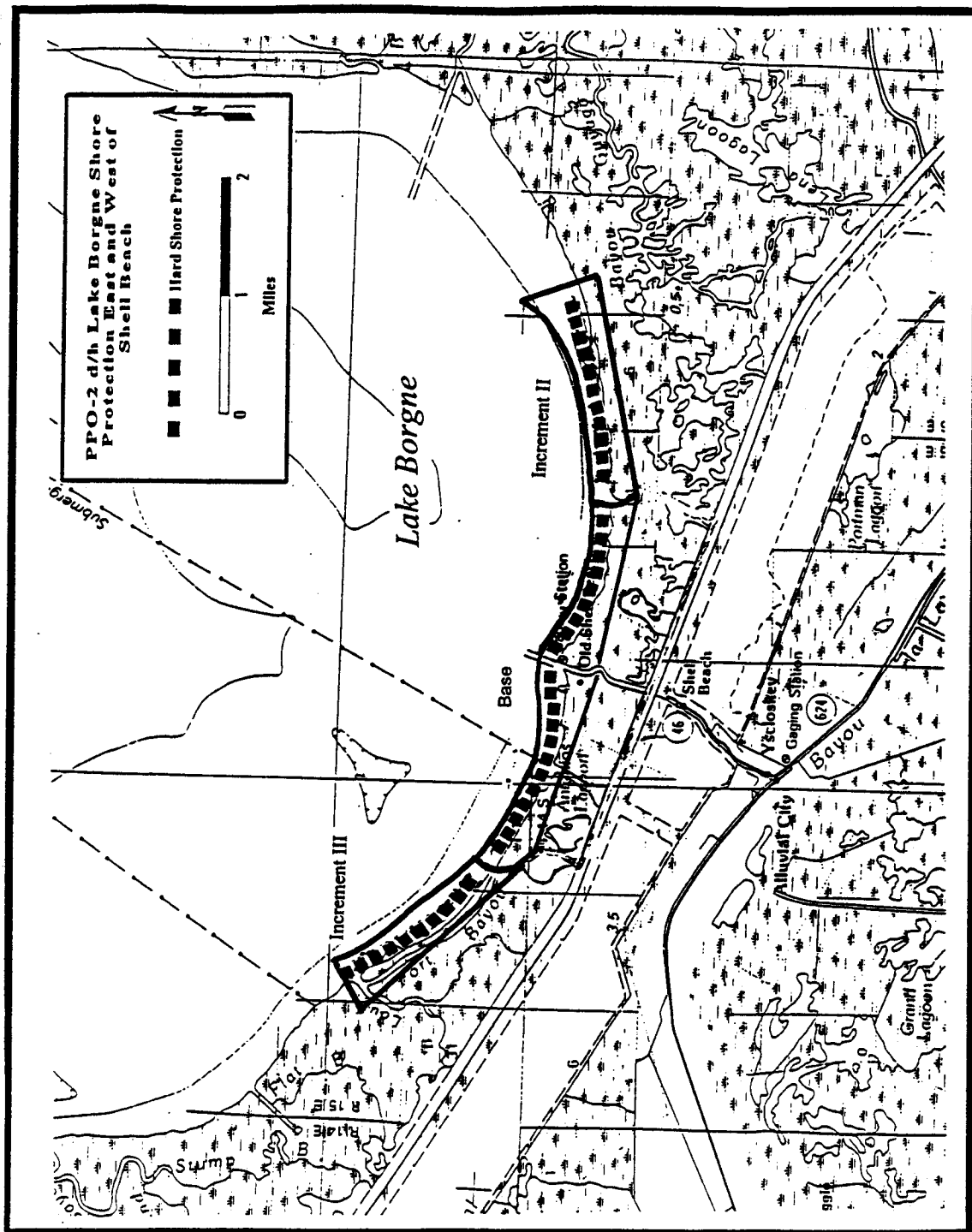


Legend
 New Cut - Marsh Creation
 New Cut - Vegetative Bune
 Phase 0 and 1 Project Boundary
 1985 Parish Project
 1996 FEMA Project
 Geotextile Tubes

Prepared by
Terrebonne Parish Consolidated Government
 Date: June 10, 1997

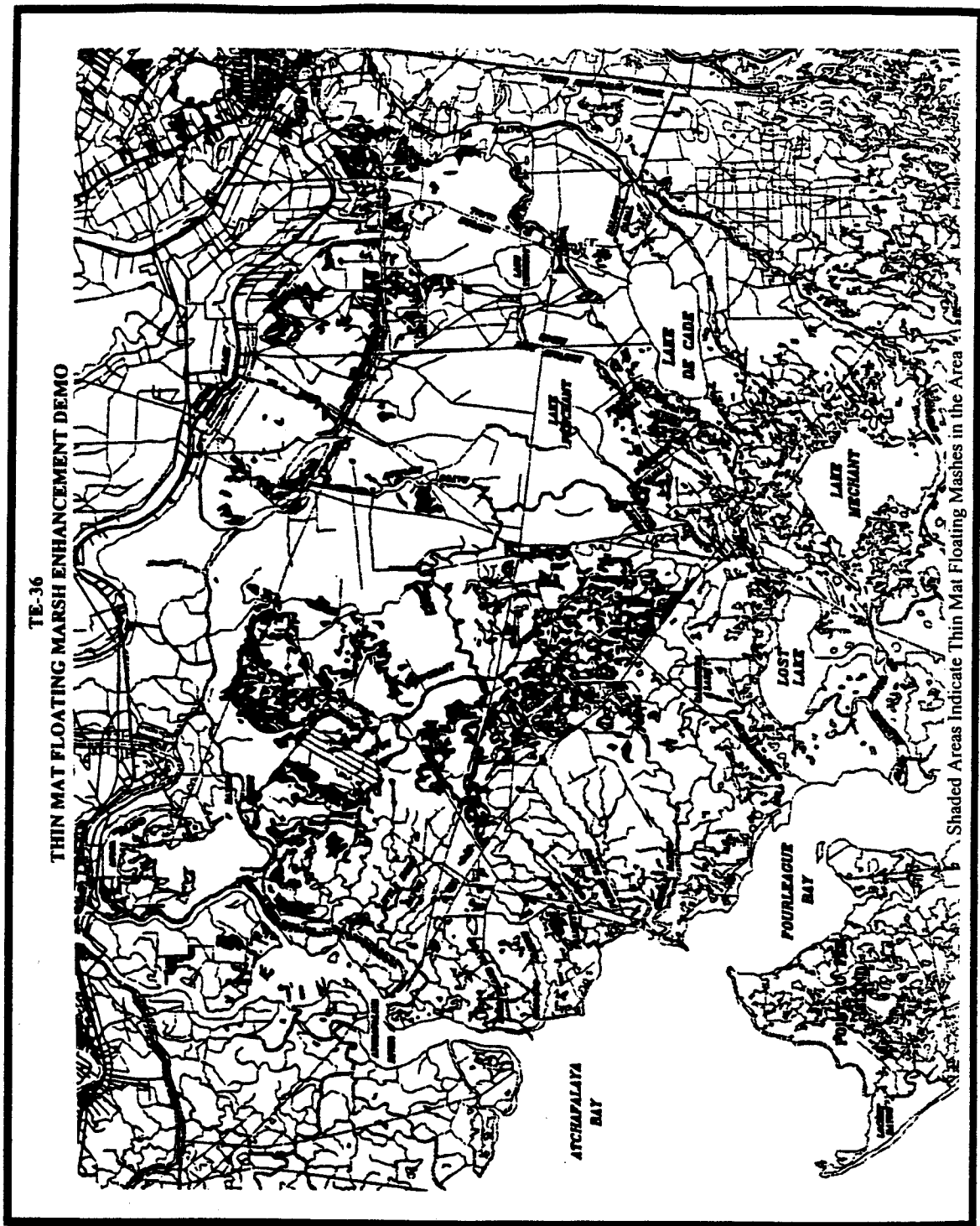
Lake Pelto Dedicated Dredging at "New Cut" Closure (TE-11a "ii")

This project is located in Lake Pelto at the "New Cut" breach between East and Trinity Islands, within the Isle Dernieres chain in Terrebonne Parish, LA. The objectives of this project are to create beaches, a frontal dune system, and a back barrier marsh to close the New Cut gap. This project encompasses approximately 147 acres.



Lake Borgne Shore Protection East and West of Shell Beach (PPO-2d/h)

This project is located along the shoreline of Lake Borgne approximately 8 miles east of Chalmette in St. Bernard Parish, LA. The objective of the project is to stabilize the shoreline to prevent further marsh loss and reduce locations of breakthroughs between the MRGO and Lake Borgne. This project will install continuous, hard shoreline protection along various locations of the Lake Borgne shoreline.



Thin Mat Floating Marsh Enhancement Within the Pentchant Watershed (TE-DEMO)

The project is located in the upper Bayou Pentchant Basin in northwestern Terrebonne Parish, LA., approximately 6 miles south of Amelia. The objectives of the project are to induce development of thick, continually floating mats from a thin-mat flotant, and to determine the effects of water movement of the floats in areas with and without available sediments. The total construction area is approximately three (3) acres.

PROJECT SELECTION PROCESS

Background and Rationale of Ranking Criteria Development.

The priority list selection process has undergone several changes during the life of the Breaux-Johnston Act. These changes have generally been aimed at 1.) increasing public involvement or 2.) making the project evaluation and selection process more rigorous. The emphasis in the process of selecting the 7th Priority Project List was placed in the first of these objectives.

Historically, funding of about \$40 million was set for project selection on past Priority Project Lists. However, on Lists 5, 6, and 7, the Task Force phased the costs for some projects that were initiated on Priority Project List 5. On previous priority project lists to the 5th Priority Project List, the annual funding had been adequate to cover the recommended projects. For this reason, there were no phased projects recommended prior to the 5th Priority Project List. Cost phasing on the 7th Priority Project List reduced the level of available funding for projects on List 7. In consideration of this, the funding level for the 7th Priority Project List was set by the Task Force in the range of between \$10 to 12 million.

In the past, projects have been evaluated and ranked in order of cost-effectiveness; the project with the lowest average annual fully funded cost per average annual habitat unit is ranked first, and the rest follow in order of increasing average annual fully funded cost/AAHU. One means of selecting the priority project list from this ranked list would be simply to begin at the top of the list and approve as many projects as could be built with that year's funding. However, this has never been the procedure used by the Task Force.

In the past, selection of the list involved considerable discussion at all three levels in the Task Force hierarchy: the Planning and Evaluation Subcommittee prepared a recommended list for the Technical Committee; the Technical Committee revised the list and presented a recommendation to the Task Force; and the Task Force considered that recommendation and generally made revisions before giving final approval to a priority project list.

Factors other than cost-effectiveness have always figured into the Task Force's decisions. These other factors include such things as implementability (the ease with which a project can be brought to construction) and public support. The Task Force has at times also taken into account the geographical distribution of projects in the coastal zone.

In an attempt to make the selection process rigorous, use was made of a procedure developed by the Technical Committee. This procedure took into account various criteria to produce an overall ranking of candidate projects. The criteria were evaluated such that each would have a maximum value of 10 points. Each criterion was weighted in a manner deemed appropriate by the committee to reflect its relative importance, and the sum of the resulting values gave a score for each project. Candidate

projects were ranked according to these scores to produce a recommended list for consideration by the Task Force. The Technical Committee required a two-thirds majority vote for any deviation from the ranked list. Table 4 lists the criteria and their assigned weights.

Table 4
Candidate Project Ranking Criteria

Criterion	Weight
Cost-Effectiveness	0.55
Longevity/Sustainability	0.15
Support of Restoration Plan Strategy	0.15
Supporting Partnerships	0.05
Public Support	0.05
Risk/Uncertainty	0.05
Total	1.00

Cost-Effectiveness. The committee agreed that cost-effectiveness is the single most important criterion in the ranking and selection of projects (it is, in fact, the only criterion mentioned in the Breaux-Johnston Act). For this reason, the committee assigned a weight of 0.55 to the cost-effectiveness index, so that it would count for more than half of a project's total score. The index itself is based on a comparison of the relative values of projects' cost-effectiveness as measured by the ratio of average annual costs to average annual habitat units. A base 10 logarithm is used to prevent skewing of the results in the case of a project with a very high average annual fully funded cost/AAHU (very low cost-effectiveness). The equation for determining the cost-effectiveness index is given below.

$$\text{Cost-effectiveness index of project } n = 5 \log_{10} (100 (E_n/E_1)) ,$$

where E_1 = average annual fully
funded cost/AAHU of
the most cost-
effective project
and E_n = average annual fully
funded cost/AAHU of
project n

In the case of the most cost-effective project (the project with the lowest average annual fully funded cost/AAHU), the term E_n/E_1 has the value of unity, and the cost-effectiveness index is 10.

Longevity/Sustainability. This criterion measures a project's estimated ability to continue to produce wetlands benefits over time. Projects that achieve long-term maintenance or restoration of natural processes (such as sediment transport via a crevasse) and can be sustained without extensive replacement actions will be favored over projects that will produce only short-term benefits or require extensive maintenance or replacement of project features to sustain long-term wetland benefits. The determination of longevity/sustainability is made by the Environmental and Engineering Work Groups, considering the following factors.

1. The ability of a project (including planned operation, maintenance, and replacement actions) to provide wetland benefits through the end of the 20-year project life.

2. The project's ability to provide wetland benefits beyond target year 20 without any further operation, maintenance, or replacement of project features. This evaluation would consider effects of anticipated site-specific conditions, such as hydrology, wave energy, saltwater intrusion, subsidence, and landscape conditions.

3. The extent that a project provides sediment, or facilitates or maintains peat build-up, sufficient to withstand or offset relative sea level rise and storm events.

4. Predictions of longevity/sustainability made through use of reliable simulation models, especially in the case of projects where there is substantial uncertainty and such models can be employed at a reasonable cost and in a timely manner.

Each work group representative and the assigned member of the Academic Assistance Group scored each project based on the one condition from among those listed below which they determined to be most applicable. An average score was then taken.

1. Project expected to continue providing substantial wetland benefits more than 40 years after construction: 10 points.

2. Project expected to provide substantial wetland benefits 30 to 40 years after construction: 7 points.

3. Project expected to cease providing substantial wetland benefits 20 to 30 years after construction: 3 points.

4. Project expected to cease providing substantial wetland benefits less than 20 years after construction: 0 points.

Support for Restoration Plan. Candidate projects that were identified in the November 1993 *Louisiana Coastal Wetlands Restoration Plan* or subsequent revisions as "critical" projects were given a score of 10 in this category. Candidate projects that were listed as supporting or altogether new received a score of 3.

Supporting Partnerships. The State's required cost share for CWPPRA projects is derived from the State's Wetlands Conservation and Restoration Fund (Trust Fund). The degree to which non-Federal partnering entities agree, in writing, to contribute all or part of the State's cost-share with non-Trust Fund sources will weigh favorably in project selection; contributions could consist of cash or in-kind services, including those covering maintenance, operation, or replacement expenses. Donation of land rights would not be considered as a financial contribution. The following formula was used to calculate the partnership index, which cannot exceed 10 points:

Partnership Index = $10(PS/SS)$,

Where: SS = dollar amount of the required 25 percent non-Federal cost share

and PS = dollar amount of the non-Federal partner contribution (other than that provided via the Trust Fund).

Public Support. The degree of public support (evidenced by written endorsement or testimony at a CWPPRA-related public meeting) is an indicator of a project's acceptability and implementability.

Traditionally in past lists, values were assigned according to which of the following conditions applied to each project.

1. Project is supported by local and State elected officials and Congressional representatives: 10 points.
2. Project is supported by 2 of above entities: 7 points.
3. Project is supported by 1 of above entities: 3 points.
4. Project without support by any of the above entities: 0 points.

Risk/Uncertainty. Projects with a greater probability of long-term success are ranked higher than those for which there is a greater level of uncertainty regarding success. Uncertainty may stem from a project's location in a rapidly changing or subsiding area, vulnerability to hurricane damage, or the use of untested or otherwise questionable methods. Risk may arise when contaminated sediments, water quality issues, or other problems are involved.

Each Task Force agency's Environmental Work Group member and a representative from the Academic Assistance Group scored each project between 0 and 10. The higher the score the greater the degree of confidence that the project will meet its objectives. Points were averaged for each project to determine the final raw scores.

Table 5 shows the summary of candidate project rankings. The table is sorted by project in descending order, based on the sum of the weighted criteria points that resulted from evaluation of each candidate project.

Table 5
Candidate Project Rankings and Systemic Effects Categorization for the 7th Priority Project List

Project No.	Project Name	Sponsoring Agency	Fully Funded Total Cost	Average Annual Cost (AAC)	Average Annual Habitat Units (AAHU)	Average Annual Cost/AAHU for Project "n"	Rank by E _n	Cost Effectiveness Index (CEI) = $\frac{E_n}{5 \log_{10}(100 E_n)}$	Candidate Project	Cost Effectiveness (CE) = 0.55CEI	Longevity/Sustainability Average Point Score (LSP)	Longevity/Sustainability (LS) = 0.15LSP	Restoration Plan Support Average Point Score (RSP)	Restoration Plan Support (RS) = 0.15RSP	Dollar Value of the Req'd. 15% Non-Federal Cost Share (SS)	Dollar Amount of the Non-Federal Contribution (PS)	Supporting Partnership Index (SPI) = $\frac{10(PS/SS)}{Supporting Partnership (SP) = 0.05SP}$	Public Support Index (PSI)	Public Support (PU) = 0.05PSI	Risk/Uncertainty Index (RUI)	Risk/Uncertainty (RU) = 0.05RUI	Summation of Criteria Weights = $CEI + RS + SP + PS + RU$
XBA-1a	Vegetative Planting of Dredge Material Disposal Site on Grand Terre Island	NMFS	\$ 928,900	\$ 83,500	73	\$ 1,143.84	1	10.00	5.50	3.8	0.57	10	1.5	\$ 139,335.00	\$ -	0	0	10	0.5	6.8	0.34	8.41
XBE-22	Pecan Island Terracing	NMFS	\$ 2,185,900	\$ 206,300	143	\$ 1,442.66	2	9.50	5.22	7.0	1.05	3	0.45	\$ 227,885.00	\$ -	0	0	10	0.5	8.2	0.41	7.63
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 5	COE	\$ 19,554,200	\$ 1,456,800	427	\$ 3,411.71	5	7.63	4.19	7.0	1.05	10	1.5	\$ 2,933,130.00	\$ -	0	0	10	0.5	7.4	0.37	7.61
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 4	COE	\$ 16,608,900	\$ 1,227,200	376	\$ 3,530.05	6	7.55	4.15	7.0	1.05	10	1.5	\$ 2,491,335.00	\$ -	0	0	10	0.5	7.4	0.37	7.57
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 3	COE	\$ 13,205,400	\$ 1,139,000	312	\$ 3,650.64	7	7.48	4.11	7.0	1.05	10	1.5	\$ 1,995,810.00	\$ -	0	0	10	0.5	7.4	0.37	7.53
XBA-63	Barataria Basin Land Bridge Shoreline Stabilization Along Bayou Perot and Rigollettes, Phase 1	NRCS	\$ 10,342,700	\$ 932,000	335	\$ 2,782.09	3	8.07	4.44	5.1	0.81	10	1.5	\$ 1,551,405.00	\$ -	0	0	10	0.5	3.8	0.19	7.44
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 2	COE	\$ 11,749,300	\$ 1,013,200	233	\$ 4,348.50	8	7.10	3.91	7.0	1.05	10	1.5	\$ 1,762,395.00	\$ -	0	0	10	0.5	7.4	0.37	7.33
PO-11	Cut Off Bayou Marsh Restoration	COE	\$ 6,510,200	\$ 589,600	176	\$ 3,744.32	4	7.67	4.22	4.6	0.69	10	1.5	\$ 976,530.00	\$ -	0	0	10	0.5	6.2	0.31	7.22
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 1	COE	\$ 9,391,600	\$ 817,000	149	\$ 5,483.22	11	6.60	3.63	7.0	1.05	10	1.5	\$ 1,408,740.00	\$ -	0	0	10	0.5	7.4	0.37	7.05
PBS-1	Upper Oak River Freshwater Introduction Siphon	NRCS	\$ 12,471,800	\$ 1,120,000	153	\$ 7,320.26	12	5.97	3.28	8.1	1.29	10	1.5	\$ 1,870,770.00	\$ -	0	0	10	0.5	6.0	0.3	6.27
XBA-63	Barataria Basin Land Bridge Shoreline Stabilization Along Bayou Perot and Rigollettes, Phase 0	NRCS	\$ 31,606,400	\$ 2,796,300	595	\$ 4,699.66	9	6.93	3.81	5.4	0.81	10	1.5	\$ 4,740,960.00	\$ -	0	0	10	0.5	3.8	0.19	6.81
XBE-42	South Grand Cheniere Freshwater Introduction (Hog Bayou)	NRCS	\$ 5,130,500	\$ 439,000	48	\$ 9,145.83	13	5.49	3.02	8.8	1.32	10	1.5	\$ 769,575.00	\$ -	0	0	10	0.5	3.0	0.15	6.49
XTE-62	Wire Island Eastward Expansion	COE	\$ 1,276,100	\$ 115,500	24	\$ 4,812.50	10	6.88	3.78	3.8	0.57	3	0.45	\$ 191,415.00	\$ -	0	0	10	0.5	4.2	0.21	5.51
TE-11a11	Lake Pello Dedicated Dredging and New Cut Closure	EDA	\$ 6,314,700	\$ 593,200	43	\$ 13,797.67	14	4.59	2.53	2.4	0.36	3	0.45	\$ 947,205.00	\$ -	0	0	10	0.5	2.4	0.12	5.01
PPO-24h	Lake Borgne Shore Protection, Base + East and West	COE	\$ 23,875,200	\$ 1,663,300	76	\$ 21,885.53	15	3.59	1.98	7.0	1.05	3	0.45	\$ 3,581,280.00	\$ -	0	0	10	0.5	8.2	0.41	4.39
PPO-24h	Lake Borgne Shore Protection, Base + East	COE	\$ 19,456,600	\$ 1,350,200	60	\$ 22,503.33	16	3.53	1.94	7.0	1.05	3	0.45	\$ 2,918,490.00	\$ -	0	0	10	0.5	8.2	0.41	4.35
PPO-24h	Lake Borgne Shore Protection, Base	COE	\$ 15,133,400	\$ 1,054,100	38	\$ 27,739.47	17	3.05	1.69	7.0	1.05	3	0.45	\$ 2,270,010.00	\$ -	0	0	10	0.5	8.2	0.41	4.10

* Y/N indicates tie vote of Planning and Evaluation Subcommittee members.

Effects of Sediment and Nutrients on Thin-Water Floated Marsh	MC	NRCS	\$ 460,122
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Rationale for Selection. The November 1993 *Louisiana Coastal Wetlands Restoration Plan* noted that a serious effort to address the state's problem of coastal wetlands loss would necessitate the investigation and implementation of large-scale restoration projects. During 1995, the State of Louisiana assumed a position of strong support for large-scale projects, particularly restoration of barrier islands and diversions of sediment and fresh water. The Task Force took steps to assure the selection of some large-scale projects when it approved a policy devoting two-thirds of future years' funding to "large-scale projects with systemic effects."

The Technical Committee assigned the candidate projects a category based on estimated costs and project outputs, in accordance with the policy. In general, projects with estimated costs exceeding \$10 million were considered large-scale projects. In addition, the committee classified as large-scale those projects expected to produce what they considered systemic, process-level benefits. Table 5 presents the systemic/non-systemic classification of the candidate projects, based on these categories assigned by the Technical Committee.

The Task Force provided specific guidance to the Technical Committee for selection of the 7th Priority Project List on two occasions during the 7th List process. Prior to initiation of the 7th Priority Project List process, the Task Force guidance stated that:

1. the total value of candidate projects on the list was to be no more than about \$10 million, the total value of demonstration projects was to be no more than \$2 million, and the remaining funds was to be allocated to phased projects on the 5th and 6th Priority Project Lists;
2. the nomination process of the 7th Priority Project List was to be downsized to a single public meeting, with the evaluation process limited to no more than 10 candidates in the current selection process. One public meeting was to be held to obtain input prior to actual project selection. Firm project cost figures were to be obtained prior to that meeting;
3. improved project development and minimization of duplication of effort was to be striven for through interagency coordination. The Planning and Evaluation Subcommittee was to meet before initiating the 7th Priority Project List development process to discuss and (to the extent possible) reach agreement on key problems, opportunities, focus areas, and appropriate project types, and to promote interagency project development;
4. there be a continuance to strive for selection of projects, or add-ons to such projects, which implement key basin restoration strategies and achieve process-level benefits; those benefits should extend far beyond the construction site, and were to restore or enhance natural wetland building or wetland maintenance processes in major portions of basins, subbasins, or other natural hydrologic units (e.g., inter-distributary basin);
5. priority was to be given to cost-effective projects that lack major implementation problems and would restore degraded wetlands, facilitate deltaic accretion, or reduce rapid wetland

loss rates through enhanced freshwater and sediment management or by arresting severe invasion of marine processes into freshwater or low-salinity wetlands;

6. projects to be avoided included those projects that would:

a. be located where wetland benefits are unlikely to be sustainable without disproportionate operation, maintenance and replacement costs;

b. primarily designed to address localized channel bank erosion, unless erosion constitutes immediate systemic threat to extensive wetlands via severe hydrologic alteration or saltwater intrusion; and

c. likely to be funded via other programs;

7. consideration to large-scale barrier island and river diversion projects was to be deferred until feasibility study results are available and indicate substantial wetland benefits. Focus was to be given to current efforts on building previously authorized barrier island restoration projects;

8. it be ensured that any demonstration projects recommended would be likely to illustrate effective new techniques and materials with a high likelihood of widespread, cost-effective application to coastal restoration. These projects were to have not simply be experiments to test possible new approaches (i.e., the emphasis is on demonstration, and not research and development); and

9. the 7th Priority Project List selection process be completed by January 15, 1998.

During the course of the 7th Priority Project List process, the Task Force met and modified this initial guidance so that the projects selected should be chosen on the basis of "importance to the ecosystem, not cost."

In preparation of the Task Force meeting for project selection of the 7th Priority Project List, the Technical Committee developed a list of recommended projects for the Task Force based on the foregoing guidance. The Technical Committee's decision was aided by a list of preferred projects presented by the State. In general, the recommended list was developed based on the ranking procedure described above and a consideration of the policy requiring two-thirds of the year's funding to be allocated to projects with systemic, process-level benefits. The Technical Committee conducted a vote of its members of the candidate projects to aid in the development of a recommended list to the Task Force for the 7th Priority Project List. A summary of these voting results is shown in Table 6. The final recommended list of candidate projects and their respective fully funded costs for a total cost of \$20,427,922 is shown below, as developed by the Technical Committee for consideration of the Task Force for the 7th Priority Project List:

- Vegetative Plantings of Dredge Material Disposal Site on Grand Terre Island, XBA 1a "i" (\$928,900);
- Pecan Island Terracing, XME-22 (\$2,185,900);
- Cut Off Bayou Marsh Restoration, PO-11 (\$6,510,200)
- Selected Shoreline Stabilization Along Bayou Perot and Rigoletttes, Barataria Basin Land Bridge, Phase 1, XBA-63/BA-27 (\$10,342,700)
- Effects of Sediment and Nutrients on Thin-Mat Flotant Marsh, CW-(Demo) (\$460,222)

In consideration of the Technical Committee's recommendation to the Task Force, the following projects were chosen by the Task Force for the 7th Priority Project List: Vegetative Plantings of Dredge Material Disposal Site on Grand Terre Island (\$928,000); Pecan Island Terracing (\$2,185,900); Cut Off Bayou Marsh Restoration (\$6,510,200); Effects of Sediment and Nutrients on Thin-Mat Flotant Marsh (Demonstration) (\$460,222); Selected Shoreline Stabilization Along Bayou Perot and Rigoletttes, Barataria Basin Land Bridge, Phase 1 (\$10,342,700). After much discussion of this list, the Task Force determined that there would be two parts to this list, one made up of funded projects and the other made up of some of the remaining candidates which would be unfunded. The Task Force picked a single large list from the entire list of ranked candidates developed by the Technical Committee, and then designated which projects on the list would be funded. The Task Force adopted a 7th Priority List that included all of the projects shown in Table 5, with the two exceptions that only the Alternative 1 of the 5 alternatives of the Sabine Marsh Creation Project be included in the list, and that the base plan only of Lake Borgne Shoreline Protection Project be included in the list. Recognizing its commitment to fiscal responsibility, the Task Force identified only enough money to fund the following projects: Vegetative Plantings of Dredge Material Disposal Site on Grand Terre Island (\$928,000); Pecan Island Terracing (\$2,185,900); Effects of Sediment and Nutrients on Thin-Mat Flotant Marsh (Demonstration) (\$460,222); and, Selected Shoreline Stabilization Along Bayou Perot and Rigoletttes, Barataria Basin Land Bridge, Phase 1 (\$10,342,700). The consensus of the Task Force was that there is no stipulation that the unfunded projects on the chosen list be funded as funds become available. In addition, the Task Force would need to take special action before these unfunded projects could be placed in a funded category.

On January 16, 1998, the Louisiana Coastal Wetlands Conservation and Restoration Task Force made its recommendation for the 7th Priority Project List. The list is shown in Table 7. Table 7 also shows one possible schedule for funding phased projects. The schedule shown in Table 7 could vary depending upon the availability of funds and the outcome of the engineering and design effort for the Bayou Lafourche Siphon project.

Table 6
Technical Committee Vote for Selection of the 7th Priority Project List^a

Project No.	Nominee Project Name	DNR	EPA	NRCS	FWS	NMFS	COE	Total
XME-22	Pecan Island Terracing	15	17	8	16	16	13	85
XBA-63 BA-27	Barataria Basin Land Bridge Shoreline Stabilization Along Bayou Perot and Rigoletttes, Phase 1	13	7	16	15	14	17	82
XBA 1a "i"	Vegetative Planting of Dredge Material Disposal Site on Grand Terre Island	16	16	1	17	17	14	81
PO-11	Cut Off Bayou Marsh Restoration	14	8	13	9	15	12	71
PBS-1	Upper Oak River Freshwater Introduction Siphon	10	15	14	14	7	11	71
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 3	6	13	6	11	11	15	62
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 1	12	9	2	8	13	16	60
XME-42	South Grand Cheniere Freshwater Introduction (Hog Bayou)	11	5	15	6	6	10	53
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 5	8	11	4	13	9	6	51
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 4	7	12	5	12	10	5	51
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 2	5	10	7	10	12	4	48
XTE-62	Wine Island Eastward Expansion	17	6	3	5	5	9	45
XBA-63 BA-27	Barataria Basin Land Bridge Shoreline Stabilization Along Bayou Perot and Rigoletttes, Phase 0	2	4	17	7	8	3	41
TE-11aii	Lake Pelto Dedicated Dredging and New Cut Closure	1	14	10	4	4	8	41
PPO-2dh	Lake Borgne Shore Protection, Base	9	3	12	1	1	1	27
PPO-2dh	Lake Borgne Shore Protection, Base + East and West	3	1	9	3	3	7	26
PPO-2dh	Lake Borgne Shore Protection, Base + East	4	2	11	2	2	2	23

Cumulative Project Votes of Each

Agency: 153 153 153 153 153 153

^a Updated printing of December 16, 1997 vote, to reflect accurate project numbering to correspond with project names.

Table 7
Project Selection of the 7th Priority Project List
by the Louisiana Coastal Wetlands Conservation and Restoration Task Force^a

Project No.	Name of Selected Project on 7th Priority Project List	Lead Agency	Fully Funded Total Cost	Cummulative Fully Funded Total Cost
XME-22	Pecan Island Terracing	NMFS	\$ 2,185,900	\$ 2,185,900
XBA-63 BA-27	Barataria Basin Land Bridge Shoreline Stabilization Along Bayou Perot and Rigoletttes, Phase 1	NRCS	\$ 10,342,700	\$ 12,528,600
XBA 1a "i"	Vegetative Planting of Dredge Material Disposal Site on Grand Terre Island	NMFS	\$ 928,900	\$ 13,457,500
CW-(Demo)	Effects of Sediment and Nutrients on Thin-Mat Flotant Marsh	NRCS	\$ 460,222	\$ 13,917,722
	Total for Projects Selected and Funded:		\$ 13,917,722	
PO-11	Cut Off Bayou Marsh Restoration	COE	\$ 6,510,200	\$ 6,510,200
PBS-1	Upper Oak River Freshwater Introduction Siphon	NRCS	\$ 12,471,800	\$ 18,982,000
XCS-48 (SA-1)	Sabine Refuge Marsh Creation, Alt No. 1	COE	\$ 9,391,600	\$ 28,373,600
XME-42	South Grand Cheniere Freshwater Introduction (Hog Bayou)	NRCS	\$ 5,130,500	\$ 33,504,100
XTE-62	Wine Island Eastward Expansion	COE	\$ 1,276,100	\$ 34,780,200
XBA-63 BA-27	Barataria Basin Land Bridge Shoreline Stabilization Along Bayou Perot and Rigoletttes, Phase 2 ^b	NRCS	\$ 21,263,700	\$ 56,043,900
TE-11aii	Lake Pelto Dedicated Dredging and New Cut Closure	EPA	\$ 6,314,700	\$ 62,358,600
PPO-2dh	Lake Borgne Shore Protection, Base Only	COE	\$ 15,133,400	\$ 77,492,000
	Total for Projects Selected but Not Funded:		\$ 77,492,000	

Proposed Schedule of Allocations for Phased Projects

Project No.	Name of Phased Project from Previously Approved Lists	7th Priority Project List Cost	8th Priority Project List Cost ^c	Cummulative Cost
BA-25, PBA-20	Bayou Lafourche Siphon	\$ 7,987,000	\$ 7,500,000	\$ 15,487,000
MR-9, PMR-10	Delta-Wide Crevasses	\$ -	\$ 2,736,950	\$ 18,223,950
TE-34, PTE-26i	Penchant Basin Plan	\$ -	\$ 7,051,550	\$ 25,275,500
TE-32, TE-7f	Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management, Alternative B	\$ -	\$ 4,915,650	\$ 30,191,150
BA-24, XBA-48a	Myrtle Grove Siphon	\$ -	\$ 5,000,000	\$ 35,191,150
LA-2, PTV-5	Nutria Harvest for Coastwide Restoration	\$ 640,000	\$ 1,100,000	\$ 36,931,150
	Total:	\$ 8,627,000	\$ 28,304,150	

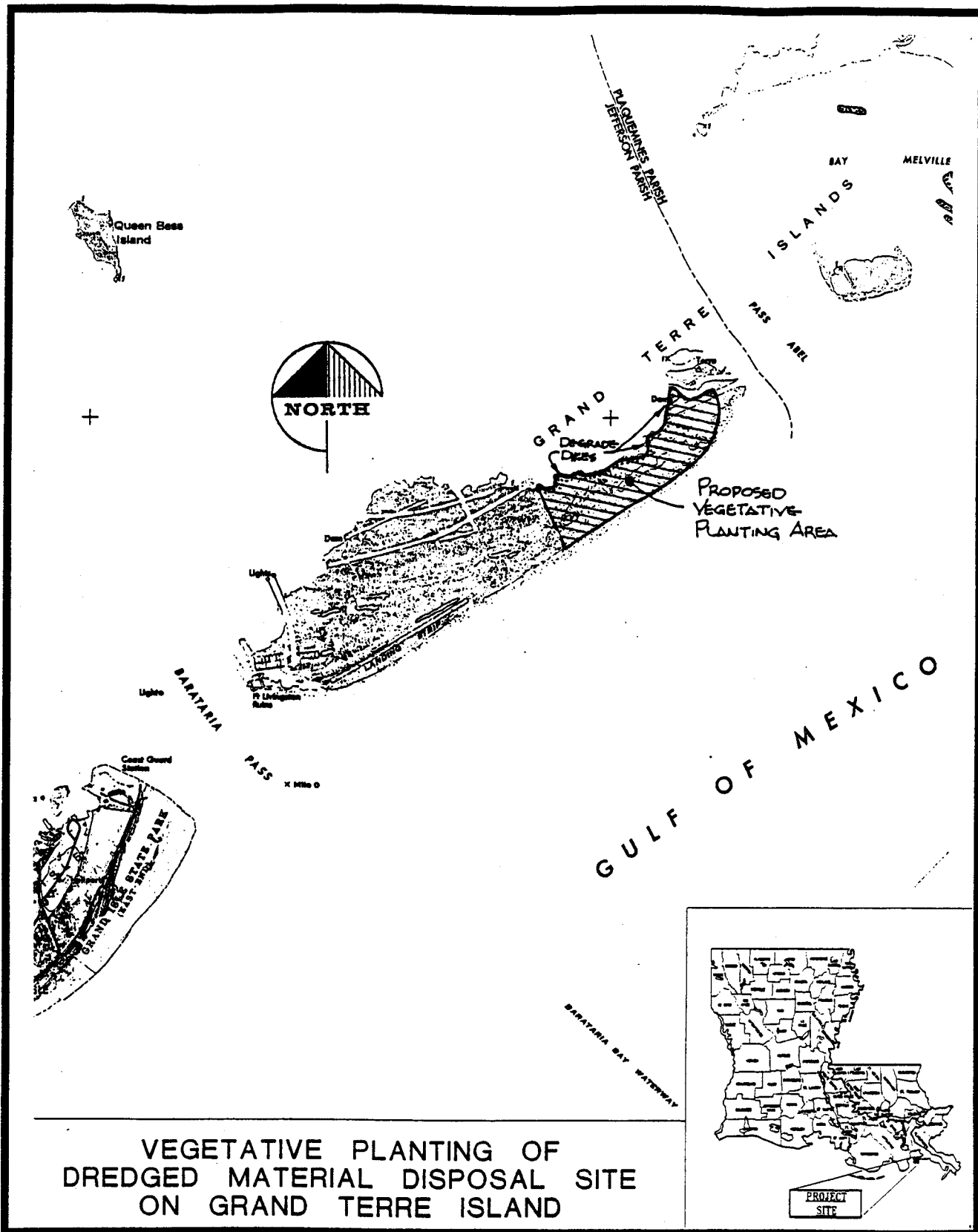
^a The selection meeting of the Task Force was conducted on January 16, 1998.

^b Phase 2 project cost (for associated work) has been shown here to equal the difference in cost (and work) between Phase 0 and Phase 1.

^c 7th Priority Project List phased project costs that are now deferred to the 8th Priority Project List.

DESCRIPTIONS OF SELECTED AND FUNDED PROJECTS

This section provides a concise narrative of each selected project that was funded. The project details provided include the project location and size, problems, features, effects and issues, benefits and cost, status, and a map identifying the project area and features.



VEGETATIVE PLANTING OF
DREDGED MATERIAL DISPOSAL SITE
ON GRAND TERRE ISLAND

Project: XBA-1a "i" Vegetative Planting of a Dredged Material Disposal Site on Grand Terre Island

Federal Sponsor: National Marine Fisheries Service

Location:

This project is located on Grand Terre Island at the mouth of Barataria Bay Waterway, east of Grand Isle, in Jefferson Parish, LA. This project encompasses approximately 221 acres.

Problems:

Grand Terre is rapidly eroding at both the beach front and back bay wetlands. The 1996 U.S. Army Corps of Engineers dredge disposal area on the island is almost completely devoid of vegetation. Breaks in the retention dikes have occurred and are allowing tidal movement into and out of the dredge material disposal site. Although continued tidal action is important and should be encouraged, erosion of the enclosed wetland platform could become severe if a substantial wetland base is not developed.

Project Objectives:

The objectives of this project are:

- 1.) Stabilize the dredged material platform via vegetative planting
- 2.) Remove all cattle from the island and purchase grazing rights for the duration of the project (20 years)

Project Features:

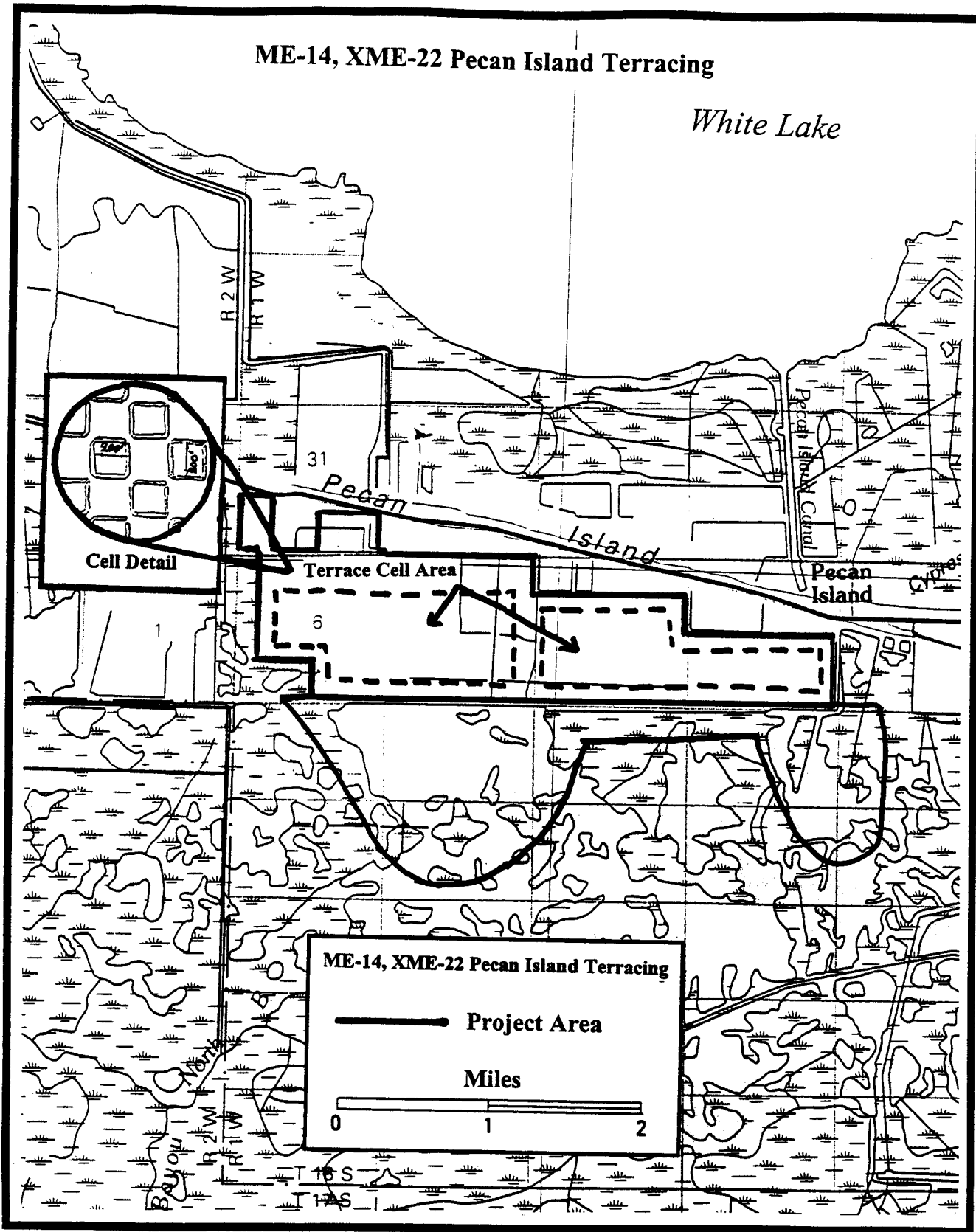
This project will develop and implement a planting protocol to re-vegetate the +100 acre dredged material site on Grand Terre Island. The project should also involve some strategic degrading of retention dikes, particularly along the bay-side of the island, to enhance the ingress and egress of marine fisheries.

Benefits and Costs:

Fully Funded Cost	AAC/AAHU	AAHU	Created/Restored	Protected	Total Benefitted
\$928,900	\$1,144	73	122 ac	5 ac	127 ac

ME-14, XME-22 Pecan Island Terracing

White Lake



Project: XME-22 Pecan Island Terracing

Federal Sponsor: National Marine Fisheries Service

Location and Size:

This project is located in Vermilion Parish approximately 5 miles north of the Gulf of Mexico just south of Pecan Island and Hwy 82. The total project area is approximately 3,550 acres.

Problems:

The marshland was transformed into dry pasture land in the mid 1950's by constructing continuous dikes and pumping out the water. Deterioration and loss of the perimeter levees in recent years has converted the entire area into a shallow, open water lake with a few small marsh islands.

Project Objectives:

This project will convert areas of open water back to vegetated marsh through the construction of earthen terraces.

Project Features:

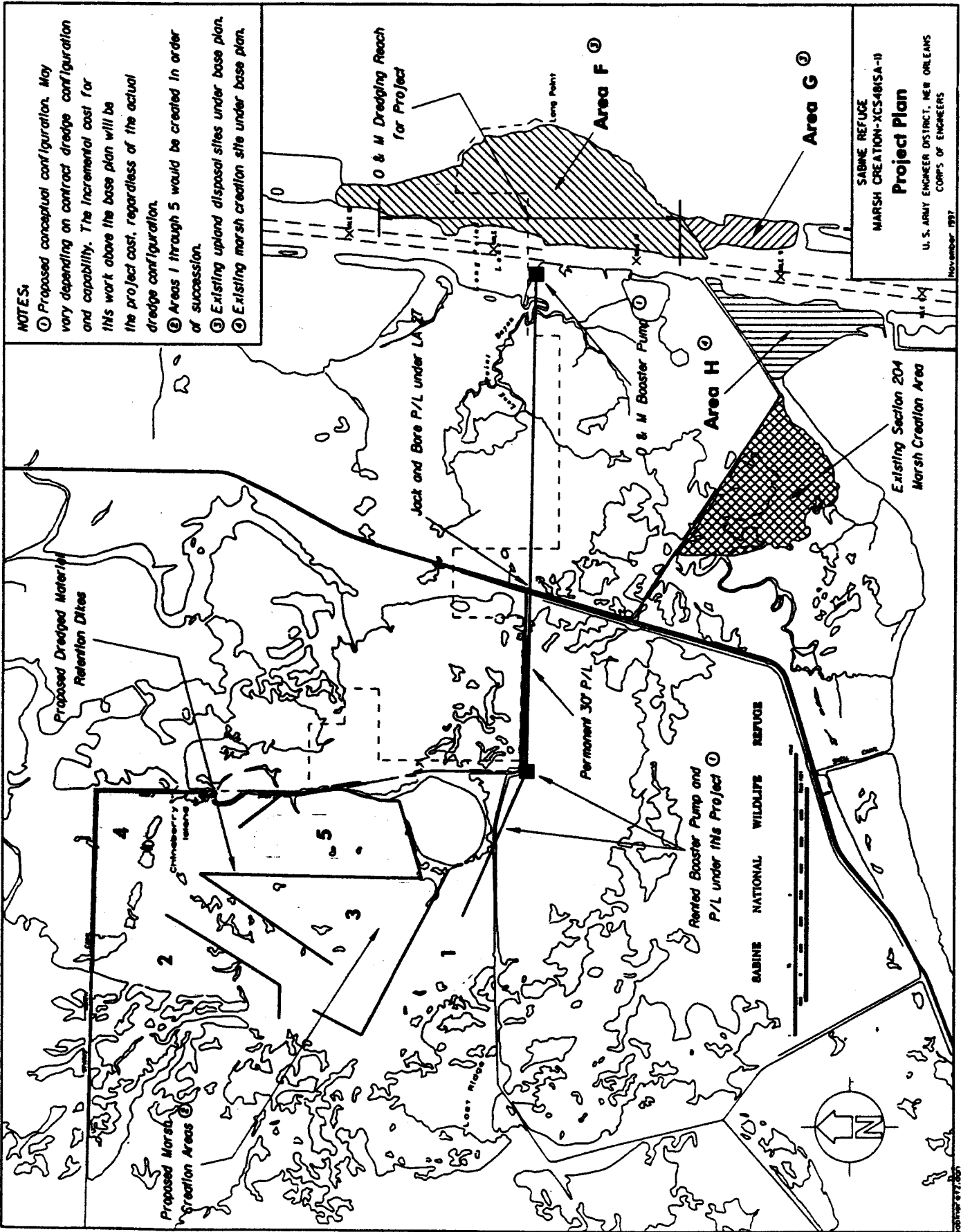
Project features include construction of earthen terraces over a substantial portion of the project area. The earthen cells of the terraces will consist of dredged bottom material deposited in 200 ft long berms with a 5 ft crown, 20 ft base, and a height of 2.5 ft above MSL. Each cell will have perimeter dimensions of approximately 200 ft on each side for a total of approximately 482 cells. Breaks or voids will be constructed in each cell to permit sediment laden water to move in or out of the cell to facilitate sediment settling. Submerged aquatic vegetation growth will be promoted in the terraced area due to reduced turbidity and wave action. Emergent vegetation growth will be stimulated by the emergent soils produced by terrace construction.

Effects and Issues:

This project is not expected to impede marine organism access.

Benefits and Costs:

Fully Funded Cost	AAC/AAHU	AAHU	Created/Restored	Protected	Total Benefitted
\$2,185,900	\$1,443	143	383 ac	59 ac	442 ac



NOTES:

- ① Proposed conceptual configuration. May vary depending on contract dredge configuration and capability. The incremental cost for this work above the base plan will be the project cost, regardless of the actual dredge configuration.
- ② Areas 1 through 5 would be created in order of succession.
- ③ Existing upland disposal sites under base plan.
- ④ Existing marsh creation site under base plan.

SABINE REFUGE
MARSH CREATION-XCS48ISA-11

Project Plan

U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS

November 1987

Project: XCS-48 (SA-1) Sabine Refuge Marsh Creation

Federal Sponsor: U.S. Fish and Wildlife Service/U.S. Army Corps of Engineers

Location:

This project is located on the Sabine National Wildlife Refuge, west of Hwy. 27, in large, open water areas north and northwest of Brown's Lake in Cameron Parish, LA. This project encompasses approximately 5,776 acres.

Problems:

Problems in this area include:

- 1.) Wind-related saltwater pumping and freshwater loss in large, open water areas
- 2.) Wind-related erosion of marsh areas
- 3.) Sites suitable for marsh creation adjacent to the Calcasieu Ship Channel are currently occupied

Project Objectives:

- 1.) Create marsh in large, open water areas in a strategic manner to block wind-induced saltwater introduction and freshwater loss
- 2.) Create marsh in large, open water areas to reduce open water fetch and erosion of marsh edges

Project Features:

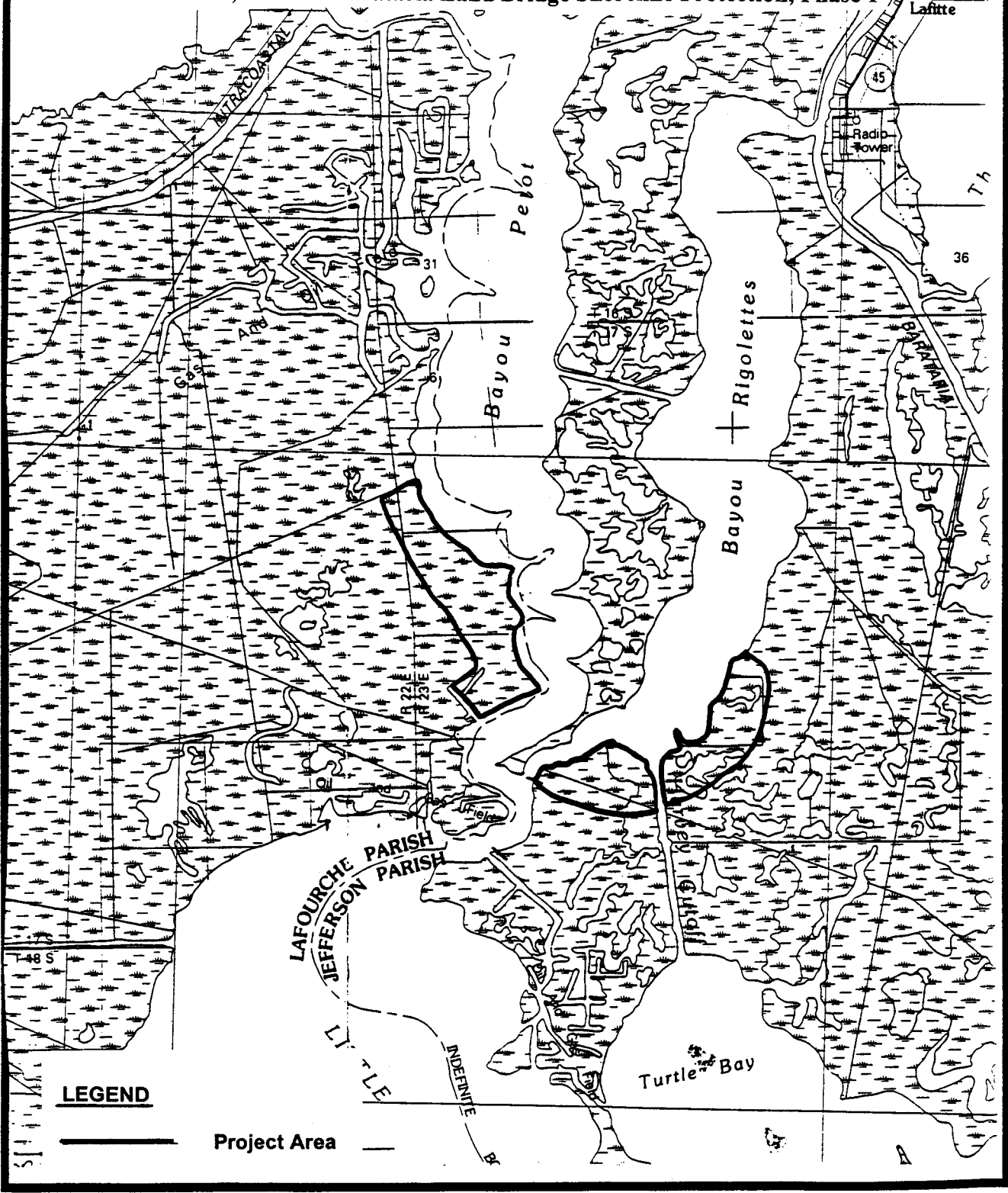
This project will construct earthen partitions within the shallow open water areas to serve as material retention dikes. These dikes will be planted with smooth cordgrass to cover approximately 27,000 linear ft of dike surfaces. Dredged slurry obtained from the USACE Operation and Maintenance Dredging of the Calcasieu Ship Channel will be placed in the containment areas no higher than +3.25 ft National Geodetic Vertical Datum (NGVD). A permanent dredge discharge pipeline will be installed, and a booster pump and temporary pipelines will be utilized only during the dredging events. Weirs and fortification of a shell road may be necessary to further contain the dredged slurry. Maintenance of the retention dikes may be needed during the life of the project (20 years). This project has been divided into five increments, such as Increment 2 will be a continuation of Increment 1, Increment 3 will be a continuation of Increments 1 and 2, etc. A creation event will occur every two years according to which number of increments are chosen. Costs and benefits of each increment are listed below.

Benefits and Costs:

Increment 1:	Fully Funded Cost = \$9.4 M	AAHU's = 149	Total Benefitted = 238 ac
Increment 2:	Fully Funded Cost = \$11.7 M	AAHU's = 233	Total Benefitted = 446 ac
Increment 3:	Fully Funded Cost = \$13.3 M	AAHU's = 312	Total Benefitted = 655 ac
Increment 4:	Fully Funded Cost = \$16.6 M	AAHU's = 376	Total Benefitted = 845 ac
Increment 5:	Fully Funded Cost = \$19.5 M	AAHU's = 427	Total Benefitted = 1015 ac

OURCHE PARISH

BA-27, XBA-63 Barataria Land Bridge Shoreline Protection, Phase 1



LEGEND

— Project Area —

Project: XBA-63, BA-21 Selected Shoreline Stabilization along Bayous Perot and Rigolettes (Barataria Land Bridge)

Federal Sponsor: Natural Resources Conservation Service

Location and Size:

The project is located approximately 3 miles south of Lafitte in western Jefferson Parish and eastern Lafourche Parish on the southwestern shoreline of Bayou Perot and the southeastern shoreline of Bayou Rigolettes. Phase 1 of this project will have a combined length of 26,900 ft of shoreline protection. The complete project will have a combined length of 71,000 ft of shoreline protection.

Problems:

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

Project Objectives:

The objective of this project is to reduce shoreline erosion for the above referenced area. Secondary benefits would include maintenance, and an increased extent of submerged aquatic vegetation, on the protected side of project features where such features form protected coves. A reduction in future interior land loss rates would also occur within certain parts of the project area.

Project Features:

The conceptual design of this project will incorporate three or four techniques to address three common situations in this project area. These techniques include:

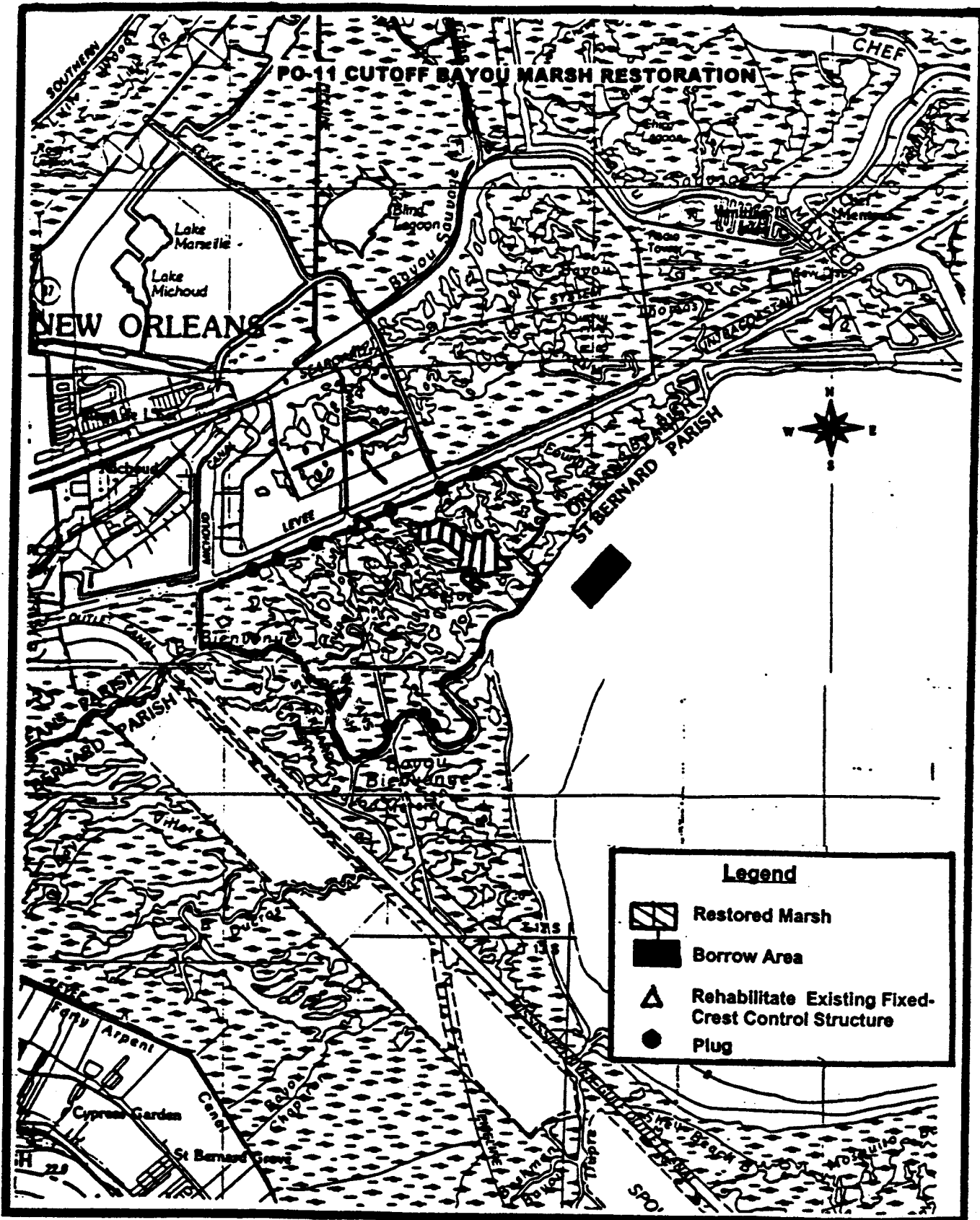
- 1.) Rock riprap or reinforced matting to stabilize and maintain the existing shoreline,
- 2.) PVC sheetpile or other similar approach to hold vegetation in place where there is continuous, but marshy shoreline, and
- 3.) Rock breakwater with a shell core, capable of bridging across open water areas where there is discontinuous marsh.

Benefits and Costs: Total Project

Fully Funded Cost	AAC/AAHU	AAHU	Created/Restored	Protected	Total Benefitted
\$31,606,400	\$4,700	595	0 ac	1,649 ac	1,649 ac

Benefits and Costs: Phase 1 (Preliminary Figures)

Fully Funded Cost	AAC	AAHU	Created/Restored	Protected	Total Benefitted
\$10,342,700	\$1,003,300	335	0 ac	779 ac	779 ac



Project: PO-11 Cut Off Bayou Marsh Restoration

Federal Sponsor: United States Army Corps of Engineers

Location and Size:

The project is bordered on the north by the GIWW, on the south by Bayou Bienvenue, and on the East by Lake Borgne in Orleans Parish approximately 1 mile south of Michoud. The project area is approximately 3,756 acres.

Problems:

Construction of the GIWW, MRGO, and several other smaller canals have significantly altered the area's hydrology by increasing tidal and wave energy as well as salinity. The marsh is isolated, and is breaking up.

Project Objectives:

- ◆ Reduce the land/water interface area subject to erosion
- ◆ Reduce tidal scouring and deepening of open water areas
- ◆ Elevate the substrate and restore marsh
- ◆ Allow for continued navigation along the GIWW
- ◆ Enhance water quality
- ◆ Close the breaches on the GIWW to facilitate future marsh creation in the area with maintenance dredged material from the MRGO and/or GIWW

Project Features:

- 1) Install eight new breach closures and refurbish two existing closures along the GIWW and Bayou Bienvenue,
- 2) hydraulic dredging of sediments from the bottom of Lake Borgne to create approximately 220 acres of emergent marsh, and nourishment with a thin layer of dredged material to an additional 330 acres, and
- 3) facilitate marsh creation in the future with maintenance dredged material from the GIWW and/or MRGO (this will be funded under the COE maintenance dredging program)

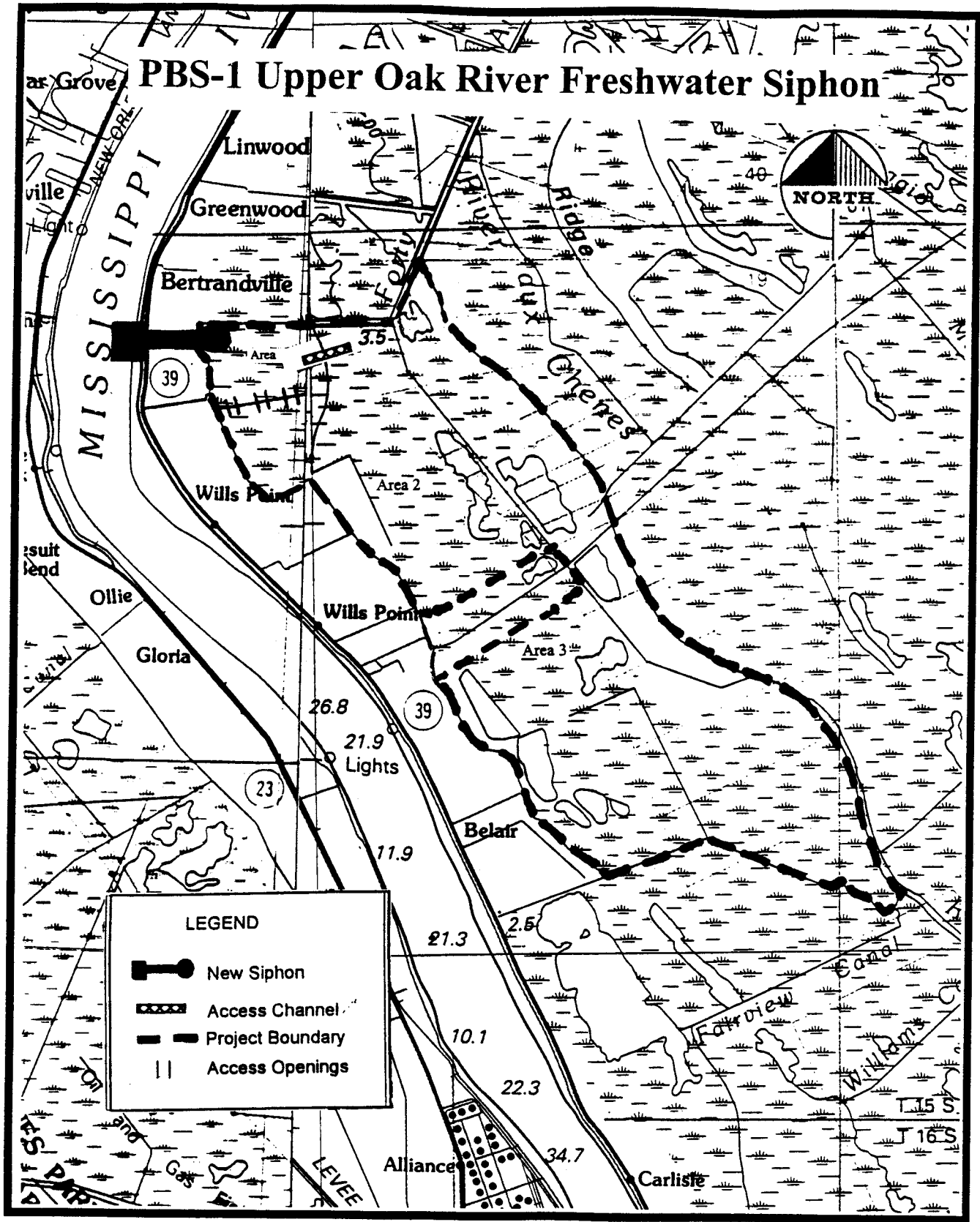
Effects and Issues:

Closures on the GIWW and Bayou Bienvenue will facilitate future marsh creation opportunities with no cost to the project using COE maintenance dredged material from the MRGO and/or GIWW.





Benefits and Costs:

Fully Funded Cost	AAC/AAHU	AAHU	Created/Restored	Protected	Total Benefitted
\$6,510,200	\$3,344	176	226 ac	0 ac	226 ac

PBS-1 Upper Oak River Freshwater Siphon



LEGEND

-  New Siphon
-  Access Channel
-  Project Boundary
-  Access Openings

Project: PBS-1 Upper Oak River Freshwater Siphon

Federal Sponsor: Natural Resources Conservation Service

Location and Size:

The project is located on the east bank of the Mississippi River in Plaquemines Parish 6 miles south of the Belle Chase Ferry and approximately 1/2 mile south of Bertrandville. The project area consists of approximately 4,618 acres.

Problems:

The area is suffering from interior marsh breakup due to saltwater intrusion and reduced water quality in the northwestern project area due to limited water exchange. The problems in the area are mainly caused by the Mississippi River levee system that has blocked historic sediment and nutrient laden freshwater flows into the area.

Project Objectives:

- ◆ Introduce freshwater and sediment from the Mississippi River through a siphon system
- ◆ Reduce the rate of land loss
- ◆ Increase vegetative diversity in the project area
- ◆ Increase submerged aquatic vegetation
- ◆ Increase dissolved oxygen levels in the water (especially in the northwestern corner)

Project Features:

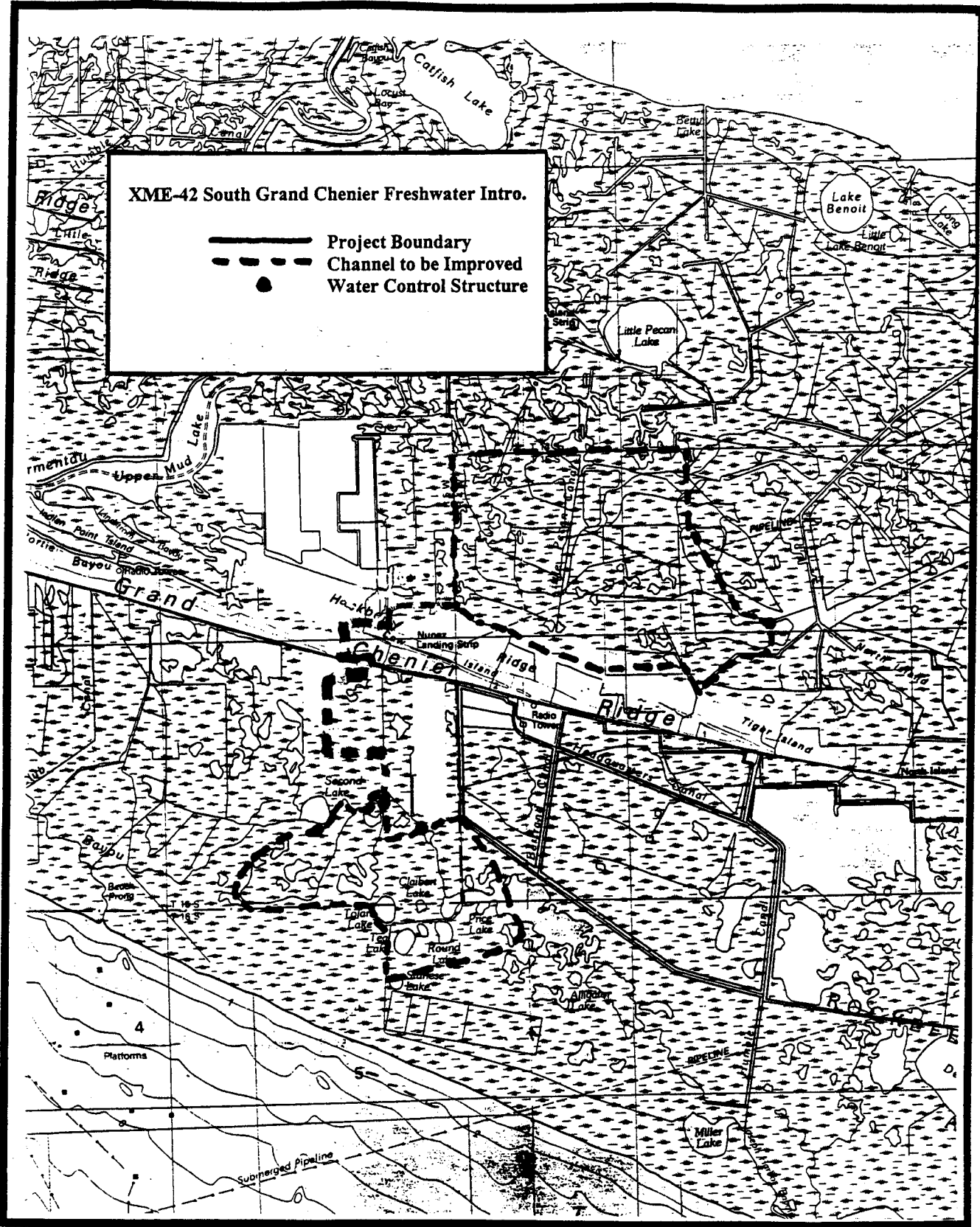
- 1) Construct a freshwater siphon (approximately 1,000 cfs capacity)
- 2) Construct a 1,600 ft x 600 ft conveyance channel through a natural ridge to allow water to flow to the east to Oaks ridge and to the south
- 3) Construct openings through abandoned board road

Effects and Issues:

This area does not receive benefits from the Caernarvon project. This project should not have any negative effect to oysters or oyster leases. Presented and supported by Plaquemines Parish.

Benefits and Costs:

Fully Funded Cost	AAC/AAHU	AAHU	Created/Restored	Protected	Total Benefitted
\$12,471,800	\$7,320	153	-- 276 ac	61 ac	337 ac



Project: XME-42 South Grand Chenier Freshwater Introduction

Federal Sponsor: Natural Resources Conservation Service

Location and Size:

This project is located west of the Rockefeller State Wildlife Refuge within both the Lakes and Chenier Sub-Basins in Cameron Parish, at Grand Chenier, LA. It encompasses approximately 15,231 acres.

Problems:

High water levels in the Lakes Sub-basin are stressing marsh vegetation, while marshes in the Chenier Sub-Basin are suffering from saltwater intrusion. This saltwater intrusion and increased tidal levels in the Hog Bayou area of the Chenier Sub-basin has been caused by the construction of the Mermentau River Cut Off Channel located at the southeastern end of Lower Mud Lake to the west. An opportunity exists to improve vegetated wetlands in the Lakes Sub-Basin by reducing high water levels through freshwater diversions into the Chenier Sub-basin. At the same time, salt water intrusion can be reduced in the Chenier Sub-Basin by introducing freshwater from the Lakes Sub-Basin.

Project Objectives:

This project will provide a source of freshwater south of Hwy. 82 to reduce saltwater intrusion in the Chenier Sub-Basin, as well as reduce excessive flooding north of Hwy. 82 in the Lakes Sub-Basin.

Project Features:

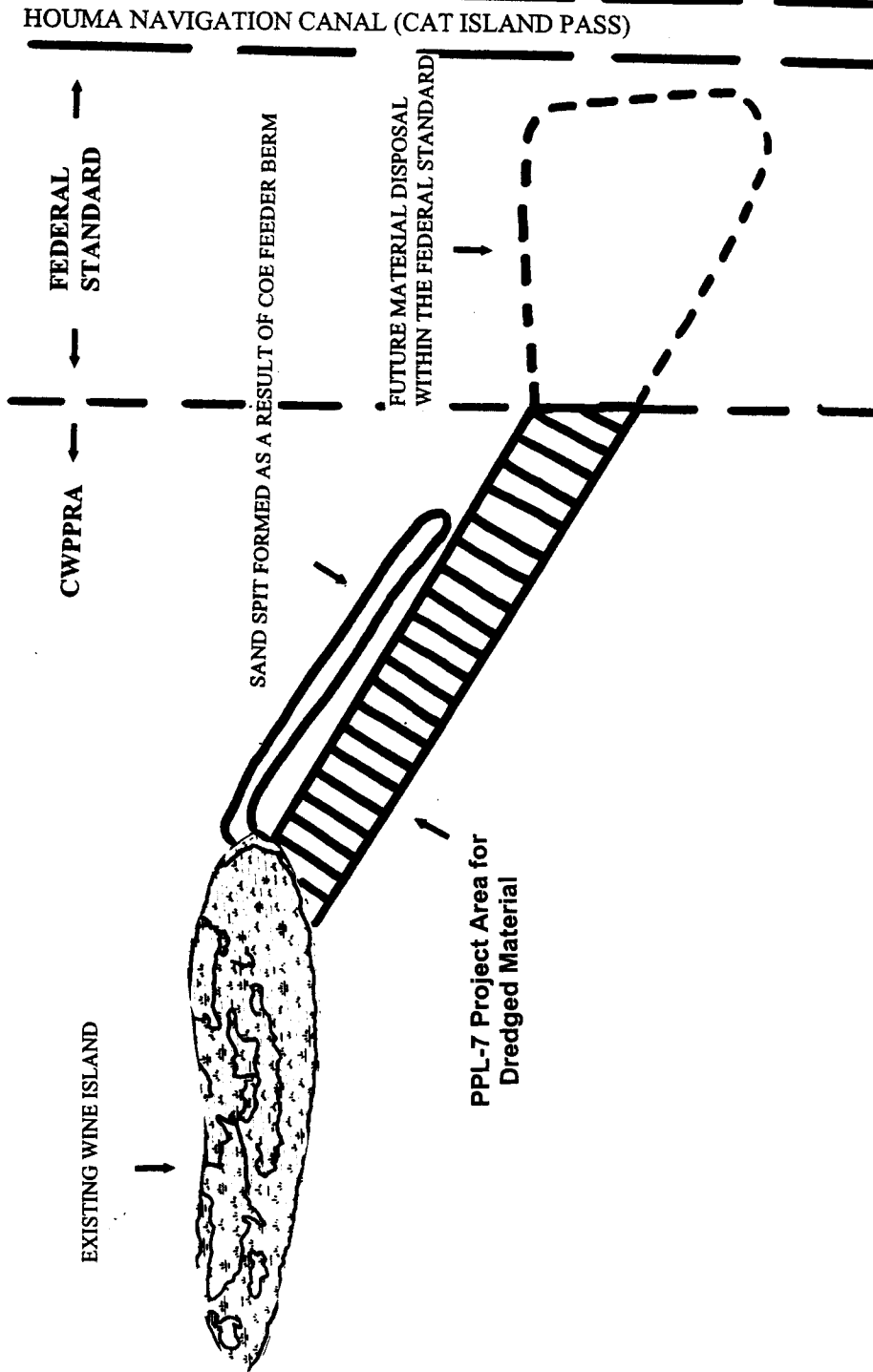
This project will improve approximately seven miles of the existing channels above the Grand Chenier Ridge to allow freshwater introduction to the south of Hwy. 82. The channels south of Grand Chenier Ridge will not need improvement for this project. If needed, water control structures will be installed to help facilitate water flow into the Chenier Sub-Basin.

Benefits and Costs:

Fully Funded Cost	AAC/AAHU	AAHU	Created/Restored	Protected	Total Benefitted
\$5,130,500	\$9,146	48	0 ac	33 ac	33 ac

XTE-62 WINE ISLAND EASTWARD EXPANSION

TERREBONNE BAY



Project: XTE-62 Wine Island Eastward Expansion

Federal Sponsor: United States Army Corps of Engineers

Location and Size:

The project is located in Terrebonne Parish, in the southwestern region of Terrebonne Bay, west of Timbalier Island, east of Isles Denieres, southwest of Houma Navigation Canal, approximately 30 miles southeast of Cocodrie, LA. The project encompasses approximately 108 acres.

Problems:

Wine Island was destroyed by Hurricane Andrew, but DNR and the COE have recently restored 28 acres of the island with FEMA funds. This is an opportunity to use dredged material from the Houma Navigation Canal beneficially to further restore Wine Island. The existing island ranges from 1 to 3.5 miles out of the reach of the "Federal Standard" (1.5 miles) for disposal of material dredged out of the 5.5 mile Cat Island Pass reach of the channel. This project would provide the additional funds needed to pump the material the additional distance. Although the COE will continue to place material northwest of the channel in feeder berms, and the island's eastern spit will continue to grow, the island will not become as pronounced without this project.

Project Objectives:

Increase the size of Wine Island from 28 acres to 108 acres using unconfined disposal of approximately 1 million cubic yards of dredged material from the Houma Navigation Channel's 5.5 mile Cat Island Pass reach.

Project Features:

Dredge material will be deposited in approximately 4 ft of water to an elevation of +3 MSL in a creation area approximately 1,000 ft wide base with 10 on 1 side slopes and 3,800 ft long, following the existing spit forming to the southeast of the island, for a total creation area of approximately 80 acres. The area will be aerially seeded with bermuda grass after the material settles. This created area will increase nesting and feeding for many species of shore and wading birds. It will also provide shallow water habitat for fish and other estuarine organisms.

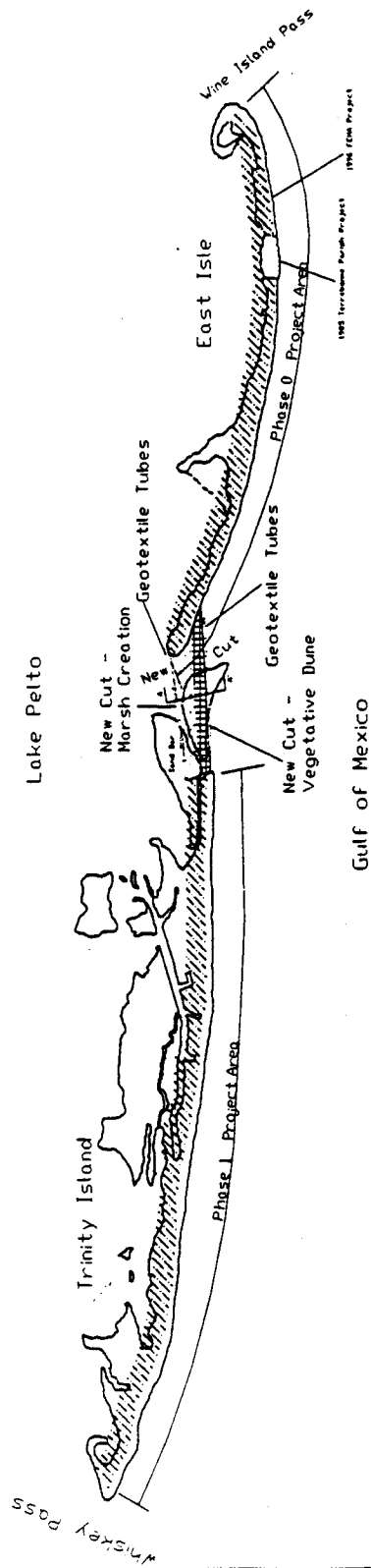
Effects and Issues:

This project will extend Wine Island far enough to the east to reach the "Federal Standard" distance for material disposal so that future maintenance dredged material from the HNC can be used to extend the island further to the east.

Benefits and Costs:

Fully Funded Cost	AAC/AAHU	AAHU	Created/Restored	Protected	Total Benefitted
\$1,276,100	\$4,813	24	37 ac	0 ac	37 ac

LAKE PELTO DEDICATED DREDGING, NEW CUT CLOSURE, AND SHORELINE STABILIZATION



LEGEND

- ||||| New Cut-Marsh Creation
- ////// New Cut-Vegetative Dune
- Phase 0 & 1 Project Boundary
- 1985 Parish Project
- 1996 IEMA Project
- Geotextile Tubes

Exhibit B

Prepared by:
Terrebonne Parish Consolidated Government
 Date: June 10, 1997
www.terrebonneparish.gov

Project: TE-11a "ii" Lake Pelto Dedicated Dredging at "New Cut" Closure

Federal Sponsor: Environmental Protection Agency

Location:

This project is located in Lake Pelto at the "New Cut" breach between East and Trinity Islands, within the Isle Dernieres chain in Terrebonne Parish, LA. This project encompasses approximately 147 acres.

Problems:

The Isles Dernieres barrier island chain has experienced rapid erosion and breaching, which reduces their effectiveness in preventing storm surges from reaching lands adjoining the estuary. Without the protection of these barrier islands, the estuaries and wetlands in the lower deltaic plain may be susceptible to a dramatic increase in erosion rates.

Project Objectives:

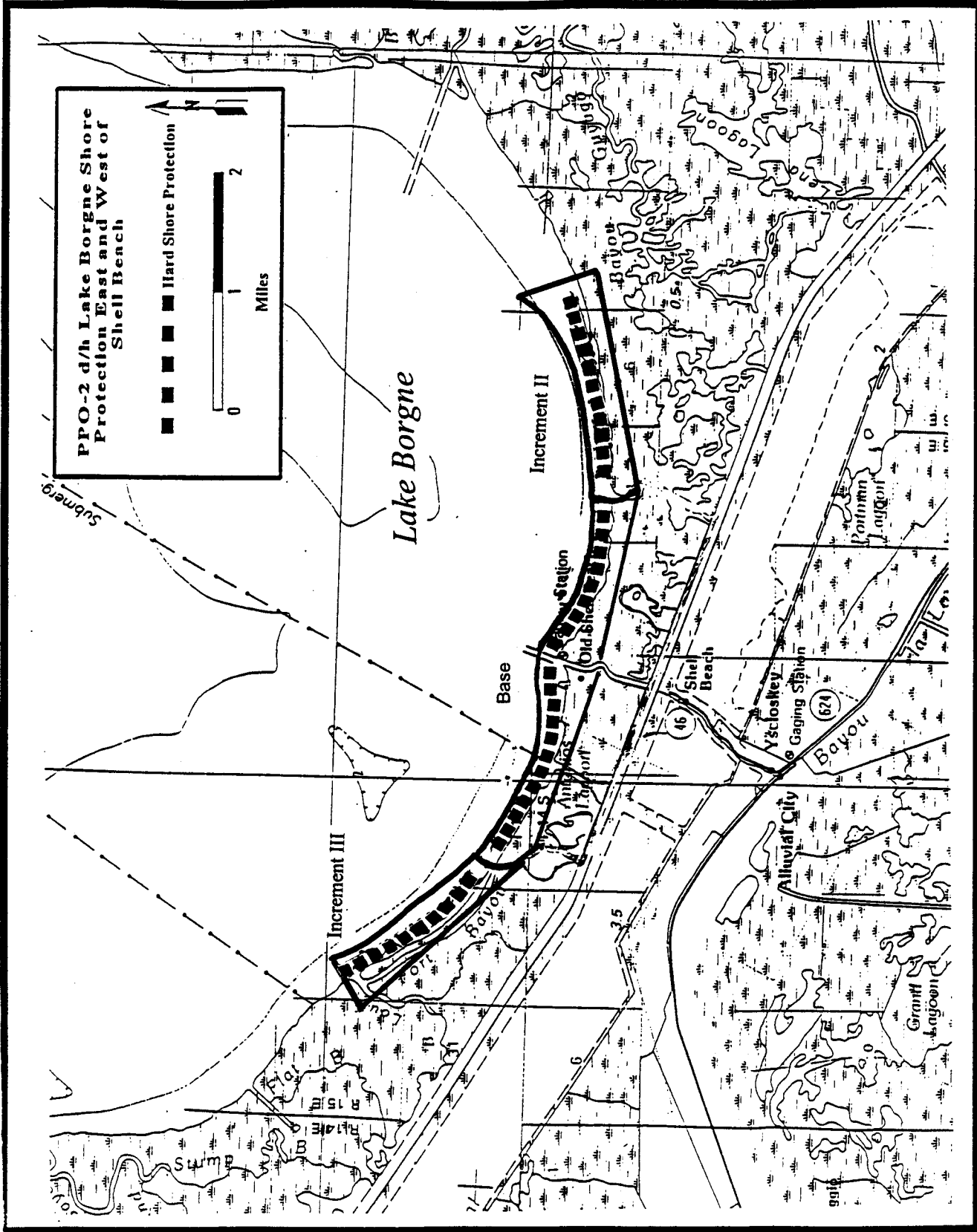
The objectives of this project are to create beaches, a frontal dune system, and a back barrier marsh to close the New Cut gap.

Project Features:

Borrow material will be used to build a front vegetated dune to a final height of +8 ft MSL, and a back containment dike will be built through New Cut, which has a closure section of 5,400 ft. Back barrier marsh will be constructed utilizing back bay sediments and vegetative plantings at a final height of 3 ft MSL. The dune design width is 300 ft and the marsh platform design width is 500 to 800 ft.

Benefits and Costs:

Fully Funded Cost	AAC/AAHU	AAHU	Created/Restored	Protected	Total Benefitted
\$6,314,700	\$13,798	43	68 ac	0 ac	68 ac



Project: PPO-2d/h Lake Borgne Shore Protection East and West of Shell Beach

Federal Sponsor: United States Army Corps of Engineers

Location and Size:

This project is located along the shoreline of Lake Borgne approximately 8 miles east of Chalmette in St. Bernard Parish, LA. Increment III of this project is the base of Increments I and II, and is centered on Bayou Yscloskey at Old Shell Beach and the Fort Butler ruins. Increment III extends for 15,800 ft and includes approximately 131 acres. Increment I of this project includes Increment III, plus an additional 9,000 ft to the east for an added 74 acres. Finally, Increment II includes Increments I and III, plus an additional 8,000 ft to the west for an added 85 acres.

Problems:

The Lake Borgne shoreline is eroding at a rate of approximately 15 ft/yr, and the marsh is fragmented. If the shoreline is left unprotected, the fragile strip of marsh separating the MRGO and Lake Borgne will be lost.

Project Objectives:

The objective of the project is to stabilize the shoreline to prevent further marsh loss.

Project Objectives:

The objective of the project is to stabilize the shoreline to prevent further marsh loss and reduce locations of breakthroughs between the MRGO and Lake Borgne.

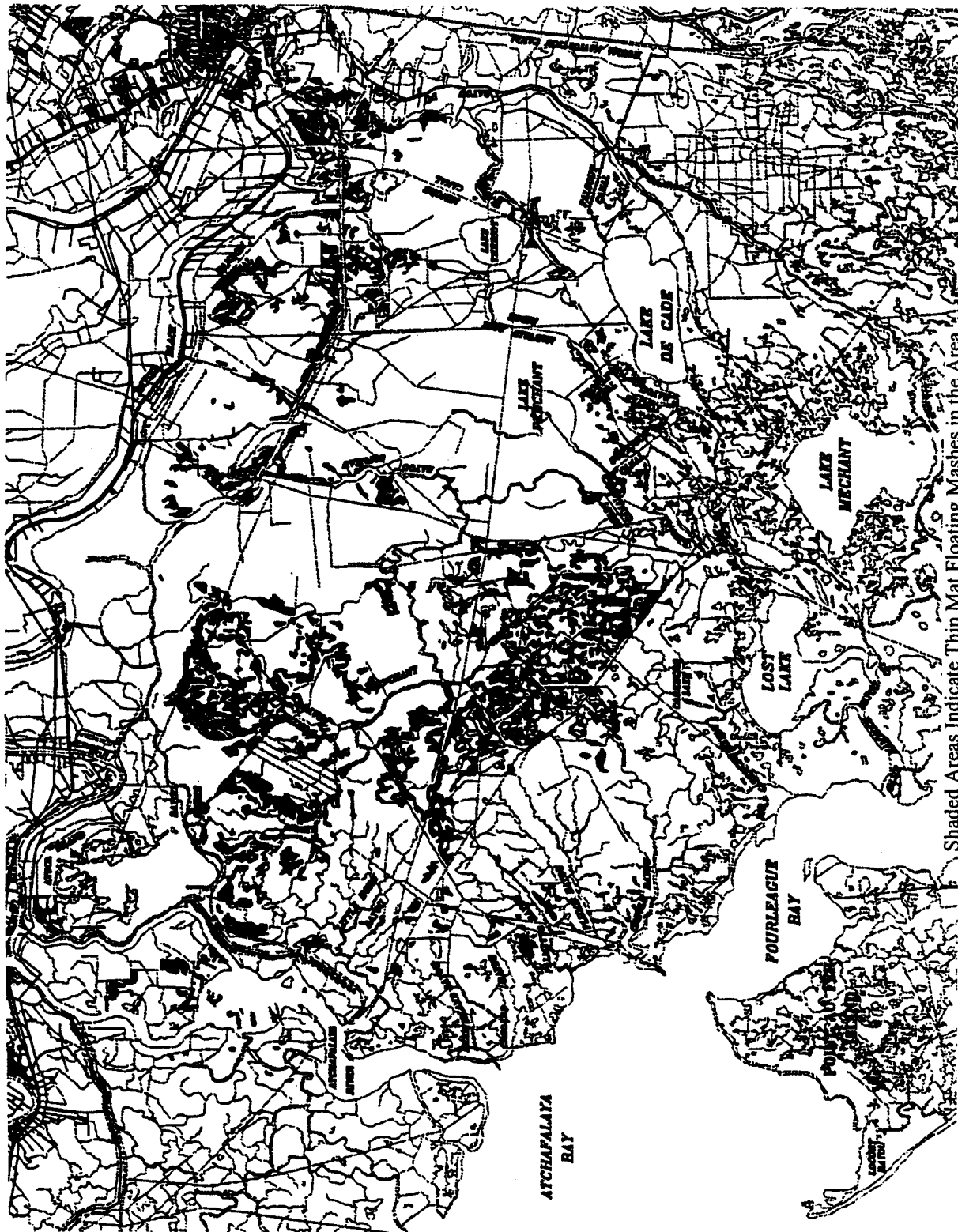
Effects and Issues:

This project may effect oyster leases within the project areas.

Benefits and Costs:

Base: Fully Funded Cost = \$15 M	AAHU's = 38	AAC/AAHU = \$27,739
Increment II: Fully Funded Cost = \$19.5M	AAHU's = 60	AAC/AAHU = \$22,503
Increment III: Fully Funded Cost = \$23.9M	AAHU's = 76	AAC/AAHU = \$21,886

TE-36
THIN MAT FLOATING MARSH ENHANCEMENT DEMO



Shaded Areas Indicate Thin Mat Floating Marshes in the Area

Project: TE-DEMO Thin Mat Floating Marsh Enhancement Within the Penchant Watershed (DEMONSTRATION)

Sponsor: Natural Resources Conservation Service

Location and Size:

The project is located in the upper Bayou Penchant Basin in northwestern Terrebonne Parish, LA, approximately 6 miles south of Amelia. The total construction area is approximately three (3) acres.

Problem:

Floating (flotant) marshes exist throughout Louisiana and the world. The Penchant Basin floating marshes are among the most critically degraded wetlands in Louisiana in recent years. There is no direct evidence to show why these marshes began to deteriorate and what can be done to enhance and create these marshes. This demo, in conjunction with the existing CWPPRA project (TE-34), will look at techniques to create and enhance thin floating mats of marsh, as well as the effects of water movement and sediments on these marshes.

Project Objectives:

To induce development of thick, continually floating mats from a thin-mat flotant, and to determine the effects of water movement on the floats in areas with and without available sediments.

Project Features:

- Install marsh mat movement and water level gauges.
- Coordinate synoptic water flow measurement within the internal marshes with the channel flow synoptics.
- Construct enclosures
- Transplant plugs of healthy *Panicum hemitomon* donor-marsh at each site.
- Fertilization treatment at each site
- Introduce plant material nursery stock at each site
- Intensive monitoring

Benefits and Cost:

If this project is successful, these techniques can benefit 98,000 acres of the same marsh type in the Terrebonne and Barataria Basin alone. The project cost has been estimated to be approximately \$443,000.

SUMMARY AND CONCLUSIONS

The 7th Priority Project List consists of 4 funded projects, 8 unfunded projects, and 1 funded demonstration project. The total fully funded cost of the funded projects is \$13,917,722. The total benefits of the projects are 1182 Average Annual Habitat Units, based on project implementation as compared to the future without-project conditions over the 20-year project life.

On the 7th Priority Project List, project cost phasing is continued from the 6th Priority Project List. On the proposed schedule of allocations for phased projects, the grand total for the 7th and 8th Priority Project Lists is \$8,627,000 and \$28,304,150, respectively.

The Task Force believes the recommended projects represent the best strategy for addressing the immediate needs of Louisiana's coastal wetlands. The Task Force will conduct a final review of the plans and specifications for each project prior to the award of construction contracts by the lead Task Force agency and the allocation of construction funds by the Task Force chairman.

BIBLIOGRAPHY

U.S. Fish and Wildlife Service. 1980. Habitat Evaluation Procedures (HEP) Division Ecol. Service ESM 102, U.S. Fish and Wildlife Service, Washington DC. 141 pp.

