



11TH PRIORITY PROJECT LIST REPORT (APPENDICES)

PREPARED BY:

LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION
TASK FORCE

JULY 2003

Coastal Wetlands Planning, Protection, and Restoration Act

11th Priority Project List Report

Table of Contents

Volume 1.....Main Report

Volume 2..... Appendices

Appendix A..... Summary and Complete Text of the CWPPRA

Appendix B.....Wetland Value Assessment Methodology and Community Models

Appendix C..... Engineering Cost Estimates

Appendix D..... Economics

Appendix E.....Wetland Value Assessment

Appendix F.....Public Support for Candidate Projects

Appendix G.....Status of Previous Priority Project Lists

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

11th Priority Project List Report

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.

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

11th Priority Project List Report

Appendix B

Wetland Value Assessment Methodology and Community Models

Appendix B

Wetland Value Assessment Methodology and Community Models

Table of Contents

	<u>Page</u>
I. EMERGENT MARSH COMMUNITY MODELS.....	B-1
INTRODUCTION.....	B-1
VARIABLE SELECTION.....	B-1
SUITABILITY INDEX GRAPH DEVELOPMENT.....	B-2
HABITAT SUITABILITY INDEX FORMULAS.....	B-6
BENEFIT ASSESSMENT.....	B-7
WETLAND VALUE ASSESSMENT COMMUNITY MODELS	
Fresh/Intermediate Marsh Model.....	B-9
Brackish Marsh Model.....	B-16
Saline Marsh Model.....	B-23
Attachment A: Marsh Edge and Interspersion Classes.....	B-30
Attachment B: Procedure for Calculating Access Value.....	B-34
II. BARRIER ISLAND COMMUNITY MODEL.....	B-38
INTRODUCTION.....	B-38
VARIABLE SELECTION.....	B-39
SUITABILITY INDEX GRAPH DEVELOPMENT.....	B-40
HABITAT SUITABILITY INDEX FORMULA.....	B-44
BENEFIT ASSESSMENT.....	B-44
WETLAND VALUE ASSESSMENT COMMUNITY MODEL	
Barrier Island.....	B-45
Attachment C: Marsh Edge and Interspersion Classes.....	B-55

Wetland Value Assessment Methodology

I. 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	
	roseate spoonbill	
<u>Reptiles and Amphibians</u>		
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 interspersion, 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 V₁ (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 V₁ - 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 V₁ and established optimal habitat conditions at 100 percent marsh cover.

Variable V₂ - 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 V₂ 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 V_2 and V_4 , 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 V_2 and V_4 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:

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

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

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:

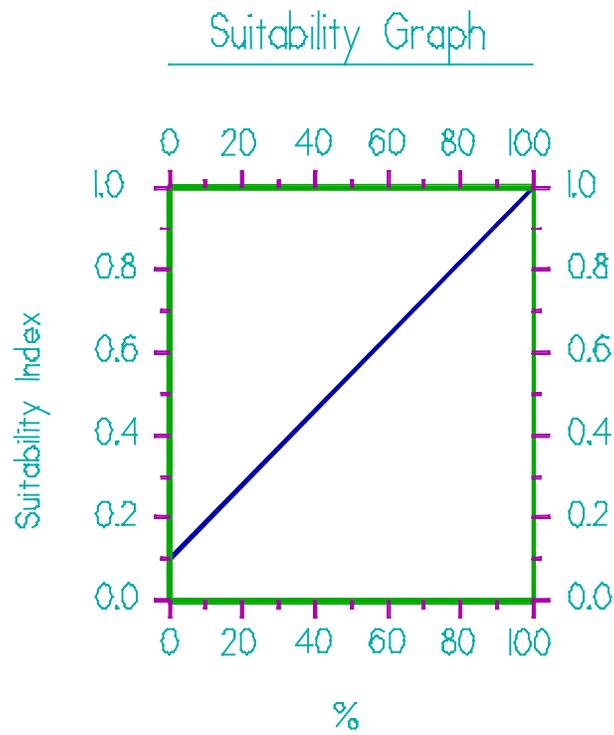
Variable V₆ Aquatic organism access.

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.

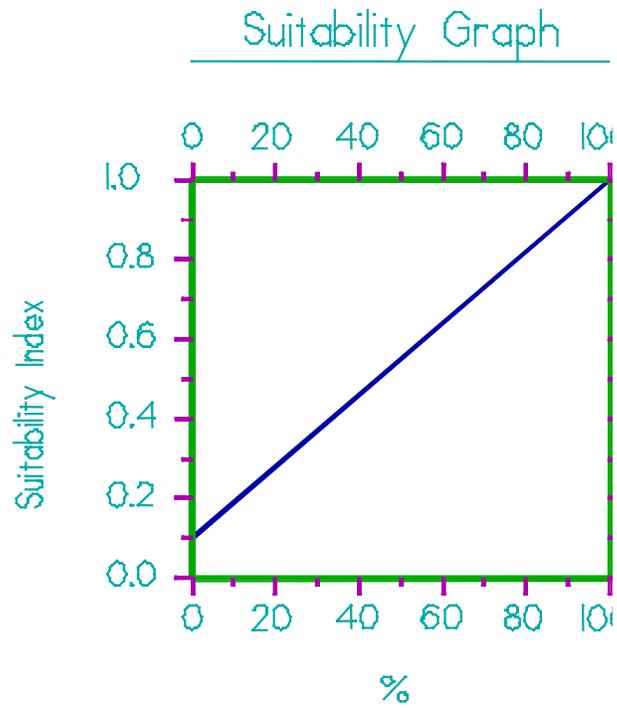


Line Formula

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

Fresh/Intermediate Marsh

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

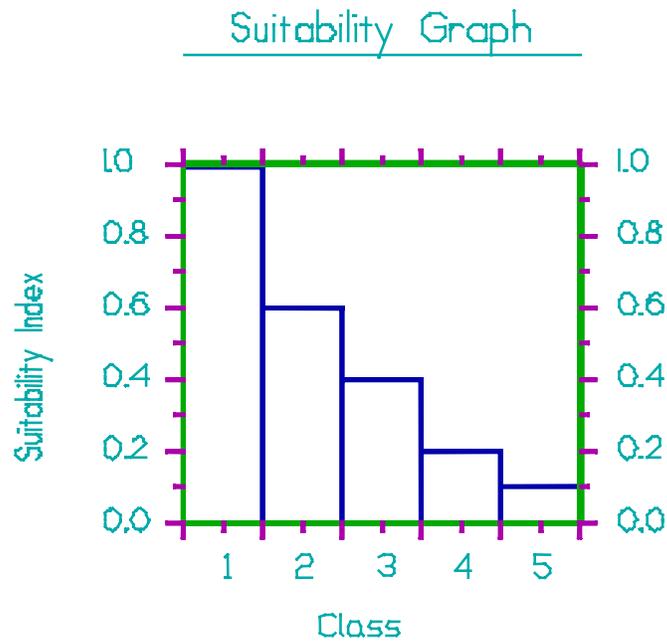


Line Formula

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

Fresh/Intermediate Marsh

Variable V₃ Marsh edge and interspersion.

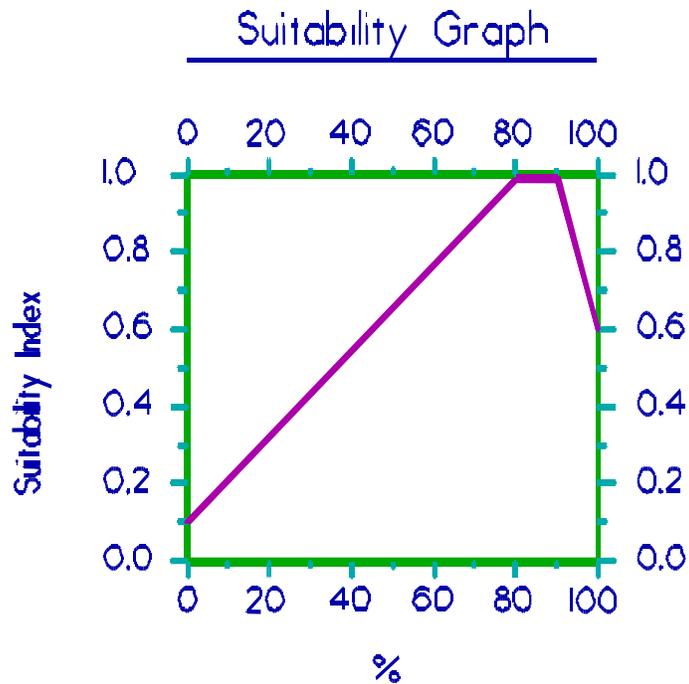


Instructions for Calculating the SI for Variable V₃:

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

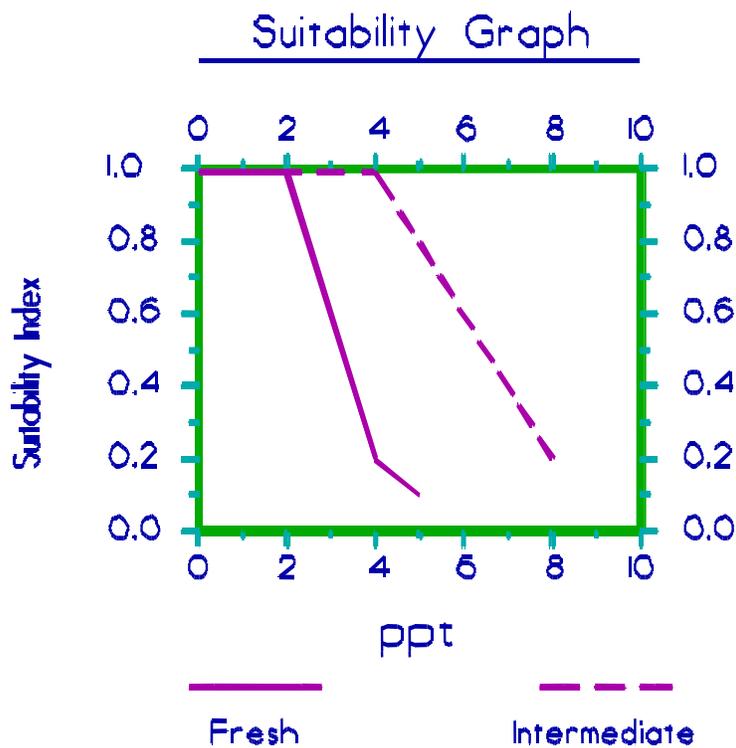
If $0 \leq \% < 80$, then $SI = (0.01125 * \%) + 0.1$

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

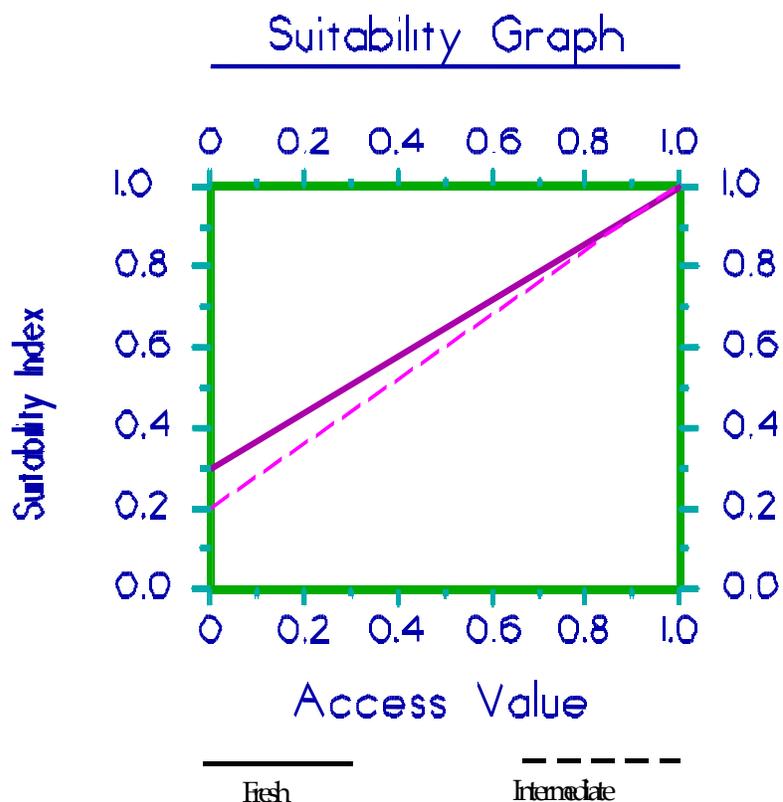
Intermediate Marsh:

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

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 ≤ 1.5 feet deep, in relation to marsh surface.

Water Quality:

Variable V₅ Average annual salinity.

Aquatic Organism Access:

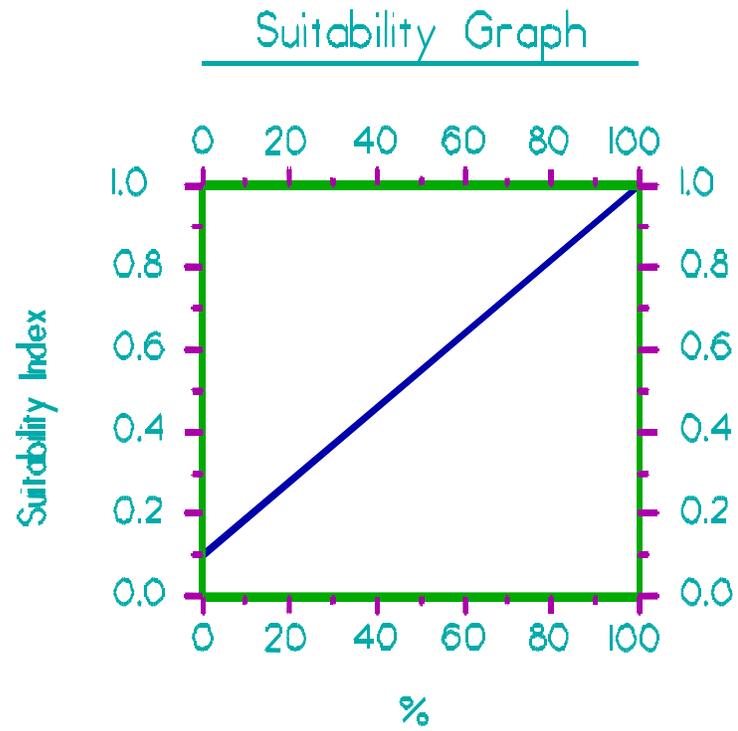
Variable V₆ Aquatic organism access.

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.

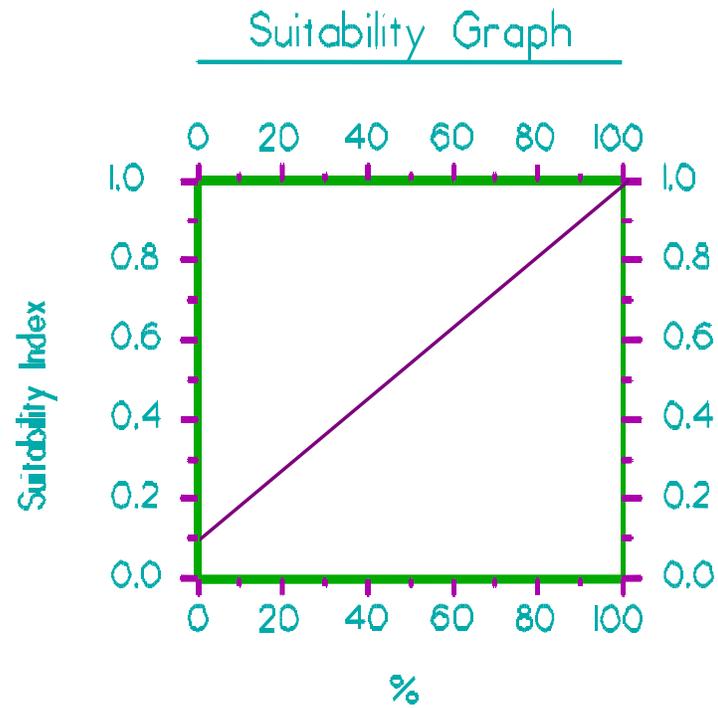


Line Formula

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

Brackish Marsh

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

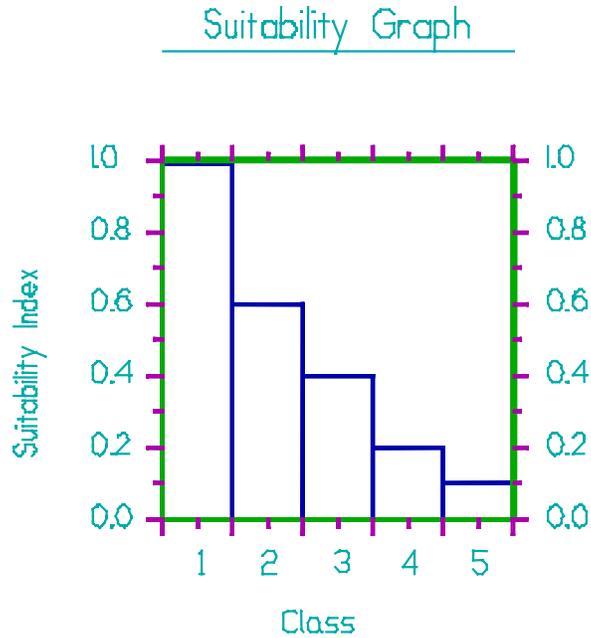


Line Formula

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

Brackish Marsh

Variable V₃ Marsh edge and interspersion.

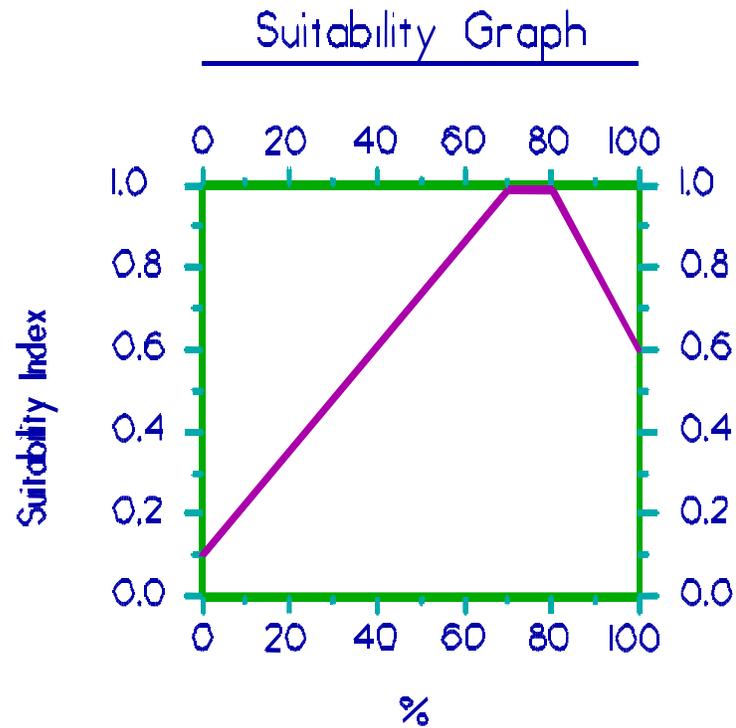


Instructions for Calculating SI for Variable V₃:

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 ≤ 1.5 feet deep, in relation to marsh surface.



Line Formulas

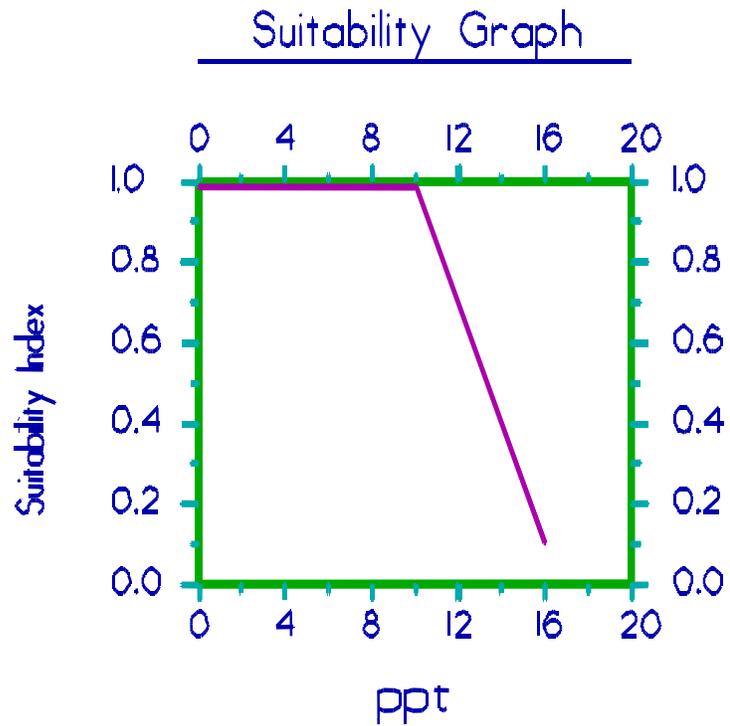
If $0 \leq \% < 70$, then $SI = (0.01286 * \%) + 0.1$

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

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

Brackish Marsh

Variable V_5 Average annual salinity.



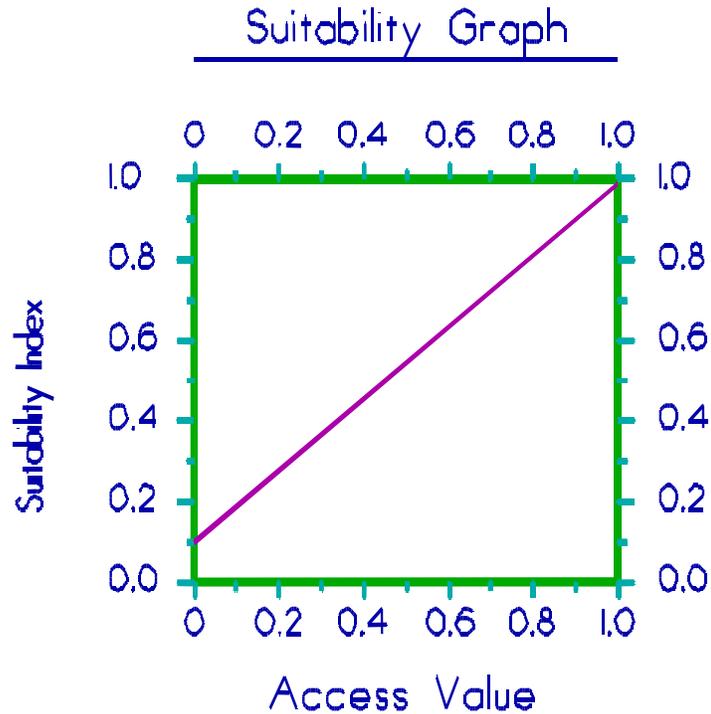
Line Formulas

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

$$SI = (0.9 * Access Value) + 0.1$$

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:

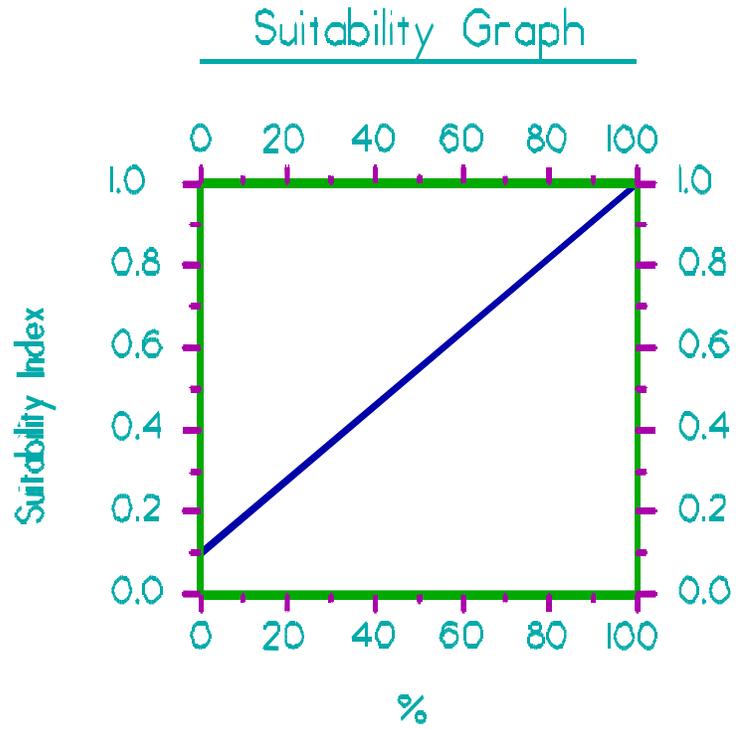
Variable V₆ Aquatic organism access.

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.

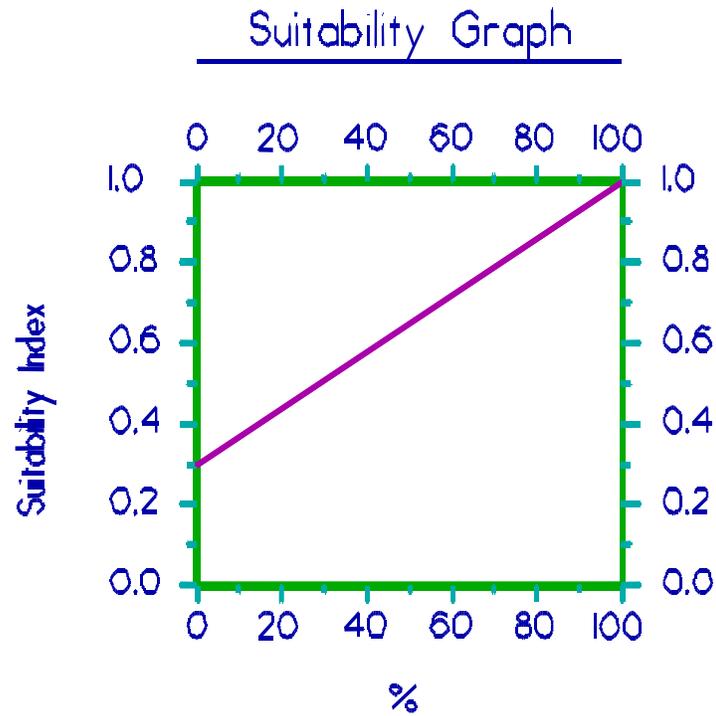


Line Formula

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

Saline Marsh

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

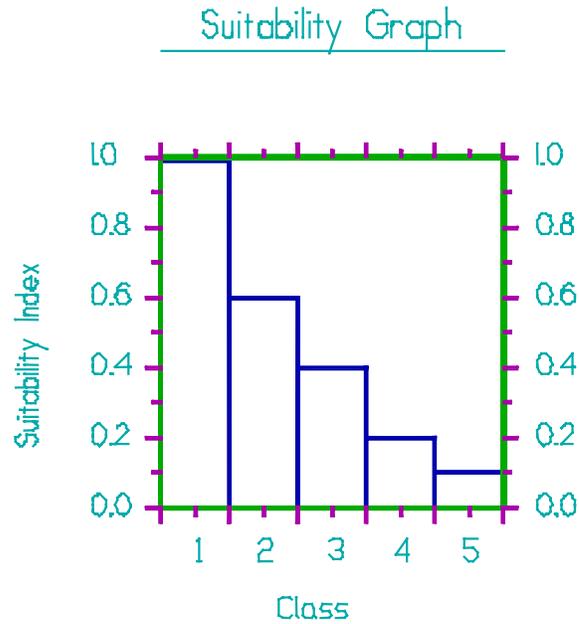


Line Formula

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

Saline Marsh

Variable V₃ Marsh edge and interspersions.

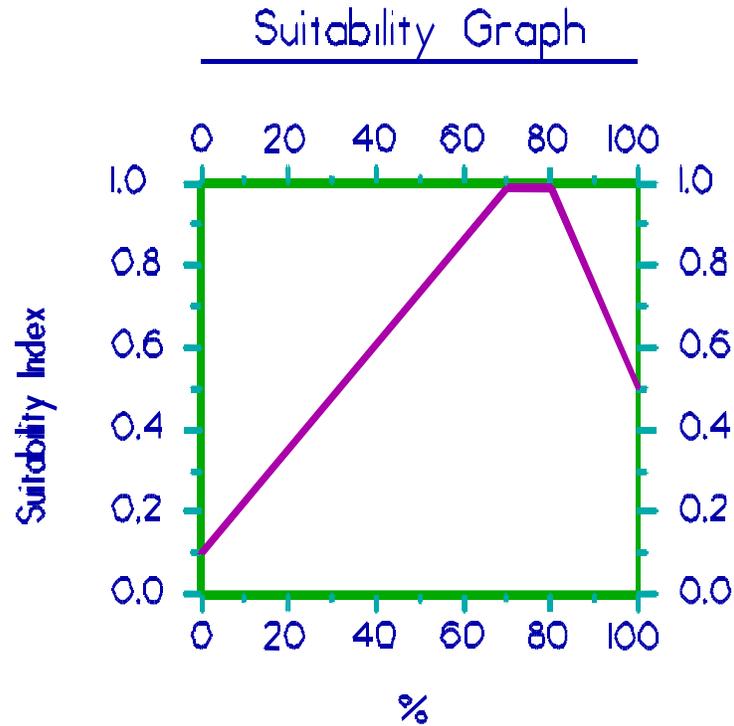


Instructions for Calculating SI for Variable V₃:

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

Saline Marsh

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



Line Formulas

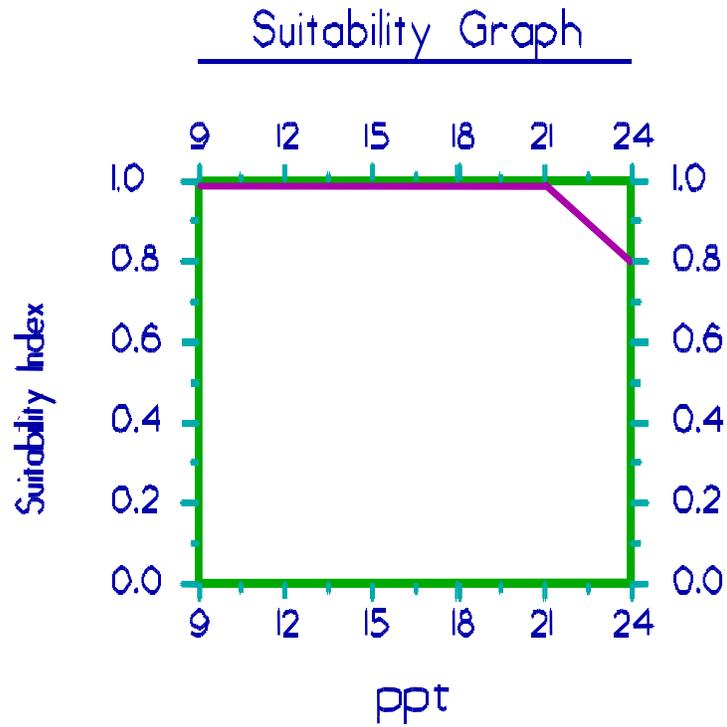
If $0 \leq \% < 70$, then $SI = (0.01286 * \%) + 0.1$

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.



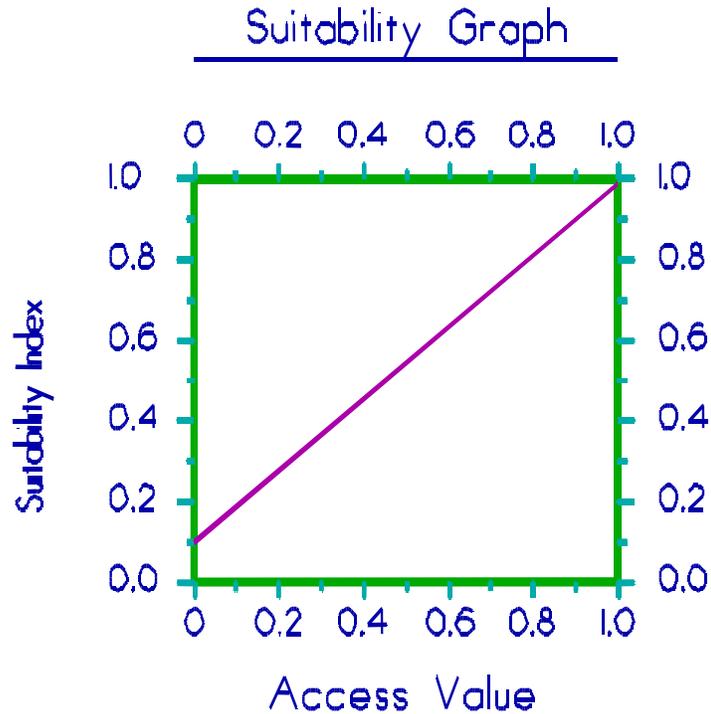
Line Formulas

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.

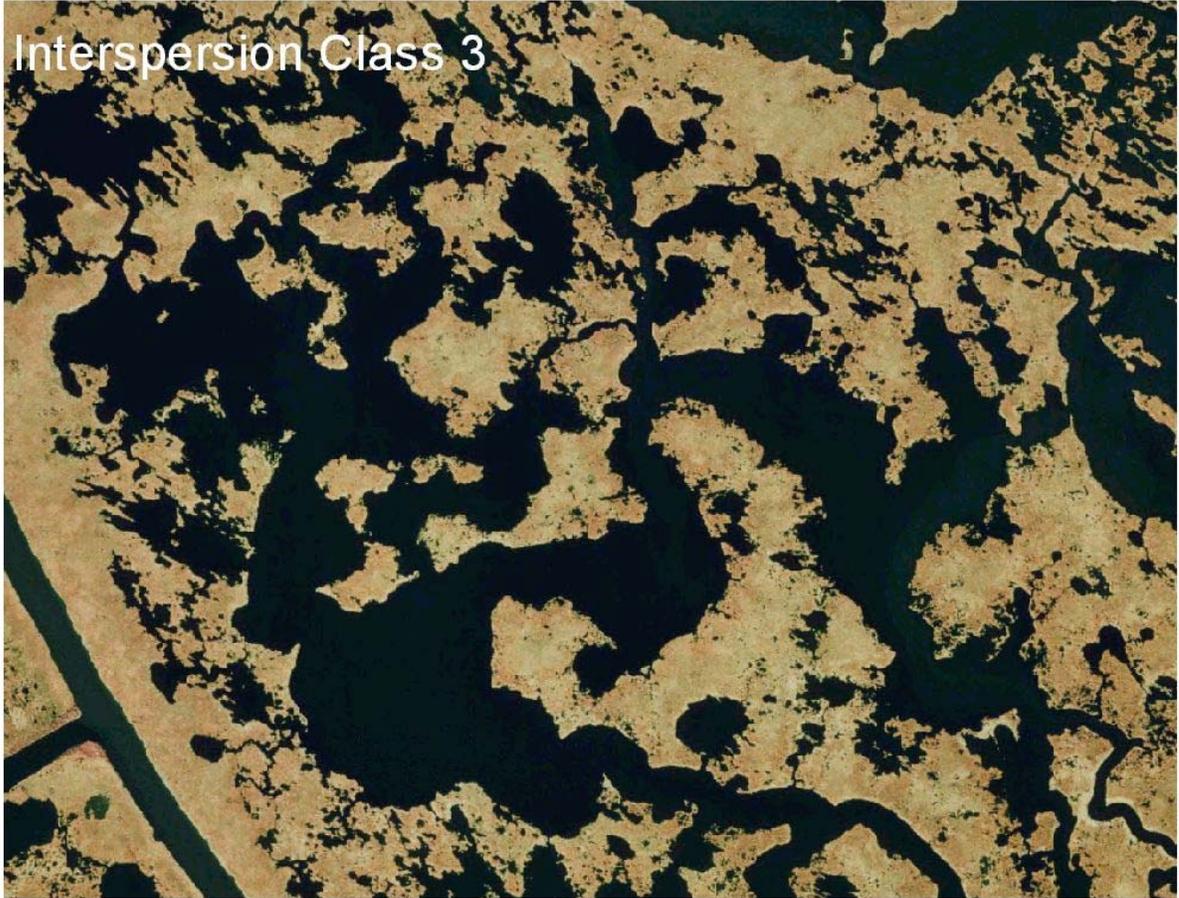
Attachment A - Marsh Edge and Interspersion Classes



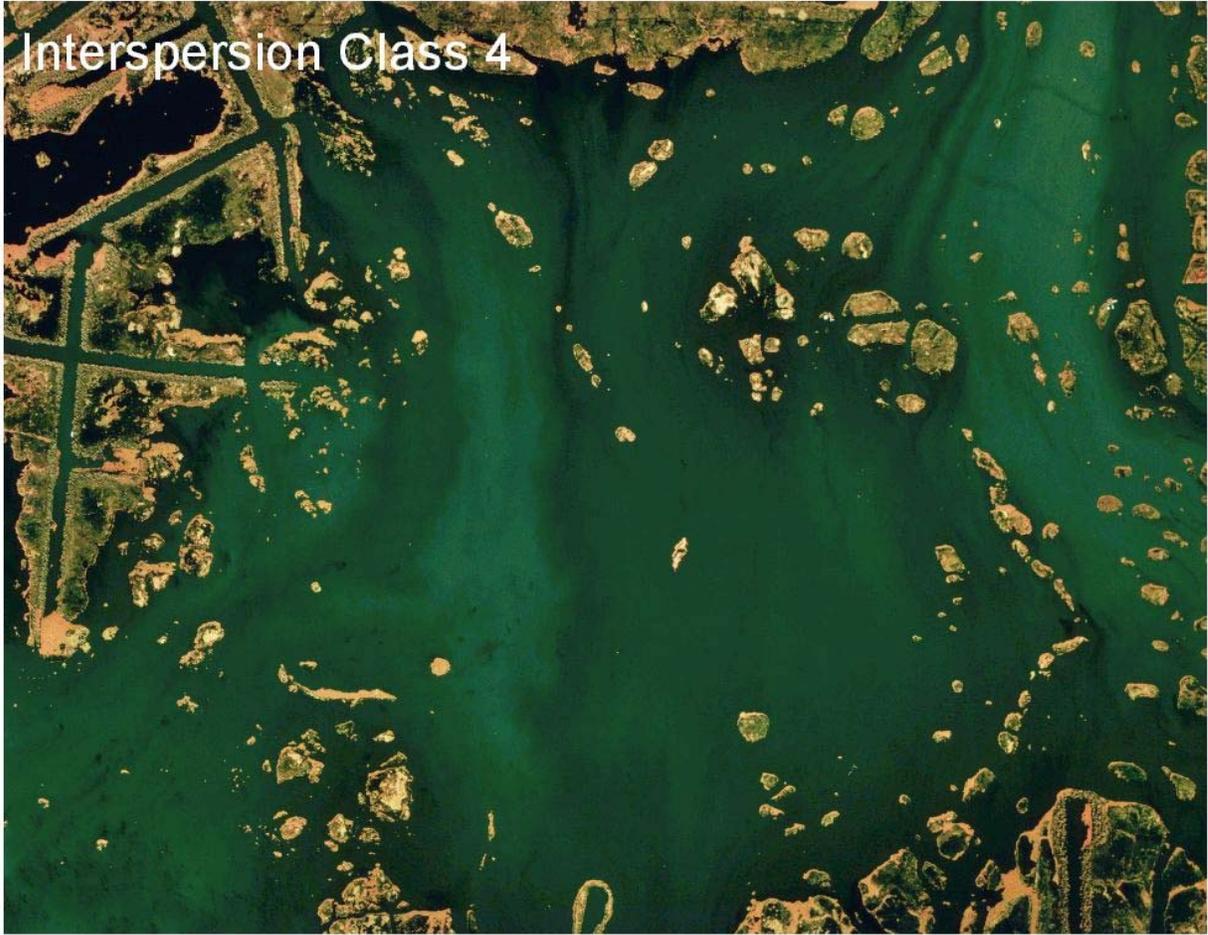
Interspersion Class 2



Interspersion Class 3



Interspersion Class 4



Attachment B - 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 1 ft BML ¹ , w/ boat bay	0.8
Rock weir with boat bay	0.6
Rock weir set at \geq 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 \geq 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

¹ Below Marsh Level

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 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.

$$\begin{aligned}
 \text{Access Value} &= ([P_1 * R_1] + [P_2 * R_3]) / (P_1 + P_2) \\
 &= ([.20 * .5] + [.70 * .35]) / (.20 + .70) \\
 &= (.10 + .25) / .90 \\
 &= .35 / .90 \\
 &= .39
 \end{aligned}$$

- 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.

$$\begin{aligned}
 \text{Access Value} &= ([P_1 * R_1] + [P_2 * R_2] + [P_3 * R_3]) / (P_1 + P_2 + P_3) \\
 &= ([.20 * .5] + [.40 * .35] + [.30 * .1]) / (.20 + .40 + .30) \\
 &= (.10 + .14 + .03) / .90 \\
 &= .27 / .90 \\
 &= .30
 \end{aligned}$$

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 interspersion, 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 interspersion. Interspersion 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, interspersion can be indicative of degradation of back-barrier marsh from subsidence, a factor taken into secondary consideration in assigning suitability indices to the various interspersion classes.

A high degree of interspersion is assumed to be optimal (SI = 1.0), and the lowest expression of interspersion (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 interspersion, 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 interspersion. 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 interspersion 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 interspersion, 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 interspersion provided optimal habitat conditions for fish and wildlife. It was determined that five classes of interspersion would best depict the range of interspersion on barrier islands. The suitability index value for each interspersion 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, supradtidal width=150 m, intertidal width=400 m, and subtidal width=150 m, then assume subaerial width =600m.

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

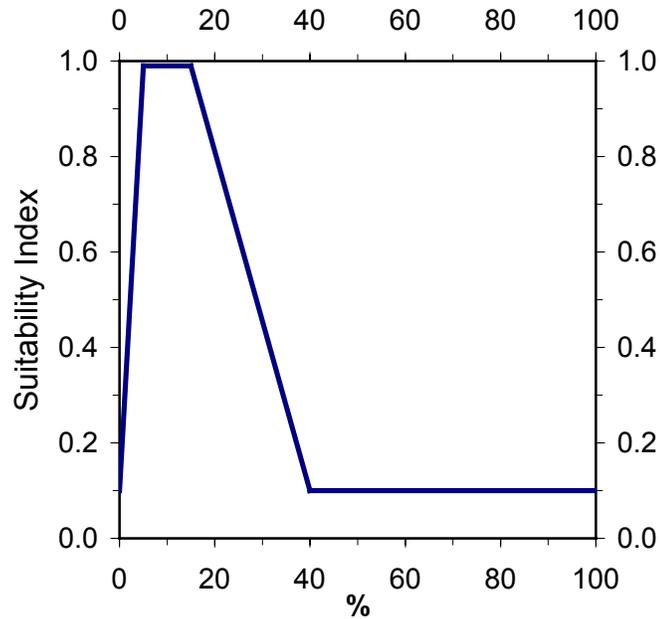
HSI Calculation:

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

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 $SI = 1.0$

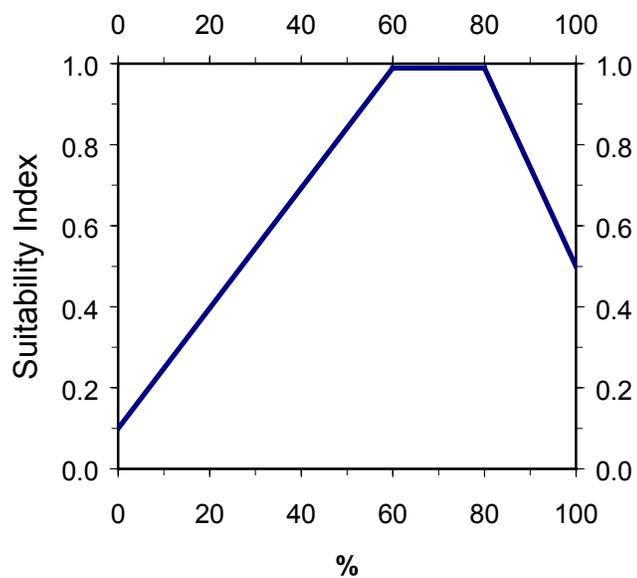
If $15 < \% \leq 40$, then $SI = (-0.036 * \%) + 1.54$

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

Barrier Island

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

Suitability Graph



Line Formulas

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

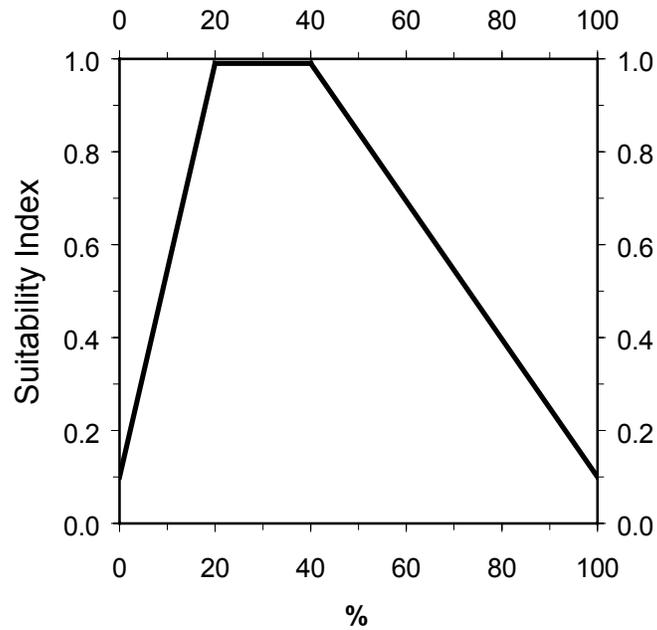
If $60 \leq \% \leq 80$, then $SI = 1.0$

If $\% > 80$, then $SI = (-0.045 * \%) + 4.6$

Barrier Island

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

Suitability Graph



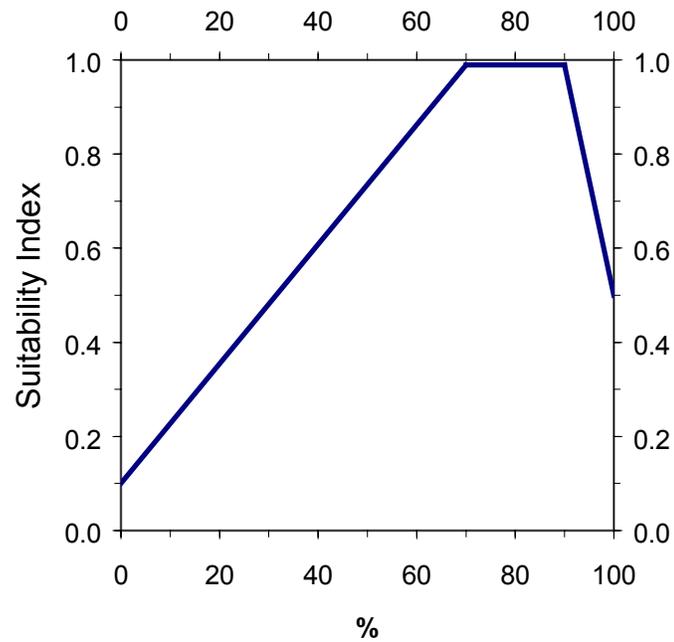
Line Formulas

- 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.

Suitability Graph



Line Formulas

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

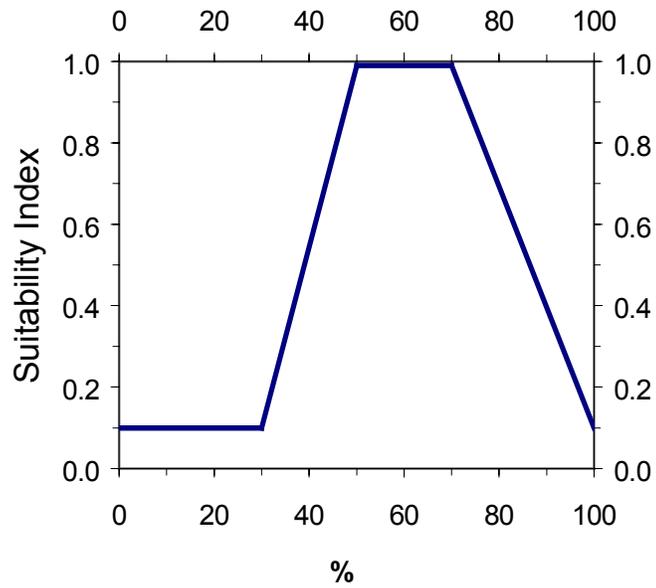
If $70 \leq \% \leq 90$, then $SI = 1.0$

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

Barrier Island

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

Suitability Graph



Line Formulas

If $\% < 30$, then $SI = 0.1$

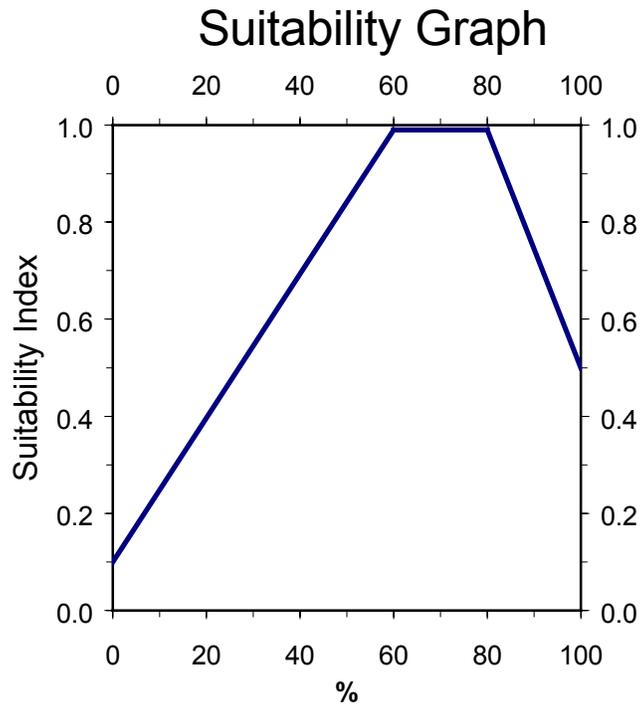
If $30 \leq \% < 50$, then $SI = (0.045 * \%) - 1.25$

If $50 \leq \% \leq 70$, then $SI = 1.0$

If $\% > 70$, then $SI = (-0.03 * \%) + 3.1$

Barrier Island

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



Line Formulas

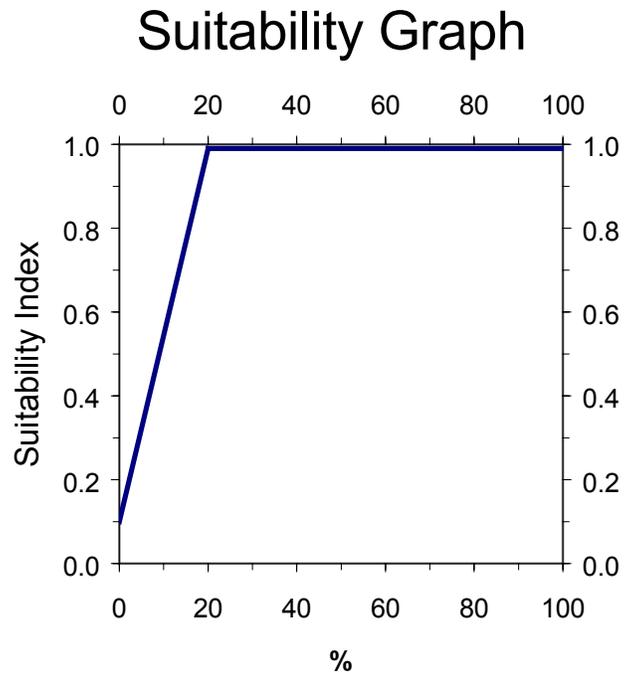
If $\% < 60$, then $SI = (0.015 * \%) + 0.1$

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

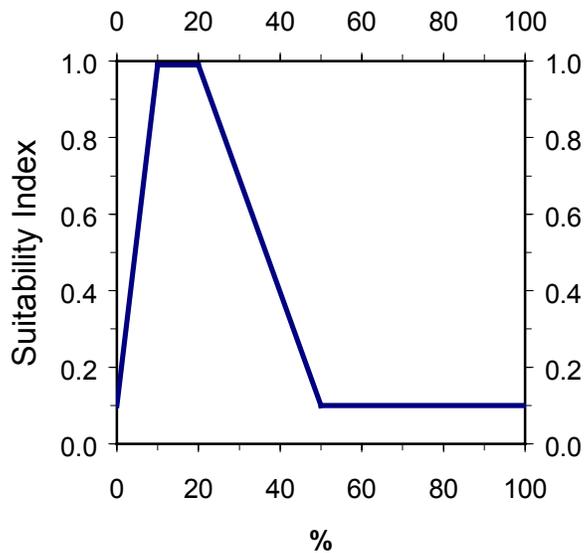
If $\% < 20$, then $SI = (0.045 * \%) + 0.1$

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 $SI = (-0.03*\%) + 1.6$

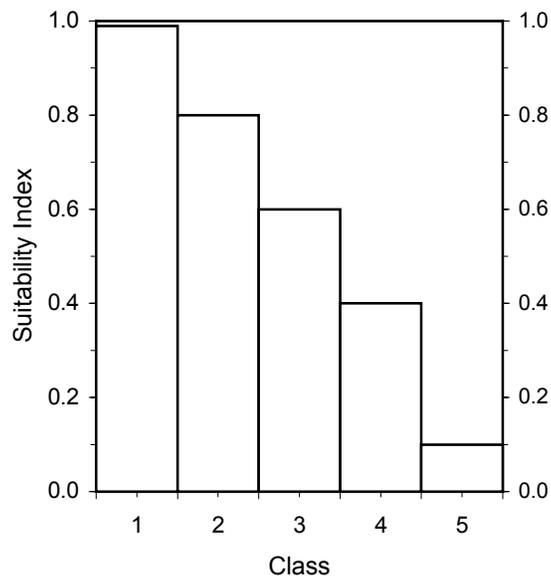
If $\% > 50$, then $SI = 0.1$

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

Barrier Island

Variable V₆ Edge and Interspersion.

Suitability Graph



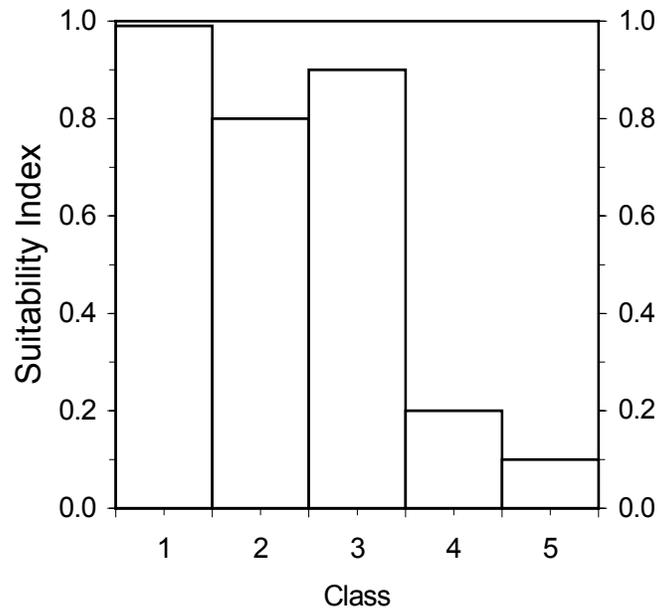
Instructions for Calculating SI for Variable V₆:

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

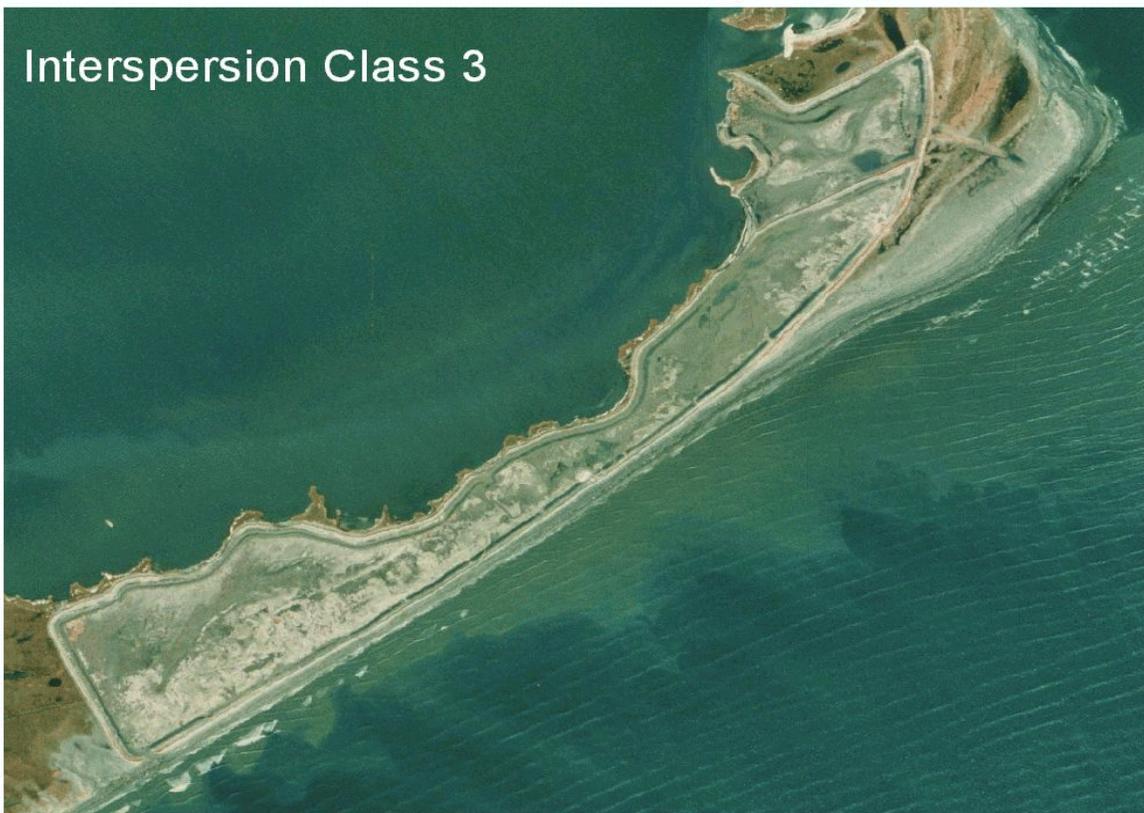
Class 4 = Rock on Beach

Class 5 = Seawall/No emergent habitat

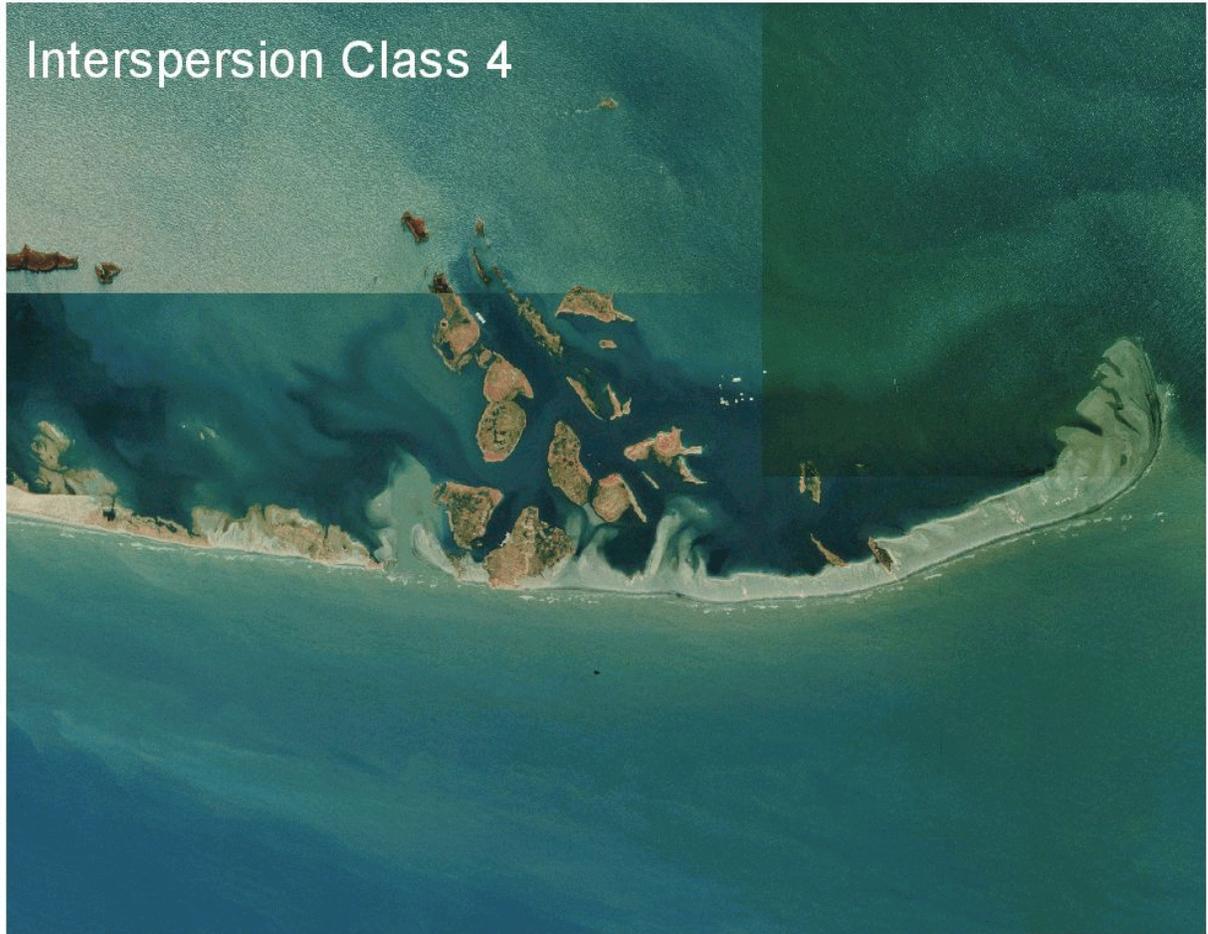
Attachment C - Marsh Edge and Interspersion Classes



Attachment C - Marsh Edge and Interspersion Classes



Attachment C - Marsh Edge and Interspersion Classes



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

11th Priority Project List Report

Appendix C

Engineering Cost Estimates For Candidate Projects

Appendix C

Engineering Cost Estimates for Candidate Projects

Table of Contents

<u>Project Name</u>	<u>Page</u>
Coastwide Nutria Control Program	C-1
Lake Borgne Shoreline Protection at Bayou Dupre	C-2
Southern Chandeleur Islands Restoration Plan	C-3
Lake Lery Dedicated Dredging	C-4
Northeast and South Extension of Barataria Landbridge Shoreline Protection	C-5
Dedicated Dredging on the Barataria Basin Landbridge	C-6
Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration	C-7
Little Lake Shoreline Protection and Dedicated Dredging Near Round Lake	C-8
South Shore of the Pen/Bayou Dupont Shoreline Protection/Marsh Creation	C-9
West Lake Boudreaux Shoreline Protection/Marsh Creation	C-10
Bayou Terrebonne East Bank Hydrologic Restoration Project	C-11
Blue Hammock Hydrologic Restoration and Beneficial Use Project	C-12
Ship Shoal: Whiskey West Flank Restoration	C-13
Raccoon Island Shoreline Protection/Marsh Creation	C-14
Southwest Pass Shoreline Protection	C-15
South Grand Chenier Hydrologic Restoration Project	C-16
Grand Lake Shoreline Protection, from Superior Canal to Tebo Point	C-17
South White Lake Shoreline Protection, Will's Point to the western shore of Bear Lake	C-18
Oyster Bayou Marsh Creation	C-19
Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass	C-20
Holly Beach Sand Management Complex Project	C-21
Diversion into the Swamps South of Lake Maurepas Complex Project	C-22

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: Southern Chandeleur Islands		Date: 10/30/2001	Revised: 11/8/01		
Computed by: Alfonso		Checked by:			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	1,250,000	1,250,000
2	Dredging - Curlew Island	6,054,000	CY	3.50	21,189,000
3	Dredging - Grand Gosier Island	3,872,001	CY	3.50	13,552,000
4	Install Sand Fencing (Curlew, Grand Gosier, Breton)	32,340	LF	10	323,400
5	Planting (Curlew, Grand Gosier, Breton)	968	AC	3,500	3,388,000
5	Aerial Seeding (Curlew, Grand Gosier, Breton)	173	AC	250	43,250

ESTIMATED CONSTRUCTION COST	39,746,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	49,682,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$2,858,000
Engineering (includes sand source study)	\$2,760,000	
Geotechnical Investigation	\$0	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$10,000	
NEPA Compliance	\$74,000	
HTRW	\$14,000	
<i>Supervision and Administration (%)</i>		\$994,000
<u>State Costs</u>		
<i>Supervision and Administration</i>		\$400,000
<i>Easements and Land Rights</i>		\$25,000
Oyster Issues (# of Leases)		
<i>Monitoring</i>		\$22,537
Monitoring Plan Development	\$16,800	
Monitoring Protocol Cost *	\$5,737	
Total Phase I Cost Estimate		\$4,300,000

* 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>		\$49,682,000
Oyster Issues (# of Reef Acres)		
<i>Supervision and Inspection</i>	500 days @	1630 per day
<i>Supervision and Administration (%)</i>		\$994,000
<u>State Costs</u>		
<i>Supervision and Administration</i>		\$400,000
Total Phase II Cost Estimate		\$51,891,000

TOTAL ESTIMATED PROJECT FIRST COST	\$56,191,000
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Project: NE & S Extension of Barataria Landbridge		Date: Sep-01	Revised:	Oct-01	
Computed by: Jurgensen		Checked by:			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	500,000	500,000
2	Foreshore Rock Dike (N Extension)	27,690	LF	502	13,900,000
3	Rock Revetment (N Extension)	3,734	LF	262	978,000
4	Foreshore Rock Dike (SE Extension)	4,301	LF	502	2,159,000
5	Rock Revetment (SE Extension)	18,989	LF	262	4,975,000
6	Flotation Channel/Marsh Creation (SE Extension)	290,489	CY	2.50	726,000
7	Flotation Channel (N Extension)	373,907	CY	2	748,000
8	Vegetative Plantings	36	AC	3,000	108,000
9	Settlement Plates	55	Each	1,000	55,000
10	Navigation Signs	65	Each	1,000	65,000

ESTIMATED CONSTRUCTION COST 24,214,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY 30,268,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$2,041,000
Engineering	\$1,730,000	
Geotechnical Investigation	\$271,000	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	
<i>Supervision and Administration (3%)</i>		\$454,000
 <u>State Costs</u>		
<i>Supervision and Administration</i>		\$400,000
<i>Easements and Land Rights</i>		\$20,000
Oyster Issues (# of Leases)	0	
<i>Monitoring</i>		\$19,293
Monitoring Plan Development	\$16,441	
Monitoring Protocol Cost *	\$2,852	
Total Phase I Cost Estimate		\$2,934,000

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

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$30,268,000
Oyster Issues (# of Leased Acres)	0	
<i>Supervision and Inspection</i>	128 days @ \$ 850 per day	\$109,000
<i>Supervision and Administration (3%)</i>		\$454,000

State Costs

<i>Supervision and Administration</i>		\$400,000
Total Phase II Cost Estimate		\$31,231,000

TOTAL ESTIMATED PROJECT FIRST COST 34,165,000

Project: Pass Chaland to Grand Bayou Pass		Date: 10/16/01		Revised: 10/23/01	
Computed by: Williams		Checked by:			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$1,250,000	1,250,000
2	Bucket Dredging	9,750	ft	\$32	\$312,000
2	Hydraulic Dredging (1.5:1)	2,535,000	cy	\$3.00	7,605,000
4	Grading/Shaping (per 100 ft station)	97.50	ft	\$1,000	\$97,500
5	Aerial Seeding	226	ac	\$250	\$56,500
6	Plantings	226	ac	\$3,500	\$791,000
7	Tidal Creeks (4 ft w)(2 ft d)(3:1 slope)	7,407	cy	\$3	\$22,221
8	Tidal Ponds (6, 1 ac ponds 2 ft deep)	19,360	cy	\$3	\$58,080

ESTIMATED CONSTRUCTION COST **10,192,000**
ESTIMATED CONSTRUCTION + 25% CONTINGENCY **12,740,000**

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,077,000
Engineering	\$767,000	
Geotechnical Investigation	\$160,000	
Surveying (hydrographic, land based, & as-built)	\$110,000	
Borrow Area Impact Modeling	\$40,000	
<i>Supervision and Administration</i>		\$257,255

State Costs

<i>Supervision and Administration</i>		\$241,000
<i>Easements and Land Rights</i>		\$168,000
Oyster Issues (19 leases)	\$38,000	
<i>Monitoring</i>		\$22,537
Monitoring Plan Development	\$16,800	
Monitoring Protocol Cost *	\$5,737	

Total Phase I Cost Estimate **\$1,766,000**

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

Dependent upon type of project.

PHASE II

Federal Costs

<i>Estimated Construction Cost + 25% Contingency</i>		\$13,608,000
Oyster Issues (\$7000/20% of 620 lease acres)	\$868,000	
<i>Supervision and Inspection*</i>	200 days @ 1630 per day	\$326,000
2 ac/day	113 days @ 850 per day	\$96,000
<i>Supervision and Administration</i>		\$257,255

State Costs

<i>Supervision and Administration</i>	\$241,000
---------------------------------------	-----------

Total Phase II Cost Estimate **\$14,528,000**

TOTAL ESTIMATED PROJECT FIRST COST **16,294,000**

NMFS S&A based on E&D, construction plus contingency:
0 to \$10,000,000, S&A is 4% of E&D, construction plus contingency
> \$10,000,000, use 4% of 0 to \$10,000,000, S&A is 4% of E&D, construction plus contingency for 1st \$10M + 3% construction plus contingency over \$10M
Maximum cap of \$1,000,000

Project: Little Lake Shoreline Protection and Dedicated Dredging near Round Lake	Date: September 27, 2001
	Revised: October 9, 2001
	Revised: October 23, 2001

Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	250,000	250,000
2	Rock Rip Rap	155,142	tons	30	4,654,000
3	Encapsulated Aggregate	16,145	CY	62	1,001,000
4	Geotextile Fabric	114,556	SY	4	458,000
5	Settlement Plates	21	Each	1,000	21,000
6	Access/Floatation Channel	404,444	CY	2	809,000
7	Marsh Creation - Dredging	3,541,425	CY	2.50	8,854,000
8	Marsh Nourishment - Dredging	1,287,440	CY	2.75	3,540,000
9	Retention Dikes (Earthen)	15,166	LF	7	106,000
10	Navigation Warning signs	27	Each	1,000	27,000
11	Plantings	50	Acres	3,000	150,000

ESTIMATED CONSTRUCTION COST	19,870,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	24,838,000

TOTAL ESTIMATED PROJECT COSTS

Federal Costs

<i>Engineering and Design</i>		\$1,551,000
Engineering - from fee scale	\$1,436,000	
Geotechnical Investigation - \$25,000 report, 5 deep borings and 25 shallow borings (15 for shoreline and 10 for borrow and marsh creation areas)	\$115,000	
Cultural Resources - included in NMFS Admin	\$0	
NEPA Compliance - included in NMFS Admin.	\$0	
<i>Supervision and Administration</i>		\$445,835

State Costs

<i>Supervision and Administration</i>		\$400,000
<i>Easements and Land Rights</i>		\$60,000
<i>Monitoring</i>		\$22,178
Monitoring Plan Development	\$16,441	
Monitoring Protocol Cost *	\$5,737	
Total Phase I Cost Estimate		\$2,479,000

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$24,838,000
<i>Supervision and Inspection -</i>	414 days @	850 per day
<i>Supervision and Administration</i>		\$352,000
		\$445,835

State Costs

<i>Supervision and Administration</i>		\$400,000
Total Phase II Cost Estimate		\$26,036,000

TOTAL ESTIMATED PROJECT FIRST COST 28,515,000

NMFS S&A based on E&D, construction plus contingency: 0 to \$10,000,000, S&A is 4% of E&D, construction plus contingency > \$10,000,000, use 4% of 0 to \$10,000,000, S&A is 4% of E&D, construction plus contingency for 1st \$10M + 3% construction plus contingency over \$10M Maximum cap of \$1,000,000

Project: South Shore of the Pen/Bayou Dupont		Date: 10/01/2001	Revised: 11/9/01Final		
Computed by: Binet		Checked by:			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
	Dike Along South Shore Of Pen				
1	Mobilization/Demobilization	1	LS	80,000	80,000
2	Dike	142,000	CY	3.50	497,000
3	Geotextile	95,000	SY	4	380,000
4	Planting	1	LS	150,000	150,000
	Dedicated Dredging				
5	Mobilization/Demobilization	1	LS	200,000	200,000
6	Dredging	5,550,000	CY	2.50	13,875,000
7	Front Dike	20,300	LF	23	466,900
8	Back Dike	1	LS	250,000	250,000
9	Planting	1	LS	20,300	20,000

ESTIMATED CONSTRUCTION COST 15,919,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY 19,899,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,294,000
Engineering	\$1,166,000	
Geotechnical Investigation	\$50,000	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$10,000	
NEPA Compliance	\$57,000	
HTRW	\$11,000	
<i>Supervision and Administration (%)</i>		\$398,000
State Costs		
<i>Supervision and Administration</i>		\$349,000
<i>Easements and Land Rights</i>		\$60,000
Oyster Issues (# of Leases)		
<i>Monitoring</i>		\$19,143
Monitoring Plan Development	\$13,406	
Monitoring Protocol Cost *	\$5,737	
	Total Phase I Cost Estimate	\$2,120,000

* 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>		\$19,899,000
Oyster Issues (# of Reef Acres)		
<i>Supervision and Inspection</i>	650 days @ 850 per day	\$553,000
<i>Supervision and Administration (%)</i>		\$799,000
State Costs		
<i>Supervision and Administration</i>		\$349,000
	Total Phase II Cost Estimate	\$21,600,000

TOTAL ESTIMATED PROJECT FIRST COST 23,720,000

East Bayou Terrebonne Hydrologic Restoration Project

Contact: Ronny Paille- USFWS

Revised Date: 10-30-01

Project Features	Feature Cost
A. Madison Canal sheetpile structure	294,350
B. Foreshore 800' armored dike	154,150
C. Tank canal sheetpile structure	413,940
D. Foreshore 1000' armored dike	187,400
E. Foreshore 1440' armored dike	301,778
F. Armored canal plug	300,724
G. Armored bank repair	110,776
H. Repair armored canal plug	77,140
I. Bayou Courant sheetpile structure	674,280
J. Armored canal plug	141,660
K. B.Portage armored canal plug	239,824
L. Armored 460' berm	78,350
M. Armored canal plug	268,824
N. Armored channel plug	97,520
O. Sevin Cut sheetpile structure	1,302,400
Mob/demobilization	300,000

ESTIMATED CONSTRUCTION COST **4,943,000**

ESTIMATED CONSTRUCTION + 25% CONTINGENCY **6,179,000**

PHASE I Federal Costs

Engineering and Design		
<i>Engineering</i>	\$389,000	
<i>Geotechnical Borings (11 de</i>	\$127,000	
<i>Hydrologic Modeling</i>	\$250,000	
<i>Data Collection</i>	\$250,000	
<i>Cultural Resources</i>	\$10,000	
<i>NEPA Compliance</i>	\$30,000	\$1,056,000
Supervision and Administrat		\$124,000

PHASE 1 State Costs

Supervision and Administrat		\$124,000
Land Rights (DNR estimate)		\$100,000
Oyster Lease Impacts (\$2000/lease x 14 leases)		\$28,000
Project Area Monitoring (21,000 acres)		
<i>Monitoring Plan Developme</i>	\$21,897	
<i>Monitoring Cost (1 yr. Precc</i>	\$34,321	\$56,218

Total Phase I Cost Estimate \$1,488,000

PHASE II Federal Costs

Estimated Construction Cost +25% Contingency		\$6,179,000
Oyster Lease Relocation Costs ((20% of 7'		\$1,117,200
Supervision and Inspection (100 days x \$ 850/day)		\$85,000
Supervision and Administrat		\$124,000

PHASE II State Costs

<i>Supervision and Administration</i>		\$124,000
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Total Phase II Cost Estimate . . . \$7,629,000

TOTAL ESTIMATED PROJECT FIRST COST

9,117,000

Project: Blue Hammock Hydrologic Restoration Project		Date: 10/23/2001	Revised: 10/29/2001		
Computed by: Martha Segura		Checked by:			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Dredge Blue Hammock Bayou (Reach 1)	658,645	CY	2.75	1,811,000
2	Dredge Blue Hammock Bayou (Reach 2)	1,640,965	CY	2.50	4,102,000
3	Pipeline Avoidance/Relocation	1	LS	250,000.00	250,000
4	Marsh Creation - Containment Levee	760	LF	7.00	5,000
5	Marsh Creation - Vegetative Plantings	229	AC	3,000.00	687,000
6	5 Armored Earthen Plugs - Earth	5,424	CY	3.00	16,000
7	5 Armored Earthen Plugs - Rip-Rap	1,985	TN	40.00	79,000
8	5 Armored Earthen Plugs - Geotextile	5,406	SY	4.00	22,000
9	Weir - Grand Pass	1	LS	6,000,000.00	6,000,000
10	Weir - Buckskin Bayou	1	LS	642,348.00	642,000
11	Navaisds - Lighted	4	LS	15,000.00	60,000
12	Navaisds - Daytime	8	LS	1,000.00	8,000
13	Mob/Demob	1	LS	500,000.00	500,000

ESTIMATED CONSTRUCTION COST **14,182,000**
ESTIMATED CONSTRUCTION + 25% CONTINGENCY **17,728,000**

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design \$1,705,000
Engineering \$1,046,000
Geotechnical Investigation \$119,000
Hydrologic Modeling \$200,000
Data Collection \$300,000
Cultural Resources \$10,000
NEPA Compliance \$30,000
Supervision and Administration \$354,500

State Costs

Supervision and Administration \$316,000
Easements and Land Rights \$172,000
Oyster Issues (80 leases + State Seedground) \$162,000
Monitoring \$56,218
Monitoring Plan Development \$21,897
Monitoring Protocol Cost * \$34,321

Total Phase I Cost Estimate \$2,604,000

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

PHASE II

Federal Costs

Estimated Construction Cost +25% Contingency \$17,728,000
Oyster Issues (8094 leased acres) \$11,331,600
Supervision and Inspection 260 days @ 850 per day \$221,000
Supervision and Administration \$354,500

State Costs

Supervision and Administration \$316,000

Total Phase II Cost Estimate \$29,951,000

TOTAL ESTIMATED PROJECT FIRST COST 32,555,000

Project: Ship Shoal: Whiskey Island West Flank Extension - \$10/yard		Date: Oct-01	Revised: 11/07/2001		
Computed by Crawford		Checked by:			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$2,500,000.00	2,500,000
2	Hydraulic fill (in place)	13,150,000	CY	\$10.00	131,500,000
3	Sand Fencing	45,500	LF	\$6.50	296,000
4	Grading and Shaping	260	Station	\$525	137,000
5	Vegitative Planting	718	Acre	\$3,500.00	2,513,000
6					
7					

ESTIMATED CONSTRUCTION COST **136,946,000**
ESTIMATED CONSTRUCTION + 25% CONTINGENCY **171,183,000**

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>			\$2,640,000
Engineering	\$2,500,000		
Geotechnical Investigation	\$100,000		
Hydrologic Modeling	\$0		
Data Collection	\$0		
Cultural Resources	\$0		
NEPA Compliance	\$40,000		

Supervision and Administration (3%) \$2,567,500

State Costs

<i>Supervision and Administration</i>			\$400,000
<i>Easements and Land Rights</i>			\$10,000
Oyster Issues (# of Leases)	0		
<i>Monitoring</i>			\$22,537
Monitoring Plan Development	\$16,800		
Monitoring Protocal Cost *	\$5,737		

Total Phase I Cost Estimate **\$5,640,000**

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

Dependent upon type of project.

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>			\$171,183,000
Oyster Issues (# of Leased Acres)	0		
<i>Supervision and Inspection</i>	760 days @	1630 per day	\$1,239,000
<i>Supervision and Administration (3%)</i>			\$2,567,500

State Costs

Supervision and Administration \$400,000

Total Phase II Cost Estimate **\$175,390,000**

TOTAL ESTIMATED PROJECT FIRST COST **181,030,000**

Project: Raccoon Island SP/MC		Date: 01-Oct-01	Revised: 24-Oct-01		
Computed by: L. Broussard		Checked by:			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	1,000,000	1,000,000
2	Segmented Breakwaters (8 sections)	L.S.	Job	1,895,000	1,895,000
3	Breakwater 0,1 & 2 Modification	L.S.	Job	241,000	241,000
4	Containment Dike	31,139	CY	2.00	62,000
5	Containment Dike Breaching	779	CY	2.00	2,000
6	Dredge Material	1,036,728	CY	2.50	2,592,000
7	Vegetative Plantings	66	Ac	3,500	231,000

ESTIMATED CONSTRUCTION COST	6,023,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	7,529,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$628,000
Engineering	\$468,000	
Geotechnical Investigation (refer to notes)	\$100,000	
Hydrologic Modeling	\$0	
Data Collection (surveying)	\$20,000	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	
<i>Supervision and Administration (2%)</i>		\$150,500

State Costs

<i>Supervision and Administration</i>		\$150,500
<i>Easements and Land Rights</i>		\$10,000
Oyster Issues (# of Leases)	0	
<i>Monitoring</i>		\$22,537
Monitoring Plan Development	\$16,800	
Monitoring Protocol Cost *	\$5,737	

Total Phase I Cost Estimate \$962,000

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

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$7,529,000
Oyster Issues (# of Leased Acres)	0	
<i>Supervision and Inspection</i>	185 days @ 1630 per day	\$302,000
<i>Supervision and Administration (2%)</i>		\$150,500

State Costs

<i>Supervision and Administration</i>		\$150,500
---------------------------------------	--	-----------

Total Phase II Cost Estimate \$8,132,000

<u>TOTAL ESTIMATED PROJECT FIRST COST</u>	9,094,000
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Project: Southwest Pass SP		Date: 15-Oct-01	Revised: 07-Nov-01		
Computed by L Broussard		Checked by: C Lafleur			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	180,000	180,000
2	Rock Revetment	113,100	Tns	25	2,828,000
3	Rock Riprap	66,950	Tns	25	1,674,000
4	Geotextile	120,496	SY	4	482,000
5	Flotation Channel	376,006	CY	2	752,000
6	Temporary Signs	15	Each	1,000	15,000
7	Navigation Signs	7	Each	1,000	7,000
8	Settlement Plates	23	Each	1,200	28,000

ESTIMATED CONSTRUCTION COST	5,966,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	7,458,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$669,000
Engineering	\$464,000	
Geotechnical Investigation	\$130,000	
Hydrologic Modeling	\$0	
Data Collection (Surveys)	\$35,000	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	
<i>Supervision and Administration (2%)</i>		\$149,000
<u>State Costs</u>		
<i>Supervision and Administration</i>		\$149,000
<i>Easements and Land Rights</i>		\$15,000
Oyster Issues (# of Leases)	4 Leases @ \$2,000/Lease	\$8,000
<i>Monitoring</i>		\$22,759
Monitoring Plan Development	\$19,907	
Monitoring Protocol Cost *	\$2,852	
Total Phase I Cost Estimate		\$1,013,000

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

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$7,458,000
Oyster Issues (# of Leased Acres)	0 Acres @ \$7,000/Ac	\$0
<i>Supervision and Inspection</i>	49 days @ 850 per day	\$42,000
<i>Supervision and Administration (2%)</i>		\$149,000
<u>State Costs</u>		
<i>Supervision and Administration</i>		\$149,000
Total Phase II Cost Estimate		\$7,798,000

TOTAL ESTIMATED PROJECT FIRST COST	8,811,000
---	------------------

Project: Oyster Bayou Marsh Creation		Date: 09/26/01	Revised: 10/09/2001		
Computed by: Williams		Checked by:			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$1,000,000	1,000,000
2	Bucket Dredging (12,700 ft of containment)	56,092	cy	\$3	168,000
3	Hydraulic Dredging (Open Gulf; 27" or larger)	2,292,545	cy	\$3	6,878,000
4	Jack and Boring HWY 82 (HWY 23 estimate)	1	LS	\$1,000,000	1,000,000
5	Planting	232	ac	\$3,000	696,000

ESTIMATED CONSTRUCTION COST 9,742,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY 12,178,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

Engineering and Design \$980,000

Engineering \$735,000

Geotechnical Investigation (10 borings + report) \$105,000

Borrow area impact modeling \$40,000

Surveying (pre-con fill area, borrow area, as-builts) \$100,000

Cultural Resources (covered in NMFS S&A) \$0

NEPA Compliance (covered in NMFS S&A) \$0

Supervision and Administration \$247,370

State Costs

Supervision and Administration \$232,500

Easements and Land Rights \$100,000

Oyster Issues (# of Leases) 0

Monitoring \$21,010

Monitoring Plan Development \$15,273

Monitoring Protocol Cost * \$5,737

Total Phase I Cost Estimate \$1,581,000

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

PHASE II

Federal Costs

Estimated Construction Cost + 25% Contingency \$12,178,000

Oyster Issues (# of Leased Acres) 0

Supervision and Inspection \$212,000

130 days @ 1630 per day

116 days @ 850 per day \$99,000

Supervision and Administration \$247,370

State Costs

Supervision and Administration \$232,500

Total Phase II Cost Estimate \$12,969,000

TOTAL ESTIMATED PROJECT FIRST COST 14,550,000

NMFS S&A based on E&D, construction plus contingency:
0 to \$10,000,000, S&A is 4% of E&D, construction plus contingency
> \$10,000,000, use 4% of 0 to \$10,000,000, S&A is 4% of E&D, construction plus contingency for 1st \$10M + 3% construction plus contingency over \$10M
Maximum cap of \$1,000,000

Project: Barataria Barrier Island complex project		Date: 10/16/01	Revised: 12/18/2001		
Computed by: Williams		Checked by:			
Item No.	Work or Material (see table 1 in design cost r	Quantity	Unit	Unit Cost	Amount
1	Mobilization/Demobilization	1	LS	\$1,250,000	1,250,000
2	Hydraulic Dredging (Beach Fill)	1,452,000	cy	\$6.90	10,019,000
3	Hydraulic Dredging (Marsh Fill)	388,000	cy	\$3.45	1,339,000
4	Grading and Shaping	60	ac	\$500	30,000
5	Structures	2	ea	\$500,000	1,000,000
6	Planting (berm and marsh acres)	220	ac	\$3,500	770,000
7	Aerial Seeding (dune acres)	47	ac	\$250	12,000
8	Sand Fencing (~2*project length)	25,000	ft	\$8	200,000
7	Tidal Creeks (10,000 ft)(4 ft w)(2 ft d)(3:1 slope)	7,407	cy	\$3	\$22,221
8	Tidal Ponds (6, 1 ac ponds 2 ft deep)	19,360	cy	\$3	\$58,080
9	Mobilization/Demobilization	1	LS	\$1,250,000	1,250,000
10	Hydraulic Dredging (Beach Fill)	1,782,000	cy	\$6.90	12,296,000
11	Hydraulic Dredging (Marsh Fill)	388,000	cy	\$3.45	1,339,000
12	Grading and Shaping	60	ac	\$500	30,000
13	Structures	2	ea	\$500,000	1,000,000
14	Planting (berm and marsh acres)	267	ac	\$3,500	935,000
15	Aerial Seeding (dune acres)	55	ac	\$250	14,000
16	Sand Fencing (~2*project length)	32,000	ft	\$8	256,000
17	Tidal Creeks (10,000 ft)(4 ft w)(2 ft d)(3:1 slope)	7,407	cy	\$3	\$22,221
18	Tidal Ponds (6, 1 ac ponds 2 ft deep)	19,360	cy	\$3	\$58,080
ESTIMATED CONSTRUCTION COST					31,843,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY					39,803,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,797,000
Engineering (see table 2A for breakout)	\$945,000	
Data Collection (see revised table 1 for breakout)	\$852,000	
Cultural Resources (covered in NMFS S&A)	\$0	
NEPA Compliance (covered in NMFS S&A)	\$0	
<i>Supervision and Administration (3%)</i>		\$500,000

State Costs

<i>Supervision and Administration</i>		\$400,000
<i>Easements and Land Rights (place holder)</i>	\$100,000	
Oyster Issues (14 and 5 of Leases @ \$2000 ea)	\$38,000	
Subtotal		\$138,000
<i>Monitoring</i>		\$61,474
Monitoring Plan Development	\$50,000	
Monitoring Protocol Cost *	\$11,474	

Total Phase I Cost Estimate \$2,896,000

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

PHASE II

Federal Costs

<i>Estimated Construction Cost +25% Contingency</i>		\$42,208,200
Oyster Issues (1,384 + 334 Leased Acres)	2,405,200	
<i>Supervision and Inspect</i>	240 days @ 1630 per day	\$391,000
800 ft/day	62 days @ 850 per day	\$53,000
2 ac/day	244 days @ 850 per day	\$207,000
<i>Supervision and Administration (3%)</i>		\$500,000

State Costs

<i>Supervision and Administration</i>		\$400,000
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Total Phase II Cost Estimate \$43,759,000

TOTAL ESTIMATED PROJECT FIRST COST 46,655,000

Project: Maurepas Swamp Diversion Complex Project		Date: 05/21/2001	Revised: 06/27/2001		
Computed by T. Hill		Checked by:			
Item No.	Work or Material	Quantity	Unit	Unit Cost	Amount
1	Siphon Struct 2- 10'x10' box culverts	1		4,858,377	4,858,000
2	Sediment Basin	1		549,000	549,000
3	Channel work	1,032,300	cu-yd	3.10	3,200,000
4	72" Flapgate	4		20,000.00	80,000
5	Pipe for Culverts	280	ft	65	18,000
6	Site Prep for c 20% of gates and pipe				20,000
7	Riprap I-10 bridge	25,000	tons	25	625,000
8	Relocations	1		20,349,030	20,349,000
9	Rock for channel constrictions	10,000	tons	25	250,000
10	Spoil Bank Gapping	1		76,000	76,000
ESTIMATED CONSTRUCTION COST					30,025,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY					37,531,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

<i>Engineering and Design</i>		\$3,442,000
Engineering	\$1,300,000	
Geotechnical Investigation	\$380,000	
Surveys	\$300,000	
Hydrologic Modeling	\$712,000	
Ecological modeling	\$150,000	
Data Collection	\$360,000	
Cultural Resources	\$40,000	
Permitting	\$50,000	
NEPA Compliance	\$150,000	
<i>Federal Supervision and Administration</i>		\$750,500
<i>State Supervision and Administration</i>		\$750,500
<i>Easements and Land Rights Studies</i>		\$210,000
<i>Monitoring</i>		\$46,281
Monitoring Plan Development	\$12,943	
Monitoring Protocol Cost*	\$33,338	
	Total Phase I Cost Estimate	\$5,199,000

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

PHASE II

<i>Estimated Construction Cost +25% Contingency</i>	\$37,531,000
<i>Supervision and Inspection \$20,000/month for 4 years</i>	\$960,000
<i>Federal Supervision and Administration</i>	\$750,500
<i>State Supervision and Administration</i>	\$750,500
<i>Easements and Land Rights Costs</i>	\$2,530,000
	Total Phase II Cost Estimate
	\$42,522,000

TOTAL ESTIMATED PROJECT FIRST COST **47,721,000**

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

11th Priority Project List Report

Appendix D

Economics Computational Summary For Candidate Projects

Appendix D

Economics Computational Summary For Candidate Projects

Table of Contents

<u>Project Name</u>	<u>Page</u>
Coastwide Nutria Control Program	D-1
Lake Borgne Shoreline Protection at Bayou Dupre	D-8
Southern Chandeleur Islands Restoration Plan	D-15
Lake Lery Dedicated Dredging	D-22
Northeast and South Extension of Barataria Landbridge Shoreline Protection	D-29
Dedicated Dredging on the Barataria Basin Landbridge	D-36
Pass Chalant to Grand Bayou Pass Barrier Shoreline Restoration	D-43
Little Lake Shoreline Protection and Dedicated Dredging Near Round Lake	D-51
South Shore of the Pen/Bayou Dupont Shoreline Protection/Marsh Creation	D-57
West Lake Boudreaux Shoreline Protection/Marsh Creation	D-64
Bayou Terrebonne East Bank Hydrologic Restoration Project	D-71
Blue Hammock Hydrologic Restoration and Beneficial Use Project	D-78
Ship Shoal: Whiskey West Flank Restoration	D-85
Raccoon Island Shoreline Protection/Marsh Creation	D-92
Southwest Pass Shoreline Protection	D-99
South Grand Chenier Hydrologic Restoration Project	D-106
Grand Lake Shoreline Protection, from Superior Canal to Tebo Point	D-113
South White Lake Shoreline Protection, Will's Point to the western shore of Bear Lake	D-120
Oyster Bayou Marsh Creation	D-127
Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chalant Pass	D-134
Holly Beach Sand Management Complex Project	D-141
Diversion into the Swamps South of Lake Maurepas Complex Project	D-148

Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Nutria Control Program (LA-CW-1)

Project Construction Years:	2	Total Project Years	22
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$2,890,100	Total Fully Funded Costs	\$76,924,100

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$2,905,389	\$255,881
Monitoring	\$775,702	\$68,317
O & M Costs	\$27,137,090	\$2,390,000
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$30,825,700	\$2,714,900
Average Annual Habitat Units		2,993
Cost Per Habitat Unit		\$907
Total Net Acres		14,963

D-1

**Coastal Wetlands Conservation and Restoration Plan
Nutria Control Program (LA-CW-1)**

Project Costs

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											
	0 Compound							-	\$0		\$0
	4 Compounc	2000	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
	3 Compounc	2001	\$0	\$0	\$0	\$0	\$0	-	\$0		\$0
	2 Compounc	2002	\$0	\$30,000	\$90,000	\$45,000	\$663	\$95,200	-	\$0	\$260,863
	TOTAL		\$0	\$30,000	\$90,000	\$45,000	\$663	\$95,200	\$0	\$0	\$260,863
Phase II											
	4 Compounc	2000	-	-	-	-	-	-	\$0	\$0	\$0
	3 Compounc	2001	-	-	-	-	-	-	\$0	\$0	\$0
	2 Compounc	2002	-	-	\$0	\$0	-	\$0	\$0	\$0	\$0
	1 Compounc	2003	-	-	\$90,000	\$45,000	\$663	\$70,200	\$0	\$451,000	\$2,460,863
	TOTAL		\$0	\$0	\$90,000	\$45,000	\$663	\$70,200	\$0	\$451,000	\$2,460,863
Total First Costs			\$0	\$30,000	\$180,000	\$90,000	\$1,326	\$165,400	\$0	\$451,000	\$2,721,726

D-2

Year	FY	Monitoring	O&M	Corps PM	Other
1 Discount	2004	\$70,200	\$2,390,000	\$663	-
2 Discount	2005	\$70,200	\$2,390,000	\$663	-
3 Discount	2006	\$70,200	\$2,390,000	\$663	-
4 Discount	2007	\$70,200	\$2,390,000	\$663	-
5 Discount	2008	\$70,200	\$2,390,000	\$663	-
6 Discount	2009	\$70,200	\$2,390,000	\$663	-
7 Discount	2010	\$70,200	\$2,390,000	\$663	-
8 Discount	2011	\$70,200	\$2,390,000	\$663	-
9 Discount	2012	\$70,200	\$2,390,000	\$663	-
10 Discount	2013	\$70,200	\$2,390,000	\$663	-
11 Discount	2014	\$70,200	\$2,390,000	\$663	-
12 Discount	2015	\$70,200	\$2,390,000	\$663	-
13 Discount	2016	\$70,200	\$2,390,000	\$663	-
14 Discount	2017	\$70,200	\$2,390,000	\$663	-
15 Discount	2018	\$70,200	\$2,390,000	\$663	-
16 Discount	2019	\$70,200	\$2,390,000	\$663	-
17 Discount	2020	\$70,200	\$2,390,000	\$663	-
18 Discount	2021	\$70,200	\$2,390,000	\$663	-
19 Discount	2022	\$70,200	\$2,390,000	\$663	-
20 Discount	2023	\$0	\$2,390,000	\$663	-
Total		\$1,333,800	\$47,800,000	\$13,264	\$0

**Coastal Wetlands Conservation and Restoration Plan
Nutria Control Program (LA-CW-1)**

Present Valued Costs			Total Discounted Costs				\$30,825,711				Amortized Costs			\$2,714,862
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														
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
4	1.268	2000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3	1.195	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
2	1.126	2002	\$0	\$33,788	\$101,363	\$50,681	\$747	\$107,219	\$0	\$0	\$0	\$293,798		
Total			\$0	\$33,788	\$101,363	\$50,681	\$747	\$107,219	\$0	\$0	\$0	\$293,798		
Phase II														
4	1.268	2000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3	1.195	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
2	1.126	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
1	1.061	2003	\$0	\$0	\$95,513	\$47,756	\$704	\$74,500	\$0	\$478,624	\$1,914,495	\$2,611,591		
Total			\$0	\$0	\$95,513	\$47,756	\$704	\$74,500	\$0	\$478,624	\$1,914,495	\$2,611,591		
Total First Cost			\$0	\$33,788	\$196,875	\$98,438	\$1,451	\$181,719	\$0	\$478,624	\$1,914,495	\$2,905,389		

D-3

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2004	\$66,148	\$2,252,061	\$625
-2	0.888	2005	\$62,331	\$2,122,084	\$589
-3	0.837	2006	\$58,733	\$1,999,608	\$555
-4	0.788	2007	\$55,343	\$1,884,200	\$523
-5	0.743	2008	\$52,149	\$1,775,454	\$493
-6	0.700	2009	\$49,140	\$1,672,984	\$464
-7	0.660	2010	\$46,303	\$1,576,427	\$437
-8	0.622	2011	\$43,631	\$1,485,444	\$412
-9	0.586	2012	\$41,113	\$1,399,712	\$388
-10	0.552	2013	\$38,740	\$1,318,927	\$366
-11	0.520	2014	\$36,504	\$1,242,805	\$345
-12	0.490	2015	\$34,397	\$1,171,077	\$325
-13	0.462	2016	\$32,412	\$1,103,488	\$306
-14	0.435	2017	\$30,541	\$1,039,801	\$289
-15	0.410	2018	\$28,779	\$979,789	\$272
-16	0.386	2019	\$27,118	\$923,240	\$256
-17	0.364	2020	\$25,553	\$869,955	\$241
-18	0.343	2021	\$24,078	\$819,746	\$227
-19	0.323	2022	\$22,688	\$772,434	\$214
-20	0.305	2023	\$0	\$727,853	\$202
Total		\$775,702	\$27,137,090	\$7,530	\$0

**Coastal Wetlands Conservation and Restoration Plan
Nutria Control Program (LA-CW-1)**

Fully Funded Costs Total Fully Funded Costs \$76,924,100 Amortized Costs \$6,774,809

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											
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	0.969	2000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.032	2002	\$0	\$30,960	\$92,880	\$46,440	\$684	\$98,246	\$0	\$0	\$269,211
TOTAL			\$0	\$30,960	\$92,880	\$46,440	\$684	\$98,246	\$0	\$0	\$269,211
Phase II											
4	0.969	2000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.032	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1	1.065	2003	\$0	\$0	\$95,852	\$47,926	\$706	\$74,765	\$0	\$480,326	\$1,921,303
TOTAL			\$0	\$0	\$95,852	\$47,926	\$706	\$74,765	\$0	\$480,326	\$1,921,303
Total Cost			\$0	\$31,000	\$188,700	\$94,400	\$1,400	\$173,000	\$0	\$480,300	\$1,921,300

D-4

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.099	2004	\$77,157	\$2,626,860	\$729
-2	1.134	2005	\$79,626	\$2,710,920	\$752
-3	1.171	2006	\$82,174	\$2,797,669	\$776
-4	1.208	2007	\$84,804	\$2,887,195	\$801
-5	1.247	2008	\$87,518	\$2,979,585	\$827
-6	1.287	2009	\$90,318	\$3,074,932	\$853
-7	1.328	2010	\$93,208	\$3,173,330	\$881
-8	1.370	2011	\$96,191	\$3,274,876	\$909
-9	1.414	2012	\$99,269	\$3,379,672	\$938
-10	1.459	2013	\$102,446	\$3,487,822	\$968
-11	1.506	2014	\$105,724	\$3,599,432	\$999
-12	1.554	2015	\$109,107	\$3,714,614	\$1,031
-13	1.604	2016	\$112,598	\$3,833,481	\$1,064
-14	1.655	2017	\$116,202	\$3,956,153	\$1,098
-15	1.708	2018	\$119,920	\$4,082,750	\$1,133
-16	1.763	2019	\$123,758	\$4,213,398	\$1,169
-17	1.819	2020	\$127,718	\$4,348,226	\$1,207
-18	1.878	2021	\$131,805	\$4,487,370	\$1,245
-19	1.938	2022	\$136,023	\$4,630,965	\$1,285
-20	2.000	2023	\$0	\$4,779,156	\$1,326
Total			\$1,975,600	\$72,038,400	\$20,000
					\$0

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>1,804,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>2,255,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$0
Engineering	\$0	
Geotechnical Investigation	\$0	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$0	
NEPA Compliance (In Fed S	\$0	

Supervision and Administration \$90,000

State Costs

<i>Supervision and Administration</i>		\$45,000
<i>Easements and Land Rights</i>		\$30,000
<i>Monitoring</i>		\$95,200
Monitoring Plan Developmei	\$25,000	
Monitoring Protocol Cost *	\$70,200	

Total Phase I Cost Estimate \$260,000

* 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>		\$2,255,000
Oyster Issues (# of Acres)	0	\$3,000 per acre
	lease acres	\$0
<i>Supervision and Inspection</i>	0 days @	\$850 per day
<i>Supervision and Administration</i>		\$90,000

State Costs

Supervision and Administration \$45,000

Total Phase II Cost Estimate \$2,390,000

TOTAL ESTIMATED PROJECT FIRST COST 2,650,000

D-5

O&M Data

Annual Costs

Annual Inspections	\$0
Annual Cost for Operations	\$2,390,000
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs: NONE

Construction Items

	<u>Year 3</u>	<u>Year 7</u>	<u>Year 14</u>
	\$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>
Subtotal w/ 10% contin.	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0
Total	\$0	\$0	\$0

Engineer, Design & Administrative Costs

Engineering and Design Cost	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0
Eng Survey 0 days @ \$1,417 per day	\$0	\$0	\$0
Construction Insp 0 days @ \$850 per day	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0
Total	\$0	\$0	\$0

D-6

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$70,200

Construction Schedule:

	2002	2003	2004	2005	2006	Total
Plan & Design Start	March-02	7				7
Plan & Design End	September-02					
Const. Start	December-02					
Const. End	September-03	12				12
	7	12	0	0	0	19

LA-CW-1 Nutria Control Program Operation & Maintenance and Monitoring

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$0
Annual Cost for Operations	\$2,390,000
Preventive Maintenance	\$0

Note: Annual costs will be same as Phase 2 costs for this project.

Construction Items

No O&M necessary for this project.

Specific Intermittent Costs

Engineer, Design & Administrative Costs

No O&M necessary for this project.

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$70,200	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	September-02	<i>(Minimum of one year to complete this phase)</i>
Const. Start	December-02	<i>(Requires 4 months for contracting and advertising)</i>
Const. End		

Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Lake Borgne Shoreline Protection at Bayou Dupre (PO-11-1)

Project Construction Years:	4	Total Project Years	24
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$7,980,900	Total Fully Funded Costs	\$11,928,100

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$8,049,071	\$708,893
Monitoring	\$31,512	\$2,775
O & M Costs	\$1,800,686	\$158,589
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$9,888,800	\$870,900
Average Annual Habitat Units		29
Cost Per Habitat Unit		\$30,145
Total Net Acres		83

Coastal Wetlands Conservation and Restoration Plan
Lake Borgne Shoreline Protection at Bayou Dupre (PO-11-1)

Project Costs

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											
0	Compound							-	\$0		\$0
4	Compound	2002	\$130,760	\$18,480	\$36,932	\$34,300	\$663	\$0	-	\$0	\$221,135
3	Compound	2003	\$224,160	\$31,680	\$63,312	\$58,800	\$663	\$13,406	-	\$0	\$392,021
2	Compound	2004	\$112,080	\$15,840	\$63,312	\$29,400	\$332	\$2,852	-	\$0	\$223,815
TOTAL			\$467,000	\$66,000	\$163,556	\$122,500	\$1,658	\$16,258	\$0	\$0	\$836,972
Phase II											
4	Compound	2002	-	-	-	-	-	-	-	\$0	\$0
3	Compound	2003	-	-	-	-	-	-	-	\$0	\$0
2	Compound	2004	-	\$9,066	\$43,967	\$81,667	\$332	\$0	\$20,400	\$817,000	\$4,240,431
1	Compound	2005	-	-	\$43,967	\$40,833	\$663	\$2,852	\$10,200	\$408,500	\$2,141,015
TOTAL			\$0	\$9,066	\$87,933	\$122,500	\$995	\$2,852	\$30,600	\$1,225,500	\$6,381,446
Total First Costs			\$467,000	\$75,066	\$251,489	\$245,000	\$2,653	\$19,110	\$30,600	\$1,225,500	\$7,218,418

D-9

Year	FY	Monitoring	O&M	Corps PM	Other
1 Discount	2006	\$2,852	\$4,494	\$663	-
2 Discount	2007	\$2,852	\$4,494	\$663	-
3 Discount	2008	\$2,852	\$1,544,166	\$663	-
4 Discount	2009	\$2,852	\$4,494	\$663	-
5 Discount	2010	\$2,852	\$4,494	\$663	-
6 Discount	2011	\$2,852	\$4,494	\$663	-
7 Discount	2012	\$2,852	\$78,655	\$663	-
8 Discount	2013	\$2,852	\$4,494	\$663	-
9 Discount	2014	\$2,852	\$4,494	\$663	-
10 Discount	2015	\$2,852	\$4,494	\$663	-
11 Discount	2016	\$2,852	\$4,494	\$663	-
12 Discount	2017	\$2,852	\$4,494	\$663	-
13 Discount	2018	\$2,852	\$4,494	\$663	-
14 Discount	2019	\$2,852	\$952,787	\$663	-
15 Discount	2020	\$2,852	\$4,494	\$663	-
16 Discount	2021	\$2,852	\$4,494	\$663	-
17 Discount	2022	\$2,852	\$4,494	\$663	-
18 Discount	2023	\$2,852	\$4,494	\$663	-
19 Discount	2024	\$2,852	\$4,494	\$663	-
20 Discount	2025	\$0	\$4,494	\$663	-
Total		\$54,185	\$2,652,006	\$13,264	\$0

Coastal Wetlands Conservation and Restoration Plan
Lake Borgne Shoreline Protection at Bayou Dupre (PO-11-1)

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	Total First Cost	
Phase I												
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	1.268	2002	\$165,862	\$23,441	\$46,846	\$43,508	\$841	\$0	\$0	\$0	\$280,497	
3	1.195	2003	\$267,924	\$37,865	\$75,673	\$70,280	\$793	\$16,023	\$0	\$0	\$468,557	
2	1.126	2004	\$126,230	\$17,840	\$71,305	\$33,112	\$373	\$3,212	\$0	\$0	\$252,072	
Total			\$560,016	\$79,146	\$193,824	\$146,899	\$2,007	\$19,235	\$0	\$0	\$1,001,127	
Phase II												
4	1.268	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.195	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.126	2004	\$0	\$10,211	\$49,518	\$91,977	\$373	\$0	\$22,976	\$920,148	\$3,680,590	
1	1.061	2005	\$0	\$0	\$46,660	\$43,334	\$704	\$3,026	\$10,825	\$433,521	\$1,734,083	
Total			\$0	\$10,211	\$96,177	\$135,312	\$1,077	\$3,026	\$33,800	\$1,353,668	\$5,414,673	
Total First Cost			\$560,016	\$89,356	\$290,001	\$282,211	\$3,085	\$22,262	\$33,800	\$1,353,668	\$5,414,673	

D-10

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2006	\$2,687	\$4,235	\$625
-2	0.888	2007	\$2,532	\$3,990	\$589
-3	0.837	2008	\$2,386	\$1,291,936	\$555
-4	0.788	2009	\$2,248	\$3,543	\$523
-5	0.743	2010	\$2,119	\$3,338	\$493
-6	0.700	2011	\$1,996	\$3,146	\$464
-7	0.660	2012	\$1,881	\$51,880	\$437
-8	0.622	2013	\$1,772	\$2,793	\$412
-9	0.586	2014	\$1,670	\$2,632	\$388
-10	0.552	2015	\$1,574	\$2,480	\$366
-11	0.520	2016	\$1,483	\$2,337	\$345
-12	0.490	2017	\$1,397	\$2,202	\$325
-13	0.462	2018	\$1,317	\$2,075	\$306
-14	0.435	2019	\$1,241	\$414,523	\$289
-15	0.410	2020	\$1,169	\$1,842	\$272
-16	0.386	2021	\$1,102	\$1,736	\$256
-17	0.364	2022	\$1,038	\$1,636	\$241
-18	0.343	2023	\$978	\$1,541	\$227
-19	0.323	2024	\$922	\$1,452	\$214
-20	0.305	2025	\$0	\$1,369	\$202
Total			\$31,512	\$1,800,686	\$7,530

Coastal Wetlands Conservation and Restoration Plan
Lake Borgne Shoreline Protection at Bayou Dupre (PO-11-1)

Fully Funded Costs Total Fully Funded Costs \$11,928,100 Amortized Costs \$1,050,524

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											
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	1.032	2002	\$134,944	\$19,071	\$38,114	\$35,398	\$684	\$0	\$0	\$0	\$228,212
3	1.065	2003	\$238,736	\$33,740	\$67,429	\$62,623	\$706	\$14,278	\$0	\$0	\$417,512
2	1.099	2004	\$123,188	\$17,410	\$69,587	\$32,314	\$364	\$3,134	\$0	\$0	\$245,997
TOTAL			\$496,868	\$70,221	\$175,129	\$130,335	\$1,755	\$17,412	\$0	\$0	\$891,720
Phase II											
4	1.032	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.099	2004	\$0	\$9,965	\$48,324	\$89,760	\$364	\$0	\$22,422	\$897,969	\$3,591,874
1	1.134	2005	\$0	\$0	\$49,870	\$46,316	\$752	\$3,235	\$11,570	\$463,352	\$1,853,407
TOTAL			\$0	\$9,965	\$98,194	\$136,076	\$1,117	\$3,235	\$33,991	\$1,361,320	\$5,445,282
Total Cost			\$496,900	\$80,200	\$273,300	\$266,400	\$2,900	\$20,600	\$34,000	\$1,361,300	\$5,445,300

D-11

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.171	2006	\$3,338	\$5,261	\$776
-2	1.208	2007	\$3,445	\$5,429	\$801
-3	1.247	2008	\$3,555	\$1,925,094	\$827
-4	1.287	2009	\$3,669	\$5,782	\$853
-5	1.328	2010	\$3,787	\$5,967	\$881
-6	1.370	2011	\$3,908	\$6,158	\$909
-7	1.414	2012	\$4,033	\$111,225	\$938
-8	1.459	2013	\$4,162	\$6,558	\$968
-9	1.506	2014	\$4,295	\$6,768	\$999
-10	1.554	2015	\$4,432	\$6,985	\$1,031
-11	1.604	2016	\$4,574	\$7,208	\$1,064
-12	1.655	2017	\$4,721	\$7,439	\$1,098
-13	1.708	2018	\$4,872	\$7,677	\$1,133
-14	1.763	2019	\$5,028	\$1,679,695	\$1,169
-15	1.819	2020	\$5,188	\$8,176	\$1,207
-16	1.878	2021	\$5,354	\$8,438	\$1,245
-17	1.938	2022	\$5,526	\$8,708	\$1,285
-18	2.000	2023	\$5,703	\$8,986	\$1,326
-19	2.064	2024	\$5,885	\$9,274	\$1,369
-20	2.130	2025	\$0	\$9,571	\$1,412
Total			\$85,500	\$3,840,400	\$21,300

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>4,902,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>6,128,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>			\$467,000
Engineering	\$386,000		
Geotechnical Investigation (4	\$81,000		
Cultural Resources - included	\$0		
NEPA Compliance - included	\$0		
0	\$0		
0	\$0		
0	\$0		
<i>Supervision and Administration</i>			\$131,900

State Costs

<i>Supervision and Administration</i>			\$122,500
<i>Easements and Land Rights</i>			\$66,000
<i>Monitoring</i>			\$16,258
Monitoring Plan Development	\$13,406		
Monitoring Protocol Cost *	\$2,852		

Total Phase I Cost Estimate **\$804,000**

* 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>			\$6,128,000	
Oyster Issues (# of Acres)	6.5	lease acres	\$3,000 per acre	\$9,066
<i>Supervision and Inspection</i>	36	days @	\$850 per day	\$30,600
<i>Supervision and Administration</i>				\$131,900

State Costs

<i>Supervision and Administration</i>			\$122,500
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Total Phase II Cost Estimate **\$6,422,000**

TOTAL ESTIMATED PROJECT FIRST COST **7,226,000**

D-12

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$400
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items	Year 3	Year 7	Year 14
Contractor Mobilization/Demobilization	\$50,000	\$10,000	\$50,000
Replace 25% of original revetment/dike section	\$865,070	\$0	\$0
Replace 10% of original revetment/dike section	\$0	\$0	\$326,000
Access Dredging	\$375,000	\$0	\$375,000
Navigational Aids	\$0	\$45,000	\$45,000
Subtotal	\$1,290,070	\$55,000	\$796,000
Subtotal w/ 10% contin.	\$1,419,000	\$61,000	\$876,000
Engineer, Design & Administrative Costs			
Engineering and Design Cost	\$99,000	\$0	\$63,000
Administrative Cost	\$4,523	\$4,523	\$4,523
Eng Survey 0 days @ \$1,417 per day	\$7,000	\$0	\$3,000
Construction Insp 0 days @ \$850 per day	\$10,000	\$0	\$3,000
Subtotal	\$121,000	\$5,000	\$74,000
Total	\$1,540,000	\$66,000	\$950,000

D-13

Annual Project Costs:

NMFS Administration	\$214
Corps Administration	\$663
Monitoring	\$2,852

Construction Schedule:

	2002	2003	2004	2005	2006	Total
Plan & Design Start	March-02	7	12	6		25
Plan & Design End	March-04					
Const. Start	August-04					
Const. End	December-04		6	3		9

11th Yr Template for Operation & Maintenance and Monitoring

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations (\$200/lighted navigation aid)	\$400
Preventive Maintenance	\$0

Specific Intermittent Costs

Construction Items

	<u>Year 3</u>	<u>Year 7</u>	<u>Year 14</u>
Contractor Mobilization/Demobilization	\$50,000	\$10,000	\$50,000
Replace 25% of original revetment/dike section	\$865,070		
Replace 10% of original revetment/dike section			\$326,000
Access Dredging	\$375,000		\$375,000
Navigational Aids		\$45,000	\$45,000
Subtotal	\$1,290,070	\$55,000	\$796,000
Subtotal w/ 10% contingency	\$1,419,000	\$61,000	\$876,000

Engineer, Design & Administrative Costs

Engineering and Design Cost		\$99,000		\$63,000
Federal Supervision and Administration (3% of construction items+E&D)		\$45,540	\$1,830	\$28,170
State Supervision and Administration (4% construction items)		\$56,760	\$2,440	\$35,040
Eng Survey				
	5 days @	\$1,417 per day	\$7,000	
	3 days @	\$1,417 per day		
	2 days @	\$1,417 per day		\$3,000
Inspection				
	12 days @	\$850 per day	\$10,000	
	6 days @	\$850 per day		
	3 days @	\$850 per day		\$3,000
Subtotal			\$218,000	\$4,000
Total			\$1,637,000	\$65,000
			\$1,008,000	

Annual Project Costs:

NMFS Admin (3% annual inspection+monitoring)	\$214	
Corps Administration	\$663	
Monitoring	\$2,852	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	March-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	August-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	December-04	

**Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Southern Chandeleur Islands (PO-9-2)**

Project Construction Years:	5	Total Project Years	25
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$63,529,500	Total Fully Funded Costs	\$63,923,400

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$63,811,142	\$5,619,933
Monitoring	\$61,539	\$5,420
O & M Costs	\$70,852	\$6,240
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$63,951,100	\$5,632,300
Average Annual Habitat Units		1,073
Cost Per Habitat Unit		\$5,250
Total Net Acres		735

**Coastal Wetlands Conservation and Restoration Plan
Southern Chandeleur Islands (PO-9-2)**

Project Costs

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											
6	Compound	2001						-	\$0		\$0
5	Compound	2002	\$833,583	\$7,292	\$289,917	\$116,667	\$663	\$0	-	\$0	\$1,248,122
4	Compound	2003	\$1,429,000	\$12,500	\$497,000	\$200,000	\$663	\$16,800	-	\$0	\$2,155,963
3	Compound	2004	\$595,417	\$5,208	\$207,083	\$83,333	\$332	\$5,737	-	\$0	\$897,110
TOTAL			\$2,858,000	\$25,000	\$994,000	\$400,000	\$1,658	\$22,537	\$0	\$0	\$4,301,195
Phase II											
4	Compound	2003	-	-	-	-	-	-	-	\$0	\$0
3	Compound	2004	-	-	\$257,704	\$103,704	\$332	-	\$211,296	\$2,576,130	\$10,304,519
2	Compound	2005	-	\$0	\$441,778	\$177,778	\$663	\$5,737	\$362,222	\$4,416,222	\$17,664,889
1	Compound	2006	-	-	\$294,519	\$118,519	\$663	\$5,737	\$241,481	\$2,944,148	\$11,776,593
TOTAL			\$0	\$0	\$994,000	\$400,000	\$1,658	\$11,474	\$815,000	\$9,936,500	\$39,746,000

Total First Costs \$2,858,000 \$25,000 \$1,988,000 \$800,000 \$3,316 \$34,011 \$815,000 \$9,936,500 \$39,746,000 \$56,205,827

D-16

Year	FY	Monitoring	O&M	Corps PM	Other
1	Discount	2007	\$5,737	\$6,240	\$663
2	Discount	2008	\$5,737	\$6,240	\$663
3	Discount	2009	\$5,737	\$6,240	\$663
4	Discount	2010	\$5,737	\$6,240	\$663
5	Discount	2011	\$5,737	\$6,240	\$663
6	Discount	2012	\$5,737	\$6,240	\$663
7	Discount	2013	\$5,737	\$6,240	\$663
8	Discount	2014	\$5,737	\$6,240	\$663
9	Discount	2015	\$5,737	\$6,240	\$663
10	Discount	2016	\$5,737	\$6,240	\$663
11	Discount	2017	\$5,737	\$6,240	\$663
12	Discount	2018	\$5,737	\$6,240	\$663
13	Discount	2019	\$5,737	\$6,240	\$663
14	Discount	2020	\$5,737	\$6,240	\$663
15	Discount	2021	\$5,737	\$6,240	\$663
16	Discount	2022	\$5,737	\$6,240	\$663
17	Discount	2023	\$5,737	\$6,240	\$663
18	Discount	2024	\$5,737	\$6,240	\$663
19	Discount	2025	\$0	\$6,240	\$663
20	Discount	2026	\$0	\$6,240	\$663
Total			\$103,266	\$124,800	\$13,264

**Coastal Wetlands Conservation and Restoration Plan
Southern Chandeleur Islands (PO-9-2)**

Present Valued Costs			Total Discounted Costs				Amortized Costs				\$5,632,256
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											
6	1.429	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	1.346	2002	\$1,122,115	\$9,816	\$390,267	\$157,049	\$893	\$0	\$0	\$0	\$1,680,140
4	1.268	2003	\$1,812,604	\$15,856	\$630,416	\$253,689	\$841	\$21,310	\$0	\$0	\$2,734,716
2	1.126	2004	\$670,589	\$5,866	\$233,228	\$93,854	\$373	\$6,461	\$0	\$0	\$1,010,372
Total			\$3,605,309	\$31,537	\$1,253,911	\$504,592	\$2,108	\$27,771	\$0	\$0	\$5,425,227
Phase II											
4	1.268	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.195	2004	\$0	\$0	\$308,016	\$123,950	\$396	\$0	\$252,549	\$3,079,079	\$12,316,316
2	1.126	2005	\$0	\$0	\$497,553	\$200,223	\$747	\$6,461	\$407,953	\$4,973,777	\$19,895,109
1	1.061	2006	\$0	\$0	\$312,558	\$125,778	\$704	\$6,088	\$256,272	\$3,124,477	\$12,497,909
Total			\$0	\$0	\$1,118,127	\$449,951	\$1,847	\$12,550	\$916,774	\$11,177,333	\$44,709,333
Total First Cost			\$3,605,309	\$31,537	\$2,372,038	\$954,542	\$3,955	\$40,321	\$916,774	\$11,177,333	\$44,709,333
Year	FY	Monitoring	O&M	Corps PM	Other						
-1	0.942	2007	\$5,406	\$5,880	\$625						
-2	0.888	2008	\$5,094	\$5,541	\$589						
-3	0.837	2009	\$4,800	\$5,221	\$555						
-4	0.788	2010	\$4,523	\$4,919	\$523						
-5	0.743	2011	\$4,262	\$4,635	\$493						
-6	0.700	2012	\$4,016	\$4,368	\$464						
-7	0.660	2013	\$3,784	\$4,116	\$437						
-8	0.622	2014	\$3,566	\$3,878	\$412						
-9	0.586	2015	\$3,360	\$3,654	\$388						
-10	0.552	2016	\$3,166	\$3,444	\$366						
-11	0.520	2017	\$2,983	\$3,245	\$345						
-12	0.490	2018	\$2,811	\$3,058	\$325						
-13	0.462	2019	\$2,649	\$2,881	\$306						
-14	0.435	2020	\$2,496	\$2,715	\$289						
-15	0.410	2021	\$2,352	\$2,558	\$272						
-16	0.386	2022	\$2,216	\$2,410	\$256						
-17	0.364	2023	\$2,088	\$2,271	\$241						
-18	0.343	2024	\$1,968	\$2,140	\$227						
-19	0.323	2025	\$0	\$2,017	\$214						
-20	0.305	2026	\$0	\$1,900	\$202						
Total			\$61,539	\$70,852	\$7,530	\$0					

D-17

**Coastal Wetlands Conservation and Restoration Plan
Southern Chandeleur Islands (PO-9-2)**

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												
6	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	1.032	2002	\$860,258	\$7,525	\$299,194	\$120,400	\$684	\$0	\$0	\$0	\$1,288,061	
4	1.065	2003	\$1,521,919	\$13,313	\$529,317	\$213,005	\$706	\$17,892	\$0	\$0	\$2,296,153	
2	1.099	2004	\$654,425	\$5,725	\$227,606	\$91,592	\$364	\$6,306	\$0	\$0	\$986,018	
TOTAL			\$3,036,603	\$26,562	\$1,056,117	\$424,997	\$1,755	\$24,198	\$0	\$0	\$4,570,232	
Phase II												
4	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.099	2004	\$0	\$0	\$283,243	\$113,981	\$364	\$0	\$232,237	\$2,831,436	\$11,325,745	
2	1.134	2005	\$0	\$0	\$501,098	\$201,649	\$752	\$6,507	\$410,860	\$5,009,215	\$20,036,862	
1	1.171	2006	\$0	\$0	\$344,755	\$138,735	\$776	\$6,716	\$282,672	\$3,446,340	\$13,785,361	
TOTAL			\$0	\$0	\$1,129,097	\$454,365	\$1,893	\$13,223	\$925,768	\$11,286,992	\$45,147,968	
Total Cost			\$3,036,600	\$26,600	\$2,185,200	\$879,400	\$3,600	\$37,400	\$925,800	\$11,287,000	\$45,148,000	

D-18

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.208	2007	\$6,930	\$7,538	\$801
-2	1.247	2008	\$7,152	\$7,779	\$827
-3	1.287	2009	\$7,381	\$8,028	\$853
-4	1.328	2010	\$7,617	\$8,285	\$881
-5	1.370	2011	\$7,861	\$8,550	\$909
-6	1.414	2012	\$8,113	\$8,824	\$938
-7	1.459	2013	\$8,372	\$9,106	\$968
-8	1.506	2014	\$8,640	\$9,398	\$999
-9	1.554	2015	\$8,917	\$9,698	\$1,031
-10	1.604	2016	\$9,202	\$10,009	\$1,064
-11	1.655	2017	\$9,496	\$10,329	\$1,098
-12	1.708	2018	\$9,800	\$10,660	\$1,133
-13	1.763	2019	\$10,114	\$11,001	\$1,169
-14	1.819	2020	\$10,438	\$11,353	\$1,207
-15	1.878	2021	\$10,772	\$11,716	\$1,245
-16	1.938	2022	\$11,116	\$12,091	\$1,285
-17	2.000	2023	\$11,472	\$12,478	\$1,326
-18	2.064	2024	\$11,839	\$12,877	\$1,369
-19	2.130	2025	\$0	\$13,289	\$1,412
-20	2.198	2026	\$0	\$13,714	\$1,458
Total		\$165,200	\$206,700	\$22,000	\$0

O&M Data

Annual Costs

Annual Inspections	\$6,240
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 5</u>	<u>Year 7</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$0	\$0	\$0	\$0
Replace 71,000 Tons of rock section (1.5' consolidation over 5 years)	\$0	\$0	\$0	\$0
Replace 35,500 Tons of rock section	\$0	\$0	\$0	\$0
Replace signs year 7 and 15	\$0	\$0	\$0	\$0
Flotation Channel (75% of initial construction quantity)	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0
Subtotal	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Subtotal w/ 10% contin.	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

Engineer, Design & Administrative Costs

Engineering and Design Cost	\$0	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0	\$0
Eng Survey 3 days @ \$1,417 per day	\$0	\$0	\$0	\$0
Construction Insp 6 days @ \$850 per day	\$0	\$0	\$0	\$0
Subtotal	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Total	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

D-20

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

	2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	March-02						24
Plan & Design End	7	12	5				
Const. Start				February-04			
Const. End			July-04				
			May-06	7	12	8	27

11th Year Template for Operation & Maintenance and Monitoring

South Chandeleur Islands

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$6,240
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

<u>Construction Items</u>	<u>Year 5</u>	<u>Year 7</u>	<u>Year15</u>
Subtotal	\$0	\$0	\$0
Subtotal w/ 10% contingency	\$0	\$0	\$0

Engineer, Design & Administrative Costs

Engineering and Design Cost				
Administrative Cost				
Eng Survey				
	days @	\$1,417 per day	\$0	
	days @	\$1,417 per day		\$0
Inspection				
	days @	\$850 per day	\$0	
	days @	\$850 per day		\$0
	days @	\$850 per day		\$0
Subtotal			\$0	\$0
Total			\$0	\$0

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$5,737	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	February-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	July-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	May-06	<i>(22 month construction duration)</i>

**Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Lake Lery Dedicated Dredging (BS-CW-1)**

Project Construction Years:	5	Total Project Years	25
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$32,317,800	Total Fully Funded Costs	\$32,661,300

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$32,245,110	\$2,839,870
Monitoring	\$61,539	\$5,420
O & M Costs	\$53,570	\$4,718
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$32,367,700	\$2,850,700
Average Annual Habitat Units		310
Cost Per Habitat Unit		\$9,185
Total Net Acres		649

**Coastal Wetlands Conservation and Restoration Plan
Lake Lery Dedicated Dredging (BS-CW-1)**

Project Costs

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											
6	Compounc	2001						-	\$0		\$0
5	Compounc	2002	\$432,320	\$35,840	\$136,360	\$112,000	\$663	\$0	-	\$0	\$717,183
4	Compounc	2003	\$741,120	\$61,440	\$233,760	\$192,000	\$663	\$16,800	-	\$0	\$1,245,783
3	Compounc	2004	\$370,560	\$30,720	\$116,880	\$96,000	\$332	\$5,737	-	\$0	\$620,229
TOTAL			\$1,544,000	\$128,000	\$487,000	\$400,000	\$1,658	\$22,537	\$0	\$0	\$2,583,195
Phase II											
4	Compounc	2003	-	-	-	-	-	-	-	\$0	\$0
3	Compounc	2004	-	-	\$155,143	\$85,714	\$332	-	\$93,986	\$1,044,375	\$4,177,500
2	Compounc	2005	-	\$0	\$310,286	\$171,429	\$663	\$5,737	\$187,971	\$2,088,750	\$8,355,000
1	Compounc	2006	-	-	\$258,571	\$142,857	\$663	\$5,737	\$156,643	\$1,740,625	\$6,962,500
TOTAL			\$0	\$0	\$724,000	\$400,000	\$1,658	\$11,474	\$438,600	\$4,873,750	\$19,495,000
Total First Costs			\$1,544,000	\$128,000	\$1,211,000	\$800,000	\$3,316	\$34,011	\$438,600	\$4,873,750	\$19,495,000

Year	FY	Monitoring	O&M	Corps PM	Other
1	Discount	2007	\$5,737	\$4,718	\$663
2	Discount	2008	\$5,737	\$4,718	\$663
3	Discount	2009	\$5,737	\$4,718	\$663
4	Discount	2010	\$5,737	\$4,718	\$663
5	Discount	2011	\$5,737	\$4,718	\$663
6	Discount	2012	\$5,737	\$4,718	\$663
7	Discount	2013	\$5,737	\$4,718	\$663
8	Discount	2014	\$5,737	\$4,718	\$663
9	Discount	2015	\$5,737	\$4,718	\$663
10	Discount	2016	\$5,737	\$4,718	\$663
11	Discount	2017	\$5,737	\$4,718	\$663
12	Discount	2018	\$5,737	\$4,718	\$663
13	Discount	2019	\$5,737	\$4,718	\$663
14	Discount	2020	\$5,737	\$4,718	\$663
15	Discount	2021	\$5,737	\$4,718	\$663
16	Discount	2022	\$5,737	\$4,718	\$663
17	Discount	2023	\$5,737	\$4,718	\$663
18	Discount	2024	\$5,737	\$4,718	\$663
19	Discount	2025	\$0	\$4,718	\$663
20	Discount	2026	\$0	\$4,718	\$663
Total			\$103,266	\$94,360	\$13,264

D-23

Coastal Wetlands Conservation and Restoration Plan
Lake Lery Dedicated Dredging (BS-CW-1)

Present Valued Costs			Total Discounted Costs				Amortized Costs				\$2,850,671
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											
6	1.429	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	1.346	2002	\$581,961	\$48,245	\$183,559	\$150,767	\$893	\$0	\$0	\$0	\$965,425
4	1.268	2003	\$940,068	\$77,933	\$296,511	\$243,541	\$841	\$21,310	\$0	\$0	\$1,580,204
2	1.126	2004	\$417,344	\$34,598	\$131,636	\$108,120	\$373	\$6,461	\$0	\$0	\$698,533
Total			\$1,939,373	\$160,777	\$611,706	\$502,428	\$2,108	\$27,771	\$0	\$0	\$3,244,163
Phase II											
4	1.268	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.195	2004	\$0	\$0	\$185,432	\$102,449	\$396	\$0	\$112,335	\$1,248,273	\$4,993,092
2	1.126	2005	\$0	\$0	\$349,460	\$193,072	\$747	\$6,461	\$211,703	\$2,352,458	\$9,409,832
1	1.061	2006	\$0	\$0	\$274,409	\$151,607	\$704	\$6,088	\$166,237	\$1,847,238	\$7,388,953
Total			\$0	\$0	\$809,301	\$447,128	\$1,847	\$12,550	\$490,275	\$5,447,969	\$21,791,877
Total First Cost			\$1,939,373	\$160,777	\$1,421,007	\$949,556	\$3,955	\$40,321	\$490,275	\$5,447,969	\$21,791,877

D-24

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2007	\$5,406	\$4,446	\$625
-2	0.888	2008	\$5,094	\$4,189	\$589
-3	0.837	2009	\$4,800	\$3,947	\$555
-4	0.788	2010	\$4,523	\$3,720	\$523
-5	0.743	2011	\$4,262	\$3,505	\$493
-6	0.700	2012	\$4,016	\$3,303	\$464
-7	0.660	2013	\$3,784	\$3,112	\$437
-8	0.622	2014	\$3,566	\$2,932	\$412
-9	0.586	2015	\$3,360	\$2,763	\$388
-10	0.552	2016	\$3,166	\$2,604	\$366
-11	0.520	2017	\$2,983	\$2,453	\$345
-12	0.490	2018	\$2,811	\$2,312	\$325
-13	0.462	2019	\$2,649	\$2,178	\$306
-14	0.435	2020	\$2,496	\$2,053	\$289
-15	0.410	2021	\$2,352	\$1,934	\$272
-16	0.386	2022	\$2,216	\$1,823	\$256
-17	0.364	2023	\$2,088	\$1,717	\$241
-18	0.343	2024	\$1,968	\$1,618	\$227
-19	0.323	2025	\$0	\$1,525	\$214
-20	0.305	2026	\$0	\$1,437	\$202
Total		\$61,539	\$53,570	\$7,530	\$0

**Coastal Wetlands Conservation and Restoration Plan
Lake Lery Dedicated Dredging (BS-CW-1)**

Fully Funded Costs			Total Fully Funded Costs						Amortized Costs			\$2,876,525
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												
6	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	1.032	2002	\$446,154	\$36,987	\$140,724	\$115,584	\$684	\$0	\$0	\$0	\$740,133	
4	1.065	2003	\$789,311	\$65,435	\$248,960	\$204,485	\$706	\$17,892	\$0	\$0	\$1,326,789	
2	1.099	2004	\$407,284	\$33,764	\$128,463	\$105,514	\$364	\$6,306	\$0	\$0	\$681,696	
TOTAL			\$1,642,749	\$136,186	\$518,147	\$425,583	\$1,755	\$24,198	\$0	\$0	\$2,748,618	
Phase II												
4	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.099	2004	\$0	\$0	\$170,518	\$94,209	\$364	\$0	\$103,300	\$1,147,878	\$4,591,510	
2	1.134	2005	\$0	\$0	\$351,950	\$194,447	\$752	\$6,507	\$213,212	\$2,369,219	\$9,476,877	
1	1.171	2006	\$0	\$0	\$302,677	\$167,225	\$776	\$6,716	\$183,362	\$2,037,529	\$10,848,398	
TOTAL			\$0	\$0	\$825,145	\$455,881	\$1,893	\$13,223	\$499,874	\$5,554,625	\$22,218,501	
Total Cost			\$1,642,700	\$136,200	\$1,343,300	\$881,500	\$3,600	\$37,400	\$499,900	\$5,554,600	\$22,218,500	

D-25

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.208	2007	\$6,930	\$5,699	\$801
-2	1.247	2008	\$7,152	\$5,882	\$827
-3	1.287	2009	\$7,381	\$6,070	\$853
-4	1.328	2010	\$7,617	\$6,264	\$881
-5	1.370	2011	\$7,861	\$6,465	\$909
-6	1.414	2012	\$8,113	\$6,672	\$938
-7	1.459	2013	\$8,372	\$6,885	\$968
-8	1.506	2014	\$8,640	\$7,105	\$999
-9	1.554	2015	\$8,917	\$7,333	\$1,031
-10	1.604	2016	\$9,202	\$7,568	\$1,064
-11	1.655	2017	\$9,496	\$7,810	\$1,098
-12	1.708	2018	\$9,800	\$8,060	\$1,133
-13	1.763	2019	\$10,114	\$8,317	\$1,169
-14	1.819	2020	\$10,438	\$8,584	\$1,207
-15	1.878	2021	\$10,772	\$8,858	\$1,245
-16	1.938	2022	\$11,116	\$9,142	\$1,285
-17	2.000	2023	\$11,472	\$9,434	\$1,326
-18	2.064	2024	\$11,839	\$9,736	\$1,369
-19	2.130	2025	\$0	\$10,048	\$1,412
-20	2.198	2026	\$0	\$10,369	\$1,458
Total		\$165,200	\$156,300	\$22,000	\$0

O&M Data

Annual Costs

Annual Inspections	\$4,718
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 5</u>	<u>Year 7</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$0	\$0	\$0	\$0
Replace 71,000 Tons of rock section (1.5' consolidation over 5 years)	\$0	\$0	\$0	\$0
Replace 35,500 Tons of rock section	\$0	\$0	\$0	\$0
Replace signs year 7 and 15	\$0	\$0	\$0	\$0
Flotation Channel (75% of initial construction quantity)	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0
Subtotal w/ 10% 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 3 days @ \$1,417 per day	\$0	\$0	\$0	\$0
Construction Insp 6 days @ \$850 per day	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0

D-27

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

		2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	March-02	7	12	6				25
Plan & Design End	March-04							
Const. Start	July-04							
Const. End	July-06			6	12	10		28

**11th Year Template for Operation & Maintenance and Monitoring
BS-CW-1 Lake Lery Dedicated Dredging**

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$4,718
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

<u>Construction Items</u>	<u>Year 7</u>	<u>Year 10</u>	<u>Year 14</u>
Subtotal	\$0	\$0	\$0
Subtotal w/ 10% contingency	\$0	\$0	\$0

Engineer, Design & Administrative Costs

Engineering and Design Cost				
Administrative Cost				
Eng Survey				
	0 days @	\$1,417 per day	\$0	\$0
	0 days @	\$1,417 per day		\$0
Inspection				
	0 days @	\$850 per day	\$0	\$0
	0 days @	\$850 per day		\$0
Subtotal			\$0	\$0
Total			\$0	\$0

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$5,737	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	March-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	July-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	July-06	<i>(18 month construction duration)</i>

**Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Barataria Basin Landbridge Shoreline Protection (BA-24-4)**

Project Construction Years:	4	Total Project Years	24
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$37,893,100	Total Fully Funded Costs	\$54,679,900

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$37,885,961	\$3,336,668
Monitoring	\$31,512	\$2,775
O & M Costs	\$8,392,656	\$739,153
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$46,317,700	\$4,079,300
Average Annual Habitat Units		163
Cost Per Habitat Unit		\$25,026
Total Net Acres		430

**Coastal Wetlands Conservation and Restoration Plan
Barataria Basin Landbridge Shoreline Protection (BA-24-4)**

Project Costs

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											
0	Compound							-	\$0		\$0
4	Compound	2002	\$571,480	\$5,600	\$127,120	\$112,000	\$663	\$0	-	\$0	\$816,863
3	Compound	2003	\$979,680	\$9,600	\$217,920	\$192,000	\$663	\$16,441	-	\$0	\$1,416,304
2	Compound	2004	\$489,840	\$4,800	\$108,960	\$96,000	\$332	\$2,852	-	\$0	\$702,783
TOTAL			\$2,041,000	\$20,000	\$454,000	\$400,000	\$1,658	\$19,293	\$0	\$0	\$2,935,951
Phase II											
4	Compound	2002	-	-	-	-	-	-	-	\$0	\$0
3	Compound	2003	-	-	-	-	-	-	-	\$0	\$0
2	Compound	2004	-	-	\$272,400	\$240,000	\$332	\$0	\$65,400	\$3,632,100	\$18,738,632
1	Compound	2005	-	-	\$181,600	\$160,000	\$663	\$2,852	\$43,600	\$2,421,400	\$12,495,715
TOTAL			\$0	\$0	\$454,000	\$400,000	\$995	\$2,852	\$109,000	\$6,053,500	\$24,214,000
Total First Costs			\$2,041,000	\$20,000	\$908,000	\$800,000	\$2,653	\$22,145	\$109,000	\$6,053,500	\$34,170,298

D-30

Year	FY	Monitoring	O&M	Corps PM	Other
1 Discount	2006	\$2,852	\$3,880	\$663	-
2 Discount	2007	\$2,852	\$3,880	\$663	-
3 Discount	2008	\$2,852	\$8,013,073	\$663	-
4 Discount	2009	\$2,852	\$3,880	\$663	-
5 Discount	2010	\$2,852	\$3,880	\$663	-
6 Discount	2011	\$2,852	\$3,880	\$663	-
7 Discount	2012	\$2,852	\$88,114	\$663	-
8 Discount	2013	\$2,852	\$3,880	\$663	-
9 Discount	2014	\$2,852	\$3,880	\$663	-
10 Discount	2015	\$2,852	\$3,880	\$663	-
11 Discount	2016	\$2,852	\$3,880	\$663	-
12 Discount	2017	\$2,852	\$3,880	\$663	-
13 Discount	2018	\$2,852	\$3,880	\$663	-
14 Discount	2019	\$2,852	\$3,663,354	\$663	-
15 Discount	2020	\$2,852	\$3,880	\$663	-
16 Discount	2021	\$2,852	\$3,880	\$663	-
17 Discount	2022	\$2,852	\$3,880	\$663	-
18 Discount	2023	\$2,852	\$3,880	\$663	-
19 Discount	2024	\$2,852	\$3,880	\$663	-
20 Discount	2025	\$0	\$3,880	\$663	-
Total		\$54,185	\$11,830,501	\$13,264	\$0

**Coastal Wetlands Conservation and Restoration Plan
Barataria Basin Landbridge Shoreline Protection (BA-24-4)**

Present Valued Costs		Total Discounted Costs				\$46,317,660				Amortized Costs			\$4,079,259
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													
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
4	1.268	2002	\$724,890	\$7,103	\$161,244	\$142,066	\$841	\$0	\$0	\$0	\$1,036,144		
3	1.195	2003	\$1,170,947	\$11,474	\$260,465	\$229,485	\$793	\$19,651	\$0	\$0	\$1,692,816		
2	1.126	2004	\$551,683	\$5,406	\$122,716	\$108,120	\$373	\$3,212	\$0	\$0	\$791,511		
Total			\$2,447,520	\$23,984	\$544,426	\$479,671	\$2,007	\$22,863	\$0	\$0	\$3,520,471		
Phase II													
4	1.268	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3	1.195	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
2	1.126	2004	\$0	\$0	\$306,791	\$270,300	\$373	\$0	\$73,657	\$4,090,658	\$16,362,633		
1	1.061	2005	\$0	\$0	\$192,723	\$169,800	\$704	\$3,026	\$46,271	\$2,569,711	\$10,278,843		
Total			\$0	\$0	\$499,514	\$440,100	\$1,077	\$3,026	\$119,927	\$6,660,369	\$26,641,476		
Total First Cost			\$2,447,520	\$23,984	\$1,043,940	\$919,771	\$3,085	\$25,889	\$119,927	\$6,660,369	\$26,641,476		

D-31

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2006	\$2,687	\$3,656	\$625
-2	0.888	2007	\$2,532	\$3,445	\$589
-3	0.837	2008	\$2,386	\$6,704,185	\$555
-4	0.788	2009	\$2,248	\$3,059	\$523
-5	0.743	2010	\$2,119	\$2,882	\$493
-6	0.700	2011	\$1,996	\$2,716	\$464
-7	0.660	2012	\$1,881	\$58,119	\$437
-8	0.622	2013	\$1,772	\$2,412	\$412
-9	0.586	2014	\$1,670	\$2,272	\$388
-10	0.552	2015	\$1,574	\$2,141	\$366
-11	0.520	2016	\$1,483	\$2,018	\$345
-12	0.490	2017	\$1,397	\$1,901	\$325
-13	0.462	2018	\$1,317	\$1,791	\$306
-14	0.435	2019	\$1,241	\$1,593,790	\$289
-15	0.410	2020	\$1,169	\$1,591	\$272
-16	0.386	2021	\$1,102	\$1,499	\$256
-17	0.364	2022	\$1,038	\$1,412	\$241
-18	0.343	2023	\$978	\$1,331	\$227
-19	0.323	2024	\$922	\$1,254	\$214
-20	0.305	2025	\$0	\$1,182	\$202
Total			\$31,512	\$8,392,656	\$7,530

**Coastal Wetlands Conservation and Restoration Plan
Barataria Basin Landbridge Shoreline Protection (BA-24-4)**

Fully Funded Costs		Total Fully Funded Costs				\$54,679,900				Amortized Costs		\$4,815,732
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												
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	1.032	2002	\$589,767	\$5,779	\$131,188	\$115,584	\$684	\$0	\$0	\$0	\$843,003	
3	1.065	2003	\$1,043,383	\$10,224	\$232,090	\$204,485	\$706	\$17,510	\$0	\$0	\$1,508,398	
2	1.099	2004	\$538,385	\$5,276	\$119,758	\$105,514	\$364	\$3,134	\$0	\$0	\$772,433	
TOTAL			\$2,171,536	\$21,279	\$483,036	\$425,583	\$1,755	\$20,645	\$0	\$0	\$3,123,833	
Phase II												
4	1.032	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.099	2004	\$0	\$0	\$299,396	\$263,785	\$364	\$0	\$71,881	\$3,992,058	\$15,968,234	
1	1.134	2005	\$0	\$0	\$205,985	\$181,484	\$752	\$3,235	\$49,454	\$2,746,536	\$10,986,145	
TOTAL			\$0	\$0	\$505,381	\$445,269	\$1,117	\$3,235	\$121,336	\$6,738,595	\$26,954,379	
Total Cost			\$2,171,500	\$21,300	\$988,400	\$870,900	\$2,900	\$23,900	\$121,300	\$6,738,600	\$26,954,400	

D-32

Year	FY	Monitoring	O&M	Corps PM	Other	
-1	1.171	2006	\$3,338	\$4,542	\$776	
-2	1.208	2007	\$3,445	\$4,687	\$801	
-3	1.247	2008	\$3,555	\$9,989,804	\$827	
-4	1.287	2009	\$3,669	\$4,992	\$853	
-5	1.328	2010	\$3,787	\$5,152	\$881	
-6	1.370	2011	\$3,908	\$5,317	\$909	
-7	1.414	2012	\$4,033	\$124,601	\$938	
-8	1.459	2013	\$4,162	\$5,662	\$968	
-9	1.506	2014	\$4,295	\$5,843	\$999	
-10	1.554	2015	\$4,432	\$6,030	\$1,031	
-11	1.604	2016	\$4,574	\$6,223	\$1,064	
-12	1.655	2017	\$4,721	\$6,423	\$1,098	
-13	1.708	2018	\$4,872	\$6,628	\$1,133	
-14	1.763	2019	\$5,028	\$6,458,229	\$1,169	
-15	1.819	2020	\$5,188	\$7,059	\$1,207	
-16	1.878	2021	\$5,354	\$7,285	\$1,245	
-17	1.938	2022	\$5,526	\$7,518	\$1,285	
-18	2.000	2023	\$5,703	\$7,759	\$1,326	
-19	2.064	2024	\$5,885	\$8,007	\$1,369	
-20	2.130	2025	\$0	\$8,263	\$1,412	
Total			\$85,500	\$16,680,000	\$21,300	\$0

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>24,214,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>30,268,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$2,041,000
Engineering	\$1,730,000	
Geotechnical Investigation	\$271,000	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	

Supervision and Administration \$454,000

State Costs

<i>Supervision and Administration</i>		\$400,000
<i>Easements and Land Rights</i>		\$20,000
<i>Monitoring</i>		\$19,293
Monitoring Plan Development	\$16,441	
Monitoring Protocol Cost *	\$2,852	

Total Phase I Cost Estimate \$2,934,000

* 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>		\$30,268,000
Oyster Issues (# of Acres)	0	\$3,000 per acre
		\$0
<i>Supervision and Inspection</i>	128 days @	\$850 per day
<i>Supervision and Administration</i>		\$454,000

State Costs

Supervision and Administration \$400,000

Total Phase II Cost Estimate \$31,231,000

TOTAL ESTIMATED PROJECT FIRST COST 34,165,000

D-33

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs: NONE

Construction Items

	<u>Year 3</u>	<u>Year 7</u>	<u>Year 14</u>
Contractor Mobilization/Demobilization	\$200,000	\$2,000	\$100,000
Replace 25% of original revetment/dike section	\$5,503,000	\$0	\$0
Replace 10% of original revetment/dike section	\$0	\$0	\$2,201,200
Flotation Channel	\$1,105,500	\$0	\$737,000
Replace signs	\$0	\$65,000	\$65,000
	\$0	\$0	\$0
Subtotal	\$6,808,500	\$67,000	\$3,103,200
Subtotal w/ 10% contin.	\$7,489,000	\$74,000	\$3,414,000
Engineer, Design & Administrative Costs			
Engineering and Design Cost	\$466,000	\$6,000	\$223,000
Administrative Cost	\$4,420	\$4,420	\$4,420
Eng Survey 0 days @ \$1,417 per day	\$7,000	\$3,000	\$4,000
Construction Insp 0 days @ \$850 per day	\$47,000	\$2,000	\$19,000
Subtotal	\$524,000	\$15,000	\$250,000
Total	\$8,013,000	\$89,000	\$3,664,000

D-34

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$2,852

Construction Schedule:

	2002	2003	2004	2005	2006	Total
Plan & Design Start	March-02	7	12	6		25
Plan & Design End	March-04					
Const. Start	August-04					
Const. End	January-05		6	4		10
	7	12	12	4	0	35

**Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Dedicated Dredging on Barataria Basin Landbridge (BA-CW-3)**

Project Construction Years:	5	Total Project Years	25
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$29,377,100	Total Fully Funded Costs	\$29,692,800

	<u>Present Worth</u>	<u>Average Annual</u>
Annual Charges		
First Costs	\$29,199,245	\$2,571,617
Monitoring	\$61,539	\$5,420
O & M Costs	\$44,055	\$3,880
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$29,312,400	\$2,581,600
Average Annual Habitat Units		339
Cost Per Habitat Unit		\$7,615
Total Net Acres		564

Coastal Wetlands Conservation and Restoration Plan
Dedicated Dredging on Barataria Basin Landbridge (BA-CW-3)

Project Costs

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											
6	Compounc	2001	\$0	\$0	\$0	\$0	\$663	-	\$0		\$663
5	Compounc	2002	\$390,880	\$2,800	\$94,780	\$108,780	\$663	\$0	-	\$0	\$597,903
4	Compounc	2003	\$670,080	\$4,800	\$162,480	\$186,480	\$663	\$15,273	-	\$0	\$1,039,776
3	Compounc	2004	\$335,040	\$2,400	\$81,240	\$93,240	\$332	\$5,737	-	\$0	\$517,989
TOTAL			\$1,396,000	\$10,000	\$338,500	\$388,500	\$2,321	\$21,010	\$0	\$0	\$2,156,331
Phase II											
4	Compounc	2003	-	-	-	-	-	-	\$0	\$0	\$0
3	Compounc	2004	-	-	\$70,034	\$80,379	\$332	-	\$92,690	\$933,207	\$4,909,470
2	Compounc	2005	-	\$0	\$140,069	\$160,759	\$663	\$5,737	\$185,379	\$1,866,414	\$9,824,676
1	Compounc	2006	-	-	\$128,397	\$147,362	\$663	\$5,737	\$169,931	\$1,710,879	\$9,006,486
TOTAL			\$0	\$0	\$338,500	\$388,500	\$1,658	\$11,474	\$448,000	\$4,510,500	\$23,740,632
Total First Costs			\$1,396,000	\$10,000	\$677,000	\$777,000	\$3,979	\$32,484	\$448,000	\$4,510,500	\$25,896,963

D-37

Year	FY	Monitoring	O&M	Corps PM	Other	
1	Discount	2007	\$5,737	\$3,880	\$663	-
2	Discount	2008	\$5,737	\$3,880	\$663	-
3	Discount	2009	\$5,737	\$3,880	\$663	-
4	Discount	2010	\$5,737	\$3,880	\$663	-
5	Discount	2011	\$5,737	\$3,880	\$663	-
6	Discount	2012	\$5,737	\$3,880	\$663	-
7	Discount	2013	\$5,737	\$3,880	\$663	-
8	Discount	2014	\$5,737	\$3,880	\$663	-
9	Discount	2015	\$5,737	\$3,880	\$663	-
10	Discount	2016	\$5,737	\$3,880	\$663	-
11	Discount	2017	\$5,737	\$3,880	\$663	-
12	Discount	2018	\$5,737	\$3,880	\$663	-
13	Discount	2019	\$5,737	\$3,880	\$663	-
14	Discount	2020	\$5,737	\$3,880	\$663	-
15	Discount	2021	\$5,737	\$3,880	\$663	-
16	Discount	2022	\$5,737	\$3,880	\$663	-
17	Discount	2023	\$5,737	\$3,880	\$663	-
18	Discount	2024	\$5,737	\$3,880	\$663	-
19	Discount	2025	\$0	\$3,880	\$663	-
20	Discount	2026	\$0	\$3,880	\$663	-
Total			\$103,266	\$77,600	\$13,264	\$0

**Coastal Wetlands Conservation and Restoration Plan
Dedicated Dredging on Barataria Basin Landbridge (BA-CW-3)**

Present Valued Costs		Total Discounted Costs				\$29,312,370				Amortized Costs			\$2,581,580
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													
6	1.429	2001	\$0	\$0	\$0	\$0	\$947	\$0	\$0	\$0	\$947		
5	1.346	2002	\$526,177	\$3,769	\$127,587	\$146,433	\$893	\$0	\$0	\$0	\$804,858		
4	1.268	2003	\$849,958	\$6,089	\$206,097	\$236,539	\$841	\$19,373	\$0	\$0	\$1,318,896		
2	1.126	2004	\$377,339	\$2,703	\$91,497	\$105,012	\$373	\$6,461	\$0	\$0	\$583,385		
Total			\$1,753,474	\$12,561	\$425,180	\$487,983	\$3,055	\$25,834	\$0	\$0	\$2,708,088		
Phase II													
4	1.268	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3	1.195	2004	\$0	\$0	\$83,708	\$96,072	\$396	\$0	\$110,786	\$1,115,401	\$4,461,604	\$5,867,967	
2	1.126	2005	\$0	\$0	\$157,753	\$181,055	\$747	\$6,461	\$208,784	\$2,102,051	\$8,408,206	\$11,065,057	
1	1.061	2006	\$0	\$0	\$136,261	\$156,388	\$704	\$6,088	\$180,339	\$1,815,671	\$7,262,683	\$9,558,134	
Total			\$0	\$0	\$377,721	\$433,515	\$1,847	\$12,550	\$499,909	\$5,033,123	\$20,132,493	\$26,491,158	
Total First Cost			\$1,753,474	\$12,561	\$802,901	\$921,498	\$4,902	\$38,384	\$499,909	\$5,033,123	\$20,132,493	\$29,199,245	

D-38

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2007	\$5,406	\$3,656	\$625
-2	0.888	2008	\$5,094	\$3,445	\$589
-3	0.837	2009	\$4,800	\$3,246	\$555
-4	0.788	2010	\$4,523	\$3,059	\$523
-5	0.743	2011	\$4,262	\$2,882	\$493
-6	0.700	2012	\$4,016	\$2,716	\$464
-7	0.660	2013	\$3,784	\$2,559	\$437
-8	0.622	2014	\$3,566	\$2,412	\$412
-9	0.586	2015	\$3,360	\$2,272	\$388
-10	0.552	2016	\$3,166	\$2,141	\$366
-11	0.520	2017	\$2,983	\$2,018	\$345
-12	0.490	2018	\$2,811	\$1,901	\$325
-13	0.462	2019	\$2,649	\$1,791	\$306
-14	0.435	2020	\$2,496	\$1,688	\$289
-15	0.410	2021	\$2,352	\$1,591	\$272
-16	0.386	2022	\$2,216	\$1,499	\$256
-17	0.364	2023	\$2,088	\$1,412	\$241
-18	0.343	2024	\$1,968	\$1,331	\$227
-19	0.323	2025	\$0	\$1,254	\$214
-20	0.305	2026	\$0	\$1,182	\$202
Total			\$61,539	\$44,055	\$7,530

**Coastal Wetlands Conservation and Restoration Plan
Dedicated Dredging on Barataria Basin Landbridge (BA-CW-3)**

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												
6	1.000	2001	\$0	\$0	\$0	\$0	\$663	\$0	\$0	\$0	\$663	
5	1.032	2002	\$403,388	\$2,890	\$97,813	\$112,261	\$684	\$0	\$0	\$0	\$617,036	
4	1.065	2003	\$713,651	\$5,112	\$173,045	\$198,606	\$706	\$16,266	\$0	\$0	\$1,107,387	
2	1.099	2004	\$368,244	\$2,638	\$89,291	\$102,481	\$364	\$6,306	\$0	\$0	\$569,324	
TOTAL		\$1,485,284	\$10,640	\$360,149	\$413,347	\$2,418	\$22,572	\$0	\$0	\$0	\$2,294,410	
Phase II												
4	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.099	2004	\$0	\$0	\$76,975	\$88,345	\$364	\$0	\$101,876	\$1,025,692	\$4,102,769	
2	1.134	2005	\$0	\$0	\$158,877	\$182,345	\$752	\$6,507	\$210,271	\$2,117,029	\$8,468,114	
1	1.171	2006	\$0	\$0	\$150,298	\$172,498	\$776	\$6,716	\$198,917	\$2,002,709	\$8,010,836	
TOTAL		\$0	\$0	\$386,150	\$443,188	\$1,893	\$13,223	\$511,064	\$5,145,430	\$20,581,719	\$27,082,666	
Total Cost		\$1,485,300	\$10,600	\$746,300	\$856,500	\$4,300	\$35,800	\$511,100	\$5,145,400	\$20,581,700	\$29,377,100	
Year	FY	Monitoring	O&M	Corps PM	Other							
-1	1.208	2007	\$6,930	\$4,687	\$801							
-2	1.247	2008	\$7,152	\$4,837	\$827							
-3	1.287	2009	\$7,381	\$4,992	\$853							
-4	1.328	2010	\$7,617	\$5,152	\$881							
-5	1.370	2011	\$7,861	\$5,317	\$909							
-6	1.414	2012	\$8,113	\$5,487	\$938							
-7	1.459	2013	\$8,372	\$5,662	\$968							
-8	1.506	2014	\$8,640	\$5,843	\$999							
-9	1.554	2015	\$8,917	\$6,030	\$1,031							
-10	1.604	2016	\$9,202	\$6,223	\$1,064							
-11	1.655	2017	\$9,496	\$6,423	\$1,098							
-12	1.708	2018	\$9,800	\$6,628	\$1,133							
-13	1.763	2019	\$10,114	\$6,840	\$1,169							
-14	1.819	2020	\$10,438	\$7,059	\$1,207							
-15	1.878	2021	\$10,772	\$7,285	\$1,245							
-16	1.938	2022	\$11,116	\$7,518	\$1,285							
-17	2.000	2023	\$11,472	\$7,759	\$1,326							
-18	2.064	2024	\$11,839	\$8,007	\$1,369							
-19	2.130	2025	\$0	\$8,263	\$1,412							
-20	2.198	2026	\$0	\$8,528	\$1,458							
Total		\$165,200	\$128,500	\$22,000	\$0							

D-39

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>18,042,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>22,553,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,396,000
Engineering	\$1,311,000	
Geotechnical Investigation	\$45,000	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	

Supervision and Administration \$338,500

State Costs

<i>Supervision and Administration</i>	\$388,500
<i>Easements and Land Rights</i>	\$10,000
<i>Monitoring</i>	\$21,010
Monitoring Plan Developmer	\$15,273
Monitoring Protocol Cost *	\$5,737

Total Phase I Cost Estimate \$2,154,000

* 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>	\$22,553,000
Oyster Issues (# of Acres) 0 lease acres \$3,000 per acre	\$0
<i>Supervision and Inspection</i> 527 days @ \$850 per day	\$448,000
<i>Supervision and Administration</i>	\$338,500

State Costs

Supervision and Administration \$388,500

Total Phase II Cost Estimate \$23,728,000

TOTAL ESTIMATED PROJECT FIRST COST 25,882,000

D-40

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$0	\$0	\$0	\$0
Replace 25% of original rockfill/rock riprap on all structures	\$0	\$0	\$0	\$0
Replace 10% of original rockfill/rock riprap on all structures	\$0	\$0	\$0	\$0
Paint steel sheetpile structure	\$0	\$0	\$0	\$0
Replace all navigation aids	\$0	\$0	\$0	\$0
Maintenance dredge 18,000 ft. of Blue Hammock Bayou plus marsh creation	\$0	\$0	\$0	\$0
Subtotal	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Subtotal w/ 10% 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 0 days @ \$1,417 per day	\$0	\$0	\$0	\$0
Construction Insp 0 days @ \$850 per day	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0

D-41

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

		2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	March-02	7	12	6				25
Plan & Design End	March-04							
Const. Start	August-04							
Const. End	August-06			6	12	11		29

11th Yr Template for Operation & Maintenance and Monitoring

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

Construction Items

Subtotal	\$0	\$0	\$0
Subtotal w/ 25% contingency	\$0	\$0	\$0

Engineer, Design & Administrative Costs

Engineering and Design Cost
 Administrative Cost
 Eng Survey

days	@	\$1,417 per day
days	@	\$1,417 per day
days	@	\$1,417 per day

Inspection

days	@	\$850 per day
days	@	\$850 per day
days	@	\$850 per day

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

Corps Administration	\$663	
Monitoring	\$5,737	(Dependent upon type of project)

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	March-04	(Minimum of one year to complete this phase)
Const. Start	August-04	(Requires 4 months for contracting and advertising)
Const. End	August-06	

**Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Pass Chalard to Grand Bayou Pass (BA-21-2)**

Project Construction Years:	5	Total Project Years	25
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$18,676,100	Total Fully Funded Costs	\$19,001,400

	<u>Present Worth</u>	<u>Average Annual</u>
Annual Charges		
First Costs	\$18,063,016	\$1,590,834
Monitoring	\$61,539	\$5,420
O & M Costs	\$47,331	\$4,169
Other Costs	<u>\$7,528</u>	<u>\$663</u>
Total	\$18,179,400	\$1,601,100
Average Annual Habitat Units		88
Cost Per Habitat Unit		\$18,106
Total Net Acres		161

Coastal Wetlands Conservation and Restoration Plan
Pass Chaland to Grand Bayou Pass (BA-21-2)

Project Costs

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											
0	Compound							-	\$0		\$0
5	Compound	2002	\$301,560	\$47,040	\$72,031	\$67,480	\$663	\$0	-	\$0	\$488,774
4	Compound	2003	\$516,960	\$80,640	\$123,482	\$115,680	\$663	\$16,800	-	\$0	\$854,225
3	Compound	2004	\$258,480	\$40,320	\$61,741	\$57,840	\$332	\$5,737	-	\$0	\$424,450
TOTAL			\$1,077,000	\$168,000	\$257,255	\$241,000	\$1,658	\$22,537	\$0	\$0	\$1,767,450
Phase II											
4	Compound	2003	-	-	-	-	-	-	-	\$0	\$0
3	Compound	2004	-	\$868,000	\$53,225	\$49,862	\$332	-	\$0	\$0	\$971,419
2	Compound	2005	-	\$0	\$106,450	\$99,724	\$663	\$5,737	\$131,906	\$796,250	\$4,325,731
1	Compound	2006	-	-	\$97,579	\$91,414	\$663	\$5,737	\$290,194	\$1,751,750	\$9,244,337
TOTAL			\$0	\$868,000	\$257,255	\$241,000	\$1,658	\$11,474	\$422,100	\$2,548,000	\$10,192,000
Total First Costs			\$1,077,000	\$1,036,000	\$514,510	\$482,000	\$3,315	\$34,011	\$422,100	\$2,548,000	\$10,192,000

D-44

Year	FY	Monitoring	O&M	Corps PM	Other	
1	Discount	2007	\$5,737	\$4,169	\$663	-
2	Discount	2008	\$5,737	\$4,169	\$663	-
3	Discount	2009	\$5,737	\$4,169	\$663	-
4	Discount	2010	\$5,737	\$4,169	\$663	-
5	Discount	2011	\$5,737	\$4,169	\$663	-
6	Discount	2012	\$5,737	\$4,169	\$663	-
7	Discount	2013	\$5,737	\$4,169	\$663	-
8	Discount	2014	\$5,737	\$4,169	\$663	-
9	Discount	2015	\$5,737	\$4,169	\$663	-
10	Discount	2016	\$5,737	\$4,169	\$663	-
11	Discount	2017	\$5,737	\$4,169	\$663	-
12	Discount	2018	\$5,737	\$4,169	\$663	-
13	Discount	2019	\$5,737	\$4,169	\$663	-
14	Discount	2020	\$5,737	\$4,169	\$663	-
15	Discount	2021	\$5,737	\$4,169	\$663	-
16	Discount	2022	\$5,737	\$4,169	\$663	-
17	Discount	2023	\$5,737	\$4,169	\$663	-
18	Discount	2024	\$5,737	\$4,169	\$663	-
19	Discount	2025	\$0	\$4,169	\$663	-
20	Discount	2026	\$0	\$4,169	\$663	-
Total			\$103,266	\$83,370	\$13,260	\$0

Coastal Wetlands Conservation and Restoration Plan
Pass Chaland to Grand Bayou Pass (BA-21-2)

Present Valued Costs		Total Discounted Costs					Amortized Costs				\$1,601,085
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											
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	1.346	2002	\$405,940	\$63,322	\$96,964	\$90,837	\$892	\$0	\$0	\$0	\$657,956
4	1.268	2003	\$655,734	\$102,287	\$156,630	\$146,733	\$841	\$21,310	\$0	\$0	\$1,083,536
2	1.126	2004	\$291,114	\$45,410	\$69,536	\$65,142	\$373	\$6,461	\$0	\$0	\$478,037
Total			\$1,352,788	\$211,020	\$323,130	\$302,713	\$2,107	\$27,771	\$0	\$0	\$2,219,529
Phase II											
4	1.268	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.195	2004	\$0	\$1,037,464	\$63,617	\$59,597	\$396	\$0	\$0	\$0	\$1,161,073
2	1.126	2005	\$0	\$0	\$119,890	\$112,314	\$747	\$6,461	\$148,560	\$896,778	\$3,587,111
1	1.061	2006	\$0	\$0	\$103,556	\$97,013	\$704	\$6,088	\$307,968	\$1,859,045	\$7,436,179
Total			\$0	\$1,037,464	\$287,063	\$268,924	\$1,847	\$12,550	\$456,528	\$2,755,822	\$11,023,290
Total First Cost			\$1,352,788	\$1,248,483	\$610,193	\$571,637	\$3,953	\$40,321	\$456,528	\$2,755,822	\$11,023,290

D-45

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2007	\$5,406	\$3,928	\$625
-2	0.888	2008	\$5,094	\$3,701	\$589
-3	0.837	2009	\$4,800	\$3,488	\$555
-4	0.788	2010	\$4,523	\$3,286	\$523
-5	0.743	2011	\$4,262	\$3,097	\$493
-6	0.700	2012	\$4,016	\$2,918	\$464
-7	0.660	2013	\$3,784	\$2,750	\$437
-8	0.622	2014	\$3,566	\$2,591	\$412
-9	0.586	2015	\$3,360	\$2,441	\$388
-10	0.552	2016	\$3,166	\$2,300	\$366
-11	0.520	2017	\$2,983	\$2,168	\$345
-12	0.490	2018	\$2,811	\$2,043	\$325
-13	0.462	2019	\$2,649	\$1,925	\$306
-14	0.435	2020	\$2,496	\$1,814	\$288
-15	0.410	2021	\$2,352	\$1,709	\$272
-16	0.386	2022	\$2,216	\$1,610	\$256
-17	0.364	2023	\$2,088	\$1,517	\$241
-18	0.343	2024	\$1,968	\$1,430	\$227
-19	0.323	2025	\$0	\$1,347	\$214
-20	0.305	2026	\$0	\$1,269	\$202
Total			\$61,539	\$47,331	\$7,528

Coastal Wetlands Conservation and Restoration Plan
Pass Chalard to Grand Bayou Pass (BA-21-2)

Fully Funded Costs		Total Fully Funded Costs				\$19,001,400				Amortized Costs			\$1,673,479
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													
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	1.032	2002	\$311,210	\$48,545	\$74,336	\$69,639	\$684	\$0	\$0	\$0	\$0	\$504,415	
4	1.065	2003	\$550,575	\$85,884	\$131,512	\$123,202	\$706	\$17,892	\$0	\$0	\$0	\$909,771	
2	1.099	2004	\$284,097	\$44,316	\$67,860	\$63,572	\$364	\$6,306	\$0	\$0	\$0	\$466,515	
TOTAL			\$1,145,881	\$178,745	\$273,708	\$256,414	\$1,755	\$24,198	\$0	\$0	\$0	\$1,880,700	
Phase II													
4	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.099	2004	\$0	\$954,023	\$58,500	\$54,804	\$364	\$0	\$0	\$0	\$0	\$1,067,691	
2	1.134	2005	\$0	\$0	\$120,744	\$113,115	\$752	\$6,507	\$149,618	\$903,167	\$3,612,669	\$4,906,573	
1	1.171	2006	\$0	\$0	\$114,224	\$107,007	\$776	\$6,716	\$339,693	\$2,050,551	\$8,202,205	\$10,821,171	
TOTAL			\$0	\$954,023	\$293,468	\$274,925	\$1,892	\$13,223	\$489,311	\$2,953,719	\$11,814,874	\$16,795,435	
Total Cost			\$1,145,900	\$1,132,800	\$567,200	\$531,300	\$3,600	\$37,400	\$489,300	\$2,953,700	\$11,814,900	\$18,676,100	
Year	FY	Monitoring	O&M	Corps PM	Other								
-1	1.208	2007	\$6,930	\$5,036	\$801								
-2	1.247	2008	\$7,152	\$5,197	\$827								
-3	1.287	2009	\$7,381	\$5,363	\$853								
-4	1.328	2010	\$7,617	\$5,535	\$880								
-5	1.370	2011	\$7,861	\$5,712	\$908								
-6	1.414	2012	\$8,113	\$5,895	\$938								
-7	1.459	2013	\$8,372	\$6,083	\$968								
-8	1.506	2014	\$8,640	\$6,278	\$999								
-9	1.554	2015	\$8,917	\$6,479	\$1,030								
-10	1.604	2016	\$9,202	\$6,686	\$1,063								
-11	1.655	2017	\$9,496	\$6,900	\$1,097								
-12	1.708	2018	\$9,800	\$7,121	\$1,133								
-13	1.763	2019	\$10,114	\$7,349	\$1,169								
-14	1.819	2020	\$10,438	\$7,584	\$1,206								
-15	1.878	2021	\$10,772	\$7,827	\$1,245								
-16	1.938	2022	\$11,116	\$8,077	\$1,285								
-17	2.000	2023	\$11,472	\$8,336	\$1,326								
-18	2.064	2024	\$11,839	\$8,602	\$1,368								
-19	2.130	2025	\$0	\$8,878	\$1,412								
-20	2.198	2026	\$0	\$9,162	\$1,457								
Total			\$165,200	\$138,100	\$22,000	\$0							

D-46

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>10,192,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>12,740,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,077,000
Engineering	\$767,000	
Geotechnical Investigation	\$160,000	
Surveying (hydrographic, land based, & as-built)	\$110,000	
Borrow Area Impact Modeling	\$40,000	
0	\$0	
0	\$0	
0	\$0	

<i>Supervision and Administration</i>		\$257,255
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State Costs

<i>Supervision and Administration</i>		\$241,000
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<i>Easements and Land Rights</i>		\$168,000
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<i>Monitoring</i>		\$22,537
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Monitoring Plan Development	\$16,800
Monitoring Protocol Cost *	\$5,737

Total Phase I Cost Estimate	\$1,766,000
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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>		\$12,740,000
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<i>Oyster Issues (\$7000/20% of 620 lease acres)</i>	lease acres	\$3,000 per acre	\$868,000
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<i>Supervision and Inspection</i>	113 days @	\$850 per day	\$422,100
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	200 days @	\$1,630 per day	
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<i>Supervision and Administration</i>		\$257,255
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State Costs

<i>Supervision and Administration</i>		\$241,000
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Total Phase II Cost Estimate	\$14,528,000
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<u>TOTAL ESTIMATED PROJECT FIRST COST</u>	<u>16,294,000</u>
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D-47

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 7</u>	<u>Year 14</u>
Contractor Mobilization/Demobilization	\$0	\$0	\$0
Replace 25% of original revetment/dike section	\$0	\$0	\$0
Replace 10% of original revetment/dike section	\$0	\$0	\$0
Access Dredging (75% original @ TY3 & 50% original @ TY14)	\$0	\$0	\$0
Replace Navigation Signs	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0
Subtotal w/ 10% contin.	\$0	\$0	\$0
Engineer, Design & Administrative Costs			
Engineering and Design Cost	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0
Eng Survey 0 days @ \$1,417 per day	\$0	\$0	\$0
Construction Insp 0 days @ \$850 per day	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0
Total	\$0	\$0	\$0

D-48

Annual Project Costs:

NMFS Admin	\$289
Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

	2002	2003	2004	2005	2006	Total
Plan & Design Start	March-02	7	12			25
Plan & Design End	March-04					
Const. Start	May-05					
Const. End	Aug-06		6	12	11	29
				5	11	16

11th Yr Template for Operation & Maintenance and Monitoring

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Annual Project Costs:

NMFS Admin (3% O&M + annual inspection + monitoring)	\$289
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Corps Administration \$663

Monitoring \$5,737

(Dependent upon type of project)

Construction Schedule:

Planning & Design Start **March-02**

Planning & Design End **March-04**

(Minimum of one year to complete this phase)

Const. Start **May-05**

(Requires 4 months for contracting and advertising)

Const. End **Aug-06**

Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Little Lake shoreline protection and dedicated dredging near Round Lake (BA 24-1)

Project Construction Years:	5	Total Project Years	25
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$31,946,500	Total Fully Funded Costs	\$37,174,900

	<u>Present Worth</u>	<u>Average Annual</u>
Annual Charges		
First Costs	\$32,930,199	\$2,900,207
Monitoring	\$61,539	\$5,420
O & M Costs	\$2,378,763	\$209,501
Other Costs	<u>\$7,528</u>	<u>\$663</u>
Total	\$35,378,000	\$3,115,800
Average Annual Habitat Units		349
Cost Per Habitat Unit		\$8,939
Total Net Acres		713

Coastal Wetlands Conservation and Restoration Plan
Little Lake shoreline protection and dedicated dredging near Round Lake (BA 24-1)

Project Costs

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											
0	Compound							-	\$0		\$0
5	Compound	2002	\$434,280	\$16,800	\$124,834	\$112,000	\$663	\$0	-	\$0	\$688,577
4	Compound	2003	\$744,480	\$28,800	\$214,001	\$192,000	\$663	\$16,441	-	\$0	\$1,196,385
3	Compound	2004	\$372,240	\$14,400	\$107,000	\$96,000	\$332	\$5,737	-	\$0	\$595,709
TOTAL			\$1,551,000	\$60,000	\$445,835	\$400,000	\$1,658	\$22,178	\$0	\$0	\$2,480,671
Phase II											
4	Compound	2003	-	-	-	-	-	-	\$0	\$0	\$0
3	Compound	2004	-	-	\$140,790	\$126,316	\$332	-	\$111,158	\$1,568,684	\$8,222,016
2	Compound	2005	-	\$0	\$281,580	\$252,632	\$663	\$5,737	\$222,316	\$3,137,368	\$16,449,769
1	Compound	2006	-	-	\$23,465	\$21,053	\$663	\$5,737	\$18,526	\$261,447	\$1,376,681
TOTAL			\$0	\$0	\$445,835	\$400,000	\$1,658	\$11,474	\$352,000	\$4,967,500	\$19,870,000
Total First Costs			\$1,551,000	\$60,000	\$891,670	\$800,000	\$3,315	\$33,652	\$352,000	\$4,967,500	\$19,870,000

D-51

Year	FY	Monitoring	O&M	Corps PM	Other
1	Discount	2007	\$5,737	\$4,169	\$663
2	Discount	2008	\$5,737	\$4,169	\$663
3	Discount	2009	\$5,737	\$2,164,052	\$663
4	Discount	2010	\$5,737	\$4,169	\$663
5	Discount	2011	\$5,737	\$4,169	\$663
6	Discount	2012	\$5,737	\$4,169	\$663
7	Discount	2013	\$5,737	\$56,937	\$663
8	Discount	2014	\$5,737	\$4,169	\$663
9	Discount	2015	\$5,737	\$4,169	\$663
10	Discount	2016	\$5,737	\$4,169	\$663
11	Discount	2017	\$5,737	\$4,169	\$663
12	Discount	2018	\$5,737	\$4,169	\$663
13	Discount	2019	\$5,737	\$4,169	\$663
14	Discount	2020	\$5,737	\$1,129,399	\$663
15	Discount	2021	\$5,737	\$4,169	\$663
16	Discount	2022	\$5,737	\$4,169	\$663
17	Discount	2023	\$5,737	\$4,169	\$663
18	Discount	2024	\$5,737	\$4,169	\$663
19	Discount	2025	\$0	\$4,169	\$663
20	Discount	2026	\$0	\$4,169	\$663
Total			\$103,266	\$3,421,253	\$13,260

Coastal Wetlands Conservation and Restoration Plan
Little Lake shoreline protection and dedicated dredging near Round Lake (BA 24-1)

Present Valued Costs		Total Discounted Costs				\$35,378,029				Amortized Costs			\$3,115,791
Year	Fiscal Year	E&D	Land Rights	Federal S&A	LDNR S&A	Corps Proj.	Monitoring	S&I	Contingency	Construction Costs	Total First Cost		
Phase I													
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
5	1.346	2002	\$584,599	\$22,615	\$168,043	\$150,767	\$892	\$0	\$0	\$0	\$926,917		
4	1.268	2003	\$944,330	\$36,531	\$271,448	\$243,541	\$841	\$20,854	\$0	\$0	\$1,517,545		
2	1.126	2004	\$419,236	\$16,218	\$120,509	\$108,120	\$373	\$6,461	\$0	\$0	\$670,918		
Total			\$1,948,165	\$75,364	\$560,000	\$502,428	\$2,107	\$27,316	\$0	\$0	\$3,115,381		
Phase II													
4	1.268	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3	1.195	2004	\$0	\$0	\$168,277	\$150,977	\$396	\$0	\$132,860	\$1,874,945	\$7,499,782	\$9,827,237	
2	1.126	2005	\$0	\$0	\$317,130	\$284,527	\$747	\$6,461	\$250,384	\$3,533,466	\$14,133,864	\$18,526,579	
1	1.061	2006	\$0	\$0	\$24,902	\$22,342	\$704	\$6,088	\$19,661	\$277,461	\$1,109,844	\$1,461,002	
Total			\$0	\$0	\$510,309	\$457,846	\$1,847	\$12,550	\$402,904	\$5,685,873	\$22,743,490	\$29,814,818	
Total First Cost			\$1,948,165	\$75,364	\$1,070,309	\$960,274	\$3,953	\$39,865	\$402,904	\$5,685,873	\$22,743,490	\$32,930,199	

D-52

Year	FY	Monitoring	O&M	Corps PM	Other	
-1	0.942	2007	\$5,406	\$3,928	\$625	
-2	0.888	2008	\$5,094	\$3,701	\$589	
-3	0.837	2009	\$4,800	\$1,810,567	\$555	
-4	0.788	2010	\$4,523	\$3,286	\$523	
-5	0.743	2011	\$4,262	\$3,097	\$493	
-6	0.700	2012	\$4,016	\$2,918	\$464	
-7	0.660	2013	\$3,784	\$37,555	\$437	
-8	0.622	2014	\$3,566	\$2,591	\$412	
-9	0.586	2015	\$3,360	\$2,441	\$388	
-10	0.552	2016	\$3,166	\$2,300	\$366	
-11	0.520	2017	\$2,983	\$2,168	\$345	
-12	0.490	2018	\$2,811	\$2,043	\$325	
-13	0.462	2019	\$2,649	\$1,925	\$306	
-14	0.435	2020	\$2,496	\$491,360	\$288	
-15	0.410	2021	\$2,352	\$1,709	\$272	
-16	0.386	2022	\$2,216	\$1,610	\$256	
-17	0.364	2023	\$2,088	\$1,517	\$241	
-18	0.343	2024	\$1,968	\$1,430	\$227	
-19	0.323	2025	\$0	\$1,347	\$214	
-20	0.305	2026	\$0	\$1,269	\$202	
Total			\$61,539	\$2,378,763	\$7,528	\$0

Coastal Wetlands Conservation and Restoration Plan
Little Lake shoreline protection and dedicated dredging near Round Lake (BA 24-1)

Fully Funded Costs			Total Fully Funded Costs			\$37,174,900			Amortized Costs			\$3,274,043
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												
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	1.032	2002	\$448,177	\$17,338	\$128,828	\$115,584	\$684	\$0	\$0	\$0	\$710,611	
4	1.065	2003	\$792,889	\$30,673	\$227,916	\$204,485	\$706	\$17,510	\$0	\$0	\$1,274,179	
2	1.099	2004	\$409,131	\$15,827	\$117,605	\$105,514	\$364	\$6,306	\$0	\$0	\$654,746	
TOTAL			\$1,650,197	\$63,837	\$474,349	\$425,583	\$1,755	\$23,816	\$0	\$0	\$2,639,536	
Phase II												
4	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.099	2004	\$0	\$0	\$154,743	\$138,834	\$364	\$0	\$122,174	\$1,724,148	\$6,896,593	
2	1.134	2005	\$0	\$0	\$319,389	\$286,554	\$752	\$6,507	\$252,167	\$3,558,642	\$14,234,568	
1	1.171	2006	\$0	\$0	\$27,467	\$24,644	\$776	\$6,716	\$21,686	\$306,043	\$1,224,173	
TOTAL			\$0	\$0	\$501,600	\$450,032	\$1,892	\$13,223	\$396,028	\$5,588,834	\$22,355,334	
Total Cost			\$1,650,200	\$63,800	\$975,900	\$875,600	\$3,600	\$37,000	\$396,000	\$5,588,800	\$22,355,300	

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.208	2007	\$6,930	\$5,036	\$801
-2	1.247	2008	\$7,152	\$5,197	\$827
-3	1.287	2009	\$7,381	\$2,784,232	\$853
-4	1.328	2010	\$7,617	\$5,535	\$880
-5	1.370	2011	\$7,861	\$5,712	\$908
-6	1.414	2012	\$8,113	\$5,895	\$938
-7	1.459	2013	\$8,372	\$83,090	\$968
-8	1.506	2014	\$8,640	\$6,278	\$999
-9	1.554	2015	\$8,917	\$6,479	\$1,030
-10	1.604	2016	\$9,202	\$6,686	\$1,063
-11	1.655	2017	\$9,496	\$6,900	\$1,097
-12	1.708	2018	\$9,800	\$7,121	\$1,133
-13	1.763	2019	\$10,114	\$7,349	\$1,169
-14	1.819	2020	\$10,438	\$2,054,763	\$1,206
-15	1.878	2021	\$10,772	\$7,827	\$1,245
-16	1.938	2022	\$11,116	\$8,077	\$1,285
-17	2.000	2023	\$11,472	\$8,336	\$1,326
-18	2.064	2024	\$11,839	\$8,602	\$1,368
-19	2.130	2025	\$0	\$8,878	\$1,412
-20	2.198	2026	\$0	\$9,162	\$1,457
Total			\$165,200	\$5,041,200	\$22,000

D-53

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>19,870,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>24,838,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,551,000
Engineering - from fee scale	\$1,436,000	
Geotechnical Investigation - \$25,000 report, 5 deep borings and 25 shal	\$115,000	
Cultural Resources - included in NMFS Admin	\$0	
NEPA Compliance - included in NMFS Admin.	\$0	
0	\$0	
0	\$0	
0	\$0	

Supervision and Administration \$445,835

State Costs

Supervision and Administration \$400,000

Easements and Land Rights \$60,000

Monitoring \$22,178

Monitoring Plan Development \$16,441

Monitoring Protocol Cost * \$5,737

Total Phase I Cost Estimate \$2,479,000

* 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

Estimated Construction Cost +25% Contingency \$24,838,000

Oyster Issues (# of Acres) 0 lease acres \$3,000 per acre \$0

Supervision and Inspection 414 days @ \$850 per day \$352,000

days @ \$1,630 per day

Supervision and Administration \$445,835

State Costs

Supervision and Administration \$400,000

Total Phase II Cost Estimate \$26,036,000

TOTAL ESTIMATED PROJECT FIRST COST \$28,515,000

D-54

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	Year 3	Year 7	Year 14
Contractor Mobilization/Demobilization	\$50,000	\$10,000	\$50,000
Replace 25% of original revetment/dike section	\$1,163,580	\$0	\$0
Replace 10% of original revetment/dike section	\$0	\$0	\$465,420
Access Dredging (75% original @ TY3 & 50% original @ TY14)	\$606,750	\$0	\$404,500
Replace Navigation Signs	\$0	\$27,000	\$27,000
Subtotal	\$1,820,330	\$37,000	\$946,920
Subtotal w/ 10% contin.	\$2,002,000	\$41,000	\$1,042,000
Engineer, Design & Administrative Costs			
Engineering and Design Cost	\$136,000	\$5,000	\$74,000
Administrative Cost	\$4,523	\$4,523	\$4,523
Eng Survey 0 days @ \$1,417 per day	\$7,000	\$3,000	\$3,000
Construction Insp 0 days @ \$850 per day	\$10,000	\$0	\$3,000
Subtotal	\$158,000	\$13,000	\$85,000
Total	\$2,160,000	\$54,000	\$1,127,000

D-55

Annual Project Costs:

NMFS Admin	\$289
Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

	2002	2003	2004	2005	2006	Total
Plan & Design Start	March-02	7	12	6		25
Plan & Design End	March-04					
Const. Start	August-04					
Const. End	October-05		6	12	1	19

11th Yr Template for Operation & Maintenance and Monitoring

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

<u>Construction Items</u>	<u>Year 3</u>	<u>Year 7</u>	<u>Year 14</u>
Contractor Mobilization/Demobilization	\$50,000	\$10,000	\$50,000
Replace 25% of original revetment/dike section	\$1,163,580		
Replace 10% of original revetment/dike section			\$465,420
Access Dredging (75% original @ TY3 & 50% original @ TY14)	\$606,750		\$404,500
Replace Navigation Signs		\$27,000	\$27,000
Subtotal	\$1,820,330	\$37,000	\$946,920
Subtotal w/ 10% contingency	\$2,002,000	\$41,000	\$1,042,000

Engineer, Design & Administrative Costs

Engineering and Design Cost		\$136,000	\$4,000	\$74,000
Federal Supervision and Administration (3% of Construction Items + E&D)		\$64,140	\$1,350	\$33,480
State Supervision and Administration (4% Construction Items)		\$80,080	\$1,640	\$41,680
Eng Survey				
	5 days @	\$1,417 per day	\$7,000	
	2 days @	\$1,417 per day		\$3,000
Inspection				
	12 days @	\$850 per day	\$10,000	
	3 days @	\$850 per day		\$3,000
Subtotal		\$297,000	\$10,000	\$155,000
Total		\$2,299,000	\$51,000	\$1,197,000

Annual Project Costs:

NMFS Admin (3% annual inspection+monitoring)	\$289
Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	March-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	August-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	October-05	

**Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
South Shore of the Pen (BA-24-3B)**

Project Construction Years:	6	Total Project Years	26
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$27,110,100	Total Fully Funded Costs	\$28,486,200

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$28,043,521	\$2,469,831
Monitoring	\$61,539	\$5,420
O & M Costs	\$354,309	\$31,204
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$28,466,900	\$2,507,100
Average Annual Habitat Units		222
Cost Per Habitat Unit		\$11,310
Total Net Acres		476

**Coastal Wetlands Conservation and Restoration Plan
South Shore of the Pen (BA-24-3B)**

Project Costs

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												
7	Compound	2001						-	\$0		\$0	
6	Compound	2002	\$362,320	\$16,800	\$111,440	\$97,720	\$663	-	\$0		\$588,943	
5	Compound	2003	\$621,120	\$28,800	\$191,040	\$167,520	\$663	\$13,406	\$0		\$1,022,549	
4	Compound	2004	\$310,560	\$14,400	\$95,520	\$83,760	\$332	\$5,737	\$0		\$510,309	
TOTAL			\$1,294,000	\$60,000	\$398,000	\$349,000	\$1,658	\$19,143	\$0	\$0	\$2,121,801	
Phase II												
4	Compound	2004	-	-	\$141,000	\$61,588	\$332	\$0	\$97,500	\$702,309	\$2,809,235	\$3,811,964
3	Compound	2005	-	-	\$282,000	\$123,176	\$663	\$5,737	\$195,000	\$1,404,618	\$5,618,471	\$7,629,665
2	Compound	2006	-	\$0	\$282,000	\$123,176	\$663	\$5,737	\$195,000	\$1,404,618	\$5,618,471	\$7,629,665
1	Compound	2007	-	-	\$94,000	\$41,059	\$663	\$5,737	\$65,000	\$468,206	\$1,872,824	\$2,547,488
TOTAL			\$0	\$0	\$799,000	\$349,000	\$2,321	\$17,211	\$552,500	\$3,979,750	\$15,919,000	\$21,618,782
Total First Costs			\$1,294,000	\$60,000	\$1,197,000	\$698,000	\$3,979	\$36,354	\$552,500	\$3,979,750	\$15,919,000	\$23,740,583

D-58

Year	FY	Monitoring	O&M	Corps PM	Other	
1	Discount	2008	\$5,737	\$4,718	\$663	-
2	Discount	2009	\$5,737	\$4,718	\$663	-
3	Discount	2010	\$5,737	\$4,718	\$663	-
4	Discount	2011	\$5,737	\$4,718	\$663	-
5	Discount	2012	\$5,737	\$4,718	\$663	-
6	Discount	2013	\$5,737	\$4,718	\$663	-
7	Discount	2014	\$5,737	\$4,718	\$663	-
8	Discount	2015	\$5,737	\$4,718	\$663	-
9	Discount	2016	\$5,737	\$4,718	\$663	-
10	Discount	2017	\$5,737	\$424,269	\$663	-
11	Discount	2018	\$5,737	\$4,718	\$663	-
12	Discount	2019	\$5,737	\$4,718	\$663	-
13	Discount	2020	\$5,737	\$4,718	\$663	-
14	Discount	2021	\$5,737	\$4,718	\$663	-
15	Discount	2022	\$5,737	\$173,539	\$663	-
16	Discount	2023	\$5,737	\$4,718	\$663	-
17	Discount	2024	\$5,737	\$4,718	\$663	-
18	Discount	2025	\$5,737	\$4,718	\$663	-
19	Discount	2026	\$0	\$4,718	\$663	-
20	Discount	2027	\$0	\$4,718	\$663	-
Total			\$103,266	\$682,732	\$13,264	\$0

**Coastal Wetlands Conservation and Restoration Plan
South Shore of the Pen (BA-24-3B)**

Present Valued Costs			Total Discounted Costs				Amortized Costs				\$2,507,118	
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												
7	1.516	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
6	1.429	2002	\$517,605	\$24,000	\$159,202	\$139,601	\$947	\$0	\$0	\$0	\$841,356	
5	1.346	2003	\$836,111	\$38,769	\$257,166	\$225,504	\$893	\$18,046	\$0	\$0	\$1,376,489	
2	1.126	2004	\$349,769	\$16,218	\$107,580	\$94,335	\$373	\$6,461	\$0	\$0	\$574,736	
Total			\$1,703,485	\$78,987	\$523,947	\$459,441	\$2,214	\$24,508	\$0	\$0	\$2,792,581	
Phase II												
4	1.268	2004	\$0	\$0	\$178,850	\$78,121	\$421	\$0	\$123,673	\$890,838	\$3,563,354	\$4,835,257
3	1.195	2005	\$0	\$0	\$337,056	\$147,225	\$793	\$6,857	\$233,071	\$1,678,847	\$6,715,390	\$9,119,239
2	1.126	2006	\$0	\$0	\$317,603	\$138,728	\$747	\$6,461	\$219,619	\$1,581,953	\$6,327,811	\$8,592,922
1	1.061	2007	\$0	\$0	\$99,758	\$43,574	\$704	\$6,088	\$68,981	\$496,883	\$1,987,534	\$2,703,522
Total			\$0	\$0	\$933,267	\$407,647	\$2,664	\$19,407	\$645,344	\$4,648,522	\$18,594,089	\$25,250,940
Total First Cost			\$1,703,485	\$78,987	\$1,457,214	\$867,088	\$4,878	\$43,914	\$645,344	\$4,648,522	\$18,594,089	\$28,043,521

D-59

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2008	\$5,406	\$4,446	\$625
-2	0.888	2009	\$5,094	\$4,189	\$589
-3	0.837	2010	\$4,800	\$3,947	\$555
-4	0.788	2011	\$4,523	\$3,720	\$523
-5	0.743	2012	\$4,262	\$3,505	\$493
-6	0.700	2013	\$4,016	\$3,303	\$464
-7	0.660	2014	\$3,784	\$3,112	\$437
-8	0.622	2015	\$3,566	\$2,932	\$412
-9	0.586	2016	\$3,360	\$2,763	\$388
-10	0.552	2017	\$3,166	\$234,134	\$366
-11	0.520	2018	\$2,983	\$2,453	\$345
-12	0.490	2019	\$2,811	\$2,312	\$325
-13	0.462	2020	\$2,649	\$2,178	\$306
-14	0.435	2021	\$2,496	\$2,053	\$289
-15	0.410	2022	\$2,352	\$71,143	\$272
-16	0.386	2023	\$2,216	\$1,823	\$256
-17	0.364	2024	\$2,088	\$1,717	\$241
-18	0.343	2025	\$1,968	\$1,618	\$227
-19	0.323	2026	\$0	\$1,525	\$214
-20	0.305	2027	\$0	\$1,437	\$202
Total		\$61,539	\$354,309	\$7,530	\$0

**Coastal Wetlands Conservation and Restoration Plan
South Shore of the Pen (BA-24-3B)**

Fully Funded Costs			Total Fully Funded Costs					Amortized Costs			\$2,508,818	
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												
7	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
6	1.032	2002	\$373,914	\$17,338	\$115,006	\$100,847	\$684	\$0	\$0	\$0	\$607,789	
5	1.065	2003	\$661,508	\$30,673	\$203,462	\$178,413	\$706	\$14,278	\$0	\$0	\$1,089,039	
2	1.099	2004	\$341,338	\$15,827	\$104,986	\$92,061	\$364	\$6,306	\$0	\$0	\$560,883	
TOTAL			\$1,376,760	\$63,837	\$423,455	\$371,321	\$1,755	\$20,583	\$0	\$0	\$0	\$2,257,711
Phase II												
4	1.099	2004	\$0	\$0	\$154,974	\$67,692	\$364	\$0	\$107,163	\$771,911	\$3,087,644	\$4,189,748
3	1.134	2005	\$0	\$0	\$319,866	\$139,716	\$752	\$6,507	\$221,184	\$1,593,224	\$6,372,897	\$8,654,147
2	1.171	2006	\$0	\$0	\$330,102	\$144,187	\$776	\$6,716	\$228,262	\$1,644,207	\$6,576,830	\$8,931,079
1	1.208	2007	\$0	\$0	\$113,555	\$49,600	\$801	\$6,930	\$78,522	\$565,607	\$2,262,429	\$3,077,446
TOTAL			\$0	\$0	\$918,496	\$401,195	\$2,694	\$20,153	\$635,130	\$4,574,950	\$18,299,800	\$24,852,420
Total Cost			\$1,376,800	\$63,800	\$1,342,000	\$772,500	\$4,400	\$40,700	\$635,100	\$4,575,000	\$18,299,800	\$27,110,100

D-60

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.247	2008	\$7,152	\$5,882	\$827
-2	1.287	2009	\$7,381	\$6,070	\$853
-3	1.328	2010	\$7,617	\$6,264	\$881
-4	1.370	2011	\$7,861	\$6,465	\$909
-5	1.414	2012	\$8,113	\$6,672	\$938
-6	1.459	2013	\$8,372	\$6,885	\$968
-7	1.506	2014	\$8,640	\$7,105	\$999
-8	1.554	2015	\$8,917	\$7,333	\$1,031
-9	1.604	2016	\$9,202	\$7,568	\$1,064
-10	1.655	2017	\$9,496	\$702,290	\$1,098
-11	1.708	2018	\$9,800	\$8,060	\$1,133
-12	1.763	2019	\$10,114	\$8,317	\$1,169
-13	1.819	2020	\$10,438	\$8,584	\$1,207
-14	1.878	2021	\$10,772	\$8,858	\$1,245
-15	1.938	2022	\$11,116	\$336,256	\$1,285
-16	2.000	2023	\$11,472	\$9,434	\$1,326
-17	2.064	2024	\$11,839	\$9,736	\$1,369
-18	2.130	2025	\$12,218	\$10,048	\$1,412
-19	2.198	2026	\$0	\$10,369	\$1,458
-20	2.268	2027	\$0	\$10,701	\$1,504
Total		\$170,500	\$1,182,900	\$22,700	\$0

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>15,919,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>19,899,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,294,000
Engineering	\$1,166,000	
Geotechnical Investigation	\$50,000	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$10,000	
NEPA Compliance	\$57,000	
HTRW	\$11,000	

Supervision and Administration \$398,000

State Costs

<i>Supervision and Administration</i>		\$349,000
<i>Easements and Land Rights</i>		\$60,000
<i>Monitoring</i>		\$19,143
Monitoring Plan Development	\$13,406	
Monitoring Protocol Cost *	\$5,737	

Total Phase I Cost Estimate \$2,120,000

* 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>		\$19,899,000
Oyster Issues (# of Acres)	0	lease acres \$3,000 per acre \$0
<i>Supervision and Inspection</i>	650 days @	\$850 per day \$552,500
<i>Supervision and Administration</i>		\$799,000

State Costs

Supervision and Administration \$349,000

Total Phase II Cost Estimate \$21,600,000

TOTAL ESTIMATED PROJECT FIRST COST 23,720,000

O&M Data

Annual Costs

Annual Inspections	\$4,718
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
Mob & Demob	\$0	\$0	\$30,000	\$30,000
Dike along Pen (assume 25% replacement yr 10, 15% replacement yr 15)	\$0	\$0	\$124,500	\$75,000
Dike along Bayou Dupont (assume 30% replacement yr 10)	\$0	\$0	\$146,000	\$0
	\$0	\$0	\$0	\$0
Subtotal	<u>\$0</u>	<u>\$0</u>	<u>\$300,500</u>	<u>\$105,000</u>
Subtotal w/ 10% contin.	\$0	\$0	\$331,000	\$116,000
Engineer, Design & Administrative Costs				
Engineering and Design Cost	\$0	\$0	\$25,635	\$9,792
Administrative Cost	\$0	\$0	\$5,272	\$5,272
Eng Survey 3 days @ \$1,417 per day	\$0	\$0	\$7,000	\$4,000
Construction Insp. 6 days @ \$850 per day	\$0	\$0	\$51,000	\$34,000
	\$0	\$0	\$89,000	\$53,000
Subtotal	\$0	\$0	\$89,000	\$53,000
Total	\$0	\$0	\$420,000	\$169,000

D-62

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

	2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	March-02	7	12	6			25
Plan & Design End	March-04						
Const. Start	July-04						
Const. End	January-07		6	12	12	4	34

**11th Year Template for Operation & Maintenance and Monitoring
BA-24-3B South Shore of the Pen Protection with Marsh Creation**

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$4,718
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

<u>Construction Items</u>	<u>Year 7</u>	<u>Year 10</u>	<u>Year 15</u>
Mob & Demob		\$30,000	\$30,000
Dike along Pen (assume 25% replacement yr 10, 15% replacement yr 15)		\$124,500	\$75,000
Dike along Bayou Dupont (assume 30% replacement yr 10)		\$146,000	
Subtotal	\$0	\$300,500	\$105,000
Subtotal w/ 10% contingency	\$0	\$331,000	\$116,000

Engineer, Design & Administrative Costs

Engineering and Design Cost		\$25,635	\$9,792
Administrative Cost		\$5,272	\$5,272
Eng Survey			\$4,000
	3 days @ \$1,417 per day		
	5 days @ \$1,417 per day	\$7,000	
Inspection			\$34,000
	40 days @ \$850 per day		
	60 days @ \$850 per day	\$51,000	
Subtotal		\$0	\$89,000
Total		\$0	\$169,000

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$5,737	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	March-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	July-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	January-07	<i>(47 month construction duration)</i>

Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
W Lake Boudreau Shoreline Protection (TE-CW-2)

Project Construction Years:	4	Total Project Years	24
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$13,022,000	Total Fully Funded Costs	\$14,565,900

	<u>Present Worth</u>	<u>Average Annual</u>
Annual Charges		
First Costs	\$12,832,059	\$1,130,137
Monitoring	\$63,393	\$5,583
O & M Costs	\$642,159	\$56,556
Other Costs	\$7,530	\$663
Total	\$13,545,100	\$1,192,900
Average Annual Habitat Units		88
Cost Per Habitat Unit		\$13,580
Total Net Acres		145

Coastal Wetlands Conservation and Restoration Plan
W Lake Boudreau Shoreline Protection (TE-CW-2)

Project Costs

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	Compounc	2001						-	\$0		\$0	
4	Compounc	2002	\$204,400	\$29,120	\$54,040	\$54,040	\$663	\$0	-	\$0	\$342,263	
3	Compounc	2003	\$350,400	\$49,920	\$92,640	\$92,640	\$663	\$15,273	-	\$0	\$601,536	
2	Compounc	2004	\$175,200	\$24,960	\$46,320	\$46,320	\$332	\$5,737	-	\$0	\$298,869	
TOTAL			\$730,000	\$104,000	\$193,000	\$193,000	\$1,658	\$21,010	\$0	\$0	\$0	\$1,242,668
Phase II												
4	Compounc	2002	-	-	-	-	-	-	-	\$0	\$0	\$0
3	Compounc	2003	-	-	\$0	\$0	\$0	-	\$0	\$0	\$0	\$0
2	Compounc	2004	-	\$210,000	\$72,375	\$72,375	\$332	-	\$74,920	\$722,813	\$2,891,250	\$4,044,064
1	Compounc	2005	-	-	\$120,625	\$120,625	\$663	\$5,737	\$124,866	\$1,204,688	\$4,818,750	\$6,395,954
TOTAL			\$0	\$210,000	\$193,000	\$193,000	\$995	\$5,737	\$199,786	\$1,927,500	\$7,710,000	\$10,440,018
Total First Costs			\$730,000	\$314,000	\$386,000	\$386,000	\$2,653	\$26,747	\$199,786	\$1,927,500	\$7,710,000	\$11,682,686

Year	FY	Monitoring	O&M	Corps PM	Other
1 Discount	2006	\$5,737	\$3,880	\$663	-
2 Discount	2007	\$5,737	\$3,880	\$663	-
3 Discount	2008	\$5,737	\$582,941	\$663	-
4 Discount	2009	\$5,737	\$3,880	\$663	-
5 Discount	2010	\$5,737	\$3,880	\$663	-
6 Discount	2011	\$5,737	\$3,880	\$663	-
7 Discount	2012	\$5,737	\$3,880	\$663	-
8 Discount	2013	\$5,737	\$3,880	\$663	-
9 Discount	2014	\$5,737	\$3,880	\$663	-
10 Discount	2015	\$5,737	\$3,880	\$663	-
11 Discount	2016	\$5,737	\$3,880	\$663	-
12 Discount	2017	\$5,737	\$3,880	\$663	-
13 Discount	2018	\$5,737	\$3,880	\$663	-
14 Discount	2019	\$5,737	\$3,880	\$663	-
15 Discount	2020	\$5,737	\$281,055	\$663	-
16 Discount	2021	\$5,737	\$3,880	\$663	-
17 Discount	2022	\$5,737	\$3,880	\$663	-
18 Discount	2023	\$5,737	\$3,880	\$663	-
19 Discount	2024	\$5,737	\$3,880	\$663	-
20 Discount	2025	\$0	\$3,880	\$663	-
Total		\$109,003	\$933,837	\$13,264	\$0

D-65

Coastal Wetlands Conservation and Restoration Plan
W Lake Boudreau Shoreline Protection (TE-CW-2)

Present Valued Costs			Total Discounted Costs				Amortized Costs				\$1,192,939	
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	1.346	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	1.268	2002	\$259,270	\$36,937	\$68,547	\$68,547	\$841	\$0	\$0	\$0	\$434,141	
3	1.195	2003	\$418,810	\$59,666	\$110,727	\$110,727	\$793	\$18,255	\$0	\$0	\$718,977	
2	1.126	2004	\$197,319	\$28,111	\$52,168	\$52,168	\$373	\$6,461	\$0	\$0	\$336,601	
Total			\$875,399	\$124,714	\$231,441	\$231,441	\$2,007	\$24,716	\$0	\$0	\$0	\$1,489,719
Phase II												
4	1.268	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.195	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.126	2004	\$0	\$236,513	\$81,512	\$81,512	\$373	\$0	\$84,379	\$814,069	\$3,256,275	\$4,554,633
1	1.061	2005	\$0	\$0	\$128,013	\$128,013	\$704	\$6,088	\$132,515	\$1,278,475	\$5,113,898	\$6,787,706
Total			\$0	\$236,513	\$209,526	\$209,526	\$1,077	\$6,088	\$216,893	\$2,092,543	\$8,370,173	\$11,342,340
Total First Cost			\$875,399	\$361,227	\$440,967	\$440,967	\$3,085	\$30,805	\$216,893	\$2,092,543	\$8,370,173	\$12,832,059

D-66

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2006	\$5,406	\$3,656	\$625
-2	0.888	2007	\$5,094	\$3,445	\$589
-3	0.837	2008	\$4,800	\$487,721	\$555
-4	0.788	2009	\$4,523	\$3,059	\$523
-5	0.743	2010	\$4,262	\$2,882	\$493
-6	0.700	2011	\$4,016	\$2,716	\$464
-7	0.660	2012	\$3,784	\$2,559	\$437
-8	0.622	2013	\$3,566	\$2,412	\$412
-9	0.586	2014	\$3,360	\$2,272	\$388
-10	0.552	2015	\$3,166	\$2,141	\$366
-11	0.520	2016	\$2,983	\$2,018	\$345
-12	0.490	2017	\$2,811	\$1,901	\$325
-13	0.462	2018	\$2,649	\$1,791	\$306
-14	0.435	2019	\$2,496	\$1,688	\$289
-15	0.410	2020	\$2,352	\$115,220	\$272
-16	0.386	2021	\$2,216	\$1,499	\$256
-17	0.364	2022	\$2,088	\$1,412	\$241
-18	0.343	2023	\$1,968	\$1,331	\$227
-19	0.323	2024	\$1,854	\$1,254	\$214
-20	0.305	2025	\$0	\$1,182	\$202
Total		\$63,393	\$642,159	\$7,530	\$0

Coastal Wetlands Conservation and Restoration Plan
W Lake Boudreau Shoreline Protection (TE-CW-2)

Fully Funded Costs			Total Fully Funded Costs						\$14,565,900			Amortized Costs		\$1,282,838
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	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
4	1.032	2002	\$210,941	\$30,052	\$55,769	\$55,769	\$684	\$0	\$0	\$0	\$353,216			
3	1.065	2003	\$373,184	\$53,166	\$98,664	\$98,664	\$706	\$16,266	\$0	\$0	\$640,651			
2	1.099	2004	\$192,563	\$27,434	\$50,911	\$50,911	\$364	\$6,306	\$0	\$0	\$328,488			
TOTAL			\$776,688	\$110,651	\$205,344	\$205,344	\$1,755	\$22,572	\$0	\$0	\$1,322,354			
Phase II														
4	1.032	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
3	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
2	1.099	2004	\$0	\$230,812	\$79,548	\$79,548	\$364	\$0	\$82,345	\$794,447	\$4,444,850			
1	1.134	2005	\$0	\$0	\$136,822	\$136,822	\$752	\$6,507	\$141,633	\$1,366,448	\$7,254,778			
TOTAL			\$0	\$230,812	\$216,370	\$216,370	\$1,117	\$6,507	\$223,978	\$2,160,895	\$8,643,580			
Total Cost			\$776,700	\$341,500	\$421,700	\$421,700	\$2,900	\$29,100	\$224,000	\$2,160,900	\$8,643,600			

D-67

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.171	2006	\$6,716	\$4,542	\$776
-2	1.208	2007	\$6,930	\$4,687	\$801
-3	1.247	2008	\$7,152	\$726,746	\$827
-4	1.287	2009	\$7,381	\$4,992	\$853
-5	1.328	2010	\$7,617	\$5,152	\$881
-6	1.370	2011	\$7,861	\$5,317	\$909
-7	1.414	2012	\$8,113	\$5,487	\$938
-8	1.459	2013	\$8,372	\$5,662	\$968
-9	1.506	2014	\$8,640	\$5,843	\$999
-10	1.554	2015	\$8,917	\$6,030	\$1,031
-11	1.604	2016	\$9,202	\$6,223	\$1,064
-12	1.655	2017	\$9,496	\$6,423	\$1,098
-13	1.708	2018	\$9,800	\$6,628	\$1,133
-14	1.763	2019	\$10,114	\$6,840	\$1,169
-15	1.819	2020	\$10,438	\$511,336	\$1,207
-16	1.878	2021	\$10,772	\$7,285	\$1,245
-17	1.938	2022	\$11,116	\$7,518	\$1,285
-18	2.000	2023	\$11,472	\$7,759	\$1,326
-19	2.064	2024	\$11,839	\$8,007	\$1,369
-20	2.130	2025	\$0	\$8,263	\$1,412
Total		\$171,900	\$1,350,700	\$21,300	\$0

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	7,710,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>9,638,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$730,000
Engineering	\$590,000	
Geotechnical Investigation	\$100,000	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	

<i>Supervision and Administration</i>		\$193,000
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State Costs

<i>Supervision and Administration</i>		\$193,000
<i>Easements and Land Rights</i>		\$104,000
<i>Monitoring</i>		\$21,010
Monitoring Plan Developme	\$15,273	
Monitoring Protocol Cost *	\$5,737	

Total Phase I Cost Estimate **\$1,241,000**

* 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>		\$9,638,000
Oyster Issues (# of Acres) (150 leased ac lease acres	\$3,000 per acre	\$210,000
<i>Supervision and Inspection</i> 235 days @	\$850 per day	\$199,786
<i>Supervision and Administration</i>		\$193,000

State Costs

<i>Supervision and Administration</i>		\$193,000
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Total Phase II Cost Estimate **\$10,434,000**

TOTAL ESTIMATED PROJECT FIRST COST **11,675,000**

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$40,000	\$0	\$0	\$25,000
Replace 25% of original rockfill/rock riprap section	\$330,000	\$0	\$0	\$0
Replace 10% of original rockfill/rock riprap section	\$0	\$0	\$0	\$132,000
Replace 50% of original earthen plug	\$1,000	\$0	\$0	\$1,000
Flotation Access Channel	\$91,000	\$0	\$0	\$61,000
	\$0	\$0	\$0	\$0
Subtotal	\$462,000	\$0	\$0	\$219,000
Subtotal w/ 10% contin.	\$508,000	\$0	\$0	\$241,000
Engineer, Design & Administrative Costs				
Engineering and Design Cost	\$38,000	\$0	\$0	\$19,000
Administrative Cost	\$4,420	\$0	\$0	\$4,420
Eng Survey 3 days @ \$1,417 per day	\$7,000	\$0	\$0	\$4,000
Construction Insp 6 days @ \$850 per day	\$21,000	\$0	\$0	\$9,000
Subtotal	\$70,000	\$0	\$0	\$36,000
Total	\$578,000	\$0	\$0	\$277,000

D-69

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

		2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	March-02	7	12	6				25
Plan & Design End	March-04							
Const. Start	August-04							
Const. End	July-05			6	10			16

11th Year Template for Operation & Maintenance and Monitoring

Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

Construction Items

	<u>Year 3</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$40,000	\$25,000
Replace 25% of original rockfill/rock riprap section	\$330,000	
Replace 10% of original rockfill/rock riprap section		\$132,000
Replace 50% of original earthen plug	\$1,000	\$1,000
Flotation Access Channel	\$91,000	\$61,000
Subtotal	\$462,000	\$219,000
Subtotal w/ 10% contingency	\$508,000	\$241,000

Engineer, Design & Administrative Costs

Engineering and Design Cost			\$38,000	\$19,000
Administrative Cost			\$4,420	\$4,420
Eng Survey				
	5 days	@	\$1,417 per day	
	3 days	@	\$1,417 per day	\$4,000
Inspection				
	25 days	@	\$850 per day	\$21,000
	10 days	@	\$850 per day	\$9,000
Subtotal			\$70,000	\$36,000
Total			\$578,000	\$277,000

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$5,737	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	March-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	August-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	July-05	

**Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
East Bayou Terrebonne Hydrologic Restoration Project (TE-10-5)**

Project Construction Years:	5	Total Project Years	25
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$10,331,200	Total Fully Funded Costs	\$17,172,700

	<u>Present Worth</u>	<u>Average Annual</u>
Annual Charges		
First Costs	\$10,340,249	\$910,680
Monitoring	\$379,243	\$33,400
O & M Costs	\$1,869,644	\$164,662
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$12,596,700	\$1,109,400
Average Annual Habitat Units		192
Cost Per Habitat Unit		\$5,789
Total Net Acres		144

Coastal Wetlands Conservation and Restoration Plan
East Bayou Terrebonne Hydrologic Restoration Project (TE-10-5)

Project Costs

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	2002	\$204,387	\$19,355	\$24,000	\$24,000	\$663	-	\$0		\$272,405
4	Compound	2003	\$408,774	\$38,710	\$48,000	\$48,000	\$663	\$0	\$0		\$544,147
3	Compound	2004	\$408,774	\$38,710	\$48,000	\$48,000	\$663	\$21,897	\$0		\$566,044
2	Compound	2005	\$34,065	\$3,226	\$4,000	\$4,000	\$332	\$34,321	\$0		\$79,943
TOTAL			\$1,056,000	\$100,000	\$124,000	\$124,000	\$2,321	\$56,218	\$0	\$0	\$1,462,539
Phase II											
4	Compound	2003	-	-	-	-	-	-	\$0	\$0	\$0
3	Compound	2004	-	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Compound	2005	-	\$1,117,200	\$90,933	\$90,933	\$332	\$0	\$62,333	\$906,217	\$5,892,815
1	Compound	2006	-	-	\$33,067	\$33,067	\$663	\$34,321	\$22,667	\$329,533	\$1,771,451
TOTAL			\$0	\$1,117,200	\$124,000	\$124,000	\$995	\$34,321	\$85,000	\$1,235,750	\$7,664,266
Total First Costs			\$1,056,000	\$1,217,200	\$248,000	\$248,000	\$3,316	\$90,539	\$85,000	\$1,235,750	\$9,126,805

Year	FY	Monitoring	O&M	Corps PM	Other	
1	Discount	2007	\$34,321	\$6,008	\$663	-
2	Discount	2008	\$34,321	\$6,008	\$663	-
3	Discount	2009	\$34,321	\$6,008	\$663	-
4	Discount	2010	\$34,321	\$6,008	\$663	-
5	Discount	2011	\$34,321	\$878,433	\$663	-
6	Discount	2012	\$34,321	\$6,008	\$663	-
7	Discount	2013	\$34,321	\$6,008	\$663	-
8	Discount	2014	\$34,321	\$6,008	\$663	-
9	Discount	2015	\$34,321	\$6,008	\$663	-
10	Discount	2016	\$34,321	\$1,000,890	\$663	-
11	Discount	2017	\$34,321	\$6,008	\$663	-
12	Discount	2018	\$34,321	\$6,008	\$663	-
13	Discount	2019	\$34,321	\$6,008	\$663	-
14	Discount	2020	\$34,321	\$6,008	\$663	-
15	Discount	2021	\$34,321	\$1,480,084	\$663	-
16	Discount	2022	\$34,321	\$6,008	\$663	-
17	Discount	2023	\$34,321	\$6,008	\$663	-
18	Discount	2024	\$34,321	\$6,008	\$663	-
19	Discount	2025	\$34,321	\$6,008	\$663	-
20	Discount	2026	\$0	\$6,008	\$663	-
Total			\$652,099	\$3,461,542	\$13,264	\$0

D-72

Coastal Wetlands Conservation and Restoration Plan
East Bayou Terrebonne Hydrologic Restoration Project (TE-10-5)

Present Valued Costs		Total Discounted Costs				\$12,596,667				Amortized Costs		\$1,109,405
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	1.346	2002	\$275,133	\$26,054	\$32,307	\$32,307	\$893	\$0	\$0	\$0	\$0	\$366,694
4	1.268	2003	\$518,507	\$49,101	\$60,885	\$60,885	\$841	\$0	\$0	\$0	\$0	\$690,219
3	1.195	2004	\$488,581	\$46,267	\$57,371	\$57,371	\$793	\$26,172	\$0	\$0	\$0	\$676,555
2	1.126	2005	\$38,365	\$3,633	\$4,505	\$4,505	\$373	\$38,654	\$0	\$0	\$0	\$90,036
Total			\$1,320,585	\$125,055	\$155,069	\$155,069	\$2,900	\$64,826	\$0	\$0	\$0	\$1,823,505
Phase II												
4	1.268	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.195	2004	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.126	2005	\$0	\$1,258,248	\$102,414	\$102,414	\$373	\$0	\$70,203	\$1,020,628	\$4,082,512	\$6,636,792
1	1.061	2006	\$0	\$0	\$35,092	\$35,092	\$704	\$36,423	\$24,055	\$349,717	\$1,398,869	\$1,879,952
Total			\$0	\$1,258,248	\$137,506	\$137,506	\$1,077	\$36,423	\$94,258	\$1,370,345	\$5,481,381	\$8,516,744
Total First Cost			\$1,320,585	\$1,383,304	\$292,575	\$292,575	\$3,978	\$101,249	\$94,258	\$1,370,345	\$5,481,381	\$10,340,249
Year	FY	Monitoring	O&M	Corps PM	Other							
-1	0.942	2007	\$32,340	\$5,661	\$625							
-2	0.888	2008	\$30,474	\$5,335	\$589							
-3	0.837	2009	\$28,715	\$5,027	\$555							
-4	0.788	2010	\$27,058	\$4,737	\$523							
-5	0.743	2011	\$25,496	\$652,560	\$493							
-6	0.700	2012	\$24,024	\$4,206	\$464							
-7	0.660	2013	\$22,638	\$3,963	\$437							
-8	0.622	2014	\$21,331	\$3,734	\$412							
-9	0.586	2015	\$20,100	\$3,519	\$388							
-10	0.552	2016	\$18,940	\$552,343	\$366							
-11	0.520	2017	\$17,847	\$3,124	\$345							
-12	0.490	2018	\$16,817	\$2,944	\$325							
-13	0.462	2019	\$15,846	\$2,774	\$306							
-14	0.435	2020	\$14,932	\$2,614	\$289							
-15	0.410	2021	\$14,070	\$606,765	\$272							
-16	0.386	2022	\$13,258	\$2,321	\$256							
-17	0.364	2023	\$12,493	\$2,187	\$241							
-18	0.343	2024	\$11,772	\$2,061	\$227							
-19	0.323	2025	\$11,092	\$1,942	\$214							
-20	0.305	2026	\$0	\$1,830	\$202							
Total			\$379,243	\$1,869,644	\$7,530	\$0						

D-73

Coastal Wetlands Conservation and Restoration Plan
East Bayou Terrebonne Hydrologic Restoration Project (TE-10-5)

Fully Funded Costs		Total Fully Funded Costs				Amortized Costs				\$1,512,423		
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	1.032	2002	\$210,927	\$19,974	\$24,768	\$24,768	\$684	\$0	\$0	\$0	\$281,122	
4	1.065	2003	\$435,354	\$41,227	\$51,121	\$51,121	\$706	\$0	\$0	\$0	\$579,530	
3	1.099	2004	\$449,286	\$42,546	\$52,757	\$52,757	\$729	\$24,067	\$0	\$0	\$622,142	
2	1.134	2005	\$38,639	\$3,659	\$4,537	\$4,537	\$376	\$38,929	\$0	\$0	\$90,677	
TOTAL			\$1,134,206	\$107,406	\$133,183	\$133,183	\$2,496	\$62,997	\$0	\$0	\$1,573,471	
Phase II												
4	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.099	2004	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.134	2005	\$0	\$1,267,213	\$103,144	\$103,144	\$376	\$0	\$70,703	\$1,027,900	\$4,111,600	\$6,684,079
1	1.171	2006	\$0	\$0	\$38,707	\$38,707	\$776	\$40,175	\$26,533	\$385,743	\$1,542,971	\$2,073,612
TOTAL			\$0	\$1,267,213	\$141,850	\$141,850	\$1,152	\$40,175	\$97,236	\$1,413,643	\$5,654,571	\$8,757,692
Total Cost			\$1,134,200	\$1,374,600	\$275,000	\$275,000	\$3,600	\$103,200	\$97,200	\$1,413,600	\$5,654,600	\$10,331,200

D-74

Year	FY	Monitoring	O&M	Corps PM	Other	
-1	1.208	2007	\$41,461	\$7,258	\$801	
-2	1.247	2008	\$42,788	\$7,490	\$827	
-3	1.287	2009	\$44,157	\$7,730	\$853	
-4	1.328	2010	\$45,570	\$7,977	\$881	
-5	1.370	2011	\$47,028	\$1,203,665	\$909	
-6	1.414	2012	\$48,533	\$8,496	\$938	
-7	1.459	2013	\$50,086	\$8,768	\$968	
-8	1.506	2014	\$51,689	\$9,048	\$999	
-9	1.554	2015	\$53,343	\$9,338	\$1,031	
-10	1.604	2016	\$55,050	\$1,605,394	\$1,064	
-11	1.655	2017	\$56,811	\$9,945	\$1,098	
-12	1.708	2018	\$58,629	\$10,263	\$1,133	
-13	1.763	2019	\$60,505	\$10,592	\$1,169	
-14	1.819	2020	\$62,442	\$10,931	\$1,207	
-15	1.878	2021	\$64,440	\$2,778,947	\$1,245	
-16	1.938	2022	\$66,502	\$11,641	\$1,285	
-17	2.000	2023	\$68,630	\$12,014	\$1,326	
-18	2.064	2024	\$70,826	\$12,398	\$1,369	
-19	2.130	2025	\$73,092	\$12,795	\$1,412	
-20	2.198	2026	\$0	\$13,205	\$1,458	
Total			\$1,061,600	\$5,757,900	\$22,000	\$0

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>4,943,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>6,179,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,056,000
Engineering	\$389,000	
Geotechnical Borings (11 deep, 7 shallow)	\$127,000	
Hydrologic Modeling	\$250,000	
Data Collection	\$250,000	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	

Supervision and Administration \$124,000

State Costs

<i>Supervision and Administration</i>		\$124,000
<i>Land Rights</i>		\$100,000
<i>Oyster Lease Impacts (\$2000/lease x 14 leases)</i>		\$28,000
<i>Monitoring</i>		\$56,218
Monitoring Plan Development	\$21,897	
Monitoring Protocol Cost *	\$34,321	

Total Phase I Cost Estimate \$1,488,000

* 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>		\$6,179,000
Oyster Issues (# of Acres)	0	\$3,000 per acre
	lease acres	\$1,117,200
<i>Supervision and Inspection</i>	527 days @	\$850 per day
<i>Supervision and Administration</i>		\$124,000

State Costs

Supervision and Administration \$124,000

Total Phase II Cost Estimate \$7,629,000

TOTAL ESTIMATED PROJECT FIRST COST 9,117,000

D-75

O&M Data

Annual Costs

Annual Inspections	\$5,208
Annual Cost for Operations	\$800
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	Year 3	Year 5	Year 10	Year 15
Contractor Mobilization/Demobilization	\$0	\$90,000	\$60,000	\$80,000
Replace 25% of original rockfill/rock riprap on dikes and berms	\$0	\$152,000	\$0	\$0
Replace 10% of original rockfill/rock riprap on all structures	\$0	\$192,256	\$0	\$253,056
Construct 3,840 linear ft. of foreshore rip-rap dike	\$0	\$0	\$614,400	\$0
Geocloth installation		\$0	\$64,000	\$0
Install new navigation signs		\$0	\$4,000	\$0
Replace 25% of rip-rap volume on new foreshore rip-rap dike		\$0	\$0	\$153,600
Replace 10% of rip-rap volume on old rip-rap dikes and berms		\$0	\$0	\$260,426
Replace 10% of steel sheetpile on each sheetpile structure	\$0	\$0	\$0	\$179,720
Construction access dredging		\$109,333	\$61,758	\$144,711
Paint steel sheetpile structure		\$30,000	\$30,000	\$30,000
Replace all navigation aids	\$0	\$140,000	\$0	\$144,000
Subtotal	\$0	\$713,589	\$834,158	\$1,245,513
Subtotal w/ 10% contin.	\$0	\$785,000	\$918,000	\$1,370,000
Engineer, Design & Administrative Costs				
Engineering and Design Cost	\$0	\$60,000	\$64,000	\$72,000
Administrative Cost	\$0	\$4,523	\$4,523	\$4,523
Eng Survey 0 days @ \$1,417 per day	\$0	\$8,502	\$7,085	\$19,838
Construction Insp 0 days @ \$850 per day	\$0	\$14,450	\$1,700	\$7,650
Subtotal	\$0	\$87,000	\$77,000	\$104,000
Total	\$0	\$872,000	\$995,000	\$1,474,000

D-76

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$34,321

Construction Schedule:

	2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	April-02						31
Plan & Design End	6	12	12	1			
Const. Start	October-04						
Const. End	May-05						
	January-06			11	4		15

East Bayou Terrebonne Hydrologic Restoration Project (TE-10-5)

Priority List 11 Candidate

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$5,208
Annual Cost for Operations	\$400
Preventive Maintenance	\$0

Specific Intermittent Costs

Construction Items

	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$90,000	\$60,000	\$80,000
Replace 25% of original rockfill/rock riprap on dikes and berms	\$152,000		
Replace 10% of original rockfill/rock riprap on all structures	\$192,256		\$253,056
Construct 3,840 linear ft. of foreshore rip-rap dike		\$614,400	
Geocloth installation		\$64,000	
Install new navigation signs		\$4,000	
Replace 25% of rip-rap volume on new foreshore rip-rap dike			\$153,600
Replace 10% of rip-rap volume on old rip-rap dikes and berms			\$260,426
Replace 10% of steel sheetpile on each sheetpile structure			\$179,720
Construction access dredging	\$109,333	\$61,758	\$144,711
Paint steel sheetpile structure	\$30,000	\$30,000	\$30,000
Replace all navigation aids	\$140,000		\$144,000
	-----	-----	-----
Subtotal	\$713,589	\$834,158	\$1,245,513
Subtotal w/ 10% contingency	\$785,000	\$918,000	\$1,370,000

Engineer, Design & Administrative Costs

Engineering and Design Cost		\$60,000	\$64,000	\$72,000
Administrative Cost		\$10,000	\$5,000	\$14,000
Eng Survey	14 days @	\$1,417 per day		\$19,838
Eng Survey	5 days @	\$1,417 per day	\$7,085	
Eng Survey	6 days @	\$1,417 per day	\$8,502	
Inspection	17 days @	\$850 per day	\$14,450	
Inspection	2 days @	\$850 per day	\$1,700	
Inspection	9 days @	\$850 per day		\$7,650
Subtotal		\$93,000	\$78,000	\$113,000
Total		\$878,000	\$996,000	\$1,483,000

Construction Schedule:

Planning & Design Start	April-02
Planning & Design End	October-04
Const. Start	May-05
Const. End	January-06

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$34,321

Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Blue Hammock Hydrologic Restoration Project (TE-10-6)

Project Construction Years:	6	Total Project Years	26
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$38,263,800	Total Fully Funded Costs	\$46,708,700

	<u>Present Worth</u>	<u>Average Annual</u>
Annual Charges		
First Costs	\$36,636,882	\$3,226,660
Monitoring	\$368,151	\$32,424
O & M Costs	\$3,016,512	\$265,668
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$40,029,100	\$3,525,400
Average Annual Habitat Units		599
Cost Per Habitat Unit		\$5,889
Total Net Acres		670

Coastal Wetlands Conservation and Restoration Plan
Blue Hammock Hydrologic Restoration Project (TE-10-6)

Project Costs

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												
6	Compound	2002	\$243,571	\$24,571	\$50,643	\$45,143	\$663	-	\$0		\$364,592	
5	Compound	2003	\$487,143	\$49,143	\$101,286	\$90,286	\$663	\$0	\$0		\$728,520	
4	Compound	2004	\$487,143	\$49,143	\$101,286	\$90,286	\$663	\$21,897	\$0		\$750,417	
3	Compound	2005	\$487,143	\$49,143	\$101,286	\$90,286	\$663	\$34,321	\$0		\$762,841	
TOTAL			\$1,705,000	\$172,000	\$354,500	\$316,000	\$2,653	\$56,218	\$0	\$0	\$2,606,371	
Phase II												
4	Compound	2004	-	-	-	-	-	-	\$0	\$0	\$0	
3	Compound	2005	-	-	-	-	-	-	\$0	\$0	\$0	
2	Compound	2006	-	\$11,331,600	\$212,700	\$189,600	\$663	\$34,321	\$132,600	\$2,127,300	\$8,509,200	\$22,537,984
1	Compound	2007	-	-	\$141,800	\$126,400	\$663	\$34,321	\$88,400	\$1,418,200	\$5,672,800	\$7,482,584
TOTAL			\$0	\$11,331,600	\$354,500	\$316,000	\$1,326	\$68,642	\$221,000	\$3,545,500	\$14,182,000	\$30,020,568
Total First Costs			\$1,705,000	\$11,503,600	\$709,000	\$632,000	\$3,979	\$124,860	\$221,000	\$3,545,500	\$14,182,000	\$32,626,939

D-79

Year	FY	Monitoring	O&M	Corps PM	Other	
1	Discount	2008	\$34,321	\$5,608	\$663	-
2	Discount	2009	\$34,321	\$5,608	\$663	-
3	Discount	2010	\$34,321	\$1,880,799	\$663	-
4	Discount	2011	\$34,321	\$5,608	\$663	-
5	Discount	2012	\$34,321	\$129,481	\$663	-
6	Discount	2013	\$34,321	\$5,608	\$663	-
7	Discount	2014	\$34,321	\$5,608	\$663	-
8	Discount	2015	\$34,321	\$5,608	\$663	-
9	Discount	2016	\$34,321	\$5,608	\$663	-
10	Discount	2017	\$34,321	\$1,643,372	\$663	-
11	Discount	2018	\$34,321	\$5,608	\$663	-
12	Discount	2019	\$34,321	\$5,608	\$663	-
13	Discount	2020	\$34,321	\$5,608	\$663	-
14	Discount	2021	\$34,321	\$5,608	\$663	-
15	Discount	2022	\$34,321	\$952,353	\$663	-
16	Discount	2023	\$34,321	\$5,608	\$663	-
17	Discount	2024	\$34,321	\$5,608	\$663	-
18	Discount	2025	\$34,321	\$5,608	\$663	-
19	Discount	2026	\$0	\$5,608	\$663	-
20	Discount	2027	\$0	\$5,608	\$663	-
Total			\$617,778	\$4,695,733	\$13,264	\$0

**Coastal Wetlands Conservation and Restoration Plan
Blue Hammock Hydrologic Restoration Project (TE-10-6)**

Present Valued Costs			Total Discounted Costs					Amortized Costs				\$3,525,415
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												
6	1.429	2002	\$347,963	\$35,102	\$72,348	\$64,490	\$947	\$0	\$0	\$0	\$0	\$520,851
5	1.346	2003	\$655,760	\$66,153	\$136,344	\$121,537	\$893	\$0	\$0	\$0	\$0	\$980,687
4	1.268	2004	\$617,913	\$62,335	\$128,475	\$114,522	\$841	\$27,775	\$0	\$0	\$0	\$951,861
2	1.126	2005	\$548,645	\$55,347	\$114,073	\$101,684	\$747	\$38,654	\$0	\$0	\$0	\$859,151
Total			\$2,170,281	\$218,937	\$451,240	\$402,234	\$3,428	\$66,429	\$0	\$0	\$0	\$3,312,550
Phase II												
4	1.268	2004	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.195	2005	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.126	2006	\$0	\$12,762,232	\$239,554	\$213,537	\$747	\$38,654	\$149,341	\$2,395,875	\$9,583,500	\$25,383,440
1	1.061	2007	\$0	\$0	\$150,485	\$134,142	\$704	\$36,423	\$93,815	\$1,505,065	\$6,020,259	\$7,940,892
Total			\$0	\$12,762,232	\$390,039	\$347,679	\$1,451	\$75,077	\$243,155	\$3,900,940	\$15,603,759	\$33,324,332
Total First Cost			\$2,170,281	\$12,981,170	\$841,279	\$749,913	\$4,879	\$141,506	\$243,155	\$3,900,940	\$15,603,759	\$36,636,882

D-80

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2008	\$32,340	\$5,284	\$625
-2	0.888	2009	\$30,474	\$4,979	\$589
-3	0.837	2010	\$28,715	\$1,573,581	\$555
-4	0.788	2011	\$27,058	\$4,421	\$523
-5	0.743	2012	\$25,496	\$96,188	\$493
-6	0.700	2013	\$24,024	\$3,926	\$464
-7	0.660	2014	\$22,638	\$3,699	\$437
-8	0.622	2015	\$21,331	\$3,486	\$412
-9	0.586	2016	\$20,100	\$3,284	\$388
-10	0.552	2017	\$18,940	\$906,899	\$366
-11	0.520	2018	\$17,847	\$2,916	\$345
-12	0.490	2019	\$16,817	\$2,748	\$325
-13	0.462	2020	\$15,846	\$2,589	\$306
-14	0.435	2021	\$14,932	\$2,440	\$289
-15	0.410	2022	\$14,070	\$390,420	\$272
-16	0.386	2023	\$13,258	\$2,166	\$256
-17	0.364	2024	\$12,493	\$2,041	\$241
-18	0.343	2025	\$11,772	\$1,923	\$227
-19	0.323	2026	\$0	\$1,812	\$214
-20	0.305	2027	\$0	\$1,708	\$202
Total		\$368,151	\$3,016,512	\$7,530	\$0

Coastal Wetlands Conservation and Restoration Plan
Blue Hammock Hydrologic Restoration Project (TE-10-6)

Fully Funded Costs			Total Fully Funded Costs					\$46,708,700				Amortized Costs		\$4,113,698
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														
6	1.032	2002	\$251,366	\$25,358	\$52,263	\$46,587	\$684	\$0	\$0	\$0	\$0	\$376,259		
5	1.065	2003	\$518,819	\$52,338	\$107,872	\$96,156	\$706	\$0	\$0	\$0	\$0	\$775,892		
4	1.099	2004	\$535,421	\$54,013	\$111,324	\$99,233	\$729	\$24,067	\$0	\$0	\$0	\$824,787		
2	1.134	2005	\$552,555	\$55,742	\$114,886	\$102,409	\$752	\$38,929	\$0	\$0	\$0	\$865,273		
TOTAL			\$1,858,160	\$187,451	\$386,345	\$344,386	\$2,872	\$62,997	\$0	\$0	\$0	\$2,842,210		
Phase II														
4	1.099	2004	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3	1.134	2005	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
2	1.171	2006	\$0	\$13,264,465	\$248,981	\$221,941	\$776	\$40,175	\$155,218	\$2,490,160	\$9,960,639	\$26,382,355		
1	1.208	2007	\$0	\$0	\$171,299	\$152,695	\$801	\$41,461	\$106,790	\$1,713,230	\$6,852,920	\$9,039,196		
TOTAL			\$0	\$13,264,465	\$420,280	\$374,636	\$1,578	\$81,636	\$262,008	\$4,203,390	\$16,813,559	\$35,421,551		
Total Cost			\$1,858,200	\$13,451,900	\$806,600	\$719,000	\$4,400	\$144,600	\$262,000	\$4,203,400	\$16,813,600	\$38,263,800		

D-81

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.247	2008	\$42,788	\$6,991	\$827
-2	1.287	2009	\$44,157	\$7,215	\$853
-3	1.328	2010	\$45,570	\$2,497,236	\$881
-4	1.370	2011	\$47,028	\$7,684	\$909
-5	1.414	2012	\$48,533	\$183,098	\$938
-6	1.459	2013	\$50,086	\$8,184	\$968
-7	1.506	2014	\$51,689	\$8,446	\$999
-8	1.554	2015	\$53,343	\$8,716	\$1,031
-9	1.604	2016	\$55,050	\$8,995	\$1,064
-10	1.655	2017	\$56,811	\$2,720,264	\$1,098
-11	1.708	2018	\$58,629	\$9,580	\$1,133
-12	1.763	2019	\$60,505	\$9,886	\$1,169
-13	1.819	2020	\$62,442	\$10,203	\$1,207
-14	1.878	2021	\$64,440	\$10,529	\$1,245
-15	1.938	2022	\$66,502	\$1,845,320	\$1,285
-16	2.000	2023	\$68,630	\$11,214	\$1,326
-17	2.064	2024	\$70,826	\$11,573	\$1,369
-18	2.130	2025	\$73,092	\$11,943	\$1,412
-19	2.198	2026	\$0	\$12,325	\$1,458
-20	2.268	2027	\$0	\$12,720	\$1,504
Total		\$1,020,100	\$7,402,100	\$22,700	\$0

O&M Data

Annual Costs

Annual Inspections	\$5,208
Annual Cost for Operations	\$400
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	Year 3	Year 5	Year 10	Year 15
Contractor Mobilization/Demobilization	\$40,000	\$20,000	\$210,000	\$90,000
Replace 25% of original rockfill/rock riprap on all structures	\$1,544,439	\$0	\$0	\$0
Replace 10% of original rockfill/rock riprap on all structures	\$0	\$0	\$0	\$617,775
Paint steel sheetpile structure	\$0	\$10,000	\$10,000	\$10,000
Replace all navigation aids	\$0	\$68,000	\$0	\$68,000
Maintenance dredge 18,000 ft. of Blue Hammock Bayou plus marsh creation	\$0	\$0	\$1,133,000	\$0
Subtotal	\$1,584,439	\$98,000	\$1,353,000	\$785,775
Subtotal w/ 10% contin.	\$1,743,000	\$108,000	\$1,488,000	\$864,000
Engineer, Design & Administrative Costs				
Engineering and Design Cost	\$119,000	\$9,000	\$103,000	\$62,000
Administrative Cost	\$4,523	\$4,523	\$4,523	\$4,523
Eng Survey 0 days @ \$1,417 per day	\$3,000	\$0	\$7,000	\$6,000
Construction Insp 0 days @ \$850 per day	\$6,000	\$3,000	\$35,000	\$10,000
Subtotal	\$133,000	\$17,000	\$150,000	\$83,000
Total	\$1,876,000	\$125,000	\$1,638,000	\$947,000

D-83

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$34,321

Construction Schedule:

		2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	April-02	6	12	12	12			42
Plan & Design End	October-05							
Const. Start	May-06							
Const. End	May-07					12	8	20

11th Year Template for Operation & Maintenance and Monitoring

Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$5,208
Annual Cost for Operations	\$400
Preventive Maintenance	\$0

Specific Intermittent Costs

Construction Items

	<u>Year 3</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$40,000	\$20,000	\$210,000	\$90,000
Replace 25% of original rockfill/rock riprap on all structures	\$1,544,439			
Replace 10% of original rockfill/rock riprap on all structures				\$617,775
Paint steel sheetpile structure		\$10,000	\$10,000	\$10,000
Replace all navigation aids		\$68,000		\$68,000
Maintenance dredge 18,000 ft. of Blue Hammock Bayou plus marsh creation			\$1,133,000	
Subtotal	\$1,584,439	\$98,000	\$1,353,000	\$785,775
Subtotal w/ 10% contingency	\$1,743,000	\$108,000	\$1,488,000	\$864,000

Engineer, Design & Administrative Costs

Engineering and Design Cost		\$119,000	\$9,000	\$103,000	\$62,000
Administrative Cost		\$5,000	\$6,000	\$9,000	\$16,000
Eng Survey					
2 days @ \$1,417 per day		\$3,000			
5 days @ \$1,417 per day				\$7,000	
4 days @ \$1,417 per day					\$6,000
Inspection					
7 days @ \$850 per day		\$6,000			
3 days @ \$850 per day			\$3,000		
41 days @ \$850 per day				\$35,000	
12 days @ \$850 per day					\$10,000
Subtotal		\$133,000	\$18,000	\$154,000	\$94,000
Total		\$1,876,000	\$126,000	\$1,642,000	\$958,000

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$34,321	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	April-02	
Planning & Design End	October-05	<i>(Minimum of one year to complete this phase)</i>
Const. Start	May-06	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	May-07	

**Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Whiskey Island/Pass (TE-14-1)**

Project Construction Years:	6	Total Project Years	26
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$207,963,000	Total Fully Funded Costs	\$208,276,700

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$211,865,381	\$18,659,269
Monitoring	\$59,571	\$5,247
O & M Costs	\$44,055	\$3,880
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$211,976,500	\$18,669,100
Average Annual Habitat Units		349
Cost Per Habitat Unit		\$53,559
Total Net Acres		713

Coastal Wetlands Conservation and Restoration Plan
Whiskey Island/Pass (TE-14-1)

Project Costs

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											
7	Compound	2001				\$0		-	\$0		\$0
6	Compound	2002	\$803,478	\$3,043	\$781,413	\$121,739	\$663	\$0	-	\$0	\$1,710,337
5	Compound	2003	\$1,377,391	\$5,217	\$1,339,565	\$208,696	\$663	\$16,800	-	\$0	\$2,948,333
4	Compound	2004	\$459,130	\$1,739	\$446,522	\$69,565	\$663	\$5,737	-	\$0	\$983,357
TOTAL		\$2,640,000	\$10,000	\$2,567,500	\$400,000	\$1,990	\$22,537	\$0	\$0	\$0	\$5,642,027
Phase II											
4	Compound	2004	-	-	\$526,667	\$82,051	\$0	\$0	\$254,113	\$7,022,872	\$28,091,487
3	Compound	2005	-	-	\$790,000	\$123,077	\$663	\$5,737	\$381,169	\$10,534,308	\$42,137,231
2	Compound	2006	-	\$0	\$790,000	\$123,077	\$663	\$5,737	\$381,169	\$10,534,308	\$42,137,231
1	Compound	2007	-	-	\$460,833	\$71,795	\$663	\$5,737	\$222,349	\$6,145,013	\$24,580,051
TOTAL		\$0	\$0	\$2,567,500	\$400,000	\$1,990	\$17,211	\$1,238,800	\$34,236,500	\$136,946,000	\$175,408,001
Total First Costs		\$2,640,000	\$10,000	\$5,135,000	\$800,000	\$3,979	\$39,748	\$1,238,800	\$34,236,500	\$136,946,000	\$181,050,027
Year	FY	Monitoring	O&M	Corps PM	Other						
1	Discount	2008	\$5,737	\$3,880	\$663	-					
2	Discount	2009	\$5,737	\$3,880	\$663	-					
3	Discount	2010	\$5,737	\$3,880	\$663	-					
4	Discount	2011	\$5,737	\$3,880	\$663	-					
5	Discount	2012	\$5,737	\$3,880	\$663	-					
6	Discount	2013	\$5,737	\$3,880	\$663	-					
7	Discount	2014	\$5,737	\$3,880	\$663	-					
8	Discount	2015	\$5,737	\$3,880	\$663	-					
9	Discount	2016	\$5,737	\$3,880	\$663	-					
10	Discount	2017	\$5,737	\$3,880	\$663	-					
11	Discount	2018	\$5,737	\$3,880	\$663	-					
12	Discount	2019	\$5,737	\$3,880	\$663	-					
13	Discount	2020	\$5,737	\$3,880	\$663	-					
14	Discount	2021	\$5,737	\$3,880	\$663	-					
15	Discount	2022	\$5,737	\$3,880	\$663	-					
16	Discount	2023	\$5,737	\$3,880	\$663	-					
17	Discount	2024	\$5,737	\$3,880	\$663	-					
18	Discount	2025	\$0	\$3,880	\$663	-					
19	Discount	2026	\$0	\$3,880	\$663	-					
20	Discount	2027	\$0	\$3,880	\$663	-					
Total		\$97,529	\$77,600	\$13,264	\$0						

D-86

**Coastal Wetlands Conservation and Restoration Plan
Whiskey Island/Pass (TE-14-1)**

Present Valued Costs		Total Discounted Costs				\$211,976,538				Amortized Costs			\$18,669,059
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													
7	1.516	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
6	1.429	2002	\$1,147,837	\$4,348	\$1,116,315	\$173,915	\$947	\$0	\$0	\$0	\$2,443,363		
5	1.346	2003	\$1,854,154	\$7,023	\$1,803,235	\$280,932	\$893	\$22,615	\$0	\$0	\$3,968,853		
2	1.126	2004	\$517,096	\$1,959	\$502,896	\$78,348	\$747	\$6,461	\$0	\$0	\$1,107,507		
Total			\$3,519,088	\$13,330	\$3,422,446	\$533,195	\$2,587	\$29,076	\$0	\$0	\$0	\$7,519,723	
Phase II													
4	1.268	2004	\$0	\$0	\$668,046	\$104,077	\$0	\$0	\$322,328	\$8,908,110	\$35,632,439	\$45,634,999	
3	1.195	2005	\$0	\$0	\$944,235	\$147,106	\$793	\$6,857	\$455,587	\$12,590,968	\$50,363,871	\$64,509,416	
2	1.126	2006	\$0	\$0	\$889,739	\$138,616	\$747	\$6,461	\$429,292	\$11,864,280	\$47,457,122	\$60,786,257	
1	1.061	2007	\$0	\$0	\$489,059	\$76,192	\$704	\$6,088	\$235,968	\$6,521,395	\$26,085,579	\$33,414,986	
Total			\$0	\$0	\$2,991,080	\$465,991	\$2,243	\$19,407	\$1,443,174	\$39,884,753	\$159,539,011	\$204,345,658	
Total First Cost			\$3,519,088	\$13,330	\$6,413,526	\$999,186	\$4,831	\$48,483	\$1,443,174	\$39,884,753	\$159,539,011	\$211,865,381	
Year	FY	Monitoring	O&M	Corps PM	Other								
-1	0.942	2008	\$5,406	\$3,656	\$625								
-2	0.888	2009	\$5,094	\$3,445	\$589								
-3	0.837	2010	\$4,800	\$3,246	\$555								
-4	0.788	2011	\$4,523	\$3,059	\$523								
-5	0.743	2012	\$4,262	\$2,882	\$493								
-6	0.700	2013	\$4,016	\$2,716	\$464								
-7	0.660	2014	\$3,784	\$2,559	\$437								
-8	0.622	2015	\$3,566	\$2,412	\$412								
-9	0.586	2016	\$3,360	\$2,272	\$388								
-10	0.552	2017	\$3,166	\$2,141	\$366								
-11	0.520	2018	\$2,983	\$2,018	\$345								
-12	0.490	2019	\$2,811	\$1,901	\$325								
-13	0.462	2020	\$2,649	\$1,791	\$306								
-14	0.435	2021	\$2,496	\$1,688	\$289								
-15	0.410	2022	\$2,352	\$1,591	\$272								
-16	0.386	2023	\$2,216	\$1,499	\$256								
-17	0.364	2024	\$2,088	\$1,412	\$241								
-18	0.343	2025	\$0	\$1,331	\$227								
-19	0.323	2026	\$0	\$1,254	\$214								
-20	0.305	2027	\$0	\$1,182	\$202								
Total		\$59,571	\$44,055	\$7,530	\$0								

D-87

**Coastal Wetlands Conservation and Restoration Plan
Whiskey Island/Pass (TE-14-1)**

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											
7	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	1.032	2002	\$829,190	\$3,141	\$806,418	\$125,635	\$684	\$0	\$0	\$0	\$1,765,068
5	1.065	2003	\$1,466,955	\$5,557	\$1,426,669	\$222,266	\$706	\$17,892	\$0	\$0	\$3,140,045
2	1.099	2004	\$504,632	\$1,911	\$490,774	\$76,459	\$729	\$6,306	\$0	\$0	\$1,080,812
TOTAL			\$2,800,777	\$10,609	\$2,723,862	\$424,360	\$2,120	\$24,198	\$0	\$0	\$5,985,925
Phase II											
4	1.099	2004	\$0	\$0	\$578,862	\$90,183	\$0	\$279,297	\$7,718,872	\$30,875,487	\$39,542,701
3	1.134	2005	\$0	\$0	\$896,078	\$139,603	\$752	\$6,507	\$432,351	\$11,948,814	\$61,219,360
2	1.171	2006	\$0	\$0	\$924,753	\$144,071	\$776	\$6,716	\$446,186	\$12,331,176	\$63,178,380
1	1.208	2007	\$0	\$0	\$556,701	\$86,730	\$801	\$6,930	\$268,604	\$7,423,368	\$38,036,606
TOTAL			\$0	\$0	\$2,956,394	\$460,587	\$2,330	\$20,153	\$1,426,438	\$39,422,229	\$157,688,916
Total Cost			\$2,800,800	\$10,600	\$5,680,300	\$884,900	\$4,400	\$44,400	\$1,426,400	\$39,422,200	\$207,963,000

88-D

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.247	2008	\$7,152	\$4,837	\$827
-2	1.287	2009	\$7,381	\$4,992	\$853
-3	1.328	2010	\$7,617	\$5,152	\$881
-4	1.370	2011	\$7,861	\$5,317	\$909
-5	1.414	2012	\$8,113	\$5,487	\$938
-6	1.459	2013	\$8,372	\$5,662	\$968
-7	1.506	2014	\$8,640	\$5,843	\$999
-8	1.554	2015	\$8,917	\$6,030	\$1,031
-9	1.604	2016	\$9,202	\$6,223	\$1,064
-10	1.655	2017	\$9,496	\$6,423	\$1,098
-11	1.708	2018	\$9,800	\$6,628	\$1,133
-12	1.763	2019	\$10,114	\$6,840	\$1,169
-13	1.819	2020	\$10,438	\$7,059	\$1,207
-14	1.878	2021	\$10,772	\$7,285	\$1,245
-15	1.938	2022	\$11,116	\$7,518	\$1,285
-16	2.000	2023	\$11,472	\$7,759	\$1,326
-17	2.064	2024	\$11,839	\$8,007	\$1,369
-18	2.130	2025	\$0	\$8,263	\$1,412
-19	2.198	2026	\$0	\$8,528	\$1,458
-20	2.268	2027	\$0	\$8,800	\$1,504
Total			\$158,300	\$132,700	\$22,700
					\$0

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>136,946,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>171,183,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$2,640,000
Engineering	\$2,500,000	
Geotechnical Investigation	\$100,000	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$0	
NEPA Compliance	\$40,000	

<i>Supervision and Administration</i>	\$2,567,500
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State Costs

<i>Supervision and Administration</i>	\$400,000
<i>Easements and Land Rights</i>	\$10,000
<i>Monitoring</i>	\$22,537
Monitoring Plan Development	\$16,800
Monitoring Protocol Cost *	\$5,737

Total Phase I Cost Estimate **\$5,640,000**

* 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>	\$171,183,000			
Oyster Issues (# of Acres)	0	lease acres	\$3,000 per acre	\$0
<i>Supervision and Inspection</i>	760 days	@	\$1,630 per day	\$1,238,800
<i>Supervision and Administration</i>				\$2,567,500

State Costs

<i>Supervision and Administration</i>	\$400,000
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Total Phase II Cost Estimate **\$175,389,000**

TOTAL ESTIMATED PROJECT FIRST COST **181,029,000**

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	Year 3	Year 5	Year 10	Year 15
#REF!	\$0	\$0	\$0	\$0
#REF!	\$0	\$0	\$0	\$0
#REF!	\$0	\$0	\$0	\$0
#REF!	\$0	\$0	\$0	\$0
#REF!	\$0	\$0	\$0	\$0
#REF!	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0
Subtotal w/ 10% 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 0 days @ \$1,417 per day	\$0	\$0	\$0	\$0
Construction Insp. 0 days @ \$850 per day	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0

D-90

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

	2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	March-02						
Plan & Design End	7	12	4				23
Const. Start	January-04						
Const. End	May-04						
Const. End	April-07		8	12	12	7	39

Whiskey Island West Flank/ Whiskey Pass Cost Template

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$5,737	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	January-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	May-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	April-07	

Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Raccoon Island Breakwaters - Phase II (TE-14-2)

Project Construction Years:	4	Total Project Years	24
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$10,037,900	Total Fully Funded Costs	\$10,355,700

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$10,195,859	\$897,963
Monitoring	\$63,393	\$5,583
O & M Costs	\$44,055	\$3,880
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$10,310,800	\$908,100
Average Annual Habitat Units		89
Cost Per Habitat Unit		\$10,245
Total Net Acres		167

Coastal Wetlands Conservation and Restoration Plan
Raccoon Island Breakwaters - Phase II (TE-14-2)

Project Costs

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											
0	Compound							-	\$0		\$0
4	Compound	2002	\$219,800	\$3,500	\$52,675	\$52,675	\$663	\$0	-	\$0	\$329,313
3	Compound	2003	\$376,800	\$6,000	\$90,300	\$90,300	\$663	\$16,800	-	\$0	\$580,863
2	Compound	2004	\$31,400	\$500	\$7,525	\$7,525	\$332	\$5,737	-	\$0	\$53,019
TOTAL			\$628,000	\$10,000	\$150,500	\$150,500	\$1,658	\$22,537	\$0	\$0	\$963,195
Phase II											
4	Compound	2002	-	-	-	-	-	-	\$0	\$0	\$0
3	Compound	2003	-	-	-	-	-	-	\$0	\$0	\$0
2	Compound	2004	-	-	\$110,367	\$110,367	\$332	\$0	\$221,173	\$1,104,217	\$5,963,322
1	Compound	2005	-	-	\$40,133	\$40,133	\$663	\$5,737	\$80,427	\$401,533	\$2,174,760
TOTAL			\$0	\$0	\$150,500	\$150,500	\$995	\$5,737	\$301,600	\$1,505,750	\$6,023,000
Total First Costs			\$628,000	\$10,000	\$301,000	\$301,000	\$2,653	\$28,274	\$301,600	\$1,505,750	\$6,023,000

D-93

Year	FY	Monitoring	O&M	Corps PM	Other
1	Discount	2006	\$5,737	\$3,880	\$663
2	Discount	2007	\$5,737	\$3,880	\$663
3	Discount	2008	\$5,737	\$3,880	\$663
4	Discount	2009	\$5,737	\$3,880	\$663
5	Discount	2010	\$5,737	\$3,880	\$663
6	Discount	2011	\$5,737	\$3,880	\$663
7	Discount	2012	\$5,737	\$3,880	\$663
8	Discount	2013	\$5,737	\$3,880	\$663
9	Discount	2014	\$5,737	\$3,880	\$663
10	Discount	2015	\$5,737	\$3,880	\$663
11	Discount	2016	\$5,737	\$3,880	\$663
12	Discount	2017	\$5,737	\$3,880	\$663
13	Discount	2018	\$5,737	\$3,880	\$663
14	Discount	2019	\$5,737	\$3,880	\$663
15	Discount	2020	\$5,737	\$3,880	\$663
16	Discount	2021	\$5,737	\$3,880	\$663
17	Discount	2022	\$5,737	\$3,880	\$663
18	Discount	2023	\$5,737	\$3,880	\$663
19	Discount	2024	\$5,737	\$3,880	\$663
20	Discount	2025	\$0	\$3,880	\$663
Total			\$109,003	\$77,600	\$13,264

Coastal Wetlands Conservation and Restoration Plan
Raccoon Island Breakwaters - Phase II (TE-14-2)

Present Valued Costs		Total Discounted Costs				\$10,310,838				Amortized Costs			\$908,089
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													
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
4	1.268	2002	\$278,804	\$4,440	\$66,815	\$66,815	\$841	\$0	\$0	\$0	\$417,715		
3	1.195	2003	\$450,364	\$7,171	\$107,930	\$107,930	\$793	\$20,080	\$0	\$0	\$694,268		
2	1.126	2004	\$35,364	\$563	\$8,475	\$8,475	\$373	\$6,461	\$0	\$0	\$59,712		
Total			\$764,532	\$12,174	\$183,220	\$183,220	\$2,007	\$26,541	\$0	\$0	\$1,171,695		
Phase II													
4	1.268	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3	1.195	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
2	1.126	2004	\$0	\$0	\$124,301	\$124,301	\$373	\$0	\$249,097	\$1,243,626	\$4,974,503		
1	1.061	2005	\$0	\$0	\$42,592	\$42,592	\$704	\$6,088	\$85,353	\$426,127	\$1,704,509		
Total			\$0	\$0	\$166,892	\$166,892	\$1,077	\$6,088	\$334,450	\$1,669,753	\$6,679,012		
Total First Cost			\$764,532	\$12,174	\$350,112	\$350,112	\$3,085	\$32,630	\$334,450	\$1,669,753	\$6,679,012		

D-94

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2006	\$5,406	\$3,656	\$625
-2	0.888	2007	\$5,094	\$3,445	\$589
-3	0.837	2008	\$4,800	\$3,246	\$555
-4	0.788	2009	\$4,523	\$3,059	\$523
-5	0.743	2010	\$4,262	\$2,882	\$493
-6	0.700	2011	\$4,016	\$2,716	\$464
-7	0.660	2012	\$3,784	\$2,559	\$437
-8	0.622	2013	\$3,566	\$2,412	\$412
-9	0.586	2014	\$3,360	\$2,272	\$388
-10	0.552	2015	\$3,166	\$2,141	\$366
-11	0.520	2016	\$2,983	\$2,018	\$345
-12	0.490	2017	\$2,811	\$1,901	\$325
-13	0.462	2018	\$2,649	\$1,791	\$306
-14	0.435	2019	\$2,496	\$1,688	\$289
-15	0.410	2020	\$2,352	\$1,591	\$272
-16	0.386	2021	\$2,216	\$1,499	\$256
-17	0.364	2022	\$2,088	\$1,412	\$241
-18	0.343	2023	\$1,968	\$1,331	\$227
-19	0.323	2024	\$1,854	\$1,254	\$214
-20	0.305	2025	\$0	\$1,182	\$202
Total			\$63,393	\$44,055	\$7,530

**Coastal Wetlands Conservation and Restoration Plan
Raccoon Island Breakwaters - Phase II (TE-14-2)**

Fully Funded Costs		Total Fully Funded Costs				\$10,355,700				Amortized Costs		\$912,040
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												
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	1.032	2002	\$226,834	\$3,612	\$54,361	\$54,361	\$684	\$0	\$0	\$0	\$339,851	
3	1.065	2003	\$401,301	\$6,390	\$96,172	\$96,172	\$706	\$17,892	\$0	\$0	\$618,633	
2	1.099	2004	\$34,512	\$550	\$8,271	\$8,271	\$364	\$6,306	\$0	\$0	\$58,273	
TOTAL			\$662,647	\$10,552	\$158,803	\$158,803	\$1,755	\$24,198	\$0	\$0	\$1,016,758	
Phase II												
4	1.032	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.099	2004	\$0	\$0	\$121,305	\$121,305	\$364	\$0	\$243,093	\$1,213,650	\$4,854,599	
1	1.134	2005	\$0	\$0	\$45,522	\$45,522	\$752	\$6,507	\$91,226	\$455,450	\$1,821,799	
TOTAL			\$0	\$0	\$166,827	\$166,827	\$1,117	\$6,507	\$334,319	\$1,669,099	\$6,676,398	
Total Cost			\$662,600	\$10,600	\$325,600	\$325,600	\$2,900	\$30,700	\$334,300	\$1,669,100	\$6,676,400	

D-95

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.171	2006	\$6,716	\$4,542	\$776
-2	1.208	2007	\$6,930	\$4,687	\$801
-3	1.247	2008	\$7,152	\$4,837	\$827
-4	1.287	2009	\$7,381	\$4,992	\$853
-5	1.328	2010	\$7,617	\$5,152	\$881
-6	1.370	2011	\$7,861	\$5,317	\$909
-7	1.414	2012	\$8,113	\$5,487	\$938
-8	1.459	2013	\$8,372	\$5,662	\$968
-9	1.506	2014	\$8,640	\$5,843	\$999
-10	1.554	2015	\$8,917	\$6,030	\$1,031
-11	1.604	2016	\$9,202	\$6,223	\$1,064
-12	1.655	2017	\$9,496	\$6,423	\$1,098
-13	1.708	2018	\$9,800	\$6,628	\$1,133
-14	1.763	2019	\$10,114	\$6,840	\$1,169
-15	1.819	2020	\$10,438	\$7,059	\$1,207
-16	1.878	2021	\$10,772	\$7,285	\$1,245
-17	1.938	2022	\$11,116	\$7,518	\$1,285
-18	2.000	2023	\$11,472	\$7,759	\$1,326
-19	2.064	2024	\$11,839	\$8,007	\$1,369
-20	2.130	2025	\$0	\$8,263	\$1,412
Total			\$171,900	\$124,600	\$21,300

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>6,023,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>7,529,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>				\$628,000
Engineering		\$468,000		
Geotechnical Investigation (ref)		\$100,000		
Hydrologic Modeling		\$0		
Data Collection (surveying)		\$20,000		
Cultural Resources		\$10,000		
NEPA Compliance		\$30,000		

Supervision and Administration \$150,500

State Costs

<i>Supervision and Administration</i>				\$150,500
<i>Easements and Land Rights</i>				\$10,000
<i>Monitoring</i>				\$22,537
Monitoring Plan Development		\$16,800		
Monitoring Protocol Cost *		\$5,737		

Total Phase I Cost Estimate \$962,000

* 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>				\$7,529,000
Oyster Issues (# of Acres)	0	lease acres	\$3,000 per acre	\$0
<i>Supervision and Inspection</i>	185 days	@	\$1,630 per day	\$301,600
<i>Supervision and Administration</i>				\$150,500

State Costs

Supervision and Administration \$150,500

Total Phase II Cost Estimate \$8,132,000

TOTAL ESTIMATED PROJECT FIRST COST 9,094,000

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs: NONE

Construction Items

	Year 5	Year 10	Year 15
General Structure Maintaince and Repair	\$0	\$0	\$0
Contractor Mobilization/Demobilization	\$0	\$0	\$0
Subtotal	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Subtotal w/ 10% contin.	\$0	\$0	\$0
Engineer, Design & Administrative Costs			
Engineering and Design Cost	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0
Eng Survey 0 days @ \$1,417 per day	\$0	\$0	\$0
Construction Insp 0 days @ \$850 per day	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0
Total	\$0	\$0	\$0

D-97

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

	2002	2003	2004	2005	2006	Total
Plan & Design Start	March-02	7	12	1		20
Plan & Design End	October-03					
Const. Start	February-04					
Const. End	January-05		11	4		15

**11th Yr Template for Operation & Maintenance and Monitoring
Raccoon Island SP/MC Project (TE-14-2)**

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

"No O&M Construction Planned for Project Life"

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$5,737

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	October-03	<i>(Minimum of one year to complete this phase)</i>
Const. Start	February-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	January-05	

Notes:

(1) Geotechnical Borings

- 4 Retainer Levee; 3 Borrow Area; 3 Placement Area
- 10 Shallow Borings @ \$2,000 per Boring = \$20,000
- 1 Geotechnical Report = \$15,000

(2) Phase II - Supervision and Inspection

- Assume 15,000 CY/day Dredge Capacity 61 days
- Assume 1,000 ft/day Retainer Dike Construction 8 days
- Use Breakwater Construction Time for Raccoon Island Project (TE-29) 83 days
- Assume 66 Acres @ 2 Ac/day 33 days

Total S&I 185 days

Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Southwest Pass SP (TV-10-2)

Project Construction Years:	4	Total Project Years	24
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$9,687,600	Total Fully Funded Costs	\$14,659,800

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$9,933,801	\$874,883
Monitoring	\$30,593	\$2,694
O & M Costs	\$1,887,312	\$166,218
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$11,859,200	\$1,044,500
Average Annual Habitat Units		35
Cost Per Habitat Unit		\$30,014
Total Net Acres		91

**Coastal Wetlands Conservation and Restoration Plan
Southwest Pass SP (TV-10-2)**

Project Costs

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											
0	Compound							-	\$0		\$0
4	Compound	2002	\$187,320	\$6,440	\$41,720	\$41,720	\$663	\$0	-	\$0	\$277,863
3	Compound	2003	\$321,120	\$11,040	\$71,520	\$71,520	\$663	\$19,907	-	\$0	\$495,770
2	Compound	2004	\$160,560	\$5,520	\$35,760	\$35,760	\$663	\$2,852	-	\$0	\$241,115
TOTAL			\$669,000	\$23,000	\$149,000	\$149,000	\$1,990	\$22,759	\$0	\$0	\$1,014,749
Phase II											
4	Compound	2002	-	-	-	-	-	-	-	\$0	\$0
3	Compound	2003	-	-	-	-	-	-	-	\$0	\$0
2	Compound	2004	-	-	\$127,714	\$127,714	\$663	\$2,852	\$36,000	\$1,278,429	\$5,113,714
1	Compound	2005	-	-	\$21,286	\$21,286	\$663	\$2,852	\$6,000	\$213,071	\$852,286
TOTAL			\$0	\$0	\$149,000	\$149,000	\$1,326	\$5,704	\$42,000	\$1,491,500	\$5,966,000
Total First Costs			\$669,000	\$23,000	\$298,000	\$298,000	\$3,316	\$28,463	\$42,000	\$1,491,500	\$5,966,000

D-100

Year	FY	Monitoring	O&M	Corps PM	Other
1	Discount	2006	\$2,852	\$3,880	\$663
2	Discount	2007	\$2,852	\$3,880	\$663
3	Discount	2008	\$2,852	\$3,880	\$663
4	Discount	2009	\$2,852	\$3,880	\$663
5	Discount	2010	\$2,852	\$3,880	\$663
6	Discount	2011	\$2,852	\$3,880	\$663
7	Discount	2012	\$2,852	\$2,103,506	\$663
8	Discount	2013	\$2,852	\$3,880	\$663
9	Discount	2014	\$2,852	\$3,880	\$663
10	Discount	2015	\$2,852	\$3,880	\$663
11	Discount	2016	\$2,852	\$3,880	\$663
12	Discount	2017	\$2,852	\$3,880	\$663
13	Discount	2018	\$2,852	\$3,880	\$663
14	Discount	2019	\$2,852	\$1,057,425	\$663
15	Discount	2020	\$2,852	\$3,880	\$663
16	Discount	2021	\$2,852	\$3,880	\$663
17	Discount	2022	\$2,852	\$3,880	\$663
18	Discount	2023	\$2,852	\$3,880	\$663
19	Discount	2024	\$0	\$3,880	\$663
20	Discount	2025	\$0	\$3,880	\$663
Total			\$51,336	\$3,230,770	\$13,264

\$0

**Coastal Wetlands Conservation and Restoration Plan
Southwest Pass SP (TV-10-2)**

Present Valued Costs		Total Discounted Costs				\$11,859,235				Amortized Costs			\$1,044,459
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													
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	1.268	2002	\$237,605	\$8,169	\$52,919	\$52,919	\$841	\$0	\$0	\$0	\$0	\$352,454	
3	1.195	2003	\$383,814	\$13,195	\$85,483	\$85,483	\$793	\$23,794	\$0	\$0	\$0	\$592,562	
2	1.126	2004	\$180,831	\$6,217	\$40,275	\$40,275	\$747	\$3,212	\$0	\$0	\$0	\$271,556	
Total			\$802,249	\$27,581	\$178,677	\$178,677	\$2,381	\$27,006	\$0	\$0	\$0	\$1,216,572	
Phase II													
4	1.268	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.195	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.126	2004	\$0	\$0	\$143,838	\$143,838	\$747	\$3,212	\$40,545	\$1,439,832	\$5,759,329	\$7,531,342	
1	1.061	2005	\$0	\$0	\$22,589	\$22,589	\$704	\$3,027	\$6,368	\$226,122	\$904,488	\$1,185,887	
Total			\$0	\$0	\$166,428	\$166,428	\$1,451	\$6,239	\$46,913	\$1,665,954	\$6,663,817	\$8,717,229	
Total First Cost			\$802,249	\$27,581	\$345,105	\$345,105	\$3,832	\$33,244	\$46,913	\$1,665,954	\$6,663,817	\$9,933,801	

D-101

Year	FY	Monitoring	O&M	Corps PM	Other	
-1	0.942	2006	\$2,687	\$3,656	\$625	
-2	0.888	2007	\$2,532	\$3,445	\$589	
-3	0.837	2008	\$2,386	\$3,246	\$555	
-4	0.788	2009	\$2,248	\$3,059	\$523	
-5	0.743	2010	\$2,119	\$2,882	\$493	
-6	0.700	2011	\$1,996	\$2,716	\$464	
-7	0.660	2012	\$1,881	\$1,387,458	\$437	
-8	0.622	2013	\$1,773	\$2,412	\$412	
-9	0.586	2014	\$1,670	\$2,272	\$388	
-10	0.552	2015	\$1,574	\$2,141	\$366	
-11	0.520	2016	\$1,483	\$2,018	\$345	
-12	0.490	2017	\$1,397	\$1,901	\$325	
-13	0.462	2018	\$1,317	\$1,791	\$306	
-14	0.435	2019	\$1,241	\$460,046	\$289	
-15	0.410	2020	\$1,169	\$1,591	\$272	
-16	0.386	2021	\$1,102	\$1,499	\$256	
-17	0.364	2022	\$1,038	\$1,412	\$241	
-18	0.343	2023	\$978	\$1,331	\$227	
-19	0.323	2024	\$0	\$1,254	\$214	
-20	0.305	2025	\$0	\$1,182	\$202	
Total			\$30,593	\$1,887,312	\$7,530	\$0

**Coastal Wetlands Conservation and Restoration Plan
Southwest Pass SP (TV-10-2)**

Fully Funded Costs		Total Fully Funded Costs				\$14,659,800				Amortized Costs		\$1,291,108
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												
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	1.032	2002	\$193,314	\$6,646	\$43,055	\$43,055	\$684	\$0	\$0	\$0	\$286,755	
3	1.065	2003	\$342,001	\$11,758	\$76,171	\$76,171	\$706	\$21,201	\$0	\$0	\$528,007	
2	1.099	2004	\$176,472	\$6,067	\$39,304	\$39,304	\$729	\$0	\$0	\$0	\$261,876	
TOTAL			\$711,787	\$24,471	\$158,530	\$158,530	\$2,120	\$21,201	\$0	\$0	\$1,076,638	
Phase II												
4	1.032	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.099	2004	\$0	\$0	\$140,371	\$140,371	\$729	\$0	\$39,568	\$1,405,127	\$7,346,674	
1	1.134	2005	\$0	\$0	\$24,144	\$24,144	\$752	\$0	\$6,806	\$241,682	\$1,264,255	
TOTAL			\$0	\$0	\$164,515	\$164,515	\$1,481	\$0	\$46,373	\$1,646,809	\$8,610,929	
Total Cost			\$711,800	\$24,500	\$323,000	\$323,000	\$3,600	\$21,200	\$46,400	\$1,646,800	\$9,687,600	

D-102

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.171	2006	\$0	\$4,542	\$776
-2	1.208	2007	\$0	\$4,687	\$801
-3	1.247	2008	\$0	\$4,837	\$827
-4	1.287	2009	\$0	\$4,992	\$853
-5	1.328	2010	\$0	\$5,152	\$881
-6	1.370	2011	\$0	\$5,317	\$909
-7	1.414	2012	\$0	\$2,974,544	\$938
-8	1.459	2013	\$0	\$5,662	\$968
-9	1.506	2014	\$0	\$5,843	\$999
-10	1.554	2015	\$0	\$6,030	\$1,031
-11	1.604	2016	\$0	\$6,223	\$1,064
-12	1.655	2017	\$0	\$6,423	\$1,098
-13	1.708	2018	\$0	\$6,628	\$1,133
-14	1.763	2019	\$0	\$1,864,163	\$1,169
-15	1.819	2020	\$0	\$7,059	\$1,207
-16	1.878	2021	\$0	\$7,285	\$1,245
-17	1.938	2022	\$0	\$7,518	\$1,285
-18	2.000	2023	\$0	\$7,759	\$1,326
-19	2.064	2024	\$0	\$8,007	\$1,369
-20	2.130	2025	\$0	\$8,263	\$1,412
Total			\$0	\$4,950,900	\$21,300

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>5,966,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>7,458,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>				\$669,000
Engineering			\$464,000	
Geotechnical Investigation			\$130,000	
Hydrologic Modeling			\$0	
Data Collection (Surveys)			\$35,000	
Cultural Resources			\$10,000	
NEPA Compliance			\$30,000	

Supervision and Administration \$149,000

State Costs

<i>Supervision and Administration</i>				\$149,000
<i>Easements and Land Rights</i>				\$23,000
Oyster Issues (# of Leases)	4 Leases @ \$2,000.		\$8,000	
<i>Monitoring</i>				\$22,759
Monitoring Plan Development	\$19,907			
Monitoring Protocol Cost *	\$2,852			

Total Phase I Cost Estimate **\$1,021,000**

* 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>				\$7,458,000
Oyster Issues (# of Acres)	0	lease acres	\$3,000 per acre	\$0
<i>Supervision and Inspection</i>	49 days	@	\$1,630 per day	\$42,000
<i>Supervision and Administration</i>				\$149,000

State Costs

Supervision and Administration \$149,000

Total Phase II Cost Estimate **\$7,798,000**

TOTAL ESTIMATED PROJECT FIRST COST **8,819,000**

D-103

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs: NONE

Construction Items

	<u>Year 3</u>	<u>Year 7</u>	<u>Year 14</u>
Contractor Mobilization/Demobilization	\$0	\$75,000	\$50,000
Replace 25% of original revetment/dike section	\$0	\$1,125,500	\$0
Flotation Channel Access (75% of original)	\$0	\$564,000	\$0
Replace 10% of original revetment/dike section	\$0	\$0	\$450,200
Flotation Channel Access (50% of original)	\$0	\$0	\$376,000
Replace signs	\$0	\$7,000	\$7,000
Subtotal	\$0	\$1,771,500	\$883,200
Subtotal w/ 10% contin.	\$0	\$1,949,000	\$972,000
Engineer, Design & Administrative Costs			
Engineering and Design Cost	\$0	\$132,000	\$69,000
Administrative Cost	\$0	\$4,420	\$4,420
Eng Survey 0 days @ \$1,417 per day	\$0	\$4,000	\$4,000
Construction Insp 0 days @ \$850 per day	\$0	\$10,000	\$4,000
Subtotal	\$0	\$150,000	\$81,000
Total	\$0	\$2,099,000	\$1,053,000

D-104

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$2,852

Construction Schedule:

		2002	2003	2004	2005	2006	Total
Plan & Design Start	March-02	7	12	6			25
Plan & Design End	March-04						
Const. Start	August-04						
Const. End	October-04			6	1		7
		7	12	12	1	0	32

**11th Yr Template for Operation & Maintenance and Monitoring
Southwest Pass SP (TV-10-2)**

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

Construction Items

	<u>Year 7</u>	<u>Year 14</u>
Contractor Mobilization/Demobilization	\$75,000	\$50,000
Replace 25% of original revetment/dike section Flotation Channel Access (75% of original)	\$1,125,500	
Replace 10% of original revetment/dike section Flotation Channel Access (50% of original)	\$564,000	\$450,200
Replace signs	\$7,000	\$7,000
	Subtotal	\$1,771,500
	Subtotal w/ 10% contingency	\$1,949,000
		\$883,200
		\$972,000

Engineer, Design & Administrative Costs

Engineering and Design Cost		\$132,000	\$69,000
Administrative Cost		\$4,420	\$4,420
Eng Survey			
	3 days @	\$1,417 per day	\$4,000
	3 days @	\$1,417 per day	\$4,000
Inspection			
	12 days @	\$850 per day	\$10,000
	5 days @	\$850 per day	\$4,000
		Subtotal	\$150,000
		Total	\$2,099,000
			\$1,053,000

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$2,852	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	March-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	August-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	October-04	

**Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
South Grand Chenier (ME-8-1)**

Project Construction Years:	5	Total Project Years	25
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$19,307,700	Total Fully Funded Costs	\$20,998,000

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$18,563,199	\$1,634,886
Monitoring	\$368,151	\$32,424
O & M Costs	\$237,307	\$20,900
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$19,176,200	\$1,688,900
Average Annual Habitat Units		322
Cost Per Habitat Unit		\$5,242
Total Net Acres		440

D-106

**Coastal Wetlands Conservation and Restoration Plan
South Grand Chenier (ME-8-1)**

Project Costs

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	2002	\$281,324	\$18,919	\$52,311	\$48,716	\$663	-	\$0		\$401,933
4	Compound	2003	\$482,270	\$32,432	\$89,676	\$83,514	\$663	\$0	-	\$0	\$688,555
3	Compound	2004	\$482,270	\$32,432	\$89,676	\$83,514	\$663	\$21,897	-	\$0	\$710,452
2	Compound	2005	\$241,135	\$16,216	\$44,838	\$41,757	\$332	\$34,321	-	\$0	\$378,599
TOTAL			\$1,487,000	\$100,000	\$276,500	\$257,500	\$2,321	\$56,218	\$0	\$0	\$2,179,539
Phase II											
4	Compound	2003	-	-	-	-	-	-	\$0	\$0	\$0
3	Compound	2004	-	-	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Compound	2005	-	\$0	\$97,588	\$90,882	\$332	\$34,321	\$75,914	\$975,618	\$5,177,125
1	Compound	2006	-	-	\$178,912	\$166,618	\$663	\$34,321	\$139,175	\$1,788,632	\$9,462,851
TOTAL			\$0	\$0	\$276,500	\$257,500	\$995	\$68,642	\$215,089	\$2,764,250	\$11,057,000
Total First Costs			\$1,487,000	\$100,000	\$553,000	\$515,000	\$3,316	\$124,860	\$215,089	\$2,764,250	\$11,057,000

D-107

Year	FY	Monitoring	O&M	Corps PM	Other
1	Discount	2007	\$34,321	\$5,380	\$663
2	Discount	2008	\$34,321	\$5,380	\$663
3	Discount	2009	\$34,321	\$5,380	\$663
4	Discount	2010	\$34,321	\$5,380	\$663
5	Discount	2011	\$34,321	\$108,755	\$663
6	Discount	2012	\$34,321	\$5,380	\$663
7	Discount	2013	\$34,321	\$5,380	\$663
8	Discount	2014	\$34,321	\$5,380	\$663
9	Discount	2015	\$34,321	\$5,380	\$663
10	Discount	2016	\$34,321	\$108,755	\$663
11	Discount	2017	\$34,321	\$5,380	\$663
12	Discount	2018	\$34,321	\$5,380	\$663
13	Discount	2019	\$34,321	\$5,380	\$663
14	Discount	2020	\$34,321	\$5,380	\$663
15	Discount	2021	\$34,321	\$108,755	\$663
16	Discount	2022	\$34,321	\$5,380	\$663
17	Discount	2023	\$34,321	\$5,380	\$663
18	Discount	2024	\$34,321	\$5,380	\$663
19	Discount	2025	\$0	\$5,380	\$663
20	Discount	2026	\$0	\$5,380	\$663
Total			\$617,778	\$417,724	\$13,264

**Coastal Wetlands Conservation and Restoration Plan
South Grand Chenier (ME-8-1)**

Present Valued Costs		Total Discounted Costs					Amortized Costs				\$1,688,873	
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	1.346	2002	\$378,700	\$25,467	\$70,417	\$65,579	\$893	\$0	\$0	\$0	\$0	\$541,057
4	1.268	2003	\$611,732	\$41,139	\$113,748	\$105,932	\$841	\$0	\$0	\$0	\$0	\$873,393
3	1.195	2004	\$576,426	\$38,764	\$107,183	\$99,818	\$793	\$26,172	\$0	\$0	\$0	\$849,157
2	1.126	2005	\$271,579	\$18,264	\$50,499	\$47,029	\$373	\$38,654	\$0	\$0	\$0	\$426,397
Total			\$1,838,437	\$123,634	\$341,848	\$318,358	\$2,900	\$64,826	\$0	\$0	\$0	\$2,690,003
Phase II												
4	1.268	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.195	2004	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.126	2005	\$0	\$0	\$109,909	\$102,356	\$373	\$38,654	\$85,498	\$1,098,791	\$4,395,164	\$5,830,745
1	1.061	2006	\$0	\$0	\$189,870	\$176,823	\$704	\$36,423	\$147,700	\$1,898,186	\$7,592,744	\$10,042,450
Total			\$0	\$0	\$299,779	\$279,179	\$1,077	\$75,077	\$233,198	\$2,996,977	\$11,987,908	\$15,873,196
Total First Cost			\$1,838,437	\$123,634	\$641,627	\$597,537	\$3,978	\$139,903	\$233,198	\$2,996,977	\$11,987,908	\$18,563,199
Year	FY	Monitoring	O&M	Corps PM	Other							
-1	0.942	2007	\$32,340	\$5,069	\$625							
-2	0.888	2008	\$30,474	\$4,777	\$589							
-3	0.837	2009	\$28,715	\$4,501	\$555							
-4	0.788	2010	\$27,058	\$4,241	\$523							
-5	0.743	2011	\$25,496	\$80,790	\$493							
-6	0.700	2012	\$24,024	\$3,766	\$464							
-7	0.660	2013	\$22,638	\$3,549	\$437							
-8	0.622	2014	\$21,331	\$3,344	\$412							
-9	0.586	2015	\$20,100	\$3,151	\$388							
-10	0.552	2016	\$18,940	\$60,017	\$366							
-11	0.520	2017	\$17,847	\$2,798	\$345							
-12	0.490	2018	\$16,817	\$2,636	\$325							
-13	0.462	2019	\$15,846	\$2,484	\$306							
-14	0.435	2020	\$14,932	\$2,341	\$289							
-15	0.410	2021	\$14,070	\$44,584	\$272							
-16	0.386	2022	\$13,258	\$2,078	\$256							
-17	0.364	2023	\$12,493	\$1,958	\$241							
-18	0.343	2024	\$11,772	\$1,845	\$227							
-19	0.323	2025	\$0	\$1,739	\$214							
-20	0.305	2026	\$0	\$1,638	\$202							
Total			\$368,151	\$237,307	\$7,530	\$0						

D-108

**Coastal Wetlands Conservation and Restoration Plan
South Grand Chenier (ME-8-1)**

Fully Funded Costs		Total Fully Funded Costs				\$20,998,000				Amortized Costs			\$1,849,322
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	1.032	2002	\$290,327	\$19,524	\$53,985	\$50,275	\$684	\$0	\$0	\$0	\$0	\$414,795	
4	1.065	2003	\$513,629	\$34,541	\$95,507	\$88,944	\$706	\$0	\$0	\$0	\$0	\$733,328	
3	1.099	2004	\$530,066	\$35,647	\$98,563	\$91,790	\$729	\$24,067	\$0	\$0	\$0	\$780,861	
2	1.134	2005	\$273,514	\$18,394	\$50,858	\$47,364	\$376	\$38,929	\$0	\$0	\$0	\$429,435	
TOTAL			\$1,607,535	\$108,106	\$298,913	\$278,373	\$2,496	\$62,997	\$0	\$0	\$0	\$2,358,420	
Phase II													
4	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.099	2004	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.134	2005	\$0	\$0	\$110,692	\$103,086	\$376	\$38,929	\$86,107	\$1,106,620	\$4,426,479	\$5,872,290	
1	1.171	2006	\$0	\$0	\$209,429	\$195,038	\$776	\$40,175	\$162,915	\$2,093,725	\$8,374,899	\$11,076,957	
TOTAL			\$0	\$0	\$320,121	\$298,124	\$1,152	\$79,105	\$249,022	\$3,200,344	\$12,801,378	\$16,949,247	
Total Cost			\$1,607,500	\$108,100	\$619,000	\$576,500	\$3,600	\$142,100	\$249,000	\$3,200,300	\$12,801,400	\$19,307,700	

D-109

Year	FY	Monitoring	O&M	Corps PM	Other	
-1	1.208	2007	\$41,461	\$6,499	\$801	
-2	1.247	2008	\$42,788	\$6,707	\$827	
-3	1.287	2009	\$44,157	\$6,922	\$853	
-4	1.328	2010	\$45,570	\$7,143	\$881	
-5	1.370	2011	\$47,028	\$149,020	\$909	
-6	1.414	2012	\$48,533	\$7,608	\$938	
-7	1.459	2013	\$50,086	\$7,851	\$968	
-8	1.506	2014	\$51,689	\$8,102	\$999	
-9	1.554	2015	\$53,343	\$8,362	\$1,031	
-10	1.604	2016	\$55,050	\$174,439	\$1,064	
-11	1.655	2017	\$56,811	\$8,905	\$1,098	
-12	1.708	2018	\$58,629	\$9,190	\$1,133	
-13	1.763	2019	\$60,505	\$9,485	\$1,169	
-14	1.819	2020	\$62,442	\$9,788	\$1,207	
-15	1.878	2021	\$64,440	\$204,194	\$1,245	
-16	1.938	2022	\$66,502	\$10,425	\$1,285	
-17	2.000	2023	\$68,630	\$10,758	\$1,326	
-18	2.064	2024	\$70,826	\$11,102	\$1,369	
-19	2.130	2025	\$0	\$11,458	\$1,412	
-20	2.198	2026	\$0	\$11,824	\$1,458	
Total			\$988,500	\$679,800	\$22,000	\$0

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>11,057,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>13,821,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,487,000
Engineering	\$827,000	
Geotechnical Investigation	\$120,000	
Hydrologic Modeling	\$300,000	
Data Collection	\$200,000	
Cultural Resources	\$10,000	
NEPA Compliance	\$30,000	

<i>Supervision and Administration</i>		\$276,500
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State Costs

<i>Supervision and Administration</i>		\$257,500
<i>Easements and Land Rights</i>		\$100,000
<i>Monitoring</i>		\$56,218
Monitoring Plan Development	\$21,897	
Monitoring Protocol Cost *	\$34,321	

Total Phase I Cost Estimate	\$2,177,000
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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>		\$13,821,000		
Oyster Issues (# of Acres)	0	lease acres	\$3,000 per acre	\$0
<i>Supervision and Inspection</i>	253 days	@	\$850 per day	\$215,089
<i>Supervision and Administration</i>				\$276,500

State Costs

<i>Supervision and Administration</i>		\$257,500
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Total Phase II Cost Estimate	\$14,570,000
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TOTAL ESTIMATED PROJECT FIRST COST	<u>16,747,000</u>
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D-110

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$1,000
Preventive Maintenance (Included in Annual Cost for Operations)	\$500

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$0	\$20,000	\$20,000	\$20,000
Repair Earthen Levee & Culverts	\$0	\$50,000	\$50,000	\$50,000
Repair Freshwater Introduction Gates	\$0	\$5,000	\$5,000	\$5,000
	\$0	\$0	\$0	\$0
Subtotal	\$0	\$75,000	\$75,000	\$75,000
Subtotal w/ 10% contin.	\$0	\$83,000	\$83,000	\$83,000
Engineer, Design & Administrative Costs				
Engineering and Design Cost	\$0	\$7,000	\$7,000	\$7,000
Administrative Cost	\$0	\$4,420	\$4,420	\$4,420
Eng Survey 3 days @ \$1,417 per day	\$0	\$4,000	\$4,000	\$4,000
Construction Insp 6 days @ \$850 per day	\$0	\$5,000	\$5,000	\$5,000
	\$0	\$20,000	\$20,000	\$20,000
Subtotal	\$0	\$20,000	\$20,000	\$20,000
Total	\$0	\$103,000	\$103,000	\$103,000

D-111

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$34,321

Construction Schedule:

		2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	March-02	7	12	12	6			37
Plan & Design End	March-05							
Const. Start	August-05							
Const. End	August-06				6	11		17

ME-8-1 South Grand Chenier Operation & Maintenance and Monitoring

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$1,000
Preventive Maintenance	\$500

Specific Intermittent Costs

<u>Construction Items</u>	<u>Year 5</u>	<u>Year 10</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$20,000	\$20,000	\$20,000
Repair Earthen Levee & Culverts	\$50,000	\$50,000	\$50,000
Repair Freshwater Introduction Gates	\$5,000	\$5,000	\$5,000
Subtotal	\$75,000	\$75,000	\$75,000
Subtotal w/ 10% contingency	\$83,000	\$83,000	\$83,000

Engineer, Design & Administrative Costs

Engineering and Design Cost		\$7,000	\$7,000	\$7,000	
Administrative Cost		\$4,420	\$4,420	\$4,420	
Eng Survey	3 days @	\$1,417 per day	\$4,000	\$4,000	\$4,000
Inspection	6 days @	\$850 per day	\$5,000	\$5,000	\$5,000
Subtotal			\$20,000	\$20,000	\$20,000
Total			\$103,000	\$103,000	\$103,000

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$34,321	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	March-05	<i>(Minimum of one year to complete this phase)</i>
Const. Start	August-05	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	August-06	

**Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Grand Lake Shoreline Protection (ME-16-2)**

Project Construction Years:	4	Total Project Years	24
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$9,559,700	Total Fully Funded Costs	\$13,562,500

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$10,084,230	\$888,132
Monitoring	\$30,593	\$2,694
O & M Costs	\$1,569,506	\$138,229
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$11,691,900	\$1,029,700
Average Annual Habitat Units		142
Cost Per Habitat Unit		\$7,271
Total Net Acres		495

D-113

**Coastal Wetlands Conservation and Restoration Plan
Grand Lake Shoreline Protection (ME-16-2)**

Project Costs

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											
6	Compound	2000						-	\$0		\$0
5	Compound	2001						-	\$0		\$0
4	Compound	2002	\$369,833	\$35,000	\$85,167	\$85,167	\$663	\$13,406	-	\$0	\$589,236
3	Compound	2003	\$264,167	\$25,000	\$60,833	\$60,833	\$332	\$2,852	-	\$0	\$414,017
TOTAL		\$634,000	\$60,000	\$146,000	\$146,000	\$995	\$16,258	\$0	\$0	\$0	\$1,003,253
Phase II											
4	Compound	2002	-	-	-	-	-	-	\$0	\$0	\$0
3	Compound	2003	-	-	\$68,409	\$46,455	\$332	-	\$42,191	\$463,591	\$1,854,364
2	Compound	2004	-	\$0	\$117,273	\$79,636	\$663	\$2,852	\$72,327	\$794,727	\$3,178,909
1	Compound	2005	-	-	\$29,318	\$19,909	\$663	\$2,852	\$18,082	\$198,682	\$794,727
TOTAL		\$0	\$0	\$215,000	\$146,000	\$1,658	\$5,704	\$132,600	\$1,457,000	\$5,828,000	\$7,785,962
Total First Costs		\$634,000	\$60,000	\$361,000	\$292,000	\$2,653	\$21,962	\$132,600	\$1,457,000	\$5,828,000	\$8,789,215

D-114

Year	FY	Monitoring	O&M	Corps PM	Other
1	Discount	2006	\$2,852	\$6,240	\$663
2	Discount	2007	\$2,852	\$6,240	\$663
3	Discount	2008	\$2,852	\$6,240	\$663
4	Discount	2009	\$2,852	\$6,240	\$663
5	Discount	2010	\$2,852	\$1,462,024	\$663
6	Discount	2011	\$2,852	\$6,240	\$663
7	Discount	2012	\$2,852	\$60,962	\$663
8	Discount	2013	\$2,852	\$6,240	\$663
9	Discount	2014	\$2,852	\$6,240	\$663
10	Discount	2015	\$2,852	\$6,240	\$663
11	Discount	2016	\$2,852	\$6,240	\$663
12	Discount	2017	\$2,852	\$6,240	\$663
13	Discount	2018	\$2,852	\$6,240	\$663
14	Discount	2019	\$2,852	\$6,240	\$663
15	Discount	2020	\$2,852	\$935,869	\$663
16	Discount	2021	\$2,852	\$6,240	\$663
17	Discount	2022	\$2,852	\$6,240	\$663
18	Discount	2023	\$2,852	\$6,240	\$663
19	Discount	2024	\$0	\$6,240	\$663
20	Discount	2025	\$0	\$6,240	\$663
Total		\$51,336	\$2,564,936	\$13,264	\$0

**Coastal Wetlands Conservation and Restoration Plan
Grand Lake Shoreline Protection (ME-16-2)**

Present Valued Costs			Total Discounted Costs				\$11,691,859				Amortized Costs		\$1,029,718
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													
6	1.429	2000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	1.346	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	1.268	2002	\$469,112	\$44,395	\$108,029	\$108,029	\$841	\$17,005	\$0	\$0	\$0	\$747,412	
2	1.126	2003	\$297,518	\$28,156	\$68,514	\$68,514	\$373	\$3,212	\$0	\$0	\$0	\$466,287	
Total			\$766,630	\$72,552	\$176,543	\$176,543	\$1,215	\$20,217	\$0	\$0	\$0	\$1,213,699	
Phase II													
4	1.268	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.195	2003	\$0	\$0	\$81,765	\$55,524	\$396	\$0	\$50,428	\$554,100	\$2,216,399	\$2,958,613	
2	1.126	2004	\$0	\$0	\$132,079	\$89,691	\$747	\$3,212	\$81,459	\$895,063	\$3,580,251	\$4,782,501	
1	1.061	2005	\$0	\$0	\$31,114	\$21,129	\$704	\$3,027	\$19,189	\$210,851	\$843,404	\$1,129,418	
Total			\$0	\$0	\$244,957	\$166,343	\$1,847	\$6,239	\$151,076	\$1,660,014	\$6,640,055	\$8,870,531	
Total First Cost			\$766,630	\$72,552	\$421,500	\$342,886	\$3,062	\$26,456	\$151,076	\$1,660,014	\$6,640,055	\$10,084,230	

D-115

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2006	\$2,687	\$5,880	\$625
-2	0.888	2007	\$2,532	\$5,541	\$589
-3	0.837	2008	\$2,386	\$5,221	\$555
-4	0.788	2009	\$2,248	\$4,919	\$523
-5	0.743	2010	\$2,119	\$1,086,091	\$493
-6	0.700	2011	\$1,996	\$4,368	\$464
-7	0.660	2012	\$1,881	\$40,210	\$437
-8	0.622	2013	\$1,773	\$3,878	\$412
-9	0.586	2014	\$1,670	\$3,654	\$388
-10	0.552	2015	\$1,574	\$3,444	\$366
-11	0.520	2016	\$1,483	\$3,245	\$345
-12	0.490	2017	\$1,397	\$3,058	\$325
-13	0.462	2018	\$1,317	\$2,881	\$306
-14	0.435	2019	\$1,241	\$2,715	\$289
-15	0.410	2020	\$1,169	\$383,663	\$272
-16	0.386	2021	\$1,102	\$2,410	\$256
-17	0.364	2022	\$1,038	\$2,271	\$241
-18	0.343	2023	\$978	\$2,140	\$227
-19	0.323	2024	\$0	\$2,017	\$214
-20	0.305	2025	\$0	\$1,900	\$202
Total		\$30,593	\$1,569,506	\$7,530	\$0

**Coastal Wetlands Conservation and Restoration Plan
Grand Lake Shoreline Protection (ME-16-2)**

Fully Funded Costs			Total Fully Funded Costs						Amortized Costs			
			\$13,562,500						\$1,194,468			
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												
6	0.969	2000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	1.032	2002	\$381,668	\$36,120	\$87,892	\$87,892	\$684	\$13,835	\$0	\$0	\$608,091	
2	1.065	2003	\$281,344	\$26,626	\$64,789	\$64,789	\$353	\$3,037	\$0	\$0	\$440,938	
TOTAL			\$663,012	\$62,746	\$152,681	\$152,681	\$1,038	\$16,872	\$0	\$0	\$1,049,029	
Phase II												
4	1.032	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.065	2003	\$0	\$0	\$72,857	\$49,475	\$353	\$0	\$44,934	\$493,735	\$1,974,942	
2	1.099	2004	\$0	\$0	\$128,895	\$87,529	\$729	\$3,135	\$79,495	\$873,489	\$3,493,954	
1	1.134	2005	\$0	\$0	\$33,255	\$22,582	\$752	\$3,235	\$20,510	\$225,360	\$901,440	
TOTAL			\$0	\$0	\$235,007	\$159,586	\$1,834	\$6,370	\$144,939	\$1,592,584	\$6,370,336	
Total Cost			\$663,000	\$62,700	\$387,700	\$312,300	\$2,900	\$23,200	\$144,900	\$1,592,600	\$6,370,300	

D-116

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.171	2006	\$3,338	\$7,304	\$776
-2	1.208	2007	\$3,445	\$7,538	\$801
-3	1.247	2008	\$3,556	\$7,779	\$827
-4	1.287	2009	\$3,669	\$8,028	\$853
-5	1.328	2010	\$3,787	\$1,941,207	\$881
-6	1.370	2011	\$3,908	\$8,550	\$909
-7	1.414	2012	\$4,033	\$86,206	\$938
-8	1.459	2013	\$4,162	\$9,106	\$968
-9	1.506	2014	\$4,295	\$9,398	\$999
-10	1.554	2015	\$4,433	\$9,698	\$1,031
-11	1.604	2016	\$4,575	\$10,009	\$1,064
-12	1.655	2017	\$4,721	\$10,329	\$1,098
-13	1.708	2018	\$4,872	\$10,660	\$1,133
-14	1.763	2019	\$5,028	\$11,001	\$1,169
-15	1.819	2020	\$5,189	\$1,702,665	\$1,207
-16	1.878	2021	\$5,355	\$11,716	\$1,245
-17	1.938	2022	\$5,526	\$12,091	\$1,285
-18	2.000	2023	\$5,703	\$12,478	\$1,326
-19	2.064	2024	\$0	\$12,877	\$1,369
-20	2.130	2025	\$0	\$13,289	\$1,412
Total		\$79,600	\$3,901,900	\$21,300	\$0

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>5,828,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>7,285,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$634,000
Engineering	\$454,000	
Geotechnical Investigation	\$110,000	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$10,000	
NEPA Compliance	\$60,000	

Supervision and Administration \$146,000

State Costs

<i>Supervision and Administration</i>		\$146,000
<i>Easements and Land Rights</i>		\$60,000
<i>Monitoring</i>		\$16,258
Monitoring Plan Development	\$13,406	
Monitoring Protocol Cost *	\$2,852	

Total Phase I Cost Estimate \$1,002,000

* 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>		\$7,285,000
Oyster Issues (# of Acres)	0	lease acres \$3,000 per acre \$0
<i>Supervision and Inspection</i>	156 days @	\$850 per day \$132,600
<i>Supervision and Administration</i>		\$215,000

State Costs

Supervision and Administration \$146,000

Total Phase II Cost Estimate \$7,779,000

TOTAL ESTIMATED PROJECT FIRST COST 8,781,000

D-117

O&M Data

Annual Costs

Annual Inspections	\$6,240
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 5</u>	<u>Year 7</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$0	\$75,000	\$3,000	\$50,000
Replace 71,000 T Stone (30% Consolidation over 5 years)	\$0	\$875,000	\$0	\$0
Replace 35,500 T Replace signs year 7 and 15	\$0	\$0	\$36,000	\$36,000
Replace signs yea Stone (15% at year 15)	\$0	\$0	\$0	\$440,000
Flotation Channel Flotation Channel (75% of initial construction quantity for year 5 and 15)	\$0	\$225,000	\$0	\$225,000
	\$0	\$0	\$0	\$0
Subtotal	\$0	\$1,175,000	\$39,000	\$751,000
Subtotal w/ 10% contin.	\$0	\$1,293,000	\$43,000	\$826,000
Engineer, Design & Administrative Costs				
Engineering and Design Cost	\$0	\$90,000	\$4,000	\$60,000
Administrative Cost	\$0	\$5,272	\$5,272	\$5,272
Eng Survey 3 days @ \$1,417 per day	\$0	\$4,000	\$0	\$4,000
Construction Insp 6 days @ \$850 per day	\$0	\$64,000	\$2,550	\$34,000
Subtotal	\$0	\$163,000	\$12,000	\$103,000
Total	\$0	\$1,456,000	\$55,000	\$929,000

D-118

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$2,852

Construction Schedule:

		2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	March-02	7	5					12
Plan & Design End	February-04							
Const. Start	June-04							
Const. End	December-04		7	12	3			22

11th Year Template for Operation & Maintenance and Monitoring

ME-16-2 Grand Lake

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$6,240
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

Construction Items

	<u>Year 5</u>	<u>Year 7</u>	<u>Year15</u>
Contractor Mobilization/Demobilization	\$75,000	\$3,000	\$50,000
Stone (30% Consolidation over 5 years)	\$875,000		
Replace signs year 7 and 15		\$36,000	\$36,000
Stone (15% at year 15)			\$440,000
Flotation Channel (75% of initial construction quantity for year 5 and 15)	\$225,000		\$225,000
Subtotal	\$1,175,000	\$39,000	\$751,000
Subtotal w/ 10% contingency	\$1,293,000	\$43,000	\$826,000

Engineer, Design & Administrative Costs

Engineering and Design Cost		\$90,000	\$4,000	\$60,000
Administrative Cost		\$5,272	\$5,272	\$5,272
Eng Survey				
	3 days @	\$1,417 per day		
	3 days @	\$1,417 per day		\$4,000
Inspection				
	75 days @	\$850 per day	\$64,000	
	3 days @	\$850 per day		\$2,550
	40 days @	\$850 per day		\$34,000
Subtotal			\$163,000	\$12,000
Total			\$1,456,000	\$55,000
			\$929,000	

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$2,852	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	February-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	June-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	December-04	<i>(6 month construction duration)</i>

Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
South White Lake Shoreline Protection (ME-16-1)

Project Construction Years:	4	Total Project Years	24
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$18,575,500	Total Fully Funded Costs	\$25,448,500

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$18,529,981	\$1,631,960
Monitoring	\$31,514	\$2,776
O & M Costs	\$2,743,505	\$241,624
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$21,312,500	\$1,877,000
Average Annual Habitat Units		128
Cost Per Habitat Unit		\$14,626
Total Net Acres		424

D-120

**Coastal Wetlands Conservation and Restoration Plan
South White Lake Shoreline Protection (ME-16-1)**

Project Costs

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	2001						-	\$0		\$0
4	Compound	2002	\$322,583	\$17,500	\$82,542	\$76,417	\$663	\$0	-	\$0	\$499,705
3	Compound	2003	\$553,000	\$30,000	\$141,500	\$131,000	\$663	\$13,406	-	\$0	\$869,569
2	Compound	2004	\$230,417	\$12,500	\$58,958	\$54,583	\$332	\$2,852	-	\$0	\$359,642
TOTAL			\$1,106,000	\$60,000	\$283,000	\$262,000	\$1,658	\$16,258	\$0	\$0	\$1,728,916
Phase II											
4	Compound	2002	-	-	-	-	-	-	\$0	\$0	\$0
3	Compound	2003	-	-	-	-	-	-	\$0	\$0	\$0
2	Compound	2004	-	\$0	\$203,538	\$141,077	\$332	-	\$119,022	\$1,523,038	\$6,092,154
1	Compound	2005	-	-	\$174,462	\$120,923	\$663	\$2,852	\$102,019	\$1,305,462	\$5,221,846
TOTAL			\$0	\$0	\$378,000	\$262,000	\$995	\$2,852	\$221,040	\$2,828,500	\$11,314,000
Total First Costs			\$1,106,000	\$60,000	\$661,000	\$524,000	\$2,653	\$19,110	\$221,040	\$2,828,500	\$11,314,000

D-121

Year	FY	Monitoring	O&M	Corps PM	Other
1	Discount	2006	\$2,852	\$6,240	\$663
2	Discount	2007	\$2,852	\$6,240	\$663
3	Discount	2008	\$2,852	\$6,240	\$663
4	Discount	2009	\$2,852	\$6,240	\$663
5	Discount	2010	\$2,852	\$2,661,367	\$663
6	Discount	2011	\$2,852	\$6,240	\$663
7	Discount	2012	\$2,852	\$6,240	\$663
8	Discount	2013	\$2,852	\$6,240	\$663
9	Discount	2014	\$2,852	\$6,240	\$663
10	Discount	2015	\$2,852	\$81,263	\$663
11	Discount	2016	\$2,852	\$6,240	\$663
12	Discount	2017	\$2,852	\$6,240	\$663
13	Discount	2018	\$2,852	\$6,240	\$663
14	Discount	2019	\$2,852	\$6,240	\$663
15	Discount	2020	\$2,852	\$1,613,359	\$663
16	Discount	2021	\$2,852	\$6,240	\$663
17	Discount	2022	\$2,852	\$6,240	\$663
18	Discount	2023	\$2,852	\$6,240	\$663
19	Discount	2024	\$2,852	\$6,240	\$663
20	Discount	2025	\$0	\$6,240	\$663
Total			\$54,188	\$4,462,068	\$13,264

\$0

**Coastal Wetlands Conservation and Restoration Plan
South White Lake Shoreline Protection (ME-16-1)**

Present Valued Costs		Total Discounted Costs				\$21,312,530				Amortized Costs		\$1,877,023
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	1.346	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	1.268	2002	\$409,178	\$22,198	\$104,699	\$96,930	\$841	\$0	\$0	\$0	\$633,847	
3	1.195	2003	\$660,965	\$35,857	\$169,126	\$156,576	\$793	\$16,023	\$0	\$0	\$1,039,339	
2	1.126	2004	\$259,507	\$14,078	\$66,402	\$61,475	\$373	\$3,212	\$0	\$0	\$405,047	
Total			\$1,329,650	\$72,133	\$340,227	\$314,980	\$2,007	\$19,235	\$0	\$0	\$2,078,233	
Phase II												
4	1.268	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.195	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.126	2004	\$0	\$0	\$229,236	\$158,888	\$373	\$0	\$134,048	\$1,715,324	\$6,861,298	
1	1.061	2005	\$0	\$0	\$185,147	\$128,330	\$704	\$3,027	\$108,267	\$1,385,421	\$5,541,684	
Total			\$0	\$0	\$414,383	\$287,218	\$1,077	\$3,027	\$242,316	\$3,100,746	\$12,402,982	
Total First Cost			\$1,329,650	\$72,133	\$754,610	\$602,198	\$3,085	\$22,262	\$242,316	\$3,100,746	\$12,402,982	
Total First Cost												
Year	FY	Monitoring	O&M	Corps PM	Other							
-1	0.942	2006	\$2,687	\$5,880	\$625							
-2	0.888	2007	\$2,532	\$5,541	\$589							
-3	0.837	2008	\$2,386	\$5,221	\$555							
-4	0.788	2009	\$2,248	\$4,919	\$523							
-5	0.743	2010	\$2,119	\$1,977,043	\$493							
-6	0.700	2011	\$1,996	\$4,368	\$464							
-7	0.660	2012	\$1,881	\$4,116	\$437							
-8	0.622	2013	\$1,773	\$3,878	\$412							
-9	0.586	2014	\$1,670	\$3,654	\$388							
-10	0.552	2015	\$1,574	\$44,845	\$366							
-11	0.520	2016	\$1,483	\$3,245	\$345							
-12	0.490	2017	\$1,397	\$3,058	\$325							
-13	0.462	2018	\$1,317	\$2,881	\$306							
-14	0.435	2019	\$1,241	\$2,715	\$289							
-15	0.410	2020	\$1,169	\$661,402	\$272							
-16	0.386	2021	\$1,102	\$2,410	\$256							
-17	0.364	2022	\$1,038	\$2,271	\$241							
-18	0.343	2023	\$978	\$2,140	\$227							
-19	0.323	2024	\$922	\$2,017	\$214							
-20	0.305	2025	\$0	\$1,900	\$202							
Total			\$31,514	\$2,743,505	\$7,530							

D-122

**Coastal Wetlands Conservation and Restoration Plan
South White Lake Shoreline Protection (ME-16-1)**

Fully Funded Costs		Total Fully Funded Costs				\$25,448,500				Amortized Costs		\$2,241,284
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	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	1.032	2002	\$332,906	\$18,060	\$85,183	\$78,862	\$684	\$0	\$0	\$0	\$515,695	
3	1.065	2003	\$588,958	\$31,951	\$150,701	\$139,518	\$706	\$14,278	\$0	\$0	\$926,112	
2	1.099	2004	\$253,252	\$13,739	\$64,801	\$59,993	\$364	\$3,135	\$0	\$0	\$395,284	
TOTAL			\$1,175,116	\$63,750	\$300,685	\$278,373	\$1,755	\$17,412	\$0	\$0	\$1,837,092	
Phase II												
4	1.032	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
2	1.099	2004	\$0	\$0	\$223,710	\$155,058	\$364	\$0	\$130,817	\$1,673,979	\$6,695,915	
1	1.134	2005	\$0	\$0	\$197,888	\$137,160	\$752	\$3,235	\$115,717	\$1,480,754	\$5,923,015	
TOTAL			\$0	\$0	\$421,598	\$292,218	\$1,117	\$3,235	\$246,534	\$3,154,733	\$12,618,931	
Total Cost			\$1,175,100	\$63,700	\$722,300	\$570,600	\$2,900	\$20,600	\$246,500	\$3,154,700	\$12,618,900	
Year	FY	Monitoring	O&M	Corps PM	Other							
-1	1.171	2006	\$3,338	\$7,304	\$776							
-2	1.208	2007	\$3,445	\$7,538	\$801							
-3	1.247	2008	\$3,556	\$7,779	\$827							
-4	1.287	2009	\$3,669	\$8,028	\$853							
-5	1.328	2010	\$3,787	\$3,533,638	\$881							
-6	1.370	2011	\$3,908	\$8,550	\$909							
-7	1.414	2012	\$4,033	\$8,824	\$938							
-8	1.459	2013	\$4,162	\$9,106	\$968							
-9	1.506	2014	\$4,295	\$9,398	\$999							
-10	1.554	2015	\$4,433	\$126,301	\$1,031							
-11	1.604	2016	\$4,575	\$10,009	\$1,064							
-12	1.655	2017	\$4,721	\$10,329	\$1,098							
-13	1.708	2018	\$4,872	\$10,660	\$1,133							
-14	1.763	2019	\$5,028	\$11,001	\$1,169							
-15	1.819	2020	\$5,189	\$2,935,251	\$1,207							
-16	1.878	2021	\$5,355	\$11,716	\$1,245							
-17	1.938	2022	\$5,526	\$12,091	\$1,285							
-18	2.000	2023	\$5,703	\$12,478	\$1,326							
-19	2.064	2024	\$5,885	\$12,877	\$1,369							
-20	2.130	2025	\$0	\$13,289	\$1,412							
Total			\$85,500	\$6,766,200	\$21,300	\$0						

D-123

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>11,314,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>14,143,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,106,000
Engineering	\$846,000	
Geotechnical Investigation	\$190,000	
Hydrologic Modeling	\$0	
Data Collection	\$0	
Cultural Resources	\$10,000	
NEPA Compliance	\$60,000	

Supervision and Administration \$283,000

State Costs

<i>Supervision and Administration</i>		\$262,000
<i>Easements and Land Rights</i>		\$60,000
<i>Monitoring</i>		\$16,258
Monitoring Plan Development	\$13,406	
Monitoring Protocol Cost *	\$2,852	

Total Phase I Cost Estimate \$1,727,000

* 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>		\$14,143,000
Oyster Issues (# of Acres)	0 lease acres @ \$3,000 per acre	\$0
<i>Supervision and Inspection</i>	260 days @ \$850 per day	\$221,040
<i>Supervision and Administration</i>		\$378,000

State Costs

Supervision and Administration \$262,000

Total Phase II Cost Estimate \$15,004,000

TOTAL ESTIMATED PROJECT FIRST COST 16,731,000

D-124

O&M Data

Annual Costs

Annual Inspections	\$6,240
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	<u>Year 3</u>	<u>Year 5</u>	<u>Year 7</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$0	\$75,000	\$3,000	\$50,000
Replace 71,000 Tons of rock section (1.5' consolidation over 5 years)	\$0	\$1,775,000	\$0	\$0
Replace 35,500 Tons of rock section	\$0	\$0	\$0	\$890,000
Replace signs year 7 and 15	\$0	\$0	\$52,000	\$52,000
Flotation Channel (75% of initial construction quantity)	\$0	\$307,500	\$0	\$307,500
	\$0	\$0	\$0	\$0
Subtotal	\$0	\$2,157,500	\$55,000	\$1,299,500
Subtotal w/ 10% contin.	\$0	\$2,373,000	\$61,000	\$1,429,000
Engineer, Design & Administrative Costs				
Engineering and Design Cost	\$0	\$159,000	\$5,000	\$99,000
Administrative Cost	\$0	\$5,272	\$5,272	\$5,272
Eng Survey 3 days @ \$1,417 per day	\$0	\$7,000	\$0	\$7,000
Construction Insp. 6 days @ \$850 per day	\$0	\$111,000	\$4,250	\$66,000
	\$0	\$282,000	\$15,000	\$177,000
Subtotal	\$0	\$282,000	\$15,000	\$177,000
Total	\$0	\$2,655,000	\$76,000	\$1,606,000

D-125

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$2,852

Construction Schedule:

	2002	2003	2004	2005	2006	2007	Total
Plan & Design Start	March-02	7	12	5			24
Plan & Design End	February-04						
Const. Start	June-04						
Const. End	March-05		7	6			13

11th Year Template for Operation & Maintenance and Monitoring

ME-16-1 South White Lake

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$6,240
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

Construction Items

	<u>Year 5</u>	<u>Year 7</u>	<u>Year 15</u>
Contractor Mobilization/Demobilization	\$75,000	\$3,000	\$50,000
Replace 71,000 Tons of rock section (1.5' consolidation over 5 years)	\$1,775,000		
Replace 35,500 Tons of rock section			\$890,000
Replace signs year 7 and 15		\$52,000	\$52,000
Flotation Channel (75% of initial construction quantity)	\$307,500		\$307,500
	Subtotal	\$2,157,500	\$55,000
	Subtotal w/ 10% contingency	\$2,373,000	\$61,000
			\$1,299,500

Engineer, Design & Administrative Costs

Engineering and Design Cost		\$159,000	\$5,000	\$99,000
Administrative Cost		\$5,272	\$5,272	\$5,272
Eng Survey				
	5 days @	\$1,417 per day		
	5 days @	\$1,417 per day		\$7,000
Inspection				
	130 days @	\$850 per day		
	5 days @	\$850 per day		\$111,000
	78 days @	\$850 per day		\$4,250
				\$66,000
		Subtotal	\$282,000	\$15,000
			Total	\$177,000
		\$2,655,000	\$76,000	\$1,606,000

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$2,852	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	February-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	June-04	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	March-05	<i>(10 month construction duration)</i>

Coastal Wetlands Conservation and Restoration Plan Priority Project List XI
Oyster Bayou Marsh Creation (CS-6-1)

Project Construction Years:	4	Total Project Years	24
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$16,217,600	Total Fully Funded Costs	\$16,541,800

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$16,002,932	\$1,409,400
Monitoring	\$63,393	\$5,583
O & M Costs	\$46,348	\$4,082
Other Costs	<u>\$7,528</u>	<u>\$663</u>
Total	\$16,120,200	\$1,419,700
Average Annual Habitat Units		138
Cost Per Habitat Unit		\$10,311
Total Net Acres		223

**Coastal Wetlands Conservation and Restoration Plan
Oyster Bayou Marsh Creation (CS-6-1)**

Project Costs

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												
0	Compound							-	\$0		\$0	
4	Compound	2002	\$274,400	\$28,000	\$69,264	\$65,100	\$0	\$0	-	\$0	\$436,764	
3	Compound	2003	\$470,400	\$48,000	\$118,738	\$111,600	\$663	\$15,273	-	\$0	\$764,674	
2	Compound	2004	\$235,200	\$24,000	\$59,369	\$55,800	\$332	\$5,737	-	\$0	\$380,437	
TOTAL			\$980,000	\$100,000	\$247,370	\$232,500	\$995	\$21,010	\$0	\$0	\$1,581,875	
Phase II												
4	Compound	2002	-	-	-	-	-	-	\$0	\$0	\$0	
3	Compound	2003	-	-	-	-	-	-	\$0	\$0	\$0	
2	Compound	2004	-	\$0	\$98,948	\$93,000	\$332	\$0	\$124,200	\$974,200	\$5,187,480	
1	Compound	2005	-	-	\$148,422	\$139,500	\$663	\$5,737	\$186,300	\$1,461,300	\$7,787,122	
TOTAL			\$0	\$0	\$247,370	\$232,500	\$995	\$5,737	\$310,500	\$2,435,500	\$9,742,000	
Total First Costs			\$980,000	\$100,000	\$494,740	\$465,000	\$1,989	\$26,747	\$310,500	\$2,435,500	\$9,742,000	
Year	FY	Monitoring	O&M	Corps PM	Other							
1	Discount	2006	\$5,737	\$4,082	\$663	-						
2	Discount	2007	\$5,737	\$4,082	\$663	-						
3	Discount	2008	\$5,737	\$4,082	\$663	-						
4	Discount	2009	\$5,737	\$4,082	\$663	-						
5	Discount	2010	\$5,737	\$4,082	\$663	-						
6	Discount	2011	\$5,737	\$4,082	\$663	-						
7	Discount	2012	\$5,737	\$4,082	\$663	-						
8	Discount	2013	\$5,737	\$4,082	\$663	-						
9	Discount	2014	\$5,737	\$4,082	\$663	-						
10	Discount	2015	\$5,737	\$4,082	\$663	-						
11	Discount	2016	\$5,737	\$4,082	\$663	-						
12	Discount	2017	\$5,737	\$4,082	\$663	-						
13	Discount	2018	\$5,737	\$4,082	\$663	-						
14	Discount	2019	\$5,737	\$4,082	\$663	-						
15	Discount	2020	\$5,737	\$4,082	\$663	-						
16	Discount	2021	\$5,737	\$4,082	\$663	-						
17	Discount	2022	\$5,737	\$4,082	\$663	-						
18	Discount	2023	\$5,737	\$4,082	\$663	-						
19	Discount	2024	\$5,737	\$4,082	\$663	-						
20	Discount	2025	\$0	\$4,082	\$663	-						
Total			\$109,003	\$81,639	\$13,260	\$0						

D-128

**Coastal Wetlands Conservation and Restoration Plan
Oyster Bayou Marsh Creation (CS-6-1)**

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	Total First Cost
Phase I											
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	1.268	2002	\$348,061	\$35,516	\$87,857	\$82,576	\$0	\$0	\$0	\$0	\$554,010
3	1.195	2003	\$562,238	\$57,371	\$141,919	\$133,388	\$792	\$18,255	\$0	\$0	\$913,964
2	1.126	2004	\$264,894	\$27,030	\$66,864	\$62,845	\$373	\$6,461	\$0	\$0	\$428,468
Total			\$1,175,193	\$119,918	\$296,640	\$278,809	\$1,166	\$24,716	\$0	\$0	\$1,896,442
Phase II											
4	1.268	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.195	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.126	2004	\$0	\$0	\$111,440	\$104,741	\$373	\$0	\$139,880	\$1,097,194	\$4,388,777
1	1.061	2005	\$0	\$0	\$157,513	\$148,044	\$704	\$6,088	\$197,711	\$1,550,805	\$6,203,219
Total			\$0	\$0	\$268,953	\$252,786	\$1,077	\$6,088	\$337,591	\$2,647,999	\$10,591,996
Total First Cost			\$1,175,193	\$119,918	\$565,594	\$531,594	\$2,243	\$30,805	\$337,591	\$2,647,999	\$10,591,996
Year	FY	Monitoring	O&M	Corps PM	Other						
-1	0.942	2006	\$5,406	\$3,846	\$625						
-2	0.888	2007	\$5,094	\$3,624	\$589						
-3	0.837	2008	\$4,800	\$3,415	\$555						
-4	0.788	2009	\$4,523	\$3,218	\$523						
-5	0.743	2010	\$4,262	\$3,032	\$493						
-6	0.700	2011	\$4,016	\$2,857	\$464						
-7	0.660	2012	\$3,784	\$2,692	\$437						
-8	0.622	2013	\$3,566	\$2,537	\$412						
-9	0.586	2014	\$3,360	\$2,391	\$388						
-10	0.552	2015	\$3,166	\$2,253	\$366						
-11	0.520	2016	\$2,983	\$2,123	\$345						
-12	0.490	2017	\$2,811	\$2,000	\$325						
-13	0.462	2018	\$2,649	\$1,885	\$306						
-14	0.435	2019	\$2,496	\$1,776	\$288						
-15	0.410	2020	\$2,352	\$1,673	\$272						
-16	0.386	2021	\$2,216	\$1,577	\$256						
-17	0.364	2022	\$2,088	\$1,486	\$241						
-18	0.343	2023	\$1,968	\$1,400	\$227						
-19	0.323	2024	\$1,854	\$1,319	\$214						
-20	0.305	2025	\$0	\$1,243	\$202						
Total			\$63,393	\$46,348	\$7,528	\$0					

D-129

**Coastal Wetlands Conservation and Restoration Plan
Oyster Bayou Marsh Creation (CS-6-1)**

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											
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	1.032	2002	\$283,181	\$28,896	\$71,480	\$67,183	\$0	\$0	\$0	\$0	\$450,740
3	1.065	2003	\$500,987	\$51,121	\$126,458	\$118,857	\$706	\$16,266	\$0	\$0	\$814,396
2	1.099	2004	\$258,509	\$26,379	\$65,253	\$61,330	\$364	\$6,306	\$0	\$0	\$418,140
TOTAL			\$1,042,678	\$106,396	\$263,191	\$247,370	\$1,070	\$22,572	\$0	\$0	\$1,683,276
Phase II											
4	1.032	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	1.099	2004	\$0	\$0	\$108,754	\$102,217	\$364	\$0	\$136,509	\$1,070,748	\$4,282,991
1	1.134	2005	\$0	\$0	\$168,352	\$158,232	\$752	\$6,507	\$211,316	\$1,657,518	\$6,630,071
TOTAL			\$0	\$0	\$277,106	\$260,448	\$1,116	\$6,507	\$347,824	\$2,728,266	\$10,913,062
Total Cost			\$1,042,700	\$106,400	\$540,300	\$507,800	\$2,200	\$29,100	\$347,800	\$2,728,300	\$10,913,100
Year	FY	Monitoring	O&M	Corps PM	Other						
-1	1.171	2006	\$6,716	\$4,778	\$776						
-2	1.208	2007	\$6,930	\$4,931	\$801						
-3	1.247	2008	\$7,152	\$5,089	\$827						
-4	1.287	2009	\$7,381	\$5,252	\$853						
-5	1.328	2010	\$7,617	\$5,420	\$880						
-6	1.370	2011	\$7,861	\$5,593	\$908						
-7	1.414	2012	\$8,113	\$5,772	\$938						
-8	1.459	2013	\$8,372	\$5,957	\$968						
-9	1.506	2014	\$8,640	\$6,148	\$999						
-10	1.554	2015	\$8,917	\$6,344	\$1,030						
-11	1.604	2016	\$9,202	\$6,547	\$1,063						
-12	1.655	2017	\$9,496	\$6,757	\$1,097						
-13	1.708	2018	\$9,800	\$6,973	\$1,133						
-14	1.763	2019	\$10,114	\$7,196	\$1,169						
-15	1.819	2020	\$10,438	\$7,426	\$1,206						
-16	1.878	2021	\$10,772	\$7,664	\$1,245						
-17	1.938	2022	\$11,116	\$7,909	\$1,285						
-18	2.000	2023	\$11,472	\$8,162	\$1,326						
-19	2.064	2024	\$11,839	\$8,424	\$1,368						
-20	2.130	2025	\$0	\$8,693	\$1,412						
Total			\$171,900	\$131,000	\$21,300	\$0					

D-130

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>9,742,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>12,178,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$980,000
Engineering	\$735,000	
Geotechnical Investigation (10 borings + report)	\$105,000	
Borrow area impact modeling	\$40,000	
Surveying (pre-con fill area, borrow area, as-builts)	\$100,000	
Cultural Resources (covered in NMFS S&A)	\$0	
NEPA Compliance (covered in NMFS S&A)	\$0	
0	\$0	

Supervision and Administration \$247,370

State Costs

Supervision and Administration \$232,500

Easements and Land Rights \$100,000

Monitoring \$21,010

Monitoring Plan Development	\$15,273
Monitoring Protocol Cost *	\$5,737

Total Phase I Cost Estimate \$1,581,000

* 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

Estimated Construction Cost + 25% Contingency \$12,178,000

Oyster Issues (# of Acres) 0 lease acres \$3,000 per acre \$0

Supervision and Inspection 116 days @ \$850 per day \$310,500

130 days @ \$1,630 per day

Supervision and Administration \$247,370

State Costs

Supervision and Administration \$232,500

Total Phase II Cost Estimate \$12,968,000

TOTAL ESTIMATED PROJECT FIRST COST 14,549,000

D-131

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	Year 3	Year 7	Year 14
Contractor Mobilization/Demobilization	\$0	\$0	\$0
	\$0	\$0	\$0
	\$0	\$0	\$0
	\$0	\$0	\$0
	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0
Subtotal w/ 10% contin.	\$0	\$0	\$0
Engineer, Design & Administrative Costs			
Engineering and Design Cost	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0
Eng Survey 0 days @ \$1,417 per day	\$0	\$0	\$0
Construction Insp 0 days @ \$850 per day	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0
Total	\$0	\$0	\$0

D-132

Annual Project Costs:

NMFS Admin	\$202
Corps Administration	\$663
Monitoring	\$2,852

Construction Schedule:

	2002	2003	2004	2005	2006	Total
Plan & Design Start	March-02	7	12	6		25
Plan & Design End	March-04					
Const. Start	May-05					
Const. End	Jun-06		6	9		15

11th Yr Template for Operation & Maintenance and Monitoring

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Specific Intermittent Costs

<u>Construction Items</u>	<u>Year 3</u>	<u>Year 7</u>	<u>Year 14</u>
Subtotal	\$0	\$0	\$0
Subtotal w/ 10% contingency	\$0	\$0	\$0

Engineer, Design & Administrative Costs

Engineering and Design Cost
Administrative Cost

Subtotal	\$0	\$0	\$0
Total	\$0	\$0	\$0

Annual Project Costs:

NMFS Admin (3% O&M + annual inspection + monitoring)	\$202	
Corps Administration	\$663	
Monitoring	\$2,852	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	March-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	May-05	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	Jun-06	

Coastal Wetlands Conservation and Restoration Plan Priority Project List IX
Barataria Barrier Island: Pelican Island and La Mer Complex Project

Project Construction Years:	5	Total Project Years	25
Interest Rate	6.125%	Amortization Factor	0.088071
Fully Funded First Costs	\$53,678,900	Total Fully Funded Costs	\$54,307,600

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$51,299,777	\$4,518,040
Monitoring	\$123,078	\$10,840
O & M Costs	\$94,662	\$8,337
Other Costs	<u>\$7,528</u>	<u>\$663</u>
Total	\$51,525,000	\$4,537,900
Average Annual Habitat Units		508
Cost Per Habitat Unit		\$8,933
Total Net Acres		506

Coastal Wetlands Conservation and Restoration Plan
Barataria Barrier Island: Pelican Island and La Mer Complex Project

Project Costs

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											
0	Compound							-	\$0		\$0
5	Compound	2002	\$503,160	\$38,640	\$140,000	\$112,000	\$663	\$0	-	\$0	\$794,463
4	Compound	2003	\$862,560	\$66,240	\$240,000	\$192,000	\$663	\$50,000	-	\$0	\$1,411,463
3	Compound	2004	\$431,280	\$33,120	\$120,000	\$96,000	\$332	\$11,474	-	\$0	\$692,206
TOTAL			\$1,797,000	\$138,000	\$500,000	\$400,000	\$1,658	\$61,474	\$0	\$0	\$2,898,132
Phase II											
4	Compound	2003	-	-	-	-	-	-	\$0	\$0	\$0
3	Compound	2004	-	\$2,405,200	\$103,448	\$82,759	\$332	-	\$0	\$0	\$2,591,738
2	Compound	2005	-	\$0	\$206,897	\$165,517	\$663	\$11,474	\$203,438	\$2,487,734	\$9,950,938
1	Compound	2006	-	-	\$189,655	\$151,724	\$663	\$11,474	\$447,563	\$5,473,016	\$21,892,063
TOTAL			\$0	\$2,405,200	\$500,000	\$400,000	\$1,658	\$22,948	\$651,000	\$7,960,750	\$31,843,000
Total First Costs			\$1,797,000	\$2,543,200	\$1,000,000	\$800,000	\$3,315	\$84,422	\$651,000	\$7,960,750	\$31,843,000

Year	FY	Monitoring	O&M	Corps PM	Other
1	Discount	2007	\$11,474	\$8,337	\$663
2	Discount	2008	\$11,474	\$8,337	\$663
3	Discount	2009	\$11,474	\$8,337	\$663
4	Discount	2010	\$11,474	\$8,337	\$663
5	Discount	2011	\$11,474	\$8,337	\$663
6	Discount	2012	\$11,474	\$8,337	\$663
7	Discount	2013	\$11,474	\$8,337	\$663
8	Discount	2014	\$11,474	\$8,337	\$663
9	Discount	2015	\$11,474	\$8,337	\$663
10	Discount	2016	\$11,474	\$8,337	\$663
11	Discount	2017	\$11,474	\$8,337	\$663
12	Discount	2018	\$11,474	\$8,337	\$663
13	Discount	2019	\$11,474	\$8,337	\$663
14	Discount	2020	\$11,474	\$8,337	\$663
15	Discount	2021	\$11,474	\$8,337	\$663
16	Discount	2022	\$11,474	\$8,337	\$663
17	Discount	2023	\$11,474	\$8,337	\$663
18	Discount	2024	\$11,474	\$8,337	\$663
19	Discount	2025	\$0	\$8,337	\$663
20	Discount	2026	\$0	\$8,337	\$663
Total			\$206,532	\$166,740	\$13,260

D-135

**Coastal Wetlands Conservation and Restoration Plan
Barataria Barrier Island: Pelican Island and La Mer Complex Project**

Present Valued Costs		Total Discounted Costs				\$51,525,045				Amortized Costs			\$4,537,880
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													
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
5	1.346	2002	\$677,321	\$52,015	\$188,459	\$150,767	\$892	\$0	\$0	\$0	\$1,069,454		
4	1.268	2003	\$1,094,108	\$84,022	\$304,426	\$243,541	\$841	\$63,422	\$0	\$0	\$1,790,360		
2	1.126	2004	\$485,730	\$37,301	\$135,150	\$108,120	\$373	\$12,923	\$0	\$0	\$779,598		
Total			\$2,257,159	\$173,338	\$628,035	\$502,428	\$2,107	\$76,345	\$0	\$0	\$3,639,412		
Phase II													
4	1.268	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3	1.195	2004	\$0	\$2,874,778	\$123,645	\$98,916	\$396	\$0	\$0	\$0	\$3,097,735		
2	1.126	2005	\$0	\$0	\$233,018	\$186,414	\$747	\$12,923	\$229,122	\$2,801,815	\$11,207,259		
1	1.061	2006	\$0	\$0	\$201,272	\$161,017	\$704	\$12,177	\$474,976	\$5,808,238	\$23,232,951		
Total			\$0	\$2,874,778	\$557,934	\$446,347	\$1,847	\$25,099	\$704,098	\$8,610,053	\$34,440,210		
Total First Cost			\$2,257,159	\$3,048,116	\$1,185,969	\$948,775	\$3,953	\$101,444	\$704,098	\$8,610,053	\$34,440,210		

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.942	2007	\$10,812	\$7,856	\$625
-2	0.888	2008	\$10,188	\$7,402	\$589
-3	0.837	2009	\$9,600	\$6,975	\$555
-4	0.788	2010	\$9,046	\$6,573	\$523
-5	0.743	2011	\$8,524	\$6,193	\$493
-6	0.700	2012	\$8,032	\$5,836	\$464
-7	0.660	2013	\$7,568	\$5,499	\$437
-8	0.622	2014	\$7,131	\$5,182	\$412
-9	0.586	2015	\$6,720	\$4,883	\$388
-10	0.552	2016	\$6,332	\$4,601	\$366
-11	0.520	2017	\$5,967	\$4,335	\$345
-12	0.490	2018	\$5,622	\$4,085	\$325
-13	0.462	2019	\$5,298	\$3,849	\$306
-14	0.435	2020	\$4,992	\$3,627	\$288
-15	0.410	2021	\$4,704	\$3,418	\$272
-16	0.386	2022	\$4,432	\$3,221	\$256
-17	0.364	2023	\$4,177	\$3,035	\$241
-18	0.343	2024	\$3,935	\$2,860	\$227
-19	0.323	2025	\$0	\$2,694	\$214
-20	0.305	2026	\$0	\$2,539	\$202
Total			\$123,078	\$94,662	\$7,528

D-136

Coastal Wetlands Conservation and Restoration Plan
Barataria Barrier Island: Pelican Island and La Mer Complex Project+B298

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												
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	1.032	2002	\$519,261	\$39,876	\$144,480	\$115,584	\$684	\$0	\$0	\$0	\$819,886	
4	1.065	2003	\$918,647	\$70,547	\$255,606	\$204,485	\$706	\$53,251	\$0	\$0	\$1,503,242	
2	1.099	2004	\$474,022	\$36,402	\$131,893	\$105,514	\$364	\$12,611	\$0	\$0	\$760,806	
TOTAL			\$1,911,930	\$146,826	\$531,978	\$425,583	\$1,755	\$65,862	\$0	\$0	\$3,083,934	
Phase II												
4	1.065	2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	1.099	2004	\$0	\$2,643,567	\$113,700	\$90,960	\$364	\$0	\$0	\$0	\$2,848,592	
2	1.134	2005	\$0	\$0	\$234,678	\$187,742	\$752	\$13,015	\$230,754	\$2,821,778	\$11,287,111	
1	1.171	2006	\$0	\$0	\$222,005	\$177,604	\$776	\$13,431	\$523,905	\$6,406,564	\$25,626,256	
TOTAL			\$0	\$2,643,567	\$570,384	\$456,307	\$1,892	\$26,446	\$754,659	\$9,228,342	\$36,913,367	
Total Cost			\$1,911,900	\$2,790,400	\$1,102,400	\$881,900	\$3,600	\$92,300	\$754,700	\$9,228,300	\$36,913,400	\$53,678,900
Year	FY	Monitoring	O&M	Corps PM	Other							
-1	1.208	2007	\$13,861	\$10,071	\$801							
-2	1.247	2008	\$14,305	\$10,394	\$827							
-3	1.287	2009	\$14,762	\$10,726	\$853							
-4	1.328	2010	\$15,235	\$11,070	\$880							
-5	1.370	2011	\$15,722	\$11,424	\$908							
-6	1.414	2012	\$16,225	\$11,789	\$938							
-7	1.459	2013	\$16,744	\$12,167	\$968							
-8	1.506	2014	\$17,280	\$12,556	\$999							
-9	1.554	2015	\$17,833	\$12,958	\$1,030							
-10	1.604	2016	\$18,404	\$13,372	\$1,063							
-11	1.655	2017	\$18,993	\$13,800	\$1,097							
-12	1.708	2018	\$19,601	\$14,242	\$1,133							
-13	1.763	2019	\$20,228	\$14,698	\$1,169							
-14	1.819	2020	\$20,875	\$15,168	\$1,206							
-15	1.878	2021	\$21,543	\$15,653	\$1,245							
-16	1.938	2022	\$22,233	\$16,154	\$1,285							
-17	2.000	2023	\$22,944	\$16,671	\$1,326							
-18	2.064	2024	\$23,678	\$17,205	\$1,368							
-19	2.130	2025	\$0	\$17,755	\$1,412							
-20	2.198	2026	\$0	\$18,323	\$1,457							
Total			\$330,500	\$276,200	\$22,000	\$0						

D-137

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>31,843,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>39,803,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$1,797,000
Engineering (see table 2A for breakout)	\$945,000	
Data Collection (see revised table 1 for breakout)	\$852,000	
Cultural Resources (covered in NMFS S&A)	\$0	
NEPA Compliance (covered in NMFS S&A)	\$0	

<i>Supervision and Administration</i>		\$500,000
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State Costs

<i>Supervision and Administration</i>		\$400,000
<i>Easements and Land Rights</i>		\$138,000
<i>Monitoring</i>		\$61,474
Monitoring Plan Development	\$50,000	
Monitoring Protocol Cost *	\$11,474	

Total Phase I Cost Estimate **\$2,896,000**

* 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>			\$39,803,000
Oyster Issues (\$7000/20% of 620 lease acres)	lease acres	\$3,000 per acre	\$2,405,200
<i>Supervision and Inspection</i>	306 days @	\$850 per day	\$651,000
	240 days @	\$1,630 per day	
<i>Supervision and Administration</i>			\$500,000

State Costs

<i>Supervision and Administration</i>		\$400,000
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Total Phase II Cost Estimate **\$43,759,000**

TOTAL ESTIMATED PROJECT FIRST COST **46,655,000**

D-138

O&M Data

Annual Costs

Annual Inspections	\$7,760
Annual Cost for Operations	\$0
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs:

Construction Items

	Year 3	Year 7	Year 14
Contractor Mobilization/Demobilization	\$0	\$0	\$0
Replace 25% of original revetment/dike section	\$0	\$0	\$0
Replace 10% of original revetment/dike section	\$0	\$0	\$0
Access Dredging (75% original @ TY3 & 50% original @ TY14)	\$0	\$0	\$0
Replace Navigation Signs	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0
Subtotal w/ 10% contin.	\$0	\$0	\$0
Engineer, Design & Administrative Costs			
Engineering and Design Cost	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0
Eng Survey 0 days @ \$1,417 per day	\$0	\$0	\$0
Construction Insp 0 days @ \$850 per day	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0
Total	\$0	\$0	\$0

D-139

Annual Project Costs:

NMFS Admin	\$577
Corps Administration	\$663
Monitoring	\$11,474

Construction Schedule:

		2002	2003	2004	2005	2006	Total
Plan & Design Start	March-02	7	12	6			25
Plan & Design End	March-04						
Const. Start	May-05						
Const. End	August-06			6	12	11	29
					5	11	16

11th Yr Template for Operation & Maintenance and Monitoring

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$7,760
Annual Cost for Operations	\$0
Preventive Maintenance	\$0

Annual Project Costs:

NMFS Admin (3% O&M + annual inspection + monitoring)	\$577.02
Corps Administration	\$663
Monitoring	\$11,474

(Dependent upon type of project)

Construction Schedule:

Planning & Design Start	March-02	
Planning & Design End	March-04	<i>(Minimum of one year to complete this phase)</i>
Const. Start	May-05	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	Aug-06	

**Coastal Wetlands Conservation and Restoration Plan Priority Project List IX
Holly Beach Complex Project(CS-1)**

Project Construction Years:	3	Total Project Years	23
Interest Rate	6.125%	Amortization Factor	0.088071
Total First Costs	\$19,885,700	Total Fully Funded Costs	\$20,418,800

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$20,822,754	\$1,833,888
Monitoring	\$0	\$0
O & M Costs	\$355,187	\$31,282
Other Costs	<u>\$7,530</u>	<u>\$663</u>
Total	\$21,185,500	\$1,865,800
Average Annual Habitat Units		370
Cost Per Habitat Unit		\$5,043
Total Net Acres		148

D-141

**Coastal Wetlands Conservation and Restoration Plan
Holly Beach (CS-1)**

Project Costs

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											
0	Compound									\$0	\$0
5	Compound	2000	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0
4	Compound	2001	\$0	\$0	\$0	\$0	\$0	\$0		\$0	\$0
3	Compound	2002	\$610,000	\$0	\$0	\$663	\$0			\$0	\$610,663
TOTAL			\$610,000	\$0	\$0	\$663	\$0	\$0	\$0	\$0	\$610,663
Phase II											
4	Compound	2001	-	-	-	-	-	-		\$0	\$0
3	Compound	2002	-	-	-	-	-	-		\$0	\$0
2	Compound	2003	-	-	\$267,750	\$663	\$0	\$321,125	\$1,949,063	\$12,993,750	\$15,756,351
1	Compound	2004	-	-	\$38,250	\$663	\$0	\$45,875	\$278,438	\$1,856,250	\$2,251,476
TOTAL			\$0	\$0	\$306,000	\$1,326	\$0	\$367,000	\$2,227,500	\$14,850,000	\$18,007,826
Total First Costs			\$610,000	\$0	\$306,000	\$1,990	\$0	\$367,000	\$2,227,500	\$14,850,000	\$18,618,490

Year	FY	Monitoring	O&M	Corps PM	Other
1	Discount	2005	\$0	\$173,880	\$663
2	Discount	2006	\$0	\$173,880	\$663
3	Discount	2007	\$0	\$3,880	\$663
4	Discount	2008	\$0	\$3,880	\$663
5	Discount	2009	\$0	\$3,880	\$663
6	Discount	2010	\$0	\$3,880	\$663
7	Discount	2011	\$0	\$3,880	\$663
8	Discount	2012	\$0	\$3,880	\$663
9	Discount	2013	\$0	\$3,880	\$663
10	Discount	2014	\$0	\$3,880	\$663
11	Discount	2015	\$0	\$3,880	\$663
12	Discount	2016	\$0	\$3,880	\$663
13	Discount	2017	\$0	\$3,880	\$663
14	Discount	2018	\$0	\$3,880	\$663
15	Discount	2019	\$0	\$3,880	\$663
16	Discount	2020	\$0	\$3,880	\$663
17	Discount	2021	\$0	\$3,880	\$663
18	Discount	2022	\$0	\$3,880	\$663
19	Discount	2023	\$0	\$3,880	\$663
20	Discount	2024	\$0	\$3,880	\$663
Total			\$0	\$417,600	\$13,264

D-142

**Coastal Wetlands Conservation and Restoration Plan
Holly Beach (CS-1)**

Present Valued Costs		Total Discounted Costs				\$21,185,471				Amortized Costs			\$1,865,833
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													
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
5	1.346	2000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
4	1.268	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
2	1.126	2002	\$687,013	\$0	\$0	\$747	\$0	\$0	\$0	\$0	\$687,760		
Total		\$687,013	\$0	\$0	\$0	\$747	\$0	\$0	\$0	\$0	\$687,760		
Phase II													
4	1.268	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3	1.195	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
2	1.126	2003	\$0	\$0	\$301,554	\$252,280	\$747	\$0	\$361,668	\$2,195,135	\$14,634,231		
1	1.061	2004	\$0	\$0	\$40,593	\$33,960	\$704	\$0	\$48,685	\$295,492	\$1,969,945		
Total		\$0	\$0	\$342,147	\$286,240	\$1,451	\$0	\$410,352	\$2,490,626	\$16,604,177	\$20,134,993		
Total First Cost		\$687,013	\$0	\$342,147	\$286,240	\$2,198	\$0	\$410,352	\$2,490,626	\$16,604,177	\$20,822,754		
Year	FY	Monitoring	O&M	Corps PM	Other								
-1	0.942	2005	\$0	\$163,845	\$625								
-2	0.888	2006	\$0	\$154,388	\$589								
-3	0.837	2007	\$0	\$3,246	\$555								
-4	0.788	2008	\$0	\$3,059	\$523								
-5	0.743	2009	\$0	\$2,882	\$493								
-6	0.700	2010	\$0	\$2,716	\$464								
-7	0.660	2011	\$0	\$2,559	\$437								
-8	0.622	2012	\$0	\$2,412	\$412								
-9	0.586	2013	\$0	\$2,272	\$388								
-10	0.552	2014	\$0	\$2,141	\$366								
-11	0.520	2015	\$0	\$2,018	\$345								
-12	0.490	2016	\$0	\$1,901	\$325								
-13	0.462	2017	\$0	\$1,791	\$306								
-14	0.435	2018	\$0	\$1,688	\$289								
-15	0.410	2019	\$0	\$1,591	\$272								
-16	0.386	2020	\$0	\$1,499	\$256								
-17	0.364	2021	\$0	\$1,412	\$241								
-18	0.343	2022	\$0	\$1,331	\$227								
-19	0.323	2023	\$0	\$1,254	\$214								
-20	0.305	2024	\$0	\$1,182	\$202								
Total		\$0	\$355,187	\$7,530	\$0								

D-143

**Coastal Wetlands Conservation and Restoration Plan
Holly Beach (CS-1)**

Fully Funded Costs		Total Fully Funded Costs				\$20,418,800				Amortized Costs			\$1,798,311
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													
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
5	0.969	2000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
4	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
2	1.032	2002	\$629,520	\$0	\$0	\$0	\$684	\$0	\$0	\$0	\$630,204		
TOTAL		\$629,520	\$0	\$0	\$0	\$684	\$0	\$0	\$0	\$0	\$630,204		
Phase II													
4	1.000	2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
3	1.032	2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
2	1.065	2003	\$0	\$0	\$285,160	\$238,565	\$706	\$0	\$342,006	\$2,075,798	\$13,838,656		
1	1.099	2004	\$0	\$0	\$42,041	\$35,171	\$729	\$0	\$50,421	\$306,032	\$2,040,213		
TOTAL		\$0	\$0	\$327,201	\$273,737	\$1,435	\$0	\$392,427	\$2,381,830	\$15,878,869	\$19,255,499		
Total Cost		\$629,500	\$0	\$327,200	\$273,700	\$2,100	\$0	\$392,400	\$2,381,800	\$15,878,900	\$19,885,700		

D-144

Year	FY	Monitoring	O&M	Corps PM	Other
-1	1.134	2005	\$0	\$197,228	\$752
-2	1.171	2006	\$0	\$203,539	\$776
-3	1.208	2007	\$0	\$4,687	\$801
-4	1.247	2008	\$0	\$4,837	\$827
-5	1.287	2009	\$0	\$4,992	\$853
-6	1.328	2010	\$0	\$5,152	\$881
-7	1.370	2011	\$0	\$5,317	\$909
-8	1.414	2012	\$0	\$5,487	\$938
-9	1.459	2013	\$0	\$5,662	\$968
-10	1.506	2014	\$0	\$5,843	\$999
-11	1.554	2015	\$0	\$6,030	\$1,031
-12	1.604	2016	\$0	\$6,223	\$1,064
-13	1.655	2017	\$0	\$6,423	\$1,098
-14	1.708	2018	\$0	\$6,628	\$1,133
-15	1.763	2019	\$0	\$6,840	\$1,169
-16	1.819	2020	\$0	\$7,059	\$1,207
-17	1.878	2021	\$0	\$7,285	\$1,245
-18	1.938	2022	\$0	\$7,518	\$1,285
-19	2.000	2023	\$0	\$7,759	\$1,326
-20	2.064	2024	\$0	\$8,007	\$1,369
Total		\$0	\$512,500	\$20,600	\$0

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	<u>14,850,000</u>
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	<u>17,078,000</u>

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>			\$610,000
Engineering	\$205,400		
Geotechnical Investigation	\$330,465		
Hydrologic Modeling	\$0		
Data Collection	\$0		
Cultural Resources	\$73,722		
NEPA Compliance	\$0		

Supervision and Administration \$0

State Costs

<i>Supervision and Administration</i>			\$0
<i>Easements and Land Rights</i>			\$0
<i>Monitoring</i>			\$0
Monitoring Plan Development	\$0		
Monitoring Protocol Cost *	\$0		

Total Phase I Cost Estimate \$610,000

* 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>			\$17,078,000
Oyster Issues (# of Acres)	0	lease acres	\$3,000 per acre \$0
<i>Supervision and Inspection</i>	225 days	@	\$1,630 per day \$367,000
<i>Supervision and Administration</i>			\$306,000

State Costs

Supervision and Administration \$256,000

Total Phase II Cost Estimate \$18,007,000

TOTAL ESTIMATED PROJECT FIRST COST 18,617,000

D-145

O&M Data

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations (2 years Post Construction Surveys)	\$170,000
Preventive Maintenance (Included in Annual Cost for Operations)	\$0

Specific Intermittent Costs: NONE

Construction Items

	<u>Year 3</u>	<u>Year 7</u>	<u>Year 14</u>
	\$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>\$0</u>	<u>\$0</u>
Subtotal w/ 10% contin.	\$0	\$0	\$0
Engineer, Design & Administrative Costs			
Engineering and Design Cost	\$0	\$0	\$0
Administrative Cost	\$0	\$0	\$0
Eng Survey 0 days @ \$1,417 per day	\$0	\$0	\$0
Construction Insp. 0 days @ \$850 per day	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0
Total	\$0	\$0	\$0

D-146

Annual Project Costs:

Corps Administration	\$663
Monitoring	\$0

Construction Schedule:

	2002	2003	2004	2005	2006	Total
Plan & Design Start	February-00	5				5
Plan & Design End	February-02					
Const. Start	May-02					
Const. End	December-02	7	1			8
	5	7	1	0	0	13

Holly Beach (CS-1)

Project Priority List 11

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,880
Annual Cost for Operations (2 years Post Construction Surveys)	\$170,000
Preventive Maintenance	\$0

Note: Annual costs will be same as Phase 2 costs for this project.

Specific Intermittent Costs

Construction Items

No O&M necessary for this project.

Engineer, Design & Administrative Costs

No O&M necessary for this project.

Annual Project Costs:

Corps Administration	\$663	
Monitoring	\$11,335	<i>(Dependent upon type of project)</i>

Construction Schedule:

Planning & Design Start	February-00	
Planning & Design End	February-02	<i>(Minimum of one year to complete this phase)</i>
Const. Start	May-02	<i>(Requires 4 months for contracting and advertising)</i>
Const. End	November-02	

**Coastal Wetlands Conservation and Restoration Plan Priority Project List X
Diversion into the Swamps South of Lake Maurepas**

Project Construction Years:	8	Total Project Years	28
Interest Rate	6.375%	Amortization Factor	0.0898573
Total First Costs	\$54,636,400	Total Fully Funded Costs	\$57,474,400

Annual Charges	<u>Present Worth</u>	<u>Average Annual</u>
First Costs	\$61,076,241	\$5,488,146
Monitoring	\$315,999	\$28,395
O & M Costs	\$740,574	\$66,546
Other Costs	<u>\$7,169</u>	<u>\$644</u>
Total	\$62,140,000	\$5,583,700
Average Annual Habitat Units		8,486
Cost Per Habitat Unit		\$658
Total Net Acres		NA

D-148

**Coastal Wetlands Conservation and Restoration Plan
Diversion into the Swamps South of Lake Maurepas**

Project Costs

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											
0	Compound									\$0	\$0
0	Compound							-		\$0	\$0
7	Compound	2002	\$2,103,444	\$128,333	\$458,639	\$458,639	\$644	\$12,943		\$0	\$3,162,643
6	Compound	2003	\$1,338,556	\$81,667	\$291,861	\$291,861	\$644	\$33,338		\$0	\$2,037,927
TOTAL			\$3,442,000	\$210,000	\$750,500	\$750,500	\$1,288	\$46,281	\$0	\$0	\$5,200,569
Phase II											
6	Compound	2003	-	\$2,530,000	\$0	\$0	\$644	\$0	\$0	\$0	\$2,530,644
5	Compound	2004	-	\$0	\$168,480	\$168,480	\$644	\$33,338	\$215,510	\$1,685,077	\$9,011,834
4	Compound	2005	-	\$0	\$183,796	\$183,796	\$644	\$33,338	\$235,102	\$1,838,265	\$9,828,003
3	Compound	2006	-	\$0	\$183,796	\$183,796	\$644	\$33,338	\$235,102	\$1,838,265	\$9,828,003
2	Compound	2007	-	\$0	\$183,796	\$183,796	\$644	\$33,338	\$235,102	\$1,838,265	\$9,828,003
1	Compound	2008	-	\$0	\$30,633	\$30,633	\$644	\$33,338	\$39,184	\$306,378	\$1,666,319
TOTAL			\$0	\$2,530,000	\$750,500	\$750,500	\$3,865	\$166,690	\$960,000	\$7,506,250	\$30,025,000
Total First Costs			\$3,442,000	\$2,740,000	\$1,501,000	\$1,501,000	\$5,154	\$212,971	\$960,000	\$7,506,250	\$47,893,375
Discount Schedule											
Year	FY	Monitoring	O&M	Corps PM	Other						
1	Discount	2009	\$33,338	\$66,546	\$644	-					
2	Discount	2010	\$33,338	\$66,546	\$644	-					
3	Discount	2011	\$33,338	\$66,546	\$644	-					
4	Discount	2012	\$33,338	\$66,546	\$644	-					
5	Discount	2013	\$33,338	\$66,546	\$644	-					
6	Discount	2014	\$33,338	\$66,546	\$644	-					
7	Discount	2015	\$33,338	\$66,546	\$644	-					
8	Discount	2016	\$33,338	\$66,546	\$644	-					
9	Discount	2017	\$33,338	\$66,546	\$644	-					
10	Discount	2018	\$33,338	\$66,546	\$644	-					
11	Discount	2019	\$33,338	\$66,546	\$644	-					
12	Discount	2020	\$33,338	\$66,546	\$644	-					
13	Discount	2021	\$33,338	\$66,546	\$644	-					
14	Discount	2022	\$33,338	\$66,546	\$644	-					
15	Discount	2023	\$33,338	\$66,546	\$644	-					
16	Discount	2024	\$0	\$66,546	\$644	-					
17	Discount	2025	\$0	\$66,546	\$644	-					
18	Discount	2026	\$0	\$66,546	\$644	-					
19	Discount	2027	\$0	\$66,546	\$644	-					
20	Discount	2028	\$0	\$66,546	\$644	-					
Total			\$500,070	\$1,330,920	\$12,884	\$0					

D-149

**Coastal Wetlands Conservation and Restoration Plan
Diversion into the Swamps South of Lake Maurepa+B118s**

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	Total First Cost	
Phase 1												
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
0	1.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
7	1.541	2002	\$3,241,963	\$197,796	\$706,884	\$706,884	\$993	\$19,949	\$0	\$0	\$4,874,467	
6	1.449	2003	\$1,939,429	\$118,327	\$422,877	\$422,877	\$933	\$48,303	\$0	\$0	\$2,952,745	
Total			\$5,181,392	\$316,122	\$1,129,760	\$1,129,760	\$1,926	\$68,252	\$0	\$0	\$7,827,212	
Phase 2												
6	1.449	2003	\$0	\$3,665,709	\$0	\$0	\$933	\$0	\$0	\$0	\$3,666,642	
5	1.362	2004	\$0	\$0	\$229,480	\$229,480	\$877	\$45,409	\$293,539	\$2,295,184	\$9,180,736	
4	1.280	2005	\$0	\$0	\$235,339	\$235,339	\$825	\$42,687	\$301,033	\$2,353,783	\$9,415,133	
3	1.204	2006	\$0	\$0	\$221,235	\$221,235	\$775	\$40,129	\$282,993	\$2,212,722	\$8,850,889	
2	1.132	2007	\$0	\$0	\$207,977	\$207,977	\$729	\$37,724	\$266,033	\$2,080,115	\$8,320,460	
1	1.064	2008	\$0	\$0	\$32,585	\$32,585	\$685	\$35,463	\$41,682	\$325,909	\$1,303,636	
Total			\$0	\$3,665,709	\$926,617	\$926,617	\$4,825	\$201,412	\$1,185,280	\$9,267,714	\$37,070,855	
Total First Cost			\$5,181,392	\$3,981,831	\$2,056,377	\$2,056,377	\$6,752	\$269,664	\$1,185,280	\$9,267,714	\$37,070,855	

D-150

Year	FY	Monitoring	O&M	Corps PM	Other
-1	0.940	2009	\$31,340	\$62,558	\$606
-2	0.884	2010	\$29,462	\$58,809	\$569
-3	0.831	2011	\$27,696	\$55,284	\$535
-4	0.781	2012	\$26,036	\$51,971	\$503
-5	0.734	2013	\$24,476	\$48,857	\$473
-6	0.690	2014	\$23,009	\$45,929	\$445
-7	0.649	2015	\$21,630	\$43,176	\$418
-8	0.610	2016	\$20,334	\$40,589	\$393
-9	0.573	2017	\$19,115	\$38,156	\$369
-10	0.539	2018	\$17,970	\$35,870	\$347
-11	0.507	2019	\$16,893	\$33,720	\$326
-12	0.476	2020	\$15,881	\$31,699	\$307
-13	0.448	2021	\$14,929	\$29,799	\$288
-14	0.421	2022	\$14,034	\$28,014	\$271
-15	0.396	2023	\$13,193	\$26,335	\$255
-16	0.372	2024	\$0	\$24,756	\$240
-17	0.350	2025	\$0	\$23,273	\$225
-18	0.329	2026	\$0	\$21,878	\$212
-19	0.309	2027	\$0	\$20,567	\$199
-20	0.291	2028	\$0	\$19,334	\$187
Total			\$315,999	\$740,574	\$7,169

Coastal Wetlands Conservation and Restoration Plan
Diversion into the Swamps South of Lake Maurepas

Fully Funded Costs		Total Fully Funded Costs				\$57,474,400				Amortized Costs			\$5,164,494
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 1													
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
0	0.000	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
7	1.032	2002	\$2,170,755	\$132,440	\$473,315	\$473,315	\$665	\$13,357	\$0	\$0	\$3,263,847		
6	1.065	2003	\$1,425,594	\$86,977	\$310,839	\$310,839	\$686	\$35,506	\$0	\$0	\$2,170,441		
TOTAL			\$3,596,348	\$219,417	\$784,154	\$784,154	\$1,351	\$48,863	\$0	\$0	\$5,434,288		
Phase 2													
6	1.065	2003	\$0	\$2,694,511	\$0	\$0	\$686	\$0	\$0	\$0	\$2,695,197		
5	1.099	2004	\$0	\$0	\$185,177	\$185,177	\$708	\$36,642	\$236,868	\$1,852,076	\$9,904,950		
4	1.134	2005	\$0	\$0	\$208,475	\$208,475	\$731	\$37,814	\$266,671	\$2,085,100	\$11,147,669		
3	1.171	2006	\$0	\$0	\$215,147	\$215,147	\$754	\$39,025	\$275,204	\$2,151,824	\$11,504,394		
2	1.208	2007	\$0	\$0	\$222,031	\$222,031	\$778	\$40,273	\$284,011	\$2,220,682	\$11,872,535		
1	1.247	2008	\$0	\$0	\$38,189	\$38,189	\$803	\$41,562	\$48,850	\$381,957	\$2,077,380		
TOTAL			\$0	\$2,694,511	\$869,019	\$869,019	\$4,460	\$195,316	\$1,111,603	\$8,691,639	\$49,202,125		
Total Cost			\$3,596,300	\$2,913,900	\$1,653,200	\$1,653,200	\$5,800	\$244,200	\$1,111,600	\$8,691,600	\$34,766,600		
D-151													
Year	FY	Monitoring	O&M	Corps PM	Other								
-1	1.287	2009	\$42,892	\$73,141	\$829								
-2	1.328	2010	\$44,265	\$75,482	\$855								
-3	1.370	2011	\$45,681	\$77,897	\$883								
-4	1.414	2012	\$47,143	\$80,390	\$911								
-5	1.459	2013	\$48,651	\$82,962	\$940								
-6	1.506	2014	\$50,208	\$85,617	\$970								
-7	1.554	2015	\$51,815	\$88,357	\$1,001								
-8	1.604	2016	\$53,473	\$91,184	\$1,033								
-9	1.655	2017	\$55,184	\$94,102	\$1,066								
-10	1.708	2018	\$56,950	\$97,113	\$1,100								
-11	1.763	2019	\$58,772	\$100,221	\$1,136								
-12	1.819	2020	\$60,653	\$103,428	\$1,172								
-13	1.878	2021	\$62,594	\$106,738	\$1,210								
-14	1.938	2022	\$64,597	\$110,153	\$1,248								
-15	2.000	2023	\$66,664	\$113,678	\$1,288								
-16	2.064	2024	\$0	\$117,316	\$1,329								
-17	2.130	2025	\$0	\$121,070	\$1,372								
-18	2.198	2026	\$0	\$124,944	\$1,416								
-19	2.268	2027	\$0	\$128,942	\$1,461								
-20	2.341	2028	\$0	\$133,069	\$1,508								
Total		\$809,500	\$2,005,800	\$22,700	\$0								

E&D and Construction Data

ESTIMATED CONSTRUCTION COST	30,025,000
ESTIMATED CONSTRUCTION + 25% CONTINGENCY	37,531,000

TOTAL ESTIMATED PROJECT COSTS

PHASE I

Federal Costs

<i>Engineering and Design</i>		\$3,442,000
Engineering	\$1,300,000	
Geotechnical Investigation	\$380,000	
Surveys	\$300,000	
Hydrologic Modeling	\$712,000	
Ecological modeling	\$150,000	
Data Collection	\$360,000	
Cultural Resources	\$40,000	
Permitting	\$50,000	
NEPA Compliance	\$150,000	
<i>Supervision and Administration</i>		\$750,500

State Costs

<i>Supervision and Administration</i>		\$750,500
<i>Easements and Land Rights</i>		\$210,000
<i>Monitoring</i>		\$46,281
Monitoring Plan Development	\$12,943	
Monitoring Protocol Cost *	\$33,338	

Total Phase I Cost Estimate \$5,199,000

* 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>Easements and Land Rights</i>		\$2,530,000	
<i>Estimated Construction Cost +25% Contingency</i>		\$37,531,000	
<i>Supervision and Inspection</i>	1,176 days @	\$816 per day	\$960,000
<i>Supervision and Administration</i>		\$750,500	

State Costs

<i>Supervision and Administration</i>		\$750,500
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Total Phase II Cost Estimate \$42,522,000

TOTAL ESTIMATED PROJECT FIRST COST 47,721,000

D-152

O&M Data

Annual Costs

Annual Inspections (One Day)	\$3,546
Annual Cost for Operations	\$63,000
Monitoring Stations	\$0

Specific Intermittent Costs

Construction Items

	Year 3	Year 10	Year 15	
Contractor Mobilization/Demobilization	\$0	\$0	\$0	\$0
Replace	\$0	\$0	\$0	\$0
Replace	\$0	\$0	\$0	\$0
Replace	\$0	\$0	\$0	\$0
Sheetpile	\$0	\$0	\$0	\$0
Replace signs	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0
Subtotal w/ 10% 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 0 days @ \$1,361 per day	\$0	\$0	\$0	\$0
Construction Insp. 0 days @ \$816 per day	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0

D-153

Annual Project Costs:

Corps Administration	\$644
Monitoring	\$252,311

Construction Schedule:

	2002	2003	2004	2005	2006	2007	2008	Total
Planning & D November-01	11	7	0					18
Planning & D April-03								
Const. Start November-03								
Const. End November-07			11	12	12	12	2	49

Template for Operation & Maintenance and Monitoring

O&M Cost Considerations:

Annual Costs

Annual Inspections	\$3,546
Annual Cost for Operations and Maintenance	\$63,000

Specific Intermittent Costs

Annual Project Costs:

Corps Administration	\$644
Monitoring	\$33,338

Construction Schedule:

E&D Start	November-01
E&D End	April-03
Const. Start	November-03
Const. End	November-07

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

11th Priority Project List Report

Appendix E

Wetlands Value Assessment for Candidate Projects

Appendix E
Wetlands Value Assessment For Candidate Projects
Table of Contents

<u>Project Name</u>	<u>Page</u>
Coastwide Nutria Control Program	E-1
Lake Borgne Shoreline Protection at Bayou Dupre	E-8
Southern Chandeleur Islands Restoration Plan	E-15
Lake Lery Dedicated Dredging	E-24
Northeast Extension of Barataria Landbridge Shoreline Protection	E-34
Dedicated Dredging on the Barataria Basin Landbridge	E-38
Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration	E-42
Little Lake Shoreline Protection and Dedicated Dredging Near Round Lake	E-48
South Shore of the Pen/Bayou Dupont Shoreline Protection/Marsh Creation	E-57
West Lake Boudreaux Shoreline Protection/Marsh Creation	E-67
Bayou Terrebonne East Bank Hydrologic Restoration Project	E-72
Blue Hammock Hydrologic Restoration and Beneficial Use Project	E-91
Ship Shoal: Whiskey West Flank Restoration	E-100
Raccoon Island Shoreline Protection/Marsh Creation	E-104
Southwest Pass Shoreline Protection	E-109
South Grand Chenier Hydrologic Restoration Project	E-115
Grand Lake Shoreline Protection, from Superior Canal to Tebo Point	E-126
South White Lake Shoreline Protection, Will's Point to the western shore of Bear Lake	E-130
Oyster Bayou Marsh Creation	E-137
Barataria Barrier Island Complex Project: Pelican Island and Pass La Mer to Chaland Pass	E-147
Holly Beach Sand Management Complex Project	E-164
Diversion into the Swamps South of Lake Maurepas Complex Project	E-172

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project Coastwide Nutria Control Program

The WVA for this project includes 2 subareas. Total benefits for this project are as follow

<u>Area</u>	<u>AAHUs</u>
Intermediate	1,087
Brackish	1,905

TOTAL BENEFITS =	2,993	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **Coastwide Nutria Control Program**
Intermediate Area

Project Area:
 Fresh.....
 Intermediate.. **19,350**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	95	0.96	0	0.10
V2	% Aquatic	40	0.46	40	0.46	40	0.46
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 100	1.00	% 100	0.10
V4	%OW <= 1.5ft	0	0.10	100	0.60	30	0.44
V5	Salinity (ppt) fresh intermediate	3	1.00	3	1.00	3	1.00
V6	Access Value fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		: 1.00		EM HSI = 0.97		EM HSI = 0.24	
Open Water HSI		= 0.59		OW HSI = 0.63		OW HSI = 0.55	

Project: **Coastwide Nutria Control Program**
Intermediate Area

Project Area:
 Fresh.....
 Intermediate.... **19,350**

Condition: Future With Project

Variable		TY 0		TY 1		TY 4	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	95	0.96	80	0.82
V2	% Aquatic	40	0.46	40	0.46	40	0.46
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 100	1.00	% 70 30	0.88
V4	%OW <= 1.5ft	0	0.10	100	0.60	80	1.00
V5	Salinity (ppt) fresh intermediate	3	1.00	3	1.00	3	1.00
V6	Access Value fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		: 1.00		EM HSI = 0.97		EM HSI = 0.87	
Open Water HSI		= 0.59		OW HSI = 0.63		OW HSI = 0.65	

Project: **Coastwide Nutria Control Program**
FWP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	32	0.39				
V2	% Aquatic	40	0.46				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 30 40	0.38	%		%	
V4	%OW <= 1.5ft	35	0.49				
V5	Salinity (ppt) fresh intermediate	3	1.00				
V6	Access Value fresh intermediate	1.00	1.00				
		EM HSI =	0.51	EM HSI =		EM HSI =	
		OW HSI =	0.57	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: **Coastwide Nutria Control Program**
Intermediate Area

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	19350	1.00	19350.00	
1	18382	0.97	17843.81	18592.18
20	0	0.24	0.00	126770.66
			AAHUs =	7268.14

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	19350	1.00	19350.00	
1	18382	0.97	17843.81	18592.18
4	15480	0.87	13438.40	46774.44
20	6192	0.51	3137.43	123655.01
			AAHUs	9451.08

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs	= 9451.08
B. Future Without Project Emergent Marsh AAHUs	= 7268.14
Net Change (FWP - FWOP) =	2182.94

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: **Coastwide Nutria Control Program**

Project Area: **27,410**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	95	0.96	0	0.10
V2	% Aquatic	20	0.28	20	0.28	20	0.28
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 100	1.00	% 100	0.10
V4	%OW <= 1.5ft	0	0.10	100	0.60	20	0.36
V5	Salinity (ppt)	8	1.00	8	1.00	8	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	1.00	EM HSI =	0.97	EM HSI =	0.25
Open Water HSI		=	0.52	OW HSI =	0.55	OW HSI =	0.47

Project: **Coastwide Nutria Control Program**

Project Area: **27,410**

Condition: Future With Project

Variable		TY 0		TY 1		TY 4	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	95	0.96	80	0.82
V2	% Aquatic	20	0.28	20	0.28	20	0.28
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 100	1.00	% 70 30	0.88
V4	%OW <= 1.5ft	0	0.10	100	0.60	80	1.00
V5	Salinity (ppt)	8	1.00	8	1.00	8	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	1.00	EM HSI =	0.97	EM HSI =	0.88
Open Water HSI		=	0.52	OW HSI =	0.55	OW HSI =	0.58

Project: **Coastwide Nutria Control Program**
FWP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	32	0.39				
V2	% Aquatic	20	0.28				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 30 40	0.38	%		%	
V4	%OW <= 1.5ft	25	0.42				
V5	Salinity (ppt)	8	1.00				
V6	Access Value	1.00	1.00				
		EM HSI =	0.53	EM HSI =		EM HSI =	
		OW HSI =	0.50	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: **Coastwide Nutria Control Program**

Future Without Project		x HSI	Total HUs	Cumulative HUs
TY	Marsh Acres			
0	27410	1.00	27410.00	
1	26040	0.97	25335.21	26366.43
20	0	0.25	0.00	181445.89
			AAHUs =	10390.62

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project Lake Borgne Shoreline Protection at Bayou Dupre

The WVA for this project includes 2 subareas. Total benefits for this project are as follow

<u>Area</u>	<u>AAHUs</u>
1	22
2	7

TOTAL BENEFITS =	29	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Lake Borgne Shoreline Protection at Bayou Dupre Area A

Project Area: 61

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	92	0.93	87	0.88	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 94 6	0.95	% 100	0.10
V4	%OW <= 1.5ft	80	1.00	89	0.78	41	0.63
V5	Salinity (ppt)	10	1.00	10	1.00	10	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI			0.96	EM HSI =	0.93	EM HSI =	0.26
Open Water HSI			= 0.77	OW HSI =	0.75	OW HSI =	0.68

Project: Lake Borgne Shoreline Protection at Bayou Dupre Area A

Project Area: 61

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	92	0.93	92	0.93	92	0.93
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 100	1.00	% 100	1.00
V4	%OW <= 1.5ft	80	1.00	80	1.00	80	1.00
V5	Salinity (ppt)	10	1.00	10	1.00	10	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI			0.96	EM HSI =	0.96	EM HSI =	0.96
Open Water HSI			= 0.77	OW HSI =	0.77	OW HSI =	0.77

AAHU CALCULATION - EMERGENT MARSH

Project: Lake Borgne Shoreline Protection at Bayou Dupre Area A

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	56	0.96	53.63	
1	53	0.93	49.04	51.32
20	0	0.26	0.00	354.34
			AAHUs =	20.28

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	56	0.96	53.63	
1	56	0.96	53.63	53.63
20	56	0.96	53.63	1018.90
			AAHUs	53.63

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	53.63
B. Future Without Project Emergent Marsh AAHUs =	20.28
Net Change (FWP - FWOP) =	33.34

AAHU CALCULATION - OPEN WATER

Project: Lake Borgne Shoreline Protection at Bayou Dupre Area A

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	5	0.77	3.87	
1	8	0.75	6.03	4.96
20	61	0.68	41.44	463.36
			AAHUs =	23.42

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Lake Borgne Shoreline Protection at Bayou Dupre
Area B

Project Area: 37

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10	10	0.19	31	0.38
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.10	% 30 70	0.44	% 30 70	0.44
V4	%OW <= 1.5ft	68	0.97	81	0.98	81	0.98
V5	Salinity (ppt)	10	1.00	10	1.00	10	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI			0.26	EM HSI =	0.38	EM HSI =	0.54
Open Water HSI			= 0.71	OW HSI =	0.73	OW HSI =	0.73

Project: Lake Borgne Shoreline Protection at Bayou Dupre
FWP

Variable		TY 5		TY 20		Value	SI
		Value	SI	Value	SI		
V1	% Emergent	41	0.47	72	0.75		
V2	% Aquatic	0	0.30	0	0.30		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 40 60	0.52	% 70 30	0.76	%	
V4	%OW <= 1.5ft	95	0.63	100	0.50		
V5	Salinity (ppt)	10	1.00	10	1.00		
V6	Access Value	1.00	1.00	1.00	1.00		
EM HSI =			0.61	EM HSI =	0.82	EM HSI =	
OW HSI =			0.71	OW HSI =	0.72	OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Lake Borgne Shoreline Protection at Bayou Dupre Area B

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	0	0.26	0.00	
1	0	0.26	0.00	0.00
20	0	0.26	0.00	0.00
			AAHUs =	0.00

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	0	0.26	0.00	
1	3	0.38	1.15	0.51
3	11	0.54	5.89	6.64
5	15	0.61	9.15	14.94
20	27	0.82	22.17	228.53
			AAHUs	12.53

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	12.53
B. Future Without Project Emergent Marsh AAHUs =	0.00
Net Change (FWP - FWOP) =	12.53

AAHU CALCULATION - OPEN WATER

Project: Lake Borgne Shoreline Protection at Bayou Dupre Area B

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	37	0.71	26.09	
1	37	0.70	25.77	25.93
20	37	0.64	23.69	469.87
			AAHUs =	24.79

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	37	0.71	26.09	
1	34	0.73	24.83	25.47
3	26	0.73	18.99	43.82
5	22	0.71	15.63	34.59
20	10	0.72	7.19	171.36
			AAHUs	13.76

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	13.76
B. Future Without Project Open Water AAHUs =	24.79
Net Change (FWP - FWOP) =	-11.03

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	12.53

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Southern Chandeleur Islands Restoration

The WVA for this project includes 3 subareas. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
North Breton	108
Curlew	560
Gosier	404

TOTAL BENEFITS =	1,073	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project: Southern Chandeleur Islands Restoration - Curlew

Condition: Future Without Project

Variable		TY 0		TY 1		TY 6	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	2	0.46	5	1.00
V1b	% Dune Vegetated	0	0.10	0	0.10	25	0.48
V2a	% Supratidal	9	0.51	11	0.60	9	0.51
V2b	% Supratidal Vegetated	25	0.43	25	0.43	50	0.75
V3a	% Intertidal	91	0.37	87	0.49	86	0.52
V3b	% Intertidal Vegetated	1	0.12	5	0.18	15	0.33
V4	% Subtidal	100	1.00	100	1.00	100	1.00
V5	% Woody Cover	0	0.10	0	0.10	3	0.37
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 90	0.44
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.389		HSI = 0.469		HSI = 0.613	

Project..... Southern Chandeleur Islands Restoration - Curlew
FWOP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	4	0.82				
V1b	% Dune Vegetated	50	0.85				
V2a	% Supratidal	6	0.37				
V2b	% Supratidal Vegetated	50	0.75				
V3a	% Intertidal	90	0.40				
V3b	% Intertidal Vegetated	50	0.85				
V4	% Subtidal	100	1.00				
V5	% Woody Cover	3	0.37				
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 10 90	0.42	%		%	
V7	Beach/surf Zone	1	1.00				
		HSI = 0.624		HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project.....

Project Area.....

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	15	1.00	15	1.00
V1b	% Dune Vegetated	0	0.10	25	0.48	60	1.00
V2a	% Supratidal	9	0.51	20	1.00	20	1.00
V2b	% Supratidal Vegetated	25	0.43	40	0.62	70	1.00
V3a	% Intertidal	91	0.37	65	1.00	65	1.00
V3b	% Intertidal Vegetated	1	0.12	25	0.48	60	1.00
V4	% Subtidal	100	1.00	30	1.00	37	1.00
V5	% Woody Cover	0	0.10	5	0.55	5	0.55
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 70 30	0.94	% 80 20	0.96
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.389		HSI = 0.848		HSI = 0.949	

Project..... Southern Chandeleur Islands Restoration - Curlew
FWP

Variable		TY 6		TY 20		Value	SI
		Value	SI	Value	SI		
V1a	% Dune	15	1.00	15	1.00		
V1b	% Dune Vegetated	65	1.00	60	1.00		
V2a	% Supratidal	20	1.00	19	0.96		
V2b	% Supratidal Vegetated	75	1.00	60	0.88		
V3a	% Intertidal	65	1.00	66	1.00		
V3b	% Intertidal Vegetated	65	1.00	65	1.00		
V4	% Subtidal	40	1.00	46	1.00		
V5	% Woody Cover	10	1.00	10	1.00		
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 70 30	0.94	% 100	0.80	%	
V7	Beach/surf Zone	1	1.00	1	1.00		
		HSI = 0.991		HSI = 0.958		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project..... Southern Chandeleur Islands Restoration - Grand Gosier
FWOP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	1	0.28				
V1b	% Dune Vegetated	50	0.85				
V2a	% Supratidal	7	0.42				
V2b	% Supratidal Vegetated	50	0.75				
V3a	% Intertidal	92	0.34				
V3b	% Intertidal Vegetated	50	0.85				
V4	% Subtidal	100	1.00				
V5	% Woody Cover	3	0.37				
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 10 90	0.42	%		%	
V7	Beach/surf Zone	1	1.00				
		HSI = 0.553		HSI =		HSI =	

Project.....

Project Area.....

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	15	1.00	15	1.00
V1b	% Dune Vegetated	0	0.10	25	0.48	60	1.00
V2a	% Supratidal	7	0.42	20	1.00	20	1.00
V2b	% Supratidal Vegetated	25	0.43	40	0.62	70	1.00
V3a	% Intertidal	93	0.31	65	1.00	65	1.00
V3b	% Intertidal Vegetated	10	0.25	30	0.55	60	1.00
V4	% Subtidal	66	1.00	30	1.00	32	1.00
V5	% Woody Cover	0	0.10	5	0.55	5	0.55
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 70 30	0.94	% 80 20	0.96
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.382		HSI = 0.856		HSI = 0.949	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project: Southern Chandeleur Islands Restoration - North Breton

Condition: Future Without Project

Variable		TY 0		TY 1		TY 6	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	0	0.10	2	0.46
V1b	% Dune Vegetated	0	0.10	0	0.10	20	0.40
V2a	% Supratidal	8	0.46	9	0.51	13	0.69
V2b	% Supratidal Vegetated	25	0.43	25	0.43	50	0.75
V3a	% Intertidal	92	0.34	91	0.37	85	0.55
V3b	% Intertidal Vegetated	25	0.48	25	0.48	35	0.63
V4	% Subtidal	60	1.00	61	1.00	65	1.00
V5	% Woody Cover	1	0.19	1	0.19	3	0.37
V6	Interspersion	%	0.50	%	0.50	%	0.48
	Class 1						
	Class 2	25		25		20	
	Class 3						
	Class 4	75		75		80	
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.439		HSI = 0.449		HSI = 0.605	

Project..... Southern Chandeleur Islands Restoration - North Breton

FWOP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	1	0.28				
V1b	% Dune Vegetated	50	0.85				
V2a	% Supratidal	11	0.60				
V2b	% Supratidal Vegetated	50	0.75				
V3a	% Intertidal	88	0.46				
V3b	% Intertidal Vegetated	50	0.85				
V4	% Subtidal	76	1.00				
V5	% Woody Cover	5	0.55				
V6	Interspersion	%	0.46	%		%	
	Class 1						
	Class 2	15					
	Class 3						
	Class 4	85					
		HSI = 0.617		HSI =		HSI =	

Barrier Island

Project.....

Project Area.....

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	1	0.28	2	0.46
V1b	% Dune Vegetated	0	0.10	25	0.48	60	1.00
V2a	% Supratidal	8	0.46	8	0.46	20	1.00
V2b	% Supratidal Vegetated	25	0.43	40	0.62	70	1.00
V3a	% Intertidal	92	0.34	91	0.37	78	0.76
V3b	% Intertidal Vegetated	25	0.48	40	0.70	60	1.00
V4	% Subtidal	60	1.00	61	1.00	63	1.00
V5	% Woody Cover	1	0.19	5	0.55	5	0.55
V6	Interspersion	%	0.50	%	0.50	%	0.50
	Class 1						
	Class 2	25		25		25	
	Class 3						
	Class 4	75		75		75	
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.439		HSI = 0.553		HSI = 0.777	

Project..... Southern Chandeleur Islands Restoration - North Breton

FWP

Variable		TY 5		TY 6		TY 20	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	11	1.00	11	1.00	10	1.00
V1b	% Dune Vegetated	65	1.00	65	1.00	60	1.00
V2a	% Supratidal	31	1.00	31	1.00	31	1.00
V2b	% Supratidal Vegetated	75	1.00	75	1.00	60	0.88
V3a	% Intertidal	58	1.00	58	1.00	59	1.00
V3b	% Intertidal Vegetated	65	1.00	65	1.00	65	1.00
V4	% Subtidal	64	1.00	65	1.00	76	1.00
V5	% Woody Cover	10	1.00	10	1.00	10	1.00
V6	Interspersion	%	0.52	%	0.52	%	0.52
	Class 1						
	Class 2	30		30		30	
	Class 3						
	Class 4	70		70		70	
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.928		HSI = 0.928		HSI = 0.922	

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Lake Lery Dedicated Dredging

The WVA for this project includes 3 subareas. Total benefits for this project are as follow

<u>Area</u>	<u>AAHUs</u>
1	82
2	79
3	150

TOTAL BENEFITS =	310	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: [Lake Lery Dedicated Dredging - Area 1](#)

Project Area:

Fresh.....

Condition: Future Without Project

Intermediate.. 525

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	64	0.68	63	0.67	50	0.55
V2	% Aquatic	100	1.00	100	1.00	100	1.00
V3	Interspersion	%		%		%	
	Class 1		0.29		0.29		0.29
	Class 2						
	Class 3	45		45		45	
	Class 4	55		55		55	
V4	%OW <= 1.5ft	50	0.66	50	0.66	50	0.66
V5	Salinity (ppt)						
	fresh intermediate	4	1.00	4	1.00	4	1.00
V6	Access Value						
	fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.70		EM HSI =	0.70	EM HSI =	0.62
Open Water HSI =		0.92		OW HSI =	0.92	OW HSI =	0.92

Project: [Lake Lery Dedicated Dredging - Area 1](#)

Project Area:

Fresh.....

Condition: Future With Project

Intermediate.... 525

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	64	0.68	80	0.82	89	0.90
V2	% Aquatic	100	1.00	100	1.00	100	1.00
V3	Interspersion	%		%		%	
	Class 1		0.29	100	1.00	100	1.00
	Class 2						
	Class 3	45					
	Class 4	55					
V4	%OW <= 1.5ft	50	0.66	90	1.00	90	1.00
V5	Salinity (ppt)						
	fresh intermediate	4	1.00	4	1.00	4	1.00
V6	Access Value						
	fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.70		EM HSI =	0.88	EM HSI =	0.94
Open Water HSI =		0.92		OW HSI =	1.00	OW HSI =	1.00

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: [Lake Lery Dedicated Dredging - Area 2](#)

Project Area:

Fresh.....

Condition: Future Without Project

Intermediate.. 418

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	55	0.60	55	0.60	43	0.49
V2	% Aquatic	100	1.00	100	1.00	100	1.00
V3	Interspersion	%		%		%	
	Class 1		0.28		0.28		0.24
	Class 2						
	Class 3	40		40		20	
	Class 4	60		60		80	
V4	%OW <= 1.5ft	50	0.66	50	0.66	50	0.66
V5	Salinity (ppt)						
	fresh intermediate	4	1.00	4	1.00	4	1.00
V6	Access Value						
	fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		= 0.65		EM HSI = 0.65		EM HSI = 0.56	
Open Water HSI		= 0.92		OW HSI = 0.92		OW HSI = 0.92	

Project: [Lake Lery Dedicated Dredging - Area 2](#)

Project Area:

Fresh.....

Condition: Future With Project

Intermediate.... 418

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	55	0.60	78	0.80	89	0.90
V2	% Aquatic	100	1.00	100	1.00	100	1.00
V3	Interspersion	%		%		%	
	Class 1		0.28	100	1.00	100	1.00
	Class 2						
	Class 3	40					
	Class 4	60					
V4	%OW <= 1.5ft	50	0.66	90	1.00	90	1.00
V5	Salinity (ppt)						
	fresh intermediate	4	1.00	4	1.00	4	1.00
V6	Access Value						
	fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		= 0.65		EM HSI = 0.87		EM HSI = 0.94	
Open Water HSI		= 0.92		OW HSI = 1.00		OW HSI = 1.00	

AAHU CALCULATION - OPEN WATER

Project: Lake Lery Dedicated Dredging - Area 2

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	187	0.92	172.35	
1	190	0.92	175.12	173.73
20	238	0.92	218.65	3741.25
			AAHUs =	195.75

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	187	0.92	172.35	
1	42	1.00	42.00	109.07
3	46	1.00	46.00	88.00
20	80	0.99	79.53	1067.54
			AAHUs	63.23

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	63.23
B. Future Without Project Open Water AAHUs =	195.75
Net Change (FWP - FWOP) =	-132.52

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	179.61
B. Open Water Habitat Net AAHUs =	-132.52
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	78.92

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: [Lake Lery Dedicated Dredging - Area 3](#)

Project Area:

Fresh.....

Condition: Future Without Project

Intermediate.. 677

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	37	0.43	30	0.37
V2	% Aquatic	100	1.00	100	1.00	100	1.00
V3	Interspersion	%		%		%	
	Class 1		0.28		0.28		0.28
	Class 2						
	Class 3	40		40		40	
	Class 4	60		60		60	
V4	%OW <= 1.5ft	50	0.66	50	0.66	50	0.66
V5	Salinity (ppt)						
	fresh intermediate	4	1.00	4	1.00	4	1.00
V6	Access Value						
	fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.54		EM HSI =	0.53	EM HSI =	0.48
Open Water HSI =		0.92		OW HSI =	0.92	OW HSI =	0.92

Project: [Lake Lery Dedicated Dredging - Area 3](#)

Project Area:

Fresh.....

Condition: Future With Project

Intermediate.... 677

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	76	0.78	89	0.90
V2	% Aquatic	100	1.00	100	1.00	100	1.00
V3	Interspersion	%		%		%	
	Class 1		0.28	100	1.00	100	1.00
	Class 2						
	Class 3	40					
	Class 4	60					
V4	%OW <= 1.5ft	50	0.66	90	1.00	90	1.00
V5	Salinity (ppt)						
	fresh intermediate	4	1.00	4	1.00	4	1.00
V6	Access Value						
	fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.54		EM HSI =	0.86	EM HSI =	0.94
Open Water HSI =		0.92		OW HSI =	1.00	OW HSI =	1.00

Project: Lake Lery Dedicated Dredging - Area 3
FWP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V2	% Aquatic	100	1.00				
V3	Interspersion Class 2 Class 4	% 20		%		%	
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 = 0.99		OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Lake Lery Dedicated Dredging - Area 3

Future Without Project			Total	Cumulative
TY	Marsh Acres	x HSI	HUs	HUs
0	261	0.54	141.67	
1	252	0.53	133.41	137.52
20	201	0.48	96.86	2179.87
			AAHUs =	115.87

Future With Project			Total	Cumulative
TY	Marsh Acres	x HSI	HUs	HUs
0	261	0.54	141.67	
1	217	0.86	186.02	166.15
3	601	0.94	562.10	738.14
20	538	0.87	466.19	8728.23
			AAHUs	481.63

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Barataria Basin Landbridge Shoreline Protection (Northeast only)

Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
Northeast	121

TOTAL BENEFITS = 121 AAHUS

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **Barataria Basin Landbridge Shoreline Protection**
Northeast Extension

Project Area:
 Fresh.....

Condition: Future Without Project

Intermediate.. **706**

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	86	0.87	83	0.85	35	0.42
V2	% Aquatic	50	0.55	42	0.48	11	0.20
V3	Interspersion	%		%		%	
	Class 1	40	0.76	40	0.76	20	0.48
	Class 2	60		60		30	
	Class 3						
	Class 4					50	
V4	%OW <= 1.5ft	40	0.55	34	0.48	9	0.20
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	3		3		3	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI			0.89	EM HSI =	0.87	EM HSI =	0.54
Open Water HSI			0.67	OW HSI =	0.61	OW HSI =	0.36

Project: **Barataria Basin Landbridge Shoreline Protection**
Northeast Extension

Project Area:
 Fresh.....

Condition: Future With Project

Intermediate.. **706**

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	86	0.87	86	0.87	83	0.85
V2	% Aquatic	50	0.55	50	0.55	50	0.55
V3	Interspersion	%		%		%	
	Class 1	40	0.76	40	0.76	40	0.64
	Class 2	60		60			
	Class 3					60	
	Class 4						
V4	%OW <= 1.5ft	40	0.55	40	0.55	40	0.55
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	3		3		3	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI			0.89	EM HSI =	0.89	EM HSI =	0.86
Open Water HSI			0.67	OW HSI =	0.67	OW HSI =	0.66

AAHU CALCULATION - EMERGENT MARSH

Project: Barataria Basin Landbridge Shoreline Protection
Northeast Extension

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	604	0.89	538.02	
1	586	0.87	511.47	524.69
20	250	0.54	134.54	5781.10
			AAHUs =	315.29

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	604	0.89	538.02	
1	603	0.89	537.13	537.58
20	584	0.86	501.94	9869.29
			AAHUs	520.34

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs	520.34
B. Future Without Project Emergent Marsh AAHUs	315.29
Net Change (FWP - FWOP) =	205.05

AAHU CALCULATION - OPEN WATER

Project: Barataria Basin Landbridge Shoreline Protection
Northeast Extension

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	102	0.67	68.12	
1	120	0.61	73.59	71.02
20	456	0.36	162.46	2515.87
			AAHUs =	129.34

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Dedicated Dredging on the Barataria Basin Landbridge

The WVA for this project includes 1 area. Total benefits for this project are as follows

<u>Area</u>	<u>AAHUs</u>
1	339

TOTAL BENEFITS = 339 AAHUS

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **Dedicated Dredging on the Barataria Basin Landbridge**
without vegetative plantings

Project Area:
Fresh.....

Condition: Future Without Project

Intermediate.. 1,282

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	39	0.45	31	0.38
V2	% Aquatic	30	0.37	30	0.37	30	0.37
V3	Interspersion	%		%		%	
	Class 1		0.32		0.32		0.31
	Class 2						
	Class 3	60		60		55	
	Class 4	40		40		45	
V4	%OW <= 1.5ft	24	0.37	24	0.37	15	0.27
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	3		3		3	
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 = 0.49	
Open Water HSI		= 0.49		OW HSI = 0.49		OW HSI = 0.49	

Project: **Dedicated Dredging on the Barataria Basin Landbridge**
without vegetative plantings

Project Area:
Fresh.....

Condition: Future With Project

Intermediate.. 1,282

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	80	0.82	86	0.87
V2	% Aquatic	30	0.37	80	0.82	80	0.82
V3	Interspersion	%		%		%	
	Class 1		0.32	100	1.00	100	1.00
	Class 2						
	Class 3	60					
	Class 4	40					
V4	%OW <= 1.5ft	24	0.37	90	1.00	90	1.00
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	3		3		3	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.00		1.00		1.00	
Emergent Marsh HSI		: 0.55		EM HSI = 0.88		EM HSI = 0.92	
Open Water HSI		= 0.49		OW HSI = 0.89		OW HSI = 0.89	

AAHU CALCULATION - OPEN WATER

Project: Dedicated Dredging on the Barataria Basin Landbridge
without vegetative plantings

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	780	0.49	385.45	
1	786	0.49	388.42	386.93
20	883	0.49	429.07	7768.69
			AAHUs =	407.78

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	780	0.49	385.45	
1	79	0.89	70.50	274.51
3	117	0.89	104.42	174.92
5	143	0.89	127.62	232.03
20	319	0.82	263.06	2959.89
			AAHUs	182.07

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	182.07
B. Future Without Project Open Water AAHUs =	407.78
Net Change (FWP - FWOP) =	-225.71

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	607.94
B. Open Water Habitat Net AAHUs =	-225.71
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.	339.02

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration

The WVA for this project includes 1 area. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
1	88

TOTAL BENEFITS =	88	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Headland

Project..... **Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration**

FWP

Variable		TY 10		TY 14		TY 20	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	0	0.10	0	0.10
V1b	% Dune Vegetated	0	0.10	0	0.10	0	0.10
V2a	% Supratidal	100	0.50	100	0.50	100	0.50
V2b	% Supratidal Vegetated	30	0.49	60	0.88	70	1.00
V3	% Woody Cover	0	0.10	10	0.70	15	1.00
V4	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.389		HSI = 0.532		HSI = 0.597	

AAHU CALCULATION

Project: **Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration**

Future Without Project			Total HUs	Cumulative HUs
TY	Acres	x HSI		
0	0		0.00	
1	0		0.00	0.00
10	0		0.00	0.00
20	0		0.00	0.00
			AAHUs =	0.00

Future With Project			Total HUs	Cumulative HUs
TY	Acres	x HSI		
0	0		0.00	
1	0		0.00	0.00
3	0		0.00	0.00
10	91	0.389	35.41	82.62
14	86	0.532	45.77	162.83
20	77	0.597	45.97	275.80
			AAHUs	26.06

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHUs =	26.06
B. Future Without Project AAHUs =	0.00
Net Change (FWP - FWOP) =	26.06

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration Project Area: 268

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	8	0.17	8	0.17	6	0.15
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	%	0.20	%	0.20	%	0.20
		100		100		100	
V4	%OW <= 1.5ft	7	0.19	7	0.19	6	0.18
V5	Salinity (ppt)	17	1.00	17	1.00	17	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.34		EM HSI =	0.34	EM HSI =	0.32
Open Water HSI =		0.65		OW HSI =	0.65	OW HSI =	0.65

Project: Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration
FWOP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	4	0.14				
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	%	0.20	%		%	
		100					
V4	%OW <= 1.5ft	5	0.16				
V5	Salinity (ppt)	17	1.00				
V6	Access Value	1.00	1.00				
EM HSI =		0.31		EM HSI =		EM HSI =	
OW HSI =		0.65		OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration Project Area: 268

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	8	0.17	78	0.80	87	0.88
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.20	90 10	0.92	85 15	0.88
V4	%OW <= 1.5ft	7	0.19	20	0.36	9	0.22
V5	Salinity (ppt)	17	1.00	17	1.00	17	1.00
V6	Access Value	1	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.34		EM HSI = 0.87		EM HSI = 0.92	
Open Water HSI =		0.65		OW HSI = 0.72		OW HSI = 0.71	

Project: Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration

FWP

Variable		TY 10		TY 20		Value	SI
		Value	SI	Value	SI		
V1	% Emergent	68	0.71	54	0.59		
V2	% Aquatic	0	0.30	0	0.30		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	65	0.72	40 10 50	0.56	%	
V4	%OW <= 1.5ft	9	0.22	9	0.22		
V5	Salinity (ppt)	17	1.00	17	1.00		
V6	Access Value	1.00	1.00	1.00	1.00		
EM HSI =		0.79		EM HSI = 0.69		EM HSI =	
OW HSI =		0.69		OW HSI = 0.68		OW HSI =	

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Little Lake Shoreline Protection/Dedicated Dredging near Round Lake

The WVA for this project includes 3 subareas. Total benefits for this project are as follow

<u>Area</u>	<u>AAHUs</u>
A	293
B	15
C	40

TOTAL BENEFITS =	349	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **Little Lake Shoreline Protection/Dedicated Dredging near Round Lake - Area A** Project Area:
 Fresh.....
 Condition: Future Without Project Intermediate.. **1,074**

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	50	0.55	49	0.54	31	0.38
V2	% Aquatic	10	0.19	10	0.19	10	0.19
V3	Interspersion	%		%		%	
	Class 1	20	0.44	20	0.44		0.28
	Class 2					20	
	Class 3	40		40			
	Class 4	40		40		80	
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			0.63	EM HSI =	0.63	EM HSI =	0.49
Open Water HSI			0.38	OW HSI =	0.38	OW HSI =	0.37

Project: **Little Lake Shoreline Protection/Dedicated Dredging near Round Lake - Area A** Project Area:
 Fresh.....
 Condition: Future With Project Intermediate.... **1,074**

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	50	0.55	85	0.87	90	0.91
V2	% Aquatic	10	0.19	10	0.19	15	0.24
V3	Interspersion	%		%		%	
	Class 1	20	0.44	100	1.00	100	1.00
	Class 2						
	Class 3	40					
	Class 4	40					
V4	%OW <= 1.5ft	55	0.72	90	1.00	90	1.00
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			0.63	EM HSI =	0.91	EM HSI =	0.94
Open Water HSI			0.38	OW HSI =	0.45	OW HSI =	0.48

Project: Little Lake Shoreline Protection/Dedicated Dredging near FWP

Variable		TY 5		TY 20			
		Value	SI	Value	SI	Value	SI
V1	% Emergent	91	0.92	79	0.81		
V2	% Aquatic	15	0.24	15	0.24		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 70 30	0.88	%	
V4	%OW <= 1.5ft	85	1.00	80	1.00		
V5	Salinity (ppt) fresh intermediate	4	1.00	4	1.00		
V6	Access Value fresh intermediate	1.00	1.00	1.00	1.00		
		EM HSI = 0.95		EM HSI = 0.86		EM HSI =	
		OW HSI = 0.48		OW HSI = 0.48		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Little Lake Shoreline Protection/Dedicated Dredging near Round Lake - Area A

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	532	0.63	336.54	
1	521	0.63	326.22	331.37
20	336	0.49	164.22	4578.65
			AAHUs =	245.50

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	532	0.63	336.54	
1	315	0.91	287.11	321.91
3	661	0.94	622.14	905.82
5	976	0.95	924.40	1545.92
20	853	0.86	735.35	12422.02
			AAHUs	759.78

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs	759.78
B. Future Without Project Emergent Marsh AAHUs	245.50
Net Change (FWP - FWOP) =	514.28

AAHU CALCULATION - OPEN WATER

Project: Little Lake Shoreline Protection/Dedicated Dredging near Round Lake - Area A

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	542	0.38	207.99	
1	553	0.38	212.21	210.10
20	738	0.37	274.45	4630.21
			AAHUs =	242.02

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	542	0.38	207.99	
1	54	0.45	24.09	121.10
3	71	0.48	34.42	58.28
5	98	0.48	47.50	81.92
20	221	0.48	105.16	1147.74
			AAHUs	70.45

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	70.45
B. Future Without Project Open Water AAHUs =	242.02
Net Change (FWP - FWOP) =	-171.56

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	514.28
B. Open Water Habitat Net AAHUs =	-171.56
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	293.04

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **Little Lake Shoreline Protection/Dedicated Dredging near Round Lake - Area B** Project Area: Fresh.....
 Condition: Future Without Project Intermediate.. **93**

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	61	0.65	56	0.60	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion	%	0.52	%	0.52	%	0.10
	Class 1						
	Class 2	80		80			
	Class 3						
	Class 4	20		20			
	Class 5					100	
V4	%OW <= 1.5ft	50	0.66	50	0.66	0	0.10
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			0.71	EM HSI =	0.68	EM HSI =	0.24
Open Water HSI			0.30	OW HSI =	0.30	OW HSI =	0.23

Project: **Little Lake Shoreline Protection/Dedicated Dredging near Round Lake - Area B** Project Area: Fresh.....
 Condition: Future With Project Intermediate.... **93**

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	61	0.65	61	0.65	61	0.65
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion	%	0.52	%	0.52	%	0.52
	Class 1						
	Class 2	80		80		80	
	Class 3						
	Class 4	20		20		20	
	Class 5						
V4	%OW <= 1.5ft	50	0.66	50	0.66	50	0.66
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			0.71	EM HSI =	0.71	EM HSI =	0.71
Open Water HSI			0.30	OW HSI =	0.30	OW HSI =	0.30

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	10.80
B. Future Without Project Open Water AAHUs	=	16.92
Net Change (FWP - FWOP)	=	-6.12

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	25.24
B. Open Water Habitat Net AAHUs	=	-6.12
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	15.13

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: [Little Lake Shoreline Protection/Dedicated Dredging near Round Lake - Area C](#) Project Area: Fresh.....
Condition: Future Without Project Intermediate.. 206

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	67	0.70	64	0.68	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 75 25	0.80	% 70 30	0.76	% 100	0.10
V4	%OW <= 1.5ft	5	0.16	4	0.15	0	0.10
V5	Salinity (ppt) fresh intermediate	 4	1.00	 4	1.00	 4	1.00
V6	Access Value fresh intermediate	 1.00	1.00	 1.00	1.00	 1.00	1.00
Emergent Marsh HSI		0.78		EM HSI = 0.76		EM HSI = 0.24	
Open Water HSI		: 0.28		OW HSI = 0.28		OW HSI = 0.23	

Project: **Little Lake Shoreline Protection/Dedicated Dredging near Round Lake - Area C** Project Area: Fresh.....
 Condition: Future With Project Intermediate.... 206

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	67	0.70	67	0.70	67	0.70
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1	75	0.80	75	0.80	75	0.80
	Class 2						
	Class 3						
	Class 4	25		25		25	
V4	%OW <= 1.5ft	5	0.16	5	0.16	5	0.16
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 = 0.78	EM HSI = 0.78	EM HSI = 0.78	
Open Water HSI			0.28	OW HSI = 0.28	OW HSI = 0.28	OW HSI = 0.28	

AAHU CALCULATION - EMERGENT MARSH

Project: **Little Lake Shoreline Protection/Dedicated Dredging near Round Lake - Area C**

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	139	0.78	108.40	
1	131	0.76	99.14	103.74
20	0	0.24	0.00	725.94
			AAHUs =	41.48

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	139	0.78	108.40	
1	139	0.78	108.40	108.40
20	139	0.78	108.40	2059.59
			AAHUs	108.40

NET CHANGE IN AAHUs DUE TO PROJECT	
Net Change (FWP - FWOP) =	66.92

AAHU CALCULATION - OPEN WATER

Round Lake - Area C

Future Without Project			Total	Cumulative
0	67	0.28	18.98	
1	75	0.28	20.96	19.97
20	206	0.23	46.80	665.38
AAHUs =			34.27	

Future With Project			Total	Cumulative
TY	Water Acres	x HSI	HUs	HUs
0	67	0.28	18.98	
1	67	0.28	18.98	18.98
20	67	0.28	18.98	360.54
AAHUs			18.98	

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	18.98
B. Future Without Project Open Water AAHUs =	34.27
Net Change (FWP - FWOP) =	-15.29

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	66.92
B. Open Water Habitat Net AAHUs =	-15.29
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	40.40

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project South Shore of the Pen/Bayou Dupont Shoreline Protection/ Marsh Creation

The WVA for this project includes 3 subareas. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
A	78
B	141
C	3

TOTAL BENEFITS =	222 AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area A**
 Condition: Future Without Project

Project Area:
 Fresh.....
 Intermediate.. **275**

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	41	0.47	40	0.46	23	0.31
V2	% Aquatic	30	0.37	30	0.37	30	0.37
V3	Interspersion	%	0.36	%	0.36	%	0.28
	Class 1						
	Class 2	20		20			
	Class 3	40		40		40	
	Class 4	40		40		60	
V4	%OW <= 1.5ft	100	0.60	99	0.64	89	1.00
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			0.56	EM HSI =	0.56	EM HSI =	0.43
Open Water HSI			0.51	OW HSI =	0.52	OW HSI =	0.54

Project: **South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area A**
 Condition: Future With Project

Project Area:
 Fresh.....
 Intermediate... **275**

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	41	0.47	85	0.87	88	0.89
V2	% Aquatic	30	0.37	30	0.37	40	0.46
V3	Interspersion	%	0.36	%	0.96	%	0.96
	Class 1						
	Class 2	20		10		10	
	Class 3	40					
	Class 4	40					
V4	%OW <= 1.5ft	100	0.60	100	0.60	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			0.56	EM HSI =	0.91	EM HSI =	0.92
Open Water HSI			0.51	OW HSI =	0.56	OW HSI =	0.62

Project: South Shore of the Pen/Bayou Dupont Shoreline Protection and FWP

Variable		TY 5		TY 20			
		Value	SI	Value	SI	Value	SI
V1	% Emergent	91	0.92	81	0.83		
V2	% Aquatic	40	0.46	40	0.46		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 90 10	0.96	% 70 30	0.88	%	
V4	%OW <= 1.5ft	100	0.60	100	0.60		
V5	Salinity (ppt) fresh intermediate	4	1.00	4	1.00		
V6	Access Value fresh intermediate	1.00	1.00	1.00	1.00		
		EM HSI = 0.94		EM HSI = 0.87		EM HSI =	
		OW HSI = 0.62		OW HSI = 0.62		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area A

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	114	0.56	64.40	
1	111	0.56	61.97	63.19
20	62	0.43	26.84	824.30
			AAHUs =	44.37

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	114	0.56	64.40	
1	100	0.91	90.70	78.35
3	154	0.92	142.43	232.81
5	249	0.94	234.73	376.60
20	221	0.87	193.18	3204.56
			AAHUs	194.62

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs	194.62
B. Future Without Project Emergent Marsh AAHUs	44.37
Net Change (FWP - FWOP) =	150.24

AAHU CALCULATION - OPEN WATER

Project: South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area A

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	161	0.51	82.78	
1	164	0.52	84.81	83.79
20	213	0.54	114.57	1890.86
			AAHUs =	98.73

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	161	0.51	82.78	
1	17	0.56	9.50	47.21
3	22	0.62	13.73	23.12
5	26	0.62	16.23	29.96
20	54	0.62	33.38	372.45
			AAHUs	23.64

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	23.64
B. Future Without Project Open Water AAHUs =	98.73
Net Change (FWP - FWOP) =	-75.10

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	150.24
B. Open Water Habitat Net AAHUs =	-75.10
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	77.55

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area B**
 Condition: Future Without Project

Project Area:
 Fresh.....
 Intermediate.. 410

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	12	0.21	11	0.20	8	0.17
V2	% Aquatic	30	0.37	30	0.37	30	0.37
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	15	0.27	15	0.27	10	0.21
V5	Salinity (ppt) fresh intermediate	 4	1.00	 4	1.00	 4	1.00
V6	Access Value fresh intermediate	 1.00	1.00	 1.00	1.00	 1.00	1.00
Emergent Marsh HSI		0.34		EM HSI = 0.34		EM HSI = 0.31	
Open Water HSI		0.48		OW HSI = 0.48		OW HSI = 0.47	

Project: **South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area B**
 Condition: Future With Project

Project Area:
 Fresh.....
 Intermediate... 410

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	12	0.21	100	1.00	93	0.94
V2	% Aquatic	30	0.37	30	0.37	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	15	0.27	0	0.10	100	0.60
V5	Salinity (ppt) fresh intermediate	 4	1.00	 4	1.00	 4	1.00
V6	Access Value fresh intermediate	 1.00	1.00	 1.00	1.00	 1.00	1.00
Emergent Marsh HSI		0.34		EM HSI = 1.00		EM HSI = 0.96	
Open Water HSI		0.48		OW HSI = 0.52		OW HSI = 0.63	

Project: South Shore of the Pen/Bayou Dupont Shoreline Protection and FWP

Variable		TY 5		TY 20			
		Value	SI	Value	SI	Value	SI
V1	% Emergent	95	0.96	83	0.85		
V2	% Aquatic	40	0.46	40	0.46		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 70 30	0.88	%	
V4	%OW <= 1.5ft	100	0.60	100	0.60		
V5	Salinity (ppt) fresh intermediate	4	1.00	4	1.00		
V6	Access Value fresh intermediate	1.00	1.00	1.00	1.00		
		EM HSI = 0.97		EM HSI = 0.89		EM HSI =	
		OW HSI = 0.63		OW HSI = 0.62		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area B

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	48	0.34	16.49	
1	47	0.34	15.79	16.14
20	33	0.31	10.32	246.99
			AAHUs =	13.16

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	48	0.34	16.49	
1	60	1.00	60.00	36.93
3	153	0.96	146.72	207.99
5	391	0.97	379.55	525.34
20	338	0.89	299.52	5081.84
			AAHUs	292.60

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs	292.60
B. Future Without Project Emergent Marsh AAHUs	13.16
Net Change (FWP - FWOP) =	279.45

AAHU CALCULATION - OPEN WATER

Project: South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area B

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	362	0.48	172.96	
1	363	0.48	173.43	173.20
20	377	0.47	178.55	3344.05
			AAHUs =	175.86

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	362	0.48	172.96	
1	0	0.52	0.00	89.30
3	11	0.63	6.90	6.52
5	19	0.63	11.91	18.81
20	72	0.62	44.51	424.32
			AAHUs	26.95

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	26.95
B. Future Without Project Open Water AAHUs =	175.86
Net Change (FWP - FWOP) =	-148.91

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	279.45
B. Open Water Habitat Net AAHUs =	-148.91
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	141.27

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area C**
 Condition: Future Without Project

Project Area:
 Fresh.....
 Intermediate.. **13**

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10	0	0.10	0	0.10
V2	% Aquatic	30	0.37	30	0.37	30	0.37
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.10	% 100	0.10	% 100	0.10
V4	%OW <= 1.5ft	5	0.16	5	0.16	0	0.10
V5	Salinity (ppt) fresh intermediate	 4	1.00	 4	1.00	 4	1.00
V6	Access Value fresh intermediate	 1.00	1.00	 1.00	1.00	 1.00	1.00
Emergent Marsh HSI		0.24		EM HSI = 0.24		EM HSI = 0.24	
Open Water HSI		0.46		OW HSI = 0.46		OW HSI = 0.46	

Project: **South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area C**
 Condition: Future With Project

Project Area:
 Fresh.....
 Intermediate... **13**

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10	33	0.40	69	0.72
V2	% Aquatic	30	0.37	30	0.37	40	0.46
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.10	% 35	0.72	% 35	0.72
V4	%OW <= 1.5ft	5	0.16	100	0.60	100	0.60
V5	Salinity (ppt) fresh intermediate	 4	1.00	 4	1.00	 4	1.00
V6	Access Value fresh intermediate	 1.00	1.00	 0.65	0.72	 0.70	0.76
Emergent Marsh HSI		0.24		EM HSI = 0.53		EM HSI = 0.76	
Open Water HSI		0.46		OW HSI = 0.51		OW HSI = 0.58	

Project: South Shore of the Pen/Bayou Dupont Shoreline Protection and FWP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V2	% Aquatic	40	0.46				
	Class 1 Class 3 Class 5	60	0.68				
V4	%OW <= 1.5ft	90	1.00				
V5	Salinity (ppt) fresh intermediate	4	1.00				
V6	Access Value fresh intermediate	0.90	0.92				
			EM HSI =	0.73	EM HSI =		EM HSI =
			OW HSI =	0.62	OW HSI =		OW HSI =

AAHU CALCULATION - EMERGENT MARSH

Project: South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area C

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	0	0.24	0.00	
1	0	0.24	0.00	0.00
20	0	0.24	0.00	0.00
			AAHUs =	0.00

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	0	0.24	0.00	
1	2	0.53	1.06	0.43
3	9	0.76	6.81	7.35
20	8	0.73	5.82	107.31
			AAHUs	5.75

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs	5.75
B. Future Without Project Emergent Marsh AAHUs	0.00
Net Change (FWP - FWOP) =	5.75

AAHU CALCULATION - OPEN WATER

Project: South Shore of the Pen/Bayou Dupont Shoreline Protection and Marsh Creation - Area C

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	13	0.46	6.01	
1	13	0.46	6.01	6.01
20	13	0.46	5.95	113.61
			AAHUs =	5.98

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	13	0.46	6.01	
1	4	0.51	2.05	4.10
3	4	0.58	2.31	4.36
20	5	0.62	3.12	46.02
NET CHANGE IN AAHUs DUE TO PROJECT				
A. Future With Project Open Water AAHUs =				2.72
B. Future Without Project Open Water AAHUs =				5.98
Net Change (FWP - FWOP) =				-3.26

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs =		5.75
B. Open Water Habitat Net AAHUs =		-3.26
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1		2.85

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project West Lake Boudreaux Shoreline Protection and Marsh Creation

The WVA for this project includes 1 area. Total benefits for this project are as follows:

$$\frac{\text{Area}}{1} \qquad \frac{\text{AAHUs}}{88}$$

TOTAL BENEFITS =	88	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: [West Lake Boudreaux Shoreline Protection and Marsh Creation](#)

Project Area:

Fresh.....

Condition: Future Without Project

Intermediate.. **1,177**

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	21	0.29	20	0.28	12	0.21
V2	% Aquatic	40	0.46	40	0.46	20	0.28
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 18 82	0.24	% 18 82	0.24	% 100	0.20
V4	%OW <= 1.5ft	5	0.16	5	0.16	5	0.16
V5	Salinity (ppt) fresh intermediate	 5	0.80	 5	0.80	 6	0.60
V6	Access Value fresh intermediate	 1.00	1.00	 1.00	1.00	 1.00	1.00
Emergent Marsh HSI =		0.39		EM HSI =	0.38	EM HSI =	0.30
Open Water HSI =		0.52		OW HSI =	0.52	OW HSI =	0.37

Project: [West Lake Boudreaux Shoreline Protection and Marsh Creation](#)

FWOP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	5	0.15				
V2	% Aquatic	20	0.28				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	%		%	
V4	%OW <= 1.5ft	5	0.16				
V5	Salinity (ppt) fresh intermediate	 6	0.60				
V6	Access Value fresh intermediate	 1.00	1.00				
EM HSI =		0.24		EM HSI =		EM HSI =	
OW HSI =		0.37		OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: [West Lake Boudreaux Shoreline Protection and Marsh Creation](#)

Project Area:

Fresh.....

Condition: Future With Project

Intermediate.... 1,177

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	21	0.29	23	0.31	29	0.36
V2	% Aquatic	40	0.46	50	0.55	50	0.55
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 18 82	0.24	% 18 82	0.34	% 18 82	0.34
V4	%OW <= 1.5ft	5	0.16	5	0.16	5	0.16
V5	Salinity (ppt) fresh intermediate	 5	0.80	 4	1.00	 4	1.00
V6	Access Value fresh intermediate	 1.00	1.00	 1.00	1.00	 1.00	1.00
Emergent Marsh HSI =		0.39		EM HSI =	0.44	EM HSI =	0.48
Open Water HSI =		0.52		OW HSI =	0.61	OW HSI =	0.61

Project: [West Lake Boudreaux Shoreline Protection and Marsh Creation](#)

FWP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	18	0.26				
V2	% Aquatic	50	0.55				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 18 82	0.27	%		%	
V4	%OW <= 1.5ft	5	0.16				
V5	Salinity (ppt) fresh intermediate	 4	1.00				
V6	Access Value fresh intermediate	 1.00	1.00				
EM HSI =		0.40		EM HSI =		EM HSI =	
OW HSI =		0.60		OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project Bayou Terrebonne East Bank Hydrologic Restoration

The WVA for this project includes 6 subareas. Total benefits for this project are as follow

<u>Area</u>	<u>AAHUs</u>
N2a-Int	98
N2a-Br	12
N3	11
SE	2
N2b	37
S	31

TOTAL BENEFITS =	192	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: Bayou Terrebonne East Bank Hydrologic Restoration
 Area N2a-intermediate
 Condition: Future Without Project

Project Area:
 Fresh.....
 Intermediate.. 6,944

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	57	0.61	56	0.60	51	0.56
V2	% Aquatic	30	0.37	30	0.37	25	0.33
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.40
V4	%OW <= 1.5ft	70	0.89	70	0.89	65	0.83
V5	Salinity (ppt) fresh intermediate	 4	1.00	 4	1.00	 5	0.80
V6	Access Value fresh intermediate	 1.00	1.00	 1.00	1.00	 1.00	1.00
		Emergent Marsh HSI = 0.67		EM HSI = 0.67		EM HSI = 0.61	
		Open Water HSI = 0.54		OW HSI = 0.54		OW HSI = 0.49	

Project: Bayou Terrebonne East Bank Hydrologic Restoration
 FWOP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	46	0.51				
V2	% Aquatic	15	0.24				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	%		%	
V4	%OW <= 1.5ft	55	0.72				
V5	Salinity (ppt) fresh intermediate	 5	0.80				
V6	Access Value fresh intermediate	 1.00	1.00				
		EM HSI = 0.58		EM HSI =		EM HSI =	
		OW HSI = 0.40		OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: Bayou Terrebonne East Bank Hydrologic Restoration
 Area N2a-intermediate
 Condition: Future With Project

Project Area:
 Fresh.....
 Intermediate.. 6,944

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	57	0.61	56	0.60	47	0.52
V2	% Aquatic	30	0.37	35	0.42	20	0.28
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.40
V4	%OW <= 1.5ft	70	0.89	70	0.89	60	0.78
V5	Salinity (ppt) fresh intermediate	4	1.00	3	1.00	4	1.00
V6	Access Value fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		= 0.67		EM HSI = 0.67		EM HSI = 0.61	
Open Water HSI		= 0.54		OW HSI = 0.57		OW HSI = 0.46	

AAHU CALCULATION - EMERGENT MARSH

Project: Bayou Terrebonne East Bank Hydrologic Restoration
 Area N2a-intermediate

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	3940	0.67	2651.04	
1	3900	0.67	2599.41	2625.18
10	3560	0.61	2180.02	21479.83
20	3184	0.58	1846.75	20113.57
			AAHUs =	2210.93

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	3940	0.67	2651.04	
1	3903	0.67	2601.41	2626.18
20	3255	0.61	1981.44	43418.53
			AAHUs	2302.24

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area N2a-Brackish

Project Area: 5,472

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	60	0.64	60	0.64	55	0.60
V2	% Aquatic	10	0.19	10	0.19	8	0.17
V3	Interspersion	%		%		%	
	Class 1	50	0.75	50	0.75	50	0.75
	Class 2	25		25		25	
	Class 3	25		25		25	
	Class 4						
V4	%OW <= 1.5ft	60	0.87	60	0.87	55	0.81
V5	Salinity (ppt)	5	1.00	5	1.00	6	1.00
V6	Access Value	0.30	0.37	0.30	0.37	0.30	0.37
		Emergent Marsh HSI = 0.63		EM HSI = 0.63		EM HSI = 0.61	
		Open Water HSI = 0.39		OW HSI = 0.39		OW HSI = 0.37	

Project: Bayou Terrebonne East Bank Hydrologic Restoration
FWOP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	49	0.54				
V2	% Aquatic	5	0.15				
V3	Interspersion	%		%		%	
	Class 1	40	0.70				
	Class 2	30					
	Class 3	30					
	Class 4						
V4	%OW <= 1.5ft	45	0.68				
V5	Salinity (ppt)	6	1.00				
V6	Access Value	0.30	0.37				
		EM HSI = 0.57		EM HSI =		EM HSI =	
		OW HSI = 0.34		OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area N2b

Project Area:
Fresh.....

Condition: Future Without Project

Intermediate.. 1,996

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	36	0.42	35	0.42	27	0.34
V2	% Aquatic	40	0.46	40	0.46	30	0.37
V3	Interspersion	%	0.33	%	0.33	%	0.30
	Class 1						
	Class 2	15		15		10	
	Class 3	35		35		30	
	Class 4	50		50		60	
V4	%OW <= 1.5ft	10	0.21	10	0.21	10	0.21
V5	Salinity (ppt)		0.80		0.80		0.60
	fresh						
	intermediat	5		5		6	
V6	Access Value		1.00		1.00		1.00
	fresh						
	intermedia	1.00		1.00		1.00	
Emergent Marsh HSI =		0.51	EM HSI =	0.50	EM HSI =	0.42	
Open Water HSI =		0.53	OW HSI =	0.53	OW HSI =	0.45	

Project: Bayou Terrebonne East Bank Hydrologic Restoration
FWOP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	20	0.28				
V2	% Aquatic	20	0.28				
V3	Interspersion	%	0.26	%		%	
	Class 1						
	Class 2						
	Class 3	30					
	Class 4	70					
V4	%OW <= 1.5ft	10	0.21				
V5	Salinity (ppt)		0.60				
	fresh						
	intermediat	6					
V6	Access Value		1.00				
	fresh						
	intermedia	1.00					
EM HSI =		0.36	EM HSI =		EM HSI =		
OW HSI =		0.38	OW HSI =		OW HSI =		

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area N2b

Project Area:
Fresh.....

Condition: Future With Project				Intermediate.. 1,996				
V1	% Emergent	36	0.42	35	0.42	20	0.28	
	Class 1		0.33		0.33		0.26	
	Class 3	35		35		30		
	Class 4	50		50		70		
	Class 5							
V4	%OW <= 1.5ft	10	0.21	10	0.21	10	0.21	
V5	Salinity (ppt)							
	fresh		0.80		1.00		0.80	
	intermediat	5		4		5		
V6	Access Value							
	fresh		1.00		1.00		1.00	
	intermedia	1.00		1.00		1.00		
Emergent Marsh HSI =			0.51	EM HSI =		0.52	EM HSI = 0.39	
Open Water HSI =			0.53	OW HSI =		0.58	OW HSI = 0.43	

AAHU CALCULATION - EMERGENT MARSH

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area N2b

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	710	0.51	359.28	
1	690	0.50	344.51	351.87
10	534	0.42	223.67	2537.99
20	397	0.36	144.83	1830.15
			AAHUs =	236.00

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	710	0.51	359.28	
1	691	0.52	360.36	359.87
20	409	0.39	158.29	4807.16
			AAHUs	258.35

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area N3

Project Area: 3,361

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	36	0.42	35	0.42	28	0.35
V2	% Aquatic	20	0.28	20	0.28	18	0.26
V3	Interspersion Class 1 Class 3 Class 4	% 60	0.48	% 60	0.48	% 70	0.46
V5	Salinity (ppt)	6	1.00	6	1.00	7	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		Emergent Marsh HSI = 0.57		EM HSI = 0.56		EM HSI = 0.51	

FWOP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	22	0.30				
V2	% Aquatic	15	0.24				
V3	Interspersion Class 1 Class 2 Class 3	% 20 40	0.36	%		%	
V4	%OW <= 1.5ft	15	0.29				
V5	Salinity (ppt)	7	1.00				
V6	Access Value	1.00	1.00				
		EM HSI = 0.46		EM HSI =		EM HSI =	
		OW HSI = 0.45		OW HSI =		OW HSI =	

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area N3

Project Area: 3,361

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	36	0.42	35	0.42	22	0.30
V2	% Aquatic	20	0.28	20	0.28	18	0.26
V3	Interspersion Class 1	%	0.48	%	0.48	%	0.36
	Class 2	40		40		20	
	Class 3	60		60		40	
	Class 4					40	
	Class 5						
V4	%OW <= 1.5ft	20	0.36	20	0.36	18	0.33
V5	Salinity (ppt)	6	1.00	5	1.00	6	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =			0.57	EM HSI =	0.56	EM HSI =	0.46
Open Water HSI =			0.50	OW HSI =	0.50	OW HSI =	0.47

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area N3

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	1219	0.57	690.48	
1	1189	0.56	665.67	678.04
10	948	0.51	484.04	5155.88
20	729	0.46	333.59	4068.80
			AAHUs =	495.14

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	1219	0.57	690.48	
1	1190	0.56	666.23	678.32
20	748	0.46	342.28	9437.68
			AAHUs	505.80

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area S

Project Area:
Fresh.....

Condition: Future Without Project

Intermediate.. 1,970

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
WETLAND VALUE ASSESSMENT COMMUNITY MODEL							
V1	% Emergent	57	0.61	57	0.61	50	0.55
V2	% Aquatic	30	0.37	30	0.37	25	0.33
	Class 1 Class 2 Class 3 Class 4 Class 5	100	0.40	100	0.40	100	0.40
V4	%OW <= 1.5ft	30	0.44	30	0.44	25	0.38
V5	Salinity (ppt) fresh intermediat	5	0.80	5	0.80	6	0.60
V6	Access Value fresh intermedia	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	0.65	EM HSI =	0.65	EM HSI =	0.58
Open Water HSI		=	0.49	OW HSI =	0.49	OW HSI =	0.44

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area S

Project Area:
Fresh.....

Condition: Future With Project

Intermediate.. 1,970

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	57	0.61	57	0.61	50	0.55
V2	% Aquatic	30	0.37	35	0.42	30	0.37
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.40
V4	%OW <= 1.5ft	30	0.44	30	0.44	25	0.38
V5	Salinity (ppt) fresh intermediat	5	0.80	4	1.00	5	0.80
V6	Access Value fresh intermedia	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	0.65	EM HSI =	0.67	EM HSI =	0.61
Open Water HSI		=	0.49	OW HSI =	0.54	OW HSI =	0.49

AAHU CALCULATION - EMERGENT MARSH

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area S

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	1129	0.65	734.56	
1	1121	0.65	729.36	731.96
20	985	0.58	574.95	12362.11
			AAHUs =	654.70

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	1129	0.65	734.56	
1	1122	0.67	754.94	744.78
20	994	0.61	602.29	12866.60
			AAHUs	680.57

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	680.57
B. Future Without Project Emergent Marsh AAHUs =	654.70
Net Change (FWP - FWOP) =	25.87

AAHU CALCULATION - OPEN WATER

Project: Bayou Terrebonne East Bank Hydrologic Restoration Area S

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	841	0.49	412.33	
1	849	0.49	416.25	414.29
20	985	0.44	430.54	8067.43
			AAHUs =	424.09

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	841	0.49	412.33	
1	848	0.54	456.45	434.33
20	976	0.49	474.45	8864.64
			AAHUs	464.95

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	464.95

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	25.87
B. Open Water Habitat Net AAHUs	=	40.86
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1		30.70

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: [Bayou Terrebonne East Bank Hydrologic Restoration Area SE](#)

Project Area: 1,254

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	25	0.33	25	0.33	20	0.28
V2	% Aquatic	3	0.32	3	0.32	0	0.30
V3	Interspersion	%	0.28	%	0.28	%	0.26
	Class 1						
	Class 2						
	Class 3	40		40		30	
	Class 4	60		60		70	
V4	%OW <= 1.5ft	7	0.19	7	0.19	5	0.16
V5	Salinity (ppt)	7	1.00	7	1.00	9	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	0.48	EM HSI =	0.48	EM HSI =	0.44
Open Water HSI		=	0.67	OW HSI =	0.67	OW HSI =	0.66

Project: [Bayou Terrebonne East Bank Hydrologic Restoration FWOP](#)

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	16	0.24				
V2	% Aquatic	0	0.30				
V3	Interspersion	%	0.24	%		%	
	Class 1						
	Class 2						
	Class 3	20					
	Class 4	80					
V4	%OW <= 1.5ft	2	0.13				
V5	Salinity (ppt)	10	1.00				
V6	Access Value	1.00	1.00				
EM HSI		=	0.41	EM HSI =		EM HSI =	
OW HSI		=	0.65	OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area SE

Project Area: 1,254

Condition: Future With Project

Variable		TY 0		TY 1		TY 20			
		Value	SI	Value	SI	Value	SI		
V1	% Emergent	25	0.33	25	0.33	16	0.24		
V2	% Aquatic	3	0.32	3	0.32	0	0.30		
V3	Interspersion	%	0.28	%	0.28	%	0.24		
	Class 1								
	Class 2								
	Class 3	40		40		20			
	Class 4	60		60		80			
V4	%OW <= 1.5ft	7	0.19	7	0.19	4	0.15		
V5	Salinity (ppt)	7	1.00	6	1.00	9	1.00		
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00		
Emergent Marsh HSI		=	0.48	EM HSI	=	0.48	EM HSI	=	0.41
Open Water HSI		=	0.67	OW HSI	=	0.67	OW HSI	=	0.65

AAHU CALCULATION - EMERGENT MARSH

Project: Bayou Terrebonne East Bank Hydrologic Restoration
Area SE

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	318	0.48	151.69	
1	311	0.48	148.35	150.02
10	252	0.44	110.72	1162.50
20	197	0.41	80.34	952.41
			AAHUs =	113.25

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	318	0.48	151.69	
1	311	0.48	148.35	150.02
20	200	0.41	81.56	2159.81
			AAHUs	115.49

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs	= 115.49
B. Future Without Project Emergent Marsh AAHUs	= 113.25
Net Change (FWP - FWOP) =	2.25

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Blue Hammock Bayou Hydrologic Restoration and Beneficial Use

The WVA for this project includes 3 subareas. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
A	173
B	423
C	3

TOTAL BENEFITS =	599 AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **Blue Hammock Hydrologic Restoration and Beneficial Use Area A**

Project Area:
 Fresh.....
 Intermediate.. **6,693**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	71	0.74	70	0.73	63	0.67
V2	% Aquatic	50	0.55	50	0.55	40	0.46
V3	Interspersion	%		%		%	
	Class 1	50	0.74	50	0.74	40	0.68
	Class 2	20		20		20	
	Class 3	30		30		40	
	Class 5						
V4	%OW <= 1.5ft	75	0.94	75	0.94	70	0.89
V5	Salinity (ppt)						
	fresh intermediate	4.5	0.90	4.5	0.90	6	0.60
V6	Access Value						
	fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.79	0.79	EM HSI =	0.78	EM HSI =	0.70
Open Water HSI =		0.69	0.69	OW HSI =	0.69	OW HSI =	0.59

Project: **Blue Hammock Hydrologic Restoration and Beneficial Use Area A**

Project Area:
 Fresh.....
 Intermediate.... **6,693**

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	71	0.74	71	0.74	65	0.69
V2	% Aquatic	50	0.55	55	0.60	50	0.55
V3	Interspersion	%		%		%	
	Class 1	50	0.74	50	0.74	40	0.69
	Class 2	20		20		25	
	Class 3	30		30		35	
	Class 5						
V4	%OW <= 1.5ft	75	0.94	75	0.94	70	0.89
V5	Salinity (ppt)						
	fresh intermediate	4.5	0.90	3	1.00	4	1.00
V6	Access Value						
	fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.79	0.79	EM HSI =	0.80	EM HSI =	0.76
Open Water HSI =		0.69	0.69	OW HSI =	0.73	OW HSI =	0.69

AAHU CALCULATION - EMERGENT MARSH

Project: Blue Hammock Hydrologic Restoration and Beneficial Use
Area A

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	4745	0.79	3732.97	
1	4716	0.78	3681.20	3707.05
20	4190	0.70	2921.37	62585.49
			AAHUs =	3314.63

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	4745	0.79	3732.97	
1	4723	0.80	3768.14	3750.60
20	4318	0.76	3261.09	66723.10
			AAHUs	3523.69

NET CHANGE IN AAHUs DUE TO PROJECT				
A. Future With Project Emergent Marsh AAHUs	=			3523.69
B. Future Without Project Emergent Marsh AAHUs	=			3314.63
Net Change (FWP - FWOP) =				209.06

AAHU CALCULATION - OPEN WATER

Project: Blue Hammock Hydrologic Restoration and Beneficial Use
Area A

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	1948	0.69	1340.47	
1	1977	0.69	1360.43	1350.45
20	2503	0.59	1489.26	27227.16
			AAHUs =	1428.88

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	1948	0.69	1340.47	
1	1970	0.73	1429.66	1384.93
20	2375	0.69	1633.20	29145.97
			AAHUs	1526.54

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	1526.54
B. Future Without Project Open Water AAHUs	=	1428.88
Net Change (FWP - FWOP)	=	97.66

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	209.06
B. Open Water Habitat Net AAHUs	=	97.66
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	173.12

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: [Blue Hammock Hydrologic Restoration and Beneficial Use Area B](#)

Project Area: 23,523

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20			
		Value	SI	Value	SI	Value	SI		
V1	% Emergent	39	0.45	38	0.44	35	0.42		
V2	% Aquatic	20	0.28	20	0.28	10	0.19		
V3	Interspersion	%	0.36	%	0.36	%	0.34		
	Class 1								
	Class 2	20		20		20			
	Class 3	40		40		30			
	Class 4	40		40		50			
V4	%OW <= 1.5ft	26	0.43	26	0.43	20	0.36		
V5	Salinity (ppt)	8	1.00	8	1.00	10	1.00		
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00		
Emergent Marsh HSI		=	0.57	EM HSI	=	0.57	EM HSI	=	0.54
Open Water HSI		=	0.50	OW HSI	=	0.50	OW HSI	=	0.41

Project: Blue Hammock Hydrologic Restoration and Beneficial Use
Area B

Project Area: 23,523

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	39	0.45	39	0.45
V2	% Aquatic	20	0.28	25	0.33	25	0.33
V3	Interspersion	%	0.36	%	0.36	%	0.36
	Class 1						
	Class 2	20		20		20	
	Class 3	40		40		40	
	Class 4	40		40		40	
V4	%OW <= 1.5ft	26	0.43	26	0.43	26	0.43
V5	Salinity (ppt)	8	1.00	5	1.00	5	1.00
V6	Access Value	1.00	1.00	0.9968	1.00	1.00	1.00
		Emergent Marsh HSI = 0.57		EM HSI = 0.57		EM HSI = 0.57	
		Open Water HSI = 0.50		OW HSI = 0.53		OW HSI = 0.53	

Project: Blue Hammock Hydrologic Restoration and Beneficial Use
FWP

Variable		TY 10		TY 13		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	38	0.44	37	0.43
V2	% Aquatic	25	0.33	25	0.33	20	0.28
V3	Interspersion	%	0.36	%	0.36	%	0.35
	Class 1						
	Class 2	20		20		20	
	Class 3	40		40		35	
	Class 4	40		40		45	
V4	%OW <= 1.5ft	22	0.38	22	0.38	22	0.38
V5	Salinity (ppt)	5	1.00	5	1.00	6	1.00
V6	Access Value	0.9991	1.00	1.00	1.00	1.00	1.00
		EM HSI = 0.57		EM HSI = 0.57		EM HSI = 0.56	
		OW HSI = 0.53		OW HSI = 0.53		OW HSI = 0.49	

AAHU CALCULATION - EMERGENT MARSH

Project: Blue Hammock Hydrologic Restoration and Beneficial Use Area B

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	9076	0.57	5197.37	
1	9027	0.57	5110.76	5154.01
20	8144	0.54	4432.76	90602.33
			AAHUs =	4787.82

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	9076	0.57	5197.37	
1	9099	0.57	5207.99	5202.68
3	9200	0.57	5268.38	10476.36
10	8970	0.57	5077.79	36209.85
13	8900	0.57	5038.86	15174.98
20	8668	0.56	4841.39	34578.82
			AAHUs	5082.13

NET CHANGE IN AAHUs DUE TO PROJECT				
A. Future With Project Emergent Marsh AAHUs	=			5082.13
B. Future Without Project Emergent Marsh AAHUs	=			4787.82
Net Change (FWP - FWOP) =				294.32

AAHU CALCULATION - OPEN WATER

Project: Blue Hammock Hydrologic Restoration and Beneficial Use Area B

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	14447	0.50	7155.37	
1	14496	0.50	7179.64	7167.50
20	15379	0.41	6349.49	128757.18
			AAHUs =	6796.23

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	14447	0.50	7155.37	
1	14252	0.53	7535.37	7346.45
3	14323	0.53	7579.45	15114.81
10	14522	0.53	7627.56	53225.45
13	14623	0.53	7682.49	22965.06
20	14855	0.49	7289.84	52412.50
			AAHUs	7553.21

NET CHANGE IN AAHUs DUE TO PROJECT	
Net Change (FWP - FWOP) =	756.98

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	294.32
B. Open Water Habitat Net AAHUs =	756.98
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	422.83

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: [Blue Hammock Hydrologic Restoration and Beneficial Use Area C](#)

Project Area: 13,339

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	39	0.45	37	0.43
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%	0.41	%	0.41	%	0.41
	Class 1	20		20		20	
	Class 2	25		25		25	
	Class 3	55		55		55	
	Class 4	55		55		55	
V4	%OW <= 1.5ft	5	0.16	5	0.16	5	0.16
V5	Salinity (ppt)	11	1.00	11	1.00	13	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.58		EM HSI =		0.58	
Open Water HSI =		0.67		OW HSI =		0.67	
EM HSI =		0.57		OW HSI =		0.67	

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project Ship Shoal: West Flank Restoration

The WVA for this project includes 1 area. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
A	191

TOTAL BENEFITS = 191 AAHUS

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project: Ship Shoal: Whiskey Pass Closure and Whiskey Island West Flank
West Flank Area

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	0	0.10	0	0.10
V1b	% Dune Vegetated	0	0.10	0	0.10	0	0.10
V2a	% Supratidal	47	0.90	47	0.90	47	0.90
V2b	% Supratidal Vegetated	5	0.17	5	0.17	30	0.49
V3a	% Intertidal	53	1.00	53	1.00	53	1.00
V3b	% Intertidal Vegetated	5	0.18	5	0.18	20	0.40
V4	% Subtidal	59	1.00	58	1.00	47	1.00
V5	% Woody Cover	0	0.10	0	0.10	0	0.10
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.40
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.525		HSI = 0.525		HSI = 0.564	

Project..... Ship Shoal: Whiskey Pass Closure and Whiskey Island West Flank
FWOP

Variable		TY 11		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	0	0.10		
V1b	% Dune Vegetated	0	0.10	0	0.10		
V2a	% Supratidal	47	0.90	47	0.90		
V2b	% Supratidal Vegetated	27	0.45	5	0.17		
V3a	% Intertidal	53	1.00	53	1.00		
V3b	% Intertidal Vegetated	18	0.37	5	0.18		
V4	% Subtidal	48	1.00	63	1.00		
V5	% Woody Cover	0	0.10	0	0.10		
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	%	
V7	Beach/surf Zone	1	1.00	1	1.00		
		HSI = 0.559		HSI = 0.525		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project: Ship Shoal: Whiskey Pass Closure and Whiskey Island West Flank
Area A

Condition: Future Without Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	15	1.00	15	1.00
V1b	% Dune Vegetated	0	0.10	25	0.48	60	1.00
V2a	% Supratidal	47	0.90	30	1.00	30	1.00
V2b	% Supratidal Vegetated	5	0.17	25	0.43	70	1.00
V3a	% Intertidal	53	1.00	55	1.00	55	1.00
V3b	% Intertidal Vegetated	5	0.18	25	0.48	60	1.00
V4	% Subtidal	59	1.00	5	0.33	5	0.33
V5	% Woody Cover	0	0.10	5	0.55	5	0.55
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.60	% 100	0.60
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.525		HSI = 0.754		HSI = 0.861	

Project..... Ship Shoal: Whiskey Pass Closure and Whiskey Island West Flank
FWP

Variable		TY 5		TY 10		TY 11	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	15	1.00	15	1.00	15	1.00
V1b	% Dune Vegetated	65	1.00	70	1.00	70	1.00
V2a	% Supratidal	30	1.00	29	1.00	29	1.00
V2b	% Supratidal Vegetated	75	1.00	50	0.75	70	1.00
V3a	% Intertidal	55	1.00	56	1.00	56	1.00
V3b	% Intertidal Vegetated	65	1.00	60	1.00	70	1.00
V4	% Subtidal	5	0.33	5	0.33	5	0.33
V5	% Woody Cover	10	1.00	10	1.00	10	1.00
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 80	0.68	% 50 50	0.90	% 50 50	0.90
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.918		HSI = 0.939		HSI = 0.951	

Project.....
FWP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	13	1.00				
V1b	% Dune Vegetated	60	1.00				
V2a	% Supratidal	27	1.00				
V2b	% Supratidal Vegetated	60	0.88				
V3a	% Intertidal	60	1.00				
V3b	% Intertidal Vegetated	65	1.00				
V4	% Subtidal	6	0.37				
V5	% Woody Cover	10	1.00				
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.80	%		%	
V7	Beach/surf Zone	1	1.00				
		HSI = 0.933		HSI =		HSI =	

AAHU CALCULATION

Project: Ship Shoal: Whiskey Pass Closure and Whiskey Island West Flank
West Flank Area

Future Without Project		x HSI	Total HUs	Cumulative HUs
TY	Acres			
0	242	0.525	127.08	
1	246	0.525	129.18	128.13
10	280	0.564	157.89	1289.82
11	276	0.559	154.26	156.07
20	234	0.525	122.88	1245.01
			AAHUs = 140.95	

Future With Project		x HSI	Total HUs	Cumulative HUs
TY	Acres			
0	242	0.525	127.08	
1	398	0.754	299.99	207.59
3	387	0.861	333.30	633.69
5	379	0.918	348.02	681.47
10	372	0.939	349.22	1743.20
11	369	0.951	351.01	350.12
20	345	0.933	321.71	3026.58
			AAHUs 332.13	

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHUs =	332.13
B. Future Without Project AAHUs =	140.95
Net Change (FWP - FWOP) =	191.18

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Raccoon Island Shoreline Protection/Marsh Creation

The WVA for this project includes 1 area. Total benefits for this project are as follows:

$\frac{\text{Area}}{A}$	$\frac{\text{AAHUs}}{89}$
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TOTAL BENEFITS =	89	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project: [Raccoon Island Shoreline Protection/Marsh Creation](#)

Condition: Future Without Project

Variable		TY 0		TY 1		TY 11	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	18	0.89	17	0.93	17	0.93
V1b	% Dune Vegetated	77	1.00	77	1.00	75	1.00
V2a	% Supratidal	33	1.00	34	1.00	43	0.96
V2b	% Supratidal Vegetated	51	0.76	50	0.75	48	0.72
V3a	% Intertidal	49	0.96	49	0.96	40	0.55
V3b	% Intertidal Vegetated	25	0.48	25	0.48	43	0.75
V4	% Subtidal	45	1.00	46	1.00	72	1.00
V5	% Woody Cover	28	0.76	29	0.73	35	0.55
V6	Interspersion	%	0.82	%	0.81	%	0.72
	Class 1	70		69		54	
	Class 2						
	Class 3						
	Class 4	30		31		46	
V7	Beach/surf Zone		0.97		0.97		0.97
		HSI = 0.861		HSI = 0.861		HSI = 0.789	

Project..... [Raccoon Island Shoreline Protection/Marsh Creation](#)

FWOP

Variable		TY 15		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	13	1.00	11	1.00		
V1b	% Dune Vegetated	75	1.00	80	1.00		
V2a	% Supratidal	40	1.00	41	0.99		
V2b	% Supratidal Vegetated	47	0.71	45	0.69		
V3a	% Intertidal	47	0.87	48	0.91		
V3b	% Intertidal Vegetated	14	0.31	14	0.31		
V4	% Subtidal	90	1.00	95	1.00		
V5	% Woody Cover	59	0.10	62	0.10		
V6	Interspersion	%	0.58	%	0.57	%	
	Class 1						
	Class 2	44		42			
	Class 3						
	Class 4	56		58			
V7	Beach/surf Zone		0.97		0.97		
		HSI = 0.740		HSI = 0.742		HSI =	

Project: **Raccoon Island Shoreline Protection/Marsh Creation**

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	18	0.89	15	1.00	15	1.00
V1b	% Dune Vegetated	77	1.00	70	1.00	76	1.00
V2a	% Supratidal	33	1.00	70	0.55	50	0.85
V2b	% Supratidal Vegetated	51	0.76	36	0.57	64	0.93
V3a	% Intertidal	49	0.96	40	0.55	35	0.33
V3b	% Intertidal Vegetated	25	0.48	23	0.45	28	0.52
V4	% Subtidal	45	1.00	26	1.00	21	1.00
V5	% Woody Cover	28	0.76	27	0.79	19	1.00
V6	Interspersion	%	0.82	%	0.87	%	0.87
	Class 1	70		78		79	
	Class 2						
	Class 3						
	Class 4	30		22		21	
V7	Beach/surf Zone		0.97		0.93		0.93
		HSI = 0.861		HSI = 0.751		HSI = 0.803	

Project..... **Raccoon Island Shoreline Protection/Marsh Creation**

FWP

Variable		TY 5		TY 7		TY 10	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	14	1.00	14	1.00	11	1.00
V1b	% Dune Vegetated	78	1.00	78	1.00	78	1.00
V2a	% Supratidal	43	0.96	49	0.87	49	0.87
V2b	% Supratidal Vegetated	64	0.93	61	0.89	65	0.95
V3a	% Intertidal	36	0.37	37	0.42	35	0.33
V3b	% Intertidal Vegetated	28	0.52	28	0.52	33	0.60
V4	% Subtidal	21	1.00	19	0.96	21	1.00
V5	% Woody Cover	18	1.00	18	1.00	19	1.00
V6	Interspersion	%	0.87	%	0.88	%	0.87
	Class 1	79		80		79	
	Class 2						
	Class 3						
	Class 4	21		20		21	
V7	Beach/surf Zone		0.93		0.93		0.93
		HSI = 0.823		HSI = 0.815		HSI = 0.813	

Project.....
FWP

Variable		TY 13		TY 15		TY 17	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	11	1.00	14	1.00	14	1.00
V1b	% Dune Vegetated	78	1.00	76	1.00	78	1.00
V2a	% Supratidal	48	0.88	48	0.88	48	0.88
V2b	% Supratidal Vegetated	62	0.91	60	0.88	60	0.88
V3a	% Intertidal	37	0.42	38	0.46	38	0.46
V3b	% Intertidal Vegetated	33	0.60	29	0.54	30	0.55
V4	% Subtidal	21	1.00	24	1.00	25	1.00
V5	% Woody Cover	19	1.00	20	1.00	20	1.00
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 79 21	0.87	% 80 20	0.88	% 80 20	0.88
V7	Beach/surf Zone		0.93		0.93		0.93
		HSI = 0.826		HSI = 0.827		HSI = 0.828	

Project.....
FWP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1a	% Dune	14	1.00				
V1b	% Dune Vegetated	78	1.00				
V2a	% Supratidal	47	0.90				
V2b	% Supratidal Vegetated	59	0.87				
V3a	% Intertidal	39	0.51				
V3b	% Intertidal Vegetated	31	0.57				
V4	% Subtidal	26	1.00				
V5	% Woody Cover	20	1.00				
V6	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 80 20	0.88	%		%	
V7	Beach/surf Zone		0.93				
		HSI = 0.838		HSI =		HSI =	

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Southwest Pass Shoreline Stabilization

The WVA for this project includes 2 subareas. Total benefits for this project are as follow:

<u>Area</u>	<u>AAHUs</u>
A	23
B	12

TOTAL BENEFITS =	35 AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: Southwest Pass Shoreline Stabilization
Area A

Project Area: 57

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	95	0.96	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 100	1.00	% 100	0.10
V4	%OW <= 1.5ft	0	0.10	100	0.60	24	0.41
V5	Salinity (ppt)	6	1.00	6	1.00	6	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	1.00	EM HSI =	0.97	EM HSI =	0.25
Open Water HSI		=	0.35	OW HSI =	0.39	OW HSI =	0.31

Project: Southwest Pass Shoreline Stabilization
Area A

Project Area: 57

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	100	1.00	100	1.00
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 100	1.00	% 100	1.00
V4	%OW <= 1.5ft	0	0.10	0	0.10	0	0.10
V5	Salinity (ppt)	6	1.00	6	1.00	6	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	1.00	EM HSI =	1.00	EM HSI =	1.00
Open Water HSI		=	0.35	OW HSI =	0.35	OW HSI =	0.35

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	0.00
B. Future Without Project Open Water AAHUs	=	9.59
Net Change (FWP - FWOP)	=	-9.59

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	35.45
B. Open Water Habitat Net AAHUs	=	-9.59
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	=	22.94

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Southwest Pass Shoreline Stabilization
Area B

Project Area: 36

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	75	0.78	72	0.75	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion						
	Class 1	75	0.80	70	0.76		0.10
	Class 2						
	Class 3						
	Class 4	25		30			
	Class 5					100	
V4	%OW <= 1.5ft	89	0.78	80	1.00	19	0.34
V5	Salinity (ppt)	7	1.00	7	1.00	7	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	0.84	EM HSI =	0.82	EM HSI =	0.26
Open Water HSI		=	0.74	OW HSI =	0.76	OW HSI =	0.66

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	75	0.78	75	0.78	94	0.95
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1	75	0.80	75	0.80	100	1.00
	Class 2						
	Class 3						
	Class 4	25		25			
	Class 5						
V4	%OW <= 1.5ft	89	0.78	89	0.78	100	0.50
V5	Salinity (ppt)	7	1.00	7	1.00	7	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	0.84	EM HSI =	0.84	EM HSI =	0.97
Open Water HSI		=	0.74	OW HSI =	0.74	OW HSI =	0.74

AAHU CALCULATION - EMERGENT MARSH

Project: Southwest Pass Shoreline Stabilization
Area B

Future Without Project			Total	Cumulative
TY	Marsh Acres	x HSI	HUs	HUs
0	27	0.84	22.75	
1	26	0.82	21.35	22.04
20	0	0.26	0.00	156.66
			AAHUs =	8.94

Future With Project			Total	Cumulative
TY	Marsh Acres	x HSI	HUs	HUs
0	27	0.84	22.75	
1	27	0.84	22.75	22.75
20	34	0.97	32.92	526.05
			AAHUs	27.44

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs	= 27.44
B. Future Without Project Emergent Marsh AAHUs	= 8.94
Net Change (FWP - FWOP) =	18.50

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: South Grand Chenier Hydrologic Restoration

The WVA for this project includes 4 subareas. Total benefits for this project are as follow

<u>Area</u>	<u>AAHUs</u>
A1	3
A2	28
B	62
C	229

TOTAL BENEFITS =	322	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: **South Grand Chenier Hydrologic Restoration Area A1**

Project Area: **661**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	79	0.81	78	0.80	70	0.73
V2	% Aquatic	5	0.34	5	0.34	5	0.34
V3	Interspersion	%		%		%	
	Class 1	50	0.80	50	0.80	50	0.80
	Class 2	50		50		50	
	Class 3						
	Class 4						
V4	%OW <= 1.5ft	80	1.00	80	1.00	80	1.00
V5	Salinity (ppt)	14.7	1.00	14.7	1.00	14.7	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	0.86	EM HSI =	0.86	EM HSI =	0.81
Open Water HSI		=	0.78	OW HSI =	0.78	OW HSI =	0.78

Project: **South Grand Chenier Hydrologic Restoration Area A1**

Project Area: **661**

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	79	0.81	78	0.80	71	0.74
V2	% Aquatic	5	0.34	10	0.37	10	0.37
V3	Interspersion	%		%		%	
	Class 1	50	0.80	50	0.80	50	0.80
	Class 2	50		50		50	
	Class 3						
	Class 4						
V4	%OW <= 1.5ft	80	1.00	80	1.00	80	1.00
V5	Salinity (ppt)	15	1.00	13.4	1.00	13.4	1.00
V6	Access Value	1	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	0.86	EM HSI =	0.86	EM HSI =	0.82
Open Water HSI		=	0.78	OW HSI =	0.79	OW HSI =	0.79

AAHU CALCULATION - EMERGENT MARSH

Project: South Grand Chenier Hydrologic Restoration
Area A1

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	520	0.86	449.64	
1	517	0.86	444.18	446.91
20	466	0.81	379.44	7817.18
			AAHUs =	413.20

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	520	0.86	449.64	
1	517	0.86	444.18	446.91
20	471	0.82	386.18	7882.77
			AAHUs	416.48

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	416.48
B. Future Without Project Emergent Marsh AAHUs =	413.20
Net Change (FWP - FWOP) =	3.28

AAHU CALCULATION - OPEN WATER

Project: South Grand Chenier Hydrologic Restoration
Area A1

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	141	0.78	109.48	
1	144	0.78	111.81	110.65
20	195	0.78	151.41	2500.60
			AAHUs =	130.56

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	141	0.78	109.48	
1	144	0.79	114.17	111.82
20	190	0.79	150.64	2515.71
			AAHUs	131.38

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	131.38
B. Future Without Project Open Water AAHUs	=	130.56
Net Change (FWP - FWOP)	=	0.81

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	3.28
B. Open Water Habitat Net AAHUs	=	0.81
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	=	2.73

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: [South Grand Chenier Hydrologic Restoration Area A2](#)

Project Area: 1,486

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	58	0.62	58	0.62	48	0.53
V2	% Aquatic	10	0.19	10	0.19	10	0.19
V3	Interspersion	%		%		%	
	Class 1	10	0.38	10	0.38	10	0.36
	Class 2						
	Class 3	50		50		40	
	Class 4	40		40		50	
V4	%OW <= 1.5ft	75	1.00	75	1.00	75	1.00
V5	Salinity (ppt)	14.7	0.30	14.7	0.30	14.7	0.30
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		Emergent Marsh HSI =	0.61	EM HSI =	0.61	EM HSI =	0.55
		Open Water HSI =	0.41	OW HSI =	0.41	OW HSI =	0.41

Project: South Grand Chenier Hydrologic Restoration
Area A2

Project Area: 1,486

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	58	0.62	58	0.62	50	0.55
V2	% Aquatic	10	0.19	15	0.24	15	0.24
V3	Interspersion	%		%		%	
	Class 1	10	0.38	10	0.38	10	0.36
	Class 2						
	Class 3	50		50		40	
	Class 4	40		40		50	
V4	%OW <= 1.5ft	75	1.00	75	1.00	75	1.00
V5	Salinity (ppt)	14.7	0.30	13.4	0.49	13.4	0.49
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	0.61	EM HSI =	0.64	EM HSI =	0.59
Open Water HSI		=	0.41	OW HSI =	0.46	OW HSI =	0.46

AAHU CALCULATION - EMERGENT MARSH

Project: South Grand Chenier Hydrologic Restoration
Area A2

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	863	0.61	530.57	
1	855	0.61	525.65	528.11
20	716	0.55	394.82	8716.63
			AAHUs =	462.24

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	863	0.61	530.57	
1	856	0.64	544.82	537.72
20	736	0.59	430.93	9250.23
			AAHUs	489.40

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs	= 489.40
B. Future Without Project Emergent Marsh AAHUs	= 462.24
Net Change (FWP - FWOP) =	27.16

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: South Grand Chenier Hydrologic Restoration - Area B

Project Area: 2,005

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	43	0.49	42	0.48	36	0.42
V2	% Aquatic	15	0.24	15	0.24	10	0.19
V3	Interspersion	%	0.36	%	0.36	%	0.34
	Class 1						
	Class 2	10		10		10	
	Class 3	60		60		50	
	Class 4	30		30		40	
V5	Salinity (ppt)	12	0.70	12	0.70	12	0.70
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		Emergent Marsh HSI =	0.56	EM HSI =	0.56	EM HSI =	0.52
		Open Water HSI =	0.48	OW HSI =	0.48	OW HSI =	0.44

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: South Grand Chenier Hydrologic Restoration - Area B

Project Area: 2,005

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	43	0.49	42	0.48	38	0.44
V2	% Aquatic	15	0.24	25	0.33	25	0.33
V3	Interspersion	%	0.36	%	0.36	%	0.34
	Class 1						
	Class 2	10		10		10	
	Class 3	60		60		50	
	Class 4	30		30		40	
V4	%OW <= 1.5ft	80	1.00	80	1.00	80	1.00
V5	Salinity (ppt)	12	0.70	9.8	1.00	9.8	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		Emergent Marsh HSI =	0.56	EM HSI =	0.59	EM HSI =	0.56
		Open Water HSI =	0.48	OW HSI =	0.57	OW HSI =	0.57

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	681.75
B. Future Without Project Open Water AAHUs	=	556.69
Net Change (FWP - FWOP)	=	125.07

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	37.60
B. Open Water Habitat Net AAHUs	=	125.07
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	=	61.90

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: [South Grand Chenier Hydrologic Restoration - Area C](#)

Project Area: 3,344

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	46	0.51	45	0.51	39	0.45
V2	% Aquatic	5	0.15	5	0.15	5	0.15
V3	Interspersion	%		%		%	
	Class 1	10	0.40	10	0.40		0.32
	Class 2	30		30		30	
	Class 3						
	Class 4	60		60		70	
V4	%OW <= 1.5ft	60	0.87	60	0.87	60	0.87
V5	Salinity (ppt)	12	0.70	12	0.70	12	0.70
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		=	0.59	EM HSI =	0.58	EM HSI =	0.53
Open Water HSI		=	0.39	OW HSI =	0.39	OW HSI =	0.38

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Brackish Marsh

Project: South Grand Chenier Hydrologic Restoration - Area C

Project Area: 3,344

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	46	0.51	52	0.57	53	0.58
V2	% Aquatic	5	0.15	7	0.16	7	0.16
V3	Interspersion	%		%		%	
	Class 1	10	0.40	22	0.50	22	0.50
	Class 2	30		30		30	
	Class 3						
	Class 4	60		48		48	
V4	%OW <= 1.5ft	60	0.87	60	0.87	60	0.87
V5	Salinity (ppt)	12	0.70	11	0.85	11	0.85
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		Emergent Marsh HSI = 0.59		EM HSI = 0.65		EM HSI = 0.66	
		Open Water HSI = 0.39		OW HSI = 0.43		OW HSI = 0.43	

Project: South Grand Chenier Hydrologic Restoration - Area C

FWP

Variable		TY 5		TY 20		Value	SI
		Value	SI	Value	SI		
V1	% Emergent	56	0.60	51	0.56		
V2	% Aquatic	7	0.16	7	0.16		
V3	Interspersion	%		%		%	
	Class 1	22	0.50	12	0.42		
	Class 2	30		30			
	Class 3						
	Class 4	48		58			
V4	%OW <= 1.5ft	60	0.87	60	0.87		
V5	Salinity (ppt)	11	0.85	11	0.85		
V6	Access Value	1.00	1.00	1.00	1.00		
		EM HSI = 0.68		EM HSI = 0.64		EM HSI =	
		OW HSI = 0.43		OW HSI = 0.42		OW HSI =	

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Grand Lake Shoreline Protection

The WVA for this project includes 1 area. Total benefits for this project are as follows:

$\frac{\text{Area}}{A}$	$\frac{\text{AAHUs}}{142}$
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TOTAL BENEFITS =	142	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **Grand Lake Shoreline Protection/Marsh Creation** Project Area:
Increment 1 - Breakwater Only - Superior Canal to Tebo Point Fresh..... 1,162
 Condition: Future Without Project Intermediate..

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	36	0.42	0	0.10
V2	% Aquatic	10	0.19	10	0.19	8	0.17
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 35 65	0.48	% 35 65	0.48	% 100	0.10
V4	%OW <= 1.5ft	14	0.26	13	0.25	8	0.19
V5	Salinity (ppt) fresh intermediate	2	1.00	2	1.00	2	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
Emergent Marsh HSI		= 0.50		EM HSI = 0.49		EM HSI = 0.22	
Open Water HSI		= 0.30		OW HSI = 0.30		OW HSI = 0.26	

Project: **Grand Lake Shoreline Protection/Marsh Creation** Project Area:
Increment 1 - Breakwater Only - Superior Canal to Tebo Point Fresh..... 1,162
 Condition: Future With Project Intermediate....

Variable		TY 0		TY 1		TY 5	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	38	0.44	39	0.45
V2	% Aquatic	10	0.19	15	0.24	60	0.64
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 35 65	0.48	% 35 65	0.48	% 35 65	0.48
V4	%OW <= 1.5ft	14	0.26	14	0.26	14	0.26
V5	Salinity (ppt) fresh intermediate	2	1.00	2	1.00	2	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
Emergent Marsh HSI		= 0.50		EM HSI = 0.50		EM HSI = 0.50	
Open Water HSI		= 0.30		OW HSI = 0.33		OW HSI = 0.56	

Project: Grand Lake Shoreline Protection/Marsh Creation
FWP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	43	0.49				
V2	% Aquatic	80	0.82				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 35 65	0.48	%		%	
V4	%OW <= 1.5ft	15	0.27				
V5	Salinity (ppt) fresh intermediate	2	1.00				
V6	Access Value fresh intermediate	0.10	0.37				
		EM HSI =	0.53	EM HSI =		EM HSI =	
		OW HSI =	0.65	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Grand Lake Shoreline Protection/Marsh Creation
Increment 1 - Breakwater Only - Superior Canal to Tebo Point

Future Without Project			Total	Cumulative
TY	Marsh Acres	x HSI	HUs	HUs
0	445	0.50	221.69	
1	423	0.49	205.92	213.77
20	0	0.22	0.00	1597.47
			AAHUs =	90.56

Future With Project			Total	Cumulative
TY	Marsh Acres	x HSI	HUs	HUs
0	445	0.50	221.69	
1	447	0.50	222.69	222.19
5	455	0.50	229.25	903.84
20	495	0.53	260.50	3670.87
			AAHUs	239.85

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs	= 239.85
B. Future Without Project Emergent Marsh AAHUs	= 90.56
Net Change (FWP - FWOP) =	149.28

AAHU CALCULATION - OPEN WATER

Project: Grand Lake Shoreline Protection/Marsh Creation
 Increment 1 - Breakwater Only - Superior Canal to Tebo Point

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	717	0.30	217.45	
1	739	0.30	223.50	220.48
20	1162	0.26	299.30	5026.70
			AAHUs =	262.36

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	717	0.30	217.45	
1	715	0.33	238.41	227.94
5	707	0.56	397.87	1273.79
20	667	0.65	435.05	6255.86
			AAHUs	387.88

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	387.88
B. Future Without Project Open Water AAHUs	=	262.36
Net Change (FWP - FWOP) =		125.52

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	149.28
B. Open Water Habitat Net AAHUs	=	125.52
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1		141.62

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: South White Lake Shoreline Protection

The WVA for this project includes 2 subareas. Total benefits for this project are as follow:

<u>Area</u>	<u>AAHUs</u>
Shoreline	115
A	13

TOTAL BENEFITS = 128 AAHUS

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: South White Lake Shoreline Protection
Area A

Project Area:
Fresh..... 1,343

Condition: Future Without Project

Intermediate..

Variable		TY 0		TY 1		TY 13	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	27	0.34	25	0.33	10	0.19
V2	% Aquatic	20	0.28	20	0.28	15	0.24
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 70	0.44	% 30 70	0.44	% 100	0.20
V4	%OW <= 1.5ft	80	1.00	80	1.00	85	1.00
V5	Salinity (ppt) fresh intermediate	0	1.00	0	1.00	1	1.00
V6	Access Value fresh intermediate	0.0001	0.30	0.0001	0.30	0.10	0.37
Emergent Marsh HSI =		0.42		EM HSI =	0.41	EM HSI =	0.30
Open Water HSI =		0.40		OW HSI =	0.40	OW HSI =	0.37

Project: South White Lake Shoreline Protection
FWOP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	5	0.15				
V2	% Aquatic	5	0.15				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	%		%	
V4	%OW <= 1.5ft	85	1.00				
V5	Salinity (ppt) fresh intermediate	1	1.00				
V6	Access Value fresh intermediate	0.10	0.37				
EM HSI =		0.27		EM HSI =		EM HSI =	
OW HSI =		0.31		OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **South White Lake Shoreline Protection**
Area A

Project Area:
 Fresh..... 1,343
 Intermediate....

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	27	0.34	25	0.33	6	0.15
V2	% Aquatic	20	0.28	20	0.28	20	0.28
V3	Interspersion	%		%		%	
	Class 1	30	0.44	30	0.44		0.20
	Class 2						
	Class 3						
	Class 4	70		70		100	
V4	%OW <= 1.5ft	80	1.00	80	1.00	84	1.00
V5	Salinity (ppt)						
	fresh	0	1.00	0	1.00	0	1.00
V6	Access Value						
	fresh	0.0001	0.30	0.0001	0.30	0.0001	0.30
		Emergent Marsh HSI = 0.42		EM HSI = 0.41		EM HSI = 0.27	
		Open Water HSI = 0.40		OW HSI = 0.40		OW HSI = 0.38	

AAHU CALCULATION - EMERGENT MARSH

Project: **South White Lake Shoreline Protection**
Area A

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	362	0.42	152.37	
1	336	0.41	137.57	144.92
13	134	0.30	40.00	1020.57
20	69	0.27	18.30	201.50
			AAHUs =	68.35

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	362	0.42	152.37	
1	336	0.41	137.57	144.92
20	81	0.27	21.64	1397.67
			AAHUs	77.13

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: [South White Lake Shoreline Protection](#)
[Shoreline Area](#)
 Condition: Future Without Project

Project Area:
 Fresh..... 513
 Intermediate..

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	70	0.73	66	0.69	0	0.10
V2	% Aquatic	1	0.11	1	0.11	1	0.11
V3	Interspersion	%		%		%	
	Class 1	65	0.72	65	0.72		0.10
	Class 2						
	Class 3						
	Class 4	35		35			
	Class 5					100	
V4	%OW <= 1.5ft	23	0.36	21	0.34	7	0.18
V5	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V6	Access Value						
	fresh	0.10	0.37	0.10	0.37	0.10	0.37
	intermediate						
Emergent Marsh HSI =		0.70		EM HSI =	0.68	EM HSI =	0.22
Open Water HSI =		0.27		OW HSI =	0.27	OW HSI =	0.21

Project: [South White Lake Shoreline Protection](#)
[Shoreline Area](#)
 Condition: Future With Project

Project Area:
 Fresh..... 513
 Intermediate....

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	70	0.73	70	0.73	80	0.82
V2	% Aquatic	1	0.11	5	0.15	40	0.46
V3	Interspersion	%		%		%	
	Class 1	65	0.72	65	0.72	75	0.80
	Class 2						
	Class 3						
	Class 4	35		35		25	
	Class 5						
V4	%OW <= 1.5ft	23	0.36	24	0.37	50	0.66
V5	Salinity (ppt)						
	fresh	1	1.00	1	1.00	1	1.00
	intermediate						
V6	Access Value						
	fresh	0.10	0.37	0.10	0.37	0.10	0.37
	intermediate						
Emergent Marsh HSI =		0.70		EM HSI =	0.70	EM HSI =	0.76
Open Water HSI =		0.27		OW HSI =	0.30	OW HSI =	0.52

AAHU CALCULATION - OPEN WATER

Project: South White Lake Shoreline Protection
Shoreline Area

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	155	0.27	41.70	
1	173	0.27	46.26	43.99
20	513	0.21	107.63	1523.90

AAHUs = 78.39

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	155	0.27	41.70	
1	152	0.30	45.20	43.46
20	101	0.52	52.64	965.66

AAHUs 50.46

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	50.46
B. Future Without Project Open Water AAHUs =	78.39
Net Change (FWP - FWOP) =	-27.94

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	183.52
B. Open Water Habitat Net AAHUs =	-27.94
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	115.31

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project Oyster Bayou Marsh Creation

The WVA for this project includes 3 subareas. Total benefits for this project are as follow

<u>Area</u>	<u>AAHUs</u>
A	27
B	88
C	23

TOTAL BENEFITS =	138	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project: Oyster Bayou Marsh Creation - Area A

Project Area 167

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	64	0.68	64	0.68	58	0.62
V2	% Aquatic	20	0.44	20	0.44	20	0.44
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.40	% 100	0.40
V4	%OW <= 1.5ft	85	0.88	85	0.88	85	0.88
V5	Salinity (ppt)	15	1.00	15	1.00	15	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		= 0.74		EM HSI = 0.74		EM HSI = 0.70	
Open Water HSI		= 0.78		OW HSI = 0.78		OW HSI = 0.78	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project: Oyster Bayou Marsh Creation - Area A

Project Area 167

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	64	0.68	83	0.85	85	0.87
V2	% Aquatic	20	0.44	20	0.44	25	0.48
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.40	% 100	0.60	% 100	0.60
V4	%OW <= 1.5ft	85	0.88	85	0.88	85	0.88
V5	Salinity (ppt)	15	1.00	15	1.00	15	1.00
V6	Access Value	1	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI		= 0.74		EM HSI = 0.86		EM HSI = 0.88	
Open Water HSI		= 0.78		OW HSI = 0.80		OW HSI = 0.81	

Project: Oyster Bayou Marsh Creation - Area A
FWP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	79	0.81				
V2	% Aquatic	25	0.48				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.60	%		%	
V4	%OW <= 1.5ft	85	0.88				
V5	Salinity (ppt)	15	1.00				
V6	Access Value	1.00	1.00				
		EM HSI =	0.84	EM HSI =		EM HSI =	
		OW HSI =	0.81	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Oyster Bayou Marsh Creation - Area A

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	107	0.74	78.69	
1	107	0.74	78.69	78.69
20	98	0.70	68.63	1398.53
			AAHUs =	73.86

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	107	0.74	78.69	
1	116	0.86	100.28	89.29
3	142	0.88	124.31	224.49
20	132	0.84	111.21	2000.92
			AAHUs	115.74

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	115.74
B. Future Without Project Emergent Marsh AAHUs =	73.86
Net Change (FWP - FWOP) =	41.87

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Oyster Bayou Marsh Creation - Area B

Project Area 466

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	46	0.51	46	0.51	45	0.51
V2	% Aquatic	5	0.34	5	0.34	5	0.34
V3	Interspersion	%	0.36	%	0.36	%	0.36
	Class 1						
	Class 2	40		40		40	
	Class 3						
	Class 4	60		60		60	
V4	%OW <= 1.5ft	90	0.75	90	0.75	90	0.75
V5	Salinity (ppt)	9	1.00	9	1.00	9	1.00
V6	Access Value	0.25	0.33	0.25	0.33	0.25	0.33
Emergent Marsh HSI =			0.51	EM HSI =	0.51	EM HSI =	0.50
Open Water HSI =			0.41	OW HSI =	0.41	OW HSI =	0.41

Project: Oyster Bayou Marsh Creation - Area B

Project Area 466

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	46	0.51	71	0.74	78	0.80
V2	% Aquatic	5	0.34	20	0.44	25	0.48
V3	Interspersion	%	0.36	%	0.66	%	0.66
	Class 1						
	Class 2	40		40		40	
	Class 3			30		30	
	Class 4	60					
V4	%OW <= 1.5ft	90	0.75	90	0.75	90	0.75
V5	Salinity (ppt)	9	1.00	9	1.00	9	1.00
V6	Access Value	0.25	0.33	0.25	0.33	0.25	0.33
Emergent Marsh HSI =			0.51	EM HSI =	0.65	EM HSI =	0.68
Open Water HSI =			0.41	OW HSI =	0.45	OW HSI =	0.46

Project: Oyster Bayou Marsh Creation - Area B
FWP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	77	0.79				
V2	% Aquatic	25	0.48				
V3	Interspersion	%		%		%	
	Class 1	30	0.66				
	Class 2	40					
	Class 3	30					
	Class 4						
	Class 5						
V4	%OW <= 1.5ft	90	0.75				
V5	Salinity (ppt)	9	1.00				
V6	Access Value	0.25	0.33				
		EM HSI =	0.68	EM HSI =		EM HSI =	
		OW HSI =	0.46	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Oyster Bayou Marsh Creation - Area B

Future Without Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	214	0.51	108.63	
1	214	0.51	108.63	108.63
20	209	0.50	105.11	2030.41
			AAHUs =	106.95

Future With Project			Total HUs	Cumulative HUs
TY	Marsh Acres	x HSI		
0	214	0.51	108.63	
1	252	0.65	164.43	135.61
3	364	0.68	248.30	411.62
20	358	0.68	242.70	4173.41
			AAHUs	236.03

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	236.03
B. Future Without Project Emergent Marsh AAHUs =	106.95
Net Change (FWP - FWOP) =	129.08

AAHU CALCULATION - OPEN WATER

Project: Oyster Bayou Marsh Creation - Area B

Future Without Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	252	0.41	103.64	
1	252	0.41	103.64	103.64
20	257	0.41	105.70	1988.71
			AAHUs =	104.62

Future With Project			Total HUs	Cumulative HUs
TY	Water Acres	x HSI		
0	252	0.41	103.64	
1	101	0.45	45.87	75.83
3	102	0.46	46.94	92.81
20	108	0.46	49.71	821.54
			AAHUs	49.51

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	49.51
B. Future Without Project Open Water AAHUs =	104.62
Net Change (FWP - FWOP) =	-55.11

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	129.08
B. Open Water Habitat Net AAHUs =	-55.11
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	88.15

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Oyster Bayou Marsh Creation - Area C

Project Area 140

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	46	0.51	46	0.51	36	0.42
V2	% Aquatic	5	0.34	5	0.34	5	0.34
V3	Interspersion	%	0.40	%	0.40	%	0.40
	Class 1						
	Class 2						
	Class 3	100		100		100	
	Class 4						
V4	%OW <= 1.5ft	90	0.75	90	0.75	90	0.75
V5	Salinity (ppt)	9	1.00	9	1.00	9	1.00
V6	Access Value	0.25	0.33	0.25	0.33	0.25	0.33
Emergent Marsh HSI =		0.51	EM HSI =	0.51	EM HSI =	0.46	0.46
Open Water HSI =		0.41	OW HSI =	0.41	OW HSI =	0.41	0.41

Project: Oyster Bayou Marsh Creation - Area C

Project Area 140

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	46	0.51	71	0.74	76	0.78
V2	% Aquatic	5	0.34	10	0.37	15	0.41
V3	Interspersion	%	0.40	%	0.60	%	0.60
	Class 1						
	Class 2			100		100	
	Class 3	100					
	Class 4						
V4	%OW <= 1.5ft	90	0.75	90	0.75	90	0.75
V5	Salinity (ppt)	9	1.00	9	1.00	9	1.00
V6	Access Value	0.25	0.33	0.25	0.33	0.25	0.33
Emergent Marsh HSI =		0.51	EM HSI =	0.65	EM HSI =	0.67	0.67
Open Water HSI =		0.41	OW HSI =	0.44	OW HSI =	0.44	0.44

Project: Oyster Bayou Marsh Creation - Area C
FWP

Variable		TY 20					
		Value	SI	Value	SI	Value	SI
V1	% Emergent	65	0.69				
V2	% Aquatic	15	0.41				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.60	%		%	
V4	%OW <= 1.5ft	90	0.75				
V5	Salinity (ppt)	9	1.00				
V6	Access Value	0.25	0.33				
		EM HSI =	0.62	EM HSI =		EM HSI =	
		OW HSI =	0.44	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH

Project: Oyster Bayou Marsh Creation - Area C

0	65	0.51	33.28	
1	64	0.51	32.77	33.03
20	51	0.46	23.67	534.22
			AAHUs =	28.36

Future With Project			Total	Cumulative
TY	Marsh Acres	x HSI	HUs	HUs
0	65	0.51	33.28	
1	75	0.65	48.44	40.64
3	107	0.67	71.38	119.59
20	91	0.62	56.42	1084.09
			AAHUs	62.22

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	62.22
B. Future Without Project Emergent Marsh AAHUs =	28.36
Net Change (FWP - FWOP) =	33.85

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Barataria Barrier Shoreline Complex Project

The WVA for this project includes 4 subareas. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
Pelican Island Landward Sub reach	136
Pelican Island Seaward Sub reach	101
Pass La Mer Landward Sub reach	174
Pass La Mer Seaward Sub reach	97

TOTAL BENEFITS =	508	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project: Barataria Barrier Island Complex Project Pelican Island Subreach - Seaward Alternative

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	0	0.10	0	0.10
V1b	% Dune Vegetated	0	0.10	0	0.10	0	0.10
V2a	% Supratidal	34	1.00	34	1.00	34	1.00
V2b	% Supratidal Vegetated	70	1.00	70	1.00	40	0.62
V3a	% Intertidal	66	1.00	66	1.00	66	1.00
V3b	% Intertidal Vegetated	75	1.00	75	1.00	60	1.00
V4	% Subtidal	69	1.00	72	1.00	100	1.00
V5	% Woody Cover	5	0.55	5	0.55	10	1.00
V6	Interspersion	%	0.64	%	0.64	%	0.52
	Class 1						
	Class 2	20		20		10	
	Class 3	80		80		40	
	Class 4					50	
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.744		HSI = 0.744		HSI = 0.752	

Project..... Barataria Barrier Island Complex Project

FWOP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10				
V1b	% Dune Vegetated	0	0.10				
V2a	% Supratidal	33	1.00				
V2b	% Supratidal Vegetated	60	0.88				
V3a	% Intertidal	67	1.00				
V3b	% Intertidal Vegetated	50	0.85				
V4	% Subtidal	100	1.00				
V5	% Woody Cover	12	1.00				
V6	Interspersion	%	0.45	%		%	
	Class 1						
	Class 2	5					
	Class 3	15					
	Class 4	80					
V7	Beach/surf Zone	1	1.00				
		HSI = 0.739		HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project: Barataria Barrier Island Complex Project Pelican Island Subreach - Seaward Alternative

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	32	0.39	12	1.00
V1b	% Dune Vegetated	0	0.10	25	0.48	60	1.00
V2a	% Supratidal	34	1.00	22	1.00	42	0.97
V2b	% Supratidal Vegetated	70	1.00	25	0.43	70	1.00
V3a	% Intertidal	66	1.00	46	0.82	46	0.82
V3b	% Intertidal Vegetated	75	1.00	50	0.85	75	1.00
V4	% Subtidal	69	1.00	59	1.00	64	1.00
V5	% Woody Cover	5	0.55	5	0.55	5	0.55
V6	Interspersion	%	0.64	%	1.00	%	1.00
	Class 1			100		100	
	Class 2	20					
	Class 3	80					
	Class 4						
	Class 5						
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.744		HSI = 0.782		HSI = 0.924	

Project..... Barataria Barrier Island Complex Project

FWP

Variable		TY 10		TY 14		TY 20	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	11	1.00	11	1.00	11	1.00
V1b	% Dune Vegetated	70	1.00	70	1.00	65	1.00
V2a	% Supratidal	50	0.85	49	0.87	49	0.87
V2b	% Supratidal Vegetated	50	0.75	70	1.00	70	1.00
V3a	% Intertidal	39	0.51	40	0.55	40	0.55
V3b	% Intertidal Vegetated	65	1.00	70	1.00	75	1.00
V4	% Subtidal	75	1.00	83	1.00	100	1.00
V5	% Woody Cover	10	1.00	10	1.00	10	1.00
V6	Interspersion	%	0.90	%	0.87	%	0.76
	Class 1	50		35			
	Class 2	50		65		80	
	Class 3					20	
	Class 4						
	Class 5						
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.880		HSI = 0.896		HSI = 0.880	

Project..... Barataria Barrier Island Complex Project
FWOP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10				
V1b	% Dune Vegetated	0	0.10				
V2a	% Supratidal	23	1.00				
V2b	% Supratidal Vegetated	60	0.88				
V3a	% Intertidal	77	0.79				
V3b	% Intertidal Vegetated	50	0.85				
V4	% Subtidal	100	1.00				
V5	% Woody Cover	12	1.00				
V6	Interspersion	%	0.45	%		%	
	Class 1						
	Class 2	5					
	Class 3	15					
	Class 4	80					
	Class 5						
V7	Beach/surf Zone	1	1.00				
		HSI =	0.708	HSI =		HSI =	

Pelican Island Subreach - Landward Alternative

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project: Barataria Barrier Island Complex Project

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	28	0.53	9	1.00
V1b	% Dune Vegetated	0	0.10	25	0.48	60	1.00
V2a	% Supratidal	23	1.00	9	0.51	28	1.00
V2b	% Supratidal Vegetated	70	1.00	25	0.43	70	1.00
V3a	% Intertidal	77	0.79	63	1.00	63	1.00
V3b	% Intertidal Vegetated	75	1.00	25	0.48	75	1.00
V4	% Subtidal	81	1.00	31	1.00	31	1.00
V5	% Woody Cover	5	0.55	5	0.55	5	0.55
V6	Interspersion	%	0.64	%	1.00	%	1.00
	Class 1			100		100	
	Class 2	20					
	Class 3	80					
	Class 4						
	Class 5						
V7	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI =	0.712	HSI =	0.727	HSI =	0.955

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Barataria Barrier Island Complex Project
 Pass La Mer to Chaland Pass - Seaward Alternative

Project Area: 265

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	38	0.44	28	0.35
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion						
	Class 1	%	0.32	%	0.32	%	0.25
	Class 2						
	Class 3	60		60		25	
	Class 4	40		40		75	
	Class 5						
V4	%OW <= 1.5ft	40	0.61	40	0.61	30	0.49
V5	Salinity (ppt)	17	1.00	17	1.00	17	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =			0.57	EM HSI =	0.57	EM HSI =	0.49
Open Water HSI =			0.69	OW HSI =	0.69	OW HSI =	0.68

Project: Barataria Barrier Island Complex Project
 FWOP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	19	0.27				
V2	% Aquatic	0	0.30				
V3	Interspersion						
	Class 1	%	0.20	%		%	
	Class 2						
	Class 3						
	Class 4	100					
	Class 5						
V4	%OW <= 1.5ft	20	0.36				
V5	Salinity (ppt)	17	1.00				
V6	Access Value	1.00	1.00				
EM HSI =			0.43	EM HSI =		EM HSI =	
OW HSI =			0.67	OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: **Barataria Barrier Island Complex Project**
Pass La Mer to Chaland Pass - Seaward Alternative
 Condition: Future With Project

Project Area: 265

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	51	0.56	57	0.61
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%		%		%	
	Class 1		0.32	25	0.52	25	0.52
	Class 2						
	Class 3	60		60		60	
	Class 4	40		15		15	
	Class 5						
V4	%OW <= 1.5ft	40	0.61	65	0.94	65	0.94
V5	Salinity (ppt)	17	1.00	17	1.00	17	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00

Project: **Barataria Barrier Island Complex Project**
 FWP

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	47	0.52	40	0.46		
V2	% Aquatic	0	0.30	0	0.30		
V3	Interspersion	%		%		%	
	Class 1	20	0.47	15	0.43		
	Class 2						
	Class 3	55		55			
	Class 4	25		30			
	Class 5						
V4	%OW <= 1.5ft	60	0.87	50	0.74		
V5	Salinity (ppt)	17	1.00	17	1.00		
V6	Access Value	1.00	1.00	1.00	1.00		
		EM HSI =	0.64	EM HSI =	0.59	EM HSI =	
		OW HSI =	0.72	OW HSI =	0.71	OW HSI =	

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	95.92
B. Future Without Project Open Water AAHUs =	129.37
TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	40.10
B. Open Water Habitat Net AAHUs =	-33.46
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	23.75

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Headland

Project: [Barataria Barrier Island Complex Project](#)
[Pass La Mer to Chalant Pass Subreach - Seaward Alternative](#)

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	0	0.10	0	0.10
V1b	% Dune Vegetated	0	0.10	0	0.10	0	0.10
V2a	% Supratidal	100	0.50	100	0.50	100	0.50
V2b	% Supratidal Vegetated	65	0.95	65	0.95	50	0.75
V3	% Woody Cover	10	0.70	10	0.70	10	0.70
V4	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.538		HSI = 0.538		HSI = 0.521	

FWOP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V2a	% Supratidal	100	0.50				
V2b	% Supratidal Vegetated	65	0.95				
V3	% Woody Cover	10	0.70				
V4	Beach/surf Zone	1	1.00				
		HSI = 0.538		HSI =		HSI =	

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHUs =	100.78
B. Future Without Project AAHUs =	27.03
Net Change (FWP - FWOP) =	73.74

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Barataria Barrier Island Complex Project
 Pass La Mer to Chaland Pass - Landward Alternative

Project Area: 284

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	33	0.40	32	0.39	24	0.32
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1	%	0.30	%	0.30	%	0.25
	Class 2						
	Class 3	50		50		25	
	Class 4	50		50		75	
	Class 5						
V4	%OW <= 1.5ft	60	0.87	60	0.87	50	0.74
V5	Salinity (ppt)	17	1.00	17	1.00	17	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
Emergent Marsh HSI =		0.53		EM HSI =	0.53	EM HSI =	0.47
Open Water HSI =		0.71		OW HSI =	0.71	OW HSI =	0.70

Project: Barataria Barrier Island Complex Project
 FWOP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	16	0.24				
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1	%	0.20	%		%	
	Class 2						
	Class 3						
	Class 4	100					
	Class 5						
V4	%OW <= 1.5ft	40	0.61				
V5	Salinity (ppt)	17	1.00				
V6	Access Value	1.00	1.00				
EM HSI =		0.40		EM HSI =		EM HSI =	
OW HSI =		0.69		OW HSI =		OW HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Saline Marsh

Project: Barataria Barrier Island Complex Project
Pass La Mer to Chaland Pass - Landward Alternative

Project Area: 284

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	33	0.40	95	0.96	94	0.95
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%		%		%	
	Class 1		0.30	100	1.00	100	1.00
	Class 2						
	Class 3	50					
	Class 4	50					
V4	%OW <= 1.5ft	60	0.87	20	0.36	25	0.42
V5	Salinity (ppt)	17	1.00	17	1.00	17	1.00
Open Water HSI		=	0.71	OW HSI =	0.73	OW HSI =	0.73

Project: Barataria Barrier Island Complex Project
FWP

Variable		TY 10		TY 20		Value	SI
		Value	SI	Value	SI		
V1	% Emergent	82	0.84	64	0.68		
V2	% Aquatic	0	0.30	0	0.30		
V3	Interspersion	%		%			%
	Class 1	75	0.90	60	0.72		
	Class 2	25					
	Class 3			20			
	Class 4			20			
V4	%OW <= 1.5ft	70	1.00	40	0.61		
V5	Salinity (ppt)	17	1.00	17	1.00		
V6	Access Value	1.00	1.00	1.00	1.00		
EM HSI =		0.89		EM HSI =	0.77	EM HSI =	
OW HSI =		0.77		OW HSI =	0.72	OW HSI =	

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	35.34
B. Future Without Project Open Water AAHUs =	150.46
Net Change (FWP - FWOP) =	-115.11

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	126.46
B. Open Water Habitat Net AAHUs =	-115.11
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	72.77

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Headland

Project: [Barataria Barrier Island Complex Project](#)
[Pass La Mer to Chaland Pass Subreach - Landward Alternative](#)

Condition: Future Without Project

Variable		TY 0		TY 1		TY 10	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	0	0.10	0	0.10
V1b	% Dune Vegetated	0	0.10	0	0.10	0	0.10
V2a	% Supratidal	100	0.50	100	0.50	100	0.50
V2b	% Supratidal Vegetated	65	0.95	65	0.95	50	0.75
V3	% Woody Cover	10	0.70	10	0.70	10	0.70
V4	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.538		HSI = 0.538		HSI = 0.521	

Project..... [Barataria Barrier Island Complex Project](#)
 FWOP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10				
V1b	% Dune Vegetated	0	0.10				
V2a	% Supratidal	100	0.50				
V2b	% Supratidal Vegetated	65	0.95				
V3	% Woody Cover	10	0.70				
V4	Beach/surf Zone	1	1.00				
		HSI = 0.538		HSI =		HSI =	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Headland

Project..... [Barataria Barrier Island Complex Project](#)
[Pass La Mer to Chaland Pass Subreach - Landward Alternative](#)

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10	75	0.10	26	1.00
V1b	% Dune Vegetated	0	0.10	25	0.48	60	1.00
V2a	% Supratidal	100	0.50	25	0.43	74	1.00
V2b	% Supratidal Vegetated	65	0.95	25	0.43	70	1.00
V3	% Woody Cover	10	0.70	5	0.40	5	0.40
V4	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.538		HSI = 0.454		HSI = 0.892	

Project..... [Barataria Barrier Island Complex Project](#)

FWP

Variable		TY 10		TY 14		TY 20	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	19	1.00	18	1.00	17	1.00
V1b	% Dune Vegetated	70	1.00	70	1.00	65	1.00
V2a	% Supratidal	81	1.00	82	1.00	83	1.00
V2b	% Supratidal Vegetated	50	0.75	70	1.00	70	1.00
V3	% Woody Cover	10	0.70	10	0.70	10	0.70
V4	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.924		HSI = 0.946		HSI = 0.946	

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Holly Beach to Constance Beach Sand Management Complex Project

The WVA for this project includes 2 subareas. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
A	284
B	25
C	61

TOTAL BENEFITS = 370 AAHUS

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **Holly Beach to Constance Beach Sand Management Project**
Area A

Project Area:
Fresh.....
Intermediate.. **8,520**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 9	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	87	0.88	87	0.88	87	0.88
V2	% Aquatic	88	0.89	88	0.89	88	0.89
V3	Interspersion	%		%		%	
	Class 1	60	0.76	60	0.76	60	0.76
	Class 2						
	Class 3	40		40		40	
	Class 4						
V4	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
V5	Salinity (ppt)						
	fresh		0.60		0.60		0.60
	intermediate	6		6		6	
V6	Access Value						
	fresh		0.72		0.72		0.72
	intermediate	0.65		0.65		0.65	
Emergent Marsh HSI		=	0.81	EM HSI =	0.81	EM HSI =	0.81
Open Water HSI		=	0.83	OW HSI =	0.83	OW HSI =	0.83

Project: **Holly Beach to Constance Beach Sand Management Project**
FWOP

Variable		TY 10		TY 19		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	87	0.88	84	0.86	84	0.86
V2	% Aquatic	80	0.82	80	0.82	80	0.82
V3	Interspersion	%		%		%	
	Class 1	60	0.76	57	0.75	57	0.75
	Class 2			3		3	
	Class 3	40		40		40	
	Class 4						
V4	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
V5	Salinity (ppt)						
	fresh		0.20		0.20		0.20
	intermediate	8		8		8	
V6	Access Value						
	fresh		0.72		0.72		0.72
	intermediate	0.65		0.65		0.65	
EM HSI		=	0.77	EM HSI =	0.75	EM HSI =	0.75
OW HSI		=	0.76	OW HSI =	0.76	OW HSI =	0.76

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Fresh/Intermediate Marsh

Project: **Holly Beach to Constance Beach Sand Management Project**
 Area A

Project Area:
 Fresh.....
 Intermediate.... 8,520

Condition: Future With Project

Variable		TY 0		TY 1		TY 19	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	87	0.88	87	0.88	87	0.88
V2	% Aquatic	88	0.89	88	0.89	88	0.89
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 60 40	0.76	% 60 40	0.76	% 60 40	0.76
V4	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
V5	Salinity (ppt) fresh intermediate	6	0.60	5	0.80	5	0.80
V6	Access Value fresh intermediate	0.65	0.72	0.65	0.72	0.65	0.72
Emergent Marsh HSI		= 0.81		EM HSI = 0.84		EM HSI = 0.84	
Open Water HSI		= 0.83		OW HSI = 0.85		OW HSI = 0.85	

Project: **Holly Beach to Constance Beach Sand Management Project**
 FWP

Variable		TY 20		Value	SI	Value	SI
		Value	SI				
V1	% Emergent	87	0.88				
V2	% Aquatic	88	0.89				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 60 40	0.76	%		%	
V4	%OW <= 1.5ft	90	1.00				
V5	Salinity (ppt) fresh intermediate	6	0.60				
V6	Access Value fresh intermediate	0.65	0.72				
EM HSI =		0.81		EM HSI =		EM HSI =	
OW HSI =		0.83		OW HSI =		OW HSI =	

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	939.20
B. Future Without Project Open Water AAHUs =	930.70
Net Change (FWP - FWOP) =	8.50

TOTAL BENEFITS IN AAHUs DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	414.53
B. Open Water Habitat Net AAHUs =	8.50
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	283.55

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Migratory Landbird - Forested Coastal Habitat

Project..... Holly Beach to Constance Beach Sand Management Project Project Area..... 141

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Tree Canopy Cover	Percent Cover 23	0.42	Percent Cover 23	0.42	Percent Cover 0	0.10
V2	Shrub/ Midstory Cover	Percent Cover 46	1	Percent Cover 46	1	Percent Cover 0	0.1
V3	Species Diversity	Number of tree and shrub/ midstory species 10	1.00	Number of tree and shrub/ midstory species 10	1.00	Number of tree and shrub/ midstory species 0	0.10
		HSI = 0.75		HSI = 0.75		HSI = 0.10	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Migratory Landbird - Forested Coastal Habitat

Project..... Holly Beach to Constance Beach Sand Management Project Project Area..... 141

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Tree Canopy Cover	Percent Cover 23	0.42	Percent Cover 23	0.42	Percent Cover 23	0.42
V2	Shrub/ Midstory Cover	Percent Cover 46	1	Percent Cover 46	1	Percent Cover 46	1
V3	Species Diversity	Number of tree and shrub/ midstory species 10	1.00	Number of tree and shrub/ midstory species 10	1.00	Number of tree and shrub/ midstory species 10	1.00
		HSI = 0.75		HSI = 0.75		HSI = 0.75	

Project..... Holly Beach to Constance Beach Sand Management
FWOP

Variable		TY 10		TY 15		TY 19	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	17	1.00	0	0.10	0	0.10
V1b	% Dune Vegetated	50	0.85	0	0.10	0	0.10
V2a	% Supratidal	83	1.00	100	0.10	100	0.10
V2b	Supratidal Vegetated	80	1.00	95	0.75	95	0.75
V3	% Woody Cover	0	0.10	0	0.10	0	0.10
V4	Beach/surf Zone	3	0.90	3	0.90	3	0.90
		HSI = 0.807		HSI = 0.303		HSI = 0.303	

Project.....
FWOP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	0	0.10				
V1b	% Dune Vegetated	0	0.10				
V2a	% Supratidal	100	0.10				
V2b	Supratidal Vegetated	80	1.00				
V3	% Woody Cover	0	0.10				
V4	Beach/surf Zone	3	0.90				
		HSI = 0.325		HSI =		HSI =	

Area C

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Barrier Island

Project.....
Condition: Future With Project

Project Area.....

Variable		TY 0		TY 1		TY 2	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	26	1.00	50	0.28	37	0.75
V1b	% Dune Vegetated	95	0.33	38	0.67	47	0.81
V2a	% Supratidal	74	1.00	50	0.75	63	0.92
V2b	Supratidal Vegetated	80	1.00	53	0.79	57	0.84
V3	% Woody Cover	1	0.16	1	0.16	1	0.16
V4	Beach/surf Zone		0.55	3	0.90	3	0.90
		HSI = 0.707		HSI = 0.559		HSI = 0.722	

Project..... Holly Beach to Constance Beach Sand Management
FWP

Variable		TY 5		TY 10		TY 19	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	33	0.89	17	1.00	29	1.00
V1b	% Dune Vegetated	68	1.00	95	0.33	95	0.33
V2a	% Supratidal	67	0.97	83	1.00	71	1.00
V2b	Supratidal Vegetated	56	0.83	54	0.80	70	1.00
V3	% Woody Cover	1	0.16	1	0.16	1	0.16
V4	Beach/surf Zone	3	0.90	3	0.90		0.55
		HSI =	0.784	HSI =	0.752	HSI =	0.707

Project.....
FWP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1a	% Dune	17	1.00				
V1b	% Dune Vegetated	50	0.85				
V2a	% Supratidal	83	1.00				
V2b	Supratidal Vegetated	80	1.00				
V3	% Woody Cover	0	0.10				
V4	Beach/surf Zone	3	0.90				
		HSI =	0.807	HSI =		HSI =	

AAHU CALCULATION

Project: Holly Beach to Constance Beach Sand Management
Area C

Future Without Project			Total HUs	Cummulative HUs
TY	Acres	x HSI		
0	84	0.707	59.39	
1	82	0.707	57.98	58.69
9	68	0.687	46.70	418.35
10	65	0.807	52.42	49.62
15	40	0.303	12.10	150.81
19	20	0.303	6.05	36.30
20	15	0.325	4.88	5.48

Future With Project			Total HUs	Cummulative HUs
TY	Acres	x HSI		
1	240	0.559	134.16	100.63
5	168	0.784	131.68	401.84
19	77	0.707	54.44	671.50
20	65	0.807	52.42	53.63
			AAHUs	96.55

NET CHANGE IN AAHU'S DUE TO PROJECT		
A. Future With Project AAHUs	=	96.55
B. Future Without Project AAHUs	=	35.96
Net Change (FWP - FWOP)	=	60.59

WETLAND VALUE ASSESSMENT

Benefits Summary Sheet

Project: Diversion into the Swamps South of Lake Maurepas Complex Project

The WVA for this project includes 4 subareas. Total benefits for this project are as follows:

<u>Area</u>	<u>AAHUs</u>
1	1,504
2	
2A	2,541
2B	1,065
3	
3A	1,369
3B	1,886
4	
4A	73
4B	48

TOTAL BENEFITS =	8,486	AAHUS
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WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Swamp

Project..... **Maurepas Diversion - Area 1**

Project Area..... **6,032**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
		Class 3	0.40	Class 3	0.40	Class 3	0.40
V2	Stand Maturity	Cypress % 44		Cypress % 44		Cypress % 72	
		Cypress dbh 14.57		Cypress dbh 14.57		Cypress dbh 15.97	
		Tupelo et al. % 56		Tupelo et al. % 56		Tupelo et al. % 28	
		Tupelo et al dbh 12.38	0.96	Tupelo et al dbh 12.38	0.96	Tupelo et al dbh 13.74	1.00
		Basal Area 214	0.96	Basal Area 214	0.96	Basal Area 198	1.00
V3	Water Regim	Flow/Exchange Low		Flow/Exchange Low		Flow/Exchange Low	
		Flooding Duration Semi-Permanent	0.45	Flooding Duration Semi-Permanent	0.45	Flooding Duration Permanent	0.30
V4	Mean High Salinit	1.4	0.82	1.4	0.82	1.4	0.82
		HSI = 0.57		HSI = 0.57		HSI = 0.51	

Project.....

Project Area.....

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
		Class 3	0.40	Class 3	0.40	Class 6	1.00
V2	Stand Maturity	Cypress % 44		Cypress % 44		Cypress % 44	
		Cypress dbh 14.57		Cypress dbh 14.57		Cypress dbh 17.37	
		Tupelo et al. % 56		Tupelo et al. % 56		Tupelo et al. % 56	
		Tupelo et al dbh 12.38	0.96	Tupelo et al dbh 12.38	0.96	Tupelo et al dbh 15.11	1.00
		Basal Area 214	0.96	Basal Area 214	0.96	Basal Area 312	1.00
V3	Water Regim	Flow/Exchange Low		Flow/Exchange High		Flow/Exchange High	
		Flooding Duration Semi-Permanent	0.45	Flooding Duration Semi-Permanent	0.75	Flooding Duration Semi-Permanent	0.75
V4	Mean High Salinit	1.4	0.82	0.0	1	0.0	1
		HSI = 0.57		HSI = 0.69		HSI = 0.92	

Project.....
Condition: Future With Project

Project Area.....

Variable		TY 0		TY 1		TY 20		
		Class/Value	SI	Class/Value	SI	Class/Value	SI	
V1	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory		
		Scrub-shrub		Scrub-shrub		Scrub-shrub		
		Herbaceous		Herbaceous		Herbaceous		
		Class	3	0.40	3	0.40	5	0.80
V2	Stand Maturity	Cypress %	29	Cypress %	29	Cypress %	29	
		Cypress dbh	10.76	Cypress dbh	10.76	Cypress dbh	14.5	
		Tupelo et al. %	71	Tupelo et al. %	71	Tupelo et al. %	71	
		Tupelo et al dbh	9.88	Tupelo et al dbh	9.88	Tupelo et al dbh	12.6	
		Basal Area	114	0.43	114	0.43	191	0.97
								0.97
V3	Water Regim	Flow/Exchange		Flow/Exchange		Flow/Exchange		
		Low		High		High		
		Flooding Duration		Flooding Duration		Flooding Duration		
V4	Mean High Salinit	Semi-Permanent	0.45	Semi-Permanent	0.75	Semi-Permanent	0.75	
			1.4	0.82	0.0	1	0.0	1
		HSI =	0.47	HSI =	0.57	HSI =	0.85	

AAHU CALCULATION

Project: Maurepas Diversion - Area 2A

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	8048	0.47	3790.27	
1	8048	0.47	3790.27	3790.27
20	8048	0.29	2305.60	57910.76
			Total	
			CHUs =	61701.03
			AAHUs =	3085.05

Future With Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	8048	0.47	3790.27	
1	8048	0.57	4551.48	4170.88
20	8048	0.85	6854.16	108353.61
			Total	
			CHUs =	112524.48
			AAHUs =	5626.22

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project AAHUs =	5626.22
B. Future Without Project AAHUs =	3085.05
Net Change (FWP - FWOP) =	2541.17

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Swamp

Project..... **Maurepas Diversion - Area 2B**

Project Area..... **4,181**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
		Class 3	0.40	Class 3	0.40	Class 1	0.10
V2	Stand Maturity	Cypress % 48		Cypress % 48		Cypress % 74	
		Cypress dbh 8.73		Cypress dbh 8.73		Cypress dbh 9.93	
		Tupelo et al. % 52		Tupelo et al. % 52		Tupelo et al. % 26	
		Tupelo et al dbh 10.01	0.55	Tupelo et al dbh 10.01	0.55	Tupelo et al dbh 11.21	0.53
		Basal Area 103	0.33	Basal Area 103	0.33	Basal Area 94	0.32
V3	Water Regim	Flow/Exchange Low		Flow/Exchange Low		Flow/Exchange Low	
		Flooding Duration Semi-Permanent	0.45	Flooding Duration Semi-Permanent	0.45	Flooding Duration Permanent	0.30
V4	Mean High Salinit	1.5	0.775	1.5	0.775	1.5	0.775
		HSI =	0.44	HSI =	0.44	HSI =	0.25

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Swamp

Project.....

Project Area.....

Condition: Future With Project

Variable		TY 0		TY 1		TY	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
		Class 3	0.40	Class 3	0.40	Class 5	0.80
V2	Stand Maturity	Cypress % 48		Cypress % 48		Cypress % 48	
		Cypress dbh 8.73		Cypress dbh 8.73		Cypress dbh 10.77	
		Tupelo et al. % 52		Tupelo et al. % 52		Tupelo et al. % 52	
		Tupelo et al dbh 10.01	0.55	Tupelo et al dbh 10.01	0.55	Tupelo et al dbh 11.37	0.72
		Basal Area 103	0.33	Basal Area 103	0.33	Basal Area 143	0.57
V3	Water Regim	Flow/Exchange Low		Flow/Exchange Moderate		Flow/Exchange Moderate	
		Flooding Duration Semi-Permanent	0.45	Flooding Duration Semi-Permanent	0.65	Flooding Duration Semi-Permanent	0.65
V4	Mean High Salinit	1.5	0.775	0.5	1	0.5	1
		HSI =	0.44	HSI =	0.51	HSI =	0.72

AAHU CALCULATION

Project: **Maurepas Diversion - Area 2B**

Future Without Project			Total HUs	Cummulative HUs
TY	Acres	x HSI		
0	4181	0.44	1821.39	
1	4181	0.44	1821.39	1821.39
20	4181	0.25	1055.54	27330.86
			Total CHUs =	29152.25
			AAHUs =	1457.61

Future With Project			Total HUs	Cummulative HUs
TY	Acres	x HSI		
0	4181	0.44	1821.39	
1	4181	0.51	2113.09	1967.24
20	4181	0.72	2989.59	48475.50
			Total CHUs =	50442.74
			AAHUs =	2522.14

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project AAHUs =	2522.14
B. Future Without Project AAHUs =	1457.61
Net Change (FWP - FWOP) =	1064.52

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Swamp

Project..... **Maurepas Diversion - Area 3A**

Project Area..... **5,406**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover		% Cover		% Cover	
		Overstory		Overstory		Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
	Class		Class		Class		
	3	0.40	3	0.40	1	0.10	
V2	Stand Maturity	Cypress %		Cypress %		Cypress %	
		29		29		64.5	
		Cypress dbh		Cypress dbh		Cypress dbh	
		10.76		10.76		12.96	
		Tupelo et al. %		Tupelo et al. %		Tupelo et al. %	
71		71		35.5			
Tupelo et al dbh		Tupelo et al dbh		Tupelo et al dbh			
9.88	0.72	9.88	0.72	11.48	0.85		
Basal Area		Basal Area		Basal Area			
114	0.43	114	0.43	104	0.51		
V3	Water Regim	Flow/Exchange		Flow/Exchange		Flow/Exchange	
		Low		Low		Low	
		Flooding Duration		Flooding Duration		Flooding Duration	
	Semi-Permanent	0.45	Semi-Permanent	0.45	Permanent	0.30	
V4	Mean High Salinit						
		1.4	0.82	1.4	0.82	1.4	0.82
		HSI =	0.47	HSI =	0.47	HSI =	0.29

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Swamp

Project.....

Project Area.....

Condition: Future With Project

Variable		TY 0		TY 1		TY	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
		Class 3	0.40	Class 3	0.40	Class 4	0.60
V2	Stand Maturity	Cypress % 29		Cypress % 29		Cypress % 29	
		Cypress dbh 10.76		Cypress dbh 10.76		Cypress dbh 13.62	
		Tupelo et al. % 71		Tupelo et al. % 71		Tupelo et al. % 71	
		Tupelo et al dbh 9.88	0.72	Tupelo et al dbh 9.88	0.72	Tupelo et al dbh 12.05	0.95
		Basal Area 114	0.43	Basal Area 114	0.43	Basal Area 173	0.95
V3	Water Regim	Flow/Exchange Low		Flow/Exchange Moderate		Flow/Exchange Moderate	
		Flooding Duration Semi-Permanent	0.45	Flooding Duration Semi-Permanent	0.65	Flooding Duration Semi-Permanent	0.65
V4	Mean High Salinit		1.4		0.25		1
			0.82		1		0.25
		HSI =	0.47	HSI =	0.54	HSI =	0.75

AAHU CALCULATION

Project: Maurepas Diversion - Area 3A

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	5406	0.47	2546.00	
1	5406	0.47	2546.00	2546.00
20	5406	0.29	1548.72	38899.80

Total CHUs =	41445.80
AAHUs =	2072.29

Future With Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	5406	0.47	2546.00	
20	5406	0.75	4027.98	66089.89

Total CHUs =	68827.31
AAHUs =	3441.37

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project AAHUs =	3441.37
B. Future Without Project AAHUs =	2072.29
Net Change (FWP - FWOP) =	1369.08

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Swamp

Project..... **Maurepas Diversion - Area 3B**

Project Area..... **8,470**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
		Class 3	0.40	Class 3	0.40	Class 1	0.10
V2	Stand Maturity	Cypress % 48		Cypress % 48		Cypress % 74	
		Cypress dbh 8.73		Cypress dbh 8.73		Cypress dbh 9.93	
		Tupelo et al. % 52		Tupelo et al. % 52		Tupelo et al. % 26	
		Tupelo et al dbh 10.01	0.55	Tupelo et al dbh 10.01	0.55	Tupelo et al dbh 10.81	0.52
		Basal Area 103	0.33	Basal Area 103	0.33	Basal Area 92	0.31
V3	Water Regim	Flow/Exchange Low		Flow/Exchange Low		Flow/Exchange Low	
		Flooding Duration Semi-Permanent	0.45	Flooding Duration Semi-Permanent	0.45	Flooding Duration Permanent	0.30
V4	Mean High Salinit	1.5	0.775	1.5	0.775	1.5	0.775
		HSI = 0.44		HSI = 0.44		HSI = 0.25	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Swamp

Project.....

Project Area.....

Condition: Future With Project

Variable		TY 0		TY 1		TY	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
		Class 3	0.40	Class 3	0.40	Class 4	0.60
V2	Stand Maturity	Cypress % 48		Cypress % 48		Cypress % 48	
		Cypress dbh 8.73		Cypress dbh 8.73		Cypress dbh 10.29	
		Tupelo et al. % 52		Tupelo et al. % 52		Tupelo et al. % 52	
		Tupelo et al dbh 10.01	0.55	Tupelo et al dbh 10.01	0.55	Tupelo et al dbh 11.05	0.68
		Basal Area 103	0.33	Basal Area 103	0.33	Basal Area 133	0.54
V3	Water Regim	Flow/Exchange Low		Flow/Exchange Moderate		Flow/Exchange Moderate	
		Flooding Duration Semi-Permanent	0.45	Flooding Duration Semi-Permanent	0.65	Flooding Duration Semi-Permanent	0.65
V4	Mean High Salinit	1.5	0.775	0.75	1	0.75	1
		HSI = 0.44		HSI = 0.51		HSI = 0.65	

AAHU CALCULATION

Project: **Maurepas Diversion - Area 3B**

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	8470	0.44	3726.80	
1	8470	0.44	3726.80	3726.80
20	8470	0.25	2127.79	55267.37
			Total	
			CHUs =	58957.20
			AAHUs =	2947.86

Future With Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	8470	0.44	3689.83	
1	8470	0.51	4280.76	3985.30
20	8470	0.65	5477.03	92699.07
			CHUs =	96684.37
			AAHUs =	4834.22

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project AAHUs =	4834.22
B. Future Without Project AAHUs =	2947.86
Net Change (FWP - FWOP) =	1886.36

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Variable		TY 0		TY 1		TY 20	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover		% Cover		% Cover	
		Overstory		Overstory		Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
		Class		Class		Class	
		3	0.40	3	0.40	1	0.10
V2	Stand	Cypress %		Cypress %		Cypress %	
		8.73		8.73		9.93	
		Tupelo et al. %		Tupelo et al. %		Tupelo et al. %	
		52		52		26	
		Tupelo et al dbh		Tupelo et al dbh		Tupelo et al dbh	
		10.01	0.55	10.01	0.55	10.81	0.52
		Basal Area		Basal Area		Basal Area	
		103	0.33	103	0.33	92	0.31
V3	ater Regim	Flow/Exchange		Flow/Exchange		Flow/Exchange	
V4	High Salinit	1.5	0.775	1.5	0.775	1.5	0.775
		HSI =	0.44	HSI =	0.44	HSI =	0.25

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Swamp

Project.....

Project Area.....

Condition: Future With Project

Variable		TY 0		TY 1		TY	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
		Class 3	0.40	Class 3	0.40	Class 3	0.40
V2	Stand Maturity	Cypress % 48		Cypress % 48		Cypress % 61	
		Cypress dbh 8.73		Cypress dbh 8.73		Cypress dbh 9.93	
		Tupelo et al. % 52		Tupelo et al. % 52		Tupelo et al. % 39	
		Tupelo et al dbh 10.01	0.55	Tupelo et al dbh 10.01	0.55	Tupelo et al dbh 10.81	0.58
V3	Water Regim	Flow/Exchange Low		Flow/Exchange Low		Flow/Exchange Low	
		Flooding Duration Semi-Permanent	0.45	Flooding Duration Semi-Permanent	0.45	Flooding Duration Permanent	0.30
V4	Mean High Salinit	1.5	0.775	1.00	1	1.00	1
		HSI =	0.44	HSI =	0.45	HSI =	0.41

AAHU CALCULATION

Project: Maurepas Diversion - Area 4A

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	880	0.44	383.36	
1	880	0.44	383.36	383.36
20	880	0.25	221.07	5742.06
Total			CHUs =	6125.42
Total			AAHUs =	306.27

Future With Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	880	0.44	383.36	
1	880	0.45	398.30	390.83
20	880	0.41	358.30	7187.74
Total			CHUs =	7578.57
Total			AAHUs =	378.93

NET CHANGE IN AAHUs DUE TO PROJECT	
A. Future With Project AAHUs =	378.93
B. Future Without Project AAHUs =	306.27
Net Change (FWP - FWOP) =	72.66

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Swamp

Project..... **Maurepas Diversion - Area 4B**

Project Area..... **3,104**

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
V1	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Herbaceous		Herbaceous		Herbaceous	
		Class		Class		Class	
		1	0.10	1	0.10	1	0.10
V2	Stand Maturity	Cypress %		Cypress %		Cypress %	
		Cypress dbh		Cypress dbh		Cypress dbh	
		Tupelo et al. %		Tupelo et al. %		Tupelo et al. %	
		Tupelo et al dbh		Tupelo et al dbh		Tupelo et al dbh	
		Basal Area		Basal Area		Basal Area	
		Class		Class		Class	
		81		81		100	
		7.23		7.23		8.63	
		19		19		0	
		9.44	0.24	9.44	0.24	0	0.26
		41	0.10	41	0.10	45	0.11
V3	Water Regim	Flow/Exchange		Flow/Exchange		Flow/Exchange	
		Flooding Duration		Flooding Duration		Flooding Duration	
		Class		Class		Class	
		Moderate		Moderate		Permanent	
		0.65		0.65		0.45	
V4	Mean High Salinit	Class		Class		Class	
		SI		SI		SI	
		1.8	0.64	1.8	0.64	1.8	0.64
		HSI = 0.23		HSI = 0.23		HSI = 0.21	

WETLAND VALUE ASSESSMENT COMMUNITY MODEL

Swamp

Project.....

Project Area.....

Condition: Future With Project

Variable		TY 0		TY 1		TY	
		Class/Value	SI	Class/Value	SI	Class/Value	SI
ASSESSMENT	Stand Structure	% Cover Overstory		% Cover Overstory		% Cover Overstory	
		Scrub-shrub		Scrub-shrub		Scrub-shrub	
		Class		Class		Class	
		SI		SI		SI	
		1	0.10	1	0.10	1	0.10
V2	Stand Maturity	Cypress %		Cypress %		Cypress %	
		Cypress dbh		Cypress dbh		Cypress dbh	
		Tupelo et al. %		Tupelo et al. %		Tupelo et al. %	
		Tupelo et al dbh		Tupelo et al dbh		Tupelo et al dbh	
		Basal Area		Basal Area		Basal Area	
		Class		Class		Class	
		81		81		86	
		7.23		7.23		8.63	
		19		19		14	
		9.44	0.24	9.44	0.24	10.44	0.34
		41	0.10	41	0.10	53	0.14
V3	Water Regim	Flow/Exchange		Flow/Exchange		Flow/Exchange	
		Flooding Duration		Flooding Duration		Flooding Duration	
		Class		Class		Class	
		Moderate		Moderate		Permanent	
		0.65		0.65		0.45	
V4	Mean High Salinit	Class		Class		Class	
		SI		SI		SI	
		1.8	0.64	1.40	0.82	1.40	0.82
		HSI = 0.23		HSI = 0.24		HSI = 0.23	

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

11th Priority Project List Report

Appendix F

Public Support For Candidate Projects

**Public Support for Candidate Projects
for the
11th Priority Project List**

Coastwide Nutria Control Program

- Phillip Bowman, Louisiana Department of Wildlife and Fisheries
- Allen Ensminger, DeRidder, LA
- David Richard, Stream Company
- Greg Linscombe, Louisiana Department of Wildlife and Fisheries
- Jerome Zeringue, Terrebonne Levee and Conservation District
- Tim Allen, Caster Laterre

Lake Borgne Shoreline Protection at Bayou Dupre

- Representative Kenneth L. Odinet, Sr., Louisiana House of Representatives
- Dan Arceneaux, St. Bernard Coastal Zone Advisory Board
- Honorable Mary Landrieu, United States Senator
- Myra M. Kattengell, St. Bernard Parish Government

South Chandeleur Islands Restoration

- Representative Kenneth L. Odinet, Sr., Louisiana House of Representatives
- Dan Arceneaux, St. Bernard Coastal Zone Advisory Board
- Shea Penland, Pontchartrain Institute
- Michael A. Poirrier, Ph.D., University of New Orleans

Lake Lery Dedicated Dredging

- Representative Kenneth L. Odinet, Sr., Louisiana House of Representatives
- Dan Arceneaux, St. Bernard Coastal Zone Advisory Board

Barataria Basin Landbridge Shoreline Protection (and dedicated dredging increment)

- Marnie Winter, Jefferson Parish
- Jeanie Maloney, Maloney Productions, New Orleans
- Martin R. deLaurél, New Orleans
- Kermit L. Roux, Jr., MD, Jefferson Medical Services, Inc., Metairie
- Craig S. Maloney, Mandeville
- John A. Stassi II, Christovich and Keaney, LLP, New Orleans
- Rufus C. Harris III, Metairie
- William Emmett Wolf, New Orleans
- H. W. Wolf, Bowne of New Orleans
- Kyle Marks, Oil and Gas Investments, Mandeville
- Eric K. Morgan, Morgan Joanen, New Orleans
- Skip Haller, Madison Land Company
- Louis Hatty, Jr., Sixth Ward Association for Progress, Jean Lafitte
- Fred Hurt, Lafitte Yacht Club
- Ray Champagne, Marrero
- Eddie J. Sapia, Jr., Jean Lafitte
- Edward Perrin, Lafitte

- V.A. Overbay, Lafitte
- Joseph D. Passalaqua, Barataria
- Joe E. Baucum, Barataria
- Tod A. Bourgeois, Barataria
- Milton Hymel, Barataria
- Jerry W. Carlson, Barataria
- Martha Greene, Madison Land Co., Metairie

Dedicated Dredging on the Barataria Basin Landbridge

- Marnie Winter, Jefferson Parish
- Jeanie Maloney, Maloney Productions, New Orleans
- Martin R. deLaurél, New Orleans
- Kermit L. Roux, Jr., MD, Jefferson Medical Services, Inc., Metairie
- Craig S. Maloney, Mandeville
- John A. Stassi II, Christovich and Keaney, LLP, New Orleans
- Rufus C. Harris III, Metairie
- William Emmett Wolf, New Orleans
- H. W. Wolf, Bowne of New Orleans
- Kyle Marks, Oil and Gas Investments, Mandeville
- Eric K. Morgan, Morgan Joanen, New Orleans
- Skip Haller, Madison Land Company
- Louis Hatty, Jr., Sixth Ward Association for Progress, Jean Lafitte
- Fred Hurt, Lafitte Yacht Club
- Ray Champagne, Marrero
- Eddie J. Sapia, Jr., Jean Lafitte
- Edward Perrin, Lafitte
- V.A. Overbay, Lafitte
- Joseph D. Passalaqua, Barataria
- Joe E. Baucum, Barataria
- Tod A. Bourgeois, Barataria
- Milton Hymel, Barataria
- Jerry W. Carlson, Barataria
- Martha Greene, Madison Land Co., Metairie

Pass Chalard to Grand Bayou Pass Barrier Shoreline Restoration

- Representative Ernest Wooton, Louisiana House of Representatives
- Benny Rousselle, Parish President, Plaquemines Parish
- Marnie Winter, Jefferson Parish
- Shea Penland, Pontchartrain Institute
- Plaquemines Parish Council, Plaquemines Parish Government
- Louis Hatty, Jr., Sixth Ward Association for Progress, Jean Lafitte
- Fred Hurt, Lafitte Yacht Club
- Ray Champagne, Marrero
- Eddie J. Sapia, Jr., Jean Lafitte
- Edward Perrin, Lafitte
- V.A. Overbay, Lafitte
- Joseph D. Passalaqua, Barataria

- Joe E. Baucum, Barataria
- Tod A. Bourgeois, Barataria
- Milton Hymel, Barataria
- Jerry W. Carlson, Barataria
- Martha Greene, Madison Land Co., Metairie

South Shore of the Pen/Bayou Dupont Shoreline Protection/Marsh Creation

- Representative Ernest Wooton, Louisiana House of Representatives
- Marnie Winter, Jefferson Parish
- Plaquemines Parish Council, Plaquemines Parish Government
- Louis Hatty, Jr., Sixth Ward Association for Progress, Jean Lafitte
- Fred Hurt, Lafitte Yacht Club
- Ray Champagne, Marrero
- Eddie J. Sapia, Jr., Jean Lafitte
- Edward Perrin, Lafitte
- V.A. Overbay, Lafitte
- Joseph D. Passalacqua, Barataria
- Joe E. Baucum, Barataria
- Tod A. Bourgeois, Barataria
- Milton Hymel, Barataria
- Jerry W. Carlson, Barataria
- Martha Greene, Madison Land Co., Metairie

West Lake Boudreaux Shoreline Protection and Marsh Creation

- Curtis R. Hopkins, North American Water Fowl Management Plan
- Larry Reynolds, Gulf Coast Joint Venture
- Jerome Zeringue, Terrebonne Levee and Conservation District
- Phillip Bowman, Louisiana Department of Wildlife and Fisheries
- Parish Council, Parish of Terrebonne
- Ray B. Boudreaux, Jr., District 3, Terrebonne Parish Council
- Alvin Tillman, District 1, Terrebonne Parish Council
- Christa M. Duplantis, District 4, Terrebonne Parish Council
- Harold Lapeyre, District 6, Terrebonne Parish Council
- Clayton J. Viosin, District 7, Terrebonne Parish Council
- Wayne Thibodeaux, District 2, Terrebonne Parish Council
- J. B. Breaux, District 5, Terrebonne Parish Council
- Reter Rhodes, District 8, Terrebonne Parish Council
- Daniel D. Henry, Sr., District 9, Terrebonne Parish Council

Bayou Terrebonne East Bank Hydrologic Restoration

- Jerome Zeringue, Terrebonne Levee and Conservation District
- Phillip Bowman, Louisiana Department of Wildlife and Fisheries

Blue Hammock Bayou Hydrologic Restoration and Beneficial Use

- Curtis R. Hopkins, North American Water Fowl Management Plan
- Larry Reynolds, Gulf Coast Joint Venture

Ship Shoal, Whiskey Pass Closure and West Flank Restoration

- Mr. Miller, Terrebonne Coastal Zone Advisory Committee (Whiskey Pass)
- Tim Allen, Caster Laterre

Raccoon Island Shoreline Protection/Marsh Creation

- Keith Ouchley, PhD, Nature Conservancy of Louisiana
- Jennifer Coulson, Orleans Audubon Society
- Greg Linscombe, Louisiana Department of Wildlife and Fisheries
- Phillip Bowman, Louisiana Department of Wildlife and Fisheries
- Jerome Zeringue, Terrebonne Levee and Conservation District
- Tim Allen, Caster Laterre

Southwest Pass Shoreline Stabilization

- Judge Edwards, Vermilion Corporation
- Charles Broussard, Vermilion Coastal Zone Advisory Committee
- Charles Broussard, President of Flying J Ranch, Inc.
- David Richard, Stream Company
- Dane Hebert, President Vermilion Parish Farm Bureau
- Honorable Mary Landrieu, United States Senator
- Honorable Chris John, Member of Congress, United States House of Representatives
- Ritter P. Trahan, President Vermilion Parish Policy Jury
- David F. LaCour, Abbeville, LA
- Mike Langlinais, Vermilion Parish Assessor, Abbeville, LA
- Richard Hardee, Vermilion Rice Growers Association, Gueydan, LA

South Grand Chenier Hydrologic Restoration

- Representative Elcie J. Guillory, Louisiana House of Representatives
- Representative Dan Flavin, Louisiana House of Representatives
- Representative Ronnie Johns, Louisiana House of Representatives
- Senator Dan Morrish, Louisiana Senate
- Representative Gerald J. Theunissen, Louisiana House of Representatives
- Representative Vic Stelly, Louisiana House of Representatives
- David Richard, Cameron Parish Wetlands Advisory Committee, Stream Company
- Carl Broussard, Grand Chenier, LA
- Curtis R. Hopkins, North American Waterfowl Management Plan
- Larry Reynolds, Gulf Coast Joint Venture
- Judge Edwards, Vermilion Corporation
- Charles Precht III, Cameron Parish Police Jury

Grand Lake Shoreline Protection

- Representative Elcie J. Guillory, Louisiana House of Representatives
- Representative Dan Flavin, Louisiana House of Representatives
- Representative Ronnie Johns, Louisiana House of Representatives
- David Richard, Cameron Parish Wetlands Advisory Committee, Stream Company
- Carl Broussard, Grand Chenier, LA
- Charles Precht, III, Cameron Parish Police Jury

South White Lake Shoreline Protection

- Judge Edwards, Vermilion Corporation
- Ritter P. Trahan, Vermilion Parish Police Jury

Oyster Bayou Marsh Creation

- Representative Dan Morrish, Louisiana House of Representatives
- Senator Gerald J. Theunissen, Louisiana Senate
- Representative Dan Flavin, Louisiana House of Representatives
- Representative Ronnie Johns, Louisiana House of Representatives
- Representative Elcie J. Guillory, Louisiana House of Representatives
- Senator Willie L. Mount, Louisiana Senate
- Charles Precht III, Cameron Parish Police Jury

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

11th Priority Project List Report

Appendix G

Status of Previous Projects from 1st through 10th Priority Project Lists

Appendix G

Status of Previous Projects from 1st through 10th Priority Project Lists

Table of Contents

	<u>Page</u>
DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS	
1 st Priority Project List	
Barataria Bay Waterway Marsh Creation	1
Bayou Labranche Wetland Marsh Creation	1
Lake Salvador Shoreline Protection at Jean Lafitte NHP&P	2
Vermilion River Cutoff Wetland Creation	2
West Bay Sediment Diversion for Marsh Creation	3
2 nd Priority Project List	
Clear Marais Shore Protection	4
West Belle Pass Headland Restoration	4
3 rd Priority Project List	
Channel Armor Gap Crevasse	5
MRGO Disposal Area Marsh Protection	5
Pass-a-Loutre Crevasse (deauthorized)	6
4 th Priority Project List	
Grand Bay Crevasse (deauthorized)	7
Beneficial Use of Hopper Dredged Material Demo. (deauthorized)	7
5 th Priority Project List	
Marsh Creation at Bayou Chevee	8
6 th Priority Project List	
Flexible Dustpan (Demo) Dredging for Marsh Creation the Miss. Delta Region	9
Marsh Creation East of Atchafalaya River – Avoca Island (Increment II) (deauthorized)	9
Marsh Island Hydrologic Restoration	9
7 th Priority Project List	
Lake Borgne Shore Protection – Base Near Shell Beach*	
Sabine Refuge Marsh Creation*	
Cut Off Bayou Marsh Creation*	
Wine Island Extension*	

8 th Priority Project List	
Sabine Refuge Marsh Creation (Alternative 1)	10
9 th Priority Project List	
Freshwater Bayou Canal HR/Sp – Belle Isle to Lock	11
Opportunistic Use of the Bonnet Carre Spillway	11
Periodic Introduction of Sediment and Nutrients at Selected Diversion Sites	12
Weeks Bay/Commercial Canal/GIWW	12
10 th Priority Project List	
Benny’s Bay 50,000 cfs Diversion	13
Delta Building Diversion at Myrtle Grove	13
Delta Building Diversion North of Fort St. Philip	13

ENVIRONMENTAL PROTECTION AGENCY, REGION 6

1 st Priority Project List	
Eastern Isles Dernieres Barrier Island Restoration Demonstration	17
2 nd Priority Project List	
Isles Dernieres Island Restoration	17
3 rd Priority Project List	
Modified Red Mud Demonstration (deauthorized)	18
Whiskey Island Restoration	18
4 th Priority Project List	
Compost Demonstration (deauthorized)	19
5 th Priority Project List	
Bayou Lafourche Siphon (w/out cutoff structure)	20
6 th Priority Project List	
Bayou Bouef Pump Station Increment 1 (deauthorized)	21
7 th Priority Project List	
Lake Pelto Dedicated Dredging at New Cut Closure*	
8 th Priority Project List	n/a
9 th Priority Project List	
LA Highway 1 Marsh Creation	22
New Cut Dune/Marsh Restoration	23
Timbalier Island Dune/Marsh Restoration	23

10 th Priority Project List	
Shore Protection/Marsh Restoration in Lake Borgne at Shell Beach	24
Small Freshwater Diversion to the NW Barataria Basin	24

DEPARTMENT OF THE INTERIOR, FISH & WILDLIFE SERVICE

1 st Priority Project List	
Bayou Sauvage NWR Hydrologic Restoration	27
Cameron-Creole Watershed Project Borrow Canal Plug	27
Cameron Prairie Refuge NWR Erosion Prevention	27
Sabine Refuge Pool 3 Unit Protection	28
2 nd Priority Project List	
Bayou Sauvage NWR Hydrologic Restoration	28
3 rd Priority Project List	
Replace Hog Island, West Cove and Headquarters Canal at Sabine Refuge	
Water Control Structures	30
4 th Priority Project List	n/a
5 th Priority Project List	
Grand Bayou/GIWW Freshwater Diversion	31
6 th Priority Project List	
Lake Boudreaux Basin FW Introduction and Hydrologic Management –	
Alternative B	31
Nutria Harvest for Wetland Restoration	32
7 th Priority Project List	n/a
8 th Priority Project List	n/a
9 th Priority Project List	
FW Introduction South of Hwy. 82	34
Mandalay Bank Protection Demonstration	34
10 th Priority Project List	
Delta Management at Fort St. Phillip	35
Grand-White Lake Land Bridge Protection Project	36
East Sabine Lake Hydrologic Restoration (with Terraces)	37
North Lake Mechant Land Bridge Restoration	38
Terrebonne Bay Shore Protection/Oyster Reef Demo	38

DEPARTMENT OF COMMERCE, NATIONAL MARINE FISHERIES SERVICE

1 st Priority Project List	
Fourchon Hydrologic Restoration (deauthorized)	42
Lower Bayou La Cache Wetland Hydrologic Restoration (deauthorized)	42
2 nd Priority Project List	
East Atchafalaya Crevasse Creation	43
Big Island Sediment Distribution	43
Pointe Au Fer Canal Plugs	43
3 rd Priority Project List	
Restoration of Bayou Perot/Bayou Rigolettes Marsh (deauthorized)	44
East Timbalier Sediment Restoration	44
Lake Chapeau Marsh Creation and Hydrologic Restoration, Pointe au Fer Island	45
Lake Salvador Shoreline Protection Demonstration	45
4 th Priority Project List	
East Timbalier Barrier Island Sediment Restoration	46
Eden Isles Marsh Sediment Restoration (deauthorized)	46
5 th Priority Project List	
Little Vermillion Bay Sediment Trapping	47
Siphon at Myrtle Grove	47
6 th Priority Project List	
Black Bayou Hydrologic Restoration	48
Delta-Wide Crevasses	48
Sediment Trapping at the Jaws	48
7 th Priority Project List	
Vegetative Planting of Dredged Material Disposal site on Grande Terre Island	49
Pecan Island Terracing Project	49
8 th Priority Project List	
Bayou Bienvenue Pump Outfall Management and Marsh Creation (deauthorized)	50
Hopedale Hydrologic Restoration	50
9 th Priority Project List	
Castille Pass Sediment Delivery	51

Chandeleur Islands Restoration	51
East/West Grand Terre Islands Restoration	52
Four-Mile Cut/Little Vermillion Bay HR	52
LaBranche Wetlands Terracing/Plantings	52
10 th Priority Project List	
Rockefeller Refuge Gulf Shoreline Stabilization	53

DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE

1 st Priority Project List	
GIWW to Clovelly Hydrologic Restoration Coastal Vegetation Program	56
Dewitt-Rollover Shore Protection Demo (Vegetative Planting de-authorized)	56
Falgout Canal Planting Demonstration	56
Timbalier Island Planting Demonstration	57
West Hackberry Vegetative Planting	57
2 nd Priority Project List	
Vermillion Bay/Boston Canal Shoreline Stabilization	58
Brown Lake Hydrologic Restoration	58
Caernarvon Diversion Outfall Management	58
Freshwater Bayou Wetland and Shore Protection	59
Fritchie Marsh Creation	59
Hwy. 384 Hydrologic Restoration	59
Jonathon Davis Wetlands Protection	60
East Mud Lake Hydrologic Restoration	60
3 rd Priority Project List	
Brady Canal Hydrologic Restoration	61
Cameron-Creole Maintenance	61
Cote Blanche Marsh Management	61
Southwest Shore White Lake Shore Protection Demonstration (deauthorized)	62
Violet Freshwater Distribution, Central Wetlands (deauthorized)	62
West Pointe-a-la-Hache Outfall Management	62
White's Ditch Diversion Outfall Management (deauthorized)	63
4 th Priority Project List	
Barataria Bay Waterway Bank Protection (west)	63

Bayou L'Ours Ridge Hydrologic Restoration	64
Flotant Marsh Fencing Demonstration (deauthorized)	64
Perry Ridge Shore Protection	64
Plowed Terraces Demonstration	64
5 th Priority Project List	
Freshwater Bayou Bank Stabilization	65
Naomi Outfall Management	65
Raccoon Island Breakwater Demonstration	66
Sweet Lake/Willow Lake Hydrologic Restoration	66
6 th Priority Project List	
Barataria Bay Waterway "Dupre Cut" Bank Protection (east)	67
Cheniere au Tigre Sediment Trapping Device	67
Oaks/Avery Canals Hydrologic Restoration Increment I (Bank stabilization)	67
Penchant Natural Resources Plan Increment I	68
7 th Priority Project List	
Upper Oak River FW Introduction Siphon*	
Barataria Basin Landbridge, Shoreline Stabilization – Phase 1	68
Along Bayou Perot and Rigolettes, Phase 1*	
Along Bayou Perot and Rigolettes, Phase 2*	
South Grand Cheniere Freshwater Introduction*	
Thin Mat Flotant Marsh (Demo)	69
8 th Priority Project List	
Humble Canal Hydrologic Restoration	69
Lake Portage Land Bridge Phase 1	70
Upper Oak River Freshwater Introduction Siphon (deauthorized)	70
Barataria Basin Land Bridge, Shore Line Protection, Phase 2 Increment A	
Barataria Basin Land Bridge, Shore Line Protection, Phase 2 Increment B	
Barataria Basin Land Bridge, Shore Line Protection, Phase 2 Increment C	
9 th Priority Project List	
Barataria Basin Land Bridge Shore Protection Phase 3	71
Black Bayou Bypass Culverts	71
Little Pecan Bayou Control Structure	71
GIWW Bank Stabilization (Perry Ridge to Texas)	72

South Lake DeCade/Atch. Freshwater Introduction 72

10th Priority Project List

GIWW Bank Restoration of Critical Areas in Terrebonne 73

(* - unfunded)

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

PROJECT STATUS SUMMARY REPORT

30 September 2002

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

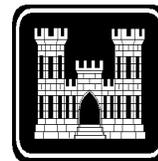
Project Summary by Basin

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 Restoration Branch
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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 Marsh Creation	BARA	JEFF	445	24-Apr-1995 A	22-Jul-1996 A	15-Oct-1996 A	\$1,759,257	\$1,180,393	67.1	\$1,161,648 \$1,148,463
<p>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.</p>										
Bayou Labranche Marsh Creation	PONT	STCHA	203	17-Apr-1993 A	06-Jan-1994 A	07-Apr-1994 A	\$4,461,301	\$3,665,519	82.2	\$3,737,229 \$3,585,308
<p>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.</p> <p>The project is being monitored.</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	%	
Lake Salvador Shoreline Protection at Jean Lafitte NHP&P	BARA	JEFF	0	29-Oct-1996 A	01-Jun-1995 A	21-Mar-1996 A	\$60,000	\$60,000	100.0	\$58,753 \$58,753
<p>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.</p> <p>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.</p> <p>Complete. This project was design only.</p>										
Vermilion River Cutoff Bank Protection	TECHE	VERMI	65	17-Apr-1993 A	10-Jan-1996 A	11-Feb-1996 A	\$1,526,000	\$2,046,940	134.1 !	\$1,824,270 \$1,794,999
<p>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.</p> <p>The Task Force approved a revised project estimate of \$2,500,000; however, current estimate is less.</p> <p>Condemnation of real estate easements was required because of unclear ownership titles and significantly lengthened the project schedule. Construction was completed in February 1996.</p> <p>Complete.</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	%	
Clear Marais Bank Protection	CALC	CALCA	1,067	29-Apr-1996 A	29-Aug-1996 A	03-Mar-1997 A	\$1,741,310	\$3,717,443	213.5 !	\$2,880,202 \$2,872,798
	<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	17-Jul-1998 A	\$4,854,102	\$6,751,441	139.1 !	\$5,399,913 \$5,395,349
	<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>									
Total Priority List 2			1,541				\$6,595,412	\$10,468,884	158.7	\$8,280,115 \$8,268,147

- 2 Project(s)
- 2 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 THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Channel Armor Gap Crevasse	DELTA	PLAQ	936	13-Jan-1997 A	22-Sep-1997 A	02-Nov-1997 A	\$808,397	\$902,720	111.7	\$607,070 \$595,027
	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 Back Dike Marsh Protection	PONT	STBER	755	17-Jan-1997 A	25-Jan-1999 A	29-Jan-1999 A	\$512,198	\$342,611	66.9	\$316,311 \$318,445
	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	0				\$2,857,790	\$119,857	4.2	\$119,857 \$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>										
Total Priority List 3			1,691				\$4,178,385	\$1,365,188	32.7	\$1,043,238 \$1,033,308

- 3 Project(s)
- 2 Cost Sharing Agreements Executed
- 2 Construction Started
- 2 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 4

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	0				\$2,468,908	\$64,515	2.6	\$64,515 \$64,497
<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>										
Hopper Dredge (Demo) [DEAUTHORIZED]	DELTA	PLAQ	0	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>										
Total Priority List			4	0			\$2,768,908	\$122,824	4.4	\$122,824 \$122,807

- 2 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 2 Project(s) Deferred/Deauthorized

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	%	
Bayou Chevee Shoreline Protection	PONT	ORL	75	01-Feb-2001 A	25-Aug-2001 A	17-Dec-2001 A	\$2,555,029	\$2,699,200	105.6	\$2,227,352 \$2,222,184
<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>										
Total Priority List 5			75				\$2,555,029	\$2,699,200	105.6	\$2,227,352 \$2,222,184

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 6

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	%	
Flexible Dustpan Demo at Head of Passes (Demo)	DELTA	PLAQ	0	31-May-2002 A	03-Jun-2002 A	21-Jun-2002 A	\$1,600,000	\$1,903,303	119.0	\$1,849,338 \$1,799,712
<p>Status: CSA executed May 31, 2002. Construction completed June 21, 2002.</p> <p>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".</p> <p>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.</p>										
Marsh Creation East of Atchafalaya River- Avoca Island [DEAUTHORIZED]	TERRE	STMRY	0				\$6,438,400	\$66,869	1.0	\$66,869 \$66,869
<p>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.</p> <p>Project deauthorized July 23, 1998.</p>										
Marsh Island Hydrologic Restoration	TECHE	IBERI	367	01-Feb-2001 A	25-Jul-2001 A	12-Dec-2001 A	\$4,094,900	\$5,063,963	123.7	\$3,869,471 \$3,802,623
<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>										

**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		6	367				\$12,133,300	\$7,034,135	58.0	\$5,785,678 \$5,669,203

- 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	CALC	CAMER	993	09-Mar-2001 A	15-Aug-2001 A	30-Sep-2006	\$5,920,248	\$7,400,310	125.0	\$3,252,467 \$3,214,508
------------------------------	------	-------	-----	---------------	---------------	-------------	-------------	-------------	-------	----------------------------

Status: Total project cost estimate is \$10,154,300; Priority List 8 funded \$5,313,000 to complete construction of a permanent pipeline and one cycle of marsh creation. The COE will request funding for dredging cycle 2 which is anticipated for FY2004

Total project cost for dredging cycle is \$4,211,434. Initial project design forecasted a permanent pipeline constructed to facilitate dredging cycles 1-5. However, the permanent pipeline proved to be too expensive to construct and maintain and was dropped as a design feature. 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. Phase 1 of this contract will place approximately 1,000,000 cubic yards of material into a confined area on the Sabine National Wildlife Refuge. It will build 125 acres of marsh with meandering trennasses and enhance the creation of an approximate 50-acre fringe. Additionally, 200 acres of marsh to the west may benefit from the sediment and nutrient flow.

Phase 1 construction was completed on February 26, 2002. The southern dike degradation will be completed by December 2002, and Cycle 1 planting will be conducted in spring 2003.

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		8	993				\$5,920,248	\$7,400,310	125.0	\$3,252,467 \$3,214,508
<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 9

Freshwater Bayou Canal HR/SP - Belle Isle to Lock	TECHE	VERMI	529	01-Apr-2003 *	01-Aug-2003		\$1,498,967	\$1,498,967	100.0	\$419,022 \$419,022
Status: Site visit held in January 2001 with Local Sponsor and landowner. Right of entry for surveys and borings obtained March 14, 2001. Met with Local Sponsor after survey data processed obtained consensus on cross-section and depth contour. Currently scheduled to ask for construction approval at the July 2004 Task Force meeting. Draft model CSA in review. 30% design review held June 2002. Project revised to include Area A only - shoreline protection work.										
Opportunistic Use of Bonnet Carre Spillway	PONT	STCHA	177	01-Apr-2003 *	01-Dec-2003		\$150,706	\$150,706	100.0	\$11,709 \$11,709
Status: Lake Pontchartrain Basin Foundation has partnered with the LSU Coastal Ecology Institute in the development of a nutrient budget model for Lake Pontchartrain. Nutrient budget model in final review. Currently scheduled to ask for construction approval at the July 2003 Task Force meeting. Draft model CSA in review.										

This project involves no physical 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	%	
Periodic Intro of Sediment & Nutrients Along the Miss. River (Demo)	VARY	VARY		01-Jan-2003 *	01-May-2003 *	30-Nov-2003	\$109,730	\$109,730	100.0	\$14,408 \$14,408
	Status: Field site investigations have been completed. Development of sediment capacities at alternative sites is being undertaken.									
Weeks Bay/Commercial Canal/GIWW SP	TECHE	IBERI	138	01-Jan-2003 *			\$1,229,337	\$1,229,337	100.0	\$332,209 \$287,789
	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	844			\$2,988,740	\$2,988,740	100.0	\$777,347 \$732,927

- 4 Project(s)
- 0 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 ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Benny's Bay 50,000 cfs Diversion	DELTA	PLAQ	5,828	01-Apr-2003 *			\$1,076,328	\$1,076,328	100.0	\$210,139 \$213,102
	Status: Phase 1 initiated in spring 2001. Draft CSA under negotiation. 30% design review held September 2002.									
Delta-Building Diversion at Myrtle Grove	BARA	JEFF	0				\$3,002,114	\$3,002,114	100.0	\$777,172 \$550,536
	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	2,473	01-Jan-2003 *	01-Dec-2003	01-Apr-2004	\$1,155,200	\$1,155,200	100.0	\$192,977 \$192,977
	Status: Phase 1 activities are progressing. A project team has been formed and a site visit has been made. Property owners are being identified and will be contacted to determine their willingness to allow project construction. Elevation surveys, subsurface soil data, and cultural resources surveys are underway. A hydrologic modeling study is being developed to determine the size of the diversion channel and the extent of project effects on salinity levels.									

**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		10	8,301				\$5,233,642	\$5,233,642	100.0	\$1,180,289 \$956,616
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	495	01-Apr-2003 *			\$1,049,029	\$1,049,029	100.0	\$47,244 \$47,244
	Status: Kickoff meeting held April 2002. Draft CSA under negotiation. Site visit conducted June 2002. Phase 1 work plan submitted to P&E subcommittee July 2002. Scheduled to seek construction authorization from Task Force at summer 2003 meeting.									
Mississippi River Sediment Trap {Complex}	DELTA	PLAQ	24,065				\$1,880,376	\$1,880,376	100.0	\$0 \$0
	Status:									

**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	24,560				\$2,929,405	\$2,929,405	100.0	\$47,244 \$47,244
	2 Project(s)									
	0 Cost Sharing Agreements Executed									
	0 Construction Started									
	0 Construction Completed									
	0 Project(s) Deferred/Deauthorized									
Total	DEPT. OF THE ARMY, CORPS OF ENGINEERS		48,916				\$61,626,693	\$69,507,941	112.8	\$30,840,723 \$30,196,733
	26 Project(s)									
	14 Cost Sharing Agreements Executed									
	12 Construction Started									
	11 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	ALL	COAST	0	13-Jun-1995 A	03-Jul-1995 A	21-Nov-1997 A	\$238,871	\$191,807	80.3	\$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			0				\$238,871	\$191,807	80.3	\$191,807

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 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	%	
Isles Dernieres (Phase 0) (East Island)	TERRE	TERRE	9	17-Apr-1993 A	16-Jan-1998 A	15-Jun-1999 A	\$6,345,468	\$8,745,210	137.8 !	\$6,908,119 \$6,855,003
<p>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.</p> <p>Construction start was January 16, 1998. Hydraulic dredging was completed September 1998. Vegetation planting was completed June 1999.</p>										
Total Priority List 1			9				\$6,345,468	\$8,745,210	137.8	\$6,908,119 \$6,855,003

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 2

Isles Dernieres (Phase 1) (Trinity Island)	TERRE	TERRE	109	17-Apr-1993 A	27-Jan-1998 A	15-Jun-1999 A	\$6,907,897	\$10,785,706	156.1 !	\$9,539,784 \$9,466,433
<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>										

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		2	109				\$6,907,897	\$10,785,706	156.1	\$9,539,784 \$9,466,433
<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

Red Mud (Demo) [DEAUTHORIZED]	PONT	STJON	0	03-Nov-1994 A			\$350,000	\$470,500	134.4 !	\$368,406 \$368,406
<p>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.</p> <p>The Task Force approved the deauthorization of the project on August 7, 2001. Escrowed funds will be returned to Kaiser Aluminum and Chemical Corp.</p>										
Whiskey Island Restoration	TERRE	TERRE	1,239	06-Apr-1995 A	13-Feb-1998 A	15-Jun-2000 A	\$4,844,274	\$7,721,186	159.4 !	\$7,299,482 \$6,942,504
<p>Status: At the January 16, 1998 meeting, the Task Force approved additional funds to cover the increased construction cost on lowest bid received.</p> <p>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.</p>										

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 3			1,239				\$5,194,274	\$8,191,686	157.7	\$7,667,888 \$7,310,909
2 Project(s) 2 Cost Sharing Agreements Executed 1 Construction Started 1 Construction Completed 1 Project(s) Deferred/Deauthorized										

Priority List 4

Compost Demo (Demo) [DEAUTHORIZED]	CALC	CAMER	0	22-Jul-1996 A			\$370,594	\$425,333	114.8	\$342,513 \$210,519
<p>Status: Plans and specifications have been finalized. All permits and construction approvals have been obtained.</p> <p>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.</p> <p>The Task Force approved deauthorization on January 16, 2002.</p>										

Total Priority List 4			0				\$370,594	\$425,333	114.8	\$342,513 \$210,519
1 Project(s) 1 Cost Sharing Agreements Executed 0 Construction Started 0 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	%	
Priority List 5										
Bayou Lafourche Siphon	TERRE	IBERV	988	19-Feb-1997 A			\$24,487,337	\$1,500,000	6.1	\$1,497,881 \$1,431,721
	<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			988			\$24,487,337	\$1,500,000	6.1	\$1,497,881 \$1,431,721	

- 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	%	
Priority List 5.1										
Bayou Lafourche Diversion (revised project)	TERRE	IBERV	0	30-Jun-2002 *			\$9,700,000	\$9,700,000	100.0	\$4,809,800 \$4,860
	Status:	This Task Force, at the October 25, 2001 meeting, agreed to proceed with Phase 1 Engineering and Design (E&D) costs for the project, subject to five stipulations. The State of LA will pay for 50% of the Phase I E&D costs, estimated to total \$9.7 million, as agreed to by the State Wetlands Authority (approximately \$4.5 million). The allocation of CWPPRA funds for Phase 1 E&D does not commit the Task Force to a specific action. EPA has initiated preliminary activities, including evaluation of certain Value Engineering options and a sediment characterization study. An E&D contractor is expected to be chosen by mid-September 2002.								
Total Priority List 5.1			0				\$9,700,000	\$9,700,000	100.0	\$4,809,800 \$4,860

- 0 Project(s)
- 0 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 6

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 Boeuf Pump Station [DEAUTHORIZED]	TERRE	STMAR	0				\$150,000	\$3,452	2.3	\$3,452 \$3,452
<p>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.</p> <p>Deauthorization was approved at the July 23, 1998 Task Force meeting.</p>										
Total Priority List 6			0				\$150,000	\$3,452	2.3	\$3,452 \$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	BARA	LAFOU	146	05-Oct-2000 A			\$1,151,484	\$1,433,393	124.5	\$1,216,784 \$105,488
<p>Status: A cooperative agreement/cost share agreement has been executed. A Request for Statements of Interest and Qualifications has been issued and numerous responses received. A feasibility study report was received April 30, 2002, and is being reviewed by EPA and LDNR to assist in determination whether to proceed to engineering and design of Phase 1. Numerous issues have made it unlikely that the project can be completed as originally planned. EPA and LDNR are currently investigating other options at the request of parish officials.</p>										

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	%	
New Cut Dune/Marsh Restoration	TERRE	TERRE	102	01-Sep-2000 A			\$7,393,626	\$10,518,139	142.3 !	\$9,005,604 \$294,040
	Status: Phase 2 construction funding was approved at the January 10, 2001 Task Force meeting. A September 6, 2001 Task Force fax vote approved an estimate increase of \$1,335,000 for Phase 2 construction contract.									
	Construction contract was put on hold in May 2002, due to public concerns about the proposed borrow site (Monkey Bar/Borrow area W - located between East and Wine Island) for the project. EPA and DNR are currently attempting to locate an alternate sand source.									
Timbalier Island Dune/Marsh Restoration	TERRE	TERRE	273	05-Oct-2000 A	01-Apr-2003 *		\$1,360,198	\$1,693,939	124.5	\$1,470,943 \$501,843
	Status: Project design initiation has begun. T. Baker Smith, Inc., has been selected as the firm to conduct design. The 30% design meeting was held on May 9, 2002. EPA and LDNR conducted the 95% design review on September 10, 2002.									
Total Priority List			9			521	\$9,905,308	\$13,645,471	137.8	\$11,693,331 \$901,370

- 3 Project(s)
- 3 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	%	
Lake Borgne Shoreline Protection	PONT	STBER	312	30-Jun-2002 *	01-Oct-2003		\$1,334,360	\$1,667,950	125.0	\$1,767,490 \$19,966
	Status: Phase 1 has been initiated and site visit for engineers conducted. Project now incorporates shoreline protection at Bayou Dupre, in addition to Shell Beach. EPA and LDNR are proceeding to the 30% design level.									
Small Freshwater Diversion to the Northwestern Barataria Basin	BARA	STJAM	0	08-Oct-2001 A			\$1,899,834	\$2,362,687	124.4	\$2,003,216 \$8,674
	Status: The CSA with LDNR has been executed. LDNR has decided to use existing mission contractor, Waldemar-Nelson, and their subcontractor, FTN Assoc., to conduct preliminary hydrodynamic modeling. Water level recorders have been ordered. Scope of work for hydrodynamic modeling has been negotiated. An outreach program has been initiated.									
Total Priority List			10	312			\$3,234,194	\$4,030,637	124.6	\$3,770,706 \$28,639

- 2 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	%	
Mississippi River Water Reintroduction into Maurepas Swamp {Complex}	PONT	STJON	0	23-Apr-2002 A	01-Jan-2005	30-Nov-2008	\$5,434,288	\$6,780,307	124.8	\$5,621,100 \$14,740
	Status: The Task Force approved Phase 1 funding at the August 7, 2001 meeting.									
	EPA will prepare an Environmental Impact Statement for the project. The public will be asked to assist with scoping the effects and issues associated with this project, in November/December 2002. URS Corp. has been selected as the prime contractor by LDNR to conduct Phase 1 Engineering and Design of the project. Scope of Work negotiations are ongoing with URS, with a final SOW anticipated in October/November 2002.									
Ship Shoal: Whiskey Island West Flank Restoration	TERRE	TERRE	182		01-Apr-2004		\$2,998,960	\$3,742,053	124.8	\$3,261,288 \$0
	Status: EPA and LDNR are in the process of drafting the project Cooperative Agreement, and are in discussion regarding possible implementation alternatives.									
Total Priority List			11	182			\$8,433,248	\$10,522,360	124.8	\$8,882,388 \$14,740

- 2 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		3,360				\$74,967,191	\$67,741,662	90.4	\$55,307,669 \$26,419,454

- 15 Project(s)
- 11 Cost Sharing Agreements Executed
- 3 Construction Started
- 3 Construction Completed
- 3 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 THE INTERIOR (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 1

Bayou Sauvage Refuge #1	PONT	ORL	1,550	17-Apr-1993 A	01-Jun-1995 A	30-May-1996 A	\$1,657,708	\$1,615,390	97.4	\$1,134,742 \$1,120,385
	Status: FWS and LDNR are presently developing a project Operation and Maintenance Plan.									
Cameron Creole Watershed Hydrologic Restoration	CALC	CAMER	865	17-Apr-1993 A	01-Oct-1996 A	28-Jan-1997 A	\$660,460	\$1,022,686	154.8 !	\$616,163 \$613,327
	Status: Complete.									
Cameron Prairie Refuge Erosion Prevention	MERM	CAMER	247	17-Apr-1993 A	19-May-1994 A	09-Aug-1994 A	\$1,177,668	\$1,401,125	119.0	\$1,010,462 \$995,349
	Status: Complete.									

**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 Bank Protection	CALC	CAMER	5,542	17-Apr-1993 A	24-Oct-1994 A	01-Mar-1995 A	\$4,895,780	\$1,597,903	32.6	\$1,280,361 \$1,273,307
	Status: Complete.									
Total Priority List 1			8,204				\$8,391,616	\$5,637,104	67.2	\$4,041,727 \$4,002,367
<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 Refuge #2	PONT	ORL	1,280	30-Jun-1994 A	15-Apr-1996 A	28-May-1997 A	\$1,452,035	\$1,634,700	112.6	\$1,120,688 \$1,103,631
	Status: FWS and LDNR are presently developing a project Operation and Maintenance Plan.									

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	2	1,280				\$1,452,035	\$1,634,700	112.6	\$1,120,688 \$1,103,631

- 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)	CALC	CAMER	953	26-Oct-1996 A	01-Nov-1999 A	15-Sep-2002 *	\$4,581,454	\$4,466,354	97.5	\$3,234,144 \$3,024,148
<p>Status: Construction began the week of November 1, 1999, and was originally projected to be completed by June 2001. The Headquarters Canal structure was completed the week of February 9, 2000. The Hog Island Gully replacement structure was completed and work on the final structure, West Cove, began in August 2000 and was substantially completed by June 2001. All project components were substantially completed (95%) by June 2001. The Headquarters structure, piers and boat ramps were completed and operational by June 2001. The Hog Island Gully and West Cove structures are not fully operational due to an electrical service problem.</p> <p>The project completion date has been extended to September 2002 because of a continued electrical problem with the structure motors. The three-phase electrical service to the structures is not the proper three-phase. Transformers and filters were added to the Hog Bayou and West Cove structures by December 2001, but operation was not totally correct. One option is for the energy provider, Entergy, to install proper 3-Phase electrical service. Entergy is willing to do so at an estimated cost of \$50,000. On March 12, 2002, the Rotorque representative (manufacturer of the motors and Logic controllers) corrected problems with the Hog Island Gully Structure motors running in reverse; that company has certified that the motors are now operating properly. On March 13, 2002, representatives of the contractor, F. Miller and Sons, and the NRCS successfully tested structure operation in manual mode. NRCS engineers completed observations of structure operation during the automatic mode in June 2002 and determined that the structures continue to operate incorrectly in that mode. It was determined that the Logic Controllers are so sensitive they can determine that power to the motors is not the correct 3-Phase. The controllers are thus causing motor malfunctions even with filters and transformers in place. The NRCS engineers are currently pursuing a contract with an electrical consultant to provide future recommendations to correct the logic controller motor problems.</p>										
Total Priority List 3			953				\$4,581,454	\$4,466,354	97.5	\$3,234,144 \$3,024,148

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 1 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	%	
Priority List 5										
Grand Bayou / GIWW Freshwater Diversion	TERRE	LAFOU	318	01-Mar-2003 *	01-Apr-2005	01-Nov-2005	\$5,135,468	\$8,209,722	159.9 !	\$972,233 \$462,842
	Status: Project sponsors have met with members of the Terrebonne Levee District and Corps of Engineers personnel involved in the Morganza to the Gulf Hurricane Protection project to coordinate planning and engineering of the Relief and Pipeline structures. Those structures are located in the proposed hurricane protection levee and are common to both the Grand Bayou project and the hurricane protection project. Pending Technical Committee approval of recent cost-sharing agreements, modeling of project-area affects will begin.									
Total Priority List 5			318				\$5,135,468	\$8,209,722	159.9	\$972,233 \$462,842

- 1 Project(s)
- 0 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 6

Lake Boudreaux Basin Freshwater Intro & Hydrologic Mgmt	TERRE	TERRE	619	22-Oct-1998 A	01-May-2004	01-Jul-2005	\$9,831,306	\$10,519,383	107.0	\$522,960 \$436,422
	Status: The contracted Advanced Feasibility Study has been completed and a final report is being prepared. DNR and FWS are presently reviewing that report and discussing which project alternative should be selected for construction.									

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	0	27-Oct-1998 A	20-Dec-1998 A	30-Sep-2002 *	\$2,140,000	\$2,140,000	100.0	\$1,122,376 \$346,638
<p>Status: During FY 2001-2002, the LDWF performed the following tasks: 1) Produced a 2001 herbivory damage survey report and map on December 31, 2001 ("A Survey of Nutria Herbivory Damage in Coastal Louisiana in 2001," by Edmond Mouton, G. Linscombe and S. Hartley); 2) Coordinated with consultants to develop and implement various nutria meat marketing activities. Marketing activities included LDWF staff activities and contracting with consultants to assist in: a) developing and evaluating local, national, and international nutria meat market potential for human consumption; b) developing a nutria meat marketing plan; c) participating in festivals and chef's competitions; d) distributing nutria meat to the public through sales at grocery stores, restaurants, and other retail outlets; e) determining nutria meat processing costs, product price structure, and potential meat production volume; and f) planning product and market-specific promotional and advertising activities based on the Nutria Marketing Strategic Report.</p> <p>During the October to December 2001 quarter, LDWF purchased nutria meat from processors and used it to make gumbo, sausage and nutria nuggets. LDWF participated in the following events by providing nutria dishes; the New Iberia Golf Classic, GIS Day at the USGS Wetlands Center, the CWPPRA December 14, 2001 dedication at Sabine NWR (160 people) three events by Chef Parola, Louisiana State Archives (200 people), Baton Rouge Catholic High "Food Festival" (300 people), an event at the Louisiana State Capitol (400 people), and the New Orleans City Park's "Celebration in the Oaks Party". LDWF is continuing work with the LA Culinary Arts Institute to develop nutria products for retail and wholesale such as nutria nuggets, nutria spring rolls, nutria sausage, nutria tamales, nutria boudin, and nutria jambalaya.</p> <p>LDWF issued a contract on February 1, 2002, to the Weill Agency for consultant assistance in the following nutria meat marketing categories: 1) to provide information to the public concerning nutria meat nutrition and nutria's impact on coastal wetlands; 2) to develop new markets, and 3) to create positive publicity for nutria meat by developing partnerships. April to July, 2002, LDWF nutria promotion activities included presentation of nutria products at the following events: 1) Nutria Beignets at the "Wild Beast Fest" in Plaquemine, LA (350 guests); 2) Nutria Beignets at the Old State Capitol (250 guests including State Legislators); 3) assisted the Weill Agency in a grocery store (Two Matherns's stores) promotion presenting smoked sausage prepared by Bellue's in Baton Rouge, and 4) finally, LDWF is developing a Nutria Web site (www.nutria.com). The Weill Agency contract activities for the April-June 2002 quarter included: 1) promoting nutria and serving nutria gumbo, at the "Wild Beast Feast" in Larose, LA; 2) provided nutria meat nutritional information at the "The Around the World/Digestive Health Foundation of LA"; 3) served Nutria Beignets at the "Beast Feast" in Port Allen, LA; 4) served smoked nutria sausage at "Matherns's Supermarket Road Show" in Baton Rouge, LA; 5) served nutria sausage at the "Gonzales Jambalaya Festival" in Gonzales, LA; and 6) finally, served nutria jambalaya at the "Baton Rouge Family Day in the Park".</p> <p>The LDWF 1999, 2000, and 2001 nutria coastal damage surveys and reports indicated continued nutria-related marsh damages in the Louisiana deltaic plain at a level of approximately 100,000 acres per year impacted. Because of the January 16, 2002, Task Force approval of the larger Nutria Control Project, the LDWF will discontinue providing incentive</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	%	

payments to trappers and conducting nutria herbivory surveys under this demonstration project. Those two items will be funded under the larger project. However funding for nutria meat processors enrolled in the program as well as nutria meat marketing activities will continue under this demonstration project. A decision to continue this demonstration project will be made by project sponsors at the end of 2002 after examining the results from the marketing contract. LDWF, with Chef Parola, will participate in the 2002 New Orleans Culinary Classic and the Louisiana Restaurant Food Exposition (August 3 thru August 5, 2002).

Total Priority List	6		619				\$11,971,306	\$12,659,383	105.7	\$1,645,336 \$783,060
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- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 1 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 9

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 Hwy 82	MERM	CAMER	296	12-Sep-2000 A	01-Nov-2003	01-May-2004	\$607,138	\$726,223	119.6	\$21,677 \$21,556
<p>Status: The project was approved for Phase I engineering and design on January 11, 2000. A draft Plan of Work was prepared on February 25, 2000. A project implementation meeting was held April 13, 2000 and field trips were held on May 12, 2000 and June 13, 2000. A project surveying meeting was held on July 5, 2000. The final Cost Share Agreement was signed by FWS and DNR on September 12, 2000. Elevational surveys of marsh level and existing water monitoring stations and control points, were completed by Lonnie Harper and Associates on October 26, 2000. Three additional continuous recorders were established in May and June of 2001 at the Unit 14 Boathouse, South Lake 14 and in Cop Cop Bayou.</p> <p>A meeting to discuss project hydrodynamic modeling was held on October 9, 2001, and a modeling field trip was held on November 30, 2001 between project sponsors and Fenstermaker and Associates. The modeling and surveying cost estimates were discussed at a meeting held on December 11, 2001. The Notice to Proceed for the modeling and surveying was issued on January 28, 2002 by DNR. Additional continuous water level and salinity recorders were installed in March 2002 at Grand Volle Lake and Rollover Bayou to support the modeling study. The modeling field elevation and cross-sectional surveying was completed in March 2002, model calibration and validation should be complete by July 2002, initial modeling results should be presented by August 2002, and the final modeling report completed by October 2002. An interagency meeting was held May 24, 2002, to review the Fenstermaker model setup and the status of the modeling work plan. The one-dimensional Mile 11 model will be used for the analysis. Modeling is proceeding on schedule. Landrights documents have been completed to allow pre-construction modeling data collection and surveying on Miami Corporation property.</p> <p>In October 2001, Erick Swenson of the LSU Coastal Ecology Institute completed a hydrologic study of the LA Hwy 82 area that concluded that a water level difference existed north and south of LA Hwy 82 sufficient to flow water north to south. The project hydrology is currently being modeled as described above.</p>										
Mandalay Bank Protection (Demo)	TERRE	TERRE		06-Dec-2000 A	01-Oct-2002 *	01-Mar-2003 *	\$1,194,495	\$1,869,659	156.5 !	\$978,079 \$20,634
<p>Status: Project features were re-evaluated based on the bids received during the first bid process. As a result, the design of some of the structures was changed and cost estimates were updated. A second 95% design meeting was held to review these changes. Consequently, construction has been pushed back to January, 2003.</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	%	
Total Priority List		9	296				\$1,801,633	\$2,595,882	144.1	\$999,756 \$42,189
2 Project(s) 2 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized										

Priority List 10

Delta Management at Fort St. Philip	BRET	PLAQ	267	16-May-2001 A	01-Feb-2003 *	01-Mar-2003 *	\$3,183,932	\$3,554,657	111.6	\$26,008 \$10,346
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Status: The project sponsors received Phase 2 construction approval at the August 7, 2002 Task Force meeting.

The Section 404 permit application is currently out on Public Notice. Construction should begin in February 2003.

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 Lake Landbridge Restoration	MERM	CAMER	213	24-Jul-2001 A	01-Jan-2003 *	30-Sep-2003	\$9,635,124	\$9,767,084	101.4	\$321,481 \$19,547

Status: The Task Force approved Phase 1 engineering and design funding on January 10, 2001. The Cost Share Agreement between LDNR and the USFWS was executed on July 24, 2001 and executed by the state on August 10, 2001. The project kickoff meeting and site visit were held on February 14, and March 22, 2001, respectively. The NRCS completed project surveying in July 2001 with bathymetry taken every 500 feet to distances up to 500 feet from shore. NRCS design engineers completed a preliminary design of the Grand Lake shoreline stabilization component. On November 7, 2001, the project management team conducted a field inspection to determine possible locations for fisheries and sediment access gaps to be placed approximately every 750 feet to 1,000 feet in the proposed 12,000-foot foreshore dike located along the southeastern shoreline of Grand Lake. On December 12, 2001, LDNR certified that landrights have been completed with Miami Corp., Long-Mallard Bay LLC, and the Cameron Parish School Board. An interagency 30% Design Review Conference was successfully completed on April 2, 2002. The draft Environmental Assessment was completed and submitted for internal USFWS and DNR review on July 3, 2002. Corps Section 404 permit and state coastal zone consistency applications should be completed by July 15, 2002. Semi-final engineering cost estimates were completed July 3, 2002. Project final designs are near 85% complete. The 95% Design Review will be held by the end of August 2002. Project sponsors intend to request Phase II construction funding approval at the August 7, 2002 CWPPRA 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	%	
Hydrologic Restoration East of Sabine Lake (with terraces)	CA/SB	CAMER	393	17-Jul-2001 A	01-Jul-2003		\$1,425,447	\$1,781,809	125.0 !	\$880,068 \$174,752

Status: The implementation orientation interagency meeting was held on February 14, 2001. The project orientation field trip was completed on March 27, 2001, with LDNR, USFWS, NRCS and Cameron Parish in attendance. Phase I, engineering and design, was approved by the CWPPRA Task Force on January 10, 2001. FWS, DNR and the NRCS completed the joint cost share agreement on July 17, 2001. A project hydrodynamic modeling meeting was held on April 11, 2001. The NRCS contracted with FTN for Phase I project hydrodynamic modeling services. An initial modeling meeting with FTN was held August 28, 2001, at Sabine National Wildlife Refuge. Another modeling meeting was held on November 8, 2001, to discuss continuous recorder recommendations, vertical survey benchmarks and surveying needs. Phase I modeling consists of the gathering of information, area reconnaissance, existing data accumulation, model selection and model geometry establishment. Phase II modeling is to include initial model calibration (without-project and with project scenario) model runs. DNR contracted to establish survey monument control points in December 2001. The NRCS began cross sectional surveys in January 2002 and completed most surveys by July 2002. DNR installed three continuous water level and salinity recorders in September 2001, and contracted the installation and maintenance of five more in January 2002 for modeling purposes. FTN installed an additional continuous recorder near Johnsons Bayou in spring 2002. The continuous recorder salinity and water level data will be collected for one year primarily for use in the model. The modeling is scheduled to be completed by Spring 2003.

Benchmark surveys were completed March 8, 2002, cross sectional surveys were completed at the end of March 2002, marsh surveys along grids of 1,000 and 5,000 ft-square were completed by May 2002. Surveys for Construction Unit 1 components may begin by July 2002. Work on conceptual Unit 1 component drawings is progressing.

The sponsors have decided to separate project components into two construction units. Construction Unit 1 will include the earthen terraces, shoreline stabilization, and minor hydrologic structures; Construction Unit 2 will include the larger hydrologic restoration structures currently being modeled. A Construction Unit 1 meeting was held January 23, 2002, to discuss separating the project into two construction units and plan Construction Unit 1 activities and timelines. A 30% Design Conference for Unit 1 components could be held in the fall or winter of 2002. Landrights initiated February 14, 2002. Most of project is located on the Sabine NWR and therefore, few landrights problems are anticipated.

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	%	
North Lake Mechant Landbridge Restoration	TERRE	TERRE	604	16-May-2001 A	30-May-2003	31-Oct-2003	\$2,383,052	\$2,853,222	119.7	\$63,007 \$25,429
	Status: The Task Force approved Phase II construction funds for the vegetative plantings on August 7, 2002. The plantings are currently out to bid with the bid opening scheduled for October 8, 2002. Elevation surveys and geotechnical investigations associated with the remaining project features have been completed.									
Terrebonne Bay Shore Protection/Oyster Reef Demo (DEMO)	ALL	TERRE	0	24-Jul-2001 A	30-Jul-2003	31-Oct-2003	\$2,006,373	\$2,507,966	125.0	\$34,665 \$17,006
	Status: The draft feasibility and preliminary design report has been completed and is being reviewed. Site selection and project design will be finalized by October 2002. Construction approval will be requested at the January 2003 Task Force meeting, pending resolution of oyster lease compensation issues.									
Total Priority List			10	1,477			\$18,633,928	\$20,464,738	109.8	\$1,325,229 \$247,081

- 5 Project(s)
- 5 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	%	
Dedicated Dredging on the Barataria Basin Landbridge	BARA	JEFF	564	03-Apr-2002 A	01-Feb-2004	01-Feb-2005	\$2,294,410	\$2,868,013	125.0 !	\$27,418 \$798
	Status: The project was approved for Phase 1 in January 2002. An interagency kickoff meeting was held on March 14, 2002 and an interagency field trip was held on April 17, 2002. The CSA between the State of Louisiana and the Fish and Wildlife Service was executed on April 3, 2002.									
	A Scope of Work for surveys and geotechnical investigations is currently being reviewed.									
South Grand Cheniere Hydrologic Restoration	MERM	CAMER	440				\$2,358,420	\$2,948,025	125.0	\$837,271 \$75
	Status: The project implementation meeting and field trip was held on March 13, 2002, at Rockefeller Refuge, attended by FWS, LDNR, LDWF, NRCS, landowner representatives, and consulting engineers. Modeling meeting held on May 6, 2002, to discuss cost and time estimates and the benefits of hydrodynamically modeling this project along with the Little Pecan Bayou HR project. Project surveying, continuous water level and salinity recorder deployment, and modeling contract Notice to Proceed was issued to Fenstermaker and Associates on June 14, 2002 by LDNR. The modeling work plan is due in July 2002, the surveying should be completed by August 2002, the model should be initialized and calibrated by September 2002.									
	A decision has been made to proceed with surveys and the installation of continuous water level and salinity recorders necessary for hydrodynamic modeling. A modeling meeting was held on May 6, 2002 to discuss surveys, recorder needs, and the basic modeling scope of work as stated above.									

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 & Marsh Creation	TERRE	TERRE	145				\$1,322,354	\$1,652,943	125.0 !	\$617,505 \$302
	Status: The Cost Share Agreement between LDNR and USFWS has been approved. A Supplemental Agreement between NRCS and USFWS has also been approved. An informational (kickoff) meeting and field trip was held on March 19, 2002, with USFWS, NRCS, and LDNR. At that time an overview of the project was given and questions concerning the project were answered along with drafting dates for work, task, and timeliness with cooperation of the three agencies. A Scope of Work has recently been completed for the geotechnical work. A digital map is currently being prepared by LDNR that will show all property lines and the corresponding landowners (80 plus) located within the project area. This is to be done by September 17, 2002. The geotechnical work should begin soon after the landowners map is completed.									
Total Priority List			11	1,149			\$5,975,184	\$7,468,981	125.0	\$1,482,194 \$1,174

- 3 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		14,296				\$57,942,624	\$63,136,864	109.0	\$14,821,307 \$9,666,493

- 19 Project(s)
- 16 Cost Sharing Agreements Executed
- 7 Construction Started
- 5 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	0				\$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	0	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			0				\$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

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 2										
Atchafalaya Sediment Delivery	ATCH	STMRY	2,232	01-Aug-1994 A	25-Jan-1998 A	21-Mar-1998 A	\$907,810	\$2,559,023	281.9 !	\$2,441,238 \$1,942,236
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 (Increment 1)	ATCH	STMRY	1,560	01-Aug-1994 A	25-Jan-1998 A	08-Oct-1998 A	\$4,136,057	\$7,550,903	182.6 !	\$7,265,055 \$6,618,570
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	\$2,909,663	272.0 !	\$2,749,994 \$2,346,153
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.										

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			2	4,167			\$6,113,456	\$13,019,589	213.0	\$12,456,287 \$10,906,959
<ul style="list-style-type: none"> 3 Project(s) 3 Cost Sharing Agreements Executed 3 Construction Started 3 Construction Completed 0 Project(s) Deferred/Deauthorized 										

Priority List 3

Bayou Perot/Bayou Rigolettes Marsh Restoration [DEAUTHORIZED]	BARA JEFF	0	03-Mar-1995 A	\$1,835,047	\$20,963	1.1	\$20,963 \$20,963		
<p>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.</p> <p>Deauthorized.</p>									
East Timbalier Island Restoration (Phase 1)	TERRE LAFOU	1,913	01-Feb-1995 A	01-May-1999 A	01-May-2001 A	\$2,046,971	\$4,040,728	197.4 !	\$3,914,132 \$3,498,752
<p>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.</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	%	
Lake Chapeau Marsh Creation & Hydrologic Restoration	TERRE	TERRE	509	01-Mar-1995 A	14-Sep-1998 A	18-May-1999 A	\$4,149,182	\$5,644,322	136.0 !	\$4,634,856 \$4,216,074
Status: Construction complete. Vegetative plantings were installed in spring 2000.										
Closing out cooperative agreement between NOAA and LADNR.										
Lake Salvador Shore Protection (Demo)	BARA	STCHA	0	01-Mar-1995 A	02-Jul-1997 A	30-Jun-1998 A	\$1,444,628	\$2,543,098	176.0 !	\$2,895,365 \$2,418,185
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.										
Total Priority List 3			2,422				\$9,475,828	\$12,249,111	129.3	\$11,465,315 \$10,153,974

- 4 Project(s)
- 4 Cost Sharing Agreements Executed
- 3 Construction Started
- 3 Construction Completed
- 1 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	%	
East Timbalier Island Restoration (Phase 2)	TERRE	LAFOU	215	08-Jun-1995 A	01-May-1999 A	01-Sep-2002 *	\$5,752,404	\$13,765,015	239.3 !	\$13,319,716 \$6,499,737
	Status: Construction completed in January 2000. Due to changed site conditions, variable sand consistency in the borrow area, weather conditions and lack of an acceptable change order proposal from the contractor, restoration activities stopped at station +114 leaving a gap approximately 4,200 feet in the island. NMFS and LADNR are presently evaluating the feasibility of filling the remaining gap. Aerial seeding of the dune platform was achieved in spring, 2000, and the installation of sand fencing was completed by September 30, 2000.									
	Vegetative dune plantings were installed in spring, 2001.									
Eden Isles East Marsh Restoration [DEAUTHORIZED]	PONT	STTAM	0				\$5,018,968	\$39,026	0.8	\$39,026 \$39,026
	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.									
	Deauthorized.									
Total Priority List			4	215			\$10,771,372	\$13,804,041	128.2	\$13,358,742 \$6,538,763

- 2 Project(s)
- 1 Cost Sharing Agreements Executed
- 1 Construction Started
- 0 Construction Completed
- 1 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	%	
Little Vermilion Bay Sediment Trapping	TECHE	VERMI	441	22-May-1997 A	10-May-1999 A	20-Aug-1999 A	\$940,065	\$893,610	95.1	\$829,262 \$559,250
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	\$15,092,773	97.2	\$13,983,411 \$482,686
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	\$15,986,383	97.1	\$14,812,672 \$1,041,935

- 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	%	
Black Bayou Hydrologic Restoration	CALC	CAMER	3,594	28-May-1998 A	01-Jul-2001 A		\$6,316,800	\$6,382,511	101.0	\$5,787,683 \$3,461,896
Status: Construction complete. Vegetative plantings will be installed in June 2002 and May 2003.										
Delta-Wide Crevasses	DELTA	PLAQ	2,386	28-May-1998 A	21-Jun-1999 A	31-Dec-2014	\$5,473,934	\$4,732,653	86.5	\$2,324,883 \$510,591
Status: In FY 97, Priority List 6 authorized funding of \$2,736,950 for Phase 1 of this 2-phased project. Priority List 8 is scheduled to fund \$2,736,950. Total project is scheduled to cost \$5,473,900.										
First dredging cycle of construction complete; three dredging cycles remain. Next cycle is scheduled for spring, 2003.										
Sediment Trapping at the Jaws	TECHE	STMAR	1,999	28-May-1998 A	01-Apr-2003 *	31-Jul-2003	\$3,167,400	\$3,392,135	107.1	\$3,065,985 \$266,260
Status: Hydrologic modeling has been completed. Engineering design is underway. Construction is scheduled for spring, 2003.										

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		6	7,979				\$14,958,134	\$14,507,299	97.0	\$11,178,551 \$4,238,747
3 Project(s) 3 Cost Sharing Agreements Executed 2 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized										

Priority List 7

Grand Terre Vegetative Plantings	BARA	JEFF	127	23-Dec-1998 A	01-May-2001 A	01-Jul-2001 A	\$928,895	\$811,065	87.3	\$811,091 \$258,142
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	01-Nov-2002 *	31-Mar-2003 *	\$2,185,900	\$2,862,806	131.0 !	\$229,532
Status: Monitoring plan has been completed. Engineering has been completed. Environmental Assessment has been completed. Construction is scheduled for November 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		7	569				\$3,114,795	\$3,673,871	117.9	\$811,091 \$487,674
2 Project(s) 2 Cost Sharing Agreements Executed 1 Construction Started 1 Construction Completed 0 Project(s) Deferred/Deauthorized										

Priority List 8

Bayou Bienvenue Pumping Station/Terracing [DEAUTHORIZED]	PONT	STBER	0	01-Jun-2000 A			\$3,295,574	\$3,894,916	118.2	\$2,556,779 \$170,803
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.										
Hopedale Hydrologic Restoration	PONT	STBER	134	11-Jan-2000 A	01-Apr-2003 *	01-Jul-2003	\$2,179,491	\$2,423,247	111.2	\$2,075,059 \$300,235
Status: Cooperative Agreement was awarded January 11, 2000. Engineering and design is underway, with design surveys, geo-technical investigations and hydrologic modeling complete. Landrights largely complete. NEPA documentation and regulatory approvals anticipated to be completed in fall 2002, and construction is anticipated for early 2003. Both the Monitoring and Operations and Maintenance Plans have been drafted and are under review.										

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		8	134				\$5,475,065	\$6,318,163	115.4	\$4,631,838 \$471,038
2 Project(s) 2 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 1 Project(s) Deferred/Deauthorized										

Priority List 9

Castille Pass Sediment Delivery	ATCH	STMRY	589	29-Sep-2000 A			\$1,484,633	\$1,855,792	125.0 !	\$1,482,204 \$107,871
Status: Cooperative Agreement was awarded September 29, 2000. Engineering and design contract awarded by BCG.										
Chandeleur Islands Restoration	PONT	STBER	220	10-Sep-2000 A	01-Jun-2001 A	01-Sep-2003	\$1,286,718	\$1,596,958	124.1	\$1,365,539 \$442,474
Status: Cooperative Agreement was awarded September 10, 2000. Vegetative planting is scheduled for spring, 2001, and are phased over two years.										
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.										

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	472	21-Sep-2000 A	01-Mar-2004	01-Aug-2004	\$1,856,203	\$2,312,023	124.6	\$1,873,044 \$136,754
	Status: Cooperative Agreement was awarded September 21, 2000. Geotechnical investigations of potential sand sources is complete. Data acquisition for modeling complete, and preliminary modeling results and preliminary project design is expected during fall 2002. Landrights in progress. Preliminary assessment of oyster resources is complete.									
	Oyster leases are located in the project area, and property ownerships include numerous undivided heirships/holdings. Identification of adequate sand sources will be a critical issue during engineering and design.									
Four-Mile Canal Terracing & Sediment Trapping	TECHE	VERMI	327	25-Sep-2000 A	01-Oct-2003	01-May-2004	\$459,306	\$567,762	123.6	\$466,800 \$88,768
	Status: Cooperative Agreement was awarded September 25, 2000. DNR awarded engineering and design contract.									
LaBranche Wetlands Terracing/Plantings	PONT	STCHA	489	21-Sep-2000 A			\$821,752	\$1,027,191	125.0 !	\$806,372 \$264,621
	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.									

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		9	2,097				\$5,908,612	\$7,359,726	124.6	\$5,993,959 \$1,040,489
5 Project(s) 5 Cost Sharing Agreements Executed 1 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized										

Priority List 10

Rockefeller Refuge Gulf Shoreline Stabilization	MERM	CAMER	920	27-Sep-2001 A			\$1,929,888	\$2,408,478	124.8	\$2,047,207 \$44,116
Status: Cooperative agreement between NOAA and LADNR executed September 27, 2001. Engineering and design contract awarded by DNR to Shiner Moseley and Associates.										

Total Priority List		10	920				\$1,929,888	\$2,408,478	124.8	\$2,047,207 \$44,116
1 Project(s) 1 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized										

Priority List 11

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	%	
Barataria Barrier Island {Complex}	BARA	PLAQ	322	06-Aug-2002 A	01-Apr-2004	30-Oct-2004	\$3,083,934	\$3,641,059	118.1	\$3,094,901 \$18,981
	Status: A Cooperative Agreement application has been submitted and is being processed by NMFS. NMFS is negotiating a Scope of Work for project engineering and design, cultural resources, and environmental compliance.									
	Critical Phase 1 issues include identification of sand sources, selection of a preferred construction alignment (i.e., seaward or landward), landrights (numerous undivided heirships and potential reclamation issues) and oysters.									
Little Lake Shoreline Protection/Dedicated Dredging near Round Lake	BARA	LAFOU	713	06-Aug-2002 A	01-Apr-2004	30-Oct-2004	\$2,639,536	\$3,200,092	121.2	\$2,720,078 \$6,134
	Status: DNR is submitting cooperative agreement application. Engineering and design will be performed by DNR.									
Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration	BARA	PLAQ	161	06-Aug-2002 A	01-Apr-2004	01-Aug-2004	\$1,880,700	\$2,344,387	124.7	\$1,992,730 \$0
	Status: A Cooperative Agreement was awarded July 25, 2002. Preliminary selection of an engineering and design firm has been made, and contract documents are being developed.									
	Critical Phase 1 issues include identification of sand sources, landrights (numerous undivided heirships and potential reclamation issues) and oysters.									

**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	11	1,196				\$7,604,170	\$9,185,538	120.8	\$7,807,709 \$25,114
	3	Project(s)								
	3	Cost Sharing Agreements Executed								
	0	Construction Started								
	0	Construction Completed								
	0	Project(s) Deferred/Deauthorized								
Total	DEPT. OF COMMERCE, NATIONAL MARINE FISHERIES SERVICE		21,259				\$83,764,110	\$98,619,528	117.7	\$84,670,698 \$35,056,139
	29	Project(s)								
	27	Cost Sharing Agreements Executed								
	12	Construction Started								
	8	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

BA-2 GIWW to Clovelly Hydrologic Restoration	BARA	LAFOU	175	17-Apr-1993 A	21-Apr-1997 A	31-Oct-2000 A	\$8,141,512	\$8,328,603	102.3	\$6,869,198 \$6,723,328
	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 being developed.									
Vegetative Plantings (Demo) - Dewitt- Rollover [DEAUTHORIZED]	MERM	VERMI	0	17-Apr-1993 A	11-Jul-1994 A	26-Aug-1994 A	\$191,003	\$91,764	48.0	\$91,764 \$92,053
	Status: Sub-project of the Vegetative Plantings project. Complete and deauthorized.									
Vegetative Plantings (Demo) - Falgout Canal	TERRE	TERRE	0	17-Apr-1993 A	30-Aug-1996 A	30-Dec-1996 A	\$144,561	\$204,979	141.8 !	\$195,516 \$195,516
	Status: Sub-project of the Vegetative Plantings project. Wave-stilling devices are in place. Vegetative plantings are in place. 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	%	
Vegetative Plantings (Demo) - Timbalier Island	TERRE	TERRE	0	17-Apr-1993 A	15-Mar-1995 A	30-Jul-1996 A	\$372,589	\$432,858	116.2	\$300,307 \$298,571
	Status: Sub-project of the Vegetative Plantings project. Complete.									
Vegetative Plantings (Demo) - West Hackberry	CALC	CAMER	0	17-Apr-1993 A	15-Apr-1993 A	30-Mar-1994 A	\$213,947	\$246,241	115.1	\$246,175 \$244,331
	Status: Sub-project of the Vegetative Plantings project. Complete.									
Total Priority List			1	175			\$9,063,612	\$9,304,445	102.7	\$7,702,960 \$7,553,800

- 5 Project(s)
- 5 Cost Sharing Agreements Executed
- 5 Construction Started
- 5 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 2

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	%	
Boston Canal/Vermilion Bay Shore Restoration	TECHE	VERMI	378	24-Mar-1994 A	13-Sep-1994 A	30-Nov-1995 A	\$1,008,634	\$1,012,691	100.4	\$831,562 \$810,893
	Status:	Complete.								
Brown's Lake Hydrologic Restoration	CALC	CAMER	282	28-Mar-1994 A	01-Dec-2003	01-Jun-2004	\$3,222,800	\$3,201,890	99.4	\$2,301,434 \$548,341
	Status:	Contract award has been delayed due primarily to the length of time needed to complete the permitting process, beneficial use of COE dredged material, and the relocation of a pipeline.								
		Results of DNR modeling under review by DOTD for potential work on Crab Gully at Hwy 27. Also pursuing LR for dike along the ship channel.								
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 !	\$3,008,997 \$2,463,273
	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.								

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	MERM	VERMI	1,593	17-Aug-1994 A	29-Aug-1994 A	15-Aug-1998 A	\$2,770,093	\$2,949,276	106.5	\$1,814,742 \$1,780,500
<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	PONT	STTAM	1,040	21-Feb-1995 A	01-Nov-2000 A	01-Mar-2001 A	\$3,048,389	\$2,933,808	96.2	\$1,344,522 \$1,307,281
<p>Status: Delays in project construction start occurred because a landowner had changed his position, prompting design changes, and local officials expressed concerns about drainage that required additional investigations. .</p> <p>Construction completed March 2001. Draft O&M plan under development by LDNR.</p>										
Hwy 384	CALC	CAMER	150	13-Oct-1994 A	01-Oct-1999 A	07-Jan-2000 A	\$700,717	\$1,068,509	152.5 !	\$591,657 \$570,040
<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 advertised.</p>										

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	%	
Jonathan Davis Wetland Restoration	BARA	JEFF	510	05-Jan-1995 A	22-Jun-1998 A	01-Dec-2002 *	\$3,398,867	\$12,479,727	367.2 !	\$8,089,080 \$3,468,586
<p>Status: The project will be constructed in multiple contracts. Construction start of unit 1 slipped from December 1997 to June 1998 because of planning and design delays. First contract to construct weir and plugs was advertised in February 1998 and is complete; the majority of the structures were installed. Construction unit 2 installed some of the bank protection and one structure, and is complete.</p> <p>Task Force granted approval to proceed with construction unit 3 in January 2001. Construction contract will be advertised in July 2002.</p>										
Mud Lake Marsh Management	CALC	CAMER	1,520	24-Mar-1994 A	01-Oct-1995 A	15-Jun-1996 A	\$2,903,635	\$3,373,143	116.2	\$2,285,214 \$2,138,226
<p>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.</p> <p>Construction complete. O&M plan executed. Maintenance needs on a water control structure is being evaluated.</p>										
Total Priority List 2			6,275				\$19,575,334	\$31,555,044	161.2	\$20,267,208 \$13,087,139

- 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
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	%	
Brady Canal Hydrologic Restoration	TERRE	TERRE	297	15-May-1998 A	01-May-1999 A	22-May-2000 A	\$4,717,928	\$5,662,176	120.0	\$3,177,453 \$3,142,754
	<p>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.</p> <p>Construction project is complete. O&M plan signed July 16, 2002.</p>									
Cameron-Creole Maintenance	CALC	CAMER	2,602	09-Jan-1997 A	30-Sep-1997 A	15-Jul-1998 A	\$3,719,926	\$3,736,718	100.5	\$865,251 \$834,999
	<p>Status: The first three contracts for maintenance work are complete. The project provides for maintenance on an as-needed basis.</p>									
Cote Blanche Hydrologic Restoration	TECHE	STMRY	2,223	01-Jul-1996 A	25-Mar-1998 A	15-Dec-1998 A	\$5,173,062	\$6,029,980	116.6	\$4,959,810 \$4,873,899
	<p>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.</p> <p>O&M plan executed. Maintenance contract complete.</p>									

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	%	
SW Shore White Lake Demo [DEAUTHORIZED]	MERM	VERMI	0	11-Jan-1995 A	30-Apr-1996 A	31-Jul-1996 A	\$126,062	\$108,803	86.3	\$125,431 \$108,561
	Status: Complete. Project deauthorized.									
Violet Freshwater Distribution [DEAUTHORIZED]	PONT	STBER	0	13-Oct-1994 A			\$1,821,438	\$198,597	10.9	\$128,570 \$128,570
	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.									
West Pointe-a-la- Hache Outfall Management	BARA	PLAQ	1,087	05-Jan-1995 A			\$881,148	\$4,068,045	461.7 !	\$242,859 \$207,839
	Status: Oyster issues and siphon operation being reviewed by DNR. Scope of services being developed for modeling contract. Modeling underway. Initial cost estimate is too low. Additional \$3.2 million requested and approved at the January 16, 1998 Task Force meeting. Construction start slipped from Jan 02 to Jan 03. Awaiting results of LDNR modeling. Oyster issue.									

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	%	
White's Ditch Outfall Management [DEAUTHORIZED]	BRET	PLAQ	0	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	\$19,837,182	115.4	\$9,532,236 \$9,329,485

- 7 Project(s)
- 7 Cost Sharing Agreements Executed
- 4 Construction Started
- 4 Construction Completed
- 3 Project(s) Deferred/Deauthorized

Priority List 4

Barataria Bay Waterway Bank Protection (West)	BARA	JEFF	232	23-Jun-1997 A	01-Jun-2000 A	01-Nov-2000 A	\$2,192,418	\$3,304,787	150.7 !	\$2,239,667 \$2,194,189
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.										

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	%	
Bayou L'Ours Ridge Hydrologic Restoration	BARA	LAFOU	737	23-Jun-1997 A			\$2,418,676	\$2,758,567	114.1	\$456,334 \$298,639
	Status: Landowners have voiced concerns of project's effects on oyster leases. Project was previously delayed to address landowner concerns. The project had been revised, and design work was proceeding. Access issues and pipelines caused delays. Repeated attempts to secure easements for access to the project site for construction have failed. The project is a candidate for deauthorization.									
Flotant Marsh Fencing (Demo) [DEAUTHORIZED]	TERRE	TERRE	0	16-Jul-1999 A			\$367,066	\$106,839	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 Bank Protection	CA/SB	CALCA	1,203	23-Jun-1997 A	15-Dec-1998 A	15-Feb-1999 A	\$2,223,518	\$2,664,613	119.8	\$1,804,308 \$1,773,449
	Status: Project complete.									
Plowed Terraces (Demo)	CALC	CAMER	0	22-Oct-1998 A	30-Apr-1999 A	31-Aug-2000 A	\$299,690	\$321,939	107.4	\$309,361 \$306,149
	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.									

**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		4	2,172				\$7,501,368	\$9,156,745	122.1	\$4,916,631 \$4,679,386

- 5 Project(s)
- 5 Cost Sharing Agreements Executed
- 3 Construction Started
- 3 Construction Completed
- 1 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	\$2,543,467	63.6	\$1,988,015 \$1,966,097
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Status: The local cost share is being paid by Acadian Gas Company.

Contract was awarded January 14, 1998. Construction is complete.

Naomi Outfall Management	BARA	JEFF	633	12-May-1999 A	01-Jun-2002 A	15-Jul-2002 A	\$1,686,865	\$2,102,650	124.6	\$1,173,086 \$764,521
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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.

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	%	
Raccoon Island Breakwaters (Demo)	TERRE	TERRE	0	03-Sep-1996 A	21-Apr-1997 A	31-Jul-1997 A	\$1,497,538	\$1,788,184	119.4	\$1,737,146 \$1,722,707
	Status: Complete.									
Sweet Lake/Willow Lake Hydrologic Restoration	CALC	CAMER	247	23-Jun-1997 A	01-Nov-1999 A	30-Sep-2002 *	\$4,800,000	\$5,010,762	104.4	\$4,276,834 \$2,655,152
	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 completion scheduled for September 2002.									
Total Priority List			5	1,391			\$11,983,322	\$11,445,063	95.5	\$9,175,081 \$7,108,478

- 4 Project(s)
- 4 Cost Sharing Agreements Executed
- 4 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 AGRICULTURE (NRCS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Barataria Bay Waterway Bank Protection (East)	BARA	JEFF	217	12-May-1999 A	01-Dec-2000 A	31-May-2001 A	\$5,019,900	\$6,979,159	139.0 !	\$5,578,436 \$3,919,787
<p>Status: This project was combined with the Naomi Outfall Management project for planning and design; construction was separate. Project construction complete.</p>										
Cheniere au Tigre Sediment Trapping Device (Demo)	TECHE	VERMI	0	20-Jul-1999 A	01-Sep-2001 A	02-Nov-2001 A	\$500,000	\$605,357	121.1	\$577,988 \$550,847
<p>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.</p>										
Oaks/Avery Canals Hydrologic Restoration (Incr 1)	TECHE	VERMI	160	22-Oct-1998 A	15-Apr-1999 A	30-Oct-2002 *	\$2,367,700	\$2,828,601	119.5	\$1,963,425 \$516,355
<p>Status: This project has a vegetative component and a structural component. NRCS will implement the vegetative component and LADNR will implement the structural component. The vegetative plantings were scheduled to be installed in summer 1999. The contractor defaulted on the vegetation contract. The vegetation contract was awarded again and completed in July 2000. Contract for the structural components underway; scheduled for completion October 2002.</p>										

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	%	
Penchant Basin Plan (Incr. 1)	TERRE	TERRE	1,155	23-Apr-2002 A	01-Jan-2005	30-Sep-2005	\$14,103,051	\$14,103,051	100.0	\$1,385,671 \$897,343
	Status: Priority List 6 authorized funding for \$7,051,550 in FY 97; Priority List 8 is scheduled to fund \$7,051,550, for a total project cost of \$14,103,100.									
	Data gathering on-going. Hydraulic model being set up.									
Total Priority List 6			1,532				\$21,990,651	\$24,516,168	111.5	\$9,505,520 \$5,884,332

- 4 Project(s)
- 4 Cost Sharing Agreements Executed
- 3 Construction Started
- 2 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 7

Barataria Basin Landbridge Shoreline Protection - Ph 1 & Ph 2	BARA	JEFF	1,304	16-Jul-1999 A	01-Dec-2000 A	30-Apr-2003 *	\$17,515,029	\$17,515,020	100.0	\$4,927,608 \$1,845,775
	Status: At the April 14, 1999 meeting, the Task Force approved combining the Barataria Basin Landbridge, Ph 1 (PL 7) project and the Barataria Basin Landbridge, Ph 2 (PL 8) project. The project will be recorded on Priority List 7. The project will be separated into three construction units.									
	Phases 1 and 2 of this project were combined. Construction Unit 1 was completed 15 Jun 2001. Construction Unit 2 was advertised in February 2002. CU#2 contract awarded June 2002, scheduled for completion November 2002.									

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	%	
Thin Mat Flotant Marsh Enhancement (Demo)	TERRE	TERRE	0	16-Oct-1998 A	15-Jun-1999 A	10-May-2000 A	\$460,222	\$542,570	117.9	\$260,172 \$232,417
Status: Construction complete. Monitoring ongoing.										

Total Priority List	7	1,304					\$17,975,251	\$18,057,590	100.5	\$5,187,780 \$2,078,192
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- 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	30-Nov-2002 *	\$1,526,136	\$1,548,429	101.5	\$650,186 \$97,287
Status: Construction contract awarded.										

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	%	
Lake Portage Land Bridge - Ph 1	TECHE	VERMI	24	07-Apr-2000 A	01-Jan-2003 *	30-Mar-2003 *	\$1,013,820	\$1,137,756	112.2	\$169,925 \$152,409
	<p>Status: Total project cost estimate is \$4,559,400; Priority List 8 funded \$1,000,000 for engineering and design and construction of the canal backfilling increment of the project. If monitoring indicates the need to construct the offshore breakwater increment of the project, the additional funds will be requested at that time.</p> <p>This project is federally co-sponsored by EPA.</p> <p>Final design complete.</p>									
Upper Oak River Freshwater Introduction Siphon - Ph 1	BRET	PLAQ	339				\$2,500,239	\$2,500,239	100.0	\$180,023 \$50,343
	<p>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.</p> <p>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.</p> <p>Deauthorization procedures initiated.</p>									
Total Priority List 8			741				\$5,040,195	\$5,186,424	102.9	\$1,000,135 \$300,038

- 3 Project(s)
- 2 Cost Sharing Agreements Executed
- 1 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 AGRICULTURE (NRCS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Priority List 9										
Barataria Basin Landbridge Shoreline Protection - Ph 3	BARA	JEFF	264	25-Jul-2000 A	01-Mar-2003 *	01-Sep-2003	\$4,545,106	\$5,687,334	125.1 !	\$760,426 \$322,027
	Status: The project will be divided into 3 construction units. Construction unit 1 received Phase 2 funding in January 2002.									
Black Bayou Bypass Culverts	CA/SB	CAMER	540	25-Jul-2000 A	01-Aug-2003	01-Aug-2004	\$799,823	\$999,779	125.0 !	\$485,298 \$182,238
	Status: Phase 1 activities on-going.									
Little Pecan Bayou Control Structure	MERM	CAMER	144	25-Jul-2000 A	01-Nov-2003	01-Apr-2004	\$1,245,278	\$1,556,598	125.0 !	\$756,363 \$92,352
	Status: Phase 1 activities on-going.									

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	%	
Perry Ridge to Texas (West)	CALC	CAMER	83	25-Jul-2000 A	01-Nov-2001 A	31-Jul-2002 A	\$3,742,451	\$3,168,028	84.7	\$1,952,186 \$1,340,331
	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 awarded.									
South Lake DeCade Freshwater Introduction	TERRE	TERRE	201	25-Jul-2000 A	01-Feb-2004	01-Sep-2004	\$396,489	\$495,611	125.0	\$227,274 \$172,695
	Status: Phase 1 activities on-going.									
Total Priority List			9	1,232			\$10,729,147	\$11,907,350	111.0	\$4,181,547 \$2,109,643

- 5 Project(s)
- 5 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 AGRICULTURE (NRCS)**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
GIWW Bank Restoration of Critical Areas in Terrebonne	TERRE	TERRE	366	16-May-2001 A	01-Jan-2004	30-Mar-2005	\$1,735,983	\$2,170,000	125.0 !	\$993,848 \$82,463
Status:		Phase 1 activities on-going.								

Total Priority List	10		366				\$1,735,983	\$2,170,000	125.0	\$993,848 \$82,463
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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 11

Barataria Basin Landbridge Shoreline Protection - Ph 4	BARA	JEFF	334	09-May-2002 A	01-Sep-2004	01-Sep-2005	\$2,191,807	\$2,739,760	125.0 !	\$1,771,755 \$3,227
Status:		Phase 1 activities on-going.								

**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	%	
Coastwide Nutria Control Program	COAST	COAST	14,963	26-Feb-2002 A	01-Nov-2002 *		\$12,945,696	\$13,012,998	100.5	\$203,547 \$65,869
<p>Status: Request for Phase 2 funding was approved at the April 16, 2002 Task Force meeting.</p> <p>A revised baseline estimate for Phase 2 was approved at the March 6, 2002 Tech Committee meeting.</p>										
Raccoon Island Breakwaters - Ph 2	TERRE	TERRE	167	23-Apr-2002 A	01-Feb-2004	01-Jan-2005	\$1,016,758	\$1,270,948	125.0 !	\$821,755 \$3,734
<p>Status: Phase 1 activities on-going.</p>										
Total Priority List			11	15,464			\$16,154,261	\$17,023,706	105.4	\$2,797,057 \$72,830

- 3 Project(s)
- 3 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 11.1

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	%	
Holly Beach {Complex}	CA/SB	CALCA	330	09-May-2002 A	01-Aug-2002 A	30-Jan-2003 *	\$19,252,492	\$19,252,505	100.0	\$0 \$0
<p>Status: Task Force approved Holly Beach project at the August 7, 2001 meeting with the stipulation that no funds would be obligated until all requirements for approval were met.</p> <p>The total cost of the project is \$19,252,500 and will be cost shared 50/50.</p>										
Total Priority List 11.1			330				\$19,252,492	\$19,252,505	100.0	\$0 \$0
<p>1 Project(s) 1 Cost Sharing Agreements Executed 1 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized</p>										
Total	DEPT. OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE		37,191				\$158,197,314	\$179,412,222	113.4	\$75,260,003 \$52,285,784
<p>48 Project(s) 47 Cost Sharing Agreements Executed 31 Construction Started 25 Construction Completed 5 Project(s) Deferred/Deauthorized</p>										

Notes:

- Expenditures based on Corps of Engineers financial data.
- Date codes: A = Actual date * = Behind schedule
- 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	125,022	\$436,497,932	\$478,418,217	109.6	\$260,900,400 \$153,624,602
137	Project(s)					
116	Cost Sharing Agreements Executed					
66	Construction Started					
53	Construction Completed					
17	Project(s) Deferred/Deauthorized					
			Total Available Funds			
			Federal Funds	\$425,963,951		
			Non/Federal Funds	\$80,269,996		
			Total Funds	\$506,188,061		

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: All Basins in State										
Priority List: Cons Plan	1	0	1	1	1	0	\$238.871	\$191.807	\$191.807	
Priority List: 10	1	0	1	0	0	0	\$2,006.373	\$2,507.966	\$17.006	
Basin Total	2	0	2	1	1	0	\$2,245,244	\$2,699,773	\$208,813	
Basin: Atchafalaya										
Priority List:	2	2	3,792	2	2	2	0	\$5,043.867	\$10,109.926	\$8,560.806
Priority List:	9	1	589	1	0	0	0	\$1,484.633	\$1,855.792	\$107.871
Basin Total	3	4,381	3	2	2	0	\$6,528,500	\$11,965,718	\$8,668,677	
Basin: Barataria										
Priority List:	1	3	620	3	3	3	0	\$9,960.769	\$9,568.996	\$7,930.544
Priority List:	2	1	510	1	1	0	0	\$3,398.867	\$12,479.727	\$3,468.586
Priority List:	3	3	1,087	3	1	1	1	\$4,160.823	\$6,632.106	\$2,646.987
Priority List:	4	2	969	2	1	1	0	\$4,611.094	\$6,063.354	\$2,492.828
Priority List:	5	2	1,752	2	1	1	0	\$17,212.815	\$17,195.423	\$1,247.207
Priority List:	6	1	217	1	1	1	0	\$5,019.900	\$6,979.159	\$3,919.787
Priority List:	7	2	1,431	2	2	1	0	\$18,443.924	\$18,326.085	\$2,103.917
Priority List:	9	3	882	3	0	0	0	\$7,552.793	\$9,432.750	\$564.269
Priority List:	10	2	0	1	0	0	0	\$4,901.948	\$5,364.801	\$559.210
Priority List:	11	5	2,094	5	0	0	0	\$12,090.387	\$14,793.311	\$29.140
Basin Total	24	9,562	23	10	8	1	\$87,353,320	\$106,835,712	\$24,962,474	

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	1	0	\$2,522,199	\$4,536,000	\$2,463,273
Priority List: 3	1	0	1	0	0	1	\$756,134	\$32,862	\$32,862
Priority List: 4	1	0	0	0	0	1	\$2,468,908	\$64,515	\$64,497
Priority List: 8	1	339	0	0	0	0	\$2,500,239	\$2,500,239	\$50,343
Priority List: 10	2	2,740	1	0	0	0	\$4,339,132	\$4,709,857	\$203,324
Basin Total	6	3,881	3	1	1	2	\$12,586,612	\$11,843,473	\$2,814,298
Basin: Calcasieu/Sabine									
Priority List: 4	1	1,203	1	1	1	0	\$2,223,518	\$2,664,613	\$1,773,449
Priority List: 9	1	540	1	0	0	0	\$799,823	\$999,779	\$182,238
Priority List: 10	1	393	1	0	0	0	\$1,425,447	\$1,781,809	\$174,752
Priority List: 11.1	1	330	1	1	0	0	\$19,252,492	\$19,252,505	\$0
Basin Total	4	2,466	4	2	1	0	\$23,701,280	\$24,698,706	\$2,130,439

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: Calcasieu									
Priority List:	1	3	6.407	3	3	0	\$5,770,187	\$2,866,830	\$2,130,965
Priority List:	2	4	3,019	4	3	0	\$8,568,462	\$11,360,985	\$6,129,404
Priority List:	3	2	3,555	2	2	1	\$8,301,380	\$8,203,072	\$3,859,147
Priority List:	4	2	0	2	1	1	\$670,284	\$747,272	\$516,668
Priority List:	5	1	247	1	1	0	\$4,800,000	\$5,010,762	\$2,655,152
Priority List:	6	1	3,594	1	1	0	\$6,316,800	\$6,382,511	\$3,461,896
Priority List:	8	1	993	1	1	0	\$5,920,248	\$7,400,310	\$3,214,508
Priority List:	9	1	83	1	1	0	\$3,742,451	\$3,168,028	\$1,340,331
Basin Total	15	17,898	15	13	9	1	\$44,089,812	\$45,139,770	\$23,308,071
Basin: Coastal Basins									
Priority List:	6	1	0	1	1	0	\$2,140,000	\$2,140,000	\$346,638
Priority List:	11	1	14,963	1	0	0	\$12,945,696	\$13,012,998	\$65,869
Basin Total	2	14,963	2	1	0	0	\$15,085,696	\$15,152,998	\$412,507

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: Miss. River Delta									
Priority List:	1	1	9.831	1	0	0	\$8,517,066	\$22,312,761	\$1,342,268
Priority List:	3	2	936	1	1	1	\$3,666,187	\$1,022,577	\$714,862
Priority List:	4	1	0	1	0	0	\$300,000	\$58,310	\$58,310
Priority List:	6	2	2,386	2	2	1	\$7,073,934	\$6,635,956	\$2,310,302
Priority List:	10	1	5,828	0	0	0	\$1,076,328	\$1,076,328	\$213,102
Priority List:	11	1	24,065	0	0	0	\$1,880,376	\$1,880,376	\$0
Basin Total	8	43,046	5	3	2	2	\$22,513,891	\$32,986,307	\$4,638,845
Basin: Mermentau									
Priority List:	1	2	247	2	2	2	\$1,368,671	\$1,492,890	\$1,087,402
Priority List:	2	1	1,593	1	1	1	\$2,770,093	\$2,949,276	\$1,780,500
Priority List:	3	1	0	1	1	1	\$126,062	\$108,803	\$108,561
Priority List:	5	1	511	1	1	1	\$3,998,919	\$2,543,467	\$1,966,097
Priority List:	7	1	442	1	0	0	\$2,185,900	\$2,862,806	\$229,532
Priority List:	8	1	378	1	1	0	\$1,526,136	\$1,548,429	\$97,287
Priority List:	9	2	440	2	0	0	\$1,852,416	\$2,282,821	\$113,908
Priority List:	10	2	1,133	2	0	0	\$11,565,012	\$12,175,562	\$63,664
Priority List:	11	2	935	0	0	0	\$3,407,449	\$3,997,054	\$47,318
Basin Total	13	5,679	11	6	5	2	\$28,800,658	\$29,961,108	\$5,494,269

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: Pontchartrain									
Priority List: 1	2	1,753	2	2	2	0	\$6,119,009	\$5,280,909	\$4,705,692
Priority List: 2	2	2,320	2	2	2	0	\$4,500,424	\$4,568,508	\$2,410,912
Priority List: 3	3	755	3	1	1	2	\$2,683,636	\$1,011,708	\$815,422
Priority List: 4	1	0	0	0	0	1	\$5,018,968	\$39,026	\$39,026
Priority List: 5	1	75	1	1	1	0	\$2,555,029	\$2,699,200	\$2,222,184
Priority List: 8	2	134	2	0	0	1	\$5,475,065	\$6,318,163	\$471,038
Priority List: 9	3	886	2	1	0	0	\$2,259,176	\$2,774,855	\$718,804
Priority List: 10	1	312	0	0	0	0	\$1,334,360	\$1,667,950	\$19,966
Priority List: 11	1	0	1	0	0	0	\$5,434,288	\$6,780,307	\$14,740
Basin Total	16	6,235	13	7	6	4	\$35,379,955	\$31,140,626	\$11,417,783
Basin: Teche / Vermilion									
Priority List: 1	1	65	1	1	1	0	\$1,526,000	\$2,046,940	\$1,794,999
Priority List: 2	1	378	1	1	1	0	\$1,008,634	\$1,012,691	\$810,893
Priority List: 3	1	2,223	1	1	1	0	\$5,173,062	\$6,029,980	\$4,873,899
Priority List: 5	1	441	1	1	1	0	\$940,065	\$893,610	\$559,250
Priority List: 6	4	2,526	4	3	2	0	\$10,130,000	\$11,890,056	\$5,136,085
Priority List: 8	1	24	1	0	0	0	\$1,013,820	\$1,137,756	\$152,409
Priority List: 9	3	994	1	0	0	0	\$3,187,610	\$3,296,066	\$795,579
Basin Total	12	6,651	10	7	6	0	\$22,979,191	\$26,307,099	\$14,123,113

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	\$9,490,376	\$7,456,418
Priority List: 2	3	958	3	3	3	0	\$12,831,588	\$20,446,810	\$17,207,934
Priority List: 3	4	3,958	4	4	4	0	\$15,758,355	\$23,068,412	\$17,800,084
Priority List: 4	2	215	2	1	0	1	\$6,119,470	\$13,871,854	\$6,606,697
Priority List: 5	3	1,306	2	1	1	0	\$31,120,343	\$11,497,906	\$3,617,270
Priority List: 5.1	0	0	0	0	0	0	\$9,700,000	\$9,700,000	\$4,860
Priority List: 6	4	1,774	2	0	0	2	\$30,522,757	\$24,692,755	\$1,404,085
Priority List: 7	1	0	1	1	1	0	\$460,222	\$542,570	\$232,417
Priority List: 9	4	576	4	0	0	0	\$10,344,808	\$14,577,348	\$989,211
Priority List: 10	2	970	2	0	0	0	\$4,119,035	\$5,023,222	\$107,892
Priority List: 11	3	494	1	0	0	0	\$5,338,072	\$6,665,944	\$4,036
Basin Total	32	10,260	25	13	12	5	\$135,124,043	\$139,577,197	\$55,430,905
Basin: Various Basins									
Priority List: 9	1		0	0	0	0	\$109,730	\$109,730	\$14,408
Basin Total	1		0	0	0	0	\$109,730	\$109,730	\$14,408
Total All Basins	137	125,022	116	66	53	17	\$436,497,932	\$478,418,217	\$153,624,602

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	13	\$28,084,900	\$9,262,187	\$39,933,317	\$52,860,608	\$26,685,210	\$26,248,906
2	15	13,372	15	1	13	\$28,173,110	\$11,321,272	\$40,644,134	\$67,463,923	\$51,664,082	\$42,832,308
3	11	12,514	11	1	9	\$29,939,100	\$7,655,038	\$32,879,168	\$45,157,938	\$32,146,732	\$30,072,626
4	5	2,387	5	1	3	\$29,957,533	\$3,567,628	\$12,886,706	\$22,814,921	\$18,129,387	\$11,072,163
5	9	4,332	8	1	5	\$33,371,625	\$3,984,037	\$60,627,171	\$39,840,368	\$28,685,221	\$12,267,160
5.1	0	0	0	0	0	\$0	\$4,850,000	\$9,700,000	\$9,700,000	\$4,809,800	\$4,860
6	11	10,497	11	4	4	\$39,134,000	\$5,872,044	\$54,614,991	\$58,650,116	\$28,048,215	\$16,508,473
7	4	1,873	4	1	2	\$42,540,715	\$3,259,719	\$21,090,046	\$21,731,461	\$5,998,870	\$2,565,866
8	5	1,868	4	2	0	\$41,864,079	\$2,835,735	\$13,139,934	\$15,009,981	\$6,327,661	\$3,814,782
9	19	4,990	15	1	1	\$47,907,300	\$5,774,575	\$31,333,440	\$38,497,169	\$23,645,940	\$4,826,619
10	12	11,376	8	0	0	\$47,659,220	\$5,146,124	\$30,767,635	\$34,307,495	\$9,317,278	\$1,358,916
11	13	42,551	8	0	0	\$57,332,369	\$7,069,499	\$41,096,268	\$47,129,990	\$21,016,592	\$161,103
11.1	1	330	1	1	0	\$0	\$9,626,252	\$19,252,492	\$19,252,505	\$0	\$0
Active Projects	119	125,022	104	13	50	\$425,963,951	\$80,224,110	\$407,965,302	\$472,416,475	\$256,474,988	\$151,733,780
Deauthorized Projects	17	0	11	0	2			\$28,293,759	\$5,809,934	\$4,233,605	\$1,699,015
Total Projects	136	125,022	115	13	52	\$425,963,951	\$80,269,996	\$436,259,061	\$478,226,410	\$260,708,593	\$153,432,795
Conservation Plan	1	0	1	0	1		\$45,886	\$238,871	\$191,807	\$191,807	\$191,807
Total Construction Program	137	125,022	116	13	53	\$425,963,951	\$80,269,996	\$436,497,932	\$478,418,217	\$260,900,400	\$153,624,602
						\$506,233,947					

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Summary Report by Priority List

- NOTES:
1. Total of 137 projects includes 120 active construction projects, 16 deauthorized projects, and the State of Louisiana's Wetlands Conservation Plan.
 2. Federal funding of \$57,332,369 for FY 02 has been received.
 3. Total construction program funds available is \$506,233,947 .
 4. The current estimate for 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 11 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.