BIVONA

2ND PRIORITY PROJECT LIST REPORT
(APPENDICES)

PREPARED BY:

LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION TASK FORCE

October 30, 1992

Coastal Wetlands Planning, Protection and Restoration Act

2nd Priority Project List Report

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APPENDIX A

THE ACT

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 [illegible]s 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,

(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).

16 USC 3956.

SEC. 307. GENERAL PROVISIONS.

(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

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.

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

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

2ND PRIORITY PROJECT LIST

APPENDIX B

WETLAND VALUE ASSESSMENT APPENDIX

APPENDIX B
WETLAND VALUE ASSESSMENT APPENDIX

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APPENDIX B
WETLAND VALUE ASSESSMENT APPENDIX

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WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Atchafalaya Sediment Delivery (PAT-2)

Marsh type acres:
Fresh..... 4248
Intermediate..

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	6	0.15	13	0.22	58	0.62
V2	% Aquatic	1.5	0.11	1.6	0.11	26	0.33
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100	0.40	% 100	0.40
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100	0.50	% 100	0.50	% 100	0.50
V5	%OW <= 1.5ft	50	0.60	60	0.70	80	0.90
V6	Salinity (ppt) fresh intermediate	1	1.00	0.5	1.00	0.5	1.00
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.28	HSI =	0.34	HSI =	0.59

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	6	0.15	6	0.15	5	0.15
V2	% Aquatic	1.5	0.11	1.5	0.11	1.5	0.11
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100	0.20	% 100	0.20
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100	0.50	% 100	0.50	% 100	0.50
V5	%OW <= 1.5ft	50	0.60	50	0.60	30	0.40
V6	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	2	1.00
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.28	HSI =	0.28	HSI =	0.26

AAHU CALCULATION

Project: Atchafalaya Sediment Delivery (PAT-2)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	4248	0.28	1183.74	
1	4248	0.34	1430.28	1307.01
20	4248	0.59	2492.29	37264.37
			AAHU's =	1928.57

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	4248	0.28	1183.74	
1	4248	0.28	1183.74	1183.74
20	4248	0.26	1116.35	21850.81
			AAHU's	1151.73

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	1928.57
B. Future Without Project AAHU's =	1151.73
Net Change (FWP – FWOP) =	776.84

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project.....Freshwater Bayou Stabilization / Restoration
(ME-4 / XME-21)
Condition: Future With Project

Marsh type acres:
Fresh.....
Intermediate.. 14381

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	79	0.81	79	0.81	78	0.80
V2	% Aquatic	70	0.73	70	0.73	70	0.73
V3	Interspersion	%	0.50	%	0.50	%	0.50
	Class 1						
	Class 2	50		50		50	
	Class 3	50		50		50	
	Class 4						
	Class 5						
V4	Hydrology	%	0.50	%	0.50	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	80	0.90	80	0.90	85	0.95
V6	Salinity (ppt)		1.00		1.00		1.00
	fresh						
	intermediate	4		4		3	
V7	Access Value	0.10	0.37	0.30	0.51	0.30	0.51
		HSI =	0.69	HSI =	0.71	HSI =	0.76

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	78	0.80				
V2	% Aquatic	70	0.73				
V3	Interspersion	%	0.50	%		%	
	Class 1						
	Class 2	50					
	Class 3	50					
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%		%	
	Class 1						
	Class 2						
	Class 3	100					
	Class 4						
V5	%OW <= 1.5ft	90	1.00				
V6	Salinity (ppt)		1.00				
	fresh						
	intermediate	3					
V7	Access Value	0.30	0.51				
		HSI =	0.77	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Freshwater Bayou Stablilization / Restoration
(ME-4 / XME-21)
Condition: Future Without Project

Marsh type acres:
Fresh.....
Intermediate.. 14381

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	79	0.81	79	0.81	77	0.79
V2	% Aquatic	70	0.73	70	0.73	40	0.46
V3	Interspersion	%	0.50	%	0.50	%	0.40
	Class 1					25	
	Class 2	50		50		50	
	Class 3	50		50		25	
	Class 4						
	Class 5						
V4	Hydrology	%	0.50	%	0.50	%	0.50
	Class 1					100	
	Class 2	100		100			
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	80	0.90	80	0.90	80	0.90
V6	Salinity (ppt)		1.00		1.00		0.60
	fresh					6	
	intermediate	4		4			
V7	Access Value	0.10	0.37	0.10	0.37	1.00	1.00
		HSI =	0.69	HSI =	0.69	HSI =	0.64

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	67	0.70				
V2	% Aquatic	30	0.37				
V3	Interspersion	%	0.30	%		%	
	Class 1						
	Class 2						
	Class 3	50					
	Class 4	50					
	Class 5						
V4	Hydrology	%	0.50	%		%	
	Class 1						
	Class 2	100					
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	83	0.93				
V6	Salinity (ppt)		0.60				
	fresh						
	intermediate	6					
V7	Access Value	1.00	1.00				
		HSI =	0.58	HSI =		HSI =	

AAHU CALCULATION

Project: Freshwater Bayou Stablilzation / Restoration
(ME-4 / XME-21)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	14381	0.69	9890.05	
1	14381	0.71	10212.57	10051.31
10	14381	0.76	10968.12	95313.14
20	14381	0.77	11024.53	109963.26
			AAHU's =	10766.39

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	14381	0.69	9890.05	
1	14381	0.69	9890.05	9890.05
10	14381	0.64	9193.16	85874.45
20	14381	0.58	8275.39	87342.78
			AAHU's	9155.36

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	10766.39
B. Future Without Project AAHU's =	9155.36
Net Change (FWP - FWOP) =	1611.02

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Bayou Sauvage Hydrologic Restoration (PPO-52A)

Condition: Future With Project

Marsh type acres:
Fresh..... 5475
Intermediate..

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	51	0.56	58	0.62	64	0.68
V2	% Aquatic	10	0.19	10	0.19	20	0.28
V3	Interspersion	%		%		%	
	Class 1		0.30		0.30		0.26
	Class 2						
	Class 3	50		50		30	
	Class 4	50		50		70	
	Class 5						
V4	Hydrology	%		%		%	
	Class 1	100	0.30		1.00		1.00
	Class 2						
	Class 3			100		100	
	Class 4						
V5	%OW <= 1.5ft	75	0.85	85	0.95	85	0.95
V6	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V7	Access Value	0.00	0.30	0.00	0.30	0.00	0.30
		HSI =	0.41	HSI =	0.49	HSI =	0.53

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	51	0.56	50	0.55	41	0.47
V2	% Aquatic	10	0.19	10	0.19	10	0.19
V3	Interspersion	%		%		%	
	Class 1		0.30		0.30		0.25
	Class 2						
	Class 3	50		50		25	
	Class 4	50		50		75	
	Class 5						
V4	Hydrology	%		%		%	
	Class 1	100	0.30	100	0.30	100	0.30
	Class 2						
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	75	0.85	75	0.85	78	0.88
V6	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V7	Access Value	0.00	0.30	0.00	0.30	0.00	0.30
		HSI =	0.41	HSI =	0.41	HSI =	0.39

AAHU CALCULATION

Project: Bayou Sauvage Hydrologic Restoration (PPO-52A)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	5475	0.41	2261.71	
1	5475	0.49	2663.60	2462.65
20	5475	0.53	2909.25	52942.08
			AAHU's =	2770.24

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	5475	0.41	2261.71	
1	5475	0.41	2250.72	2256.22
20	5475	0.39	2114.23	41467.09
			AAHU's	2186.17

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	2770.24
B. Future Without Project AAHU's =	2186.17
Net Change (FWP - FWOP) =	584.07

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Clear Marais/GIWW Shoreline Protection (PCS-27)
Condition: Future With Project

Marsh type acres:
Fresh..... 4637
Intermediate..

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	44	0.50	44	0.50	45	0.51
V2	% Aquatic	100	1.00	100	1.00	100	1.00
V3	Interspersion	%		%		%	
	Class 1		0.60		0.60		0.60
	Class 2	100		100		100	
	Class 3						
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		1.00		1.00		1.00
	Class 2						
	Class 3	100		100		100	
	Class 4						
V5	%OW <= 1.5ft	75	0.85	75	0.85	75	0.85
V6	Salinity (ppt)						
	fresh	0	1.00	0	1.00	0	1.00
	intermediate						
V7	Access Value	0.00	0.30	0.00	0.30	0.00	0.30
		HSI =	0.67	HSI =	0.67	HSI =	0.68

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	45	0.51				
V2	% Aquatic	100	1.00				
V3	Interspersion	%		%		%	
	Class 1		0.60				
	Class 2	100					
	Class 3						
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		1.00				
	Class 2						
	Class 3	100					
	Class 4						
V5	%OW <= 1.5ft	75	0.85				
V6	Salinity (ppt)						
	fresh	0	1.00				
	intermediate						
V7	Access Value	0.00	0.30				
		HSI =	0.68	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Clear Marais/GIWW Shoreline Protection (PCS-27)

Condition: Future Without Project

Marsh type acres:

Fresh..... 4637

Intermediate..

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	44	0.50	44	0.50	28	0.35
V2	% Aquatic	100	1.00	100	1.00	10	0.19
V3	Interspersion	%	0.60	%	0.60	%	0.30
	Class 1						
	Class 2	100		100			
	Class 3					50	
	Class 4					50	
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2						
	Class 3	100		100		100	
	Class 4						
V5	%OW <= 1.5ft	75	0.85	75	0.85	50	0.60
V6	Salinity (ppt)						
	fresh	0	1.00	0	1.00		0.60
	intermediate					6	
V7	Access Value	0.00	0.30	0.00	0.30	1.00	1.00
		HSI =	0.67	HSI =	0.67	HSI =	0.42

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	22	0.30				
V2	% Aquatic	10	0.19				
V3	Interspersion	%	0.25	%		%	
	Class 1						
	Class 2						
	Class 3	25					
	Class 4	75					
	Class 5						
V4	Hydrology	%	1.00	%		%	
	Class 1						
	Class 2						
	Class 3	100					
	Class 4						
V5	%OW <= 1.5ft	30	0.40				
V6	Salinity (ppt)						
	fresh		0.60				
	intermediate	6					
V7	Access Value	1.00	1.00				
		HSI =	0.38	HSI =		HSI =	

AAHU CALCULATION

Project: Clear Marais/GIWW Shoreline Protection (PCS-27)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	4637	0.67	3114.23	
1	4637	0.67	3114.23	3114.23
10	4637	0.68	3131.08	28103.88
20	4637	0.68	3131.08	31310.76
			AAHU's =	3126.44

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	4637	0.67	3114.23	
1	4637	0.67	3114.23	3114.23
10	4637	0.42	1946.67	22774.07
20	4637	0.38	1746.09	18463.84
			AAHU's	2217.61

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	3126.44
B. Future Without Project AAHU's =	2217.61
Net Change (FWP - FWOP) =	908.84

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Caernarvon Outfall Management (BS-3a)
Sub-area 1 (intermediate to remain intermediate, FWP and FWOP)
Condition: Future With Project

Marsh type acres:
Fresh.....
Intermediate.. 3270

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	43	0.49	44	0.50	73	0.76
V2	% Aquatic	20	0.28	20	0.28	16	0.24
V3	Interspersion	%	0.40	%	0.40	%	0.60
	Class 1						
	Class 2	50		50		100	
	Class 3						
	Class 4	50		50			
	Class 5						
V4	Hydrology	%	0.50	%	0.50	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	54	0.64	56	0.66	95	0.70
V6	Salinity (ppt)		1.00		1.00		0.90
	fresh						
	intermediate	4		3		1	
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.51	HSI =	0.51	HSI =	0.63

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	43	0.49	43	0.49	67	0.70
V2	% Aquatic	20	0.28	20	0.28	23	0.31
V3	Interspersion	%	0.40	%	0.40	%	0.50
	Class 1						
	Class 2	50		50		50	
	Class 3					50	
	Class 4	50		50			
	Class 5						
V4	Hydrology	%	0.50	%	0.50	%	0.50
	Class 1						
	Class 2	100		100		100	
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	54	0.64	56	0.66	90	1.00
V6	Salinity (ppt)		1.00		1.00		1.00
	fresh						
	intermediate	4		4		2	
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.51	HSI =	0.51	HSI =	0.62

AAHU CALCULATION

Project: Caernarvon Outfall Management (BS-3a)

Sub-area 1 (intermediate to remain intermediate, FWP and FWOP)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	3270	0.51	1663.26	
1	3270	0.51	1677.57	1670.41
20	3270	0.63	2058.28	35490.56
			AAHU's =	1858.05

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	3270	0.51	1663.26	
1	3270	0.51	1668.38	1665.82
20	3270	0.62	2022.35	35061.94
			AAHU's	1836.39

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	1858.05
B. Future Without Project AAHU's =	1836.39
Net Change (FWP - FWOP) =	21.66

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project.....Caernarvon Outfall Management (BS-3a) Marsh type acres..... 7778
Sub-area 2 (brackish to remain brackish, FWP and FWOP)

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	84	0.86	84	0.86	88	0.89
V2	% Aquatic	40	0.58	41	0.59	60	0.72
V3	Interspersion	%	0.50	%	0.50	%	0.55
	Class 1					75	
	Class 2	50		50		25	
	Class 3	50		50			
	Class 4						
	Class 5						
V4	Hydrology	%	0.75	%	1.00	%	1.00
	Class 1	50				100	
	Class 2	50		100			
	Class 3						
V5	%OW <= 1.5ft	65	0.83	66	0.84	85	0.90
V6	Salinity (ppt)	5	0.77	5	0.77	4	0.53
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.76	HSI =	0.78	HSI =	0.81

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	84	0.86	84	0.86	84	0.86
V2	% Aquatic	40	0.58	40	0.58	40	0.58
V3	Interspersion	%	0.50	%	0.50	%	0.50
	Class 1					50	
	Class 2	50		50		50	
	Class 3	50		50			
	Class 4						
	Class 5						
V4	Hydrology	%	0.75	%	0.75	%	0.75
	Class 1	50		50		50	
	Class 2	50		50			
	Class 3						
V5	%OW <= 1.5ft	65	0.83	65	0.83	70	0.89
V6	Salinity (ppt)	5	0.77	5	0.77	5	0.77
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.76	HSI =	0.76	HSI =	0.77

AAHU CALCULATION

Project: Caernarvon Outfall Management (BS-3a)
Sub-area 2 (brackish to remain brackish, FWP and FWOP)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	7778	0.76	5927.08	
1	7778	0.78	6104.88	6015.98
20	7778	0.81	6290.88	117759.67
			AAHU's =	6188.78

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	7778	0.76	5927.08	
1	7778	0.76	5927.08	5927.08
20	7778	0.77	5962.47	112950.70
			AAHU's	5943.89

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	6188.78
B. Future Without Project AAHU's =	5943.89
Net Change (FWP - FWOP) =	244.89

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Caernarvon Outfall Management (BS-3a) Marsh type acres..... 1397
Sub-area 3 (brackish to convert to intermediate, FWP and FWOP)
Condition: Future With Project

Variable		TY 0		TY 1		(from intermediate model)	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	84	0.86	84	0.86		
V2	% Aquatic	40	0.58	41	0.59		
V3	Interspersion	%	0.50	%	0.50	%	
	Class 1						
	Class 2	50		50			
	Class 3	50		50			
	Class 4						
	Class 5						
V4	Hydrology	%	0.75	%	1.00	%	
	Class 1	50					
	Class 2	50		100			
	Class 3						
V5	%OW <= 1.5ft	65	0.83	66	0.84		
V6	Salinity (ppt)	5	0.77	5	0.77		
V7	Access Value	1.00	1.00	1.00	1.00		
		HSI =	0.76	HSI =	0.78	HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Caernarvon Outfall Management (BS-3a) Marsh type acres:
Sub-area 3 (brackish to convert to intermediate, FWP and FWOP) Fresh.....
Condition: Future With Project Intermediate.. 1397

Variable		(from brackish model)		(from brackish model)		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent					90	0.91
V2	% Aquatic					80	0.82
V3	Interspersion	%		%		%	0.60
	Class 1					100	
	Class 2						
	Class 3						
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	1.00
	Class 1						
	Class 2					100	
	Class 3						
	Class 4						
V5	%OW <= 1.5ft					95	0.70
V6	Salinity (ppt)						0.90
	fresh					1	
	intermediate						
V7	Access Value					1.00	1.00
		HSI =		HSI =		HSI =	0.85

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Caernarvon Outfall Management (BS-3a) Marsh type acres..... 1397
Sub-area 3 (brackish to convert to intermediate, FWP and FWOP)
Condition: Future Without Project

Variable		TY 0		TY 1		(from intermediate model)	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	84	0.86	84	0.86		
V2	% Aquatic	40	0.58	40	0.58		
V3	Interspersion	%	0.50	%	0.50	%	
	Class 1	50		50			
	Class 2	50		50			
	Class 3						
	Class 4						
	Class 5						
V4	Hydrology	%	0.75	%	0.75	%	
	Class 1	50		50			
	Class 2	50		50			
	Class 3						
V5	%OW <= 1.5ft	65	0.83	65	0.83		
V6	Salinity (ppt)	5	0.77	5	0.77		
V7	Access Value	1.00	1.00	1.00	1.00		
		HSI =	0.76	HSI =	0.76	HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Caernarvon Outfall Management (BS-3a) Marsh type acres:
Sub-area 3 (brackish to convert to intermediate, FWP and FWOP) Fresh.....
Condition: Future Without Project Intermediate.. 1397

Variable		(from brackish model)		(from brackish model)		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent					84	0.86
V2	% Aquatic					60	0.64
V3	Interspersion	%		%		%	0.50
	Class 1					50	
	Class 2					50	
	Class 3						
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	0.50
	Class 1					100	
	Class 2						
	Class 3						
	Class 4						
V5	%OW <= 1.5ft					90	1.00
V6	Salinity (ppt)						1.00
	fresh					2	
	intermediate						
V7	Access Value					1.00	1.00
		HSI =		HSI =		HSI =	0.76

AAHU CALCULATION

Project: Caernarvon Outfall Management (BS–3a)
Sub–area 3 (brackish to convert to intermediate, FWP and FWOP)

Future With Project			Total	Cummulative	
TY	Acres	x HSI	HU's	HU's	
0	1397	0.76	1064.56		
1	1397	0.78	1096.49	1080.52	
20	1397	0.85	1184.19	21666.46	*
			AAHU's =	1137.35	

Future Without Project			Total	Cummulative	
TY	Acres	x HSI	HU's	HU's	
0	1397	0.76	1064.56		
1	1397	0.76	1064.56	1064.56	
20	1397	0.76	1061.62	20198.68	*
			AAHU's	1063.16	

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	1137.35
B. Future Without Project AAHU's =	1063.16
Net Change (FWP – FWOP) =	74.19

* HSI calculated from Intermediate model

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Caernarvon Outfall Management (BS-3a) Marsh type acres..... 3111
Sub-area 4 (brackish to convert to intermediate, FWP only)
Condition: Future With Project

Variable		TY 0		TY 1		(from intermediate model)	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	84	0.86	84	0.86		
V2	% Aquatic	40	0.58	41	0.59		
V3	Interspersion	%	0.50	%	0.50	%	
	Class 1						
	Class 2	50		50			
	Class 3	50		50			
	Class 4						
	Class 5						
V4	Hydrology	%	0.75	%	1.00	%	
	Class 1	50					
	Class 2	50		100			
	Class 3						
V5	%OW <= 1.5ft	65	0.83	66	0.84		
V6	Salinity (ppt)	5	0.77	5	0.77		
V7	Access Value	1.00	1.00	1.00	1.00		
		HSI =	0.76	HSI =	0.78	HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Caernarvon Outfall Management (BS-3a) Marsh type acres:
Sub-area 4 (brackish to convert to intermediate, FWP only) Fresh.....
Condition: Future With Project Intermediate.. 3111

Variable		(from brackish model)		(from brackish model)		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent					92	0.93
V2	% Aquatic					80	0.82
V3	Interspersion	%		%		%	0.60
	Class 1						
	Class 2					100	
	Class 3						
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	1.00
	Class 1						
	Class 2						
	Class 3					100	
	Class 4						
V5	%OW <= 1.5ft					95	0.70
V6	Salinity (ppt)						0.90
	fresh						
	intermediate					1	
V7	Access Value					1.00	1.00
		HSI =		HSI =		HSI =	0.85

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Caernarvon Outfall Management (BS-3a) Marsh type acres..... 3111
Sub-area 4 (brackish to convert to intermediate, FWP only)
Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	84	0.86	84	0.86	84	0.86
V2	% Aquatic	40	0.58	40	0.58	40	0.58
V3	Interspersion	%		%		%	
	Class 1		0.50		0.50		0.50
	Class 2	50		50		50	
	Class 3	50		50		50	
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	
	Class 1	50	0.75	50	0.75	50	0.75
	Class 2	50		50		50	
	Class 3						
V5	%OW <= 1.5ft	65	0.83	65	0.83	70	0.89
V6	Salinity (ppt)	5	0.77	5	0.77	5	0.77
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.76	HSI =	0.76	HSI =	0.77

AAHU CALCULATION

Project: Caernarvon Outfall Management (BS-3a)
Sub-area 4 (brackish to convert to intermediate, FWP only)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	3111	0.76	2370.68	
1	3111	0.78	2441.79	2406.24
20	3111	0.85	2652.63	48397.01 *
			AAHU's =	2540.16

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	3111	0.76	2370.68	
1	3111	0.76	2370.68	2370.68
20	3111	0.77	2384.83	45177.37
			AAHU's	2377.40

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	2540.16
B. Future Without Project AAHU's =	2377.40
Net Change (FWP - FWOP) =	162.76

* HSI calculated from Intermediate model

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project.....East Mud Lake Wetland Restoration (PCS-24) Marsh type acres..... 8054

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	40	0.46	40	0.46	40	0.46
V2	% Aquatic	10	0.37	15	0.41	50	0.65
V3	Interspersion	%	0.44	%	0.44	%	0.44
	Class 1						
	Class 2	60		60		60	
	Class 3						
	Class 4	40		40		40	
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
V5	%OW <= 1.5ft	80	1.00	80	1.00	80	1.00
V6	Salinity (ppt)	12	0.70	12	0.70	10	1.00
V7	Access Value	0.58	0.62	0.44	0.50	0.44	0.50
		HSI =	0.56	HSI =	0.54	HSI =	0.61

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	40	0.46	39	0.45	21	0.29
V2	% Aquatic	10	0.37	10	0.37	10	0.37
V3	Interspersion	%	0.44	%	0.44	%	0.32
	Class 1						
	Class 2	60		60		60	
	Class 3						
	Class 4	40		40		40	
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
V5	%OW <= 1.5ft	80	1.00	80	1.00	84	0.92
V6	Salinity (ppt)	12	0.70	12	0.70	12	0.70
V7	Access Value	0.58	0.62	0.58	0.62	0.58	0.62
		HSI =	0.56	HSI =	0.55	HSI =	0.47

AAHU CALCULATION

Project: East Mud Lake Wetland Restoration (PCS–24)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	8054	0.56	4482.70	
1	8054	0.54	4373.23	4427.96
20	8054	0.61	4923.12	88315.32
			AAHU's =	4637.16

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	8054	0.56	4482.70	
1	8054	0.55	4458.61	4470.65
20	8054	0.47	3807.34	78526.53
			AAHU's	4149.86

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	4637.16
B. Future Without Project AAHU's =	4149.86
Net Change (FWP – FWOP) =	487.30

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Jonathan Davis Wetland Restoration (PBA-35) Marsh type acres:

Fresh.....

Condition: Future With Project Intermediate.. 7199

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	66	0.69	66	0.69	65	0.69
V2	% Aquatic	5	0.15	5	0.15	20	0.28
V3	Interspersion	%	0.50	%	0.50	%	0.50
	Class 1						
	Class 2	50		50		50	
	Class 3	50		50		50	
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2						
	Class 3	100		100		100	
	Class 4						
V5	%OW <= 1.5ft	65	0.75	65	0.75	65	0.75
V6	Salinity (ppt)		0.80		0.80		1.00
	fresh						
	intermediate	5		5		3	
V7	Access Value	1.00	1.00	0.80	0.86	0.80	0.86
		HSI =	0.54	HSI =	0.53	HSI =	0.62

Variable		TY 20 Value	TY 20 SI		SI	Value	SI
V1	% Emergent	64	0.68				
V2	% Aquatic	20	0.28				
V3	Interspersion	%	0.50	%		%	
	Class 1						
	Class 2	50					
	Class 3	50					
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%		%	
	Class 1						
	Class 2						
	Class 3	100					
	Class 4						
V5	%OW <= 1.5ft	65	0.75				
V6	Salinity (ppt)		1.00				
	fresh						
	intermediate	3					
V7	Access Value	0.80	0.86				
		HSI =	0.62	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Jonathan Davis Wetland Restoration (PBA-35)

Condition: Future Without Project

Marsh type acres:
Fresh.....
Intermediate.. 7199

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	66	0.69	66	0.69	62	0.66
V2	% Aquatic	5	0.15	5	0.15	5	0.15
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 50 50	0.50	% 50 50	0.50	% 35 65	0.47
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	65	0.75	65	0.75	52	0.62
V6	Salinity (ppt) fresh intermediate	 5	0.80	 5	0.80	 3	1.00
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.54	HSI =	0.54	HSI =	0.53

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	57	0.61				
V2	% Aquatic	5	0.15				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 25 75	0.45	%		%	
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100	1.00	%		%	
V5	%OW <= 1.5ft	40	0.50				
V6	Salinity (ppt) fresh intermediate	 3	1.00				
V7	Access Value	1.00	1.00				
		HSI =	0.51	HSI =		HSI =	

AAHU CALCULATION

Project: Jonathan Davis Wetland Restoration (PBA–35)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	7199	0.54	3887.46	
1	7199	0.53	3829.27	3858.36
10	7199	0.62	4449.02	37252.27
20	7199	0.62	4431.40	44402.07
			AAHU's =	4275.63

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	7199	0.54	3887.46	
1	7199	0.54	3887.46	3887.46
10	7199	0.53	3814.72	34659.80
20	7199	0.51	3639.17	37269.44
			AAHU's	3790.83

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	4275.63
B. Future Without Project AAHU's =	3790.83
Net Change (FWP – FWOP) =	484.80

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project.....Point Au Fer Protection/Restoration (PTE-22/24) Marsh type acres..... 1505
Area 1a (brackish)

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	82	0.84	82	0.84	82	0.84
V2	% Aquatic	17	0.42	20	0.44	27	0.49
V3	Interspersion	%	0.40	%	0.40	%	0.40
	Class 1						
	Class 2						
	Class 3	100		100		100	
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
V5	%OW <= 1.5ft	20	0.33	20	0.33	40	0.55
V6	Salinity (ppt)	10	1.00	9	1.00	7	1.00
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.68	HSI =	0.68	HSI =	0.73

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	82	0.84	82	0.84	78	0.80
V2	% Aquatic	17	0.42	17	0.42	17	0.42
V3	Interspersion	%	0.40	%	0.40	%	0.40
	Class 1						
	Class 2						
	Class 3	100		100		100	
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
V5	%OW <= 1.5ft	20	0.33	20	0.33	10	0.21
V6	Salinity (ppt)	10	1.00	10	1.00	9	1.00
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.68	HSI =	0.68	HSI =	0.64

AAHU CALCULATION

Project: Point Au Fer Protection/Restoration (PTE-22/24)
Area 1a (brackish)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	1505	0.68	1017.10	
1	1505	0.68	1026.18	1021.64
20	1505	0.73	1097.32	20173.31
			AAHU's =	1059.75

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	1505	0.68	1017.10	
1	1505	0.68	1017.10	1017.10
20	1505	0.64	966.92	18848.15
			AAHU's	993.26

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	1059.75
B. Future Without Project AAHU's =	993.26
Net Change (FWP – FWOP) =	66.49

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project..... Point Au Fer Protection/Restoration (PTE-22/24) Marsh type acres..... 2259
Area 1b (saline)
Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	82	0.84	82	0.84	82	0.84
V2	% Aquatic	17	0.67	20	0.68	27	0.71
V3	Interspersion	%	0.40	%	0.40	%	0.40
	Class 1						
	Class 2						
	Class 3	100		100		100	
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	20	0.36	20	0.36	40	0.61
V6	Salinity (ppt)	12	0.76	11	0.64	9	0.40
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.73	HSI =	0.72	HSI =	0.73

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	82	0.84	82	0.84	78	0.80
V2	% Aquatic	17	0.67	17	0.67	17	0.67
V3	Interspersion	%	0.40	%	0.40	%	0.40
	Class 1						
	Class 2						
	Class 3	100		100		100	
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	20	0.36	20	0.36	10	0.23
V6	Salinity (ppt)	12	0.76	12	0.76	10	0.52
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.73	HSI =	0.73	HSI =	0.66

AAHU CALCULATION

Project: Point Au Fer Protection/Restoration (PTE–22/24)
Area 1b (saline)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2259	0.73	1647.96	
1	2259	0.72	1622.76	1635.36
20	2259	0.73	1641.16	31007.24
			AAHU's =	1632.13

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2259	0.73	1647.96	
1	2259	0.73	1647.96	1647.96
20	2259	0.66	1497.48	29881.61
			AAHU's	1576.48

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	1632.13
B. Future Without Project AAHU's =	1576.48
Net Change (FWP – FWOP) =	55.65

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project.....Point Au Fer Protection/Restoration (PTE-22/24) Marsh type acres..... 880
Area 2a (brackish)
Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	68	0.71	68	0.71	63	0.67
V2	% Aquatic	6	0.34	6	0.34	6	0.34
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.40
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	60	0.78	60	0.78	66	0.84
V6	Salinity (ppt)	9	1.00	9	1.00	7	1.00
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.67	HSI =	0.67	HSI =	0.67

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	68	0.71	67	0.70	51	0.56
V2	% Aquatic	6	0.34	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.60
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	60	0.78	60	0.78	50	0.66
V6	Salinity (ppt)	9	1.00	9	1.00	12	0.70
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.67	HSI =	0.66	HSI =	0.61

AAHU CALCULATION

Project: Point Au Fer Protection/Restoration (PTE–22/24)
Area 2a (brackish)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	880	0.67	593.32	
1	880	0.67	593.32	593.32
20	880	0.67	587.29	11215.77
			AAHU's =	590.45

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	880	0.67	593.32	
1	880	0.66	577.34	585.33
20	880	0.61	537.06	10586.81
			AAHU's	558.61

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	590.45
B. Future Without Project AAHU's =	558.61
Net Change (FWP – FWOP) =	31.85

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project..... Point Au Fer Protection/Restoration (PTE-22/24)
Area 2b (brackish)
Condition: Future With Project

Marsh type acres..... 586
(Brackish to convert to saline after TY1, FWOP)

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	68	0.71	68	0.71	63	0.67
V2	% Aquatic	6	0.34	6	0.34	6	0.34
V3	Interspersion	%	0.40	%	0.40	%	0.40
	Class 1						
	Class 2						
	Class 3	100		100		100	
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
V5	%OW <= 1.5ft	60	0.78	60	0.78	66	0.84
V6	Salinity (ppt)	9	1.00	9	1.00	7	1.00
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.67	HSI =	0.67	HSI =	0.67

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Point Au Fer Protection/Restoration (PTE-22/24)
Area 2b (brackish)
Condition: Future Without Project

Marsh type acres..... 586
(Brackish to convert to saline after TY1, FWOP)

Variable		TY 0		TY 1		(from saline model)	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	68	0.71	67	0.70		
V2	% Aquatic	6	0.34	0	0.30		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	%	
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	%	
V5	%OW <= 1.5ft	60	0.78	60	0.78		
V6	Salinity (ppt)	9	1.00	10	1.00		
V7	Access Value	1.00	1.00	1.00	1.00		
		HSI =	0.67	HSI =	0.66	HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project.....Point Au Fer Protection/Restoration (PTE-22/24)
Area 2b (brackish)
Condition: Future Without Project

Marsh type acres..... 586
(Brackish area to convert to saline after TY1, FWOP)

Variable		(from brackish model)		(from brackish model)		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent					38	0.44
V2	% Aquatic					0	0.60
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	%		%		% 100	0.60
V4	Hydrology Class 1 Class 2 Class 3 Class 4	%		%		% 100	1.00
V5	%OW <= 1.5ft					40	0.61
V6	Salinity (ppt)					14	1.00
V7	Access Value					1.00	1.00
		HSI =		HSI =		HSI =	0.67

AAHU CALCULATION

Project: Point Au Fer Protection/Restoration (PTE-22/24)
Area 2b (brackish)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	586	0.67	395.10	
1	586	0.67	395.10	395.10
20	586	0.67	391.08	7468.68
			AAHU's =	393.19

Future Without Project			Total	Cummulative	
TY	Acres	x HSI	HU's	HU's	
0	586	0.67	395.10		
1	586	0.66	384.46	389.78	
20	586	0.67	394.46	7399.70	*
			AAHU's	389.47	

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	393.19
B. Future Without Project AAHU's =	389.47
Net Change (FWP - FWOP) =	3.72

* HSI calculated from Saline model

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Increment Analysis

Project..... Big Island Mining (XAT-7)
Increment 1 (500-foot-wide channel)
Condition: F..ure With Project

Marsh type acres:
Fresh..... 3400
Intermediate..

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	26	0.33	36	0.42	62	0.66
V2	% Aquatic	36	0.42	36	0.42	40	0.46
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100 	0.40	% 100 	0.40
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100 	0.50	% 100 	0.50	% 100 	0.50
V5	%OW <= 1.5ft	55	0.65	60	0.70	65	0.75
V6	Salinity (ppt) fresh intermediate	2	1.00	1	1.00	1	1.00
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.46	HSI =	0.53	HSI =	0.62

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	26	0.33	26	0.33	16	0.24
V2	% Aquatic	36	0.42	36	0.42	36	0.42
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100	0.20	% 100	0.20
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100 	0.50	% 100 	0.50	% 100 	0.50
V5	%OW <= 1.5ft	55	0.65	55	0.65	45	0.55
V6	Salinity (ppt) fresh intermediate	2	1.00	2	1.00	2	1.00
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.46	HSI =	0.46	HSI =	0.41

AAHU CALCULATION

Project: Big Island Mining (XAT-7)
Increment 1 (500-foot-wide channel)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	3400	0.46	1568.08	
1	3400	0.53	1818.76	1693.42
20	3400	0.62	2123.77	37454.00
			AAHU's =	1957.37

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	3400	0.46	1568.08	
1	3400	0.46	1568.08	1568.08
20	3400	0.41	1403.48	28229.76
			AAHU's	1489.89

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	1957.37
B. Future Without Project AAHU's =	1489.89
Net Change (FWP - FWOP) =	467.48

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Hwy. 384 Hydrologic Restoration (PCS-25)
Area 1 (fresh)
Condition: Future With Project

Marsh type acres:
Fresh..... 322
Intermediate..

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	45	0.51	45	0.51	45	0.51
V2	% Aquatic	70	0.73	70	0.73	70	0.73
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100	0.20	% 100	0.20
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100	0.50	% 100	0.50	% 100	0.50
V5	%OW <= 1.5ft	80	0.90	80	0.90	80	0.90
V6	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V7	Access Value	0.00	0.30	0.00	0.30	0.00	0.30
		HSI =	0.53	HSI =	0.53	HSI =	0.53

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	45	0.51	43	0.49	11	0.20
V2	% Aquatic	70	0.73	40	0.46	20	0.28
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100	0.20	% 100	0.20
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100	0.50	% 100	0.50	% 100	0.50
V5	%OW <= 1.5ft	80	0.90	80	0.90	70	0.80
V6	Salinity (ppt) fresh intermediate	1	1.00	2	1.00	5	0.10
V7	Access Value	0.00	0.30	0.00	0.30	1.00	1.00
		HSI =	0.53	HSI =	0.48	HSI =	0.29

AAHU CALCULATION

Project: Hwy. 384 Hydrologic Restoration (PCS–25)
Area 1 (fresh)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	322	0.53	171.65	
1	322	0.53	171.65	171.65
20	322	0.53	171.65	3261.35
			AAHU's =	171.65

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	322	0.53	171.65	
1	322	0.48	154.81	163.23
20	322	0.29	94.90	2372.23
			AAHU's	126.77

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	171.65
B. Future Without Project AAHU's =	126.77
Net Change (FWP – FWOP) =	**44.88**

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project.....Hwy. 384 Hydrologic Restoration (PCS-25) Marsh type acres..... 328
Area 2 (brackish)

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	39	0.45	39	0.45
V2	% Aquatic	0	0.30	5	0.34	33	0.53
V3	Interspersion	%	0.20	%	0.20	%	0.20
	Class 1						
	Class 2						
	Class 3						
	Class 4	100		100		100	
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
V5	%OW <= 1.5ft	90	0.80	90	0.80	90	0.80
V6	Salinity (ppt)	10	1.00	9	1.00	7	1.00
V7	Access Value	1.00	1.00	0.60	0.64	0.60	0.64
		HSI =	0.55	HSI =	0.51	HSI =	0.56

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	39	0.45	27	0.34
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%	0.20	%	0.20	%	0.20
	Class 1						
	Class 2						
	Class 3						
	Class 4	100		100		100	
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2	100		100		100	
	Class 3						
V5	%OW <= 1.5ft	90	0.80	90	0.80	92	0.76
V6	Salinity (ppt)	10	1.00	10	1.00	12	0.70
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.55	HSI =	0.55	HSI =	0.49

AAHU CALCULATION

Project: Hwy. 384 Hydrologic Restoration (PCS–25)
Area 2 (brackish)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	328	0.55	179.53	
1	328	0.51	168.89	174.21
20	328	0.56	183.65	3349.12
			AAHU's =	176.17

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	328	0.55	179.53	
1	328	0.55	179.53	179.53
20	328	0.49	160.55	3230.75
			AAHU's	170.51

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	176.17
B. Future Without Project AAHU's =	170.51
Net Change (FWP – FWOP) =	5.65

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project.....Fritchie Marsh Restoration (PO-6) Marsh type acres..... 2962
Area 1 (brackish to remain brackish, FWP and FWOP)

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	58	0.62	58	0.62	52	0.57
V2	% Aquatic	75	0.83	75	0.83	75	0.83
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.60	% 100	0.60	% 100	0.60
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	90	0.80	90	0.80	93	0.74
V6	Salinity (ppt)	5	0.77	4	0.53	4	0.53
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.77	HSI =	0.75	HSI =	0.73

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	58	0.62	57	0.61	35	0.42
V2	% Aquatic	75	0.83	75	0.83	55	0.69
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.60	% 100	0.60	% 100	0.40
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	90	0.80	90	0.80	93	0.74
V6	Salinity (ppt)	5	0.77	5	0.77	5	0.77
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.77	HSI =	0.77	HSI =	0.64

AAHU CALCULATION

Project: Fritchie Marsh Restoration (PO-6)
Area 1 (brackish to remain brackish, FWP and FWOP)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2962	0.77	2294.04	
1	2962	0.75	2219.53	2256.79
20	2962	0.73	2149.94	41509.92
			AAHU's =	2188.34

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2962	0.77	2294.04	
1	2962	0.77	2284.94	2289.49
20	2962	0.64	1900.65	39763.09
			AAHU's	2102.63

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	2188.34
B. Future Without Project AAHU's =	2102.63
Net Change (FWP - FWOP) =	85.71

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Fritchie Marsh Restoration (PO-6) Marsh type acres..... 2962
Area 2 (brackish to convert to intermediate after TY1, FWP)
Condition: Future With Project

Variable		TY 0		TY 1		(from intermediate model)	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	58	0.62	58	0.62		
V2	% Aquatic	75	0.83	75	0.83		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.60	% 100	0.60	%	
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	%	
V5	%OW <= 1.5ft	90	0.80	90	0.80		
V6	Salinity (ppt)	5	0.77	4	0.53		
V7	Access Value	1.00	1.00	1.00	1.00		
		HSI =	0.77	HSI =	0.75	HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Fritchie Marsh Restoration (PO-6) Marsh type acres:
Area 2 (brackish converting to intermediate after TY1, FWP) Fresh.....
Condition: Future With Project Intermediate.. 2962

Variable		(from brackish model)		(from brackish model)		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent					52	0.57
V2	% Aquatic					75	0.78
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	%		%		% 100	0.60
V4	Hydrology Class 1 Class 2 Class 3 Class 4	%		%		% 100	1.00
V5	%OW <= 1.5ft					93	0.82
V6	Salinity (ppt) fresh intermediate					2	1.00
V7	Access Value					1.00	1.00
		HSI =		HSI =		HSI =	0.75

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Fritchie Marsh Restoration (PO–6) Marsh type acres..... 2962
Area 2 (brackish to convert to intermediate after TY1, FWP)
Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	58	0.62	57	0.61	35	0.42
V2	% Aquatic	75	0.83	75	0.83	55	0.69
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.60	% 100	0.60	% 100	0.40
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	90	0.80	90	0.80	93	0.74
V6	Salinity (ppt)	5	0.77	5	0.77	5	0.77
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.77	HSI =	0.77	HSI =	0.64

AAHU CALCULATION

Project: Fritchie Marsh Restoration (PO–6)
Area 2 (brackish to convert to intermediate after TY1, FWP)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2962	0.77	2294.04	
1	2962	0.75	2219.53	2256.79
20	2962	0.75	2212.82	42107.32 *
			AAHU's =	2218.21

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2962	0.77	2294.04	
1	2962	0.77	2284.94	2289.49
20	2962	0.64	1900.65	39763.09
			AAHU's	2102.63

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	2218.21
B. Future Without Project AAHU's =	2102.63
Net Change (FWP – FWOP) =	115.58

* HSI calculated with Fresh/Intermediate model

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project.....Vermilion Bay / Boston Canal Shore Protection (PTV-18 / TV-9) Marsh type acres..... 466

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	81	0.83	81	0.83	81	0.83
V2	% Aquatic	5	0.34	5	0.34	5	0.34
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100	0.20	% 100	0.20
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	100	0.60	100	0.60	100	0.60
V6	Salinity (ppt)	4	0.53	4	0.53	4	0.53
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.61	HSI =	0.61	HSI =	0.61

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	81	0.83	77	0.79	0	0.10
V2	% Aquatic	5	0.34	5	0.34	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100	0.20	% 100	0.10
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	% 100	0.10
V5	%OW <= 1.5ft	100	0.60	100	0.60	68	0.87
V6	Salinity (ppt)	4	0.53	4	0.53	4	0.53
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.61	HSI =	0.60	HSI =	0.26

AAHU CALCULATION

Project: Vermilion Bay / Boston Canal Shore Protection
(PTV–18 / TV–9)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	466	0.61	282.61	
1	466	0.61	282.61	282.61
20	466	0.61	282.61	5369.62
			AAHU's =	282.61

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	466	0.61	282.61	
1	466	0.60	279.21	280.91
20	466	0.26	122.50	3816.23
			AAHU's	204.86

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	282.61
B. Future Without Project AAHU's =	204.86
Net Change (FWP – FWOP) =	77.75

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Brown's Lake Hydrologic Restoration (CS-9) Marsh type acres..... 2794

Condition: Future With Project

Variable		TY 0		TY 1		TY 5	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	15	0.24	15	0.24	17	0.25
V2	% Aquatic	9	0.36	15	0.41	40	0.58
V3	Interspersion	%	0.31	%	0.35	%	0.37
	Class 1	20		20		30	
	Class 2	15		35		25	
	Class 3	65		45		45	
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1	100		100		100	
	Class 2						
	Class 3						
V5	%OW <= 1.5ft	25	0.38	25	0.38	30	0.44
V6	Salinity (ppt)	10	1.00	9	1.00	8	1.00
V7	Access Value	1.00	1.00	0.60	0.64	0.60	0.64
		HSI =	0.46	HSI =	0.44	HSI =	0.49

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	22	0.30				
V2	% Aquatic	46	0.62				
V3	Interspersion	%	0.40	%		%	
	Class 1	40					
	Class 2	20					
	Class 3	40					
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%		%	
	Class 1	100					
	Class 2						
	Class 3						
V5	%OW <= 1.5ft	30	0.44				
V6	Salinity (ppt)	8	1.00				
V7	Access Value	0.60	0.64				
		HSI =	0.52	HSI =		HSI =	

Revised 02-Sep-92

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Brown's Lake Hydrologic Restoration (CS-9) Marsh type acres..... 2794

Condition: Future Without Project

Variable		TY 0		TY 1		TY 5	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	15	0.24	15	0.24	14	0.23
V2	% Aquatic	9	0.36	9	0.36	9	0.36
V3	Interspersion	%	0.31	%	0.31	%	0.30
	Class 1					15	
	Class 2	20		20		20	
	Class 3	15		15		65	
	Class 4	65		65			
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1					100	
	Class 2	100		100			
	Class 3						
V5	%OW <= 1.5ft	25	0.38	25	0.38	25	0.38
V6	Salinity (ppt)	10	1.00	10	1.00	10	1.00
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.46	HSI =	0.46	HSI =	0.46

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	12	0.21				
V2	% Aquatic	9	0.36				
V3	Interspersion	%	0.28	%		%	
	Class 1						
	Class 2	10					
	Class 3	20					
	Class 4	70					
	Class 5						
V4	Hydrology	%	1.00	%		%	
	Class 1						
	Class 2	100					
	Class 3						
V5	%OW <= 1.5ft	20	0.33				
V6	Salinity (ppt)	10	1.00				
V7	Access Value	1.00	1.00				
		HSI =	0.44	HSI =		HSI =	

AAHU CALCULATION

Project: Brown's Lake Hydrologic Restoration (CS–9)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2794	0.46	1289.35	
1	2794	0.44	1226.22	1257.78
5	2794	0.49	1359.24	5170.91
20	2794	0.52	1449.72	21067.16
			AAHU's =	1374.79

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2794	0.46	1289.35	
1	2794	0.46	1289.35	1289.35
5	2794	0.46	1271.89	5122.49
20	2794	0.44	1217.85	18673.09
			AAHU's	1254.25

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	1374.79
B. Future Without Project AAHU's =	1254.25
Net Change (FWP – FWOP) =	120.55

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Saline Marsh

Project.....West Belle Pass Headland Restoration (PTE-27) Marsh type acres..... 2459

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	65	0.69	72	0.75	65	0.69
V2	% Aquatic	0	0.60	0	0.60	0	0.60
V3	Interspersion	%		%		%	
	Class 1	70	0.76	70	0.76	100	1.00
	Class 2						
	Class 3						
	Class 4	30		30			
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		1.00		1.00		1.00
	Class 2	100		100		100	
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	40	0.61	80	0.74	80	0.74
V6	Salinity (ppt)	22	0.70	22	0.70	22	0.70
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.76	HSI =	0.79	HSI =	0.79

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	65	0.69	64	0.68	46	0.51
V2	% Aquatic	0	0.60	0	0.60	0	0.60
V3	Interspersion	%		%		%	
	Class 1	70	0.76	70	0.76		0.38
	Class 2					30	
	Class 3					30	
	Class 4	30		30		40	
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		1.00		1.00		1.00
	Class 2	100		100		100	
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	40	0.61	40	0.61	40	0.61
V6	Salinity (ppt)	22	0.70	22	0.70	22	0.70
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.76	HSI =	0.76	HSI =	0.65

AAHU CALCULATION

Project: West Belle Pass Headland Restoration (PTE-27)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2459	0.76	1865.16	
1	2459	0.79	1951.01	1908.08
20	2459	0.79	1953.05	37088.54
			AAHU's =	1949.83

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	2459	0.76	1865.16	
1	2459	0.76	1857.78	1861.47
20	2459	0.65	1596.60	32816.59
			AAHU's	1733.90

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	1949.83
B. Future Without Project AAHU's =	1733.90
Net Change (FWP – FWOP) =	215.93

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project.....Isle Dernieres Restoration (PTE-15) Marsh type acres..... 776
Phase 1 Only
Condition: Future With Project

Variable		TY 0		TY 1		TY 11	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	25	0.33	31	0.38	27	0.34
V2	% Aquatic	0	0.60	0	0.60	0	0.60
V3	Interspersion	%	0.50	%	0.38	%	0.54
	Class 1						
	Class 2	50		44		72	
	Class 3	50				28	
	Class 4			56			
	Class 5						
V4	Hydrology	%	1.00	%	0.50	%	1.00
	Class 1						
	Class 2	100		44		100	
	Class 3						
	Class 4			56			
V5	%OW <= 1.5ft	80	0.74	80	0.74	80	0.74
V6	Salinity (ppt)	22	0.70	22	0.70	22	0.70
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.59	HSI =	0.56	HSI =	0.61

Variable		TY 14		TY 20			
		Value	SI	Value	SI	Value	SI
V1	% Emergent	23	0.31	14	0.23		
V2	Aquatic	0	0.60	0	0.60		
V3	Interspersion	%	0.54	%	0.54	%	
	Class 1						
	Class 2	72		72			
	Class 3	28		28			
	Class 4						
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	
	Class 1						
	Class 2	100		100			
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	80	0.74	70	1.01		
V6	Salinity (ppt)	22	0.70	22	0.70		
V7	Access Value	1.00	1.00	1.00	1.00		
		HSI =	0.59	HSI =	0.55	HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project.....Isle Dernieres Restoration (PTE-15) Marsh type acres..... 776
Phase 1 Only
Condition: Future Without Project

Variable		TY 0		TY 1		TY 11	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	25	0.33	23	0.31	5	0.15
V2	% Aquatic	0	0.60	0	0.60	0	0.60
V3	Interspersion	%		%		%	
	Class 1		0.50		0.50		0.50
	Class 2	50		50		50	
	Class 3	50		50		50	
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		1.00		1.00		1.00
	Class 2	100		100		100	
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	80	0.74	80	0.74	70	1.01
V6	Salinity (ppt)	22	0.70	22	0.70	22	0.70
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.59	HSI =	0.58	HSI =	0.48

Variable		TY 14		TY 20			
		Value	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10	0	0.10		
V2	% Aquatic	0	0.60	0	0.60		
V3	Interspersion	%		%		%	
	Class 1		0.10		0.10		
	Class 2						
	Class 3						
	Class 4						
	Class 5	100		100			
V4	Hydrology	%		%		%	
	Class 1		0.10		0.10		
	Class 2						
	Class 3						
	Class 4	100		100			
V5	%OW <= 1.5ft	20	0.36	10	0.23		
V6	Salinity (ppt)	22	0.70	22	0.70		
V7	Access Value	1.00	1.00	1.00	1.00		
		HSI =	0.26	HSI =	0.25	HSI =	

AAHU CALCULATION

Project: Isle Dernieres Restoration (PTE–15)
Phase 1 Only

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	776	0.59	459.80	
1	776	0.56	436.28	448.04
11	776	0.61	471.26	4537.70
14	776	0.59	455.84	1390.64
20	776	0.55	428.95	2654.38
			AAHU's =	451.54

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	776	0.59	459.80	
1	776	0.58	452.01	455.91
11	776	0.48	372.33	4121.69
14	776	0.26	202.99	862.98
20	776	0.25	194.13	1191.37
			AAHU's	331.60

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	451.54
B. Future Without Project AAHU's =	331.60
Net Change (FWP – FWOP) =	119.94

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Humble Canal Structure Restoration (PME-15) Marsh type acres:
Fresh..... 5500
Condition: Future With Project Intermediate..

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	75	0.78	75	0.78	74	0.77
V2	% Aquatic	85	0.87	85	0.87	85	0.87
V3	Interspersion	%	0.30	%	0.30	%	0.30
	Class 1						
	Class 2						
	Class 3	50		50		50	
	Class 4	50		50		50	
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2						
	Class 3	100		100		100	
	Class 4						
V5	%OW <= 1.5ft	75	0.85	75	0.85	75	0.85
V6	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V7	Access Value	0.00	0.30	0.35	0.55	0.35	0.55
		HSI =	0.70	HSI =	0.74	HSI =	0.74

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	74	0.77				
V2	% Aquatic	85	0.87				
V3	Interspersion	%	0.30	%		%	
	Class 1						
	Class 2						
	Class 3	50					
	Class 4	50					
	Class 5						
V4	Hydrology	%	1.00	%		%	
	Class 1						
	Class 2						
	Class 3	100					
	Class 4						
V5	%OW <= 1.5ft	75	0.85				
V6	Salinity (ppt)						
	fresh	1	1.00				
	intermediate						
V7	Access Value	0.35	0.55				
		HSI =	0.74	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Humble Canal Structure Restoration (PME-15)

Marsh type acres:
Fresh..... 5500
Intermediate..

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	75	0.78	75	0.78	74	0.77
V2	% Aquatic	85	0.87	85	0.87	85	0.87
V3	Interspersion	%	0.30	%	0.30	%	0.30
	Class 1						
	Class 2					50	
	Class 3	50		50		50	
	Class 4	50		50			
	Class 5						
V4	Hydrology	%	1.00	%	1.00	%	1.00
	Class 1						
	Class 2					100	
	Class 3	100		100			
	Class 4						
V5	%OW <= 1.5ft	75	0.85	75	0.85	75	0.85
V6	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V7	Access Value	0.00	0.30	0.00	0.30	0.00	0.30
		HSI =	0.70	HSI =	0.70	HSI =	0.69

Variable		TY 20 Value	TY 20 SI		SI	Value	SI
V1	% Emergent	48	0.53				
V2	% Aquatic	5	0.15				
V3	Interspersion	%	0.25	%		%	
	Class 1						
	Class 2						
	Class 3	25					
	Class 4	75					
	Class 5						
V4	Hydrology	%	1.00	%		%	
	Class 1						
	Class 2						
	Class 3	100					
	Class 4						
V5	%OW <= 1.5ft	50	0.60				
V6	Salinity (ppt)						
	fresh	5	0.10				
	intermediate						
V7	Access Value	1.00	1.00				
		HSI =	0.37	HSI =		HSI =	

AAHU CALCULATION

Project: Humble Canal Structure Restoration (PME-15)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	5500	0.70	3827.56	
1	5500	0.74	4063.03	3945.30
10	5500	0.74	4048.82	36503.32
20	5500	0.74	4048.82	40488.18
			AAHU's =	4046.84

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	5500	0.70	3827.56	
1	5500	0.70	3827.56	3827.56
10	5500	0.69	3814.18	34387.83
20	5500	0.37	2032.45	29233.11
			AAHU's	3372.43

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	4046.84
B. Future Without Project AAHU's =	3372.43
Net Change (FWP – FWOP) =	674.41

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Highway 90 to GIWW (BA-6)

Marsh type acres:
Fresh..... 56974
Intermediate..

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	94	0.95	94	0.95	93	0.94
V2	% Aquatic	85	0.87	85	0.87	85	0.87
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.40
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
V6	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V7	Access Value	1.00	1.00	0.80	0.86	0.80	0.86
		HSI =	0.87	HSI =	0.86	HSI =	0.86

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	94	0.95	94	0.95	88	0.89
V2	% Aquatic	85	0.87	84	0.86	70	0.73
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.40
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
V6	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	3	0.60
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.87	HSI =	0.87	HSI =	0.79

AAHU CALCULATION

Project: Highway 90 to GIWW (BA-6)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	56974	0.87	49665.32	
1	56974	0.86	48921.88	49293.60
20	56974	0.86	48781.78	928184.76
			AAHU's =	48873.92

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	56974	0.87	49665.32	
1	56974	0.87	49561.54	49613.43
20	56974	0.79	44820.00	896624.65
			AAHU's	47311.90

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	48873.92
B. Future Without Project AAHU's =	47311.90
Net Change (FWP - FWOP) =	1562.01

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Sawmill Canal Structures (PME-14)
Area 1 (intermediate)
Condition: Future With Project

Marsh type acres:
Fresh.....
Intermediate.. 1908

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	92	0.93	92	0.93	90	0.91
V2	% Aquatic	85	0.87	85	0.87	85	0.87
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.40
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	95	0.70	95	0.70	95	0.70
V6	Salinity (ppt) fresh intermediate	 2	1.00	 1	0.90	 1	0.90
V7	Access Value	0.10	0.37	0.35	0.55	0.35	0.55
		HSI =	0.76	HSI =	0.78	HSI =	0.77

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	88	0.89				
V2	% Aquatic	85	0.87				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	%		%	
V4	Hydrology Class 1 Class 2 Class 3 Class 4	% 100	1.00	%		%	
V5	%OW <= 1.5ft	95	0.70				
V6	Salinity (ppt) fresh intermediate	 1	0.90				
V7	Access Value	0.35	0.55				
		HSI =	0.77	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Sawmill Canal Structures (PME-14)
Area 1 (intermediate)
Condition: Future Without Project

Marsh type acres:
Fresh.....
Intermediate.. 1908

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	92	0.93	91	0.92	84	0.86
V2	% Aquatic	85	0.87	85	0.87	85	0.87
V3	Interspersion	%		%		%	
	Class 1		0.40		0.40		0.40
	Class 2						
	Class 3	100		100		100	
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		1.00		1.00		1.00
	Class 2						
	Class 3	100		100		100	
	Class 4						
V5	%OW <= 1.5ft	95	0.70	95	0.70	95	0.70
V6	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	2		2		2	
V7	Access Value	0.10	0.37	0.10	0.37	0.10	0.37
		HSI =	0.76	HSI =	0.75	HSI =	0.74

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	76	0.78				
V2	% Aquatic	25	0.33				
V3	Interspersion	%		%		%	
	Class 1		0.60				
	Class 2	100					
	Class 3						
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		1.00				
	Class 2						
	Class 3	100					
	Class 4						
V5	%OW <= 1.5ft	90	1.00				
V6	Salinity (ppt)						
	fresh		1.00				
	intermediate	4					
V7	Access Value	1.00	1.00				
		HSI =	0.71	HSI =		HSI =	

AAHU CALCULATION

Project: Sawmill Canal Structures (PME-14)
Area 1 (intermediate)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	1908	0.76	1444.71	
1	1908	0.78	1486.02	1465.37
10	1908	0.77	1477.32	13335.03
20	1908	0.77	1468.49	14729.03
			AAHU's =	1476.47

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	1908	0.76	1444.71	
1	1908	0.75	1440.50	1442.61
10	1908	0.74	1410.13	12827.83
20	1908	0.71	1346.06	13780.97
			AAHU's	1402.57

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	1476.47
B. Future Without Project AAHU's =	1402.57
Net Change (FWP – FWOP) =	73.90

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Sawmill Canal Structures (PME-14)
Area 2 (brackish)
Condition: Future With Project

Marsh type acres..... 743

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 10 Value	TY 10 SI
V1	% Emergent	79	0.81	78	0.80	73	0.76
V2	% Aquatic	85	0.90	85	0.90	85	0.90
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.40
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	% 100	1.00
V5	%OW <= 1.5ft	95	0.70	95	0.70	95	0.70
V6	Salinity (ppt)	8	1.00	6	1.00	6	1.00
V7	Access Value	0.07	0.16	0.35	0.42	0.35	0.42
		HSI =	0.59	HSI =	0.70	HSI =	0.69

Variable		TY 20 Value	TY 20 SI	Value	SI	Value	SI
V1	% Emergent	68	0.71				
V2	% Aquatic	85	0.90				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	%		%	
V4	Hydrology Class 1 Class 2 Class 3	% 100	1.00	%		%	
V5	%OW <= 1.5ft	95	0.70				
V6	Salinity (ppt)	6	1.00				
V7	Access Value	0.35	0.42				
		HSI =	0.68	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Brackish Marsh

Project.....Sawmill Canal Structures (PME-14) Marsh type acres..... 743
Area 2 (brackish)
Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	79	0.81	78	0.80	70	0.73
V2	% Aquatic	85	0.90	85	0.90	85	0.90
V3	Interspersion	%		%		%	
	Class 1		0.40		0.40		0.40
	Class 2						
	Class 3	100		100		100	
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		1.00		1.00		1.00
	Class 2	100		100		100	
	Class 3						
V5	%OW <= 1.5ft	95	0.70	95	0.70	95	0.70
V6	Salinity (ppt)	8	1.00	8	1.00	8	1.00
V7	Access Value	0.07	0.16	0.07	0.16	0.07	0.16
		HSI =	0.59	HSI =	0.59	HSI =	0.58

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	61	0.65				
V2	% Aquatic	25	0.48				
V3	Interspersion	%		%		%	
	Class 1		0.60				
	Class 2	100					
	Class 3						
	Class 4						
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		1.00				
	Class 2	100					
	Class 3						
V5	%OW <= 1.5ft	75	0.94				
V6	Salinity (ppt)	10	1.00				
V7	Access Value	1.00	1.00				
		HSI =	0.74	HSI =		HSI =	

AAHU CALCULATION

Project: Sawmill Canal Structures (PME-14)
Area 2 (brackish)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	743	0.59	440.47	
1	743	0.70	520.46	480.47
10	743	0.69	512.33	4647.58
20	743	0.68	503.84	5080.86
			AAHU's =	510.45

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	743	0.59	440.47	
1	743	0.59	439.14	439.80
10	743	0.58	428.01	3902.17
20	743	0.74	547.70	4878.59
			AAHU's	461.03

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	510.45
B. Future Without Project AAHU's =	461.03
Net Change (FWP – FWOP) =	49.42

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Cypress–Tupelo Swamp

Project.....Sawmill Canal Structures (PME–14) Acres..... 91
Area 3 (cypress swamp)
Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	Hydrology	%		%		%	
	Class 1		1.00		1.00		1.00
	Class 2						
	Class 3	100		100		100	
	Class 4						
V2	Water exchange	%		%		%	
	Class 1		0.50		0.50		0.50
	Class 2						
	Class 3	100		100		100	
	Class 4						
V3	Salinity (ppt)	2	0.50	1	1.00	1	1.00
		HSI =	0.63	HSI =	0.79	HSI =	0.79

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	Hydrology	%		%		%	
	Class 1		1.00		1.00		1.00
	Class 2						
	Class 3	100		100		100	
	Class 4						
V2	Water exchange	%		%		%	
	Class 1		0.50		0.70		0.70
	Class 2			100		100	
	Class 3	100					
	Class 4						
V3	Salinity (ppt)	2	0.50	2	0.50	4	0.10
		HSI =	0.63	HSI =	0.70	HSI =	0.41

AAHU CALCULATION

Project: Sawmill Canal Structures (PME-14)
Area 3 (cypress swamp)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	91	0.63	57.33	
1	91	0.79	72.23	64.78
20	91	0.79	72.23	1372.31
			AAHU's =	71.85

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	91	0.63	57.33	
1	91	0.70	64.13	60.73
20	0	0.41	0.00	524.92
			AAHU's	29.28

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	71.85
B. Future Without Project AAHU's =	29.28
Net Change (FWP - FWOP) =	42.57

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Sediment Mining, Pass-A-Loutre (PMR-8)

Condition: Future With Project

Marsh type acres:
Fresh..... 650
Intermediate..

Variable		TY 0 Value	TY 0 SI	TY 1 Value	TY 1 SI	TY 2 Value	TY 2 SI
V1	% Emergent	5	0.15	36	0.42	35	0.42
V2	% Aquatic	50	0.55	25	0.33	70	0.73
V3	Interspersion	%	0.20	%	0.20	%	0.20
	Class 1						
	Class 2						
	Class 3						
	Class 4	100		100		100	
	Class 5						
V4	Hydrology	%	0.50	%	0.85	%	0.83
	Class 1						
	Class 2	100		30		35	
	Class 3			70		65	
	Class 4						
V5	%OW <= 1.5ft	50	0.60	80	0.90	80	0.90
V6	Salinity (ppt)						
	fresh	2	1.00	2	1.00	2	1.00
	intermediate						
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.38	HSI =	0.51	HSI =	0.60

Variable		TY 20 Value	TY 20 SI				
V1	% Emergent	22	0.30				
V2	% Aquatic	65	0.69				
V3	Interspersion	%	0.30	%		%	
	Class 1						
	Class 2						
	Class 3	50					
	Class 4	50					
	Class 5						
V4	Hydrology	%	0.63	%		%	
	Class 1						
	Class 2	75					
	Class 3	25					
	Class 4						
V5	%OW <= 1.5ft	70	0.80				
V6	Salinity (ppt)						
	fresh	2	1.00				
	intermediate						
V7	Access Value	1.00	1.00				
		HSI =	0.53	HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL
Fresh/Intermediate Marsh

Project.....Sediment Mining, Pass-A-Loutre (PMR-8)

Condition: Future Without Project

Marsh type acres:
Fresh..... 650
Intermediate..

Variable		TY 0		TY 1		TY 2	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	5	0.15	5	0.15	5	0.15
V2	% Aquatic	50	0.55	50	0.55	49	0.54
V3	Interspersion	%		%		%	
	Class 1		0.20		0.20		0.20
	Class 2						
	Class 3						
	Class 4	100		100		100	
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		0.50		0.50		0.50
	Class 2	100		100		100	
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	50	0.60	50	0.60	49	0.59
V6	Salinity (ppt)						
	fresh	2	1.00	2	1.00	2	1.00
	intermediate						
V7	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		HSI =	0.38	HSI =	0.38	HSI =	0.37

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	4	0.14				
V2	% Aquatic	40	0.46				
V3	Interspersion	%		%		%	
	Class 1		0.20				
	Class 2						
	Class 3						
	Class 4	100					
	Class 5						
V4	Hydrology	%		%		%	
	Class 1		0.50				
	Class 2	100					
	Class 3						
	Class 4						
V5	%OW <= 1.5ft	40	0.50				
V6	Salinity (ppt)						
	fresh	2	1.00				
	intermediate						
V7	Access Value	1.00	1.00				
		HSI =	0.35	HSI =		HSI =	

AAHU CALCULATION

Project: Sediment Mining, Pass-A-Loutre (PMR-8)

Future With Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	650	0.38	243.90	
1	650	0.51	332.64	288.27
2	650	0.60	387.40	360.02
20	650	0.53	346.68	6606.74
			AAHU's =	362.75

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HU's	HU's
0	650	0.38	243.90	
1	650	0.38	243.90	243.90
2	650	0.37	242.69	243.29
20	650	0.35	226.69	4224.36
			AAHU's	235.58

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHU's =	362.75
B. Future Without Project AAHU's =	235.58
Net Change (FWP - FWOP) =	127.17

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

2ND PRIORITY PROJECX LIST

APPENDIX C

ENGINEERING APPENDIX

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ENGINEERING APPENDIX

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ENGINEERING APPENDIX

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Table C-1
Estimated Construction Cost
Re-Establishment of Natural Sediment Delivery Systems,
Atchafalaya Delta
PAT-2

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	40,000	40,000
2	Excavation (Marsh Creation)	253,000	C.Y.	1.80	455,400
Total Construction Cost					$495,400

Table C-2
Estimated Construction Cost
Freshwater Bayou Wetlands and Shore Protection
XME-21/ME-4

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	100,000	100,000
2	48" Diam C.M. Pipe 14 ga	1,2000	Ft.	55	66,000
3	48" Aluminum Flap Gate	20	Ea.	4,000	80,000
4	8' V/C Weir Header	20	Ea.	4,500	90,000
5	Rock Breakwater	10,000	Ft.	42	420,000
Total Construction Cost					$756,000

Table C-3
Estimated Construction Cost
Bayou Sauvage National Wildlife Refuge Hydrologic Restoration
PPO-52a

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.		
2	36" Low Lift Pump	1	Ea.	38,500	38,500
3	48" Low Lift Pump	1	Ea.	69,000	69,000
4	Pump Facility	1	Ea.	300,000	300,000
Total Construction Cost					$407,500

Table C-4
Estimated Construction Cost
Clear Marais Shore Protection
PCS-27/PCS-28

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	20,000	20,000
2	Rock (Breakwater)	38,548	Tons	16	616,768
3	Geotextile	46,933	S.Y.	6	281,598
Total Construction Cost					$918,366

Table C-5
Estimated Construction Cost
Caernarvon Diversion Outfall Management
BS-3a

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	50,000	50,000
2	Oil Field Channel	1,200	Ft.	40	48,000
3	Spoil Bank Repair	254,000	Ft.	1.50	381,000
4	Plugs	11	Ea.	20,000	220,000
5	Retention Levee Removal	100	Ft.	200	20,000
6	Remoavable Plugs	2	Ea.	50,000	100,000
7	Discharge Channel	200	Ft.	6	1,200
8	Excavation (Dredge)	50,000	C.Y.	2	100,000
9	Vegetative Planting	5,000	Ft.	1.32	6,600
10	Existing Plug Removal	1	Ea.	2,000	2,000
Total Construction Cost					$928,800

Table C-6
Estimated Construction Cost
Mud Lake Management
PCS-24

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	150,000	150,000
2	Vegetative Planting	150,000	Ft.	3	450,000
3	66"x51" Arch Alum Culvert	200	Ft.	65	13,000
4	12' Var Crest Weir Header	1	Ea.	6,500	6,500
5	66"x51" Flap Gate	1	Ea.	6,000	6,000
6	36" Aluminum Culvert	500	Ft.	38	19,000
7	10' Var Crest Weir Header	10	Ea.	5,500	55,000
8	48" Aluminum Culvert	1	Ea.	4,000	4,000
9	24" Aluminum Culvert	150	Ea.	29	4,350
10	24" Aluminum Flap Gate	4	Ea.	750	3,000
11	36" Aluminum Flap Gate	3	Ea.	1,2000	3,600
12	Remove 30" Pipe	6	Ea.	5,000	30,000
13	Remove Hwy Bridge	1	Ea.	20,000	20,000
14	Hwy By-Pass	1	Ea.	150,000	150,000
15	Earth Plugs (3)	200	C.Y.	5	1,000
16	Overflow Bank	780	C.Y.	5	3,900
17	Repair Existing Levee	4850	C.Y.	5	24,250
Total Construction Cost					$943,600

Table C-7
Estimated Construction Cost
Jonathan Davis Wetlands
PBA-35

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	40,000	40,000
2	Shore Protection	24,795	Ft.	19	471,105
3	Bank Maintenance	26,594	Ft.	9	239,346
4	Shell Plugs (5)	873	Ft.	220	192,060
5	Rock Weirs (11)	952	Ft.	340	323,680
Total Construction Cost					$1,266,191

Table C-8
Estimated Construction Cost
Point Au Fer Island Plugs
PTE-22/24

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	50,000	50,000
2	Plugs (7) 900 C.Y. Ea. w/ Wood Retain Fence	7	Ea.	5,000	35,000
3	Shell Plugs	1,000	C.Y.	20	20,000
4	Backfill	200	Ft.	205	41,000
5	Shell (Shore Protection)	8,000	C.Y.	16	128,000
6	Backfill	200,000	C.Y.	1.82	364,000
Total Construction Cost					$638,000

Table C-9
Estimated Construction Cost
Big Island Mining, Atchafalaya Delta, Increment 1
XAT-7

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	40,000	40,000
2	Excavation (Marsh Creation)	1,920,000	C.Y.	1.40	2,688,000
Total Construction Cost					$2,728,000

Table C-10
Estimated Construction Cost
Hwy 384 Hydrologic Restoration
PCS-16

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	50,000	50,000
2	48" Dia C M Pipe 14 gage	300	Ft.	55	16,500
3	24" Dia C M Pipe 14 gage	120	Ft.	30	3,600
4	48" Alum Flap Gate	5	Ea.	4,000	20,000
5	24" Alum Flap Gate	3	Ea.	1,000	3,000
6	24" Alum Sluice Gate	3	Ea.	1,500	4,500
7	8' Var Crest Weir Header	5	Ea.	4,500	22,500
8	Shell Plugs	2,100	C.Y.	16	33,600
Total Construction Cost					$153,700

Table C-11
Estimated Construction Cost
Fritchie Marsh Restoration
PO-6

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	50,000	50,000
2	Excavation	105,000	C.Y.	2.50	262,500
3	8'x12' R C Box Culvert	520	Ft.	700	364,000
4	Fixed Crest Weir	200	Ea.	600	120,000
5	Hwy By-Pass	4	Ea.	40,000	160,000
Total Construction Cost					$956,500

Table C-12
Estimated Construction Cost
Vermilion Bay/Boston Canal Shore Protection
PTV-18/TV-9

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	40,000	40,000
2	Rock (Breakwater)	6,000	Ft.	18	108,000
3	Sediment Fence	1,200	Ft.	15	18,000
4	Vegetative Planting	79,200	Ft.	3	237,600
Total Construction Cost					$403,600

Table C-13
Estimated Construction Cost
Brown Lake Hydrologic Restoration
CS-9

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	40,000	40,000
2	48" Aluminum Pipe	400	Ft.	55	22,000
3	12x12 Alum v/c Weir Header	5	Ea.	5,500	27,500
4	48" Alum Flap Gate	8	Ea.	4,000	32,000
5	48" Alum Sluice Gate	1	Ea.	4,600	4,600
6	Fill (Levee)	173,785	C.Y.	5	868,925
7	Terraces	34,444	C.Y.	3	103,332
Total Construction Cost					$1,098,357

Table C-14
Estimated Construction Cost
West Belle Pass Headland Restoration
PTE-27

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	105,000	105,000
2	Excavation (Marsh Creation)	2,750,000	C.Y.	0.70	1,925,000
3	Shell (Closures)	6,000	C.Y.	20	120,000
4	Stone Paving	40,000	Tons	15	600,000
5	Rock (Weir)	2,500	Tons	15	37,500
Total Construction Cost					$2,787,500

Table C-15
Estimated Construction Cost
Barrier Island Restoration, Isle Dernieres, Pase 1
XTE-41

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	400,000	400,000
2	Levee Fill	962,134	C.Y.	2.40	2,309,121
3	Cell Dredge	2,409,482	C.Y.	1	2,409,482
4	Vegetative Planting	206	Ac.	700	144,410
5	Control Structures	6	Ea.	10,710	64,260
Total Construction Cost					$5,327,273

Table C-16
Estimated Construction Cost
Humbel Canal Structure
PME-15

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	25,000	25,000
2	48" Dia C M Pipe 14 gage	300	Ft.	55	16,500
3	48" Alum Flap Gate	5	Ea.	4,000	20,000
4	8' v/c Weir Header	5	Ea.	4,500	22,500
5	Fill	2,000	C.Y.	8	16,000
6	Remove Existing Structure	1	Ea.	50,000	50,000
Total Construction Cost					$150,000

Table C-17
Estimated Construction Cost
Hwy 90 to GIWW Hydrologic Restoration
BA-6

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	100,000	100,000
2	Vegetative Planting	19	Miles	15,840	300,960
3	Rock Weir (5)	685	Ft.	600	411,000
4	Earth Plug (5)	573	Ft.	400	229,200
5	Overflow Banks	20	Miles	17,160	343,200
6	Outfall Management (Redirect Pump Discharge)	10	Ea.	1,000	10,000
Total Construction Cost					$1,394,360

Table C-18
Estimated Construction Cost
Sawmill Canal/Little Pecan Bayou Water Control Structures
PME-14

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	75,000	75,000
2	48" Dia. C M Pipe 14 ga.	280	Ft.	55	15,400
3	48" Alum Flap Gate	4	Ea.	4,000	16,000
4	8' v/c Weir Header	4	Ea.	4,500	18,000
5	Fill (Levee)	10,560	C.Y.	8	84,480
6	Fill (Structure)	1,200	C.Y.	8	9,600
7	Remove Existing Structure	1	Ea.	50,000	50,000
Total Construction Cost					$268,480

Table C-19
Estimated Construction Cost
Pass a Loutre Sediment Mining
PMR-8

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST ($)	AMOUNT ($)
1	Mob & Demob	Lump Sum	L.S.	70,000	70,000
2	Excavation (Marsh Creation)	800,000	C.Y.	0.75	600,000
Total Construction Cost					$670,000

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

2ND PRIORITY PROJECT LIST

APPENDIX D

ECONOMIC APPENDIX

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Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Re-Establishment of Natural Sediment Delivery Systems,
Atchafalaya Delta, (PAT-2)

Total First Cost	$722,900
Total Fully Funded Cost	$907,800

Annual Charges	Present \Vorth	Average Annual*
Interest & Amortization	$787,400	$83,200
Monitoring	40,900	4,300
O&M Cost	0	0
Other Costs		
Total	$828,300	$87,500

Average Annual Habitat Units	777
Cost per Habitat Unit	$113
Average Annual Acres of Emergent Marsh	1,267

*Interest rate of 8.5 percent over a 20-year project life

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

Atchafalya Sediment Delivery (PAT-2)

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	1993	$20,000	$0	$13,793	$0	$0	$0	$33,793
1 Compound	1994	$0	$0	$7,881	$61,925	$123,850	$495,400	$689,056
Base Year								
TOTAL		$20,000	$0	$21,674	$61,925	$123,850	$495,400	$722,849

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1995	$4,325	$0	$0
2 Discount	1996	$4,325	$0	$0
3 Discount	1997	$4,325	$0	$0
4 Discount	1998	$4,325	$0	$0
5 Discount	1999	$4,325	$0	$0
6 Discount	2000	$4,325	$0	$0
7 Discount	2001	$4,325	$0	$0
8 Discount	2002	$4,325	$0	$0
9 Discount	2003	$4,325	$0	$0
10 Discount	2004	$4,325	$0	$0
11 Discount	2005	$4,325	$0	$0
12 Discount	2006	$4,325	$0	$0
13 Discount	2007	$4,325	$0	$0
14 Discount	2008	$4,325	$0	$0
15 Discount	2009	$4,325	$0	$0
16 Discount	2010	$4,325	$0	$0
17 Discount	2011	$4,325	$0	$0
18 Discount	2012	$4,325	$0	$0
19 Discount	2013	$4,325	$0	$0
20 Discount	2014	$4,325	$0	$0
Total		$86,500	$0	$0

21-Oct-92

Costs amortized over 20 year operation life

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

Atchafalya Sediment Delivery (PAT-2)

Present Valued Costs Total Discounted Costs $787,408 Amortized Costs $83,205

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	0	$0	$0	$0	$0	$0	$0	$0
2	1.177	1993	$23,545	$0	$16,237	$0	$0	$0	$39,782
1	1.085	1994	$0	$0	$8,551	$67,189	$134,377	$537,509	$747,626
		Total	$23,545	$0	$24,788	$67,189	$134,377	$537,509	$787,408

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1995	$3,986	$0	$0
-2	0.849	1996	$3,674	$0	$0
-3	0.783	1997	$3,386	$0	$0
-4	0.722	1998	$3,121	$0	$0
-5	0.665	1999	$2,876	$0	$0
-6	0.613	2000	$2,651	$0	$0
-7	0.565	2001	$2,443	$0	$0
-8	0.521	2002	$2,252	$0	$0
-9	0.480	2003	$2,075	$0	$0
-10	0.442	2004	$1,913	$0	$0
-11	0.408	2005	$1,763	$0	$0
-12	0.376	2006	$1,625	$0	$0
-13	0.346	2007	$1,498	$0	$0
-14	0.319	2008	$1,380	$0	$0
-15	0.294	2009	$1,272	$0	$0
-16	0.271	2010	$1,172	$0	$0
-17	0.250	2011	$1,081	$0	$0
-18	0.230	2012	$996	$0	$0
-19	0.212	2013	$918	$0	$0
-20	0.196	2014	$846	$0	$0
		Total	$40,929	$0	$0
		Average Annual	$4,325	$0	$0

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Costs amortized over 20 year operation life

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

Atchafalya Sediment Delivery (PAT-2)

Fully Funded Costs Total Fully Funded Costs $907,810 Amortized Costs $95,928

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	1.042	1993	$20,840	$0	$14,372	$0	$0	$0	$35,212
1	1.075	1994	$0	$0	$8,475	$66,591	$133,181	$532,725	$740,972
	TOTAL		$20,840	$0	$22,847	$66,591	$133,181	$532,725	$776,185

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.110	1995	$4,800	$0	$0
-2	1.145	1996	$4,953	$0	$0
-3	1.182	1997	$5,112	$0	$0
-4	1.220	1998	$5,275	$0	$0
-5	1.259	1999	$5,444	$0	$0
-6	1.299	2000	$5,618	$0	$0
-7	1.341	2001	$5,798	$0	$0
-8	1.384	2002	$5,984	$0	$0
-9	1.428	2003	$6,175	$0	$0
-10	1.473	2004	$6,373	$0	$0
-11	1.521	2005	$6,577	$0	$0
-12	1.569	2006	$6,787	$0	$0
-13	1.620	2007	$7,004	$0	$0
-14	1.671	2008	$7,229	$0	$0
-15	1.725	2009	$7,460	$0	$0
-16	1.780	2010	$7,699	$0	$0
-17	1.837	2011	$7,945	$0	$0
-18	1.896	2012	$8,199	$0	$0
-19	1.956	2013	$8,462	$0	$0
-20	2.019	2014	$8,732	$0	$0
	Total		$131,626	$0	$0

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Costs amortized over 20 year operation life

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

Atchafalya Sediment Delivery (PAT-2)

Marsh Type: Fresh/Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	4,248	5.84%	248	5.84%	248	0
1	4,248	12.90%	548	5.79%	246	302
2	4,248	15.25%	648	5.75%	244	404
3	4,248	17.61%	748	5.72%	243	505
4	4,248	19.96%	848	5.68%	241	607
5	4,248	22.32%	948	5.64%	240	708
6	4,248	24.67%	1,048	5.61%	238	810
7	4,248	27.02%	1,148	5.57%	237	911
8	4,248	29.38%	1,248	5.53%	235	1,013
9	4,248	31.73%	1,348	5.49%	233	1,115
10	4,248	34.09%	1,448	5.46%	232	1,216
11	4,248	36.44%	1,548	5.42%	230	1,318
12	4,248	38.79%	1,648	5.38%	229	1,419
13	4,248	41.15%	1,748	5.34%	227	1,521
14	4,248	43.50%	1,848	5.31%	225	1,623
15	4,248	45.86%	1,948	5.27%	224	1,724
16	4,248	48.21%	2,048	5.23%	222	1,826
17	4,248	50.56%	2,148	5.20%	221	1,927
18	4,248	52.92%	2,248	5.16%	219	2,029
19	4,248	55.27%	2,348	5.12%	218	2,130
20	4,248	57.63%	2,448	5.08%	216	2,232
Total Years 1-20			29,960		4,620	
Average Annual Acres			1,498		231	1,267

Costs amortized over 20 year operation life

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

Atchafalya Sediment Delivery (PAT-2)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres.	Net Acres
0	4,248	5.84%	248	5.84%	248	0
1	4,248	12.90%	548	5.79%	246	302
2	4,248	15.25%	648	5.75%	244	404
3	4,248	17.61%	748	5.72%	243	505
4	4,248	19.96%	848	5.68%	241	607
5	4,248	22.32%	948	5.64%	240	708
6	4,248	24.67%	1,048	5.61%	238	810
7	4,248	27.02%	1,148	5.57%	237	911
8	4,248	29.38%	1,248	5.53%	235	1,013
9	4,248	31.73%	1,348	5.49%	233	1,115
10	4,248	34.09%	1,448	5.46%	232	1,216
11	4,248	36.44%	1,548	5.42%	230	1,318
12	4,248	38.79%	1,648	5.38%	229	1,419
13	4,248	41.15%	1,748	5.34%	227	1,521
14	4,248	43.50%	1,848	5.31%	225	1,623
15	4,248	45.86%	1,948	5.27%	224	1,724
16	4,248	48.21%	2,048	5.23%	222	1,826
17	4,248	50.56%	2,148	5.20%	221	1,927
18	4,248	52.92%	2,248	5.16%	219	2,029
19	4,248	55.27%	2,348	5.12%	218	2,130
20	4,248	57.63%	2,448	5.08%	216	2,232
Total Years 1-20			29,960		4,620	
Average Annual Acres			1,498		231	1,267

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Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Freshwater Bayou Wetlands and Shore Protection (ME-4/XME-21)

Total First Cost	$1240,000
Total Fully Funded Cost	$2,770,100

Annual Charges	Present Worth	Average Annual*
Interest & Amortization	$1,577,400	$166,700
Monitoring	195,900	20,700
O&M cost	178,900	18,900
Other Costs	0	0
Total		$206,300

Average Annual Habitat Units	1,611
Cost per Habitat Unit	$128
Average Annual Acres of Emergent Marsh	523

*Interest rate of 8.5 percent over a 20-year project life

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

Freshwater Bayou Bank Stabilization and Hydrologic Restoration (ME-4/XME-21)

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	1993	$0	$0	$0	$0	$0	$0	$0
4 Compound	1994	$14,118	$30,000	$7,125	$0	$0	$0	$51,243
3 Compound	1995	$56,471	$0	$28,500	$0	$0	$0	$84,971
2 Compound	1996	$9,412	$0	$28,500	$16,875	$35,438	$141,750	$231,974
1 Compound	1997	$0	$0	$30,875	$73,125	$153,563	$614,250	$871,813
Base Year								
TOTAL		$80,000	$30,000	$95,000	$90,000	$189,000	$756,000	$1,240,000

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1998	$20,700	$18,900	$0
2 Discount	1999	$20,700	$18,900	$0
3 Discount	2000	$20,700	$18,900	$0
4 Discount	2001	$20,700	$18,900	$0
5 Discount	2002	$20,700	$18,900	$0
6 Discount	2003	$20,700	$18,900	$0
7 Discount	2004	$20,700	$18,900	$0
8 Discount	2005	$20,700	$18,900	$0
9 Discount	2006	$20,700	$18,900	$0
10 Discount	2007	$20,700	$18,900	$0
11 Discount	2008	$20,700	$18,900	$0
12 Discount	2009	$20,700	$18,900	$0
13 Discount	2010	$20,700	$18,900	$0
14 Discount	2011	$20,700	$18,900	$0
15 Discount	2012	$20,700	$18,900	$0
16 Discount	2013	$20,700	$18,900	$0
17 Discount	2014	$20,700	$18,900	$0
18 Discount	2015	$20,700	$18,900	$0
19 Discount	2016	$20,700	$18,900	$0
20 Discount	2017	$20,700	$18,900	$0
Total		$414,000	$378,000	$0

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Costs amortized over 20 year operation life

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

Freshwater Bayou Bank Stabilization and Hydrologic Restoration (ME-4/XME-21)

Present Valued Costs Total Discounted Costs $1,577,407 Amortized Costs $166,685

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	1993	$0	$0	$0	$0	$0	$0	$0
4	1.386	1994	$19,565	$41,576	$9,874	$0	$0	$0	$71,015
3	1.277	1995	$72,129	$0	$36,403	$0	$0	$0	$108,532
2	1.177	1996	$11,080	$0	$33,551	$19,866	$41,718	$166,872	$273,086
1	1.085	1997	$0	$0	$33,499	$79,341	$166,615	$666,461	$945,917
		Total	$102,774	$41,576	$113,327	$99,206	$208,333	$833,333	$1,398,550

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1998	$19,078	$17,419	$0
-2	0.849	1999	$17,584	$16,055	$0
-3	0.783	2000	$16,206	$14,797	$0
-4	0.722	2001	$14,937	$13,638	$0
-5	0.665	2002	$13,766	$12,569	$0
-6	0.613	2003	$12,688	$11,585	$0
-7	0.565	2004	$11,694	$10,677	$0
-8	0.521	2005	$10,778	$9,841	$0
-9	0.480	2006	$9,934	$9,070	$0
-10	0.442	2007	$9,155	$8,359	$0
-11	0.408	2008	$8,438	$7,704	$0
-12	0.376	2009	$7,777	$7,101	$0
-13	0.346	2010	$7,168	$6,544	$0
-14	0.319	2011	$6,606	$6,032	$0
-15	0.294	2012	$6,089	$5,559	$0
-16	0.271	2013	$5,612	$5,124	$0
-17	0.250	2014	$5,172	$4,722	$0
-18	0.230	2015	$4,767	$4,352	$0
-19	0.212	2016	$4,393	$4,011	$0
-20	0.196	2017	$4,049	$3,697	$0
		Total	$195,891	$178,857	$0
		Average Annual	$20,700	$18,900	$0

Costs amortized over 20 year operation life

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

Freshwater Bayou Bank Stabilization and Hydrologic Restoration (ME-4/XME-21)

Fully Funded Costs Total Fully Funded Costs $2,770,093 Amortized Costs $292,716

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.042	1993	$0	$0	$0	$0	$0	$0	$0
4	1.075	1994	$15,181	$32,260	$7,662	$0	$0	$0	$55,103
3	1.110	1995	$62,669	$0	$31,628	$0	$0	$0	$94,297
2	1.145	1996	$10,779	$0	$32,640	$19,326	$40,585	$162,342	$265,673
1	1.182	1997	$0	$0	$36,492	$86,428	$181,498	$725,992	$1,030,409
		TOTAL	$88,629	$32,260	$108,422	$105,754	$222,083	$888,333	$1,445,481

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.220	1998	$25,249	$23,053	$0
-2	1.259	1999	$26,057	$23,791	$0
-3	1.299	2000	$26,890	$24,552	$0
-4	1.341	2001	$27,751	$25,338	$0
-5	1.384	2002	$28,639	$26,149	$0
-6	1.428	2003	$29,555	$26,985	$0
-7	1.473	2004	$30,501	$27,849	$0
-8	1.521	2005	$31,477	$28,740	$0
-9	1.569	2006	$32,484	$29,660	$0
-10	1.620	2007	$33,524	$30,609	$0
-11	1.671	2008	$34,597	$31,588	$0
-12	1.725	2009	$35,704	$32,599	$0
-13	1.780	2010	$36,846	$33,642	$0
-14	1.837	2011	$38,025	$34,719	$0
-15	1.896	2012	$39,242	$35,830	$0
-16	1.956	2013	$40,498	$36,976	$0
-17	2.019	2014	$41,794	$38,160	$0
-18	2.084	2015	$43,131	$39,381	$0
-19	2.150	2016	$44,511	$40,641	$0
-20	2.219	2017	$45,936	$41,941	$0
		Total	$692,411	$632,201	$0

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Costs amortized over 20 year operation life

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

Freshwater Bayou Bank Stabilization and Hydrologic Restoration (ME-4/XME-21)

Marsh Type: Fresh/Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	14,381	78.87%	11,342	78.87%	11,342	0
1	14,381	78.83%	11,337	78.71%	11,320	17
2	14,381	78.80%	11,332	78.56%	11,298	34
3	14,381	78.76%	11,327	78.41%	11,276	51
4	14,381	78.73%	11,322	78.26%	11,254	68
5	14,381	78.69%	11,317	78.10%	11,232	85
6	14,381	78.66%	11,312	77.95%	11,210	102
7	14,381	78.62%	11,307	77.80%	11,188	119
8	14,381	78.59%	11,302	77.64%	11,166	136
9	14,381	78.56%	11,297	77.49%	11,144	153
10	14,381	78.52%	11,292	77.34%	11,122	170
11	14,381	78.48%	11,286	76.31%	10,974	312
12	14,381	78.44%	11,280	75.28%	10,826	455
13	14,381	78.40%	11,275	74.25%	10,678	597
14	14,381	78.36%	11,269	73.22%	10,530	739
15	14,381	78.32%	11,263	72.19%	10,382	881
16	14,381	78.28%	11,257	71.16%	10,233	1,024
17	14,381	78.24%	11,251	70.13%	10,085	1,166
18	14,381	78.20%	11,246	69.10%	9,937	1,308
19	14,381	78.16%	11,240	68.07%	9,789	1,451
20	14,381	78.12%	11,234	67.04%	9,641	1,593
Total Years 1-20			225,746		215,285	
Average Annual Acres			11,287		10,764	523

Costs amortized over 20 year operation life

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

Freshwater Bayou Bank Stabilization and Hydrologic Restoration (ME-4/XME-21)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	14,381	78.87%	11,342	78.87%	11,342	0
1	14,381	78.83%	11,337	78.71%	11,320	17
2	14,381	78.80%	11,332	78.56%	11,298	34
3	14,381	78.76%	11,327	78.41%	11,276	51
4	14,381	78.73%	11,322	78.26%	11,254	68
5	14,381	78.69%	11,317	78.10%	11,232	85
6	14,381	78.66%	11,312	77.95%	11,210	102
7	14,381	78.62%	11,307	77.80%	11,188	119
8	14,381	78.59%	11,302	77.64%	11,166	136
9	14,381	78.56%	11,297	77.49%	11,144	153
10	14,381	78.52%	11,292	77.34%	11,122	170
11	14,381	78.48%	11,286	76.31%	10,974	312
12	14,381	78.44%	11,280	75.28%	10,826	455
13	14,381	78.40%	11,275	74.25%	10,678	597
14	14,381	78.36%	11,269	73.22%	10,530	739
15	14,381	78.32%	11,263	72.19%	10,382	881
16	14,381	78.28%	11,257	71.16%	10,233	1,024
17	14,381	78.24%	11,251	70.13%	10,085	1,166
18	14,381	78.20%	11,246	69.10%	9,937	1,308
19	14,381	78.16%	11,240	68.07%	9,789	1,451
20	14,381	78.12%	11,234	67.04%	9,641	1,593
Total Years 1-20			225,746		215,285	
Average Annual Acres			11,287		10,764	523

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Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Bayou Sauvage National Wildlife Refuge Hydrologic Restoration (PPO-52a)

Total First Cost	$627,400
Total Fully Funded Cost	$1,452,000

Annual Charges	Present Worth	Average Annual+
Interest & Amortization	$795,400	
Monitoring	145,800	15,400
O&M Cost	82,100	8,700
Other Costs	0	0
Total	S1,023,300	$108,200

Average Annual Habitat Units	584
Cost per Habitat	$185
Average Annual Acres of Emergent Marsh,	841

*Interest rate of 8.5 percent over a 20-year project life

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

Bayou Sauvage Hydrologic Restoration (PPO – 52a)

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	1993	$31,667	$0	$17,241	$0	$0	$0	$48,908
2 Compound	1994	$6,333	$0	$20,690	$12,500	$42,448	$169,792	$251,763
1 Compound	1995	$0	$0	$12,069	$17,500	$59,427	$237,708	$326,704
Base Year								
TOTAL		$38,000	$0	$50,000	$30,000	$101,875	$407,500	$627,375

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1996	$15,411	$7,000	$0
2 Discount	1997	$15,411	$7,000	$0
3 Discount	1998	$15,411	$7,000	$0
4 Discount	1999	$15,411	$7,000	$0
5 Discount	2000	$15,411	$7,000	$0
6 Discount	2001	$15,411	$20,000	$0
7 Discount	2002	$15,411	$7,000	$0
8 Discount	2003	$15,411	$7,000	$0
9 Discount	2004	$15,411	$7,000	$0
10 Discount	2005	$15,411	$7,000	$0
11 Discount	2006	$15,411	$7,000	$0
12 Discount	2007	$15,411	$20,000	$0
13 Discount	2008	$15,411	$7,000	$0
14 Discount	2009	$15,411	$7,000	$0
15 Discount	2010	$15,411	$7,000	$0
16 Discount	2011	$15,411	$7,000	$0
17 Discount	2012	$15,411	$7,000	$0
18 Discount	2013	$15,411	$20,000	$0
19 Discount	2014	$15,411	$7,000	$0
20 Discount	2015	$15,411	$7,000	$0
Total		$308,214	$179,000	$0

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Costs amortized over 20 year operation life

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

Bayou Sauvage Hydrologic Restoration (PPO – 52a)

Present Valued Costs Total Discounted Costs $795,415 Amortized Costs $84,051

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	1993	$40,447	$0	$22,022	$0	$0	$0	$62,470
2	1.177	1994	$7,456	$0	$24,356	$14,715	$49,971	$199,883	$296,381
1	1.085	1995	$0	$0	$13,095	$18,988	$64,478	$257,914	$354,474
		Total	$47,903	$0	$59,473	$33,703	$114,449	$457,797	$713,325

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1996	$14,203	$6,452	$0
-2	0.849	1997	$13,091	$5,946	$0
-3	0.783	1998	$12,065	$5,480	$0
-4	0.722	1999	$11,120	$5,051	$0
-5	0.665	2000	$10,249	$4,655	$0
-6	0.613	2001	$9,446	$12,259	$0
-7	0.565	2002	$8,706	$3,954	$0
-8	0.521	2003	$8,024	$3,645	$0
-9	0.480	2004	$7,395	$3,359	$0
-10	0.442	2005	$6,816	$3,096	$0
-11	0.408	2006	$6,282	$2,853	$0
-12	0.376	2007	$5,790	$7,514	$0
-13	0.346	2008	$5,336	$2,424	$0
-14	0.319	2009	$4,918	$2,234	$0
-15	0.294	2010	$4,533	$2,059	$0
-16	0.271	2011	$4,178	$1,898	$0
-17	0.250	2012	$3,850	$1,749	$0
-18	0.230	2013	$3,549	$4,606	$0
-19	0.212	2014	$3,271	$1,486	$0
-20	0.196	2015	$3,015	$1,369	$0
		Total	$145,837	$82,089	$0
		Average Annual	$15,411	$8,674	$0

Costs amortized over 20 year operation life

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

Bayou Sauvage Hydrologic Restoration (PPO-52a)

Fully Funded Costs Total Fully Funded Costs $1,452,035 Amortized Costs $153,437

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	1.042	1993	$32,997	$0	$17,966	$0	$0	$0	$50,962
2	1.075	1994	$6,811	$0	$22,248	$13,442	$45,646	$182,584	$270,731
1	1.110	1995	$0	$0	$13,394	$19,421	$65,950	$263,798	$362,562
		TOTAL	$39,807	$0	$53,608	$32,863	$111,596	$446,382	$684,255

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.145	1996	$17,649	$8,017	$0
-2	1.182	1997	$18,214	$8,273	$0
-3	1.220	1998	$18,797	$8,538	$0
-4	1.259	1999	$19,399	$8,811	$0
-5	1.299	2000	$20,019	$9,093	$0
-6	1.341	2001	$20,660	$26,812	$0
-7	1.384	2002	$21,321	$9,685	$0
-8	1.428	2003	$22,003	$9,995	$0
-9	1.473	2004	$22,707	$10,314	$0
-10	1.521	2005	$23,434	$10,644	$0
-11	1.569	2006	$24,184	$10,985	$0
-12	1.620	2007	$24,958	$32,390	$0
-13	1.671	2008	$25,756	$11,699	$0
-14	1.725	2009	$26,581	$12,074	$0
-15	1.780	2010	$27,431	$12,460	$0
-16	1.837	2011	$28,309	$12,859	$0
-17	1.896	2012	$29,215	$13,270	$0
-18	1.956	2013	$30,150	$39,128	$0
-19	2.019	2014	$31,115	$14,133	$0
-20	2.084	2015	$32,110	$14,585	$0
		Total	$484,012	$283,768	$0

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Costs amortized over 20 year operation life

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

Bayou Sauvage Hydrologic Restoration (PPO-52a)

Marsh Type: Fresh/Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	5,475	50.68%	2,775	50.68%	2,775	0
1	5,475	57.53%	3,150	50.19%	2,748	402
2	5,475	57.89%	3,170	49.71%	2,722	448
3	5,475	58.26%	3,189	49.22%	2,695	494
4	5,475	58.62%	3,209	48.74%	2,669	541
5	5,475	58.98%	3,229	48.26%	2,642	587
6	5,475	59.34%	3,249	47.77%	2,616	633
7	5,475	59.70%	3,268	47.29%	2,589	679
8	5,475	60.06%	3,288	46.81%	2,563	725
9	5,475	60.42%	3,308	46.32%	2,536	772
10	5,475	60.78%	3,328	45.84%	2,510	818
11	5,475	61.14%	3,347	45.36%	2,483	864
12	5,475	61.50%	3,367	44.87%	2,457	910
13	5,475	61.86%	3,387	44.39%	2,430	957
14	5,475	62.22%	3,407	43.91%	2,404	1,003
15	5,475	62.58%	3,426	43.42%	2,377	1,049
16	5,475	62.94%	3,446	42.94%	2,351	1,095
17	5,475	63.30%	3,466	42.46%	2,324	1,141
18	5,475	63.66%	3,486	41.97%	2,298	1,188
19	5,475	64.02%	3,505	41.49%	2,271	1,234
20	5,475	64.38%	3,525	41.00%	2,245	1,280
Total Years 1-20			66,750		49,930	
Average Annual Acres			3,338		2,497	841

Costs amortized over 20 year operation life

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

Bayou Sauvage Hydrologic Restoration (PPO-52a)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	5,475	50.68%	2,775	50.68%	2,775	0
1	5,475	57.53%	3,150	50.19%	2,748	402
2	5,475	57.89%	3,170	49.71%	2,722	448
3	5,475	58.26%	3,189	49.22%	2,695	494
4	5,475	58.62%	3,209	48.74%	2,669	541
5	5,475	58.98%	3,229	48.26%	2,642	587
6	5,475	59.34%	3,249	47.77%	2,616	633
7	5,475	59.70%	3,268	47.29%	2,589	679
8	5,475	60.06%	3,288	46.81%	2,563	725
9	5,475	60.42%	3,308	46.32%	2,536	772
10	5,475	60.78%	3,328	45.84%	2,510	818
11	5,475	61.14%	3,347	45.36%	2,483	864
12	5,475	61.50%	3,367	44.87%	2,457	910
13	5,475	61.86%	3,387	44.39%	2,430	957
14	5,475	62.22%	3,407	43.91%	2,404	1,003
15	5,475	62.58%	3,426	43.42%	2,377	1,049
16	5,475	62.94%	3,446	42.94%	2,351	1,095
17	5,475	63.30%	3,466	42.46%	2,324	1,141
18	5,475	63.66%	3,486	41.97%	2,298	1,188
19	5,475	64.02%	3,505	41.49%	2,271	1,234
20	5,475	64.38%	3,525	41.00%	2,245	1,280
Total Years 1-20			66,750		49,930	
Average Annual Acres			3,338		2,497	841

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Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Clear Marais/Shore Protection (PCS-27/28)

Total First Cbst	$1,363,000
Total Fully Funded Cost	$1,741,300

Annual Charges	Present Worth	Average Annual*
Interest & Amortization	$1,584,900	$167,500
Monitoring	20,400	2,200
O&M cost	54,300	5,700
Other Costs		
Total	$1,659,600	$175,400

Average Annual Habitat Units	909
Cost per Habitat Unit	$193
Average Annual Acres of Emergent Marsh	677

*Interest rate of 8.5 percent over a 20-year project life

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

Clear Marais/GIWW Shoreline Protection (PCS-27/28)

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	1993	$25,714	$20,000	$22,500	$0	$0	$0	$68,214
2 Compound	1994	$4,286	$0	$38,571	$23,077	$70,644	$282,574	$419,152
1 Compound	1995	$0	$0	$28,929	$51,923	$158,948	$635,793	$875,592
Base Year								
TOTAL		$30,000	$20,000	$90,000	$75,000	$229,592	$918,367	$1,362,959

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1996	$2,150	$5,740	$0
2 Discount	1997	$2,150	$5,740	$0
3 Discount	1998	$2,150	$5,740	$0
4 Discount	1999	$2,150	$5,740	$0
5 Discount	2000	$2,150	$5,740	$0
6 Discount	2001	$2,150	$5,740	$0
7 Discount	2002	$2,150	$5,740	$0
8 Discount	2003	$2,150	$5,740	$0
9 Discount	2004	$2,150	$5,740	$0
10 Discount	2005	$2,150	$5,740	$0
11 Discount	2006	$2,150	$5,740	$0
12 Discount	2007	$2,150	$5,740	$0
13 Discount	2008	$2,150	$5,740	$0
14 Discount	2009	$2,150	$5,740	$0
15 Discount	2010	$2,150	$5,740	$0
16 Discount	2011	$2,150	$5,740	$0
17 Discount	2012	$2,150	$5,740	$0
18 Discount	2013	$2,150	$5,740	$0
19 Discount	2014	$2,150	$5,740	$0
20 Discount	2015	$2,150	$5,740	$0
Total		$43,000	$114,800	$0

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Costs amortized over 20 year operation life

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

Clear Marais/GIWW Shoreline Protection (PCS-27/28)

Present Valued Costs Total Discounted Costs $1,584,903 Amortized Costs $167,477

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	1993	$32,845	$25,546	$28,739	$0	$0	$0	$87,129
2	1.177	1994	$5,045	$0	$45,407	$27,167	$83,163	$332,654	$493,436
1	1.085	1995	$0	$0	$31,388	$56,337	$172,459	$689,835	$950,018
		Total	$37,890	$25,546	$105,534	$83,503	$255,622	$1,022,489	$1,530,583

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1996	$1,982	$5,290	$0
-2	0.849	1997	$1,826	$4,876	$0
-3	0.783	1998	$1,683	$4,494	$0
-4	0.722	1999	$1,551	$4,142	$0
-5	0.665	2000	$1,430	$3,817	$0
-6	0.613	2001	$1,318	$3,518	$0
-7	0.565	2002	$1,215	$3,243	$0
-8	0.521	2003	$1,119	$2,989	$0
-9	0.480	2004	$1,032	$2,755	$0
-10	0.442	2005	$951	$2,539	$0
-11	0.408	2006	$876	$2,340	$0
-12	0.376	2007	$808	$2,157	$0
-13	0.346	2008	$744	$1,988	$0
-14	0.319	2009	$686	$1,832	$0
-15	0.294	2010	$632	$1,688	$0
-16	0.271	2011	$583	$1,556	$0
-17	0.250	2012	$537	$1,434	$0
-18	0.230	2013	$495	$1,322	$0
-19	0.212	2014	$456	$1,218	$0
-20	0.196	2015	$421	$1,123	$0
		Total	$20,346	$54,320	$0
		Average Annual	$2,150	$5,740	$0

Costs amortized over 20 year operation life

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

Clear Marais/GIWW Shoreline Protection (PCS-27/28)

Fully Funded Costs Total Fully Funded Costs $1,741,310 Amortized Costs $184,004

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	1.042	1993	$26,794	$20,840	$23,445	$0	$0	$0	$71,079
2	1.075	1994	$4,609	$0	$41,478	$24,816	$75,966	$303,865	$450,733
1	1.110	1995	$0	$0	$32,104	$57,622	$176,393	$705,574	$971,693
	TOTAL		$31,403	$20,840	$97,026	$82,438	$252,360	$1,009,439	$1,493,505

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.145	1996	$2,462	$6,574	$0
-2	1.182	1997	$2,541	$6,784	$0
-3	1.220	1998	$2,622	$7,001	$0
-4	1.259	1999	$2,706	$7,225	$0
-5	1.299	2000	$2,793	$7,457	$0
-6	1.341	2001	$2,882	$7,695	$0
-7	1.384	2002	$2,975	$7,941	$0
-8	1.428	2003	$3,070	$8,196	$0
-9	1.473	2004	$3,168	$8,458	$0
-10	1.521	2005	$3,269	$8,728	$0
-11	1.569	2006	$3,374	$9,008	$0
-12	1.620	2007	$3,482	$9,296	$0
-13	1.671	2008	$3,593	$9,593	$0
-14	1.725	2009	$3,708	$9,900	$0
-15	1.780	2010	$3,827	$10,217	$0
-16	1.837	2011	$3,949	$10,544	$0
-17	1.896	2012	$4,076	$10,882	$0
-18	1.956	2013	$4,206	$11,230	$0
-19	2.019	2014	$4,341	$11,589	$0
-20	2.084	2015	$4,480	$11,960	$0
	Total		$67,526	$180,279	$0

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Costs amortized over 20 year operation life

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

Clear Marais/GIWW Shoreline Protection (PCS-27/28)

Marsh Type: Fresh/Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	4,637	44.36%	2,057	44.36%	2,057	0
1	4,637	44.36%	2,057	44.36%	2,057	0
2	4,637	44.45%	2,061	42.52%	1,971	90
3	4,637	44.54%	2,065	40.67%	1,886	180
4	4,637	44.63%	2,070	38.83%	1,800	269
5	4,637	44.72%	2,074	36.98%	1,715	359
6	4,637	44.82%	2,078	35.14%	1,629	449
7	4,637	44.91%	2,082	33.29%	1,544	539
8	4,637	45.00%	2,087	31.45%	1,458	628
9	4,637	45.09%	2,091	29.60%	1,373	718
10	4,637	45.18%	2,095	27.76%	1,287	808
11	4,637	45.18%	2,095	27.20%	1,261	834
12	4,637	45.18%	2,095	26.64%	1,235	860
13	4,637	45.18%	2,095	26.08%	1,209	886
14	4,637	45.18%	2,095	25.52%	1,183	912
15	4,637	45.18%	2,095	24.96%	1,158	938
16	4,637	45.18%	2,095	24.40%	1,132	963
17	4,637	45.18%	2,095	23.85%	1,106	989
18	4,637	45.18%	2,095	23.29%	1,080	1,015
19	4,637	45.18%	2,095	22.73%	1,054	1,041
20	4,637	45.18%	2,095	22.17%	1,028	1,067
Total Years 1-20			41,710		28,166	
Average Annual Acres			2,086		1,408	677

Costs amortized over 20 year operation life

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

Clear Marais/GIWW Shoreline Protection (PCS-27/28)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	4,637	44.36%	2,057	44.36%	2,057	0
1	4,637	44.36%	2,057	44.36%	2,057	0
2	4,637	44.45%	2,061	42.52%	1,971	90
3	4,637	44.54%	2,065	40.67%	1,886	180
4	4,637	44.63%	2,070	38.83%	1,800	269
5	4,637	44.72%	2,074	36.98%	1,715	359
6	4,637	44.82%	2,078	35.14%	1,629	449
7	4,637	44.91%	2,082	33.29%	1,544	539
8	4,637	45.00%	2,087	31.45%	1,458	628
9	4,637	45.09%	2,091	29.60%	1,373	718
10	4,637	45.18%	2,095	27.76%	1,287	808
11	4,637	45.18%	2,095	27.20%	1,261	834
12	4,637	45.18%	2,095	26.64%	1,235	860
13	4,637	45.18%	2,095	26.08%	1,209	886
14	4,637	45.18%	2,095	25.52%	1,183	912
15	4,637	45.18%	2,095	24.96%	1,158	938
16	4,637	45.18%	2,095	24.40%	1,132	963
17	4,637	45.18%	2,095	23.85%	1,106	989
18	4,637	45.18%	2,095	23.29%	1,080	1,015
19	4,637	45.18%	2,095	22.73%	1,054	1,041
20	4,637	45.18%	2,095	22.17%	1,028	1,067
Total Years 1-20			41,710		28,166	
Average Annual Acres			2,086		1,408	677

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Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Caemarvon Diversion Outfall Management (BS-3a)

Total First Cost	$1,487,000
Total Fully Funded Cost	$2,522,200

Annual Charges	Present Worth	Average Annual *
Interest & Amortization	$1,735,800	$183,400
Monitoring	244,900	25,900
O&M cost	28,400	3,000
Other Costs	0	
Total	$2,009,100	$212300

Average Annual Habitat Units	504
Cost per Habitat Unit	$422
Average Annual Acres of Emergent Marsh	448

*Interest rate of 8.5 percent over a 20-year project life

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

Caernarvon Outfall Management (BS-3a)

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	1993	$12,857	$20,000	$8,286	$0	$0	$0	$41,143
2 Compound	1994	$77,143	$0	$99,429	$60,000	$139,320	$557,280	$933,171
1 Compound	1995	$0	$0	$8,286	$40,000	$92,880	$371,520	$512,686
Base Year								
TOTAL		$90,000	$20,000	$116,000	$100,000	$232,200	$928,800	$1,487,000

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1996	$25,875	$3,000	$0
2 Discount	1997	$25,875	$3,000	$0
3 Discount	1998	$25,875	$3,000	$0
4 Discount	1999	$25,875	$3,000	$0
5 Discount	2000	$25,875	$3,000	$0
6 Discount	2001	$25,875	$3,000	$0
7 Discount	2002	$25,875	$3,000	$0
8 Discount	2003	$25,875	$3,000	$0
9 Discount	2004	$25,875	$3,000	$0
10 Discount	2005	$25,875	$3,000	$0
11 Discount	2006	$25,875	$3,000	$0
12 Discount	2007	$25,875	$3,000	$0
13 Discount	2008	$25,875	$3,000	$0
14 Discount	2009	$25,875	$3,000	$0
15 Discount	2010	$25,875	$3,000	$0
16 Discount	2011	$25,875	$3,000	$0
17 Discount	2012	$25,875	$3,000	$0
18 Discount	2013	$25,875	$3,000	$0
19 Discount	2014	$25,875	$3,000	$0
20 Discount	2015	$25,875	$3,000	$0
Total		$517,500	$60,000	$0

Costs amortized over 20 year operation life

18--Sept-92

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

Caernarvon Outfall Management (BS-3a)

Present Valued Costs Total Discounted Costs $1,735,758 Amortized Costs $183,418

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	1993	$16,422	$25,546	$10,583	$0	$0	$0	$52,551
2	1.177	1994	$90,815	$0	$117,050	$70,634	$164,011	$656,044	$1,098,553
1	1.085	1995	$0	$0	$8,990	$43,400	$100,775	$403,099	$556,264
		Total	$107,237	$25,546	$136,623	$114,034	$264,786	$1,059,143	$1,707,368

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1996	$23,848	$2,765	$0
-2	0.849	1997	$21,980	$2,548	$0
-3	0.783	1998	$20,258	$2,349	$0
-4	0.722	1999	$18,671	$2,165	$0
-5	0.665	2000	$17,208	$1,995	$0
-6	0.613	2001	$15,860	$1,839	$0
-7	0.565	2002	$14,617	$1,695	$0
-8	0.521	2003	$13,472	$1,562	$0
-9	0.480	2004	$12,417	$1,440	$0
-10	0.442	2005	$11,444	$1,327	$0
-11	0.408	2006	$10,548	$1,223	$0
-12	0.376	2007	$9,721	$1,127	$0
-13	0.346	2008	$8,960	$1,039	$0
-14	0.319	2009	$8,258	$957	$0
-15	0.294	2010	$7,611	$882	$0
-16	0.271	2011	$7,015	$813	$0
-17	0.250	2012	$6,465	$750	$0
-18	0.230	2013	$5,959	$691	$0
-19	0.212	2014	$5,492	$637	$0
-20	0.196	2015	$5,062	$587	$0
		Total	$244,864	$28,390	$0
		Average Annual	$25,875	$3,000	$0

Costs amortized over 20 year operation life

18-Sept-92

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

Caernarvon Outfall Management (BS-3a)

Fully Funded Costs Total Fully Funded Costs $2,522,199 Amortized Costs $266,521

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	1.042	1993	$13,397	$20,840	$8,634	$0	$0	$0	$42,871
2	1.075	1994	$82,955	$0	$106,920	$64,521	$149,817	$599,268	$1,003,480
1	1.110	1995	$0	$0	$9,195	$44,390	$103,074	$412,296	$568,956
		TOTAL	$96,352	$20,840	$124,749	$108,911	$252,891	$1,011,564	$1,615,307

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.145	1996	$29,634	$3,436	$0
-2	1.182	1997	$30,582	$3,546	$0
-3	1.220	1998	$31,561	$3,659	$0
-4	1.259	1999	$32,571	$3,776	$0
-5	1.299	2000	$33,613	$3,897	$0
-6	1.341	2001	$34,689	$4,022	$0
-7	1.384	2002	$35,799	$4,151	$0
-8	1.428	2003	$36,944	$4,283	$0
-9	1.473	2004	$38,126	$4,420	$0
-10	1.521	2005	$39,346	$4,562	$0
-11	1.569	2006	$40,605	$4,708	$0
-12	1.620	2007	$41,905	$4,859	$0
-13	1.671	2008	$43,246	$5,014	$0
-14	1.725	2009	$44,630	$5,174	$0
-15	1.780	2010	$46,058	$5,340	$0
-16	1.837	2011	$47,532	$5,511	$0
-17	1.896	2012	$49,053	$5,687	$0
-18	1.956	2013	$50,622	$5,869	$0
-19	2.019	2014	$52,242	$6,057	$0
-20	2.084	2015	$53,914	$6,251	$0
		Total	$812,670	$94,223	$0

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Costs amortized over 20 year operation life

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

Caernarvon Outfall Management (BS-3a)

Marsh Type: Fresh/Intermediate (Sub-Area 1)

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	3,270	42.63%	1,394	42.63%	1,394	0
1	3,270	44.16%	1,444	42.63%	1,394	50
2	3,270	45.67%	1,493	43.92%	1,436	57
3	3,270	47.18%	1,543	45.21%	1,478	65
4	3,270	48.70%	1,592	46.49%	1,520	72
5	3,270	50.21%	1,642	47.78%	1,562	79
6	3,270	51.72%	1,691	49.07%	1,605	87
7	3,270	53.24%	1,741	50.36%	1,647	94
8	3,270	54.75%	1,790	51.64%	1,689	102
9	3,270	56.26%	1,840	52.93%	1,731	109
10	3,270	57.78%	1,889	54.22%	1,773	116
11	3,270	59.29%	1,939	55.51%	1,815	124
12	3,270	60.80%	1,988	56.79%	1,857	131
13	3,270	62.31%	2,038	58.08%	1,899	138
14	3,270	63.83%	2,087	59.37%	1,941	146
15	3,270	65.34%	2,137	60.66%	1,983	153
16	3,270	66.85%	2,186	61.94%	2,026	161
17	3,270	68.37%	2,236	63.23%	2,068	168
18	3,270	69.88%	2,285	64.52%	2,110	175
19	3,270	71.39%	2,335	65.81%	2,152	183
20	3,270	72.91%	2,384	67.09%	2,194	190
Total Years 1-20			38,280		35,880	
Average Annual Acres			1,914		1,794	120

Costs amortized over 20 year operation life

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

Caernarvon Outfall Management (BS-3a)

Marsh Type: Brackish (Sub-Area 2)

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	7,778	84.01%	6,534	84.01%	6,534	0
1	7,778	84.19%	6,548	83.99%	6,533	15
2	7,778	84.36%	6,561	83.99%	6,533	28
3	7,778	84.53%	6,575	83.99%	6,533	42
4	7,778	84.71%	6,588	83.99%	6,533	55
5	7,778	84.88%	6,602	83.99%	6,533	69
6	7,778	85.05%	6,615	83.99%	6,533	82
7	7,778	85.23%	6,629	83.99%	6,533	96
8	7,778	85.40%	6,642	83.99%	6,533	109
9	7,778	85.57%	6,656	83.99%	6,533	123
10	7,778	85.75%	6,669	83.99%	6,533	136
11	7,778	85.92%	6,683	83.99%	6,533	150
12	7,778	86.09%	6,696	83.99%	6,533	163
13	7,778	86.26%	6,710	83.99%	6,533	177
14	7,778	86.44%	6,723	83.99%	6,533	190
15	7,778	86.61%	6,737	83.99%	6,533	204
16	7,778	86.78%	6,750	83.99%	6,533	217
17	7,778	86.96%	6,764	83.99%	6,533	231
18	7,778	87.13%	6,777	83.99%	6,533	244
19	7,778	87.30%	6,791	83.99%	6,533	258
20	7,778	87.48%	6,804	83.99%	6,533	271
Total Years 1-20			133,520		130,660	
Average Annual Acres			6,676		6,533	143

Costs amortized over 20 year operation life

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

Caernarvon Outfall Management (BS-3a)

Marsh Type: Brackish to Intermediate (Sub-Area 3)

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	1,397	84.04%	1,174	84.04%	1,174	0
1	1,397	84.40%	1,179	83.97%	1,173	6
2	1,397	84.79%	1,185	83.97%	1,173	12
3	1,397	85.19%	1,190	83.97%	1,173	17
4	1,397	85.58%	1,196	83.97%	1,173	23
5	1,397	85.98%	1,201	83.97%	1,173	28
6	1,397	86.37%	1,207	83.97%	1,173	34
7	1,397	86.77%	1,212	83.97%	1,173	39
8	1,397	87.16%	1,218	83.97%	1,173	45
9	1,397	87.56%	1,223	83.97%	1,173	50
10	1,397	87.96%	1,229	83.97%	1,173	56
11	1,397	88.35%	1,234	83.97%	1,173	61
12	1,397	88.75%	1,240	83.97%	1,173	67
13	1,397	89.14%	1,245	83.97%	1,173	72
14	1,397	89.54%	1,251	83.97%	1,173	78
15	1,397	89.93%	1,256	83.97%	1,173	83
16	1,397	90.33%	1,262	83.97%	1,173	89
17	1,397	90.72%	1,267	83.97%	1,173	94
18	1,397	91.12%	1,273	83.97%	1,173	100
19	1,397	91.52%	1,278	83.97%	1,173	105
20	1,397	91.91%	1,284	83.97%	1,173	111
Total Years 1-20			24,630		23,460	
Average Annual Acres			1,231		1,173	58

Costs amortized over 20 year operation life

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

Caernarvon Outfall Management (BS-3a)

Marsh Type: Brackish to Intermediate (Sub-Area 4)

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	3,111	83.99%	2,613	83.99%	2,613	0
1	3,111	84.38%	2,625	83.99%	2,613	12
2	3,111	84.76%	2,637	83.99%	2,613	24
3	3,111	85.15%	2,649	83.99%	2,613	36
4	3,111	85.54%	2,661	83.99%	2,613	48
5	3,111	85.92%	2,673	83.99%	2,613	60
6	3,111	86.31%	2,685	83.99%	2,613	72
7	3,111	86.69%	2,697	83.99%	2,613	84
8	3,111	87.08%	2,709	83.99%	2,613	96
9	3,111	87.46%	2,721	83.99%	2,613	108
10	3,111	87.85%	2,733	83.99%	2,613	120
11	3,111	88.24%	2,745	83.99%	2,613	132
12	3,111	88.62%	2,757	83.99%	2,613	144
13	3,111	89.01%	2,769	83.99%	2,613	156
14	3,111	89.39%	2,781	83.99%	2,613	168
15	3,111	89.78%	2,793	83.99%	2,613	180
16	3,111	90.16%	2,805	83.99%	2,613	192
17	3,111	90.55%	2,817	83.99%	2,613	204
18	3,111	90.94%	2,829	83.99%	2,613	216
19	3,111	91.32%	2,841	83.99%	2,613	228
20	3,111	91.71%	2,853	83.99%	2,613	240
Total Years 1-20			54,780		52,260	
Average Annual Acres			2,739		2,613	126

Costs amortized over 20 year operation life

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

Caernarvon Outfall Management (BS-3a)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	15,556	75.31%	11,715	75.31%	11,715	0
1	15,556	75.83%	11,796	75.30%	11,713	83
2	15,556	76.35%	11,876	75.57%	11,755	121
3	15,556	76.86%	11,957	75.84%	11,797	160
4	15,556	77.38%	12,037	76.11%	11,839	198
5	15,556	77.90%	12,118	76.38%	11,881	236
6	15,556	78.42%	12,198	76.65%	11,924	275
7	15,556	78.93%	12,279	76.92%	11,966	313
8	15,556	79.45%	12,359	77.19%	12,008	352
9	15,556	79.97%	12,440	77.46%	12,050	390
10	15,556	80.49%	12,520	77.73%	12,092	428
11	15,556	81.00%	12,601	78.00%	12,134	467
12	15,556	81.52%	12,681	78.27%	12,176	505
13	15,556	82.04%	12,762	78.54%	12,218	543
14	15,556	82.55%	12,842	78.81%	12,260	582
15	15,556	83.07%	12,923	79.09%	12,302	620
16	15,556	83.59%	13,003	79.36%	12,345	659
17	15,556	84.11%	13,084	79.63%	12,387	697
18	15,556	84.62%	13,164	79.90%	12,429	735
19	15,556	85.14%	13,245	80.17%	12,471	774
20	15,556	85.66%	13,325	80.44%	12,513	812
Total Years 1-20			251,210		242,260	
Average Annual Acres			12,561		12,113	448

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Mud Lake Management (PCS-24)

Total First Cost	$1,504,500
Total Fully Funded Cost	

Annual Charges	Present Worth	Average Annual*
Interest & Amortization	$1,852,100	$195,700
Monitoring	244,900	25,900
O&M cost	111,600	11,800
Other Costs		0
Total	$2,208,600	$233,400

Average Annual Habitat Units	487
Cost per Habitat Unit	$479
Average Annual Acres of Emergent Marsh	798

*Interest rate of 8.5 percent over a 20-year project life

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

East Mud Lake (PC/S-24)

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	1993	$41,563	$10,000	$17,500	$0	$0	$0	$69,063
3 Compound	1994	$53,438	$0	$30,000	$0	$0	$0	$83,438
2 Compound	1995	$0	$0	$30,000	$68,571	$134,800	$539,200	$772,571
1 Compound	1996	$0	$0	$22,500	$51,429	$101,100	$404,400	$579,429
Base Year								
TOTAL		$95,000	$10,000	$100,000	$120,000	$235,900	$943,600	$1,504,500

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1997	$25,875	$11,795	$0
2 Discount	1998	$25,875	$11,795	$0
3 Discount	1999	$25,875	$11,795	$0
4 Discount	2000	$25,875	$11,795	$0
5 Discount	2001	$25,875	$11,795	$0
6 Discount	2002	$25,875	$11,795	$0
7 Discount	2003	$25,875	$11,795	$0
8 Discount	2004	$25,875	$11,795	$0
9 Discount	2005	$25,875	$11,795	$0
10 Discount	2006	$25,875	$11,795	$0
11 Discount	2007	$25,875	$11,795	$0
12 Discount	2008	$25,875	$11,795	$0
13 Discount	2009	$25,875	$11,795	$0
14 Discount	2010	$25,875	$11,795	$0
15 Discount	2011	$25,875	$11,795	$0
16 Discount	2012	$25,875	$11,795	$0
17 Discount	2013	$25,875	$11,795	$0
18 Discount	2014	$25,875	$11,795	$0
19 Discount	2015	$25,875	$11,795	$0
20 Discount	2016	$25,875	$11,795	$0
Total		$517,500	$235,900	$0

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Costs amortized over 20 year operation life

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

East Mud Lake (PC/S-24)

Present Valued Costs Total Discounted Costs $1,852,075 Amortized Costs $195,709

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	1993	$57,600	$13,859	$24,253	$0	$0	$0	$95,711
3	1.277	1994	$68,255	$0	$38,319	$0	$0	$0	$106,574
2	1.177	1995	$0	$0	$35,317	$80,724	$158,690	$634,760	$909,490
1	1.085	1996	$0	$0	$24,413	$55,800	$109,694	$438,774	$628,680
		Total	$125,855	$13,859	$122,300	$136,524	$268,383	$1,073,534	$1,740,455

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1997	$23,848	$10,871	$0
-2	0.849	1998	$21,980	$10,019	$0
-3	0.783	1999	$20,258	$9,234	$0
-4	0.722	2000	$18,671	$8,511	$0
-5	0.665	2001	$17,208	$7,844	$0
-6	0.613	2002	$15,860	$7,230	$0
-7	0.565	2003	$14,617	$6,663	$0
-8	0.521	2004	$13,472	$6,141	$0
-9	0.480	2005	$12,417	$5,660	$0
-10	0.442	2006	$11,444	$5,217	$0
-11	0.408	2007	$10,548	$4,808	$0
-12	0.376	2008	$9,721	$4,431	$0
-13	0.346	2009	$8,960	$4,084	$0
-14	0.319	2010	$8,258	$3,764	$0
-15	0.294	2011	$7,611	$3,469	$0
-16	0.271	2012	$7,015	$3,198	$0
-17	0.250	2013	$6,465	$2,947	$0
-18	0.230	2014	$5,959	$2,716	$0
-19	0.212	2015	$5,492	$2,503	$0
-20	0.196	2016	$5,062	$2,307	$0
		Total	$244,864	$111,620	$0
		Average Annual	$25,875	$11,795	$0

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Costs amortized over 20 year operation life

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

East Mud Lake (PC/S-24)

Fully Funded Costs Total Fully Funded Costs $2,903,635 Amortized Costs $306,827

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	1.042	1993	$43,308	$10,420	$18,235	$0	$0	$0	$71,963
3	1.075	1994	$57,464	$0	$32,260	$0	$0	$0	$89,724
2	1.110	1995	$0	$0	$33,293	$76,097	$149,595	$598,380	$857,365
1	1.145	1996	$0	$0	$25,769	$58,899	$115,787	$463,146	$663,601
	TOTAL		$100,772	$10,420	$109,556	$134,997	$265,381	$1,061,526	$1,682,653

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.182	1997	$30,582	$13,941	$0
-2	1.220	1998	$31,561	$14,387	$0
-3	1.259	1999	$32,571	$14,847	$0
-4	1.299	2000	$33,613	$15,322	$0
-5	1.341	2001	$34,689	$15,813	$0
-6	1.384	2002	$35,799	$16,319	$0
-7	1.428	2003	$36,944	$16,841	$0
-8	1.473	2004	$38,126	$17,380	$0
-9	1.521	2005	$39,346	$17,936	$0
-10	1.569	2006	$40,605	$18,510	$0
-11	1.620	2007	$41,905	$19,102	$0
-12	1.671	2008	$43,246	$19,713	$0
-13	1.725	2009	$44,630	$20,344	$0
-14	1.780	2010	$46,058	$20,995	$0
-15	1.837	2011	$47,532	$21,667	$0
-16	1.896	2012	$49,053	$22,360	$0
-17	*1.956	2013	$50,622	$23,076	$0
-18	2.019	2014	$52,242	$23,814	$0
-19	2.084	2015	$53,914	$24,576	$0
-20	2.150	2016	$55,639	$25,363	$0
	Total		$838,676	$382,306	$0

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Costs amortized over 20 year operation life

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

East Mud Lake (PC/S-24)

Marsh Type: Brackish

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	8,054	40.14%	3,233	40.14%	3,233	0
1	8,054	40.14%	3,233	39.20%	3,157	76
2	8,054	40.14%	3,233	38.25%	3,081	152
3	8,054	40.14%	3,233	37.31%	3,005	228
4	8,054	40.14%	3,233	36.37%	2,929	304
5	8,054	40.14%	3,233	35.42%	2,853	380
6	8,054	40.14%	3,233	34.48%	2,777	456
7	8,054	40.14%	3,233	33.54%	2,701	532
8	8,054	40.14%	3,233	32.59%	2,625	608
9	8,054	40.14%	3,233	31.65%	2,549	684
10	8,054	40.14%	3,233	30.71%	2,473	760
11	8,054	40.14%	3,233	29.76%	2,397	836
12	8,054	40.14%	3,233	28.82%	2,321	912
13	8,054	40.14%	3,233	27.87%	2,245	988
14	8,054	40.14%	3,233	26.93%	2,169	1,064
15	8,054	40.14%	3,233	25.99%	2,093	1,140
16	8,054	40.14%	3,233	25.04%	2,017	1,216
17	8,054	40.14%	3,233	24.10%	1,941	1,292
18	8,054	40.14%	3,233	23.16%	1,865	1,368
19	8,054	40.14%	3,233	22.21%	1,789	1,444
20	8,054	40.14%	3,233	21.27%	1,713	1,520
Total Years 1-20			64,660		48,700	
Average Annual Acres			3,233		2,435	798

Costs amortized over 20 year operation life

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

East Mud Lake (PC/S-24)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	8,054	40.14%	3,233	40.14%	3,233	0
1	8,054	40.14%	3,233	39.20%	3,157	76
2	8,054	40.14%	3,233	38.25%	3,081	152
3	8,054	40.14%	3,233	37.31%	3,005	228
4	8,054	40.14%	3,233	36.37%	2,929	304
5	8,054	40.14%	3,233	35.42%	2,853	380
6	8,054	40.14%	3,233	34.48%	2,777	456
7	8,054	40.14%	3,233	33.54%	2,701	532
8	8,054	40.14%	3,233	32.59%	2,625	608
9	8,054	40.14%	3,233	31.65%	2,549	684
10	8,054	40.14%	3,233	30.71%	2,473	760
11	8,054	40.14%	3,233	29.76%	2,397	836
12	8,054	40.14%	3,233	28.82%	2,321	912
13	8,054	40.14%	3,233	27.87%	2,245	988
14	8,054	40.14%	3,233	26.93%	2,169	1,064
15	8,054	40.14%	3,233	25.99%	2,093	1,140
16	8,054	40.14%	3,233	25.04%	2,017	1,216
17	8,054	40.14%	3,233	24.10%	1,941	1,292
18	8,054	40.14%	3,233	23.16%	1,865	1,368
19	8,054	40.14%	3,233	22.21%	1,789	1,444
20	8,054	40.14%	3,233	21.27%	1,713	1,520
Total Years 1-20			64,660		48,700	
Average Annual Acres			3,233		2,435	798

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Johnathan Davis Wetlands (PBA-35)

Total First Cost	$2,182,700
Total Fully Funded Cost	$3,398,900

Annual Charges	Present Worth	Average Annual*
Interest & Amortization	$2,722,500	$287,700
Monitoring	195,900	20,700
O&M cost	94,400	10,000
Other Costs	0	0
Total	$3,012,800	$318,400

Average Annual Habitat Units	485
Cost per Habitat Unit	$657
Average Annual Acres of Emergent Marsh	255

*interest rate of 8.5 percent over a 20-year project life

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

Jonathan Davis Wetland (PBA-35)

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	1993	$114,545	$30,000	$37,838	$0	$0	$0	$182,383
3 Compound	1994	$65,455	$0	$64,865	$53,200	$88,633	$354,533	$626,686
2 Compound	1995	$0	$0	$64,865	$91,200	$151,943	$607,772	$915,779
1 Compound	1996	$0	$0	$32,432	$45,600	$75,971	$303,886	$457,890
Base Year								
TOTAL		$180,000	$30,000	$200,000	$190,000	$316,548	$1,266,191	$2,182,739

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1997	$20,700	$9,974	$0
2 Discount	1998	$20,700	$9,974	$0
3 Discount	1999	$20,700	$9,974	$0
4 Discount	2000	$20,700	$9,974	$0
5 Discount	2001	$20,700	$9,974	$0
6 Discount	2002	$20,700	$9,974	$0
7 Discount	2003	$20,700	$9,974	$0
8 Discount	2004	$20,700	$9,974	$0
9 Discount	2005	$20,700	$9,974	$0
10 Discount	2006	$20,700	$9,974	$0
11 Discount	2007	$20,700	$9,974	$0
12 Discount	2008	$20,700	$9,974	$0
13 Discount	2009	$20,700	$9,974	$0
14 Discount	2010	$20,700	$9,974	$0
15 Discount	2011	$20,700	$9,974	$0
16 Discount	2012	$20,700	$9,974	$0
17 Discount	2013	$20,700	$9,974	$0
18 Discount	2014	$20,700	$9,974	$0
19 Discount	2015	$20,700	$9,974	$0
20 Discount	2016	$20,700	$9,974	$0
Total		$414,000	$199,480	$0

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Costs amortized over 20 year operation life

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

Jonathan Davis Wetland (PBA-35)

Present Valued Costs Total Discounted Costs $2,722,493 Amortized Costs $287,686

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	1993	$158,744	$41,576	$52,438	$0	$0	$0	$252,757
3	1.277	1994	$83,604	$0	$82,851	$67,952	$113,210	$452,842	$800,460
2	1.177	1995	$0	$0	$76,361	$107,363	$178,871	$715,484	$1,078,078
1	1.085	1996	$0	$0	$35,189	$49,476	$82,429	$329,716	$496,810
		Total	$242,348	$41,576	$246,839	$224,791	$374,510	$1,498,042	$2,628,106

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1997	$19,078	$9,193	$0
-2	0.849	1998	$17,584	$8,472	$0
-3	0.783	1999	$16,206	$7,809	$0
-4	0.722	2000	$14,937	$7,197	$0
-5	0.665	2001	$13,766	$6,633	$0
-6	0.613	2002	$12,688	$6,114	$0
-7	0.565	2003	$11,694	$5,635	$0
-8	0.521	2004	$10,778	$5,193	$0
-9	0.480	2005	$9,934	$4,786	$0
-10	0.442	2006	$9,155	$4,411	$0
-11	0.408	2007	$8,438	$4,066	$0
-12	0.376	2008	$7,777	$3,747	$0
-13	0.346	2009	$7,168	$3,454	$0
-14	0.319	2010	$6,606	$3,183	$0
-15	0.294	2011	$6,089	$2,934	$0
-16	0.271	2012	$5,612	$2,704	$0
-17	0.250	2013	$5,172	$2,492	$0
-18	0.230	2014	$4,767	$2,297	$0
-19	0.212	2015	$4,393	$2,117	$0
-20	0.196	2016	$4,049	$1,951	$0
		Total	$195,891	$94,387	$0
		Average Annual	$20,700	$9,974	$0

Costs amortized over 20 year operation life

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

Jonathan Davis Wetland (PBA-35)

Fully Funded Costs Total Fully Funded Costs $3,398,867 Amortized Costs $359,158

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	1.042	1993	$119,356	$31,260	$39,427	$0	$0	$0	$190,043
3	1.075	1994	$70,386	$0	$69,752	$57,208	$95,311	$381,245	$673,903
2	1.110	1995	$0	$0	$71,984	$101,210	$168,619	$674,478	$1,016,291
1	1.145	1996	$0	$0	$37,144	$52,224	$87,008	$348,030	$524,406
	TOTAL		$189,743	$31,260	$218,307	$210,642	$350,938	$1,403,754	$2,404,644

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1	1.182	1997	$24,466	$11,788	$0
-2	1.220	1998	$25,249	$12,166	$0
-3	1.259	1999	$26,057	$12,555	$0
-4	1.299	2000	$26,890	$12,957	$0
-5	1.341	2001	$27,751	$13,371	$0
-6	1.384	2002	$28,639	$13,799	$0
-7	1.428	2003	$29,555	$14,241	$0
-8	1.473	2004	$30,501	$14,696	$0
-9	1.521	2005	$31,477	$15,167	$0
-10	1.569	2006	$32,484	$15,652	$0
-11	1.620	2007	$33,524	$16,153	$0
-12	1.671	2008	$34,597	$16,670	$0
-13	1.725	2009	$35,704	$17,203	$0
-14	1.780	2010	$36,846	$17,754	$0
-15	1.837	2011	$38,025	$18,322	$0
-16	1.896	2012	$39,242	$18,908	$0
-17	1.956	2013	$40,498	$19,513	$0
-18	2.019	2014	$41,794	$20,138	$0
-19	2.084	2015	$43,131	$20,782	$0
-20	2.150	2016	$44,511	$21,447	$0
	Total		$670,940	$323,283	$0

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Costs amortized over 20 year operation life

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

Jonathan Davis Wetland (PBA-35)

Marsh Type: Fresh/Inter. ..te

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres.	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	7,199	66.50%	4,787	66.50%	4,787	0
1	7,199	66.38%	4,779	66.06%	4,756	23
2	7,199	66.27%	4,771	65.63%	4,725	46
3	7,199	66.16%	4,763	65.20%	4,694	69
4	7,199	66.05%	4,755	64.77%	4,663	92
5	7,199	65.94%	4,747	64.34%	4,632	115
6	7,199	65.83%	4,739	63.91%	4,601	138
7	7,199	65.72%	4,731	63.48%	4,570	161
8	7,199	65.61%	4,723	63.05%	4,539	184
9	7,199	65.50%	4,715	62.62%	4,508	207
10	7,199	65.38%	4,707	62.19%	4,477	230
11	7,199	65.27%	4,699	61.69%	4,441	258
12	7,199	65.16%	4,691	61.19%	4,405	286
13	7,199	65.05%	4,683	60.69%	4,369	314
14	7,199	64.94%	4,675	60.19%	4,333	342
15	7,199	64.83%	4,667	59.69%	4,297	370
16	7,199	64.72%	4,659	59.19%	4,261	398
17	7,199	64.61%	4,651	58.69%	4,225	426
18	7,199	64.50%	4,643	58.19%	4,189	454
19	7,199	64.38%	4,635	57.69%	4,153	482
20	7,199	64.27%	4,627	57.19%	4,117	510
Total Years 1-20			94,060		88,955	
Average Annual Acres			4,703		4,448	255

Costs amortized over 20 year operation life

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

Jonathan Davis Wetland (PBA-35)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	7,199	66.50%	4,787	66.50%	4,787	0
1	7,199	66.38%	4,779	66.06%	4,756	23
2	7,199	66.27%	4,771	65.63%	4,725	46
3	7,199	66.16%	4,763	65.20%	4,694	69
4	7,199	66.05%	4,755	64.77%	4,663	92
5	7,199	65.94%	4,747	64.34%	4,632	115
6	7,199	65.83%	4,739	63.91%	4,601	138
7	7,199	65.72%	4,731	63.48%	4,570	161
8	7,199	65.61%	4,723	63.05%	4,539	184
9	7,199	65.50%	4,715	62.62%	4,508	207
10	7,199	65.38%	4,707	62.19%	4,477	230
11	7,199	65.27%	4,699	61.69%	4,441	258
12	7,199	65.16%	4,691	61.19%	4,405	286
13	7,199	65.05%	4,683	60.69%	4,369	314
14	7,199	64.94%	4,675	60.19%	4,333	342
15	7,199	64.83%	4,667	59.69%	4,297	370
16	7,199	64.72%	4,659	59.19%	4,261	398
17	7,199	64.61%	4,651	58.69%	4,225	426
18	7,199	64.50%	4,643	58.19%	4,189	454
19	7,199	64.38%	4,635	57.69%	4,153	482
20	7,199	64.27%	4,627	57.19%	4,117	510
Total Years 1-20			94,060		88,955	
Average Annual Acres			4,703		4,448	255

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Point Au Fer Island Plugs (ME-221211

Total First Cost	$935,200
Total Fully Funded Cost	$1,069,600

Annual Charges	Present Worth	Average Annual+
Interest & Amortization	$1,018,700	$107,700
Monitoring	20,400	2,200
Other cost	0	0
Other Costs		0
Total	$1,039,100	$109,900

Average Annual Habitat Units	158
Cost per Habitat Unit	$696
Average Annual Acres of Emergent Marsh	196

*Interest rate of 8.5 percent over a 20-year project life

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

Point Au Fer Island Plugs (PTE-22/24)

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	1993	$30,000	$0	$13,957	$0	$0	$0	$43,957
1 Compound	1994	$0	$0	$13,957	$79,750	$159,500	$638,000	$891,207
Base Year								
TOTAL		$30,000	$0	$27,913	$79,750	$159,500	$638,000	$935,163

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1995	$2,150	$0	$0
2 Discount	1996	$2,150	$0	$0
3 Discount	1997	$2,150	$0	$0
4 Discount	1998	$2,150	$0	$0
5 Discount	1999	$2,150	$0	$0
6 Discount	2000	$2,150	$0	$0
7 Discount	2001	$2,150	$0	$0
8 Discount	2002	$2,150	$0	$0
9 Discount	2003	$2,150	$0	$0
10 Discount	2004	$2,150	$0	$0
11 Discount	2005	$2,150	$0	$0
12 Discount	2006	$2,150	$0	$0
13 Discount	2007	$2,150	$0	$0
14 Discount	2008	$2,150	$0	$0
15 Discount	2009	$2,150	$0	$0
16 Discount	2010	$2,150	$0	$0
17 Discount	2011	$2,150	$0	$0
18 Discount	2012	$2,150	$0	$0
19 Discount	2013	$2,150	$0	$0
20 Discount	2014	$2,150	$0	$0
Total		$43,000	$0	$0

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Costs amortized over 20 year operation life

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

Point Au Fer Island Plugs (PTE-22/24)

Present Valued Costs Total Discounted Costs $1,018,706 Amortized Costs $107,647

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	0	$0	$0	$0	$0	$0	$0	$0
2	1.177	1993	$35,317	$0	$16,430	$0	$0	$0	$51,747
1	1.085	1994	$0	$0	$15,143	$86,529	$173,058	$692,230	$966,959
		Total	$35,317	$0	$31,573	$86,529	$173,058	$692,230	$1,018,706

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1995	$1,982	$0	$0
-2	0.849	1996	$1,826	$0	$0
-3	0.783	1997	$1,683	$0	$0
-4	0.722	1998	$1,551	$0	$0
-5	0.665	1999	$1,430	$0	$0
-6	0.613	2000	$1,318	$0	$0
-7	0.565	2001	$1,215	$0	$0
-8	0.521	2002	$1,119	$0	$0
-9	0.480	2003	$1,032	$0	$0
-10	0.442	2004	$951	$0	$0
-11	0.408	2005	$876	$0	$0
-12	0.376	2006	$808	$0	$0
-13	0.346	2007	$744	$0	$0
-14	0.319	2008	$686	$0	$0
-15	0.294	2009	$632	$0	$0
-16	0.271	2010	$583	$0	$0
-17	0.250	2011	$537	$0	$0
-18	0.230	2012	$495	$0	$0
-19	0.212	2013	$456	$0	$0
-20	0.196	2014	$421	$0	$0
		Total	$20,346	$0	$0
		Average Annual	$2,150	$0	$0

Costs amortized over 20 year operation life

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

Point Au Fer Island Plugs (PTE-22/24)

Fully Funded Costs Total Fully Funded Costs $1,069,589 Amortized Costs $113,023

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	1.042	1993	$31,260	$0	$14,543	$0	$0	$0	$45,803
1	1.075	1994	$0	$0	$15,008	$85,759	$171,517	$686,069	$958,354
		TOTAL	$31,260	$0	$29,551	$85,759	$171,517	$686,069	$1,004,156

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.110	1995	$2,386	$0	$0
-2	1.145	1996	$2,462	$0	$0
-3	1.182	1997	$2,541	$0	$0
-4	1.220	1998	$2,622	$0	$0
-5	1.259	1999	$2,706	$0	$0
-6	1.299	2000	$2,793	$0	$0
-7	1.341	2001	$2,882	$0	$0
-8	1.384	2002	$2,975	$0	$0
-9	1.428	2003	$3,070	$0	$0
-10	1.473	2004	$3,168	$0	$0
-11	1.521	2005	$3,269	$0	$0
-12	1.569	2006	$3,374	$0	$0
-13	1.620	2007	$3,482	$0	$0
-14	1.671	2008	$3,593	$0	$0
-15	1.725	2009	$3,708	$0	$0
-16	1.780	2010	$3,827	$0	$0
-17	1.837	2011	$3,949	$0	$0
-18	1.896	2012	$4,076	$0	$0
-19	1.956	2013	$4,206	$0	$0
-20	2.019	2014	$4,341	$0	$0
		Total	$65,432	$0	$0

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Costs amortized over 20 year operation life

Coastal Wetlands ...nning, Protection, and Restoration Act
...riority Project List II

Point Au Fer Island Plugs (PTE-22/24)

Marsh Type: Brackish (Area 1a)

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	1,505	81.73%	1,230	81.73%	1,230	0
1	1,505	81.73%	1,230	81.59%	1,228	2
2	1,505	81.73%	1,230	81.43%	1,225	5
3	1,505	81.73%	1,230	81.26%	1,223	7
4	1,505	81.73%	1,230	81.09%	1,220	10
5	1,505	81.73%	1,230	80.92%	1,218	12
6	1,505	81.73%	1,230	80.76%	1,215	15
7	1,505	81.73%	1,230	80.59%	1,213	17
8	1,505	81.73%	1,230	80.42%	1,210	20
9	1,505	81.73%	1,230	80.25%	1,208	22
10	1,505	81.73%	1,230	80.08%	1,205	25
11	1,505	81.73%	1,230	79.92%	1,203	27
12	1,505	81.73%	1,230	79.75%	1,200	30
13	1,505	81.73%	1,230	79.58%	1,198	32
14	1,505	81.73%	1,230	79.41%	1,195	35
15	1,505	81.73%	1,230	79.24%	1,193	37
16	1,505	81.73%	1,230	79.08%	1,190	40
17	1,505	81.73%	1,230	78.91%	1,188	42
18	1,505	81.73%	1,230	78.74%	1,185	45
19	1,505	81.73%	1,230	78.57%	1,183	47
20	1,505	81.73%	1,230	78.41%	1,180	50
Total Years 1-20			24,600		24,080	
Average Annual Acres			1,230		1,204	26

Costs amortized over 20 year operation life

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

Point Au Fer Island Plugs (PTE-22/24)

Marsh Type: Brackish (Area 2a)

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	880	68.18%	600	68.18%	600	0
1	880	67.95%	598	67.39%	593	5
2	880	67.70%	596	66.55%	586	10
3	880	67.44%	593	65.71%	578	15
4	880	67.18%	591	64.87%	571	20
5	880	66.93%	589	64.04%	564	25
6	880	66.67%	587	63.20%	556	31
7	880	66.41%	584	62.36%	549	36
8	880	66.15%	582	61.53%	541	41
9	880	65.90%	580	60.69%	534	46
10	880	65.64%	578	59.85%	527	51
11	880	65.38%	575	59.01%	519	56
12	880	65.13%	573	58.18%	512	61
13	880	64.87%	571	57.34%	505	66
14	880	64.61%	569	56.50%	497	71
15	880	64.35%	566	55.66%	490	76
16	880	64.10%	564	54.83%	482	82
17	880	63.84%	562	53.99%	475	87
18	880	63.58%	560	53.15%	468	92
19	880	63.33%	557	52.31%	460	97
20	880	63.07%	555	51.48%	453	102
Total Years 1-20			11,530		10,460	
Average Annual Acres			577		523	54

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Costs amortized over 20 year operation life

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

Point Au Fer Island Plugs (PTE-22/24)

Marsh Type: Brackish (Area 2b)

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	586	68.26%	400	68.26%	400	0
1	586	67.92%	398	66.72%	391	7
2	586	67.67%	397	65.21%	382	14
3	586	67.42%	395	63.69%	373	22
4	586	67.16%	394	62.17%	364	29
5	586	66.91%	392	60.65%	355	37
6	586	66.66%	391	59.13%	347	44
7	586	66.41%	389	57.62%	338	52
8	586	66.16%	388	56.10%	329	59
9	586	65.91%	386	54.58%	320	66
10	586	65.65%	385	53.06%	311	74
11	586	65.40%	383	51.54%	302	81
12	586	65.15%	382	50.03%	293	89
13	586	64.90%	380	48.51%	284	96
14	586	64.65%	379	46.99%	275	103
15	586	64.40%	377	45.47%	266	111
16	586	64.15%	376	43.96%	258	118
17	586	63.89%	374	42.44%	249	126
18	586	63.64%	373	40.92%	240	133
19	586	63.39%	371	39.40%	231	141
20	586	63.14%	370	37.88%	222	148
Total Years 1-20			7,680		6,130	
Average Annual Acres			384		306	78

Costs amortized over 20 year operation life

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

Point Au Fer Island Plugs (PTE-22/24)

Marsh Type: Saline

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	2,259	81.67%	1,845	81.67%	1,845	0
1	2,259	81.67%	1,845	81.50%	1,841	4
2	2,259	81.67%	1,845	81.33%	1,837	8
3	2,259	81.67%	1,845	81.17%	1,834	11
4	2,259	81.67%	1,845	81.00%	1,830	15
5	2,259	81.67%	1,845	80.83%	1,826	19
6	2,259	81.67%	1,845	80.67%	1,822	23
7	2,259	81.67%	1,845	80.50%	1,819	26
8	2,259	81.67%	1,845	80.34%	1,815	30
9	2,259	81.67%	1,845	80.17%	1,811	34
10	2,259	81.67%	1,845	80.01%	1,807	38
11	2,259	81.67%	1,845	79.84%	1,804	41
12	2,259	81.67%	1,845	79.68%	1,800	45
13	2,259	81.67%	1,845	79.51%	1,796	49
14	2,259	81.67%	1,845	79.35%	1,792	53
15	2,259	81.67%	1,845	79.18%	1,789	56
16	2,259	81.67%	1,845	79.01%	1,785	60
17	2,259	81.67%	1,845	78.85%	1,781	64
18	2,259	81.67%	1,845	78.68%	1,777	68
19	2,259	81.67%	1,845	78.52%	1,774	71
20	2,259	81.67%	1,845	78.35%	1,770	75
Total Years 1-20			36,900		36,110	
Average Annual Acres			1,845		1,806	39

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Costs amortized over 20 year operation life

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

Point Au Fer Island Plugs (PTE-22/24)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	5,230	77.92%	4,075	77.92%	4,075	0
1	5,230	77.84%	4,071	77.50%	4,053	18
2	5,230	77.77%	4,067	77.06%	4,030	37
3	5,230	77.70%	4,064	76.63%	4,008	56
4	5,230	77.63%	4,060	76.20%	3,985	74
5	5,230	77.55%	4,056	75.77%	3,963	93
6	5,230	77.48%	4,052	75.34%	3,940	112
7	5,230	77.41%	4,049	74.91%	3,918	131
8	5,230	77.34%	4,045	74.48%	3,895	150
9	5,230	77.27%	4,041	74.05%	3,873	168
10	5,230	77.20%	4,037	73.62%	3,850	187
11	5,230	77.12%	4,034	73.19%	3,828	206
12	5,230	77.05%	4,030	72.76%	3,805	225
13	5,230	76.98%	4,026	72.33%	3,783	243
14	5,230	76.91%	4,022	71.90%	3,760	262
15	5,230	76.84%	4,019	71.47%	3,738	281
16	5,230	76.77%	4,015	71.03%	3,715	300
17	5,230	76.70%	4,011	70.60%	3,693	319
18	5,230	76.62%	4,007	70.17%	3,670	337
19	5,230	76.55%	4,004	69.74%	3,648	356
20	5,230	76.48%	4,000	69.31%	3,625	375
Total Years 1-20			80,710		76,780	
Average Annual Acres			4,036		3,839	196

Costs amortized over 20 year operation life

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Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Big Island Mining, Atchafalaya Delta, Increment l,(XAT-7)

Total First Cost	$3734,900
Totai Fully Funded Cost	$4,136,100

Annual Charges	Present Worth	Average Annual*
Interest & Amortization	$4,085,000	$431,700
Monitoring	40,900	4,300
O&M Cost	0	0
Other Costs	0	0
Total	$4,125,900	

Average Annual Habitat Units	467
Cost per Habitat Unit	$933
Average Annual Acres of Emergent Marsh	944

*Interest rate of 8.5 percent over a 20-year project life

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

Big Island Sediment Mining Increment # 1 (XAT-7)

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	1993	$35,000	$0	$43,971	$13,115	$52,462	$209,846	$354,394
1 Compound	1994	$0	$0	$75,379	$157,385	$629,538	$2,518,154	$3,380,456
Base Year								
TOTAL		$35,000	$0	$119,350	$170,500	$682,000	$2,728,000	$3,734,850

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1995	$4,325	$0	$0
2 Discount	1996	$4,325	$0	$0
3 Discount	1997	$4,325	$0	$0
4 Discount	1998	$4,325	$0	$0
5 Discount	1999	$4,325	$0	$0
6 Discount	2000	$4,325	$0	$0
7 Discount	2001	$4,325	$0	$0
8 Discount	2002	$4,325	$0	$0
9 Discount	2003	$4,325	$0	$0
10 Discount	2004	$4,325	$0	$0
11 Discount	2005	$4,325	$0	$0
12 Discount	2006	$4,325	$0	$0
13 Discount	2007	$4,325	$0	$0
14 Discount	2008	$4,325	$0	$0
15 Discount	2009	$4,325	$0	$0
16 Discount	2010	$4,325	$0	$0
17 Discount	2011	$4,325	$0	$0
18 Discount	2012	$4,325	$0	$0
19 Discount	2013	$4,325	$0	$0
20 Discount	2014	$4,325	$0	$0
Total		$86,500	$0	$0

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Costs amortized over 20 year operation life

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

Big Island Sediment Mining Increment # 1 (XAT-7)

Present Valued Costs Total Discounted Costs $4,084,996 Amortized Costs $431,662

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	0	$0	$0	$0	$0	$0	$0	$0
2	1.177	1993	$41,203	$0	$51,764	$15,440	$61,759	$247,036	$417,202
1	1.085	1994	$0	$0	$81,786	$170,762	$683,049	$2,732,197	$3,667,795
		Total	$41,203	$0	$133,550	$186,202	$744,808	$2,979,233	$4,084,996

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1995	$3,986	$0	$0
-2	0.849	1996	$3,674	$0	$0
-3	0.783	1997	$3,386	$0	$0
-4	0.722	1998	$3,121	$0	$0
-5	0.665	1999	$2,876	$0	$0
-6	0.613	2000	$2,651	$0	$0
-7	0.565	2001	$2,443	$0	$0
-8	0.521	2002	$2,252	$0	$0
-9	0.480	2003	$2,075	$0	$0
-10	0.442	2004	$1,913	$0	$0
-11	0.408	2005	$1,763	$0	$0
-12	0.376	2006	$1,625	$0	$0
-13	0.346	2007	$1,498	$0	$0
-14	0.319	2008	$1,380	$0	$0
-15	0.294	2009	$1,272	$0	$0
-16	0.271	2010	$1,172	$0	$0
-17	0.250	2011	$1,081	$0	$0
-18	0.230	2012	$996	$0	$0
-19	0.212	2013	$918	$0	$0
-20	0.196	2014	$846	$0	$0
		Total	$40,929	$0	$0
		Average Annual	$4,325	$0	$0

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Costs amortized over 20 year operation life

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

Big Island Sediment Mining Increment # 1 (XAT-7)

Fully Funded Costs Total Fully Funded Costs $4,136,057 Amortized Costs $437,057

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	1.042	1993	$36,470	$0	$45,818	$13,666	$54,665	$218,660	$369,279
1	1.075	1994	$0	$0	$81,058	$169,243	$676,970	$2,707,882	$3,635,153
		TOTAL	$36,470	$0	$126,876	$182,909	$731,635	$2,926,541	$4,004,432

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.110	1995	$4,800	$0	$0
-2	1.145	1996	$4,953	$0	$0
-3	1.182	1997	$5,112	$0	$0
-4	1.220	1998	$5,275	$0	$0
-5	1.259	1999	$5,444	$0	$0
-6	1.299	2000	$5,618	$0	$0
-7	1.341	2001	$5,798	$0	$0
-8	1.384	2002	$5,984	$0	$0
-9	1.428	2003	$6,175	$0	$0
-10	1.473	2004	$6,373	$0	$0
-11	1.521	2005	$6,577	$0	$0
-12	1.569	2006	$6,787	$0	$0
-13	1.620	2007	$7,004	$0	$0
-14	1.671	2008	$7,229	$0	$0
-15	1.725	2009	$7,460	$0	$0
-16	1.780	2010	$7,699	$0	$0
-17	1.837	2011	$7,945	$0	$0
-18	1.896	2012	$8,199	$0	$0
-19	1.956	2013	$8,462	$0	$0
-20	2.019	2014	$8,732	$0	$0
		Total	$131,626	$0	$0

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Costs amortized over 20 year operation life

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

Big Island Sediment Mining Increment # 1 (XAT-7)

Marsh Type: Fresh/Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	3,400	26.47%	900	26.47%	900	0
1	3,400	35.59%	1,210	25.94%	882	328
2	3,400	36.97%	1,257	25.41%	864	393
3	3,400	38.34%	1,304	24.88%	846	458
4	3,400	39.72%	1,351	24.35%	828	523
5	3,400	41.10%	1,397	23.82%	810	587
6	3,400	42.48%	1,444	23.29%	792	652
7	3,400	43.85%	1,491	22.76%	774	717
8	3,400	45.23%	1,538	22.24%	756	782
9	3,400	46.61%	1,585	21.71%	738	847
10	3,400	47.99%	1,632	21.18%	720	912
11	3,400	49.37%	1,678	20.65%	702	976
12	3,400	50.74%	1,725	20.12%	684	1,041
13	3,400	52.12%	1,772	19.59%	666	1,106
14	3,400	53.50%	1,819	19.06%	648	1,171
15	3,400	54.88%	1,866	18.53%	630	1,236
16	3,400	56.25%	1,913	18.00%	612	1,301
17	3,400	57.63%	1,959	17.47%	594	1,365
18	3,400	59.01%	2,006	16.94%	576	1,430
19	3,400	60.39%	2,053	16.41%	558	1,495
20	3,400	61.76%	2,100	15.88%	540	1,560
Total Years 1-20			33,100		14,220	
Average Annual Acres			1,655		711	944

Costs amortized over 20 year operation life

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

Big Island Sediment Mining Increment # 1 (XAT-7)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	3,400	26.47%	900	26.47%	900	0
1	3,400	35.59%	1,210	25.94%	882	328
2	3,400	36.97%	1,257	25.41%	864	393
3	3,400	38.34%	1,304	24.88%	846	458
4	3,400	39.72%	1,351	24.35%	828	523
5	3,400	41.10%	1,397	23.82%	810	587
6	3,400	42.48%	1,444	23.29%	792	652
7	3,400	43.85%	1,491	22.76%	774	717
8	3,400	45.23%	1,538	22.24%	756	782
9	3,400	46.61%	1,585	21.71%	738	847
10	3,400	47.99%	1,632	21.18%	720	912
11	3,400	49.37%	1,678	20.65%	702	976
12	3,400	50.74%	1,725	20.12%	684	1,041
13	3,400	52.12%	1,772	19.59%	666	1,106
14	3,400	53.50%	1,819	19.06%	648	1,171
15	3,400	54.88%	1,866	18.53%	630	1,236
16	3,400	56.25%	1,913	18.00%	612	1,301
17	3,400	57.63%	1,959	17.47%	594	1,365
18	3,400	59.01%	2,006	16.94%	576	1,430
19	3,400	60.39%	2,053	16.41%	558	1,495
20	3,400	61.76%	2,100	15.88%	540	1,560
Total Years 1-20			33,100		14,220	
Average Annual Acres			1,655		711	944

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Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Highway 384 Hydrologic Restoration (PCS-251

Total First Cost	$285,100
Total Fully Funded Cost	$700,700

Annual Charges	Present Worth	Average Annual*
Interest & Amortization	$377,400	$39,900
Monitoring	68,200	7,200
cost	43,600	4,600
Other Costs	0	0
Total	$489,200	$51,700

Average Annual Habitat Units	51
Cost per Habitat Unit	$1,023
Average Annual Acres of Emergent Marsh	79

*Interest rate of 8.5 percent over a 20-year project life

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

Highway 384 Hydrologic Restoration (PC/S-25)

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	1993	$12,000	$20,000	$3,659	$0	$0	$0	$35,659
3 Compound	1994	$18,000	$0	$7,317	$0	$0	$0	$25,317
2 Compound	1995	$0	$0	$7,317	$7,579	$16,179	$64,716	$95,791
1 Compound	1996	$0	$0	$6,707	$10,421	$22,246	$88,984	$128,359
Base Year								
TOTAL		$30,000	$20,000	$25,000	$18,000	$38,425	$153,700	$285,125

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1997	$7,206	$4,611	$0
2 Discount	1998	$7,206	$4,611	$0
3 Discount	1999	$7,206	$4,611	$0
4 Discount	2000	$7,206	$4,611	$0
5 Discount	2001	$7,206	$4,611	$0
6 Discount	2002	$7,206	$4,611	$0
7 Discount	2003	$7,206	$4,611	$0
8 Discount	2004	$7,206	$4,611	$0
9 Discount	2005	$7,206	$4,611	$0
10 Discount	2006	$7,206	$4,611	$0
11 Discount	2007	$7,206	$4,611	$0
12 Discount	2008	$7,206	$4,611	$0
13 Discount	2009	$7,206	$4,611	$0
14 Discount	2010	$7,206	$4,611	$0
15 Discount	2011	$7,206	$4,611	$0
16 Discount	2012	$7,206	$4,611	$0
17 Discount	2013	$7,206	$4,611	$0
18 Discount	2014	$7,206	$4,611	$0
19 Discount	2015	$7,206	$4,611	$0
20 Discount	2016	$7,206	$4,611	$0
Total		$144,124	$92,220	$0

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Costs amortized over 20 year operation life

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

Highway 384 Hydrologic Restoration (PC/S-25)

Present Valued Costs Total Discounted Costs $377,427 Amortized Costs $39,883

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	1993	$16,630	$27,717	$5,070	$0	$0	$0	$49,418
3	1.277	1994	$22,991	$0	$9,346	$0	$0	$0	$32,337
2	1.177	1995	$0	$0	$8,614	$8,922	$19,046	$76,185	$112,767
1	1.085	1996	$0	$0	$7,277	$11,307	$24,137	$96,548	$139,269
		Total	$39,622	$27,717	$30,308	$20,229	$43,183	$172,733	$333,791

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1997	$6,642	$4,250	$0
-2	0.849	1998	$6,121	$3,917	$0
-3	0.783	1999	$5,642	$3,610	$0
-4	0.722	2000	$5,200	$3,327	$0
-5	0.665	2001	$4,792	$3,067	$0
-6	0.613	2002	$4,417	$2,826	$0
-7	0.565	2003	$4,071	$2,605	$0
-8	0.521	2004	$3,752	$2,401	$0
-9	0.480	2005	$3,458	$2,213	$0
-10	0.442	2006	$3,187	$2,039	$0
-11	0.408	2007	$2,938	$1,880	$0
-12	0.376	2008	$2,707	$1,732	$0
-13	0.346	2009	$2,495	$1,597	$0
-14	0.319	2010	$2,300	$1,472	$0
-15	0.294	2011	$2,120	$1,356	$0
-16	0.271	2012	$1,954	$1,250	$0
-17	0.250	2013	$1,801	$1,152	$0
-18	0.230	2014	$1,659	$1,062	$0
-19	0.212	2015	$1,529	$979	$0
-20	0.196	2016	$1,410	$902	$0
		Total	$68,195	$43,635	$0
		Average Annual	$7,206	$4,611	$0

Costs amortized over 20 year operation life

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

Highway 384 Hydrologic Restoration (PC/S-25)

Fully Funded Costs Total Fully Funded Costs $700,717 Amortized Costs $74,045

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	1.042	1993	$12,504	$20,840	$3,812	$0	$0	$0	$37,156
3	1.075	1994	$19,356	$0	$7,868	$0	$0	$0	$27,225
2	1.110	1995	$0	$0	$8,120	$8,411	$17,955	$71,819	$106,304
1	1.145	1996	$0	$0	$7,682	$11,935	$25,478	$101,911	$147,005
	TOTAL		$31,860	$20,840	$27,482	$20,346	$43,432	$173,729	$317,690

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.182	1997	$8,517	$5,450	$0
-2	1.220	1998	$8,790	$5,624	$0
-3	1.259	1999	$9,071	$5,804	$0
-4	1.299	2000	$9,361	$5,990	$0
-5	1.341	2001	$9,661	$6,182	$0
-6	1.384	2002	$9,970	$6,379	$0
-7	1.428	2003	$10,289	$6,584	$0
-8	1.473	2004	$10,618	$6,794	$0
-9	1.521	2005	$10,958	$7,012	$0
-10	1.569	2006	$11,309	$7,236	$0
-11	1.620	2007	$11,671	$7,468	$0
-12	1.671	2008	$12,044	$7,707	$0
-13	1.725	2009	$12,429	$7,953	$0
-14	1.780	2010	$12,827	$8,208	$0
-15	1.837	2011	$13,238	$8,470	$0
-16	1.896	2012	$13,661	$8,741	$0
-17	1.956	2013	$14,098	$9,021	$0
-18	2.019	2014	$14,550	$9,310	$0
-19	2.084	2015	$15,015	$9,608	$0
-20	2.150	2016	$15,496	$9,915	$0
	Total		$233,572	$149,454	$0

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Costs amortized over 20 year operation life

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

Highway 384 Hydrologic Restoration (PC/S-25)

Marsh Type: Fresh/Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	322	45.03%	145	45.03%	145	0
1	322	45.03%	145	43.17%	139	6
2	322	45.03%	145	41.48%	134	11
3	322	45.03%	145	39.80%	128	17
4	322	45.03%	145	38.12%	123	22
5	322	45.03%	145	36.43%	117	28
6	322	45.03%	145	34.75%	112	33
7	322	45.03%	145	33.07%	106	39
8	322	45.03%	145	31.38%	101	44
9	322	45.03%	145	29.70%	96	49
10	322	45.03%	145	28.02%	90	55
11	322	45.03%	145	26.33%	85	60
12	322	45.03%	145	24.65%	79	66
13	322	45.03%	145	22.97%	74	71
14	322	45.03%	145	21.28%	69	76
15	322	45.03%	145	19.60%	63	82
16	322	45.03%	145	17.91%	58	87
17	322	45.03%	145	16.23%	52	93
18	322	45.03%	145	14.55%	47	98
19	322	45.03%	145	12.86%	41	104
20	322	45.03%	145	11.18%	36	109
Total Years 1-20			2,900		1,750	
Average Annual Acres			145		88	57

Costs amortized over 20 year operation life

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

Highway 384 Hydrologic Restoration (PC/S-25)

Marsh Type: Brackish

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	328	39.33%	129	39.33%	129	0
1	328	39.33%	129	38.72%	127	2
2	328	39.33%	129	38.09%	125	4
3	328	39.33%	129	37.47%	123	6
4	328	39.33%	129	36.84%	121	8
5	328	39.33%	129	36.22%	119	10
6	328	39.33%	129	35.59%	117	12
7	328	39.33%	129	34.96%	115	14
8	328	39.33%	129	34.34%	113	16
9	328	39.33%	129	33.71%	111	18
10	328	39.33%	129	33.09%	109	20
11	328	39.33%	129	32.46%	106	23
12	328	39.33%	129	31.84%	104	25
13	328	39.33%	129	31.21%	102	27
14	328	39.33%	129	30.58%	100	29
15	328	39.33%	129	29.96%	98	31
16	328	39.33%	129	29.33%	96	33
17	328	39.33%	129	28.71%	94	35
18	328	39.33%	129	28.08%	92	37
19	328	39.33%	129	27.46%	90	39
20	328	39.33%	129	26.83%	88	41
Total Years 1-20			2,580		2,150	
Average Annual Acres			129		108	21

Costs amortized over 20 year operation life

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

Highway 384 Hydrologic Restoration (PC/S-25)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	650	42.15%	274	42.15%	274	C
1	650	42.15%	274	40.92%	266	8
2	650	42.15%	274	39.77%	259	15
3	650	42.15%	274	38.62%	251	23
4	650	42.15%	274	37.47%	244	30
5	650	42.15%	274	36.32%	236	38
6	650	42.15%	274	35.17%	229	45
7	650	42.15%	274	34.02%	221	53
8	650	42.15%	274	32.87%	214	60
9	650	42.15%	274	31.72%	206	68
10	650	42.15%	274	30.57%	199	75
11	650	42.15%	274	29.43%	191	83
12	650	42.15%	274	28.28%	184	90
13	650	42.15%	274	27.13%	176	98
14	650	42.15%	274	25.98%	169	105
15	650	42.15%	274	24.83%	161	113
16	650	42.15%	274	23.68%	154	120
17	650	42.15%	274	22.53%	146	128
18	650	42.15%	274	21.38%	139	135
19	650	42.15%	274	20.23%	131	143
20	650	42.15%	274	19.08%	124	150
Total Years 1-20			5,480		3,900	
Average Annual Acres			274		195	79

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Fritchie Marsh Restoration) (PO-6)

Total First Cost	$1,540,100
Total Fully Funded Cost	

Annual Charges	Present Worth	Average Annual *
Interest & Amortization	$1,882,700	$199,000
Monitoring	244,900	25,900
cost	113,100	12,000
Other Costs		
Total	$2,240,700	$236,900

Average Annual Habitat Units	201
Cost per Habitat Unit	$1,176
Average Annual Acres of Emergent Marsh	546

*Interest rate of 8.5 percent over a 20-year project life

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

Fritchie Marsh Restoration (PO-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	1993	$0	$0	$0	$0	$0	$0	$0
4 Compound	1994	$54,286	$30,000	$29,875	$0	$0	$0	$114,161
3 Compound	1995	$40,714	$0	$29,875	$0	$0	$0	$70,589
2 Compound	1996	$0	$0	$29,875	$40,000	$95,650	$382,600	$548,125
1 Compound	1997	$0	$0	$29,875	$60,000	$143,475	$573,900	$807,250
Base Year								
	TOTAL	$95,000	$30,000	$119,500	$100,000	$239,125	$956,500	$1,540,125

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1998	$25,875	$11,956	$0
2 Discount	1999	$25,875	$11,956	$0
3 Discount	2000	$25,875	$11,956	$0
4 Discount	2001	$25,875	$11,956	$0
5 Discount	2002	$25,875	$11,956	$0
6 Discount	2003	$25,875	$11,956	$0
7 Discount	2004	$25,875	$11,956	$0
8 Discount	2005	$25,875	$11,956	$0
9 Discount	2006	$25,875	$11,956	$0
10 Discount	2007	$25,875	$11,956	$0
11 Discount	2008	$25,875	$11,956	$0
12 Discount	2009	$25,875	$11,956	$0
13 Discount	2010	$25,875	$11,956	$0
14 Discount	2011	$25,875	$11,956	$0
15 Discount	2012	$25,875	$11,956	$0
16 Discount	2013	$25,875	$11,956	$0
17 Discount	2014	$25,875	$11,956	$0
18 Discount	2015	$25,875	$11,956	$0
19 Discount	2016	$25,875	$11,956	$0
20 Discount	2017	$25,875	$11,956	$0
Total		$517,500	$239,120	$0

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Costs amortized over 20 year operation life

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

Fritchie Marsh Restoration (PO-6)

Present Valued Costs Total Discounted Costs $1,882,650 Amortized Costs $198,940

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	1993	$0	$0	$0	$0	$0	$0	$0
4	1.386	1994	$75,232	$41,576	$41,403	$0	$0	$0	$158,211
3	1.277	1995	$52,004	$0	$38,159	$0	$0	$0	$90,163
2	1.177	1996	$0	$0	$35,170	$47,089	$112,602	$450,406	$645,266
1	1.085	1997	$0	$0	$32,414	$65,100	$155,670	$622,682	$875,866
		Total	$127,236	$41,576	$147,146	$112,189	$268,272	$1,073,088	$1,769,506

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1998	$23,848	$11,019	$0
-2	0.849	1999	$21,980	$10,156	$0
-3	0.783	2000	$20,258	$9,360	$0
-4	0.722	2001	$18,671	$8,627	$0
-5	0.665	2002	$17,208	$7,951	$0
-6	0.613	2003	$15,860	$7,328	$0
-7	0.565	2004	$14,617	$6,754	$0
-8	0.521	2005	$13,472	$6,225	$0
-9	0.480	2006	$12,417	$5,737	$0
-10	0.442	2007	$11,444	$5,288	$0
-11	0.408	2008	$10,548	$4,874	$0
-12	0.376	2009	$9,721	$4,492	$0
-13	0.346	2010	$8,960	$4,140	$0
-14	0.319	2011	$8,258	$3,816	$0
-15	0.294	2012	$7,611	$3,517	$0
-16	0.271	2013	$7,015	$3,241	$0
-17	0.250	2014	$6,465	$2,987	$0
-18	0.230	2015	$5,959	$2,753	$0
-19	0.212	2016	$5,492	$2,538	$0
-20	0.196	2017	$5,062	$2,339	$0
		Total	$244,864	$113,144	$0
		Average Annual	$25,875	$11,956	$0

Costs amortized over 20 year operation life

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

Fritchie Marsh Restoration (PO-6)

Fully Funded Costs Total Fully Funded Costs $3,048,389 Amortized Costs $322,123

Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.042	1993	$0	$0	$0	$0	$0	$0	$0
4	1.075	1994	$58,376	$32,260	$32,126	$0	$0	$0	$122,762
3	1.110	1995	$45,183	$0	$33,154	$0	$0	$0	$78,337
2	1.145	1996	$0	$0	$34,215	$45,811	$109,545	$438,179	$627,750
1	1.182	1997	$0	$0	$35,310	$70,915	$169,575	$678,301	$954,101
		TOTAL	$103,559	$32,260	$134,804	$116,726	$279,120	$1,116,481	$1,782,950

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.220	1998	$31,561	$14,583	$0
-2	1.259	1999	$32,571	$15,050	$0
-3	1.299	2000	$33,613	$15,531	$0
-4	1.341	2001	$34,689	$16,028	$0
-5	1.384	2002	$35,799	$16,541	$0
-6	1.428	2003	$36,944	$17,071	$0
-7	1.473	2004	$38,126	$17,617	$0
-8	1.521	2005	$39,346	$18,181	$0
-9	1.569	2006	$40,605	$18,762	$0
-10	1.620	2007	$41,905	$19,363	$0
-11	1.671	2008	$43,246	$19,982	$0
-12	1.725	2009	$44,630	$20,622	$0
-13	1.780	2010	$46,058	$21,282	$0
-14	1.837	2011	$47,532	$21,963	$0
-15	1.896	2012	$49,053	$22,666	$0
-16	1.956	2013	$50,622	$23,391	$0
-17	2.019	2014	$52,242	$24,139	$0
-18	2.084	2015	$53,914	$24,912	$0
-19	2.150	2016	$55,639	$25,709	$0
-20	2.219	2017	$57,420	$26,532	$0
		Total	$865,513	$399,926	$0

Costs amortized over 20 year operation life

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

Fritchie Marsh Restoration (PO-6)

Marsh Type: Brackish to Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	2,962	58.04%	1,719	58.04%	1,719	0
1	2,962	57.77%	1,711	56.89%	1,685	26
2	2,962	57.48%	1,702	55.72%	1,650	52
3	2,962	57.19%	1,694	54.56%	1,616	78
4	2,962	56.90%	1,685	53.39%	1,581	104
5	2,962	56.61%	1,677	52.22%	1,547	130
6	2,962	56.33%	1,668	51.06%	1,512	156
7	2,962	56.04%	1,660	49.89%	1,478	182
8	2,962	55.75%	1,651	48.73%	1,443	208
9	2,962	55.46%	1,643	47.56%	1,409	234
10	2,962	55.17%	1,634	46.40%	1,374	260
11	2,962	54.89%	1,626	45.23%	1,340	286
12	2,962	54.60%	1,617	44.07%	1,305	312
13	2,962	54.31%	1,609	42.90%	1,271	338
14	2,962	54.02%	1,600	41.73%	1,236	364
15	2,962	53.74%	1,592	40.57%	1,202	390
16	2,962	53.45%	1,583	39.40%	1,167	416
17	2,962	53.16%	1,575	38.24%	1,133	442
18	2,962	52.87%	1,566	37.07%	1,098	468
19	2,962	52.58%	1,558	35.91%	1,064	494
20	2,962	52.30%	1,549	34.74%	1,029	520
Total Years 1-20			32,600		27,140	
Average Annual Acres			1,630		1,357	273

Costs amortized over 20 year operation life

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

Fritchie Marsh Restoration (PO-6)

Marsh Type: Brackish

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	2,962	58.04%	1,719	58.04%	1,719	0
1	2,962	57.77%	1,711	56.89%	1,685	26
2	2,962	57.48%	1,702	55.72%	1,650	52
3	2,962	57.19%	1,694	54.56%	1,616	78
4	2,962	56.90%	1,685	53.39%	1,581	104
5	2,962	56.61%	1,677	52.22%	1,547	130
6	2,962	56.33%	1,668	51.06%	1,512	156
7	2,962	56.04%	1,660	49.89%	1,478	182
8	2,962	55.75%	1,651	48.73%	1,443	208
9	2,962	55.46%	1,643	47.56%	1,409	234
10	2,962	55.17%	1,634	46.40%	1,374	260
11	2,962	54.89%	1,626	45.23%	1,340	286
12	2,962	54.60%	1,617	44.07%	1,305	312
13	2,962	54.31%	1,609	42.90%	1,271	338
14	2,962	54.02%	1,600	41.73%	1,236	364
15	2,962	53.74%	1,592	40.57%	1,202	390
16	2,962	53.45%	1,583	39.40%	1,167	416
17	2,962	53.16%	1,575	38.24%	1,133	442
18	2,962	52.87%	1,566	37.07%	1,098	468
19	2,962	52.58%	1,558	35.91%	1,064	494
20	2,962	52.30%	1,549	34.74%	1,029	520
Total Years 1-20			32,600		27,140	
Average Annual Acres			1,630		1,357	273

Costs amortized over 20 year operation life

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

Fritchie Marsh Restoration (PO-6)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	5,924	58.04%	3,438	58.04%	3,438	0
1	5,924	57.77%	3,422	56.89%	3,370	52
2	5,924	57.48%	3,405	55.72%	3,301	104
3	5,924	57.19%	3,388	54.56%	3,232	156
4	5,924	56.90%	3,371	53.39%	3,163	208
5	5,924	56.61%	3,354	52.22%	3,094	260
6	5,924	56.33%	3,337	51.06%	3,025	312
7	5,924	56.04%	3,320	49.89%	2,956	364
8	5,924	55.75%	3,303	48.73%	2,887	416
9	5,924	55.46%	3,286	47.56%	2,818	468
10	5,924	55.17%	3,269	46.40%	2,749	520
11	5,924	54.89%	3,251	45.23%	2,679	572
12	5,924	54.60%	3,234	44.07%	2,610	624
13	5,924	54.31%	3,217	42.90%	2,541	676
14	5,924	54.02%	3,200	41.73%	2,472	728
15	5,924	53.74%	3,183	40.57%	2,403	780
16	5,924	53.45%	3,166	39.40%	2,334	832
17	5,924	53.16%	3,149	38.24%	2,265	884
18	5,924	52.87%	3,132	37.07%	2,196	936
19	5,924	52.58%	3,115	35.91%	2,127	988
20	5,924	52.30%	3,098	34.74%	2,058	1,040
Total Years 1-20			65,200		54,280	
Average Annual Acres			3,260		2,714	546

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Vermilion Bay/Boston Canal Shore Protection (TV-9/PTV-18))

Total First Cost	$664,900
Total Fully Funded Cost	$1,008,600

Annual Charges	Present Worth	Average Annual *
Interest & Amortization	$829,500	$87,700
Monitoring	20300	2,200
Q&M cost	57300	6,100
Other Costs	0	
Total	$907,100	$96,000

Average Annual Habitat Units	78
Cost per Habitat Unit	$1,233
Average Annual Acres of Emergent Marsh	199

*Interest rate of 8.5 percent over a 20-year project life

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

Boston Canal/Vermilion Bay Shore Protection (TV-9/PTV-18)

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	1993	$16,000	$30,000	$8,333	$0	$0	$0	$54,333
3 Compound	1994	$24,000	$0	$16,667	$0	$0	$0	$40,667
2 Compound	1995	$0	$0	$16,667	$20,180	$50,450	$201,800	$289,097
1 Compound	1996	$0	$0	$8,333	$20,180	$50,450	$201,800	$280,763
Base Year								
	TOTAL	$40,000	$30,000	$50,000	$40,360	$100,900	$403,600	$664,860

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1997	$2,150	$6,054	$0
2 Discount	1998	$2,150	$6,054	$0
3 Discount	1999	$2,150	$6,054	$0
4 Discount	2000	$2,150	$6,054	$0
5 Discount	2001	$2,150	$6,054	$0
6 Discount	2002	$2,150	$6,054	$0
7 Discount	2003	$2,150	$6,054	$0
8 Discount	2004	$2,150	$6,054	$0
9 Discount	2005	$2,150	$6,054	$0
10 Discount	2006	$2,150	$6,054	$0
11 Discount	2007	$2,150	$6,054	$0
12 Discount	2008	$2,150	$6,054	$0
13 Discount	2009	$2,150	$6,054	$0
14 Discount	2010	$2,150	$6,054	$0
15 Discount	2011	$2,150	$6,054	$0
16 Discount	2012	$2,150	$6,054	$0
17 Discount	2013	$2,150	$6,054	$0
18 Discount	2014	$2,150	$6,054	$0
19 Discount	2015	$2,150	$6,054	$0
20 Discount	2016	$2,150	$6,054	$0
Total		$43,000	$121,080	$0

Costs amortized over 20 year operation life

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

Boston Canal/Vermilion Bay Shore Protection (TV-9/PTV-18)

Present Valued Costs Total Discounted Costs $829,492 Amortized Costs $87,652

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	1993	$22,174	$41,576	$11,549	$0	$0	$0	$75,298
3	1.277	1994	$30,655	$0	$21,288	$0	$0	$0	$51,943
2	1.177	1995	$0	$0	$19,620	$23,756	$59,391	$237,564	$340,332
1	1.085	1996	$0	$0	$9,042	$21,895	$54,738	$218,953	$304,628
		Total	$52,829	$41,576	$61,499	$45,652	$114,129	$456,517	$772,201

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1997	$1,982	$5,580	$0
-2	0.849	1998	$1,826	$5,143	$0
-3	0.783	1999	$1,683	$4,740	$0
-4	0.722	2000	$1,551	$4,368	$0
-5	0.665	2001	$1,430	$4,026	$0
-6	0.613	2002	$1,318	$3,711	$0
-7	0.565	2003	$1,215	$3,420	$0
-8	0.521	2004	$1,119	$3,152	$0
-9	0.480	2005	$1,032	$2,905	$0
-10	0.442	2006	$951	$2,678	$0
-11	0.408	2007	$876	$2,468	$0
-12	0.376	2008	$808	$2,274	$0
-13	0.346	2009	$744	$2,096	$0
-14	0.319	2010	$686	$1,932	$0
-15	0.294	2011	$632	$1,781	$0
-16	0.271	2012	$583	$1,641	$0
-17	0.250	2013	$537	$1,513	$0
-18	0.230	2014	$495	$1,394	$0
-19	0.212	2015	$456	$1,285	$0
-20	0.196	2016	$421	$1,184	$0
		Total	$20,346	$57,291	$0
		Average Annual	$2,150	$6,054	$0

Costs amortized over 20 year operation life

18-Sept-92

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

Boston Canal/Vermilion Bay Shore Protection (TV-9/PTV-18)

Fully Funded Costs Total Fully Funded Costs $1,008,634 Amortized Costs $106,582

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	1.042	1993	$16,672	$31,260	$8,683	$0	$0	$0	$56,615
3	1.075	1994	$25,808	$0	$17,922	$0	$0	$0	$43,731
2	1.110	1995	$0	$0	$18,496	$22,395	$55,987	$223,949	$320,826
1	1.145	1996	$0	$0	$9,544	$23,111	$57,779	$231,115	$321,549
		TOTAL	$42,480	$31,260	$54,646	$45,506	$113,766	$455,063	$742,721

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.182	1997	$2,541	$7,155	$0
-2	1.220	1998	$2,622	$7,384	$0
-3	1.259	1999	$2,706	$7,621	$0
-4	1.299	2000	$2,793	$7,864	$0
-5	1.341	2001	$2,882	$8,116	$0
-6	1.384	2002	$2,975	$8,376	$0
-7	1.428	2003	$3,070	$8,644	$0
-8	1.473	2004	$3,168	$8,920	$0
-9	1.521	2005	$3,269	$9,206	$0
-10	1.569	2006	$3,374	$9,500	$0
-11	1.620	2007	$3,482	$9,805	$0
-12	1.671	2008	$3,593	$10,118	$0
-13	1.725	2009	$3,708	$10,442	$0
-14	1.780	2010	$3,827	$10,776	$0
-15	1.837	2011	$3,949	$11,121	$0
-16	1.896	2012	$4,076	$11,477	$0
-17	1.956	2013	$4,206	$11,844	$0
-18	2.019	2014	$4,341	$12,223	$0
-19	2.084	2015	$4,480	$12,614	$0
-20	2.150	2016	$4,623	$13,018	$0
		Total	$69,687	$196,226	$0

Costs amortized over 20 year operation life

18-Sept-92

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

Boston Canal/Vermilion Bay Shore Protection (TV-9/PTV-18)

Marsh Type: Brackish

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	466	81.12%	378	81.12%	378	0
1	466	81.12%	378	77.04%	359	19
2	466	81.12%	378	72.98%	340	38
3	466	81.12%	378	68.93%	321	57
4	466	81.12%	378	64.87%	302	76
5	466	81.12%	378	60.82%	283	95
6	466	81.12%	378	56.77%	265	113
7	466	81.12%	378	52.71%	246	132
8	466	81.12%	378	48.66%	227	151
9	466	81.12%	378	44.60%	208	170
10	466	81.12%	378	40.55%	189	189
11	466	81.12%	378	36.49%	170	208
12	466	81.12%	378	32.44%	151	227
13	466	81.12%	378	28.38%	132	246
14	466	81.12%	378	24.33%	113	265
15	466	81.12%	378	20.27%	94	284
16	466	81.12%	378	16.22%	76	302
17	466	81.12%	378	12.16%	57	321
18	466	81.12%	378	8.11%	38	340
19	466	81.12%	378	4.05%	19	359
20	466	81.12%	378	0.00%	0	378
Total Years 1-20			7,560		3,590	
Average Annual Acres			378		179	199

Costs amortized over 20 year operation life

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

Boston Canal/Vermilion Bay Shore Protection (TV-9/PTV-18)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	466	81.12%	378	81.12%	378	0
1	466	81.12%	378	77.04%	359	19
2	466	81.12%	378	72.98%	340	38
3	466	81.12%	378	68.93%	321	57
4	466	81.12%	378	64.87%	302	76
5	466	81.12%	378	60.82%	283	95
6	466	81.12%	378	56.77%	265	113
7	466	81.12%	378	52.71%	246	132
8	466	81.12%	378	48.66%	227	151
9	466	81.12%	378	44.60%	208	170
10	466	81.12%	378	40.55%	189	189
11	466	81.12%	378	36.49%	170	208
12	466	81.12%	378	32.44%	151	227
13	466	81.12%	378	28.38%	132	246
14	466	81.12%	378	24.33%	113	265
15	466	81.12%	378	20.27%	94	284
16	466	81.12%	378	16.22%	76	302
17	466	81.12%	378	12.16%	57	321
18	466	81.12%	378	8.11%	38	340
19	466	81.12%	378	4.05%	19	359
20	466	81.12%	378	0.00%	0	378
Total Years 1-20			7,560		3,590	
Average Annual Acres			378		179	199

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Brown Lake Hydrologic Restoration (CS-9)

Total First Cost	$1,740,000
Total Fully Funded Cost	$3,222,800

Annual Charges	Present Worth	Average Annual *
Interest & Amortization	$2,161,400	$228,400
Monitoring	244,900	25,900
O&M cost	129,900	13,700
Other Costs	0	0
Total	$2,536,200	$268,000

Average Annual Habitat Units	121
Cost per Habitat Unit	$2,223
Average Annual Acres of Emergent Marsh	152

*Interest rate of 8.5 percent over a 20-year project life

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

Brown's Lake Hydrologic Restoration (C/S-9)

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	1993	$70,000	$20,000	$22,647	$0	$0	$0	$112,647
3 Compound	1994	$30,000	$0	$38,824	$0	$0	$0	$68,824
2 Compound	1995	$0	$0	$38,824	$91,333	$183,060	$732,238	$1,045,454
1 Compound	1996	$0	$0	$9,706	$45,667	$91,530	$366,119	$513,021
Base Year								
	TOTAL	$100,000	$20,000	$110,000	$137,000	$274,589	$1,098,357	$1,739,946

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1997	$25,875	$13,729	$0
2 Discount	1998	$25,875	$13,729	$0
3 Discount	1999	$25,875	$13,729	$0
4 Discount	2000	$25,875	$13,729	$0
5 Discount	2001	$25,875	$13,729	$0
6 Discount	2002	$25,875	$13,729	$0
7 Discount	2003	$25,875	$13,729	$0
8 Discount	2004	$25,875	$13,729	$0
9 Discount	2005	$25,875	$13,729	$0
10 Discount	2006	$25,875	$13,729	$0
11 Discount	2007	$25,875	$13,729	$0
12 Discount	2008	$25,875	$13,729	$0
13 Discount	2009	$25,875	$13,729	$0
14 Discount	2010	$25,875	$13,729	$0
15 Discount	2011	$25,875	$13,729	$0
16 Discount	2012	$25,875	$13,729	$0
17 Discount	2013	$25,875	$13,729	$0
18 Discount	2014	$25,875	$13,729	$0
19 Discount	2015	$25,875	$13,729	$0
20 Discount	2016	$25,875	$13,729	$0
Total		$517,500	$274,580	$0

Costs amortized over 20 year operation life

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

Brown's Lake Hydrologic Restoration (C/S-9)

Present Valued Costs Total Discounted Costs $2,161,306 Amortized Costs $228,385

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	1993	$97,010	$27,717	$31,386	$0	$0	$0	$156,113
3	1.277	1994	$38,319	$0	$49,589	$0	$0	$0	$87,908
2	1.177	1995	$0	$0	$45,704	$107,520	$215,502	$862,009	$1,230,735
1	1.085	1996	$0	$0	$10,531	$49,548	$99,310	$397,239	$556,628
		Total	$135,329	$27,717	$137,209	$157,068	$314,812	$1,259,248	$2,031,384

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1997	$23,848	$12,653	$0
-2	0.849	1998	$21,980	$11,662	$0
-3	0.783	1999	$20,258	$10,749	$0
-4	0.722	2000	$18,671	$9,906	$0
-5	0.665	2001	$17,208	$9,130	$0
-6	0.613	2002	$15,860	$8,415	$0
-7	0.565	2003	$14,617	$7,756	$0
-8	0.521	2004	$13,472	$7,148	$0
-9	0.480	2005	$12,417	$6,588	$0
-10	0.442	2006	$11,444	$6,072	$0
-11	0.408	2007	$10,548	$5,596	$0
-12	0.376	2008	$9,721	$5,158	$0
-13	0.346	2009	$8,960	$4,754	$0
-14	0.319	2010	$8,258	$4,381	$0
-15	0.294	2011	$7,611	$4,038	$0
-16	0.271	2012	$7,015	$3,722	$0
-17	0.250	2013	$6,465	$3,430	$0
-18	0.230	2014	$5,959	$3,162	$0
-19	0.212	2015	$5,492	$2,914	$0
-20	0.196	2016	$5,062	$2,686	$0
		Total	$244,864	$129,922	$0
		Average Annual	$25,875	$13,729	$0

Costs amortized over 20 year operation life

18-Sept-92

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

Brown's Lake Hydrologic Restoration (C/S-9)

Fully Funded Costs Total Fully Funded Costs $3,222,800 Amortized Costs $340,553

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	1.042	1993	$72,940	$20,840	$23,598	$0	$0	$0	$117,378
3	1.075	1994	$32,260	$0	$41,749	$0	$0	$0	$74,009
2	1.110	1995	$0	$0	$43,085	$101,358	$203,151	$812,605	$1,160,198
1	1.145	1996	$0	$0	$11,116	$52,301	$104,826	$419,304	$587,546
		TOTAL	$105,200	$20,840	$119,547	$153,658	$307,977	$1,231,909	$1,939,132

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.182	1997	$30,582	$16,227	$0
-2	1.220	1998	$31,561	$16,746	$0
-3	1.259	1999	$32,571	$17,282	$0
-4	1.299	2000	$33,613	$17,835	$0
-5	1.341	2001	$34,689	$18,405	$0
-6	1.384	2002	$35,799	$18,994	$0
-7	1.428	2003	$36,944	$19,602	$0
-8	1.473	2004	$38,126	$20,229	$0
-9	1.521	2005	$39,346	$20,877	$0
-10	1.569	2006	$40,605	$21,545	$0
-11	1.620	2007	$41,905	$22,234	$0
-12	1.671	2008	$43,246	$22,946	$0
-13	1.725	2009	$44,630	$23,680	$0
-14	1.780	2010	$46,058	$24,438	$0
-15	1.837	2011	$47,532	$25,220	$0
-16	1.896	2012	$49,053	$26,027	$0
-17	1.956	2013	$50,622	$26,860	$0
-18	2.019	2014	$52,242	$27,719	$0
-19	2.084	2015	$53,914	$28,606	$0
-20	2.150	2016	$55,639	$29,522	$0
		Total	$838,676	$444,992	$0

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Costs amortized over 20 year operation life

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

Brown's Lake Hydrologic Restoration (C/S-9)

Marsh Type: Brackish

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	2,794	15.00%	419	15.00%	419	0
1	2,794	15.00%	419	14.85%	415	4
2	2,794	15.52%	434	14.69%	411	23
3	2,794	16.05%	449	14.53%	406	43
4	2,794	16.58%	463	14.37%	402	62
5	2,794	17.11%	478	14.21%	397	81
6	2,794	17.43%	487	14.05%	393	94
7	2,794	17.75%	496	13.89%	388	108
8	2,794	18.07%	505	13.73%	384	121
9	2,794	18.39%	514	13.57%	379	135
10	2,794	18.71%	523	13.41%	375	148
11	2,794	19.03%	532	13.25%	370	161
12	2,794	19.35%	541	13.09%	366	175
13	2,794	19.67%	549	12.93%	361	188
14	2,794	19.99%	558	12.77%	357	202
15	2,794	20.31%	567	12.61%	352	215
16	2,794	20.63%	576	12.45%	348	228
17	2,794	20.94%	585	12.29%	343	242
18	2,794	21.26%	594	12.13%	339	255
19	2,794	21.58%	603	11.97%	334	269
20	2,794	21.90%	612	11.81%	330	282
Total Years 1-20			10,485		7,449	
Average Annual Acres			524		372	152

Costs amortized over 20 year operation life

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

Brown's Lake Hydrologic Restoration (C/S-9)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	2,794	15.00%	419	15.00%	419	0
1	2,794	15.00%	419	14.85%	415	4
2	2,794	15.52%	434	14.69%	411	23
3	2,794	16.05%	449	14.53%	406	43
4	2,794	16.58%	463	14.37%	402	62
5	2,794	17.11%	478	14.21%	397	81
6	2,794	17.43%	487	14.05%	393	94
7	2,794	17.75%	496	13.89%	388	108
8	2,794	18.07%	505	13.73%	384	121
9	2,794	18.39%	514	13.57%	379	135
10	2,794	18.71%	523	13.41%	375	148
11	2,794	19.03%	532	13.25%	370	161
12	2,794	19.35%	541	13.09%	366	175
13	2,794	19.67%	549	12.93%	361	188
14	2,794	19.99%	558	12.77%	357	202
15	2,794	20.31%	567	12.61%	352	215
16	2,794	20.63%	576	12.45%	348	228
17	2,794	20.94%	585	12.29%	343	242
18	2,794	21.26%	594	12.13%	339	255
19	2,794	21.58%	603	11.97%	334	269
20	2,794	21.90%	612	11.81%	330	282
Total Years 1-20			10,485		7,449	
Average Annual Acres			524		372	152

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

West Belle Pass Headland Restoration (PTE-27)

Total First Cost	$4,187,400
Total Fully Funded Cost	$4,854,100

Annual Charges	Present Worth	Average Annual*
Interest & Amortization	$4638,200	$490,100
Monitoring	40,900	4,300
O&M cost	71,000	
Other Costs	0	0
Total	S4,750,100	$501,900

Average Annual Habitat Units	216
Cost per Habitat Unit	$2,325
Average Annual Acres of Emergent Marsh	336

*Interest rate of 8.5 percent over a 20-year project life

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

West Belle Pass Restoration (PTE-27)

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	1993	$85,714	$121,000	$52,533	$0	$0	$0	$259,248
1 Compound	1994	$64,286	$0	$144,467	$235,000	$696,875	$2,787,500	$3,928,127
Base Year								
TOTAL		$150,000	$121,000	$197,000	$235,000	$696,875	$2,787,500	$4,187,375

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1995	$4,325	$7,500	$0
2 Discount	1996	$4,325	$7,500	$0
3 Discount	1997	$4,325	$7,500	$0
4 Discount	1998	$4,325	$7,500	$0
5 Discount	1999	$4,325	$7,500	$0
6 Discount	2000	$4,325	$7,500	$0
7 Discount	2001	$4,325	$7,500	$0
8 Discount	2002	$4,325	$7,500	$0
9 Discount	2003	$4,325	$7,500	$0
10 Discount	2004	$4,325	$7,500	$0
11 Discount	2005	$4,325	$7,500	$0
12 Discount	2006	$4,325	$7,500	$0
13 Discount	2007	$4,325	$7,500	$0
14 Discount	2008	$4,325	$7,500	$0
15 Discount	2009	$4,325	$7,500	$0
16 Discount	2010	$4,325	$7,500	$0
17 Discount	2011	$4,325	$7,500	$0
18 Discount	2012	$4,325	$7,500	$0
19 Discount	2013	$4,325	$7,500	$0
20 Discount	2014	$4,325	$7,500	$0
Total		$86,500	$150,000	$0

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Costs amortized over 20 year operation life

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

West Belle Pass Restoration (PTE-27)

Present Valued Costs Total Discounted Costs $4,638,186 Amortized Costs $490,117

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	0	$0	$0	$0	$0	$0	$0	$0
2	1.177	1993	$100,905	$142,444	$61,844	$0	$0	$0	$305,193
1	1.085	1994	$69,750	$0	$156,746	$254,975	$756,109	$3,024,438	$4,262,018
		Total	$170,655	$142,444	$218,590	$254,975	$756,109	$3,024,438	$4,567,211

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1995	$3,986	$6,912	$0
-2	0.849	1996	$3,674	$6,371	$0
-3	0.783	1997	$3,386	$5,872	$0
-4	0.722	1998	$3,121	$5,412	$0
-5	0.665	1999	$2,876	$4,988	$0
-6	0.613	2000	$2,651	$4,597	$0
-7	0.565	2001	$2,443	$4,237	$0
-8	0.521	2002	$2,252	$3,905	$0
-9	0.480	2003	$2,075	$3,599	$0
-10	0.442	2004	$1,913	$3,317	$0
-11	0.408	2005	$1,763	$3,057	$0
-12	0.376	2006	$1,625	$2,818	$0
-13	0.346	2007	$1,498	$2,597	$0
-14	0.319	2008	$1,380	$2,394	$0
-15	0.294	2009	$1,272	$2,206	$0
-16	0.271	2010	$1,172	$2,033	$0
-17	0.250	2011	$1,081	$1,874	$0
-18	0.230	2012	$996	$1,727	$0
-19	0.212	2013	$918	$1,592	$0
-20	0.196	2014	$846	$1,467	$0
		Total	$40,929	$70,975	$0
		Average Annual	$4,325	$7,500	$0

Costs amortized over 20 year operation life

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

West Belle Pass Restoration (PTE-27)

Fully Funded Costs Total Fully Funded Costs $4,854,102 Amortized Costs $512,933

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	1.042	1993	$89,314	$126,082	$54,740	$0	$0	$0	$270,136
1	1.075	1994	$69,129	$0	$155,351	$252,706	$749,380	$2,997,521	$4,224,088
		TOTAL	$158,444	$126,082	$210,091	$252,706	$749,380	$2,997,521	$4,494,224

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.110	1995	$4,800	$8,323	$0
-2	1.145	1996	$4,953	$8,590	$0
-3	1.182	1997	$5,112	$8,864	$0
-4	1.220	1998	$5,275	$9,148	$0
-5	1.259	1999	$5,444	$9,441	$0
-6	1.299	2000	$5,618	$9,743	$0
-7	1.341	2001	$5,798	$10,055	$0
-8	1.384	2002	$5,984	$10,376	$0
-9	1.428	2003	$6,175	$10,708	$0
-10	1.473	2004	$6,373	$11,051	$0
-11	1.521	2005	$6,577	$11,405	$0
-12	1.569	2006	$6,787	$11,770	$0
-13	1.620	2007	$7,004	$12,146	$0
-14	1.671	2008	$7,229	$12,535	$0
-15	1.725	2009	$7,460	$12,936	$0
-16	1.780	2010	$7,699	$13,350	$0
-17	1.837	2011	$7,945	$13,777	$0
-18	1.896	2012	$8,199	$14,218	$0
-19	1.956	2013	$8,462	$14,673	$0
-20	2.019	2014	$8,732	$15,143	$0
		Total	$131,626	$228,252	$0

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Costs amortized over 20 year operation life

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

West Belle Pass Restoration (PTE-27)

Marsh Type: Saline

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	2,459	65.07%	1,600	65.07%	1,600	0
1	2,459	72.22%	1,776	64.09%	1,576	200
2	2,459	71.84%	1,767	63.12%	1,552	214
3	2,459	71.45%	1,757	62.16%	1,528	229
4	2,459	71.07%	1,748	61.19%	1,505	243
5	2,459	70.68%	1,738	60.22%	1,481	257
6	2,459	70.30%	1,729	59.25%	1,457	272
7	2,459	69.91%	1,719	58.29%	1,433	286
8	2,459	69.53%	1,710	57.32%	1,409	300
9	2,459	69.14%	1,700	56.35%	1,386	315
10	2,459	68.76%	1,691	55.38%	1,362	329
11	2,459	68.37%	1,681	54.42%	1,338	343
12	2,459	67.99%	1,672	53.45%	1,314	357
13	2,459	67.60%	1,662	52.48%	1,291	372
14	2,459	67.22%	1,653	51.51%	1,267	386
15	2,459	66.83%	1,643	50.55%	1,243	400
16	2,459	66.45%	1,634	49.58%	1,219	415
17	2,459	66.06%	1,624	48.61%	1,195	429
18	2,459	65.67%	1,615	47.64%	1,172	443
19	2,459	65.29%	1,605	46.68%	1,148	458
20	2,459	64.90%	1,596	45.71%	1,124	472
Total Years 1-20			33,720		27,000	
Average Annual Acres			1,686		1,350	336

Costs amortized over 20 year operation life

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

West Belle Pass Restoration (PTE-27)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	2,459	65.07%	1,600	65.07%	1,600	0
1	2,459	72.22%	1,776	64.09%	1,576	200
2	2,459	71.84%	1,767	63.12%	1,552	214
3	2,459	71.45%	1,757	62.16%	1,528	229
4	2,459	71.07%	1,748	61.19%	1,505	243
5	2,459	70.68%	1,738	60.22%	1,481	257
6	2,459	70.30%	1,729	59.25%	1,457	272
7	2,459	69.91%	1,719	58.29%	1,433	286
8	2,459	69.53%	1,710	57.32%	1,409	300
9	2,459	69.14%	1,700	56.35%	1,386	315
10	2,459	68.76%	1,691	55.38%	1,362	329
11	2,459	68.37%	1,681	54.42%	1,338	343
12	2,459	67.99%	1,672	53.45%	1,314	357
13	2,459	67.60%	1,662	52.48%	1,291	372
14	2,459	67.22%	1,653	51.51%	1,267	386
15	2,459	66.83%	1,643	50.55%	1,243	400
16	2,459	66.45%	1,634	49.58%	1,219	415
17	2,459	66.06%	1,624	48.61%	1,195	429
18	2,459	65.67%	1,615	47.64%	1,172	443
19	2,459	65.29%	1,605	46.68%	1,148	458
20	2,459	64.90%	1,596	45.71%	1,124	472
Total Years 1-20			33,720		27,000	
Average Annual Acres			1,686		1,350	336

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and R storation Act
2nd Priority Project List

Barrier Island Restoration, Isle Dernieres, Phase 1 (XTE-41)

Total First Cost	$6,339,400
Total Fully Funded Cost	$6,907,900

Annual Charges	Present Worth	Average Annual *
Interest & Amortization	$6,991,100	$738,800
Monitoring	10,900	4,300
O&M cost	0	0
Other Costs	0	0 00
Total	$7,032,000	$743,100

Average Annual Habitat Units	120
Cost per Habitat Unit	$6,195
AverageA Annual Acres of Emergent Marsh	

*Interest rate of 8.5 percent over a 20-year project life

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

Isle Deniers Island Phase I (XTE-41)

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	1993	$266,365	$6,000	$114,741	$37,195	$38,052	$761,035	$1,223,387
1 Compound	1994	$0	$0	$98,349	$223,170	$228,310	$4,566,209	$5,116,039
Base Year								
TOTAL		$266,365	$6,000	$213,090	$260,365	$266,362	$5,327,244	$6,339,426

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1995	$4,325	$0	$0
2 Discount	1996	$4,325	$0	$0
3 Discount	1997	$4,325	$0	$0
4 Discount	1998	$4,325	$0	$0
5 Discount	1999	$4,325	$0	$0
6 Discount	2000	$4,325	$0	$0
7 Discount	2001	$4,325	$0	$0
8 Discount	2002	$4,325	$0	$0
9 Discount	2003	$4,325	$0	$0
10 Discount	2004	$4,325	$0	$0
11 Discount	2005	$4,325	$0	$0
12 Discount	2006	$4,325	$0	$0
13 Discount	2007	$4,325	$0	$0
14 Discount	2008	$4,325	$0	$0
15 Discount	2009	$4,325	$0	$0
16 Discount	2010	$4,325	$0	$0
17 Discount	2011	$4,325	$0	$0
18 Discount	2012	$4,325	$0	$0
19 Discount	2013	$4,325	$0	$0
20 Discount	2014	$4,325	$0	$0
Total		$86,500	$0	$0

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Costs amortized over 20 year operation life

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

Isle Deniers Island Phase I (XTE-41)

Present Valued Costs Total Discounted Costs $6,991,104 Amortized Costs $738,750

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	0	$0	$0	$0	$0	$0	$0	$0
2	1.177	1993	$313,572	$7,063	$135,076	$43,787	$44,795	$895,909	$1,440,202
1	1.085	1994	$0	$0	$106,709	$242,139	$247,717	$4,954,337	$5,550,902
		Total	$313,572	$7,063	$241,785	$285,926	$292,512	$5,850,246	$6,991,104

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1995	$3,986	$0	$0
-2	0.849	1996	$3,674	$0	$0
-3	0.783	1997	$3,386	$0	$0
-4	0.722	1998	$3,121	$0	$0
-5	0.665	1999	$2,876	$0	$0
-6	0.613	2000	$2,651	$0	$0
-7	0.565	2001	$2,443	$0	$0
-8	0.521	2002	$2,252	$0	$0
-9	0.480	2003	$2,075	$0	$0
-10	0.442	2004	$1,913	$0	$0
-11	0.408	2005	$1,763	$0	$0
-12	0.376	2006	$1,625	$0	$0
-13	0.346	2007	$1,498	$0	$0
-14	0.319	2008	$1,380	$0	$0
-15	0.294	2009	$1,272	$0	$0
-16	0.271	2010	$1,172	$0	$0
-17	0.250	2011	$1,081	$0	$0
-18	0.230	2012	$996	$0	$0
-19	0.212	2013	$918	$0	$0
-20	0.196	2014	$846	$0	$0
		Total	$40,929	$0	$0
		Average Annual	$4,325	$0	$0

Costs amortized over 20 year operation life

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

Isle Denlers Island Phase I (XTE-41)

Fully Funded Costs Total Fully Funded Costs $6,907,897 Amortized Costs $729,957

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	1.042	1993	$277,552	$6,252	$119,560	$38,757	$39,650	$792,998	$1,274,770
1	1.075	1994	$0	$0	$105,759	$239,985	$245,512	$4,910,246	$5,501,502
		TOTAL	$277,552	$6,252	$225,319	$278,742	$285,162	$5,703,244	$6,776,271

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.110	1995	$4,800	$0	$0
-2	1.145	1996	$4,953	$0	$0
-3	1.182	1997	$5,112	$0	$0
-4	1.220	1998	$5,275	$0	$0
-5	1.259	1999	$5,444	$0	$0
-6	1.299	2000	$5,618	$0	$0
-7	1.341	2001	$5,798	$0	$0
-8	1.384	2002	$5,984	$0	$0
-9	1.428	2003	$6,175	$0	$0
-10	1.473	2004	$6,373	$0	$0
-11	1.521	2005	$6,577	$0	$0
-12	1.569	2006	$6,787	$0	$0
-13	1.620	2007	$7,004	$0	$0
-14	1.671	2008	$7,229	$0	$0
-15	1.725	2009	$7,460	$0	$0
-16	1.780	2010	$7,699	$0	$0
-17	1.837	2011	$7,945	$0	$0
-18	1.896	2012	$8,199	$0	$0
-19	1.956	2013	$8,462	$0	$0
-20	2.019	2014	$8,732	$0	$0
		Total	$131,626	$0	$0

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Costs amortized over 20 year operation life

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

Isle Deniers Island Phase I (XTE-41)

Marsh Type: Saline (Phase I)

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	776	24.87%	193	24.87%	193	0
1	776	31.19%	242	23.07%	179	63
2	776	30.80%	239	21.26%	165	74
3	776	30.41%	236	19.46%	151	85
4	776	30.03%	233	17.65%	137	96
5	776	29.64%	230	15.85%	123	107
6	776	29.25%	227	14.05%	109	118
7	776	28.87%	224	12.24%	95	129
8	776	28.48%	221	10.44%	81	140
9	776	28.09%	218	8.63%	67	151
10	776	27.71%	215	6.83%	53	162
11	776	27.32%	212	5.03%	39	173
12	776	25.86%	201	3.35%	26	175
13	776	24.40%	189	1.68%	13	176
14	776	22.94%	178	0.00%	0	178
15	776	21.46%	167	0.00%	0	167
16	776	19.97%	155	0.00%	0	155
17	776	18.49%	144	0.00%	0	144
18	776	17.01%	132	0.00%	0	132
19	776	15.53%	121	0.00%	0	121
20	776	14.05%	109	0.00%	0	109
Total Years 1-20			3,892		1,238	
Average Annual Acres			195		62	133

Costs amortized over 20 year operation life

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

Isle Deniers Island Phase I (XTE-41)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	776	24.87%	193	24.87%	193	0
1	776	31.19%	242	23.07%	179	63
2	776	30.80%	239	21.26%	165	74
3	776	30.41%	236	19.46%	151	85
4	776	30.03%	233	17.65%	137	96
5	776	29.64%	230	15.85%	123	107
6	776	29.25%	227	14.05%	109	118
7	776	28.87%	224	12.24%	95	129
8	776	28.48%	221	10.44%	81	140
9	776	28.09%	218	8.63%	67	151
10	776	27.71%	215	6.83%	53	162
11	776	27.32%	212	5.03%	39	173
12	776	25.86%	201	3.35%	26	175
13	776	24.40%	189	1.68%	13	176
14	776	22.94%	178	0.00%	0	178
15	776	21.46%	167	0.00%	0	167
16	776	19.97%	155	0.00%	0	155
17	776	18.49%	144	0.00%	0	144
18	776	17.01%	132	0.00%	0	132
19	776	15.53%	121	0.00%	0	121
20	776	14.05%	109	0.00%	0	109
Total Years 1-20			3,892		1,238	
Average Annual Acres			195		62	133

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Humble Canal Structure (PME-15)

Total First Cost	$270,500
Total Fully Funded Cost	$650,300

Annual Charges	Present Worth	Average Annual *
Interest & Amortization	$358,000	$37,800
Monitoring	65,300	6,900
O&M Cost	42,600	4,500
0 ther Costs	0	
Total	$465,900	

Average Annual Habitat Units	674
Cost per Habitat Unit	$73
Average Annual Acres of Emergent Marsh	383

*Interest rate of 8.5 percent over a 20-year project life

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

Humble Canal (PME-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	$0	$0	$0
4 Compound		$0	$0	$0	$0	$0	$0	$0
3 Compound	1993	$19,444	$15,000	$8,909	$0	$0	$0	$43,354
2 Compound	1994	$5,556	$0	$15,273	$9,375	$23,438	$93,750	$147,391
1 Compound	1995	$0	$0	$3,818	$5,625	$14,063	$56,250	$79,756
Base Year								
TOTAL		$25,000	$15,000	$28,000	$15,000	$37,500	$150,000	$270,500

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1996	$6,901	$4,500	$0
2 Discount	1997	$6,901	$4,500	$0
3 Discount	1998	$6,901	$4,500	$0
4 Discount	1999	$6,901	$4,500	$0
5 Discount	2000	$6,901	$4,500	$0
6 Discount	2001	$6,901	$4,500	$0
7 Discount	2002	$6,901	$4,500	$0
8 Discount	2003	$6,901	$4,500	$0
9 Discount	2004	$6,901	$4,500	$0
10 Discount	2005	$6,901	$4,500	$0
11 Discount	2006	$6,901	$4,500	$0
12 Discount	2007	$6,901	$4,500	$0
13 Discount	2008	$6,901	$4,500	$0
14 Discount	2009	$6,901	$4,500	$0
15 Discount	2010	$6,901	$4,500	$0
16 Discount	2011	$6,901	$4,500	$0
17 Discount	2012	$6,901	$4,500	$0
18 Discount	2013	$6,901	$4,500	$0
19 Discount	2014	$6,901	$4,500	$0
20 Discount	2015	$6,901	$4,500	$0
Total		$138,029	$90,000	$0

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Costs amortized over 20 year operation life

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

Humble Canal (PME-15)

Present Valued Costs Total Discounted Costs $358,007 Amortized Costs $37,831

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	1993	$24,836	$19,159	$11,379	$0	$0	$0	$55,375
2	1.177	1994	$6,540	$0	$17,979	$11,036	$27,591	$110,365	$173,512
1	1.085	1995	$0	$0	$4,143	$6,103	$15,258	$61,031	$86,535
		Total	$31,376	$19,159	$33,502	$17,140	$42,849	$171,396	$315,422

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1996	$6,361	$4,147	$0
-2	0.849	1997	$5,862	$3,823	$0
-3	0.783	1998	$5,403	$3,523	$0
-4	0.722	1999	$4,980	$3,247	$0
-5	0.665	2000	$4,590	$2,993	$0
-6	0.613	2001	$4,230	$2,758	$0
-7	0.565	2002	$3,899	$2,542	$0
-8	0.521	2003	$3,593	$2,343	$0
-9	0.480	2004	$3,312	$2,159	$0
-10	0.442	2005	$3,052	$1,990	$0
-11	0.408	2006	$2,813	$1,834	$0
-12	0.376	2007	$2,593	$1,691	$0
-13	0.346	2008	$2,390	$1,558	$0
-14	0.319	2009	$2,203	$1,436	$0
-15	0.294	2010	$2,030	$1,324	$0
-16	0.271	2011	$1,871	$1,220	$0
-17	0.250	2012	$1,724	$1,124	$0
-18	0.230	2013	$1,589	$1,036	$0
-19	0.212	2014	$1,465	$955	$0
-20	0.196	2015	$1,350	$880	$0
		Total	$65,311	$42,585	$0
		Average Annual	$6,901	$4,500	$0

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Costs amortized over 20 year operation life

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

Humble Canal (PME-15)

Fully Funded Costs | **Total Fully Funded Costs** $650,270 | **Amortized Costs** $68,714

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	1.042	1993	$20,261	$15,630	$9,283	$0	$0	$0	$45,174
2	1.075	1994	$5,974	$0	$16,423	$10,081	$25,203	$100,814	$158,496
1	1.110	1995	$0	$0	$4,237	$6,242	$15,606	$62,424	$88,509
		TOTAL	$26,235	$15,630	$29,944	$16,324	$40,809	$163,237	$292,179

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.145	1996	$7,904	$5,154	$0
-2	1.182	1997	$8,157	$5,319	$0
-3	1.220	1998	$8,418	$5,489	$0
-4	1.259	1999	$8,687	$5,664	$0
-5	1.299	2000	$8,965	$5,846	$0
-6	1.341	2001	$9,252	$6,033	$0
-7	1.384	2002	$9,548	$6,226	$0
-8	1.428	2003	$9,854	$6,425	$0
-9	1.473	2004	$10,169	$6,631	$0
-10	1.521	2005	$10,495	$6,843	$0
-11	1.569	2006	$10,830	$7,062	$0
-12	1.620	2007	$11,177	$7,288	$0
-13	1.671	2008	$11,535	$7,521	$0
-14	1.725	2009	$11,904	$7,762	$0
-15	1.780	2010	$12,285	$8,010	$0
-16	1.837	2011	$12,678	$8,266	$0
-17	1.896	2012	$13,083	$8,531	$0
-18	1.956	2013	$13,502	$8,804	$0
-19	2.019	2014	$13,934	$9,086	$0
-20	2.084	2015	$14,380	$9,376	$0
		Total	$216,757	$141,334	$0

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Costs amortized over 20 year operation life

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

Humble Canal (PME-15)

Marsh Type: Fresh/Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	5,500	76.64%	4,215	76.64%	4,215	0
1	5,500	74.93%	4,121	74.93%	4,121	0
2	5,500	74.85%	4,117	74.85%	4,117	0
3	5,500	74.77%	4,112	74.77%	4,112	0
4	5,500	74.68%	4,108	74.68%	4,108	0
5	5,500	74.60%	4,103	74.60%	4,103	0
6	5,500	74.52%	4,099	74.52%	4,099	0
7	5,500	74.44%	4,094	74.44%	4,094	0
8	5,500	74.36%	4,090	74.36%	4,090	0
9	5,500	74.28%	4,085	74.28%	4,085	0
10	5,500	74.20%	4,081	74.20%	4,081	0
11	5,500	74.13%	4,077	71.60%	3,938	139
12	5,500	74.07%	4,074	69.01%	3,795	278
13	5,500	74.00%	4,070	66.41%	3,653	418
14	5,500	73.94%	4,067	63.81%	3,510	557
15	5,500	73.87%	4,063	61.22%	3,367	696
16	5,500	73.81%	4,059	58.62%	3,224	835
17	5,500	73.74%	4,056	56.03%	3,081	974
18	5,500	73.68%	4,052	53.43%	2,939	1,114
19	5,500	73.61%	4,049	50.83%	2,796	1,253
20	5,500	73.55%	4,045	48.24%	2,653	1,392
Total Years 1-20			81,622		73,966	
Average Annual Acres			4,081		3,698	383

Costs amortized over 20 year operation life

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

Humble Canal (PME-15)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	5,500	76.64%	4,215	76.64%	4,215	0
1	5,500	74.93%	4,121	74.93%	4,121	0
2	5,500	74.85%	4,117	74.85%	4,117	0
3	5,500	74.77%	4,112	74.77%	4,112	0
4	5,500	74.68%	4,108	74.68%	4,108	0
5	5,500	74.60%	4,103	74.60%	4,103	0
6	5,500	74.52%	4,099	74.52%	4,099	0
7	5,500	74.44%	4,094	74.44%	4,094	0
8	5,500	74.36%	4,090	74.36%	4,090	0
9	5,500	74.28%	4,085	74.28%	4,085	0
10	5,500	74.20%	4,081	74.20%	4,081	0
11	5,500	74.13%	4,077	71.60%	3,938	139
12	5,500	74.07%	4,074	69.01%	3,795	278
13	5,500	74.00%	4,070	66.41%	3,653	418
14	5,500	73.94%	4,067	63.81%	3,510	557
15	5,500	73.87%	4,063	61.22%	3,367	696
16	5,500	73.81%	4,059	58.62%	3,224	835
17	5,500	73.74%	4,056	56.03%	3,081	974
18	5,500	73.68%	4,052	53.43%	2,939	1,114
19	5,500	73.61%	4,049	50.83%	2,796	1,253
20	5,500	73.55%	4,045	48.24%	2,653	1,392
Total Years 1-20			81,622		73,966	
Average Annual Acres			4,081		3,698	383

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Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Highway 90 to GIWW Hydrologic Restoration (BA-6)

Total First Cost	$2,239,400
Total Fully Funded Cost	$3,924,600

Annual Charges	Present Worth	Average Annual*
Interest & Amortization	$2,710,200	$286,400
Monitoring	244,900	25,900
O&M cost	197,900	20,900
Other Costs	0	
Total	$3,153,000	$333,200

Average Annual Habitat Units	1,562
Cost per Habitat Unit	$213
Average Annual Acres of Emergent Marsh	1,271

*Interest rate of 85 percent over a 20-year project life

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

Highway 90 to GIWW (BA-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	1993	$91,200	$30,000	$33,871	$0	$0	$0	$155,071
2 Compound	1994	$60,800	$0	$67,742	$32,808	$82,021	$328,085	$571,456
1 Compound	1995	$0	$0	$73,387	$106,628	$266,569	$1,066,275	$1,512,859
Base Year								
	TOTAL	$152,000	$30,000	$175,000	$139,436	$348,590	$1,394,360	$2,239,386

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1996	$25,875	$20,915	$0
2 Discount	1997	$25,875	$20,915	$0
3 Discount	1998	$25,875	$20,915	$0
4 Discount	1999	$25,875	$20,915	$0
5 Discount	2000	$25,875	$20,915	$0
6 Discount	2001	$25,875	$20,915	$0
7 Discount	2002	$25,875	$20,915	$0
8 Discount	2003	$25,875	$20,915	$0
9 Discount	2004	$25,875	$20,915	$0
10 Discount	2005	$25,875	$20,915	$0
11 Discount	2006	$25,875	$20,915	$0
12 Discount	2007	$25,875	$20,915	$0
13 Discount	2008	$25,875	$20,915	$0
14 Discount	2009	$25,875	$20,915	$0
15 Discount	2010	$25,875	$20,915	$0
16 Discount	2011	$25,875	$20,915	$0
17 Discount	2012	$25,875	$20,915	$0
18 Discount	2013	$25,875	$20,915	$0
19 Discount	2014	$25,875	$20,915	$0
20 Discount	2015	$25,875	$20,915	$0
	Total	$517,500	$418,300	$0

Costs amortized over 20 year operation life

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

Highway 90 to GIWW (BA-6)

Present Valued Costs Total Discounted Costs $2,710,181 Amortized Costs $286,385

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	1993	$116,489	$38,319	$43,263	$0	$0	$0	$198,070
2	1.177	1994	$71,575	$0	$79,748	$38,623	$96,557	$386,230	$672,733
1	1.085	1995	$0	$0	$79,625	$115,691	$289,227	$1,156,909	$1,641,452
		Total	$188,064	$38,319	$202,636	$154,314	$385,785	$1,543,138	$2,512,255

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1996	$23,848	$19,276	$0
-2	0.849	1997	$21,980	$17,766	$0
-3	0.783	1998	$20,258	$16,375	$0
-4	0.722	1999	$18,671	$15,092	$0
-5	0.665	2000	$17,208	$13,909	$0
-6	0.613	2001	$15,860	$12,820	$0
-7	0.565	2002	$14,617	$11,815	$0
-8	0.521	2003	$13,472	$10,890	$0
-9	0.480	2004	$12,417	$10,037	$0
-10	0.442	2005	$11,444	$9,250	$0
-11	0.408	2006	$10,548	$8,526	$0
-12	0.376	2007	$9,721	$7,858	$0
-13	0.346	2008	$8,960	$7,242	$0
-14	0.319	2009	$8,258	$6,675	$0
-15	0.294	2010	$7,611	$6,152	$0
-16	0.271	2011	$7,015	$5,670	$0
-17	0.250	2012	$6,465	$5,226	$0
-18	0.230	2013	$5,959	$4,816	$0
-19	0.212	2014	$5,492	$4,439	$0
-20	0.196	2015	$5,062	$4,091	$0
		Total	$244,864	$197,926	$0
		Average Annual	$25,875	$20,915	$0

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Costs amortized over 20 year operation life

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

Highway 90 to GIWW (BA-6)

Fully Funded Costs Total Fully Funded Costs $3,924,557 Amortized Costs $414,708

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	1.042	1993	$95,030	$31,260	$35,294	$0	$0	$0	$161,584
2	1.075	1994	$65,381	$0	$72,846	$35,280	$88,201	$352,804	$614,512
1	1.110	1995	$0	$0	$81,442	$118,330	$295,826	$1,183,304	$1,678,903
		TOTAL	$160,411	$31,260	$189,581	$153,611	$384,027	$1,536,108	$2,454,999

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.145	1996	$29,634	$23,953	$0
-2	1.182	1997	$30,582	$24,720	$0
-3	1.220	1998	$31,561	$25,511	$0
-4	1.259	1999	$32,571	$26,327	$0
-5	1.299	2000	$33,613	$27,170	$0
-6	1.341	2001	$34,689	$28,039	$0
-7	1.384	2002	$35,799	$28,936	$0
-8	1.428	2003	$36,944	$29,862	$0
-9	1.473	2004	$38,126	$30,818	$0
-10	1.521	2005	$39,346	$31,804	$0
-11	1.569	2006	$40,605	$32,822	$0
-12	1.620	2007	$41,905	$33,872	$0
-13	1.671	2008	$43,246	$34,956	$0
-14	1.725	2009	$44,630	$36,075	$0
-15	1.780	2010	$46,058	$37,229	$0
-16	1.837	2011	$47,532	$38,420	$0
-17	1.896	2012	$49,053	$39,650	$0
-18	1.956	2013	$50,622	$40,918	$0
-19	2.019	2014	$52,242	$42,228	$0
-20	2.084	2015	$53,914	$43,579	$0
		Total	$812,670	$656,889	$0

Costs amortized over 20 year operation life

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

Highway 90 to GIWW (BA-6)

Marsh Type: Fresh/Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	56,974	94.03%	53,574	94.03%	53,574	0
1	56,974	93.96%	53,534	93.75%	53,413	121
2	56,974	93.89%	53,494	93.47%	53,252	242
3	56,974	93.82%	53,454	93.18%	53,091	363
4	56,974	93.75%	53,414	92.90%	52,930	484
5	56,974	93.68%	53,374	92.62%	52,769	605
6	56,974	93.61%	53,334	92.34%	52,608	726
7	56,974	93.54%	53,294	92.05%	52,447	847
8	56,974	93.47%	53,254	91.77%	52,286	968
9	56,974	93.40%	53,214	91.49%	52,125	1,089
10	56,974	93.33%	53,174	91.21%	51,964	1,210
11	56,974	93.26%	53,134	90.92%	51,803	1,331
12	56,974	93.19%	53,094	90.64%	51,642	1,452
13	56,974	93.12%	53,054	90.36%	51,481	1,573
14	56,974	93.05%	53,014	90.08%	51,320	1,694
15	56,974	92.98%	52,974	89.79%	51,159	1,815
16	56,974	92.91%	52,934	89.51%	50,998	1,936
17	56,974	92.84%	52,894	89.23%	50,837	2,057
18	56,974	92.77%	52,854	88.95%	50,676	2,178
19	56,974	92.70%	52,814	88.66%	50,515	2,299
20	56,974	92.63%	52,774	88.38%	50,354	2,420
Total Years 1-20			1,063,080		1,037,670	
Average Annual Acres			53,154		51,884	1,271

Costs amortized over 20 year operation life

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

Highway 90 to GIWW (BA-6)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	56,974	94.03%	53,574	94.03%	53,574	0
1	56,974	93.96%	53,534	93.75%	53,413	121
2	56,974	93.89%	53,494	93.47%	53,252	242
3	56,974	93.82%	53,454	93.18%	53,091	363
4	56,974	93.75%	53,414	92.90%	52,930	484
5	56,974	93.68%	53,374	92.62%	52,769	605
6	56,974	93.61%	53,334	92.34%	52,608	726
7	56,974	93.54%	53,294	92.05%	52,447	847
8	56,974	93.47%	53,254	91.77%	52,286	968
9	56,974	93.40%	53,214	91.49%	52,125	1,089
10	56,974	93.33%	53,174	91.21%	51,964	1,210
11	56,974	93.26%	53,134	90.92%	51,803	1,331
12	56,974	93.19%	53,094	90.64%	51,642	1,452
13	56,974	93.12%	53,054	90.36%	51,481	1,573
14	56,974	93.05%	53,014	90.08%	51,320	1,694
15	56,974	92.98%	52,974	89.79%	51,159	1,815
16	56,974	92.91%	52,934	89.51%	50,998	1,936
17	56,974	92.84%	52,894	89.23%	50,837	2,057
18	56,974	92.77%	52,854	88.95%	50,676	2,178
19	56,974	92.70%	52,814	88.66%	50,515	2,299
20	56,974	92.63%	52,774	88.38%	50,354	2,420
Total Years 1-20			1,063,080		1,037,670	
Average Annual Acres			53,154		51,884	1,271

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Sawmill Canal/Little Pecan Bayou Water Control Structures (PME-14)

Total First Cost	$435,600
Total Fully Funded Cost	$1,018,900

Annual Charges	Present Worth	Average Annual*
Interest & Amortization	$576,900	$61,000
Monitoring	102,300	10,800
cost	63,500	6,700
Other Costs	0	0
Total	$742,700	$78,500

Average Annual Habitat Units	166
Cost per Habitat Unit	$473
Average Annual Acres of Emergent Marsh	196

*Interest rate of 8.5 percent over a 20-year project life

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

Sawmill Canal/Little Pecan Bayou (PME-14)

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	1993	$21,000	$20,000	$12,250	$0	$0	$0	$53,250
2 Compound	1994	$9,000	$0	$21,000	$12,857	$57,531	$230,126	$330,514
1 Compound	1995	$0	$0	$1,750	$2,143	$9,589	$38,354	$51,836
Base Year								
TOTAL		$30,000	$20,000	$35,000	$15,000	$67,120	$268,480	$435,600

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1996	$10,813	$6,712	$0
2 Discount	1997	$10,813	$6,712	$0
3 Discount	1998	$10,813	$6,712	$0
4 Discount	1999	$10,813	$6,712	$0
5 Discount	2000	$10,813	$6,712	$0
6 Discount	2001	$10,813	$6,712	$0
7 Discount	2002	$10,813	$6,712	$0
8 Discount	2003	$10,813	$6,712	$0
9 Discount	2004	$10,813	$6,712	$0
10 Discount	2005	$10,813	$6,712	$0
11 Discount	2006	$10,813	$6,712	$0
12 Discount	2007	$10,813	$6,712	$0
13 Discount	2008	$10,813	$6,712	$0
14 Discount	2009	$10,813	$6,712	$0
15 Discount	2010	$10,813	$6,712	$0
16 Discount	2011	$10,813	$6,712	$0
17 Discount	2012	$10,813	$6,712	$0
18 Discount	2013	$10,813	$6,712	$0
19 Discount	2014	$10,813	$6,712	$0
20 Discount	2015	$10,813	$6,712	$0
Total		$216,265	$134,240	$0

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Costs amortized over 20 year operation life

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

Sawmill Canal/Little Pecan Bayou (PME-14)

Present Valued Costs Total Discounted Costs $576,865 Amortized Costs $60,957

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	1993	$26,823	$25,546	$15,647	$0	$0	$0	$68,016
2	1.177	1994	$10,595	$0	$24,722	$15,136	$67,727	$270,91[illegible]	$389,090
1	1.085	1995	$0	$0	$1,899	$2,325	$10,404	$41,614	$56,242
		Total	$37,418	$25,546	$42,267	$17,461	$78,131	$312,524	$513,347

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1996	$9,966	$6,186	$0
-2	0.849	1997	$9,185	$5,702	$0
-3	0.783	1998	$8,466	$5,255	$0
-4	0.722	1999	$7,803	$4,843	$0
-5	0.665	2000	$7,191	$4,464	$0
-6	0.613	2001	$6,628	$4,114	$0
-7	0.565	2002	$6,109	$3,792	$0
-8	0.521	2003	$5,630	$3,495	$0
-9	0.480	2004	$5,189	$3,221	$0
-10	0.442	2005	$4,783	$2,969	$0
-11	0.408	2006	$4,408	$2,736	$0
-12	0.376	2007	$4,063	$2,522	$0
-13	0.346	2008	$3,744	$2,324	$0
-14	0.319	2009	$3,451	$2,142	$0
-15	0.294	2010	$3,181	$1,974	$0
-16	0.271	2011	$2,931	$1,820	$0
-17	0.250	2012	$2,702	$1,677	$0
-18	0.230	2013	$2,490	$1,546	$0
-19	0.212	2014	$2,295	$1,425	$0
-20	0.196	2015	$2,115	$1,313	$0
		Total	$102,329	$63,518	$0
		Average Annual	$10,813	$6,712	$0

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Costs amortized over 20 year operation life

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

Sawmill Canal/Little Pecan Bayou (PME-14)

Fully Funded Costs Total Fully Funded Costs $1,018,853 Amortized Costs $107,662

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	1.042	1993	$21,882	$20,840	$12,765	$0	$0	$0	$55,487
2	1.075	1994	$9,678	$0	$22,582	$13,826	$61,866	$247,464	$355,417
1	1.110	1995	$0	$0	$1,942	$2,378	$10,641	$42,564	$57,525
		TOTAL	$31,560	$20,840	$37,289	$16,204	$72,507	$290,028	$468,428

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.145	1996	$12,384	$7,687	$0
-2	1.182	1997	$12,780	$7,933	$0
-3	1.220	1998	$13,189	$8,187	$0
-4	1.259	1999	$13,611	$8,449	$0
-5	1.299	2000	$14,047	$8,719	$0
-6	1.341	2001	$14,496	$8,998	$0
-7	1.384	2002	$14,960	$9,286	$0
-8	1.428	2003	$15,439	$9,583	$0
-9	1.473	2004	$15,933	$9,890	$0
-10	1.521	2005	$16,443	$10,206	$0
-11	1.569	2006	$16,969	$10,533	$0
-12	1.620	2007	$17,512	$10,870	$0
-13	1.671	2008	$18,073	$11,218	$0
-14	1.725	2009	$18,651	$11,577	$0
-15	1.780	2010	$19,248	$11,947	$0
-16	1.837	2011	$19,864	$12,330	$0
-17	1.896	2012	$20,499	$12,724	$0
-18	1.956	2013	$21,155	$13,131	$0
-19	2.019	2014	$21,832	$13,552	$0
-20	2.084	2015	$22,531	$13,985	$0
		Total	$339,618	$210,807	$0

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Costs amortized over 20 year operation life

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

Sawmill Canal/Little Pecan Bayou (PME-14)

Marsh Type: Fresh/Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	1,908	91.98%	1,755	91.98%	1,755	0
1	1,908	91.98%	1,755	90.99%	1,736	19
2	1,908	91.77%	1,751	90.19%	1,721	30
3	1,908	91.56%	1,747	89.40%	1,706	41
4	1,908	91.35%	1,743	88.61%	1,691	52
5	1,908	91.14%	1,739	87.82%	1,676	63
6	1,908	90.93%	1,735	87.03%	1,660	75
7	1,908	90.72%	1,731	86.23%	1,645	86
8	1,908	90.51%	1,727	85.44%	1,630	97
9	1,908	90.30%	1,723	84.65%	1,615	108
10	1,908	90.09%	1,719	83.86%	1,600	119
11	1,908	89.88%	1,715	83.07%	1,585	130
12	1,908	89.68%	1,711	82.29%	1,570	141
13	1,908	89.47%	1,707	81.50%	1,555	152
14	1,908	89.26%	1,703	80.71%	1,540	163
15	1,908	89.05%	1,699	79.93%	1,525	174
16	1,908	88.84%	1,695	79.14%	1,510	185
17	1,908	88.63%	1,691	78.35%	1,495	196
18	1,908	88.42%	1,687	77.57%	1,480	207
19	1,908	88.21%	1,683	76.78%	1,465	218
20	1,908	88.00%	1,679	76.00%	1,450	229
Total Years 1-20			34,340		31,855	
Average Annual Acres			1,717		1,593	124

Costs amortized over 20 year operation life

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

Sawmill Canal/Little Pecan Bayou (PME-14)

Marsh Type: Brackish

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	743	78.73%	585	78.73%	585	0
1	743	78.20%	581	77.79%	578	3
2	743	77.66%	577	76.93%	572	5
3	743	77.12%	573	76.06%	565	8
4	743	76.58%	569	75.19%	559	10
5	743	76.04%	565	74.32%	552	13
6	743	75.50%	561	73.46%	546	15
7	743	74.97%	557	72.59%	539	18
8	743	74.43%	553	71.72%	533	20
9	743	73.89%	549	70.85%	526	23
10	743	73.35%	545	69.99%	520	25
11	743	72.81%	541	69.11%	514	28
12	743	72.27%	537	68.24%	507	30
13	743	71.74%	533	67.36%	501	33
14	743	71.20%	529	66.49%	494	35
15	743	70.66%	525	65.61%	488	38
16	743	70.12%	521	64.74%	481	40
17	743	69.58%	517	63.86%	475	43
18	743	69.04%	513	62.99%	468	45
19	743	68.51%	509	62.11%	462	48
20	743	67.97%	505	61.24%	455	50
Total Years 1-20			10,860		10,333	
Average Annual Acres			543		517	26

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Costs amortized over 20 year operation life

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

Sawmill Canal/Little Pecan Bayou (PME-14)

Marsh Type: Cypress Swamp

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	91	100.00%	91	100.00%	91	0
1	91	100.00%	91	100.00%	91	0
2	91	100.00%	91	94.74%	86	5
3	91	100.00%	91	89.47%	81	10
4	91	100.00%	91	84.21%	77	14
5	91	100.00%	91	78.95%	72	19
6	91	100.00%	91	73.68%	67	24
7	91	100.00%	91	68.42%	62	29
8	91	100.00%	91	63.16%	57	34
9	91	100.00%	91	57.89%	53	38
10	91	100.00%	91	52.63%	48	43
11	91	100.00%	91	47.37%	43	48
12	91	100.00%	91	42.11%	38	53
13	91	100.00%	91	36.84%	34	57
14	91	100.00%	91	31.58%	29	62
15	91	100.00%	91	26.32%	24	67
16	91	100.00%	91	21.05%	19	72
17	91	100.00%	91	15.79%	14	77
18	91	100.00%	91	10.53%	10	81
19	91	100.00%	91	5.26%	5	86
20	91	100.00%	91	0.00%	0	91
Total Years 1-20			1,820		910	
Average Annual Acres			91		46	45

Costs amortized over 20 year operation life

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

Sawmill Canal/Little Pecan Bayou (PME-14)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	2,742	88.66%	2,431	88.66%	2,431	0
1	2,742	88.51%	2,427	87.71%	2,405	22
2	2,742	88.22%	2,419	86.75%	2,379	40
3	2,742	87.93%	2,411	85.79%	2,352	59
4	2,742	87.64%	2,403	84.83%	2,326	77
5	2,742	87.35%	2,395	83.87%	2,300	95
6	2,742	87.05%	2,387	82.91%	2,273	114
7	2,742	86.76%	2,379	81.94%	2,247	132
8	2,742	86.47%	2,371	80.98%	2,221	150
9	2,742	86.18%	2,363	80.02%	2,194	169
10	2,742	85.89%	2,355	79.06%	2,168	187
11	2,742	85.59%	2,347	78.10%	2,142	205
12	2,742	85.30%	2,339	77.14%	2,115	224
13	2,742	85.01%	2,331	76.19%	2,089	242
14	2,742	84.72%	2,323	75.23%	2,063	260
15	2,742	84.43%	2,315	74.27%	2,036	279
16	2,742	84.14%	2,307	73.31%	2,010	297
17	2,742	83.84%	2,299	72.35%	1,984	315
18	2,742	83.55%	2,291	71.39%	1,958	333
19	2,742	83.26%	2,283	70.43%	1,931	352
20	2,742	82.97%	2,275	69.47%	1,905	370
Total Years 1-20			47,020		43,098	
Average Annual Acres			2,351		2,155	196

Costs amortized over 20 year operation life

Coastal Wetlands Planning, Protection and Restoration Act
2nd Priority Project List

Pass-a-Loutre Sediment Mining (PMR-8)

Total First Cost	$1,160,500
Total Fully Funded Cost	$1371,500

Annual Charges	Present Wor th	Average Annual*
Interest & Amortization	$1,281,500	$135,400
Monitoring	40,900	4,300
O&M cost	0	0
Other Costs	0	0
Total	$1,322,400	$139,700

Average Annual Habitat Units	127
Cost per Habitat Unit	$1,099
Average Annual Acres of Emergent Marsh	160

*Interest rate of 8.5 percent over a 20-year project life

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

Pass-a-Loutre Sediment Mining (PMR-8)

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	1993	$120,000	$62,000	$60,667	$0	$0	$0	$242,667
1 Compound	1994	$0	$0	$17,333	$63,000	$167,500	$670,000	$917,833
Base Year								
	TOTAL	$120,000	$62,000	$78,000	$63,000	$167,500	$670,000	$1,160,500

Year	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
1 Discount	1995	$4,325	$0	$0
2 Discount	1996	$4,325	$0	$0
3 Discount	1997	$4,325	$0	$0
4 Discount	1998	$4,325	$0	$0
5 Discount	1999	$4,325	$0	$0
6 Discount	2000	$4,325	$0	$0
7 Discount	2001	$4,325	$0	$0
8 Discount	2002	$4,325	$0	$0
9 Discount	2003	$4,325	$0	$0
10 Discount	2004	$4,325	$0	$0
11 Discount	2005	$4,325	$0	$0
12 Discount	2006	$4,325	$0	$0
13 Discount	2007	$4,325	$0	$0
14 Discount	2008	$4,325	$0	$0
15 Discount	2009	$4,325	$0	$0
16 Discount	2010	$4,325	$0	$0
17 Discount	2011	$4,325	$0	$0
18 Discount	2012	$4,325	$0	$0
19 Discount	2013	$4,325	$0	$0
20 Discount	2014	$4,325	$0	$0
Total		$86,500	$0	$0

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Costs amortized over 20 year operation life

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

Pass-a-Loutre Sediment Mining (PMR-8)

Present Valued Costs Total Discounted Costs $1,281,522 Amortized Costs $135,418

Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
5	1.504	0	$0	$0	$0	$0	$0	$0	$0
4	1.386	0	$0	$0	$0	$0	$0	$0	$0
3	1.277	0	$0	$0	$0	$0	$0	$0	$0
2	1.177	1993	$141,267	$72,988	$71,418	$0	$0	$0	$285,673
1	1.085	1994	$0	$0	$18,807	$68,355	$181,738	$726,950	$995,849
		Total	$141,267	$72,988	$90,225	$68,355	$181,738	$726,950	$1,281,522

Year	Discount Rates	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	0.922	1995	$3,986	$0	$0
-2	0.849	1996	$3,674	$0	$0
-3	0.783	1997	$3,386	$0	$0
-4	0.722	1998	$3,121	$0	$0
-5	0.665	1999	$2,876	$0	$0
-6	0.613	2000	$2,651	$0	$0
-7	0.565	2001	$2,443	$0	$0
-8	0.521	2002	$2,252	$0	$0
-9	0.480	2003	$2,075	$0	$0
-10	0.442	2004	$1,913	$0	$0
-11	0.408	2005	$1,763	$0	$0
-12	0.376	2006	$1,625	$0	$0
-13	0.346	2007	$1,498	$0	$0
-14	0.319	2008	$1,380	$0	$0
-15	0.294	2009	$1,272	$0	$0
-16	0.271	2010	$1,172	$0	$0
-17	0.250	2011	$1,081	$0	$0
-18	0.230	2012	$996	$0	$0
-19	0.212	2013	$918	$0	$0
-20	0.196	2014	$846	$0	$0
		Total	$40,929	$0	$0
		Average Annual	$4,325	$0	$0

Costs amortized over 20 year operation life

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

Pass-a-Loutre Sediment Mining (PMR-8)

Fully Funded Costs Total Fully Funded Costs $1,371,471 Amortized Costs $144,923

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	1.042	1993	$125,040	$64,604	$63,215	$0	$0	$0	$252,859
1	1.075	1994	$0	$0	$18,639	$67,747	$180,120	$720,480	$986,987
		TOTAL	$125,040	$64,604	$81,854	$67,747	$180,120	$720,480	$1,239,845

Year	Inflation Factor	Fiscal Year	Monitoring Costs	O&M Costs	Other Costs
-1	1.110	1995	$4,800	$0	$0
-2	1.145	1996	$4,953	$0	$0
-3	1.182	1997	$5,112	$0	$0
-4	1.220	1998	$5,275	$0	$0
-5	1.259	1999	$5,444	$0	$0
-6	1.299	2000	$5,618	$0	$0
-7	1.341	2001	$5,798	$0	$0
-8	1.384	2002	$5,984	$0	$0
-9	1.428	2003	$6,175	$0	$0
-10	1.473	2004	$6,373	$0	$0
-11	1.521	2005	$6,577	$0	$0
-12	1.569	2006	$6,787	$0	$0
-13	1.620	2007	$7,004	$0	$0
-14	1.671	2008	$7,229	$0	$0
-15	1.725	2009	$7,460	$0	$0
-16	1.780	2010	$7,699	$0	$0
-17	1.837	2011	$7,945	$0	$0
-18	1.896	2012	$8,199	$0	$0
-19	1.956	2013	$8,462	$0	$0
-20	2.019	2014	$8,732	$0	$0
		Total	$131,626	$0	$0

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Costs amortized over 20 year operation life

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

Pass-a-Loutre Sediment Mining (PMR-8)

Marsh Type: Fresh/Intermediate

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	650	5.08%	33	5.08%	33	0
1	650	35.85%	233	5.08%	33	200
2	650	35.23%	229	4.92%	32	197
3	650	34.51%	224	4.88%	32	193
4	650	33.79%	220	4.84%	31	188
5	650	33.08%	215	4.79%	31	184
6	650	32.36%	210	4.75%	31	179
7	650	31.64%	206	4.71%	31	175
8	650	30.92%	201	4.67%	30	171
9	650	30.21%	196	4.62%	30	166
10	650	29.49%	192	4.58%	30	162
11	650	28.77%	187	4.54%	30	157
12	650	28.05%	182	4.50%	29	153
13	650	27.33%	178	4.45%	29	149
14	650	26.62%	173	4.41%	29	144
15	650	25.90%	168	4.37%	28	140
16	650	25.18%	164	4.32%	28	136
17	650	24.46%	159	4.28%	28	131
18	650	23.74%	154	4.24%	28	127
19	650	23.03%	150	4.20%	27	122
20	650	22.31%	145	4.15%	27	118
Total Years 1-20			3,786		594	
Average Annual Acres			189		30	160

Costs amortized over 20 year operation life

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

Pass-a-Loutre Sediment Mining (PMR-8)

Summation of Emergent Marsh Acreages

Years	Acres	With Project % Acreage Vegetated	With Project Vegetated Acres	Without Project % Acreage Vegetated	Without Project Vegetated Acres	Net Acres
0	650	5.08%	33	5.08%	33	0
1	650	35.85%	233	5.08%	33	200
2	650	35.23%	229	4.92%	32	197
3	650	34.51%	224	4.88%	32	193
4	650	33.79%	220	4.84%	31	188
5	650	33.08%	215	4.79%	31	184
6	650	32.36%	210	4.75%	31	179
7	650	31.64%	206	4.71%	31	175
8	650	30.92%	201	4.67%	30	171
9	650	30.21%	196	4.62%	30	166
10	650	29.49%	192	4.58%	30	162
11	650	28.77%	187	4.54%	30	157
12	650	28.05%	182	4.50%	29	153
13	650	27.33%	178	4.45%	29	149
14	650	26.62%	173	4.41%	29	144
15	650	25.90%	168	4.37%	28	140
16	650	25.18%	164	4.32%	28	136
17	650	24.46%	159	4.28%	28	131
18	650	23.74%	154	4.24%	28	127
19	650	23.03%	150	4.20%	27	122
20	650	22.31%	145	4.15%	27	118
Total Years 1-20			3,786		594	
Average Annual Acres			189		30	160

18-Sept-92

Costs amortized over 20 year operation life

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

2ND PRIORITY PROJECT LIST

APPENDIX E

LIST OF PROPOSED PROJECTS

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 ON 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 CWPPRA FUNDS
9	BARA	DREDGED MAT	MARSH CAN BE CREATED WITH SEDIMENTS FROM A COMMERCIAL BOAT HARBOR ON GRAND ISLE (PERMIT- CAMINADA 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 PRTECT 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 WW. 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 LaBELUSSITE 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 ON THE BARATARIA BAY WATERWAY AND FLOODGATES ON CAMINADA 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 MNGMNT	MANAGE THE AREA BETWEEN THE PEN AND HERO CANAL TO TRAP SEDIMENTS AND MAINTAIN THE INTEGRITY OF THE MARSH
39	BARA	MARSH MNGMNT	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 ARTIFICAL 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-PRECHT 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 (25)
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 WELSH 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 (22)
75	CALC	HYDRO REST	SALTWATER INTRUSION UNDER HWY 384 IS THREATENING FRESH MARSH. PLUGS OR WATER CONTROL STRUCTURES NEEDED (22)

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 MUD 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 FORM 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 (23A)
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 MUD 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 SAWMILL CANAL WATER CONTROL STRUCTURES INTO ONE UNIT AT INTERSECTION OF SAWMILL 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.'S 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 HARAHAN, 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 SWALLOW 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 HUMANS 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 MACISONVILLE AND MANDEVILLE, D.EAM 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	WE 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 (19)
177	STATE	DREDGED MAT	USE DREDGED MATERIAL BENEFICALLY 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 FALGOUT 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 CALLIOU & 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 FALGOUT CANAL
220	TERR	HYDRO REST	INSTALL TWO SALINITY REDUCTION CELLS IN HOUMA NAVIGATION CANAL JUST N. OF COCODRIE AND IN DULAC AREA
221	TERR	MRSH 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 (1A)
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	MM 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 N., 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

2ND PRIORITY PROJECT LIST

APPENDIX F

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 and mapping 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 <u>minimum</u> 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	Vegetation 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	Average 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 l00%, regardless of project size.

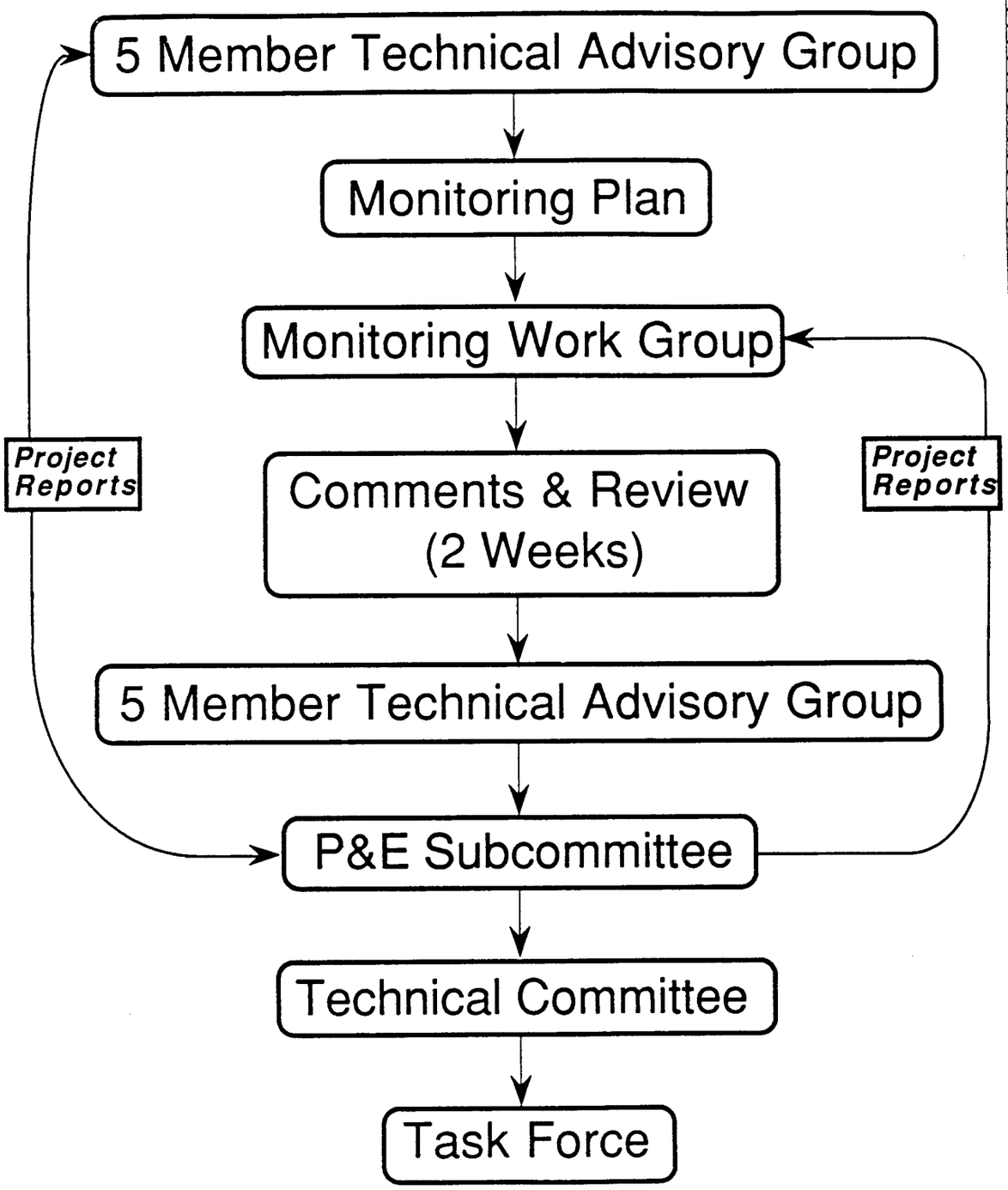
Monitoring costs for any given project will not exceed 125% of the original, fully-funded monitoring cost estimate.

Monitoring costs for any given project will not exceed 50% 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

2ND PRIORITY PROJECT LIST

APPENDIX G

STATUS OF PROJECTS FROM PREVIOUS PRIORITY PROJECT LIST

APPENDIX G
STATUS OF PROJECTS FROM PREVIOUS PRIORITY PROJECT LIST

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Fouchon Hydrologic Restoration
Lafourche Parish, LA

FEDERAL LEAD AGENCY: U.S.D.C.- National Marine Fisheries Service

PROJECT LOCATION: The project area 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 a 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-inch diameter culverts beneath the shell road along the northern perimeter. Culvert length will be approximately 75 ft. Shell armoring of levee faces 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 1992: No Federal expenditures were made in FY **1992.** Due to some landowner objections to the project, **a cooperative** agreement between the State of Louisiana, Department of Natural Resources and NMFS has not yet been signed. Resolution is expected.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $252,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1993: FY 1993 expenditures are dependant upon the signing of the cooperative agreement. Work will proceed as soon as the agreement is signed and is anticipated to take approximately eighteen months to complete.

ISSUES/PROBLEMS/CONCERNS: Two landowners in the project area have objections to the project. It is anticipated that these objections will be resolved and the project will proceed.

BA-2. GIWW to Clovelly Wetland
Lafourche Parish, LA

FEDERAL LEAD AGENCY: U.S.D.A. - 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. At about 60,000 acres of fresh and low-salinity wetlands, it 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 hydrologic 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. These are the hydrologic conditions that prevailed historically in the area.

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.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is $8,142,000, of which $6,106,500 is Federal Cost, and $2,035,500 is non-Federal (State) Cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1992: As of 30 _ September 1992, expenditures for this project totaled $363,000. With those funds, design was initiated; plans and specifications (P&S) for the first contract were completed; and land rights maps were completed and provided to the parish government.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $8,03 1,000

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1993: In FY 1993, the scheduled expenditure is $138,000. With these funds design will be completed; the first contract will be awarded; and plans and specifications on remaining contracts will be completed.

ISSUES/PROBLEMS/CONCERNS: None.

Cameron-Creole Watershed Hydrologic Restoration
Cameron Parish, LA

FEDERAL LEAD AGENCY: U.S. Fish and Wildlife Service

PROJECT LOCATION: The project site is located within the Cameron-Creole Watershed Project (CCWP) in the coastal marshes of southwest Louisiana. The CCWP includes Sabine National Wildlife. Refuge, East Cove Unit and adjoining private lands. It consists of 64,000 acres of brackish, intermediate, and freshwater marshes, with water management andsalt water intrusion being controlled by five large lakeshore water control structures.

PROJECT PURPOSE: The project would promote the diversification of plant communities and increase marsh restoration gains above those predicted to occur under the CCWP alone; increase submergent vegetation over 4,600 acres of shallow fresh and estuarine open water; reduce rapid movement of saline water through the borrow canal, lowering marsh salinities in the North area; and reduce excessive pooling in southern areas of the watershed.

PROJECT FEATURES: The project consists of the installation of two sheet metal plugs in the lakeshore borrow canal - one south of Mangrove Bayou Water Control Structure and the other south of the Grand Bayou Water Control Structure. The plugs would be set at normal marsh level, allowing water to flow over during high water or flood conditions; and would include a boat bay/water control structure for boat access and flexibility with water flow control.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is $502,000, of which $376,500 is Federal Cost, and $125,500 is non-Federal (State) Cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTs IN FY 1992: USFWS has worked out an agreement with the USDA-Soil Conservation Service (SCS) to design, administer and contract for the construction of this project. As of 30 September 1992, expenditures for this project totaled $35,000. With those funds, planning design and cost estimates were completed by the SCS. Draft plans were circulated and several changes were made in the draft plans.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $467,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1993: In FY 1993, all remaining funds are expected to be expended. With these funds, project plans and contract administration as well as construction of the project should be completed.

ISSUES/PROBLEMS/CONCERNS: The project was delayed because of Hurricane Andrew. SCS had to handle emergency construction of levee repairs rather than work on CWPPRA projects.

Bayou Sauvage Wildlife Refuge Hydrologic R&oration
Orleans Parish, LA

FEDERAL LEAD AGENCY: U.S. Fish and Wildlife Service

PROJECT LOCATION: The project site 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 Project levee, between U.S. Highway 90 (to the north) and the Gulf Intracoastal Waterway (to the south), and east of the Maxent Canal levee.

PROJECT PURPOSE: The hurricane protection levee isolated Units **3** and 4 from the surrounding marsh complex and established a large freshwater impoundment. The project would establish a means for removing the excess water impounded as a result of the slow drainage of rainfall, providing lower water levels during Spring and Summer, and allowing for the reestablishment of emergent marsh vegetation throughout much of Units **3** and 4. In addition, the mortality rate of rookery-supporting black willow would be reduced and numerous plant and animal species would benefit from the increased production of emergent vegetation.

PROJECT FEATURES: The project includes the purchase, installation and operation and maintenance of two 48" pumps located on the east boundary of the units.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is $1,105,000, of which $828,750 is Federal Cost, and $276,250 is non-Federal (State) Cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1992: USFWS has worked out an agreement with the USDA-Soil Conservation Service (SCS) to design, administer and contract for the construction of this project. As of 30 September 1992, expenditures for this project totaled $16,000. With those funds, initial design meetings, as well as on site surveys were completed. Draft plans were initiated and a preliminary Corps permit application meeting was accomplished.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $1,089,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1993: In FY 1993, all remaining funds are expected to be expended. With these funds, project plans and contract administration will be completed in FY 93 as well as initiation of construction.

ISSUES/PROBLEMS/CONCERNS: The project was delayed because of Hurricane Andrew. SCS had to handle emergency construction of levee repairs rather than work on CWPPRA projects.

Sabine Wildlife Refuge Shoreline Erosion Control
Cameron Parish, LA

FEDERAL LEAD AGENCY: U.S. Fish and Wildlife Service

PROJECT LOCATION: The project site is located on Sabine National Wildlife Refuge in western Cameron Parish, La. Work would be along five and one-half miles of the existing Burton Canal levee.

PROJECT PURPOSE: The proposed project would protect approximately 13,000 acres of existing fresh marsh in Impoundment 3 from deterioration associated with the anticipated failure of the existing west levee. These marshes provide habitat for numerous species of reptiles, amphibians, fish, and fowl.

PROJECT FEATURES: The project consists of clearing, rebuilding, and riprapping, as required, about five and one-half miles of existing levee.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is $4,844,000, of which $3,633,000 is Federal Cost, and $1,211,000 is non-Federal (State) Cost. A final project cost estimate has not yet been prepared.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1992: USFWS has worked out an agreement with the USDA-Soil Conservation Service (SCS) to design, administer and contract for the construction of this project. As of 30 September 1992, expenditures for this project totaled $61,000. With those funds, initial design meetings and on-site surveys were completed. Draft plans were initiated.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $4,844,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1993: In FY 1, all remaining funds are expected to be expended. With these funds, project plans and contract administration will be completed in FY 93 as well as initiation of construction.

ISSUES/PROBLEMS/CONCERNS: The project was delayed b urricane Andrew. SCS had to handle emergency construction of levee repairs rather than work on CWPPRA projects.

Vegetative Plantings Demonstration Project
Cameron, Vermilion and Terrebonne Parishes, LA

FEDERAL LEAD AGENCY: U.S.D.A. - Soil Conservation Service

PROJECT LOCATION: There are four project sites: (1) in the marshes west 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, a Deltaic Plain.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is $848,000, of which $636,000 is Federal Cost, and $202,000 is non-Federal (State) Cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1992: As of 30 September 1992, expenditures for this project totaled $52,000. With those funds, design was initiated; plans and specifications (P&S) for West Hackberry were completed; and P&S for Dewitt-Rollover were 60% completed.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $796,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1993: In FY 1993, the scheduled expenditure is $34,400. With these funds, the contract for West Hackberry will be awarded, and P&S will be completed and the contract awarded for Dewitt-Rollover.

ISSUES/PROBLEMS/CONCERNS: None.

West Bay Sediment Diversion
Plaquemines Parish, LA

FEDERAL LEAD AGENCY: U.S. Army Corps of Engineers

PROJECT LOCATION: West Ray is located on the west side of the Mississippi River just above Head of Passes. The project diversion site is located at Mile 4.7 Above Head of Passes (AHP) .

PROJECT PURPOSE: The objective of the project is to create vegetated wetland by diversion of sediments from the Mississippi River. Project implementation would create approximately 9,831 acres of fresh to intermediate marsh over the life of the project.

PROJECT FEATURES: The project consists of a conveyance channel and earthen "broad-crested" weir for large-scaled uncontrolled diversion of sediments from the Mississippi River. The sediment diversion channel and weir would be constructed in two phases: First, a 20,000 cubic foot per second (cfs) channel based on the 50% duration stages in the river and marsh development areas; and then, modification of the channel to a 50,000 cfs channel at 50% duration stages on the Mississippi River immediately upon completion of a period of intensive monitoring of the operations.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is $8,517,0OO, of which the estimated Federal Cost is $6,387,750 and the estimated non-Federal (State) Cost is $2,129,250.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 92: As of 30 September 1992, expenditures for this project totaled $79,000. With those funds land owners were identified and a Right-of-Entry procured; a survey contract was completed; design was initiated; Real Estate easement title work was initiated; and the Hazardous, Toxic and Radiological Waste (HTRW) investigation was initiated.

SCHEDULED EXPENDITURES AND PLANNED WORK FOR FY 93: In FY 1993, the scheduled Federal expenditures are $250,000. With these funds, the Cost Sharing Agreement will be negotiated and executed; design and preparation of Plans & Specifications completed; acquisition of Real Estate easements initiated; HTRW and Cultural Resource investigations completed and all environmental clearances obtained; and relocation of a 10" pipeline coordinated and initiated.

ISSUES/CONCERNS SURFACED TO DATE: None.

Barataria Bay Waterway Marsh Creation
Jefferson Parish, LA

FEDERAL LEAD AGENCY: U.S. Army Corps of Engineers

PROJECT LOCATION: The Barataria Ray Waterway is a navigable, dredge-maintained waterway located in southeast Louisiana running through Barataria Ray to the Gulf of Mexico. The proposed project site is between Mile 0 (at Barataria Pass) and Mile 16 (near Bayou St. Dennis).

PROJECT PURPOSE: The project would create new marsh and nourish existing marsh using sediments dredged for normal maintenance of the waterway. Approximately 445 acres of saline marsh would be created over th 20-ye ra project life.

PROJECT FEATURES: Sediments dredged for maintenance of the waterway would be deposited in about 18 selective shallow-water areas adjacent to the channel. These areas vary in size from about 15 to about 133 acres. It is estimated that maintenance dredging would occur about 5 times during th 20-yea project life, with abou 1,740,00 cubic yards of material dredged per maintenance cycle. Cutter-head dredges would be used, exclusively, and material would be placed at an elevation conducive to marsh development.

PROJECT COST: Becaus e dredged material would be pumpe great r distances than would be required for normal maintenance, additional costs over present maintenance costs would be incurre . The total project cost estimated in the first Priority Project List Report i $1,625,000, of whic $1,218,75 is Federal Cost, and $406,250 is non-Federal (State) Cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1992: As of 30 September 1992, expenditures for this project totaled $5,600. Since maintenance dredging in the waterway is not scheduled to occur until the summer of 1994, and the design effort involved is minimal, work on this project was only recently begun.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $1,619,000

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1993: In FY 1993, the scheduled expenditures are $50,000. With these funds a Cost Sharing Agreement will be drafted, negotiated and executed; landowners will be identified and Right-of-Entry to perform surveys on the marsh creation disposal sites will be obtained; and acquisition of Real Estate easements will be initiated.

ISSUES/PROBLEMS/CONCERNS: None.

Lower Bayou La Cache Hydrologic Restoration
Terrebonne Parish, LA

FEDERAL LEAD AGENCY: U.S.D.C.- National Marine Fisheries Service

PROJECT LOCATION: The project area surrounds Lower Bayou LaCache in southern Terrebonne Parish. It is bounded by Bayou Petit Caillou to the West, Bayou terrebonne to the east, Bush Canal to the north and Sevin Canal/Bay Lucien to the south. It encompasses 4,200 acres of wetlands.

PROJECT PURPOSE: The project intends to 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 while 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 (canals) along Bayou Petite Caillo 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 An updated estimate of $1,106,00 has been made of which $829,500 is Federal Cost, and $276,500 is non-Federal (State) Cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1992: No Federal expenditures were made in FY 1992. A cooperative agreement between the State of Louisiana, Department of Natural Resources and NMFS was signed on November 6, 1992.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $1,106,000.

SCHEDULED EXPENDITURES ANTI WORK PLANNED FOR FY 1993: In Fy 1993, $26,900 is expected to be expended. With these funds, the State will complete Phase I for the project including feasibility analysis, planning and land rights coordination Phase II will begin in late FY 1993.

ISSUES/PROBLEMS/CONCERNS: None.

Bayou LaBranche Wetlands Marsh Creation
St. Charles Parish, LA

FEDERAL LEAD AGENCY: U.S. 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: The project would create approximately 254 acres of intermediate marsh and would nourish an additional 87 existing acres. By the end of the 20-year project life, approximately 296 acres of marsh would remain in the project area.

PROJECT FEATURES: The project involves dedicated dredging of sediments from Lake Pontchartrain to create vegetated wetlands in Bayou La Branche Wetlands area. The work would consist of pumping sediments from a borrow pit in the lake located about 3,000 feet due north of the proposed marsh development site. The dredged material would be pumped to a height conducive to marsh development after settlement and compaction, and would be confined to the marsh development site.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is !$4,327,000, of which the estimated Federal Cost is $3,245,250 and the estimated non-Federal (State) Cost is $1,081,750.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS lN FY 992: As of 30 September 1992, expenditures for this project totaled $139,000. With those funds land owners were identified and Rights-of-Entry obtained; soil borings and a survey contract were completed; design and title work for Real Estate easements were initiated; and Hazardous, Toxic and Radiological Waste (HTRW) and Cultural Resource (CR) investigations were initiated.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $4,188,000

SCHEDULED EXPENDITURES AND PLANNED WORK FOR N 1993: In FY 1993, the scheduled expenditures are $2,080,000. With these funds the Cost Sharing Agreement will be drafted, negotiated and executed; design and preparation of Plans & Specifications will be completed; acquisition of Real Estate easements will be completed; HTRW and CR investigations will complete and all environmental clearances will be obtained; the contract will be advertised and awarded; and construction will be initiated.

ISSUES/CONCERNS SURFACED TO DATE: None.

Cameron Prairie Wildlife Refuge Erosion Protection
Cameron Parish, LA

FEDERAL LEAD AGENCY: U.S. Fish and Wildlife Service

PROJECT LOCATION: The project is located within the Cameron Prairie National Wildlife Refuge (NWR) in north central Cameron Parish, about 25 miles southeast of Lake Charles, La. The specific project site is a 2 mile reach along the north bank of the Gulf Intracoastal Waterway (GIWW) extending east from the Gibbstown Bridge on LA 27 to the North Canal.

PROJECT PURPOSE: The project would protect the emergent wetlands of the NWR adjacent to the GIWW, enhance the emergent wetlands protected by the proposed levee, and terminate the encroachment of the GIWW into the NWR. As a result, water quality deterioration in Unit 8 will be halted, approximately 640 acres of emergent fresh marsh will be protected, and 30 acres of coastal wetlands may be restored.

PROJECT FEATURES: The project consists of construction of a rock dike (breakwater) adjacent and parallel to the remaining spoil bank.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is $1, 111,000, of which $833,250 is Federal Cost, and $277,750 is non-Federal (State) Cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1992: USFWS has worked out an agreement with the USDA-Soil Conservation Service (SCS) to design, administer and contract for the construction of this project. As of 30 September 1992, expenditures for this project totaled $37,000. With these funds, planning design and cost estimates were completed by the SCS. Draft plans were circulated and several changes were made in the draft plans.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $1,074,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1993: In FY 1993, all remaining funds are expected to be expended. With these funds, project plans and contract administration as well as construction of the project should be completed.

ISSUES PROBLEMS/CONCERNS: The project was delayed because of Hurricane Andrew. SCS had to handle emergency construction of levee repairs rather than work on CWPPRA projects.

Vermilion River Cutoff Shoreline Protection & Restoration
Vermilion Parish, LA

FEDERAL LEAD AGENCY: U.S. Army Corps of Engineers

PROJECT LOCATION: The Vermilion River Cutoff, near Intracoastal City, LA, connects the Vermilion River and the Gulf Intracoastal Waterway with Vermilion Bay for navigation purposes. The project area is on the west side of the Cutoff in the vicinity of Onion Lake and Onion Bayou.

PROJECT PURPOSE: The project as proposed would reestablish a section of marsh bank along the west side of the Cutoff through the use of a rock shoreline protection dike on the Cutoff side of the bank, and sediment trapping fences on the Vermilion Ray side of the bank.

PROJECT FEATURES: The project involves the construction of a rock dike along the west bank of the Vermilion River Cutoff, leaving an opening at the intersection of Onion Bayou, and the construction of sediment trapping fences on the Vermilion Bay side of the land bridge.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is $1,523,000, of which the estimated Federal Cost is $1,142,250 and the estimated non-Federal (State) Cost is $380,750.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 92: As of 30 September 1992, expenditures for this project totaled $79,000. With those funds, a Cost Sharing Agreement (CSA) was drafted; landowners were identified and Right-of-Entry procured; a survey contract was completed; design and title work for Real Estate easements were initiated; and a Hazardous, Toxic and Radiological Waste (HTRW) investigation initiated.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $1,089,000.

SCHEDULED EXPENDITURES AND PLANNED WORK FOR FY 93: In FY 1993, the scheduled Federal expenditures are $100,000. With these funds the CSA will be negotiated and executed; design and preparation of Plans & Specifications completed; acquisition of Real Estate easements initiated; and HTRW and Cultural Resource investigations completed and all environmental clearances obtained.

ISSUES/CONCERNS SURFACED TO DATE: Significant design changes are expected for this project in order to accomplish the project purpose. We have discussed these changes with the Local Sponsor (State) and Local Interests and are now proceeding with those design changes. The schedule will be impacted by the design changes, but we still expect to initiate construction in FY 1994.

Eastern Isles Denieres Barrier Island Restoration
Terrebonne Parish, LA

FEDERAL LEAD AGENCY: U.S. Environmental Protection Agency

PROJECT LOCATION: The project area is located on Eastern Isles Demieres, a barrier island chain in most southern Terrebonne Parish, La.

PROJECT PURPOSE: The project objectives are to restore the coastal dunes and wetlands of the Eastern Isles Demieres, 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 restoration of barrier islands.

PROJECT FEATURES: The project involves a two mile restoration and marsh creation effort at the eastern most end. Overwash sediments will be suction dredged and used to build up dunes; dune height will be approximately 8 feet and dunes will be seeded. Emergent sands will be used to close breaches and build retaining structures to confine pumped dredged material. An estimated 105 acres of saline marsh will be created by this first segment of island restoration.

PROJECT COST: The total project cost estimated in the first Priority Project List Report is $6,345,000 of which $4,758,750 is Federal Cost, and $1,586,250 is non-Federal (State) Cost.

ACTUAL EXPENDITURES AND WORK ACCOMPLISHMENTS IN FY 1992: As of 30 September 1992, expenditures for this project totaled $30,000. Those funds were used to prepare a draft Environmental Assessment with contractor assistance and for staff work.

FUNDS REQUIRED TO COMPLETE THE PROJECT: $6,315,000.

SCHEDULED EXPENDITURES AND WORK PLANNED FOR FY 1993: In FY 1993, expenditures will be dependant upon progress made. Plans are that the Cost Sharing Agreement will be finalized, all environmental assessment and permitting requirements completed, and bids for construction initiated.

ISSUES/PROBLEMS/CONCERNS: None.

Coastal Wetlands Planning, Protection and Restoration Act

20 Nov 92

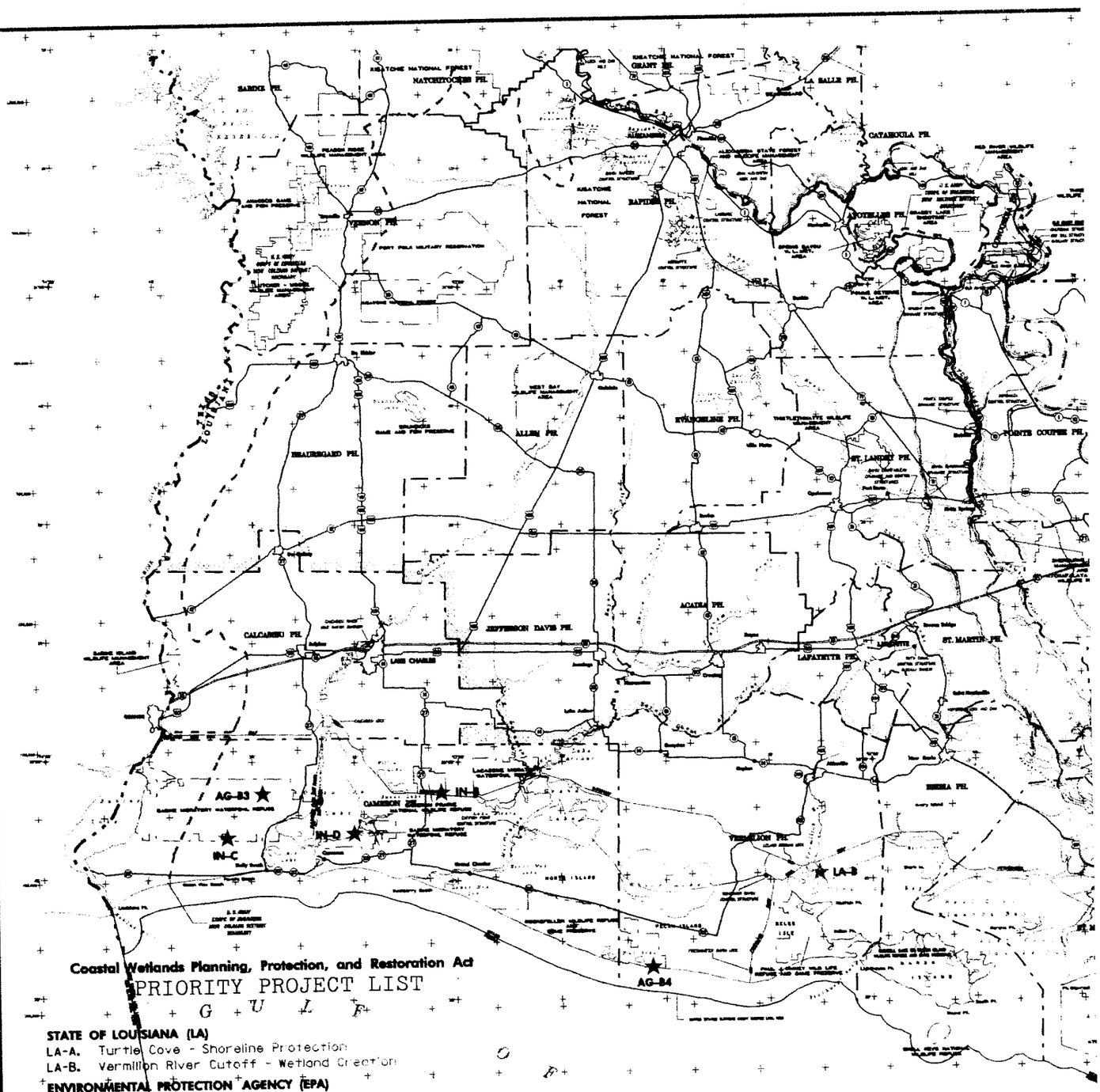
Status of 1st Priority Project List

Project	Sponsor	CSA Scheduled Completion	CSA Status	Design Scheduled Completion	Design Status	Permits Scheduled Completion	Permits Status	Construction Scheduled Start	Construction Scheduled Completion	Cost (x $1,000)
Fourchon	NMFS	Feb 93	IS,BS,IP							252
BA-2/ GIWW-Clovelly	SCS	Mar 92	TC	Aug 92	TC--1st contract	Dec 91	TC	Dec 92	Apr 95	8,145
Cameron Creole	USFWS		IP	Aug 92	IP,OS	Apr 92	TC	Dec 92	Mar 93	502
Bayou Sauvage	USFWS	Mar 92	BS,IP	May 93	IP,OS		IP	Aug 93	Aug 94	1,105
Turtle Cove	USFWS	Removed from list;		construction taken over by State of Louisiana						
Sabine Refuge	USFWS		IP	Mar 93	IP,OS	Apr 92	TC	Jun 93	Jun 94	4,844
Vegetative Plantings	SCS	Mar 92	TC	Apr 92	TC	Oct 92	IP,BS	Jan 93	Jan 94	848
West Bay Diversion	COE	Feb 93	IP,BS	Apr 93	IP,BS	Feb 94	IP,BS	Jul 94	Oct 94	8,517
Barataria Bay WW	COE	Oct 93	OS	Feb 94	IP,OS	Oct 93	OS	Jun 94	Aug 94	1,625
Lower Bayou LaCache	NMFS	Nov 92	TC	Jul 93	OS	Jan 94	OS	Nov 94	Jan 95	1,254
Bayou La Branche	COE	Jan 93	IP,BS	Jan 93	IP,OS	Jan 93	IP,BS	Aug 93	Nov 93	4,327
Cameron Prairie	USFWS	Nov 92	IP,BS	Aug 92	IP,OS	Aug 92	TC	Jan 93	Oct 93	1,111
Vemilion River Cutoff	COE	Jan 93	IS,IP,BS	Mar 93	IP,OS	Jan 93	IP,OS	Dec 93	Feb 94	1,523
Eastern Isle Dernieres	EPA	May 92	IS,IP,BS	Sep 92	BS	Nov 92	IP ** See notes	Jan 93	Nov 93	6,345

STATUS: OS = On Schedule
BS = Behind Schedule
IP = In Progress
IS = Issue Surfaced
TC = Task Complete

EXAMPLE: OS,IP

NOTES:
** NEPA PEA is prepared



Coastal Wetlands Planning, Protection, and Restoration Act

PRIORITY PROJECT LIST

G U L F O F M E X I C O

STATE OF LOUISIANA (LA)

LA-A. Turtle Cove - Shoreline Protection

LA-B. Vermilion River Cutoff - Wetland Creation

ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA-A. Isle Dernieres - Barrier Island Restoration

EPA-B. Falgout Canal - Wetland Creation Demonstration

U. S. DEPARTMENT OF THE ARMY (AR)

AR-A. West Bay - Sediment Diversion for Marsh Creation

AR-B. Tiger Pass - Marsh Creation

AR-C. Bayou La Branche - Marsh Creation

AR-D. Bayou Segnette (Lake Salvador) - Bank Stabilization

AR-E. Barataria Bay Waterway - Marsh Creation

U. S. DEPARTMENT OF COMMERCE (CO)

CO-A. Fourchon - Hydrologic Restoration

CO-B. Lower Bayou La Cache Wetland - Hydrologic Restoration

U. S. DEPARTMENT OF AGRICULTURE (AG)

AG-A. G.I.W.W. to Clovelly - Hydrologic Restoration

Coastal Vegetative Program:

AG-B1. Timbalier Island

AG-B2. Falgout Canal

AG-B3. West Hackberry

AG-B4. Dewitt-Rollover Shore

AG-C. BA-6 (US 90 to G.I.W.W.)

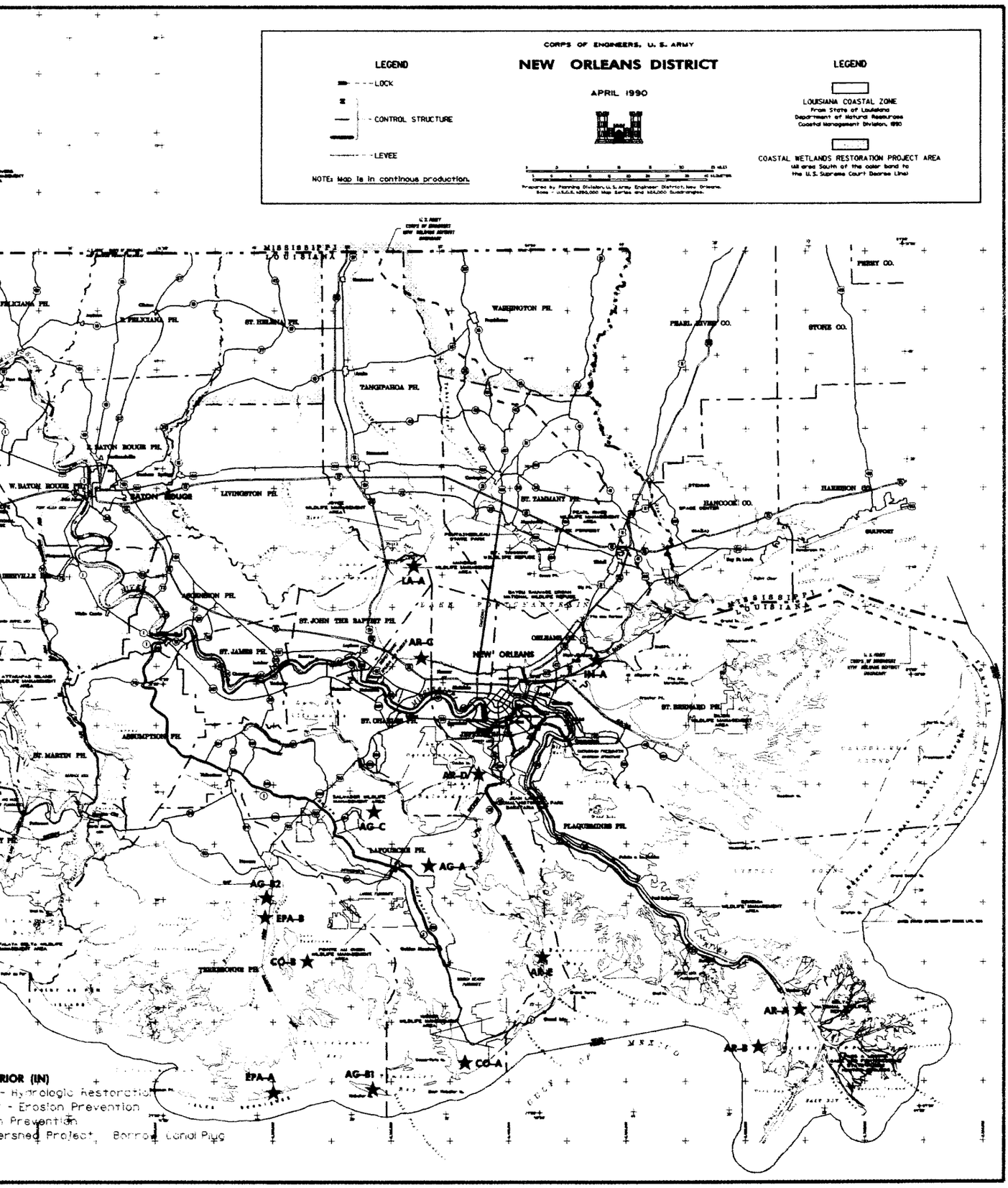
U. S. DEPARTMENT OF THE IN

IN-A. Bayou Sauvage NWF

IN-B. Cameron Prairie N

IN-C. Sabine NWR - Enl

IN-D. Cameron Creole Wa


CORPS OF ENGINEERS, U. S. ARMY
NEW ORLEANS DISTRICT
APRIL 1990
LEGEND
LOCK
CONTROL STRUCTURE
LEVEE
NOTE: Map is in continous production.
LEGEND
LOUISIANA COASTAL ZONE
From State of Louisiana
Department of Natural Resources
Coastal Management Division, 1990
COASTAL WETLANDS RESTORATION PROJECT AREA
(all area South of the color band to
the U.S. Supreme Court Decree Line)
LOUISIANA
MISSISSIPPI
WASHINGTON PH.
PEARL RIVER CO.
STONE CO.
PERRY CO.
TANGIPAHOA PH.
E. BATON ROUGE PH.
W. BATON ROUGE PH.
BATON ROUGE
LIVINGSTON PH.
ST. TAMMANY PH.
HANCOCK CO.
HARRISON CO.
ASCENSION PH.
ST. JOHN THE BAPTIST PH.
ST. JAMES PH.
NEW ORLEANS
ST. BERNARD PH.
ASSUMPTION PH.
ST. MARTIN PH.
PLAQUEMINES PH.
LAFOURCHE PH.
TERREBONNE PH.
LA-A
AR-G
IN-A
AR-D
AG-C
AG-A
AG-B2
EPA-B
CO-B
AR-E
AR-A
AR-B
CO-A
EPA-A
AG-B1
GULF OF MEXICO
RIOR (IN)
- Hydrologic Restoration
- Erosion Prevention
Prevention
ersned Project, Barrier Land Proj