



14th PRIORITY PROJECT LIST REPORT (APPENDICES)

PREPARED BY:

LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION

TASK FORCE

AUGUST 2005

Coastal Wetlands Planning, Protection, and Restoration Act

14th Priority Project List Report

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Appendix A

Summary and Complete Text of the CWPPRA

COASTAL WETLANDS PLANNING, PROTECTION & RESTORATION ACT

Public Law 101-646, Title III

SECTION 303. Priority Louisiana Coastal Wetlands Restoration Projects.

- Section 303a. Priority Project List
- NLT 13 Jan 91, Sec. Of Army (Secretary) will convene a Task Force
 - Secretary
 - Administrator, EPA
 - Governor, Louisiana
 - Secretary, Interior
 - Secretary, Agriculture
 - Secretary, Commerce
- NLT 28 Nov. 91, Task Force will prepare and transmit to Congress a Priority List of wetland restoration projects based on cost effectiveness and wetland quality.
- Priority List is revised and submitted annually as part of President's budget.
- Section 303b. Federal and State Project Planning
 - NLT 28 Nov. 93, Task Force will prepare a comprehensive coastal wetlands Restoration Plan for Louisiana.
 - Restoration Plan will consist of a list of wetland projects, ranked by cost effectiveness and wetland quality.
 - Completed Restoration Plan will become Priority List.
 - Secretary will ensure that navigation and flood control projects are consistent with the purpose of the Restoration Plan.
 - Upon submission of the Restoration Plan to Congress, the Task Force will conduct a scientific evaluation of the completed wetland restoration projects every 3 years and report 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 \$15 million to fund Task Force completion of Priority List and Restoration Plan—Secretary disburses the 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 MR&T to increase flows and sediment to the Atchafalaya River for land building wetland nourishment.
 - 25% if the state has dedicated trust fund from which principal is not spent.
 - 15% when Louisiana’s Conservation Plan is approved.

TITLE III--WETLANDS

Sec. 301. SHORT TITLE.

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

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, individual phases, portions, or components of projects and operation, maintenance 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.

(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, 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 creating, 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.

(a) DEVELOPMENT OF CONSERVATION PLAN.--

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

(2) TERMS OF AGREEMENT.--

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

(B) The agreement shall--

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(d) APPROVAL OF CONSERVATION PLAN.--

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

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

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

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

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

(e) MODIFICATION OF CONSERVATION PLAN.--

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

(2) RECONSIDERATION.--If the Governor submits a modified conservation plan to the Secretary, the Director, and the Administrator for their reconsideration, the Secretary, the Director, and Administrator shall have ninety days to determine whether the modifications are sufficient to bring the plan into compliance with requirements of subsection (d) of this section.

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

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

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

(h) FEDERAL OVERSIGHT.--

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

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

SEC. 305 NATIONAL COASTAL WETLANDS CONSERVATION GRANTS.

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

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

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

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

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

(d) COST-SHARING.--

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

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

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

(e) PARTIAL PAYMENTS.--

(1) The Director may from time to time make matching payments to carry out coastal wetlands conservation projects as such projects progress, but such payments, including

previous payments, if any, shall not be more than the Federal pro rata share of any such project in conformity with subsection (d) of this section.

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

(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 Wetlands 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.

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 wetlands restoration projects;

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

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

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

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

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

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

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

SEC. 307. GENERAL PROVISIONS.

(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.

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

SEC.308. CONFORMING AMENDMENT.

16 U.S.C. 777c is amended by adding the following after the first sentence: "The Secretary shall distribute 18 per centum of each annual appropriation made in accordance with the provisions of section 777b of this title as provided in the Coastal Wetlands Planning, Protection and Restoration Act: Provided, That, notwithstanding the provisions of section 777b, such sums shall remain available to carry out such Act through fiscal year 1999."

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

SENATE REPORTS: No. 101-523 accompanying S. 2244 (Comm. On Environmental 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 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 wetland restoration and formulate Federal conservation 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**

14th Priority Project List Report

Appendix B

Wetland Value Assessment Methodology and Community Models

Appendix B

Wetland Value Assessment Methodology and Community Models

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Wetland Value Assessment Methodology

I. Barrier Headland Community Model

INTRODUCTION

The barrier headland model was developed to determine the wetland benefits of headland restoration projects and was developed by an interagency/academic workgroup consisting of individuals with backgrounds in wildlife ecology, fisheries ecology, geomorphology, and plant ecology. The barrier headland model has been developed for determining the suitability of barrier headland habitat along the Louisiana coast in providing resting, foraging, breeding, and nursery habitat to a diverse assemblage of fish and wildlife species.

The barrier island model was developed to evaluate traditional barrier island habitat along the Louisiana coast; those containing emergent habitat surrounded by open water. However, non-barrier island shorelines (i.e., headlands) also contain barrier island-type habitats such as beach, dune, and supratidal habitats but do not provide the same functions as barrier islands. Application of the barrier island model to those areas was not practical because many of the variables contained within the barrier island model do not apply to headland areas. Therefore, this model was developed to complement the barrier island model.

The barrier headland model should be applied to shoreline areas along the coast which consist of beach, dune, and supratidal habitat and which naturally decrease in elevation to an intertidal marsh. By nature, barrier headlands are contiguous with the mainland marsh and have not yet detached and begun formation of a barrier island. Conversely, the barrier island model is applied to detached headlands which have formed barrier islands and are gulfward of bay or lake systems. This model has been designed to function at a community level and therefore attempts to define an optimal combination of habitat conditions for all fish and wildlife species utilizing barrier headlands.

VARIABLE SELECTION

As with barrier islands, headlands consist of many different habitat components including surf zone, beach, dune, supratidal marsh (i.e., swale), and unvegetated flats or washover areas. A key assumption in model development was that for a barrier headland to provide optimal conditions for fish and wildlife, all of the above habitat components should exist. Unlike the barrier island model which encompasses intertidal and subtidal habitats, this model does not. Those habitat types exist landward of the headland and should be evaluated using the appropriate marsh model.

The variables selected for this model were those variables within the barrier island model which could be applied to barrier headland habitat. The model development group agreed that barrier headlands provide many of the same functions as barrier islands such as nesting and resting sites for birds and other wildlife, storm surge protection of interior marshes, and proximity to gulf/marine foraging habitat. Furthermore, barrier headlands

consist of many of the same habitat components as barrier islands such as surf zone, beach, dune, swale, and woody areas. Therefore, the group agreed that those variables within the barrier island model which address dune and supratidal habitats, vegetative cover, woody vegetation, and beach zone features should be included in the barrier headland model. The final list of variables included in this model are: 1) percent of the subaerial area that is classified as dune habitat; 2) percent of the subaerial area that is classified as supratidal habitat; 3) percent vegetative cover of dune and supratidal habitats; 4) percent vegetative cover by woody species; and 5) beach/surf zone features.

SUITABILITY INDEX GRAPH DEVELOPMENT

Suitability Index graph development was very similar to the process used for other community models developed for CWPPRA. The suitability index graphs from the barrier island community model were modified so that the variable-habitat quality relationships corresponded to barrier headland habitat. The process of SI graph development is one of constant evolution, feedback, and refinement; the form of each SI graph was decided upon through consensus among EnvWG members.

The Suitability Index graphs were developed according to the following assumptions.

Variable V₁ - Percent of the total project area that is classified as dune habitat.

Dune habitat is defined as subaerial habitat \geq 5 ft. NAVD88 and encompasses foredune, dune, and reardune. Although dune habitat occurs at elevations below 5 ft. NAVD88, lower-elevation dunes are more ephemeral and more frequently overwashed, which reduces their habitat value. Lower-elevation dunes often consist of vegetation more commonly associated with swale habitat and lack a high percentage of “typical” dune species.

Suitability index graph relationships for this variable were determined by: 1) reviewing profiles and cross-sections of existing barrier islands along the Louisiana coast, 2) field investigations which provided ocular estimates of habitat distribution on the islands, and 3) field knowledge of those involved in development of the model.

Variable V₂ - Percent of the total project area that is classified as supratidal habitat.

Supratidal habitat occurs from 2.0 ft. NAVD88 to 4.9 ft. NAVD88. This habitat type primarily encompasses swale and may include low-elevation dune and beach habitat.

Suitability index graph relationships for this variable were determined by: 1) reviewing profiles and cross-sections of existing barrier islands along the Louisiana coast, 2) field investigations which provided ocular estimates of habitat distribution on the islands, and 3) field knowledge of those involved in development of the model.

Variable V₃ - Percent vegetative cover of dune and supratidal habitats. Common dune species include beach tea (*Croton punctatus*), bitter panicum (*Panicum amarum*), morningglory (*Ipomoea sp.*), marshhay cordgrass (*Spartina patens*), and *Heterotheca subaxillaris*. Common foredune/high beach species include sea rocket (*Cakile fusiformis*), sea purslane (*Sesuvium portulacastrum*), and seaside heliotrope (*Heliotropium curassavicum*).

Common supratidal species include goldenrod (*Solidago sempervirens*), marshhay cordgrass (*Spartina patens*), saltgrass (*Distichlis spicata*), deerpea (*Vigna luteola*), eastern baccharis (*Baccharis halimifolia*), marshelder (*Iva frutescens*), sea ox-eye (*Borrichia*

frutescens), glasswort (*Salicornia bigelovii*, *S. virginica*), saltwort (*Batis maritima*), black mangrove (*Avicennia germinans*), beach pea (*Strophostyles helvola*), seashore paspalum (*Paspalum vaginatum*), *Heterotheca subaxillaris*, *Fimbristylis castanea*, *Suaeda linearis*, smooth cordgrass (*Spartina alterniflora*), *Sabatia stellaris* and seaside gerardia (*Agalinis maritima*).

Suitability index graph relationships for this variable were determined by: 1) reviewing vegetative cover transects of existing barrier islands along the Louisiana coast, 2) field investigations which provided ocular estimates of vegetative cover, and 3) field knowledge of those involved in development of the model.

Variable V₄ - Percent vegetative cover by woody species. This variable is intended to capture the habitat value of areas vegetated by woody species. Common woody species include black mangrove (*Avicennia germinans*), eastern baccharis (*Baccharis halimifolia*), wax myrtle (*Myrica cerifera*), and marshelder (*Iva frutescens*). This variable is defined as the percent of the subaerial vegetated area consisting of at least two woody species. The suitability index is divided by two for islands with only one woody species.

The suitability index graph for this variable was primarily based on the best professional judgment and personal field knowledge of those involved in model development. It was agreed that cover by woody species should be a small percentage (10% to 20%) of the vegetative cover on an island.

Variable V₅ - Beach/surf zone features. This variable is intended to capture the habitat value of the beach/surf zone. The suitability index graph for this variable is based on the assumption that a natural beach/surf zone slope or profile provides optimal habitat conditions for fish and wildlife. Man-made features such as breakwaters, containment dikes, and shoreline protection provide sub-optimal conditions. The suitability index value for each beach zone feature was based on the best professional judgment and field knowledge of those involved in model development.

HABITAT SUITABILITY INDEX FORMULA

As with the barrier island model, the EnvWG agreed that the primary habitat variables (i.e., those pertaining to dune and supratidal habitats) were the most important variables in characterizing the habitat quality of a barrier island. Therefore, those variables were given greater influence (i.e., 64% of the model weight) in the model than the remaining variables. Within the HSI formula, variable influence is only determined by the weight (i.e., multiplier) assigned to each variable.

BENEFIT ASSESSMENT

One HSI formula is used for the barrier headland model to calculate net benefits in the project area. Calculation of HUs, AAHUs, and net AAHUs follow the procedure described in the Wetland Value Assessment Methodology Introduction.

Wetland Value Assessment Community Model

Barrier Headland Community Model

Dune Habitat

Variable V_1 Percent of the total project area that is classified as dune habitat.

Supratidal Habitat

Variable V_2 Percent of the total project area that is classified as supratidal habitat.

Vegetative Cover

Variable V_3 Percent vegetative cover of dune and supratidal habitats.

Woody Species

Variable V_4 Percent vegetative cover by woody species.

Beach Zone Habitat

Variable V_5 Beach/surf zone features.

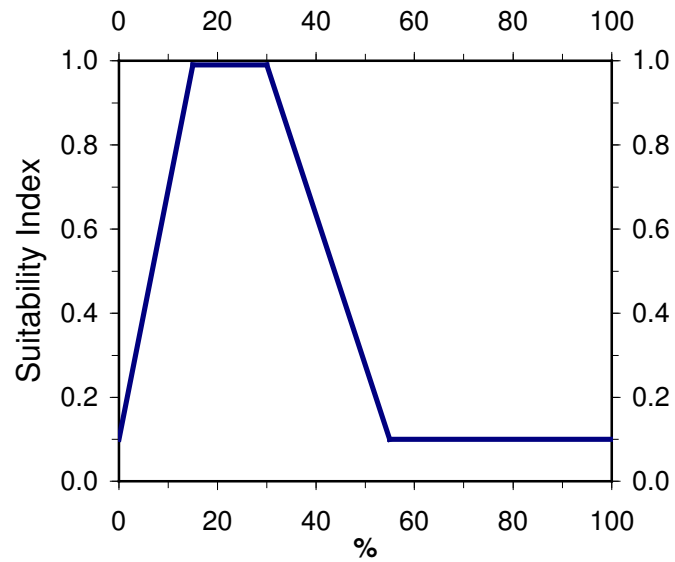
HSI Calculation:

$$\text{HSI} = 0.23(V_1) + 0.23(V_2) + 0.18(V_3) + 0.18(V_4) + 0.18(V_5)$$

Barrier Headland

Variable V₁ Percent of the total project area that is classified as dune habitat.

Suitability Graph



Line Formulas

If $\% < 15$, then $SI = (0.06 * \%) + 0.1$

If $15 \leq \% \leq 30$, then $SI = 1.0$

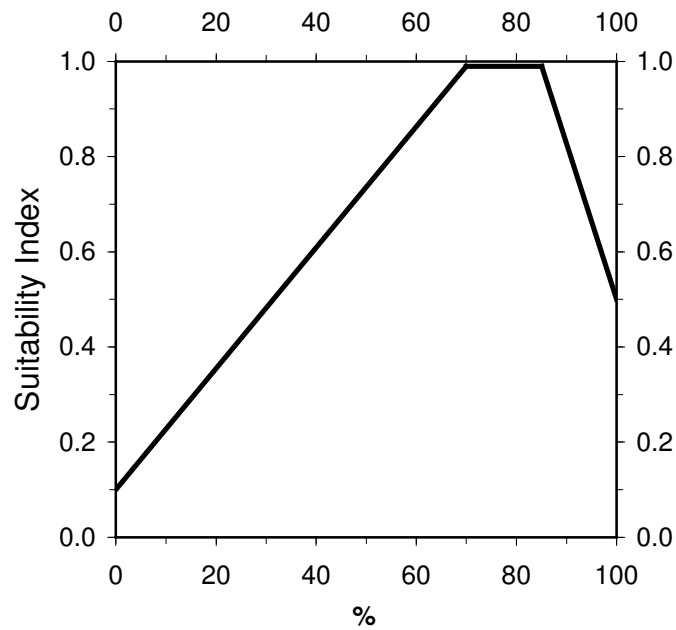
If $30 < \% \leq 55$, then $SI = (-0.036 * \%) + 2.08$

If $\% > 55$, then $SI = 0.1$

Barrier Headland

Variable V₂ Percent of the total project area that is classified as supratidal habitat.

Suitability Graph



Line Formulas

If $\% < 70$, then $SI = (0.013 * \%) + 0.1$

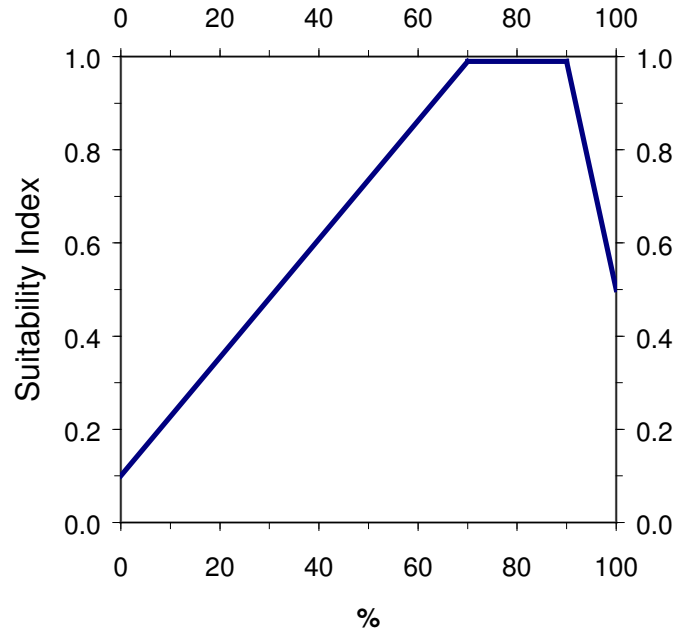
If $70 \leq \% \leq 85$, then $SI = 1.0$

If $\% > 85$, then $SI = (-0.0333 * \%) + 3.83$

Barrier Headland

Variable V₃ Percent vegetative cover of dune and supratidal habitats.

Suitability Graph



Line Formulas

If $\% < 70$, then $SI = (0.013 * \%) + 0.1$

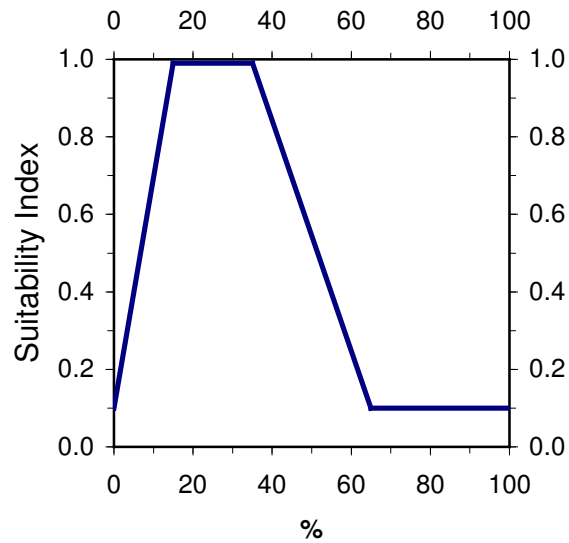
If $70 \leq \% \leq 90$, then $SI = 1.0$

If $\% > 90$, then $SI = (-0.05 * \%) + 5.5$

Barrier Headland

Variable V₄ Percent vegetative cover by woody species.

Suitability Graph



Line Formulas

If $\% < 15$, then $SI = (0.06 * \%) + 0.1$

If $15 \leq \% \leq 35$, then $SI = 1.0$

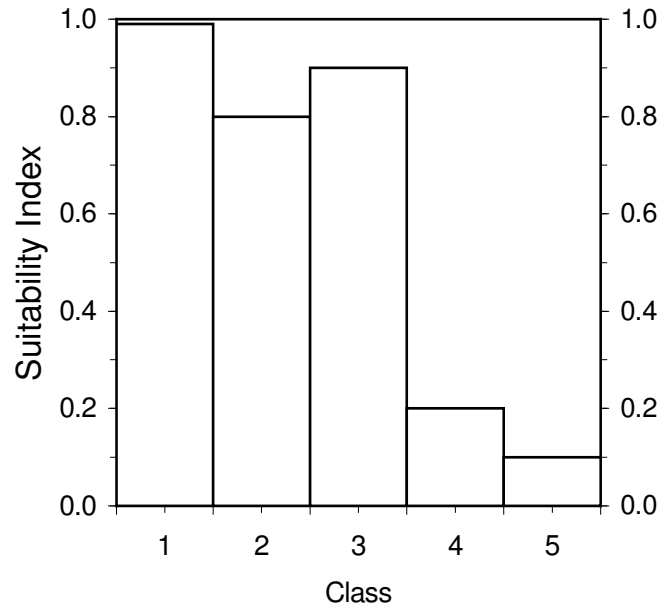
If $35 < \% \leq 65$, then $SI = (-0.03 * \%) + 2.05$

If $\% > 65$, then $SI = 0.1$

Barrier Headland

Variable V₅ Beach/surf zone features.

Suitability Graph



Class 1 = Natural Beach/Unconfined Disposal

Class 2 = Confined Disposal

Class 3 = Breakwaters

Class 4 = Rock on Beach

Class 5 = Seawall/No emergent habitat

II. Barrier Island Community Model

INTRODUCTION

Development of the barrier island model began in 2000 when the Environmental Work Group (EnvWG) requested Drs. Shea Penland and Mark Hester of the University of New Orleans to develop a barrier island model which could be used to determine the wetland benefits of barrier island restoration projects. Historically, the EnvWG utilized the saline emergent marsh model (Attachment 1) to evaluate barrier island restoration projects. For several years, it was recognized that the saline marsh model was inadequate in determining barrier island habitat quality and projecting barrier island restoration project benefits. Barrier islands provide many functions not provided by interior saline marsh and a unique assessment model was necessary to characterize those functions.

A draft barrier island model was presented in May, 2001 and was reviewed and further developed by the EnvWG and Academic Advisory Subcommittee (AAS). Also participating in model development was an interagency group involved in the Barataria Barrier Shoreline Feasibility Study being conducted by the Corps of Engineers (COE) and the Louisiana Department of Natural Resources (LDNR). That group was also in need of a barrier island assessment model to evaluate restoration alternatives proposed along the Barataria Basin gulf shoreline. Both groups, the EnvWG and the feasibility study group, worked together in reviewing and refining several drafts to reach consensus on a final assessment model. The model was developed by an interagency/academic workgroup consisting of individuals with backgrounds in wildlife ecology, fisheries ecology, geomorphology, and plant ecology. As with all habitat assessment models, this model has undergone several revisions since development began in 2000. Model refinement will continue as the model is applied to various restoration projects in different environmental settings. Model refinement can only occur after practical application through which model shortcomings are identified.

This model was developed for determining the suitability of Louisiana coastal barrier islands in providing resting, foraging, breeding, and nursery habitat to a diverse assemblage of fish and wildlife species. Specifically, this model should be applied to barrier islands which consist of emergent habitats and which are gulfward of bay or lake systems. This model was developed to evaluate restoration projects on barrier islands in the Terrebonne and Barataria Basins (e.g., Isles Dernieres, Timbalier, Grand Terre). Application to the Chandeleur Islands, which contain extensive seagrass beds on the bayside, may require model revisions as the value of those seagrass beds is not specifically captured by this model. This model has been designed to function at a community level and therefore attempts to define an optimal combination of habitat conditions for all fish and wildlife species utilizing barrier islands.

VARIABLE SELECTION

The initial list of variables proposed for the barrier island model included; 1) percent of the area classified as supratidal habitat, 2) percent of the supratidal habitat that is vegetated, 3) percent of the area classified as intertidal habitat, 4) percent of the intertidal habitat that is vegetated, 5) marsh edge and interspersions, 6) percent of the area classified as subtidal habitat (relative to subaerial), 7) percent of the subtidal habitat that is vegetated, 8) percent of the project area width that equals or exceeds the 20-year erosion rate, 9) dune height, and 10) percent of project length that protects interior marshes.

Barrier islands consist of many different habitat components including surf zone, beach, dune, supratidal marsh (i.e., swale), intertidal marsh, ponds, lagoons, tidal creeks, unvegetated flats, and subtidal habitat. A key assumption in model development was that for a barrier island to provide optimal conditions for fish and wildlife, all of the above habitat components should exist. Therefore, model variables characterize those key habitat components to provide an index of habitat quality.

The barrier island model development group initially agreed that model variables should address barrier island habitat components (e.g., dune, supratidal, intertidal, vegetative cover, etc.), island integrity/longevity (e.g., island width), and back-barrier/wave shadow benefits. Published Habitat Suitability Index (HSI) models provided little help in developing a potential list of variables as very few HSI models address species-specific habitat needs on barrier islands.

Variables which addressed island integrity (i.e., island width and dune height) were omitted from the model because they do not specifically address fish and wildlife habitat quality. However, those variables are important in determining island longevity and the loss of habitat over the project life. Therefore, they are necessary to determine the quantity of habitat at any given point during the analysis but are not needed to characterize habitat quality.

Woody habitat on barrier islands provides the important functions of nesting habitat for certain species such as the brown pelican and stopover habitat for neotropical migratory birds. Therefore, it was agreed to include a variable addressing that habitat component. In addition, the importance of beach and surf zone habitat was addressed by including a variable which describes the features, if any, located in the beach/surf zone. That zone is especially important as foraging habitat for shorebirds and wading birds and provides habitat for unique nekton assemblages.

The final list of variables included in this model are: 1) percent of the subaerial area that is classified as dune habitat; 2) percent of the dune habitat that is vegetated; 3) percent of the subaerial area that is classified as supratidal habitat; 4) percent of the supratidal habitat that is vegetated; 5) percent of the subaerial area that is classified as intertidal habitat; 6) percent of the intertidal habitat that is vegetated; 7) percent of the area that is classified as subtidal habitat (relative to subaerial); 8) percent vegetative cover by woody species; 9) marsh edge and interspersions; and 10) beach/surf zone features.

SUITABILITY INDEX GRAPH DEVELOPMENT

A key assumption in developing the suitability index graphs was that existing, stable barrier islands which contain the three key habitat components (i.e., dune, supratidal, and intertidal habitats) should serve as the optimum to which all other islands should be compared. The model development group agreed that the model should not use, as its optimum, an island which would not have existed nor presently exists along the Louisiana coast. For example, the optimal island (i.e., HSI = 1.0) should not be described as one 3 miles wide, with dunes 20 feet high and 1,000 feet wide, and with extensive forested habitat. Islands of that type have never existed along the Louisiana coast and restoration efforts are not aimed at creating islands of that sort. Although, “super” barrier islands could be constructed and would provide the same functions as typical barrier islands, it was agreed that creation of such islands is not likely and a comparison of a typical barrier island to a “super” island would be unrealistic. In essence, the group agreed that optimal barrier island habitat once existed along the Louisiana coast and that a naturally-formed, stable barrier island should serve as the optimal condition in this model. Therefore,

historical data and other information from existing barrier islands served as the primary basis for suitability index graph development.

Suitability Index graph development was very similar to the process used for other habitat assessment models developed for CWPPRA (e.g., marsh community models). A variety of resources were utilized to construct each SI graph, including personal knowledge of the barrier island model development group and EnvWG, consultation with other professionals and researchers outside the model development group, and published and unpublished data and studies. The process of SI graph development is one of constant evolution, feedback, and refinement; the form of each SI graph was decided upon through consensus among EnvWG members.

The Suitability Index graphs were developed according to the following assumptions.

Variable V_{1a} - Percent of the total subaerial area that is classified as dune habitat. Dune habitat is defined as subaerial habitat \geq 5 ft. NAVD88 and encompasses foredune, dune, and reardune. Although dune habitat occurs at elevations below 5 ft. NAVD88, lower-elevation dunes are more ephemeral and more frequently overwashed, which reduces their habitat value. Lower-elevation dunes often consist of vegetation more commonly associated with swale habitat and lack a high percentage of “typical” dune species.

Suitability index graph relationships for this variable were determined by: 1) reviewing profiles and cross-sections of existing barrier islands along the Louisiana coast, 2) field investigations which provided ocular estimates of habitat distribution on the islands, and 3) field knowledge of those involved in development of the model.

Variable V_{1b} - Percent of dune habitat that is vegetated. Common dune species include beach tea (*Croton punctatus*), bitter panicum (*Panicum amarum*), morningglory (*Ipomoea sp.*), marshhay cordgrass (*Spartina patens*), and *Heterotheca subaxillaris*. Common foredune/high beach species include sea rocket (*Cakile fusiformis*), sea purslane (*Sesuvium portulacastrum*), and seaside heliotrope (*Heliotropium curassavicum*).

Suitability index graph relationships for this variable were determined by: 1) reviewing vegetative cover transects of existing barrier islands along the Louisiana coast, 2) field investigations which provided ocular estimates of vegetative cover, and 3) field knowledge of those involved in development of the model.

Variable V_{2a} - Percent of the total subaerial area that is classified as supratidal habitat. Supratidal habitat occurs from 2.0 ft. NAVD88 to 4.9 ft. NAVD88. This habitat type primarily encompasses swale and may include low-elevation dune and beach habitat.

Suitability index graph relationships for this variable were determined by: 1) reviewing profiles and cross-sections of existing barrier islands along the Louisiana coast, 2) field investigations which provided ocular estimates of habitat distribution on the islands, and 3) field knowledge of those involved in development of the model.

Variable V_{2b} - Percent of supratidal habitat that is vegetated. Common supratidal species include goldenrod (*Solidago sempervirens*), marshhay cordgrass (*Spartina patens*), saltgrass (*Distichlis spicata*), deerpea (*Vigna luteola*), eastern baccharis (*Baccharis halimifolia*), marshelder (*Iva frutescens*), sea ox-eye (*Borrchia frutescens*), glasswort (*Salicornia bigelovii*, *S. virginica*), saltwort (*Batis maritima*), black mangrove (*Avicennia germinans*), beach pea (*Strophostyles helvola*), seashore paspalum (*Paspalum vaginatum*),

Heterotheca subaxillaris, *Fimbristylis castanea*, *Suaeda linearis*, smooth cordgrass (*Spartina alterniflora*), *Sabatia stellaris* and seaside gerardia (*Agalinis maritima*).

Suitability index graph relationships for this variable were determined by: 1) reviewing vegetative cover transects of existing barrier islands along the Louisiana coast, 2) field investigations which provided ocular estimates of vegetative cover, and 3) field knowledge of those involved in development of the model.

Variable V_{3a} - Percent of the total subaerial area that is classified as intertidal habitat. Intertidal habitat occurs from 0.0 ft. NAVD88 to 1.9 ft. NAVD88. This habitat type encompasses intertidal marsh, mudflats, beach, and any other habitats within that elevation range on the gulfside and bayside of the barrier island.

Suitability index graph relationships for this variable were determined by: 1) reviewing profiles and cross-sections of existing barrier islands along the Louisiana coast, 2) field investigations which provided ocular estimates of habitat distribution on the islands, and 3) field knowledge of those involved in development of the model.

Variable V_{3b} - Percent of intertidal habitat that is vegetated (bayside only). Common intertidal, back-barrier marsh species include smooth cordgrass (*Spartina alterniflora*) and black mangrove (*Avicennia germinans*). Intertidal habitat on the gulfside of an island is typically an unvegetated wash zone or low beach.

Suitability index graph relationships for this variable were determined by: 1) reviewing vegetative cover transects of existing barrier islands along the Louisiana coast, 2) field investigations which provided ocular estimates of vegetative cover, and 3) field knowledge of those involved in development of the model.

Variable V₄ - Percent subtidal habitat expressed as a percent relative to subaerial habitat.

Subtidal habitat occurs from -1.5 ft. NAVD88 to 0.0 NAVD88 and encompasses vegetated and unvegetated, open-water habitat.

The suitability index graph for this variable was primarily based on the best professional judgment and personal field knowledge of those involved in model development.

Variable V₅ - Percent vegetative cover by woody species. This variable is intended to capture the habitat value of areas vegetated by woody species. Common woody species include black mangrove (*Avicennia germinans*), eastern baccharis (*Baccharis halimifolia*), wax myrtle (*Myrica cerifera*), and marshelder (*Iva frutescens*). This variable is defined as the percent of the subaerial vegetated area consisting of at least two woody species. The suitability index is divided by two for islands with only one woody species.

The suitability index graph for this variable was primarily based on the best professional judgment and personal field knowledge of those involved in model development. It was agreed that cover by woody species should be a small percentage (10% to 20%) of the vegetative cover on an island.

Variable V₆ - Edge and interspersion. This variable is intended to capture the relative juxtaposition of intertidal, subaerial habitat (vegetated and unvegetated) and intra-island aquatic habitats such as ponds, lagoons, and tidal creeks associated with barrier islands. The degree of interspersion is determined by comparing the project area to sample

illustrations (Appendix A) depicting different degrees of interspersions. Interspersions including ponds, lagoons, and tidal creeks is of specific importance in assessing the foraging and nursery habitat functions of barrier islands to marine and estuarine fish and shellfish and associated avian predators. These habitats are characterized by specific physical attributes and thus unique fish and shellfish assemblages exhibit greater selection and utilization of these back barrier habitats as residents and transients over other barrier island, bay, and mainland aquatic habitats. However, interspersions can be indicative of degradation of back-barrier marsh from subsidence, a factor taken into secondary consideration in assigning suitability indices to the various interspersions classes.

A high degree of interspersions is assumed to be optimal (SI = 1.0), and the lowest expression of interspersions (e.g., all marsh/unvegetated flat, all open water, or all marsh/unvegetated flat clumped together) is assumed to be less desirable in terms of community-based function and quality. Class 1 is representative of unvegetated flats and healthy back-barrier marsh with a high degree of at least two of the following: tidal creeks, tidal channels, ponds, and/or lagoons. Numerous small ponds (Class 2) offer a high degree of interspersions, but are also usually indicative of the beginning of marsh break-up and degradation, and are therefore assigned a lower SI of 0.8. Class 3 represents the development of larger open water areas from coalescence of aquatic habitats, due to overwash, subsidence, or impacts from oil and gas exploration which provide less interspersions. Once these larger open water areas develop, they no longer have the physicochemical factors (e.g., area, edge, temperature, salinity, and hydroperiod) that make them functionally distinct and of high quality and would be assigned a SI = 0.6. Carpet marsh or projects designed to create intertidal marsh without construction of aquatic habitats would lack functionally distinct interspersions and provide basically one intertidal habitat type; therefore, natural and created carpet marsh should also be classified as Class 3. Class 4 represents extreme stages of subsidence or oil and gas induced loss of back barrier marshes or dominance of breaching with unstable overwash flats (SI = 0.4). Although habitats represented by this classification are predominantly subtidal, unvegetated flats still provide valuable habitat for many fish and shellfish and provide loafing areas targeted by waterbirds. The lowest expression of interspersions, Class 5, consists of no emergent, intertidal land and is assumed to be least optimal from a community basis (SI = 0.1). However, this class can represent the development of inlets which in themselves are important spawning and foraging habitat for economically important marine fishery species.

The suitability index graph for this variable was determined by reviewing aerial photographs of back-barrier habitats and determining which degree of interspersions provided optimal habitat conditions for fish and wildlife. It was determined that five classes of interspersions would best depict the range of interspersions on barrier islands. The suitability index value for each interspersions class was based on fisheries studies by the Louisiana State University, Coastal Fisheries Institute and the National Marine Fisheries Service; avian surveys by the Louisiana Department of Wildlife and Fisheries; wetland studies by LUMCON and the Louisiana State University, Wetland Biogeochemistry Institute; best professional judgment; and field knowledge of those involved in model development.

Variable V₇ - Beach/surf zone features. This variable is intended to capture the habitat value of the beach/surf zone. The suitability index graph for this variable is based on the assumption that a natural beach/surf zone slope or profile provides optimal habitat conditions for fish and wildlife. Man-made features such as breakwaters, containment

dikes, and shoreline protection provide sub-optimal conditions. The suitability index value for each beach zone feature was based on the best professional judgment and field knowledge of those involved in model development.

HABITAT SUITABILITY INDEX FORMULA

The EnvWG agreed that the primary habitat variables (i.e., those pertaining to dune, supratidal, and intertidal habitats) were the most important variables in characterizing the habitat quality of a barrier island. Therefore, those variables were given greater influence (i.e., 60% of the model weight) in the model than the remaining variables. Within the HSI formula, variable influence is determined only by the weight (i.e., multiplier) assigned to each variable.

BENEFIT ASSESSMENT

One HSI formula is used for the barrier island model to calculate net benefits in the project area. Calculation of HUs, AAHUs, and net AAHUs follow the procedure described in the Wetland Value Assessment Methodology Introduction.

Wetland Value Assessment Community Model

Barrier Island

Dune Habitat

Variable V_{1a} Percent of the total subaerial area that is classified as dune habitat.

Variable V_{1b} Percent of dune habitat that is vegetated.

Supratidal Habitat

Variable V_{2a} Percent of the total subaerial area that is classified as supratidal habitat.

Variable V_{2b} Percent of supratidal habitat that is vegetated.

Intertidal Habitat

Variable V_{3a} Percent of the total subaerial area that is classified as intertidal habitat.

Variable V_{3b} Percent of intertidal habitat that is vegetated.

Subtidal Habitat

Variable V_4 Percent subtidal habitat expressed as a percent relative to subaerial habitat.

Woody Species

Variable V_5 Percent vegetative cover by woody species.

Interspersion

Variable V_6 Edge and Interspersion.

Beach Zone Habitat

Variable V_7 Beach/surf zone features.

EXAMPLE for calculating V_{1a} , V_{2a} , V_{3a} and V_{4a} : If island cross section has an average dune width=50 m, supratidal width=150 m, intertidal width=400 m, and subtidal width=150 m, then assume subaerial width =600m.

$V_{1a}=(50/600)=8\%$, $V_{2a}=(150/600)=25\%$, $V_{3a}=(400/600)=67\%$, $V_4=(150/600)=25\%$.

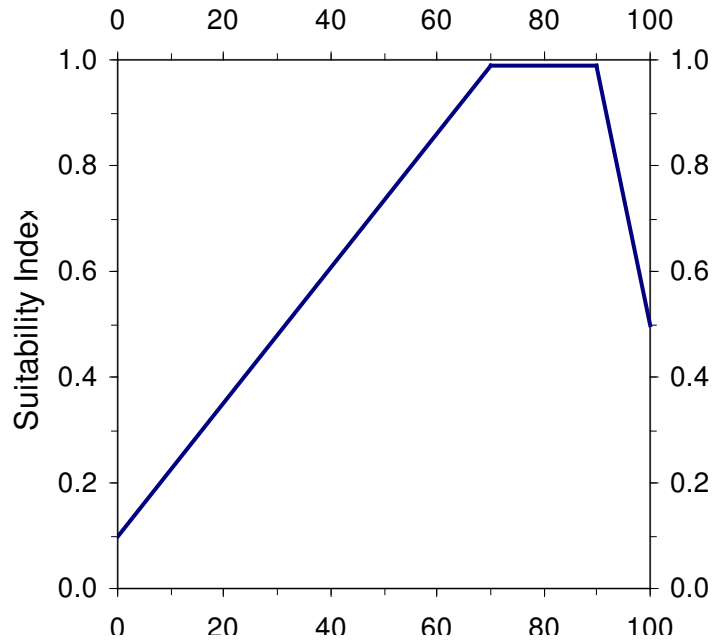
HSI Calculation:

$$\text{HSI} = 0.125(V_{1a}) + 0.05(V_{1b}) + 0.125(V_{2a}) + 0.05(V_{2b}) + 0.15(V_{3a}) + 0.10(V_{3b}) + 0.05(V_4) + 0.10(V_5) + 0.15(V_6) + 0.10(V_7)$$

Barrier Island

Variable V_{1a} Percent of the total subaerial area that is classified as dune habitat.

Suitability Graph



Line Formulas

If $\% < 5$, then $SI = (0.18 * \%) + 0.1$

If $5 \leq \% \leq 15$, then $SI = 1.0$

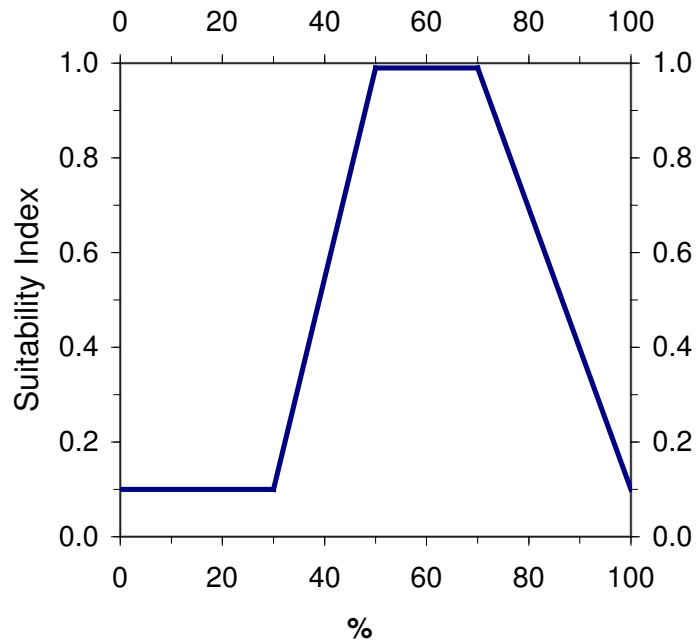
If $15 < \% \leq 40$, then $SI = (-0.036 * \%) + 1.54$

If $\% > 40$, then $SI = 0.1$

Barrier Island

Variable V_{1b} Percent of dune habitat that is vegetated.

Suitability Graph



Line Formulas

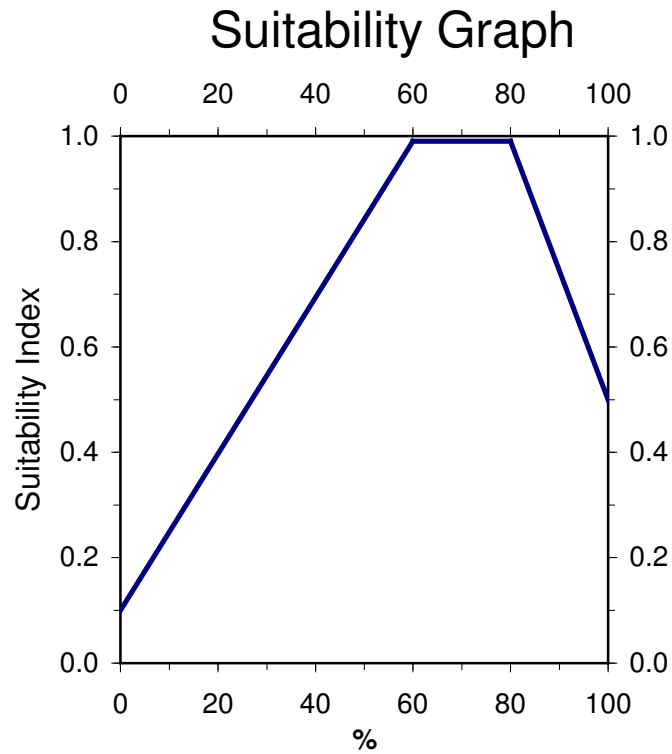
If $\% < 30$, then $SI = (0.015 * \%) + 0.1$

If $30 \leq \% \leq 70$, then $SI = 1.0$

If $\% > 70$, then $SI = (-0.045 * \%) + 4.6$

Barrier Island

Variable V_{2a} Percent of the total subaerial area that is classified as supratidal habitat.



Line Formulas

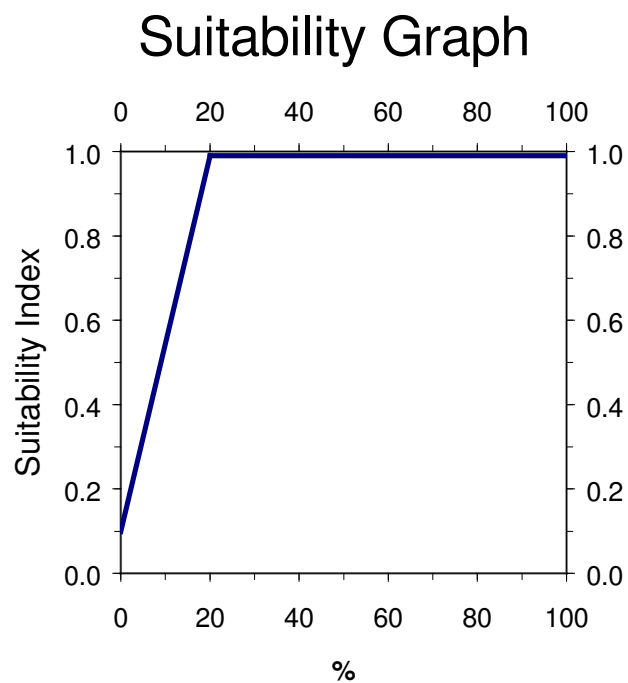
If $\% < 20$, then $SI = (0.045 * \%) + 0.1$

If $20 \leq \% \leq 40$, then $SI = 1.0$

If $\% > 40$, then $SI = (-0.015 * \%) + 1.6$

Barrier Island

Variable V_{2b} Percent of supratidal habitat that is vegetated.



Line Formulas

If $\% < 20$, then $SI = (0.013 * \%) + 0.1$

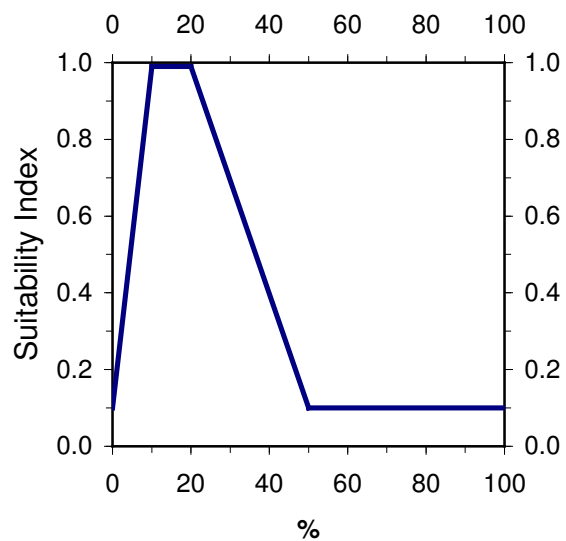
If $20 \leq \% \leq 100$, then $SI = 1.0$

If $\% > 100$, then $SI = (-0.05 * \%) + 5.5$

Barrier Island

Variable V_{3a} Percent of the total subaerial area that is classified as intertidal habitat.

Suitability Graph



Line Formulas

If $\% < 10$, then $SI = 0.1$

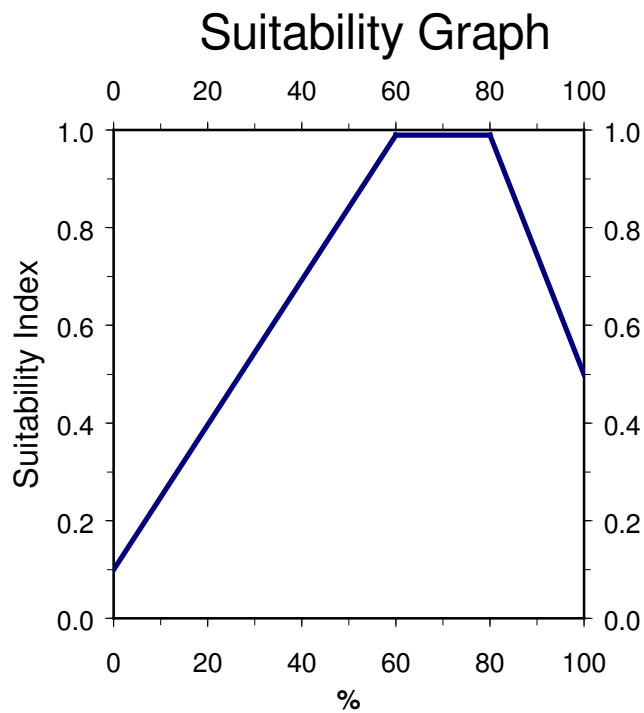
If $10 \leq \% < 20$, then $SI = (0.045 * \%) - 1.25$

If $20 \leq \% \leq 50$, then $SI = 1.0$

If $\% > 50$, then $SI = (-0.03 * \%) + 3.1$

Barrier Island

Variable V_{3b} Percent of intertidal habitat that is vegetated (bayside only).



Line Formulas

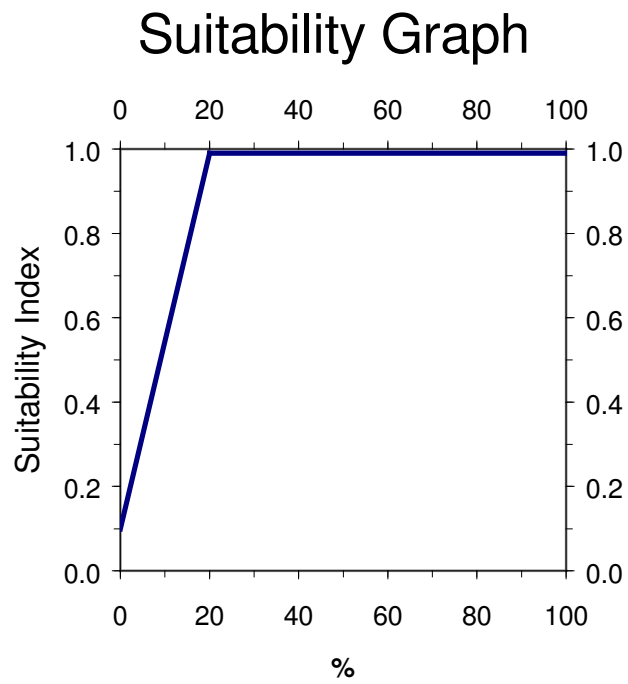
If $\% < 60$, then $SI = (0.015 * \%) + 0.1$

If $60 \leq \% \leq 80$, then $SI = 1.0$

If $\% > 80$, then $SI = (-0.025 * \%) + 3$

Barrier Island

Variable V₄ Percent subtidal habitat expressed as a percent relative to subaerial habitat.



Line Formulas

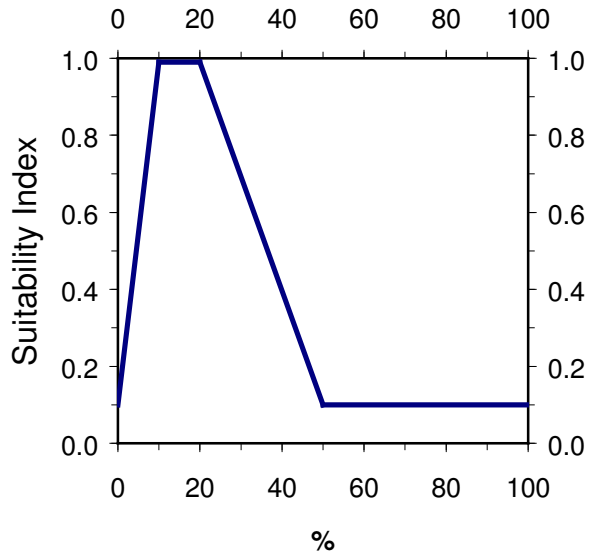
If % < 20, then $SI = (0.045 * \%) + 0.1$

If % \geq 20, then $SI = 1.0$

Barrier Island

Variable V₅ Percent vegetative cover by woody species.

Suitability Graph



Line Formulas

If $\% < 10$, then $SI = (0.09 * \%) + 0.1$

If $10 \leq \% \leq 20$, then $SI = 1.0$

If $20 < \% \leq 50$, then $SI = (-0.03 * \%) + 1.6$

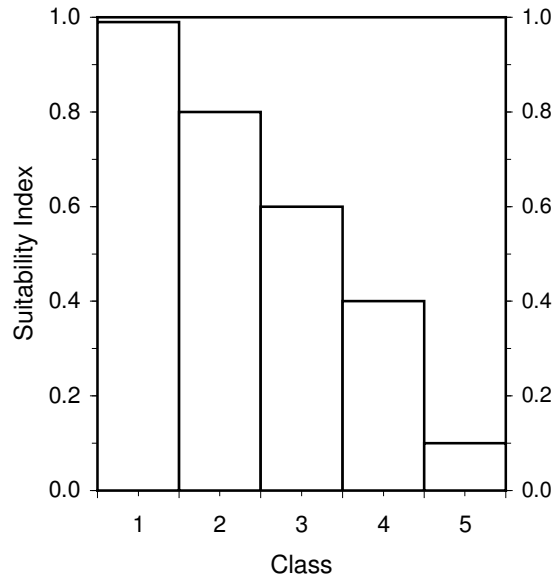
If $\% > 50$, then $SI = 0.1$

The suitability index is divided by two for islands with only one woody species.

Barrier Island

Variable V₆ Edge and Interspersion.

Suitability Graph



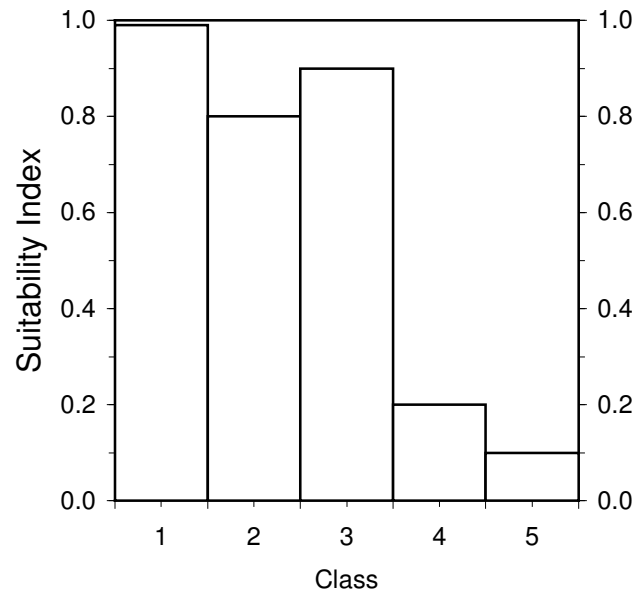
Instructions for Calculating SI for Variable V₆:

1. Refer to Appendix A for examples of the different interspersion classes.
2. Estimate the percent of project area in each class. If the entire project area is open water, assign interspersion Class 5.

Barrier Island

Variable V₇ Beach/surf zone features.

Suitability Graph



Class 1 = Natural Beach/Unconfined Disposal

Class 2 = Confined Disposal

Class 3 = Breakwaters

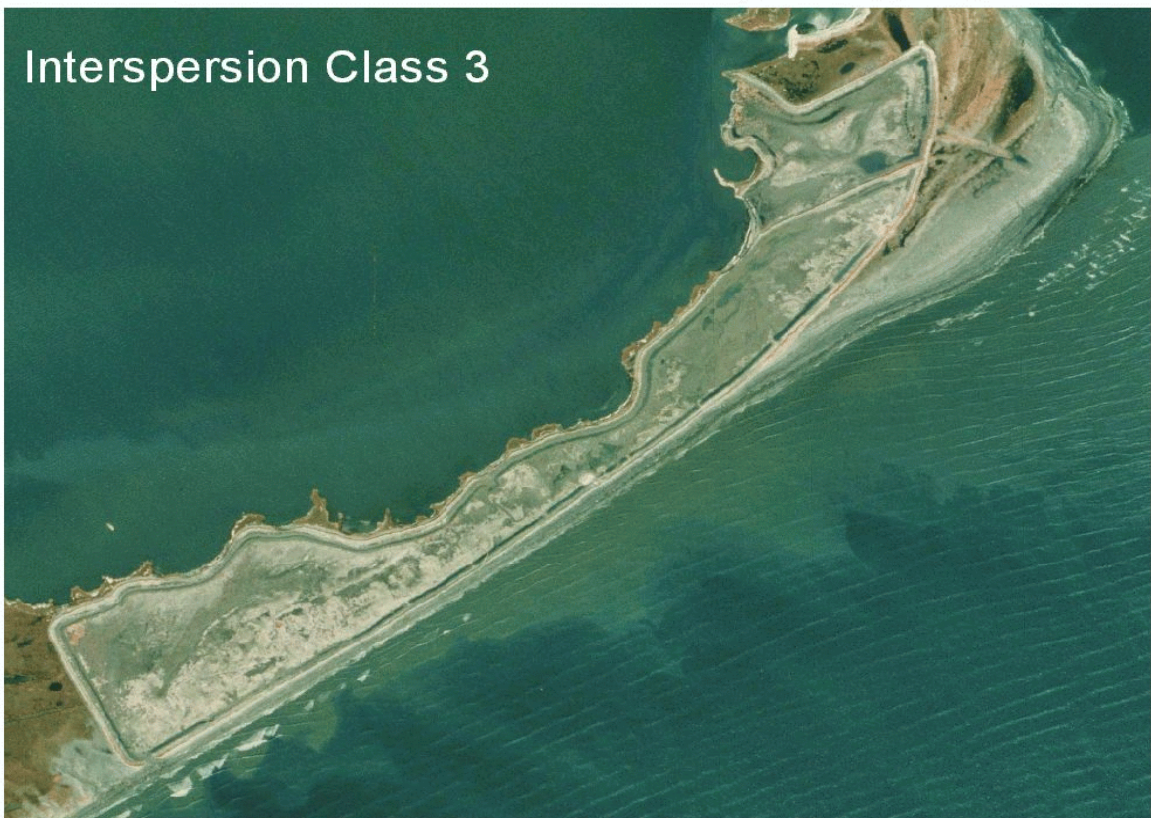
Class 4 = Rock on Beach

Class 5 = Seawall/No emergent habitat

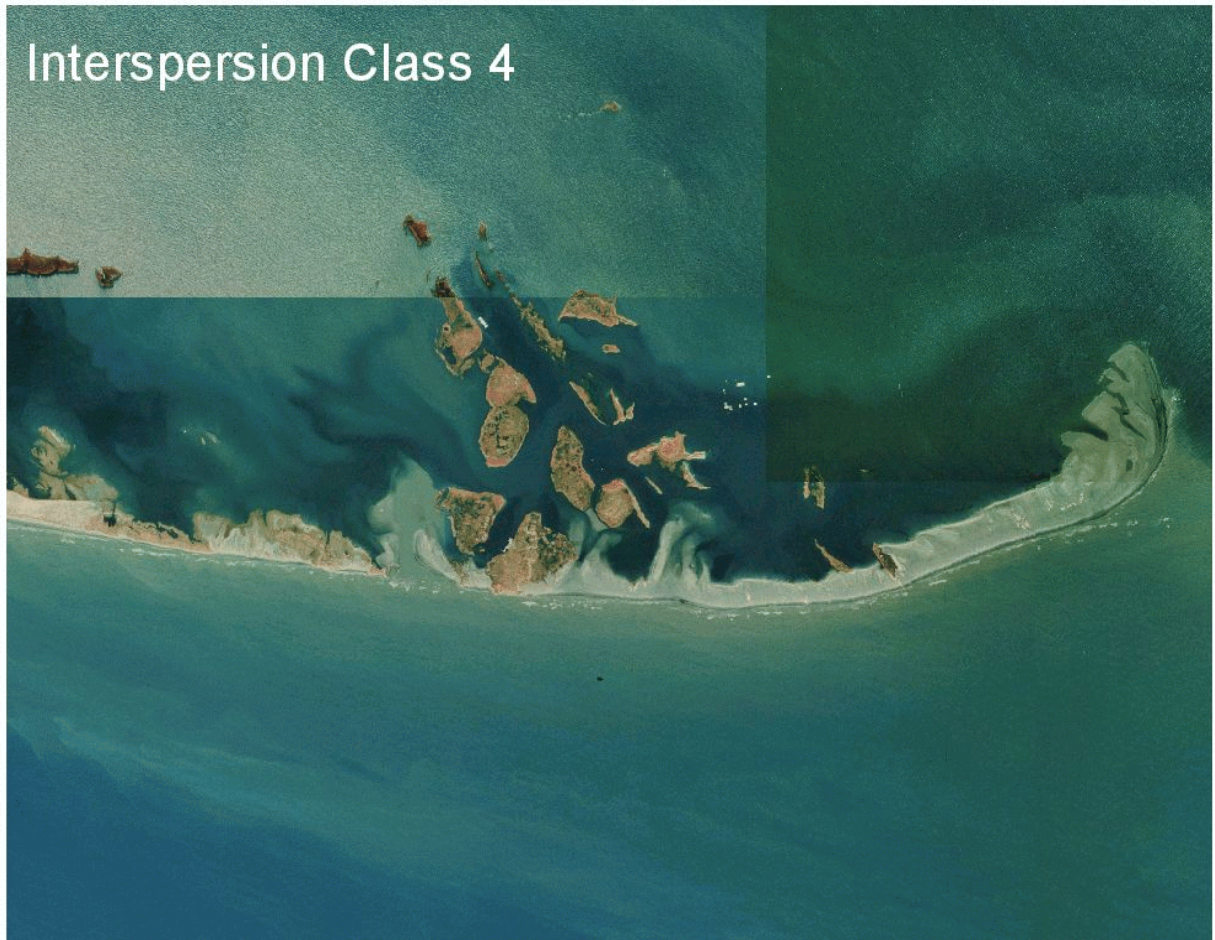
Attachment A – Marsh Edge and Interspersion Classes



Attachment A - Marsh Edge and Interspersion Classes



Attachment A - Marsh Edge and Interspersion Classes



III. Coastal Chenier/Ridge Community Model

INTRODUCTION

The habitat assessment model presented in this document is a modification of the U. S. Fish and Wildlife Service's Habitat Evaluation Procedures (HEP). It utilizes a set of variables considered important in determining the suitability of non-grazed barrier headland ridges, cheniers, and spoil areas in Louisiana that are, or are proposed to be, vegetated in primarily non-obligate wetland plant species, to provide the habitat necessary to support transient migratory landbirds in the spring and fall. The area of the state to which this model is applicable includes the portions of Cameron, Vermilion, Iberia, St. Mary, Terrebonne, Lafourche, Jefferson, Plaquemines and St. Bernard Parishes south of the Intracoastal Waterway. The model attempts to assess the suitability of habitat for providing foraging and resting requirements to a diverse assemblage of migratory landbirds. This model has not been validated with field data.

VARIABLE SELECTION

Several existing Habitat Suitability Index (HSI) models were considered for use in determining migratory landbird stopover habitat quality, including the models for roseate spoonbill, great egret, brown thrasher, swamp rabbit, veery and yellow warbler. However, the emphasis for all these models was breeding habitat requirements. None addressed the set of variables that were determined to be most pertinent to assessment of stopover habitat quality, where a variety of species with differing foraging strategies occupy the habitat for a relatively brief time period. Selection of the variables used for this model was based upon a review of available literature, interviews with specialists who have studied various aspects of migratory landbird ecology in coastal stopover habitats, and the field knowledge of those involved with development of this model.

More than 80 species of neotropical migratory landbirds from at least eleven Families pass through Louisiana during the spring and fall (Sauer et al. 2000). At the peak of spring migration, it is estimated that as many as 50,000 birds per day per mile of coastline enter the state (Conner and Day 1987). During favorable weather conditions, the majority of these birds will bypass small wooded areas embedded in coastal marsh and land in extensive forested areas north of the marshes, but during thunderstorms or other unfavorable conditions, a large percentage of these individuals may stop in these small coastal wood patches (Gauthreaux 1971). Identifying the optimal stopover habitat characteristics for such a varied group of birds is challenging. Martin (1980) stated that migrants often select habitats en route that superficially resemble their breeding habitat. Moore et al. (1995) concluded that spring migrants on the northern Gulf of Mexico coast preferentially select structurally diverse stopover sites, consisting of forested areas with mixed shrub layers, and that maintenance of plant species and structural diversity should be a goal at migratory landbird stopover sites. Similarly, Martin (1980) found that habitat structure in shelterbelt "island" habitat in the Great Plains influences migrant diversity and abundance. Robinson and Holmes (1984) determined that the diversity of bird species in terrestrial habitats is correlated with factors associated with vegetation structure or composition, including diversity of foliage height, and stated that, in general, the number

of bird species increases with the addition of vertical vegetation layers. Based upon the findings above and upon prior field investigations, we proposed three habitat assessment variables: 1) percent tree canopy cover, 2) percent shrub/midstory canopy cover, and 3) the number of native woody species planted/present on the site. We also identified some tentative variables, including percent herbaceous ground cover, minimum patch size, average tree height, and proximity of the site to other forested patches.

We asked three specialists with expertise in the arena of migratory landbird habitat requirements to comment on our proposed habitat variables: William C. Hunter, U.S. Fish and Wildlife Service, Atlanta, GA; Mark Woodrey, U.S. Fish and Wildlife Service, Jackson, MS; and Wylie Barrow, U.S.G.S., National Wetlands Research Center, Lafayette, LA. Their comments have been incorporated into the model and referenced as personal communications.

All specialists queried concurred that structural and floristic diversity were key factors to consider. Additionally, they all stressed the importance of fresh water sources for spring trans-Gulf migrants. However, we did not develop a variable to capture this factor, as the model was being designed for created habitat in an area where fresh water input would probably be limited to precipitation. A variable to measure fresh water proximity should probably be created for assessing extant stopover sites. We decided not to use a variable for percent herbaceous ground cover because for the majority of birds that would be likely to use forested coastal areas, the amount of herbaceous ground cover would not be as critical a habitat need as would tree and shrub cover (Moore et al. 1995). Neotropical migratory landbirds dependent upon grasslands would not typically use forested cheniers, spoil banks, etc., instead gravitating towards marshes, pastures, and agricultural fields. No minimum patch size for sites was established, because while larger patches are accepted to be more valuable to birds than small patches, a small patch surrounded by non-forested habitat could be very important at times to migrants (Barrow, pers. comm.). The same basic rationale was used in determining that a variable to rank sites on the basis of their proximity to other forested patches was not practical. Sites adjacent to other forested sites are assumed to facilitate migration of forest birds by reducing the distance needed to travel through open and potentially inhospitable terrain, but an isolated woodland could be important during periods of inclement weather (Barrow, pers. comm.). Canopy height was ruled out as a variable because no data was discovered that addressed minimum canopy heights at stopover sites. The developers of this model assumed that percent canopy cover was a more pertinent variable to consider.

SUITABILITY INDEX GRAPH DEVELOPMENT

Variable V1 – Percent tree canopy cover. Neotropical migratory landbirds preferentially use stopover sites exhibiting high structural and floristic diversity (Moore et al. 1995). To achieve the desired vertical plant diversity (i.e., a mix of trees, tree saplings, shrubs, vines, and herbaceous plants), a moderately closed tree canopy would be preferred to over a totally closed canopy (Hunter, pers. comm.; Barrow, pers. comm.; Woodrey, pers. comm.). Tree canopy coverage ranging from 65 - 85% is assumed to provide optimal conditions to allow for establishment of midstory trees, shrubs, vines, and herbaceous plants, provided that the site is not grazed. Tree species that may occur at coastal stopover sites include sugarberry (*Celtis laevigata*), toothache tree (*Zanthoxylum clava-herculis*), live oak (*Quercus virginiana*), water oak (*Q. nigra*), honey locust (*Gleditsia triacanthos*), red

mulberry (*Morus rubra*), and green haw (*Crataegus viridis*) (Louisiana Natural Heritage Program 1988, Materne 2000, Gosselink et al. 1979, Thomas and Allen 1996, Thomas and Allen 1998).

Variable V2 – Percent shrub/midstory cover. Shrub-scrub habitats provide important foraging and resting areas for migrant landbirds (Moore et al. 1995). Shrub-scrub habitats are also presumed to be important to migratory passerine birds as refuges from raptor predators (Moore et al. 1990). For the purposes of this model, shrub/midstory means multi-stemmed shrubs, single-stemmed midstory trees, single-stemmed saplings of overstory tree species, and woody vines. Shrub/midstory canopy coverage ranging from 35 - 65% is assumed to represent optimal conditions at a forested site. Species of shrubs, small trees, and woody vines that may be found at stopover sites include Small's acacia (*Acacia minuta*), wax myrtle (*Morella cerifera*), dwarf palmetto (*Sabal minor*), yaupon holly (*Ilex vomitoria*), saltbush (*Baccharis halimifolia*), greenbriars (*Smilax spp.*), grapes (*Vitis spp.*), prickly pear cactus (*Opuntia spp.*), Virginia creeper (*Parthenocissus quinquefolia*), pepper vine (*Ampelopsis arborea*), blackberries (*Rubus spp.*), rattlebox (*Sesbania drummondii*), marshelder (*Iva frutescens*), poison ivy (*Toxicodendron radicans*), Carolina wolf-berry (*Lycium carolinianum*), marine vine (*Cissus incisa*) and elderberry (*Sambucus canadensis*) (Louisiana Natural Heritage Program 1988, Materne 2000, Gosselink et al. 1979, Thomas and Allen 1996, Thomas and Allen 1998).

Variable V3 – Native woody species diversity. A wide variety of fruits, flowers, nectars, and animals, primarily invertebrates, are consumed by migrant landbirds (Moore et al. 1995, Fontenot 1999, Barrow, pers. comm.). Robinson and Holmes (1984) concluded that vegetation provides birds with foraging opportunities and constraints depending upon the structure of individual plants, aggregations of plants, and the arthropods that these plants host. The resulting foraging conditions define the diversity of bird species in the habitat. While some exotic plant species provide foraging opportunities to migrant landbirds, others are of limited value to spring and fall migrant birds (Barrow and Renne, 2001, Barrow, pers. comm.). It is assumed that a variety of native shrubs, midstory trees, woody vines and overstory trees will provide sufficiently diverse foraging and resting habitat to enable spring and fall transient birds to continue their migration. Woody plant species composition and diversity in stopover habitat is influenced by elevation, soil type, and salinity levels (Materne 2000, Louisiana Natural Heritage Program 1988), and the capacity of sites to support certain species will depend upon these and other factors. Based upon a review of available written information and upon the field knowledge of those involved in development of this model, and upon the range of conditions likely to be encountered in stopover habitat in the area the model addresses, presence of ≥ 10 species of native trees, shrubs, and woody vines is assumed to represent optimal conditions. It is also assumed that the parameters defining optimal conditions for variables V1 and V2 will moderate the potential for variable V3 to exert a false reading of habitat value for migrant landbirds, should the diversity of plant species be confined only to trees, or to shrubs, or to woody vines.

HABITAT SUITABILITY INDEX FORMULA

The final step in model development was to construct a mathematical formula that combines all Suitability Indices into a single Habitat Suitability Index (HSI) value. Because the Suitability Indices range from 0.1 to 1.0, the HSI also ranges from 0.1 to 1.0, and is a numerical representation of the overall or "composite" habitat quality of the area

being evaluated. Within the HSI formula, any Suitability Index can be weighted by various means to increase the power or "importance" of that variable relative to the other variables in determining the HSI. For this model, it was assumed that the variables are of equal weight in determining the habitat quality of a coastal chenier/ridge.

To combine the variables into an HSI formula, a geometric mean was chosen, as opposed to an arithmetic mean, to convey the weak compensatory relationship between the three variables. An arithmetic mean is often used when it is assumed that the model variables have a strong compensatory relationship (i.e., a high value for one variable can compensate for the low value of another variable). The geometric mean is used to discourage a variable with a marginal or low suitability from being offset by the high suitability of the other variables (U.S. Fish and Wildlife Service 1981). It was assumed that the three variables in this model do not have a strong compensatory relationship.

HSI Calculation: $HSI = (SIV_1 \times SIV_2 \times SIV_3)^{1/3}$

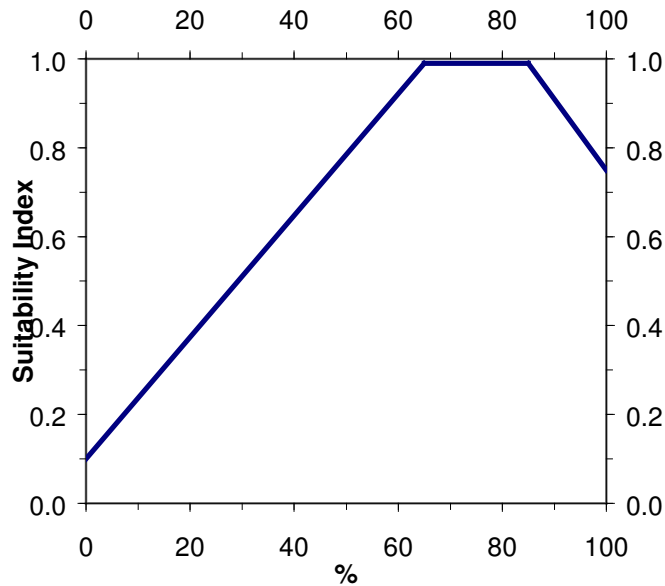
BENEFIT ASSESSMENT

The net benefits of a proposed project are determined by predicting future habitat conditions under two scenarios: future without-project and future with-project. Specifically, predictions are made as to how the model variables will change through time under the two scenarios. Through that process, HSIs are established for baseline (pre-project) conditions and for future without- and future with-project scenarios for selected "target years" throughout the expected life of the project. Those HSIs are then multiplied by the project area acreage at each target year to arrive at Habitat Units (HUs). Habitat Units represent a numerical combination of quality (HSI) and quantity (acres) existing at any given point in time. The HUs resulting from the future without- and future with-project scenarios are annualized, averaged over the project life, to determine Average Annual Habitat Units (AAHUs). The "benefit" of a project is quantified by comparing AAHUs between the future without- and future with-project scenarios. The difference in AAHUs between the two scenarios represents the net benefit attributable to the project in terms of habitat quantity and quality.

Coastal Chenier/Ridge

Variable V₁ Percent Tree Canopy Cover

Suitability Graph



Line Formulas

If % < 65, then $SI = (0.014 * \%) + 0.1$

If $65 \leq \% \leq 85$, then $SI = 1.0$

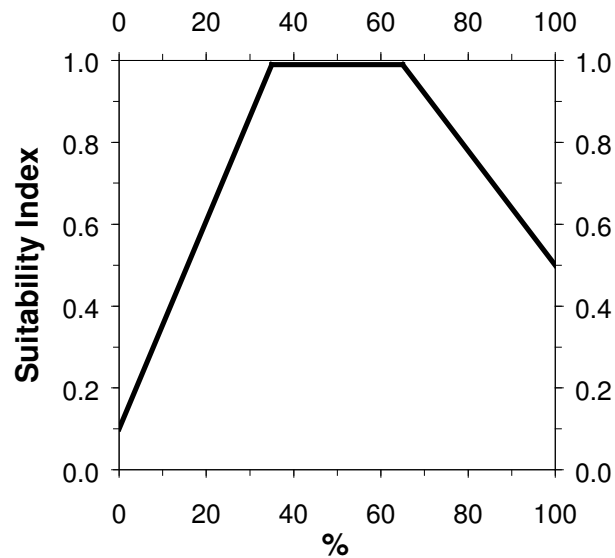
If % > 85, then $SI = (-0.017 * \%) + 2.445$

Suitability index graph relationships for Variable V1 were determined by: 1) reviewing available literature, 2) interviewing specialists who have studied various aspects of migratory landbird ecology in coastal stopover habitats, and 3) field knowledge of those involved with development of this model.

Coastal Chenier/Ridge

Variable V₂ Percent Shrub/Midstory Cover

Suitability Graph



Line Formulas

If $\% < 35$, then $SI = (0.026 * \%) + 0.1$

If $35 \leq \% \leq 65$, then $SI = 1.0$

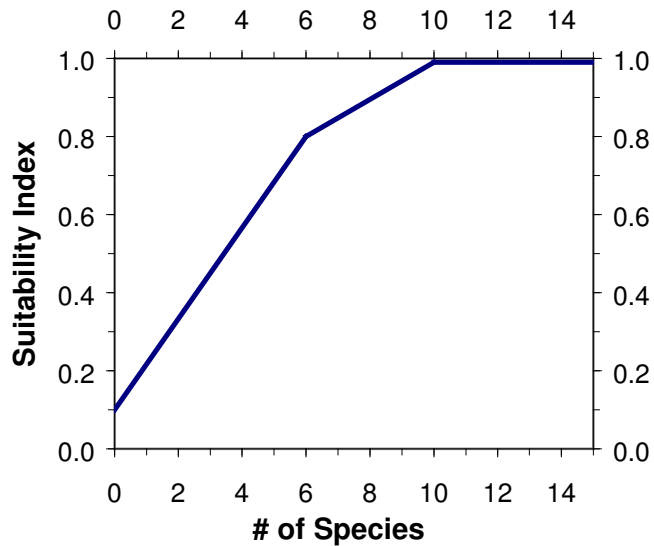
If $\% > 65$, then $SI = (-0.014 * \%) + 1.9$

Suitability index graph relationships for Variable V₂ were determined by: 1) reviewing available literature, 2) interviewing specialists who have studied various aspects of migratory landbird ecology in coastal stopover habitats, and 3) field knowledge of those involved with development of this model.

Coastal Chenier/Ridge

Variable V₃ Native Woody Species Diversity

Suitability Graph



Line Formulas

If $\% < 6$, then $SI = (0.117 * \%) + 0.1$

If $6 \leq \% < 10$, then $SI = (0.05 * \%) + 0.5$

If $\% \geq 10$, then $SI = 1.0$

Suitability index graph relationships for Variable V₃ were determined by: 1) reviewing available literature, 2) interviewing specialists who have studied various aspects of migratory landbird ecology in coastal stopover habitats, and 3) field knowledge of those involved with development of this model.

IV. Emergent Marsh Community Models

INTRODUCTION

The emergent marsh models were initially developed after passage of the CWPPRA during 1990 and were first used for evaluating candidate projects in 1991. The following sections describe the process and assumptions used in the initial development of those models. Since their initial development, these models have undergone several revisions including the omission of certain variables, modifications to the Suitability Index graphs, and modifications to the Habitat Suitability Index formulas.

These models were developed to determine the suitability of emergent marsh and open water habitats in the Louisiana coastal zone. These models were designed to function at a community level and therefore attempt to define an optimal combination of habitat conditions for all fish and wildlife species utilizing coastal marsh ecosystems.

VARIABLE SELECTION

Variables for the emergent marsh models were selected through a two-part procedure. The first involved a listing of environmental variables thought to be important in characterizing fish and wildlife habitat in coastal marsh ecosystems. The second part of the selection procedure involved reviewing variables used in species-specific HSI models published by the U.S. Fish and Wildlife Service. Review was limited to HSI models for those fish and wildlife species known to inhabit Louisiana coastal wetlands, and included models for 10 estuarine fish and shellfish, 4 freshwater fish, 12 birds, 3 reptiles and amphibians, and 3 mammals (Table 1). The number of models included from each species group was dictated by model availability.

Selected HSI models were then grouped according to the marsh type(s) used by each species. Because most species for which models were considered are not restricted to one marsh type, most models were included in more than one marsh type group. Within each wetland type group, variables from all models were then grouped according to similarity (e.g., water quality, vegetation, etc.). Each variable was evaluated based on 1) whether it met the variable selection criteria; 2) whether another, more easily measured/predicted variable in the same or a different similarity group functioned as a surrogate; and 3) whether it was deemed suitable for the WVA application (e.g., some freshwater fish model variables dealt with riverine or lacustrine environments). Variables that did not satisfy those conditions were eliminated from further consideration. The remaining variables, still in their similarity groups, were then further eliminated or refined by combining similar variables and/or culling those that were functionally duplicated by variables from other models (i.e., some variables were used frequently in different models in only slightly different format).

Table B-1. HSI Models Consulted for Variables for Possible Use in the Emergent Marsh Models

<u>Estuarine Fish and Shellfish</u>	<u>Birds</u>	<u>Mammals</u>
pink shrimp	white-fronted goose	mink
white shrimp	clapper rail	muskrat
brown shrimp	great egret	swamp rabbit
spotted seatrout	northern pintail	
Gulf flounder	mottled duck	<u>Freshwater Fish</u>
southern flounder	American coot	channel catfish
Gulf menhaden	marsh wren	largemouth bass
juvenile spot	snow goose	red ear sunfish
juvenile Atlantic croaker	great blue heron	bluegill
red drum	laughing gull	
	red-winged blackbird	
<u>Reptiles and Amphibians</u>	roseate spoonbill	
bullfrog		
slider turtle		
American alligator		

Variables selected from the HSI models were then compared to those identified in the first part of the selection procedure to arrive at a final list of variables to describe wetland habitat quality. That list includes six variables for each marsh type; 1) percent of the wetland covered by emergent vegetation, 2) percent of the open water covered by aquatic vegetation, 3) marsh edge and interspersions, 4) percent of the open water area ≤ 1.5 feet deep, 5) salinity, 6) aquatic organism access.

SUITABILITY INDEX GRAPH DEVELOPMENT

A variety of resources was utilized to construct each SI graph, including the HSI models from which the final list of variables was partially derived, consultation with other professionals and researchers outside the EnvWG, published and unpublished data and studies, and personal knowledge of EnvWG members. An important "non-biological" constraint on SI graph development was the need to insure that graph relationships were not counter to the purpose of the CWPPRA, that is, the long term creation, restoration, protection, or enhancement of coastal vegetated wetlands. That constraint was most operative in defining SI graphs for Variable V_1 (percent emergent marsh). The process of SI graph development was one of constant evolution, feedback, and refinement; the form of each SI graph was decided upon through consensus among EnvWG members.

The Suitability Index graphs were developed according to the following assumptions.

Variable V_1 - Percent of wetland area covered by emergent vegetation. Persistent emergent vegetation plays an important role in coastal wetlands by providing foraging, resting, and breeding habitat for a variety of fish and wildlife species; and by providing a source of detritus and energy for lower trophic organisms that form the basis of the food chain. An area with no emergent vegetation (i.e., shallow open water) is assumed to have minimal habitat suitability in terms of this variable, and is assigned an SI of 0.1.

Optimal vegetative coverage is assumed to occur at 100 percent (SI=1.0). That assumption is dictated primarily by the constraint of not having graph relationships conflict with the CWPPRA's purpose of long term creation, restoration, protection, or enhancement of vegetated wetlands. The EnvWG had originally developed a strictly biologically-based graph defining optimal habitat conditions at marsh cover values between 60 and 80 percent, and sub-optimal habitat conditions outside that range. However, application of that graph, in combination with the time analysis used in the evaluation process (i.e., 20-year project life), often reduced project benefits or generated a net loss of habitat quality through time with the project. Those situations arose primarily when: existing (baseline) emergent vegetation cover exceeded the optimum (> 80 percent); the project was predicted to maintain baseline cover values; and without the project the marsh was predicted to degrade, with a concurrent decline in percent emergent vegetation into the optimal range (60-80 percent). The time factor aggravated the situation when the without-project degradation was not rapid enough to reduce marsh cover values significantly below the optimal range, or below the baseline SI, within the 20-year evaluation period. In those cases, the analysis would show net negative benefits for the project, and positive benefits for letting the marsh degrade rather than maintaining the existing marsh. Coupling that situation with the presumption that marsh conditions are not static, and that Louisiana will continue to lose coastal emergent marsh; and taking into account the purpose of the CWPPRA, the EnvWG decided that, all other factors being equal, the models should favor projects that maximize emergent marsh creation, maintenance, and protection. Therefore, the EnvWG agreed to deviate from a strictly biologically-based habitat suitability index graph for V_1 and established optimal habitat conditions at 100 percent marsh cover.

Variable V_2 - Percent of open water area covered by aquatic vegetation. Fresh and intermediate marshes often support diverse communities of floating-leaved and submerged aquatic plants that provide important food and cover to a wide variety of fish and wildlife species. A fresh/intermediate open water area with no aquatics is assumed to have low suitability (SI=0.1). Optimal conditions (SI=1.0) are assumed to occur when 100 percent of the open water is dominated by aquatic vegetation. Habitat suitability may be assumed to decrease with aquatic plant coverage approaching 100 percent due to the potential for mats of aquatic vegetation to hinder fish and wildlife utilization; to adversely affect water quality by reducing photosynthesis by phytoplankton and other plant forms due to shading; and contribute to oxygen depletion spurred by warm-season decay of large quantities of aquatic vegetation. The EnvWG recognized, however, that those effects were highly dependent on the dominant aquatic plant species, their growth forms, and their arrangement in the water column; thus, it is possible to have 100 percent cover of a variety of floating and submerged aquatic plants without the above-mentioned problems due to differences in plant growth form and stratification of plants through the water column. Because predictions of which species may dominate at any time in the future would be tenuous, at best, the EnvWG decided to simplify the graph and define optimal conditions at 100 percent aquatic cover.

Brackish marshes also have the potential to support aquatic plants that serve as important sources of food and cover for several species of fish and wildlife. Although brackish marshes generally do not support the amounts and kinds of aquatic plants that occur in fresh/intermediate marshes, certain species, such as widgeon-grass, and coontail and milfoil in lower salinity brackish marshes, can occur abundantly under certain conditions. Those species, particularly widgeon-grass, provide important food and cover for many species of fish and wildlife. Therefore, the V_2 Suitability Index graph in the brackish marsh model is identical to that in the fresh/intermediate model.

Some low-salinity saline marshes may contain beds of widgeon-grass and open water areas behind some barrier islands may contain dense stands of seagrasses (e.g., *Halodule wrightii* and *Thalassia testudinum*). However, saline marshes typically do not contain an abundance of aquatic vegetation as often found in fresh/intermediate and brackish marshes. Open water areas in saline marshes typically contain sparse aquatic vegetation and are primarily important as nursery areas for marine organisms. Therefore, in order to reflect the importance of those open water areas to marine organisms, a saline marsh lacking aquatic vegetation is assigned a SI=0.3. It is assumed that optimal coverage of aquatic plants occurs at 100 percent.

Variable V₃ - Marsh edge and interspersion. This variable takes into account the relative juxtaposition of marsh and open water for a given marsh:open water ratio, and is measured by comparing the project area to sample illustrations (Appendix A) depicting different degrees of interspersion. Interspersion is assumed to be especially important when considering the value of an area as foraging and nursery habitat for freshwater and estuarine fish and shellfish; the marsh/open water interface represents an ecotone where prey species often concentrate, and where post-larval and juvenile organisms can find cover. Isolated marsh ponds are often more productive in terms of aquatic vegetation than are larger ponds due to decreased turbidity, and, thus, may provide more suitable waterfowl habitat. However, interspersion can be indicative of marsh degradation, a factor taken into consideration in assigning suitability indices to the various interspersion classes.

A relatively high degree of interspersion in the form of stream courses and tidal channels (Interspersion Class 1) is assumed to be optimal (SI=1.0); streams and channels offer interspersion, yet are not indicative of active marsh deterioration. Areas exhibiting a high degree of marsh cover are also ranked as optimal, even though interspersion may be low, to avoid conflicts with the premises underlying the SI graph for variable V₁. Without such an allowance, areas of relatively healthy, solid marsh, or projects designed to create marsh, would be penalized with respect to interspersion. Numerous small marsh ponds (Interspersion Class 2) offer a high degree of interspersion, but are also usually indicative of the beginnings of marsh break-up and degradation, and are therefore assigned a more moderate SI of 0.6. Large open water areas (Interspersion Classes 3 and 4) offer lower interspersion values and usually indicate advanced stages of marsh loss, and are thus assigned SI's of 0.4 and 0.2, respectively. The lowest expression of interspersion, Class 5 (i.e., no emergent marsh at all within the project area), is assumed to be least desirable and is assigned an SI=0.1.

Variable V₄ - Percent of open water area # 1.5 feet deep in relation to marsh surface. Shallow water areas are assumed to be more biologically productive than deeper water due to a general reduction in sunlight, oxygen, and temperature as water depth increases. Also, shallower water provides greater bottom accessibility for certain species of waterfowl, better foraging habitat for wading birds, and more favorable conditions for aquatic plant growth. Optimal open water conditions in a fresh/intermediate marsh are assumed to occur when 80 to 90 percent of the open water area is less than or equal to 1.5 feet deep. The value of deeper areas in providing drought refugia for fish, alligators and other marsh life is recognized by assigning an SI=0.6 (i.e., sub-optimal) if all of the open water is less than or equal to 1.5 feet deep.

Shallow water areas in brackish marsh habitat are also important. However, brackish marsh generally exhibits deeper open water areas than fresh marsh due to tidal scouring. Therefore, the SI graph is constructed so that lower percentages of shallow water receive higher SI values relative to fresh/intermediate marsh. Optimal open water

conditions in a brackish marsh are assumed to occur when 70 to 80 percent of the open water area is less than or equal to 1.5 feet deep.

The SI graph for the saline marsh model is similar to that for brackish marsh, where optimal conditions are assumed to occur when 70 to 80 percent of the open water area is less than or equal to 1.5 feet deep. However, at 100 percent shallow water, the saline graph yields an SI= 0.5 rather than 0.6 as for the brackish model. That change reflects the increased abundance of tidal channels and generally deeper water conditions prevailing in a saline marsh due to increased tidal influences, and the importance of those tidal channels to estuarine organisms.

Variable V₅ - Salinity. It is assumed that periods of high salinity are most detrimental in a fresh/intermediate marsh when they occur during the growing season (defined as March through November, based on dates of first and last frost contained in Natural Resource Conservation Service soil surveys for coastal Louisiana). Therefore, mean high salinity is used as the salinity parameter for the fresh/intermediate marsh model. Mean high salinity is defined as the average of the upper 33 percent of salinity readings taken during a specified period of record. Optimal conditions in fresh marsh are assumed to occur when mean high salinity during the growing season is less than 2 parts per thousand (ppt). Optimal conditions in intermediate marsh are assumed to occur when mean high salinity during the growing season is less than 4 ppt.

For the brackish and saline marsh models, average annual salinity is used as the salinity parameter. The SI graph for brackish marsh is constructed to represent optimal conditions when salinities are between 0 ppt and 10 ppt. The EnvWG acknowledges that average annual salinities below 5 ppt will effectively define a marsh as fresh or intermediate, not brackish. However, the SI graph makes allowances for lower salinities to account for occasions when there is a trend of decreasing salinities through time toward a more intermediate condition. Implicit in keeping the graph at optimum for salinities less than 5 ppt is the assumption that lower salinities are not detrimental to a brackish marsh. However, average annual salinities greater than 10 ppt are assumed to be progressively more harmful to brackish marsh vegetation. Average annual salinities greater than 16 ppt are assumed to be representative of those found in a saline marsh, and thus are not considered in the brackish marsh model.

The SI graph for the saline marsh model is constructed to represent optimal salinity conditions at between 0 ppt and 21 ppt. The EnvWG acknowledges that average annual salinities below 10 ppt will effectively define a marsh as brackish, not saline. However, the suitability index graph makes allowances for lower salinities to account for occasions when there is a trend of decreasing salinities through time toward a more brackish condition. Implicit in keeping the graph at optimum for salinities less than 10 ppt is the assumption that lower salinities are not detrimental to a saline marsh. Average annual salinities greater than 21 ppt are assumed to be slightly stressful to saline marsh vegetation.

Variable V₆ - Aquatic organism access. Access by aquatic organisms, particularly estuarine-dependent fishes and shellfishes, is considered to be a critical component in assessing the quality of a given marsh system. Additionally, a marsh with a relatively high degree of access by default also exhibits a relatively high degree of hydrologic connectivity with adjacent systems, and therefore may be considered to contribute more to nutrient exchange than would a marsh exhibiting a lesser degree of access. The SI for V₆ is determined by calculating an "access value" based on the interaction between the percentage of the project area wetlands considered accessible by aquatic organisms during normal tidal fluctuations, and the type of man-made structures (if any) across identified points of ingress/egress (bayous, canals, etc.). Standardized procedures for calculating the

Access Value have been established (Appendix B). It should be noted that access ratings for man-made structures were determined by consensus among EnvWG members and that scientific research has not been conducted to determine the actual access value for each of those structures. Optimal conditions are assumed to exist when all of the study area is accessible and the access points are entirely open and unobstructed.

A fresh marsh with no access is assigned an SI=0.3, reflecting the assumption that, while fresh marshes are important to some species of estuarine-dependent fishes and shellfish, such a marsh lacking access continues to provide benefits to a wide variety of other wildlife and fish species, and is not without habitat value. An intermediate marsh with no access is assigned an SI=0.2, reflecting that intermediate marshes are somewhat more important to estuarine-dependent organisms than fresh marshes. The general rationale and procedure behind the V₆ Suitability Index graph for the brackish marsh model is identical to that established for the fresh/intermediate model. However, brackish marshes are assumed to be more important as habitat for estuarine-dependent fish and shellfish than fresh/intermediate marshes. Therefore, a brackish marsh providing no access is assigned an SI of 0.1. The Suitability Index graph for aquatic organism access in the saline marsh model is the same as that in the brackish marsh model.

HABITAT SUITABILITY INDEX FORMULAS

In developing the HSI formulas, the EnvWG recognized that the primary focus of the CWPPRA is on vegetated wetlands, and that some marsh protection strategies could have adverse impacts to aquatic organism access. Therefore, the EnvWG made an *a priori* decision to emphasize variables V₁, V₂, and V₆ by grouping them together, when possible, and weighting them greater than the remaining variables. Weighting was facilitated by treating the grouped variables as a geometric mean. Variables V₃, V₄, and V₅ were grouped to isolate their influence relative to V₁, V₂, and V₆.

For all marsh models, V₁ receives the strongest weighting. The relative weights of V₁, V₂, and V₆ differ by marsh model to reflect differing levels of importance for those variables between the marsh types. For example, the amount of aquatic vegetation was deemed more important in a fresh/intermediate marsh than in a saline marsh, due to the relative contributions of aquatic vegetation between the two marsh types in terms of providing food and cover. Therefore, V₂ receives more weight in the fresh/intermediate HSI formula than in the saline HSI formula. Similarly, the degree of aquatic organism access was considered more important in a saline marsh than a fresh/intermediate marsh, and V₆ receives more weight in the saline HSI formula than in the fresh/intermediate formula. As with the Suitability Index graphs, the Habitat Suitability Index formulas were developed by consensus among the EnvWG members.

For several years, 1991 through 1996, the EnvWG utilized one HSI formula specific to each marsh type. However, it was noted that variables V₂ and V₄, which characterize open water areas only, often resulted in an “artificially inflated” HSI when those variable values were optimal (i.e., SI = 1.0) and open water comprised a very small portion of the project area. For example, Project Area A contains 90 percent emergent marsh and 10 percent open water. Project Area B contains 10 percent emergent marsh and 90 percent open water. Assume the open water in each project area is completely covered by submerged aquatic vegetation and is entirely less than 1.5 feet in depth. Under those conditions, the Suitability Index values for V₂ and V₄ would equal 1.0 for both project areas even though open water only accounts for 10 percent of Project Area A. The EnvWG has commonly referred to this as a “scaling” problem; the Suitability Index values

for V_2 and V_4 are not “scaled” in respect to the proportion of the project area they describe. This allows those variables to contribute disproportionately to the HSI in instances when open water constitutes a small portion of the project area.

The EnvWG acknowledged that the scaling problem presented a flaw in the WVA methodology resulting in unrealistic HSI values for certain project areas and eventually resulting in inflated wetland benefits for those projects. During 1996 and 1997, Dr. Gary Shaffer assisted the EnvWG in developing potential solutions to the scaling problem. After several unsuccessful attempts to develop a single HSI formula for each marsh type which scaled the Suitability Index values for V_2 and V_4 based on the ratio of emergent marsh to open water, the EnvWG decided to develop a “split” model for each marsh type. The split model utilizes two HSI formulas for each marsh type; one HSI formula characterizes the emergent habitat within the project area and another HSI formula characterizes the open water habitat. The HSI formula for the emergent habitat contains only those variables important in assessing habitat quality for emergent marsh (i.e., V_1 , V_3 , V_5 , and V_6). Likewise, the open water HSI formula contains only those variables important in characterizing the open water habitat (i.e., V_2 , V_3 , V_4 , V_5 , and V_6). Individual HSI formulas were developed for emergent marsh and open water habitats for each marsh type.

As with the development of a single HSI model for each marsh type, the split models follow the same conventions for weighting and grouping of variables as previously discussed.

BENEFIT ASSESSMENT

As previously discussed, the marsh models are split into emergent marsh and open water components and an HSI is determined for both. Subsequently, net AAHUs are also determined for the emergent marsh and open water habitats within the project area. Net AAHUs for the emergent marsh and open water habitat components must be combined to determine total net benefits for the project.

The primary focus of the CWPPRA is on vegetated wetlands. Therefore, in order to place greater emphasis on wetland benefits to emergent marsh, a weighted average of the net benefits (net AAHUs) for emergent marsh and open water is calculated with the emergent marsh AAHUs weighted proportionately higher than the open water AAHUs. The weighted formulas to determine net AAHUs for each marsh type are shown below:

$$\text{Fresh Marsh: } \frac{2.1(\text{Emergent Marsh AAHUs}) + \text{Open Water AAHUs}}{3.1}$$

$$\text{Brackish Marsh: } \frac{2.6(\text{Emergent Marsh AAHUs}) + \text{Open Water AAHUs}}{3.6}$$

$$\text{Saline Marsh: } \frac{3.5(\text{Emergent Marsh AAHUs}) + \text{Open Water AAHUs}}{4.5}$$

Wetland Value Assessment Community Model

Fresh/Intermediate Marsh

Vegetation:

Variable V₁ Percent of wetland area covered by emergent vegetation.

Variable V₂ Percent of open water area covered by aquatic vegetation.

Interspersion:

Variable V₃ Marsh edge and interspersion.

Water Depth:

Variable V₄ Percent of open water area ≤ 1.5 feet deep, in relation to marsh surface.

Water Quality:

Variable V₅ Mean high salinity during the growing season (March through November).

Aquatic Organism Access:

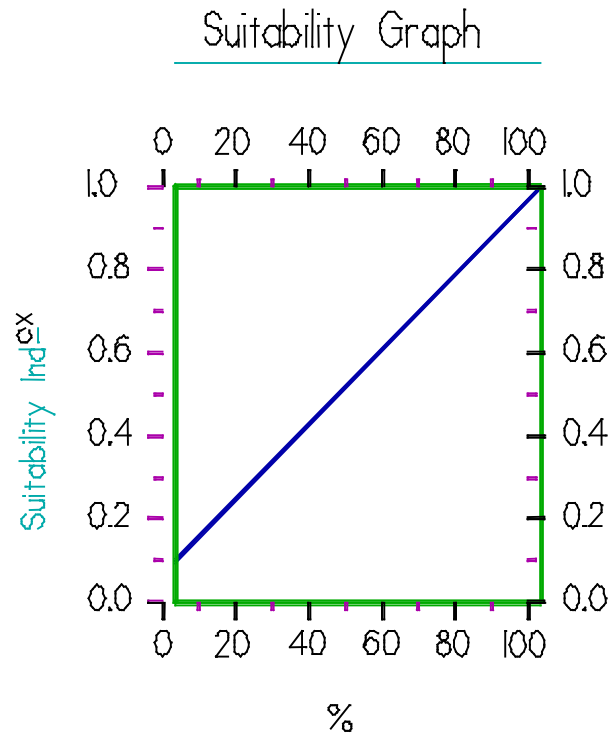
Variable V₆ Aquatic organism access.

HSI Calculations:

Fresh / Intermediate H S I	
Emergent Marsh H S I =	$\frac{(3.5 \times (SIV_1^5 \times SIV_6^1)^{(1/6)}) + (SIV_3 + SIV_5) / 2}{4.5}$
Open Water H S I =	$\frac{(3.5 \times (SIV_2^3 \times SIV_6^1)^{(1/4)}) + (SIV_3 + SIV_4 + SIV_5) / 3}{4.5}$

Fresh/Intermediate Marsh

Variable V₁ Percent of wetland area covered by emergent vegetation.

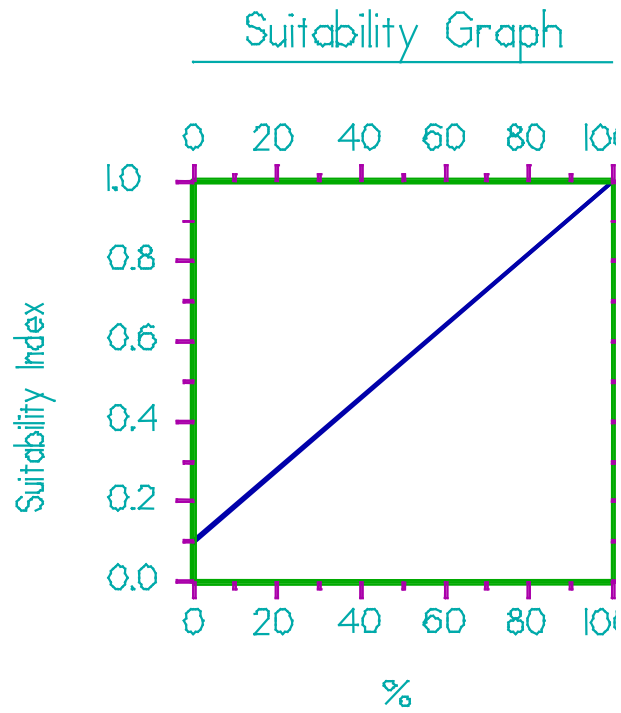


Line Formula

$$SI = (0.009 * \%) + 0.1$$

Fresh/Intermediate Marsh

Variable V₂ Percent of open water area covered by aquatic vegetation.

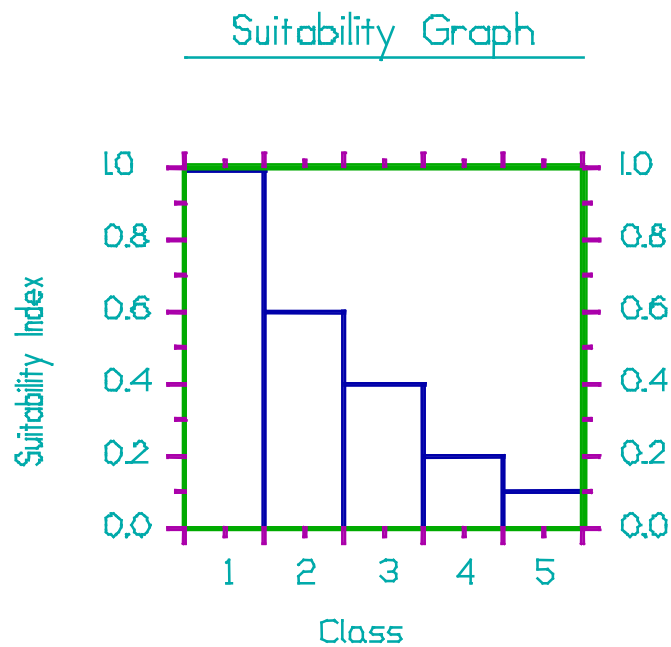


Line Formula

$$SI = (0.009 * \%) + 0.1$$

Fresh/Intermediate Marsh

Variable V₃ Marsh edge and interspersion.

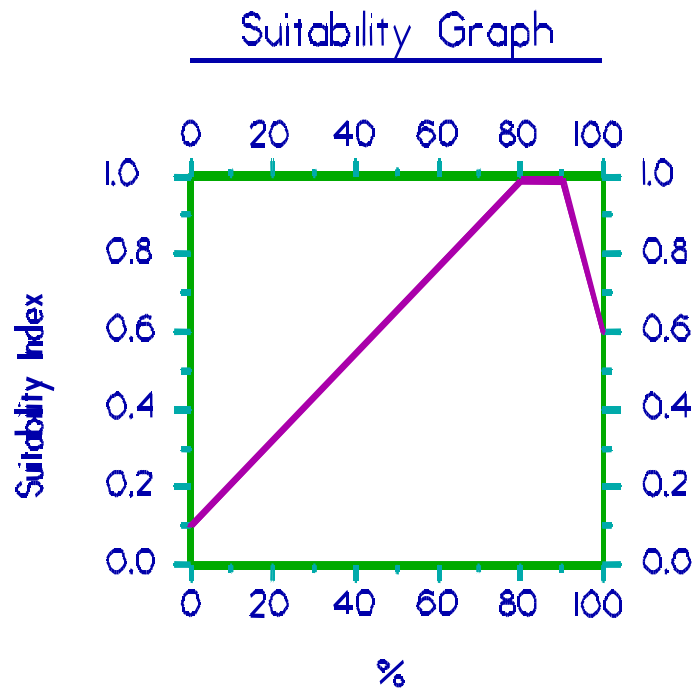


Instructions for Calculating the SI for Variable V₃:

1. Refer to Appendix A for examples of the different interspersion classes.
2. Estimate percent of project area in each class. If the entire project area is solid marsh, assign interspersion Class 1. Conversely, if the entire project area is open water, assign interspersion Class 5.

Fresh/Intermediate Marsh

Variable V₄ Percent of open water area ≤ 1.5 feet deep, in relation to marsh surface.



Line Formulas

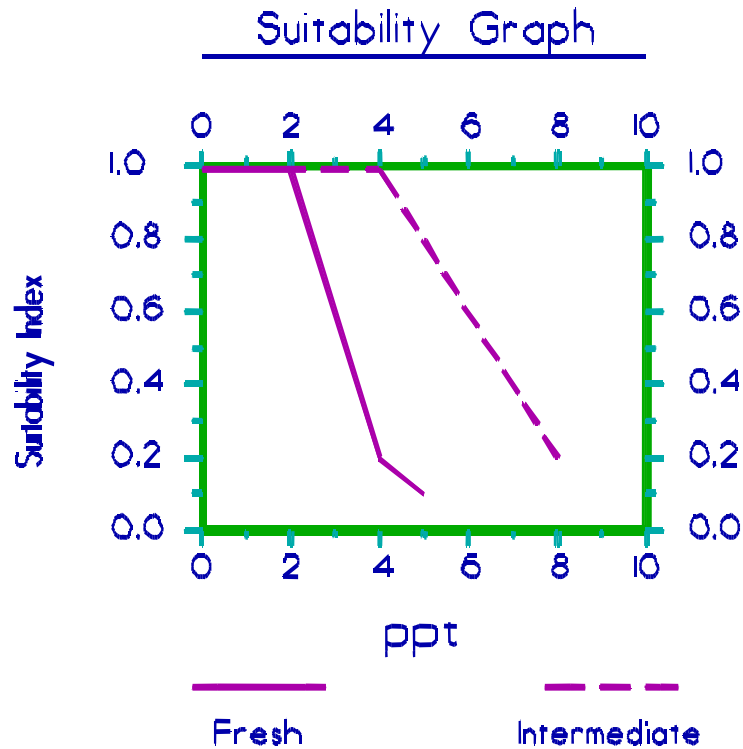
If $0 \leq \% < 80$, then $SI = (0.01125 * \%) + 0.1$

If $80 \leq \% \leq 90$, then $SI = 1.0$

If $\% > 90$, then $SI = (-0.04 * \%) + 4.6$

Fresh/Intermediate Marsh

Variable V₅ Mean high salinity during the growing season (March through November).



Line Formulas

Fresh Marsh:

- If $0 \leq \text{ppt} \leq 2$, then $SI = 1.0$
- If $2 < \text{ppt} \leq 4$, then $SI = (-0.4 * \text{ppt}) + 1.8$
- If $4 < \text{ppt} \leq 5$ then $SI = (-0.1 * \text{ppt}) + 0.6$

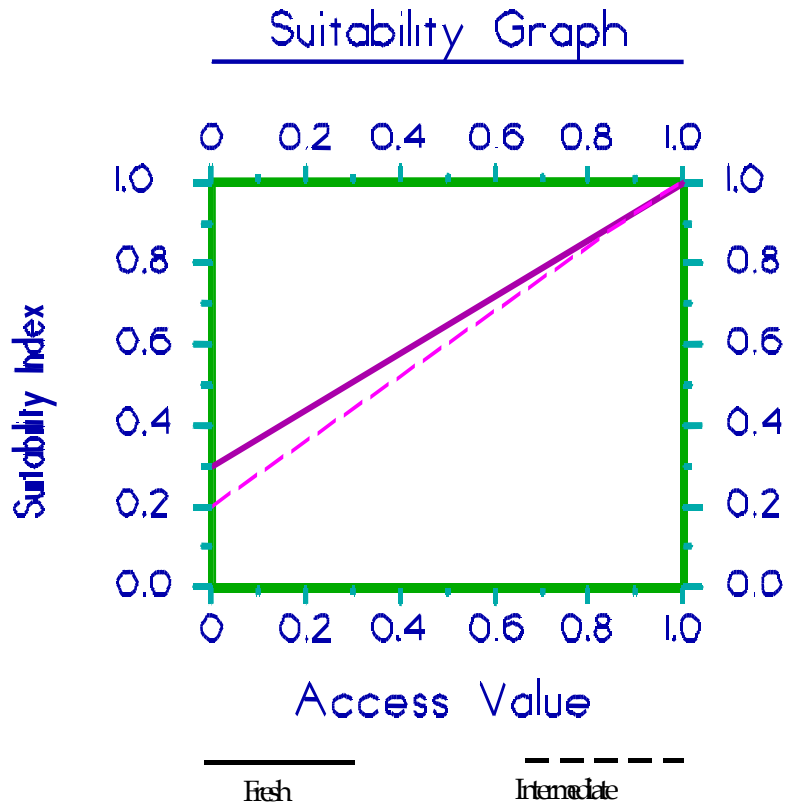
Intermediate Marsh:

- If $0 \leq \text{ppt} \leq 4$, then $SI = 1.0$
- If $4 < \text{ppt} \leq 8$, then $SI = (-0.2 * \text{ppt}) + 1.8$

NOTE: Mean high salinity is defined as the average of the upper 33 percent of salinity readings taken during the period of record.

Fresh/Intermediate Marsh

Variable V₆ Aquatic organism access.



Line Formulas

Fresh Marsh:

$$SI = (0.7 * \text{Access Value}) + 0.3$$

Intermediate Marsh:

$$SI = (0.8 * \text{Access Value}) + 0.2$$

NOTE: Access Value = P * R, where "P" = percentage of wetland area considered accessible by estuarine organisms during normal tidal fluctuations, and "R" = Structure Rating.

Refer to Appendix B "Procedure For Calculating Access Value" for complete information on calculating "P" and "R" values.

Wetland Value Assessment Community Model

Brackish Marsh

Vegetation:

Variable V₁ Percent of wetland area covered by emergent vegetation.

Variable V₂ Percent of open water area covered by aquatic vegetation.

Interspersion:

Variable V₃ Marsh edge and interspersion.

Water Depth:

Variable V₄ Percent of open water area \leq 1.5 feet deep, in relation to marsh surface.

Water Quality:

Variable V₅ Average annual salinity.

Aquatic Organism Access:

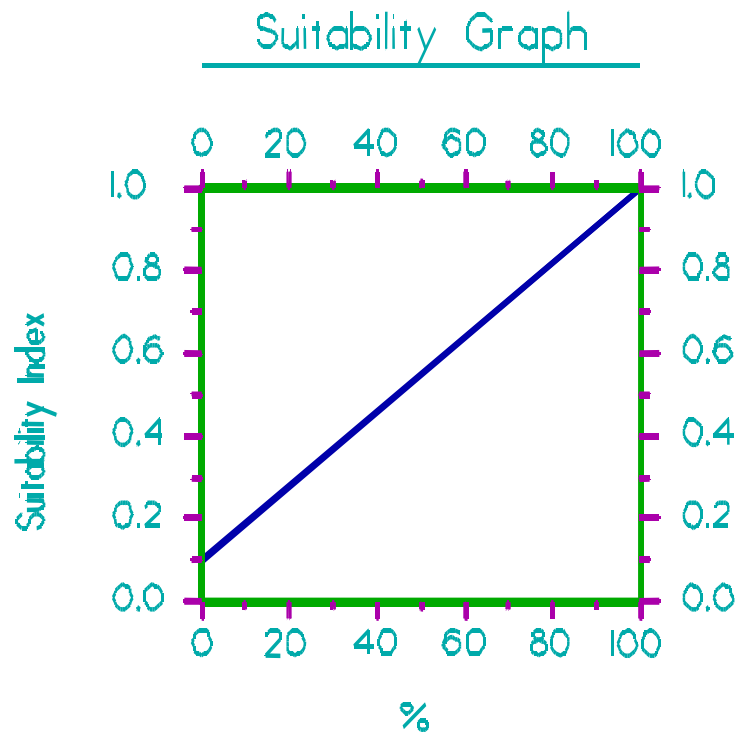
Variable V₆ Aquatic organism access.

HSI Calculations:

Brackish Marsh H S I	
Emergent Marsh H S I =	$\frac{(3.5 \times (SIV_1^5 \times SIV_6^{1.5})^{(1/6.5)}) + (SIV_3 + SIV_5) / 2}{4.5}$
Open Water H S I =	$\frac{(3.5 \times (SIV_2^3 \times SIV_6^2)^{(1/5)}) + (SIV_3 + SIV_4 + SIV_5) / 3}{4.5}$

Brackish Marsh

Variable V₁ Percent of wetland area covered by emergent vegetation.

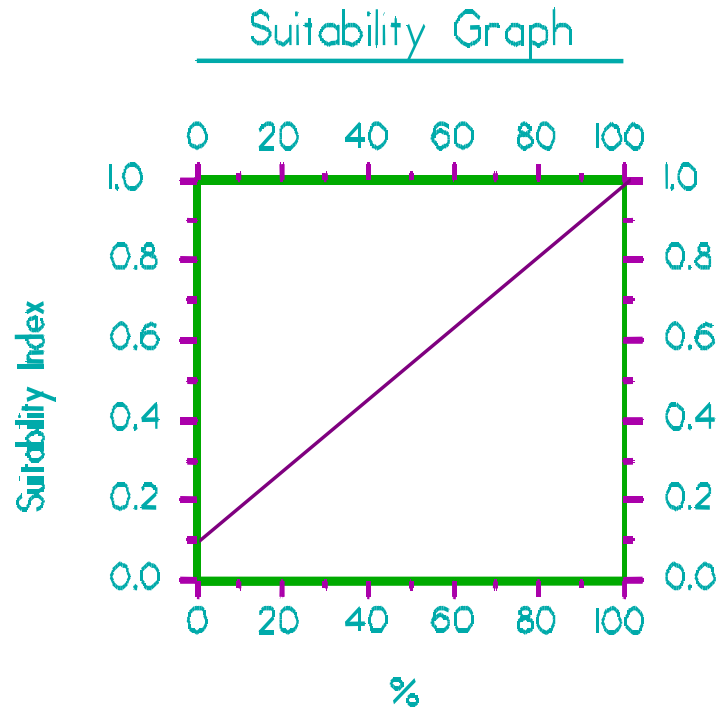


Line Formula

$$SI = (0.009 * \%) + 0.1$$

Brackish Marsh

Variable V₂ Percent of open water area covered by aquatic vegetation.

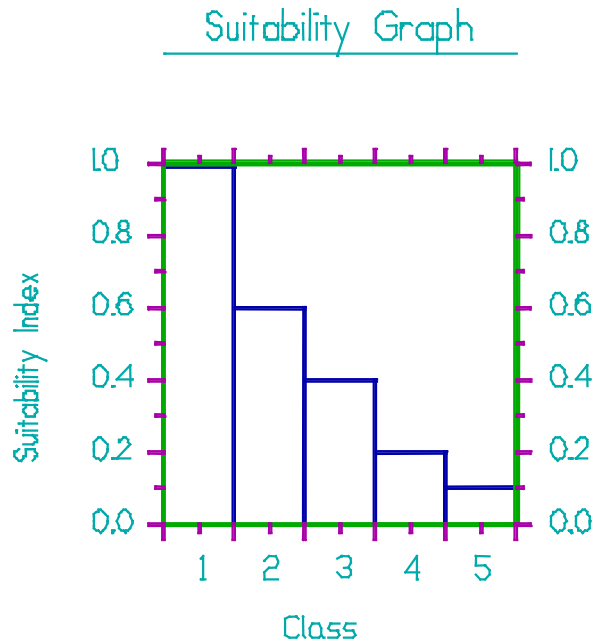


Line Formula

$$SI = (0.009 * \%) + 0.1$$

Brackish Marsh

Variable V₃ Marsh edge and interspersion.

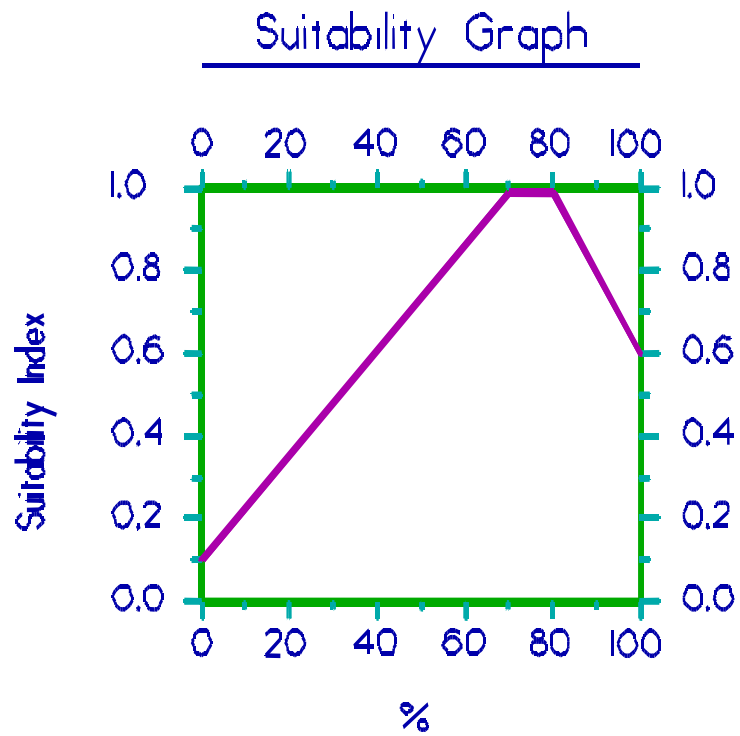


Instructions for Calculating SI for Variable V₃:

1. Refer to Appendix A for examples of the different interspersion classes.
2. Estimate the percent of project area in each class. If the entire project area is solid marsh, assign interspersion Class 1. Conversely, if the entire project area is open water, assign interspersion Class 5.

Brackish Marsh

Variable V₄ Percent of open water area \leq 1.5 feet deep, in relation to marsh surface.



Line Formulas

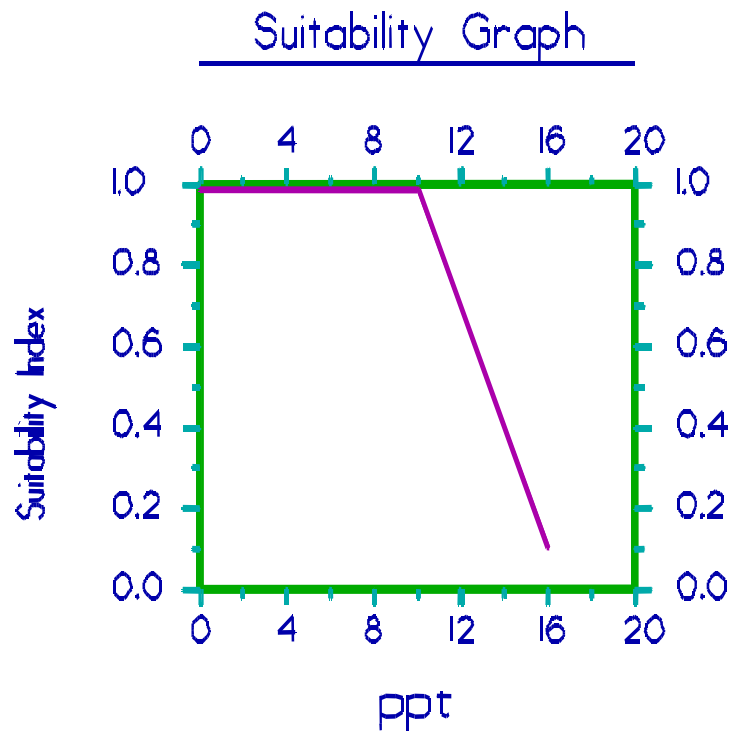
If $0 \leq \% < 70$, then $SI = (0.01286 * \%) + 0.1$

If $70 \leq \% \leq 80$, then $SI = 1.0$

If $\% > 80$, then $SI = (-0.02 * \%) + 2.6$

Brackish Marsh

Variable V₅ Average annual salinity.



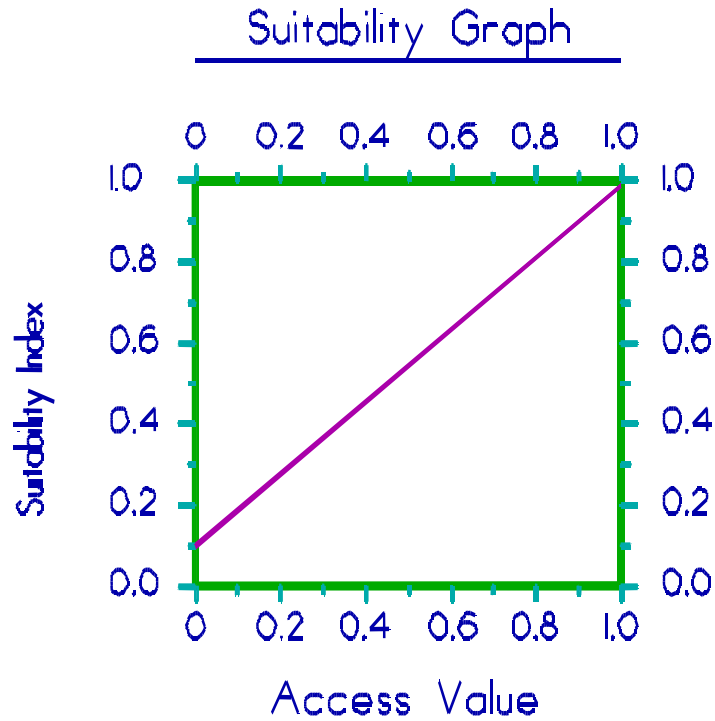
Line Formulas

If $0 \leq \text{ppt} \leq 10$, then $SI = 1.0$

If $\text{ppt} > 10$, then $SI = (-0.15 * \text{ppt}) + 2.5$

Brackish Marsh

Variable V₆ Aquatic organism access.



Line Formula

$$SI = (0.9 * \text{Access Value}) + 0.1$$

Note: Access Value = P * R, where "P" = percentage of wetland area considered accessible by estuarine organisms during normal tidal fluctuations, and "R" = Structure Rating.

Refer to Appendix B "Procedure For Calculating Access Value" for complete information on calculating "P" and "R" values.

Wetland Value Assessment Community Model

Saline Marsh

Vegetation:

Variable V₁ Percent of wetland area covered by emergent vegetation.

Variable V₂ Percent of open water area covered by aquatic vegetation.

Interspersion:

Variable V₃ Marsh edge and interspersion.

Water Depth:

Variable V₄ Percent of open water area ≤ 1.5 feet deep, in relation to marsh surface.

Water Quality:

Variable V₅ Average annual salinity.

Aquatic Organism Access:

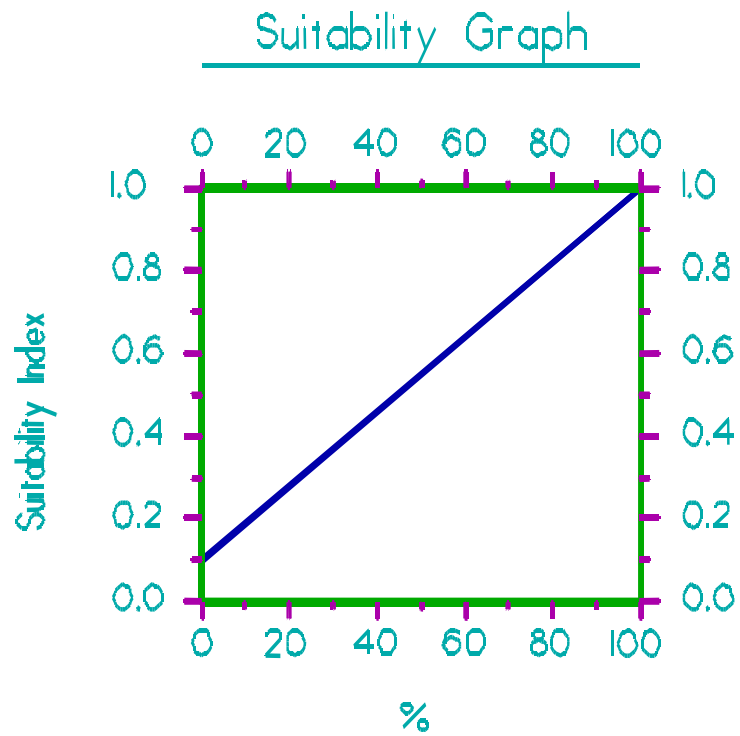
Variable V₆ Aquatic organism access.

HSI Calculation:

Saline Marsh H S I	
Emergent Marsh H S I =	$\frac{(3.5 \times (SIV_1^3 \times SIV_6^1)^{(1/4)}) + (SIV_3 + SIV_5) / 2}{4.5}$
Open Water H S I =	$\frac{(3.5 \times (SIV_2^1 \times SIV_6^{2.5})^{(1/3.5)}) + (SIV_3 + SIV_4 + SIV_5) / 3}{4.5}$

Saline Marsh

Variable V₁ Percent of wetland area covered by emergent vegetation.

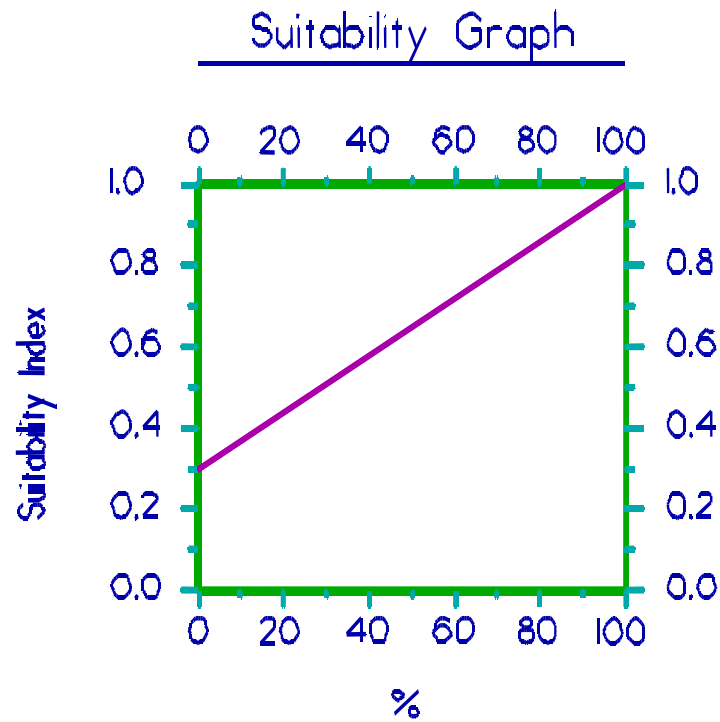


Line Formula

$$SI = (0.009 * \%) + 0.1$$

Saline Marsh

Variable V₂ Percent of open water area covered by aquatic vegetation.

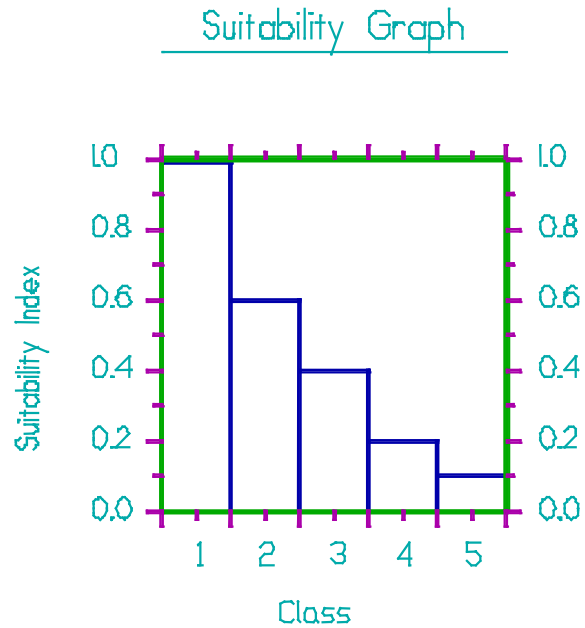


Line Formula

$$SI = (0.007 * \%) + 0.3$$

Saline Marsh

Variable V₃ Marsh edge and interspersion.

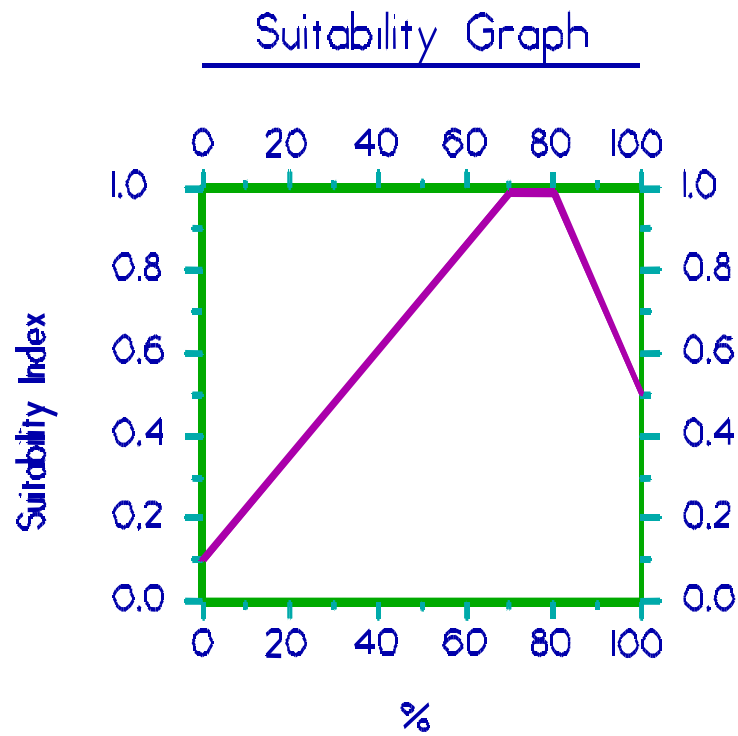


Instructions for Calculating SI for Variable V₃:

1. Refer to Appendix A for examples of the different interspersion classes.
2. Estimate percent of project area in each class. If the entire project area is solid marsh, assign an interspersion Class 1. Conversely, if the entire project area is open water, assign an interspersion Class 5.

Saline Marsh

Variable V₄ Percent of open water area ≤ 1.5 feet deep, in relation to marsh surface.



Line Formulas

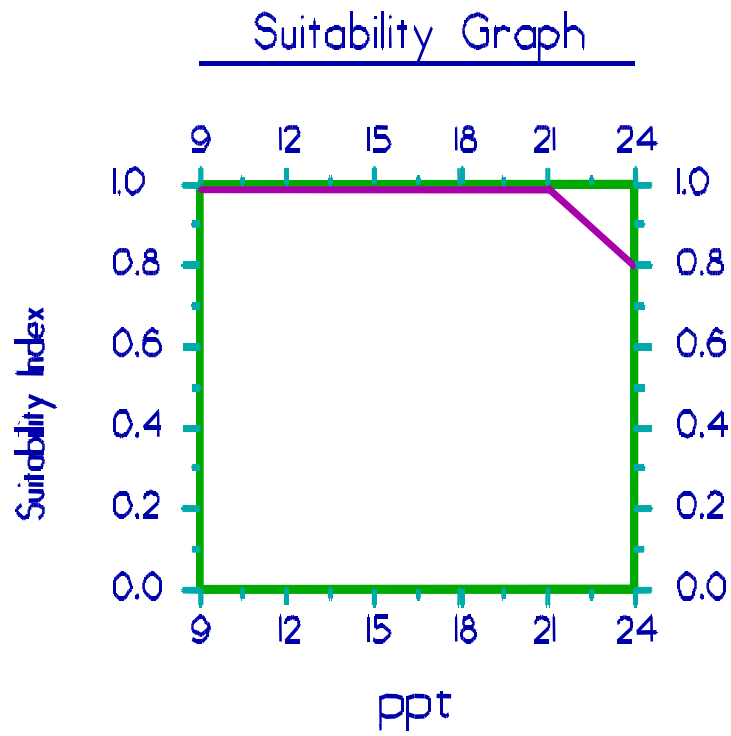
If $0 \leq \% < 70$, then $SI = (0.01286 * \%) + 0.1$

If $70 \leq \% \leq 80$, then $SI = 1.0$

If $\% > 80$, then $SI = (-0.025 * \%) + 3.0$

Saline Marsh

Variable V_5 Average annual salinity.



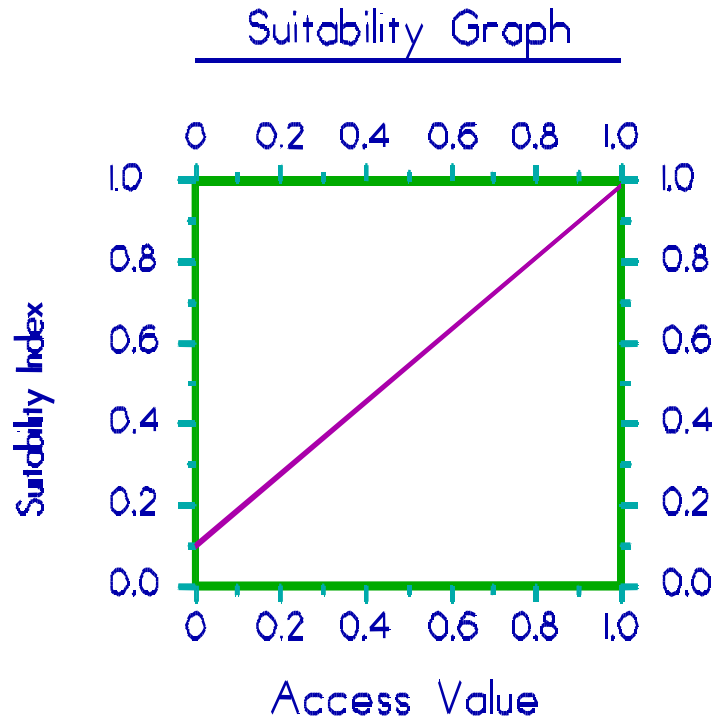
Line Formulas

If $9 \leq \text{ppt} \leq 21$, then $SI = 1.0$

If $\text{ppt} > 21$, then $SI = (-0.067 * \text{ppt}) + 2.4$

Saline Marsh

Variable V₆ Aquatic organism access.



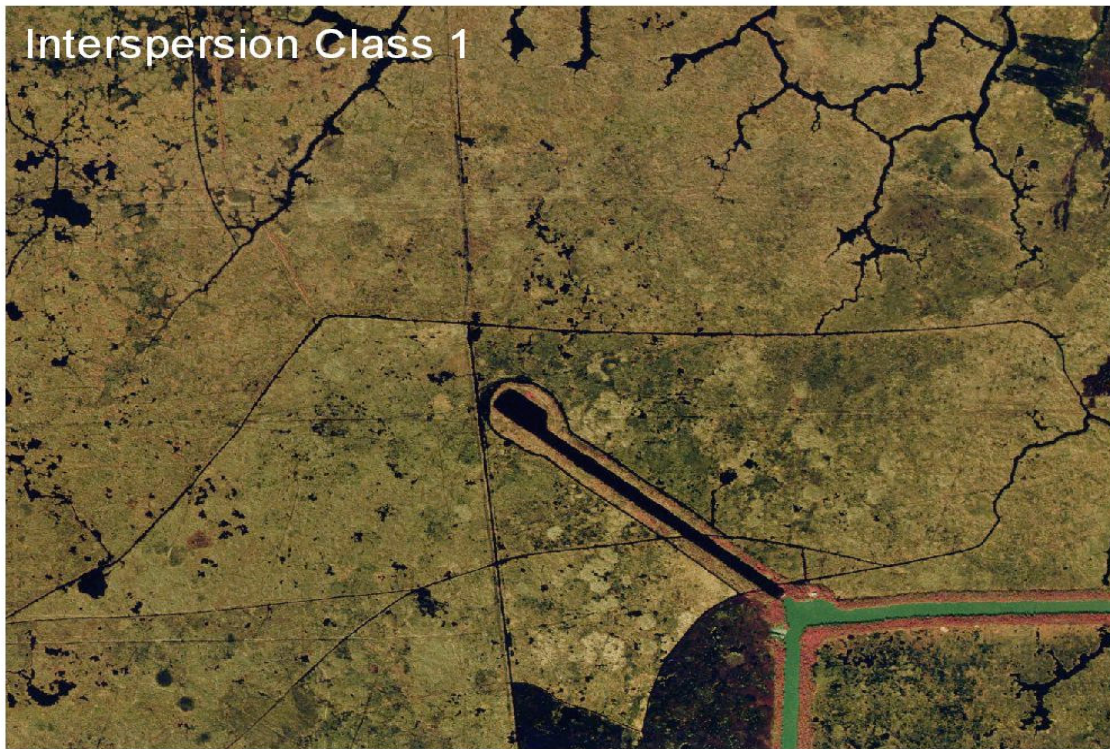
Line Formula

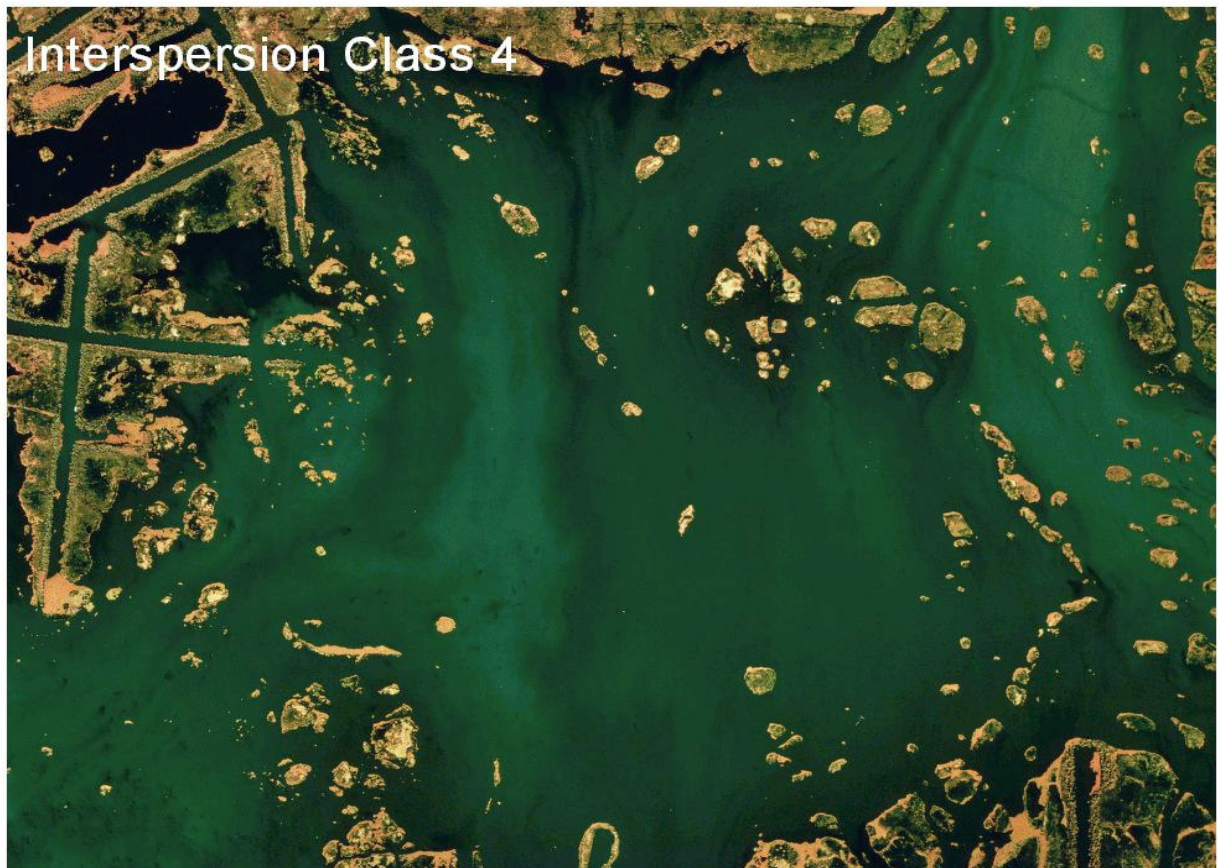
$$SI = (0.9 * \text{Access Value}) + 0.1$$

Note: Access Value = P * R, where "P" = percentage of wetland area considered accessible by estuarine organisms during normal tidal fluctuations, and "R" = Structure Rating.

Refer to Appendix B "Procedure For Calculating Access Value" for complete information on calculating "P" and "R" values.

Attachment B - Marsh Edge and Interspersion Classes





Attachment C - Procedure for Calculating Access Value

1. Determine the percent (P) of the wetland area accessible by estuarine organisms during normal tidal fluctuations for baseline (TY0) conditions. P may be determined by examination of aerial photography, knowledge of field conditions, or other appropriate methods.
2. Determine the Structure Rating (R) for each project structure as follows:

Structure Type	Structure Rating
Open system	1.0
Rock weir set at 1ft BML ¹ , w/ boat bay	0.8
Rock weir with boat bay	0.6
Rock weir set at ≥ 1 ft BML	0.6
Slotted weir with boat bay	0.6
Open culverts	0.5
Weir with boat bay	0.5
Weir set at ≥ 1 ft BML	0.5
Slotted weir	0.4
Flap-gated culvert with slotted weir	0.35
Variable crest weir	0.3
Flap-gated variable crest weir	0.25
Flap-gated culvert	0.2
Rock weir	0.15
Fixed crest weir	0.1
Solid plug	0.0001

For each structure type, the rating listed above pertains only to the standard structure configuration and assumes that the structure is operated according to common operating schedules consistent with the purpose for which that structure is designed. In the case of a "hybrid" structure or a unique application of one of the above-listed types (including unique or "non-standard" operational schemes), the WVA analyst(s) may assign an appropriate Structure Rating between 0.0001 and 1.0 that most closely approximates the relative degree to which the structure in question would allow

¹ Below Marsh Level

ingress/egress of estuarine organisms. In those cases, the rationale used in developing the new Structure Rating shall be documented.

3. Determine the Access Value. Where multiple openings equally affect a common "accessible unit", the Structure Rating (R) of the structure proposed for the "major" access point for the unit will be used to calculate the Access Value. The designation of "major" will be made by the Environmental Work Group. An "accessible unit" is defined as a portion of the total accessible area that is served by one or more access routes (canals, bayous, etc.), yet is isolated in terms of estuarine organism access to or from other units of the project area. Isolation factors include physical barriers that prohibit further movement of estuarine organisms, such as natural levee ridges, and spoil banks; and dense marsh that lacks channels, trenasses, and similar small connections that would, if present, provide access and intertidal refugia for estuarine organisms.

Access Value should be calculated according to the following examples (Note: for all examples, P for TY0 = 90%. That designation is arbitrary and is used only for illustrative purposes; P could be any percentage from 0% to 100%):

- a. One opening into area; no structure.

$$\begin{aligned}\text{Access Value} &= P \\ &= .90\end{aligned}$$

- b. One opening into area that provides access to the entire 90% of the project area deemed accessible. A flap-gated culvert with slotted weir is placed across the opening.

$$\begin{aligned}\text{Access Value} &= P * R \\ &= .90 * .35 \\ &= .32\end{aligned}$$

- c. Two openings into area, each capable by itself of providing full access to the 90% of the project area deemed accessible in TY0. Opening #2 is determined to be the major access route relative to opening #1. A flap-gated culvert with slotted weir is placed across opening #1. Opening #2 is left unaltered.

$$\begin{aligned}\text{Access Value} &= P \\ &= .90\end{aligned}$$

Note: Structure #1 had no bearing on the Access Value calculation because its presence did not reduce access (opening #2 was determined to be the major access route, and access through that route was not altered).

- d. Two openings into area. Opening #1 provides access to an accessible unit comprising 30% of the area. Opening #2 provides access to an accessible unit comprising the remaining 60% of the project area. A flap-gated culvert with slotted weir is placed across #1. Opening #2 is left open.

$$\begin{aligned}
\text{Access Value} &= \text{weighted avg. of Access Values of the two accessible units} \\
&= ([P_1 * R_1] + [P_2 * R_2]) / (P_1 + P_2) \\
&= ([.30 * 0.35] + [.60 * 1.0]) / (.30 + .60) \\
&= (.11 + .60) / .90 \\
&= .71 / .90 \\
&= .79
\end{aligned}$$

Note: $P_1 + P_2 = .90$, because only 90 percent of the study area was determined to be accessible at TY0.

- e. Three openings into area, each capable of providing full access to the entire area independent of the others. Opening #3 is determined to be the major access route relative to openings #1 and #2. Opening #1 is blocked with a solid plug. Opening #2 is fitted with a flap-gated culvert with slotted weir, and opening #3 is left open.

$$\begin{aligned}
\text{Access Value} &= P \\
&= .90
\end{aligned}$$

Note: Structures #1 and #2 had no bearing on the Access Value calculation because their presence did not reduce access (opening #3 was determined to be the major access route, and access through that route was not altered).

- f. Three openings into area, each capable of providing full access to the entire area independent of the others. Opening #2 is determined to be the major access route relative to openings #1 and #3. Opening #1 is blocked with a solid plug. Opening #2 is fitted with a flap-gated culvert with slotted weir, and opening #3 is fitted with a fixed crest weir.

$$\begin{aligned}
\text{Access Value} &= P * R_2 \\
&= .90 * .35 \\
&= .32
\end{aligned}$$

Note: Structures #1 and #3 had no bearing on the Access Value calculation because their presence did not reduce access. Opening #2 was determined beforehand to be the major access route; thus, it was the flap-gated culvert with slotted weir across that opening that actually served to limit access.

- g. Three openings into area. Opening #1 provides access to an accessible unit comprising 20% of the area. Openings #2 and #3 provide access to an accessible unit comprising the remaining 70% of the area, and within that area, each is capable by itself of providing full access. However, opening #3 is determined to be the major access route relative to opening #2. Opening #1 is fitted with an open culvert, #2 with a flapgated culvert with slotted weir, and #3 with a fixed crest weir.

$$\begin{aligned}
\text{Access Value} &= ([P_1 * R_1] + [P_2 * R_3]) / (P_1 + P_2) \\
&= ([.20 * .5] + [.70 * .35]) / (.20 + .70) \\
&= (.10 + .25) / .90
\end{aligned}$$

$$= .35/.90$$

$$= .39$$

- h. Three openings into area. Opening #1 provides access to an accessible unit comprising 20% of the area. Opening #2 provides access to an accessible unit comprising 40% of the area, and opening #3 provides access to the remaining 30% of the area. Opening #1 is fitted with an open culvert, #2 a flap-gated culvert with slotted weir, and #3 a fixed crest weir.

$$\text{Access Value} = ([P_1 * R_1] + [P_2 * R_2] + [P_3 * R_3]) / (P_1 + P_2 + P_3)$$

$$= ([.20 * .5] + [.40 * .35] + [.30 * .1]) / (.20 + .40 + .30)$$

$$= (.10 + .14 + .03) / .90$$

$$= .27 / .90$$

$$= .30$$

V. Swamp Community Model

INTRODUCTION

The CWPPRA Environmental Work Group (EnvWG) developed a fresh swamp community model in 1991. However, the Environmental Work Group abandoned use of that model and began using a swamp community model developed by the Louisiana Department of Natural Resources (LDNR). The LDNR model was developed to quantify the impacts of permitted activities and compensatory mitigation proposals in the Louisiana coastal zone and contained a more complete list of variables to characterize habitat quality of swamp in the coastal zone. Because that model was developed for regulatory purposes, it contained some variables which were not being impacted by candidate CWPPRA restoration projects. Therefore, in 2001, the EnvWG decided to modify that model so that it would be more sensitive to the impacts of proposed restoration projects. The following sections describe the process and assumptions used in the initial development of the swamp model.

The swamp model was developed to determine the suitability of swamp habitat in providing resting, foraging, and nesting habitat for a diverse assemblage of wildlife species. The model is generally applied to areas supporting or capable of supporting a canopy of woody vegetation which covers at least 33 percent of the area's surface, and with at least 60 percent of that canopy consisting of any combination of baldcypress, tupelogram, red maple, buttonbush, and/or planertree. The LDNR model stated that if woody canopy cover is less than 33 percent, then a fresh marsh model should be applied. However, the EnvWG recognized that some areas with less than 33% canopy cover provide functions and values more closely associated with a swamp than a fresh marsh. Therefore, the EnvWG agreed that the 33% canopy cover criterion should be treated as a general "rule of thumb" for model application, with some exceptions. If greater than 40 percent of the woody vegetation canopy consists of species such as oaks, hickories, American elm, green ash, sweetgum, sugarberry, boxelder, persimmon, honeylocust, red mulberry, eastern cottonwood, American sycamore, etc., then a bottomland hardwood model should be applied.

VARIABLE SELECTION

Variable selection for the original swamp model developed by the LDNR was based on a review of; 1) Habitat Suitability Index (HSI) models, published by the U.S. Fish and Wildlife Service, for wood duck, barred owl, swamp rabbit, mink, downy woodpecker, and gray squirrel, 2) a community model for forest birds, published by the U.S. Fish and Wildlife Service, 3) "A Habitat Evaluation System for Water Resources Planning", published by the U.S. Army Corps of Engineers, and 4) a draft version of "A Community Habitat Evaluation Model for Bottomland Hardwood Forests in the Southeastern United States", coauthored by the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

Several habitat variables appeared repeatedly in the various models. In general, it was concluded that those variables which occurred most frequently in the various models were the most important for assessing habitat quality. The species-specific (i.e., HSI)

models concentrated on assessment of site-specific habitat quality features such as tree species composition, forest stand structure (understory, midstory, overstory conditions), stand maturity, and hydrology. Other models reviewed concentrated on how a site fits into the overall "landscape". The original swamp model incorporated variables which addressed habitat quality (e.g., stand structure) and landscape function (e.g., the size of the contiguous forested area). The final variables selected were reviewed by representatives of the LDNR, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the Louisiana Department of Wildlife and Fisheries. The final list of variables included; 1) stand structure, 2) stand maturity, 3) hydrology, 4) size of contiguous forested area, 5) suitability and traversability of surrounding land use, and 6) disturbance.

After using the LDNR model for several years, the EnvWg recognized that several of the model variables were not being impacted, thus model sensitivity and project benefits were being compromised. Values for the non-impacted variables (i.e., size of the contiguous forested area, suitability and traversability of surrounding land uses, and disturbance) were the same under future without-project and future with-project conditions. In an effort to improve model sensitivity, those variables were omitted. In addition, the stand structure, stand maturity, and hydrology variables were revised and a salinity variable was included in the model. A salinity variable was included in the original swamp model developed by the CWPPRA EnvWG and was recognized as an important variable in characterizing the habitat quality of swamp ecosystems. Therefore, the final list of variables includes; 1) stand structure, 2) stand maturity, 3) water regime, and 4) mean high salinity during the growing season.

SUITABILITY INDEX GRAPH DEVELOPMENT

Suitability Index (SI) graph development was very similar to the process used for other community models such as the emergent marsh community models. A variety of resources was utilized to construct each SI graph, including the HSI models from which the final list of variables was partially derived, consultation with other professionals and researchers outside the EnvWG, published and unpublished data and studies, and personal knowledge of EnvWG members. An important "non-biological" constraint on SI graph development was the need to insure that graph relationships were not counter to the purpose of the CWPPRA, that is, the long term creation, restoration, protection, or enhancement of coastal vegetated wetlands. The process of SI graph development was one of constant evolution, feedback, and refinement; the form of each SI graph was decided upon through consensus among EnvWG members.

The Suitability Index graphs were developed according to the following assumptions:

Variable V₁ - Stand structure. Most swamp tree species do not produce hard mast; consequently, wildlife foods predominantly consist of soft mast, other edible seeds, invertebrates, and vegetation. Because most swamp tree species produce some soft mast or other edible seeds, the actual tree species composition is not usually a limiting factor. More limiting is the presence of stand structure to provide resting, foraging, breeding, nesting, and nursery habitat and the medium for invertebrate production. This medium can exist as herbaceous vegetation, scrub-shrub/midstory cover, or overstory canopy and preferably as a combination of all three. This variable assigns the lowest suitability to sites

with a limited amount of all three stand structure components, the highest suitability to sites with a significant amount of all three stand structure components, and mid-range suitability to various combinations when one or two stand structure components are present.

Variable V₂ - Stand maturity. Because of man's historical conversion of swamp, the loss of swamp to saltwater intrusion, historical and ongoing timber harvesting, and a reduced tree growth rate in the subsiding coastal zone, swamps with mature sizeable trees are a unique but ecologically important feature. Older trees provide important wildlife requisites such as snags and nesting cavities and the medium for invertebrate production. Additionally, as the stronger trees establish themselves in the canopy, weaker trees are out-competed and eventually die, forming additional snags and downed treetops that would not be present in younger stands. The suitability graph for this variable assumes that snags, cavities, downed treetops, and invertebrate production are present in suitable amounts when the average diameter-at-breast height (DBH) of canopy-dominant and canopy-codominant trees is above 16 inches for baldcypress and above 12 inches for tupelogram and other species. Therefore, stands with those characteristics are considered optimal for this variable (SI = 1.0).

Another important consideration for this variable is stand density, measured in terms of basal area. A scenario sometimes encountered in mature swamp ecosystems is an overstory consisting of a very few, widely-scattered, mature baldcypress. If stand density was not considered, and average DBH only, then those stands would receive a high SI for this variable without providing many of the important habitat components of a mature swamp ecosystem, specifically a suitable number of trees for nesting, foraging, and other habitat functions. Therefore, the SI for this variable is dependent on average DBH and basal area which is used as a measure of stand density.

Variable V₃ - Water regime. This variable considers the duration and amount of water flow/exchange. Four flow/exchange and four flooding duration categories are described to characterize the water regime. The optimal water regime is assumed to be seasonal flooding with abundant and consistent riverine/tidal input and water flow-through (SI=1.0). Seasonal flooding with periodic drying cycles is assumed to contribute to increased nutrient cycling (primarily through oxidation and decomposition of accumulated detritus), increased vertical structure complexity (due to growth of other plants on the swamp floor), and increased recruitment of dominant overstory trees. In addition, abundant and consistent input and water flow-through is optimal, because under that regime the full functions and values of a swamp in providing fish and wildlife habitat are assumed to be maximized. Temporary flooding is also assumed to be desirable. Habitat suitability is assumed to decrease as water exchange between the swamp and adjacent systems is reduced. The combination of permanently flooded conditions and no water exchange (e.g., an impounded swamp where the only water input is through rainfall and the only water loss is through evapotranspiration and ground seepage) is assumed to be the least desirable (SI=0.1). Those conditions can produce poor water quality during warm weather, reducing fish use and crawfish production.

Variable V₄ - Mean high salinity during the growing season. Mean high salinity during the growing season (March 1 to October 31) is defined as the average of the upper 33 percent of salinity measurements taken during the specified period of record. Although baldcypress is able to tolerate higher salinities than other swamp species, species such as tupelogram and many herbaceous species are salinity-sensitive. Optimal conditions are assumed to occur at mean high salinities less than 1.0 ppt. Habitat suitability is assumed to decrease rapidly at mean high salinities in excess of 1.0 ppt.

HABITAT SUITABILITY INDEX FORMULA

In developing the HSI formula for this model, the EnvWG agreed that variables V₁ and V₃, stand structure and water regime, were the most important variables in characterizing the habitat quality of a swamp. Therefore, those variables were given greater influence in the model than the remaining variables. Variable V₂, stand maturity, was given slightly less weight than stand structure and water regime. Variable V₄, salinity, was deemed the least important. All variables are grouped to produce a geometric mean and variable influence is only controlled by the weight (i.e., exponent) assigned to each variable.

$$\text{HSI Calculation: } \text{HSI} = (\text{SIv}_1^3 \times \text{SIv}_2^{2.5} \times \text{SIv}_3^3 \times \text{SIv}_4^{1.5})^{1/10}$$

BENEFIT ASSESSMENT

Calculation of HUs, AAHUs, and net AAHUs follows the same procedure as indicated in the Wetland Value Assessment Methodology Introduction.

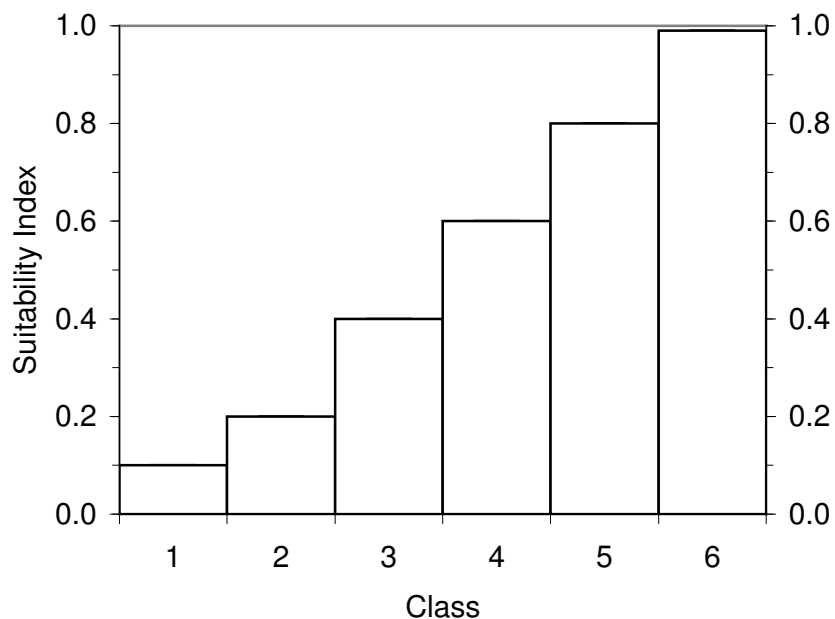
Swamp

Variable V₁ Stand structure.

Each component of stand structure should be viewed independently to determine the percent closure or coverage.

	Overstory Closure		Scrub- shrub/ Midstory Cover		Herbaceous Cover
Class 1.	$<33\%$				
Class 2.	$33\% < 50\%$	and	$<33\%$	and	$<33\%$
Class 3.	$33\% < 50\%$	and	$>33\%$	or	$>33\%$
Class 4.	$50\% - 75\%$	and	$>33\%$	or	$>33\%$
Class 5.	$33\% < 50\%$	and	$>33\%$	and	$>33\%$
Class 6.	$\geq 50\%$	and	$>33\%$	and	$>33\%$
			OR		
	$\geq 75\%$	and	$>33\%$	or	$>33\%$

Suitability Graph



Swamp

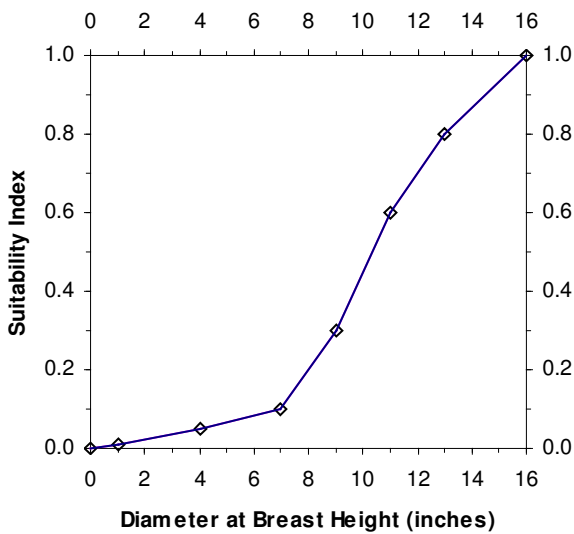
Variable V₂ Stand maturity.

Average dbh of canopy-dominant and canopy-codominant trees.

Notes:

1. Canopy-dominant and codominant trees are those whose crown rises above or is an integral part of the overstory.
2. For trees with buttress swell, dbh is the diameter measured at 12" above the swell.
3. The SI for this variable is multiplied by the factors in the table below depending on stand density.

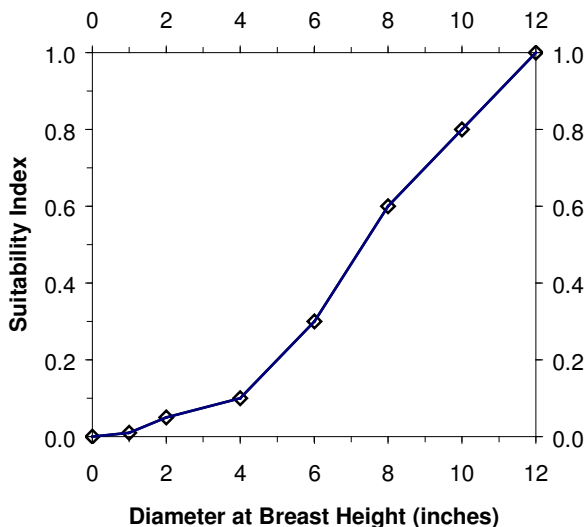
Suitability Graph



Suitability Index Line Formulas for baldcypress:

- If dbh = 0 then SI = 0
- If $0 < dbh \leq 1$ then $SI = .01 * dbh$
- If $1 < dbh \leq 4$ then $SI = (.013 * dbh) - .003$
- If $4 < dbh \leq 7$ then $SI = (.017 * dbh) - .017$
- If $7 < dbh \leq 9$ then $SI = (.1 * dbh) - .6$
- If $9 < dbh \leq 11$ then $SI = (.15 * dbh) - 1.05$
- If $11 < dbh \leq 13$ then $SI = (.1 * dbh) - .5$
- If $13 < dbh \leq 16$ then $SI = (.067 * dbh) -$

Suitability Graph



Suitability Index Line Formulas for tupelugum et al.:

- If $0 < dbh \leq 1$ then $SI = .01 * dbh$
- If $1 < dbh \leq 2$ then $SI = (.04 * dbh) - .03$
- If $2 < dbh \leq 4$ then $SI = .025 * dbh$
- If $4 < dbh \leq 6$ then $SI = (.1 * dbh) - .3$
- If $6 < dbh \leq 8$ then $SI = (.15 * dbh) - .6$
- If $8 < dbh \leq 12$ then $SI = (.1 * dbh) - .2$
- If $dbh > 12$ then $SI = 1.0$

Swamp

Variable V₃ Water regime.

Density	Basal Area	Factor
Open	<40ft ²	0.2
Moderately Open	40ft ² ≤BA≤80ft ²	0.4
Moderate	81ft ² ≤BA≤120ft ²	0.6
Moderately Dense	121ft ² ≤BA≤160ft ²	0.8
Dense	>161ft ²	1.0

		Flow/Exchange			
		High	Moderate	Low	None
Flooding Duration	Seasonal	1.00	0.85	0.70	0.50
	Temporary	0.9	0.75	0.65	0.40
	Semi-Permanent	0.75	0.65	0.45	0.25
	Permanent	0.65	0.45	0.30	0.10

Flooding Duration

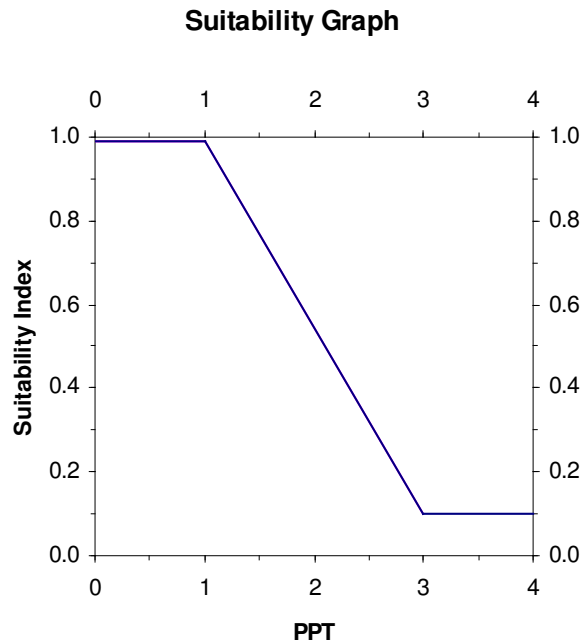
1. Permanently Flooded: Water covers the substrate throughout the year in all years.
2. Semipermanently Flooded: Surface water is present throughout the growing season in most years.
3. Seasonally Flooded: Surface water is present for extended periods, especially in the growing season, but is absent by the end of the growing season in most years.
4. Temporarily Flooded: Surface water is present for brief periods during the growing season, but the water table usually lies well below the surface for most of the season.

Flow/Exchange

1. High: Receives abundant and consistent riverine input and through-flow.
2. Moderate: Moderate water exchange, through riverine and/or tidal input.
3. Low: Limited water exchange, through riverine and/or tidal input.
4. None: No water exchange (stagnant, impounded).

Swamp

Variable V₄ Mean high salinity during the growing season.



Line Formulas

If $0 \leq \text{ppt} \leq 1.0$, then $SI = 1.0$

If $1.0 < \text{ppt} < 3.0$, then $SI = (-0.45 * \text{ppt}) + 1.45$

If $\text{ppt} \geq 3.0$, then $SI = 0.1$

Mean high salinity during the growing season is defined as the average of the highest 33 percent of consecutive salinity readings taken during the period of record (March 1 through October 31).

**Coastal Wetlands Planning, Protection, and
Restoration Act**

14th Priority Project List Report

Appendix C

Engineering Cost Estimates For Candidate Projects

Appendix C
Engineering Cost Estimates for Candidate Projects

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APPENDIX C

LEGEND

LF = Linear Foot

SF = Square Foot

EA = Each

CY = Cubic Yard

SY = Square Yard

TN = Ton

LS = Lump Sum

LB = Pound

ST = 100 ft station

AC = Acre

Project: Irish Bayou to Chef Menteur Pass SP and MC		Date: 13-Sep-04		Revised: 07-Oct-04	
Computed by: Chris Monnerjahn		Project Priority List 14			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization and Demobilization (Rock Work)	1	LS	\$100,000	\$100,000
2	Flotation Channel Excavation	138,150	CY	\$2.25	\$310,838
3	Geotextile Fabric (400#)	82,800	SY	\$4.50	\$372,600
4	Stone (1,000 # max)	128,340	Ton	\$28.00	\$3,593,520
5	Mobilization and Demobilization (Dredging Work)	1	LS	\$210,000	\$210,000
6	Marsh Creation	389,700	CY	\$2.80	\$1,091,160
7	Containment Dikes	5,700	LF	\$11.60	\$66,120
8	Settlement Plates	22	EA	\$1,000.00	\$22,000
9	Navigation Signs	22	EA	\$1,500.00	\$33,000
10	Vegetative Plantings	46	AC	\$3,500.00	\$161,000

ESTIMATED CONSTRUCTION COST	<u>\$5,960,238</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u><u>\$7,450,298</u></u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$375,000
Geotechnical Investigation	\$81,250
Hydrologic Modeling	\$0
Data Collection - Surveys	\$62,500
Cultural Resources	\$10,000
NEPA Compliance(including HTRW requirements)	\$30,000

SubTotal: \$558,750

Supervision and Administration

USFWS: Actual
\$100,000

State Costs

Supervision and Administration (including PM, ecological review and engineering review)

\$150,000

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0
Land Rights		\$107,000

SubTotal: \$107,000

Monitoring

Monitoring Plan Development	\$0
Monitoring Protocol Cost *	\$0

* Monitoring is now done through CRMS except on projects that an agency requests project specific monitoring and projects such as Barrier Island projects and Demo projects.

SubTotal: \$0

Total Phase I Cost Estimate: \$915,750

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency

\$7,450,298

Real Estate: \$118,000

SubTotal: \$7,568,298

Supervision and Inspection

10 months @ \$25,000.00 /month + \$35

\$285,000

Supervision and Administration

USFWS & USACE: \$125,000

State Costs

Supervision and Administration

\$75,000

Total Phase II Cost Estimate: \$8,053,298

TOTAL ESTIMATED PROJECT FIRST COST \$8,969,048

**Irish Bayou to Chef Menteur Pass SP and MC
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs:

Annual Inspections	\$4,900
Annual Cost for Operations	
Preventive Maintenance	

Specific Intermittent Costs:

Construction Items

	<u>Year 1</u>	<u>Year 7</u>	<u>Year 17</u>
Mob & Demob	\$10,000	\$75,000	\$75,000
Degrade Containment Dikes (5,700 lf @ 50% of \$7.50/lf)	\$21,375		
Rock Replacement (Year 7 -25% replace & Year 17 - 10% replace)		\$898,380	\$359,352
Flotation Channel (Year 7 - 50% original & Year 17 - 25% original)		\$155,419	\$77,710
Navigation Signs Replacement (50% @ \$1,000)		\$11,000	\$11,000
Subtotal	\$31,375	\$1,139,799	\$523,062
Subtotal w/ 25% contingency	\$39,219	\$1,424,749	\$653,827

State Costs

Engineering and Design Cost	\$3,650	\$98,977	\$48,063
Administrative Cost	\$1,177	\$28,495	\$13,077
Eng Survey	3 days	5 days	3 days
	days @ \$1,479 per day	\$7,395	\$4,437
Inspection	10 days	45 days	30 days
	days @ \$887 per day	\$8,870	\$39,915
Subtotal	\$18,134	\$174,782	\$92,187

Federal Costs

Administrative Cost	\$1,177	\$28,495	\$13,077
Total	\$58,530	\$1,628,026	\$759,091

Annual Project Costs:

Corps Administration	\$665	
Monitoring *	\$0	<i>(Dependent upon type of project)</i>

* Monitoring is now done through CRMS except on projects that an agency requests project specific monitoring and projects such as Barrier Island projects and Demo projects.

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	March-07	<i>(Minimum of one year to complete this phase)</i>
Const. Start	January-08	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	October-08	

Project: Rivine Sand Mining/Scofield Island Restoration		Date: 20-Sep-04	Revised: 08-Oct-04		
Computed by: RWS		Project Priority List 14			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Scofield Pass floatation canal dredging	145,000	cy	\$2.00	\$290,000
2	Empire waterway dredging	1	job	\$200,000.00	\$200,000
3	Mob/Demob - sand mining	1	job	\$3,000,000.00	\$3,000,000
4	Sand mining and conveyance (in place)	1,528,000	cy	\$11.71	\$17,892,880
5	Coarse Sand credit (15% of total volume)	-229,200	cy	\$11.71	-\$2,683,932
6	Mob/Demob - marsh fill	1	job	\$1,000,000.00	\$1,000,000
7	Marsh fill (in place)	876,000	cy	\$6.00	\$5,256,000
8	Primary retention dikes	17,400	lf	\$35.00	\$609,000
9	Secondary retention dikes	6,350	lf	\$15.00	\$95,250
10	Tidal Pond Excavation (2 ac @ 3.6 ft cut)	11,620	cy	\$4.00	\$46,480
11	Settlement plates	10	Unit	\$1,000.00	\$10,000
12	Sand fencing	25,400	lf	\$10.00	\$254,000
13	Pre-construction survey	1	job	\$40,000.00	\$40,000
14	As-built survey	1	job	\$40,000.00	\$40,000
15	TY1 Dune planting 25% of dune acres	25	ac	\$3,500.00	\$87,500

ESTIMATED CONSTRUCTION COST \$26,137,178
ESTIMATED CONSTRUCTION + 25% CONTINGENCY \$32,671,473

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design: (see backup for details)

Engineering	\$750,000
Surveys	\$375,000
Geotechnical Investigation	\$845,000
Cultural Resources (imbedded in geotechnical investigations)	\$0
HTRW	\$50,000
NEPA Compliance (included in Fed S&A)	\$0
USACE Coordination	\$25,000

SubTotal: \$2,045,000
Total \$2,249,500

E&D including 10% CONTINGENCY

NMFS Actual
\$300,000 \$300,000

Supervision and Administration (includes NEPA & PM)

State Costs

Supervision and Administration (including PM, ecological review, engineering, and planting review)

\$200,000

Easements and Land Rights

Oyster Issues (DNR quote +25% contingency)	\$53,750
Land Rights (includes oyster lease coord.)	\$250,000

SubTotal: \$303,750

Monitoring

Monitoring Plan Development *	\$10,000
Monitoring Protocol Cost	\$0

SubTotal: \$10,000

* Performance Monitoring plan development (see state costs under O&M) not included in individual projects.

Total Phase I Cost Estimate: \$3,063,250

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency

\$32,671,473

Oyster Issues (DNR quote +25% contingency)

\$268,750

SubTotal: \$32,940,223

Supervision and Inspection

Heavy Construction	343 days @	\$1,775.00 per day	\$608,825
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Supervision and Administration

\$300,000

State Costs

Supervision and Administration

\$88,469

Total Phase II Cost Estimate: \$33,937,517

TOTAL ESTIMATED PROJECT FIRST COST

\$37,000,767

**Riverine Sand Mining/Scofield Island Restoration
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs:

Annual Inspections	\$4,900
Annual Cost for Operations	
Preventive Maintenance	

Specific Intermittent Costs:

Construction Items	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 20</u>
Vegetative plantings [75% dune/swale (127ac) 25% marsh (70ac) Yr 2; 75% marsh (209 ac) TY3; @ \$3,500/ac)		\$689,500	\$731,500			
Woody vegetation (15 acres @ \$4,000/ac)		\$60,000				
Containment Dike Gapping			\$68,500			
Sand Fencing (50% replacement)				\$127,000	\$127,000	
Subtotal	\$0	\$749,500	\$800,000	\$127,000	\$127,000	\$0
Subtotal w/ 25% contingency		\$936,875	\$1,000,000	\$158,750	\$158,750	

State Costs

Engineering and Design Cost		\$0	\$0	\$71,250	\$13,049	\$13,049
Administrative Cost (5% of planting +contingency for TY2; otherwise 6%)		\$0	\$7,937.50	\$20,000	\$3,175	\$3,175
Eng Survey						
2 days @ \$2,958 per day		\$0	\$0	\$5,916	\$5,916	\$5,916
Inspection - construction (1,500 ft of dike gapping @ 300 ft/day)						
5 days @ \$1,775 per day		\$0	\$0	\$8,875	\$8,875	\$8,875
Inspection - vegetative planting (2 ac/day; TY2 98.5 days; TY 104.5 days)			\$87,370	\$92,692	\$0	\$0
Subtotal	\$0	\$95,307	\$198,733	\$31,015	\$31,015	\$0

Federal Costs

Administrative Cost		\$2,020	\$18,343	\$19,975	\$4,957	\$4,657	\$2,245
Total		\$2,020	\$1,050,525	\$1,218,708	\$194,722	\$194,422	\$2,245

Annual Project Costs:

Corps Administration	\$665						
Performance Monitoring*		\$67,341	\$72,341	\$0	\$89,841	\$74,841	\$74,841

**Monitoring included is project specific and designed in accordance to the Barrier Island Comprehensive Monitoring Program not included in individual projects.*

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	October-07	<i>(Minimum of one year to complete this phase)</i>
Const. Start	March-08	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	February-09	

Project: South Shore of The Pen		Date: 14-Sep-04	Revised: 08-Oct-04		
Computed by:		Project Priority List 14			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$350,000	\$350,000
2	Structure Removal and Replacement	1	LS	\$10,000	\$10,000
3	Rock Riprap	78,082	TN	\$25	\$1,952,050
4	Geotextile	41,316	SY	\$5.00	\$206,580
5	Concrete Piles and Panels	1,000	LF	\$537.25	\$537,250
6	Excavation for Flotation	261,950	CY	\$2.60	\$681,070
7	Marsh Nourishment	659,450	CY	\$2.60	\$1,714,570
8	Marsh Creation	972,840	CY	\$2.60	\$2,529,384
9	Containment Dikes	3,700	LF	\$9.33	\$34,521
10	Interior Containment Dikes	10,600	LF	\$6.67	\$70,702
11	Containment Sheetpile Wall	3,000	LF	\$161.00	\$483,000
12	Vegetative Plantings	72	AC	\$2,500.00	\$180,000
13	Settlement Plates	12	Each	\$1,000.00	\$12,000

ESTIMATED CONSTRUCTION COST \$8,761,127
ESTIMATED CONSTRUCTION + 25% CONTINGENCY \$10,951,409

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$665,068
Geotechnical Investigation	\$145,000
Hydrologic Modeling	\$0
Data Collection	\$0
Cultural Resources	\$10,000
NEPA Compliance	\$30,000

SubTotal: \$850,068

Supervision and Administration

NMFS	NRCS	Other	Actual
\$0	\$190,488	\$0	\$190,488

State Costs

Supervision and Administration

\$174,295

Ecological Review Costs

\$0

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0
Land Rights		\$25,000

SubTotal: \$25,000

Monitoring

Monitoring Plan Development	\$0
Monitoring Protocol Cost *	\$0

SubTotal: \$0

* Monitoring is now done through CRMS and is a line item in overall planning budget and not included in individual projects.

Total Phase I Cost Estimate: \$1,239,851

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency

\$10,951,409

Oyster Issues (# of Leased Acres)	0 Leased AC	\$0
Land Rights		\$0

SubTotal: \$10,951,409

Supervision and Inspection

423 days @ \$887.00 per day \$375,201

Supervision and Administration

\$157,584

State Costs

Supervision and Administration

\$1,500/wk (use a 6-day work week) \$105,750

Total Phase II Cost Estimate: \$11,589,944

TOTAL ESTIMATED PROJECT FIRST COST \$12,829,795

**South Shore of The Pen
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$4,900
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

	<u>Year 3</u>	<u>Year 7</u>	<u>Year 14</u>
Construction Items			
Contractor Mobilization/Demobilization	\$200,000	\$200,000	\$200,000
Structural removal	\$10,000	\$10,000	\$10,000
Excavation for Flotation	\$170,268	\$0	\$170,268
Replace 25% or original rock shoreline protection	\$488,013	\$0	\$0
Replace 10% or original rock shoreline protection	\$0	\$0	\$195,205
Replace 2.5% or original concrete panel	\$0	\$12,075	\$12,075
Subtotal	\$868,280	\$222,075	\$587,548
Subtotal w/ 25% contingency	<u>\$1,085,350</u>	<u>\$277,594</u>	<u>\$734,434</u>

State Costs

Engineering and Design Cost		\$77,000	\$22,000	\$54,000
Administrative Cost		\$21,500	\$5,500	\$14,500
Eng Survey	3 days @	\$1,479 per day		\$4,000
	1 days @	\$1,479 per day	\$1,000	
Inspection	30 days @	\$887 per day	\$27,000	
	2 days @	\$887 per day	\$2,000	
	15 days @	\$887 per day		\$13,000
Subtotal		<u>\$129,500</u>	<u>\$30,500</u>	<u>\$85,500</u>

Federal Costs

Administrative Cost		\$26,950	\$7,700	\$18,900
Total		<u>\$1,241,800</u>	<u>\$315,794</u>	<u>\$838,834</u>

Annual Project Costs:

Corps Administration	\$665					
Engineer Monitoring	<u>YR1</u>	<u>YR2</u>	<u>YR3</u>	<u>YR5</u>	<u>YR10</u>	<u>YR15</u>
	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	March-07	<i>(Minimum of one year to complete this phase)</i>
Const. Start	January-08	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	May-09	

Project:	Venice Ponds Marsh Creation	Date:	13-Sep-04	Revised:	07-Oct-04
Computed by:	Chris Monnerjahn	<i>Project Priority List 14</i>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization and Demobilization	1	LS	\$470,000	\$470,000
2	Marsh Creation - Site 1	1,636,000	CY	\$2.25	\$3,681,000
3	Marsh Creation - Site 2	1,494,000	CY	\$2.10	\$3,137,400
4	Marsh Creation - Site 3	2,345,000	CY	\$1.80	\$4,221,000
5	Containment Dikes	350,000	CY	\$2.10	\$735,000
6					\$0
7					\$0
8					\$0

ESTIMATED CONSTRUCTION COST **\$12,244,400**
ESTIMATED CONSTRUCTION + 25% CONTINGENCY **\$15,305,500**

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$312,500
Geotechnical Investigation	\$81,250
Hydrologic Modeling	\$0
Data Collection - Surveys	\$62,500
Cultural Resources	\$15,000
NEPA Compliance(including HTRW requirements)	\$40,000

SubTotal: \$511,250

Actual

Supervision and Administration

\$200,000

State Costs

Supervision and Administration (including PM, ecological review and engineering review)

\$153,055

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0
Land Rights		\$107,000

SubTotal: \$107,000

Monitoring

Monitoring Plan Development	\$0
Monitoring Protocol Cost *	\$0

* Monitoring is now done through CRMS except on projects that an agency requests project specific monitoring and projects such as Barrier Island projects and Demo projects.

SubTotal: \$0

Total Phase I Cost Estimate: **\$971,305**

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency

\$15,305,500

Real Estate: \$205,000

SubTotal: \$15,510,500

Supervision and Inspection

15 months @ \$25,000.00 /month + \$35k

\$410,000

Supervision and Administration

\$150,000

State Costs

Supervision and Administration

\$112,500

Total Phase II Cost Estimate: **\$16,183,000**

TOTAL ESTIMATED PROJECT FIRST COST

\$17,154,305

**Venice Ponds Marsh Creation
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs:

Annual Inspections	\$4,900
Annual Cost for Operations	
Preventive Maintenance	

Specific Intermittent Costs:

Construction Items

	<u>Year 1</u>	<u>Year 10</u>	<u>Year 15</u>
Mob & Demob	\$100,000	\$50,000	
Degrade Containment Dikes (50% of 350,000cy@\$2.10/cy)	\$367,500		
Dredging Crevasse into Site 3 (3,200 cy@\$3.00/cy)	\$9,600		
Crevasse Stone Protection (1,250 tons@\$34.50/ton)	\$43,125		
30' Concrete Piling - to deter boat traffic (15 each @\$820/each)	\$12,300	\$12,300	
Culverts @ Site 2- 36" dia. CMP(100 LF @ \$85/lf)	\$8,500		
Subtotal	\$541,025	\$62,300	\$0
Subtotal w/ 25% contingency	\$676,281	\$77,875	\$0

State Costs

Engineering and Design Cost		\$49,589		\$6,806
Administrative Cost		\$13,526		\$2,337
Eng Survey		5 days		0 days
	days @	\$1,479 per day		\$7,395
Inspection		90 days		5 days
	days @	\$887 per day		\$79,830
Subtotal		\$150,340		\$13,578
				\$0

Federal Costs

Administrative Cost		\$13,526		\$2,337
Total		\$840,147		\$93,790
				\$0

Annual Project Costs:

Corps Administration	\$665	
Monitoring *	\$0	(Dependent upon type of project)

* Monitoring is now done through CRMS except on projects that an agency requests project specific monitoring and projects such as Barrier Island projects and Demo projects.

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	March-07	(Minimum of one year to complete this phase)
Const. Start	January-08	(Requires 4 months for contracting and advertising)
Const. End	April-09	

Project: White Ditch Resurrection		Date: 15-Sep-04		Revised: 12-Oct-04	
Computed by: Andy Tarver		<i>Project Priority List 14</i>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$250,000	\$250,000
2	Temporary coffer dams and de-water structures	2	EA	\$250,000	\$500,000
3	Intake structures and excavation for installation	2	EA	\$500,000	\$1,000,000
4	Riprap (plunge pool protection at outfalls)	6,222	Ton	\$60	\$373,333
5	Geotextile (plunge pool)	35,000	SY	\$4	\$140,000
6	Sheetpile bulkhead at outfalls	23,400	SF	\$35	\$819,000
7	Remove existing siphon structure	1	LS	\$250,000	\$250,000
8	54" Diameter steel pipe (800' length x 4 sets)	3,200	LF	\$400	\$1,280,000
9	Normal pipe placement	2,400	LF	\$400	\$960,000
10	Jack and Bore (4 sets @ 200' ea.)	800	LF	\$1,000	\$800,000
11	Channel Excavation (material used on spoil banks)	63,333	CY	\$5	\$316,667
12	Water control structure (junction of ditch and Oak River)	1	LS	\$750,000	\$750,000
13	Miscellaneous structure replacement (36" culverts)	150	LF	\$150	\$22,500
14	Miscellaneous channel work (improve hydraulic distribution)	1	LS	\$250,000	\$250,000
15	Concrete support cradles (12 cradles per siphon location)	24	EA	\$1,000	\$24,000
16	Concrete piles and hardware (2 piles per cradle)	48	EA	\$1,000	\$48,000

ESTIMATED CONSTRUCTION COST	\$7,783,500
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	\$9,729,375

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$595,000	
Geotechnical Investigation	\$120,000	
Hydrologic Modeling	\$100,000	
Data Collection	\$200,000	(\$50,000 - gages and \$150,000 - topo survey)
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	

SubTotal: \$1,055,000

NRCS

Supervision and Administration

\$194,500

Actual

\$194,500

State Costs

Supervision and Administration (let formula calc. due to modeling)

\$194,500

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0
Land Rights		\$70,000

SubTotal: \$70,000

Monitoring

Monitoring Plan Development	\$0
Monitoring Protocol Cost *	\$0

SubTotal: \$0

* Monitoring is now done through CRMS except on projects that an agency requests project specific monitoring and projects such as Barrier Island projects and Demo projects.

Total Phase I Cost Estimate: \$1,514,000

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency

\$9,729,375

Oyster Issues (# of Leased Acres)	0 Leased AC	\$0
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SubTotal: \$9,729,375

Supervision and Inspection

294 days @ \$887.00 per day

\$260,909

Supervision and Administration

\$194,500

State Costs

Supervision and Administration

\$1500/wk (use a 6-day work week)

\$73,537

Total Phase II Cost Estimate: \$10,258,321

TOTAL ESTIMATED PROJECT FIRST COST \$11,772,321

**White Ditch Resurrection
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs:

Annual Inspections	\$4,900	
Annual Cost for Operations	\$10,000	
Preventive Maintenance	\$0	
Annual Maintenance dredging (10,000 cu.yd @ \$3/cu.yd)	\$35,000	(Based on 1990 study of white's ditch...13,200 tons/yr of sediment + \$5,000 for mob/demob)

Specific Intermittent Costs:

Construction Items	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$5,000	\$20,000	\$5,000
Repair water control structure (structure at intersection of White's Ditch and Oak River)	\$0	\$100,000	\$0
Siphon re-condition and paint (valves, pipes, etc.)	\$0	\$100,000	\$0
Intake structure maintenance	\$15,000	\$15,000	\$15,000
Maintenance dredging and channel work (in addition to annual dredging) (9,000 LF x 50' width x 1' depth @ \$3/cu.yd.)	\$0	\$50,000	\$0
Subtotal	\$20,000	\$285,000	\$20,000
Subtotal w/ 25% contingency	\$25,000	\$356,250	\$25,000

State Costs

Engineering and Design Cost		\$2,430	\$27,432	\$2,430
Administrative Cost		\$750	\$7,125	\$750
Eng Survey				
	2 days @	\$1,479 per day		\$2,958
	5 days @	\$1,479 per day	\$7,395	\$2,958
Inspection				
	3 days @	\$887 per day		\$2,661
	20 days @	\$887 per day	\$17,740	\$2,661
Subtotal			\$8,799	\$59,692

Federal Costs

Administrative Cost		\$750	\$7,125	\$750
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Total	\$34,549	\$423,067	\$34,549
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Annual Project Costs:

Corps Administration	\$665	
Monitoring *	\$0	(Dependent upon type of project)

* Monitoring is now done through CRMS except on projects that an agency requests project specific monitoring and projects such as Barrier Island projects and Demo projects.

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	March-07	(Minimum of one year to complete this phase)
Const. Start	January-08	(Requires 4 months for contracting and advertising)
Const. End	December-08	

Project:	East Marsh Island Marsh Creation	Date:	20-Aug-04	Revised:	06-Oct-04
Computed by:	Patricia A. Taylor	<i>Project Priority List 14</i>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$350,000	\$350,000
2	Marsh Creation	2,382,974	CY	\$4.00	\$9,531,896
3	Vegetative Plantings	188	acre	\$3,500	\$658,000
4	Containment Dikes (1,600 LF @ 3H to 1V)	40,000	LF	\$8.70	\$348,000

ESTIMATED CONSTRUCTION COST **\$10,887,896**
ESTIMATED CONSTRUCTION + 25% CONTINGENCY **\$13,609,870**

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$400,000			
Geotechnical Investigation	\$105,000	16 boreholes @ \$5,000 ea + \$25K report		
Hydrologic Modeling				
Data Collection	\$170,000	100K Survey, 50K Mag Survey, 20K chem testing		
Cultural Resources	\$10,000			
NEPA Compliance	\$30,000			

SubTotal: \$715,000

Supervision and Administration

<u>NMFS</u>	<u>NRCS</u>	<u>Other</u>	<u>Actual</u>
	\$272,198		\$272,198

State Costs

Supervision and Administration (including PM, ecological review and engineering review) \$136,000

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0	
Land Rights		\$15,000	minimal cost - LDWF lands
			<i>SubTotal:</i> \$15,000

Monitoring

Monitoring Plan Development	\$0
Monitoring Protocol Cost *	\$0

* Monitoring is now done through CRMS and is a line item in overall planning budget and not included in individual projects.

SubTotal: \$0

Total Phase I Cost Estimate: **\$1,138,000**

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency

	\$13,609,870	
Oyster Issues (# of Leased Acres)	0 Leased AC	\$0

SubTotal: \$13,609,870

Supervision and Inspection

330 days @	\$887.00 per day	\$292,710
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Supervision and Administration

\$272,198

State Costs

Supervision and Administration

\$71,000

Total Phase II Cost Estimate: **\$14,245,778**

TOTAL ESTIMATED PROJECT FIRST COST

\$15,383,778

**East Marsh Island Marsh Creation
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs:

Annual Inspections	\$4,900
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Federal Costs

Engineering Monitoring	<u>Year 1</u>	<u>Year 3</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
bathymetry evaluation of borrow location (\$5000/trip)	\$0	\$0	\$5,000	\$5,000	\$5,000
Post construction DO monitoring at borrow site	\$5,000	\$5,000	\$5,000	\$5,000	\$0
	\$0	\$0	\$0	\$0	\$0
Subtotal	\$5,000	\$5,000	\$10,000	\$10,000	\$5,000
Administrative Cost	\$300	\$300	\$600	\$600	\$300
Total	\$5,300	\$5,300	\$10,600	\$10,600	\$5,300

Annual Project Costs:

Corps Administration	\$665	
Monitoring *	\$0	<i>(Dependent upon type of project)</i>
<i>* Monitoring is now done through CRMS and is a line item in overall planning budget and not included in individual projects.</i>		

Construction Schedule:

Planning & Design Star	March-05	
Planning & Design End	March-06	<i>(Minimum of one year to complete this phase)</i>
Const. Start	January-07	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	December-07	

Project:	Barrier Island Sand Blowing Demo	Date:	13-Sep-04	Revised:	04-Oct-04
Computed by:	Chris Monnerjahn	<i>Project Priority List 14</i>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization and Demobilization	1	LS	\$94,000	\$94,000
2	Sand (Loading, Hauling, Placement)	1	LS	\$719,800.00	\$719,800

ESTIMATED CONSTRUCTION COST	\$813,800
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	\$1,017,250

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$150,000		
Geotechnical Investigation			
Hydrologic Modeling			
Data Collection - Surveys	\$25,000		
Cultural Resources	\$15,000		
NEPA Compliance	\$60,000		
		SubTotal:	\$250,000

Actual

Supervision and Administration \$75,000

State Costs

Supervision and Administration (including PM, and engineering reviews, but NO ecological review) \$50,000

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0	
Land Rights		\$51,000	
			SubTotal: \$51,000

Monitoring

Monitoring Plan Development	\$25,000		
Monitoring Protocal Cost *	\$0		
		SubTotal:	\$25,000

* Monitoring is now done through CRMS except for those projects that require project specific monitoring such as Barrier Island projects and Demo projects.

Total Phase I Cost Estimate: \$451,000

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$1,017,250	
	Real Estate:	\$25,000	
			SubTotal: \$1,042,250

Supervision and Inspection 1 months @ \$25,000.00 per month \$45,000

Supervision and Administration \$75,000

State Costs

Supervision and Administration \$25,000

Total Phase II Cost Estimate: \$1,187,250

TOTAL ESTIMATED PROJECT FIRST COST \$1,638,250

**Barrier Island Sand Blowing Demo
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs:

Annual Inspections
Annual Cost for Operations
Preventive Maintenance

Specific Intermittent Costs:

Monitoring Items

Year 1 Year 2 Year 3

Subtotal	\$0	\$0	\$0
Subtotal w/ 25% contingency	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

State Costs

Engineering and Design Cost
Administrative Cost
Eng Survey

Inspection	0 days	@	\$1,479 per day	\$0
	0 days	@	\$887 per day	\$0

Subtotal	\$0	\$0	\$0
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Federal Costs

Administrative Cost

Total	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
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Annual Project Costs:

		<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	
Corps Administration	\$665				
Engineering Monitoring	\$0	\$15,000	\$15,000	\$30,000	(includes monies for annual surveys)

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	July-06	<i>(Minimum of one year to complete this phase)</i>
Const. Start	January-07	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	February-07	

Project:	Floating Wave Attenuator Demo	Date:	07-Sep-04	Revised:	06-Oct-04
Computed by:	Paricia A. Taylor, P.E.	<i>Project Priority List 14</i>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Installation costs	1,500	LF	\$400	\$600,000

ESTIMATED CONSTRUCTION COST	\$600,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	\$750,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$100,000
Geotechnical Investigation	\$35,000
Hydrologic Modeling	\$0
Data Collection	\$30,000
Cultural Resources	\$10,000
NEPA Compliance	\$30,000

SubTotal: \$205,000

Actual
\$25,000

Supervision and Administration

State Costs

Supervision and Administration (including PM and engineering review) \$25,000

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0
Land Rights		\$15,000

SubTotal: \$15,000

Monitoring

Monitoring Plan Development	\$25,000
Monitoring Protocol Cost *	\$0

SubTotal: \$25,000

* Monitoring is now done through CRMS and is a line item in overall planning budget and not included in individual projects.

Total Phase I Cost Estimate: \$295,000

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency \$750,000

Oyster Issues (# of Leased Acres)	0 Leased AC	\$0
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SubTotal: \$750,000

Supervision and Inspection 10 days @ \$887.00 per day \$8,870

Supervision and Administration \$25,000

State Costs

Supervision and Administration \$15,000

Total Phase II Cost Estimate: \$798,870

TOTAL ESTIMATED PROJECT FIRST COST \$1,093,870

**Floating Wave Attenuator Demo Project
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs:

Annual Inspections	\$0
Preventive Maintenance	\$0

Annual Project Costs:

		<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Corps Administration	\$665					
Engineering Monitoring		\$20,000	\$20,000	\$20,000	\$20,000	\$25,000
		(\$20,000/year + \$5,000 @ TY5 for closeout report)				

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	March-06	<i>(Minimum of one year to complete this phase)</i>
Const. Start	July-06	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	September-06	

Project:	Evaluation of Bioengineered Reefs	Date:	22-Sep-04	Revised:	05-Oct-04
Computed by:	John Foret	<i>Project Priority List 14-Demonstration</i>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$60,000	\$60,000
2	Var. Density Concrete(Forms/Hardware)-Delivered on site	40	CY	\$162	\$6,480
3	Anchor system	7	Each	\$1,500	\$10,500
4	Navigation Aids	2	Each	\$2,000	\$4,000

ESTIMATED CONSTRUCTION COST	\$80,980
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	\$101,225

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$75,000
Geotechnical Investigation	\$35,000
Hydrologic Modeling	\$0
Data Collection (Phase 1)	\$42,000
Cultural Resources	\$10,000
NEPA Compliance	\$20,000

SubTotal: \$182,000

Supervision and Administration

<u>NMFS</u>	<u>Actual</u>
\$15,000	\$15,000

State Costs

Supervision and Administration (including PM and engineering review)

\$25,000

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0
Land Rights		\$15,000

SubTotal: \$15,000

Monitoring

Monitoring Plan Development	\$25,000
Monitoring Protocol Cost *	\$0

SubTotal: \$25,000

Total Phase I Cost Estimate: \$262,000

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency

	\$101,225	
Oyster Issues (# of Leased Acres)	0 Leased AC	\$0

SubTotal: \$101,225

Supervision and Inspection

10 days @ \$887.00 per day \$8,870

Supervision and Administration

\$15,000

State Costs

Supervision and Administration

\$15,000

Total Phase II Cost Estimate: \$140,095

TOTAL ESTIMATED PROJECT FIRST COST \$402,095

**Evaluation of Bioengineered Reefs
Operation & Maintenance and Monitoring**

Project Priority List 14-Demonstration

O&M Cost Considerations:

Annual Costs:

Annual Inspections	\$0
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs:

Construction Items	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Mobilization/Demobilization	\$0	\$120,000	\$0	\$0	\$0
Var. Density Concrete (1,600 cy @ \$162 per) plus Forms/Hardware-Delivered on site	\$0	\$259,200	\$0	\$0	\$0
Anchor system (30 @ \$1500)	\$0	\$45,000	\$0	\$0	\$0
Navigation Aids (2 @ \$2000)	\$0	\$4,000	\$0	\$0	\$0
Subtotal	\$0	\$428,200	\$0	\$0	\$0
Subtotal w/ 25% contingency	\$0	\$535,250	\$0	\$0	\$0

State Costs

Engineering and Design Cost	\$0	\$39,944	\$0	\$0	\$0
Administrative Cost	\$0	\$21,410	\$0	\$0	\$0
Eng Survey					
3 days @ \$1,479 per day	\$0	\$4,437	\$0	\$0	\$0
Inspection					
50 days @ \$887 per day	\$0	\$44,350	\$0	\$0	\$0
Subtotal	\$0	\$110,141	\$0		

Federal Costs

Administrative Cost	\$450	\$11,305	\$450	\$450	\$900
Total	\$450	\$656,696	\$450	\$450	\$900

Annual Project Costs:

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Corps Administration \$665					
Monitoring - Annual trips plus final report	\$15,000	\$30,000	\$15,000	\$15,000	\$30,000

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	March-06	<i>(Minimum of one year to complete this phase)</i>
Const. Start	January-07	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	June-08	

Project: Sand Fence for Dune Formation and Bird Fence Demo			Date: 14-Sep-04		Revised: 08-Oct-04	
Computed by:			Project Priority List 14			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount	
1	Mobilization/Demobilization	1	LS	\$50,000	\$50,000	
2	Dune Clusters	12	Each	\$475	\$6,000	
3	Vegetative Plantings	2	EA	\$15,000	\$30,000	

ESTIMATED CONSTRUCTION COST \$86,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY \$108,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$20,000
Geotechnical Investigation	\$0
Hydrologic Modeling	\$0
Data Collection	\$0
Cultural Resources	\$10,000
NEPA Compliance	\$30,000

SubTotal: \$60,000

Actual

Supervision and Administration \$25,000

State Costs

Supervision and Administration

\$25,000

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0
Land Rights		\$15,000

SubTotal: \$15,000

Monitoring

Monitoring Plan Development	\$25,000
Monitoring Protocol Cost	

SubTotal: \$25,000

Total Phase I Cost Estimate: \$150,000

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency

		\$108,000
Oyster Issues (# of Leased Acres)	0 Leased AC	\$0

SubTotal: \$108,000

Supervision and Inspection

8 days @ \$1,775.00 per day \$14,000

Supervision and Administration

\$25,000

State Costs

Supervision and Administration

\$15,000

Total Phase II Cost Estimate: \$162,000

TOTAL ESTIMATED PROJECT FIRST COST

\$312,000

**Sand Fence for Dune Formation and Bird Fence Demo
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs:

Annual Inspections
Annual Cost for Operations
Preventive Maintenance

Specific Intermittent Costs:

Construction Items		<u>Year 3</u>	<u>Year 14</u>
	Subtotal	\$0	\$0
	Subtotal w/ 25% contingency	<u>\$0</u>	<u>\$0</u>

State Costs

Engineering and Design Cost			\$0	\$0
Administrative Cost			\$0	\$0
Eng Survey				
	0 days @	\$1,479 per day	\$0	\$0
Inspection				
	0 days @	\$887 per day	\$0	
		Subtotal	\$0	\$0

Federal Costs

Administrative Cost			\$0	\$0
		Total	<u>\$0</u>	<u>\$0</u>

Annual Project Costs:

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Corps Administration	\$665	\$665	\$665	\$665	\$665
Monitoring *	\$34,800	\$34,800	\$17,400	\$17,400	\$22,400

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	March-06	<i>(Minimum of one year to complete this phase)</i>
Const. Start	August-06	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	September-06	

Project:	Redistribution of Dredge Spoil	Date:	22-Sep-04	Revised:	05-Oct-04
Computed by:	John Foret	<i>Project Priority List 14</i>			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization - Terraces	1	LS	\$50,000	\$50,000
2	Mobilization/Demobilization - Dredging	1	LS	\$50,000	\$50,000
3	Marsh Creation - Mounds	140,320	CY	\$8	\$1,122,560
4	Terraces	2,660	LF	\$20	\$53,200
5	Planting	34	Acres	\$3,500	\$119,000

ESTIMATED CONSTRUCTION COST	\$1,394,760
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	\$1,743,450

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$119,416
Geotechnical Investigation	\$30,000
Hydrologic Modeling	\$0
Data Collection	\$50,000
Cultural Resources	\$10,000
NEPA Compliance	\$0

SubTotal: \$209,416

NMFS

Supervision and Administration

\$40,000

Actual

\$40,000

State Costs

Supervision and Administration (including PM and engineering review)

\$35,000

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0
Land Rights		\$15,000

SubTotal: \$15,000

Monitoring

Monitoring Plan Development	\$25,000
Monitoring Protocol Cost *	\$0

SubTotal: \$25,000

* Monitoring is now done through CRMS and is a line item in overall planning budget and not included in individual projects.

Total Phase I Cost Estimate: \$324,416

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency

\$1,743,450

Oyster Issues (# of Leased Acres) 0 Leased AC

\$0

SubTotal: \$1,743,450

Supervision and Inspection

94 days @ \$887.00 per day

\$83,378

Supervision and Administration

\$40,000

State Costs

Supervision and Administration

\$35,000

Total Phase II Cost Estimate: \$1,901,828

TOTAL ESTIMATED PROJECT FIRST COST \$2,226,244

**Redistribution of Dredge Spoil
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs:

Annual Inspections	\$0
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs:

Construction Items	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0	\$0
Subtotal w/ 25% contingency	\$0	\$0	\$0	\$0	\$0

State Costs

Engineering and Design Cost	\$0	\$0	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0	\$0	\$0
Eng Survey					
Inspection	0 days @	\$1,479 per day	\$0	\$0	\$0
	0 days @	\$887 per day	\$0	\$0	\$0
Subtotal			\$0	\$0	\$0

Federal Costs

Administrative Cost	\$0	\$0	\$0	\$0	\$150
Total	\$0	\$0	\$0	\$0	\$150

Annual Project Costs:

		<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Corps Administration	\$665					
Monitoring and Final Report		\$0	\$0	\$0	\$0	\$5,000

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	March-06	<i>(Minimum of one year to complete this phase)</i>
Const. Start	August-06	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	November-06	

Project:	Flowable Fill Demo	Date:	24-Sep-03	Revised:	08-Oct-04
Computed by:	<i>Project Priority List 14</i>				
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$216,000	\$216,000
2	Material Costs	1	LS	\$103,500	\$103,500
3	Labor/Equipment	1	LS	\$278,700	\$278,700
4					
5					

ESTIMATED CONSTRUCTION COST	\$598,200
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	\$747,750

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design:

Engineering	\$75,000		
Geotechnical Investigation	\$0		
Hydrologic Modeling	\$0		
Data Collection	\$30,000		
Cultural Resources	\$0		
NEPA Compliance	\$25,000		
HTRW	\$0		
		SubTotal:	\$130,000

Supervision and Administration

<u>NRCS</u>	<u>Actual</u>
\$22,433	\$25,000

State Costs

Supervision and Administration (including PM and engineering review) \$25,000

Easements and Land Rights

Oyster Issues (# of Leases)	0 Leases	\$0	
Land Rights		\$20,000	
		SubTotal:	\$20,000

Monitoring

Monitoring Plan Development	\$25,000		
Monitoring Protocal Cost *	\$0		
		SubTotal:	\$25,000

* Monitoring is now done through CRMS and is a line item in overall planning budget and not included in individual projects.

Total Phase I Cost Estimate: **\$225,000**

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>	\$747,750		
Oyster Issues (# of Leased Acres)	0 Leased AC	\$0	
		SubTotal:	\$747,750

<i>Supervision and Inspection</i>	90 days @	\$887.00 per day	\$79,830
<i>Supervision and Administration</i>			\$25,000

State Costs

Supervision and Administration \$20,000

Total Phase II Cost Estimate: **\$872,580**

TOTAL ESTIMATED PROJECT FIRST COST **\$1,097,580**

**Flowable Fill Demonstration Project
Operation & Maintenance and Monitoring**

Project Priority List 14

O&M Cost Considerations:

Annual Costs:

Annual Inspections	\$0
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs:

Construction Items				<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
				\$0	\$0	\$0
				\$0	\$0	\$0
				\$0	\$0	\$0
			Subtotal	\$0	\$0	\$0
			Subtotal w/ 25% contingency	\$0	\$0	\$0

State Costs

Engineering and Design Cost				\$0	\$0	\$0
Administrative Cost				\$0	\$0	\$0
Eng Survey						
Inspection	0 days	@	\$1,479 per day	\$0	\$0	\$0
	0 days	@	\$887 per day	\$0	\$0	\$0
			Subtotal	\$0	\$0	\$0

Federal Costs

Administrative Cost				\$0	\$0	\$0
			Total	\$0	\$0	\$0

Annual Project Costs:

Corps Administration		\$665
Monitoring for	TY 1 - 4	\$10,000
	TY 5	\$15,000

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	March-06	<i>(Minimum of one year to complete this phase)</i>
Const. Start	January-07	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	April-07	

Project: Wetland Enhancement v/Treated Sewage		Date: 23-Sep-04		Revised: 05-Oct-04	
Computed by: Wayne M. Malbrough/Mohan Menon		Project Priority List 14-Demo			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$ 20,000	\$ 20,000.00
2	Site Clearing & Grubbing	2.0	ACS	\$ 6,000	\$ 12,000.00
3	Dechlorination Facility and Lift Station	1	LS	\$ 36,000	\$ 36,000.00
4	6" Dia. PVC Force Main (Sch 80)	1,700	LF	\$ 10.00	\$ 17,000.00
5	Ductile Cast Iron Force Main Aerial Ditch Crossing	2	Each	\$ 10,000	\$ 20,000.00
6	Force Main Levee Crossing and Ramps	1	LS	\$ 20,000	\$ 20,000.00
7	Effluent Diffuser Manifold/timber support/Splash Pad	1	LS	\$ 72,100	\$ 72,100.00
8	Diffusser Valve Nozzles	100	EA	\$ 250.00	\$ 25,000.00
ESTIMATED CONSTRUCTION COST					\$ 222,100.00
ESTIMATED CONSTRUCTION + 25% CONTINGENCY					\$ 277,625.00

TOTAL ESTIMATED PROJECT COSTS

Federal Costs

Engineering and Design:

Engineering	\$50,000
Engineering Surveys	\$20,000
Geotechnical Investigation	\$0
Hydrologic Modeling	\$0
Attainability Analysis*	\$125,000
Cultural Resources	\$10,000
Permitting and Approvals	\$0
NEPA Compliance	\$30,000

SubTotal: \$ 235,000.00

	<u>NMFS</u>	<u>USACE</u>	<u>Other</u>	<u>Actual</u>
<i>Supervision and Administration</i>	\$0	\$0	\$0	\$ 50,000.00

State Costs

Supervision and Administration (including PM and engineering review)

\$25,000

Easements and Land Rights

Land Rights	\$50,000
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SubTotal: \$50,000

Monitoring

Monitoring Plan Development	\$25,000
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SubTotal: \$25,000

Total Phase I Cost Estimate: \$385,000

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency

\$277,625

SubTotal: \$277,625

Supervision and Inspection

90 days @ \$887.00 per day

\$79,830

Supervision and Administration

\$25,000

State Costs

Supervision and Administration

\$25,000

Total Phase II Cost Estimate: \$407,455

TOTAL ESTIMATED PROJECT FIRST COST

\$792,455

**Wetland Enhancement via Treated Sewage Effluent Diversions Demo
Operation & Maintenance and Monitoring**

Project Priority List 14-Demo

O&M Cost Considerations:

Annual Costs:

Annual Inspections
Annual Cost for Operations
Preventive Maintenance

Specific Intermittent Costs:

Construction Items				<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
			Subtotal	\$0	\$0	\$0
			Subtotal w/ 25% contingency	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

State Costs

Engineering and Design Cost				\$0	\$0	\$0
Administrative Cost				\$0	\$0	\$0
Eng Survey						
	days	@	\$1,460 per day	\$0	\$0	\$0
Inspection						
	days	@	\$876 per day	\$0	\$0	\$0
			Subtotal	\$0	\$0	\$0

Federal Costs

Administrative Cost				\$0	\$0	\$0
			Total	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

Annual Project Costs:

		<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Corps Administration	\$665					
Monitoring *		\$42,000	\$42,000	\$42,000	\$42,000	\$47,000

Construction Schedule:

Planning & Design Start	March-05	
Planning & Design End	March-07	<i>(Minimum of one year to complete this phase)</i>
Const. Start	January-08	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	June-08	

**Coastal Wetlands Planning, Protection, and
Restoration Act**

14th Priority Project List Report

Appendix D

Economic Analyses For Candidate Projects

Appendix D
Economic Analyses For Candidate Projects
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Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14
Irish Bayou to Chef Menteur Pass SP and MC

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.625%	Amortization Factor	0.08455
Fully Funded First Costs	\$9,819,000	Total Fully Funded Costs	\$13,252,000

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$9,548,024	\$807,279
Monitoring	\$0	\$0
O&M & State Insp.	\$1,554,993	\$131,474
Corps PM	\$8,308	\$702
Fed S&A & Insp	<u>\$53,379</u>	<u>\$4,513</u>
Average Annual Cost	\$944,000	\$944,000
Average Annual Habitat Units	53	
Cost Per Habitat Unit	\$17,811	
Total Net Acres	147	

Coastal Wetlands Conservation and Restoration Plan

Irish Bayou to Chef Menteur Pass SP and MC

Project Priority List 14

Project Costs \$11,527,911

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
4	Compound	2005	\$162,969	\$31,208	\$29,167	\$43,750	\$388	\$0	-	\$0	\$267,482
3	Compound	2006	\$279,375	\$53,500	\$50,000	\$75,000	\$665	\$0	-	\$0	\$458,540
2	Compound	2007	\$116,406	\$22,292	\$20,833	\$31,250	\$277	\$0	-	\$0	\$191,058
1	Compound	2008	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0
TOTAL			\$558,750	\$107,000	\$100,000	\$150,000	\$1,330	\$0	\$0	\$0	\$917,080
Phase II											
1	Compound	2008	-	\$106,200	\$112,500	\$67,500	\$499	\$0	\$256,500	\$1,341,054	\$7,248,467
0	Compound	2009	-	\$11,800	\$12,500	\$7,500	\$55	-	\$28,500	\$149,006	\$805,385
-1	Compound	2010	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
-2	Compound	2011	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
TOTAL			\$0	\$118,000	\$125,000	\$75,000	\$554	\$0	\$285,000	\$1,490,060	\$8,053,852
Total First Costs			\$558,750	\$225,000	\$225,000	\$225,000	\$1,884	\$0	\$285,000	\$1,490,060	\$8,970,932

D-2

Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	Discount	2009	\$0	\$60,153	\$665
-1	Discount	2010	\$0	\$2,800	\$665
-2	Discount	2011	\$0	\$2,800	\$665
-3	Discount	2012	\$0	\$2,800	\$665
-4	Discount	2013	\$0	\$2,800	\$665
-5	Discount	2014	\$0	\$2,800	\$665
-6	Discount	2015	\$0	\$1,602,357	\$665
-7	Discount	2016	\$0	\$2,800	\$665
-8	Discount	2017	\$0	\$2,800	\$665
-9	Discount	2018	\$0	\$2,800	\$665
-10	Discount	2019	\$0	\$2,800	\$665
-11	Discount	2020	\$0	\$2,800	\$665
-12	Discount	2021	\$0	\$2,800	\$665
-13	Discount	2022	\$0	\$2,800	\$665
-14	Discount	2023	\$0	\$2,800	\$665
-15	Discount	2024	\$0	\$2,800	\$665
-16	Discount	2025	\$0	\$748,821	\$665
-17	Discount	2026	\$0	\$2,800	\$665
-18	Discount	2027	\$0	\$2,800	\$665
-19	Discount	2028	\$0	\$2,800	\$665
Total			\$0	\$2,458,930	\$13,300

\$84,749

Coastal Wetlands Conservation and Restoration Plan

Irish Bayou to Chef Menteur Pass SP and MC

Project Priority List 14

Present Valued Costs			Total Discounted Costs				\$11,164,704				Amortized Costs		\$943,968
Year	Fiscal Year		E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I													
4	1.245	2005	\$202,848	\$38,845	\$36,304	\$54,456	\$483	\$0	\$0	\$0	\$0	\$332,936	
3	1.178	2006	\$329,221	\$63,045	\$58,921	\$88,382	\$784	\$0	\$0	\$0	\$0	\$540,353	
2	1.116	2007	\$129,870	\$24,870	\$23,243	\$34,865	\$309	\$0	\$0	\$0	\$0	\$213,157	
1	1.056	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total			\$661,940	\$126,761	\$118,468	\$177,702	\$1,576	\$0	\$0	\$0	\$0	\$1,086,446	
Phase II													
1	1.056	2008	\$0	\$112,174	\$118,828	\$71,297	\$527	\$0	\$270,928	\$1,416,488	\$5,665,951	\$7,656,193	
0	1.000	2009	\$0	\$11,800	\$12,500	\$7,500	\$55	\$0	\$28,500	\$149,006	\$596,024	\$805,385	
-1	0.947	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-2	0.896	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total			\$0	\$123,974	\$131,328	\$78,797	\$582	\$0	\$299,428	\$1,565,494	\$6,261,975	\$8,461,578	
Total First Cost			\$661,940	\$250,734	\$249,796	\$256,499	\$2,158	\$0	\$299,428	\$1,565,494	\$6,261,975	\$9,548,024	
Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp								
0	1.000	2009	\$0	\$60,153	\$665	\$3,277							
-1	0.947	2010	\$0	\$2,651	\$630	\$1,988							
-2	0.896	2011	\$0	\$2,510	\$596	\$1,882							
-3	0.849	2012	\$0	\$2,376	\$564	\$1,782							
-4	0.803	2013	\$0	\$2,250	\$534	\$1,687							
-5	0.761	2014	\$0	\$2,130	\$506	\$1,597							
-6	0.720	2015	\$0	\$1,153,875	\$479	\$22,032							
-7	0.682	2016	\$0	\$1,909	\$453	\$1,432							
-8	0.645	2017	\$0	\$1,807	\$429	\$1,355							
-9	0.611	2018	\$0	\$1,711	\$406	\$1,283							
-10	0.579	2019	\$0	\$1,620	\$385	\$1,215							
-11	0.548	2020	\$0	\$1,534	\$364	\$1,150							
-12	0.519	2021	\$0	\$1,452	\$345	\$1,089							
-13	0.491	2022	\$0	\$1,375	\$326	\$1,031							
-14	0.465	2023	\$0	\$1,301	\$309	\$976							
-15	0.440	2024	\$0	\$1,232	\$293	\$924							
-16	0.417	2025	\$0	\$311,968	\$277	\$6,323							
-17	0.394	2026	\$0	\$1,104	\$262	\$828							
-18	0.373	2027	\$0	\$1,046	\$248	\$784							
-19	0.354	2028	\$0	\$990	\$235	\$742							
Total			\$0	\$1,554,993	\$8,308	\$53,379							

Coastal Wetlands Conservation and Restoration Plan

Irish Bayou to Chef Menteur Pass SP and MC

Project Priority List 14

Fully Funded Costs Total Fully Funded Costs \$13,252,000 Amortized Costs \$1,120,447

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
4	1.042	2005	\$169,741	\$32,505	\$30,379	\$45,568	\$404	\$0	\$0	\$0	\$278,598	
3	1.057	2006	\$295,350	\$56,559	\$52,859	\$79,289	\$703	\$0	\$0	\$0	\$484,760	
2	1.075	2007	\$125,155	\$23,967	\$22,399	\$33,599	\$298	\$0	\$0	\$0	\$205,417	
1	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$590,246	\$113,032	\$105,637	\$158,455	\$1,405	\$0	\$0	\$0	\$968,775	
Phase II												
1	1.097	2008	\$0	\$116,465	\$123,374	\$74,024	\$547	\$0	\$281,293	\$1,470,676	\$5,882,703	\$7,949,082
0	1.119	2009	\$0	\$13,199	\$13,982	\$8,389	\$62	\$0	\$31,880	\$166,677	\$666,706	\$900,896
-1	1.141	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.164	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$129,664	\$137,356	\$82,414	\$609	\$0	\$313,172	\$1,637,352	\$6,549,410	\$8,849,978
Total Cost			\$590,200	\$242,700	\$243,000	\$240,900	\$2,000	\$0	\$313,200	\$1,637,400	\$6,549,400	\$9,819,000

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp	
0	1.1186	2009	\$0	\$67,286	\$744	\$3,666
-1	1.1410	2010	\$0	\$3,195	\$759	\$2,396
-2	1.1638	2011	\$0	\$3,259	\$774	\$2,444
-3	1.1871	2012	\$0	\$3,324	\$789	\$2,493
-4	1.2108	2013	\$0	\$3,390	\$805	\$2,543
-5	1.2350	2014	\$0	\$3,458	\$821	\$2,594
-6	1.2597	2015	\$0	\$2,018,512	\$838	\$38,541
-7	1.2849	2016	\$0	\$3,598	\$854	\$2,698
-8	1.3106	2017	\$0	\$3,670	\$872	\$2,752
-9	1.3368	2018	\$0	\$3,743	\$889	\$2,807
-10	1.3636	2019	\$0	\$3,818	\$907	\$2,863
-11	1.3908	2020	\$0	\$3,894	\$925	\$2,921
-12	1.4186	2021	\$0	\$3,972	\$943	\$2,979
-13	1.4470	2022	\$0	\$4,052	\$962	\$3,039
-14	1.4760	2023	\$0	\$4,133	\$982	\$3,100
-15	1.5055	2024	\$0	\$4,215	\$1,001	\$3,161
-16	1.5356	2025	\$0	\$1,149,878	\$1,021	\$23,305
-17	1.5663	2026	\$0	\$4,386	\$1,042	\$3,289
-18	1.5976	2027	\$0	\$4,473	\$1,062	\$3,355
-19	1.6296	2028	\$0	\$4,563	\$1,084	\$3,422
Total			\$0	\$3,300,817	\$18,074	\$114,368

O&M Data

Annual Costs

Annual Inspections	\$2,800
Annual Cost for Operations	\$0
Preventive Maintenance	\$0
Engineering Monitoring @ TY1-5, 10, 15, 19	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 2</u>	<u>Year 1</u>	<u>Year 7</u>	<u>Year 17</u>
Mob & Demob	\$0	\$10,000	\$75,000	\$75,000
Degrade Containment Dikes	\$0	\$21,375	\$0	\$0
Rock Replacement	\$0	\$0	\$898,380	\$359,352
Flotation Channel	\$0	\$0	\$155,419	\$77,710
Navigation Sign Replacement	\$0	\$0	\$11,000	\$11,000
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
Subtotal	\$0	\$31,375	\$1,139,799	\$523,062
Subtotal w/ 25% contin.	\$0	\$39,219	\$1,424,749	\$653,828
Engineer, Design & Administrative Costs				
Engineering and Design Cost	\$0	\$3,650	\$98,977	\$48,063
Administrative Cost	\$0	\$1,177	\$28,495	\$13,077
Eng Surv 0 days @ \$1,460 per day	\$0	\$4,437	\$7,395	\$4,437
Construct 0 days @ \$876 per day	\$0	\$8,870	\$39,915	\$26,610
Subtotal	\$0	\$18,134	\$174,782	\$92,187
Federal S&A	\$0	\$1,177	\$28,495	\$13,077
Total	\$0	\$58,530	\$1,628,026	\$759,092

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Annual Project Costs:

Corps Administration	\$665
Monitoring	\$0

Construction Schedule:

	2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start March-05	7	12	5	0	0	0	0	24
Plan & Design End March-07								
Const. Start January-08								
Const. End October-08	0	0	0	9	1	0	0	10

Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14
Riverine Sand Mining/Scofield Island Restoration

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$40,711,000	Total Fully Funded Costs	\$44,545,000

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$40,838,526	\$3,381,987
Monitoring	\$283,255	\$23,457
O & M Costs	\$2,367,094	\$196,028
Other Costs	\$8,462	\$701
		<u>\$0</u>
Average Annual Cost	\$3,602,200	\$3,602,200
Average Annual Habitat Units	229	
Cost Per Habitat Unit	\$15,730	
Total Net Acres	234	

Coastal Wetlands Conservation and Restoration Plan

Riverine Sand Mining/Scofield Island Restoration

Project Priority List 14

Project Costs \$40,155,577

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
5	Compound	2005	\$828,763	\$111,908	\$110,526	\$73,684	\$388	\$3,684	-	\$0	\$1,128,954
4	Compound	2006	\$1,420,737	\$191,842	\$189,474	\$126,316	\$665	\$6,316	-	\$0	\$1,935,349
3	Compound	2007	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
2	Compound	2008	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
TOTAL			\$2,249,500	\$303,750	\$300,000	\$200,000	\$1,053	\$10,000	\$0	\$0	\$3,064,303
Phase II											
2	Compound	2008	-	\$171,023	\$190,909	\$56,298	\$388	\$0	\$387,434	\$4,158,187	\$21,596,989
1	Compound	2009	-	\$97,727	\$109,091	\$32,171	\$222	-	\$221,391	\$2,376,107	\$12,341,137
0	Compound	2010	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
-1	Compound	2011	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
TOTAL			\$0	\$268,750	\$300,000	\$88,469	\$610	\$0	\$608,825	\$6,534,295	\$26,137,178
Total First Costs			\$2,249,500	\$572,500	\$600,000	\$288,469	\$1,663	\$10,000	\$608,825	\$6,534,295	\$26,137,178

Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	Discount	2010	\$67,341	\$2,800	\$665
-1	Discount	2011	\$72,341	\$1,034,983	\$665
-2	Discount	2012	\$0	\$1,201,533	\$665
-3	Discount	2013	\$0	\$2,800	\$665
-4	Discount	2014	\$89,841	\$192,565	\$665
-5	Discount	2015	\$0	\$2,800	\$665
-6	Discount	2016	\$0	\$2,800	\$665
-7	Discount	2017	\$0	\$2,800	\$665
-8	Discount	2018	\$0	\$2,800	\$665
-9	Discount	2019	\$74,841	\$192,565	\$665
-10	Discount	2020	\$0	\$2,800	\$665
-11	Discount	2021	\$0	\$2,800	\$665
-12	Discount	2022	\$0	\$2,800	\$665
-13	Discount	2023	\$0	\$2,800	\$665
-14	Discount	2024	\$0	\$2,800	\$665
-15	Discount	2025	\$0	\$2,800	\$665
-16	Discount	2026	\$0	\$2,800	\$665
-17	Discount	2027	\$0	\$2,800	\$665
-18	Discount	2028	\$0	\$2,800	\$665
-19	Discount	2029	\$74,841	\$2,800	\$665
Total			\$379,205	\$2,666,446	\$13,300

Coastal Wetlands Conservation and Restoration Plan

Riverine Sand Mining/Scotfield Island Restoration

Project Priority List 14

Present Valued Costs			Total Discounted Costs				Amortized Costs				\$3,608,127	
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
5	1.299	2005	\$1,076,759	\$145,395	\$143,600	\$95,733	\$504	\$4,787	\$0	\$0	\$1,466,777	
4	1.233	2006	\$1,751,717	\$236,534	\$233,614	\$155,743	\$820	\$7,787	\$0	\$0	\$2,386,216	
3	1.170	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.110	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total			\$2,828,476	\$381,929	\$377,214	\$251,476	\$1,324	\$12,574	\$0	\$0	\$3,852,993	
Phase II												
2	1.110	2008	\$0	\$189,902	\$211,983	\$62,513	\$431	\$0	\$430,203	\$4,617,206	\$18,468,823	\$23,981,061
1	1.054	2009	\$0	\$102,980	\$114,955	\$33,900	\$234	\$0	\$233,291	\$2,503,823	\$10,015,291	\$13,004,473
0	1.000	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.949	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$292,882	\$326,938	\$96,413	\$664	\$0	\$663,493	\$7,121,029	\$28,484,115	\$36,985,534
Total First Cost			\$2,828,476	\$674,811	\$704,152	\$347,889	\$1,988	\$12,574	\$663,493	\$7,121,029	\$28,484,115	\$40,838,526

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp	
0	1.000	2010	\$67,341	\$2,800	\$665	\$4,120
-1	0.949	2011	\$68,651	\$982,190	\$631	\$19,400
-2	0.901	2012	\$0	\$1,082,083	\$599	\$19,880
-3	0.855	2013	\$0	\$2,393	\$568	\$1,795
-4	0.811	2014	\$72,866	\$156,181	\$539	\$5,724
-5	0.770	2015	\$0	\$2,155	\$512	\$1,616
-6	0.730	2016	\$0	\$2,045	\$486	\$1,534
-7	0.693	2017	\$0	\$1,941	\$461	\$1,456
-8	0.658	2018	\$0	\$1,842	\$437	\$1,381
-9	0.624	2019	\$46,720	\$120,210	\$415	\$4,218
-10	0.592	2020	\$0	\$1,659	\$394	\$1,244
-11	0.562	2021	\$0	\$1,574	\$374	\$1,181
-12	0.534	2022	\$0	\$1,494	\$355	\$1,120
-13	0.506	2023	\$0	\$1,418	\$337	\$1,063
-14	0.480	2024	\$0	\$1,345	\$320	\$1,009
-15	0.456	2025	\$0	\$1,277	\$303	\$958
-16	0.433	2026	\$0	\$1,212	\$288	\$909
-17	0.411	2027	\$0	\$1,150	\$273	\$862
-18	0.390	2028	\$0	\$1,091	\$259	\$818
-19	0.370	2029	\$27,677	\$1,035	\$246	\$1,607
Total		\$283,255	\$2,367,094	\$8,462	\$71,895	

Coastal Wetlands Conservation and Restoration Plan

Riverine Sand Mining/Scotfield Island Restoration

Project Priority List 14

Fully Funded Costs Total Fully Funded Costs \$44,545,000 Amortized Costs \$3,688,934

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
5	1.042	2005	\$863,205	\$116,559	\$115,120	\$76,746	\$404	\$3,837	\$0	\$0	\$1,175,871	
4	1.057	2006	\$1,501,977	\$202,812	\$200,308	\$133,539	\$703	\$6,677	\$0	\$0	\$2,046,016	
3	1.075	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$2,365,183	\$319,371	\$315,428	\$210,285	\$1,107	\$10,514	\$0	\$0	\$3,221,887	
Phase II												
2	1.097	2008	\$0	\$187,553	\$209,362	\$61,740	\$425	\$0	\$424,882	\$4,560,106	\$18,240,422	\$23,684,490
1	1.119	2009	\$0	\$109,317	\$122,028	\$35,986	\$248	\$0	\$247,646	\$2,657,890	\$10,631,560	\$13,804,674
0	1.141	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-1	1.164	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$0	\$296,870	\$331,390	\$97,726	\$673	\$0	\$672,528	\$7,217,996	\$28,871,982	\$37,489,165
Total Cost			\$2,365,200	\$616,200	\$646,800	\$308,000	\$1,800	\$10,500	\$672,500	\$7,218,000	\$28,872,000	\$40,711,000

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp	
0	1.1410	2010	\$76,834	\$3,195	\$759	\$4,701
-1	1.1638	2011	\$84,189	\$1,204,494	\$774	\$23,791
-2	1.1871	2012	\$0	\$1,426,288	\$789	\$26,204
-3	1.2108	2013	\$0	\$3,390	\$805	\$2,543
-4	1.2350	2014	\$110,955	\$237,820	\$821	\$8,715
-5	1.2597	2015	\$0	\$3,527	\$838	\$2,645
-6	1.2849	2016	\$0	\$3,598	\$854	\$2,698
-7	1.3106	2017	\$0	\$3,670	\$872	\$2,752
-8	1.3368	2018	\$0	\$3,743	\$889	\$2,807
-9	1.3636	2019	\$102,050	\$262,573	\$907	\$9,214
-10	1.3908	2020	\$0	\$3,894	\$925	\$2,921
-11	1.4186	2021	\$0	\$3,972	\$943	\$2,979
-12	1.4470	2022	\$0	\$4,052	\$962	\$3,039
-13	1.4760	2023	\$0	\$4,133	\$982	\$3,100
-14	1.5055	2024	\$0	\$4,215	\$1,001	\$3,161
-15	1.5356	2025	\$0	\$4,300	\$1,021	\$3,225
-16	1.5663	2026	\$0	\$4,386	\$1,042	\$3,289
-17	1.5976	2027	\$0	\$4,473	\$1,062	\$3,355
-18	1.6296	2028	\$0	\$4,563	\$1,084	\$3,422
-19	1.6622	2029	\$124,398	\$4,654	\$1,105	\$7,222
Total			\$498,400	\$3,194,900	\$18,400	\$121,800

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>26,137,178</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>32,671,473</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$2,249,500
Engineering	\$750,000	
Geotechnical Investigation	\$845,000	
Surveys	\$375,000	
USACE Coordination	\$25,000	
Cultural Resources	\$0	
HTRW	\$50,000	
NEPA Compliance	\$0	
<i>Supervision and Administration</i>		\$300,000

State Costs

<i>Supervision and Administration</i>		\$200,000
<i>Ecological Review Costs</i>		\$0
<i>Easements and Land Rights</i>		\$303,750
<i>Monitoring</i>		\$10,000
Monitoring Plan Developm	\$10,000	
Monitoring Protocol Cost *	\$0	

Total Phase I Cost Estimate **\$3,063,250**

* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$32,671,473	
Lands or Oyster Issues	0 lease acres	\$268,750	
<i>Supervision and Ins</i>	343 days @	1775 per day	\$608,825
<i>Supervision and Administration</i>		\$300,000	

State Costs

<i>Supervision and Administration</i>		\$88,469
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Total Phase II Cost Estimate **\$33,937,517**

TOTAL ESTIMATED PROJECT FIRST COST **37,000,767**

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O&M Data

Annual Costs

	State	Federal
Annual Inspections	\$2,800	\$2,100
Annual Cost for Operations	\$0	\$0
Preventive Maintenance	\$0	\$0
Engineering Monitoring @ TY1-5, 10, 15, 19	\$0	\$0

Specific Intermittent Costs:

Construction Items	Year 1	Year 2	Year 3	Year 5	Year 10	Year 20
Vegetative Plantings	\$0	\$689,500	\$731,500	\$0	\$0	\$0
Woody vegetation	\$0	\$60,000	\$0	\$0	\$0	\$0
Containment Dike Gapping	\$0	\$0	\$68,500	\$0	\$0	\$0
Sand Fencing	\$0	\$0	\$0	\$127,000	\$127,000	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	<u>\$0</u>	<u>\$749,500</u>	<u>\$800,000</u>	<u>\$127,000</u>	<u>\$127,000</u>	<u>\$0</u>
Subtotal w/ 25% contin.	\$0	\$936,875	\$1,000,000	\$158,750	\$158,750	\$0
Engineer, Design & Administrative Costs						
Engineering and Design Cost	\$0	\$0	\$71,250	\$13,049	\$13,049	\$0
Administrative Cost	\$0	\$7,938	\$20,000	\$3,175	\$3,175	\$0
Eng Surv 7 days @ \$1,460 per day	\$0	\$0	\$5,916	\$5,916	\$5,916	\$0
Construc 0 days @ \$876 per day	\$0	\$0	\$8,875	\$8,875	\$8,875	\$0
Inspection, vegetative planting	\$0	\$87,370	\$92,692	\$0	\$0	\$0
Subtotal	\$0	\$95,308	\$198,733	\$31,015	\$31,015	\$0
Federal S&A	\$2,020	\$18,343	\$19,975	\$4,957	\$4,657	\$2,245
Total	\$2,020	\$1,050,526	\$1,218,708	\$194,722	\$194,422	\$2,245

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Annual Project Costs:

Corps Administration	\$665						
Monitoring	\$0	67341	72341	0	89841	74841	74841

Construction Schedule:

	2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start March-05	7	12	0	0	0	0	0	19
Plan & Design End October-07								
Const. Start March-08								
Const. End February-09	0	0	0	7	4	0	0	11

**Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14
South Shore of Pen**

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$14,134,000	Total Fully Funded Costs	\$17,514,000

Total Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$14,121,176	\$1,169,426
Monitoring	\$71,480	\$5,920
O&M & State Insp.	\$1,767,854	\$146,402
Corps PM	\$8,462	\$701
Fed S&A & Insp	<u>\$66,185</u>	<u>\$5,481</u>
Average Annual Cost	\$1,327,900	\$1,327,900
Average Annual Habitat Units	51	
Cost Per Habitat Unit	\$26,037	
Total Net Acres	116	

Coastal Wetlands Conservation and Restoration Plan

South Shore of Pen

Project Priority List 14

Project Costs \$15,425,740

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
5	Compound	2005	\$247,937	\$7,292	\$55,559	\$50,836	\$388	\$0	-	\$0	\$362,011
4	Compound	2006	\$425,034	\$12,500	\$95,244	\$87,148	\$665	\$0	-	\$0	\$620,591
3	Compound	2007	\$177,098	\$5,208	\$39,685	\$36,311	\$277	\$0	-	\$0	\$258,579
2	Compound	2008	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
TOTAL			\$850,068	\$25,000	\$190,488	\$174,295	\$1,330	\$0	\$0	\$0	\$1,241,181
Phase II											
2	Compound	2008	-	\$0	\$88,641	\$59,484	\$499	\$0	\$211,051	\$1,232,033	\$4,928,134
1	Compound	2009	-	\$0	\$68,943	\$46,266	\$388	-	\$164,150	\$958,248	\$3,832,993
0	Compound	2010	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
-1	Compound	2011	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
TOTAL			\$0	\$0	\$157,584	\$105,750	\$887	\$0	\$375,201	\$2,190,282	\$8,761,127
Total First Costs			\$850,068	\$25,000	\$348,073	\$280,045	\$2,217	\$0	\$375,201	\$2,190,282	\$8,761,127

Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	Discount	2010	\$15,000	\$2,800	\$665
-1	Discount	2011	\$15,000	\$2,800	\$665
-2	Discount	2012	\$15,000	\$1,217,650	\$665
-3	Discount	2013		\$2,800	\$665
-4	Discount	2014	\$15,000	\$2,800	\$665
-5	Discount	2015		\$2,800	\$665
-6	Discount	2016		\$310,894	\$665
-7	Discount	2017		\$2,800	\$665
-8	Discount	2018		\$2,800	\$665
-9	Discount	2019	\$15,000	\$2,800	\$665
-10	Discount	2020		\$2,800	\$665
-11	Discount	2021		\$2,800	\$665
-12	Discount	2022		\$2,800	\$665
-13	Discount	2023		\$818,734	\$665
-14	Discount	2024	\$15,000	\$2,800	\$665
-15	Discount	2025		\$2,800	\$665
-16	Discount	2026		\$2,800	\$665
-17	Discount	2027		\$2,800	\$665
-18	Discount	2028		\$2,800	\$665
-19	Discount	2029		\$2,800	\$665
Total			\$90,000	\$2,394,878	\$13,300

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Coastal Wetlands Conservation and Restoration Plan

South Shore of Pen

Project Priority List 14

Present Valued Costs		Total Discounted Costs			\$16,035,157			Amortized Costs			\$1,327,930	
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
5	1.299	2005	\$322,128	\$9,474	\$72,184	\$66,048	\$504	\$0	\$0	\$0	\$470,338	
4	1.233	2006	\$524,052	\$15,412	\$117,432	\$107,450	\$820	\$0	\$0	\$0	\$765,166	
3	1.170	2007	\$207,217	\$6,094	\$46,434	\$42,487	\$324	\$0	\$0	\$0	\$302,557	
2	1.110	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total			\$1,053,396	\$30,980	\$236,051	\$215,985	\$1,648	\$0	\$0	\$0	\$1,538,060	
Phase II												
2	1.110	2008	\$0	\$0	\$98,426	\$66,051	\$554	\$0	\$234,348	\$1,368,037	\$5,472,146	\$7,239,562
1	1.054	2009	\$0	\$0	\$72,649	\$48,752	\$409	\$0	\$172,974	\$1,009,754	\$4,039,016	\$5,343,554
0	1.000	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.949	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$171,075	\$114,803	\$963	\$0	\$407,322	\$2,377,791	\$9,511,162	\$12,583,116
Total First Cost			\$1,053,396	\$30,980	\$407,126	\$330,788	\$2,611	\$0	\$407,322	\$2,377,791	\$9,511,162	\$14,121,176
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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp							
0	1.000	2010	\$15,000	\$2,800	\$665	\$2,100						
-1	0.949	2011	\$14,235	\$2,657	\$631	\$1,993						
-2	0.901	2012	\$13,509	\$1,096,598	\$599	\$26,162						
-3	0.855	2013	\$0	\$2,393	\$568	\$1,795						
-4	0.811	2014	\$12,166	\$2,271	\$539	\$1,703						
-5	0.770	2015	\$0	\$2,155	\$512	\$1,616						
-6	0.730	2016	\$0	\$227,084	\$486	\$7,158						
-7	0.693	2017	\$0	\$1,941	\$461	\$1,456						
-8	0.658	2018	\$0	\$1,842	\$437	\$1,381						
-9	0.624	2019	\$9,364	\$1,748	\$415	\$1,311						
-10	0.592	2020	\$0	\$1,659	\$394	\$1,244						
-11	0.562	2021	\$0	\$1,574	\$374	\$1,181						
-12	0.534	2022	\$0	\$1,494	\$355	\$1,120						
-13	0.506	2023	\$0	\$414,528	\$337	\$10,632						
-14	0.480	2024	\$7,207	\$1,345	\$320	\$1,009						
-15	0.456	2025	\$0	\$1,277	\$303	\$958						
-16	0.433	2026	\$0	\$1,212	\$288	\$909						
-17	0.411	2027	\$0	\$1,150	\$273	\$862						
-18	0.390	2028	\$0	\$1,091	\$259	\$818						
-19	0.370	2029	\$0	\$1,035	\$246	\$777						
Total			\$71,480	\$1,767,854	\$8,462	\$66,185						

Coastal Wetlands Conservation and Restoration Plan

South Shore of Pen

Project Priority List 14

Fully Funded Costs Total Fully Funded Costs \$17,514,000 Amortized Costs \$1,450,398

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
5	1.042	2005	\$258,240	\$7,595	\$57,868	\$52,949	\$404	\$0	\$0	\$0	\$377,056	
4	1.057	2006	\$449,338	\$13,215	\$100,690	\$92,131	\$703	\$0	\$0	\$0	\$656,077	
3	1.075	2007	\$190,407	\$5,600	\$42,668	\$39,040	\$298	\$0	\$0	\$0	\$278,013	
2	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$897,986	\$26,409	\$201,226	\$184,120	\$1,405	\$0	\$0	\$0	\$1,311,146	
Phase II												
2	1.097	2008	\$0	\$0	\$97,209	\$65,234	\$547	\$0	\$231,450	\$1,351,118	\$5,404,473	\$7,150,031
1	1.119	2009	\$0	\$0	\$77,119	\$51,752	\$434	\$0	\$183,617	\$1,071,887	\$4,287,548	\$5,672,358
0	1.141	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.164	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$174,328	\$116,986	\$981	\$0	\$415,067	\$2,423,005	\$9,692,021	\$12,822,389

Total Cost \$898,000 \$26,400 \$375,600 \$301,100 \$2,400 \$0 \$415,100 \$2,423,000 \$9,692,000 \$14,134,000

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp	
0	1.1410	2010	\$17,114	\$3,195	\$759	\$2,396
-1	1.1638	2011	\$17,457	\$3,259	\$774	\$2,444
-2	1.1871	2012	\$17,806	\$1,445,420	\$789	\$34,484
-3	1.2108	2013	\$0	\$3,390	\$805	\$2,543
-4	1.2350	2014	\$18,525	\$3,458	\$821	\$2,594
-5	1.2597	2015	\$0	\$3,527	\$838	\$2,645
-6	1.2849	2016	\$0	\$399,470	\$854	\$12,592
-7	1.3106	2017	\$0	\$3,670	\$872	\$2,752
-8	1.3368	2018	\$0	\$3,743	\$889	\$2,807
-9	1.3636	2019	\$20,453	\$3,818	\$907	\$2,863
-10	1.3908	2020	\$0	\$3,894	\$925	\$2,921
-11	1.4186	2021	\$0	\$3,972	\$943	\$2,979
-12	1.4470	2022	\$0	\$4,052	\$962	\$3,039
-13	1.4760	2023	\$0	\$1,208,416	\$982	\$30,995
-14	1.5055	2024	\$22,582	\$4,215	\$1,001	\$3,161
-15	1.5356	2025	\$0	\$4,300	\$1,021	\$3,225
-16	1.5663	2026	\$0	\$4,386	\$1,042	\$3,289
-17	1.5976	2027	\$0	\$4,473	\$1,062	\$3,355
-18	1.6296	2028	\$0	\$4,563	\$1,084	\$3,422
-19	1.6622	2029	\$0	\$4,654	\$1,105	\$3,491
Total			\$113,900	\$3,119,900	\$18,400	\$128,000

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>8,761,127</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>10,951,409</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$850,068
Engineering	\$665,068	
Geotechnical Investigation	\$145,000	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	
<i>Supervision and Administration</i>		\$190,488

State Costs

<i>Supervision and Administration</i>		\$174,295
<i>Ecological Review Costs</i>		\$0
<i>Easements and Land Rights</i>		\$25,000
<i>Monitoring</i>		\$0
Monitoring Plan Developer	\$0	
Monitoring Protocol Cost *	\$0	

Total Phase I Cost Estimate **\$1,239,851**

* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$10,951,409	
Lands or Oyster Issues	0 lease acres	\$0	
<i>Supervision and Insp</i>	423 days @	887 per day	\$375,201
<i>Supervision and Administration</i>		\$157,584	

State Costs

<i>Supervision and Administration</i>		\$105,750
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Total Phase II Cost Estimate **\$11,589,944**

TOTAL ESTIMATED PROJECT FIRST COST **12,829,795**

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O&M Data

Annual Costs

	<u>State</u>	<u>Federal</u>
Annual Inspections	\$2,800	\$2,100
Annual Cost for Operations	\$0	\$0
Preventive Maintenance	\$0	\$0
Annual Cost for Maintenance	\$0	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 7</u>	<u>Year 14</u>
Contractor Mobilization/Demobilization	\$200,000	\$200,000	\$200,000
Structural removal	\$10,000	\$10,000	\$10,000
Excavation for Flotation	\$170,268	\$0	\$170,268
Replace 25% or original rock shoreline protection	\$488,013	\$0	\$0
Replace 10% or original rock shoreline protection	\$0	\$0	\$195,205
Replace 2.5% or original concrete panel	\$0	\$12,075	\$12,075
Subtotal	\$868,280	\$222,075	\$587,548
Subtotal w/ 25% contin.	\$1,085,350	\$277,594	\$734,434

Engineer, Design & Administrative Costs

Engineering and Design Cost	\$77,000	\$22,000	\$54,000
Administrative Cost	\$21,500	\$5,500	\$14,500
Eng Surv 3 days @ \$1,479 per day	\$4,000	\$0	\$4,000
1 days @ \$1,479 per day	\$0	\$1,000	\$0
Construc 30 days @ \$887 per day	\$27,000	\$0	\$0
2 days @ \$887 per day	\$0	\$2,000	\$0
15 days @ \$887 per day	\$0	\$0	\$13,000
Subtotal	\$129,500	\$30,500	\$85,500
Federal S&A	\$26,950	\$7,700	\$18,900
Total	\$1,241,800	\$315,794	\$838,834

Annual Project Costs:

Corps Administration	\$665					
Monitoring	YR1	YR2	YR3	YR5	YR10	YR15
	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000

Construction Schedule:

		2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start	March-05	7	12	5	0	0	0	0	24
Plan & Design End	March-07								
Const. Start	January-08								
Const. End	May-09	0	0	0	9	7	0	0	16

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Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14
Venice Ponds Marsh Creation

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.625%	Amortization Factor	0.08455
Fully Funded First Costs	\$18,931,000	Total Fully Funded Costs	\$20,172,000

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$18,852,178	\$1,593,938
Monitoring	\$0	\$0
O&M & State Insp.	\$917,763	\$77,596
Corps PM	\$8,308	\$702
Fed S&A & Insp	<u>\$41,166</u>	<u>\$3,481</u>
Average Annual Cost	\$1,675,700	\$1,675,700
Average Annual Habitat Units	330	
Cost Per Habitat Unit	\$5,078	
Total Net Acres	593	

Coastal Wetlands Conservation and Restoration Plan

Venice Ponds Marsh Creation

Project Priority List 14

Project Costs \$18,202,175

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
5 Compound	2005	\$149,115	\$31,208	\$58,333	\$44,641	\$388	\$0	-	\$0		\$283,685
4 Compound	2006	\$255,625	\$53,500	\$100,000	\$76,528	\$665	\$0	-	\$0		\$486,318
3 Compound	2007	\$106,510	\$22,292	\$41,667	\$31,886	\$277	\$0	-	\$0		\$202,632
2 Compound	2008	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
TOTAL		\$511,250	\$107,000	\$200,000	\$153,055	\$1,330	\$0	\$0	\$0	\$0	\$972,635
Phase II											
2 Compound	2008	-	\$115,313	\$84,375	\$63,281	\$499	\$0	\$230,625	\$1,721,869	\$6,887,475	\$9,103,436
1 Compound	2009	-	\$89,688	\$65,625	\$49,219	\$388	-	\$179,375	\$1,339,231	\$5,356,925	\$7,080,450
0 Compound	2010	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
-1 Compound	2011	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
TOTAL		\$0	\$205,000	\$150,000	\$112,500	\$887	\$0	\$410,000	\$3,061,100	\$12,244,400	\$16,183,887
Total First Costs		\$511,250	\$312,000	\$350,000	\$265,555	\$2,217	\$0	\$410,000	\$3,061,100	\$12,244,400	\$17,156,522

Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0 Discount	2010	\$0	\$829,421	\$665	\$15,626
-1 Discount	2011	\$0	\$2,800	\$665	\$2,100
-2 Discount	2012	\$0	\$2,800	\$665	\$2,100
-3 Discount	2013	\$0	\$2,800	\$665	\$2,100
-4 Discount	2014	\$0	\$2,800	\$665	\$2,100
-5 Discount	2015	\$0	\$2,800	\$665	\$2,100
-6 Discount	2016	\$0	\$2,800	\$665	\$2,100
-7 Discount	2017	\$0	\$2,800	\$665	\$2,100
-8 Discount	2018	\$0	\$2,800	\$665	\$2,100
-9 Discount	2019	\$0	\$94,707	\$665	\$4,399
-10 Discount	2020	\$0	\$2,800	\$665	\$2,100
-11 Discount	2021	\$0	\$2,800	\$665	\$2,100
-12 Discount	2022	\$0	\$2,800	\$665	\$2,100
-13 Discount	2023	\$0	\$2,800	\$665	\$2,100
-14 Discount	2024	\$0	\$2,800	\$665	\$2,100
-15 Discount	2025	\$0	\$2,800	\$665	\$2,100
-16 Discount	2026	\$0	\$2,800	\$665	\$2,100
-17 Discount	2027	\$0	\$2,800	\$665	\$2,100
-18 Discount	2028	\$0	\$2,800	\$665	\$2,100
-19 Discount	2029	\$0	\$2,800	\$665	\$2,100
Total		\$0	\$974,528	\$13,300	\$57,825

Coastal Wetlands Conservation and Restoration Plan

Venice Ponds Marsh Creation

Project Priority List 14

Present Valued Costs			Total Discounted Costs			\$19,819,415			Amortized Costs			\$1,675,717
Year	Fiscal Year		E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I												
5	1.315	2005	\$196,044	\$41,030	\$76,692	\$58,691	\$510	\$0	\$0	\$0	\$0	\$372,967
4	1.245	2006	\$318,178	\$66,592	\$124,471	\$95,254	\$828	\$0	\$0	\$0	\$0	\$605,322
3	1.178	2007	\$125,514	\$26,269	\$49,101	\$37,576	\$327	\$0	\$0	\$0	\$0	\$238,786
2	1.116	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$639,736	\$133,891	\$250,264	\$191,520	\$1,664	\$0	\$0	\$0	\$0	\$1,217,075
Phase II												
2	1.116	2008	\$0	\$128,650	\$94,134	\$70,601	\$556	\$0	\$257,300	\$1,921,027	\$7,684,108	\$10,156,377
1	1.056	2009	\$0	\$94,732	\$69,316	\$51,987	\$410	\$0	\$189,465	\$1,414,563	\$5,658,252	\$7,478,726
0	1.000	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.947	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$223,382	\$163,451	\$122,588	\$966	\$0	\$446,765	\$3,335,590	\$13,342,360	\$17,635,102
Total First Cost			\$639,736	\$357,273	\$413,714	\$314,108	\$2,630	\$0	\$446,765	\$3,335,590	\$13,342,360	\$18,852,178

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	1.000	2010	\$0	\$829,421	\$665
-1	0.947	2011	\$0	\$2,651	\$630
-2	0.896	2012	\$0	\$2,510	\$596
-3	0.849	2013	\$0	\$2,376	\$564
-4	0.803	2014	\$0	\$2,250	\$534
-5	0.761	2015	\$0	\$2,130	\$506
-6	0.720	2016	\$0	\$2,016	\$479
-7	0.682	2017	\$0	\$1,909	\$453
-8	0.645	2018	\$0	\$1,807	\$429
-9	0.611	2019	\$0	\$57,874	\$406
-10	0.579	2020	\$0	\$1,620	\$385
-11	0.548	2021	\$0	\$1,534	\$364
-12	0.519	2022	\$0	\$1,452	\$345
-13	0.491	2023	\$0	\$1,375	\$326
-14	0.465	2024	\$0	\$1,301	\$309
-15	0.440	2025	\$0	\$1,232	\$293
-16	0.417	2026	\$0	\$1,167	\$277
-17	0.394	2027	\$0	\$1,104	\$262
-18	0.373	2028	\$0	\$1,046	\$248
-19	0.354	2029	\$0	\$990	\$235
Total		\$0	\$917,763	\$8,308	\$41,166

Coastal Wetlands Conservation and Restoration Plan

Venice Ponds Marsh Creation

Project Priority List 14

Fully Funded Costs		Total Fully Funded Costs				\$20,172,000				Amortized Costs		\$1,705,528
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
5	1.042	2005	\$155,312	\$32,505	\$60,758	\$46,496	\$404	\$0	\$0	\$0	\$295,475	
4	1.057	2006	\$270,242	\$56,559	\$105,718	\$80,903	\$703	\$0	\$0	\$0	\$514,126	
3	1.075	2007	\$114,515	\$23,967	\$44,798	\$34,283	\$298	\$0	\$0	\$0	\$217,861	
2	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$540,069	\$113,032	\$211,274	\$161,683	\$1,405	\$0	\$0	\$0	\$1,027,462	
Phase II												
2	1.097	2008	\$0	\$126,458	\$92,530	\$69,398	\$547	\$0	\$252,917	\$1,888,299	\$9,983,347	
1	1.119	2009	\$0	\$100,324	\$73,407	\$55,056	\$434	\$0	\$200,647	\$1,498,051	\$7,920,122	
0	1.141	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-1	1.164	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$0	\$226,782	\$165,938	\$124,453	\$981	\$0	\$453,564	\$3,386,350	\$17,903,470	
Total Cost			\$540,100	\$339,800	\$377,200	\$286,100	\$2,400	\$0	\$453,600	\$3,386,400	\$18,931,000	

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	1.1410	2010	\$0	\$946,338	\$759
-1	1.1638	2011	\$0	\$3,259	\$774
-2	1.1871	2012	\$0	\$3,324	\$789
-3	1.2108	2013	\$0	\$3,390	\$805
-4	1.2350	2014	\$0	\$3,458	\$821
-5	1.2597	2015	\$0	\$3,527	\$838
-6	1.2849	2016	\$0	\$3,598	\$854
-7	1.3106	2017	\$0	\$3,670	\$872
-8	1.3368	2018	\$0	\$3,743	\$889
-9	1.3636	2019	\$0	\$129,138	\$907
-10	1.3908	2020	\$0	\$3,894	\$925
-11	1.4186	2021	\$0	\$3,972	\$943
-12	1.4470	2022	\$0	\$4,052	\$962
-13	1.4760	2023	\$0	\$4,133	\$982
-14	1.5055	2024	\$0	\$4,215	\$1,001
-15	1.5356	2025	\$0	\$4,300	\$1,021
-16	1.5663	2026	\$0	\$4,386	\$1,042
-17	1.5976	2027	\$0	\$4,473	\$1,062
-18	1.6296	2028	\$0	\$4,563	\$1,084
-19	1.6622	2029	\$0	\$4,654	\$1,105
Total			\$0	\$1,146,086	\$18,435

\$76,785

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	12,244,400
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>15,305,500</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$511,250
Engineering	\$312,500	
Geotechnical Investigation	\$81,250	
Hydrologic Modeling	\$0	
Data Collection	\$62,500	
Cultural Resources	\$15,000	
HTRW	\$0	
NEPA Compliance	\$40,000	
<i>Supervision and Administration</i>		\$200,000

State Costs

<i>Supervision and Administration</i>		\$153,055
<i>Ecological Review Costs</i>		\$0
<i>Easements and Land Rights</i>		\$107,000
<i>Monitoring</i>		\$0
Monitoring Plan Development	\$0	
Monitoring Protocol Cost *	\$0	

Total Phase I Cost Estimate **\$971,305**

* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$15,305,500
Lands or Oyster Issues	0 lease acres	\$205,000
<i>Supervision and Insp</i>	0 days @ 876 per day	\$410,000
<i>Supervision and Administration</i>		\$150,000

State Costs

<i>Supervision and Administration</i>		\$112,500
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Total Phase II Cost Estimate **\$16,183,000**

TOTAL ESTIMATED PROJECT FIRST COST **17,154,305**

O&M Data

Annual Costs

Annual Inspections	\$2,800
Annual Cost for Operations	\$0
Preventive Maintenance	\$0
Engineering Monitoring @ TY1-5, 10, 15, 19	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 2</u>	<u>Year 1</u>	<u>Year 10</u>	<u>Year 15</u>
Mob & Demob	\$0	\$100,000	\$50,000	\$0
Degrade Containment Dikes	\$0	\$367,500	\$0	\$0
Dredging Crevasse int Site 3	\$0	\$9,600	\$0	\$0
Crevasse Stone Protection	\$0	\$43,125	\$0	\$0
30'Concrete Piling	\$0	\$12,300	\$12,300	\$0
Culverts @ Site 2	\$0	\$8,500	\$0	\$0
0	\$0	\$0	\$0	\$0
Subtotal	<u>\$0</u>	<u>\$541,025</u>	<u>\$62,300</u>	<u>\$0</u>
Subtotal w/ 25% contin.	\$0	\$676,281	\$77,875	\$0

Engineer, Design & Administrative Costs

Engineering and Design Cost	\$0	\$49,589	\$6,806	\$0
Administrative Cost	\$0	\$13,526	\$2,337	\$0
Eng Sur 5 days @ \$1,479 per day	\$0	\$7,395	\$0	\$0
Construc 90 days @ \$876 per day	\$0	\$79,830	\$4,435	\$0
Subtotal	\$0	\$150,340	\$13,578	\$0

Federal S&A

Total	\$0	\$13,526	\$2,337	\$0
Total	\$0	\$840,147	\$93,790	\$0

Annual Project Costs:

Corps Administration	\$665
Monitoring	\$0

Construction Schedule:

		2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start	March-05	7	12	5	0	0	0	0	24
Plan & Design End	March-07								
Const. Start	January-08								
Const. End	April-09	0	0	0	9	7	0	0	16

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Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14
White Ditch Resurrection

Project Construction Years:	1	Total Project Years	24
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$12,809,000	Total Fully Funded Costs	\$14,845,000

Annual Charges	Present Worth	Average Annual
First Costs	\$12,350,508	\$1,022,791
Monitoring	\$0	\$0
O&M & State Insp.	\$911,530	\$75,487
Corps PM	\$8,462	\$701
Fed S&A & Insp	\$33,813	\$2,800
Total Average Annual Costs	\$1,101,800	\$1,101,800
Average Annual Habitat Units	107	
Cost Per Habitat Unit	\$10,297	
Total Net Acres		0

Coastal Wetlands Conservation and Restoration Plan

White Ditch Resurrection

Project Priority List 14

Project Costs \$13,188,740

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
4	Compound	2005	\$263,800	\$17,500	\$47,750	\$47,750	\$333	\$0	-	\$0	\$377,132	
3	Compound	2006	\$527,600	\$35,000	\$95,500	\$95,500	\$665	\$0	-	\$0	\$754,265	
2	Compound	2007	\$263,800	\$17,500	\$47,750	\$47,750	\$333	\$0	-	\$0	\$377,132	
1	Compound	2008	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	
TOTAL			\$1,055,200	\$70,000	\$191,000	\$191,000	\$1,330	\$0	\$0	\$0	\$1,508,529	
Phase II												
1	Compound	2008	-	\$0	\$82,186	\$55,153	\$499	\$0	\$195,682	\$1,459,406	\$5,837,625	\$7,630,551
0	Compound	2009	-	\$0	\$27,395	\$18,384	\$166	-	\$65,227	\$486,469	\$1,945,875	\$2,543,517
-1	Compound	2010	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
-2	Compound	2011	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$109,582	\$73,537	\$665	\$0	\$260,909	\$1,945,875	\$7,783,500	\$10,174,068
Total First Costs			\$1,055,200	\$70,000	\$300,581	\$264,537	\$1,995	\$0	\$260,909	\$1,945,875	\$7,783,500	\$11,682,597

Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp	
0	Discount	2009	\$0	\$47,800	\$665	\$2,100
-1	Discount	2010	\$0	\$47,800	\$665	\$2,100
-2	Discount	2011	\$0	\$47,800	\$665	\$2,100
-3	Discount	2012	\$0	\$47,800	\$665	\$2,100
-4	Discount	2013	\$0	\$81,599	\$665	\$2,951
-5	Discount	2014	\$0	\$47,800	\$665	\$2,100
-6	Discount	2015	\$0	\$47,800	\$665	\$2,100
-7	Discount	2016	\$0	\$47,800	\$665	\$2,100
-8	Discount	2017	\$0	\$47,800	\$665	\$2,100
-9	Discount	2018	\$0	\$463,742	\$665	\$11,701
-10	Discount	2019	\$0	\$47,800	\$665	\$2,100
-11	Discount	2020	\$0	\$47,800	\$665	\$2,100
-12	Discount	2021	\$0	\$47,800	\$665	\$2,100
-13	Discount	2022	\$0	\$47,800	\$665	\$2,100
-14	Discount	2023	\$0	\$81,599	\$665	\$2,951
-15	Discount	2024	\$0	\$47,800	\$665	\$2,100
-16	Discount	2025	\$0	\$47,800	\$665	\$2,100
-17	Discount	2026	\$0	\$47,800	\$665	\$2,100
-18	Discount	2027	\$0	\$47,800	\$665	\$2,100
-19	Discount	2028	\$0	\$47,800	\$665	\$2,100
Total			\$0	\$1,439,540	\$13,300	\$53,302

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Coastal Wetlands Conservation and Restoration Plan

White Ditch Resurrection

Project Priority List 14

Present Valued Costs			Total Discounted Costs				Amortized Costs				Total First Cost	
Year	Fiscal Year		E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	\$1,101,779
Phase I												
4	1.233	2005	\$325,256	\$21,577	\$58,874	\$58,874	\$410	\$0	\$0	\$0	\$0	\$464,991
3	1.170	2006	\$617,330	\$40,953	\$111,742	\$111,742	\$778	\$0	\$0	\$0	\$0	\$882,544
2	1.110	2007	\$292,921	\$19,432	\$53,021	\$53,021	\$369	\$0	\$0	\$0	\$0	\$418,764
1	1.054	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$1,235,507	\$81,961	\$223,637	\$223,637	\$1,557	\$0	\$0	\$0	\$0	\$1,766,298
Phase II												
1	1.054	2008	\$0	\$0	\$86,604	\$58,117	\$526	\$0	\$206,200	\$1,537,849	\$6,151,397	\$8,040,693
0	1.000	2009	\$0	\$0	\$27,395	\$18,384	\$166	\$0	\$65,227	\$486,469	\$1,945,875	\$2,543,517
-1	0.949	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.901	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$113,999	\$76,501	\$692	\$0	\$271,427	\$2,024,318	\$8,097,272	\$10,584,210
Total First Cost			\$1,235,507	\$81,961	\$337,636	\$300,138	\$2,249	\$0	\$271,427	\$2,024,318	\$8,097,272	\$12,350,508

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp	
0	1.000	2009	\$0	\$47,800	\$665	\$2,100
-1	0.949	2010	\$0	\$45,362	\$631	\$1,993
-2	0.901	2011	\$0	\$43,048	\$599	\$1,891
-3	0.855	2012	\$0	\$40,852	\$568	\$1,795
-4	0.811	2013	\$0	\$66,181	\$539	\$2,393
-5	0.770	2014	\$0	\$36,791	\$512	\$1,616
-6	0.730	2015	\$0	\$34,914	\$486	\$1,534
-7	0.693	2016	\$0	\$33,133	\$461	\$1,456
-8	0.658	2017	\$0	\$31,443	\$437	\$1,381
-9	0.624	2018	\$0	\$289,493	\$415	\$7,305
-10	0.592	2019	\$0	\$28,317	\$394	\$1,244
-11	0.562	2020	\$0	\$26,873	\$374	\$1,181
-12	0.534	2021	\$0	\$25,502	\$355	\$1,120
-13	0.506	2022	\$0	\$24,201	\$337	\$1,063
-14	0.480	2023	\$0	\$39,207	\$320	\$1,418
-15	0.456	2024	\$0	\$21,795	\$303	\$958
-16	0.433	2025	\$0	\$20,684	\$288	\$909
-17	0.411	2026	\$0	\$19,629	\$273	\$862
-18	0.390	2027	\$0	\$18,627	\$259	\$818
-19	0.370	2028	\$0	\$17,677	\$246	\$777
Total		\$0	\$911,530	\$8,462	\$33,813	

Coastal Wetlands Conservation and Restoration Plan

White Ditch Resurrection

Project Priority List 14

Fully Funded Costs			Total Fully Funded Costs			\$14,845,000			Amortized Costs			\$1,229,369
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
4	1.042	2005	\$274,763	\$18,227	\$49,734	\$49,734	\$346	\$0	\$0	\$0	\$0	\$392,805
3	1.057	2006	\$557,769	\$37,001	\$100,961	\$100,961	\$703	\$0	\$0	\$0	\$0	\$797,395
2	1.075	2007	\$283,626	\$18,815	\$51,339	\$51,339	\$357	\$0	\$0	\$0	\$0	\$405,475
1	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$1,116,158	\$74,044	\$202,034	\$202,034	\$1,407	\$0	\$0	\$0	\$0	\$1,595,676
Phase II												
1	1.097	2008	\$0	\$0	\$90,130	\$60,484	\$547	\$0	\$214,596	\$1,600,468	\$6,401,873	\$8,368,097
0	1.119	2009	\$0	\$0	\$30,644	\$20,564	\$186	\$0	\$72,963	\$544,159	\$2,176,637	\$2,845,153
-1	1.141	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.164	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$120,774	\$81,048	\$733	\$0	\$287,558	\$2,144,627	\$8,578,509	\$11,213,250
Total Cost			\$1,116,200	\$74,000	\$322,800	\$283,100	\$2,100	\$0	\$287,600	\$2,144,600	\$8,578,500	\$12,809,000

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp	
0	1.1186	2009	\$0	\$53,469	\$744	\$2,349
-1	1.1410	2010	\$0	\$54,538	\$759	\$2,396
-2	1.1638	2011	\$0	\$55,629	\$774	\$2,444
-3	1.1871	2012	\$0	\$56,741	\$789	\$2,493
-4	1.2108	2013	\$0	\$98,800	\$805	\$3,573
-5	1.2350	2014	\$0	\$59,034	\$821	\$2,594
-6	1.2597	2015	\$0	\$60,214	\$838	\$2,645
-7	1.2849	2016	\$0	\$61,419	\$854	\$2,698
-8	1.3106	2017	\$0	\$62,647	\$872	\$2,752
-9	1.3368	2018	\$0	\$619,939	\$889	\$15,642
-10	1.3636	2019	\$0	\$65,178	\$907	\$2,863
-11	1.3908	2020	\$0	\$66,481	\$925	\$2,921
-12	1.4186	2021	\$0	\$67,811	\$943	\$2,979
-13	1.4470	2022	\$0	\$69,167	\$962	\$3,039
-14	1.4760	2023	\$0	\$120,437	\$982	\$4,355
-15	1.5055	2024	\$0	\$71,962	\$1,001	\$3,161
-16	1.5356	2025	\$0	\$73,401	\$1,021	\$3,225
-17	1.5663	2026	\$0	\$74,869	\$1,042	\$3,289
-18	1.5976	2027	\$0	\$76,366	\$1,062	\$3,355
-19	1.6296	2028	\$0	\$77,894	\$1,084	\$3,422
Total		\$0	\$1,945,996	\$18,074	\$72,196	

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	7,783,500
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	9,729,375

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,055,200
Engineering	\$595,200	
Geotechnical Investigation	\$120,000	
Hydrologic Modeling	\$100,000	
Data Collection	\$200,000	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	

Supervision and Administration \$191,000

State Costs

Supervision and Administration \$191,000

Easements and Land Rights \$70,000

Monitoring

Monitoring Plan Development	\$0
Monitoring Protocol Cost *	\$0

Total Phase I Cost Estimate \$1,507,199

* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

PHASE II

Federal Costs

<i>Estimated Construction Cost + 25% Contingency</i>		\$9,729,375	
Lands or Oyster Issues	0 lease acres	\$0	
<i>Supervision and In</i>	294 days @	887 per day	\$260,909
<i>Supervision and Administration</i>		\$109,582	

State Costs

Supervision and Administration \$73,537

Total Phase II Cost Estimate \$10,173,403

TOTAL ESTIMATED PROJECT FIRST COST 11,680,602

O&M Data

Annual Costs

Annual Inspections	\$2,800	
Annual Cost for Operations	\$10,000	
Preventive Maintenance	\$0	
Annual Maintenance dredging (10,000 cu.yd @ \$3/cu.yd)	\$35,000	\$0

tons/yr of sediment + \$5,000 for mob/demob)

Specific Intermittent Costs:

Construction Items

	<u>Year 2</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$0	\$5,000	\$20,000	\$5,000
Repair water control structure (structure at intersection of White's Ditch and Oak River)	\$0	\$0	\$100,000	\$0
Siphon re-condition and paint (valves, pipes, etc.)	\$0	\$0	\$100,000	\$0
Intake structure maintenance	\$0	\$15,000	\$15,000	\$15,000
Maintenance dredging and channel work (in addition to annual dredging)	\$0	\$0	\$50,000	\$0
Subtotal	\$0	\$20,000	\$285,000	\$20,000
Subtotal w/ 25% contin.	\$0	\$25,000	\$356,250	\$25,000

Engineer, Design & Administrative Costs

Engineering and Design Cost	\$0	\$2,430	\$27,432	\$2,430	
Administrative Cost	\$0	\$750	\$7,125	\$750	
Eng Survey					
2 days @	1479 per day	\$0	\$2,958	\$0	\$2,958
5 days @	1479 per day		\$0	\$7,395	\$0
Inspection					
3 days @	887 per day		\$2,661	\$0	\$2,661
20 days @	887 per day		\$0	\$17,740	\$0
Subtotal	\$0	\$8,799	\$59,692	\$8,799	

Federal S&A

	\$0	\$851	\$9,601	\$851
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Total **\$0** **\$9,650** **\$69,293** **\$9,650**

Annual Project Costs:

Corps Administration	\$665
Monitoring	\$0

Construction Schedule:

		2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start	March-05	6	12	6	0	0	0	0	24
Plan & Design End	March-07			0					
Const. Start	January-08			0					
Const. End	December-08	0	0	0	9	3	0	0	12

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Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14
East Marsh Island Marsh Creation

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$16,587,000	Total Fully Funded Costs	\$16,824,700

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$16,124,983	\$1,335,369
Monitoring	\$0	\$0
O&M & State Insp.	\$35,628	\$2,951
Corps PM	\$8,462	\$701
Fed S&A & Insp	<u>\$80,813</u>	<u>\$6,692</u>
Average Annual Costs	\$1,345,700	\$1,345,700
Average Annual Habitat Units	117	
Cost Per Habitat Unit	\$11,502	
Total Net Acres	189	

Coastal Wetlands Conservation and Restoration Plan

East Marsh Island Marsh Creation

Project Priority List 14

Project Costs \$15,568,705

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
3	Compound	2005	\$417,083	\$8,750	\$158,782	\$79,333	\$388	\$0	-	\$0	\$664,336
2	Compound	2006	\$297,917	\$6,250	\$113,416	\$56,667	\$277	\$0	-	\$0	\$474,526
1	Compound	2007	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0
0	Compound	2008	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0
TOTAL			\$715,000	\$15,000	\$272,198	\$136,000	\$665	\$0	\$0	\$0	\$1,138,863
Phase II											
1	Compound	2007	-	\$0	\$204,148	\$53,250	\$499	\$0	\$219,533	\$2,041,481	\$8,165,922
0	Compound	2008	-	\$0	\$68,049	\$17,750	\$166	-	\$73,178	\$680,494	\$2,721,974
-1	Compound	2009	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
-2	Compound	2010	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
TOTAL			\$0	\$0	\$272,198	\$71,000	\$665	\$0	\$292,710	\$2,721,974	\$10,887,896
Total First Costs			\$715,000	\$15,000	\$544,395	\$207,000	\$1,330	\$0	\$292,710	\$2,721,974	\$15,385,305

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	Discount	2008	\$0	\$2,800	\$665
-1	Discount	2009	\$0	\$2,800	\$665
-2	Discount	2010	\$0	\$2,800	\$665
-3	Discount	2011	\$0	\$2,800	\$665
-4	Discount	2012	\$0	\$2,800	\$665
-5	Discount	2013	\$0	\$2,800	\$665
-6	Discount	2014	\$0	\$2,800	\$665
-7	Discount	2015	\$0	\$2,800	\$665
-8	Discount	2016	\$0	\$2,800	\$665
-9	Discount	2017	\$0	\$2,800	\$665
-10	Discount	2018	\$0	\$2,800	\$665
-11	Discount	2019	\$0	\$2,800	\$665
-12	Discount	2020	\$0	\$2,800	\$665
-13	Discount	2021	\$0	\$2,800	\$665
-14	Discount	2022	\$0	\$2,800	\$665
-15	Discount	2023	\$0	\$2,800	\$665
-16	Discount	2024	\$0	\$2,800	\$665
-17	Discount	2025	\$0	\$2,800	\$665
-18	Discount	2026	\$0	\$2,800	\$665
-19	Discount	2027	\$0	\$2,800	\$665
Total			\$0	\$56,000	\$13,300

\$114,100

Coastal Wetlands Conservation and Restoration Plan

East Marsh Island Marsh Creation

Project Priority List 14

Present Valued Costs			Total Discounted Costs \$16,249,886				Amortized Costs				\$1,345,712	
Year	Fiscal Year		E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man. Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
3	1.170	2005	\$488,018	\$10,238	\$185,786	\$92,826	\$454	\$0	\$0	\$0	\$777,322	
2	1.110	2006	\$330,803	\$6,940	\$125,935	\$62,922	\$308	\$0	\$0	\$0	\$526,909	
1	1.054	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
0	1.000	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total			\$818,821	\$17,178	\$311,722	\$155,748	\$762	\$0	\$0	\$0	\$1,304,230	
Phase II												
1	1.054	2007	\$0	\$0	\$215,121	\$56,112	\$526	\$0	\$231,332	\$2,151,210	\$8,604,840	\$11,259,142
0	1.000	2008	\$0	\$0	\$68,049	\$17,750	\$166	\$0	\$73,178	\$680,494	\$2,721,974	\$3,561,611
-1	0.949	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.901	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$283,170	\$73,862	\$692	\$0	\$304,510	\$2,831,704	\$11,326,814	\$14,820,752
Total First Cost			\$818,821	\$17,178	\$594,892	\$229,610	\$1,453	\$0	\$304,510	\$2,831,704	\$11,326,814	\$16,124,983
Annual Funding Requirements												
Year	FY		Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp						
0	1.000	2008	\$0	\$2,800	\$665	\$12,400						
-1	0.949	2009	\$0	\$2,657	\$631	\$1,993						
-2	0.901	2010	\$0	\$2,522	\$599	\$11,167						
-3	0.855	2011	\$0	\$2,393	\$568	\$1,795						
-4	0.811	2012	\$0	\$2,271	\$539	\$18,411						
-5	0.770	2013	\$0	\$2,155	\$512	\$1,616						
-6	0.730	2014	\$0	\$2,045	\$486	\$1,534						
-7	0.693	2015	\$0	\$1,941	\$461	\$1,456						
-8	0.658	2016	\$0	\$1,842	\$437	\$1,381						
-9	0.624	2017	\$0	\$1,748	\$415	\$14,171						
-10	0.592	2018	\$0	\$1,659	\$394	\$1,244						
-11	0.562	2019	\$0	\$1,574	\$374	\$1,181						
-12	0.534	2020	\$0	\$1,494	\$355	\$1,120						
-13	0.506	2021	\$0	\$1,418	\$337	\$1,063						
-14	0.480	2022	\$0	\$1,345	\$320	\$5,958						
-15	0.456	2023	\$0	\$1,277	\$303	\$958						
-16	0.433	2024	\$0	\$1,212	\$288	\$909						
-17	0.411	2025	\$0	\$1,150	\$273	\$862						
-18	0.390	2026	\$0	\$1,091	\$259	\$818						
-19	0.370	2027	\$0	\$1,035	\$246	\$777						
Total			\$0	\$35,628	\$8,462	\$80,813						

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Coastal Wetlands Conservation and Restoration Plan

East Marsh Island Marsh Creation

Project Priority List 14

Fully Funded Costs		Total Fully Funded Costs		\$16,824,700		Amortized Costs					\$1,393,315	
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
3	1.042	2005	\$434,417	\$9,114	\$165,381	\$82,630	\$404	\$0	\$0	\$0	\$0	\$691,945
2	1.057	2006	\$314,952	\$6,607	\$119,901	\$59,907	\$293	\$0	\$0	\$0	\$0	\$501,660
1	1.075	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$749,369	\$15,721	\$285,282	\$142,537	\$697	\$0	\$0	\$0	\$0	\$1,193,606
Phase II												
1	1.075	2007	\$0	\$0	\$219,491	\$57,252	\$536	\$0	\$236,031	\$2,194,906	\$8,779,623	\$11,487,839
0	1.097	2008	\$0	\$0	\$74,627	\$19,466	\$182	\$0	\$80,251	\$746,268	\$2,985,072	\$3,905,865
-1	1.119	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.141	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$294,117	\$76,718	\$719	\$0	\$316,282	\$2,941,174	\$11,764,695	\$15,393,705
Total Cost			\$749,400	\$15,700	\$579,400	\$219,300	\$1,400	\$0	\$316,300	\$2,941,200	\$11,764,700	\$16,587,000

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp	
0	1.0967	2008	\$0	\$3,071	\$729	\$13,599
-1	1.1186	2009	\$0	\$3,132	\$744	\$2,349
-2	1.1410	2010	\$0	\$3,195	\$759	\$14,148
-3	1.1638	2011	\$0	\$3,259	\$774	\$2,444
-4	1.1871	2012	\$0	\$3,324	\$789	\$26,946
-5	1.2108	2013	\$0	\$3,390	\$805	\$2,543
-6	1.2350	2014	\$0	\$3,458	\$821	\$2,594
-7	1.2597	2015	\$0	\$3,527	\$838	\$2,645
-8	1.2849	2016	\$0	\$3,598	\$854	\$2,698
-9	1.3106	2017	\$0	\$3,670	\$872	\$29,751
-10	1.3368	2018	\$0	\$3,743	\$889	\$2,807
-11	1.3636	2019	\$0	\$3,818	\$907	\$2,863
-12	1.3908	2020	\$0	\$3,894	\$925	\$2,921
-13	1.4186	2021	\$0	\$3,972	\$943	\$2,979
-14	1.4470	2022	\$0	\$4,052	\$962	\$17,943
-15	1.4760	2023	\$0	\$4,133	\$982	\$3,100
-16	1.5055	2024	\$0	\$4,215	\$1,001	\$3,161
-17	1.5356	2025	\$0	\$4,300	\$1,021	\$3,225
-18	1.5663	2026	\$0	\$4,386	\$1,042	\$3,289
-19	1.5976	2027	\$0	\$4,473	\$1,062	\$3,355
Total			\$0	\$74,600	\$17,700	\$145,400

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	10,887,896
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	13,609,870

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$715,000
Engineering	\$400,000	
Geotechnical Investigation	\$105,000	
Hydrologic Modeling	\$0	
Data Collection	\$170,000	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	

Supervision and Administration \$272,198

State Costs

<i>Supervision and Administration (including PM, ecological review and engineering re</i>	\$136,000
<i>Ecological Review Costs</i>	\$0
<i>Easements and Land Rights</i>	\$15,000

<i>Monitoring</i>	\$0
Monitoring Plan Development	\$0
Monitoring Protocol Cost *	\$0

Total Phase I Cost Estimate \$1,138,198

* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>	\$13,609,870
Lands or Oyster Issues 0 lease acres	\$0
<i>Supervision and Inspc</i> 330 days @ 887 per day	\$292,710
<i>Supervision and Administration</i>	\$272,198

State Costs

Supervision and Administration \$71,000

Total Phase II Cost Estimate \$14,245,778

TOTAL ESTIMATED PROJECT FIRST COST 15,383,975

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O&M Data

Annual Costs

	<u>State</u>	<u>Federal</u>
Annual Inspections	\$2,800	\$2,100
Annual Cost for Operations	\$0	
Preventive Maintenance	\$0	

Specific Intermittent Costs:

Construction Items

	<u>Year 1</u>	<u>Year 3</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
bathymetry evaluation of borrow location (\$5000/trip)	\$0	\$0	\$5,000	\$5,000	\$5,000
Post construction DO monitoring at borrow site	\$5,000	\$5,000	\$5,000	\$5,000	\$0
Subtotal	\$5,000	\$5,000	\$10,000	\$10,000	\$5,000
Subtotal w/ no contin.	\$5,000	\$5,000	\$10,000	\$10,000	\$5,000
Engineer, Design & Administrative Costs					
Engineering and Design Cost	\$0	\$0	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0	\$0	\$0
Eng Sur #REF! days @ #REF! per day	\$0	\$0	\$0	\$0	\$0
Constru #REF! days @ \$876 per day	\$0	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0	\$0
Federal S&A	\$300	\$300	\$600	\$600	\$300
Total	\$5,300	\$5,300	\$10,600	\$10,600	\$5,300

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Annual Project Costs:

Corps Administration	\$665
Monitoring	\$0

Construction Schedule:

		2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start	March-05	7	5	0	0	0	0	0	12
Plan & Design End	March-06			0					
Const. Start	January-07								
Const. End	December-07	0	0	9	3	0	0	0	12

Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14
Barrier Island Sand Blowing Demo

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$1,703,000	Total Fully Funded Costs	\$1,774,000

Total Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$1,717,274	\$142,214
Monitoring	\$56,252	\$4,658
O&M & State Insp.	\$0	\$0
Fed S&A & Insp	<u>\$2,850</u>	<u>\$236</u>
Average Annual Cost	\$147,100	\$147,100
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	
Total Net Acres	0	

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Coastal Wetlands Conservation and Restoration Plan

Barrier Island Sand Blowing Demo

Project Priority List 14

Project Costs

\$1,657,192

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
3	Compound	2005	\$109,375	\$22,313	\$32,813	\$21,875	\$388	\$10,938	-	\$0	\$197,700	
2	Compound	2006	\$140,625	\$28,688	\$42,188	\$28,125	\$499	\$14,063	-	\$0	\$254,186	
1	Compound	2007	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	
0	Compound	2008	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	
TOTAL			\$250,000	\$51,000	\$75,000	\$50,000	\$887	\$25,000	\$0	\$0	\$451,887	
Phase II												
1	Compound	2007	-	\$25,000	\$75,000	\$25,000	\$55	\$0	\$0	\$203,450	\$813,800	\$1,142,305
0	Compound	2008	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
-1	Compound	2009	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
-2	Compound	2010	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$25,000	\$75,000	\$25,000	\$55	\$0	\$0	\$203,450	\$813,800	\$1,142,305
Total First Costs			\$250,000	\$76,000	\$150,000	\$75,000	\$942	\$25,000	\$0	\$203,450	\$813,800	\$1,594,192

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp	
0	Discount	2008	\$15,000	\$0	\$1,000	-
-1	Discount	2009	\$15,000	\$0	\$1,000	-
-2	Discount	2010	\$30,000	\$0	\$1,000	-
-3	Discount	2011	\$0	\$0	\$0	-
-4	Discount	2012	\$0	\$0	\$0	-
-5	Discount	2013	\$0	\$0	\$0	-
-6	Discount	2014	\$0	\$0	\$0	-
-7	Discount	2015	\$0	\$0	\$0	-
-8	Discount	2016	\$0	\$0	\$0	-
-9	Discount	2017	\$0	\$0	\$0	-
-10	Discount	2018	\$0	\$0	\$0	-
-11	Discount	2019	\$0	\$0	\$0	-
-12	Discount	2020	\$0	\$0	\$0	-
-13	Discount	2021	\$0	\$0	\$0	-
-14	Discount	2022	\$0	\$0	\$0	-
-15	Discount	2023	\$0	\$0	\$0	-
-16	Discount	2024	\$0	\$0	\$0	-
-17	Discount	2025	\$0	\$0	\$0	-
-18	Discount	2026	\$0	\$0	\$0	-
-19	Discount	2027	\$0	\$0	\$0	-
Total			\$60,000	\$0	\$3,000	\$0

Coastal Wetlands Conservation and Restoration Plan

Barrier Island Sand Blowing Demo

Project Priority List 14

Present Valued Costs			Total Discounted Costs				Amortized Costs				\$147,108
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
3	1.170	2005	\$127,977	\$26,107	\$38,393	\$25,595	\$454	\$12,798	\$0	\$0	\$231,324
2	1.110	2006	\$156,148	\$31,854	\$46,845	\$31,230	\$554	\$15,615	\$0	\$0	\$282,246
1	1.054	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	1.000	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$284,125	\$57,962	\$85,238	\$56,825	\$1,008	\$28,413	\$0	\$0	\$513,569
Phase II											
1	1.054	2007	\$0	\$26,344	\$79,031	\$26,344	\$58	\$0	\$0	\$214,385	\$1,203,704
0	1.000	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.949	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.901	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$26,344	\$79,031	\$26,344	\$58	\$0	\$0	\$214,385	\$1,203,704
Total First Cost			\$284,125	\$84,305	\$164,269	\$83,169	\$1,066	\$28,413	\$0	\$214,385	\$1,717,274
Year	FY	Monitoring	O&M	Corps PM	Other						
0	1.000	2008	\$15,000	\$0	\$1,000						
-1	0.949	2009	\$14,235	\$0	\$949						
-2	0.901	2010	\$27,018	\$0	\$901						
-3	0.855	2011	\$0	\$0	\$0						
-4	0.811	2012	\$0	\$0	\$0						
-5	0.770	2013	\$0	\$0	\$0						
-6	0.730	2014	\$0	\$0	\$0						
-7	0.693	2015	\$0	\$0	\$0						
-8	0.658	2016	\$0	\$0	\$0						
-9	0.624	2017	\$0	\$0	\$0						
-10	0.592	2018	\$0	\$0	\$0						
-11	0.562	2019	\$0	\$0	\$0						
-12	0.534	2020	\$0	\$0	\$0						
-13	0.506	2021	\$0	\$0	\$0						
-14	0.480	2022	\$0	\$0	\$0						
-15	0.456	2023	\$0	\$0	\$0						
-16	0.433	2024	\$0	\$0	\$0						
-17	0.411	2025	\$0	\$0	\$0						
-18	0.390	2026	\$0	\$0	\$0						
-19	0.370	2027	\$0	\$0	\$0						
Total			\$56,252	\$0	\$2,850	\$0					

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Coastal Wetlands Conservation and Restoration Plan

Barrier Island Sand Blowing Demo

Project Priority List 14

Fully Funded Costs			Total Fully Funded Costs				\$1,774,000				Amortized Costs			\$146,911
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost			
Phase I														
3	1.042	2005	\$113,920	\$23,240	\$34,176	\$22,784	\$404	\$11,392	\$0	\$0	\$0	\$205,917		
2	1.057	2006	\$148,666	\$30,328	\$44,600	\$29,733	\$527	\$14,867	\$0	\$0	\$0	\$268,721		
1	1.075	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
0	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
TOTAL			\$262,587	\$53,568	\$78,776	\$52,517	\$931	\$26,259	\$0	\$0	\$0	\$474,638		
Phase II														
1	1.075	2007	\$0	\$26,879	\$80,637	\$26,879	\$60	\$0	\$0	\$218,740	\$874,960	\$1,228,154		
0	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
-1	1.119	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
-2	1.141	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
TOTAL			\$0	\$26,879	\$80,637	\$26,879	\$60	\$0	\$0	\$218,740	\$874,960	\$1,228,154		
Total Cost			\$262,600	\$80,400	\$159,400	\$79,400	\$1,000	\$26,300	\$0	\$218,700	\$875,000	\$1,703,000		
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Year	FY	Monitoring	O&M	Corps PM	Other									
0	1.0967	2008	\$16,450	\$0	\$1,097									
-1	1.1186	2009	\$16,779	\$0	\$1,119									
-2	1.1410	2010	\$34,229	\$0	\$1,141									
-3	1.1638	2011	\$0	\$0	\$0									
-4	1.1871	2012	\$0	\$0	\$0									
-5	1.2108	2013	\$0	\$0	\$0									
-6	1.2350	2014	\$0	\$0	\$0									
-7	1.2597	2015	\$0	\$0	\$0									
-8	1.2849	2016	\$0	\$0	\$0									
-9	1.3106	2017	\$0	\$0	\$0									
-10	1.3368	2018	\$0	\$0	\$0									
-11	1.3636	2019	\$0	\$0	\$0									
-12	1.3908	2020	\$0	\$0	\$0									
-13	1.4186	2021	\$0	\$0	\$0									
-14	1.4470	2022	\$0	\$0	\$0									
-15	1.4760	2023	\$0	\$0	\$0									
-16	1.5055	2024	\$0	\$0	\$0									
-17	1.5356	2025	\$0	\$0	\$0									
-18	1.5663	2026	\$0	\$0	\$0									
-19	1.5976	2027	\$0	\$0	\$0									
Total		\$67,500	\$0	\$3,400	\$0									

O&M Data

Annual Costs

Annual Inspections	\$0
Annual Cost for Operations	\$0
Preventive Maintenance	\$0
Engineering Monitoring @ TY1-5, 10, 15, 19	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 2</u>	<u>Year 4</u>	<u>Year 7</u>	<u>Year 15</u>
Mob & Demob	\$0	\$0	\$0	\$0
Flotation Channel	\$0	\$0	\$0	\$0
Stone	\$0	\$0	\$0	\$0
Signs	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
Subtotal	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Subtotal w/ 25% contin.	\$0	\$0	\$0	\$0
Engineer, Design & Administrative Costs				
Engineering and Design Cost	\$0	\$0	\$0	#NUM!
Administrative Cost	\$0	\$0	\$0	\$0
Eng Survey 7 days @ \$1,460 per day	\$0	\$0	\$0	\$0
Construction 0 days @ \$876 per day	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	#NUM!
Federal S&A	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	#NUM!

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Annual Project Costs:

Corps Administration	\$665
Monitoring	\$0

Construction Schedule:

	2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start	March-05	7	9	0	0	0	0	16
Plan & Design End	July-06							
Const. Start	January-07							
Const. End	February-07	0	0	1	0	0	0	1

Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14
Floating Wave Attenuator Demo Project

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$1,155,000	Total Fully Funded Costs	\$1,278,000

	Present Worth	Average Annual
Total Charges	<u> </u>	<u> </u>
First Costs	\$1,163,310	\$96,338
Monitoring	\$94,361	\$7,814
O&M & State Insp.	\$0	\$0
Corps PM	\$4,515	\$374
Fed S&A & Insp	<u> </u>	<u> </u>
	\$0	\$0
Average Annual Cost	\$104,500	\$104,500
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	
Total Net Acres	0	

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Coastal Wetlands Conservation and Restoration Plan

Floating Wave Attenuator Demo Project

Project Priority List 14

Project Costs

\$1,204,701

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
2	Compound	2005	\$119,583	\$8,750	\$14,583	\$14,583	\$388	\$14,583	-	\$0	\$172,471
1	Compound	2006	\$85,417	\$6,250	\$10,417	\$10,417	\$277	\$10,417	-	\$0	\$123,194
0	Compound	2007	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0
-1	Compound	2008	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0
TOTAL			\$205,000	\$15,000	\$25,000	\$25,000	\$665	\$25,000	\$0	\$0	\$295,665
Phase II											
1	Compound	2006	-	\$0	\$25,000	\$15,000	\$166	\$0	\$8,870	\$150,000	\$600,000
0	Compound	2007	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
-1	Compound	2008	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
-2	Compound	2009	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
TOTAL			\$0	\$0	\$25,000	\$15,000	\$166	\$0	\$8,870	\$150,000	\$600,000
Total First Costs			\$205,000	\$15,000	\$50,000	\$40,000	\$831	\$25,000	\$8,870	\$150,000	\$600,000

Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	Discount	2007	\$20,000	\$0	\$1,000
-1	Discount	2008	\$20,000	\$0	\$1,000
-2	Discount	2009	\$20,000	\$0	\$1,000
-3	Discount	2010	\$20,000	\$0	\$1,000
-4	Discount	2011	\$25,000	\$0	\$1,000
-5	Discount	2012	\$0	\$0	\$0
-6	Discount	2013	\$0	\$0	\$0
-7	Discount	2014	\$0	\$0	\$0
-8	Discount	2015	\$0	\$0	\$0
-9	Discount	2016	\$0	\$0	\$0
-10	Discount	2017	\$0	\$0	\$0
-11	Discount	2018	\$0	\$0	\$0
-12	Discount	2019	\$0	\$0	\$0
-13	Discount	2020	\$0	\$0	\$0
-14	Discount	2021	\$0	\$0	\$0
-15	Discount	2022	\$0	\$0	\$0
-16	Discount	2023	\$0	\$0	\$0
-17	Discount	2024	\$0	\$0	\$0
-18	Discount	2025	\$0	\$0	\$0
-19	Discount	2026	\$0	\$0	\$0
Total			\$105,000	\$0	\$5,000

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**Coastal Wetlands Conservation and Restoration Plan
 Floating Wave Attenuator Demo Project
 Project Priority List 14**

Present Valued Costs		Total Discounted Costs				\$1,262,186	Amortized Costs				\$104,526	
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
2	1.110	2005	\$132,784	\$9,716	\$16,193	\$16,193	\$431	\$16,193	\$0	\$0	\$0	\$191,510
1	1.054	2006	\$90,008	\$6,586	\$10,977	\$10,977	\$292	\$10,977	\$0	\$0	\$0	\$129,815
0	1.000	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.949	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$222,792	\$16,302	\$27,170	\$27,170	\$723	\$27,170	\$0	\$0	\$0	\$321,326
Phase II												
1	1.054	2006	\$0	\$0	\$26,344	\$15,806	\$175	\$0	\$9,347	\$158,063	\$632,250	\$841,984
0	1.000	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.949	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.901	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$26,344	\$15,806	\$175	\$0	\$9,347	\$158,063	\$632,250	\$841,984
Total First Cost			\$222,792	\$16,302	\$53,513	\$42,976	\$898	\$27,170	\$9,347	\$158,063	\$632,250	\$1,163,310

Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	1.000	2007	\$20,000	\$0	\$1,000
-1	0.949	2008	\$18,980	\$0	\$949
-2	0.901	2009	\$18,012	\$0	\$901
-3	0.855	2010	\$17,093	\$0	\$855
-4	0.811	2011	\$20,276	\$0	\$811
-5	0.770	2012	\$0	\$0	\$0
-6	0.730	2013	\$0	\$0	\$0
-7	0.693	2014	\$0	\$0	\$0
-8	0.658	2015	\$0	\$0	\$0
-9	0.624	2016	\$0	\$0	\$0
-10	0.592	2017	\$0	\$0	\$0
-11	0.562	2018	\$0	\$0	\$0
-12	0.534	2019	\$0	\$0	\$0
-13	0.506	2020	\$0	\$0	\$0
-14	0.480	2021	\$0	\$0	\$0
-15	0.456	2022	\$0	\$0	\$0
-16	0.433	2023	\$0	\$0	\$0
-17	0.411	2024	\$0	\$0	\$0
-18	0.390	2025	\$0	\$0	\$0
-19	0.370	2026	\$0	\$0	\$0
Total			\$94,361	\$0	\$4,515

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**Coastal Wetlands Conservation and Restoration Plan
 Floating Wave Attenuator Demo Project
 Project Priority List 14**

Fully Funded Costs Total Fully Funded Costs \$1,278,000 Amortized Costs \$105,836

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
2	1.042	2005	\$124,553	\$9,114	\$15,189	\$15,189	\$404	\$15,189	\$0	\$0	\$179,639	
1	1.057	2006	\$90,301	\$6,607	\$11,012	\$11,012	\$293	\$11,012	\$0	\$0	\$130,238	
0	1.075	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-1	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$214,854	\$15,721	\$26,202	\$26,202	\$697	\$26,202	\$0	\$0	\$309,877	
Phase II												
1	1.057	2006	\$0	\$0	\$26,430	\$15,858	\$176	\$0	\$9,377	\$158,577	\$844,727	
0	1.075	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-1	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-2	1.119	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$0	\$0	\$26,430	\$15,858	\$176	\$0	\$9,377	\$158,577	\$844,727	
Total Cost			\$214,900	\$15,700	\$52,600	\$42,100	\$900	\$26,200	\$9,400	\$158,600	\$634,300	\$1,155,000

Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	1.0752	2007	\$21,503	\$0	\$1,075
-1	1.0967	2008	\$21,933	\$0	\$1,097
-2	1.1186	2009	\$22,372	\$0	\$1,119
-3	1.1410	2010	\$22,819	\$0	\$1,141
-4	1.1638	2011	\$29,095	\$0	\$1,164
-5	1.1871	2012	\$0	\$0	\$0
-6	1.2108	2013	\$0	\$0	\$0
-7	1.2350	2014	\$0	\$0	\$0
-8	1.2597	2015	\$0	\$0	\$0
-9	1.2849	2016	\$0	\$0	\$0
-10	1.3106	2017	\$0	\$0	\$0
-11	1.3368	2018	\$0	\$0	\$0
-12	1.3636	2019	\$0	\$0	\$0
-13	1.3908	2020	\$0	\$0	\$0
-14	1.4186	2021	\$0	\$0	\$0
-15	1.4470	2022	\$0	\$0	\$0
-16	1.4760	2023	\$0	\$0	\$0
-17	1.5055	2024	\$0	\$0	\$0
-18	1.5356	2025	\$0	\$0	\$0
-19	1.5663	2026	\$0	\$0	\$0
Total		\$117,700	\$0	\$5,595	\$0

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E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>600,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>750,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$205,000
Engineering	\$100,000	
Geotechnical Investigation	\$35,000	
Hydrologic Modeling	\$0	
Data Collection	\$30,000	
Cultural Resources	\$10,000	
HTRW	\$0	
NEPA Compliance	\$30,000	

<i>Supervision and Administration</i>		\$25,000
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State Costs

<i>Supervision and Administration</i>		\$25,000
<i>Ecological Review Costs</i>		\$0
<i>Easements and Land Rights</i>		\$15,000

<i>Monitoring</i>		\$25,000
Monitoring Plan Development	\$25,000	
Monitoring Protocol Cost *	\$0	

Total Phase I Cost Estimate		\$295,000
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* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$750,000
Lands or Oyster Issues	0 lease acres	\$0
<i>Supervision and Inspection</i>	10 days @ 887 per day	\$8,870
<i>Supervision and Administration</i>		\$25,000

State Costs

<i>Supervision and Administration</i>		\$15,000
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Total Phase II Cost Estimate		\$798,870
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<u>TOTAL ESTIMATED PROJECT FIRST COST</u>		<u>1,093,870</u>
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**Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14-Demonstration
Evaluation of Bioengineered Oyster Breaks**

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$428,000	Total Fully Funded Costs	\$1,308,000

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$469,820	\$38,908
Monitoring	\$94,130	\$7,795
O&M & State Insp.	\$612,471	\$50,721
Corps PM	\$4,515	\$374
Fed S&A & Insp	<u>\$12,698</u>	<u>\$1,052</u>
Average Annual Cost	\$98,800	\$98,800
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	
Total Net Acres	0	

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Coastal Wetlands Conservation and Restoration Plan

Evaluation of Bioengineered Oyster Breaks

Project Priority List 14-Demonstration

Project Costs

\$1,172,648

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
4	Compound	2005	\$106,167	\$8,750	\$8,750	\$14,583	\$388	\$14,583	-	\$0	\$153,221
3	Compound	2006	\$75,833	\$6,250	\$6,250	\$10,417	\$277	\$10,417	-	\$0	\$109,444
2	Compound	2007	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
1	Compound	2008	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
TOTAL			\$182,000	\$15,000	\$15,000	\$25,000	\$665	\$25,000	\$0	\$0	\$262,665
Phase II											
2	Compound	2007	-	\$0	\$7,941	\$7,941	\$499	\$0	\$4,696	\$10,718	\$74,667
1	Compound	2008	-	\$0	\$7,059	\$7,059	\$443	-	\$4,174	\$9,527	\$66,370
0	Compound	2009	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
-1	Compound	2010	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
TOTAL			\$0	\$0	\$15,000	\$15,000	\$942	\$0	\$8,870	\$20,245	\$141,037
Total First Costs			\$182,000	\$15,000	\$30,000	\$40,000	\$1,607	\$25,000	\$8,870	\$20,245	\$403,702

Year	FY	Monitoring	O&M & State Insp	Corps PM	Fed S&A & Insp	
0	Discount	2009	\$15,000	\$0	\$1,000	\$450
-1	Discount	2010	\$30,000	\$645,391	\$1,000	\$11,305
-2	Discount	2011	\$15,000	\$0	\$1,000	\$450
-3	Discount	2012	\$15,000	\$0	\$1,000	\$450
-4	Discount	2013	\$30,000	\$0	\$1,000	\$900
-5	Discount	2014	\$0	\$0	\$0	-
-6	Discount	2015	\$0	\$0	\$0	-
-7	Discount	2016	\$0	\$0	\$0	-
-8	Discount	2017	\$0	\$0	\$0	-
-9	Discount	2018	\$0	\$0	\$0	-
-10	Discount	2019	\$0	\$0	\$0	-
-11	Discount	2020	\$0	\$0	\$0	-
-12	Discount	2021	\$0	\$0	\$0	-
-13	Discount	2022	\$0	\$0	\$0	-
-14	Discount	2023	\$0	\$0	\$0	-
-15	Discount	2024	\$0	\$0	\$0	-
-16	Discount	2025	\$0	\$0	\$0	-
-17	Discount	2026	\$0	\$0	\$0	-
-18	Discount	2027	\$0	\$0	\$0	-
-19	Discount	2028	\$0	\$0	\$0	-
Total			\$105,000	\$645,391	\$5,000	\$13,555

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Coastal Wetlands Conservation and Restoration Plan

Evaluation of Bioengineered Oyster Breaks

Project Priority List 14-Demonstration

Present Valued Costs		Total Discounted Costs				Amortized Costs				\$98,849		
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
4	1.233	2005	\$130,900	\$10,788	\$10,788	\$17,981	\$478	\$17,981	\$0	\$0	\$188,916	
3	1.170	2006	\$88,730	\$7,313	\$7,313	\$12,188	\$324	\$12,188	\$0	\$0	\$128,057	
2	1.110	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
1	1.054	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total			\$219,630	\$18,101	\$18,101	\$30,169	\$802	\$30,169	\$0	\$0	\$316,973	
Phase II												
2	1.110	2007	\$0	\$0	\$8,818	\$8,818	\$554	\$0	\$5,214	\$11,901	\$82,909	
1	1.054	2008	\$0	\$0	\$7,438	\$7,438	\$467	\$0	\$4,398	\$10,039	\$69,938	
0	1.000	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-1	0.949	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total			\$0	\$0	\$16,256	\$16,256	\$1,021	\$0	\$9,613	\$21,940	\$152,847	
Total First Cost			\$219,630	\$18,101	\$34,357	\$46,425	\$1,823	\$30,169	\$9,613	\$21,940	\$87,761	\$469,820

Year	FY	Monitoring	O&M & State Insp	Corps PM	Fed S&A & Insp	
0	1.000	2009	\$15,000	\$0	\$1,000	\$450
-1	0.949	2010	\$28,470	\$612,471	\$949	\$10,728
-2	0.901	2011	\$13,509	\$0	\$901	\$405
-3	0.855	2012	\$12,820	\$0	\$855	\$385
-4	0.811	2013	\$24,332	\$0	\$811	\$730
-5	0.770	2014	\$0	\$0	\$0	\$0
-6	0.730	2015	\$0	\$0	\$0	\$0
-7	0.693	2016	\$0	\$0	\$0	\$0
-8	0.658	2017	\$0	\$0	\$0	\$0
-9	0.624	2018	\$0	\$0	\$0	\$0
-10	0.592	2019	\$0	\$0	\$0	\$0
-11	0.562	2020	\$0	\$0	\$0	\$0
-12	0.534	2021	\$0	\$0	\$0	\$0
-13	0.506	2022	\$0	\$0	\$0	\$0
-14	0.480	2023	\$0	\$0	\$0	\$0
-15	0.456	2024	\$0	\$0	\$0	\$0
-16	0.433	2025	\$0	\$0	\$0	\$0
-17	0.411	2026	\$0	\$0	\$0	\$0
-18	0.390	2027	\$0	\$0	\$0	\$0
-19	0.370	2028	\$0	\$0	\$0	\$0
Total			\$94,130	\$612,471	\$4,515	\$12,698

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Coastal Wetlands Conservation and Restoration Plan

Evaluation of Bioengineered Oyster Breaks

Project Priority List 14-Demonstration

Fully Funded Costs		Total Fully Funded Costs				\$1,308,000				Amortized Costs		\$108,320
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
4	1.042	2005	\$110,579	\$9,114	\$9,114	\$15,189	\$404	\$15,189	\$0	\$0	\$0	\$159,589
3	1.057	2006	\$80,170	\$6,607	\$6,607	\$11,012	\$293	\$11,012	\$0	\$0	\$0	\$115,702
2	1.075	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$190,748	\$15,721	\$15,721	\$26,202	\$697	\$26,202	\$0	\$0	\$0	\$275,291
Phase II												
2	1.075	2007	\$0	\$0	\$8,538	\$8,538	\$536	\$0	\$5,049	\$11,523	\$46,094	\$80,278
1	1.097	2008	\$0	\$0	\$7,741	\$7,741	\$486	\$0	\$4,578	\$10,448	\$41,792	\$72,786
0	1.119	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.141	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$16,279	\$16,279	\$1,022	\$0	\$9,626	\$21,971	\$87,885	\$153,064
Total Cost			\$190,700	\$15,700	\$32,000	\$42,500	\$1,700	\$26,200	\$9,600	\$22,000	\$87,900	\$428,000

Year	FY	Monitoring	O&M & State Insp	Corps PM	Fed S&A & Insp	
0	1.1186	2009	\$16,779	\$0	\$1,119	\$503
-1	1.1410	2010	\$34,229	\$736,367	\$1,141	\$12,899
-2	1.1638	2011	\$17,457	\$0	\$1,164	\$524
-3	1.1871	2012	\$17,806	\$0	\$1,187	\$534
-4	1.2108	2013	\$36,324	\$0	\$1,211	\$1,090
-5	1.2350	2014	\$0	\$0	\$0	\$0
-6	1.2597	2015	\$0	\$0	\$0	\$0
-7	1.2849	2016	\$0	\$0	\$0	\$0
-8	1.3106	2017	\$0	\$0	\$0	\$0
-9	1.3368	2018	\$0	\$0	\$0	\$0
-10	1.3636	2019	\$0	\$0	\$0	\$0
-11	1.3908	2020	\$0	\$0	\$0	\$0
-12	1.4186	2021	\$0	\$0	\$0	\$0
-13	1.4470	2022	\$0	\$0	\$0	\$0
-14	1.4760	2023	\$0	\$0	\$0	\$0
-15	1.5055	2024	\$0	\$0	\$0	\$0
-16	1.5356	2025	\$0	\$0	\$0	\$0
-17	1.5663	2026	\$0	\$0	\$0	\$0
-18	1.5976	2027	\$0	\$0	\$0	\$0
-19	1.6296	2028	\$0	\$0	\$0	\$0
Total			\$122,600	\$736,400	\$5,800	\$15,500

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E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>80,980</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>101,225</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$182,000
Engineering	\$75,000	
Geotechnical Investigation	\$35,000	
Hydrologic Modeling	\$0	
Data Collection	\$42,000	
Cultural Resources	\$10,000	
HTRW	\$0	
NEPA Compliance	\$20,000	
<i>Supervision and Administration</i>		\$15,000

State Costs

<i>Supervision and Administration</i>		\$25,000
<i>Ecological Review Costs</i>		\$0
<i>Easements and Land Rights</i>		\$15,000
<i>Monitoring</i>		\$25,000
Monitoring Plan Development	\$25,000	
Monitoring Protocol Cost *	\$0	

Total Phase I Cost Estimate **\$262,000**

* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$101,225
Lands or Oyster Issues	0 lease acres	\$0
<i>Supervision and Inspection</i>	10 days @	887 per day
<i>Supervision and Administration</i>		\$15,000

State Costs

<i>Supervision and Administration</i>		\$15,000
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Total Phase II Cost Estimate **\$140,095**

TOTAL ESTIMATED PROJECT FIRST COST **402,095**

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O&M Data

Annual Costs

Annual Inspections	\$0
Annual Cost for Operations	\$0
Preventive Maintenance	\$0
Engineering Monitoring @ TY1-5, 10, 15, 19	\$0

Specific Intermittent Costs:

Construction Items

	Year 2	Year 2	Year 3	Year 4
Mob & Demob	\$0	\$120,000	\$0	\$0
Var Density Concrete	\$0	\$259,200	\$0	\$0
Anchor System	\$0	\$45,000	\$0	\$0
Nav Aids	\$0	\$4,000	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
Subtotal	\$0	\$428,200	\$0	\$0
Subtotal w/ 25% contin.	\$0	\$535,250	\$0	\$0

Engineer, Design & Administrative Costs

Engineering and Design Cost	\$0	\$39,944	\$0	\$0
Administrative Cost	\$0	\$21,410	\$0	\$0
Eng Survey 3 days @ \$1,479 per day	\$0	\$4,437	\$0	\$0
Construction 50 days @ \$876 per day	\$0	\$44,350	\$0	\$0
Subtotal	\$0	\$110,141	\$0	\$0
Federal S&A	\$0	\$11,305	\$450	\$450
Total	\$0	\$656,696	\$450	\$450

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Annual Project Costs:

Corps Administration	\$665
Monitoring	\$0

Construction Schedule:

		2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start	March-05	7	5	0	0	0	0	0	12
Plan & Design End	March-06								
Const. Start	January-07								
Const. End	June-08	0	0	9	8	0	0	0	17

Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14
Sand Fence for Dune Formation and Bird Fence Demo

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$329,000	Total Fully Funded Costs	\$491,000

Total Charges	Present Worth	Average Annual
First Costs	\$333,980	\$27,658
Monitoring	\$111,591	\$9,241
O & M Costs	\$0	\$0
Other Costs	\$8,462	\$701
Average Annual Cost	\$37,600	\$37,600
Average Annual Habitat Units	N/A	
Cost Per Habitat Unit	N/A	
Total Net Acres	N/A	

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Coastal Wetlands Conservation and Restoration Plan

Sand Fence for Dune Formation and Bird Fence Demo

Project Priority List 14

Project Costs

\$452,320

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
	2 Compound	2005	\$35,000	\$8,750	\$14,583	\$14,583	\$388	\$14,583	-	\$0	\$87,888	
	1 Compound	2006	\$25,000	\$6,250	\$10,417	\$10,417	\$277	\$10,417	-	\$0	\$62,777	
	0 Compound	2007	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	
	-1 Compound	2008	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	
	TOTAL		\$60,000	\$15,000	\$25,000	\$25,000	\$665	\$25,000	\$0	\$0	\$150,665	
Phase II												
	1 Compound	2006	-	\$0	\$25,000	\$15,000	\$55	\$0	\$14,000	\$21,500	\$161,555	
	0 Compound	2007	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	
	-1 Compound	2008	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	
	-2 Compound	2009	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0	
	TOTAL		\$0	\$0	\$25,000	\$15,000	\$55	\$0	\$14,000	\$21,500	\$86,000	\$161,555
Total First Costs			\$60,000	\$15,000	\$50,000	\$40,000	\$720	\$25,000	\$14,000	\$21,500	\$86,000	\$312,220

Year	FY	Monitoring	O&M	Corps PM	Other	
	0 Discount	2007	\$34,800	\$0	\$665	-
	-1 Discount	2008	\$34,800	\$0	\$665	-
	-2 Discount	2009	\$17,400	\$0	\$665	-
	-3 Discount	2010	\$0	\$0	\$665	-
	-4 Discount	2011	\$17,400	\$0	\$665	-
	-5 Discount	2012	\$0	\$0	\$665	-
	-6 Discount	2013	\$0	\$0	\$665	-
	-7 Discount	2014	\$0	\$0	\$665	-
	-8 Discount	2015	\$0	\$0	\$665	-
	-9 Discount	2016	\$22,400	\$0	\$665	-
	-10 Discount	2017	\$0	\$0	\$665	-
	-11 Discount	2018	\$0	\$0	\$665	-
	-12 Discount	2019	\$0	\$0	\$665	-
	-13 Discount	2020	\$0	\$0	\$665	-
	-14 Discount	2021	\$0	\$0	\$665	-
	-15 Discount	2022	\$0	\$0	\$665	-
	-16 Discount	2023	\$0	\$0	\$665	-
	-17 Discount	2024	\$0	\$0	\$665	-
	-18 Discount	2025	\$0	\$0	\$665	-
	-19 Discount	2026	\$0	\$0	\$665	-
	Total		\$126,800	\$0	\$13,300	\$0

Coastal Wetlands Conservation and Restoration Plan

Sand Fence for Dune Formation and Bird Fence Demo

Project Priority List 14

Present Valued Costs		Total Discounted Costs \$454,033					Amortized Costs \$37,600				Total First Cost	
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs		
Phase I												
2	1.110	2005	\$38,864	\$9,716	\$16,193	\$16,193	\$431	\$16,193	\$0	\$0	\$0	\$97,590
1	1.054	2006	\$26,344	\$6,586	\$10,977	\$10,977	\$292	\$10,977	\$0	\$0	\$0	\$66,151
0	1.000	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.949	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$65,207	\$16,302	\$27,170	\$27,170	\$723	\$27,170	\$0	\$0	\$0	\$163,741
Phase II												
1	1.054	2006	\$0	\$0	\$26,344	\$15,806	\$58	\$0	\$14,753	\$22,656	\$90,623	\$170,239
0	1.000	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.949	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.901	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$26,344	\$15,806	\$58	\$0	\$14,753	\$22,656	\$90,623	\$170,239
Total First Cost			\$65,207	\$16,302	\$53,513	\$42,976	\$781	\$27,170	\$14,753	\$22,656	\$90,623	\$333,980
Year	FY	Monitoring	O&M	Corps PM	Other							
0	1.000	2007	\$34,800	\$0	\$665							
-1	0.949	2008	\$33,025	\$0	\$631							
-2	0.901	2009	\$15,670	\$0	\$599							
-3	0.855	2010	\$0	\$0	\$568							
-4	0.811	2011	\$14,112	\$0	\$539							
-5	0.770	2012	\$0	\$0	\$512							
-6	0.730	2013	\$0	\$0	\$486							
-7	0.693	2014	\$0	\$0	\$461							
-8	0.658	2015	\$0	\$0	\$437							
-9	0.624	2016	\$13,983	\$0	\$415							
-10	0.592	2017	\$0	\$0	\$394							
-11	0.562	2018	\$0	\$0	\$374							
-12	0.534	2019	\$0	\$0	\$355							
-13	0.506	2020	\$0	\$0	\$337							
-14	0.480	2021	\$0	\$0	\$320							
-15	0.456	2022	\$0	\$0	\$303							
-16	0.433	2023	\$0	\$0	\$288							
-17	0.411	2024	\$0	\$0	\$273							
-18	0.390	2025	\$0	\$0	\$259							
-19	0.370	2026	\$0	\$0	\$246							
Total			\$111,591	\$0	\$8,462	\$0						

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Coastal Wetlands Conservation and Restoration Plan
Sand Fence for Dune Formation and Bird Fence Demo
Project Priority List 14

Fully Funded Costs			Total Fully Funded Costs				Amortized Costs				Total First Cost	
Year	Fiscal Year		E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I												
2	1.042	2005	\$36,455	\$9,114	\$15,189	\$15,189	\$404	\$15,189	\$0	\$0	\$0	\$91,540
1	1.057	2006	\$26,430	\$6,607	\$11,012	\$11,012	\$293	\$11,012	\$0	\$0	\$0	\$66,367
0	1.075	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$62,884	\$15,721	\$26,202	\$26,202	\$697	\$26,202	\$0	\$0	\$0	\$157,907
Phase II												
1	1.057	2006	\$0	\$0	\$26,430	\$15,858	\$59	\$0	\$14,801	\$22,729	\$90,918	\$170,793
0	1.075	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.119	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$26,430	\$15,858	\$59	\$0	\$14,801	\$22,729	\$90,918	\$170,793
Total Cost			\$62,900	\$15,700	\$52,600	\$42,100	\$800	\$26,200	\$14,800	\$22,700	\$90,900	\$329,000
Year	FY		Monitoring	O&M	Corps PM	Other						
0	1.0752	2007	\$37,415	\$0	\$715							
-1	1.0967	2008	\$38,164	\$0	\$729							
-2	1.1186	2009	\$19,463	\$0	\$744							
-3	1.1410	2010	\$0	\$0	\$759							
-4	1.1638	2011	\$20,250	\$0	\$774							
-5	1.1871	2012	\$0	\$0	\$789							
-6	1.2108	2013	\$0	\$0	\$805							
-7	1.2350	2014	\$0	\$0	\$821							
-8	1.2597	2015	\$0	\$0	\$838							
-9	1.2849	2016	\$28,782	\$0	\$854							
-10	1.3106	2017	\$0	\$0	\$872							
-11	1.3368	2018	\$0	\$0	\$889							
-12	1.3636	2019	\$0	\$0	\$907							
-13	1.3908	2020	\$0	\$0	\$925							
-14	1.4186	2021	\$0	\$0	\$943							
-15	1.4470	2022	\$0	\$0	\$962							
-16	1.4760	2023	\$0	\$0	\$982							
-17	1.5055	2024	\$0	\$0	\$1,001							
-18	1.5356	2025	\$0	\$0	\$1,021							
-19	1.5663	2026	\$0	\$0	\$1,042							
Total			\$144,100	\$0	\$17,400	\$0						

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O&M Data

Annual Costs

	<u>State</u>	<u>Federal</u>
Annual Inspections	0	0
Annual Cost for Operations	0	
Preventive Maintenance	0	

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 14</u>
0	\$0	\$0
Subtotal	\$0	\$0
Subtotal w/ 25% contin.	\$0	\$0
Engineer, Design & Administrative Costs		
Engineering and Design Cost	\$0	\$0
Administrative Cost	\$0	\$0
Eng Survey 0 days @ \$1,479 per day	\$0	\$0
Construction Inspect 0 days @ \$887 per day	\$0	\$0
Subtotal	\$0	\$0
	\$0	\$0
Total	\$0	\$0

Federal S&A

Annual Project Costs:

Corps Administration	\$665				
Monitoring	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
	\$34,800	\$34,800	\$17,400	\$17,400	\$22,400

Construction Schedule:

		2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start	March-05	7	5	0	0	0	0	0	12
Plan & Design End	March-06								
Const. Start	August-06								
Const. End	September-06	0	1	0	0	0	0	0	1

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Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14
Redistribution of Dredge Spoil

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$2,363,000	Total Fully Funded Costs	\$2,375,000

	Present Worth	Average Annual
Total Charges	<hr/>	<hr/>
First Costs	\$2,323,444	\$192,413
Monitoring	\$4,055	\$336
O&M & State Insp.	\$0	\$0
Corps PM	\$4,515	\$374
Fed S&A & Insp	<hr/> \$122	<hr/> \$10
Average Annual Cost	\$193,100	\$193,100
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	
Total Net Acres	0	

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Coastal Wetlands Conservation and Restoration Plan

Redistribution of Dredge Spoil

Project Priority List 14

Project Costs

\$2,237,225

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
-2	Compound	2005	\$122,159	\$8,750	\$23,333	\$20,417	\$388	\$14,583	-	\$0	\$189,631
-1	Compound	2006	\$87,257	\$6,250	\$16,667	\$14,583	\$277	\$10,417	-	\$0	\$135,450
0	Compound	2007	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0
-1	Compound	2008	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0
TOTAL			\$209,416	\$15,000	\$40,000	\$35,000	\$665	\$25,000	\$0	\$0	\$325,081
Phase II											
1	Compound	2006	-	\$0	\$26,667	\$23,333	\$111	\$0	\$55,585	\$232,460	\$929,840
0	Compound	2007	-	\$0	\$13,333	\$11,667	\$55	-	\$27,793	\$116,230	\$464,920
-1	Compound	2008	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
-2	Compound	2009	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0
TOTAL			\$0	\$0	\$40,000	\$35,000	\$166	\$0	\$83,378	\$348,690	\$1,394,760
Total First Costs			\$209,416	\$15,000	\$80,000	\$70,000	\$831	\$25,000	\$83,378	\$348,690	\$2,227,075

Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	Discount	2007	\$0	\$0	\$1,000
-1	Discount	2008	\$0	\$0	\$1,000
-2	Discount	2009	\$0	\$0	\$1,000
-3	Discount	2010	\$0	\$0	\$1,000
-4	Discount	2011	\$5,000	\$0	\$1,000
-5	Discount	2012	\$0	\$0	\$0
-6	Discount	2013	\$0	\$0	\$0
-7	Discount	2014	\$0	\$0	\$0
-8	Discount	2015	\$0	\$0	\$0
-9	Discount	2016	\$0	\$0	\$0
-10	Discount	2017	\$0	\$0	\$0
-11	Discount	2018	\$0	\$0	\$0
-12	Discount	2019	\$0	\$0	\$0
-13	Discount	2020	\$0	\$0	\$0
-14	Discount	2021	\$0	\$0	\$0
-15	Discount	2022	\$0	\$0	\$0
-16	Discount	2023	\$0	\$0	\$0
-17	Discount	2024	\$0	\$0	\$0
-18	Discount	2025	\$0	\$0	\$0
-19	Discount	2026	\$0	\$0	\$0
Total			\$5,000	\$0	\$5,000

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**Coastal Wetlands Conservation and Restoration Plan
Redistribution of Dredge Spoil
Project Priority List 14**

Present Valued Costs		Total Discounted Costs				\$2,332,136			Amortized Costs			\$193,133
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
2	1.110	2005	\$135,644	\$9,716	\$25,909	\$22,670	\$431	\$16,193	\$0	\$0	\$0	\$210,564
1	1.054	2006	\$91,947	\$6,586	\$17,563	\$15,367	\$292	\$10,977	\$0	\$0	\$0	\$142,731
0	1.000	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.949	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$227,591	\$16,302	\$43,472	\$38,038	\$723	\$27,170	\$0	\$0	\$0	\$353,295
Phase II												
1	1.054	2006	\$0	\$0	\$28,100	\$24,588	\$117	\$0	\$58,573	\$244,955	\$979,819	\$1,336,151
0	1.000	2007	\$0	\$0	\$13,333	\$11,667	\$55	\$0	\$27,793	\$116,230	\$464,920	\$633,998
-1	0.949	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.901	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$41,433	\$36,254	\$172	\$0	\$86,366	\$361,185	\$1,444,739	\$1,970,149
Total First Cost			\$227,591	\$16,302	\$84,905	\$74,292	\$895	\$27,170	\$86,366	\$361,185	\$1,444,739	\$2,323,444

Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	1.000	2007	\$0	\$0	\$1,000
-1	0.949	2008	\$0	\$0	\$949
-2	0.901	2009	\$0	\$0	\$901
-3	0.855	2010	\$0	\$0	\$855
-4	0.811	2011	\$4,055	\$0	\$811
-5	0.770	2012	\$0	\$0	\$0
-6	0.730	2013	\$0	\$0	\$0
-7	0.693	2014	\$0	\$0	\$0
-8	0.658	2015	\$0	\$0	\$0
-9	0.624	2016	\$0	\$0	\$0
-10	0.592	2017	\$0	\$0	\$0
-11	0.562	2018	\$0	\$0	\$0
-12	0.534	2019	\$0	\$0	\$0
-13	0.506	2020	\$0	\$0	\$0
-14	0.480	2021	\$0	\$0	\$0
-15	0.456	2022	\$0	\$0	\$0
-16	0.433	2023	\$0	\$0	\$0
-17	0.411	2024	\$0	\$0	\$0
-18	0.390	2025	\$0	\$0	\$0
-19	0.370	2026	\$0	\$0	\$0
Total		\$4,055	\$0	\$4,515	\$122

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**Coastal Wetlands Conservation and Restoration Plan
Redistribution of Dredge Spoil
Project Priority List 14**

Fully Funded Costs		Total Fully Funded Costs				\$2,375,000				Amortized Costs			\$196,682
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost		
Phase I													
2	1.042	2005	\$127,236	\$9,114	\$24,303	\$21,265	\$404	\$15,189	\$0	\$0	\$0	\$197,511	
1	1.057	2006	\$92,246	\$6,607	\$17,620	\$15,417	\$293	\$11,012	\$0	\$0	\$0	\$143,196	
0	1.075	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-1	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$219,482	\$15,721	\$41,923	\$36,682	\$697	\$26,202	\$0	\$0	\$0	\$340,707	
Phase II													
1	1.057	2006	\$0	\$0	\$28,192	\$24,668	\$117	\$0	\$58,764	\$245,752	\$983,010	\$1,340,503	
0	1.075	2007	\$0	\$0	\$14,335	\$12,543	\$60	\$0	\$29,881	\$124,965	\$499,861	\$681,646	
-1	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-2	1.119	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$0	\$0	\$42,527	\$37,211	\$177	\$0	\$88,645	\$370,718	\$1,482,871	\$2,022,148	
Total Cost			\$219,500	\$15,700	\$84,400	\$73,900	\$900	\$26,200	\$88,600	\$370,700	\$1,482,900	\$2,363,000	

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Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp
0	1.0752	2007	\$0	\$0	\$1,075
-1	1.0967	2008	\$0	\$0	\$1,097
-2	1.1186	2009	\$0	\$0	\$1,119
-3	1.1410	2010	\$0	\$0	\$1,141
-4	1.1638	2011	\$5,819	\$0	\$1,164
-5	1.1871	2012	\$0	\$0	\$0
-6	1.2108	2013	\$0	\$0	\$0
-7	1.2350	2014	\$0	\$0	\$0
-8	1.2597	2015	\$0	\$0	\$0
-9	1.2849	2016	\$0	\$0	\$0
-10	1.3106	2017	\$0	\$0	\$0
-11	1.3368	2018	\$0	\$0	\$0
-12	1.3636	2019	\$0	\$0	\$0
-13	1.3908	2020	\$0	\$0	\$0
-14	1.4186	2021	\$0	\$0	\$0
-15	1.4470	2022	\$0	\$0	\$0
-16	1.4760	2023	\$0	\$0	\$0
-17	1.5055	2024	\$0	\$0	\$0
-18	1.5356	2025	\$0	\$0	\$0
-19	1.5663	2026	\$0	\$0	\$0
Total			\$5,819	\$0	\$5,595

O&M Data

Annual Costs

Annual Inspections	\$0
Annual Cost for Operations	\$0
Preventive Maintenance	\$0
Engineering Monitoring @ TY1-5, 10, 15, 19	\$0

Specific Intermittent Costs:

Construction Items

	Year 2	Year 5	Year 7	Year 15
Mob & Demob	\$0	\$0	\$0	\$0
Flotation Channel	\$0	\$0	\$0	\$0
Stone	\$0	\$0	\$0	\$0
Signs	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0
Subtotal w/ 25% contin.	\$0	\$0	\$0	\$0

Engineer, Design & Administrative Costs

Engineering and Design Cost	\$0	\$0	\$0	#NUM!
Administrative Cost	\$0	\$0	\$0	\$0
Eng Survey 7 days @ \$1,460 per day	\$0	\$0	\$0	\$0
Construction 0 days @ \$876 per day	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	#NUM!

Federal S&A

Total	\$0	\$150	\$0	\$0
	\$0	\$150	\$0	#NUM!

Annual Project Costs:

Corps Administration	\$665
Monitoring	\$0

Construction Schedule:

		2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start	March-05	7	5	0	0	0	0	0	12
Plan & Design End	March-06								
Const. Start	August-06								
Const. End	November-06	0	2	1	0	0	0	0	3

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Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14 - Demonstration Projects
Flowable Fill Demonstration Project

Project Construction Years:	1	Total Project Years	24
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$1,175,000	Total Fully Funded Costs	\$1,243,000

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$1,178,089	\$97,562
Monitoring	\$49,208	\$4,075
O & M Costs	\$0	\$0
Other Costs	<u>\$3,249</u>	<u>\$269</u>
Average Annual Cost	\$101,900	\$101,900
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	
Total Net Acres	0	

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Coastal Wetlands Conservation and Restoration Plan

Flowable Fill Demonstration Project

Project Priority List 14 - Demonstration Projects

Project Costs

\$1,157,401

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
3	Compound	2005	\$75,833	\$11,667	\$14,583	\$14,583	\$388	\$14,583	-	\$0	\$131,638
2	Compound	2006	\$54,167	\$8,333	\$10,417	\$10,417	\$277	\$10,417	-	\$0	\$94,027
1	Compound	2007	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0
0	Compound	2008	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0
TOTAL			\$130,000	\$20,000	\$25,000	\$25,000	\$665	\$25,000	\$0	\$0	\$225,665
Phase II											
1	Compound	2007	-	\$0	\$25,000	\$20,000	\$166	\$0	\$79,830	\$149,550	\$598,200
0	Compound	2008	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	Compound	2009	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	Compound	2010	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$25,000	\$20,000	\$166	\$0	\$79,830	\$149,550	\$598,200
Total First Costs			\$130,000	\$20,000	\$50,000	\$45,000	\$831	\$25,000	\$79,830	\$149,550	\$1,098,411
Year	FY	Monitoring	O&M	Corps PM	Other						
0	Discount	2008	\$10,000	\$0	\$665	-					
-1	Discount	2009	\$10,000	\$0	\$665	-					
-2	Discount	2010	\$10,000	\$0	\$665	-					
-3	Discount	2011	\$10,000	\$0	\$665	-					
-4	Discount	2012	\$15,000	\$0	\$665	-					
-5	Discount	2013	\$0	\$0	\$0	-					
-6	Discount	2014	\$0	\$0	\$0	-					
-7	Discount	2015	\$0	\$0	\$0	-					
-8	Discount	2016	\$0	\$0	\$0	-					
-9	Discount	2017	\$0	\$0	\$0	-					
-10	Discount	2018	\$0	\$0	\$0	-					
-11	Discount	2019	\$0	\$0	\$0	-					
-12	Discount	2020	\$0	\$0	\$0	-					
-13	Discount	2021	\$0	\$0	\$0	-					
-14	Discount	2022	\$0	\$0	\$0	-					
-15	Discount	2023	\$0	\$0	\$0	-					
-16	Discount	2024	\$0	\$0	\$0	-					
-17	Discount	2025	\$0	\$0	\$0	-					
-18	Discount	2026	\$0	\$0	\$0	-					
-19	Discount	2027	\$0	\$0	\$665	-					
Total			\$55,000	\$0	\$3,990	\$0					

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Coastal Wetlands Conservation and Restoration Plan
Flowable Fill Demonstration Project
Project Priority List 14 - Demonstration Projects

Present Valued Costs		Total Discounted Costs				\$1,230,546		Amortized Costs			\$101,906	
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
3	1.170	2005	\$88,730	\$13,651	\$17,064	\$17,064	\$454	\$17,064	\$0	\$0	\$0	\$154,026
2	1.110	2006	\$60,146	\$9,253	\$11,567	\$11,567	\$308	\$11,567	\$0	\$0	\$0	\$104,407
1	1.054	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	1.000	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$148,877	\$22,904	\$28,630	\$28,630	\$762	\$28,630	\$0	\$0	\$0	\$258,433
Phase II												
1	1.054	2007	\$0	\$0	\$26,344	\$21,075	\$175	\$0	\$84,121	\$157,588	\$630,353	\$919,656
0	1.000	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.949	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.901	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$26,344	\$21,075	\$175	\$0	\$84,121	\$157,588	\$630,353	\$919,656
Total First Cost			\$148,877	\$22,904	\$54,974	\$49,705	\$937	\$28,630	\$84,121	\$157,588	\$630,353	\$1,178,089
Year	FY	Monitoring	O&M	Corps PM	Other							
0	1.000	2008	\$10,000	\$0	\$665							
-1	0.949	2009	\$9,490	\$0	\$631							
-2	0.901	2010	\$9,006	\$0	\$599							
-3	0.855	2011	\$8,546	\$0	\$568							
-4	0.811	2012	\$12,166	\$0	\$539							
-5	0.770	2013	\$0	\$0	\$0							
-6	0.730	2014	\$0	\$0	\$0							
-7	0.693	2015	\$0	\$0	\$0							
-8	0.658	2016	\$0	\$0	\$0							
-9	0.624	2017	\$0	\$0	\$0							
-10	0.592	2018	\$0	\$0	\$0							
-11	0.562	2019	\$0	\$0	\$0							
-12	0.534	2020	\$0	\$0	\$0							
-13	0.506	2021	\$0	\$0	\$0							
-14	0.480	2022	\$0	\$0	\$0							
-15	0.456	2023	\$0	\$0	\$0							
-16	0.433	2024	\$0	\$0	\$0							
-17	0.411	2025	\$0	\$0	\$0							
-18	0.390	2026	\$0	\$0	\$0							
-19	0.370	2027	\$0	\$0	\$246							
Total			\$49,208	\$0	\$3,249	\$0						

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Coastal Wetlands Conservation and Restoration Plan
Flowable Fill Demonstration Project
Project Priority List 14 - Demonstration Projects

Fully Funded Costs Total Fully Funded Costs \$1,243,000 Amortized Costs \$102,937

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost
Phase I											
3	1.042	2005	\$78,985	\$12,152	\$15,189	\$15,189	\$404	\$15,189	\$0	\$0	\$137,109
2	1.057	2006	\$57,264	\$8,810	\$11,012	\$11,012	\$293	\$11,012	\$0	\$0	\$99,404
1	1.075	2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$136,249	\$20,961	\$26,202	\$26,202	\$697	\$26,202	\$0	\$0	\$236,512
Phase II											
1	1.075	2007	\$0	\$0	\$26,879	\$21,503	\$179	\$0	\$85,830	\$160,789	\$938,337
0	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	1.119	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	1.141	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$26,879	\$21,503	\$179	\$0	\$85,830	\$160,789	\$938,337
Total Cost			\$136,200	\$21,000	\$53,100	\$47,700	\$900	\$26,200	\$85,800	\$160,800	\$1,175,000

Year	FY	Monitoring	O&M	Corps PM	Other	
0	1.0967	2008	\$10,967	\$0	\$729	
-1	1.1186	2009	\$11,186	\$0	\$744	
-2	1.1410	2010	\$11,410	\$0	\$759	
-3	1.1638	2011	\$11,638	\$0	\$774	
-4	1.1871	2012	\$17,806	\$0	\$789	
-5	1.2108	2013	\$0	\$0	\$0	
-6	1.2350	2014	\$0	\$0	\$0	
-7	1.2597	2015	\$0	\$0	\$0	
-8	1.2849	2016	\$0	\$0	\$0	
-9	1.3106	2017	\$0	\$0	\$0	
-10	1.3368	2018	\$0	\$0	\$0	
-11	1.3636	2019	\$0	\$0	\$0	
-12	1.3908	2020	\$0	\$0	\$0	
-13	1.4186	2021	\$0	\$0	\$0	
-14	1.4470	2022	\$0	\$0	\$0	
-15	1.4760	2023	\$0	\$0	\$0	
-16	1.5055	2024	\$0	\$0	\$0	
-17	1.5356	2025	\$0	\$0	\$0	
-18	1.5663	2026	\$0	\$0	\$0	
-19	1.5976	2027	\$0	\$0	\$1,062	
Total			\$63,000	\$0	\$4,900	\$0

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O&M Data

Annual Costs

Annual Inspections	\$0
Annual Cost for Operations	\$0
Preventive Maintenance	\$0
Engineering Monitoring @ TY1-5, 10, 15, 19	\$0

Specific Intermittent Costs:

Construction Items

	Year 2	Year 3	Year 5	Year 10
Mob & Demob	\$0	\$0	\$0	\$0
Rock Rip-Rap(years 3,5&10)	\$0	\$0	\$0	\$0
#REF!	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0
Subtotal w/ 25% contin.	\$0	\$0	\$0	\$0

Engineer, Design & Administrative Costs

Engineering and Design Cost	\$0	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0	\$0
Eng Survey 12 days @ \$1,250 per day	\$0	\$0	\$0	\$0
Construction 400 days @ \$876 per day	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0

Federal S&A

Total	\$0	\$0	\$0	\$0
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Annual Project Costs:

Corps Administration	\$665	\$665	\$665	\$665	\$665
Monitoring	\$10,000	\$10,000	\$10,000	\$10,000	\$15,000

Construction Schedule:

		2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start	March-05	7	5	0	0	0	0	0	12
Plan & Design End	March-06								
Const. Start	January-07								
Const. End	April-07	0	0	3	0	0	0	0	3

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Coastal Wetlands Conservation and Restoration Plan
Project Priority List 14-Demo
Wetland Enhancement Via Treated Sewage Effluent Diversions Demo

Project Construction Years:	1	Total Project Years	21
Interest Rate	5.375%	Amortization Factor	0.08281
Fully Funded First Costs	\$855,000	Total Fully Funded Costs	\$1,111,000

	<u>Present Worth</u>	<u>Average Annual</u>
Total Charges		
First Costs	\$884,023	\$73,209
Monitoring	\$193,697	\$16,041
O&M & State Insp.	\$0	\$0
Corps PM	\$4,515	\$374
Fed S&A & Insp	<u>\$0</u>	<u>\$0</u>
Average Annual Cost	\$89,600	\$89,600
Average Annual Habitat Units	0	
Cost Per Habitat Unit	#DIV/0!	
Total Net Acres	0	

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Coastal Wetlands Conservation and Restoration Plan
Wetland Enhancement Via Treated Sewage Effluent Diversions Demo
Project Priority List 14-Demo

Project Costs \$1,014,118

Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
4	Compound	2005	\$68,542	\$14,583	\$14,583	\$7,292	\$388	\$7,292	-	\$0	\$112,680	
3	Compound	2006	\$117,500	\$25,000	\$25,000	\$12,500	\$665	\$12,500	-	\$0	\$193,165	
2	Compound	2007	\$48,958	\$10,417	\$10,417	\$5,208	\$277	\$5,208	-	\$0	\$80,485	
1	Compound	2008	\$0	\$0	\$0	\$0	\$0	\$0	-	\$0	\$0	
TOTAL			\$235,000	\$50,000	\$50,000	\$25,000	\$1,330	\$25,000	\$0	\$0	\$386,330	
Phase II												
1	Compound	2008	-	\$0	\$25,000	\$25,000	\$333	\$0	\$79,830	\$55,525	\$222,100	\$407,788
0	Compound	2009	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
-1	Compound	2010	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
-2	Compound	2011	-	\$0	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
TOTAL			\$0	\$0	\$25,000	\$25,000	\$333	\$0	\$79,830	\$55,525	\$222,100	\$407,788
Total First Costs			\$235,000	\$50,000	\$75,000	\$50,000	\$1,663	\$25,000	\$79,830	\$55,525	\$222,100	\$794,118
Year	FY	Monitoring	O&M & State Insp.	Corps PM	Fed S&A & Insp							
0	Discount	2009	\$42,000	\$0	\$1,000	-						
-1	Discount	2010	\$42,000	\$0	\$1,000	-						
-2	Discount	2011	\$42,000	\$0	\$1,000	-						
-3	Discount	2012	\$42,000	\$0	\$1,000	-						
-4	Discount	2013	\$47,000	\$0	\$1,000	-						
-5	Discount	2014	\$0	\$0	\$0	-						
-6	Discount	2015	\$0	\$0	\$0	-						
-7	Discount	2016	\$0	\$0	\$0	-						
-8	Discount	2017	\$0	\$0	\$0	-						
-9	Discount	2018	\$0	\$0	\$0	-						
-10	Discount	2019	\$0	\$0	\$0	-						
-11	Discount	2020	\$0	\$0	\$0	-						
-12	Discount	2021	\$0	\$0	\$0	-						
-13	Discount	2022	\$0	\$0	\$0	-						
-14	Discount	2023	\$0	\$0	\$0	-						
-15	Discount	2024	\$0	\$0	\$0	-						
-16	Discount	2025	\$0	\$0	\$0	-						
-17	Discount	2026	\$0	\$0	\$0	-						
-18	Discount	2027	\$0	\$0	\$0	-						
-19	Discount	2028	\$0	\$0	\$0	-						
Total			\$215,000	\$0	\$5,000	\$0						

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**Coastal Wetlands Conservation and Restoration Plan
Wetland Enhancement Via Treated Sewage Effluent Diversions Demo**

Project Priority List 14-Demo

Present Valued Costs		Total Discounted Costs				\$1,082,235				Amortized Costs		\$89,624
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost	
Phase I												
4	1.233	2005	\$84,509	\$17,981	\$17,981	\$8,990	\$478	\$8,990	\$0	\$0	\$0	\$138,930
3	1.170	2006	\$137,484	\$29,252	\$29,252	\$14,626	\$778	\$14,626	\$0	\$0	\$0	\$226,017
2	1.110	2007	\$54,363	\$11,567	\$11,567	\$5,783	\$308	\$5,783	\$0	\$0	\$0	\$89,370
1	1.054	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$276,356	\$58,799	\$58,799	\$29,400	\$1,564	\$29,400	\$0	\$0	\$0	\$454,317
Phase II												
1	1.054	2008	\$0	\$0	\$26,344	\$26,344	\$350	\$0	\$84,121	\$58,509	\$234,038	\$429,706
0	1.000	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-1	0.949	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-2	0.901	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$0	\$0	\$26,344	\$26,344	\$350	\$0	\$84,121	\$58,509	\$234,038	\$429,706
Total First Cost			\$276,356	\$58,799	\$85,143	\$55,743	\$1,914	\$29,400	\$84,121	\$58,509	\$234,038	\$884,023

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Year	FY	Monitoring	O&M	Corps PM	Other
0	1.000	2009	\$42,000	\$0	\$1,000
-1	0.949	2010	\$39,858	\$0	\$949
-2	0.901	2011	\$37,825	\$0	\$901
-3	0.855	2012	\$35,895	\$0	\$855
-4	0.811	2013	\$38,120	\$0	\$811
-5	0.770	2014	\$0	\$0	\$0
-6	0.730	2015	\$0	\$0	\$0
-7	0.693	2016	\$0	\$0	\$0
-8	0.658	2017	\$0	\$0	\$0
-9	0.624	2018	\$0	\$0	\$0
-10	0.592	2019	\$0	\$0	\$0
-11	0.562	2020	\$0	\$0	\$0
-12	0.534	2021	\$0	\$0	\$0
-13	0.506	2022	\$0	\$0	\$0
-14	0.480	2023	\$0	\$0	\$0
-15	0.456	2024	\$0	\$0	\$0
-16	0.433	2025	\$0	\$0	\$0
-17	0.411	2026	\$0	\$0	\$0
-18	0.390	2027	\$0	\$0	\$0
-19	0.370	2028	\$0	\$0	\$0
Total		\$193,697	\$0	\$4,515	\$0

**Coastal Wetlands Conservation and Restoration Plan
Wetland Enhancement Via Treated Sewage Effluent Diversions Demo**

Project Priority List 14-Demo

Fully Funded Costs		Total Fully Funded Costs				\$1,111,000				Amortized Costs			\$92,006
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj. Man.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost		
Phase I													
4	1.042	2005	\$71,390	\$15,189	\$15,189	\$7,595	\$404	\$7,595	\$0	\$0	\$0	\$117,362	
3	1.057	2006	\$124,219	\$26,430	\$26,430	\$13,215	\$703	\$13,215	\$0	\$0	\$0	\$204,211	
2	1.075	2007	\$52,638	\$11,200	\$11,200	\$5,600	\$298	\$5,600	\$0	\$0	\$0	\$86,534	
1	1.097	2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$248,247	\$52,818	\$52,818	\$26,409	\$1,405	\$26,409	\$0	\$0	\$0	\$408,107	
Phase II													
1	1.097	2008	\$0	\$0	\$27,416	\$27,416	\$365	\$0	\$87,546	\$60,892	\$243,568	\$447,203	
0	1.119	2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-1	1.141	2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
-2	1.164	2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL			\$0	\$0	\$27,416	\$27,416	\$365	\$0	\$87,546	\$60,892	\$243,568	\$447,203	
Total Cost			\$248,200	\$52,800	\$80,200	\$53,800	\$1,800	\$26,400	\$87,500	\$60,900	\$243,600	\$855,000	

Year	FY	Monitoring	O&M	Corps PM	Other
0	1.1186	2009	\$46,981	\$0	\$1,119
-1	1.1410	2010	\$47,920	\$0	\$1,141
-2	1.1638	2011	\$48,879	\$0	\$1,164
-3	1.1871	2012	\$49,856	\$0	\$1,187
-4	1.2108	2013	\$56,908	\$0	\$1,211
-5	1.2350	2014	\$0	\$0	\$0
-6	1.2597	2015	\$0	\$0	\$0
-7	1.2849	2016	\$0	\$0	\$0
-8	1.3106	2017	\$0	\$0	\$0
-9	1.3368	2018	\$0	\$0	\$0
-10	1.3636	2019	\$0	\$0	\$0
-11	1.3908	2020	\$0	\$0	\$0
-12	1.4186	2021	\$0	\$0	\$0
-13	1.4470	2022	\$0	\$0	\$0
-14	1.4760	2023	\$0	\$0	\$0
-15	1.5055	2024	\$0	\$0	\$0
-16	1.5356	2025	\$0	\$0	\$0
-17	1.5663	2026	\$0	\$0	\$0
-18	1.5976	2027	\$0	\$0	\$0
-19	1.6296	2028	\$0	\$0	\$0
Total			\$250,500	\$0	\$5,800

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E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>222,100</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>277,625</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$235,000
Engineering	\$50,000	
Engineering Surveys	\$20,000	
Attainability Analysis	\$125,000	
Data Collection	\$0	
Cultural Resources	\$10,000	
HTRW	\$0	
NEPA Compliance	\$30,000	
<i>Supervision and Administration</i>		\$50,000

State Costs

<i>Supervision and Administration</i>		\$25,000
<i>Ecological Review Costs</i>		\$0
<i>Easements and Land Rights</i>		\$50,000
<i>Monitoring</i>		\$25,000
Monitoring Plan Development	\$25,000	
Monitoring Protocol Cost *	\$0	

Total Phase I Cost Estimate **\$385,000**

* Monitoring Protocol requires a minimum of one year pre-construction monitoring at a specified cost based on project type and area.

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$277,625
Lands or Oyster Issues	0 lease acres	\$0
<i>Supervision and Inspection</i>	90 days @ 887 per day	\$79,830
<i>Supervision and Administration</i>		\$25,000

State Costs

<i>Supervision and Administration</i>		\$25,000
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Total Phase II Cost Estimate **\$407,455**

TOTAL ESTIMATED PROJECT FIRST COST **792,455**

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O&M Data

Annual Costs

Annual Inspections	\$0
Annual Cost for Operations	\$0
Preventive Maintenance	\$0
Engineering Monitoring @ TY1-5, 10, 15, 19	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 2</u>	<u>Year 4</u>	<u>Year 7</u>	<u>Year 15</u>
Mob & Demob	\$0	\$0	\$0	\$0
Flotation Channel	\$0	\$0	\$0	\$0
Stone	\$0	\$0	\$0	\$0
Signs	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0
Subtotal w/ 25% contin.	\$0	\$0	\$0	\$0

Engineer, Design & Administrative Costs

Engineering and Design Cost	\$0	\$0	\$0	#NUM!
Administrative Cost	\$0	\$0	\$0	\$0
Eng Survey 7 days @ \$1,460 per day	\$0	\$0	\$0	\$0
Construction 0 days @ \$876 per day	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	#NUM!
Federal S&A	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	#NUM!

D-78

Annual Project Costs:

Corps Administration	\$665
Monitoring	\$0

Construction Schedule:

		2005	2006	2007	2008	2009	2010	2011	Total
Plan & Design Start	March-05	7	12	5	0	0	0	0	24
Plan & Design End	March-07								
Const. Start	January-08								
Const. End	June-08	0	0	0	6	0	0	0	6

**Coastal Wetlands Planning, Protection, and
Restoration Act**

14th Priority Project List Report

Appendix E

Wetland Value Assessment for Candidate Projects

Appendix E
Wetland Value Assessment For Candidate Projects
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WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Irish Bayou to Chef Menteur Pass Shoreline Protection and Marsh Creation

The WVA for this project included 1 area. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
Brackish Marsh	53

TOTAL BENEFITS =	53	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: Irish Bayou to Bayou Chevee Shoreline Protection
and Marsh Creation

Project Area: 249

Condition: Future Without Project

Variable		TY 0		TY 1		TY 5	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	56	0.60	53	0.58	41	0.47
V2	% Aquatic	50	0.55	50	0.55	50	0.55
V3	Interspersion	%	0.56	%	0.56	%	0.56
	Class 1	45		45		45	
	Class 2						
	Class 3						
	Class 4	55		55		55	
	Class 5						
V4	%OW <= 1.5ft	42	0.64	42	0.64	25	0.42
V5	Salinity (ppt)	5	1.00	5	1.00	5	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =			0.70	EM HSI =	0.68	EM HSI =	0.61
Open Water HSI =			0.71	OW HSI =	0.71	OW HSI =	0.69

Project: Irish Bayou to Bayou Chevee Shoreline Protection
FWOP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	7	0.16				
V2	% Aquatic	10	0.19				
V3	Interspersion	%	0.20	%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4	100					
	Class 5						
V4	%OW <= 1.5ft	10	0.23				
V5	Salinity (ppt)	5	1.00				
V6	Access Value	1.00	1.00				
EM HSI =			0.33	EM HSI =		EM HSI =	
OW HSI =			0.39	OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: Irish Bayou to Bayou Chevee Shoreline Protection
and Marsh Creation

Project Area: 249

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	56	0.60	56	0.60	69	0.72
V2	% Aquatic	50	0.55	50	0.55	60	0.64
V3	Interspersion	%	0.56	%	0.71	%	0.71
	Class 1	45		64		64	
	Class 2	55		36		36	
	Class 3						
Class 4							
Class 5							
V4	%OW <= 1.5ft	42	0.64	22	0.38	22	0.38
V5	Salinity (ppt)	5	1.00	5	1.00	5	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.70		EM HSI = 0.72		EM HSI = 0.79	
Open Water HSI =		0.71		OW HSI = 0.70		OW HSI = 0.75	

Project: Irish Bayou to Bayou Chevee Shoreline Protection
FWP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	66	0.69				
V2	% Aquatic	60	0.64				
V3	Interspersion	%	0.71	%		%	
	Class 1	64					
	Class 2	36					
	Class 3						
Class 4							
Class 5							
V4	%OW <= 1.5ft	22	0.38				
V5	Salinity (ppt)	5	1.00				
V6	Access Value	1.00	1.00				
EM HSI =		0.78		EM HSI =		EM HSI =	
OW HSI =		0.75		OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Irish Bayou to Bayou Chevee Shoreline Protection and Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	139	0.70	97.45	
1	132	0.68	90.13	93.77
5	102	0.61	61.99	302.75
20	18	0.33	5.87	449.78
			AAHUs =	42.31

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	139	0.70	97.45	
1	140	0.72	100.52	98.98
3	173	0.79	137.53	237.20
20	165	0.78	128.28	2259.02
			AAHUs	129.76

NET CHANGE IN AAHUs DUE TO PROJECT				
A. Future With Project Emergent Marsh AAHUs	=			129.76
B. Future Without Project Emergent Marsh AAHUs	=			42.31
Net Change (FWP - FWOP)	=			87.44

AAHU CALCULATION - OPEN WATER

Project: Irish Bayou to Bayou Chevee Shoreline Protection and Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	110	0.71	77.69	
1	117	0.71	82.64	80.17
5	147	0.69	101.45	368.50
20	231	0.39	90.78	1504.08
			AAHUs =	97.64

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	110	0.71	77.69	
1	75	0.70	52.39	65.00
3	76	0.75	57.02	109.39
20	84	0.75	63.02	1020.33
			AAHUs	59.74

NET CHANGE IN AAHUs DUE TO PROJECT				
A. Future With Project Open Water AAHUs	=			59.74
B. Future Without Project Open Water AAHUs	=			97.64
Net Change (FWP - FWOP)	=			-37.90

TOTAL BENEFITS IN AAHUs DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs	=			87.44
B. Open Water Habitat Net AAHUs	=			-37.90
Net Benefits=(2.6xEMAAHUs+OWAAHUs)/3.6				52.63

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Riverine Sand Mining/Scofield Island Restoration

The WVA for this project included 1 area. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
Barrier Island	229

TOTAL BENEFITS =	229	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL Barrier Island

Project: Riverine Sand Mining/Scofield Island Restoration

Project Area: 746

Condition: Future Without Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Dune	0	0.10	0	0.10	0	0.10
V2	% Supratidal	17	0.87	16	0.82	13	0.69
V3	% Intertidal	83	0.61	84	0.58	87	0.49
V4	Vegetative Cover	75	1.00	75	1.00	70	1.00
V5	% Woody Cover	5	0.55	5	0.55	5	0.55
V6	Interspersion	%	0.56	%	0.56	%	0.56
	Class 1						
	Class 2	20		20		20	
	Class 3	40		40		40	
	Class 4	40		40		40	
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.678		HSI = 0.666		HSI = 0.632	

Project..... Riverine Sand Mining/Scofield Island Restoration

FWOP

Variable		TY 5		TY10		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Dune	0	0.10	0	0.10	0	0.10
V2	% Supratidal	10	0.55	6	0.37	2	0.19
V3	% Intertidal	90	0.40	94	0.28	98	0.16
V4	Vegetative Cover	70	1.00	50	0.79	30	0.51
V5	% Woody Cover	5	0.55	5	0.55	3	0.37
V6	Interspersion	%	0.54	%	0.51	%	0.40
	Class 1						
	Class 2	15		10			
	Class 3	40		35		100	
	Class 4	45		55			
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.595		HSI = 0.503		HSI = 0.368	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project: Riverine Sand Mining/Scotfield Island Restoration

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Dune	0	0.10	21	0.78	20	0.82
V2	% Supratidal	17	0.87	68	0.58	14	0.73
V3	% Intertidal	83	0.61	11	0.10	66	1.00
V4	% Vegetative Cover	75	1.00	5	0.17	26	0.46
V5	% Woody Cover	5	0.55	2	0.28	2	0.28
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 40 40	0.56	% 100	0.60	% 100	1.00
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.678		HSI = 0.460		HSI = 0.757	

Project..... Riverine Sand Mining/Scotfield Island Restoration

FWP

Variable		TY 5		TY 10		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Dune	19	0.86	15	1.00	5	1.00
V2	% Supratidal	14	0.73	15	0.78	16	0.82
V3	% Intertidal	68	1.00	70	1.00	79	0.73
V4	% Vegetative Cover	65	1.00	70	1.00	66	1.00
V5	% Woody Cover	5	0.55	7	0.73	5	0.55
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 80 20	0.96	% 25 50 25	0.80
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.897		HSI = 0.936		HSI = 0.854	

AAHU CALCULATION

Project: Riverine Sand Mining/Scofield Island Restoration

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	675	0.678	457.52	
1	671	0.666	447.15	452.33
3	662.9	0.632	419.09	866.15
5	654.6	0.595	389.49	808.47
10	574.3	0.503	288.82	1689.59
20	438.9	0.368	161.34	2220.24
			AAHUs =	301.84

Future With Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	675	0.678	457.52	
1	745.5	0.460	342.75	402.70
3	714.8	0.757	540.93	886.72
5	707.3	0.897	634.48	1175.76
10	627.8	0.936	587.31	3057.01
20	508.3	0.854	434.04	5090.47
			AAHUs	530.63

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHUs =	530.63
B. Future Without Project AAHUs =	301.84
Net Change (FWP - FWOP) =	228.79

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: South Shore of the Pen Shoreline Protection and Marsh Creation

The WVA for this project included 2 subareas. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
1	28
2	23

TOTAL BENEFITS =	51 AAHUS
-------------------------	-----------------

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: South Shore of the Pen Shoreline Protection and Marsh Creation
Subarea 1

Project Area:
Fresh.....
Intermediate.. 122

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	72	0.75	69	0.72	20	0.28
V2	% Aquatic	80	0.82	74	0.77	42	0.48
V3	Interspersion	%		%		%	
	Class 1		0.48		0.48		0.20
	Class 2	70		70			
	Class 3						
	Class 4	30		30		100	
	Class 5						
V4	%OW <= 1.5ft	10	0.21	10	0.21	20	0.33
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	4		4		4	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI		=	0.78	EM HSI =	0.76	EM HSI =	0.40
Open Water HSI		=	0.80	OW HSI =	0.76	OW HSI =	0.56

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: South Shore of the Pen Shoreline Protection and Marsh Creation
Subarea 1

Project Area:
Fresh.....
Intermediate.... 122

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	72	0.75	45	0.51	94	0.95
V2	% Aquatic	80	0.82	40	0.46	60	0.64
V3	Interspersion	%		%		%	
	Class 1		0.48	100	1.00	100	1.00
	Class 2	70					
	Class 3						
	Class 4	30					
	Class 5						
V4	%OW <= 1.5ft	10	0.21	50	0.66	75	0.94
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	4		4		4	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI		=	0.78	EM HSI =	0.66	EM HSI =	0.96
Open Water HSI		=	0.80	OW HSI =	0.63	OW HSI =	0.77

Project: South Shore of the Pen Shoreline Protection and Marsh Creation
FWP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	81	0.83				
V2	% Aquatic	74	0.77				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 50 50	0.50	%		%	
V4	%OW <= 1.5ft	75	0.94				
V5	Salinity (ppt) fresh intermediate	4	1.00				
V6	Access Value fresh intermediate	1.00	1.00				
		EM HSI =	0.83	EM HSI =		EM HSI =	
		OW HSI =	0.82	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: South Shore of the Pen Shoreline Protection and Marsh Creation
Subarea 1

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	88	0.78	68.21	
1	84	0.76	63.56	65.87
20	24	0.40	9.66	628.32
			AAHUs =	34.71

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	88	0.78	68.21	
1	55	0.66	36.43	51.70
3	115	0.96	110.96	141.34
20	99	0.83	82.36	1637.16
			AAHUs	91.51

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	91.51
B. Future Without Project Emergent Marsh AAHUs =	34.71
Net Change (FWP - FWOP) =	56.80

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: South Shore of the Pen Shoreline Protection and Marsh Creation
Subarea 2

Project Area:
Fresh.....

Condition: Future Without Project

Intermediate.. 71

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	38	0.44	28	0.35
V2	% Aquatic	40	0.46	40	0.46	40	0.46
V3	Interspersion	%		%		%	
	Class 1		0.36		0.36		0.30
	Class 2	40		40		25	
	Class 3						
	Class 4	60		60		75	
	Class 5						
V4	%OW <= 1.5ft	10	0.21	10	0.21	15	0.27
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	4		4		4	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI		=	0.55	EM HSI =	0.55	EM HSI =	0.47
Open Water HSI		=	0.55	OW HSI =	0.55	OW HSI =	0.55

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: South Shore of the Pen Shoreline Protection and Marsh Creation
Subarea 2

Project Area:
Fresh.....

Condition: Future With Project

Intermediate.... 71

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	35	0.42	98	0.98
V2	% Aquatic	40	0.46	0	0.10	60	0.64
V3	Interspersion	%		%		%	
	Class 1		0.36	100	1.00	100	1.00
	Class 2	40					
	Class 3						
	Class 4	60					
	Class 5						
V4	%OW <= 1.5ft	10	0.21	0	0.10	100	0.60
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	4		4		4	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI		=	0.55	EM HSI =	0.60	EM HSI =	0.99

Open Water HSI	=	0.55	OW HSI =	0.29	OW HSI =	0.75
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Project: South Shore of the Pen Shoreline Protection and Marsh Creation
FWP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	85	0.87				
V2	% Aquatic	80	0.82				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.60	%		%	
V4	%OW <= 1.5ft	90	1.00				
V5	Salinity (ppt) fresh intermediate	4	1.00				
V6	Access Value fresh intermediate	1.00	1.00				
		EM HSI =	0.87	EM HSI =		EM HSI =	
		OW HSI =	0.86	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: South Shore of the Pen Shoreline Protection and Marsh Creation
Subarea 2

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	27	0.55	14.72	
1	27	0.55	14.72	14.72
20	20	0.47	9.41	227.49
			AAHUs =	12.11

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	27	0.55	14.72	
1	25	0.60	14.90	14.82
3	69	0.99	68.19	77.34
20	61	0.87	52.89	1026.45
			AAHUs	55.93

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	55.93
B. Future Without Project Emergent Marsh AAHUs =	12.11
Net Change (FWP - FWOP) =	43.82

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Venice Ponds Marsh Creation

The WVA for this project included 2 subareas. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
1	201
2	129

TOTAL BENEFITS =	330	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Venice Ponds Marsh Creation - Sites 1 and 2

Project Area:
Fresh..... 499

Condition: Future Without Project

Intermediate..

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	20	0.28	20	0.28	13	0.22
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100	0.20	% 100	0.20
V4	%OW <= 1.5ft	10	0.21	10	0.21	1	0.11
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V6	Access Value fresh intermediate	0.275	0.49	0.275	0.49	0.275	0.49
Emergent Marsh HSI		=	0.37	EM HSI =	0.37	EM HSI =	0.33
Open Water HSI		=	0.22	OW HSI =	0.22	OW HSI =	0.21

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Venice Ponds Marsh Creation - Sites 1 and 2

Project Area:
Fresh..... 499

Condition: Future With Project

Intermediate....

Variable		TY 0		TY 1		TY 2	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	20	0.28	49	0.54	98	0.98
V2	% Aquatic	0	0.10	0	0.10	40	0.46
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	% 100	1.00	% 100	1.00
V4	%OW <= 1.5ft	10	0.21	100	0.60	100	0.60
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V6	Access Value fresh intermediate	0.275	0.49	0.125	0.39	0.125	0.39
Emergent Marsh HSI		=	0.37	EM HSI =	0.62	EM HSI =	0.88
Open Water HSI		=	0.22	OW HSI =	0.30	OW HSI =	0.54

Project: Venice Ponds Marsh Creation - Sites 1 and 2
FWP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	80	0.82				
V2	% Aquatic	80	0.82				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.60	%		%	
V4	%OW <= 1.5ft	95	0.80				
V5	Salinity (ppt) fresh intermediate	1	1.00				
V6	Access Value fresh intermediate	0.50	0.65				
		EM HSI =	0.79	EM HSI =		EM HSI =	
		OW HSI =	0.78	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Venice Ponds Marsh Creation - Sites 1 and 2

Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	102	0.37	38.01	
1	100	0.37	37.26	37.63
20	65	0.33	21.24	550.71
			AAHUs =	29.42

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	102	0.37	38.01	
1	247	0.62	153.20	89.62
2	488	0.88	427.66	280.14
20	400	0.79	316.53	6675.26
			AAHUs	352.25

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	352.25
B. Future Without Project Emergent Marsh AAHUs =	29.42
Net Change (FWP - FWOP) =	322.83

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Venice Ponds Marsh Creation - Site 3

Project Area:

Fresh..... 419

Condition: Future Without Project

Intermediate..

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	23	0.31	22	0.30	12	0.21
V2	% Aquatic	50	0.55	50	0.55	50	0.55
V3	Interspersion	%		%		%	
	Class 1	20	0.36	20	0.36	10	0.28
	Class 2						
	Class 3						
	Class 4	80		80		90	
	Class 5						
V4	%OW <= 1.5ft	5	0.16	5	0.16	1	0.11
V5	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V6	Access Value						
	fresh	1.000	1.00	1.000	1.00	1.000	1.00
	intermediate						
Emergent Marsh HSI =		0.44		EM HSI =	0.43	EM HSI =	0.35
Open Water HSI =		0.61		OW HSI =	0.61	OW HSI =	0.60

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Venice Ponds Marsh Creation - Site 3

Project Area:

Fresh..... 419

Condition: Future With Project

Intermediate....

Variable		TY 0		TY 1		TY 2	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	23	0.31	61	0.65	97	0.97
V2	% Aquatic	50	0.55	0	0.10	40	0.46
V3	Interspersion	%		%		%	
	Class 1	20	0.36	100	1.00	100	1.00
	Class 2						
	Class 3						
	Class 4	80					
	Class 5						
V4	%OW <= 1.5ft	5	0.16	100	0.60	100	0.60
V5	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V6	Access Value						
	fresh	1.000	1.00	0.420	0.59	0.420	0.59
	intermediate						
Emergent Marsh HSI =		0.44		EM HSI =	0.72	EM HSI =	0.92
Open Water HSI =		0.61		OW HSI =	0.31	OW HSI =	0.57

Project: Venice Ponds Marsh Creation - Site 3
FWP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	74	0.77				
V2	% Aquatic	70	0.73				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 70 10	0.66	%		%	
V4	%OW <= 1.5ft	95	0.80				
V5	Salinity (ppt) fresh intermediate	1	1.00				
V6	Access Value fresh intermediate	1.00	1.00				
		EM HSI =	0.81	EM HSI =		EM HSI =	
		OW HSI =	0.80	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Venice Ponds Marsh Creation - Site 3

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	96	0.44	42.42	
1	93	0.43	40.43	41.42
20	52	0.35	18.32	547.46
			AAHUs =	29.44

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	96	0.44	42.42	
1	254	0.72	182.78	105.28
2	407	0.92	374.13	273.37
20	310	0.81	250.26	5586.95
			AAHUs	298.28

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	298.28
B. Future Without Project Emergent Marsh AAHUs =	29.44
Net Change (FWP - FWOP) =	268.84

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: White Ditch Resurrection and Outfall Management

The WVA for this project included 2 subareas. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
1	63
2	44

TOTAL BENEFITS =	107	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: White Ditch Resurrection and Outfall Management
Area A

Project Area:
Fresh.....

Condition: Future Without Project

Intermediate.. 2,671

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	75	0.78	75	0.78	70	0.73
V2	% Aquatic	50	0.55	50	0.55	50	0.55
V3	Interspersion	%	0.60	%	0.60	%	0.60
	Class 1	34		34		34	
	Class 2	33		33		33	
	Class 3	33		33		33	
	Class 4	33		33		33	
V4	%OW <= 1.5ft	30	0.44	30	0.44	30	0.44
V5	Salinity (ppt)		1.00		1.00		1.00
	fresh						
	intermediate	4		4		4	
V6	Access Value		1.00		1.00		1.00
	fresh						
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI		:	0.81	EM HSI =	0.81	EM HSI =	0.78
Open Water HSI		=	0.65	OW HSI =	0.65	OW HSI =	0.65

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: White Ditch Resurrection and Outfall Management
Area A

Project Area:
Fresh.....

Condition: Future With Project

Intermediate.... 2,671

Variable		TY 0		TY 1		TY 5 <small>switch to fresh marsh</small>	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	75	0.78	75	0.78	75	0.78
V2	% Aquatic	50	0.55	50	0.55	70	0.73
V3	Interspersion	%	0.60	%	0.60	%	0.60
	Class 1	34		34		34	
	Class 2	33		33		33	
	Class 3	33		33		33	
	Class 4	33		33		33	
V4	%OW <= 1.5ft	30	0.44	30	0.44	32	0.46
V5	Salinity (ppt)		1.00		1.00		1.00
	fresh						
	intermediate	4		1		1	
V6	Access Value		1.00		1.00		1.00
	fresh						
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI		:	0.81	EM HSI =	0.81	EM HSI =	0.81
Open Water HSI		=	0.65	OW HSI =	0.65	OW HSI =	0.77

Project: White Ditch Resurrection and Outfall Management
FWP

Variable		TY20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	74	0.77				
V2	% Aquatic	85	0.87				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 34 33 33	0.60	%		%	
V4	%OW <= 1.5ft	40	0.55				
V5	Salinity (ppt) fresh intermediate	1	1.00				
V6	Access Value fresh intermediate	1.00	1.00				
		EM HSI =	0.80	EM HSI =		EM HSI =	
		OW HSI =	0.86	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: White Ditch Resurrection and Outfall Management
Area A

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	2010	0.81	1622.39	
1	2003	0.81	1616.74	1619.56
20	1878	0.78	1458.41	29201.81
			AAHUs =	1541.07

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	2010	0.81	1622.39	
1	2008	0.81	1620.78	1621.58
5	2003	0.81	1616.74	6475.03
20	1983	0.80	1588.51	24039.10
			AAHUs	1606.79

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	1606.79
B. Future Without Project Emergent Marsh AAHUs =	1541.07
Net Change (FWP - FWOP) =	65.72

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: White Ditch Resurrection and Outfall Management
Area B

Project Area:
Fresh.....

Condition: Future Without Project

Intermediate.. 5,553

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	79	0.81	79	0.81	74	0.77
V2	% Aquatic	25	0.33	25	0.33	25	0.33
V3	Interspersion	%		%		%	
	Class 1	20	0.52	20	0.52	20	0.52
	Class 2	15		15		15	
	Class 3	50		50		50	
	Class 4	15		15		15	
V4	%OW <= 1.5ft	55	0.72	55	0.72	55	0.72
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	4		4		4	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI		:	0.82	EM HSI =	0.82	EM HSI =	0.79
Open Water HSI		=	0.50	OW HSI =	0.50	OW HSI =	0.50

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: White Ditch Resurrection and Outfall Management
Area B

Project Area:
Fresh.....

Condition: Future With Project

Intermediate.... 5,553

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	79	0.81	79	0.81	75	0.78
V2	% Aquatic	25	0.33	25	0.33	40	0.46
V3	Interspersion	%		%		%	
	Class 1	20	0.52	20	0.52	20	0.52
	Class 2	15		15		15	
	Class 3	50		50		50	
	Class 4	15		15		15	
V4	%OW <= 1.5ft	55	0.72	55	0.72	55	0.72
V5	Salinity (ppt)						
	fresh		1.00		1.00	2	1.00
	intermediate	4		2			
V6	Access Value						
	fresh		1.00		1.00	1.00	1.00
	intermediate	1.00		1.00			
Emergent Marsh HSI		:	0.82	EM HSI =	0.82	EM HSI =	0.80
Open Water HSI		=	0.50	OW HSI =	0.50	OW HSI =	0.60

AAHU CALCULATION - EMERGENT MARSH

Project: White Ditch Diversion Resurrection and Outfall Management
Area B

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	4385	0.82	3604.82	
1	4371	0.82	3593.31	3599.06
20	4099	0.79	3245.31	64940.77
			AAHUs =	3426.99

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	4385	0.82	3604.82	
1	4375	0.82	3596.60	3600.71
20	4183	0.80	3337.30	65857.30
			AAHUs	3472.90

NET CHANGE IN AAHUs DUE TO PROJECT				
A. Future With Project Emergent Marsh AAHUs	=			3472.90
B. Future Without Project Emergent Marsh AAHUs	=			3426.99
Net Change (FWP - FWOP)	=			45.91

AAHU CALCULATION - OPEN WATER

Project: White Ditch Resurrection and Outfall Management
Area B

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	1168	0.50	584.72	
1	1182	0.50	591.73	588.23
20	1454	0.50	727.90	12536.52
			AAHUs =	656.24

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	1168	0.50	584.72	
1	1178	0.50	589.73	587.23
20	1370	0.60	822.37	13354.33
			AAHUs	697.08

NET CHANGE IN AAHUs DUE TO PROJECT				
A. Future With Project Open Water AAHUs	=			697.08
B. Future Without Project Open Water AAHUs	=			656.24
Net Change (FWP - FWOP)	=			40.84

TOTAL BENEFITS IN AAHUs DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs	=			45.91
B. Open Water Habitat Net AAHUs	=			40.84
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1				44.27

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: East Marsh Island Marsh Creation

The WVA for this project included 1 area. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
Intermediate Marsh	117

TOTAL BENEFITS =	117	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: East Marsh Island Marsh Creation

Project Area:

Fresh.....

Condition: Future Without Project

Intermediate.. 378

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	50	0.55	50	0.55	47	0.52
V2	% Aquatic	10	0.19	50	0.55	50	0.55
V3	Interspersion	%	0.30	%	0.30	%	0.30
	Class 1						
	Class 2						
	Class 3	50		50		50	
	Class 4	50		50		50	
V4	%OW <= 1.5ft	30	0.44	30	0.44	30	0.44
V5	Salinity (ppt)		1.00		1.00		1.00
	fresh						
	intermediate	4		4		4	
V6	Access Value		1.00		1.00		1.00
	fresh						
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI		=	0.62	EM HSI =	0.62	EM HSI =	0.60
Open Water HSI		=	0.35	OW HSI =	0.63	OW HSI =	0.63

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: East Marsh Island Marsh Creation

Project Area:

Fresh.....

Condition: Future With Project

Intermediate.... 378

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	50	0.55	38	0.44	99	0.99
V2	% Aquatic	10	0.19	0	0.10	25	0.33
V3	Interspersion	%	0.30	%	1.00	%	1.00
	Class 1						
	Class 2						
	Class 3	50		100		100	
	Class 4	50					
V4	%OW <= 1.5ft	30	0.44	0	0.10	100	0.60
V5	Salinity (ppt)		1.00		1.00		1.00
	fresh						
	intermediate	4		4		4	
V6	Access Value		1.00		1.00		1.00
	fresh						
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI		=	0.62	EM HSI =	0.62	EM HSI =	0.99
Open Water HSI		=	0.35	OW HSI =	0.29	OW HSI =	0.53

Project: East Marsh Island Marsh Creation
FWP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	97	0.97				
V2	% Aquatic	50	0.55				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	%		%	
V4	%OW <= 1.5ft	100	0.60				
V5	Salinity (ppt) fresh intermediate	4	1.00				
V6	Access Value fresh intermediate	1.00	1.00				
		EM HSI =	0.98	EM HSI =		EM HSI =	
		OW HSI =	0.69	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: East Marsh Island Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	189	0.62	116.62	
1	188	0.62	116.00	116.31
20	178	0.60	106.38	2112.01
			AAHUs =	111.42

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	189	0.62	116.62	
1	142	0.62	87.49	102.05
3	376	0.99	373.81	431.80
20	367	0.98	360.56	6241.83
			AAHUs	338.78

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	338.78
B. Future Without Project Emergent Marsh AAHUs =	111.42
Net Change (FWP - FWOP) =	227.37

**Coastal Wetlands Planning, Protection, and
Restoration Act**

14th Priority Project List Report

Appendix F

Public Support For Candidate Projects

**Public Support for Candidate Projects
for the
14th Priority Project List**

**Projects Receiving Verbal Public Support at November 19-20, 2004 and
February 17, 2005 Public Meetings:**

Irish Bayou to Chef Menteur Pass Shore Protection and Marsh Creation

Yarrow Etheridge, Director of Environmental Affairs, Mayor's Office, City of New Orleans,
verbal support, 18 Nov 04

David Williams, CTE Engineers, Inc., verbal support, 18 Nov 04

Riverine Sand Mining/Scofield Island Restoration

Andrew MacInnis, Plaquemines Parish Coastal Zone Management, verbal support,
18 Nov 04

Richie Blank, student at Buras High School, verbal support, 17 Feb 05

South Shore of The Pen

Marnie Winter, Jefferson Parish, verbal support, 18 Nov 04

Marietta Green, Manager, Madison Land Company, representing Web Milling Properties, verbal
support, 18 Nov 04

Skip Haller, Madison Land Company, verbal support, 17 Feb 05

Venice Ponds Marsh Creation

Nat Phillips, Louisiana Fruit Company, verbal support, 18 Nov 04

Andrew MacInnis, Plaquemines Parish Coastal Zone Management, verbal support,
18 Nov 04

White Ditch Resurrection

Robert Labranno, local citizen/resident near White Ditch, verbal support, 18 Nov 04

Jay Labranno, local citizen/resident near White Ditch, verbal support, 18 Nov 04

John Henkle, representing local landowners in the vicinity of White Ditch, verbal support, 18
Nov 04

Andrew MacInnis, Plaquemines Parish Coastal Zone Management, verbal support,
18 Nov 04

East Marsh Island Marsh Creation

Sherrill Sagera, Vermilion Parish Coastal Advisory Board, verbal support, 17 Nov 04

Judge Edwards, Vermilion Parish Coastal Advisory Board, verbal support, 17 Nov 04

Charles Broussard, Vermilion Parish Coastal Advisory Board, verbal support, 17 Nov 04

Greg Linscombe, LA Department of Wildlife and Fisheries, verbal support, 17 Feb 05

**Coastal Wetlands Planning, Protection, and
Restoration Act**

14th Priority Project List Report

Appendix G

**Project Status Summary Report from 1st through 14th Priority Project Lists
by Lead Agency, by Basin and by Priority List**

Appendix G
Project Status Summary Report from 1st through 14th Priority Project Lists
By Lead Agency, Basin and Priority List
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COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

PROJECT STATUS SUMMARY REPORT

03 August 2005

Summary report on the status of CWPPRA projects prepared for the Louisiana Coastal Wetlands Conservation and Restoration Task Force.

Reports enclosed:

Project Details by Lead Agency

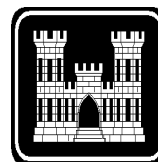
Project Summary by Basin

Project Summary by Priority List

Information based on data furnished by the Federal Lead Agencies and collected by the Corps of Engineers

Prepared by:

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COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	

Lead Agency: DEPT. OF THE ARMY, CORPS OF ENGINEERS

Priority List 1

Barataria Bay Waterway Wetland Creation	BARA	JEFF	445	24-Apr-1995 A	22-Jul-1996 A	15-Oct-1996 A	\$1,759,257	\$1,167,832	66.4	\$1,167,832 \$1,167,832
Status: The enlargement of Queen Bess Island was incorporated into the project and the construction of a 9-acre cell was completed in October 1996, at a cost of \$945,678. Remaining funds may be used to clear marsh creation sites of oyster leases. If oyster-related conflicts are removed from the remaining marsh creation sites, these areas will be incorporated into the Corp's O&M disposal plan for the next three maintenance cycles. The USACE, LADNR, and LDWF are currently pursuing an administrative process to identify and prioritize beneficial use sites along the BBWW. Additional monitoring of the Queen Bess site was discontinued in 2002 on the recommendation of the local sponsor and monitoring team.										
Bayou Labranche Wetland Creation	PONT	STCHA	203	17-Apr-1993 A	06-Jan-1994 A	07-Apr-1994 A	\$4,461,301	\$3,817,929	85.6	\$3,907,890 \$3,835,143
Status: Contract awarded to T. L. James Co. (Dredge "Tom James") for dredging approximately 2,500,000 cy of Lake Pontchartrain sediments and placing in marsh creation area. Contract final inspection was performed on April 7, 1994. Site visit by Task Force took place on April 13, 1994.										
The project is being monitored.										
Lake Salvador Shoreline Protection at Jean Lafitte NHP&P	BARA	JEFF		29-Oct-1996 A	01-Jun-1995 A	21-Mar-1996 A	\$60,000	\$58,753	97.9	\$58,753 \$58,753
Status: This project was added to Priority List 1 at the March 1995 Task Force meeting. The Task Force approved the expenditure of up to \$45,000 in Federal funds and non-Federal funds of \$15,000 (25%) for the design of the project.										
A design review meeting was held with Jean Lafitte Park personnel in May 1996 to resolve design comments prior to advertisement for the construction contract. The contract was awarded December 4, 1996 for \$610,000 to Bertucci Contracting Corp. The contract was completed in March 1997.										
Complete. This project was design only.										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Vermilion River Cutoff Bank Protection	TECHE	VERMI	65	17-Apr-1993 A	10-Jan-1996 A	11-Feb-1996 A	\$1,526,000	\$2,022,987	132.6 !	\$2,008,094 \$1,834,424
	Status:	The project was modified by moving the dike from the west to the east bank of the cutoff to better protect the wetlands. The need for the sediment retention fence on the west bank is still undetermined. The Task Force approved a revised project estimate of \$2,500,000; however, current estimate is less.								
		The Task Force approved a revised project estimate of \$2,500,000; however, current estimate is less.								
		Condemnation of real estate easements was required because of unclear ownership titles and significantly lengthened the project schedule. Construction was completed in February 1996.								
		Complete.								
West Bay Sediment Diversion	DELTA	PLAQ	9,831	29-Aug-2002 A	10-Sep-2003 A	28-Nov-2003 A	\$8,517,066	\$22,792,876	267.6 !	\$8,194,950 \$7,254,277
	Status:	Post-construction aerial photographs and surveys indicate that 186 acres of new marsh were created with the beneficial use of the diversion channel dredged material. LDNR surveyed the area in March 2004 and found ~70% vegetative coverage from natural colonization of the marsh creation site. Flow measurements taken in December 2004 recorded a discharge of 27,000 cfs of Mississippi River water through the diversion channel.								
		Project construction began in September 2003 and construction was completed in November 2003. An advertisement for construction of the project opened 08 July 2003 and bids were opened on 11 August 2003. Chevron-Texaco relocated a major oil pipeline in May 2003 under a reimbursable construction agreement. A real estate plan for the project was completed in October 2002 and execution of the plan will be completed in July 2003. The project Cost Sharing Agreement was signed August 29, 2002. A 95% design review was held May 17, 2002. A Record of Decision finalizing the EIS was signed on March 18, 2002. The Task Force, by fax vote, approved a revised project description and reauthorized the project to comply with CWPPRA Section 3952 in April 2002. At the January 10, 2001 Task Force meeting, approval was granted to proceed with the project at the current price of \$22 million due to the increased costs of maintaining the anchorage area. A VE study on the project was undertaken the week of August 21, 2000.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		1	10,544				\$16,323,624	\$29,860,376	182.9	\$15,337,518 \$14,150,429
5	Project(s)									
5	Cost Sharing Agreements Executed									
5	Construction Started									
5	Construction Completed									
0	Project(s) Deferred/Deauthorized									

Priority List 2

Clear Marais Bank Protection	CA/SB	CALCA	1,067	29-Apr-1996 A	29-Aug-1996 A	03-Mar-1997 A	\$1,741,310	\$3,696,088	212.3 !	\$3,521,899 \$2,898,376
<p>Status: The original construction estimate was low, based on the proposed plan in that the rock quantity estimate was less than half of the quantity needed (based on the original design), and the estimate did not include a floatation channel needed for construction. This accounts for most of the cost increase shown. The current estimate is based on the original rock dike design and costs about \$89/foot.</p> <p>Complete.</p>										
West Belle Pass Headland Restoration	TERRE	LAFOU	474	27-Dec-1996 A	10-Feb-1998 A	30-Sep-2005	\$4,854,102	\$6,752,978	139.1 !	\$5,848,732 \$5,475,342
<p>Status: We received verbal authority from HQ Counsel to acquire oyster leases, for this project only, directly impacted by the construction of the project. Construction cost increase approved at the January 16, 1998 Task Force meeting.</p> <p>Construction complete. Agreement reached between COE, DNR, and T.L. James Co. on the remediation of the marsh buggy tracks. Planting proposal requested from the Plant Material Research Center.</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
	Total Priority List	2	1,541				\$6,595,412	\$10,449,065	158.4	\$9,370,631 \$8,373,718
	2	Project(s)								
	2	Cost Sharing Agreements Executed								
	2	Construction Started								
	1	Construction Completed								
	0	Project(s) Deferred/Deauthorized								

Priority List 3

Channel Armor Gap Crevasse	DELTA	PLAQ	936	13-Jan-1997 A	22-Sep-1997 A	02-Nov-1997 A	\$808,397	\$888,985	110.0	\$866,365 \$682,320
	Status:	Cost increase was due to additional project management costs, by both Federal and Local Sponsor.								
		Surveys identified a pipeline in the crevasse area which would be negatively impacted by the project. US Fish & Wildlife Service reviewed their permit for the pipeline and determined that Shell Pipeline was required to lower it at their own cost. USFWS requested a modification to the alignment on USFWS-owned lands.								
		Construction complete.								
MRGO Disposal Area Marsh Protection	PONT	STBER	755	17-Jan-1997 A	25-Jan-1999 A	29-Jan-1999 A	\$512,198	\$313,145	61.1	\$313,145 \$313,145
	Status:	Completed scope of work greatly reduced. Work was to be performed via a simplified acquisition contract as estimated construction cost is under \$100,000. Bids received were higher than Government estimate by 25%. Subsequently received an in-house labor estimate from Vicksburg District. Vicksburg District completed construction on 29 January 1999.								
		Cost increase was due to additional project management costs, environmental investigations and local sponsor activities not included in the baseline estimate. Further title research indicates that private ownership titles are unclear, requiring condemnation. This accounts for the long period between CSA execution and project construction.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Pass-a-Loutre Crevasse [DEAUTHORIZED]	DELTA	PLAQ					\$2,857,790	\$119,835	4.2	\$119,835 \$119,835
<p>Status: Two pipelines and two power poles are in the area of the crevasse, increasing relocation costs by approximately \$2.15 million. LA DNR asked that the Corps investigate alternative locations to avoid or minimize impacts to the pipelines, but there are no more suitable locations for the cut. The Corps has also reviewed the design to determine whether relocations cost-savings could be achieved. Reducing the bottom width of the crevasse from 430 feet as originally proposed to 200 feet reduced the relocation cost only marginally.</p> <p>A draft memorandum dated December 5, 1997 was sent to the CWPPRA Technical Committee Chairman requesting the Task Force to deauthorize the project. COE requested deauthorization at the January 16, 1998 Task Force meeting. Task Force formally deauthorized project July 23, 1998.</p>										
<hr/>										
Total Priority List		3	1,691				\$4,178,385	\$1,321,965	31.6	\$1,299,346 \$1,115,301

- 3 Project(s)
- 2 Cost Sharing Agreements Executed
- 2 Construction Started
- 2 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 4

Beneficial Use of Hopper Dredge Material Demonstration (DEMO) [DEAUTHORIZED]	DELTA	PLAQ		30-Jun-1997 A			\$300,000	\$58,310	19.4	\$58,310 \$58,310
<p>Status: Current scheme was found to be non-implementable due to inability of the hopper dredge to get close enough to the disposal area to spray over the bank of the Mississippi River.</p> <p>Project deauthorized October 4, 2000.</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Grand Bay Crevasse [DEAUTHORIZED]	BRET	PLAQ					\$2,468,908	\$65,747	2.7	\$65,747 \$65,747
<p>Status: The major landowner has indicated non-support of the project and has withheld ROE because of concern about sedimentation negatively impacting oil and gas interests within the deposition area.</p> <p>A draft memorandum dated December 5, 1997 was sent to the CWPPRA Technical Committee Chairman requesting the Task Force to deauthorize the project. COE requested deauthorization at the January 16, 1998 Task Force meeting. Project deauthorized July 23, 1998.</p>										
Total Priority List		4					\$2,768,908	\$124,057	4.5	\$124,057 \$124,057

- 2 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 2 Project(s) Deferred/Deauthorized

Priority List 5

Bayou Chevee Shoreline Protection	PONT	ORL	75	01-Feb-2001 A	25-Aug-2001 A	17-Dec-2001 A	\$2,555,029	\$2,589,403	101.3	\$2,541,371 \$2,255,809
<p>Status: Approval of model CSA for PPL 5, 6, and 8 projects granted on November 13, 2000. Construction began August 2001 and completed December 2001.</p> <p>Revised project consisted of constructing a 2,870-foot rock dike across the mouth of the north cove and a 2,820-foot rock dike tying into and extending an existing USFWS rock dike, across the south cove. Approximately 75 acres of brackish marsh will be protected by the project.</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
	Total Priority List	5	75				\$2,555,029	\$2,589,403	101.3	\$2,541,371 \$2,255,809
	1	Project(s)								
	1	Cost Sharing Agreements Executed								
	1	Construction Started								
	1	Construction Completed								
	0	Project(s) Deferred/Deauthorized								

Priority List 6

Flexible Dustpan Demo at Head of Passes (DEMO)	DELTA	PLAQ		31-May-2002 A	03-Jun-2002 A	21-Jun-2002 A	\$1,600,000	\$1,911,487	119.5	\$1,906,980 \$1,866,418
	Status:	CSA executed May 31, 2002. Construction completed June 21, 2002.								
		The Dustpan/Cutterhead Marsh Creation Demonstration project as originally approved, no longer involves the use of a cutterhead dredge. At the October 25, 2001 Task Force meeting, it was approved the motion to use the authorized funds for a "flexible dustpan" demonstration project and approved changing the name of the project to "Flexible Dustpan Demo at Head of Passes".								
		The project was completed as an operations and maintenance task order through an ERDC research and development IDC contract. The project identified some minor areas of concern with regard to the dredge plants effectiveness as a maintenance tool. The dredge was effective in its performance for the beneficial placement of material. The final surveys and quantities have not yet been reported.								
Marsh Creation East of the Atchafalaya River- Avoca Island [DEAUTHORIZED]	TERRE	STMRY					\$6,438,400	\$66,869	1.0	\$66,869 \$66,869
	Status:	A draft memorandum dated December 5, 1997 was sent to the Technical Committee Chairman requesting the Task Force to deauthorize the project. COE requested deauthorization at the January 16, 1998 Task Force meeting.								
		Project deauthorized July 23, 1998.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Marsh Island Hydrologic Restoration	TECHE	IBERI	367	01-Feb-2001 A	25-Jul-2001 A	12-Dec-2001 A	\$4,094,900	\$5,143,288	125.6 !	\$4,997,486 \$3,951,683
<p>Status: Approval of model CSA for PPL 5, 6 and 8 projects granted on November 13, 2000. CSA executed on February 1, 2001. Advertised as 100% small business set-aside. Construction began July 2001 and completed December 2001.</p> <p>Revised design of closures from earthen to rock because soil borings indicate highly organic material in borrow area.</p>										
Total Priority List		6	367				\$12,133,300	\$7,121,644	58.7	\$6,971,335 \$5,884,970

- 3 Project(s)
- 2 Cost Sharing Agreements Executed
- 2 Construction Started
- 2 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 8

Sabine Refuge Marsh Creation, Cycle 1	CA/SB	CAMER	214	09-Mar-2001 A	15-Aug-2001 A	26-Feb-2002 A	\$15,724,965	\$3,412,415	21.7	\$3,454,899 \$3,436,486
<p>Status: This project was approved by the Task Force as a part of Priority Project List 8. The project consists of constructing 5 marsh creation sites within the Sabine National Wildlife Refuge using material dredged out of the Calcasieu River Ship Channel. The current estimated project cost to construct all cycles is approximately \$21.4 million.</p> <p>The first cycle was completed on February 26, 2002. The total project cost for dredging cycle 1 was \$3,412,415. The project was advertised for bid as a component of the Calcasieu River and Pass Maintenance Dredging contract on February 16, 2001. Construction initiation was advanced in conjunction with an accelerated maintenance dredging schedule for the Calcasieu River.</p> <p>On January 28, 2004 the CWPPRA Task Force provided additional funding and construction approval for Cycles 2 and 3. Cycle 2 is currently scheduled to be constructed in 2005. Cycle 3 would be constructed in 2006.</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Sabine Refuge Marsh Creation, Cycle 2	CA/SB	CAMER	261	17-Feb-2005 A	01-Jun-2006	01-Jun-2007	\$9,266,842	\$9,266,842	100.0	\$429,810 \$426,224
<p>Status: This project was approved by the Task Force as a part of Priority Project List 8. The project consists of constructing 5 marsh creation sites within the Sabine National Wildlife Refuge using material dredged out of the Calcasieu River Ship Channel. The current estimated project cost to construct all cycles is approximately \$21.4 million.</p> <p>The first cycle was completed on February 26, 2002. The total project cost for dredging cycle 1 was \$3,412,415. The project was advertised for bid as a component of the Calcasieu River and Pass Maintenance Dredging contract on February 16, 2001. Construction initiation was advanced in conjunction with an accelerated maintenance dredging schedule for the Calcasieu River.</p> <p>On January 28, 2004, the CWPPRA Task Force provided additional funding and construction approval for Cycles 2 and 3. Cycle 2 is currently scheduled to be constructed in early 2006.</p>										
Sabine Refuge Marsh Creation, Cycle 3	CA/SB	CAMER	187	28-Mar-2005 A	15-Jan-2008	15-May-2008	\$3,629,333	\$3,629,333	100.0	\$0 \$0
<p>Status: This project was approved by the Task Force as a part of Priority Project List 8. The project consists of constructing 5 marsh creation sites within the Sabine National Wildlife Refuge using material dredged out of the Calcasieu River Ship Channel. The current estimated project cost to construct all cycles is approximately \$21.4 million.</p> <p>The first cycle was completed on February 26, 2002. The total project cost for dredging cycle 1 was \$3,412,415. The project was advertised for bid as a component of the Calcasieu River and Pass Maintenance Dredging contract on February 16, 2001. Construction initiation was advanced in conjunction with an accelerated maintenance dredging schedule for the Calcasieu River.</p> <p>On January 28, 2004, the CWPPRA Task Force provided additional funding and construction approval for Cycles 2 and 3. Cycle 2 is currently scheduled to be constructed in early 2006. Cycle 3 would be constructed in the latter part of 2006.</p>										
Sabine Refuge Marsh Creation, Cycle 4	CA/SB	CAMER								
<p>Status:</p>										
Sabine Refuge Marsh Creation, Cycle 5	CA/SB	CAMER								
<p>Status:</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

Actual
Obligations/
Expenditures

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		8	662				\$28,621,140	\$16,308,590	57.0	\$3,884,709 \$3,862,710
5 Project(s) 3 Cost Sharing Agreements Executed 1 Construction Started 1 Construction Completed 0 Project(s) Deferred/Deauthorized										

Priority List 9

Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock	TECHE	VERMI	241	30-Jan-2006	30-Mar-2006	30-Oct-2006	\$1,498,967	\$1,498,967	100.0	\$1,070,817 \$1,069,128
Status: A site visit was held in January 2001 with the Local Sponsor and landowner. Right of entry for surveys and borings was obtained March 14, 2001, and data collection followed. The USACE team met with LDNR staff after survey data was processed and obtained consensus on cross-sections and depth contours. A 30% design review was held in June 2002. The project was revised to include Area A - shoreline protection work only dropping a hydrologic restoration feature. A 95% design review was completed in January 2004. Phase II authorization will be sought again in January 2006.										
Opportunistic Use of the Bonnet Carre Spillway	PONT	STCHA	177	25-Jan-2006	01-May-2007	01-Nov-2007	\$150,706	\$188,383	125.0 !	\$106,932 \$82,248
Status: A draft operations plan for opportunistic use of the spillway has been developed and is under review. Impacts to the environment, recreation, and economy are being looked at. The team is currently scheduled to ask for construction approval at the January 2006 Task Force meeting. A draft model CSA is in review.										
Lake Pontchartrain Basin Foundation has partnered with the LSU Coastal Ecology Institute in the development of a nutrient budget model for Lake Pontchartrain. The nutrient budget report was approved by EPA on June 28, 2001.										
This project involves no physical construction.										
Periodic Intro of Sediment and Nutrients at Selected Diversion Sites Demo (DEMO)	COAST	VARY		01-Dec-2005	01-Apr-2006	01-Jun-2006	\$1,502,817	\$1,502,817	100.0	\$31,726 \$31,726
Status: Field site investigations have been completed. Development of sediment capacities at alternative sites is being undertaken.										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Weeks Bay MC and SP/Commercial Canal/Freshwater Redirection	TECHE	IBERI	278				\$1,229,337	\$1,229,337	100.0	\$506,362 \$498,846
	Status:	Fully funded Phase 1 cost for this project is \$1,229,337. The project area includes approximately 2,900 acres of fresh to brackish marsh habitat.								
		The project kick-off was in April 2001 with the COE and DNR. Surveys, soils investigations, gage data, and environmental data are presently being gathered for assessment. A hydrologic model is being developed to assist in the understanding of water movement in this part of the basin. Shore protection alternatives are under evaluation.								
Total Priority List		9	696				\$4,381,827	\$4,419,504	100.9	\$1,715,837 \$1,681,948

- 4 Project(s)
- 0 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 10

Benneys Bay Diversion	DELTA	PLAQ	5,706	30-Jan-2006	01-Mar-2006	01-Nov-2007	\$1,076,328	\$1,076,328	100.0	\$796,871 \$788,202
	Status:	This project was approved for Phase I design on PPL9 in January 1999. The project work plan for Phase I was submitted to the P&E Subcommittee in May 2001. Right of Entry to perform surveys and geotechnical borings was received in August 2001. Site surveys were performed in October 2001 and geotechnical borings were collected in June 2002. A 30% design review was completed in September 2002. At the design review meeting agreement was reached to proceed further with the proposed design except for one feature (SREDS - sediment retention enhancement devices) which were removed at the request of the local sponsor. A Final Design Report has been developed and is being reviewed by the LDNR. A revised WVA and design cost estimate are in preparation for review at the CWPRA working groups. The project is scheduled to complete all design work in 2005.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Delta Building Diversion at Myrtle Grove	BARA	JEFF	8,891				\$3,002,114	\$3,002,114	100.0	\$1,939,928 \$1,819,241
	Status:	The proposed NMFS/UNO fisheries modeling effort, and its relationship to required EIS input, has been discussed by the principal agencies involved with this project. The current view within the management team is that additional fisheries data collection and analysis will be required over and above the proposed modeling. At this time, it has been decided to begin assembling an inter-agency EIS team and allow them to outline major data and analytic requirements for the NEPA document. The required NEPA scoping meetings have been held and the scoping document is being compiled. An initial Value Engineering study is scheduled for the week of July 22, 2002.								
		WRDA may fund Phase 2.								
Delta Building Diversion North of Fort St. Philip	BRET	PLAQ	501	01-Oct-2004 *	01-Nov-2006		\$1,155,200	\$1,444,000	125.0	\$783,135 \$801,190
	Status:	30% Design Report resubmitted to DNR with requested changes, Corps requesting to hold Preliminary Design Review Conference for middle of August 2005.								
Total Priority List		10	15,098				\$5,233,642	\$5,522,442	105.5	\$3,519,934 \$3,408,633

- 3 Project(s)
- 0 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 11

Grand Lake Shoreline Protection	MERM	CAMER	540	25-Jan-2006	01-May-2006	01-Dec-2006	\$1,049,029	\$1,311,286	125.0	\$689,633 \$684,906
	Status:	The Kickoff meeting was held April 2002. A draft CSA is under negotiation. A site visit was conducted in June 2002. The Phase 1 work plan was submitted to the P&E subcommittee in July 2002. Surveys and borings of the project area were completed and a preliminary design was performed and subsequently finalized. Successful 30% and 95% design review meetings were held on May 11, 2004 and August 16, 2004, respectively. The EA for the project was prepared for public review and resulted in a signed FONSI. The project was not selected for construction authorization by the Task Force at the October 2004 meeting. The project will be considered again for construction authorization at the next annual funding approval meeting of the Task Force.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		11	540				\$1,049,029	\$1,311,286	125.0	\$689,633 \$684,906
<ul style="list-style-type: none"> 1 Project(s) 0 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized 										

Priority List 12

Avoca Island Diversion and Land Building	TERRE	STMRY	143	30-Jan-2006	15-Jul-2006	15-Jun-2007	\$2,229,876	\$2,229,876	100.0	\$974,128 \$1,046,120
<p>Status: This project was approved for Phase I design on PPL12 in January 2003. A kickoff meeting and site visit were held in March 2003. The project work plan for Phase I was submitted to the P&E Subcommittee in May 2003. Right of Entry to perform surveys and geotechnical borings was requested in June 2003 and extended in August 2004. Site surveys began in December 2003 and were completed in May 2004. Initial geotechnical field work completed in April 2004. An initial cultural resources and environmental assessment is complete and additional assessments are underway. Field data for hydrologic modeling is complete and initial model runs have been conducted. A draft Preliminary Design Report was prepared in late 2004 and the LDNR and USACE are working to complete the report this summer. The project design team is investigating the addition of a marsh creation component to increase project wetland benefits. Additional surveys and soil borings are being collected to refine the proposed designs. A 30% design review is targeted for late summer 2005.</p>										
Lake Borgne and MRGO Shoreline Protection	PONT	STBER	266	30-Jan-2006	30-Mar-2006		\$1,348,345	\$1,348,345	100.0	\$998,804 \$993,772
<p>Status: This project was approved for Phase I design on PPL12 in January 2003. A kickoff meeting and site visit were held in April 2003. The project work plan for Phase I was submitted to the P&E Subcommittee in October 2003. Right of Entry to perform surveys and geotechnical borings was requested in June 2003 and received in August 2003. Surveys and geotechnical borings were collected during fall 2003. A preliminary design report was completed in December 2003. A 30% design review was held in August 2004. A 95% design review was held on March 29, 2005. A request for Phase II construction approval from the Task Force is scheduled for January 2006.</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Mississippi River Sediment Trap	DELTA	PLAQ	1,190	01-Jan-2006	15-Jul-2007	01-Jan-2008	\$1,880,376	\$1,880,376	100.0	\$153,741 \$147,651
	Status:	This complex project was approved for Phase I design activities in August 2002. A kickoff meeting was held in September 2002. The project work plan is under development pending a plan reformulation meeting with the LA Dept. of Natural Resources and Corps of Engineers design teams.								
South White Lake Shoreline Protection	MERM	VERMI	844	24-Mar-2005 A	01-Aug-2005 *	01-May-2006	\$19,673,929	\$15,710,919	79.9	\$724,612 \$720,728
	Status:	Project Construction Contract Solicitation Advertisement scheduled to begin 14 July 2005. Bid opening scheduled for 16 August 2005.								
Total Priority List		12	2,443				\$25,132,526	\$21,169,516	84.2	\$2,851,284 \$2,908,271

- 4 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 13

Shoreline Protection Foundation Improvements Demonstration (DEMO)	COAST	ALL		24-Mar-2005 A	01-Aug-2005 *	01-Feb-2006	\$1,000,000	\$1,055,000	105.5	\$73,391 \$74,040
	Status:	Project Construction Contract Solicitation Advertisement scheduled to begin 14 July 2005. Bid opening scheduled for 16 August 2005.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Spanish Pass Diversion	DELTA	PLAQ	433	31-Jan-2007	01-May-2007	01-Feb-2008	\$1,137,344	\$1,421,680	125.0	\$203,515 \$203,911
	Status: The Task Force gave Phase 1 approval on January 28, 2004. The project delivery team has been assembled. A kickoff meeting and field trip were held on March 29, 2004. The work plan was developed and submitted to the P&E Subcommittee prior to April 30, 2004. The project delivery team has obtained rights of entry to install gages and conduct surveys in the project area. Gages were installed on November 18, 2004 and the survey work is being negotiated. Upon completion of the surveys and prior to scheduling the 30% design review, the project delivery team will finalize the preliminary design. The 30% design review is tentatively scheduled for early summer 2005.									
Total Priority List		13	433				\$2,137,344	\$2,476,680	115.9	\$276,906 \$277,951
2 Project(s) 1 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized										
Total	DEPT. OF THE ARMY, CORPS OF ENGINEERS		34,090				\$111,110,166	\$102,674,528	92.4	\$48,582,561 \$44,728,700
35 Project(s) 18 Cost Sharing Agreements Executed 13 Construction Started 12 Construction Completed 4 Project(s) Deferred/Deauthorized										

Notes:

1. Expenditures based on Corps of Engineers financial data.
2. Date codes: A = Actual date * = Behind schedule
3. Percent codes: != 125% of baseline estimate exceeded

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	

Lead Agency: ENVIRONMENTAL PROTECTION AGENCY, REGION 6

Priority List Conservation Plan

State of Louisiana Wetlands Conservation Plan	COAST	COAST		13-Jun-1995 A	03-Jul-1995 A	21-Nov-1997 A	\$238,871	\$191,807	80.3	\$191,807 \$191,807
	Status:	The date the MIPR was issued to obligate the Federal funds for the development of the plan is used as the construction start date for reporting purposes.								
		Complete.								

Total Priority List	Cons Plan						\$238,871	\$191,807	80.3	\$191,807 \$191,807
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- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 1

Isles Dernieres Restoration East Island	TERRE	TERRE	9	17-Apr-1993 A	16-Jan-1998 A	15-Jun-1999 A	\$6,345,468	\$8,762,416	138.1 !	\$8,751,493 \$8,612,076
	Status:	This phase of the Isles Dernieres restoration project was combined with Isles Dernieres, Phase I (Trinity Island), a priority list 2 project. Additional funds to cover the increased construction cost on lowest bid received were approved at the January 16, 1998 Task Force meeting.								
		Construction start was January 16, 1998. Hydraulic dredging was completed September 1998. Vegetation planting was completed June 1999.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		1	9				\$6,345,468	\$8,762,416	138.1	\$8,751,493 \$8,612,076
<ul style="list-style-type: none"> 1 Project(s) 1 Cost Sharing Agreements Executed 1 Construction Started 1 Construction Completed 0 Project(s) Deferred/Deauthorized 										

Priority List 2

Isles Dernieres Restoration Trinity Island	TERRE	TERRE	109	17-Apr-1993 A	27-Jan-1998 A	15-Jun-1999 A	\$6,907,897	\$10,774,974	156.0 !	\$10,788,861 \$10,759,515
<p>Status: Costs increased due to construction bids significantly greater than projected in plans and specifications. Additional funds to cover the increased project construction/dredging cost were approved at the January 16, 1998 Task Force meeting.</p> <p>The 30' hydraulic dredge, the Tom James, mobilized at East Island on about January 27, 1998. Dredging was completed in September 1998. Vegetation plantings was completed June 1999.</p>										
Total Priority List		2	109				\$6,907,897	\$10,774,974	156.0	\$10,788,861 \$10,759,515
<ul style="list-style-type: none"> 1 Project(s) 1 Cost Sharing Agreements Executed 1 Construction Started 1 Construction Completed 0 Project(s) Deferred/Deauthorized 										

Priority List 3

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Red Mud Demonstration (DEMO) [DEAUTHORIZED]	PONT	STJON		03-Nov-1994 A			\$350,000	\$470,500	134.4 !	\$531,955 \$531,955
	Status:	Facility construction is essentially complete; project was put on hold pending resolution of cell contamination by saltwater before planting occurred and has subsequently been deauthorized. Demonstration cells completed; no vegetation installed.								
		The Task Force approved the deauthorization of the project on August 7, 2001. Escrowed funds will be returned to Kaiser Aluminum and Chemical Corp.								
Whiskey Island Restoration	TERRE	TERRE	1,239	06-Apr-1995 A	13-Feb-1998 A	15-Jun-2000 A	\$4,844,274	\$7,106,586	146.7 !	\$7,154,422 \$7,008,287
	Status:	At the January 16, 1998 meeting, the Task Force approved additional funds to cover the increased construction cost on lowest bid received.								
		Work was initiated on February 13, 1998. Dredging completed July 1998. Initial vegetation with spartina on bay shore, July 1998. Additional vegetation seeding/planting was carried out in spring 2000.								

Total Priority List	3	1,239					\$5,194,274	\$7,577,086	145.9	\$7,686,377 \$7,540,241
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- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 1 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Compost Demonstration (DEMO) [DEAUTHORIZED]	CA/SB	CAMER		22-Jul-1996 A			\$370,594	\$255,391	68.9	\$255,391 \$255,391
	Status:	Plans and specifications have been finalized. All permits and construction approvals have been obtained.								
		The amount of compost vegetation needed has not yet been supplied. A smaller sized demonstration has been designed. Advertisement for construction bids has been made.								
		The Task Force approved deauthorization on January 16, 2002.								
Total Priority List		4					\$370,594	\$255,391	68.9	\$255,391 \$255,391

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 5

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Bayou Lafourche Siphon	TERRE	IBERV		19-Feb-1997	A		\$24,487,337	\$1,500,000	6.1	\$1,500,000 \$1,500,000
<p>Status: Priority List 5 authorized funding in the amount of \$1,000,000 for the FY 96 Phase 1 of this project. Priority List 6 authorized \$8,000,000 for the FY 97 Phase 2 of this project. In FY 98, Priority List 7 authorized \$7,987,000, for a project estimate of \$16,987,000. At the January 20, 1999 Task Force meeting for approval of Priority List 8, \$7,500,000 completed funding for the project, for a total of \$24,487,337. EPA motioned to allow \$16,095,883 from project funds be delayed and put to immediate use on PPL 8. The public has been involved in development of the scope of the evaluation phase. EPA proposes an alternative approach for siphoning and pumping 1,000 cfs year-round (versus the 2,000 cfs siphon only at high river times). Addition of pumps increases the estimated cost. Additional engineering is projected to be completed in 2000.</p> <p>The Cost Sharing Agreement (CSA) was executed February 19, 1997. Preliminary draft report was distributed to Technical Committee members in October 1998. Additional hydrologic work by the U.S. Geological Survey and the COE. Additional geotechnical analysis has been conducted. Review has been conducted of technical reports and estimated costs is in progress.</p> <p>At the October 25, 2001 meeting, the Task Force agreed to proceed with Phase 1 Engineering and Design, and approved an estimate of \$9,700,000, subject to several stipulations. The State of Louisiana will pay 50 percent of the Phase 1 E&D costs of \$9.7 million, as agreed to by the State Wetlands Authority. The allocation of CWPPRA funds for Phase 1 E&D does not commit the Task Force to a specific funding level for project construction. A decision to proceed beyond the 30% design review will be made by the Task Force and the State.</p>										
Total Priority List 5							\$24,487,337	\$1,500,000	6.1	\$1,500,000 \$1,500,000

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 5.1

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Mississippi River Reintroduction into Bayou Lafourche	TERRE	IBERV	988	23-Jul-2003 A			\$9,700,000	\$9,700,000	100.0	\$4,973,561 \$1,580,701
	Status:	The E&D consultant has completed the first draft of the 10% design report. The report should be completed within the next 30 days. The report examines numerous alternatives scenarios which include various water levels, various dredging templates as well as possible alternatives to construct a bypass channel around Donaldsonville.								
Total Priority List		5.1	988				\$9,700,000	\$9,700,000	100.0	\$4,973,561 \$1,580,701

- 0 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 6

Bayou Boeuf Pump Station [DEAUTHORIZED]	TERRE	STMAR					\$150,000	\$3,452	2.3	\$3,452 \$3,452
	Status:	This was a 3-phased project. Priority List 6 authorized funding of \$150,000; Priority List 7 was scheduled to fund \$250,000; and Priority List 8 was scheduled to fund \$100,000. Total project cost was estimated to be \$500,000. By letter dated November 18, 1997, EPA notified the Technical Committee that they and LA DNR agree to deauthorize the project.								
		Deauthorization was approved at the July 23, 1998 Task Force meeting.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		6					\$150,000	\$3,452	2.3	\$3,452

- 1 Project(s)
- 0 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 9

Marsh Creation South of Leeville [DEAUTHORIZED]	BARA	LAFOU		05-Oct-2000 A			\$1,151,484	\$343,551	29.8	\$387,696 \$251,167
	Status:	The project was deauthorized at the February 17, 2005 Task Force meeting.								
New Cut Dune and Marsh Restoration	TERRE	TERRE	102	01-Sep-2000 A	01-Mar-2006		\$7,393,626	\$10,518,139	142.3 !	\$9,145,709 \$901,686
	Status:	Geotechnical investigations have been completed and LDNR is preparing revised plans and specifications.								
Timbalier Island Dune and Marsh Restoration	TERRE	TERRE	273	05-Oct-2000 A	01-Jun-2004 A	30-Jun-2005 *	\$16,234,679	\$20,174,205	124.3	\$17,378,244 \$8,487,256
	Status:	Three rounds of vegetative plantings were conducted as planned in March, April and May 2005 placing nearly 80,000 plants. An additional 30,000 plants are scheduled to be planted the week of 13 June 2005, depending upon weather. A total of eight different species of native vegetation have been planted. Planting is the final component of all authorized project features and all work is expected to be completed by 30 June 2005, the anticipated end of construction. A site visit on May 17, 2005 confirmed the effectiveness of fencing in trapping wind blown sand. The rye grass planted near the completion of dredging also assisted in keeping material in place. The natural forces of wind and wave action are reworking the project material as expected and the project appears to continue to perform well. Although project closeout procedures remain to be completed, early indications are the construction cost came in under the budgeted amount.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
	Total Priority List	9	375				\$24,779,789	\$31,035,895	125.2	\$26,911,648 \$9,640,108
3	Project(s)									
3	Cost Sharing Agreements Executed									
1	Construction Started									
0	Construction Completed									
1	Project(s) Deferred/Deauthorized									

Priority List 10

Lake Borgne Shoreline Protection	PONT	STBER	167	02-Oct-2001 A	01-Jun-2006	01-Dec-2006	\$1,334,360	\$1,667,950	125.0	\$1,822,408 \$722,967
	Status:	Efforts continue to bring plans/specifications to 30% design level. Meeting held on 17 March 2005 to discuss cultural resources issues and an agreement was reached. "End on" construction methods will be used as necessary. 30% Design Review meeting now scheduled for mid-summer 2005 (July). 95% Design Review to follow. Request for Phase II construction funds still anticipated for January 2006.								
Small Freshwater Diversion to the Northwestern Barataria Basin	BARA	STJAM	941	08-Oct-2001 A	01-Feb-2007	01-Feb-2009	\$1,899,834	\$2,362,687	124.4	\$2,065,965 \$477,001
	Status:	Difficulties with land rights combined with recent cypress logging activity require EPA and LDNR to re-evaluate the future of the current benefit area/potential diversion alignments considered to date. The original project proposal included several alternate benefit areas and alternate diversion alignments. All monitoring gages are being removed.								
	Total Priority List	10	1,108				\$3,234,194	\$4,030,637	124.6	\$3,888,373 \$1,199,968

- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Priority List 11										
River Reintroduction into Maurepas Swamp	PONT	STJON	5,438	04-Apr-2002 A	28-Feb-2008	28-Feb-2010	\$5,434,288	\$6,780,307	124.8	\$5,735,194 \$1,868,696
	Status: Unanticipated difficulty in completing the previously discussed hydrodynamic modeling, has resulted in some delays. This is a very complex model, with a very high resolution grid, and high resolution input data, so some difficulty is probably to be expected. Nonetheless, we expect to complete the modeling by the end of August, and begin actual engineering and design at that time. NEPA work continues. Studies are ongoing to estimate any HTRW risk in the project area and to evaluate potential water quality issues. Assistance is being sought to evaluate potential ESA issues.									
Ship Shoal: Whiskey West Flank Restoration	TERRE	TERRE	182	17-Mar-2004 A	01-Mar-2006	01-Oct-2006	\$2,998,960	\$3,742,053	124.8	\$3,296,957 \$1,140,863
	Status: The E&D contractor has submitted a draft 95% E&D report. The report is currently being revised prior to submittal to the other CWPPRA agencies. EPA/DNR expect to conduct the 95% E&D review within the next 45-60 days.									
Total Priority List		11	5,620				\$8,433,248	\$10,522,360	124.8	\$9,032,151 \$3,009,559

- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 12

Bayou Dupont Sediment Delivery System	BARA	PLAQ	400	24-Mar-2004 A	11-Aug-2006	01-Mar-2007	\$2,192,735	\$2,731,479	124.6	\$2,382,964 \$166,460
	Status: No change to report.									

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		12	400				\$2,192,735	\$2,731,479	124.6	\$2,382,964 \$166,460
<ul style="list-style-type: none"> 1 Project(s) 1 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized 										

Priority List 13

Whiskey Island Back Barrier Marsh Creation	TERRE	TERRE	272	29-Sep-2004 A	01-Apr-2006		\$2,293,893	\$2,751,494	119.9	\$2,408,293 \$9,667
<p>Status: The firm T. Baker Smith and Sons was selected to perform the Engineering and Deign on this project. DNR is currently negotiating a scope of services with the firm.</p>										

Total Priority List		13	272				\$2,293,893	\$2,751,494	119.9	\$2,408,293 \$9,667
<ul style="list-style-type: none"> 1 Project(s) 1 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized 										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total	ENVIRONMENTAL PROTECTION AGENCY, REGION 6		10,120				\$94,328,300	\$89,836,991	95.2	\$78,774,370 \$44,468,946

- 17 Project(s)
- 16 Cost Sharing Agreements Executed
- 4 Construction Started
- 3 Construction Completed
- 4 Project(s) Deferred/Deauthorized

Notes:

1. Expenditures based on Corps of Engineers financial data.
2. Date codes: A = Actual date * = Behind schedule
3. Percent codes: ! = 125% of baseline estimate exceeded

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: U.S. Geological Survey (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	

Lead Agency: DEPT. OF THE INTERIOR, FISH & WILDLIFE SERVICE

Priority List 0.1

CRMS - Wetlands	COAST	COAST		08-Jun-2004 A	01-Nov-2004 *	01-Sep-2005	\$66,890,300	\$9,270,226	13.9	\$7,423,492 \$221,290
<p>Status: DNR has secured landrights on 361 of the 612 stations. DNR signed and approved the contract with Coastal Estuary Services, LLC on February 1, 2005. DNR and USGS trained CES on the workflow implementation plan that outlines their responsibilities and DNR/USGS QA/QC responsibilities. The workflow entails preliminary site visits, site construction, site servicing and data management. To date, CES has completed site characterizations on 60 sites and is scheduling construction of stations in July 2005. DNR selected Hydrolab, Inc as the low bid CRMS equipment provider (hydrographic data recorders, rod surface elevation tables and collars, shaft encoders and loggers). Hydrolab will be delivering the first order of equipment by July 15, 2005. A filemaker database has been developed for tracking CRMS budgets, expenditures, deliverables and reports. The CRMS project information is maintained on the LCA website and is used to support information transfer and status of CRMS activities. The status of all CRMS activities was provided in a powerpoint presentation to the CWPPRA Technical Committee representatives on March 15, 2005.</p>										

Total Priority List	0.1						\$66,890,300	\$9,270,226	13.9	\$7,423,492 \$221,290
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- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 0.2

Monitoring Contingency Fund	COAST	COAST		22-Sep-2004 A			\$1,500,000	\$1,500,000	100.0	\$79,387 \$100,462
<p>Status: The CSA between DNR and USGS for this project was finalized on September 22, 2004. No contingency requests under this CSA to date.</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: U.S. Geological Survey (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	

Total Priority List	0.2						\$1,500,000	\$1,500,000	100.0	\$79,387 \$100,462
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- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 1

Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	PONT	ORL	1,550	17-Apr-1993 A	01-Jun-1995 A	30-May-1996 A	\$1,657,708	\$1,630,193	98.3	\$1,593,049 \$1,167,337
	Status:	FWS and LDNR are presently developing a project Operation and Maintenance Plan.								
Cameron Creole Plugs	CA/SB	CAMER	865	17-Apr-1993 A	01-Oct-1996 A	28-Jan-1997 A	\$660,460	\$991,295	150.1 !	\$936,754 \$730,914
	Status:	The Fish and Wildlife Service and the LA Dept.of Natural Resources are finalizing a draft Operation and Maintenance Plan. The LDNR will be responsible for project maintenance.								
Cameron Prairie National Wildlife Refuge Shoreline Protection	MERM	CAMER	247	17-Apr-1993 A	19-May-1994 A	09-Aug-1994 A	\$1,177,668	\$1,227,123	104.2	\$1,191,434 \$1,017,434
	Status:	The Fish and Wildlife Service and the LA Dept.of Natural Resources are finalizing a draft Operation and Maintenance Plan. The LDNR will be responsible for project maintenance								
Sabine National Wildlife Refuge Erosion Protection	CA/SB	CAMER	5,542	17-Apr-1993 A	24-Oct-1994 A	01-Mar-1995 A	\$4,895,780	\$1,602,656	32.7	\$1,550,278 \$1,292,749
	Status:	The Fish and Wildlife Service and the LA Dept.of Natural Resources are finalizing a draft Operation and Maintenance Plan. The LDNR will be responsible for project maintenance								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		1	8,204				\$8,391,616	\$5,451,267	65.0	\$5,271,515 \$4,208,433
<ul style="list-style-type: none"> 4 Project(s) 4 Cost Sharing Agreements Executed 4 Construction Started 4 Construction Completed 0 Project(s) Deferred/Deauthorized 										

Priority List 2

Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	PONT	ORL	1,280	30-Jun-1994 A	15-Apr-1996 A	28-May-1997 A	\$1,452,035	\$1,642,552	113.1	\$1,552,881 \$1,249,728
Status: FWS and LDNR are presently developing a project Operation and Maintenance Plan.										
Total Priority List		2	1,280				\$1,452,035	\$1,642,552	113.1	\$1,552,881 \$1,249,728
<ul style="list-style-type: none"> 1 Project(s) 1 Cost Sharing Agreements Executed 1 Construction Started 1 Construction Completed 0 Project(s) Deferred/Deauthorized 										

Priority List 3

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Sabine Refuge Structure Replacement (Hog Island)	CA/SB	CAMER	953	26-Oct-1996 A	01-Nov-1999 A	10-Sep-2003 A	\$4,581,454	\$4,528,915	98.9	\$4,360,971 \$3,315,034

Status:

Sabine Refuge Structure Replacement Project

Status July 2005

Construction began the week of November 1, 1999, and was originally projected to be completed by June 2001. The project was dedicated in December 2000. The structures were installed and semi-operational by the following dates: Headquarters Canal structure - February 9, 2000; Hog Island Gully structure - August 2000; and the West Cove structure - June 2001.

Initial structure electrical problems were caused because the 3-Phase electrical service to the structures was not the proper 3-Phase; the structure motors and logic controllers required three hot electrical wire connections. Transformers and filters were added to the structures in December 2001, but operation was not totally satisfactory. On March 12, 2002, the Rotorque logic controller representative corrected problems (motors running in reverse) with the Hog Island Gully Structure. Department of Agriculture, NRCS engineers in June 2002 determined that the structures continued to operate incorrectly in the automatic mode. The logic controllers were causing motor malfunctions even with filters and transformers in place because those controllers were able to determine that motor power was not the correct "3-Phase."

A contracted electrical engineering consulting firm recommended installation of "rotary phase converters" at each structure to solve the 3-phase electrical problem. The converters provide "3-phase" output with balanced voltage. The better voltage balance of the rotary phase converters, installed in September 2003, eliminated motor reversal and other problems for an estimated cost of \$20,000 to install them at both the Hog Island Gully and West Cove structure sites.

Continued Problems at the Hog Island Gully Structure during 2004

All structures, except for one bay of the Hog Island Gully structure, were fully operational until late October 2004. But since that time, both the Hog Island Gully and the West Cove structures have been having operation problems. DNR is currently contracting for maintenance at those structures. An Operation and Maintenance meeting was held on November 15, 2004, among the USFWS, NRCS and DNR to discuss the above maintenance problems and their solutions and to transfer all but minor maintenance responsibilities to DNR.

Current Structure Operations

The West Cove and Hog Island Gully structure operations are in restrictive mode at this time (May 2005) with only one 3.5 ft wide gate opened on each structure.

Hog Island Gully Structure Operation April 22, 2005 - Operation is in restrictive mode because salinities that trigger inflow restrictions were exceeded (BN - 2 ppt target exceeded; 5R - 5 ppt target exceeded). Only gate 3 (3.5 ft wide) was open for ingress and egress. Gate 1 was open 42% but with flapgate, Gate 2 open but with flapgate, Gates 4 and 5 were closed, and Gate 6 was 84 to 91% opened but

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Grand Bayou Hydrologic Restoration	TERRE	LAFOU	199	28-May-2004 A	01-Mar-2008	01-Dec-2008	\$5,135,468	\$8,209,722	159.9 !	\$1,826,078 \$959,929
<p>Status: NRCS has completed the recommended topographic and bathymetric survey work. Collection of continuous water level and salinity data has begun. That data will be collected for at least 6 months and will be used to verify and calibrate the hydrologic model. A contract for modeling is presently being executed by NRCS.</p>										
Total Priority List		5	199				\$5,135,468	\$8,209,722	159.9	\$1,826,078 \$959,929

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 6

North Lake Boudreaux Basin Freshwater Introduction & Hydrologic Mgmt	TERRE	TERRE	603	22-Oct-1998 A	01-May-2008	01-May-2009	\$9,831,306	\$10,519,383	107.0	\$1,595,806 \$881,907
<p>Status: T. Baker Smith, Inc. has obtained new property appraisals and has prepared info to facilitate decision-making regarding what kind of rights would be obtained and for what project features. Once DNR makes those decisions, meetings to obtain formal landrights with property owners will be scheduled.</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Nutria Harvest for Wetland Restoration (DEMO)	COAST	COAST		27-Oct-1998 A	20-Sep-1998 A	30-Oct-2003 A	\$2,140,000	\$804,683	37.6	\$1,225,658 \$804,683
	Status:	Nutria Harvest Demonstration Project								
		Status July 2005								
		From April through June 2003 the following activities were completed: Promotional Events: 1) Chef Parola demonstrated nutria meat preparation and organized judging for the U. S. Army Corps of Engineers annual "Earth Day Celebration" in New Orleans, 2) LDWF assisted Chef Kevin Diez by providing nutria meat for the Baton Rouge Family Fun Fair, and 3) LDWF provided nutria sausage to the Opelousas Chamber of Commerce for a national cycling event.								
		LDWF contracted with Firefly Digital to upgrade the Nutria Website "www.nutria.com" to be completed in September 2003. The upgrade will provide easier site navigational access and more accurate and rapid user information.								
		This project was completed in October 2003. The project sponsors have completed project close-out activities.								
Total Priority List		6	603				\$11,971,306	\$11,324,066	94.6	\$2,821,463 \$1,686,591

- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Freshwater Introduction South of Highway 82	MERM	CAMER	296	12-Sep-2000 A	15-Jul-2005 *	01-Nov-2005	\$6,051,325	\$5,082,769	84.0	\$552,481 \$457,846

Status:

Highway 82 Freshwater Introduction

Status July 2005

The project was approved for Phase I engineering and design on January 11, 2000. An initial implementation meeting was held in April 2000; field trips were held in May and June 2000. The FWS/DNR Cost Share Agreement was signed on September 12, 2000. Elevational surveys of marsh levels and existing water monitoring stations and control points were completed by Lonnie Harper and Associates on October 26, 2000.

A hydrologic study of the project area entitled, "Analysis of Water Level Data from Rockefeller Refuge and the Grand and White Lakes Basin" was submitted by Erick Swenson (LSU Coastal Ecology Institute) in October 2001. That report concluded that a "precipitation-induced" water level gradient (0.6 feet or greater 50% of the time) existed between marshes north of Highway 82 and the target marshes in the Rockefeller Refuge south of that highway. That gradient was 1.5 feet or greater 30% of the time. Marsh levels varied from 1.0 to 1.2 feet NAVD88 north and to 1.0 to 1.4 feet NAVD88 south of Highway 82. The project hydrology has been modeled by Fenstermaker and Associates as described below.

Hydrodynamic Modeling Study

Fenstermaker and Associates began a hydrodynamic modeling study of the project on January 28, 2002. A model set-up interagency meeting was held May 24, 2002. The one-dimensional "Mike 11" model was used for the analysis. Model calibration and verification were completed November 21, 2002, and December 12, 2002 respectively. A draft modeling report was presented in April 2003, and a final report was presented in September 2003.

Model Results

The model indicated that the project, with a number of original features removed or reduced, would significantly flow freshwater south of Hwy 82 to reduce salinities in the project area. The model results suggested the following modifications to the conceptual project; 1) removal of the Boundary Line borrow canal plug, 2) removal of the northeastern north-south canal, 3) removal of 2 of the recommended four 3-48 inch-diameter-culverted structures along the boundary canal, 4) relocate the new Dyson structure to the north, and 5) removal of the Big Constance structure modification feature. The incorporation of these recommendations would significantly reduce project costs.

30% Design Review Meeting

A favorable 30% Design Review meeting was held on May 14, 2003 with USFWS concurrence to proceed to final design. On July 10, 2003 the LA Department of Natural Resources gave concurrence to proceed with project construction.

NEPA Review

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
<p>The Corps and LA Dept of Natural Resources permit and consistency applications were submitted on January 30, 2004. DNR's initial and modified Consistency Determinations were received on March 11, 2004, and June 3, 2004 respectively. The modified Corps permit applications were submitted May 27, 2004. The Corps public notices were issued on June 18, 2004. LA Dept. of Transportation letters of no objection were received on October 2, 2003, February 2, 2004, and April 19, 2004. The Corps Section 404 permits were received on March 10 and March 18, 2005. The draft Environmental Assessment was submitted for agency review on September 10, 2004, and the Final Environmental Assessment and Finding of No Significant Impact was distributed on April 12, 2005.</p> <p>Phase II Construction Items</p> <p>A successful 95% Design Review Meeting was held on August 11, 2004. The NRCS Overgrazing Determination was received December 1, 2003. The Corps Section 303(e) Determination received from the Corps on May 6, 2004. Landrights were certified by the LA DNR as completed on May 10, 2004.</p> <p>Phase II construction funding approval was received at the October 2004 Task Force meeting.</p> <p>Construction bids were received by June 21, 2005. Construction is anticipated to begin by July 15, 2005.</p>										
Mandalay Bank Protection Demonstration (DEMO)	TERRE	TERRE		06-Dec-2000 A	25-Apr-2003 A	01-Sep-2003 A	\$1,194,495	\$1,767,214	147.9 !	\$1,489,546 \$1,264,095
	Status:	Construction was completed 9/1/2003.								
Total Priority List			9	296			\$7,245,820	\$6,849,983	94.5	\$2,042,027 \$1,721,941

- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 10

Delta Management at Fort St. Philip	BRET	PLAQ	267	16-May-2001 A	01-Aug-2005 *	01-Nov-2005	\$3,183,940	\$2,054,850	64.5	\$1,639,878 \$252,668
	Status:	The project should be advertised for bids within the next 2 to 3 months. Expected to begin construction in Fall/Winter 2005.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
East Sabine Lake Hydrologic Restoration	CA/SB	CAMER	393	17-Jul-2001 A	09-Mar-2005 A	01-Jul-2008	\$6,490,751	\$5,495,698	84.7	\$5,228,332 \$1,568,593

Status:

East Sabine Lake Hydrologic Restoration Project

Status June 2005

Phase I funding was approved by the Task Force on January 10, 2001, and Phase II construction funding for Construction Unit 1 was approved by the Task Force in November 2003. A joint FWS, DNR and the NRCS cost-share agreement was completed on July 17, 2001.

Hydrodynamic Modeling Study

FTN was contracted for hydrodynamic modeling services. Phase I hydrodynamic modeling consists of reconnaissance, gathering of existing data, model selection and model geometry establishment. Phase II model calibration and without-project scenario model runs were completed. The "East Sabine Lake Hydrologic Restoration Hydrodynamic Modeling Study Phase II: Calibration and Verification Report" was completed October 5, 2004. The "Historical Data Review Modeling Phase III Data and Final Report" and the "Phase III Determination of Boundary Conditions for Evaluating Project Alternatives" were also completed in October 2004.

Phase II with-project model runs are currently being conducted. The first run will include fixed crest weirs with boat bays (10 feet wide by 4 feet deep) at Willow, Three, Greens and Right Prong Black Bayous.

Surveys and Data Recorders

A survey of monument control points was contracted by DNR in December 2001. Nine data recorders were deployed for a 16-month period (February 2002 to June 2003) for modeling data collecting purposes. DNR and FTN installed or contracted 9 continuous water level and salinity recorders in September 2001 and spring of 2002. Benchmark and cross sectional surveys were completed in March 2002; marsh elevation surveys were completed by May 2002. NRCS completed cross sectional surveys by July 2002.

The project will be completed as two construction units. Construction Unit 1 includes construction of 171,000 linear feet of earthen terraces in the Greens Lake area, 3,000 feet of Sabine Lake shoreline stabilization near Willow Bayou, and minor hydrologic structures; Construction Unit 2 will include construction of four larger hydrologic restoration structures are currently being modeled. Those structures could be located at Willow, Three, Greens and Right Prong Black Bayous. Landrights work was initiated in February 2002 and is completed. Most of project is located on the Federal Sabine National Wildlife Refuge.

Construction Unit 1 Construction

The existing Sabine NWR "duck-wing" terrace design was determined favorable for use as a CU 1 terrace component by the project management team. Favorable Construction Unit 1 interagency 30% Design Review and 95% Design Review Conferences were held March 25, 2003, and July 8, 2003, respectively. Corps permits and LA Department of Natural Resources Coastal Zone Consistencies have been received. The Draft and Final Environmental Assessment and Finding of No Significant Impact (FONSI) are completed as well as

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	

other Phase II construction requirements. The Task Force approved construction in November 2003. The contract for CU 1 was awarded in December 2004 and the Notice to Proceed was issued in March 2005.

A 7,500 linear feet test of smooth cordgrass plantings located along the Sabine Lake shoreline conducted by the State Soil and Water Conservation District and the NRCS proved unsuccessful, thus the project sponsors removed the 11 miles (58,100 linear feet) of shoreline plantings as a project feature and added earthen terraces with the vegetation funding.

Construction Unit 1 construction began on March 9, 2005, with construction completion for that phase projected for September 2005.

Construction Unit 2 components are currently being modeled under the Engineering and Design phase.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Grand-White Lakes Landbridge Restoration	MERM	CAMER	213	24-Jul-2001 A	10-Jul-2003 A	01-Oct-2004 A	\$9,635,224	\$5,804,073	60.2	\$5,387,579 \$3,521,061
	Status:									
	Grand-White Lakes Land Bridge Restoration									
	Status July 2005									
	Phase 1 engineering and design funding was approved by the Task Force on January 10, 2001. The LDNR/ USFWS Cost Share Agreement was executed on July 24, 2001. LDNR certified landrights completion on December 12, 2001.									
	Project sponsors received Phase II construction funding approval from the CWPPRA Task Force on August 7, 2002. All of the CWPPRA and NEPA project construction requirements have been completed; 1.) the NRCS Overgrazing Determination (August 30, 2002), 2) LA state Coastal Zone Consistency Determination (September 19, 2002), 3) the LA Department of Environmental Quality Water Quality Certification (October 28, 2002), 4) the Environmental Assessment (November 19, 2002), 5) the Corps' CWPPRA Section 303(e) Determination (December 2002), and 6) the Corps' Section 404 Permit (December 2002). A favorable 95% Design Review Conference was held September 12, 2002.									
	The project construction contract for Construction Unit 1 (Grand Lake rock shoreline stabilization) was awarded in June 2003, the Notice to Proceed was issued on July 10, 2003, and construction for that phase was completed in October 2003. Construction Unit 2 (Collicon Lake Terraces) construction began in early July 2004 and was completed in October 2004. The project ground breaking was held August 15, 2003.									
	Operation and maintenance post construction field trips in February and April 2005 indicated that Construction Unit 1 - the Grand Lake shoreline rock dike and marsh creation is performing well. The rock has not subsided and a small strip of wetland was created between the rock and the shoreline with spoil from access channel dredging. Construction Unit 2 terraces have experienced post construction erosion. The Collicon Lake lake-ward terrace tops have eroded approximately 66% since project construction. Most of the lake-ward planted giant cutgrass vegetation has eroded and a cut bank remains. Most of the inner shoreward terraces are holding up well with giant cutgrass vegetation growing and expanding. Nutria herbivory of the planted vegetation on the northern and northwestern Collicon Lake terraces has been observed.									
North Lake Mechant Landbridge Restoration	TERRE	TERRE	604	16-May-2001 A	01-Apr-2003 A	01-Feb-2007	\$31,727,917	\$29,009,012	91.4	\$1,226,979 \$722,945
	Status: A successful 95% design meeting was held on August 12, 2004. Phase II construction funds will be requested at the October 2004 Task Force meeting.									

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Terrebonne Bay Shore Protection Demonstration (DEMO)	COAST	TERRE		24-Jul-2001 A	01-Mar-2005 *	01-May-2005 *	\$2,006,373	\$2,503,768	124.8	\$1,989,893
	Status:	Preliminary responses from affected oyster lease holders appear to be positive. A re-evaluaiton of the site conditions will be performed after all oyster leases are cleared.								\$253,447
Total Priority List			10	1,477			\$53,044,205	\$44,867,401	84.6	\$15,472,661
										\$6,318,715

- 5 Project(s)
- 5 Cost Sharing Agreements Executed
- 3 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 11

Dedicated Dredging on the Barataria Basin Landbridge	BARA	JEFF	605	03-Apr-2002 A	01-Jun-2006	01-Jan-2007	\$2,294,410	\$1,994,410	86.9	\$375,151
Status:	Status is unchanged. The FWS intends to request Phase 2 funding approval at the January 25, 2006 Task Force meeting.									\$348,840

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
South Grand Chenier Hydrologic Restoration	MERM	CAMER	440	03-Apr-2002 A	01-Jun-2007	01-Mar-2008	\$2,358,420	\$2,358,420	100.0	\$1,066,786 \$223,979

Status:

South Grand Chenier Hydrologic Restoration Project

Status July 2005

The project was approved by the Task Force in January 2002. An implementation meeting and field trip was held on March 13, 2002 attended by agencies (USFWS, LDNR, LDWF, and NRCS), landowner representatives, and consulting engineers.

Hydrodynamic Modeling

A hydrodynamic modeling meeting was held on May 6, 2002, a hydrodynamic modeling and surveying contract was awarded to Fenstermaker and Associates on June 14, 2002; and a modeling work plan was submitted in July 2002. Elevation surveys and the installation of continuous water level and salinity recorders were completed and installed by August 2002. Preliminary and final model "Set Up" meetings were held on June 11, 2003, and August 6, 2003 respectively. Model calibration was completed by September 5, 2004 and validation was completed by September 30, 2003. Model run presentation was made on May 11, 2004.

The model results indicated that the project would be successful in introducing freshwater across Highway 82, in the vicinity of Grand Chenier, to assist marshes south of that highway in the Hog Bayou Watershed in reducing saltwater intrusion due to the Mermentau Ship Channel. The draft and final draft model reports entitled, "Hydrodynamic Modeling of the ME-29 South Grand Chenier Hydrologic Restoration Project" was completed in July 2004 and April 2005 respectively.

Landrights

Landrights meetings were held between project sponsors and the major landowners on October 17, 2002, in New Orleans, and all landowners on January 16, 2003, at Rockefeller Refuge. A second round of landowner modeling meetings showing the modeling results may begin by September 2005.

The project 30% Design Review meeting may be held in the spring of 2006 with the 95% Design Review meeting tentatively scheduled for the summer of 2006. Construction could begin in the summer of 2007 if Task Force approval is received in January 2007.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
West Lake Boudreaux Shoreline Protection and Marsh Creation	TERRE	TERRE	145	03-Apr-2002 A	01-Jul-2006	01-Dec-2007	\$1,322,354	\$1,322,354	100.0	\$891,955 \$503,037
	Status:	#65279;The geotechnical investigation conducted by the geotechnical consultanting firm Burns, Cooley, and Dennis is complete. The survey work is being contracted out to DNR and should be completed in July. In August we (NRCS, DNR, and FWS) will be conducting a meeting to discuss the issues concerning oyster leases, geotech report, survey and design issues. At that time we will be setting a date for the 30% design meeting that should take place in early 2005. Landrights are more than 3/4 complete, well ahead of schedule. Preliminary designs for the 30% design meeting are also nearly complete.								

Total Priority List	11		1,190				\$5,975,184	\$5,675,184	95.0	\$2,333,892 \$1,075,855
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- 3 Project(s)
- 3 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 13

Goose Point/Point Platte Marsh Creation	PONT	STTAM	436	14-May-2004 A	01-Mar-2007	01-Nov-2008	\$1,930,596	\$1,730,596	89.6	\$31,370 \$15,717
	Status:	Surveys of the borrow and fill sites have been completed. A geotechnical investigation will be conducted later in 2005. The project is on schedule for a Phase 2 request at the January 2007 Task Force meeting.								

Total Priority List	13		436				\$1,930,596	\$1,730,596	89.6	\$31,370 \$15,717
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- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total	DEPT. OF THE INTERIOR, FISH & WILDLIFE SERVICE		14,638				\$168,117,984	\$101,049,912	60.1	\$43,215,737 \$20,873,695

- 22 Project(s)
- 22 Cost Sharing Agreements Executed
- 11 Construction Started
- 9 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Notes:

1. Expenditures based on Corps of Engineers financial data.
2. Date codes: A = Actual date * = Behind schedule
3. Percent codes: ! = 125% of baseline estimate exceeded

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	

Lead Agency: DEPT. OF COMMERCE, NATIONAL MARINE FISHERIES SERVICE

Priority List 1

Fourchon Hydrologic Restoration [DEAUTHORIZED]	TERRE	LAFOU					\$252,036	\$7,703	3.1	\$7,703 \$7,703
	Status:	In a meeting on October 7, 1993, Port Fourchon conveyed to NMFS personnel that any additional work in the project area could be conducted by the Port and they did not wish to see the project pursued because they question its benefits and are concerned that undesired Government / general public involvement would result after implementation.								
		Deauthorized.								
Lower Bayou LaCache Hydrologic Restoration [DEAUTHORIZED]	TERRE	TERRE		17-Apr-1993 A			\$1,694,739	\$99,625	5.9	\$99,625 \$99,625
	Status:	In a public hearing on September 22, 1993, with landowners in the project area, users strenuously objected to the proposed closure of the two east-west connections between Bayou Petit Caillou and Bayou Terrebonne. NMFS received a letter from LA DNR, dated February 6, 1995, recommending deauthorization of the project. NMFS forwarded the letter to COE for Task Force approval.								
		Deauthorized.								
Total Priority List 1							\$1,946,775	\$107,328	5.5	\$107,328 \$107,328

- 2 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 2 Project(s) Deferred/Deauthorized

Priority List 2

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Atchafalaya Sediment Delivery	ATCH	STMRY	2,232	01-Aug-1994 A	25-Jan-1998 A	21-Mar-1998 A	\$907,810	\$2,532,147	278.9 !	\$2,483,398 \$2,052,658
	Status:	Project cost increase was approved by the Task Force at the January 16, 1998 meeting. Construction project complete. First costs accounting underway.								
Big Island Mining	ATCH	STMRY	1,560	01-Aug-1994 A	25-Jan-1998 A	08-Oct-1998 A	\$4,136,057	\$7,077,404	171.1 !	\$7,042,613 \$6,636,774
	Status:	Project cost increase was approved by the Task Force at the January 16, 1998 meeting. Construction project complete. First costs accounting underway.								
Point Au Fer Canal Plugs	TERRE	TERRE	375	01-Jan-1994 A	01-Oct-1995 A	08-May-1997 A	\$1,069,589	\$3,235,208	302.5 !	\$3,026,687 \$2,631,496
	Status:	Construction for the project will be accomplished in two phases. Phase I construction on the wooden plugs in the oil and gas canals in Area 1 was completed December 22, 1995. Phase II construction in Area 2 has been delayed until suitable materials can be found to backfill the canal fronting the Gulf of Mexico. Phase II construction completed in May 1997. Task Force approved project design change and project cost increase at December 18, 1996 meeting. Phase III was authorized and a cooperative agreement awarded on August 27, 1999. Phase III was completed in spring 2000. Closing out cooperative agreement between NOAA and LADNR.								
Total Priority List			2				\$6,113,456	\$12,844,759	210.1	\$12,552,698 \$11,320,928

- 3 Project(s)
- 3 Cost Sharing Agreements Executed
- 3 Construction Started
- 3 Construction Completed
- 0 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Bayou Perot/Bayou Rigolettes Marsh Restoration [DEAUTHORIZED]	BARA	JEFF		03-Mar-1995 A			\$1,835,047	\$20,963	1.1	\$20,963
	Status:	A feasibility study conducted by LA DNR indicated that possible wetlands benefits from construction of this project are questionable. LA DNR has indicated a willingness to deauthorize the project. In April 1996, LA DNR had asked to reconsider the project with potential of combining this with two other projects in the watershed. Project deauthorized at January 16, 1998 Task Force meeting.								
		Deauthorized.								
East Timbalier Island Sediment Restoration, Phase 1	TERRE	LAFOU	1,913	01-Feb-1995 A	01-May-1999 A	01-May-2001 A	\$2,046,971	\$3,729,587	182.2 !	\$3,748,326 \$3,669,244
	Status:	Construction completed in December 1999. Aerial seeding of the dune platform was achieved in spring 2000, and the installation of sand fencing was completed September 30, 2000. Vegetative dune plantings were completed May 1, 2001.								
Lake Chapeau Sediment Input and Hydrologic Restoration	TERRE	TERRE	509	01-Mar-1995 A	14-Sep-1998 A	18-May-1999 A	\$4,149,182	\$5,379,987	129.7 !	\$5,390,600 \$4,624,253
	Status:	Construction complete. Vegetative plantings were installed in spring 2000.								
		Closing out cooperative agreement between NOAA and LADNR.								
Lake Salvador Shore Protection Demonstration (DEMO)	BARA	STCHA		01-Mar-1995 A	02-Jul-1997 A	30-Jun-1998 A	\$1,444,628	\$2,810,353	194.5 !	\$2,915,868 \$2,660,846
	Status:	Phase 1 was completed September 1997. Phase 2 is shoreline protection between Bayou desAllemnands and Lake Salvador. Construction began in April 1998 and completed in June 1998. Final first costs have been finalized.								
		Closed out cooperative agreement between NOAA and LADNR. First costs accounting undersay.								
		Project has served its demonstration purpose and is being removed by DNR with O&M funds, summer of 2002.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		3	2,422				\$9,475,828	\$11,940,889	126.0	\$12,075,757 \$10,975,306
<ul style="list-style-type: none"> 4 Project(s) 4 Cost Sharing Agreements Executed 3 Construction Started 3 Construction Completed 1 Project(s) Deferred/Deauthorized 										

Priority List 4

East Timbalier Island Sediment Restoration, Phase 2	TERRE	LAFOU	215	08-Jun-1995 A	01-May-1999 A	15-Jan-2000 A	\$5,752,404	\$7,600,863	132.1 !	\$7,694,537 \$7,602,713
<p>Status: NOAA and DNR is currently closing out the cooperative agreements for East Tinbalier Island Phase 1 and 2. Considering the damage invoked on the island as a result of Hurricane Lily and Tropical Storm Isadore, future construction will be reassessed pursuant to engineering feasibility and the Phase 2 prioritization process.</p>										
Eden Isles East Marsh Restoration [DEAUTHORIZED]	PONT	STTAM					\$5,018,968	\$39,025	0.8	\$39,025 \$39,025
<p>Status: NMFS letter of September 8, 1997 requested the CWPPRA Task Force to move forward with deauthorization of this project. Bids were placed twice to acquire the land; both times they were rejected due to higher bids by private developers. Project deauthorized at January 16, 1998 Task Force meeting.</p> <p>Deauthorized.</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		4	215				\$10,771,372	\$7,639,888	70.9	\$7,733,562 \$7,641,738

- 2 Project(s)
- 1 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 5

Little Vermilion Bay Sediment Trapping	TECHE	VERMI	441	22-May-1997 A	10-May-1999 A	20-Aug-1999 A	\$940,065	\$886,030	94.3	\$861,921 \$629,973
Status: Construction completed in August 1999. Cooperative agreement being closed out. First costs accounting underway.										
Myrtle Grove Siphon	BARA	PLAQ	1,119	20-Mar-1997 A			\$15,525,950	\$489,103	3.2	\$490,872 \$490,872
Status: The 5th Priority List authorized funding in the amount of \$4,500,000 for the FY 96 Phase 1 of this project. Priority List 6 authorized funding in the amount of \$6,000,000 for FY 97. Priority List 8 is authorized to fund the remaining \$5,000,000. Total project cost is estimated to be \$15,525,950.										
NOAA and LADNR are closing out the cooperative agreement and returning remaining project funds to the CWPPRA program. Project will remain active as authorized.										

Total Priority List		5	1,560				\$16,466,015	\$1,375,133	8.4	\$1,352,793 \$1,120,845
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- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures	
				CSA	Const Start	Const End	Baseline	Current	%		
Priority List 6											
Black Bayou Hydrologic Restoration	CA/SB	CAMER	3,594	28-May-1998 A	01-Jul-2001 A	03-Nov-2003 A	\$6,316,800	\$5,972,613	94.6	\$5,904,878 \$4,679,386	
	Status: O&M event under development to replace an existing 30" culvert and add a second 30" culvert in the oilfield road along the southern project boundary. In addition, this O&M event will include the installation of flaps (facing outward) on each side wall of the Self Regulating Tide Gate. Bids were taken and the winning contractor is expected begin construction in July.										
Delta Wide Crevasses	DELTA	PLAQ	2,386	28-May-1998 A	21-Jun-1999 A	31-Dec-2014	\$5,473,934	\$4,752,653	86.8	\$4,413,611 \$1,455,704	
	Status: 3-05 Construction on Phase 2 (of three phases) completed. Final Inspection conducted 3/17/2005.										
Sediment Trapping at "The Jaws"	TECHE	STMAR	1,999	28-May-1998 A	14-Jul-2004 A	19-May-2005 A	\$3,167,400	\$3,392,135	107.1	\$3,120,511 \$999,707	
	Status: Construction of earthen terraces was completed on December 4, 2004, with final acceptance on December 7, 2004. Rye grass seeding was done on terraces on December 15, 2004 by the planting contractor. Vegetative plantings will begin in mid-to-late April 2005. It is anticipated to take approximately 14 working days to complete.										
Total Priority List			6	7,979				\$14,958,134	\$14,117,401	94.4	\$13,439,000 \$7,134,797

- 3 Project(s)
- 3 Cost Sharing Agreements Executed
- 3 Construction Started
- 2 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 7

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Grand Terre Vegetative Plantings	BARA	JEFF	127	23-Dec-1998 A	01-May-2001 A	01-Jul-2001 A	\$928,895	\$493,753	53.2	\$496,760 \$320,207
	Status:	Planting of 3,100 units each of bitter panicum, gulf cordgrass, and marshhay cordgrass on beach nourishment/dune area, and installation of approximately 35,000 smooth cordgrass and 800 black mangrove was completed in June 2001. Monitoring is underway. Project area is being evaluated for additional plantings in 2003/2004.								
Pecan Island Terracing	MERM	VERMI	442	01-Apr-1999 A	15-Dec-2002 A	10-Sep-2003 A	\$2,185,900	\$2,391,953	109.4	\$2,369,531 \$2,122,125
	Status:	Terrace construction was completed August 26, 2003, with plantings completed September 10, 2003.								
Total Priority List		7	569				\$3,114,795	\$2,885,706	92.6	\$2,866,291 \$2,442,331

- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 2 Construction Started
- 2 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 8

Bayou Bienvenue Pump Station Diversion and Terracing [DEAUTHORIZED]	PONT	STBER		01-Jun-2000 A			\$3,295,574	\$212,142	6.4	\$212,153 \$212,153
	Status:	Cooperative Agreement awarded in June 1, 2000. Preliminary design analyses indicate that terrace construction significantly more costly than originally estimated due to poor geo-technical condition. The project is estimated to cost between \$17 and \$20 million to build.								

At the January 16, 2002 Task Force meeting, DNR and NOAA/NMFS requested initiation of the deauthorization procedure. Deauthorization was approved by the Task Force at the April 16, 2002 meeting.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Hopedale Hydrologic Restoration	PONT	STBER	134	11-Jan-2000 A	10-Jan-2004 A	15-Jan-2005 A	\$2,179,491	\$1,803,052	82.7	\$2,177,510 \$1,161,404
<p>Status: Cooperative Agreement was awarded January 11, 2000. Engineering and design is complete, with design surveys, geo-technical investigations and hydrologic modeling complete. Landrights for the major project feature are complete. NEPA compliance and regulatory requirements are complete. A construction contract was awarded in November 2003, and construction was initiated in March 2004. Construction was completed in January 2005, and the project is currently being operated by St. Bernard Parish under a cooperative agreement with the Louisiana Department of Natural Resources.</p>										

Total Priority List			8	134			\$5,475,065	\$2,015,194	36.8	\$2,389,663 \$1,373,557
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- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 9

Castille Pass Channel Sediment Delivery	ATCH	STMRY	589	29-Sep-2000 A	01-Apr-2006	01-Aug-2006	\$1,484,633	\$1,855,792	125.0 !	\$1,658,084 \$1,339,461
<p>Status: Project re-designed 95% submittal is currently under review. Anticipate Phase II funding request in January.</p>										
Chandeleur Islands Marsh Restoration	PONT	STBER	220	10-Sep-2000 A	01-Jun-2001 A	31-Jul-2001 A	\$1,435,066	\$937,977	65.4	\$864,191 \$722,128
<p>Status: Cooperative Agreement was awarded September 10, 2000. Vegetative planting is scheduled for spring, 2001, and are phased over two years.</p> <p>Pilot planting project completed in June, 2000. First phase of vegetative plantings completed July 2001 with installation of approximately 80,000 smooth cordgrass plants along 6.6 miles of overwash fan perimeters. Project area is being evaluated for additional plantings in 2003.</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
East/West Grand Terre Islands Restoration	BARA	JEFF	403	21-Sep-2000 A	01-Apr-2006	01-Oct-2006	\$1,856,203	\$2,312,023	124.6	\$2,302,178 \$1,918,268
	Status:	Cooperative Agreement was awarded September 21, 2000. Preliminary geotechnical investigations of potential sand sources is complete. Additional detailed geotechnical investigations are required to accurately identify and delineate sand sources. Data acquisition for modeling complete, and preliminary modeling results for design alternatives is complete; additional modeling required to complete project performance assessments. Landrights in progress. Preliminary assessment of oyster resources is complete. Preliminary design review was delayed due to the need for additional geotechnical information and project performance projections. Preliminary design review is anticipated in April 2005. Final design, environmental documentation and revised WVA will be completed during Summer 2005. Phase 2 request is anticipated in January, 2006								
Four Mile Canal Terracing and Sediment Trapping	TECHE	VERMI	167	25-Sep-2000 A	10-Jun-2003 A	23-May-2004 A	\$5,086,511	\$3,445,513	67.7	\$3,171,524 \$1,812,135
	Status:	Construction for this project was completed on May 23, 2004. Post-construction monitoring is underway.								
LaBranche Wetlands Terracing, Planting, and Shoreline Protection	PONT	STCHA	489	21-Sep-2000 A			\$821,752	\$306,836	37.3	\$321,948 \$306,836
	Status:	Cooperative Agreement was awarded September 21, 2000. Engineering and design complete. Construction is scheduled for 2002. Task Force approved Phase 2 funding at January 10, 2001 meeting. In a letter dated September 7, 2001, NMFS returned Phase 2 funding because of waning landowner support. Deauthorization is not requested at this time.								
Total Priority List			9	1,868			\$10,684,165	\$8,858,141	82.9	\$8,317,924 \$6,098,828

- 5 Project(s)
- 5 Cost Sharing Agreements Executed
- 2 Construction Started
- 2 Construction Completed
- 0 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Rockefeller Refuge Gulf Shoreline Stabilization	MERM	CAMER	920	27-Sep-2001 A	01-Apr-2006	01-Aug-2006	\$1,929,888	\$2,408,478	124.8	\$2,137,562 \$788,020
	Status:	The 95% Design has been received and is currently under review for the 4 test sections. It is anticipated that a Phase II funding request will be made in January.								
Total Priority List		10	920				\$1,929,888	\$2,408,478	124.8	\$2,137,562 \$788,020

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 11

Barataria Barrier Island: Pelican Island and Pass La Mer to Chaland Pass	BARA	PLAQ	534	06-Aug-2002 A	01-Jun-2005 *	01-Dec-2005	\$61,995,587	\$66,493,080	107.3	\$57,267,683 \$3,045,162
	Status:	Oyster lease acquisition for Chaland Headland was completed in February 2005. Pending re-evaluation of project feasibility and anticipated construction costs, a construction contract will be re-advertised for Chaland Headland in April 2005.								
		Advertisement of a construction contract for Pelican Island is pending oyster acquisition as well as limited geotechnical investigations and a minor permit modification.								
Little Lake Shoreline Protection/Dedicated Dredging near Round Lake	BARA	LAFOU	713	06-Aug-2002 A	31-Jul-2005 *	31-Jul-2006	\$35,994,929	\$33,991,031	94.4	\$28,839,477 \$485,184
	Status:	7/14/2005 - Bids received and low bid awarded. Pre construction meeting tentatively scheduled for mid July, 2005								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration	BARA	PLAQ	161	06-Aug-2002 A	01-Apr-2006	01-Oct-2006	\$1,880,700	\$2,344,387	124.7	\$2,159,407 \$1,125,559
<p>Status: A Cooperative Agreement was awarded July 25, 2002. Engineering and design contract has been issued, and kickoff meeting and site visit were conducted in February 2003. Pre-design surveys, geotechnical and other data collection were complete in fall 2003. The Preliminary design review was held in September 2004. The project has undergone a change in scope due to the need to add beach and dune restoration in order to prevent breaching of the shoreline. Final design will proceed pending the Task Force's approval of the change in project scope. Phase 2 request is anticipated in January 2006.</p> <p>Critical Phase 1 issues include identification of sand sources, landrights (numerous undivided heirships and potential reclamation issues) and oysters.</p>										
Total Priority List		11	1,408				\$99,871,216	\$102,828,498	103.0	\$88,266,567 \$4,655,905

- 3 Project(s)
- 3 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 14

Riverine Sand Mining/Scofield Island Restoration	BARA	PLAQ	234				\$3,221,887	\$3,221,887	100.0	\$2,738,605 \$0
<p>Status:</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
	Total Priority List	14	234				\$3,221,887	\$3,221,887	100.0	\$2,738,605 \$0
	1	Project(s)								
	0	Cost Sharing Agreements Executed								
	0	Construction Started								
	0	Construction Completed								
	0	Project(s) Deferred/Deauthorized								
Total	DEPT. OF COMMERCE, NATIONAL MARINE FISHERIES SERVICE		21,476				\$184,028,596	\$170,243,303	92.5	\$153,977,751 \$53,659,584
	30	Project(s)								
	27	Cost Sharing Agreements Executed								
	16	Construction Started								
	15	Construction Completed								
	5	Project(s) Deferred/Deauthorized								

Notes:

1. Expenditures based on Corps of Engineers financial data.
2. Date codes: A = Actual date * = Behind schedule
3. Percent codes: != 125% of baseline estimate exceeded

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	

Lead Agency: DEPT. OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE

Priority List 1

GIWW to Clovelly Hydrologic Restoration	BARA	LAFOU	175	17-Apr-1993 A	21-Apr-1997 A	31-Oct-2000 A	\$8,141,512	\$8,916,131	109.5	\$8,648,864 \$7,019,996
	Status:	The project was divided into two contracts in order to expedite implementation. The first contract to install most of the weir structures, began May 1, 1997 and completed November 30, 1997, at a cost of \$646,691. The second contract to install bank protection, one weir and one plug, began January 1, 2000 and completed October 31, 2000, at a cost of \$3,400,000. All project construction is complete. O&M Plan signed September 16, 2002.								
Vegetative Plantings - Dewitt-Rollover Planting Demonstration(DEMO) [DEAUTHORIZED]	MERM	VERMI		17-Apr-1993 A	11-Jul-1994 A	26-Aug-1994 A	\$191,003	\$92,012	48.2	\$92,012 \$92,012
	Status:	Sub-project of the Vegetative Plantings project. Complete and deauthorized.								
Vegetative Plantings - Falgout Canal Planting Demonstration(DEMO)	TERRE	TERRE		17-Apr-1993 A	30-Aug-1996 A	30-Dec-1996 A	\$144,561	\$209,284	144.8 !	\$222,332 \$203,777
	Status:	Sub-project of the Vegetative Plantings project. Wave-stilling devices are in place. Vegetative plantings are in place. Complete.								
Vegetative Plantings - Timbalier Island Planting Demonstration (DEMO)	TERRE	TERRE		17-Apr-1993 A	15-Mar-1995 A	30-Jul-1996 A	\$372,589	\$306,745	82.3	\$329,922 \$309,632
	Status:	Sub-project of the Vegetative Plantings project. Complete.								
Vegetative Plantings - West Hackberry Planting Demonstration (DEMO)	CA/SB	CAMER		17-Apr-1993 A	15-Apr-1993 A	30-Mar-1994 A	\$213,947	\$258,805	121.0	\$271,486 \$252,592
	Status:	Sub-project of the Vegetative Plantings project. Complete.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		1	175				\$9,063,612	\$9,782,976	107.9	\$9,564,616 \$7,878,009
5 Project(s)										
5 Cost Sharing Agreements Executed										
5 Construction Started										
5 Construction Completed										
1 Project(s) Deferred/Deauthorized										
Priority List 2										
Boston Canal/Vermilion Bay Shore Protection	TECHE	VERMI	378	24-Mar-1994 A	13-Sep-1994 A	30-Nov-1995 A	\$1,008,634	\$1,012,649	100.4	\$996,987 \$840,164
	Status:	Complete.								
Brown Lake Hydrologic Restoration	CA/SB	CAMER	282	28-Mar-1994 A	01-Feb-2007	01-Jan-2008	\$3,222,800	\$3,201,890	99.4	\$1,557,176 \$754,297
	Status:	1/18/05 Permit transfer is still being addressed.								
Caernarvon Diversion Outfall Management	BRET	PLAQ	802	13-Oct-1994 A	01-Jun-2001 A	19-Jun-2002 A	\$2,522,199	\$4,536,000	179.8 !	\$4,274,502 \$2,975,951
	Status:	This project was proposed for deauthorization in December 1996, but was referred for revisions at the request of the landowners and DNR. The project was modified. The final plan/EA has been prepared. Bids were opened 23 February 2001. The low bid exceeded the funds available. Task Force approved additional funds. Construction complete June 19, 2002.								
East Mud Lake Marsh Management	CA/SB	CAMER	1,520	24-Mar-1994 A	01-Oct-1995 A	15-Jun-1996 A	\$2,903,635	\$4,095,936	141.1 !	\$3,404,111 \$2,624,069
	Status:	Bid opening was August 8, 1995 and contract awarded to Crain Bros. Construction started in early October 1995. Water control structures are installed and the vegetation installed in the summer of 1996. Construction complete. O&M plan executed. Maintenance needs on a water control structure is being evaluated.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Freshwater Bayou Wetland Protection	MERM	VERMI	1,593	17-Aug-1994 A	29-Aug-1994 A	15-Aug-1998 A	\$2,770,093	\$3,455,303	124.7	\$3,381,445 \$2,622,403
<p>Status: The project was expedited in order to allow the use of stone removed from the Wax Lake Outlet Weir at a substantial cost savings. Construction is included as an option in the Corps of Engineers contract for the Wax Lake Outlet Weir removal. Option was exercised on September 2, 1994.</p> <p>Project construction is complete. Maintenance contract underway to repair rock dike.</p>										
Fritchie Marsh Restoration	PONT	STTAM	1,040	21-Feb-1995 A	01-Nov-2000 A	01-Mar-2001 A	\$3,048,389	\$2,201,674	72.2	\$2,112,406 \$1,469,054
<p>Status: O&M plan executed January 29, 2003.</p>										
Highway 384 Hydrologic Restoration	CA/SB	CAMER	150	13-Oct-1994 A	01-Oct-1999 A	07-Jan-2000 A	\$700,717	\$1,058,554	151.1 !	\$1,043,395 \$739,427
<p>Status: Construction start slipped from November 1997 to July 1999 because of landright issues. All landright agreements signed. Construction complete January 7, 2000.</p> <p>O&M plan executed. Maintenance contract complete. Minor damage from Hurricane Lili to be repaired. Contract in preparation.</p>										
Jonathan Davis Wetland Restoration	BARA	JEFF	510	05-Jan-1995 A	22-Jun-1998 A	01-Sep-2006	\$3,398,867	\$28,886,616	849.9 !	\$23,984,508 \$7,372,650
<p>Status: Construction Unit #4 is scheduled for construction from October 2005 to September 2006.</p>										
Total Priority List			2				\$19,575,334	\$48,448,623	247.5	\$40,754,531 \$19,398,016

- 8 Project(s)
- 8 Cost Sharing Agreements Executed
- 7 Construction Started
- 6 Construction Completed
- 0 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Brady Canal Hydrologic Restoration	TERRE	TERRE	297	15-May-1998 A	01-May-1999 A	22-May-2000 A	\$4,717,928	\$5,279,558	111.9	\$5,245,755 \$4,206,066
	Status:	Project delayed because of landowner concerns about permit conditions regarding monitoring, and objection from a pipeline company in the area. In addition, CSA revisions were needed to accommodate the landowner's interest in providing non-Federal funding. Permitting and design conditions have resulted in the CSA being modified to also include Fina Oil Co. and LL&E. Both will help cost share the project. The revised CSA is complete.								
		Construction project is complete. O&M plan signed July 16, 2002.								
Cameron-Creole Maintenance	CA/SB	CAMER	2,602	09-Jan-1997 A	30-Sep-1997 A		\$3,719,926	\$3,736,718	100.5	\$4,056,874 \$908,702
	Status:	The first three contracts for maintenance work are complete. The project provides for maintenance on an as-needed basis.								
Cote Blanche Hydrologic Restoration	TECHE	STMRY	2,223	01-Jul-1996 A	25-Mar-1998 A	15-Dec-1998 A	\$5,173,062	\$6,029,987	116.6	\$5,926,265 \$5,423,382
	Status:	Construction start date slipped from November 1997 to March 1998 because of concern about the source of shell to construct the project. Site inspection for bidder was held January 12, 1998. Concern for a source of shell may require budget modifications. Contract awarded February 1998; notice to proceed March 1998. Construction was completed December 1998.								
		O&M plan executed. Maintenance contract complete.								
Southwest Shore White Lake Demonstratoin (DEMO) [DEAUTHORIZED]	MERM	VERMI		11-Jan-1995 A	30-Apr-1996 A	31-Jul-1996 A	\$126,062	\$103,468	82.1	\$104,064 \$103,468
	Status:	Complete. Project deauthorized.								
Violet Freshwater Distribution [DEAUTHORIZED]	PONT	STBER		13-Oct-1994 A			\$1,821,438	\$128,627	7.1	\$128,627 \$128,627
	Status:	Rights-of-way to gain access to the site was a problem due to multiple landowner coordination, and additional questions have arisen about rights to operate existing siphon.								
		Project deauthorized, October 4, 2000.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
West Pointe a la Hache Outfall Management	BARA	PLAQ	1,087	05-Jan-1995	A		\$881,148	\$4,068,045	461.7 !	\$516,431 \$438,638
	Status:	The project team is re-evaluating the features of this project based on the modeling results. A decision regarding this project's future is pending the results of the re-evaluation.								
White's Ditch Outfall Management [DEAUTHORIZED]	BRET	PLAQ		13-Oct-1994	A		\$756,134	\$32,862	4.3	\$32,862 \$32,862
	Status:	LA DNR concurred with NRCS to deauthorize the project. Project deauthorized at the January 16, 1998 Task Force meeting. Deauthorized.								
Total Priority List			3	6,209			\$17,195,698	\$19,379,265	112.7	\$16,010,877 \$11,241,745

- 7 Project(s)
- 7 Cost Sharing Agreements Executed
- 4 Construction Started
- 3 Construction Completed
- 3 Project(s) Deferred/Deauthorized

Priority List 4

Barataria Bay Waterway West Side Shoreline Protection	BARA	JEFF	232	23-Jun-1997	A	01-Jun-2000	A	01-Nov-2000	A	\$2,192,418	\$3,013,365	137.4 !	\$2,934,073 \$2,347,778
	Status:	The project is being coordinated with the COE dredging program. Contract advertised December 1999. Construction complete. Dedication ceremony held October 20, 2000. O&M plan signed July 15, 2002.											
Bayou L'Ours Ridge Hydrologic Restoration [DEAUTHORIZED]	BARA	LAFOU		23-Jun-1997	A		\$2,418,676	\$371,232	15.3	\$372,108 \$371,232			
	Status:	The initial step of deauthorization was taken at the January Task Force meeting. The process will be finalized at the April Task Force meeting.											

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Flotant Marsh Fencing Demonstration (DEMO) [DEAUTHORIZED]	TERRE	TERRE		16-Jul-1999 A			\$367,066	\$106,960	29.1	\$106,960 \$106,960
	Status:	Difficulty in locating an appropriate site for demonstration and difficulty in addressing engineering constraints. Project deauthorized, October 4, 2000.								
Perry Ridge Shore Protection	CA/SB	CALCA	1,203	23-Jun-1997 A	15-Dec-1998 A	15-Feb-1999 A	\$2,223,518	\$2,289,090	102.9	\$2,221,480 \$1,817,889
	Status:	Project complete.								
Plowed Terraces Demonstration (DEMO)	CA/SB	CAMER		22-Oct-1998 A	30-Apr-1999 A	31-Aug-2000 A	\$299,690	\$325,641	108.7	\$327,064 \$314,811
	Status:	Project initially put on hold pending results of an earlier terraces demonstration project being paid for by the Gulf of Mexico program. The first attempt to plow the terraces in the summer of 1999 was not successful. A second contract was advertised in January 2000 to try again. Construction is complete.								
Total Priority List			4				\$7,501,368	\$6,106,289	81.4	\$5,961,685 \$4,958,670

- 5 Project(s)
- 5 Cost Sharing Agreements Executed
- 3 Construction Started
- 3 Construction Completed
- 2 Project(s) Deferred/Deauthorized

Priority List 5

Freshwater Bayou Bank Stabilization	MERM	VERMI	511	01-Jul-1997 A	15-Feb-1998 A	15-Jun-1998 A	\$3,998,919	\$2,543,313	63.6	\$2,515,058 \$2,004,178
	Status:	The local cost share is being paid by Acadian Gas Company. Contract was awarded January 14, 1998. Construction is complete.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Naomi Outfall Management	BARA	JEFF	633	12-May-1999 A	01-Jun-2002 A	15-Jul-2002 A	\$1,686,865	\$2,181,427	129.3 !	\$2,145,598 \$1,320,923
	Status: This project was combined with the BBWW "Dupre Cut" East project for planning and design; construction will be separate.									
	The operation of the siphon is being reviewed by DNR. Hydraulic analysis is complete; results concurred in by both agencies. Construction contract advertised in March 2002. Construction began June 2002 and completed in July 2002.									
	O&M plan in draft.									
Raccoon Island Breakwaters Demonstration (DEMO)	TERRE	TERRE		03-Sep-1996 A	21-Apr-1997 A	31-Jul-1997 A	\$1,497,538	\$1,795,388	119.9	\$1,793,573 \$1,744,471
	Status: Complete.									
Sweet Lake/Willow Lake Hydrologic Restoration	CA/SB	CAMER	247	23-Jun-1997 A	01-Nov-1999 A	02-Oct-2002 A	\$4,800,000	\$4,242,995	88.4	\$4,132,207 \$3,320,884
	Status: The rock bank protection feature of the project is complete.									
	The second contract has been awarded; terrace construction and vegetative planting will be finished by October 1, 2002. Contractor was unable to complete the construction. Contract terminated; remaining work was advertised December 2001. Contract awarded, and construction completed October 2, 2002.									
Total Priority List			5				\$11,983,322	\$10,763,123	89.8	\$10,586,437 \$8,390,456

- 4 Project(s)
- 4 Cost Sharing Agreements Executed
- 4 Construction Started
- 4 Construction Completed
- 0 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Barataria Bay Waterway East Side Shoreline Protection	BARA	JEFF	217	12-May-1999 A	01-Dec-2000 A	31-May-2001 A	\$5,019,900	\$5,224,477	104.1	\$5,108,491 \$4,032,025
	Status:	This project was combined with the Naomi Outfall Management project for planning and design; construction was separate. Project construction complete. O&M plan signed October 2, 2002.								
Cheniere au Tigre Sediment Trapping Demonstration (DEMO)	TECHE	VERMI		20-Jul-1999 A	01-Sep-2001 A	02-Nov-2001 A	\$500,000	\$624,999	125.0	\$625,569 \$579,636
	Status:	A request for proposals was advertised in Feb 2000. No valid proposals received. Proceeding with design of a rock structure. Project advertised for bid. Bid came in over estimate. LDNR and NRCS shifted funds from monitoring to construction. Delay in getting new obligation due to internal COE procedures. Government order received July 13, 2001. Construction complete.								
Oaks/Avery Canal Hydrologic Restoration, Increment 1	TECHE	VERMI	160	22-Oct-1998 A	15-Apr-1999 A	11-Oct-2002 A	\$2,367,700	\$2,925,216	123.5	\$3,419,365 \$2,615,243
	Status:	O&M Plan in draft.								
Penchant Basin Natural Resources Plan, Increment 1	TERRE	TERRE	1,155	23-Apr-2002 A	01-Feb-2007	01-Jan-2008	\$14,103,051	\$14,103,051	100.0	\$2,222,188 \$1,424,879
	Status:	Additional model runs were performed in 2004 to satisfy local sponsors concerns over selected project features. Design is anticipated to begin in June 2005 and be completed in May 2006. Construction is planned for February 2007 to January 2008.								
Total Priority List			6				\$21,990,651	\$22,877,743	104.0	\$11,375,613 \$8,651,782

- 4 Project(s)
- 4 Cost Sharing Agreements Executed
- 3 Construction Started
- 3 Construction Completed
- 0 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Barataria Basin Landbridge Shoreline Protection, Phase 1 and 2	BARA	JEFF	1,304	16-Jul-1999 A	01-Dec-2000 A	01-Feb-2007	\$17,515,029	\$29,429,358	168.0 !	\$29,099,304 \$4,356,850
	Status:	1/18/2005 Construction Unit #4 is scheduled for construction from May 2005 to February 2007. Construction Unit #5 is scheduled for construction from June 2005 to July 2006.								
Thin Mat Flotant Marsh Enhancement Demonstration (DEMO)	TERRE	TERRE		16-Oct-1998 A	15-Jun-1999 A	10-May-2000 A	\$460,222	\$530,283	115.2	\$668,240 \$514,939
	Status:	Construction complete. Monitoring ongoing.								
Total Priority List			7	1,304			\$17,975,251	\$29,959,641	166.7	\$29,767,545 \$4,871,789

- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 2 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 8

Humble Canal Hydrologic Restoration	MERM	CAMER	378	21-Mar-2000 A	01-Jul-2002 A	01-Mar-2003 A	\$1,526,136	\$1,530,812	100.3	\$1,600,621 \$789,391
	Status:	Construction complete March 2003.								
Lake Portage Land Bridge	TECHE	VERMI	24	07-Apr-2000 A	15-Feb-2003 A	15-May-2004 A	\$1,013,820	\$1,265,891	124.9	\$1,259,062 \$1,003,623
	Status:	Construction ongoing and scheduled to be completed in May 2004.								

Draft Final Monitoring Plan sent for review on March 16, 2004. TAG originally met on October 15, 2002 to develop plan. Since that time plan was modified to adapt to CRMS. Plan expected to be finalized by May 2004.

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Upper Oak River Freshwater Siphon [DEAUTHORIZED]	BRET	PLAQ					\$2,500,239	\$56,476	2.3	\$56,476
	Status:	Total project cost estimate is \$12,994,800; Priority List 8 funded \$2,500,000 for completion of engineering and design and construction of the outflow channel. Funding of the siphon will be requested when engineering and design are completed.								
		Project feasibility being evaluated. DNR has solicited a cost estimate from one of their engineering firms to perform a feasibility study. Target dates will be established if project is deemed feasible.								
		Deauthorization procedures initiated.								
Total Priority List		8	402				\$5,040,195	\$2,853,179	56.6	\$2,916,160 \$1,849,490

- 3 Project(s)
- 2 Cost Sharing Agreements Executed
- 2 Construction Started
- 2 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 9

Barataria Basin Landbridge Shoreline Protection, Phase 3	BARA	JEFF	264	25-Jul-2000 A	20-Oct-2003 A	01-Jul-2007	\$15,204,620	\$12,818,685	84.3	\$11,629,803 \$3,894,680
	Status:	Construction Unit #7 is planned for construction from August 2006 to July 2007; subject to funding approval at January 2006 Task Force Meeting.								
Black Bayou Culverts Hydrologic Restoration	CA/SB	CAMER	540	25-Jul-2000 A	01-Apr-2005 *	01-Sep-2006	\$5,900,387	\$5,386,915	91.3	\$4,912,551 \$836,208
	Status:	Favorable 30% design review held September 19, 2002. 95% design review will be held in May 2003. Request for phase 2 funding will be made at the August Task Force meeting.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Little Pecan Bayou Hydrologic Restoration	MERM	CAMER	144	25-Jul-2000 A	01-Aug-2007	01-Jul-2008	\$1,245,278	\$1,556,598	125.0 !	\$1,095,960 \$435,623
	Status:	Modeling is ongoing, Design is anticipated to begin in October 2005 and end in December 2006.								
Perry Ridge West Bank Stabilization	CA/SB	CAMER	83	25-Jul-2000 A	01-Nov-2001 A	31-Jul-2002 A	\$3,742,451	\$1,745,962	46.7	\$1,701,246 \$1,617,033
	Status:	The Perry Ridge project approved on Priority List 4 was the first phase of this project. This is the second and final phase of the project. Task Force approved Phase 2 construction funding January 10, 2001. The rock bank protection is installed. The contract for the terraces and vegetation has been completed.								
South Lake DeCade Freshwater Introduction	TERRE	TERRE	207	25-Jul-2000 A	01-Aug-2006	01-Feb-2008	\$396,489	\$495,611	125.0	\$488,846 \$457,993
	Status:	This project did not get selected for Phase 2 funding at the October 2004 Task Force meeting. Project will be presented for proposed construction funding at the January 2006 Task Force meeting. If funded, the construction is planned for August 2006 to January 2007.								
Total Priority List		9	1,238				\$26,489,225	\$22,003,771	83.1	\$19,828,404 \$7,241,537

- 5 Project(s)
- 5 Cost Sharing Agreements Executed
- 2 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 10

GIWW Bank Restoration of Critical Areas in Terrebonne	TERRE	TERRE	366	16-May-2001 A	01-Aug-2006	01-Nov-2007	\$1,735,983	\$1,735,983	100.0	\$1,135,353 \$820,201
	Status:	This project did not get selected for Phase 2 funding at the October 2004 Task Force meeting. Project will be presented for proposed construction funding at the January 2006 Task Force meeting. If funded, the construction is planned for August 2006 to November 2007.								

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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		10	366				\$1,735,983	\$1,735,983	100.0	\$1,135,353 \$820,201
<ul style="list-style-type: none"> 1 Project(s) 1 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized 										

Priority List 11

Barataria Basin Landbridge Shoreline Protection, Phase 4	BARA	JEFF	256	09-May-2002 A	01-Apr-2005 *	01-Apr-2006	\$22,787,951	\$16,920,645	74.3	\$15,186,696 \$472,506
Status: Design is completed and funding has been authorized. Construction is scheduled to begin in July 2004.										
Coastwide Nutria Control Program	COAST	COAST	14,963	26-Feb-2002 A	20-Nov-2002 A		\$68,864,870	\$12,948,339	18.8	\$6,623,288 \$3,990,806
Status: In Year 1 (2002-03 Trapping Season), 308,160 nutria tails were collected. Nutria herbivory surveys in summer 2003, yielded a coastwide estimate of 82,080 acres of marsh impacted by nutria feeding activity.										
In Year 2 (2003-04 Trapping Season), 332,596 nutria tails were collected. Nutria herbivory surveys in spring 2004, yielded a coastwide estimate of 63,397 acres of marsh impacted by nutria feeding activity.										
Raccoon Island Shoreline Protection/Marsh Creation, Ph 2	TERRE	TERRE	16	23-Apr-2002 A	01-Sep-2005	01-Apr-2006	\$7,797,791	\$7,866,323	100.9	\$7,356,423 \$624,093
Status: Geotechnical investigation task order issued by DNR. The project will be constructed in 2 units. the first unit will consist of the rock breakwaters. The second unit will consist of dedicated dredging for creation of barrier island habitat from dunes to back barrier marshes and the planting of associated plant communities.										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		11	15,235				\$99,450,612	\$37,735,307	37.9	\$29,166,407 \$5,087,405
3 Project(s)										
3 Cost Sharing Agreements Executed										
1 Construction Started										
0 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 11.1

Holly Beach Sand Management	CA/SB	CALCA	330	09-May-2002 A	01-Aug-2002 A	31-Mar-2003 A	\$19,252,500	\$14,155,234	73.5	\$15,896,924 \$14,188,050
	Status:	The placement of the sand material on to the beach was completed on Saturday, March 1, 2003. Required work that is now in progress consist of demobilization of the pipeline segments, dressing the completed beach work,erection of the Sand Fencing and installation of the vegetation.								

Total Priority List		11.1	330				\$19,252,500	\$14,155,234	73.5	\$15,896,924 \$14,188,050
1 Project(s)										
1 Cost Sharing Agreements Executed										
1 Construction Started										
1 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 12

Freshwater Floating Marsh Creation Demonstration (DEMO)	COAST	COAST		12-Jun-2003 A	01-Jul-2004 A	01-Jan-2009	\$1,080,891	\$1,080,891	100.0	\$281,948 \$27,076
	Status:	This project was approved as part of the 12th priority list. Project development is underway.								

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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		12					\$1,080,891	\$1,080,891	100.0	\$281,948 \$27,076
<ul style="list-style-type: none"> 1 Project(s) 1 Cost Sharing Agreements Executed 1 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized 										

Priority List 13

Bayou Sale Shoreline Protection	TECHE	STMRY	329	16-Jun-2004 A	01-Aug-2007	01-Jul-2008	\$2,254,912	\$2,254,912	100.0	\$1,711,885 \$88,565
Status: Design is anticipated to begin in October 2006. Project will request funding approval for construction at the January 2007 Task Force meeting.										

Total Priority List		13	329				\$2,254,912	\$2,254,912	100.0	\$1,711,885 \$88,565
<ul style="list-style-type: none"> 1 Project(s) 1 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized 										

Priority List 14

East Marsh Island Marsh Creation	TECHE	IBERI					\$1,193,606	\$1,193,606	100.0	\$0 \$0
Status:										

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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
South Shore of the Pen Shoreline Protection and Marsh Creation	BARA	JEFF					\$1,311,146	\$1,311,146	100.0	\$0 \$0
	Status:									
White Ditch Resurrection	BRET	PLAQ	189				\$1,595,676	\$1,595,676	100.0	\$0 \$0
	Status:									
Total Priority List			14				\$4,100,428	\$4,100,428	100.0	\$0 \$0
<p>3 Project(s) 0 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized</p>										
Total	DEPT. OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE		36,410				\$264,689,982	\$233,237,366	88.1	\$194,958,387 \$94,692,791

53 Project(s)
 49 Cost Sharing Agreements Executed
 35 Construction Started
 29 Construction Completed
 7 Project(s) Deferred/Deauthorized

Notes:

1. Expenditures based on Corps of Engineers financial data.
2. Date codes: A = Actual date * = Behind schedule
3. Percent codes: ! = 125% of baseline estimate exceeded

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report - Total All Priority Lists

PROJECT	ACRES	***** ESTIMATES *****			Actual Obligations/ Expenditures	
		Baseline	Current	%		
SUMMARY	Total All Projects	116,734	\$822,275,028	\$697,042,100	84.8	\$519,508,806 \$258,423,716

157 Project(s)

133 Cost Sharing Agreements Executed

80 Construction Started

69 Construction Completed

20 Project(s) Deferred/Deauthorized

Total Available Funds

Federal Funds \$584,979,930

Non/Federal Funds \$112,062,535

Total Funds \$697,042,465

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
Basin: Atchafalaya									
Priority List: 2	2	3,792	2	2	2	0	\$5,043,867	\$9,609,551	\$8,689,432
Priority List: 9	1	589	1	0	0	0	\$1,484,633	\$1,855,792	\$1,339,461
Basin Total	3	4,381	3	2	2	0	\$6,528,500	\$11,465,343	\$10,028,893
Basin: Barataria									
Priority List: 1	3	620	3	3	3	0	\$9,960,769	\$10,142,716	\$8,246,580
Priority List: 2	1	510	1	1	0	0	\$3,398,867	\$28,886,616	\$7,372,650
Priority List: 3	3	1,087	3	1	1	1	\$4,160,823	\$6,899,361	\$3,120,447
Priority List: 4	2	232	2	1	1	1	\$4,611,094	\$3,384,598	\$2,719,010
Priority List: 5	2	1,752	2	1	1	0	\$17,212,815	\$2,670,530	\$1,811,795
Priority List: 6	1	217	1	1	1	0	\$5,019,900	\$5,224,477	\$4,032,025
Priority List: 7	2	1,431	2	2	1	0	\$18,443,924	\$29,923,111	\$4,677,056
Priority List: 9	3	667	3	1	0	1	\$18,212,307	\$15,474,259	\$6,064,114
Priority List: 10	2	9,832	1	0	0	0	\$4,901,948	\$5,364,801	\$2,296,242
Priority List: 11	5	2,269	5	0	0	0	\$124,953,577	\$121,743,553	\$5,477,250
Priority List: 12	1	400	1	0	0	0	\$2,192,735	\$2,731,479	\$166,460
Priority List: 14	2	234	0	0	0	0	\$4,533,033	\$4,533,033	\$0
Basin Total	27	19,251	24	11	8	3	\$217,601,792	\$236,978,534	\$45,983,630

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
Basin: Breton Sound									
Priority List:	2	1	802	1	1	0	\$2,522,199	\$4,536,000	\$2,975,951
Priority List:	3	1		1	0	0	\$756,134	\$32,862	\$32,862
Priority List:	4	1		0	0	1	\$2,468,908	\$65,747	\$65,747
Priority List:	8	1		0	0	1	\$2,500,239	\$56,476	\$56,476
Priority List:	10	2	768	1	0	0	\$4,339,140	\$3,498,850	\$1,053,857
Priority List:	14	1	189	0	0	0	\$1,595,676	\$1,595,676	\$0
Basin Total	7	1,759	3	1	1	3	\$14,182,296	\$9,785,611	\$4,184,894
Basin: Calcasieu/Sabine									
Priority List:	1	3	6,407	3	3	0	\$5,770,187	\$2,852,755	\$2,276,255
Priority List:	2	4	3,019	4	3	0	\$8,568,462	\$12,052,469	\$7,016,170
Priority List:	3	2	3,555	2	2	0	\$8,301,380	\$8,265,633	\$4,223,736
Priority List:	4	3	1,203	3	2	1	\$2,893,802	\$2,870,122	\$2,388,090
Priority List:	5	1	247	1	1	0	\$4,800,000	\$4,242,995	\$3,320,884
Priority List:	6	1	3,594	1	1	0	\$6,316,800	\$5,972,613	\$4,679,386
Priority List:	8	5	662	3	1	0	\$28,621,140	\$16,308,590	\$3,862,710
Priority List:	9	2	623	2	1	0	\$9,642,838	\$7,132,877	\$2,453,242
Priority List:	10	1	393	1	1	0	\$6,490,751	\$5,495,698	\$1,568,593
Priority List:	11.1	1	330	1	1	0	\$19,252,500	\$14,155,234	\$14,188,050
Basin Total	23	20,033	21	16	14	1	\$100,657,860	\$79,348,985	\$45,977,116

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
Basin: Coastal Basins									
Priority List: Cons Plan	1		1	1	1	0	\$238,871	\$191,807	\$191,807
Priority List: 0.1	1		1	0	0	0	\$66,890,300	\$9,270,226	\$221,290
Priority List: 0.2	1		1	0	0	0	\$1,500,000	\$1,500,000	\$100,462
Priority List: 6	1		1	1	1	0	\$2,140,000	\$804,683	\$804,683
Priority List: 9	1		0	0	0	0	\$1,502,817	\$1,502,817	\$31,726
Priority List: 10	1		1	0	0	0	\$2,006,373	\$2,503,768	\$253,447
Priority List: 11	1	14,963	1	1	0	0	\$68,864,870	\$12,948,339	\$3,990,806
Priority List: 12	1		1	1	0	0	\$1,080,891	\$1,080,891	\$27,076
Priority List: 13	1		1	0	0	0	\$1,000,000	\$1,055,000	\$74,040
Basin Total	9	14,963	8	4	2	0	\$145,224,122	\$30,857,531	\$5,695,337
Basin: Miss. River Delta									
Priority List: 1	1	9,831	1	1	1	0	\$8,517,066	\$22,792,876	\$7,254,277
Priority List: 3	2	936	1	1	1	1	\$3,666,187	\$1,008,820	\$802,155
Priority List: 4	1		1	0	0	1	\$300,000	\$58,310	\$58,310
Priority List: 6	2	2,386	2	2	1	0	\$7,073,934	\$6,664,140	\$3,322,123
Priority List: 10	1	5,706	0	0	0	0	\$1,076,328	\$1,076,328	\$788,202
Priority List: 12	1	1,190	0	0	0	0	\$1,880,376	\$1,880,376	\$147,651
Priority List: 13	1	433	0	0	0	0	\$1,137,344	\$1,421,680	\$203,911
Basin Total	9	20,482	5	4	3	2	\$23,651,235	\$34,902,529	\$12,576,628

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date	
Basin: Mermentau										
Priority List:	1	2	247	2	2	2	1	\$1,368,671	\$1,319,135	\$1,109,446
Priority List:	2	1	1,593	1	1	1	0	\$2,770,093	\$3,455,303	\$2,622,403
Priority List:	3	1		1	1	1	1	\$126,062	\$103,468	\$103,468
Priority List:	5	1	511	1	1	1	0	\$3,998,919	\$2,543,313	\$2,004,178
Priority List:	7	1	442	1	1	1	0	\$2,185,900	\$2,391,953	\$2,122,125
Priority List:	8	1	378	1	1	1	0	\$1,526,136	\$1,530,812	\$789,391
Priority List:	9	2	440	2	0	0	0	\$7,296,603	\$6,639,367	\$893,469
Priority List:	10	2	1,133	2	1	1	0	\$11,565,112	\$8,212,551	\$4,309,081
Priority List:	11	2	980	1	0	0	0	\$3,407,449	\$3,669,706	\$908,885
Priority List:	12	1	844	1	0	0	0	\$19,673,929	\$15,710,919	\$720,728
Basin Total	14	6,568	13	8	8	2	\$53,918,874	\$45,576,528	\$15,583,174	
Basin: Pontchartrain										
Priority List:	1	2	1,753	2	2	2	0	\$6,119,009	\$5,448,122	\$5,002,480
Priority List:	2	2	2,320	2	2	2	0	\$4,500,424	\$3,844,225	\$2,718,783
Priority List:	3	3	755	3	1	1	2	\$2,683,636	\$912,272	\$973,727
Priority List:	4	1		0	0	0	1	\$5,018,968	\$39,025	\$39,025
Priority List:	5	1	75	1	1	1	0	\$2,555,029	\$2,589,403	\$2,255,809
Priority List:	8	2	134	2	1	1	1	\$5,475,065	\$2,015,194	\$1,373,557
Priority List:	9	3	886	2	1	1	0	\$2,407,524	\$1,433,196	\$1,111,212
Priority List:	10	1	167	1	0	0	0	\$1,334,360	\$1,667,950	\$722,967
Priority List:	11	1	5,438	1	0	0	0	\$5,434,288	\$6,780,307	\$1,868,696
Priority List:	12	1	266	0	0	0	0	\$1,348,345	\$1,348,345	\$993,772
Priority List:	13	1	436	1	0	0	0	\$1,930,596	\$1,730,596	\$15,717
Basin Total	18	12,230	15	8	8	4	\$38,807,244	\$27,808,636	\$17,075,745	

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
Basin: Teche / Vermilion									
Priority List: 1	1	65	1	1	1	0	\$1,526,000	\$2,022,987	\$1,834,424
Priority List: 2	1	378	1	1	1	0	\$1,008,634	\$1,012,649	\$840,164
Priority List: 3	1	2,223	1	1	1	0	\$5,173,062	\$6,029,987	\$5,423,382
Priority List: 5	1	441	1	1	1	0	\$940,065	\$886,030	\$629,973
Priority List: 6	4	2,526	4	4	4	0	\$10,130,000	\$12,085,639	\$8,146,269
Priority List: 8	1	24	1	1	1	0	\$1,013,820	\$1,265,891	\$1,003,623
Priority List: 9	3	686	1	1	1	0	\$7,814,815	\$6,173,817	\$3,380,109
Priority List: 13	1	329	1	0	0	0	\$2,254,912	\$2,254,912	\$88,565
Priority List: 14	1		0	0	0	0	\$1,193,606	\$1,193,606	\$0
Basin Total	14	6,672	11	10	10	0	\$31,054,914	\$32,925,517	\$21,346,509

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
Basin: Terrebonne									
Priority List: 1	5	9	4	3	3	2	\$8,809,393	\$9,385,773	\$9,232,814
Priority List: 2	3	958	3	3	2	0	\$12,831,588	\$20,763,160	\$18,866,352
Priority List: 3	4	3,958	4	4	4	0	\$15,758,355	\$21,495,717	\$19,507,849
Priority List: 4	2	215	2	1	1	1	\$6,119,470	\$7,707,823	\$7,709,673
Priority List: 5	3	199	3	1	1	0	\$31,120,343	\$11,505,110	\$4,204,400
Priority List: 5.1	0	988	1	0	0	0	\$9,700,000	\$9,700,000	\$1,580,701
Priority List: 6	4	1,758	2	0	0	2	\$30,522,757	\$24,692,755	\$2,377,107
Priority List: 7	1		1	1	1	0	\$460,222	\$530,283	\$514,939
Priority List: 9	4	582	4	2	1	0	\$25,219,289	\$32,955,169	\$11,111,029
Priority List: 10	2	970	2	1	0	0	\$33,463,900	\$30,744,995	\$1,543,146
Priority List: 11	3	343	3	0	0	0	\$12,119,105	\$12,930,730	\$2,267,993
Priority List: 12	1	143	0	0	0	0	\$2,229,876	\$2,229,876	\$1,046,120
Priority List: 13	1	272	1	0	0	0	\$2,293,893	\$2,751,494	\$9,667
Basin Total	34	10,395	30	16	13	5	\$190,648,191	\$187,392,885	\$79,971,790
Total All Basins	157	116,734	133	80	69	20	\$822,275,028	\$697,042,100	\$258,423,716

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Summary Report by Priority List

P/L	No. of Projects	Acres	CSA Executed	Under Const.	Const. Completed	Federal Const. Funds Available	Non/Fed Const. Funds Matching Share	Baseline Estimate	Current Estimate	Obligations To Date	Expenditures To Date
1	14	18,932	14	0	14	\$28,084,900	\$9,429,007	\$39,933,317	\$53,765,024	\$38,833,129	\$34,756,936
2	15	13,372	15	2	12	\$28,173,110	\$13,838,747	\$40,644,134	\$84,159,973	\$75,019,602	\$51,101,905
3	11	12,514	11	1	9	\$29,939,100	\$7,257,125	\$32,879,168	\$43,871,864	\$40,500,361	\$33,249,917
4	4	1,650	4	0	4	\$29,957,533	\$2,158,691	\$10,468,030	\$13,228,959	\$13,177,154	\$12,083,191
5	9	3,225	9	0	6	\$33,371,625	\$2,443,738	\$60,627,171	\$24,437,381	\$17,806,679	\$14,227,039
5.1	0	988	1	0	0	\$0	\$4,850,000	\$9,700,000	\$9,700,000	\$4,973,561	\$1,580,701
6	11	10,481	11	1	8	\$39,134,000	\$5,544,431	\$54,614,991	\$55,373,986	\$34,540,543	\$23,291,272
7	4	1,873	4	1	3	\$42,540,715	\$4,926,802	\$21,090,046	\$32,845,347	\$32,633,836	\$7,314,120
8	8	1,198	6	0	4	\$41,864,079	\$3,176,544	\$33,340,587	\$20,908,345	\$8,921,903	\$6,817,128
9	18	4,473	14	2	4	\$47,907,300	\$10,975,094	\$72,429,342	\$72,823,743	\$58,428,145	\$26,133,195
10	12	18,969	9	2	1	\$47,659,220	\$8,784,741	\$65,177,912	\$58,564,941	\$26,153,883	\$12,535,536
11	12	23,993	11	1	0	\$57,332,369	\$23,710,895	\$214,779,289	\$158,072,635	\$129,488,651	\$14,513,630
11.1	1	330	1	0	1	\$0	\$7,077,617	\$19,252,500	\$14,155,234	\$15,896,924	\$14,188,050
12	6	2,843	3	1	0	\$51,938,097	\$3,747,283	\$28,406,152	\$24,981,886	\$5,516,196	\$3,101,806
13	5	1,470	4	0	0	\$54,023,130	\$1,382,052	\$8,616,745	\$9,213,682	\$4,428,454	\$391,900
14	4	423	0	0	0	\$53,054,752	\$1,098,347	\$7,322,315	\$7,322,315	\$2,738,605	\$0
Active Projects	134	116,734	117	11	66	\$584,979,930	\$112,016,648	\$719,281,699	\$683,425,316	\$509,057,627	\$255,286,325
Deauthorized Projects	20		13	0	2			\$34,364,158	\$2,654,751	\$2,761,833	\$2,623,832
Total Projects	154	116,734	130	11	68	\$584,979,930	\$112,062,535	\$753,645,857	\$686,080,067	\$511,819,460	\$257,910,157
Conservation Plan	1		1	0	1	\$0	\$45,886	\$238,871	\$191,807	\$191,807	\$191,807
CRMS - Wetlands	1		1	0	0	\$0	\$1,390,534	\$66,890,300	\$9,270,226	\$7,423,492	\$221,290
MCF	1		1	0	0	\$0	\$225,000	\$1,500,000	\$1,500,000	\$79,387	\$100,462
Total Construction Program	157	116,734	133	11	69	\$584,979,930	\$112,062,535	\$822,275,028	\$697,042,100	\$519,514,146	\$258,423,716
							\$697,042,465				

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT
Project Summary Report by Priority List

- NOTES:
1. Total of 157 projects includes 134 active construction projects, 20 deauthorized projects, the CRMS-Wetlands Monitoring project, the Monitoring Contingency Fund, and the State of Louisiana's Wetlands Conservation Plan.
 2. Federal funding for FY05 has been received.
 3. Total construction program funds available is \$697,042,465 .
 4. The current estimate for reconciled, closed-out deauthorized projects is equal to expenditures to date.
 5. Current Estimate for the 5th priority list includes authorized funds for FY 96, FY 97 FY 98 and FY 99 for phased projects with multi-year funding.
 6. Current Estimate for the 6th priority list includes authorized funds for FY 97, FY 98 and FY 99 for phased projects with multi-year funding.
 7. The Task Force approved 8 unfunded projects, totalling \$77,492,000 on Priority List 7 (not included in totals).
 8. Obligations include expenditures and remaining obligations to date.
 9. Non-Federal Construction Funds Available are estimated using cost share percentages as authorized for before and after approval of Conservation Plan.
 10. Baseline and current estimates for PPL 9 (and future project priority lists) reflect funding utilizing cash flow management principles.
 11. The amount shown for the non-federal construction funds available is comprised of 5% minimum cash of current estimate, and the remainder may be WIK and/or cash. The percentage of WIK would influence the total construction funds (cash) available.
 12. PPL 11, Maurepas Diversion project, benefits 36,121 acres of swamp. This number is not included in the acre number in this table, because this acreage is classified differently than acres protected by marsh projects.
 13. PPL 5.1 is used to record the Bayou Lafourche project as approved by a motion passed by the Task Force on October 25, 2001, to proceed with Phase 1 ED, estimated cost of \$9,700,000, at a cost share of 50% Federal and 50% non-Federal.
 14. Priority Lists 9 through 13 are funded utilizing cash flow management. Baseline and current estimates for these priority lists reflect only approved, funded estimates. Both baseline and current estimates are revised as funding is approved.