

## PRIORITY PROJECT LIST REPORT

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LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION  
TASK FORCE

November 18, 1991

COASTAL WETLAND PLANNING, PROTECTION, AND RESTORATION ACT

PRIORITY PROJECT LIST REPORT

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COASTAL WETLAND PLANNING, PROTECTION, AND RESTORATION ACT

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# COASTAL WETLAND PLANNING, PROTECTION, AND RESTORATION ACT

## **PRIORITY PROJECT LIST REPORT**

### **I. INTRODUCTION**

The State of Louisiana contains 40 percent of the Nation's coastal wetlands, but is experiencing 80 percent of the Nation's coastal wetland loss. The widespread and complex nature of the coastal wetland loss problem, coupled with the diversity of agencies involved and numerous alternatives proposed, has led many in Federal, state, and local government, as well as, the general public to the conclusion that a comprehensive approach is needed. The Coastal Wetlands Planning, Protection, and Restoration Act (PL 101-646) was signed into law by President Bush on November 29, 1990, to address the need for a comprehensive approach to this significant environmental problem.

This report documents the implementation of Section 303(a) of the cited legislation.

### **II. STUDY AUTHORITY**

Section 303(a) of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA), displayed in Appendix A, "Summary and the Complete Text of the CWPPRA", 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, and 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."

### **III. STUDY PURPOSE**

The purpose of this study effort was to prepare the Priority Project List and transmit the List to Congress by November 28, 1991, as specified in Section 303(a)(3) of the CWPPRA.

#### IV. PROJECT AREA

Figure 1, on the following page, is a map displaying the 20 Louisiana Parishes that are expected to contain coastal wetlands, as defined in Appendix B, "Definition of Coastal Wetlands." The CWPPRA does not define coastal wetlands, so the Task Force developed the definition in Appendix B.

#### V. STUDY PARTICIPANTS

Section 303(a)(1) directs the Secretary of the Army to convene a Task Force consisting of the following members (See Appendix C, "Task Force Members")

- Secretary of the Army (Chairman)
- Administrator, Environmental Protection Agency
- Governor, State of Louisiana
- Secretary of the Interior
- Secretary of Agriculture
- 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 303a.2.), as stipulated in President Bush's November 29, 1990 signing statement, displayed on the last page of Appendix A. In addition, the State of Louisiana may not serve as a "lead" Task Force member for wetland projects of the Priority Project List.

#### VI. FORMULATION PROCESS FOR THE PRIORITY PROJECT LIST

##### A. Introduction

It is very important to distinguish between the more traditional, 3-year comprehensive plan formulation effort required by Section 303(b) and the short-term, accelerated project identification and evaluation process needed to satisfy the intent and time constraints associated with Section 303(a). The Task Force recognized, at the onset, that in order to prepare the first Priority Project List it would be necessary to inventory and identify existing projects in various stages of formulation, rather than conduct a traditional plan formulation process. The Task Force has begun a thorough, comprehensive planning effort as part of the preparation of the coastal wetlands Restoration Plan described in Section 303(b). This plan formulation process will also produce the future annual Priority Project Lists.



CORPS OF ENGINEERS, U. S. ARMY

# NEW ORLEANS DISTRICT

APRIL 1990



- LEGEND**
- LOCK
  - CENTRAL STRUCTURE
  - LEVEE

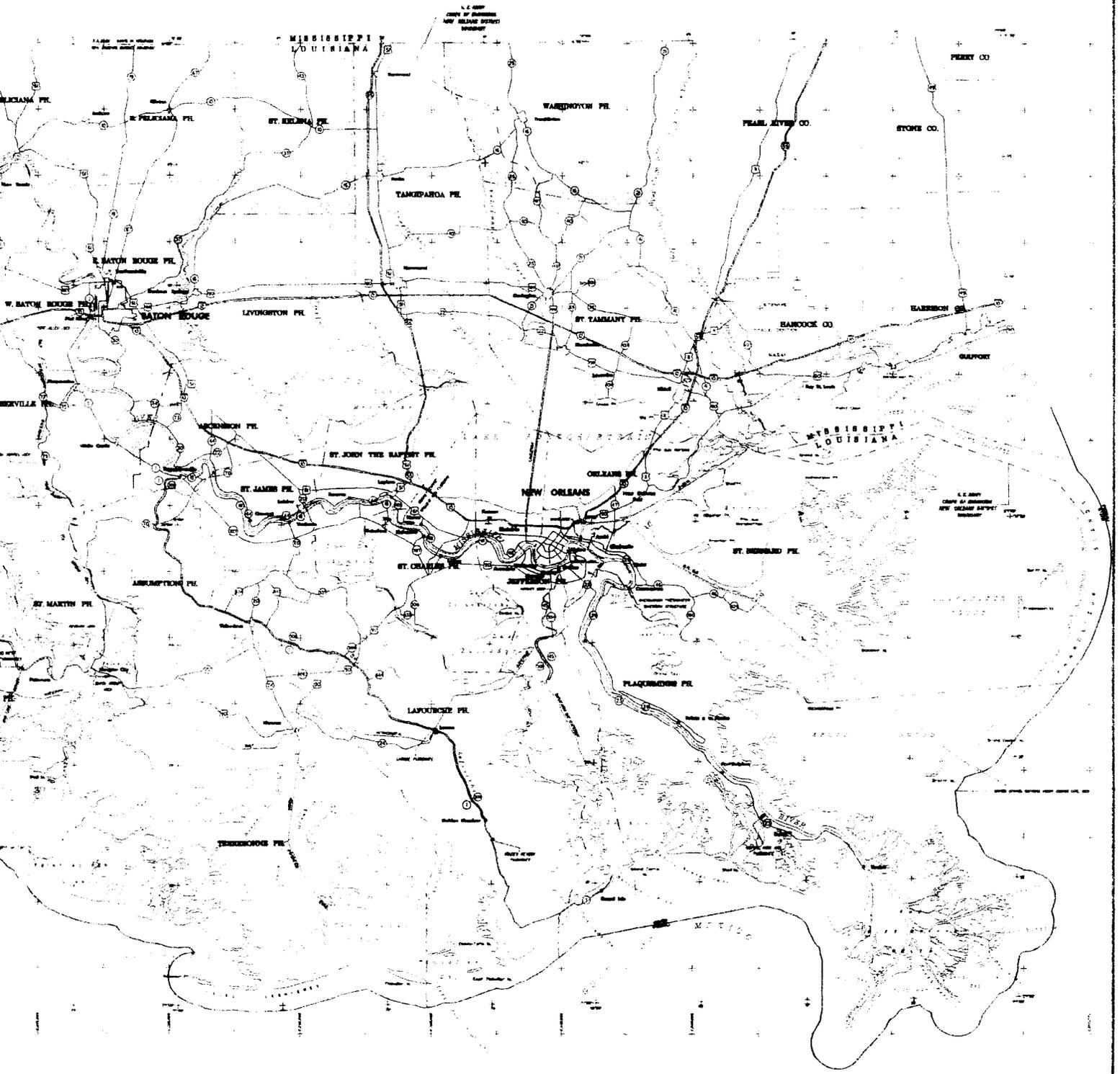
NOTE: Map is in continuous production.

## LEGEND

LOUISIANA COASTAL ZONE  
From State of Louisiana  
Department of Natural Resources  
Coastal Management Division, 1990

COASTAL WETLANDS RESTORATION PROJECT AREA  
All area south of the 29th parallel to  
the U.S. Supreme Court Decision Line

Prepared by Planning Division, U.S. Army Engineer District of New Orleans  
Project: U.S. Army Corps of Engineers, New Orleans District, District  
Map 1: 1:50,000, 1:250,000, and 1:500,000 Scale Maps



## **B. Identification of Candidate Wetland Projects**

The CWPPRA defined a coastal wetlands restoration project in Section 302(6) and specified evaluation criteria for inclusion of these wetlands projects on the Priority Project List. These criteria are displayed in Appendix D, "Priority Project List Criteria". The five Federal Task Force members and the State of Louisiana each proposed candidate wetland projects and completed the fact sheets displayed in Appendix E, "Candidate Project Fact Sheets". Initially, 38 projects, totaling about \$300 million in cost, were submitted for consideration for the Priority Project List. The Task Force reviewed each fact sheet to ensure that: 1.) the candidate wetland projects satisfied the criteria in Appendix D; 2.) there was no duplication among the candidate projects; 3.) the cost and wetland benefit data were of sufficient detail and reliability to allow a meaningful evaluation; and 4.) the total project cost was not disproportionately high relative to the funds expected to be available in FY 1992.

This first screening of candidate projects reduced the number of candidates to 27. The cost and wetland benefit data for these 27 projects were further refined based on comments made during the first screening process. The second screening put special emphasis on the: 1.) total project cost; 2.) number of similar types of candidate projects; and 3.) time available to conduct the detailed wetland benefit analysis on each project. This second screening resulted in the selection of 18 wetland projects for evaluation, with the other nine projects remanded to their respective lead Task Force members for further study/refinement and consideration for inclusion in the second Priority Project List or the Restoration Plan

## **C. Evaluation of Candidate Projects**

The CWPPRA directed the Task Force to develop a prioritized list of wetland projects "...based on the cost-effectiveness of such projects in creating, restoring, protecting, and 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 Services' "Habitat Evaluation Procedures". The product of these two analyses was a Cost/Habitat Unit figure for each project, which was used as the primary ranking criterion.

## 1. Cost Analysis

Cost analyses are displayed for each of the wetlands projects in Appendix E. Wetland project cost data were received from each lead Task Force member for their projects. These costs were then expressed as first costs, fully funded costs, present worth costs, and average annual costs. The Cost/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 1991 price levels, a discount rate of 8-3/4 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 FY 1992. The fully funded cost estimates include operation and maintenance and other compensated financial costs,

The cost component of the cost-effectiveness criterion was based on the following procedures and assumptions:

- a. Average annual costs represent the sum of direct and known indirect construction and operating costs, discounted over time. Most cost estimates are based on planning or feasibility-level studies.
- b. Construction or first costs include many different cost elements besides actual building of a project, such as engineering and design, inspection, contingencies, and, in some cases, planning, real estate (land, easements, rights-of-way, and relocations) and administration. Many of the costs are estimated using a uniform methodology, e.g. contingencies are the same percentage of construction costs for all projects.
- c. Operating or ongoing costs for a project include many different cost elements besides direct operation and maintenance, including environmentally related costs. The cost elements include monitoring, replacement/closure, payment for oyster leases and induced dredging. Note that operating costs are not counted if they are part of an existing program which would not be expanded because of the project.

- d. The discount rate used to account for the time value of money was 8.75% and the base year was 1995. For purposes of the calculation, first costs are scheduled to be fully experienced by mid-1995, which is when operating costs begin. Operating costs extend through 2014, 20 years from the base, which is also the time when first costs are considered fully amortized. Costs (and benefits) beyond 2014 are not considered.
- e. The funding requirements for each project were based on the current dollar value of the construction and operating costs, except that costs paid for by sources other than the CWPPRA were not included. Whereas average annual costs assume no inflation over time, the calculation of funding requirements does include an inflation adjustment of 3.5% to 4.7% per year. Project benefits are not adjusted over time, i.e. they are not considered to inflate nor are they discounted to give extra value to near-term habitat gains.

## 2. Wetland Benefit Analysis

Appendix F, “Wetland Value Assessment Methodology”, displays the wetland-quality-assessment method developed specifically for the CWPPRA by biologists from the U.S. Fish and Wildlife Service, with assistance from biologists from the other Task Force members. These biologists then applied this non-monetary assessment to each of the candidate wetland projects, after evaluating the with- and without-project wetland benefit projections for each project. In several cases, the wetland benefit projections were modified to gain a consensus among the biologists. The output of the Wetland Value Assessment was a series of with- and without-project Habitat Unit values, by target year, for each wetland project. These Habitat Unit values were then annualized and combined with the annualized cost data to produce the Cost/Habitat Unit criterion. The Habitat Unit values were annualized over a 20-year project life, using a zero percent discount rate.

## 3. Environmental Report

An “Environmental Report”, contained in Appendix G, was prepared to address the wetland projects on the Priority Project List. This report, required by the National Environmental Policy Act, was prepared by a consultant under contract to the Environmental Protection Agency. The format and content of the report was determined by the Task Force.

## D. Ranking of Candidate Projects

The Cost/Habitat Unit was the primary criterion used by the Task Force to prioritize the wetland projects in decreasing order of their cost effectiveness. This primary criterion, however, was supplemented by the secondary criteria displayed in Appendix D.

## E. Public Involvement

The Task Force recognized the critical need to coordinate the preparation of the Priority Project List with the interested public. In response to this need, the Task Force established the Citizen Participation Group. Appendix H, "Citizen Participation Group", displays the list of Citizen Participation Group members and the Citizen Participation Group Charter. The 16 organizations that constitute the Citizen Participation Group represent the interests of the environmental community, oil and gas industry, agriculture, commercial fishing, recreational fishing, navigation, landowners, and public advocacy groups, all of which are active in Louisiana.

The Citizen Participation Group received detailed briefings concerning each project on the Priority Project List and on the evaluation methods used to rank the projects. Copies of the draft Priority Project List were provided to each member of the Citizen Participation Group for their review and comment. The Citizen Participation Group approved the draft Priority Project List and requested that appropriate consideration be given to their comments. The Task Force provided written responses to all Citizen Participation Group comments and revised the Priority Project List Report, as required.

## VII. PRIORITY PROJECT LIST

The 18 wetland projects comprising the draft Priority Project List are displayed in Table 1, "Ranking of Projects by Cost/AAHU", on page 9. Figure 2, on page 10, displays the location of each of the 18 wetland projects. The Priority Project List consists of 14 wetland projects that fall within the funding limit for FY 1992 and 4 wetland projects that have been deferred to the Second Priority Project List unless these projects are pursued separately through the State of Louisiana's "Coastal Wetlands Conservation and Restoration Plan" or unless implementation of one or more of the 14 projects is delayed for some unforeseen reason. The implementation of these 18 projects will result in benefits to 153,000 acres of coastal wetlands, including the creation or preservation of 30,000 acres of marsh vegetation, as well as, benefits to the fish and wildlife populations these wetlands support.

The BA-6 project was deferred because significant wetland benefits are not expected to accrue until project year seven and because BA-6 is already part of the State of Louisiana's "Coastal Wetlands Conservation and Restoration Plan". The Tiger Pass project was deferred because of its relatively high fully funded cost and its location near the West Bay Sediment Diversion project, which will provide substantially greater wetland benefits to the Mississippi River Basin. The Falgout Canal South demonstration project was deferred in order to allow time to reformulate the project; for example to possibly obtain the sediments from the dredged material disposal islands in Atchafalaya Bay rather than from the Mississippi River. The mining of the disposal islands will provide a less expensive source of sediment and remove barriers to the distribution of sediments within the Atchafalaya Bay, thus benefiting a hydrologic basin not represented on the Priority Project List. Other sources of sediment and other deposition locations may be available to demonstrate the Falgout Canal South project. The Lake Salvador Shoreline project is part of the State of Louisiana's "Coastal Wetlands Conservation and Restoration Plan" and was deferred in favor of the Eastern Isle Dernieres project, which was included on the Priority Project List to demonstrate the effectiveness of barrier island restoration.

Table 2, "Ranking of Projects by Type", on page 11, displays how many types of wetland projects occur on the Priority Project List. Table 3, "Ranking of Projects by Hydrologic Basin", on page 12, displays how the wetland projects are distributed along the coast of Louisiana.

Table 1

**Ranking of Projects by Cost (\$) per AAHU**

	Lead Task Force Membe?	Cost (\$) Per AAHU**	Fully Funded Cost (\$1,000)	Cumulative Fully Funded Cost (\$1,000)	Wetland F/I	Percentage by Type *** B	S
Fourchon	CO	21	252	252	--	--	100
BA-2 (GIWW to Clovelly)	AG	68	8,142	8,394	83	17	--
Cameron Creole Watershed	IN	128	502	8,896	24	76	--
Bayou Sauvage Refuge	IN	180	1,105	10,001	100	--	--
Turtle Cove	IN/LA	194	386	10,387	100	--	--
Sabine Refuge ,	IN	253	4,844	15,231	100	--	--
Vegetative Plantings (Demonstration)	AG	282	848	16,079	3	11	86
West Bay Sediment Diversion	AR	305	8,517	24,596	100	--	--
Barataria Bay Waterway	AR	449	1,625	26,221	--	--	100
Lower Bayou La Cache	CO	837	1,254	27,475	--	15	85
Bayou La Branche	AR	2,369	4,327	31,802	100	--	--
Cameron Prairie Refuge.	IN	3,171	1,111	32,913	100	--	--
Vermilion River Cutoff	AR/LA	6,196	1,523	34,436	--	100	--
Eastern Isle Dernieres (Demonstration)	EPA	13,949	6,345	40,781	--	--	100
Projects Deferred t							
BA-6 (GIWW to Hwy 90)	AG	323	4,583	4,583	100	--	--
Tiger Pass	AR	1,661	7,078	11,661	100	--	--
Falgout Canal South (Demonstration)	EPA	5,950	6,109	17,770	--	100	--
Lake Salvador Shoreline	AR	10,376	4,427	22,197	100	--	--

\* The lead task force member (Federal sponsor) for the project, represented by the following acronyms:

- CO--U.S. Dept. of Commerce
- AG--U.S. Dept. of Agriculture
- IN--U.S. Dept. of the Interior
- LA--State of Louisiana
- AR--U.S. Dept. of the Army
- EPA--Environmental Protection Agency

t Action on these projects will be deferred to the second Priority Project List unless they are pursued separately through the State of Louisiana's Wetland Restoration Plan or unless implementation of one of the above-listed projects is delayed for some unforeseen reason.

\*\* Average Annual Habitat Units

\*\*\*Wetland Types:

- F/I--Fresh/Intermediate Marsh
- B--Brackish Marsh
- S--Saline Marsh

**Coastal Wetlands Planning, Protection, and Restoration Act  
PRIORITY PROJECT LIST**

**STATE OF LOUISIANA (LA)**

LA-A. ...

LA-B. ...

**ENVIRONMENTAL PROTECTION AGENCY (EPA)**

EPA-A. ...

EPA-B. ...

**U. S. DEPARTMENT OF THE ARMY (AR)**

AR-A. ...

AR-B. ...

AR-C. ...

AR-D. ...

AR-E. ...

**U. S. DEPARTMENT OF COMMERCE (CO)**

CO-A. ...

CO-B. ...

**U. S. DEPARTMENT OF AGRICULTURE (AG)**

AG-A. ...

Coastal Vegetative Program:

AG-B1. ...

AG-B2. ...

AG-B3. ...

AG-B4. ...

AG-C. ...

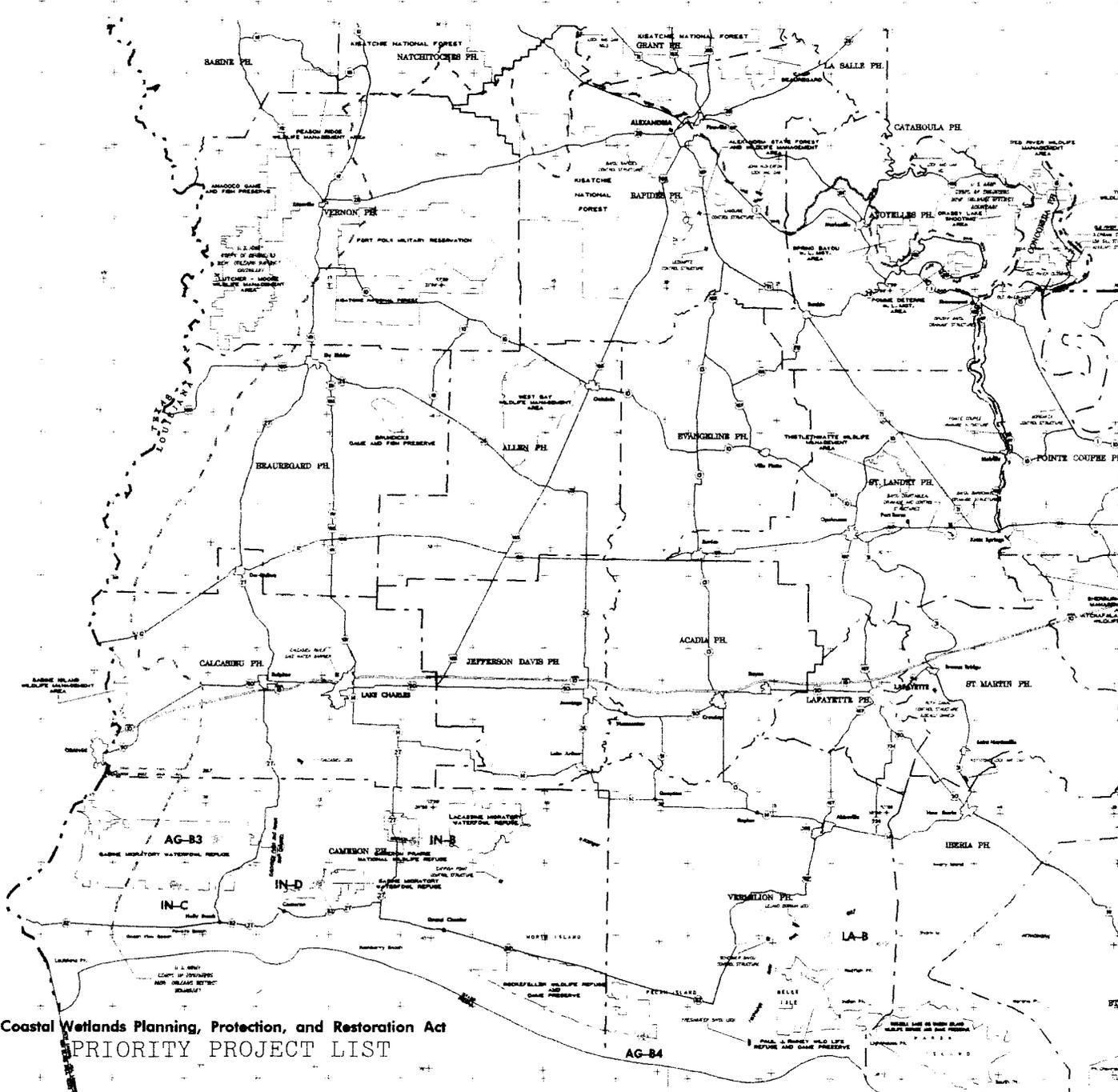
**U. S. DEPARTMENT OF THE INTERIOR (IN)**

IN-A. ...

IN-B. ...

IN-C. ...

IN-D. ...



CORPS OF ENGINEERS, U. S. ARMY

# NEW ORLEANS DISTRICT

APRIL 1990



Scale: 1:50,000  
Scale in Feet: 0 1000 2000 3000 4000 5000  
Scale in Miles: 0 1 2 3 4 5

### LEGEND

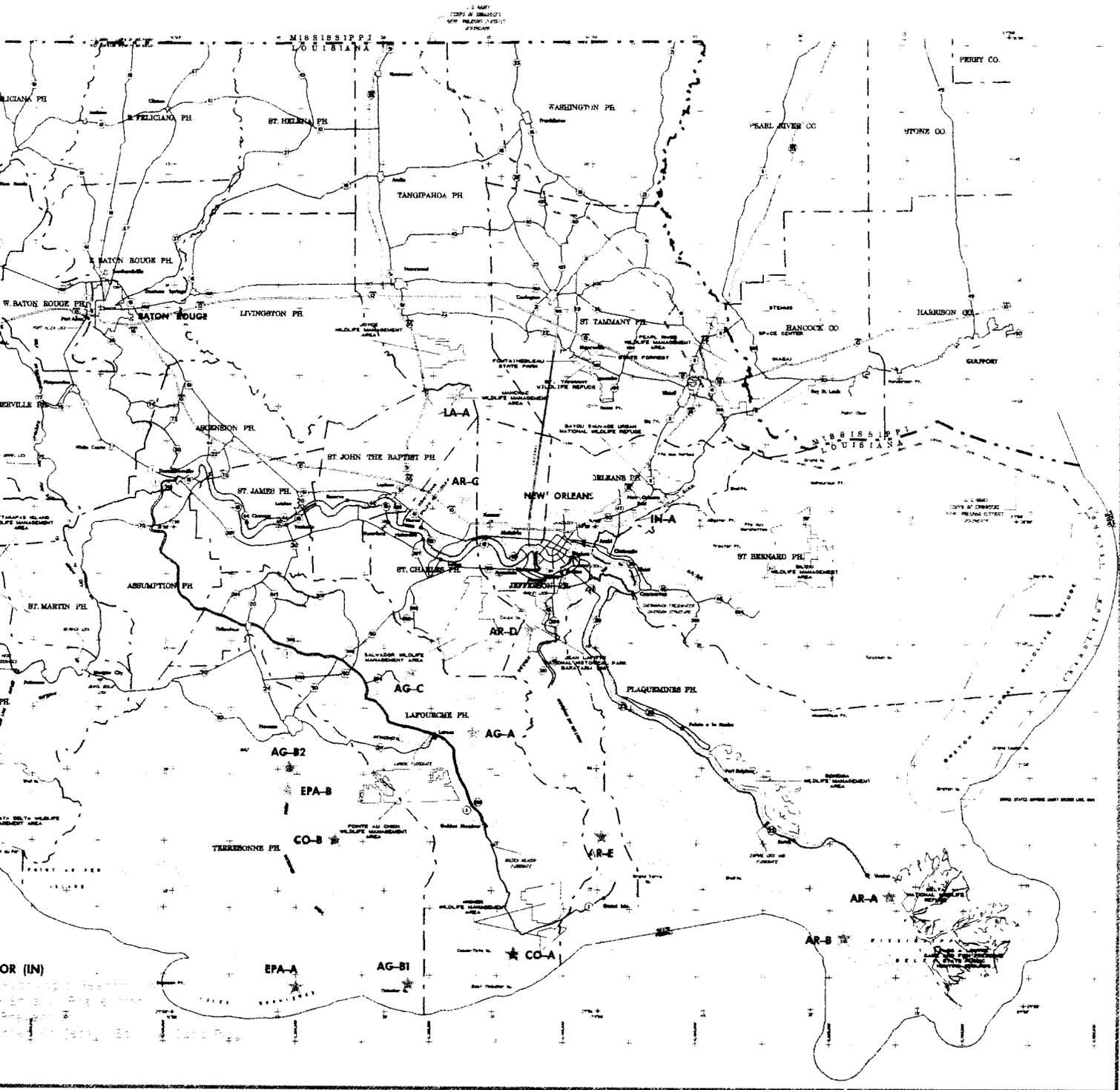
- LOCK
- CONTROL STRUCTURE
- LEVEE

NOTES: Map 16 in continuous production.

### LEGEND

LOUISIANA COASTAL ZONE  
From State of Louisiana  
Department of Natural Resources  
Coastal Management Division, 1990

COASTAL WETLANDS RESTORATION PROJECT AREA  
All areas south of the color band to  
the U.S. Supreme Court Decree Line



**Table 2**  
**Ranking of Projects by Type**

	Lead Task Force Member*	cost (\$) Per AAHU"	Fully Funded Cost (\$1,000)	Cumulative (by Type) Fully Funded Cost (\$1,000)
Marsh Building with Sediment Diversion				
West Bay Sediment Diversion	AR	305	8,517	8,517
Water Management (Hydrologic Restoration)				
Fourchon	CO	21	252	252
BA-2 (GIWW to Clovelly)	AC	68	8,142	8,394
Cameron Creole Watershed	IN	128	502	8,896
Bayou Sauvage Refuge	IN	180	1,105	10,001
BA-6 (GIWW to Hwy 90)t	AG	323	4,583	14,584
Lower Bayou La Cache	co	837	1,254	15,838
<b>Marsh Building with Dredged Sediments</b>				
Barataria Bay Waterway	AR	449	1,625	1,625
Tiger Passt	AR	1,661	7,078	8,703
Bayou La Branche	AR	2,369	4,327	13,030
Falgout Canal South (Demonstration)t		5,950	6,109	19,139
Shoreline Erosion Control <b>with Structures</b>				
<b>Turtle Cove</b>	IN/LA	194	386	386
<b>Sabine Refuge</b>	IN	253	4,844	5,230
Cameron Prairie Refuge	IN	3,171	1,111	6,341
Vermilion River Cutoff	AR/LA	6,196	1,523	7,864
Lake Salvador Shorelinet	AR	10,376	4,427	12,291
<b>Barrier Island Restoration with Dredged Sediments</b>				
<b>Eastern Isle Dernieres (Demonstration)</b>	EPA	13,949	6,345	6345
<b>Vegetative Plantings</b>				
<b>Falgout Canal, Isle Dernieres, Dewitt-Rollover, and West Hackberry (Demonstration Projects)</b>	AG	282	848	848

\* The lead task force member (Federal sponsor) for the project, represented by the following acronyms:

CO--U.S. Dept. of Commerce

LA-State of Louisiana

AC-US. Dept. of Agriculture

AR--U.S. Dept. of the Army

IN-U.S. Dept. of the Interior

EPA-Environmental Protection Agency

t Action on these projects will be deferred to the second Priority Project List unless they are pursued separately through the State of Louisiana's Wetland Restoration Plan or unless implementation of one of the above-listed projects is delayed for some unforeseen reason.

\*\* Average Annual Habitat Units

Table 3

**Ranking of Projects by Hydrologic Basin**

	Lead Task Force Member*	Cost (\$) Per AAHU tt	Fully Funded Cost (51,000)	Cumulative (by Basin) Fully Funded Cost (\$1,000)
<b>Pontchartrain Basin</b>				
<b>Bayou Sauvage Refuge</b>	IN	180	1,105	1,105
Turtle Cove	IN/LA	194	386	1,491
Bayou La Branche	AR	2,369	4,327	5,818
<b>Breton Sound Basin</b>				
<b>None</b>				
<b>Mississippi River Basin</b>				
West Bay Sediment Diversion	AR	<b>305</b>	8,517	8,517
Tiger Passt	AR	1,661	7,078	15,595
<b>Barataria Basin</b>				
Fourchon	CO	21	<b>252</b>	252
BA-2 (GIWW to Clovelly)	AG	68	<b>8,142</b>	8,394
Barataria Bay Waterway	AR	449	<b>1,625</b>	10,019
BA-6 (GIWW to Hwy 90)†	AG	323	<b>4,583</b>	14,602
Lake Salvador Shorelinet	AR	10,376	<b>4,427</b>	19,029
<b>Terrebonne Basin</b>				
Falgout Canal (Vegetative Plantings)	AG	**		
Isle Dernieres (Vegetative Plantings)	AC	..		
Lower Bayou La Cache	co	837	1,254	<b>1,254</b>
Eastern Isle Dernieres	EPA	13,949	6,345	<b>7,599</b>
Falgout Canal South+	EPA	5,950	6,109	<b>13,708</b>
<b>Atchafalaya Basin</b>				
<b>None</b>				
<b>Tech/Vermilion Basin</b>				
<b>Vermilion River Cutoff</b>	AR/LA	6,196	1,523	1,523
<b>Mententau Basin</b>				
<b>Dewitt-Rollover</b> (Vegetative Plantings)	AG	..		
Cameron Prairie Refuge	IN	3,171	1,111	1,111
<b>Calcasieu/Sabine Basin</b>				
Cameron Creole Watershed	IN	128	<b>502</b>	502
Sabine Refuge	IN	253	<b>4,844</b>	5,346
West Hackberry (Vegetative Plantings)	AG	+		

\* The lead task force member (Federal sponsor) for the project, represented by the following acronyms:

CO--U.S. Dept. of Commerce  
 AG--U.S. Dept. of Agriculture  
 IN--U.S. Dept. of the Interior  
 LA--State of Louisiana  
 AR--U.S. Dept. of the Army  
 EPA--Environmental Protection Agency

\*+ The vegetative plantings demonstration project includes four sites in three basins. The overall cost of the project is \$282/AAHU.

t Action on these projects will be deferred to the second Priority Project List unless they are pursued separately through the State of Louisiana's Wetland Restoration Plan or unless implementation of one of the above-listed projects is delayed for some unforeseen reason.

tt Average Annual Habitat Units