COASTAL WETLANDS CONSERVATION AND RESTORATION PLAN

Fiscal Year 1999-00

Submitted to the

House Natural Resources Committee
Honorable John R. Smith, Chairman

and

Senate Natural Resources Committee
Honorable Craig F. Romero, Chairman

by

The Wetlands Conservation and Restoration Authority
Len Bahr, Chairman
Office of the Governor

In accordance With
R.S. 49:213.6

March 29, 1999

PREFACE

The Wetlands Conservation and Restoration Authority is pleased to submit to the House and Senate Natural Resource Committees for full Legislative approval during the 1999 Regular Session of the Louisiana Legislature, the Coastal Wetlands Conservation and Restoration Plan (State Plan). The State Plan was developed pursuant to R.S. 49:213.6, as amended, for conserving and restoring the state's coastal vegetated wetlands, consistent with legislative intent and with the policy developed by the Wetlands Conservation and Restoration Authority.

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ACKNOWLEDGMENTS

The FY 99-00 State Plan incorporates recommendations from federal, state, and local governments, representatives of various interest groups, and other individuals knowledgeable about Louisiana's coastal wetlands. The constructive review and comments provided by state agencies and the participation in the planning process of each coastal parish are also acknowledged. The following persons contributed directly to this report:

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INTRODUCTION

Coastal land loss in Louisiana is best described in terms of a crisis in progress. Since the 1930's, more than one million acres have disappeared, an area greater than the size of Rhode Island. Another 25 to 35 square miles are currently being lost every year on average. The reasons that marshes change to open water and barrier islands fragment and disappear are complex and variable across the coast but the principal reason is that the Mississippi River has been artificially isolated from the broad delta system that it created during the past 6,000 years.

In addition to river levees that have prevented the annual overbank floods that formerly nourished delta wetlands, navigation channels have allowed saline water into formerly freshwater areas, and canals with spoil banks have replaced marsh and blocked the natural patterns of water flow (hydrology). Meanwhile, the entire delta system is sinking (subsiding) with respect to sea level as old sediments compress under their own weight and sea level continues to rise. Subsidence and the impact of Gulf storm events combine with man-made hydrologic changes at large and small scales to produce a system on the verge of collapse.

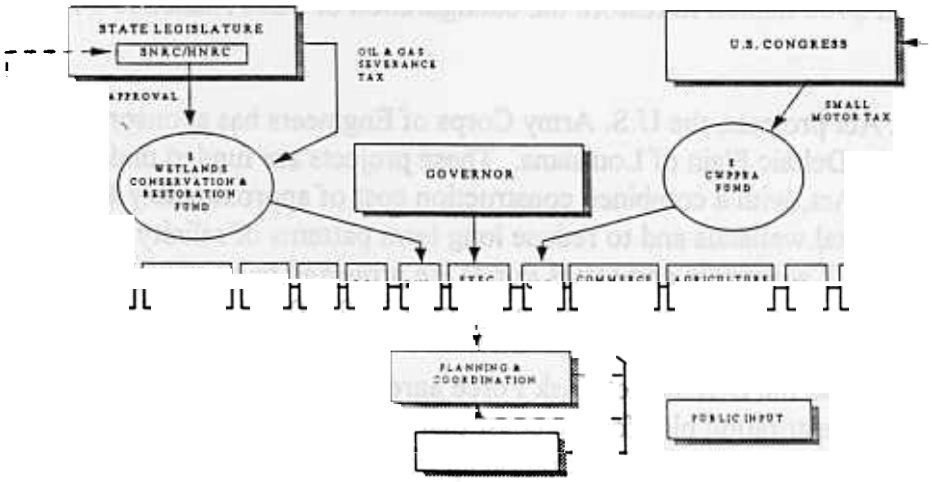
This imminent collapse threatens the continued productivity of Louisiana's bountiful coastal ecosystems, the economic viability of its industries, and the safety of its residents. Current restoration efforts are out of scale with the magnitude of the problem; unless more drastic action is taken, coastal Louisiana will lose nearly 640,000 more acres of coastal marshes, swamps, and barrier islands by the year 2050.

As the coast turns into open water we lose the various functions and values associated with coastal wetlands: nursery grounds for most commercial and recreational fisheries and wildlife in the Gulf of Mexico; vital habitat for birds, furbearers and alligators; water quality improvement; flood control and protection from gulf storm surges; eco-tourism; and the intangible cultural value of land settled centuries ago and passed down through generations. The public use value of this loss is estimated in excess of $37 billion, but the loss of culture and heritage is incalculable.

PROGRAMMATIC STATUS OF COASTAL RESTORATION

Coastal planning efforts began in the mid-1970's, culminating in the passage of the Louisiana Coastal Management Act of 1972. Coastal restoration formally began in 1989 with passage of Act 6 of the Second Extraordinary Session of the 1989 Louisiana Legislature (R.S. 49:213 et seq.). This law created the Coastal Wetlands Conservation and Restoration Authority and the Office of Coastal Restoration and Management (OCRM) within the Department of Natural Resources (DNR). In addition, it created a repository for a dedicated wetland restoration fund (Louisiana Coastal Wetlands Conservation and Restoration Fund or hereinafter Wetland Fund), which was approved as an amendment to the Louisiana Constitution by almost three quarters of the voters. The Wetland Fund, which receives a portion of the mineral income and severance taxes from oil and gas production on state lands, can receive as much as $25 million annually, which has happened only three times. In other years, deposits to the fund were either 5 or 15 million dollars.

Figure 1



SCHEMATIC OF LOUISIANA'S COASTAL RESTORATION PROGRAM

State efforts to prevent catastrophic land loss were considerably augmented in 1990 under the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA or "Breaux Act"), passed during the 101st Congress and signed by President Bush. The Breaux Act, which is the federal analogue of Act 6, provides about $40 million per year of federal dollars to conserve, restore and create coastal wetlands and barrier islands in Louisiana. The Breaux Act established a Task Force consisting of the U.S. Departments of Agriculture (Natural Resource Conservation Service), Interior (Fish and Wildlife Service), Commerce (National Marine Fisheries Service), the Environmental Protection Agency, the Army Corps of Engineers (chair) and the Governor of Louisiana.

The Breaux Act, originally authorized for ten years, requiring re-authorization in 1999, calls for: the development of a long range coastal restoration plan by 1993 (completed); and the development of an annual list of priority restoration projects. Eight lists have been approved and money has been allocated for construction, operation, maintenance and monitoring to cover project lives of twenty years.

Breaux Act projects require local cost sharing, initially at a federal/state rate of 75/25% and now at a rate of 85/15%, (90/10% for PPL 5 & 6 projects,) following federal approval of the Louisiana Coastal Wetlands Conservation Plan prepared by the state with a goal of no net loss of wetlands. Through the seventh list, about $280 million has been allocated through both the federal and state restoration programs toward 74 priority projects, which are currently expected in combination to prevent about 13% of the projected loss. To date, about $72 million of Breaux money has been spent on restoration projects.

In addition to construction dollars, the Breaux Act allocates $5 million each year for planning. Over the years about $6 million has been spent on two feasibility studies, one to investigate the potential for diverting Mississippi River water on a large scale and the other to look at the potential for restoring the barrier shoreline system. Phase one of the latter study includes the barrier islands and headlands between the Atchafalaya and Mississippi Rivers. Early findings project a cost of about $900 million to restore the configuration of these islands to a historical condition.

In addition to Breaux Act projects, the U.S. Army Corps of Engineers has sponsored two river diversion projects in the Deltaic Plain of Louisiana. These projects are funded under the Water Resource Development Act, with a combined construction cost of approximately $140 million, designed to nourish coastal wetlands and to reduce long term patterns of salinity encroachment. These diversion projects (Caernarvon and Davis Pond) are projected to be very effective, offsetting about 9% of the loss expected otherwise to occur by 2050.

Recently, the Authority and the Breaux Act Task Force agreed to develop Coast 2050, a comprehensive strategic restoration plan for the coast that would build on previous work, integrate coastal management and coastal restoration approaches, and adopt a multiple-use a ecosystem approach to restoration planning.

This Coast 2050 effort brought together the best strategic elements of previous plans, along with proposed new strategies from private citizens, local governments, state and federal agency personnel and the scientific community. The primary Coast 2050 document was completed in December, 1998 and is attached to this plan. The Breaux Act Task Force and the State Wetland Authority have formally approved the goals and strategies presented in the Coast 2050 document. In addition, the councils and police juries of all 20 coastal parishes passed resolutions in support of the Coast 2050 ecosystem strategies in coastal Louisiana.

PROGRAMMATIC MEASURES

During the course of the Coast 2050 planning initiative, many ideas were suggested by the Regional Planning Teams and the public that are programmatic rather than physical in nature. These programmatic strategies found in Chapter 8 of the Coast 2050 document are incorporated by reference as recommendation of the State Wetland Authority. These recommended measures have the potential to improve implementation efficiency of authorized restoration projects, improve effectiveness of future restoration efforts, improve the coordination among existing environmental resource programs, or result in actions that may benefit coastal wetland systems in other ways.

ELEMENTS of the STATE WETLANDS PLAN

Act 6 requires that the annual State Coastal Wetlands Conservation and Restoration Plan (State Plan) address coastal system problems from both short- and long-range perspectives, incorporate structural, management, and institutional components, and include the following:

(1) A list of projects and programs required for the conservation and restoration of coastal wetland systems.

(2) A schedule and estimated cost for the implementation of each project or program included.

(3) The rationale for incorporation of each project or program and, in particular, a description of how each project or program advances the Plan's objectives with respect to the management, conservation, or enhancement of vegetated wetland systems.

(4) The public use benefits intended to be derived from the project which justify the project, the use benefits which private landowners are expected to derive from the project, the manner in which the benefits will be realized over the life of the project, the entities or persons who will be responsible for the long-term operation and maintenance of the project both in terms of manpower and cost, and the entities or persons who will be responsible for monitoring the project to ensure that it is functioning properly and realizing the intended public and private benefits.

All State Plans since 1990 have been developed through processes that involve the integration of recommendations from federal, state, and local governmental entities, representatives of various interest groups and individuals knowledgeable about Louisiana's coastal processes and resources. Since 1991, most of the projects recommended for construction in the State Plan have been priority projects approved under the Breaux Act, which are funded on a cost share basis using state trust fund money to leverage the federal portion of the project cost.

The current State Plan reflects the completion of Coast 2050 and is influenced by the spirit of that document. After submission and approval by the House and Senate Natural Resource Committees, the State Wetlands Plan is submitted to the full legislature for approval by resolution adopted by a majority vote of the members of each house, provided that such resolution is adopted on or before June 1 of each calendar year. Upon approval, the Department of Natural Resources undertakes project implementation in conformity with the order of priority contained in the State Plan.

POLICY

The following policy statements are intended to generally guide the state's future coastal wetland conservation and restoration efforts.

Coastal vegetated wetlands, barrier islands, headlands, shorelines and shell reefs--by virtue of their value as the basis for present and future fish and wildlife productivity, and related economic and recreational benefits; as natural protection for coastal residents against the effects of storm damages; and for other reasons pertaining to the public health and welfare--are deemed to be uniquely important to this State and deserving of special safeguards and efforts related to their conservation, enhancement, restoration, and creation. Accordingly, it is the policy of the State to elevate coastal system conservation, enhancement, restoration, and creation to a level of importance equal to flood control, navigation, or other development activities so that a proper balance is achieved.

It is the policy of the state to aggressively identify and implement projects and programs to offset losses of coastal wetland systems that have resulted from human activities and ongoing natural processes. It is also the policy of the state not to allow developments that adversely impact coastal vegetated wetlands, unless mitigated. Accordingly, the state has enacted legislation and developed rules defining and establishing procedures needed to achieve, at a minimum, compensation for coastal wetlands' functional values lost due to permitted activities.

Expenditures from the state's Wetlands Conservation and Restoration Fund shall be made in accordance with priorities established primarily on the basis of the effectiveness of each expenditure in conserving, enhancing, restoring, and creating coastal wetland systems. Louisiana recognizes the economic significance and importance of coastal activities such as navigation, including ports and waterways; seafood and wildlife-related industries; oil and gas exploration and production; chemical production; and agriculture, aquaculture, and silviculture. Potential oyster lease impacts will be considered and funded as a part of project costs for all new projects added to the state plan. An analysis of the new Breaux Act PPL8 projects indicates that there are no impacts to existing oyster leases. Similar analysis will be conducted on previously approved plan projects. Accordingly, it is the policy of the state to consider the impacts of coastal wetland conservation and restoration programs and projects as they relate to these activities in our state's coastal area.

The development of projects and programs should be consistent with the strategies developed in Coast 2050. Academic input and public participation should be a part of all decision making processes.

PLAN GOALS

Because natural processes created the highly productive wetlands, barrier shorelines and shell reefs in coastal Louisiana, reestablishment of these processes is essential to achieve sustainability. This implies taking full advantage of the natural constructive forces that formed the delta system that is coastal Louisiana. This does not imply a return of the coastal system to its former pristine condition; too much has changed for that to occur. The intent is to design restoration strategies based on ecological principles, so the future coast will be sustainable and have the productivity and other desirable features of the highly-valued natural system.

Coast 2050 lists three strategic goals as necessary in recreating a sustainable coastal ecosystem. Each goal is discussed below. The Plan's regional strategies, described subsequently, are intended to accomplish these goals.

- **Goal 1: Assure vertical accumulation to achieve sustainability.** The natural, long-term productivity of Louisiana's coastal wetlands has occurred because, over a large area and over time measured in centuries, the ecosystem maintained itself against the natural forces (such as subsidence and erosion) that cause marsh loss. Failure to achieve self-maintenance in the system means either that the system cannot be sustained, or the system must be maintained artificially with large ongoing investments of labor, energy and materials.

  To achieve self-maintenance, sustainable marshes must accumulate sediment and/or organic matter at a rate that equals or exceeds the combined effect of sea level rise and subsidence. This upward growth in the land surface, to counteract sinking, is known as vertical accumulation. Delta building is one natural process of accumulation of new land. For established marshes, vertical accumulation occurs through periodic, gentle marsh flooding and drainage that promotes healthy vegetation and large rates of organic production. It also is important to protect otherwise self-sustaining wetlands from excessive erosional forces.

• **Goal 2: Maintain estuarine gradient to achieve diversity.** Given sustainability, a second essential characteristic that makes the natural system so productive is its diversity of habitats, and the consequent diversity of fish and wildlife resources. These habitats include swamps, marshes of various salinities, and other land forms (levees, barrier islands, headlands, barrier shorelines, shell reefs). With diversity, the ecosystem is capable of providing a wide array of outputs, and is resilient to adverse changes.

A dynamic salinity gradient in each estuary is the fundamental driving force that creates natural ecosystem diversity. Significant freshwater input must occur at the upper end of each estuary, and must flow seaward to grade into increasingly saline and tidally dominated flow at the gulf end of the estuary, where the system is partially contained by emergent land (such as barrier islands or chenier ridges). With a salinity gradient comes the gradation of fresh-intermediate-brackish-saline vegetation and associated variations in fish and wildlife habitat. The other features of ecosystem diversity, such as the emergent land forms, are a natural outgrowth of the delta building and chenier cycles.

• **Goal 3: Maintain exchange and interface to achieve system linkages**. Ecosystem linkages are the pathways by which energy, materials and organisms are transferred and mixed among the ecosystem components. Effective interconnections are needed to support a food chain that is diverse and highly productive. Examples include: migration of salt water organisms into comparatively fresher marshes and swamp forests as part of their natural reproductive cycle; the normal export of surplus organic marsh detritus to sustain the estuarine food chain; and overflow of freshwater (with nutrients and sediments) into marshes in a natural flow regime.

Optimal linkages require that the land forms and hydrology of the ecosystem allow for efficient exchange of energy and materials between the marshes and estuaries. In turn this is achieved by habitats that have stable edges and that are naturally interspersed with other habitats, and by a hydrologic regime that maintains the natural rhythms of the coast - including tidal cycles, storms, and river floods.

Projects should apply these three strategic objectives, depending on the specific needs of ecosystems, and should include one or more of the following approaches.

- Enhance the ecosystem by using resources more efficiently. In some areas, especially those with strong and positive riverine influences, the integrity of the natural system is intact and the wetlands are considered sustainable through 2050 with little or no further intervention. Strategies are designed to make more effective use of the available resources.

- Maintain the ecosystem by addressing known risks. In some areas, the ecosystem is now thriving, but is at risk of losing its sustainability by 2050. These ecosystems may be at risk from the predicted loss of adjoining wetlands, shorelines, barrier islands or levee ridges that now provide integrity to the ecosystem. Or the risks may relate to prospective changes in existing hydrologic management. In such areas, strategies aim to reduce risks and promote hydrologic conditions that are favorable to sustainability, diversity and exchange.

- Recover the ecosystem by reversing the loss process. There are large areas of the coast where the ecosystem has lost some of its integrity and the emergent wetlands are no longer self-maintaining. Where these areas have a platform of intact (but perhaps declining) vegetation, it is possible that the wetlands could return to self-maintaining conditions. The strategies are to recover sustainability through restoration actions that recreate the lost aspects of system integrity, reduce existing vegetation stresses, and/or stimulate vertical accumulation.

- Rebuild the ecosystem by creating new wetlands. Finally, in some parts of the coast, the ecosystem has degraded to the point that virtually all of the ecosystem integrity is lost and there is no vegetative substrate upon which to recover sustainable conditions. Consequently, if emergent wetlands are desired, they will need to be newly built, as through a new delta lobe or marsh creation project. In the alternative, such areas would exist and function as an open water system.

AUTHORITY

The Wetlands Conservation and Restoration Authority was created within the Office of the Governor. The Authority has the responsibility for developing comprehensive policy for restoring a sustainable coastal system. Each year it is required to submit this Louisiana Coastal Wetlands Conservation and Restoration Plan (State Plan) to the legislature on or before the first day of the regular session.

The Governor's Executive Assistant for Coastal Activities chairs the Authority and is responsible for establishing procedures for its operation and for developing the State Plan. Act 6 provides for implementation of the State Plan within the Office of Coastal Restoration and Management of the Louisiana Department of Natural Resources (DNR). Louisiana's Wetland Conservation and Restoration Authority consists of the Executive Assistant to the Governor for Coastal Activities and the Task Force. The Task Force is composed of the following members:

Governor's Executive Assistant for Coastal Activities
Governor's Special Assistant for Environmental Affairs;
Secretary, Department of Natural Resources;
Secretary, Department of Wildlife and Fisheries;
Secretary, Department of Environmental Quality;
Secretary, Department of Transportation and Development;
Commissioner, Division of Administration;
Director, State Soil and Water Conservation Committee.

It is the intention of this Plan to authorize appropriate funding to execute the powers and duties of the Authority.

IMPLEMENTATION

In the development of future projects and programs, Coast 2050 is recognized by the Authority as its guide to ecosystem restoration and development. Chapter 7 of the 2050 document provides some specific guidance regarding the sequencing of strategies. Chapter 10 also includes specific actions for realizing goals in implementation of the Coast 2050 Plan.

Coordination with representatives of federal, state and local governments as well as private interest groups is required in all phases of project development, implementation, and operation. Comments by private citizens and elected officials made in Coast 2050 public meetings point out three major issues of concern in the efforts of wetland conservation and restoration. These are 1) the rights of landowners and leaseholders, and the associated need for early coordination of project features; 2) the need to assure that conservation-management programs serve both the fisheries and the wetland restoration and conservation needs; and 3) the assurance that long-term operation and management of projects is provided.

PROGRAMS

The following section provides a short description of specific Authority objectives, programs that assist in meeting these objectives, the status of ongoing programs, and recommendations for funding from the FY 99-00 Wetland Fund.

1. Breaux Act, (or CWPPRA)

Coastal Wetlands Planning, Protection, and Restoration Act (PL 101-646, Title III)

A. 303(a) Priority Project List

Objective: Identify and prepare a list of coastal restoration projects to provide for the long-term conservation of wetland ecosystems and dependent fish and wildlife populations, in order of priority. In doing so, ensure that existing Breaux Act funds are directed towards strategies included in the Coast 2050 plan and involve public participation throughout the priority list process.

Status: The Coast 2050 planning document incorporating a comprehensive vision for the coast and adopting a multiple-use approach to restoration planning is complete. Breaux Act Task Force members have stated that the PPL9 process will include both public participation by members of the Coast 2050 Regional Planning Teams and projects developed from Coast 2050 strategies.

B. 303(b) Federal and State Project Planning and Implementation

Objective: Develop, implement, and amend, as necessary, a comprehensive coastal wetlands restoration plan that addresses large-scale and long-term requirements for the conservation, restoration, and enhancement of Louisiana's coastal wetlands with federal participation.

Status: Included as Appendix C. This joint federal, state, and local coastal planning and management effort will serve to update and supplement the 1993 Louisiana Coastal Wetlands Plan: "Main Report and Environmental Impact Statement of the Louisiana Coastal Wetlands Conservation and Restoration Task Force." Coast 2050 planning initiative provides the opportunity for all levels of government to adopt a common plan for future coastal projects. This plan takes into account the major coastal uses and resources that are vital to our future, such as: flood protection, transportation, navigation, fish and wildlife production, fresh water supply, and community stability.

The Breaux Act Task Force has allocated federal dollars for the participation of the Governor's Office of Coastal Activities **($100,838)**, the Department of Natural Resources Coastal Restoration Division **($529,026)**, and the Department of Wildlife and Fisheries **($15,000)** to assist in the planning, implementation, and development of the next priority project list and in the completion of the Coast 2050 process. An additional **$61,000** of Breaux Act dollars has been allocated to DNR for the printing of the final document, the creation of an Executive Summary and the marketing of the plan.

2. Section 304 Louisiana Coastal Wetlands Conservation Planning

304(a) Implementation of the Conservation Plan

Objective: Implementation of the Conservation Plan that has a goal of achieving no net loss of wetlands in Louisiana as a result of development activities, exclusive of any wetlands gains achieved through implementation of Sections 303a and 303b.

Status: Ongoing

A. NRCS/Restoration on Agricultural Lands Program

Restoration of prior converted agricultural lands and seriously degraded wetlands. Project site(s) have been identified, restoring approximately 700 acres of coastal wetlands. **Ag Land Restoration Projects** **$ 225,000**

B. Beneficial Use of Dredge Material Matching Fund **$1,000,000**

(See Other Federal Matching Obligations, Page 39)

C. Public Outreach Effort

Outreach costs are those associated with the traveling exhibit and kiosk, media/information brochures and the updating of the DNR website **$ 50,000**

D. Vegetative Planting Program

Objective: Plan and implement marsh restoration and conservation using vegetation planting.

Status: Ongoing. Proposed locations in:

Calcasieu	Lafourche	St Charles	Cameron
Vermilion	Iberia	Plaquemines	St Mary
Jefferson	St Tammany	Terrebonne	

This location listing is subject to change and up to **$450,000** is allocated to this project.

E. Christmas Tree Projects

Objective: Plan and implement marsh restoration and conservation using vegetation planting, sediment trapping, or low-cost shore protection.

Status: Ongoing.

Proposed locations in:

Calcasieu	Lafourche	St Charles	St John the Baptist
Cameron	Orleans	St Martin	Terrebonne
Iberia	Plaquemines	St Mary	Vermilion
Jefferson	St Bernard	St Tammany	

This location listing is subject to change. A total of **$329,000** is planned coast-wide.

F. Other Implementation Costs associated with the Conservation Plan dated May 1997 and the October 1997 Addendum **$ 30,000**

Conservation Plan costs are annually allocated from the Wetland Fund.

3. Vegetated Wetland Mitigation Program

Objective: Implement vegetated wetland restoration, protection, or enhancement projects as compensatory mitigation for permitted activities.

Status: Ongoing. The Department of Natural Resources Coastal Management Division requires that regulated development projects include mitigation to offset the loss of wetland values.

Funding is generated through fees paid by Coastal Use Permit applicants.

4. Oyster Lease Relocation Program

Objective: Provide for the fair and expeditious relocation of affected oyster leases in Coastal Restoration Project areas.

Status: Ongoing

5. **Nutria Control Program**
   Objective: Increase the harvest of nutria through an incentive payment to trappers operating in marsh areas with documented vegetative damage

   Status: Ongoing

   $50,000 will be transferred to the Louisiana Department of Wildlife and Fisheries via Interagency Transfer from the Wetland Fund.

6. **Nonpoint Source Pollution Program**
   Objective: Route nonpoint source discharges and, where appropriate, point source discharges through wetlands to offset saltwater intrusion, enhance vegetation growth, and improve water quality.

   Status: Under development.

ECOSYSTEM PLANNING AND MANAGEMENT

As implementation of ecosystem scale management strategies begins, remaining scientific and technical questions should be addressed and monitoring data and restoration-oriented research results should be used in adaptive management and project planning decisions. Ecosystem-level planning and management depends on bringing the latest scientific and technological advances into project selection, evaluation, design and construction. Enhancing this aspect of restoration planning to increase effectiveness and reduce costs has been identified in Coast 2050 as one of the more critical challenges facing Louisiana's restoration program. The projects selected for inclusion in this State Plan reflect the current state of knowledge.

Demonstration projects are included in the Breaux Act program to facilitate prototype construction. Coast 2050 demonstrates that the technology base must be expanded through other mechanisms. Results from monitoring and applied research and development programs must be continually assessed from basin-wide and coast-wide perspectives, so that the focus on individual projects does not preclude consideration of how projects will work together. In some cases, it is prudent to hasten technology development by directly supporting those lines of applied research that appear most likely to yield significant improvements. Programs that will add to our knowledge base, both on-going and proposed, that have been identified for authorization are listed in the following section. Most are joint federal-state initiatives, but some have been funded solely with state monies.

Ecosystem-level planning initiatives are proposed for continuation in the coming year. Those listed under Coast 2050 are Action Items that emerged from that process. Other sections include programs and projects related to wave and shoreline defense priorities and better use of Mississippi and Atchafalaya River water, sediments and nutrients. The last section includes demonstration and applied research initiatives that are of a more general nature and will be applied throughout the coast. One example is the biomass production program aimed at increasing coastal plant production. Management-oriented programs will be enhanced through integration with data collection programs that have heretofore been funded separately.

1. **Coast 2050 Feasibility/Implementation Study**
   Objective: The study will address the major restoration strategies developed during the Coast 2050 initiative to evaluate the Coast 2050 Plan as a whole and select specific features to be analyzed at feasibility level detail. The challenge is to accomplish the engineering, economic, and environmental analysis necessary to complete feasibility level evaluations and make recommendations of the best and most cost effective construction methods to accomplish the overall mission. Particular Action Items include:

   A. Modification of Priority Project List (PPL) Selection Procedures
   B. Improving Assessment of Ecosystem Value
   C. Improving Coast-Wide Monitoring, Prediction and Data Dissemination
   D. Identification of Additional Complementary Funding Sources

   Status: A feasibility/implementation program is taking form based on the principles set forth in Chapter 10, "Realizing the Goal" of the Coast 2050 Plan.

   This study will require state matching funds if federal dollars are made available. Matching requirements by the state are anticipated to be approximately $1,500,0000 to $2,000,000 in FY 99-00 for feasibility/ implementation of the Coast 2050 Plan consistent with the stated objectives pending the subsequent specific approval of the Authority.

   One of the challenges facing the state's coastal restoration and conservation efforts and any implementation of Coast 2050 is the need for information, understanding, and technology so that the presented strategies can realize their potential benefit to the coast. An important tool is hydrologic modeling, with at least two significant applications to be utilized during FY 99-00. Those applications are:

   E. Hydrologic Modeling of the Western Terrebonne Marshes
   For use in the Lower Atchafalaya Re-evaluation Study
   F. Hydrologic/Ecosystem Models for Restoration and Monitoring
   For use in coast-wide project planning

   It is anticipated that hydrologic modeling consistent with comprehensive coastal restoration and conservation planning and implementation will funded be in FY 99-00. Modeling will be a feature of many on-going and new feasibility and implementation efforts. Subsequent approval by the coastal wetlands authority will be required if the expenditure is not associated with the implementation of a previously approved project or program.

2. Waves and Shoreline Defense Priorities

A. WAVCIS Program

Objective: Provide sea-state information including wave height, period, direction of propagation water level, surge, current speed and direction and meteorological conditions on a real-time basis along the Louisiana coast.

Status: A proposal has been prepared jointly with LSU Coastal Studies Institute outlining the details of the network design and the benefits associated with emergency response to storms and oil spills and restoration project evaluation.

$100,000 is allocated from the FY 99-00 Wetlands Fund. These funds will be utilized with **$250,000** allocated from the FY 98-99 Wetland Fund, **$150,000** in Breaux Act Dollars and possible FEMA funds.

B. Barrier Shoreline Feasibility Study and Implementation

Objective: To assess and quantify wetland loss problems linked to diminishing protection from barrier formations along the Louisiana coast. The study will identify solutions to these problems, attach a cost to these solutions, and determine the barrier island configuration which best protects Louisiana's significant coastal resources from saltwater intrusion, storm surges, wind/wave activity and oil spills.

1). **Phase 1, Mississippi River to the Atchafalaya River**
Encompassing those barrier shorelines from Raccoon Point to Sandy Point

2). **Phase 2, Atchafalaya River to the Sabine River**
Encompassing the Chenier Plain Shoreline

3). **Phase 3, Pearl River to the Mississippi River**
Including but not limited to the Chandeleur Islands

Status: Phase 1 is nearing completion, Phases 2 & 3 are on hold.

This study is funded by the Breaux Act Planning Budget. Upon completion, implementation will require state matching funds, the specific amount to be determined by the project(s) selected. Use of Wetlands Fund dollars will require subsequent specific approval of the Authority.

3. **Hydrologic Investigation of the Chenier Plain**
   Objective: Analyze existing data, and collect additional hydrologic data of the interior Chenier Plain to gain a better understanding of how the hydrology affects ecosystem dynamics. This information will be used to develop more effective management for multiple resource uses and will also be an information resource for subsequent feasibility studies.

   Status: Ongoing.

   The Breaux Act Task Force has allocated funding of $250,000 to initiate the study.

4. **Mississippi River Sediment, Nutrient, and Freshwater Redistribution Feasibility Study**
   Objective: Develop and implement a plan to allocate water and sediments of the Atchafalaya and Mississippi Rivers, including diversions and increased sediment delivery through the Atchafalaya River, in order to maximize maintenance, restoration, enhancement, and creation of vegetated wetlands.

   Status: Ongoing

   This study is funded by the Breaux Act Task Force. Upon completion, implementation will require state matching funds. The use of Wetlands Fund dollars consistent with the stated objective will require the subsequent specific approval of the Authority.

5. **Biomass Production Program**
   Objective: The Biomass Production Program initiative is aimed at taking a proactive approach to coastal restoration. By increasing plant production, it is believed that it is possible to compensate for subsidence and maintain or increase marsh elevation. Results of this program will provide valuable guidance in biomass production and keep Louisiana as the leader in learning and understanding marsh building techniques.

   A. **NRCS Biomass Production Program**
   This agreement will investigate plant suitability, establishment techniques, and effectiveness of selected wetland species to stabilize sediment.

   $200,000 will be required for this program in FY 99-00 via interagency agreement with NRCS. The FY 98-99 interagency agreement was for $80,000.

B. National Wetland Research Center Biomass Production Program

This agreement will study endemic wetland plants for increased productivity, concentrating on increasing plant performance using conventional plant breeding techniques and tissue culture.

This interagency agreement was initiated for five (5) years at a cost of $1,423,500. Costs for FY 99-00 is $263,200.

C. LSU Biomass Production Program

This interagency agreement will evaluate the impact that the Caernarvon Diversion Structure has had in the outfall area. The impact of freshwater, sediment, and nutrient on increased plant productivity in the outfall will be studied. Results will determine which factors are most critical in establishing vegetation when developing other freshwater diversion projects.

This interagency agreement was initiated for two (2) years in 1996 at a cost of $168,502. No new dollars are allocated for FY 1999-00.

D. USL Biomass Production Program

This interagency agreement was initiated for two (2) years at a cost of $178,886. This interagency agreement will manipulate sediment and nutrient delivery in the Caernarvon outfall area to differentiate the significance of reduced salinity stress and increased nutrient availability at promoting soil organic matter production, reducing soil organic matter decomposition, and promoting the resulting marsh soil formation. In addition, USL and LSU will jointly initiate modeling efforts to account for feedbacks between nutrient addition and soil formation. No new dollars are allocated for FY 1999-00.

Status: Ongoing

Funding sufficient to complete approved contractual obligations will be provided from the Wetlands Fund in FY 99-00.

PROJECTS

Projects recommended for funding from the Wetlands Conservation and Restoration Fund during Fiscal Year 1999/00 are generally of six types:

Introduction of freshwater, mineral sediments (including dredged material), and nutrients to conserve, enhance, restore, and create vegetated wetlands.

Management of surface water to protect vegetated wetlands from saltwater intrusion and erosion by tidal currents and to enhance their value to fish and wildlife.

Marsh restoration, sedimentation, and low-cost shore protection to maintain and enhance physical integrity of vegetated wetlands.

Gulf shore protection along critical areas.

Vegetative Planting, Christmas Tree/Sediment Trapping, Wave Reduction Fences.

Demonstration and evaluation of new technologies for vegetated wetland creation, restoration, protection, or enhancement.

Each individual project is identified by a letter/number combination, the letters representing the name of the hydrologic basin in which the project is located (e.g. PO-1). The numbers are unique, and those for new projects are sequential relative to numbers used for projects contained in Plans of previous years. A map of coastal Louisiana with project locations and an illustrated description of the new projects is provided in this section. Individual project descriptions are grouped according to the hydrologic unit in which they are located. A statement of problems and objectives, and a basin map showing the location and general area of benefit for each project precedes the project descriptions for each basin.

Descriptions of previously authorized projects can be found in the 1990/91 through 1998/99 Plans. A current status of each project is made available by reference to the *1998 Status Report for Coastal Wetlands Conservation and Restoration Program* (available from the Department of Natural Resources, Coastal Restoration Division) as an attachment to this document. (Appendix D)

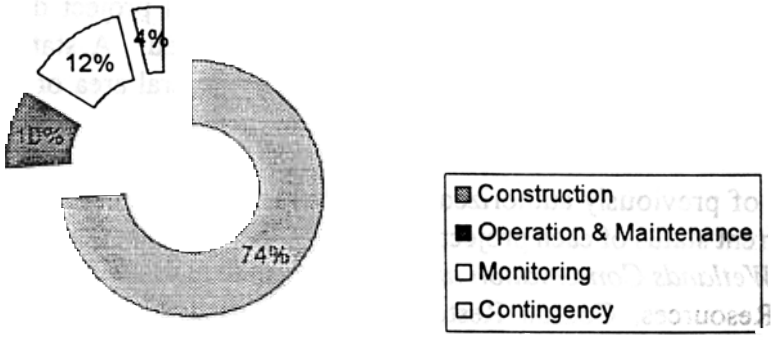
PROJECTS

1. Breaux Act Priority Project List 1 through 7

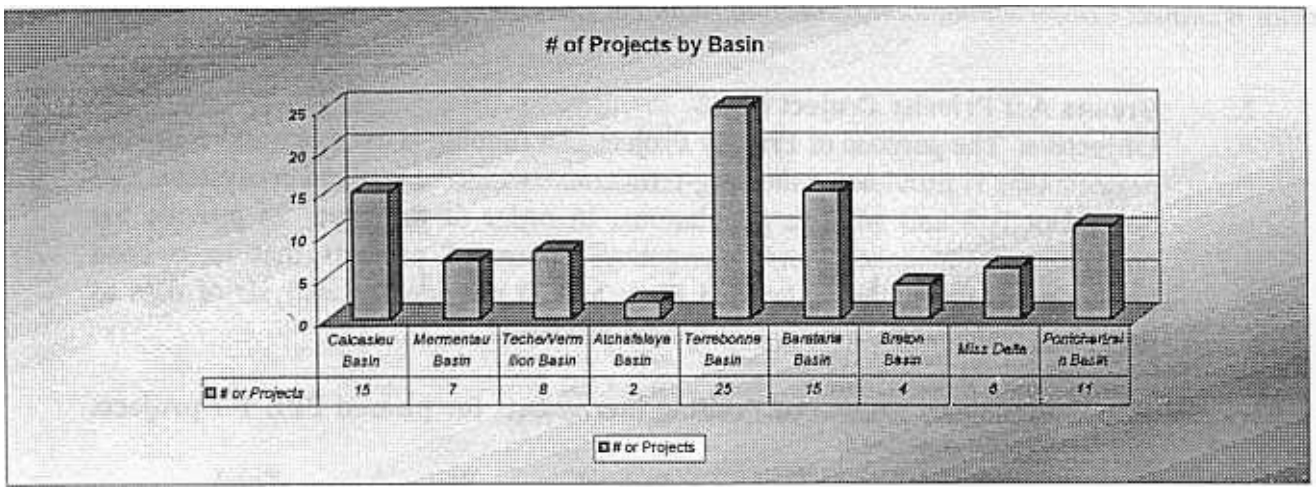
Objective: The development of Priority Lists 1 through 7 has been an ongoing process described in the Introduction and in the Priority List Program sections of this document. The purpose of project design and construction is 1) to provide for the long-term conservation of wetland ecosystems and dependent fish and wildlife populations, in order of priority; 2) to provide for operation, maintenance, and emergency repairs of projects that have been implemented under the authorized State Plan; and 3) to provide for analysis of data to provide a better understanding of system processes.

Status: Combining lists 1-7, 93 Breaux Act Projects have been authorized designed to create or protect 66,600 acres of wetland habitat. Of the 93 approved projects 11 have been deauthorized and 8 remain unfunded. A total of 30 projects have been built with expenditures totaling over 72 Million in federal and state dollars. Of these totals 22 projects for a total of $45,559,925 have been built in the last three years benefitting 15,114 acres. Appendix D (Attached), the *1998 Status Report for Coastal Wetlands Conservation and Restoration Program* details the current status of specific projects. Appendix B provides a summarized list. The following breakdown provides total dollars for all authorized PPL 1-7 projects.

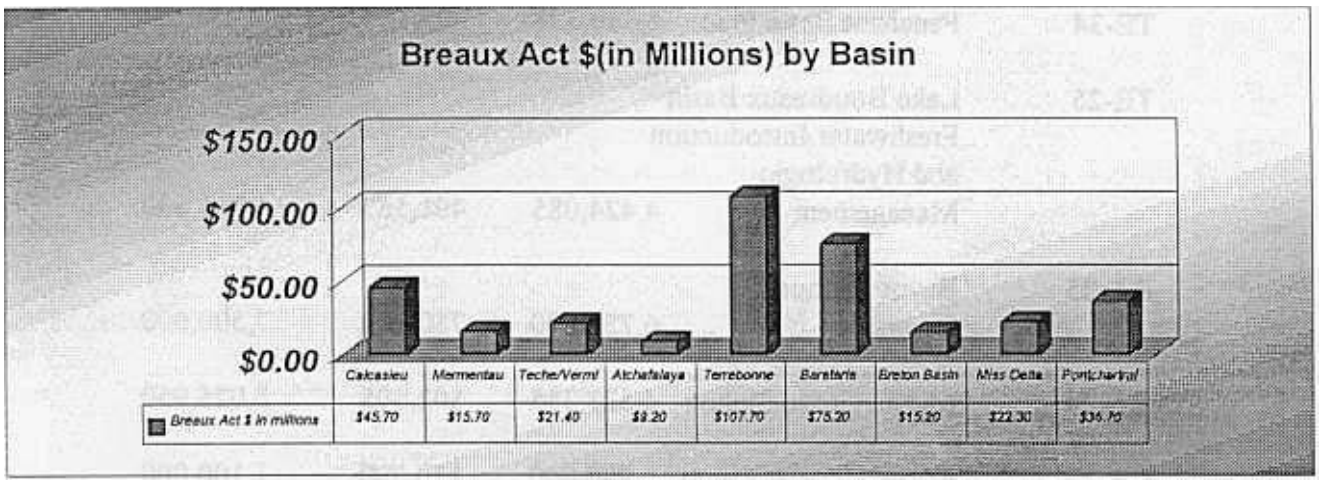
The following chart demonstrates current estimates (COE database, January 29, 1999) for PPL 1-7 projects.



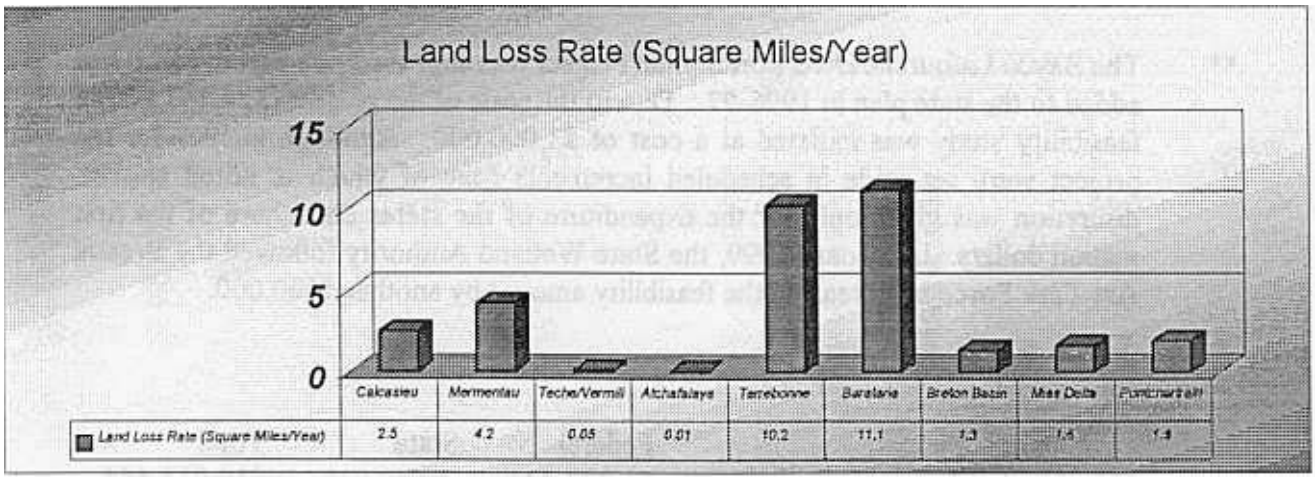
Associated costs represent a combination of federal and state costs and a built-in contingency. The state portion for Breaux Act Projects was reduced from 25% to 10% for PPL 5 & 6 Projects and to 15% for all others. State matching dollars for these projects have already been obligated in prior fiscal years. (Dollar Values are as of January 29, 1999)



Corp of Engineers Data (January 29, 1999)



Corp of Engineers Data (January 29, 1999)



USFWS Data (Coastal Trends 1978 - 1990)

2. **Breaux Act Priority Project List 8**

Objective: The purpose of Priority Project List funding is to design and construct projects that 1) provide for the long-term conservation of wetland ecosystems and dependent fish and wildlife populations, in order of priority; 2) provide for operation, maintenance, and emergency repairs of projects that have been implemented under the authorized Plan; and 3) provide for analysis of data to provide a better understanding of system processes.

a. **Previously approved funding increments for phased PPL 1-7 projects** (Deferrals)

			Federal	State	Total
	MR-09	DeltaWide Crevasses	$2,463,255	273,695	$2,736,950
	TE-34	Penchant Basin Plan	6,346,395	705,155	7,051,550
	TE-25	Lake Boudreaux Basin Freshwater Introduction and Hydrologic Management	4,424,085	491,565	4,915,650
**	BA-25	Bayou Lafourche Diversion	6,750,000	750,000	7,500,000
	BA-24	Myrtle Grove Siphon	4,523,355	502,595	5,025,950
	CA-3	Nutria Harvest Demo	990,000	110,000	1,100,000
	Total Deferrals		**$25,497,090**	**2,833,010**	**28,330,100**

** The Bayou Lafourche Diversion/Siphon Project was approved as a part of PPL5 and added to the state plan in 1996-97. Due to the scale of the project ($24,487,000) a feasibility study was initiated at a cost of $1,000,000. Although monies for the project were set aside in scheduled increments (one of which is noted above), discretion was given only for the expenditure of the states cost share of the first million dollars. In January 1999, the State Wetland Authority followed the Breaux Act Task Force in increasing the feasibility amount by another $500,000.

b. Approved **overages** from PPL 1-7 projects

Federal	State	Total
$9,293,444	**1,640,020**	**$10,933,464**

c. **New** projects approved and expenditures authorized as follows:

		Federal	State	Total
PO-24 PPO-38	Hopedale Hydrologic Restoration	$1,852,575	326,925	$2,179,500
ME-15 PME-15	Humble Canal Hydro. Restoration	1,297,185	228,915	1,526,100
PO-25 PO74b	Bayou Bienvenue Pumping Terracing	2,801,260	494,340	3,295,600
BA-27b XBA-63	Barataria Land Bridge Shore Prot. Phase 2	6,096,455	,075,845	7,172,300
TV-17 PTV-20	Lake Portage Land Bridge Phase 1, Dredge & Fill of Pipeline Canal (See Funding Note)	850,000	150,000	1,000,000
CS-28 XCS-48	Sabine Refuge (Revised) Marsh Creation, Phase 1 Area #1 Pipeline Installation (See Funding Note)	4,516,050	796,950	5,313,000
BS-08 PBS-1	Upper Oak River Freshwater Siphon	2,125,000	375,000	2,500,000
Total		**19,538,525**	**3,447,975**	**22,986,500**

Through contractual arrangements between the federal government and the Department of Natural Resources, the DNR is charged with the responsibility to provide long-term (20 year) operation, maintenance and monitoring of all Breaux Act projects. As illustrated in the PPL 1-7 section of this document, Breaux Act costs include consideration for operation, maintenance, monitoring and a built-in 25% consistency. A breakdown of PPL8 costs was not available at the time this document went to the printers.

Initial analysis indicates that there will be no impacts to existing oyster leases as a result of new PPL8 projects.

	Federal	State	Total
Combined Total of a, b, & c	**54,329,059**	**7,921,005**	**62,250,064**

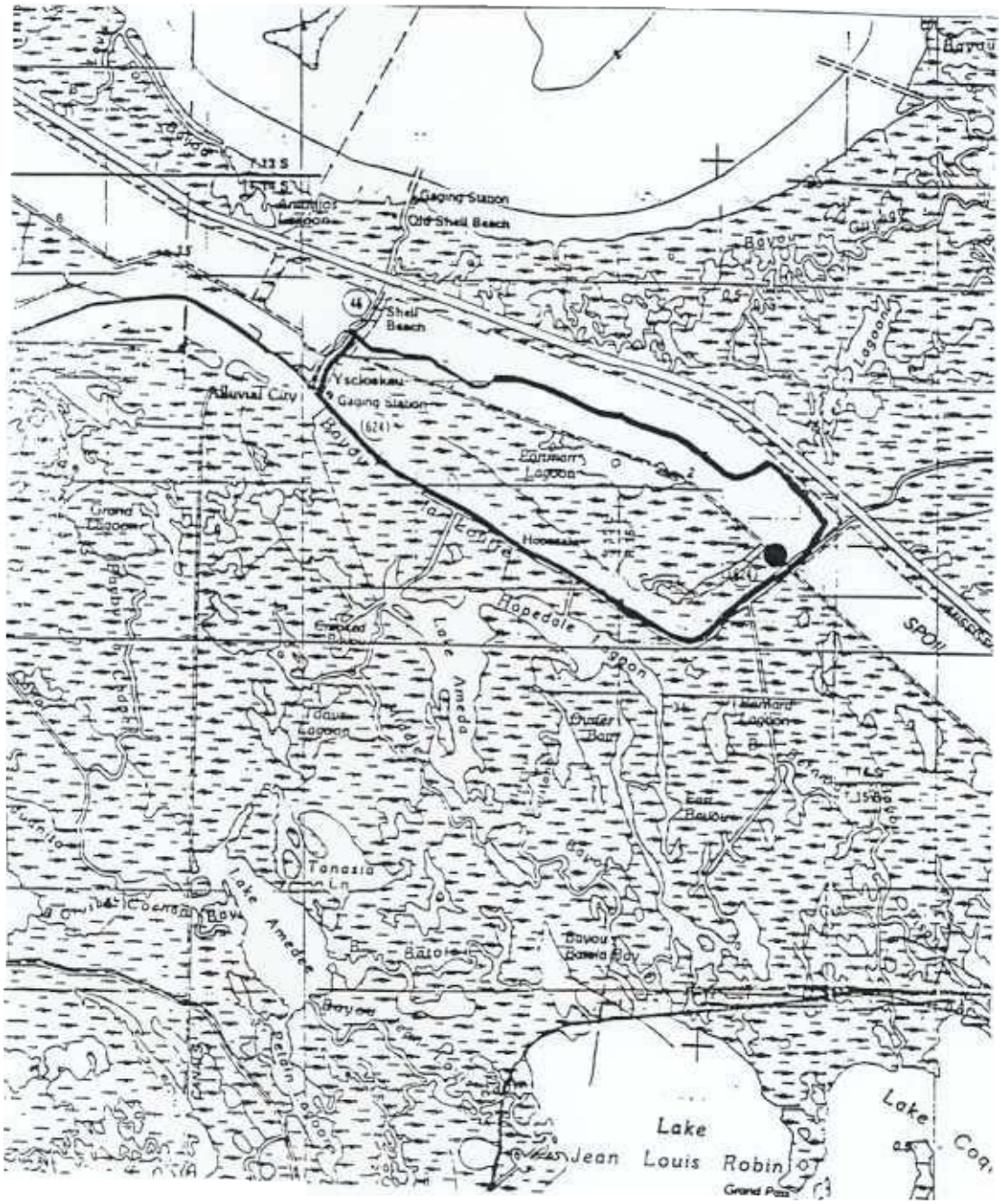
The above subtotal of expenditures exceed the estimated amount of the federal allocation. In order to bring the PPL8 listing in balance with expected revenues, the Environmental Protection Agency has offered to free some of the dollars that have been tied to the Bayou Lafourche Diversion Project (BA-25). At the January 20, 1999 Breaux Act Task Force meeting Task Force members passed a motion to free $16,095,833 in the following manner.

Scheduled PPL8 deferral not allocated	<$6,750,000>	<750,000>	<7,500,000>
Amounts Deobligated from past allocations	<$7,736,295>	<859,588>	<8,595,883>
Total dollars made available	**$14,486,295**	**1,609,588**	**16,095,883**
PPL 8 Total (obligated less deobligated)	**$39,842,764**	**6,311,417**	**46,154,181**
Percentage	**86.33%**	**13.67%**	

Breaux Act Funding will cover roughly 86.33% of noted costs. Funding is authorized for FY 99-00 as noted above, representing a 13.67% state cost share from the Wetland Fund. (Dollar Values are estimates as of January 20, 1999)

Consistent with the requirements of R.S. 49:213.6(C)(2), the following pages will describe and illustrate PPL8 projects detailing the rationale for incorporation of each program and, in particular, a description of how each project or program advances the Plan's objectives with respect to the management, conservation, or enhancement of vegetated wetland systems. With regard to the benefits to private landowners the Authority recognizes that, as "A substantial majority of the coastal wetlands in Louisiana are privately owned, it is anticipated that a significant portion of the projects funded through the Wetland Conservation and Restoration Fund either will occur on or in some manner affect private property." R.S. 49:213.8. As benefits described in the Project Objective section accrue, they will be subject to the existing body of law dealing with public and private immovable property. In addition, R.S. 49:213.8 provides that, "No rights whatsoever shall be created in the public, whether such rights be in the nature of ownership, servitude, or use, with respect to any private lands or waters utilized, enhanced, created or otherwise affected by activities of any governmental agency, local, state, or federal, or any person contracting with same for the performance of any activities, funded in whole or in part, by expenditures from the Wetlands Conservation and Restoration Fund or expenditures of federal funds."

Hopedale Hydrologic Restoration PO24 (PPO-38)



Project: PO-24 (PPO-38) Hopedale Hydrologic Restoration

Federal Sponsor: National Marine Fisheries Service

Location and Size:
The 2,900 acre project area is located southeast of Yscloskey, in St. Bernard Parish. This area is bordered by LA Hwy. 46 to the west, LA Hwy. 624 to the east and south, and the Mississippi River Gulf Outlet (MRGO) disposal area to the north. The project area consists of shallow water ponds, brackish marsh, and some higher elevation wetlands along the Bayou La Loutre Ridge.

Problems:

In the 1950s, a water control structure was placed into a canal leading from the project area to Bayou La Loutre (Site 1). This canal parallels the back MRGO spoil containment dike. When installed, this structure contained three galvanized iron culverts with flapgates. As time passed, the flapgates were removed and never replaced. During recent years, two of the three culverts have collapsed. The collapsing of the culverts has adversely impacted wetlands in the project area through the loss of drainage capability. High water elevations from high tides and rainfall ponds on the marsh surface, have reduced plant health and have led to accelerated marsh loss.

Project Objectives:

Replacing the culverts would allow water within the system to drain more rapidly, reducing wetland loss rates. Additionally, replacement of degraded culverts will improve marine fishery access to wetlands within the project area.

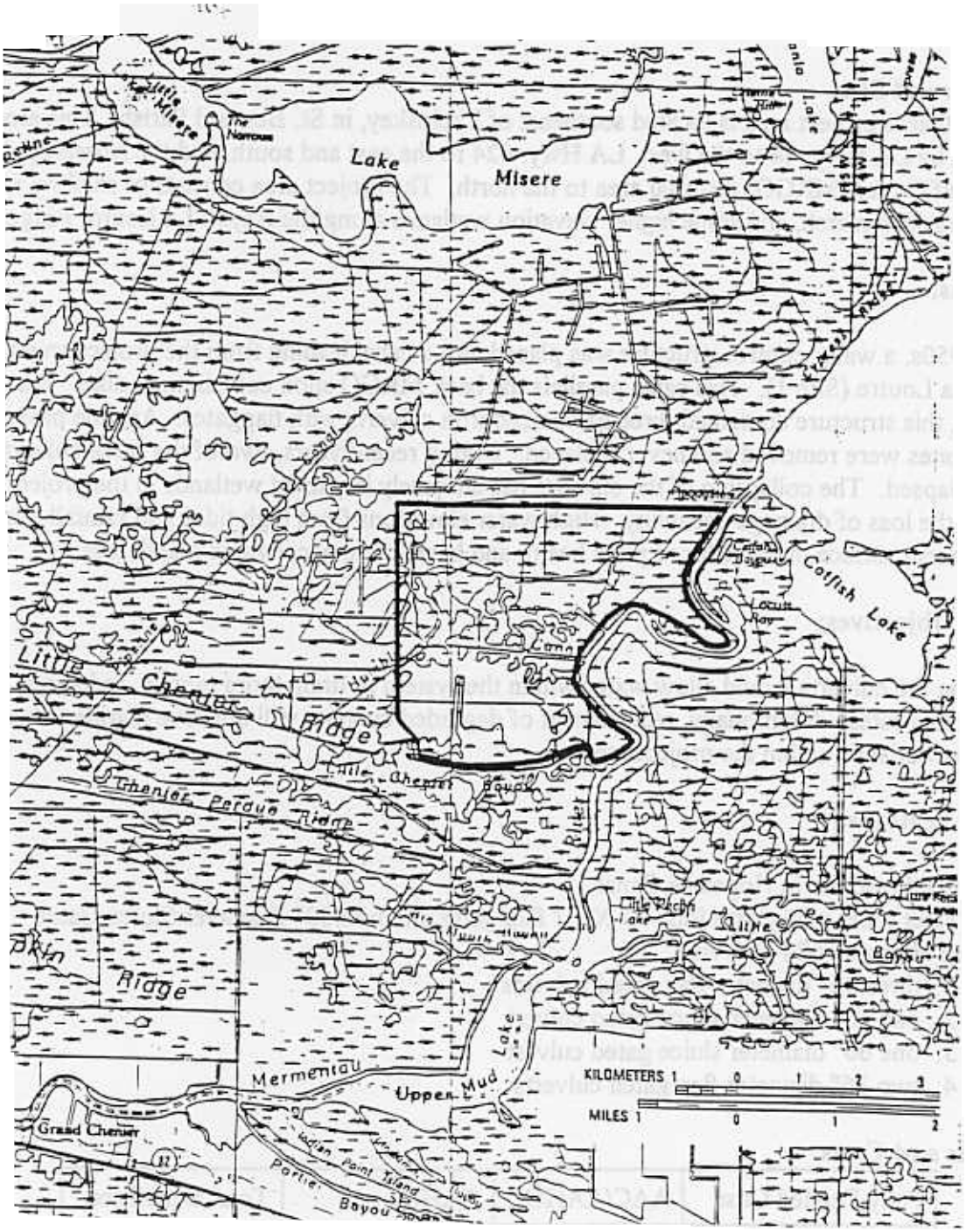
Project Features:

1) Control Structure in Hopedale Canal
   100' steel sheet piling with four 10' X 10' flap gates and two 60" Diameter Sluice Gates
2) Gated Highway 624 Culverts
   Site 1: three 36" diameter flap gated culverts
   Site 2: one 36" diameter sluice gated culvert
   Site 3: one 60" diameter sluice gated culvert
   Site 4: two 36" diameter flap gated culverts

Benefits and Costs:

Fully Funded Cost	AAC/AAHU	AAHU	Total Benefitted
$2,264,600	$553	269	134 ac

Humble Canal Hydrologic Restoration ME15 (PME-15)



Project: ME-11 (PME-15) Humble Canal Hydrologic Restoration

Federal Sponsor: Natural Resources Conservation Service

Location:
This project is located in the Lakes Sub-basin of the Mermentau Basin, on the west bank of the Mermentau River approximately two miles southwest of Grand Lake at the Humble Canal in Cameron Parish, LA. This area encompasses 4,030 acres of fresh and intermediate marsh habitat located north of the structure location in the "Big Burn".

Problems:
The Grand and White Lakes system has been maintained as a fresh to intermediate marsh environment with limited loss of wetlands. This has been accomplished through water management utilizing natural ridges, levees, locks, and water control structures. This project would replace the Humble Canal structure which has fallen into disrepair. This project is compatible with the overall basin strategy of treating critical areas of marsh loss within the interior of the basin, and managing water levels with structures in the Lakes Sub-basin to relieve stress on interior wetlands. The project would also relieve this area from continued saltwater intrusion from the Mermentau River, which threatens the viability of the fresh to intermediate marshes within "Big Burn".

Project Objectives:
The objective of this project is to restore historic hydrology to the project area. This will be accomplished by reducing saltwater intrusion from the Mermentau River, and allowing for drainage of high water levels from the marsh to the river.

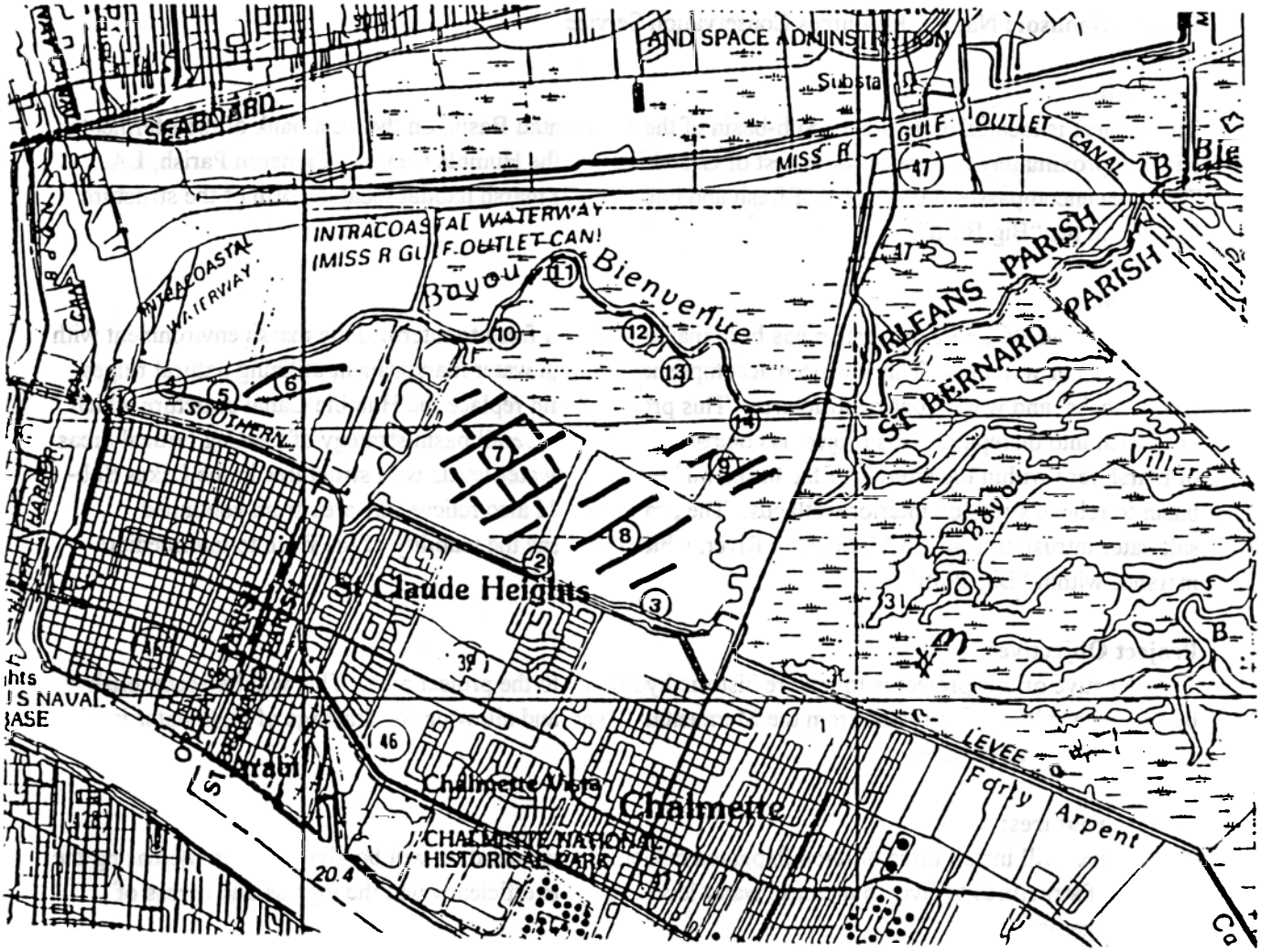
Project Features:
This project will install three 48-inch flapgated culverts. Consideration will be given later to increasing the number of structures to five, to increase water level reduction efficiency and the ingress and egress of marine organisms.

Effects and Issues:
Estuarine fisheries will likely benefit from the project due to the present lack of fisheries access to the area. The Wetland Value Assessment conducted in 1992 indicated that constructing this project would increase fisheries access.

Cost and Benefits:

Fully Funded Cost	AAC/AAHU	AAHU	Total Benefitted
$1,628,600	$320	297	378 ac

Bayou Bienvenue Pump Station Diversion and Terracing PO25 (PPO74b)



Benefits and Costs:

Fully Funded Cost	AAC/AAHU	AAHU	Total Benefitted
$3,463,300	$1,363	203	442 ac

Project: PO-25 (XPO-74a) Bayou Bienvenue Pump Station Diversion and Terracing

Federal Sponsor: National Marine Fisheries Service

Location:
This 2,600 acre area is located in Chalmette, in Orleans and St. Bernard Parishes. The area is bordered by Paris Road to the east, the Chalmette hurricane protection levee to the south, and Bayou Bienvenue to the north. The project area consists of two shallow water ponds that were formerly leveed and under pump, a former cypress swamp that is now entirely shallow open water, and degraded marsh.

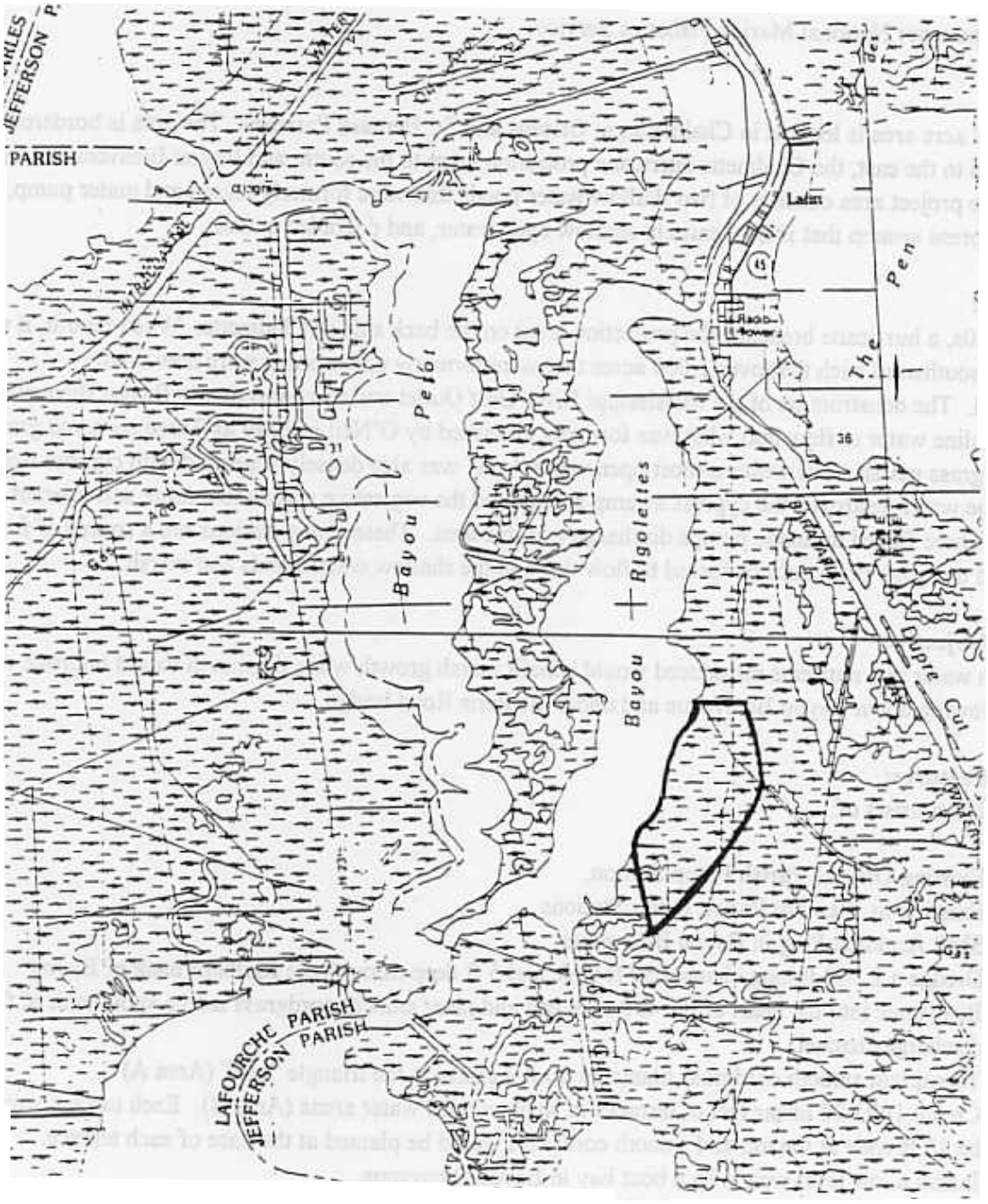
Problems:
In the 1940s, a hurricane breached the protection levee on the back side of Chalmette. When rebuilt, it was relocated southward such that over 1,000 acres that were formerly under pump were now tidally influenced. The construction of the Mississippi River Gulf Outlet and its connection to Bayou Bienvenue allowed saline water to flow into what was formerly classified by O'Neil in 1949 as Three cornered grass and Saw grass marsh. The western-most open water "cell" was also densely vegetated with cypress trees. This saline water destroyed the cypress swamp and altered the vegetative regime to a more salt tolerant species. Three forced drainage pumps discharge into this area. These pump stations are a source of fresh water and nutrients that could be forced to flow through the shallow water ponds and marsh.

Project Objective:
The fresh water and nutrients introduced would benefit marsh growth while the marsh would improve water quality flowing down Bayou Bienvenue and under the Paris Road bridge.

Project Features:
The project consists of:

1) Existing Orleans Parish Pump Station,
2-3) Existing St. Bernard Parish Pump Stations,
4) Shell Armored Plug in Bayou Bienvenue,
Dredge a 2,500 ft long channel 50 ft wide and 5 ft deep through the southern bank of Bayou Bienvenue into the heart of the 430-acre cell and plant smooth cordgrass on the spoil bank of the discharge channel,
5) Transplant smooth cordgrass plants on 20 ft. centers in the triangle "cell" (Area A)
7-9) Create 100,000 linear feet of terraces in shallow open water areas (Area B). Each terrace would be 15 ft wide at the top and smooth cordgrass would be planted at the base of each terrace,
10) Install a low level weir with a boat bay in Bayou Bienvenue,
11) Install a plug in the narrow pipeline channel, and
12) Install a plug in this narrow channel.

Barataria Land Bridge Shore Protection, Phase 2 BA27b (PBA-63)



Project: BA-27-b (XBA-63ii) Barataria Land Bridge Shoreline Protection, Phase 2

Federal Sponsor: Natural Resources Conservation Service

Location and Size:
The Barataria Basin Land Bridge Shoreline Protection Phase II project is located in Jefferson Parish on the east bank of the Bayou Rigolettes. The project would protect about 8,000 feet of the eastern shoreline of Bayou Rigolettes. Phase II represents about 11% of the total length of the initially proposed shoreline protection.

Problems:
Shoreline erosion 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 increasing the extent of submerged aquatic vegetation on the protected side of project features where such features form protected coves. A reduction in future interior marsh loss rates would also occur within certain parts of the project area.

Project Features:
The conceptual design of this project incorporates three techniques to address different shoreline conditions in this project area. These techniques include:

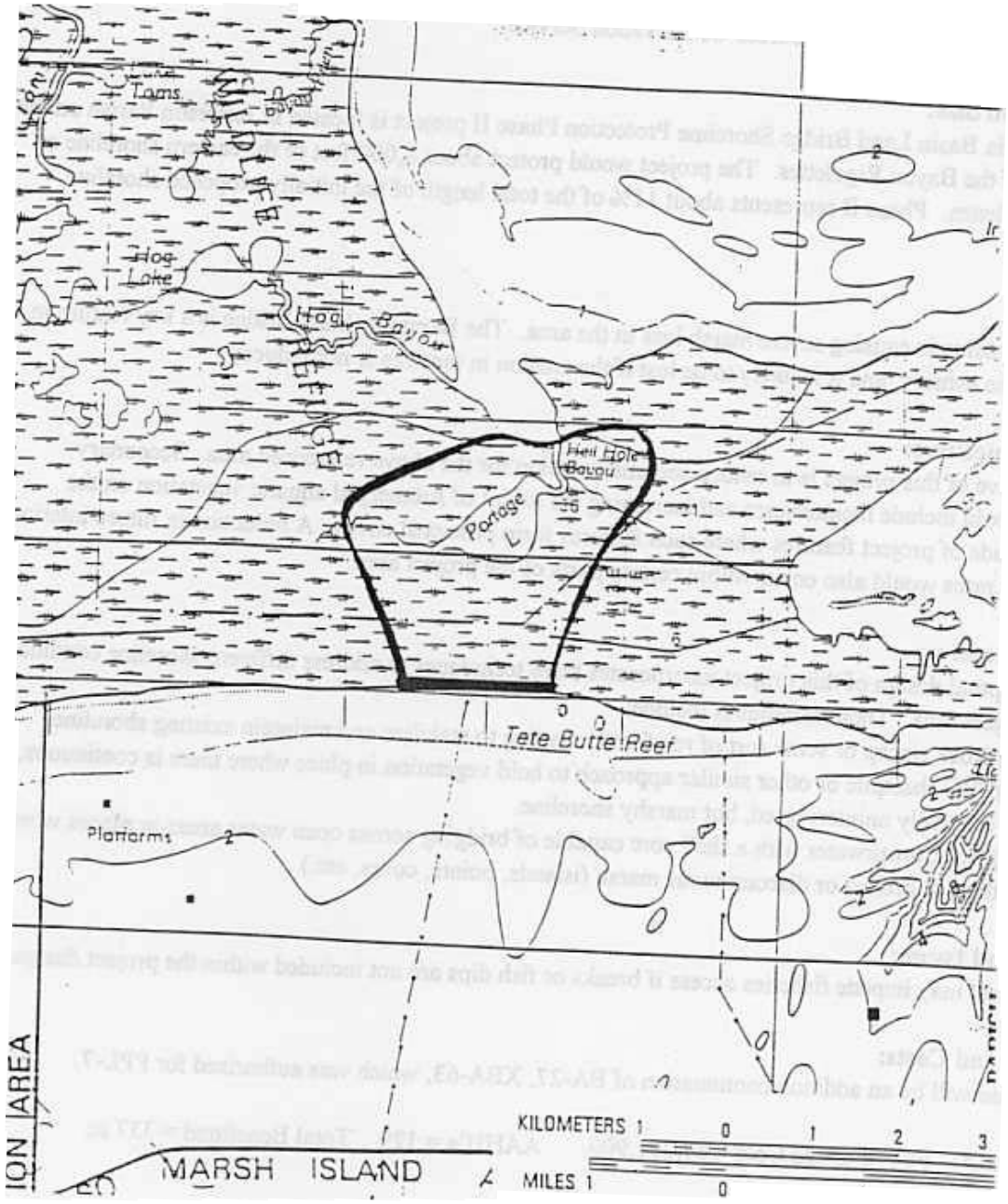
1) Rock riprap or some sort of reinforced matting to stabilize and maintain existing shoreline.
2)PVC sheetpile or other similar approach to hold vegetation in place where there is continuous, relatively uninterrupted, but marshy shoreline.
3) Rock breakwater with a shell core capable of bridging across open water areas in places where there is broken or discontinuous marsh (islands, points, coves, etc.)

Effects and Issues:
This project may impede fisheries access if breaks or fish dips are not included within the project design.

Benefits and Costs:
This phase will be an addition/continuation of BA-27, XBA-63, which was authorized for PPL-7.

Increment A: Fully Funded Cost = $7,291,900 AAHU's = 129 Total Benefitted = 337 ac

Lake Portage Land Bridge, Phase 1, TV17 (PTV-20)
Dredge & Fill of Pipelilne Canal



Project: TV-17 (PTV-20) Lake Portage Land Bridge

Federal Sponsor: Natural Resources Conservation Service/Environmental Protection Agency

NOTE: This project is partially funded at $1 million of the original $4.6 million project. This will accomplish the backfill from the pipeline canal to marsh level from the Gulf to Lake Portage with dredge material from the Lake.

Location:
This 1,552 acre project is located immediately south from Lake Portage within the Paul J. Rainey Wildlife Refuge, located to the west of Southwest Pass in Vermilion Parish, LA.

Problems:
In 1971, a gas liquids pipeline was constructed by the Sea Robin Pipeline Company which completely spans this land bridge, thus threatening the creation of a tidal channel throughout this area. The Gobi Mats constructed by Sea Robin are three years old and holding well, however the bulkhead to the north of the lake has failed and the southern bulkhead has recently washed out to a nine foot depth on the western side. Should these structures fail, a tidal channel would occur that could wash out the soils in this area. In addiction, it is apparent that significant shoreline erosion is occurring at both the east and west sides of the Gobi Mats, as well as around the edges of the bulkhead entering into southern Lake Portage.

Project Objectives:

The objective of this project is to protect the land bridge south of Lake Portage from breaching and creating another pass from Vermilion Bay to the Gulf of Mexico.

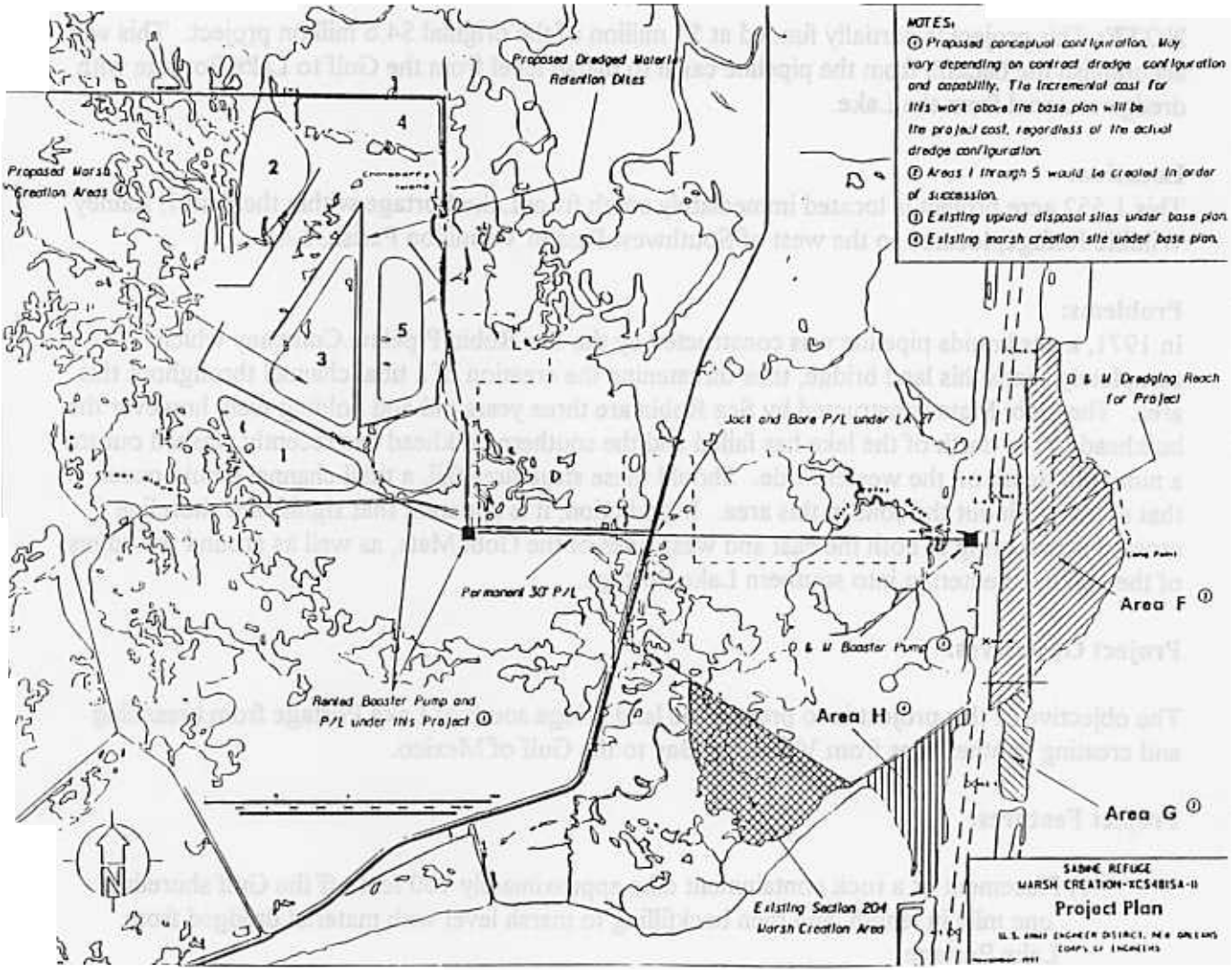
Project Features:

1) Placement of a rock containment dike approximately 100 feet off the Gulf shoreline, one mile in length, and then backfilling to marsh level with material dredged from Lake Portage.
2) Backfill the pipeline canal to marsh level from the Gulf to Lake Portage with dredge material from the Lake.

Cost and Benefits:

Fully Funded Cost	AAC/AAHU	AAHU	Total Benefitted
$4,625,300	$10,488	34	80 ac

Sabine Refuge Marsh Creation, Phase 1 CS28 (PCS-48)
(Revised) Area #1 Pipeline Installation



NOTE: This project was funded for $5.3 million of the original $10.4 million project described below. Phase I, pipeline installation and Area #1, will be completed with PPL8 funding.

Project: CS-28 (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:

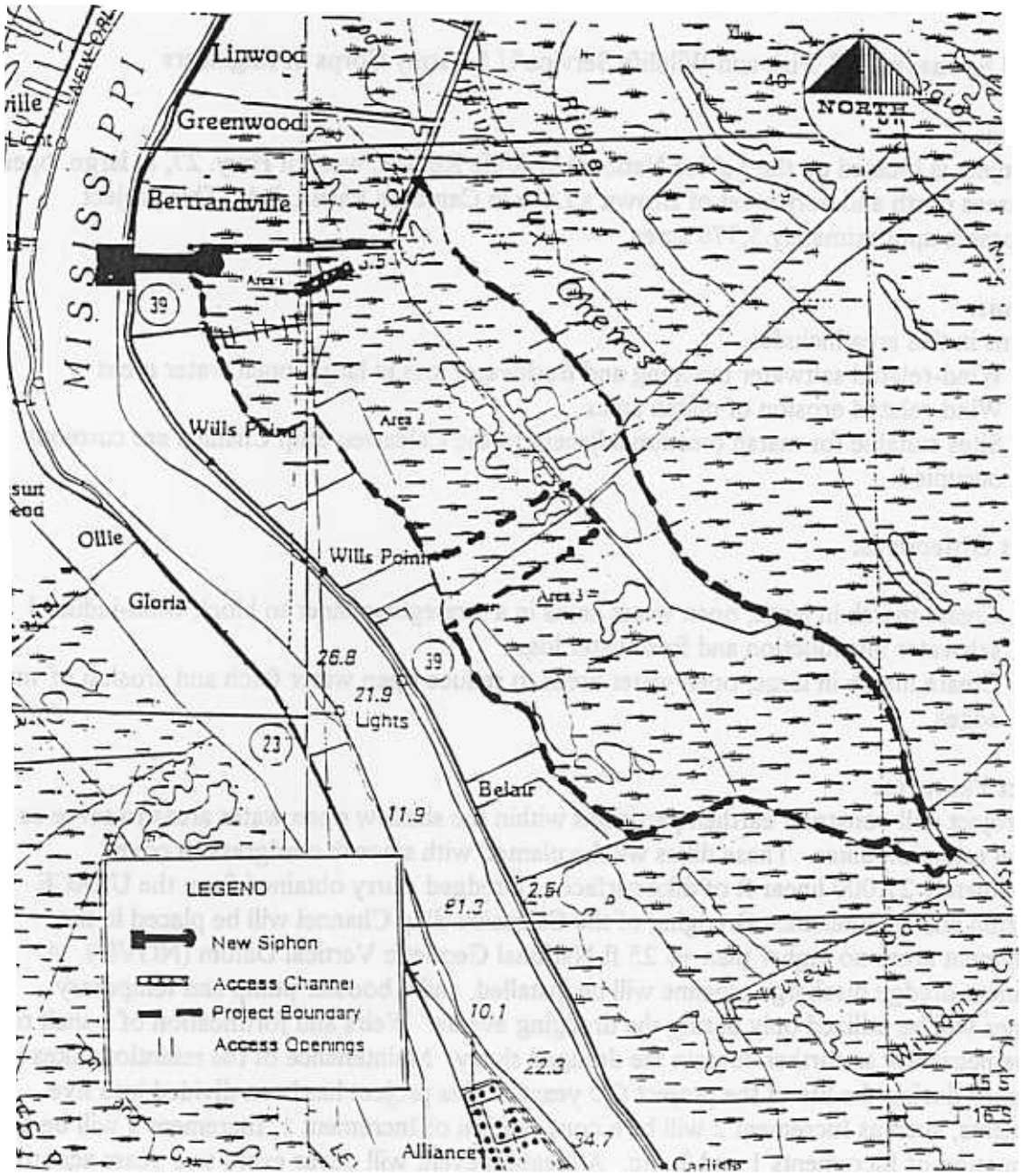
1.) Create marsh in large, open water areas in a strategic manner to block wind-induced saltwater introduction and freshwater loss
2. Create marsh in large, open water areas to reduce open water fetch and erosion of marsh edges

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:

Fully Funded Cost	AAC/AAHU	AAHU	Total Benefitted
$10,373,800	$2,172	382	953 ac

Upper Oak River Freshwater Siphon BS08 (PBS-1)



NOTE: This project is funded on the 8th Priority List for $2.5 million of the original $13.3 million project described below. This funding will provide for the channel excavation and engineering and design for the remainder of the project. No siphon will be constructed with PPL 8 funding.

Project: BS-08 (PBS-1) Upper Oak River Freshwater Siphon

Federal Sponsor: Natural Resources Conservation Service

Location:
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 ½ 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)
- Increase emergent vegetation through vegetative plantings

Project Features:

1) Construct a 1,000 cfs capacity freshwater siphon
2) Construct a 1,600 ft x 600 ft conveyance channel through an existing 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: (See Note on Page 37)

Fully Funded Cost	AAC/AAHU	AAHU	Created/Restored	Protected	Total Benefitted
$13,336,700	$7,101	153	276 ac	61 ac	337 ac

3. Other Federal Match Projects:

a. Project Construction

In order to maximize state dollars, the State Wetland Task Force agencies are constantly seeking federal matching opportunities. When federal funds are available the State Wetland Authority must be ready to address these opportunities in a timely manner.

Objective: The purpose of all restoration projects is to design and construct structures that provide for the long-term conservation of wetland ecosystems and dependent fish and wildlife populations

b. 1135 and 204 Projects

To provide for the beneficial use of spoil materials generated from the maintenance of federal navigation channels, the Department of Natural Resources has committed up to **$1,000,000** of matching funds. The following list of locations represents the current schedule of 1135 and 204 dredge disposal sites.

Project Name	Type	Schedule
Baptist Collete Crevasse	1135	
GIWW, Weeks Bay	1135	
Barataria Water Way, Grand Terre Is. - Phase II	204	1999
Calcasieu River & Pass Phase III (Sabine NWR)	204	1999
Houma Navigation Canal, Cat Island Pass	204	1999
Houma Navigation Canal, Mi 12 to 31.4	204	2000
MRGO, Mi., 2 to 3.2	204	2000
MRGO, Mi., 14 to 11	204	
Atchafalaya R. Bar Channel	204	
Cut Off Bayou, Orleans Parish	1135	

It must be recognized that this schedule and site locations are tentative. Actual construction is dependant on the availability of federal funding, the Corp of Engineers' dredge needs and schedule, and congressional and local influences.

Up to **$1,000,000** from the Wetland Fund is allocated to provide a 25% match of federal dollars for the construction of 1135 and 204 projects

consistent with the stated objective. Should additional 1135 and 204 federal dollars be made available, Wetland Fund dollars will be made available as appropriate to increase the 1135 and 204 allocation pending the subsequent specific approval of the Authority.

c. Other Project Opportunities

The construction of the Caevnarvon and Davis Pond diversion projects were partially funded with Trust Fund dollars. These are the two largest freshwater diversion projects in the state. Implemented under the provisions of the Water Resources Development Act, these diversions move water from the Mississippi River into the adjacent marshes to block salt water intrusion and restore the natural marsh environment.

Wetland Fund dollars will be allocated as appropriate to match other federal funding sources pending the subsequent specific approval of the Authority.

d. Operation, Maintenance, and Rehabilitation

1) **Objective:** to provide for operation, maintenance, and emergency repairs of projects that have been implemented under the approved Plan

Status: Operation, maintenance, and rehabilitation of federally matched projects include but are not limited to:

Caervnarvon	$ 267,200
Davis Pond	$2,532,999

Funding will be allocated for FY 99-00 as appropriate to fund the Operation, Maintenance and Rehabilitation obligations from the Wetland Fund.

2) **Objective:** to assist in the operation, maintenance, and emergency repairs of existing structures that may not have been constructed under the authorized Plan when the structures can provide wetland system benefit.

Status: Examples of structures include but are not limited to:

Bonne Carre' Floodway	Algiers Lock
Freshwater Bayou Structure	Teche-Vermilion Diversion

The use of Wetland Fund dollars for FY 99-00 will be allocated as appropriate pending the subsequent specific approval of the Authority.

e. Monitoring

Objective: to provide for analysis of data to provide a better understanding of system processes. Monitoring for federally matched projects include:

Caernarvon	$ 148,104
Davis Pond	$ 546,624

Funding will be allocated as appropriate to fund Monitoring activities from the Wetland Fund either by DNR directly or via Interagency Transfer to Wildlife and Fisheries.

2. State Only Projects:

a. Construction

Objective: The purpose of all restoration projects is to design and construct projects that provide for the long-term conservation of wetland ecosystems and dependent fish and wildlife populations.

Status: Ongoing. The high number of proposed projects and limited funding make it necessary to establish a priority among the projects in order to guide project-related activities and expenditures. That priority is governed by LAC 43:1.805. The Code calls for the coastal restoration projects in Appendix B-3 that are not cost-shared by the federal and state government to be constructed in accordance with their cost-effectiveness ranking. Projects with a higher cost-effectiveness rank have a correspondingly higher construction priority. The cost-effectiveness rank of each project is determined primarily by the anticipated habitat benefits per Wetland Fund dollar expended over the project life. This is the same criterion used for project evaluation and implementation under PL 101-646. It is proposed that priority be given to expenditures for the federal/state cost-shared projects in accordance with the need to expedite project implementation while federal funding is available.

A short list of State only projects have approved levels of funding already allocated from prior year plans.

1. **TE-06, Pointe au Chien Project** was allocated **$750,000** from FY 98-99 Wetland Fund.

2. **CS-01 the Holly Beach (Constance Beach)** project was allocated **$2,000,000** from the FY 98-99 General Fund to coordinate and plan the protection of the Holly Beach Constance Beach area.

3. **Small Dredge Demonstration Project** was approved through an amendment to the FY 1996-97 plan with an initial allocation of **$1,000,000** to demonstrate the effectiveness of the use of small portable hydraulic dredges in restoration efforts. With projects in Jefferson, St Charles, Lafourche and Terrebonne ongoing, an additional **$1,000,000** will be allocated from FY 99-00 Wetlands Fund.

b. Operation, Maintenance and Rehabilitation

Objective: Provide for operation, maintenance, and emergency repairs of projects implemented under the authorized Plan.

Status: The following is a list of anticipated O,M & R costs for state projects for FY 99-00. This listing does not prohibit the DNR from providing O,M & R on additional completed projects as circumstances warrant.

ME-01	Pecan Island Freshwater Introduction	$	50,000
CS-02	Rycade Canal	$	30,000
TV-11	Freshwater Bayou Bank Stabilization	$	200,000
PO-10	Turtle Cove	$	150,000
PO-3b	LaBranche Shoreline	$	10,000
PO-01	Violet Siphon	$	25,000
BA-04	West Point a la Hache	$	36,000
BA-03	Naomi Diversion	$	36,000
TE-03	Upper Bayou LaCache	$	150,000
TE-02	Falgout Canal Marsh Management	$	400,000
C/S-1	Holly Beach Breakwaters	$	100,000
TE-01	Montegut Wetland Protection	$	800,000
	State O&M	**$**	**1,987,000**

Funding will be allocated for FY 99-00 as appropriate to fund O,M,&R obligations from the Wetland Fund.

c. **Monitoring**

Objective: to provide for analysis of data to provide a better understanding of system processes

Status: The following is a list of estimated Monitoring costs for state projects for FY 99-00.

BA-03	Naomi Diversion	$	16,518
BA-04	West Pointe a la Hache	$	20,351
	Sabine Terraces	$	5,000
CS-01	Holly Beach	$	14,032
CS-02	Rycade Canal	$	20,862
PO-10	Turtle Cove	$	6,931
TE-02	Falgout Canal Protection	$	55,500
TE-03	Bayou LaCache Wetland	$	35,500
	State Monitoring:	**$**	**174,694**

Funding will be allocated for FY 99-00 as appropriate to fund Monitoring obligations from the Wetland Fund.

PRIORITIES IN IMPLEMENTATION

Wetland Funds will be provided to continue expenditures for completion of 1990/91 through 1998/99 projects approved under previous Plans and still listed. Depending on the status of the project, contractual agreements for project implementation may currently be in place, requiring no additional appropriations.

Certain projects and programs are recommended for new or continued funding from the Wetland Conservation and Restoration Trust Fund during the FY 1999/00. Programs include both long and short term projects, programs, and measures. It is proposed that state funding be provided for State Plan implementation on a priority basis, and that such funding includes necessary expenditures for projects, programs and research measures to take advantage of federal and state cost-sharing when it is available. Priorities in funding are requested for Plan components in the following categories:

1. **Project Implementation including Engineering, Design, Construction, Operation, Maintenance, Rehabilitation and Monitoring of:**
   a. **CWPPRA Projects**
   b. **Non-CWPPRA Federal/State Projects**
2. **Programs**
3. **Research**
   a. **With Federal and State Match**
   b. **State Only**
4. **State Only Projects**

Under this funding provision, project initiation will continue to occur according to the established and legislatively approved priority and will not be adversely affected by uncertainties about feasibility, permitting, and other project elements.

The expenditure for each category will be determined by the funding made available through the budget process during the 1999 regular session of the legislature. The approval of specific projects, programs, and research items within the plan reflects consideration of specified costs. In the implementation of this State Plan, the Department of Natural Resources may administratively transfer up to an additional 25% of state only projects and program funds to avoid contract and construction delays. A 25% contingency is already built into the stated fully funded costs of Breaux Act Projects. Subsequent Authority approval will be necessary when costs increase beyond the 25% contingency.

APPENDIX A

CONSTITUTION OF THE STATE OF LOUISIANA OF 1974
Article VII, Part I, Section 10.2

and

LOUISIANA REVISED STATUTES
Title 49, Section 213

CONSTITUTION OF THE STATE OF LOUISIANA OF 1974 [ANNOTATED]
ARTICLE VII. REVENUE AND FINANCE
PART I. GENERAL PROVISIONS

Current with amendments received through 1-1-97

10.2. Wetlands Conservation and Restoration Fund

Section 10.2. (A) Effective July 1, 1990, there shall be established in the state treasury the Wetlands Conservation and Restoration Fund to provide a dedicated, recurring source of revenues for the development and implementation of a program to conserve and restore Louisiana's vegetated wetlands.

Of revenues received in each fiscal year by the state as a result of the production of or exploration for minerals, hereinafter referred to as mineral revenues from severance taxes, royalty payments, bonus payments, or rentals, and excluding such revenues received by the state as a result of grants or donations when the terms or conditions thereof require otherwise, the treasurer shall make the following allocations:

(1) To the Bond Security and Redemption Fund as provided in Article VII, Section 9(B) of this constitution.

(2) To the political subdivisions of the state as provided in Article VII, Sections 4(D) and (E) of this constitution.

(3) As provided by the requirements of Article VII, Sections 10-A and 10.1 of this constitution.

(B)(1) After making the allocations provided for in Paragraph (A), the treasurer shall then deposit in and credit to the Wetlands Conservation and Restoration Fund any amount of mineral revenues that may be necessary to insure that a total of five million dollars is deposited into such fund for the fiscal year from this source; provided that the balance of the fund which consists of mineral revenues from severance taxes, royalty payments, bonus payments, or rentals shall not exceed forty million dollars.

(2) After making the allocations and deposits provided for in Paragraphs (A) and (B)(1) of this Section, the treasurer shall deposit in and credit to the Wetlands Conservation and Restoration Fund as follows:

(a) Ten million dollars of the mineral revenues in excess of six hundred million dollars which remain after the allocations provided for in Paragraph (A) are made by the treasurer.

(b) Ten million dollars of the mineral revenues in excess of six hundred fifty million dollars which remain after the allocations provided in Paragraph (A) are made by the treasurer.

However, the balance of the fund which consists of mineral revenues from severance taxes, royalty payments, bonus payments, or rentals shall not exceed forty million dollars.

(C) The money in the fund shall be invested as provided by law and any earnings realized on investment of money in the fund shall be deposited in and credited to the fund. Money from other sources, such as donations, appropriations, or dedications, may be deposited in and credited to the fund; however, the balance of the fund which consists of mineral revenues from severance taxes, royalty payments, bonus payments, or rentals shall not exceed forty million dollars. Any unexpended money remaining in the fund at the end of the fiscal year shall be retained in the fund.

(D) The money in the fund may be appropriated for purposes consistent with the Wetlands Conservation and Restoration Plan developed by the Wetlands Conservation and Restoration Authority, or its successor.

No appropriation shall be made from the fund inconsistent with the purposes of the plan.

LOUISIANA REVISED STATUTES
TITLE 49. STATE ADMINISTRATION
CHAPTER 2. OFFICE OF THE GOVERNOR
PART II. LOUISIANA COASTAL WETLANDS CONSERVATION, RESTORATION, AND MANAGEMENT
SUBPART A. WETLANDS CONSERVATION AND RESTORATION AUTHORITY

Current through all 1996 1st Ex. Sess. and Reg. Sess. Acts

213.1. Statement of intent

A. Coastal land loss in Louisiana continues in catastrophic proportions. Wetlands loss threatens valuable fish and wildlife production and the viability of residential, agricultural, and industrial development in coastal Louisiana.

B. In the past, efforts by the state to address the myriad, interrelated problems of coastal land loss have been inadequate, fragmented, uncoordinated, and lacking in focus and strong direction. Meanwhile, coastal deterioration has escalated to a point such that the potential for vegetated wetlands restoration and enhancement in particular is declining rapidly.

C. The state must act immediately to conserve, restore, create, and enhance vegetated wetlands in coastal Louisiana while encouraging use of coastal resources and recognizing that it is in the public interest of the people of Louisiana to establish a responsible balance between development and conservation. Management of renewable coastal resources must proceed in a manner that is consistent with and complementary to the efforts to establish a proper balance between development and conservation.

D. It is the intention of the legislature that wetlands conservation and restoration be elevated in tandem to a position within state government of high visibility and action and that the conservation, restoration, creation, and nourishment of coastal vegetated wetlands be of high priority within that structure. To provide aggressive state leadership, direction, and consonance in the development and implementation of policies, plans, and programs to encourage multiple uses of the coastal zone and to achieve a proper balance between development and conservation, restoration, creation and nourishment of renewable coastal resources, the legislature places responsibility for the direction and development of the state's coastal vegetated wetlands conservation and restoration plan in the Wetlands Conservation and Restoration Authority within the office of the governor. Primary responsibility for carrying out the elements of the plan is placed in the office of coastal restoration and management within the Department of Natural Resources.

213.2. Definitions

As used in this Part, the following terms shall have the meaning ascribed to them below:

(1) "Authority" means the Wetlands Conservation and Restoration Authority.

(2) "Conservation and restoration" means the conservation and restoration of coastal wetlands resources including but not limited to coastal vegetated wetlands through the construction and management of coastal wetlands enhancement projects, including privately funded marsh management projects or plans, and those activities requiring a coastal use permit which significantly affect such projects or which significantly diminish the benefits of such projects or plans insofar as they are intended to conserve or enhance coastal wetlands consistent with the legislative intent as expressed in R.S. 49:213.1.

(3) "Executive assistant" means the special assistant to the governor for coordination of coastal activities.

(4) "Fund" means the Wetlands Conservation and Restoration Fund.

(5) "Plan" means the state coastal vegetated wetlands conservation and restoration plan and amendments to the plan.

(6) "Project" means a physical structure or structures designed and constructed according to the plan.

(7) "Task Force" means the Wetlands Conservation and Restoration Task Force.

213.3. Creation; personnel

A. The Wetlands Conservation and Restoration Authority is hereby created within the office of the governor. The authority is hereby established, and shall exercise the powers and duties hereinafter set forth or otherwise provided by law.

B. The authority shall be composed of the executive assistant to the governor for coastal activities and the Task Force. The executive assistant shall be appointed by the governor, subject to Senate confirmation, to serve at his pleasure. He shall report directly to the governor.

C. The governor, through the executive assistant, consistent with the legislative intent as expressed in R.S. 49:213.1, shall coordinate the powers, duties, functions, and responsibilities of any state agency relative to coastal wetlands conservation and restoration and shall administer the

programs of the authority. The executive assistant shall employ necessary staff to carry out the duties and functions of the authority as provided in this Part or as otherwise provided by law.

213.4. Powers and duties

A. The authority shall:

(1) Develop a comprehensive policy addressing the conservation and restoration of coastal wetlands resources through the construction and management of coastal vegetated wetlands enhancement projects, including privately funded marsh management projects or plans, and addressing those activities requiring a coastal use permit which significantly affect such projects, all consistent with the legislative intent as expressed in R.S. 49:213.1.

(2) Develop and submit to the legislative committees on natural resources for their approval a plan developed pursuant to R.S. 49:213.6 for conserving and restoring the state's coastal vegetated wetlands, consistent with legislative intent and with the policy developed by the authority. Upon approval of the plan by the legislative committees on natural resources and prior to implementation of the plan, in whole or in part, the plan shall be approved by the legislature as provided in R.S. 49:213.6(D).

(3) Approve all requests for programs and projects pertaining to coastal wetlands conservation and restoration insofar as such requests are for funds to be appropriated from the Wetlands Conservation and Restoration Fund; provided that the office of coastal restoration and management, coastal restoration division, of the Department of Natural Resources shall receive all monies appropriated from the fund and shall implement all programs and projects.

(4) Be authorized to delegate any of its powers, duties, and functions to the executive assistant.

B. The governor, through the executive assistant, shall:

(1) Coordinate all state departmental budget requests for programs and projects pertaining to coastal wetlands conservation and restoration as well as all requests for funds to be appropriated from the Wetlands Conservation and Restoration Fund.

(2) Coordinate and focus the functions of all state agencies as they relate to wetlands conservation and restoration.

(3) Review and reconcile state agency comments on federally sponsored water resource development projects or permitted conservation and restoration activities to establish and present the official state position which shall be consistent with the policies of the authority.

(4) Represent the policy and consensus viewpoint of the state at the federal, regional, state, and local levels with respect to wetlands conservation and restoration.

(5) Appraise the adequacy of statutory and administrative mechanisms for coordinating the state's policies and programs at both the intrastate and interstate levels with respect to wetlands conservation and restoration.

(6) Appraise the adequacy of federal, regional, state, and local programs to achieve the policies and meet the goals of the state with respect to wetlands conservation and restoration.

(7) Oversee and coordinate federal and state-funded research related to coastal land loss and subsidence.

(8) Coordinate and focus federal involvement in Louisiana with respect to coastal wetlands conservation and restoration.

(9) Provide the official state recommendations to the legislature and congress with respect to policies, programs, and coordinating mechanisms relative to wetlands conservation and restoration or wetlands loss research.

(10) Monitor and seek available federal and private funds consistent with the purposes of the Part.

1) Manage his personnel as provided by law.

(12) Manage his budget, office, and related functions as provided by law.

(13) Report annually to the legislative committees on natural resources as to the progress of the projects and programs enumerated in the plan. For each project or program, estimated construction and maintenance costs, progress reports, and estimated completion timetables shall be provided.

(14) Perform such powers, duties, and functions as may be delegated to him by the authority.

C. The governor, through his executive assistant, may, in an effort to advance the plan or purposes of this Part, within any department, agency, board, or commission:

(1) Review and modify policies, procedures, or programs not established or approved by the legislature or pursuant to the Administrative Procedure Act that may affect the design, construction, operation, management, and monitoring and more particularly to require expeditious permitting of restoration projects, wetlands enhancement or marsh management plans, or expenditures from the Fund.

(2) Review and request modifications of state departmental policies, procedures, programs, rules, and regulations that are established by law or pursuant to the Administrative Procedure Act that may affect the design, construction, operation, management, and monitoring of restoration projects, wetlands enhancement or marsh management plans, or expenditures from the Fund. Such rule changes shall be initiated by the appropriate department.

(3) Appoint advisory panels.

(4) Accept and use, in accordance with law, gifts, grants, bequests, and endowments for purposes consistent with responsibilities and functions of the agency and take such actions as are necessary to comply with any conditions required for such acceptance.

(5) Utilize the services of other executive departments of state government upon mutually agreeable terms and conditions.

(6) Repealed by Acts 1990, No. 661, s2; Acts 1990, No. 936, s2.

(7) Take such other actions not inconsistent with law as are necessary to perform properly the functions of the authority.

(8) Review and modify proposed coastal use permits prior to issuance to the extent that such permits seek to authorize activities which significantly affect wetlands conservation and restoration projects or which significantly diminish the benefits of such projects insofar as they are intended to conserve or enhance coastal wetlands and to require the issuance of permits for public or private wetlands enhancement projects or plans.

D. Approval by the authority shall be required for any request by a state agency or department for any funds to finance research, programs, or projects involving the conservation and restoration of coastal wetlands resources; however, this Subsection shall not affect self-generated or dedicated funds.

213.5. Wetlands Conservation and Restoration Task Force

A. The Wetlands Conservation and Restoration Task Force is hereby created within the Wetlands Conservation and Restoration Authority.

B. The task force shall be composed of the following members:

(1) Executive Assistant of the Governor.

(2) Secretary of the Department of Natural Resources.

(3) Secretary of the Department of Wildlife and Fisheries.

(4) Secretary of the Department of Environmental Quality.

(5) Secretary of the Department of Transportation and Development.

(6) Assistant Chief of Staff for Health, Welfare, and Environment (governor's office).

(7) Commissioner of Administration.

(8) The Director of the State Soil and Water Conservation Committee.

C. The executive assistant shall serve as chairman of the task force and shall develop procedures for the operation of the task force.

213.6. Wetlands conservation and restoration plan; development; priorities

A. (1) The authority shall, in accordance with the procedures set forth herein, develop the plan which shall serve as the state's overall strategy for conserving and restoring coastal wetlands through the construction and management of coastal wetlands enhancement projects, including privately funded marsh management projects or plans, and addressing those activities requiring a coastal use permit which significantly affect such projects, all consistent with the legislative intent as expressed in R.S. 49:213.1, and which plan shall be subject to the approval of the legislature as provided in R.S. 49:213.6(D).

(2) The authority shall annually develop the plan in accordance with the following procedure:

(a) The authority shall conduct not less than three public hearings in separate locations in the western, central, and eastern areas of the coastal zone for the purpose of receiving comments and

recommendations from the public and elected officials. All public hearings must be held at least sixty days prior to the submission of the plan to the legislature.

(b) At least two weeks prior to each public hearing the authority shall contact the parish governing authorities and the state legislators of the parishes in the coastal zone for the purpose of soliciting their comments and recommendations and notifying them of the public hearing to be held in their area.

(c) Ten days prior to the first such public hearing the authority shall publish in the state register and the official state journal the schedule of public hearings setting out the location, place, and time of all the hearings.

(d) At least seven days prior to each hearing the authority shall publish a notice of the hearing in the official journal of each parish within the area of the hearing. The notice of a hearing shall have been published in the official journal of each parish in the coastal zone prior to the final scheduled public hearing.

The authority may provide for additional public hearings when necessary upon at least three days notice published in the official journal of the parishes in the area of the hearing and written notice to the parish governing authorities.

(e) The authority shall receive written comments and recommendations until thirty days prior to the submission of the plan to the legislative committees.

B. The plan shall address coastal land loss problems from both short and long-range perspectives and shall incorporate structural, management, and institutional components. The plan shall include but not be limited to the following:

(1) A list of projects and programs required for the conservation and restoration of coastal wetlands and the action required of each state agency to implement said project or program.

(2) A schedule and estimated cost for the implementation of each project or program included in the plan.

C. (1) Where feasible, the plan shall include scientific data and other reasons, including but not limited to the social, geographic, economic, and biological considerations as to why each project or program was selected for inclusion. Specifically, this will include an explanation as to how each project or program advances the plan objectives with respect to the management, conservation, or enhancement of vegetated wetlands areas.

(2) Prior to recommending any project for inclusion in the plan, the authority shall identify and declare in writing:

(a) The public use benefits intended to be derived from the project which justify the project.

(b) The use benefits which private landowners are expected to derive from the project.

(c) The manner in which the benefits will be realized over the life of the project.

(d) The entities or persons who will be responsible for the long-term operation and maintenance of the project both in terms of manpower and cost.

(e) The entities or persons who will be responsible for monitoring the project to ensure that it is functioning properly and realizing the intended public and private benefits.

D. (1) The plan shall be submitted to the natural resources committees of the legislature on or before the first day of the regular legislative session of each year beginning in 1991; however, the plan shall not be effective or implemented unless both houses in the legislature approve or fail to disapprove the plan in accordance with this Subsection.

(2)(a) The natural resources committees shall approve or disapprove of the plan on or before May fifteenth of each calendar year.

(b) If either committee disapproves the plan, it shall send the plan back to the authority together with a brief summary of the reasons for disapproval and may make recommendations concerning changes it deems necessary or appropriate to remedy any deficiencies in the plan. Disapproval by a committee shall constitute disapproval by its respective house of the legislature, unless that house subsequently approves the plan by resolution.

(c) If the plan is approved, the committee shall submit the plan to the legislature for approval as provided for in Paragraphs (3), (4), and (5) of this Subsection. Should the natural resources committee in either house fail to report the plan and proposed recommendations, if any, to its respective house, then a majority of the elected members of the respective house may, by motion or by simple resolution direct the committee to report the plan to the house, in which case the committee so directed shall report the instrument as directed.

(3)(a) The legislature may approve or disapprove of the plan by resolution adopted by a majority vote of the members of each house of the legislature provided that such resolution is adopted on or before June first of each calendar year.

(b) Any such resolution shall be subject to the same requirements and procedures for the introduction of a bill and shall be read on three separate days prior to being considered by the legislative body; however, it shall not be referred to a committee and shall be taken up by the respective house in accordance with its rules.

(c) If the legislature disapproves of the plan, it shall include in the resolution a brief summary of the reasons for disapproval and may make recommendations concerning any changes it deems necessary or appropriate to remedy any deficiencies in the plan.

(4) If the legislature approves the plan, or if the legislature fails to disapprove the plan by June first, the authority shall implement the plan. The projects and programs provided for in the plan shall be undertaken in conformity with the order of priority as contained in the plan.

(5) At any time subsequent to the adoption and/or implementation of the plan in accordance with the procedure set forth herein, the authority may amend or supplement the plan to add or delete projects and programs. No project shall be added or deleted unless and until the amendment to the plan is approved as provided herein. Any amendment to the plan submitted to the legislature shall conform to the requirements specified in R.S. 49:213.6(B) and (C).

213.7. Funding

A. (1) To provide a dedicated, recurring source of revenue for the development and implementation of a program to conserve and restore Louisiana's coastal vegetated wetlands, there shall be established in the state treasury on the effective date of this Subpart the Wetlands Conservation and Restoration Fund.

(2) Of all mineral revenues received in each fiscal year by the state including those received as a result of the production of or exploration for minerals, hereinafter referred to as mineral revenues from severance taxes, royalty payments, bonus payments, or rentals, and excluding such revenues received by the state as a result of grants or donations when the terms or conditions thereof require otherwise, the treasurer shall make the following allocations:

(a) To the Bond Security and Redemption Fund as provided in Article VII, Section 9(B) of the Constitution of Louisiana.

(b) To the political subdivisions of the state as provided in Article VII, Sections 4(D) and (E) of the Constitution of Louisiana.

(c) As provided by the requirements of Article VII, Sections 10-A and 10.1 of the Constitution of Louisiana.

B. (1) After making the allocations provided for in Subsection A of this Section, the treasurer shall then deposit in and credit to the Wetlands Conservation and Restoration Fund any amount of mineral revenues that may be necessary to insure that a total of five million dollars is deposited into such fund for the fiscal year from this source; provided that the balance of the fund which consists of mineral revenues from severance taxes, royalty payments, bonus payments, or rentals shall not exceed forty million dollars.

(2) After making the allocations and deposits as provided for in Subsections A and B(1) of this Section, the treasurer shall deposit in and credit to the Wetlands Conservation and Restoration Fund as follows:

(a) Ten million dollars of the mineral revenues in excess of six hundred million dollars which remain after the allocations provided for in Subsection A are made by the treasurer.

(b) Ten million dollars of the mineral revenues in excess of six hundred fifty million dollars which remain after the allocations provided in Subsection A are made by the treasurer.

(3) The balance of the fund which consists of mineral revenues shall not exceed forty million dollars.

C. The treasurer shall deposit in and credit to the fund the amount of mineral revenues as provided for herein.

D. The money in the fund shall be invested as provided by law and any earnings realized on investment of money in the fund shall be deposited in and credited to the fund. Money from other sources, such as donations, appropriations, or dedications, may be deposited in and credited to the fund; however, the balance of the fund which consists of mineral revenues from severance taxes, royalty payments, bonus payments, or rentals shall not exceed forty million dollars. Any unexpended money remaining in the fund at the end of the fiscal year shall be retained in the fund.

E. The money in the Wetlands Conservation and Restoration Fund is subject to appropriations by the legislature only to the coastal restoration division within the office of coastal restoration and management. The money in the fund may be used only for those projects and programs which are consistent with the statement of intent, R.S. 49:213.1, and the plan as it pertains to the conservation and restoration of coastal wetlands and the following purposes:

(1) Projects and structures engineered for the enhancement, creation, or restoration of coastal vegetated wetlands.

(2) Match for federal or local project planning, design, construction, and monitoring.

(3) Administration and project management, planning, design, construction, and monitoring.

(4) Operation and maintenance of structural projects consistent with the purpose of this fund.

(5) Vegetation planting, seeding, or other revegetation methods.

(6) Planning and implementation of modifications to federal, state, or local flood control, navigation, irrigation, or enhancement projects.

F. As used in this Section, the term "balance of the fund" shall mean those monies in the Wetlands Conservation and Restoration Fund which have not been expended or obligated under the plan approved pursuant to R.S. 49:213.6, or otherwise obligated in accordance with law.

213.8. Private property and public rights

Recognizing that a substantial majority of the coastal wetlands in Louisiana are privately owned, it is anticipated that a significant portion of the projects funded through the Wetlands Conservation and Restoration Fund either will occur on or in some manner affect private property. No rights whatsoever shall be created in the public, whether such rights be in the nature of ownership, servitude, or use, with respect to any private lands or waters utilized, enhanced, created, or otherwise affected by activities of any governmental agency, local, state, or federal, or any person contracting with same for the performance of any activities, funded in whole or in part, by expenditures from the Wetlands Conservation and Restoration Fund or expenditures of federal funds. In the event legal proceedings are instituted by any person seeking recognition of a right of ownership, servitude, or use in or over private property solely on the basis of the expenditure of funds from the Wetlands Conservation and Restoration Fund, the state shall indemnify and hold harmless the owner of such property for any cost, expense, or loss related to such proceeding, including court costs and attorney fees.

Appendix B: Projects

List of Tables

*Notes and Abbreviations are at end of Index

Table B-1: Completed Projects

Project ID	Project Name	Type	Completed	Parish
Atchafalya Basin				
AT-02	East Atchafalaya Delta Crevasse	P2	1998	StMy
AT-03	Big Island Sediment Distribution	P2	1998	StMy
Barataria Basin				
BA-03-a	Naomi (LaReussite) Diversion Siphon Const.	State	1992	Jefn/Plqs
BA-04-a	West Point a la Hache Diversion Const.	State	1992	Plqs
BA-05-b	Queen Bess Island Habitat Restoration	State	1990	Jefn
BA-05-c	Baie de Chactas Shoreline Protection	State	1990	StCs
BA-15	Lake Salvador Shore Protection	P3	1998	StCs
BA-16	Segnette Wetland (L. Salvador) Protection	State	1994	Jefn
BA-19	Barataria Bay Waterway Wetland Creation	P1	1996	Jefn
Barataria Water Way, Grand Terre Is - Phase I		204	1996	Jefn
Breton Sound Basin				
BS-06	Lake Leary Hydrologic Restoration	State	1997	StBd
Calcasieu/Sabine Basin				
CS-01-a	Peveto Beach to Holly Beach	State	1994	Camr
CS-01-b	Holly Beach to Calcasieu	State	1994	Camr
CS-01-c	Constance Beach to Ocean View	State	1994	Camr
CS-02	Rycade Canal Closure to Black Lake	State	1994	Camr
CS-17	Cameron Creole Watershed Protection	P1	1997	Camr
CS-18	Sabine Refuge Protection	P1	1995	Camr
CS-19	West Hackberry Plantings	P1	1994	Camr
CS-20	East Mud Lake Wetland Management	P2	1996	Camr
CS-22	Clear Marais Wetland Protection	P2	1997	Calc
Calcasieu River & Pass - Phase I (Sabine NWR)		1135	1993	Camr
Calcasieu River & Pass - Phase II (Sabine NWR)		204	1996	Camr
Mermentau Basin				
ME-01-a	Pecan Island Freshwater Introduction Structure	State	1992	Vrml
ME-01-b	Pecan Island Freshwater Introduction Outfall Management	State	1991	Vrml
ME-04	Freshwater Bayou Wetlands	P2	1998	Vrml
ME-09	Cameron Prairie Refuge Protection	P1	1994	Camr
ME-12	White Lake SW Shore Protection Demonstration	P3	1996	Vrml
ME-13	Freshwater Bayou Bank Stabilization	P5	1998	Vrml
Mississippi River Basin				
MR-01-a	Small Sediment Diversions-Pass a Loutre Mgmt Area	State	1993	Plqs
MR-01-b	Small Sediment Diversions-Delta National Wildlife Refuge	State	1993	Plqs
MR-06	Armored Gap Crevasse	P3	1998	Plqs

Pontchartrain Basin				
PO-01-a	Violet Siphon Diversion Operation	State	1992	StBd
PO-02-c	Bayou Chevee Wetland Protection	State	1994	Orls
PO-03-b	LaBranche Wetland Stab. of Critical Reaches of Shoreline	State	1996	StCs
PO-08	Central Wetlands Pump Outfall Enhancement	State	1992	StBd
PO-10	Turtle Cove Shore Protection	State	1994	StJn
PO-16	Bayou Sauvage Refuge Restoration - Phase I	P1	1996	Orls
PO-17	Bayou LaBranche Wetland Creation	P1	1994	StCs
PO-18	Bayou Sauvage Refuge Restoration - Phase II	P2	1997	Orls
PO-20	Red Mud Demonstration Project (Modified)	P3	1997	StJm
Terrebonne Basin				
TE-01	Montegut Wetland Protection and Enhancement	State	1993	Terb
TE-02	Falgout Canal Wetland Protection and Enhancement	State	1993	Terb
TE-04-b	Sediment Trapping/Vegetation Planting - Barrier Islands	State	No info	Terb
TE-07-b	Lake Boudreaux Wet. Prot - Lower Petit Caillou Management Area	State	1995	Terb
TE-14	Pt/ Farm Refuge Planting	State	1995	Terb
TE-17	Falgout Canal Plantings	P1	1997	Terb
TE-18	Timbalier Island Plantings	P1	1996	Terb
TE-20	Eastern Isles Dernieres Restoration (Phase 1)	P1	1998	Terb
TE-22	Point au Fer Canal Plugs (Phase 1,2)	P2	1997	Terb
TE-23	West Belle Pass Headland Restoration	P2	1998	Lafr
TE-24	Isles Dernieres Restoration (Phase II)	P2	1998	Terb
TE-29	Raccoon Island Segmented Breakwaters Demo	P5	1997	Terb
Wine Island Shoal		1135	1991	Terb
Teche/Vermillion Basin				
TV-02	Cote Blanche Wetland Protection	State	1990	StMy
TV-03	Vermillion River Cutoff Protection and Restoration	P1	1996	Vrml
TV-06	Marsh Island Control Structures	State	1993	Ibra
TV-09	Boston Canal/Vermillion Bay Shore Protection	P2	1995	Vrml
TV-11	Freshwater Bayou Bank Protection (Phase 1)	State	1994	Vrml

Table B-2: In Progress Projects

Project ID	Project Name	Type	Status	Parish
Barataria Basin				
BA-01	Davis Pond Freshwater Diversion	WRDA	C	StCs
BA-02	GIWW to Clovely Wetland Protection	P1	C	Lafr
BA-03-c	Naomi (LaReussite) Diversion Outfall Management	P5	F	Jefn
BA-04-c	West Pointe a la Hache Diversion Outfall Management	P3	L	Plqs
BA-10	Davis Pond Diversion Outfall Management	WRDA	I	StCs
BA-20	Jonathan Davis Wetland Protection	P2	C	Jefn
BA-22	Bayou l'Ours Ridge Hydrologic Restoration	P4	L,D	Lafr

BA-23	Barataria Waterway Bank Protection (West)	P4	L,P,F	Jefn
BA-24-a	Myrtle Grove Diversion Siphon (Phase 1)	P5	L	Plqs
BA-24-b	Myrtle Grove Diversion Siphon (Phase 2)	P6	L	Plqs
BA-25	Bayou Lafourche Diversion Siphon (Phase 1)	P5	F	Terb
BA-26	Barataria Bay Waterway Bank Protection	P6	L, D	Jefn
BA-27-a	Barataria Landbridge Stabilization along Bayous Perot and Rigolettes (Phase1)	P7	F	Jefn
BA-28	Vegetative Planting/Grand Terre	P7	P, L	Jefn
Barataria Bay, Mi. 31 to 24.5		204	C	Jefn
Barataria Water Way, Grand Terre Is - Phase II (Back Bay)		204	C	Jefn
Breton Sound Basin				
BS-03-a	Caernarvon Diversion Outfall Management	P2	P, L	Plqs
Calcasieu/Sabine Basin				
CS-04-a	Cameron-Creole Watershed Maintenance	P3	C,L	Camr
CS-04-a-1	Cameron-Creole Watershed Structure Automation	State	C	Camr
CS-09	Brown Lake Wetland Restoration	P2	D, L	Camr
CS-11-b	Sweet/Willow Lakes Hydrologic Restoration (Phase 2)	P5	L, D	Camr
CS-21	Hwy 384 Wetland Protection	P2	L	Camr
CS-23	Sabine Refuge Water Control Structures	P3	D, F	Camr
CS-24	Perry Ridge Bank Protection	P4	C	Calc
CS-25	Plowed Terrace Demonstration	P4	C	Camr
CS-26	Compost Demonstration	P4	C,D	Camr
CS-27	Black Bayou Hydrologic Restoration	P6	F,L	Camr/Calc
CS-28	Sabine Refuge Marsh Creation	P8		Camr
Calcasieu River & Pass - Phase III (Sabine NWR)		204	C	Camr
Brown Lake		204	C	Camr
Mermentau Basin				
ME-11	Humble Canal Water Management	P8		Camr
ME-14	Pecan Island Terracing	P7	L	Vrml
ME-15	Breakwaters at Rockefeller Refuge	P7P	I	Camr
Mississippi River Basin				
MR-03	West Bay Sediment Diversion	P1	P, L	Plqs
MR-08	Beneficial Use of Hopper Dredge Material Demo.	P4	D	Plqs
MR-09-a	Delta-wide Crevasses (Phase 1)	P6	L	Plqs
MR-10	Dustpan/Cutterhead Dredging for Marsh Creation in the MR Delta	P6	F	Plqs
South Pass Crevasse		1135	C	Plqs
Baptist Collete Crevasse		1135	C	Plqs
Pen Point Dredging (CoSMaD)		204	F	Plqs
Pontchartrain Basin				
PO-04	Bonnet Carre' Freshwater Diversion	Fed/State	I	StCs
PO-06	Fritchie Wetland Marsh Restoration	P2	L,P,D	StTm
PO-09-a	Violet Freshwater Distribution Enhancement	P3	D, L	StBd
PO-19	MRGO Diked Marsh Protection	P3	C	StBd
PO-22	Bayou Chevee Marsh Creation	P6	D	Orls

PO-23	Cut Off Bayou Marsh Restoration	P7P	I	Orls
MRGO, Mi. 14 to 11		204	C	StBd
MRGO, Berm, Mi. -2 to -3		204	C	StBd
MRGO, Mi. 2 to 3.2		204		StBd
Terrebonne Basin				
TE-03	Bayou la Cache Wetland Protection and Enhancement	State	C	Terb
TE-06-a	Pointe aux Chenes Wetlands Project (S Components)	State	D	Terb
TE-10	Grand Bayou/GIWW Diversion	P5	D, L	Terb
TE-15	GIWW Levee Planting	State	C	Terb
TE-38	Wine Island Eastward Expansion	P7P	I	Terb
TE-25	East Timbalier Island Restoration (Phase 1)	P3	C	Lafr
TE-26	Lake Chapeau Marsh Creation/Hydrologic Restoration	P3	C	Terb
TE-27	Isles Dernieres Restoration, Whiskey Island (Phase III)	P3	C	Terb
TE-28	Brady Canal Hydrologic Restoration	P3	C	Terb
TE-30	East Timbalier Island Restoration (Phase II)	P4	C	Lafr
TE-31	Flotant Marsh Fencing Demonstration	P4	F	Terb
TE-32-a	Lake Boudreaux Basin Freshwater Intro. & Hydro. Mgt (Phase 1)	P6	F, L	Terb
TE-34-a	Penchant Basin Plan w/o Breach Repair (Phase 1)	P6	F	Terb
TE-36-c	Effects of Sediment and Nutrients on Thin-Mat Flotant Marsh-Demo	P7	C	
TE-37	Lake Pelto "New Cut"	P7	F	Terb
Houma Navigation Canal, Cat Island Pass		204		Terb
Houma Navigation Canal, Mi 12 to 31.4		204		Terb
Teche/Vermillion Basin				
TV-04	Cote Blanche Hydrologic Restoration	P3	C	StMy
TV-12	Little Vermillion Bay Sediment Trapping	P5	D	Vrml
TV-13-a	Oaks/Avery Canals Hydrologic Restoration	P6	F, L	Vrml
TV-13-b	Oaks/Avery Canals Control Structures	State	D	Vrml
TV-14	Marsh Island Hydrologic Restoration	P6	D	Ibra
TV-15	Sediment Trapping at the Jaws	P6	F	StMy
TV-16	Cheniere au Tigre Sediment Trapping	P6	F	Vrml
GIWW, Weeks Bay		1135		Ibra
Coast-Wide Projects				
LA-1	Coastal Wetlands Public Outreach Campaign	State	C	
LA-2	Dedicated Dredging Program	State	D	
LA-3-a	Nutria Harvest for Wetland Restoration (Phase 1)	P6	C	
LA-4	Shoreline Monitoring Effort with FEMA	Fed/State	F	
NRCS Vegetation Planting Program		State	C	
Parish Christmas Tree Projects		State	C	

Key:

F = Feasibility Study or Preliminary work in progress

L = Landrights in progress P = Permitting in progress C = Contracting/Construction in progress

D = Engineering and design in progress I = Inactive federal project

Table B-3: Inactive State Projects

Project ID	Project Name	Parish	S/Habitat Unit
BA-03-b	Naomi (LaReussite) Diversion Enlargement of Capacity	Jefn/Plqs	
BA-04-b	West Pointe a la Hache Diversion Enlargement	Plqs	
BA-06	U.S. Highway 90 to GIWW Wetland		228
	Outfall Management	Plqs	225
BA-07	Couba Island-Restore Canal Closure	StCs	
BA-08	Lake Cataouatche Shore Protection	StCs	2081
BA-09	Salvador WMA Gulf Canal Project	StCs	1500
BA-11/12	Tiger/Red Pass Diversion and Outfall Management		
	and Grand/Spanish Pass Diversion	Plqs	166
BA-13	Hero Canal Diversion	Plqs	1871
BA-14	Little Lake Marsh Management	Jefn	270
BA-17-a	City Price Diversion - Home Place	Plqs	581
BA-17-b	City Price Diversion - Happy Jack	Plqs	286
BS-01-a	Bohemia Diversion Structure - Operation of		
	Existing Structure	Plqs	
BS-01-b	Bohemia Diversion Structure Outfall Management	Plqs	
BS-04-b	White's Ditch Diversion Siphon Enlargement	Plqs	
BS-05	Bayou LaMoque Diversion Outfall Management	Plqs	33
CS-04-b	Cameron-Creole Watershed Freshwater Introduction		
	from GIWW	Camr	
CS-05-a	Sabine Freshwater Introduction	Camr	
CS-06	Black Lake South Shore Protection	Camr	588
CS-07	Black Lake West Shore Protection	Camr	16
CS-08	Black Lake North Marsh Management	Camr	252
CS-10	Grand Lake Ridge Marsh Management	Camr	19
CS-11-a	Sweet Lake/GIWW Bank Restoration (Phase 1)	Camr	251
CS-12	Black Bayou Ridge Freshwater Introduction	Camr	
CS-13	Back Ridge Freshwater Introduction	Camr	1736
CS-14	Tripod Bayou Control Structure	Camr	195
CS-15	Boudreaux/Broussard Marsh Protection	Camr	183
CS-16	Black Bayou Culverts Camr		
ME-02	Hog Bayou Wetland Restoration and Enhancement	Camr	
ME-05	White Lake Shore Protection	Vrml	1740
ME-06	Big Burn Marsh Management	Camr	512
ME-07	Deep Lake Marsh Protection	Vrml	299
ME-10	Sawmill Canal Water Management (PD)	Camr	
MR-02	Pass a Loutre Sediment Fencing	Plqs	
MR-04	Tiger Pass Wetland Creation (PD)	Plqs	
MR-05	Pass a Loutre Sediment Mining (PD)	Plqs	
PO-01-b	Violet Siphon Diversion Enlargement	StBd	
PO-01-c	Violet Siphon Diversion Outfall Management	StBd	
PO-02-b	Alligator Point Shore Protection	Orls	
PO-03-a	LaBranche Wetland Complete Management Plan	StCs	
PO-05-a	SE Lake Maurepas Wetland - Reduce Ponding of Water	StJn	

PO-05-b	SE Lake Maurepas Wetland - Small Diversion of Miss. River Water	StJn	
PO-07	North Shore Wetland Marsh Restoration	StTm	1498
PO-11	Cutoff Bayou Marsh Management	Orls	372
PO-12	West LaBranche Wetland Management	StCs	675
PO-13	Tangipahoa/Pontchartrain Shore Protection	Tang	1083
PO-14	Green Point/Goose Point Marsh Restoration	StTm	375
PO-15	Alligator Point Marsh Restoration	Orls	207
TE-05-a	Grand Bayou Wetland Protection and Enhancement	Terb	
TE-07-a	Lake Boudreaux WP - Upper Petit Caillou Mgt. Area	Terb	49
TE-07-c	Lake Boudreaux WP - Bayou Grand Caillou Mgt. Area	Terb	2208
TE-07-d	Lake Boudreaux WP - Sub-Basin Water Mgt.	Terb	101
TE-08	Bayou Pelton Wetland Protection	Terb	133
TE-09	Bully Camp Marsh Management	Lafr1	42
TE-11	Isle Dernieres Cut Closure	Terb	
TE-12	Bird Island Restoration	Terb	
TE-13	Trinity Bayou Pilot Project	Terb	
TE-16	St. Louis Wetland Restoration	Terb	
TE-21	Falgout Canal South Wetland Creation (PD)	Terb	
TV-01-b	Shark Island/Weeks Bay Protection	Ibra	
TV-05-1	Marsh Island Canal Backfilling - Increment 1	Ibra	151
TV-07	Marsh Island Sediment Fencing - Restoration	Ibra	1230
TV-08	Redfish Point Shore Protection	Vrml	983
TV-10	Weeks Bay Shore Restoration	Ibra	616

Table B-4: Deauthorized Projects

Project ID	Project Name	Type	Status	
Barataria Basin				
BA-18	Fourchon Wetland Restoration[1]	P1	X	Lafr
BA-21	Bayou Perot/Rigolettes Marsh Restoration	P3	X	Jefn
Breton Sound Basin				
BS-04-a	White's Ditch Diversion Siphon Outfall Management	P3	X	Plqs
BS-07	Grand Bay Crevasse	P4	X	Plqs
Mermentau Basin				
ME-08	DeWitt-Rollover Plantings	P1	X	Vrml
ME-12	White Lake SW Shore Protection Demonstration	P3	X, Z	Vrml
Mississippi River Basin				
MR-07	Pass a Loutre Crevasse	P3	X	Plqs
Pontchartrain Basin				
PO-21	Eden Isles East Marsh Restoration	P4	X	StTm
Terrebonne Basin				
TE-19	Lower Bayou la Cache Wetland Restoration	P1	X	Terb
TE-33-a	Bayou Bouef Pump Station (Phase 1)	P6	X	Terb/Asmt
TE-35	Marsh Creation East of the Atchafalaya River at Avoca Island	P6	X	Terb/Stmy

KEY: X= Deauthorized Project, N=Pending Deauthorization

Table B-5: INDEX

APPROVED PROJECTS THROUGH FY 1999/00
Listed by Hydrologic Basin

ATCHAFALAYA BASIN

Project ID	Project Name	Status	Parish
AT-02	East Atchafalaya Delta Crevasse (P2)	Z	StMy
AT-03	Big Island Sediment Distribution (P2)	Z	StMy

BARATARIA BASIN

Project ID	Project Name	Status	Parish
BA-01	Davis Pond Freshwater Diversion [1]	C	StCs
BA-02	GIWW to Clovelly Wetland Protection and Enhancement (P1)	C	Lafr
BA-03-a	Naomi (LaReussite) Diversion Siphon Construction	Z	Jefn/Plqs
BA-03-b	Naomi (LaReussite) Diversion Enlargement of Capacity	S	Jefn/Plqs
BA-03-c	Naomi (LaReussite) Diversion Outfall Management (P5)	F	Jefn/Plqs
BA-04-a	West Pointe a la Hache Diversion Siphon Construction	Z	Plqs
BA-04-b	West Pointe a la Hache Diversion Enlargement	S	Plqs
BA-04-c	West Pointe a la Hache Diversion Outfall Management (P3)	L	Plqs
BA-05-b	Queen Bess Island Habitat Restoration	Z	Jefn
BA-05-c	Baie de Chactas Shoreline Protection	Z	StCs
BA-06	Highway 90 to GIWW Wetland Protection (PD)	S	Lafr
BA-07	Couba Island-Restore Canal Closure	S	StCs
BA-08	Lake Cataouatche Shore Protection	S	StCs
BA-09	Salvador WMA Gulf Canal Project	S	StCs
BA-10	Davis Pond Diversion Outfall Management	I	StCs
BA-11	Tiger/Red Pass Diversion and Outfall Management	S	Plqs
BA-12	Grand/Spanish Pass Diversion	S	Plqs
BA-13	Hero Canal Diversion	S	Plqs
BA-14	Little Lake Marsh Management	S	Jefn
BA-15	Lake Salvador Shore Protection (P3)	Z	StCs
BA-16	Segnette Wetland (L. Salvador) Protection (PD)	Z	Jefn
BA-17-a	City Price Diversion - Home Place	S	Plqs
BA-17-b	City Price Diversion - Happy Jack	S	Plqs
BA-18	Fourchon Wetland Restoration (P1)[1]	X	Lafr
BA-19	Barataria Bay Waterway Wetland Creation (P1)	Z	Jefn
BA-20	Jonathan Davis Wetland Protection (P2)	C	Jefn
BA-21	Bayou Perot/Rigolettes Marsh Restoration (P3)	X	Jefn
BA-22	Bayou l'Ours Ridge Hydrologic Restoration (P4)	L,D	Lafr
BA-23	Barataria Waterway Bank Protection (West) (P4)	L,P,F	Jefn
BA-24-a	Myrtle Grove Diversion Siphon (Phase 1) (P5)	L	Plqs/Jefn
BA-24-b	Myrtle Grove Diversion Siphon (Phase 2) (P6)	L	Plqs/Jefn
BA-25-a	Bayou Lafourche Diversion Siphon (Phase 1) (P5)	F	Terb/Lafr
BA-26	Barataria Bay Waterway Bank Protection (P6)	L,D	Jefn
BA-27-a	Barataria Landbridge Stabilization along Bayous Perot and Rigolettes (Phase 1) (P7)		Jefn/Lafr

BA-27-b	Barataria Land Bridge Shoreline Protection, Phase 2, Increment 1(P8)			Jefn/Lafr
BA-28	Vegetative Planting/Grand Terre (P7)		P,L	Jefn
Barataria Water Way, Grand Terre Is - Phase I		204	Z	Jefn
Barataria Bay, Mi. 31 to 24.5		204	C	Jefn
Barataria Water Way, Grand Terre Is - Phase II (Back Bay)		204	C	Jefn
Barataria Bay, Mi. 31 to 24.5		204	C	Jefn
Barataria Water Way, Grand Terre Is - Phase II (Back Bay)		204	C	Jefn

BRETON SOUND BASIN

Project ID	Project Name	Status	Parish
BS-01-a	Bohemia Diversion Structure - Operation of Existing Structure	S	Plqs
BS-01-b	Bohemia Diversion Structure Outfall Management	S	Plqs
BS-03	Caernarvon Diversion Outfall Management (P2)	P,L	Plqs/StBd
BS-04-a	White's Ditch Diversion Siphon Outfall Management (P3)	X	Plqs
BS-04-b	White's Ditch Diversion Siphon Enlargement	S	Plqs
BS-05	Bayou LaMoque Diversion Outfall Management	S	Plqs
BS-06	Violet Freshwater Distribution - Lake Leary	Z	Plqs
BS-07	Grand Bay Crevasse (P4)	X	Plqs
BS-08	Upper Oak river Freshwater Introduction Siphon Phase 1 (P8)		Plqs

CALCASIEU/SABINE BASIN

Project ID	Project Name	Status	Parish
CS-01-a	Peveto Beach to Holly Beach	Z	Camr
CS-01-b	Holly Beach to Calcasieu	Z	Camr
CS-01-c	Constance Beach to Ocean View	Z	Camr
CS-02	Rycade Canal Closure to Black Lake	Z	Camr
CS-04-a	Cameron-Creole Watershed Maintenance (P3)	C,L	Camr
CS-04-a-1	Cameron-Creole Watershed Structure Automation	C	Camr
CS-04-b	Cameron-Creole Watershed Freshwater Introduction from GIWW	S	Camr
CS-05-a	Sabine Freshwater Introduction	S	Camr
CS-06	Black Lake South Shore Protection	S	Camr
CS-07	Black Lake West Shore Protection	S	Camr
CS-08	Black Lake North Marsh Management	S	Camr
CS-09	Brown Lake Wetland Restoration (P2)	D,L	Camr
CS-10	Grand Lake Ridge Marsh Management	S	Camr
CS-11-a	Sweet Lake/GIWW Bank Restoration (Phase I) (P5)	S	Camr
CS-11-b	Sweet/Willow Lakes Hydrologic Restoration (Phase 2) (P5)	L,D	Camr
CS-12	Black Bayou Ridge Freshwater Introduction	S	Camr
CS-13	Back Ridge Freshwater Introduction	S	Camr
CS-14	Tripod Bayou Control Structure	S	Camr
CS-15	Boudreaux/Broussard Marsh Protection	S	Camr
CS-16	Black Bayou Culverts	S	Camr
CS-17	Cameron Creole Watershed Protection (P1)	Z	Camr
CS-18	Sabine Refuge Protection (P1)	Z	Camr
CS-19	West Hackberry Plantings (P1)	Z	Camr
CS-20	East Mud Lake Wetland Management (P2)	Z	Camr
CS-21	Hwy 384 Wetland Protection (P2)	L	Camr
CS-22	Clear Marais Wetland Protection (P2)	Z	Calc
CS-23	Sabine Refuge Water Control Structures (P3)	D,F	Camr

CS-24	Perry Ridge Bank Protection (P4)	C	Calc
CS-25	Plowed Terrace Demonstration (P4)	C	Camr
CS-26	Compost Demonstration (P4)	C,D	Camr
CS-27	Black Bayou Hydrologic Restoration (P6)	F,L	Camr/Calc
CS-28	Sabine Refuge Marsh Creation (P8)		Camr
Calcasieu River & Pass - Phase I (Sabine NWR)	1135	Z	Camr
Calcasieu River & Pass - Phase II (Sabine NWR)	204	Z	Camr
Calcasieu River & Pass - Phase III (Sabine NWR)	204	C	Camr
Brown Lake	204	C	Camr

MERMENTAU BASIN

Project ID	Project Name	Status	Parish
ME-01-a	Pecan Island Freshwater Introduction Structure	Z	Vrml
ME-01-b	Pecan Island Freshwater Introduction Outfall Management	Z	Vrml
ME-02	Hog Bayou Wetland Restoration and Enhancement	S	Camr
ME-04	Freshwater Bayou Wetlands (P2)	Z	Vrml
ME-05	White Lake Shore Protection	S	Vrml
ME-06	Big Burn Marsh Management	S	Camr
ME-07	Deep Lake Marsh Protection	S	Vrml
ME-08	DeWitt-Rollover Plantings (P1)	X	Vrml
ME-09	Cameron Prairie Refuge Protection (P1)	Z	Camr
ME-10	Sawmill Canal Water Management (PD)	S	Camr
ME-11	Humble Canal Water Management (P8)		Camr
ME-12	White Lake SW Shore Protection Demonstration (P3)	Z,X	Vrml
ME-13	Freshwater Bayou Bank Stabilization (P5)	Z	Vrml
ME-14	Pecan Island Terracing (P7)	L	Vrml
ME-15	Breakwaters at Rockefeller Refuge (P7P)	I	Camr

MISSISSIPPI RIVER BASIN

Project ID	Project Name	Status	Parish
MR-01-a	Small Sediment Diversions-Pass a Loutre State Management Area	Z	Plqs
MR-01-b	Small Sediment Diversions-Delta National Wildlife Refuge	Z	Plqs
MR-02	Pass a Loutre Sediment Fencing	S	Plqs
MR-03	West Bay Sediment Diversion (P1)	P,L	Plqs
MR-04	Tiger Pass Wetland Creation (PD)	S	Plqs
MR-05	Pass a Loutre Sediment Mining (PD)	S	Plqs
MR-06	Armored Gap Crevasse (P3)	Z	Plqs
MR-07	Pass a Loutre Crevasse (P3)	X	Plqs
MR-08	Beneficial Use of Hopper Dredge Material Demo. (P4)	D	Plqs
MR-09-a	Delta-wide Crevasses (Phase 1) (P6)	D	Plqs
MR-10	Dustpan/Cutterhead Dredging for Marsh Creation in the MR Delta (P6)	F	Plqs
South Pass Crevasse	1135	C	Plqs
Baptist Collete Crevasse	1135	C	Plqs
Pen Point Dredging (CoSMaD)	204	F	Plqs
MRGO, Mi. 14 to 11	204	C	StBd
MRGO, Berm, Mi. -2 to -3	204	C	StBd
MRGO, Mi. 2 to 3.2	204	C	StBd

PONTCHARTRAIN BASIN

Project ID	Project Name	Status	Parish
PO-01-a	Violet Siphon Diversion Operation	Z	StBd
PO-01-b	Violet Siphon Diversion Enlargement	S	StBd
PO-01-c	Violet Siphon Diversion Outfall Management	S	StBd
PO-02-b	Alligator Point Shore Protection	S	Orls
PO-02-c	Bayou Chevee Wetland Protection	Z	Orls
PO-03-a	LaBranche Wetland Complete Management Plan	S	StCs
PO-03-b	LaBranche Wetland Stabilization of Critical Reaches of Shoreline	Z	StCs
PO-04	Bonnet Carre' Freshwater Diversion	I	StCs
PO-05-a	SE Lake Maurepas Wetland - Reduce Ponding of Water	S	StJn
PO-05-b	SE Lake Maurepas Wetland - Small Diversion of Miss. River Water	S	StJn
PO-06	Fritchie Wetland Marsh Restoration (P2)	L,P,D	StTm
PO-07	North Shore Wetland Marsh Restoration	S	StTm
PO-08	Central Wetlands Pump Outfall Enhancement	Z	StBd
PO-09-a	Violet Freshwater Distribution Enhancement (P3)	L,D	StBd
PO-10	Turtle Cove Shore Protection	Z	StJn
PO-11	Cutoff Bayou Marsh Management	S	Orls
PO-12	West LaBranche Wetland Management	S	StCs
PO-13	Tangipahoa/Pontchartrain Shore Protection	S	Tang
PO-14	Green Point/Goose Point Marsh Restoration	S	StTm
PO-15	Alligator Point Marsh Restoration	S	Orls
PO-16	Bayou Sauvage Refuge Restoration - Phase I (P1)	Z	Orls
PO-17	Bayou LaBranche Wetland Creation (P1)	Z	StCs
PO-18	Bayou Sauvage Refuge Restoration - Phase II (P2)	Z	Orls
PO-19	MRGO Diked Marsh Protection (P3)	C	StBd
PO-20	Red Mud Demonstration Project (Modified) (P3)	Z	StJm
PO-21	Eden Isles East Marsh Restoration (P4)	X	StTm
PO-22	Bayou Chevee Marsh Creation (P6)	D	Orls
PO-23	Cut Off Bayou Marsh Restoration (P7P)	I	Orls
PO-24	Hopedale Hydrologic Restoration (P8)		Camr
PO-25	Bayou Bienvenue Pumping Station/Terracing (P8)		StBd/Orls

TERREBONNE BASIN

Project ID	Project Name	Status	Parish
TE-01	Montegut Wetland Protection and Enhancement	Z	Terb
TE-02	Falgout Canal Wetland Protection and Enhancement	Z	Terb
TE-03	Bayou la Cache Wetland Protection and Enhancement	C	Terb
TE-04-b	Sediment Trapping/Vegetation Planting - Barrier Islands	Z	Terb
TE-05	Grand Bayou Wetland Protection and Enhancement	S	Terb
TE-06-a	Pointe aux Chenes Wetlands Project (S Components)	D	Terb
TE-07-a	Lake Boudreaux Wetland Protection - Upper Petit Caillou Mgt. Area	S	Terb
TE-07-b	Lake Boudreaux Wetland Protection - Lower Petit Caillou Mgt. Area	Z	Terb
TE-07-c	Lake Boudreaux Wetland Protection - Bayou Grand Caillou Mgt. Area	S	Terb
TE-07-d	Lake Boudreaux Wetland Protection - Sub-Basin Water Mgt.	S	Terb
TE-08	Bayou Pelton Wetland Protection	S	Terb
TE-09	Bully Camp Marsh Management	S	Lafr
TE-10	Grand Bayou/GIWW Diversion (P5)	L,D	Lafr/Terb
TE-11	Isle Dernieres Cut Closure (Part of TE-20)	I	Terb

TE-12	Bird Island Restoration	S	Ter
TE-13	Trinity Bayou Pilot Project	S	Terb
TE-14	Pt. Farm Refuge Planting	Z	Terb
TE-15	GIWW Levee Planting	C	Terb
TE-16	St. Louis Wetland Restoration	S	Terb
TE-17	Falgout Canal Plantings (P1)	Z	Terb
TE-18	Timbalier Island Plantings (P1)	Z	Terb
TE-19	Lower Bayou la Cache Wetland Restoration (P1)	X	Terb
TE-20	Eastern Isles Dernieres Restoration (Phase 1) (P1)	Z	Terb
TE-21	Falgout Canal South Wetland Creation (PD)	S	Terb
TE-22	Point au Fer Canal Plugs (Phase 1,2) (P2)	Z	Terb
TE-23	West Belle Pass Headland Restoration (P2)	Z	Lafr
TE-24	Isles Dernieres Restoration (Phase II) (P2)	Z	Terb
TE-25	East Timbalier Island Restoration (Phase I) (P3)	C	Lafr
TE-26	Lake Chapeau Marsh Creation/Hydrologic Restoration (P3)	C	Terb
TE-27	Isles Dernieres Restoration, Whiskey Island (Phase III) (P3)	C	Terb
TE-28	Brady Canal Hydrologic Restoration (P3)	C	Terb
TE-29	Raccoon Island Segmented Breakwaters Demonstration (P5)	Z	Terb
TE-30	East Timbalier Island Restoration (Phase II) (P4)	C	Lafr
TE-31	Flotant Marsh Fencing Demonstration (P4)	F	Terb
TE-32-a	L Boudreaux Basin Freshwater Intro. & Hydro. Mgt (Phase 1) (P6)	F,L	Terb
TE-33-a	Bayou Bouef Pump Station (Phase 1) (P6)[3]	X	Terb/Asmt
TE-34-a	Penchant Basin Plan w/o Breach Repair (Phase 1) (P6)	F	Terb
TE-35	Marsh Creation East of the Atchafalaya River at Avoca Island (P6)	X	Terb/Stmy
TE-36	Effects of Sediment and Nutrients on Thin-Mat Flotant Marsh-Demo (P7)	C	Terb
TE-37	Lake Pelto "New Cut" (P7)	F	Terb
TE-38	Wine Island Eastward Expansion (P7P)	I	Terb
Wine Island Shoal		1135 Z	Terb
Houma Navigation Canal, Cat Island Pass		204 C	Terb
Houma Navigation Canal, Mi 12 to 31.4		204 C	Terb

TECHE/VERMILION BASIN

Project ID	Project Name	Status	Parish
TV-01-b	Shark Island/Weeks Bay Protection	S	Ibra
TV-02	Cote Blanche Wetland Protection	Z	StMy
TV-03	Vermilion River Cutoff Protection and Restoration (P1)	Z	Vrml
TV-04	Cote Blanche Hydrologic Restoration (P3)	C	StMy
TV-05	Marsh Island Canal Backfilling	S	Ibra
TV-06	Marsh Island Control Structures	Z	Ibra
TV-07	Marsh Island Sediment Fencing	S	Ibra
TV-08	Redfish Point Shore Protection	S	Vrml
TV-09	Boston Canal/Vermilion Bay Shore Protection (P2)	Z	Vrml
TV-10	Weeks Bay Shore Restoration	S	Ibra
TV-11	Freshwater Bayou Bank Protection (Phase I)	Z	Vrml
TV-12	Little Vermilion Bay Sediment Trapping (P5)	D	Vrml
TV-13-a	Oaks/Avery Canals Hydrologic Restoration (P6)	F,L	Vrml/Ibra
TV-13-b	Oaks/Avery Canals Control Structures	D	Vrml
TV-14	Marsh Island Hydrologic Restoration (P6)	D	Ibra

TV-15	Sediment Trapping at the Jaws (P6)		F	StMy
TV-16	Cheniere au Tigre Sediment Trapping (P6)		F	Vrml
TV-17	Lake Portage Land Bridge Phase 1 (Dredge Fill of Pipeline Canal) (P8)			Vrml
GIWW, Weeks Bay		1135	C	Ibra

COAST-WIDE PROJECTS

Project ID	Project Name	Status
LA-1	Coastal Wetlands Public Outreach Campaign	C
LA-2	Dedicated Dredging Program	D
LA-3-a	Nutria Harvest for Wetland Restoration (Phase 1) (P6)	C
LA-4	Shoreline Monitoring Effort with FEMA	F
NRCS Vegetation Planting Program		C
Parish Christmas Tree Projects		C

NOTES:

Within each Basin, projects are listed in numerical order by hydrologic basin; the order of implementation is determined by the results of feasibility analyses as authorized.

(P1) - To be implemented under PL 101-646, 1st List, with federal/state cost-sharing
(P2) - To be implemented under PL 101-646, 2nd List, with federal/state cost-sharing
(P3) - To be implemented under PL 101-646, 3rd List, with federal/state cost-sharing
(P4) - To be implemented under PL 101-646, 4th List, with federal/state cost-sharing
(P5) - To be implemented under PL 101-646, 5th List, with federal/state cost-sharing
(P6) - To be implemented under PL 101-646, 6th List, with federal/state cost-sharing
(P7) - To be implemented under PL 101-646, 7th List, with federal/state cost-sharing
(P7P) - To be implemented under PL 101-646, 7th List, pending federal funding
(PD) - To be implemented under PL 101-646, deferred
State - Funded with State money only
WRDA, 204, 216, 1135 - Funded with State/WRDA money

[1] Other Federal/State Cost Shared Project
[2] Implementation of this project is contingent upon provision of the local share by a non-state sponsor.
[3] Construction contingent upon final approval by the State Wetlands Authority.

Status Legend:
C = Contracting/Construction in progress
D = Engineering and design in progress
F = Feasibility Study or Preliminary work in progress
I = Inactive (non-State project)
L = Landrights in progress
N = Pending Deauthorization
P = Permitting in progress
S = Inactive (State)
X = Deauthorized
Z = All steps completed

Basins:

AT = Atchafalaya
BA = Barataria
BS = Breton Sound
C/S = Calcasieu/Sabine
ME = Mermentau
MR = Mississippi River Delta
PO = Pontchartrain
TE = Terrebonne
T/V = Teche/Vermilion