3RD PRIORITY PROJECT LIST REPORT (APPENDICES)

PREPARED BY:

LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION TASK FORCE

November 1993

U. S. DEPARTMENT OF THE ARMY
BS-3a Caernarvon Outfall Management
PMR-8 Pass A Loutre Sediment Mining (Deferred)
PTE-27 West Belle Pass Headland Restoration
PCS-27 Clear Marais Shore Protection

U. S. DEPARTMENT OF AGRICULTURE
BA-6 Hwy.90 / G.I.W.W. - Hydrologic Restoration (Deferred)
CS-9 Brown Lake Hydrologic Restoration
ME-4/XME-21 Freshwater Bayou Wetlands and Shoreline Protection
PBA-35 Jonathan Davis Hydrologic Restoration
PCS-24 East Mud Lake Hydrologic Restoration
PCS-25 Hwy. 384 Hydrologic Restoration
PME-14 Sawmill Canal / Little Pecan Bayou Water Control Structures (Deferred)
PME-15 Humble Canal Structure (Deferred)
PO-6 Fritchie Marsh Restoration
PTV-18/TV-9 Vermilion Bay / Boston Canal Shoreline Stabilization

U. S. DEPARTMENT OF COMMERCE
PAT-2 Crevasses in Atchafalaya Bay East Delta
PTE-22/24 Point Au Fer Island Plugs
XAT-7 Big Island

ENVIRONMENTAL PROTECTION AGENCY
XTE-4 Isles Dernieres Restoration

U. S. DEPARTMENT OF THE INTERIOR
PPO-52b Bayou Sauvage Hydrologic Restoration

2nd Priority Project List

1st Priority Project List

STATE OF LOUISIANA
LA-A Turtle Cove - Shoreline Protection (Removed)

ENVIRONMENTAL PROTECTION AGENCY
TE-20 Isle Dernieres - Barrier Island Restoration
TE-21 Falgout Canal - Wetland Creation Demonstration (Deferred)

U. S. DEPARTMENT OF THE ARMY
PNR-3 West Bay - Sediment Diversion for Marsh Creation
PMR-4 Tiger Pass - Marsh Creation (Deferred)
PPO-10 Bayou La Branche - Marsh Creation
AR-D Bayou Segnette (Lake Salvador) - Bank Stabilization (Deferred)
BA-19 Barataria Bay Waterway - Marsh Creation
TV-3 Vermilion River Cutoff - Wetland Creation

U. S. DEPARTMENT OF COMMERCE
XBA-68 Fourchon - Hydrologic Restoration
TE-19 Lower Bayou La Cache Wetland - Hydrologic Restoration

U. S. DEPARTMENT OF AGRICULTURE
BA-2 G.I.W.W. to Clovelly - Hydrologic Restoration
Coastal Vegetative Program:
TE-18 Timbalier Island
TE-17 Falgout Canal
ME-8 West Hackberry
ME-8 Dewitt-Rollover Shore
BA-6 US 90 to G.I.W.W. (Deferred)

U. S. DEPARTMENT OF THE INTERIOR
XPO-52a Bayou Sauvage NWR - Hydrologic Restoration
ME-9 Cameron Prairie NWR - Erosion Prevention
IN-C Sabine NWR - Erosion Prevention
IN-D Cameron Creole Watershed Project - Borrow Canal Plug

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Plate 1

Coastal Wetlands Planning, Protection and Restoration Act

3rd Priority Project List Report

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Appendix A

Summary and Complete Text of the CWPPRA

COASTAL WETLANDS PLANNING, PROTECTION, & RESTORATION ACT
(Public Law 101-646, Title III)

SECTION 303. Priority Louisiana Coastal Wetlands Restoration Projects.

- Section 303a. Priority Project List.
  - NLT 13 Jan 91, Sec. of the Army (Secretary) will convene a Task Force.
    - •Secretary
    - •Administrator, EPA
    - •Governor, Louisiana
    - •Secretary, Interior
    - •Secretary, Agriculture
    - •Secretary, Commerce
  - NLT 28 Nov 91, Task Force will prepare and transmit to Congress a Priority List of wetland restoration projects based on cost effectiveness and wetland quality.
  - Priority List is revised and submitted annually as part of President's budget.
- Section 303b. Federal and State Project Planning.
  - NLT 28 Nov 93, Task Force will prepare a comprehensive coastal wetlands Restoration Plan for Louisiana.
  - Restoration Plan will consist of a list of wetland projects, ranked by cost effectiveness and wetland quality.
  - Completed Restoration Plan will become Priority List.
  - Secretary will ensure that navigation and flood control projects are consistent with the purpose of the Restoration Plan.
  - Upon submission of the Restoration Plan to Congress, the Task Force will conduct a scientific evaluation of the completed wetland restoration projects every 3 years and report the findings to Congress.

SECTION 304. Louisiana Coastal Wetlands Conservation Planning.

- Secretary; Administrator, EPA; and Director, USFWS will:
  - Sign an agreement with the Governor specifying how Louisiana will develop and implement the Conservation Plan.
  - Approve the Conservation Plan.
  - Provide Congress with periodic status reports on Plan implementation.
- NLT 3 years after agreement is signed, Louisiana will develop a Wetland Conservation Plan to achieve no net loss of wetlands resulting from development.

SECTION 305. National Coastal Wetlands Conservation Grants.

- Director, USFWS, will make matching grants to any coastal state to implement Wetland Conservation Projects (projects to acquire, restore, manage, and enhance real property interest in coastal lands and waters).
- Cost sharing is 50% Federal / 50% State *

SECTION 306. Distribution of Appropriations.

- 70% of annual appropriations not to exceed (NTE) $70 million used as follows:
  - NTE $5 million annually to fund Task Force preparation of Priority List and Restoration Plan -- Secretary disburses funds.
  - NTE $10 million to fund 75% of Louisiana's cost to complete Conservation Plan -- Administrator disburses funds.
  - Balance to fund wetland restoration projects at 75% Federal/ 25% Louisiana ** -- Secretary disburses funds.
- 15% of annual appropriations, NTE $15 million for Wetland Conservation Grants - Director, USFWS disburses funds.
- 15% of annual appropriations, NTE $15 million for projects authorized by the North American Wetlands Conservation Act - Secretary, Interior disburses funds.

SECTION 307. Additional Authority for the Corps of Engineers.

- Section 307a. Secretary authorized to:
  - Carry out projects to protect, restore, and enhance wetlands and aquatic/coastal ecosystems.
- Section 307b. Secretary authorized and directed to study feasibility of modifying the MR&T to increase flows and sediment to the Atchafalaya River for land building and wetland nourishment.

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* 25% if the state has dedicated trust fund from which principal is not spent.

** 15% when Louisiana's Conservation Plan is approved.

activities, where appropriate, that would contribute to the restoration or improvement of one or more fish stocks of the Great Lakes Basin; and

"(2) activities undertaken to accomplish the goals stated in section 2006.

16 USC 941g.

"SEC. 2009. AUTHORIZATION OF APPROPRIATIONS.

"(a) There are authorized to be appropriated to the Director—

"(1) for conducting a study under section 2005 not more than $4,000,000 for each of fiscal years 1991 through 1994;

"(2) to establish and operate the Great Lakes Coordination Office under section 2008(a) and Upper Great Lakes Fishery Resources Offices under section 2008(c), not more than $4,000,000 for each of fiscal years 1991 through 1995; and

"(3) to establish and operate the Lower Great Lakes Fishery Resources Offices under section 2008(b), not more than $2,000,000 for each of fiscal years 1991 through 1995.

"(b) There are authorized to be appropriated to the Secretary to carry out this Act, not more than $1,500,000 for each of fiscal years 1991 through 1995.".

TITLE III—WETLANDS

Coastal Wetlands Planning, Protection and Restoration Act. 16 USC 3951 note.

SEC. 301. SHORT TITLE.

This title may be cited as the "Coastal Wetlands Planning, Protection and Restoration Act".

16 USC 3951.

SEC. 302. DEFINITIONS.

As used in this title, the term—

(1) "Secretary" means the Secretary of the Army;

(2) "Administrator" means the Administrator of the Environmental Protection Agency;

(3) "development activities" means any activity, including the discharge of dredged or fill material, which results directly in a more than de minimus change in the hydrologic regime, bottom contour, or the type, distribution or diversity of hydrophytic vegetation, or which impairs the flow, reach, or circulation of surface water within wetlands or other waters;

(4) "State" means the State of Louisiana;

(5) "coastal State" means a State of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes; for the purposes of this title, the term also includes Puerto Rico, the Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands, and the Trust Territories of the Pacific Islands, and American Samoa;

(6) "coastal wetlands restoration project" means any technically feasible activity to create, restore, protect, or enhance coastal wetlands through sediment and freshwater diversion, water management, or other measures that the Task Force finds will significantly contribute to the long-term restoration or protection of the physical, chemical and biological integrity of coastal wetlands in the State of Louisiana, and includes any such activity authorized under this title or under any other provision of law, including, but not limited to, new projects, completion or expansion of existing or on-going projects, individ-

ual phases, portions, or components of projects and operation, maintanence and rehabilitation of completed projects; the primary purpose of a "coastal wetlands restoration project" shall not be to provide navigation, irrigation or flood control benefits;

(7) "coastal wetlands conservation project" means—

(A) the obtaining of a real property interest in coastal lands or waters, if the obtaining of such interest is subject to terms and conditions that will ensure that the real property will be administered for the long-term conservation of such lands and waters and the hydrology, water quality and fish and wildlife dependent thereon; and

(B) the restoration, management, or enhancement of coastal wetlands ecosystems if such restoration, management, or enhancement is conducted on coastal lands and waters that are administered for the long-term conservation of such lands and waters and the hydrology, water quality and fish and wildlife dependent thereon;

(8) "Governor" means the Governor of Louisiana;

(9) "Task Force" means the Louisiana Coastal Wetlands Conservation and Restoration Task Force which shall consist of the Secretary, who shall serve as chairman, the Administrator, the Governor, the Secretary of the Interior, the Secretary of Agriculture and the Secretary of Commerce; and

(10) "Director" means the Director of the United States Fish and Wildlife Service.

SEC. 303. PRIORITY LOUISIANA COASTAL WETLANDS RESTORATION PROJECTS. 16 USC 3952.

(a) PRIORITY PROJECT LIST.—

(1) PREPARATION OF LIST.—Within forty-five days after the date of enactment of this title, the Secretary shall convene the Task Force to initiate a process to identify and prepare a list of coastal wetlands restoration projects in Louisiana to provide for the long-term conservation of such wetlands and dependent fish and wildlife populations in order of priority, based on the cost-effectiveness of such projects in creating, restoring, protecting, or enhancing coastal wetlands, taking into account the quality of such coastal wetlands, with due allowance for small-scale projects necessary to demonstrate the use of new techniques or materials for coastal wetlands restoration.

(2) TASK FORCE PROCEDURES.—The Secretary shall convene meetings of the Task Force as appropriate to ensure that the list is produced and transmitted annually to the Congress as required by this subsection. If necessary to ensure transmittal of the list on a timely basis, the Task Force shall produce the list by a majority vote of those Task Force members who are present and voting; except that no coastal wetlands restoration project shall be placed on the list without the concurrence of the lead Task Force member that the project is cost effective and sound from an engineering perspective. Those projects which potentially impact navigation or flood control on the lower Mississippi River System shall be constructed consistent with section 304 of this Act.

(3) TRANSMITTAL OF LIST.—No later than one year after the date of enactment of this title, the Secretary shall transmit to the Congress the list of priority coastal wetlands restoration projects required by paragraph (1) of this subsection. Thereafter,

Reports.

the list shall be updated annually by the Task Force members and transmitted by the Secretary to the Congress as part of the President's annual budget submission. Annual transmittals of the list to the Congress shall include a status report on each project and a statement from the Secretary of the Treasury indicating the amounts available for expenditure to carry out this title.

(4) LIST OF CONTENTS.—

(A) AREA IDENTIFICATION; PROJECT DESCRIPTION.—The list of priority coastal wetlands restoration projects shall include, but not be limited to—

(i) identification, by map or other means, of the coastal area to be covered by the coastal wetlands restoration project; and

(ii) a detailed description of each proposed coastal wetlands restoration project including a justification for including such project on the list, the proposed activities to be carried out pursuant to each coastal wetlands restoration project, the benefits to be realized by such project, the identification of the lead Task Force member to undertake each proposed coastal wetlands restoration project and the responsibilities of each other participating Task Force member, an estimated timetable for the completion of each coastal wetlands restoration project, and the estimated cost of each project.

(B) PRE-PLAN.—Prior to the date on which the plan required by subsection (b) of this section becomes effective, such list shall include only those coastal wetlands restoration projects that can be substantially completed during a five-year period commencing on the date the project is placed on the list.

(C) Subsequent to the date on which the plan required by subsection (b) of this section becomes effective, such list shall include only those coastal wetlands restoration projects that have been identified in such plan.

(5) FUNDING.—The Secretary shall, with the funds made available in accordance with section 306 of this title, allocate funds among the members of the Task Force based on the need for such funds and such other factors as the Task Force deems appropriate to carry out the purposes of this subsection.

(b) FEDERAL AND STATE PROJECT PLANNING.—

(1) PLAN PREPARATION.—The Task Force shall prepare a plan to identify coastal wetlands restoration projects, in order of priority, based on the cost-effectiveness of such projects in creating, restoring, protecting, or enhancing the long-term conservation of coastal wetlands, taking into account the quality of such coastal wetlands, with due allowance for small-scale projects necessary to demonstrate the use of new techniques or materials for coastal wetlands restoration. Such restoration plan shall be completed within three years from the date of enactment of this title.

(2) PURPOSE OF THE PLAN.—The purpose of the restoration plan is to develop a comprehensive approach to restore and prevent the loss of, coastal wetlands in Louisiana. Such plan shall coordinate and integrate coastal wetlands restoration

projects in a manner that will ensure the long-term conservation of the coastal wetlands of Louisiana.

(3) INTEGRATION OF EXISTING PLANS.—In developing the restoration plan, the Task Force shall seek to integrate the "Louisiana Comprehensive Coastal Wetlands Feasibility Study" conducted by the Secretary of the Army and the "Coastal Wetlands Conservation and Restoration Plan" prepared by the State of Louisiana's Wetlands Conservation and Restoration Task Force.

(4) ELEMENTS OF THE PLAN.—The restoration plan developed pursuant to this subsection shall include—

(A) identification of the entire area in the State that contains coastal wetlands;

(B) identification, by map or other means, of coastal areas in Louisiana in need of coastal wetlands restoration projects;

(C) identification of high priority coastal wetlands restoration projects in Louisiana needed to address the areas identified in subparagraph (B) and that would provide for the long-term conservation of restored wetlands and dependent fish and wildlife populations;

(D) a listing of such coastal wetlands restoration projects, in order of priority, to be submitted annually, incorporating any project identified previously in lists produced and submitted under subsection (a) of this section;

(E) a detailed description of each proposed coastal wetlands restoration project, including a justification for including such project on the list;

(F) the proposed activities to be carried out pursuant to each coastal wetlands restoration project;

(G) the benefits to be realized by each such project;

(H) an estimated timetable for completion of each coastal wetlands restoration project;

(I) an estimate of the cost of each coastal wetlands restoration project;

(J) identification of a lead Task Force member to undertake each proposed coastal wetlands restoration project listed in the plan;

(K) consultation with the public and provision for public review during development of the plan; and

(L) evaluation of the effectiveness of each coastal wetlands restoration project in achieving long-term solutions to arresting coastal wetlands loss in Louisiana.

(5) PLAN MODIFICATION.—The Task Force may modify the restoration plan from time to time as necessary to carry out the purposes of this section.

(6) PLAN SUBMISSION.—Upon completion of the restoration plan, the Secretary shall submit the plan to the Congress. The restoration plan shall become effective ninety days after the date of its submission to the Congress.

(7) PLAN EVALUATION.—Not less than three years after the completion and submission of the restoration plan required by this subsection and at least every three years thereafter, the Task Force shall provide a report to the Congress containing a scientific evaluation of the effectiveness of the coastal wetlands restoration projects carried out under the plan in crea- Reports.

ting, restoring, protecting and enhancing coastal wetlands in Louisiana.

(c) COASTAL WETLANDS RESTORATION PROJECT BENEFITS.—Where such a determination is required under applicable law, the net ecological, aesthetic, and cultural benefits, together with the economic benefits, shall be deemed to exceed the costs of any coastal wetlands restoration project within the State which the Task Force finds to contribute significantly to wetlands restoration.

(d) CONSISTENCY.—(1) In implementing, maintaining, modifying, or rehabilitating navigation, flood control or irrigation projects, other than emergency actions, under other authorities, the Secretary, in consultation with the Director and the Administrator, shall ensure that such actions are consistent with the purposes of the restoration plan submitted pursuant to this section.

(2) At the request of the Governor of the State of Louisiana, the Secretary of Commerce shall approve the plan as an amendment to the State's coastal zone management program approved under section 306 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1455).

(e) FUNDING OF WETLANDS RESTORATION PROJECTS.—The Secretary shall, with the funds made available in accordance with this title, allocate such funds among the members of the Task Force to carry out coastal wetlands restoration projects in accordance with the priorities set forth in the list transmitted in accordance with this section. The Secretary shall not fund a coastal wetlands restoration project unless that project is subject to such terms and conditions as necessary to ensure that wetlands restored, enhanced or managed through that project will be administered for the long-term conservation of such lands and waters and dependent fish and wildlife populations.

(f) COST-SHARING.—

(1) FEDERAL SHARE.—Amounts made available in accordance with section 306 of this title to carry out coastal wetlands restoration projects under this title shall provide 75 percent of the cost of such projects.

(2) FEDERAL SHARE UPON CONSERVATION PLAN APPROVAL.—Notwithstanding the previous paragraph, if the State develops a Coastal Wetlands Conservation Plan pursuant to this title, and such conservation plan is approved pursuant to section 304 of this title, amounts made available in accordance with section 306 of this title for any coastal wetlands restoration project under this section shall be 85 percent of the cost of the project. In the event that the Secretary, the Director, and the Administrator jointly determine that the State is not taking reasonable steps to implement and administer a conservation plan developed and approved pursuant to this title, amounts made available in accordance with section 306 of this title for any coastal wetlands restoration project shall revert to 75 percent of the cost of the project: *Provided, however,* that such reversion to the lower cost share level shall not occur until the Governor has been provided notice of, and opportunity for hearing on, any such determination by the Secretary, the Director, and Administrator, and the State has been given ninety days from such notice or hearing to take corrective action.

(3) FORM OF STATE SHARE.—The share of the cost required of the State shall be from a non-Federal source. Such State share shall consist of a cash contribution of not less than 5 percent of

the cost of the project. The balance of such State share may take the form of lands, easements, or right-of-way, or any other form of in-kind contribution determined to be appropriate by the lead Task Force member.

(4) Paragraphs (1), (2), and (3) of this subsection shall not affect the existing cost-sharing agreements for the following projects: Caernarvon Freshwater Diversion, Davis Pond Freshwater Diversion and Bonnet Carre Freshwater Diversion.

SEC. 304. LOUISIANA COASTAL WETLANDS CONSERVATION PLANNING. 16 USC 3953

(a) DEVELOPMENT OF CONSERVATION PLAN.—

(1) AGREEMENT.—The Secretary, the Director, and the Administrator are directed to enter into an agreement with the Governor, as set forth in paragraph (2) of this subsection, upon notification of the Governor's willingness to enter into such agreement.

(2) TERMS OF AGREEMENT.—

(A) Upon receiving notification pursuant to paragraph (1) of this subsection, the Secretary, the Director, and the Administrator shall promptly enter into an agreement (hereafter in this section referred to as the "agreement") with the State under the terms set forth in subparagraph (B) of this paragraph.

(B) The agreement shall—

(i) set forth a process by which the State agrees to develop, in accordance with this section, a coastal wetlands conservation plan (hereafter in this section referred to as the "conservation plan");

(ii) designate a single agency of the State to develop the conservation plan;

(iii) assure an opportunity for participation in the development of the conservation plan, during the planning period, by the public and by Federal and State agencies;

(iv) obligate the State, not later than three years after the date of signing the agreement, unless extended by the parties thereto, to submit the conservation plan to the Secretary, the Director, and the Administrator for their approval; and

(v) upon approval of the conservation plan, obligate the State to implement the conservation plan.

(3) GRANTS AND ASSISTANCE.—Upon the date of signing the agreement—

(A) the Administrator shall, in consultation with the Director, with the funds made available in accordance with section 306 of this title, make grants during the development of the conservation plan to assist the designated State agency in developing such plan. Such grants shall not exceed 75 percent of the cost of developing the plan; and

(B) the Secretary, the Director, and the Administrator shall provide technical assistance to the State to assist it in the development of the plan.

(b) CONSERVATION PLAN GOAL.—If a conservation plan is developed pursuant to this section, it shall have a goal of achieving no net loss of wetlands in the coastal areas of Louisiana as a result of development activities initiated subsequent to approval of the plan,

exclusive of any wetlands gains achieved through implementation of the preceding section of this title.

(c) ELEMENTS OF CONSERVATION PLAN.—The conservation plan authorized by this section shall include—

(1) identification of the entire coastal area in the State that contains coastal wetlands;

(2) designation of a single State agency with the responsibility for implementing and enforcing the plan;

(3) identification of measures that the State shall take in addition to existing Federal authority to achieve a goal of no net loss of wetlands as a result of development activities, exclusive of any wetlands gains achieved through implementation of the preceding section of this title;

(4) a system that the State shall implement to account for gains and losses of coastal wetlands within coastal areas for purposes of evaluating the degree to which the goal of no net loss of wetlands as a result of development activities in such wetlands or other waters has been attained;

(5) satisfactory assurances that the State will have adequate personnel, funding, and authority to implement the plan;

(6) a program to be carried out by the State for the purpose of educating the public concerning the necessity to conserve wetlands;

(7) a program to encourage the use of technology by persons engaged in development activities that will result in negligible impact on wetlands; and

(8) a program for the review, evaluation, and identification of regulatory and nonregulatory options that will be adopted by the State to encourage and assist private owners of wetlands to continue to maintain those lands as wetlands.

(d) APPROVAL OF CONSERVATION PLAN.—

(1) IN GENERAL.—If the Governor submits a conservation plan to the Secretary, the Director, and the Administrator for their approval, the Secretary, the Director, and the Administrator shall, within one hundred and eighty days following receipt of such plan, approve or disapprove it.

(2) APPROVAL CRITERIA.—The Secretary, the Director, and the Administrator shall approve a conservation plan submitted by the Governor, if they determine that—

(A) the State has adequate authority to fully implement all provisions of such a plan;

(B) such a plan is adequate to attain the goal of no net loss of coastal wetlands as a result of development activities and complies with the other requirements of this section; and

(C) the plan was developed in accordance with terms of the agreement set forth in subsection (a) of this section.

(e) MODIFICATION OF CONSERVATION PLAN.—

(1) NONCOMPLIANCE.—If the Secretary, the Director, and the Administrator determine that a conservation plan submitted by the Governor does not comply with the requirements of subsection (d) of this section, they shall submit to the Governor a statement explaining why the plan is not in compliance and how the plan should be changed to be in compliance.

(2) RECONSIDERATION.—If the Governor submits a modified conservation plan to the Secretary, the Director, and the Administrator for their reconsideration, the Secretary, the

Director, and Administrator shall have ninety days to determine whether the modifications are sufficient to bring the plan into compliance with requirements of subsection (d) of this section.

(3) APPROVAL OF MODIFIED PLAN.—If the Secretary, the Director, and the Administrator fail to approve or disapprove the conservation plan, as modified, within the ninety-day period following the date on which it was submitted to them by the Governor, such plan, as modified, shall be deemed to be approved effective upon the expiration of such ninety-day period.

(f) AMENDMENTS TO CONSERVATION PLAN.—If the Governor amends the conservation plan approved under this section, any such amended plan shall be considered a new plan and shall be subject to the requirements of this section; except that minor changes to such plan shall not be subject to the requirements of this section.

(g) IMPLEMENTATION OF CONSERVATION PLAN.—A conservation plan approved under this section shall be implemented as provided therein.

(h) FEDERAL OVERSIGHT.—

(1) INITIAL REPORT TO CONGRESS.—Within one hundred and eighty days after entering into the agreement required under subsection (a) of this section, the Secretary, the Director, and the Administrator shall report to the Congress as to the status of a conservation plan approved under this section and the progress of the State in carrying out such a plan, including and accounting, as required under subsection (c) of this section, of the gains and losses of coastal wetlands as a result of development activities.

(2) REPORT TO CONGRESS.—Twenty-four months after the initial one hundred and eighty day period set forth in paragraph (1), and at the end of each twenty-four-month period thereafter, the Secretary, the Director, and the Administrator shall, report to the Congress on the status of the conservation plan and provide an evaluation of the effectiveness of the plan in meeting the goal of this section.

SEC. 305 NATIONAL COASTAL WETLANDS CONSERVATION GRANTS. 16 USC 3954.

(a) MATCHING GRANTS.—The Director shall, with the funds made available in accordance with the next following section of this title, make matching grants to any coastal State to carry out coastal wetlands conservation projects from funds made available for that purpose.

(b) PRIORITY.—Subject to the cost-sharing requirements of this section, the Director may grant or otherwise provide any matching moneys to any coastal State which submits a proposal substantial in character and design to carry out a coastal wetlands conservation project. In awarding such matching grants, the Director shall give priority to coastal wetlands conservation projects that are—

(1) consistent with the National Wetlands Priority Conservation Plan developed under section 301 of the Emergency Wetlands Resources Act (16 U.S.C. 3921); and

(2) in coastal States that have established dedicated funding for programs to acquire coastal wetlands, natural areas and open spaces. In addition, priority consideration shall be given to coastal wetlands conservation projects in maritime forests on coastal barrier islands.

(c) CONDITIONS.—The Director may only grant or otherwise provide matching moneys to a coastal State for purposes of carrying out a coastal wetlands conservation project if the grant or provision is subject to terms and conditions that will ensure that any real property interest acquired in whole or in part, or enhanced, managed, or restored with such moneys will be administered for the long-term conservation of such lands and waters and the fish and wildlife dependent thereon.

(d) COST-SHARING.—

(1) FEDERAL SHARE.—Grants to coastal States of matching moneys by the Director for any fiscal year to carry out coastal wetlands conservation projects shall be used for the payment of not to exceed 50 percent of the total costs of such projects: except that such matching moneys may be used for payment of not to exceed 75 percent of the costs of such projects if a coastal State has established a trust fund, from which the principal is not spent, for the purpose of acquiring coastal wetlands, other natural area or open spaces.

(2) FORM OF STATE SHARE.—The matching moneys required of a coastal State to carry out a coastal wetlands conservation project shall be derived from a non-Federal source.

(3) IN-KIND CONTRIBUTIONS.—In addition to cash outlays and payments, in-kind contributions of property or personnel services by non-Federal interests for activities under this section may be used for the non-Federal share of the cost of those activities.

(e) PARTIAL PAYMENTS.—

(1) The Director may from time to time make matching payments to carry out coastal wetlands conservation projects as such projects progress, but such payments, including previous payments, if any, shall not be more than the Federal pro rata share of any such project in conformity with subsection (d) of this section.

(2) The Director may enter into agreements to make matching payments on an initial portion of a coastal wetlands conservation project and to agree to make payments on the remaining Federal share of the costs of such project from subsequent moneys if and when they become available. The liability of the United States under such an agreement is contingent upon the continued availability of funds for the purpose of this section.

Texas (f) WETLANDS ASSESSMENT.—The Director shall, with the funds made available in accordance with the next following section of this title, direct the U.S. Fish and Wildlife Service's National Wetland Inventory to update and digitize wetlands maps in the State of Texas and to conduct an assessment of the status, condition, and trends of wetlands in that State.

16 USC 3955 SEC. 306. DISTRIBUTION OF APPROPRIATIONS.

(a) PRIORITY PROJECT AND CONSERVATION PLANNING EXPENDITURES.—Of the total amount appropriated during a given fiscal year to carry out this title, 70 percent, not to exceed $70,000,000, shall be available, and shall remain available until expended, for the purposes of making expenditures—

(1) not to exceed the aggregate amount of $5,000,000 annually to assist the Task Force in the preparation of the list required under this title and the plan required under this title, including preparation of—

(A) preliminary assessments;
(B) general or site-specific inventories;
(C) reconnaissance, engineering or other studies;
(D) preliminary design work; and
(E) such other studies as may be necessary to identify and evaluate the feasibility of coastal wetland restoration projects;

(2) to carry out coastal wetlands restoration projects in accordance with the priorities set forth on the list prepared under this title;

(3) to carry out wetlands restoration projects in accordance with the priorities set forth in the restoration plan prepared under this title;

(4) to make grants not to exceed $2,500,000 annually or $10,000,000 in total, to assist the agency designated by the State in development of the Coastal Wetlands Conservation Plan pursuant to this title.

(b) COASTAL WETLANDS CONSERVATION GRANTS.—Of the total amount appropriated during a given fiscal year to carry out this title, 15 percent, not to exceed $15,000,000 shall be available, and shall remain available to the Director, for purposes of making grants—

(1) to any coastal State, except States eligible to receive funding under section 306(a), to carry out coastal wetlands conservation projects in accordance with section 305 of this title; and

(2) in the amount of $2,500,000 in total for an assessment of the status, condition, and trends of wetlands in the State of Texas.

(c) NORTH AMERICAN WETLANDS CONSERVATION.—Of the total amount appropriated during a given fiscal year to carry out this title, 15 percent, not to exceed $15,000,000, shall be available to, and shall remain available until expended by, the Secretary of the Interior for allocation to carry out wetlands conservation projects in any coastal State under section 8 of the North American Wetlands Conservation Act (Public Law 101-233, 103 Stat. 1968, December 13, 1989).

SEC. 307. GENERAL PROVISIONS.

16 USC 3956.

(a) ADDITIONAL AUTHORITY FOR THE CORPS OF ENGINEERS.—The Secretary is authorized to carry out projects for the protection, restoration, or enhancement of aquatic and associated ecosystems, including projects for the protection, restoration, or creation of wetlands and coastal ecosystems. In carrying out such projects, the Secretary shall give such projects equal consideration with projects relating to irrigation, navigation, or flood control.

Irrigation.
Navigation.
Flood control.

(b) STUDY.—The Secretary is hereby authorized and directed to study the feasibility of modifying the operation of existing navigation and flood control projects to allow for an increase in the share of the Mississippi River flows and sediment sent down the Atchafalaya River for purposes of land building and wetlands nourishment.

SEC. 308. CONFORMING AMENDMENT.

16 U.S.C. 777c is amended by adding the following after the first sentence: "The Secretary shall distribute 18 per centum of each annual appropriation made in accordance with the provisions of

section 777b of this title as provided in the Coastal Wetlands Planning, Protection and Restoration Act: *Provided*, That, notwithstanding the provisions of section 777b, such sums shall remain available to carry out such Act through fiscal year 1999.".

Great Lakes Oil Pollution Research and Development Act.

"TITLE IV—GREAT LAKES OIL POLLUTION RESEARCH AND DEVELOPMENT

33 USC 2701 note.

"SEC. 4001. SHORT TITLE.

"This title may be cited as the "Great Lakes Oil Pollution Research and Development Act".

"SEC. 4002. GREAT LAKES OIL POLLUTION RESEARCH AND DEVELOPMENT.

"Section 7001 of the Oil Pollution Act of 1990 (Public Law 101-380) is amended as follows:

Ante, p. 559.

"(1) GREAT LAKES DEMONSTRATION PROJECT.—In subsection (c)(6), strike "3" and insert "4", strike "and" after "California,", and insert "and (D) ports on the Great Lakes," after "Louisiana,".

"(2) FUNDING.—In subsection (f) strike "21,250,000" and insert "22,000,000" and in subsection (f)(2) strike "2,250,000" and insert "3,000,000".".

Approved November 29, 1990.

LEGISLATIVE HISTORY—H.R. 5390 (S. 2244):

SENATE REPORTS No. 101-523 accompanying S. 2244 (Comm. on Environment and Public Works).

CONGRESSIONAL RECORD, Vol. 136 (1990):

Oct. 1, considered and passed House.

Oct. 26, considered and passed Senate, amended, in lieu of S. 2244.

Oct. 27, House concurred in Senate amendment.

WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 26 (1990):

Nov. 29, Presidential statement.

Statement on Signing the Bill on Wetland and Coastal Inland Waters Protection and Restoration Programs

November 29, 1990

Today I am signing H.R. 5390, "An Act to prevent and control infestation of the coastal inland waters of the United States by the zebra mussel and other nonindigenous aquatic nuisance species, to reauthorize the National Sea Grant College Program, and for other purposes." This Act is designed to minimize, monitor, and control nonindigenous species that become established in the United States, particularly the zebra mussel; establish wetlands protection and restoration programs in Louisiana and nationally; and promote fish and wildlife conservation in the Great Lakes.

Title III of this Act designates a State official not subject to executive control as a member of the Louisiana Coastal Wetlands Conservation and Restoration Task Force. This official would be the only member of the Task Force whose appointment would not conform to the Appointments Clause of the Constitution.

The Task Force will set priorities for wetlands restoration and formulate Federal conservation and restoration plans. Certain of its duties, which ultimately determine funding levels for particular restoration projects, are an exercise of significant authority that must be undertaken by an officer of the United States, appointed in accordance with the Appointments Clause, Article II, sec. 2, cl. 2, of the Constitution.

In order to constitutionally enforce this program, I instruct the Task Force to promulgate its priorities list under section 303(a)(2) "by a majority vote of those Task Force members who are present and voting," and to consider the State official to be a nonvoting member of the Task Force for this purpose. Moreover, the Secretary of the Army should construe "lead Task Force member" to include only those members appointed in conformity with the Appointments Clause.

George Bush

The White House,
November 29, 1990.

Coastal Wetlands Planning, Protection and Restoration Act

3rd Priority Project List Report

Appendix B

Wetland Value Assessment Appendix

APPENDIX B

WETLAND VALUE ASSESSMENT

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APPENDIX B

WETLAND VALUE ASSESSMENT

TABLE OF CONTENTS (cont'd)

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... MRGO Back Dike Marsh Protection (XPO-71) Marsh type acres:

Fresh.. , ... 855

Condition: Future Without Project Intermediate..

Variable		TYO Value	TYO SI	TY1 Value	TY1 SI	TY3 Value	TY3 SI
V1	% Emergent	94	0.95	94	0.95	50	0.55
V2	% Aquatic	100	1.00	100	1.00	100	1.00
v3	Interspersion	%		%		%	
	Class 1	100	1.00	100	1.00	50	0.55
	Class 2						
	Class 3						
	Class 4						
	Class 5					50	
v4	%OW <= 1.5ft	100	0.60	100	0.60	100	0.60
v5	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V6	Access Value	0.00	0.30	0.00	0.30	0.00	0.30
		HSI =	0.85	HSI =	0.85	HSI =	0.63

Project ..... MRGO Back Dike Marsh Protection (XPO-71)

FWOP

Variable		TY 5 Value	TY 5 SI	TY 20 Value	TY 20 SI	Value	SI
V1	% Emergent	6	0.15	6	0.15		
V2	% Aquatic	0	0.10	0	0.10		
V3	Interspersion	%		%		%	
	Class 1	6	0.15	6	0.15		
	Class 2						
	Class 3						
	Class 4						
	Class 5	94		94			
V4	%OW <= 1.5ft	100	0.60	100	0.60		
V5	Salinity (ppt)						
	fresh	1	1.00	1	1.00		
	intermediate						
V6	Access Value	0.00	0.30	0.00	0.30		
		HSI =	0.25	HSI =	0.25	HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... MRGO Back Dike Marsh Protection (XPO-71) Marsh type acres:

Fresh 855

Condition: Future With Project Intermediate..

Variable		TYO Value	TYO SI	TY1 Value	TY1 SI	TY3 Value	TY3 SI
V1	% Emergent	94	0.95	94	0.95	94	0.95
V2	% Aquatic	100	1.00	100	1.00	100	1.00
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 100	1.00	% 100	1.00
V4	%OW <= 1.5ft	100	0.60	100	0.60	100	0.60
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V6	Access Value	0.00	0.30	0.00	0.30	0.00	0.30
		HSI =	0.85	HSI =	0.85)	HSI =	0.85

Project ..... MRGO Back Dike Marsh Protection (XPO-71)
FWP

Variable		TY5 Value	TY5 SI	TY 20 Value	TY 20 SI	Value	SI
V1	% Emergent	94	0.95	94	0.95		
V2	% Aquatic	100	1.00	100	1.00		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 100	1.00	%	
V4	%OW <= 1.5ft	100	0.60	100	0.60		
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00		
V6	Access Value	0.00	0.30	0.00	0.30		
		HSI =	0.851	HSI =	0.85	HSI =	

AAHU CALCULATION

Project: MRGO Back Dike Marsh Protection (XPO-71)

Future Without Project TY	Acres	x HSI	Total HU's	Cummulative HU's
0	855	0.85	729.35	
1	855	0.85	729.35	729.35
3	855	0.63	535.62	1264.98
5	855	0.25	209.55	745.17,
20	855,	0.25	209.55	3143.25
			AAHU's =	294.141

Future With Project TY	Acres	x HSI	Total HU's	Cummulative HU's
0	855	0.85	729.35	
1	855	0.85	729.35	729.35
3	855	0.85	729.35	1458.71
5	855	0.85	729.35	1458.71
20	855	0.85	729.35	10940.30
			AAHU's	729.351

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	729.35
B. Future Without Project AAHU's =	294.14
Net Change (FWP – FWOP) =	435.22.

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: MRGO Back Dike Marsh Protection (XPO-71)

Wetland Type: Fresh

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	855	805	94	805	94	--
1	855	805	94	805	94	0
2	855	615	72	805	94	190
3	855	425	50	805	94	380
4	855	238	28	805	94	568
5	855	50	6	805	94	755
6	855	50	6	805	94	755
7	855	50	6	805	94	755
8	855	50	6	805	94	755
9	855	50	6	805	94	755
10	855	50	6	805	94	755
11	855	50	6	805	94	755
12	855	50	6	805	94	755
13	855	50	6	805	94	755
14	855	50	6	805	94	755
15	855	50	6	805	94	755
16	855	50	6	805	94	755
17	855	50	6	805	94	755
18	855	50	6	805	94	755
19	855	50	6	805	94	755
20	855	50	6	805	94	755
Total Years I-20		2,883		16,100		
Average Annual Acres		144		805		661

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: West Pointe A La Hache Outfall Management (BA-4c)

The WVA analysis for project BA-4c includes 3 areas: Area 1, which is a brackish area predicted to convert to intermediate after Target Year (TY) 10 under both Future-Without-Project (FWOP) and Future-With-Project (FWP) conditions; Area 2, which is a brackish area predicted to convert to intermediate only under FWP conditions; and Area 3, which is a brackish area to remain brackish.

Area 1 is assessed using the Brackish WVA model for TY's 0, 1, and 10 under both FWOP and FWP conditions; and using the Intermediate WVA model for TY 20 under both FWOP and FWP conditions. Area 2 is assessed using the Brackish WVA model for FWOP condition and N's 0, 1, and 10 under FWP condition; and using the Intermediate WVA model for TY 20 under FWP condition. Area 3 is assessed using the Brackish WVA model. Total WVA benefits (AAHU's) for this project are obtained by adding the benefits calculated for each area, as summarized below:

Area	AAHU's
1	75.87
2	109.83
3	242.98

TOTAL BENEFITS = 429 AAHUs

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project . . . . . West Pointe A La Hache Outfall Mgt. (BA-4c) Marsh type acres:
Area 1 (to convert to intermediate after TY 10, FWOP & FWP) Fresh . . . . . .
Condition: Future Without Project Intermediate.. 2537

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	38	0.44				
V2	% Aquatic	25	0.33				
V3	Interspersion	%		%		%	
	Class 1	52	0.62				
	Class 2						
	Class 3						
	Class 4	48					
	Class 5						
V4	%OW <= 1.5ft	60	0.78				
V5	Salinity (ppt)						
	fresh		1.00				
	intermediate	3					
V6	Access Value	1.00	1.00				
		HSI =	0.52	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project ..... West Pointe A La Hache Outfall Mgt. (BA-4c) Marsh type acres 2537
Area 1 (to convert to intermediate after TY 10, FWOP & FWP)
Condition: Future With Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	45	0.51	45	0.51	46	0.51
V2	% Aquatic	20	0.44	22	0.45	35	0.55
V3	Interspersion	60		60		%	
	Class 1		0.68		0.68	60	0.68
	Class 2						
	Class 3						
	Class 4	40		40		40	
	Class 5						
V4	%OW c= 1.5ft	40	0.61	41	0.63	52	0.77
V5	Salinity (ppt)	3	0.30	3	0.30	3	0.30
V6	Access Value	1.00	1.00	0.80	0.82	0.80	0.82
		HSI =	0.56	HSI =	0.54	HSI =	0.57

Project . . . . . West Pointe A La Hache Outfall Mgt. (BA-4c)
WP

Variable		TY 2c) (see Intermediate model)					
				Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
	Class 5						
V4	%OW<= 1.5ft						
V5	Salinity (ppt)						
V6	Access Value						
		HSI =		HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project . . . . . West Pointe A La Hache Outfall Mgt. (BA-4c) Marsh type acres:
Area 1 (to convert to intermediate after TY **10**, FWOP & FWP) Fresh . . . . . .
Condition: Future With Project Intermediate.. 2537

Variable		TY 20 Value	SI	Value	SI	Value	SI
VI	% Emergent	46	0.51				
v2	% Aquatic	5 0	0.5 5				
V 3	Interspersion	%I		%		%,	
	Class 1	61	0.69				
	Class 2						
	Class 3						
	Class 4	39					
	Class 5						
v4	%OW c= 1.5ft	65	0.83				
v5	Salinity (ppt)						
	fresh		1 .00				
	intermediate	2					
V6	Access Value	0.80	0.86				
		HSI =	**0.62**	HSI =		**HSI =**	

AAHU CALCULATION

Project: West Pointe A La Hache Outfall Mgt. (BA-4c)
Area 1 (to convert to intermediate after TY 10, FWOP & FWP)

Future Without Project			Total	Cummulative	
TY	Acres	x HSI	HU's	HU's	
0	2537	0.56	1410.77		
1	2537	0.56	1413.18	1411.98	
10	2537	0.55	1399.64	12657 .69	
20	2537	0.52	1328.81	13642.22	*
			AAHU's =	1385.59	

Future Wii Proiect			Total	Cummulative	
TY	Acres	x HS	HU's	HU's	
0	2537	0.56	1410.77		
1	2537	0.54	1376.65	1393.71	
10	2537	0.57	1455.11	12742.92	
20	2537	0.62	1563.43	15092.70	*
			AAHU's	1461.471	

NET CHANGE IN AAHU DUE TO PROJECT	
A. Future Wiih Project AAHU =	1461.47
B. Future Without Project AAHU =	1385.59
Net Change (FWP – FWOP) =	75.87

*** HSI calculated using Fresh Intermediate model**

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project..... West Pointe A La Hache Outfall Mgt. **(BA-4c)** Marsh type acres 5919
Area 2 (to convert to intermediate after TY 10, FWP)
Condition: Future Without Project

Variable		NO		TY1		TY10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	45	0.51	45	0.51	42	0.48
V2	% Aquatic	20	0.44	20	0.44	22	0.45
V3	Interspersion	%		%		%	
	Class 1		0.25		0.25		0.24
	Class 2						
	Class 3	25		25		21	
	Class 4	75		75		79	
	Class 5						
V4	%OW <= 1.5ft	40	0.61	40	0.61	45	0.68
V5	Salinity (ppt)	4	0.53	4	0.53	4	0.53
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.54	HSI =	0.54	HSI =	0.53

Project . . . . . West Pointe A La Hache Outfall Mgt. (BA-4c)
FWOP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44				
V2	% Aquatic	25	0.48				
V3	Interspersion	%		%		%	
	Class 1		0.23				
	Class 2						
	Class 3	17					
	Class 4	83					
	Class 5						
V4	%OW <= 1.5ft	50	0.74				
V5	Salinity (ppt)	4	0.53				
V6	Access Value	1.00	1.00				
		HSI =	0.52	HSI =		HSI =	

Corrected 09-Sep-93

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project ..... West Pointe A La Hache Outfall Mgt. (BA-4c) Marsh type acres 5919
Area 2 (to convert to intermediate after TY 10, FWP)
Condition: Future With Project

Variable		NO		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	45	0.51	45	0.51	46	0.51
V2	% Aquatic	20	0.44	22	0.45	35	0.55
V3	Interspersion	%		%		%	
	Class 1		0.25		0.25		0.25
	Class 2						
	Class 3	25		25		25	
	Class 4	75		75		75	
	Class 5						
V4	%OW <= 1.5ft	40	0.61	41	0.63	46	0.72
V5	Salinity (ppt)	4	0.53	3	0.30	3	0.30
V6	Access Value	1.00	1.00	0.95	0.96	0.95	0.96
		HSI =	0.54	HSI =	0.52	HSI =	0.55

Project ..... West Pointe A La Hache Outfall Mgt. (BA-4c)
FWP

Variable		TY 20 (see Intermediate model)		Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
	Class 5						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
V6	Access Value						
		HSI =		HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project . . . . . West Pointe A La Hache Outfall Mgt. (BA-4c) Marsh type acres 2537
Area 1 (to convert to intermediate after TY **10,** FWOP & FWP)
Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	45	0.51	45	0.51	42	0.48
V2	% Aquatic	20	0.44	20	0.44	22	0.45
V3	Interspersion	%		%		%	
	Class 1	60	0.68	60	0.68	56	0.65
	Class 2						
	Class 3						
	Class 4	40		40		44	
	Class 5						
V4	%OW c= 1.5ft	40	0.61	41	0.63	50	0.74
V5	Salinity (ppt)	3	0.30	3	0.30	3	0.30
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.56	HSI =	0.561	HSI =	0.55

Project . . . . . West Pointe A La Hache Outfall Mgt. (BA-4c)
WOP

Variable		TY 2c (see Intermediate model)	SI	Value	SI
V1	% Emergent				
V2	% Aquatic				
V3	Interspersion	%	%	%	
	Class 1				
	Class 2				
	Class 3				
	Class 4				
	Class 5				
V4	%OW <= 1.5ft				
V5	Salinity (ppt)				
V6	Access Value				
		HSI =	HSI =	HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... West Pointe A La Hache Outfall Mgt. (BA-4c) Marsh type acres:
Area 2 (to convert to intermediate after TY 10, FWP) Fresh .....
Condition: Future With Project Intermediate.. 2537

Variable		TY 20 Value	TY 20 SI				
				Value	SI	Value	SI
V1	% Emergent	46	0.51				
V2	% Aquatic	50	0.55				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 26 74	 0.25 	%		%	
V4	%OW <= 1.5ft	55	0.72				
V5	Salinity (ppt) fresh intermediate	 3	 1.00 				
V6	Access Value	0.95	0.97				
		HSI =	0.58	HSI =		HSI =	

AAHU CALCULATION

Project: **West** Pointe A La Hache Outfall Mgt. (BA-4c)
Area 2 (to convert to intermediate after TY 10, FWP)

Future Without Project			Total	Cummulative
TY	Acres	x HS	HU's	HU's
0	5919	0.54	3205.05	
1	5919	0.54	3205.05	3205.05
10	5919	0.53	3161.41	28649.04
20	5919	0.52	3092.11	31267.61
			AAHU's =	3156.08

[Future Wii Project			Total	Cummulative
TY	Acres	x HSI		HU's
0	5919	0.54	[illegible]	
1	5919	0.52	3100.90	3152.97
10	5919	0.55	3265.15	28647.22
20	5919	0.58	3438.46	33518.05 *
			AAHU's	3285.91

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future Wiih Project AAHU's =	3265.91
B. Future Without Project AAHU's =	3156.08
Net Change (FWP – FWOP) =	109.83

* HSI calculated using Fresh/Intermediate model

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project ..... West Pointe A La Hache Outfall Mgt. (BA-4c) Area 3 — Marsh type acres 8456

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	45	0.51	45	0.51	37	0.43
V2	% Aquatic	20	0.44	20	0.44	25	0.48
V3	Interspersion	%		%		%	
	Class 1	10	0.46	10	0.46	10	0.37
	Class2						
	Class3	90		90		45	
	Class4					45	
	Class5						
V4	%OW<= 1.5ft	40	0.61	40	0.61	45	0.68
V5	Salinity (ppt)	8	1.00	8	1.00	8	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.59	HSI =	0.59	HSI =	0.56

Condition: Future With Project

Variable		TY0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
Vl %	Emergent	45	0.51	45	0.51	42	0.48
v2	% Aquatic	20	0.44	21	0.45	45	0.62
v3	Interspersion	%		%		%	
	Class1	10	0.46	10	0.46	10	0.46
	Class2						
	Class3	90		90		90	
	Class4						
	Class5						
v 4	%OW<=1.5ft	40	0.61	40	0.61	50	0.74
V5	Salinity (ppt)	8	1.00	6	1.00	6	1.00
V 6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.59	HSI =	0.59	HSI =	0.62

AAHU CALCULATION

Project: West Pointe A La Hache Outfall Mgt. (BA-4c)
Area 3

Future Without Proiect			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	8456	0.59	5003.47	
1	8456	0.59	5003.47	5003.47
20	8456	0.56	4712.91	92305.63
			AAHU's =	4865.45

[Future With Proiect			Total	Cummulative
TY	Acres	x H SI	HU's	HU's
0	8456	0.59	5003.47	
1	8456	0.59	5015.18	5009.33
20	8456	0.62	5212.13	97159.46
			AAHU's	5108.441

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	5108.44
B. Future Without Project AAHU's =	4865.45
Net Change (FWP – FWOP) =	242.96

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: West Pointe A La Hache Outfall Mgt. (BA-4c)
Area 1
Wetland Type: Intermediate

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	2,537	1,142	45	1,142	45	--
1	2,537	1,133	45	1,143	45	10
2	2,537	1,124	44	1,144	45	20
3	2,537	1,116	44	1,146	45	30
4	2,537	1,107	44	1,147	45	40
5	2,537	1,098	43	1,148	45	50
6	2,537	1,090	43	1,150	45	60
7	2,537	1,081	43	1,151	45	70
a	2,537	1,072	42	1,152	45	80
9	2,537	1,064	42	1,154	45	90
10	2,537	1,055	42	1,155	46	100
11	2,537	1,047	41	1,156	46	109
12	2,537	1,040	41	1,157	46	118
13	2,537	1,032	41	1,158	46	126
14	2,537	1,024	40	1,159	46	135
15	2,537	1,017	40	1,161	46	144
16	2,537	1,009	40	1,162	46	153
17	2,537	1,001	39	1,163	46	162
18	2,537	993	39	1,164	46	170
19	2,537	986	39	1,165	46	179
20	2,537	978	39	1,166	46	188
Total Years I-20		21,067		23,101		
Average Annual Acres		1,053		1,155		102

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: West Pointe A La Hache Outfall Mgt. (BA-4c)
Area 2
Wetland Type: Intermediate

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	5,919	2,664	45	2,664	45	--
1	5,919	2,644	45	2,668	45	24
2	5,919	2,624	44	2,672	45	49
3	5,919	2,603	44	2,676	45	73
4	5,919	2,583	44	2,681	45	98
5	5,919	2,562	43	2,685	45	123
6	5,919	2,542	43	2,689	45	147
7	5,919	2,521	43	2,693	46	172
8	5,919	2,501	42	2,698	46	197
9	5,919	2,480	42	2,702	46	221
10	5,919	2,460	42	2,706	46	246
11	5,919	2,442	41	2,710	46	268
12	5,919	2,424	41	2,714	46	290
13	5,919	2,406	41	2,717	46	311
14	5,919	2,388	40	2,721	46	333
15	5,919	2,370	40	2,725	46	355
16	5,919	2,352	40	2,729	46	377
17	5,919	2,334	39	2,733	46	399
18	5,919	2,316	39	2,736	46	420
19	5,919	2,298	39	2,740	46	442
20	5,919	2,280	39	2,744	46	464
Total Years l-20		49,130		54,139		
Average Annual Acres		2,457		2,707		250

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: West Pointe A La Hache Outfall Mgt. (BA-4c)
Area 3
Wetland Type: Brackish

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	8,456	3,805	45	3,805	45	--
1	8,456	3,770	45	3,793	45	23
2	8,456	3,737	44	3,782	45	45
3	8,456	3,704	44	3,771	45	66
4	8,456	3,672	43	3,760	44	88
5	8,456	3,639	43	3,749	44	110
6	8,456	3,606	43	3,737	44	131
7	8,456	3,573	42	3,726	44	153
8	8,456	3,540	42	3,715	44	175
9	8,456	3,508	41	3,704	44	196
10	8,456	3,475	41	3,693	44	218
11	8,456	3,442	41	3,682	44	240
12	8,456	3,409	40	3,671	43	262
13	8,456	3,377	40	3,660	43	283
14	8,456	3,344	40	3,649	43	305
15	8,456	3,311	39	3,638	43	327
16	8,456	3,278	39	3,626	43	348
17	8,456	3,245	38	3,615	43	370
18	8,456	3,213	38	3,604	43	392
19	8,456	3,180	38	3,593	42	413
20	8,456	3,147	37	3,582	42	435
Total Years I-20		69,170		73,750		
Average Annual Acres		3,458		3,687		229

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Channel Armor Gap Crevasse (XMR-10)

Marsh type acres:

Fresh 2097

Condition: Future Without Project

Intermediate..

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	34	0.41	33	0.40	18	0.26
V2	% Aquatic	40	0.46	40	0.46	35	0.42
V3	interspersion	%		%		%	
	Class 1		0.24		0.24		0.21
	Class2						
	Class 3	20		20		5	
	Class4	80		80		95	
	Class 5						
V4	%OW c= 1.5ft	95	0.80	95	0.80	80	1.00
V5	Salinity (ppt) fresh intermediate	0	1.00	0	1.00	0	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.51	HSI =	0.501	HSI =	0.43

Condition: Future With Project

Intermediate..

Variable		TY0 Value	TY0 SI	TY1 Value	TY1 SI	TY 20 Value	TY 20 SI
V1 %	Emergent	34	0.41	36	0.42	63	0.67
v2 %	Aquatic	40	0.46	40	0.46	40	0.46
v3	Interspersion	%		%		%	
	Class 1		0.24		0.25		0.36
	Class 2			2		29	
	Class 3	20		20		20	
	Class 4	80		78		51	
	Class 5						
V4	%OW <= 1.5ft	95	0.80	95	0.80	97	0.72
v5	Salinity (ppt) fresh intermediate	0	1.00	0	1.00	0	1.00
V6	Access Value	1.00	1.00	1.001	1.00	1.00	1.00
		HSI =	0.51	HSI =	0.52	HSI =	0.65

AAHU CALCULATION

Project: Channel Armor Gap Crevasse (XMR- 10)

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2097	0.51	1069.32	
1	2097	0.50	1058.63	1063.98
20	2097	0.43	897.45	18582.77
			AAHU's =	982.34

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2097	0.51	1069.32	
1	2097	0.52	1091.69	1080.51
20	2097	0.65	1355.45	23247.79
			AAHU's	1216.41,

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	1216.41
B. Future Without Project AAHU's =	982.34
Net Change (FWP – FWOP) =	234.06.

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Channel Armor Gap Crevasse (XMR-10)

Wetland Type: Fresh

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	2,097	705	34	705	34	--
1	2,097	688	33	746	36	5a
2	2,097	672	32	776	37	104
3	2,097	656	31	806	38	150
4	2,097	639	30	836	40	197
5	2,097	623	30	a66	41	243
6	2,097	607	29	896	43	289
7	2,097	591	28	926	44	335
a	2,097	575	27	956	46	381
9	2,097	558	27	986	47	428
10	2,097	542	26	1,016	48	474
11	2,097	526	25	1,046	50	520
12	2,097	510	24	1,076	51	566
13	2,097	493	24	1,106	53	613
14	2,097	477	23	1,136	54	659
15	2,097	461	22	1,166	56	705
16	2,097	445	21	1,196	57	751
17	2,097	429	20	1,226	58	797
18	2,097	412	20	1,256	60	844
19	2,097	396	19	1,286	61	890
20	2,097	380	18	1,316	63	936
Total Years 1-20		10,680		20,620		
Average Annual Acres		534		1,031		497

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project... .... Cote Blanche Hydrologic Restoration (TV-4)

Marsh type acres:
Fresh... 30000
Intermediate..

Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	88	0.89	87	0.88	76	0.78
V2	% Aquatic	25	0.33	25	0.33	25	0.33
V3	Interspersion	%		%		%	
	Class 1	50	0.74	50	0.74	50	0.70
	Class 2	20		20			
	Class 3	30		30		50	
	Class 4						
	Class 5						
V4	%OW <= 1.5ft	60	0.78	60	0.78	50	0.66
V5	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.731	HSI =	0.73	HSI =	0.67

Condition: Future With Project

Intermediate..

Variable		TY0 Value	TY0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	88	0.89	87	0.88	84	0.86
v2	% Aquatic	25	0.33	25	0.33	50	0.55
v3	Interspersion	%		%		%	
	Class 1	50	0.74	50	0.74	50	0.74
	Class 2	20		20		20	
	Class 3	30		30		30	
	Class 4						
	Class 5						
v4	%OW <= 1.5ft	60	0.78	60	0.78	70	0.89
v5	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V6	Access Value	1.00	1.00	0.60	0.72	0.60	0.74
		HSI =	0.73	HSI =	0.71	HSI =	0.78

AAHU CALCULATION

Project: Cote Blanche Hydrologic Restoration **(TV-4)**

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	30000	0.73	21869.45	
1	30000	0.73	21764.40	21816.92
20	30000	0.67	20243.17	399071.93
			AAHU's =	21044.441

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	30000	0.73	21869.45	
1	30000	0.71	21208.88	21539.16
20	30000	0.78	23353.77	423345.13
			AAHU's	22244.21

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	22244.21
B. Future Without Project AAHU's =	21044.44
Net Change (FWP – FWOP) =	1199.77

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Cote Blanche Hydrologic Restoration (TV-4)

Wetland Type: Fresh

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	30,000	26,300	88	26,300	88	--
1	30,000	26,128	87	26,239	87	111
2	30,000	25,956	87	26,178	87	222
3	30,000	25,784	86	26,117	87	333
4	30,000	25,612	85	26,056	87	444
5	30,000	25,440	85	25,995	87	556
6	30,000	25,267	84	25,934	86	667
7	30,000	25,095	84	25,873	86	778
8	30,000	24,923	83	25,812	86	889
9	30,000	24,751	83	25,751	86	1,000
10	30,000	24,579	82	25,690	86	1,111
11	30,000	24,407	81	25,630	85	1,223
12	30,000	24,235	81	25,569	85	1,334
13	30,000	24,063	80	25,508	85	1,445
14	30,000	23,891	80	25,447	85	1,556
15	30,000	23,719	79	25,386	85	1,667
16	30,000	23,546	78	25,325	84	1,778
17	30,000	23,374	78	25,264	84	1,890
18	30,000	23,202	77	25,203	84	2,001
19	30,000	23,030	77	25,142	84	2,112
20	30,000	22,858	76	25,081	84	2,223
Total Years I-20		489,860		513,200		
Average Annual Acres		24,493		25,660		1,167

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project ..... Bayous Perot & Rigolettes Marsh Rest. (XBA-65a)Marsh type acres..... 4255

Condition: Future Without Project

Variable		TYO		TY1		TY 10	
		Value	SI	Value	SI	Value	[redacted]
V1	% Emergent	39	0.45	37	0.43	19	0.27
V2	% Aquatic	21	0.45	20	0.44	11	0.38
V3	Interspersion	%		%		%	
	Class 1		0.44		0.44		0.30
	Class 2	35		35			
	Class 3	50		50		50	
	Class 4	15		15		50	
	Class 5						
V4	%OW <= 1.5ft	57	0.83	55	0.81	34	0.54
V5	Salinity (ppt)	6	1.00	6	1.00	6	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.001	1.00
		HSI =	0.58	HSI =	0.57	HSI =	0.43

Project ..... Bayous Perot & Rigolettes Marsh Rest. (XBA-65a)
FWOP

Variable		TY 20		[redacted]		[redacted]	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10				
V2	% Aquatic	0	0.30				
V3	Interspersion	%		%		%	
	Class 1		0.10				
	Class 2						
	Class 3						
	Class 4						
	Class 5	100					
V4	%OW <= 1.5ft	10	0.23				
V5	Salinity (ppt)	6	1.00				
V6	Access Value	1.00	1.00				
		HSI =	0.25	HSI =		HSI =	

Corrected 08-Sept-93

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project . . . . . Bayous Perot & Rigolettes Marsh Rest. (XBA-65a) Marsh type acres..... 4255

Condition: Future With Project

Variable		TY 0 Value	TY 0 SI	TY1 Value	TY1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	39	0.45	41	0.47	34	0.41
V2	% Aquatic	21	0.45	25	0.48	20	0.44
V3	Interspersion	%		%		%	
	class 1		0.44		0.45		0.38
	Class 2	3 5		40		20	
	Class 3	50		45		50	
	Class 4	15		15		30	
	Class 5						
V4	%OW <= 1.5ft	57	0.83	80	0.87	50	0.74
V5	Salinity (ppt)	6	1.00	6	1 .00	6	1.00.
V6	Access Value	1.00	1.00	1 .00	1 .00	1 .00	1.00
		HSI =	**0.58**	**HSI =**	**0.60**	**HSI =**	0.54

Project . . . . . Bayous Perot & Rigolettes Marsh Rest. (XBA-65a)
WP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	25	0.331				
V2	% Aquatic	15	0.41				
V3	Interspersion	%		%		%	
	Class 1		0.32				
	Class 2						
	Class 3	60					
	Class 4	40					
	Class 5						
V4	%OW <= 1.5ft	40	0.61				
V5	Salinity (ppt)	6	1 .00				
V6	Access Value	1 .00	1 .00				
		HSI =	0.47	**HSI =**		**HSI =**	

AAHU CALCULATION

Project: Bayous Perot & Rigolettes Marsh Rest. (XBA-65a)

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	4255	0.58	2463.54	
1	4255	0.57	2407.88	2435.71
10	4255	0.43	1823.03	19039.09
20	4255	0.25	1072.16	14475.91
			AAHU's =	1797.541

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	4255	0.58	2463.54	
1	4255	0.60	2542.23	2502.89
10	4255	0.54	2304.30	21809.39
20	4255	0.47	2016.96	21606.31
			AAHU's	2295.93

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future Wiih Project AAHU's =	2295.93
B. Future Without Project AAHU's =	1797.54
Net Change (FWP – FWOP) =	498.39

Corrected 08-Sept-93

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Bayous Perot & Rigolettes Marsh Rest. (XBA-65a)

Wetland Type: Brackish

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	4,255	1,644	39	1,644	39	--
1	4,255	1,562	37	1,744	41	182
2	4,255	1,480	35	1,713	40	233
3	4,255	1,398	33	1,681	40	284
4	4,255	1,315	31	1,650	39	334
5	4,255	1,233	29	1,618	38	385
6	4,255	1,151	27	1,587	37	436
7	4,255	1,069	25	1,555	37	487
a	4,255	986	23	1,524	36	537
9	4,255	904	21	1,492	35	588
10	4,255	a22	19	1,461	34	639
11	4,255	740	17	1,421	33	682
12	4,255	658	15	1,382	32	724
13	4,255	575	14	1,342	32	767
14	4,255	493	12	1,303	31	809
15	4,255	411	10	1,263	30	a52
16	4,255	329	a	1,223	29	a95
17	4,255	247	6	1,184	28	937
18	4,255	164	4	1,144	27	980
19	4,255	82	2	1,105	26	1,022
20	4,255	0	0	1,065	25	1,065
Total Years I-20		15,619		28,457		
[redacted] Annual Acres		[redacted]		1,423		642

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: Cameron -Creole Maintenance (CS-4a)

The WVA analysis for project CS-4a includes 4 areas: Area 1, which is an intermediate area; Area 2, which is an intermediate area predicted to convert to brackish after Target Year (TY) 10 under Future-Without-Project (FWOP) conditions; Area 3, which is a brackish area; and Area 4, which is a saline area.

Area 1 is assessed using the Fresh/intermediate WVA model. Area 2 is assessed using the Fresh/Intermediate WVA model for FWP condition and TY's 0, 1, and 10 under FWOP condition; and using the Brackish WVA model for TY 20 under FWOP condition. Area 3 is assessed using the Brackish WVA model. Area 4 is assessed using the Saline WVA model. Total WVA benefits (AAHU's) for this project are obtained by adding the benefits calculated for each area, as summarized below:

Area	AAHU's
1	565.81
2	-37.56
3	-43.62
4	-30.38

TOTAL BENEFITS = 454 AAHU'S

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project..... Cameron-Creole Maintenance (CS-4a)
Area 1
Condition: Future Without Project

Marsh type acres:
Fresh .....
Intermediate.. 15228

Variable		TY 0 Value	TY 0 SI	TY1 Value	TY1 SI	TY10 Value	TY10 SI
V I	% Emergent	64	0.68	64	0.68	67	0.70
V2	% Aquatic	75	0.78	76	0.78	85	0.87
v 3	Interspersion	%		%		%	
	Class 1	15	0.39	15	0.39	18	0.40
	Class 2	10		10		7	
	Class 3	15		15		15	
	Class 4	60		60		60	
	Class 5						
v 4	%OW <= 1.5ft	70	0.89	71	0.90	80	1.00
v 5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	2		2		2	
V6	Access Value	0.50	0.65	0.50	0.65	0.50	0.65
		/I HSI =	0.71	HSI =	0.71	HSI =	0.751

Project ..... Cameron-Creole Maintenance (CS-4a)
FWOP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	63	0.67				
V2	% Aquatic	30	0.37				
V 3	Interspersion	%		%		%	
	Class 1	15	0.39				
	Class 2	10					
	Class 3	15					
	Class 4	60					
	Class 5						
v 4	%OW <= 1.5ft	65	0.83				
V5	Salinity (ppt)						
	fresh		0.80				
	intermediate	5					
V6	Access Value	1.00	1.00				
		HSI =	0.62	HSI		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project . . . . . Cameron-Creole Maintenance (CS-4a) Marsh type acres:
Area 1 Fresh . . . . . .
Condition: Future With Project Intermediate.. 15228

Variable		TYO Value	TYO SI	TY1 Value	TY1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	64	0.68	64	0.68	67	0.70
V2	% Aquatic	75	0.78	76	0.78	85	0.87
V3	Interspersion	%		%		%	
	Class 1	15	0.39	15	0.39	18	0.40
	Class 2	10		10		7	
	Class 3	15		15		15	
	Class 4	60		60		60	
	Class 5						
V4	%OW <= 1.5ft	70	0.89	71	0.90	80	1.00
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate,	2		2		2	
V6	Access Value	0.50	0.65	0.50	0.65	0.50	0.65
		HSI =	0.71	HSI =	0.71)	**HSI =**	**0.75**

Project . . . . . Cameron-Creole Maintenance (CS-4a)
FWP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1 %	Emergent	70	0.73				
v2 %	Aquatic	85	0.87				
v3	Interspersion	%		%		%	
	Class 1	18	0.41				
	Class 2	7					
	Class 3	20					
	Class 4	55					
	Class 5						
v 4	%OW <= 1.5ft	85	1.00				
v5	Salinity (ppt)						
	fresh		1.00				
	intermediate	2					
V6	Access Value	0.50	0.65				
		HSI =	**0.76**	**HSI =**		**HSI =**	

AAHU CALCULATION

Project: Cameron -Creole Maintenance (CS – 4a)
Area 1

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	15228	0.71	10825.36	
1	15228	0.71	10862.42	10843.89
10	15228	0.75	11415.61	100251.16
20	15228	0.62	9375.62	103956.14
			AAHU's =	10752.561

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	15228	0.71	10825.36	
1	15228	0.71	10862.42	10843.89
10	15228	0.75	11415.61	100251.16
20	15228	0.76	11638.87	115272.40
			AAHU's	11318.371

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	11318.37
B. Future Without Project AAHU's =	10752.56
Net Change (FWP – FWOP) =	565.81

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Cameron-Creole Maintenance (CS-4a) Marsh type acres:
Area 2 (to convert to brackish after TY10, FWOP) Fresh . . . . .
Condition: Future Without Project Intermediate.. 8900

Variable		TYO Value	TYO SI	TY1 Value	TY1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	64	0.68	64	0.68	66	0.69
V2	% Aquatic	50	0.55	50	0.55	55	0.60
V3	interspersion	%		%		%	
	Class 1	50	0.73	25	0.73	52	0.74
	Class 2	25		15		23	
	Class 3	15				15	
	Class 4	10		10		10	
	Class 5						
V4	%OW <= 1.5ft	65	0.83	65	0.83	70	0.89
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	4		4		4	
V6	Access Value	0.50	0.65	0.50	0.65	0.50	0.65
		HSI =	0.69	HSI =	0.69	HSI =	0.71

Project ..... Cameron-Creole Maintenance (CS- 4a)
WOP

Variable		TY 20 (see Brackish model)		Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
	Class 5						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
	fresh						
	intermediate						
V6	Access Value						
		HSI =		HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project..... Cameron-Creole Maintenance (CS-4a) Area 2 (to convert to brackish after TY10, FWOP)

Marsh type acres 8900

Condition: Future Without Project

Variable		TY 2c) Value	SI	Value	SI	Value	SI
V1	% Emergent	62	0.66				
v2	% Aquatic	40	0.58				
v3	Interspersion	%		%		%	
	Class 1	50	0.73				
	Class 2	25					
	Class 3	15					
	Class 4	10					
	Class 5						
v4	%OW <= 1.5ft	60	0.87				
v5	Salinity (ppt)	8	1.00				
V6	Access Value	1.00	1.00				
		HSI =	0.74	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Cameron-Creole Maintenance (CS-4a) Marsh type acres:
Area 2 (to convert to brackish after TY10, FWOP) Fresh.. .....
Condition: Future With Project Intermediate.. 8900

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	64	0.68	64	0.68	66	0.69
V2	% Aquatic	50	0.55	50	0.55,	55	0.60
V3	Interspersion	%		%		%	
	Class 1	50	0.73	50	0.73	52	0.74
	Class 2	25		25		23	
	Class 3	15		15		15	
	Class 4	10		10		10	
	Class 5						
V4	%OW <= 1.5ft	65	0.83	65	0.83	70	0.89
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	4		4		4	
V6	Access Value	0.50	0.65	0.50	0.65	0.50	0.65
		HSI =	0.69	HSI =	0.69	HSI =	0.71

Project ..... Cameron-Creole Maintenance (CS-4a)
FWP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	67	0.70				
v2	% Aquatic	55	0.60				
v3	Interspersion	%		%		%	
	Class 1	52	0.74				
	Class 2	23					
	Class 3	16					
	Class 4	9					
	Class 5						
v4	%OW <= 1.5ft	75	0.94				
v5	Salinity (ppt)						
	fresh		1.00				
	intermediate	4					
V6	Access Value	0.50	0.65				
		HSI =	0.72	HSI =		HSI	

AAHU CALCULATION

Project: Cameron-Creole Maintenance (CS-4a)
Area 2 (to convert to brackish after TY10, FWOP)

Future Without Project			Total	Cummulative	
TY	Acres	x HSI	HU's	HU's	
0	8900	0.69	6109.40		
1	8900	0.69	6109.40	6109.40	
10	8900	0.71	6317.72	55922.01	
20	8900	0.74	6544.23	64309.75	*
			AAHU's =	6317.061	

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	8900	0.69	6109.40	
~~1~~	~~8900~~	~~0.69~~	~~6109.40~~	~~6109.40~~
10	8900	0.71	6317.72	55922.01
20	8900	0.72	6394.00	63558.56
			AAHU's	6279.501

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	6279.5011
B. Future Without Project AAHU's =	6317.061
Net Change (FWP – FWOP) =	– 37.561

* HSI calculated using Brackish model

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project . . . . . Cameron-Creole Maintenance (CS-4a) Marsh type acres 26700
Area 3
Condition: Future Without Project

Variable		TYO Value	TYO SI	TY 1l Value	TY 1l SI	TY 10 Value	TY 10 SI
V1	% Emergent	64	0.68	64	0.68	64	0.68
V2	% Aquatic	5	0.34	5	0.34	8	0.36
V3	Interspersion	%		%		%	
	Class 1	5	0.40	5	0.40	5	0.40
	Class 2	30		30		30	
	Class 3	20		20		20	
	Class 4	45		45		45	
	Class 5						
V4	%OW <= 1.5ft	50	0.74	50	0.74	50	0.74
V5	Salinity (ppt)	6	1.00	6	1.00	6	1.00
V6	Access Value	0.50	0.55	0.50	0.55	0.50	0.55
		HSI =	0.60	HSI =	0.60	HSI =	0.60

Project . . . . . Cameron-Creole Maintenance (CS-4a)
FWOP

Variable		TY 2c) Value	TY 2c) SI	Value		Value	SI
V1	% Emergent	60	0.64				
v2	% Aquatic	2	0.31				
v3	Interspersion	%		%		%	
	Class 1	5	0.39				
	Class 2	25					
	Class 3	23					
	Class 4	47					
	Class 5						
v4	%OW <= 1.5ft	40	0.61				
v5	Salinity (ppt)	11	0.85				
V6	Access Value	1.00	1.00				
		HSI =	0.61 ll	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project ..... Cameron-Creole Maintenance (CS-4a) Marsh type acres 26700
Area 3
Future With Project

Variable		TY 0		TY 1		TY10	
Variable		Value	SI	Value	SI	Value	SI
V1 %	Emergent	64	0.68	64	0.68	64	0.68
v2 %	Aquatic	5	0.34	5	0.34	8	0.36
V3	Interspersion	%		%		%	
	Class 1	5	0.40		0.40	5	0.40
	Class 2	30		305		30	
	Class 3	20		20		20	
	Class 4	45		45		45	
	Class 5						
V 4	%OW <= 1.5ft	50	0.74	50	0.74	50	0.74
V5	Salinity (ppt)	6	1.00	6	1.00	6	1.00
V6	Access Value	0.50	0.55	0.50	0.55	0.50	0.55
		HSI =	0.60	HSI =	0.60	HSI =	0.60

Project ..... Cameron -Creole Maintenance (CS -4a)

WP

Variable		N 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	64	0.68				
V2	% Aquatic	8	0.36				
V3	Interspersion	%		%		46	
	Class 1	5	0.40				
	Class 2	30					
	Class 3	20					
	Class 4	45					
	Class 5						
v4	%OW <= 1.5ft	50	0.74				
v5	Salinity (ppt)	6	1.00				
V6	Access Value	0.50	0.55				
		HSI =	0.60	HSI =		HSI =	

AAHU CALCULATION

Project: Cameron-Creole Maintenance (CS-4a)
Area 3

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	26700	0.60	15944.59	
1	26700	0.60	15944.59	15944.59
10	26700	0.60	16087.80	144145.77
20	26700	0.61	16262.30	161750.50
			AAHU's =	16092.04

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	26700	0.60	15944.59	
1	26700	0.60	15944.59	15944.59
10	26700	0.60	16087.80	144145.77
20	26700	0.60	16087.80	160878.05
			AAHU's	16048.421

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	16048.42
B. Future Without Project AAHU's =	16092.04
Net Change (FWP – FWOP) =	-43.62

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project. . . .... Cameron -Creole Maintenance (CS -4a) Area 4 — Marsh type acres 3248

Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY Value	TY SI	TY 10 Value	TY 10 SI
V1	% Emergent	64	0.68	64	0.68	64	0.68
v2	% Aquatic	50	0.65	50	0.65	60	0.72
V3	Interspersion	%		%		%	
	Class 1		0.38		0.38		0.38
	Class 2	30		30		30	
	Class 3	30		30		30	
	Class 4	40		40		40	
	Class 5						
V4	%OW <= 1.5ft	50	0.74	50	0.74	50	0.74
V5	Salinity (ppt)	9	0.60	9	0.60	9	0.60
V6	Access Value	0.50	0.55	0.50	0.55	0.50	0.55
		HSI =	0.62	HSI =	0.6211	HSI =	0.63

Project . . . . . Cameron-Creole Maintenance (CS-4a)

WOP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	60	0.64				
V2	% Aquatic	5	0.34				
V3	Interspersion	%		%		%	
	Class 1		0.36				
	Class 2	25					
	Class 3	30					
	Class 4	45					
	Class 5						
V4	%OW <= 1.5ft	40	0.61				
V5	Salinity (ppt)	13	1.00				
V6	Access Value	1.00	1.00				
		HSI =	0.67	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project ..... Cameron-Creole Maintenance (CS-4a) Area 4 — Marsh type acres 3248

Condition: Future With Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY10 Value	TY10 SI
V1	% Emergent	64	0.68	64	0.68	64	0.68
V2	% Aquatic	50	0.65	50	0.65	60	0.72
V3	Interspersion	%		%		%	
	Class 1		0.38		0.38		0.38
	Class 2	30		30		30	
	Class3	30		30		30	
	Class 4	40		40		40	
	Class 5						
V4	%OW <= 1.5ft	50	0.74	50	0.74	50	0.74
V5	Salinity (ppt)	9	0.60	9	0.60	9	0.60
V6	Access Value	0.50	0.55	0.50	0.55	0.50	0.55
		HSI =	0.62	HSI =	0.62	HSI =	0.63

Project ..... Cameron -Creole Maintenance (CS -4a)
WP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	64	0.68				
V2	% Aquatic	60	0.72				
V3	Interspersion	%		%		%	
	Class 1		0.38				
	Class 2	30					
	Class 3	30					
	Class 4	40					
	Class 5						
V4	%OW <= 1.5ft	50	0.74				
V5	Salinity (ppt)	9	0.60				
V6	Access Value	0.50	0.55				
		HSI =	0.6311	HSI =		HSI =	

AAHU CALCULATION

Project: Cameron-Creole Maintenance (CS -4a)
Area **4**

Future Without Proiect			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	3248	0.62	2027.19	
1	3248	0.62	2027.19	2027.19
10	3248	0.63	2044.84	18324.12
20	3248	0.67	2166.36	21056.00,
			2070.37	=

Future Wiih Proiect			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	3248	0.62	2027.19	
1	3248	0.62	2027.19	2027.19
10	3248	0.63	2044.84	18324.12
20	3248	0.63	2044.84	20448.39
			AAHU' s	2039.98

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future Wiih Project AAHU's =	2039.98
B. Future Without Project AAHU's	2070.37
Net Change (FWP – FWOP) =	-30.38

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Cameron-Creole Maintenance (CS-4a)
Area 1
Wetland Type: Intermediate

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	15,228	9,773	64	9,773	64	--
1	15,228	9,814	64	9,814	64	0
2	15,228	9,855	65	9,855	65	0
3	15,228	9,896	65	9,896	65	0
4	15,228	9,937	65	9,937	65	0
5	15,228	9,978	66	9,978	66	0
6	15,228	10,018	66	10,018	66	0
7	15,228	10,059	66	10,059	66	0
8	15,228	10,100	66	10,100	66	0
9	15,228	10,141	67	10,141	67	0
10	15,228	10,182	67	10,182	67	0
11	15,228	10,121	66	10,223	67	102
12	15,228	10,060	66	10,264	67	204
13	15,228	9,999	66	10,305	68	306
14	15,228	9,938	65	10,346	68	408
15	15,228	9,877	65	10,387	68	510
16	15,228	9,815	64	10,427	68	612
17	15,228	9,754	64	10,468	69	714
18	15,228	9,693	64	10,509	69	816
19	15,228	9,632	63	10,550	69	918
20	15,228	9,571	63	10,591	70	1,020
Total Years l-20		198,440		204,050		
Average Annual Acres		9,922		10,202		281

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Cameron-Creole Maintenance (CS-4a)
Area 2
Wetland Type: Intermediate

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	8,900	5,685	64	5,685	64	--
1	8,900	5,701	64	5,701	64	0
2	8,900	5,717	64	5,717	64	0
3	8,900	5,733	64	5,733	64	0
4	8,900	5,749	65	5,749	65	0
5	8,900	5,765	65	5,765	65	0
6	8,900	5,782	65	5,782	65	0
7	8,900	5,798	65	5,798	65	0
8	8,900	5,814	65	5,814	65	0
9	8,900	5,830	66	5,830	66	0
10	8,900	5,846	66	5,846	66	0
11	8,900	5,811	65	5,862	66	51
12	8,900	5,776	65	5,878	66	102
13	8,900	5,741	65	5,894	66	153
14	8,900	5,706	64	5,910	66	204
15	8,900	5,671	64	5,927	67	256
16	8,900	5,636	63	5,943	67	307
17	8,900	5,601	63	5,959	67	358
18	8,900	5,566	63	5,975	67	409
19	8,900	5,531	62	5,991	67	460
20	8,900	5,496	62	6,007	67	511
Total Years I-20		114,270		117,081		
Average Annual Acres		5,714		5,854		141

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: *Cameron-Creole Maintenance (CS-4a) Area3*

Wetland Type: *Brackish*

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	26,700	17,056	64	17,056	64	--
1	26,700	17,056	64	17,056	64	0
2	26,700	17,056	64	17,056	64	0
3	26,700	17,056	64	17,056	64	0
4	26,700	17,056	64	17,056	64	0
5	26,700	17,056	64	17,056	64	0
6	26,700	17,056	64	17,056	64	0
7	26,700	17,056	64	17,056	64	0
8	26,700	17,056	64	17,056	64	0
9	26,700	17,056	64	17,056	64	0
10	26,700	17,056	64	17,056	64	0
11	26,700	16,961	64	17,056	64	96
12	26,700	16,865	63	17,056	64	191
13	26,700	16,770	63	17,056	64	287
14	26,700	16,674	62	17,056	64	382
15	26,700	16,579	62	17,056	64	478
16	26,700	16,483	62	17,056	64	573
17	26,700	16,388	61	17,056	64	669
18	26,700	16,292	61	17,056	64	764
19	26,700	16,197	61	17,056	64	860
20	26,700	16,101	60	17,056	64	955
Total Years 1-20		335,868		341,120		
Average Annual Acres		16,793		17,056		263

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Cameron-Creole Maintenance (CS-4a)
Area 4
Wetland Type: Saline

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	3,248	2,079	64	2,079	64	--
1	3,248	2,079	64	2,079	64	0
2	3,248	2,079	64	2,079	64	0
3	3,248	2,079	64	2,079	64	0
4	3,248	2,079	64	2,079	64	0
5	3,248	2,079	64	2,079	64	0
6	3,248	2,079	64	2,079	64	0
7	3,248	2,079	64	2,079	64	0
8	3,248	2,079	64	2,079	64	0
9	3,248	2,079	64	2,079	64	0
10	3,248	2,079	64	2,079	64	0
11	3,248	2,067	64	2,079	64	12
12	3,248	2,056	63	2,079	64	23
13	3,248	2,044	63	2,079	64	35
14	3,248	2,033	63	2,079	64	46
15	3,248	2,021	62	2,079	64	58
16	3,248	2,009	62	2,079	64	70
17	3,248	1,998	62	2,079	64	81
18	3,248	1,986	61	2,079	64	93
19	3,248	1,975	61	2,079	64	104
20	3,248	1,963	60	2,079	64	116
Total Years I-20		40,942		41,580		
Average Annual Acres		2,047		2,079		32

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Pass-A-Loutre Crevasses (PMR-9b)

Marsh type acres:

Fresh 1869

Condition: Future Without Project

Intermediate..

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	5	0.15	5	0.15	1	0.11
v2	% Aquatic	75	0.78	75	0.78	65	0.69
v3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100	0.20	% 100	0.20
v4	%OW <= 1.5ft	75	0.94	75	0.94	70	0.89
v5	Salinity (ppt) fresh intermediate	0	1.00	0	1.00	0	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.001	1.00
		HSI =	0.3711	HSI =	0.371	HSI =	0.33

Project ..... Pass-A-Loutre Crevasses (PMR-9b)
FWOP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	0	0.10				
v2	% Aquatic	65	0.69				
v3	Interspersion Class 1 Class 2 Class 3 Class4 Class 5	% 100	0.10	%		%	
v4	%OW <= 1.5ft	65	0.83				
v5	Salinity (ppt) fresh intermediate	0	1.00				
V6	Access Value	1.00	1.00				
		HSI =	0.31	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project. . . . . Pass-A-Loutre Crevasses (PMR-9b)

Marsh type acres:

Fresh... 1869

Condition: Future With Project

Intermediate..

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	5	0.15	12	0.21	36	0.42'
V2	% Aquatic	75	0.78	7 5	0.78	75	0.78
V3	Interspersion	%		%		%	
	Class 1		0.20		0.25		0.34
	Class 2			12		36	
	Class 3						
	Class 4	100		88		64	
	Class 5						
V4	%OW <= 1.5ft	75	0.94	77	0.97	81	1.00
V5	Salinity (ppt)						
	fresh	0	1.00	0	1.00	0	1.00
	intermediate						
V6	Access Value	1 .oo	1.00	1.001	1 .oo	1.00	1.00
		HSI =	0.3711	HSI =	0.43	HSI =	0.60

Project. . . . . Pass-A- Loutre Crevasses (PMR–9b)

WP

Variable		TY 2(Value	TY 2(SI	Value	SI	Value	SI
V1	% Emergent	56	0.60				
V2	% Aquatic	75	0.78				
V3	Interspersion	%		%		%	
	Class 1		0.42				
	Class 2	56					
	Class 3						
	Class 4	44					
	Class 5						
V4	%OW <= 1.5ft	85	1.00				
V5	Salinity (ppt)						
	fresh	0	1 .00				
	intermediate						
V6	Access Value	1 .00	1 .00				
		HSI =	0.71	HSI =		HSI =	

AAHU CALCULATION

Project: Pass-A- Loutre Crevasses (PMR-9b)

(Future Without Project TY	Acres	x HSI	Total HU's	Cummulative HU's
0	1869	0.37	693.89	
1	1869	0.37	693.89	693.89
10	1869	0.33	609.71	5866.21
20	1869	0.31	570.91	5903.09
			AAHU's =	623.16

Future With TY	Future With Project Acres	x HSI 0.37	Total HU's 693.89	Cummulative HU's
0	1869			
1	1869	0.43	806.50	750.20
10	1869	0.60	1112.19	8634.11
20	1869	0.71	1322.86	12175.29
			AAHU'S	1077.981

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU' s =	1077.98
B. Future Without Project AAHU' s	623.16
Net Change (FWP – FWOP) =	454.82

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Pass-A- Loutre Crevasse (PMR-9b)

Wetland Type: Fresh

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	1,869	101	5	101	5	--
1	1,869	93	5	234	13	141
2	1,869	5	5	284	15	199
3	1,869	77	4	334	18	257
4	1,869	69	4	383	21	314
5	1,869	61	3	433	23	372
6	1,869	53	3	483	26	430
7	1,869	45	2	533	29	488
a	1,869	37	2	582	31	545
9	1,869	29	2	632	34	603
10	1,869	21	1	682	36	661
11	1,869	19	1	718	38	699
12	1,869	17	1	754	40	737
13	1,869	15	1	790	42	776
14	1,869	13	1	826	44	814
15	1,869	10	1	862	46	a52
16	1,869	8	0	a99	48	890
17	1,869	6	0	935	50	928
18	1,869	4	0	971	52	967
19	1,869	2	0	1,007	54	1,005
20	1,869	0	0	1,043	56	1,043
Total Years 1-20		665		13,386		
Average Annual Acres		33		669		636

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: East Timbalier Island Restoration (XTE-67)

The WA analysis for project XTE-67 includes 2 areas: Area 1, consisting of mainland wetlands predicted to be benefitted by the project, and Area 2, consisting of island wetlands to be benefitted by the project, Both areas were assessed using the Saline WA model. Total WVA benefits (AAHU's) for this project are obtained by adding the benefits calculated for each area, as summarized below:

Area	AAHU's
1	**223.60**
2	95.21

TOTAL BENEFITS = 319 AAHU'S

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project . . . . . East Timbalier Island Restoration (XTE-67) Marsh type acres 44752
Area 1 – Mainland Marsh
Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 6 Value	TY 6 SI
V1	% Emergent	60	0.64	60	0.64	58	0.62
V2	% Aquatic	5	0.34	5	0.34	3	0.32
v3	Interspersion	%		%		%	
	Class 1		0.38		0.38		0.38
	Class 2	20		20		20	
	Class 3	50		50		50	
	Class 4	30		30		30	
	Class 5						
v4	%OW <= 1.5ft	40	0.61	40	0.61	35	0.55
v5	Salinity (ppt)	16	1.00	16	1.00	16	1.00
V6	Access Value,	1.00	1.001	1.001	1.00	1.00	1.00
		=	0.67	HSI =	0.671	HSI =	0.65

HSI

Project..... East Timbalier Island Restoration (XTE-67)
WOP

Variable		TY 12 Value	TY 12 SI	TY 20 Value	TY 20 SI	Value	SI
V1	% Emergent	55	0.60	49	0.54		
v2	% Aquatic	3	0.32	2	0.31		
v3	Interspersion	%		%		%	
	Class 1		0.36		0.34		
	Class 2	15		10			
	Class 3	50		50			
	Class 4	35		40			
	Class 5						
v4	%OW <= 1.5ft	35	0.55	30	0.49		
v5	Salinity (ppt)	16	1.00	16	1.00		
V6	Access Value	1.00	1.00	1.00	1.00		
		HSI =	0.6411	HSI =	0.60	HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project ..... East Timbalier Island Restoration (XTE-67) Marsh type acres 44752
Area 1–Mainland Marsh
Condition: Future With Project

Variable		TY 0		TY 1		TY 6	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	60	0.64	60	0.64	58	0.62
V2	% Aquatic	5	0.34,	5	0.34	5	0.34
V3	Interspersion	%		%		%	
	Class 1		0.38		0.38		0.38
	Class 2	20		20		20	
	Class 3	50		50		50	
	Class 4	30		30		30	
	Class 5						
V4	%OW <= 1.5ft	40	0.61	40	0.61	37	0.58
V5	Salinity (ppt)	16	1.00	16	1.00	16	1 .oo
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.67	HSI =	0.67	HSI =	0.66

Project. ..... East Timbalier Island Restoration (XTE-67)
WP

Variable		TY 12		TY 20			
		Value	SI	Value	SI	Value	SI
V1	% Emergent	56	0.60	53	0.58		
V2	% Aquatic	5	0.34	3	0.32		
V3	Interspersion	%		%		%	
	Class 1		0.36		0.36		
	Class 2	15		14			
	Class 3	50		50			
	Class 4	35		36			
	Class 5						
V4	%OW <= 1.5ft	37	0.58	35	0.55		
V5	Salinity (ppt)	16	1.00	16	1.00		
V6	Access Value	1.00	1.00	1.00	1.00		
		HSI =	0.65	HSI =	0.63	HSI =	

Corrected 13-Sep-93

AAHU CALCULATION

Project: East Timbalier Island Restoration (XTE-67)
Area 1 – Mainland Marsh

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	44752	0.67	29915.12	
~~1~~	~~44752~~	~~0.67~~	~~29915.12~~	~~29915.12~~
6	44752	0.65	29177.77	147732.22
12	44752	0.64	28475.25	172959.07
20	44752	0.60	26842.26	221270.04
			AAHU's =	28593.82

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	44752	0.67	29915.12	
~~1~~	~~44752~~	~~0.67~~	~~29915.12~~	~~29915.12~~
6	44752	0.66	29366.72	148204.59
12	44752	0.65	28875.49	174726.62
20	44752	0.63	28032.04	227630.09
			AAHU's	29023.821

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	29023.82
B. Future Without Project AAHU's =	28593.82
Net Change (FWP – FWOP) =	430.00 *

* NOTE: The 430 net AAHU benefit above applys to the entire East Timbalier Island. The project XTE-87 comprises 52 percent of the linear shoreline length of East Timbalier Island. Thus, benefits attributable to the entire island can be pro-rated to the project based on that percentage, resulting in net benefits attributable to the project of (430 * 0.52) = 223.6 AAHU's.

Net Project Benefits = 223.6 AAHU's

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project. . . . ... East Timbalier Island Restoration (XTE-67) Marsh type acres 350
Area 2– Island Marsh
Condition: Future Without Project

Variable		TY 0		TY 1		TY 6	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	32	0.39	0	0.10
v2	% Aquatic	0	0.30	0	0.30	0	0.30
v3	Interspersion	%		%		%	
	Class 1		0.35		0.35		0.10
	Class 2						
	Class 3	75		75			
	Class 4	25		25			
	Class 5					100	
V4	%OW <= 1.5ft	75	1.001	70	1.00	50	0.74
v5	Salinity (ppt)	22	0.93	22	0.93	22	0.93
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.57	HSI =	0.541	HSI =	0.29

Project. . . . . East Timbalier Island Restoration (XTE-67)
WOP

Variable		TY 20					
		Value	SI	Value	SI	Value	
V1	% Emergent	0	0.10				
V2	% Aquatic	0	0.30				
V3	Interspersion	%		%		%	
	Class 1		0.10				
	Class 2						
	Class 3						
	Class 4						
	Class 5	100					
V4	%OW <= 1.5ft	10	0.23				
V5	Salinity (ppt)	22	0.93				
V6	Access Value	1.00	1.00				
		HSI =	0.25	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project. . . .... East Timbalier Island Restoration (XTE-67) Marsh type acres 350
Area 2– Island Marsh
Condition: Future With Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 6 Value	TY 6 SI
V1	% Emergent	38	0.44	70	0.73	55	0.60
V2	% Aquatic	0	0.30	0	0.30	0	0.30
v3	Interspersion	%		%		%	
	Class 1		0.35	70	0.82	55	0.76
	Class 2					15	
	Class 3	75		30		30	
	Class 4	25					
	Class 5						
v4	%OW <= 1.5ft	75	1.00	50	0.74	70	1.00
V5	Salinity (ppt)	22	0.93	22	0.93	22	0.93
V6	Access Value	1.00	1.001	1.001	1.001	1.001	1.00
		HSI =	0.5711	HSI =	0.74	HSI =	0.69

Project . . . . . East Timbalier Island Restoration (XTE-67)
WP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	11	0.20				
V2	% Aquatic	0	0.30				
V3	Interspersion	%		%		%	
	Class 1		0.25				
	Class 2						
	Class 3	25					
	Class 4	75					
	Class 5						
v4	%OW <= 1.5ft	60	0.87				
V5	Salinity (ppt)	22	0.93				
V6	Access Value	1.00	1.00				
		HSI =	0.40	HSI =		HSI =	

AAHU CALCULATION

Project: East Timbalier Island Restoration (XTE-67)
Area 2– Island Marsh

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	350	0.57	201.23	
1	350	0.54	189.88	195.56
6	350	0.29	100.94	727.06
20	350	0.25	87.61	1319.86
			AAHU's =	112.121

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	350	0.57	201.23	
1	350	0.74	260.44	230.84
6	350	0.69	241.58	1255.04
20	350	0.40	138.54	2660.84
			AAHU's	207.34

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future Wiih Project AAHU's =	207.34
B. Future Without Project AAHU's	112.12
Net Change (FWP – FWOP) =	95.21

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: East Timbalier Island Restoration (XTE-67)
Area 1 – Mainland Marsh
Wetland Type: Saline

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	44,752	26,851	60	26,851	60	--
1	44,752	26,687	60	26,687	60	0
2	44,752	26,523	59	26,523	59	0
3	44,752	26,359	59	26,359	59	0
4	44,752	26,196	59	26,196	59	0
5	44,752	26,032	58	26,032	58	0
6	44,752	25,868	58	25,868	58	0
7	44,752	25,653	57	25,710	57	58
8	44,752	25,437	57	25,552	57	115
9	44,752	25,222	56	25,395	57	173
10	44,752	25,007	56	25,237	56	230
11	44,752	24,791	55	25,079	56	288
12	44,752	24,576	55	24,921	56	345
13	44,752	24,233	54	24,769	55	536
14	44,752	23,889	53	24,617	55	728
15	44,752	23,546	53	24,465	55	919
16	44,752	23,203	52	24,313	54	1,111
17	44,752	22,859	51	24,161	54	1,302
18	44,752	22,516	50	24,009	54	1,493
19	44,752	22,172	50	23,857	53	1,685
20	44,752	21,829	49	23,705	53	1,876
Totat Years 1 -20		492,598		503,455		
Average Annual Acres		24,630		25,173		543 *

* The 543 net acres of mainland marsh applys to the entire East Timbalier Island. Because the XTE-67 project comprises only 52% of the linear shoreline length of East Timbalier Island, and mainland benefiis are assumed to be positively correlated with shoreline length, benefits attributable to the project are quantified as 52% of 543 acres, or 282 acres.

Net Project Average Annual Acres = 282

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: East Tim balier Island Restoration (XTE-67)
Area 2– Island Marsh
Wetland Type: Saline

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	**350**	**134**	**38**	**134**	**38**	**--**
1	350	**112**	**32**	**246**	**70**	134
2	350	**90**	**26**	**235**	**67**	**145**
3	350	**67**	**19**	**224**	**64**	**157**
4	350	**45**	**13**	**213**	**61**	**168**
5	350	**22**	**6**	**202**	58	180
6	350	**0**	**0**	**191**	**55**	**191**
7	350	**0**	**0**	180	**51**	180
a	350	**0**	**0**	**169**	48	**169**
9	350	**0**	**0**	158	**45**	158
10	350	**0**	**0**	**147**	**42**	**147**
11	350	**0**	**0**	**136**	**39**	**136**
12	350	**0**	**0**	**125**	**36**	**125**
13	350	**0**	**0**	**114**	**33**	**114**
14	350	**0**	**0**	**103**	**29**	**103**
15	350	**0**	**0**	**92**	**26**	**92**
16	350	**0**	**0**	81	**23**	81
17	350	**0**	**0**	**70**	**20**	**70**
18	350	**0**	**0**	**59**	**17**	**59**
19	350	**0**	**0**	48	**14**	48
20	350	**0**	**0**	**37**	**11**	**37**
Total Years I-20		**336**		**2,830**		
Average Annual Acres		17		**142**		**125**

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: Replace Hog Island, West Cove, and Headquarters Water Control Structures (XCS-47,48i,48j,48p)

The WVA analysis for project XCS-47,48i,48j,48p includes 4 areas: Area 1, which is a relatively healthy brackish area; Area 2, which is a deteriorating brackish area; and Areas 3 and 4, which are separate intermediate areas to the north and south, respectively, of Areas 1 and 2. **Areas** 1 and 2 were assessed using the Brackish WVA model, and Areas 3 and 4 were assessed using the Fresh/Intermediate WVA model. Total WVA benefits (AAHU's) for this project are obtained by adding the benefits calculated for each area, as summarized below:

Area	AAHU's
1	108.00
2	60.47
3	151.07
4	171.11

TOTAL BENEFITS = 491 AAHU'S

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.. ..... Replace Hog Island, West Cove, and Headquarters Water Control Structures (XCS-47,48i,48j,48p)
Area 1

Marsh type acres 19060

Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	55	0.60	55	0.60	59	0.63
v2	% Aquatic	3	0.32	3	0.32	3	0.32
v3	Interspersion	%		%		%	
	Class 1	30	0.50	30	0.50	30	0.51
	Class 2					5	
	Class 3	30		30		25	
	Class 4	40		40		40	
	Class 5						
v4	%OW <= 1.5ft	10	0.23	10	0.23	10	0.23
V5	Salinity (ppt)	5.9	0.97	5.9	0.97	5.9	0.97
V6	Access Value	0.50	0.55	0.50	0.55	0.50	0.55
		HSI =	0.53	HSI =	0.53	HSI =	0.54

Condition: Future With Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	55	0.60	55	0.60	60	0.64
v2	% Aquatic	3	0.32	3	0.32	5	0.34
V3	Interspersion	%		%		%	
	Class 1	30	0.50	30	0.50	30	0.51
	Class 2					5	
	Class 3	30		30		25	
	Class 4	40		40		40	
	Class 5						
V4	%OW <= 1.5ft	10	0.23	10	0.23,	15	0.29
v5	Salinity (ppt)	5.9	0.97	5.6	(see note) 0.97	5.6	(see note) 0.97
V6	Access Value	0.50	0.55	0.50	0.55	0.50	0.55
		HSI =	0.53	HSI =	0.53	HSI =	0.56

NOTE: Suitability Index was forced to same value as TY 0 to conform to special convention implemented by the WVA Group that ensures that a project is not penalized (i.e., SI's lowered) when the project lowers salinities relative to the companion TY under Future-Without -Project scenario.

AAHU CALCULATION

Project: Replace Hog Island, West Cove, and
Headquarters Water Control Structures (XCS-47,48i,48j,48p)
Area 1

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	19060	0.53	10079.52	
1	19060	0.53	10079.52	10079.52
20	19060	0.54	10368.97	194260.67
			AAHU's =	10217.01

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	19060	0.53	10079.52	
1	19060	0.53	10079.52	10079.52
20	19060	0.56	10596.34	196420.71
			AAHU's	10325.01

NET CHANGE IN AAHU'S DUE TO PHOJECT	
A. Future With Project AAHU's =	10325.01
B. Future Without Project AAHU's	10217.01
Net Change (FWP - FWOP) =	108.00

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project ..... Replace Hog Island, West Cove, and Headquarters Water Control Structures (XCS-47,48i,48j,48p)
Area 2

Marsh type acres 6175

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	85	0.87	83	0.85	59	0.63
V2	% Aquatic	40	0.58	40	0.58	40	0.58
v3	Interspersion	%		%		%	
	Class 1		0.54		0.54		0.49
	Class 2	70		70		45	
	Class 3	30		30		55	
	Class 4						
	Class 5						
v4	%OW <= 1.5ft	20	0.36	28	0.46	70	1.00
v5	Salinity (ppt)	3.5	0.42	3.5	0.42	4.2	0.58
V6	Access Value	0.50	0.55	0.50	0.55	0.50	0.55
		HSI =	0.66	HSI =	0.67	HSI =	0.62

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	85	0.87	a4	0.86	67	0.70'
v2	% Aquatic	40	0.58	40	0.58	50	0.65
v3	Interspersion	%		%		%	
	Class 1		0.54		0.54		0.51
	Class 2	70		70		55	
	Class 3	30		30		45	
	Class 4						
	Class 5						
v4	%OW c= 1.5ft	20	0.36	25	0.42	68	0.97
v5	Salinity (ppt)	3.5	0.42	3.2	0.35	3.2	0.35
V6	Access Value	0.50	0.55	0.50	0.55	0.50	0.55
		HSI =	0.66	HSI =	0.66	HSI =	0.65

AAHU CALCULATION

Project: Replace Hog Island, West Cove, and Headquarters Water Control Structures (XCS-47,48i,48j,48p) Area 2

(Future Without Project TY	Acres	x HSI	Total HU's	Cummulative HU's
0	6175	0.66	4103.60	
1	6175	0.67	4106.74	4105.17
20	6175	0.62	3845.33	75544.60
			AAHU's =	3982.491

Future With Project TY	Acres	x HSI	Total HU's	Cummulative HU's
0	6175	0.66	4103.60	
1	6175	0.66	4079.12	4091.36
20	6175	0.65	4001.71	76767.90
[redacted]			[redacted]	
			AAHU's	4042.96

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	4042.96
B. Future Without Project AAHU's =	3982.49.
Net Chanae (FWP - FWOP) =	60.47

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Replace Hog Island, West Cove, and Headquarters Water Control Structures (XCS-47,48i,48j,48p)
Area 3

Marsh type acres:
Fresh .....
Intermediate.. 10057

Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	83	0.85	83	0.85	83	0.85
v2	% Aquatic	70	0.73	70	0.73	70	0.73
v3	Interspersion	%		%		%	
	Class 1		0.52		0.52		0.52
	Class 2	60		60		60	
	Class 3	40		40		40	
	Class4						
	Class 5						
v4	%OW <= 1.5ft	20	0.33	20	0.33	20	0.33
v5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	3.2		3.2		4	
V6	Access Value	0.50	0.65	0.50	0.65	0.50	0.65
		HSI =	0.75	HSI =	0.75	HSI =	0.75

Condition: Future With Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	83	0.85	83	0.85	85	0.87
v2	% Aquatic	70	0.73	70	0.73	80	0.82
v3	Interspersion	%		%		%	
	Class 1		0.52		0.52		0.52
	Class 2	60		60		62	
	Class 3	40		40		38	
	Class 4						
	Class 5						
v4	20W <= 1.5ft		0.33	20	0.33	25	0.38
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	3.2		3.2		3	
V6	Access Value	0.50	0.65	0.50	0.65	0.50	0.65
		HSI =	0.75	HSI =	0.75	HSI =	0.78

AAHU CALCULATION

Project: Replace Hog Island, West Cove, and
Headquarters Water Control Structures (XCS-47,48i,48j,48p)
Area 3

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	10057	0.75	7575.90	
1	10057	0.75	7575.90	7575.90
20	10057	0.75	7575.90	143942.16
			AAHU's =	7575.90

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	10057	0.75	7575.90	
1	10057	0.75	7575.90	7575.90
20	10057	0.78	7893.95	146963.62
			AAHU's	7726.96

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	7726.98
B. Future Without Project AAHU's	7575.90
Net Change (FWP - FWOP) =	151.07

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Replace Hog Island, West Cove, and Headquarters Water Control Structures (XCS-47,48i,48j,48p)
Area 4

Marsh type acres:
Fresh.....
Intermediate.. 6965

Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	95	0.96	95	0.96	89	0.90
v2	% Aquatic	90	0.91	90	0.91	90	0.91
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 90 10	0.96	% 90 10	0.96	% 85 15	0.94
v4	%OW <= 1.5ft	10	0.21	12	0.24	57	0.74
V5	Salinity (ppt) fresh intermediate!	7.2	0.36	7.2	0.36	8	0.20
V6	Access Value	0.50	0.65	0.50	0.65	0.50	0.65
		HSI =	**0.82**	HSI =	**0.82**	HSI =	**0.82**

Condition: Future With Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	**95**	**0.96**	**95**	0.96	91	**0.92**
v2	% Aquatic	**90**	**0.91**	**90**	0.91	95	**0.96**
v3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% **90** **10**	**0.96**	% **90** 10	0.96	% **86** **14**	**0.94**
V4	%OW <= 1.5ft	10	0.21	12	0.24	54	0 . 71
V5	Salinity (ppt) fresh intermediate.	7.2	0.36	7	0.40	6.8	0.44
V6	Access Value	0.50	0.65	0.50	0.65	0.50	**0.65**
		HSI =	**0.82**	HSI =	0.8211	HSI =	**0.85**

AAHU CALCULATION

Project: Replace Hog Island, West Cove, and Headquarters Water Control Structures (XCS-47,48i,48j,48p) Area 4

Future Without Project TY	Acres	x HSI	Total HU's	Cummulative HU's
0	6955	0.82	5687.63	
1	10057	0.82	8241.13	6963.521
20,	10057	0.82	8225.86	156436.46
			AAHU's =	8170.00

Future With Project TY	Acres	x HSI	Total HU's	Cummulative HU's
0	6955	0.82	5687.63	
1	10057	0.82	8270.93	6976.89
20	10057	0.85	8554.90	159845.39
			AAHU's	8341.11

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	8341.11
B. Future Without Project AAHU's	8170.00
Net Change (FWP - FWOP) =	171.11

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: *Replace Hog* Island, WestCove,and Headquarters Water Control Structures (XCS-47,48i,48j,48p)
Area1
Wetland Type: *Brackish*

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	19,060	10,536	55	10,536	55	--
1	19,060	10,578	55	10,578	55	0
2	19,060	10,609	56	10,620	56	11
3	19,060	10,641	56	10,662	56	21
4	19,060	10,672	56	10,704	56	32
5	19,060	10,704	56	10,746	56	42
6	19,060	10,735	56	10,788	57	53
7	19,060	10,767	56	10,830	57	63
8	19,060	10,798	57	10,872	57	74
9	19,060	10,830	57	10,914	57	84
10	19,060	10,861	57	10,956	57	95
11	19,060	10,893	57	10,998	58	105
12	19,060	10,924	57	11,040	58	116
13	19,060	10,956	57	11,082	58	126
14	19,060	10,987	58	11,124	58	137
15	19,060	11,019	58	11,166	59	147
16	19,060	11,050	58	11,208	59	158
17	19,060	11,082	58	11,250	59	168
18	19,060	11,113	58	11,292	59	179
19	19,060	11,145	58	11,334	59	189
20	19,060	11,176	59	11,376	60	200
Total Years 1-20		217,540		219,540		
Average Annual Acres		10,877		10,977		100

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Replace Hog Island, West Cove, and Headquarters Water Control Structures (XCS-47,48i,48j,48p)
Area 2
Wetland Type: Brackish

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	6,175	5,224	85	5,224	85	--
1	6,175	5,146	83	5,169	84	23
2	6,175	5,068	82	5,114	83	46
3	6,175	4,990	81	5,059	82	69
4	6,175	4,912	80	5,004	81	92
5	6,175	4,834	78	4,950	80	116
6	6,175	4,756	77	4,895	79	139
7	6,175	4,678	76	4,840	78	162
8	6,175	4,600	74	4,785	77	185
9	6,175	4,522	73	4,730	77	208
10	6,175	4,444	72	4,675	76	231
11	6,175	4,366	71	4,621	75	255
12	6,175	4,288	69	4,566	74	278
13	6,175	4,210	68	4,511	73	301
14	6,175	4,132	67	4,456	72	324
15	6,175	4,054	66	4,401	71	347
16	6,175	3,976	64	4,346	70	370
17	6,175	3,898	63	4,292	69	394
18	6,175	3,820	62	4,237	69	417
19	6,175	3,742	61	4,182	68	440
20	6,175	3,664	59	4,127	67	463
Total Years I-20		88,100		92,960		
Average Annual Acres		4,405		4,648		243

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Replace Hog Island, West Cove, and Headquarters Water Control Structures (XCS-47,48i,48j,48p)
Area 3

Wetland Type: Intermediate

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	10,057	8,366	83	8,366	83	--
1	10,057	8,366	83	8,374	83	8
2	10,057	8,366	83	8,382	83	16
3	10,057	8,366	83	8,391	83	25
4	10,057	8,366	83	8,399	84	33
5	10,057	8,366	83	8,407	84	41
6	10,057	8,366	83	8,416	84	50
7	10,057	8,366	83	8,424	84	58
8	10,057	8,366	83	8,433	84	67
9	10,057	8,366	83	8,441	84	75
10	10,057	8,366	83	8,449	84	83
11	10,057	8,366	83	8,458	84	92
12	10,057	8,366	83	8,466	84	100
13	10,057	8,366	83	8,474	84	108
14	10,057	8,366	83	8,483	84	117
15	10,057	8,366	83	8,491	84	125
16	10,057	8,366	83	8,500	85	134
17	10,057	8,366	83	8,508	85	142
18	10,057	8,366	83	8,516	85	150
19	10,057	8,366	83	8,525	85	159
20	10,057	8,366	83	8,533	85	167
Total Years I-20		167,320		169,070		
Average Annual Acres		8,366		8,453		87

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Replace Hog Island, West Cove, and Headquarters Water Control Structures (XCS-47,48i,48j,48p)
Area 4
Wetland Type: Intermediate

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	6,955	6,593	95	6,593	95	--
1	6,955	6,573	95	6,579	95	6
2	6,955	6,553	94	6,565	94	12
3	6,955	6,533	94	6,551	94	18
4	6,955	6,513	94	6,537	94	24
5	6,955	6,493	93	6,524	94	31
6	6,955	6,473	93	6,510	94	37
7	6,955	6,453	93	6,496	93	43
8	6,955	6,433	92	6,482	93	49
9	6,955	6,413	92	6,468	93	55
10	6,955	6,393	92	6,454	93	61
11	6,955	6,373	92	6,441	93	68
12	6,955	6,353	91	6,427	92	74
13	6,955	6,333	91	6,413	92	80
14	6,955	6,313	91	6,399	92	86
15	6,955	6,293	90	6,385	92	92
16	6,955	6,273	90	6,371	92	98
17	6,955	6,253	90	6,358	91	105
18	6,955	6,233	90	6,344	91	111
19	6,955	6,213	89	6,330	91	117
20	6,955	6,193	89	6,316	91	123
Total Years 1-20		127,660		128,950		
Average Annual Acres		6,383		6,448		65

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project . . . . . White's Ditch Outfall Management (BS-4a) Marsh type acres 5249

Condition: Future Without Project

Variable		TY 0		TY 1		N 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	78	0.80	78	0.80	76.7	0.79
v2	% Aquatic	40,	0.58	40	0.58	40	0.58
v3	Interspersion	%		%		%	
	Class1		0.48		0.48		0.48
	Class2	50		50		50	
	Class3	40		40		40	
	Class4	10		10		10	
	Class5						
v4	%OW <= 1.5ft	65	0.94	65	0.94	63	0.91
V5	Salinity (ppt)	9	1.00	9	1.00	9	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.791	HSI =	0.79	HSI =	0.78

Condition: Future With Project

Variable		TY 0		TY 1		N 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	78	0.801	78.1	0.80	77.4	0.80
v2	% Aquatic	40	0.58	41	0.59	55	0.69
v3	Interspersion	%		%		%	
	Class1		0.48		0.48		0.46
	Class2	50		50		50	
	Class3	40		40		40	
	Class4	10		10		10	
	Class5						
v4	%OW <= 1.5ft	65	0.94	65	0.94	65	0.94
V5	Salinity (ppt)	9	1.00	8	1.00	8	1.00
V6	Access Value	1.001	1.00	1.001	1.001	1.001	1.00
		HSI =	0.79	HSI =	0.7911	HSI =	0.81

AAHU CALCULATION

Project: White's Ditch Outfall Management (BS-4a)

(Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	5249	0.79	4146.51	
1	5249	0.79	4146.51	4146.51
20	5249	0.78	4108.35	78421.22
			AAHU's =	4128.39

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	5249	0.79	4146.51	
1	5249	0.79	4156.38	4151.44
20	5249	0.81	4241.62	79781 .OO
			AAHU's	4196.62

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	4196.62
B. Future Without Project AAHU's	4128.39.
Net Change (FWP – FWOP) =	68.24

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: White's Ditch Outfall Management (BS-4a)

Wetland Type: Brackish

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	5,249	4,100	78	4,100	78	--
1	5,249	4,096	78	4,098	78	2
2	5,249	4,092	78	4,096	78	4
3	5,249	4,089	78	4,094	78	6
4	5,249	4,085	78	4,092	78	8
5	5,249	4,081	78	4,090	78	9
6	5,249	4,077	78	4,089	78	11
7	5,249	4,074	78	4,087	78	13
8	5,249	4,070	78	4,085	78	15
9	5,249	4,066	77	4,083	78	17
10	5,249	4,062	77	4,081	78	19
11	5,249	4,059	77	4,079	78	20
12	5,249	4,055	77	4,077	78	22
13	5,249	4,051	77	4,075	78	24
14	5,249	4,047	77	4,073	78	26
15	5,249	4,044	77	4,071	78	28
16	5,249	4,040	77	4,070	78	30
17	5,249	4,036	77	4,068	77	31
18	5,249	4,032	77	4,066	77	33
19	5,249	4,029	77	4,064	77	35
20	5,249	4,025	77	4,062	77	37
Total Years I-20		81,210		81,600		
Average Annual Acres		4,060		4,080		20

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: Lake Chapeau Marsh Creation and Hydrologic Restoration (PTE – 23/26a/33)

The WA analysis for project PTE–23/26a/33 includes 2 areas: Area 1, which is an intermediate marsh assessed using the Fresh/Intermediate WVA model; and Area 2, a brackish marsh assessed with the Brackish WVA model. Total WVA benefits (AAHU's) for this project are obtained by adding the benefits calculated for each area, as summarized below:

Area	AAHU's
1	295.48
2	172.22

TOTAL BENEFITS = 468 AAHU'S

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Lake Chapeau Marsh Creation and Hydro. Rest. Marsh type acres:
(PTE – 23/26a/33) Area 1 Fresh.....
Condition: Future Without Project Intermediate.. 5175

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	67	0.70	67	0.70	64	0.68
V2	% Aquatic	50	0.55	50	0.55	40	0.46
V3	Interspersion	%		%		%	
	Class 1		0.34		0.34		0.31
	Class 2	10		10			
	Class 3	50		50		55	
	Class 4	40		40		45	
	Class 5						
v4	%OW <= 1.5ft	30	0.44	30	0.44,	25	0.38
v5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	4		4		3	
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.661	HSI =	0.66	HSI =	0.62

Condition: Future With Project Intermediate.. 5175

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	67	0.70	72	0.75	71	0.74
V2	% Aquatic	50	0.55	50	0.55	60	0.64
v3	Interspersion	%		%		%	
	Class 1		0.34	5	0.37		0.35
	Class 2	10		10		15	
	Class 3	50		45		45	
	Class 4	40		40		40	
	Class 5						
v4	%OW <= 1.5ft	30	0.44	35	0.49	40	0.55
v5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	4		4		3	
V6	Access Value	1.00	1.00	1.001	1.00	1.001	1.00
		HSI =	0.66	HSI =	0.69	HSI =	0.71

AAHU CALCULATION

Project: Lake Chapeau Marsh Creation and Hydro. Rest.
(PTE – 23/26a/33) Area 1

Future Without Proiect			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	5175	0.66	3440.60	
1	5175	0.66	3440.60	3440.60
20	5175	0.62	3219.40	63270.02
			AAHU's =	3335.531

Future With Proiect			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	5175	0.66	3440.60	
1	5175	0.69	3585.13	3512.87
20	5175	0.71	3689.32	69107.27
			AAHU's	3631 .01

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	3631 .01
B. Future Without Project AAHU's =	3335.53
Net Change (FWP – FWOP) =	295.48

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project ..... Lake Chapeau Marsh Creation and Hydro. Rest. (PTE – 23/26a/33) Area 2 Marsh type acres..... 7849

Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	78	0.80	78	0.80	75	0.78
v2	% Aquatic	50	0.65	50	0.65	40	0.58
v3	Interspersion	%		%		%	
	Class 1	40	0.68	40	0.68	40	0.67
	Class 2	20		20		15	
	Class 3	40		40		45	
	Class 4						
	Class 5						
v4	%OW <= 1.5ft	40	0.61	40	0.61	33	0.52
v5	Salinity (ppt)	8	1.00	8	1.00	7	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.80	HSI =	0.80	HSI =	0.76

Condition: Future With Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	78	0.80	78	0.80	77	0.79
v2	% Aquatic	50	0.65	50	0.65	60	0.72
v3	Interspersion	%		%		%	
	Class 1	40	0.68	40	0.68	40	0.68
	Class 2	20		20		20	
	Class 3	40		40		40	
	Class 4						
	Class 5						
v4	%OW <= 1.5ft	40	0.61	40	0.61	50	0.74
V5	Salinity (ppt)	8	1.00	8	1.00	6	1.00
V6	Access Value	1.001	1.001	0.975	0.98	0.975	0.98
		HSI =	0.80	HSI =	0.79	HSI =	0.81

AAHU CALCULATION

Proiect: Lake Chapeau Marsh Creation and Hydro. Rest.
(PTE – 23/26a/33) Area 2

Future Without Proiect			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	7849	0.80	6240.32	
1	7849	0.80	6240.32	6240.32
20	7849	0.76	5974.08	116036.78
			AAHU's =	6113.851

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	7849	0.80	6240.32	
1	7849	0.79	6218.04	6229.18
20	7849	0.81	6360.10	119492.29
			AAHU's	6286.07

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	6286.07
B. Future Without Project AAHU's	6113.85
Net Change (FWP – FWOP) =	172.22

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Lake Chapeau Marsh Creation and Hydro. Rest. (PTE-23/26a/33) Area 1
Wetland Type: Intermediate

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	5,175	3,481	67	3,481	67	--
1	5,175	3,473	67	3,738	72	265
2	5,175	3,465	67	3,735	72	269
3	5,175	3,458	67	3,731	72	274
4	5,175	3,450	67	3,728	72	278
5	5,175	3,443	67	3,725	72	282
6	5,175	3,435	66	3,721	72	286
7	5,175	3,428	66	3,718	72	291
8	5,175	3,420	66	3,715	72	295
9	5,175	3,412	66	3,711	72	299
10	5,175	3,405	66	3,708	72	303
11	5,175	3,397	66	3,705	72	308
12	5,175	3,390	66	3,702	72	312
13	5,175	3,382	65	3,698	71	316
14	5,175	3,374	65	3,695	71	320
15	5,175	3,367	65	3,692	71	325
16	5,175	3,359	65	3,688	71	329
17	5,175	3,352	65	3,685	71	333
18	5,175	3,344	65	3,682	71	337
19	5,175	3,337	64	3,678	71	342
20	5,175	3,329	64	3,675	71	346
Total Years 1-20		68,020		74,130		
Average Annual Acres		3,401		3,706		305

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Lake Chapeau Marsh Creation and Hydro. Rest. (PTE-23/26a/33) Area 2
Wetland Type: Brackish

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	7,849	6,156	78	6,156	78	--
1	7,849	6,142	78	6,151	78	9
2	7,849	6,128	78	6,146	78	17
3	7,849	6,115	78	6,140	78	25
4	7,849	6,101	78	6,135	78	33
5	7,849	6,088	78	6,129	78	41
6	7,849	6,074	77	6,124	78	50
7	7,849	6,061	77	6,118	78	58
8	7,849	6,047	77	6,113	78	66
9	7,849	6,034	77	6,108	78	74
10	7,849	6,020	77	6,102	78	82
11	7,849	6,007	77	6,097	78	90
12	7,849	5,993	76	6,091	78	98
13	7,849	5,980	76	6,086	78	106
14	7,849	5,966	76	6,081	77	114
15	7,849	5,953	76	6,075	77	122
16	7,849	5,939	76	6,070	77	131
17	7,849	5,926	75	6,064	77	139
18	7,849	5,912	75	6,059	77	147
19	7,849	5,899	75	6,053	77	155
20	7,849	5,885	75	6,048	77	163
Total Years I-20		120,270		121,990		
Average Annual Acres		6,014		6,100		86

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: Whiskey Island Restoration
(PTE- 15bi)

Project PTE- 15bi consists of restoration work on Whiskey Island. The WVA analysis for project PTE- 15bi includes 2 areas: Area 1, consisting of saline wetlands on Whiskey Island that are predicted to be benefitted by the project; and Area 2, consisting of saline mainland wetlands predicted to be benefitted by the work to be performed on Whiskey Island. Both areas were assessed using the Saline WVA model. Total WVA benefits (AAHU's) for this project are obtained by adding the benefits calculated for each area, as summarized below:

Area	AAHU's
1	494.92
2	53.84

TOTAL BENEFITS = 549 AAHU'S

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project . . . . . Whiskey Island (PTE- 15bi) Marsh type acres 1690
Area 1 – island benefits
Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 13 Value	TY 13 SI
V1	% Emergent	21	0.29	19	0.27	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
v3	Interspersion	%		%		%	
	Class 1		0.28		0.28		0.10
	Class 2	20		20			
	Class 3						
	Class 4	80		80			
	Class 5					100	
V4	%OW <= 1.5ft	80	1.00	78	1.00	50	0.74
V5	Salinity (ppt)	22	0.93	22	0.93	22	0.93
V6	Access Value	1.001	1.00	1.00	1.001	1.001	1.00
		HSI =	0.47	HSI =	0.46	HSI =	0.29

Project. . . . ... Whiskey Island (PTE- 15bi)
WOP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	0	0.10				
V2	% Aquatic	0	0.30				
v3	Interspersion	%		%		%	
	Class 1		0.10				
	Class 2						
	Class 3						
	Class 4						
	Class 5	100					
v4	%OW <= 1.5ft	15	0.29				
V5	Salinity (ppt)	22	0.93				
V6	Access Value	1.00	1.00				
		HSI =	0.26	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project . . . . . Whiskey Island (PTE- 15bi) Marsh type acres 1690
Area *1* – island benefits
Condition: Future With Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 13 Value	TY 13 SI
V1	% Emergent	21	0.29	52	0.57	49	0.54
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	interspersion	%		%		%	
	Class 1			25		15	
	Class 2	20	0.28	25	0.50	30	0.45
	Class 3					5	
	Class 4	80		50		50	
	Class 5						
v4	%OW <= 1.5ft	80	1.00	75	1.00)	80	1.00
v5	Salinity (ppt)	22	0.93	22	0.93	22	0.93
V6	Access Value	1.001	1.00	1.001	1.00	1.00	1.00
		HSI =	0.47	HSI =	0.66	HSI =	0.64

Project. . . . . Whiskey Island (PTE- 15bi)
:WP

Variable		TY 20 Value	TY 20 SI	Value		Value	SI
V1	% Emergent	47	0.52				
v2	% Aquatic	0	0.30				
v3	Interspersion	%		%		%	
	Class 1		0.27				
	Class 2	10					
	Class 3	15					
	Class 4	75					
	Class 5						
v4	%OW <= 1.5ft	75	1.00				
v5	Salinity (ppt)	22	0.93				
V6	Access Value	1.00	1.00				
		HSI =	0.62	HSI =		HSI =	

AAHU CALCULATION

Project: Whiskey Island (PTE- 15bi)
Area *1* – island benefits

Future Without Proiect			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	1690	0.47	799.77	
1	1690,	0.46	778.71	789.24
13	1690	0.29	487.41	7596.76
20	1690	0.26	431.07	3214.69
			AAHU's =	580.031

Future With Proiect			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	1690	0.47	799.77	
1	1690	0.66	1109.67	964.72
13	1690	0.64	1078.74	13130.44
20	1690	0.62	1039.51	7413.88
			AAHU's	1074.951

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future Wiih Project AAHU's =	1074.95
B. Future Without Project AAHU's =	580.03
Net Change (FWP – FWOP) =	494.92

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project.... .... Whiskey Island (PTE- 15bi)
Area 2– mainland benefits
Condition: Future Without Project

Marsh type acres 3236

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 13 Value	TY 13 SI
V1	% Emergent	601	0.64	60	0.64	57	0.61
v2	% Aauatic	- - - J -	-0.34	5	0.34	3	0.32
v3	interspersion	%		%		%	
	Class 1		0.36		0.36		0.34
	Class 2	20		20		15	
	Class 3	40		40		40	
	Class 4	40		40		45	
	Class 5						
v4	%OW <= 1.5ft	40	0.61	40	0.61	35	0.5[illegible]
V5	Salinity (ppt)	15	1.00	15	1.00	15	1.0[illegible]
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.671	HSI =	0.67	HSI =	0.64

Project. . . .... Whiskey Island (PTE- 15bi)
FWOP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	43	0.49				
v2	% Aquatic	2	0.31				
v3	Interspersion	%		%		%	
	Class 1		0.32				
	Class 2	10					
	Class 3	40					
	Class 4	50					
	Class 5						
v4	%OW <= 1.5ft	30	0.49				
v5	Salinity (ppt)	15	1.00				
V6	Access Value	1.00	1.00				
		HSI =	0.5711	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project. . . .... Whiskey Island (PTE- 15bi) Marsh type acres 3236
Area 2– mainland benefits
Condition: Future With Project

Variable		TY 0 Value	TY 0 SI	N 1 Value	N 1 SI	TY 13 Value	TY 13 [redacted]
V1	% Emergent	60	0.64	60	0.64	58	0.62
V2	% Aquatic	5	0.34	5	0.34	5	0.34
v3	interspersion	%		%		%	
	Class 1		0.36		0.36		0.34
	Class 2	20		20		15	
	Class 3	40		40		40	
	Class 4	40		40		45	
	Class 5						
V4	%OW <= 1.5ft	40	0.61	40	0.61	37	0.58
V5	Salinity (ppt)	15	1.00	15	1.00	15	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.67	HSI =	0.67	HSI =	0.65

Project. . . .... Whiskey Island (PTE- 15bi)

WP

Variable		N 20 Value	N 20 SI	[redacted] Value	[redacted] SI	Value	SI
V1	% Emergent	56	0.60				
v2	% Aquatic	3	0.32				
v3	Interspersion	%		%		%	
	Class 1		0.33				
	Class 2	13					
	Class 3	40					
	Class 4	47					
	Class 5						
v4	%OW <=1.5ft	35	0.55				
v5	Salinity (ppt)	15	1.00				
V6	Access Value	1.00	1.00				
		HSI =	0.64	HSI =		HSI =	

24-Sep-93

AAHU CALCULATION

Project: Whiskey Island (PTE- 15bi)
Area 2– mainland benefits

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	3236	0.67	2158.36	
1	3236	0.67	2158.36	2158.36
13	3236	0.64	2084.99	25460.09
20	3236	0.57	1838.57	13732.46
			AAHU's =	2067.55

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	3236	0.67	2158.36	
~~1~~	~~3236~~	~~0.67~~	~~2158.36~~	~~2158.36~~
13	3236	0.65	2113.91	25633.59
20	3236	0.64	2067.74	14635.77
			AAHU's	2121.39

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future Wiih Project AAHU's =	2121.39
B. Future Without Project AAHU's =	2067.55
Net Change (FWP – FWOP) =	63.64

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: **Whiskey Island (PTE- 15bi)**
Area 1– island benefits
Wetland Type: **Saline**

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	1,690	355	21	355	21	--
1	1,690	327	19	878	52	551
2	1,690	300	18	a74	52	574
3	1,690	273	16	a70	51	598
4	1,690	245	15	a66	51	621
5	1,690	218	13	862	51	644
6	1,690	191	11	858	51	667
7	1,690	164	10	a54	51	691
a	1,690	136	a	a50	50	714
9	1,690	109	6	a46	50	737
10	1,690	a2	5	a42	50	760
11	1,690	55	3	838	50	784
12	1,690	27	2	a34	49	807
13	1,690	0	0	a30	49	a30
14	1,690	0	0	826	49	826
15	1,690	0	0	a22	49	822
16	1,690	0	0	818	48	818
17	1,690	0	0	814	48	814
18	1,690	0	0	810	48	810
19	1,690	0	0	806	48	806
20	1,690	0	0	802	47	802
Total Years I-20		2,126		16,800		
Average Annual Acres		106		a40		734

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Whiskey Island (PTE- 15bi)
Area 2– mainland benefits
Wetland Type: Saline

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	3,236	1,941	60	1,941	60	--
1	3,236	1,933	60	1,935	60	2
2	3,236	1,925	59	1,929	60	5
3	3,236	1,916	59	1,924	59	7
4	3,236	1,908	59	1,918	59	10
5	3,236	1,900	59	1,912	59	12
6	3,236	1,891	58	1,906	59	15
7	3,236	1,683	58	1,901	59	18
8	3,236	1,875	58	1,895	59	20
9	3,236	1,866	58	1,889	58	23
10	3,236	1,858	57	1,883	58	25
11	3,236	1,850	57	1,878	58	28
12	3,236	1,841	57	1,872	58	30
13	3,236	1,833	57	1,866	58	33
14	3,236	1,769	55	1,860	57	91
15	3,236	1,706	53	1,854	57	148
16	3,236	1,642	51	1,848	57	206
17	3,236	1,578	49	1,842	57	264
18	3,236	1,514	47	1,836	57	322
19	3,236	1,451	45	1,830	57	379
20	3,236	1,387	43	1,824	56	437
Total Years 1–20		35,526		37,601		
Average Annual Acres		1,776		1,880		*104*

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Brady Canal Hydrologic Restoration (PTE-26b) Marsh type acres:

Fresh .....

Condition: Future Without Project — Intermediate.. 7653

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emerqent	44	0.50	44	0.50	39	0.45
v2	% Aquatic	50	0.55	49	0.54,	35	0.42
v3	Interspersion	%		%		%	
	Class 1	20	0.51	20	0.51	20	0.50
	Class 2	25		25		25	
	Class 3	25		25		20	
	Class 4	30		30		35	
	Class 5						
v4	%OW <= 1.5ft	25	0.38	25	0.38	15	0.27
V5	Salinity (ppt)						
	fresh		1.00		1.00		0.80
	intermediate	3		3		5	
V8	Access Value	0.732	0.81	0.732	0.81	0.732	0.81
		HSI =	0.56	HSI =	0.56	HSI =	0.46

Condition: Future With Project — Intermediate.. 7653

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	44	0.50	44	0.50	43	0.49
v2	% Aquatic	50	0.55	51	0.58	62	0.66
v3	Interspersion	%		%		%	
	Class 1	20	0.51	20	0.51	20	0.51
	Class 2	25		25		25	
	Class 3	25		25		25	
	Class 4	30		30		30	
	Class 5						
v4	%OW <= 1.5ft	25	0.38	25	0.38	30	0.44
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	3		3		3	
V6	Access Value	0.732	0.81	0.666	0.77	0.666	0.77
		HSI =	0.56	HSI =	0.56	HSI =	0.57

AAHU CALCULATION

Project: Brady Canal Hydrologic Restoration (PTE-26b)

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	7653	0.56	4266.79	
1	7653	0.56	4253.36	4260.07
20	7653	0.48	3687.19	75435.26
			AAHU's =	3984.77

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	7653	0.56	4266.79	
1	7653	0.56	4260.14	4263.46
20	7653	0.57	4388.92	82166.06
			AAHU's	4321.481

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	4321.48
B. Future Without Project AAHU's	3984.77.
Net Change (FWP – FWOP) =	336.71

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Brady Canal Hydrologic Restoration (PTE-26b)

Wetland Type: Intermediate

Project Year	Project Area (acres)	Emergent Marsh Without Project Acres	%	With Project Acres	%	Net Acres
0	7,653	3,367	44	3,367	44	- -
1	7,653	3,348	44	3,363	44	15
2	7,653	3,329	43	3,359	44	30
3	7,653	3,310	43	3,355	44	45
4	7,653	3,291	43	3,351	44	60
5	7,653	3,272	43	3,346	44	74
6	7,653	3,253	43	3,342	44	89
7	7,653	3,234	42	3,338	44	104
8	7,653	3,215	42	3,334	44	119
9	7,653	3,196	42	3,330	44	134
10	7,653	3,177	42	3,326	43	149
11	7,653	3,158	41	3,321	43	163
12	7,653	3,139	41	3,317	43	178
13	7,653	3,120	41	3,313	43	193
14	7,653	3,101	41	3,309	43	208
15	7,653	3,082	40	3,305	43	223
16	7,653	3,063	40	3,301	43	238
17	7,653	3,044	40	3,296	43	252
18	7,653	3,025	40	3,292	43	267
19	7,653	3,006	39	3,288	43	282
20	7,653	2,987	39	3,284	43	297
Total Years 1–20		63,350		66,470		
Average Annual Acres		3,168		3,323		156

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: Violet Freshwater Distribution (no pumps) (PO-9a)

The WVA analysis for project PO-9a includes 2 areas: Area 1, which is a brackish area predicted to convert to intermediate after Target Year (TY) 1 under Future-With-Project (FWP) conditions; and Area 2, a brackish area predicted to remain brackish. Area 1 was assessed using the Brackish WVA model for TY's 0,1 , and 20 under Future-Without- Project conditions, and for TY's 0 and 1 under FWP conditions; and using the Intermediate WVA model for TY 20 under FWP conditions. Area 2 was assessed with the Brackish WVA model. Total WVA benefits (AAHU's) for this project are obtained by adding the benefits calculated for each **area,** as summarized below:

Area	AAHU's
1	**20.80**
2	**9.03**

TOTAL BENEFITS = 38 AAHU'S

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project . . . . . Violet Freshwater Distribution (PO-9a) Marsh type acres 8990
Area 1 (to convert to intermediate after TY 1, FWP)
Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	85	0.87	85	0.87	84	0.86
v2	% Aquatic	40	0.58	40	0.58	35	0.55
v3	Interspersion	%		%		%	
	Class 1	60	0.84	60	0.84	60	0.84
	Class 2	40		40		40	
	Class 3						
	Class 4						
	Class 5						
v4	%OW c= 1.5ft	75	1.001	75	1.00	75	1.00
V5	Salinity (ppt)	8	1.00	8	1.00	8	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.85	HSI =	0.85	HSI =	0.84

Condition: Future With Project

Variable		TY C Value	TY C SI	TY Value	TY SI	TY 20 (see Intermediate model)	
V1	% Emergent	85	0.87	85	0.87		
V2	% Aquatic	40	0.58	41	0.59		
V3	Interspersion	%		%		%	
	Class 1	60	0.84	60	0.84		
	Class 2	40		40			
	Class3						
	Class4						
	Class5						
v4	%OW <= 1.5ft	75	1.00	75	1.00		
v5	Salinity (ppt)	8	1.00	6	1.00		
V6	Access Value	1.00	1.00	1.00	1.00		
		HSI =	0.85	HSI =	0.85	HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project . . . . . Violet Freshwater Distribution (PO-9a) Marsh type acres:
Area 1 (to convert to intermediate after TY 1, FWP) Fresh... . . . .
Condition: Future With Project Intermediate.. 8990

Variable		TY 0 (from brackish model)	TY 1 (from brackish model)	TY 2c) Value	SI
V1	% Emergent			85	0.87
v2	% Aquatic			60	0.64
v3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 	% 	% 60 40 	 0.84
v4	%OW c= 1.5ft			80	1 .0c
V5	Salinity (ppt) fresh intermediate			 5	1 .0c (see note
V6	Access Value			1 .00	1 .0c
		HSI =	HSI =	HSI =	0.84

NOTE: Suitability Index was forced to same value as TY 1 to conform to special convention implemented by the WVA Group that ensures that a project is not penalized (i.e., SI's lowered) when the project lowers salinities relative to the companion TY under Future-Without -Project scenario.

AAHU CALCULATION

Project: Violet Freshwater Distribution (PO-9a)
Area 1 (to convert to intermediate after TY 1, FWP)

Future Without Project TY	Acres	x HSI	Total HU's	Cummulative HU's
0	8990	0.85	7639.15	
1	8990	0.85	7639.151	7639.15
20	8990	0.84	7532.52	144130.87
			AAHU's =	7588.501

Future With Project TY	Acres	x HSI	Total HU's	Cummulative HU's	
0	8990	0.85	7639.15		
1	8990	0.85	7652.95	7646.05	
20	8990	0.84	7578.80	14470 1.67	*
			AAHU's	7617.391	

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	7617.39
B. Future Without Project AAHU's	7588.50
Net Change (FWP – FWOP) =	28.88

* HSI calculated from Fresh/Intermediate model

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project . . . . . Violet Freshwater Distribution (PO-9a) Area 2

Marsh type acres 8990

Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	75	0.78	75	0.78	74	0.77
v2	% Aquatic	40	0.58	40	0.58	35	0.55
v3	Interspersion	%		%		%	
	Class 1	10	0.48	10	0.48	10	0.48
	Class 2	10		10		10	
	Class 3	80		80		80	
	Class 4						
	Class 5						
V4	%OW <= 1.5ft	75	1.00	75	1.00	70	1.00
V5	Salinity (ppt)	8	1.00	8	1.00	8	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.78	HSI =	0.78	HSI =	0.77

Condition: Future With Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 SI	
V1	% Emergent	75	0.78	75	0.78	75	0.78'
V2	% Aquatic	40	0.58	40	0.58	50	0.65
v3	Interspersion	%		%		%	
	Class 1	10	0.48	10	0.48	10	0.48
	Class 2	10		10		10	
	Class 3	80		80		80	
	Class 4						
	Class 5						
V4	%ow <= 1.5ft	75	1.00	75	1.00	75	1.00
V5	Salinity (ppt)	8	1.00	8	1.00	7	1.00
V6	Access Value	1.00	1.00	0.90	0.91	0.90	0.91
		HSI =	0.78	HSI =	0.77	HSI =	0.78

AAHU CALCULATION

Project: Violet Freshwater Distribution (PO-9a)
Area 2

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	8990	0.78	7032.73	
1	8990	0.78	7032.73	7032.73
20	8990	0.77	6929.04	132636.81
			AAHU's =	6983.48

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	8990	0.78	7032.73	
1	8990	0.77	6932.18	6982.46
20	8990	0.78	7053.90	132867.77
			AAHU's	6992.51

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	6992.51
B. Future Without Project AAHU's =	6983.48
Net Change (FWP – FWOP) =	9.03

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average, Annual Acres of Emergent Marsh

Project: Violet Freshwater Distribution (PO-9a)
Area 1
Wetland Type: Brackish

Project Year	Project Area (acres)	Emergent Marsh Without Project Acres	%	With Project Acres	%	Net Acres
0	8,990	7,642	85	7,642	85	--
1	8,990	7,636	85	7,643	85	7
2	8,990	7,631	85	7644	85	14
3	8,990	7,625	85	7,645	85	20
4	8,990	7,620	85	7,646	85	27
5	8,990	7,614	85	7,647	85	33
6	8,990	7,609	85	7,649	85	40
7	8,990	7,603	85	7,650	85	46
a	8,990	7,598	85	7,651	85	53
9	8,990	7,592	a4	7,652	85	60
10	8,990	7,587	a4	7,653	85	66
11	8,990	7,581	a4	7,654	85	73
12	8,990	7,576	a4	7,655	85	79
13	8,990	7,570	a4	7,656	85	86
14	8,990	7,565	a4	7,657	85	93
15	8,990	7,559	a4	7,658	85	99
16	8,990	7,554	a4	7,660	85	106
17	8,990	7,548	a4	7,661	85	112
18	8,990	7,543	a4	7,662	85	119
19	8,990	7,537	a4	7,663	85	125
20	8,990	7,532	a4	7,664	85	132
Total Years I-20		151,680		153,070		
Average Annual Acres		7,584		7,653		70

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Violet Freshwater Distribution (PO-9a)
Area 2
Wetland Type: Brackish

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	8,990	6,742	75	6,742	75	--
1	8,990	6,737	75	6,743	75	6
2	8,990	6,732	75	6,744	75	12
3	8,990	6,727	75	6,745	75	17
4	8,990	6,722	75	6,746	75	23
5	8,990	6,718	75	6,747	75	29
6	8,990	6,713	75	6,747	75	35
7	8,990	6,708	75	6,748	75	40
8	8,990	6,703	75	6,749	75	46
9	8,990	6,698	75	6,750	75	52
10	8,990	6,693	74	6,751	75	58
11	8,990	6,689	74	6,752	75	63
12	8,990	6,684	74	6,753	75	69
13	8,990	6,679	74	6,754	75	75
14	8,990	6,674	74	6,755	75	81
15	8,990	6,669	74	6,756	75	86
16	8,990	6,664	74	6,756	75	92
17	8,990	6,660	74	6,757	75	98
18	8,990	6,655	74	6,758	75	104
19	8,990	6,650	74	6,759	75	109
20	8,990	6,645	74	6,760	75	115
Total Years l-20		133,820		135,030		
Average Annual Acres		6,691		6,752		61

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Lake Salvador Shoreline Protection (BA- 15)
*** DEMONSTRATION PROJECT ***
Condition: Future Without Project

Marsh type acres:
Fresh 4070
Intermediate..

Variable		TYO		TY 1		TY 5	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	72	0.75	72	0.75	71	0.74
v2	% Aquatic	30	0.37	30	0.37	29	0.36
v3	Interspersion	%		%		%	
	Class 1	50	0.70	50	0.70	50	0.70
	Class 2						
	Class 3	50		50		50	
	Class 4						
	Class 5						
v4	%OW <= 1.5ft	50	0.66	50	0.66	47	0.63
V5	Salinity (ppt)						
	fresh	0	1.00	0	1.00	0	1.00
	intermediate						
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.681	HSI =	0.68	HSI =	0.67

Project ..... Lake Salvador Shoreline Protection (BA- 15)
FWOP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	68	0.71				
v2	% Aquatic	25	0.33				
v3	Interspersion	%		%		%	
	Class 1	45	0.67				
	Class 2						
	Class 3	55					
	Class 4						
	Class 5						
V4	%OW <= 1.5ft	40	0.55				
v5	Salinity (ppt)						
	fresh	0	1.00				
	intermediate						
V6	Access Value	1.00	1.00				
		HSI =	0.63	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Lake Salvador Shoreline Protection (BA- 15)
*** DEMONSTRATION PROJECT ***
Condition: Future With Project

Marsh type acres:
Fresh.. 4070
Intermediate..

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 5 Value	TY 5 SI
V1	% Emergent	72	0.75	72	0.75	72	0.75
v2	% Aquatic	30	0.37	30	0.37	40	0.46
v3	Interspersion	%		%		%	
	Class 1	50	0.70	50	0.70	50	0.70
	Class 2						
	Class 3	50		50		50	
	Class 4						
	Class 5						
v4	%OW <= 1.5ft	50	0.66	50	0.66	53	0.70
v5	Salinity (ppt)						
	fresh	0	1.00	0	1.00	0	1.00
	intermediate						
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.681	HSI =	0.6811	HSI =	0.71

Project ..... Lake Salvador Shoreline Protection (BA- 15)
FWP

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	72	0.75				
v2	% Aquatic	45	0.51				
v3	interspersion	%		%		%	
	Class 1	50	0.70				
	Class 2						
	Class 3	50					
	Class 4						
	Class 5						
v4	%OW <= 1.5ft	60	0.78				
v5	Salinity (ppt)						
	fresh	0	1.00				
	intermediate						
V6	Access Value	1.00	1.00				
		HSI =	0.73	HSI =		HSI =	

AAHU CALCULATION

Project: Lake Salvador Shoreline Protection (BA- 15)
*** DEMONSTRATION PROJECT ***

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	4070	0.68	2752.65	
1	4070	0.68	2752.65	2752.65
5	4070	0.67	2714.08	10933.46
20	4070	0.63	2582.06	39721.041
			AAHU's =	2670.36

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	4070	0.68	2752.65	
1	4070	0.68	2752.65	2752.65
5	4070	0.71	2879.46	11264.22
20	4070	0.73	2955.22	43760.10
			AAHU's	2888.85

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	2888.85
B. Future Without Project AAHU's =	2670.36
Net Change (FWP - FWOP) =	218.49

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Lake Salvador Shoreline Protection (BA-15)
*** DEMONSTRATION PROJECT ***
Wetland Type: Fresh/Intermediate

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	4,070	2,948	72	2,948	72	--
1	4,070	2,940	72	2,947	72	7
2	4,070	2,932	72	2,946	72	14
3	4,070	2,923	72	2,945	72	22
4	4,070	2,915	72	2,943	72	29
5	4,070	2,906	71	2,942	72	36
6	4,070	2,896	71	2,941	72	45
7	4,070	2,885	71	2,940	72	55
a	4,070	2,875	71	2,939	72	64
9	4,070	2,865	70	2,938	72	73
10	4,070	2,855	70	2,937	72	a3
11	4,070	2,844	70	2,936	72	92
12	4,070	2,834	70	2,935	72	101
13	4,070	2,824	69	2,935	72	111
14	4,070	2,814	69	2,934	72	120
15	4,070	2,803	69	2,933	72	129
16	4,070	2,793	69	2,932	72	139
17	4,070	2,783	68	2,931	72	148
18	4,070	2,773	68	2,930	72	157
19	4,070	2,762	68	2,929	72	167
20	4,070	2,752	68	2,928	72	176
Total Years 1-20		56,973		58,741		
Average Annual Acres		2,849		2,937		88

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project ..... Southwest Shore White Lake Protection (PME-6) Marsh type acres:
*** DEMONSTRATION PROJECT *** Fresh 25
Condition: Future Without Project Intermediate..

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	88	0.89	84	0.86	0	0.10
V2	% Aquatic	10	0.19	10	0.19	0	0.10
v3	Interspersion	%		%		%	
	Class 1	90	0.92	90	0.92		0.10
	Class 2						
	Class 3						
	Class 4	10		10			
	Class 5					100	
V4	%OW c= 1.5ft	100	0.60	100	0.60	50	0.66
V5	Salinity (ppt) fresh intermediate	0	1.00	0	1.00	0	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.66	HSI =	0.65	HSI =	0.23

Condition: Future With Project Intermediate..

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	88	0.89	88	0.89	64	0.68
v2	% Aquatic	10	0.19	10	0.19	7	0.16
v3	Interspersion	%		%		%	
	Class 1	90	0.92	90	0.92	60	0.68
	Class 2						
	Class 3						
	Class 4	10		10		40	
	Class 5						
v4	%OW <= 1.5ft	100	0.60	100	0.60	75	0.94
v5	Salinity (ppt) fresh intermediate	0	1.00	0	1.00	0	1.00
V6	Access Value	1.001	1.00	1.00	1.00	1.00	1.00
		HSI =	0.66	HSI =	0.66	HSI =	0.58

AAHU CALCULATION

Project: Southwest Shore White Lake Protection (PME-6)
*** DEMONSTRATION PROJECT ***

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	25	0.66	16.50	
1	25	0.65	16.19	16.34
20	25	0.23	5.75	208.40
			AAHU's =	11.24

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	25	0.66	16.50	
1	25	0.66	16.50	16.50
20	25	0.58	14.39	293.41
			AAHU's	15.50

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	15.50
B. Future Without Project AAHU's =	11.24
Net Change (FWP – FWOP) =	4.26

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Southwest Shore White Lake Protection (PME-6)
*** DEMONSTRATION PROJECT ***
Wetland Type: Fresh

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	25	22	88	22	88	--
1	25	21	84	22	88	1
2	25	20	80	22	87	2
3	25	19	75	21	85	3
4	25	18	71	21	84	3
5	25	17	66	21	83	4
6	25	15	62	20	82	5
7	25	14	57	20	80	6
a	25	13	53	20	79	7
9	25	12	49	19	78	7
10	25	11	44	19	77	8
11	25	10	40	19	75	9
12	25	9	35	19	74	10
13	25	8	31	18	73	10
14	25	7	27	18	72	11
15	25	6	22	18	70	12
16	25	4	18	17	69	13
17	25	3	13	17	68	14
18	25	2	9	17	67	14
19	25	1	4	16	65	15
20	25	0	0	16	64	16
Total Years l-20		210		380		
Average Annual Acres		11		19		9

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Project Red Mud Demonstration (Modified)

The Red Mud Demonstration project will construct 3 acres of fresh marsh in a controlled environment. The objective is to demonstrate in the field that red mud can provide a substrate suitable for creation of emergent marsh in a cost-effective and environmentally unobtrusive manner. Placement of the red mud to create a fresh marsh environment will provide a qualitative comparison of plant growth on various red mud applications and an indication of potential ecological effects.

No Wetland Value Assessment was performed on the Red Mud Demonstration project because the value of the project is not in its immediate benefit to fish and wildlife populations, but in its application as a sediment source for use in future wetlands projects. In addition, the project will serve as a pilot project illustrating cooperation and partnering between governmental agencies and the corporate sector in wetland restoration projects.

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project ..... Bayou Lamoque Outfall Management (BS-5) Marsh type acres 6267

Condition: Future Without Project

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	69	0.72	69	0.72	65	0.69
v2	% Aquatic	0	0.30	0	0.30	0	0.30
v3	Interspersion	%		%		%	
	Class 2	50	0.64	50	0.64	45	0.61
	Class 3	20		20		25	
	Class 4	30		30		30	
	Class 5						
v4	%OW <= 1.5ft	15	0.29	15	0.29	10	0.23
v5	Salinity (ppt)	14	1.00	14	1.00	14	1.00
V6	Access Value	1.001	1.00	1.00	1.00	1.00	1.00
		HSI =	0.70	HSI =	0.70	HSI =	0.67

Condition: Future With Project

Variable		TYO Value	TYO SI	TY 1 Value	TY 1 SI	TY 20 Value	TY 20 SI
V1	% Emergent	69	0.72	69	0.72	68	0.71
v2	% Aquatic	0	0.30	2	0.31	10	0.37
V3	Interspersion	%		%		%	
	Class 1	50	0.64	50	0.64	50	0.64
	Class 2						
	Class 3	20		20		20	
	Class 4	30		30		30	
	Class 5						
v4	%OW <= 1.5ft	15	0.29	15	0.29	15	0.29
v5	Salinity (ppt)	14	1.00	10	(see note) 1.00	10	(see note 1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.70	HSI =	0.70	HSI =	0.71

NOTE: Suitability Index was forced to same value as TY 1 to conform to special convention implemented by the WVA Group that ensures that a project is not penalized (i.e., SI's lowered) when the project lowers Unities relative to the companion TY under Future-Without -Project scenario.

Corrected 13 -Sep-93

AAHU CALCULATION

Project: Bayou Lamoque Outfall Management (BS-5)

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	6267	0.70	4377.54	
1	6267	0.70	4377.54	4377.54
20	6267	0.67	4221.82	81693.99
			AAHU's =	4303.58

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	6267	0.70	4377.54	
1	6267	0.70	4394.47	4386.01
20	6267	0.71	4427.64	83810.09
			AAHU's	4409.80

'NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	4409.80
B. Future Without Project AAHU's =	4303.58
Net Change (FWP – FWOP) =	**106.23**

Corrected 13-Sep-93

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Bayou Lamoque Outfall Management (BS-5)

Wetland Type: Saline

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	**Acres**	**%**	**Net** Acres
0	6,267	4,328	69	4,328	69	--
1	6,267	4,316	69	4,325	69	9
2	6,267	4,304	69	4,322	69	Ia
3	6,267	4,292	68	4,318	69	27
4	6,267	4,279	68	4,315	69	35
5	6,267	4,267	68	4,311	69	44
6	6,267	4,255	68	4,308	69	53
7	6,267	4,243	68	4,304	69	62
a	6,267	4,231	68	4,301	69	71
9	6,267	4,218	67	4,298	69	79
10	6,267	4,206	67	4,294	69	88
11	6,267	4,194	67	4,291	68	9 7
12	6,267	4,182	67	4,287	68	106
13	6,267	4,169	67	4,284	68	114
14	6,267	4,157	66	4,281	68	123
15	6,267	4,145	66	4,277	68	132
16	6,267	4,133	66	4,274	68	141
17	6,267	4,121	66	4,270	68	150
Ia	6,267	4,108	66	4,267	68	158
19	6,267	4,096	65	4,263	68	167
20	6,267	4,084	65	4,260	68	176
Total Years I-20		84,000		**85,850**		
Average Annual Acres		**4,200**		**4,293**		**93**

Coastal Wetlands Planning, Protection, and Restoration Act
Priority Project List III

Average Annual Acres of Emergent Marsh

Project: Little Vermilion Bay Sediment Trapping (XTV-19)

Wetland Type: Intermediate

Project Year	Project Area (acres)	Emergent Marsh				
		Without Project		With Project		
		Acres	%	Acres	%	Net Acres
0	964	67	7	67	7	- -
1	964	64	7	99	10	35
2	964	61	6	118	12	56
3	964	59	6	137	14	78
4	964	56	6	156	16	99
5	964	54	6	174	18	120
6	964	51	5	193	20	142
7	964	49	5	212	22	163
8	964	46	5	231	24	185
9	964	44	5	250	26	206
10	964	41	4	269	28	227
11	964	39	4	287	30	249
12	964	36	4	306	32	270
13	964	34	3	325	34	291
14	964	31	3	344	36	313
15	964	29	3	363	38	334
16	964	26	3	382	40	356
17	964	24	2	400	42	377
18	964	21	2	419	43	398
19	964	19	2	438	45	420
20	964	16	2	457	47	441
Total Years l-20		800		5,560		
Average Annual Acres		40		278		238

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project . . . . . Little Vermilion Bay Sediment Trapping (XTV- 19) Marsh type acres:

Fresh . . . .

Condition: Future Without Project

Intermediate.. **964**

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	7	0.16	7	0.16	2	0.12
V2	% Aquatic	1	0.11	1	0.11	1	0.11
v3	Interspersion	%		%		%	
	Class 1		0.20		0.20		0.20
	Class 2						
	Class 3						
	Class 4	100		100		100	
	Class 5						
v4	%OW c= 1.5ft	85	1.00	85	1.00	90	1.00
v5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate,	3		3		2	
V6	Access Value	1.00	1.001	1.001	1.00	1.001	1.00
		HSI =	0.30	HSI =	0.30	HSI =	0.28

Condition: Future With Project

Intermediate.. 964

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
VI %	Emergent	7.	0.16	10	0.19	47	0.52
v2 %	Aquatic	1	0.11	5	0.15	60	0.64
v3	Interspersion	%		%		%	
Class	1		0.20		0.24		0.50
	Class 2					50	
	Class 3			20		50	
	Class 4	100		80			
	Class 5						
v 4	%OW <= 1.5ft	85	1.00	81	1.00	90	1.00
v5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	3		3		2	
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.30	HSI =	0.33	HSI =	0.64

AAHU CALCULATION

Project: Little Vermilion Bay Sediment Trapping (XTV-19)

Future Without Project TY	Acres	x HSI	Total HU's	Cummulative HU's
0	964	0.30	290.85	290.85
1	964	0.30	290.85	290.85
20	964	0.28	265.93	5289.40,
			AAHU's =	279.01

Future With Project TY	Acres	x HSI	Total HU's	Cummulative HU's
0	964	0.30	290.85	
1	964	0.33	318.60	304.73
20	964	0.64	620.87	8925.00
			AAHU's	461.491

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	461.49
B. Future Without Project AAHU's =	279.01
Net Change (FWP - FWOP) =	182.47

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Appendix C

Engineering Appendix

APPENDIX C

ENGINEERING APPENDIX

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ENGINEERING APPENDIX

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Table C-l
Mississippi River Gulf Outlet Disposal Area Marsh Protection
XPO-71

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
Area "A"					
1	Mob and Demob	1	LS	5,000.00	5,000
2	Construct and Refurbish Back Dike Along the Rear of the Existing South Disposal Area South of the La Loutre Ridge				
a	Back Dike Repair w/ Instal of 1 metal Weir w/ single 40 in Pipe. Dike Constructed 5 ft Above Existing Ground. Dimensions 30 ft L x 5 ft W x 6 ft Depth. 1V on 2H Slope	30	LF	150.00	5,000
b	Refurbish and Raise Back Dike 4 ft Above Existing Grade	350	LF	13.00	5,000
	Subtotal				15,000
Area "B"					
1	Mob and Demob	1	LS	5,000.00	5,000
2	Construct and Refurbish Back Dike Along the Rear of the Existing South Disposal Area South of the La Loutre Ridge				
a	Lateral Dike Repair. Dike to be Constructed 4 ft above exist Ground. Dimensions 200 ft L x 5 ft W x 3 ft Depth. 1V/2H	200	LF	38.00	8,000
b	Back Dike Repair. w/Instal of 1 Metal Weir. Dike 5 ft Above Existing Ground. Dimensions 30 ft L x 5 ft W x 2 ft Deep. 1V/2H	30	LF	40.00	1,000
c	Refurbish and Raise Back Dike 5 ft Above Existing Grade	600	LF	13.00	8,000
	Subtotal				22,000

Table C-l **(Continued)**
Mississippi River Gulf Outlet Disposal Area Marsh Protection
XPO-71

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
Area "C"					
1	Mob and Demob	1	LS	5,000.00	5,000
2	Construct/Rebuild Dike System Along the Rear of the Existing South Bank Disposal Area South of the La Loutre Ridge Back Dike System to be offset 40 ft from Bank of Canal and Constructed to a Height of 6 ft Above Existing Ground. Dimensions 4,400 ft L x 5 ft W 1V/2H Slope	4,200	LF	9.00	38,000
	Subtotal				43,000
1	Mob and Demob	1	LS	5,000.00	5,000
2	Refurbish/Raise Entire Back Dike System South of the La Loutre Ridge 2 ft Above Existing Grade in Areas Not Requiring Repair	23,000	LF	3.00	69,000
	Subtotal				74,000
Total Construction Cost					154,000

Table C-2
West Point-a-la-Hache Outfall Management
BA-4c

Item	Description	Quantity	Unit	Unit Cost ($)	Amount ($)
1	Mob and Demob	1	LS	30,000.00	30,000
2	Rock Weir	6,200	Tons	20.00	124,000
3	Geotextile	1,900	SY	3.00	6,000
4	Earthen Plug	1,100	CY	11.00	12,000
5	Vegetative Plantings (California Bulrush)	18,480	LF	2.00	37,000
6	48-inch Aluminum Pipe	120	LF	55.00	7,000
7	#inch Aluminum Flap Gate	4	Ea	4,000.00	16,000
Total Construction Cost					232,000

Table C-3
Channel Armor Gap Crevasse
XMR-10

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS	25,000.00	25,000
2	Excavation	125,000	CY	1.75	219,000
Total Construction Cost					244,000

Table C-4
Cote Blanche Hydrologic Restoration
TV-4

Item	Description	Quantity	Unit	Unit Cost ($)	Amount ($)
1	Mob and Demob	1	LS	30,000.00	30,000
2	Rock Weir (10)	33,300	Tons	18.00	599,000
3	Rock Plugs (2)	61,500	Tons	18.00	1,107,000
4	Rock Breakwater	31,600	Tons	18.00	569,000
5	Flap Gated Culvert (36-in x 60-ft)	2	Ea	6,000.00	12,000
Total Construction Cost					2,317,000

Table C-5
Bayou Perot/Bayou Rigolettes Marsh Restoration
XBA-65a

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS		
2	Excavation	600,000	CY	1.80	1,080,000
Total Construction Cost					1,080,000

Table C-6
Cameron-Creole Maintenance
CS-4a

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Levee Repair	550,000	CY	4.00	2,200,000
2	Rip Rap	1,400	Tons	60.00	84,000
3	Plug Repair	2	Ea	44,500.00	89,000
4	Rip Rap Wave Break	3	Ea	174,000.00	522,000
Total Construction Cost					2,895,000

Note: Construction cost are repair and maintenance cost for an existing project. See Economic Appendix for scheduled expenditures.

Table C-7
Pass-a-Loutre Crevasse
PMR-8/9a

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS	40,000.00	40,000
2	Clearing	20	Acres	2,500.00	49,000
3	Excavation	380,000	CY	1.75	665,000
Total Construction Cost					754,000

Table C-8
East Timbalier Island Restoration
xTE-67

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS	20,000.00	20,000
2	Excavation	890,000	CY	1.30	1,157,000
Total Construction Cost					1,177,000

Table C-9
Replace Hog Island Gully, West Cove, and Headquarters Canal Water Control Structures
XCS-47/48i/48j/48p

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS	50,000.00	50,000
2	Remove Existing Structure	1	LS	40,000.00	40,000
3	Pollution Contol	1	LS	5,000.00	5,000
4	Water Removal	1	LS	30,000.00	30,000
5	Excavation	1	LS	5,000.00	5,000
6	Earth Fill (Levee)	1	LS	5,000.00	5,000
7	Concrete (5000 psi)	165	CY	750.00	124,000
8	Concrete (3000 psi)	30	CY	500.00	15,000
9	Reinforcement	49,000	Lbs	0.75	37,000
10	Rip Rap	535	CY	30.00	16,000
11	Geotextile	1,215	SY	5.00	6,000
12	Metal Work	1	LS	25,000.00	25,000
13	Piling	3,000	SF	25.00	75,000
14	Shell	55	CY	30.00	2,000
15	Slide Gate	8	Ea	25,000.00	200,000
16	Piling (48, 50 ft)	2,400	Ft	15.00	36,000
17	Misc Work	1	LS	80,000.00	80,000
	Subtotal				751,000
Use $750,000 for each large structure (2 structures)					
Use $400,000 for each small structure (1 Structure)					
Use $175,000 for automation					
Total Construction Cost					2,200,000

Table C-10
White's Ditch Outfall Management
BS-4a

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS	30,000.00	30,000
2	Excavation	62,500	CY	2.00	125,000
3	Spoil Bank Gapping	1,000	LF	1.00	1,000
4	Rock Weir	2,000	Tons	20.00	40,000
5	Geotextile	1,200	SY	3.00	4,000
Total Construction Cost					200.000

Table C-11
Lake Chapeau Marsh Creation and Hydrologic Restoration
PTE-23/26a/33

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS	120,000.00	120,000
2	Excavation	500,000	CY	2.00	1,000,000
3	Limestone	20,000	Tons	20.00	400,000
4	Creosote Timber Bulkhead	750	LF	200.00	150,000
5	Geotextile	10,200	SY	1.25	13,000
6	Armor Flex (1,060 LF)	125	Sheet	584.00	73,000
7	Barges to be Sunk	6	Ea	80,000.00	480,000
Total Construction Cost					2,236,000

Table C-12
Whiskey Island Restoration
PTE-15bi

Item	Description	Quantity	Unit	unit cost ($)	Amount($)
1	Mob and Demob	1	LS	0.00	0
2	Earth Fill				
	(Coupe Nouvelle)	850,000	CY	1.00	850,000
3	Earth Fill				
	(Back Marsh)	1,650,000	CY	1.00	1,650,000
4	Stone Groin				
	Rock	7,800	Tons	30.00	234,000
	Limestone	6,800	Tons	35.00	238,000
	Geotextile	18,750	SY	6.00	113,000
Total Construction Cost					3,085,000

Table C-13
Brady Canal Hydrologic Restoration
PTE-26b

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS		0
2	Overflow Bank	25,100	LF	29.00	728,000
3	Rock Weir	1,150	LF	305.00	351,000
4	60-in Aluminum Pipe	300	LF	55.00	17,000
5	60-in Aluminum Flap Gate	6	Ea	3,800.00	23,000
6	Fill Material	2,700	CY	15.00	41,000
7	Structure Installation	6	Ea	70,000.00	420,000
8	Rock Levee	300	LF	75.00	23,000
Total Construction Cost					1,603,000

Table C-14
Violet Freshwater Distribution
PO-9a

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS	40,000.00	40,000
2	Fixed Crest Weir w/Boat Bay	550	LF	650.00	358,000
3	Rock Weir	600	Tons	20.00	12,000
4	Geotextile	700	SY	3.00	2,000
5	Earthen Plugs	7,500	CY	11.00	83,000
6	Spoil Bank Gapping	5,000	LF	1.00	5,000
Total Construction Cost					500,000

Table C-15
Lake Salvador Shoreline Protection Demonstration
BA-15

Item	Description	Quantity	Unit	Unit Cost ($)	Amount ($)
1	Mob and Demob	1	LS	0.00	0
2	Breakwater, Timber Plyon	11,100	LF	26.75	297,000
3	Breakwater, Timber Plyon	11,100	LF	19.00	211,000
4	Breach Armor	3,500	CY	24.50	86,000
5	Fill for Low Berm	9,400	CY	8.10	76,000
Total Construction Cost					670,000

Table C-16
SW **Shoreline White Lake Demonstration**
PME-6

Item	Description	Quantity	Unit	Unit Cost ($)	Amount ($)
1	Mob and Demob	1	LS	10,000.00	10,000
2	Vegetative Planting (California Bulrush)	3,200	Ea	6.00	19,000
Total Construction Cost					29.000

Table C-17
Modified Red Mud Demonstration
xTE-43

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS	5,000.00	40,000
2	Levee	1	Ea	13,000.00	13,000
3	Existing Levee & Access Prep	1	Ea	20,000.00	20,000
4	Red Mud Distibution	1	Ea	60,000.00	60,000
5	**Vegetative Plantings**	**2**	**Ac**	**5,000.00**	**8,000**
6	**Fertilization**	**2**	**Ac**	**400.00**	**1,000**
7	**Fresh Water Supply**	**1**	**Ea**	**50,000.00**	**50,000**
Total Construction Cost					**192,000**

Table C-18
Bayou Lamoque Outfall Management
BS-5

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS	20,000.00	20,000
2	Spoil Bank Gapping	32,700	LF	1.00	33,000
3	Plug Removal	5	Ea	1,500.00	8,000
4	**Brush Fence**	**6,000**	**LF**	**16.00**	**96,000**
Total Construction Cost					157,000

Table C-19
Little Vermilion Bay Sediment Trapping
PTV-19

Item	Description	Quantity	Unit	unit cost ($)	Amount ($)
1	Mob and Demob	1	LS	20,000.00	20,000
2	Excavation	340,000	C-r	2.00	680,000
3	Vegetative Planting	39,500	LF	2.00	79,000
Total Construction Cost					779,000

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Economics Appendix

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ECONOMIC ANALYSIS

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ECONOMIC ANALYSIS

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Priority Project List

MRGO Disposal Area Marsh Protection (XPO-71)

Project Construction Years:	**2**	Total Project Years	**22**
Interest Rate	**8.25%**	Amoritization Factor	**0.10375**
Total First Costs	**$324,300**	Total Fully Funded Costs	**$512,200**

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$360,600	$37,400
Monitoring	**$52,800**	$5,500
0 & M costs	**$0**	$0
Other Costs	**$0**	$0
Total	**$413,400**	**$42.900**
Average Annual Habitat Units		**435**
Cost Per Habitat Unit		**$99**
Average Annual Acres of Emergent Marsh		**661**

Costs amortized over **20 year operation life**

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

MRGO Disposal Area Marsh Protection (XPO-71)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	
3 Compound		$0	$0	$0	$0	$0	$0	xx
2 Compound	1994	$45,000	$48,000	$14,545	$0	$0	$0	$107,545
1 Compound	1995	$0	$0	$5,455	$20,000	$38,250	$153,000	$216,705
Base Year								
TOTAL		$45,000	$48,000	$20,000	$20,000	$38,250	$153,000	$324,250

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1996	$5,483	$0	$0
2 Discount	1997	$5,483	$0	$0
3 Discount	1998	$5,483	$0	$0
4 Discount	1999	$5,483	$0	$0
5 Discount	2000	$5,483	$0	$0
6 Discount	2001	$5,483	$0	$0
7 Discount	2002	$5,483	$0	$0
8 Discount	2003	$5,483	$0	$0
9 Discount	2004	$5,483	$0	$0
10 Discount	2005	$5,483	$0	$0
11 Discount	2006	$5,483	$0	$0
12 Discount	2007	$5,483	$0	$0
13 Discount	2008	$5,483	$0	$0
14 Discount	2009	$5,483	$0	$0
15 Discount	2010	$5,483	$0	$0
16 Discount	2011	$5,483	$0	$0
17 Discount	2012	$5,483	$0	$0
18 Discount	2013	$5,483	$0	$0
19 Discount	2014	$5,483	$0	$0
20 Discount	2015	$5,483	$0	$0
Total		$109,655	$0	$0

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Costs amortized over 20 year operationlife

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

MRGO Disposal Area Marsh Protection (XPO-71)

Present Valued Costs **Total Discounted Costs** **$413,449** **Amortized Costs**

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cos Constructi
5	1.486	0	$0	$0	$0	$0	$0	
4	1.373	0	$0	$0	$0	$0	$0	
3	1.268	0	$0	$0	$0	$0	$0	
2	1.172	1994	$52,731	$56,247	$17,044	$0	$0	
1	1.083	1995	$0	$0	$5,905	$21,650	$41,406	$165,
		Total	$52,731	$56,247	$22,949	$21,650	$41,406	$165,

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other Costs
-1	0.924	1996	$5,065	$0	$0
-2	0.853	1997	$4,679	$0	$0
-3	0.788	1998	$4,322	$0	$0
-4	0.728	1999	$3,993	$0	$0
-5	0.673	2000	$3,689	$0	$0
-6	0.621	2001	$3,407	$0	$0
-7	0.574	2002	$3,148	$0	$0
-8	0.530	2003	$2,908	$0	$0
-9	0.490	2004	$2,686	$0	$0
-10	0.453	2005	$2,482	$0	$0
-11	0.418	2006	$2,292	$0	$0
-12	0.386	2007	$2,118	$0	$0
-13	0.357	2008	$1,956	$0	$0
-14	0.330	2009	$1,807	$0	$0
-15	0.304	2010	$1,669	$0	$0
-16	0.281	2011	$1,542	$0	$0
-17	0.260	2012	$1,425	$0	$0
-18	0.240	2013	$1,316	$0	$0
-19	0.222	2014	$1,216	$0	$0
-20	0.205	2015	$1,123	$0	$0
		Total	$52,844	$0	$0
	Average Annual		$5,483	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

MRGO Disposal Area Marsh Protection (XPO-71)

Fully Funded Costs | **Total Fully Funded Costs** $512,196 | **Amortized Costs** $53,141

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervislon & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3		0	$0	$0	$0	$0	$0	$0	$0
2	1.031	1994	$46,395	$49,488	$14,996	$0	$0	$0	$110.879
1	1.064	1995	$0	$0	$5,804	$21,280	$40,698	$162,791	$230,572
	TOTAL		$46,395	$49,488	$20,800	$21,280	$40,698	$162,791	$341,451

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.101	1996	$6,038	$0	$0
-2	1.140	1997	$6,249	$0	$0
-3	1.180	1998	$6,468	$0	$0
-4	1.221	1999	$6,694	$0	$0
-5	1.264	2000	$6,929	$0	$0
-6	1.308	2001	$7,171	$0	$0
-7	1.354	2002	$7,422	$0	$0
-8	1.401	2003	$7,682	$0	$0
-9	1.450	2004	$7,951	$0	$0
-10	1.501	2005	$8,229	$0	$0
-11	1.553	2006	$8,517	$0	$0
-12	1.608	2007	$8,815	$0	$0
-13	1.664	2008	$9,124	$0	$0
-14	1.722	2009	$9,443	$0	$0
-15	1.783	2010	$9,773	$0	$0
-16	1.645	2011	$10,115	$0	$0
-17	1.910	2012	$10,469	$0	$0
-18	1.976	2013	$10,836	$0	$0
-19	2.046	2014	$11,215	$0	$0
-20	2.117	2015	$11,608	$0	$0
	Total		$170,747	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

West Point a La Hache (BA-4c)

Project Construction Years:	**3**	Total Project Years	**23**
Interest Rate	8.25%	Amoritization Factor	**0.10375**
Total First Costs	**$404,800**	Total Fully Funded Costs	**$881,100**

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$446,100	**$46,300**
Monitoring	$87,800	**$9,100**
0 & M Costs	$43,400	**$4,500**
Other Costs	$0	$0
Total	**$577,300**	$59,900
Average Annual Habitat Units		**429**
Cost Per Habitat Unit		$140
Average Annual Acres of Emergent Marsh		**581**

Costs amortized over **20** year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

West Point a La Hache (BA-4c)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound	1994	$0	$0	$0	$0	$0	$0	$0
2 Compound	1995	$40,000	$40,000	$9,263	$0	$0	$0	$89,263
1 Compound	1996	$0	$0	$6,737	$20,000	$57,750	$231,000	3315,487
Base Year								
	TOTAL	$40,000	$40,000	$16,000	$20,000	$57,750	$23 1,000	$404,750

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1997	$9,112	$4,500	$0
2 Discount	1998	$9,112	$4,500	$0
3 Discount	1999	$9,112	$4,500	$0
4 Discount	2000	$9,112	$4,500	$0
5 Discount	2001	$9,112	$4,500	$0
6 Discount	2002	$9,112	$4,500	$0
7 Discount	2003	$9,112	$4,500	$0
8 Discount	2004	$9,112	$4,500	$0
9 Discount	2005	$9,112	$4,500	$0
10 Discount	2006	$9,112	$4,500	$0
11 Discount	2007	$9,112	$4,500	$0
12 Discount	2008	$9,112	$4,500	$0
13 Discount	2009	$9,112	$4,500	$0
14 Discount	2010	$9,112	$4,500	$0
15 Discount	2011	$9,112	$4,500	$0
16 Discount	2012	$9,112	$4,500	$0
17 Discount	2013	$9,112	$4,500	$0
18 Discount	2014	$9,112	$4,500	$0
19 Discount	2015	$9,112	$4,500	$0
20 Discount	2016	$9.112	$4,500	$ 0
Total		$182,240	$90,000	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

West Point a La Hache (BA-4c)

Present Valued Costs **Total Discounted Costs** **$577,308** **Amortized Costs** **$59,896**

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	1994	$0	$0	$0	$0	$0	$0	$0
2	1.172	1995	$46,872	$46,872	$10,855	$0	$0	$0	$104,599
1	1.083	1996	$0	$0	$7,293	$21,650	$62,514	$250,058	$341,515
		Total	$46,872	$46,872	$18,147	$21,650	$62,514	$250,058	$446,114

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1997	$8,418	$4,157	$0
-2	0.853	1998	$7,776	$3,840	$0
-3	0.788	1999	$7,183	$3,548	$0
-4	0.728	2600	$6,636	$3,277	$0
-5	0.673	2001	$6,130	$3,027	$0
-6	0.621	2002	$5,663	$2,797	$0
-7	0.574	2003	$5,231	$2,584	$0
-8	0.530	2004	$4,833	$2,387	$0
-9	0.490	2005	$4,464	$2,205	$0
-10	0.453	2006	$4,124	$2,037	$0
-11	0.418	2007	$3,810	$1,882	$0
-12	0.386	2008	$3,519	$1,738	$0
-13	0.357	2009	$3,251	$1,606	$0
-14	0.330	2010	$3,003	$1,483	$0
-15	0.304	2011	$2,775	$1,370	$0
-16	0.281	2012	$2,563	$1,266	$0
-17	0.260	2013	$2,368	$1,169	$0
-18	0.240	2014	$2,187	$1,080	$0
-19	0.222	2015	$2,021	$998	$0
-20	0.205	2016	$1,867	$922	$0
		Total	$87,823	$43,372	$0
		Average Annual	$9,112	$4,500	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

West Point a La Hache (BA-4c)

Fully Funded Costs **Total Fully Funded Costs** $881,148 **Amortized Costs** $91,419

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	so	$0-
4		0	$0	$0	$0	$0	$0	$0	$0
3	1.031	1994	$0	$0	$0	$0	$0	$0	$0
2	1.064	1995	$42,560	$42,560	$9,856	$0	$0	$0	$94,975
1	1.101	1996	$0	$0	$7,419	$22,025	$63,596	$254,365	$347,424
		TOTAL	$42,560	$42,560	$17,275	$22,025	$63,596	$254,365	$442,399

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
- 1	1.140	1997	$10,386	$5,129	$0
- 2	1.180	1998	$10,749	$5,309	$0
- 3	1.221	1999	$11,125	$5,494	$0
- 4	1.264	2000	$11,515	$5,687	$0
- 5	1.308	2001	$11,918	$5,886	$0
- 6	1.354	2002	$12,335	$6,092	$0
- 7	1 401	2003	$12,767	$6,305	$0
- 8	1.450	2004	$13,213	$6,526	$0
- 9	1.501	2005	$13,676	$6,754	$0
-10	1.553	2006	$14,155	$6,990	$0
-11	1.608	2007	$14,650	$7,235	$0
-12	1.664	2008	$15,163	$7,488	$0
-13	1.722	2009	$15,693	$7,750	$0
-14	1 783	2010	$16,243	$8,022	$0
-15	1.845	2011	$16,811	$8,302	$0
-16	1.910	2012	$17,400	$8,593	$0
-17	1.976	2013	$18,009	$8,894	$0
-18	2.046	2014	$18,639	$9,205	$0
-19	2.117	2015	$19.291	$9,527	$0
-20	2.191	2016	$19.966	$9,860	$0
		Total	$293,702	$145,046	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Channel Armor Gap Crevasse (XMR-10)

Project **Construction Years:**	3	Total Project Years	**23**
Interest Rate	8.25%	Amoritization Factor	**0.10375**
Total First Costs	$498,000	Total Fully Funded Costs	**$808,400**

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$563,700	$58,500
Monitoring	$80,600	$8,400
0 & M costs	$0	$0
Other Costs	**$0**	$0
Total	$644,300	**$66,900**
Average Annual Habitat Units		**234**
Cost Per Habitat Unit		$286
Average Annual Acres of Emergent Marsh		**497**

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Channel Armor Gap Crevasse (XMR – 10)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound	1994	$42,353	$58,000	$5,217	$0	$0	$0	$105,570
2 Compound	1995	$47,647	$0	$7,826	$0	$0	$0	$55,473
1 Compound	1996	$0	$0	$1,957	$30,000	$61,000	$244,000	$336,957
Base Year								
TOTAL		$90,000	$58,000	$15,000	$30,000	$61,000	$244,000	$498,000

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
	1997	$8,360	$0	$0
21 Discount Discount	1998	$8,360	$0	$0
3 Discount	1999	$8,360	$0	$0
4 Discount	2ooo	$8,360	$0	$0
5 Discount	2001	$8,360	$0	$0
6 Discount	2002	$8.360	$0	$0
7 Discount	2003	$8,360	$0	$0
8 Discount	2004	$8,360	$0	$0
9 Discount	2005	$8,360	$0	$0
10 Discount	2006	$8,360	$0	$0
11 Discount	2007	$8,360	$0	$0
12 Discount	2008	$8,360	$0	$0
13 Discount	2009	$8,360	$0	$0
14 Discount	2010	$8,360	$0	$0
15 Discount	2011	$8,360	$0	$0
16 Discount	2012	$8,360	$0	$0
17 Discount	2013	$8,360	$0	$0
18 Discount	2014	$8,360	$0	$0
19 Discount	2015	$8,360	$0	$0
20 Discount	2016	$8,360	$0	$0
Total		$167.200	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Channel Armor Gap Crevasse (XMR -- 10)

Present Valued Costs Total Discounted Costs $644,248 Amortized Costs $66,841

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	1994	$53,724	$73,572	$6,618	$0	$0	$0	$133,914
2	1.172	1995	$55,833	$0	$9,171	$0	$0	$0	$65,004
1	1.083	1996	$0	$0	$2,118	$32,475	$66,033	$264,130	$364,755
		Total	$109,557	$73,572	$17,907	$32,475	$66,033	$264,130	$563,673

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1997	$7,723	$0	$0
-2	0.853	1998	$7,134	$0	$0
-3	0.788	1999	$6,591	$0	$0
-4	0.728	2000	$6,088	$0	$0
-5	0.673	2001	$5,624	$0	$0
-6	0.621	2002	$5,196	$0	$0
-7	0.574	2003	$4.800	$0	$0
-8	0.530	2004	$4,434	$0	$0
-9	0.490	2005	$4,096	$0	$0
-10	0.453	2006	$3,784	$0	$0
-11	0.418	2007	$3,495	$0	$0
-12	0.386	2008	$3,229	$0	$0
-13	0.357	2009	$2,983	$0	$0
-14	0.330	2010	$2,756	$0	$0
-15	0.304	2011	$2,546	$0	$0
-16	0.281	2012	$2,352	$0	$0
-17	0.260	2013	$2,172	$0	$0
-18	0.240	2014	$2,007	$0	$0
-19	0.222	2015	$1,854	$0	$0
-20	0.205	2016	$1,713	$0	$0
		Total	$80,575	$0	$0
		Average Annual	$8,360	$0	$0

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Channel Armor Gap Crevasse (XMR-10)

Fully Funded Costs **Total Fully Funded Costs** $808,397 **Amortized Costs** $83,871

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3	1.031	1994	$43,666	$59,798	$5,379	$0	$0	$0	$108,843
2	1.064	1995	$50,696	$0	$8,327	$0	$0	$0	$59,023
1	1.101	1996	$0	$0	$2,155	$33,037	$67,175	$268,701	$371,067
		TOTAL	$94,362	$59,798	$15,861	$33,037	$67,175	$268,701	$538,933

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.140	1997	$9,529	$0	$0
-2	1.180	1998	$9,862	$0	$0
-3	1.221	1999	$10,207	$0	$0
-4	1.264	2000	$10,564	$0	$0
-5	1.308	2001	$10,934	$0	$0
-6	1.354	2002	$11,317	$0	$0
-7	1.401	2003	$11,713	$0	$0
-8	1.450	2004	$12,123	$0	$0
-9	1.501	2005	$12,547	$0	$0
-10	1.553	2006	$12,986	$0	$0
-11	1.608	2007	$13,441	$0	$0
-12	1.664	2008	$13,911	$0	$0
-13	1.722	2009	$14,398	$0	$0
-14	1.783	2010	$14,902	$0	$0
-15	1.845	2011	$15,424	$0	$0
-16	1.910	2012	$15,964	$0	$0
-17	1.976	2013	$16,522	$0	$0
-18	2.046	2014	$17,101	$0	$0
-19	2.117	2015	$17,699	$0	$0
-20	2.191	2016	$18,319	$0	$0
		Total	$269,463	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Cote Blanche Hydrologic Restoration (TV-4)

Project Construction Years:	3	Total Project Years	23
Interest Rate	8.25%	Amoritization Factor	0.10375
Total First Costs	$3,601,300	Total Fully Funded Costs	$5,173,100

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$3,930,900	$407,800
Monitoring	$249,400	$25,900
O & M Costs	$115,700	$12,000
Other Costs	$0	$0
Total	$4,296,000	$445,700
Average Annual Habitat Units		1,200
Cost Per Habitat Unit		$371
Average Annual Acres of Emergent Marsh		1,167

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Cote Blanche Hydrologic Restoration (TV-4)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound		$0	$0	$0	$0	$0	$0	$0
2 Compound	1995	$225,000	$30,000	$108,947	$0	$0	$0	$363,947
1 Compound	1996	$0	$0	$121,053	$220,000	$579,250	$2,317,000	$3,237,303
Base Year								
TOTAL		$225,000	$30,000	$230,000	$220,000	$579,250	$2,317,000	$3,601,250

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1997	$25,875	$12,000	$0
2 Discount	1998	$25,875	$12,000	$0
3 Discount	1999	$25,875	$12,000	$0
4 Discount	2000	$25,875	$12,000	$0
5 Discount	2001	$25,875	$12.000	$0
6 Discount	2002	$25,875	$12,000	$0
7 Discount	2003	$25,875	$12,000	$0
8 Discount	2004	$25,875	$12,000	$0
9 Discount	2005	$25,875	$12,000	$0
10 Discount	2006	$25,875	$12.000	$0
11 Discount	2007	$25,875	$12,000	$0
12 Discount	2008	$25,875	$12,000	$0
13 Discount	2009	$25,875	$12,000	$0
14 Discount	2010	$25,875	$12,000	$0
15 Discount	2011	$25,875	$12,000	$0
16 Discount	2012	$25,875	$12,000	$0
17 Discount	2013	$25,875	$12,000	$0
18 Discount	2014	$25,875	$12.000	$0
19 Discount	2015	$25,875	$12,000	$0
20 Discount	2016	$25,875	$12,000	$0
Total		$517,500	$240,000	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Cole Blanche Hydrologic Restoration (TV-4)

Present Valued Costs **Total Discounted Costs** $4,295,901 **Amortized Costs** $445,700

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	0	$0	$0	$0	$0	$0	$0	$0
2	1.172	1995	$263,656	$35,154	$127,665	$0	$0	$0	$426,476
1	1.083	1996	$0	$0	$131,039	$238,150	$627,038	$2,508,153	$3,504,380
		Total	$263,656	$35,154	$258,705	$238,150	$627,038	$2,508,153	$3,930,856

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1997	$23.903	$11,085	$0
-2	0.853	1998	$22,081	$10,241	$0
-3	0.788	1999	$20,398	$9,460	$0
-4	0.728	2000	$18,844	$8.739	$0
-5	0.673	2001	$17,408	$8,073	$0
-6	0.621	2002	$16,081	$7,458	$0
-7	0.574	2003	$14,855	$6,889	$0
-8	0.530	2004	$13,723	$6,364	$0
-9	0.490	2005	$12,677	$5,879	$0
-10	0.453	2006	$11,711	$5,431	$0
-11	0.418	2007	$10,819	$5,017	$0
-12	0.386	2008	$9,994	$4,635	$0
-13	0.357	2009	$9,232	$4,282	$0
-14	0.330	2010	$8,529	$3,955	$0
-15	0.304	2011	$7,879	$3,654	$0
-16	0.281	2012	$7,278	$3,375	$0
-17	0.260	2013	$6,724	$3,118	$0
-18	0.240	2014	$6,211	$2,881	$0
-19	0.222	2015	$5,738	$2,661	$0
-20	0.205	2016	$5,301	$2,458	$0
		Total	$249,387	$115,658	$0
		Average Annual	$25,874	$11,999	$0

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Cote Blanche Hydrologic Restoration (TV-4)

Fully Funded Costs — **Total Fully Funded Costs** $5,173,062 — **Amortized Costs** $536,705

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3	1.031	0	$0	$0	$0	$0	$0	$0	$0
2	1.064	1995	$239,398	$31,920	$115,919	$0	$0	$0	$387,237
1	1.101	1996	$0	$0	$133,307	$242,271	$637,888	$2,551,554	$3,565,020
		TOTAL	$239,398	$31,920	$249,226	$242,271	$637,888	$2,551,554	$3,952,257

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M costs	Other costs
-1	1.140	1997	$29,492	$13,677	$0
-2	1.180	1998	$30,524	$14.156	$0
-3	1.221	1999	$31,592	$14,651	$0
-4	1.264	2000	$32,698	$15,164	$0
-5	1.308	2001	$33,842	$15.695	$0
-6	1.354	2002	$35,027	$16,244	$0
-7	1.401	2003	$36,253	$16,813	$0
-8	1.450	2004	$37,522	$17,401	$0
-9	1.501	2005	$38,835	$18,010	$0
-10	1.553	2006	$40,194	$18,641	$0
-11	1.608	2007	$41,601	$19,293	$0
-12	1.664	2008	$43,057	$19,968	$0
-13	1.722	2009	$44,564	$20,667	$0
-14	1.783	2010	$46,124	$21,391	$0
-15	1.845	2011	$47,738	$22,139	$0
-16	1.910	2012	$49,409	$22,914	$0
-17	1.976	2013	$51,138	$23,716	$0
-18	2.046	2014	$52,928	$24,546	$0
-19	2.117	2015	$54,780	$25,405	$0
-20	2.191	2016	$56,698	$26,295	$0
		Total	$834,015	$386,790	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Bayou Perot/Bayou Rigolettes (XBA-65a)

Project Construction Years	3	Total Project Years	23
Interest Rate	8.25%	Amoritization Factor	0.10375
Total First Costs	$1,571,000	Total Fully Funded Costs	$1,835,000

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$1,784,200	$185,100
Monitoring	$41,700	$4,300
O & M Costs	$0	$0
Other Costs	$0	$0
Total	$1,825,900	$189,400
Average Annual Habitat Units		498
Cost Per Habitat Unit		$380
Average Annual Acres of Emergent Marsh		642

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Bayou Perot/Bayou Rigolettes (XBA-65a)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound	1994	$54,000	$0	$9,053	$0	$0	$0	$63,053
2 Compound	1995	$81,000	$0	$27.158	$21,500	$135,000	$540,000	$304,658
1 Compound	1996	$0	$0	$6,789	$21,500	$135,000	$540,000	$703,289
Base Year								
TOTAL		$135,000	$0	$43,000	$43,000	$270,000	$1,080,000	$1,571,000

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1997	$4.325	$0	$0
2 Discount	1998	$4,325	$0	$0
3 Discount	1999	$4,325	$0	$0
4 Discount	2000	$4,325	$0	$0
5 Discount	2001	$4,325	$0	$0
6 Discount	2002	$4,325	$0	$0
7 Discount	2003	$4,325	$0	$0
8 Discount	2004	$4,325	$0	$0
9 Discount	2005	$4.325	$0	$0
10 Discount	2006	$4,325	$0	$0
11 Discount	2007	$4,325	$0	$0
12 Discount	2008	$4,325	$0	$0
13 Discount	2009	$4,325	$0	$0
14 Discount	2010	$4,325	$0	$0
15 Discount	2011	$4,325	$0	$0
16 Discount	2012	$4,325	$0	$0
17 Discount	2013	$4,325	$0	$0
18 Discount	2014	$4,325	$0	$0
19 Discount	2015	$4,325	$0	$0
20 Discount	2016	$4,325	$0	$0
Total		$86,500	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Bayou Perot/Bayou Rigolettes (XBA-65a)

Present Valued Costs **Total Discounted Costs** $1,825,880 **Amortized Costs** $189,435

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	1994	$66,498	$0	$11,483	$0	$0	$0	$79,981
2	1.172	1995	$94,916	$0	$31,824	$25,194	$158,194	$632,775	$942.903
1	1.083	1996	$0	$0	$7,350	$23,274	$146,138	$5841550	$7611311
		Total	$163,414	$0	$50,656	$48,468	$304,331	$1,217,325	$1,784,195

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1997	$3,995	$0	$0
-2	0.853	1998	$3.691	$0	$0
-3	0.788	1999	$3,410	$0	$0
-4	0.728	2000	$3,150	$0	$0
-5	0.673	2001	$2,910	$0	$0
-6	0.621	2002	$2,688	$0	$0
-7	0.574	2003	$2,483	$0	$0
-8	0.530	2004	$2,294	$0	$0
-9	0.490	2005	$2,119	$0	$0
-10	0.453	2006	$1,958	$0	$0
-11	0.418	2007	$1,808	$0	$0
-12	0.386	2008	$1,671	$0	$0
-13	0.357	2009	$1,543	$0	$0
-14	0.330	2010	$1,426	$0	$0
-15	0.304	2011	$1,317	$0	$0
-16	0.281	2012	$1,217	$0	$0
-17	0.260	2013	$1,124	$0	$0
-18	0.240	2014	$1,038	$0	$0
-19	0.222	2015	$959	$0	$0
-20	0.205	2016	$886	$0	$0
		Total	$41,685	$0	$0
		Average Annual	$4,325	$0	$0

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Bayou Perot/Bayou Rigolettes (XBA--65a)

Fully Funded Costs **Total Fully Funded Costs** $1,835,047 **Amortized Costs** $190,386

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0		$0	$0	$0	$0
4		0	$0	$0	38	$0	$0	$0	$0
3	1.031	1994	$55,674	$0	$9,333	$0	$0	$0	$65,007
2	1.064	1995	$86.183	$0	$28,896	$22,876	$143,639	$574,556	$856,150
1	1.101	1996	$0	$0	$7,477	$23,676	$148.666	$594,665	$774,485
		TOTAL	$141,857	$0	$45,706	$46,552	$292,305	$1,169,221	$1,695,642

Year	Inflation Factor	Fiscal Year	Monitdring costs	O&M costs	Other costs
-1	1.140	1997	$4,930	$0	$0
-2	1.180	1998	$5,102	$0	$0
-3	1.221	1999	$5.281	$0	$0
-4	1.264	2000	$5,465	$0	$0
-5	1.308	2001	$5,657	$0	$0
-6	1.354	2002	$5,855	$0	$0
-7	1.401	2003	$6,060	$0	$0
-8	1.450	2004	$6,272	$0	$0
-9	1.501	2005	$6,491	$0	$0
-10	1.553	2006	$6,718	$0	$0
-11	1.608	2007	$6,954	$0	$0
-12	1.664	2008	$7,197	$0	$0
-13	1.722	2009	$7,449	$0	$0
-14	1.783	2010	$7,710	$0	$0
-15	1.845	2011	$7,979	$0	$0
-16	1.910	2012	$8,259	$0	$0
-17	1.976	2013	$8,548	$0	$0
-18	2.046	2014	$8,847	$0	$0
-19	2.117	2015	$9,157	$0	$0
-20	2.191	2016	$9,477	$0	$0
		Total	$139,405	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Cameron–Creole Maintenance (CS–4a)

Project Construction Years:	0	Total Project Years	20
Interest Rate	8.25%	Amoritization Factor	0.10375
Total First Costs	$0	Total Fully Funded Costs	$3,719,900

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$0	$0
Monitoring	$0	$0
O & M Costs	$1,653,200	$171,500
Other Costs	$0	$0
Total	$1,653,200	$171,500
Average Annual Habitat Units		454
Cost Per Habitat Unit		$378
Average Annual Acres of Emergent Marsh		716

Costs amortized over 20 year operati

Coastal Wetlands Conservation a. Restoration Plan
Priority Project List

Cameron-Creole Maintenance (CS-4a)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound		$0	$0	$0	$0	$0	$0	$0
2 Compound		$0	$0	$0	$0	$0	$0	$0
1 Compound	1993	$0	$0	$0	$0	$0	$0	$0
Base Year								
TOTAL		$0	$0	$0	$0	$0	$0	$0

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1994	$0	$0	$0
2 Discount	1995	$0	$42,000	$0
3 Discount	1996	$0	$0	$0
4 Discount	1997	$0	$0	$0
5 Discount	1998	$0	$1,242,000	$0
6 Discount	1999	$0	$0	$0
7 Discount	2000	$0	$0	$0
8 Discount	2001	$0	$1,000,000	$0
9 Discount	2002	$0	$218,500	$0
10 Discount	2003	$0	$0	$0
11 Discount	2004	$0	$218,500	$0
12 Discount	2005	$0	$0	$0
13 Discount	2006	$0	$0	$0
14 Discount	2007	$0	$0	$0
15 Discount	2008	$0	$174,000	$0
16 Discount	2009	$0	$0	$0
17 Discount	2010	$0	$0	$0
18 Discount	2011	$0	$0	$0
19 Discount	2012	$0	$0	$0
20 Discount	2013	$0	$0	$0
Total		$0	$2,895,000	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Cameron-Creole Maintenance (CS-4a)

Present Valued Costs **Total Discounted Costs** $1,653,171 **Amortized Costs** $171,517

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements 8 Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	0	$0	$0	$0	$0	$0	$0	$0
2	1.172	0	$0	$0	$0	$0	$0	$0	$0
1	1.063	1993	$0	$0	$0	$0	$0	$0	$0
	Total		$0	$0	$0	$0	$0	$0	$0

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1994	$0	$0	$0
-2	0.853	1995	$0	$35,642	$0
-3	0.788	1996	$0	$0	$0
-4	0.728	1997	$0	$0	$0
-5	0.673	1998	$0	$635,569	$0
-6	0.621	1999	$0	$0	$0
-7	0.574	2000	$0	$0	$0
-8	0.530	2001	$0	$530,367	$0
-9	0.490	2002	$0	$107,053	$0
-10	0.453	2003	$0	$0	$0
-11	0.418	2004	$0	$91,358	$0
-12	0.386	2005	$0	$0	$0
-13	0.357	2006	$0	$0	$0
-14	0.330	1007	$0	$0	$0
-15	0.304	2006	$0	$52,982	$0
-16	0.281	2009	$0	$0	$0
-17	0.260	2010	$0	$0	$0
-18	0.240	2011	$0	$0	$0
-19	0.222	2012	$0	$0	$0
-20	0.205	2013	$0	$0	$0
	Total		$0	$1,653,171	$0
	Average Annual		$0	$171,517	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Cameron-Creole Maintenance (CS-4a)

Fully Funded Costs **Total Fully Funded Costs** $3,719,926 **Amortized Costs** $385,942

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3		0	$0	$0	$0	$0	$0	$0	$0
2		0	$0	$0	$0	$0	$0	$0	$0
1		1993	$0	$0	$0	$0	$0	$0	$0
		TOTAL	$0	$0	$0	$0	$0	$0	$0

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.031	1994	$0	$0	$0
-2	1.064	1995	$0	$44,688	$0
-3	1.101	1996	$0	$0	$0
-4	1.140	1997	$0	$0	$0
-5	1.180	1998	$0	$1,465,146	$0
-6	1.221	1999	$0	$0	$0
-7	1.264	2000	$0	$0	$0
-8	1.308	2001	$0	$1,307,918	$0
-9	1.354	2002	$0	$295,782	$0
-10	1.401	2003	$0	$0	$0
-11	1.450	2004	$0	$316,849	$0
-12	1.501	2005	$0	$0	$0
-13	1.553	2006	$0	$0	$0
-14	1.608	2007	$0	$0	$0
-15	1.664	2008	$0	$289,542	$0
-16	1.722	2009	$0	$0	$0
-17	1.783	2010	$0	$0	$0
-18	1.845	2011	$0	$0	$0
-19	1.910	2012	$0	$0	$0
-20	1.976	2013	$0	$0	$0
		Total	$0	$3,719,926	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Pass a Loutre Crevasse (PMR – 9b)

Project Construction Years:	3	Total Project Years	23
Interest Rate	8.25%	Amoritization Factor	0.10375
Total First Costs	$1,354,500	Total Fully Funded Costs	$2,857,800

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$1,520,800	$157,800
Monitoring	$83,100	$8,600
0 & M costs	$323,200	$33,500
Other Costs	$0	$0
Total	$1,927,100	$199,900
Average Annual Habitat Units		455
Cost Per Habitat Unit		$439
Average Annual Acres of Emergent Marsh		636

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Costs amortized over 20 year construction life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Pass a Loutre Crevasse (PMR – 9b)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Cornpound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	SO	$0	$0	$0	$0
3 Compound	1994	$69,176	$163,000	$13,913	$0	$0	$0	$246,090
2 Compound	1995	$77,824		$20,870	$0	$0	$0	$98,693
1 Compound Base Year	1996	$0	$0	$5,217	$62,000	$188,500	$754,000	$1,009,717
TOTAL		$147,000	$163,000	$40,000	$62,000	$188,500	$754,000	$1,354,500

Year	Fiscal Year	Monitoring costs	O&M costs	Other Costs
1 Discount	1997	$8,625	$0	$0
2 Discount	1998	$8,625	$0	$0
3 Discount	1999	$8,625	$0	$0
4 Discount	2000	$8,625	$0	$0
5 Discount	2001	$8,625	$0	$0
6 Discount	2002	$8,625	$0	$0
7 Discount	2003	$8,625	$0	$0
8 Discount	2004	$8,625	$0	$ 0
9 Discount	2005	$8,625	$0	$ 0
10 Discount	2006	$8,625	$714,000	$0
11 Discount	2007	$8,625	$0	$0
12 Discount	2008	$8,625	$0	$0
13 Discount	2009	$8,625	$0	$0
14 Discount	2010	$8,625	$0	$0
15 Discount	2011	$8,625	$0	$0
16 Discount	2012	$8,625	$0	$0
17 Discount	2013	$8,625	$0	$0
18 Discount	2014	$8,625	$0	$0
19 Discount	2015	$8,625	SO	$0
20 Discount	2016	$8,625	$0	$0
Total		$172,500	$714,000	$0

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Costs amortized over 20 year operation life

Coastal Wellands Conservation and Restoration Plan
Priority Project List

Pass a Loutre Crevasse (PMR – 9b)

Present Valued Costs **Total Discounted Costs** $1,927,118 **Amortized Costs** $199,939

Year	Compound Rates	Fiscal Year	Engineering & Design	Easement: & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	1994	$87,749	$206,762	$17,648	$0	$0	$0	$312,160
2	1.172	1995	$91,194	$0	$24,455	$0	$0	$0	$115,649
1	1.083	1996	$0	$0	$5,648	$67,115	$204,051	$816,205	$1,093,019
		Total	$178,943	$206,762	$47,751	$67,115	$204,051	$816,205	$1,520,828

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.924	1997	$7,968	$0	$0
-2	0.853	1998	$7,360	$0	$0
-3	0.788	1999	$6,799	$0	$0
-4	0.728	2000	$6,281	$0	$0
-5	0.673	2001	$5,803	$0	$0
-6	0.621	2002	$5,360	$0	$0
-7	0.574	2003	$4,952	$0	$0
-8	0.530	2004	$4,574	$0	$0
-9	0.490	2005	$4,226	$0	$0
-10	0.453	2006	$3,904	$323,161	$0
-11	0.418	2007	$3,606	$0	$0
-12	0.386	2008	$3,331	$0	$0
-13	0.357	2009	$3,077	$0	$0
-14	0.330	2010	$2,843	$0	$0
-15	0.304	2011	$2,626	$0	$0
-16	0.281	2012	$2,426	$0	$0
-17	0.260	2013	$2,241	$0	$0
-18	0.240	2014	$2,070	$0	$0
-19	0.222	2015	$1,913	$0	$0
-20	0.205	2016	$1,767	$0	$0
		Total	$63,129	$323,161	$0
		Average Annual	$8,625	$33,528	$0

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Pass a Loutre Crevasse (PMR – 9b)

Fully Funded Costs **Total Fully Funded Costs** $2,857,790 **Amortized Costs** $296,496

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3	1.031	1994	$71,321	$168,053	$14,344	$0	$0	$0	$253.718
2	1.064	1995	$82,804	$0	$22,205	$0	$0	$0	$105,009
1	1 101	1996	$0	$0	$5,746	$68,276	$207,582	$830,329	$1,111,933
		TOTAL	$154,125	$168,053	$42,295	$68,276	$207,582	$830,329	$1,470,660

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M Costs	Other Costs
-2 -1	1.140 1.180	1997	$9.831	$0	$0
		1998	$10,175	$0	$0
- 3	1.221	1999	$10,531	$0	$0
- 4	1.264	2000	$10,899	$0	$0
- 5	1.308	2001	$11,281	$0	$0
- 6	1.354	2002	$11,676	$0	$0
- 7	1.401	2003	$12,084	$0	$0
- 8	1.450	2004	$12.507	$0	$0
- 9	1.501	2005	$12,945	$0	$0
-10	1.553	2006	$13,398	$1,109,125	$0
-11	1.608	2007	$13,867	$0	$0
-12	1.664	2008	$14,352	$0	$0
-13	1.722	2009	$14,855	$0	$0
-14	1.783	2010	$15.375	$0	$0
-15	1.845	2011	$15,913	$0	$0
-16	1.910	2012	$16,470	$0	$0
-17	1.976	2013	$17,046	$0	$0
-18	2.046	2014	$17,643	$0	$0
-19	2.117	2015	$18,260	$0	$0
-20	2.191	2016	$18,899	$0	$0
		Total	$278,005	$1,109,125	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

East Timballer Island Sediment Reslorallon (XTE -67)

Project Construction Years:	3	Total Project Years	23
Interest Rate	8.25%	Amoritizalion Factor	0.10375
Total First Costs	$1,783,300	Total Fully Funded Costs	$2,047,000

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$2,067,700	$214,500
Monitoring	$41,700	$4,300
0 & M Costs	$0	$0
Other Cosls	$0	$0
Tot al	$2,109,400	$218,800
Average Annual Habitat Units		319
Cost Per Habitat Unit		$686
Average Annual Acres of Emergent Marsh		664

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

East Timbalier Island Sediment Restoration (XTE-67)

First Costs and Annual Charges

Year		Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	Compound		$0	$0	$0	$0	$0	$0	$0
4	Compound		$0	$0	$0	$0	$0	$0	$0
3	Compound	1994	$128,625	$0	$15,667	$0	$0	$0	$144,292
2	Compound	1995	$18,375	$0	$26,857	$88,500	$220,688	$882,750	$1,237,170
1	Compound	1996	$0	$0	$4,476	$29,500	$73,563	$294,250	$401,789
	Base Year								
		TOTAL	$147,000	$0	$47,000	$118,000	$294,250	$1,177,000	$1,783,250

Year		Fiscal Year	Monitoring costs	O&M costs	Other costs
1	Discount	1997	$4,325	$0	$0
2	Discount	1998	$4,325	$0	$0
3	Discount	1999	$4,325	$0	$0
4	Discount	2000	$4,325	$0	$0
5	Discount	2001	$4,325	$0	$0
6	Discount	2002	$4,325	$0	$0
7	Discount	2003	$4,325	$0	$0
8	Discount	2004	$4,325	$0	$0
9	Discount	2005	$4,325	$0	$0
10	Discount	2006	$4,325	$0	$0
11	Discount	2007	$4,325	$0	$0
12	Discount	2008	$4,325	$0	$0
13	Discount	2009	$4,325	$0	$0
14	Discount	2010	$4,325	$0	$0
15	Discount	2011	$4,325	$0	$0
16	Discount	2012	$4,325	$0	$0
17	Discount	2013	$4,325	$0	$0
18	Discount	2014	$4,325	$0	$0
19	Discount	2015	$4,325	$0	$0
20	Discount	2016	$4,325	$0	$0
	Total		$66,500	$0	$0

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

East Timbalier Island Sediment Restoration (XTE-67)

Present Valued Costs **Total Discounted Costs** $2,109,375 **Amortized Costs** $218,848

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	1994	$163,158	$0	$19,873	$0	$0	$0	$183,031
2	1.172	1995	$21,532	$0	$31,471	$103,705	$258.603	$1.034.412	$1.449.723
1	1.083	1996	$0	$0	$4,845	$31,934	$7963 1	$318,526	$4341936
		Total	$184,690	$0	$56,190	$135,639	$338,234	$1,352,938	$2,067,691

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M Costs	Other Costs
-1	0.924	1997	$3.995	$0	$0
-2	0.853	1998	$3,691	$0	$0
-3	0.788	1999	$3,410	$0	$0
-4	0.728	2000	$3,150	$0	$0
-5	0.673	2001	$2,910	$0	$0
-6	0.621	2002	$2,688	$0	$0
-7	0.574	2003	$2,483	$0	$0
-8	0.530	2004	$2,294	$0	$0
-9	0.490	2005	$2,119	$0	$0
-10	0.453	2006	$1,958	$0	$0
-11	0.418	2007	$1,808	$0	$0
-12	0.386	2008	$1,671	$0	$0
-13	0.357	2009	$1,543	$0	$0
-14	0.330	2010	$1,426	$0	$0
-15	0.304	2011	$1,317	$0	$0
-16	0.281	2012	$1,217	$0	$0
-17	0.260	2013	$1,124	$0	$0
-18	0.240	2014	$1,038	$0	$0
-19	0.222	2015	$959	$0	$0
-20	0.205	2016	$886	$0	$0
		Total	$41,685	$0	$0
		Average Annual	$4,325	$0	$0

20-Sep-93 Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

East Timbalier Island Sediment Restoration (XTE-67)

Fully Funded Costs **Total Fully Funded Costs** $2,046,971 **Amortized Costs** $212,373

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$ 0	$0	$0	$0	$0
4		0	$0	$0	$ 0	$0	$0	$0	$0
3	1.031	1994	$132,612	$0	$16,152	$0	$0	$0	$148,765
2	1.064	1995	$19,551	$0	$28,576	$94,163	$234,810	$939,239	$1,316,339
1	1.101	1996	$0	$0	$4,929	$32,486	$81,009	$324,037	$442,462
		TOTAL	$152,163	$0	$49,657	$126,650	$315,819	$1,263,276	$1,907,566

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.140	1997	$4.930	$0	$0
-2	1.180	1998	$5,102	$0	$0
-3	1.221	1999	$5,281	$0	$0
-4	1.264	2060	$5,465	$0	$0
-5	1.308	2001	$5,657	$0	$0
-6	1.354	2002	$5,855	$0	$0
-7	1.401	2603	$6,060	$0	$0
-8	1.450	2004	$6,272	$0	$0
-9	1.501	2005	$6,491	$0	$0
-10	1.553	2006	$6,718	$0	$0
-11	1.608	2607	$6,954	$0	$0
-12	1.664	2098	$7,197	$0	$0
-13	1.722	2009	$7.449	$0	$0
-14	1.783	2010	$7,710	$0	$0
-15	1.845	2011	$7,979	$0	$0
-16	1.910	2012	$8,259	$0	$0
-17	1.976	2013	$8,548	$0	$0
-18	2.046	2014	$8,847	$0	$0
-19	2.117	2015	$9,157	$0	$0
-20	2.191	2016	$9,477	$0	$0
		Total	$139,405	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Sabine Natlonat Wildlife Refuge Structure Replacement (XCS -47)

Project Construction Years:	2	Total Project Years	22
Interest Rate	8.25%	Amoritization Factor	0.10375
Total First Costs	**$2,822,500**	Total Fully Funded Costs	**$4,581,500**

Annual Charges	Present Worth	Average Annual
Interest & Amortization	**$3,071,700**	$318,700
Monitoring	$249,400	$25,900
0 & M costs	$241,000	$25,000
Other Costs	**$0**	$0
Total	**$3,562,100**	**$369,600**
Average Annual Habitat Units		491
Cost Per Habitat Unit		$753
Average Annual Acres of Emergent Marsh		**495**

Costs amortized over 20 year operationlife

Sabine National Wildlife Refuge Structure Replacement (XCS-47)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound		$0	$0	$0	$0	$0	$0	$0
2 Compound	1994	$135,000	$0	$48,000	$0	$0	$0	$183,000
1 Compound	1995	$0	$0	$72,000	$130,000	$487,500	$1.950.000	$2.639.500
Base Year								
	TOTAL	$135,000	$0	$120,000	$130,000	$487,500	$1,950,000	$2,822,500

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1996	$25,875	$25,000	$0
2 Discount	1997	$25,875	$25,000	$0
3 Discount	1998	$25,875	$25,000	$0
4 Discount	1999	$25,875	$25,000	$0
5 Discount	2000	$25,875	$25,000	$0
6 Discount	2001	$25,875	$25,000	$0
7 Discount	2002	$25,875	$25,000	$0
8 Discount	2003	$25,875	$25,000	$0
9 Discount	2004	$25,875	$25,000	$0
10 Discount	2005	$25,875	$25,000	$0
11 Discount	2006	$25,875	$25,000	$0
12 Discount	2007	$25,875	$25.000	$0
13 Discount	2008	$25,875	$25,000	$0
14 Discount	2009	$25,875	$25,000	$0
15 Discount	2010	$25,875	$25,000	$0
16 Discount	2011	$25,875	$25,000	$0
17 Discount	2012	$25,875	$25,000	$0
18 Discount	2013	$25,875	$25,000	$0
19 Discount	2014	$25,875	$25,000	$0
20 Discount	2015	$25,875	$25,000	$0
Total		$517,500	$500,000	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Sabine National Wildlife Refuge Structure Replacement (XCS-47)

Present Valued Costs **Total Discounted Costs** $3562,040 **Amortized Costs** $369,562

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	SO	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	0	$0	$0	$0	$0	$0	$0	$0
2	1.172	1994	$158,194	$0	$56,247	$0	$0	$0	$214.441
1	1.083	1995	$0	$0	$771940	$140.725	$527 719	$2,110,875	$2,857,259
		Total	$158,194	$0	$134,187	$140,725	$527,719	$2,110,875	$3,07 1,699

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1996	$23,903	$23,095	$0
-2	0.853	1997	$22,081	$21,335	$0
-3	0.788	1998	$20,398	$19,709	$0
-4	0.728	1999	$18,844	$18,207	$0
-5	0.673	2000	$17,408	$16,819	$0
-6	0.621	2001	$16,081	$15,537	$0
-7	0.574	2002	$14,855	$14,353	$0
-8	0.530	2003	$13,723	$13,259	$0
-9	0.490	2004	$12,677	$12,249	$0
-10	0.453	2005	$11,711	$11,315	$0
-11	0 418	2006	$10,819	$10,453	$0
-12	0.386	2007	$9,994	$9,656	$0
-13	0.357	2008	$9,232	$8,920	$0
-14	0.330	2009	$8,529	$8,240	$0
-15	0.304	2010	$7,879	$7,612	$0
-16	0.281	2011	$7,278	$7,032	$0
-17	0.260	2012	$6,724	$6,496	$0
-18	0.240	2013	$6,211	$6,00 1	$0
-19	0.222	2014	$5,738	$5,544	$0
-20	0.205	2015	$5,301	$5,121	$0
		Total	$249,387	$240,954	$0
		Average Annual	$25,874	$24,999	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Sabine National Wildlife Refuge Structure Replacement (XCS-47)

Fully Funded Costs **Total Fully Funded Costs** $4,581,454 **Amortized Costs** $475,326

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3		0	$0	$0	$0	$0	$0	$0	$0
2	1.031	1994	$139,185	$0	$49,488	$0	$0	$0	$188,673
1	1.064	1995	$0	$0	$76,607	$138,319	$518,696	$2,074,784	$2,808,407
		TOTAL	$139,185	$0	$126,095	$138,319	$518,696	$27074,784	$2,997,080

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.101	1996	$28,494	$27,531	$0
-2	1.140	1997	$29,492	$28,494	$0
-3	1.180	1998	$30,524	$29,492	$0
-4	1.221	1999	$31,592	$30,524	$0
-5	1.264	2000	$32,698	$31,592	$0
-6	1.308	2001	$33,842	$32,698	$0
-7	1.354	2002	$35,027	$33,842	$0
-8	1.401	2003	$36,253	$35,027	$0
-9	1.450	2004	$37,522	$36,253	$0
-10	1.501	2005	$38,835	$37,522	$0
-11	1.553	2006	$40,194	$38,835	$0
-12	1.608	2007	$41,601	$40,194	$0
-13	1.664	2008	$43.057	$41,601	$0
-14	1.722	2009	$44,564	$43,057	$0
-15	1.783	2010	$46,124	$44,564	$0
-16	1.845	2011	$47,738	$46,124	$0
-17	1.910	2012	$49,409	847,738	$0
-18	1.976	2013	$51,138	$49,409	$0
-19	2.046	2014	$52,928	$51,138	$0
-20	2.117	2015	$54,780	$52,928	$0
		Total	$805,812	$778,562	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

White's Ditch Outfall Management (BS-4a)

Project Construction Years:	**2**	Total Project Years	**22**
Interest Rate	**8.25%**	Amoritization Factor	**0.10375**
Total First Costs	**$359,000**	Total Fully Funded Costs	**$756,100**

Annual Charges	Present Worth	Average Annual
Interest & Amortization	**$395,200**	**$41,000**
Monitoring	**$78,000**	**$8,100**
0 & M costs	**$36,600**	**$4,000**
Other Costs	**$0**	**$0**
Total	$511,800	**$53,100**
Average Annual Habitat Units		**68**
Cost Per Habitat Unit		**$781**
Average Annual Acres of Emergent Marsh		**20**

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

White's Ditch Outfall Management (BS-4a)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound		$0	$0	$0	$0	$0	$0	$0
2 Compound	1994	$28,000	$40,000	$6,125	$0	$0	$0	$74,125
1 Compound	1995	$12,000	$0	$7,875	$15,000	$50,000	$200,000	$284,875
Base Year								
TOTAL		$40,000	$40,000	$14,000	$15,000	$50,000	$200,000	$359,000

Year	Fiscal Year	Monitoring Costs	O&M costs	Other costs
1 Discount	1996	$8,093	$4,000	$0
2 Discount	1997	$8,093	$4,000	$0
3 Discount	1998	$8,093	$4,000	$0
4 Discount	1999	$8,093	$4,000	$0
5 Discount	2000	$8,093	$4,000	$0
6 Discount	2001	$8,093	$4,000	$0
7 Discount	2002	$8,093	$4,000	$0
8 Discount	2003	$8,093	$4,000	$0
9 Discount	2004	$8.093	$4,000	$0
10 Discount	2005	$8,093	$4,000	$0
11 Discount	2006	$8,093	$4,000	$0
12 Discount	2007	$8,093	$4,000	$0
13 Discount	2008	$8,093	$4,000	$0
14 Discount	2009	$8,093	$4,000	$0
15 Discount	2010	$8,093	$4,000	$0
16 Discount	2011	$8,093	$4,000	$0
17 Discount	2012	$8,093	$4,000	$0
18 Discount	2013	$8,093	$4,000	$0
19 Discount	2014	$8,093	$4,000	$0
20 Discount	2015	$8,093	$4.000	$0
Total		$161,860	$80,000	$0

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Costs amortized over 20 year dperation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

White's Ditch Outfall Management (BS-4a)

Present Valued Costs **Total Discounted Costs** **$511,791** **Amortized Costs**

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction
5	1.486	0	$0	$0	$0	$0	$0	$(
4	1.373	0	$0	$0	$0	$0	$0	$(
3	1.268	0	$32,811	$0	$0	$0	$0	$(
2				$46,872	$7,177	$0	$0	$(
1	1.082	1996	$12,990	$0	$8,525	$16,238	$54,125	$216,50(
		Total	$45,801	$46,872	$15,702	$16,238	$54,125	$216,50(

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1996	$7,476	$3,695	$0
-2	0.853	1997	$6,906	$3,414	$0
-3	0.788	1998	$6,380	$3,153	$0
-4	0.728	1999	$5,894	$2,913	$0
-5	0.673	2000	$5,445	$2,691	$0
-6	0.621	2001	$5,030	$2,486	$0
-7	0.574	2002	$4,646	$2,296	$0
-8	0.530	2003	$4,292	$2121	$0
-9	0.490	2004	$3,965	$1,960	$0
-10	0.453	2005	$3,663	$1,810	$0
-11	0.418	2006	$3,384	$1,672	$0
-12	0.386	2007	$3,126	$1,545	$0
-13	0.357	2008	$2,888	$1,427	$0
-14	0.330	2009	$2,668	$1,318	$0
-15	0.304	2010	$2,464	$1,218	$0
-16	0.281	2011	$2,276	$1,125	$0
-17	0.260	2012	$2,103	$1,039	$0
-18	0.240	2013	$1,943	$960	$0
-19	0 222	2014	$1,795	$887	$0
-20	0.205	2015	$1,658	$819	$0
		Total	$78,002	$38,553	$0
	Average Annual		$8,093	$4,000	$0

Costs amortized over 20 year operation life

White's Ditch Outfall Management (ES-4a)

Fully Funded Costs **Total Fully Funded Costs** **$756,134** **Amortized Costs** **$78,449**

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3		0	$0	$0	$0	$0	$0	$0	$0
2	1.031	1994	$28,868	$41,240	$6,315	$0	$0	$0	$76.423
1	1.064	1995	$12,768	$0	$8,379	$15,960	$53,200	$212,798	$3031105
		TOTAL	$41,636	$41,240	$14,694	$15,960	$53,200	$212,798	$379,528

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.101	1996	$8,912	$4,405	$0
-2	1.140	1997	$9,224	$4,559	$0
-3	1.180	1998	$9,547	$4,719	$0
-4	1.221	1999	$9,881	$4,884	$0
-5	1.264	2000	$10,227	$5,055	$0
-6	1.308	2001	$10,585	$5,232	$0
-7	1.354	2002	$10,955	$5,415	$0
-8	1.401	2003	$11,339	$5,604	$0
-9	1.450	2004	$11,736	$5,800	$0
-10	1.501	2005	$12.147	$6,003	$0
-11	1.553	2006	$12,572	$6,214	$0
-12	1.608	2007	$13,012	$6,431	$0
-13	1.664	2008	$13,467	$6,656	$0
-14	1.722	2009	$13,938	$6,889	$0
-15	1.783	2010	$14,426	$7,130	$0
-16	1.845	2011	$14,931	$7,380	$0
-17	1.910	2012	$15,454	$7,638	$0
-18	1.976	2013	$15,995	$7,905	$0
-19	2.046	2014	$16,554	$8,182	$0
-20	2.117	2015	$17,134	$8,468	$0
		Total	$252,036	$124,570	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Lake Chapeau Sediment input and Hydrologic **Restoration, Point** au Fer island (PTE – **23/26a/33)**

Project Construction Years:	3	Total Project Years	23
Interest Rate	8.25%	Amorilization Factor	0.10375
Total First Costs	**$3,249,000**	Total Fully Funded Costs	**$4,149,200**

Annual Charges	Present Worth	Average Annual
interest & Amortization	**$3,751,300**	**$389,200**
Monitoring	$199,500	$20,700
0 & **M** costs	**$0**	$0
Other Costs	**$0**	$0
Total	**$3,950,800**	$409.900
Average Annual Habitat **Units**		**468**
Cost Per Habitat Unit		$076
Average Annual Acres of Emergent Marsh		391

Costs amortized over 20 year operation life

Lake Chapeau Sediment Input and Hydrologic Restoration, Point au Fer Island (PTE – 23/26a/33)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	SO	$0
3 Compound	1994	$176,000	$50,000	$14,957	$0	$0	$0	$240,957
2 Compound	1995	$44,000	$0	$22,435	$98,700	$391,300	$1,565,200	$2,121,635
1 Compound	1996	$0	$0	$5,609	$42,300	$167,700	$670,800	$886,409
Base Year								
TOTAL		$220,000	$50,000	$43,000	$141,000	$559,000	$2,236,000	$3,249,000

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1997	$20,700	$0	$0
2 Discount	1998	$20,700	$0	$0
3 Discount	1999	$20,700	$0	$0
4 Discount	2000	$20,700	$0	$0
5 Discount	2001	$20,700	$0	$0
6 Discount	2002	$20,700	$0	$0
7 Discount	2003	$20,700	$0	$0
8 Discount	2004	$20,700	$0	$0
9 Discount	2005	$20,700	$0	$0
10 Discount	2006	$20,700	$0	$0
11 Discount	2007	$20,700	$0	$0
12 Discount	2008	$20,700	$0	$0
13 Discount	2009	$20,700	$0	$0
14 Discount	2010	$20,700	$0	$0
15 Discount	2011	$20,700	$0	$0
16 Discount	2012	$20,700	$0	$0
17 Discount	2013	$20,700	$0	$0
18 Discount	2014	$20,700	$0	$0
19 Discount	2015	$20,700	$0	$0
20 Discount	2016	$20,700	$0	$0
Total		$414,000	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Lake Chapeau Sediment Input and Hydrologic Restoration, Point au Fer Island (PTE – 23/26a/33)

Present Valued Costs **Total Discounted Costs** $3,950,841 **Amortized Costs** $409,900

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	1994	$223,253	$63,424	$18,972	$0	$0	$0	$305,649
2	1.172	1995	$51,559	$0	$26,289	$115,657	$458,528	$1,834,111	$2,486,145
1	1.083	1996	$0	$0	$6,071	$45,790	$181.535	$726,141	$959,537
		Total	$274,812	$63,424	$51,333	$161,447	$640.063	$2560,252	$3,751,331

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1997	$19,122	$0	$0
-2	0.853	1998	$17,665	$0	$0
-3	0.788	1999	$16,319	$0	$0
-4	0.728	2000	$15,075	$0	$0
-5	0.673	2001	$13.926	$0	$0
-6	0.621	2002	$12,865	$0	$0
-7	0.574	2003	$11,884	$0	$0
-8	0.530	2004	$10,979	$0	$0
-9	0.490	2005	$10.142	$0	$0
-10	0.453	2006	$9,369	$0	$0
-11	0.418	2007	$8,655	$0	$0
-12	0.386	2008	$7,995	$0	$0
-13	0.357	2009	$7,386	$0	$0
-14	0.330	2010	$6,823	$0	$0
-15	0.304	2011	$6,303	$0	$0
-16	0.281	2012	$5,823	$0	$0
-17	0.260	2013	$5,379	$0	$0
-18	0.240	2014	$4,969	$0	$0
-19	0.222	2015	$4,590	$0	$0
-20	0.205	2016	$4,240	$0	$0
		Total	$199,510	$0	$0
		Average Annual	$20,699	$0	$0

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Lake Chapeau Sediment Input and Hydrologic Restoration, Point au Fer Island (PTE-23/26a/33)

Fully Funded Costs | **Total Fully Funded Costs** $4,149,182 | **Amortized Costs** $430,478

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3	1.031	1994	$181,456	$51,550	$15,420	$0	$0	$0	$248,426
2	1.064	1995	$46,816	$0	$23,870	$105,016	$416,340	$1,665,360	$2,257,402
1	1.101	1996	$0	$0	$6,176	$46,582	$184,677	$738.706	$976,141
		TOTAL	$228,272	$51,550	$45,467	$151,598	$601,017	$2,404,067	$3,481,970

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.140	1997	$23,593	$0	$0
-2	1.180	1998	$24,419	$0	$0
-3	1.221	1999	$25,274	$0	$0
-4	1.264	2000	$26,158	$0	$0
-5	1.308	2601	$27,074	$0	$0
-6	1.354	2002	$28,021	$0	$0
-7	1.401	2003	$29,002	$0	$0
-8	1.450	2004	$30,017	$0	$0
-9	1.501	2005	$31,068	$0	$0
-10	1.553	2006	$32,155	$0	$0
-11	1.608	2007	$33,281	$0	$0
-12	1.664	2008	$34,446	$0	$0
-13	1.722	2009	$35,651	$0	$0
-14	1.783	2010	$36,899	$0	$0
-15	1.845	2011	$38,190	$0	$0
-16	1.910	2012	$39,527	$0	$0
-17	1.976	2013	$40,911	$0	$0
-18	2.046	2014	$42,342	$0	$0
-19	2.117	2015	$43,824	$0	$0
-20	2.191	2016	$45,358	$0	$0
		Total	$667,212	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration **Plan**
Priority Project List

Whiskey Island Restoration (PTE -15b-I)

Project Construction Years:	**2**	Total Project Years	22
Interest Rate	8.25%	Amoritization Factor	0.10375
Total First Costs	**$4,437,000**	Total Fully Funded Costs	**$4,844,300**

Annual Charges	Present Worth	Average Annual
Interest **&** Amortization	**$4,833,800**	**$501,500**
Monitoring	$41,700	$4,300
0 & M Costs	**$0**	**$0**
Other Costs	**$0**	**$0**
Total	**$4,875,500**	**$505,800**
Average Annual Habitat Units		**549**
Cost Per Habitat Unit		$921
Average Annual Acres of Emergent Marsh		837

Costs amortized over 20 year evaluation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Whiskey Island Restorarion (PTE-15b-I)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound		$0	$0	$0	$0	$0	$0	$0
2 Compound	1994	$27 1,000	$0	$73,000	$0	$0	$0	$344,000
1 Compound Base Year	1995	$0	$0	$24,000	$194,000	$775,000	$3,100,000	$4,093,000
TOTAL		$271,000	$0	$97,000	$194,000	$775,000	$3,100,000	$4,437,000

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1996	$4,325	$0	$0
2 Discount	1997	$4,325	$0	$0
3 Discount	1998	$4,325	$0	$0
4 Discount	1999	$4,325	$0	$0
5 Discount	2000	$4,325	$0	$0
6 Discount	2001	$4,325	$0	$0
7 Discount	2002	$4,325	$0	$0
8 Discount	2003	$4,325	$0	$0
9 Discount	2004	$4,325	$0	$0
10 Discount	2005	$4,325	$0	$0
11 Discount	2006	$4,325	$0	$0
12 Discount	2007	$4,325	$0	$0
13 Discount	2008	$4,325	$0	$0
14 Discount	2009	$4,325	$0	$0
15 Discount	2010	$4,325	$0	$0
16 Discount	2011	$4,325	$0	$0
17 Discount	2012	$4,325	$0	$0
18 Discount	2013	$4,325	$0	$0
19 Discount	2014	$4,325	$0	$0
20 Discount	2015	$4,325	$0	SO
Total		$66,500	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan

Priority Project List

Whiskey Island Restorarion (PTE-15b-I)

Present Valued Costs Total Discounted Costs **$4,875,459** Amortized Costs **$505,829**

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	**$0**	$0	$0	$0	$0
4	1.373	0	$0	$0	**$0**	$0	$0	$0	**$0**
3	1.268	0	$0	$0	$0	$0	$0	$0	$0
2	1.172	1994	$317,559	**$0**	$85,542	**$0**	**$0**	**$0**	$403,101
1	1.083	1995	$0	$0	$25,980	$210,005	**$838,938**	**$3,355,750**	**$4,430,673**
		Total	$317,559	$0	$111,522	$210,005	**$838,938**	**$3,355,750**	**$4,833,774**

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.924	1996	$3,995	**$0**	**$0**
- 2	0.853	1997	**$3,691**	**$0**	**$0**
- 3	0.788	1998	$3,410	**$0**	**$0**
- 4	0.728	1999	$3,150	**$0**	**$0**
- 5	0.673	**2000**	$2,910	**$0**	**$0**
- 6	0.621	**2001**	$2,688	**$0**	**$0**
- 7	0.574	**2002**	$2,483	**$0**	**$0**
- a	0.530	**2003**	$2,294	**$0**	**$0**
- 9	0.490	**2004**	$2,119	**$0**	**$0**
-10	0.453	**2005**	$1,958	**$0**	**$0**
-11	0.418	**2006**	**$1,808**	**$0**	**$0**
-12	0.386	**2007**	$1,671	**$0**	**$0**
-13	0.357	**2008**	$1,543	**$0**	**$0**
-14	0.330	2009	$1,426	**$0**	**$0**
-15	0.304	2010	$1,317	**$0**	**$0**
-16	**0.281**	2011	$1,217	**$0**	**$0**
-17	0.260	2012	$1,124	**$0**	**$0**
-18	0.240	2013	**$1,038**	**$0**	**$0**
-19	0.222	2014	**$959**	**$0**	**$0**
-20	0.205	2015	**$886**	**$0**	**$0**
		Total	**$41,685**	**$0**	**$0**
	Average Annual		$4,325	$0	$0

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Whiskey Island Restorarion (PTE-15b-I)

Fully Funded Costs **Total Fully Funded Costs** **$4,844,274** **Amortized Costs** **$502.593**

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements lb Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3		0	$0	$0	$0	$0	$0	$0	$0
2	1.031	1994	$279,401	$0	$75,263	$0	$0	$0	$354,664
1	1.064	1995	$0	$0	$25,536	$206,414	$824,594	$3,298,375	$4,354,919
		TOTAL	$279,401	$0	$100,799	$206,414	$824,594	$3,298,375	$4,709,583

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.101	1996	$4,763	$0	$0
-2	1.140	1997	$4,930	$0	$0
-3	1.180	1998	$5,102	$0	$0
-4	1.221	1999	$5,281	$0	$0
-5	1.264	2000	$5,465	$0	$0
-6	1.308	2001	$5,657	$0	$0
-7	1.354	2002	$5,855	$0	$0
-8	1.401	2003	$6,060	$0	$0
-9	1.450	2004	$6,272	$0	$0
-10	1.501	2005	$6,491	$0	$0
-11	1.553	2006	$6,718	$0	$0
-12	1.608	2007	$6,954	$0	$0
-13	1.664	2008	$7,197	$0	$0
-14	1.722	2009	$7,449	$0	$0
-15	1.783	2010	$7,710	$0	$0
-16	1.845	2011	$7,979	$0	$0
-17	1.910	2012	$8,259	$0	$0
-18	1.976	2013	$8,548	$0	$0
-19	2.046	2014	$8,847	$0	$0
-20	2.117	2015	$9,157	$0	$0
		Total	$134,691	$0	$0

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Costs amortized over '20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Brady Canal Hydrologic Restoration (PTE-26b)

Project Construction Years:	4	Total Project Years	24
Interest Rate	8.25%	Amoritization Factor	0.10375
Total First Costs	$2,331,200	Total Fully Funded Costs	$4,717,900

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$2,686,800	$278,800
Monitoring	$249,400	$25,900
O & M Costs	$366,200	$38,000
Other Costs	$0	$0
Total	$3,302,400	$342,700
Average Annual Habitat Units		337
Cost Per Habitat Unit		$1,017
Average Annual Acres of Emergent Marsh		156

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Brady Canal Hydrologic Restoration (PTE-26b)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound	1995	$48,889	$30,000	$20,000	$0	$0	$0	$98,889
2 Compound	1996	$61,111	$0	$60,000	$71,429	$285,884	$1,143,536	$1,621,959
1 Compound	1997	$0	$0	$10,000	$28,571	$114,354	$457,414	$610,339
Base Year								
TOTAL		$110,000	$30,000	$90,000	$100,000	$400,238	$1,600,950	$2,331,188

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1998	$25,875	$38,000	$0
2 Discount	1999	$25,875	$38,000	$0
3 Discount	2000	$25,875	$38,000	$0
4 Discount	2001	$25,875	$38,000	$0
5 Discount	2002	$25,875	$38,000	$0
6 Discount	2003	$25,875	$38,000	$0
7 Discount	2004	$25,875	$38,000	$0
8 Discount	2005	$25,875	$38,000	$0
9 Discount	2006	$25,875	$38,000	$0
10 Discount	2007	$25,875	$38,000	$0
11 Discount	2008	$25,875	$38,000	$0
12 Discount	2009	$25,875	$38,000	$0
13 Discount	2010	$25,875	$38,000	$0
14 Discount	2011	$25,875	$38,000	$0
15 Discount	2012	$25,875	$38,000	$0
16 Discount	2013	$25,875	$38,000	$0
17 Discount	2014	$25,875	$38,000	$0
18 Discount	2015	$25,875	$38,000	$0
19 Discount	2016	$25,875	$38,000	$0
20 Discount	2017	$25,875	$38,000	$0
Total		$517.500	$760,000	$0

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Brady Canal Hydrologic Restoration (PTE-26b)

Present Valued Costs **Total Discounted Costs** $3,302,390 **Amortized Costs** $342,623

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	1995	$62,015	$36,054	$25,370	$0	$0	$0	$125,439
2	1.172	1996	$71,610	$0	$70,308	$83,700	$335,001	$1,340,002	$1,900,622
1	1.083	1997	$0	$0	$10,825	$30,929	$123,788	$495,151	$660,692
		Total	$133,625	$38,054	$106,503	$114,629	$458,788	$1,835,153	$2,686,753

Year	Discount Rates	Fiscal Year.	Monitoring Costs	O&M Costs	Other Costs
-1	0.924	1998	$23,903	$35,104	$0
-2	0.853	1999	$22.08 1	$32,429	$0
-3	0.788	2000	$20,398	$29,957	$ 0
-4	0.728	2001	$18,844	$27,674	$0
-5	0.673	2002	$17.408	$25,565	$0
-6	0.621	2003	$16,081	$23.617	$0
-7	0.574	2004	$14,855	$21,817	$0
-8	0.530	2005	$13,723	$20,154	$0
-9	0.490	2006	$12,677	$18.618	$0
-10	0.453	2007	$11,711	$17,199	$0
-11	0.418	2008	$10,819	$15,888	$0
-12	0.386	2009	$9,994	$14,677	$0
-13	0.357	2010	$9,232	$13.559	$0
-14	0.330	2011	$8,529	$12.525	$0
-15	0.304	2012	$7,879	$11,571	$0
-16	0.281	2013	$7,278	$10,689	$0
-17	0.260	2014	$6,724	$9,874	$0
-18	0.240	2015	$6.211	$9,122	$0
-19	0.222	2016	$5,738	$8,427	$0
-20	0.205	2017	$5,301	$7,784	$0
		Total	$249,387	$366,250	$0
		Average Annual	$25,874	$37,998	$0

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Brady Canal Hydrologic Restoration (PTE-26b)

Fully Funded Costs **Total Fully Funded Costs** $4,717,928 **Amortized Costs** $469,485

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4	1 031	0	$0	$0	$0	$0	$0	SO	$0
3	1.064	1995	$52,017	$31,920	$21,280	$0	$0	$0	$105,217
2	1.101	1996	$67,297	$0	$66,074	$78,659	$314,824	$1,259,298	$1.786.153
1	1.140	1997	$0	$0	$11,398	$32,565	$130,337	$521,349	$695649
		TOTAL	$119,315	$31,920	$98,751	$111,224	$445,162	$1,780,647	$2,587,019

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.180	1998	$30,524	$44,827	$0
-2	1.221	1999	$31,592	$46,396	$0
-3	1.264	2000	$32,698	$46,020	$0
-4	1.308	2001	$33,842	$49,701	$0
-5	1.354	2002	$35,027	$51,440	$0
-6	1.401	2003	$36,253	$53,241	$0
-7	1.450	2004	$37,522	$55,104	$0
-8	1.501	2005	$36,835	$57,033	$0
-9	1.553	2006	$40,194	$59,029	$0
-10	1.608	2007	$41,601	$61,095	$0
-11	1.664	2008	$43,057	$63,233	$0
-12	1.722	2009	$44,564	$65,447	$0
-13	1.783	2010	$46,124	$67,737	$0
-14	1.845	2011	$47.738	$70,108	$0
-15	1.910	2012	$49,409	$72,562	$0
-16	1.976	2013	$51,138	$75,101	$0
-17	2.046	2014	$52,928	$77,730	$0
-18	2.117	2015	$54,780	$80,451	$0
-19	2.191	2016	$56,698	$83,266	$0
-20	2.268	2017	$56,682	$86,181	$0
		Total	$863,206	$1,267,703	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Violet Freshwater Distribution (PO-9a)

Project Construction Years:	4	Total Project Years	**24**
Interest Rate	8.25%	Amoritization Factor	**0.10375**
Total First Costs	$800,000	Total Fully Funded Costs	**$1,821,400**

Annual Charges	Present Worth	Average Annual
Interest & Amortization	**$939,200**	$97,400
Monitoring	$175,400	$18,200
0 & M Costs	$96,400	$10,000
Other Costs	**$0**	$0
Total	**$1,211,000**	$125,600
Average Annual Habitat Units		38
Cost Per Habitat Unit		$3,305
Average Annual Acres of Emergent Marsh		130

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Violet Freshwater Distribution (PO-9a)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	SO	$0
4 Compound		$0	$0	$0	$0	SO	$0	$0
3 Compound	1995	$54,444	$40,000	$12,250	$0	$0	$0	$106,694
2 Compound	1996	$15,556	$0	$21,000	$25,714	$107,143	$428,571	$597,984
1 Compound	1997	$0	$0	$1,750	$4,286	$17,857	$71.429	$95,321
Base Year								
TOTAL		$70,000	$40,000	$35,000	$30,000	$125,000	$500,000	$800,000

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1998	$18,199	$10,000	$0
2 Discount	1999	$18,199	$10,000	SO
3 Discount	2000	$18,199	$10,000	$0
4 Discount	2001	$18,199	$10,000	$0
5 Discount	2002	$18,199	$10,000	$0
6 Discount	2003	$18,199	$10,000	$0
7 Discount	2004	$18,199	$10,000	$0
8 Discount	2005	$18,199	$10,000	$0
9 Discount	2006	$18,199	$10,000	$0
10 Discount	2007	$18,199	$10,000	$0
11 Discount	2008	$18,199	$10,000	$0
12 Discount	2009	$18,199	$10,000	$0
13 Discount	2010	$18,199	$10,000	$0
14 Discount	2011	$18,199	$10,000	$0
15 Discount	2012	$18,199	$10,000	$0
16 Discount	2013	$18,199	$10,000	$0
17 Discount	2014	$18,199	$10,000	$0
18 Discount	2015	$18,199	$10,000	$0
19 Discount	2016	$18,199	$10,000	$0
20 Discount	2017	$18,199	$10,000	$0
Total		$363,990	$200,000	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Prtority Project List

Violet Freshwater Distribution (PO – 9a)

Present Valued Costs **Total Discounted Costs** $1,211,038 **Amortized Costs** $125,645

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	1995	$69,062	$50,739	$15,539	$0	$0	$0	$135,340
2	1.172	1996	$18,228	$0	$24,608	$30,132	$125,551	$502,203	$700,722
1	1 083	1997	$0	$0	$1,894	$4,639	$19,330	$77,321	$103,185
		Total	$87,290	$50,739	$42,041	$34,771	$144,881	$579,524	$939,247

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
- 1	0.924	1998	$16,812	$9,238	$0
- 2	0 853	1999	$15.531	$8,534	$0
- 3	0.788	2000	$14,347	$7,883	$0
- 4	0 728	2001	$13,254	$7,283	$0
- 5	0.673	2002	$12,244	$6,728	$0
- 6	0.621	2003	$11,311	$6,215	$0
- 7	0.574	2004	$10,449	$5,741	$0
- 8	0.530	2005	$9,652	$5,304	$0
- 9	0.490	2006	$8,917	$4,899	$0
-10	0.453	2007	$8,237	$4,526	$0
-11	0.418	2008	$7,609	$4,181	$0
-12	0.386	2009	$7.029	$3,862	$0
-13	0.357	2010	$6,494	$3,568	$0
-14	0.330	2011	$5,999	$3,296	$0
-15	0.304	2012	$5,542	$3,045	$0
-16	0.281	2013	$5,119	$2,813	$0
-17	0.260	2014	$4,729	$2,599	$0
-18	0.240	2015	$4,369	$2,400	$0
-19	0.222	2016	$4,036	$2,218	$0
-20	0.205	2017	$3,728	$2 049	$0
		Total	$175.409	$96,381	$0
		Average Annual	$18,199	$10,000	$0

Costs amortized over 30 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Violet Freshwater Distribution (PO-9a)

Fully Funded Costs **Total Fully Funded Costs** $1,821,438 **Amortized Costs** $188,974

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4	1.031	0	$0	$0	$0	$0	$0	$0	$0
3	1.064	1995	$57,928	$42,560	$13,034	$0	$0	$0	$113,522
2	1.101	1996	$17,130	$0	$23,126	$28,317	$117,989	$47 1,956	$658,519
1	1.140	1997	$0	$0	$1,995	$4,885	$20,353	$81,412	$108,645
		TOTAL	$75,059	$42,560	$38,154	$33,202	$138,342	$553,369	$880,686

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
- 1	1.180	1998	$21,469	$11,797	$0
- 2	1.221	1999	$22,221	$12,210	$0
- 3	1.264	2000	$22,998	$12,637	$0
- 4	1.308	2001	$23,803	$13,079	$0
- 5	1.354	2002	$24,637	$13,537	$0
- 6	1.401	2003	$25,499	$14,011	$0
- 7	1.450	2004	$26,391	$14,501	$0
- 8	1.501	2005	$27,315	$15,009	$0
- 9	1.553	2006	$28,271	$15,534	$0
-10	1.608	2007	$29,260	$16,078	$0
-11	1.664	2008	$30,285	$16,640	$0
-12	1.722	2009	$31,345	$17,223	$0
-13	1.783	2010	$32,442	$17,826	$0
-14	1.845	2011	$33,577	$18,449	$0
-15	1.910	2012	$34,752	$19,095	$0
-16	1.976	2013	$35,969	$19,764	$0
-17	2.046	2014	$37,228	$20,455	$0
-18	2.117	2015	$38,530	$21,171	$0
-19	2.191	2016	$39,879	$21,912	$0
-20	2.268	2017	$41,275	$22,679	$0
		Total	$607,146	$333.606	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Lake Salvador Shoreline Protection (BA-15)

Project Construction Years:	2	Total Project Years	22
Interest Rate	8.25%	Amoritization Factor	0.10375
Total First Costs	$1,034,500	Total Fully Funded Costs	$1,444,600

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$1,128,800	$117,100
Monitoring	$20,700	$2,100
O & M Costs	$86,700	$9,000
Other Costs	$0	$0
Total	$1,236,200	$128,200
Average Annual Habitat Units		219
Cost Per Habitat Unit		$585
Average Annual Acres of Emergent Marsh		88

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Lake Salvador Shoreline Protection (BA-15)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	SO	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound		$0	$0	$0	$0	$0	$0	$0
2 Compound	1994	$87,000	$0	$13,333	$0	$0	so	$100,333
1 Compound	1995	$0	$0	$26.667	$70,000	$167,500	$670,000	$934,167
Base Year								
TOTAL		$87,000	$0	$40,000	$70,000	$167,500	$670,000	$1,034,500

Year	Fiscal Year	Monitoring costs	O&M Costs	Other costs
1 Discount	1996	$2,150	$9,000	$0
2 Discount	1997	$2,150	$9,000	$0
3 Discount	1998	$2,150	$9,000	$0
4 Discount	1999	$2,150	$9,000	$0
5 Discount	2000	$2,150	$9,000	$0
6 Discount	2001	$2,150	$9,000	$0
7 Discount	2602	$2,150	$9,000	$0
8 Discount	2003	$2,150	$9,000	$0
9 Discount	2004	$2,150	$9,000	$0
10 Discount	2005	$2,150	$9,000	$0
11 Discount	2006	$2,150	$9,000	$0
12 Discount	2007	$2,150	$9,000	$0
13 Discount	2008	$2,150	$9,000	$0
14 Discount	2009	$2,150	$9,000	$0
15 Discount	2010	$2,150	$9,000	$0
16 Discount	2011	$2,150	$9,000	$0
17 Discount	2012	$2,150	$9,000	$0
18 Discount	2013	$2,150	$9,000	$0
19 Discount	2014	$2,150	$9,000	$0
20 Discount	2015	$2,150	$9,000	$0
Total		$43,000	$180,000	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Lake Salvador Shoreline Protection (BA-15)

Present Valued Costs **Total Discounted Costs** $1,236,272 **Amortized Costs** $128,263

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	0	$0	$0	$0	$0	$0	$0	$0
2	1.172	1994	$101,947	$0	$15,624	$0	$0	$0	$117.571
1	1.083	1995	$0	$0	$28,867	$75,775	$181,319	$725,275	$1,011,235
		Total	$101,947	$0	$44,491	$75,775	$181,319	$725,275	$1,128,807

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1996	$1.986	$8.314	$0
-2	0.853	1997	$1,835	$7,680	$0
-3	0.788	1998	$1,695	$7,095	$0
-4	0.728	1999	$1,566	$6,554	$0
-5	0.673	2000	$1,446	$6,055	$0
-6	0.621	2001	$1,336	$5,593	$0
-7	0.574	2002	$1,234	$5,167	$0
-8	0.530	2003	$1,140	$4,773	$0
-9	0.490	2004	$1,053	$4,410	$0
-10	0.453	2005	$973	$4,073	$0
-11	0.418	2006	$899	$3,763	$0
-12	0.386	2007	$830	$3,476	$0
-13	0.357	2008	$767	$3,211	$0
-14	0.330	2009	$709	$2,967	$0
-15	0.304	2010	$655	$2,740	$0
-16	0.281	2011	$605	$2,532	$0
-17	0.260	2012	$559	$2,339	$0
-18	0.240	2013	$516	$2,160	$0
-19	0.222	2014	$477	$1,996	$0
-20	0.205	2015	$440	$1,844	$0
		Total	$20,722	$86,743	$0
	Average Annual		$2,150	$9,000	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Lake Salvador Shoreline Protection (BA-15)

Fully Funded Costs **Total Fully Funded Costs** $1,444,628 **Amortized Costs** $149,880

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3		0	$0	$0	$0	$0	$0	$0	$0
2	1.031	1994	$89,697	$0	$13,747	$0	$0	$0	$103.444
1	1.064	1995	$0	$0	$28,373	$74,479	$176,219	$712,675	$9931946
		TOTAL	$89,697	$0	$42,120	$74,479	$178,219	$712,875	$1,097,390

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.101	1996	$2,368	$9,911	$0
-2	1.140	1997	$2,451	$10,258	$0
-3	1.180	1998	$2,536	$10,617	$0
-4	1.221	1999	$2,625	$10,989	$0
-5	1.264	2000	$2,717	$11,373	$0
-6	1.308	2001	$2,812	$11,771	$0
-7	1.354	2002	$2,910	$12,163	$0
-8	1.401	2003	$3,012	$12,610	$0
-9	1.450	2004	$3,118	$13,051	$0
-10	1.501	2005	$3,227	$13,508	$0
-11	1.553	2006	$3,340	$13,981	$0
-12	1.608	2007	$3,457	$14,470	$0
-13	1.664	2008	$3,578	$14,976	$0
-14	1.722	2009	$3,703	$15,501	$0
-15	1.783	2010	$3,632	$16,043	$0
-16	1.845	2011	$3,967	$16,605	$0
-17	1.910	2012	$4,105	$17,166	$0
-18	1.976	2013	$4,249	$17,767	$0
-19	2.046	2014	$4,398	$18,410	$0
-20	2.117	2015	$4,552	$19,054	$0
		Total	$66,956	$280,262	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Southwest Shore, White Lake Demo (PME-6)

Project Construction Years:	1	Total Project Years	**21**
interest Rate	**8.25%**	Amoritization Factor	**0.10375**
Total First Costs	**$33,500**	Total Fully Funded Costs	**$126,100**

Annual Charges	Present Worth	Average Annual
Interest & Amortization	**$36,300**	**$3,800**
Monitoring	**$18,200**	$1,900
0 & M Costs	**$16,500**	**$1,700**
Other Costs	**$0**	**$0**
Total	**$71,000**	**$7,400**
Average Annual Habitat Units		**4**
Cost Per Habitat Unit		$1,850
Average Annual Acres of Emergent Marsh		**9**

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Southwest Shore, White Lake Demo (PME-6)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound		$0	$0	$0	$0	$0	$0	$0
2 Compound		$0	$0	$0	$0	$0	$0	$0
1 Compound Base Year	1994	$2,500	$1,000	$2,500	$2,500	$5,000	$20,000	$33,500
TOTAL		$2,500	$1,000	$2,500	$2,500	$5,000	$20,000	$33,500

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1995	$1,889	$5,000	$0
2 Discount	1996	$1,889	$5,000	$0
3 Discount	1997	$1,889	$5,000	$0
4 Discount	1998	$1,889	$5,000	$0
5 Discount	1999	$1,889	$0	$0
6 Discount	2000	$1,889	$0	$0
7 Discount	2001	$1,889	$0	$0
8 Discount	2002	$1,889	$0	$0
9 Discount	2003	$1,889	$0	$0
10 Discount	2004	$1,889	$0	$0
11 Discount	2005	$1,889	$0	$0
12 Discount	2006	$1,889	$0	$0
13 Discount	2007	$1,889	$0	$0
14 Discount	2008	$1,889	$0	$0
15 Discount	2009	$1,889	$0	$0
16 Discount	2010	$1,889	$0	$0
17 Discount	2011	$1,889	$0	$0
18 Discount	2012	$1,889	$0	$0
19 Discount	2013	$1,889	$0	$0
20 Discount	2014	$1,889	$0	$0
Total		$37,780	$20,000	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Southwest Shore, White Lake Demo (PME-6)

Present Valued Costs **Total Discounted Costs** **$70,939** **Amortized Costs** **$7,360**

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	SO	$0
3	1.268	0	$0	$0	$0	$0	$0	$0	$0
2	1.172	0	$0	$0	$0	$0	$0	$0	$0
1	1.083	1994	$2,706	$1,083	$2,706	$2,706	$5,413	$21,650	$36,264
		Total	$2,706	$1,083	$2,706	$2,706	$5,413	$21,650	$36,264

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1995	$1,745	$4,619	$0
-2	0.853	1996	$1,612	$4,267	$0
-3	0.788	1997	$1,489	$3,942	$0
-4	0.728	1998	$1,376	$3,641	$0
-5	0.673	1999	$1,271	$0	$0
-6	0.621	2000	$1,174	$0	$0
-7	0.574	2001	$1,085	$0	$0
-8	0.530	2002	$1,002	$0	$0
-9	0.490	2003	$926	$0	$0
-10	0.453	2004	$855	$0	$0
-11	0.418	2005	$790	$0	$0
-12	0.386	2006	$730	$0	$0
-13	0.357	2007	$674	$0	$0
-14	0.330	2008	$623	$0	$0
-15	0.304	2009	$575	$0	$0
-16	0.281	2010	$531	$0	$0
-17	0.260	2011	$491	$0	$0
-18	0.240	2012	$453	$0	$0
-19	0.222	2013	$419	$0	$0
-20	0.205	2014	$387	$0	$0
		Total	$18,206	$16,469	$0
		Average Annual	$1.889	$1,709	$0

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Southwest Shore, White Lake Demo (PME-6)

Fully Funded Costs **Total Fully Funded Costs** $126,062 **Amortized Costs** $13,079

Year	Inflation Factor	Fiscal Year	Engineering 8 Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4	1.031	0	$0	$0	$0	$0	$0	$0	$0
3	1.064	0	$0	$0	$0	$0	$0	$0	$0
2	1.101	0	$0	$0	$0	$0	$0	$0	$0
1	1.140	1994	$2,849	$1,140	$2,849	$2,849	$5,699	$22,795	$38,182
		TOTAL	$2,849	$1,140	$2,849	$2,849	$5,699	$22,795	$38,182

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.180	1995	$2,228	$5,898	$0
-2	1.221	1996	$2,306	$6,105	$0
-3	1.264	1997	$2,387	$6,318	$0
-4	1.308	1998	$2,471	$6,540	$0
-5	1.354	1999	$2,557	$0	$0
-6	1.401	2000	$2,647	$0	$0
-7	1.450	2001	$2,739	$0	$0
-8	1.501	2002	$2,835	$0	$0
-9	1.553	2003	$2,934	$0	$0
-10	1.608	2004	$3.037	$0	$0
-11	1.664	2005	$3,143	$0	$0
-12	1.722	2006	$3,253	$0	$0
-13	1.783	2007	$3,367	$0	$0
-14	1.845	2008	$3,485	$0	$0
-15	1.910	2009	$3,607	$0	$0
-16	1.976	2010	$3,733	$0	$0
-17	2.046	2011	$3,864	$0	$0
-18	2.117	2012	$3,999	$0	$0
-19	2.191	2013	$4,139	$0	$0
-20	2.268	2014	$4,284	$0	$0
		Total	$63,018	$24,861	$0

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Costs amortized over 20 year operation life

Economic Analysis

Red Mud Demonstration (Modified)

The Red Mud Demonstration project will construct 3 acres of fresh marsh in a controlled environment. The objective is to demonstrate in the field that red mud can provide a substrate suitable for creation of emergent marsh in a cost-effective and environmentally unobtrusive manner. Placement of the red mud to create a fresh marsh environment will provide a qualitative comparison of plant growth on various red mud applications and an indication of potential ecological effects.

No economic analysis was performed on the Red Mud Demonstration project because the value of the project is not in its immediate benefit to fish and wildlife populations, but in its application as a sediment source for use in future wetlands projects. In addition, the project will serve as a pilot project illustrating cooperation and partnering between governmental agencies and the corporate sector in wetland restoration projects.

The Task Force approved $350,000 of CWPPRA funds for the project of which $330,000 is for construction, engineering and design, supervision and administration, and supervision and inspection cost. Kaiser Aluminium will contribute $183,000 toward the project. The remaining funds ($163,000) will be used to conduct testing of the red mud and implement a monitoring program for demonstration project.

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Bayou Lamoque Outfall Management (BS-6)

Project Construction Years:	3	Total Project Years	23
Interest Rate	8.25%	Amoritization Factor	0.10375
Total First Costs	**$266,000**	Total Fully Funded Costs	$933,700

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$291,700	$30,300
Monitoring	$93,200	$5,500
O & M Costs	$19,300	$2,000
Other Costs	**$0**	$0
Total	$364,200	$37,800
Average Annual Habitat Units		106
Cost Per Habitat Unit		$357
Average Annual Acres of Emergent Marsh		**93**

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Bayou Lamoque Outfall Management (BS-5)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound		$0	$0	$0	$0	$0	$0	$0
2 Compound	1995	$9,143	$30,000	$3,385	$0	$0	$0	$42,527
1 Compound	1996	$6,857	$0	$7,615	$14.000	$39.000	$156,000	$223.473
Base Year								
TOTAL		$16,000	$30,000	$11,000	$14,000	$39,000	$156,000	$266,000

Year	Fiscal Year	Monitoring costs	O&M costs	Other Costs
1 Discount	1997	$5.519	$2,000	$0
2 Discount	1998	$51519	$2,000	$0
3 Discount	1999	$5,519	$2,000	$0
4 Discount	2000	$5,519	$2,000	$0
5 Discount	2001	$5,519	$2,000	$0
6 Discount	2002	$5,519	$2,000	$0
7 Discount	2003	$5,519	$2,000	$0
8 Discount	2004	$5,519	$2,000	$0
9 Discount	2005	$5,519	$2,000	$0
10 Discount	2006	$5,519	$2,000	$0
11 Discount	2007	$5,519	$2,000	$0
12 Discount	2008	$5,519	$2,000	$0
13 Discount	2009	$5,519	$2,000	$0
14 Discount	2010	$5,519	$2,000	$0
15 Discount	2011	$5,519	$2,000	$0
16 Discount	2012	$5,519	$2,000	$0
17 Discount	2013	$5,519	$2,000	$0
18 Discount	2014	$5,519	$2,000	$0
19 Discount	2015	$5,519	$2,000	$0
20 Discount	2016	$ 5 , 5 1 9	$2,000	$0
Total		$110,380	$40,000	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Bayou Lamoque Outfall Management (BS-5)

Present Valued Costs **Total Discounted Costs** **$364,212** **Amortized Costs** **$37,787**

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$0	$0	$0	$0	$0	$0
4	1.373	0	$0	$0	$0	$0	$0	$0	$0
3	1.268	0	$0	$0	$0	$0	$0	$0	$0
2	1.172	1995	$10,714	$35,154	$3,966	$0	$0	$0	$49,834
1	1.083	1996	$7,423	$0	$8,244	$15,155	$42,218	$168,870	$24 1,909
		Total	$18.137	$35,154	$12,210	$15,155	$42,218	$168,870	$291,743

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	0.924	1997	$5,098	$1,848	$0
-2	0.853	1998	$4,710	$1,707	$0
-3	0.788	1999	$4,351	$1,577	$0
-4	0.728	2000	$4,019	$1,457	$0
-5	0.673	2001	$3,713	$1,346	$0
-6	0.621	2002	$3,430	$1,243	$0
-7	0.574	2003	$3,169	$1.148	$0
-8	0.530	2004	$2,927	$1,061	$0
-9	0.490	2005	$2,704	$980	$0
-10	0.453	2006	$2,498	$905	$0
-11	0.418	2007	$2,308	$836	$0
-12	0.386	2008	$2,132	$772	$0
-13	0.357	2009	$1,969	$714	$0
-14	0.330	2010	$1,819	$659	$0
-15	0.304	2011	$1,681	$609	$0
-16	0.281	2012	$1,552	$563	$0
-17	0.260	2013	$1,434	$520	$0
-18	0.240	2014	$1,325	$480	$0
-19	0.222	2015	$1,224	$444	$0
-20	0.205	2016	$ 1 , 1 3 1	$410	$0
		Total	$53,193	$19,276	$0
		Average Annual	$5,519	$2,000	$0

Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Bayou Lamoque Outfall Management (BS-5)

Fully Funded Costs **Total Fully Funded Costs** $533,700 **Amortized Costs** $55,371

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3	1.031	0	$0	$0	$0	$0	$0	$0	$0
2	1.064	1995	$9,728	$31,920	$3,601	$0	$0	$0	$45.249
1	1.101	1996	$7,551	$0	$8,386	$15,417	$42,948	$171,792	$246,095
		TOTAL	$17,279	$31,920	$11,988	$15,417	$42,948	$171,792	$291,344

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
-1	1.140	1997	$6,290	$2,280	$0
-2	1.180	1998	$6,511	$2,359	$0
-3	1.221	1999	$6,738	$2,442	$0
-4	1.264	2000	$6,974	$2,527	$0
-5	1.308	2001	$7,218	$2,616	$0
-6	1.354	2002	$7,471	$2,707	$0
-7	1.401	2003	$7,733	$2,802	$0
-8	1.450	2004	$8,003	$2,900	$0
-9	1.501	2005	$8,283	$3,002	$0
-10	1.553	2006	$8,573	$3,107	$0
-11	1 608	2007	$8,873	$3,216	$0
-12	1.664	2008	$9,1a4	$3,328	$0
-13	1.722	2009	$9,505	$3,445	$0
-14	1.783	2010	$9,838	$3,565	$0
-15	1.845	2011	$10,182	$3,690	$0
-16	1.910	2012	$10,539	$3,819	$0
-17	1.976	2013	$10,907	$3,953	$0
-18	2.046	2014	$11,289	$4,091	$0
-19	2.117	2015	$11,684	$4,234	$0
-20	2.191	2016	$12,093	$4,382	$0
		Total	$177,891	$64,465	$0

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Costs amortized over 20 year operation life

Priority Project List

Little Vermilion Bay Sedimentation Project (XTV-19)

Project Construction Years	2	Total Project Years	22
Interest Rate	8.25%	Amoritization Factor	0.10375
Total First Costs	$1,227,800	Total Fully Funded Costs	$1,515,500

Annual Charges	Present Worth	Average Annual
Interest & Amortization	$1,338,200	$138,800
Monitoring	$41,700	$4,300
O & M Costs	$24,100	$2,500
Other Costs	$0	$0
Total	**$1,404,000**	$145,600
Average Annual Habitat Units		182
Cost Per Habitat Unit		$800
Average Annual Acres of Emergent Marsh		238

Costs amortized over 20 year operation e

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Little Vermilion Bay Sedimentation Project (XTV – 19)

First Costs and Annual Charges

Year	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5 Compound		$0	$0	$0	$0	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound		$0	$0	$0	$0	$0	$0	$0
2 Compound	1994	$84,700	$5,000	$12,765	$0	$0	$0	$102,465
1 Compound	1995	$36,300	$0	$18,235	$97,000	$194,750	$779,000	$1,125,285
Base Year								
TOTAL		$121,000	$5,000	$31,000	$97,000	$194,750	$779,000	$1,227,750

Year	Fiscal Year	Monitoring costs	O&M costs	Other costs
1 Discount	1996	$4,325	$2,500	$0
2 Discount	1997	$4,325	$2,500	$0
3 Discount	1998	$4,325	$2,500	$0
4 Discount	1999	$4,325	$2,500	$0
5 Discount	2000	$4,325	$2,500	$0
6 Discount	2001	$4,325	$2,500	$0
7 Discount	2002	$4,325	$2,500	$0
8 Discount	2003	$4,325	$2,500	$0
9 Discount	2004	$4,325	$2,500	$0
10 Discount	2005	$4,325	$2,500	$0
11 Discount	2006	$4,325	$2,500	$0
12 Discount	2007	$4,325	$2,500	$0
13 Discount	2008	$4,325	$2,500	$0
14 Discount	2009	$4,325	$2,500	$0
15 Discount	2010	$4,325	$2,500	$0
16 Discount	2011	$4,325	$2,500	$0
17 Discount	2012	$4,325	$2,500	$0
18 Discount	2013	$4,325	$2,500	$0
19 Discount	2014	$4,325	$2,500	$0
20 Discount	2015	$4,325	$2,500	$0
Total		$86,500	$50,000	$0

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Costs amortized over 20 year o'peration life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Little Vermilion Bay Sedimentation Project (XTV– 19)

Present Valued Costs **Total Discounted Costs** $1,403,970 **Amortized Costs** $145,662

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First cost
5	1.486	0	$0	$ 0	$0	$0	$0	$0	$0
4	1.373	0	$0	$ 0	$0	$0	$0	$0	$0
3	1.268	0	$0	$0	$0	$0	$0	$0	$0
2	1.172	1994	$99,252	$5,859	$14,958	$0	$0	$0	$120,069
1	1.083	1995	$39,295	$0	$19,740	$105,003	$210,817	$843,268	$1,218,121
		Total	$138,547	$5,859	$34,697	$105,003	$210,817	$843,268	$1,338,190

Year	Discount Rates	Fiscal Year	Monitoring costs	O&M costs	Other costs
- 1	0.924	1996	$3,995	$2.309	$0
- 2	0.853	1997	$3,691	$2,133	$0
- 3	0.788	1998	$3,410	$1,971	$0
- 4	0.728	1999	$3,150	$1,821	$0
- 5	0.673	2000	$2,910	$1,682	$0
- 6	0.621	2001	$2,688	$1,554	$0
- 7	0.574	2002	$2,483	$1,435	$0
- 8	0.530	2003	$2,294	$1,326	$0
- 9	0.490	2004	$2,119	$1,225	$0
-10	0.453	2005	$1,958	$1,132	$0
-11	0.418	2006	$1,808	$1,045	$0
-12	0.386	2007	$1,671	$966	$0
-13	0.357	2008	$1,543	$892	$0
-14	0.330	2009	$1,426	$824	$0
-15	0.304	2010	$1,317	$761	$0
-16	0.281	2011	$1,217	$703	$0
-17	0.260	2012	$1,124	$650	$0
-18	0.240	2013	$1,038	$600	$0
-19	0 222	2014	$959	$554	$0
-20	0.205	2015	$886	$512	$0
		Total	$41,685	$24,095	$0
		Average Annual	$4.325	$2,500	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Conservation and Restoration Plan
Priority Project List

Little Vermilion Bay Sedimentation Project (XTV – 19)

Fully Funded Costs **Total Fully Funded Costs** $1,515,483 **Amortized Costs** $157,231

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision 8 Inspection	Contingency	First Cost Construction	Total First cost
5		0	$0	$0	$0	$0	$0	$0	$0
4		0	$0	$0	$0	$0	$0	$0	$0
3		0	$0	$0	$0	$0	$0	$0	$0
2	1.031	1994	$87,326	$5.155	$13.160	$0	$0	$0	$105.641
1	1.064	1995	$38,623	$0	$19,402	$103,267	$207,212	$828,850	$1,197,295
		TOTAL	$125,949	$5,155	$32,563	$103,207	$207,212	$828,850	$1,302,936

Year	Inflation Factor	Fiscal Year	Monitoring costs	O&M costs	Other costs
- 1	1.101	1996	$4,763	$2,753	$0
- 2	1.140	1997	$4,930	$2,849	$0
- 3	1.180	1998	$5,102	$2,949	$0
- 4	1.221	1999	$5,281	$3,052	$0
- 5	1.264	2000	$5,465	$3,159	$0
- 6	1.308	2001	$5,657	$3,270	$0
- 7	1.354	2002	$5,855	$3,384	$0
- 8	1.401	2003	$6,060	$3,503	$0
- 9	1.450	2004	$6,272	$3,625	$0
-10	1.501	2005	$6,491	$3,752	$0
-11	1.553	2006	$6,718	$3,883	$0
-12	1.608	2007	$6,954	$4,019	$0
-13	1.664	2008	$7,197	$4,160	$0
-14	1.722	2009	$7,449	$4,306	$0
-15	1.783	2010	$7,710	$4,456	$0
-16	1.845	2011	$7,979	$4,612	$0
-17	1.910	2012	$8,259	$4,774	$0
-18	1.976	2013	$8,548	$4,941	$0
-19	2.046	2014	$8,847	$5,114	$0
-20	2.117	2015	$9,157	$5,293	$0
		Total	$134,691	$77,856	$0

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Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act

3rd Priority Project List Report

Appendix E

Project Data Base

Record	BASIN	CATEGORY	DESCRIPT
1	ATCH	FRSHWTR DIV	AVOCA ISLAND EXTENSION WITH FRESHWATER DIVERSION AND SEDIMENT DIVERSION (12)
2	ATCH	HYDRO REST	PLACE A LOCK IN BAYOU CHENE (11)
3	ATCH	SED DIV	DIVERSION STRUCTURE IN BAYOU SCHAFFER WITH AUX. STRUCTURE THRU LEVEE AT AVOCA I. TO DIVERT FRESH WATER INTO TERREBONNE PARISH
4	BARA	BARR ISL REST	BARRIER ISLANDS ARE MORE IMPORTANT TO INTERIOR WETLANDS THAN TO THE WETLANDS IN THE ISLAND (1)
5	BARA	BARR ISL REST	BARRIER ISLAND AND SHORELINE RESTORATION NEEDED BETWEEN BELLE PASS AND SANDY POINT (5)
6	BARA	BARR ISL REST	NOURISH GRAND ISLE AND GRAND TERRE ISLAND WITH SEDIMENTS DREDGED FROM NEARBY WATERWAYS & WATER BOTTOMS (10)
7	BARA	BARR ISL REST	IT IS ESSENTIAL TO PRESERVE GRAND ISLE FOR THE MANY FUNCTIONS IT SERVES (2A)
8	BARA	DREDGED MAT	FUND MITIGATION REQUIRED BY HIS PERMIT (MARSH CREATION WITH DREDGED MATERIAL) WITH CHIPPWA FUNDS
9	BARA	DREDGED MAT	MARSH CAN BE CREATED WITH SEDIMENTS FROM A COMMERCIAL BOAT HARBOR ON GRAND ISLE (PERMIT- CARNADA BAY 52) (6)
10	BARA	DREDGED MAT	USE MATERIAL DREDGED FROM BAYOU DUPONT TO BUILD MARSH (11)
11	BARA	DREDGED MAT	PUMP DREDGED MATERIAL BEHIND FORT LIVINGSTON TO CREATE MARSH AND CREATE SHOREBIRD FEEDING HABITAT
12	BARA	DREDGED MAT	USE DREDGED MATERIAL FROM THE BARATARIA BAY WATERWAY TO BUILD AND PROTECT MARSH ON GRAND TERRE ISLAND
13	BARA	EROSION CONTR	EROSION CONTROL NEEDED ALONG LAKE SALVADOR SHORELINE FROM BAIE DU CABANAGE TO BAYOU DES ALLEMANDS
14	BARA	EROSION CONTR	SHORELINE EROSION CONTROL NEEDED ALONG EASTERN SHORE OF LAKE SALVADOR ESPECIALLY NEAR BAYOU SEGNETTE
15	BARA	EROSION CONTR	BANK STABILIZATION ALONG BAYOU LAFOURCHE AND AT THE INTERSECTION OF BAYOU LAFOURCHE AND THE GIWW (2)
16	BARA	EROSION CONTR	BANK STABILIZATION NEEDED ALONG BAYOU LAFOURCHE FROM SOUTH OF LAROSE TO SOUTH OF LEEVILLE (5)
17	BARA	EROSION CONTR	STABILIZE THE LAKE SALVADOR SHORELINE FROM BAIE CHACTAS SHELL BANK TO BAYOU DES ALLEMANDS WITH ROCK OR GABION
18	BARA	EROSION CONTR	CONSTRUCT A DEMONSTRATION BREAKWATER OF TIRES TO SLOW EROSION ON THE BANKS OF GRAND BAYOU
19	BARA	EROSION CONTR	USE TIRE STRUCTURE TO STABILIZE BANKS OF GRAND BAYOU BETWEEN WEST POINT A LA HACHE & PORT SULPHUR (2)
20	BARA	EROSION CONTR	EROSION IS OCCURRING ALL ALONG THE BARATARIA BAY WATERWAY (1)
21	BARA	EROSION CONTR	EROSION IS OCCURRING ALONG THE GIWW IN THE CROWN POINT AREA (2)
22	BARA	EROSION CONTR	SHORELINE STABILIZATION OF GRAND ISLE ESPECIALLY IN AREAS WHERE MARSH DESTRUCTION IS EVIDENT
23	BARA	EROSION CONTR	THE GIWW BANKS ARE ERODING FROM FLEMING CANAL WEST TO THE PARISH LINE. BANK PROTECTION IS NEEDED
24	BARA	EROSION CONTR	THE NORTHEASTERN SHORELINE OF THE PEN NEEDS A BARRIER TO ABSORB WAVE ENERGY TO PREVENT FURTHER EROSION AND TRAP SEDIMENTS
25	BARA	EROSION CONTR	THE WEST BANK OF THE BARATARIA WA. AT LAFITTE HAS SEVERE BANK EROSION. NEED TO PROTECT HOMES, DOCKS, ROAD, CEMETERY, CULTURAL SITES, ETC...
26	BARA	FRSHWTR DIV	SEDIMENT DIVERSION INTO THE UPPER BARATARIA BASIN, POSSIBLY HERO CANAL (8)
27	BARA	FRSHWTR DIV	STORM WATER RUNOFF TREATMENT FOR THE LAKE CATOUATCHE PUMPING STATION (16)
28	BARA	FRSHWTR DIV	DIVERT WATER FROM THE MISSISSIPPI RIVER DOWN BAYOU LAFOURCHE (1)
29	BARA	HYDRO REST	MARSH MANAGEMENT FOR THE AREA NORTH OF "THE PEN" NEAR LAFITTE. TIE IN WITH LAREUSSITE OR HERO CANAL DIVERSION PROJECTS (11)
30	BARA	HYDRO REST	REDUCE TIDAL FLUSHING ACTION IN THE BARATARIA BASIN BY CLOSING MAN-MADE CANALS, RE-ESTABLISHING N. TO S. FLOW (17)
31	BARA	HYDRO REST	LAFOURCHE PARISH SUPPORTS NMFS PROPOSED SPOIL IMPOUNDMENT RESTORATION FOURCHON (15)
32	BARA	HYDRO REST	WIDEN AND DEEPEN BAYOU LAFOURCHE AND CONSTRUCT LOCKS TO STOP SALT WATER INTRUSION (1A)
33	BARA	HYDRO REST	MANAGE WATER AND SEDIMENT OUTFLOW FROM DAVIS POND FRESHWATER DIVERSION TO MAXIMIZE BENEFITS
34	BARA	HYDRO REST	LAKE SALVADOR WATERSHED PROJECT - LARGE SCALE PROJECT TO MANAGE AN ENTIRE WATERSHED
35	BARA	HYDRO REST	CONSTRUCT A LOCK IN THE BARATARIA BAY WATERWAY AND FLOODGATES ON CARNADA PASS TO PREVENT SALTWATER INTRUSION, TIDAL SCOUR, ETC... (8)
36	BARA	HYDRO REST	RESTORE A CANAL PLUG OFF OF SCOFIELD BAYOU TO PREVENT TIDAL SCOUR. (5)
37	BARA	HYDRO REST	CONSTRUCT "LOW" LEVEES ALONG CANALS RUNNING BETWEEN PROTECTION LEVEES TO REDUCE SEDIMENT LOSS AND SALTWATER INTRUSION IN THE BARA. BASIN
38	BARA	MARSH MGMNT	MANAGE THE AREA BETWEEN THE PEN AND HERO CANAL TO TRAP SEDIMENTS AND MAINTAIN THE INTEGRITY OF THE MARSH
39	BARA	MARSH MGMNT	WATER MANAGEMENT AND FRESHWATER DIV. FOR THE AREA BETWEEN THE BARATARIA RIDGE AND THE MISS. RIVER AND NORTH OF BAYOUS DUPONT AND TRAVERSE
40	BARA	OTHER	ELEVATED WATER LEVELS ARE A PROBLEM IN THE VACHERIE AREA (3)
41	BARA	WETLAND LOSS	EAST OF GOOSE BAYOU IN LAFITTE AROUND BAYOU DUPONT IS ERODING. CONSIDER USING DREDGED MATERIAL
42	BARA	WETLAND LOSS	THE MARSH SOUTHEAST OF LEEVILLE IS BEING LOST TO SALTWATER INTRUSION AND SOIL COMPACTION (4)
43	BARA/MISS	EROSION CONTR	SEE MR. PETROVICH'S PROJECTS THAT WERE PREPARED BY BROWN AND ROOT; THE TIRE SEDIMENT TRAP AND THE BREAKWATER ALONG GRAND BAYOU
44	BARA/MISS	FRSHWTR DIV	PROVIDE FOR ENRICHED SEDIMENT DIVERSION INTO GRAND PASS, TIGER PASS, AND BAPTISTE COLLETTE (9)
45	BRET	FRSHWTR DIV	INTRODUCE FRESHWATER TO PREVENT SALTWATER INTRUSION AT FLOODGATES AT BAYOU BIENVENUE & BAYOU DUPRE (3A)
46	BRET	FRSHWTR DIV	RESTORE RIVER FLOW THROUGH OAK RIVER (15)
47	BRET	FRSHWTR DIV	FRESHWATER INTRODUCTION AND DISTRIBUTION SYSTEM TO DISTRIBUTE WATER FROM THE VIOLET SIPHON INTO THE CENTRAL WETLANDS AND LAKE LERY WETLANDS
48	BRET	HYDRO REST	BUILD DOUBLE LOCKS AT BAYOU BIENVENUE & BAYOU DUPRE FLOODGATES TO REDUCE SALTWATER INTRUSION IN CENTRAL WETLANDS (3)
49	BRET	HYDRO REST	CONSTRUCT A LOW-LEVEL BARRIER BETWEEN POINT A LA HACHE AND THE MRGO TO REDUCE SALTWATER INTRUSION AND TIDAL SCOUR (7)
50	BRET	HYDRO REST	STABILIZE AND RESTORE THE MARSHES NORTH OF LAKE LERY (17)
51	BRET	HYDRO REST	BUILD A LOCK AT BAYOU BIENVENUE AND BAYOU DUPRE USING EXISTING FLOODGATES TO STOP SALTWATER FROM AFFECTING THE CENTRAL WETLANDS
52	BRET	SED DIV	BUILD LARGE-SCALE DIVERSIONS AT MYRTLE GROVE AND BOHEMIA TO REPLENISH MARSHES. ALSO, INCLUDE HYDROELECTRIC FACILITIES TO PAY FOR PROJECT
53	BRETON	OTHER	ISLAND CREATION ALONG THE EXISTING MARSH SHORELINE TO ACT AS BARRIERS TO MARSH EROSION AND PROVIDE WILDLIFE HABITAT
54	CALC	EROSION CONTR	CONSTRUCT "SOMETHING" TO PREVENT EROSION ALONG GIWW FROM CALCASIEU TO THE SABINE RIVER
55	CALC	EROSION CONTR	BREAKWATER OR ARTIFICIAL REEF TO SLOW SHORELINE EROSION AT LOUISIANA POINT (12)
56	CALC	EROSION CONTR	EROSION OF A REMNANT DREDGED MATERIAL BANK WOULD ALLOW AN INCREASE OF EROSION ALONG MOSS LAKE. SUGGEST DREDGED MATERIAL OR ROCK DIKE (14)
57	CALC	EROSION CONTR	SHORELINE PROTECTION ALONG THE WEST SIDE OF THE CALCASIEU SHIP CHANNEL IN LONG POINT LAKE (2)
58	CALC	EROSION CONTR	EROSION IS OCCURRING ALONG THE CALCASIEU SHIP CHANNEL, ESPECIALLY BETWEEN CALCASIEU LAKE AND THE GIWW (6)
59	CALC	EROSION CONTR	EROSION IS OCCURRING ALONG THE GIWW FROM CALCASIEU TO SABINE RIVER, MOSTLY ON THE NORTH SIDE (5A)
60	CALC	EROSION CONTR	EROSION IS OCCURRING ALONG THE GIWW W. OF THE SALT (ALKALI) DITCH (5)
61	CALC	EROSION CONTR	EROSION IS OCCURRING ALONG THE MERMENTAU RIVER NORTH OF THE GIWW (15)
62	CALC	EROSION CONTR	MAKE HOLES IN CALCASIEU JETTIES OR BAFFLES TO THE WEST OF THE JETTIES TO REDUCE EROSION ALONG THE LA COAST (8)
63	CALC	EROSION CONTR	PLACE AN EARTHEN LEVEE OR NON-ERODABLE BREAKWATER AND VEGETATIVE PLANTINGS ALONG PRIORITIZED SECTIONS OF THE NORTH GIWW BANK
64	CALC	EROSION CONTR	PLACE EARTHEN LEVEE OR NON-ERODABLE BREAKWATER AND VEGETATIVE PLANTINGS ALONG CALCASIEU SHIP CHANNEL TO PREVENT EROSION
65	CALC	EROSION CONTR	RIP-RAP EXISTING STRUCTURES ON HEBERT-FRECHT CANAL AND AT WELFARE BRIDGE TO PROTECT STRUCTURES
66	CALC	EROSION CONTR	RIP-RAP EXISTING WATER CONTROL STRUCTURES FOR THE CAMERON-CREOLE WATERSHED PROJECT TO PREVENT UNDERMINING
67	CALC	FRSHWTR DIV	REROUTE PUMPED STORM WATER INTO THE CAMERON CREOLE WATERSHED PROJECT(1A)
68	CALC	FRSHWTR DIV	DIVERT WATER FROM THE SABINE RIVER INTO BLACK BAYOU
69	CALC	HYDRO REST	PLACE ROCK WEIRS ACROSS EXCHANGE POINTS ALONG BLACK BAYOU BETWEEN GIWW AND SABINE RIVER
70	CALC	HYDRO REST	CLOSURE OF PETROLEUM ACCESS CANALS ALONG SABINE LAKE AND IN ADJACENT MARSHES TO REESTABLISH HISTORIC HYDROLOGY AND REDUCE WETLAND LOSS (3)
71	CALC	HYDRO REST	DECREASE TIDAL FLUCTUATIONS AND SCOUR BY DECREASING THE CROSS SECTION OF OYSTER BAYOU (15)
72	CALC	HYDRO REST	REDUCE CROSS SECTION OF CALCASIEU PASS TO AUTHORIZED WIDTH TO REDUCE TIDAL EXCHANGE AND SALTWATER INTRUSION
73	CALC	HYDRO REST	REDUCE THE CROSS-SECTION OF CALCASIEU BAYOU TO PREVENT TIDAL SCOUR AND SALT WATER INTRUSION (3)
74	CALC	HYDRO REST	SALT WATER BARRIER WEST OF HWY 27 AND EAST OF ALKALI SALT DITCH TO REDUCE SALT WATER INTRUSION AND TIDAL SCOUR (3)
75	CALC	HYDRO REST	SALTWATER INTRUSION UNDER HWY 384 IS THREATENING FRESH MARSH. PLUGS OR WATER CONTROL STRUCTURES NEEDED (12)

Record	BASIN	CATEGORY	DESCRIPT
76	CALC	HYDRO REST	A LOCK IS NEEDED ON THE GIWW, EAST OF THE HWY 27 BRIDGE AND WEST OF THE CALCASIEU RIVER TO PREVENT SALTWATER INTRUSION (58)
77	CALC	HYDRO REST	INSTALL A LOCK AT THE MOUTH OF THE CALCASIEU SHIP CHANNEL TO REDUCE SALTWATER INTRUSION, ETC... (1)
78	CALC	HYDRO REST	MARSH MANAGEMENT IS NEEDED IN THE RUD LAKE AREA PERMIT: CAMERON PARISH WETLANDS 923 (12)
79	CALC	HYDRO REST	MARSH MANAGEMENT IS NEEDED IN THE OYSTER BAYOU AREA (11)
80	CALC	HYDRO REST	ROCK WEIRS SHOULD BE CONSTRUCTED ACROSS GAPS ALONG BLACK BAYOU FROM THE SABINE RIVER TO THE GIWW (22)
81	CALC	HYDRO REST	SALTWATER INTRUSION IS OCCURRING IN THE WETLANDS EAST OF HWY 384 (3)
82	CALC	HYDRO REST	STOP MAINTAINING THE CALCASIEU CHANNEL TO SAVE THE WETLANDS (2)
83	CALC	HYDRO REST	THERE IS A LACK OF WATER FLOW ALONG HWY 27 AT LITTLE CHENIER (4)
84	CALC	HYDRO REST	WATER MANAGEMENT IS NEEDED NORTH OF MOSS LAKE (10)
85	CALC	HYDRO REST	PLACE A SALT WATER BARRIER THAT ALLOWS NAVIGATION IN CALCASIEU PASS THAT A HIGH RISE BRIDGE COULD BE BUILT ON.
86	CALC	HYDRO REST	PLACE A SALTWATER BARRIER AT THE MOUTH OF BRANNON DITCH TO ALLOW RAINFALL RUNOFF FROM THE N. AND PREVENT SALTWATER FROM THE S.
87	CALC	HYDRO REST	CONSTRUCT A WATER CONTROL STRUCTURE IN BLACK BAYOU ADJACENT TO CALCASIEU LOCKS TO HELP RELIEVE MERMENTAU BASIN FLOOD FLOWS
88	CALC	HYDRO REST	CONSTRUCT LOCKS ON THE GIWW IN THE VICINITY OF ALKALI DITCH TO PREVENT SALTWATER CIRCULATION
89	CALC	HYDRO REST	BUILD LEVEE ON SOUTH SIDE OF MIAMI CORP. LAND TO ALLOW MARSH TO RECEIVE OVERBANK FLOW FROM THE NORTH AND PROTECT RESIDENTS
90	CALC	OTHER	ASSUMPTION OF O&M COSTS OF CAMERON-CREOLE WATERSHED PROJECT (17)
91	CALC	OTHER	DEAUTHORIZE THE LAKE CHARLES DEEPWATER CHANNEL SO THAT SALT WATER BARRIER OR FRESH WATER DIVERSION COULD BE BUILT INTO CHANNEL (25A)
92	CALC	OTHER	FLOODING OCCURS IN HACKBERRY AS A RESULT OF HYDROLOGIC RESTORATION (1)
93	CALC	OTHER	RESTORE BLACK LAKE'S SHORELINE TO PROTECT ADJACENT MARSHES AND RESTORE HYDROLOGY (4)
94	CALC	OTHER	USE HAY BALES AND ROLLS TO ENCOURAGE VEGETATION COLONIZATION OF AREA AND ACT AS WAVE DAMPENING DEVICES IN LAKE BOUDREAUX (27)
95	CALC	OTHER	FLOODING IS OCCURRING IN HACKBERRY AREA. REASONS SUGGESTED IN MARSH MANAGEMENT PROJECT (14)
96	CALC	WETLAND LOSS	RESTORE HYDROLOGY IN RUD LAKE MARSH TO REDUCE WETLAND LOSS (13)
97	CALC/MERM	EROSION CONTR	PLACE AN EARTHEN LEVEE OR NON-ERODABLE BREAKWATER AND VEGETATIVE PLANTINGS ALONG THE GIWW IN CALCASIEU, CAMERON, AND VERMILION PARISHES
98	CALC/MERM	MARSH MNGMNT	MARSH MANAGEMENT WITH STRUCTURES FOR THE COTEAU PLATEAU MARSH BETWEEN EAST CREOLE AND LITTLE CHENIER CHENIERS
99	CALC/MERM	OTHER	REINTRODUCE PRAIRIE BISON AND RED WOLVES TO BENEFIT THE ENTIRE PLANETARY ECOSYSTEM
100	CALC/MERM	WETLAND LOSS	EROSION IS OCCURRING ALONG THE GIWW FROM THE CALCASIEU RIVER TO LELAND-BOWMAN LOCK
101	MERM	EROSION CONTR	BREAKWATER OR ARTIFICAL REEF TO SLOW EROSION OF SHORELINE AT ROCKEFELLER WILDLIFE REFUGE (12A)
102	MERM	EROSION CONTR	EROSION OF GIWW DREDGED MATERIAL BANKS IS ALLOWING INCREASED WAVE ENERGY ON ADJACENT MARSHES (5)
103	MERM	EROSION CONTR	FRESHWATER BAYOU NEEDS BANK STABILIZATION FROM FRESHWATER BAYOU LOCK TO INTRACOASTAL CITY. AREAS HAVE BEEN PRIORITIZED & PERMIT ISSUED (10)
104	MERM	EROSION CONTR	INLAND WATERWAY'S (OLD GIWW) SHORELINE IS ERODING THREATENING ADJACENT MARSHES (9)
105	MERM	EROSION CONTR	LOWERING OF WATER LEVELS WOULD REDUCE WAVE INDUCED EROSION ALONG GRAND LAKE (6)
106	MERM	EROSION CONTR	LOWERING WATER LEVELS IN GRAND LAKE WOULD REDUCE SHORELINE EROSION (6A)
107	MERM	EROSION CONTR	REDUCE WATER LEVELS IN WHITE LAKE BY DIVERTING WATER UNDER HWY 82. WILL REDUCE EROSION AROUND WHITE LAKE & BENEFIT RECEIVING AREA
108	MERM	EROSION CONTR	LIMESTONE RIP-RAP ENTIRE SOUTH BANK OF GRAND LAKE AND PLANT WITH SMOOTH CORDGRASS
109	MERM	EROSION CONTR	LIMESTONE RIP-RAP ENTIRE SOUTH BANK OF WHITE LAKE AND PLANT WITH SMOOTH CORDGRASS
110	MERM	EROSION CONTR	EROSION IS OCCURRING ALONG THE OLD GIWW BETWEEN GRAND AND WHITE LAKES (13)
111	MERM	EROSION CONTR	SHORELINE OF WHITE LAKE IS ERODING (12)
112	MERM	EROSION CONTR	BUILD ROCK AND PILING EMBANKMENTS ALONG THE GULF SHORE TO TRAP SILT AND SAND TO PROTECT ROCKEFELLER REFUGE
113	MERM	EROSION CONTR	PLACE EARTHEN LEVEE OR NON-ERODABLE BREAKWATERS AND VEGETATIVE PLANTINGS ALONG CRITICAL SHORELINES OF GRAND AND WHITE LAKES
114	MERM	FRSHWTR DIV	FRESHWATER DIVERSION FROM GRAND AND WHITE LAKE BASINS UNDER HWY 82 TO DECREASE SALT WATER INTRUSION TO MARSHES S. AND E. OF HWY 82 (7)
115	MERM	HYDRO REST	THE HOG BAYOU AREA NEEDS A MANAGEMENT PLAN (20)
116	MERM	HYDRO REST	BUILD A LEVEE ON SOUTH BORDER OF MIAMI CORP. LAND TO ALLOW OVERBANK FLOODING TO ENTER BIG BURN MARSH AND PROTECT NEARBY RESIDENTS
117	MERM	HYDRO REST	CONSOLIDATE SANHILL CANAL WATER CONTROL STRUCTURES INTO ONE UNIT AT INTERSECTION OF SANHILL CANAL AND LITTLE PECAN BAYOU TO MAINTAIN MARSH
118	MERM	HYDRO REST	REPLACE EXISTING FLOODWATER CONTROL STRUCTURE ON HUMBLE CANAL TO MANAGE WATER LEVELS IN THE AREA OF BIG BURN
119	MERM	MARSH MNGMNT	A COMPREHENSIVE HYDROLOGIC PLAN TO PRESERVE AND RESTORE MARSH BETWEEN THE MERMENTAU RIVER AND ROCKEFELLER REFUGE
120	MERM	VEG PLANTINGS	PLANT SMOOTH CORDGRASS ALONG ENTIRE BANKS AND MARSH EDGE OF LITTLE PECAN BAYOU WATER SHED TO PREVENT EROSION FROM SALTWATER INTRUSION
121	MERM	VEG PLANTINGS	PLANT BALD CYPRESS SEEDLINGS ALONG THE GIWW FROM CALCASIEU LOCKS TO GRAND LAKE
122	MERM	WETLAND LOSS	EROSION IS OCCURRING IN THE GRAND & WHITE LAKE AREA (16)
123	MERM/VERM	EROSION CONTR	PLACE AN EARTHEN LEVEE AND/OR NON-ERODABLE BREAKWATER AND VEGETATIVE PLANTINGS ALONG FRESHWATER BAYOU TO PREVENT EROSION
124	MERM/VERM	OTHER	HERBICIDE USE IN GRAND & WHITE LAKE BASIN MAY BE HARMING WETLAND VEGETATION (9)
125	MERM/VERM	WETLAND LOSS	EROSION ALONG FRESHWATER BAYOU IS CRITICAL WHERE IT COMES CLOSEST TO VERMILION BAY (19)
126	MERM/VERM	WETLAND LOSS	MARSHES BETWEEN FRESHWATER BAYOU AND WHITE LAKE ARE BEING LOST (7)
127	MISS	DREDGED MAT	CREATE MARSH ISLANDS USING MATERIAL DREDGED FORM THE MISS. RIVER AND S.R.E.D. 5 CONSTRUCTED WITH TIRES
128	MISS	EROSION CONTR	USE OLD TIRES TO CONTROL EROSION ALONG GRAND BAYOU (13)
129	MISS	FRSHWTR DIV	INVESTIGATE WAYS TO LET NATURE MOVE HEAVY SEDIMENTS INTO THE WEST DELTA (4)
130	MISS	FRSHWTR DIV	DIVERT HEAVY SEDIMENTS FROM SOUTHWEST PASS INTO WEST DELTA (14)
131	MISS	OTHER	USE OLD TIRES TO TRAP AND RETAIN DISPOSED DREDGED MATERIAL FROM THE MISSISSIPPI RIVER & COMPLEMENT THE WEST BAY SEDIMENT DIVERSION (COE)(1)
132	MISS	OTHER	USE OLD TIRES TO TRAP SEDIMENTS IN THE RIVERSIDE BAY AREA OF THE WEST DELTA (12)
133	OTHER	WETLAND ACQ	BUY AND PROTECT A WET BATTURE AREA ALONG THE MISSISSIPPI RIVER IN THE VICINITY OF HAHNAHN, LA
134	PONT	DREDGED MAT	STABILIZE AND REBUILD THE BANKS OF THE GIWW BYPASS BY USING MATERIAL BORROWED FROM THE CHANNEL
135	PONT	DREDGED MAT	MARSH CREATION WITH DREDGED MATERIAL NORTH OF INTERSTATE 10 IN ST. CHARLES PARISH (5)
136	PONT	DREDGED MAT	PROPOSAL SIMILAR TO THE LABRANCHE WETLANDS PROJECT ON THE FIRST PROJECT LIST
137	PONT	DREDGED MAT	USE MATERIAL DREDGED FROM LAKE PONTCHARTRAIN TO BUILD MARSH IN LABRANCHE WETLANDS IN ADDITION TO THE FIRST PRIORITY PROJECT LIST
138	PONT	EROSION CONTR	BANK STABILIZATION ALONG THE LAKE PONTCHARTRAIN SHORELINE IN ST. CHARLES PARISH (4)
139	PONT	EROSION CONTR	PROTECT LAKE PONTCHARTRAIN SHORELINE WITH ROCK OR GABION IN AREA OF LABRANCHE WETLANDS
140	PONT	EROSION CONTR	BEACH EROSION IS OCCURRING E. AND W. OF THE MOUTH OF THE TCHEFUNCTE RIVER (4)
141	PONT	EROSION CONTR	NEED TO PROTECT CHENIER NEAR BAYOU CHINCHUBA TO PREVENT LAKE PONTCHARTRAIN FROM BREAKING THROUGH INTO FRESHER MARSH (1)
142	PONT	EROSION CONTR	PROTECT THE SHORELINE OF LAKE BORGNE FROM EROSION (18)
143	PONT	EROSION CONTR	SHORELINE PROTECTION NEEDED NEAR THE MOUTH OF THE TCHEFUNCTE RIVER
144	PONT	EROSION CONTR	PLACE STRUCTURES ALONG THE SOUTH SHORE OF LAKE PONT. TO REDUCE WAVE ENERGY TO ALLOW FOR SEDIMENTS TO ACCUMULATE AND BUILD MARSH
145	PONT	HYDRO REST &	RESTORE EASTERN PART OF EDEN ISLES TO WETLANDS
146	PONT	HYDRO REST	RESTORE THE UNDEVELOPED 2,700 ACRES ON THE EASTERN SIDE OF EDEN ISLES ON THE NORTH SHORE OF LAKE PONTCHARTRAIN
147	PONT	HYDRO REST	MARSH MANAGEMENT OF AREA BOUND BY LAKE BORGNE, LAKE ST. CATHERINE, CHEF MENTEUR PASS, AND ST. CATHERINE PASS, USING ROCK WEIRS, PLUGS, ETC.
148	PONT	HYDRO REST	CULVERTS UNDER HWY 51 & POSSIBLY THE RAILROAD ARE PREVENT WATER EXCHANGE BETWEEN LAPLACE AND PONCHATOULA (1)
149	PONT	HYDRO REST	THE WEIR AT THE WHITE RIVER DIVERSION CHANNEL NEEDS TO BE MAINTAINED (2)
150	PONT	HYDRO REST	DEAD END CANALS AT PORT LOUIS AREA CAUSING PROBLEMS. THE PORT IS NEARLY DEFUNCT AND NO MAINTENANCE IS BEING DONE. (2)

Record	BASIN	CATEGORY	DESCRIPT
151	PONT	HYDRO REST	FORMULATE AND IMPLEMENT A COMPREHENSIVE HYDROLOGIC PLAN TO PRESERVE AND RETURN HYDROLOGIC FLOW TO THE LOWER MAUREPAS BASIN
152	PONT	MARSH MGMNT	CREATE MARSH SYSTEMS AND BARRIER ISLANDS TO RETAIN AND TREAT STORM WATER RUNOFF
153	PONT	OTHER	LOOK AT ACQUIRING AND PRESERVING EDEN ISLE PROPERTY EAST OF INTERSTATE HIGHWAY 10 (3)
154	PONT	OTHER	MARSH CREATION FOR TREATMENT OF STORM WATER RUNOFF IN EAST JEFFERSON (15)
155	PONT	OTHER	FUND PROJECT SMALLOW WITH CWPPRA FUNDS (7)
156	PONT	OTHER	PRESERVE MARSHES SURROUNDING LAKE PONTCHARTRAIN, POSSIBLY PURCHASE OF LAND. (6)
157	PONT	OTHER	RE-ESTABLISH GRASS BEDS IN LAKE PONTCHARTRAIN 5)
158	PONT	OTHER	RELOCATE HUMAN LIVING SOUTH OF LAKE PONTCHARTRAIN TO THE NORTH SHORE THEN OPEN UP LEVEES ALONG THE RIVER TO REPLENISH MARSH
159	PONT	OTHER	RESTORE THE AREA OF EDEN ISLES TO THE EAST OF INTERSTATE 10 (10)
160	PONT	OTHER	ANALYZE THE BONNABEL CANAL CREATED WETLANDS TO DETERMINE THEIR EFFECTIVENESS IN TREATING STORMWATER RUNOFF
161	PONT	OTHER	ANALYZE THE EFFECTIVENESS OF THE DUNCAN CANAL CREATED WETLANDS IN TREATING STORMWATER RUNOFF
162	PONT	WETLAND LOSS	WETLAND LOSS AREAS: A.GOOSE POINT MARSH, B.FRITCHIE MARSH C.BETWEEN MADISONVILLE AND MANDEVILLE, D.E&W OF TCHEFUNCTE RIVER (SHORELINE)(4)
163	PONT	WETLAND LOSS	EROSION OF SWAMP AND MARSH BETWEEN BAYOU CHINCHUBA AND TCHEFUNCTE RIVER
164	PONT	WETLAND LOSS	INTERIOR EROSION OF NORTH SHORE AND FRITCHIE MARSHES
165	PONT	WETLAND LOSS	INTERIOR MARSH LOSS BETWEEN CANE BAYOU AND BAYOU LACOMBE
166	PONT/BARA	WETLAND LOSS	BANK STABILIZATION AND HYDROLOGIC RESTORATION IS NEEDED ALONG THE GIWW IN ORLEANS AND JEFFERSON PARISH (2)
167	PONT/BRET	EROSION CONTR	PROTECT THE SHORELINE OF LAKE BORGNE FROM EROSION (23)
168	PONT/BRET	EROSION CONTR	BANK STABILIZATION ALONG MRGO (1)
169	PONT/BRET	HYDRO REST	CLOSE THE MRGO AND USE CWPPRA FUNDS TO RELOCATE CONTAINER CARGO FACILITIES TO THE MISSISSIPPI RIVER
170	PONT/BRET	HYDRO REST	INSTALL A GATE OR LOCK ON THE MRGO TO REDUCE SALTWATER INTRUSION
171	PONT/BRET	HYDRO REST	NAVIGABLE WEIR OR GATE ON THE MRGO TO REDUCE SALTWATER INTRUSION (17)
172	PONT/BRET	HYDRO REST	PUT A NAVIGABLE LOCK ON THE MRGO (19)
173	PONT/BRET	HYDRO REST	RESTORE MARSHES IN CENTRAL WETLAND UNITS OF ST. BERNARD PARISH (16)
174	STATE	BARR ISL REST	HE SUBMITTED A LENGHTY DISCOURSE ON HOW TO USE OLD TIRES, BOUND TOGETHER WITH NYLON CORD, FOR EROSION CONTROL AND CAPTURING SEDIMENTS
175	STATE	BARR ISL REST	FAILURE TO PRESERVE BARRIER ISLANDS WILL MAKE EFFORTS TO SAVE INTERIOR WETLANDS FUTILE (3)
176	STATE	DREDGED MAT	USE DREDGED MATERIAL WHEN & WHERE EVER POSSIBLE (9)
177	STATE	DREDGED MAT	USE DREDGED MATERIAL BENEFICIALLY WHEN AND WHERE EVER POSSIBLE (10)
178	STATE	EROSION CONTR	THIS MAN'S COMPANY HAS A PRODUCT CALLED "BEACH BLOCKS" THAT THEY MARKET FOR EROSION CONTROL
179	STATE	EROSION CONTR	EROSION ALONG TYME GIWW IS AFFECTING WETLANDS OUTSIDE OF THE PROJECT RIGHT-OF-WAYS (6)
180	STATE	FRSHWTR DIV	PUMP RIVER SEDIMENTS INTO THE INFLOW CHANNELS OF THE FRESHWATER DIVERSION PROJECTS (9)
181	STATE	HYDRO REST	RECONVERT MARGINAL AGRICULTURAL LANDS TO WET-PRAIRIE (MARSH). HE ALSO SUBMITTED THIS PROPOSAL FOR THE STATE PLAN
182	STATE	HYDRO REST	REDUCE TIDAL FLUSHING AND SCOUR BY FILLING OR PLUGGING UNUSED CANALS (20)
183	STATE	HYDRO REST	CONSIDER PLUGGING AND BACKFILLING CUTS INTO MARSHES MADE BY OIL COMPANIES, THEY SHOULD BEAR THIS COST
184	STATE	HYDRO REST	REDUCE THE SIZE OF TIDAL PASSES ALON THE GULF SHORELINE TO REDUCE SALTWATER INTRUSION AND TIDAL SCOUR (7)
185	STATE	OTHER	CONSTRUCTION AND VEGETATION OF BERMS ALONG NAVIGATION CHANNELS TO PREVENT BANKLINE EROSION (24)
186	STATE	OTHER	WAVE DAMPENING AND VEGETATIVE PLANTINGS IN OPEN WATER AREAS (20). ALSO OTHER WETLAND PROTECTION/RESTORATION TYPE PROJECTS (21)
187	STATE	OTHER	ALLOCATE OR DEDICATE WATER IN THE MISS. RIVER FOR USE IN LA. (22)
188	STATE	OTHER	EXAMINE ALL NAVIGATION CHANNELS FOR SALTWATER INTRUSION AND EROSION PROBLEMS (12)
189	STATE	OTHER	SUBSIDENCE AND MARSH DETERIORATION HAS OCCURRED FROM PETROLEUM EXTRACTION. EXAMINE REINTRODUCTION OF PRODUCED WATER (13)
190	STATE	OTHER	USE YARD WASTE TO CREATE A BASE FOR WETLAND GROWTH IN FRESHWATER CANALS (21)
191	STATE	OTHER	SUPPORT PROJECTS LIKE EPA'S FALSOUT CANAL SOUTH WETLAND CREATION DEMONSTRATION (7)
192	STATE	OTHER	CONSIDER SEA LEVEL RISE WHEN PLANNING PROJECTS ALONG THE COAST (9)
193	STATE	OTHER	PERMITTING PROCESS IS TO LONG AND COMPLICATED (10)
194	STATE	OTHER	GIVE MARSH OWNERS THE RIGHT AND PERMITS TO LEVEE THEIR LANDS WITH FIVE FOOT LEVEES
195	STATE	OTHER	USE PRODUCTS DEVELOPED FROM DISCARDED TIRES TO PROTECT AND REBUILD MARSHES AND BARRIER ISLANDS
196	STATE	OTHER	STOP ALL DREDGING AND ENCOURAGE LAND AND OIL COMPANIES TO RESTORE LAND
197	STATE	OTHER	A PROJECT TO DETERMINE THE FEASIBILITY OF USING BEACH "CONES SHOULD BE FUNDED (3)
198	STATE	OTHER	PLAN RESTORATION BY HYDROLOGIC BASINS INSTEAD OF BY UNASSOCIATED INDIVIDUAL PROJECTS (4)
199	STATE	TIDAL EXCHANG	DEMOLISH CATTLE WALKWAYS THAT INTERRUPT SHEET FLOW USING MILITARY EQUIPMENT TO BLOW THEM UP
200	STATE	VEG PLANTINGS	PLANTING OF DEEPWATER AQUATICS TO REDUCE EROSION AND WAVE FETCH (26)
201	STATE	VEG PLANTINGS	VEGETATIVE PLANTING EFFORTS SHOULD BE EXPANDED
202	STATE	VEG PLANTINGS	PLANT NATUAL VEGETATION ALONG THE COASTLINE TO RESTORE AND MAINTAIN BEACHES & SAND BANKS, ie TURTLE GRASS, MANGROVES, WILDFLOWERES, COCONUT
203	TERR	BARR ISL REST	COMPLETE BARRIER ISLAND RESTORATION PLAN FOR TERREBONNE PARISH (1)
204	TERR	BARR ISL REST	REBUILD BARRIER ISLANDS, PLANT VEGETATION, INSTALL ROCK JETTIES, AND STABILIZE NATURAL PASSES
205	TERR	BARR ISL REST	RESTORE ISLE DERNIERES CHAIN WITH MATERIAL FROM BAY SIDE, STRUCTURES TO SEDIMENTS ON GULF SIDE, AND REPAIRS TO BREAKS IN ISLANDS
206	TERR	DREDGED MAT	DREDGE BAYOU TERREBONNE AND USE DREDGED MATERIAL TO CREATE WETLANDS (8)
207	TERR	EROSION CONTR	MARSH CREATION AND BANK STABILIZATION ON THE WEST SIDE OF BAYOU LAFOURCHE AND AT BELLE PASS (4)
208	TERR	EROSION CONTR	STABILIZATION OF HOUMA NAVIGATION CANAL BANKS (4)
209	TERR	EROSION CONTR	CONSTRUCT ARTIFICAL REEF IN GULF OF MEXICO TO SLOW WAVE ACTION USING OLD CARS
210	TERR	EROSION CONTR	CONSTRUCTION OF LEVEES ALONG BAYOU PETIT CAILLOU & BAYOU TERREBONNE & UPGRADE ROAD SIDE ALONG HWY 56 S. OF BOUDREAUX CANAL
211	TERR	EROSION CONTR	PARISH WANTS BARRIER ISLAND PROJECTS
212	TERR	EROSION CONTRO	A LARGE BREACH HAS OCCURRED IN THE BANK OF THE GIWW ABOUT 3 MILES WEST OF BAYOU LAFOURCHE AND IS CAUSING WIDESPREAD LOSS OF FRESH MARSH
213	TERR	FRSHWTR DIV	DIVERT SEDIMENT AND FRESHWATER FROM THE ATCHAFALAYA RIVER AND OFFER FLOOD PROTECTION TO TERREBONNE PARISH (3)
214	TERR	HYDRO REST	ON POINT AU FER ISLAND, CLOSE AN EXISTING CANAL SYSTEM WITH PLUGS, AND FILL WITH DREDGED MATERIAL TO KEEP THE GULF FROM BREAKING THROUGH
215	TERR	HYDRO REST	ON POINT AU FER ISLAND, INSTALL THREE BULKHEADS IN ABANDONED ACCESS CANALS, SPECIFICALLY, IN THE AREA OF LOCUST BAYOU AND LAKE CHAPEAU
216	TERR	HYDRO REST	ON POINT AU FER ISLAND, REINSTALL TWO BULKHEADS THE HAVE FAILED IN A CANAL SYSTEN CONNECTING MOSQUITO BAY AND BAY CASTAGNIER
217	TERR	HYDRO REST	PLACE A LOCK IN THE HOUMA NAVIGATION CANAL TO REDUCE HYDROLOGIC EXCHANGE AND PREVENT SALTWATER INTRUSION (12)
218	TERR	HYDRO REST	RESTORE LAKE HOUMA TO CYPRESS SWAMP (3)
219	TERR	HYDRO REST	CLOSE HOUMA NAVIGATION CANAL OR INSTALL LOCKS JUST NORTH OF FALSOUT CANAL
220	TERR	HYDRO REST	INSTALL TWO SALINITY REDUCTION CELLS IN HOUMA NAVIGATION CANAL JUST N. OF COCODRIE AND IN DULAC AREA
221	TERR	MARSH CREATION	MARSH CREATION WEST OF HOUMA AND NORTH OF GIWW (8)
222	TERR	OTHER	RE-ROUTE GIWW SOUTH OF HOUMA AND USE DREDGED MATERIAL TO BUILD A HURRICANE PROTECTION LEVEE (7)
223	TERR	OTHER	RELOCATE THE GIWW SOUTH OF COCODRIE
224	TERR	WETLAND LOSS	RESTORE MARSH ON POINT AU FER ISLAND. LAND OWNERS HAVE DIFFICULTY GETTING PERMITS AND FINANCING PROJECTS (8)
225	TERR/ATCH	EROSION CONTR	STABILIZE BANKS OF AVOCA ISLAND CUTOFF BAYOU DRAINAGE CANAL AND THE GIWW IN TERREBONNE PARISH

Record	BASIN	CATEGORY	DESCRIPT
226	TERR/ATCH	HYDRO REST	CLOSE OFF THE NORTHERN SEGMENT OF BAYOU CHENE (2)
227	TERR/ATCH	OTHER	INVESTIGATE BOTH WETLAND RESTORATION AND PROTECTION, AND FLOOD PROTECTION. (BARRIER PLAN - BAYOUS CHENE, BOEUF, AND BLACK) (10)
228	TERR/BARA	BARR ISL REST	RESTORE AREAS WEST OF BAYOU LAFOURCHE AND EAST OF TIMBALIER (9)
229	TERR/BARA	BARR ISL REST	RESTORE BARRIER ISLANDS IN BOTH TERREBONNE AND BARATARIA BASINS (6)
230	TERR/BARA	BARR ISL REST	PLACE MAN-MADE REEFS NEAR OR OUTSIDE BARRIER ISLANDS TO REDUCE WAVE ENERGY AND PREVENT EROSION (13)
231	TERR/BARA	BARR ISL REST	PLACE ROCKS IN BREACHES OF BARRIER ISLANDS TO PREVENT FURTHER EROSION (9)
232	TERR/BARA	BARR ISL REST	USE OYSTER SHELL AND SAND TO NOURISH BEACH AND BUILD STRUCTURES ON THE GULFSIDE OF THE ISLANDS FOR PROTECTION
233	TERR/BARA	DREDGED MAT	DREDGE ALL OF BAYOU LAFOURCHE AND USE DREDGED MATERIAL TO CREATE MARSH
234	TERR/BARA	EROSION CONTR	STUDY USE OF BEACH COMBS TO SLOW EROSION OF BARRIER ISLANDS (14)
235	TERR/BARA	FRSHWTR DIV	DIVERT WATER FROM BAYOU LAFOURCHE INTO WESTERN LAFOURCHE AND TERREBONNE BASIN
236	TERR/BARA	FRSHWTR DIV	REROUTE PUMPED OUTFALL WATER THROUGH ADJACENT MARSHES
237	TERR/BARA	HYDRO REST	PLACE 3-4 SILLS IN BAYOU LAFOURCHE TO REDUCE SALINITY
238	TERR/BARA	OTHER	CONNECT BAYOU TERREBONNE AND BAYOU LAFOURCHE WITH A CHANNEL (8A)
239	VERM	EROSION CONTR	STABILIZE EASTERN END OF MARSH ISLAND WITH SEDIMENT RETENTION DIKES AND DREDGED MATERIAL
240	VERM	EROSION CONTR	BREAKWATER, ARTIFICAL REEF, OR VEGETATIVE PLANTINGS BETWEN MUD POINT AND POINT CHAMPLAIN IN VERMILION BAY (16)
241	VERM	EROSION CONTR	EROSION OF VERMILION RIVER SHORELINE AT LIVE OAK PLANTATION IS THREATENING ADJACENT WETLANDS (19)
242	VERM	EROSION CONTR	POSSIBLE BREAKWATER &/OR ARTIFICAL REEF TO SLOW COASTLINE EROSION (11)
243	VERM	EROSION CONTR	BANKS OF BAYOU CARLIN ARE ERODING. POSSIBLE WAVE STILLING FENCES OR VEGETATIVE PLANTING (19)
244	VERM	EROSION CONTR	BANKS OF BAYOU PETIT ANSE ERODING FROM VERMILION BAY TO AVERY ISLAND POSSIBLE VEGETATIVE PLANTINGS AND WAVE STILLING FENCES (18)
245	VERM	EROSION CONTR	BANKS OF FRESHWATER BAYOU ARE ERODING (1)
246	VERM	EROSION CONTR	EROSION IS OCCURRING ALONG THE GULF SHORELINE FORM SOUTHWEST PASS TO THE WEST (16)
247	VERM	EROSION CONTR	EROSION IS OCCURRING NORTH OF LITTLE VERMILION LAKE IN THE AREA AROUND OLD BAYOU CHENE (14)
248	VERM	EROSION CONTR	FOUR-MILE CUT NEEDS EROSION CONTROL ON THE WEST SIDE (2)
249	VERM	EROSION CONTR	VERMILION BAY- MUD POINT TO CYPREMONT POINT NEEDS EROSION PROTECTION POSSIBLE VEGETATIVE PLANTINGS (3)
250	VERM	EROSION CONTR	MR WITH STRUCTURES, LEVEE REPAIRS, AND PLANTINGS. AREA IS S. OF GIWW, N. OF VERMILION BAY, E. OF 4 MILE CUT & W. OF BOSTON BAYOU
251	VERM	EROSION CONTR	EROSION ALONG GIWW IN VERMILION AND IBERIA PARISHES (40)
252	VERM	EROSION CONTR	EROSION IS OCCURRING ALONG AVERY CANAL (5)
253	VERM	EROSION CONTR	ISOLATE FRESHWATER BAYOU FROM VERMILION BAY WITH AN EARTHEN LEVEE AND ROCK BREAKWATERS
254	VERM	HYDRO REST	RESTORE PIPELINE PLUGS AROUND VERMILION BAY TO PREVENT WETLAND LOSS (15)
255	VERM	VEG PLANTINGS	VEGETATIVE PLANTINGS ALONG SHORELINE OF EAST AND WEST COTE BLANCHE BAYS (11)
256	VERM	WETLAND LOSS	FROM VERMILION RIVER EAST TO IBERIA PARISH LINE MARSHES ARE BEING LOST (11)
257	VERM	WETLAND LOSS	WETLAND LOSS BETWEEN VERM. PAR. LINE ON THE W., NEW IBERIA DRAINAGE CANAL ON THE E., TRUNKLINE PIPELINE ON THE NL, AND GIWW ON THE S.
258	VERM	WETLAND LOSS	WETLANDS BEING LOST BETWEEN PECAN ISLAND AND GULF. POSSIBLE FRESHWATER INTRODUCTION FROM ATCHAFALAYA RIVER (6)
259	VERM	WETLAND LOSS	MARSH IS BEING LOST BECAUSE OF SALTWATER INTRUSION NORTH OF GIWW IN THE VICINITY OF THE LELAND-BOWMAN LOCK (8)
260	VERM/ATCH	FRSHWTR DIV	REROUTE OUTFALL WATER THROUGH ADJACENT MARSHES TO ENHANCE MARSHES AND IMPROVE WATER QUALITY IN EAST AND WEST COTE BLANCHE BAYS (10)

Coastal Wetlands Planning, Protection and Restoration Act

3rd Priority Project List Report

Appendix F

Project Monitoring Program

MONITORING PROGRAM

Background:

Monitoring of projects implemented from the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) restoration plan must provide:

1) "an evaluation of the effectiveness of each coastal wetlands restoration project in achieving long-term solutions to arresting coastal wetlands loss in Louisiana" PL 101-646 Sec. 303 (b)(4)(L); and

2) "a scientific evaluation of the effectiveness of the coastal wetlands restoration projects carried out under the plan in creating, restoring, protecting and enhancing coastal wetlands in Louisiana" PL 101-646 Sec. 303 (b) (7) .

In order for the above mandates to be achieved, the monitoring efforts must generate results that can aid in determining the success or failure of existing projects, in the beneficial modification of existing projects, in the design of future projects, and most importantly, support future decisions on selection of projects proposed for creating, restoring, protecting and enhancing Louisiana's coastal wetlands. Comparisons of results among projects of similar type is the only way to determine which projects are most effective in achieving long-term solutions to arresting coastal wetlands loss in Louisiana.

The Monitoring Work Group was tasked by the P & E Subcommittee to resolve two issues essential to achieving the above mandates. The first issue was to develop a standardized monitoring protocol, and the second issue was to determine how this protocol would be implemented in a monitoring, program, e.g., who would develop monitoring plans, collect field data, write reports, etc. The protocol was developed and reviewed by representatives from agencies, academia, and consulting firms, and their recommendations were incorporated into a final Monitoring Program Document. This

document is attached as Appendix A to this proposal.

Once the Monitoring Program Document was complete, the representatives of the various committees of the Task Force and the Monitoring Work Group discussed who would implement the monitoring program. Several options presented themselves as follows: 1) all monitoring would be the responsibility of the project sponsor; 2) all monitoring would be the responsibility of a single agency; 3) divide the monitoring among all the sponsoring agencies based upon expertise; 4) contract all monitoring with universities; and 5) contract all monitoring with a private consulting firm. The Monitoring Work Group discussed which options would meet the goals of consistency and technical credibility while at the same time being cost-effective and able to integrate with on-going data collection programs. The result of this discussion was that none of the options fit all of the requirements; therefore, they were all rejected.

During these discussions, the Louisiana Department of Natural Resources proposed that they be responsible for managing the monitoring program. After review and comments by the Monitoring Work Group and P & E Subcommittee, this proposal was refined to insure that the goals of consistency, credibility, and cost would be met. It was accepted and is presented here as a recommendation of the P & E Subcommittee.

Monitoring Responsibilities:

The Louisiana Department of Natural Resources, Coastal Restoration Division (LDNR/CRD) will be responsible for management of all monitoring activities of the CWPPRA including monitoring plan development, data collection and storage, statistical analysis, quality control, data interpretation and report generation. The United States Fish and Wildlife Service/National Wetlands Research Center (USFWS/NWRC) will be responsible for habitat mapping and GIS analysis (geographic information systems support) and other related monitoring as deemed appropriate by LDNR/CRD for each project. The LDNR/CRD and the USFWS/NWRC will jointly prepare reports for each CWPPRA project implemented. These reports will be submitted to the P & E Subcommittee, Technical Committee and Task Force for final approval. The P & E Subcommittee shall direct the Monitoring Work Group to provide a technical review of the project reports. The implementation of all monitoring plans will follow the protocols developed in the CWPPRA Monitoring Program Document. A Technical Advisory Group consisting of a federal project sponsor representative, state (LDNR/CRD) project sponsor representative, USFWS/NWRC representative, wetland ecologist and biostatistician will assist in the development of project specific monitoring plans. The P & E Subcommittee will be advised of all Technical Advisory Group meetings. Assistance by the other sponsoring agencies in the development of the monitoring plans will be available on a voluntary basis. These plans will be reviewed by the Monitoring Work Group and submitted to the P & E

Subcommittee, Technical Committee and Task Force for final approval (see attached flowchart). The independent wetland ecologist and biostatistician will also provide quality assurance and verification of data interpretations to ensure unbiased determinations of results.

Justification:

- As a 25% cost-share partner on all CWPPRA projects, the State of Louisiana is the common denominator across all projects. The LDNR/CRD can provide the consistency needed to evaluate and compare similar project types across the entire coastal zone of Louisiana. In addition, the natural resources affected by CWPPRA projects fall under the domain of the State of Louisiana and, therefore, these resources should be monitored and managed by the State of Louisiana.

- A program within the LDNR/CRD is already established to monitor projects developed within the State of Louisiana's Coastal Wetlands Conservation and Restoration Plans. This monitoring program was used as a template for the development of the CWPPRA Monitoring Program Document and, therefore, would be compatible or easily adaptable to any CWPPRA requirements.

- The USFWS/NWRC currently provides GIS support andmapping assistance to the CWPPRA Task Force and the LDNR/CRD for planning and monitoring. The USFWS/NWRC program provides a mechanism for organizing and distributing GIS data generated for CWPPRA activities. This program, combined with the LDNR/CRD monitoring program will establish a long term mechanism to- properly manage, archive, transfer, and distribute information.

- The LDNR/CRD currently develops reports for the Louisiana Legislature one year after project completion and updates these reports yearly. This coincides with the requirement of the Task Force to report to the United States Congress on the effectiveness of all implemented projects not less than three years after the completion and submission of the restoration plan, and at least every three years thereafter. Combined with the graphical, editorial and technical support of the USFWS/NWRC, the LDNR/CRD can complete all reporting requirements as specified in the CWPPRA.

Limits on Monitoring Variables:

Monitoring budgets for CWPPRA projects will be developed based on the minimum monitoring variables necessary to provide sufficient information to determine if project goals and objectives are being

met. A mechanism for selecting variables to be monitored is provided in the CWPPRA Monitoring Program Document. However, due to the limited availability of funds, all of the highest priority variables cannot be monitored. The Monitoring Work Group determined by project type which variables were essential in judging project success or failure and which variables may need to be monitored based on project objectives and possible impacts. They are as follows:

Project Type	Essential Variables	Additional Variables or Substitutions
Freshwater Diversion	Habitat Mapping Salinity Water Level Vegetation	Fisheries Discharge Precipitation Wind Speed/Direction
Marsh Management	Habitat Mapping Salinity Water Level Vegetation Fisheries	Sediment Accretion
Hydrologic Restoration	Habitat Mapping Salinity Water Level Vegetation	Fisheries Sediment Accretion Water/Sediment Quality
Sediment Diversion	Habitat Mapping Bathymetry/ Topography	Vegetation Suspended Sediment Discharge
Vegetative Planting	Veqetation Shoreline Markers	Habitat Mapping Salinity
Beneficial Use of Dredge Material	Habitat Mapping Vegetation Bathymetry/ Topography	Shoreline Markers
Barrier Island Restoration	Habitat Mapping Vegetation Bathymetry/ Topography	Shoreline Markers
Sediment/Nutrient Trapping	Habitat Mapping Vegetation	Suspended Sediment Bathymetry Nutrients
Shoreline Protection	Habitat Mapping Shoreline Markers	Vegetation Bathymetry/ Topography

The essential variables illustrate those variables which generally would be measured for each project type. However, project-specific goals and objectives may dictate that some of these variables may be non-essential. This list does not preclude other variables from being monitored, if determined necessary by the Technical Advisory Group. To reduce monitoring costs, full use will be made of existing research findings regarding the effects of water control structures.

Limits on Monitoring Costs:

The LDNR/CRD has reviewed the goals and objectives of all 18 first priority list projects and developed monitoring cost estimates for each. The monitoring budgets on 20 completed State of Louisiana wetland restoration projects as well as the monitoring priorities and costs identified within the CWPPRA Monitoring Program Document were also reviewed. This review determined that monitoring costs cannot be set at a fixed percentage of project cost, due to varying project goals and objectives and project sizes. It did, however, provide enough information to estimate an average annual cost (below) necessary to adequately monitor each type of wetland restoration project.

Average annual monitoring costs for each project type will not exceed the following:

Project Type	Averaae Annual Cost
Freshwater Diversion	$ 25,875
Marsh Management	$ 25,875
Hydrologic Restoration	$ 25,875
Sediment Diversion	$ 8,625
Vegetative Planting	$ 4,325
Beneficial Use of Dredged Material	$ 4,325
Barrier Island Restoration	$ 4,325
Sediment/Nutrient Trapping	$ 4,325
Shoreline Protection	$ 2,150

Freshwater diversion, marsh management, and hydrologic restoration project costs can be prorated based on project size as follows:

less than 1,000 acres = 60%
1,000 - 5,000 acres = 70%
5,000 - 15,000 acres = 80%
15,000 - 60,000 acres = 100%

In addition, those projects that require continuous data recorders for active management will also be funded at 100%, regardless of project size.

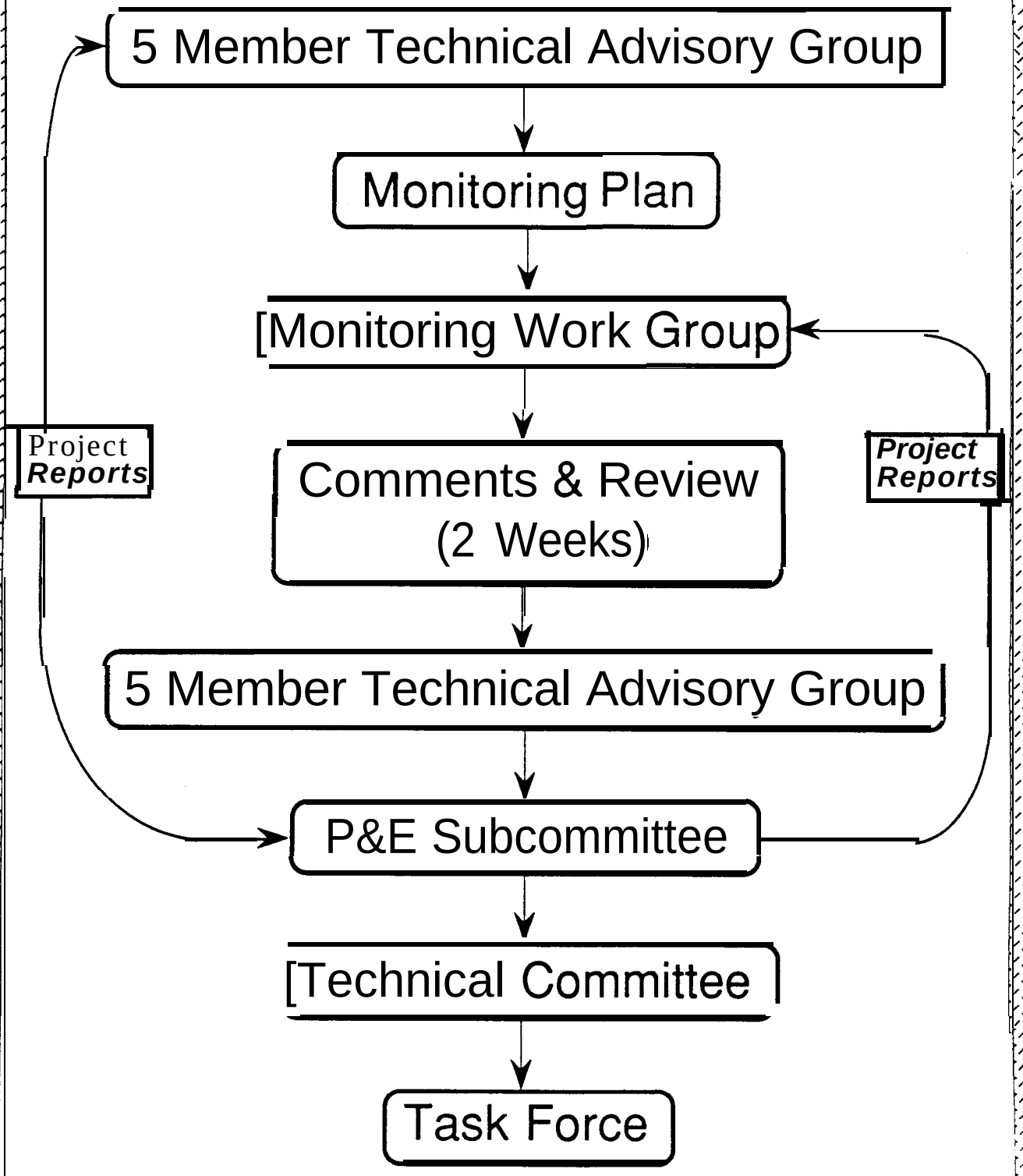
Monitoring costs for any given project will not exceed 125% of the original, fully-funded monitoring cost estimate.

Monitoring costs for any given project will not exceed SO% of the fully-funded project cost.

These costs were derived based on a number of assumptions regarding sample number, sample frequency, project size, and the monitoring protocol utilized. Costs were derived independently and without consideration of existing monitoring stations. Average annual monitoring costs will decrease over time as a greater number of projects are implemented.

Project-specific exemptions to the above monitoring costs will be mutually agreed upon by the State of Louisiana and the Federal cost-share sponsor. Monitoring costs will be included as a component of the fully-funded project cost using the above average annual monitoring cost guidelines. In situations where monitoring costs must be added to a previously approved project, such an addition will not cause the previously approved fully-funded project cost to be exceeded by more than 25%.

Monitoring Implementation Protocol



Coastal Wetlands Planning, Protection and Restoration Act

3rd Priority Project List Report

Appendix G

Status of Projects from Previous Priority Project Lists

APPENDIX G

STATUS OF PREVIOUS PRIORITY LISTS' PROJECTS

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APPENDIX G

STATUS OF PREVIOUS PRIORITY LISTS' PROJECTS

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List of Plates

GIWW to **Clovelly** Wetland **(BA-2)**
Lafourche Parish, LA

FEDERAL LEAD AGENCY: USDA, Soil Conservation Service

PROJECT LOCATION: The project site is located in the marshes of Lafourche Parish southeast of the Gulf Intracoastal Waterway, east of Bayou Lafourche, and north of the Superior Canal. This 60,000-acres fresh and low-salinity wetlands is one of the last contiguous coastal wetland tracts within the Barataria estuary.

PROJECT PURPOSE: The project will protect the 60,000 acres of fresh and low-salinity wetlands through the restoration of historical hydrological conditions. This will promote greater freshwater retention and utilization to prevent rapid salinity increases, and also promote water exchange through sheet flow as opposed to an expanding network of tidal channels. The project will restore the area to the hydrologic conditions that prevailed historically.

PROJECT FEATURES: The project includes canal plugs, rock weirs, fixed crest weirs with boat bays, one variable crest weir, and the rebuilding of low overflow banks that have eroded away. The project has been divided into a number of smaller contracts in order to expedite implementation.

PROJECT COST:	Total Estimated Project Cost	$8,142,000
	Estimated Federal Cost	6,106,500
	Estimated Non-Federal Cost	2,035,500
	Expenditures Through FY 93	432,000

PROJECT STATUS: The project has been divided into a number of smaller contracts in order to expedite implementation. In FY 93 design was initiated; plans and specifications for the first contract were completed; and land rights maps were completed and provided to the parish government. In FY 1994 the scheduled expenditure is $1,125,000. With these funds the project design will be completed; the first and second contracts will be awarded; and plans and specifications on remaining contracts will be completed.

Vegetative **Plantings Demonstration Project (TE-18, TE-17, ME-S)**
Cameron, Vermilion, and Terrebonne Parishes, LA

FEDERAL LEAD AGENCY: USDA, **Soil** Conservation Service

PROJECT LOCATION: There are four project sites: (1) in the marshes of Hackberry, LA., in Cameron Parish; (2) on the Gulf of Mexico shoreline in Vermilion Parish between DeWitt Canal and Rollover Bayou; (3) on Timbalier Island in Terrebonne Parish; and (4) along part of Falgout Canal in Terrebonne Parish.

PROJECT PURPOSE: The objectives of the project are to restore wetland productivity through planning, designing and implementing vegetative projects that protect and enhance coastal and inland wetlands; establish a vegetative buffer between the gulf and coastal wetlands to reduce wave energy and trap sediments; pursue new and innovative vegetative techniques; maintain the integrity of the barrier islands; and incorporate vegetative planting projects in all coastal restorative work when applicable.

PROJECT FEATURES: The project consists of vegetative plantings suited to the particular habitats. The first and second sites mentioned are chenier plain, the third is a barrier island and the fourth, is in the deltaic plain.

PROJECT COST: The total project cost estimated in the First Priority List Report is $848,000. However, $74,000 was added by the Task Force for project monitoring bring the revised total project cost to $922,000 of which $691,000 is Federal cost and $230,500 is non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS THROUGH FY 1993: As of 30 September, 1993, expenditures for this project totaled $86,400. With those funds, design was initiated; plans and specifications (p&s) for West Hackberry were completed;. and p&s for Dewitt-Rollover and Timbalier Island were 80 percent complete. .

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: In FY 1994, the scheduled expenditure is $336,000. With these funds, the contract for West Hackberry will be awarded, and the p&s will be completed and the contract awarded for Dewitt-Rollover and Timbalier Island.

ISSUES/PROBLEMS/CONCERNS: None.

Freshwater Bayou Wetlands & Shoreline Protection (XME-21/ME-4)
Vermilion Parish, LA

FEDERAL LEAD AGENCY: USDA, Soil Conservation Service

PROJECT LOCATION: The project area is located west of Freshwater Bayou, north of the Acadiana Marina Canal, east of La. Hwy. 82, and south of the GIWW, centered at latitude 29 35'N, longitude 92 20'W, or about 8 miles east of Pecan Island, Louisiana in Vermilion Parish.

PROJECT PURPOSE: The primary objectives of the project are to stabilize the rapidly eroding west shoreline of Freshwater Bayou Canal, and to reduce ponding and marsh loss in the adjacent wetlands.

PROJECT FEATURES:

a. Installation of 10,000 linear feet of rock breakwater (rip-rap) along the west shoreline of Freshwater Bayou Canal, where needed, to protect this shoreline from further erosion.

b. Gated water control structures will be installed on the Acadiana Marina Canal to reduce ponding in the area known as the Freshwater Bayou Wetlands.

PROJECT COST: The total project cost estimated in the Second Priority Project List Report is $2770,000, of which $2,077,500 is Federal Cost, and $692,500 is non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: As of September 30, 1993, no funds were expended on this project.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $2,770,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: In FY 1994, the scheduled expenditures is $55,000. These funds will be used for engineering and design, easements and land rights, and supervision and administration.

ISSUES/PROBLEMS/CONCERNS: None

East Mud Lake Management (PCS-24)
Cameron Parish, LA

FEDERAL LEAD AGENCY: USDA, Soil Conservation Service

PROJECT LOCATION: The project is located in Cameron parish, seven miles west of the town of Cameron, LA.

PROJECT PURPOSE: The purpose of the project is to create a hydrologic regime conducive to restoration, protection, and enhancement of the Mud Lake area.

PROJECT FEATURES: The project includes 150,000 linear feet of vegetative plantings, culverts with flap gates, 2 variable crest weirs, 3 earthen plugs, overflow bank and repair of existing levee.

PROJECT COST: The total project cost estimated in the Second Priority Project List Report is $2,904,000, of with $2,178,000 is Federal Cost, and $726,000 is non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: As of September 30, 1993, expenditures for this project totaled $54,000 which funds being used for engineering and design and land rights.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $2,850,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: In FY 1994, the scheduled expenditure is $90,000 for engineering and design and supervision and administration.

ISSUES/PROBLEMS/CONCERNS: None

Caernarvon Diversion Outfall Management (BS-3a)
Plaquemines Parish, LA

FEDERAL LEAD AGENCY: USDA, Soil Conservation Service

PROJECT LOCATION: The project is located south of the communities of Braithwaite and Caernarvon in northern Plaquemines Parish in the vicinity of Big Mar and Lake Lery.

PROJECT PURPOSE: The primary objective of this project is to enhance marsh by increasing the utilization of freshwater, nutrients, and sediments provided by the Mississippi River through the Caernarvon Freshwater Diversion Structure. Management of the outfall will route the freshwater through the marshes rather than allow rapid loss through channels, and provide greater deposition of sediments in the marsh to offset subsidence, greater utilization of nutrients by vegetation, and a more gradual release of freshwater to the benefit of wildlife, fish and shellfish,

PROJECT FEATURES: The proposed plan is still in the conceptual stages and focuses on the management of the diverted water. Outfall management in Plaquemines Parish would include lengthening the containment levee, constructing earthen dams, and removing elevated spoil banks to direct diversion discharge away from major channels and into the marsh and shallow pond area to the south of Big Mar. Using the anticipated discharge scenario, the diversion structure will deliver at least 343,000 cu. yds. of sediment each year to the Big Mar and adjacent wetlands.

PROJECT COST: The total project cost estimated in the Second Priority Project List Report is $2,522,000, of which $1,891,500 is Federal cost and $630,500 is non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENT IN FY 1993: As of September 30, 1993, no funds have been expended on this project.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $2,522,000

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: In FY 1994, the scheduled expenditures is $83,000 to be used for engineering and design, land rights, and supervision and administration.

ISSUES/PROBLEMS/CONCERNS: None

Jonathan Davis Wetlands (PBA-35)
Jefferson Parish, LA

FEDERAL LEAD AGENCY: USDA, Soil Conservation Service

PROJECT LOCATION: The proposed project area includes 4,000 acres within the south Barataria, west Barataria, and Bayou Perot oil and gas fields in Jefferson Parish. The area is generally bounded by LA Hwy 301 on the east, Bayou Rigolettes and Bayou Perot on the south, and the GIWW on the north and west.

PROJECT PURPOSE: The project will reduce the marsh loss rate and maintain and improve fish and wildlife habitat quality. Bankline restoration will rebuild some of the most eroded areas to an elevation suitable for natural revegetation. Stabilization of the area will reduce erosion and moderate impacts associated with hydrologic extremes, thus allowing more gradual stabilization of more saline characterized marshes. Reducing canal's cross-sectional area will lower rates of water exchange, erosion and salt water intrusion.

PROJECT FEATURES: Stabilization of the entire area involves 18,440 linear feet of bankline maintenance with bucket dredge, 22,800 feet of shoreline reinforcement with coarse material, 3,000 feet of shell armored dams, and 1,950 feet of low sill rock weir.

PROJECT COST: The total project cost estimated in the Second Priority Project List Report is $3,399,000, of which $2,549,250 in Federal cost and $849,750 in non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENT IN FY 1993: As of September 30, 1993, no funds have been expended on this project.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $3,399,000

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: In FY 1994, the scheduled expenditures is $190,000 for engineering and design, land rights, and supervision and administration.

ISSUES/PROBLEMS/CONCERNS: None

Vermilion Bay/Boston Canal Shoreline Stabilization (PTV-18 & TV-9)
Vermilion Parish, LA

FEDERAL LEAD AGENCY: USDA, Soil Conservation Service

PROJECT LOCATION: The project is located on the northwest shoreline of Vermilion Bay between Mud Point and Champlain Point in Vermilion Point.

PROJECT PURPOSE: The purpose of the project is to stabilize 15 miles of Vermilion Bay shoreline and to prevent further regression of the Boston Canal banks. Continued erosion of the bay shoreline and canal bank will result in the loss of water management capability for adjacent wetlands, much of which fall within several permitted managed areas.

PROJECT FEATURES: A strip of Vermilion Bay Shoreline approximately 25 feet wide by 15 miles long would be planted with single stems of *Spartina alterniflora* (smooth cordgrass) at 3 foot intervals. A rock bulkheads will be installed parallel to the banks of Boston Canal on both sides of the channel from the existing shoreline at the mouth of the channel and extend into the bay. Sediment fences will be installed behind the bulkheads to encourage sedimentation and land accretion.

PROJECT COST: The total project cost is estimated to be $1,009,000, of which $756,750 is Federal cost and $252,250 is non Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENT IN FY 1993: As of September 30, 1993, expenditures for this project included $48,000 for engineering and design services and design oversight.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $961,000

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: In FY 1994, the scheduled expenditures will require $43,000 to complete the plans and specifications and advertise and award the construction contract. Construction expenditures are estimated to be $95,000 in FY '94.

ISSUES/PROBLEMS/CONCERNS: None

Brown Lake Hydrologic Restoration (CS-9)
Cameron Parish, LA

FEDERAL LEAD AGENCY: USDA, Soil Conservation Service

PROJECT LOCATION: The project area is located east of Black Lake, west of the Calcasieu Ship Channel, and south of the Gulf Intracoastal Waterway in Cameron Parish, Louisiana. The center of the project area is: latitude 32 03'30" and longitude 93 22'10".

PROJECT PURPOSE: The objective of the Brown Lake project is to restore, to the extent possible, the natural hydrology of the area. A reduction in marsh loss and improved water conditions are expected to occur following project implementation. Long-term water management objectives will be directed towards maintaining a brackish marsh system.

PROJECT FEATURES: The project includes rebuilding the Alkali Ditch levee. Utilizing dredge material from the Calcasieu River when available, water control structures and canal plugs.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is $3,223,000, of which $2,147,250 is Federal Cost and $805,750 is non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENT IN FY 1993: No funds were expended on this project in FY 1993.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $3,223,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: In FY 1994, the scheduled expenditures is $117,000, which will be spent for engineering and design, land rights, and supervision and administration.

ISSUES/PROBLEMS/CONCERNS: None

Highway 384 Hydrologic Restoration (PCS-25)
Calcasieu Parish, LA

FEDERAL LEAD AGENCY: USDA, Soil Conservation Service

PROJECT LOCATION: The project is located northeast of Calcasieu Lake and north of the Grand Lake community.

PROJECT PURPOSE: The project purpose is to restore the natural hydrology of the project area and eliminate undesirably high salinities and severe water fluctuations, tremendously reduce the potential for future marsh losses.

PROJECT FEATURES: The project features include the installation of five 48-inch diameter flapgated culverts with 8 foot. variable crest weirs, three 24inch diameter culverts with interior flapgates and exterior screw gates at the GIWW, a shell plug along Calcasieu Lake shoreline to repair a breach and replace the existing 24inch open culvert to reduce impoundment in a portion of the project.

PROJECT COST: The total project costs estimated in the Second Priority Project list report is $701,000, of which $525,750 is Federal cost and $175,250 is non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMJ?LISHMENTS IN FY 1993: There has been no expenditures on this project.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $701,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: The project plan has the engineering and design scheduled for completion by 30 September 1994. This work amounts to $32,000.

ISSUES/PROBLEMS/CONCERNS: None

Fritchie Marsh Restoration (PO-6)
St. Tammany Parish, LA

FEDERAL LEAD AGENCY: USDA, Soil Conservation Service

PROJECT LOCATION: The project is located southeast of Slide11 near the north shore of Lake Pcntchartrain and the Rigolets. It consists of 5,924 acres of intermediate to brackish marsh.

PROJECT PURPOSE: The purpose of the project is to achieve remediation of the causes of wetland loss in the area and to improve habitat for wildlife and fisheries. This will be accomplished by increasing the flow of fresh water into the marsh and managing the outfall.

PROJECT FEATURES: Project features include diverting part of the W-14 canal, construction of a sill across the bayou north of Little-Lagoon, dredging of Salt Bayou and installation of a siphon across Apple Pie Ridge.

PROJECT COST: The total project cost is $3,048,000 of which $2,286,000 is Federal cost and $762,000 is non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: As of 30 September 1993, expenditures for this project totaled $20,000. With those funds, design was initiated and feasibility of some alternatives were **investigated.**

FUNDS REQUIRED TO COMPLETE THE PROJECT: $3,028,000

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: The project will require additional engineering and design work during this fiscal year. The total estimated cost of the work to be performed this year is $26,000

ISSUES/PROBLEMS/CONCERNS: The project will require coordination with the Louisiana Department of Transportation and Development if the enlargement a box culvert under U.S. Highway 90 is necessary.

Fourchon Hydrologic Restoration (XBA-68)
Lafourche Parish, LA

FEDERAL LEAD AGENCY: U.S. Department of Commerce, National Marine Fisheries Service

PROJECT LOCATION: The project is located in lower Lafourche Parish between State Road 3090 and Bayou Lafourche and adjacent to the Port Fourchon facilities. The area encompasses a 2,400-acre impoundment created for spoil containment.

PROJECT PURPOSE: The project intends to return the impoundment to fisheries habitat by restoring tidal exchange and to lower mean water level, providing for ingress and egress and enhancing conditions for growth of vegetation.

PROJECT FEATURES: The project involves the placement of two 48-in diameter culverts beneath the shell road along the northern perimeter. Culvert length will be approximately 75 feet. Shell armoring of levee side slope adjacent to the culverts will be required to prevent scouring.

PROJECT COST: The total project cost estimated in the First Priority Project List Report is $252,000 of which $189,000 is Federal Cost, and $63,000 is non-Federal (State) Cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: No Federal expenditures were made in FY 1993. Because of the high water level in the impoundment after Hurricane Andrew in 1992, Port Fourchon (the lessee), installed three large culverts with outside flapgates to facilitate drainage. The original 36-in diameter culvert, which NMFS had proposed to replace with larger culverts, continues to function as the only inlet for seawater and marine organisms.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $252,000

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: None

ISSUES/PROBLEMS/CONCERNS: In a meeting on October 7, 1993, the lessee conveyed to NMFS personnel that any additional work in the project area could be conducted by the Port and they did not wish to see the project pursued because they question its benefits and are concerned that undesired government/general public involvement would result after implementation.

Lower Bayou LaCache Hydrologic Restoration (TE-19)
Terrebonne Parish, LA

FEDERAL LEAD AGENCY: U.S. Department of Commerce, National Marine Fisheries Service

PROJECT LOCATION: The project area surrounds lower Bayou LaCache in southern Terrebonne Parish. It is bounded by Bayou Petit Caillou on the west, Bayou Terrebonne on the east, Bush Canal to the north and Sevin Canal/Bay Lucien on the south. It encompasses 4,200 acres of wetlands.

PROJECT PURPOSE: The project will reduce marsh loss rate and improve fish and wildlife habitat quality by restoring natural north-south water exchange with the estuarine water bodies and by reducing flow through the numerous canals dredged in the area. Blocking or reducing flows from the major waterways will improve utilization of local freshwater and will reduce rapid saltwater ingress and tidal scour. The impacts of high salinity events will be reduced; however, ingress and egress of aquatic species can occur through the numerous natural interior channels and ponds.

PROJECT FEATURES: The project involves construction of a shell-reinforced plug at nine potential locations (oil and/or gas access canals) along Bayou Petit Caillou and six potential locations along Bayou Terrebonne. Plugs range from about 80 to 175 linear feet. Some active access canals may have to be ringed, rather than plugged, and provided with water control structures. Some plugs may also require a boat bay. In addition, the south bank levee of Bush Canal will be reconstructed and reinforced.

PROJECT COST: The total project cost estimated in the First Priority Project List Report is $1,254,000. Long term monitoring costs were increased by $441,000 to comply with the monitoring protocol established for the Second Priority Project List. Of the $1,695,000 amended total project cost, $1,271,250 is the Federal share and $423,750 is the non-Federal (State) share.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: A cooperative agreement between the State of Louisiana, Department of Natural Resources and NMFS was signed on November 6, 1992. Phase I, consisting of the feasibility analysis, land right requirements and initial coordination with affected landowners, was begun in May 1993. The Phase I contract cost totals $39,000.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $1,656,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: Phase I tasks should be completed.

ISSUES/PROBLEMS/CONCERNS: In a public hearing on September 22, 1993, with landowners in the project area, users strenuously objected to the proposed closure of the two east-west connections between Bayou Petit Caillou and Bayou Terrebonne. The integrity of the project with these openings must be determined before proceeding with project implementation.

Re-establishment of Natural Sediment Delivery System (PAT-2)
St. Mary Parish, LA

FEDERAL LEAD AGENCY: U.S Department of Commerce, National Marine Fisheries Service

PROJECT LOCATION: The project area involves the eastern half of the Atchafalaya Delta in Atchafalaya Bay, in the lower southeast comer of St. Mary Parish. The project center is approximately latitude 29 27'00" and longitude 91 16'30".

PROJECT PURPOSE: The project will reestablish the natural sediment delivery system in two distributaries within the Atchafalaya Delta and enhance the natural delta building potential. Because of maintenance dredging activities, these channels have been reduced in cross-sectional area, therefore delta progradation has been reduced and wetland loss has increased.

PROJECT FEATURES: Approximately 125,000 cubic yards of material will be dredged from a 90-ft wide, 6-ft deep, 6,300-ft long channel through Natal Channel and Radcliffe Pass. A hydraulic cutterhead dredge connected to a barge fitted with a spray nozzle will deposit the material to create over 300 acres of emergent marsh.

PROJECT COST: The total project cost estimated in the Second Priority Project List Report is $908,000, of which $681,000 is Federal cost and $227,000 is non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: None

FUNDS REQUIRED TO COMPLETE THE PROJECT: $908,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: The Cost Share Agreement and preliminary engineering design should be completed during FY 1994 at an estimated cost of $44,000.

ISSUES / PROBLEMS / CONCERNS: None

Big Island Mining **(XAT-7)**
St. Mary Parish, LA

FEDERAL LEAD AGENCY: U.S.Department of Commerce, National Marine Fisheries Service

PROJECT LOCATION: The proposed project is in Atchafalaya Bay, in the lower southeast corner of St. Mary Parish. The project is in the western half of the Atchafalaya Delta and is centered approximately at latitude 29 27'00" N and longitude 91 21'00" W. The project area consists of a high, tree-covered dredged spoil island (Big Island) and adjacent waters.

PROJECT PURPOSE: The purpose of this project is to cut a channel through Big Island and use the dredged material to create approximately 500 acres of marsh. Water and sediments flowing through the channel will continue to build delta under more natural conditions.

PROJECT FEATURES: A distributary channel with a bottom width of 500 feet and a minimum depth of 6 feet will be cut at a 45° angle through Big Island. Dredged material will be placed to form delta lobes and spaced in a pattern similar to that of a natural delta. The new delta lobes should be self-maintaining, i.e., sedimentation should balance subsidence due to the new distributary channel system through Big Island and its direct connection with the Atchafalaya River.

PROJECT COST: The total project cost estimated in the Second Priority Project List Report is **$4,136,000,** of which **$3,102,000** is Federal cost and **$1,034,000** is non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: None.

FUNDS REQUIRED TO COMPLETE THE PROJECT: **$4,136,000**

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: The cost share agreement and preliminary engineering design should be completed in FY 1994 at a cost of $100,000.

ISSUES/PROBLEMS/CONCERNS: None

Point au Fer Plugs (PTE-22/24)
Terrebonne Parish, LA

FEDERAL LEAD AGENCY: U.S. Department of Commerce, National Marine Fisheries Service

PROJECT LOCATION: The project is located on Point au Fer Island in two distinct locations. Area 1 is centered around the pipelines that cut the marshes between Mosquito Bay, Bay Castagnier and the Gulf of Mexico. Area 2 consists of an 1,800-ft stretch of shoreline between the Gulf of Mexico and an oil and gas access canal running almost parallel to the beach and a 600-ft stretch of beach fronting a canal perpendicular to the beach west of Locust Bayou.

PROJECT PURPOSE: The project will reduce saltwater intrusion and tidal flushing in the Point au Fer marshes due to unplugged canals and beach over-wash without reducing freshwater back flooding from the Atchafalaya River.

PROJECT FEATURES: Area 1 features include the construction of four plugs in the east-west canal and three plugs in the north-south canal with a final elevation equivalent to marsh elevation. The existing plug at the seaward end of the latter canal will be backfilled for approximately 200 ft. Area 2 work involves placing shell or limestone chips along the shoreline to elevations 3 feet above sea level. The canals near the beach will be backfilled with material pumped from the seaward side.

PROJECT COST: The total project cost estimated in the Second Priority Project List Report is $1,070,000, of which $802,500 is Federal cost and $267,500 is non-Federal (State) cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: A cooperative agreement with Louisiana Department of Natural Resources was signed on September 13, 1993. Approximately $28,000 has been spent on preliminary design.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $1,042,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: Permitting, landowner agreement, cultural resource inventory, final design and construction should be completed in FY 1994 at a cost of $1,042,000.

ISSUES/ PROBLEMS/ CONCERNS: None

East Island Isle,Dernieres Barrier Island Restoration, Phase 0, (TE-20)
Terrebonne Parish, Louisiana

FEDERAL LEAD AGENCY: U.S. Environmental Protection Agency

PROJECT LOCATION: The project is located on Eastern Isle Demieres, a barrier island chain in southern Terrebonne Parish, Louisiana.

PROJECT PURPOSE: The project objectives are to restore the coastal dunes and wetlands of the Eastern Isle Dernieres, enhance the physical integrity of the island, and protect the lower Terrebonne estuary and associated vegetated wetlands against direct exposure to the Gulf of Mexico, while increasing technical information on the restoration of barrier islands.

PROJECT FEATURES: This phase of the Isle Demieres' restoration involves partial restoration of East Island and includes dune restoration and marsh creation on the Lake Pelto side of the island. Approximately 2,000,000 cubic yards of material will be dredged to restore about 2 miles of the island.

PROJECT COST: The total project cost estimated in the First Priority Project List Report is $6,345,000. Of the $6,345,000 total project cost, $4,758,750 is the Federal share and $1,586,250 is the non-Federal (State) share.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: A cost share agreement between the State of Louisiana, Department of Natural Resources and EPA was signed on April 17,1993. No project funds were spent in FY 1993.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $6345,000

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: Engineering and design of the project is scheduled for FY 1994 at a cost of $522,000.

ISSUES/PROBLEMS/CONCERNS: This phase of the Isle Dernieres restoration project is being combined with Phase 1, Trinity Island (XTE-41).

Trinity Island, Isle Demieres Barrier Island Restoration, Phase 1, (XTE-41)
Terrebonne Parish, Louisiana

FEDERAL LEAD AGENCY: U.S. Environmental Protection Agency

PROJECT LOCATION: The project is located on Trinity Island which is part of the Isle Dernieres barrier island chain in southern Terrebonne Parish, Louisiana.

PROJECT PURPOSE: The project objectives are to restore the coastal dunes and wetlands of the Eastern Isle Dernieres, enhance the physical integrity of the island, and protect the lower Terrebonne estuary and associated vegetated wetlands against direct exposure to the Gulf of Mexico, while increasing technical information on the restoration of barrier islands.

PROJECT FEATURES: This phase of the Isle Demieres' restoration involves partial restoration of the west end of Trinity Island and includes dune restoration and marsh creation on the Lake Pelto side of the island. Approximately 2400,000 cubic yards of material will be dredged to restore about 2.7 miles of the island.

PROJECT COST: The total project cost estimated in the Second Priority Project List Report is $6,908,000. Of the $6,908,000 total project cost, $5,181,000 is the Federal share and $1,727,000 is the non-Federal (State) share.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: A cost share agreement between the State of Louisiana, Department of Natural Resources and EPA was signed on April 17,1993. No project funds were spent in FY 1993.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $6,908,000

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: Engineering and design of the project is scheduled for FY 1994 at a cost of $522,000.

ISSUES/PROBLEMS/CONCERNS: This phase of the Isle Demieres restoration project is being combined with Phase 0, Eastern Isle Demieres (TE-20).

Barataria Bay Waterway Marsh Creation (BA-19)
Jefferson Parish, LA

FEDERAL LEAD AGENCY: US Army Corps of Engineers

PROJECT LOCATION: The Barataria Bay Waterway connects Bayou Barataria with Barataria Bay in Jefferson Parish, LA. The marsh creation sites area located between Mile 0, at Barataria Pass, and Mile 16, near Bayou St. Denis.

PROJECT PURPOSE: Currently, sediments dredged about every four years for maintenance of the waterway are placed in designated disposal areas adjacent to the waterway. With implementation of the project, this material would be used beneficially to create new marsh and nourish existing marsh near the waterway.

PROJECT FEATURES: The project involves using maintenance-dredged sediments to create marsh in shallow water areas adjacent to the channel. Eighteen marsh development areas, ranging in size from about 15 to about 133 acres, are proposed between Mile 0 and Mile 16 of the waterway. Full implementation of the project is contingent upon the state of Louisiana not renewing a number of leases on State-owned water bottoms where there is no oyster production. The channel is dredged for maintenance about every four years and approximately 1,740,000 cubic yards of material on average is removed.

PROJECT COST:	Total Estimated Project Cost	$1,759,000
	Estimated Federal Cost	1319,250
	Estimated Non-Federal Cost	439,750

Note $134,000 was added to the original 1st PPL cost monitoring.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: Expenditures through FY 1993 were $24,000.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $1,601,000

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: The next maintenance dredging is scheduled for the Summer of 1994. The project is being modified to include work at Queen Bess Island. Design and permitting efforts have begun and the Cost Share Agreement is scheduled to be executed in January 1994. Scheduled expenditures for FY 1994 are $20,000.

ISSUES / PROBLEMS / CONCERNS: None

Clear Marais Bank Protection (PCS-271
Calcasieu Parish, LA

FEDERAL LEAD AGENCY: US Army Corps of Engineers

PROJECT LOCATION: The project is located along the north bank of the Gulf Intracoastal Waterway (GIWW) approximately 5 miles west of Louisiana Highway 27 in Calcasieu Parish, LA. Agricultural lands form the north boundary, and canals make-up the eastern and western boundaries of the project area.

PROJECT PURPOSE: The north bank of the GIWW is failing in this area, threatening encroachment on one of the few remaining tracts of freshwater wetlands in the Calcasieu / Sabine Basin. The project will provide a barrier against saline tidal circulation and erosive boat wakes in the GIWW, thus, protecting this highly productive area. The project will protect about 4,637 acres of freshwater marsh.

PROJECT FEATURES: The project involves the stabilization of 6 miles of channel bank with rock bank armoring or a rock armored breakwater. Vegetative plantings may be used to enhance the bank protection and promote sediment trapping.

PROJECT COST:	Total Estimated Project Cost	$1,741,000
	Estimated Federal Cost	1,305,750
	Estimated Non-Federal Cost	435,250

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: $100,700 has been used to being engineering and design of the project.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $1,640,300

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: The Cost Share Agreement is scheduled to be executed in April 1994. Real estate acquisition will begin after the CSA is executed and construction could start as early as November 1994 and completed in April 1995. Anticipated expenditures for FY 1994 are $66,000.

ISSUES / PROBLEMS / CONCERNS: None

La Branche Wetlands Marsh Creation (PPO-17)
St. Charles Parish

FEDERAL LEAD AGENCY: US Army Corps of Engineers

PROJECT LOCATION: The Bayou La Branche Wetlands consist of fresh and intermediate marshes on the south shore of Lake Pontchartrain in St. Charles Parish, LA.

PROJECT PURPOSE: In much of the project area, marshes have deteriorated to open water. The close proximity of an abundant sediment source (Lake Pontchartrain) affords and ideal opportunity to restore these deteriorated areas of marsh. The project would create approximately 254 acres of intermediate marsh and will nourish an additional 87 acres. By the end of the 20 year project life, approximately 296 acres of marsh will remain in the project area.

PROJECT FEATURES: The project involves dedicated dredging of sediments from Lake Pontchartrain to create vegetated wetlands in the area known as the La Branche Wetlands. The marsh development area will be confined as needed during construction. Dredged material will be pumped to a height conducive to marsh development after settlement and compaction.

PROJECT COST:	Total Estimated Project Cost	$4,461,000
	Estimated Federal Cost	3345,750
	Estimated Non-Federal Cost	1,115,250

Note $134,000 was added to the original 1st PPL cost monitoring.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: The Cost Share Agreement was executed on April 17, 1993. Plans and specification were completed and the construction contract was advertised on August 10, 1993. Expenditures through September 30, 1993 were $407,500.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $3,592,500

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: Award of the construction contract is scheduled for November 19, 1993, with construction expected to start in late December. In FY 1994, $2,200,000 is expected to be expended.

ISSUES/PROBLEMS/CONCERNS: None

Vermilion River Cutoff Shoreline Protection and Restoration (TV-3)
Vermilion Parish, LA

FEDERAL LEAD AGENCY: US Army Corps of Engineers

PROJECT LOCATION: The Vermilion River Cutoff, near Intracoastal City, LA, connects the Vermilion River and the Gulf Intracoastal Waterway (GIWW) with Vermilion Bay. The project area is on the east and west sides of the cutoff in the vicinity of Onion Lake and Onion Bayou.

PROJECT PURPOSE: Erosion of the west bank of the Vermilion River Cutoff has occurred to the extent that the land bridge between the cutoff and Vermilion Bay is breached in several places. Erosion on the east bank is also occurring at an accelerated rate and the land bridge between the cutoff and Onion Lake, to the east, will also breech. The project will stabilize the west side of the cutoff by hardening the remaining land bridge and using sediment trapping fences on the Vermilion Bay side of the west bank to rebuild the deteriorated land bridge.

PROJECT FEATURES: The revised project design includes protecting the east side of the Vermilion River Cutoff with rock to prevent further erosion; hardening the points on the existing land bridges on the west bank of the cutoff with rock; **and** constructing sediment trapping fences on the Vermilion Bay side to help stabilize and protect the land bridges from wave action in the bay. The initial plan was revised when field investigations indicated that protection of the east bank of the cutoff would best be accomplished with measures on the east bank and because cutting off the west bank with a continuous dike would stop the flow of desirable nutrients and sediments from the cutoff into Vermilion Bay through the breaches in the west land bridges.

PROJECT COST:	Total Estimated Project Cost	$2,500,000 (Current Estimate)
	Estimated Federal Cost	1,875,000
	Estimated Non-Federal Cost	625,000

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: Through FY 1993, $222,200 has been expended to initiate engineering ,design and real estate investigations. The Cost Share Agreement was signed on April 17, 1993

FUNDS REQUIRED TO COMPLETE THE PROJECT: $2,277,800

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: NEPA (permitting) efforts will be completed in September 1993 with real estate acquisition to follow. Scheduled expenditures for FY 1994 are $71,000.
ISSUES/PROBLEMS/CONCERNS: Title research revealed numerous deficiencies and encumbrances on the tracts of land involved in the project, therefore, condemnation to clear titles appear inevitable. Because condemnation adds five months to the acquisition schedule, construction is now scheduled for October 1994.

West Belle Pass Headland Restoration (PTE-27)
Lafourche Parish, LA

FEDERAL LEAD AGENCY: US Army Corps of Engineers

PROJECT LOCATION: The project area is a 2,459-acre wetland located just west of Port Fourchon in Lafourche Parish, LA. The project area is bound by Timbalier Bay on the west, Bayou Lafourche and Belle Pass on the east, and the Gulf of Mexico on the south.

PROJECT PURPOSE: Timbalier Bay is encroaching into the marshes on the west side of Bayou Lafourche and wave action is eroding the bayou's banks. Openings in the bank are causing tidal scour in the interior marshes. The project will reduce the encroachment of Timbalier Bay by using dredged materials to create wetlands in shallow open water areas, constructing dams, and reducing the cross-section of channels. The rate of tidal exchange will lessen, allowing new and existing marshes to stabilize.

PROJECT FEATURES: Approximately 2,700,000 cubic yards of dredged material from Bayou Lafourche will be used to create 184 acres of marsh on the west side of Belle Pass. A water control structure will be placed in the Evans Canal, and plugs will be constructed on other unnamed bayous. Approximately 17,000 of rip-rap will be used on the west bank of Belle Pass and Bayou Lafourche to prevent further bank erosion.

PROJECT COST:		
	Total Estimated Project Cost	$4,854,000
	Estimated Federal Cost	3,640,750
	Estimated Non-Federal Cost	1,213,250

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: $151,800 was expended in FY 1993 to begin engineering, design and real estate investigations.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $4,702,200

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: The Cost Share Agreement is scheduled to be executed in January 1994. Real estate acquisition will begin in April with construction beginning in October 1994. Scheduled expenditures for FY 1994 are $125,000.

ISSUES/PROBLEMS/CONCERNS: None

West Bay Sediment Diversion (PMR-3)
Plaquemines Parish, LA

FEDERAL LEAD AGENCY: US Army Corps of Engineers

PROJECT LOCATION: The diversion site is located on the west bank of the Mississippi River at Mile 4.7 above head of passes. The project will divert freshwater and sediments into West Bay in Plaquemines Parish, LA.

PROJECT PURPOSE: The project will capture a small portion of the Mississippi River's land building capacity that is currently being lost. Sediment diversion is an effective measure that can be implemented to create, nourish, and maintain wetlands in areas adjacent to the Mississippi River. The project will create approximately 9,831 acres of fresh/intermediate marsh over the 20 year project life.

PROJECT FEATURES: The project consists of a conveyance channel for large scaled uncontrolled diversion of the sediments from the Mississippi River. The diversion channel will be constructed in two phases: (1) initial construction of an interim channel to accommodate a discharge of 20,000 cubic feet per second (cfs) at the 50 percent duration stages in the river and marsh development area, and (2) modification of the interim diversion channel design to accommodate full-scale diversions of 50,000 cfs at the 50 percent duration stage on the river after a period of intensive monitoring of diversion operations. Diversion of the Mississippi River flow will induce shoaling in the navigation channel and an adjacent anchorage area. Dredging of the channel is accomplished under the ongoing operations and maintenance program for the river, but dredging of the anchorage area will be an added feature and cost to the project.

PROJECT COST:	Total Estimated Project Cost	$4,450,000
	Estimated Federal Cost	3388,000
	Estimated Non-Federal Cost	1,112,000

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1993: $318,700

FUNDS REQUIRED TO COMPLETE THE PROJECT: $4,131,300

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1994: Design of the project is on hold pending a model study of the induced shoaling in the affected Mississippi River anchorage area. When additional information is known about the rate, location, and amount of shoaling, the issue of the anchorage dredging cost and dredging responsibility will be addressed. The model study was approved and initiated in early October 1994. Construction is currently scheduled for September 1995. Currently $120,000 is scheduled to be expended in FY 1994.

ISSUES/PROBLEMS/CONCERNS: See above

Bayou Sauvage Wildlife Refuge Hydrologic Restoration, Units 3 and 4 (XPO-52a)
Orleans Parish, LA

FEDERAL LEAD AGENCY: US Fish and Wildlife Service

PROJECT LOCATION: The project is located in units 3 and 4 of the Bayou Sauvage Wildlife Refuge in Orleans Parish, LA. The units are within the Lake Pontchartrain Hurricane Protection levee between US Highway 90 (to the north) and the GIWW (to the South), and east of the Maxent Canal Levee.

PROJECT PURPOSE: The hurricane protection levee isolates Units 3 and 4 from the surrounding marsh complex and establishes a large freshwater impoundment. The project will establish a means for removing the excess water during the spring and summer.

PROJECT FEATURES: The project will install two 48-inch pumps on the east boundary of the units.

PROJECT COST:	Total Estimated Project Cost	$1,658,000
	Estimated Federal Cost	1,243,500
	Estimated Non-Federal Cost	414,500
	Expenditures through FY 93	

Note $553,000 was added to the original 1st PPL cost monitoring.

PROJECT STATUS: The cost share agreement was executed on April 17, 1993. Plans and specifications are complete and construction is scheduled for May 1994.

Bayou Sauvage Wildlife Refuge Hydrologic Restoration (PPO-52b)
Orleans, Parish

FEDERAL LEAD AGENCY: US Fish and Wildlife Service

PROJECT LOCATION: The Bayou Sauvage National Wildlife Refuge is located east of New Orleans, Louisiana between Lake Pontchartrain and the GIWW. This Project includes units 3 and 4, bounded by Interstate 10 south to Bayou Sauvage, and from the Maxent Canal levee east to the Lake Pontchartrain Hurricane Projection levee.

PROJECT PURPOSE: The hurricane protection levee system has impounded the marsh in the project area. The existing water control structures are unable to remove rainfall in a timely manner, resulting in excessive water levels and significant deterioration of the impounded marshes. The project will increase the drainage capacity of the system to reduce water levels in the project area.

PROJECT FEATURES: The project consist of construction one 36-inch pump and one 48-inch pump. Operation of the pumps will maintain water levels at 0.5 feet above and below marsh elevation.

PROJECT COST:	Total Estimated Project Cost	$1,452,000
	Estimated Federal Cost	1,089,000
	Estimated Non-Federal Cost	363,000
	Expenditures through FY 93	

PROJECT STATUS: The cost share agreement is currently being negotiated. Construction is currently scheduled for May 1994.

Sabine Wildlife Refuge Shoreline Erosion Control (IN-C)
Cameron Parish, LA

FEDERAL LEAD AGENCY: US Fish and Wildlife Service

PROJECT LOCATION: The project is located on the Sabine National Wildlife Refuge in western Cameron Parish, LA. Work will be along five and one-half miles of the Burton Canal levee.

PROJECT PURPOSE: The project will protect 13,000 acres of fresh marsh from deterioration associated with the anticipated failure of the existing west levee.

PROJECT FEATURES: The original designs was to reconstruct 5.5 mile of eroded levee. However, the project is being redesigned to include 1,000 feet of levee reconstruction and 5.5 miles of rock armor.. Vegetative plantings will be used to reduce future erosion from boat traffic.

PROJECT COST:	Total Estimated Project Cost	$4,895,000
	Estimated Federal Cost	3,671,250
	Estimated Non-Federal Cost	1223,750
	Expenditures through FY 93	53,000

Note $52,000 was added to the original 1st PPL cost monitoring.

PROJECT STATUS: The cost share agreement was executed on April 17,1993. Plans and specifications have been completed and construction is scheduled March 1994. Recent cost estimates of the redesign indicate a reduction in total project cost of $2,400,000.

Cameron-Creole Watershed Hydrologic Restoration (IN-D)
Cameron Parish, LA

FEDERAL LEAD AGENCY: US Fish and Wildlife Service

PROJECT LOCATION: The project is located within the Cameron-Creole Watershed in the Cameron Parish, LA. The project area consist of 64,000 acres of brackish, intermediate, and fresh marshes.

PROJECT PURPOSE: The purpose of the project is to restore historic water circulation patterns within the watershed. This will be accomplished by slowing the rapid movement of saline waters that enter the watershed from Calcasieu Lake.

PROJECT FEATURES: The project consists of the installation of two sheet pile plugs in the lakeshore borrow canal-one plug south of the Mangrove Bayou water control structure and the other south of the Grand Bayou water control structure. The top of plug elevation will be at marsh elevation and boat bay will be included for access.

PROJECT COST:	Total Estimated Project Cost	$660,000
	Estimated Federal Cost	495,000
	Estimated Non-Federal Cost	165,000
	Expenditures through FY 93	

Note $158,000 was added to the original 1st PPL cost monitoring.

PROJECT STATUS: The cost share agreement was executed on April 17, 1993. Plans and specifications are complete and construction is scheduled for February 1994.

Cameron Prairie Wildlife Refuge Erosion Protection (ME-9)
Cameron Parish, LA

FEDERAL LEAD AGENCY: US Fish and Wildlife Service

PROJECT LOCATION: The project is located within the Cameron Prairie National Wildlife Refuge in north central Cameron Parish, LA. The project site is a 2.5 mile reach along the north bank of the GIWW extending form the Gibbstown Bridge on LA 27 to the North Canal.

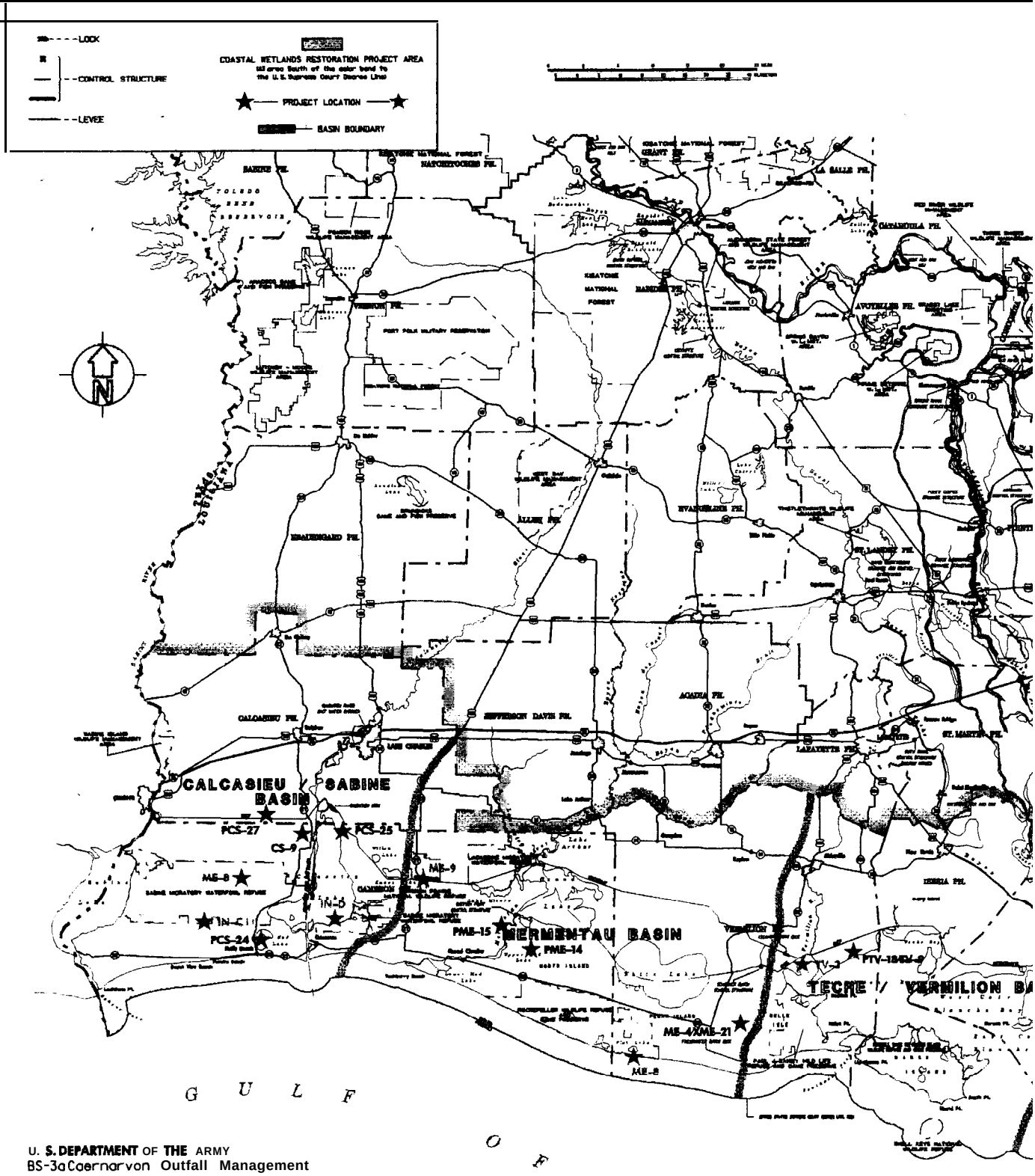
PROJECT PURPOSE: The project will protect the emergent wetlands of the wildlife refuge adjacent to the GIWW, enhance the emergent wetlands protected by the proposed levee, and terminate the encroachment of the GIWW into the refuge.

PROJECT FEATURES: The project consists of constructing approximately 2.5 miles of rock dike parallel to the existing spoil bank.

PROJECT COST:	Total Estimated Project Cost	$1,178,000
	Estimated Federal Cost	883,500
	Estimated Non-Federal Cost	294,500
	Expenditures through FY 93	51,000

Note: $67,000 was added to the original 1st PPL cost for monitoring.

PROJECT STATUS: The cost share agreement was executed on April 17, 1993. Plans and specifications are complete and construction is scheduled for January 1994.



U. S. **DEPARTMENT** OF **THE** ARMY
BS-3a Caernarvon Outfall Management
PMR-8 Pass A Loutre Sediment Mining (Deferred)
PTE-27 West Belle Pass Headland Restoration
PCS-27 Cleat- Morals Shore Protection

U. S. **DEPARTMENT** OF **AGRICULTURE**
BA-6 Hwy.90 / G.I.W.W. -Hydrologic Restoration (Deferred)
cs-9 Brown Lake Hydrologic Restoration
ME-4/XME-21 Freshwater Bayou Wetlands and Shoreline Protection
PBA-35 Jonathan Davis Hydrologic Restoration
PCS-24 East Mud Lake Hydrologic Restoration
PCS-25 Hwy. 384 Hydrologic Restoration
PME-14 Sawmill Canal / Little Pecan Bayou Water Control Structures (Deferred)
PME-15 Humble Canal Structure (Deferred)
PO-6 Fritchie Marsh Restoration
PTV-18/TV-9 Vermilion Bay / Boston Canal Shoreline Stabilization

U. S. **DEPARTMENT** OF COMMERCE
PAT-2 Crevasses In Atchafalaya Boy East Delta
PTE-22/24 Point Au Fer Island Plugs
XAT-7 Big Island

ENVIRONMENTAL PROTECTION AGENCY
XTE-41 Isles Dernieres Restoration

U. S. DEPARTMENT OF THE INTERIOR
PPD-52b Bayou Sauvage Hydrologic Restoration

2nd Priority Project List

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1st Priority Project List

STATE OF LOUISIANA
LA-A Turtle Cove - Shoreline Protection (Removed)

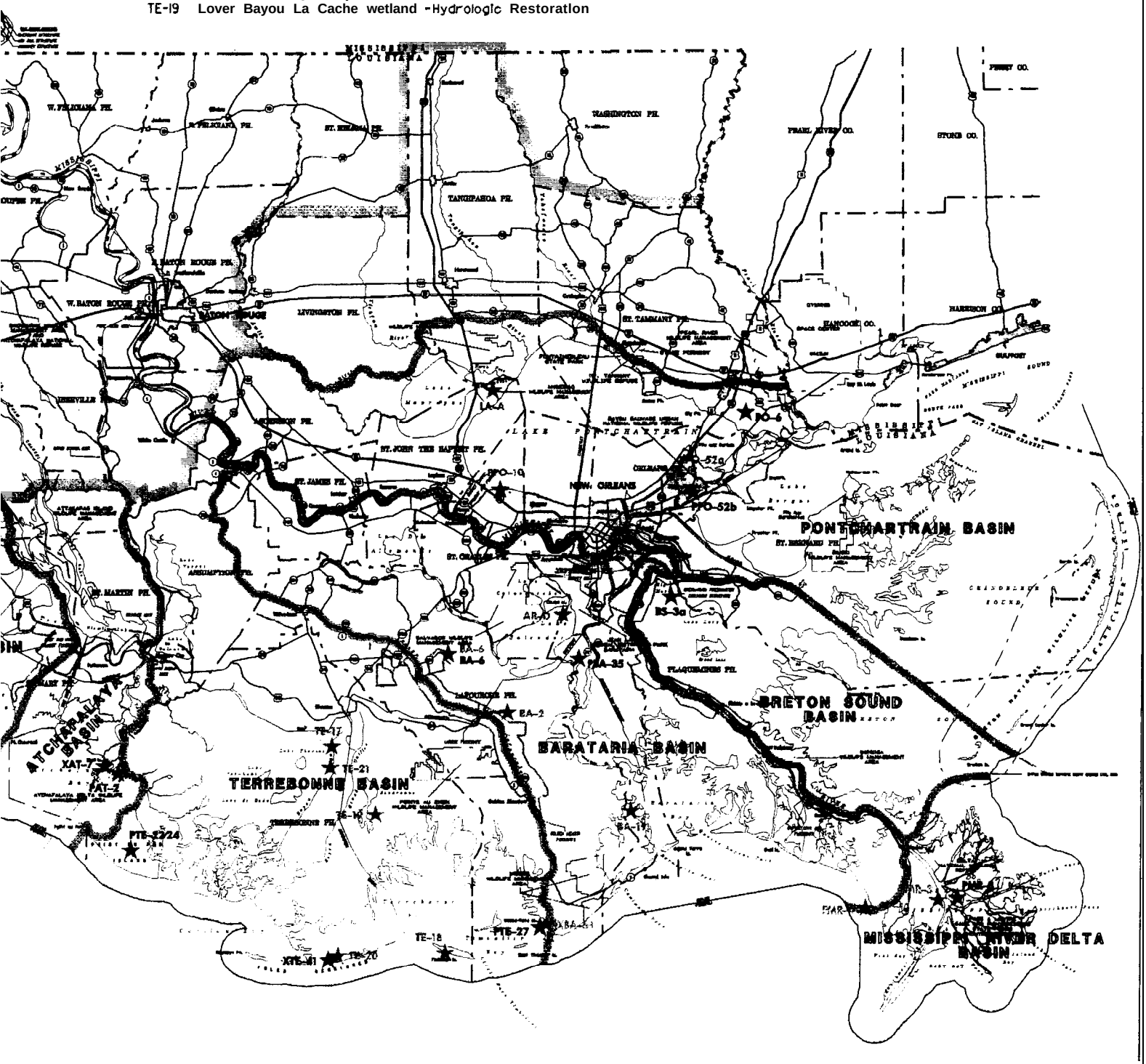
ENVIRONMENTAL PROTECTION AGENCY
TE-20 Isle Dernieres - Barrier island Restoration
TE-21 Falgout Canal - Wetland Creation Demonstration (Deferred)

U. S. DEPARTMENT OF MC ARMY
PMR-3 West Bay - Sediment Diversion for Marsh Creation
FMR-4 Tiger Pass - Marsh Creation (Deferred)
PPO-IO Bayou La Branche - Marsh Creation
AR-D Bayou Segnette (Lake Salvador) - Bank Stabilization (Deferred)
BA-19 Barataria Bay Waterway - Uarsh Creation
TV-3 Vermilion River Cutoff - Wetland Creation

U. S. DEPARTMENT OF COMMERCE
XBA-68 Fourchon - Hydrologic Restoration
TE-19 Lover Bayou La Cache wetland - Hydrologic Restoration

U. S. DEPARTMENT OF AGRICULTURE
BA-2 G.I.W.W. to Clovelly - Hydrologic Restoration
Coastal Vegetative Program:
TE-18 Timbalier Island
TE-17 Falgout Canal
ME-8 West Hackberry
M-B Dewit-Rollover Shore
BA-6 US 90 to G.I.W.W. (Deferred,

U. S. DEPARTMENT OF THE INTERIOR
XPO-52a Bayou Sauvage NWR - Hydrologic Restoration
ME-9 Cameron Prairie NWR - Erosion Prevention
IN-C Sabine NWR - Erosion Prevention
IN-D Cameron Creole Watershed Project - Borrow Canal Plug



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT