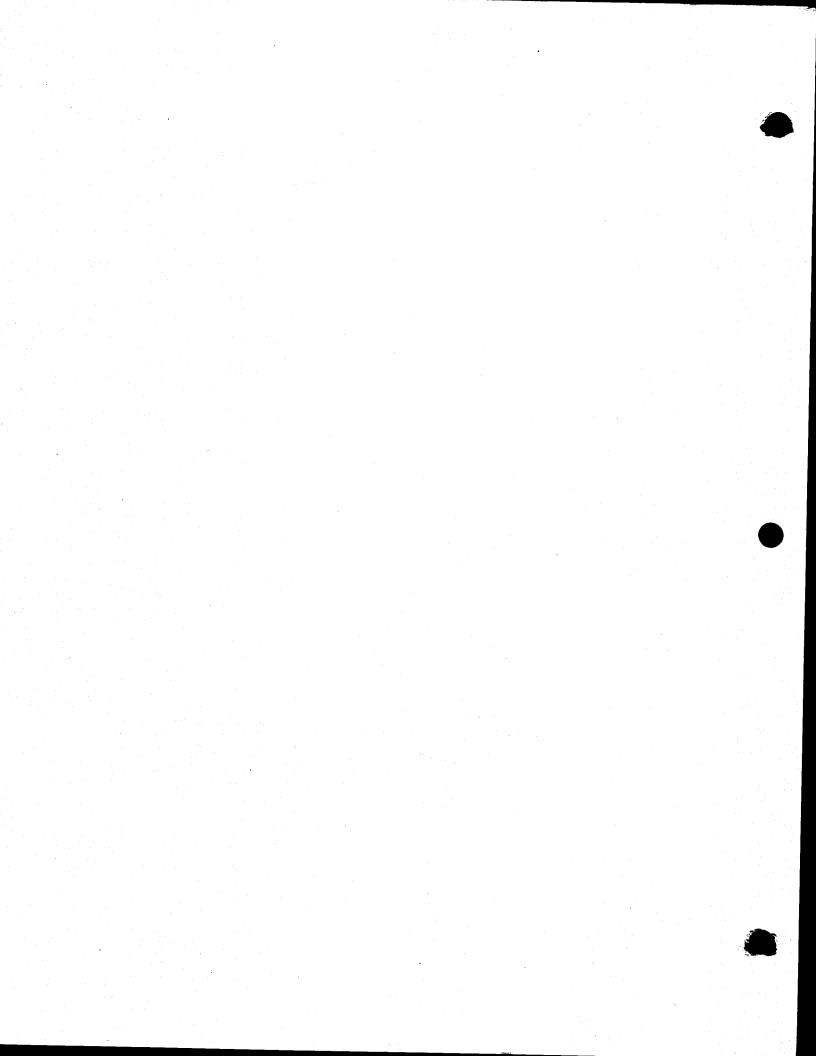
# Coastal Wetlands Planning, Protection and Restoration Act

# 9th Priority Project List Report

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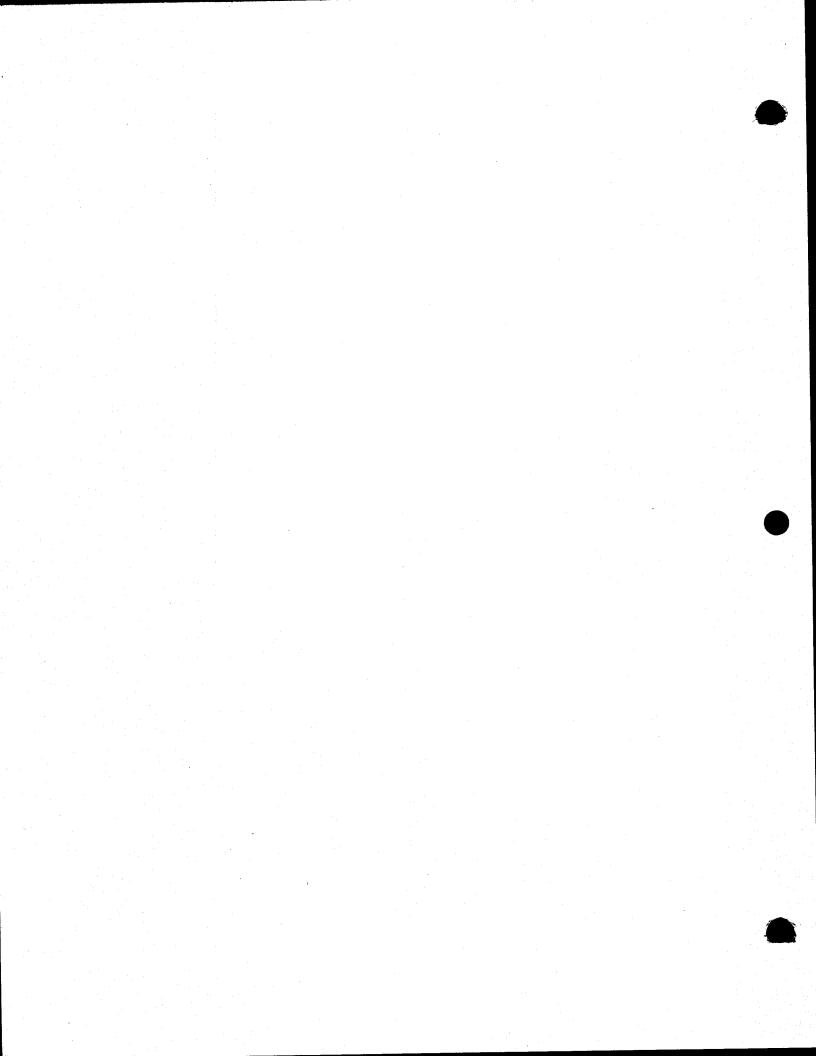


# Coastal Wetlands Planning, Protection, and Restoration Act

9<sup>th</sup> 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 costsharing 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 Environment and Public Works).

CONGRESSIONAL RECORD, Vol. 136 (1990):

Oct. 1, considered and passed House.

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

Oct. 27, House concurred in Senate amendment.

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

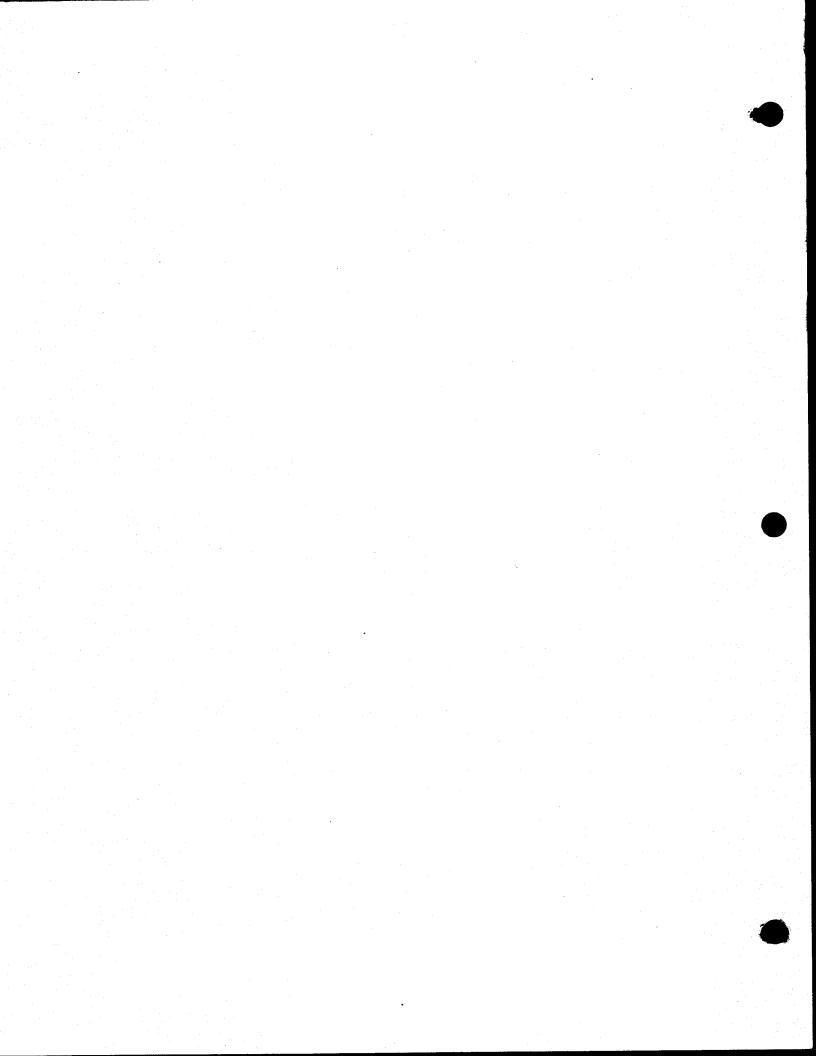
Nov. 29, Presidential statement.

# Coastal Wetlands Planning, Protection, and Restoration Act

9<sup>th</sup> Priority Project List Report

Appendix B

Wetland Value Assessment Methodology and Community Models

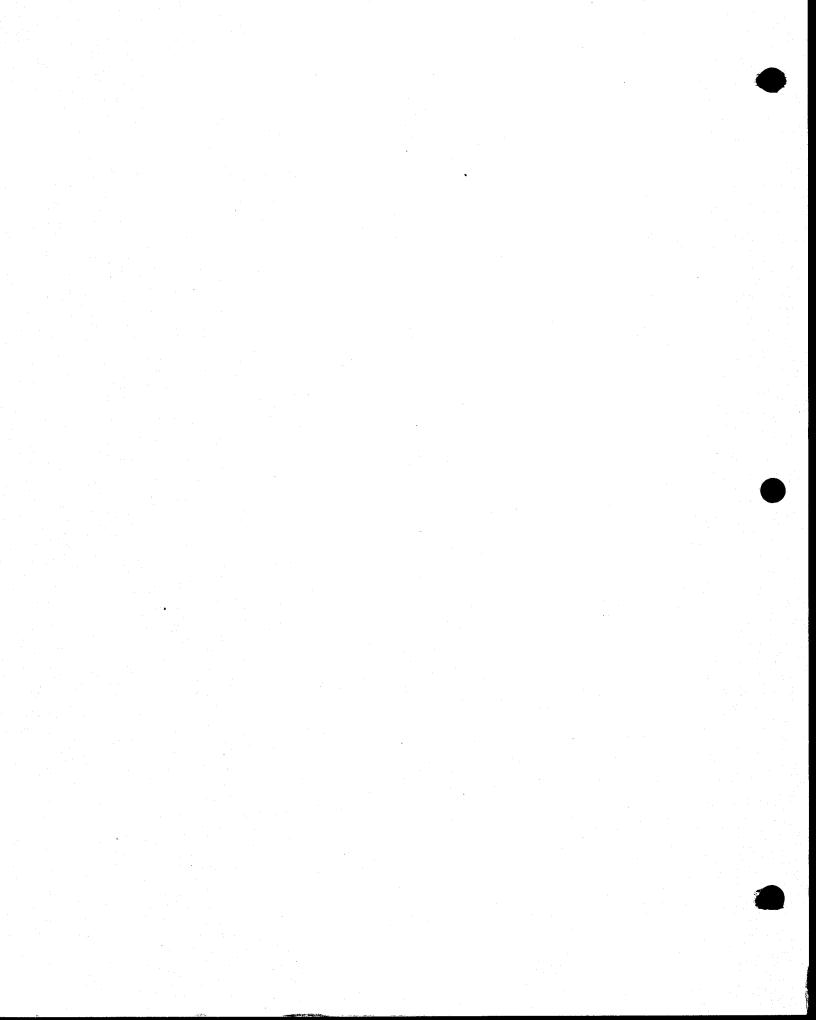


# Appendix B

# Wetland Value Assessment Methodology and Community Models

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# Wetland Value Assessment Methodology and Community Models

#### I. INTRODUCTION

The Wetland Value Assessment (WVA) methodology is a quantitative habitat-based assessment methodology developed for use in prioritizing project proposals submitted for funding under the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) of 1990. The WVA quantifies changes in fish and wildlife habitat quality and quantity that are projected to be brought about as a result of a proposed wetland enhancement project. The results of the WVA, measured in Average Annual Habitat Units (AAHUs), can be combined with economic data to provide a measure of the effectiveness of a proposed project in terms of annualized cost per AAHU gained.

The WVA was developed by the Environmental Work Group (EWG) assembled under the Planning and Evaluation Subcommittee of the CWPPRA Technical Committee; the EWG includes members from each agency represented on the CWPPRA Task Force and members of the Academic Advisory Group. The WVA was designed to be applied, to the greatest extent possible, using only existing or readily obtainable data.

The WVA has been developed strictly for use in ranking proposed CWPPRA projects; it is not intended to provide a detailed, comprehensive methodology for establishing baseline conditions within a project area. Some aspects of the WVA have been defined by policy and/or functional considerations of the CWPPRA; therefore, user-specific modifications may be necessary if the WVA is used for other purposes.

The WVA is a modification of the Habitat Evaluation Procedures (HEP) developed by the U.S. Fish and Wildlife Service (U.S. Fish and Wildlife Service 1980). HEP is widely used by the Fish and Wildlife Service and other Federal and State agencies in evaluating the impacts of development projects on fish and wildlife resources. A notable difference exists between the two methodologies, however, in that HEP generally uses a species-oriented approach, whereas the WVA utilizes a community approach.

The WVA has been developed for application to the following wetland types: fresh marsh (including intermediate marsh), brackish marsh, and saline marsh. Future reference in this document to "wetland" or "wetland type" refers to one or more of those three communities. For projects impacting bottomland hardwood forest or cypress-tupelo swamp, community models developed for those habitat types by the Louisiana Department of Natural Resources are used.

#### II. WVA CONCEPT

The WVA operates under the assumption that optimal conditions for fish and wildlife habitat within a given coastal wetland type can be characterized, and that existing or predicted conditions can be compared to that optimum to provide an index of habitat quality. Habitat quality is estimated or expressed through the use of mathematical models developed specifically for each wetland type. Each model consists of 1) a list of variables that are considered important in characterizing fish and wildlife habitat, 2) a Suitability Index graph for each variable, which defines the assumed relationship between habitat quality (Suitability Index) and different variable values, and 3) a mathematical formula that combines the Suitability Index for each variable into a single value for wetland habitat quality; that single value is referred to as the Habitat Suitability Index, or HSI.

The Wetland Value Assessment models (Attachments 1-3) have been developed for determining the suitability of Louisiana coastal wetlands in providing resting, foraging, breeding, and nursery habitat to a diverse assemblage of fish and wildlife species. Models have been designed to function at a community level and therefore attempt to define an optimum combination of habitat conditions for all fish and wildlife species utilizing a given marsh type over a year or longer. Earlier attempts to capture other wetland functions and values such as storm-surge protection, flood water storage, water quality functions and nutrient import/export were abandoned due to the difficulty in defining unified model relationships and meaningful model outputs for such a variety of wetland benefits. However, the ability of a Louisiana coastal wetland to provide those functions and values may be generally assumed to be positively correlated with fish and wildlife habitat quality as predicted through the WVA.

The output of each model (the HSI) is assumed to have a linear relationship with the suitability of a coastal wetland system in providing fish and wildlife habitat.

#### III. COMMUNITY MODEL VARIABLE SELECTION

Habitat variables considered appropriate for describing habitat quality in each wetland type were selected according to the following criteria:

- 1) the condition described by the variable had to be important in characterizing fish and wildlife habitat quality in the wetland type under consideration;
- 2) values had to be easily estimated and predicted based on existing data (e.g., aerial photography, LANDSAT, GIS, water quality monitoring stations, and interviews with knowledgeable individuals); and
- 3) the variable had to be sensitive to the types of changes expected to be brought about by typical wetland projects proposed under the CWPPRA.

Variables for each model 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 or swamp systems.

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 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 2 mammals (Attachment 6). The number of models included from each species group was dictated by model availability.

Selected HSI models were then grouped according to the wetland type(s) used by each species. Because most species for which models were considered are not restricted to one wetland type, most models were included in more than one wetland 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, such as percent marsh coverage, salinity, etc.).

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 (Attachments 1-3).

#### IV. SUITABILITY INDEX GRAPHS

Suitability Index (SI) graphs were constructed for each variable selected within a wetland type. A suitability index graph is a graphical representation of how fish and wildlife habitat quality or "suitability" of a given wetland type is predicted to change as values of the given variable change, and allows the model user to numerically describe, through a Suitability Index, the habitat quality of a wetland area for any variable value. Each Suitability Index ranges from 0.1 to 1.0, with 1.0 representing the optimum condition for the variable in question.

A variety of resources were utilized to construct each SI graph, including personal knowledge of EWG members, the HSI models from which the final list of variables was partially derived, consultation with other professionals and researchers outside the EWG, and published and unpublished data and studies. An important "non-biological" constraint on SI graph development was the need to insure that graph relationships were not counter to the purpose of the CWPPRA, that is, the long term creation, restoration, protection, or enhancement of coastal vegetated wetlands. That constraint was most

operative in defining SI graphs for Variable V<sub>1</sub> under each marsh model (see discussion below).

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 Group members.

#### V. SUITABILITY INDEX GRAPH ASSUMPTIONS

Suitability Index graphs were developed according to the following assumptions:

#### 1. Fresh/Intermediate Marsh Model

Variable V₁- Percent of wetland covered by persistent emergent vegetation (≥ 10 percent canopy cover). 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 for the food chain. An area with no marsh (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.

Optimum vegetation coverage in a fresh/intermediate marsh is assumed to occur at 100 percent persistent emergent vegetation cover (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 EWG had originally developed a strictly biologically-based graph defining optimum habitat conditions at marsh cover values between 60 and 80 percent, and suboptimum habitat conditions at 100 percent cover. However, application of that graph, in combination with the time analysis used later in the evaluation process, 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 cover into the optimum 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 optimum 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 EWG decided that, all other factors being equal, the WVA should favor projects that maximize emergent marsh creation, maintenance, and protection. Therefore, the EWG agreed to deviate from a strictly biologically-based habitat suitability graph for  $V_1$  setting optimum habitat conditions at 100 percent marsh cover.

Variable  $V_2$ - Percent of open water area dominated (> 50 percent canopy cover) 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). Optimum condition (SI=1.0) is 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 EWG recognized, however, that those effects were highly dependent on the dominant aquatic plant species. their growth forms, and their arrangement in the water column. 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 EWG decided to simplify the graph and define optimum conditions at 100 percent aquatic cover.

Variable V<sub>3</sub>- 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 (Attachment 4) 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 turbidities, 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 Types.

A relatively high degree of interspersion in the form of stream courses and tidal channels (Interspersion Type 1, Attachment 4) 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 optimum, even though interspersion may be low, to avoid conflicts with the premises underlying the SI graph for variable V<sub>1</sub>. 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 Type 2) offer a high degree of interspersion, but are also usually indicative of the beginnings of marsh breakup and degradation, and are therefore assigned a more moderate SI of 0.6. Large open water areas (Interspersion Types 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, Type 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 V<sub>4</sub>- 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. Optimum depth in a fresh/intermediate marsh is 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.

Variable V<sub>5</sub>- Mean high salinity during the growing season. 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 Soil Conservation Service soil surveys for coastal Louisiana). Mean high salinity is defined as the average of the upper 33 percent of salinity readings taken during a specified period of record. Optimum condition in fresh marsh is assumed to occur when mean high salinity during the growing season is less than 2 parts per thousand (ppt). Optimum condition in intermediate marsh is assumed to occur when mean high salinity during the growing season is less than 4 ppt.

Variable V<sub>6</sub>- Aquatic organism access. Access by aquatic organisms, particularly estuarine-dependent fishes and shellfishes, is considered to be a critical component in assessing the quality or suitability of a given marsh system to provide habitat to those species. 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 Suitability Index for V<sub>6</sub> is determined by calculating an "Access Value" based on the interaction between the percentage of the project area wetlands considered accessible by estuarine 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 (Attachment 5). It should be noted that access ratings for manmade structures were determined by consensus among Environmental Work Group members and that scientific research has not been conducted to determine the actual access value for each of those structures. Optimum condition is 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 a 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 a SI=0.2, reflecting that intermediate marshes are somewhat more important to estuarine organisms than fresh marshes.

#### 2. Brackish Marsh Model

Variable  $V_1$ - Percent of wetland covered by persistent emergent vegetation ( $\geq$  10 percent canopy cover). Refer to the  $V_1$  discussion under the fresh/intermediate marsh model for a discussion of the importance of persistent emergent vegetation in coastal marshes. The  $V_1$  Suitability Index graph in the brackish marsh model is identical to that in the fresh/intermediate model.

Variable V<sub>2</sub>- Percent of open water area dominated (> 50 percent canopy cover) by aquatic vegetation. Like fresh/intermediate marshes, brackish marshes have the potential to support aquatic plants that serve as important sources of food and cover for several species of fish and wildlife. Although brackish marshes generally do not support the amounts and kinds of aquatic plants that occur in fresh/intermediate marshes, certain species, such as widgeon-grass, and coontail and milfoil in lower salinity brackish marshes, can occur abundantly under certain conditions. Those species, particularly widgeon-grass, provide important food and cover for many species of fish and wildlife. Therefore, the V<sub>2</sub> Suitability Index graph in the brackish marsh model is identical to that in the fresh/intermediate model. A brackish marsh entirely lacking aquatic plants is assigned an SI=0.1. It is assumed that optimum open water coverage of aquatic plants in a brackish marsh occurs at 100 percent aquatic cover.

Variable V<sub>3</sub>- Marsh edge and interspersion. The Suitability Index graph for edge and interspersion in the brackish marsh model is the same as that in the fresh/intermediate marsh model.

Variable V<sub>4</sub>- Open water depth in relation to marsh surface. As in the fresh/intermediate model, shallow water areas in brackish marsh habitat are assumed to be 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. Optimum open water depth condition in a brackish marsh is assumed to occur when 70 to 80 percent of the open water area is less than or equal to 1.5 feet deep.

Variable V<sub>5</sub>- Average annual salinity. The suitability index graph is constructed to represent optimum average annual salinity condition at between 0 ppt and 10 ppt. The EWG acknowledges that average annual salinities below 6 ppt will effectively define a marsh as fresh or intermediate, not brackish. However, the suitability index graph makes allowances for lower salinities (i.e., < 6 ppt) 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 6 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, as illustrated in the downward sloping right leg of the suitability index graph. 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.

Variable V<sub>6</sub>- Aquatic organism access. The general rationale and procedure behind the V<sub>6</sub> 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 fish and shellfish than fresh/intermediate marshes. Therefore, a brackish marsh providing no access is assigned an SI of 0.1.

## 3. Saline Marsh Model

Variable  $V_1$ - Percent of wetland covered by persistent emergent vegetation ( $\geq$  10 percent canopy cover). Refer to the  $V_1$  discussion under the fresh/intermediate marsh model for a discussion of the importance of persistent emergent vegetation in coastal marshes. The  $V_1$  Suitability Index graph in the saline marsh model is identical to that in the fresh/intermediate and brackish models.

Variable V<sub>2</sub>- Percent of open water area dominated (> 50 percent canopy cover) by aquatic vegetation. 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 marshes 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 optimum coverage of aquatic plants occurs at 100 percent aquatic cover.

Variable V<sub>3</sub>- Marsh edge and interspersion. The Suitability Index graph for edge and interspersion in the saline marsh model is the same as that in the fresh/intermediate and brackish marsh models.

Variable V<sub>4</sub>- Open water depth in relation to marsh surface. The Suitability Index graph for open water depth in the saline marsh is similar to that for brackish marsh, where optimum 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 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 V<sub>5</sub>- Average annual salinity. The Suitability Index graph is constructed to represent optimum salinity conditions at between 9 ppt and 21 ppt. The Group acknowledges that average annual salinities between 9 and 12 ppt will effectively define a marsh as brackish, not saline. However, the suitability index graph makes allowances for lower salinities (i.e., < 12 ppt) 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 12 ppt is the assumption that lower salinities (9-12 ppt) are not detrimental to a saline marsh. Average annual salinities greater than 21 ppt are assumed to be slightly stressful to saline marsh vegetation, as illustrated in the downward sloping right leg of the suitability index graph.

Variable  $V_6$ - Aquatic organism access. The Suitability Index graph for aquatic organism access in the saline marsh model is the same as that in the brackish marsh model.

# 4. Cypress-Tupelo Swamp Model

Variable V<sub>1</sub>- Water regime. Four water regime categories are described for the cypress-tupelo swamp model. The optimum water regime for a cypress-tupelo

swamp is assumed to be seasonal flooding (SI=1.0); seasonal flooding with periodic drying cycles is assumed to contribute to increased nutrient cycling (primarily through oxidation and decomposition of accumulated detritus), increased vertical structure complexity (due to growth of other plants on the swamp floor), and increased recruitment of dominant overstory trees. Semipermanent flooding is also assumed to be desirable, as reflected in the SI=0.8 for that water regime category. Permanent flooding is assumed to be the least desirable (SI=0.2).

Variable V2- Water flow/exchange. This variable attempts to take into consideration the amounts and types of water inputs into a cypress-tupelo swamp. The Suitability Index graph is constructed under the assumption that abundant and consistent riverine input and water flow-through is optimum (SI=1.0), because under that regime the full functions and values of a cypress-tupelo swamp in providing fish and wildlife habitat are assumed to be maximized. Habitat suitability is assumed to decrease as water exchange between the swamp and adjacent systems is reduced. A swamp system with no water exchange (e.g., an impounded swamp where the only water input is through rainfall and the only water loss is through evapotranspiration and ground seepage) is assumed to be least desirable, and is assigned an SI= 0.2.

Variable V3- Average high salinity. Average high salinity is defined as the average of the upper 33 percent of salinity measurements taken during a specified period of record. Because baldcypress is salinity-sensitive, optimum conditions for baldcypress survival are assumed to occur at average high salinities less than 1 ppt. Habitat suitability is assumed to decrease rapidly at average high salinities in excess of 1 ppt.

# VI. HABITAT SUITABILITY INDEX FORMULA

The final step in WVA model development was to construct a mathematical formula that combines all Suitability Indices for each wetland type into a single Habitat Suitability Index (HSI) value. Because the Suitability Indices range in value from 0.1 to 1.0, the HSI also ranges in value from 0.1 to 1.0, and is a numerical representation of the overall or "composite" habitat quality of the particular wetland area being evaluated. The HSI formula defines the aggregation of Suitability Indices in a manner unique to each wetland type depending on how the formula is constructed.

Within an HSI formula, any Suitability Index can be weighted by various means to increase the power or "importance" of that variable relative to the other variables in determining the HSI. Additionally, two or more variables can be grouped together into subgroups to further isolate variables for weighting.

In developing the HSI formulas, the EWG recognized that the primary focus of the CWPPRA is on vegetated wetlands, and that some marsh protection strategies could have adverse impacts to estuarine organism access. Therefore, the EWG made an *a priori* decision to emphasize variables  $V_1$ ,  $V_2$ , and  $V_6$  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  $V_3$ ,  $V_4$ , and  $V_5$  were grouped to isolate their influence relative to  $V_1$ ,  $V_2$ , and  $V_6$ .

For all marsh models,  $V_1$  receives the strongest weighting. The relative weights of  $V_1$ ,  $V_2$ , and  $V_6$  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 the context of 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,  $V_2$  receives more weight in the fresh/intermediate HSI formula than in the saline HSI formula. Similarly, the degree of estuarine organism access was considered more important in a saline marsh than a fresh/intermediate marsh, and  $V_6$  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 EWG members.

For several years, 1991 through 1996, the EWG utilized one HSI formula specific to each wetland type (i.e., fresh/intermediate, brackish, and saline) to characterize habitat quality. However, it was noted that Variables V<sub>2</sub> and V<sub>4</sub>, which characterize open water areas only, often resulted in an "artificially inflated" HSI when those variable values were optimum (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<sub>2</sub> and V<sub>4</sub> would each equal 1.0 for both project areas even though open water only accounts for 10 percent of Project Area A. The EWG has commonly referred to this as a "scaling" problem; the Suitability Index values for V<sub>2</sub> and V<sub>4</sub> 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 EWG 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 EWG in developing potential solutions to the scaling problem. After several unsuccessful attempts to develop a single HSI formula for each wetland type which scaled the Suitability Index values for  $V_2$  and  $V_4$  based on the ratio of emergent marsh to open water, the EWG decided to develop a "split" model for each wetland type. The split model concept utilizes two HSI formulas for each wetland type; one HSI formula characterizes the emergent marsh 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 fresh/intermediate, brackish, and saline wetlands.

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, to increase their importance, as previously discussed.

#### VII. BENEFIT ASSESSMENT

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

As previously stated, 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 benefits or net AAHUs for each wetland type are shown below:

Fresh Marsh: 2.1(Emergent Marsh AAHUs) + Open Water AAHUs

3.1

Brackish Marsh: 2.6(Emergent Marsh AAHUs) + Open Water AAHUs

Saline Marsh: 3.5(Emergent Marsh AAHUs) + Open Water AAHUs
4.5

Net gain in AAHUs is then combined with annualized cost data to arrive at a cost per AAHU (\$/AAHU) or cost-effectiveness figure for the evaluated project. The cost-effectiveness figure, as well as other criteria, are then compared between projects in order to provide a ranked list of candidate projects.

# LITERATURE CITED

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## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Vegetation:

Variable  $V_1$  Percent of wetland area covered by emergent vegetation (  $\geq 10\%$  canopy cover).

Variable V<sub>2</sub> Percent of open water area dominated (> 50% canopy cover) by aquatic vegetation.

**Interspersion:** 

Variable V<sub>3</sub> Marsh edge and interspersion.

Water Depth:

Variable  $V_4$  Percent of open water area  $\leq 1.5$  feet deep, in relation to marsh surface.

Water Quality:

Variable V<sub>5</sub> Mean high salinity during the growing season (March through November).

**Aquatic Organism Access:** 

 $\label{eq:Variable} Variable \ V_6 \quad \ \ A quatic \ organism \ access.$ 

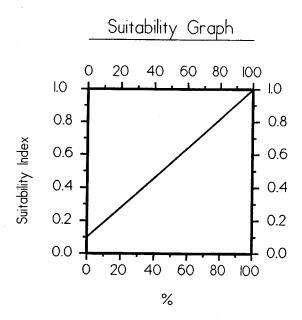
**HSI Calculations:** 

Emergent Marsh 
$$HSI = \frac{\left(3.5 \times (SIV_1^5 \times SIV_6^1)^{(1/6)}\right) + \left(\frac{\left(SIV_3 + SIV_5\right)}{2}\right)}{4.5}$$

Open Water HSI = 
$$\frac{\left(3.5 \times \left(SIV_{2}^{3} \times SIV_{6}^{1}\right)^{(1/4)}\right) + \left(\frac{\left(SIV_{3} + SIV_{4} + SIV_{5}\right)}{3}\right)}{4.5}$$

# FRESH/INTERMEDIATE MARSH

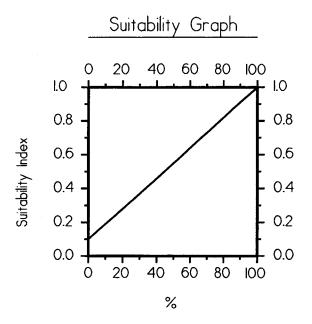
Variable  $V_1$  Percent of wetland area covered by emergent vegetation (  $\geq 10\%$  canopy cover).



# Line Formula

SI = (0.009 \* %) + 0.1

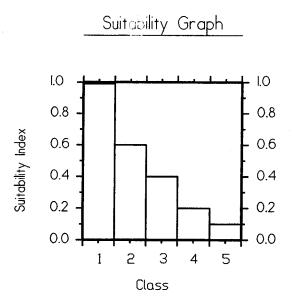
Variable V<sub>2</sub> Percent of open water area dominated (> 50% canopy cover) by aquatic vegetation.



# Line Formula

SI = (0.009 \* %) + 0.1

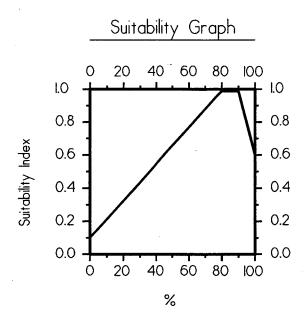
Variable V<sub>3</sub> Marsh edge and interspersion.



# Instructions for Calculating SI for Variable V<sub>3</sub>:

- 1. Refer to Attachment 4 for examples of the different interspersion classes (=types).
- 2. Estimate percent of project area in each class and compute a weighted average to arrive at SIV<sub>3</sub>. If the entire project area is solid marsh, assign an interspersion class #1 (SI=1.0). Conversely, if the entire project area is open water, assign an interspersion class #5 (SI=0.1).

Variable  $V_4$  Percent of open water area  $\leq 1.5$  feet deep, in relation to marsh surface.



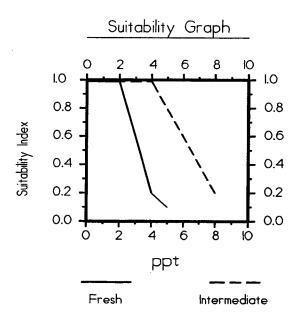
# **Line Formulas**

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

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

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

Variable V<sub>5</sub> Mean high salinity during the growing season (March through November).



#### **Line Formulas**

#### Fresh Marsh:

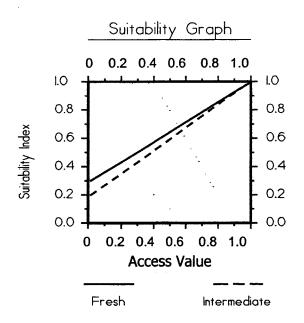
If 
$$0 \le ppt \le 2$$
, then  $SI = 1.0$   
If  $2 < ppt \le 4$ , then  $SI = (-0.4 * ppt) + 1.8$   
If  $4 < ppt \le 5$  then  $SI = (-0.1 * ppt) + 0.6$ 

#### **Intermediate Marsh:**

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

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

Variable  $V_6$  Aquatic organism access.



# Line Formulas

#### Fresh Marsh:

$$SI = (0.7 * Access Value) + 0.3$$

#### **Intermediate Marsh:**

$$SI = (0.8 * Access Value) + 0.2$$

**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 Attachment 5 "Procedure For Calculating Access Value" for complete information on calculating "P" and "R" values.

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

#### **Brackish Marsh**

Vegetation:

Variable  $V_1$  Percent of wetland area covered by emergent vegetation ( $\geq 10\%$  canopy cover).

Variable V<sub>2</sub> Percent of open water area dominated (> 50% canopy cover) by aquatic vegetation.

**Interspersion:** 

Variable  $V_3$  Marsh edge and interspersion.

Water Depth:

Variable V<sub>4</sub> Percent of open water area ≤1.5 feet deep, in relation to marsh surface.

Water Quality:

Variable  $V_5$  Average annual salinity.

**Aquatic Organism Access:** 

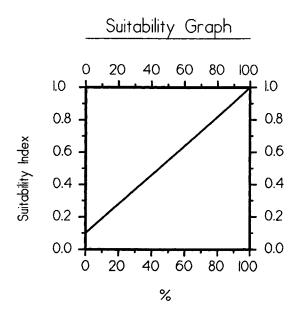
Variable V<sub>6</sub> Aquatic organism access.

**HSI Calculations:** 

Emergent Marsh 
$$HSI = \frac{\left(3.5 \times (SIV_1^5 \times SIV_6^{1.5})^{(1/6.5)}\right) + \left(\frac{\left(SIV_3 + SIV_5\right)}{2}\right)}{4.5}$$

Open Water 
$$HSI = \frac{\left(3.5 \times \left(SIV_{2}^{3} \times SIV_{6}^{2}\right)^{(1/5)}\right) + \left(\frac{\left(SIV_{3} + SIV_{4} + SIV_{5}\right)}{3}\right)}{4.5}$$

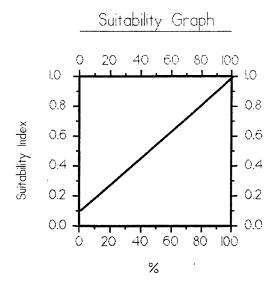
Variable  $V_1$  Percent of wetland area covered by emergent vegetation ( $\geq 10\%$  canopy cover).



# Line Formula

SI = (0.009 \* %) + 0.1

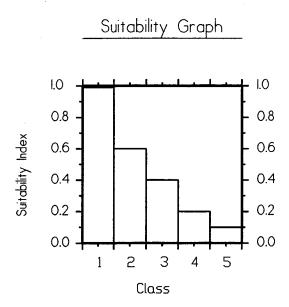
Variable V<sub>2</sub> Percent of open water area dominated (> 50% canopy cover) by aquatic vegetation.



# Line Formula

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

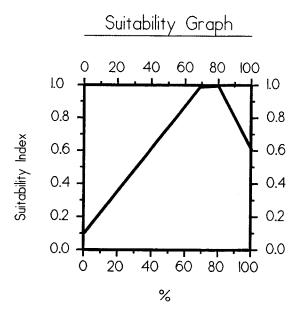
Variable V<sub>3</sub> Marsh edge and interspersion.



# Instructions for Calculating SI for Variable V3:

- 1. Refer to Attachment 4 for examples of the different interspersion classes (=types).
- 2. Estimate percent of project area in each class and compute a weighted average to arrive at SIV<sub>3</sub>. If the <u>entire</u> project area is solid marsh, assign an interspersion class #1 (SI=1.0). Conversely, if the <u>entire</u> project area is open water, assign an interspersion class #5 (SI=0.1).

Variable  $V_4$  Percent of open water area  $\leq 1.5$  feet deep, in relation to marsh surface.



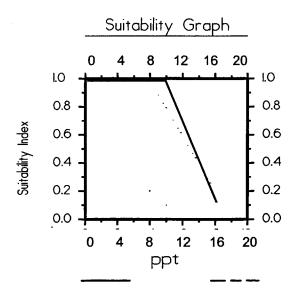
# **Line Formulas**

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

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

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

Variable V<sub>5</sub> Average annual salinity.

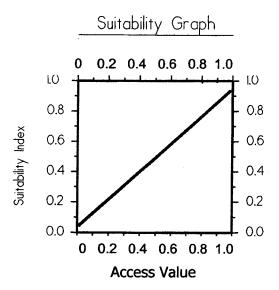


# **Line Formulas**

If 
$$0 \le ppt < 10$$
, then  $SI = 1.0$ 

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

Variable V<sub>6</sub> Aquatic organism access.



#### **Line Formulas**

SI = (0.9 \* Access Value) + 0.1

<u>Note</u>: 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 Attachment 5 "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 (≥10% canopy cover).

Variable V<sub>2</sub> Percent of open water area dominated (> 50% canopy cover) by aquatic vegetation.

Interspersion:

Variable V<sub>3</sub> Marsh edge and interspersion.

Water Depth:

Variable  $V_4$  Percent of open water area  $\leq 1.5$  feet deep, in relation to marsh surface.

Water Quality:

Variable V<sub>5</sub> Average annual salinity.

**Aquatic Organism Access:** 

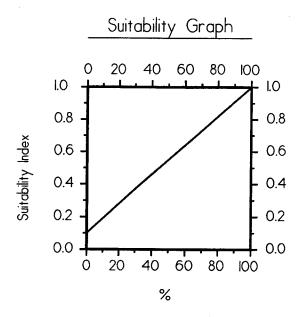
Variable V<sub>6</sub> Aquatic organism access.

**HSI Calculations:** 

Emergent Marsh 
$$HSI = \frac{\left(3.5 \times (SIV_1^3 \times SIV_6^1)^{(1/4)}\right) + \left(\frac{(SIV_3 + SIV_5)}{2}\right)}{4.5}$$

Open Water HSI = 
$$\frac{\left(3.5 \times \left(SIV_{2}^{1} \times SIV_{6}^{2.5}\right)^{(1/3.5)}\right) + \left(\frac{\left(SIV_{3} + SIV_{4} + SIV_{5}\right)}{3}\right)}{4.5}$$

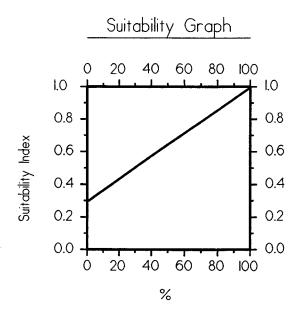
Variable  $V_1$  Percent of wetland area covered by emergent vegetation (  $\geq 10\%$  canopy cover).



# Line Formula

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

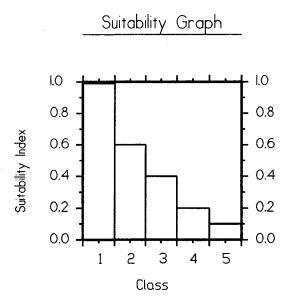
Variable V<sub>2</sub> Percent of open water area dominated (> 50% canopy cover) by aquatic vegetation.



# Line Formula

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

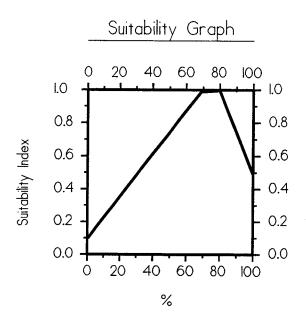
Variable V<sub>3</sub> Marsh edge and interspersion.



# Instructions for Calculating SI for Variable V<sub>3</sub>:

- 1. Refer to Attachment 4 for examples of the different interspersion classes (=types).
- 2. Estimate percent of project area in each class and compute a weighted average to arrive at SIV<sub>3</sub>. If the <u>entire</u> project area is solid marsh, assign an interspersion class #1 (SI=1.0). Conversely, if the <u>entire</u> project area is open water, assign an interspersion class #5 (SI=0.1).

Variable  $V_4$  Percent of open water area  $\leq 1.5$  feet deep, in relation to marsh surface.



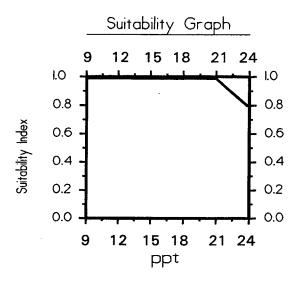
# **Line Formulas**

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

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

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

# Variable V<sub>5</sub> Average annual salinity.

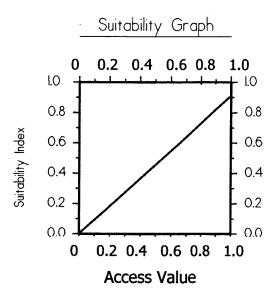


# **Line Formulas**

If  $9 \le ppt \le 21$ , then SI = 1.0

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

Variable V<sub>6</sub> Aquatic organism access.



## **Line Formulas**

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 Attachment 5 "Procedure for Calculating Access Value" for complete information on calculating "P" and "R" values.

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

# **Cypress-Tupelo Swamp**

# Water Depth and Duration:

Variable V<sub>1</sub> Water regime.

# Water Quality:

Variable V<sub>2</sub> Water flow/exchange.

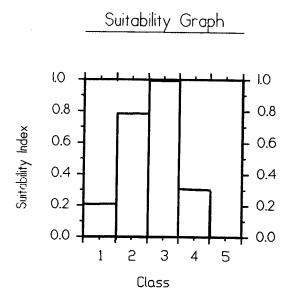
Variable V<sub>3</sub> Average high salinity.

#### **HSI Calculation:**

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

#### CYPRESS-TUPELO SWAMP

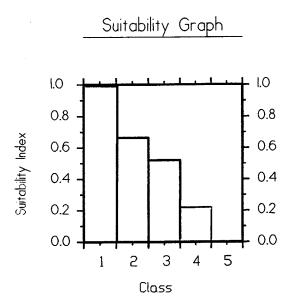
Variable  $V_1$  Water regime.



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

#### **CYPRESS-TUPELO SWAMP**

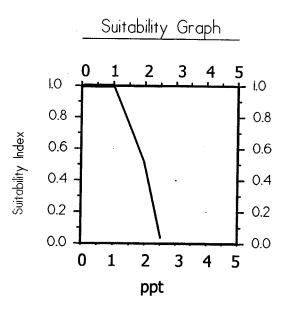
Variable V<sub>2</sub> Water flow/exchange.



- 1. Receives abundant and consistent riverine input and throughflow.
- 2. Moderate water exchange, through riverine or tidal input.
- 3. Limited water exchange, through riverine or tidal input.
- 4. No water exchange (stagnant, impounded).

## **CYPRESS-TUPELO SWAMP**

Variable V<sub>3</sub> Average high salinity.



# **Line Formulas**

If 
$$0 \le ppt \le 1$$
, then  $SI = 1.0$ 

If 
$$1 \le ppt \le 2$$
, then  $SI = (-0.5 \times ppt) + 1.5$ 

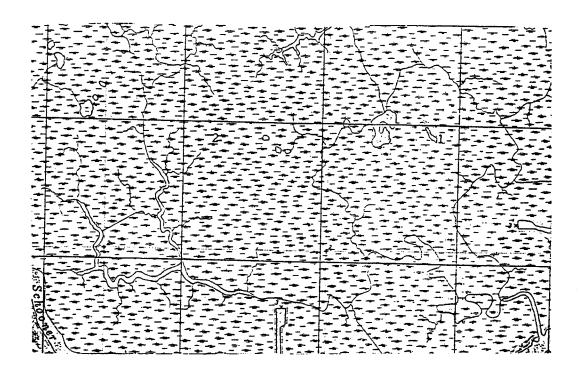
If 
$$2 \le ppt < 2.5$$
, then  $SI = (-1.0 \times ppt) + 2.5$ 

If ppt 
$$\geq$$
 2.5, then SI = 0

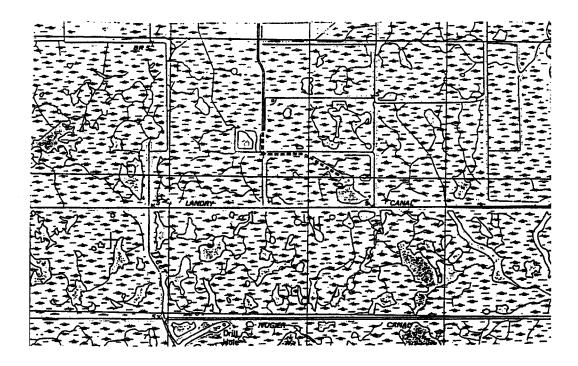
Average high salinity is defined as the average of the upper 33 percent of salinity readings taken during the period of record.

# $\label{eq:Variable V3-Marsh Edge and Interspersion} \textbf{Variable V3-Marsh Edge and Interspersion}$

Class 1

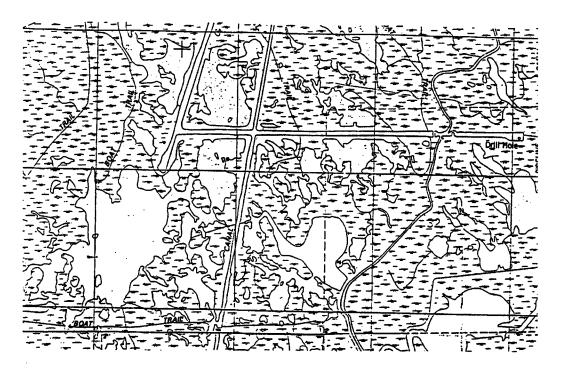


Class 2

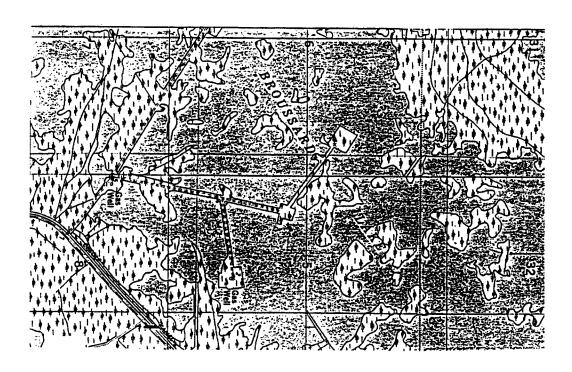


Variable V3 – Marsh Edge and Interspersion

Class 3



Class 4



## PROCEDURE FOR CALCULATING ACCESS VALUE

- 1. Determine the percent of wetland area accessible by estuarine organisms during normal tidal fluctuations (P) 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	Rating	
open system	1.0	
rock weir set at 1ft BML <sup>1</sup> , 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 $\leq 1$ ft BML	0.5	
slotted weir	0.4	
flapgated culvert with slotted weir	0.35	
variable crest weir	0.3	
flapgated variable crest weir	0.25	
flapgated culvert	0.2	
rock weir	0.15	
fixed crest weir	0.1	
solid plug	0.0001	

For each structure type, the rating listed above pertains only to the standard 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 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

<sup>&</sup>lt;sup>1</sup> Below Marsh Level

organisms, such as natural levee ridges, and spoil banks; and dense marsh that lacks channels, trenasses, and similar connections that would, if present, provide access and intertidal refugia for estuarine organisms.

Access Value should be calculated according to the following examples (<u>Note</u>: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.

$$=.90$$

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

c. Two openings into area, <u>each capable by itself</u> 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 flapgated culvert with slotted weir is placed across opening #1. Opening #2 is left unaltered.

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 flapgated culvert with slotted weir is placed across #1. Opening #2 is left open.

Access Value = weighted avg. of Access Values of the two accessible units

= 
$$([P_1*R_1]+[P_2*R_2])/(P_1+P_2)$$
  
=  $([.30*0.35]+[.60*1.0])/(.30+.60)$ 

Note: P<sub>1</sub>+P<sub>2</sub>=.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 flapgated culvert with slotted weir, and opening #3 is left open.

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 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 flapgated culvert with slotted weir, and opening #3 is fitted with a fixed crest weir.

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 flapgated culvert with slotted weir across that opening that actually served to limit access.

of the area. Opening #2 and #3 provide access to an accessible unit comprising 20% of the area. Opening #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.

Access Value = 
$$([P_1*R_1]+[P_2*R_3])/(P_1+P_2)$$
  
=  $([.20*.5]+[.70*.35])/(.20+.70)$   
=  $(.10+.25)/.90$   
=  $.35/.90$   
=  $.39$ 

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 with a flapgated culvert with slotted weir, and #3 with a fixed crest weir.

Access Value = 
$$([P_1*R_1]+[P_2*R_2]+[P_3*R_3])/(P_1+P_2+P_3)$$
  
=  $([.20*.5]+[.40*.35]+[.30*.1])/(.20+.40+.30)$   
=  $(.10+.14+.03)/.90$   
=  $.27/.90$   
=  $.30$ 

# Published Habitat Suitability Index (HSI) Models Consulted for Variables for Possible Use in the Wetland Value Assessment Models

#### Estuarine Fish and Shellfish

pink shrimp
white shrimp
brown shrimp
spotted seatrout
Gulf flounder
southern flounder
Gulf menhaden
juvenile spot
juvenile Atlantic croaker
red drum

# Reptiles and Amphibians

American alligator slider turtle bullfrog

#### Mammals

mink muskrat

#### Freshwater Fish

channel catfish largemouth bass red ear sunfish bluegill

#### **Birds**

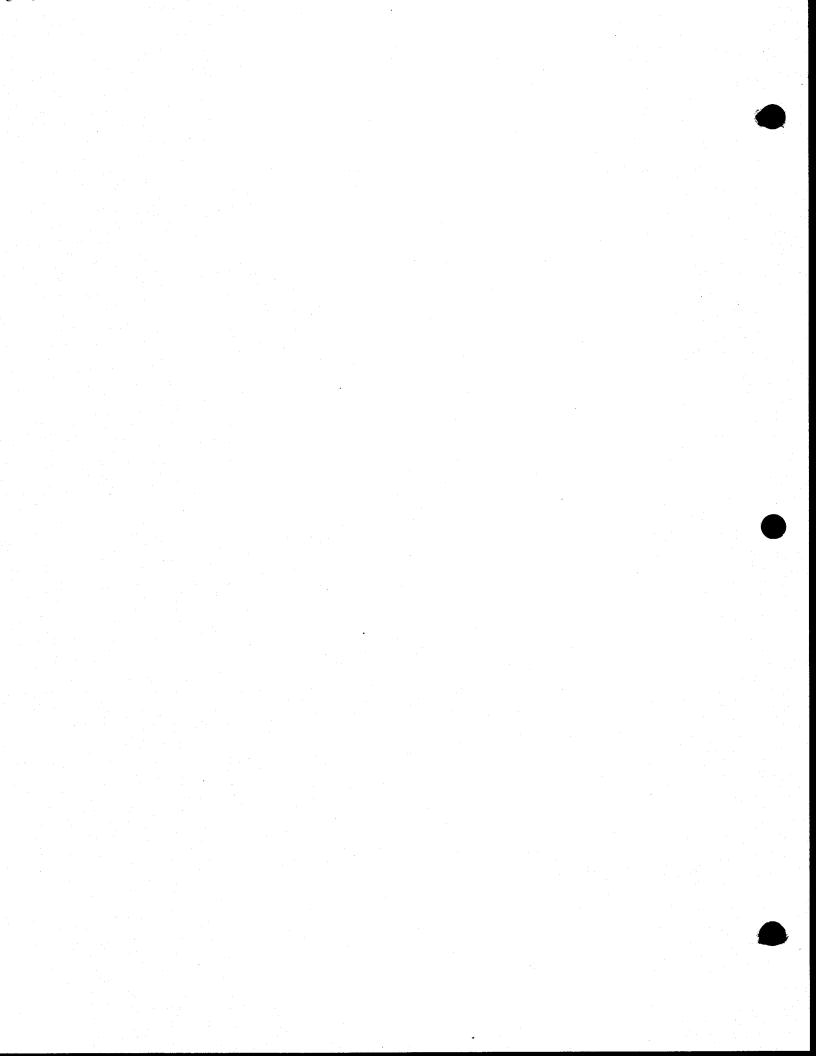
clapper rail
great egret
northern pintail
mottled duck
Amerian coot
marsh wren
great blue heron
laughing gull
snow goose
red-winged blackbird
roseate spoonbill
white-fronted goose

# Coastal Wetlands Planning, Protection, and Restoration Act

9<sup>th</sup> Priority Project List Report

Appendix C

Engineering Designs and Cost Estimates For Candidate Projects

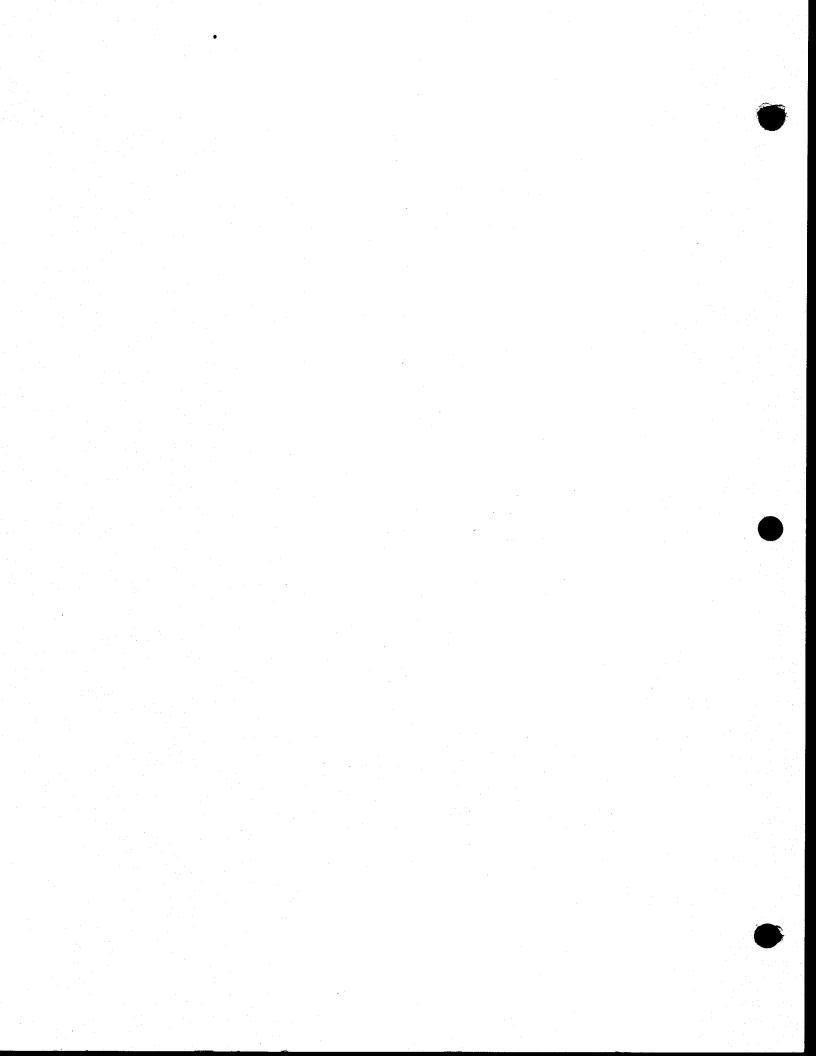


# Appendix C

# Engineering Designs and Cost Estimate For Candidate Projects

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# 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

# Table C-1a Estimated Construction Cost Opportunistic Use of Bonnet Carre' Spillway (XPO-55a)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
CON:	TRUCTION COST				-,
CON	TRUCTION COST + 25%				
CON	INGENCY				

#### Table C-1b Breakdown of Phased Costs

Opportunistic Use of Bonnet Carre' Spillway (XPO-55a)		
	Description	Amount(\$)
Phase I Costs		
	Engineering and Design	50.000
	Supervision and Administration	35.000
	TOTAL	85,000
Phase 2 Costs		
	Construction + 25% Contingency	0
	TOTAL	0
GRAND TOT.	AL OF ALL PHASES	85,000

# Table C-2a Estimated Construction Cost

Northern Chandeleur Islands Marsh Restoration (XPO-95) Item Description Quantity Unit Unit Cost(\$) Amount(\$) Plant gallon containers around each overwash 62.054 EA 620,500 fan perimeter Plant trade four-inch pots on each overwash 36.400 EA 4.5 163,800 fan CONSTRUCTION COST 784,300 **CONSTRUCTION COST + 25%** 980,300 CONTINGENCY

#### Table C-2b Breakdown of Phased Costs Northern Chandeleur Islands Marsh Restoration (XPO-95)

Amount(\$)
* ***
75.000
10,500
0
54,900
140,400
980,300
45,000
11,800
1,037,100
1.177.500

#### Table C-2c Periodic Costs

Northern Chandeleur Islands Marsh Restoration (XPO-95)

Description	Frequency	Cost (\$)
Corps Administration	Per year	500
Monitoring	Per year	4896

Table C-3a
Estimated Construction Cost
Freshwater Introduction South of Hwy 82 to the Eastern Portion of Rockefeller Refuge (PME-7a)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
Ī	Install 6-48" Dia pipes w/flap gates and stop logs	l	LS	195.000	195,000
2	Dredge existing oil access canal	16,600	CY	2	33,200
3	Dredge Grand Volle Canal	47.250	CY	2	94,500
4	Dredge Unit 14 Canal	47.250	CY	2	94,500
5	Install 3-10' x 10' flap gates at Little Constance Str.	1	LS	150,000	150,000
6	Install 3-10' x 10' flap gates at Big Constance Str.	1	LS	150.000	150,000
7-8	Install 4-48" dia. Pipes w/flap gates and stop logs	2	EA	130.800	261,600
9-12	Install 3-48" dia. Pipes w/flap gates and stop logs	4	EA	100.000	400,000
13	Construct 150-200' x 200' Terrace	93.333	CY	2	186,667
14	Smooth cord sprigs planted on crown of terraces	12,000	EA	2.5	30,000
15	Gal. Container of smooth cord grass	48.000	EA	7	336,000
16	Dewatering	I	LS	100,000	100,000
17	Anti-trespassing gates	2	EA	500	1,000
	Mob/Demobilization	1	LS	101.600	101.600
	Insurance & Bonds	1	LS	30,500	30,500
	Supervision & Inspection	l	LS	247,500	247,500
	CONSTRUCTION COST CONSTRUCTION COST + 25% CONTINGENCY				2,032,500 3,015,100

Table C-3b

Breakdown of Phased Costs

Freshwater Introduction South of Hwy 82 to the Eastern Portion of Rockefeller Refuge (PME-7a)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	248,920
Environmental Compliance	40,000
Land Rights	60,000
Supervision and Administration	211,100
TOTAL	560,000
Phase 2 Costs	
Construction + 25% Contingency	3,015,100
TOTAL	3.015.100
GRAND TOTAL OF ALL PHASES	3.575,100

Table C-3c
Periodic Costs
Freshwater Introduction South of Hwy 82 to the Eastern Portion of Rockefeller Refuge (PME-7a)

Description	Frequency	Cost (\$)
Corps Administration	Per year	500
Monitoring	Per vear	29.291

Table C-4a
Estimated Construction Cost
Southwest Lake Ponchartrain Sediment Trapping (XPO-54a)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
ı	Mob & Demob	ı	LS	300,000	300,000
2	Concrete sheet piles	29,200	LF	148.81	4.345,252
3	Flotation canal	428	CY	5	2.140
4	Lighting	38	EA	10,000	380.000
5	Terraces	846,333	CY	2	1,692,667
6	Gallon containers of smooth cordgrass	140,400	EA	7	982,800
	CONSTRUCTION COST				7,702,859
	CONSTRUCTION COST + 25% CONTINGENCY				9.628.600

Table C-4b Breakdown of Phased Costs Southwest Lake Ponchartrain Sediment Trapping (XPO-54a)

Description	Amount(\$)
Phase 1 Costs	
Engineering and Design	789,400
Environmental Compliance	90,000
Land Rights	50,000
Supervision and Administration	591,430
TOTAL	1,520.830
Phase 2 Costs	
Construction + 25% Contingency	9.628.600
Inspection	100,000
TOTAL	9.728.600
GRAND TOTAL OF ALL PHASES	11,249,430

Table C-4c

Periodic Costs
Southwest Lake Ponchartrain Sediment Trapping (XPO-54a)

Description	Frequency	Cost (\$)
Inspections	Yrs. 3,8,13,18	2,928
Corps Administration	Per year	500
Monitoring	Per year	4.896

Table C-4d Operation & Maintenance Costs Southwest Lake Ponchartrain Sediment Trapping (XPO-54a)

Description		Cost (\$)	
	ΓΥ4	<u>TY9</u>	TY14
Post-Construction Costs			_
Mobilization/Demobilization	10.000	10,000	10.000
Dredging	75,000	50.000	25,000
Replace all lights		380.000	380,000
10% Contingency	8,500	44,000	41,500
Total Post Construction Costs	93.500	484.000	456,500
Engineering, Design, & Administrative Costs			
Engineering and Design	8.000	36,400	34.500
Administrative	4,000	18,200	17,300
Engineering Surveys			
5 days @ \$1.250 per day	6.300	6,300	6.300
Inspection			
75 days @ \$750 per day	52,500	52,500	52.500
Total E. D. & A Costs	70.800	113.400	110,600
TOTAL OPERATION & MAINTENANCE COSTS	164,300	597,400	567,100

Table C-5a **Estimated Construction Cost** South Lake Decade Atchafalaya Freshwater/Sediment Diversion (PTE-28)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mob/Demobilization	I	LS	100,000	100,000
2 .	Geotextile	15.255	SY	2	31,000
3	Loose Rock Riprap	31,185	TN	35	1,091,000
4	Structure Removal	1	EA	35,000	35.000
5	Vegetative Plantings	1,733	EA	10	17,000
6	Settlement Plates	5	EA	500	3,000
7	Freshwater Introduction Structure	1	EA	165,000	165,000
	CONSTRUCTION COST				1,442,000
	CONSTRUCTION COST + 25%				1,803,000
	CONTINGENCY				

Table C-5b
Breakdown of Phased Costs
South Lake Decade Atchafalaya Freshwater/Sediment Diversion (PTE-28)

	Description	Amount(\$)
Phase I Costs		
	Engineering and Design	173.000
	Environmental Compliance	40.000
	Land Rights	50,000
	Supervision and Administration	108,000
	TOTAL	371.000
Phase 2 Costs		
	Construction + 25% Contingency	1.803.000
	Inspection	50,000
	TOTAL	1.853,000
GRAND TOTAL	L OF ALL PHASES	2.224.000

Table C-5c Periodic Costs

 South Lake Decade Atchafalaya Freshwater/Sediment Diversion (PTE-28)

 Description
 Frequency
 Cost (\$)

 Inspections
 Per year
 3.000

 Corps Administration
 Per year
 500

 Monitoring
 Per year
 29.291

Table C-5d
Operation & Maintenance Costs
South Lake Decade Atchafalaya Freshwater/Sediment Diversion (PTE-28)

Description	Cos	st (\$)
	<u>TY4</u>	TY8
Post-Construction Costs		
Mobilization/Demobilization	40.000	40,000
Restore 15% of sheetpile/gated structure	24,750	24.750
Replace 10% of original rock riprap embankment	109.100	109,100
Total Post Construction Costs	173.850	173,850
Total Post Construction Costs + 10% contingency	191.000	191,000
Engineering, Design, & Administrative Costs		
Engineering and Design	15,000	15.000
Administrative	4,000	4,000
Engineering Surveys		
4 days @ \$1,250 per day	5,000	5,000
Inspection		
6 days (a) \$765 per day	5,000	5,000
Total E, D, & A Costs	29.000	29.000
TOTAL OPERATION & MAINTENANCE COSTS	220,000	220,000

Table C-6a
Estimated Construction Cost
Four Mile Canal/Little White Lake Hydrologic Restoration (XTV-30)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mob/Demobilization	1	LS	180.000	180.00
2	Onion Lake Terraces	72,462	CY	2	144,924
3	Little White Lake Terraces	116,176	CY	2	232,352
4	Little Vermilion Bay Terraces	355,372	CY	2	710,744
5	Little White Lake Conveyance Channel	38,556	CY	2	77,11
6	Vermilion Bay Conveyance Channel	66.667	CY	2	133,333
7	Vegetation-one gallon pots	66,204	EA	7	463,428
	Insurance & Bonds	1	LS	29,128	29,128
	CONSTRUCTION COST				1,971,020
	CONSTRUCTION COST + 25%				2,456,493
	CONTINGENCY				

Table C-6b Breakdown of Phased Costs Four Mile Canal/Little White Lake Hydrologic Restoration (XTV-30)

	Description	Amount(\$)
Phase I Costs		
	Engineering and Design	272.846
	Environmental Compliance	40,000
	Land Rights	30,000
	Supervision and Administration	171,955
	TOTAL	514,801
Phase 2 Costs		
	Construction + 25% Contingency	2,456,493
•	Inspection	116.250
	TOTAL	2,572,743
<b>GRAND TOTA</b>	AL OF ALL PHASES	3,087,544

### Table C-6c

Periodic Costs
Four Mile Canal/Little White Lake Hydrologic Restoration (XTV-30)

	Tour wife Carametric Wife Care Hydrologic Restolation (AT 4-50)				
	Description	Frequency	Cost (\$)		
,	Corps Administration	Per year	500		
	Monitoring	Per year	4,896		

### Table C-7a **Estimated Construction Cost** Castille Pass Channel Sediment Delivery (XAT-11)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
N	lob/Demobilization	1	LS	275.000	275,000
D	redging	3,954,815	CY	2	7.909.630
P	ipeline relocation	ı	LS	2,500,000	2.500,000
In	surance & Bonds	1	LS	160.269	160,269
C	ONSTRUCTION COST				10,844,899
C	ONSTRUCTION COST + 25%				13,556,123
C	ONTINGENCY				

### Table C-7b Breakdown of Phased Costs Castille Pass Channel Sediment Delivery (XAT-11)

	Description	Amount(\$)
Phase I Costs		· · · · · · · · · · · · · · · · · · ·
	Engineering and Design	957,212
	Environmental Compliance	50.000
	Land Rights	30,000
	Supervision and Administration	787,806
	TOTAL	1,825,018
Phase 2 Costs		
	Construction + 25% Contingency	13,556,123
	Inspection	112,500
	TOTAL	13,668,623
GRAND TOTA	AL OF ALL PHASES	15,493,641

### Table C-7c Periodic Costs Castille Pass Channel Sediment Delivery (XAT-11)

Description	Frequency	Cost (\$)
Corps Administration	Per year	500
Monitoring	Per year	9,764

Table C-7d
Operation & Maintenance Costs
Castille Pass Channel Sediment Delivery (XAT-11)

Description		Cost (\$)	
	TY6	TYII	<u>TY16</u>
Post-Construction Costs			
Mob	275.000	275.000	275.000
Maintenance Dredging	2.362.222	2.362.222	2,362,222
Total Post Construction Costs	2,637,222	2.637.222	2.637.222
Engineering, Design, & Administrative Costs			
Engineering Surveys	8.000	8.000	8.000
Total E, D, & A Costs	8.000	8,000	8.000
TOTAL OPERATION & MAINTENANCE COSTS	2,645,222	2,645,222	2,645,222

Table C-8a
Estimated Construction Cost
LaBranche Wetlands Terracing, Planting and Shoreline Protection (PPO-7a)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
T	Mob/Demobilization	ı	LS	253,400	253,400
2	Shoreline Protection	1	LS	1.106.200	1.106,200
3	Floatation Canels-One at each end	30.815	CY	5	154,075
4	Hazzard Lights on Shoreline Protection	7	EA	10.000	70,000
5	Terraces in Area D	697,667	CY	2	1,395,333
6	Terraces in Area A	210,519	CY	2	421.037
7	Smooth Cordgrass on Perimeter	116.800	EA	7	817.600
8	Planting 128 acres w/gal containers	154.880	EA	7	1,084,160
9	Herbivore control during construction year	ì	LS	20.000	20.000
10	Insurance & Bonds	i	LS	76,000	76.000
	CONSTRUCTION COST				5,397,805
	CONSTRUCTION COST + 25%				6.747,300
	CONTINGENCY				

Table C-8b
Breakdown of Phased Costs
LaBranche Wetlands Terracing, Planting and Shoreline Protection (PPO-7a)

	Description	Amount(\$)
Phase I Costs		
	Engineering and Design	472.400
	Environmental Compliance	40.000
	Land Rights	50,000
	Supervision and Administration	382,200
	TOTAL	944.600
Phase 2 Costs		
	Construction + 25% Contingency	6.747.300
	Inspection	135.000
	TOTAL	6,882,300
GRAND TOTA	L OF ALL PHASES	7.826,900

Table C-8c
Periodic Costs
LaBranche Wetlands Terracing, Planting and Shoreline Protection (PPO-7a)

Euphanene wettands remaining, rianting and once	•,,,,,	
Description	Frequency	Cost (\$)
Corps Administration	Per year	500
Monitoring	Per year	4.896

# Table C-9a Estimated Construction Cost Black Bayou Culverts Hydrologic Restoration (CS-16)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
ı	Mob/Demobilization	1	LS	0	0
2	Siphon & Appurtenances CONSTRUCTION COST CONSTRUCTION COST + 25% CONTINGENCY	l	LS	4,200,000	4.200,000 4.200,000 5.250,000

Table C-9b Breakdown of Phased Costs
Black Bayou Culverts Hydrologic Restoration (CS-16)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	394.000
Environmental Compliance	40,000
Land Rights	100.000
Supervision and Administration	315.000
TOTAL	849.000
Phase 2 Costs	
Construction + 25% Contingency	5,250,000
Inspection	50.000
TOTAL	5,300,000
GRAND TOTAL OF ALL PHASES	6,149,000

Table C-9c Periodic Costs

Black Bayou Culverts Hydrologic Restoration (CS-16)

Description	Frequency	Cost (\$)
NRCS/DNR Inspections	Per year	3.000
Corps Administration	Per year	500
Operations	Per year	12,000
Monitoring	Per year	29,291

Table C-9d Operation & Maintenance Costs
Black Bayou Culverts Hydrologic Restoration (CS-16)

Co	st (\$)
IY7	<u>TY14</u>
25,000	5,000
50,000	78,000
75,000	83,000
83,000	91.000
7,000	8.000
4.000	4.000
4,000	4.000
5.000	5.000
20.000	21,000
103,000	112.000
	7 <u>77</u> 25,000 50,000 75,000 83,000 7,000 4,000 4,000 5,000 20,000

Table C-10a
Estimated Construction Cost Perry Ridge West Bank Stabilization (PCS-26 ii)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mob/Demobilization	Ì	LS	100,000	100,000
2	Shallow Water Terraces	17,000	LF	9	153,000
3	Loose Rock Riprap	67.860	TN	25	1,697,000
4	Settlement Plates	12	EA	500	6,000
5	Signs and Markers CONSTRUCTION COST CONSTRUCTION COST + 25% CONTINGENCY		LS	40,000	40,000 1,996,000 2,495,000

Table C-10b Breakdown of Phased Costs Perry Ridge West Bank Stabilization (PCS-26 ii)

Description	Amount(\$)
Phase 1 Costs	
Engineering and Design	167,000
Environmental Compliance	15,000
Land Rights	50,000
Supervision and Administration	150,000
TOTAL	382,000
Phase 2 Costs	
Construction + 25% Contingency	2,495,000
Inspection	72,000
TOTAL	2,567,000
GRAND TOTAL OF ALL PHASES	2,949,000

Table C-10c Periodic Costs

Perry Ridge West Bank Stabilization (PCS-26 ii)

Description	Frequency	Cost (\$)
Inspections	Per year	3,000
Corps Administration	Per year	500
Monitoring	Per vear	2 434

Table C-10d
Operation & Maintenance Costs
Perry Ridge West Bank Stabilization (PCS-26 ii)

Description		Cost (\$)	
	<u>TY7</u>	TY10	TY14
Post-Construction Costs			
Mobilization/Demobilization	1.000	25.000	1.000
Replace Signs	7.000		7.000
Replace 4,000 tons of rock riprap secton		100.000	
Replace 30% of terraces		45.900	
Total Post Construction Costs	8.000	170,900	8,000
Total Post Construction Costs + 10% Contingency	9.000	188.000	9,000
Engineering, Design, & Administrative Costs			
Engineering and Design	1.000	15.000	1,000
Administrative	4,000	9,000	4,000
Engineering Surveys			
2 days (a) \$1.250 per day	3.000		3,000
3 days @ \$1,250 per day	•	4.000	
Inspection			
3 days @ \$765 per day	2,000		2.000
10 days @ \$765 per day	•	8.000	
Total E. D. & A Costs	10,000	36.000	10.000
TOTAL OPERATION & MAINTENANCE COSTS	19,000	224.000	19,000

Table C-11a
Estimated Construction Cost

Freshwater Bayou Bank Stabilization and Hydrologic Restoration (Belle Isle Canal to Lock) (XTV-27)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mob/Demobilization	l	LS	60,000	60.000
2	Stone	279,722	TN	23	6,433,606
3	Geotextile	250,000	SY	3	750,000
4	Flotation Channel	1	LS	920.000	920,000
5	Marker Piles	2,700	LF	12	32,400
	CONSTRUCTION COST				8,196,006
	CONSTRUCTION COST + 25%				10,245,008
	CONTINGENCY				

Table C-11b
Breakdown of Phased Costs
Freshwater Bayou Bank Stabilization and Hydrologic Restoration (Belle Isle Canal to Lock) (XTV-27)

	Description	Amount(\$)
Phase I Costs	gineering and Design cironmental Compliance ad Rights pervision and Administration TAL astruction + 25% Contingency pection TAL	
	Engineering and Design	614.700
	Environmental Compliance	104.000
	Land Rights	37,000
	Supervision and Administration	512.250
	TOTAL	1.267.950
Phase 2 Costs		
	Construction + 25% Contingency	10.245.008
	Inspection	512,250
	TOTAL	10.757,258
GRAND TOTA	L OF ALL PHASES	12,025,208

Table C-11c
Operation & Maintenance Costs
Freshwater Bayou Bank Stabilization and Hydrologic Restoration (Belle Isle Canal to Lock) (XTV-27)

Description		Cost (\$)	
	TY3	<u>TY7</u>	TY14
Post-Construction Costs			
Mobilization/Demobilization	60,000	60.000	60.000
Stone	1,740.381	1.740.381	1.740,381
Contingency	450.095	450,095	450,095
Total Post Construction Costs	2,250.476	2.250,476	2,250,476
Engineering, Design, & Administrative Costs			
Engineering and Design	67,514	67.514	67.514
Administrative	45.010	45.010	45.010
Inspection	112.524	112,524	112,524
Total E, D, & A Costs	225.048	225.048	225,048
TOTAL OPERATION & MAINTENANCE COSTS	2.475.524	2,475,524	2,475,524

Table C-12a
Estimated Construction Cost
North HNC Shore/Salinity Protection Project (TE-8a)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
	BANK RAISING & ARMORING COSTS		-		
1	Mob-demob	i	LS	150.000	150,000
2	Rip-rap	233,982	TN	30	7.019,450
3	Earth	203.587	CY	4	814.349
4	Cloth	229,394	SF	3	688.182
	OTHER FEATURES	•			
5	Mob-demob				20,000
6	Armored earthen plug across 110' x 4' channel	1.133	CY	4	4.532
	Rip-rap	110	LF	372	
7	Earth bank repair on 264 ft of spoil bank	792	CY	4	3,168
8	Earthen plug on a 25' x 1' channel	75	CY	4	300
9	Earthen plug on a 25' x 1' channel	75	CY	4	300
10	Earthen plug on a 100' x 2' channel	600	CY	4	2,400
11	Three earthen plugs totaling 50' x 3'	300	CY	4	1.200
12	Earthen bank repair on 1800 feet of Bayou Pelton	7,740	CY	4	30,960
	WATER CONTROL STRUCTURE &				
	CULVERET COSTS				
13	Mob-demob				20,000
14	Flapgated structure across 120' x 4' bayou				
	160' wooden sheetpile	160	LF	800	128,000
	4x4 flap/vc units	8	EA	15,000	120,000
	Waikway	160	LF	100	16,000
	Stoplogs: 32LF/unit	256	LF	3	768
15	Flapgated structure across 150' x 5' canal				
	190' wooden sheetpile	190	LF	800	152,000
	4x4 flap/vc units	8	EA	15,000	120,000
	Walkway	190	LF	100	19,000
	Stoplogs: 32LF/unit	256	LF	3	768
16	Flapgated structure across 102' x 4' canal				

	132' wooden sheetpile	132	LF	800	105,600
	4x4 flap/vc units	5	EA	15.000	75.000
	Walkway	132	LF	100	13,200
	Stoplogs: 32LF/unit	160	LF	3	480
17	Flapgated/vcrest structure on 60' x 3' channel				
	100' wooden sheetpile	100	LF	800	80,000
	4x4 flap/vc units	2	EA	15,000	30.000
	Walkway	100	LF	100	10,000
	Stoplogs: 32LF/unit	64	LF	3	192
18	Install 8 24" dia. open culvert under spoil bank	8	EA	20,000	160.000
19	Two 36" dia. flapgated/vcrest culverts on a 20' x	2	EA	35,000	70,000
	2' channel				
20	Three 36" dia. flapgated/vcrest culverts on 25' x	3	EA	35,000	105.000
	2' channel				
21	Three 36" dia. flapgated/vcrest culverts on 30' x	3	EA	35,000	105,000
	2' channel				
22	Two 48" dia. flapgated/vcrest culverts on 30' x 4'	2	EA	40.000	80,000
	channel				
23	Two 48" dia. flapgated/vcrest culverts on 20' x 4'	2	EA	40.000	80.000
	channel				
24	Install 2 open 48" dia. culvert in St. Louis canal	2	EA	40,000	80.000
	road dump				
	DITCHING COSTS				
25	Reach Number I	1.200	LF	8	9.600
26	Reach Number 2	1.000	LF	8	8,000
27	Reach Number 3	2.000	LF	8	16.000
28	Reach Number 4	2.200	LF	8	17,600
29	Reach Number 5	3.000	LF	8	24,000
30	Reach Number 6	1.200	LF	8	9,600
31	Reach Number 7	9.800	LF	11	107,800
32	Reach Number 8	4.800	LF	11	52,800
33	Reach Number 9	2,500	LF	8	20,000
34	Reach Number 10	9.200	LF	7	64,400
35	Reach Number 11	4.500	LF	7	31,500
36	Reach Number 12	10.600	LF	0	0
37	Reach Number 13	1,000	LF	7	7,000
38	Reach Number 14	1.000	LF	7	7,000
	CONSTRUCTION COST				10.676.465
	CONSTRUCTION COST + 25%				13.345,581
	CONTINGENCIES				

Table C-12b Breakdown of Phased Costs North HNC Shore/Salinity Protection Project (TE-8a)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	1,484.558
Environmental Compliance	50.000
Real Estate & Permitting	105,000
Supervision and Administration	633.823
TOTAL	2.273.381
Phase 2 Costs	
Construction + 25% Contingency	13.345.581
Supervision and Inspection	200,000
TOTAL	13.545.581
GRAND TOTAL OF ALL PHASES	15.818.962

Table C-12c
Periodic Costs
North HNC Shore/Salinity Protection Project (TE-8a)

North Tive Shore/Smilley From	cetton rioject (12 da)	
Description	Frequency	Cost (\$)
Operation costs (x 20yrs)	Per year	8.000
Inspections (x 20 years)	Per year	3,870
Corps Administration (x 20yrs)	Per year	500
Monitoring (x 20yrs)	Per year	29,200

Table C-12d
Operation & Maintenance Costs
North HNC Shore/Salinity Protection Project (TE-8a)

Description		Cost (\$)	
Mobilization/Demobilization Replace 10% of earth- 20,359 CY @ 4.00/CY Replace 10% of rock - 23,398 tons @ 30/ton	TY5 70.000 81.435 701.946	TY10 70,000 81,435 701,946	<u>TY15</u> 20.000
Structure repairs Engineering and Design	151,101 93,448	226.651 122.703	302,202 151,101
Ditch maint 43.400 ft @ 5/ft TOTAL OPERATION & MAINTENANCE COSTS	1.097.930	217,000 1,419,735	473,303

Table C-13a
Estimated Construction Cost
Little Pecan Bayou Hydrologic Restoration (XME-42a)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mob/Demobilization	1	LS	200,000	200.000
2	Little Pecan Bayou Structure	1	LS	2.313.750	2.314.000
3	Earthen Plug @Mermentau	1	LS	35,000	35,000
4	Freshwater Intro Structure (Little Pecan)	1	LS	369.000	369,000
5	Water Control Structure (Little Pecan Interior)	1	LS	219,450	219.000
6	Inlet Control Structure	1	LS	229,150	229.000
7	Outlet Control Structure	1	LS	366,150	366,000
8	Conveyance Channel Excavation	500.000	CY	1.5	750,000
9	Conveyance Channel Armor	11.000	TN	35	385.000
10	Road Crossing Replacement (Bridge)	3	EA	125,000	375.000
11	Internal Drainage Structure	5	EA	25,000	125,000
12	Shallow Water Terrace (Const & Veg)	138.907	LF	9	1,250,000
	CONSTRUCTION COST				6.617.000
	CONSTRUCTION COST + 25% CONTINGENCY				8,271,000

Table C-13b
Breakdown of Phased Costs
Little Pecan Bayou Hydrologic Restoration (XME-42a)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	659.000
Environmental Compliance	40.000
Land Rights	170.000
Supervision and Administration	441.000
TOTAL	1.310.000
Phase 2 Costs	
Construction + 25% Contingency	8,271,000
Inspection	304,000
TOTAL	8,575,000
GRAND TOTAL OF ALL PHASES	9,885,000

Table C-13c
Periodic Costs
Little Pecan Bayou Hydrologic Restoration (XME-42a)

Description	Frequency	Cost (\$)
Inspections	Per year	3,000
Operations	Per year	12,000
Corps Administration	Per year	500
Monitoring	Per year	29.291

Table C-13d
Operation & Maintenance Costs
Little Pecan Bayou Hydrologic Restoration (XME-42a)

	Cost (\$)	
<u>TY7</u>	TY10	TY14
	35.000	50,000
		110,000
		5.000 17,000
		•
		26,000
		35,000
		55,000
75,000		75,000
19,000		19.000
		75,000
	375.000	
392.000	410.000	467,000
431.000	451.000	514,000
33.000	34.000	38,000
15.000	15.000	15.000
9,000		9.000
	4,000	
34,000		
	5.000	
		37.000
91,000	58.000	99,000
522,000	509.000	613,000
	50.000 110.000 5.000 17,000 26,000 35,000 55,000 75,000 19,000 392,000 431,000 33,000 15,000 9,000	TY7         TY10           \$0.000         35.000           \$10.000         5.000           \$17.000         26.000           \$35.000         55.000           \$55.000         75.000           \$19.000         410.000           \$375.000         451.000           \$33.000         34.000           \$15.000         15.000           \$4.000         5.000           \$5.000         5.000

Table C-14a
Estimated Construction Cost
Barataria Basin Landbridge Shoreline Protection, Ph. 3 (XBA-63 iii)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mob/Demobilization	ì	LS	400,000	400,000
2	Rock Bank Stabilization	40,360	LF	240	9,686,000
3	Settlement Plates CONSTRUCTION COST CONSTRUCTION COST + 25% CONTINGENCY	41	EA	500	21,000 10,107,000 12,634,000

Table C-14b
Breakdown of Phased Costs
Barataria Basin Landbridge Shoreline Protection. Ph. 3 (XBA-63 iii)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	-665,000
Environmental Compliance	(
Land Rights	75.000
Supervision and Administration	479.000
TOTAL	-111.000
Phase 2 Costs	
Construction + 25% Contingency	12,634.000
Inspection	116,000
TOTAL	12,750.000
GRAND TOTAL OF ALL PHASES	12,639,000

Table C-14c Periodic Costs

Barataria Basin	Landhridge	Shoreline	Protection	Ph	3 (XBA-63 iii)
	Landonius	SHOLCHING	I I OLCCHOIL		יווו כטיתעתו כ

Description	Frequency	Cost (\$)
Inspections	Per year	3,000
Corps Administration	Per year	500
Monitoring	Per year	2,434

## Table C-14d Operation & Maintenance Costs arataria Basin Landbridge Shoreline Protection, Ph. 3 (YRA-63 iii)

Description	Cos	t (\$)
	<u>TY3</u>	TY14
Post-Construction Costs		
Mobilization/Demobilization	75.000	75,000
Replace 25% of original rockfill/rock riprap section	2,421.500	
Replace 10% of original rockfill/rock riprap section		968.600
Total Post Construction Costs	2,496.500	1.043,600
Total Post Construction Costs + 10% contingency	2,746,000	1,148.000
Engineering, Design, & Administrative Costs		
Engineering and Design	182,000	81,000
Administrative	4.000	4,000
Engineering Surveys		
20 days (a) \$1,250 per day	25.000	
8 days (a) \$1.250 per day		10.000
Inspection		
44 days @ \$765 per day	34.000	
18 days (a) \$765 per day		14,000
Total E. D. & A Costs	245.000	109,000
TOTAL OPERATION & MAINTENANCE COSTS	2,991,000	1,257,000

# Table C-15a Estimated Construction Cost LA Highway 1 Marsh Creation

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mobilization and Demobilization	1	LS	200,000	200,000
2	Hydraulic dredging	2,387,436	CY	1.50	3,581,155
3	Containment dikes	22,081	CY ·	3.00	66,244
	CONSTRUCTION COST				3,847,399
	CONSTRUCTION COST + 25%				4,809,249
	CONTINGENCIES				

## Table C-15b Breakdown of Phased Costs LA Highway 1 Marsh Creation

LA Tighway ( Maish Cleanon		
Description	Amount(\$)	
Phase I Costs		
Engineering and Design	307,682	
Environmental Compliance	30,000	
Real Estate & Permitting	528,000	
Orphan Oil Wells	104,000	
Supervision and Administration	288,555	
TOTAL	1,258,237	
Phase 2 Costs		
Construction + 25% Contingency	4,809,249	
Supervision and Inspection	187.500	
TOTAL	4,996,749	
GRAND TOTAL OF ALL PHASES	6,254,986	
T-k1- C 16-		

### Table C-15c Periodic Costs LA Highway 1 Marsh Creation

Description	Frequency	Cost (\$)
Operations & Maintenance	@ year 3	50,000
Corps Administration	Per year	500
Monitoring	Per year	4.896

Table C-16a Estimated Construction Cost
/Ponchartrain Shoreline Protection (PO-13)

ltem

2

3

4 5

Tangipahoa/Ponchartrain Shoreline Protection (PO-13)				
Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
Mob/Demobilization	I	LS	120,000	120,000
Geotextile	62.380	SY	2	125,000
Settlement Plates	9	EA	500	5,000
Loose Rock Riprap	82.625	TN	30	2,479,000
Navigation Warning Signs	19	EA	1.500	29,000
CONSTRUCTION COST				2,758,000
CONSTRUCTION COST + 25% CONTINGENCY				3,448,000

Table C-16b Breakdown of Phased Costs Tangipahoa/Ponchartrain Shoreline Protection (PO-13)

	Description	Amount(\$)
Phase I Costs		
	Engineering and Design	225,000
	Environmental Compliance	40,000
	Land Rights	50,000
	Supervision and Administration	207.000
	TOTAL	522,000
Phase 2 Costs		
	Construction + 25% Contingency	3,448,000
	Inspection	33.000
	TOTAL	3,481,000
<b>GRAND TOTA</b>	L OF ALL PHASES	4,003,000

Table C-16c Periodic Costs Tangipahoa/Ponchartrain Shoreline Protection (PO-13)

Description	Frequency	Cost (\$)
NRCS/DNR Inspections	Per year	3.000
Corps Administration	Per year	500
Monitoring	Per vear	2,434

Table C-16d Operation & Maintenance Costs Tangipahoa/Ponchartrain Shoreline Protection (PO-13)

	Cost (\$)	
T <u>Y7</u>	TY10	TY14
1.000	40.000	1.000
9.500		9.500
	247.875	
10.500	287.875	10.500
12.000	317.000	12.000
1.000	25,000	1.000
4.000	4,000	4.000
3,000		3.000
	6.000	
2,000		2,000
	9.000	
10,000	44,000	10,000
22,000	361,000	22.000
	1.000 9.500 10.500 12.000 1.000 4.000 3.000	1.000 40.000 9.500 247.875 10.500 287.875 12.000 317.000  1.000 25.000 4.000 4,000  3.000 6.000  2.000 9.000 10.000 44.000

Table C-17-1a
Estimated Construction Cost
Grand/White Lake Land Bridge Protection Project (PME-18)
A-Jacks Ontion

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	A-Jacks Break Waters in White Lake	11,000	LF	45.5	500,500
2	Terraces in Callicon Lake (crown=10' H=6')	72.665	CY	2	145,330
3	Terraces in Callicon Lake (crown =10' H=7')	95,833	CY	2	191,666
4	Bullwhip Planting (Gallon Containers)	22,752	EA	7	159,264
5	Seashore Paspalum (Sprigs)	5.688	EA	2.5	14,220
6	Mob & Demob	1	LS	505,500	505,500
7	Insurance & Bonds	1	LS	15,200	15,200
	CONSTRUCTION COST				1,011,000
	CONSTRUCTION COST + 25% CONTINGENCY				1,784,450

Table C-17-1b

Breakdown of Phased Costs

Grand/White Lake Land Bridge Protection Project (PME-18)

A-Jacks Option

Amount(\$)
172,000
40.000
50.000
142,800
354,800
1,784.450
103,700
1,888,150
2,242,950

Table C-17-1c
Periodic Costs
Grand/White Lake Land Bridge Protection Project (PME-18)
A-Jacks Option

Description	Frequency	Cost (\$)
Corps Administration	Per year	500
Monitoring	Per year	4,896
Engineering Inspection	Yrs. 2,5,9,14	2,928

# Table C-17-1d Operation & Maintenance Costs Grand/White Lake Land Bridge Protection Project (PME-18) A-Jacks option

Description	Cost (\$)	
	TY10	<u>TY15</u>
Post-Construction Costs		
Mobilization/Demobilization	30,000	30,000
Terrace Const.	292,100	
A-Jack Replacement	125,125	50.050
10% Continence	44,700	8,000
Total Post Construction Costs	491,900	88,100
Engineering, Design, & Administrative Costs		
Engineering and Design	36,900	7,600
Administrative	18,500	3,800
Engineering Surveys		
5 days @ \$1.250 per day	6,300	6.300
Inspection		
15 days @ \$700 per day	10,500	10,500
Total E. D, & A Costs	72,200	28.200
TOTAL OPERATION & MAINTENANCE COSTS	564,100	116,300

Table C-17-2a
Estimated Construction Cost
Grand/White Lake Land Bridge Protection Project (PME-18)
Segmented Break Waters Option

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
ī	Segmented Break Waters in White Lake	66.454	TN	30	1.993.630
2	Geotextile Fabric	46.063	SY	4.5	207,284
3	Terraces in Callicon Lake (crown=10' H=6')	72.665	CY	2	145,330
4	Terraces in Callicon Lake (crown =10' H=7')	95,833	CY	2	191,666
5	Bullwhip Planting (Gallon Containers)	22,752	EA	7	159,264
6	Seashore Paspalum (Sprigs)	5.688	EA	2.5	14,220
7	Mob & Demob	1	LS	135.600	135,600
8	Insurance & Bonds	ı	LS	40.700	40,700
_	CONSTRUCTION COST				2,711,400
	CONSTRUCTION COST + 25%				3,609,600
	CONTINGENCY				

# Table C-17-2b Breakdown of Phased Costs Grand/White Lake Land Bridge Protection Project (PME-18) Segmented Break Waters Option

	Description	Amount(\$)
Phase I Costs		
	Engineering and Design	285,300
	Environmental Compliance	40,000
	Land Rights	50.000
	Supervision and Administration	288.800
	TOTAL	664.100
Phase 2 Costs		
	Construction + 25% Contingency	3,609,600
	Inspection	360,960
	TOTAL	3.970.560
GRAND TOTAL	L OF ALL PHASES	4.634,660

# Table C-17-2c Periodic Costs Grand/White Lake Land Bridge Protection Project (PME-18) Segmented Break Waters Option

Description	Frequency	Cost (\$)
Corps Administration	Per year	500
Monitoring	Per year	4,896
Engineering Inspection	Yrs. 2,5,9,14	2,928

# Table C-17-2d Operation & Maintenance Costs Grand/White Lake Land Bridge Protection Project (PME-18) Segmented Break Waters Option

Cost (\$)	
<u>TY10</u>	<u>TY15</u>
30,000	30,000
292,100	
550.225	220,090
87.200	25,000
959,500	275,100
68,600	21.600
34,300	10.800
6.300	6.300
10,500	10,500
119,700	49,200
1,079,200	324,300
	TY10  30,000 292,100 550,225 87,200 959,500  68,600 34,300  6.300  10,500 119,700

Table C-18a
Estimated Construction Cost
Raccoon Island Restoration (PTE-15-viii)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mobilization and Demobilization		LS	<del>"</del>	1,000,000
2	Segmented Breakwaters	1	LS	1.900.000	1,900,000
3.	Containment dikes	31,000	CY	3.00	93.000
4	Dredge Material	1.000.000	CY	2.15	2,150,000
5	Vegetative Plantings	86	AC	3.000	258.000
	CONSTRUCTION COST				5,401,000
	CONSTRUCTION COST + 25%				6.751.000
	CONTINGENCIES				***************************************

### Table C-18b Breakdown of Phased Costs Raccoon Island Restoration (PTE-15-viii)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	433,000
Environmental Compliance	40.000
Real Estate & Permitting	15.000
Supervision and Administration	338.000
TOTAL	826.000
Phase 2 Costs	
Construction + 25% Contingency	6,751,000
Supervision and Inspection	198.000
TOTAL	6.949.000
GRAND TOTAL OF ALL PHASES	7.775.000

### Table C-18c Periodic Costs Raccoon Island Restoration (PTE-15-viii)

	(1 1 E-15 · VIII)	
Description	Frequency	Cost (\$)
Operations & Maintenance		0
NRCS/DNR Inspections	Per vear	3000
Corps Administration	Per vear	500
Monitoring	Per year	4,896

# Table C-19a Estimated Construction Cost Amoretta Freshwater Diversion (BA-17a)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
T	Mobilization and Demobilization	i	LS	0	0
2	Siphon & Appurtenances CONSTRUCTION COST	1 -	LS	7,002,000	7.002,000 7.002,000
	CONSTRUCTION COST + 25% CONTINGENCIES				8.753.000

### Table C-19b Breakdown of Phased Costs Amoretta Freshwater Diversion (BA-17a)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	589.00
Environmental Compliance	40,000
Real Estate & Permitting	800,000
Supervision and Administration	460.000
TOTAL	1.889.000
Phase 2 Costs	
Construction + 25% Contingency	8,753,000
Supervision and Inspection	99.000
TOTAL	8.852.000
GRAND TOTAL OF ALL PHASES	10.741.000

Table C-19c Periodic Costs Amoretta Freshwater Diversion (BA-17a)

Description	Frequency	Cost (\$)
NRCS/DNR Inspections	Per year	3000
Corps Administration	Per year	500
Monitoring	Per year	29,291
Operation	Per year	30,000
Maintenance	Per year	5,000

### Table C-19d Operation & Maintenance Costs Amoretta Freshwater Diversion (BA-17a)

Description		Cost (\$)	
	<u>TY5</u>	TY10	TY15
Post-Construction Costs			
Mobilization/Demobilization	5.000	5,000	5.000
Conveyance Channel			
Remove 50 % -19,500 C.Y. @ \$4.00/C.Y.	78.000	78.000	78.000
10 % Contingency	8.000	8,000	8.000
Total Post Construction Costs	91.000	91.000	91.000
Engineering, Design, & Administrative Costs			
Engineering and Design	8,000	8.000	8.000
Administrative	4.000	4.000	4.000
Engineering Surveys			
3 days @ \$1,250 per day	4,000	4.000	4.000
Inspection			
7 days @ \$750 per day	5,250	5.250	5.250
Total E, D, & A Costs	21.000	21,000	21.000
TOTAL OPERATION & MAINTENANCE COSTS	112.000	112,000	112,000

Table C-20a
Estimated Construction Cost
East/West Grand Terre Restoration Project (XBA-1)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mob/Demobilization	l	LS	1,000,000	1,000,000
2	Sand Fill	3.571.484	CY	2.30	8,214,413
3	Gulf Side Containment Levee	24,700	LF	15	370,500
4	Plantings	334	ΛC	3.000	1.002,000
5	Grading and Shaping	247	ST	1.000	247,000
6	Tidal Channels	7.407	CY	3	22,222
7	Internal Ponds	19.360	CY	3	58,080
8	Insurance & Bonds	I	LS	148,700	148,700
	CONSTRUCTION COST				11.062,915
	CONSTRUCTION COST + 25%				13.828,600
	CONTINGENCY				

Table C-20b
Breakdown of Phased Costs
East/West Grand Terre Restoration Project (XBA-1)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	852.883
Environmental Compliance	40,000
Land Rights	100,000
Supervision and Administration	801.400
TOTAL	1,794,283
Phase 2 Costs	
Construction + 25% Contingency	13,828,600
Inspection	240,000
TOTAL	14,068,600
GRAND TOTAL OF ALL PHASES	15.862.883

### Table C-20c Periodic Costs

East/West Grand Terre Restoration Project (XBA-1)

Description	Frequency	Cost (\$)
Corps Administration	Per year	500
Monitoring	Per year	4.896

## Table C-21a Estimated Construction Cost East Golden Meadow Terracing Project (XBA-77)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mob/Demobilization	I	LS	65.000	65,000
2	Dredging	1.852,400	CY	3.2	5,927,680
3	Plantings CONSTRUCTION COST CONSTRUCTION COST + 25% CONTINGENCY	137.400	EA	8	1,099,200 7,091,880 8,864,850

### Table C-21b Breakdown of Phased Costs

East Golden Meadow Terracing Project (XBA-77)

	Description	Amount(\$)
Phase I Costs		
	Engineering and Design	531,900
	Environmental Compliance	50.100
	Land Rights	144.000
	Supervision and Administration	620,000
	TOTAL	1,346.000
Phase 2 Costs		
	Construction + 25% Contingency	8.864.850
	Inspection	443,000
	TOTAL	9.307.850
GRAND TOTAL	L OF ALL PHASES	10.653.850

### Table C-21c Periodic Costs

East Golden Meadow Terracing Project (XBA-77)

	East Colden Mea	dow remacing rioject (ADA-11)		
	Description		Frequency	Cost (\$)
Monitoring			Per year	5.000

## Table C-22a Estimated Construction Cost Timbalier Island Dune and Marsh Creation (XTE-45a)

Item Description Quantity Unit Unit Cost(\$) Amount(\$) Mobilization and Demobilization LS 1,000,000 1.000,000 Hydraulic dredging 3.809.556 CY2.15 8,190,544 2 3 Containment dikes 68.444 CY3.00 205,333 Grade and Shape 1.000 140,000 140 ST Vegetation 321 AC 3.000 964,187 92,400 Snow Fence 14.000 LF 6.60 CONSTRUCTION COST 10,592,465 **CONSTRUCTION COST + 25%** 12,710,958 CONTINGENCIES

Table C-22b Breakdown of Phased Costs Timbalier Island Dune and Marsh Creation (XTE-45a)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	764,893
Environmental Compliance	30.000
Real Estate & Permitting	100,000
Supervision and Administration	762,657
TOTAL	1,657,550
Phase 2 Costs	
Construction + 25% Contingency	12,710,958
Supervision and Inspection	225,000
TOTAL	12,935,958
GRAND TOTAL OF ALL PHASES	14,593,508

Table C-22c
Periodic Costs
Timbalier Island Dune and Marsh Creation (XTE-45a)

Timodiff island balle and (viash elegator) (ATE 434)				
Description	Frequency	Cost (\$)		
Operations & Maintenance		0		
Corps Administration	Per year	500		
Monitoring	Per year	4.896		

Table C-23a
Estimated Construction Cost
Grand Pierre Island Restoration (XBA-1c)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mobilization and Demobilization		LS	1.000,000	1,000.000
2	Hydraulic dredging	1,097,492	CY	2.30	2.524,231
3	Containment dikes	38.867	CY	3.00	116,600
4	Grade and Shape	80	ST	1,000	80,000
5	Vegetation	89	AC	3.000	268,285
6	Snow Fence	7.950	LF	6.60	52,470
	CONSTRUCTION COST				4.041.586
	CONSTRUCTION COST + 25% CONTINGENCIES				4,849,903

Table C-23b Breakdown of Phased Costs Grand Pierre Island Restoration (XBA-1c)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	390.113
Environmental Compliance	30,000
Real Estate & Permitting	100,000
Supervision and Administration	290,994
TOTAL	811,107
Phase 2 Costs	
Construction + 25% Contingency	4,849,903
Supervision and Inspection	90,000
TOTAL	4,939,903
GRAND TOTAL OF ALL PHASES	5,751,010

Table C-23c Periodic Costs Grand Pierre Island Restoration (XBA-1c)

Description	Frequency	Cost (\$)
Operations & Maintenance		0
Corps Administration	Per year	500
Monitoring	Per year	4,896

Table C-24a
Estimated Construction Cost

Freshwater Bayou Canal Shoreline Stabilization and Hydrologic Restoration (Schooner Bayou to the GIWW) (XME-28/33)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mob/Demobilization	1	LS	60,000	60,000
2	Stone	171,226	TN	23	3,938,200
3.	Geotextile	130.000	SY	3	390.000
4	2 Canal Closures	2,800	CY	6	16,800
5	Flotation Channel	1	LS	480.000	480,000
6	Marker Piles	1.500	LF	12	18.000
	CONSTRUCTION COST				4,903,000
	CONSTRUCTION COST + 25%				6.128,750
	CONTINGENCY				

Table C-24b Breakdown of Phased Costs

Freshwater Bayou Canal Shoreline Stabilization and Hydrologic Restoration (Schooner Bayou to the GIWW) (XME-28/33)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	367.725
Environmental Compliance	103.000
Land Rights	37,000
Supervision and Administration	306.438
TOTAL	814.163
Phase 2 Costs	
Construction + 25% Contingency	6.128,750
Inspection	306.438
TOTAL	6,435,188
GRAND TOTAL OF ALL PHASES	7,249,351

Table C-24c Operation & Maintenance Costs

Freshwater Bayou Canal Shoreline Stabilization and Hydrologic Restoration (Schooner Bayou to the GIWW) (XME-28/33)

Description		Cost (\$)		
	TY3	TY7	TY14	
Post-Construction Costs				
Mobilization/Demobilization	60,000	60.000	60.000	
Canal closures	8,400	8,400	8,400	
Stone	1.012,233	1.012.233	1.012,233	
Contingency	270,158	270.158	270,158	
Total Post Construction Costs	1,350,791	1.350,791	1.350.791	
Engineering, Design, & Administrative Costs			•	
Engineering and Design	40.523	40.523	40.523	
Administrative	27.016	27.016	27.016	
Inspection	67,540	67,540	67,540	
Total E. D. & A Costs	135,079	135.079	135.079	
TOTAL OPERATION & MAINTENANCE COSTS	1.485.870	1.485,870	1.485.870	

Table C-25a
Estimated Construction Cost

New Cut Dune and Marsh Creation (TE-11a)

item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mobilization and Demobilization	l l	LS	1,000,000	000,000,1
2	Hydraulic dredging	1,517.475	CY	2.15	3.262.571
3	Containment dikes	12,956	CY	3.00	38.867
4	Grade and Shape	26	ST	1,000	26.000
5	Vegetation	61	AC	3,000	183,000
6	Rock Plug	2.628	TN	35	91,967
7	Snow Fence	3.000	LF	6.60	19.800
	CONSTRUCTION COST				4,622,204
	CONSTRUCTION COST + 25%				5,777,755
	CONTINGENCIES				

Table C-25b Breakdown of Phased Costs New Cut Dune and Marsh Creation (TE-11a)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	365,288
Environmental Compliance	30,000
Real Estate & Permitting	50.000
Supervision and Administration	346.665
TOTAL	791,953
Phase 2 Costs	
Construction + 25% Contingency	5,777,755
Supervision and Inspection	90,000
TOTAL	5.867.755
GRAND TOTAL OF ALL PHASES	6,659,708

Table C-25c
Periodic Costs
New Cut Dune and Marsh Creation (TE-11a)

Description	Frequency	Cost (\$)
Operations & Maintenance	@ year 20	3,000
Corps Administration	Per year	500
Monitoring	Per year	4,896

Table C-26a
Estimated Construction Cost
North Bully Camp Outfall Management (XTE-58a)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Fixed crested weir w/ boat bay	1	LS	220,000	220,000
2	Sheet piling plug	l	LS	410,000	410,000
3	Fixed crested weir w/barge bay	!	LS	623,000	623,000
4	Fixed crested weir (replacement)		LS	66,000	66.000
5	Fixed crested weir w/barge bay	1	LS	700,000	700,000
6	Sheet piling plug	I	LS	295,000	295,000
7	Embankment Restoration < Intermittent Spoil				
	Placement>				
	Earthfill	15,334	CY	3.00	46,000
	Geotextile	13.804	SY	3.00	42.000
	Vegetative planting	1	LS		55,000
8	Embankment Restoration II < Catfish Lake				
	Levee>				
	Earthfill	34.316	CY	4.00	138.000
	Geotextile	25,173	SY	3.00	76.000
	Vegetative planting	1	LS		83.000
9	Mob/Demobilization	1	LS		150.000
	CONSTRUCTION COST				2,904,000
	CONSTRUCTION COST + 25%				3.630.000
	CONTINGENCY				

Table C-26b
Breakdown of Phased Costs
North Bully Camp Outfall Management (XTE-58a)

Description	. Amount(\$)
Phase 1 Costs	
Engineering and Design	342,000
Environmental Compliance	40,000
Land Rights	100,000
Supervision and Administration	218,000
TOTAL	700.000
Phase 2 Costs	
Construction + 25% Contingency	3.630,000
Inspection	104,000
TOTAL	3,734,000
GRAND TOTAL OF ALL PHASES	4,434,000

Table C-26c Periodic Costs

Description	Frequency	Cost (\$)
NRCS/DNR Inspections	Per year	3000
Corps Administration	Per year	500
Monitoring	Per year	29.291

Table C-26d
Operation & Maintenance Costs
North Bully Camp Outfall Management (XTE-58a)

Description	Cost (\$)			
	TY4	TY8	<u>TY12</u>	TY16
Post-Construction Costs				
Mobilization/Demobilization	15,000	15,000	15.000	15.000
Embankment Restoration I				
Restore 10% - 860 ft @ \$30.00/ft	25.800	25.800	25.800	25.800
Replace 25% - 3,900 C.Y. @ \$3.00/C.Y.	11.700	11,700	11,700	11.700
Embankment Restoration II				•
Replace 25% - 8,600 C.Y. @ \$4.00/C.Y.	34,400	34.400	34,400	34,400
Replace NavAids, Restore Wingwalls	10,100	10.100	10,100	10,100
Total Post Construction Costs	97.000	97.000	97.000	97,000
Engineering, Design, & Administrative Costs				
Engineering and Design	8,300	8.300	8.300	8.300
Administrative	4,450	4.450	4,450	4,450
Engineering Surveys				
4 days (a) \$1.250 per day	5.000	5.000	5.000	5,000
Inspection				
7 days (a) \$750 per day	5.250	5,250	5.250	5,250
Total E, D, & A Costs	23,000	23,000	23,000	23.000
TOTAL OPERATION & MAINTENANCE COSTS	120,000	120,000	120,000	120,000

Table C-27a Estimated Construction Cost

Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Re-direction (PTV-13)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mobilization and Demobilization	1	LS.	60,000	60,000
2	Fixed Crest Weir w/Barge Bay	1	LS	532,300	532,300
3	Shore Protection <n bay="" shoreline=""> Vegetative Plantings</n>	26,600	LF	3.50	93.100
4	Shore Protection < Isthmus> Steel Sheetpiling CONSTRUCTION COST CONSTRUCTION COST + 25% CONTINGENCIES	12.600	LF	690	8.694,000 9.379,400 11.725,000

Table C-27b

Breakdown of Phased Costs

Marsh Creation and Shore Protection/Commercial Canal

Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Re-direction (PTV-13)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	759,000
Environmental Compliance	40,000
Real Estate & Permitting	50,000
Supervision and Administration	704,000
TOTAL	1,553,000
Phase 2 Costs	
Construction + 25% Contingency	11,725,000
Supervision and Inspection	70.000
TOTAL	11,795,000
GRAND TOTAL OF ALL PHASES	13,348.000

Table C-27c Periodic Costs

Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Re-direction (PTV-13)

Description	Frequency	Cost (\$)	
NRCS/DNR Inspections	Per year	3000	
Corps Administration	Per year	500	
Monitoring	Per year	2,434	

Table C-27d
Operation & Maintenance Costs

Weeks Bay Marsh Creation and Shore Protection/Commercial Canal Freshwater Re-direction (PTV-13)

Description		Cost (\$)	
	TY5	<u>TY10</u>	TY15
Post-Construction Costs			
Mobilization/Demobilization	10.000	10.000	10.000
Shore Protection (Sheetpiling)			
Repair Cap, Repair NavAids	10,000	10,000	10.000
Commercial Canal Str			
Repair NavAids, Wingwall Reinforce	15,000	15.000	15,000
Total Post Construction Costs	35.000	35.000	35,000
Engineering, Design, & Administrative Costs			
Engineering and Design	3.000	3.000	3,000
Administrative	3,000	3.000	3,000
Engineering Surveys			
1 days (a) \$1.250 per day	1,250	1,250	1.250
Inspection			
3 days @ \$750 per day	2,250	2.250	2.250
Total E. D. & A Costs	9.500	9.500	9,500
TOTAL OPERATION & MAINTENANCE COSTS	45.000	45.000 -	45,000

Table C-28a
Estimated Construction Cost

Shoreline Protection at Lake Borgne (PPO-b/d/h)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
ı	Mob/Demobilization	1	LS	60,000	60,000
2	Stone	110,000	TN	24	2,640.000
3	Core Material	40,000	CY	35	1,400,000
4	Geotextile	120,000	SY	. 5	600,000
5	Marker Plates	30	EA	500	10.500
6	Flotation Channel	1	LS	567,000	567,000
	CONSTRUCTION COST				5,277,500
	CONSTRUCTION COST + 25%				6.596.875
	CONTINGENCY				

Table C-28b Breakdown of Phased Costs Shoreline Protection at Lake Borgne (PPO-b/d/h)

	Description	Amount(\$)
Phase 1 Costs		
	Engineering and Design	396,000
	Environmental Compliance	125,000
,	Land Rights	
	Supervision and Administration	198,000
	TOTAL	719,000
Phase 2 Costs		
	Construction + 25% Contingency	6,597,000
	Inspection	330,000
	TOTAL	6,927,000
<b>GRAND TOTAL</b>	OF ALL PHASES	7,646,000

Table C-28c Operation & Maintenance Costs Shoreline Protection at Lake Borgne (PPO-b/d/h)

Description	Cost (\$)				
	TY2	TY4	TY7	TY15	
Post-Construction Costs					
Mobilization/Demobilization	60,000	60.000	60.000	60.000	
Stone	840.000	1.080,000	1.080.000	000.080.1	
Raise Marker Plates	3.000	3.000	3.000	3.000	
Flotation Channel	567.000	567.000	567.000	567,000	
Contingency	367.500	427.500	427.500	427,500	
Total Post Construction Costs	1.837,500	2.137,500	2.137.500	2.137.500	
Engineering, Design, & Administrative Costs					
Engineering and Design	128.000	128.000	128,000	128,000	
Administrative	64,000	64.000	64.000	64,000	
Inspection	107.000	107.000	107,000	107,000	
Total E, D. & A Costs	299,000	299.000	299,000	299.000	
TOTAL OPERATION & MAINTENANCE COSTS	2.136.500	2.436,500	2.436,500	2,436,500	

Table C-29a
Estimated Construction Cost
Constriction at Lighthouse Bayou (PCS-32)

ltem	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Mob/Demobilization	1	LS	50.000	50,000
2	Geotextile	5.600	SY	3	17.000
3	Loose Rock Riprap	3.600	TN	50	180.000
4	Embankment	3,500	CY	20	70,000
5	Vegetative Plantings	1	LS	53.000	53,000
6	Trenasse Closure	6	EA	13,000	78,000
7	Signs and Markers	2	EA	2,000	4,000
	CONSTRUCTION COST				452.000
	CONSTRUCTION COST + 25% CONTINGENCY				565,000

Table C-29b Breakdown of Phased Costs Constriction at Lighthouse Bayou (PCS-32)

	Description	Amount(\$)
Phase I Costs		
£	ngineering and Design	92.000
E	nvironmental Compliance	55.000
L	and Rights	60.000
S	upervision and Administration	45.000
Τ	OTAL	252,000
Phase 2 Costs		
C	onstruction + 25% Contingency	565.000
li	spection	68,000
T	OTAL	633.000
GRAND TOTAL O	F ALL PHASES	885.000

Table C-29c
Periodic Costs
Constriction at Lighthouse Bayou (PCS-32)

Description	Frequency	Cost (\$)
Inspections	Per year	3,000
Corps Administration	Per year	500
Monitoring	Per year	29,291

Table C-29d Operation & Maintenance Costs Constriction at Lighthouse Bayou (PCS-32)

Description	Cos	st (\$)
	<u>TY7</u>	TY14
Post-Construction Costs		
Mobilization/Demobilization	10,000	10.000
Replace 500 tons of rock riprap section	25,000	25,000
Replace 1,000 cy of earthen embankment	20.000	20.000
Trenasse maintenance	10,000	10.000
Replace signs	4.000	4.000
Total Post Construction Costs	69.000	69,000
Total Post Construction Costs + 10% contingency	76.000	76,000
Engineering, Design, & Administrative Costs		
Engineering and Design	7.000	7.000
Administrative	9.000	9,000
Engineering Surveys		
4 days @ \$1.250 per day	5.000	5.000
Inspection		
14 days @ \$765 per day	11.000	11,000
Total E. D. & A Costs	32,000	32,000
TOTAL OPERATION & MAINTENANCE COSTS	108.000	108.000

Table C-30a
Estimated Construction Cost
Restore Original Mermentau River Project (PME-17)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
l Mol	Demobilization	1	LS	350,000	350,000
2 Dre	dging	305,000	CY	3.2	976,000
COL	bags NSTRUCTION COST NSTRUCTION COST + 25% NTINGENCY	3.600	EA	75	270,000 1,596,000 1,995,000

### Table C-30b Breakdown of Phased Costs Restore Original Mermentau River Project (PME-17)

	Description	Amount(\$)
Phase I Costs		
	Engineering and Design	119.700
	Land Rights	40.000
	Supervision and Administration	159.600
	TOTAL	319.300
Phase 2 Costs		
	Construction + 25% Contingency	1.995.000
	Inspection	150.000
	TOTAL	2.145,000
<b>GRAND TOTA</b>	L OF ALL PHASES	2,464,300

## Table C-31a Estimated Construction Cost Lake Athanasio Oyster Reef Demonstration Project (BS-DEMO)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
	CONSTRUCTION COST CONSTRUCTION COST + 25% CONTINGENCY	1	LS	376,000	376,000 470,000

## Table C-31b Breakdown of Phased Costs Lake Athanasio Oyster Reef Demonstration Project (BS-DEMO)

Description		Amount(\$)
Phase I Costs	2777 2 1107 177 1	
Engineering and Design		44,000
Environmental Compliance		20.000
Land Rights		20,000
Supervision and Administration		16,000
TOTAL		100,000
Phase 2 Costs		
Construction + 25% Contingency		376,000
Inspection		8,000
Monitoring-Post Construction		100.000
TOTAL		484.000
GRAND TOTAL OF ALL PHASES		584,000
Table C-31c		
Periodic Costs		
Lake Athanasio Oyster Reef Demonstration	Project (BS-DEMO)	
Description	Frequency	Cost (\$)
Corps Administration	Per year	500

Table C-32a
Estimated Construction Cost
Mandalay Bank Protection Demo Project (XTE-DEMO)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Planting mob-demob				10,000
2	Earth/mat work mob-demob				30,000
3	Fenced cutgrass plantings (Site H)	850	LF	65	55,250
4	Submarine armored levee(Site C)	903	LF	100	90,300
5	Unfenced cutgrass plantings (Site 1)	705	LF	15	10.575
6	Willow stakes (site J)	376	LF	28	10,528
7	Armored earth levee (Site M)	567	LF	143	81,081
8	Fenced cutgrass plantings w protect (Site N)	382	LF	150	57,300
9	Undetermined (Site P)	553	LF	150	82,950
10	Fenced cutgrass plantings (on bank)	600	LF	65	39.000
11	Concr. Mats on bank w PVC berm (on bank)	600	LF	80	48,000
12	Fenced cutgrass plantings w protect (on bank)	600	LF	150	90,000
	CONSTRUCTION COST				604,984
	CONSTRUCTION COST + 25%				756.230
	CONTINGENCIES				, 0 0120

### Table C-32b Breakdown of Phased Costs Mandalay Bank Protection Demo Project (XTE-DEMO)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	125,374
Environmental Compliance	35.000
Real Estate & Permitting	85,000
Supervision and Administration	83,186
TOTAL	328,560
Phase 2 Costs	
Construction + 25% Contingency	756,230
Supervision and Inspection	18,750
TOTAL	774,980
GRAND TOTAL OF ALL PHASES	1,103,540

# Table C-32c Periodic Costs Mandalay Bank Protection Demo Project (XTE-DEMO)

,				
Description *	Frequency	Cost (\$)		
Engineering Inspections (x 3yrs)	Per year	4000		
Corps Administration (x 5 yrs)	Per year	500		
Monitoring	Per year	10,000		

### Table C-32d Operation & Maintenance Costs

Mandalay Bank Protection Demo Project (XTE-DEMO)	
escription	Cost (\$)

Mandalay Bank Frotestion Semo Frojett (11-1-1-1)				
Description		Cost (\$)		
Monitoring Plan TOTAL OPERATION & MAINTENANCE COSTS	TY1 25.000 25,000	TY3 25.000 25.000	TY5 25.000 25,000	

### Table C-33a **Estimated Construction Cost**

Periodic Introduction of Sediment and Nutrients at Selected Diversion Sites (MR-DEMO)

	trem Description Quantity Unit Unit Cost(\$) Amount(\$)						
ltem	Description	Quantity	Onit				
1	Four week diversion demonstrations	3	EA	336.587	1.009,760		
-	CONSTRUCTION COST				1,009,760		
	CONSTRUCTION COST + 25%				1,262,200		
	CONTINGENCY						

### Table C-33b Breakdown of Phased Costs

Periodic Introduction of Sediment and Nutrients at Selected Diversion Sites (MR-DEMO)

	Description	Amount(\$)
Phase 1 Costs		
	Engineering and Design	37,270
	Land Rights	10.640
	Supervision and Administration	41,480
	TOTAL	89,390
Phase 2 Costs		
	Construction + 25% Contingency	1,262,200
	Inspection	78,530
	TOTAL	1,340,730
GRAND TOTA	L OF ALL PHASES	1,430,120

### Table C-34a

**Estimated Construction Cost** Grand Temple Shoreline Protection Demonstration Project (BA-DEMO)

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1	Shoreline Protection	2,500	LF	200	500,000
	CONSTRUCTION COST				500,000
	CONSTRUCTION COST + 25%				625,000
	CONTINGENCY				

### Table C-34b Breakdown of Phased Costs

Grand Temple Shoreline Protection Demonstration Project (BA-DEMO)

	Description	Amount(\$)
Phase I Costs		
	Engineering and Design	66,000
	Environmental Compliance	40,000
	Land Rights	25,000
	Supervision and Administration	57.000
	TOTAL	188,000
Phase 2 Costs		
	Construction + 25% Contingency	625,000
	Inspection	5.000
	TOTAL	630.000
GRAND TOTA	L OF ALL PHASES	818.000

### Table C-34c Periodic Costs

Grand Temple Shoreline Protection Demonstration Project (BA-DEMO)

Craile rempre constraint restaurant respect (and a series)				
Description	Frequency	Cost (\$)		
Corps Administration	Per year	500		
Monitoring	Per year	15,000		

Table C-34d
Operation & Maintenance Costs

operation & Mantenance Costs					
Grand Temple Shoreline Protect	ion Demonstration Project (BA-DEMO)				

Description		Cost (\$)			
Engineering, Design, & Administrative Costs	TYI	<u>TY3</u>	TY5		
Monitoring	15.000	15,000	15,000		
Total E. D. & A Costs	15.000	15,000	15.000		
TOTAL OPERATION & MAINTENANCE COSTS	15.000	15.000	15,000		

### Table C-35a Estimated Construction Cost

Terrebonne Bar	v Shore	Protection	Demonstration	Project	(XTE-DEMO)
	,	LICICCHOIL	Demonsu anon	LIUICCE	IVIEDEMO!

Item	Description	Quantity	Unit	Unit Cost(\$)	Amount(\$)
1 _	Foreshore concr mat with PVC levee (Site A)	400	LF	67	26,800
2	Onbank concr matt (Site B)	400	LF	57	22.800
3	Single row 2' Ajacks (Site C)	400	LF	30	12.000
4	Side by side row 2' Ajacks (Site D)	400	LF	50	20,000
5	Concrete matt over PVC & earthen levee (Site E)	400	LF	143	57.200
6	Grating reef (Site F)	400	LF	70	28.000
7	Onbank concr matt (Site G)	400	LF	57	22.800
8	Single row 4' Ajacks (Site H)	400	LF	150	60.000
9	Three row 2' Ajacks (Site I)	400	LF	80	32,000
10	CEI Reetblock (Site J)	400	LF	192	76.800
	CONSTRUCTION COST				358,400
	CONSTRUCTION COST + 25% CONTINGENCIES				448.000

Table C-35b Breakdown of Phased Costs

Terrebonne Bay Shore Protection Demonstration Project (XTE-DEMO)

Description	Amount(\$)
Phase I Costs	
Engineering and Design	65,840
Environmental Compliance	25,000
Real Estate & Permitting	50.000
Supervision and Administration	21,504
TOTAL	162.344
Phase 2 Costs	
Construction + 25% Contingency	448.000
Supervision and Inspection	50,000
TOTAL	498.000
GRAND TOTAL OF ALL PHASES	660.344

Table C-35c Periodic Costs

### Terrebonne Bay Shore Protection Demonstration Project (XTE-DEMO)

Terretonic Bay Shore Protection Demonstration Project (ATL-DEMO)				
Description	Frequency	Cost (\$)		
Engineering Inspections (x 8yrs)	Per year	4.000		
Corps Administration (x 8yrs)	Per year	500		
Monitoring	Per year	10,000		

### Table C-35d Operation & Maintenance Costs

### Terrebonne Bay Shore Protection Demonstration Project (XTE-DEMO)

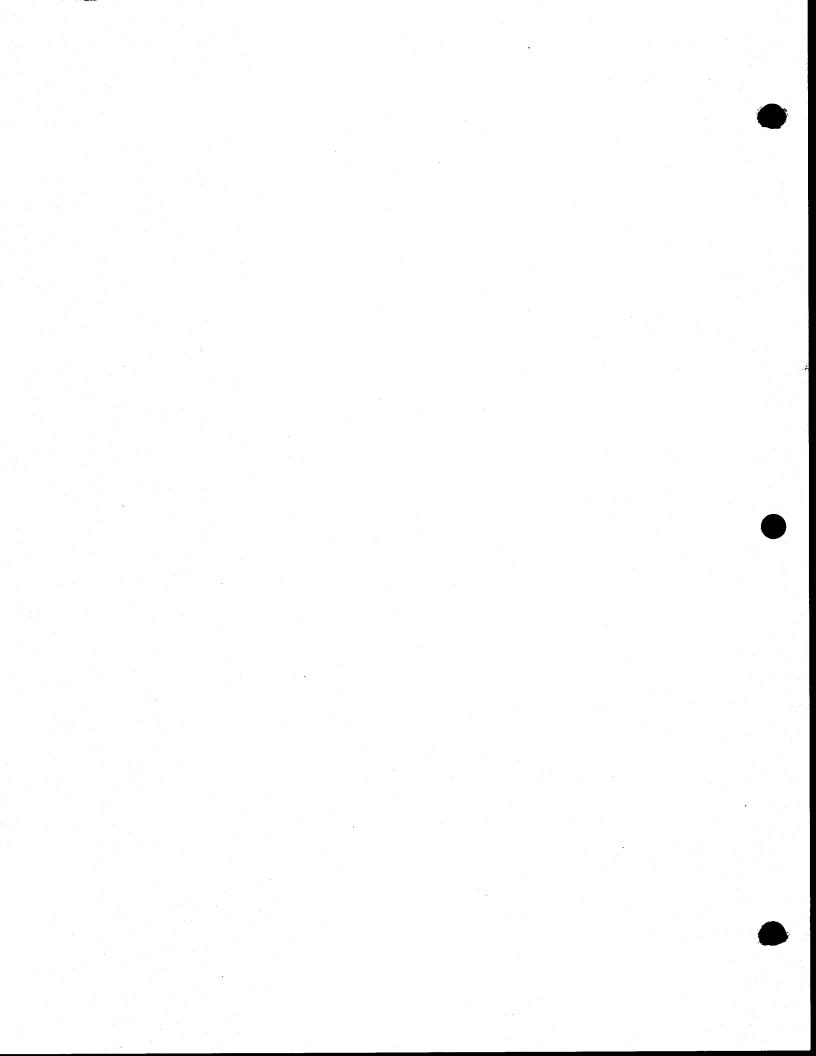
		-, (	~,	
Description		Cos	t (\$)	
Monitoring	<u>TY1</u> 40.000	<u>TY3</u> 40,000	<u>TY5</u> 40.000	<u>TY8</u> 40.000
TOTAL OPERATION & MAINTENANCE COSTS	40,000	40.000	40,000	40.000

# Coastal Wetlands Planning, Protection, and Restoration Act

9<sup>th</sup> Priority Project List Report

Appendix D

Economics Computational Summary For Candidate Projects

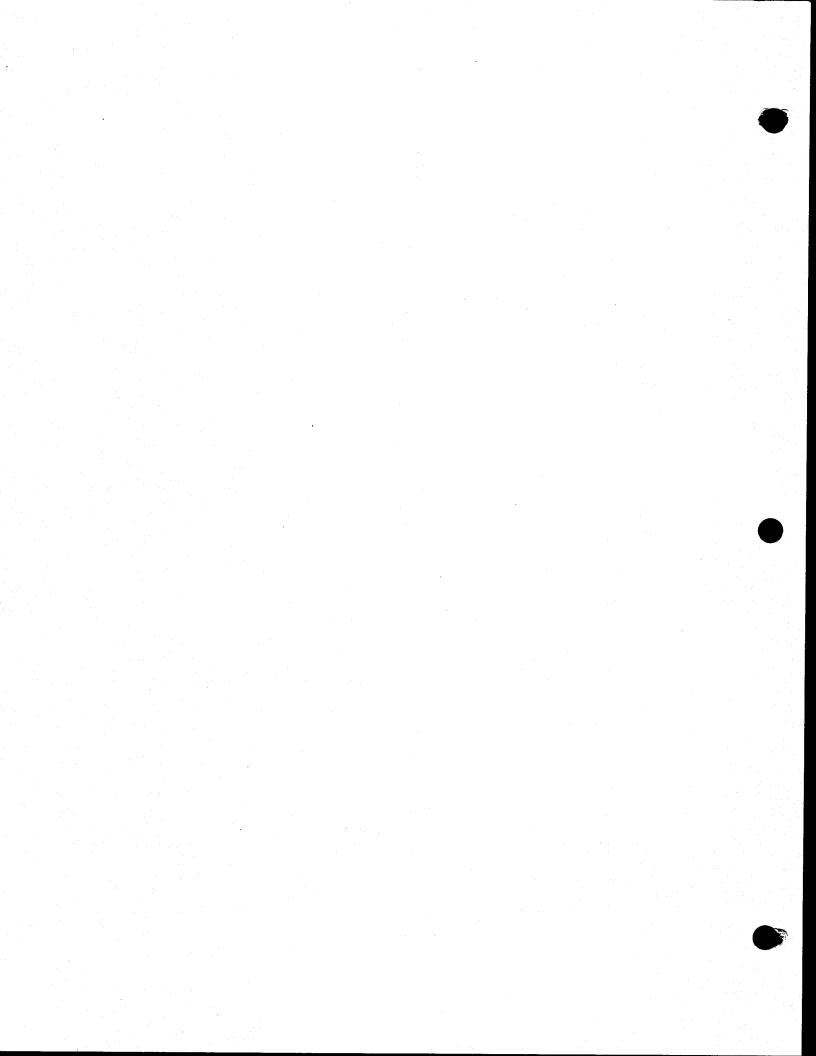


### Appendix D

### Economics Computational Summary For Candidate Projects

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# Opportunistic Use of Bonnet Carre Spillway (XPO-55a)

Project Construction Years:	2	Total Project Years	52
Interest Rate	6.625%	Amortization Factor	0.0916595
Total First Costs	\$86,854	Total Fully Funded Costs	\$1,084,080

Annual Charges	Present Worth	Average
Interest & Amortization Monitoring O & M Costs Other Costs	\$96.783 \$435,517 \$0 \$6,851	\$8,871 \$39,919 \$0 \$628
Total Average Annual Habitat Units	\$539,200	\$49,418
Cost Per Habitat Unit Average Annual Acres of Emergent Marsh		\$408 NA

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# Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

# Opportunistic Use of Bonnet Carre Spillway (XPO-55a)

# First Costs and Annual Charges

Total First	Cost	0\$	20	\$0	\$68,128	\$18,128	\$86,256																										
First Cost	Construction	G≱ €	0.4	O <del>\$</del>	0 <b>\$</b>	0\$	0\$																										
. continue	Collinigericy	2	0.6	0.4	0,6	2	<b>\$</b>																										
Supervision	Ourspecus p	9 6	9 6	) A 6	0,4	2	<b>%</b>																										
Corps Project	# C + C + C + C + C + C + C + C + C + C	9	9	06	\$058	9050	\$1,256																										
LDNR Supervision & Administration	S	<b>\$</b>		000 58	\$5,000	000,000	\$10,000																										
Federal Supervision & Administration	S	Ş.	<b>9</b>	\$12.500	\$12,500	000	000,62¢	Other	Costs	20	\$0	<b>\$</b> 0	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
Easements & Land Rights		Ç.	5	Q 49	05		O #	O&M	Costs	90	\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0	<b>\$</b> 0	80	\$0	80	80	<b>\$</b> 0	\$0	\$0	\$0	\$0	\$0	80	\$0	\$0	\$0	<b>\$</b> 0	0\$
Engineering & Design	20	<b>S</b> 0	S	\$50,000	0\$	\$50,000	000,000	Monitoring	Costs	\$48,714	\$32,493	80	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	<b>\$</b> 0	\$698,574
Fiscal Year				2000	2001	TOTAL	2	Fiscal	Year	2000	2001	Base Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Year	5 Compound	4 Compound	3 Compound	2 Compound	1 Compound				Year	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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# Opportunistic Use of Bonnet Carre Spillway (XPO-55a)

			Federal	LDNR	Comps				
Engineering & Design		Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project Managemet	Supervision & Inspectio	Contingency	First Cost	
\$0	i i	\$0	0\$	0\$	0\$	\$		\$0	1
<b>%</b>		\$0	<b>%</b>	<b>S</b>	\$0	\$0	<b>\$</b>	9	
\$60,610		<b>\$</b> 0	<b>\$</b>	<b>\$</b>	\$0	\$0	\$	<b>9</b>	
\$0		\$0	\$14,211	\$5,684	\$714	\$0	<b>\$</b>	· <b>\$</b>	
<b>9</b> 0		\$0	\$13,328	\$5,331	\$670	\$0	<b>\$</b> 0	0\$	
\$60,610		0\$	\$27,539	\$11,016	\$1,384	<b>S</b>	0\$	0\$	
Monitoring		O&M	Other						
Costs		Costs	Costs						
\$55,382		S	0\$						
\$34,646		Ş	<b>%</b>						
<b>%</b>		<b>%</b>	<b>%</b>						
\$30,474		Ş	\$589						
\$28,581		S	\$552						
\$26,805		S S	\$518						
\$25,139		<u>\$</u>	\$486						
\$23,577		<b>\$</b>	\$456						
\$22,112		Ş	\$427						
\$20,738		<b>%</b>	\$401						
\$19,450		<b>\$</b>							
\$18,241		<b>%</b>	\$353						
\$17,108		S :							
\$16,045		<b>%</b>							
\$15,048		<b>%</b>							
\$14,113		S S							
\$13,236		<b>%</b>							
\$12,414		<b>\$</b>							
\$11,642		<b>\$</b>							
\$10,919		20							
\$10,241		S S	\$198						
\$9,604		<b>%</b>							
20		\$0	\$174						
\$435,517		<u>\$</u>	\$6,851						

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# Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

# Opportunistic Use of Bonnet Carre Spillway (XPO-55a)

rully runded Costs	ed Costs		Total Fully Funded Costs	unded Costs	\$1,084.080				Amortized Costs		399,366
ŗ					Federal	LDNR	Corps				
	Inflation		Engineering	Easements		Supervision &	Project	Supervision		First Cost	<b>Total First</b>
Year Fa	Factor	Year	& Design	& Land Rights	Administra	Administration	Managemet	& Inspectio	Contingency	Construction	Cost
ı,		0	Ç,	\$0	<b>%</b>	<b>%</b>	<b>%</b>	20	0 <b>\$</b>	0\$	\$0
4		0	<b>%</b>	<b>9</b>	<b>%</b>	<b>%</b>	\$0	<b>%</b>	<b>\$</b>	<b>9</b>	\$0
က		0	<b>9</b>	<b>%</b>	<b>%</b>	<b>%</b>	\$0	0\$	\$0	\$0	05
7	1.000	2000	\$50,000	<b>S</b>	\$12,500	\$5,000	\$628	80	000	S	\$68 128
1	1.033	2001	<b>%</b>	<b>9</b>	\$12,913	\$5,165	\$649	<b>9</b>	9	<b>S</b>	\$18.726
	1	TOTAL	\$50,000	\$0	\$25,413	\$10,165	\$1,277	\$0	0\$	0\$	\$86,854
<u>Fu</u>	Inflation	Fiscal	Monitoring	0 <b>8</b> M	Other	,					
Year Fa	Factor	Year	Costs	Costs	Costs						
2	1.000	2000	\$48,714	\$0	9.						
-	1.033	2001	\$33,565	<b>%</b>	<b>%</b>						
0	Base Year	ar.	<b>%</b>	\$0	<b>%</b>						
7	1.067	2002	\$34,673	\$0	\$670						
?	1.102	2003	\$35,817	<b>\$</b> 0	\$695						
ကု	1.139	2004	\$36,999	<b>\$</b>	\$715						
4	1.176	2002	\$38,220	<b>\$</b>	\$739						
လ်	1.215	2006	\$39,481	\$0	\$763						
φ	1.255	2007	\$40,784	<b>9</b>	\$788						
1-	1.297	2008	\$42,130	\$0	\$814						
ø,	1.339 //		\$43,520	\$0							
ō.	1.384	2010	\$44,957	<b>\$</b>	\$869						
-10	1.429	2011	\$46,440	\$0	\$898						
÷	1.476	2012	\$47,973	<b>\$</b> 0	\$927						
-12	1.525	2013	\$49,556	\$0	\$958						
-13	1.575	2014	\$51,191	<b>\$</b>	\$983						
-14	1.627	2015	\$52,880	\$0							
-15	1.681	2016		<b>\$</b> 0	\$1,056						
-16	1.737	2017	\$56,428	\$0							
-17	¥.7	2018			\$1,127						
-18	1.853	2019		90	\$1,164						
-19	1.914	2020			\$1,202						
-20	1.977	2021	\$0								
	F-	Total	\$978,659	0\$	\$18,566						

All dates are in Federal Fiscal Years (October 1 to September 30)

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## Chandeleur Island Vegetation Planting - (XPO-95)

22	0.0916595	\$1,435,066
Total Project Years	Amortization Factor	Total Fully Funded Costs
2	6 625%	\$1,242,237
Project Construction Years.	Interest Rate	Total First Costs

Annual Charges		Average Annual
Interest & Amortization Monitoring O & M Costs Other Costs	\$1,295,290 \$84,942 \$0 \$6,851	\$118,726 \$7,786 \$0 \$628
Total	\$1,387,100	\$127,139
Average Annual Habitat Units		194
Cost Per Habitat Unit  Average Annual Acres of Emerged March		655
		N A

## Chandeleur Island Vegetation Planting - (XPO-95)

First Costs and Annual Charges

	Total First	Cost	တ	\$0	05	\$124 811	\$1.081.729	\$1,206,540																										
	First Cost	Construction	<b>%</b> 0	S S	<b>8</b> 0	0 <b>9</b>	\$796 100	\$796,100																										
		Contingency	0,4	<b>%</b>	80	80	\$199,025	\$199,025																:										
	Supervision	-1	200	S0	20	<b>8</b> 0	\$45,000	\$45,000																										
Corps	Project	Management	0.4	\$0	<b>%</b>	\$628	\$628	\$1,256																										
LDNR	Supervision &	TOTAL STREET	00	20	20	\$8,195	\$11,708	\$19,903																										
Federal	Supervision &	Summer and	9	9	<b>%</b> 0	\$20,488	\$29,268	\$49.756	Other	Costs	20	\$0	\$0	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
	Easements & Land Rights	Silving Silving	3 6	00	20	\$10,000	\$0	\$10,000	0 <b>8</b> M	Costs	\$0	<b>\$</b>	80	\$0	80	80	80	80	80	80	80	80	\$0	80	80	80	80	80	80	80	80	80	80	<b>%</b>
	Engineering & Design	1		O (	20	\$85,500	\$0	\$85,500	Monitoring	Costs	\$18,828	\$5,431	20	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5.431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$0	\$127,448
	Fiscal					2000	2001	TOTAL	Fiscal	Year	2000	2001	Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
ţ	Year	5 Compound	A Company		3 Compound	2 Compound	1 Compound			Year	2 Compound	1 Compound	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

## Chandeleur Island Vegetation Planting - (XPO-95)

Iotal Discounted Costs	יופח כחפוז						Amortized Costs		\$127,139
			Federal	LDNR	Corps				
ъ С	۰	Easements	Supervision &	Supervision &	Project	Supervision	:	First Cost	Total First
a Design a Land	0 L4110	Lairo Nigriis	Administration	Administration	Management	a inspection	a inspection Contingency	Construction	Cost
) S		8 8	0 <b>%</b>	) •	9		Q S	9 09	og eg
<b>0</b>		\$0	0\$	0\$	0.5		0 <b>\$</b>	9	0\$
2000 \$97,204 \$1	2	\$11,369	\$23,292	\$9,317	\$714	\$0	<b>\$</b>	<b>9</b>	\$141,896
		\$0	\$31,207	\$12,483	\$670	\$47,981	\$212,210	\$848,842	\$1,153,393
\$97,204	2	\$11,369	\$54,500	\$21,800	\$1,384	\$47,981	\$212,210	\$848,842	\$1,295,290
Monitoring O&M	080	5	Other						
Costs Costs	Cost	"	Costs						
2000 \$21,405		င္အ	80						
2001 \$5,791		<b>\$</b> 0	<b>\$</b>						
0 <b>\$</b>		<b>\$</b>	<b>\$</b> 0						
2002 \$5,094		<b>%</b>	\$589						
		<b>\$</b> 0	\$552						
		<b>%</b>	\$518						
		Ş	\$486						
		<b>\$</b> 0	\$456						
		\$0	\$427						
		<b>\$</b>	\$401						
		\$0	\$376						
		<b>\$</b> 0	\$353						
		<b>%</b>	\$331						
		င္တ	\$310						
		\$0	\$291						
		<b>%</b>							
		Ş	\$256				,		
		\$0							
2017 \$1,946		20	\$225						
2018 \$1,825		\$0	\$211						
2019 \$1,712		<b>\$</b>	\$198						
\$1.0		S S	\$186						
2021 \$0		S							
\$84,942		\$0	\$6,851						

## Chandeleur Island Vegetation Planting - (XPO-95)

								ı			
Fully Fu	Fully Funded Costs	"	Total Fully Funded Costs	unded Costs	\$1,435,066				Amortized Costs		\$131,537
	ſ				Federal	LDNR	Corps				
>	Inflation	Fiscal	Engineering	Easements	Supervision &	Supervision &	Project	Supervision		First Cost	Total First
rear	Factor	Year	& Design	& Land Rights	Administration	Administration	Management	& Inspection	& Inspection Contingency	Construction	Cost
က			<b>%</b>	<b>⊗</b>	<b>%</b>	\$0	<u>S</u>	90	\$0	9	9
4			<b>%</b>	<b>9</b>	<b>%</b>	20	<b>S</b> 0	9	0\$	<b>\$</b>	9
က			<b>%</b>	<b>\$</b>	\$0	<b>S</b>	OS.	9	9		9 6
7	1.000	2000	\$85,500	\$10,000	\$20.488	\$8.195	\$628	<b>,</b>	ş <b>Ş</b>	9	407
-	1.033	2001	\$0	\$0	\$30,234	\$12,094	\$649	\$46.485	\$205,593	\$622 371	\$124,611
		TOTAL	\$85,500	\$10,000	\$50,722	\$20,289	\$1,277	\$46,485	\$205,593	\$822,371	\$1,242,237
	Inflation	Fiscal	Monitorina	08M	Other						
Year	Factor	Year	Costs	Costs	Costs						
7	1.000	2000	\$18,828	\$0	95						
-	1.033	2001		\$0	<b>9</b>						
0	Base Year	ear	\$0	\$0	0\$						
۲.	1.067	2002	\$5,795	0\$	\$670						
-5	1.102	2003		\$0	\$692						
ę.	1.139	2004		\$0	\$715						
4	1.176	2002		<b>\$</b> 0	\$739						
<u>ဇ</u> ှ	1.215	2006		<b>9</b> 0	\$763						
φ	1.255	2007		<b>\$</b> 0	\$788						
-7	1.297	2008		\$0	\$814						
æρ				\$0	\$841						
σ <sub>'</sub>	1.384	2010		\$0	\$869						
-10	1.429	2011		\$0	\$898						
-11	1.476	2012		<b>\$</b> 0	\$927						
-12	1.525	2013		80	\$958						
-13	1.575	2014	\$8,556	\$0	\$989						
-14	1.627	2015		<b>\$</b>	\$1,022						
-15	1.681	2016	\$9,130	\$0	\$1,056						
-16	1.737	2017		<b>\$</b> 0	\$1,091					•	
-17	1 794	2018		\$0	\$1,127						
-18	1.853	2019	\$10,064	\$0							
<del>.</del> 19	1.914	2020	\$10.3	<b>\$</b> 0	\$1,202						
-20	1.977	2021	\$0	\$0	\$1,242						
	-	Total	\$174,263	\$0	\$18,566						

### Highway 82 Freshwater Introduction (PME-7a)

Project Construction Years:	S	Total Project Years	25
Interest Rate	6.625%	Amortization Factor	0.0916595
Total First Costs	\$3,897,222	Total Fully Funded Costs	\$5,887,199

Annual Charges	Present Worth	Average Annual
Interest & Amortization Monitoring O & M Costs Other Costs	\$3,966,259 \$471,438 \$307,625 \$6,851	\$363,545 \$43,212 \$28,197 \$628
Totai	\$4,752,200	\$435,582
Average Annuat Habitat Units		553
Cost Per Habitat Unit		\$788
Average Annual Acres of Emergent Marsh		N V

First Costs and Annual Charges

First Cost Total First	Construction		<b>\$</b> 0	\$0 \$179,199	\$291,388 \$1,165,554 \$1,663,683	\$249,762 \$999,046 \$1,389,515	\$541,150 \$2,164,600 \$3,516,390																											
Б	- 1	လွ	<b>%</b> 0	20																														
Supervision	& Inspectio		•,	•	\$133,269	\$114,231	\$247,500																											
Corps Project	Management	\$628	\$628	\$628	\$628	\$628	\$3,140																											
LDNR Supervision &	Administration	\$8,614	\$14,767	\$14,767	\$14,767	\$7,384	\$60,300																											
Federal Supervision &	Administration	\$21,543	\$36,931	\$36,931	\$36,931	\$18,465	\$150,800	Other	Costs	20	80	20	20	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
Easements	& Land Rights Administration	\$12,727	\$21,818	\$21,818	<b>\$3</b> '636	20	000'09\$	0814	Costs	\$0	\$0	80	\$0	\$1.950	\$1,950	\$1,950	\$1,950	\$5,595	\$1,950	\$1,950	\$1,950	\$5,595	\$531,156	\$5,595	\$1,950	\$1,950	\$1,950	\$1,950	\$1,950	\$5,595	\$1,950	\$1,950	\$1,950	\$582,786
Engineering	& Design	\$61,282	\$105,055	\$105,055	\$17,509	\$0	\$288,900	Monitoring	Costs	\$52,769	\$32,493	\$32,493	<b>%</b>	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$0	<b>0</b> \$	\$702,629
		2000	2001	2002	2003	2004	TOTAL	Fiscal		2002	2003	2004	Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
	Ι,	Compound	4 Compound	3 Compound	2 Compound	Compound				Compound	2 Compound	Compound	Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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### Highway 82 Freshwater Introduction (PME-7a)

Easements         Supervision & Supervis	- 01		Company of the Costs	₩,752,1/3				Amortized Costs		3433,382
8 Easements         Supervision & Superv	č			Federal	LDNR	Сопря				
## State	•		Easements	Supervision &	Supervision &	Project	Supervision		First Cost	Total First
\$28,400 \$41,703 \$11,012 \$005 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	0000	- İ.,	CAN RIGHTS	Administration	Administration	Management	& Inspectio	- 1	Construction	Cost
\$26,448 \$44,788 \$17,901 \$761 \$0 \$4,134 \$41,788 \$17,901 \$761 \$0 \$4,134 \$41,788 \$17,901 \$761 \$0 \$50 \$19,689 \$7,873 \$670 \$121,799 \$266,308 \$1,0552 \$7,6323 \$183,865 \$73,522 \$2,73,311 \$597,585 \$2,390,300,300 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$1,629 \$589 \$1,629 \$2,889 \$1,175 \$552 \$1,609 \$588 \$1,227 \$2,327 \$1,409 \$589 \$1,400 \$1,409 \$589 \$1,400 \$1,409 \$589 \$1,400 \$1,409 \$2,733 \$1,400 \$2,733 \$2,91 \$2,730 \$2	•	135.785	\$28.200	\$47.733	\$19,012	\$000 \$810	2 5	2	9	\$144,422
\$4,134       \$41,986       \$16,789       \$714       \$151,512       \$331,276       \$1,325,1390,3         \$6,323       \$18,689       \$7,873       \$670       \$121,799       \$266,308       \$1,065,230,3         \$0.6M       Other       \$0.50		127,348	\$26,448	\$44.768	\$17.901	\$761	<b>,</b>	<b>9</b>		\$231,017 \$247,226
\$76,323 \$19,689 \$7,873 \$670 \$121,799 \$266,308 \$76,323 \$183,865 \$73,522 \$57,873 \$670 \$121,799 \$266,308 \$76,323 \$183,865 \$73,522 \$57,873 \$11,799 \$266,308 \$70,000 \$10,00		\$19,906	\$4,134	\$41,986	\$16 789	\$714	\$151512	\$331.276	\$1 325 105	\$21,12¢
\$76,323 \$183,865 \$73,522 \$3,822 \$273,311 \$597,585  O&M Other Costs Costs  \$0 \$0 \$0 \$0 \$0 \$1,829 \$589 \$1,175 \$552 \$1,609 \$456 \$4,060 \$456 \$1,245 \$401 \$1,167 \$331 \$279,661 \$331 \$279,661 \$331 \$279,661 \$233 \$279,661 \$231 \$279,661 \$331 \$279,661 \$310 \$8903 \$229 \$1,800 \$211 \$51,80 \$225 \$1,800 \$516 \$516 \$186 \$516 \$186 \$5174 \$174	2004	\$0	\$0	\$19,689	\$7,873	\$670	\$121,799	\$266,308	\$1,065,233	\$1,691,423
O&M Costs Costs \$0 \$0 \$0 \$1,829 \$1,715 \$1,609 \$1,27 \$1,45 \$1,67 \$3,141 \$27,63 \$2,763 \$3,441 \$27,63 \$3,441 \$27,63 \$3,441 \$27,63 \$3,441 \$27,63 \$3,447 \$5,1880 \$1,880 \$5,165 \$5,165 \$5,167 \$5,1880 \$5,168 \$5,167 \$5,1880	₩.	367,494	\$76,323	\$183,865	\$73,522	\$3,822	\$273,311	\$597,585	\$2,390,338	\$3,966,259
Sosts Costs S0	ž	onitoring	0 <b>8</b> M	Other						
\$0 \$0 \$0 \$1,829 \$1,715 \$1,509 \$1,715 \$1,27 \$1,167 \$3,141 \$2,763 \$		Costs	Costs	Costs						
\$0 \$1,829 \$1,715 \$1,715 \$1,715 \$1,715 \$1,715 \$1,715 \$1,715 \$1,715 \$1,715 \$1,715 \$1,715 \$1,1167 \$2,763 \$2,763 \$2,763 \$2,763 \$2,763 \$2,763 \$2,763 \$2,763 \$3,141 \$3,141 \$3,14	2002	\$63,967								
\$0 \$1,829 \$1,715 \$1,715 \$1,509 \$1,27 \$1,167 \$3,141 \$2,763 \$890 \$1,880 \$1	2003	\$36,941	\$0	<b>\$</b>						
\$1,829 \$1,715 \$1,715 \$1,609 \$1,509 \$1,327 \$1,167 \$3,141 \$27,661 \$27,661 \$27,661 \$27,63 \$893 \$847 \$745 \$1,880 \$1,88	2004	\$34,646	\$0	<b>\$</b>						
\$1,829 \$1,715 \$1,609 \$4,060 \$1,327 \$1,327 \$1,45 \$2,763 \$2,763 \$2,763 \$2,763 \$2,763 \$3,141 \$2,763 \$3,141 \$2,763 \$699 \$1,880 \$1,880 \$615 \$541		<b>%</b>	\$0	<b>2</b> 0						
\$1,715 \$1,609 \$4,060 \$1,327 \$1,327 \$1,45 \$3,141 \$2,763 \$903 \$847 \$794 \$794 \$795 \$699 \$1,880 \$615 \$515		\$30,474	\$1,829	\$589						
\$1,609 \$4,060 \$1,327 \$1,245 \$1,167 \$3,141 \$2,763 \$903 \$847 \$794 \$745 \$1,880 \$615 \$515	2006	\$28,581	\$1,715	\$552						
\$1,509 \$4,060 \$1,327 \$1,245 \$3,141 \$2,763 \$903 \$847 \$794 \$7,880 \$1,880 \$1,880 \$615 \$515		\$26,805	\$1,609	\$518						
\$4,060 \$1,327 \$1,245 \$3,141 \$2,763 \$903 \$847 \$794 \$745 \$1,880 \$1,880 \$615 \$515		\$25,139	\$1,509	\$486						
\$1,327 \$1,245 \$1,167 \$3,141 \$2,763 \$903 \$847 \$794 \$745 \$1,880 \$1,880 \$615 \$515		\$23,577	\$4,060	\$456						
\$1,245 \$1,167 \$3,141 \$279,661 \$2,763 \$903 \$745 \$745 \$1,880 \$1,880 \$615 \$516		\$22,112	\$1,327	\$427						
\$1,167 \$3,141 \$279,661 \$2,763 \$903 \$847 \$745 \$745 \$1,880 \$1,880 \$615 \$516		\$20,738	\$1,245	\$401						
\$3,141 \$279,661 \$2,763 \$903 \$847 \$794 \$745 \$699 \$1,880 \$615 \$615		\$19,450	\$1,167	\$376						
\$279,661 \$2,763 \$903 \$847 \$745 \$745 \$699 \$1,880 \$615 \$516		\$18,241	\$3,141	\$353						
\$2,763 \$903 \$847 \$794 \$745 \$699 \$1,880 \$615 \$516		\$17,108	\$279,661	\$331						
\$903 \$847 \$794 \$745 \$699 \$1,880 \$615 \$576	2015	\$16,045	\$2,763	\$310						
\$847 \$794 \$745 \$699 \$1,880 \$615 \$576	2016	\$15,048	\$903	\$291						
\$794 \$745 \$1,880 \$615 \$615 \$576	2017	\$14,113	\$847	\$273						
\$745 \$699 \$1,880 \$615 \$576 \$541	2018	\$13,236	\$794	\$256						
\$699 \$1,880 \$615 \$576 \$541		\$12,414	\$745	\$240						
\$1,880 \$615 \$576 \$541	2020	\$11,642	<b>\$</b> 669	\$225						
\$615 \$576 \$541	2021	\$10,919	\$1,880	\$211						
\$576 \$541		\$10,241	\$615							
\$541	2023	<b>%</b>	\$576	\$186						
	2024	<b>\$</b> 0	\$541	\$174						

Page 3

Highway 82 Freshwater Introduction (PME-7a)

Federal   LDNR   Corps												
Hardino   Fiscal Engineering Essements Supervision & Project Supervision P   Factor   Facto		1				Federal	LDNR	Corps				
1000   2000   \$61,282   \$17,772   \$21,543   \$8,614   \$15,55   \$8,614   \$10,00   \$1	76.9	Inflation		Engineering & Design	Easements & Land Pinhte	Supervision &	Supervision &	Project	Supervision		First Cost	Total First
1087   2001   5108.521   522.538   538.149   515.255   564.9   50   50   50   50   50   50   50   5	2	1 000	2000	\$61.282	\$12 727	\$21 543	SR 614	(A)	Olizadelli e	Conungericy	Construction	Cost
1067   2002   \$112,103   \$23,282   \$39,408   \$515,758   \$560   \$500	4	1.033	2001	\$108,521	\$22,538	\$38.149	\$15,255	\$649	<b>9 9</b>	9 6	0.0	\$104./94
1102   2003   \$19,300   \$4,008   \$40,709   \$16,278   \$692   \$146,903   \$531,198   \$1102   \$204   \$50.556   \$160,835   \$54,313   \$51,326   \$516,935   \$524,339   \$100000000000000000000000000000000000	က	1 067	2002	\$112,103	\$23,282	\$39,408	\$15,758	\$670	O.S.	Ş	9 5	£103,112
1139   2004   \$0   \$0   \$1,005   \$10,005   \$	7	1.102	2003	\$19,300	\$4,008	\$40,709	\$16.278	\$692	\$146.903	\$321.198	£1 284 703	4191,221
TOTAL   \$301,206   \$62,556   \$160,835   \$54,313   \$5354   \$276,975   \$605,597     Inflation   Fiscal   Monitoring   O&M   Other	-	1		\$0	\$0	\$21,026	\$8,408	\$715	\$130,072	\$284,398	\$1,137,593	\$1,532,663
Inflation Fiscal Monitoring O&M OI Factor Year Costs			FOTAL	\$301,206	\$62,556	\$160,835	\$64,313	\$3,354	\$276,975	\$605,597	\$2,422,386	\$3,897,222
Factor         Year         Costs         So         So         So         So         So         So         Costs         Costs         Costs         So         So         So         So         Costs         So         So         So         Costs		Inflation	Fiscal	Monitoring	O&M	Other	٠					
1.067 2002 \$56,309 \$0 1.102 2003 \$35,817 \$0 1.103 2004 \$36,999 \$0 8.0 8.0 1.176 2005 \$38,220 \$2,294 1.215 2006 \$39,481 \$2,369 1.255 2007 \$40,784 \$2,448 1.297 2008 \$42,130 \$2,528 1.339 2009 \$43,520 \$7,494 1.384 2010 \$44,957 \$2,698 1.429 2011 \$46,440 \$2,787 1.476 2011 \$46,440 \$2,787 1.575 2014 \$51,191 \$836,810 1.575 2014 \$51,191 \$836,810 1.575 2016 \$54,625 \$3,386 1.737 2017 \$56,428 \$3,386 1.737 2017 \$56,428 \$3,386 1.737 2017 \$56,428 \$3,386 1.794 2018 \$58,290 \$3,498 1.853 2019 \$60,214 \$3,733 1.977 2021 \$64,253 \$11,064 2.043 2022 \$66,374 \$3,983 2.110 2023 \$64,253 \$4,115 2.180 2024 \$50,214	ear	Factor	Year	Costs	- 1							
1.102 2003 \$35,817 \$0 1.139 2004 \$36,999 \$0 Base Year \$0.04 \$36,999 \$0 1.176 2005 \$38,220 \$2,294 1.215 2006 \$39,481 \$2,369 1.255 2007 \$40,784 \$2,448 1.297 2009 \$43,520 \$7,494 1.384 2010 \$44,957 \$2,698 1.429 2011 \$46,440 \$2,787 1.476 2011 \$46,440 \$2,787 1.555 2011 \$46,440 \$2,787 1.555 2011 \$46,556 \$8,533 1.575 2014 \$51,191 \$836,810 1.627 2016 \$54,625 \$3,386 1.737 2017 \$56,428 \$3,386 1.737 2017 \$56,428 \$3,386 1.737 2017 \$56,428 \$3,386 1.794 2018 \$58,290 \$3,498 1.853 2019 \$60,214 \$3,733 1.977 2021 \$64,253 \$11,064 2.043 2022 \$66,374 \$3,983 2.110 2023 \$64,253 \$4,115 2.180 2024 \$6,374	ო -	1.067	2002	\$56,309	<b>9</b> 0	\$0						
Base Year \$56,999 \$50  Base Year \$0.004 \$50,999 \$50  1.176 \$20.05 \$38,220 \$2.294  1.215 \$20.06 \$39,481 \$2.294  1.255 \$20.07 \$40,784 \$2.248  1.297 \$20.08 \$42,130 \$2.248  1.339 \$20.09 \$43,520 \$7.494  1.349 \$20.01 \$44,957 \$2.698  1.429 \$20.01 \$44,957 \$2.698  1.429 \$20.01 \$44,957 \$2.698  1.429 \$20.01 \$44,957 \$2.698  1.429 \$20.01 \$44,957 \$2.809  1.555 \$20.13 \$49,556 \$8,533  1.575 \$20.14 \$51,191 \$836,810  1.627 \$20.14 \$51,191 \$836,810  1.627 \$20.14 \$51,191 \$836,810  1.637 \$20.14 \$56,428 \$3,386  1.737 \$20.17 \$56,428 \$3,386  1.737 \$20.17 \$56,428 \$3,386  1.737 \$20.17 \$56,428 \$3,386  1.737 \$20.17 \$56,428 \$3,386  1.737 \$20.17 \$56,428 \$3,386  1.737 \$20.17 \$56,428 \$3,386  1.737 \$20.10 \$50.214 \$51,064  2.043 \$20.22 \$66,374 \$3,983  2.110 \$20.23 \$66,374 \$3,983  2.180 \$20.24 \$50.21	~ ~	1.102	2003	\$35,817	<b>%</b>	\$0						
\$0 \$1.176 \$2005 \$38,220 \$2,294 \$1.176 \$2006 \$39,481 \$2,294 \$1.215 \$2006 \$39,481 \$2,369 \$1.255 \$2007 \$40,784 \$2,448 \$1.297 \$2008 \$42,130 \$2,528 \$1.394 \$2009 \$43,520 \$7,494 \$2,484 \$1.394 \$2,009 \$44,957 \$2,698 \$1.429 \$2,001 \$44,957 \$2,809 \$2,180 \$1.555 \$2013 \$49,957 \$2,809 \$1.555 \$2013 \$49,556 \$8,533 \$1.575 \$2014 \$51,191 \$836,810 \$1.575 \$2014 \$51,191 \$836,810 \$1.575 \$2017 \$56,428 \$3,386 \$1.737 \$2017 \$56,428 \$3,386 \$1.737 \$2017 \$56,428 \$3,498 \$1.853 \$2020 \$52,201 \$53,733 \$1.977 \$2021 \$56,274 \$51,064 \$2.043 \$2022 \$56,374 \$3,983 \$2.110 \$2023 \$56,374 \$3,983 \$2.110 \$2023 \$56,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$3,983 \$2.110 \$2023 \$6,374 \$2.021 \$2,024 \$2.021 \$2.021 \$2,024 \$2.021 \$2.022 \$2.021 \$2.021 \$2.021 \$2.021 \$2.021 \$2.021 \$2.021 \$2.021 \$2.02		1.139		\$36,999	<b>\$</b> 0	<b>%</b>						
1.176 2005 \$38,220 \$2,294 1.215 2006 \$39,481 \$2,369 1.255 2007 \$40,784 \$2,448 1.297 2008 \$42,130 \$2,528 1.339 2009 \$43,520 \$7,494 1.384 2010 \$44,957 \$2,698 1.429 2011 \$46,440 \$2,787 1.476 2012 \$47,973 \$2,879 1.525 2013 \$49,556 \$8,533 1.575 2014 \$51,191 \$836,810 1.627 2015 \$52,880 \$59,106 1.681 2016 \$54,625 \$3,278 1.737 2017 \$56,428 \$3,386 1.737 2017 \$56,428 \$3,386 1.737 2017 \$56,428 \$3,498 1.853 2019 \$50,214 \$3,733 1.977 2021 \$64,253 \$11,064 2.043 2022 \$66,374 \$3,983 2.110 2023 \$64,253 \$4,115 2.180 2024 \$5,751	0	Base Y		<b>%</b>	<b>%</b>	<b>%</b>						
1.215 2006 \$39,481 \$2,369 1.255 2007 \$40,784 \$2,448 1.297 2008 \$42,130 \$2,528 1.339 2009 \$43,520 \$7,494 1.384 2010 \$44,957 \$2,698 1.429 2011 \$46,440 \$2,787 1.476 2012 \$47,973 \$2,879 1.525 2013 \$49,556 \$8,533 1.525 2014 \$51,191 \$836,810 1.627 2014 \$51,191 \$836,810 1.627 2014 \$52,880 \$9,106 1.681 2016 \$54,625 \$3,278 1.737 2017 \$56,428 \$3,386 1.737 2017 \$56,230 \$3,498 1.853 2019 \$60,214 \$3,983 2.110 2023 \$66,374 \$3,983 2.110 2023 \$66,374 \$3,983 2.110 2023 \$66,374 \$4,253	<b>-</b>	1.176	2002	\$38,220	\$2,294	\$739						
1.255       2007       \$40,784       \$2,448         1.297       2008       \$42,130       \$2,528         1.339       2009       \$43,520       \$7,494         1.384       2010       \$44,957       \$2,698         1.429       2011       \$44,957       \$2,698         1.476       2011       \$46,440       \$2,787         1.525       2013       \$49,556       \$8,533         1.575       2014       \$51,191       \$836,810         1.627       2014       \$52,880       \$9,106         1.681       2016       \$54,625       \$3,278         1.737       2017       \$56,428       \$3,386         1.734       2018       \$58,290       \$3,498         1.853       2019       \$60,214       \$3,498         1.94       2020       \$62,201       \$3,733         1.977       2021       \$64,253       \$11,064         2.140       2022       \$66,374       \$3,983         2.160       2023       \$6,374       \$3,983         2.10       2024       \$6,374       \$3,983         2.10       \$6,374       \$3,983         2.10       \$6,274       \$	?	1.215	2006	\$39,481	\$2,369	\$763						
1.297 2008 \$42,130 \$2,528 1.339 2009 \$43,520 \$7,494 1.384 2010 \$44,957 \$2,698 1.429 2011 \$46,440 \$2,787 1.476 2012 \$47,973 \$2,879 1.525 2013 \$49,556 \$8,533 1.575 2014 \$51,191 \$836,810 1.627 2014 \$51,191 \$836,810 1.681 2016 \$52,880 \$3,278 1.737 2017 \$56,428 \$3,386 1.737 2017 \$56,428 \$3,386 1.737 2017 \$56,428 \$3,386 1.737 2017 \$56,221 \$3,733 1.977 2021 \$60,214 \$3,733 2.140 2022 \$66,374 \$3,983 2.140 2023 \$66,374 \$3,983 2.140 2023 \$66,374 \$3,983 2.140 2023 \$66,374 \$3,983	ņ	1.255	2007	\$40,784	\$2,448	\$788						
1339     2009     \$43,520     \$7,494       1384     2010     \$44,957     \$2,698       1429     2011     \$46,440     \$2,787       1476     2012     \$47,973     \$2,879       1.525     2013     \$49,556     \$8,533       1.575     2014     \$51,191     \$836,810       1.627     2015     \$52,880     \$9,106       1.681     2016     \$54,625     \$3,278       1.737     2017     \$56,428     \$3,386       1.734     2017     \$56,220     \$3,498       1.853     2019     \$60,214     \$3,498       1.914     2020     \$62,201     \$3,733       2.043     2022     \$66,374     \$3,983       2.10     2023     \$6,373     \$4,115       2.10     2023     \$6,374     \$3,983       2.10     2024     \$6,374     \$3,983       2.10     \$6,374     \$4,115	4	1.297	2008	\$42,130	\$2,528	\$814						
1.384     2010     \$44,957     \$2,698       1.429     2011     \$46,440     \$2,787       1.476     2012     \$47,973     \$2,879       1.555     2013     \$49,556     \$8,533       1.575     2014     \$51,191     \$836,810       1.627     2015     \$52,880     \$9,106       1.681     2016     \$54,625     \$3,278       1.737     2017     \$56,428     \$3,386       1.734     2018     \$58,290     \$3,498       1.853     2019     \$60,214     \$3,733       1.977     2020     \$62,201     \$3,733       2.043     2022     \$66,374     \$3,983       2.10     2023     \$6,374     \$3,983       2.10     2023     \$6,374     \$3,983       2.10     2024     \$6,374     \$4,115       2.10     2024     \$6,374     \$4,25       2.10     \$4,253     \$4,115	ιċ	1 339	2009	\$43,520	\$7.494	\$841						
1.429  2011 \$46,440 \$2,787  14.76  2012 \$47,973 \$2,879  15.25  2013 \$49,556 \$8,533  15.75  2014 \$51,191 \$836,810  16.27  2015 \$52,880 \$9,106  16.81  2016 \$54,625 \$3,278  17.37  2017 \$56,428 \$3,386  17.37  2017 \$56,428 \$3,386  17.94  2018 \$58,290 \$3,498  1.853 2019 \$50,214 \$3,614  1.917  2020 \$62,201 \$3,733 11.917 2021 \$64,253 \$11,064 2.043 \$2.043 \$3,983 2.110 \$20.22 \$66,374 \$3,983 2.110 \$20.22 \$66,374 \$3,983 2.110 \$20.22 \$66,374 \$3,983 2.110 \$20.22 \$66,374 \$3,983 2.110 \$20.22 \$66,374 \$3,983 2.110 \$20.22 \$66,374 \$3,983 2.110 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$66,374 \$3,983 2.210 \$20.22 \$60,374 \$3,983 2.210 \$20.22 \$60,374 \$20.22 \$20	φ	1.384	2010	\$44,957	\$2,698	\$869						
1.476     2012     \$47,973     \$2,879       1.525     2013     \$49,556     \$8,533       1.575     2014     \$51,191     \$836,810       1.627     2015     \$52,880     \$9,106       1.681     2016     \$54,625     \$3,278       1.737     2017     \$56,428     \$3,386       1.794     2018     \$58,290     \$3,498       1.853     2019     \$60,214     \$3,614       1.914     2020     \$62,201     \$3,733       2.043     2022     \$66,373     \$4,115       2.10     2023     \$6,374     \$3,983       2.10     2023     \$6,374     \$3,983       2.10     2024     \$6,374     \$4,115       2.10     \$6,374     \$4,115		1.429	2011	\$46,440	\$2,787	\$888						
1.525     2013     \$49,556     \$8,533       1.575     2014     \$51,191     \$836,810       1.627     2015     \$52,880     \$9,106       1.681     2016     \$54,625     \$3,278       1.737     2017     \$56,428     \$3,386       1.794     2018     \$58,290     \$3,498       1.853     2019     \$60,214     \$3,614       1.914     2020     \$62,201     \$3,733       1.977     2021     \$64,253     \$11,064       2.043     2022     \$66,374     \$3,983       2.110     2023     \$66,374     \$3,983       2.180     2024     \$6,374     \$4,115	œρ	1.476	2012			\$927						
1.575     2014     \$51,191     \$836,810       1.627     2015     \$52,880     \$9,106       1.681     2016     \$54,625     \$3,278       1.737     2017     \$56,428     \$3,386       1.794     2018     \$58,290     \$3,498       1.853     2019     \$60,214     \$3,614       1.914     2020     \$62,201     \$3,733       1.977     2021     \$64,253     \$11,064       2.043     2022     \$66,374     \$3,983       2.110     2023     \$66,374     \$3,983       2.180     2024     \$6,374     \$4,115	တု	1.525	2013			\$958						
1.627     2015     \$52,880     \$9,106       1.681     2016     \$54,625     \$3,278       1.737     2017     \$56,428     \$3,386       1.794     2018     \$58,290     \$3,498       1.853     2019     \$60,214     \$3,614       1.914     2020     \$62,201     \$3,733       1.977     2021     \$64,253     \$11,064       2.043     2022     \$66,374     \$3,983       2.110     2023     \$66,374     \$3,983       2.10     2024     \$0     \$4,115       2.10     2024     \$0     \$4,251	우	1.575	2014		ĕ÷							
1.681     2016     \$54,625     \$3,278       1.737     2017     \$56,428     \$3,386       1.794     2018     \$58,290     \$3,498       1.853     2019     \$60,214     \$3,614       1.914     2020     \$62,201     \$3,733       1.977     2021     \$64,253     \$11,064       2.043     2022     \$66,374     \$3,983       2.110     2023     \$66,374     \$3,983       2.180     2024     \$6,374     \$4,115	÷	1.627	2015									
1,737     2017     \$56,428     \$3,386       1,794     2018     \$58,290     \$3,498       1,853     2019     \$60,214     \$3,614       1,914     2020     \$62,201     \$3,733       1,977     2021     \$64,253     \$11,064       2,043     2022     \$66,374     \$3,983       2,110     2023     \$66,374     \$3,983       2,180     2024     \$6,374     \$4,115	-12	_	2016									
1.794     2018     \$58,290     \$3,498       1.853     2019     \$60,214     \$3,614       1.914     2020     \$62,201     \$3,733       1.977     2021     \$64,253     \$11,064       2.043     2022     \$66,374     \$3,983       2.110     2023     \$66,374     \$3,983       2.110     2023     \$64,253     \$4,115       2.10     2024     \$0.54     \$4,251	-13	_	2017	••	\$3,386	\$1,091						
1.853     2019     \$60,214     \$3,614       1.914     2020     \$62,201     \$3,733       1.977     2021     \$64,253     \$11,064       2.043     2022     \$66,374     \$3,983       2.110     2023     \$6,374     \$1,983       2.160     2024     \$0     \$4,115       2.180     2024     \$0     \$4,251	-14	-	2018		\$3,498	\$1,127						
1.914     2020     \$62,201     \$3,733       1.977     2021     \$64,253     \$11,064       2.043     2022     \$66,374     \$3,983       2.110     2023     \$6,374     \$4,115       2.180     2024     \$0.54     \$4,251	÷.	_	2019		\$3,614	\$1,164						
1.977     2021     \$64,253     \$11,064       2.043     2022     \$66,374     \$3,983       2.110     2023     \$0     \$4,115       2.180     2024     \$0     \$4,251	-16	_	2020		\$3,733	\$1,202			٠			
2.043 2022 \$66,374 \$3,983 2.110 2023 \$0 \$4,115 2.180 2024 \$0 \$4,251	-17	•	2021	\$64,253	\$11,064	\$1,242						
2.110 2023 <b>\$0 \$4</b> ,115 2.180 2024 <b>\$0 \$4</b> ,251	<del>.</del>		2022		\$3,983	\$1,283						
2.180 2024 \$0 \$4.251	-19		2023		\$4,115							
107.5	위	2.180	2024	- 1	\$4,251	\$1,369						

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All dates are in Federal Fiscal Years (October 1 to September 30)

# Sediment Trapping at the Mouth of the Bonnet Carre' (XPO-54a)

Project Construction Years:	S	Total Project Years	25
Interest Rate	6.625%	Amortization Factor	0.0916595
Total First Costs	\$12,459,078	Total Fully Funded Costs	\$14,640,729

Annual Charges	Present Worth	Average
Interest & Amortization Monitoring O & M Costs Other Costs	\$12,612,197 \$90,930 \$637,409 \$6,851	\$1,156,028 \$8,335 \$58,425 \$628
Total	\$13,347,400	\$1,223,415
Average Annual Habitat Units		694
Cost Per Habitat Unit		\$1.763
Average Annual Acres of Emergent Marsh		٧Z

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# Sediment Trapping at the Mouth of the Bonnet Carre' (XPO-54a)

First Costs and Annual Charges

	Total First	Cost	\$275,000	\$472.533	6477	CZC'Z/44	43,430,407	\$11,222,595																											
	First Cost	Construction	9			£4 147 715	<b>43</b> 555 185	\$7,702,900	į																										
		Contingency	\$0	S	Ş	\$1 036 929	\$888.796	\$1,925,725																											
	Supervision	& Inspectio	\$0	\$0	Ç,	\$53.846	\$46 154	\$100,000																											
Corps	Project	Management	\$628	\$628	\$628	\$628	\$628	\$3,140																											
LDNR	Supervision &	Administration	\$15,714	\$26,939	\$26,939	\$26,939	\$13,469	\$110,000																											
Federal	Supervision &	Administration	\$68,776	\$117,901	\$117,901	\$117,901	\$58,951	\$481,430	Other	Costs	9	0\$	0\$	<b>%</b>	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
	Easements	& Land Rights Administration	\$4,242	\$7,273	\$7,273	\$1,212	<b>\$</b>	\$20,000	08M	Costs	0\$	<b>\$</b>	<b>\$</b>	<b>%</b>	<b>\$</b> 0	<b>\$</b> 0	\$3,645	\$135,362	\$0	\$0	<b>\$</b> 0	\$3,645	\$553,252	\$0	\$0	<b>\$</b> 0	\$3,645	\$525,752	\$0	<b>\$</b>	<b>%</b>	\$3,645	<b>\$</b> 0	\$0	\$1,228,947
	_	- 1	\$186,539	\$319,782	\$319,782	\$53,297	\$0	\$879,400	Monitoring	Costs	\$18,828	\$5,431	\$5,431	<b>%</b>	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	<b>\$</b>	20	\$127,448
	Fiscal	rear	2000	2001	2002	2003	2004	TOTAL	Fiscal	Year	2002	2003	2004	Year	2005	2006	2007	2008	5008	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
'ş	>	real	Dunodwon c	4 Compound	3 Compound	2 Compound	1 Compound			Year	3 Compound	2 Compound	1 Compound	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

# Sediment Trapping at the Mouth of the Bonnet Carre' (XPO-54a)

' ŭ											
ŭ	ý				Federal	LDNR	Corps				
× ×	Compound	Fiscal	Engineering P. Design	Easements Supervision &	Supervision &	Supervision &	Project	Supervision	, in a contract	First Cost	Total First
ي	1 378	2000	\$257.079	S5 847	SQ4 783	C21 657	Sass	O S	Commission	Constitution	6380 230
<b>4</b>	1.293	2001	\$413,323	\$9.400	\$152,389	\$34.819	\$812	<b>S</b>	9 9	9	\$610.743
က	1.212	2002	\$387,642	\$8.816	\$142,921	\$32,655	\$761	80	0\$	OS S	\$572.796
7	1.137	2003	\$60,593	\$1,378	\$134,041	\$30,626	\$714	\$61.217	\$1,178,873	\$4.715.492	\$6,182,934
-	1.066		<b>S</b>	20	\$62,856	\$14,362	\$670	\$49,212	\$947,679	\$3,790,716	\$4,865,493
		Total	\$1,118,637	\$25,441	\$586,990	\$134,119	\$3,822	\$110,429	\$2,126,552	\$8,506,208	\$12,612,197
Dis	Discount	Fiscal	Monitoring	08M	Other						
Year Rates	tes	Year	Costs	Costs	Costs						
-	1.212	2002	\$22,823	0\$	\$0						
2 7.15	73150.0 1.137	2003	\$6,174	<b>%</b>	<b>\$</b>						
-	1.066	2004	\$5,791	<b>\$</b> 0	<b>9</b>						
0	Base Year	Year	<b>\$</b> 0	<b>\$</b>	<b>%</b>						
<del>-</del>	0.938	2005	\$5,094	<b>S</b>	\$589						
-5	0.880	2006	\$4,777	<b>%</b>	\$552						
ů	0.825	2007	\$4,480	\$3,007	\$518						
7	0.774	2008	\$4,202	\$104,728	\$486						
ć	0.726	2009	\$3,941	<b>%</b>	\$456						
φ	0.681	2010	\$3,696	<b>9</b>	\$427						
٠.	0.638	2011	\$3,466	0\$	\$401						
ထု	0.599	2012		\$2,182	\$376						
φ	0.561	2013		\$310,593	\$353						
÷	0.527	2014		<b>%</b>	\$331						
÷	0.494	2015	\$2,682	\$	\$310						
-12	0.463	2016	\$2,515	<b>%</b>	\$291						
-13	0.434	2017	\$2,359	\$1,583	\$273						
-14	0.407	2018	\$2,212	\$214,168	\$256						
-15	0.382	2019	\$2,075	\$0	\$240						
-16	0.358	2020	\$1,946	\$0	\$225						
-17	0.336	2021	\$1,825	\$0	\$211						
-18	0.315	2022	\$1,712	\$1,149	\$198						
-19	0.296	2023		<b>\$</b>	\$186						
-50	0.277	2024		<b>9</b>	\$174						
		Total	\$90,930	\$637,409	\$6.851						

# Sediment Trapping at the Mouth of the Bonnet Carre' (XPO-54a)

Fully Fu	Fully Funded Costs		Total Fully F	Total Fully Funded Costs	\$14,640,729				Amortized Costs	<b>2</b>	\$1,341,962
	ý				Federal	LDNR	Coms				
:	Inflation	Fiscal	Engineering		Supervision &	Supervision &	Project	Supervision		First Cost	Total First
Year	Factor	Year	& Design	& Land Rights	& Land Rights Administration	Administration	Management	& Inspectio	Contingency	Construction	Cost
S	1.000	2000	\$186,539	\$4,242	\$68,776	\$15,714	\$628	0\$	O <b>\$</b>	<b>9</b>	\$275,900
4	1.033	2001	\$330,335	\$7,513	\$121,792	\$27.828	\$649	<b>9</b>	<b>9</b> 0	\$0	\$488.116
က	1.067	2002	\$341,236	\$7,761	\$125,811	\$28,746	\$670		20	0\$	\$504,224
7	1.102	2003	\$58,749	\$1,336	\$129,963	\$29,695	\$692	\$59,355	\$1,143,010	\$4,572,039	\$5,994,839
-	1.139	2004	<b>%</b>	<b>\$</b>	\$67,126	\$15,337	\$715		\$1,012,053	\$4,048,214	\$5,196,000
		TOTAL	\$916,859	\$20,852	\$513,467	\$117,320	\$3,354	\$111,909	\$2,155,063	\$8,620,253	\$12,459,078
	Inflation	Fiscal	Monitoring	08M	Other						
Year	Factor	Year	Costs	Costs	Costs						
က	1.067	2002	\$20,091	\$0	90						
7	1.102	2003	\$5,987	S	S,						
-	1.139	2004	\$6,184	<b>S</b>	<b>9</b>						
0	Base Year	ear	<b>%</b>	<b>S</b>	<b>\$</b>						
7	1.102	2002	\$5,987	<b>\$</b>	\$692						
-5	1.139	2006	\$6,184	\$0	\$715						
ų.	1.176	2007	\$6,388	\$4,575							
4	1.215	2008		\$175,509	\$763						
ċ	1.255			\$0	\$788						
φ	1.297			<b>%</b>	\$814						
-7	1.339 %			<b>\$</b> 0	\$841						
æρ	1.384		\$7,514	\$5,381	\$869						
တ္	1.429	2013	\$7,762	\$843,776	\$898						
÷	1.476	2014									
÷	1.525	2015		<b>\$</b> 0	\$958						
-12	1.575	2016		<b>%</b>	\$989						
-13	1.627	2017	\$8,839	\$6,330	\$1,022						
-14	1.681	2018		\$943,163	\$1,056						
-15	1.737	2019		\$0	\$1,091						
-16	1.794	2020	\$9,743	\$0	\$1,127						
-17	1.853	2021		<b>\$</b>							
÷	1.914	2022	\$10,3	\$7,446	\$1,202						
÷	1.977	2023			\$1,242						
-50	2.043	2024		0\$	\$1,283						
		Total	\$176,291	\$1,986,181	\$19,179						

## South Lake Decade Freshwater Introduction (PTE-28)

23	0.0916595	\$3,968,577
Total Project Years	Amortization Factor	Total Fully Funded Costs
ဗ	6.625%	\$2,358,764
Project Construction Years:	interest Rate	Total First Costs

Annual Charges	Present Worth	Average
Interest & Amortization Monitoring O & M Costs Other Costs	\$2.406,711 \$352,097 \$270,732 \$6.851	\$220,598 \$32,273 \$24,815 \$628
Total	\$3,036,400	\$278,314
Average Annual Habitat Units		107
Cost Per Habitat Unit		\$2,601
Average Annual Acres of Emergent Marsh		<b>₹</b>

## South Lake Decade Freshwater Introduction (PTE-28)

First Costs and Annual Charges

| Supervision & Supervision & Administration \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0  | Supervision & Su | Supervision & Su | Supervision & Su  | Supervision & Supervision & Supervision & Supervision & Society & | Supervision & Su  | Supervision & Su  | Supervision & Su  | Supervision & Su  | Supervision & Su  | Supervision & Su   | Supervision & Su   | Supervision & Su | Supervision & Su   | Supervision & Su  | Supervision & Su  | Supervision & Su   | Supervision & Su  | Supervision & Su   | Supervision & Su   | Supervision & Su   | Supervision & Su   |
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\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	and Rights Administration         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$19,444         \$18,667         \$21,333           \$0,556         \$21,333         \$2,000           \$0         \$72,000         \$72,000           O&M         Other         Costs           \$0         \$0         \$0           \$0         \$0         \$0	and Rights Administration         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$19,444         \$18,667         \$21,333           \$0,556         \$21,333         \$2,000           \$0         \$72,000         \$72,000           O&M         Other         Costs           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0
\$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628     <th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$18.667           \$30,556         \$32,000           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1         \$0           \$2         \$0           \$3         \$45           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,64</th><th>### Administration</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$18,667         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18.667           \$30,556         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           Costs         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628      <t< th=""><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18,667           \$30,556         \$32,000           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1         \$0           \$2         \$0           \$3         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,6</th><th>## Administration  ## State  ## Stat</th><th>## Administration  ## State  ## Stat</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18.667           \$30,556         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645</th></t<></th></th> | and Rights Administration         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$19,444         \$18,667         \$21,333           \$0,556         \$21,333         \$21,333           \$0         \$72,000         \$72,000           Costs         Costs         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$1,645         \$628         \$628  | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0,556         \$21,333           \$0,000         \$72,000           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$3,645         \$628           \$3,645     
   \$628  | and Rights Administration         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$19,444         \$18,667         \$21,333           \$50,000         \$72,000           O&M         Other           Costs         Costs           \$0         \$0           \$0         \$0           \$0         \$0           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628  | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$19,444         \$18,667           \$30,556         \$21,333           \$0         \$72,000           O&M         Other           Costs         Costs           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628  | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$18,667         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           Costs         Costs           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628   
  | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$18,667         \$32,000           \$0         \$21,333           \$0         \$72,000           Costs         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628   | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$18,667         \$32,000           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628  | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$18,667         \$21,333           \$0,556         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628 <th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$18.667           \$30,556         \$32,000           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1         \$0           \$2         \$0           \$3         \$45           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628          
\$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,64</th> <th>### Administration</th> <th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$18,667         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0</th> <th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18.667           \$30,556         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           Costs         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628      <t< th=""><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18,667           \$30,556         \$32,000           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1         \$0           \$2         \$0           \$3         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,6</th><th>## Administration  ## State  ## Stat</th><th>## Administration  ## State  ## Stat</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18.667           \$30,556         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645</th></t<></th> | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$18.667           \$30,556         \$32,000           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1         \$0           \$2         \$0           \$3         \$45           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,64  | ### Administration   
   | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$18,667         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0   | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18.667           \$30,556         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           Costs         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628 <t< th=""><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18,667           \$30,556         \$32,000           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1         \$0           \$2         \$0           \$3         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,6</th><th>## Administration  ## State  ## Stat</th><th>## Administration  ## State  ## Stat</th><th>and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18.667           \$30,556         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645</th></t<> | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18,667           \$30,556         \$32,000           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628   
  | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628   | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1         \$0           \$2         \$0           \$3         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,6  | ## Administration  ## State  ## Stat   | ## Administration  ## State  ## Stat   
   | and Rights Administration           \$0         \$0           \$0         \$0           \$0         \$18.667           \$30,556         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$21,333           \$0         \$72,000           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$0         \$0           \$1,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645         \$628           \$3,645  |
| \$0 \$0<br>\$0<br>\$0 \$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs  | \$0 \$0<br>\$0<br>\$0<br>\$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>\$0<br>Costs Costs<br>\$0 \$0<br>\$0  | \$0 \$0<br>\$0<br>\$0<br>\$0<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>Costs Costs<br>\$0 \$0<br>\$0 \$0  | \$0 \$0<br>\$0<br>\$0<br>\$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>\$72,000<br>\$72,000<br>\$72,000<br>\$72,000<br>\$72,000<br>\$72,000<br>\$72,000<br>\$72,000<br>\$73,645<br>\$73,645<br>\$73,645<br>\$73,645<br>\$73,645  
   
  | \$0 \$0<br>\$0<br>\$0<br>\$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>\$0<br>\$0<br>\$0<br>\$0<br>\$3,645 \$628<br>\$3,645 \$628   | \$0 \$0<br>\$0<br>\$0<br>\$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$72,000<br>\$1,000<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628  | \$0 \$0<br>\$0<br>\$0<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$72,000<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628  
  | \$0 \$0<br>\$0<br>\$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$6,000 \$72,000<br>\$0 \$72,000<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628   | \$0 \$0<br>\$0<br>\$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628   | \$0 \$0<br>\$0<br>\$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$1,645 \$628<br>\$3,645 \$628  | \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$   
   | \$0 \$0<br>\$0<br>\$0<br>\$0<br>\$18,667<br>\$56 \$32,000<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0   
  | \$0 \$0<br>\$0<br>\$0<br>\$0<br>\$18,667<br>\$56 \$32,000<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0  | \$0 \$0<br>\$144 \$18,667<br>\$56 \$32,000 \$3<br>\$0 \$21,333 \$3<br>\$0 \$72,000 \$3<br>\$0 \$0<br>\$0 br>\$0 \$0<br>\$0<br>\$0 \$0<br>\$0<br>\$0 \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$   | \$0 \$0<br>\$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$72,000<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628   
   | \$0 \$0<br>\$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,000<br>\$0 \$72,000<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628   | \$0 \$0<br>\$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$0<br>\$0 br>\$0 \$0<br>\$0 br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0<br>\$0 \$0<br>\$0<br>\$0 \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | \$0 \$0<br>\$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$0 \$0<br>\$0   | \$0 \$0<br>\$19,444 \$118,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$0<br>\$0 \$0  | \$0 \$0<br>\$19,444
\$118,667<br>\$30,556 \$32,000 \$5<br>\$0 \$21,333 \$6<br>\$0 \$21,333 \$6<br>\$0 \$21,333 \$6<br>\$0 \$21,333 \$6<br>\$0 \$20<br>\$0 \$0<br>\$0 br>\$0 \$0<br>\$0 \$0<br>\$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0<br>\$0<br>\$0 \$0<br>\$0<br>\$0<br>\$0 \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$ | \$0 \$0<br>\$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$000<br>\$0 \$0000<br>\$0 \$0000   | \$0 \$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$21.333 \$0<br>\$0<br>\$21.333 \$0<br>\$0<br>\$21.333 \$0<br>\$0<br>\$2.000<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0  |
| \$0 \$0<br>\$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs  | \$0 \$0<br>\$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs<br>\$0 \$0<br>\$0 \$0  | \$0 \$0<br>\$19,44 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>\$0<br>Costs Costs<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0   | \$0 \$0<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>Costs Costs<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628  
   
  | \$0 \$0<br>\$30,556 \$32,000 \$72,000 \$3<br>\$0 \$21,333 \$9<br>\$50,000 \$72,000 \$72,000 \$9<br>Costs Costs \$0<br>\$0 \$0<br>\$3,645 \$628  | \$0<br>\$30,556<br>\$30,556<br>\$32,000<br>\$0<br>\$21,333<br>\$0<br>\$21,333<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$0<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3 |
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| \$19,444 \$18,667<br>\$30,556 \$32,000 \$<br>\$0 \$21,333 \$<br>\$50,000 \$72,000 \$<br>O&M Other<br>Costs Costs  | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs<br>\$0 \$0<br>\$0  | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>Costs Costs<br>\$0 \$0<br>\$0 \$0   | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>Costs Costs<br>\$0 \$0<br>\$3,645 \$628   
   
  | \$19,444 \$18,667<br>\$30,556 \$32,000 \$<br>\$0 \$21,333 \$<br>\$50,000 \$72,000 \$<br>Costs Costs<br>\$0 \$0<br>\$3,645 \$628   | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628  | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>\$0 \$0218<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628   
  | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628   | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>\$0 \$72,000<br>\$0 \$00<br>\$0 \$00<br>\$0 \$00<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628   | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$72,000<br>\$0 \$72,000<br>\$0 \$00<br>\$0 \$  | \$56 \$32,000 \$500 \$500 \$500 \$500 \$500   | \$56 \$32,000 \$500 \$500 \$500 \$500 \$51,333 \$500 \$52,000 \$500 \$500 \$500 \$500 \$500 \$500 \$500   
   
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  | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$00<br>\$0 \$   | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>\$0 \$72,000<br>\$0 \$50<br>\$0 \$50<br>\$0 \$50<br>\$0 \$50<br>\$0 \$50<br>\$3,645 \$628<br>\$3,645 \$628   | \$19,444 \$18,667<br>\$30,556 \$32,000<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,333<br>\$0 \$21,000<br>\$0 \$72,000<br>\$0 \$00<br>\$0 \$00   | \$19,444 \$18,667<br>\$30,556 \$32,000 \$50,000 \$50,000 \$72,000
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| \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs  | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs<br>\$0 \$0<br>\$0   | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs<br>\$0 \$0<br>\$0 \$0   | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628  
   
  | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>Costs Costs<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628  | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628  | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628  
  | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628  | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs Costs<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628<br>\$3,645 \$628   | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>Costs Costs<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628  | \$56 \$32,000<br>\$0 \$21,333<br>000 \$72,000<br>Other<br>Costs<br>\$0 \$0<br>\$0 \$0<br>545 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628   
  | \$56 \$32,000<br>\$0 \$21,333<br>000 \$72,000<br>00ther<br>Costs<br>\$0 \$0<br>\$0 \$0<br>545 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628  
   | \$56 \$32,000<br>\$0 \$21,333<br>300 \$72,000<br>Other<br>Costs<br>\$0 \$0<br>\$0 \$0<br>\$45 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628<br>645 \$628   | \$56 \$32,000<br>\$00 \$72,000<br>Other<br>Costs<br>\$0 \$0<br>\$45 \$628<br>645 \$628   | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628  
   | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628   | \$30,556 \$32,000<br>\$0 \$21,333<br>\$50,000 \$72,000<br>O&M Other<br>Costs \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$0 \$0<br>\$3,645 \$628<br>\$3,645 \$628   
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  | \$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645  | \$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645   | \$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645   
  | \$224,538<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645   | \$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645  | \$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645   | \$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645   
   |   
  |  |  | \$224,538<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645  
  | \$3,645<br>\$3,645<br>\$3,645<br>\$3,645<br>\$3,645  
  | \$3.645<br>\$3.645<br>\$3.645<br>\$3.645<br>\$3.645  | \$3,645<br>\$3,645<br>\$3,645<br>\$3,645  | \$3,645<br>\$3,645<br>\$3,645   
  | \$3,645<br>\$3,645   | \$3,645  |  |

## South Lake Decade Freshwater Introduction (PTE-28)

Compared Costs   Total Discounted Costs   \$3,036.391   Amortized Costs   Amortized												
Compound         Field         LDNR         Corps         First Cost         Total First         Total First         Total First         Corps         First Cost         Total First         Total First         Total First         Total First         Total First         Total First Cost         Strate Strate         Str	resent	Valued Co		Total Discour		\$3,036,391				Amortized Cost		\$278,314
Compound         First Each Figure (Compound Fixed Inspirement)         Essements (Compound Fixed Inspirement)         Essements (Compound Fixed Inspirement)         Essements (Compound Fixed Inspirement)         Essements (Compound Fixed Inspirement)         First Cost         Total First Co		1				Federal	LDNR	Coms				
1378   1378	Year	Compound Rates	Fiscal	Engineering & Design	Easements & Land Rights		Supervision &	Project	Supervision	:	First Cost	Total First
1.292   2000   510.0   41.0   51.0   50   50   50   50   50   50   50	5	1378		Ş	Con Contract of the Contract o	- 1	שוווווווווווווווווווווווווווווווווווווו	Managemet	& Inspection	Contingency	Construction	Cost
1212   2000   \$100.411   \$23.571   \$22.628   \$11.314   \$781   \$50   \$50   \$50   \$50   \$10.565	4	1 293		3 5	9	2	9 8	OF (	0 <b>\$</b>	<b>%</b>	0\$	\$0
1.17   2001 \$147.98   \$24.371 \$42.828 \$11,314 \$761 \$50 \$50 \$50 \$50 \$15.65     1.166	~ ~	1 212	0000	. 000		0.00	9	20	\$0	<b>%</b>	\$0	<b>%</b>
1,106   2001   347,985   534,735   586,380   518,190   5714   50   50   50   50   50   50   50   5	, (	217.1	7000		1/2,57	\$22,628	\$11,314	\$761	<b>\$</b> 0	\$0	\$0	\$158 685
1,086   2002   350   350   350   351,373   3584,389   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,537   31,537,533   52,544,330   31,537	7	1.13/	2001	\$147,985	\$34,738	\$36,380	\$18,190	\$714	<b>\$</b> 0	80	G.	\$238,008
Total   \$248,396 \$58,309 \$81,755 \$40,877 \$2,145 \$53,313 \$384,383 \$1,537,533	-	- 1	-	S	80	\$22,747	\$11,373	\$670	\$53,313	\$384,383	\$1 537 533	\$2.00,000 \$2.010,018
Discount         Fiscal Fiscal Fiscal Monitoring         Monitoring O&M         Other Soils         Cosis         C		•	Total	\$248,396	\$58,309	\$81,755	\$40,877	\$2,145	\$53,313	\$384,383	\$1,537,533	\$2,406,711
Rates         Year         Costs         Costs         Costs           1 137         2001         \$47,994         \$0           1 1066         2002         \$27,716         \$0           Base Year         \$0         \$0         \$0           0 938         2003         \$24,379         \$3,419           0 0.938         2003         \$24,379         \$3,206           0 0.825         2005         \$21,444         \$3,007           0 0.825         2005         \$20,111         \$2,820           0 0.825         2005         \$20,111         \$2,820           0 0.726         2007         \$18,662         \$2,645           0 0.726         2007         \$18,662         \$2,481           0 0.726         2007         \$16,591         \$143,310           0 0.681         2008         \$16,591         \$143,310           0 0.681         2009         \$16,591         \$1,481           0 0.681         2010         \$15,560         \$2,481           0 0.638         2012         \$14,593         \$2,046           0 0.567         2012         \$1,686         \$1,690           0 0.494         2013         \$1,690 <t< td=""><td>J</td><td>Discount</td><td>Fiscal</td><td>Monitoring</td><td>0&amp;M</td><td>Other</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	J	Discount	Fiscal	Monitoring	0&M	Other						
1.137 2001 \$47,994 \$0 1.066 2002 \$27,716 \$0 0.938 2003 \$24,379 \$3,419 0.880 2004 \$22,864 \$3,206 0.825 2005 \$21,444 \$3,007 0.774 2006 \$20,111 \$2,820 0.776 2007 \$18,862 \$2,645 0.681 2008 \$17,690 \$2,481 0.638 \$**, 2009 \$16,591 \$143,310 0.599 2010 \$15,660 \$2,182 0.599 2010 \$15,660 \$2,182 0.54 2011 \$14,593 \$2,046 0.544 2013 \$12,038 \$1,800 0.463 2014 \$12,038 \$1,800 0.463 2014 \$12,038 \$1,800 0.463 2014 \$12,038 \$1,800 0.463 2017 \$9,931 \$1,393 0.36 2017 \$9,931 \$1,393 0.36 2018 \$9,314 \$1,306 0.36 2020 \$8,756 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$8,192 \$1,010	Year R	Rates	Year	Costs	Costs	Costs						
1.066 2002 \$27,716 \$0  Base Year \$0 0.938 2003 \$24,379 \$3.419 0.880 2004 \$22,864 \$3.206 0.825 2005 \$21,444 \$3.007 0.774 2006 \$20,111 \$2,820 0.726 2007 \$18,862 \$2,645 0.681 2008 \$17,690 \$2,481 0.638 \$*** 2009 \$16,591 \$143,310 0.599 2010 \$15,560 \$2,182 0.561 2011 \$14,593 \$2,046 0.527 2012 \$13,686 \$1,919 0.494 2013 \$12,036 \$1,800 0.463 2014 \$12,036 \$1,800 0.463 2014 \$12,036 \$1,688 0.434 2015 \$11,290 \$1,583 0.407 2016 \$10,589 \$1,149 0.382 2017 \$9,931 \$1,306 0.36 2018 \$9,314 \$1,306 0.36 2018 \$8,132 \$1,149 0.377 2020 \$8,192 \$1,010	2	· ·	2001	\$47,994								
Base Year         \$0         \$0           0.938         2003         \$24,379         \$3,419           0.880         2004         \$22,864         \$3,206           0.825         2005         \$21,444         \$3,007           0.774         2006         \$20,111         \$2,820           0.726         2007         \$18,862         \$2,645           0.681         2007         \$18,662         \$2,481           0.638         2007         \$16,591         \$1,43,310           0.639         2010         \$16,591         \$1,43,310           0.599         2010         \$16,591         \$1,919           0.577         2012         \$14,593         \$2,046           0.527         2012         \$13,686         \$1,919           0.44         2013         \$12,036         \$1,686           0.43         2014         \$12,036         \$1,686           0.407         2016         \$10,589         \$1,393           0.36         2017         \$9,931         \$1,393           0.36         2016         \$8,735         \$1,149           0.36         2021         \$7,683         \$1,010           0.296	-	1.066	2002	\$27,716	0\$	<b>20</b>						
0.938         2003         \$24,379         \$3,419           0.880         2004         \$22,864         \$3,206           0.825         2005         \$21,444         \$3,007           0.774         2006         \$20,111         \$2,820           0.726         2007         \$18,862         \$2,645           0.681         2007         \$18,862         \$2,645           0.638         2007         \$18,6591         \$1,43,310           0.639         2010         \$16,591         \$1,43,310           0.599         2010         \$16,591         \$1,43,310           0.54         2011         \$14,593         \$2,046           0.57         2012         \$13,686         \$1,919           0.494         2013         \$12,036         \$1,800           0.494         2013         \$12,036         \$1,686           0.407         2014         \$12,036         \$1,686           0.407         2016         \$10,589         \$1,393           0.382         2017         \$9,931         \$1,393           0.396         2017         \$9,931         \$1,149           0.315         2020         \$8,192         \$1,149      <	0	Base Y	rear	\$0	<b>\$</b> 0	0\$						
0.880         2004         \$22,864         \$3,206           0.825         2005         \$21,444         \$3,007           0.774         2006         \$20,111         \$2,820           0.726         2007         \$18,862         \$2,645           0.681         2008         \$17,690         \$2,481           0.638         2009         \$16,591         \$143,310           0.599         2010         \$16,560         \$2,182           0.561         2011         \$14,593         \$2,046           0.57         2012         \$13,686         \$1,919           0.494         2013         \$12,836         \$1,800           0.453         2014         \$12,038         \$1,888           0.443         2013         \$11,290         \$1,583           0.407         2016         \$10,589         \$91,467           0.382         2017         \$9,931         \$1,393           0.382         2017         \$9,931         \$1,149           0.396         2019         \$8,735         \$1,149           0.396         2021         \$7,683         \$1,010           0.296         2021         \$7,683         \$1,010	<del>.</del>	0.938	2003	\$24,379	\$3,419	\$589						
0.825         2005         \$21,444         \$3,007           0.774         2006         \$20,111         \$2,820           0.726         2007         \$18,862         \$2,645           0.681         2008         \$17,690         \$2,481           0.638         2009         \$16,591         \$1,43,310           0.599         2010         \$16,560         \$2,182           0.561         2011         \$14,593         \$2,046           0.57         2012         \$13,686         \$1,919           0.494         2013         \$12,836         \$1,800           0.453         2014         \$12,038         \$1,688           0.443         2013         \$11,290         \$1,688           0.407         2016         \$10,589         \$91,467           0.382         2017         \$9,931         \$1,393           0.382         2017         \$9,931         \$1,393           0.396         2019         \$8,735         \$1,149           0.316         2020         \$8,192         \$1,149           0.296         2021         \$7,683         \$1,010           0.277         2022         \$6,227,097         \$270,732         \$6 <td></td> <td>0.880</td> <td>2004</td> <td>\$22,864</td> <td>\$3,206</td> <td>\$552</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		0.880	2004	\$22,864	\$3,206	\$552						
0.774     2006     \$20,111     \$2,820       0.726     2007     \$18,862     \$2,645       0.681     2008     \$17,690     \$2,481       0.638     ***     2009     \$16,591     \$143,310       0.599     2010     \$16,560     \$2,182       0.561     2011     \$14,593     \$2,046       0.57     2012     \$13,686     \$1,919       0.494     2013     \$12,836     \$1,800       0.463     2014     \$12,038     \$1,688       0.434     2015     \$11,290     \$1,583       0.407     2016     \$10,589     \$91,467       0.382     2017     \$9,931     \$1,393       0.382     2017     \$9,931     \$1,393       0.396     2019     \$8,735     \$1,149       0.316     2020     \$8,192     \$1,149       0.296     2021     \$7,683     \$1,010       0.277     2022     \$0     \$1,010       Total     \$352,097     \$270,732     \$6	ņ	0.825	2005	\$21,444	\$3,007	\$518						
0.726     2007     \$18,662     \$2,645       0.681     2008     \$17,690     \$2,481       0.638     **     2009     \$16,591     \$143,310       0.599     2010     \$16,560     \$2,182       0.561     2011     \$14,593     \$2,046       0.57     2012     \$13,686     \$1,919       0.494     2013     \$12,836     \$1,919       0.463     2014     \$12,038     \$1,688       0.434     2015     \$11,290     \$1,583       0.407     2016     \$10,589     \$91,467       0.382     2017     \$9,931     \$1,393       0.382     2017     \$9,931     \$1,393       0.396     2019     \$8,735     \$1,149       0.315     2020     \$8,192     \$1,149       0.296     2021     \$7,683     \$1,010       0.277     2022     \$0     \$1,010       Total     \$352,097     \$270,732     \$6	4	0.774	2006	\$20,111	\$2,820	\$486						
0.681     2008     \$17,690     \$2,481       0.638     **,     2009     \$16,591     \$143,310       0.599      2010     \$16,591     \$2,182       0.561     2011     \$14,593     \$2,046       0.527     2012     \$13,686     \$1,919       0.494     2013     \$12,836     \$1,919       0.463     2014     \$12,038     \$1,688       0.407     2016     \$10,589     \$91,467       0.382     2017     \$9,931     \$1,393       0.382     2017     \$9,931     \$1,306       0.396     2019     \$8,735     \$1,149       0.315     2020     \$8,192     \$1,149       0.296     2021     \$7,683     \$1,077       0.277     2022     \$0     \$1,010       Total     \$352,097     \$270,732     \$6	ń	0.726	2007	\$18,862	\$2,645	\$456						
0.638 **, 2009 \$16,591 \$143,310 0.599 2010 \$15,560 \$2,182 0.561 2011 \$14,593 \$2,046 0.527 2012 \$13,686 \$1,919 0.494 2013 \$12,836 \$1,919 0.453 2014 \$12,038 \$1,688 0.434 2015 \$11,290 \$1,688 0.407 2016 \$10,589 \$91,467 0.382 2017 \$9,931 \$1,393 0.36 2019 \$8,735 \$1,149 0.396 2021 \$7,683 \$1,077 0.277 2022 \$8,192 \$1,010	φ	0.681	2008	\$17,690	\$2,481	\$427						
0.599 2010 \$15,560 \$2,182 0.561 2011 \$14,593 \$2,046 0.527 2012 \$13,686 \$1,919 0.494 2013 \$12,836 \$1,919 0.463 2014 \$12,038 \$1,688 0.434 2015 \$11,290 \$1,583 0.407 2016 \$10,589 \$91,467 0.382 2017 \$9,931 \$1,393 0.358 2018 \$9,314 \$1,393 0.358 2018 \$9,314 \$1,306 0.358 2019 \$8,735 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$8,192 \$1,010	-7			\$16,591	\$143,310	\$401						
0.561 2011 \$14,593 \$2,046 0.527 2012 \$13,686 \$1,919 0.494 2013 \$12,836 \$1,919 0.463 2014 \$12,038 \$1,688 0.434 2015 \$11,290 \$1,688 0.407 2016 \$10,589 \$91,467 0.382 2017 \$9,931 \$1,393 0.358 2018 \$9,314 \$1,396 0.358 2019 \$8,735 \$1,225 0.315 2020 \$8,192 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$8,192 \$1,010	φ	_		\$15,560	\$2,182	\$376						
0.527 2012 \$13,686 \$1,919 0.494 2013 \$12,836 \$1,800 0.463 2014 \$12,038 \$1,800 0.434 2015 \$11,290 \$1,688 0.407 2016 \$10,589 \$91,467 0.382 2017 \$9,931 \$1,393 0.358 2018 \$9,314 \$1,306 0.358 2019 \$8,735 \$1,225 0.315 2020 \$8,192 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$0.507 \$5,70732 \$6	Ġ.	0.561	2011	\$14,593	\$2,046	\$353						
0.494 2013 \$12,836 \$1,800 0.463 2014 \$12,038 \$1,688 0.434 2015 \$11,290 \$1,583 0.407 2016 \$10,589 \$91,467 0.382 2017 \$9,931 \$1,393 0.358 2018 \$9,314 \$1,393 0.358 2018 \$9,314 \$1,306 0.336 2019 \$8,735 \$1,225 0.315 2020 \$8,192 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$0 \$1,010	ę-	0.527	2012	\$13,686	\$1,919	\$331						
0.463 2014 \$12,038 \$1,688   0.434 2015 \$11,290 \$1,583   0.407 2016 \$10,589 \$91,467   0.382 2017 \$9,931 \$1,393   0.358 2018 \$9,314 \$1,393   0.356 2019 \$8,735 \$1,225   0.315 2020 \$8,192 \$1,149   0.296 2021 \$7,683 \$1,077   0.277 2022 \$0 \$1,010	÷	0.494	2013	\$12,836	\$1,800	\$310						
0.434 2015 \$11,290 \$1,583 0.407 2016 \$10,589 \$91,467 0.382 2017 \$9,931 \$1,393 0.358 2018 \$9,314 \$1,306 0.336 2019 \$8,735 \$1,225 0.315 2020 \$8,192 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$6 \$1,000	-12	0.463	2014	\$12,038	\$1,688	\$291						
0.407 2016 \$10,589 \$91,467 0.382 2017 \$9,931 \$1,393 0.356 2018 \$9,314 \$1,306 0.336 2019 \$8,735 \$1,225 0.315 2020 \$8,192 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$0 \$1,010	-13	0.434	2015	\$11,290	\$1,583	\$273						
0.382 2017 \$9,931 \$1,393 0.358 2018 \$9,314 \$1,306 0.336 2019 \$8,735 \$1,225 0.315 2020 \$8,192 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$0 \$1,010	-14	0.407	2016	\$10,589	\$91,467	\$256						
0.358 2018 \$9,314 \$1,306 0.336 2019 \$8,735 \$1,225 0.315 2020 \$8,192 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$0 \$1,010	-15	0.382	2017	\$9,931	\$1,393	\$240						
0.336 2019 \$8,735 \$1,225 0.315 2020 \$8,192 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$0 \$1,010 Total \$352,097 \$270,732	-19	0.358	2018	\$9,314	\$1,306	\$225						
0.315 2020 \$8,192 \$1,149 0.296 2021 \$7,683 \$1,077 0.277 2022 \$0 \$1,010 Total \$352,097 \$270,732	-17	0.336	2019	\$8,735	\$1,225	\$211						
0.296 2021 \$7,683 \$1,077 0.277 2022 \$0 \$1,010 Total \$352,097 \$270,732	-18	0.315	2020	\$8,192	\$1,149	\$198						
0.277 2022 \$0 \$1,010 Total \$352,097 \$270,732	-19	0.296	2021	\$7,683	\$1,077	\$186						
\$352,097 \$270,732	-50			<b>S</b>	\$1,010	\$174						
			Total	\$352,097	\$270,732	\$6.851						

## South Lake Decade Freshwater Introduction (PTE-28)

Factor   Fiscal   Engineering   Easements Supervision & Propert   LONR   Corps	•				51500 0000	70'one'e	٠		-	Alliuliized Costs	S	\$303,738
Hardino		ŗ				Federal	LDNR	Corps				
1000   2000   828.03   819.44   818.657   850   80   80   80   80   80   80   8	, ,	Inflation	Fiscal	Engineering	111 -	Supervision &	Supervision &	Project	Supervision		First Cost	Total First
1000   2000   826,823   519,444   518,667   59,335   550,356   500   5	2	racio	ğ	a Design	- 1	Administration	Administration	Managemet	& Inspection	Contingency	Construction	
4         1 000         200         50	n ·			<u> </u>	2	2	20	20	S	20	<b>%</b>	20
3         1 0000         2000         582,833         59.33         56.28         59.03         5	4				20	<b>2</b> 0	<b>\$</b> 0	80	80	80	<b>\$</b> 0	\$0
2         1033         2001         \$134,462         \$13,064         \$13,056         \$16,528         \$649         \$0         <	က	1.000	2000		\$19,444	\$18,667	\$9.333	\$628	80	\$0	20	\$130.906
1067   2002   50   522.765   511.382   5670   553.354   5384.686   515.387.72     1074	7	1.033	2001	\$134,462	\$31,564	\$33,056	\$16,528	\$649	20	0\$	J 55	\$216.259
Fortion   Fiscal   Monitoring   OSM   Other   Signate   Signation   Fiscal   Monitoring   OSM   Other   Costs   Costs   Costs   Costs   Costs   Costs   Costs   Signation	-	- 1		\$0	80	\$22,765	\$11,382	\$670	553,354	5384.686	\$1,538,742	\$2,011,599
Inflation         Fiscal         Monitoring         O&M         OPI           Factor         Year         Costs         Costs         Costs           1         1.033         2001         \$43,608         \$0           1         1.067         2002         \$57,738         \$0           0         Base Year         \$0         \$0           1         1.102         2003         \$28,653         \$4,018           2         1.139         2004         \$29,599         \$4,150           3         1.176         2005         \$30,576         \$4,287           4         1.215         2006         \$31,585         \$4,429           5         1.255         2007         \$32,627         \$4,287           6         1.239         2006         \$31,585         \$4,429           7         1.339         2007         \$32,627         \$4,576           6         1.249         2010         \$35,965         \$5,043           7         1.339         2011         \$37,142         \$5,539           1         1.525         2013         \$39,644         \$5,539           1         1.525         2014         \$40,			TOTAL	\$217,296	\$51,008	\$74,487	\$37,244	\$1,947	\$53,354	\$384,686	\$1,538,742	\$2,358,764
Factor         Year         Costs         Costs         Co           1         1.067         2002         \$27,738         \$0           0         Base Year         \$0         \$0           1         1.102         2003         \$28,653         \$4,018           2         1.139         2004         \$28,653         \$4,150           3         1.176         2005         \$30,576         \$4,287           4         1.215         2006         \$31,585         \$4,287           5         1.255         2007         \$32,627         \$4,29           6         1.297         2008         \$31,704         \$4,256           7         1.339         2009         \$34,816         \$300,741           8         1.287         2010         \$35,965         \$5,043           9         1.429         2010         \$35,965         \$5,043           10         1.476         2011         \$31,7152         \$5,043           11         1.525         2012         \$38,378         \$5,381           12         1.575         2014         \$40,952         \$5,743           13         1.627         2015         \$42,3		Inflation	Fiscal	Monitoring	0811	Other						
2         1.033         2001         \$43,608         \$0           1         1.067         2002         \$27,738         \$0           0         Base Year         \$0         \$0           1         1.102         2003         \$28,653         \$4,018           2         1.139         2004         \$29,599         \$4,150           3         1.176         2005         \$31,585         \$4,287           4         1.215         2006         \$31,585         \$4,29           5         1.255         2007         \$32,627         \$4,29           6         1.297         2008         \$33,704         \$4,25           7         1.339         2009         \$34,816         \$300,741           8         1.384         2010         \$35,965         \$5,043           9         1.429         2010         \$35,965         \$5,043           10         1.476         2011         \$31,152         \$5,043           11         1.525         2012         \$38,378         \$5,381           12         1.575         2014         \$40,952         \$5,743           13         1.627         2015         \$42,304 <td>Year</td> <td>Factor</td> <td>Year</td> <td>Costs</td> <td>Costs</td> <td>Costs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Year	Factor	Year	Costs	Costs	Costs						
1.067 2002 \$27,738 \$0  Base Year \$0  1.102 2003 \$28,653 \$4,018  1.139 2004 \$29,599 \$4,150  1.176 2005 \$30,576 \$4,287  1.215 2006 \$31,585 \$4,287  1.297 2008 \$33,704 \$4,29  1.339 7 2009 \$34,816 \$300,741  1.384 2010 \$35,965 \$5,043  1.476 2011 \$37,152 \$5,043  1.476 2012 \$38,378 \$5,381  1.525 2013 \$39,644 \$5,559  1.525 2014 \$40,952 \$5,743  1.525 2014 \$40,952 \$5,743  1.681 2016 \$43,700 \$377,481  1.737 2017 \$45,142 \$6,539  1.737 2017 \$48,170 \$6,755  1.914 2020 \$49,760 \$7,248  2.043 2021 \$51,402 \$7,248	2	1.033	2001	\$43,608								
Base Year       \$0       \$0         1.102       2003       \$28,653       \$4,018         1.139       2004       \$29,599       \$4,150         1.176       2005       \$30,576       \$4,287         1.215       2006       \$31,585       \$4,287         1.297       2008       \$33,704       \$4,726         1.339       2009       \$34,816       \$300,741         1.384       2010       \$35,965       \$5,043         1.429       2011       \$37,152       \$5,043         1.476       2012       \$38,378       \$5,381         1.525       2013       \$39,644       \$5,599         1.525       2013       \$39,644       \$5,532         1.525       2013       \$39,644       \$5,532         1.525       2014       \$40,952       \$5,743         1.681       2016       \$43,700       \$377,481         1.737       2017       \$45,142       \$6,330         1.734       2018       \$46,631       \$6,539         1.734       2020       \$48,170       \$6,755         1.914       2020       \$49,760       \$7,446         2.043       2022	-	1 067	2002	\$27,738	\$0	\$0						
1.102       2003       \$28,653       \$4,018         1.139       2004       \$29,599       \$4,150         1.176       2005       \$30,576       \$4,287         1.215       2006       \$31,585       \$4,287         1.297       2007       \$32,627       \$4,575         1.339       2008       \$33,704       \$4,726         1.334       2009       \$34,816       \$300,741         1.384       2010       \$35,965       \$5,043         1.476       2011       \$37,152       \$5,31         1.476       2012       \$38,378       \$5,381         1.525       2013       \$39,644       \$5,532         1.525       2014       \$40,952       \$5,743         1.525       2014       \$40,952       \$5,733         1.681       2016       \$43,700       \$377,481         1.737       2017       \$45,142       \$6,330         1.734       2018       \$46,631       \$6,539         1.734       2020       \$48,170       \$6,755         1.914       2020       \$49,760       \$7,446         2.043       2022       \$7,446	0	Base 1	'ear	\$0	<b>\$</b>	\$0						
1.139       2004       \$29,599       \$4,150         1.176       2005       \$30,576       \$4,287         1.255       2007       \$32,627       \$4,287         1.297       2008       \$33,704       \$4,726         1.339       2009       \$34,816       \$300,741         1.384       2010       \$35,965       \$5,043         1.476       2011       \$37,152       \$5,10         1.476       2012       \$38,378       \$5,381         1.525       2013       \$39,644       \$5,559         1.575       2014       \$40,952       \$5,743         1.681       2015       \$43,700       \$377,481         1.737       2017       \$45,142       \$6,330         1.734       2016       \$43,700       \$5,330         1.734       2017       \$46,631       \$6,539         1.734       2020       \$48,170       \$6,755         1.914       2020       \$49,760       \$7,446         2.043       2022       \$7,446	7	1.102	2003	\$28,653	\$4,018							
1.176       2005       \$30,576       \$4,287         1.215       2006       \$31,585       \$4,29         1.297       2007       \$32,627       \$4,29         1.339       2008       \$33,704       \$4,726         1.334       2009       \$34,816       \$300,741         1.384       2010       \$35,965       \$5,043         1.476       2011       \$37,152       \$5,10         1.476       2012       \$38,378       \$5,381         1.525       2013       \$39,644       \$5,59         1.575       2014       \$40,952       \$5,743         1.681       2015       \$43,700       \$377,481         1.737       2017       \$45,142       \$6,33         1.734       2018       \$46,631       \$6,33         1.734       2020       \$48,170       \$6,39         1.914       2020       \$48,170       \$6,37         2.043       2021       \$51,402       \$7,446	?	1.139	2004	\$29,599	\$4,150							
1.215     2006     \$31,585     \$4,429       1.255     2007     \$32,627     \$4,575       1.339     2009     \$34,816     \$4,726       1.334     2009     \$34,816     \$5,043       1.384     2010     \$35,965     \$5,043       1.429     2011     \$37,152     \$5,210       1.476     2012     \$38,378     \$5,381       1.525     2013     \$39,644     \$5,559       1.575     2014     \$40,952     \$5,743       1.681     2015     \$42,304     \$5,932       1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6,33       1.734     2018     \$46,631     \$6,539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$7,446       2.043     2022     \$0,978     \$7,446	ė.	1.176	2005		\$4,287							
1.255     2007     \$32,627     \$4,575       1.297     2008     \$33,704     \$4,726       1.339     2009     \$34,816     \$300,741       1.384     2010     \$35,965     \$5,043       1.429     2011     \$37,152     \$5,210       1.476     2012     \$38,378     \$5,381       1.525     2013     \$39,644     \$5,559       1.575     2014     \$40,952     \$5,743       1.681     2015     \$42,304     \$5,932       1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6,330       1.734     2018     \$46,631     \$6,539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,778       2.043     2021     \$51,402     \$7,446	4	1.215	2006	\$31,585	\$4,429							
1.297     2008     \$33,704     \$4,726       1.339     2009     \$34,816     \$300,741       1.384     2010     \$35,965     \$5,043       1.429     2011     \$37,152     \$5,210       1.476     2012     \$38,378     \$5,381       1.525     2013     \$39,644     \$5,559       1.575     2014     \$40,952     \$5,743       1.681     2015     \$42,304     \$5,932       1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6,330       1.734     2018     \$46,631     \$6,539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,978       2.043     2022     \$5,446     \$7,446	÷	1.255	2007	\$32,627	\$4,575							
1.339     2009     \$34,816     \$300,741       1.384     2010     \$35,965     \$5,043       1.429     2011     \$37,152     \$5,210       1.476     2012     \$38,378     \$5,381       1.525     2013     \$39,644     \$5,589       1.575     2014     \$40,952     \$5,743       1.681     2015     \$42,304     \$5,932       1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6,330       1.734     2018     \$46,631     \$6,539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,978       2.043     2021     \$51,402     \$7,446	φ	1.297	2008		\$4,726							
1.384     2010     \$35,965     \$5,043       1.429     2011     \$37,152     \$5,210       1.476     2012     \$38,378     \$5,381       1.525     2013     \$39,644     \$5,589       1.575     2014     \$40,952     \$5,743       1.681     2015     \$42,304     \$5,932       1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6,330       1.734     2018     \$46,631     \$6,539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,978       2.043     2021     \$51,402     \$7,208       2.043     2022     \$0,978     \$7,446	-7	1.339			\$300,741							
1.429     2011     \$37,152     \$5,210       1.476     2012     \$38,378     \$5,381       1.525     2013     \$39,644     \$5,559       1.575     2014     \$40,952     \$5,743       1.681     2015     \$42,304     \$5,932       1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6,330       1.794     2018     \$46,631     \$6,539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,978       2.043     2021     \$51,402     \$7,208       2.043     2022     \$0,374     \$7,446	œ	1.384			\$5,043							
1.476     2012     \$38,378     \$5.381       1.525     2013     \$39,644     \$5.559       1.575     2014     \$40,952     \$5.743       1.681     2015     \$42,304     \$5,932       1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6.330       1.794     2018     \$46,631     \$6.539       1.853     2019     \$48,170     \$6.755       1.914     2020     \$49,760     \$6.978       2.043     2021     \$51,402     \$7,208       2.043     2022     \$0.3746	ė.	1.429	2011		\$5,210							
1.525     2013     \$39,644     \$5,559       1.575     2014     \$40,952     \$5,743       1.627     2015     \$42,304     \$5,932       1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6,330       1.794     2018     \$46,631     \$6,539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,978       1.977     2021     \$51,402     \$7,208       2.043     2022     \$0     \$7,446	-10	1.476	2012		\$5,381							
1.575     2014     \$40.952     \$5.743       1.627     2015     \$42,304     \$5.932       1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6.330       1.794     2018     \$46,631     \$6.539       1.853     2019     \$48,170     \$6.755       1.914     2020     \$49,760     \$6.978       1.977     2021     \$51,402     \$7,208       2.043     2022     \$0     \$7,446	-	1.525	2013		\$5,559							
1627     2015     \$42,304     \$5,932       1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6,330       1.794     2018     \$46,631     \$6,539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,978       1.977     2021     \$51,402     \$7,208       2.043     2022     \$0     \$7,446	-12	1,575	2014		\$5,743							
1.681     2016     \$43,700     \$377,481       1.737     2017     \$45,142     \$6,330       1.794     2018     \$46,631     \$6,539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,978       1.977     2021     \$51,402     \$7,208       2.043     2022     \$0     \$7,446	-13	1 627	2015		\$5,932							
1.737     2017     \$45,142     \$6,330       1.794     2018     \$46,631     \$6,539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,978       1.977     2021     \$51,402     \$7,208       2.043     2022     \$0     \$7,446	-14	1.681	2016		\$377,481							
1.794     2018     \$46,631     \$6.539       1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,978       1.977     2021     \$51,402     \$7,208       2.043     2022     \$0     \$7,446	-15	1.737	2017		\$6,330							
1.853     2019     \$48,170     \$6,755       1.914     2020     \$49,760     \$6,978       1.977     2021     \$51,402     \$7,208       2.043     2022     \$0     \$7,446	-16	1.794	2018		\$6,53							
1.914     2020     \$49,760     \$6,978       1.977     2021     \$51,402     \$7,208       2.043     2022     \$0     \$7,446	-17	1.853	2019		\$6,755							
1.977 2021 \$51,402 \$7,208 2.043 2022 \$0 \$7,446	-18	1.914	2020		\$6,97							
2.043 2022 \$0 \$7,446	-19	1.977	2021		\$7,208							
	-50	2.043	2022		\$7,446							

# **Priority Project List IX**

Four Mile Canal & Little White Lake Terrace and Sediment Trapping - (XTV-30/PTV-22)

7	0.0916595	\$5,086,511
Total Project Years	Amortization Factor	Total Fully Funded Costs
က	6 625%	\$3,233,370
Project Construction Years:	Interest Rate	Total First Costs

Annual Charges	Worth	Average
Interest & Amortization Monitoring O & M Costs Other Costs	\$3,451,407 \$84,135 \$589,862 \$6.851	\$316,354 \$7.712 \$54,066 \$628
Total	\$4,132,300	\$378,761
Average Annual Habitat Units		116
Cost Per Habitat Unit		3,265 NA

D-21

# Four Mile Canal & Little White Lake Terrace and Sediment Trapping - (XTV-30/PTV-22)

#### First Costs and Annual Charges

To	Constitution	0.00	0\$		\$58,125 \$246,378 \$985,510 \$1,456,544		\$492,755 \$1,971,020																										
Corps Project	1_	\$ \$	9 00	970¢	\$628	\$628	\$1,884																										
LDNR Supervision & Administration	9	5	\$14.052	000	\$20,033	\$8,544	\$49,130																										
Federal Supervision & Administration	S	05	\$37.382	200,100	504,003	\$21,361	\$122,825	Other	Costs	05	<b>S</b>	<b>S</b>	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12.560
Easements & Land Rights	20	80	\$23,333	<b>CB</b> 667		OA.	\$30,000	08M	Costs	9	<b>%</b>	<b>9</b>	<b>\$</b>	80	\$3,645	80	80	\$3,645	80	<b>\$</b> 0	\$3,645	\$1,098,026	\$3,645	20	<b>8</b> 0	\$0	\$3,645	0\$	0\$	80	80	\$3,645	\$1,119,896
Engineering & Design	20	<b>0</b> \$	\$243,325	\$69.521	70,00	0.00	\$312,846	Monitoring	Costs	\$18,118	\$5,431	<b>%</b>	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	<b>%</b>	\$126,738
Fiscal			2000	2001	2000	7007	4 0	Fiscal	Year	2001	2002	Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Year	5 Compound	4 Compound	3 Compound	2 Compound	1 Compared	Suppoding :		:	Year	2 Compound	1 Compound	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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# Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

# Four Mile Canal & Little White Lake Terrace and Sediment Trapping - (XTV-30/PTV-22)

		Federal	LDNR	Corps				
Engineering Easements		Supervision & Administration	Supervision & Administration	Project Management	Supervision & Inspection Contingency	Contingency	First Cost Construction	
1_		0\$	0\$	05	0\$	\$0	0\$	1
	80	0\$	<b>9</b>	<b>\$</b>	<b>\$</b> 0	<b>\$</b>	<b>9</b>	
	\$28,285	\$45,314	\$18,126	\$761	0 <b>\$</b>	<b>\$</b> 0	<b>9</b> 0	\$387,446
	\$7,579	\$72,855	\$29,142	\$714	\$66,082	\$280,104	\$1,120,416	\$1,655,929
<b>%</b>	<b>%</b>	\$22,776	\$9,110	\$670	\$61,976	\$262,700	\$1,050,800	\$1,408,032
\$373,998 \$3	\$35,864	\$140,945	\$56,378	\$2,145	\$128,057	\$542,804	\$2,171,216	\$3,451,407
Monitoring O&M		Other						
Costs Costs		Costs						
\$20,598	<u>چ</u>	0\$						
\$5,791	<b>%</b>	<b>\$</b>						
<b>%</b>	<b>\$</b> 0	<b>\$</b> 0						
\$5,094	<b>\$</b>	\$589						
	<b>\$</b> 0	\$552						
\$4,480 \$3.	\$3,007	\$518						
\$4,202	<b>\$</b> 0	\$486						
	<b>\$</b> 0	\$456						
	\$2,481	\$427						
\$3,466	<b>%</b>	\$401						
	<b>\$</b> 0	\$376						
	\$2,046	<b>\$</b> 353						
<b>69</b>	,125	\$331						
	\$1,800	\$310						
\$2,515	20	\$291						
\$2,359	<b>%</b>	\$273						
	<b>%</b> 0	\$256						
\$2,075 \$1	\$1,393	\$240						
\$1,946	<b>\$</b> 0	\$225						
\$1,825	<b>%</b>	\$211						
\$1,712	<b>\$</b> 0	\$198						
	<b>%</b>	\$186						
	\$1,010	\$174						
\$84,135 \$589,862	650	\$6.851						

# Four Mile Canal & Little White Lake Terrace and Sediment Trapping - (XTV-30/PTV-22)

,				sign panin i din i mari	· C 700.				حاااما الخوم حمواه	vo.	\$466,227
	f				Federal	LDNR	Corps				
Year	Inflation Factor	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project	Supervision & Inspection Continuency	) openitor	First Cost	Total First
5			\$0	S	\$0	OS	05	og og	Commiggency	CONSTRUCTION	Cost
4			<b>\$</b> 0	20	<b>\$</b>	9	C S	<b>S</b>	<b>3 4</b>	9 6	O 6
က	1.000	2000	\$243,325	\$23,333	\$37,382	\$14.953	8628	<b>€</b>	9 6	9 6	900000
7	1.033	2001	\$71,816	\$6,887	\$66,197	\$26.479	\$649	\$60.043	\$25.4 508	61 010 030	020,8184
-	1.067	2002	S.	80	\$22,794	\$9,118	\$670	\$62,045	\$26.308	#1,016,032 #1,054,627	\$1,504,610 64,400,440
		TOTAL	\$315,140	\$30,220	\$126,373	\$50,549	\$1,947	\$122,068	\$517,415	\$2,069,659	\$3,233,370
	Inflation	Fiscal	Monitoring	O&M	Other						
Year	Factor	Year	Costs	Costs	Costs						
2	1.033	2001	\$18,716	80	0\$						
-	1 067	2002	\$5,795	0\$	05						
0	Base Year	ear	<b>\$</b> 0	80	0\$						
Ψ.	1.102	2003	\$5,987	80	95						
-5	1.139	2004	\$6.184	\$0	\$715						
ċ	1.176	2005	\$6,388	\$4.287	\$739						
4	1.215	2006	\$6,599	80	\$763						
κ'n	1.255	2007	\$6,817	\$0	\$788						
φ	1.297	2008	\$7,042	\$4.726	\$814						
۲-	1.339	2009	\$7,274	80	\$841						
φ	1.384	. 2010	\$7,514	\$0	\$869						
ō.	1.429	2011	\$7,762	\$5,210	\$898						
우	1.476	2012	\$8,018	\$1,621,124	\$927						
÷	1.525	2013	\$8,283	\$5,559	\$958						
-15	1.575	2014	\$8,556	80							
÷	1.627	2015	\$8,839	\$0	\$1,022						
-14	1.681	2016	\$9,130	\$0							
-15	1.737	2017	\$9,432	\$6,330	\$1,091						
-16	1.794	2018	\$9,743	\$0	\$1,127						
-11	1.853	2019	\$10,064	80	\$1,164						
<del>.</del>	1.914	2020	\$10,396	80							
-19	1.977	2021	\$10,740	\$0							
-20	2.043	2022	80	\$7,446							

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#### Castille Pass Sediment Delivery (XAT-11)

23	0.0916595	\$31,084,397
Total Project Years	Amortization Factor	Total Fully Funded Costs
ဗ	6.625%	\$16,179,071
Project Construction Years:	Interest Rate	Total First Costs

Annual Charges	Present Worth	Average
Interest & Amortization Monitoring O & M Costs Other Costs	\$17,267,839 \$139,025 \$4,830,804 \$6,851	\$1,582,762 \$12,743 \$442,789 \$628
Total	\$22,244,500	\$2,038,922
Average Annual Habitat Units		296
Cost Per Habitat Unit		\$6,888
Average Annual Acres of Emergent Marsh		A N

#### Castille Pass Sediment Delivery (XAT-11)

First Costs and Annual Charges

ſ	i		ı	Federal	LDNR	Corps				
	Fiscal	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project	Supervision & Inspection	, continuo	First Cost	Total First
5 Compound	3	05	So		OS.	Mariagemen	O IIIspecalo	Collinigency	CONSTRUCTION	COSI
4 Compound		<b>S</b>	<b>S</b>	<b>S</b>	OS	S	S	9	9	<b>3 5</b>
3 Compound	2000	\$881,311	\$26,250	\$206,289	\$33,478	\$628	90	0.5	9	\$1 147 956
2 Compound	2001	\$125,902	\$3,750	\$353,638	\$57,391	\$628	\$48,214	\$1,519,096	\$6,076,385	\$8,185,005
Compound	2002	\$0	\$0	\$117,879	\$19,130	\$628	\$64,286	\$1,192,128	\$4,768,514	\$6,162,566
	TOTAL	\$1,007,212	\$30,000	\$677,806	\$110,000	\$1,884	\$112,500	\$2,711,225	\$10,844,899	\$15,495,526
	Fiscal	Monitoring	08M	Other						
	Year	Costs	Costs	Costs						
Compound	2000	\$14,142	0\$	0\$						
Compound	2001	\$10,831	\$0	<b>\$</b>						
Compound	2002	\$10,831	<b>9</b>	\$0						
Base Year	rear	\$0	<b>9</b>	\$0						
1 Discount	2003	\$10,831	\$0	\$628						
2 Discount	2004	\$10,831	\$0	\$628						
3 Discount	2005	\$10,831	<b>\$</b> 0	\$628						
4 Discount	2006	\$10,831	<b>\$</b> 0	\$628						
5 Discount	2007	\$10,831	\$3,645	\$628						
6 Discount	2008	\$10,831	\$3,147,416	\$628						
7 Discount	2009	\$10,831	\$0	\$628						
8 Discount	2010	\$10,831	\$0	\$628						
9 Discount	2011	\$10,831	<b>\$</b>	\$628						
10 Discount	2012	\$10,831	\$3,645	\$628						
1 Discount	2013	\$10,831	\$3,147,416	\$628						
2 Discount	2014	\$10,831	\$0	\$628						
13 Discount	2015	\$ \$10,831	\$0	\$628						
14 Discount	2016	\$ \$10,831	\$0	\$628						
15 Discount	2017	\$10,831	\$3,645	\$628						
16 Discount	2018	\$ \$10,831	\$3,147,416	\$628						
17 Discount	2019	\$10,831	\$0	\$628						
18 Discount	2020	\$10,831	\$0	\$628						
19 Discount	2021	\$10,831	\$0	\$628						
20 Discount	2022		\$3,645	\$628						
	Total	\$227,451	\$9,456,829	\$12,560	•					

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## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### Castille Pass Sediment Delivery (XAT-11)

	्री				Federal	LDNR	Corps				
Year	Compound	Fiscal Vear	Engineering & Design	Easements & Land Rights	Easements Supervision & Land Rights Administration	Supervision &	Project	Supervision & Inspection	Continue	First Cost	Total First
5	1 378		80	05	05	0\$	0\$	08	(Supplied	9	5
4	1.293		80	S	S	9	S S	90	S	<b>S</b>	S 5
(1)	1.212	2000	2000 \$1,068,332	\$31,820	\$250,065	\$40,583	\$761	0 <b>9</b>	S	9	\$1,391,561
7	1.137	2001	\$143,136	\$4,263	\$402,047	\$65,248	\$714	\$54.814	\$1,727,044	\$6.908.176	\$9.305.442
_	1.066	2002		80	\$125,689	\$20,398	\$670	\$68,545	\$1,271,107	\$5,084,428	\$6,570,836
		Total	\$1,211,468	\$36,084	\$777,801	\$126,228	\$2,145	\$123,359	\$2,998,151	\$11,992,604	\$17,267,839
	Discount	Fiscal	Monitoring	08M	Other						
Year	Rates	Year	Costs	Costs	Costs						
ဗ	1.212	2000		0\$	0\$						
7	1.137	2001	\$12,314	<b>S</b>	<b>%</b>						
-	1.066	2002		<b>%</b>	<b>S</b>						
0	Base Year	Year	<b>9</b>	S,	<b>\$</b>						
7	0.938	2003	\$10,158	<b>%</b>	\$589						
ç	0.880	2004	\$9,527	<b>%</b>	\$552						
ώ	0.825	2005	\$8,935	<b>%</b>	\$518						
4	0.774	2006		<b>\$</b> 0	\$486						
ά	0.726	2007		\$2,645	\$456						
φ	0.681	, 2008		\$2,141,904	\$427						
-7	0.638	2009	\$6,913	<b>%</b>	\$401						
æ	0.599	2010		\$0	\$376						
<b>φ</b>	0.561	2011	\$6,080	\$0							
-10	0.527	2012	\$5,703	\$1,919	\$331						
Ŧ	0.494	2013	3 \$5,348	\$1,554,192	\$310						
-12	0.463	2014		<b>\$</b>	\$291						
-13	0.434	2015		<b>\$</b>	\$273						
-14	0.407	2016	5 \$4,412	\$0	\$256						
-15	0.382	2017		\$1,393	•						
-16	0.358	2018	3 \$3,881	\$1,127,741	\$225						
-17	0.336	2019		<b>\$</b>	\$211						
-18	0.315	2020	53,414	<b>%</b>	\$198						
-19	0.296	2021		<b>S</b>	\$186						
-50	0.277	2022		\$1,010	\$174						

#### Castille Pass Sediment Delivery (XAT-11)

	ŗ				Federal	LDNR	Corps				
7697	Inflation	Fiscal	~	Easements	Supervision &	Supervision &	Project	Supervision	ı	First Cost	Total First
- Cal	- actor	100		1	Administra	Administration	Management	& Inspectio	Contingency	Construction	Cost
,	•		2	0.0	0.5	0\$	0\$	<b>9</b>	<b>%</b>	0\$	0\$
4				20	\$0 \$	<b>0</b> \$	<b>9</b>	<b>%</b>	<b>\$</b> 0	<b>\$</b>	90
က	1.000	2000		\$26,250	\$206,289	\$33,478	\$628	80	\$0	Ç,	\$1 147 956
7	1.033	2001	\$130,056	\$3,874	\$365,308	\$59,285	\$649	549 805	\$1 569 227	\$6 276 906	<b>CB 455 110</b>
-	1.067	2002	<b>%</b>	\$0	\$125,788	\$20,414	\$670	\$68,599	\$1 272 107	\$5,088,429	\$6.576.006
	_	TOTAL	\$1,011,367	\$30,124	\$697,384	\$113,177	\$1,947	\$118,404	\$2,841,334	\$11,365,335	\$16,179,071
	Inflation	Fiscal	Monitoring	0811	Other						
Year	Factor	Year	Costs	Costs	Costs						
က	1.000	2000		90	20						
7	1.033	2001	\$11,188	0\$	. <b>S</b>						
-	1.067	2002		<b>\$</b> 0	. <b>S</b>						
0	Base Year	ear	9	\$0	. <b>S</b>						
7	1.067	2003	\$11,558	0\$	\$670						
?	1.102	2004	\$11,939	\$0	\$692						
ė,	1.139	2005	\$12,333	<b>\$</b> 0	\$715						
7	1.176	2006	\$12,740	\$0	\$739						
ċ	1.215	2007		\$4,575							
φ	1.255 💉	2008		\$4,080,908							
-7	1.297 **	2009	\$14,043	\$0	\$814						
æ	1 339	2010		<b>\$</b> 0							
ڻ.	1.384	2011	\$14,986	\$0	\$869						
-10	1.429	2012	\$15,480	\$5,381	\$888						
÷	1.476	2013	\$15,991	\$4,800,189	\$927						
-12	1.525	2014		80	\$958						
-13	1.575	2015	\$17,064	20							
-14	1.627	2016		\$0	S						
-15	1.681	2017	\$18,208	\$6,330							
-16	1.737	2018		\$5,646,248							
-17	1.794	2019	\$19,430	\$0							
-18	1.853	2020		80							
-19	1.914	2021		80							
-50	1.977	2022		\$7,446							
		1									

## Labranche Wetlands Terracing and Plantings (PPO-7a)

25	0.0916595	\$9,496,951
Total Project Years	Amortization Factor	Total Fully Funded Costs
જ	6.625%	\$8,699,214
Project Construction Years:	inte <u>re</u> st Rate	Total First Costs

Annual Charges	Present Worth	Average
Interest & Amortization Monitoring O & M Costs Other Costs	\$8,785,198 \$88,248 \$200,770 \$6,851	\$805,247 \$8,089 \$18,403 \$628
Total	\$9,081,100	\$832,367
Average Annual Habitat Units		198
Cost Per Habitaf Unit Average Annual Acres of Emergent Marsh		<b>\$4</b> .204 NA

## Labranche Wetlands Terracing and Plantings (PPO-7a)

#### First Costs and Annual Charges

		& Inspectio Contingency Construction Cost	\$0 \$0 \$174.525		Ç.	\$2,906,508	\$622,823 \$2,491,292	\$1,349,450 \$5,397,800																											
Corps		- 1	\$628	\$628	\$628	\$628	\$628	\$3,140																											
LDNR	Supervision &	Administration	\$15,714	\$26,939	\$26,939	\$26,939	\$13,469	\$110,000																											
Federal	Supervision &	Administration	\$38,886	\$66,661	\$66,661	\$66,661	\$33,331	\$272,200	Other	Costs	<b>9</b>	<b>S</b>	<b>%</b>	<b>%</b>	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
	Easements	& Land Rights Administration	\$10,606	\$18,182	\$18,182	\$3,030	<b>\$</b> 0	\$50,000	08M	Costs	05	<b>\$</b>	<b>\$</b>	<b>%</b>	\$22,000	<b>%</b>	\$3,645	\$	<b>\$</b> 0	\$3,645	\$156,177	<b>9</b>	<b>%</b>	<b>\$</b> 0	<b>9</b>	\$22,000	\$3,645	\$134,177	0 <b>\$</b>	<b>9</b>	\$22,000	\$3,645	\$0	<b>%</b>	\$370,933
	0	- 1	\$108,691	\$186,327	\$186,327	\$31,055	0 <b>\$</b>	\$512,400	Monitoring	Costs	\$16,616	\$5,431	\$5,431	<b>%</b>	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	<b>%</b>		\$125,236
	Fiscal	rear	2000	2001	2002	2003	2004	TOTAL	Fiscal	Year	2002	2003	2004	Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
· ·	\ \	1691	o Compound	4 Compound	3 Compound	2 Compound	1 Compound			Year	3 Compound	2 Compound	1 Compound	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

## Labranche Wetlands Terracing and Plantings (PPO-7a)

\$832,367		Total First	Cost	\$240,521	\$386,123	\$362,131	\$4,358,992	\$3,437,431	\$8,785,198																											
ø		First Cost	Construction	0 <b>\$</b>	<b>%</b>	<b>9</b> 0	\$3,304,377	\$2,656,340	\$5,960,717																											
Amortized Costs			Contingency	0\$	<b>S</b>	<b>9</b>	\$826,094	\$664,085	\$1,490,179																											
		Supervision	& Inspectio	0\$	<b>9</b>	<b>9</b>	\$82,643	\$66,436	\$149,079																											
	Corps	Project	Management &	\$865	\$812	\$761	\$714	\$670	\$3,822																											
	LDNR	Supervision &	Administration	\$21,657	\$34,819	\$32,655	\$30,626	\$14,362	\$134,119																											v
\$9,081,068	Federal	Supervision &	Administration	\$53,590	\$86,161	\$80,807	\$75,786	\$35,539	\$331,883	Other	Costs	\$0	S	<b>9</b>	<b>\$</b>	\$589	\$552	\$518	\$486	\$456	\$427	\$401	\$376	\$353	\$331	\$310	\$291	\$273	\$256	\$240	\$225	\$211	\$198	\$186	\$174	\$6,851
		Easements	& Land Rights Administration	\$14,617	\$23,500	\$22,040	\$3,445	<b>%</b>	\$63,602	ORM	Costs	80	90	<b>%</b>	<b>\$</b>	\$20,633	<b>%</b>	\$3,007	20	<b>%</b>	\$2,481	\$99,679	<b>%</b>	<b>%</b>	<b>S</b>	Ş	\$10,189	\$1,583	\$54,658	\$0	0\$	\$7,393	\$1,149	S,	\$0	\$200,770
Total Discounted Costs		Engineering		\$149,792	\$240,831	\$225,867	\$35,306	<b>\$</b> 0	\$651,796	Monitoring	Costs	\$20.142	\$6.174	\$5,791	0\$	\$5,094	\$4,777	\$4,480	\$4,202	\$3,941	\$3,696	\$3,466	\$3,251	\$3,049	\$2,859	\$2,682	\$2,515	\$2,359	\$2,212	\$2,075	\$1,946	\$1,825	\$1,712	<b>%</b>	0\$	\$88,248
		Fiscal	Year	2000	2001	2002	2003	2004	Total	Fieral	Year	2002	2003	2004	'ear	2002	2006	2007	2008	2009	,, 2010	2011		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		Total
Present Valued Costs	· •	Compound	Rates	1.378	1.293	1.212	1.137	1.066		Discount	Rates	1.212	1.137	1.066	Base Year	0.938	0.880	0.825	0.774	0.726	0.681	0.638 //	0.599	0.561	0.527	0.494	0.463	0.434	0.407	0.382	0.358	0.336	0.315	0.296	0.277	
Present		•	Year	S	4	က	2	-		Ö	Year R	lea	7	-	0	7	7	ç	4	5-	φ	7-	æρ	o-	-10	÷	-12	-13	-14	-15	-16	-17	-18	-19	-20	

## Labranche Wetlands Terracing and Plantings (PPO-7a)

Year 2 4 6 2 4	ŗ										
2 4 6 2 4					Federal	LDNR	Corps				
2462	Inflation	Fiscal	Engineering		Supervision &	Supervision &	Project	Supervision		First Cost	Total First
) 4 th () +		0000	d Design	-1	Administration	Administration	Management	& Inspectio	Contingency	Construction	Cost
t 60 00 +	200.	2000	160,001	909'01¢	\$38,886	\$15,714	\$628	<b>9</b>	\$0	<b>9</b>	\$174.525
m ~ +	1.033	L007	\$192.476	\$18,782	\$68,861	\$27,828	\$649	<b>\$</b> 0	\$0	S	C308 505
<b>7</b>	1.067	2002	\$198,828	\$19,402	\$71,133	\$28,746	\$670	9	; <b>;</b>		4000,000
•	1.102	2003	\$34,232	\$3,340	\$73,481	\$29 695	6693	SB0 120	69000	0	8/10/06 6/06/06
-	1.139	2004	<b>\$</b> 0	\$0	\$37,953	\$15,337	\$715	\$70.948	\$200,963	\$3,203,832	\$4,226,384
	<b> -</b>	TOTAL	\$534,226	\$52,130	\$290,314	\$117,320	\$3,354	\$151,077	\$1,510,159	\$6,040,634	\$8,699,214
	Inflation	Fiscal	Monitoring	08M	Other						
Year	Factor	Year	Costs	Costs	Costs		-				
က	1.067	2002	\$17,731	0\$	20						
7	1.102	2003	\$5,987	<b>\$</b>	S						
-	1.139	2004	\$6,184	20	. <b>S</b>						
0	Base Year	ar	<b>%</b>	0\$	. <b>S</b>						
Ψ.	1.176	2005	\$6,388	\$25,878	\$739						
-5	1.215	2006	\$6,599	\$0	\$763						
ကု	1.255	2007	\$6,817	\$4,575	\$788						
4	1.297	2008	\$7,042	\$0	\$814						
κċ	1.339	2009	\$7,274	<b>\$</b>	\$841						
φ	1.384		\$7,514	\$5,043	\$869						
-1	1.429 🖛	2011	\$7,762	\$223,213	\$898						
ထု	1.476	2012	\$8,018	<b>%</b>	\$927						
ō.	1.525	2013	\$8,283	<b>\$</b>	\$958						
9	1.575	2014	\$8,556	<b>%</b>	\$989						
÷	1.627	2015	\$8,839	\$0	\$1,022						
-12	1.681	2016	\$9,130	\$36,985	\$1,056						
-13	1.737	2017	\$9,432	\$6,330	\$1,091						
4-	1.794	2018	\$9,743	\$240,704	\$1,127						
-15	1.853	2019	\$10,064	<b>\$</b> 0	\$1,164						
-16	1.914	2020	\$10,396	<b>S</b>	\$1,202						
-12	1.977	2021	\$10,740	\$43,504	\$1,242						
-18	2.043	2022	\$11,094	\$7,446	\$1,283						
<del>.</del> 19	2.110	2023	<b>.</b>	<b>\$</b> 0	\$1,325						
-50	2.180	2024	<b>%</b>	<b>S</b>	\$1,369						

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# Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### Black Bayou Culverts (CS-16)

23	0.0916595	\$8,377,604
Total Project Years	Amortization Factor	Total Fully Funded Costs
દ	6.625%	<b>\$6</b> ,531,248
Project Construction Years:	Interest Rate	Total First Costs

Annual Charges	Present Worth	Average
Interest & Amortization Monitoring O & M Costs	\$6,627,082 \$439,094 \$285,175	\$607,435 \$40,247 \$26,139
Other Costs	\$6,851	\$628
Total	\$7,358,200	\$674,449
Average Annual Habitat Units		162
Cost Per Habitat Unit		\$4,163
Average Annual Acres of Emergent Marsh		₹Z

First Costs and Annual Charges

901st Administration         Administration Administration         Administration Administration         Administration Administration         Administration Administration         Administration Administration         Administration Solution         Administration Solution <th>Administration Administration Management 50 50 50 50 50 50 50 50 50 50 50 50 50</th>	Administration Administration Management 50 50 50 50 50 50 50 50 50 50 50 50 50
\$0         \$0         \$0         \$0           \$0         \$0         \$0         \$0           \$0         \$0         \$0         \$0         \$0           \$143         \$52,500         \$45,000         \$628         \$628         \$628         \$628         \$628         \$60         \$1,684         \$1,684         \$628         \$645         \$645         \$628         \$645         \$645         \$628         \$645         \$645         \$628         \$645         \$645         \$628         \$645         \$628         \$645         \$645         \$645         \$645         \$645         \$645         \$645         \$645         \$645         \$645         \$645         \$645         \$645         \$64	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
\$0 \$0 \$0 \$0 \$0 \$10 \$10 \$10 \$10 \$10 \$10 \$	\$0 \$0 \$0 \$0 \$0 \$10 \$0 \$10 \$10 \$10 \$10 \$1
333     \$52,500     \$26,250     \$628       143     \$90,000     \$45,000     \$628       524     \$67,500     \$105,000     \$1,884     \$50,000       500     \$105,000     \$1,884     \$50,000       \$0     \$105,000     \$1,884     \$50,000       \$0     \$105,000     \$1,884     \$50,000       \$0     \$0     \$0     \$1,884     \$50,000       \$0     \$0     \$0     \$1,884     \$50,000       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0<	333 \$52.500 \$26.250 \$628  143 \$90.000 \$45.000 \$628  524 \$67.500 \$33,750 \$628  50 \$0 \$105.000 \$1,884 \$50,0  00ther  Costs  \$0 \$0 \$0  \$0
143     \$90,000     \$45,000     \$628       524     \$67,500     \$13,750     \$628       500     \$210,000     \$105,000     \$1,884     \$50,00       50     \$0     \$0     \$1,884     \$50,00       \$0     \$10,000     \$1,884     \$50,00       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0       \$0     \$0     \$	143     \$90,000     \$45,000     \$628       524     \$67,500     \$33,750     \$628       500     \$210,000     \$105,000     \$1,884     \$50,0       50     \$0     \$105,000     \$1,884     \$50,0       \$0     \$10,000     \$1,884     \$50,0       \$0     \$0     \$0     \$1,884     \$50,0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0     \$0     \$0     \$0     \$0       \$0 </td
524         \$67,500         \$33,750         \$628           000         \$210,000         \$1,684           001her         \$0         \$1,684           \$0         \$0         \$1,684           \$0         \$0         \$0	524         \$67,500         \$33,750         \$628           000         \$210,000         \$1,884           000 \$210,000         \$105,000         \$1,884           \$0         \$0         \$0           \$0         \$0           \$0 </td
Other Costs  \$0 \$50 \$0 \$50 \$0 \$50 \$0 \$0 \$0 \$105,000 \$1,884  Costs  \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Other Costs  \$0 \$50 \$0 \$50 \$0 \$50 \$0 \$0 \$0 \$105,000 \$1,884  Costs  \$0 \$
Cost	Othe Cost (Cost (C
Cost \$0 \$0 \$645 645 645 645 645 645 645 645 645 645	Cost \$0 \$0 \$645 645 645 645 645 645 645 645 645 645
\$15,645 \$628	

All dates are in Federal Fiscal Years (October 1 to September 30)

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# Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

Black Bayou Culverts (CS-16)

	Ĭ,				Federal	LDNR	Corps				
į	Compound	Fiscal	Engineering	Easements	Supervision &	Supervision &	Project	Supervision & Inspertion	Supervision & Inspection Contingency	First Cost Construction	Total First Cost
- Cal	1 378	- 20	S S	Single Agents	20	05	0\$	\$0	\$0	0\$	0\$
> <	1 293		9	9	05	0\$	0\$	80	80	0\$	\$0
•	1 212	2000	\$175.3	\$40.407	\$63,641	\$31.820	\$761	0 <b>\$</b>	0\$	<b>0</b> \$	\$311,996
۰ ،	1 137	2001		\$64.965	\$102.320	\$51,160	\$714	0\$	<b>\$</b> 0	<b>%</b>	\$501,108
-	1.066	2002		\$10,155	\$71,972	\$35,986	\$670	\$53,313	\$1,119,563	\$4,478,250	\$5,813,979
	1	Total	\$501,386	\$115,527	\$237,933	\$118,966	\$2,145	\$53,313	\$1,119,563	\$4,478,250	\$6,627,082
u	Discount	Fiscal	Monitoring	0 <b>8</b> M	Other						
Year F	Rates	Year	Costs	Costs	Costs						
2	1.137	2001	\$58,959	0\$	es S						
<b>-</b>	1.066	2002	\$34,646	<b>\$</b>	\$0						
0	Base Year	/ear	Ç,	<b>9</b>	<b>\$</b>						
7	0.938	2003	\$30,474	\$14,673	\$589						
-5	0.880	2004	\$28,581	\$13,761	\$552						
ė	0.825	2005	\$26,805	\$12,906	\$518						
7	0.774	2006	\$25,139	\$12,104	\$486						
ċ	0.726	2007		\$11,352	\$456						
φ	0.681	2008	\$22,112	\$10,647	\$427						
-1	0.638	2009		\$77,683	\$401						
ထု	0.599	2010	\$19,450	\$9,365	\$376						
ō,	0.561	2011	\$18,241	\$8,783	\$353						
-10	0.527	2012	\$17,108	\$8,237	\$331						
-	0.494	2013									
-12	0.463	2014	\$15,048	\$7,245	\$291						
-13	0.434	2015	5 \$14,113	\$6,795	\$273						
-1	0.407	2016	\$13,236	\$53,165	\$256						
-15	0.382	2017	\$12,414	\$5,977	\$240						
-16	0.358	2018	3 \$11,642		\$225						
-17	0.336	2019	\$10,919	\$5,257	\$211						
-18	0.315	2020	\$10,241	\$4,931	\$198						
-19	0.296	2021	\$9,604	\$4,624							
-20	0.277	2022		\$4,337	\$174						

#### Black Bayou Culverts (CS-16)

Fully Ft	Fully Funded Costs		Total Fully Funded Costs		\$8,377,604				Amortized Costs	2	\$762,887
	;				Federal	LDNR	Corps				
Year	Inflation	Fiscal	Engineering		Supervision &	Supervision &	Project	Supervision		First Cost	Total First
-67	500	100	o Design	& Land Rights	Administration	Administration	Management	& Inspection Contingency	Contingency	Construction	Cost
4			3	9 6	3	2	<u>چ</u>	20	<b>0\$</b>	0 <b>\$</b>	\$0
۳.	•	0000	64446		0	0.00	0.4	0,5	20	<b>⊙</b>	<b>%</b>
, (		7007		353,333	\$22,500	\$26,250	\$628	<b>\$</b> 0	\$0	0\$	\$257.378
ν.	1.033	2001	**	\$59,029	\$92,970	\$46,485	\$649	<b>\$</b>	\$0	S	\$455.316
-	1.067	2002	- 1	\$10,163	\$72,029	\$36,014	\$670	\$53,354	\$1,120,443	\$4 481 774	\$5.818.55d
		TOTAL	\$444,957	\$102,525	\$217,499	\$108,749	\$1,947	\$53,354	\$1,120,443	\$4,481,774	\$6,531,248
	Inflation	Fiscal	Monitoring	O&M	Other						
Year	Factor	Year	Costs	Costs	Costs						
7	1.033	2001	\$53,571	0\$	\$0						
-	1.067	2002		\$0	<b>%</b>						
0	Base Year	rear	<b>\$</b> 0	\$0	<b>S</b>						
7	1.102	2003	\$35,817	\$17,246	\$692						
-5	1.139	2004		\$17,815	\$715						
ů	1.176	2005		\$18,403	\$739						
7	1.215	2006	\$ \$39,481	\$19,010	\$763						
ά	1.255	2007		\$19,637	\$788						
φ	1.297	2008		\$20,285	\$814						
-7	1.339	2009		\$163,020	\$841						
ထု	1.384	2010		\$21,646	\$869						
op :	1.429	2011		\$22,360	\$898						
-10	1.476	2012		\$23,098	\$927						
÷	1.525	2013		\$23,861	\$958						
-12	1.575	2014	•	\$24,648							
-13	1.627	2015		\$25,461	\$1,022						
-14	1.681	2016		\$219,411							
-15	1.737	2017		\$27,169	\$1,091						
-16 	1.794	2018		\$28,066	\$1,127						
-17	1.853	2019		\$28,992	\$1,164						
-1 <del>8</del>	1.914	2020		\$29,949	\$1,202						
-19	1.977	2021	1 \$64,253	\$30,937	\$1,242						
-50	2.043	2022	2 \$0	\$31,958	\$1,283						
		Total	\$1,014,205	\$812,972	\$19,179						

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## Perry Ridge to Texas Shoreline Protection (PCS-26ii)

Project Construction Years:	6	Total Project Years	23
Interest Rate	6.625%	Amortization Factor	0.0916595
Total First Costs	\$3,118,043	Total Fully Funded Costs	\$3,742,451
		• •	
Annual Charges	Present Worth	Average	
Interest & Amortization Monitorion	\$3,161,887 \$47,373	\$289,817 \$4,342	
O & M Costs Other Costs	\$181,598 \$6,851	\$16,645	
Total	\$3,397,700	\$311,432	
Average Annual Habitat Units		40	
Cost Per Habitat Unit		\$7,786	
Average Annual Acres of Emergent Marsh	l Marsh	N.	

## Perry Ridge to Texas Shoreline Protection (PCS-26ii)

First Costs and Annual Charges

	lotal First	Cost	0 <b>5</b>	0\$	\$118,075	\$201,966	\$2,615,842	\$2,935,884																										
1	Contriction	Construction	) P	0.0	O <b>S</b> .	0.00	31.350,000	21.996,000																		j								
	Contingency	Committee	9 6	9	0.00	900	9433,000	\$499,000																										
Supervision	& Inspection Continuency	5	9 6	9 6	9 6	£72 000	22,000	9/2,000																										
Corps	Management	5	<b>,</b>	9638	\$050 <b>66</b> 28	\$628	700 + 6	400.18																										
LDNR Supervision &	Administration	S	S 5	\$12 500	\$21.429	\$16.071	650 000	000,000																		•								
Federal Supervision &	Administration	SO	. OS	\$25,000	\$42.857	\$32,143	\$ 100 000		Other	Costs	\$0	\$0	20	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
Easements	& Land Rights	80	\$0	\$12,895	\$22,105	0\$	\$35,000		O&M	Costs	\$0	0\$	80	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$26,604	\$3,645	\$3,645	\$227,429	\$3,645	\$3,645	\$3,645	\$26,604	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$342,602
Engineering	& Design	<b>%</b>	\$0	\$67,053	\$114,947	<b>%</b>	\$182,000		Monitoring	Costs	\$13,885	\$2,700	<b>\$</b>	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	<b>\$</b> 0	\$67,885
Fiscal	Year			2000	2001	2002	TOTAL		Fiscal	Year	2001	2002	Base Year	2003	2004	2005	2006	2007	2008	. 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
1	Year	5 Compound	4 Compound	3 Compound	2 Compound	1 Compound				Year	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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## Perry Ridge to Texas Shoreline Protection (PCS-26ii)

\$511,432		Total First	Cost	<b>%</b>	<b>%</b>	\$143,132	\$229,613	\$2,789,142	\$3,161,887																			,							
		First Cost	Construction	<b>%</b>	<b>%</b>	<b>9</b> 0	٥ <b>۶</b> 	\$2,128,235	\$2,128,235																										
Amortized Costs				<b>.</b>	0 <b>\$</b>	0\$	<b>%</b>	\$532,059	\$532,059																				,	,					
		Supervision	& Inspection Contingency	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$76,770	\$76,770																										
	Corps	Project \$	Management	<b>9</b>	<b>\$</b> 0	\$761	\$714	\$670	\$2,145																										
	LDNR	Supervision &	Administration	<b>%</b>	<b>\$</b> 0	\$15,153	\$24,362	\$17,136	\$56,651																										
\$3,397,710	Federal	Supervision &	Administration	0\$	<b>%</b>	\$30,305	\$48,724	\$34,272	\$113,301	Other	Costs	0\$	\$0	80	\$589	\$552	\$518	\$486	\$456	\$427	\$401	\$376	\$353	\$331	\$310	\$291	\$273	\$256	\$240	\$225	\$211	\$198	\$186	\$174	\$6,851
led Costs		Easements		0\$	\$0	\$15,631	\$25,131	<b>%</b>	\$40.762	0&M	Costs	0\$	<b>9</b>	<b>\$</b> 0	\$3,419	\$3.206	\$3,007	\$2,820	\$2,645	\$2,481	\$16,980	\$2,182	\$2,046	\$119,744	\$1.800	\$1.688	\$1,583	\$10,837	\$1,393	\$1,306	\$1,225	\$1,149	\$1,077	\$1,010	\$181,598
Total Discount		Engineering	- 1	0\$	<b>9</b>	\$81,282	\$130,682	<b>%</b>	\$211,964	Monitoring	Costs	\$15,786	\$2,879	\$0	\$2,532	\$2,375	\$2,227	\$2,089	\$1,959	\$1,837	\$1,723	\$1,616	\$1,516	\$1,422	\$1,333	\$1,250	\$1,173	\$1,100	\$1,032	296\$		\$851	\$798	\$0	\$47,373
		Fiscal	Year			2000	2001	2002	Total	Fiscal	Year	2001	2002	rear	2003	2004	2005	2006	2007	, 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Present Valued Costs	1	Compound	Rates	1.378	1.293	1.212	1.137	1.066		Discount	Rates	1.137	1.066	Base Year	0.938	0.880	0.825	0.774	0.726	0.681	0.638	0.599	0.561	0.527	0.494	0.463	0.434	0.407	0.382	0.358	0.336	0.315	0.296	0.277	
Present 1		•	Year	S	4	က	7	-		ā	Year R	2	-	0	7	-2	<u>ڊ</u>	4	τċ	φ	<i>!-</i>	æ	6-	-10	F	-12	-13	-14	-15	-16	-17	-18	-19	-20	

## Perry Ridge to Texas Shoreline Protection (PCS-26ii)

	First Cost To	Construction	O 6	) A	0.5	£2 120 040																				÷						
	Supervision & Inspection Continuous	Sommon 100				\$532.4																										
		٦	05	\$628	\$5.0 \$6.49	\$670 \$76 830																										
Corps	Project		-				S																									
LDNR	Supervision & Administration	0\$	90	\$12.500	\$22 136	\$17,150	\$51,785																									
Federal	Supervision & Administration	\$0	80	\$25,000	\$44.271	\$34,299	\$103,571	Other	Costs	\$0	<b>\$</b> 0	80	\$692	\$715	\$739	\$763	\$788	\$814	\$841		\$898	\$927	\$958	\$989	\$1,022	\$1,056					\$1,242	
	Easements & Land Rights	\$0	\$0	\$12.895	\$22,835	80	\$35,729	O&M	Costs	\$0	<b>\$</b> 0	\$0	\$4,018	\$4,150	\$4.287	\$4,429	\$4,575	\$4.726	\$35.633	\$5.043	\$5,210	\$335,776	\$5,559	\$5,743	\$5,932	\$44,726	\$6,330	\$6,539	\$6,755	\$6.93	\$7,208	
	Engineering & Design	80	\$0	\$67,053	\$118,741		\$185,793	Monitoring	Costs	\$14,343	\$2,881	<b>\$</b> 0	\$2,976		\$3,176				\$3,616	\$3,736		\$3,986	\$4,118				\$4,689	\$4,844	\$5,003	\$5,169	\$5,339	
i	Fiscal Year			2000	2001	2002	TOTAL	Fiscal	Year	2001	2002	Year	2003	2004	2002	2006	2007				2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
j :	Factor			1.000	1.033	1.067		Inflation	Factor	1.033	1.067	Base Year	1.102	1.139	1.176	1.215	1.255	1.297	1.339	1.384	1.429	1.476	1.525	1.575	1.627	1.681	1.737	1.794	1.853	1.914	1.977	
	Year	5	4	ო	7	-			Year	2	-	0	Ţ	-5	Ę.	4	ċ	φ	-7	ထု	တု	-10	÷	-15	-13	-14	-15	-16	-17	-18	-19	***

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#### Freshwater Bayou on Belle Isle to Lock (XTV-27)

Project Construction Years:	4	Total Project Years	24
Interest Rate	6.625%	Amortization Factor	0.0916595
Total First Costs	\$13,263,340	Total Fully Funded Costs	\$25,071,556
Annual Charges	Present	Annual	
Interest & Amortization Monitoring O & M Costs Other Costs	\$13,657,604 \$407.471 \$4,648,309 \$6,851	\$1,251,850 \$37,349 \$426,062 \$628	ı
Total	\$18,720,200	\$1,715,888	
Average Annual Habitat Units		252	
Cost Per Habitat Unit		\$6,809	

¥

Average Annual Acres of Emergent Marsh

#### First Costs and Annual Charges

i	Cost	20	\$451,228	\$773,085	\$4,934,558	\$6,121,641	¥1.0.100 ×1.1.																										
in the state of th	Construction	0\$	<b>S</b>	\$0\$	\$4,540,730	\$8.196.000																											
	Contingency	0\$	<b>2</b> 0	\$896 438	\$1,152,563	\$2,049,000																											
Supervision	& Inspectio	<u>ශ</u> ද	<b>2</b>	\$175,000	\$225,000	\$400,000																											
Corps Project	Management	\$0 \$638	\$628	\$628	\$628	\$2,512																											
LDNR Supervision &	Administration	\$19.250	\$33,000	\$33,000	\$24,750	\$110,000																											
Federal Supervision &	SO SO	\$84,350	\$144,600	\$144,600	\$106,450	3462,000	Other	Costs	05	05	. <b>S</b>	Ç.	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$62R	\$628	\$628	\$628	\$628	\$628	\$12,560
Federal Easements Supervision &	\$0	\$12,333	\$21,143	<b>\$</b> 3,52 <b>4</b>	\$37,000	90.	08M	Costs	\$0	<b>9</b>	<b>9</b>	<b>S</b>	\$0	\$4,407	\$2,475,524	\$4,407	90	\$4,407	\$2,475,524	\$4.407	<b>S</b> 0	<b>\$</b> 0	\$0	<b>%</b>	\$4,407	\$2,475,524	\$4,407	<b>9</b>	. O <b>S</b>	<b>9</b> 0	90	\$4,407	\$7,457,420
Engineering & Desian	S	\$334,667	\$573,714	910,08¢	\$1,004,000		Monitoring	Costs	\$46,635	\$32,493	\$32,493	<b>%</b>	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	<b>S</b>	\$0	\$649,860
Fiscal Year		2000	1002	2003	TOTAL		Fiscal	Year	2001	2002	2003		2004	2002	2006	2007	2008	200	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Year	5 Compound	4 Compound	2 Compound	1 Compound					s Compound	Compound	Compound	Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	<b>=</b>

All dates are in Federal Fiscal Years (October 1 to September 30)

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#### Freshwater Bayou on Belle Isle to Lock (XTV-27)

Federal Supervision &												
Page						Federal	LDNR	Corps				
5         1,378         50         5	Year	Compound		Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project Management	Supervision & Inspectio	Contingency	First Cost Construction	Total First Cost
1.232   2.000   5422.562   515.941   5109.024   524.881   581.2   59   59   59   59   59   59   59   5	5	1.378		80	\$0	\$0	9	\$0	\$0	\$0	0\$	0\$
1.212   2001 \$695,461   \$25,630 \$175,285 \$40,003 \$761 \$89,995 \$1,019,150 \$4,0106,000 \$1,228,920 \$1,019,150 \$1,005 \$1,00	4	1.293	2000	\$432,562	\$15,941	\$109,024	\$24,881	\$812	<b>\$</b> 0	<b>%</b>	<b>%</b>	\$583,220
1.137   2002 \$108.708   \$4,006 \$164.394 \$37.517 \$\$109.150 \$4,076.600   \$10.66   2003 \$1,286.738 \$15.855 \$3.900 \$1,280.9	က	1.212	2001	\$695,461	\$25,630	\$175,285	\$40,003	\$761	<b>%</b>	<b>\$</b> 0	<b>0</b> \$	\$937,140
1,066   2003   \$1,228,920   \$1,528,920   \$1,528,920   \$1,528,920   \$1,5579   \$1,915,679   \$1,9	2	1.137	2002		\$4,006	_	\$37,517	\$714	\$198,956	\$1,019,150	\$4,076,600	\$5,610,045
Total   \$1,236,732	-	1.066	2003		<b>%</b>	\$115,635	\$26,390	\$670	\$239,906	\$1,228,920	\$4,915,679	\$6,527,199
Discount         Fiscal         Monitoring         O&M         Other           2         1.137         2002         \$36,941         \$0         \$0           2         1.066         2003         \$36,941         \$0         \$0           1         1.086         2003         \$34,646         \$0         \$0           1         0.938         704         \$0         \$569           2         0.880         2004         \$3.974         \$0         \$569           2         0.880         2006         \$28,581         \$3.876         \$569           2         0.880         2006         \$26,139         \$3.410         \$486           3         0.825         2006         \$26,337         \$0         \$466           5         0.726         2006         \$22,139         \$3.410         \$486           5         0.726         2008         \$22,139         \$4.56           5         0.726         2018         \$1.579,988         \$401           6         0.638         2016         \$20,738         \$1.599,988         \$401           7         0.638         2016         \$1.411         \$21.40         \$201			Total	\$1,236,732	\$45,577	\$564,338	\$128.791	\$2,957	\$438,862	\$2,248,070	\$8,992,279	\$13,657,604
Rates         Year         Costs         Costs         Costs           2         1137         2002         \$56341         \$0         \$0           1         1.086         2003         \$34.646         \$0         \$0           1         1.938         2004         \$30.474         \$0         \$589           2         0.880         2005         \$28.818         \$3.876         \$589           2         0.880         2006         \$28.818         \$3.876         \$589           2         0.880         2006         \$25.139         \$3.476         \$486           3         0.726         2008         \$23.577         \$0         \$456           5         0.726         2008         \$25.139         \$3.470         \$466           5         0.726         2008         \$25.139         \$427         \$476           6         0.726         2008         \$25.13         \$427         \$471           6         0.638         2010         \$19.450         \$25.88         \$401           8         0.559         2011         \$19.450         \$25.88         \$401           9         0.561         \$0.738         \$15		Discount	Fiscal	Monitoring	O&M	Other						
1.137         2002         \$36,941         \$0         \$0           1.066         2003         \$34,646         \$0         \$0           1.066         2003         \$34,646         \$0         \$0           2.0         Base Year         \$0         \$0         \$0           2.0         Base Year         \$0.444         \$0         \$569           2.0         Base Year         \$0.456         \$2.042.161         \$518           2.0         Base Year         \$20.65         \$2.042.161         \$518           3.0         Base Year         \$20.65         \$2.042.161         \$518           4.0         0.774         2007         \$22.410         \$466           5.0         0.726         2008         \$22.357         \$0         \$456           6.0         0.681         2009         \$22.112         \$2.999         \$401           7         0.693         2011         \$16,400         \$0         \$333           8         0.594         2011         \$16,400         \$0         \$333           9         0.661         \$17,108         \$0         \$331           1         0.494         \$16,045         \$0 <t< td=""><td></td><td>Rates</td><td>Year</td><td>Costs</td><td>Costs</td><td>Costs</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		Rates	Year	Costs	Costs	Costs						
1.066         2003         \$34,646         \$0         \$0           Base Year         \$0         \$0         \$0         \$0           0.938         2004         \$30,474         \$0         \$589           0.080         2006         \$28,681         \$538         \$552           0.085         2006         \$28,681         \$53,876         \$552           0.074         2007         \$25,139         \$3,410         \$486           0.726         2008         \$22,112         \$2,999         \$446           0.726         2009         \$22,112         \$2,999         \$427           0.638         2011         \$19,450         \$2,698         \$401           0.638         2011         \$19,450         \$2,698         \$401           0.539         2011         \$11,241         \$0         \$333           0.541         2012         \$11,048         \$0         \$331           0.543         2014         \$16,048         \$0         \$331           0.444         2014         \$16,048         \$240           0.443         \$14,13         \$1,914         \$240           0.444         \$14,14         \$1,064         \$240 </td <td>la</td> <td>ļ٣</td> <td>2002</td> <td>ŀ</td> <td>\$0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	la	ļ٣	2002	ŀ	\$0							
Base Year         \$0         \$0           0.938         2004         \$30,474         \$0         \$589           0.880         2005         \$28,581         \$1,3876         \$589           0.880         2006         \$22,616         \$518           0.774         2007         \$25,139         \$3,410         \$486           0.774         2007         \$23,577         \$0         \$456           0.786         2008         \$23,577         \$0         \$456           0.781         2009         \$22,112         \$2.999         \$427           0.681         2010         \$19,450         \$2.998         \$401           0.599         2011         \$19,450         \$2.938         \$401           0.599         2011         \$18,241         \$0         \$331           0.561         2012         \$18,241         \$0         \$331           0.563         2013         \$17,108         \$0         \$331           0.494         2014         \$14,11         \$1,514         \$1,514           0.494         2015         \$14,113         \$1,914         \$273           0.407         2017         \$1,614         \$1,684	_	1.066	2003		<b>%</b>							
0.938         2004         \$30,474         \$0         \$589           0.880         2005         \$28,581         \$552           0.885         \$20,685         \$2,042,161         \$552           0.874         2006         \$25,139         \$3,876         \$562           0.726         2008         \$22,139         \$3,410         \$486           0.726         2008         \$22,112         \$2,999         \$427           0.681         2009         \$22,112         \$2,999         \$427           0.638         2010         \$10,798         \$15,998         \$401           0.599         2011         \$10,450         \$2,998         \$401           0.599         2012         \$12,413         \$0         \$331           0.51         2012         \$15,048         \$0         \$331           0.527         2014         \$16,048         \$201         \$310           0.494         2014         \$16,048         \$201         \$314         \$226           0.494         2014         \$16,44         \$104         \$204         \$204           0.494         2014         \$16,44         \$104         \$204           0.403	0	Base	Year	<b>%</b>	<b>\$</b> 0							
0.880         2005         \$28,581         \$5,376         \$552           0.825         2006         \$26,805         \$2.042,161         \$518           0.774         2007         \$25,139         \$5.410         \$486           0.726         2008         \$23,577         \$0         \$456           0.631         2009         \$22,177         \$2.999         \$447           0.638         2010         \$20,738         \$1,579,988         \$401           0.639         2011         \$19,450         \$2,638         \$376           0.594         2012         \$18,241         \$0         \$333           0.561         2012         \$18,241         \$0         \$331           0.577         2013         \$17,108         \$0         \$331           0.494         2014         \$16,045         \$0         \$310           0.494         2015         \$14,113         \$1,914         \$273           0.407         2016         \$14,113         \$1,914         \$276           0.407         2017         \$11,642         \$0         \$256           0.38         2020         \$10,919         \$0         \$211           0.38         <	7	0.938	2004		S						•	
0.825         2006         \$2,042,161         \$518           0.774         2007         \$25,139         \$3,410         \$486           0.726         2008         \$23,577         \$0         \$486           0.638         2008         \$23,577         \$0         \$427           0.638         2010         \$20,738         \$1,579,988         \$401           0.594         2011         \$19,450         \$2,638         \$401           0.564         2012         \$18,241         \$0         \$353           0.567         2013         \$17,108         \$0         \$331           0.494         2014         \$16,045         \$0         \$331           0.463         2013         \$17,108         \$0         \$331           0.463         2014         \$16,045         \$0         \$310           0.463         2015         \$1,108         \$0         \$291           0.407         2017         \$11,413         \$1,914         \$273           0.407         2017         \$11,64         \$26           0.382         2018         \$11,642         \$0         \$225           0.386         2020         \$10,919         \$0	-2		2005		\$3,876	•,						
0.774         2007         \$25,139         \$3,410         \$486           0.726         2008         \$23,57         \$0         \$456           0.681         2009         \$22,112         \$2,999         \$427           0.638         2010         \$20,738         \$1,579,988         \$401           0.599         2011         \$19,450         \$2,638         \$376           0.57         2012         \$18,241         \$0         \$353           0.57         2013         \$17,108         \$0         \$331           0.494         2014         \$16,045         \$0         \$331           0.463         2014         \$16,045         \$0         \$331           0.463         2014         \$16,045         \$0         \$310           0.463         2015         \$15,048         \$0         \$291           0.407         2017         \$13,236         \$1,044         \$273           0.382         2018         \$11,642         \$0         \$225           0.358         2019         \$10,241         \$0         \$198           0.206         \$10,241         \$0         \$198           0.206         \$0         \$10,241	£-		2006		\$2,042,161	\$518				•		
0.726         2008         \$23,577         \$0         \$456           0.681         2009         \$22,112         \$2.999         \$427           0.638         2010         \$20,738         \$1,579,988         \$401           0.599         2011         \$19,450         \$2,638         \$376           0.561         2012         \$18,241         \$0         \$333           0.57         2013         \$17,108         \$0         \$331           0.463         2014         \$16,045         \$0         \$310           0.463         2015         \$14,113         \$1,914         \$223           0.407         2017         \$13,236         \$1,008,418         \$256           0.382         2018         \$11,642         \$0         \$225           0.386         2019         \$11,642         \$0         \$211           0.316         2020         \$10,919         \$0         \$214           0.326         2022         \$0         \$186           0.296         2022         \$10         \$11,642           \$0         \$186         \$174	4		2007		\$3,410	•		•				
0.681         2009         \$22,112         \$2,999         \$427           0.638         2010         \$20,738         \$1,579,988         \$401           0.599         2011         \$19,450         \$2,638         \$376           0.561         2012         \$18,241         \$0         \$353           0.563         2013         \$17,108         \$0         \$331           0.494         2014         \$16,045         \$0         \$310           0.463         2015         \$15,048         \$0         \$291           0.463         2016         \$11,113         \$1,914         \$256           0.407         2017         \$13,236         \$1,008,418         \$256           0.38         2018         \$12,414         \$1,684         \$256           0.358         2020         \$10,919         \$0         \$225           0.316         2021         \$10,919         \$0         \$225           0.296         2022         \$0         \$0         \$186           0.277         2023         \$0         \$1,222         \$174	5		2008		\$0	•						
0.638         2010         \$20,738         \$1,579,98B         \$401           0.594         2011         \$19,450         \$2,638         \$376           0.561         2012         \$18,241         \$0         \$333           0.527         2013         \$17,108         \$0         \$331           0.494         2014         \$16,045         \$0         \$310           0.463         2015         \$15,048         \$0         \$291           0.407         2016         \$14,113         \$1,914         \$273           0.407         2017         \$13,236         \$1,008,418         \$256           0.382         2018         \$12,414         \$1,684         \$240           0.386         2019         \$11,642         \$0         \$225           0.36         \$10,919         \$0         \$211           0.315         \$2021         \$10,919         \$0         \$196           0.296         \$2022         \$0         \$196         \$174           0.277         \$2023         \$174         \$10,241         \$6         \$174	φ		2009		\$2,999	•						
0.5992011\$19,450\$2,638\$3760.5612012\$18,241\$0\$3530.5272013\$17,108\$0\$3310.4942014\$16,045\$0\$3100.4632015\$15,048\$0\$2910.4342016\$14,113\$1,914\$2730.4072017\$13,236\$1,008,418\$2560.3822018\$12,414\$1,684\$2400.3582019\$11,642\$0\$2110.362020\$10,919\$0\$2110.3152021\$10,241\$0\$1860.2962022\$0\$122\$1740.2772023\$122\$174	-7		2010		\$1,579,988							
0.564         2012         \$18,241         \$0         \$353           0.527         2013         \$17,108         \$0         \$331           0.494         2014         \$16,045         \$0         \$310           0.463         2015         \$15,048         \$0         \$291           0.434         2016         \$14,113         \$1,914         \$273           0.407         2017         \$13,236         \$1,008,418         \$256           0.382         2018         \$12,414         \$1,684         \$240           0.358         2019         \$11,642         \$0         \$225           0.36         2020         \$10,919         \$0         \$211           0.315         2021         \$10,241         \$0         \$198           0.296         2022         \$0         \$186           0.277         2023         \$174         \$174	φ		2011		\$2,638							
0.5272013\$17,108\$0\$3310.4942014\$16,045\$0\$3100.4632015\$15,048\$0\$2910.4342016\$14,113\$1,914\$2730.4072017\$13,236\$1,008,418\$2560.3822018\$12,414\$1,684\$2400.3582019\$11,642\$0\$2250.362020\$10,919\$0\$2110.3152021\$10,241\$0\$1860.2962022\$0\$1,222\$1740.2772023\$1\$0\$174	φ		2012		<b>S</b>	•						
0.4942014\$16,045\$0\$3100.4632015\$15,048\$0\$2910.4342016\$14,113\$1.914\$2730.4072017\$13,236\$1,008,418\$2560.3822018\$12,414\$1,684\$2400.3582019\$11,642\$0\$2250.3582020\$10,919\$0\$2110.3152021\$10,241\$0\$1980.2962022\$0\$122\$1740.2772023\$0\$1,222\$174	-10		2013		<b>\$</b>							
0.4632015\$15,048\$0\$2910.4342016\$14,113\$1.914\$2730.4072017\$13,236\$1,008,418\$2560.3822018\$12,414\$1,684\$2400.3582019\$11,642\$0\$2250.3562020\$10,919\$0\$2110.3152021\$10,241\$0\$1980.2962022\$0\$122\$1740.2772023\$0\$1722\$174	-11		2014		<b>\$</b>							
0.434     2016     \$14,113     \$1.914     \$273       0.407     2017     \$13,236     \$1,008,418     \$256       0.382     2018     \$12,414     \$1,684     \$240       0.358     2019     \$11,642     \$0     \$225       0.356     2020     \$10,919     \$0     \$211       0.315     2021     \$10,241     \$0     \$198       0.296     2022     \$0     \$186       0.277     2023     \$0     \$174	-12		2015		<b>\$</b>							
0.407     2017     \$13,236     \$1,008,418     \$256       0.382     2018     \$12,414     \$1,684     \$240       0.358     2019     \$11,642     \$0     \$225       0.356     2020     \$10,919     \$0     \$211       0.315     2021     \$10,241     \$0     \$198       0.296     2022     \$0     \$186       0.277     2023     \$1,222     \$174	-13		2016		\$1,914							
0.382     2018     \$12,414     \$1,684     \$240       0.358     2019     \$11,642     \$0     \$225       0.336     2020     \$10,919     \$0     \$211       0.315     2021     \$10,241     \$0     \$198       0.296     2022     \$0     \$186       0.277     2023     \$1,222     \$174	-14		2017		\$1,008,418							
0.358     2019     \$11,642     \$0       0.336     2020     \$10,919     \$0       0.315     2021     \$10,241     \$0       0.296     2022     \$0     \$0       0.277     2023     \$0     \$1,222	-15		2018		\$1,684							3
0.336     2020     \$10,919     \$0       0.315     2021     \$10,241     \$0       0.296     2022     \$0     \$0       0.277     2023     \$0     \$1,222	-16		2019		<b>S</b>							
0.315 2021 \$10,241 \$0 0.296 2022 \$0 \$0 0.277 2023 \$0 \$1,222	-17				<b>S</b>							
0.296 2022 \$0 \$0 0.277 2023 \$0 \$1,222	-18		2021		<b>9</b>					•		
0.277 2023 \$0 \$1,222	-18			₩.								
	-50		2023	\$								

#### Freshwater Bayou on Belle Isle to Lock (XTV-27)

\$2,298,047		Total First	Cost	\$0	\$451 228	\$798 597	65 265 642	\$10,007,04	\$13,263,340																											
v		First Cost	Construction	<b>9</b>	<b>S</b>	. <b>S</b>	\$3 826 244	\$5.020,314	\$8,908,206																											
Amortized Costs			Contingency	0 <b>\$</b>	<b>%</b>	\$0	\$956.579	\$1,270,473	\$2,227,052																											
		Supervision	& Inspectio	<b>%</b>	<u>\$</u>	<b>%</b>	\$186,741	\$248,018	\$434,759																											
	Corps	Project	Management	20	\$628	\$649	\$670	\$692	\$2,639																											
	LDNR	Supervision &	יוסוויוויוויוויויוסט	30	02,816	\$34,089	\$35,214	\$27,282	\$115,835																											
\$25,071,556	Federal	Supervision & Administration		<b>CBA</b> 250	000,000	775,8414	L05,401	\$119,545	\$507,568	Other	Costs	9	3	<b>S</b>	S 5	\$715	\$739	\$763	\$788	\$814	\$841	\$869	\$898	\$927	\$958	\$989	\$1,022	\$1,056	\$1,091	\$1,127	\$1,164	\$1,202	\$1,242	\$1.283	\$1,325	\$19,812
Funded Costs		Easements & Land Rights	9	\$12.3	624 044	140,134	33,700	\$0	537,934	O&M	Costs	05	9	. <b>S</b>	S	80	\$5,184	\$3,007,939	\$5,532	\$0	\$5,903	\$3,425,077	\$6,299	<b>\$</b>	<b>\$</b>	\$0	80	\$7,409	\$4,299,051	\$7,906	<b>S</b>	<b>S</b>	<b>%</b>	80	\$9,299	\$10,779,597
Total Fully Fi		Engineering & Design	90	\$334.667	\$592 647	\$102.034	* CO'NO	000	1,029,348	Monitoring	Costs	\$48,174	\$34,673	\$35,817	9	\$36,999	\$38,220	\$39,481	\$40,784	\$42,130	\$43,520	\$44,957	\$46,440	\$47,973	\$49,556	\$51,191	\$52,880	\$54,625	\$56,428	\$58,290	\$60,214	\$62,201	\$64,253	<b>%</b>	\$0	\$1,008,808
		riscal Year		2000	2001	2002	2000			Fiscal	Year	2001	2002	2003	ear	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total \$
Fully Funded Costs		Factor		1.000	1 033	1.067	1 103	- 1		Inflation	Factor	1.033	1.067	1.102	Base Year	1.139	1.176	1.215	1.255	1.297	1.339	1.384	1.429	1.476	1.525	1.5/5	1.627	1.681	1.737	1.794	1.853	1.914	1.977	2.043	2.110	<del></del>
Fully Fu	ſ.	Year	5	4	က	7	-	-			Year	က	7	-	0	<del>-</del>	-5	ę.	7	လု	φ	<b>.</b> -	တ် (	တ္ (	₽;	<del>-</del> :	71-		4 (	<u>.</u>	<u>e</u> !	<u>-</u> :	æ :	<del>.</del> 6	0.5	

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### Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### North Houma Navigational Canal Salinity Control (TE-8a)

24	0.0916595	\$22,758,646
Total Project Years	Amortization Factor	Total Fully Funded Costs
4	9 625%	\$16,668,350
Project Construction Years:	interest Rate	Total First Costs

Annual Charges	Present Worth	Average Annual
Interest & Amortization Monitoring O & M Costs Other Costs	\$17,161,090 \$464,003 \$1,989,095 \$6,851	\$1,572,978 \$42,530 \$182,320 \$628
Total	\$19,621,000	\$1,798,455
Average Annual Habitat Units		331
Cost Per Habitat Unit		\$5,433
Average Annual Acres of Emergent Marsh		₹Z

#### North Houma Navigational Canal Salinity Control (TE-8a)

First Costs and Annual Charges

Total First	Cost		900	6430,004 640,004	9849,844	\$6,643,537	\$15,433,085																											
First Cost	Construction	Ş	: 5	3 5	0.000	\$4,948,650 66,773 <b>4</b> .06	\$10,722,075															-												
	Contingency	\$0	OS:	; <b>;</b>	64 727 463	\$1,237,103 \$1,443,356	\$2,680,519																											
Supervision	& Inspectio	90	<b>\$</b> 0	9	\$00 308	\$107.692	\$200,000																											
Corps Project	Management	\$0	\$628	\$628	\$628	\$628	\$2,512																											
LDNR Supervision &	Administration	<b>%</b>	\$20,263	\$34,737	\$34.737	\$20,263	\$110,000																											
Federal Supervision &	Administration	So So	\$98,336	\$168,576	\$168,576	\$98,336	\$533,823	Other	Costs	\$0	<b>\$</b>	80	<b>\$</b>	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
	1	05	\$47.727	\$81,818	\$20,455	\$0	\$150,000	O&M	Costs	\$0	<b>\$</b>	<b>S</b> 0	<b>\$</b> 0	\$12,911	\$12,911	\$12.911	\$12,911	\$1,220,259	\$12,911	\$12,911	\$12,911	\$12,911	\$1,571,221	\$12,911	\$12,911	\$12,911	\$12,911	\$409,982	\$12,911	\$12,911	\$12,911	\$12,911	\$12,911	\$3,420,949
Engineering	a Design	0.6	050,825	\$564,085	\$141,021	20	\$1,034,156	Monitoring	Costs	\$46,635	\$32,493	\$32,493	80	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$0	\$0	\$696,495
Fiscal	200	0	2000	1002	2002	8	TOTAL	Fiscal	Year	2001	2002	2003	Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Year	S Compound	Dinodino C	o componing	s compound	2 Compound	1 Compound			Year	3 Compound	2 Compound	1 Compound	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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### Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### North Houma Navigational Canal Salinity Control (TE-8a)

Veal         Find Final         Engineering         Same state and state an												
Compound         Fiscal Engineering         Exameliare Spacements         Suppervision & Amagement & Imspection         Project         Project         Controllogency		,				Federal	LDNR	Corps				
5         1378         \$0         \$150         \$0	Year	Compound Rates	Fiscal Year	Engineering & Desian		Supervision & Administration	Supervision & Administration	Project Management	Supervision & Inspectio	Contingency	First Cost Construction	Total First Cost
1233   2000   5425,302   5816,88   5127,101   5.56,190   5812   5816,88   5127,101   5.56,190   5812   5816,88   5127,101   5.56,190   5812,101   5.56,190   5.56,1		1.378		90	\$0	0\$	05	0\$	\$0	\$0	O <b>\$</b>	0\$
1121   2001 \$683788    \$89181   \$504349    \$52100    \$670	4	1.293	2000		\$61,688	\$127,101	\$26,190	\$812	\$0	<b>\$</b> 0	<b>%</b>	\$641,093
1137   2002   5160.326   523.255   5191.652   539.492   571.4   510.4944   514.06.517   55.626.066   510.256.14   510.2   510.356.14   510.2   510.356.14   510.2   510.356.14   510.2   510.256.14   510.2   510.256.14   510.2   510.256.14   510.2   510.256.14   510.2	က	1.212	2001		\$99 181	\$204,349	\$42,108	\$761	80		0\$	\$1,030,187
1   1066   2003   \$50   \$50   \$50   \$50   \$51,538 979   \$56,155914   \$10   \$	2	1.137	2002		\$23,255	\$191,652	\$39,492	\$714	\$104,944	\$1,406,517	\$5,626,066	\$7,552,964
Discount   Fiscal   Monitoring   O&M   Other     Rates	-	1.066	2003		80	\$104,851	\$21,606	\$670	\$114,827	\$1,538,979	\$6,155,914	\$7,936,846
Discount         Fiscal         Monitoring         O&M         Othre           Rates         Year         Costs         Costs         Costs           3         1.212         2001         \$56,531         \$0           4         1.137         2002         \$36,941         \$0           5         1.137         2002         \$36,941         \$0           6         Base Year         \$0         \$0         \$0           1         1.066         2003         \$34,646         \$0           2         0.838         2004         \$30,474         \$12.109           2         0.880         2005         \$28,581         \$11,356           3         0.825         2006         \$28,581         \$11,356           4         0.774         2007         \$22,139         \$9,989           5         0.681         2006         \$22,112         \$8,786           6         0.681         2010         \$20,738         \$8,240           8         0.599         2011         \$19,450         \$7,728           9         0.561         2012         \$18,241         \$1,728           9         0.561         \$16,045 <td></td> <td></td> <td>Total</td> <td>\$1,269,416</td> <td>\$184,123</td> <td>\$627,952</td> <td>\$129,396</td> <td>\$2,957</td> <td>\$219,771</td> <td>\$2,945,495</td> <td>\$11,781,980</td> <td>\$17,161,090</td>			Total	\$1,269,416	\$184,123	\$627,952	\$129,396	\$2,957	\$219,771	\$2,945,495	\$11,781,980	\$17,161,090
Rates         Year         Costs         Costs         Costs           3         1.212         2001         \$56,531         \$0           2         1.137         2002         \$36,941         \$0           1         1.066         2003         \$34,646         \$0           0         Base Year         \$0         \$0           1         0.938         2004         \$30,474         \$12.109           2         0.880         2005         \$28,581         \$11.356           3         0.825         2006         \$26,805         \$10.651           4         0.774         2007         \$25,139         \$9.989           5         0.726         2006         \$226,805         \$10.651           6         0.681         2007         \$22,112         \$8.786           7         0.638         2010         \$20,738         \$8.240           8         0.559         2011         \$19,450         \$7.728           9         0.561         2012         \$14,113         \$5.979           1         0.463         2012         \$14,113         \$5.608           2         0.463         2015         \$14,113		Discount	Fiscal	Monitoring	08M	Other						
1.212 2001 \$56,531 \$0 1.137 2002 \$36,941 \$0 1.066 2003 \$34,646 \$0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.		Rates	Year	Costs	Costs	Costs						
1.137 2002 \$36,941 \$0 1.066 2003 \$34,646 \$0 Base Year \$0 0.938 2004 \$30,474 \$12,109 0.880 2005 \$28,581 \$11,356 0.825 2006 \$26,805 \$10,651 0.774 2007 \$25,139 \$9,989 0.774 2007 \$25,139 \$88,745 0.681 2009 \$22,112 \$88,745 0.684 2010 \$19,450 \$7,728 0.599 2011 \$19,450 \$7,728 0.591 2012 \$18,241 \$7,728 0.494 2014 \$16,045 \$5,979 0.494 2014 \$16,045 \$5,979 0.494 2016 \$14,113 \$5,608 0.407 2017 \$13,236 \$5,259 0.382 2019 \$11,642 \$4,626 0.336 2020 \$10,919 \$4,339 0.315 2021 \$10,241 \$4,069 0.296 \$2023 \$0	3	1.212	2001		\$0	<b>%</b>						
1.066 2003 \$34,646 \$0  Base Year \$0 0.938 2004 \$30,474 \$12.109 0.880 2005 \$28,581 \$11,356 0.825 2006 \$26,805 \$10,651 0.774 2007 \$25,139 \$9.989 0.775 2008 \$23,577 \$885,435 0.638 2010 \$20,738 \$82,40 0.638 2011 \$19,450 \$7.728 0.639 2011 \$19,450 \$7.728 0.551 2011 \$19,450 \$7.728 0.494 2014 \$16,045 \$5.979 0.494 2014 \$16,045 \$5.979 0.494 2016 \$11,143 \$5.608 0.407 2017 \$13,236 \$5.259 0.382 2019 \$11,642 \$4,626 0.336 2020 \$10,919 \$4,339 0.315 2021 \$10,241 \$4,069 0.296 2022 \$0	2	1.137	2002		\$0	\$0						
Base Year         \$0         \$0           0.938         2004         \$30,474         \$12,109           0.880         2005         \$28,581         \$11,356           0.825         2006         \$26,805         \$10,651           0.774         2007         \$25,139         \$9.989           0.774         2007         \$25,139         \$9.989           0.774         2007         \$25,139         \$9.989           0.726         2008         \$23,577         \$885,435           0.638         2010         \$20,738         \$8.786           0.639         2011         \$18,240         \$7.728           0.599         2011         \$18,241         \$7.248           0.561         2012         \$18,241         \$7.248           0.577         2013         \$17,108         \$6.375           0.494         2014         \$16,045         \$5.259           0.407         2017         \$14,113         \$5.608           0.407         2017         \$13,244         \$156,613           0.382         2019         \$11,642         \$4,626           0.336         2020         \$10,919         \$4,069           0.296 <td>-</td> <td>1.066</td> <td>2003</td> <td></td> <td>\$0</td> <td><b>\$</b>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	-	1.066	2003		\$0	<b>\$</b> 0						
0.938         2004         \$30,474         \$12,109           0.880         2005         \$28,581         \$11,356           0.825         2006         \$26,805         \$10,651           0.774         2007         \$25,139         \$9.989           0.775         2007         \$25,139         \$9.989           0.726         2008         \$23,577         \$885,435           0.638         2010         \$20,738         \$8.786           0.638         2011         \$19,450         \$7.728           0.639         2011         \$18,241         \$7.248           0.561         2012         \$18,241         \$5.248           0.577         2013         \$17,108         \$63.75           0.494         2014         \$16,045         \$5.979           0.407         2017         \$14,113         \$5.608           0.407         2017         \$13,236         \$5.259           0.382         2019         \$11,642         \$4,626           0.336         2020         \$10,919         \$4,069           0.315         2021         \$10,214         \$4,069           0.296         2022         \$0         \$3,816	0	Base	Year	<b>\$</b> 0	\$0							
0.880         2005         \$28,581         \$11,356           0.825         2006         \$26,805         \$10,651           0.774         2007         \$25,139         \$9.989           0.726         2008         \$23,577         \$885,435           0.681         2009         \$22,112         \$8,786           0.638*         2010         \$20,738         \$8,786           0.639*         2011         \$19,450         \$7,728           0.599         2011         \$18,241         \$7,248           0.547         2012         \$18,241         \$7,248           0.494         2014         \$16,045         \$5,979           0.494         2015         \$14,113         \$5,608           0.407         2017         \$15,046         \$5,279           0.407         2017         \$13,236         \$5,259           0.382         2019         \$11,642         \$4,626           0.336         2020         \$10,919         \$4,339           0.296         2022         \$0         \$3,816           0.296         2023         \$0         \$3,816           0.277         \$0         \$3,579	٣	0.938	2004		\$12,109	\$589						
0.825         2006         \$26,805         \$10,651           0.774         2007         \$25,139         \$9.989           0.726         2008         \$23,577         \$885,435           0.681         2009         \$22,112         \$8.786           0.638*         2010         \$20,738         \$8.786           0.639         2011         \$19,450         \$7.728           0.599         2011         \$18,241         \$7.248           0.577         2012         \$18,241         \$7.248           0.494         2014         \$16,045         \$5.979           0.494         2015         \$14,113         \$5.608           0.434         2015         \$14,113         \$5.608           0.434         2016         \$14,113         \$5.259           0.382         2019         \$11,642         \$4.626           0.382         2020         \$10,919         \$4.339           0.315         2021         \$10,241         \$4,069           0.296         2022         \$0         \$3.816           0.277         2023         \$0         \$3.579	?	0.880	2005		\$11,356	\$552						
0.774     2007     \$25,139     \$9.989       0.726     2008     \$23,577     \$885,435       0.681     2009     \$22,112     \$8.786       0.638r     2010     \$20,738     \$8.240       0.599     2011     \$19,450     \$7.728       0.561     2012     \$18,241     \$7.248       0.527     2013     \$17,108     \$627.269       0.494     2014     \$16,045     \$6.375       0.463     2015     \$15,048     \$5.979       0.407     2017     \$14,113     \$5.608       0.382     2019     \$11,642     \$4.626       0.358     2019     \$11,642     \$4.626       0.358     2020     \$10,919     \$4.339       0.315     2021     \$10,241     \$4.069       0.296     2022     \$0     \$3.816       0.277     2023     \$0     \$3.579	ć	0.825	2006		\$10,651	\$518						
0.726         2008         \$23,577         \$885.435           0.681         2009         \$22,112         \$8.786           0.638r         2010         \$20,738         \$8.240           0.599         2011         \$19,450         \$7.728           0.561         2012         \$18,241         \$7.248           0.527         2013         \$17,108         \$627.269           0.494         2014         \$16,045         \$6.375           0.463         2015         \$15,048         \$5.979           0.407         2017         \$14,113         \$5.608           0.382         2016         \$14,113         \$5.6631           0.382         2018         \$12,414         \$15,6631           0.382         2019         \$11,642         \$4.626           0.358         2019         \$11,642         \$4.626           0.336         2020         \$10,919         \$4.339           0.296         2022         \$0         \$3.816           0.296         2023         \$0         \$3.816	4	0.774	2007	•	\$9,989	\$486						
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0.434     2016     \$14,113     \$5,608       0.407     2017     \$13,236     \$5,259       0.382     2018     \$12,414     \$156,631       0.358     2019     \$11,642     \$4,626       0.336     2020     \$10,919     \$4,339       0.315     2021     \$10,241     \$4,069       0.296     2022     \$0     \$3,816       0.277     2023     \$0     \$3,579	-12		2015									
0.407     2017     \$13,236     \$5,259       0.382     2018     \$12,414     \$156,631       0.358     2019     \$11,642     \$4,626       0.336     2020     \$10,919     \$4,339       0.315     2021     \$10,241     \$4,069       0.296     2022     \$0     \$3,816       0.277     2023     \$0     \$3,579	-13		2016									
0.382     2018     \$12,414     \$156,631       0.358     2019     \$11,642     \$4,626       0.336     2020     \$10,919     \$4,339       0.315     2021     \$10,241     \$4,069       0.296     2022     \$0     \$3,816       0.277     2023     \$0     \$3,579	-14		2017									j
0.358     2019     \$11,642     \$4,626       0.336     2020     \$10,919     \$4,339       0.315     2021     \$10,241     \$4,069       0.296     2022     \$0     \$3,816       0.277     2023     \$0     \$3,579	-15		2018			\$240						
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0.277 2023 \$0 \$3,579	-19		2022	•	\$3,816							
	-20		2023									

#### North Houma Navigational Canal Salinity Control (TE-8a)

Engineering Easemen & Design & Land Rig \$0 \$329,050 \$47.7 \$582,700 \$84.5 \$150,482 \$2.18 \$1.062,232 \$1.54.0 \$34.673 \$34.673 \$35.817 \$38.999 \$14.7 \$38.999 \$15.1 \$38.4.957 \$17.8 \$34.957 \$17.8 \$44.957 \$19.0 \$44.957 \$10.0 \$44.957 \$	Federal Is Supervision & his Administration \$50	LDNR Supervision & Administration \$0 \$20.263 \$35.883 \$37.067 \$22.336 \$115.550	Corps Project Management \$0 \$628 \$649 \$670 \$680 \$690 \$2,639	Supervision & Inspectio	Contingency \$0 \$0 \$0 \$1.320.162 \$1.591.016 \$2.911,178	First Cost Construction \$0 \$0 \$5 \$6.364,063 \$5.11,644,713	Total First  Cost \$0 \$496,004 \$877,889 \$7,089,245 \$8,205,213 \$16,668,350
Fiscal Engineering Year & Design \$0 2000 \$329,050 2001 \$582,700 2002 \$150,482 2003 \$0.051 AL \$1,062,232 AL \$1,062,232 AL \$1,062,232 2001 \$48,174 2002 \$34,673 2004 \$36,999 2005 \$38,220 2006 \$39,481 2007 \$40,784 2008 \$42,130 2009 \$43,520 2010 \$44,957 2011 \$46,440 2011 \$46,440 2012 \$41,973 2013 \$49,556		Supervision & Administration \$0 \$20.263 \$35.883 \$37.067 \$22.336 \$115.550		Supervision & Inspectio	Contingency \$0 \$0 \$0 \$0 \$1.320,162 \$1.591,016 \$2.911,178	First Cost Construction \$0 \$0 \$0 \$5.280,650 \$6,364,063 \$11,644,713	
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2000 \$329,050 \$44,5 2001 \$582,700 \$84,5 2002 \$150,482 \$21,8 82,700 \$84,5 2003 \$150,482 \$21,8 80 2004 \$1,062,232 \$154,0 2002 \$34,673 \$2004 \$36,999 \$14,7 2005 \$34,673 \$15,10 2006 \$39,481 \$15,10 2006 \$39,481 \$15,10 2006 \$39,481 \$15,10 2006 \$39,481 \$15,10 2007 \$44,957 \$17,8 2010 \$44,957 \$11,0 2011 \$46,440 \$18,4 2011 \$49,556 \$2,396,3	\$98.3 \$174.1 \$174.9 \$108.3 \$560.7 \$560.7 \$78 \$78 \$78 \$78	\$20.263 \$35.883 \$37.067 \$22.336 \$115.550	\$628 \$649 \$670 \$692 \$2.639	\$0 \$0 \$98.501 \$118.710 \$217.210	\$0 \$0 \$1.320,162 \$1,591,016 \$2,911,178	\$0 \$0 \$5.280,650 \$6.364,063 \$11,644,713	\$0 \$496,004 \$877.889 \$7.089.245 \$8.205.213 \$16,668,350
2001 \$582.700 \$84.5 2002 \$150,482 \$21.8 2003 \$0  AL \$1.062.232 \$154.0  Fiscal Monitoring O&M Year Costs 2001 \$48.174 2002 \$34.673 2003 \$35.817 2004 \$36.999 \$14.7 2005 \$34.673 2007 \$40.784 \$16.2 2006 \$39.481 \$15.1 2006 \$39.481 \$15.1 2007 \$40.784 \$16.2 2007 \$40.784 \$16.2 2008 \$42.130 \$1.82.1 2010 \$44.957 \$17.8 2011 \$46.440 \$18.4 2012 \$47.973 \$19.0	\$174.1 \$179.8 \$108.3 \$560.7 Other Costs \$7 \$7	\$35.883 \$37.067 \$22.336 \$115.550	\$649 \$670 \$692 \$2.639	\$0 \$98.501 \$118.710 \$217.210	\$1.320,162 \$1,320,162 \$1,591,016 \$2,911,178	\$0 \$5,280,650 \$6,364,063 \$11,644,713	\$496,004 \$877,889 \$7,089,245 \$8,205,213 \$16,668,350
2002 \$150,482 \$21.8 \$2003 \$60 \$71.8 \$1062.232 \$154.0 \$154.	\$179.8 \$108.3 \$560.7 Other Costs \$7 \$7 \$7	\$37.067 \$22.336 \$115.550	\$670 \$692 \$2.639	\$98.501 \$118.710 \$217.210	\$1,320,162 \$1,591,016 \$2,911,178	\$5,280,650 \$6,364,063 \$11,644,713	\$87,089,245 \$8,205,213 \$16,668,350
AL \$1.062.232 \$154.0  AL \$1.062.232 \$154.0  Fiscal Monitoring O&M  Year Costs  2001 \$48.174  2002 \$34.673  2003 \$35.817  \$0  2004 \$36.999  \$14.7  2005 \$38.220  \$15.1  2006 \$39.481  \$15.6  2007 \$40.784  \$16.2  2008 \$42.130  \$17.2  2010 \$44.957  \$19.0  2011 \$46.440  \$19.0  2012 \$47.973  \$19.0	\$560.7 S560.7 Other Costs \$7 \$7 \$7	\$115,550	\$2,639	\$118,710 \$217.210	\$1,591,016 \$2,911,178	\$5,364,063 \$6,364,063 \$11,644,713	\$1,089,245 \$8,205,213 \$16,668,350
Fiscal Monitoring O&M Year Costs 2001 \$48,174 Costs 2002 \$34,673 2003 \$35,817 \$0.000 \$35,817 \$0.000 \$35,817 \$0.000 \$35,817 \$0.000 \$35,999 \$15,10 \$0.000 \$42,130 \$1,582,10 \$0.000 \$43,520 \$17,2009 \$43,520 \$17,2009 \$43,520 \$17,2009 \$43,520 \$11,2009 \$43,520 \$11,2009 \$43,520 \$11,2009 \$43,520 \$11,2009 \$11,	\$560.7 Other Costs \$7 \$7	\$115,550	\$2,639	\$217.210	\$2,911,178	\$11,644,713	\$15,000 \$15,00
Fiscal Monitoring O&M  Year Costs Costs  2001 \$48,174 2002 \$34,673 2003 \$35,817 2004 \$36,999 \$14,7 2005 \$38,220 \$15,11 2006 \$39,481 \$15,61 2006 \$39,481 \$15,61 2007 \$40,784 \$16,22 2008 \$42,130 \$1,582,1 2009 \$43,520 \$17,2 2010 \$44,957 \$17,8 2011 \$46,440 \$18,4 2012 \$47,973 \$19,0	Other Costs						
Year         Costs         Costs           2001         \$48,174         Costs           2002         \$34,673         \$0.02           2003         \$35,817         \$0.02           2004         \$36,999         \$14,7           2005         \$38,220         \$15,1           2006         \$39,481         \$15,6           2007         \$40,784         \$16,2           2008         \$42,130         \$1,582,1           2009         \$43,520         \$17,2           2010         \$44,957         \$17,8           2011         \$46,440         \$18,4           2012         \$47,973         \$19,0           2013         \$49,556         \$2,396,3	Costs S7 S7 S7						
2001 \$48,174 2002 \$34,673 2003 \$35,817 \$0 2004 \$36,999 \$14,7 2005 \$38,220 \$15,1 2006 \$39,481 \$15,6 2007 \$40,784 \$16,2 2008 \$42,130 \$17,2 2019 \$44,957 \$19,0 2011 \$46,440 \$19,0 2012 \$47,973 \$19,0	78						
2002 \$34,673 2003 \$35,817 \$0 2004 \$36,999 \$14,7 2005 \$38,220 \$15,1 2006 \$39,481 \$15,1 2007 \$40,784 \$16,2 2008 \$42,130 \$1,582,1 2009 \$43,520 \$17,2 2010 \$44,957 \$17,8 2011 \$46,440 \$18,4 2012 \$47,973 \$19,0	55 55 50 50 50 50						
\$003 \$35.817 \$0 2004 \$36.999 \$14.7 2005 \$38.220 \$15.1 2006 \$39.481 \$15.6 2007 \$40.784 \$16.2 2008 \$42.130 \$1.582.1 2009 \$43.520 \$17.2 2010 \$44.957 \$17.8 2011 \$46.440 \$18.4 2012 \$47.973 \$19.0	25 S						
\$0 2004 \$36.999 2005 \$38.220 2006 \$39.481 2007 \$40.784 2008 \$42.130 \$1. 2009 \$43.520 2010 \$44.957 2011 \$46.440 2012 \$47.973 2013 \$49.556 \$2	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6						
\$36,999 \$38,220 \$39,481 \$40,784 \$42,130 \$43,520 \$44,957 \$46,440 \$47,973 \$49,556							
\$38.220 \$39.481 \$40.784 \$42.130 \$43.520 \$44.957 \$46.440 \$47.973 \$49.556							
\$39.481 \$40.784 \$42.130 \$43.520 \$44.957 \$46.440 \$47.973 \$49.556 \$22							
\$40,784 \$42,130 \$43,520 \$44,957 \$46,440 \$47,973 \$49,556 \$2							
\$42,130 \$1, \$43,520 \$44,957 \$46,440 \$47,973 \$49,556 \$2	35 \$788						
\$43,520 \$44,957 \$46,440 \$47,973 \$49,556 \$2	75 \$814						
\$44,957 \$46,440 \$47,973 \$49,556 \$2	93 \$841						
\$46,440 \$47,973 \$49,556 \$2	53 \$869						
\$47,973 \$49,556 \$2	53 \$898						
\$49,556 \$2	52 \$927						
,							
\$51,191	11 \$989						
\$52,880	12 \$1,022						
	35 \$1,056						
\$56,428	22 \$1,091						
	79 \$1,127						
	26 \$1,164						
\$62,201							
2021 \$64,253 \$25,531	31 \$1,242						
\$0							
2023 \$0 \$27.244	14 \$1,325						

#### Little Pecan Bayou (XME-42a)

25	0.0916595	\$15,274,025
Total Project Years	Amortization Factor	Total Fully Funded Costs
ſĊ	6 625%	\$11,008.599
Project Construction Years:	interest Rate	Total First Costs

Average	\$1,007,160 \$43,642 \$92,968 \$628	\$1,144,398	\$5.109 NA
Present . Worth	\$10,988.056 \$476,127 \$1,014,277 \$6.851	\$12,485,300	
Annual Charges	Interest & Amortization Monitoring O & M Costs Other Costs	Total Average Annual Habitat Units	Cost Per Habitat Unit  * Average Anhual Acres of Emergent Marsh

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#### Little Pecan Bayou (XME-42a)

First Costs and Annual Charges

	Fooineering	Facomente	Supervision &	Supervision 8	Project	Cinicagan		0	i
Year & L		Ø			Management	& Inspectio	Contingency	Construction	Lotal First Cost
	\$157,839	\$33,871	\$42,127	\$14,000	\$628	i	\$0	0\$	\$248,465
	\$270,581	\$58,065	\$72,218	\$24,000	\$628	80	80	0 <b>.5</b>	\$425,491
	\$270,581	\$58,065	\$72,218	\$24,000	\$628	80	<b>\$</b> 0	0\$	\$425,491
2003	ှင် ရ	80	\$72,218	\$24,000	\$628		\$609,461	\$2,437,842	\$3,256,149
2004	20	20	\$72,218	\$24,000	\$628	ı	\$1,044,789	\$4,179,158	\$5,512,794
TOTAL \$6	<b>2</b> 699,000	\$150,000	\$331,000	\$110,000	\$3,140	\$304,000	\$1,654,250	\$6,617,000	\$9,868,390
Fiscal Mo	Monitoring	O&M	Other						
Year	Costs	Costs	Costs						
202	\$48.714	0\$	\$0						
2003	\$32,493	<b>\$</b> 0	\$0						
2004 \$	\$32,493	\$0	0\$						
	<b>%</b>	\$0							
2002	\$32,493	\$15,645	\$628						
2006	\$32,493	\$15,645	\$628						
2007	\$32,493	\$15.645	\$628						
2008	\$32,493	\$15,645	\$628						
2009	\$32,493	\$15,645	\$628						
2010	\$32,493	\$15.645	\$628						
2011	\$32,493	\$534,861	\$628						
2012	\$32,493	\$15,645	\$628						
2013	\$32,493	\$15,645	\$628						
2014	\$32,493	\$520,903	\$628						
2015	\$32,493	\$15,645	\$628						
2016	\$32,493	\$15,645	\$628						;
2017	\$32,493	\$15,645	\$628						
2018	\$32,493	\$619,981	\$628						
2019	\$32,493	\$15,645	\$628						
2020	\$32,493	\$15,645	\$628						
2021	\$32,493	\$15,645	\$628						
2022	\$32,493	\$15,645	\$628						
2023	\$32,493	\$15.645	\$628						
2024	\$0	\$15,645							
Total \$7	\$731,067	\$1,941,710	\$12,560						

## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### Little Pecan Bayou (XME-42a)

Present Valued Costs	ed Cost		Total Discounted Costs	ned Costs	\$12,485,311				Amortized Costs		\$1,144,398
į					Federal	LDNR	Corps			·	
ŏ			Engineering	Easements	Easements Supervision &	Supervision &	Project	Supervision & Inspection	Contingency	First Cost Construction	lotal First Cost
rear Raies	4 17A	2000	١.	\$46.679	\$58.058	\$19.294	\$865	0,5	\$0	0\$	\$342,421
	1 293	2007	\$349 730	\$75,049	\$93,343	\$31,020	\$812	\$0	\$0	<b>%</b>	\$549,955
	1 2 1 2	2002	90	\$70,386	\$87,543	\$29,093	\$761	80	<b>\$</b> 0	<b>\$</b> 0	\$515,784
	1.137	2003	S	80	\$82,104	\$27,285	\$714	\$127,332	\$692,889	\$2,771,556	\$3,701,880
, -	1.066	2004	S	90	\$77,003	\$25,590	\$670	\$204,720	\$1,114,007	\$4,456,027	\$5,878,016
	1	Total	\$567,255	\$192,115	\$398,051	\$132,283	\$3,822	\$332,052	\$1,806,896	<b>\$</b> 7,22 <b>7</b> ,583	\$10,988,056
Discount	ĭ	Fiscal	Monitoring	O&M	Other						
Year Rates		Year	Costs	Costs	Costs						
-	1.212	2002	\$59,051	9	<b>S</b>						
7	1.137	2003	\$36,941	\$0							
-	1.066	2004	\$34,646	\$0	<b>8</b> 0						
0	Base Year	iar	<b>\$</b> 0	80							
<del>-</del>	0.938	2002	\$30,474	\$14.673	\$589						
-5	0.880	2006	\$28,581	\$13,761	\$552						
6	0.825	2007	\$26,805	\$12,906	\$518						
4	0.774	2008	\$25,139	\$12,104							
ιċ	0.726	2009	\$23,577	\$11,352	••						
φ	0.681	2010		\$10,647	-						
-1	0.638	2011	\$20,738	\$341,372	<b>~</b> >						
ထု	0.599	2012		\$9,365							
6-	0.561	2013		\$8,783							
-10	0.527	2014		\$274,263							
+	0.494	2015		\$7,725							
-12	0.463	2016	\$15,048	\$7.245							
-13	0.434	2017	\$14,113	\$6,795							
-14	0.407	2018	\$13,236	\$252,553							,
-15	0.382	2019	\$12,414	\$5,977							
-16	0.358	2020		\$5,606	\$225						
-17	0.336	2021	\$10,919	\$5,257							٠
-18	0.315	2022	\$10,241	\$4,931							
-19	0.296	2023	\$9,604	\$4.624							
-20	0.277	2024		\$4,337		. 1					
	_	Total	\$476,127	\$1,014,277	\$6,851						

#### Little Pecan Bayou (XME-42a)

\$1,400,010		Total First	Cost	\$248,465	\$439,533	\$454.037	\$3,589,262	\$6,277,302	865,800,11¢																										
		7					•	5	9																										
v,		First Cost	Construction	0\$	\$0	80	\$2,687,241	\$4,758,719	006'6**																										
Amortized Costs			Contingency	O <b>\$</b>	<b>\$</b> 0	<b>\$</b> 0	\$671,810	\$1,189,680																											
		Supervision	& Inspectio	20	<b>2</b> 0	20	\$123,458	\$218,626																											
	Corps	Project	Management	\$628	\$649	2670	\$695	\$3,354																											
	LDNR	Supervision &	See a soon	524.000	324.732	\$25,610	\$26,455	\$118,186																											
\$15,274,025	Federal	Supervision & Administration		\$74.121	627.063	\$77,003	\$79.506	\$355,632	:	Other	Costs	9 6	9 6	8 6	5739	\$763	\$788	\$814	5841	5869	8888	\$927	\$958	\$989	\$1,022	\$1,056	\$1,091	\$1,127	\$1,164	\$1,202	\$1,242	\$1,283	\$1,325	\$1,369	\$20,466
Total Fully Funded Costs		Easements	533 871	\$59.981	\$61.060	006.100	On #	\$155.812		O&M	COSIS	9 6	S 5	SOS	\$18,403	\$19,010	\$19,637	\$20.285	\$20,955	\$21,646	\$764,442	\$23,098	\$23,861	\$820,656	\$25,461	\$26,302	\$27,169	\$1,112,203	\$28,992	\$29,949	\$30,937	\$31,958	\$33,013	\$34,102	\$3,132,080
Total Fully F		Engineering & Design	\$157 839	\$279,510	\$288 734	5000	) (2)	\$726,082	A do mile out	Coete	\$51 082	\$35.817	\$36,999	<b>S</b>	\$38,220	\$39,481	\$40.784	\$42,130	\$43,520	\$44.957	\$46,440	\$47,973	\$49,556	\$51,191	\$52,880	\$54,625	\$56,428	\$58,290	\$60,214	\$62,201	\$64,253	\$66,374	\$68,564	\$0	\$1,112,881
w	i	risca Year	2000	2001	2002	2003	2004	TOTAL	1000	Year	2002	2003	2004		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
Fully Funded Costs	in flotion	Factor	1 000	1.033	1.067	1 102	1.139		Inflation	Factor	1 067	1.102	1.139	Base Year	1.176	1.215	1.255	1.297	1,339	1.384	1.429	1.476	1.525	1.575	1.627	1.681	1.737	1.794	1.853	1.914	1.977	2.043	2.110	2.180	<b>-</b>
Fully Fu		Year	2	4	9	2	-			Year	3	2	-	0	-	-5	ပုံ	4	ċ	φ	-2	φ	6	-10	<del>-</del>	-12	-13	-14	-15	-16	-17	-18	-19	-20	

All dates are in Federal Fiscal Years (October 1 to September 30)

23	0.0916595	\$20,745,106
Total Project Years	Amortization Factor	Total Fully Funded Costs
Э	6.625%	\$14,883,705
Project Construction Years:	interest Rate	Total First Costs

Annual Charges	Present Worth	Average Annual
Interest & Amortization Monitoring O & M Costs Other Costs	\$15,024,422 \$47,076 \$3,024,645 \$6,851	\$1,377,132 \$4,315 \$277,238 \$628
Total	\$18,103,000	\$1,659,312
Average Annual Habitat Units		101
Cost Per Habitat Unit		\$16,429
Average Annual Acres of Emergent Marsh		NA

First Costs and Annual Charges

Total First	Cost	80	. <b>S</b>	\$388,468	\$665,497	\$12,939,668	\$13,993,634																	į									
First Cost	Construction	0\$	0\$	<b>\$</b> 0		\$10,107,000	\$10,107,000																										
	Contingency	\$0	<b>8</b> 0	\$0	\$0	\$2,526,750	\$2,526,750																										
Supervision	& Inspection Contingency	\$0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$116,000	\$116,000																										
Corps Project	Management	0\$	\$0	\$628	\$628	\$628	\$1,884																										
LDNR Supervision &	Administration	\$0	80	\$24,839	\$42,581	\$42,581	\$110,000																										
Federal Supervision &	Administration	\$0	80	\$85,581	\$146,710	\$146,710	\$379,000	Other	Costs	\$0	<b>\$</b>	80	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
Easements	s	\$0	80	\$27,632	\$47,368	\$0	\$75,000	08M	Costs	0\$	<b>\$</b> 0	0\$	\$3,645	\$3,645	\$3,002,185	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$1,258,717	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$4,326,512
Engineering	& Design	0\$	<b>\$</b> 0	\$249,789	\$428,211	<b>%</b>	\$678,000	Monitoring	Costs	\$13,624	\$2,700	<b>\$</b> 0	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$0	\$67,624
Fiscal	Year			2000	2001	2002	TOTAL	Fiscal	Year	2001	2002	Base Year	2003	2004	2005	2006	2007	2008	. 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
	Year	5 Compound	4 Compound	3 Compound	2 Compound	1 Compound			Year	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

## Coastal Wetlands Conservation and Restoration Plan Priority Project List.IX

	į				Federal	LDNR	Corps				
Year	Compound Rates	Fiscal	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project Management	Supervision & Inspection	Supervision & Inspection Contingency	First Cost Construction	Total First Cost
5	1.378		9		\$0	9	90	0\$	20	\$	0\$
4	1.293		9	0\$	\$0	80	90	<b>\$</b> 0	0\$	<b>9</b>	<b>S</b>
က	1.212	2000	\$302,797	\$33,495	\$103,742	\$30,110	\$761	<b>\$</b> 0	<b>9</b>	0\$	\$470,904
7	1.137	2001	\$486,828	\$53,853	\$166,793	\$48,409	\$714	<b>\$</b> 0	<b>\$</b> 0	O <b>\$</b>	\$756,597
-	1.066	2002	<b>\$</b>	\$0	\$156,429	\$45,402	\$670	\$123,685	\$2,694,147	\$10,776,589	\$13,796,921
		Total	\$789,625	\$87,348	\$426,963	\$123,921	\$2,145	\$123,685	\$2,694,147	\$10,776,589	\$15,024,422
٠	Discount	Fiscal	Monitoring	0&M	Other						
Year F	Rates	Year	Costs	Costs	Costs						
2	1.137	2001	\$15,489	\$0	\$0						
-	1.066	2002	\$2,879	<b>\$</b>	\$0						
0	Base Year	ear	<b>\$</b> 0	<b>\$</b> 0	\$0						
7	0.938	2003	\$2,532	\$3,419	\$589						
-5	0.880	2004	\$2,375	\$3,206	\$552						
ь.	0.825	2005		\$2,476,625	\$518						
4	0.774	2006	\$2,089	\$2,820	\$486						
ç	0.726	2007	\$1,959	\$2,645							
φ	0.681	2008	\$1,837	\$2,481	\$427						
-1	0.638	2009	\$1,723	\$2,326							
œ	. 669 0	2010	\$1,616	\$2,182							
ō,	0.561	2011	\$1,516	\$2,046							
-10	0.527	2012	\$1,422	\$1,919	\$331						
<del>-</del>	0.494	2013		\$1,800	\$310						
-12	0.463	2014	\$1,250	\$1,688							
-13	0.434	2015	\$1,173	\$1,583							
-14	0.407	2016	\$1,100	\$512,745	\$256						i
-15	0.382	2017	\$1,032	\$1,393	\$240						
-16	0.358	2018	2961	\$1,306	\$225						
-17	0.336	2019		\$1,225							
-18	0.315	2020	\$851	\$1,149	\$198						
-19	0.296	2021	\$798	\$1,077	\$186						
-50	0.277	2022	<b>%</b>	\$1,010	\$174						
		T-4-1	210 114	5707000	71000						

Septiation					
Administration Management & Inspection Contingency C	Supervision & Supervi		Easeme	Engineering Easements	Fiscal Engineering Easeme
\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0			Land Rights	≪5	≪5
\$6 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0	\$0		<b>%</b>	0\$
551     \$24.839     \$628     \$0     \$0       552     \$43,986     \$649     \$0     \$0       552     \$45,437     \$670     \$123,782     \$2,696,267       584     \$114,262     \$1,947     \$123,782     \$2,696,267       50     \$0       50     \$0       50     \$0       50     \$0       50     \$1,947     \$123,782     \$2,696,267       50     \$0       60     \$0       70     \$0       80     \$0       80     \$0       80     \$0	<b>%</b>	<b>\$</b> 0		0\$	
\$51 \$43,986 \$649 \$0 \$0  \$52 \$45,437 \$670 \$123,782 \$2,696,267  \$63 \$14 \$14,262 \$1,947 \$123,782 \$2,696,267  \$739 \$70 \$123,782 \$2,696,267  \$739 \$70 \$13,782 \$2,696,267  \$739 \$70 \$13,782 \$2,696,267  \$739 \$70 \$13,782 \$2,696,267  \$740 \$714,262 \$1,947 \$123,782 \$2,696,267  \$750 \$70 \$1,947 \$123,782 \$2,696,267  \$750 \$70 \$1,947 \$123,782 \$2,696,267  \$750 \$70 \$1,947 \$1,947 \$1,947  \$750 \$70 \$1,947 \$1,947 \$1,947  \$750 \$70 \$70 \$1,947 \$1,947 \$1,947  \$750 \$70 \$70 \$1,947  \$750 \$70 \$70 \$1,947  \$750 \$7		632	\$27,632		\$249,789
552     \$45.437     \$670     \$123,782     \$2.696,267       584     \$114,262     \$1,947     \$123,782     \$2.696,267       \$0     \$0       \$0     \$0       \$14     \$14       \$2     \$2       \$3     \$2       \$3     \$3       \$41     \$41       \$65     \$69       \$2     \$2		332	\$48,932		\$442,341
\$84 \$114,262 \$1,947 \$123,782 \$2,696,267 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50		<b>S</b>			2002 \$0
Sosts  \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$393,684 \$1	63	\$76,563	\$692,131 \$76,5	
\$0 \$0 \$0 \$0 \$092 \$715 \$739 \$739 \$763 \$788 \$814 \$841 \$869 \$988 \$927 \$989 \$1,022 \$1,022 \$1,031 \$1,127 \$1,242 \$1,242	Other		08M	Monitoring O&M	
\$0 \$0 \$092 \$715 \$739 \$739 \$763 \$763 \$763 \$814 \$841 \$869 \$988 \$927 \$989 \$1,022 \$1,022 \$1,022 \$1,127 \$1,27 \$1,27 \$1,27	Costs		Costs		
\$0 \$692 \$715 \$739 \$763 \$763 \$814 \$814 \$869 \$927 \$988 \$927 \$989 \$1,022 \$1,022 \$1,022 \$1,022 \$1,024 \$1,127 \$1,27 \$1,27	\$0	\$0		\$14,074	
\$692 \$715 \$739 \$763 \$763 \$763 \$814 \$841 \$869 \$927 \$988 \$927 \$989 \$1,022 \$1,022 \$1,127 \$1,27 \$1,27 \$1,202	\$0	\$0		\$2,881	
\$692 \$715 \$739 \$763 \$763 \$814 \$841 \$869 \$927 \$988 \$927 \$989 \$1,022 \$1,022 \$1,127 \$1,127 \$1,202 \$1,202	\$0	\$0		<b>%</b>	
\$715 \$739 \$763 \$763 \$763 \$814 \$841 \$869 \$927 \$988 \$927 \$989 \$1,022 \$1,022 \$1,127 \$1,127 \$1,202 \$1,202	\$692	∞	\$4,018	\$2,976 \$4,0	
\$739 \$763 \$763 \$814 \$841 \$869 \$927 \$938 \$1,022 \$1,022 \$1,127 \$1,127 \$1,127 \$1,202 \$1,202	\$715	0	\$4,150		\$3,074
\$763 \$788 \$814 \$841 \$869 \$927 \$938 \$1,022 \$1,022 \$1,127 \$1,127 \$1,202 \$1,202 \$1,202	\$739		\$3,531,336	\$3.5	\$3,176 \$3,5
\$788 \$814 \$841 \$869 \$927 \$958 \$1,022 \$1,025 \$1,127 \$1,127 \$1,27 \$1,202 \$1,202 \$1,202	\$763	_	\$4,429		\$3,281
\$814 \$869 \$898 \$927 \$958 \$1,022 \$1,025 \$1,127 \$1,127 \$1,127 \$1,202 \$1,202 \$1,242	\$788		\$4,575		\$3,389
\$841 \$869 \$898 \$927 \$958 \$1,022 \$1,056 \$1,127 \$1,127 \$1,127 \$1,202 \$1,202 \$1,242	\$814	<i>,</i>	\$4,726	\$3,501 \$4,726	\$3,501
\$869 \$827 \$928 \$958 \$1,022 \$1,056 \$1,127 \$1,127 \$1,127 \$1,202 \$1,202 \$1,242	\$841	~	\$4,882		\$3,616
\$898 \$927 \$958 \$1022 \$1,025 \$1,091 \$1,127 \$1,127 \$1,127 \$1,202 \$1,202	\$869	_	\$5,043		\$3,736
\$927 \$958 \$1022 \$1,025 \$1,091 \$1,127 \$1,164 \$1,202 \$1,242	\$898	0	\$5,210		\$3,859
\$958 \$1,022 \$1,026 \$1,091 \$1,127 \$1,164 \$1,202 \$1,202	\$927	=	\$5,381		\$3,986
\$989 \$1,022 \$1,056 \$1,091 \$1,127 \$1,164 \$1,202 \$1,242	<b>\$</b> 958	29	\$5,559		\$4,118
\$1,022 \$1,056 \$1,091 \$1,127 \$1,164 \$1,202 \$1,242	\$989	43	\$5,743		\$4,254
\$1,056 \$1,091 \$1,127 \$1,164 \$1,202 \$1,242	\$1,022	132	\$5,932		\$4,394
\$1,091 \$1,127 \$1,164 \$1,202 \$1,242 \$1,242	\$1,056	98	\$2,116,086	\$2.1	\$4,539 \$2,1
\$1,127 \$1,164 \$1,202 \$1,242 \$1,242	\$1,091	30	\$6,330	\$4,689 \$6,3	
\$1,164 \$1,202 \$1,242 \$1,242	\$1,127	39	\$6,539	\$4,844 \$6.50	
\$1,202 \$1,242 \$1,283	\$1,164	55	\$6,755	\$5,003 \$6.7	
\$1,242 \$1.283	\$1,202	878	\$6,978	\$5,169 \$6.9	
\$1.283	\$1,242	\$7,208	\$7.		\$5,339
	\$1,283	\$7,446	\$7,446	\$0 \$7	

### Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### Marsh Creation South of Leeville (BA-32a)

Project Construction Years:	3	Total Project Years	23
In <u>te</u> rest Rate	6 625%	Amortization Factor	0.0916595
Total First Costs	\$6,610,450	Total Fully Funded Costs	\$6,897,502
Annual Charges	Present	Average	<b>a</b> _
Interest & Amortization Monitoring O & M Costs	\$6.814.227 \$84.797 \$62.891	\$624,589 \$7,772 \$5,765	.589 277. 765
Coner Costs Total	\$6,968,800	\$628	754
Average Annual Habitat Units			86
Cost Per Habitat Unit		.78	\$7,427
Average Annual Acres of Emergent Marsh	it Marsh		NA

#### Marsh Creation South of Leeville (BA-32a)

First Costs and Annual Charges

	P.	Construction Cost	80	0\$	\$0 \$819.983		<i>-</i>																												
	;	Contingency	<u>\$</u>	<b>\$</b> 0	<b>\$</b> 0	<b>2</b> 0	\$961,850	\$961,850																											
	Supervision	& Inspectio	<b>2</b> 0	<b>\$</b> 0	80	\$0	\$187,500	\$187,500																											
Corps		- 1	0.5	<b>2</b> 0	\$628	\$628	\$628	\$1,884																											
LDNR	Supervision &	Administration	2	°20	\$21,719	\$37,233	\$37,233	\$96,185																											
Federal	Supervision &	doministration	9	80	\$43,438	\$74,466	\$74,466	\$192,370	Other	Costs	80	\$0	80	80	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12.560
	Easements Supervision & Land Bights Administration	A Lario Argris	0.0	0.5	\$491,556	\$140.444	\$0	\$632,000	08M	Costs	0\$	80	80	80	So	\$3,645	\$72,351	80	80	<b>\$</b> 0	80	\$0	80	\$0	\$0	<b>\$</b> 0	\$0	<b>\$</b> 0	\$0	\$0	20	80	\$0	\$0	\$75 996
o di conico di c	& Design		•	0.0	\$262,642	\$75,040	<b>%</b>	\$337,682	Monitoring	Costs	\$12,445	\$5,431	\$5,431	<b>%</b>	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$0	\$126.496
	Year	200			2000	2001	2002	TOTAL	Fiscal	Year	2000	2001	2002	Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
j	Year	5 Compound		4 Compound	s Compound	2 Compound	1 Compound			Year	3 Compound	2 Compound	1 Compound	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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#### Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### Marsh Creation South of Leeville (BA-32a)

	į				Federal	LDNR	Corps				
×	Compound .	Fiscal	Engineering	Easements	Supervision &	Supervision &	Project Management	Supervision & Inspection	Continuo	First Cost	Total First
5	1 378	50	S Constitution			9	S S	O S	05	2000	300
•	1 203		Ş	5	<b>\$</b>	5	5	<b>;</b>	<b>9</b>	<b>;</b>	5
r 'en	1 212	2000	\$318	\$595.868	\$52 656	\$26.328	\$761	9	9	G 4	066 8668
~	1.137	2001		\$159,670	\$84,659	\$42,330	\$714	0 <b>\$</b>	S	0 <b>.5</b>	\$372,685
· <del></del>	1.066	2002		0\$	\$79,399	\$39,700	\$670	\$199,922	\$1,025,572	\$4,102(289	\$5,447,552
		Total	\$403,6	\$755,537	\$216,715	\$108,357	\$2,145	\$199,922	\$1,025,572	\$4,102,289	\$6,814,227
J	Discount	Fiscal	Monitoring	08M	Other						
Year F	Rates	Year	Costs	Costs	Costs						
3	1.212	2000		<b>\$</b>	80						
7	1.137	2001		<b>\$</b>	0\$						
-	1.066	2002		<b>9</b>	<b>S</b>						
0	Base Year			<b>%</b>	<b>S</b> 0						
₹	0.938	2002	\$5,094	\$0	\$589						
-5	0.880	2003	\$4,777	\$3,206	\$552						
ώ	0.825	2004	\$4,480	\$59,685	\$518						
4	0.774	2005		\$0	\$486						
ιὑ	0.726	2006		0\$	••						
φ	0.681	2007	\$3,696	<b>\$</b> 0	\$427						
-7	0.638	2008		\$0	\$401						
œ	0.599	2009	\$3,251	0\$	\$376						
ō.	0.561	2010		\$0	•,						
-1	0.527	2011		<b>\$</b> 0	\$331						
÷	0.494	2012	\$2,682	80	\$310						
-12	0.463	2013	\$2,515	<b>\$</b> 0	\$291						
-13	0.434	2014	\$2,359	<b>\$</b>	\$273						
-14	0.407	2015		\$0	\$256						í
-15	0.382	2016		<b>\$</b>							
-16	0.358	2017		<b>S</b>	\$225						
-17	0.336	2018		<b>\$</b>	\$211						
-18	0.315	2019		O <b>\$</b>	\$198						
-19	0.296	2020	\$1,605	0\$	\$186						
-50	0.277	2021		<b>S</b>	\$174						
			100	100	7.00						

#### Marsh Creation South of Leeville (BA-32a)

\$0 \$0 \$0 \$43,438 \$21,719 \$628 \$76,923 \$38,462 \$649 \$79,622 \$39,731 \$670 \$199,823 \$99,912 \$1,947 Other Costs \$0 \$0 \$692 \$715	\$0 \$0 \$0 \$43,438 \$21,719 \$628 \$76,923 \$38,462 \$649 \$79,622 \$39,731 \$670 \$199,823 \$99,912 \$1,947 Other Costs \$0 \$0 \$692 \$715 \$739	\$60 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$60 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$60 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$60 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$60 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0
\$43,438 \$21,719 \$628 \$76,923 \$38,462 \$649 \$79,462 \$39,731 \$670 \$199,823 \$99,912 \$1,947 Other Costs \$0 \$0 \$0 \$692 \$715	\$43,438 \$21,719 \$628 \$76,923 \$38,462 \$649 \$579,462 \$39,731 \$670 \$199,823 \$599,912 \$1,947 \$199,823 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50	\$43.438 \$21.719 \$628 \$76.923 \$38.462 \$649 \$570.923 \$38.462 \$649 \$670 \$199.823 \$58.462 \$670 \$670 \$199.823 \$38.731 \$670 \$670 \$670 \$670 \$670 \$670 \$670 \$670	\$43.438 \$21.719 \$628 \$76.923 \$38.462 \$649 \$576.923 \$38.462 \$649 \$670 \$199.823 \$58.462 \$670 \$670 \$199.823 \$38.731 \$670 \$670 \$670 \$670 \$670 \$670 \$670 \$670	\$43.438 \$21.719 \$628 \$76.923 \$38.462 \$39.731 \$649 \$579.462 \$39.731 \$670 \$199.823 \$38.462 \$39.731 \$670 \$199.823 \$38.462 \$39.912 \$1.947 \$199.823 \$38.41 \$8841 \$8841 \$8898 \$5927 \$5988 \$5988 \$5988 \$51.022 \$1.022 \$1.026 \$1.164	\$43.438 \$21.719 \$628 \$76.923 \$38.462 \$39.731 \$670 \$5199.823 \$38.462 \$570 \$5199.823 \$39.912 \$51.947 \$5199.823 \$39.912 \$51.947 \$5199.823 \$599.912 \$51.947 \$51.022 \$51.02	\$43.438 \$21.719 \$628 \$76.923 \$38.462 \$38.462 \$579.462 \$39.731 \$670 \$199.823 \$38.462 \$649 \$579.462 \$39.731 \$670 \$500 \$500 \$500 \$500 \$500 \$500 \$500 \$5
\$76,923 \$38,462 \$649 \$79,462 \$39,731 \$670 \$199,823 \$99,912 \$1,947 Other Costs \$0 \$0 \$0 \$0 \$0 \$0 \$715	\$76,923 \$38,462 \$649 \$79,462 \$39,731 \$670 \$199,823 \$99,912 \$1,947 Other  Costs  \$0 \$0 \$0 \$0 \$0 \$50 \$50 \$50 \$50 \$50 \$50	\$76,923 \$38,462 \$649 \$79,462 \$39,731 \$670 \$199,823 \$99,912 \$1,947  Other Costs \$0 \$0 \$0 \$0 \$50 \$50 \$50 \$50 \$7.15 \$7.39 \$7.15 \$7.15 \$869 \$898 \$927 \$989 \$1.022 \$1.091	\$76,923 \$38,462 \$649 \$79,462 \$39,731 \$670 \$199,823 \$99,912 \$1,947  Other Costs \$0 \$0 \$0 \$0 \$592 \$715 \$739 \$715 \$715 \$898 \$927 \$988 \$927 \$989 \$1,022 \$1,022 \$1,091	\$76,923 \$38,462 \$649 \$79,462 \$39,731 \$670 \$199,823 \$99,912 \$1,947  Other Costs \$0 \$0 \$0 \$0 \$592 \$715 \$739 \$788 \$814 \$841 \$884 \$898 \$927 \$989 \$1,022 \$1,025 \$1,164	\$76,923 \$38,462 \$649 \$79,462 \$39,731 \$670 \$199,823 \$99,912 \$1,947  Other Costs \$0 \$0 \$0 \$50 \$50 \$715 \$739 \$715 \$788 \$814 \$814 \$884 \$814 \$889 \$927 \$989 \$1,022 \$1,022 \$1,037 \$51,127 \$1,127	\$76,923 \$38,462 \$649 \$79,462 \$39,731 \$670 \$199,823 \$99,912 \$1,947  Other Costs \$0 \$0 \$0 \$0 \$592 \$715 \$739 \$788 \$814 \$841 \$884 \$898 \$927 \$989 \$1,022 \$1,022 \$1,031 \$1,127 \$1,127 \$1,127 \$1,127 \$1,127
\$0 \$79,462 \$39,731 \$670 635 \$199,823 \$99,912 \$1,947 Other  Costs \$0 \$	\$0 \$79,462 \$39,731 \$670 635 \$199,823 \$99,912 \$1,947 Other  Costs \$0 \$	\$0         \$79,462         \$39,731         \$670           635         \$199,823         \$99,912         \$1,947           Other Costs           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$715         \$0           \$0         \$788         \$0           \$0         \$844         \$0           \$0         \$889         \$0           \$0         \$988         \$0           \$0         \$1022         \$0           \$0         \$1,022         \$0           \$0         \$1,091         \$0	\$0         \$79,462         \$39,731         \$670           635         \$199,823         \$99,912         \$1,947           Other Costs           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$715         \$0           \$0         \$788         \$0           \$0         \$841         \$0           \$0         \$898         \$0           \$0         \$989         \$0           \$0         \$1,022         \$0           \$0         \$1,091         \$0	\$0         \$79,462         \$39,731         \$670           635         \$199,823         \$99,912         \$1,947           Other Costs           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$715         \$0           \$0         \$715         \$0           \$0         \$788         \$0           \$0         \$841         \$0           \$0         \$898         \$0           \$0         \$1,022         \$0           \$0         \$1,026         \$0           \$0         \$1,091         \$0           \$0         \$1,127         \$0	\$0         \$79,462         \$39,731         \$670           635         \$199,823         \$99,912         \$1,947           Other Costs           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$715         \$0           \$0         \$715         \$0           \$0         \$788         \$0           \$0         \$841         \$0           \$0         \$841         \$0           \$0         \$898         \$0           \$0         \$1,022         \$0           \$0         \$1,026         \$0           \$0         \$1,127         \$0           \$0         \$1,127         \$0           \$0         \$1,202         \$0           \$0         \$1,202         \$0	\$0         \$79,462         \$39,731         \$670           635         \$199,823         \$99,912         \$1,947           Other Costs           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$0         \$0           \$0         \$715         \$0           \$0         \$788         \$0           \$0         \$841         \$0           \$0         \$844         \$0           \$0         \$898         \$0           \$0         \$1,022         \$0           \$0         \$1,022         \$0           \$0         \$1,024         \$0           \$0         \$1,127         \$0           \$0         \$1,242         \$0
635 \$199.823 \$99,912  Other Costs \$0	635 \$199,823 \$99.912 \$1,947  Other  Costs \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$199.823 \$99.912 \$1.947  Other Costs \$0 \$0 \$0 \$0 \$50 \$50 \$7.15 \$7.15 \$7.15 \$7.15 \$7.15 \$8.14 \$8.14 \$8.14 \$8.14 \$8.10.22 \$1.056 \$1.091	Costs  So	Costs  So	Costs  So	Costs  So
Other Costs	Other Costs \$6					
\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$10 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$150 \$7103			08 08 08 08 08 08 08 08 08 08 08 08 08 0	08 08 08 08 08 08 08 08 08 08 08 08 08 0	08 08 08 08 08 08 08 08 08 08 08 08 08 0
\$ <b>\$</b>	\$6 \$7 \$7					
\$6 \$7	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8					
\$6 \$7	8 <b>8 8</b>					

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November 24, 1999

#### North Shore Tangipahoa Shoreline Protection (PO-13)

23	0.0916595	\$5,092,305
Total Project Years	Amortization Factor	Total Fully Funded Costs
3	6.625%	\$4,250,689
Project Construction Years:	Interëst Rate	Total First Costs

	Dracent	
Annual Charges	Worth	Average
Interest & Amortization	\$4.317.325	\$395,724
Mornicaling O & M Costs	\$47.076 \$259.068	\$4,315 \$23.746
Other Costs	\$6.851	\$628
Total	\$4.630.300	\$424,413
Average Annual Habitat Units		34
Cost Per Habitat Unit		\$12,483
Average Annual Acres of Emergent Marsh		4 Z

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#### North Shore Tangipahoa Shoreline Protection (PO-13)

#### First Costs and Annual Charges

	Pirst Cost 10	Constituction		\$0 8104 1	0\$	•	\$2,758,000																		÷								
	Supervision Continuency	o de la constante de la consta	9 6	SO S	<b>S</b> 0	\$33,000	\$33,000																										
Corps	Management	0.5	900	\$628	\$628	\$628	\$1,884																										
LDNR Supervision &	Administration	9	0 <b>S</b>	\$18,577	\$31,846	\$18,577	\$69,000	,																							•		
Federal Supervision &	Administration	S	0 <b>S</b>	\$37,154	\$63,692	\$37,154	\$138,000	Other	Costs	80	80	80	\$628	\$628	\$628	<b>S</b> 628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
Easements	s	1	80	\$21,875	\$28,125	80	\$50.000	0&M	Costs	S	\$0	80	\$3,645	\$3,645	\$3,645	\$3.645	\$3,645	\$3.645	\$29,354	\$3.645	\$3,645	\$369,106	\$3.645	\$3,645	\$3.645	\$29,354	\$3,645	\$3,645	\$3.645	\$3,645	\$3,645	\$3,645	\$489,779
Enaineerina		\$0	\$0	\$115,938	\$149,063	\$0	\$265,000	Monitoring	Costs	\$13,624	\$2,700	\$0	\$2,700	\$2.700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$0	\$67,624
Fiscal				2000	2001	2002	TOTAL	Fiscal	Year	2001	2002	Base Year	2003	2004	2005	2006	2007	2008	. 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
\$	Year	5 Compound	4 Compound	3 Compound	2 Compound	1 Compound			Year	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discourse	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

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## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### North Shore Tangipahoa Shoreline Protection (PO-13)

	ŗ				Federal	LDNR	Corps				
C Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project Management	Supervision & Inspection	Supervision & Inspection Contingency	First Cost	Total First
5	1.378		<b>S</b>	0\$	\$0	0\$	0\$	S	\$0	90	0\$
4	1.293		<b>\$</b>	\$0	80	80	<b>\$</b> 0	\$0	<b>\$</b> 0	. <b>S</b>	OS
ဗ	1.212	2000	\$140,540	\$26,517	\$45,038	\$22,519	\$761	0\$	90	OS.	\$235.376
7	1.137	2001	\$169,468	\$31,975	\$72,411	\$36,206	\$714	90	80	0\$	\$310 773
_	1.066	2002	<b>\$</b>	\$0	\$39,615	\$19,808	\$670	\$35,186	\$735,179	\$2.940.718	\$3.771.176
		Total	\$310,008	\$58.492	\$157,065	\$78,532	\$2,145	\$35,186	\$735,179	\$2,940,718	\$4,317,325
ă	Discount	Fiscal	Monitaring	O&M	Other						
Year Ra	Rates	Year	Costs	Costs	Costs						
2	1.137	2001	\$15,489	\$0	So						
-	1.066	2002	\$2,879	\$0	20						
0	Base Year	Year	\$0	\$0	80						
Ţ	0.938	2003	\$2,532	\$3.419	\$589						
-5	0.880	2004	\$2,375	\$3,206	\$552						
ů	0.825	2005	\$2,227	\$3,007	\$518						
4	0.774	2006	\$2,089	\$2.820	\$486						
ċ.	0.726	2007	\$1,959	\$2,645	\$456						
9-	0.681	2008	\$1,837	\$2,481	\$427						
-7	0.638	2009	\$1,723	\$18,735	\$401						
φ	0 599	2010	\$1,616	\$2,182	\$376						
o.	0.561	2011	\$1,516	\$2,046	\$353						
-10	0.527	2012	\$1,422	\$194,339	\$331						
-11	0.494	2013	\$1,333	\$1,800	\$310						
-12	0.463	2014		\$1,688	\$291						
-13	0.434	2015	\$1,173	\$1,583	\$273						
<del>-</del> 14	0.407	2016	\$1,100	\$11,958	\$256						3
-15	0.382	2017	\$1,032	\$1,393	\$240						
-16	0.358	2018	2967	\$1,306	\$225						
-17	0.336	2019	\$907	\$1,225	\$211						
<del>.</del>	0.315	2020	\$851	\$1,149	\$198						
-19	0.296	2021	\$798	\$1,077	\$186						•
-50	0.277	2022	0\$	\$1,010	\$174						
		Total	\$47,076	\$259,068	\$6,851						

#### North Shore Tangipahoa Shoreline Protection (PO-13)

Factor Year & Design & Land Rights Admin				•	•	•				Circle Costs		\$400,636
		:				Federal	LDNR	Corps				
1000   2000   \$15,938   \$21,875   \$37,154   \$18,577   \$649   \$50	Year	Inflation		Engineering & Design	Easements	Supervision &	Supervision &	Project	Supervision		First Cost	Total First
1000   2000   5153 928   527154   51857   550	5		5	1650 D	Singing and	Somming allon	Administration	Management	& Inspection	Contingency	Construction	Cost
1000   2000   5115.398   521.875   537.54   518.77   5528   50   50   50   50   50   50   50   5	4			9	<b>3 5</b>	9	9 6	9	9	05	<b>\$</b> 0	\$0
1087   2002   21133   2001   21133   2001   21133   2002   21133   2002   21133   2003   21133   2003   21133   2003   21133   2003   21133	~	1 000	0000	£115 03B	£24 07E	000	06	0.0	0.5	0.5	<b>%</b>	80
1057   2002   359,694   522,897   554,994   552,897   554,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,789   579,994   573,799   579,994   573,799   579,994	,	000.	2000	908.0116	0/8/176	\$37.154	\$18,577	\$628	<b>%</b>	<b>%</b>	<b>\$</b> 0	\$194.171
1067   2002   \$0   \$19.646   \$19.823   \$67.0   \$35.214   \$735.756   \$2.943.031	?	1.033	2001	\$153,982	\$29,053	\$65,794	\$32,897	\$649	\$0	9	Ç	\$282 37E
TOTAL   \$269.919   \$50.928   \$142.594   \$571.297   \$11.947   \$55.214   \$775,798   \$2.943.031     Inflation Fiscal Monitoring O&M Other Factor Year Costs Costs Costs   Costs Costs   Costs Costs   C	-	,		<b>\$</b> 0	\$0	\$39,646	\$19,823	\$670	\$35.214	\$735.758	\$2 043 031	C3 774 442
Inflation         Fiscal         Monitoring         O&M         Other           2         1 033         2001         \$14,074         \$0         \$0           2         1 067         202         \$2,881         \$0         \$0           1         1 067         2002         \$2,881         \$0         \$0           1         1 067         2002         \$2,976         \$4,018         \$622           1         1 102         2003         \$2,976         \$4,018         \$622           2         1 139         2004         \$3,074         \$4,150         \$715           3         1 176         2005         \$3,297         \$4,297         \$739           4         1 215         2006         \$3,291         \$4,429         \$763           5         1 256         2007         \$3,389         \$4,575         \$814           6         1 297         2009         \$3,616         \$894           7         1 339         2009         \$5,736         \$898           8         1 344         \$1,022         \$898           9         1 4,76         2012         \$4,118         \$5,539         \$5,743         \$989			TOTAL	\$269,919	\$20,928	\$142,594	\$71,297	\$1,947	\$35,214	\$735,758	\$2,943,031	\$4,250,689
Factor         Year         Costs         Costs         Costs           2         1033         2001         \$41074         \$0         \$0           0         Base Year         \$0         \$0         \$0         \$0           1         1.02         2003         \$2.986         \$4.016         \$50         \$0           1         1.102         2003         \$2.976         \$4.016         \$50         \$0           2         1.139         2004         \$3.074         \$4.150         \$7.39         \$7.85           3         1.176         2005         \$3.176         \$4.287         \$7.83         \$7.86           4         1.215         2006         \$3.309         \$4.575         \$5.88         \$7.88           5         1.255         2007         \$3.389         \$4.576         \$844         \$844           6         1.297         2008         \$3.501         \$841         \$841         \$841           8         1.384         2010         \$3.366         \$5.44         \$869         \$841           9         1.429         2011         \$3.869         \$5.44         \$9.86         \$9.86           1         4.756 </td <td></td> <td>Inflation</td> <td>Fiscal</td> <td>Monitoring</td> <td>08M</td> <td>Other</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Inflation	Fiscal	Monitoring	08M	Other						
1033         2001         \$14,074         \$0         \$0           1067         2002         \$2,881         \$0         \$0           1402         2003         \$2,881         \$0         \$0           1413         2004         \$3,074         \$4,180         \$715           1416         2005         \$3,176         \$4,287         \$739           1215         2006         \$3,389         \$4,575         \$788           1287         2008         \$3,501         \$4,726         \$814           1297         2008         \$3,501         \$4,726         \$841           1339         2009         \$3,516         \$3,9316         \$841           1344         2011         \$3,736         \$5,03         \$841           1429         2011         \$3,736         \$5,043         \$846           1476         2012         \$3,966         \$5,44,947         \$998           1476         2012         \$3,966         \$5,44,947         \$989           1555         2013         \$4,148         \$5,559         \$986           157         2016         \$4,394         \$5,904         \$5,004           1627         2016	Year	Factor	Year	Costs	Costs	Costs						
1067         2002         \$2.881         \$0         \$0           Base Year         \$0         \$0         \$0         \$0           1102         \$2.976         \$3.976         \$4.168         \$7.15           1139         \$2004         \$3.176         \$4.287         \$7.39           1136         \$2005         \$3.176         \$4.287         \$7.39           125         \$2006         \$3.389         \$4.575         \$7.88           1284         \$2009         \$3.501         \$4.476         \$8.41           1339         \$2009         \$3.506         \$5.43         \$8.98           1429         \$2010         \$3.736         \$5.043         \$8.69           1429         \$2011         \$3.736         \$5.43         \$8.98           1429         \$2011         \$3.186         \$5.43         \$8.98           1476         \$2012         \$4.18         \$5.59         \$9.56           155         \$2013         \$4.18         \$5.43         \$9.96           1575         \$2014         \$4.284         \$5.43         \$9.96           1575         \$2014         \$4.594         \$5.392         \$1.05           1581         \$2	2	1.033	2001	\$14,074								
Base Year         \$0         \$0         \$0           1102         2003         \$2.976         \$4.018         \$692           1.102         2004         \$2.074         \$4.150         \$715           1.176         2006         \$3.074         \$4.150         \$715           1.215         2006         \$3.176         \$4.287         \$739           1.257         2007         \$3.389         \$4.575         \$788           1.297         2008         \$3.501         \$841         \$841           1.339         2009         \$3.516         \$59.316         \$898           1.476         2011         \$3.859         \$5.203         \$898           1.476         2012         \$3.986         \$5.494         \$927           1.476         2012         \$4.118         \$5.59         \$989           1.476         2012         \$4.394         \$5.30         \$1.022           1.575         2014         \$4.254         \$5.73         \$1.022           1.681         2016         \$4.394         \$5.93         \$1.022           1.681         2016         \$4.394         \$5.93         \$1.127           1.794         2018	-	1.067	2002	\$2,881	\$0	80						
1.102         2003         \$2,976         \$4,018         \$692           1.139         2004         \$3,074         \$4,150         \$715           1.176         2005         \$3,074         \$4,287         \$739           1.215         2006         \$3,076         \$4,287         \$739           1.255         2007         \$3,389         \$4,575         \$788           1.297         2008         \$3,501         \$4,726         \$814           1.339         2009         \$3,616         \$841         \$841           1.339         2010         \$3,516         \$898         \$841           1.349         2011         \$3,859         \$5,210         \$898           1.476         2012         \$3,986         \$544,947         \$927           1.476         2013         \$4,118         \$5,529         \$938           1.476         2013         \$4,118         \$5,539         \$936           1.627         2014         \$4,254         \$5,743         \$989           1.627         2014         \$4,254         \$5,322         \$1,026           1.734         2015         \$4,394         \$5,330         \$1,026           1.734	0	Base Y	'ear	80	80	So						
1.139         2004         \$3.074         \$4,150         \$715           1.176         2005         \$3.176         \$4,287         \$739           1.25         2007         \$13.89         \$4,287         \$788           1.297         2008         \$3,501         \$4,726         \$814           1.339         2009         \$3,616         \$841         \$841           1.339         2009         \$3,616         \$843         \$869           1.429         2010         \$3,736         \$898         \$841           1.476         2011         \$3,866         \$5,494         \$927           1.476         2012         \$3,496         \$5,599         \$989           1.476         2013         \$4,2494         \$927           1.55         2013         \$4,494         \$5,599         \$989           1.57         2014         \$4,254         \$5,399         \$1,022           1.681         2016         \$4,394         \$5,393         \$1,022           1.681         2016         \$4,894         \$6,339         \$1,127           1.853         2019         \$5,003         \$6,978         \$1,127           1.853         2019	7	1.102	2003	\$2,976	\$4.018							
1176         2005         \$3.176         \$4.287         \$739           1255         2007         \$3.381         \$4.429         \$763           1.297         2008         \$3.501         \$4.429         \$788           1.339         2008         \$3.501         \$814         \$814           1.339         2008         \$3.501         \$841         \$841           1.340         2010         \$3.736         \$5.043         \$869           1.429         2011         \$3.859         \$5.043         \$869           1.476         2012         \$3.966         \$5.494         \$927           1.525         2013         \$4.118         \$5.59         \$936           1.526         2014         \$4.254         \$5.93         \$5.03           1.527         2014         \$4.254         \$5.93         \$1.02           1.681         2016         \$4.394         \$5.93         \$1.02           1.794         2016         \$4.844         \$6.33         \$1.02           1.853         2019         \$5.103         \$5.103         \$1.02           1.914         2020         \$5.169         \$1.27           2043         \$7.20         <	-5	1.139	2004	\$3.074	\$4,150							
1215         2006         \$3,281         \$4,429         \$763           1.255         2007         \$3,389         \$4,575         \$788           1.297         2008         \$3,501         \$4,726         \$814           1.384         2010         \$3,736         \$5,043         \$869           1.429         2011         \$3,859         \$5,447         \$898           1.476         2012         \$3,986         \$5,447         \$927           1.525         2013         \$4,118         \$5,559         \$958           1.575         2014         \$4,254         \$5,743         \$989           1.627         2015         \$4,394         \$5,932         \$1,022           1.681         2016         \$4,394         \$5,932         \$1,022           1.681         2016         \$4,394         \$5,932         \$1,022           1.737         2017         \$4,689         \$6,330         \$1,024           1.734         2018         \$4,844         \$5,539         \$1,127           1.853         2019         \$5,003         \$6,755         \$1,127           1.914         2020         \$5,169         \$5,202           2.043         \$	ċ	1.176	2005	\$3,176	\$4,287							
1.2552007\$3,389\$4,575\$7881.2972008\$3,501\$4,726\$8141.3392009\$3,516\$8411.3842010\$3,736\$5,043\$8691.4292011\$3,859\$5,210\$8981.4762012\$3,986\$5,44,947\$9271.5252013\$4,118\$5,559\$9581.5272014\$4,254\$5,743\$9891.6272015\$4,394\$5,932\$1,0221.6812016\$4,539\$4,034\$1,0911.7342017\$4,689\$6,330\$1,1271.8532019\$5,003\$6,539\$1,1271.9142020\$5,169\$6,370\$1,2422.043\$0,724\$1,2422.043\$0,746\$1,242	4	1.215	2006	\$3,281	\$4,429							
1.2972008\$3,501\$4,726\$8141.3842010\$3,736\$5,043\$8691.4292011\$3,859\$5,210\$8981.4762012\$3,986\$5,44,947\$9271.5252013\$4,118\$5,559\$9581.5752014\$4,254\$5,743\$9891.6772015\$4,394\$5,932\$1,0221.6812016\$4,539\$49,349\$1,0561.7372017\$4,689\$6,330\$1,1271.8532019\$5,003\$6,539\$1,1271.8632021\$5,169\$6,756\$1,2021.9772021\$5,169\$6,786\$1,2022.0432022\$6,786\$1,2022.043\$5,169\$1,2022.043\$5,169\$1,2022.043\$5,169\$1,2022.043\$5,169\$1,2022.043\$5,169\$1,2022.043\$5,169\$1,2022.043\$5,169\$5,1692.043\$5,169\$1,2022.043\$5,169\$1,2022.043\$5,169\$1,202	ċ	1.255	2007	\$3,389	\$4,575							
1.3392009\$3,616\$39,316\$8411.3842010\$3,736\$5,043\$8691.4292011\$3,859\$5,210\$8981.4762012\$3,986\$5,494\$9271.5252014\$4,254\$5,743\$9891.6272014\$4,254\$5,743\$9891.6282016\$4,394\$5,932\$1,0221.6812016\$4,539\$4,034\$1,0561.7372017\$4,689\$6,330\$1,1271.7942018\$4,844\$6,539\$1,1271.8532019\$5,003\$6,755\$1,1641.9142020\$5,169\$6,339\$1,2422.043\$7,208\$1,244\$1,242	φ	1.297	2008	\$3,501	\$4,726							
1.3842010\$3,736\$5,043\$8691.4292011\$3,859\$5,210\$8981.4762012\$3,986\$54,947\$9271.5252013\$4,118\$5,559\$9581.5752014\$4,254\$5,743\$9891.6272015\$4,394\$5,932\$1,0221.6812016\$4,539\$4,349\$1,0561.7372017\$4,844\$6,539\$1,1271.7442019\$5,003\$6,53\$1,1641.9142020\$5,169\$6,978\$1,2422.0432022\$6,978\$1,2422.043\$7,446\$6,539\$1,242		1.339	, 2009	\$3,616	\$39,316							
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1.4762012\$3,986\$544,947\$9271.5252013\$4,118\$5,559\$9581.5752014\$4,254\$5,743\$9891.6272015\$4,394\$5,932\$1,0221.6812016\$4,539\$4,349\$1,0561.7372017\$4,689\$6,330\$1,0911.7942018\$4,844\$6,539\$1,1271.8532019\$5,003\$6,755\$1,1641.9142020\$5,169\$6,978\$1,2422.0432027\$5,339\$7,246\$1,242	ė.	1.429	2011	\$3,859	\$5,210							
1.525     2013     \$4,118     \$5,559     \$958       1.575     2014     \$4,254     \$5,743     \$989       1.627     2015     \$4,394     \$5,932     \$1,022       1.681     2016     \$4,539     \$49,349     \$1,056       1.737     2017     \$4,689     \$6,330     \$1,091       1.794     2018     \$4,844     \$6,539     \$1,127       1.853     2019     \$5,003     \$6,755     \$1,164       1.914     2020     \$5,169     \$6,978     \$1,242       2.043     2027     \$5,339     \$7,246     \$1,242       2.043     2027     \$6,746     \$1,383	9-	1.476	2012	\$3,986	\$544,947							
1.575     2014     \$4,254     \$5,743     \$989       1.627     2015     \$4,394     \$5,932     \$1,022       1.681     2016     \$4,539     \$4,349     \$1,056       1.737     2017     \$4,689     \$6,330     \$1,091       1.794     2018     \$4,844     \$6,539     \$1,127       1.853     2019     \$5,003     \$6,755     \$1,164       1.914     2020     \$5,169     \$6,978     \$1,242       2.043     2022     \$5,339     \$1,242       2.043     2022     \$6,746     \$1,342	÷	1.525	2013	\$4,118	\$5,559							
1627     2015     \$4,394     \$5,932     \$1,022       1681     2016     \$4,539     \$49,349     \$1,056       1737     2017     \$4,689     \$6,330     \$1,091       1.794     2018     \$4,844     \$6,539     \$1,127       1853     2019     \$5,003     \$6,755     \$1,164       1914     2020     \$5,169     \$6,978     \$1,242       2043     2021     \$5,339     \$7,208     \$1,242       2043     2027     \$6,046     \$1,242	-12	1.575	2014	\$4,254	\$5,743							
1681     2016     \$4,539     \$49,349     \$1,056       1 737     2017     \$4,689     \$6,330     \$1,091       1.794     2018     \$4,844     \$6,539     \$1,127       1 853     2019     \$5,003     \$6,755     \$1,164       1 914     2020     \$5,169     \$6,978     \$1,202       1 977     2021     \$5,339     \$7,208     \$1,242       2 043     \$7,208     \$1,242	÷	1.627	2015	\$4,394	\$5,932	Ċ						
1737     2017     \$4,689     \$6,330     \$1,091       1.794     2018     \$4,844     \$6,539     \$1,127       1853     2019     \$5,003     \$6,755     \$1,164       1914     2020     \$5,169     \$6,978     \$1,202       1977     2021     \$5,339     \$7,208     \$1,242       2 043     2022     \$6     \$6,978     \$1,242	-14	1.681	2016	\$4,539	\$49,349							1
1.794     2018     \$4,844     \$6,539       1 853     2019     \$5,003     \$6.755       1 914     2020     \$5,169     \$6.978       1 977     2021     \$5,339     \$7.208       2 043     2027     \$6     \$7.448	-15	1.737	2017	\$4,689	\$6,330							i
1853     2019     \$5,003     \$6.755       1914     2020     \$5,169     \$6.978       1977     2021     \$5,339     \$7.208       2,043     2027     \$0     \$7.446	-16	1.794	2018	\$4,844	\$6,539							
1.914 2020 \$5,169 \$6,978 1.977 2021 \$5,339 \$7,208 2.043 2022 \$0 \$7,446	-17	1.853	2019	\$5,003	\$6.755							
1.977 2021 \$5,339 \$7,208 2.043 2022 <b>\$0</b>	-18	1.914	2020	\$5,169	\$6.978							
2.043 2022 Sn \$7.446	-19	1.977	2021	\$5,339	\$7.208							
011	-20	2.043	2022	\$0	\$7,446							

Grand and White Lake Land Bridge Protection - Breakwaters (PME-18a)

25	0.0916595	\$7,603,732
Total Project Years	Amortization Factor	Total Fully Funded Costs
5	6 625%	\$5,130,470
Project Construction Years:	Interest Rate	Total First Costs

	Present	Average
Annual Charges	Worth	Annual
Interest & Amortization	\$5,198,926	\$476,531
Monitoring	\$88,248	\$8,089
O & M Costs	\$685.636	\$62,845
Other Costs	\$6,851	\$628
Total	\$5,979,700	\$548,093
Average Annual Habitat Units		38
Cost Per Habitat Unit		\$14,424
Average Annual Acres of Emergent Marsh		¥Z

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# Grand and White Lake Land Bridge Protection - Breakwaters (PME-18a)

First Costs and Annual Charges

	Total First	Cost	\$116,312	£202,373	62 224 400	42,231,130 41 868 560	\$4,622,825																											
	First Cost	Construction	9	<b>3 5</b>	\$1 554 915	\$1.3324.85	\$2,887,700																											
	Contingency	Commigancy	9	Ş	\$388 729	\$333,196	\$721,925																											
	Supervision & Inspertion	O Constant	S 5	S	\$194.363	\$166,597	\$360,960																											
Corps	Project Management	1~	\$628	\$628	\$628	\$628	\$3,140																											
LDNR	Supervision & Administration	\$10.314	\$17,682	\$17,682	\$17,682	\$8,841	\$72,200																											
Federal	Administration	\$30,943	\$53,045	\$53,045	\$53,045	\$26,522	\$216.600	Other	Costs	80	80	80	So	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
	& Land Rights	\$7.424	\$12,727	\$12,727	\$2,121	80	\$35,000	08M	Costs	80	80	\$0	<b>\$</b> 0	SO	\$3,645	80	80	\$3,645	80	80	80	\$3,645	\$1,055,169	80	80	80	\$3,645	\$315,913	80	80	80	80	80	\$1,385,662
	& Design		\$118,291	\$118,291	\$19,715	\$0	\$325,300	Monitoring	Costs	\$16,616	\$5,431	\$5,431	<b>8</b> 0	\$5,431	\$5.431	\$5,431	\$5,431	\$5,431	\$5,431	\$5.431	\$5,431	\$5,431	\$5.431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	<b>S</b> 0	\$0	\$125.236
1		2000	2001	2002	2003	2004	TOTAL	Fiscal	Year	2002	2003	2004	Base Year	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
j.	Year	5 Compound	4 Compound	3 Compound	2 Compound	1 Compound			Year	3 Compound	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

# Grand and White Lake Land Bridge Protection - Breakwaters (PME-18a)

Fiscal         Engineering         Easements         Supervision & Supervision	Supervision & Inspectio Continger 5 \$0 2 \$0 1 \$20,969 \$441,9 4 \$220,969 \$441,9 0 \$177,634 \$355,2 12 \$398,603 \$797,2	First Cost  So
test         Vear         & Design         & Land Rights         Administration         Ad	8 Inspectio CC 5 \$0 2 \$0 1.1 \$0 4 \$220,969 0 \$177,634 12 \$398,603	S1,767,7 \$1,767,7 \$1,421,0
1.378         2000         \$95,096         \$10,232         \$42,644         \$14,215         \$865           1.293         2001         \$152,893         \$16,450         \$68,561         \$22,854         \$812           1.121         2002         \$143,393         \$15,428         \$64,501         \$22,434         \$714           1.137         2003         \$224,14         \$2,412         \$60,306         \$21,334         \$714           1.066         2004         \$60         \$28,280         \$64,522         \$264,092         \$88,031         \$3,822           1.01al         \$413,796         \$44,522         \$264,092         \$88,031         \$3,822           1.137         2002         \$20,142         \$0         \$28,280         \$5,803           1.137         2002         \$20,142         \$0         \$0         \$0           1.137         2003         \$6,174         \$0         \$0         \$0         \$0           1.137         2003         \$6,174         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0	5 \$0 2 \$0 1.1 \$0 4 \$220.969 0 \$177,634 12 \$398,603	\$1,767,7 \$1,421,0 \$3,188,8
1.293         2001         \$152.893         \$16.450         \$68.561         \$22.854         \$812.854           1.212         2002         \$143.393         \$15.428         \$64.301         \$27.434         \$761           1.137         2003         \$22.414         \$52.412         \$60.002         \$20.102         \$714           1.066         2004         \$6         \$6.4.522         \$266.092         \$88.031         \$57.04           1.01a         Avear         Costs         Costs         Costs         Costs         \$5.70           1.021         Year         Costs         Costs         Costs         Costs         \$5.70           1.026         2004         \$5.791         \$0         \$50         \$5.00           1.137         2003         \$6.174         \$0         \$5.00           1.066         2004         \$5.791         \$0         \$5.60           1.066         2004         \$5.791         \$0         \$5.60           0.080         2004         \$5.791         \$0         \$5.60           0.081         2004         \$5.791         \$0         \$5.60           0.082         2007         \$4.480         \$0         \$5.60 <td>\$0 \$220,969 \$177,634 \$398,603</td> <td>\$1,767,7 \$1,421,0 \$3,188,8</td>	\$0 \$220,969 \$177,634 \$398,603	\$1,767,7 \$1,421,0 \$3,188,8
1.212         2002         \$143.393         \$15.428         \$64.301         \$21.434         \$761           1.137         2003         \$22.414         \$2.412         \$60.306         \$20,102         \$714           1.066         2004         \$6         \$20,102         \$89.427         \$670           1.066         2004         \$413.796         \$44.522         \$26.002         \$81.031         \$51.02           1.212         2002         \$20,142         \$0         \$0         \$6         \$6           1.212         2003         \$6,174         \$0         \$0         \$0         \$6           1.37         2003         \$6,174         \$0         \$0         \$6         \$6           1.37         2003         \$6,174         \$0         \$0         \$6         \$6           1.37         2003         \$6,174         \$0         \$0         \$6         \$6           1.38         2004         \$5,94         \$0         \$6         \$6         \$6           1.38         2005         \$6,174         \$0         \$6         \$6         \$6         \$6         \$6         \$6         \$6         \$6         \$6         \$6         \$6	\$0 \$220,969 \$177,634 \$398,603	\$1,767,7 \$1,421,0 \$3,188,8
1.137         2003         \$22,414         \$2,412         \$60,306         \$20,102         \$714           1.066         2004         \$0         \$2,412         \$60,306         \$20,102         \$714           1.066         2004         \$0         \$22,200         \$86,031         \$51,02         \$67           1.137         Costs         Costs         Costs         Costs         Costs         \$60           1.137         2002         \$20,142         \$0         \$0         \$60         \$60           1.137         2002         \$20,142         \$0         \$0         \$60	\$220,969 \$177,634 \$398,603	
1066         2004         \$0         \$28,280         \$9,427         \$670           Int         Fiscal         Monitoring         O&M         Other         \$3,86,031         \$3,822           Int         Fiscal         Monitoring         O&M         Other         \$3,886,031         \$3,822           1.212         Year         Costs         Costs         Costs         Costs         \$3,802           1.137         2002         \$50,142         \$0         \$0         \$0         \$3,802         \$0         \$3,802         \$0         \$3,802         \$0	\$177,634 \$398,603	
Total         \$413,796         \$44,522         \$264,092         \$88,031         \$5,022           Int         Fiscal         Monitoring         O&M         Other         Other         \$5,042         \$0         \$5,042         \$5,042         \$0         \$0         \$1,022         \$20,142         \$0	\$398,603	
Int         Fiscal Fiscal Monitoring         Monitoring         O&M         Other           1.212         Z002         \$20,142         \$0           1.137         Z003         \$6,174         \$0           1.056         2004         \$5,791         \$0           1.06         2004         \$5,791         \$0           Base Year         \$6         \$0         \$0           0.938         2005         \$5,094         \$0           0.800         2006         \$4,777         \$0           0.825         2007         \$4,480         \$0           0.74         2008         \$4,202         \$0           0.774         2008         \$4,202         \$0           0.774         2008         \$3,941         \$2,645           0.681         2010         \$3,696         \$0           0.681         2011         \$3,466         \$0           0.681         \$0.11         \$3,466         \$0           0.589         2012         \$3,251         \$0           0.599         2014         \$2,859         \$0           0.463         2016         \$2,515         \$0           0.463         2016 <td></td> <td></td>		
Year         Costs         Costs         Costs           1.212         2002         \$20,142         \$0           1.137         2003         \$6,174         \$0           1.066         2004         \$5,791         \$0           1.066         2004         \$5,791         \$0           Base Year         \$0         \$0         \$0           0.938         2005         \$4,777         \$3,206           0.880         2006         \$4,777         \$3,206           0.744         2008         \$4,202         \$0           0.756         2009         \$3,941         \$2,645           0.638         2011         \$3,466         \$0           0.638         2011         \$3,466         \$0           0.539         2011         \$3,466         \$0           0.539         2013         \$3,049         \$2,046           0.557         2014         \$2,855,561         \$0           0.494         2015         \$2,859         \$555,561           0.453         2016         \$2,212         \$1,485           0.463         2017         \$2,359         \$0           0.454         2018         \$2,		
2002 \$20,142 \$0 2003 \$6,174 \$0 2004 \$5,791 \$0 2004 \$5,791 \$0 2005 \$5,094 \$0 2006 \$4,777 \$3,206 2008 \$4,777 \$3,206 2008 \$4,777 \$3,206 2009 \$3,941 \$2,645 2010 \$3,696 \$0 2011 \$3,466 \$0 2012 \$3,251 \$0 2014 \$2,859 \$55,561 2015 \$2,569 \$0 2016 \$2,515 \$0 2017 \$2,359 \$55,561 2018 \$2,212 \$0 2019 \$2,075 \$120,693 2020 \$1,946 \$0 202		
2003 \$6,174 \$50 2004 \$5,791 \$0 2005 \$5,994 \$50 2006 \$4,777 \$3,206 2007 \$4,480 \$50 2008 \$4,202 \$50 2009 \$3,941 \$2,645 2010 \$3,696 \$50 2011 \$3,466 \$50 2013 \$3,246 \$50 2014 \$2,859 \$555,561 2015 \$2,859 \$555,561 2015 \$2,859 \$555,561 2016 \$2,212 \$1,485 2017 \$2,359 \$50 2018 \$2,212 \$1,485 2019 \$2,075 \$120,693 2020 \$1,946 \$50		
Year \$5,791 \$0 Year \$004 \$5,791 \$0 2005 \$5,094 \$0 2006 \$4,777 \$3,206 2007 \$4,480 \$0 2008 \$4,202 \$0 2009 \$3,941 \$2,645 2010 \$3,696 \$0 2011 \$3,466 \$0 2012 \$3,251 \$0 2014 \$2,859 \$555,561 2015 \$2,859 \$555,561 2016 \$2,515 \$0 2017 \$2,359 \$0 2017 \$2,359 \$0 2018 \$2,212 \$1,485 2019 \$2,075 \$120,693 2020 \$1,946 \$0 2021 \$1,825 \$0 2022 \$1,712 \$0 2023 \$0 2023 \$1,712 \$0 203		
Year \$0.05 \$5.094 \$0.0505 \$5.094 \$0.0506 \$4,777 \$0.0506 \$4,777 \$0.0506 \$0.077 \$0.0506 \$0.077 \$0.0506 \$0.077 \$0.0506 \$0.077 \$0.0506 \$0.077 \$0.0506 \$0.0		
2005       \$5,094       \$0         2006       \$4,777       \$3,206         2007       \$4,480       \$0         2008       \$4,202       \$0         2009       \$3,941       \$2,645         2010       \$3,946       \$0         2011       \$3,696       \$0         2012       \$3,251       \$0         2013       \$3,251       \$0         2014       \$2,859       \$5,046         2015       \$2,859       \$0         2016       \$2,859       \$0         2017       \$2,859       \$0         2018       \$2,515       \$0         2019       \$2,075       \$1,485         2019       \$2,075       \$1,485         2020       \$1,946       \$0         2021       \$1,825       \$0         2022       \$1,712       \$0         2023       \$1,712       \$0         2024       \$0       \$0		
2006       \$4,777       \$3.206         2007       \$4,480       \$0         2008       \$4,202       \$0         2009       \$3.941       \$2.645         2010       \$3.946       \$0         2011       \$3.466       \$0         2012       \$3.251       \$0         2013       \$3.049       \$2.046         2014       \$2.859       \$555,561         2015       \$2.862       \$0         2017       \$2.359       \$0         2018       \$2.212       \$1.485         2019       \$2.075       \$1.485         2020       \$1.946       \$0         2021       \$1.825       \$0         2022       \$1.712       \$0         2023       \$1.712       \$0		
2007     \$4,480     \$0       2008     \$4,202     \$0       2009     \$3,941     \$2,645       2010     \$3,946     \$0       2011     \$3,466     \$0       2012     \$3,251     \$0       2013     \$3,049     \$2,046       2014     \$2,859     \$5,55,561       2015     \$2,859     \$0       2016     \$2,515     \$0       2017     \$2,359     \$0       2018     \$2,075     \$1,485       2020     \$1,946     \$0       2021     \$1,825     \$0       2022     \$1,712     \$0       2023     \$1,712     \$0       2024     \$0     \$0		
2008       \$4,202       \$0         2009       \$3,941       \$2,645         2010       \$3,996       \$0         2011       \$3,466       \$0         2012       \$3,251       \$0         2013       \$3,049       \$2,046         2014       \$2,859       \$55,561         2015       \$2,859       \$0         2016       \$2,515       \$0         2017       \$2,359       \$0         2018       \$2,212       \$1,485         2019       \$2,075       \$1,246         2021       \$1,825       \$0         2022       \$1,712       \$0         2023       \$1,712       \$0         2023       \$0       \$0		
2009     \$3.941     \$2.645       2010     \$3.696     \$0       2011     \$3.466     \$0       2012     \$3.251     \$0       2013     \$3.251     \$0       2014     \$2.859     \$5.046       2015     \$2.859     \$5.55.561       2015     \$2.859     \$0       2016     \$2.515     \$0       2017     \$2.359     \$0       2018     \$2.075     \$1.485       2020     \$1.946     \$0       2021     \$1.825     \$0       2022     \$1.712     \$0       2023     \$1.712     \$0       2024     \$0     \$0		
2010 \$3,696 \$0 2011 \$3,466 \$0 2012 \$3,251 \$0 2013 \$3,2049 \$2,046 2014 \$2,859 \$555,561 2015 \$2,859 \$555,561 2016 \$2,515 \$0 2017 \$2,359 \$0 2018 \$2,212 \$1,485 2019 \$2,075 \$120,693 2020 \$1,946 \$0 2021 \$1,825 \$0 2022 \$1,712 \$0		
2011     \$3,466     \$0       2012     \$3,251     \$0       2013     \$3,049     \$2,046       2014     \$2,859     \$55,561       2015     \$2,682     \$0       2016     \$2,515     \$0       2017     \$2,359     \$0       2018     \$2,212     \$1,485       2019     \$2,075     \$1,20,693       2020     \$1,946     \$0       2021     \$1,825     \$0       2022     \$1,712     \$0       2023     \$0     \$0       2024     \$0     \$0       2025     \$1,712     \$0       2027     \$0     \$0       2028     \$0     \$0		
2012 \$3,251 \$0 2013 \$3,049 \$2,046 2014 \$2,859 \$555,561 2015 \$2,682 \$0 2016 \$2,515 \$0 2017 \$2,359 \$0 2018 \$2,212 \$1,485 2019 \$2,075 \$120,693 2020 \$1,946 \$0 2021 \$1,825 \$0 2022 \$1,712 \$0		
2013 \$3.049 \$2.046 2014 \$2.859 \$555,561 2015 \$2.882 \$0 2016 \$2.515 \$0 2017 \$2.359 \$1.485 2018 \$2.212 \$1.485 2020 \$1.946 \$0 2021 \$1.825 \$10.693 2022 \$1.712 \$0		
2014       \$2,859       \$55,561         2015       \$2,682       \$0         2016       \$2,682       \$0         2017       \$2,515       \$0         2018       \$2,212       \$1,485         2019       \$2,075       \$1,485         2020       \$1,946       \$0         2021       \$1,825       \$0         2022       \$1,712       \$0         2023       \$0       \$0		
2015 \$2,682 \$0 2016 \$2,515 \$0 2017 \$2,359 \$0 2018 \$2,212 \$1,485 2019 \$2,075 \$120,693 2020 \$1,946 \$0 2021 \$1,825 \$0 2022 \$1,712 \$0		
2016 \$2,515 \$0 2017 \$2,359 \$0 2018 \$2,212 \$1,485 2019 \$2,075 \$120,693 2020 \$1,946 \$0 2021 \$1,825 \$0 2022 \$1,712 \$0 2023 \$0		
2017 \$2,359 \$0 2018 \$2,212 \$1,485 2019 \$2,075 \$120,693 2020 \$1,946 \$0 2021 \$1,825 \$0 2022 \$1,712 \$0 2023 \$0		
2018     \$2,212     \$1,485       2019     \$2,075     \$120,693       2020     \$1,946     \$0       2021     \$1,825     \$0       2022     \$1,712     \$0       2023     \$0     \$0		
2019 \$2.075 \$120.693 2020 \$1,946 \$0 2021 \$1,825 \$0 2022 \$1,712 \$0 2023 \$6		
2020 \$1,946 \$0 2021 \$1,825 \$0 2022 \$1,712 \$0 2023 \$6		
2021 \$1,825 \$0 2022 \$1,712 \$0 2023 \$0 \$0		
2022 \$1,712 \$0 2023 \$0 \$0		
2023 \$0 \$0		
0.277 2024 50 50 \$174		

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# Grand and White Lake Land Bridge Protection - Breakwaters (PME-18a)

**Fully Funded Costs** 

\$698,955		Total Firet	Coet	£418 342	\$300.054	\$203,031 \$245,050	008,012,6	42,439,436	\$5,130,470																				ì							
40.F		First Cost	Construction	9	\$ 5	9 6	£1 712 000	\$1.517,614	\$3,231,602																											
Amortized Costs			Contingency	\$0	<b>S</b>	<b>;</b>	\$428 407	\$379.403	\$807,900																											
		Supervision	& Inspectio	1			\$214.2																													
	Corps	Project	Managemet	\$628	\$649	\$670	\$692	\$715	\$3,354																											
	LDNR	Supervision &	Administration	\$10,314	\$18,265	\$18.868	\$19,491	\$10,067	\$77,005																											
\$7,603,732	Federal	Supervision &	Administration	\$30,943	\$54,795	\$56,604	\$58,472	\$30,201	\$231,014	Š		Social	S	. OS	S S	\$739	\$763	\$788	\$814	\$841	\$869	\$898	\$927	\$958	\$989	\$1,022	\$1,056	\$1,091	\$1,127	\$1,164	\$1,202	\$1,242	\$1,283	\$1,325	\$1,369	\$20,466
inded Costs		Easements	& Land Rights Administration	\$7,424	\$13,147	\$13,581	\$2,338	<b>S</b> 0	\$36.491		osts C	80	) <b>S</b>	. <b>S</b>	<b>%</b>	0.5	\$4,429	<b>\$</b> 0	\$0	\$4,882	\$0	\$0	\$0	\$5,559	\$1,662,366	\$0	\$0	\$0	\$6.539	\$585,428	\$0	\$0	\$0	80	\$0	\$2,269,203
Total Fully Funded Costs		Engineering	& Design	\$69,003	\$122,195	\$126,227	\$21,732	<b>\$</b> 0	\$339,157	Monitoring	Coete	\$17.731	\$5,987	\$6,184	<b>\$</b> 0	\$6,388	\$6,599	\$6,817	\$7,042	\$7,274	\$7,514	\$7,762	\$8.018	\$8.283	\$8,556	\$8,839	\$9,130	\$9,432	\$9,743	\$10,064	\$10,396	\$10,740	\$11,094	<b>%</b>	20	<b>\$18</b> 3,593
			Year	2000	2001	2002	2003	2004	TOTAL	Fieral	Year	2002	2003	2004	ear	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
Fully Funded Costs		Inflation	Factor	1.000	1.033	1.067	1.102	1.139	<b>;</b>	Inflation	Factor	1.067	1.102	1.139	Base Year	1.176	1.215	1.255	1.297	1.339	1.384	1 429	1 476	1.525	1.575	1.627	1.681	1.737	1.794	1.853	1.914	1.977	2.043	2.110	2.180	-
Fully Fu		;	Year	ιΩ	4	ო	7	-			Year	9	2	-	0	Ŧ	-5	ကု	4	င့်	φ	-7	φ	o,	-10	÷	-12	-13	-14	-15	-16	-17	-18	-19 -19	07-	

### Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

# Grand and White Lake Land Bridge Protection - A-Jacks (PME-18b)

Project Construction Years:	ις	Total Project Years	25
	0,073% 0,073%	Amortization ractor	0.0916595
	\$2,671,869	lotal Fully Funded Costs	\$3,970,799

Annual Charges	Present Worth	Average
Interest & Amortization Monitoring	\$2,720,937 \$88.248	\$249,400
O&M Costs Other Costs	\$343,430 \$6,851	\$31,479
Total	\$3,159,500	\$289,595
Average Annual Habitat Units		32
Cost Per Habijat Unit		\$9,050
Average Annual Acres of Emergent Marsh		¥

# Grand and White Lake Land Bridge Protection - A-Jacks (PME-18b)

#### First Costs and Annual Charges

	-		422	418	418	360	648	8																											
	Total First	Cost	\$73.422	\$125,418	\$125 418	\$1 137 360	\$949 648	\$2,411,265																		i									
	First Cost	Construction	90	<b>S</b>	OS.	\$824.762	\$706.938	\$1,531,700																											
		Contingency	O <b>\$</b>	<b>S</b>	\$0	\$206,190	\$176,735	\$382,925																											
	Supervision	& Inspectio	\$0	\$0	80	\$55,838	\$47,862	\$103,700																											
Corps		- 1	\$628	\$628	\$628	\$628	\$628	\$3,140																											
LDNR	Supervision &	Administration	\$5,100	\$8,743	\$8,743	\$8,743	\$4,371	\$35,700																											
Federal	Supervision &	Administration	\$15,300	\$26,229	\$26,229	\$26,229	\$13,114	\$107,100	Other	Costs	90	<b>\$</b>	<b>%</b>	<b>%</b>	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
	Easements	& Land Rights Administration	\$7,424	\$12,727	\$12,727	\$2,121	20	\$35,000	O&M	Costs	<b>S</b>	\$0	S,	<b>\$</b> 0	\$0	\$3,645	<b>\$</b> 0	\$0	\$3,645	<b>\$</b>	<b>\$</b>	<b>9</b> 0	\$3,645	\$558,908	0\$	<b>9</b>	<b>%</b>	\$3,645	\$104,110	\$0	<b>\$</b> 0	0\$	0 <b>\$</b>	\$0	\$677,598
	Engineering	& Design	\$44,970	\$77,091	\$77,091	\$12,848	\$0	\$212,000	Monitoring	Costs	\$16,616	\$5,431	\$5,431	<b>%</b>	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	<b>%</b>	\$0	\$125,236
		Year	2000	2001	2002	2003	2004	TOTAL	Fiscal	Year	2002	2003	2004	Base Year	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
		rear	o Compound	4 Compound	3 Compound	2 Compound	1 Compound			Year	3 Compound	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	
		•		-			•																											-	

All dates are in Federal Fiscal Years (October 1 to September 30)

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## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

# Grand and White Lake Land Bridge Protection - A-Jacks (PME-18b)

Compound         Fiscal         Engineering         Easements         Federal         LONR         Copps         First Cost         Trist Cost <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>												
Compound         Fiscal         Engineering         Sementines         Suppression         Supplession         Project         Supplession         Printed         Prin		ſ				Federa!	LDNR	Согря			i	
Marchest    į	Compound		Engineering	Easements	Supervision &	Supervision &	Project Management	Supervision & Inspectio		First Cost Construction	lotal First Cost	
1.293   2001   599,641   716,450   513,901   511,300   516,500   510,202   599,641   716,450   513,901   511,300   516,502   513,400   517,44   513,402   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,613   516,614   517,744   513,614   517,744   513,614   517,744	eal	Kales	2000	461 975	\$10 232	\$21,086	\$7,029	\$865	0\$	\$0	0\$	\$101,186
1.12   2002   593,460   515,428   511,794   510,599   5714   593,662   593,416   593,662   593,416   593,662   593,416   593,662   593,416   593	0 4	1 203	2002	\$ 99 641	\$16.450	\$33,901	\$11,300	\$812	80	<b>%</b>	0\$	\$162,104
1.137   2003   514.607   52.412   529.819   59.940   571.4   563.482   572.4416   5893.662   572.4416   5893.662   572.4416   5893.662   572.4416   572.	, ,	1 212	2002	\$93.450	\$15 428	\$31.794	\$10,598	\$761	<b>\$</b>		<b>%</b>	\$152,032
1   1066   2004   550   511983   54561   56102   5188.443   5129773   510504   5204   5469.54   5445.52   5130.583   543.528   5130.583   543.528   5130.583   543.528   5130.583   543.528   5130.583   543.528   5130.583   543.528   5130.583   5130.583   543.528   5130.583	, c	1 137	2003		\$2.412	\$29,819	\$9,940	\$714		\$234,416	\$937,662	\$1,293,052
Total   \$269,674   \$44,522   \$130,583   \$43,528   \$114,515   \$422,839   \$1,691,436     Total	<b>,</b> -	1.066	2004		9	\$13,983	\$4,661	8670			\$753,773	\$1,012,563
Discount I         Fiscal of Each         Monitoring Mode         OBM Costs         Other Costs         So	-	1		\$269,674	\$44,522	\$130,583	\$43,528	\$3,822			\$1,691,436	\$2,720,937
Rates         Vear         Costs         Costs         Costs           3         1212         2002         \$50142         \$0         \$0           1         1.086         2004         \$5.791         \$0         \$0         \$0           1         1.086         2004         \$5.791         \$0         \$0         \$0         \$0           0         Base Year         2005         \$5.994         \$0         \$5.89         \$0	_	Discount	Fiscal	Monitoring	O&M	Other						
3         1.212         2002         \$20.142         \$0         \$0           2         1.137         2003         \$6.174         \$0         \$0         \$0           0         Base Year         \$0         \$0         \$0         \$0         \$0           1         0.938         2005         \$5.094         \$0         \$5.89         \$0           2         0.880         2006         \$4.777         \$3.206         \$558         \$0           4         0.774         2008         \$4.480         \$0         \$518         \$0         \$518           5         0.726         2007         \$4.480         \$0         \$518         \$0         \$518           6         0.681         2010         \$3.941         \$2.645         \$456         \$0         \$427           6         0.681         2010         \$3.941         \$2.645         \$456         \$0         \$427           6         0.681         2010         \$3.941         \$2.645         \$427         \$0         \$437           6         0.681         2010         \$3.596         \$0         \$3.01         \$3.06         \$3.75         \$3.01           6		Rates	Year	Costs		Costs		•				
1.137         2003         \$6.174         \$0         \$0           1.066         2004         \$5,791         \$0         \$0           Base Year         2005         \$5,791         \$0         \$0           0.938         2006         \$4,777         \$3.206         \$55.98           0.840         2006         \$4,777         \$3.206         \$55.8           0.840         2007         \$4,480         \$0         \$51.8           0.774         2008         \$4,777         \$2.645         \$466           0.776         2009         \$3,941         \$2.645         \$466           0.776         2009         \$3,941         \$2.645         \$466           0.776         2010         \$3,696         \$0         \$477           0.681         2011         \$3,696         \$0         \$477           0.687         2011         \$3,696         \$0         \$401           0.689         2012         \$3,696         \$0         \$401           0.561         \$2,616         \$2,946         \$3,31           0.561         \$2,666         \$3,04         \$3,31           0.681         \$2,166         \$3,53           <	100	-	2002		<b>\$</b> 0							
1,066         2004         \$5.791         \$0         \$0           Base Year         \$0         \$0         \$0         \$0           0,938         2005         \$5.094         \$0         \$589           0,800         2006         \$4.777         \$3.206         \$552           0,825         2007         \$4.480         \$0         \$518           0,726         2009         \$4.202         \$0         \$486           0,726         2009         \$4.3941         \$2.645         \$466           0,726         2001         \$3.941         \$2.645         \$401           0,681         2010         \$3.466         \$0         \$447           0,681         2011         \$3.466         \$0         \$447           0,681         2011         \$3.466         \$0         \$401           0,681         2011         \$3.466         \$0         \$401           0,681         2012         \$3.251         \$0         \$3.76           0,581         2014         \$2.666         \$2.94         \$0         \$2.76           0,581         2014         \$2.155         \$0         \$2.76         \$2.76           0,494	8	1.137	2003		<b>\$</b> 0							
Base Year         \$0         \$0           0.938         2005         \$5.094         \$0         \$589           0.880         2006         \$4.777         \$1.206         \$589           0.880         2006         \$4.777         \$1.206         \$589           0.774         2008         \$4.777         \$0.681         \$0         \$518           0.774         2008         \$4.202         \$0         \$486         \$0         \$1.66           0.774         2008         \$4.202         \$0         \$4.66         \$0         \$4.66         \$0         <	-	1.066	2004		<b>\$</b>							
0.938         2005         \$5.094         \$0         \$589           0.880         2006         \$4,777         \$3.206         \$552           0.825         2007         \$4,480         \$0         \$518           0.724         2009         \$4,202         \$0         \$486           0.726         2009         \$5,941         \$2,645         \$456           0.681         2010         \$3,696         \$0         \$427           0.638         2011         \$3,466         \$0         \$401           0.599         2013         \$3,51         \$0         \$401           0.527         2014         \$2,869         \$204         \$376           0.527         2014         \$2,869         \$294,273         \$310           0.494         2015         \$2,515         \$0         \$310           0.494         2015         \$2,515         \$0         \$310           0.494         2015         \$2,515         \$0         \$221           0.494         2015         \$2,515         \$0         \$221           0.494         2016         \$2,515         \$0         \$221           0.495         \$2,016         \$2,216	0	Base )	ear	<b>\$</b>	<b>\$</b> 0							
0.880         2006         \$4,777         \$3.206         \$552           0.825         2007         \$4,480         \$0         \$518           0.774         2008         \$4,202         \$0         \$486           0.776         2009         \$3,946         \$0         \$427           0.681         2010         \$3,666         \$0         \$427           0.681         2011         \$3,466         \$0         \$401           0.6387         2011         \$3,466         \$0         \$401           0.6398         2012         \$3,246         \$0         \$401           0.599         2014         \$2,866         \$0         \$401           0.501         \$3,246         \$3,331         \$0         \$376           0.507         2014         \$2,862         \$0         \$331           0.494         2015         \$2,682         \$0         \$331           0.494         2017         \$2,359         \$0         \$291           0.407         2018         \$2,215         \$0         \$273           0.407         2018         \$2,075         \$39,775         \$240           0.38         2020         \$1,946	7	0.938	2002		80							
0.825         2007         \$4.480         \$0         \$518           0.774         2008         \$4.202         \$0         \$486           0.726         2009         \$3.941         \$2.645         \$486           0.681         2010         \$3.946         \$0         \$427           0.683f         2011         \$3.466         \$0         \$401           0.693         2012         \$3.246         \$0         \$401           0.599         2012         \$3.251         \$0         \$376           0.507         2014         \$2.869         \$2.046         \$353           0.507         2014         \$2.869         \$2.94.273         \$31           0.494         2015         \$2.682         \$0         \$310           0.493         2016         \$2.515         \$0         \$291           0.403         2016         \$2.515         \$0         \$273           0.404         2017         \$2.359         \$0         \$273           0.403         2016         \$2.515         \$0         \$240           0.404         \$2.015         \$3.075         \$3.240           0.407         \$2.018         \$2.015         \$3.	-5	0.880	2006		\$3,206	•,						
0.774         2008         \$4,202         \$0         \$486           0.726         2009         \$3,941         \$2,645         \$456           0.681         2010         \$3,696         \$0         \$427           0.6387         2011         \$3,466         \$0         \$401           0.599         2012         \$3,466         \$301         \$376           0.561         2013         \$3,049         \$2,046         \$357           0.57         2014         \$2,859         \$294.273         \$331           0.494         2015         \$2,615         \$0         \$310           0.494         2016         \$2,515         \$0         \$310           0.493         2016         \$2,515         \$0         \$291           0.403         2016         \$2,515         \$0         \$273           0.407         2018         \$2,212         \$1,485         \$256           0.407         \$2,018         \$2,075         \$39,775         \$225           0.356         \$202         \$1,485         \$225           0.356         \$202         \$1,485         \$2,25           0.36         \$2,712         \$0         \$211	ę.	0.825	2007		<b>\$</b> 0							
0.726         2009         \$3.941         \$2.645         \$456           0.681         2010         \$3.696         \$0         \$427           0.638         2011         \$3.466         \$0         \$401           0.599         2012         \$3.266         \$0         \$401           0.561         2013         \$3.046         \$3.376         \$2.046         \$3.376           0.577         2014         \$2.862         \$0         \$3.31         \$2.046         \$3.31           0.494         2015         \$2.682         \$0         \$3.31         \$3.10         \$3.10           0.463         2016         \$2.515         \$0         \$2.91         \$2.73         \$2.73           0.407         2018         \$2.212         \$1.485         \$2.56         \$2.74         \$2.40           0.382         2020         \$1.946         \$0         \$2.25         \$2.04         \$2.25           0.356         2021         \$1.945         \$0         \$2.25         \$0         \$2.11           0.356         2022         \$1.712         \$0         \$1.96         \$0         \$1.96           0.277         2024         \$0         \$1.86         \$1.74	4	0.774	2008		<b>\$</b> 0	-,						
0.681         2010         \$3.696         \$0         \$427           0.6387         2011         \$3.466         \$0         \$401           0.599         2012         \$3.251         \$0         \$3.76           0.561         2013         \$3.049         \$2.046         \$3.376           0.527         2014         \$2.869         \$2.046         \$3.31           0.494         2015         \$2.515         \$0         \$3.10           0.463         2016         \$2.515         \$0         \$2.91           0.443         2017         \$2.359         \$0         \$2.73           0.407         2018         \$2.212         \$1.485         \$2.56           0.36         2020         \$1.946         \$0         \$2.240           0.356         2021         \$1.945         \$2.25         \$0           0.356         2021         \$1.825         \$0         \$2.11           0.36         2022         \$1.712         \$0         \$1.86           0.277         2024         \$0         \$1.74         \$0         \$1.74	κ̈́	0.726	2009									
0.6387         2011         \$3,466         \$0         \$401           0.599         2012         \$3,251         \$0         \$376           0.561         2013         \$3,049         \$2,046         \$353           0.577         2014         \$2,859         \$294,273         \$331           0.494         2015         \$2,682         \$0         \$310           0.463         2016         \$2,515         \$0         \$291           0.407         2018         \$2,515         \$0         \$273           0.407         2018         \$2,075         \$1,485         \$256           0.382         2019         \$2,075         \$39,775         \$240           0.386         2020         \$1,946         \$0         \$225           0.368         2020         \$1,946         \$0         \$225           0.368         2021         \$1,825         \$0         \$211           0.366         2022         \$1,712         \$0         \$198           0.296         2023         \$0         \$186         \$174           0.277         2024         \$0         \$174	φ	0.681										
0 599         2012         \$3.51         \$0         \$376           0.561         2013         \$3.049         \$2.046         \$353           0.527         2014         \$2.859         \$2.94.273         \$331           0.494         2015         \$2.682         \$0         \$310           0.463         2016         \$2.515         \$0         \$291           0.434         2017         \$2,359         \$0         \$273           0.407         2018         \$2.212         \$1,485         \$256           0.382         2019         \$2,075         \$39,775         \$240           0.386         2020         \$1,946         \$0         \$225           0.358         2021         \$1,825         \$0         \$211           0.316         2021         \$1,825         \$0         \$211           0.356         2022         \$1,712         \$0         \$198           0.296         2023         \$0         \$186         \$174           0.277         2024         \$0         \$174	-1	0.638	2011									
0.5612013\$3,049\$2,046\$3530.5272014\$2,859\$294.273\$3310.4942015\$2,682\$0\$3100.4632016\$2,515\$0\$2910.4342017\$2,359\$0\$2730.4072018\$2,212\$1,485\$2560.3822019\$2,075\$39,775\$2400.3682020\$1,946\$0\$2210.3692021\$1,946\$0\$2110.3152022\$1,712\$0\$1980.2962023\$0\$1860.2772024\$0\$174	æ	0.599	2012									
0.5272014\$2,859\$294.273\$3310.4942015\$2,682\$0\$3100.4632016\$2,515\$0\$2910.4342017\$2,359\$0\$2730.4072018\$2,212\$1,485\$2560.3822019\$2,075\$39,775\$2400.3682020\$1,946\$0\$2250.3582021\$1,825\$0\$2110.3162021\$1,825\$0\$1980.2962023\$0\$186\$00.2772024\$0\$174	ō,		2013									
0.4942015\$2,682\$0\$3100.4632016\$2,515\$0\$2910.4342017\$2,359\$0\$2730.4072018\$2,212\$1,485\$2560.3822019\$2,075\$39,775\$2400.3682020\$1,946\$0\$2250.3362021\$1,825\$0\$2110.03152022\$1,712\$0\$1980.2962023\$0\$106\$1740.2772024\$0\$174	-10		2014									
0.4632016\$2,515\$0\$2910.4342017\$2,359\$0\$2730.4072018\$2,212\$1,485\$2560.3822019\$2,075\$39,775\$2400.3582020\$1,946\$0\$2250.3562021\$1,825\$0\$2110.3152022\$1,712\$0\$1980.2962023\$0\$1860.2772024\$0\$174	7		2015									
0.4342017\$2,359\$0\$2730.4072018\$2,212\$1,485\$2560.3822019\$2,075\$39,775\$2400.3582020\$1,946\$0\$2250.3562021\$1,825\$0\$2110.3152022\$1,712\$0\$1980.2962023\$0\$1860.2772024\$0\$174	-12		2016									
0.407     2018     \$2.212     \$1.485     \$256       0.382     2019     \$2.075     \$39.775     \$240       0.358     2020     \$1.946     \$0     \$225       0.336     2021     \$1.825     \$0     \$211       0.315     2022     \$1.712     \$0     \$198       0.296     2023     \$0     \$186       0.277     2024     \$0     \$174	-13		2017									
0.382     2019     \$2,075     \$39,775       0.358     2020     \$1,946     \$0       0.336     2021     \$1,825     \$0       0.315     2022     \$1,712     \$0       0.296     2023     \$0     \$0       0.277     2024     \$0     \$0	-14		2018									í
0.358     2020     \$1,946     \$0       0.336     2021     \$1,825     \$0       0.315     2022     \$1,712     \$0       0.296     2023     \$0     \$0       0.277     2024     \$0     \$0	-15		2019		\$39.7							
0.336     2021     \$1,825     \$0       0.315     2022     \$1,712     \$0       0.296     2023     \$0     \$0       0.277     2024     \$0     \$0	-16		202(									
0.315 2022 \$1,712 \$0 0.296 2023 \$0 \$0 0.277 2024 \$0 \$0	-17		202									
0.296 2023 \$0 \$0 0.277 2024 \$0 \$0	-18		202;	\$1,71								
0.277 2024 \$0 \$0	-19		205	•								
	-50		` '				1					

# Grand and White Lake Land Bridge Protection - A Jacks (PME-18b)

Amortized Costs \$363,962		Supervision First Cost Total Eiret	& Inspectio Continuency Construction	\$0 &0 &0			0.6	\$61,551	\$54,499 \$201,244 \$804,976	\$116,050 \$428,528 \$1,714,113																										
	Coms	Project	Management	\$628	CEAD	6670	100	\$695	\$715	\$3,354																										
•	LDNR	Supervision &	Administration	\$5.100	59 031	\$0,22	630,00	/F9'63	\$4.978	\$38,076																										
\$3,970,799	Federal	Supervision &	Administration	\$15,300	\$27.094	\$27.988	620,000	316,024	\$14,933	\$114,227	Other	Costs	\$0	0\$	. <b>S</b>	S	\$739	\$763	\$788	\$814	\$841	\$869	\$838	\$927	\$958	\$989	\$1,022	\$1,056	\$1,091	\$1,127	\$1,164	\$1,202	\$1,242	\$1,283	\$1,325	61 160
inded Costs		Easements	& Land Rights	\$7,424	\$13,147	\$13.581	£2 338	42,330	0.5	\$36,491	O&M	Costs	0\$	<b>S</b>	0\$	0\$	\$0	\$4,429	<b>%</b>	\$0	\$4.882	<b>%</b>	<b>\$</b>	<b>S</b>	\$5,559	\$880,532	<b>\$</b> 0	<b>9</b>	S,	\$6,539	\$192,930	<b>S</b>	<b>9</b>	<b>S</b>	80	5
Total Fully Funded Costs		Ö		\$44.970	\$79,635	\$82,263	\$14 163		200	\$221,030	Monitoring	Costs	\$17,731	\$5,987	\$6,184	20	\$6,388	\$6,599	\$6.817	\$7,042	\$7.274	\$7,514	\$7,762	\$8,018	\$8,283	\$8,556	\$8,839	\$9,130	\$9,432	\$9.743	\$10,064	\$10,396	\$10,740	\$11,094	<b>%</b>	0\$
			Year	2000	2001	2002	2003	2002	2004	- OIAL	Fiscal	Year	2002	2003	2004	ear	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Fully Funded Costs	ſ	Inflation	Factor	1.000	1.033	1.067	1 102	1 130	- 1		Inflation	Factor	1.067	1.102	1.139	Base Year	1.176	1.215	1.255	1.297	1.339	1 384	1.429	1.476	1.525	1.575	1.627	1.681	1.737	1 794	1.853	1.914	1.977	2.043	2.110	2.180
Fully Fu		;	Year	S	4	က	7	-	-			Year	က	7	-	0	7	?	ú	4	ċ	φ	-7	æρ	o.	우 :		-12	-13	-14	-15	-16	-17	-18	-19	-50

#### Raccoon Island II (PTE-15viii)

23	0.0916595	\$8,467,281
Total Project Years	Amortization Factor	Total Fully Funded Costs
ю	6 625%	\$8,241,316
Project Construction Years:	Interëst Rate	Total First Costs

Average Annual	\$763.657 \$4.473 \$3.645 \$628	\$772,404	83	\$9,306	N.
Present Worth	\$8.331,455 \$48.805 \$39.767 \$6.851	\$8,426,900			
Annual Charges	Interest & Amortization Monitoring O & M Costs Other Costs	Total	Average Annual Habitat Units	Cost Per Habitat Unit	Average Annual Acres of Emergent Marsh

#### Raccoon Island II (PTE-15viii)

#### First Costs and Annual Charges

& Land Rights         Administration         Administration         Administration         Administration         Administration         Administration         Administration         Administration         Administration         So         50 </th <th>Administration Management \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0</th>	Administration Management \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0
\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
\$47.367 \$27,500 \$628 \$81,200 \$47,143 \$628 \$81,200 \$47,143 \$628 \$74,433 \$35,357 \$628 \$74,433 \$35,357 \$628 \$503,000 \$110,000 \$1,884  Other  Costs \$50 \$502 \$502 \$502 \$502 \$502 \$502 \$502	\$47.367 \$27,500 \$628 \$81,200 \$47,143 \$628 \$81,200 \$47,143 \$628 \$74,433 \$35,357 \$628 \$74,433 \$35,357 \$628 \$503,000 \$110,000 \$1,884  Other  Costs \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50
867     \$27,500     \$628       800     \$47,143     \$628       800     \$110,000     \$1,884       \$0     \$110,000     \$1,884       \$0     \$110,000     \$1,884       \$0     \$228     \$228       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$28     \$28     \$28       \$29     \$29     \$29       \$28     \$28     \$28       \$29     \$29     \$29       \$28     \$29     \$29       \$29     \$29     \$29       \$29     \$29     \$29       \$29     \$29     \$29       \$29 <th< td=""><td>\$47.367 \$27.500 \$628 \$81.200 \$47.143 \$628 \$1200 \$47.143 \$628 \$47.433 \$35.357 \$628 \$203.000 \$110.000 \$1.884  Other  Costs \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50</td></th<>	\$47.367 \$27.500 \$628 \$81.200 \$47.143 \$628 \$1200 \$47.143 \$628 \$47.433 \$35.357 \$628 \$203.000 \$110.000 \$1.884  Other  Costs \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50
\$81.200 \$47,143 \$628 \$74.433 \$35,357 \$628 \$203.000 \$110,000 \$1,884 Other Costs  \$0 \$0 \$028 \$628 \$628 \$628 \$628	\$81.200 \$47,143 \$628 \$74.433 \$35,357 \$628 \$203.000 \$110,000 \$1,884 Other Costs  \$0 \$0 \$028 \$628 \$628 \$628 \$628
\$74.433 \$35,357 \$203.000 \$110,000 \$  Other Costs \$628 \$628 \$628 \$628 \$628 \$628 \$628 \$628	\$74.433 \$35,357 \$628 \$203.000 \$110,000 \$1,884  Other Costs \$50 \$50 \$50 \$528 \$528 \$528 \$528 \$528 \$528 \$528 \$528
\$203.000 \$110.000 \$1,884  Other Costs \$0 \$0 \$0 \$628 \$628 \$628 \$628 \$628 \$628 \$628 \$628	\$203.000 \$110.000 \$1,884  Other Costs \$0 \$0 \$0 \$628 \$628 \$628 \$628 \$628 \$628 \$628 \$628
Cost	O C C OST
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## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### Raccoon Island II (PTE-15viii)

	į				Federal	LDNR	Corps				
:	Compound		Engineering	Easements	Supervision &	Supervision &	Project	Supervision	,	First Cost	Total First
Year	Rates	Year	& Design	& Land Rights	Administration	Administration	Management	& Inspection	& Inspection Contingency	Construction	Cost
2	1.378		<b>%</b>	<b>%</b>	<b>%</b>	<b>9</b>	<b>\$</b>	<b>9</b>	<b>S</b> 0	0 <b>\$</b>	
4	1.293		<b>%</b>	<b>\$</b> 0	\$0	\$0	<b>9</b>	<b>%</b>	<b>ွှ</b>	<b>≎</b>	
က	1.212	2000	\$200,681	\$6,364	\$57,418	\$33,336	\$761	<b>\$</b> 0	<b>9</b>	<b>9</b>	\$298,560
2	1.137	2001	\$322,649	\$10,232	\$92,315	\$53,596	\$714	\$0	<b>9</b> 0	0\$	\$479,507
-	1.066	2002	\$25,217	\$800	\$79,365	\$37,700	\$670	\$211,118	\$1,439,704	\$5,758,816	\$7,553,388
		Total	\$548,547	\$17,396	\$229,098	\$124,631	\$2,145	\$211,118	\$1,439,704	\$5,758,816	\$8,331,455
	Discount	Fiscal	Monitoring	O&M	Other						
Year	Rates	Year	Costs	Costs	Costs						
2	1.137	2001	\$17,218	90	\$0						
-	1.066	2002	\$2,879	<b>%</b>	\$0						
0	Base Year	Year	<b>\$</b> 0	<b>%</b>	\$0						
7	0.938	2003	\$2,532	\$3,419	\$589						
<b>?</b>	0.880	2004	\$2,375	\$3,206	\$552						
<u>ڊ</u> .	0.825	2005	\$2,227	\$3,007	\$518						
4	0.774	2006	\$2,089	\$2,820	\$486						
ċ	0.726	2007	\$1,959	\$2,645	\$456						
မှ	0 681	2008	\$1,837	\$2,481	\$427						
7-	0.638	2009		\$2,326							
æ	0.599.	2010		\$2,182	\$376						
ę.	0.561	2011	\$1,516	\$2,046	\$353						
-10	0.527	2012	\$1,422	\$1,919	\$331						
÷	0.494	2013	\$1,333	\$1,800	\$310						
-12	0.463	2014	\$1,250	\$1,688	\$291						
-13	0.434	2015	\$1,173	\$1,583	\$273						
-14	0.407	2016	\$1,100	\$1,485	\$256						í
-15	0.382	2017	\$1,032	\$1,393	\$240						
-16	0.358	2018	296\$	\$1,306	\$225						
-17	0.336	2019	200\$	\$1,225	\$211						
-18	3 0.315	2020	\$851	\$1,149	\$198						
-19	0.296	2021	\$798	\$1,077	\$186						
-20	0.277	2022	0\$	\$1,010	\$174						

#### Raccoon Island II (PTE-15viii)

ractor 5	Fiscal Year	Engineering & Design \$0	Easements & Land Rights S0	Federal Supervision & Administration	LDNR Supervision & Administration \$0	Corps Project Management	Supervision & Inspection Contingency \$0.00	Contingency \$0	First Cost Construction	Total First Cost
1 000	2000	\$0	\$0 <b>\$</b> 6 250	S0 847 367	\$0	9 60	9 69 6	0 0	0, 0,	<b>9</b>
1.033	2001	\$293,165 \$25,237	\$9,297	\$47.307 \$83.880 \$79.427	\$48,699 \$48,699 \$37,729	\$628 \$649 \$670	50 50 50	\$0 \$0 \$1 440 837	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$246,295 \$435,689
, soite Bra	TOTAL	\$483,952	\$15,347	\$210,673	\$113,928	\$1,947	\$211,284	\$1,440,837	\$5,763,348	\$8,241,316
Factor	Year	Costs	Costs	Costs						
1.033	2001	\$15,645	05	80						
1.067 Base Year	2002 Year	\$2,881 \$0	0\$ \$0	S 08						
1.102	2003	\$2,976	\$4,018							
1.139	2004	\$3.074	\$4.150	\$715						
1.215	2006	\$3,281	<b>\$</b> 4.207 <b>\$</b> 4.429							
1.255	2007	\$3,389	\$4,575							
1.297	2008	\$3,501 \$3,616	\$4,726	\$814						
1.384	2010	\$3,736	\$5,043							
1.429	2011	\$3,859	\$5.210							
1.476	2012	53,986	\$5.381							
1.575	2013	\$4,254	\$5.743	900 S						
1.627	2015	\$4,394	\$5,932	6						
1681	2016	\$4,539	\$6,128							í
1,737	2017	\$4,689	\$6,330	\$1.091						
1.794	2018		\$6,539							
1.853	2019		\$6.755							
1.914	2020	\$5,169	\$6,978	\$1,202						
1.977	2021	\$5,339	\$7,208							
2.043	2022	20	\$7,446	\$1,283						

#### Amoretta Freshwater Diversion (BA-17)

25	0.0916595	\$19,339,342
Total Project Years	Amortization Factor	Total Fully Funded Costs
S	6 625%	\$16,827,779
Project Construction Years:	Interest Rate	Total First Costs

	Present Worth \$18,253,171
	\$376,097 \$578,275 \$6,851
	\$19,214,400
Average Annual Acres of Emergent Marsh	

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#### Amoretta Freshwater Diversion (BA-17)

#### First Costs and Annual Charges

		actio Contingency Construction Cost	\$0 \$1.201.210			\$1,361,500 \$5,446,000	\$389,000	\$1,750,500 \$7,002,000																		i									
	Supervision	& Inspectio				1 \$126,000		\$162,000																											
Corps	Project	Management	\$628	\$628	\$628	\$628	\$628	\$3,140																											
LDNR	Supervision &	Administration	\$17,111	\$29,333	\$29,333	\$29,333	\$4,889	\$110,000																											
Federal	Supervision &	Administration	\$54,444	\$93,333	\$93,333	\$93,333	\$15,556	\$350,000	Other	Costs	\$0	<b>\$</b> 0	\$0	80	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
	Easements	& Land Rights Administration	\$1,013,158	\$1,736,842	\$1,736,842	\$1,013,158	<b>S</b>	\$5,500,000	0&M	Costs	0\$	<b>0\$</b>	<b>\$</b> 0	\$0	\$38,645	\$38.645	\$38,645	\$38,645	\$154,569	\$38.645	\$38,645	\$38,645	\$38,645	\$154.569	\$38,645	\$38,645	\$38,645	\$38.645	\$68.769	\$38.645	\$38,645	\$38.645	\$38,645	\$38,645	\$1.034.872
	_	- 1	\$115,868	\$198,632	\$198,632	\$115,868	<b>%</b>	\$629,000	Monitoring	Costs	\$41,350	\$25,994	\$25,994	<b>8</b> 0	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	\$25,994	80	\$0	\$561,230
	_	Year	2000	2001	2002	2003	2004	TOTAL	Fiscal	Year	2002	2003	2004	Base Year	2005	2006	2007	2008	2009	2010	. 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
<b>,</b>	;	Year	Compound     Compound	4 Compound	3 Compound	2 Compound	1 Compound			Year	3 Compound	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

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All dates are in Federal Fiscal Years (October 1 to September 30)

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## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### Amoretta Freshwater Diversion (BA-17)

	,				Federal	LDNR	Corps				
7697	Compound	Fiscal	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project Management	Supervision & Inspectio	Contingency	First Cost Construction	Total First Cost
50	1 378	2000	\$159 684	\$1 396 279		\$23.582	\$865	\$0	S	<b>S</b> 0	\$1,655,443
4	1.293	2001	\$256,735	\$2,244,897	\$120,635	\$37,914	\$812	S	0\$	0\$	\$2,660,993
· 65	1.212	2002		\$2,105,414	\$113,139	\$35,558	\$761	80	<b>\$</b>	\$0	\$2,495,655
~	1.137	2003		\$1,151,848	\$106,110	\$33,349	\$714	\$143,248	\$1,547,874	\$6,191,498	\$9,306,370
-	1.066	2004		\$0	\$16,586	\$5,213	\$670	\$38,385	\$414,771	\$1,659,085	\$2,134,710
		Total	\$556,875	\$6,898,439	\$431,502	\$135,615	\$3,822	\$181,633	\$1,962,646	\$7,850,583	\$18,253,171
	Discount	Fiscal	Monitoring	O&M	Other						
Year	Rates	Year	Costs	Costs	Costs						
lm	1.212	2002	1	\$0	\$0						
7	1.137	2003	\$29,552	\$0	80						
-	1.066	2004		\$0							
0	Base Year	Year	<b>\$</b>	<b>\$</b>	80						
Ţ	0.938	2005	\$24,379	\$36.244	\$589						
-5	0.880	2006	\$22,864	\$33,992	\$552						
ė.	0.825	2007	\$21,444	\$31,880	\$518						
4	0.774	2008	\$20,111	\$29,899	\$486						
κ̈́	0.726	2009	\$18,862	\$112,157	\$456						
φ	0.681	2010	\$17,690	\$26,299	\$427						
-7	0.638	2011		\$24,665	\$401						
8	0.599	2012		\$23,132	\$376	*					
ō.	0.561	2013	\$14,593	\$21,695							
-10	0.527	2014	\$13,686	\$81,383	\$331						
-	0.494	2015	\$12,836	\$19,083	\$310						
-12	0.463	2016	\$ \$12,038	\$17.897	\$291						
-13	0.434	2017		\$16,785	\$273						
-14	0.407	2018		\$15,742	\$256						i
-15	0.382	2019	\$9,931	\$26.273							
-16	0.358	2020	\$9,314	\$13,847	\$225						
-17	0.336	2021	1 \$8,735	\$12,986	\$211						
-18	0.315	2022	2 \$8,192	\$12,180	\$198						
-19	0.296	2023		\$11,423							
-20	0.277	2024		\$10,713	\$174	1					

#### Amoretta Freshwater Diversion (BA-17)

Fully Ft	Fully Funded Costs	Š	Total Fully Funded Costs	ınded Costs	\$19,339.342				Amortized Costs	s	\$1,772,635
	, Inflation	1000		ı	Federal	LDNR	Corps				
Year	Factor	Year	& Design	casements  Land Rights	Supervision & Administration	Supervision & Administration	Project Management	Supervision & Inspection		First Cost	Total First
2	1.000	2000	1	\$1,013,158		\$17 111	١.	o maperilo	Commigency	Construction	Cost
4	1.033	2001		\$1,794,158	\$96.413	\$30,301	\$649	0.5	2	05	\$1,201,210
က	1.067	2002	\$211,958	\$1,853,365	\$99,595	\$31.301	\$670	8 6	9 6	<u>چ</u>	\$2,126,708
7	1.102	2003		\$1,116,807	\$102,882	\$32,334	6603	300	000	20	\$2,196,889
-	1.139	2004	\$0	<b>\$</b>	\$17,713	\$5.567	\$715	080,051 c	51,000,785	\$6,003,142	\$9,023,255
		TOTAL	\$660,735	\$5,777,488	\$371,047	\$116,615	\$3,354	\$179,883	\$1,943,732	\$7,774,926	\$16,827,779
	Inflation	Fiscal	Monitoring	O&M	Other						
rear	Factor	Year	Costs	Costs	Costs						
က	1.067	2002	\$44,124	80	80						
7	1,102	2003	\$28,653	80	So						
	1.139	2004	\$29,599	<b>S</b> 0	80						
0	Base Year	/ear	80	\$0	So						
7	1.176	2005	\$30,576	\$45,456	\$739						
-5	1.215	2006	\$31,585	\$46,956	\$763						
က္	1.255	2007	\$32,627	\$48,506	\$788						
4	1.297	2008	\$33,704	\$50,107	\$814						
က်	1.339	2009	\$34,816	\$207.026	\$841						
φ	1.384		\$35,965	\$53,468	\$869						
٠.	1 429		\$37,152	\$55,233	\$888						
φ,	1.476	2012	\$38,378	\$57,055	\$927						
٠,	1.525	2013	\$39,644	\$58,938	\$958						
₽;	1.575	2014	\$40,952	\$243,516	\$989						
<b>-</b> :	1.627	2015	\$42,304	\$62,892	\$1,022						
-15	1.681	2016	\$43,700	\$64.968	\$1,056						
<del>.</del> 13	1.737	2017	\$45,142	\$67.112	\$1,091						
-14	1.794	2018	\$46,631	\$69,326	\$1,127						
-15	1.853	2019	\$48,170	\$127,438	\$1,164						
-16	1.914	2020	\$49,760	\$73,978	\$1,202						
-12	1.977	2021	\$51,402	\$76.419	\$1,242						
<u></u>	2.043	2022	\$53,098	\$78,941	\$1,283						
-19	2.110	2023	80	\$81,546	\$1,325						
-20	2.180	2024	<b>\$</b> 0	\$84,237	\$1,369	•					
	. **	Total	\$837,979	\$1,653,118	\$20,466						

All dates are in Federal Fiscal Years (October 1 to September 30)

November 30, 1999

## East West Grand Terre Island Restoration (XBA-1a)

25	0.0916595	\$18,203,486
Total Project Years	"Amortization Factor	Total Fully Funded Costs
5	6 625%	\$17,998,083
Project Construction Years:	Interest Rate	Total First Costs

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## East West Grand Terre Island Restoration (XBA-1a)

First Costs and Annual Charges

Total	total First	1000	9299,119	\$683,756	\$683,756	\$7,853,447	\$6,591,970	\$10,212,01\$																			;								
Firet	Construction	1000000	9 6	9	0.000	\$5,956,946 66,406,064	\$3, 103;334 644 065 000	311,062,900																											
	Contingency	Ş	3	•	44 490 227	41,409,237 C1 276 ABB	\$27.55 725	67,100,129																											
Supervision	& Inspectio	90	<b>;</b>	5	£120234	\$110.769	\$240,000	200'01																											
Corps Project	Management	\$628	\$628	\$628	\$628	\$628	\$3 140																												
LDNR Supervision &	Administration	\$15,714	\$26,939	\$26 939	\$26 939	\$13,469	\$110,000																												
Federal Supervision &	Administration	\$98,771	\$169,322	\$169.322	\$169.322	\$84.661	\$691,400		Other	Costs	0\$	0\$	<b>S</b>	\$0	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
Easements	& Land Rights Administration	\$94,606	\$162,182	\$162,182	\$27,030	\$0	\$446,000		O&M	Costs	\$0	<b>\$</b> 0	<b>%</b>	<b>%</b>	<b>\$</b>	80	\$0	<b>\$</b>	80	80	\$0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	80	<b>2</b> 0	\$0	<b>S</b> 0	80	\$0	20	80	0\$	\$0	S
	& Design	\$189,399	\$324,685	\$324,685	\$54,114	\$0	\$892,883	:	Monitoring	Costs	\$17,876	\$5,431	\$5,431	<b>%</b>	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	<b>%</b>	\$0	\$126,496
Fiscal	Year	2000	2001	2002	2003	2004	TOTAL	i	Fiscal	Year	2002	2003	2004	Year	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
<i>j</i>	Year	o Compound	4 Compound	3 Compound	2 Compound	1 Compound			:	Year	3 Compound	2 Compound	Compor	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

## East West Grand Terre Island Restoration (XBA-1a)

Compound Fiscal Regimenting Easements Supervision & Supe											<b>!</b>	
Compound         Fiscal         Engineering         Easements         Supervision & Supervision & Project         Supervision & Project         Supervision & Super		ţ				Federal	LDNR	Corps				
5         1378         2000         \$561,020         \$130,381         \$158,121         \$21,657         \$865         \$50           4         1233         2001         \$419,660         \$209 623         \$218,852         \$34,819         \$812         \$50           2         1137         2002         \$419,860         \$209 623         \$218,852         \$30,656         \$714         \$110,05           1         1066         2004         \$50         \$50,730         \$192,501         \$30,656         \$714         \$18,108           1         1066         2004         \$51,35,788         \$567,332         \$842,998         \$134,119         \$3,822         \$565,029           1         1066         2004         \$51,32,788         \$567,332         \$842,998         \$134,119         \$3,822         \$565,029           1         1086         2004         \$51,332         \$842,998         \$134,119         \$3,822         \$565,029           1         1080         2002         \$21,698         \$0         \$50         \$560         \$18,108         \$18,108         \$18,108         \$18,108         \$18,108         \$18,108         \$18,108         \$18,108         \$18,108         \$18,108         \$18,108 <t< th=""><th>Year</th><th>Compound</th><th>Fiscal Year</th><th>Engineering &amp; Design</th><th>Easements &amp; Land Rights</th><th></th><th>Supervision &amp; Administration</th><th>Project Management</th><th>Supervision &amp; Inspection</th><th>Continuency</th><th>First Cost</th><th>Total First Cost</th></t<>	Year	Compound	Fiscal Year	Engineering & Design	Easements & Land Rights		Supervision & Administration	Project Management	Supervision & Inspection	Continuency	First Cost	Total First Cost
1.293   2001   3419,660   \$209,623   \$218,852   \$34,819   \$501   \$419,660   \$2006   \$323,585   \$196,598   \$205,224   \$32,655   \$761   \$501   \$1132   \$2004   \$31,3578   \$5195,234   \$300,226   \$514,819   \$514,	5	1 378	2000	\$261 020	\$130 381	\$136,121	\$21.657	\$865		20	\$0	\$550.045
1212   2002 \$393.585   \$196.598   \$205.254   \$30.656   \$714   \$146.521   \$100.5041   \$11.37   \$200.3 \$61.522   \$30.730   \$196.501   \$11.37   \$200.3 \$61.522   \$30.730   \$196.501   \$11.30.66   \$1.30.732   \$196.509   \$134.119   \$11.30.68   \$10.5041   \$11.30.788   \$196.732   \$196.509   \$134.119   \$196.50   \$196.509   \$134.119   \$196.50   \$196.509   \$19	4	1.293	2001	\$419,660	\$209.623	\$218.852	\$34,819	\$812		<u>\$</u>	0\$	\$883,766
1137   2003   \$61,522   \$30,730   \$192,501   \$30,626   \$714   \$146,921   \$1,066   2004   \$6   \$6   \$6   \$6   \$6   \$6   \$6   \$	က	1.212	2002		\$196,598	\$205,254	\$32,655	\$761		<b>S</b>	\$0	\$828.854
1066   2004   \$6   \$667,332   \$842,996   \$134,119   \$3,822   \$265,029	7	1.137	2003		\$30,730	\$192,501	\$30,626	\$714		\$1,693,097	\$6,772,387	\$8,928,498
Total   \$1,135,788	_	1.066	2004	S		\$90,270	\$14,362	\$670		\$1,361,056	\$5,444,223	\$7,028,688
Discount         Fiscal Fiscal Monitoring         Monitoring         O&M         Other Costs           84 1.212         2002         \$21,669         \$0           1.137         2003         \$6,174         \$0           1.1066         2004         \$5,791         \$0           1.066         2004         \$5,791         \$0           1.066         2004         \$5,791         \$0           1.066         2004         \$5,791         \$0           1.066         2004         \$5,791         \$0           1.066         2005         \$5,791         \$0           2005         \$4,777         \$0         \$0           2006         \$4,777         \$0         \$0           2007         \$4,480         \$0         \$0           3007         \$4,777         \$0         \$0           3007         \$1,480         \$0         \$0           3007         \$1,480         \$0         \$0           3007         \$1,480         \$0         \$0           3008         \$2011         \$3,466         \$0           3008         \$2012         \$3,466         \$0           3008         \$2014				\$1,135,788		\$842,998	\$134,119	\$3,822		\$3,054,153	\$12,216,610	\$18,219,851
Rates         Year         Costs         Costs         Costs           1.137         2002         \$21,669         \$0           1.137         2003         \$6,174         \$0           1.066         2004         \$5,791         \$0           1.066         2004         \$5,791         \$0           1.066         2004         \$5,791         \$0           2.005         \$6,791         \$0         \$0           3.006         \$4,777         \$0         \$0           4.008         2006         \$4,777         \$0         \$0           5.008         \$4,777         \$0		Discount	Fiscal	Monitoring	0&M	Other						
1.212         2002         \$21,669         \$0           1.137         2003         \$6,174         \$0           1.066         2004         \$5,791         \$0           1.066         2004         \$5,791         \$0           1.066         2004         \$5,791         \$0           1.066         2005         \$5,994         \$0           2.080         2006         \$4,777         \$0           3.085         2007         \$4,480         \$0           4.0774         2008         \$4,202         \$0           5.076         \$4,480         \$0         \$0           6.0726         2009         \$3,941         \$0           7.0681         2010         \$3,941         \$0           8         0.726         2010         \$3,941         \$0           9         0.681         2011         \$3,466         \$0           1         0.681         2011         \$3,466         \$0           1         0.681         2012         \$3,251         \$0           2         0.681         2014         \$2,859         \$0           3         0.434         2015         \$2,045         \$0	Year	Rates	Year	Costs	Costs	Costs						
1.137 2003 \$6.174 \$00 1.066 2004 \$5.791 \$0 1.066 2004 \$5.791 \$0 0.938 2005 \$5.094 \$0 0.880 2006 \$4.777 \$0 0.825 2007 \$4.480 \$0 0.774 2008 \$4.202 \$0 0.774 2008 \$4.202 \$0 0.681 2010 \$3.941 \$0 0.681 2010 \$3.941 \$0 0.681 2010 \$3.941 \$0 0.681 2010 \$3.941 \$0 0.681 2010 \$3.941 \$0 0.681 2010 \$3.941 \$0 0.691 2010 \$3.941 \$0 0.691 2011 \$3.946 \$0 0.494 2017 \$2.859 \$0 0.494 2017 \$2.859 \$0 0.494 2017 \$2.859 \$0 0.494 2017 \$2.859 \$0 0.494 2017 \$2.859 \$0 0.494 2017 \$2.859 \$0 0.494 2017 \$2.859 \$0 0.495 2020 \$1.946 \$0 0.396 2020 \$1.712 \$0 0.396 2022 \$1.712 \$0 0.296 2023 \$0 0.277 \$0 0.277 \$0 0.277 \$0 0.296 \$0 0.206 \$0	3	1.212	2002		90	\$0						
1.066 2004 \$5,791 \$0  Base Year \$0 0.938 2005 \$5,094 \$50 0.880 2006 \$4,777 \$0 0.825 2007 \$4,480 \$50 0.774 2008 \$4,777 \$50 0.681 2010 \$3,941 \$50 0.681 2010 \$3,941 \$50 0.681 2011 \$3,946 \$50 0.561 2011 \$3,466 \$50 0.561 2011 \$2,859 \$50 0.494 2017 \$2,859 \$50 0.494 2017 \$2,859 \$50 0.494 2017 \$2,859 \$50 0.494 2017 \$2,859 \$50 0.494 2017 \$2,859 \$50 0.494 2017 \$2,859 \$50 0.495 2020 \$1,946 \$50 0.358 2020 \$1,946 \$50 0.358 2020 \$1,712 \$50 0.358 2022 \$1,712 \$50 0.358 2022 \$1,712 \$50 0.358 2022 \$1,712 \$50 0.358 2022 \$1,712 \$50 0.358 2022 \$1,712 \$50 0.358 2022 \$1,712 \$50 0.358 2022 \$1,712 \$50 0.358 2022 \$1,712 \$50 0.358 2022 \$1,712 \$50 0.358 2022 \$1,712 \$50 0.377 2024 \$50 0.277 \$50 0	2	1.137	2003			<b>%</b>						
Base Year         \$0         \$0           0.938         2005         \$5.094         \$0           0.880         2006         \$4.777         \$0           0.825         2007         \$4.480         \$0           0.774         2008         \$4.202         \$0           0.774         2008         \$3.941         \$0           0.774         2009         \$3.941         \$0           0.681         2010         \$3.696         \$0           0.681         2010         \$3.466         \$0           0.638*         2011         \$3.466         \$0           0.651         2011         \$3.466         \$0           0.638*         2012         \$3.251         \$0           0.527         2014         \$2.859         \$0           0.494         2015         \$2.682         \$0           0.407         2016         \$2.515         \$0           0.407         2018         \$2.212         \$0           0.36         2020         \$1,946         \$0           0.315         2022         \$1,712         \$0           0.296         2023         \$0         \$0	-	1.066	2004			<b>\$</b>						
0.938     2005     \$5.094     \$0       0.880     2006     \$4,777     \$0       0.825     2007     \$4,480     \$0       0.774     2008     \$4,202     \$0       0.774     2009     \$3,941     \$0       0.726     2009     \$3,941     \$0       0.681     2010     \$3,946     \$0       0.638*     2011     \$3,946     \$0       0.638*     2011     \$3,946     \$0       0.59     2012     \$2,859     \$0       0.494     2014     \$2,862     \$0       0.494     2015     \$2,682     \$0       0.494     2016     \$2,515     \$0       0.494     2017     \$2,359     \$0       0.407     2016     \$2,515     \$0       0.407     2018     \$2,212     \$0       0.38     2020     \$1,946     \$0       0.396     2022     \$1,712     \$0       0.277     2024     \$0     \$0       1 Cotal     \$6     \$0       0.277     \$0     \$0     \$0       1 Cotal     \$0     \$0     \$0       0.277     \$0     \$0     \$0     \$0       0.277     \$0	0	Base	Year	<b>\$</b> 0		<b>\$</b> 0						
0.880     2006     \$4,777     \$0       0.825     2007     \$4,480     \$0       0.774     2008     \$4,202     \$0       0.726     2009     \$3,941     \$0       0.681     2010     \$3,941     \$0       0.681     2010     \$3,946     \$0       0.638*     2011     \$3,466     \$0       0.639     2011     \$3,466     \$0       0.591     2013     \$3,049     \$0       0.527     2014     \$2,859     \$0       0.494     2015     \$2,682     \$0       0.494     2015     \$2,682     \$0       0.494     2016     \$2,515     \$0       0.407     2016     \$2,515     \$0       0.407     2018     \$2,212     \$0       0.38     2020     \$1,946     \$0       0.36     2021     \$1,825     \$0       0.277     2024     \$0     \$0       0.277     2024     \$0     \$0       1 Cotal     \$1,712     \$0     \$0       0.277     \$0     \$0     \$0     \$0       1 Cotal     \$0     \$0     \$0     \$0       1 Cotal     \$0     \$0     \$0     \$0   <	٦	0.938				\$589						
0.825     2007     \$4,480     \$0       0.774     2008     \$4,202     \$0       0.726     2009     \$3,941     \$0       0.681     2010     \$3,696     \$0       0.688*     2011     \$3,466     \$0       0.699     2012     \$3,251     \$0       0.561     2013     \$3,049     \$0       0.577     2014     \$2,859     \$0       0.494     2015     \$2,682     \$0       0.494     2015     \$2,682     \$0       0.407     2016     \$2,515     \$0       0.407     2018     \$2,359     \$0       0.38     2020     \$1,946     \$0       0.36     2021     \$1,825     \$0       0.315     2022     \$1,712     \$0       0.296     2023     \$0     \$0       0.277     2024     \$0     \$0       0.277     \$0     \$0     \$0       0.277     \$0     \$0     \$0       0.277     \$0     \$0     \$0       0.277     \$0     \$0     \$0       0.277     \$0     \$0     \$0       0.277     \$0     \$0     \$0       0.277     \$0     \$0 <td< td=""><td>ç</td><td>0.880</td><td>2006</td><td></td><td></td><td>\$552</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	ç	0.880	2006			\$552						
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\$89,776	-20		2024									
			Totai	\$89,776			ı					

## East West Grand Terre Island Restoration (XBA-1a)

scal         Engineering         Easements         Prederal         LDNR         Corps           scal         Engineering         Easements         Supervision & Supervision & Preparation         Corps         Supervision or Supervision         Prist Cost           2002         \$189.39         \$167.504         \$29,606         \$29,71         \$62.00         \$0         \$0           2001         \$183.539         \$173.062         \$180.608         \$29,74         \$10.714         \$62.70         \$0         \$0           2001         \$180.539         \$173.062         \$180.608         \$29.746         \$180.608         \$0         \$0         \$0           2002         \$180.6498         \$173.062         \$180.664         \$29.740         \$27.788         \$856.735         \$16.4598         \$173.064         \$16.4598         \$173.064         \$16.4598         \$173.064         \$16.4598         \$173.461         \$173.20         \$18.066         \$10.									Signal Costs	2	\$1,66B,523
First   Firs					Federal	LDNR	Corps				
0         2000         \$189.399         \$94.606         \$39.771         \$15.774         \$629         \$0         \$50           13         2001         \$33.399         \$14.506         \$36.771         \$64.9         \$57.828         \$64.9         \$5         \$6         \$5           2         2002         \$33.44.668         \$17.062         \$190.662         \$28.446         \$50         \$0 <th><u>5</u> 5</th> <th>Fiscal</th> <th>Engineering &amp; Design</th> <th>Easements &amp; Land Rights</th> <th>Supervision &amp; Administration</th> <th>Supervision &amp; Administration</th> <th>Project</th> <th>Supervision</th> <th></th> <th>First Cost</th> <th>Total First</th>	<u>5</u> 5	Fiscal	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project	Supervision		First Cost	Total First
1	000		\$189,399	\$94.606	\$98.771	\$15.714	\$628	o manager no	Commigency	Construction	Cost
71         2002         \$346,468         \$173,062         \$180,662         \$28,746         \$670 <td>033</td> <td></td> <td>\$335,399</td> <td>\$167,534</td> <td>\$174,910</td> <td>\$27.828</td> <td>\$649</td> <td>9</td> <td><b>3 5</b></td> <td>9</td> <td>6706 220</td>	033		\$335,399	\$167,534	\$174,910	\$27.828	\$649	9	<b>3 5</b>	9	6706 220
2         2003         \$59,650         \$22,9796         \$166,645         \$29,695         \$162,451         \$1641,590         \$6,566,359           107AL         \$300,916         \$464,996         \$737,410         \$117,320         \$3,354         \$266,592         \$164,1590         \$6,566,359           107AL         \$300,916         \$464,996         \$737,410         \$117,320         \$3,354         \$266,592         \$1095,100         \$12,386,401           10A         Loosis         Cosis         Cosis         Cosis         Cosis         \$10,7320         \$1,356         \$10,95,100         \$12,386,401           17         2002         \$19,075         Cosis         Cosis         Cosis         \$10,95,100         \$12,386,401         \$12,386,4	190		\$346,468	\$173,062	\$180,682	\$28,746	\$670	05	9	9	\$7.00,320
Head   State   State	102			\$29,796	\$186,645	\$29,695	\$692	\$142 451	\$1 641 590	46 566 350	070'67'16
TOTAL   \$930.916   \$464.998   \$777.410   \$117.320   \$3.354   \$268.582   \$51.095,100   \$12.380,401     Fiscal	139			80	\$96.402	\$15,337	\$715	\$126,131	\$1,453,511	\$5,814,042	\$0,030,070 \$7 506 138
Fiscal         Monitoring         O&M         Other           Year         Costs         Costs         Costs           20         \$19075         \$0         \$0           20         \$19075         \$0         \$0           30         \$6.184         \$0         \$0           89         \$2004         \$6.184         \$0         \$0           80         \$2006         \$6.599         \$0         \$763           80         \$2006         \$6.599         \$0         \$763           80         \$0         \$739         \$0         \$789           80         \$0         \$784         \$0         \$789           80         \$0         \$724         \$0         \$889           80         \$2007         \$7.742         \$0         \$889           80         \$2009         \$7.514         \$0         \$899           80         \$2009         \$7.514         \$0         \$899           80         \$2009         \$0         \$999         \$0         \$999           80         \$2009         \$0         \$999         \$0         \$999           80         \$1004         \$0 <td< td=""><td></td><td>TOTAL</td><td>\$930,916</td><td>\$464.998</td><td>\$737,410</td><td>\$117,320</td><td>\$3,354</td><td>\$268,582</td><td>\$3,095,100</td><td>\$12,380,401</td><td>\$17,998,083</td></td<>		TOTAL	\$930,916	\$464.998	\$737,410	\$117,320	\$3,354	\$268,582	\$3,095,100	\$12,380,401	\$17,998,083
Year         Costs         Costs         Costs           67         2002         \$19,075         \$0           39         2004         \$6,184         \$0         \$0           39         2004         \$6,184         \$0         \$0           8e Year         \$0         \$0         \$0         \$0           76         2005         \$6,388         \$0         \$739           76         2006         \$6,384         \$0         \$783           86         2007         \$6,817         \$0         \$783           87         2008         \$7,042         \$0         \$841           89         2009         \$7,774         \$0         \$841           89         2009         \$7,774         \$0         \$843           89         2009         \$7,774         \$0         \$899           80         2010         \$7,762         \$0         \$999           80         \$10,38         \$0         \$1,022           80         \$20         \$0         \$1,022           81         \$20         \$20         \$1,022           81         \$20         \$1,036         \$1,024	tion	Fiscal	Monitoring	08M	Other						
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2003         \$5.987         \$0         \$0           2004         \$6.184         \$0         \$0         \$0           2005         \$6.388         \$0         \$739         \$0           2006         \$6.599         \$0         \$763         \$0           2007         \$6.817         \$0         \$784         \$0         \$784           2008         \$7.704         \$0         \$844         \$0         \$844           2009         \$7.274         \$0         \$869         \$0         \$0         \$0           2010         \$7.514         \$0         \$869         \$0 <td>1 067</td> <td></td> <td></td> <td>05</td> <td>So</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	1 067			05	So						
Year         \$6,184         \$0         \$0           Year         \$0         \$0         \$0           2006         \$6,386         \$0         \$739           2007         \$6,817         \$0         \$773           2008         \$7,042         \$0         \$763           2009         \$7,274         \$0         \$841           2009         \$7,742         \$0         \$869           2011         \$7,762         \$0         \$869           2012         \$8,08         \$0         \$869           2013         \$8,283         \$0         \$898           2014         \$8,56         \$0         \$988           2015         \$8,839         \$0         \$989           2016         \$9,30         \$0         \$1,022           2017         \$9,432         \$0         \$1,022           2018         \$9,130         \$0         \$1,104           2017         \$9,130         \$0         \$1,104           2021         \$10,064         \$0         \$1,104           2022         \$10,109         \$0         \$1,202           2022         \$10,109         \$0         \$1,283      <	1.102		,	80	os S						
Year         \$0         \$0           2005         \$6.386         \$0         \$739           2006         \$6.599         \$0         \$753           2007         \$6.817         \$0         \$788           2009         \$7.274         \$0         \$814           2009         \$7.514         \$0         \$841           2010         \$7.514         \$0         \$869           2011         \$7.762         \$0         \$898           2012         \$8.018         \$0         \$927           2013         \$8.283         \$0         \$989           2014         \$8.566         \$0         \$989           2015         \$8.839         \$0         \$989           2014         \$8.566         \$0         \$989           2015         \$8.939         \$0         \$1.022           2016         \$9.432         \$0         \$1.024           2017         \$9.432         \$0         \$1.041           2018         \$9.130         \$0         \$1.127           2019         \$10.064         \$0         \$1.127           2021         \$10.104         \$0         \$1.242           20	1.139		<b>S6,184</b>	80	S						
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2008\$7.042\$0\$8142009\$7.274\$0\$8412010\$7.514\$0\$8692011\$7.762\$0\$8982012\$8.018\$0\$9272013\$8.283\$0\$9582014\$8.656\$0\$5.0222015\$8.839\$0\$1.0222016\$9.130\$0\$1.0562017\$9.432\$0\$1.1272018\$9.743\$0\$1.1642020\$10.366\$0\$1.2422021\$10.94\$0\$1.2832022\$1.1094\$0\$1.3252024\$0\$0\$1.325	1.255		\$6,817	80	\$788						
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2010         \$7,514         \$0         \$869           2011         \$7,762         \$0         \$898           2012         \$8,018         \$0         \$927           2013         \$8,283         \$0         \$928           2014         \$8,556         \$0         \$989           2015         \$8,839         \$0         \$1,022           2016         \$9,130         \$0         \$1,022           2017         \$9,432         \$0         \$1,091           2018         \$9,743         \$0         \$1,127           2018         \$9,743         \$0         \$1,127           2019         \$10,064         \$0         \$1,127           2020         \$10,396         \$0         \$1,127           2021         \$10,740         \$0         \$1,242           2022         \$11,094         \$0         \$1,283           2023         \$0         \$1,325           2024         \$0         \$1,325           2024         \$0         \$1,369	1.339			80	\$841						
2011\$7,762\$0\$8982012\$8.018\$0\$9272013\$8.283\$0\$9282014\$8,566\$0\$9892015\$8,839\$0\$1,0222016\$9,130\$0\$1,0222017\$9,432\$0\$1,0912018\$9,743\$0\$1,1272019\$10,064\$0\$1,1642020\$10,740\$0\$1,2422021\$10,94\$0\$1,2832023\$0\$1,3252024\$0\$1,369	1.384			\$0	\$869						
2012\$8.018\$0\$9272013\$8.283\$0\$9582014\$8.556\$0\$9892015\$8.839\$0\$1.0222016\$9.130\$0\$1.0222017\$9.432\$0\$1.0912018\$9.743\$0\$1.1272019\$10.064\$0\$1.1642020\$10.396\$0\$1.2022021\$10.740\$0\$1.2422022\$11.094\$0\$1.2832023\$0\$0\$1.3252024\$0\$1.369	1.429		\$7,762	\$0	\$898						
2013\$8.283\$0\$9582014\$8.556\$0\$9892015\$8.839\$0\$1.0222016\$9.130\$0\$1.0222017\$9.432\$0\$1.0912018\$9.743\$0\$1.1272019\$10.064\$0\$1.1642020\$10.396\$0\$1.2022021\$10.740\$0\$1.2422022\$11.094\$0\$1.2832023\$0\$0\$1.3252024\$0\$0\$1.369	1.476			80	\$927						
2014\$8.556\$0\$9892015\$8.839\$0\$1.0222016\$9.130\$0\$1.0222017\$9.432\$0\$1.0912018\$9.743\$0\$1.1272019\$10.064\$0\$1.1642020\$10.396\$0\$1.2022021\$10.740\$0\$1.2422022\$11.094\$0\$1.2832023\$0\$1.3252024\$0\$1.369	1.525			\$0	\$958						
2015\$8,839\$0\$1,0222016\$9,130\$0\$1,0562017\$9,432\$0\$1,0912018\$9,743\$0\$1,1272019\$10,064\$0\$1,1642020\$10,396\$0\$1,2022021\$10,740\$0\$1,2422022\$11,094\$0\$1,2832023\$0\$1,3252024\$0\$1,369	1.575			\$0	\$989						
2016\$9,130\$0\$1,0562017\$9,432\$0\$1,0912018\$9,743\$0\$1,1272019\$10,064\$0\$1,1642020\$10,396\$0\$1,2022021\$10,740\$0\$1,2422022\$11,094\$0\$1,2832023\$0\$1,3252024\$0\$1,369	1.627			<b>\$</b> 0	\$1,022						
2017\$9,432\$0\$1,0912018\$9,743\$0\$1,1272019\$10,064\$0\$1,1642020\$10,396\$0\$1,2022021\$10,740\$0\$1,2422022\$11,094\$0\$1,2832023\$0\$1,3252024\$0\$1,369	1.681			20	\$1,056						
2018     \$9,743     \$0     \$1,127       2019     \$10,064     \$0     \$1,164       2020     \$10,396     \$0     \$1,202       2021     \$10,740     \$0     \$1,242       2022     \$11,094     \$0     \$1,283       2023     \$0     \$1,325       2024     \$0     \$1,369	1.737			<b>\$</b> 0	\$1,091						
2019 \$10.064 \$0 2020 \$10.396 \$0 2021 \$10.740 \$0 2022 \$11.094 \$0 2023 \$0 2024 \$0	1.794			<b>\$</b> 0	\$1,127						1
2020     \$10.396     \$0       2021     \$10.740     \$0       2022     \$11.094     \$0       2023     \$0     \$0       2024     \$0     \$0	1.853			\$0	\$1,164						
2021 \$10,740 \$0 2022 \$11,094 \$0 2023 \$0 2024 \$0	1.914			\$0	\$1,202						
2022 \$11,094 \$0 2023 \$0 2024 \$0 50	1.977			<b>\$</b>	\$1,242						
2023 \$0 \$0 2024 \$0 \$0	2.043		-	<b>\$</b> 0	\$1,283						
2024 \$0 \$0	2.110			\$0	\$1,325						
	2 188		80	\$0	\$1,369						

#### East Golden Meadow Terracing (XBA-77)

24	0.0916595	\$16,155,909
Total Project Years	Amortization Factor	Total Fully Funded Costs
4	6 625%	\$11,490,282
Project Construction Years:	Interest Rate	Total First Costs

Annual Charges	Present Worth	Average
Interest & Amortization Monitoring O & M Costs Other Costs	\$11,700,974 \$69,712 \$1,546,451 \$6,851	\$1,072,506 \$6,390 \$141,747 \$628
Total	\$13,324,000	\$1,221,271
Average Annual Habitat Units		108
Cost Per Habitat Unit		\$11,308
Average Annual Acres of Emergent Marsh		₹Z

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### East Golden Meadow Terracing (XBA-77)

#### First Costs and Annual Charges

		& Inspectio Contingency Construction Cost	80	\$0 6350.1		\$1 034 250 \$4 427 600	6738 750	\$1,773,000 \$7,092,000																		•	ſ							
Corps			0 <b>\$</b>	\$628	\$628	\$628	\$628	\$2,512																										
LDNR	Supervision &	Administration	<b>9</b>	\$21,389	\$36,667	\$36,667	\$15.278	\$110,000																										
Federal	Supervision &	Administration	S,	\$86,139	\$147,667	\$147,667	\$61,528	\$443,000	ç		03	900	S	S	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	•
	Easements	& Land Rights Administration	20	\$48,000	\$82,286	\$13,714	0\$	\$144,000	Mac	1 to 2	9	S S	<b>9</b>	<b>9</b>	<b>0</b> \$	<b>\$</b>	\$0	o <b>\$</b>	\$0	<b>9</b>	20	20	\$4,407	\$2,926,000	\$4,407	<b>%</b>	<b>\$</b>	<b>\$</b>	<b>\$</b> 0	<b>\$</b> 0	80	0 <b>\$</b>	80	***
	<b>CD</b>	1	20	\$194,000	\$332,571	\$55,429	20	\$582,000	Monitoring	grandari y	\$17,118	\$5,431	\$5,431	<b>%</b>	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	•
		rear		2000	2001	2002	2003	TOTAL	Fiecal	X .	2001	2002	2003	Base Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2000
<u>.</u>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	real	punoduon c	4 Compound	3 Compound	2 Compound	1 Compound			Year	3 Compound	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount

All dates are in Federal Fiscal Years (October 1 to September 30)

### East Golden Meadow Terracing (XBA-77)

Amortized Costs \$1,221,271		First Cost To	Construction Cost	0.6	<b>\$</b> 0 <b>\$</b> 0 <b>\$</b> 452,582	\$0 \$727,105	\$1,175,828 \$4,703,310 \$6,366,981	\$3,150,769	\$7,854,079 \$																				· .						
Amor			- 1	2	<b>%</b>	\$0	\$198,956 \$1,1		\$332,237 \$1,9																										
	Corps		ı	2	\$812	\$761	\$714	\$670	\$2,957																										
	LDNR	Supervision &	Administration	9	\$27,645	\$44,448	\$41,686	\$16,290	\$130,069																										
\$13,323,988	Federal	Supervision &	Administration	9	\$111,336	\$179,003	\$167,881	\$65,604	\$523,823	Other	Costs	20	0\$	<b>9</b>	0\$	\$589	\$552	\$518	\$486	\$456	\$427	\$401	\$376	\$353	\$331	\$310	\$291	\$273	\$256	\$240	\$225	\$211	\$198	\$186	
nted Costs		Easements	& Larid Rights Administration		\$62,041	\$99.747	\$15,592	\$0	\$177,380	08M	Costs	<b>S</b>	<b>\$</b>	<b>S</b>	<b>S</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>S</b>	<b>%</b>	<b>\$</b>	<b>%</b>	<b>%</b>	\$2.474	\$1,540,579	\$2,176	<b>%</b>	<b>9</b>	<b>S</b>	\$0	<b>S</b>	<b>S</b> 0	\$0	\$0	\$1,222
Total Discounted Costs		<b>CD</b>	o Design		\$250,748	\$403,146	\$63,016		\$716,910	Monitoring	Costs	\$20,751			20	\$5,094				\$3,941	\$3,696					\$2,682		\$2,359						\$1,605	
		Fiscal	1 4 4		2000	2001	2002	2003	Total	Fiscal	Year	2001	2002	2003	Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Present Valued Costs	1	Compound	1 278	0.5.	1.293	1 212	1.137	1.066		Discount	Rates	1.212	1.137	1.066	Base Year	0.938	0.880	0.825	0.774	0.726	0.681	0.638	0.599	0.561	0.527	0.494	0.463	0.434	0.407	0.382	0.358	0.336	0.315	0.296	0.277
eseu		, ,	ر و	,	4	ო	7	-		_	Year	က	7	-	0	7	ņ	ٺ	4	ιċ	φ		ထု	တု	우	-11	-12	-13	-14	-15	-1	-12	-18	<del>1</del> -	-20

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### East Golden Meadow Terracing (XBA-77)

\$1,480,843		Total First	Cost	80	\$599.818	\$619,612	45 076 076	\$4 294 775	\$11,490,282																											
0.880 11.13 8.144		First Cost	Construction	05	<b>S</b>	<b>S</b>	\$4 414 547	\$3.257,305	\$7,671,852																											
Amortized Costs			Contingency	0\$	80	05	\$1 103 637	\$814.326	\$1,917,963																											
		Supervision	& Inspectio	<b>%</b>	<b>\$</b> 0	80	\$186,741	\$137,788	\$324,528																											
	Corps		- 1	<b>S</b>	\$628	\$649	\$670	\$692	\$2,639																											
	LDNR	Supervision &	Administration	20	\$36,667	\$37,877	\$39,127	\$16.841	\$130,511																											
\$18,155,909	Federal		_	20	\$147,667	\$152,540	\$157,573	\$67.822	\$525.602	Other	Costs	80	20	80	So	\$715	\$739	\$763	\$788	\$814	\$841	\$869	\$888	\$927	\$958	\$983	\$1,022	\$1,056	\$1,091	\$1,127	\$1,164	\$1,202	\$1,242	\$1,283	\$1,325	\$19,812
nded Costs		Easements	a Land Rights	9 9	\$82,286	\$85,001	\$14,634	<b>S</b>	\$181,921	08M	Costs	\$0	\$0	\$0	\$0	80	80	\$0	<b>\$</b> 0	<b>%</b>	\$0	<b>%</b>	20	\$6,506	\$4,462,503	\$6.943	Ç,	\$0	<b>\$</b> 0	S S	<b>\$</b>	<b>\$</b>	<b>%</b>	\$0	\$9,299	\$4,485,252
Total Fully Funded Costs		_	- 1	0\$	\$332,571	\$343,546	\$59,147	<b>\$</b> 0	\$735,265	Monitoring	Costs	\$17,683	\$5,795	\$5,987	<b>%</b>	\$6,184	\$6,388	\$6,599	\$6,817	\$7,042	\$7,274	\$7,514	\$7.762	\$8.018	\$8.283	\$8,526	\$8,839	\$9,130	\$9,432	\$9,743	\$10,064	\$10,396	\$10,740	<b>\$</b> 0	80	\$160,564
		Fiscal	100		2000	2001	2002	2003	TOTAL	Fiscal	Year	2001	2002	2003	ear	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Fully Funded Costs	ţ	Inflation	י מכוטו		1 000	1.033	1.067	1.102	•	Inflation	Factor	1.033	1 067	1.102	Base Year	1.139	1 176	1.215	1 255	1 297	1 339	1 384	1 429	1 476	1 525	1.5/5	1.627	1.681	1.737	1 794	1.853	1.914	1.977	2.043	2.110	
Fully Fu	-	7,00	4	ο ·	4	က	7	-			Year	-	2	-	0	7	-5	Ę.	4	ιὑ	φ	۲.	œρ	o, i	<u>-</u> -	<b>:</b> :	-12	-13	-14	-15	-16	-17	÷	-19	-20	

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#### Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

### Timbalier Island Dune/Marsh Creation - (XTE-45a)

	23	0.0916595	\$16,234,679
	Total Project Years	Amortization Factor	Total Fully Funded Costs
	e.	6.625%	\$16,036,470
•	Project Construction Years:	Interest Rate	Total First Costs

Average	\$1,487,414 \$7,687 \$0 \$628	\$1,495,729	124	\$12,062	NA
Present Worth	\$16,227,601 \$83,860 \$0 \$6,851	\$16,318,300			
Annual Charges	Interest & Amortization Monitoring O & M Costs Other Costs	Total	Average Annual Habitat Units	Cost Per Habitat Unit	Average Annual Acres of Emergent Marsh

### Timballer Island Dune/Marsh Creation - (XTE-45a)

#### First Costs and Annual Charges

	Supervision First Cost Total First	& Inspection Contingency Construction Cost	0\$ 0\$ 0\$	0\$ 0\$ 0\$	\$0 \$0 \$0 \$550,097	\$0 \$0 . \$0 \$826,846	\$225,000 \$2,647,819 \$10,591,277 \$13,712,297	\$225,000 \$2,647,819 \$10,591,277 \$15,069,240																	ť								
Corps		Management & I	<b>\$</b>	<b>\$</b> 0	\$628	\$628		\$1,884																									
LDNR	Supervision &	Administration	\$0	\$0	\$24.839	\$42,581	\$42,581	\$110,000																									
Federal	Supervision &	Administration	\$0	\$0	\$119,579	\$204,993	\$204,993	\$529,564	Other	Costs	90	<b>9</b>	<b>\$</b> 0	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628
	Easements	Land Rights /	20	<b>\$</b> 0	\$65,471	\$93,529	80	\$159,000	08M	Costs	0\$	<b>\$</b> 0	\$0	<b>\$</b> 0	<b>\$</b> 0	<b>9</b>	\$0	\$0	\$0	<b>\$</b> 0	\$0	\$0	\$0	80	<b>\$</b> 0	\$0	\$0	\$0	<b>\$</b> 0	\$0	\$0	80	\$0
	Engineering	& Design &	\$0	<b>%</b>	\$339,581	\$485,115	\$0	\$824,696	Monitoring	Costs	\$17,876	\$5,431	<b>\$</b>	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	<b>%</b>
	Fiscal	Year			2000	2001	2002	TOTAL	Fiscal	Year	2001	2002	Base Year	2003	2004	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
			1					i			1		Base													13 Discount							20 Discount

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#### Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

### Timbalier Island Dune/Marsh Creation - (XTE-45a)

\$1,495,729	10	tion Cost	\$0	<b>\$</b> 0	\$0 \$666,832		2,949 \$14,620,737 2,949 \$16,227,601																				;						
osts		y Construction	_	_	_		\$11,292,949																										
Amortized Costs	:	& inspection Contingency	<b>9</b>	0\$	<b>S</b>	20	\$2,823,237																										
	Supervision						\$239,906																										
	Corps	Mailagemet	0,00	0.0	19/6	\$714	\$2,145																										
	LDNR Supervision &	Adriam Strategic	9 6	0,000	330,110	\$48,409	\$123,921																										
\$16,318,313	Federal Supervision & Administration	9	3 S	\$144 055	414,933	\$233,034 \$218 573	\$596,582	Other	Costs	05	S S	S S	\$589	\$552	\$518	\$486	\$456	\$427	\$401	\$376	\$353	\$331	\$310	\$291	\$273	\$256	\$240	\$225	\$211	\$198	\$186	\$174	
ited Costs	Easements & Land Rights	1	9	\$79.364	£106.333	500.333	\$185,697	0 <b>8</b> M	Costs	05	. <b>\$</b>	<b>9</b>	<b>S</b>	0\$	<b>9</b>	<b>9</b>	<b>%</b>	\$0	\$0	<b>\$</b> 0	<b>\$</b> 0	<b>%</b>	<b>S</b>	<b>%</b>	<b>S</b>	<b>9</b>	<b>S</b>	<b>\$</b>	<b>%</b>	<b>S</b>	\$0	<b>S</b>	
Total Discounted Costs	Engineering & Design	90	OS.	\$411.6		\$00	\$963,165	Monitoring	Costs	\$20,323	\$5,791	<b>S</b>	\$5,094	\$4,777	\$4,480	\$4,202	\$3,941	\$3,696	\$3,466	\$3,251	\$3,049	\$2,859	\$2,682	\$2,515	\$2,359	\$2,212	\$2,075	\$1,946	\$1,825	\$1,712	\$1,605	<b>%</b>	200 000
sts	Fiscal Year			2000	2001	2002	Total	Fiscal	Year	2001	2002	Year	2003	2004	2002	2006	2007	2008		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Present Valued Costs	Compound Rates	1.378	1.293	1.212	1.137	1.066		Discount	Rates	1.137	1.066	Base Year	0.938	0.880	0.825	0.774	0.726	0.681	0.638	0.599.	0.561	0.527	0.494	0.463	0.434	0.407	0.382	0.358	0.336	0.315	0.296	0.277	
Presen(	Year	5	4	9	7	-			Year	2	-	0	7	-5	ကု	4	ι'n	φ	-7	æ	တု	은 :	<del>-</del> :	-12	<u>:</u>	-14	-15	-16	-17	-18	-19	-50	

### Timbalier Island Dune/Marsh Creation - (XTE-45a)

Fully Fu	Fully Funded Costs		Total Fully Funded Costs	nded Costs	\$16,234,679				Amortized Costs	Ø	\$1,488,063
	į				Federal	LDNR	Corps				
:	Inflation	Fiscal	Engineering	Easements	Supervision &	Supervision &	Project	Supervision		First Cost	Total First
Year	Factor	Year	& Design	& Land Rights	Administration	Administration	r.ianagemet	& Inspection Contingency	Contingency	Construction	COST
2			တ	So	S S	\$0	<b>S</b> 0	0 <b>S</b>	\$0	0 <b>\$</b>	0.5
4			S	80	So	<b>%</b>	<b>S</b> 0	<b>%</b>	<b>\$</b> 0	<b>9</b>	0 <b>5</b>
က	1.000	2000	\$339,581	\$65,471	\$119,579	\$24,839	\$628	<b>\$</b> 0	20	0\$	\$550,097
2	1.033	2001		\$96.616	\$211,757	\$43,986	\$649	So	80	0\$	\$854,132
	1.067	2002		So	\$218,745	\$45,437	\$670	\$240,095	\$2,825,459	\$11,301,835	\$14,632,242
		TOTAL	\$840,705	\$162,086	\$550,081	\$114,262	\$1,947	\$240,095	\$2,825,459	\$11,301,835	\$16,036,470
	Inflation	Fiscal	Monitorina	08M	Other						
Year	Factor	Year	Costs	Costs	Costs						
2	1.033	2001		0\$	80						
-	1.067	2002	\$5,795	80							
0	Base Year	/ear	\$0	\$0	80						
7	1.102	2003	\$5,987	\$0	\$692						
-2	1,139	2004		80	\$715						
ę.	1.176	2005	\$6,388	\$0							
4-	1215	2006	\$6,599	\$0							
ċ	1.255	2007	\$6.817	\$0	\$788					•	
Ģ	1.297	2008	\$7.042	\$0							
7-	1.339	2009	\$7.274	\$0	\$841						
φ	1.384.	2010		\$0							
o-	1.429	2011	\$7,762	\$0							
-10	1.476	2012	\$8.018	\$0							
÷	1.525	2013	\$ \$8,283	\$0	\$958						
-12	1.575	2014									
-13	1.627	2015	\$8,839								
-14	1.681	2016	\$ \$9,130		\$1,056						;
-15	1.737	2017	\$9,432		\$1,091						
-16	1.794	2018	3 \$9,743		0 \$1,127						
.17	1.853	2019			\$0 \$1,164						
-18	1.914	2020	\$10,396								
-19	1.977	2021	1 \$10,740	Ġ	\$0 \$1,242						
-20	2.043	2022				1					
		Total	\$179,030	80	\$19,179	I _			,		

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#### Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

### Grand Pierre Island Restoration - (XBA-1c)

Project Construction Years:	င	Total Project Years	23
Interest Rate	6.625%	Amortization Factor	0.0916595
Total First Costs	\$6,664,035	Total Fully Funded Costs	\$6,862,244

Average Annual	\$624,706 \$7,687 \$0 \$628	\$633,021	51	\$12,412	d Z
Present Worth	\$6.815.508 \$83.860 \$0 \$6.851	\$6,906,200			
Annual Charges	Interest & Amortization Monitoring O & M Costs Other Costs	Total	Average Annual Habitat Units	Cost Per Habitat Unit	Average Annual Acres of Emergent Marsh

### Grand Pierre Island Restoration - (XBA-1c)

#### First Costs and Annual Charges

	Total First	Cost	0\$	\$0	\$426,305	\$629,524	\$5,236,144	\$6,291,974		_															ĭ									
	First Cost	Construction	0\$	0\$	\$0	0\$	\$4,041,586	\$4,041,586																										
		& Inspection Contingency	\$0	\$0	80	20	\$1,010,397	\$1,010,397																										
	Supervision	& Inspection	0\$	\$0	\$0	SO.	\$90,000	\$90,000																										
Corps	Project	Management	\$0	80	\$628	\$628	\$628	\$1,884																										
LONR	Supervision &	Administration	05	\$0	\$24,250	\$41,571	\$31,178	866'96\$																					-					
Federal	Supervision &	Administration	\$0	\$0	\$48,499	\$83,141	\$62,356	\$193,996	Other	Costs	0\$	<b>S</b>	<b>S</b>	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	<b>\$</b> 62 <b>8</b>	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628			\$12,560
	Easements	& Land Rights	S	80	\$179.941	\$257,059	So	\$437,000	0 <b>8</b> M	Costs	0\$	<b>\$</b> 0	<b>%</b>	<b>\$</b> 0	\$0	80	<b>\$</b> 0	\$0	\$0	\$0	\$0	\$0	<b>\$</b> 0	\$0	<b>\$</b> 0	\$0	<b>\$</b> 0	0\$	\$0	80	\$0	\$0	\$0	\$0
	Engineering		S.	80	\$172.988	\$247,125	20	\$420,113	Monitoring	Costs	\$17,876	\$5,431	S S	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	\$5,431	OS.	\$126,496
	-177	90			S	ŝ		67	Σ		l																							Į.
	Fiscal				2000 \$1		2002	TOTAL	Fiscal		2001	2002	Base Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total

### Grand Pierre Island Restoration - (XBA-1c)

Compound         Fiscal         Engineering         Easements         Supervision & Supervision & Project         Compound         Fiscal         Engineering         Easement         Supervision & Supervision & Project         Project           4         1.293         Year         & Design         & Land Richins Administration         Administration         Management           2         1.378         2000         \$200 697         \$218 126         \$58,791         \$529.395         \$751           2         1.137         2001         \$280.954         \$2219.800         \$51,932         \$5761           2         1.137         2001         \$280.951         \$521.950         \$5733         \$51,432           2         1.137         2001         \$280.951         \$571,432         \$571,432         \$571,432           2         1.137         2001         \$540,651         \$510,372         \$519,800         \$51,432         \$51,432           2         1.137         2001         \$510,373         \$510,900         \$51,432         \$51,432         \$51,432           2         1.137         2001         \$510,373         \$510,373         \$519,800         \$51,432         \$51,432         \$51,432         \$51,432         \$51,432	בופספוונ אשומפת כספופ										
Compound Fiscal         Fiscal Frighteeting         Engineering         Easements         Supervision & Supervision & Project         Project           1 378         Year         & Design         & Land Rights         Administration         Management           1 1212         2000         \$209.697         \$218.126         \$58.791         \$50.395         \$57.145           1 1212         2001         \$209.697         \$2218.126         \$58.791         \$57.395         \$57.145           1 1036         2002         \$209.697         \$2218.126         \$58.791         \$57.395         \$57.145           1 1046         2002         \$2490.661         \$510.373         \$219.800         \$51.485         \$57.145           2 1 137         2001         \$200.687         \$510.373         \$219.800         \$51.485         \$51.485           2 1 137         2001         \$200.28         \$57.91         \$0         \$51.485         \$50         \$51.485         \$50         \$51.485         \$50         \$51.485         \$51.485         \$50         \$51.485         \$51.485         \$50         \$51.485         \$50         \$51.485         \$50         \$51.485         \$50         \$51.485         \$50         \$51.485         \$50         \$51.485         \$5	ţ				Federal	LDNR	Corps				
5         1.378         \$0         \$		Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project Management	Supervision & Inspection	Supervision & Inspection Contingency	First Cost Construction	Total First Cost
1.293   S. C.	5 1.378		0\$	\$0	0\$	0\$	0\$	80	0\$	0\$	0\$
1212   2000   \$209.697   \$218.126   \$58.791   \$29.395   \$5761   \$7141   \$1066   \$2002   \$247   \$291.522   \$247.5261   \$271.451   \$	4 1.293		80	80	S <sub>O</sub>	80	80	\$0	\$0	0\$	80
2         1.137         2001         5280.954         5292.247         594.522         547.261         \$71.4         591.243         \$51.0         591.243         \$51.0         591.243         \$51.0         591.243         \$51.0 <td>-</td> <td>2000</td> <td></td> <td>\$218,126</td> <td>\$58,791</td> <td>\$29,395</td> <td>\$761</td> <td>20</td> <td>\$0</td> <td>80</td> <td>\$516,771</td>	-	2000		\$218,126	\$58,791	\$29,395	\$761	20	\$0	80	\$516,771
1   1066   2002   SO   So   So   So   So   So   So   So	-	2001		\$292,247	\$94,522	\$47.261	\$714	80	80	80	\$715,699
Discount Fiscal Monitoring O&M Other Rates		2002		SO SO	\$66.487	\$33,243	\$670	\$95,963	\$1,077,335	\$4,309,341	\$5,583,039
Discount         Fiscal         Monitoring         O&M         Other           Rates         Year         Costs         So	Ī	otal	\$490,651	\$510,373	\$219,800	\$109,900	\$2,145	\$95,963	\$1,077,335	\$4,309,341	\$6,815,508
Rates         Year         Costs         Costs         Costs           1 137         2001         \$20,323         \$0           1 066         2002         \$5,791         \$0           1 0938         2003         \$5,094         \$0           2 0.880         2004         \$4,777         \$0           2 0.880         2004         \$4,777         \$0           3 0.825         2005         \$4,800         \$0           4 0.774         2006         \$4,202         \$0           5 0.726         2007         \$3,941         \$0           6 0.681         2008         \$3,696         \$0           7 0.638         2009         \$3,466         \$0           8 0.599         2010         \$3,251         \$0           9 0.561         2011         \$3,049         \$0           9 0.561         2012         \$2,859         \$0           1 0.494         2013         \$2,859         \$0           2 0.463         2014         \$2,515         \$0           4 0.407         2016         \$2,212         \$0           5 0.386         2017         \$1,466         \$0           6 0.358 <td< td=""><td>Discount</td><td>Fiscal</td><td>Monitoring</td><td>08M</td><td>Other</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Discount	Fiscal	Monitoring	08M	Other						
2         1.137         2001         \$20,323         \$0           1         1.066         2002         \$5,791         \$0           1         0.938         2003         \$5,094         \$0           2         0.880         2004         \$4,777         \$0           3         0.825         2005         \$4,80         \$0           4         0.774         2006         \$4,202         \$0           5         0.726         2007         \$3,941         \$0           6         0.681         2008         \$3,696         \$0           7         0.638         2009         \$3,466         \$0           8         0.599         2010         \$3,251         \$0           9         0.561         2011         \$3,049         \$0           9         0.561         2012         \$2,859         \$0           1         0.494         2013         \$2,859         \$0           2         0.463         2014         \$2,515         \$0           3         0.434         2015         \$2,075         \$0           4         0.407         2016         \$2,172         \$0		Year	Costs	Costs	Costs						
1.066 2002 \$5.791 \$0  Base Year \$0  0.938 2003 \$5.094 \$0  0.880 2004 \$4.777 \$0  0.825 2005 \$4.480 \$0  0.774 2006 \$4.202 \$0  0.774 2006 \$4.202 \$0  0.774 2008 \$3.696 \$0  0.681 2008 \$3.696 \$0  0.681 2010 \$3.251 \$0  0.699 2010 \$3.251 \$0  0.694 2011 \$3.049 \$0  0.694 2011 \$5.089 \$0  0.494 2013 \$2.859 \$0  0.494 2013 \$2.859 \$0  0.494 2013 \$2.859 \$0  0.494 2013 \$5.859 \$0  0.407 2016 \$2.212 \$0  0.382 2017 \$2.075 \$0  0.382 2017 \$5.075 \$0  0.382 2017 \$5.075 \$0  0.396 2021 \$1.825 \$0  0.315 2020 \$1.712 \$0  0.296 2021 \$1.605 \$0  1.012 \$1.005 \$0  0.296 2021 \$1.605 \$0	2	2001		\$0	\$0						
80 Base Year \$0 \$0.938   \$0.938   \$0.938   \$0.938   \$0.94   \$0.800   \$0.825   \$0.94   \$0.880   \$0.825   \$0.04   \$4.777   \$0.825   \$0.045   \$4.777   \$0.825   \$0.074   \$2.480   \$0.774   \$0.066   \$4.202   \$0.074   \$0.068	1 1.066	2002		\$0	\$0						
0.938         2003         \$5,094         \$0           0.880         2004         \$4,777         \$0           0.825         2005         \$4,480         \$0           0.774         2006         \$4,202         \$0           0.726         2007         \$3,941         \$0           0.681         2008         \$3,696         \$0           0.681         2009         \$3,466         \$0           0.638         2010         \$3,251         \$0           0.599         2010         \$3,251         \$0           0.540         2011         \$3,049         \$0           0.541         2012         \$2,859         \$0           0.494         2013         \$2,859         \$0           0.494         2013         \$2,859         \$0           0.403         2014         \$2,515         \$0           0.403         2016         \$2,212         \$0           0.346         2017         \$2,075         \$0           0.358         2019         \$1,825         \$0           0.345         2020         \$1,712         \$0           0.277         2022         \$0         \$0 </td <td>0 Base Ye</td> <td>ear</td> <td><b>%</b></td> <td><b>9</b></td> <td><b>\$</b>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	0 Base Ye	ear	<b>%</b>	<b>9</b>	<b>\$</b> 0						
0.880         2004         \$4,777         \$0           0.825         2005         \$4,480         \$0           0.774         2006         \$4,202         \$0           0.726         2007         \$3,941         \$0           0.681         2008         \$3,696         \$0           0.681         2008         \$3,696         \$0           0.638         2010         \$3,251         \$0           0.599         2010         \$3,251         \$0           0.540         2011         \$3,049         \$0           0.541         2012         \$2,859         \$0           0.494         2013         \$2,859         \$0           0.494         2013         \$2,682         \$0           0.403         2014         \$2,515         \$0           0.403         2016         \$2,212         \$0           0.346         2017         \$2,075         \$0           0.358         2019         \$1,825         \$0           0.345         2020         \$1,712         \$0           0.277         2022         \$0         \$0           0.277         \$0         \$0         \$0	-1 0.938	2003		<b>%</b>	\$589						
0.825 2005 \$4,480 \$0 0.774 2006 \$4,202 \$0 0.726 2007 \$3,941 \$0 0.681 2008 \$3,696 \$0 0.681 2008 \$3,696 \$0 0.699 2010 \$3,251 \$0 0.599 2011 \$3,049 \$0 0.544 2011 \$3,049 \$0 0.494 2013 \$2,859 \$0 0.494 2013 \$2,859 \$0 0.494 2013 \$2,859 \$0 0.494 2013 \$2,859 \$0 0.494 2013 \$2,859 \$0 0.407 2016 \$2,212 \$0 0.382 2017 \$2,075 \$0 0.382 2017 \$2,075 \$0 0.315 2020 \$1,712 \$0 0.315 2020 \$1,712 \$0 0.296 2021 \$1,605 \$0 0.277 2022 \$83,860 \$0		2004		<b>S</b>	\$552						
0.774 2006 \$4,202 \$0 0.726 2007 \$3,941 \$0 0.681 2008 \$3,696 \$0 0.681 2009 \$3,466 \$0 0.599 2010 \$3,251 \$0 0.501 2011 \$3,049 \$0 0.527 2012 \$2,859 \$0 0.494 2013 \$2,859 \$0 0.494 2013 \$2,859 \$0 0.494 2013 \$2,859 \$0 0.494 2013 \$2,859 \$0 0.407 2014 \$2,515 \$0 0.407 2016 \$2,212 \$0 0.382 2017 \$2,075 \$0 0.382 2017 \$2,075 \$0 0.382 2019 \$1,825 \$0 0.315 2020 \$1,712 \$0 0.277 2022 \$1,605 \$0 Total \$83,860 \$0		2002		<b>\$</b> 0	\$518						
0.726     2007     \$3,941     \$0       0.681     2008     \$3,696     \$0       0.638     2009     \$3,466     \$0       0.599     2010     \$3,251     \$0       0.561     2011     \$3,049     \$0       0.527     2012     \$2,859     \$0       0.494     2013     \$2,682     \$0       0.463     2014     \$2,515     \$0       0.407     2016     \$2,212     \$0       0.382     2017     \$2,075     \$0       0.382     2017     \$1,946     \$0       0.336     2019     \$1,825     \$0       0.336     2020     \$1,712     \$0       0.296     2021     \$1,605     \$0       0.277     2022     \$0     \$0       Total     \$83,860     \$0     \$0		2006		\$0							
0.681     2008     \$3.696     \$0       0.638     2009     \$3.466     \$0       0.599     2010     \$3.251     \$0       0.561     2011     \$3.049     \$0       0.527     2012     \$2.859     \$0       0.494     2013     \$2.682     \$0       0.463     2014     \$2.515     \$0       0.434     2015     \$2.359     \$0       0.407     2016     \$2.212     \$0       0.382     2017     \$2.075     \$0       0.358     2018     \$1,946     \$0       0.336     2019     \$1,825     \$0       0.315     2020     \$1,712     \$0       0.296     2021     \$1,605     \$0       0.277     2022     \$0     \$0       Total     \$83,860     \$0     \$0		2007		<b>9</b> 0							
0.638		2008		<b>\$</b> 0							•
0.599. 2010 \$3.251 \$0 0.561 2011 \$3.049 \$0 0.527 2012 \$2.859 \$0 0.494 2013 \$2.859 \$0 0.463 2014 \$2.515 \$0 0.434 2015 \$2.359 \$0 0.407 2016 \$2.212 \$0 0.382 2017 \$2.075 \$0 0.358 2018 \$1.946 \$0 0.358 2019 \$1.825 \$0 0.315 2020 \$1.712 \$0 0.296 2021 \$1.605 \$0 \$0.277 2022 \$83.860 \$0 \$6		2009		\$0	•						
0.561 2011 \$3.049 \$0 0.527 2012 \$2.859 \$0 0.494 2013 \$2.682 \$0 0.463 2014 \$2.515 \$0 0.434 2015 \$2.359 \$0 0.407 2016 \$2.212 \$0 0.382 2017 \$2.075 \$0 0.358 2018 \$1,946 \$0 0.356 2019 \$1,825 \$0 0.315 2020 \$1,712 \$0 0.296 2021 \$1,605 \$0 Total \$83,860 \$0 \$6		2010									
0.527 2012 \$2,859 \$0 0.494 2013 \$2,682 \$0 0.463 2014 \$2,515 \$0 0.434 2015 \$2,359 \$0 0.407 2016 \$2,212 \$0 0.382 2017 \$2,075 \$0 0.358 2018 \$1,946 \$0 0.356 2019 \$1,825 \$0 0.315 2020 \$1,712 \$0 0.296 2021 \$1,605 \$0 Total \$83,860 \$0 \$6		2011									
0.494 2013 \$2,682 \$0 0.463 2014 \$2,515 \$0 0.434 2015 \$2,359 \$0 0.407 2016 \$2,212 \$0 0.382 2017 \$2,075 \$0 0.358 2018 \$1,946 \$0 0.356 2019 \$1,825 \$0 0.315 2020 \$1,712 \$0 0.296 2021 \$1,605 \$0 Total \$83,860 \$0 \$6		2012		\$0	•,						
0.463 2014 \$2.515 \$0 0.434 2015 \$2.359 \$0 0.407 2016 \$2.212 \$0 0.382 2017 \$2.075 \$0 0.358 2018 \$1,946 \$0 0.336 2019 \$1,825 \$0 0.315 2020 \$1,712 \$0 0.296 2021 \$1,605 \$0 Total \$83,860 \$0 \$6		2013			-,						
0.434 2015 \$2,359 \$0 0.407 2016 \$2,212 \$0 0.382 2017 \$2,075 \$0 0.358 2018 \$1,946 \$0 0.336 2019 \$1,825 \$0 0.315 2020 \$1,712 \$0 0.296 2021 \$1,605 \$0 Total \$83,860 \$0 \$6		2014			•						
0.407 2016 \$2.212 \$0 0.382 2017 \$2.075 \$0 0.358 2018 \$1,946 \$0 0.336 2019 \$1,825 \$0 0.315 2020 \$1,712 \$0 0.296 2021 \$1,605 \$0 70277 2022 \$83,860 \$0		2015									
0.382     2017     \$2.075     \$0       0.358     2018     \$1,946     \$0       0.336     2019     \$1,825     \$0       0.315     2020     \$1,712     \$0       0.296     2021     \$1,605     \$0       0.277     2022     \$0     \$0       Total     \$83,860     \$0     \$6		2016									•
0.358     2018     \$1,946     \$0       0.336     2019     \$1,825     \$0       0.315     2020     \$1,712     \$0       0.296     2021     \$1,605     \$0       0.277     2022     \$0     \$0       Total     \$83,860     \$0     \$6		2017									
0.336 2019 \$1,825 \$0 0.315 2020 \$1,712 \$0 0.296 2021 \$1,605 \$0 0.277 2022 \$0 Total \$83,860 \$0		2018									
0.315 2020 \$1,712 \$0 0.296 2021 \$1,605 \$0 0.277 2022 \$0 Total \$83,860 \$0		2015									
0.296 2021 \$1,605 \$0 0.277 2022 \$0 \$0 Total \$83,860 \$0 \$6		2020									
0.277 2022 \$0 \$0 Total \$83,860 \$0 \$		2021									
\$83,860 \$0		2022									
		Total	\$83,860	:							

November 24, 1999

### Grand Pierre Island Restoration - (XBA-1c)

.244 Amortized Costs	al LDNR Corps	Supervision & Supervision & Project Supervision First Cost	S0 S0 S0 S0	SO SO SO	80	\$42,942 \$649 \$0 \$0	Se6-539         S3270         S670         S96-038         S1,078-183         S4,312,732           S200-923         \$100-462         \$1,947         \$96-038         \$1,078-183         \$4,312,732	Orner		0\$	08	\$692 874E	5739	\$763	\$788	5814 5831	- rob	888\$	\$927	8989	\$1,022	\$1,056	\$1,091	<b>51.127</b>	\$1.202	\$1,242	
\$6,862,244	Federal	nper.						-																			
	Federa	sements		80	S179 p.11	\$266 (42	\$415,183	Costs	05	\$0	80	0, 6	000	\$0	80	0S S	0 <b>,</b>	0\$	0 <b>%</b>	90	<b>9</b>	<b>\$</b> 0	0\$	0.50	9	80	6
	Federa	Easements	80		\$172,988 \$179.011	\$3978			0\$ 99		U,	\$5.987 \$0				\$7,042 \$0 \$7,274 \$0			\$8.018					\$9,743 \$0 \$10,064 \$0			
Total Fully Funded Costs \$6,862	Federa	Easements	08 08		\$172,988	\$255,280 \$255	2002 S0 S9 5428,268 S445,483	Costs	001 \$18,466 \$0		0\$		\$6,388	\$6.599	\$6,817		\$7,514	\$7,762		\$8,556	\$8,839	\$9,130	\$9,432		\$10,396	\$10,740	•
	Federa	Engineering Easements	08 08		\$172,988	2001 \$255,280 \$255.5	\$0 \$0 \$428,268 \$445,483	Costs Costs	33 2001 \$18,466 \$0	\$5,795	Year \$0	\$5.987	2005 \$6,388	2006 \$6.599	2007 \$6,817	<b>\$7</b> ,042 <b>\$</b> 7,274	2010 \$7,514	2011 \$7,762	\$8.018	2014 \$8,556	2015 \$8,839	2016 \$9,130	2017 \$9,432	\$9,743 \$10.064	2020 \$10,396	2021 \$10,740	2042 2022 60

## All dates are in Federal Fiscal Years (October 1 to September 30)

## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

## Freshwater Bayou on GIWW to Schooner Bayou (XME-28/33)

Project Construction Years:	4	Total Project Years	24
Interest Rate	6.625%	Amortization Factor	0.0916595
Total First Costs	\$7,903,487	Total Fully Funded Costs	\$15,373,113
			٠.
Annual Charges	Present Worth	Average	age ual
Interest & Amortization Monitoring O & M Costs Other Costs	\$8,389,899 \$407,471 \$2,797,122 \$6,851	\$76	\$769,014 \$37,349 \$256,383 \$628
Total	\$11,601,300	\$1,06	\$1,063,374
Average Annual Habitat Units			47

¥

Average Annual Acres of Emergent Marsh

Cost Per Habitat Unit

\$22,625

## Freshwater Bayou on GIWW to Schooner Bayou (XME-28/33)

#### First Costs and Annual Charges

Cunnacticion Circle Cast Tatal Eires	& Inspectio Contingency Construction	\$0 \$0 \$0	\$0 \$0 \$298,3		\$628 \$175,000 \$953,361 \$3,813,444 \$5,148,113	\$50,000 \$272,389 \$1,089,556	\$2,512 \$225,000 \$1,225,750 \$4,903,000 \$7,394,262																		ť							
Corps	Management	<u> </u>			<b>\$</b> e		\$2.5																									
LDNR	Administration	80	\$23,333	\$40,000	\$40,000	\$6,667	\$110,000																									
Federal	dministration	20	\$61,091	\$104,727	\$104,727	\$17,455	\$288,000	Other	Costs	\$0	<b>\$</b> 0	<b>S</b>	<b>\$</b> 0	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628
) alacate	s	20	\$12,333	\$21,143	\$3,524	<b>\$</b> 0	\$37,000	0&M	Costs	\$0	<b>%</b>	<b>\$</b> 0	\$0	<b>%</b>	\$4.407	\$1,485.870	\$4,407	80	\$4,407	\$1,485,870	\$4,407	80	\$0	80	<b>S</b>	\$4,407	\$1,485,870	\$4,407	80	\$0	<b>\$</b> 0	0\$
	Crigineering & Design &	1	\$201,000	\$344,571	\$57,429	<b>%</b>	\$603,000	Monitoring	Costs	\$45,890	\$32,493	\$32,493	<b>%</b>	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	0\$
	Year		2000	2001	2002	2003	TOTAL	Fiscal		2001	2002	2003	Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ŗ		5 Compound		3 Compound	2 Compound	1 Compound			Year	3 Compound	2 Compound	1 Compound	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	10 Discount

All dates are in Federal Fiscal Years (October 1 to September 30)

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## Freshwater Bayou on GIWW to Schooner Bayou (XME-28/33)

Present Valued Costs	soO par		Total Discounted Costs	nted Costs	\$11,601,344				Amortized Costs		\$1,063,374
ţ					Federal	LDNR	Corps				
Comp	Compound	Fiscal	Engineering	Easements	Supervision &	Supervision &	Project	Supervision	:	First Cost	Total First
2	1.378	000	S Cesign	& Land Nights	S Cario rights Administration	Auministration	Management	& inspectio	Contingency	Construction	Cost
4	1.293	2000	\$259,796	\$15,941	\$78.961	\$30,159	\$812	9	9	3 5	4385 668
က	1.212	2001	\$417,692	\$25,630	\$126,951	\$48,488	\$761	S	<b>S</b>		\$619.523
7	1 137	2002	\$65,290	\$4,006	\$119,063	\$45,476	\$714	\$198 956	\$1.083.866	\$4 135 463	&5 852 834
1	1.066	2003	S.	80	\$18,611	\$7,108	\$670	\$53,313	\$290.435	\$1.161:739	\$1.531.875
	_	Total	\$742,778	\$45,577	\$343,586	\$131,231	\$2,957	\$252,268	\$1,374,300	\$5,497,202	\$8,389,899
Discount	ţ	Fiscal	Monitoring	08M	Other						
Year Rates		Year	Costs	Costs		•					
3	1.212	2001	\$55,628	20	\$0						
7	1.137	2002	\$36,941	9	0\$						
-	1.066	2003	\$34,646	05	0\$						
0	Base Year	ear	<b>9</b>	80	0\$						
7	0.938	2004	\$30,474	<b>S</b>	\$589						
-5	0.880	2005	\$28,581	\$3,876	\$552						
ę.	0.825	2006	\$26,805	\$1,225,755	\$518						
4	0.774	2007	\$25,139	\$3,410	\$486						
κ'n	0.726	2008	\$23,577	\$0	\$456						
<b>ဝှ</b>	0.681	2009	\$22,112	\$2,999	\$427						
-7	0.638	2010	\$20,738	\$948,348	\$401						
ထု	0.599	2011	\$19,450	\$2,638	\$376						
တံ	0.561	2012	\$18,241	\$0	\$353						
-10	0.527	2013	\$17,108	<b>%</b>	\$331						
÷	0.494	2014	\$16,045	<b>S</b>	\$310						
-12	0.463	2015	\$15,048	\$0	\$291				٠		
-13	0.434	2016	\$14,113	\$1,914	\$273						
-14	0.407	2017	\$13,236	\$605,277	\$256						
-15	0.382	2018	\$12,414	\$1,684	\$240						
-16	0.358	2019	\$11,642	<b>%</b>	\$225						
-17	0.336	2020	\$10,919	<b>%</b>	\$211						
-18	0.315	2021	\$10,241	<b>%</b>	\$198						
-19	0.296	2022	<b>%</b>	<b>\$</b> 0	\$186						
-20	0.277	2023	\$0	\$1,222	\$174						
	_	Total	\$407.471	\$2,797,122	\$6,851						

## Freshwater Bayou on GIWW to Schooner Bayou (XME-28/33)

Fiscal         Engineering Easements         Federal Supervision & Superv	Supervision Superv
Engineering Easements         Supervision & Supervision & Supervision & Solution           \$0         \$203         \$0	Supervision & Project       Supervision & Project       Supervision on the continuo of the continuo of the construction of the constructi
& Design         & Land Rights Administration         Administration           \$0	Administration Management & Inspectio Contingency Construction C
\$0 \$201,000 \$12,333 \$61,091 \$5 01 \$355,942 \$21,841 \$108,183 \$5 02 \$61,281 \$3,760 \$111,753 \$5 03 \$0 \$0 \$12,334 \$11,753 \$5 03 \$0 \$0 \$11,753 \$5 03 \$0 \$0 \$0 \$11,753 \$5 03 \$0 \$0 \$0 \$11,753 \$5 03 \$0 \$0 \$0 \$11,753 \$5 03 \$0 \$0 \$0 \$11,753 \$5 04 \$0 \$0 \$0 \$11,753 \$5 05 \$18,224 \$21,334 \$300,268 \$1 06 \$234,673 \$50 \$50 \$50 06 \$334,673 \$50 \$50 07 \$36,999 \$50 \$514 \$575 09 \$44,957 \$2,055,815 \$589 010 \$44,957 \$2,055,815 \$589 011 \$46,440 \$56,299 \$599 012 \$47,973 \$50 013 \$49,556 \$50 014 \$51,191 \$50,22 015 \$52,800 \$51,127 016 \$536,204 \$51,202 020 \$62,201 \$64,253 \$50 020 \$6	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
00         \$201,000         \$12,333         \$61,091         \$5           01         \$355,942         \$21,841         \$108,183         \$5           02         \$61,281         \$3,760         \$11,753         \$5           03         \$0         \$50,240         \$11,753         \$5           03         \$618,224         \$37,934         \$300,268         \$1           04         \$618,224         \$37,934         \$300,268         \$1           05         \$0         \$0         \$11,753         \$5           04         \$618,224         \$37,934         \$300,268         \$1           05         \$34,673         \$0         \$5         \$0           06         \$34,673         \$0         \$5         \$0         \$0           07         \$36,999         \$0         \$7,59         \$0         \$0         \$0           08         \$35,817         \$0         \$5,184         \$5,789         \$0	\$23,333 \$628 \$0 \$0 \$0 \$0 \$0 \$41,320 \$41,320 \$42,684 \$50 \$186,741 \$1,017,321 \$4,069,285 \$5,349 \$692 \$55,115 \$300,255 \$1,201,020 \$\$ \$5,114,686 \$2,639 \$2,41,856 \$1,317,576 \$5,270,305 \$\$
01         \$355,942         \$21,841         \$108,183         \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$41,320 \$649 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$42,684 \$670 \$186,741 \$1,017,321 \$4,069,285 \$1,349 \$692 \$55,115 \$300,255 \$1,201,020 \$5 \$1,14,686 \$2,639 \$241,856 \$1,317,576 \$5,270,305 \$5 \$1,401,686 \$1,401,68
02         \$61,281         \$3,760         \$111,753         \$5           303         \$0         \$19,240         \$19,240         \$5           \$618,224         \$37,934         \$300,268         \$1         \$1           Monitoring         O&M         Other         Costs         \$0         \$0           \$602         \$34,673         \$0	\$42.684 \$670 \$186.741 \$1,017,321 \$4,069,285 \$1,314,686 \$5,146 \$5,270,305 \$114,686 \$2.639 \$241,856 \$1,317,576 \$5,270,305 \$1,017,017 \$
03         \$0         \$19,240           \$618,224         \$37,934         \$300,268         \$1           Monitoring         O&M         Other         Costs         \$0           Costs         Costs         Costs         Costs         \$0           602         \$34,673         \$0         \$0         \$0           603         \$35,817         \$0         \$0         \$0           604         \$36,999         \$0         \$0         \$0           605         \$38,220         \$0         \$0         \$0           606         \$39,481         \$1,805,439         \$753         \$0           707         \$40,784         \$5,532         \$788         \$0           708         \$42,130         \$5,532         \$843         \$843           709         \$44,957         \$2,055,815         \$889         \$144           701         \$44,957         \$2,055,815         \$898         \$102           701         \$44,957         \$2,055,815         \$989         \$102           701         \$44,957         \$2,055,815         \$989         \$105           701         \$54,626         \$7,406         \$1,02         \$1,02 <td>\$7.349 \$692 \$55,115 \$300,255 \$1,201,020 \$114,686 \$2,639 \$241,856 \$1,317,576 \$5,276,305</td>	\$7.349 \$692 \$55,115 \$300,255 \$1,201,020 \$114,686 \$2,639 \$241,856 \$1,317,576 \$5,276,305
\$618,224         \$37,934         \$300,268           Monitoring         O&M         Other           Costs         Costs         \$0           601         \$47,404         \$0         \$0           602         \$34,673         \$0         \$0           603         \$35,817         \$0         \$0           604         \$36,999         \$0         \$0           605         \$38,220         \$0         \$75           606         \$39,481         \$1,805,439         \$739           606         \$39,481         \$1,805,439         \$739           606         \$39,481         \$1,805,439         \$739           607         \$40,784         \$5,532         \$788           608         \$42,130         \$5,814         \$5,89           609         \$43,520         \$5,903         \$841           600         \$44,957         \$2,055,815         \$6         \$958           601         \$44,957         \$2,055,815         \$6         \$958           601         \$44,957         \$2,055,815         \$6         \$958           601         \$46,40         \$5,059         \$5,059         \$6         \$6	\$114,686 \$2.639 \$241,856 \$1,317,576 \$5,276,305
Monitoring         O&M         OU           Costs         Costs         Co           602         \$47,404         \$0           602         \$34,673         \$0           603         \$35,817         \$0           80         \$5,817         \$0           80         \$36,999         \$0           80         \$38,220         \$5,184           80         \$39,481         \$1,805,439           80         \$34,180         \$5,532           80         \$40,784         \$5,532           84,957         \$2,658,815           84,957         \$2,055,815           84,957         \$2,055,815           84,956         \$0           85,47,973         \$0           85,480         \$0           85,480         \$0           85,480         \$0           85,49,56         \$0           85,428         \$2,580,396           86,214         \$0           86,220         \$0           86,220         \$0           86,220         \$0           86,220         \$0           86,220         \$0           80         \$0	
Costs         Costs         Costs         Costs         Costs         Costs         Cools         Cools <th< td=""><td></td></th<>	
347,404         \$0           347,404         \$0           302         \$34,673         \$0           303         \$35,817         \$0           \$0         \$0         \$0           304         \$36,999         \$5.184           306         \$39,481         \$1,805,439           307         \$40,784         \$5.532           309         \$40,784         \$5.532           300         \$44,957         \$2.055,815           301         \$44,957         \$2.055,815           301         \$44,957         \$2.055,815           301         \$44,957         \$2.593           301         \$45,191         \$0           34,556         \$0         \$0           34,556         \$5         \$5           34,556         \$5         \$5           350,409         \$7,906         \$7,906           361         \$56,425         \$7,906           361         \$56,425         \$7,906           362         \$2         \$6           363         \$2         \$6           364         \$5         \$6           360         \$6         \$6	
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\$43,520	
\$44,957 \$2.055.815 \$46,440 \$6.299 \$47,973 \$0 \$49,556 \$0 \$51,191 \$0 \$52,880 \$7,409 \$56,428 \$2,580,396 \$60,214 \$0 \$64,253 \$0 \$64,253 \$0 \$6,201 \$0 \$6,201 \$0 \$6,201 \$0 \$6,201 \$0	
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\$64,253 \$0 \$0 \$0	
80	
2023 \$0 \$9.299 \$1,325	

### New Cut Dune/Marsh Restoration (TE-11a)

Project Construction Years:	es .	Total Project Years	23
nterest Rate	6.625%	Amortization Factor	0.0916595
Total First Costs	\$7,159,999	Total Fully Funded Costs	\$7,393,626

Annual Charges	Present	Average
Interest & Amortization Monitoring O & M Costs	\$7.299.621 \$84.797 \$4.962	\$669,080 \$7,772 \$455
Other Costs	\$6.851	\$628
Total	\$7,396,200	\$677,935
Average Annual Habitat Units		43
Cost Per Habijat Unit		\$15,766
Average Annual Acres of Emergent Marsh		AN

D-101

### New Cut Dune/Marsh Restoration (TE-11a)

First Costs and Annual Charges

0
& Desigh & Land Rights Administration
S
\$307,446 \$114,333 \$73,535
\$87,842 \$32,667 \$126,060
\$147,000
Monitoring O&M Other
Costs Costs Costs
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<u>s</u>
<b>0</b>
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\$5,431 \$3,645 \$628
\$0 \$14,011 \$628
\$126,496 \$17,656 \$12,560

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## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

### New Cut Dune/Marsh Restoration (TE-11a)

										: :	
	1				Federal	LDNR	Corps				
Year	Compound Rates	Fiscal Year	Engineering & Design	Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project Managemet	Supervision		First Cost	Total First
2	1.378		1	\$0	0\$	0\$	S S S S S S S S S S S S S S S S S S S	a mispectio	Conunigency	Construction	Cost
4	1.293		9	0\$	<b>S</b>	\$ 5	\$ 5	9 6		0.00	04
ო	1.212	2000	\$372.6	\$138.596	\$89 140	\$42 A27	475		9	2	0\$
0	1 137	2001		¢27 430	01.00	77,77	0/9	9	2	2	\$643,613
•	1000	1007		921.75	0163,310	\$68,213	\$7.14	20	<b>%</b>	<b>9</b>	\$349,248
-	000		- 1	2	\$33,603	\$15,994	\$670	\$95,963	\$1,232,106	\$4,928,425	\$6,306,760
		otal	\$472,555	\$175,734	\$266,059	\$126,634	\$2,145	\$95,963	\$1,232,106	\$4,928,425	\$7,299,621
ب	Discount	Fiscal	Monitoring	08M	Other						
Year F	Rates	Year	Costs	Costs	Costs						
3	1.212	2000	\$15,086	S.	\$0						
7	1.137	2001	\$6,174	<b>S</b>	90,						
-	1.066	2002	\$5,791	. <b>S</b>	9						
0	Base Year	Year	0\$	90	908						
7	0.938	2003	\$5,094	<b>S</b>	\$589						
?	0.880	2004	\$4,777	\$0	\$552						
ကု	0.825	2005	\$4,480	<b>9</b>	\$518						
7	0.774	2006	\$4,202	<b>\$</b>	\$486						
ပု	0.726	2007	\$3,941	<b>S</b>	\$456						
φ	0.681	2008	\$3,696	<b>\$</b> 0	\$427						
-1	0.638	2009	\$3,466	<b>S</b>	\$401						
ထု	0.599	2010	\$3,251	0\$	\$376						
ō.	0.561	2011	\$3,049	\$0	\$353						
-10	0.527	2012	\$2,859	<b>S</b>	\$331						
÷	0.494	2013		\$0	\$310						
-12	0.463	2014	\$2,515	<b>\$</b>	\$291						
-13	0.434	2015	\$2,359	<b>\$</b>	\$273						
-14	0.407	2016		<b>\$</b>	\$256						
-15	0.382	2017	\$2,075	<b>\$</b>	\$240						ĵ.
-16	0.358	2018		\$0	\$225						
-17	0.336	2019		<b>\$</b> 0	\$211	•					
-18	0.315	2020	\$1,712	80	\$198						
-19	0.296	2021	\$1,605	\$1,0	\$186						
-50	0.277	2022	<b>%</b>		\$174						
				ĺ							

### New Cut Dune/Marsh Restoration (TE-11a)

\$677,896	Total Firet	Cost	0\$	<b>%</b>	\$530,943	\$317,334	\$6,311,723	\$7,159,999																				š							
0	First Cost	Construction	0\$	<b>%</b>	<b>\$</b>	<b>0\$</b>	\$4,932,303	\$4,932,303																											
Amortized Costs		Contingency	\$0	<b>\$</b>	\$0	<b>9</b>	\$1,233,076	\$1,233,076																											
	Coisive	& Inspectio	\$0	<b>S</b>	<b>%</b>	<b>%</b>	\$96,038	\$96,038																		,									
	Corps	Managemet	\$0	<b>2</b> 0	\$628	\$649	\$670	\$1,947					,																						
	LDNR Supprision 8	Administration	90	0\$	\$35,000	\$61,980	\$16,006	\$112,986																											
\$7,393,626	Federal	Lasements Supervision	S	0\$	\$73,535	\$130,220	\$33,629	\$237,384	Other	Costs	0\$	<b>2</b> 0	<b>9</b>	<b>\$</b>	\$692	\$715	\$139	\$763	\$188	\$814	\$841	\$869	\$898	\$927	\$958	<b>\$</b> 989	\$1,022	\$1,056	\$1,091	\$1,127	\$1,164				\$19,179
nded Costs	200000	& Land Rights	0\$	. <b>S</b>	\$114,333	\$33,745	0\$	\$148,078	08M	Costs	<b>\$</b>	<b>%</b>	<b>%</b>	<b>\$</b>	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>%</b>	<b>S</b>	<b>\$</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>S</b> 0	<b>S</b>	<b>S</b>	<b>\$</b> 0	<b>\$</b>	\$0	\$7,208	\$28,621	\$35,829
Total Fully Funded Costs		& Design		. <b>S</b>	\$307.446	\$90.741	S	\$398,187	Monitoring	Costs	\$12,445	\$5,610	\$5,795	<b>%</b>	\$5,987	\$6,184	\$6,388	\$6,599	\$6,817	\$7,042	\$7,274									\$9,743		\$10,396	\$10.7	İ	\$178,619
		- 1587 - 1697			2000	2001	2002	TOTAL	Fiscal	Year	2000	2001	2002	ear	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Fully Funded Costs	· · ·	Factor			1 000	1 033	1.067	1	Inflation	Factor	1.000	1.033	1.067	Base Year	1.102	1.139	1.176	1.215	1.255	1.297	1.339	1.384	1.429	1.476	1.525	1.575	1.627	1.681	1.737	1.794	1.853	1.914	1.977	2.043	
Fully Fu		7697	5	4	٠.		· <del>-</del>			Year	3	2	-	0	₹	?	÷	4	ς	မှ	-7	ထု	φ	<del>-</del>	÷	-12	-13	-14	-15	-16	-11	-18	-19	-20	

#### North Bully Camp (XTE-58)

23	0.0916595	\$8,990,659
Total Project Years	Amortization Factor	Total Fully Funded Costs
ဇ	6.625%	\$7,052,886
Project Construction Years:	Interest Rate	Total First Costs

Average	\$684,617 \$39,919 \$30,474 \$628	<b>\$</b> 755,639	\$13,993 NA
Present Worth	\$7,469,134 \$435,517 \$332,474 \$6.851	\$8.244.000	
Annual Charges	Interest & Amortization Monitoring O & M Costs Other Costs	Total Average Annual Habitat Units	Cost Per Habitat Unit Average Annual Acres of Emergent Marsh

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#### North Bully Camp (XTE-58)

First Costs and Annual Charges

n First Cost Total First	Contingency Construction	\$0	80	\$0 \$1,074.8	80	\$726,000 \$2,904,000	\$726,000 \$2,904,000																									
Supervision	& Inspectic	\$0	\$0	\$0	\$0	\$104,000	\$104,000																									
Corps Project	Management	\$0	80	\$628	\$628	\$628	\$1,884																									
LDNR Supervision &	Administration	0 <b>\$</b>	80	\$16,484	\$28,258	\$28,258	\$73.000		-																							
Federal Supervision &	Administration	\$0	SO	\$32,742	\$56,129	\$56,129	\$145,000	Other	Costs	80	80	80	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628
Easements	S	80	80	\$884,211	\$1,515,789	80	\$2,400,000	O&M	Costs	80	\$0	80	\$3.645	\$3,645	\$3,645	\$137,076	\$3,645	\$3,645	\$3,645	\$137.076	\$3,645	\$3,645	\$3,645	\$137.076	\$3,645	\$3,645	\$3,645	\$137,076	\$3.645	\$3,645	\$3,645	\$3,645
Engineering		0\$	80	\$140,737	\$241,263	\$0	\$382,000	Monitoring	Costs	\$48,714	\$32,493	<b>2</b> 0	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32.493	\$32,493	\$32,493	\$0
Fiscal	Year			2000	2001	2002	TOTAL	Fiscal		2001	2002	Base Year	2003	2004	2005	2006	2007	2008	. 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ţ	Year	5 Compound	4 Compound	3 Compound	2 Compound	1 Compound			Year	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount

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# Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

#### North Bully Camp (XTE-58)

Compound Fiscal Rates Year 1.378 2 1.378 2 1.137 2001 1.1066 2002 1.137 2001 1.066 2002 1.137 2001 1.066 2002 1.069 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.080 2004 2.090 2006 2.090 2006 2.090 2009 2.090 2009 2.090 2009 2.090 2009 2.090 2009 2.090 2009 2.090 2009 2.090 2009 2.090 2009 2.090 2009 2.090 2009 2.090 2009 2.090 2009 2.090 2009	Engineering & Design & \$0 \$0 \$170,602 \$274,289 \$0 \$444,892 \$255,382 \$55,382 \$30,474 \$28 \$30,474 \$28 \$81,474	Easements Land Rights \$0 \$0 \$1,071.847 \$1,723.284 \$2,795,132 O&M Costs \$0 \$0	Federal Supervision & Administration \$0 \$39,690 \$63,812 \$59,848 \$163,350 Other Costs	LDNR Supervision & Administration & \$0 \$0 \$19.982 \$32.126 \$30.130 \$82.238	l l	Supervision & Inspection \$0	Supervision & Inspection Contingency	First Cost	Total First Cost
Rates         Year           84         1.293           1.378         2000           1.137         2001           1.137         2001           1.137         2001           1.137         2001           1.137         2001           1.137         2002           1.137         2004           1.066         2003           0.938         2004           2         0.880         2004           3         0.825         2005           4         0.774         2006           5         0.726         2007           6         0.681         2009           7         0.638         2009           8         0.599         2010           9         0.561         2011		Easements	Supervision & Administration \$0 \$0 \$0 \$0 \$39,690 \$63,812 \$559,848 \$163,350 \$163,350 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Administration & Administration \$0 \$0 \$19.982 \$32,126 \$30,130 \$82,238	00-4	Supervision & Inspection \$0	Contingency	First Cost	
1.293 1.212 2.000 \$ 1.212 2.001 \$ 1.137 2.001 \$ 1.106 2.002  Discount Fiscal Mc Rates Year 1.066 2.002 1.137 2.001 1.066 2.002 1.066 2.002 2.003 2.003 2.005 4.0.774 2.006 5.0.726 6.0.681 2.009 6.0.681 2.009 6.0.681	\$0 \$0 \$0 \$274,289 \$444,892 fonitoring Costs \$55,382 \$34,646 \$30,474	1 1 1	\$0 \$39,690 \$63,812 \$59,848 \$163,350 Other Costs	\$0 \$19.982 \$32,126 \$30,130 \$82,238	00-4	0\$			
1.293 2 1.212 2000 \$ 2 1.137 2001 \$ 2 1.137 2002  Discount Fiscal Mc Rates Year 1.066 2002 2 1.137 2001 1 0.938 2003 2 0.880 2004 3 0.825 2005 4 0.774 2006 5 0.0681 2009 6 0.681 2009 7 0.599 2010 9 0.561 2011	\$0 170,602 1274,289 \$444,892 Costs 555,382 \$55,382 \$30,474 \$78 681	\$1,071,847 \$1,723,284 \$0 \$2,795,132 O&M Costs \$0 \$0 \$0		\$19,982 \$32,126 \$30,130 \$82,238	\$0 \$761 \$714		0\$	80	•
1.212 2000 \$ 2 1.137 2001 \$ 3 1.212 2001 \$ 1.137 2002  Discount Fiscal Mc Rates Year  1.137 2001  Base Year  0.938 2003  0.059 2006  0.0681 2006  0.0599 2010  0.0599 2010	170,602 1274,289 50 5444,892 Costs 555,382 555,382 \$55,382 \$50,474 \$58,884	\$1,071,847 \$1,723,284 \$0 \$2,795,132 O&M Costs \$0 \$0 \$0		\$19,982 \$32,126 \$30,130 \$82,238	\$761 \$714	\$0	0\$	<b>9</b>	20
Discount Fiscal Mc Rates Year  1 1.066 2002  1 1.137 2001  Rates Year  1 1.066 2002  2 1.137 2001  1 0.938 2003  2 0.880 2004  2 0.880 2004  3 0.825 2005  4 0.774 2006  5 0.726 2007  6 0.681 2008  7 0.638 2009  8 0.599 2010	\$0 \$44,892 b444,892 Costs \$55,382 \$34,646 \$30,474 \$28,681	\$1,723,284 \$0 \$2,795,132 O&M Costs \$0 \$0		\$32,126 \$30,130 \$82,238	\$714	90	0\$	<b>%</b>	\$1,302,883
Discount Fiscal Mc Rates Year 1.137 2001 1.066 2002 Base Year 0.938 2003 0.880 2004 0.825 2005 0.774 2006 0.726 2007 0.681 2009 0.638 2009 0.638 2001	\$0 \$444,892 Costs \$55,382 \$34,646 \$30,474	\$0 \$2,795,132 O&M Costs \$0 \$0		\$30,130 \$82,238		80	<b>9</b>		\$2.094.227
Discount Fiscal Mc Rates Year  1.137 2001  1.1066 2002  Base Year  0.938 2003  0.825 2005  0.774 2006  0.774 2006  0.0681 2009  0.0599 2010	5444.892 lonitoring Costs \$55,382 \$34,646 \$30,474	\$2,795,132 O&M Costs \$0 \$0		\$82,238	\$670	\$110,890	\$774,098	\$3,096,390	\$4,072,025
Discount         Fiscal         Mc           Rates         Year         Year           1 137         2001         2002           1 1066         2002         2003           0 88e         2003         2004           2 0 880         2004         2004           3 0 825         2005         2006           4 0 774         2006         2007           6 0 681         2009         2009           7 0 638         2009         2010           8 0 559         2010         2011           9 0 561         2011         2011	Costs \$55,382 \$34,646 \$30,474	ı.			\$2,145	\$110,890	\$774,098	\$3,096,390	\$7,469,134
Rates         Year           1.137         2001           1.066         2002           0         Base Year           1         0.938         2003           2         0.880         2004           3         0.825         2005           4         0.774         2006           5         0.726         2007           6         0.681         2009           7         0.638         2009           8         0.599         2010           9         0.561         2011	Costs \$55,382 \$34,646 \$30,474								
1.137 2001 1.066 2002 Base Year 0.938 2003 0.880 2004 0.825 2005 0.774 2006 0.726 2007 0.681 2009 0.599 2010 0.561 2011	\$55,382 \$34,646 \$0 \$30,474	0 <b>5</b> 0 <b>5</b> 0 <b>5</b>							
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Base Year       0.938     2003       0.880     2004       0.825     2005       0.774     2006       0.726     2007       0.681     2009       0.638     2009       0.599     2010       0.561     2011	\$0 \$30,474	<b>\$</b>	5						
0.938 2003 0.880 2004 0.825 2005 0.774 2006 0.726 2007 0.681 2008 0.638 2009 0.599 2010	\$30,474		*						
0.880 2004 0.825 2005 0.774 2006 0.726 2007 0.681 2008 0.638 2009 0.599 2010	€28 581	\$3,419	\$589						
0.825 2005 0.774 2006 0.726 2007 0.681 2008 0.638 2009 0.599 2010	- 22,24	\$3.206	\$552						
0.774 2006 0.726 2007 0.681 2008 0.638 2009 0.599 2010	\$26,805	\$3.007	\$518						
0.726 2007 0.681 2008 0.638 , 2009 0.599 2010	\$25,139	\$106,054	\$486						
0.681 2008 0.638 2009 0.599 2010 0.561 2011	\$23,577	\$2,645	\$456						
0.539 2009 0.599 2010 0.561 2011	\$22,112	\$2,481	\$427						
0.599 . 2010 0.561 2011	\$20,738	\$2,326	\$401						
0.561 2011	\$19,450	\$82,052	\$376						
	\$18,241	\$2,046	\$353						
-10 0.527 2012	\$17,108	\$1,919	\$331						
-11 0.494 2013	\$16,045	\$1,800	\$310						
-12 0.463 2014	\$15,048	\$63,482	\$291						
-13 0.434 2015	\$14,113	\$1,583	\$273						
0.407 2016	\$13,236	\$1,485	\$256						š
-15 0.382 2017	\$12,414	\$1,393	\$240						
0.358 2018	\$11,642	\$49,115	\$225						
-17 0.336 2019	\$10,919	\$1,225	\$211						
-18 0.315 2020	\$10,241	\$1,149	\$198						
-19 0.296 2021	\$9,604	\$1,077	\$186						
-20 0.277 2022	S.	\$1,010	\$174						

#### North Bully Camp (XTE-58)

Inflation Fiscal Engineering Easen Factor Year & Design & Land \$0 \$ \$0 \$ \$0 \$ \$0 \$ \$0 \$ \$0 \$ \$0 \$ \$0	Federal Supervision & Supervision & \$0 0 \$0 \$0 \$0 \$1 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	LDNR Supervision & Administration \$0 \$0 \$16.484 \$29,191 \$30,154 \$75,828	Corps Project Management \$0 \$0 \$628 \$649 \$649 \$61947	Supervision  & Inspection Contingency  \$0 \$0 \$0 \$0 \$0 \$0 \$110.977 \$774,707	Contingency \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	First Cost Construction \$0 \$0 \$0 \$0 \$3 \$6 \$3,098.826 \$3,098.826	Total First Cost \$0 \$1,074,801 \$1,902,856 \$4,075,229 \$7,052,886
Inflation Fiscal Engineering Easen Factor Year & Design & Land \$0 4	8000-	Supervision & Administration \$0 \$0 \$0 \$16.484 \$29,191 \$30,154 \$75,828	Project Management \$0 \$0 \$0 \$62 \$649 \$649 \$670 \$1,947	Supervision & Inspection \$0 \$0 \$0 \$0 \$110.977 \$110.977	Contingency \$0 \$0 \$0 \$0 \$70 \$774,707	First Cost Construction \$0 \$0 \$0 \$0 \$3,098,826 \$3,098,826	
\$ 1.000 \$ 140,737 \$ 88 \$ 1.000 \$ 140,737 \$ 88 \$ 1.000 \$ 2000 \$ 140,737 \$ 88 \$ 1.033 \$ 2001 \$ 249,225 \$ 1,55 \$ 1.033 \$ 2001 \$ 249,225 \$ 1,55 \$ 1.033 \$ 2001 \$ 249,225 \$ 1,55 \$ 1.033 \$ 2001 \$ 2002 \$ 34,673 \$ 1.102 \$ 2003 \$ 33,673 \$ 1.176 \$ 2005 \$ 33,673 \$ 1.176 \$ 2005 \$ 33,673 \$ 1.176 \$ 2005 \$ 33,673 \$ 1.176 \$ 2005 \$ 33,220 \$ 1.139 \$ 2007 \$ 40,784 \$ 1.255 \$ 2007 \$ 44,957 \$ 1.339 \$ 2009 \$ 43,520 \$ 1.429 \$ 2011 \$ 46,440 \$ 1.525 \$ 2013 \$ 49,556 \$ 1.575 \$ 2013	1 1	\$0 \$16.484 \$29,191 \$30,154 \$75,828	Management \$0 \$0 \$628 \$649 \$649 \$670 \$1.947	\$ Inspection \$0 \$0 \$0 \$0 \$0 \$0 \$110,977 \$110,977	Sontingency \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$3 \$3,098,826 \$3,098,826	\$0 \$1,074,801 \$1,902,856 \$4,075,229 \$7,052,886
\$0  30  31  1.000  2000  \$140,737  \$88  1.033  2001  \$249,225  \$1,58  \$1,58  \$1,50  \$2,49,225  \$1,58  \$1,58  \$2,49,225  \$2,49  \$2,49,53  \$1,067  \$2,003  \$38,962  \$2,4673  \$1,102  \$2,004  \$36,999  \$1,1067  \$2,004  \$36,999  \$1,176  \$2,005  \$38,220  \$38,220  \$4,125  \$2,006  \$39,481  \$1,255  \$2,007  \$4,957  \$1,339  \$2,009  \$4,957  \$1,339  \$2,009  \$4,957  \$1,525  \$2,011  \$4,957  \$1,575  \$2,014  \$5,1191  \$2,015  \$2,016  \$3,500  \$4,957  \$1,575  \$2,016  \$4,955  \$3,500  \$4,957  \$1,575  \$2,016  \$4,957  \$3,500  \$4,957  \$3,500  \$4,957  \$4,957  \$4,557  \$4,657  \$4,957  \$4,657  \$5,6	\$32.7 \$57.9 \$59.8 \$150.6 Other Costs Costs 7	\$16.484 \$29,191 \$30,154 \$75,828	\$0 \$0 \$628 \$649 \$670 \$1,947	\$0 \$0 \$0 \$110,977 \$110,977	\$0 \$0 \$0 \$774,707	\$0 \$0 \$3,098,826 \$3,098,826	\$0 \$1,074,801 \$1,902,856 \$4,075,229 \$7,052,886
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1.000 2000 \$140,737 \$88  1.033 2001 \$249,225 \$1,56  1.047 2002 \$001 \$249,225 \$1,56  1.057 2002 \$34,673  1.067 2002 \$34,673  1.106 2003 \$35,817  1.107 2003 \$35,817  1.106 2003 \$35,817  1.107 2009 \$34,520  2.1139 2004 \$36,999  3.1176 2005 \$38,220  4.1297 2008 \$42,130  5.1255 2007 \$44,957 \$1  1.1525 2013 \$44,957  2.1575 2014 \$51,191  2.1575 2014 \$51,191  2.1575 2014 \$51,191	\$32.7 \$57.9 \$59.8 \$150.6 Other Costs Costs 0 \$7	\$16.484 \$29,191 \$30,154 \$75,828	\$628 \$649 \$670 \$1,947	\$0 \$0 \$110,977 \$110,977	\$0 \$0 \$774,707 \$774,707	\$3,098,826 \$3,098,826	\$1,074,801 \$1,902,856 \$4,075,229 \$7,052,886
1.033 2001 \$249,225 \$1,56	\$57.9 \$59.8 \$150.6 Other Costs Costs 0 8 8 \$50.8 \$7	\$29,191 \$30,154 \$75,828	\$649 \$670 \$1,947	\$110.977 \$110.977	\$0 \$774,707 \$774,707	\$3,098,826 \$3,098,826	\$1,902,856 \$4,075,229 \$7,052,886
1.067   2002   \$0   TOTAL   \$389,962   \$2.44   TOTAL   \$389,962   \$2.44   Factor   Year   Costs   Co	\$59.8 \$150.6 Other Costs Costs 0 8 8 8 8 57	\$30,154 \$75,828	\$1,947	\$110,977	\$774,707	\$3,098,826 \$3,098,826	\$4,075,229 \$7,052,886
TOTAL \$389,962 \$2.47  Inflation Fiscal Monitoring O8 Factor Year Costs Co 1.033 2001 \$50,322 1.067 2002 \$34,673 201 1.102 2003 \$35,817 2 1.139 2004 \$36,999 3 1.176 2005 \$39,481 \$1 5 1.255 2007 \$40,784 6 1.297 2008 \$43,520 7 1.339 2009 \$44,957 \$1 8 1.384 2010 \$44,957 9 1.476 2013 \$49,556 1.575 2014 \$51,191 \$2 1.575 2014 \$51,191 \$2	S150.6 Other Costs Costs 8 8 8 8 7 7 87	\$75,828	\$1,947	\$110,977	\$774,707	\$3,098,826	\$7,052,886
Inflation         Fiscal         Monitoring         O8           Factor         Year         Costs         Co           1.033         2001         \$50,322         Co           1.067         2002         \$34,673         So           Base Year         \$002         \$35,817         So           1.102         2003         \$35,817         So           1.139         2004         \$36,999         So           1.176         2005         \$38,220         \$1           1.255         2006         \$38,481         \$1           1.255         2006         \$34,981         \$1           1.255         2007         \$40,784         \$1           1.384         2010         \$44,957         \$1           1.476         2011         \$44,957         \$1           1.575         2014         \$51,191         \$2           1.575         2014         \$51,191         \$2           1.577         2015         \$51,95         \$2	Other Costs S6 \$7						
Factor         Year         Costs         Co           1.033         2001         \$50,322         Co           1         1.067         2002         \$34,673         Co           1         1.067         2002         \$34,673         So           2         1.102         2003         \$35,817         So           2         1.139         2004         \$36,999         So           3         1.176         2005         \$38,220         So           4         1.215         2006         \$39,481         \$1           5         1.255         2007         \$40,784         \$1           6         1.297         2008         \$42,130         \$1           7         1.339         2009         \$44,957         \$1           8         1.384         2010         \$44,957         \$1           9         1.429         2011         \$46,440         \$1           9         1.429         2012         \$47,973         \$1           1         1.525         2014         \$51,191         \$2           1         1.575         2014         \$51,191         \$2           1	Costs \$6 \$7 \$7						
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1.384 2010 \$44,957 \$1 1.429 2011 \$46,440 1.476 2012 \$47,973 1.525 2013 \$49,556 1.575 2014 \$51,191 \$3	82 \$841						
1.429 2011 \$46,440 1.476 2012 \$47,973 1.525 2013 \$49,556 1.575 2014 \$51,191 \$3	55 \$869						
1.476 2012 \$47,973 1.525 2013 \$49,556 1.575 2014 \$51,191 \$3	10 \$898						
1.525 2013 \$49,556 1.575 2014 \$51,191 \$3 1.527 2015 \$5.000	81 \$927						
1.575 2014 \$51,191 \$2	59 \$958						
1.627 2015 \$52.000	57 \$989						
6107	32 \$1,022						
-14 1.681 2016 \$54,625 \$6,128							í
-15 1.737 2017 \$56,428 \$6,330							
-16 1.794 2018 \$58,290 \$245,905							
-17 1.853 2019 \$60,214 \$6,755							
-18 1.914 2020 <b>\$62</b> ,201 <b>\$</b> 6,978							
-19 1 <i>977</i> 2021 \$64,253 <b>\$7</b> ,208							
-20 2.043 2022 <b>\$0 \$</b> 7,446							

#### Weeks Bay II (TV-10/PTV-13)

23	0.0916595	\$14,554,524
Total Project Years	Amortization Factor	Total Fully Funded Costs
m	6 625%	\$14,074,874
Project Construction Years:	Interest Rate	Total First Costs

Annual Charges	Present	Average
Interest & Amortization Monitoring	\$14,244,516	\$1,305,646
O & M Costs	\$124,291	\$6,731
Other Costs	\$6,851	\$628
Total	\$14.449.300	\$1,324,417
Average Annual Habitat Units		25
Cost Per Habitat Unit		\$23,235
Average Annual Acres of Emergent Marsh		Ϋ́

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#### Weeks Bay II (TV-10/PTV-13)

First Costs and Annual Charges

	Total First	Cost	9	<b>\$</b>	\$460 545	\$789.056	\$11,994,533	\$13,244,134																		•								
	First Cost	Construction	0\$	9	9	0\$	\$9.379.400	\$9,379,400																										
		& Inspection Contingency	80	C\$	. <b>S</b>	9	\$2,344,850	\$2,344,850																										
	Supervision	& Inspection	90	80	0 <b>\$</b>	\$0	\$70,000	\$70,000																										
Corps	Project	Management	<b>9</b>	\$0	\$628	\$628	\$628	\$1,884																										
LDNR	Supervision &	Administration	0.5	80	\$26,552	\$45,517	\$37,931	\$110,000																										
Federal	Supervision &	Administration	<b>%</b>	\$0	\$113,207	\$194,069	\$161,724	\$469.000	Other	Costs	\$0	\$0	<b>8</b> 0	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
	Easements	& Land Rights	<b>2</b> 0	20	\$25,789	\$44.211	80	<b>\$</b> 70,000	O&M	Costs	0\$	\$0	80	\$3,645	\$3.645	\$3,645	53,645	\$55,368	\$3,645	\$3.645	\$3,645	\$3,645	\$55,368	\$3,645	\$3,645	\$3,645	\$3,645	\$55,368	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$228,069
	6		20	20	\$294,368	\$504,632	\$0	<b>\$</b> 799,000	Monitoring	Costs	\$36,999	\$2,700	\$0	\$2,700	\$2.700	\$2,700	\$2.700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$0	\$90,999
	Fiscal	Year			2000	2001	2002	TOTAL	Fiscal	Year	2001	2002	Base Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
ţ	· · · · · · · · · · · · · · · · · · ·	rear	o Compound	4 Compound	3 Compound	2 Compound	1 Compound		:	Year	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

#### Weeks Bay II (TV-10/PTV-13)

\$1,324,417		Total First	Cost	<b>\$</b> 0	0\$	\$558.276	\$897.069	\$12,789,171	\$14,244,516																			ŝ						
σ.		First Cost	Construction	0,5	<b>\$</b>	. <b>S</b>	9	\$10,000,785	\$10,000,785																									
Amortized Costs		:	Contingency	<b>9</b>	<b>S</b>	<b>S</b>	0\$	\$2,500,196	\$2,500,196																									
		Supervision	& Inspection Contingency	္ဌ	<b>\$</b>	<b>S</b>	<b>2</b> 0	\$74,638	\$74,638																									
	Corps	Project	Management	<b>%</b>	<b>\$</b> 0	\$761	\$714	\$670	\$2,145																									
	LDNR	Supervision &	Administration	<b>%</b>	<b>\$</b>	\$32,186	\$51,748	\$40,444	\$124,378																									
\$14,449,310	Federal	Supervision &	Administration	0 <b>5</b>	80	\$137,230	\$220,635	\$172,438	\$530,304	. Other	Costs	\$0	<b>\$</b> 0	80	\$589	\$552	\$518	\$486	\$456	\$427	\$401	\$376	\$353	\$331	\$310	\$291	\$273	\$256	\$240	\$225	\$211	\$198	\$186	\$174
ted Costs			Land Rignis	20	\$0	\$31,262	\$50,262	<b>\$</b> 0	\$81,525	08M	Costs	\$0	<b>\$</b> 0	\$0	\$3,419	\$3,206	\$3,007	\$2,820	\$40,176	\$2,481	\$2,326	\$2,182	\$2.046	\$29,152	\$1,800	\$1,688	\$1,583	\$1,485	\$21,153	\$1,306	\$1,225	\$1,149	\$1,077	\$1,010
Total Discounted		CD)	- 1	20	<b>2</b> 0	\$356,836	\$573,710	\$0	\$930,546	Monitoring	Costs	\$42,064	\$2,879	\$0	\$2,532	\$2,375	\$2,227	\$2,089	\$1,959	\$1,837	\$1,723	\$1,616	\$1,516				\$1,173	\$1,100	\$1,032	296\$	\$907	\$851	\$798	<b>9</b>
		Fiscal	rear			2000	2001	2002	Total	Fiscal	Year	2001	2002	Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Present Valued Costs	ŗ	Compound	raies	1.378	1.293	1.212	1.137	1.066		Discount	Rates	1.137	1.066	Base Year	0.938	0.880	0.825	0.774	0.726	0.681	0.638	0.599	0.561	0.527	0.494	0.463	0.434	0.407	0.382	0.358	0.336	0.315	0.296	0.277
Present		,		o	4	က	7	-		۵	Year	2	-	0	₹	·-	ę.	7	ċ	<b>တ</b> ု	-7	æρ	တု	÷	=	-12	-13	4-	-15	-16	-17	-18	-19	-50

#### Weeks Bay II (TV-10/PTV-13)

\$1,334,061		Total First	Cost	\$0		\$460.5		\$13																				1							
		First Cost	Construction	80	<b>\$</b>	9		\$10,008,655	\$10,008,655																										
Amortized Costs			& Inspection Contingency	9	0\$	S	<b>S</b>	\$2,502,164	\$2,502,164																										
		Supervision	& Inspection	<b>9</b>	<b>\$</b> 0	<b>\$</b>	<b>%</b>	\$74,696	\$74,696																										
	Corps	Project	Management	\$0	\$0	\$628	\$649	\$670	\$1,947																										
	LDNR	Supervision &	Administration	0\$	<b>S</b>	\$26,552	\$47,019	\$40,476	\$114,047																										
\$14,554,524	Federal	Supervision &	Administration	<b>\$</b> 0	<b>S</b> 0	\$113,207	\$200,473	\$172,574	\$486,254	Other	Costs	0\$	\$0	\$0	\$692	\$715	\$739	\$763	\$788	\$814	\$841	\$869	\$898	\$927	\$958	\$989	\$1,022	\$1,056	\$1,091	\$1,127	\$1,164	\$1,202	\$1,242	\$1,283	\$19,179
nded Costs		Easements	- 1	<b>%</b>	\$0	\$25,789	\$45,669	\$0	\$71,459	0&M	Costs	\$0	<b>9</b>	<b>\$</b> 0	\$4.018	\$4,150	\$4,287	\$4,429	\$69,496	\$4,726	\$4,882	\$5,043	\$5.210	\$81,745	\$5,559	\$5,743	\$5,932	\$6,128	\$96,154	\$6,539	\$6,755	\$6,978	\$7,208	\$7,446	\$342,427
Total Fully Funded Costs		Engineering		<b>%</b>	<b>%</b>	\$294,368	\$521,284	\$0	\$815,653	Monitoring	Costs	\$38,220	\$2,881	<b>%</b>	\$2,976	\$3,074	\$3,176	\$3,281	\$3,389	\$3,501	\$3,616	\$3,736	\$3,859	\$3,986	\$4,118	\$4,254	\$4,394	\$4,539	\$4,689	\$4,844	\$5,003	\$5,169	\$5,339	80	\$118,044
		Fiscal	Year			2000	2001	2002	TOTAL	Fiscal	Year	2001	2002	ear	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Fully Funded Costs	ŗ	Inflation	Factor			1 000	1.033	1.067	_	Inflation	Factor	1.033	1.067	Base Year	1.102	1.139	1.176	1.215	1.255	1.297	1,339 ₹	1.384	1.429	1.476	1.525	1.575	1.627	1.681	1.737	1.794	1 853	1914	1.977	2.043	
Fully Fur			Year	ა	*	က	7	-			Year	2	-	0	7	.5	ć.	4	ċ	<b>မှ</b>	-1	ထု	φ	-10	÷	-12	-13	-14	-15	-16	-17	-18	-19	-20	

# Shore Protection in Lake Borgne at Shell Beach and Bayou Dupre (PPO-2b/d/h)

23	0.0916595	\$21,513,220
Total Project Years	Amortization Factor	Total Fully Funded Costs
e	6.625%	\$10,165,493
Project Construction Years:	Interest Rate	Total First Costs

Annual Charges	Present Worth	Average Annual
Interest & Amortization Monitoring O & M Costs Other Costs	\$10.676.619 \$48.805 \$5.526.822 \$6.851	\$978,614 \$4,473 \$506,586 \$628
Total	\$16,259,100	\$1,490,301
Average Annual Habitat Units		28
Cost Per Habitat Unit		\$53,225
Average Annual Acres of Emergent Marsh		₹ Z

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# Shore Protection in Lake Borgne at Shell Beach and Bayou Dupre (PPO-2b/d/h)

## First Costs and Annual Charges

Total First	COST	0,5	0.4	\$2,071,502	9/44,030 6c pc4 oco	10,004,032																										
First Cost	Construction	2	9	9	\$5.2% 000	\$5.278.000																										
Cognitive	Commission		•	9	\$1.319.500	\$1,319,500											•															
Supervision & Inspection	S S S S S S S S S S S S S S S S S S S	9 6	Ş	9	\$115.000	\$115,000																										
Corps Project Management	<b>6</b> 0	<b>9</b>	\$628	\$628	\$628	\$1,884																										
LDNR Supervision & Administration	\$0	. OS	\$26.552	\$45,517	\$37,931	\$110,000																										
Federal Supervision & Administration	\$0	20%	\$79,655	\$136,552	\$113,793	\$330,000	Other	Costs	80	S	. <b>S</b>	. \$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
Easements & Land Rights	80	So	\$1,559.444	\$445,556	80	\$2,005,000	08M	Costs	\$0	20	80	\$4,407	\$2,059,280	\$4,407	\$2,059,280	\$4,407	\$4,407	\$2,059,280	\$4,407	80	80	80	\$0	\$0	\$4.407	\$2,059,280	\$4,407	80	20	\$0	\$4,407	\$8,272,377
Engineering & Design	\$0	80	\$405,222	\$115,778	\$0	\$521,000	Monitoring	Costs	\$15,145	\$2,700	\$0	\$2,700	\$2,700	\$2,700	\$2,700	\$2.700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2.700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$2,700	\$0	\$69,145
Fiscal			2000	2001	2002	TOTAL	Fiscal	Year	2001	2002	Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Year	5 Compound	4 Compound	3 Compound	2 Compound	1 Compound			Year	2 Compound	1 Compound	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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# Shore Protection in Lake Borgne at Shell Beach and Bayou Dupre (PPO-2b/d/h)

Present Valued Costs	•	Total Discounted Costs	nted Costs	\$16,259,098				Amortized Costs	Ş	\$1,490,301
	ū	Engineering	Easements	Federal Supervision &	LDNR Supervision &	Corps Project	Supervision		First Cost	Total First
Year	- 1	& Design	& Land Rights	Administration	Administration	Management	& Inspection	& Inspection Contingency	Construction	Cost
		<b>%</b>	80	0\$	0\$	0\$	0\$	<b>S</b>	<b>S</b>	0\$
		80	<b>S</b>	<b>\$</b> 0	<b>%</b>	<b>%</b>	\$0	<b>%</b>	O <b>\$</b>	<b>\$</b> 0
2000		\$491,214	\$1,890,371	\$96,559	\$32,186	\$761	\$0	<b>\$</b>	<b>S</b>	\$2,511,091
2001		\$131,626	\$506,547	\$155,244	\$51,748	\$714	<b>\$</b> 0	\$0	<b>9</b>	\$845,880
2002		<b>S</b>	\$0	\$121,332	\$40,444	\$670	\$122,619	\$1,406,917	\$5,627,668	\$7,319,649
Total		\$622,840	\$2,396,918	\$373,135	\$124,378	\$2,145	\$122,619	\$1,406,917	\$5,627,668	\$10,676,619
Fiscal		Monitoring	0 <b>8</b> M	Other						
Year		Costs	Costs	Costs						
2001		\$17,218	0\$	05						
2002		\$2,879	<b>S</b>							
Base Year		<b>S</b>	<b>\$</b>	<b>\$</b> 0						
2003		\$2,532	\$4,133	\$589						
2004		\$2,375	\$1,811,329	\$552						
2002		\$2,227	\$3,636	\$518						
2006		\$2,089	\$1,593,233	\$486						
2007		\$1,959	\$3,198	\$456						
2008		\$1,837	\$2,999	\$427						
2009		\$1,723	\$1,314,323	\$401						
2010		\$1,616	\$2,638	\$376						
2011		\$1,516	<b>\$</b>	\$353						
2012		\$1,422	<b>%</b>	\$331						
2013		\$1,333	<b>%</b>	\$310						
2014	_	\$1,250	<b>\$</b>	\$291						
2015		\$1,173	<b>%</b>	\$273						
2016		\$1,100	\$1,795	\$256						3
2017		\$1,032	\$786,737	\$240						
2018	_	2965	\$1,579	\$225						
2019	_	\$907	0\$	\$211						
2020	_	\$851	<b>%</b>	\$198						
2021	_	\$798	\$0	\$186						
2022		80	\$1,222	\$174						
Total		\$48,805	\$5,526,822	\$6,851						

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# Shore Protection in Lake Borgne at Shell Beach and Bayou Dupre (PPO-2b/d/h)

Amortized Costs	LDNR Corps	Supervision	Management & Inspection Contingency Construction	09	\$628 \$0 \$0	\$649	\$670 \$122.715 \$1.408.024 \$5.632.0	\$1,947 \$122,715 \$1,408,024																						
\$21,513,220	Federal	Supervision & Super-Administration Administration		. O <b>S</b>	\$79,655	\$141,058	\$121,427	\$342,140	Other	Costs	20	. <b>.</b>	<b>S</b>	\$692	\$715	\$739	\$763	\$788	\$814	\$841	\$869	\$927	\$958	\$989	\$1,022	\$1,056	\$1,091	\$1,127	\$1,164	000
		Easements S	20	\$0	\$1,559,444	\$460,259	80	\$2,019,703	O&M	Costs	0\$	<b>\$</b>	20	\$4,858	\$2,344,859	\$5,184	\$2,502,173	\$5,532	\$5,714	\$2,758,153	780.0 <b>%</b>	) <b>S</b>	0\$	<b>\$</b> 0	<b>%</b>	\$7,409	\$3,576,193	\$7,906	O <b>S</b>	3
-		Engineering & Design	<b>L</b> _	<b>\$</b> 0	\$405,222	\$119,598	\$0	\$524,821	Monitoring	Costs	\$15,645	\$2,881	<b>%</b>	\$2,976	\$3,074	\$3,176	\$3,281	\$3,389	\$3,501	\$3,616	43,650	\$3,986 \$3,986	\$4,118	\$4,254	\$4,394	\$4,539	\$4,689	\$4,844	\$5,003	7.C
Total Fully Fun		_			2000	2001	2002	TOTAL	Fiscal	Year	2001	2002	ear	2003	2004	2002	2006	2002	2008	2009	2010	2012	2013	2014	2015	2016	2017	2018	2019	0707
Total Fully Funded Costs		Fiscal					Į	_					~					S.	<u>`</u>	339	• a	ي ب	'n	2	_	Ξ	37	<b>4</b> 9	m z	•
Fully Funded Costs Total Fully Fun		Inflation Fiscal Factor Year			1.000	1.033	1.067	ĭ	Inflation	Factor	1.033	1.067	Base Year	1.102	1.139	1.176	1.215	1.255	1.297	1.339	1.304	1.476	1.525	1.575	1.627	1.681	1.737	1.794	1.853	

#### Lighthouse Bayou (PCS-32)

23	0.0916595	\$2,074,238
Total Project Years	Amortization Factor	Total Fully Funded Costs
3	6 625%	\$934,121
Project Construction Years:	Interest Rate	Total First Costs

Annual Charges	Present Worth	Average Annual
Interest & Amortization Monitoring Q & M Costs	\$971,909 \$299,800 \$150,153	\$89,085 \$27,480 \$13,763
Total	\$1,428,700	\$628
Average Annual Habitat Units		(173)
Cost Per Habital Unit		8
Average Annual Acres of Emergent Marsh		Ϋ́

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#### Lighthouse Bayon (PCS-32)

## First Costs and Annual Charges

	Total First	Cost	0\$	05	\$123 756	\$116,166	\$646.961	\$886,884																										
	First Cost	Construction	\$0	0.5	0\$	<b>\$</b>	\$452.000	\$452,000																										
		& Inspection Contingency	0\$	80	80	80	\$113,000	\$113,000																										
	Supervision	& Inspection	\$0	\$0	80	80	\$68,000	\$68,000																										
Corps	Project	Management	S	80	\$628	\$628	\$628	\$1.884																										
LDNR	Supervision &	Administration	\$0	80	\$2.852	\$4,889	\$3,259	\$11,000																										
Federal	Supervision &	Administration	0 <b>S</b>	<b>\$</b> 0	\$8.815	\$15,111	\$10.074	\$34,000	Other	Costs	So	<b>8</b> 0	<b>S</b> 0	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12.560
	Easements	& Land Rights	80	So	\$32,308	\$27,692	\$0	<b>2</b> 60.000	O&M	Costs	80	\$0	S <sub>0</sub>	\$3.645	\$3.645	\$3.645	\$3.645	\$3.645	\$3,645	\$109,217	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$3,645	\$109.217	\$3,645	\$3.645	\$3.645	\$3.645	\$3,645	\$3,645	\$284,044
	6	ı	<b>2</b> 0	<b>\$</b> 0	\$79,154	\$67,846	\$0	\$147,000	Monitoring	Costs	\$36,349	\$22,094	<b>8</b> 0	\$22.094	\$22.094	\$22,094	\$22,094	\$22.094	\$22,094	\$22,094	\$22,094	\$22.094	\$22,094	\$22,094	\$22,094	\$22,094	\$22,094	\$22,094	\$22,094	\$22,094	\$22,094	\$22,094	80	\$478,225
		Year			2000	2001	2002	TOTAL	Fiscal	Year	2001	2002	Base Year	2003	2004	2005	2006	, 2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
	:	Year	5 Compound		3 Compound	2 Compound	1 Compound			Year	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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#### Lighthouse Bayou (PCS-32)

Compound         First of Fields         Engineering Easements         Evederal LONR Project         Compound Short												
Compound         Fiscal         Engianeming Lasements         Supervision & Su	ſ					Federal	LDNR	Согря				
1378	Comit	punod		Engineering	Easements	Supervision &	Supervision &	Project	Supervision & Inspection	Continue	First Cost	Total First Cost
137   200   585,014   510,085   51	2	1 378	100	15 CS	S Carlo Ngma	05	9	05	0\$	80	80	\$0
1212   2000   \$95,951   \$39,164   \$10,685   \$13457   \$751   \$50   \$90   \$90   \$1147   \$1147   \$2001   \$77,134   \$13,145   \$10,685   \$17,416   \$13,475   \$17,048   \$17,048   \$17,048   \$17,048   \$17,048   \$10,048   \$1		1 293		S	90	90	0 <b>S</b>	0.5	80	0\$	<b>0\$</b>	0\$
137   2001   277,134   231,483   517,180   55,558   571,486   5441,945   54		1212	2000	\$95,951	\$39.164	\$10,685	\$3,457	\$761	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b>	\$150,018
1066   2002   510 480   510,741   513,475   5670   5120,486   5451,945   5451,945   510,481		1 137	2001	\$77,134	\$31,483	\$17,180	\$5,558	\$714	\$0	\$0	<b>S</b>	\$132,068
Total   S173.084   S70.647   S38.607   S12.490   S2.145   S72.505   S120.486   S481.945   S481.945   S481.945   S481.945   S72.505   S120.486   S481.945   S481.945   S72.505		1.066	2002	8	0\$	\$10,741	\$3,475	\$670	\$72,505	\$120,486	\$481,945	\$689,823
Discount         Fiscal         Monitoring         O&M         Other           Rates         Year         Costs         Costs         Costs           1.137         2001         \$1.25         \$0         \$0           1.066         2002         \$21.558         \$0         \$0           0.938         2003         \$20.721         \$3.419         \$589           0.880         2004         \$19.434         \$3.206         \$552           0.880         2004         \$19.434         \$3.206         \$558           0.874         2005         \$17.094         \$2.820         \$486           0.774         2006         \$17.094         \$2.820         \$486           0.774         2006         \$17.094         \$2.820         \$486           0.776         2007         \$16.032         \$2.481         \$456           0.786         2008         \$15.032         \$2.481         \$456           0.681         2009         \$14.101         \$59.707         \$401           0.587         2010         \$15.032         \$2.182         \$316           0.587         2011         \$10.303         \$2.182         \$316           0.581 </td <td></td> <td>ì</td> <td>1</td> <td>\$173,084</td> <td>\$70,647</td> <td>\$38,607</td> <td>\$12,490</td> <td>\$2,145</td> <td>\$72,505</td> <td>\$120,486</td> <td>\$481,945</td> <td>\$971,909</td>		ì	1	\$173,084	\$70,647	\$38,607	\$12,490	\$2,145	\$72,505	\$120,486	\$481,945	\$971,909
Rates         Year         Costs         Costs         Costs           1.137         2001         \$41,325         \$0         \$0           1.066         2002         \$53.568         \$0         \$0           Base Year         \$0         \$0         \$0         \$0           Base Year         \$0         \$1         \$0         \$0           Base Year         \$0         \$0         \$0         \$0           Base Year         \$0         \$0         \$0         \$0           \$0         \$1         \$0         \$0         \$0         \$0           \$0         \$1         \$0         \$0         \$0         \$0	Discou	Į	Fiscal	Monitoring	08M	Other						
1.137         2001         \$41325         \$0         \$0           1.066         2002         \$23,588         \$0         \$0           1.066         2002         \$23,588         \$0         \$0           0.938         2003         \$20,721         \$3,419         \$589           0.880         2004         \$19,434         \$3,206         \$559           0.825         2005         \$18,206         \$3,206         \$558           0.8774         2006         \$17,034         \$2,820         \$486           0.774         2006         \$17,034         \$2,820         \$486           0.774         2008         \$15,035         \$2,481         \$427           0.638 r         2009         \$14,101         \$69,707         \$401           0.638 r         2009         \$14,101         \$69,707         \$401           0.638 r         2010         \$1,163         \$1,31         \$401           0.597 r         2011         \$1,633         \$2,162         \$356           0.638 r         2010         \$1,600         \$3,10         \$350           0.577 r         2011         \$1,633         \$2,16         \$350           0.434 r </td <td>Rates</td> <td></td> <td>Year</td> <td>Costs</td> <td>Costs</td> <td>Costs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Rates		Year	Costs	Costs	Costs						
1.066         2002         \$23.558         \$0         \$0           Base Year         \$0         \$0         \$0         \$0           0 938         2004         \$19.434         \$3.249         \$589           0 825         2005         \$18.226         \$3.007         \$589           0 825         2005         \$17.094         \$2.805         \$486           0 774         2006         \$17.094         \$2.805         \$486           0 776         2007         \$16.032         \$2.481         \$456           0 638         2008         \$15.035         \$2.481         \$456           0 638         2009         \$14,101         \$69,707         \$401           0 638         2009         \$14,101         \$69,707         \$401           0 638         2010         \$1,103         \$5.046         \$3.56           0 639         2010         \$11,225         \$2.182         \$3.50           0 639         2010         \$11,209         \$3.131         \$3.04           0 561         2011         \$11,010         \$4.01         \$3.04           0 561         2014         \$1.030         \$3.133         \$2.04           0 444 <td></td> <td>1</td> <td>2001</td> <td>\$41,325</td> <td>0\$</td> <td>\$0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		1	2001	\$41,325	0\$	\$0						
Base Year         \$0         \$0         \$0           0 938         2003         \$20,721         \$3.419         \$589           0 880         2004         \$18,2434         \$3.06         \$589           0 880         2004         \$18,2434         \$3.06         \$582           0 681         2005         \$16,032         \$2,645         \$486           0 774         2006         \$17,034         \$2,820         \$486           0 774         2006         \$17,034         \$2,820         \$486           0 774         2006         \$14,101         \$69,00         \$427           0 638         2009         \$14,101         \$69,00         \$401           0 638         2010         \$1,103         \$2,046         \$353           0 597         2010         \$1,103         \$2,046         \$353           0 527         2012         \$1,163         \$1,919         \$310           0 657         2014         \$1,800         \$310         \$310           0 463         2014         \$1,800         \$310         \$220           0 463         2014         \$1,990         \$320           0 404         \$1,040         \$1,990	_	1.066	2002	\$23,558	\$0	<b>\$</b> 0						
0 938         2003         \$20,721         \$3.419         \$589           0 880         2004         \$19,434         \$5.206         \$552           0 880         2006         \$18,026         \$5.20         \$518           0 774         2006         \$17,034         \$2.800         \$486           0 726         2007         \$16,032         \$2.461         \$486           0 681         2008         \$15,035         \$2.481         \$427           0 638         2009         \$14,101         \$69,707         \$401           0 639         2010         \$13,225         \$2.481         \$401           0 551         2011         \$13,2403         \$2.182         \$376           0 557         2012         \$11,633         \$1,919         \$31           0 527         2012         \$1,633         \$2.182         \$35           0 657         2012         \$1,633         \$1,919         \$31           0 463         2014         \$1,633         \$2.91         \$27           0 463         2014         \$1,630         \$2.56         \$27           0 463         2014         \$1,933         \$2.40         \$2.25           0 386 <td>_</td> <td>Base Ye</td> <td>ar</td> <td><b>%</b></td> <td>80</td> <td>80</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	_	Base Ye	ar	<b>%</b>	80	80						
2004         \$19,434         \$3.206         \$552           2005         \$18,226         \$3.007         \$518           2006         \$17,094         \$2.820         \$486           2007         \$16,032         \$2.481         \$456           2008         \$15,035         \$2.481         \$427           2009         \$14,101         \$69,707         \$401           2010         \$13,225         \$2.182         \$376           2011         \$12,403         \$2.046         \$353           2012         \$11,633         \$1,919         \$310           2013         \$10,910         \$1,800         \$310           2014         \$10,232         \$1,688         \$291           2015         \$9,506         \$1,583         \$273           2016         \$9,000         \$44,90         \$256           2017         \$8,441         \$1,333         \$240           2018         \$7,916         \$1,306         \$225           2019         \$7,916         \$1,499         \$198           2020         \$6,963         \$1,149         \$107           \$0,202         \$6,963         \$1,010         \$174	_	0 938	2003	\$20,721	\$3,419							
0 825         2005         \$18,226         \$3,007         \$518           0 774         2006         \$17,094         \$2,820         \$486           0 726         2007         \$16,032         \$2,645         \$466           0 638         2008         \$15,035         \$2,481         \$427           0 638         2009         \$14,101         \$69,707         \$401           0 597         2010         \$13,225         \$2,182         \$376           0 597         2010         \$13,225         \$2,162         \$376           0 507         2010         \$11,633         \$1,919         \$331           0 494         2013         \$10,910         \$1,800         \$310           0 463         2014         \$10,232         \$1,688         \$221           0 463         2014         \$10,232         \$1,688         \$221           0 403         2014         \$10,232         \$1,688         \$221           0 407         2016         \$9,400         \$256           0 38         2017         \$1,490         \$1,265           0 356         2017         \$1,490         \$1,400           0 356         2020         \$1,490	~	0.880	2004		\$3,206							
0.774         2006         \$17.094         \$2.820         \$486           0.726         2007         \$16.032         \$2.645         \$456           0.681         2008         \$15.035         \$2.481         \$427           0.638 *         2009         \$14.101         \$69.707         \$401           0.599*         2010         \$13.225         \$2.046         \$376           0.527         2012         \$11.633         \$2.046         \$353           0.527         2012         \$11.633         \$1.919         \$331           0.494         2013         \$10.910         \$1.800         \$310           0.463         2014         \$10.232         \$1.688         \$2.91           0.463         2014         \$10.322         \$1.688         \$2.91           0.463         2014         \$10.232         \$1.688         \$2.91           0.47         2016         \$9.596         \$1.583         \$2.73           0.47         2016         \$9.4490         \$2.56           0.382         2018         \$1.393         \$2.40           0.386         2018         \$1.49         \$1.49           0.296         2021         \$6.563		0.825	2005		\$3,007							
0 726         2007         \$16,032         \$2,645         \$456           0 681         2008         \$15,035         \$2.481         \$427           0 638         2009         \$14,101         \$69707         \$401           0 599         2010         \$13,225         \$2,182         \$376           0 561         2011         \$12,403         \$2,046         \$353           0 57         2012         \$1,1633         \$1,919         \$310           0 494         2013         \$10,910         \$1,300         \$310           0 463         2014         \$10,910         \$4,490         \$256           0 407         2016         \$9,596         \$1,583         \$273           0 407         2016         \$9,000         \$44,490         \$256           0 38         2017         \$8,441         \$1,393         \$240           0 38         2018         \$7,916         \$1,306         \$225           0 316         2020         \$6,963         \$1,149         \$198           0 220         \$6,963         \$1,010         \$174		0.774	2006		\$2,820							
0 681         2008         \$15,035         \$2.481         \$427           0 638 r         2009         \$14,101         \$69,707         \$401           0 599**         2010         \$13,225         \$2.182         \$376           0 561         2011         \$12,403         \$2.046         \$353           0 557         2012         \$11,633         \$1.919         \$331           0 494         2013         \$10,910         \$1,800         \$310           0 463         2014         \$10,232         \$1,688         \$291           0 434         2015         \$9,000         \$44,490         \$256           0 437         2016         \$1,303         \$240           0 382         2018         \$7,916         \$1,306         \$225           0 358         2018         \$7,425         \$1,149         \$198           0 205         \$6,963         \$1,149         \$198           0 206         \$2021         \$6,531         \$1,077         \$186           0 277         2022         \$1,010         \$174	10	0.726	2007	\$16,032	\$2,645							
0 638 r         2009         \$14,101         \$69,707         \$401           0.599**         2010         \$13,225         \$2,182         \$376           0.561         2011         \$12,403         \$2,046         \$353           0.57         2012         \$11,633         \$1,919         \$331           0.494         2013         \$10,910         \$1,800         \$310           0.463         2014         \$10,232         \$1,688         \$291           0.463         2014         \$10,232         \$1,688         \$291           0.407         2016         \$9,000         \$44,490         \$256           0.382         2017         \$8,441         \$1,393         \$240           0.358         2017         \$1,306         \$225           0.336         2018         \$7,916         \$1,306         \$225           0.336         2019         \$7,425         \$1,225         \$211           0.345         2020         \$6,963         \$1,149         \$198           0.296         2021         \$6,531         \$1,010         \$174           0.277         2022         \$1,010         \$174	"	0 681	2008		\$2,481							
0.599*         2010         \$13,225         \$2,182         \$376           0.561         2011         \$12,403         \$2.046         \$353           0.57         2012         \$11,633         \$1,919         \$331           0.494         2013         \$10,910         \$1,800         \$310           0.463         2014         \$10,232         \$1,688         \$291           0.434         2015         \$9,596         \$1,583         \$273           0.407         2016         \$9,000         \$44,490         \$256           0.382         2017         \$8,441         \$1,393         \$240           0.358         2018         \$7,916         \$1,306         \$225           0.358         2018         \$7,425         \$1,206         \$225           0.336         2019         \$7,425         \$1,249         \$198           0.036         2021         \$6,963         \$1,149         \$198           0.296         2021         \$6,531         \$1,077         \$186           0.277         2022         \$1,010         \$174	~	0.638 /	2009		\$69,707	••						
0.561         2011         \$12,403         \$2.046         \$353           0.527         2012         \$11,633         \$1,919         \$331           0.494         2013         \$10,910         \$1,800         \$310           0.463         2014         \$10,232         \$1,688         \$291           0.434         2015         \$9,596         \$1,583         \$273           0.407         2016         \$9,000         \$44,490         \$256           0.382         2017         \$8,441         \$1,393         \$240           0.358         2018         \$7,916         \$1,306         \$225           0.336         2019         \$7,425         \$1,206         \$211           0.315         2020         \$6,963         \$1,149         \$198           0.296         2021         \$6,531         \$1,077         \$186           0.277         2022         \$0,000         \$1,010         \$174	<b></b>	0.599	2010		\$2,182							
0 527       2012       \$11,633       \$1.919       \$331         0 494       2013       \$10,910       \$1.800       \$310         0 463       2014       \$10,232       \$1.688       \$291         0 434       2015       \$9.596       \$1.583       \$291         0 407       2016       \$9.000       \$44.490       \$256         0 382       2017       \$8.441       \$1.393       \$240         0 358       2018       \$7.916       \$1.306       \$225         0 336       2019       \$7.425       \$1.26       \$211         0 315       2020       \$6.963       \$1.149       \$198         0 296       2021       \$6.531       \$1.077       \$186         0 277       2022       \$0.501       \$1.010       \$174	a	0.561	2011		\$2,046	•,						
0.4942013\$10,910\$1,800\$3100.4632014\$10,232\$1,688\$2910.4342015\$9,596\$1,583\$2730.4072016\$9,000\$44,490\$2560.3822017\$8,441\$1,393\$2400.3582018\$7,916\$1,306\$2250.3562019\$7,425\$1,225\$2110.3152020\$6,963\$1,149\$1980.2962021\$6,531\$1,077\$1860.2772022\$0\$1,010\$174	0	0 527	2012		\$1,919							
0.4632014\$10,232\$1,688\$2910.4342015\$9,596\$1,583\$2730.4072016\$9,000\$44,490\$2560.3822017\$8,441\$1,393\$2400.3582018\$7,916\$1,306\$2250.3362019\$7,425\$1,225\$2110.3152020\$6,963\$1,149\$1980.2962021\$6,531\$1,077\$1860.2772022\$0\$1,010\$174	_	0.494	2013		\$1.800							
0.434     2015     \$9.596     \$1.583     \$273       0.407     2016     \$9,000     \$44,490     \$256       0.382     2017     \$8,441     \$1.393     \$240       0.358     2018     \$7,916     \$1,306     \$225       0.336     2019     \$7,425     \$1,225     \$211       0.315     2020     \$6,963     \$1,149     \$198       0.296     2021     \$6,531     \$1,077     \$186       0.277     2022     \$0     \$1,010     \$174	2	0.463	2014	₩,	\$1,688							
0.407     2016     \$9,000     \$44,490     \$256       0.382     2017     \$8,441     \$1,393     \$240       0.358     2018     \$7,916     \$1,306     \$225       0.336     2019     \$7,425     \$1,225     \$211       0.315     2020     \$6,963     \$1,149     \$198       0.296     2021     \$6,531     \$1,077     \$186       0.277     2022     \$0     \$1,010     \$174	ဗ	0.434	2015		\$1,583							
0.382     2017     \$8,441     \$1,393       0.358     2018     \$7,916     \$1,306       0.336     2019     \$7,425     \$1,225       0.315     2020     \$6,963     \$1,149       0.296     2021     \$6,531     \$1,077       0.277     2022     \$0     \$1,010	4	0.407	2016		\$44,490							3
0.358     2018     \$7,916     \$1,306       0.336     2019     \$7,425     \$1,225       0.315     2020     \$6,963     \$1,149       0.296     2021     \$6,531     \$1,077       0.277     2022     \$0     \$1,010	5	0.382	2017		\$1,393							
0.336     2019     \$7,425     \$1,225       0.315     2020     \$6,963     \$1,149       0.296     2021     \$6,531     \$1,077       0.277     2022     \$0     \$1,010	9	0.358	2018									
0.315 2020 \$6,963 \$1.149 0.296 2021 \$6,531 \$1,077 0.277 2022 \$0 \$1,010	7	0.336	2019									
0.296 2021 \$6,531 \$1.077 0.277 2022 \$0 \$1.010	<b>&amp;</b>	0.315	2020		\$1,149							
0.277 2022 \$0 \$1,010	6	0.296	2021	\$6,5								
	0	0.277	2022									

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November 24, 1999

#### Lighthouse Bayou (PCS-32)

Year         & Design         & Land Rights         Adminit           \$0         \$0         \$0           \$0 </th <th>Fiscal Monitoring O&amp;M Other Vear Costs 2000 \$79,154 \$32,308 \$8,815 \$000 \$79,154 \$32,308 \$8,815 \$000 \$79,154 \$32,308 \$8,815 \$000 \$79,154 \$32,308 \$8,815 \$000 \$70,085 \$28,606 \$15,610 \$000 \$70,085 \$28,606 \$15,610 \$000 \$70,085 \$28,606 \$15,610 \$000 \$149,239 \$60,914 \$35,175 \$50 \$0 \$0 \$10,750</th>	Fiscal Monitoring O&M Other Vear Costs 2000 \$79,154 \$32,308 \$8,815 \$000 \$79,154 \$32,308 \$8,815 \$000 \$79,154 \$32,308 \$8,815 \$000 \$79,154 \$32,308 \$8,815 \$000 \$70,085 \$28,606 \$15,610 \$000 \$70,085 \$28,606 \$15,610 \$000 \$70,085 \$28,606 \$15,610 \$000 \$149,239 \$60,914 \$35,175 \$50 \$0 \$0 \$10,750
2021 \$43.690 \$7.208 2022 \$0 \$7.446	2021 \$43.690 \$7.208 2022 \$0 \$7.446
2000 \$79,154 \$32,308 2001 \$70,085 \$28,606 \$\$ 2002 \$0  2002 \$0  40  Fiscal Monitoring O&M OI Year Costs Costs  2001 \$37,548 \$0  2002 \$23,576 \$0  2003 \$24,354 \$4,018  2004 \$25,158 \$4,150  2005 \$25,988 \$4,150  2007 \$27,731 \$4,275  2008 \$28,647 \$4,726  2008 \$28,647 \$4,726  2009 \$29,592 \$146,283  2010 \$31,677 \$5,210  2011 \$31,577 \$5,210  2012 \$32,619 \$5,539  2013 \$33,696 \$5,539  2014 \$34,808 \$5,738  2015 \$35,956 \$5,330  2016 \$37,143 \$183,609  2017 \$38,369 \$5,330  2018 \$39,635 \$6,330  2018 \$39,635 \$6,330  2019 \$40,943 \$6,756  2020 \$42,294 \$6,776  2020 \$42,294 \$6,776  2020 \$43,800 \$7,208  2020 \$43,800 \$7,208  2020 \$43,800 \$7,446	2000         \$79,154         \$32,308           33         2001         \$70,085         \$28,606         \$           Fiscal         Monitoring         O&M         OI         \$           Fiscal         Monitoring         O&M         OI         \$           Year         Costs         So         So<
\$0 2000 \$79,154 \$3 2001 \$70,085 \$5 2002 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 2000 \$79,154 \$3 32 2001 \$70,085 \$5 33 2001 \$70,085 \$5 34 2001 \$70,085 \$5 35 2001 \$749,239 \$6 36 2002 \$24,354 \$6 37 2002 \$23,576 \$6 38 2004 \$25,158 \$6 39 2004 \$25,158 \$6 30 2004 \$25,158 \$6 30 2004 \$25,158 \$6 30 2005 \$25,988 \$6 30 2007 \$27,731 \$6 30 2009 \$29,592 \$1 30 2009 \$29,592 \$1 30 2009 \$29,592 \$1 30 2009 \$29,592 \$1 31,577 \$2011 \$33,595 \$6 32 2013 \$33,696 \$2 33 2019 \$34,808 \$2 34 2016 \$33,143 \$1 37 2017 \$38,369 \$2 38 2019 \$34,908 \$2 39 2019 \$34,808 \$2 30 2019 \$34,908 \$2 31,507 \$2014 \$33,696 \$2 32 2013 \$34,808 \$2 33 2019 \$34,909 \$3 34 2018 \$39,635 \$2 35 2019 \$34,294 \$3 37 2021 \$34,3690 \$3 37 2022 \$42,294 \$3 38 2022 \$42,294 \$3 39 2022 \$42,294 \$3 30 2022 \$42,294 \$3 3
\$0 2000 \$79,154 2001 \$70,085 2001 \$70,085 2002 \$149,239 Year Costs 2002 \$23,548 2002 \$25,158 2002 \$25,158 2004 \$25,158 2005 \$25,988 2006 \$26,846 2007 \$27,731 2008 \$28,647 2009 \$29,592 2010 \$30,669 2011 \$31,577 2012 \$32,619 2011 \$31,677 2012 \$32,619 2013 \$33,669 2014 \$34,808 2017 \$33,696 2017 \$33,696 2018 \$33,696 2018 \$33,696 2019 \$34,808 2019 \$34,808 2019 \$34,808 2019 \$34,808 2019 \$34,808 2017 \$34,808 2017 \$34,808 2017 \$34,808 2017 \$34,808 2017 \$34,808 2017 \$34,808 2017 \$34,808 2017 \$34,808 2017 \$34,808	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0
Year 2000 2001 2001 2002 2001 2003 2004 2005 2006 2007 2008 2009 2010 2011 2011 2012 2013 2014 2015 2013 2014 2015 2017 2018 2017 2018 2017 2018 2017 2018 2017 2018	100 100 100 100 100 100 100 100
	23.3 23.3 23.3 23.3 23.3 23.3 23.3 23.3

## Restore Conn. of Mermentau R./Restrict Nav. Channel

23	0.0916595	\$12,566,773
Total Project Years	Amortization Factor	Total Fully Funded Costs
ю	6.625%	\$2,707,645
Project Construction Years:	Interest Rate	Total First Costs

Average	\$253,032 \$39,919 \$301,285 \$628	\$594,864	0	8	₹Z
Present Worth	\$2,760,567 \$435,517 \$3,286,996 \$6,851	\$6,489,900			
Annual Charges	Interest & Amortization Monitoring O & M Costs Other Costs	Total	Average Annual Habitat Units	Cost Per Habitat Unit	Average Annual Acres of Emergent Marsh

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## Restore Conn. of Mermentau R./Restrict Nav. Channel

## First Costs and Annual Charges

	Total First	Cost	5	3 5	£153 737	\$213.038	\$2 187 109	\$2,685,864																										
	First Cost	Construction	OS.	<b>S</b>	<b>;</b>	<b>3</b>	\$1.566.000	\$1,596,000																		í								
		Contingency	20	S	S	<b>S</b>	\$399,000	\$399,000																										
	Supervision	& Inspection Contingency	80	<b>9</b>	<b>S</b>	<u> </u>	\$150,000	\$150,000																										
Corps		Management	٥	<b>S</b>	\$628	\$628	\$628	\$1,884																										
LDNR	Supervision &	Administration	S S	<b>%</b>	\$10,370	\$17,778	\$11,852	\$40,000																										
Federal	Supervision &	Administration	<b>%</b>	<b>%</b>	\$25,926	\$44,444	\$29,630	\$100,000	Other	Costs	\$0	<b>\$</b> 0	<b>S</b>	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$12,560
	asements	ŀ	<b>\$</b>	<b>%</b>	\$17,500	\$22,500	\$0	\$40,000	OSM	Costs	0\$	<b>S</b>	<b>S</b>	\$253,407	\$343,407	\$253,407	\$343,407	\$339,758	\$343,407	\$253,407	\$343,407	\$253,407	\$429,758	\$253.407	\$343,407	\$253,407	\$343,407	\$339,758	\$343,407	\$253,407	\$343,407	\$253,407	\$4,407	\$5,888,192
	0	- 1	<b>S</b>	<b>%</b>	\$99,313	\$127,688	\$0	\$227,000	Monitoring	Costs	\$48,714	\$32,493	<b>%</b>	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$32,493	\$0	\$698,574
	_	Year			2000	2001	2002	TOTAL	Fiscal	Year	2001	2002	Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
ſ		rear	5 Compound	4 Compound	3 Compound	2 Compound	1 Compound			Year	2 Compound	1 Compound	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

## Restore Conn. of Mermentau R./Restrict Nav. Channel

Present V	Present Valued Costs		Total Discounted Costs		\$6,489,932			∢	Amortized Costs		<b>8</b> 59-186
	ſ				Federal	LDNR	Corps			i	; ;
0	Compound	Fiscal	Engineering & Decina	Easements & Land Rights	Supervision & Administration	Supervision & Administration	Project Management	Supervision & Inspection (	Contingency	First Cost Construction	Total First Cost
5	1 378	500	05	20	05	0\$	O\$	0\$	20	05	0\$
<b>4</b>	1.293		S	<b>S</b>	05	<b>S</b>	<b>S</b>	<b>\$</b> 0	<b>%</b>	<b>≎</b>	<b>%</b>
. ო	1.212	2000	\$120,387	\$21,214	\$31,428	\$12,571	\$761	<b>\$</b> 0	<b>S</b>	<b>S</b> 0	\$186,361
7	1.137	2001	\$145,167	\$25,580	\$50,528	\$20,211	\$714	0\$	<b>%</b>	<i>S</i> ,	\$242,200
-	1.066	2002	<b>%</b>	0\$	\$31,593	\$12,637	\$670	\$159,938	\$425,434	\$1.701.735	\$2,332,005
	_	Total	\$265,554	\$46,794	\$113,549	\$45,419	\$2,145	\$159,938	\$425,434	\$1,701,735	\$2,760,567
ă	Discount	Fiscal	Monitoring	O&M	Other						
Year Ra	Rates	Year	Costs	Costs	Costs						
i~	1.137	2001	\$55,382	90	<b>S</b>						
-	1.066	2002		<b>S</b>							
0	Base Year	ear	<b>\$</b>	<b>\$</b>							
7	0.938	2003	\$30,474	\$237,662	\$589						
-5	0.880	2004	\$28,581	\$302.058	\$552						
£-	0.825	2005			\$518						
4	0.774	2006	\$25,139		\$486						
δ	0.726	2002		\$246,532	\$456						
မှ	0.681	2008		••							
.7	0.638	2009	••								
φ.	0.599	2010		\$205,559							
6	0.561	2011									
-10	0.527	2012									
-1	0.494	2013		\$125,132							
-12	0.463	2014	•-	\$159,038							
-13	0.434	2015		\$110,065							
-14	0.407	2016									í
-15	0.382	2017									
-16	0.358	2018		•							
-17	0.336	2019	\$10,919								
-18	0.315	2020	\$10,241	\$108,230							
-19	0.296	2021	9'6\$	•,							
-20	0.277	2022	I			•					
		Total	\$435,517	\$3,286,996	\$6,851						

## Restore Conn. of Mermentau R./Restrict Nav. Channel

	Amortized Costs \$1,151,886		Supervision First Cost Total First	& Inspection Contingency Construction Cost	20 20 20			0.5	0\$ 0\$																						í						
		Согря		•	20	S	\$628	CE40		1																											
		LDNR	Supervision &	Administration	<b>2</b>	<b>9</b>	\$10,370	\$18.364	\$12,554	\$41.382																											
	\$12,566,773	Federal	Supervision &	TO THE PERSON OF	3	2	\$25,926	\$45.911	\$31,617	\$103,454		Other	Costs	80	<b>S</b> 0	900	\$692	\$715	\$739	\$763	\$788	\$814	5841	8869	\$898	\$927	\$958	\$989	\$1,022	\$1.056	\$1,091	\$1,127	\$1.164	\$1.202	\$1 242	\$1.283	\$19,179
			Easements & I and Rinhts	9	•	0.00	\$17,500	\$23,243	0\$	\$40,743		OSM	Costs	0\$	<b>\$</b>	<b>\$</b>	\$279,331	\$391,030	\$298,071	\$417,264	\$426,453	\$445.258	\$339,408	\$475,130	\$362,178	\$634,494	\$386,476	\$541,020	\$412,405	\$577.317	\$590,031	\$616,049	\$469,596	\$657,379	\$501,101	\$9.002	\$8,828,994
	Total Fully Funded Costs		Engineering & Design	05	<b>.</b>	•		\$131,901		\$231,214	:	Monitoring	Costs	\$50,322	\$34,673	<b>%</b>	\$35,817	\$36,999	\$38,220	\$39,481	\$40,784	\$42,130	\$43,520	\$44,957	\$46,440	\$47,973	\$49,556	\$51,191	\$52,880	\$54,625	\$56,428	\$58,290	\$60,214	\$62,201	\$64,253	<b>%</b>	\$1,010,955
	w	i	Fiscal Year			0000	7000	2001	2002	TOTAL	i	risca	Year	2001	2002	ear	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
•	Fully Funded Costs	, ,	Inflation Factor			•	000 1	1.033	1.067				ractor	1.033	1.067	Base Year	1.102	1.139	1.176	1.215	1.255	1.297	1.339	1.384	1.429	1.476	1.525	1.575	1.627	1.681	1.737	1,794	1.853	1.914	1.977	2.043	
:	Fully Fu		Year	2	4		o (	7	-			2	rear	7	-	0	<del>-</del>	-5	ņ	7	ç.	φ	-7	ထု	ō.	-10	÷	-12	-13	-14	-15	-16	-17	-18	-19	-20	

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## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

## Lake Athanasio Oyster Reef Demo (BS-XX)

Project Construction Years:	en en	Total Project Years	9
Interest Rate	6 625%	Amortization Factor	0.0916595
Total First Costs	\$592,790	Total Fully Funded Costs	\$706,608
		• 4	
Annual Charges	Present Worth	Average	
	F C C C C		
interest & Amonization Monitoring	\$103.289	\$9.467 \$9.467	
O & M Costs	\$3,007	\$276	
Other Costs	\$1,659	\$152	
Total	\$715,000	\$65,537	
Average Annual Habitat Units		¥	
Cost Per Habitat Unit		NA NA	
Average Annual Acres of Emergent Marsh	£	AN.	

## Lake Athanasio Oyster Reef Demo (BS-XX)

First Costs and Annual Charges

	Total First	Cost	9	5	654 400	\$01,108 €16 308	\$10,300	3460,400																				i								
	First Cost	Construction	9	O <b>S</b>	<b>\$</b>	9	6376000	\$376,000																												
		Contingency	05	80	S	S	204 000	\$94,000																												
	Supervision	& Inspectio	\$0	<b>\$</b> 0	80	90	\$8.000	\$8,000																												
Coros	Project	Management	\$0	<b>\$</b> 0	\$628	\$628	\$628	\$1,884																												
LDNR	Supervision &	Administration	<b>2</b> 0	<b>%</b>	\$2.240	\$3,840	\$1,920	\$8,000																												
Federal	Supervision &	Administration	0\$	<b>%</b>	\$2,240	\$3,840	\$1,920	\$8,000	ë	Ciner	Costs	05	<b>\$</b>	<b>\$</b> 0	80	\$628	\$628	\$628	0\$	80	80	<b>S</b>	0\$	0\$	<b>\$</b> 0	<b>S</b>	0 <b>\$</b>	<b>S</b>	<b>\$</b> 0	\$0	\$0	80	80	80	<b>S</b>	\$1,884
	Easements	& Land Rights Administration	20	<b>%</b>	\$17,500	\$2,500	<b>S</b>	\$20,000		S S	Costs	<b>S</b>	<b>%</b>	<b>S</b>	<b>%</b>	<b>S</b>	<b>\$</b> 0	\$3,645	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b>	<b>\$</b> 0	\$0	80	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	<b>9</b> 0	\$0	\$0	80	80	\$0	\$0	\$3,645
	Engineering	& Design	) A	\$0	\$38,500	\$5,500	\$0	\$44,000	A chicken	MOIIIOM	Costs	\$13,397	\$21,651	\$21,651	<b>%</b>	\$21,651	\$21,651	<b>S</b>	<b>\$</b>	<b>\$</b>	<b>\$</b> 0	S S	<b>9</b>	Ş	<b>S</b>	<b>9</b>	<b>\$</b>	S S	Ş	<b>\$</b>	<b>\$</b>	\$0	\$0	\$0	\$0	\$100,000
		Lear			2000	2001	2002	TOTAL		P :	Year	2000	2001	2002	Base Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Ţ	700	5 Compound	o Compound	4 Compound	3 Compound	2 Compound	1 Compound				Year	3 Compound	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

All dates are in Federal Fiscal Years (October 1 to September 30)

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## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

## Lake Athanasio Oyster Reef Demo (BS-XX)

\$4.366 \$2.047 \$9,128 \$9,128 \$1.28 \$1	56 56 56 56 56 56 56 56 56 56 56 56 56 5	\$2.642 \$2.842 \$24.056 O&M Costs \$0 \$0 \$0 \$0 \$0 \$2 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$40,870 \$2.15. \$6,253 \$2.82.8 \$52,923 \$24.0  Monitoring O&M Costs Costs \$16,240 \$24,615 \$23,085 \$6,306 \$19,044 \$6,306	\$40,870 \$2.14. \$6,253 \$2.82.8 \$52,923 \$24.0  Monitoring O&M Costs Costs \$16,240 \$24,615 \$23,085 \$20,306 \$19,044 \$3.0
L	10.00.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$16,240 \$0 \$16,240 \$0 \$24,615 \$0 \$23,085 \$0 \$20,306 \$0 \$19,044 \$0 \$5	Year         Costs         Costs         Costs           2000         \$16.240         \$0           2001         \$24.615         \$0           2002         \$23,085         \$0           \$0         \$0         \$0           \$0         \$0         \$5           \$003         \$19,044         \$0         \$5           \$004         \$0         \$3.007         \$5
85 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>⇔</b>	<b>\$</b> 2	\$3.007	\$3.007 \$5
8000	<i></i>		00 00 00 00 00 00 00 00 00 00 00 00 00	
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<i></i>			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

## Lake Athanasio Oyster Reef Demo (BS-XX)

	Costs \$64,767		First Cost To	Construction Cost	O	0 <b>%</b>	<b>0\$</b>	O\$ .		\$401,225																			i.							
(22-22)	Amortized Costs			Contingency	A (	<b>97</b> (	ינא	<del>63</del>	\$100,306	\$100,306																										
2			Supervision	a IIIspectio	0,6	0.4	0,	S (	\$8,537	\$8,537																										
		Corps	Project	Wallayallall	9	000	200	\$649	0/98																											
		LDNR	Supervision & Administration	9	<b>3 5</b>	070 03	92.240	73.967	92,049	967'96																										
	\$706.508	Federal	Easements Supervision & Land Rights Administration	05	Ş	\$2 240	63.063	43.90/	\$2,043	95.50	Other	COSIS	<b>9</b>	80	OS S	\$695	\$715	\$739	80	S	\$0	80	80	\$0	80	<b>\$</b> 0	\$0	80	<b>9</b>	80	\$0	20	80	80	20	\$2,146
	Total Fully Funded Costs		Easements & Land Rights	S	O.S.	\$17.500	\$2.583	32,383	\$20.083		O Com	2000	OS	80	<b>S</b> 0	80	80	\$4,287	<b>\$</b>	<b>\$</b> 0	<b>\$</b>	\$0	\$0	\$0	<b>\$</b> 0	<b>\$</b>	<b>\$</b> 0	<b>%</b>	<b>%</b>	<b>\$</b> 0	\$0	\$0	\$0	80	\$0	\$4.287
	Total Fully Fi		Engineering & Design	<b>S</b>	80	\$38,500	\$5,682	200,5	\$44 182	Monitoring	Costs	\$13.397	\$22,365	\$23,103	80	\$23,866	\$24,653	<b>\$</b> 0	<b>\$</b> 0	<b>%</b>	<b>%</b>	<b>\$</b> 0	<b>\$</b> 0	\$0	<b>%</b>	<b>\$</b> 0	<b>%</b>	<b>%</b>	<b>9</b>	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	20	\$107,384
			Fiscat Year			2000	2001	2002	TOTAL	Ties of	Year	2000	2001	2002	9ar	2003	2004	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
	Fully Funded Costs	1	Inflation Factor			1 000	1.033	1.067	1	Inflation	Factor	1 000	1.033	1.067	Base Year	1.102	1.139	1,176	1.215	1.255	1.297	1.339 /	1.384	1.429	1.476	1.525	1.575	1.627	1.681	1.737	1.794	1.853	1.914	1.977	2.043	<b>—</b>
	Fully Fr		Year	S	4	က	7	-			Year	3	7	-	0	÷	-5	ώ	4	ι'n	φ	-7	æ	<b>o</b>	우 :	<u>-</u>	21-	-13	-14	-15	-16	-11	-18	-19	-50	

# Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

Project Construction Years:	2	Total Project Years	4
Interest Rate	6.625%	Amortization Factor	0.0916595
Total First Costs	\$1,101,210	Total Fully Funded Costs	\$1,194,494
Annual Charges	Present Worth	Average	
Interest & Amortization Monitoring O & M Costs Other Costs	\$1,164,567 \$66,799 \$9,070 \$2,601	\$106,744 \$6,123 \$831 \$238	
Total	\$1,243,000	\$113,936	
Average Annual Habitat Units		NA	
Cost Per Habital Unit		¥Z	
Average Annual Acres of Emergent Marsh	Aarsh	NA	

First Costs and Annual Charges

	Total First	Coet	İ	<b>3</b>	S	<b>S</b>	\$266 589	£807.059	\$1.074.547																		ì								
	First Cost	Construction	4	•	0.5	<b>%</b>	20	Sena oga	\$604,984																										
		Contingency	Ş	•	2	05	S S	\$151,246	\$151,246																										
	Supervision	& Inspection	OS	: 5	3	0,4	S S	\$18,750	\$18,750																										
Corps	Project	Management	80	9		9	\$628	\$628	\$1,256																										
LDNR	Supervision &	Administration	S	80		9 6	789°C¢	\$9,243	\$15,125																										
Federal	Supervision &	Administration	0 <b>5</b>	<b>%</b>	Ş	£ 4 4 3 0 E	607,416	\$23,107	\$37,812	Other	Costs	\$0	0,0	80	\$628	\$628	\$628	\$628	\$628	80	80	\$0	\$0	80	\$0	0 <b>\$</b>	\$0	80	80	80	80	\$0	80	80	\$3,140
		Land Aights	) *	<b>9</b>	9	675 000	000'5	20	\$75,000	08M	Costs	\$0	\$0	<b>\$</b> 0	\$3,645	\$0	\$3,645	80	\$3,645	\$0	\$0	80	80	80	80	20	\$0	\$0	80	80	80	\$0	80	\$0	\$10,935
	Engineering	1.	2	0 <b>\$</b>	<b>%</b>	\$170 374		00	\$170,374	Monitoring	Costs	\$25,924	<b>%</b>	<b>\$</b> 0	\$15,000	<b>\$</b> 0	\$15,000	<b>S</b>	\$15,000	<b>%</b>	<b>%</b>	<b>9</b> 0	<b>\$</b> 0	<b>%</b>	<b>%</b>	<b>9</b>	<b>%</b>	0\$	\$0	<b>%</b>	<b>%</b>	<b>\$</b> 0	\$0	\$0	\$70,924
	Fiscal	3				2000	2002	1007	IOIAL	Fiscal	Year	2000	2001	Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
ŗ	Year	S Composite	Dimodilio o	4 Compound	3 Compound	2 Compound	Compound	Dipodino :			Year	2 Compound	1 Compound	0 Base Year	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

### Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

Year         Compound         Fiscal         LDNR         Compound         First Coat         Title         Compound         First Coat         Total         Total         Compound         First Coat         Total         Total         Stand Rights         Administration												
Compound         Fiscal         Explainmenting         Suppression & Supervision		ŗ				Federal	LDNR	Corps				
5         1378         50	7697	Compound		Engineering & Design	Easements & Land Rights		Supervision & Administration	Project Management	Supervision & Inspection	Contingency	First Cost Construction	Total First Cost
1732   2000    5193.696   2865.267   516.718   56.887   5714   50   50   50   50   50   50   50   5	5 2	1.378	5	05	\$0		9	\$0	\$0	80	0\$	\$0
1212   2000   519366   585.267   5114   519.085   519.	4	1 293		05	\$0	\$0	\$0	\$0	\$0	<b>\$</b>	0 <b>\$</b>	\$0
1,137   2000   5193.696   585.267   516,718   56.687   5714   50   50   50   50   50   50   50   5	· (r)	1.212		<b>S</b>	\$0	\$0	<b>%</b>	0\$	<b>\$</b> 0	<b>\$</b> 0	O <b>\$</b>	80
1   1066   2001   \$10   \$60   \$245.084   \$10	~	1.137	2000	\$193,696	\$85,267		\$6,687	\$714	\$0	<b>%</b>	O <b>\$</b>	\$303,082
Total   \$193.096   \$85.267   \$41.356   \$16.543   \$19.92   \$161.266   \$845.064     Discount   Fiscal   Monitoring   O&M   Other     Rates   Year   Coasts	-	1.066	2001	0\$	0\$		\$9.855	\$670	\$19,992	\$161,266	\$645,064	\$861,486
Discount         Fiscal of a costs         Monitoring obt         Obter costs         Costs         Costs           2         1.37         2000         \$29.473         \$0         \$0           1         1.066         2001         \$0         \$0         \$0           1         1.066         2001         \$1.349         \$589           1         0.938         2002         \$1.406         \$3.419         \$589           2         0.840         2003         \$1.234         \$3.007         \$518           3         0.825         2004         \$1.234         \$3.007         \$518           4         0.774         2005         \$1.084         \$2.064         \$3.007           5         0.681         2006         \$1.084         \$2.045         \$4.96           5         0.681         2006         \$1.084         \$2.045         \$4.96           5         0.681         2006         \$1.084         \$2.045         \$4.96           5         0.681         2006         \$1.084         \$2.045         \$4.96           6         0.681         2007         \$1.084         \$2.045         \$4.96           6         0.681			1	\$193,696	\$85,267	\$41,356	\$16,543	\$1,384	\$19,992	\$161,266	\$645,064	\$1,164,567
Rates         Vear         Costs         Costs         Costs           2         1.137         2000         \$29.473         \$0         \$0           1         1.066         2.001         \$0         \$0         \$0           1         0.938         2.002         \$14.068         \$3.419         \$589           2         0.880         2.002         \$14.068         \$3.419         \$589           2         0.880         2.003         \$4.068         \$3.419         \$589           2         0.880         2.004         \$17.374         \$3.007         \$518           4         0.774         2.005         \$10.884         \$2.545         \$528           5         0.726         2.006         \$10.884         \$2.645         \$456           5         0.726         2.006         \$10.884         \$2.645         \$456           6         0.681         2.007         \$10         \$0         \$0           6         0.681         2.007         \$10         \$0         \$0           8         0.599         2.009         \$0         \$0         \$0           9         0.561         \$0         \$0 <t< td=""><td></td><td>Discount</td><td>Fiscal</td><td>Monitoring</td><td>08M</td><td>Other</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		Discount	Fiscal	Monitoring	08M	Other						
2         1.137         2000         \$29,473         \$0         \$0           1         1.066         2001         \$0         \$0         \$0           2         0.980         2002         \$14.068         \$3.419         \$589           2         0.880         2003         \$10.07         \$51.00         \$552           3         0.825         2004         \$12.344         \$3.407         \$558           4         0.774         2006         \$10.07         \$0         \$486           5         0.726         2006         \$10.084         \$2.545         \$486           6         0.681         2007         \$0         \$40         \$50           6         0.681         2007         \$0         \$40         \$50           7         0.599         2009         \$0         \$0         \$0           8         0.561         \$0         \$0         \$0         \$0           9         0.561         \$0         \$0         \$0         \$0           1         0.494         20.14         \$0         \$0         \$0         \$0           1         0.494         20.14         \$0         \$0 </td <td></td> <td>Rates</td> <td>Year</td> <td>Costs</td> <td>Costs</td> <td>Costs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		Rates	Year	Costs	Costs	Costs						
1,066         2001         \$0         \$0         \$0           Base Year         \$0         \$0         \$0         \$0           0,938         2003         \$14,068         \$3,419         \$589           0,825         2003         \$10,08         \$552           0,825         2004         \$12,374         \$5.007         \$589           0,825         2004         \$10,374         \$5.007         \$589           0,825         2004         \$10,374         \$5.007         \$588           0,74         2005         \$10         \$40         \$40           0,74         2006         \$10         \$40         \$50         \$40           0,639         2009         \$0         \$50         \$50         \$50         \$50           0,639         2009         \$0         \$0         \$50         \$0         \$50	- 1∼-	T.	2000	\$29,473	0\$	S,						
Base Year         \$0         \$0         \$0           0.938         2002         \$14.088         \$3.419         \$589           0.938         2003         \$10.374         \$5.99         \$6.952           0.855         2004         \$12.374         \$3.007         \$5.88           0.774         2005         \$10.884         \$2.645         \$4.86           0.726         2006         \$10.884         \$2.645         \$4.96           0.726         2006         \$10.884         \$2.645         \$4.96           0.726         2006         \$10.884         \$2.645         \$4.96           0.726         2006         \$10.884         \$2.645         \$4.96           0.638         2008         \$0         \$0         \$0           0.638         2009         \$0         \$0         \$0           0.638         2009         \$0         \$0         \$0           0.561         2014         \$0         \$0         \$0           0.6527         2014         \$0         \$0         \$0           0.653         2014         \$0         \$0         \$0           0.463         2014         \$0         \$0	-	1.066	2001	<b>\$</b> 0	<b>S</b>							
0 938         2002         \$14,068         \$3.419         \$569           0 880         2003         \$0         \$652         \$652           0 882         2004         \$13,74         \$3.007         \$563           0 774         2005         \$10,84         \$2.645         \$486           0 726         2006         \$10,884         \$2.645         \$486           0 726         2006         \$10,884         \$2.645         \$466           0 681         2007         \$0         \$0         \$0           0 638         2008         \$0         \$0         \$0           0 639         2009         \$0         \$0         \$0           0 639         2009         \$0         \$0         \$0           0 639         2010         \$0         \$0         \$0           0 639         2010         \$0         \$0         \$0           0 630         \$0         \$0         \$0         \$0           0 657         \$0         \$0         \$0         \$0           0 643         \$0         \$0         \$0         \$0           0 644         \$0         \$0         \$0         \$0	0	Base	Year	<b>S</b>	\$0							
0 880         2003         \$0         \$552           0 825         2004         \$12.374         \$3.007         \$518           0 774         2005         \$10.84         \$2.645         \$486           0 726         2006         \$10.884         \$2.645         \$486           0 638         2006         \$10.884         \$2.645         \$466           0 638         2008         \$0         \$0         \$0           0 638         2009         \$0         \$0         \$0           0 638         2009         \$0         \$0         \$0           0 638         2009         \$0         \$0         \$0           0 551         2010         \$0         \$0         \$0           0 561         2011         \$0         \$0         \$0           0 57         2014         \$0         \$0         \$0           0 407         2014         \$0         \$0         \$0           0 407         2016         \$0         \$0         \$0           0 38         2016         \$0         \$0         \$0           0 38         2018         \$0         \$0         \$0           0 39	7	0.938	2002	\$14,068	\$3,419	\$589						
0.825         2004         \$12,374         \$3.007         \$518           0.774         2005         \$10,884         \$2.645         \$486           0.726         2006         \$10,884         \$2.645         \$486           0.681         2007         \$0         \$0         \$0           0.681         2008         \$0         \$0         \$0           0.699         2009         \$0         \$0         \$0           0.507         2010         \$0         \$0         \$0           0.527         2011         \$0         \$0         \$0           0.494         2012         \$0         \$0         \$0           0.494         2013         \$0         \$0         \$0           0.494         2013         \$0         \$0         \$0           0.407         2014         \$0         \$0         \$0           0.407         2014         \$0         \$0         \$0           0.382         2016         \$0         \$0         \$0           0.386         2018         \$0         \$0         \$0           0.386         2018         \$0         \$0         \$0           0.386<	-5	0.880	2003	<b>%</b>	\$0							
0.774         2005         \$0         \$486           0.726         2006         \$10,884         \$2,645         \$486           0.631         2004         \$0         \$0         \$0           0.638         2008         \$0         \$0         \$0           0.599         2009         \$0         \$0         \$0           0.527         2010         \$0         \$0         \$0           0.494         2012         \$0         \$0         \$0           0.463         2013         \$0         \$0         \$0           0.463         2013         \$0         \$0         \$0           0.463         2013         \$0         \$0         \$0           0.463         2013         \$0         \$0         \$0           0.463         2013         \$0         \$0         \$0           0.463         2014         \$0         \$0         \$0           0.434         2014         \$0         \$0         \$0           0.385         2016         \$0         \$0         \$0           0.386         2017         \$0         \$0         \$0           0.396         2020         \$	ċ.	0.825	2004	\$12,374	\$3,007	\$518						
0.726         2006         \$10.884         \$2.645         \$456           0.681         2007         \$0         \$0         \$0           0.638         2008         \$0         \$0         \$0           0.599         2009         \$0         \$0         \$0           0.561         2010         \$0         \$0         \$0           0.542         2011         \$0         \$0         \$0           0.443         2012         \$0         \$0         \$0           0.443         2014         \$0         \$0         \$0           0.407         2015         \$0         \$0         \$0           0.382         2016         \$0         \$0         \$0           0.382         2017         \$0         \$0         \$0           0.356         2018         \$0         \$0         \$0           0.296         2020         \$0         \$0         \$0           0.277         2021         \$0         \$0         \$0	4	0.774	2005	\$0	\$0							
0.681         2007         \$0         \$0         \$0           0.638         2008         \$0         \$0         \$0           0.599         2009         \$0         \$0         \$0           0.561         2010         \$0         \$0         \$0           0.542         2011         \$0         \$0         \$0           0.494         2012         \$0         \$0         \$0           0.463         2013         \$0         \$0         \$0           0.404         2014         \$0         \$0         \$0           0.407         2014         \$0         \$0         \$0           0.382         2016         \$0         \$0         \$0           0.386         2017         \$0         \$0         \$0           0.356         2018         \$0         \$0         \$0           0.315         2019         \$0         \$0         \$0           0.277         2021         \$0         \$0         \$0	ċ	0.726	2006	\$10,884	\$2,645							
0 638         2 2008         \$0         \$0         \$0           0 599         2009         \$0         \$0         \$0           0 551         2010         \$0         \$0         \$0           0 527         2011         \$0         \$0         \$0           0 494         2012         \$0         \$0         \$0           0 463         2013         \$0         \$0         \$0           0 463         2014         \$0         \$0         \$0           0 407         2014         \$0         \$0         \$0           0 407         2015         \$0         \$0         \$0           0 382         2016         \$0         \$0         \$0           0 382         2016         \$0         \$0         \$0           0 382         2017         \$0         \$0         \$0           0 316         \$0         \$0         \$0         \$0           0 316         \$0         \$0         \$0         \$0           0 2020         \$0         \$0         \$0         \$0           0 204         \$0         \$0         \$0         \$0           0 207         \$0         \$	φ	0.681	2007	\$0	0\$							
0.599         2009         \$0         \$0           0.561         2010         \$0         \$0           0.527         2011         \$0         \$0           0.494         2012         \$0         \$0           0.463         2013         \$0         \$0           0.434         2014         \$0         \$0           0.407         2015         \$0         \$0           0.382         2016         \$0         \$0           0.382         2017         \$0         \$0           0.38         2017         \$0         \$0           0.38         2017         \$0         \$0           0.316         \$0         \$0         \$0           0.316         \$0         \$0         \$0           0.316         \$0         \$0         \$0           0.296         2020         \$0         \$0           0.296         2021         \$0         \$0           0.277         2021         \$0         \$0	-7	0.638	2008		\$0							
0.561         2010         \$0         \$0           0.527         2011         \$0         \$0           0.463         2012         \$0         \$0           0.463         2013         \$0         \$0           0.434         2014         \$0         \$0           0.407         2015         \$0         \$0           0.382         2016         \$0         \$0           0.388         2017         \$0         \$0           0.316         \$0         \$0         \$0           0.316         \$0         \$0         \$0           0.316         \$0         \$0         \$0           0.296         2020         \$0         \$0           0.277         2021         \$0         \$0	φ	0.599	2009		\$0							
0.527     2011     \$0     \$0       0.494     2012     \$0     \$0       0.463     2013     \$0     \$0       0.434     2014     \$0     \$0       0.407     2015     \$0     \$0       0.382     2016     \$0     \$0       0.358     2017     \$0     \$0       0.315     2018     \$0     \$0       0.316     2019     \$0     \$0       0.296     2020     \$0     \$0       0.277     2021     \$0     \$0	ė.	0.561	2010		0\$							
0.494     2012     \$0     \$0       0.463     2013     \$0     \$0       0.434     2014     \$0     \$0       0.407     2015     \$0     \$0       0.382     2016     \$0     \$0       0.358     2017     \$0     \$0       0.315     2018     \$0     \$0       0.315     2020     \$0     \$0       0.296     2020     \$0     \$0       0.277     2021     \$0     \$0	-10		2011		<b>\$</b> 0							
0.4632013\$0\$0\$00.4342014\$0\$0\$00.4072015\$0\$0\$00.3822016\$0\$0\$00.3582017\$0\$0\$00.362018\$0\$0\$00.3162019\$0\$0\$00.2772021\$0\$0\$0	-		2012		<b>\$</b> 0							
0.4342014\$0\$0\$00.4072015\$0\$0\$00.3822016\$0\$0\$00.3582017\$0\$0\$00.362018\$0\$0\$00.3152019\$0\$0\$00.2962020\$0\$0\$00.2772021\$0\$0\$0	-12		2013		<b>S</b>							
0.407     2015     \$0     \$0       0.382     2016     \$0     \$0       0.358     2017     \$0     \$0       0.36     2018     \$0     \$0       0.315     2019     \$0     \$0       0.296     2020     \$0     \$0       0.277     2021     \$0     \$0	-13		2014		<b>S</b>							
0.382     2016     \$0     \$0       0.358     2017     \$0     \$0       0.336     2018     \$0     \$0       0.315     2019     \$0     \$0       0.296     2020     \$0     \$0       0.277     2021     \$0     \$0	-14		2015		<b>S</b>							j
0.358     2017     \$0     \$0       0.336     2018     \$0     \$0       0.315     2019     \$0     \$0       0.296     2020     \$0     \$0       0.277     2021     \$0     \$0	-15		2016									
0.336     2018     \$0     \$0       0.315     2019     \$0     \$0       0.296     2020     \$0     \$0       0.277     2021     \$0     \$0	-16		2017									
0.315     2019     \$0     \$0       0.296     2020     \$0     \$0       0.277     2021     \$0     \$0	-17		2018									
0.296 2020 \$0 \$0 0.277 2021 \$0 \$0	-18		2019									
0.277 2021 \$0 \$0	-19		2020									
	-50		2021	<b>\$</b> 0								

									A		
Fully Fi	Fully Funded Costs	S.	Total Fully Funded Costs	inded Costs	\$1,194,494				Amortized Costs		\$109,487
	ì				Federal	DNR	o constant				
Year	Inflation	Fiscal	Engineering	Easements	Supervision &	Supervision &	Project	Supervision		First Cost	Total Firet
		בעקו	a Design	& Land Kights	Administration	Administration	Management	& Inspection	Contingency	Construction	Coet
, 4			9	05	<b>2</b> 0	<b>9</b> 0	80	\$0	\$0	9	
7			0.0	20	S S	\$0	80	80	S	9 6	9
, c	,	•		<b>2</b> 0	80	S <sub>0</sub>	\$0	9	<b>,</b>	9 6	9
7	1.000	2000	\$170,3	\$75,000	\$14,705	\$5.882	\$628	<b>9</b>	7 6	0.4	0 <b>5</b>
-	1.033	2001	<b>9</b>	\$0	\$23,870	\$9,548	\$649	\$19.469	4156 227	0\$ ,00	\$266,589
		TOTAL	\$170,374	\$75,000	\$38.575	\$15,430	\$1,277	\$19,369	\$156,237	\$624,948	\$1,101,210
	Inflation	Fiscal	Monitoring	O&M	Officer						
Year	Factor	Year	Costs	Costs	Costs						
5	1 000	2000	\$25,924	So	SO						
-	1.033	2001	<b>8</b> 0	80	Sos						
0	Base Year	Year	\$0	SO SO	S						
-	1.067	2002	\$16,006	\$3.890	8670						
?	1.102	2003	\$0	80	\$695						
ù	1.139	2004	\$17,080	\$4,150	\$715						
4	1.176	2005	\$0	80	\$739						
κċ	1.215	2006	\$18,226	\$4,429	\$763						
<b>တ</b>	1.255	2007	20	80	08						
-7	1.297	2008	\$0	80	S0 S0						
ထု	1 339	2009	\$0	80	SO SO						
<b>ဝ</b> ှ	1 384	2010	\$0	\$0	80						
-10	1.429	2011	<b>%</b>	<b>9</b>	80						
Ţ	1.476	2012	<b>%</b>	80	So						
-12	1.525	2013	<b>\$</b> 0	05	SO S						
-13	1.575	2014	<b>\$</b> 0	<b>\$</b> 0	05						
-14	1.627	2015	80	S	S 57						
-15	1.681	2016	\$0	S	9						
-16	1.737	2017	<b>9</b>	S	OS.						
-17	1.794	2018	\$0	0.5	S						
-18	1.853	2019	<b>9</b>	90	S						
-19	1.914	2020	80	S	S						
-50	1.977	2021	\$0	\$0	80						
		Total	\$77,237	\$12.469	\$3,579						

## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

# Periodic Introduction of Sediment and Nutrients at Selected Sites along the Mississippi River -(MR-XX)

Periodic			
Project Construction Years:	င	Total Project Years	#
Interest Rate	6.625%	Amortization Factor	0.0916595
Total First Costs	\$1,506,784	Total Fully Funded Costs	\$1,632,235

Annual Charges	Present Worth	Average
Interest & Amortization Monitoring O & M Costs Other Costs	\$1,571,397 \$114,380 \$0 \$1,659	\$144,034 \$10,484 \$0 \$152
Total	\$1,687,400	\$154,670
Average Annual Habitat Units		NA
Cost Per Habitaf Unit		¥ Z
Average Annual Acres of Emergent Marsh		NA

# Periodic Introduction of Sediment and Nutrients at Selected Sites along the Mississippi River -(MR-XX)

First Costs and Annual Charges

Total First	Cost	9	\$ \$		\$57,90 <del>4</del>	\$510,638	\$863,462																		ĵ.								
First Cost	Construction	90	9	•	00°	\$372,017	\$1 009 750																										
	& Inspection Contingency	<b>%</b>	\$0	Ş	\$03.004	C 150 425	\$252.440	•														•											
Supervision	& Inspection	<b>\$</b> 0	<b>%</b>	0\$	\$28 932	\$49 59R	\$78,530																										
Corps	Management	<b>%</b>	<b>%</b>	\$628	\$628	\$628	\$1,884																										
LDNR Supervision &	Administration	0.5	20	\$3,117	\$5,344	\$5,344	\$13,805									•																	
Federal Supervision &	I Dispiration	9		\$6,249	\$10,713	\$10,713	\$27,675	Š	Costs	S	<u>s</u>	S	\$628	\$628	\$628	S	0\$	OS.	0\$	0\$	<b>S</b>	<b>\$</b>	<b>S</b> 0	<b>S</b>	<b>S</b>	<b>S</b>	. <b>S</b>	80	90	<b>\$</b> 0	<b>S</b>	<b>9</b>	\$1,884
Easements & Land Richts			00000	\$10,540	<b>\$</b> 0	20	\$10,640	ORM	Costs	9	<b>S</b>	<b>\$</b>	\$0	\$0	0\$	80	\$0	\$0	\$0	\$0	\$0	\$0	<b>Ş</b>	<b>S</b>	<b>S</b>	\$0	\$0	\$0	\$0	<b>8</b> 0	80	<b>S</b>	\$0
Engineering & Desian	Ş	<b>.</b>	637 330	017,100	<b>2</b> 0	S	\$37,270	Monitoring	Costs	\$38,397	\$25,000	<b>S</b>	\$25,000	<b>\$</b>	\$25,000	80	\$0	<b>9</b>	<b>9</b>	<b>≎</b>	<b>\$</b>	<b>0\$</b>	\$0	\$0	S,	<b>\$</b> 0	<b>\$</b>	<b>%</b>	\$0	<b>9</b>	<b>\$</b> 0	<b>%</b>	\$113,397
Fiscal Year			0000	0007	2001	2002	TOTAL	Fiscal	Year	2001	2002	Base Year	2003	2004	2005	2006	2007	2008	5000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Year	5 Compound	4 Compound	3 Compound		z Compound	1 Compound			Year	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

# Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

# Periodic Introduction of Sediment and Nutrients at Selected Sites along the Mississippi River - (MR-XX)

	ii.	OGI FIISI	000	9 6	007 004	\$70,192	\$580,539	\$920,666	\$1,571,397																		i							
	i	First Cost	CORSUNCTION	9	3	0 <b>\$</b>	\$422,942	\$679,994	\$1,102,936																	•								
			& inspection Contingency	2	20	S,	\$105,735	\$169,998	\$275,734																									
		Supervision	& inspection	0\$	<b>0</b> \$	<b>9</b>	\$32,893	\$52.884	\$85,776																									
	Corps	Project	Management	20	<b>%</b>	\$761	\$714	\$670	\$2,145																									
	LDNR	Supervision &	Administration	<b>S</b>	<b>\$</b>	\$3,779	\$6,075	\$5,698	\$15,552																									
	Federal	Supervision &	Administration	20	S <sub>S</sub>	\$7,575	\$12,179	\$11,423	\$31,177	Other	Costs	<b>%</b>	<b>%</b>	05	\$589	\$552	\$518	0\$	<b>\$</b> 0	<b>9</b>	<b>0</b> 5	es :	0\$	05										S
		Easements	& Land Rights	0\$	<b>%</b>	\$12.898	S	80	\$12,898	08M	Costs	\$0	<b>%</b>	<b>\$</b>	<b>\$</b>	<b>%</b>	<b>%</b>	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	\$0	<b>\$</b>	<b>9</b>	0 <b>\$</b>	)	0\$	05	<b>%</b>	<b>%</b>	<b>S</b>				9
i Olai Olavania		Engineering	& Design	05	20	\$45 179		<b>S</b>	\$45,179	Monitoring	Costs	\$43,653	\$26,656	<b>.</b>	\$23,447	<b>S</b>	\$20,624	<b>S</b>	<b>%</b>	<b>\$</b>														5
		Fiscal	Year			2000	2003	2002	Total	Fiscal	Year	2001	2002	rear	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2000
Present valued Costs	1	Compound	Rates	1.378	1 293	1 212	1.212	1.137	1	Discount	Rates	1.137	1.066	Base Year	0.938	0.880	0.825	0.774	0.726	0.681	0.638	0.599	0.561	0.527	0.494	0.463	0.434	0.407	0.382	0.358	0.336	0.315	0.296	1100
_		٠		2	. 4		, c	7 -	-	٥	Year	in	-	0	Ţ	.5	ų.	7	κ̈́	မှ	-1	φ	တ်	-19	÷	-12	<del>.</del>	+	-15	-16	-14	-18	÷	8

Periodic Introduction of Sediment and Nutrients at Selected Sites along the Mississippi River -(MR-XX)

			otal runy runded costs	\$1,632,235			•	Amortized Costs	un.	£440 240
,										) ) )
Inflation	Fiscal	Fnaineering		rederal	LDNR	Corps				
Factor	Year		& Land Rights	Supervision & Administration	Supervision &	Project	Supervision		First Cost	Total First
		80	S	9	TOTAL STREET	Mariagement	& Inspection Contingency	Contingency	Construction	Cost
		<b>S</b>	0.5	9 6	9	0.5	<b>0</b>	<b>%</b>	05	\$0
1 000	2000	537.2	\$10.640	240	0.00	20	<b>%</b> 0	<b>%</b>	<b>%</b>	OS S
1.033	2001		9 6	90,249	93.11	2628	<b>%</b> 0	<b>%</b>	90	\$57 904
1 067	2002		0, 0	\$11,066	\$5.520	\$649	\$29,887	\$96,073	\$384,293	\$527.489
	TOTAL	\$37.2	\$10,640	\$28,747	\$5.702	\$1 947	\$52,925	\$170,132	\$680,529	\$921,390
logotion.		:	,			•	710'70 <b>¢</b>	\$200,206	\$1,064,822	\$1,506,784
Fastor	riscal S	Monitoring	OSM	Other						
ractor	Year	Costs	Costs	Costs						
1.033	2001	\$39,664	<b>S</b> 0	\$0						
1.067	2002	\$26,677	\$0	Ç.						
Base Year	Year	<b>8</b> 0	0\$	\$0						
1.102	2003	\$27,558	. <b>S</b> 0	\$692						
1.139	2004	80	90	\$715						
1.176	2005	\$29,406	80	\$739						
1.215	2006	<b>9</b>	<b>9</b> 0	80						
1 255	2007	<b>\$</b> 0	<b>9</b> 0	05						
1 297	2008	\$0	80	05						
1 339	2009	\$0	. OS	OS.						
1 384	2010	<b>\$</b> 0	80	OS.						
1 429	2011	<b>\$</b> 0	<b>S</b> 0	9						
1.476	2012	<b>\$</b> 0	0,5	S						
1 525	2013	<b>\$</b> 0	. <b>S</b>	Ş						
1 575	2014	20	05	<b>;</b>						
1.627	2015	0 <b>\$</b>	S S	<b>\$</b>					•	
1.681	2016	80	O.S	3 5						
1 737	2017	<b>%</b>	S	3						
1.794	2018	<b>S</b> 0	O <b>S</b>	<b>\$</b>						
1.853	2019	<b>\$</b>	<b>2</b> 0 <b>\$</b>	G G						
1.914	2020	<b>9</b>	<b>S</b>	05						
1.977	2021	80	OS	\$ 5						
2.043	2022	0\$	0 <b>%</b>	<b>9</b>						
	Total									

# Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

## Terrebonne Bay Shore Protection Demonstration · (XTE-XX)

	leffebonne bay snote riote	leffedomie DAY Shore Florechon Demonshanon - (ATE-XX)	
Project Construction Years:	2	Total Project Years	10
Interest Rate	6 625%	Amortization Factor	0.0916595
Total First Costs	\$678.503	Total Fully Funded Costs	\$1,060,774
		•	
Annual Chartee	Present Worth	Average	

Annual Charges		Average
Interest & Amortization Monitoring O & M Costs Other Costs	\$715,984 \$241,545 \$22,085 \$3,805	\$65,627 \$22,140 \$2,024 \$349
Total	\$983,400	\$90,140
Average Annual Habitat Units		Y Y
Cost Per Habitat Unit		A A
Average Annual Acres of Emergent Marsh		Y Y

## Terrebonne Bay Shore Protection Demonstration - (XTE-XX)

First Costs and Annual Charges

	6 Inspection Contingency Construction Cost		\$0		£140 ×		\$358,400																		i								
	- 1	3	05	<b>S</b>	\$628	\$628	\$1,256																		•								
LDNR Supervision & Administration	500000000000000000000000000000000000000		2	<b>9</b>	52.641	\$4,527	\$7,168																										
Federal Supervision & Administration	Ş	3 5	3 5	06	292.282	PC0.65	\$14,336	Other	Costs	50	<b>S</b>	3	\$628	\$628	\$628	\$628	\$628	\$628	\$628	\$628	05	g g	S S	9	S	S	OS	0.5	05	S	95	S 5	\$5.024
Easements & Land Rights		<b>S</b>	\$ \$		930.000	000	000,000	08M	Costs	\$0	. <b>S</b>	S	\$3,645	\$3.645	\$3,645	\$3.645	\$3.645	\$3,645	\$3.645	\$3,645	80	80	<b>%</b>	<b>9</b>	80	80	0\$	80	80	<b>\$</b> 0	<b>S</b>	. <b>.</b>	\$29,160
Engineering & Design	S	\$0	05	C110 840		C110 010		Monitoring	Costs	ļ	<b>9</b>	<b>\$</b> 0	\$63,000	<b>\$</b> 0	\$63,000	<b>S</b>	\$63,000	<b>\$</b>	S	\$63,000	S	<b>\$</b> 0	S	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	S S	S.	<b>9</b> 0	80	<b>%</b>	\$293,397
Fiscal Year				2000	2007	TOTAL		Fiscal	Year	2000	2001	Base Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Year	5 Compound	4 Compound	3 Compound	2 Compound	1 Compound				Year	2 Compound	1 Compound	0 Base	1 Discount	2 Discount	3 Discount	4 Discount	5 Discount	6 Discount	7 Discount	8 Discount	9 Discount	10 Discount	11 Discount	12 Discount	13 Discount	14 Discount	15 Discount	16 Discount	17 Discount	18 Discount	19 Discount	20 Discount	

## Coastal Wetlands Conservation and Restoration Plan Priority Project List IX

## Terrebonne Bay Shore Protection Demonstration - (XTE-XX)

)			Day Control							•	
					Federal	LDNR	Corps				
>	Compound	Fiscal	Engineering & Design	Easements A. I and Rinhis	Supervision & Administration	Supervision & Administration	Project Management	Supervision & Inspection	Supervision & Inspection Contingency	First Cost Construction	Total First Cost
3 4	1.378				9	<b>%</b>	0\$	0\$	\$0	0\$	0\$
4	1.293		9	05	<b>S</b>	<b>S</b>	<b>S</b> 0	<b>.</b>	<b>%</b>	<b>\$</b>	<b>S</b>
٠,	1 212		<b>S</b>	<b>9</b>	<b>S</b>	80	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>S</b>	<b>S</b>
~	1.137	2000	\$126.0	\$34,107	\$6,005	\$3,002	\$714	<b>S</b>	<b>%</b>	0 <b>\$</b>	\$169,840
. —	1.066	2001		0\$	\$9,654	\$4,827	\$670		\$95,536	\$362,144	\$546,143
	1	Total	\$126.0	\$34,107	\$15,659	\$7,829	\$1,384	\$53,313	\$95,536	\$382,144	\$715,984
	Discount	Fiscal	Monitoring	08M	Other						
Year	Rates	Year	Costs	Costs	Costs						
اما	1 137	2000		<b>%</b>	90						
_	1.066	2001	<b>%</b>	<b>%</b>	<b>S</b>						
0	Base Year	Year	<b>%</b>	\$0	<b>S</b>						
-	0.938	2002	\$59,086	\$3,419	\$583						
?	0.880	2003	<b>9</b>	\$3,206	\$552						
ė.	0.825	2004	\$51,971	\$3,007	\$518						
7	0.774	2005	\$0	\$2,820	\$486						
ċ	0.726	2006	\$45,714	\$2,645	\$456						
φ	0.681	2007	<b>S</b>	\$2,481	\$427						
.7	0.638	2008	<b>\$</b>	\$2,326	\$401						
æ	3 0.599	2009	\$37,711	\$2,182	\$376						
ō.	0 561	2010	\$0	<b>\$</b>	20						
-	0.527	2011	•		000						
÷	0.494	2012	<b>2</b> 0		<b>S</b>						
-12	2 0.463	2013	3 \$0		<b>S</b>						
-13	3 0.434	2014	\$0\$	<b>S</b>	90						
<del>-</del>	4 0.407	2015		<b>S</b>							í
-15	5 0.382	2016			20						
-16	6 0.358	2017									
-17	7 0.336	2018			0\$						
-18	8 0.315	2019			90						
÷	9 0.296	2020									
9	0 0.277	202	_		20	ایر					
						1.					

## Terrebonne Bay Shore Protection Demonstration - (XTE-XX)

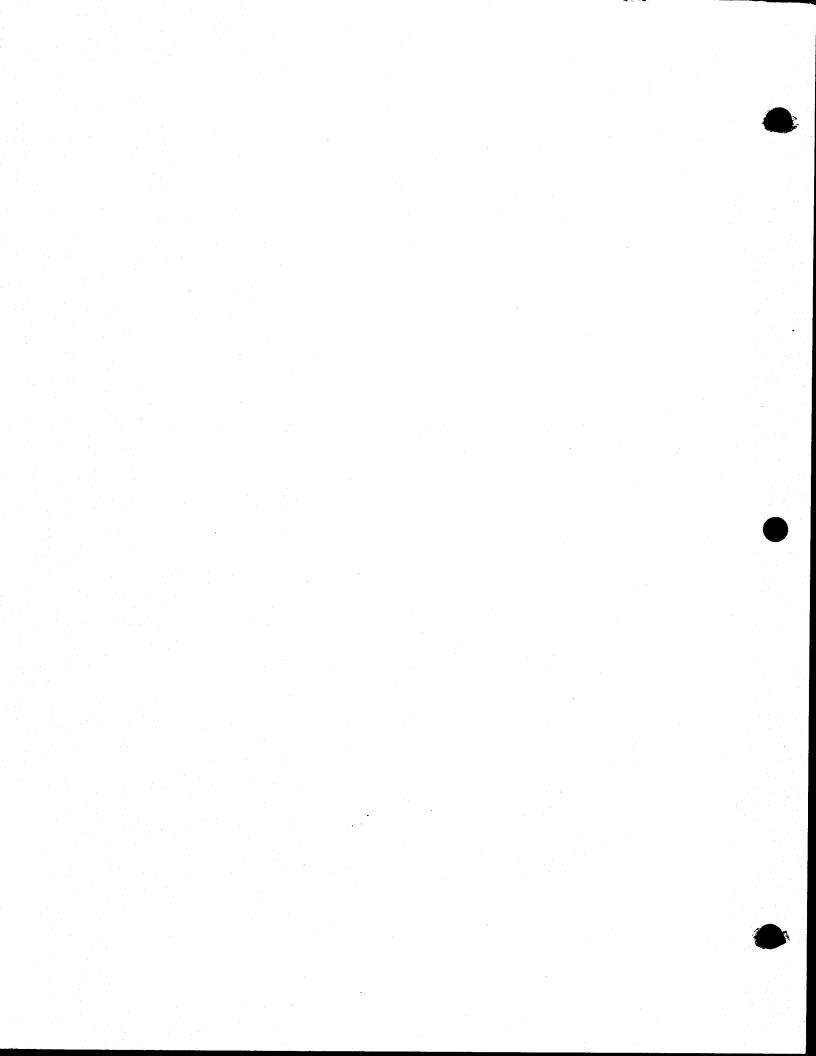
Fully	Fully Funded Costs	و	1000	(							
		2	I otal Fully Funded Costs	nded Costs	\$1,060,774				Amortized Costs	10	\$97,230
	;	1			Federal	LDNR	Corps				
Year	Inflation Factor	Fiscal Year	Engineering & Desion	Easements & Land Rights	Supervision &	Supervision &	Project	Supervision		First Cost	Total First
6				Sugar Sugar	TO I I I I I I I I I I I I I I I I I I I	Administration	Management	& Inspection Contingency	Contingency	Construction	Cost
•			06	20	<b>2</b> 0	S S	80	20	S	O <b>S</b>	9
<b>d</b>			20	S	<b>S</b>	S <sub>0</sub>	80	0\$	5	•	9
m			S S	So	So	9	5	•	•	0.00	2
7	1 000	2000	\$110,840	\$30,000	\$5.282	52 641	000	9 4	0.0	<b>9</b>	<b>9</b>
-	1.033	2001		Ş	<b>4</b> 0.202	92.04	3298	05	20	٥ <b>۶</b> ۲	\$149,391
		TOTA!	\$ 0110	000 003	20.00	170.46	2649	\$51,650	\$92,557	\$370,227	\$529,112
			0.020	930.000	514,635	57,317	\$1,277	\$51,650	\$92,557	\$370,227	\$678,503
	Inflation	Fiscal	Monitoring	O&M	Other						
Year	Factor	Year	Costs	Costs	Costs						
2	1 000	2000		S	So						
-	1.033	2001	20	80	S						
0	Base Year	Year	\$0	80	S <sub>O</sub>						
<del>-</del>	1.067	2002	\$67,227	\$3.890	\$670						
-5	1 102	2003	80	\$4.018	\$695						
ů	1,139	2004	\$71,737	\$4.150	5715						
7	1.176	2005	20	\$4.287	\$739						
လှ	1215	2006	\$76,550	\$4.429							
Ģ	1.255	2007	20	\$4.575							
-1	1.297	2008	80	\$4,726							
œρ	1.339	2009	\$84,381	\$4.882							
ο̈́	1.384	2010	\$0	80							
-10	1.429	2011	<b>\$</b>	80	So						
Ŧ	1 476	2012	<b>S</b>	\$0	OS.						
-12	1.525	2013	<b>S</b>	<b>S</b>	S						
-13	1 575	2014	<b>S</b>	<b>9</b>	S						
-14	1 627	2015	<b>S</b>	9	05						
÷.	1681	2016		900	S						
-16	1.737	2017	<b>S</b>	000	. S		,				
-11	1.794	2018		. <b>S</b>	S						
-18	1.853	2019	<b>%</b>	9	S						
-19	1.914	2020		OS.	os S						
-50	1.977	- 1		Sos	S						
		Total	\$341,291	\$34.957	\$6,023						

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

9<sup>th</sup> Priority Project List Report

Appendix E

Wetlands Value Assessment For Candidate Projects

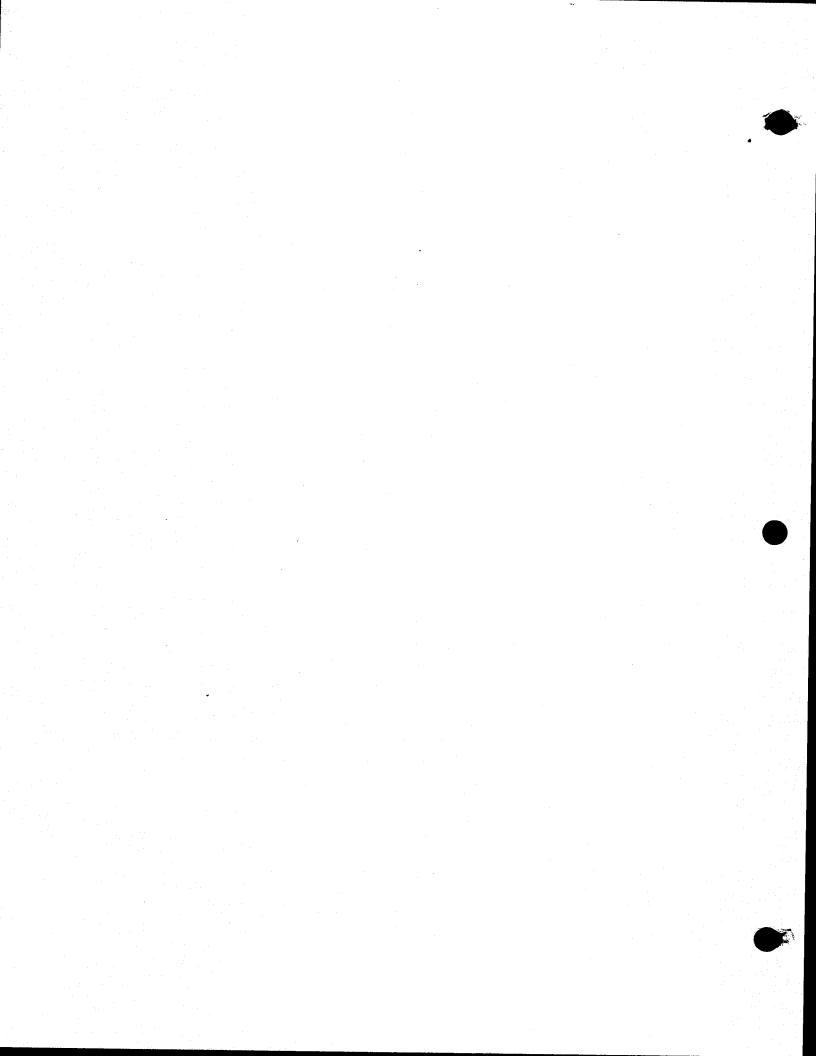


#### Appendix E

#### Wetlands Value Assessment For Candidate Projects

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#### WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: XPO-55a Opportunistic Use of the Bonnet Carre Spillway

The WVA analysis for this project includes 2 areas; Area 2 consists of brackish marsh and Area 3 consists of intermediate marsh. Total WVA benefits (AAHUs) for this project are as follows:

Area	AAHUs
2	69
3	52

TOTAL BENEFITS = 121 AAHUS

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: Opportunistic Use of the Bonnet Carre Spillway

Project Area:

6,171

Area 2

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	67	0.70	67	0.70	64	0.68
V2	% Aquatic	25	0.33	25	0.33	25	0.33
V3	Interspersion	%		%		%	
	Class 1	10	q.52	10	0.52	10	0.52
	Class 2	50	70-1)	50	0.02	50	0.52
	Class 3	20	4	20		20	
	Class 4	20		20		20	
	Class 5						
V4	%OW <= 1.5ft	40	0.61	40	0.61	40	0.61
V5	Salinity (ppt)	4	1.00	4 i	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HS	3	0.76	EM HSI =	0.76	EM HSI =	0.74
	Open Water HSI	22	0.55	OW HSI =	0.55	OW HSI =	0.56

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: Opportu

Opportunistic Use of the Bonnet Carre Spillway

Project Area:

6,171

Area 2

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	67	0.70	67	0.70	66	0.69
V2	% Aquatic	25	0.33	30	0.37	40	0.46
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 10 50 20 20	0.52	% 10 50 20 20	0.52	% 10 50 20 20	0. <b>52</b>
V4	%OW <= 1.5ft	40	0.61	40	0.61	40	0.61
V5	Salinity (ppt)	4	1.00	3	1.00	3	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh Open Water HSI	HSI =	0.76	EM HSI = OW HSI =	0.76	EM HSI = OW HSI =	0.76 0.65

AAHU CALCULATION - EMERGENT MARSH
Project: Opportunistic Use of the Bonnet Carre Spillway Area 2

Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	4155	0.76	3166.07	
1	4145	0.76	3158.45	3162.26
20	3968	0.74	2953.73	58055.88
		i		
		į		
			AAHUs =	3060.91

Future With	iture With Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	4155	0.76	3166.07	
1	4150	0.76	3162.26	3164.16
20	4060	0.76	3069.93	59204.14
	<u> </u>			
1	į.			
		1	AAHUs	3118.42

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	= 1	3118.42
B. Future Without Project Emergent Marsh AAHUs	=	3060.91
Net Change (FWP - FWOP) =		57.51

AAHU CALCULATION - OPEN WATER

Project: Opportunistic Use of the Bonnet Carre Spillway
Area 2

Future Without Project			Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	2016	0.55	1117.61		
1	2026	0.55	1123.15	1120.38	
20	2203	0.55	1221.27	22272.03	
			Ī		
			AAHUs =	1169.62	

Future With	uture With Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	2016	0.55	1117.61	
1	2021	0.59	1185.18	1151.37
20	2111	0.65	1364.14	24201.49
		i i	AAHUs	1267.64

NET CHANGE IN AAHUS DUE TO PROJECT		7
A. Future With Project Open Water AAHUs	=	1267.64
B. Future Without Project Open Water AAHUs	#	1169.62
Net Change (FWP - FWOP) =		98.02

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	57.51
B. Open Water Habitat Net AAHUs =	98.02
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	68.76

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Opportunistic Use of the Bonnet Carre Spillway

Area 3

Condition: Future Without Project

Project Area:

Fresh.....

Intermediate. 7,412

		TY 0		TY 1		TY 20	<del></del>
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	79	0.81	79	0.81	76	0.78
V2	% Aquatic	60	0.64	60	0.64	60	0.64
∨3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 20 50	0.62	% 30   20   50	0.62	% 30 20 50	0.62
V <b>4</b>	%OW <= 1.5ft	70	0.89	70	0.89	70	0.89
∨5	Salinity (ppt) fresh intermediate	2	1.00	2	1.00	2	1.00
∨6	Access Value fresh intermediat	0.72	0.78	0.72	0.78	0.72	0.78
	Emergent Marsh		0.81	EM HSI =	0.81	EM HSI =	0.79
	Open Water HSI	2	0.71	OW HSI =	0.71	OW HSI =	0.71

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Opportunistic Use of the Bonnet Carre Spillway

Area 3

Condition: Future With Project

Project Area:

Fresh.....

Intermediate. 7,412

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	79	0.81	79	0.81	77	0.79
V2	% Aquatic	60	0.64	65	0.69	75	0.78
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 20 50	0.62	% 30 20 50	0.62	% 30 20 50	0.62
V4	%OW <= 1.5ft	70	0.89	70	0.89	70	0.89
V5	Salinity (ppt) fresh intermediate	2	1.00	1	1.00	1	1.00
V6	Access Value fresh intermediat	0.72	0.78	0.72	0.78	0.72	0.78
	Emergent Marsh		0.81	EM HSI =	0.81	EM HSI =	0.79
	Open Water HS	=	0.71	OW HSI =	0.74	OW HSI =	0.79

Project: Opportunistic Use of the Bonnet Carre Spillway
Area 3

Future Witho	out Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	5828	0.81	4698.28	
1	5819	0.81	4691.03	4694.65
20	56 <b>5</b> 6	0.79	4461.09	86936.15
			AAHUs =	4581.54

Future With	Project	Ĩ	Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	5828	0.81	4698.28	
1	5824	0.81	4695.06	4696.67
20	5741	0.79	4561.54	87934.59
·	<del> </del>			
·			AAHUs	4631.56

NET CHANGE IN AAHUS DUE TO PROJECT	<del></del> 1	
A. Future With Project Emergent Marsh AAHUs	=	4631.56
B. Future Without Project Emergent Marsh AAHUs	= ]	4581.54
Net Change (FWP - FWOP) =		50.02

#### **AAHU CALCULATION - OPEN WATER**

Project: Opportunistic Use of the Bonnet Carre Spillway Area 3

uture Witho	out Project	Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs
0	1584	0.71	1121.60	
1	1593	0.71	1127.98	1124.79
20	1756	0.71	1243.40	22528.04
		·		
		:		
<del></del>		<del></del>		
<del></del>	<del></del>			
		<u> </u>	AAHUs =	1182 64

ture With	Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	1584	0.71	1121.60		
1	1588	0.74	1167.81	1144.69	
20	1671	0.79	1317.94	23600.56	
i					
1					
			AAHUs	1237.26	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	1237.26
B. Future Without Project Open Water AAHUs	=	1182.64
Net Change (FWP - FWOP) =		54.62

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	т
A. Emergent Marsh Habitat Net AAHUs =	50.02
B. Open Water Habitat Net AAHUs =	54.62
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	51.51

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Chandeleur Island Vegetation Planting

Project Area:

504

Condition: Future Without Project

		TY 0		TY 1		TY 10	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	6	0.15	6	0.15	4	0.14
V2	% Aquatic	0	0.30	5	0.34	10	0.37
V3	Interspersion	%		%		%	•
	Class 1	5	0.24	5	0.24	3	0.22
	Class 2	•	i				
	Class 3						
	Class 4	9 <b>5</b> i		95		97	
	Class 5						
V <b>4</b>	%OW <= 1.5ft	100	0.50	100	0.50	100	0.50
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HSI	=	0.33	EM HSI =	0.33	EM HSI =	0.31
	Open Water HSI	=	0.68	OW HSI =	0.70	OW HSI =	0.71

Project:

Chandeleur Island Vegetation Planting

% Emergent % Aquatic	Value 12 20	0.21 0.44	Value 44	0.50	Value 42	SI 0.48
% Aquatic			44	0.50	42	0.48
	20	0.441	1	,		
-4		<u> </u>	45	0.62	90	0.93
nterspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 11 89	0.29	% 43 57	0.54	% 41 59	0.53
OW <= 1.5ft	100	0.50	100	0.50	100	0.50
Salinity (ppt)	20	1.00	20	1.00	20	1.00
Access Value	1.00	1.00	1.00	1.00	1.00	1.00 <b>0.62</b>
<u> </u>	alinity (ppt)	alinity (ppt) 20	Access Value 1.00 1.00 EM HSI = 0.38	Access Value 1.00 1.00 20  EM HSI = 0.38 EM HSI =	Access Value 1.00 1.00 20 1.00 1.00 1.00 EM HSI = 0.38 EM HSI = 0.63	Access Value 1.00 1.00 20 1.00 20 1.00 20 1.00 Access Value 1.00 1.00 1.00 1.00 1.00 1.00 EM HSI = 0.63 EM HSI =

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Chandeleur Island Vegetation Planting

Project Area:

504

Condition: Future With Project

		TY 0		TY 1		TY 2	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	6	0.15	43	0.49	80	0.82
V2	% Aquatic	0	0.30	5	0.34	10	0.37
V3	Interspersion	%	;	%		%	
	Class 1 Class 2	5	0.24	42	0.54	79	0.83
	Class 4	95		58		21	
	Class 5						
V4	%OW <= 1.5ft	100	0.50	100	0.50	100	0.50
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HSI		0.33	EM HSI ≃	0.62	EM HSI =	0.87
	Open Water HSI	=	0.68	OW HSI ≈	0.72	OW HSI =	0.76

Project:

Chandeleur Island Vegetation Planting

FWP

	7	TY 11		TY 20			
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	88	0.89	86	0.87		
V2	% Aquatic	75	0.83	90	0.93		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 87 13	0.90	% 85 15	0.88	%	
V <b>4</b>	%OW <= 1.5ft	100	0.50	100	0.50		
V5	Salinity (ppt)	20	1.00	20	1.00		
V6	Access Value	1.00	1.00	1.00	1.00	EM HSI =	
		EM HSI =	0.92	EM HSI = OW HSI =	0.91	OW HSI =	

# AAHU CALCULATION - EMERGENT MARSH Project: Chandeleur Island Vegetation Planting

re Witho	ut Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	30	0.33	9.87	
1	29	0.33	9.54	9.70
10	20	0.31	6.20	70.59
11	60	0.38	22.96	14.10
15	220	0.63	138.87	297.15
20	213	0.62	131.40	675.60
			AAHUs =	53.36

Future With I	th Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	30	0.33	9.87	
1	217	0.62	135.43	63.45
2	404	0.87	353.00	236.43
11	446	0.92	412.35	3440.90
20	433	0.91	394.87	3632.25
			AAHUs	368.65

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	368.65
B. Future Without Project Emergent Marsh AAHUs =	53.36
Net Change (FWP - FWOP) =	315.29

## AAHU CALCULATION - OPEN WATER Project: Chandeleur Island Vegetation Planting

re Witho	ut Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	474	0.68	322.45		
1	475	0.70	331.52	326.99	
10	484	0.71	345.16	3044.88	
11	444	0.75	331.93	338.78	
15	284	0.83	235.24	1142.97	
20	291	0.91	265.40	1251.13	
			AAHUs =	305.24	

uture With I	ture With Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	474	0.68	322.45		
1	287	0.72	206.60	265.76	
2	100	0.76	75.82	142.40	
11	58	0.91	52.99	589.44	
20	71	0.94	66.61	537.72	
· · · · · · · · · · · · · · · · · · ·			AAHUs	76.77	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	76.77
B. Future Without Project Open Water AAHUs	=	305.24
Net Change (FWP - FWOP) =		-228.47

TOTAL BENEFITS IN AAHUS DUE TO PROJECT					
A. Emergent Marsh Habitat Net AAHUs =	315.29				
B. Open Water Habitat Net AAHUs =	-228.47				
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	194.46				

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: PME-7a Highway 82 Freshwater Introduction

The WVA for this project includes 4 areas. Total benefits (AAHUs) for this project are as follows:

Area	AAHUs
A1	283
A2	37
В	143
С	90

TOTAL BENEFITS = 553 AAHUS

### WEITLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Highway 82 Freshwater Introduction

Project Area:

6,016

Area A1

Condition: Future Without Project

	] [	TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	78	0.80	78	0.80	75	0.78
V2	% Aquatic	5	0.15	5	0.15	3	0.13
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20   80	0.68	% 20   80	0.68	% 20 80	0.68
V4	%OW <= 1.5ft	55	0.81	55	0.81	55	0.81
V5	Salinity (ppt)	15	0.25	15	0.25	15	0.25
V6	Access Value Emergent Marsh	1.00 HSI =	1.00	1.00 EM HSI =	1.00 <b>0.76</b>	1.00 EM HSI =	1.00 <b>0.74</b>
	Open Water HSI	=	0.37	OW HSI =	0.37	OW HSI =	0.35

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Highway 82 Freshwater Introduction

Project Area:

6.016

Area A1

Condition: Future With Project

·		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	<b>SI</b>
V1	% Emergent	78	0.80	78	0.80	76	0.78
V2	% Aquatic	5	0.15	10	0.19	15	0.24
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 80	0.68	% 20 80	0.68	% 20 80	0.68
V4	%OW <= 1.5ft	55	0.81	55	0.81	55	0.81
V5	Salinity (ppt)	15	0.25	11	0.85	11	0.85
V6	Access Value Emergent Marsh HS	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 0.82
	Open Water HSI	31 -	0.76	OW HSI =	0.83	OW HSI =	0.50

AAHU CALCULATION - EMERGENT MARSH
Project: Highway 82 Freshwater Introduction
Area A1

<b>Future Witho</b>	ire Without Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	4674	0.76	3550.82	
1	4667	0.76	3545.50	3548.16
20	4527	0.74	3361.89	65612.62
				i
			AAHUs =	3458.04

Future With	Project		Total	Cummulative
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	4674	0.76	3550.82	
1	4670	0.83	3859.11	3705.01
20	4585	0.82	3 <b>736.78</b>	72157.89
		<u> </u>	AAHUs	3793.14

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	3793.14
B. Future Without Project Emergent Marsh AAHUs	=	3458.04
Net Change (FWP - FWOP) =		335.11

### **AAHU CALCULATION - OPEN WATER**

Project: Highway 82 Freshwater Introduction Area A1

ture Witho	ut Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
Ō	1342	0.37	500.36		
1	1349	0.37	502.97	501.67	
20	1489	0.35	527.38	9796.65	
		!			
	·				
		il	AAHUs =	514.92	

ure With	Project	[	Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1342	0.37	500.36	
1	1346	0.46	619.54	559.89
20	1431	0.50	714.56	12663.43
			j	
	42//		<b>AAHUs</b>	661.17

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	661.17
B. Future Without Project Open Water AAHUs	=	514.92
Net Change (FWP - FWOP) =		146.25

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	335.11			
B. Open Water Habitat Net AAHUs =	146.25			
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	282.65			

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Highway 82 Freshwater Introduction

Project Area:

8,352

Area A2

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	84	0.86	84	0.86	81	0.83
V2	% Aquatic	5	0.34	5	0.34	4	0.33
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 60 40	0.84	% 60 40	0.84	% 60 40	0.84
V4	%OW <= 1.5ft	55	0.81	55	0.81	55	0.81
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
<u>V6</u>	Access Value Emergent Marsh HSI	1.00	1.00   0.90	1.00 EM HSI =	1.00 <b>0.90</b>	1.00 EM HSI =	1.00 0.88
	Open Water HSI	*	0.77	OW HSI =	0.77	OW HSI =	0.76

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Highway 82 Freshwater Introduction

Project Area:

8,352

Area A2

Condition: Future With Project

		TY 0	TY 0 TY 1 TY 2		TYO TY1 T		TY 0 TY 1 TY		Y 0 TY 1 TY 20			
Variable		Value	SI	Value	SI	Value	SI					
V1	% Emergent	84	0.86	84	0.86	82	0.84					
V2	% Aquatic	5	0.34	7	0.35	10	0.37					
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 60 40	0.84	% 60 40	0.84	% 60 40	0.84					
V4	%OW <= 1.5ft	55	0.81	55	0.81	55	0.81					
V5	Salinity (ppt)	20	1.00	17	1.00	17	1.00					
<u>∨6</u>	Access Value	1.00	1.00	1.00	1.00	1.00	1.00					
	Emergent Marsh H Open Water HSI	SI =	0.90	EM HSI = OW HSI =	0.90	EM HSI = OW HSI =	0.89 0.78					

### **AAHU CALCULATION - EMERGENT MARSH**

Project: Highway 82 Freshwater Introduction Area A2

iture Witho	out Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	7010	0.90	6285.25	
1	6999	0.90	6275.38	6280.31
20	6789	0.88	5975.49	116372.32
		1	AAHUs =	6132.63

Future With	Project	ij	Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	7010	0.90	6285.25	
1	7002	0.90	6278.07	6281.66
20	6862	0.89	6077.44	117372.54
	i			
			AAHUs	6182.71

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	6182.71
B. Future Without Project Emergent Marsh AAHUs =	6132.63
Net Change (FWP - FWOP) =	50.08

Project: Highway 82 Freshwater Introduction
Area A2

ture Witho	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1342	0.77	1026.83	
1	1353	0.77	1035.25	1031.04
20	1563	0.76	1190.58	21147.66
		<u> </u>	A A UI I = =	4400.04

1	AAHUs =	1108.94	ŧ

Future With Project			Total	Cummulative	
ŤΥ	Water Acres	x HSI	HUs	HUs	
0	1342	0.77	1026.83		
1	1350	0.77	1041.99	1034.40	
20	1490	0.78	1164.49	20957.32	
	-			· · · · · · · · · · · · · · · · · · ·	
			AAHUs	1099.59	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	3	1099.59
B. Future Without Project Open Water AAHUs	=	1108.94
Net Change (FWP - FWOP) =		-9.35

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	50.08			
B. Open Water Habitat Net AAHUs =	-9.35			
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	36.87			

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Highway 82 Freshwater Introduction

Area B

Fresh.....

Condition: Future Without Project

Project Area:

Intermediate. 2,970

		TY 0	1	TY 1	i	TY 20	
Variable	Vi	lue	SI	Value	SI	Value	SI
V1_	% Emergent	76	0.78	75	0.78	72	0.7
V2	% Aquatic	45	0.51	45	0.51	45	0.5
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 15 25 60	0.54	% 15 25 60	0.54	% 15 25 60	0.54
V4	%OW <= 1.5ft	70	0.89	70	0.89	70	0.89
∨5	Salinity (ppt) fresh intermediate	5!	0.80	5	0.80	5	0.80
∨6	Access Value fresh intermediat	0.13	0.30	0.13	0.30	0.13	0.30
	Emergent Marsh HS		0.67	EM HSI =	0.66	EM HSI =	0.66
	Open Water HSI	*	0.51	OW HSI =	0.51	OW HSI =	0.61

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Highway 82 Freshwater Introduction

Area B

Condition: Future With Project

Project Area:

Fresh.....

Intermediate. 2,970

		TY 0		TY 1		TY 3	
Variable		Value	SI	Value	\$I _	Value	SI
V1	% Emergent	78	0.78	76	0.78	76	0.78
V2	% Aquatic	45	0.51	60	0.64	70	0.73
V3	Interspersion	%		%		%	
	Class 1	15	0.54	15	0.54	15	0.54
	Class 2	25	1	25		25	
	Class 3	60		60		60	
	Class 4	i					
	Class 5						
V4	%OW <= 1.5R	70	0.89	70	0.89	70	0.89
V <b>5</b>	Salinity (ppt)		0.80		1.00		1.00
	intermediate	5		4		4	
V6	Access Value						
	fresh		0.30		0.40		0.40
	Intermediat	0.13		0.25		0.25	
	Emergent Marsi	n HSI =	0.67	EM HSI =	0.72	EM HSI =	0.72 0. <b>6</b> 7

Project: Highway 82 Freshwater Introduction

	Γ	TY 13		TY 20			
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	76	0.78	76	0.78		
V2	% Aquatic	70	0.73	70	0.73		
<b>V3</b>	Interspersion	%	i	%		%	
	Class 1 Class 2	15   30	0.55	15 30	0.55		
	Class 3 Class 4	55	1	55			
	Class 5		<del></del>				
V4	%OW <= 1.5ft	70	0.89	70	0.89		
V5	Salinity (ppt)		!				
	fresh intermediate	4	1.00	4	1.00		
V6	Access Value						
	fresh		0.40		0.40	9	
	intermediat	0.25   EM HSI =	0.72	0.25 EM HSI =	0.72	EM HSI =	
	, <del></del>	OW HSI =	0.87	OW HSI =	0.72	OW HSI =	

### AAHU CALCULATION - EMERGENT MARSH Project: Highway 82 Freshwater Introduction

Area B

uture Without Project		Without Project		Cummulative
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	2244	0.67	1500.01	
1	2239	0.66	1485.53	1492.76
20	2139	0.65	1387.13	27285.49
			AAUHA	1410 04

uture With Project			Total	Cummulative
TY	Mersh Acres	x HSI	HUs	HUs
0	2244	0.67	1500.01	
1	2251	0.72	1612.15	1556.02
3	2255	0.72	1615.02	3227.17
13	2262	0.72	1622.54	16187.79
20	2244	0.72	1609.63	11312.61
-				
			AAUIL	1614.18

NET CHANGE IN AAHUS DUE TO PROJECT	1
A. Future With Project Emergent Marsh AAHUs =	1614.18
B. Future Without Project Emergent Marsh AAHUs =	1438.91
Net Change (FWP - FWOP) =	178.27

Project: Highway 82 Freshwater Introduction
Area B

<b>Future Witho</b>	Vithout Project		Total	Cummulative
ΤΥ	Water Acres	x HSI	HUs	HUs
0	726	0.51	370.14	
1	731	0.51	372.69	371.41
20	831	0.51	423.67	7565.36
	······································			
	<del></del>			
			AAHUs =	396.84

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	726	0.51	370.14	
1	710	0.62	441.91	406.32
3	715	0.67	477.84	919.68
13	708	0.67	473.69	4757.68
20	726	0.67	485.73	3357.98
			AAHUs	472.08
		įŁ	AAHUS	472.08

NET CHANGE IN AAHUS DUE TO PROJECT		<u> </u>
A. Future With Project Open Water AAHUs	3	472.08
B. Future Without Project Open Water AAHUs	*	396.84
Net Change (FWP - FWOP) =		75.24

TOTAL BENEFITS IN AAHUS DUE TO PROJE	СТ
A. Emergent Marsh Habitat Net AAHUs =	175.27
B. Open Water Habitat Net AAHUs =	75.24
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	143.00

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Highway 82 Freshwater Introduction

Area C

Condition: Future Without Project

Project Area:

Fresh.....

Intermediate. 2,650

		TY 0		TY 1		TY 20	
Variable	<u> </u>	Value	SI	Value	SI	Value	SI
V1	% Emergent	72	0.75	72	0.75	64	0.68
V2	% Aquatic	35	0.42	35	0.42	35	0.42
<b>V3</b>	Interspersion	%		%		%	
	Class 1 Class 2	50	0.70	50	0.70	50	0.70
	Class 3	50	j	50		50	
	Class 4 Class 5						
V4	%OW <= 1.5ft	30	0.44	30	0.44	30	0.44
V5	Salinity (ppt)		İ	:	İ		
	fresh intermediate		0.80	_	0.80	-	0.80
	memediale	5		5	<del></del>	5	·
V6	Access Value		•			]	
	fresh		0.30		0.30		0.30
	intermediat	0.13   HSI =	0.00	0.13	A 44	0.13	0.64
	Emergent Marsh Open Water HSI		0.87	EM HSI =	0.67	EM HSI = OW HSI =	0. <b>63</b> 0.44

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Highway 82 Freshwater Introduction

Area C

Condition: Future With Project

Project Area:

Fresh.....

Intermediate. 2,650

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	72	0.75	72	0.75	67	0.70
V2	% Aquatic	35	0.42	40	0.46	40	0.46
<b>V3</b>	Interspersion	%		%		%	
	Class 1 Class 2	50	0.70	50	0.70	50	0.70
	Class 3	50		50		50	
<u>-</u>	Class 4 Class 5						
V4	%OW <= 1.5ft	30	0.44	30	0.44	30	0.44
V5	Salinity (ppt)						
	fresh intermediate	5	0.80	4	1.00	4	1.00
V6	Access Value						
	fresh intermediat	0.13	0.30	0.25	0.40	0.25	0.40
<del></del>	Emergent Marsi		0.67	EM HSI =	0.71	EM HSI =	0.69
	Open Water HS		0.44	OW HSI =	0.50	OW HSI =	0.50

Project: Highway 82 Freshwater Introduction
Area C

uture Witho	ut Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
Ō	1907	0.67	1270.58	
1	1896	0.67	1263.25	1266.92
20	1704	0.63	1066.47	22107.79
	<u> </u>		AAHUs =	1168.74

uture With Project			Total	Cummulative
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	1907	0.67	1270.58	
1	1900	0.71	1354.76	1312.73
20	1764	0.69	1211.20	24365.24
			AAHUs	1283.90

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	3	1283.90
B. Future Without Project Emergent Marsh AAHUs	2	1168.74
Net Change (FWP - FWOP) =		115.16

### **AAHU CALCULATION - OPEN WATER**

Project: Highway 82 Freshwater Introduction Area C

uture Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	743	0.44	327.77	
1	754	0.44	332.62	330.20
20	946	0.44	417.32	7124.50
			AAHUs =	372.73

Future With Project			Total	Cummulative
TY	Water Acres	x HS!	HUs	HUs
0	743	0.44	327.77	
1	750	0.50	377.87	352.75
20	886	0.50	446.39	7830.46
1				
		i	AAHUs	409.16

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	409.16
B. Future Without Project Open Water AAHUs =	372.73
Net Change (FWP - FWOP) =	36.43

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	115.16
B. Open Water Habitat Net AAHUs =	36.43
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	89.76

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: XPO-54a Southwest Lake Pontchartrain Sediment Trapping Project

The WVA for this project includes 3 areas. Open water benefits in Area B were subtracted from the total project benefits because those would occur only under future without-project conditions. Total benefits for this project are as follows:

Area	AAHUs
A	620
В	101
B-water	-27

TOTAL BENEFITS = 694 AAHUS

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: Southwest Lake Pontchartrain Sediment Trapping Project

Project Area:

2,032

Area A

Condition: Future Without Project

		TY 0		TY 1		TY 20	
<u>Variable</u>		Value	SI	Value	SI	Value	SI
V1	% Emergent	3	0.13	3	0.13	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2	%	0.20	%	0.20	%	0.10
	Class 3 Class 4 Class 5	100		100		100	
V4	%OW <= 1.5ft	22	0.38	22	0.38	22	0.38
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value Emergent Marsh H	1.00   Si =	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 0.25
	Open Water HSI	3	0.31	OW HSI =	0.31	OW HSI =	0.31

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: Southwest Lake Pontchartrain Sediment Trapping Project

Project Area:

2,032

Area A

Condition: Future With Project

		TY 0		TY 1		TY 3	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	3	0.13	8	0.17	29	0.36
V2	% Aquatic	0	0.10	10	0.19	30	0.37
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.20	% 5 95	0.21	% 25 75	0.25
V4	%OW <= 1.5ft	22	0.38	22	0.38	40	0.61
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh Open Water HSI	HSI =	0.29	EM HSI = OW HSI =	0.34	EM HSI = OW HSI =	0.49 0.57

Project: Southwest Lake Pontchartrain Sediment Trapping Project

		TY 8		TY 13		TY 18	
Variable	<u> </u>	Value	SI	Value	SI	Value	SI
V1	% Emergent	50	0.55	70	0.73	91	0.92
V2	% Aquatic	40	0.46	50	0.55	50	0.55
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	%  33   33   34	0.66	% 40 60	0.76	100	1.00
V4	%OW <= 1.5ft	55	0.81	65	0.94	75	1.00
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00   EM HSI =	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.95</b>
	· <del>=</del>	OW HSI =	0.67	OW HSI =	0.74	OW HSI =	0.77

Project: Southwest Lake Pontchartrain Sediment Trapping Project FWP

		TY 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	91	0.92				
V2	% Aquatic	50	0.55				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	%		%	
V4	%OW <= 1.5ft	75	1.00				
V5	Salinity (ppt)	4	1.00				
V6	Access Value	1.00 EM HSI =	1.00	EM HSI =		EM HSI =	
		OW HSI =	0.77	OW HSI =		OW HSI =	

### **AAHU CALCULATION - EMERGENT MARSH**

Project: Southwest Lake Pontchartrain Sediment Trapping Project Area A

<b>Future Witho</b>	out Project	Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs
0	71	0.29	20.76	
1	67	0.29	19.59	20.17
20	0	0.25	0.00	178.06
			AAHUs =	9.91

uture With	iture With Project		Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	71	0.29	20.76		
1	171	0.34	57.33	38.33	
3	590	0.49	291.51	326.66	
8	1009	0.68	682.03	2370.37	
13	1428	0.81	1151.11	4537.42	
18	1847	0.95	1756.63	7218.73	
20	1847	0.95	1756.63	3513.25	
		The state of the s	AAHUs	900.24	

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	900.24
B. Future Without Project Emergent Marsh AAHUs =	9.91
Net Change (FWP - FWOP) =	890.33

### **AAHU CALCULATION - OPEN WATER**

Project: Southwest Lake Pontchartrain Sediment Trapping Project Area A

ire Witho	out Project	Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs
0	1961	0.31	613.05	
1	1965	0.31	614.30	613.68
20	2032	0.31	620.20	11729.32
			!	···
			· · · · · · · · · · · · · · · · · · ·	
			-	
<del></del>			AAHUs =	617.15

uture With	Project	Total	Cummulative		
TY	Water Acres	x HSI	HUs	HUs	
0	1961	0.31	613.05		
1	1861	0.41	753.97	685.05	
3	1442	0.57	816.79	1593.29	
8	1023	0.67	686.60	3795.05	
13	604	0.74	448.80	2863.58	
18	185	0.77	141.63	1483.93	
20	185	0.77	141.63	283.26	

NET CHANGE IN AAHUS DUE TO PROJECT		ı L
A. Future With Project Open Water AAHUs	=	535.21
B. Future Without Project Open Water AAHUs	=	617.15
Net Change (FWP - FWOP) =		-81 94

AAHUs

535.21

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	890.33
B. Open Water Habitat Net AAHUs =	-81.94
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	620.25

#### **COMMUNITY HABITAT SUITABILITY MODEL**

Fresh Swamp

Project..... Southwest Lake Pontchartrain Sediment

Trapping Project - Area B
Condition: Future Without Project

Acres:

187

	7	TY 0		TY 1		TY 20	
Variable	<u> </u>	Class/Value	S!	Class/Value	SI	Class/Value	SI
V1	Stand Structure					1	
		% Cover		% Cover		% Cover	No
	Overstory	63	0.60	63	0.60	İ	swemp
	Scrub shrub	21		21		i	remainir
	Herbeceous	79	_	79			
V2	Maturity	Age		Age		Age	
	(input age	1		1			
	or	Cypress %		Cypress %		Cyprese %	}
	ļ	74		741		i	
	species	Cypress dbh		Cypress dbh 1		Cypress dbh	
	composition	18.4		18.4			
	and	Tupelo et al. %		Tupelo et al. %		Tupelo et al. %	
	dbk)	26		26			
	]	Tupelo et al dbh		Tupelo et al don		Tupelo et al doi:	i
		7.5	0.88	7.5	0.88		
		Class		Class		Class	
V3	Hyrology	4	1.00	4	1.00		
		Class		Class		Class	
V4	Forest Size	5	1.00	5	1.00		
	Surrounding	Values %		Values %		Values %	
V5	Land Use						
		,					
	Forest / marsh	100	1.00	100	1 00	· i	
	Abendoned Ag	į į				İ	
	Pasture / Hay	1					
	Active Ag				:		
	Development						
	Disturbance						
V6		Class		Class		Class	
	Туре	4	1 00	4;	1 00		
		Class		Class		Class	
	Distance	3		3			
		H\$I =	0.82	HSI -	0.82	HSI -	

#### **COMMUNITY HABITAT SUITABILITY MODEL** Fresh Swamp

Project...... Southwest Lake Pontchartrain Sediment

Trapping Project - Area B
Condition: Future With Project

Acres:

187

		TYO		TY1		TY 20	
Variable	i	Class/Value	51	Class/Value	SI	Class/Value	31
٧î	Stand Structure					:	
	į	% Cover		% Cover		% Cover	
	Overstory	63	0.60	63	0.60		0. <b>60</b>
	Scrub shrub	21		21		25	
	Herbeceous	79		80		80	
V2	Maturity	Age		Age		Age	
	(Imput ago			]		]	
	or	Cypress %		Cyprese %		Cypress %	
	1	74		74		75	
	species	Cyprees dbh		Cypress dbh		Cypress dbh	
	composition	18.4		18.4		21	
		Tupelo et al. %		Tupelo et al. %		Tupelo et al. %	
	dish)	26		26		25	
		Tupelo et el dbh	0.88	Tupelo et al doti	0.88	Tupelo et al dot	0.94
		Class	V.00	Clase	0.00	Class	0.54
V3	Hyrology	4	1.00	4	1.00	4	1.00
- 43	riyiongr	Clees	1.00	Clean		Class	
V4	Forest Size	5	1.00	5	1.00	5	1.00
	Surrounding	Values %		Values %		Values %	
V5	Land Use			1			
						!	
	Forest / marsh	100	1.00	100	1.00	100	1.00
	Abendoned Ag	1					
	Pasture / Hay						
	Active Ag						
	Development						
	Disturbance			1 -		<b>0</b> 1	
V6		Class	4.00	Class	4.00	Class	1.00
	Type	Cines	1.00	Ciess	1.00	Cleas	1.00
	Distance	3		3		3	
	Distance	HB =	0.82		0.82		0.84

# Project: Southwest Lake Pontchartrain Sediment Trapping Project - Area B

uture With P	roject		Total	Cummulative
TY	Acree	x HSI	HUs	HUs
0	187	0.82	153.45	
1	187	0.82	153.45	153.45
20	187	0.84	156.66	2946.03
	<del></del>			
	<del></del>			
			Total	
		Į.	CHUs =	3099.48
		j.	AAHUs =	184.97

Future Without Project				Cummulative
TY	Acres	х Н\$І	HUs	HUs
0	187	0.82	153.45	
1	178	0.82	146.06	149.76
20	. 0	0.00	0.00	925.07
	<del></del>	<del>i</del>		
	<del></del>			
<del></del>	<del></del>			
			Total	
			CHUs =	1074.83
		i	AAHUs .	

NET CHANGE IN AARU'S DUE TO PROJECT	
A. Future With Project AAHUs =	154.97
B. Future Without Project AAHUs =	53.74
Net Change (FWP - FWOP) =	101.23

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Southwest Lake Pontchartrain Sediment Trapping Project

Open Water - FWOP Benefits - Area B

Project Area: Fresh.....

Condition: Future Without Project

Intermediate.

187

		TY 0		TY 1		TY 20	
Variable		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	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		1.00	EM HSI =	0.97	EM HSI =	0.24
	Open Water HSI	=	0.29	OW HSI =	0.33	OW HSI =	0.26

#### **AAHU CALCULATION - OPEN WATER**

Project: Southwest Lake Pontchartrain Sediment Trapping Project Open Water - FWOP Benefits - Area B

<b>Future Witho</b>	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	0	0.29	0.00	
1	9	0.33	2.98	1.43
20	187	0.26	49.41	535.29
			AAHUs =	26.84

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: PTE-28 South Lake DeCade Freshwater Introduction

The WVA for this project includes 2 areas. Total benefits for this project are as follows:

_Area	AAHUs
Α	12
В	95

TOTAL BENEFITS = 107 AAHUS

## WEITLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

South Lake DeCade Freshwater Introduction

Project Area:

2.760

Area B

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	62	0.66	62	0.66	60	0.64
V2	% Aquatic	20	0.28	20	0.28	20	0.28
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4	35 30 35	0.67	% 35 30 35	0.67	% 35 30 35	0.67
V4	Class 5  **Cow <= 1.5ft	30	0.49	30	0.49	30	0.49
V <b>5</b>	Salinity (ppt)	6	1.00	6	1.00	5	1.00
V6	Access Value   Emergent Marsh HS	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.74</b>
	Open Water HSI	8	0.52	OW HSI =	0.52	OW HSI =	0.52

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

South Lake DeCade Freshwater Introduction

Project Area:

2.760

Area B

Condition: Future With Project

	7	TYO		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	62	0.66	62	0.66	60	0.64
V2	% Aquatic	20	0.28	20	0.28	30	0.37
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 35 30 35	0.67	% 35 30 35	0.67	% 35 30 35	0.67
V4	%OW <= 1.5ft	30	0.49	30	0.49	30	0.49
V5	Salinity (ppt)	6	1.00	5	1.00	5	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh I Open Water HSI	<u> </u>	0.75 0.52	EM HSI =	0.75	EM HSI =	0.74 0. <b>59</b>

### AAHU CALCULATION - EMERGENT MARSH Project: South Lake DeCade Freshwater Introduction

Project: Area B

ture Withou	out Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1714	0.75	1284.18	
1	1711	0.75	1281.93	1283.06
20	1653	0.74	1218.81	23754.89
		l i		
		i	AAHUs =	1251.90

uture With	ture With Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs_
0	1714	0.75	1284.18	
1	1712	0.75	1282.68	1283.43
20	1668	0.74	1229.87	23867.60
			AAHUs	1257.55

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	1257.55
B. Future Without Project Emergent Marsh AAHUs	=	1251.90
Net Change (FWP - FWOP) =		5.65

### **AAHU CALCULATION - OPEN WATER**

Project: South Lake DeCade Freshwater Introduction Area B

uture Witho	iture Without Project		Total	Cummulative
ΤΥ	Water Acres	x HSI	HUs	HUs
0	1046	0.52	546.07	
1	1049	0.52	547.64	546.86
20	1107	0.52	577.92	10692.78
			AAHUs =	561.98

ture With	ure With Project		Total	Cummulative
TY	Water Acres	x HSI	HUs :	HUs
0	1046	0.52	546.07	
1	1048	0.52	547.12	546.59
20	1092	0.59	642.11	11288.50
		i		
			AAHUs	591.75

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	591.75
B. Future Without Project Open Water AAHUs	=	561.98
Net Change (FWP - FWOP) =		29.77

TOTAL BENEFITS IN AAHUS DUE TO PROJECT			
A. Emergent Marsh Habitat Net AAHUs =	5. <b>65</b>		
B. Open Water Habitat Net AAHUs =	29.77		
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	12.35		

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: South Lake DeCade Freshwater Introduction

Area A

Area A

Condition: Future Without Project

Project Area: Fresh.....

Intermediate. 4,025

		TY 0		TY 1		TY 20	
<u>Variabie</u>	V	alue	SI	Value	SI	Value	SI
V1	% Emergent	67	0.70	67	0.70	61	0.65
V2	% Aquatic	70	0.73	70	0.73	65	0.69
V3	Interspersion	%		%		%	
	Class 1	40	0.70	40	0.70	35	0.67
	Class 2	30		30	į	30	
	Class 3	30	İ	30	ì	35	
	Class 4	:	!	1	1	1	
	Class 5						
V4	%OW <= 1.5ft	55	0.72	55	0.72	55	0.72
V5	Salinity (ppt)		:	1		1	
	fresh		0.90		0.90		1.00
	intermediate	4.5		4.5		3.5	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediat	1.00		1.00		1.00	
	Emergent Marsh HS	3	0.76	EM HSI =	0.76	EM HSI =	0.73
	Open Water HSI	=	0.79	OW HSI =	0.79	OW HSI =	0.76

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: South Lake DeCade Freshwater Introduction

Area A

Condition: Future With Project

Project Area:

Fresh.....

Intermediate. 4,025

		TY 0		TY 1		TY 20	- C.
Variable		Value	ŠI	Value	SI	Value	SI
V1	% Emergent	67	0.70	67	0.70	65	0.69
V2	% Aquatic	70	0.73	75	0.78	90	0.91
V3	Interspersion	%		%		%	
	Class 1 Class 2	40 30	0.70	40 30	0.70	40 30	0.70
	Class 3 Class 4 Class 5	30		30		30	
V4	%OW <= 1.5ft	55	0.72	55	0.72	60	0.78
V5	Salinity (ppt) fresh intermediate	4.5	0.90	3.5	1.00	3	1.00
∨6	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsi	n HSI =	0.76	EM HSI =	0.77	EM HSI =	0.76
	Open Water HS		0.79	OW HSI =	0.82	OW HSI =	0.91

#### AAHU CALCULATION - EMERGENT MARSH

Project: South Lake DeCade Freshwater Introduction Area A

Future Without Project		ĺ	Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	2716	0.76	2057.73	
1	2709	0.76	2052.42	2055.07
20	2447	0.73	1781.53	36398.02
	<u> </u>			
<del>-</del>				
	!			
			AAHUa =	1922.65

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	2716	0.76	2057.73	
1	2712	0.77	2084.83	2071.29
20	2633	0.76	1991.45	38721.57
				i
1				
ļ			· · · · · · · · · · · · · · · · · · ·	
				i
		i	AAHUs	2039.64

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	Ξ	2039.64
B. Future Without Project Emergent Marsh AAHUs	=	1922.65
Net Change (FWP - FWOP) =		116.99

AAHU CALCULATION - OPEN WATER

Project: South Lake DeCade Freshwater Introduction South Lake DeCade Freshwater Introduction Area A

Future Witho	ut Project	Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs
0	1309	0.79	1028.89	
1	1316	0.79	1034.39	1031.64
20	1578	0.76	1203.34	21277.93
	<del>-</del>			
<u> </u>			AAHUs =	1115.48

Future With	Future With Project		Total	Cummulative
ΤΥ	Water Acres	x HSI	HUs	HUs
0	1309	0.79	1028.89	
1	1313	0.82	1078.77	1053.81
20	1392	0.91	1263.93	22234.04
				:
			AAHUs	1164.39

NET CHANGE IN AAHUS DUE TO PROJECT		1
A. Future With Project Open Water AAHUs	=	1164.39
B. Future Without Project Open Water AAHUs	=	1115.48
Net Change (FWP - FWOP) =		48.91

TOTAL BENEFITS IN AAHUS DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	116.99
B. Open Water Habitat Net AAHUs	=	48.91
Net Benefits=(2.1xEMAAHUs+OWAAHU	/s)/3.1	95.03

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: XTV-30 Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration

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

Area	AAHUs	
1	18	
2	81	
3	17	

TOTAL BENEFITS = 116 AAHUS

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration

Project Area:

Fresh.....

Condition: Future Without Project

Intermediate.

105

	7 (2	TY 0		TY 1		TY 20	
Variable		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	10	0.21
V5	Salinity (ppt) fresh intermediate	3	1.00	3	1.00	2	1.00
V6	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsi		1.00	EM HSI =	0.97	EM HSI =	0.24
	Open Water HS		0.29	OW HSI =	0.33	OW HSI =	0.2

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/intermediate Marsh

Project:

Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration

Project Area:

Area 1

Condition: Future With Project

Fresh.....

Intermediate. 105

		TY 0		TY 1		TY 20	
<u>Variable</u>		Value	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	98	0.98	53	0.58
V2	% Aquatic		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	% 50 50	0.60
V4	%OW <= 1.5ft	0	0.10	100	0.60	40	0.55
V5	Salinity (ppt) fresh intermediate	3	1.00	3	1.00	2	1.00
V6	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsi Open Water HS	n HSI =	1.00 0.29	EM HSI = OW HSI =	0.99	EM HSI = OW HSI =	0.67 0.30

## AAHU CALCULATION - EMERGENT MARSH

Project: Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration Area 1

Future Witho	out Project		Total	Cummulative
ΪΥ	Marsh Acres	x HSI	HUs	HUs
0	105	1.00	105.00	
1	100	0.97	97.07	101.01
20	0	0.24	0.00	689.65
				<del></del>
			AAHUs =	39.53

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	105	1.00	105.00	
1	103	0.99	101.80	103.39
20	56	0.67	37 50	1275.88
			i	
			AAHUs	68.96

NET CHANGE IN AAHUS DUE TO PROJECT	7
A. Future With Project Emergent Marsh AAHUs =	68.96
B. Future Without Project Emergent Marsh AAHUs =	39.53
Net Change (FWP - FWOP) =	29.43

AAHU CALCULATION - OPEN WATER

Project: Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration Area 1

Future Witho	ut Project Water Acres		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	0	0.29	0.00	
1	5	0.33	1.65	0.80
20	105	0.24	24.73	280.86
			AAHUs =	14.08

Future With	Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	0	0.29	0.00		
1	2	0.33	0.66	0.32	
20	49	0.30	14.58	149.77	
	1				
, i					
·			AAHUs	7.50	

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	7.50
B. Future Without Project Open Water AAHUs =	14.08
Net Change (FWP - FWOP) =	-6.58

TOTAL BENEFITS IN AAHUS DUE TO PROJE	CT .
A. Emergent Marsh Habitat Net AAHUs =	29.43
B. Open Water Habitat Net AAHUs =	-6.58
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	17.81

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration

Project Area:

2,194

Area 2

Condition: Future Without Project

		TY 0		TY 1		TY 20	
<u>Variable</u>		Value	SI	Value	SI	Value	SI
V1	% Emergent	3	0.13	3	0.13	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2 Class 3	%	0.20	%	0.20	%	0.10
	Class 4 Class 5	100		100		100	
V4	%OW <= 1.5ft	5	0.16	5	0.16	8	0.20
V5	Salinity (ppt)	4	1.00	4	1.00	3	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
į	Emergent Marsh HS Open Water HSI	<u> </u>	0.29	EM HSI = OW HSI =	0.29	EM HSI = OW HSI =	0.25

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration

Project Area:

2,194

Area 2

Condition: Future With Project

		TY 0		TY 1		TY 2	
Variable		Value	<u>\$1</u>	Value	SI	Value	SI
V1	% Emergent	3	0.13	5	0.15	5	0.15
V2	% Aquatic	0	0.10	0	0.10	5	0.15
V3	Interspersion Class 1 Class 2 Class 3 Class 4	% 100	0.20	% 10 90	0.22	% 10 90	0.22
V4	Class 5 %OW <= 1.5ft	5	0.16	5	0,16	8	0.20
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh Open Water HSI	HSI =	0.29	EM HSI = OW HSI =	0.31	EM HSI = OW HSI =	0.31 0.35

Project: Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration

<u>NP</u>	_						
	7	TY 9		TY 10		TY 20	
Variable	<u> </u>	Value	SI	Value	SI	Value	SI
V1	% Emergent	4	0.14	5	0.15	8	0.17
V2	% Aquatic	10	0.19	10	0.19	25	0.33
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 10 90	0.22	% 10 90	0.22	% 15 85	0.23
V4	%OW <= 1.5ft	15	0.29	16	0.31	32	0.51
V5	Salinity (ppt)	4	1.00	4	1.00	3	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	( <u></u>	EM HSI =	0.30	EM HSI =	0.31	EM HSI =	0.34
		OW HSI =	0.40	OW HSI =	0.40	OW HSI =	0.53

## **AAHU CALCULATION - EMERGENT MARSH**

Project: Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration Area 2

uture Witho	hout Project Total	thout Project Total Cummulative			
ΤΥ	Marsh Acres	x HSI	HUs	HUs	
0	70	0.29	20.47		
1	67	0.29	19.59	20.03	
20	0	0.25	0.00	178.06	
				7	
			AAHUs =	9.90	

ture With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	70	0.29	20.47	
1	110	0.31	34.28	27.24
2	106	0.31	33.04	33.66
9	82	0.30	24.86	202.40
10	99	0.31	30.85	27.83
20	167	0.34	56.36	433.14
-			AAHUs	36.21

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	36.21
B. Future Without Project Emergent Marsh AAHUs =	9.90
Net Change (FWP - FWOP) =	26.31

AAHU CALCULATION - OPEN WATER

Project: Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration Area 2

Future With	out Project	ut Project		Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	2124	0.30	629.61		
1	2127	0.30	630.50	630.06	
20	2194	0.29	640.38	12074.37	
	<u> </u>		AAHUs =	635,22	

Future With Project			Total	Cummulative
TY	Water Acres	x H\$I	HUs	HUs
0	2124	0.30	629.61	
1	2084	0.30	620.84	625.24
2	2088	0.35	729.88	675.33
9	2112	0.40	843.14	5504.19
10	2095	0.40	838.35	840.75
20	2027	0.53	1064.71	9529.52
		:		
	<u></u>			
		į	AAHUs	868.76

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	858.75
B. Future Without Project Open Water AAHUs	=	635.22
Net Change (FWP - FWOP) =		223.53

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	26.31			
B. Open Water Habitat Net AAHUs =	223.53			
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	81.09			

## WEITLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration

Project Area:

349

Area 3

Condition: Future Without Project

	7 [	TY 0		TY 1		TY 20	
Variable	<u> </u>	Value	SI	Value	SI	Value	SI
V1	% Emergent	13	0.22	12	0.21	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2	%	0.20	%	0.20	%	0.10
	Class 3 Class 4 Class 5	100		100		100	
V4	%OW <= 1.5ft	95	0.70	95	0.70	95	0.70
V5	Salinity (ppt)	4	1.00	4	1.00	3	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh Open Water HSI	HSI =	0.37	EM HSI = OW HSI =	0.37	EM HSI =	0.25 0.33

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration

Project Area:

349

Area 3

Condition: Future With Project

		TY 0		TY 1		TY 2	
Variable	V	alue	SI	Value	SI	Value	SI
V1	% Emergent	13	0.22	15	0.24	14	0.23
V2	% Aquatic	0	0.10	- 0	0.10	5	0.15
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.20	% 20 80	0.24	% 20 80	0.24
V4	%OW <= 1.5ft	95	0.70	95	0.70	95	0.70
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HSI	-	0.37	EM HSI =	0.39	EM HSI =	0.39
	Open Water HSI	8	0.34	OW HSI =	0.34	OW HSI =	0.39

Project: Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration

		TY 9		TY 10		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	11	0.20	12	0.21	30	0.37
V2	% Aquatic	10	0.19	10	0.19	15	0.24
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 80	0.24	20 80	0.24	% 40 60	0.28
V4	%OW <= 1.5ft	95	0.70	95	0.70	95	0.70
V5	Salinity (ppt)	4	1.00	4	1.00	3	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		EM HSI =	0.36	EM HSI =	0.37	EM HSI =	0.50 0.47

## **AAHU CALCULATION - EMERGENT MARSH**

**Project:** Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration Area 3

ure Witho	Without Project		Total	Cummulative	
ΤΥ	Marsh Acres	x HSI	HUs	HUs	
0	44	0.37	16.43		
1	42	0.37	15.36	15.89	
20	0	0.25	0.00	131.15	
				· · · · · · · · · · · · · · · · · · ·	
			AAHUs =	7.35	

Future With	Project		Total	Cummulative
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	44	0.37	16.43	
1	51	0.39	20.05	18.22
2	50	0.39	19.28	19.66
9	39	0.36	14.13	116.64
10	43	0.37	15.92	15.02
20	104	0.50	52.44	328.16
· · · · · · · · · · · · · · · · · · ·			AAUIla	24.89

NET CHANGE IN AAHUS DUE TO PROJECT		l
A. Future With Project Emergent Marsh AAHUs	=	24.89
B. Future Without Project Emergent Marsh AAHUs	=	7.35
Net Change (FWP - FWOP) =		17.53

AAHU CALCULATION - OPEN WATER

Project: Four-Mile Cut/Little Vermilion Bay Hydrologic Restoration Area 3

ure Without Project		e Without Project		Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	305	0.34	102.51		
1	307	0.34	103.19	102.85	
20	349	0.33	114.72	2071.06	
		:	ļ		
<del>_</del>	<del></del>		AAHUs =	108.70	

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	305	0.34	102.51	
1	298	0.34	101.04	101.78
2	299	0.39	115.97	108.50
9	310	0.43	133.56	872.82
10	306	0.43	131.84	132.70
20	245	0.47	115.85	1242.75
		!		
	i		AAHUs	122.93

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	122.93
B. Future Without Project Open Water AAHUs =	108.70
Net Change (FWP - FWOP) =	14.23

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	17.53
B. Open Water Habitat Net AAHUs =	14.23
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	16.62

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

**Castille Pass Sediment Delivery** 

Project Area:

Fresh.....

5,051 Intermediate..

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10	0.2	0.10	3	0.13
V2	% Aquatic	1	0.11	1	0.11	3	0.13
<b>V3</b>	Interspersion Class 1 Class 2 Class 3	%	0.10	<b>%</b>	0.20	%	0.20
	Class 4 Class 5	100		100		100	
V4	%OW <= 1.5ft	2	0.12	2	0.12	6	0.17
∨5	Salinity (ppt) fresh intermediate	3	0.60	31	0. <b>60</b>	3	0. <b>60</b>
V6	Access Value fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh		0.19	EM HSI =	0.20	EM HSI =	0.23
	Open Water HS		0.21	OW HSI =	0.22	OW HSI =	0.24

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Castille Pass Sediment Delivery

Project Area:

Fresh.....

5,051

Condition: Future With Project

Intermediate.

·		TY 0		TY 1		TY 3	
Variable		Value	SI	Value	SI	Value	ŚI
V1	% Emergent	0	0.10	1	0.11	4	0.14
V2	% Aquatic	1	0.11	3	0.13	4	0.14
V3	Interspersion Class 1 Class 2 Class 3 Class 4	%	0.10	100	0.20	100	0.20
	Class 5	100		100			
V4	%OW <= 1.5ft	2	0.12	6	0.17	8	0.18
V5	Salinity (ppt) fresh intermediate	3	0.60	2.5	0.80	2.5	0.80
V6	Access Value fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsi	1 HSI =	0.19	EM HSI =	0.23	EM HSI =	0.26
	Open Water HS		0.21	OW HSI =	0.25	OW HSI =	0.20

Project: Castille Pass Sediment Delivery

		TY 6		TY 9		TY 11	
/ariable		Value	SI	Value	SI	Value	SI
V1	% Emergent	6	0.15	8	0.17	9	0.18
V2	% Aquatic	7	0.16	8	0.17	11	0.20
V3	Interspersion	%		%		%	
	Class 1 Class 2 Class 3	6	0.25	8	0.26	9	0.27
	Class 5 Class 5	94		92		91	
V4	%OW <= 1.5ft	14	0.26	16	0.28	22	0.3
∨5	Salinity (ppt) fresh intermediate	2.5	0.80	2.5	0.80	2.5	0.80
∨6	Access Value   fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
	memedata	EM HSI =	0.28	EM HSI =	0.30	EM HSI =	0.31
		OW HSI =	0.30	OW HSI =	0.31	OW HSI =	0.34

Project: Castille Pass Sediment Delivery

WP.	m						
		TY 14		TY 16		TY 19	
Variable	<u> </u>	Value	SI	Value	SI	Value	SI
V1	% Emergent	11	0.20	12	0.21	14	0.2
V2	% Aquatic	13	0.22	15	0.24	17	0.2
V3	Interspersion	%		%		%	
	Class 1 Class 2 Class 3	11	0.29	12	0.30	15	0.3
	Class 4 Class 5	891		88	-	85	
V4	%OW <= 1.5ft	26	0.39	30	0.44	34	0.4
∨5	Salinity (ppt) fresh intermediate	2.5	0.80	2.5	0.80	2.5	0.80
V6	Access Value fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
	iL	EM HSI =	0.32	EM HSI =	0.33	em HSI =	0.3
	7	OW HSI =	0.36	OW HSI =	0.38	OW HSI =	0.44

Project: Castille Pass Sediment Delivery

		TY 20					
/ariable	1	Value	SI	Value	SI	Value	SI
V1	% Emergent	15	0.24				
V2	% Aquatic	17	0.25				
∨3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 15 85	0.32	%		%	
V4	%OW <= 1.5ft	341	0.48				
∨5	Salinity (ppt) fresh intermediate	2.5	0. <b>80</b>				
V6	Access Value fresh intermediate	1.00	1.00				
		EM HSI =	0.36	EM HSI =		EM HSI = OW HSI =	

## AAHU CALCULATION - EMERGENT MARSH

Project: Castille Pass Sediment Delivery

Cummulative	Total		Without Project	
HUs	HUs	x HSI	March Acres	TY
	0.00	0.19	0	0
0.80	1.64	0.20	8	1
351.16	36.51	0.23	160	20
17.60	AHUs =	7		

future With	Project	Í	Total	Cummulative
TY	Marsh Acres	x HSI	HUs :	HUs
0	0	0.19	0.00	
1	57	0.23	13.33	6.27
3	207	0.26	53.53	65.62
6	282	0.28	78.97	197.96
9	394	0.30	117.26	293.36
11	450	0.31	137.83	254.93
14	562	0.32	181.78	478.48
16	618	0.33	205.14	386.77
19	730	0.35	255.26	689.61
20	749	0.36	267,48	943.05
			AAHUa	166.80

NET CHANGE IN AAHUS DUE TO PROJECT		1
A. Future With Project Emergent Marsh AAHUs	*	165.80
B. Future Without Project Emergent Marsh AAHUs	=	17.60
Net Change (FWP - FWOP) =		148,20

## AAHU CALCULATION - OPEN WATER Project: Castille Pass Sediment Delivery

Future Witho	ut Project		Total	Cummulative
fY	Water Acres	x HSI	HUs	HUs
0	5051	0.21	1052.99	
1	5043	0.22	1088.68	1070.84
20	4891	0.24	1159.82	21370.89
			AAHUs =	1122.09

ture With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	5051	0.21	1052.99	
1	4882	0.25	1230.01	1142.72
3	4844	0.26	1270.74	2500.88
6	4714	0.30	1396.42	4002.94
9	4657	0.31	1431.03	4241.50
11	4546	0.34	1531.48	2963.61
14	4489	0.36	1602.36	4701.34
16	4378	0.38	1646.61	3249.68
19	4321	0.40	1711.81	5038.20
20	4302	0.40	1704.28	6702.79
			AAHUs	1727.18

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	3	1727.18
B. Future Without Project Open Water AAHUs	*	1122.09
Net Change (FWP - FWOP) =		605.10

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	CT
A. Emergent Marsh Habitat Net AAHUs =	148.20
B. Open Water Habitat Net AAHUs =	605.10
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	295.59

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: PPO-7a LaBranche Wetlands Terracing/Plantings

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

Area	AAHUs
Α	21
С	61
D	77
E	12
<b>Z</b> .	27

TOTAL BENEFITS = 198 AAHUS

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

LaBranche Wetlands Terracing/Plantings

Project Area:

477

Area A

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	ŚI	Value	SI
V1	% Ernergent	48	0.53	48	0.53	46	0.51
V2	% Aquatic	45	0.51	45	0.51	45	0.51
V3	Interspersion Class 1 Class 2	%	0.32	%	0.32	%	0.31
	Class 3 Class 4 Class 5	60 40		60 40		55 45	
V4	%OW <= 1.5ft	15	0.29	15	0.29	15	0.29
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value Emergent Marsh H	1.00	1.00 0.63	1.00 EM HSI =	1.00 0.63	1.00 EM HSI =	1.00 <b>0.61</b>
	Open Water HSI	*	0.64	OW HSI =	0.64	OW HSI =	0.63

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

LaBranche Wetlands Terracing/Plantings

Project Area:

477

Area A

Condition: Future With Project

		TY 0		TY 1		TY 3	
Variable_		Value	SI	Value	SI	Value	SI
V1_	% Emergent	48	0.53	51	0.56	53	0.58
V2	% Aquatic	45	0.51	50	0.55	65	0.69
<b>V3</b>	Interspersion Class 1 Class 2	%	0.32	%	0.40	%	0.40
	Class 3 Class 4 Class 5	60 40		100		100	
V4	%OW <= 1.5ft	15	0.29	15	0.29	15	0.29
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00 0.67
	Emergent Marsh Open Water HSI	HSI =	0.63	EM HSI =	0.65	EM HSI =	0.87

Project: LaBranche Wetlands Terracing/Plantings

		TY 20					
Variable	<u> </u>	Value	SI	Value	SI	Value	sı
V1	% Emergent	52	0.57				
V2	% Aquatic	65	0.69				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.40	%		%	
V4	%OW <= 1.5ft	15	0.29				
V5	Salinity (ppt)	4	1.00				····
V6	Access Value	1.00	1.00		-		
	· .	EM HSI = OW HSI =	0.66	EM HSI =		EM HSI = OW HSI =	

## **AAHU CALCULATION - EMERGENT MARSH**

Project: LaBranche Wetlands Terracing/Plantings Area A

Vitho	ut Project		Total	Cummulative
	Marsh Acres	x HSI	HUs	HUs
0	231	0.63	144.45	
1	230	0.63	143.82	144.14
20	221	0.61	135.19	2650.19
_				
	<u>i</u>	<del></del>	AAHI Is =	139 72

Future With			Total	Cummulative		
TY	Marsh Acres	x HSI	HUs	HUs		
0	231	0.63	144.45			
1	244	0.65	159.28	151.80		
3	255	0.67	169.59	328.82		
20	250	0.66	164.73	2841.65		
			AAHUs	166.11		

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	166.11
B. Future Without Project Emergent Marsh AAHUs	=	139.72
Net Change (FWP - FWOP) =		26.40

## **AAHU CALCULATION - OPEN WATER**

Project: LaBranche Wetlands Terracing/Plantings Area A

Future Witho	Future Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	246	0.64	156.38	
1	247	0.64	157.02	156.70
20	256	0.63	162.55	3035.86
			AAHUs =	159.63

uture With Project			Total Cumr	Cummulative
ΤΥ	Water Acres	x HSI	HUs	HUs
0	246	0.64	156.38	
1	221	0.67	147.79	152.22
3	222	0.75	165.44	313.21
20	227	0.75	169.17	2844.16
			AAHUs	165.48

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	165.48
B. Future Without Project Open Water AAHUs	=	159.63
Net Change (FWP - FWOP) =		5.85

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	26.40			
B. Open Water Habitat Net AAHUs =	5.85			
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	20.69			

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

LaBranche Wetlands Terracing/Plantings

Area C

Condition: Future Without Project

Project Area:

Fresh.....

Intermediate. 2,502

		TY 0	1	TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	49	0.54	49	0.54	47	0.52
V2	% Aquatic	65	0.69	65	0.69	65	0.69
V3	Interspersion Class 1 Class 2	%	0.30	%	0.30	%	0.30
	Class 3 Class 4 Class 5	50 50		50 50		50 50	
V4	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
∨5	Salinity (ppt) fresh intermediate	2	1.00	2	1.00	2	1.00
V6	Access Value fresh intermediat	0.72	0.78	0.72	0.78	0.72	0.78
	Emergent Marsh		0.59	EM HSI =	0.59	EM HSI =	0.58
	Open Water HSI	=	0.72	OW HSI =	0.72	OW HSI =	0.72

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

LaBranche Wetlands Terracing/Plantings

Condition: Future With Project

Project Area: Fresh.....

Intermediate. 2,502

		TY 0		TY 1		TY 2	
Variable	<u> </u>	alue	SI	Value	SI	Value	31
V1	% Emergent	49	0.54	51	0.56	53	0.58
V2	% Aquatic	65	0.69	65	0.69	65	0.69
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 50 50	0.30	% 50 50	0.30	% 55 45	0.31
V4	%OW <= 1.5ft	90	1.00	90	1.00	89	1.00
V5	Salinity (ppt) fresh intermediate	2	1.00	2	1.00	2	1.00
V6	Access Value fresh intermediat	0.72	0.78	0.72	0.78	0.72	0.78
	Emergent Marsh HS	3/ =	0.59	EM HSI =	0.60	EM HSI =	0.62
	Open Water HSI	=	0.72	OW HSI =	0.72	OW HSI =	0.72

Project: LaBranche Wetlands Terracing/Plantings

	7	TY 20					
Variable		Value	SI	Value	SI	Value	ŠI
V1	% Emergent	56	0.60				
V2	% Aquatic	65	0.69				
V3	Interspersion Class 1	%	0.32	%		%	
	Class 2 Class 3 Class 4	60 40					
V4	Class 5 %OW <= 1.5ft	87	1.00				
V-	76.04 CT 1.511	87	1.00	<del></del>			
∨5	Salinity (ppt) fresh intermediate	2	1.00				
<b>V6</b>	Access Value i	0.72	0.78				
	intermediat	0.72   EM HSI =	0.64	EM HSI =		EM HSI =	
		OW HSI =	0.72	OW HSI =	<del></del> -	OW HSI =	

AAHU CALCULATION - EMERGENT MARSH
Project: LaBranche Wetlands Terracing/Plantings Area C

uture Without Project			Total	Cummulative
77	Marsh Acres	x HSI	HUs	HUs
0	1216	0.59	719.02	
1	1214	0.59	717.83	718.42
20	1180	0.58	683.07	13307.24
<del></del>				
	<u> </u>	i i	AAHUa =	701.28

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1216	0.59	719.02	
1	1265	0.60	763.62	741.22
2	1314	0.62	810.81	787.10
20	1396	0.84	888.53	15289.21
			AAHUs	840.88

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	840.88
B. Future Without Project Emergent Marsh AAHUs =	701.28
Net Change (FWP - FWOP) =	139.59

#### **AAHU CALCULATION - OPEN WATER**

Project: LaBranche Wetlands Terracing/Plantings Area C

Future Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1286	0.72	92 <b>5.95</b>	
1	1288	0.72	927.39	926.67
20	1322	0.72	951.87	17852.99
		:		
	·			
			AAHUs =	

Future With Project		oject To		Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1286	0.72	925.95	
1	1237	0.72	890.67	908.31
2	1188	0.72	856.27	873.47
20	1106	0.72	79 <b>7.98</b>	14888.46
	1			
			AAHUs	833.51

NET CHANGE IN AAHUS DUE TO PROJECT		<b>7</b>
A. Future With Project Open Water AAHUs	3	833.51
B. Future Without Project Open Water AAHUs	3	938.98
Net Change (FWP - FWOP) =		-105.47

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	139.59			
B. Open Water Habitat Net AAHUs =	-105.47			
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	60.64			

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

LaBranche Wetlands Terracing/Plantings

Project Area:

1,246

Area D

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable	<u> </u>	Value	SI	Value	SI	Value	\$I
V1	% Emergent	35	0.42	35	0.42	33	0.40
V2	% Aquatic	30	0.37	30	0.37	20	0.28
V3	Interspersion Class 1 Class 2 Class 3	% 20	0.36	% 20	0.36	% 20	0.36
	Class 5 Class 4 Class 5	80	:	80		80	
V4	%OW <= 1.5ft	60	0.87	60	0.87	60	0.87
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh Open Water HSI	HSI =	0.55	EM HSI = OW HSI =	0.65	EM HSI =	0.53 0.53

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

LaBranche Wetlands Terracing/Plantings

Project Area:

1,246

Area D

Condition: Future With Project

		TY 0		TY 1		TY 3	
/ariable	V	alue	SI	Value	SI	Value	SI
V1	% Emergent	35	0.42	39	0.45	42	0.48
V2	% Aquatic	30	0.37	35	0.42	50	0.55
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 80	0.36	% 20 80	0.52	% 20 80	0.52
V4	%OW <= 1.5ft	60	0.87	60	0.87	60	0.87
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HS	=	0.56	EM HSI =	0.59	EM HSI =	0.61
	Open Water HSI	=	0.59	OW HSI =	0.64	OW HSI =	0.72

Project: LaBranche Wetlands Terracing/Plantings

		TY 20					
Variable	<u> </u>	Value	SI	Value	SI	Value	SI
V1	% Emergent	42	0.48				
V2	% Aquatic	50	0.55				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 80	0.52	%		%	
V4	%OW <= 1.5ft	60	0.87				
V5	Salinity (ppt)	4	1.00	!			
V6	Access Value	1.00	1.00			EM USC.	
		EM HSI = OW HSI =	0.61	EM HSI = OW HSI =		EM HSI =	

## **AAHU CALCULATION - EMERGENT MARSH**

Project: LaBranche Wetlands Terracing/Plantings

Area D

<b>Future With</b>	out Project		Total	Cummulative
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	431	0.55	235.55	
1	430	0.55	235.00	235.28
20	412	0.53	219.70	4318.96
			AAHUs =	227.71

Future With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	431	0.55	235.55	
1	480	0.59	283.41	259.12
3	529	0.61	322.54	605.63
20	518	0.61	3 <b>15.83</b>	5426.11
			<del></del>	
			·········	
			AAHUs	314.54

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	2	314.54
B. Future Without Project Emergent Marsh AAHUs	=	227.71
Net Change (FWP - FWOP) =		86.83

AAHU CALCULATION - OPEN WATER
Project: LaBranche Wetlands Terracing/Plantings Area D

Future With			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	815	0.59	483.81	
1	816	0.59	484.40	484.11
20	834	0.53	440.08	8786.34
			AAHUs =	463.52

uture With			Total	Cummulative
ΤΥ	Water Acres	x HSI	HUs	HUs
0	815	0.59	483.81	
1	716	0.64	455.39	470.30
3	717	0.72	516.60	971.96
20	728	0.72	5 <b>24.5</b> 2	8849.51
			AAHUs	514.59

NET CHANGE IN AAHUS DUE TO PROJECT		7
A. Future With Project Open Water AAHUs	=	514.59
B. Future Without Project Open Water AAHUs	=	463.52
Net Change (FWP - FWOP) =		51.07

TOTAL BENEFITS IN AAHUS DUE TO PROJECT			
A. Emergent Marsh Habitat Net AAHUs =	86.83		
B. Open Water Habitat Net AAHUs =	51.07		
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	76.90		

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: LaBranche Wetlands Terracing/Plantings

Project Area: Fresh.....

Area E

Condition: Future Without Project

Intermediate.

30

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	7	0.16	7	0.16	7	0.16
V2	% Aquatic	50	0.55	50	0.55	50	0.55
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	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   intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh	HSI =	0.30	EM HSI =	0.30	EM HSI =	0.30
	Open Water HSI	#	0.63	OW HSI =	0.63	OW HSI =	0.63

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

LaBranche Wetlands Terracing/Plantings

Project Area:

Area E

Fresh.....

Condition: Future With Project

Intermediate. 30

Variable		TY 0		TY 1		TY 2	
		Value	SI	Value	SI	Value	\$I
V1	% Emergent	7	0.16	53	0.58	95	0.96
V2	% Aquatic	50	0.55	60	0.64	90	0.91
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.20	100	0.60	100	1.00
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
<b>V6</b>	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh		0.30	EM HSI =	0.67	EM HSI =	0.97
	Open Water HS	*	0.63	OW HSI =	0.72	OW HSI =	0.92

Project: LaBranche Wetlands Terracing/Plantings

		TY 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	95	0.96				
V2	% Aquatic	90	0.91				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	1.00	%		%	
V4	%OW <= 1.5ft	50	0.66				
V5	Salinity (ppt) fresh Intermediate	4	1.00				
∨6	Access Value fresh intermediat	1.00	1.00		10 L		
	-	EM HSI =	0.97	EM HSI = OW HSI =		EM HSI =	

## AAHU CALCULATION - EMERGENT MARSH Project: LaBranche Wetlands Terracing/Plantings

Area E

Future Witho	out Project	Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs
0	2	0.30	0.61	
1	2	0.30	0.61	0.61
20	2	0.30	0.61	11,58
<u> </u>			AAHUs =	0.61

Future With	Project		Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	2	0.30	0.61		
1	16	0.67	10.71	4.81	
2	29	0.97	28.15	18.78	
20	29	0.97	28.15	506.72	
		<del></del>			
				···	
			AAHUs	26.52	

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	26.52
B. Future Without Project Emergent Marsh AAHUs =	0.61
Net Change (FWP - FWOP) =	25.91

#### **AAHU CALCULATION - OPEN WATER**

Project: LaBranche Wetlands Terracing/Plantings Area E

Future Witho	ut Project	Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs
0	28	0.63	17.77	
1	28	0.63	17.77	17.77
20	28	0.63	17.77	337.66
			AAHUs =	17.77

Future With Project TY Water Acres		x HSI	Total HUs	Cummulative HUs	
0	28	0.63	17.77	· ·	
1	14	0.72	10.14	14.16	
2	1!	0.92	0.92	5.96	
20	1	0.92	0.92	16.59	
		1			
		1	AAHUs	1.84	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	3	1.84
B. Future Without Project Open Water AAHUs	3	17.77
Net Change (FWP - FWOP) =		-15.94

TOTAL BENEFITS IN AAHUS DUE TO	PROJE	СТ
A. Emergent Marsh Habitat Net AAHUs	=	25.91
B. Open Water Habitat Net AAHUs	=	-15.94
Net Benefits=(2.1xEMAAHUs+OWAAHU	s)/3.1	12.41

E-66

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

LaBranche Wetlands Terracing/Plantings

Project Area:

250

Area Z

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	12	0.21	12	0.21	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2	%	0.20	%	0.20	%	0.10
	Class 3 Class 4 Class 5	100		100		100	•
V4	%OW <= 1.5ft	22	0.38	22	0.38	20	0.36
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh	HSI =	0.37	EM HSI =	0.37	EM HSI =	0.25

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

LaBranche Wetlands Terracing/Plantings

Project Area:

250

Area Z

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	12	0.21	14	0.23	45	0.51
V2	% Aquatic	0	0.10	5	0.15	36	0.42
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.20	100	0.20	% 40 60	0.52
V4	%OW <= 1.5ft	22	0.38	22	0.38	50	0.74
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh Open Water HSI	HSI =	0.37	EM HSI = OW HSI =	0.38	EM HSI = OW HSI =	0.63 0.63

AAHU CALCULATION - EMERGENT MARSH
Project: LaBranche Wetlands Terracing/Plantings Area Z

uture Witho	out Project		Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	30	0.37	10.97		
1	29	0.37	10.61	10.79	
20	0	0.25	0.00	90.55	
i					
			ļ		
			AAHUs =	5.07	

Future With	uture With Project TY Marsh Acres x HSI		Total	Cummulative	
TY			HUs	HUs	
0	30	0.37	10.97		
1	34	0.38	12.96	11.95	
20	111	0.63	6 <b>9.79</b>	725.71	
		<del></del>			
	i	<del>- i</del>	AAHUs	36.88	

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	36.88
B. Future Without Project Emergent Marsh AAHUs =	5.07
Net Change (FWP - FWOP) =	31.82

AAHU CALCULATION - OPEN WATER

Project: LaBranche Wetlands Terracing/Plantings
Area Z

Future Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	220	0.31	68.78	
1	221	0.31	69.09	68.93
20	250	0.30	75.83	1377.57
			AAHUs =	72.32

Future With			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	220	0.31	68.78	
1	216	0.36	78.07	73.45
20	139	0.63	87.91	1642.84
		!		***
			AAHUs	85.81

NET CHANGE IN AAHUS DUE TO PROJECT		<u></u>
A. Future With Project Open Water AAHUs	=	85.81
B. Future Without Project Open Water AAHUs	=	72.32
Net Change (FWP - FWOP) =		13.49

TOTAL BENEFITS IN AAHUS DUE TO PROJE	СТ
A. Emergent Marsh Habitat Net AAHUs =	31.82
B. Open Water Habitat Net AAHUs =	13.49
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	26.73

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: CS-16 Black Bayou Bypass Culverts

The WVA for this project includes 5 areas. Total benefits for this project are as follows:

Area	AAHUs
1	25
2 <b>a</b>	33
2b	61
3	41
4	2

TOTAL BENEFITS = 162 AAHUS

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Black Bayou Bypass Culverts

Area 1

Condition: Future Without Project

Project Area:

Fresh..... 5,127

Intermediate..

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	76	0.78	76	0.78	69	0.72
V2	% Aquatic	10	0.19	10	0.19	10	0.19
V3	Interspersion	%		%		%	
	Class 1 Class 2	75	0.85	75	0.85	70	0.83
	Class 3 Class 4 Class 5	25		25		25	
V4	%OW <= 1.5ft	48	0.64	48	0.64	48	0.64
∨5	Salinity (ppt) fresh intermediate	0	1.00	0	1.00	o	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
	Emergent Marsh	HSI =	0.74	EM HSI =	0.74	EM HSI =	0.71
	Open Water HS		0.36	OW HSI =	0.36	OW HSI =	0.36

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/intermediate Marsh

Project:

Black Bayou Bypass Culverts

Area 1

Condition: Future With Project

Project Area:

Fresh.....

5,127 intermediate.

		TY 0		TY 1	j	TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	76	0.78	76	0.78	70	0.73
V2	% Aquatic	10	0.19	10	0.19	10	0.19
V3 	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 75 25	0.85	% 75 25	0.85	% 70 5 25	0.83
V4	%OW <= 1.5R	48	0.64	50	0.66	50	0.66
V5	Salinity (ppt) fresh intermediate	o	1.00	0	1.00	0	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.11	0.38	0.11	0.38
	Emergent Mars	HSI =	0.74	EM HSI =	0.75	EM HSI =	0.71

## **AAHU CALCULATION - EMERGENT MARSH**

Black Bayou Bypass Culverts Area 1 Project:

Future Witho	out Project	Total	Cummulative	
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	3906	0.74	2904.51	
1	3886	0.74	2889.63	2897.07
20	3521	0.71	2482.66	50992.27
			AAHUs =	2694.47

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	3906	0.74	2904.51	
1	3890	0.75	2899.16	2901.84
20	3595	0.71	2559.28	51823.98
				-
			AAHUs	2736.29

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	2736.29
B. Future Without Project Emergent Marsh AAHUs =	2694.47
Net Change (FWP - FWOP) =	41.82

Project: Black Bayou Bypass Culverts
Area 1

Future Without Project			Total	Cummulative	
TY	Water Acres	x H\$I	HUs	HUs	
0	1221	0.36	438.36		
1	1241	0.36	445.54	441.95	
20	1606	0.36	574.20	9689.21	
			AAHUs =	506.56	

Future With Project			Total	Cummulative
TY	Y Water Acres x HSI		HUs	HUs
0	1221	0.36	438.36	
1	1237	0.36	447.18	442.76
20	1532	0.36	551.55	9489.30
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i				
			AAHUs	496.60

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	496.60
B. Future Without Project Open Water AAHUs	=	506.56
Net Change (FWP - FWOP) =		-9.95

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	41.82			
B. Open Water Habitat Net AAHUs =	-9.95			
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	25.12			

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

**Black Bayou Bypass Culverts** 

Area 2A

Project Area:

Fresh..... 12,902

**Condition: Future Without Project** 

Intermediate..

	1	TY 0		TY 1		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI		
V1	% Emergent	49	0.54	49	0.54	44	0.50		
V2	% Aquatic	45	0.51	45	0.51	45	0.51		
V3	Interspersion	%		%		%			
	Class 1	20	0.42	20	0.42	15	0.38		
	Class 2 Class 3	30	, , , , , , , , , , , , , , , , , , ,	30	}	30			
	Class 4 Class 5	50		50		55			
	Ciass 5					<del></del>	<del></del>		
V4	%OW <= 1.5ft	45	0.61	45	0.61	45	0.61		
V5	Salinity (ppt)			-		<b>a</b> i	4.00		
	fresh intermediate	0	1.00	0	1.00	0	1.00		
V6	Access Value								
1	fresh	0.10	0.37	0.10	0.37	0.10	0.37		
	intermediate	HSI =	0.55	EM HSI =	0.55	EM HSI =	0.52		
	Emergent Marsh Open Water HS		0.51	OW HSI =	0.51	OW HSI =	0.51		

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Black Bayou Bypass Culverts

Area 2A

Condition: Future With Project

Project Area:

Fresh..... 12,902

Intermediate.

		TY 0		TY 1		TY 20	
Variable_		Value	SI	Value	SI	Value	SI
V1	% Emergent	49	0.54	49	0.54	45	0.51
V2	% Aquatic	45	0.51	45	0.51	45	0.51
V3	Interspersion	%		%	_	%	
	Class 1 Class 2	20	0.42	20	0.42	15	0.38
	Class 3	30		30		30	
	Class 4 Class 5	50		50		55	
V4	%OW <= 1.5ft	45	0.61	48	0.64	48	0.64
V5	Salinity (ppt) fresh intermediate	9	1.00	o	1.00	o	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.11	0.38	0.11	0.38
	Emergent Marsh	HSI =	0.55	EM HSI =	0.55	EM HSI =	0.53
	Open Water HSI	8	0.51	OW HSI =	0.52	OW HSI =	0.51

# AAHU CALCULATION - EMERGENT MARSH Project: Black Bayou Bypass Culverts Area 2A

ture Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	6344	0.55	3506.57	
1	6311	0.55	3488.33	3497.45
20	5710	0.52	2973.31	61324.68
<del> </del>				
<del></del>		-	AAHUs =	3877.77

sture With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	6344	0.55	3506.57	
1	6316	0.55	3498.90	3502.74
20	5801	0.53	3059.65	62262.88
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				***************************************
		:	AAHUs	3288.28

NET CHANGE IN AAHUS DUE TO PROJECT	-	
A. Future With Project Emergent Marsh AAHUs	=	3288.28
B. Future Without Project Emergent Marsh AAHUs	= 1	3241.11
Net Change (FWP - FWOP) =		47.17

## Project: Black Bayou Bypass Culverts

Area 2A

ture Without Project		<u> </u>	Total	Cummulative
ΥΥ	Water Acres	x H\$I	HUs	HUs
0	6568	0.51	3372.56	
1	6591	0.51	3384.37	3378.47
20	7192	0.51	3671.67	67038.00
i				
			AAHUs =	3520.82

Future With	uture With Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	<u>HUs</u>
0	6568	0.51	3372.56	
1	6586	0.52	3409.51	3391.02
20	7101	0.51	3655.08	67118.44
ļ	<u> </u>	<del></del>		
	<del></del>			
-				
		1	AAHUs	3525.47

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	3525.47
B. Future Without Project Open Water AAHUs	=	3520.82
Net Change (FWP - FWOP) =		4.65

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	47.17
B. Open Water Habitat Net AAHUs =	4.65
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	33.46

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Black Bayou Bypass Culverts

Area 2B

Condition: Future Without Project

Project Area:

Fresh..... 21,768

Intermediate..

		TY 0		TY 1		TY 20	
Variable		itue	SI	Value	SI	Value	SI
V1	% Emergent	70	0.73	70	0.73	70	0.73
V2	% Aquatic	90	0.91	90	0.91	90	0.91
V3	Interspersion Class 1	% 50	0.72	%i 50	0.72	% 50	0.72
	Class 2 Class 3	10 40		10   40	0.72	10 40	0.72
	Class 4 Class 5		<u> </u>			:	
V4	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
V5	Salinity (ppt) : fresh intermediate	01	1.00)	01	1.00	01	1.00
V6	Access Value   fresh intermediate	0.10	0.37	0.101	0.37	0.10	0.37
	Emergent Marsh HSI	-	0.70	EM HSI =	0.70	EM HSI =	0.70
	Open Water HSI		0.77	OW HSI =	0.77	OW HSI =	0.77

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Black Bayou Bypass Culverts

Area 2B

Condition: Future With Project

Project Area:

Fresh..... 21,768

Intermediate.

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	70	0.73	70	0.73	71	0.74
V2	% Aquatic	90	0.91	90	0.91	90	0.9
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 50 10 40	0.72	% 50 10 40	0.72	% 50 10 40	0.72
V4	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
V5	Salinity (ppt) fresh intermediate	0	1.00	0	1.00	o	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.105	0.37	0.105	0. <b>37</b>
	Emergent Marsh	HSI =	0.70	EM HSI =	0.70	em HSI =	0.70
	Open Water HSI		0.77	OW HSI =	0.77	OW HSI =	0.77

# AAHU CALCULATION - EMERGENT MARSH Project: Black Bayou Bypass Culverts Area 2B

uture Witho	ut Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	15236	0.70	10636.13	
1	15236	0.70	10636.13	10636.13
20	15236	0.70	10636.13	202086.45
			:	
	**************************************		AAHUs =	10636.13

uture With	Project			Total	Cummulative
TY	Marsh Acres	хН	SI	HUs	HUs
0	15236		0.70	10636.13	
1	15247		0.70	10655.95	10646.04
20	15455		0.70	10881.86	204605.73
!					
				AAHUs	10762.59

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	10762.59
B. Future Without Project Emergent Marsh AAHUs	= [	10636.13
Net Change (FWP - FWOP) =		126.48

Project: Black Bayou Bypass Culverts
Area 2B

Future Witho	ut Project		Total	Cummulative
ΤΥ	Water Acres	x HSI	HUs :	HUs
0	6532	0.77	5007.83	<u> </u>
1	6532	0.77	5007.83	5007.83
20	6532	0.77	5007.83	95148.86
			AAHUs =	5007.83

ture With I	roject	Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs
0	6532	0.77	5007.83	
1	6521	0.77	5008.09	5007.96
20	6313	0.77	4848.34	93636.09
		_		

AAHUs	4932.20

NET CHANGE IN AAHUS DUE TO PROJECT		n
A. Future With Project Open Water AAHUs	=	4932.20
B. Future Without Project Open Water AAHUs	=	5007.83
Net Change (FWP - FWOP) ≃		-75.63

TOTAL BENEFITS IN AAHUS DUE TO PRO	JECT	
A. Emergent Marsh Habitat Net AAHUs =	1	26.46
B. Open Water Habitat Net AAHUs =		75.63
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3	.1	61.27

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Black Bayou Bypass Culverts

Area 3

Project Area:

Fresh...... 31,117

Condition: Future Without Project

Intermediate..

		TY 0		TY 1		TY 20	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	80	0.82	80	0.82	80	0.82
V2	% Aquatic	90	0.91	90	0.91	90	0.91
V3	Interspersion	%		%		%	
	Class 1	70	0.84	70	0.84	70	0.84
	Class 2	101		10		10	
	Class 3	20		20		20	
	Class 4						
	Class 5			<u> </u>			
V4	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
V5	Salinity (ppt) fresh intermediate	0	1.00	0	1.00	01	1.00
∨6	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
···	Emergent Marsh HS	31 =	0.76	EM HSI =	0.76	EM HSI =	0.76
	Open Water HSI	*	0.78	OW HSI =	0.78	OW HSI =	0.78

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Black Bayou Bypass Culverts

Area 3

Project Area:

Fresh...... 31,117

Condition: Future With Project

Intermediate.

		TY 0		TY 1		TY 20	
Variable		Value	ŚI	Value	SI	Value	SI
V1	% Emergent	80	0.82	80	0.82	80.5	0.82
V2	% Aquatic	90	0.91	90	0.91	90	0.91
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 70 10 20	0.84	% 70 10 20	0.84	% 70 10 20	0.84
V4	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
∨5	Salinity (ppt) fresh intermediate	0	1.00	0	1.00	o	1.00
<b>V6</b>	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
	Emergent Marsh Open Water HS		0.76 0.78	EM HSI = OW HSI =	0.76 0.78	EM HSI =	0.77 0.78

Project: Black Bayou Bypass Culverts
Area 3

Future Witho	uture Without Project			Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	24894	0.76	18994.15	
1	24894	0.76	18994.15	18994.15
20	24894	0.76	18994.15	360888.92
	!			
	iii			
			AAHUs =	18994.15

Future With	Project		Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	24894	0.76	18994.15		
1	24902	0.76	19000.26	18997.21	
20	25050	0.77	19177.14	362684.08	
			AAHUs	19084.06	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	- =	19084,06
B. Future Without Project Emergent Marsh AAHUs	=	18994.15
Net Change (FWP - FWOP) =		89.91

Project: Black Bayou Bypass Culverts
Area 3

ture Without Project			Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	6223	0.78	4826.25		
1	6223	0.78	4826.25	4826.25	
20	6223	0.78	4826.25	91 <b>698</b> .78	
<del>-</del>	<u> </u>		AAHUs =	4926 26	

future With	With Project		Total	Cummulative	
17	Water Acres	x HSI	HUs	HUs	
0	6223	0.78	4826.25		
1	6215	0.78	4820.05	4823.15	
20	6067	0.78	4705.27	90490.48	
:					
!		*******	AAHUs	4765.68	

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	4765.68
B. Future Without Project Open Water AAHUs =	4826.25
Net Change (FWP - FWOP) ≃	-60.57

TOTAL BENEFITS IN AAHUS DUE TO PROJE	CT
A. Emergent Marsh Habitat Net AAHUs =	89.91
B. Open Water Habitat Net AAHUs =	-80.57
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	41.37

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: Black Bayou Bypass Culverts

rts Project Area:

Area 4

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable	\	/alue	SI	Value	SI	Value	SI
V1	% Emergent	56	0.60	55	0.60	53	0.58
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2 Class 3	% 40	0.52	% 40	0.52	% 40	0.52
•	Class 4 Class 5	60	: 	60		60	
V4	%OW <= 1.5ft	25	0.42	25	0.42	25	0.42
V5	Salinity (ppt)	10	1.00	10	1.00	10	1.00
V6	Access Value   Emergent Marsh HS	1.00	1.00	1.00   EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.68</b>
	Open Water HSI		0.34	OW HSI =	0.34	OW HSI =	0.34

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: BI

Black Bayou Bypass Culverts

Project Area:

1,464

1,464

Area 4

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable	V	alue	Sí	Value	SI	Value	ŠĪ
V1	% Emergent	58	0.60	55	0.60	53	0.58
V2	% Aquatic	0	0.10	1	0.11	1	0.11
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 40 60	0.52	% 40 60	0.52	% 40 60	0.52
V4	%OW <= 1.5ft	25	0.42	25	0.42	25	0.42
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	8	0.70	EM HSI =	0.69	EM HSI =	0.68
	Open Water HSI	=	0.34	OW HSI =	0.35	OW HSI =	0.35

# AAHU CALCULATION - EMERGENT MARSH Project: Black Bayou Bypass Culverts

Area 4

Future Witho	out Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	813	0.70	566.36	
1	811	0.69	560.05	563.21
20	782	0.68	530.50	10359.15
		i i	AAHUs =	546.12

Future With	e With Project		Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	813	0.70	566.36		
1	811	0.69	560.05	563.21	
20	782	0.68	530.50	10359.15	
			··		
			AAHUs	546.12	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	546.12
B. Future Without Project Emergent Marsh AAHUs	=	546.12
Net Change (FWP - FWOP) =		0.00

# AAHU CALCULATION - OPEN WATER Project: Black Bayou Bypass Culverts

Area 4

Future Witho	ut Project	Ĩ	Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	651	0.34	220.81	
1	653	0.34	221.49	221.15
20	682	0.34	231.32	4301.70
	1			
				!
				<del></del>

AAHUs = 226.14

ture With Project			Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	651	0.34	220.81		
1	653	0.35	228.26	224.53	
20	682	0.35	238.39	4433.19	
				··· :	
		<del></del>			
			- A A A A A A A A A A A A A A A A A A A		

AAHUs 232.89

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	232.89
B. Future Without Project Open Water AAHUs	=	226.14
Net Change (FWP - FWOP) =		6.74

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	0.00
B. Open Water Habitat Net AAHUs =	6.74
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	1.87

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

GIWW Bank Stabilization - Perry Ridge to Texas

Project Area: Fresh.....

Condition: Future Without Project

Intermediate. 1,132

	7	TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	43	0.49	43	0.49	34	0.4
V2	% Aquatic	55	0.60	55	0.60	50	0.5
V3	Interspersion	% i		%	}	%	
	Class 1		0.32		0.32	İ	0.28
	Class 2	201	i	20		10	
	Class 3	20	i	20	İ	20	
	Class 4	60	i	60	}	70	
	Class 5	<u> </u>					
V4	%OW <= 1.5ft	70	0.89	70	0.89	65	0.83
∨5	Salinity (ppt)				!	,	
	fresh		1.00		1.00		0.60
	intermediate	4:		4+		61	
V6	Access Value		;	1		į	
**	fresh		1.00	F .	1.00	İ	1.00
	intermediat	1.00		1.001	<u> </u>	1.00	
· · · · · · · · · · · · · · · · · · ·	Emergent Marsi	i HSI =	0.57	EM HSI =	0.57	EM HSI =	0.46
	Open Water HS		0.69	OW HSI =	0.69	OW HSI =	0.62

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

GIWW Bank Stabilization - Perry Ridge to Texas

Project Area:

Fresh.....

Condition: Future With Project

Intermediate. 1,132

	] -	TY 0		TY 1		TY 3	
Variable	-	Value	SI	Value	SI	Value	SI
V1	% Emergent	43	0.49	43	0.49	43	0.41
V2	% Aquatic	55	0.60	55	0.60	65	0.69
V3	Interspersion	%		%	0.04	%	0.3
	Class 1 Class 2	20	0.32	25	0.34	25	0.3
	Class 3	20		20	ļ	20	
	Class 4	60		55		55	
	Class 5						
V4	%OW <= 1.5R	70	0.89	70	0.89	70	0.8
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.0
	intermediate	4		4			
V6	Access Value						
• •	fresh		1.00		1.00		1.0
	intermediat	1.00		1.00	1	1.00	
	Emergent Marel	n HSI =	0.57	EM HSI =	0.58	EM HSI =	0.6
	Open Water HS	=	0.69	OW HSI =	0.69	OW HSI =	0.7

Project: GIWW Bank Stabilization - Perry Ridge to Texas

		TY 10		TY 20			
Variable	ļ <u>-</u>	Value	SI	Value	SI	Value	SI
V1	% Emergent	43	0.49	41	0.47		
V2	% Aquatic	65	0.69	65	0.69		
V3	Interspersion	%	!	%		%	
	Class 1		0.34		0.34		
	Class 2	<b>25</b> †	!	25	1		
	Class 3	20	;	20	!	ì	
	Class 4	55		55	ĺ		
	Class 5						
V4	%OW <= 1.5ft	70	0.89	70	0.89		
V <b>5</b>	Salinity (ppt) fresh		1.00		1.00		
	intermediate	4!		4			
V6	Access Value			ļ			
	fresh	1.001	1.00	4.05	1.00		
	intermediat	1.00   EM HSI =	0.58	1.00   EM HSI =	0.56	EM HSI =	
		OW HSI =	0.75	OW HSI =	0.75	OW HSI =	

# AAHU CALCULATION - EMERGENT MARSH Project: GIWW Bank Stabilization - Perry Ridge to Texas

ire Witha	ut Project	Total	Cummulative	
ŤΥ	Marsh Acres	x HSI	HUs	HUs
0	489	0.57	280.54	
1	483	0.57	277.10	278.82
20	383	0.46	178.00	4288.90
<del></del>	-		<del></del>	
· · · · · · · · · · · · · · · · · · ·			AAHUs =	228.39

ure With I			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	489	0.57	280.54	
_1	487	0.58	280.47	280.5
3	489	0.58	281.63	562.1
10	483	0.58	278.17	1959.2
20	466	0.56	262.23	2701.6
			AAHUa	278.1

NET CHANGE IN AAHUS DUE TO PROJECT	]
A. Future With Project Emergent Marsh AAHUs =	275.18
B. Future Without Project Emergent Marsh AAHUs =	228.39
Net Change (FWP - FWOP) =	46.79

AAHU CALCULATION - OPEN WATER
Project: GIWW Bank Stabilization - Perry Ridge to Texas

ire Witho	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	643	0.69	443.95	
1:	649	0.69	448.09	446.02
20	749	0.62	467.00	8714.58
			·	
<u> </u>	· · · · · · · · · · · · · · · · · · ·			
·	·			
	!			
			AAHUs =	458.03

uture With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	643	0.69	443.95	
1	641	0.69	443.52	443.74
3	643	0.75	482.66	926.14
10	649	0.75	487.16	3394.35
20	666	0.75	499.92	4935.39
			<del></del>	
	·		<del></del>	
		· · · · · · · · · · · · · · · · · · ·	AAHIJe	484 98

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	2	484.98
B. Future Without Project Open Water AAHUs	=	458.03
Net Change (FWP - FWOP) =		26.95

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	46.79			
B. Open Water Habitat Net AAHUs =	26.95			
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	40.39			

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: XTV-27 Freshwater Bayou Canal HR/SP - Belle Isle to Lock

The WVA for this project includes 2 areas. Total benefits for this project are as follows:

Area	AAHUs
1	75
2	177

TOTAL BENEFITS = 252 AAHUS

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Freshwater Bayou Canal HR/SP - Belle Isle to Lock

Area A

Project Area: Fresh.....

Condition: Future Without Project

Intermediate.

285

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	69	0.72	66	0.69	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2	%   65	0.72	% 65	0.72	%	0.10
· · · · · · · ·	Class 3 Class 4 Class 5	35		35		100	
V4	%OW <= 1.5ft	37	0.52	33	0.47	10	0.21
∨5	Salinity (ppt) fresh intermediate	6	0.60	6	0.60	6	0.60
∨6	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh H	Si =	0.74	EM HSI =	0.72	EM HSI =	0.19
	Open Water HSI		0.27	OW HSI =	ି. 27	OW HSI =	0.21

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Freshwater Bayou Canal HR/SP - Belle Isle to Lock

Project Area:

Area A

Condition: Future With Project

Fresh.....

Intermediate. 285

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	69	0.72	69	0.72	85	0.87
V2	% Aquatic	0	0.10	5	0.15	30	0.37
∨3	Interspersion	%		%		%	
	Class 1 Class 2	65	0.72	65	0.72	80	0.88
	Class 3				İ	20	
	Class 4 Class 5	35		35			
V4	%OW <= 1.5R	37	0.52	37	0.52	41	0.56
<b>V</b> 5	Salinity (ppt) fresh		0.60		0.60		0.60
	intermediate	6		6		6	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediat	1.00	A 941	1.00	A 94	1.00	A 64
	Emergent Marsi Open Water HS		0.74 0.27	EM HSI = OW HSI =	0.74	EM HSI =	0.85 0.52

AAHU CALCULATION - EMERGENT MARSH
Project: Freshwater Bayou Canal HR/SP - Belle Isle to Lock Area A

uture Witho	uture Without Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	197	0.74	145.56	
1	187	0.72	134.70	140.10
20	0	0.19	0.00	966.77
			AAHUs =	55,34

Future With	Project		Total	Cummulative
ÍΥ	Marsh Acres	x HSI	HUs	HUs
0	197	0.74	145.56	
1	197	0.74	145.56	145.56
20	241	0.85	205.74	3321.30
			<del></del>	
·		<del></del>	AAHUs	173.34

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	173.34
B. Future Without Project Emergent Marsh AAHUs =	55.34
Net Change (FWP - FWOP) =	118.00

AAHU CALCULATION - OPEN WATER
Project: Freshwater Bayou Canal HR/SP - Belle Isle to Lock Area A

Future Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	88	0.27	24.14	
1	98	0.27	26.56	25.35
20	285	0.21	58.68	848.33
				· · · · · · · · · · · · · · · · · · ·
		ii d	AHUa =	43.68

 HUs	_	 43.68
 NUT	_	 73.00

Future With			Total	Cummulative
17	Water Acres	x HSI	HUs	HUs
0	88	0.27	24.14	
1	88	0.32	28.05	26.10
20	44	0.52	22.89	512.00
	:	<u> </u>		
1		· · · · · · · · · · · · · · · · · · ·	i	
			AAHUs	26,90

NET CHANGE IN AAHUS DUE TO PROJECT	<del></del>	
A. Future With Project Open Water AAHUs	=	26.90
B. Future Without Project Open Water AAHUs	=	43.68
Net Change (FWP - FWOP) =		-16.78

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	118.00
B. Open Water Habitat Net AAHUs =	-16.78
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	74.52

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Freshwater Bayou Canal HR/SP - Belle Isle to Lock

Project Area: Fresh.....

Condition: Future Without Project

Intermediate.

4,630

		TY 0		TY 1		TY 20		
Variable		Value	SI	Value	SI	Value	SI	
V1	% Emergent	84	0.86	83	0.85	67	0.70	
V2	% Aquatic	35	0.42	35	0.42	20	0.28	
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 40 60	0.64	% 40 60	0.64	% 40 40 20	0.60	
V4	%OW <= 1.5ft	85	1.00	85	1.00	75	0.94	
∨5	Salinity (ppt) fresh intermediate	4	1.00	4	1.00	5.5	0.70	
∨6	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00	
Ì	Emergent Marsh	HSI =	0.87	EM HSI =	0.86	EM HSI =	0.72	
i	Open Water HS	=	0.60	OW HSI =	0.60	OW HSI =	0.47	

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Freshwater Bayou Canal HR/SP - Belle Isle to Lock

Project Area:

Area B

Condition: Future With Project

Fresh.....

Intermediate. 4,630

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	84	0.86	83	0.85	73	0.70
V2	% Aquatic	35	0.42	40	0.46	50	0.5
<b>V3</b>	Interspersion	%		%		%	
	Class 1 Class 2	40	0.64	40	0.64	40	0.62
	Class 3	60		60		50	
	Class 4 Class 5					10	
V4	%OW <= 1.5ft	85	1.00	85	1.00	85	1.00
V5	Salinity (ppt) fresh intermediate	4	1.00	3	1.00	3	1.00
V6	Access Value						
	fresh Intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsi		0.87	EM HSI =	0.86	EM HSI =	0.80
	Open Water HS		0.60	OW HSI =	0.63	OW HSI =	0.69

### AAHU CALCULATION - EMERGENT MARSH

Project: Freshwater Bayou Canal HR/SP - Belle Isle to Lock Area B

Future Witho	out Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	3869	0.87	3348.54	
1	3826	0.86	3288.40	3318.42
20	3101	0.72	2246.05	5 <b>2266.85</b>
		:		
			AAHUs =	2779.26

Future With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	3869	0.87	3348.54	
1	3843	0.86	3303.01	3325.75
20	3389	0.80	2700.15	56939.81
	<u> </u>			
			AAHUs	3013.28

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	3 1	3013.28
B. Future Without Project Emergent Marsh AAHUs	=	2779.26
Net Change (FWP - FWOP) =		234.01

AAHU CALCULATION - OPEN WATER

Project: Freshwater Bayou Canal HR/SP - Belle Isle to Lock Area B

Future Witho			uture Without Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs			
0	761	0.60	454.86				
1	804	0.60	480.56	467.71			
20	1529	0.47	711.88	11631.48			
	· · · · · · · · · · · · · · · · · · ·						
		4,	AAHUs =	604.96			

uture With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	761	0.60	454.86	
1	787	0.63	495.80	475.19
20	1241	0.69	857.30	12767.01
	,			
i	:			
	,			
			AAHUs	662.11

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	662.11
B. Future Without Project Open Water AAHUs	=	604.96
Net Change (FWP - FWOP) =		57.15

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	Γ
A. Emergent Marsh Habitat Net AAHUs =	234.01
B. Open Water Habitat Net AAHUs =	57.15
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	176.96

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: TE-8a North HNC Salinity Control

The WVA for this project includes 2 areas. Open water benefits in Area B were subtracted from the total project benefits because those would occur only under future without-project conditions. Total benefits for this project are as follows:

_ Area	AAHUs
Α	420
B-water	(89)

TOTAL BENEFITS = 331 AAHUS

## COMMUNITY HABITAT SUITABILITY MODEL Fresh Swamp

Project...... North HNC Salinity Control

Acres:

3,791

Condition: Future Without Project

	7		TY 0			TY 1		TY 20	
Variable	_ti	ClassVa	lue	SI	Class/Va	ue	SI.	Class/Value	SI
VI	Stand Structure					-			
		% Cov	er 📒		% Cove	r i		% Cover	
	Overstory	ļ	50	0.825	1	50	0.825	50	0.76
	Scrub shrub	1	50		:	50		50	
	Herbeceous	į	50			50		50	
V2	Meturity	Age			Age			Age	
	(imput age		1			- 1			
	or	Cypress	%		Cypress	<b>%</b> 」		Cypress %	
			94		-	94		94	
	species	Cypress	dbh 📒		Cypress of	ibh		Cypress dbh	
	composition		111			11		131	
	and	Tupelo et i	at. %		Tupelo et a	1. % [		Tupelo et al. %	
	dbh)	·	61			6		6	
		Tupelo et s	el dbh		Tupelo et a	dbh		Tupelo et al dbh	
			6	0.58	!	6 [	0.58	9	0.78
		Class	i ,		Class			Class	
V3	Hyrology		2	0.40	L	2	0.40	l	0.30
		Class			Cless			Class	
V4	Forest Size		5	1 00	<u> </u>	5	1.00	5	1.00
	Surrounding	Values	%		Values	%		Values %	
V5	Land Use								
	Forest / marsh			0.81			0.81		0.81
	Abendoned Ag							į	
	Pasture / Hay							i	
	Active Ag							i	
	Development !								
	Disturbance								
V6		Class			Class		,	Class	
	Туре			0.97			0.97		0.97
	! !	Ciesa			Class		i	Class	
	Distance			i		1			
		HSI	*	0.68	HSI		0.68	- HSI -	0.70

## COMMUNITY HABITAT SUITABILITY MODEL Fresh Swamp

Project...... North HNC Salinity Control

Acres.

3,791

Condition: Future With Project

		TY 0		TY 1		TY 20		
Variable	11	Class/Value		SI	ClassValue	, SI	Class/Value	\$I
Vì	Stand Structure	% Cove	r :		% Cover	1	% Cover	
	Overstory	i	50	0.825	1 5	0 0.825	50	0.85
	Scrub shrub	ĺ	50		56	0	50	
	Herbaceous	í	50		5	οi	50	
V2	Meturity	Age			Age		Age	
	(Imput age	i	i		1	1	1	
	or	Cypress	% 94		Cypress %	4	Cypress %	
	species composition	Cypress d	Ibh		Cypress don		Cypress dbh	
	200	Tupelo et a			Tupelo et al. 9	- ;	Tupelo et al. %	
		Tupelo et s	- 1		Tupelo et al di	- 1	Tupelo et al dbh	
			6	0.58		9 0.58		0.86
V3		Ciess	2	0.40	Class	0.00	Class	0.80
	Hyrology	Cines		0.40	Cless	0.60	Class	U. O.
V4	Forest Size	Cass	5	1.00	(1888)	1.00	5	1.00
V5	Surrounding Land Use	Values	*		Values	X	Values %	
	Forest / marsh			0.81		0.81		0.8
	Pasture / Hay	'	1			1	!	
	Active Ag					ļ		
	Development					1	1	
	Disturbance					T		
V6	1 1	Class	1		Class	1	Class	
	Туре			0.97		0.97	<u> </u>	0.97
		Class	1		Class		Class	
	Distance		!					
		HSI	=	0.68	HSI =	0.72	HSI =	0.8

## AAHU CALCULATION, Fresh Swamp Project: North HNC Salinity Control

ure With P				Cummulative
17	Acres	x HSI	x HSI HUs	HUs
0	3791	0.68	2578.92	
1	3791	0.72	2744.91	2661.9
20	3791	0.82	3127.21	55785.12
·				
<del></del>				
<del></del>	<del></del>			
			Total	
		įį.	CHUs =	58447.03
		ir.	AAHUs =	2922.36

uture Without Project			Total	Cummulative	
TY	Acres	x HSI	HUs	HUs	
	3791	0.68	2578.92		
1	3774	0.68	2587.35	2573.13	
20	3471	0.70	2428.47	47478.94	
<u> </u>	<del></del>				
<del></del>				·	
		<del></del>	Total		
		i	CHUs =	50062.07	
			AALDI	3463.46	

NET CHANGE IN AAHU'S DUE TO PROJECT	-
A Future With Project AAHUs =	2922.35
B. Future Without Project AAHUs =	2502.60
Net Change (FWP - FWOP) =	419.76

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

North HNC Salinity Control

Open Water - FWOP Benefits

Condition: Future Without Project

Project Area: Fresh.....

Intermediate.

320

		TY 0		TY 1		TY 20	
Variable	ļ[	Value	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	99	0.99	0	0.10
V2	% Aquatic	0	0.10	50	0.55	30	0.37
V <b>3</b>	Interspersion Class 1 Class 2 Class 3	% 100	1.00	% 100	1.00	%	0.10
· -	Class 4 Class 5					100	
V4	%OW <= 1.5ft	0	0.10	100	0.60	70	0.89
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		0.98	EM HSI =	0.97	EM HSI =	0.19
	Open Water HS		0.28	OW HSI =	0.67	OW HSI =	0.49

### **AAHU CALCULATION - OPEN WATER**

Project: North HNC Salinity Control
Open Water - FWOP Benefits

uture Without Project			Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	0	0.28	0.00		
1	17	0.67	11.47	4.61	
20	320	0.49	155.70	1768.45	
		-			
			AAHUs =	88.65	

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: XME-42 Little Pecan Bayou Control Structure

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

Area	AAHUs
1	204
2	24
3	(4)

TOTAL BENEFITS = 224 AAHUS

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: Litt

Little Pecan Bayou Control Structure

Project Area:

5,044

Area 1

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	26	0.33	26	0.33	25	0.33
V2	% Aquatic	15	0.24	15	0.24	15	0.24
V3	Interspersion Class 1 Class 2	%	0.24	%	0.24	%	0.24
	Class 3 Class 4 Class 5	20 80 I		20 80		20 80	···-
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   Emergent Marsh HS	1.00	1.00	1.00   EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.43</b>
	Open Water HSI	=	0.46	OW HSI =	0.46	OW HSI =	0.46

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Little Pecan Bayou Control Structure

Project Area:

5,044

Area 1

Condition: Future With Project

		TY 0		TY 1		TY 3	3	
Variable		Value	SI	Value	SI	Value	SI	
V1	% Emergent	26	0.33	26	0.33	27	0.34	
V2	% Aquatic	15	0.24	20	0.28	35	0.42	
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 80	0.24	% 35 65	0.27	% 35 65	0.27	
V4	%OW <= 1.5ft	60	0.87	60	0.87	60	0.87	
V5	Salinity (ppt)	12	0.70	10	1.00	10	1.00	
V6	Access Value Emergent Marsh	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.48</b>	
	Open Water HSI		0.46	OW HSI =	0.52	OW HSI =	0.62	

Project: Little Pecan Bayou Control Structure FWP

		TY 5	TY 20				
Variable	<u> </u>	Value	SI	Value	SI	Value	SI
V1	% Emergent	27	0.34	27	0.34		
V2	% Aquatic	35	0.42	35	0.42		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 35 65	0.27	35   65	0.27	%	
V4	%OW <= 1.5ft	60	0.87	60	0.87		
V5	Salinity (ppt)	10	1.00	10	1.00		
V6	Access Value	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00	EM HSI =	
	!	OW HSI =	0.48	OW HSI =	0.62	OW HSI =	

### **AAHU CALCULATION - EMERGENT MARSH**

Project: Little Pecan Bayou Control Structure
Area 1

ture With	out Project	Total	Cummulative	
17	Marsh Acres	x HSI	HUs	HUs
0	1324	0.44	581.28	
1	1321	0.44	579.96	580.62
20	1272	0.43	549.60	10729.69
· · · · · · · · · · · · · · · · · · ·				
	<u> </u>		AAHUs =	565.52

uture With	Project		Total	Cummulative	
ΤΥ	Marsh Acres	x HSI	HUs	HUs	
0	1324	0.44	581.28		
1	1331	0.48	633.15	607.17	
3	1353	0.48	652.97	1286.07	
5	1365	0.48	658.76	1311.73	
20	1345	0.48	649.11	9809.05	
			AAHUs	650.70	

NET CHANGE IN AAHUS DUE TO PROJECT	<del>, ,</del>	
A. Future With Project Emergent Marsh AAHUs	=	650.70
B. Future Without Project Emergent Marsh AAHUs	=	565.52
Net Change (FWP - FWOP) =		85.19

Project: Little Pecan Bayou Control Structure Area 1

uture Witho	iture Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	3720	0.46	1712.69	
1	3723	0.46	1714.08	1713.39
20	3772	0.46	1736.64	32781.76
<del></del>			AAHUs =	1724.76

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	3720	0.46	1712.69	
1	3688	0.52	1921.47	1817.40
3	3691	0.62	2279.20	4200.57
5	3679	0.62	2271.79	4550.99
20	3699	0.62	2284.14	34169.44
			AAHUs	2236.92

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	2236.92
B. Future Without Project Open Water AAHUs	=	1724.76
Net Change (FWP - FWOP) =		512.16

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	85.19			
B. Open Water Habitat Net AAHUs =	512.16			
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	203.79			

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Little Pecan Bayou Control Structure

Area 2

Condition: Future Without Project

Project Area:

Fresh.....

8,500

Intermediate..

		TY 0		TY 1	<u> </u>	TY 20	
Variable	Vi	lue	ŚI	Value	SI	Value	SI
V1	% Emergent	93	0.94	93	0.94	90	0.9
V2	% Aquatic	60	0.64	60	0.64	60	0.64
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 70 30	0.88	% 70   30	0.86	% 70 30	0.88
V4	%OW <= 1.5ft	85	1.00	85	1.00	85	1.00
∨5	Salinity (ppt) fresh intermediate	11	1.00	1	1.00	1 !	1.00
∨6	Access Value   fresh   intermediate	0.351	0.55	0.35	0.55	0.35	0.55
	Emergent Marsh HSI	3	0.87	EM HSI =	0.87	EM HSI =	0.86
	Open Water HSI	=	0.69	OW HSI =	0.69	OW HSI =	0.69

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Little Pecan Bayou Control Structure

Area 2

Condition: Future With Project

Project Area:

Fresh.....

8,500

Intermediate.

		TY 0		TY 1	TY 1		
Variable		Value	SI	Value	SI	Value	ŚI
V1	% Emergent	93	0.94	93	0.94	91	0.92
V2	% Aquatic	60	0.64	65	0.69	65	0.69
<b>V3</b>	Interspersion Class 1	% 70	0.88	% 70	0.88	% 70	0.88
	Class 2 Class 3 Class 4 Class 5	30		30		30	
V4	%OW <= 1.5R	85	1.00	85	1.00	85	1.00
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V6	Access Value fresh intermediate	0.35	0.55	0.35	0.55	0.35	0.55
	Emergent Marsh		0.87	EM HSI =	0.87	EM HSI =	0.86
	Open Water HSI	*	0.69	OW HSI =	0.72	OW HSI =	0.72

# AAHU CALCULATION - EMERGENT MARSH Project: Little Pecan Bayou Control Structure

Area 2

uture Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	7891	0.87	6902.50	
1	7880	0.87	6892.88	6897.69
20	7688	0.86	6601.71	128188.89
			AAHUs =	6764.33

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	7891	0.87	6902.50	
1	7882	0.87	6894.63	6898.57
20	7718	0.86	6668.77	128846.79
	·			
	<del></del>		<del></del>	
İ				
			AAHUs	6787.27

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	3	6787.27
B. Future Without Project Emergent Marsh AAHUs	=	6754.33
Net Change (EWP - EWOP) =		32 04

AAHU CALCULATION - OPEN WATER
Project: Little Pecan Bayou Control Structure Area 2

uture Without Project			Total	Cummulative
ΤΥ	Water Acres	x HSI	HUs	HUs
0	609	0.69	421.13	
1!	620	0.69	428.74	424.93
20	812	0.69	561.51	9407.32
i				
	i			
			AAHUs =	491.61

Future With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	609	0.69	421.13	
1	618	0.72	442.80	431.93
20	782	0.72	560.31	9529.62
	:		<del></del>	
			AAHUs	498.08

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	498.08
B. Future Without Project Open Water AAHUs	=	491.61
Net Change (FWP - FWOP) =		6.46

TOTAL BENEFITS IN AAHUS DUE TO	PRO.	JECT	
A. Emergent Marsh Habitat Net AAHUs	=		32.94
B. Open Water Habitat Net AAHUs	=		6.46
Net Benefits=(2.1xEMAAHUs+OWAAHU	ls)/3.	1	24.40

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Little Pecan Bayou Control Structure

Project Area: Fresh.....

Area 3

Condition: Future Without Project

Intermediate. 10,900

		TY 0		TY 1		TY 20	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	80	0.82	80	0.82	77	0.79
V2	% Aquatic	30	0.37	30	0.37	30	0.37
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20   50   30	0.62	% 20 50 30	0.62	% 20 50 30	0. <b>62</b>
V4	%OW <= 1.5ft	70	0.89	70	0.89	70	0.89
∨5	Salinity (ppt)   fresh intermediate	5	0.80	5	0.80	5	0.80
∨6	Access Value   fresh   intermediat	0.48	0.58	0.48	0.58	0.48	0.58
	Emergent Marsh H		0.76	EM HSI =	0.76	EM HSI =	0.74
	Open Water HSI	=	0.49	OW HSI =	0.49	OW HSI =	0.49

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Little Pecan Bayou Control Structure

Project Area:

Area 3

Fresh.....

Condition: Future With Project

Intermediate. 10,900

	<b>"</b>	TY 0		TY 1		TY 2	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	80	0.82	80	0.82	79	0.81
	% Aquatic	30	0.37	35	0.42	40	0.46
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 50 30	0.62	% 20 50 30	0.62	% 20 50 30	0.62
V4	%OW <= 1.5ft	70	0.89	70	0.89	70	0.89
V5	Salinity (ppt) fresh intermediate	5	0.80	4	1.00	4	1.00
V6	Access Value fresh intermediat	0.48	0.58	0.28	0.43	0.28	0.43
	Emergent Marsi		0.76	EM HSI =	0.75	EM HSI =	0.75
	Open Water HS		0.49	OW HSI =	0.51	OW HSI =	0.54

Project: Little Pecan Bayou Control Structure

		TY 20					
Variable		Value	SI	Value	SI	Value	ŠI
V1	% Emergent	78	0.80				
V2	% Aquatic	401	0.46				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	%  20   50   30	0.62	%		%	
V4	%OW <= 1.5ft	70	0.89				
∨5	Salinity (ppt) fresh intermediate	4	1.00				
V6	Access Value   fresh intermediat	0.28	0.43	Ī			
	;	EM HSI =	0.74	EM HSI =		EM HSI =	
		OW HSI =	0.54	OW HSI =		OW HSI =	

## AAHU CALCULATION - EMERGENT MARSH

Project: Little Pecan Bayou Control Structure Area 3

Future Witho	out Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	8685	0.76	6598.77	
1	8671	0.76	6588.14	6593.45
20	8411	0.74	6251.27	121960.69
			i	
		·		
			···	· · · · · · · · · · · · · · · · · · ·
			AAHI le m	8427 71

Future With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	8685	0.76	6598.77	
1	8673	0.75	6519.86	6559.30
2	8661	0.75	6465.51	6492.68
20	8452	0.74	6265.17	114572.84
			AAHUa	6381.24

NET CHANGE IN AAHUS DUE TO PROJECT	1
A. Future With Project Emergent Marsh AAHUs =	6381.24
B. Future Without Project Emergent Marsh AAHUs =	6427.71
Net Change (FWP - FWOP) =	-46.47

### **AAHU CALCULATION - OPEN WATER**

Project: Little Pecan Bayou Control Structure
Area 3

Future Witho	ut Project		Total	Cummulative
ΤY	Water Acres	x HSI	HUs	HUs
0	2215	0.49	1091.84	
1	2229	0.49	1098.75	1095.29
20	2489	0.49	1226.91	22093.70
				<del></del>
			AAHUs =	1159.45

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	2215	0.49	1091.84	
1	2227	0.51	1137.02	1114.40
2	2239	0.54	1201.52	1169.22
20	2448	0.54	1313.68	22636.81
	······································			
		**************************************	AAHUs	1246.02

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	3	1246.02
B. Future Without Project Open Water AAHUs	=	1159.45
Net Change (FWP - FWOP) =		86.67

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	-46.47			
B. Open Water Habitat Net AAHUs =	86.57			
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	-3.55			

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: XBA-63iii Barataria Basin Landbridge Shoreline Protection Phase 3

The WVA for this project includes 5 areas. Total benefits for this project are as follows:

Area	_AAHUs		
1	25		
2a	11		
2b	34		
3	29		
4	2		

TOTAL BENEFITS = 101 AAHUS

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Barataria Basin Landbridge Shore Protection - Phase 3

Area 1

Project Area: Fresh.....

Condition: Future Without Project

Intermediate.

974

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	74	0.77	73	0.76	66	0.69
V2	% Aquatic	50	0.55	49	0.54	39	0.45
<b>V3</b>	Interspersion	%		%		%	
	Class 1	30	0.64	30	0.64	25	0.56
	Class 2	30		30		25	
	Class 3	40	ĺ	40		30	
	Class 4				ŀ	20	
	Class 5		<del></del>				
V4	%OW <= 1.5ft	40	0.55	39	0.54	30	0.44
V5	Salinity (ppt)			:		i	
•	fresh	1	1.00		1.00	i	1.00
	intermediate	3		3		3	
V6	Access Value	!	-				
**	fresh		1.00		1.00		1.00
	intermediat	1.00		1.00		1.00	
	Emergent Marsh		0.81	EM HSI =	0.80	EM HSI =	0.75
	Open Water HSI		0.66	OW HSI =	0.65	OW HSI =	0.58

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Barataria Basin Landbridge Shore Protection - Phase 3 Project:

Project Area:

Area 1

Fresh.....

Condition: Future With Project

Intermediate.

974

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	74	0.77	73	0.76	71	0.74
V2	% Aquatic	50	0.55	60	0.64	60	0.64
V3	Interspersion	%		%		%	
	Class 1	30	0.64	30 30	0.64	30 30	0.64
	Class 2 Class 3	30 40		40		40	
	Class 4			10			
	Class 5						
V4	%OW <= 1.5ft	40	0.55	40	0.55	40	0.5
∨5	Salinity (ppt) fresh intermediate	3	1.00	3	1.00	3	1.00
V6	Access Value fresh		1.00		1.00		1.00
	intermediat	1.00	1.00	1.00		1.00	
	Emergent Mars	h HSI =	0.81	EM HSI =	0.80	EM HSI =	0.79
	Open Water HS		0.66	OW HSI =	0.72	OW HSI =	0.72

AAHU CALCULATION - EMERGENT MARSH
Project: Barataria Basin Landbridge Shore Protection - Phase 3 Area 1

Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	716	0.81	5 <b>76.43</b>	
1	712	0.80	568.86	572.64
20	647	0.75	483.31	9984.88
		:		
			AAHUs =	527.88

uture With Project			Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	716	0.81	576.43		
1	715	0.80	571.26	573.84	
20	691	0.79	543.62	10590.42	
		<del></del>	AAHUs	558 21	

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	558.21
B. Future Without Project Emergent Marsh AAHUs =	527.88
Net Change (FWP - FWOP) =	30.34

## **AAHU CALCULATION - OPEN WATER**

Project: Barataria Basin Landbridge Shore Protection - Phase 3
Area 1

uture Witho	ture Without Project		Total	Cummulative
17	Water Acres	x HSI	HUs	HUs
0	258	0.66	170.01	
1	259	0.65	168.87	169.44
20	327	0.58	188.35	3410.02
<del></del>		ĺ	AAHUs =	178.97

iture With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs_	HUs
0	258	0.66	170.01	
1	259	0.72	186.16	178.07
20	283	0.72	203.41	3700.87
	<u> </u>			
	<del></del>		AAHUs	193.95

NET CHANGE IN AAHUS DUE TO PROJECT		- -
A. Future With Project Open Water AAHUs	=	193.95
B. Future Without Project Open Water AAHUs	=	178.97
Net Change (FWP - FWOP) =		14.97

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	T
A. Emergent Marsh Habitat Net AAHUs =	30.34
B. Open Water Habitat Net AAHUs =	14.97
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	25.38

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Barataria Basin Landbridge Shore Protection - Phase 3

Area 2a

Project Area: Fresh.....

Condition: Future Without Project

Intermediate.

20

		TY 0		TY 1		TY 20	
Variable	<u> </u>	Value	SI	Value	SI	Value	SI
V1	% Emergent	89	0.90	88	0.89	63	0.67
V2	% Aquatic	80	0.82	72	0.75	30	0.37
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4	% 100	1.00	% 100	1.00	% 90	0.92
V4	Class 5 %OW <= 1.5ft	50	0.66	45	0.61	19	0.31
∨5	Salinity (ppt) fresh intermediate	3)	1.00	3]	1.00	3	1.00
V6	Access Value fresh intermediat	1.00	1.00 ∤	1.00	1.00	1.00	1.00
,	Emergent Marsh Open Water HSI	H\$I =	0.94	EM HSI = OW HSI =	0.93	EM HSI = OW HSI =	0.77 0.53

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Barataria Basin Landbridge Shore Protection - Phase 3

Project Area:

Area 2a

Condition: Future With Project

Fresh..... Intermediate.

20

		TY 0	i	TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	89	0.90	89	0.90	86	0.87
V2	% Aquatic	80	0.82	80	0.82	80	0.82
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	50	0.66	50	0.66	50	0. <b>66</b>
V5	Salinity (ppt) fresh intermediate	3	1.00	3	1.00	3	1.00
V6	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsi	HSI =	0.94	EM HSI =	0.94	EM HSI =	0.92
Į.	Open Water HS		0.87	OW HSI =	0.87	OW HSI =	0.87

AAHU CALCULATION - EMERGENT MARSH
Project: Barataria Basin Landbridge Shore Protection - Phase 3 Area 2a

uture Witho	out Project			Total	Cummulative
TY	Marsh Acres	x HSI		HUs	HUs
0	107	(	.94	100.08	
1	105	0	).93	97.58	98.83
20	75	C	).77	57.63	1459.16
			- 1	i	
				AAHUs =	77.90

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	107	0.94	100.08	
1	107	0.94	100.08	100.08
20	103	0.92	94.50	1848.19
		i	AAHUs	97.41

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	<b>=</b> [	97.41
B. Future Without Project Emergent Marsh AAHUs	= [	77.90
Net Change (FWP - FWOP) =	1	19.51

AAHU CALCULATION - OPEN WATER

Project: Barataria Basin Landbridge Shore Protection - Phase 3

Area 2a

Future Witho	out Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	13	0.87	11.28	
1	15	0.82	12.28	11.79
20	45	0.53	24.05	372.13
		1		·
		7	AHUs =	19.20

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	13	0.87	11.28	
1	13	0.87	11.28	11.28
20	17	0.87	14.75	247.22
		·· · · · · · · · · · · · · · · · · · ·		
			AAHUs	12.92

NET CHANGE IN AAHUS DUE TO PROJECT		!
A. Future With Project Open Water AAHUs	=	12.92
B. Future Without Project Open Water AAHUs	=	19.20
Net Change (FWP - FWOP) =		-6.27

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	19.51
B. Open Water Habitat Net AAHUs =	-6.27
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	11.20

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Barataria Basin Landbridge Shore Protection - Phase 3

Project Area:

203

Area 2b

Condition: Future Without Project

	7	TY 0		TY 1		TY 20	
Variable	<u> </u>	Value	SI	Value	Si	Value	SI
V1	% Emergent	68	0.71	65	0.69	12	0.21
V2	% Aquatic	30	0.37	27	0.34	12	0.21
V3	Interspersion	%		%		%	
	Class 1	<b>30</b> l	0.58	30	0.58		0.20
	Class 2		1				
	Class 3	<b>70</b> l	į	70	1		
	Class 4	1			1	100	
	Class 5				<u> </u>		
V4	%OW <= 1.5ft	30	0.49	27	0.45	12	0.25
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00 !	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh	HSI =	0.77	EM HSI =	0.76	EM HSI =	0.37
	Open Water HSI	3	0.58	OW HSI =	0.56	OW HSI =	0.41

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Barataria Basin Landbridge Shore Protection - Phase 3

Project Area:

203

Area 2b

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Ernergent	68	0.71	68	0.71	66	0.69
V2	% Aquatic	30	0.37	30	0.37	30	0.37
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 70	0.58	% 30 70	0.58	% 30 70	0.58
V4	%OW <= 1.5ft	30	0.49	30	0.49	30	0.49
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HS	3  =	0.77	em HSI =	0.77	EM HSI =	0.76
	Open Water HSI		0.58	OW HSI =	0.58	OW HSI =	0.58

AAHU CALCULATION - EMERGENT MARSH

Project: Barataria Basin Landbridge Shore Protection - Phase 3 Area 2b

Future Witho	out Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	138	0.77	106.88	
1	132	0.76	99.92	103.38
20	25	0.37	9.14	903.53
			AAHUs =	50.35

Future With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	138	0.77	106.88	
1	138	0.77	106.88	106.88
20	133	0.76	101.45	1978.98
		1		······································
			AAHUs	104.29

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	104.29
B. Future Without Project Emergent Marsh AAHUs	=	50.35
Net Change (FWP - FWOP) =		53.95

AAHU CALCULATION - OPEN WATER

Project: Barataria Basin Landbridge Shore Protection - Phase 3

Area 2b

uture Witho	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	65	0.58	37.79	
1	71	0.56	39.72	38.78
20	178	0.41	73.14	1122.52
		<u> </u>	AAHUs =	58.06

Future With	Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	65	0.58	37.79		
1	65	0.58	37.79	37.79	
20	70	0.58	40.69	745.58	
			AAHUs	39.17	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	39.17
B. Future Without Project Open Water AAHUs	=	58.06
Net Change (FWP - FWOP) =		-18.90

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	53.95
B. Open Water Habitat Net AAHUs =	-18.90
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	33.71

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Barataria Basin Landbridge Shore Protection - Phase 3

Project Area:

920

Area 3

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	59	0.63	58	0.62	44	0.50
V2	% Aquatic	25	0.33	25	0.33	15	0.24
V3	Interspersion Class 1	%	0.46	%	0.46	%	0.38
	Class 2 Class 3	30   70		30 70	5. 10	90	0.00
· · · · · · · · · · · · · · · · · · ·	Class 4 Class 5					10	
V4	%OW <= 1.5ft	70	1.00	69	0.99	50	0.74
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
<u>V6</u>	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HS Open Water HSI	] 3	0.71	EM HSI =	0.70	EM HSI = OW HSI =	0.61 0.48

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Barataria Basin Landbridge Shore Protection - Phase 3

Project Area:

920

Area 3

Condition: Future With Project

		TYO		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	59	0.63	58	0.62	53	0.58
V2	% Aquatic	25	0.33	25	0.33	25	0.33
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 70	0.46	% 30 70	0.46	% 25 75	0.45
V4	%OW <= 1.5ft	70	1.00	70	1.00	70	1.00
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh Open Water HSI	HSI =	0.71 0.58	EM HSI = OW HSI =	0.70	EM HSI =	0.67 0.58

AAHU CALCULATION - EMERGENT MARSH
Project: Barataria Basin Landbridge Shore Protection - Phase 3 Area 3

Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	539	0.71	381.62	
1	532	0.70	373.48	377.54
20	408	0.61	247.60	5862.88
			AAHUs =	312.02

uture With	ture With Project		Total	Cummulative
TY	Marsh Acres	Acres x HSI HUs		HUs
0	539	0.71	381.62	
1	5 <b>36</b>	0.70	376.28	378.95
20	486	0.67	325.92	6665.94
		· · · · · · · · · · · · · · · · · · ·		
<del></del>			AAHUs	352.24

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	352.24
B. Future Without Project Emergent Marsh AAHUs	=	312.02
Net Change (FWP - FWOP) =		40.22

AAHU CALCULATION - OPEN WATER

Project: Barataria Basin Landbridge Shore Protection - Phase 3 Area 3

Future Witho	iture Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	381	0.58	220.40	
1	388	0.58	224.09	222.25
20	512	0.48	247.54	4517.38
		:		
			AAHUs =	236.98

Future With Project			Total	Cummulative
ΤΥ	Water Acres	x HSI	HUs	HUs
0	381	0.58	220.40	
1	384	0.58	222.14	221.27
20	434	0.58	250.74	4492.49
			-	
	· · · · · · · · · · · · · · · · · · ·	:		
<u> </u>			AAHUs	235.69

NET CHANGE IN AAHUS DUE TO PROJECT		<u> </u>
A. Future With Project Open Water AAHUs	=	235.69
B. Future Without Project Open Water AAHUs	=	236.98
Net Change (FWP - FWOP) =		-1.29

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	T
A. Emergent Marsh Habitat Net AAHUs =	40.22
B. Open Water Habitat Net AAHUs =	-1.29
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	28.69

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Barataria Basin Landbridge Shore Protection - Phase 3

Project Area:

163

Area 4

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	53	0.58	52	0.57	43	0.49
V2	% Aquatic	15	0.24	15	0.24	12	0.21
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 80	0.44	% 20 80	0.44	% 15 85	0.43
V4	%OW <= 1.5ft	20	0.36	20	0.36	17	0.32
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value   Emergent Marsh	1.00 HSI =	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.61</b>
	Open Water HSI	3	0.46	OW HSI =	0.46	OW HSI =	0.43

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Barataria Basin Landbridge Shore Protection - Phase 3

Project Area:

163

Area 4

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	53	0.58	52	0.57	46	0.51
V2	% Aquatic	15	0.24	15	0.24	15	0.24
<b>V</b> 3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 80	0.44	% 20 80	0.44	% 20 80	0.44
V4	%OW <= 1.5ft	20	0.36	20	0.36	20	0.36
V5	Salinity (ppt)	4	1.00	4	1.00	4	1.00
V6	Access Value Emergent Marsh H	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.63</b>
	Open Water HSI		0.46	OW HSI =	0.46	OW HSI =	0.46

AAHU CALCULATION - EMERGENT MARSH

Project: Barataria Basin Landbridge Shore Protection - Phase 3 Area 4

<b>Future Witho</b>	uture Without Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	86	0.67	57.58	
1	85	0.66	56.39	56.98
20	70	0.61	42.43	936.00
			AAHUs =	49.65

Future With			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	86	0.67	57.58	
1	85	0.66	56.39	56.98
20	76	0.63	47.59	986.69
	i	:		
		1	AAHUs	52.18

NET CHANGE IN AAHUS DUE TO PROJECT		n jl
A. Future With Project Emergent Marsh AAHUs	=	52.18
B. Future Without Project Emergent Marsh AAHUs	=	49.65
Net Change (FWP - FWOP) =		2.53

AAHU CALCULATION - OPEN WATER

Project: Barataria Basin Landbridge Shore Protection - Phase 3 Area 4

Future Witho	uture Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	77	0.46	35.37	
1	78	0.46	35.83	35.60
20	93	0.43	40.24	723.93
		<u> </u>	AAHUs =	37.98

AAHUS	=	37	.9	<u>8</u>
	_		_	

Future With I	uture With Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HÜS
0	77	0.46	35.37	
1	78	0.46	35.83	35.60
20	87	0.46	39.96	720.01
		<del></del>		
				<u>-</u> .
		1	AAHUs	37.78

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	37.78
B. Future Without Project Open Water AAHUs	=	37.98
Net Change (FWP - FWOP) =		-0.20

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	2.53
B. Open Water Habitat Net AAHUs =	-0.20
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	1.78

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Marsh Creation South of Leeville

Project Area:

163

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	6	0.15	6	0.15	6	0.15
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3	%	0.20	%	0.20	%	0.20
·	Class 3 Class 4 Class 5	100	:	100		100	
V4	%OW <= 1.5ft	0 :	0.10	0	0.10	0	0.10
V5	Salinity (ppt)	16	1.00	16	1.00	16	1.00
V6	Access Value Emergent Marsh HSI	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.32</b>
	Open Water HSI	2	0.85	OW HSI =	0.65	OW HSI =	0.65

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Marsh Creation South of Leeville

Project Area:

163

Condition: Future With Project

		TY 0		TY 1		TY 3	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	6	0.15	29	0.36	99	0.99
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	% 100	1.00	% 100	1.00
V4	%OW <= 1.5ft	0	0.10	100	0.50	100	0.50
V5	Salinity (ppt)	16	1.00	16	1.00	16	1.00
V6	Access Value Emergent Marsh	1.00	1.00	0.0001 EM HSI =	0.10	1.00 EM HSI =	1.00
	Open Water HSI	-	0.65	OW HSI =	0.29	OW HSI =	0.74

Project: Marsh Creation South of Leeville

		TY 20					
Variable	<u> </u>	Value	SI	Value	SI	Value	SI
V1	% Ernergent	95	0.96				
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	%		%	
V4	%OW <= 1.5ft	95	0.63				
V5	Salinity (ppt)	16	1.00				·
V6	Access Value	1.00 EM HSI =	1.00	EM HSI =		EM HSI =	
	: ==	OW HSI =	0.75	OW HSI =	<del></del>	OW HSI =	

## AAHU CALCULATION - EMERGENT MARSH

Project: Marsh Creation South of Leeville

Cummulative	Total		ut Project	ture Witho
HUs	HUs	x HSI	Marsh Acres	ΤΥ
	3.25	0.32	10	0
3.25	3.25	0.32	10	1
58.58	2.92	0.32	9	20
3.09	AAHUs =			

Future With	uture With Project		Total	Cummulative
17	Marsh Acres	x HSI	HUs	HUs
0	10	0.32	3.25	
1	48	0.43	20.45	11.20
3	162	0.99	161.15	159.98
20	155	0.97	150.91	2652.06
			AAHUs	141.16

NET CHANGE IN AAHU® DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	141.16
B. Future Without Project Emergent Marsh AAHUs =	3.09
Net Change (FWP - FWOP) =	138.07

# AAHU CALCULATION - OPEN WATER Project: Marsh Creation South of Leeville

iture Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	153	0.65	99.10	
1	153	0.65	99.10	99.10
20	154	0.65	99.74	1888.99
		······································		
			AAHUs =	99.40

uture With	Project	ï	Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	153	0.65	99.10	<u> </u>
1	0	0.29	0.00	40.47
3	1	0.74	0.74	0.59
20	8	0.75	5. <b>97</b>	56.79
		<del></del>		
<del>-</del>		<del></del>		
			<del></del>	

AAHU	B	4.	89

NET CHANGE IN AAHUS DUE TO PROJECT		<u> </u>
A. Future With Project Open Water AAHUs	=	4.89
B. Future Without Project Open Water AAHUs	=	99.40
Net Change (FWP - FWOP) =		-94.51

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	T:
A. Emergent Marsh Habitat Net AAHUs =	138.07
B. Open Water Habitat Net AAHUs =	-94.51
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	86.39

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

## Project: PO-13 Tangipahoa/Pontchartrain Shoreline Protection

The WVA for this project includes 4 areas. Total benefits for this project are as follows:

Area	AAHUs
Α	10
В	11
B1	16
B-water	(3)

TOTAL BENEFITS = 34 AAHUS

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Tangipahoa/Pontchartrain Shoreline Protection

Area A

Condition: Future Without Project

Project Area:

Fresh.....

Intermediate.

40

		TYO		TY 1		TY 13	
Variable	V	alue	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	35	0.42	15	0.2
V2	% Aquatic	0	0.10	0	0.10	0	0.1
V3	Interspersion Class 1	%	( )	%		%	
	Class 2 Class 3	35	0.48	30	0.44	10	0.2
	Class 4 Class 5	65		70		90	
V4	%OW <= 1.5R	38	0.53	36	0.51	28	0.4
∨5	Salinity (ppt) fresh intermediate	3	1.00		1.00	3	1.0
V6	Access Value fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
<del></del>	Emergent Marsh HS		0.56	EM HSI =	0.53	EM HSI =	0.3
	Open Water HSI		0.29	OW HSI =	0.28	OW HSI =	0.20

Project: FWOP Tangipahoa/Pontchartrain Shoreline Protection

	_	TY 20					
Variable	1	Value	SI	Value	SI	Value	ŠI
V1	% Emergent	0	0.10				
V2	% Aquatic	o	0.10				
∨3	Interspersion Class 1 Class 2 Class 3 Class 4	%	0.10	%		%	
	Class 5	100					
V4	%OW <= 1.5ft	24	0.37				
∨5	Salinity (ppt) fresh intermediate	3	1.00				
V6	Access Value fresh intermediate	1.00	1.00				
		EM HSI = OW HSI =	0.24 0.25	EM HSI = OW HSI =		EM HSI = OW HSI =	

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Tangipahoa/Pontchartrain Shoreline Protection Project:

Project Area: Fresh.....

Condition: Future With Project

Intermediate.

40

		TY 0		TY 1		TY 20	
Variable	V	lue	SI	Value	SI	Value	Sí
V1_	% Emergent	38	0.44	40	0.46	85	0.87
V2	% Aquatic	0	0.10	5	0.15	50	0.55
∨3	Interspersion Class 1 Class 2	% 35		% 35	0.48	% 100	1.00
	Class 3 Class 4 Class 5	65	1-1	65			·
V4	%OW <= 1.5R	38	0.53	40	0.55	95	0.80
∨5	Salinity (ppt) fresh intermediate i	3	1.00	3	1.00	3	1.00
∨6	Access Value   fresh intermediate	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HSI	•	0.56	EM HSI =	0.57	EM HSI =	0.91
	Open Water HSI	•	0.29	OW HSI -	0.33	OW HSI =	0.70

## **AAHU CALCULATION - EMERGENT MARSH**

Project: Tangipahoa/Pontchartrain Shoreline Protection Area A

Future Witho	ut Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	15	0.56	8.38	
1	14	0.53	7.47	7.92
13	6	0.37	2.25	55.79
20	0	0.24	0.00	6.90
	<u>-</u>			
			AAHUs =	3.53

Future With F	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	15	0.56	8.38	
1	18	0.57	9.15	8.76
20	34	0.91	30.99	361.92
			AAHUs	18,53

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	3	18.53
B. Future Without Project Emergent Marsh AAHUs	2	3.53
Net Change (FWP - FWOP) =		15.00

Project: Tangipahoa/Pontchartrain Shoreline Protection
Area A

ture Witho	ut Project		Total	
TY	Water Acres	x HSI	HUs	Cummulative HUs
0	25	0.29	7.18	
1	26	0.28	7.34	7.26
13	34	0.26	8.97	98.18
20	40	0.25	9.89	66.12
			AAHUs =	8.58

Future With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	25	0.29	7.18	
1	24	0.33	8.00	7.59
20	6	0.70	4.22	137.24
			····	
	· · · · · · · · · · · · · · · · · · ·			
<del></del>	·	·····		
			AAHUs	7.24

NET CHANGE IN AAHUS DUE TO PROJECT		7
A. Future With Project Open Water AAHUs	=	7.24
B. Future Without Project Open Water AAHUs	=	8.58
Net Change (FWP - FWOP) =		-1.34

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	CT
A. Emergent Marsh Habitat Net AAHUs =	15.00
B. Open Water Habitat Net AAHUs =	-1.34
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	9.73

## COMMUNITY HABITAT SUITABILITY MODEL Fresh Swamp

Project...... Tangipahoa/Pontchartrain Shoreline Protection Area B

Acres:

20

Condition: Future Without Project

	]	TY 0		TY 1	TY 1		)
Variable	1	Class/Value	SI	Class/Value	SI	Class/Value	i SI
V1	Stand Structure						)
		% Cover		% Cover		% Cover	No
	Overstory	63	0.60	631	0.60	1	swamp
	Scrub shrub	21		. 21			remeinin
	Herbaceous	79		79		ĺ	
V2	Meturity	Age		Age		Age	
	(input age						
	or	Cypress %		Cypress %		Cypress %	
	i	74		741		, c,p. cc.	
	(Decles	Cypress dbh		Cypress dbh		Cypress dbh	
	composition	18.4		18.4		-,,,	
	and	Tupelo et al. %		Tupelo et al. %		Tupelo et al. %	
	dbh)	26		261			
	1	Tupelo et al dbf)		Tupelo et al dbh		Tupelo et al dor	)
		7.5	0.88		0.88	1	
		Class		Class		Class	
V3	Hyrology	4	1.00		1.00		
		Class		Class		Class	
V4	Forest Size	5	1.00		1 00		
	Surrounding	Values %		Values %		Values %	
V5	Land Use						
		1					
	Forest / marsh	100	1 00	100	1 00		
	Abendoned Ag	!				:	
	Pasture / Hay	i i					
	Active Ag	(	- 1				
	Development					,	
	Disturbence						
V6 .	i	Class	1	Class	i	Class	
	Type	4	1.00	4+	1.00		
		Class		Class	-	Class	
	Distance	3	!	3 }			
		HSI -	0.82	HSI =	0.821	HSI "	

## COMMUNITY HABITAT SUITABILITY MODEL Fresh Swamp

Project...... Tangipahos/Pontchartrain Shoreline Protection Acres:

Area B

20

Condition: Future With Project

	1	TY	0	TY 1		TY 20	
Variable	4	Class/Value	i SI	Clase/Value	ŠI	Class/Value	ŠĪ
٧í	Stand Structure					i	
		% Cover	j	% Cover		% Cover	
	Overstory	6:	0.60	631	0.60	65	0.60
	Scrub shrub	2		21		24	
	Herbaceous	71		79		80	
V2	Maturity	Age	i	Age		Age	
	(inpret age	]	-	1		1 ì	
	or	Cypress %	ļ	Cyprese %		Cypress %	
	i	74	•	74		75	
	species	Cypress dbh		Cypress dbh		Cypress dbh	
	composition	18.4		18.4		21	
	****	Tupelo et al. 9		Tupelo et al. %		Tupelo et al. %	
	dbb)			26		25	
	1 .	Tupelo et al di		Tupelo et al dbh		Tupelo et al don	
	<u> </u>	7.9	0.88	7.5	0.88	9.5	0.94
		Ciass		Class		Class	
V3	Hyrology	Class	1.00	4	1.00	4	1.00
V4	Forest Size	C1888	1.00	Class		Class	
V-			4 1.00	Values %	1.00	Value %	1.00
V5	Surrounding Land Use	VAILUES 7	۱ ۱	Values %		Values %	
VO	LETS USE		1				
	Forest / marsh	100	1.00	100	1.00	100	1.00
	Abendoned Ag	100		100	1.00	100	1.00
	Pasture / Hay						
	Active Ag		1 1	-			
	Development		1 1			ł	
	Disturbence		1				
V6	J	Class	1 1	Class		Ciese	
	Туре	4	1.00	4	1.00	4	1.00
	.,,,,	Class		Ciesa		Class	,
	Distance	3	1 1	3	- 1	3	
		HSI =	0.82	HSI =	0.82	HSI -	0.84

Project: Tangipahoa/Pontchartrain Shoreline Protection Area B

uture With Pr	roject		Total	Cummulative
TY	Acres	x HSI	HUs	HUs
01	20	0.82	16.41	
1!	20	0.82	16.41	16.41
20	20	0.84	16.76	315.08
<u> </u>	<u>_</u>			
<del></del>				
<del></del>			Total	
		1	CHUs =	331.60
		!	AAHUs =	16.57

uture Withou	t Project Acres	x HSI	Total HUs	Cummulative HUs
0	20	0.82	16.41	
1	19	0.82	15.59	16.00
20	0	0.00	0.00	98.74
			Total CHUs =	114.75
		·	AAHUS -	5.74

NET CHANGE IN AAHU'S DUE TO PROJECT	
A. Future With Project AAHUs =	16.57
B. Future Without Project AAHUs =	5.74
Net Change (FWP - FWOP) =	10.84
B. Future Without Project AAHUs = Net Change (FWP - FWOP) =	5.74 10.84

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Tangipahoa/Pontchartrain Shoreline Protection

Project Area: Fresh.....

Area B1

Condition: Future Without Project

Intermediate.

100

		TY 0		TY 1		TY 20	
Variable	Vi	ilue	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10	0	0.10	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
∨3	Interspersion Class 1 Class 2 Class 3 Class 4	%	0.10	%	0.10	%	0.10
	Class 5	100		100		100	
V4	%OW <= 1.5ft	67	0.85	67	0.85	67	0.85
∨5	Salinity (ppt) fresh intermediate	3	1.00	3	1.00	3	1.00
∨6	Access Value : fresh intermediat :	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HS		0.24	EM HSI =	0.24	EM HSI =	0.24
	Open Water HSI	=	0.28	OW HSI =	0.28	OW HSI =	0.28

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Tangipahoa/Pontchartrain Shoreline Protection Project:

Project Area:

Area B1

Fresh.....

Condition: Future With Project

Intermediate. 100

		TY 0		TY 1		TY 20	
/ariable		Value	<u> </u>	Value	SI	Value	SI
V1	% Ernergent	0	0.10	4	0.14	75	0.78
V2	% Aquatic	0	0.10	5	0.15	50	0.5
V3	Interspersion Class 1 Class 2	%	0.10	%	0.20	% 70	0.76
	Class 3 Class 4 Class 5	100		100		30	
V4	%OW <= 1.5ft	67	0.85	67	0.85	95	0.8
V5	Salinity (ppt) fresh intermediate	3	1.00	3	1.00	3	1.00
V6	Access Value fresh Intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh Open Water HSI	HSI =	0.24	EM HSI = OW HSI =	0.28	EM HSI =	0.8

## AAHU CALCULATION - EMERGENT MARSH

Project: Tangipahoa/Pontchartrain Shoreline Protection Area B1

uture Witho	ut Project	;	Tota:	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	0	0.24	0.00	
1	0	0.24	0.00	0.00
20	0	0.24	0.00	0.00
		·· ·· · · · · · · · · · · · · · · · ·		
	<del></del>		AHUs =	

Future With I	uture With Project		Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs		
0	0	0.24	0.00			
1	4	0.28	1.12	0.53		
20	75	0.82	61.84	475.89		
		<del></del>				
			AAHUs	23.82		

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	23.82
B. Future Without Project Emergent Marsh AAHUs =	0.00
Net Change (FWP - FWOP) =	23.82

## **AAHU CALCULATION - OPEN WATER**

Tangipahoa/Pontchartrain Shoreline Protection
Area B1

Future Without Project		·	Total	Cummulative
TY	Water Acres	x H\$I	HUs	HUs
0	100	0.28	28.30	
1	100	0.28	28.30	28.30
20	100	0.28	28.30	537.76
		i		
-			AAHUs =	28.30

Future With Project			Total	Cummulative
17	Water Acres	x HSI	HUs	HUs
0	100	0.28	28.30	
1	96	0.33	32.15	30.26
20	25	0.69	17.16	547.46
		ſ	AAHUs	28.89

NET CHANGE IN AAHUS DUE TO PROJECT		- I
A. Future With Project Open Water AAHUs		28.89
B. Future Without Project Open Water AAHUs	=	28.30
Net Change (FWP - FWOP) =		0.58

TOTAL BENEFITS IN AAHUS DUE TO PROJECT						
A. Emergent Marsh Habitat Net AAHUs =	23.82					
B. Open Water Habitat Net AAHUs =	0.58					
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	16.32					

05/03/2000 E-137

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Tangipahoa/Pontchartrain Shoreline Protection

Open Water - FWOP Benefits - Area B

Condition: Future Without Project

Project Area:

Fresh.....

Intermediate. 20

	_						
		TY 0		TY 1		TY 20	
Variable	V	alue	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	99	0.99	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
<b>V3</b>	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	67	0.85
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 HS		1.00	EM HSI =	0.99	EM HSI =	0.24
	Open Water HSI	3	0.29	OW HSI =	0.33	OW HSI =	0.28

## **AAHU CALCULATION - OPEN WATER**

Project: Tangipahoa/Pontchartrain Shoreline Protection
Open Water - FWOP Benefits - Area B

Future Witho	out Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	0	0.29	0.00	
1	1	0.33	0.33	0.16
20	20	0.28	5.66	59.80
			AAHUs =	3.00

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Grand/White Lakes Landbridge Protection

Option A - Rock Breakwaters

Project Area: Fresh.....

1,530

Condition: Future Without Project

Intermediate..

		TY 0		TY 1		TY 15	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	29	0.36	29	0.36	17	0.25
V2	% Aquatic	3	0.13	3	0.13	3	0.13
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	1001	0.20	100	0.20	100	0.20
V4	%OW <= 1.5ft	4	0.15	4	0.15	4	0.15
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
	Emergent Marsh		0.42	EM HSI =	0.42	EM HSI≃	0.34
	Open Water HSI	3	0.23	OW HSI =	0.23	OW HSI =	0.23

Project:

Grand/White Lakes Landbridge Protection

		TY 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	14	0.23				· · · · · · · · · · · · · · · · · · ·
V2	% Aquatic	1	0.11				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	0.20	%		%	
V4	%OW <= 1.5ft	2	0.12				
V5	Salinity (ppt) fresh intermediate	1	1.00				
<b>∨6</b>	Access Value fresh intermediate	0.10	0.37				
		EM HSI =	0.32	EM HSI = OW HSI =		EM HSI = OW HSI =	

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Grand/White Lakes Landbridge Protection

Option A - Rock Breakwaters

Fresh.....

Project Area:

1,530

Condition: Future With Project Intermediate.

		TY 0		TY 1		TY 10	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	29	0.36	30	0.37	30	0.37
V2	% Aquatic	3	0.13	3	0.13	5	0.15
V3	Interspersion Class 1 Class 2 Class 3	%	0.20	%	0.20	%	0.20
	Class 4 Class 5	100		100		100	
V4	%OW <= 1.5ft	4	0.15	5	0.16	3	0.13
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
	Emergent Marsh	HSI =	0.42	EM HSI =	0.42	EM HSI =	0.42
	Open Water HS	2	0.23	OW HSI =	0.23	OW HSI =	0.24

Project: Grand/White Lakes Landbridge Protection

		TY 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	28	0.35				
V2	% Aquatic	3	0.13				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.20	%		%	
V4	%OW <= 1.5ft	3	0.13				
V5	Salinity (ppt) fresh intermediate	1	1.00				
V6	Access Value fresh intermediate	0.10	0.37				a-u-1757
		EM HSI =	0.41	EM HSI =		EM HSI =	

AAHU CALCULATION - EMERGENT MARSH
Project: Grand/White Lakes Landbridge Protection Option A - Rock Breakwaters

<b>Future With</b>		<u> </u>	Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	451	0.42	187.28	
1	441	0.42	183.13	185.21
15	267	0.34	91.58	1893.61
20	216	0.32	70.02	403.19
		<del>  </del>		
			AAHUs =	124.10

future With			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	451	0.42	187.28	
1	460	0.42	193.71	190.49
10	458	0.42	192.87	1739.61
20	429	0.41	175.63	1841.93
			i	
		j		
			AAHUs	188.60

NET CHANGE IN AAHUS DUE TO PROJECT	7
A. Future With Project Emergent Marsh AAHUs =	188.60
B. Future Without Project Emergent Marsh AAHUs =	124.10
Net Change (FWP - FWOP) =	64,50

AAHU CALCULATION - OPEN WATER

Project: Grand/White Lakes Landbridge Protection Option A - Rock Breakwaters

Future Witho	uture Without Project		Future Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs		
0	1079	0.23	246.75			
1	1089	0.23	249.03	247.89		
15	1263	0.23	288.82	3764.99		
20	1314	0.21	279.93	1422.55		
	!					
<u> </u>			AAHUs =	271.77		

<b>Future With</b>	uture With Project		Total	Cummulative
TY	Water Acres	x HSI	HUs_	HUs
0	1079	0.23	246.75	
1	1070	0.23	245.58	246.16
10	1072	0.24	258.71	2269.27
20	1101	0.23	250.86	2548.50
<u></u>	;		AAHUs	253.20

NET CHANGE IN AAHUS DUE TO PROJECT		]
A. Future With Project Open Water AAHUs	=	253.20
B. Future Without Project Open Water AAHUs	=	271.77
Net Change (FWP - FWOP) =		-18.57

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	T
A. Emergent Marsh Habitat Net AAHUs =	64.50
B. Open Water Habitat Net AAHUs =	-18.57
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	37.70

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Grand/White Lakes Landbridge Protection

Option B - A-Jacks

Condition: Future Without Project

Project Area:

Fresh..... 1,530

Intermediate..

		TY 0		TY 1		TY 15	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	29	0.36	29	0.36	17	0.25
V2	% Aquatic	3	0.13	3	0.13	3	0.13
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	4	0.15	4	0.15	4	0.15
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
	Emergent Marsh Open Water HS		0.42	EM HSI = OW HSI =	0.42 0.23	EM HSI = OW HSI =	0.34 0.23

Project:

Grand/White Lakes Landbridge Protection

	7	TY 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	14	0.23				
V2	% Aquatic	1	0.11				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.20	%		%	
V4	%OW <= 1.5ft	2	0.12				
<b>V</b> 5	Salinity (ppt) fresh intermediate	1	1.00				·
V6	Access Value fresh intermediate	0.10	0.37				
		EM HSI = OW HSI =	0.32	EM HSI = OW HSI =		EM HSI = OW HSI =	

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Grand/White Lakes Landbridge Protection

Option B - A-Jacks

Project Area:

Fresh.....

1,530

Condition: Future With Project

Intermediate.

		TY 0		TY 1		TY 10	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	29	0.36	30	0.37	28	0.35
V2	% Aquatic	3	0.13	3	0.13	5	0.15
V3	Interspersion Class 1 Class 2 Class 3	%	0.20	%	0.20	%	0.20
	Class 4 Class 5	100		100		100	
V4	%OW <= 1.5ft	4	0.15	5	0.16	. 5	0.16
V5	Salinity (ppt) fresh intermediate	1	1.00	1	1.00	1	1.00
V6	Access Value fresh intermediate	0.10	0.37	0.10	0.37	0.10	0.37
	Emergent Marsh	HSI =	0.42	EM HSI =	0.42	EM HSI =	0.41
	Open Water HSI	2	0.23	OW HSI =	0.23	OW HSI =	0.24

Project: Grand/White Lakes Landbridge Protection

NP	<b>,</b>	TY 20	T T	<del>,</del>			
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	26	0.33				
V2	% Aquatic	4	0.14				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.20	%		%	
V4	%OW <= 1.5ft	6	0.17				
V5	Salinity (ppt) fresh intermediate	1	1.00				
V6	Access Value fresh intermediate	0.10	0.37				
		EM HSI =	0.40	EM HSI =		EM HSI =	
		OW HSI =	0.24	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH
Project: Grand/White Lakes Landbridge Protection Option B - A-Jacks

Future Witho	out Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	451	0.42	187.28	
1	441	0.42	183.13	185.21
15	267	0.34	91.58	1893.61
20	216	0.32	70.02	403.19
			AAHUs =	124.10

Future With	e With Project		Total	Cummulative	
TY	Marsh Acres	x HSI	HUs -	HUs	
0	451	0.42	187.28		
. 1	459	0.42	193.29	190.28	
10	435	0.41	178.09	1670.78	
20	396	0.40	157.44	1676.88	
		j			
			AAHUs	176.90	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	176.90
B. Future Without Project Emergent Marsh AAHUs	= [	124.10
Net Change (FWP - FWOP) =		52.80

AAHU CALCULATION - OPEN WATER

Project: Grand/White Lakes Landbridge Protection
Option B - A-Jacks

uture Witho	out Project	Total	Cummulative	
ΤΥ	Water Acres	x HSI	HUs	HUs
0	1079	0.23	246.75	
1	1089	0.23	249.03	247.89
15	1263	0.23	288.82	3764.99
20	1314	0.21	279.93	1422.55
			AAHUs =	271.77

uture With Project			Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	1079	0.23	246.75		
1	1071	0.23	245.81	246.28	
10	1095	0.24	266.09	2303.04	
20	1134	0.24	268.92	2675.43	
<del></del>	!	<del>-</del>	AAHUs	261.24	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	2	261.24
B. Future Without Project Open Water AAHUs	=	271.77
Net Change (FWP - FWOP) =		-10.53

TOTAL BENEFITS IN AAHUS DUE TO PROJE	CT
A. Emergent Marsh Habitat Net AAHUs =	52.80
B. Open Water Habitat Net AAHUs =	-10.53
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	32.37

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: PTE-15viii Raccoon Island Restoration

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

<u> Area</u>	AAHUs
1	41
2	42
3	0.48

TOTAL BENEFITS = 83 AAHUS

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Raccoon Island Restoration

Project Area:

86

Area 1

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20	
		/alue	SI	Value	SI	Value	SI
V1	% Emergent	o	0.10	0	0.10	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	0.10	100	0.10	100	0.10
V4	%OW <= 1.5ft	60	0.87	60	0.87	50	0.74
V5	Salinity (ppt)	22	0.93	22	0.93	22	0.93
V6	Access Value Emergent Marsh HSI	1.00	1.00	1.00 EM HSI =	1.00 0.25	1.00 EM HSI =	1.00 <b>0.25</b>
	Open Water HSI	=	0.69	OW HSI =	0.69	OW HSI =	0.68

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Raccoon Island Restoration

Project Area:

86

Area 1

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		/alue	SI	Value	ŠI	Value	SI
V1	% Emergent	0	0.10	25	0.33	97	0.97
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	% 100	1.00	% 100	1.00
V4	%OW <= 1.5ft	60	0.87	100	0.50	100	0.50
V5	Salinity (ppt)	22	0.93	22	0.93	22	0.93
V6	Access Value	1.00	1.00	0.0001	0.10	1.00	1.00
	Emergent Marsh HS Open Water HSI		0.25	EM HSI =	0.40	EM HSI = OW HSI =	0. <b>98</b> 0. <b>73</b>

Project: Raccoon Island Restoration

		TY 20					
/ariable		Value	SI	Value	SI	Value	SI
V1	% Emergent	87	0.88				
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1 Class 2 Class 3	% 85	0.88	%		%	
	Class 3 Class 4 Class 5	15					
V4	%OW <= 1.5ft	100	0.50				
V5	Salinity (ppt)	22	0.93				
V6	Access Value	1.00 EM HSI =	1.00	EM HSI =		EM HSI =	
	;-=	OW HSI =	0.91	OW HSI =		OW HSI =	<del></del>

#### **AAHU CALCULATION - EMERGENT MARSH**

Project: Raccoon Island Restoration
Area 1

ture With	out Project	Total	Cummulative	
ΤY	Marsh Acres	x HSI	HUs	HUs
0	0	0.25	0.00	
1	0	0.25	0.00	0.00
20	0	0.25	0.00	0.00
J. 1. 1			AAHUs =	0.00

<b>Future With</b>	uture With Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	0	0.25	0.00	
1	21	0.40	8.45	3.70
3	83	0.98	81.01	77.60
20	75	0.91	68.19	1266.61
			AAHUs	67.40

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	67.40
B. Future Without Project Emergent Marsh AAHUs =	0.00
Net Change (FWP - FWOP) =	67.40

### **AAHU CALCULATION - OPEN WATER**

Project: Raccoon Island Restoration
Area 1

Future Witho			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	86	0.69	59.51	
1	86	0.69	59.51	59.51
20	86	0.68	58.69	1122.87
			AAHUs =	59.12

Future With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	86	0.69	59.51	
. 1	0	0.29	0.00	23.94
3	3	0.73	2.19	1.75
20	11	0.72	7.94	86.37
	Marine Committee		AAHUs	5.60

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	5.60
B. Future Without Project Open Water AAHUs	=	59.12
Net Change (FWP - FWOP) =		-53.52

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	T
A. Emergent Marsh Habitat Net AAHUs =	67.40
B. Open Water Habitat Net AAHUs =	-53.52
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	40.53

Project:

Raccoon Island Restoration

Project Area:

93

Area 2

Condition: Future Without Project

		TY 0		TY 1		TY 13	
Variable		Value	SI	Value	SI	Value	SI_
V1	% Ernergent	62	0.66	57	0.61	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2	% 60	0.68	% 60	0.68	%	0.10
	Class 3 Class 4 Class 5	40		40		100	
V4	%OW <= 1.5ft	50	0.74	50	0.74	60	0.87
V5	Salinity (ppt)	22	0.93	22	0.93	22	0.93
V6	Access Value Emergent Marsh HS	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 0.25
	Open Water HSI	=	0.73	OW HSI =	0.73	OW HSI =	0.69

Project:

**Raccoon Island Restoration** 

		TY 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10				
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.10	%		%	
V4	%OW <= 1.5ft	40	0.61				
V5	Salinity (ppt)	22	0.93				
V6	Access Value	1.00	1.00				<del> </del>
		EM HSI =	0.25 0.67	EM HSI = OW HSI =		EM HSI = OW HSI =	

Project:

Raccoon Island Restoration

Area 2

Condition: Future With Project

Project Area:

93

		TY 0		TY 1		TY 10	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	62	0.66	66	0.69	98	0.98
V2	% Aquatic	0	0.30	0	0.30	0	0.30
<b>V3</b>	Interspersion Class 1 Class 2	% 60	0.68	% 60	0.68	% 100	1.00
	Class 3 Class 4 Class 5	40		40			
V4	%OW <= 1.5ft	50	0.74	50	0.74	100	0.50
V5	Salinity (ppt)	22	0.93	22	0.93	22	0.93
V6	Access Value Emergent Marsh HSI	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.98</b>
	Open Water HSI	=	0.73	OW HSI =	0.77	OW HSI =	0.73

Project: FWP

Raccoon Island Restoration

	Varia
	V1
	V2
	V3
11	

TY 20 SI ble Value Value SI Value SI % Emergent 98 0.98 % Aquatic 01 0.30 Interspersion % % % Class 1 100 1.00 Class 2 Class 3 Class 4 Class 5 **V4** %OW <= 1.5ft 100 0.50 **V5** Salinity (ppt) 22 0.93 **V6 Access Value** 1.00 1.00 EM HSI = EM HSI = EM HSI = 0.98 OW HSI = OW HSI = 0.73 OW HSI =

### AAHU CALCULATION - EMERGENT MARSH Project: Raccoon Island Restoration

Area 2

<b>Future Witho</b>	ut Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HÜs
0	58	0.75	43.31	
1	53	0.72	38.02	40.64
13	0	0.25	0.00	178.81
20	0	0.25	0.00	0.00
			į	
			AAHUs =	10.97

Future With I	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	58	0.75	43.31	
1	61	0.77	46.96	45.12
10	91	0.98	89.29	603.63
20	91	0.98	89.29	892.94
			AAHUs	77.08

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	77.08
B. Future Without Project Emergent Marsh AAHUs =	10.97
Net Change (FWP - FWOP) =	66.11

### **AAHU CALCULATION - OPEN WATER**

Project: Raccoon Island Restoration Area 2

Future Witho	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	35	0.73	25.39	<u> </u>
1	40	0.73	29.02	27.20
13	93	0.69	64.35	563.75
20	93	0.67	62.58	444.26
		i		
			!	
<del></del>	<del></del>		AAHIIe =	51 76

AAHUs = 51.76

Future With f	ture With Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	35	0.73	25.39	
1 !	32	0.73	23.21	24.30
10	2	0.73	1.46	111.29
20	2	0.73	1.46	14.62
;				
			AAHUs	7.51

NET CHANGE IN AAHUs DUE TO PROJECT

A. Future With Project Open Water AAHUs = 7.51

A. Future With Project Open Water AAHUs = 7.51

B. Future Without Project Open Water AAHUs = 51.76

Net Change (FWP - FWOP) = -44.25

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	T
A. Emergent Marsh Habitat Net AAHUs =	66.11
B. Open Water Habitat Net AAHUs =	-44.25
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	41.59

Project:

Raccoon Island Restoration

Project Area:

33

Area 3

Condition: Future Without Project

		TY 0		TY 1		TY 6	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	82	0.84	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2	%  100	1.00	% 80	0.84	%	0.10
	Class 3 Class 4 Class 5		:	20	! : :	100	
V4	%OW <= 1.5ft	100	0.50	100	0.50	80	1.00
V <b>5</b>	Salinity (ppt)	22	0.93	22	0.93	22	0.93
V6	Access Value	1.00	1.00	1.00   EM HSI =	1.00 0.88	1.00 EM HSI =	1.00 <b>0.25</b>
	Emergent Marsh HSI Open Water HSI	=	0.99 0.73	OW HSI =	0.72	OW HSI =	0.70

Project:

Raccoon Island Restoration

		TY 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10	· · · · · · · · · · · · · · · · · · ·			
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.10	%		%	
V4	%OW <= 1.5ft	20	0.36				
V5	Salinity (ppt)	22	0.93				
V6	Access Value	1.00	1.00	EM HSI =		EM HSI =	
	<u> </u>	EM HSI = OW HSI =	0.25	OW HSI =		OW HSI =	

Project:

Raccoon Island Restoration

Area 3

Condition: Future With Project

Project Area:

33

		TY 0		TY 1		TY 7	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	87	0.88	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2	% 100	1.00	% 85	0.88	%	0.10
	Class 3 Class 4 Class 5	i	:	15		100	
V4	%OW <= 1.5ft	100	0.50	100	0.50	80	1.00
V5	Salinity (ppt)	22	0.93	22	0.93	22	0.93
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HSI Open Water HSI	=	0.99	EM HSI =	0.91	EM HSI = OW HSI =	0.25

Project:

Raccoon Island Restoration

		TY 20					
√ariable		Value	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10				
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.10	%		%	
V4	%OW <= 1.5ft	20	0.36				
V5	Salinity (ppt)	22	0.93				<del></del>
V6	Access Value	1.00	1.00				
	الله الله الله الله الله الله الله الله	EM HSI =	0.25 0.65	EM HSI = OW HSI =		EM HSI =	

## AAHU CALCULATION - EMERGENT MARSH Project: Raccoon Island Restoration

Area 3

<b>Future Witho</b>	uture Without Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	33	0.99	32.73	
1	27	0.88	23.69	28.10
6	0	0.25	0.00	45.16
20	0	0.25	0.00	0.00
			AAHUs =	3.66

uture With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	33	0.99	32.73	
1	29	0.91	26.37	29.49
7	0	0.25	0.00	60.05
20	0	0.25	0.00	0.00
			AAHUs	4.48

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	4.48
B. Future Without Project Emergent Marsh AAHUs =	3.66
Net Change (FWP - FWOP) =	0.81

### AAHU CALCULATION - OPEN WATER Project: Raccoon Island Restoration

Area 3

Future Witho	ut Project		Total Cummulati	
TY	Water Acres	x HSI	HUs	HUs
0	0	0.73	0.00	
1	6	0.72	4.32	2.17
6	33	0.70	23.15	69.06
20	33	0.65	21.58	313.08
·	!		AAHUs =	19.22

Project	Ţ.	Total	Cummulative
Water Acres	x HSI	HUs	HUs
0	0.73	0.00	
4	0.72	2.89	1.45
33	0.70	23.15	78.71
33	0.65	21.58	290.72
	<del></del>	·	
	·	A A 1 1 1 1	18,54
	0 4 33	Water Acres         x         HSI           0         0.73           4         0.72           33         0.70	Water Acres         x         HSI         HUs           0         0.73         0.00           4         0.72         2.89           33         0.70         23.15

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	18.54
B. Future Without Project Open Water AAHUs	=	19.22
Net Change (FWP - FWOP) =		-0.67

TOTAL BENEFITS IN AAHUS DUE TO PROJE	CT
A. Emergent Marsh Habitat Net AAHUs =	0.81
B. Open Water Habitat Net AAHUs =	-0.67
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	0.48

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: BA-17a Amoretta Diversion

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

<u>Area</u>	AAHUs	
Α	15	
В	54	
С	64	

TOTAL BENEFITS = 133 AAHUS

Project: Amoretta Diversion

Project Area:

1,447

Area A

Condition: Future Without Project

	7	TY 0 TY 1			TY 20		
Variable		Value	SI	Value	SI	Value	SI
V1	% Ernergent	76	0.78	76	0.78	72	0.75
V2	% Aquatic	20	0.28	20	0.28	20	0.28
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30   35   35	0.65	% 30 35 35	0.65	% 20 40 40	0. <b>60</b>
V4	%OW <= 1.5ft	60	0.87	60	0.87	60	0.87
V5	Salinity (ppt)	8	1.00	8	1.00	8	1.00
V6	Access Value Emergent Marsh	1.00 HSI =	1.00 0.83	1.00 EM HSI =	1.00 0.83	1.00 EM HSI =	1.00 <b>0.80</b>
	Open Water HSI	8	0.55	OW HSI =	0.55	OW HSI =	0.55

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL **Brackish Marsh**

Project:

Amoretta Diversion

Project Area:

1,447

Condition: Future With Project

Area A

	] [ ]	TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	ŠI
V1	% Emergent	76	0.78	76	0.78	73	0.76
V2	% Aquatic	20	0.28	25	0.33	50	0.55
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 35 35	0.65	% 30 35 35	0.65	% 20 40 40	0.60
V4	%OW <= 1.5ft	60	0.87	60	0.87	70	1.00
V5	Salinity (ppt)	8	1.00	5	1.00	5	1.00
V6	Access Value Emergent Marsh	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.81</b>
	Open Water HSi	= = = = = = = = = = = = = = = = = = =	0.55	OW HSI =	0.58	OW HSI =	0.74

### AAHU CALCULATION - EMERGENT MARSH

Project: Amoretta Diversion Area A

Future Witho	out Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1104	0.83	914.48	
1	1101	0.83	912.00	913.24
20	1043	0.80	834.27	16584.27
			Ì	
			AAHUs =	874.88

Future With	Project	<u>[</u>	Total Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs
0	1104	0.83	914.48	
1	1101	0.83	912.00	913.24
20 (	1053	0.81	848.32	16719.55
!				
		1	AAHUs	881.64

NET CHANGE IN AAHUS DUE TO PROJECT		n ,
A. Future With Project Emergent Marsh AAHUs	=	881.64
B. Future Without Project Emergent Marsh AAHUs	=	874.88
Net Change (FWP - FWOP) =		6.76

## AAHU CALCULATION - OPEN WATER Project: Amoretta Diversion

Area A

uture Witho	ut Project		Total Cumm	
TY	Water Acres	x HSI	HUs	HUs
0	343	0.55	188.36	
1	346	0.55	190.01	189.18
20	404	0.55	220.36	3899.18
				<u> </u>
			AAHUs =	204.42

Future With Project			Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	343	0.55	188.36		
1	346	0.58	201.74	195.03	
20	394	0.74	289.96	4647.85	
\	<u> </u>		AAHUs	242.14	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	242.14
B. Future Without Project Open Water AAHUs	=	204.42
Net Change (FWP - FWOP) =		37.73

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	T
A. Emergent Marsh Habitat Net AAHUs =	6.76
B. Open Water Habitat Net AAHUs =	37.73
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	16.36

Project:

Amoretta Diversion

Project Area:

1,269

Area B

Condition: Future Without Project

	7	TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI_
V1	% Emergent	56	0.60	55	0.60	48	0.53
V2	% Aquatic	5	0.15	5	0.15	5	0.15
V3	Interspersion	%		%		%	
	Class 1	65	0.81	65	0.81	60 Í	0.78
	Class 2	10		10		10	
	Class 3	25		25		30	
	Class 4			:			
	Class 5					1	
V4	%OW <= 1.5ft	45	0.68	45	0.68	40	0.61
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 =	0.73	EM HSI =	0.72	EM HSI =	0.68
	Open Water HSI	3	0.43	OW HSI =	0.43	OW HSI =	0.42

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL **Brackish Marsh**

Project:

**Amoretta Diversion** 

Project Area:

1,269

Condition: Future With Project

Area B

		TY 0		TY 1		TY 20	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	56	0.60	56	0.60	54	0.59
V2	% Aquatic	5	0.15	20	0.28	40	0.46
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 65 10 25	0.81	% 65 10 25	0.81	% 65 10 25	0.81
V4	%OW <= 1.5ft	45	0.68	45	0.68	45	0.68
V5	Salinity (ppt)	8	1.00	. 5	1.00	5	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HS	=	0.73	EM HSI =	0.73	EM HSI =	0.72
	Open Water HSI		0.43	OW HSI =	0.55	OW HSI =	0.67

### AAHU CALCULATION - EMERGENT MARSH

Project: Amoretta Diversion Area B

Future Witho	ut Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	706	0.73	514.57	
1	701	0.72	506.68	510.62
20	605	0.68	409.24	8687.13
		w		
		7		
	·			
			AAHUs =	459.89

Future With I	Project		Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	706	0.73	514.57		
1	705	0.73	513.84	514.21	
20	679	0.72	486.65	9503.66	
		:			
			AAHUs	500.89	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	500.89
B. Future Without Project Emergent Marsh AAHUs	=	459.89
Net Change (FWP - FWOP) =		41.01

## AAHU CALCULATION - OPEN WATER Project: Amoretta Diversion

Area B

uture Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	563	0.43	241.25	
1	568	0.43	243.39	242.32
20	664	0.42	279.89	4973.33
			AAHUs =	260.78

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	563	0.43	241.25	
1	564	0.55	308.35	274.78
20	590	0.67	396.75	6688.04
		1.	AAHUs	348.14

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	348.14
B. Future Without Project Open Water AAHUs =	260.78
Net Change (FWP - FWOP) =	87.36

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	41.01			
B. Open Water Habitat Net AAHUs =	87.36			
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	53.88			

Project:

**Amoretta Diversion** 

Area C

Condition: Future Without Project

Project Area: 11,150

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	44	0.50	43	0.49	38	0.44
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%		%		%	
	Class 1	10	0.42	10	0.42		0.38
	Class 2	20		20			0.00
	Class 3	30		30		30	
	Class 4	40	:	40		45	
	Class 5						
V4	%OW <= 1.5ft	15	0.29	15	0.29	15	0.29
V5	Salinity (ppt)	13	1.00	13	1.00	13	1.00
V6	Access Value	1.00	1.00 (	1.00	1.00	Value	1.00
	Emergent Marsh HSI	3	0.62	EM HSI =	0.61	EM HSI =	0.57
	Open Water HSI	3	0.68	OW HSI =	0.68	OW HSI =	0.68

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Amoretta Diversion

Area C

Condition: Future With Project

Project Area: 11,150

		TY 0		TY 1	i	TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	44	0.50	44	0.50	39	0.45
V2	% Aquatic	0	0.30	2	0.31	5	0.34
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 10 20 30 40	0.42	% 10 20 30 40	0.42	% 5 20 30 45	0.38
V4	%OW <= 1.5ft	15	0.29	15	0.29	15	0.29
V5	Salinity (ppt)	13	1.00	11	1.00	11	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HS		0.62	EM HSI =	0.62	EM HSI =	0.58
	Open Water HSI	=	0.68	OW HSI =	0.69	OW HSI =	0.69

### AAHU CALCULATION - EMERGENT MARSH

Project: Amoretta Diversion

Area C

Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	4878	0.62	3012.02	
1	4843	0.61	2960.04	2985.99
20	4217	0.57	2424.58	51082.05
			AAHUs =	2703.40

Future With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	4878	0.62	3012.02	
1	4851	0.62	2995.35	3003.68
20	4373	0.58	2542.36	52553.58
·	<del>*************************************</del>	1	AAHUs	2777.86

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs =		2777.86
B. Future Without Project Emergent Marsh AAHUs =	: [	2703.40
Net Change (FWP - FWOP) =		74.46

### AAHU CALCULATION - OPEN WATER Project: Amoretta Diversion

Area C

Future Witho	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	6272	0.68	4254.14	
1	6307	0.68	4277.88	4266.01
20	6933	0.68	4681.94	85124.14
		į.		
			AAHUs =	4469.51

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	6272	0.68	4254.14	
1	6299	0.69	4318.01	4286.04
20	6777	0.69	4696.28	85624.47
		· · · · · · · · · · · · · · · · · · ·		
			AAHUs	4495.53

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	4495.53
B. Future Without Project Open Water AAHUs	=	4469.51
Net Change (FWP - FWOP) =		26.02

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	74.46
B. Open Water Habitat Net AAHUs =	26.02
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	63.70

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: XBA-1a East/West Grand Terre Islands Restoration

The WVA for this project includes 2 areas. Total benefits for this project are as follows:

Area	AAHUs
East	160
West	23

TOTAL BENEFITS = 183 AAHUS

Project:

East/West Grand Terre Islands Restoration

Project Area:

1,575

East Grand Terre

Condition: Future Without Project

		TY 0		TY 1		TY 13	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	37	0.43	36	0.42	17	0.25
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 15 25 60	0.31	% 15 25 60	0.31	% 15 85	0.23
V4	%OW <= 1.5ft	45	0.68	45	0.68	45	0.68
V5	Salinity (ppt)	17	1.00	17	1.00	17	1.00
V6	Access Value Emergent Marsh HS	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 0.41
	Open Water HSI	3	0.70	OW HSI =	0.70	OW HSI =	0.69

Project:

East/West Grand Terre Islands Restoration

		TY 20					
<u>Variable</u>		Value	SI	Value	SI	Value	SI
V1	% Emergent	15	0.24				
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 15 85	0.23	%		%	
V4	%OW <= 1.5ft	45	0.68				
V5	Salinity (ppt)	17	1.00				
V6	Access Value	1.00	1.00				
		EM HSI =	0.40	EM HSI = OW HSI =		EM HSI = OW HSI =	

Project:

East/West Grand Terre Islands Restoration

Project Area:

1,575

**East Grand Terre** 

Condition: Future With Project

		TY 0		TY 1		TY 3	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	37	0.43	42	0.48	52	0.57
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4	% 15 25 60	0.31	% 35 25 40	0.53	% 35 25 40	0.53
V4	Class 5 %OW <= 1.5ft	45	0.68	41	0.63	41	0.63
V5	Salinity (ppt)	17	1.00	17	1.00	17	1.00
<u> </u>	Access Value Emergent Marsh HS	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 0.68
	Open Water HSI	3	0.70	OW HSI =	0.71	OW HSI =	0.71

Project:

East/West Grand Terre Islands Restoration

Variable		TY 14		TY 20		TY 20			
		Value	SI	Value	SI	Value	SI		
V1	% Emergent	42	0.48	41	0.47				
V2	% Aquatic	0	0.30	0	0.30				
V3	Interspersion Class 1	% 30	0.47	% 30	0.47	%			
·	Class 2 Class 3 Class 4 Class 5	15 55		15 55					
V4	%OW <= 1.5ft	45	0.68	50	0.74				
V5	Salinity (ppt)	17	1.00	17	1.00				
V6	Access Value	1.00	1.00	1.00	1.00				
	<u></u>	EM HSI =	0.61	EM HSI = OW HSI =	0.60 0.72	EM HSI = OW HSI =			

### **AAHU CALCULATION - EMERGENT MARSH**

Project: East/West Grand Terre Islands Restoration
East Grand Terre

<u>Future Witho</u>	uture Without Project		Without Project		Total	Cummulative HUs	
ΤΥ	Marsh Acres	x HSI	HUs				
0	589	0.56	330.26				
1	564	0.55	312.59	321.40			
13	270	0.41	111.81	2464.02			
20	231	0.40	92.21	713.41			
	1		AAHUs =	174.94			

Future With	re With Project		Vith Project		Total	Cummulative	
ŤΥ	Marsh Acres	x HSI	HUs	HUs			
0	589	0.56	330.26				
1	655	0.62	404.22	366.62			
3	822	0.68	558.04	958.82			
14	657	0.61	401.07	5254.41			
20	639	0.60	386.04	2361.21			
			AAHUs	447.05			

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	447.05
B. Future Without Project Emergent Marsh AAHUs =	174.94
Net Change (FWP - FWOP) =	272.11

AAHU CALCULATION - OPEN WATER

Project: East/West Grand Terre Islands Restoration East Grand Terre

Future Witho	ure Without Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	986	0.70	688.92		
1	1011	0.70	706.39	697.66	
13	1305	0.69	904.08	9666.28	
20	1344	0.69	931.09	6423.10	
			AAHUs =	839.35	

Future With I	uture With Project		re With Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs			
0	986	0.70	688.92				
1	711	0.71	505.66	597.86			
3	753	0.71	535.53	1041.18			
14	918	0.71	652.29	6533.19			
20	936	0.72	669.54	3965.40			
	l .	-	AAHUs	606.88			

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	606.88
B. Future Without Project Open Water AAHUs	= [	839.35
Net Change (FWP - FWOP) =		-232.47

TOTAL BENEFITS IN AAHUS DUE TO PROJE	CT
A. Emergent Marsh Habitat Net AAHUs =	272.11
B. Open Water Habitat Net AAHUs =	-232.47
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	159.98

Project:

East/West Grand Terre Islands Restoration

Project Area:

249

West Grand Terre

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		√alue	SI	Value	SI	Value	SI
V1	% Emergent	49	0.54	46	0.51	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%	ĺ	%		%	
	Class 1	45	0.56	45	0.56		0.10
	Class 2						
	Class 3	i	1 1	ļ			
	Class 4	55	1	55			
	Class 5	<del> </del>	-	<u> </u>		100	
V4	%OW <= 1.5ft	46	0.69	46	0.69	10	0.23
V5	Salinity (ppt)	17	1.00	17	1.00	17	1.00
V6	Access Value	1.00 i	1.00	1.00	1.00	1.00	1.00
	<b>Emergent Marsh HSI</b>		0.66	EM HSI =	0.65	EM HSI =	0.26
	Open Water HSI	=	0.72	OW HSI =	0.72	OW HSI =	0.65

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

EastWest Grand Terre Islands Restoration

Project Area:

249

West Grand Terre

Condition: Future With Project

		TY 0		TY 1		TY 3	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	.49	0.54	53	0.58	59	0.63
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3	% 45	0.56	% 55	0.64	% 55	0.64
***************************************	Class 4 Class 5	55		45		45	
V4	%OW <= 1.5ft	46	0.69	67	0.96	67	0.96
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 H	(S) =	0.66	EM HSI =	0.70	EM HSI =	0.73
	Open Water HSI	#	0.72	OW HSI =	0.74	OW HSI =	0.74

Project: East/West Grand Terre Islands Restoration

		TY 20					
Variable	ļŢ	Value	SI	Value	SI	Value	SI
V1	% Emergent	26	0.33				
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 20 80	0.36	<b>%</b>		%	
V4	%OW <= 1.5ft	23	0.40				
V5	Salinity (ppt)	17	1.00				
V6	Access Value	1.00 EM HSI =	1.00	EM HSI =		EM HSI =	
	-	OW HSI =	0.68	OW HSI =		OW HSI =	<u> </u>

#### **AAHU CALCULATION - EMERGENT MARSH**

Project: East/West Grand Terre Islands Restoration
West Grand Terre

Future Witho	ut Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	121	0.66	80.34	
1	115	0.65	74.23	77.27
20	0	0.26	0.00	565.00
			AAHUs =	32.11

Future With	Future With Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	121	0.66	80.34	
1	131	0.70	91.33	85.78
3	146	0.73	107.00	198.15
20	64	0.49	31.54	1121.82
			-	
			AAHUs	70.29

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	70.29
B. Future Without Project Emergent Marsh AAHUs =	32.11
Net Change (FWP - FWOP) =	38.17

Project: East/West Grand Terre Islands Restoration West Grand Terre

Future Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	128	0.72	91.93	
1	134	0.72	96.24	94.08
20	249	0.65	161.80	2476.26
				i
			AAHUs =	128.52

uture With Project			Total	Cummulative
TY	Water Acres	x HSI HUs		HUs
0	128	0.72	91.93	
1	88	0.74	65.48	78.88
3	103	0.74	76.64	142.12
20	185	0.68	126.07	1737.60
l		<del></del>	AAHUs	97.93

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	97.93
B. Future Without Project Open Water AAHUs	=	128.52
Net Change (FWP - FWOP) =		-30.59

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	38.17
B. Open Water Habitat Net AAHUs =	-30.59
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	22.89

Project: East Grand Terre Island Restoration

Project Area:

1,575

Condition: Future Without Project

		TY 0		TY 1		TY 13	
<u>Variable</u>		/alue	SI	Value	SI	Value	SI
V1	% Emergent	37	0.43	36	0.42	17	0.25
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1	%	0.24	%	0.31	%	0.23
	Class 2 Class 3	15 25	0.31	15 25	0.51	15	0.23
	Class 4 Class 5	60		60		85	
V4	%OW <= 1.5ft	45	0.68	45	0.68	45	0.68
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 Open Water HSI	=	0.56	EM HSI = OW HSI =	0.55 0.70	EM HSI = OW HSI =	0.41 0.69

Project: East Grand Terre Island Restoration

	7	TY 20					
Variable_	ļ	Value	SI	Value	SI	Value	SI
V1	% Emergent	15	0.24				
V2	% Aquatic	0	0.30				<del></del>
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 15 85	0.23	%		%	
V4	%OW <= 1.5ft	45	0.68				
V5	Salinity (ppt)	17	1.00				
V6	Access Value	1.00	1.00				
		EM HSI = OW HSI =	0.40	EM HSI = OW HSI =		EM HSI = OW HSI =	

Project:

East Grand Terre Island Restoration

Project Area:

1,575

Condition: Future With Project

	1	TY 0		TY 1		TY 3	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	37	0.43	42	0.48	52	0.57
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%		%		%	
	Class 1 Class 2	15	0.31	35	0.53	35	0.53
	Class 3	25	!	25		25	
	Class 4 Class 5	60		401		40	
V4	%OW <= 1.5ft	45	0.68	41	0.63	41	0.63
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	=	0.56	EM HSI =	0.62	EM HSI =	0.68
	Open Water HSI	=	0.70	OW HSI =	0.71	OW HSI =	0.71

Project:

East Grand Terre Island Restoration

		TY 14		TY 20			
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	42	0.48	41	0.47		·····
V2	% Aquatic	0	0.30	0	0.30		
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 15 55	0.47	% 30 15 55	0.47	<b>%</b>	
V4	%OW <= 1.5ft	45	0.68	50	0.74		
V5	Salinity (ppt)	17	1.00	17	1.00		
V6	Access Value	1.00	1.00	1.00	1.00		
	<u></u>	EM HSI = OW HSI =	0.61 0.71	EM HSI = OW HSI =	0.60	EM HSI = OW HSI =	

### AAHU CALCULATION - EMERGENT MARSH Project: East Grand Terre Island Restoration

ture Without Project			Total	Cummulative
ΓY	Marsh Acres	x HSI	HUs	HUs
0	589	0.56	330.26	
1	564	0.55	312.59	321.40
13	270	0.41	111.81	2464.02
20	231	0.40	92.21	713.41
			-	
			AAHUs =	174.94

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	589	0.56	330.26	
1	655	0.62	404.22	366.62
3	822	0.68	558.04	958.82
14	657	0.61	401.07	5254.41
20	639	0.60	386.04	2361.21
				i
			AAHUs	447.05

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	447.05
B. Future Without Project Emergent Marsh AAHUs =	174.94
Net Change (FWP - FWOP) =	272.11

## AAHU CALCULATION - OPEN WATER Project: East Grand Terre Island Restoration

iture Without Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	986	0.70	688.92	
1	1011	0.70	706.39	697.66
13	1305	0.69	904.08	9666.28
20	1344	0.69	931.09	6423.10
	. !			
			AAHUs =	839,35

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	986	0.70	688.92	
1	711	0.71	505.66	597.86
3	753	0.71	535.53	1041.18
14	918	0.71	652.29	6533.19
20	936	0.72	669.54	3965.40
			AAHUs	606.88

NET CHANGE IN AAHUS DUE TO PROJECT	<del></del>	
A. Future With Project Open Water AAHUs	=	606.88
B. Future Without Project Open Water AAHUs	=	839.35
Net Change (FWP - FWOP) =		-232.47

TOTAL BENEFITS IN AAHUS DUE TO PROJECT					
A. Emergent Marsh Habitat Net AAHUs =	272.11				
B. Open Water Habitat Net AAHUs =	-232.47				
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	159.98				

Project:

East Golden Meadow Terracing

Project Area:

1,878

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		alue	SI	Value	SI	Value	SI
V1_	% Emergent	24	0.32	24	0.32	21	0.29
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2	%	0.20	%	0.20	%	0.20
	Class 3 Class 4 Class 5	100	:	100		100	
V4	%OW <= 1.5ft	5	0.16	5 ;	0.16	3	0.14
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 Open Water HSI	3	0.45	EM HSI =	0.45	EM HSI = OW HSI =	0.43 0.29

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

East Golden Meadow Terracing

Project Area:

1,878

Condition: Future With Project

			Y 0 TY 1			TY 3	
Variable	V	lue	SI	Value	SI	Value	SI
V1	% Emergent	24	0.32	26	0.33	27	0.34
V2	% Aquatic	0	0.10	5	0.15	23	0.31
<b>V3</b>	Interspersion Class 1 Class 2	%	0.20	%	0.40	%	0.40
-m	Class 3 Class 4 Class 5	100		100		100	
V4	%OW <= 1.5ft	5	0.16	7	0.19	7	0.19
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	3	0.45	EM HSI =	0.49	EM HSI =	0.50
	Open Water HSI	8	0.30	OW HSI =	0.36	OW HSI =	0.50

Project: East Golden Meadow Terracing

WP	7	TY 20		<del></del>			
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	25	0.33				
V2	% Aquatic	25	0.33	· :			,
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.40	%l		%	
V4	%OW <= 1.5ft	6	0.18				
V5	Salinity (ppt)	6	1.00	ļ !			
V6	Access Value	1.00	1.00	- FM 1181 -		FIA DOL	
	· <del>-</del>	EM HSI =	0.48	EM HSI = OW HSI =		EM HSI =	

### AAHU CALCULATION - EMERGENT MARSH

Project: East Golden Meadow Terracing

ure Witho	out Project	Total	Cummulative HUs	
ΤΥ	Marsh Acres x HSI			
0	452	0.45	205.19	
1	449	0.45	203.83	204.51
20	390	0.43	168.74	3535.43
	<u> </u>			
	<u> </u>			·
			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·

	 	-	
	 		00
AAHUs =	- 7	X7.	EDCD
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Future With Project		]	Total	Cummulative
	Marsh Acres	x HSI	HUs	HUs
0	452	0.45	205.19	N
1	487	0.49	238.70	221.73
3	516	0.50	256.48	495.11
20	469	0.48	226.61	4104.45
<u> </u>			AAHUs	241.06

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	241.06
B. Future Without Project Emergent Marsh AAHUs	=	187.00
Net Change (FWP - FWOP) =		54.07

#### **AAHU CALCULATION - OPEN WATER**

Project: East Golden Meadow Terracing

ture Without Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs
0	1426	0.30	422.71	
1	1429	0.30	423.60	423.15
20	1488	0.29	438.25	8187.89
		i		
			AAHUs =	430.55

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	_HUs	HUs
0	1426	0.30	422.71	
1	1391	0.36	503.46	463.46
3	1362	0.50	681.99	1186.79
20	1409	0.51	722.95	11940.30
	·	<del>_</del>		
		i.	AAHUs	679.53

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	679.53
B. Future Without Project Open Water AAHUs	=	430.55
Net Change (FWP - FWOP) =		248.98

TOTAL BENEFITS IN AAHUS DUE TO I	PROJECT	
A. Emergent Marsh Habitat Net AAHUs	=	54.07
B. Open Water Habitat Net AAHUs	=	248.98
Net Benefits= (2.6xEMAAHUs+OWAAHL	Js)/3.6	108.21

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Projec : XTE-45a Timbalier Island Dune/Marsh Restoration

The WVA for this project includes 2 areas. Total benefits for this project are as follows:

_Area	AAHUs
A	70
В	54

TOTAL BENEFITS = 124 AAHUS

Project:

Timbalier Island Dune and Marsh Restoration

Project Area:

397

Area A

Condition: Future Without Project

<del> </del>		TY 0		TY 1		TY 6	
<u>Variable</u>		/alue	SI	Value	SI	Value	SI
V1	% Emergent	50	0.55	41	0.47	0	0.10
V2	% Aquatic	О	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2	% 50	0.60	% <b>40</b>	0.52	%	0.10
	Class 3 Class 4 Class 5	50		60		100	
V <b>4</b>	%OW <= 1.5ft	100	0.50	90	0.75	53	0.78
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00 0.26
	Emergent Marsh HSI Open Water HSI	3	0.67 0.71	EM HSI = OW HSI =	0.61 0.72	EM HSI =	0.69

Project: Timbalier Island Dune and Marsh Restoration

		TY 20					-11
<u>Variable</u>		Value	SI	Value	SI	Value	SI
V1	% Emergent	0	0.10				
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.10	%		%	
V4	%OW <= 1.5ft	0	0.10				
V5	Salinity (ppt)	20	1.00				<del></del>
V6	Access Value	1.00 EM HSI =	1.00	EM HSI =		EM HSI =	
	<b> -</b>	OW HSI =	0.64	OW HSI =		OW HSI =	

Project:

Timbalier Island Dune and Marsh Restoration

Project Area:

397

Area A

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	50	0.55	62	0.66	83	0.85
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3	% 50	0.60	% 100	1.00	% 80	0.84
·	Class 4 Class 5	501	: 	:		20	
V4	%OW <= 1.5ft	100	0.50	100	0.50	85	0.88
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
V6	Access Value	1.00	1.00	0.83	0.85	0.98	0.98
	Emergent Marsh HSI	=	0.67	EM HSI =	0.77	EM HSI =	0.89
	Open Water HSI	2	0.71	OW HSI =	0.67	OW HSI =	0.75

Project:

Timbalier Island Dune and Marsh Restoration

WP	_						
		TY 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	7	0.16				
V2	% Aquatic	0	0.30				
<b>V3</b>	Interspersion Class 1 Class 2	%	0.20	%		%	
	Class 3 Class 4 Class 5	100					· <u> </u>
V4	%OW <= 1.5ft	56	0.82				
V5	Salinity (ppt)	20	1.00				
V6	Access Value	1.00	1.00				
		EM HSI =	0.33	EM HSI =		EM HSI =	
	1	OW HSI =	0.70	OW HSL =		OW HSI =	

### AAHU CALCULATION - EMERGENT MARSH

Project: Timbalier Island Dune and Marsh Restoration Area A

uture Witho	ut Project		Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	200	0.67	134.90		
1	164	0.61	99.99	117.06	
6	0	0.26	0.00	202.25	
20	0	0.26	0.00	0.00	
		1			
			AAHUs =	15.97	

uture With F	ture With Project		e With Project		Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs			
0	200	0.67	134.90				
1	246	0.77	188.77	161.12			
3	330	0.89	293.05	478.44			
20	27	0.33	8.99	2090.71			
			AAHUs	136.51			

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	136.51
B. Future Without Project Emergent Marsh AAHUs =	15.97
Net Change (FWP - FWOP) =	120.55

### **AAHU CALCULATION - OPEN WATER**

Project: Timbalier Island Dune and Marsh Restoration Area A

<b>Future Witho</b>	ut Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	197	0.71	139.27		
1	233	0.72	167.65	153.39	
6	397	0.69	274.24	1108.65	
20	397	0.64	254.19	3698.99	
	+		AAHUs =	248.05	

Future With F	Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	197	0.71	139.27		
1	13	0.67	8.77	73.04	
3	67	0.75	49.94	57.45	
20	370	0.70	259.38	2667.34	
i					
			<del></del>		
			AAHUs	139.89	

NET CHANGE IN AAHUS DUE TO PROJECT	<del></del>	7
A. Future With Project Open Water AAHUs	=	139.89
B. Future Without Project Open Water AAHUs	=	248.05
Net Change (FWP - FWOP) =		-108.16

TOTAL BENEFITS IN AAHUS DUE TO PROJE	ECT
A. Emergent Marsh Habitat Net AAHUs =	120.55
B. Open Water Habitat Net AAHUs =	-108.16
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	69.72

Project:

Timbalier Island Dune and Marsh Restoration

Project Area:

266

Area B

Condition: Future Without Project

		TY 0		TY 1		TY 3	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	42	0.48	45	0.51	52	0.57
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%		%		%	
	Class 1	40	0.52	45	0.56	50	0.60
	Class 2	1	į				
	Class 3				:		
	Class 4	<b>60</b> l	,	5 <b>5</b> i		50	
	Class 5		<del></del>				· · · · · · · · · · · · · · · · · · ·
V4	%OW <= 1.5ft	11	0.24	12	0.25	15	0.29
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
∨6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HSI	=	0.62	EM HSI =	0.64	EM HSI ≈	0.69
	Open Water HSI	=	0.68	OW HSI =	0.69	OW HSI =	0.69

Project:

Timbalier Island Dune and Marsh Restoration

	7	TY 6		TY 9		TY 14	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	57	0.61	57	0.61	42	0.48
V2	% Aquatic	0	0.30	0	0.30	0	0.30
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4	% 5 <b>5</b> <b>45</b>	0.64	% 55 45	0.64	% 40 60	0.52
V4	Class 5 %OW <= 1.5ft	17	0.32	18	0.33	12	0.25
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
		EM HSI =	0.72	EM HSI =	0.72	EM HSI =	0.62 0.68

Project:

Timbalier Island Dune and Marsh Restoration

Project Area:

266

Area B

Condition: Future With Project

		TY 0		TY 1		TY 10	
Variable	V	alue	SI	Value	SI	Value	SI
V1	% Ernergent	42	0.48	45	0.51	76	0.78
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2	% 40	0.52	% 45	0.56	% 75	0.80
7.7	Class 3 Class 4 Class 5	60	:	55		25	
V4	%OW <= 1.5ft	11	0.24	12	0.25	31	0.50
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
-	Emergent Marsh HSI Open Water HSI	3	0.62	EM HSI = OW HSI =	0.64	EM HSI = OW HSI =	0.85 0.72

Project:

Timbalier Island Dune and Marsh Restoration

<u> </u>							
		TY 20					
Variable	4	Value	SI	Value	SI	Value	SI
V1	% Emergent	92	0.93				
V2	% Aquatic	0	0.30		Ì		<u>.</u> .
V3	Interspersion	%		%		%	
	Class 1	90	0.92				
	Class 2						
	Class 3						
	Class 4	10					
	Class 5						
V4	%OW <= 1.5ft	50	0.74				
V5	Salinity (ppt)	20	1.00				
V6	Access Value	1.00	1.00				
		EM HSI =	0.95	EM HSI =		EM HSI =	
		OW HSI =	0.75	OW HSI =		OW HSI =	

AAHU CALCULATION - EMERGENT MARSH
Project: Timbalier Island Dune and Marsh Restoration Area B

uture Witho	ut Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	112	0.62	68.99	
1	121	0.64	77.35	73.14
3	139	0.69	95.45	172.51
6	152	0.72	109.60	307.34
9	152	0.72	109.60	328.80
14	112	0.62	68.99	442.98
20	0	0.26	0.00	167.17
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uture With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	112	0.62	68.99	
1	121	0.64	77.35	73.14
10	201	0.85	170.45	1090.07
20	246	0.95	233.39	2011.64
!			AAHUs	158.74

NET CHANGE IN AAHUS DUE TO PROJECT		7
A. Future With Project Emergent Marsh AAHUs	=	158.74
B. Future Without Project Emergent Marsh AAHUs	=	74.60
Net Change (FWP - FWOP) =		84.15

AAHU CALCULATION - OPEN WATER

Project: Timbalier Island Dune and Marsh Restoration Area B

Futur Witho	ut Project		Total	Cummulative
	Water Acres	x HSI	HUs	HUs
0	154	0.68	105.01	
1	145	0.69	99.44	102.23
31	127	0.69	87.83	187.31
3	114	0.70	79.40	250.88
	114	0.70	79.51	238.36
\$1	154	0.68	105.15	462.14
20	266	0.65	171.84	835.10
	<del></del>	<del> </del>	AAHUs =	103.80

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	154	0.68	105.01	
1	145	0.69	99.44	102.23
10	65	0.72	46.91	662.87
20	20	0.75	14.97	311.43
			1	
			AAHUs	53.83

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	53.83
B. Future Without Project Open Water AAHUs	=	103.80
Net Change (FWP - FWOP) =		-49.97

TOTAL BENEFITS IN AAHUS DUE TO PROJECT				
A. Emergent Marsh Habitat Net AAHUs =	84.15			
B. Open Water Habitat Net AAHUs =	-49.97			
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	54.34			

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: XBA-1c Grand Pierre Island Restoration

The WVA for this project includes 2 areas. Total benefits for this project are as follows:

Area	AAHUs
Α	50
В	1

TOTAL BENEFITS = 51 AAHUS

Project:

**Grand Pierre Island Restoration** 

Project Area:

501

Area A

Condition: Future Without Project

		TY 0		TY 1		TY 5	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	42	0.48	42	0.48	40	0.46
V2	% Aquatic	o	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2	% 40	0.52	% 40	0.52	% 40	0.52
····	Class 3 Class 4 Class 5	60		60		60	-1,-
V4	%OW <= 1.5ft	7	0.19	7	0.19	6	0.18
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 EM HSI =	1.00 0.60
	Emergent Marsh HS Open Water HSI	= =	0.62 0.68	EM HSI = OW HSI =	0.62	OW HSI =	0.68

Project:

**Grand Pierre Island Restoration** 

		TY 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	20	0.28				
V2	% Aquatic	0	0.30				
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.20	%		%	
V4	%OW <= 1.5ft	5	0.16				
V5	Salinity (ppt)	15	1.00				
V6	Access Value	1.00	1.00				
		EM HSI =	0.43	EM HSI =		EM HSI = OW HSI =	

Project:

**Grand Pierre Island Restoration** 

Project Area:

501

Area A

Condition: Future With Project

		TY 0		TY 1		TY 3	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	42	0.48	45	0.51	54	0.59
` V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2	%  <b>40</b>	0.52	% 50 l	0.60	% 50	0.60
· · · · · · · · · · · · · · · · · · ·	Class 3 Class 4 Class 5	601		50		.50	
V4	%OW <= 1.5ft	7	0.19	4	0.15	11	0.24
V5	Salinity (ppt)	15	1.00	15	1.00	15	1.00
V6	Access Value	1.00	1.00	0.97	0.97	0.97	0.97
	Emergent Marsh HSI		0.62	EM HSI =	0.64	EM HSI =	0.70
	Open Water HSI	=	0.68	OW HSI =	0.67	OW HSI =	0.6

Project: Grand Pierre Island Restoration

		TY 20					
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	49	0.54				
V2	% Aquatic	_0	0.30				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 45 55	0.56	%		%	
V4	%OW <= 1.5ft	10	0.23				
V5	Salinity (ppt)	15	1.00				
V6	Access Value	1.00	1.00				
		EM HSI =	0.66	EM HSI =		EM HSI =	

### **AAHU CALCULATION - EMERGENT MARSH**

Project: Grand Pierre Island Restoration Area A

u: re Without Project			Total	Cummulative	
Y	Marsh Acres	x HSI	HUs	HUs	
0	212	0.62	130.59		
1	209	0.62	128.75	129.67	
5	198	0.60	119.46	496.32	
	102	0.43	44.14	1186.01	
	·		AAHUs =	90.60	

Future With	uture With Project		Total	Cummulative
TY	Marsh Acres	x HSi	HUs	HUs
0	212	0.62	130.59	
1	227	0.64	145.40	137.94
3	269	0.70	187.00	331.63
20	247	0.66	164.00	2981.52
-			<del>-</del>	
		Ĭ		
	i		:	
			AAHUs	172.55

NET CHANGE IN AAHUS DUE TO PROJECT	7
A. Future With Project Emergent Marsh AAHUs =	172.55
B. Future Without Project Emergent Marsh AAHUs =	90.60
Net Change (FWP - FWOP) =	81.95

### **AAHU CALCULATION - OPEN WATER**

Project: Grand Pierre Island Restoration Area A

<b>Future Witho</b>	ut Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	289	0.68	195.96		
1	292	0.68	197.99	196.98	
5	303	0.68	205.16	806.32	
20	399	0.65	260.33	3497.11	
	!	:			
			AAHUs =	225.02	

Future With I	Future With Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	289	0.68	195.96	
1	229	0.67	153.53	174.67
3	232	0.68	157.09	310.62
20	254	0.68	173.71	2811.37
				<del></del>
			AAHUs	164.83

NET CHANGE IN AAHUS DUE TO PROJECT	<u>.</u>	]
A. Future With Project Open Water AAHUs	=	164.83
B. Future Without Project Open Water AAHUs	=	225.02
Net Change (FWP - FWOP) =		-60.19

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	T
A. Emergent Marsh Habitat Net AAHUs =	81.95
B. Open Water Habitat Net AAHUs =	-60.19
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	50.37

Project:

**Grand Pierre Island Restoration** 

Area B

Project Area:

501

Condition: Future Without Project

		TY 0		TY 1		TY 10	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	14	0.23	14	0.23	12	0.21
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4	<b>%</b>	0. <b>20</b>	% 100	0.20	100	0.20
V <b>4</b>	Class 5 %OW <= 1.5ft	20	0.36	20	0.36	15	0.29
V5	Salinity (ppt)	15	1.00	15	1.00	15	1.00
V6	Access Value Emergent Marsh HS	1.00	0.39	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.37</b>
	Open Water HSI	-	0.67	OW HSI =	0.67	OW HSI =	0.66

Project:

**Grand Pierre Island Restoration** 

		TY 20					
Variable	ļ <u></u>	Value	SI	Value	SI	Value	31
V1	% Emergent	10	0.19				
V2	% Aquatic	0	0.30				
V3	Interspersion Class 1 Class 2 Class 3 Class 4	100	0.20	%		%	
V4	Class 5 %OW <= 1.5ft	10	0.23				
V5	Salinity (ppt)	15	1.00				
V6	Access Value	1.00	1.00				الانجيبي والما
	<u></u>	EM HSI = OW HSI =	0.36	EM HSI =		EM HSI = OW HSI =	

Project:

**Grand Pierre Island Restoration** 

Project Area:

501

Area B

Condition: Future With Project

		TY 0		TY 1		TY 20	<del></del>
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	14	0.23	14	0.23	10	0.19
V2	% Aquatic	0	0.30	0	0.30	0	0.30
<b>V3</b>	Interspersion Class 1 Class 2 Class 3	%	0.20	%	0.20	%	0. <b>20</b>
····	Class 5 Class 4 Class 5	100		100		100	
V4	%OW <= 1.5ft	20	0.36	20	0.36	25	0.42
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 HS		0.39	EM HSI =	0.39	EM HSI =	0.36
	Open Water HSI		0.67	OW HSI =	0.67	OW HSI =	0.67

#### **AAHU CALCULATION - EMERGENT MARSH**

**Grand Pierre Island Restoration** Project:

Area B

uture Witho	ut Project	[	Total	Cummulative
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	71	0.39	27.57	
1	70	0.39	27.18	27.37
10	60	0.37	22.37	222.75
20	49	0.36	17.50	199.08
	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;		AAHUs =	22.46

Future With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	71	0.39	27.57	
1	70	0.39	27.18	27.37
20	51	0.36	18.22	429.38
		·		
		ĺ	AAHUs	22.84

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	22.84
B. Future Without Project Emergent Marsh AAHUs =	22.46
Net Change (FWP - FWOP) =	0.38

## AAHU CALCULATION - OPEN WATER Project: Grand Pierre Island Restoration

Area B

Future Witho	ut Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	430	0.67	286.70		
1	431	0.67	287.37	287.03	
10	441	0.66	291.93	2606.91	
20	452	0.66	297.06	2945.06	
			AAHUs =	291.95	

Future With	With Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	430	0.67	286.70		
1	431	0.67	287.37	287.03	
20	450	0.67	302.18	5600.37	
		li li	AAHUs	294.37	

NET CHANGE IN AAHUS DUE TO PROJECT		<u> </u>
A. Future With Project Open Water AAHUs	=	294.37
B. Future Without Project Open Water AAHUs	=	291.95
Net Change (FWP - FWOP) =		2.42

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	0.38
B. Open Water Habitat Net AAHUs =	2.42
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	0.83

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: XME-28/33 Freshwater Bayou Canal SP/HR Schooner Bayou to GIWW

The WVA for this project includes 2 areas. Total benefits for this project are as follows:

Area	AAHUs
Α	37
В	10

TOTAL BENEFITS = 47 AAHUS

Project:

Freshwater Bayou Canal Bank SP/HR

Schooner Bayou to GIWW - Area A

Condition: Future Without Project

Project Area:

Project Area:

139

		TY 0		TY 1		TY 20	
Variable	<b>_</b>	Value	SI	Value	SI	Value	SI
V1	% Emergent	65	0.69	61	0.65	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2	% 75	0.80	% 75	0.80	%	0.10
<del></del>	Class 3 Class 4 Class 5	25		25		100	
V4	%OW <= 1.5ft	34	0.54	30	0.49	10	0.23
V5	Salinity (ppt)	5	1.00	5	1.00	5	1.00
V6	Access Value   Emergent Marsh	1.00 HSJ =	1.00	1.00   EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.25</b>
	Open Water HSI	131 =	0.78	OW HSI =	0.76 0.36	OW HSI =	0.29

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL **Brackish Marsh**

Project:

Freshwater Bayou Canal Bank SP/HR

Schooner Bayou to GIWW - Area A

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	65	0.69	65	0.69	81	0.83
V2	% Aquatic	0	0.10	5	0.15	27	0.34
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 75 25	0.80	% 75 25	0.80	% 75 25	0.80
V4	%OW <= 1.5ft	34	0.54	34	0.54	46	0.69
V5	Salinity (ppt)	5	1.00	5	1.00	5	1.00
V6	Access Value Emergent Marsh I	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.87</b>
	Open Water HSI	=	0.78	OW HSI =	0.42	OW HSI =	0.59

139

AAHU CALCULATION - EMERGENT MARSH
Project: Freshwater Bayou Canal Bank SP/HR
Schooner Bayou to GIWW - Area A

Future Witho	uture Without Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	90	0.7	8 70.32	
1	85	0.7	6 64.41	67.35
20	0	0.2	5 0.00	476.43
		_		
			AAHUs =	27.19

Future With			Total	Cummulative	
ΤΥ	Marsh Acres	x HSI	HUs	HUs	
0	90	0.78	70.32		
1	90	0.78	70.32	70.32	
20	113	0.87	98.68	1598.87	
		· ,·			
<del></del>		<del></del>	AAHUs	83.46	

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	83.46
B. Future Without Project Emergent Marsh AAHUs =	27.19
Net Change (FWP - FWOP) =	56.27

Project: Freshwater Bayou Canal Bank SP/HR
Schooner Bayou to GIWW - Area A

uture Witho	ut Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	49	0.37	18.06		
1	54	0.36	19.69	18.88	
20	139	0.29	40.84	594.11	
			-		
			AAHUs =	30.65	

uture With	uture With Project		Total	Cummulative
ΤΥ	Water Acres	x HSI	HUs	HUs
0	49	0.37	18.06	
1	49	0.42	20.45	19.25
20	26	0.59	15.44	353.79
			AAHUs	18.65

NET CHANGE IN AAHUS DUE TO PROJECT		a
A. Future With Project Open Water AAHUs	=	18.65
B. Future Without Project Open Water AAHUs	=	30.65
Net Change (FWP - FWOP) =		-12.00

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	56.27
B. Open Water Habitat Net AAHUs =	-12.00
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	37.31

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Freshwater Bayou Canal Bank SP/HR

Schooner Bayou to GIWW - Area B

Condition: Future Without Project

Project Area:

Fresh.....

Intermediate. 1,398

		TY 0		TY 1		TY 20	
Variable	<b>V</b>	alue	SI	Value	SI	Value	SI
V1	% Emergent	97	0.97	97	0.97	95	0.96
V2	% Aquatic	50	0.55	50	0.55	50	0.5
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	50	0.66	50	0.66	45	0.61
∨5	Salinity (ppt) fresh intermediate	4:	1.00	4	1.00	4.5	0.90
V6	Access Value   fresh   intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HS Open Water HSI	3) =	0.98	EM HSI = OW HSI =	0.98	EM HSI =	0. <b>96</b> 0. <b>68</b>

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Freshwater Bayou Canal Bank SP/HR

Schooner Bayou to GIWW - Area B

Condition: Future With Project

Project Area: Fresh.....

Intermediate.

ate. 1,398

		TY 0	4	TY 1		TY 20	
<u>Variable</u>		Value	SI	Value	SI	Value	31
V1_	% Emergent	97	0.97	97	0.97	96	0.96
V2	% Aquatic	50	0.55	50	0.55	55	0.60
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	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 intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh		0.98	em HSI =	0.98	EM HSI =	0.98
	Open Water HS	-	0.69	OW HSI =	0.69	OW HSI =	0.7

Project: Freshwater Bayou Canal Bank SP/HR
Schooner Bayou to GIWW - Area B

Future Witho	ut Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1351	0.98	1327.30	
1	1350	0.98	1326.32	1326.81
20	1330	0.96	1276.28	24723.29
			-	
	•			
	<u> </u>		i	
			AAHUs =	1302.51

Future With Project		With Project		Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	1351	0.98	1327.30		
1	1350	0.98	1326.32	1326.81	
20	1340	0.98	1308.64	25031.93	
			AAHUs	1317.94	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	2	1317.94
B. Future Without Project Emergent Marsh AAHUs	=	1302.51
Net Change (FWP - FWOP) =		15.43

E-206

05/03/2000

Project: Freshwater Bayou Canal Bank SP/HR
Schooner Bayou to GIWW - Area B

Future Witho	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	47	0.69	32.62	
1	48	0.69	33.31	32.96
20	68	0.68	46.40	758.00
	,	i		
	· -			
			AAHUs =	39.55

Future With I	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	47	0.69	32.62	
1	48	0.69	33.31	32.96
20	58	0.72	42.00	714.49
- <del></del>				·····
			<del></del> ,	
			AAHUs	27 27
		1	AARUS	37.37

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	3	37.37
B. Future Without Project Open Water AAHUs	=	39.55
Net Change (FWP - FWOP) =		-2.18

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	15.43
B. Open Water Habitat Net AAHUs =	-2.18
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	9.75

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: TE-11a New Cut Dune/Marsh Restoration

The WVA for this project includes 2 areas. Total benefits for this project are as follows:

Area	_AAHUs_
Α	26
В	17

TOTAL BENEFITS = 43 AAHUS

Project:

New Cut Dune/Marsh Restoration

Project Area:

104

Area A

Condition: Future Without Project

		TY 0		TY 1		TY 20	
<u>Variable</u>		Value	SI	Value	SI	Value	SI
V1	% Emergent	33	0.40	31	0.38	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3	%	0.20	%	0.20	%	0.10
	Class 5 Class 5	100	:	100		100	
_V4	%OW <= 1.5ft	23	0.40	23	0.40	14	0.28
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HS	3	0.52	EM HSI =	0.51	EM HSI =	0.26
	Open Water HSI	=	0.67	OW HSI =	0.67	OW HSI =	0.65

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

New Cut Dune/Marsh Restoration

Project Area:

104

Area A

Condition: Future With Project

		TY 0		TY 1		TY 3	
<u>Variable</u>		Value	SI	Value	SI	Value	SI
V1	% Emergent	33	0.40	50	0.55	90	0.91
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	% 100	1.00	% 100	1.00
V4	%OW <= 1.5ft	23	0.40	100	0.50	100	0.50
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
V6	Access Value	1.00	1.00	0.875	0.89	0.90	0.91
-	Emergent Marsh HS	31 =	0.52	EM HSI =	0.70	EM HSI =	0.93
	Open Water HSI		0.67	OW HSI =	0.69	OW HSI =	0.70

Project: New Cut Dune/Marsh Restoration

		TY 20					-
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44				
V2	% Aquatic	0 !	0.30				
V3	Interspersion Class 1 Class 2. Class 3 Class 4 Class 5	100	0.20	%		%	
V4	%OW <= 1.5ft	22	0.38				
V5	Salinity (ppt)	20	1.00				
V6	Access Value	1.00   EM HSI =	1.00 0.55	EM HSI =	<u> </u>	EM HSI =	
	<u> </u>	OW HSI =	0.67	OW HSI =		OW HSI =	

### AAHU CALCULATION - EMERGENT MARSH

Project: New Cut Dune/Marsh Restoration

Area A

Future Witho	out Project		Total	Cummulative
TY	Marsh Acres	x HSI HUs	HUs	HUs
0	34	0.52	17.76	
1	32	0.51	16.29	17.02
20	0	0.26	0.00	129.56
			AAHUs =	7 33

Future With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	34	0.52	17.76	
1	52	0.70	36.63	26.65
3	94	0.93	87.42	120.89
20	40	0.55	22.20	874.37
		·		
			AAHUs	51.10

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	51.10
B. Future Without Project Emergent Marsh AAHUs =	7.33
Net Change (FWP - FWOP) =	43.77

### **AAHU CALCULATION - OPEN WATER**

Project: New Cut Dune/Marsh Restoration Area A

uture Witho	ure Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	70	0.67	46.87	
1	72	0.67	48.21	47.54
20	104	0.65	67. <b>98</b>	1105.40
			AAHUs =	57.65

ture With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	70	0.67	46.87	
1	0	0.69	0.00	23.69
3	10	0.70	7.01	6. <b>98</b>
20	64	0.67	42.79	428.20
	· · · · · · · · · · · · · · · · · · ·		AAHUs	22.94

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	22.94
B. Future Without Project Open Water AAHUs	=	57.65
Net Change (FWP - FWOP) =		-34.70

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Ernergent Marsh Habitat Net AAHUs =	43.77
B. Open Water Habitat Net AAHUs =	-34.70
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	26.33

Project:

New Cut Dune/Marsh Restoration

Project Area:

282

Area B

Condition: Future Without Project

		TY 0		TY 1		TY 20	
/ariable	[ ]	/alue	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	95	0.96	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4	% 100	1.00	% 100	1.00	%	0.10
	Class 5					100	
V4	%OW <= 1.5ft	100	0.50	86	0.85	4	0.15
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HSI Open Water HSI	3	0.74	EM HSI =	0.97	EM HSI = OW HSI =	0.26 0.64

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

New Cut Dune/Marsh Restoration

Project Area:

282

Area B

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	100	1.00	96	0.96	22	0.30
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3 Class 4	100	1.00	% 100	1.00	100	0.20
V4	Class 5 %OW <= 1.5ft	100	0.50	100	0.50	5	0.16
V5	Salinity (ppt)	20	1.00	20	1.00	20	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HS	=	1.00	EM HSI =	0.98	EM HSI =	0.45
	Open Water HSI	=	0.74	OW HSI =	0.74	OW HSI =	0.65

### AAHU CALCULATION - EMERGENT MARSH

Project: New Cut Dune/Marsh Restoration Area B

uture Witho	ture Without Project			Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	282	1.00	282.00		
1	268	0.97	260.92	271.40	
20	0	0.26	0.00	1873.63	
			AAHUs =	107.25	

Future With Project			Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HÜs	
0	282	1.00	282.00		
1	271	0.98	265.28	273.60	
20	62	0.45	27.72	2431.48	
		1	AAHUs	135,25	

NET CHANGE IN AAHUS DUE TO PROJECT	] 
A. Future With Project Emergent Marsh AAHUs =	135.25
B. Future Without Project Emergent Marsh AAHUs =	107.25
Net Change (FWP - FWOP) =	28.00

### **AAHU CALCULATION - OPEN WATER**

Project: New Cut Dune/Marsh Restoration Area B

Future Witho	ut Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	0	0.74	0.00		
1	14	0.76	10.68	5.28	
20	282	0.64	181.63	1927.43	
			AAHUs =	96.64	

uture With	ture With Project		With Project		Total	Cummulative
TY	TY Water Acres	x HSI	HUs	HUs		
0	0	0.74	0.00			
1	11	0.74	8.10	4.05		
20	220	0.65	143.54	1496.28		
			AAHUs	75.02		

NET CHANGE IN AAHUS DUE TO PROJECT		<b>=</b> 1
A. Future With Project Open Water AAHUs	3	75.02
B. Future Without Project Open Water AAHUs	=	96.64
Net Change (FWP - FWOP) =		-21.62

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	T
A. Emergent Marsh Habitat Net AAHUs =	28.00
B. Open Water Habitat Net AAHUs =	-21.62
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	16.98

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: XTE-58 North Bully Camp Outfall Management

The WVA for this project includes 6 areas. Total benefits for this project are as follows:

<u>Area</u>	AAHUs
1	(67)
2	(6)
3	37
4	69
5	12
6	9

TOTAL BENEFITS = 54 AAHUS

Project:

North Bully Camp Outfall Management

Project Area:

5,058

Area 1

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	27	0.34	26	0.33	22	0.30
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%	ļ	%		%	
	Class 1	į	0.30		0.30		0.28
	Class 2	10		10		5	
	Class 3	30	i	30		30	
	Class 4	60		60		65	
	Class 5						
V4	%OW <= 1.5ft	10	0.23	10	0.23	10	0.23
V5	Salinity (ppt)	12	1.00	12	1.00	12	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh HSI	3	0.49	EM HSI =	0.49	EM HSI =	0.46
	Open Water HSI	#	0.66	OW HSI =	0.66	OW HSI =	0.66

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

North Bully Camp Outfall Management

Project Area:

5,058

Area 1

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	27	0.34	26	0.33	23	0.31
V2	% Aquatic	0	0.30	1	0.31	2	0.31
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 10 30 60	0.30	% 10 30 60	0.30	% 5 30 65	0.28
V4	%OW <= 1.5ft	10	0.23	10	0.23	10	0.23
V5	Salinity (ppt)	12	1.00	10	1.00	10	1.00
V6	Access Value Emergent Marsh H	1.00	1.00	0.80	0.82	0.80 EM HSI =	0.82 <b>0.45</b>
	Open Water HSI		0.66	OW HSI =	0.59	OW HSI =	0.60

AAHU CALCULATION - EMERGENT MARSH
Project: North Bully Camp Outfall Management
Area 1

ture Without Project			Total	Cummulative
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	1349	0.49	665.12	
1	1337	0.49	650.00	657.54
20	1131	0.46	515.65	11053.92
		il.	AAHUs =	585.57

Future With Project		Ţ	Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	1349	0.49	665.12		
1	1338	0.47	628.35	646.69	
20	1140	0.45	510.12	10801.64	

AAHUs	572.42
~~~~	0/2.72

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	572.42
B. Future Without Project Emergent Marsh AAHUs =	585.57
Net Change (FWP - FWOP) =	-13.16

Project: North Bully Camp Outfall Management Area 1

Future Witho	iture Without Project		ure Without Project		Total	Cummulative
TY	TY Water Acres	x HSI	HUs	HUs		
0	3709	0.66	2465.09			
1	3721	0.66	2473.06	2469.07		
20	3927	0.66	2604.16	48234.55		
	· · · · · · · · · · · · · · · · · · ·			-		
!	<u> </u>		AAHUs =	2535.18		

Future With	future With Project		re With Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs			
0	3709	0.66	2465.09				
1	3720	0.59	2213.08	2339.21			
20	3918	0.60	2337.26	43227.21			
	1	·					
<u></u>		1	AAHUs	2278.32			

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	2278.32
B. Future Without Project Open Water AAHUs =	2535.18
Net Change (FWP - FWOP) =	-256.86

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	CT C
A. Emergent Marsh Habitat Net AAHUs =	-13.16
B. Open Water Habitat Net AAHUs =	-256.86
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	-87.31

E-218

Project:

North Bully Camp Outfall Management

Project Area:

3,128

Area 2

Condition: Future Without Project

	] [	TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	39	0.45	33	0.40
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1	%	0.40	%	0.40	%	0.40
	Class 2 Class 3 Class 4 Class 5	100		100		100	
V4	%OW <= 1.5ft	30	0.49	30	0.49	25	0.42
V5	Salinity (ppt)	10	1.00	10	1.00	10	1.00
V6	Access Value Emergent Marsh	1.00	1.00	1.00 EM HSI =	1.00	1.06 EM HSI =	1.00 <b>0.54</b>
	Open Water HSI	131 -	0.34	OW HSI =	0.34	OW HSI =	0.33

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

North Bully Camp Outfail Management

Project Area:

3,128

Area 2

Condition: Future With Project

Variable	1	TY 0		TY 1		TY 20	
	V	alue	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	39	0.45	33	0.40
V2	% Aquatic	0	0.10	5	0.15	10	0.19
V3	Interspersion Class 1 Class 2	%	0.40	%	0.40	%	0.40
	Class 3 Class 4 Class 5	100		100		100	
V4	%OW <= 1.5ft	30	0.49	30	0.49	25	0.42
V5	Salinity (ppt)	10	1.00	8	1.00	8	1.00
V6	Access Value	1.00	1.00	0.65	0.69	0.65	0.69
	Emergent Marsh HSI	=	0.58	EM HSI =	0.54	EM HSI =	0.51
	Open Water HSI	*	0.34	OW HSI =	0.35	OW HSI =	0.38

AAHU CALCULATION - EMERGENT MARSH
Project: North Bully Camp Outfall Management
Area 2

Future Witho	out Project		Total	Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	1220	0.58	704.06		
1	1209	0.58	697.71	700.88	
20	1023	0.54	550.07	11830.70	
<del></del>					
		j	AAHUs =	626.58	

Future With Project			Total	Cummulative	
TY	Marsh Acres	x H\$I	HUs	HUs	
0	1220	0.58	704.06		
1	1210	0.54	655.64	679.79	
20	1041	0.51	526.49	11210.93	
			AAHUs	594.54	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	594.54
B. Future Without Project Emergent Marsh AAHUs	=	626.58
Net Change (FWP - FWOP) =		-32.04

AAHU CALCULATION - OPEN WATER

Project: North Bully Camp Outfall Management
Area 2

Future Witho	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1908	0.34	639.29	
1	1919	0.34	642.98	641.13
20	2105	0.33	695.27	12716.15
			-	
=			AAHUs =	667.86

ture With Project			Total	Cummulative	
ΤΥ	Water Acres	x HSI	HUs	HUs	
0	1908	0.34	639.29		
1	1918	0.35	670.46	654.85	
20	2087	0.38	796.71	13920.83	
		:			
			AAHUs	728.78	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	728.78
B. Future Without Project Open Water AAHUs	=	667.86
Net Change (FWP - FWOP) =		60.92

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	-32.04
B. Open Water Habitat Net AAHUs =	60.92
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	-6.22

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

North Bully Camp Outfall Management

Project Area:

3,815

Area 3

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	52	0.57	51	0.56	43	0.49
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 40 60	0.48	% 40 60	0.48	% 30 70	0.46
V4	%OW <= 1.5ft	70	1.00	70	1.00	60	0.87
V5	Salinity (ppt)	11	0.85	11	0.85	11	0.85
V6	Access Value Emergent Marsh	1.00 ! HSI =	1.00	1.00 EM HSI =	1.00 <b>0.65</b>	1.00 EM HSI =	1.00 <b>0.59</b>
	Open Water HSI	*	0.37	OW HSI =	0.37	OW HSI =	0.36

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

North Bully Camp Outfall Management

Project Area:

3,815

Area 3

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	52	0.57	51	0.56	44	0.50
V2	% Aquatic	0	0.10	5	0.15	10	0.19
<b>V</b> 3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 40 60	0.48	% 40 60	0.48	% 30 70	0.46
V4	%OW <= 1.5ft	70	1.00	70	;.00	60	0.87
V5	Salinity (ppt)	11	0.85	9	1.00	9	1.00
V6	Access Value	1.00	1.00	0.80	0.82	0.80	0.82
	Emergent Marsh HS Open Water HSI	=	0.65	EM HSI = OW HSI =	0.64	EM HSI = OW HSI =	0. <b>6</b> 0 0.44

## AAHU CALCULATION - EMERGENT MARSH Project: North Bully Camp Outfall Management

Area 3

uture Witho	ut Project		Total	Cummulative
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	1970	0.65	1282.77	
1	1953	0.65	1259.70	1271.22
20	1651	0.59	978.62	21214.10
			···	
	<u> </u>		AAHUs =	1124.27

Future With	uture With Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1970	0.65	1282.77	
1	1955	0.64	1250.06	1266.39
20	1686	0.60	1003.94	21375.52
	:			
	·	<u> </u>		
	<u> </u>			
			AAHUs	1132.10

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	1132.10
B. Future Without Project Emergent Marsh AAHUs	=	1124.27
Net Change (FWP - FWOP) =		7.83

Project: North Bully Camp Outfall Management Area 3

uture Witho	ture Without Project			ure Without Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs				
0	1845	0.37	678.89					
1	1862	0.37	685.14	682.02				
20	2164	0.36	772.48	1 <b>385</b> 7.95				
				*				
<del></del>			AAHUs =	727.00				

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1845	0.37	678.89	
1	1860	0.41	761.17	719.93
20	2129	0.44	932.39	16 <b>064</b> .39
			AAHUs	839.22

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	839.22
B. Future Without Project Open Water AAHUs	=	727.00
Net Change (FWP - FWOP) =		112.22

TOTAL BENEFITS IN AAHUS DUE TO PROJECT					
A. Emergent Marsh Habitat Net AAHUs =	7.83				
B. Open Water Habitat Net AAHUs =	112.22				
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	36.83				

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: North Bully Camp Outfall Management

Project Area:

3,495

Area 4

Condition: Future Without Project

		TY 0		TY 1		TY 10	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	45	0.51	45	0.51	40	0.46
V2	% Aquatic	0	0.10	. 0	0.10	0	0.10
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 35   65	0.47	% 35 65	0.47	% 30 70	0.46
V <b>4</b>	%OW <= 1.5ft	65	0.94	65	0.94	60	0.87
V5	Salinity (ppt)	11	0.85	11	0.85	12	0.70
V6	Access Value Emergent Marsh HS	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.56</b>
	Open Water HSI		0.36	OW HSI =	0.36	OW HSI =	0.35

Project: North Bully Camp Outfall Management

		TY 20					
<u>Variable</u>		Value	SI	Value	SI	Value	SI
V1	% Emergent	35	0.42				
V2	% Aquatic	0	0.10				
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 25 75	0.45	%		%	
V4	%OW <= 1.5ft	55	0.81			·	
V5	Salinity (ppt)	12	0.70				
V6	Access Value	1.00	1.00				
		EM HSI =	0.52	EM HSI =		EM HSI = OW HSI =	

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL **Brackish Marsh**

Project:

North Bully Camp Outfail Management

Project Area:

3,495

Area 4

Condition: Future With Project

		TY 0		TY 1		TY 5	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	45	0.51	45	0.51	43	0.49
V2	% Aquatic	0	0.10	5	0.15	10	0.19
V3	Interspersion	%		%	1	%	
	Class 1 Class 2	35	0.47	35	0.47	35	0.47
	Class 3 Class 4	65		65	1	65	
·	Class 5	:					
V4	%OW <= 1.5ft	65	0.94	65	0.94	65	0.94
V5	Salinity (ppt)	11	0.85	9	1.00	10	1.00
V6	Access Value	1.00	1.00	0.80	0.82	0.88	0.89
	Emergent Marsh HS		0.61	EM HSI =	0.60	EM HSI =	0.60
	Open Water HSI	2	0.36	OW HSI =	0.40	OW HSI =	0.45

Project:

North Bully Camp Outfall Management

		TY 20	!				
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	36	0.42				
V2	% Aquatic	5	0.15				
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 25 75	0.45	%		%	
V4	%OW <= 1.5ft	55	0.81				
V5	Salinity (ppt)	10	1.00				
V6	Access Value	0.88	0.89				
		EM HSI =	0.55	EM HSI =		EM HSI =	

AAHU CALCULATION - EMERGENT MARSH
Project: North Bully Camp Outfall Management
Area 4

Future Witho	uture Without Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1577	0.61	956.48	
1	1559	0.61	945.56	951.02
10	1410	0.56	785.21	7777.37
20	1233	0.52	645.09	7141.53

<b>AAHUs</b>	=	79	3.50	ļ

Future With	Project	[°	Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1577	0.61	956.48	
1	1561	0.60	940.66	948.56
5	1500	0.60	898.33	3677.82
20	1271	0.55	702.40	11978.98
	•			
		!		
			AAHUs	830.27

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	830.27
B. Future Without Project Emergent Marsh AAHUs	=	793.50
Net Change (FWP - FWOP) =		36.77

AAHU CALCULATION - OPEN WATER
Project: North Bully Camp Outfall Management
Area 4

Future Witho	uture Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1918	0.36	695.22	
1	1936	0.36	701.75	698.48
10	2085	0.35	721.11	6406.59
20	2262	0.34	769.88	7456.60
		!		
		<u> </u>	AAHIIe =	728 08

Future With I	With Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs	HUs	
0	1918	0.36	695.22		
1	1934	0.40	780.84	737.92	
5	1995	0.45	902.80	3365.30	
20	2224	0.40	890.62	13480.46	
	· ·				
		i			
		:	AAHUs	879.18	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	879.18
B. Future Without Project Open Water AAHUs	=	728.08
Net Change (FWP - FWOP) =		151.10

TOTAL BENEFITS IN AAHUS DUE TO PROJECT					
A. Emergent Marsh Habitat Net AAHUs =	36.77				
B. Open Water Habitat Net AAHUs =	151.10				
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	68.53				

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

North Bully Camp Outfall Management

Project Area:

2,999

Area 5

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable	V	alue	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	39	0.45	33	0.40
V2	% Aquatic	5	0.15	5	0.15	5	0.15
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 70	0.46	% 30 70	0.46	% 25 75	0.45
V4	%OW <= 1.5ft	70	1.00	70	1.00	60	0.87
V5	Salinity (ppt)	8	1.00	8	1.00	8	1.00
V6	Access Value Emergent Marsh HSI	1.00	1.00	1.00 EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.54</b>
İ	Open Water HSI	*	0.43	OW HSI =	0.43	OW HSI =	0.42

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

North Bully Camp Outfall Management

Project Area:

2,999

Area 5

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	39	0.45	39	0.45	34	0.41
V2	% Aquatic	5	0.15	10	0.19	15	0.24
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 30 70	0.46	% 30 70	0.46	% 25 75	0.45
V4	%OW <= 1.5ft	70	1.00	70	1.00	60	0.87
V5	Salinity (ppt)	8	1.00	6	1.00	6	1.00
V6	Access Value	1.00	1.00	0.80	0.82	0.80	0.82
	Emergent Marsh H	<u> </u>	0.58	EM HSI =	0.56	EM HSI =	0.53
	Open Water HSI	=	0.43	OW HSI =	0.45	OW HSI =	0.47

## AAHU CALCULATION - EMERGENT MARSH Project: North Bully Camp Outfall Management

Area 5

Future Witho	uture Without Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1182	0.58	690.01	
1	1171	0.58	683.58	686.79
20	990	0.54	537.83	11580.20
1				
			AAHUs =	613.35

Future With	Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1182	0.58	690.01	
1	1173	0.56	662.62	676.28
20	1017	0.53	541.56	11423.65
		:		
		1		
			AAHUs	605.00

NET CHANGE IN AAHUS DUE TO PROJECT		1
A. Future With Project Emergent Marsh AAHUs	=	605.00
B. Future Without Project Emergent Marsh AAHUs	=	613.35
Net Change (FWP - FWOP) =		-8.35

Project: North Bully Camp Outfall Management
Area 5

<b>Future Witho</b>	Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1817	0.43	774.74	
1	1828	0.43	779.43	777.08
20	2009	0.42	836.01	15352.52
				·
				<del>-</del>
		i	AAHUs =	806.48

ure With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1817	0.43	774.74	
1	1826	0.45	817.06	795.87
20	1982	0.47	938.05	16660.81
		i i	AAHUs	872.83

NET CHANGE IN AAHUS DUE TO PROJECT		<u> </u>
A. Future With Project Open Water AAHUs	=	872.83
B. Future Without Project Open Water AAHUs	=	806.48
Net Change (FWP - FWOP) =		66.35

TOTAL BENEFITS IN AAHUS DUE TO PROJECT						
A. Emergent Marsh Habitat Net AAHUs =	-8.35					
B. Open Water Habitat Net AAHUs =	66.35					
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	12.40					

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: North Bully Camp Outfall Management

Project Area:

1,583

Area 6

Condition: Future Without Project

		TY 0	1	TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	33	0.40	33	0.40	27	0.34
V2	% Aquatic	5	0.15	5	0.15	5	0.15
V3	Interspersion	%		%		%	
	Class 1		0.41		0.41		0.39
	Class 2	35		35		30	
	Class 3	35	:	35	İ	35	
	Class 4	30	:	30		35	
	Class 5	<u> </u>					
V4	%OW <= 1.5ft	75	1.00	75	1.00	65	0.94
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 I	1SI =	0.54	EM HSI =	0.54	EM HSI =	0.50
	Open Water HSI	3	0.42	OW HSI =	0.42	OW HSI =	0.42

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: North Bully Camp Outfall Management

Project Area: 1

1,583

Area 6
Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable_		Value	ŠI	Value	SI	Value	SI
V1	% Emergent	33	0.40	33	0.40	28	0.35
V2	% Aquatic	5	0.15	10	0.19	15	0.24
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 35 35 30	0.41	% 35 35 30	0.41	% 30 35 35	0. <b>39</b>
V4	%OW <= 1.5ft	75	1.00	75	1.00	65	0.94
V5	Salinity (ppt)	8	1.00	6	1.00	6	1.00
V6	Access Value	1.00	1.00	0.80	0.82	0.80	0.82
	Emergent Marsh Open Water HSI	HSI =	0.54	EM HSI = OW HSI =	0.52	EM HSI = OW HSI =	0.49 0.47

AAHU CALCULATION - EMERGENT MARSH

Project: North Bully Camp Outfall Management
Area 6

<b>Future Witho</b>	Future Without Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	529	0.54	285.03	
1	524	0.54	282.34	283.69
20	424	0.50	210.28	4666.31
			<del></del> -	
		:		<del></del>
			AAHILE	247 50

ture With	ture With Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	529	0.54	285.03	
1	524	0.52	273.38	279.19
20	438	0.49	213.40	4615.00
		i		
·	<del></del>	<del></del>	AAHIIs	244.71

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	244.71
B. Future Without Project Emergent Marsh AAHUs	=	247.50
Net Change (FWP - FWOP) =		-2.79

Project: North Bully Camp Outfall Management Area 6

uture Witho	ture Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1054	0.42	445.50	
1	1059	0.42	447.62	446.56
20	1159	0.42	482.67	8839.66
			AAHUs =	464.31

Future With	Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs .	HUs	
0	1054	0.42	445.50		
1	1059	0.44	469.94	457.70	
20	1145	0.47	542.28	9607.90	
	:				

A	AH	Ųs	50	3.28

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	503.28
B. Future Without Project Open Water AAHUs	=	464.31
Net Change (FWP - FWOP) =	Í	38.97

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	-2.79
B. Open Water Habitat Net AAHUs =	38.97
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	8.81

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

### Project: PTV-13 Weeks Bay/Commercial Canal/GIWW Shore Protection

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

Area	_AAHUs_
Α	17
В	20
С	20

TOTAL BENEFITS = 57 AAHUS

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Weeks Bay/Commercial Canal/GIWW Shore Protection

Area A

Project Area:

Fresh.....

Condition: Future Without Project

Intermediate.

122

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	66	0.69	63	0.67	0	0.10
V2	% Aquatic	5	0.15	5	0.15	0	0.10
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	0.40	% 100	0.40	100	0.10
V4	%OW <= 1.5ft	15	0.27	15	0.27	10	0.21
∨5	Salinity (ppt) intermediate	41	1.00	4	1.00	4	1.00
∨6	Access Value   fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh Open Water HS		0.73	EM HSI = OW HSI =	0.71	EM HSI =	0.24 0.24

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: \

Weeks Bay/Commercial Canal/GIWW Shore Protection

Project Area:

Area A

Condition: Future With Project

Fresh.....

122

Intermediate.

TY 20 TY 0 TY 1 Value Value Value Variable % Emergent 0.60 V1 66 0.69 66 0.69 55 V2 10 0.19 % Aquatic 5 0.15 6 0.15 **V3** % Interspersion 0.40 Class 1 0.40 0.40 Class 2 100 100 100 Class 3 Class 4 Class 5 V4 %OW <= 1.5ft 15 0.27 15 0.27 15 0.27 V5 Salinity (ppt) fresh 1.00 1.00 1.00 intermediate **V**6 Access Value fresh 1.00 1.00 1.00 intermediat 1.00 1.00 1.00 Emergent Marsh HS Open Water HSI EM HSI = 0.31 OW HSI =

AAHU CALCULATION - EMERGENT MARSH
Project: Weeks Bay/Commercial Canal/GIWW Shore Protection Area A

Future Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	81	0.73	59.07	
1	77	0.71	54.71	56.88
20	0	0.24	0.00	404.15
	<del></del>			
**		T.	AAHUs =	23.05

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	81	0.73	59.07	
1	80	0.73	58.34	58.70
20	67	0.68	44.23	971.55
i i				
i			i	
			AAHUs	51.51

NET CHANGE IN AAHUS DUE TO PROJECT		!
A. Future With Project Emergent Marsh AAHUs	=	51.51
B. Future Without Project Emergent Marsh AAHUs	=	23.05
Net Change (FWP - FWOP) =		28.46

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AAHU CALCULATION - OPEN WATER

Project: Weeks Bay/Commercial Canal/GIWW Shore Protection Area A

iture Without Project			Total	Cummulative
ΤΥ	Water Acres	x HSI	HUs	HUs
0	41	0.31	12.56	
1	45	0.31	13.79	13.17
20	122	0.24	28.74	421.23
[				
			AAHUs =	21 72

Future With I	uture With Project		uture With Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs		
0	41	0.31	12.56			
1	42	0.31	13.22	12.89		
20	55	0.35	19.11	305,81		
		:				
	: 		AAHUs	15.93		

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	15.93
B. Future Without Project Open Water AAHUs =	21.72
Net Change (FWP - FWOP) =	-5.79

TOTAL BENEFITS IN AAHUS DUE TO PROJE	СТ
A. Emergent Marsh Habitat Net AAHUs =	28.46
B. Open Water Habitat Net AAHUs =	-5.79
Net Benefits=(2,1xEMAAHUs+OWAAHUs)/3.1	17.41

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### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Weeks Bay/Commercial Canal/GIWW Shore Protection

Area B Fresh.....

Condition: Future Without Project Intermediate. 131

		TYO		TY 1		TY 20	
Variable	<u> </u>	Value	SI	Value	SI	Value	SI
V1	% Emergent	99	0.99	94	0.95	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V <b>3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	1.00	% 100	1.00	100	0.10
V <b>4</b>	%OW <= 1.5ft	25	0.38	25	0.38	20	0.33
∨5	Salinity (ppt) fresh intermediate	41	1.00	4	1.00	4	1.00
∨6	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
į	Emergent Marsh Open Water HSI		0.99	EM HSI =	0.96	EM HSI =	0.24 0.24

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Weeks Bay/Commercial Canal/GIWW Shore Protection

Area B

Condition: Future With Project

Project Area: Fresh.....

Intermediate.

Project Area:

131

		•					. • •
		TY 0		TY 1		TY 20	
Variable	ļ.,	Value	SI	Value	SI	Value	SI
V1	% Emergent	99	0.99	97	0.97	50	0.55
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	% 45 55	0.56
V4	%OW <= 1.5R	25	0.38	25	0.38	25	0.38
V5	Salinity (ppt) fresh intermediate	4	1.00	4	1.00	4	1.00
V6	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh		0.99	EM HSI =	0.98	em HSI =	0.66
	Open Water HS	2	0.31	OW HSI =	0.31	OW HSI =	0.28

AAHU CALCULATION - EMERGENT MARSH

Project: Weeks Bay/Commercial Canal/GIWW Shore Protection Area B

uture Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	130	0.99	129.24	
1	124	0.96	119.64	124.41
20	0	0.24	0.00	850.54
			AAHUs =	48.75

Future With	uture With Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	130	0.99	129.24	
1	127	0.98	124.77	127.00
20	65	0.65	41.99	1518.13
		:	AAHUs	82.26

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	3	82.26
B. Future Without Project Emergent Marsh AAHUs	=	48.75
Net Change (FWP - FWOP) =		33.51

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AAHU CALCULATION - OPEN WATER

Project: Weeks Bay/Commercial Canal/GIWW Shore Protection Area B

Future Witho	uture Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1	0.31	0.31	
1	7	0.31	2.20	1.26
20	131	0.24	31.95	352.23
				<del></del>
		į /	AAHUS =	17.67

Future With I	uture With Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	1	0.31	0.31	
1	4	0.31	1.26	0.79
20	66	0.28	18.62	195.24
		i	AAHUs	9.80

NET CHANGE IN AAHUS DUE TO PROJECT		<u> </u>
A. Future With Project Open Water AAHUs	*	9.80
B. Future Without Project Open Water AAHUs :	*	17.67
Net Change (FWP - FWOP) =		-7.87

TOTAL BENEFITS IN AAHUS DUE TO PROJE	СТ
A. Emergent Marsh Habitat Net AAHUs =	33.51
B. Open Water Habitat Net AAHUs =	-7.87
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	20.16

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: Weeks Bay/Commercial Canal/GIWW Shore Protection

Area C

Project Area: Fresh.....

Condition: Future Without Project

Intermediate. 11,131

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	89	0.90	89	0.90	88	0.89
V2	% Aquatic	15	0.24	15	0.24	15	0.24
∨3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	1.00	100	1.00	100	1.00
V4	%OW <= 1.5ft	15	0.27	15	0.27	15	0.27
∨5	Salinity (ppt) fresh intermediate	2.8	1.00	2.8	1.00	2.8	1.00
V6	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsi	HSI =	0.94	EM HSI =	0.94	EM HSI =	0.93
	Open Water HS		0.43	OW HSI =	0.43	OW HSI =	0.43

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

Weeks Bay/Commercial Canal/GIWW Shore Protection

Project Area:

Area C

Condition: Future With Project

Fresh..... Intermediate. 11,131

TY 1 **TY 20** TY 0 Variable Value 31 Value Value V1 % Emergent 89 0.90 89 0.90 89 0.90 15 0.24 V2 15 0.24 15 0.24 % Aquatic **V3** Interspersion 100 1.00 100 1.00 100 1.00 Class 1 Class 2 Class 3 Class 4 Class 5 15 0.27 %OW <= 1.5ft 0.27 **V4** 15 0.27 15 V5 Salinity (ppt) 1.00 fresh 1.00 1.00 2.3 intermediate 2.8 2.3 V6 Access Value 1.00 1.00 1.00 fresh intermediat 1.00 1.00 0.94 0.43 Emergent Marsh HSI Open Water HSI 0.94 0.94 EM HSI = OW HSI =

AAHU CALCULATION - EMERGENT MARSH
Project: Weeks Bay/Commercial Canal/GIWW Shore Protection
Area C

uture Without Project			Total	Cummulative
ŤΥ	Marsh Acres	x HSI	HUs	HUs
0	9909	0.94	9267.71	
1	9906	0.94	9264.91	9266.31
20	9849	0. <b>93</b>	9153.09	174969.89
	·			
			AAHUs =	9211.81

Future With Project				Cummulative	
TY	Marsh Acres	x HSI	HUs	HUs	
0	9909	0.94	9267.71		
1	9906	0.94	9264.91	9266.31	
20	9855	0.94	9217.21	175580.10	
		-			
			AAHUs	9242.32	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	3	9242.32
B. Future Without Project Emergent Marsh AAHUs	=	9211.81
Net Change (FWP - FWOP) =		30.51

### **AAHU CALCULATION - OPEN WATER**

Project: Weeks Bay/Commercial Canal/GIVW Shore Protection Area C

uture Witho	uture Without Project		hout Project		Total	Cummulative
īΥ	Water Acres	x HSI	HUs	HUs		
0	1222	0.43	526.16			
1	1225	0.43	527.45	526.80		
20	1282	0.43	551.99	10254.72		
		<del></del>				
			AAHUs =	639.08		

uture With Project			Total	Cummulative
ΤΥ	Water Acres	x HSI	HUs	HUs
0	1222	0.43	526.16	
1	1225	0.43	527.45	526.80
20	1276	0.43	549.41	10230.17
			AAHUa	537.85

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	2	537.85
B. Future Without Project Open Water AAHUs	=	539.08
Net Change (FWP - FWOP) =		-1.23

TOTAL BENEFITS IN AAHUS DUE TO PROJE	CT
A. Emergent Marsh Habitat Net AAHUs =	30.51
B. Open Water Habitat Net AAHUs =	-1.23
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	20.27

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: PPO-b/d/h Lake Borgne at Shell Beach and Bayou Dupre Shore Protection

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

Area	AAHUs
Α	12
B-east	9
B-west	7

TOTAL BENEFITS = 28 AAHUS

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Lake Borgne at Shell Beach and Bayou Dupre SP

Project Area:

56

Area A - Bayou Dupre

Condition: Future Without Project

	7	TY 0		TY 1		TY 20	
Variable		Value	Si	Value	SI	Value	SI
V1	% Emergent	64	0.68	61	0.65	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2	% 60	0.68	% 60	0.68	%	0.10
	Class 3 Class 4 Class 5	40		40		100	
V4	%OW <= 1.5ft	50	0.74	50	0.74	17	0.32
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 EM HSI =	1.00 <b>0.26</b>
	Emergent Marsh HS Open Water HSI	= =	0.77 0.73	EM HSI = OW HSI =	0.75	OW HSI =	0.56

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Lake Borgne at Shell Beach and Bayou Dupre SP

Project Area:

56

Area A - Bayou Dupre

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	64	0.68	64	0.68	70	0.73
V2	% Aquatic	0	0.30	0	0.30	0	0.30
<b>V3</b>	Interspersion Class 1 Class 2 Class 3	% 60	0.68	% 60	0.68	% 65	0.72
	Class 4 Class 5	40		40		35	
V4	%OW <= 1.5ft	50	0.74	50	0.74	60	0.87
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 EM HSI =	1.00 0.81
	Emergent Marsh H Open Water HSI	(SI =	0.77 0.73	EM HSI = OW HSI =	0.77	OW HSI =	0.74

AAHU CALCULATION - EMERGENT MARSH

Project: Lake Borgne at Shell Beach and Bayou Dupre SP
Area A - Bayou Dupre

Future Witho	out Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs_	HUs
Ó	36	0.77	27.59	
1	34	0.75	25.47	26.53
20	0	0.26	0.00	189.35
_				
			AAHUs =	10.79

uture With Project		Total		Cummulative
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	36	0.77	27.59	
1	36	0.77	27.59	27.59
20	39	0.81	31.41	560.17
			AAHUs	29.39

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	29.39
B. Future Without Project Emergent Marsh AAHUs =	10.79
Net Change (FWP - FWOP) =	18.59

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AAHU CALCULATION - OPEN WATER

Project: Lake Borgne at Shell Beach and Bayou Dupre SP

Area A - Bayou Dupre

Future Witho			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	20	0.73	14.62	
1	22	2 0.73 16.08	16.08	15.35
20	56	0.66	36.76	510.01
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			AAHUs =	26.27

Future With			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	20	0.73	14.62	
1	20	0.73	14.62	14.6
20	17	0.74	12.64	259.04
			AAHUs	13.68

NET CHANGE IN AAHUS DUE TO PROJECT		a :i
A. Future With Project Open Water AAHUs	=	13.68
B. Future Without Project Open Water AAHUs	=	26.27
Net Change (FWP - FWOP) =		-12.59

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	18.59
B. Open Water Habitat Net AAHUs =	-12.59
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	11.67

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Lake Borgne at Shell Beach and Bayou Dupre SP

Project Area:

26

Area B - East

Condition: Future Without Project

	TY 0		TY 1		TY 20	
	/alue	SI	Value	SI	Value	SI
% Emergent	85	0.87	81	0.83		0.10
% Aquatic	0	0.30	0	0.30	0	0.30
Interspersion Class 1 Class 2 Class 3	% 80	0.84	% 75	0.80	%	0.10
Class 4 Class 5	20		25		100	
%OW <= 1.5ft	75	1.00	60	0.87	12	0.25
Salinity (ppt)	12	1.00	12	1.00	12	1.00
Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	~					0.26 0.65
	% Emergent % Aquatic Interspersion Class 1 Class 2 Class 3 Class 4 Class 5 %OW <= 1.5ft Salinity (ppt)	% Aquatic 0  Interspersion	% Emergent       85       0.87         % Aquatic       0       0.30         Interspersion       %       0.84         Class 1       80       0.84         Class 2       0.84       0.84         Class 3       0.84       0.84         Class 4       20       0.84         Class 5       0.84       0.84         %OW <= 1.5ft	Value         SI         Value           % Emergent         85         0.87         81           % Aquatic         0         0.30         0           Interspersion         %         %         %           Class 1         80         0.84         75           Class 2         Class 3         25         25           Class 4         20         25         60           Salinity (ppt)         12         1.00         12           Access Value         1.00         1.00         1.00           Emergent Marsh HSI         0.90         EM HSI         =	Value         SI         Value         SI           % Emergent         85         0.87         81         0.83           % Aquatic         0         0.30         0         0.30           Interspersion         %         %         0.84         75         0.80           Class 1         80         0.84         75         0.80           Class 2         Class 3         25         25           Class 4         20         25         25           %OW <= 1.5ft	Value       Si       Value       Si       Value         % Emergent       85       0.87       81       0.83       0         % Aquatic       0       0.30       0       0.30       0         Interspersion Class 1       80       0.84       75       0.80       %         Class 2 Class 3 Class 4 Class 5       20       25       100       100         %OW <= 1.5ft

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Lake Borgne at Shell Beach and Bayou Dupre SP

Project Area:

26

Area B - East

Condition: Future With Project

		TY 0		TY 1		TY 20	
<u>Variable</u>		Value	\$1	Value	SI	Value	\$I
V1	% Emergent	85	0.87	85	0.87	92	0.93
V2	% Aquatic	0	0.30	0	0.30	0	0.30
<b>V3</b>	Interspersion Class 1 Class 2 Class 3	% 80	0.84	% 80	0.84	% 90	0. <b>92</b>
<u></u>	Class 4 Class 5	20		20		10	
V4	%OW <= 1.5ft	75	1.00	75	1.00	97	0.58
V5	Salinity (ppt)	12	1.00	12	1.00	12	1.00
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh I	1SI =	0.90	em HSI =	0.90	EM HSI =	0.95
	Open Water HSI	=	0.76	OW HSI =	0.76	OW HSI =	0.74

Project: Lake Borgne at Shell Beach and Bayou Dupre SP
Area B - East

<b>Future Witho</b>	ut Project		Total	Cummulative
ΤΥ	Marsh Acres	x HSI	HUs	HUs
0	22	0.90	19.85	
1	21	0.88	18.39	19.11
20	0	0.26	0.00	133.80
			AAHUs =	7.85

l Cummulative	Total HUs 19.85		Project	Future With I
HUs		x HSI	Marsh Acres	TY
		0.90	22	0
85 19.85	19.85	0.90	22	1
77 404.54	22.77	0.95	24	20
IUs 21.22	AAHUs			

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	21.22
B. Future Without Project Emergent Marsh AAHUs =	7.65
Net Change (FWP - FWOP) =	13.57

AAHU CALCULATION - OPEN WATER

Project: Lake Borgne at Shell Beach and Bayou Dupre SP
Area B - East

uture Witho	uture Without Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	4	0.76	3.05	
1_	5	0.75	3.75	3.40
20	26	0.65	16.94	203.05
		<del></del>		
<del>-</del>		<del></del>		
	· · · · · · · · · · · · · · · · · · ·	:		
		11	AAHUs =	10.32

Future With	uture With Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	4	0.76	3.05	
1	4	0.76	3.05	3.05
20	2	0.74	1 47	42 77

AAHUs	2.29

NET CHANGE IN AAHUS DUE TO PROJECT		<b>1</b>
A. Future With Project Open Water AAHUs	=	2.29
B. Future Without Project Open Water AAHUs	=	10.32
Net Change (FWP - FWOP) =		-8.03

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	T
A. Emergent Marsh Habitat Net AAHUs =	13.57
B. Open Water Habitat Net AAHUs =	-8.03
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	8.77

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project: Lake Borgne at Shell Beach and Bayou Dupre SP

Project Area:

26

Area B - West

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		/alue	SI	Value	SI	Value	SI
V1	% Emergent	69	0.72	65	0.69	0	0.10
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion Class 1 Class 2 Class 3	% 65	0.72	% 60	0.68	%	0.10
	Class 4 Class 5	35		40		100	
V4	%OW <= 1.5ft	88	0.80	84	0.90	12	0.25
∨5	Salinity (ppt)	12	1.00	12	1.00	12	1.00
V6	Access Value Emergent Marsh HSI	1.00	1.00	1.00   EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.26</b>
	Open Water HSI		0.74	OW HSI =	0.74	OW HSI =	0.65

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project: Lake Bo

Lake Borgne at Shell Beach and Bayou Dupre SP

Project Area:

26

Area B - West

Condition: Future With Project

	7	TY 0		TY 0 TY 1		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	ŠI_		
V1	% Emergent	69	0.72	69	0.72	85	0. <b>87</b>		
V2	% Aquatic	0	0.30	0	0.30	0	0.30		
V3	Interspersion Class 1 Class 2	% 65	0.72	% 65	0.72	% 80	0. <b>84</b>		
	Class 3 Class 4 Class 5	35		35		20			
V4	%OW <= 1.5ft	88	0.80	88	0.80	97	0.58		
V5	Salinity (ppt)	12	1.00	12	1.00	12	1.00		
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00		
	Emergent Marsh H Open Water HSI	S  =	0.80	EM HSI = OW HSI =	0.80	EM HSI =	0. <b>9</b> 0 0.73		

AAHU CALCULATION - EMERGENT MARSH
Project: Lake Borgne at Shell Beach and Bayou Dupre SP Area B - West

sture Withou	ut Project	Ţ	Total	Cummulative HUs	
TY	Marsh Acres	x HSI	HUs		
0	18	0.80	14.39		
1	17	0.77	13.13	13.76	
20	0	0.26	0.00	97.18	
		<del></del>	<del></del>		
			ALIMA		

5.55 AAHUs =

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	18	0.80	14.39	
1	18	0.80	14.39	14.39
20	22	0. <b>90</b>	19.85	323.98
į į				
		il	AAHUs	16.92

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	16.92
B. Future Without Project Emergent Marsh AAHUs =	5.55
Net Change (FWP - FWOP) =	11.37

Project: Lake Borgne at Shell Beach and Bayou Dupre SP
Area B - West

Future Witho	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	8	0.74	5.90	
1	9	0.74	6.68	6.29
20	26	0.65	16.94	229.34
			AAHUs =	11.78

Future With	Project		Total	Cummulative	
TY	Water Acres	x HSI	HUs_	HUs	
0	8	0.74	5.90		
1	8	0.74	5.90	5.90	
20	4 (	0.73	2.92	83.74	
		i			
			AAHUs	4.48	

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	4.48
B. Future Without Project Open Water AAHUs	=	11.78
Net Change (FWP - FWOP) =		-7.30

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	11.37
B. Open Water Habitat Net AAHUs =	-7.30
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5	7.22

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

### Project: PCS-32 Lighthouse Bayou Constriction

The WVA for this project includes 5 areas. Total benefits for this project are as follows:

Area	<b>AAHUs</b>
A-brackish	8
A-intermediate	(18)
A-saline	(121)
В	(23)
С	(19)

TOTAL BENEFITS = (173) AAHUS

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project: Lighthouse Bayou Constriction

Area A - Brackish

Condition: Future Without Project

Project Area: 2,864

		TY 0		TY 1		TY 20	
Variable_		Value	SI	Value	SI	Value	SI
V1	% Emergent	90	0.91	90	0.91	86	0.87
V2	% Aquatic	10	0.19	10	0.19	5	0.15
V3	Interspersion	%		%		%	
	Class 1	60	0.84	60	0.84	60	0.84
	Class 2	40		40		40	
	Class 3	•		į			
	Class 4	:					
	Class 5	<del></del>					·
V4	%OW <= 1.5ft	80	1.00	80	1.00	70	1.00
V5	Salinity (ppt)	12	0.70	12	0.70	15	0.25
V6	Access Value	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsh H		0.89	EM HSI =	0.89	EM HSI =	0.82
	Open Water HSI	8	0.48	OW HSI =	0.48	OW HSI =	0.40

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Lighthouse Bayou Constriction

Area A - Brackish

Condition: Future With Project

Variable         Value         SI         Value         SI         Value           V1         % Emergent         90         0.91         90         0.91         80           V2         % Aquatic         10         0.19         15         0.24         30           V3         Interspersion Class 1         60         0.84         60         0.84         60           Class 2         40         40         40         40         40           Class 3         Class 4         Class 4         60         1.00         80         1.00         80           V4         %OW <= 1.5ft         80         1.00         80         1.00         80           V5         Salinity (ppt)         12         0.70         10         1.00         10			TYO		TY 1		TY 20	
V2       % Aquatic       10       0.19       15       0.24       30         V3       Interspersion Class 1	Variable			SI	Value	SI	Value	SI
V3     Interspersion     %     %       Class 1     60     0.84     60     0.84       Class 2     40     40     40       Class 3     Class 4     Class 5     80     1.00     80     1.00     80       V4     %OW <= 1.5ft	V1	% Emergent	90	0.91	90	0.91	88	0.89
Class 1 60 0.84 60 0.84 60 40 40 40 40 40 40 40 40 40 40 40 40 40	V2	% Aquatic	10	0.19	15	0.24	30	0.37
V4     %OW <= 1.5ft	<b>V3</b>	Class 1 Class 2 Class 3 Class 4	60	0.84	60	0.84	% 60 40	0.84
	V4		80	1.00	80	1.00	80	1.00
V6 Access Value 1.00 1.00 0.60 0.64 0.66	V5	Salinity (ppt)	12	0.70	10	1.00	10	1.00
	V6	Access Value	1.00	1.00	0.60	0.64	0.60	0.64
			S  =				EM HSI =	0.85 0.57

2,864

Project Area:

AAHU CALCULATION - EMERGENT MARSH
Project: Lighthouse Bayou Constriction
Area A - Brackish

Future Witho	uture Without Project		Total	Cummulative
ΤΥ	Marsh Acres	es x HSI HUs		HUs
0	2590	0.89	2316.66	
1	2584	0.89	2311.29	2313.97
20	2473	0.82	2033.66	41251.72
				· · · · · · · · · · · · · · · · · · ·
			AAHUs =	2178 28

Future With Project			Total	Cummulative
ΤY	Marsh Acres	x HSI	HUs	HUs
0	2590	0.89	2316.66	
1	2587	0.86	2217.07	2266.85
20	2529	0.85	2142.20	41411.26
	:			
	······································	!		
			AAHUs	2183.91

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	= [	2183.91
B. Future Without Project Emergent Marsh AAHUs	= [	2178.28
Net Change (FWP - FWOP) =		5.62

AAHU CALCULATION - OPEN WATER

Project: Lighthouse Bayou Constriction
Area A - Brackish

uture Witho	ut Project		Total	Cummulative
TY	Water Acres			HUs
0	274	0.48	130.23	
1	280	0.48	133.08	131.66
20	391	0.40	156.00	2773.11
			<del></del>	
			····	

145.24 AAHUs =

uture With Project		Vith Project		Cummulative	
ΤΥ	Water Acres	x HSI	HUs	HUs	
0	274	0.48	130.23		
1	277	0.48	133.86	132.04	
20	335	0.57	190.51	3065.78	
	<u> </u>				
			AAHUs	159.89	

NET CHANGE IN AAHUS DUE TO PROJECT		<del>.</del>
A. Future With Project Open Water AAHUs	=	159.89
B. Future Without Project Open Water AAHUs	=	145.24
Net Change (FWP - FWOP) =		14.65

TOTAL BENEFITS IN AAHUS DUE TO PROJECT	
A. Emergent Marsh Habitat Net AAHUs =	5.62
B. Open Water Habitat Net AAHUs =	14.65
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	8.13

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project: **Lighthouse Bayou Constriction** 

Area A - Intermediate

Condition: Future Without Project

Project Area:

Fresh.....

Intermediate. 1,795

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	96	0.96	96	0.96	94	0.95
V2	% Aquatic	30	Ø.37	30	0.37	15	0.24
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	%  85  15	0.94	% 85 15	0.94	% 85 15	0.94
V4	%OW <= 1.5ft	90	1.00	90	1.00	80	1.00
∨5	Salinity (ppt) fresh intermediate	41	1.00	4	1.00	6	0.60
V6	Access Value   fresh   intermediat	1.00	1.00	1.00	1.00	1,00	1.00
	Emergent Mars	h HSI =	0.97	EM HSI =	0.97	EM HSI =	0.91
	Open Water HS	=	0.59	OW HSI =	0.59	OW HSI =	0.48

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

**Lighthouse Bayou Constriction** 

Area A - Intermediate

Condition: Future With Project

Project Area:

Fresh.....

Intermediate. 1,795

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1_	% Emergent	96	0.96	96	0.96	95	0. <b>9</b> €
V2	% Aquatic	30	0.37	35	0.42	50	0.5
V3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 85 15	0.94	% 85 15	0.94	% 85 15	0.94
V4	%OW <= 1.5ft	90	1.00	90	1.00	90	1.00
V5	Salinity (ppt) fresh intermediate	4	1.00	3	1.00	3	1.0
V6	Access Value fresh intermediat	1.00	1.00	0.80	0.68	0.60	0.68
	Emergent Mars		0.97	EM HSI =	0.92	EM HSI =	0.9
	Open Water HS	=	0.59	OW HSI =	0.58	OW HSI =	0.6

Project: Lighthouse Bayou Constriction
Area A - Intermediate

Future Without Project		out Project		Cummulative
TY	Marsh Acres	x H\$I	HUs	HUs
0	1721	0.97	1669.25	
1	1719	0.97	1667.31	1668.28
20	1680	0.91	1535.06	30415.58
i				
		Î	AAHUs =	1604.19

Future With Project				Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1721	0.97	1669.25	
1	1720	0.92	1587.50	1628.37
20	1700	0.92	1559.68	29897.85
	:			
				·
<del>-</del>				
		j	AAHUs	1576.31

NET CHANGE IN AAHUS DUE TO PROJECT		1
A. Future With Project Emergent Marsh AAHUs	Ξ	1576.31
B. Future Without Project Emergent Marsh AAHUs	=	1604.19
Net Change (FWP - FWOP) =		-27.88

Project: Lighthouse Bayou Constriction
Area A - Intermediate

Future Witho	out Project		Total	Cummulative
TY	Water Acres	x HSI	_HUs	HUs
0	74	0.59	43.42	
1	76	0.59	44.59	44.01
20	115	0.45	51.83	932.80
			AAHUs =	48.84

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	74	0.59	43.42	
1	75	0.58	43.72	43.57
20	95	0.67	63.54	1013.57
	!			
			AAHUs	52.86

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	52.86
B. Future Without Project Open Water AAHUs	=	48.84
Net Change (FWP - FWOP) =		4.02

TOTAL BENEFITS IN AAHUS DUE TO	PROJEC	CT
A. Emergent Marsh Habitat Net AAHUs	=	-27.88
B. Open Water Habitat Net AAHUs	=	4.02
Net Benefits=(2.1xEMAAHUs+OWAAHU	Js)/3.1	-17.59

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

Lighthouse Bayou Constriction

Project Area:

1,768

Area A - Saline

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	96	0.96	96	0.96	94	0.95
V2	% Aquatic	2	0.31	2	0.31	2	0.31
<b>V3</b>	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	% 100	1.00	% 100	1.00	100	1.00
V4	%OW <= 1.5ft	60	0.87	60	0.87	50	0.74
V5	Salinity (ppt)	15	1.00	15	1.00	18	1.00
V6	Access Value Emergent Marsh HSI	1.00	1,00 <b>0.98</b>	1.00   EM HSI =	1.00	1.00 EM HSI =	1.00 <b>0.97</b>
	Open Water HSI	=	0.77	OW HSI =	0.77	OW HSI =	0.76

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Saline Marsh

Project:

**Lighthouse Bayou Constriction** 

Project Area:

1,768

Area A - Saline

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	81	Value	<u>\$I</u>
V1	% Emergent	96	0.96	96	0.96	94	0.95
V2	% Aquatic	2	0.31	2	0.31	15	0.41
<b>V</b> 3	Interspersion Class 1 Class 2 Class 3 Class 4 Class 5	100	1.00	% 100	1.00	100	1.00
V4	%OW <= 1.5ft	60	0.87	60	0.87	60	0.87
V5	Salinity (ppt)	15	1.00	12	1.00	12	1.00
V6	Access Value Emergent Marsh HS	1.00	1.00	0.54	0.59	0.54	0.59 <b>0.8</b> 7
	Open Water HSI	<u> </u>	0.98	EM HSI =	0.88	EM HSI = OW HSI =	0.62

# Project: Lighthouse Bayou Constriction Area A - Saline

Future Witho	ut Project		-	Total	Cummulative
ΤΥ	Marsh Acres	x HSI		HUs	HUs
0	1694	0	.98	1658.26	
1	1692	0	.98	1656.31	1657.28
20	1654	0	.97	1601.54	30948.25
			:		
				AAHUs =	1630.28

			- 5		
Future With	Project			Total	Cummulative
TY	Marsh Acres	x HSI		HUs	HUs
0	1694	0	.98	1658.26	
, 1	1692	0	.88	1496.18	1577.19
20	1660	. 0	.87	1452.46	28011.12
1					
				·	
			ĺ	AAHUs	1479.42

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Emergent Marsh AAHUs =	1479.42
B. Future Without Project Emergent Marsh AAHUs =	1630.28
Net Change (FWP - FWOP) =	-150.86

# Project: Lighthouse Bayou Constriction Area A - Saline

Future Witho	out Project	!	Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	74	0.77	57.08	
1	76	0.77	58.62	57.85
20	114	0.76	86.85	1383.09
			AAHUs =	72.05

Future With	Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	74	0.77	57.08	
1	76	0.59	45.15	51.17
20	108	0.62	67.27	1065.03
	<u> </u>			
· — . · · · · · · · · · · · · · · · · ·				
			AAHUs	55.81

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	3	55.81
B. Future Without Project Open Water AAHUs	=	72.05
Net Change (FWP - FWOP) =		-16.24

TOTAL BENEFITS IN AAHUS DUE TO	PROJEC	T
A. Emergent Marsh Habitat Net AAHUs	=	-150.86
B. Open Water Habitat Net AAHUs	=	-16.24
Net Benefits= (3.5xEMAAHUs+OWAAHL	Js)/4.5	-120.94

#### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

**Lighthouse Bayou Constriction** 

Area B

Condition: Future Without Project

Project Area:

Fresh.....

Intermediate. 846

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	98	0.98	98	0.98	96	0.96
V2	% Aquatic	50	0.55	50	0.55	30	0.37
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	90	1.00	90	1.00	85	1.00
<b>∨</b> 5	Salinity (ppt) fresh intermediate	2	1.00	2	1.00	4	1.0 <b>0</b>
V6	Access Value fresh intermediat	1.00	1.00	1.00	1.00	1.00	1.00
	Emergent Marsi	n HSI =	0.99	em HSI =	0.99	EM HSI =	0.98
	Open Water HS	=	0.72	OW HSI =	0.72	OW HSI =	0.59

### WETLAND VALUE ASSESSMENT COMMUNITY MODEL Fresh/Intermediate Marsh

Project:

**Lighthouse Bayou Constriction** 

Area B

Condition: Future With Project

Project Area:

Fresh.....

Intermediate. 846

TY 0 TY 1 TY 20 Variable Value Value Value SI 97 0.97 V1 % Emergent 98 0.98 98 0.98 0.55 50 **V2** % Aquatic 50 0.55 50 0.55 **V3** Interspersion 100 1.00 Class 1 100 1.00 100 1.00 Class 2 Class 3 Class 4 Class 5 %OW <= 1.5ft 90 1.00 90 1.00 90 1.00 **V4** V5 Salinity (ppt) fresh 1.00 1.00 1.00 2 intermediate 2 **V6** Access Value 0.68 fresh 1.00 0.68 0.60 EM HSI = 0.60 EM HSI = intermediat 1.00 Emergent Marsh HSI
Open Water HSI 0.**94** 0.**67** OW HSI = 0.72 OW HSI = 0.67

Project: Lighthouse Bayou Constriction
Area B

uture Without Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	Hüs
0	828	0.99	818.33	
1	827	0.99	817.34	817.83
20	815	0.98	795.93	15325.55
	<del></del>		AAUHa =	807.17

Future With Project			Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	828	0.99	818.33	
1	828	0.94	778.84	798.58
20	821	0.94	767.74	14692.38
		•		· · · · · · · · · · · · · · · · · · ·
				1
		1		
			AAHUs	774.65

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	774.55
B. Future Without Project Emergent Marsh AAHUs	3	807.17
Net Change (FWP - FWOP) =	-	-32.62

Project: Lighthouse Bayou Constriction
Area B

Future Witho	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	18	0.72	12.94	
1	19	0.72	13.66	13.30
20	31	0.59	18.33	308.74
				•
<del></del>	<del>.</del>		AAHUs =	16.10

Future With Project			Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	18	0.72	12.94	
1	18	0.67	12.12	12.53
20	25	0.67	16.83	275.04
			AAHUs	14.38

NET CHANGE IN AAHUS DUE TO PROJECT	
A. Future With Project Open Water AAHUs =	14.38
B. Future Without Project Open Water AAHUs =	16.10
Net Change (FWP - FWOP) =	-1.72

TOTAL BENEFITS IN AAHUS DUE TO PROJE	СТ
A. Emergent Marsh Habitat Net AAHUs =	-32.62
B. Open Water Habitat Net AAHUs =	-1.72
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	-22.65

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Lighthouse Bayou Constriction

Project Area:

1,194

Area C

Condition: Future Without Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	SI	Value	SI
V1	% Emergent	94	0.95	94	0.95	94	0.95
V2	% Aquatic	30	0.37	30	0.37	25	0.33
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)	8	1.00	8	1.00	10	1.00
V6	Access Value Emergent Marsh	0.10	0.19 <b>0.73</b>	0.10 EM HSI =	0.19 <b>0.73</b>	0.10 EM HSI =	0.19 <b>0.73</b>
	Open Water HSI		0.44	OW HSI =	0.44	OW HSI =	0.43

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL Brackish Marsh

Project:

Lighthouse Bayou Constriction

Project Area:

1,194

Area C

Condition: Future With Project

		TY 0		TY 1		TY 20	
Variable		Value	SI	Value	ŠI _	Value	SI
V1	% Emergent	94	0.95	94	0.95	94	0.95
V2	% Aquatic	30	0.37	35	0.42	40	0.46
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)	8	1.00	8	1.00	7	1.00
V6	Access Value	0.10	0.19	0.06	0.15	0.06	0.15
	Emergent Marsh   Open Water HSI	HSI =	0.73	EM HSI = OW HSI =	0.71	EM HSI = OW HSI =	0.71 0.45

AAHU CALCULATION - EMERGENT MARSH
Project: Lighthouse Bayou Constriction
Area C

Future Witho	uture Without Project		Total	Cummulative
TY	Marsh Acres	x HSI	HUs	HUs
0	1126	0.73	822.24	
1	1126	0.73	822.24	822.24
20	1126	0.73	822.24	15622.50
				· · · · · · · · · · · · · · · · · · ·
			AAHUs =	822.24

Future With	Project		Total	Cummulative
TY_	Marsh Acres	x HSI	HUs	HUs
0	1126	0.73	822.24	
1	1126	0.71	795.17	808.70
20	1126	0.71	795.17	15108.20
			AAHUs	795.84

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	= [	795.84
B. Future Without Project Emergent Marsh AAHUs	= [	822.24
Net Change (FWP - FWOP) =		-26.39

# Project: Lighthouse Bayou Constriction Area C

Future Witho	ut Project		Total	Cummulative
TY	Water Acres	x HSI	HUs	HUs
0	68	0.44	30.10	
1	68	0.44	30.10	30.10
20	68	0.43	28.98	561.25
	····			
			AAHUs =	20.57

Cummulative	Total		Project	Future With I
HUs	HUs	x HSI	Water Acres	TY
	30.10	0.44	68	0
29.99	29.88	0.44	68	1
576.56	30.82	0.45	68	20
30.33	AAHUs	<del></del>		

NET CHANGE IN AAHUS DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	30.33
B. Future Without Project Open Water AAHUs	=	29.57
Net Change (FWP - FWOP) =		0.76

TOTAL BENEFITS IN AAHUS DUE TO PROJEC	T
A. Emergent Marsh Habitat Net AAHUs =	-26.39
B. Open Water Habitat Net AAHUs =	0.76
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6	-18.85

# WETLAND VALUE ASSESSMENT MULTIPLE AREA BENEFITS SUMMARY SHEET

Project: PME-17 Restore Connection of Mermentau River/Restrict Navigation Channel

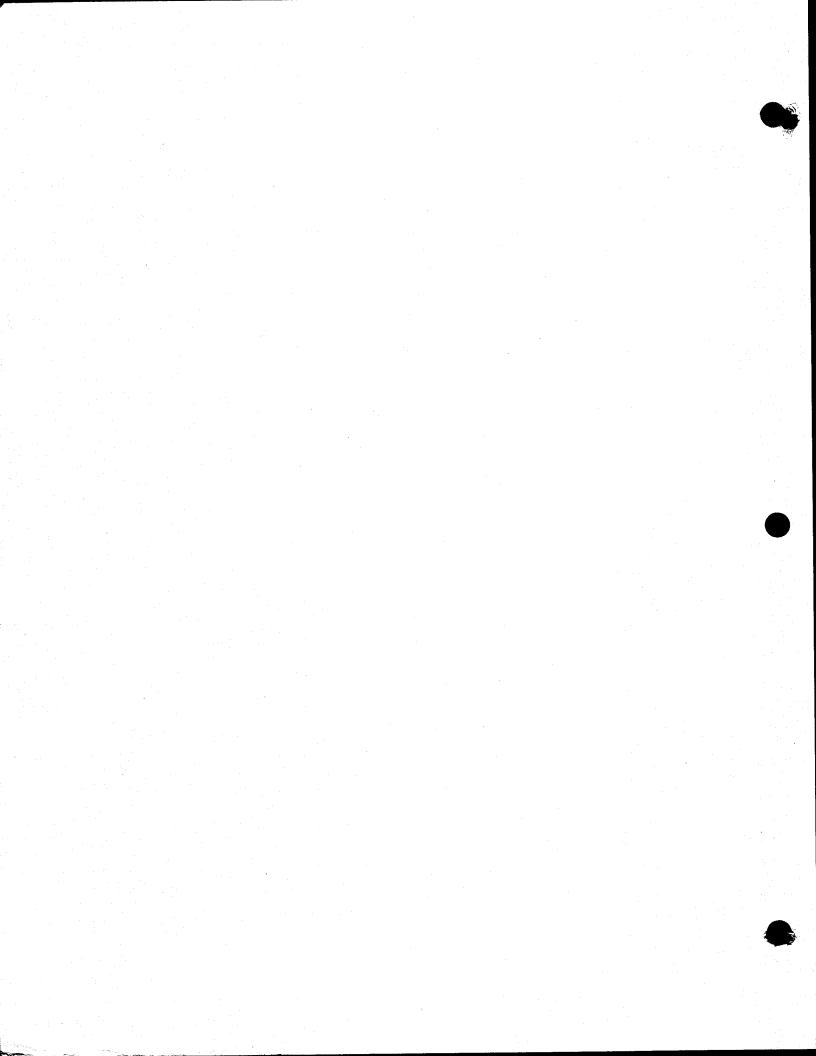
The Environmental Work Group did not conduct a WVA for this project. Based on information provided by the Corps of Engineers, it was determined that the Mermentau Navigation Channel could not be restricted to the degree necessary to provide hydrologic benefits in the upper basin. Furthermore, restoring the connection of the Mermentau River to the Gulf of Mexico would result in negative impacts as a significant acreage of intertidal, saline marsh would have to be destroyed by opening the ancient river channel. It was also decided that the negative benefits of that action would overshadow any positive impacts.

# Coastal Wetlands Planning, Protection, and Restoration Act

9<sup>th</sup> Priority Project List Report

Appendix F

Public Support For Candidate Projects



# Public Support for Candidate Projects<sup>1</sup> for the 9<sup>th</sup> Priority Project List

#### **XTE-58**

#### North Bully Camp Outfall Management

Grady C. Galiano (Administrator, Lafourche Parish Coastal Zone Management)

#### **PTV-13**

#### Weeks Bay/Commercial Canal/GIWW SP

Will Langlinais (Iberia Parish President) 23 March 1999

Charles Stemmans (District Conservationist, Natural Resources Conservation Service) 19 November 1999

Hugh R Goodrich (Goodrich Operating Company) 19 March 1999

Carol Cocke Hoff (Landowner) 19 March 1999

Gene L. Jefferies (Director, Agricultural Operations, McIlhenny Company) 18 March 1999

Darrell P. Judice (Chairman, Iberia Soil & Water Conservation District) 18 March 1999

#### PO-13

#### Tangipahoa/Ponchartrain Shoreline Protection

Tangipahoa Parish Council, 11 February 1999

#### PTE-15viii

#### **Raccoon Island Restoration**

Reggie P. Dupre, Jr. (State Representative, District 53) 2 November 1999 Matthew B. Sevier (Coastal Zone Manager, Terrebonne Parish Coastal Zone Management) 3 December 1999

#### **XAT-11**

#### Castille Pass Sediment Delivery

Jack D. Smith (State Representative, District 50) 9 November 1999

#### PTE-28

#### South Lake DeCade/Atch. Freshwater Introduction

Thomas A. Lopus (General Manager Products Division, Fina Oil and Chemical Company) 24 March 1999
Matthew B. Sevier (Coastal Zone Manager, Terrebonne Parish Coastal Zone Management) 3 December 1999

<sup>&</sup>lt;sup>1</sup> Date listed is date of support

# Public Support for Candidate Projects<sup>1</sup> for the 9<sup>th</sup> Priority Project List (continued)

#### **BA-32a**

#### LA Highway 1 Marsh Creation

Grady C. Galiano (Administrator, Lafourche Parish Coastal Zone Management)

#### XBA-63 iii-2a

#### **Barataria Basin Landbridge Shore Protection**

Grady C. Galiano (Administrator, Lafourche Parish Coastal Zone Management) Randy Gros (Chairman, Jefferson Parish Marine Fisheries Advisory Board) 22 December 1999

#### XBA-1

#### **East/West Grande Terre Islands Restoration**

Grady C. Galiano (Administrator, Lafourche Parish Coastal Zone Management) Randy Gros (Chairman, Jefferson Parish Marine Fisheries Advisory Board) 22 December 1999

#### **XBA-77**

#### **East Golden Meadow Terracing**

Grady C. Galiano (Administrator, Lafourche Parish Coastal Zone Management)

#### XTE-45a

#### Timbalier Island Dune/Marsh Restoration

Grady C. Galiano (Administrator, Lafourche Parish Coastal Zone Management) Matthew B. Sevier (Coastal Zone Manager, Terrebonne Parish Coastal Zone Management) 3 December 1999

#### TE-8a

#### North HNC Salinity Control

Matthew B. Sevier (Coastal Zone Manager, Terrebonne Parish Coastal Zone Management) 3 December 1999

Date listed is date of support

# Public Support for Candidate Projects<sup>1</sup> for the 9<sup>th</sup> Priority Project List (continued)

#### **TE-11a**

#### **New Cut Dune/Marsh Restoration**

Matthew B. Sevier (Coastal Zone Manager, Terrebonne Parish Coastal Zone Management) 3 December 1999 Reggie P. Dupre, Jr. (State Representative, District 53) 31 March 1998

#### **CS-16**

#### **Black Bayou Culverts**

Earnestine T. Horn (Administrator, Cameron Police Jury) 22 November 1999

#### **PME-18**

#### Grand/White Lake Land Bridge Protection

Earnestine T. Horn (Administrator, Cameron Police Jury) 22 November 1999

#### PME-7a

#### Freshwater Intro. South of Hwy 82 to the Eastern Portion of Rockefeller Refuge

Earnestine T. Horn (Administrator, Cameron Police Jury) 22 November 1999

#### XME-42a

#### Little Pecan Bayou Hydrologic Restoration

Earnestine T. Horn (Administrator, Cameron Police Jury) 22 November 1999

#### PCS-26ii

#### **GIWW-Perry Ridge West Bank Stabilization**

Earnestine T. Horn (Administrator, Cameron Police Jury) 22 November 1999

#### PPO-7a

#### Labranche Wetlands Terracing, Planting and Shoreline Protection

St. Charles Parish Council, 20 December 1999

<sup>&</sup>lt;sup>1</sup> Date listed is date of support

# Public Support for Candidate Projects<sup>1</sup> for the 9<sup>th</sup> Priority Project List (continued)

#### XPO-54a

#### Southwest Lake Ponchartrain Sediment Trapping Project

St. Charles Parish Council, 20 December 1999

#### XPO-55a

#### Opportunistic Use of Bonnet Carre' Spillway

St. Charles Parish Council, 20 December 1999

#### **BS-DEMO**

#### Lake Athanasio Oyster Reef Demo

Kenneth L. Odinet, Sr. (State Representative, District 103) 30 November 1999 Myra M. Kattengell (Clerk of Council, St. Bernard Parish) 23 October 1999 Mary L. Landrieu (United States Senator) 4 November 1999 St. Bernard Parish Council, 19 October 1999

#### XTE-DEMO

#### **Terrebonne Bay Shore Protection Demonstration**

Jerome P. Zeringue (Operations Manager, South Terrebonne Tidewater Management & Conservation District) 20 October 1999

Matthew B. Sevier (Coastal Zone Manager, Terrebonne Parish Coastal Zone Management) 3 December 1999

Barry P. Bonvillain (Parish President, Terrebonne Parish Consolidated Government) 8 December 1999

#### **XTE-DEMO**

#### **Mandalay Bank Protection Demonstration**

Matthew B. Sevier (Coastal Zone Manager, Terrebonne Parish Coastal Zone Management) 3 December 1999

<sup>&</sup>lt;sup>1</sup> Date listed is date of support

# Coastal Wetlands Planning, Protection, and Restoration Act

9<sup>th</sup> Priority Project List Report

Appendix G

Status Projects from Previous Project Lists

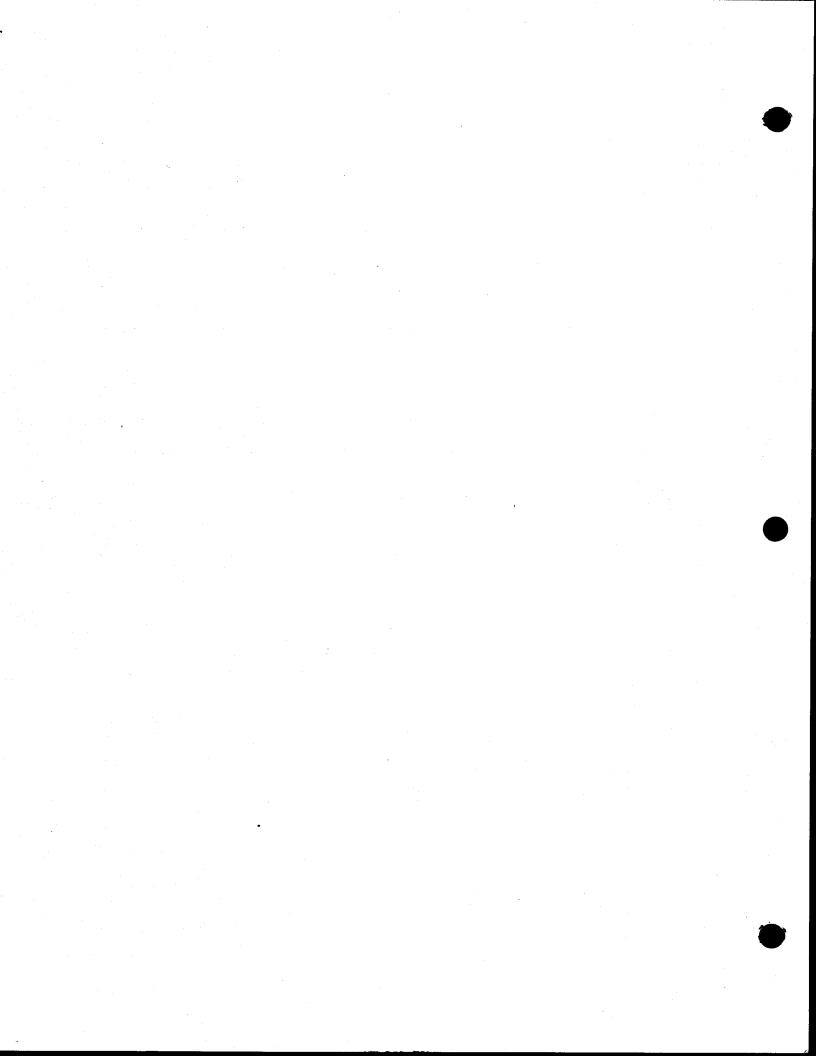
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#### Appendix G

#### Status Projects From Previous Priority Project Lists

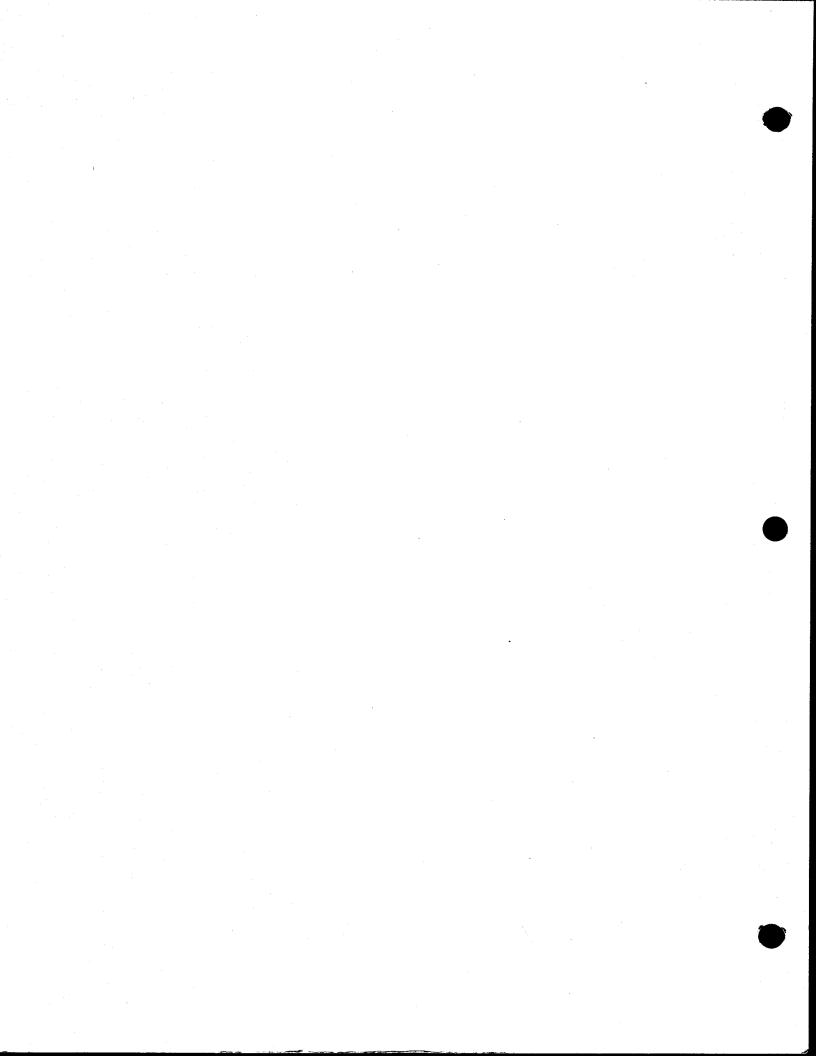
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**)** 

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# COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

# PROJECT STATUS SUMMARY REPORT

18 March 2000

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:

Planning, Programs and Project Management Division CWPPRA Branch

U.S. Army Corps of Engineers

New Orleans District

P.O. Box 60267

New Orleans, LA 70160-0267















CEMVN-PM-C	00	COASTAL WETLANDS Project Status Summa		PLANNING, PROTECTION AND RESTORATION ACT	d Agency: DE	DESIGN WELLANDS PLANNING, PROTECTION AND RESTORATION AC Project Status Summary Report - Lead Agency: DEPT, OF THE ARMY (COE)	KATION ACT			18-Mar-00 Page 1
	-				SCHEDULES		ESJ	******* ESTIMATES *******	# 6	Actual Obligations/
PROJECT	BASIN	PARISH	PARISH ACRES	CSA	Const Start	Const End	Baseline	Current	*	Expenditures
Lead Agency: DEPT. OF THE ARMY, CORPS OF	T. OF THE	ARMY, CC	_	ENGINEERS						
Priority List 1										
Barataria Bay Marsh Creation	BARA	3.431	5445	24-Apr-95 A	22-Jul-96 A	31-Dec-00	\$1,759,257	\$1,180,393	67.1	\$1,211,826
	Remarks:		ement of Quee in October 199 ed into the Corp	n Bess Island was 36. If oyster-relate p's O&M deposit p	The enlargement of Queen Bess Island was incorporated into the project and the completed in October 1996. If oyster-related conflicts are removed from the reincorporated into the Corp's O&M deposit plan for the next maintenance cycle.	the project and the noved from the rer naintenance cycle.	The enlargement of Queen Bess Island was incorporated into the project and the construction of the 9-acre cell was completed in October 1996. If oyster-related conflicts are removed from the remaining marsh creation sites, they will be incorporated into the Corp's O&M deposit plan for the next maintenance cycle.	e 9-acre cell was tion sites, they v	vill be	

\$3,517,868 \$3,498,299 82.2 Pontchartrain sediments and placing in marsh creation area. Contract final inspection was performed on April 7, 1994. Site \$3,665,519 Contract awarded to T. L. James Co. (Dredge "Tom James") for dredging approximately 2,500,000 cy of Lake \$4,461,301 07-Apr-94A 06-Jan-94A visit by Task Force took place on April 13, 1994 17-Apr-93 A 503 SICHA Remarks: PONI Bayou Labranche Wetlands Restoration

Status: Completed Queen Bess Island for \$945.678. Remaining tunds may be used to clear marsh creation sites of oyster leases.

The project site is being monitored. No further work is planned at this time except to address the problem of impaired access for the lease holders in the project area.

Status: Complete

CEMVN-PM-C	COA	COASTAL WETLAND Project Status Summ	TLANDS   us Summar	PLANNING, P y Report - Lea	ROTECTION d Agency: DE	DASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)	RATION ACT RMY (COE)			18-Mar-00 Page 2
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	%	Obligations/ Expenditures
Lake Salvador	BARA	JEFF	0	29-Oct-96 A	01-Jun-95.A	21-Mar-96 A	000'09\$	\$60,000	0.001	\$60,000
Jean Lafitte NHP&P	Remarks:	This projec	i was added io	This project was added to Priority List 1 at the March 1995 Task Force meeting	he March 1995 Ta	ask Force meeting.				\$58,753
		The Task I	The Task Force approved the design of the project	The expenditures of	of up to \$45,000 ii	The Task Force approved the expenditures of up to \$45,000 in Lederal funds and non-Federal funds of \$15,000 (25%) for the design of the project	non-Federal fund	s of \$15,000 (25	%) for	
		A design re advertisem Confractin	ent for the cor g Corp The	A design review meeting was held with Jean Lafitte Park persor advertisement for the construction contract. The contract was a Contracting Corp.—The contract was completed in March 1997.	n Lafitte Park pers The contract wa leted in March 199	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	to resolve design er 4, 1996 for <b>\$6</b> 1	comments prior 0,000 to Bertucc	<b>2</b>	
	Status:		This project v	Complete. This project was design only						
Vermilion River Cutoff	TECHE	VERM	6.5	17-Apr-93 A	10-Jan-96 A	11-Feb-96 A	\$1,526,000	\$2,046,940	134.1!	\$1,710,546
Bank Protection		;			,				!	\$1,726,392

Status: Complete.

Remarks: 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.

Condemnation of real estate easements was required because of unclear ownership titles and significantly lengthened the project schedule. Construction was completed in February 1996.

The Task Force approved a revised project estimate of \$2,500,000, however, current estimate is less.

	ā	Project Status Sum	us Summar	y Report - Les	ad Agency: DE	mary Report - Lead Agency: DEPT. OF THE ARMY (COE)	RMY (COE)			Page 3
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	* *	Actual Obligations/ Expenditures
West Bay Sediment Diversion	DELTA	PI.AQ	9,831	01-Jun-00	31-Oct-00	31-Oct-02	\$8,517,066	\$16,673,000	187561	\$558,054
	Remarks:	The major portion of of flow from the rive amount of material t waterbottom vs. prive with easement acquil LA DNR is reached.	portion of the can the river. A material to be can vs. private o ent acquisition i reached, proje	cost increase is for model study of th Iredged. Howeve wnership, both be through condemi	the cost increase is for dredging the anchorag r. A model study of the river and diversion po be dredged. However, the State of Louisia ate ownership, both before and after project coition through condemnation until that issue w project will be proposed for de-authorization.	The major portion of the cost increase is for dredging the anchorage as a result of induced shoaling caused by the diversion of flow from the river. A model study of the river and diversion point was completed, providing a basis for estimating the amount of material to be dredged. However, the State of Louisiana was looking into the issue of State-owned waterbottom vs. private ownership, both before and after project construction, and they requested that we not proceed with easement acquisition through condemnation until that issue was resolved. If no resolution on the land rights issue with LA DNR is reached, project will be proposed for de-authorization.	finduced shoaling a pleted, providing a ginto the issue of ad they requested in a resolution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the colution or the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column of the column	s caused by the diversity basis for estimati Sate-owned d that we not pro	version ing the oceed ssue with	\$663,353
		In a letter dated Ma and its location on t requesting deauthor	lated March I. tion on the "bi deauthorization	1995, the Local S rd's foot" delta, w n of the project wa	Sponsor, LA DNR, hich the CWPPRA as issued to the Ch	In a letter dated March 1, 1995, the Local Sponsor, LA DNR, requested deauthorization of the project citing cost overruns and its location on the "bird's foot" delta, which the CWPPRA Restoration Plan calls for a phased-abandonment. A letter requesting deauthorization of the project was issued to the Chairman of the Technical Committee on August 25, 1995.	orization of the procalls for a phased- inical Committee of	yject citing cost ov abandonment. A on August 25, 199	verruns 1 letter 95.	
	•	However, at the Fe project proceeded. List estimate by 13	n the February ceeded. The C te by 125% an	28, 1996 Task Fo SA was sent to L. d, therefore, neces	orce meeting, the S A DNR for signatu ssitated Task Force	However, at the February 28, 1996 Task Force meeting, the State withdrew its request for deauthorization and work on the project proceeded. The CSA was sent to LA DNR for signature in March 1997. The current estimate exceeds the Priority List estimate by 125% and, therefore, necessitated Task Force approval, which was granted at the April 14, 1998 meeting.	equest for deautho The current estim vas granted at the	rization and work nate exceeds the P April 14, 1998 me	on the riority eeting.	
·	Status:	At the Apri million.	i 14, 1998 Tas	k Force meeting, a	approval was grant	At the April 14, 1998 Task Force meeting, approval was granted to proceed with the project at the current price of \$16.7 million.	the project at the	current price of \$	16.7	

18-Mar-00 Page 3

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

CEMVN-PM-C

10,544 4 Cost Sharing Agreements Executed 3 Construction Completed 0 Project(s) Deferred/Deauthorized Total Priority List 1 4. Construction Started 5 Project(s)

\$7,058,288 \$7,034,636

\$23,625,852 144.7

\$16,323,624

Priority List 2

	ā	Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)	is Summary	/ Report - Lea	a Agency: DE	ri. Or ine/	ARMI (COE)			r vên . Vetno
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	*	Obligations/ Expenditures
Clear Marais Bank Protection	CALC	CALCA	1,067	29-Apr-96 A	29-Aug-96 A	03-Mar-97 A	\$1,741,310	\$3,717,443	213.5!	\$2,891,748
	Remarks:	The original construction of the quantity needed (construction. This accedesign and costs about	The original construction estima of the quantity needed (based or construction. This accounts for design and costs about \$89/foot	stimate was low, sed on the origina ls for most of the Vfoot.	based on the prop I design), and the cost increase shov	osed plan in that tl estimate did not in vn. The current es	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.	timate was less th channel needed fo the original rock	han half or dike	<b>3</b> 2,812,532
		The Cost Sh Bros., Inc. f	The Cost Sharing Agreeme Bros., Inc. for \$2,694,000.	ent was executed a	i was executed and approved and the constri Construction was completed in March 1997.	the construction of tarch 1997.	The Cost Sharing Agreement was executed and approved and the construction contract awarded on August 1, 1996 to Luhr Bros., Inc. for \$2,694,000. Construction was completed in March 1997.	n August 1, 1996	to Luhr	
		There is an GIWW mai	There is an opportunity to crea GIWW maintenance dredging.	create marsh behi ying.	ind the rock dike t	etween Brannon (	to create marsh behind the rock dike between Brannon Canal and Alkalie Ditch using material from edging.	Ditch using mater	rial from	
	Status:	Complete.								
West Belle Pass	TERRE	LAFOU	474	27-Dec-96 A	10-Feb-98 A	17-Jul-98 A	\$4,854,102	\$6,751,441	139.1!	\$5,671,917
	Remarks:	We have reconstruction	We have received verbal au construction of the project.	uthority from HQ Construction	Counsel to acqui cost increase appr	re oyster leases, fo oved at the Januar	We have 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.	, directly impacte orce meeting.	d by the	\$5,268,104
	Status:	Status: Construction complete.	n complete.							
	Total Priority List 2	11 2	1,541				\$6,595,412	\$10,468,884	158.7	\$8,563,665 \$8,080,636

2 Project(s)
2 Cost Sharing Agreements Executed
2 Construction Started
2 Construction Completed
0 Project(s) Deferred/Deauthorized

PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	*	Actual Obligations/ Expenditures
Priority List 3										
Channel Armor Gap Crevasse	DELTA	PLAQ	936	13-Jan-97 A	22-Sep-97 A	02-Nov-97 A	\$808,397	\$902,720	111.7	\$533,523
	Remarks:	The Cost Sharing Agr	naring Agreeme	nt is being reviev	reement is being reviewed by LA DNR.					\$543,028
		Cost increas	se is due to addi	itional project ma	magement costs, b	Cost increase is due to additional project management costs, by both Federal and Local Sponsor.	Local Sponsor.			
		Surveys identified a p Service reviewed thei US FWS requested a	ntified a pipelin iewed their pern quested a modif	ne in the crevasse nit for the pipelin Tration to the ali	: area which would be and determined gnment and only U	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 is required to lower it at their own cost. US FWS requested a modification to the alignment and only US FWS-owned lands should be involved.	acted by the projec is required to Tow ds should be invol	ct. US Fish & W er it at their own ved.	/ildlife cost.	
	Status:	Complete.								
MRGO Back Dike Marsh Protection	PONT	STBER	755	17-Jan-97 A	25-Jan-99 A	29-Jan-99 A	\$512,198	\$342,611	6.99	\$305,055
	Remarks:		se is due to addi the baseline est	itional project ma imate. Further ti	Cost increase is due to additional project management costs, environmental investigations and local included in the baseline estimate. Further title research indicates that private ownership titles are uncondensation.	Cost increase is 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	tigations and local nership titles are u	l sponsor activitie nclear, requiring	es not	\$298,780

Status: 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.

PROJECT	BASIN	PARISH	ACRES	CSA	PARISH ACRES CSA Const Start Const End Baseline	Const End	Baseline	Baseline Current %	* *	Actual Obligations/ Expenditures
Pass-a-Loutre	DELTA	PLAQ	0				\$2,857,790	\$119,857	4.2	\$119,857
Crevasse - DEAUTHORIZED	Remarks:	Two pipelir million. LA there are no cost-saving: reduced the	Two pipelines and two power poles are in the million. LA DNR asked that the Corps inverthere are no more suitable locations for the cost-savings could be achieved. Reducing treduced the relocation cost only marginally.	ver poles are in at the Corps involcations for the locations for the eved. Reducing only marginally	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.	vasse, increasing re locations to avoid ss also reviewed the of the crevasse fron	location costs by a or minimize impac e design to determi n 430 feet as origin	pproximately \$2. its to the pipeline ne whether relocs ally proposed to	15 :s, but ations 200 feet	\$119,857
	Status:	A draft men Task Force Force forma	A draft memorandum dated December 5, 1997 wa: Task Force to deauthorize the project. COE reque: Force formally deauthorized project July 23, 1998	J December 5, 1 the project. CO d project July 2	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.	e CWPPRA Techni orization at the Jan	ical Committee Cha wary 16, 1998 Task	irman requesting : Force meeting.	s the Task	
Te	Total Priority List	1 3	1,69,1				\$4,178,385	\$1,365,188	32.7	\$958,434
3 Project(s) 2 Cost Shar 2 Construct 2 Construct 1 Project(s)	Project(s) Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	s Executed ithorized								
Priority List 4										
Grand Bay Crevasse - DEAUTHORIZED	BRET	Pl.AQ	0				\$2,468,908	\$64,442	2.6	\$64,442
	Remarks:	The major	landowner has	indicated non-su	The major landowner has indicated non-support of the project and has withheld ROE because of concern about	of and has withheld	ROF because of	thode means		71,104

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.

Status:

CEMVN-PM-C	CO <sub>A</sub>	ASTAL WETLANI Project Status Sumi	TLANDS 18 Summar	PLANNING, F y Report - Lea	PROTECTION nd Agency: DE	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)	RATION ACT RMY (COE)	ſ.		18-Mar-00 Page 7
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	******** ESTIMATES ******** Baseline Current %	*	Actual Obligations/ Expenditures
Hopper Dredge Demo	DELTA	PLAQ	0	30-Jun-97 A			\$300,000	\$52,909	17.6	\$38,213
	Remarks:	LA DNR requested th get close enough to th pumpout of material I miles 2.95 and 3.2 BB	LA DNR requested that the get close enough to the cr pumpout of material from miles 2.95 and 3.2 BHP	re hoppers dump the evasses to avoid do the hopper into a	he material in crev ropping the materi disposal area local	LA DNR requested that the hoppers dump the material in crevasses, but there are concerns that the hopper dredges cannot get close enough to the crevasses to avoid dropping the material in the navigation channel. Current plan involves the pumpout of material from the hopper into a disposal area located on the left descending bank or in Southwest Pass between miles 2.95 and 3.2 BHP	concerns that the channel. Curren ending bank or in	hopper dredges ca t plan involves th Southwest Pass be	annot e etween	<b>\$39,</b> 48
	Status:	1	me was found I to spray ove	To be non-implen the bank of the N	nentable due to ina dississippi River	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. Proposed for deauthorization.	r dredge to get clo horization.	se enough to the		
	Total Priority List	4	0				\$2,768,908	\$117,351	4.2	\$102,655
2 Project(s) 1 Cost Shari 0 Constructi 1 Project(s)	Project(s)  Cost Sharing Agreements Executed Construction Started  Construction Completed Project(s) Deferred/Deauthorized	s Executed uthorized								2000
Priority List 5										
Bayou Chevee Shoreline Protection	PONT	ORL	7.5	01-Feb-00 •	12-Aug-00	30-Nov-00	\$2,890,821	\$2,418,904	83.7	\$321,060
	Remarks:	Revised pro dike tying in marsh will t	Revised project consists of constructin dike tying into and extending an existi marsh will be protected by the project	f constructing a 2, ling an existing US y the project.	870-foot rock dike SFWS rock dike, a	Revised project consists 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.	of the north cove is e. Approximately	ind a 2,820-foot re 75 acres of brack	ock ish	\$327,880

Status: Model CSA for PPL 5 and PPL 6 projects pending review and approval by HQUSACE.

PROJECT										Action
Ė	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Bascline	Baseline Current %	*	Actual Obligations/ Expenditures
	Total Priority List 5	1 5	75				\$2,890,821	\$2,418,904	83.7	\$321,060 \$327,880
	Project(s) Cost Sharing Agreements Executed	is Executed								
0 Construc 0 Construc 0 Project(s	Construction Started Construction Completed Project(s) Deferred/Deauthorized	l uthorized								
Priority List 6										
Avoca Island - DEALITHORIZED	TERRE	STMRY	0				\$6,438,400	866,159	1.0	\$66,159
	Remarks:		norandum dated the project. CC	December 5, 19 )E requested dea	997 was sent to the nuthorization at the	: Technical Comn : January 16, 1998	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.	luesting the Task ng	Force to	.81,998
	Status:	Project deau	Status: Project deauthorized July 23, 1998.	3, 1998.						
Dustpan/Cutterhead Dredge Demo	DELTA	PLAQ	0	01-Feb-00 *	30-Jun-00	31-Oct-00	\$1,600,000	\$1,640,000	102.5	\$83,898
	Remarks:		n optional work	item on a South	west Pass leased co	utterhead dredge	Project is an optional work item on a Southwest Pass leased cutterhead dredge contract. The contract will be awarded as needed.	ract will be award	led as	\$94,248

Status: Model cost sharing agreement for PPL's 5 and 6 pending review and approval by HQUSACE.

	Pro	oject Statu	18 Summar	Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)	d Agency: DE	PT. OF THE A	ARMY (COE)			Page 9
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	***	Obligations/ Expenditures
Marsh Island	TECHE	IBERI	408	01-Feb-00 *	24-Aug-00	31-Dec-00	\$4,094,900	\$5,118,626	125.0!	\$318,950
Hydrologic Restoration	Remarks:	Revised des	ign of closure	s from earthen to	rock because soil t	oorings indicate hi	Revised design of closures from earthen to rock because soil borings indicate highly organic material in borrow area.	ial in borrow are	esi	\$388,465
	Status:	Model CSA	for PPL, 5 and	d 6 projects pendir	ig review and appr	Model CSA for PPL 5 and 6 projects pending review and approval by HQUSACE.	نبر			
<del>-</del>	Total Priority List 6	9	408				\$12,133,300	\$6,824,785	56.2	\$469,007 \$548,900
3 Project(s) 0 Cost Shar 0 Construct 0 Construct 1 Project(s)	Project(s) Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	: Executed thorized								
Priority List 8										
Sabine Refuge Marsh Creation, Ph 1	CALC	CAMER	993	01-Feb-01	01-141-01	01-Oct-02	\$5,920,248	\$5,920,248	100.0	\$17,810
	Remarks:	Total project cost pipeline and one completion of eng	set cost estima nd one cycle o n of engineeri	Total project cost estimate is \$10,154,300; Priority List 8 funder pipeline and one cycle of marsh creation. The COE will request completion of engineering and design, probably in January 2001	Priority List 8 fu The COE will requibably in January 2	nded \$5,313,000 to uest funding for th 2001.	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 the remaining phases of the project upon completion of engineering and design, probably in January 2001.	iction of a permal s of the project up	nent pon	

remaining phases of the project upon completion of engineering and design, probably in January 2001. Further engineering

complete construction of a permanent pipeline and one cycle of marsh creation. The COE will request funding for the Total project cost estimate is \$10,154,300; Priority List 8 funded \$5,313,000, approved at \$5.9 million recently, to

Status:

analyses on the project indicate higher cost efficiency on the project as scoped out with about 2 to 5 dredge cycles by using a temporary pipepline in lieu of a permanent pipeline. Cost feasibility for a permanent pipeline is achieved for 10 pumping events or greated, which is not the case on this project.

CEMVN-PM-C	COA	STAL WE roject Statu	TLANDS PI	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)	OTECTION Agency: DEF	AND RESTO T. OF THE A	RATION ACT RMY (COE)			18-Mar-00 Page 10
PROJECT	BASIN	PARISH	ACRES	CSA Const Start Const En	SCHEDULES ** Const Start	Const End	******* ES Baseline	Baseline Current %	%	Actual Obligations/ Expenditures
Tc	Total Priority List 8		993				\$5,920,248	\$5,920,248	100.0	\$17,810
1 Project(s) 0 Cost Shari 0 Constructi 0 Constructi 0 Project(s)	Project(s)  Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	s Executed uthorized								
Priority List 9										
Freshwater Bayou	TECHE	VERMI	529				\$399,114	\$399,114	100.0	20
Lock	Remarks:									0 <b>5</b>
	Status:									
Opportunistic Use of Bonnet Care Smillway	PONT	STCHA	177				\$107,778	\$107,778	100.0	0\$
Domes Care Spinway	Remarks:									<b>0\$</b>
	Status:									

	ā.	roject Statu	ıs Summary	Report - Le	Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)	PT. OF THE A	RMY (COE)	4Y (COE)	4 4 4	Page 11 Actual Obligations/
PROJECT	BASIN	PARISH	ACRES	CSA	Const Start	Const End	Baseline	Current	*	Expenditures
Periodic Intro of Sediment & Nutrients	VARY	VARY					\$52,549	\$52,549	100.0	80
Along the Miss. River	Remarks:									80
	Status:									
Weeks Bay/Commercial	TECHE	IBERI	138				\$390,351	\$390,351	100.0	.; •
Canal/GI W W	Remarks:									\$0
	Status:									
	Total Priority List 9	6 11	844				\$949,792	\$949,792	100.0	\$0

4 Project(s)
0 Cost Sharing Agreements Executed
0 Construction Started
0 Construction Completed
0 Project(s) Deferred/Deauthorized

18-Mar-00	Page 12 Actual	Obligations/	Expenditures	99.9 \$17,490,919 \$17,206,108
		***	*	9.99
		****** ESTIMATES ******	Current %	\$51,760,490 \$51,691,004
RATION ACT	RMY (COE)	****** ES	Baseline	\$51,760,490
AND RESTOI	T. OF THE A	*******	Const End	: 1
COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)	******** SCHEDULES ********	Const Start Const End	
LANNING,	y Report - Le	****	CSA	- -
<b>TLANDS</b>	us Summar		ACRES	960'91
STAL WE	roject Stat		PARISH ACRES	0F
COA	<u>T</u>		BASIN	IMY, CORPS
CEMVN-PM-C			PROJECT	Total DEPT. OF THE ARMY, CORPS OF ENGINEERS

CEMVN-PM-C

## Notes:

Expenditures based on Corps of Engineers financial data.
 Date codes: A = Actual date • = Behind schedule
 Percent codes: ! = 125% of baseline estimate exceeded

9 Cost Sharing Agreements Executed

21 Project(s)

8 Construction Started
7 Construction Completed
3 Project(s) Deferred/Deauthorized

			•	4 4 4 4	**************************************	*****	******* ES	******* ESTIMATES *******	:	Actual Obligations/
PROJECT	BASIN	PARISH	ACRES	CSA	Const Start	Const End	Baseline	Current	%	Expenditures
Lead Agency: ENV	ENVIRONMENTAL PROTECTIO	AL PROTI	ECTION AC	N AGENCY, REGION 6	9 NOI:					
Priority List Conscryation Plan	servation Pla	s								
State of Louisiana Wetlands Conservation	ALI.	COAST	0	13-Jun-95 A	03-Jul-95 A	21-Nov-97 A	\$238,871	\$143,855	60.2	\$143,855
Plan	Remarks:	The date the date for repo	The date the MIPR was issu date for reporting purposes.	ed to obligate th	e Federal funds fo	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.	of the plan is used	as the construction	on start	\$143,855
	Status:	Complete.								
L	Total Priority List Cons Plan	t Cons Plan	0				\$238,871	\$143,855	60.2	\$143,855
l Project(s)  1 Cost Shar  1 Construct  1 Construct  0 Project(s)	Project(s)  Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	s Executed uthorized								
Priority List 1										
Isles Demieres (Phase 0) (East Island)	TERRE	TERRE	6	17-Apr-93 A	16-Jan-98 A	24-Oct-98 A	\$6,345,468	\$8,745,210	137.8!	\$6,553,934
	Remarks:	This phase list 2 projec January 16,	This phase of the Isles Demieres resto list 2 project. Additional funds to co January 16, 1998 Task Force meeting.	nieres restoration funds to cover th ce meeting.	i project was comb ie increased constr	This phase of the Isles Demieres restoration project was combined with Isles Demieres, 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.	nieres, Phase I (T) st bid received we	rinity Island), a pu re approved at th	riority	30,384,707

Status: Construction start was January 16, 1998. Hydraulic dredging was completed September 1998. Vegetation planting was

completed May 1999.

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Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA) COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

CEMVN-PM-C

PROJECT	BASIN	PARISH	ACRES	CSA	CSA CONST Start Const En	Const End	Baseline	Baseline Current %	* *	Actual Obligations/ Expenditures
	Total Priority List	_	6				\$6,345,468	\$8,745,210	137.8	\$6,553,934
Project(s)   Cost Shar   Construct   Construct   Project(s)	Project(s) Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	s Executed thorized								
Priority List 2										
Isles Dernieres (Phase	TERRE	TERRE	601	17-Apr-93 A	27-Jan-98 A	22-Oct-98 A	\$6,907,897	\$10,785,706	156.1!	
	Remarks:	Costs increased due to to cover the increased	ased due to con increased proj	nstruction bids sig ject construction/	construction bids significantly greater than projected in plans and specifications. Additional funds project construction/dredging cost were approved at the January 16, 1998 Task Force meeting.	han projected in p approved at the Ja	lans and specifical anuary 16, 1998 T.	ions. Additional ask Force meeting	l funds B.	38.816.97/
	Status:	The 30' hyd September 1	raulic dredge. 1998. Vegetati	the Tom James, n	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 May 1999.	land on about Jant 199.	uary 27, 1998. Dı	edging was com	oleted in	
	Total Priority List 2	t 2	109				\$6,907,897	\$10,785,706	1.951	\$9,050,670 58,816,977
l Project(s) l Cost Shar	Project(s) Cost Sharing Agreements Executed Construction Started	is Executed								

Priority List 3

				*****						Actual
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	Const Start	Const End	Baseline	Baseline Current %	*	Obligations/ Expenditures
Red Mud Demo	PONT	STJON	0	03-Nov-94 A	08-Jul-96 A		\$350,000	\$470,500	134.4!	\$368,406
	Remarks:									\$368,406
	Status:	Facility construction is planting occurred, and spring 2000.	struction is es	essentially complete; project on hold pending resolution of cell contamination by saltwater before possible change to freshwater marsh demonstration. Resolution of these concerns is expected by	project on hold pe shwater marsh dei	ending resolution o monstration. Resol	f cell contaminatic ution of these con	on by saltwater by Icems is expected	efore by	
Whiskey Island Restoration (Phase 2)	TERRE	TERRE	1,239	06-Apr-95 A	13-Feb-98 A	25-Aug-98A	\$4,844,274	\$7,721,186	159.4!	\$5,959,741
	Remarks:	At the January 16, lowest bid received.	ary 16, 1998 <sub> </sub> eceived.	At the January 16, 1998 meeting, the Task Force approved additional funds to cover the increased construction cost on lowest bid received.	orce approved ad	ditional funds to co	ver the increased	construction cost	uo	\$6,681,495
	Status:	Work was initiated on F July 1998. Final vegeta	iitiated on Feb Jinal vegetatio	Work was initiated on February 13, 1998. Dredging completed July 1998. Initial vegetation with spartina on bay shore, July 1998. Final vegetation seeding/planting to be carried out in spring 2000.	redging completed to be carried out i	J July 1998. Initia in spring 2000.	l vegetation with s	spartina on bay sh	10 <b>rc</b> ,	

CEMVN-PM-C

Priority List 4

\$6,328,147 \$7,049,901

157.7

\$8,191,686

\$5,194,274

2 Cost Sharing Agreements Executed

2 Project(s)

2 Construction Started

1 Construction Completed 0 Project(s) Deferred/Deauthorized

CEMVN-PM-C	COASTAL WETLAND Project Status Summary Report	STAL WE	TLANDS Report - 1	PLANNING, F	ROTECTION ENVIRONME	I AND RESTO NTAL PROTE	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)	r NCY (EPA)		18-Mar-00 Page 16
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const End	Const End	Baseline	Baseline Current %	***	Actual Obligations/ Expenditures
Compost Demo	CALC	CALC CAMER	0	22-Jul-96 A	22-Jul-96 A 01-May-00	30-Sep-00	\$370,594	\$425,333	114.8	\$318,404
	Remarks:	Remarks: Plans and specification	ecifications a	re being finalized.	All permits and c	onstruction approv	ins are being finalized. All permits and construction approvals have been obtained.	iined.		\$104,403

Status: Advertisement for construction bids is delayed until required volume of vegetative compost is supplied as agreed by Entergy, Inc.

	\$318,404	\$104,403	
	114.8		
	\$425,333		
	\$370,594		
	0		
4	Total Priority List 4		

1 Project(s)

1 Cost Sharing Agreements Executed

0 Construction Started

0 Construction Completed

0 Project(s) Deferred/Deauthorized

Priority List 5

	COASTAL WETLAND Project Status Summary Report	ASTAL WE s Summary	TLANDS   Report - L	PLANNING, ead Agency:	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)	A AND RESTONTAL PROTE	RATION ACT CTION AGEN	ICY (EPA)		18-Mar-00 Page 17
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	* %	Actual Obligations/ Expenditures
Bayou Lafourche Siphon	TERRE	ASCEN	886	19-Feb-97 A			\$24,487,337	\$8,391,454	34.3	\$1,500,000
	Remarks:		\$8,000,000 for \$16,987,000. unding for the put to immed ed in developr and pumping I, a estimated co	funding in the arrest the FY 97 Phase At the January 2 project, for a tot liate use on PPL 8 nent of the scope ,000 cfs year-rourst. Additional en	Priority List 5 authorized funding in the amount of \$1,000,000 for the FY 96 Phase I 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. This decrease resulted in the current estimate of \$8,391,454. The public has been involved in development of the scope 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.	for the FY 96 Ph: n FY 98, Priority I is meeting for appre EPA motioned to sulted in the curren evaluation phase. ) cfs siphon only a	see I of this project sist 7 authorized \$ val of Priority List allow \$16,095,88; allow \$16,095,88; testimate of \$8,39 EPA proposes an thigh river times).	Priority List 6 7,987,000, for a p 8, \$7,500,000 3 from project fur 1,454. The publ alternative approa	oroject nds be ic has ich for ips	<b>\$</b> 1,153,923
	Status:		aring Agreem nembers in Oc dditional geote	The Cost Sharing Agreement (CSA) was executed February Committee members in October 1998. Additional hydrotogiprogress. Additional geotechnical analysis is being planned.	The Cost Sharing Agreement (CSA) was executed Febrary 19, 1997. Preliminary draft report was distributed to Technical Committee members in October 1998. Additional hydrotogic work by the U.S. Geological Survey and the COE is in progress. Additional geotechnical analysis is being planned.	9, 1997. Prelimina work by the U.S. C	ry draft report was Jeological Survey a	distributed to Tec ınd the COE is in	chnical	

CEMVN-PM-C

\$1,500,000 \$1,153,923
34.3
\$8,391,454
\$24,487,337
886
l olal Priority List 5

- l Project(s)
- 1 Cost Sharing Agreements Executed 0 Construction Started
- 0 Construction Completed 0 Project(s) Deferred/Deauthorized

## Priority List 6

PROJECT	Project Status Summary Report	Summary	Report - Lea	d Agency: I	itatus Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)	TAL PROTE	CTION AGE	NCY (EPA)		Page 18
	BASIN	PARISH	ACRES	CSA	CSA CONST START CONST EN	Const End	Baseline	Baseline Current %	*	Actual Obligations/ Expenditures
Bayou Boeuf/Verret	TERRE	STMAR	0				000'051\$	\$3,452	2.3	\$3,452
DEAUTHORIZED	Remarks:	This was a 3-phased pr \$250,000; and Priority dated November 18, 19	-phased project. nd Priority List 8 mber 18, 1997, E	Priority List 6 was schedule PA notified th	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.	g of \$150,000; Pr Total project cos titee that they and	iority List 7 was so st was estimated to LA DNR agree to	cheduled to func be \$500,000. E deauthorize the	d 3y letter project.	\$3,452
	Status:	Deauthoriza	tion was approve	ed at the July 2	Deauthorization was approved at the July 23, 1998 Task Force meeting.	meeting.				
Tol	Total Priority List 6	9	0				\$150,000	\$3,452	2.3	\$3,452 \$3,452
l Project(s) 0 Cost Shari 0 Constructi 0 Constructi	Project(s)  Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	Executed								
Priority List 9										
Marsh Creation South of Leeville	BARA	LAFOU	146				\$799,535	\$799,535	100.0	0\$
	Remarks:									Ā

Status: Project design initiation is pending assignment of LADNR project officer and cooperation agreement negotiation meeting.

	Project Status Summary Report	s Summary	Report - L	ead Agency:	ENVIRONME	itatus Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)	CTION AGE	NCY (EPA)		Page 19
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	* *	Actual Obligations/ Expenditures
New Cut Dune/Marsh Restoration	TERRE	TERRE	102				\$488,806	\$488,806	0.001	80
	Remarks:									\$0
	Status:		gn initiation is	pending assignm	ent of LADNR pro	Project design initiation is pending assignment of LADNR project officer and cooperative agreement negotiation meeting.	operative agreeme	ent negotiation m	eeting.	
Timbalier Island Dune/Marsh	TERRE	TERRE	273				\$477,574	\$477,574	0.001	80
Restoration	Remarks:									\$0
	Status:	Project desi	gn initiation is	pending assignm	ent of DNR projec	Project design initiation is pending assignment of DNR project officer and cooperative agreement negotiation meeting.	rative agreement	negotiation meeti	8	

Total Brigation 1 ice O				
iny List 9 321	\$1,765,915	\$1,765,915 100.0	0.001	\$0
				\$0
() Cost Sharing Agreements Executed				
0 Construction Started				
0 Construction Completed				
0 Project(s) Deferred/Deauthorized				

	Project Status	Summary	Report - L	ead Agency:	Project Status Summary Report - Lead Agency: FNVIRONMENTAL PROTECTION AGENCY (FPA)	ATAL PROTI	CTION AGE	VCV (FPA)		Page 20
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	*	Actual Obligations/ Expenditures
Total ENVIRONMENTAL PROTECTION AGENCY, REGION 6	NTAL PROTECTI	NO	2,866				\$45,460,356	\$38,452,611	84.6	84.6 \$23,898,463 \$23,657,217
II Project(s)	ct(s)									
7 Cost	7 Cost Sharing Agreements Executed S Construction Started	its Executed								
4 Consi	4 Construction Completed	79								
1 Proje	Project(s) Deferred/Deauthorized	uthorized								

CEMVN-PM-C

CEMVN-PM-C	COA	STAL WE	TLANDS P	LANNING, P eport - Lead	ROTECTION Agency: DEPT	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)	RATION ACT ERIOR (FWS	. •		18-Mar-00 Page 21
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	*	Actual Obligations/ Expenditures
Lead Agency: DEPT. OF THE INTERIOR, FISH	OF THE II	NTERIOR	• —	& WILDLIFE SERVICE	RVICE					
Priority List 1										
Bayou Sauvage #1	PONT	ORL	1,550	17-Apr-93 A	01-Jun-95 A	30-May-96 A	\$1,657,708	\$1,615,390	97.4	\$1,058,77
	Remarks:		pleted May 30,	1996. A dedica	tion ceremony was	Project completed May 30, 1996. A dedication ceremony was held in mid-summer 1996.	ier 1996.			\$1,064,779
	Status:	Status: Complete.								
Cameron Creole Watershed Hydrolovic	CALC	CAMER	865	17-Apr-93 A	01-Oct-96 A	28-Jan-97 A	\$660,460	\$1,022,686	154.8!	\$434,848
Restoration	Remarks:									\$535,602
	Status:	Status: Complete.								
Cameron Prairie Refuge Shoreline	MERM	CAMER	247	17-Apr-93 A	19-May-94 A	09-Aug-94 A	\$1,177,668	\$1,401,125	119.0	\$908,670
Protection	Remarks:									\$980,027
	Status:	Complete.								

CEMVN-PM-C	COA Proj	COASTAL WETLAND Project Status Summan	Summary	PLANNING, P	ROTECTION Agency: DEP	A AND RESTO F. OF THE IN	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)	J (6		18-Mar-00 Page 22
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	*	Actual Obligations/ Expenditures
Sabine Wildlife Refuge Frosion Protection	CALC	CAMER	5,542	17-Apr-93 A	24-Oct-94 A	01-Mar-95 A	\$4,895,780	\$1,576,703	32.2	\$1,198,324
	Remarks:									\$1,251,645
	Status:	Status: Complete.								
Tr	Total Priority List	_	8,204				\$8,391,616	\$5,615,904	6.99	\$3,600,616 \$3,832,052
4 Project(s) 4 Cost Shari 4 Constructi 6 Constructi 0 Project(s)	4 Project(s) 4 Cost Sharing Agreements Executed 5 Construction Started 6 Construction Completed 7 Project(s) Deferred/Deauthorized	s Executed uthorized								

## Priority List 2

\$1,055,250 \$1,070,422 112.6 Construction was completed on March 18, 1997. Initial problems with the pumps were corrected, and the project was accepted at a final inspection conducted May 28, 1997. \$1,634,700 \$1,452,035 28-May-97 A 15-Apr-96 A 30-Jun-94 A 1,280 ORL Remarks: PONT Bayou Sauvage #2

Status: Complete.

PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	: *	Obligations/
Tot   Project(s)   Cost Shari   Constructi   Constructi   O Project(s)	Total Priority List 2  1 Project(s) 1 Cost Sharing Agreements Executed 1 Construction Started 1 Construction Completed 0 Project(s) Deferred/Deauthorized	t 2 s Executed ithorized	1,280				\$1,452,035	\$1,634,700	112.6	\$1,055.250 \$1,070,422
Frierity LISE 3	CALC	CAMER	953	26-Oct-96 A	A 99-voN-10	01-Nov-00	\$4,581,454	\$4,466,354	97.5	\$3,102,441
Structures (Hog Island)	Remarks:	Structure operational	erational plan,	permitting require	ements and contro	ol structure design	Structure operational plan, permitting requirements and control structure design were revised at an interagency meeting held	interagency meet	ting held	\$354,636

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Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS) COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

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with the submittal of the Finding of No Significant Impact (FONSI) and the final Environmental Assessment. The Corps of is projected to be completed by November 2000. The Headquarters Canal structure was completed the week of February 9, The bid opening occurred on September 14, 1999 and the contract was awarded to F. Miller and Sons, Inc. of Lake Charles, The LADNR Coastal Management Division determined that the project was consistent with the Coastal Resources Program LA. The pre-construction conference was held October 25, 1999. Construction began the week of November 1, 1999, and Engineers Section 404 permit was issued on March 8, 1999. Construction bid advertisement was completed June 7, 1999. received from the CWPPRA Planning and Evaluation Subcommittee on December 7, 1998, and the Technical Committee on December 8, 1998. The CWPPRA Task Force approved the request to begin construction on January 20, 1999. Final designs were completed by NRCS design engineers in March 1999. NEPA compliance was completed on May 30, 1999 2000. Work is presently commencing on the Hog Island Gully replacement structure, then the West Cove replacement on November 23, 1998. Construction approval, on condition that permitting and NEPA requirements were met, was structure. Status:

Endangered Species evaluation was completed on April 14, 1999. Project construction began the week of November 1, DNR, NRCS and the USI WS, those recommendations were incorporated into the permit. The Intra-Service Section 7

PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	**************************************	******* ES Baseline	ESTIMATES Baseline Current %	**	Actual Obligations/ Expenditures
Tot	Total Priority List	3	953				\$4,581,454	\$4,466,354	97.5	\$3,102,441
l Project(s)										
l Cost Shari	Cost Sharing Agreements Executed	s Executed								
1 Construction Started 0 Construction Comple	1 Construction Started 0 Construction Completed									
0 Project(s)	0 Project(s) Deferred/Deauthorized	ıthorized								
Priority List 5										
Grand Bayou / GIWW Freshwater Introduction	TERRE	LAFOU	1,927	01-Mar-00 •	01-Jan-01	01-Sep-01	\$5,135,468	\$10,303,446	200.6!	\$227,634
	Remarks:	The Environ following th	nmental Work te Task Force	The Environmental Work Group and the Engineering Work Group have reviewed modifications made to the project following the Task Force approval of additional features. They have determined that the proposed modifications are not	gineering Work ( mal features. Th	The Environmental Work Group and the Engineering Work Group have reviewed modifications made to the project following the Task Force approval of additional features. They have determined that the proposed modifications are	ed modifications ra I that the proposed	nade to the project modifications are	not	116,2226

1,927	
Total Priority List 5	

and fixes are presently being made.

Geotechnical investigations and site surveying has been completed by the NRCS. The Corps of Engineers has been working on validating a TABS model developed for the project area. Some problems with the model have been identified

Personnel from the Natural Resources Conservation Service (NRCS) have completed permit-style drawings to be used in the Environmental Assessment (EA) and permitting. A draft EA has been completed and is being reviewed in-house.

Status:

\$227,634 \$222,577

200.6

\$10,303,446

\$5,135,468

l Project(s)

0 Cost Sharing Agreements Executed

0 Construction Started

0 Construction Completed 0 Project(s) Deferred/Deauthorized

CEMVN-PM-C	CO <sup>A</sup>	STAL WE	Summary Summary	PLANNING, 1 Report - Lead	PROTECTION Agency: DEP	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)	RATION AC FERIOR (FW	T S)		18-Mar-00 Page 25
PROJECT	BASIN	BASIN PARISH ACRES	ACRES	CSA	CSA Const Start Const End	Const End	******* ESTI Bascline	******** ESTIMATES ******** Bascline Current **	* %	Actual Obligations/
Lake Boudreaux FW	TERRE	TERRE TERRE	619	22-Oct-98 A 01-Aug-02	01-Aug-02	01-A118-03	\$0.01.10V			Expellantares
micoanciion, Ali B					<u>,</u>	60.9	97,051,300	\$10,519,383 107.0	107.0	\$74,498
	Remarks:	On January	20, 1999, the	Task Force author	ized the remaining	Remarks: On January 20, 1999, the Task Force authorized the remaining \$4,915,650 to fully fund this project.	ly fund this projec	نــ		\$48,930

DNR is continuing to conduct land rights work. The DNR has contracted with Gulf Engineers and Consultants, Inc. (GEC) to conduct a feasibility study. GEC has subcontracted UNET modeling work to FTN. That work is partially complete and feasibility study findings to the public. Following that meeting, the permit application(s) will be prepared. A contract for presently working on compiling water quality data and developing the draft Environmental Assessment (EA). Once the would seem to indicate that the project would introduce about as much freshwater as initially anticipated. USFWS is feasibility study is completed early next year, the draft EA can be completed and a public meeting held to present the engineering and design work will also be issued following completion and review of the EA. Status:

CEMVN-PM-C	COA Proj	COASTAL WETLAN	ETLANDS I Summary I	PLANNING, 1 Report - Lead	PROTECTION Agency: DEP1	AND RESTO	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)	r S)		18-Mar-00 Page 26
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	******* ESTIMATES ******** Baseline Current %	*	Actual Obligations/ Expenditures
Nutria Harvest for Wetland Restoration	COAST	COAST COAST	0	27-Oct-98 A	20-Dec-98 A	30-Sep-02	\$2,140,000	\$2,140,000	100.0	\$936,000
Demo	Remarks:		utria meat proc trapping seasor ested. Demand lepression of tra	essor was enrolle n. FY 1998/1999 I for wild furs is la aditional fur-dem nutria pelts. Nut	d in the program (I was the "worst" now worldwide due anding countries sina meat is current	Mr. Ulysess Guidr utria harvesting ef to the movement uch as Russia. Th y selling for abou	Only one nutria meat processor was enrolled in the program (Mr. Ulysess Guidry in Golden Meadow) during the FY 1998/1999 trapping season. FY 1998/1999 was the "worst" nutria harvesting effort on record in Louisiana at only 120,000 nutria harvested. Demand for wild furs is low worldwide due to the movement away from coats made from wild fur and the economic depression of traditional fur-demanding countries such as Russia. Therefore, the program is being instituted at a very low demand time for nutria pelts. Nutria meat is currently selling for about \$1.25/ib by the Louisiana Seafood	ow) during the FY ouisiana at only 1 ade from wild fur is being institut ouisiana Seafood	7 20,000 r and the ted at a	\$163,215

LADNR and USFWS on October 21, 1998. The CWPPRA Task Force approved the implementation of the total \$2,140,000 second interagency agreement has been completed between the LA Department of Wildlife and Fisheries (LDWF) and the meat promotion has consisted of nutria cook-offs, providing nutria meat dishes at various festivals, and the preparation of Work is continually being done in the promotion of nutria meat both overseas and within the state of Louisiana. Nutria damage to the coastal marshes were completed in May 1998 and 1999. The cost share agreement (CSA) was signed by recipes in Louisiana beginning in October 1998 and proceeding throughout the project life. Baseline surveys of nutria project on October 21, 1998. The state coastal zone consistency determination was received on October 29, 1998. A ADNR to implement the project. Status:

increased nutria-related marsh damages in Jefferson and Plaquemines Parishes. During the Winn Dixie-WWL nutria meat Exchange while alligator meat is selling for \$6.00/lb. The LDWF 1999 nutria coastal damage survey and report indicated

promotions at 16 Winn Dixie supermarkets in south Louisiana from November 1999 to February 2000, approximately 30-

40 pounds of sausage were sold at each location during each three-hour promotion.

LDWF will participate in the Louisiana Restaurant Association Food Show in August 1999 and the Louisiana Gold Culinary for tasting at the Bocage Supermarket in Baton Rouge, LA; 9) Prepared nutria meat for tasting, discussed recipes and gave Culinary Classic (July 1999), and the New Orleans Restaurant Show (July 1999); 7) Participated in a menu promotion, to with LSU to disucss the use of a meat deboning machine for whole processing of bone-in carcass nutria meat; and 11) The a presentation on nutria herbivory and the nutria harvest demonstration project to the Baton Rouge Rotary Club; 10) Met The Louisiana Department of Wildlife and Fisheries, or its subcontractors, in 1998 and 1999, completed the following: 1) consumption" program to potential buyers; 4) Worked with a Golden Meadow nutria meat processor in the processing of introduce nutria meat for human consumption, at the Blue Bayou Restaurant in Cancun, Mexico; 8) Prepared nutria meat map showing 1998 and 1999 coastal area nutria damage; 3) Traveled to Japan and presented the "nutria meat for human sponsored a nutria category in the Chefs competition at the Baton Rouge Culinary Classic (April 1999), the New Orleans Final reports entitled "A Survey of Nutria Herbivory Damage in Coastal Louisiana in 1998 and 1999"; 2) A large scale consumption at the Louisiana Sportsman Show in the New Orleans Superdome in March 1999; 6) Participated and 20,000 pounds of nutria meat for human consumption; 5) Presented a program on furs and nutria meat for human Classic in New Orleans.

CEMVN-PM-C	COA Proj	COASTAL WETLANDS Project Status Summary	TLANDS P Summary R	LANNING,	PLANNING, PROTECTION AND RESTORATION ACT Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)	A AND RESTO	ORATION AC TERIOR (FW	ı (S		18-Mar-00 Page 27
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	*** * ES Baseline	* ESTIMATES ************************************	***	Actual Obligations/
-	Total Priority List 6	9	619				\$11,971,306	\$12,659,383	105.7	\$1,010,498
2 Project(s) 2 Cost Shari 1 Constructi 0 Constructi 0 Project(s)	Project(s) Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	s Executed thorized								\$212,145
Priority List 9										
Freshwater Intro. South of Hwy 82	MERM	CAMER	296				\$89,402	\$89,402	0 001	Ş
	Remarks:		·							08
	Status:									
Mandalay Bank Protection	TERRE	TERRE					\$081.903			
	Remarks:							3261,902	0.00	\$0 \$0
	Status:									

	Proj	ect Status	Summary R	leport - Lead	Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)	F. OF THE IN	TERIOR (FW	. 6		Page 28
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	******* ESTIMATES ******** Baseline Current %	* *	Actual Obligations/ Expenditures
To	Total Priority List 9	6	296				\$371,307	\$371,307	100.0	0\$
2 Project(s) 0 Cost Sharing Agreem 0 Construction Started 0 Construction Comple 0 Project(s) Deferred/D	2 Project(s) 0 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized	Executed								
Total DEPT. OF THE INTERIOR, FISH & WILDLIFE SERVICE	FERIOR, FISH CE	<b>લ્</b> લ	13,279				\$31,903,186	\$35,051,094	109.9	\$8,996,439 \$5,691,831

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- 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

8 Cost Sharing Agreements Executed

11 Project(s)

0 Project(s) Deferred/Deauthorized

5 Construction Completed 7 Construction Started

CEMVN-PM-C	CO,	COASTAL WETLAND Project Status Summa	LANDS PL ummary Re	ANNING, PR	OTECTION Agency: DEP1	OASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)	ATION ACT RCE (NMFS)			18-Mar-00 Page 29
PROJECT	BASIN	PARISH A	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	*	Actual Obligations/ Expenditures
Lead Agency: DEPT. OF COMMERCE, NATIONAL MARINE FISHERIES SERVICE	OF COM	MERCE, NAT	FIONAL M	ARINE FISH	ERIES SERV	/ICE				
Priority List 1										
Fourchon Hydrologic Restoration -	TERRE	LAFOU	0				\$252,036	666'9\$	2.8	666'9\$
DEAUTHORIZED	Remarks:	In a meeting on Octob could be conducted by concerned that undesir	n October 7, 19 acted by the Po undesired Gov	93, Port Fourche rt and they did no remment / genera	on conveyed to N ot wish to see the Il public involven	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.	t any additional w cause they questio fler implementatio	ork in the projec n its benefits an n.	st area d are	666'9\$
		NMFS has rec 1994 meeting.	ommended to the	he Task Force th	at the project be c	NMFS has recommended to the Task Force that the project be deauthorized and the Task Force concurred at the July 14, 1994 meeting.	e Task Force conc	urred at the July	/ <del>1</del> 4,	
	Status:	Deauthorized								
Lower Bayou LaCache Hydrologic	TERRE	TERRE	0	17-Apr-93 A			\$1,694,739	\$99,625	5.9	\$99,625
Restoration - DEAUTHORIZED	Remarks:	In a public hearing on closure of the two east	ring on Septem wo east-west o	iber 22, 1993, wi onnections betwe	th Iandowners in en Bayou Petit C	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.	ers strenuously ob Terrebonne.	jected to the prc	posed	\$99,625
		NMFS received a lette forvarded the letter to	ed a letter from letter to COE fo	er from LA DNR, dated Februs COE for Task Force approval	February 6, 1995 proval.	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.	eauthorization of tl	ne project. NMI	FS.	
	Status:	Deauthorized.								

	Pre	NSTAL WE oject Status	eTLANDS Summary	PLANNING, I Report - Lead	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)	AND RESTO T. OF COMM	RATION ACTERCE (NMFS)			18-Mar-00 Page 30
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	*	Actual Obligations/ Expenditures
•	Total Priority List	_	0	•			\$1,946,775	\$106,625	5.5	\$106,625
2 Project(s) 1 Cost Shar 0 Construct 0 Construct 2 Project(s)	Project(s)  Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	s Executed								
Priority List 2										
Atchafalaya Sediment Delivery	ATCH	STMRY	2,232	01-Aug-94 A	25-Jan-98 A	21-Mar-98 A	\$907,810	\$2,559,023	281.9!	\$1,734,183
	Remarks:	Project cost increase w	increase was	approved by the T	as approved by the Task Force at the January 16, 1998 meeting.	nuary 16, 199 <b>8</b> me	eting.			\$1,604,477
	Status:		Processing app	dication for amend	Complete. Processing application for amendment to cooperative agreement for cost share change.	ve agreement for c	ost share change.			
Big Island Mining (Increment 1)	АТСН	STMRY	1,560	01-Aug-94A	25-Jan-98 A	08-Oct-98 A	\$4,136,057	\$7,550,903	182.6!	\$5,998,653
	Remarks:	Project cost increase w	increase was	approved by the T	as approved by the Task Force at the January 16, 1998 meeting.	nuary 16, 1998 me	eting.			\$5,626,390

CEMVN-PM-C

Status: Construction complete. Processing application to amend cooperative agreement for cost share change.

CEMVN-PM-C	CO/Pre	NSTAL WE Dject Status	TLANDS   Summary	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)	ROTECTION Agency: DEP	AND RESTC F. OF COMM	RATION AC ERCE (NMFS	<b>–</b> (a)		18-Mar-00 Page 31
PROJECT	BASIN	PARISH	ACRES	CSA	CSA CONST STATE CONST EN	Const End	Raceline	Σ	* * *	Actual Obligations/
Point Au Fer	TERRE	TERRE	375	01-Jan-94 A	01-Oct-95 A	08-May-97 A	\$1,069,589	Current \$2,909,663	272.01	Expenditures
	Remarks:	Construction for the gas canals in Area I materials can be four Task Force approved	for the project Area I was controlled to the found to the proved project project in the found to the found to the found to the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the found for the f	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 I 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.	ished in two phase per 22, 1995. Phas fronting the Gulf of and project cost in	s. Phase I construe II construction i Mexico. Phase I rease at Decembe	ction on the wood n Area 2 has been I construction con rr 18, 1996 meetin	en plugs in the o delayed until su ipleted in May 1 g.	il and itable 997.	\$1,162,302 \$1,162,302
	Status:	Complete. C	losing out coc	Complete. Closing out cooperative agreement grant between NOAA and LA DNR.	it grant between N	OAA and LA DN	ď			
<del> </del>	Total Priority List 2	7	4,167				\$6,113,456	\$13,019,589	213.0	\$10,029,877
3 Project(s) 3 Cost Shar 3 Construct 3 Construct 0 Project(s)	Project(s) Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	Executed								<b>\$8</b> ,393,170
Priority List 3										
Bayou Perot / Bayou Rigolettes Marsh	BARA	JEFF	0	01-Mar-95 A			\$1,835,047	\$20,963	Ξ	1 30 OC)
Kestoration - DEAUTHORIZED	Remarks:	A feasibility study con questionable. LA DN reconsider the project January 16, 1998 Tasl	tudy conducte LA DNR has project with 1998 Task Force	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.	licated that possibl gness to deauthori ning this with two	e wetlands benefii te the project. In other projects in t	s from constructic April 1996, LA D he watershed. Pro	n of this project NR had asked to ject deauthorize		\$20,963 \$20,963

CEMVN-PM-C	CO,	ASTAL WE	STLANDS Summar	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)	PROTECTION   Agency: DEP	N AND RESTC T. OF COMM	)RATION AC ERCE (NMF)	T (8		18-Mar-00 Page 32
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	***	Actual Obligations/
East Timbalier Island Sediment Restoration	TERRE	LAFOU	1,913	01-Feb-95 A	01-May-99 A	01-May-00	\$2,046,971	\$4,040,843	197.4!	\$3.422.629
<del></del>	Remarks:									\$2,673,952
	Status:	Construction scheduled fo	r completed i	Construction completed in December 1999. Sand fencing and aerial sceding scheduled for 2000. Vegetative plantings scheduled for 2001.	Sand fencing and	acrial sceding sch	eduled for 2000.	Vegetative plantii	sgu	
Lake Chapeau Sediment &	TERRE	TERRE	809	01-Mar-95 A	14-Sep-98 A	18-May-99 A	\$4,149,182	\$5.644.322	10981	<b>CA 470 030</b>
Hydrologic Restoration	Remarks:									\$4,429,050 \$3,397,312
	Status:	Construction complete.		Vegetative plantings to be completed in spring 2000.	s to be completed i	n spring 2000.				
Lake Salvador Shore Protection Demo	BARA	STCIIA	0	01-Mar-95 A	02-Jul-97 A	30-Jun-98 A	\$1,444,628	\$2,543,098	176.01	236 201 63
	Remarks:									\$4,098,255
	Status:	Phase I was c Salvador. Co	completed Se	Phase I 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.	ase 2 is shoreline p and completed in J	rotection between June 1998.	Bayou desAllem	nands and Lake		
T <sub>0</sub>	Total Priority List	3	2,422				\$9,475,828	\$12,249,226	129.3	\$9,978,879
4 Project(s) 4 Cost Shari 3 Constructi 2 Constructi 1 Project(s)	Project(s)  Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	: Executed thorized								\$10,190,482

PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	****** Es	Baseline Current 6	*	Actual Obligations/
Priority List 4										Capendunes
East Timbalier Island Sediment Restoration	TERRE	LAFOU	215	08-Jun-95 A	01-May-99 A	01-May-00	\$5,752,404	\$13,849,106	240.8 !	240.8! \$11.760.822
#2	Remarks:									\$3,220,802
	Status:	Construction complete weather conditions and station + 114 leaving a feasibility of filling the plantings in 2001.	n completed in ditions and lacleaving a gap filling the ren	January 2000. E k of an acceptabl approximately 4, anining gap. Veg	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. Vegetative plantings and aerial seeding are scheduled for 2000 with vegetative plantings in 2001.	conditions, variab posal from the cor nd. NMFS and L/ nd aerial seeding a	le sand consistenc htractor, restoration ADNR are presentl re scheduled for 2	y in the borrow ar n activities stoppe ly evaluating the 000 with vegetati	ca, d at ve	
Eden Isles East Marsh Restoration -	PONT	STTAM	0				\$5,018,968	\$38,920	<b>8</b> :0	\$38,920
DEAUTHORIZED	Remarks:	NMFS letter Bids were pl deauthorized	of September laced twice to a l at January 16	NMFS letter of September 8, 1997 requests the CWPP Bids were placed twice to acquire the land; both times deauthorized at January 16, 1998 Task Force meeting.	NMFS letter of September 8, 1997 requests 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.	k Force to move fu ere rejected due to	orward with deauth higher bids by pri	orization of this preservate developers.	oroject. Project	\$38,920
	Status:	Deauthorized.	<del></del> i							
	Total Priority List 4	4	215				\$10,771,372	\$13,888,026	128.9	\$11,799,742
7 Project(c)	(6)									\$3,259,721

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Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS) COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

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Priority List 5

I Cost Sharing Agreements Executed

2 Project(s)

1 Project(s) Deferred/Deauthorized

1 Construction Started 0 Construction Completed

			s Juliillal y	neport - Leac	Agency: DEF	T. OF COMIN	ary report - Lead Agency: DEPT, OF COMMERCE (NMFS)	<u>(2</u>		rage 54
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	****** ES Baseline	Baseline Current %	*	Actual Obligations/ Expenditures
Little Vermilion Bay Sediment Trapping	ТЕСНЕ	VERMI	441	22-May-97 A	10-May-99 A	20-Aug-99 A	\$940,065	\$1,460,196	155.3!	\$1,055,306
	Remarks:									\$262,036
	Status:	Construction	n completed ir	Status: Construction completed in August 1999.						
Myrtle Grove Siphon	BARA	PLAQ	611,1	20-Mar-97 A	01-Oct-00	30-Oct-01	\$15,525,950	\$15,092,773	97.2	\$12,960,071
	Remarks:	The 5th Pric authorized f Total projeci	ority List authunding in the	The 5th Priority List authorized funding in the an authorized funding in the amount of \$6,000,000 f Total project cost is estimated to be \$15,525,950.	he amount of \$4,5 ,000 for FY 97. F ,950.	00,000 for the FY Priority List 8 is sc	The 5th Priority List authorized funding in the amount of \$4,500,000 for the FY 96 Phase I of this project. Priority List 6 authorized funding in the amount of \$6,000,000 for FY 97. Priority List 8 is scheduled to fund the remaining \$5,000,000. Total project cost is estimated to be \$15,525,950.	project. Priority e remaining \$5,00	List 6 00,000.	\$286,428
	Status:	Engineering	design contra	Status: Engineering design contract to be issued pending resolution of landrights.	ding resolution of	landrights.				
	Total Priority List 5	5	1,560				C16 466 016	070 653 713		

CEMVN-PM-C

Priority List 6

2 Cost Sharing Agreements Executed
1 Construction Started
1 Construction Completed
0 Project(s) Deferred/Deauthorized

2 Project(s)

\$16,552,969 100.5 \$14,015,377 \$548,464

\$16,466,015

PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Court E.	**************************************	*****	******* ESTIMATES *******	:	Actual Obligations/
Black Bayon	7147	97777				DIIZ ISIIO	Baseline	Current	*	Expenditures
Hydrologic Restoration		CAMER	3,594	28-May-98 A	01-Apr-00	30-Oct-00	\$6,316,800	\$6,382,511	0.101	\$5.685.125
	Remarks:									\$122,781
	Status:	Engineering	design contra	Engineering design contract has been issued.						
Delta-Wide Crevasses	DELTA	PLAQ	2,386	28-May-98 A	21-Jun-99 A	31-Dec-14	\$5,473,934	\$4 717 643	3 70	\$
	Remarks:	In FY 97, Priority List of fund \$2,736,950. To	iority List 6 a 36,950. Tota	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 cost \$5.473,900.	of \$2,736,950 for led to cost \$5,473,9	Phase 1 of this 2- <sub>1</sub> 900.	phased project. Pri	iority List 8 is sch	eduled	\$2,463,255 \$202,129
	Status:	First dredgin	g cycle of cor	First dredging cycle of construction complete; three remaining dredging cycles.	e; three remaining	dredging cycles.				
Jaws Sediment Trapping	TECHE	STMAR	666'1	28-May-98 A	00-unf-10	30-Aug-00	\$3,167,400	\$1.162.13		
	Remarks:							01,470,0	7.	\$2,850,660
	Status:	Engineering design in progress.	lesign in prog	. รรลว์						
	Total Priority List 6	9	7 979							į
			· · · · · · · · · · · · · · · · · · ·				\$14,958,134	\$14,507,299	97.0	\$10,999,040

CEMVN-PM-C

3 Cost Sharing Agreements Executed

1 Construction Started

0 Construction Completed 0 Project(s) Deferred/Deauthorized

CEMVN-PM-C	COA Pro	STAL WE ject Status	TLANDS I Summary	LANNING, P Report - Lead	ROTECTION Agency: DEP	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)	KALION ACI ERCE (NMFS)			18-Mar-UU Page 36 Actual
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	*	Obligations/ Expenditures
Priority List 7	-									
Grand Terre Vegetative	BARA	JEFF	127	16-Dec-98 A	01-Mar-01	30-Apr-01	\$928,900	\$965,030	103.9	195'681\$
0	Remarks:									166,01 <b>4</b>
	Status:	Livestock re	moval comple	Status: Livestock removal complete. Planting design under development.	n under developn	ient.				
Pecan Island Terracing	MERM	VERMI	442	01-Apr-99 A	30-Jun-00	30-Nov-00	\$2,185,900	\$2,223,353	101.7	610'858'15
	Remarks:									\$24,541
	Status:	Awarded cooperative	operative agre	agreement to LA DNR April 1999.	3 April 1999.					

	\$2,647,580	\$41,492
	102.4	
	\$3,188,383	
	\$3,114,800	
	896	
	Total Priority List 7	
ı		

- 2 Project(s)
  2 Cost Sharing Agreements Executed
  0 Construction Started
  0 Construction Completed
  0 Project(s) Deferred/Deauthorized

Priority List 8

								_		ege 1/
PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current (	* •	Actual Obligations/
Bayou Bienvenue Pumping Station/Terracing	PONT	STBER	442				\$3,295,574	\$3,894,916	118.2	\$3,308,569
9	Remarks:									\$3,509
	Status:									
Hopedale Hydrologic Restoration	PONT	STBER	134		15-Jul-00	30-Sep-00	\$2.179.491	C2 423 050	:	
	Remarks:							05,755,750	0: 	\$2,065,279 \$11,950
	Status:	Engineering (	Status: Engineering design contract to be awarded.	o be awarded.					•	

CEMVN-PM-C

\$5,373,848	\$15,459		•		
115.6					
\$6,327,874 115.6 \$5,373,848					
\$5,475,065					
576					
Total Priority List 8	2 Project(s)	0 Cost Sharing Agreements Executed	0 Construction Started	0 Construction Completed	0 Project(s) Deferred/Deauthorized

Priority List 9

ATCH   STMRY   S89   Coast Start   Const End   Baseline   Current   %   St. Odd.;900   100.0	CEMVN-PM-C	COA	STAL WE	TLANDS P Summary F	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)	D RESTOR F COMME	ATION ACT RCE (NMFS)			18-Mar-00 Page 38
ATCH   STMRY	PROJECT	BASIN	PARISH	ACRES	CSA Const Start Co	****** inst End	****** EST Baseline	FIMATES ****	*	Actual Obligations/ Expenditures
Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Status:   Stat	Castille Pass Sediment Delivery	ATCH	STMRY	589			\$1,041,900	\$1,041,900	100.0	80
Status:         \$156,082         \$156,082         \$100           Remarks:         Status:         A72         \$341,562         \$341,562         \$100           Remarks:         Status:         A72         \$341,562         \$341,562         \$100           Remarks:         TECHE         VERMI         327         \$293,139         \$293,139         \$100,0		Remarks:								80
PONT         STBER         220         \$156,082         \$156,082         100.0           Remarks:         Status:         472         \$341,562         \$341,562         100.0           Remarks:         Status:         Status:         \$2593,139         \$2293,139         100.0		Status:								
Status:           Status:         A72         \$341,562         \$341,562         \$1000           Remarks:         Status:         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72         A72	Chandeleur Island Restoratioin	PONT	STBER	220			\$156,082	\$156,082	100.0	\$20,000
Status:           BARA         JEFF         472         \$341,562         \$341,562         100.0           Remarks:         Status:           TECHE         VERMI         327         \$5293,139         \$5293,139         100.0		Remarks:								\$0
## BARA JEFF 472 \$341,562 \$341,562 100.0    Remarks:   Status:		Status:					·			
Remarks:         Status:         TECHE VERMI 327         \$293,139 \$293,139 \$100.0         Remarks:	East/West Grand Terre	BARA	JEFF	472			\$341,562	\$341,562	100.0	0\$
Status: TECHE VERMI 327 \$293,139 100.0 Remarks:		Remarks:								<b>\$</b> 0
TECHE VERMI 327 \$293,139 \$293,139 100.0 Remarks:		Status:								
Remarks:	Four Mile Canal Ferracing & Sediment	TECHE	VERMI	327			\$293,139	\$293,139	100.0	90
	Frapping	Remarks:								20

Status:

	Pr	Project Status Summar	Summary	Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)	ORATION ACT	<b>-</b> •		18-Mar-00 Page 39
PROJECT	BASIN	PARISH	ACRES	CSA Const Start Const End	****** ES.	Baseline Course	: 3	Actual Obligations/
LaBranche Wetlands	PONT	STCHA	480		3 IIII	Current	%	Expenditures
Terracing/Plantings			101		\$146,911	\$146,911	100.0	Ş
	Remarks:							0\$
	Status:							
To	Total Priority List 9	6 1	2,097		\$1,979,594	\$1,979,594	9	000
5 Project(s)							20	000,02¢
	Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	s Executed thorized						
Total DEPT. OF COMMERCE, NATIONAL MARINE FISHERIES SERVICE	ERCE, NATIO ES SERVICE		19,585		\$70,301,039	\$81,819,585	116.4	\$64.970.967
25 Project(s) 16 Cost Shari 9 Constructi 6 Constructi 4 Project(s)	Project(s) Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	ts Executed						\$22,986,967
Notes:								
<ol> <li>Expenditures based on Corps of Engineers financial data.</li> <li>Date codes: A = Actual date</li></ol>	on Corps of Erctual date *= 125% of baselir	ngineers financ Behind schedu ne estimate exc	zial data. Ile zeeded					

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	Proj	ect Status	Summary Re	port - Lead A	gency: DEPT	Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	TURE (NRCS	(1)	18-Mar-00 Page 40
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	******* EST Bascline	******* ESTIMATES ******** Baseline Current %	Actual Obligations/ Expenditures
Lead Agency:	Lead Agency: DEPT. OF AGRICULTURE, NATU	CULTURE	", NATURAL	RESOURCE	S CONSERV	RAL RESOURCES CONSERVATION SERVICE	CE		
Priority List	<del>-</del>								
BA-2 GIWW to Clovelly Wetland	BARA	LAFOU	2,052	17-Apr-93 A	21-Apr-97 A	31-Dec-00	\$8,141,512	\$8,328,603 102.3	3 \$6,033,556
Restoration	Remarks:	The project of the weir	has been divided structures and is	l into two contra complete. The s	cts in order to exp econd contract is	The project has been divided into two contracts in order to expedite implementation. The first contract was to i of the weir structures and is complete. The second contract is to install bank protection, one weir and one plug.	n. The first contraction, one weir an	The project has been divided into two contracts in order to expedite implementation. The first contract was to install most of the weir structures and is complete. The second contract is to install bank protection, one weir and one plug.	\$1,625,007
		Contract 1: Contract 2:	Begin: 1 May 9 Begin: 1 Jan 00	7	Complete: 30 Nov 97 Complete: 31 Oct 00	\$ 646,691 \$3,400,000			
	Status:	The first construction came in over budget.	istruction contrac r budget. The pr	t is complete. Toject was readve	The second constr rtised in Septemb	The first construction contract is complete. The second construction contract was advertised in March 1999. The bids came in over budget. The project was readvertised in September 1999. The contract will be awarded in Jan 2000.	advertised in Mar ct will be awarded	ch 1999. The bids 1 in Jan 2000.	
Vegetative Plantings Demo - Dewitt-	s MERM	VERMI	0	17-Apr-93 A	11-Jul-94 A	26-Aug-94 A	\$191,003	\$91,764 48.0	\$91,764
Rollover - DEAUTHORIZED	Remarks:	Sub-project	Sub-project of the Vegetative Plantings project	e Plantings proje	ť				\$92,053
	Status:	Complete an	Complete and deauthorized.						
Vegetative Plantings Demo - Falgout Canal	s TERRE 1al	TERRE	0	17-Apr-93 A	30-Aug-96 A	30-Dec-96 A	\$144,561	\$204,979 141.8!	8! \$115,548
	Remarks:	Sub-project	of the Vegetative	Plantings proje	ct. Wave-stilling	Sub-project of the Vegetative Plantings project. Wave-stilling devices are in place. Vegetative plantings are in place.	Vegetative plan	tings are in place.	\$171,521

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COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

CEMVN-PM-C

Status: Complete.

		· · oject Status Summar	Summary K	leport - Lead	ry Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	OF AGRICU	LTURE (NRC	. (S:		i 8-Mar-00 Page 4 i
PROJECT	BASIN	PARISH	ACRES	CSA	CSA CONST STATE CONST EN	Const End	Boroli-	Booding	:	Actual Obligations/
Vegetative Plantings Demo - Timbalier	TERRE	TERRE	0	17-Apr-93 A	15-Mar-95 A	30-Jul-96 A	\$372,589	Current £432 858	2	Expenditures
Island	Remarks:	Sub-project o	of the Vegetati	Remarks: Sub-project of the Vegetative Plantings project.	ject.			0.00	7.011	\$193,461 \$263,260
		The contract	to install the s	sand fences has t	The contract to install the sand fences has been completed and the vegetation was planted during the summer of 1996.	the vegetation wa	s planted during th	ne summer of 199		
	Status:	Status: Complete.								
Vegetative Plantings Demo - West Hackberry	CALC	CAMER	0	17-Apr-93 A	15-Apr-93 A	30-Mar-94 A	\$213 947			
	Remarks:	Sub-project o	of the Vegetativ	Remarks: Sub-project of the Vegetative Plantings project.	ect.			3240,241	1.5.1	\$167,882 \$221,832
	Status:	Complete.								
),T	Total Priority List		2,052							

CEMVN-PM-C

Priority List 2

5 Cost Sharing Agreements Executed

5 Project(s)

1 Project(s) Deferred/Deauthorized

5 Construction Started 4 Construction Completed

\$6,602,211 \$2,373,673

102.7

\$9,304,445

\$9,063,612

CEMVN-PM-C	CO, Proj	ASTAL WE ject Status !	ETLANDS   Summary R	PLANNING, 1 leport - Lead /	PROTECTION Agency: DEPT.	I AND RESTO OF AGRICU	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	_ <u>@</u>		18-Mar-00 Page 42
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	******* ES	******* ESTIMATES ************************************	* *	Actual Obligations/
Brown Lake	CALC	CAMER	282	28-Mar-94 A	01-May-00	30-Nov-00	\$3,222,800	\$3,201,890	4.66	\$427.954
	Remarks:		ues are a probl	Pipeline issues are a problem holding up construction start.	nstruction start.					\$390,028
	Status:		ard has been d dredged mater	elayed due primar	rily to the length of tion of a pipeline. (	time needed to c Contract award is	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. Contract award is expected in April 2000.	ing process, bene 2000.	eficial	
Caemarvon Outfall Management	BRET	PLAQ	802	13-0ct-94 A	30-Aug-00	01-Jan-01	\$2,522,199	\$2,658,799	105.4	\$271,187
	Remarks:		spondence dat snce of Decemt NR had stated lion at July 199 vas scheduted t	ed September 30, ber 6, 1996 concu that problems mig 77 Task Force med for July 22, 1997 (	1996 requested DP rred with NRCS to ght be able to be resting. Further disc between NRCS, LA	NR to evaluate prbegin formal dea begin formal dea solved, and reque ussion with primal	NRCS correspondence dated September 30, 1996 requested DNR to evaluate project for possible deauthorization. DNR correspondence of December 6, 1996 concurred with NRCS to begin formal deauthorization of the project. As of July 1, 1997, LA DNR had stated that problems might be able to be resolved, and requested that NRCS not proceed with formal deauthorization at July 1997 Task Force meeting. Further discussion with primary landowner put deauthorization on hold. A meeting was scheduled for July 22, 1997 between NRCS, LA DNR and primary landowner to see if problems could be resolved.	eauthorization. E project. As of J I proceed with for deauthorization o i if problems cou	ONR uly 1, mal n hold.	\$218,034
	Status:	This project	was proposed   ias been modif	ior deauthorizatio. Ted. The final pla	n but was referred n/EA has been prep	for revisions at th pared. Advertise	This project was proposed for deauthorization but was referred for revisions at the request of the landowners and DNR. The project has been modified. The final plan/EA has been prepared. Advertisement for bids is scheduled for May 2000.	downers and DN eduled for May 2	IR. 2000.	
Freshwater Bayou	MERM	VERMI	1,593	17-Aug-94 A	29-Aug-94 A	15-Aug-98 A	\$2,770,093	\$2,923,123	105.5	\$1,300,974
	Remarks:	The project to cost savings. removal. Op	has been exped Construction Hion was exerc	The project has been expedited in order to allow the us cost savings. Construction is included as an option in removal. Option was exercised on September 2, 1994	low the use of ston option in the Corps r 2, 1994.	e removed from t	The project has been 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.	st Weir at a substa ake Outlet Weir	antial	\$1,558,271

Status: Project complete.

The rock bank protection was Phase I of this project and was completed on January 26, 1995. Phase II will consist of installing water control structures to benefit the interior marsh area.

removal. Option was exercised on September 2, 1994.

	•			y neport - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	Agency: DEPT	OF AGRICE	JLTURE (NR	CS)		Page 43
PROJECT	BASIN	PARISH	ACRES	CSA	******** SCHEDULES ************************************	Const End	******* Raceline	Baseline		Actual Obligations/
Fritchie Marsh	PONT	STTAM	1,040	21-Feb-95 A	15-Anr-00	01 5 00		Current	*	Expenditures
	Remarks:					00-dac-10	53,048,389	\$2,933,808	96.2	\$1,930,490 \$427,684
	Status:	Delays in project constr local officials expressed expected to be awarded	oject construct s expressed co	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. The construction contract is expected to be awarded in time to start construction in April 2000.	because a landown nage that required ruction in April 20	ner had changed h additional investi 00	us position, promp gations. The consi	ting design chang Proction contract i	es, and	
Hwy 384	CALC	CAMER	150	13-Oct-94 A	01-Oct-99 A	07-Jan-00 A	\$700.717	000 800	3	
	Remarks:	Difference o	f opinion betw sues caused d	Difference of opinion between agencies concerning impacts and benefits resulted in delays, and multiple, complex land-	:erning impacts an	d benefits resultec	in delays, and mu	ultiple, complex la	-bna	\$308,222 \$277,204
	Status:	Construction Construction	start slipped f complete Janı	Construction start slipped from November 1997 to July 1999 because of landright issues. All landright agreements signed.	97 to July 1999 be	cause of landrigh	i issues. All landi	right agreements s	igned.	
Jonathan Davis Wetland	BARA	JEFF	910	05-Jan-95 A	22-Jun-98 A	15-Aug-00	\$3,398,867	\$4,431,026	130.4	
	Remarks:	The project will be const contract will install the b	vill be constructions install the bank	The project will be constructed in two contracts. The first contract will install the majority of the structures. The second	cts. The first contr te remaining struct	act will install the ures	majority of the st	nctures. The sec	puo	\$2,368,352 \$2,245,402

CEMVN-PM-C

Construction start 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. Second contract is bank stabilization and will

Status:

CEMVN-PM-C	COA	STAL WE	TLANDS I	LANNING, P	ROTECTION Agency: DEPT	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	RATION ACT LTURE (NRC	S		18-Mar-00 Page 44
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	*	Actual Obligations/ Expenditures
Mud Lake	CALC	CAMER	1,520	24-Mar-94 A	01-Oct-95 A	15-Jun-96 A	\$2,903,635	\$3,348,967	115.3	\$1,508,818
	Remarks:	Bid opening was A	was August {	, 1995 and contra	ict awarded to Cra ation installed in t	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.	ion started in early 5.	y October 1995.	Water	\$1,812,758
	Status:	Complete.								
Vermilion Báy/Boston Canal	TECHE	VERMI	378	24-Mar-94 A	13-Sep-94 A	30-Nov-95 A	\$1,008,634	\$1,008,710	100.0	\$688,351
	Remarks:	The structur	ral portion of t	The structural portion of the project - shoreline protection - is complete.	ine protection - is	complete.				\$786,034
		The vegetat	ive portion of	The vegetative portion of the project is complete.	plete.					
	Status:	Complete.								
Tot	Total Priority List 2	2	6,275				\$19,575,334	\$21,574,832	110.2	\$8,804,347 \$7,715,415
8 Cost Sharing Agreen 5 Construction Started 4 Construction Comple 0 Project(s) Deferred/I	Project(s)  Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	s Executed ithorized								

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Priority List 3

CEMVN-PM-C	CO Project	COASTAL WETLAND Project Status Summar	TLANDS	PLANNING, P Report - Lead A	ROTECTION	A AND RESTO OF AGRICU	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	<u>د</u> (چ		18-Mar-00 Page 45
PROJECT	BASIN	PARISH	ACRES	CSA	** SCHEDULES ************************************	Const End	Roseline	Š	•	Actual Obligations/
Brady Canal	TERRE	TERRE	297	15-May-98 A	01-May-99 A	28-May-00	\$4,717,928	Current \$5 662 176	*   5	Expenditures
	Remarks:	Project delayed I company in the a Federal funding	yed because of the area. In ac ling.	flandowner concer ddition, CSA revis	ms about permit o	onditions regardin to accommodate t	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.	objection from a	pipeline non-	\$3,294,428 \$789,462
	Status:	Permitting and design c will help cost share the May 2000.	nd design conc I share the pro	litions have resulte ject. The revised (	d in the CSA beir CSA is complete.	ig modified to also Project is under c	onditions have resulted in the CSA being modified to also include Fina Oil Co. and LL&E. Both project. The revised CSA is complete. Project is under construction and should be complete by	Co. and LL&E. Bould be complete	oth by	
Cameron Creole Maintenance	CALC	CAMER	2,602	09-Jan-97 A	30-Sep-97 A	15-Jul-98 A	\$3,719,926	33 799 365	5	
	Remarks:	This project   set. The firs	provides for m t and second c	or maintenance on an as-neede nd contracts for are complete.	<b>is-nee</b> ded basis, tl mplete.	erefore, a definite	This project provides for maintenance on an as-needed busis, therefore, a definite design completion start date cannot be set. The first and second contracts for are complete.	start date cannot		\$1,052,400 \$825,809
	Status:	The first three contracts	contracts for	maintenance work	are complete. T	ne project provide	for maintenance work are complete. The project provides for maintenance on an as-needed basis.	on an as-needed b	asis.	
Cote Blanche	TECHE	STMRY	2,223	01-Jul-96 A	25-Mar-98 A	15-Dec-98 A	\$5,173,062	\$6109.00\$	-	
	Remarks:	LA DNR's placement of put on hold during that t	acement of the uring that time	project on a Septe	mber 1995 candi	date deauthorizatio	f the project on a September 1995 candidate deauthorization list caused delays, as did the CSA being time.	s, as did the CSA	being	<b>\$4,</b> 723, <b>8</b> 16
	Status:	Construction start date sl construct the project. Si budget modifications. C December 1998.	itari date slipp project. Site i cations. Cont 8.	ed from November nspection for biddd ract awarded Febr	r 1997 to March I er was held Janua uary 1998; notice	998 because of co y 12, 1998. Conc to proceed March	slipped from November 1997 to March 1998 because of concern about the source of shell to Site inspection for bidder was held January 12, 1998. Concern for a source of shell may require Contract awarded February 1998; notice to proceed March 1998. Construction was completed	urce of shell to shell may require on was completed		

CEMVN-PM-C	CO / Proj	COASTAL WETLAND Project Status Summar	TLANDS Poummary R	LANNING, P eport - Lead A	ROTECTION Agency: DEPT	I AND RESTO . OF AGRICU	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	. <b>(</b> S		18-Mar-00 Page 46
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	Baseline Current %	*	Actual Obligations/ Expenditures
SW Shore White Lake Demo -	MERM	VERMI	0	11-Jan-95 A	30-Apr-96 A	31-Jul-96 A	\$126,062	\$108,803	86.3	\$111,103
DEAUTHORIZED	Remarks:									\$111,103
	Status:	Complete. 1	Complete. Project deauthorized.	rized.						
Violet Freshwater Distribution	PONT	STBER	247	13-Oct-94 A			\$1,821,438	\$1,862,562	102.3	\$145,511
	Remarks:	Rights-of-way to gain arisen about rights to c	ay to gain acce rights to opera	Rights-of-way to gain access to the site is a pi arisen about rights to operate existing siphon.	problem due to mu 1.	ıltiple landowner c	access to the site is a problem due to multiple landowner coordination, and additional questions have operate existing siphon.	iditional question	s have	<b>\$</b> 116,195
	Status:	Project is be	Project is being deauthorized	<del>p</del> i						
West Pointe-a-la- Hache Outfall	BARA	PLAQ	1,087	05-Jan-95 A	15-Nov-00	10-Inf-10	\$881,148	\$4,068,045	461.7!	\$161,872
Management	Remarks:	Initial cost e	stimate is too l	ow. Additional S	3.2 million reques	ted and approved	Initial cost estimate is too low. Additional \$3.2 million requested and approved at the January 16, 1998 Task Force meeting.	998 Task Force n	neeting.	\$84,411
	Status:	Oyster issues	and siphon op	Oyster issues and siphon operation being reviewed by DNR.	iewed by DNR.					
White's Ditch Outfall Management -	BRET	PLAQ	0	13-Oct-94 A			\$756,134	\$32,862	4.3	\$32,862
DEAUTHORIZED	Remarks:	LA DNR col meeting.	ncurred with N	RCS to deauthori;	ze the project. Pr	oject deauthorized	LA DNR concurred with NRCS to deauthorize the project. Project deauthorized at the January 16, 1998 Task Force meeting.	1998 Task Force		\$32,862

Status: Deauthorized.

CEMVN-PM-C	COA	STAL WE	STLANDS	PLANNING, I Report - Lead	PROTECTION Agency: DEPT	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	RATION AC LTURE (NRC	1 S		18-Mar-00 Page 47
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	******* ESTIMATES ******* Baseline Current %	***	Actual Obligations/
	Total Priority List 3	1 3	6,456				\$17,195,698	\$21,642,819	125.9	\$9,407,626
7 Project(s) 7 Cost Shar 4 Constructi 3 Constructi 2 Project(s)	Project(s) Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	s Executed thorized	·				·			<b>5</b> 6,683,658
Priority List 4										
Bayou L'Ours Ridge Hydrologic Restoration	BARA	LAFOU	787	23-Jun-97 A	15-Jul-00	01-Jan-01	\$2,418,676	\$2,793,221	1155	0.5000
	Remarks:	Landowners	have voiced c	oncerns of projec	Landowners have voiced concerns of project's effects on oyster leases.	r leases.				\$39,034 \$39,034
	Status:	Project delay	Project delayed to address concerns.	concerns.						
BBWW "Dupre Cut" - West	BARA	JEFF	232	23-Jun-97 A	30-Apr-00	30-Nov-00	\$2,192,418	\$3,304,787	15071	53 27 57
	Remarks:								:	\$305.096

Status: The project is being coordinated with the COE dredging program. Contract advertised December 1999. The Task Force approved a project cost increase of \$1,112, 368 on August 4, 1999.

\$305,096

(	J-4	48

PROJECT	BASIN	PARISH	ACRES	CSA	CSA Court Schedules	SIN PARISH ACRES CSA Cont. SCHEDULES ESTIN	*******	******* ESTIMATES *******	:	Actual Obligations/
Flotant March Concine					LIRIC ISHO	Const End	Baseline	Current	%	Expenditures
Demo	IERRE	TERRE	0	16-Jul-99 A			\$367,066	\$540,240	147.2!	\$90,794
	Remarks:		n locating an a	ppropriate site for	demonstration and	Difficulty in locating an appropriate site for demonstration and difficulty in addressing engineering constraints.	essing engineering	constraints.		\$55,692
	Status:		old; potential (	Project on hold; potential deauthorization.						
Perry Ridge Bank Protection	CA/SB Remarks	CALCA	1,203	23-Jun-97 A	15-Dec-98 A	15-Feb-99 A	\$2,223,518	\$2,664,613	8.611	\$2,231,936
		Q	<u>:</u>							\$1,736,481
		rioject complete.	Jele.							
Plowed Terraces Demo	CALC	CAMER	0	22-Oct-98 A	30-Apr-99 A	31-Aug-00	\$299,690	\$321,939	107.4	\$342.587
	Remarks:	Project was put on hold program. The project is	out on hold per e project is cu	Project was put on hold pending results of an eprogram. The project is currently proceeding.	earlier terraces de }.	pending results of an earlier terraces demonstration project being paid for by the Gulf of Mexico currently proceeding.	t being paid for by	the Gulf of Me	xico	\$112,263

CEMVN-PM-C

Project initially put on hold pending results of an earlier terraces demonstration project being paid for by the Gulf of Mexico program. Project currently proceeding. The first attempt to plow the terraces in the summer of 1999 was not successful. A second contract will be advertised in January 2000 to try again.

Status:

PROJECT	BASIN PARISH ACRES	PARISH	ACRES	CSA	CSA Const Start Const En	0.000 E.d.	CSA Const Start Const End Start ESTI	7	*	Actual Obligations/
	Total Priority List 4	st 4	2,172				\$7,501,368	S9,624,800	128.3	Expenditures \$5,327,101
5 Proje 5 Cost 2 Cons 1 Cons 0 Proje	Project(s)  Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	ts Executed I								\$2,248,566
Priority List 5										
Freshwater Bayou Bank Stabilization	MERM	VERMI	511	01-Jul-97 A	15-Feb-98 A	15-Jun-98 A	\$3,998,919	\$2,533,882	63.4	<b>€</b> 1 910 479
	Remarks:	The local co	st share is bein	The local cost share is being paid by Acadian Gas Company.	n Gas Company.				,	\$1,940,045
	Status:	Contract was	awarded Janu	iary 14, 1998. Cc	Contract was awarded January 14, 1998. Construction is complete.	olete.				
Naomi Outfall Management	BARA	JEFF	633	12-May-99 A	01-Oct-00	28-Feb-01	\$1,686,865	\$2,102,650	124 6	976 6763
	Remarks:	This project separate.	This project was combined separate.		with the BBWW "Dupre Cut" East project for planning and design; construction will be	project for plannin	g and design; con	struction will be	2	\$242,308 \$186,394

Status: The operation of the siphon is being reviewed by DNR.

PROJECT         BASIN         PARISH         ACRES         CSA         Const Start         Const End         Baseline         Current         %           Racoon Island         TERRE         TERRE         0         03-Sep-96 A         21-Apr-97 A         31-Jul-97 A         \$1,497,538         \$2,049,633         136.           Breakwaters Demo         Remarks:         Remarks:         Acres of the priority List authorized funding in the amount of \$2,300,000 for the FY 97 Phase 2 of the project. Total project cost is \$4,800,000.         \$5,010,762         104.		
waters Demo Remarks: Status: Lake/Willow CALC Remarks:	S	Actual  ****** Obligations/  Expenditures
Remarks: Status: Lake/Willow CALC Remarks:	31-Jul-97 A \$1,497,53 <b>8</b> \$2	- i
Status: t Lake/Willow CALC Remarks:		\$1,688,878
1 Lake/Willow CALC Remarks:		
	27-Jan-00 A \$4,800,000 \$5,010,762	104.4 \$4.152.673
	authorized funding in the amount of \$2,300,000 for the FY 96 Phase I of this project. Priority Lis the amount of \$2,500,000 for the FY 97 Phase 2 of the project. Total project cost is \$4,800,000.	
Status: The rock bank protection feature of the project is complete. The terraces and vegetation will be installed in spring 2001.	The terraces and vegetation will be installed in spring	2001.

Priority List 6

4 Cost Sharing Agreements Executed
3 Construction Started
3 Construction Completed
0 Project(s) Deferred/Deauthorized

4 Project(s)

\$7,890,617 \$5,300,037

9.7.6

\$11,696,927

\$11,983,322

CEMVN-PM-C	CO Pro	ASTAL WE ject Status S	TLANDS P Summary Re	LANNING, P	PROTECTION Agency: DEPT	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	RATION AC LTURE (NRC	1 (S)		18-Mar-00 Page 51
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Receire	Σ	*	Actual Obligations/
BBWW "Dupre Cut" - East	BARA	JEFF	217	12-May-99 A	01-Jul-00	01-Feb-01	\$5 010 000	Current	*	Expenditures
	Remarks:	This project separate.	was combined	with the Naomi (	Jutfall Manageme	This project was combined with the Naomi Outfall Management project for planning and design; construction will be	ling and design; c	construction will	120.4 be	\$332,598 \$298,560
	Status:	The project v	vill be advertise	The project will be advertised in April 2000.						
Cheniere au Tigre Sediment Trapping	ТЕСНЕ	VERMI	0	20-Jul-99 A	01-May-00	30-Nov-00	900 0033	6		
Device Demo	Remarks:						000,000	000,000	0.001	\$319,840 \$37,092
	Status:	A request for proposals		was advertised in Feb 2000.	2000					
Oaks/Avery Canals Hydrologic Restoration-	TECHE	VERMI	091	22-Oct-98 A	15-Apr-99 A	31-Aug-00	\$2,367,700	20 171 507	600	
Incr I (B.S. only)	Remarks:	This project h LADNR will	ias a vegetative implement the	This project has a vegetative component and a stru LADNR will implement the structural component.	a structural compo nent.	This project has a vegetative component and a structural component. NRCS will implement the vegetative component and LADNR will implement the vegetative component and	mplement the veg	etative componer	t and	\$366,258 \$174,330
	Status:	The vegetative contract. The	: plantings were vegetation cont	scheduled to be	installed in summ arded again. It is	The vegetative plantings were scheduled to be installed in summer 1999. The contractor defaulted on the vegetation contract has been awarded again. It is scheduled to be complete by August 2000.	ractor defaulted or Implete by August	n the vegetation 1,2000		
Penchant Basin Plan w/o Shoreline	TERRE	TERRE	1,155	30-Apr-00	01-Jan-03	30-Jan-04	\$14,103,051	\$14,103.051	000	900 000 I
Stabilization	Remarks:	Priority List 6 project cost of	authorized fun \$14,103,100.	ding for \$7,051,5	150 in FY 97; Prio	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.	led to fund <b>\$</b> 7,05	1,550, for a total	2	\$1,000,498 \$157,043

Status: Data gathering on-going. Hydraulic model being set up.

	Proj	ect Status S	Summary R	teport - Lead	Agency: DEPT	OF AGRICU	Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	. (S		Page 52
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	******* ESTIMATES ********* Baseline Current %	*	Actual Obligations/ Expenditures
-	Total Priority List 6	9 1	1,532				\$21,990,651	\$23,018,738	104.7	\$2,079,194
4 Project(s) 3 Cost Shari 1 Construct 0 Construct 0 Project(s)	Project(s)  Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	s Executed								\$667,026
Priority List 7										
Barataria Basin Landbridge, Ph I & Ph	BARA	JEFF	1,304	I6-Jul-99 A	01-Aug-00	15-Dec-00	\$17,515,029	\$17,515,020	100.0	\$1,280,195
2	Remarks:	At the April 14, 199 the Barataria Basin separated into three	14, 1999 mee 1 Basin Landb 10 three or fou	99 meeting, the Task Force Landbridge, Ph 2 (PL 8) p or four construction units.	rce approved comb ) project. The proj its.	ining the Barataria ect will be recorde	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 or four construction units.	, Ph I (PL 7) pro . The project wi	ject and II be	\$14,746
	Status:	The first con	struction unit	The first construction unit will be advertised May 2000.	May 2000.					
Thin Mat Floating Marsh Enhancement	TERRE	TERRE	0	16-Oct-98 A	15-Jun-99 A	30-Jun-00	\$460,222	\$542,570	117.9	000 <sup>69</sup> \$
<b>Demo</b>	Remarks:									\$36,953

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COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

CEMVN-PM-C

Status: Under construction.

PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	****** ES	******* ESTIMATES ************************************	* *	Actual Obligations/
To 2 Project(s) 2 Cost Shari 1 Constructi 0 Constructi 0 Project(s)	Total Priority List 7  Project(s)  Cost Sharing Agreements Executed  Construction Started  Construction Completed  Project(s) Deferred/Deauthorized	t 7 s Executed	1,304				\$17,975,251	\$18,057,590	5:00.5	\$1,349,195 \$51,699
Priority List 8										
Humble Canal Hydrologic Restoration	MERM Remarks:	CAMER	378.	15-Apr-00	30-Nov-00	31-Mar-01	\$1,526,136	\$1,526,136	100.0	\$100,348
	Status:									
Lake Portage Landbridge, Ph 1	ТЕСНЕ	VERMI	24	15-Apr-00	15-Jan-01	30-Apr-01	\$1,013,820	\$1,013,820	100.0	\$152.973
	Remarks:	Total project cost estimate is \$4,559,400, Priority List 8 funded \$1,000,000 the canal backfilling increment of the project. If monitoring indicates the nations of the project.	cost estimate kfilling incren	is \$4,559,400; P	Priority List 8 funde	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 office.	Total project cost estimate is \$4,559,400; Priority List 8 funded \$1,000,000 for engineering and design and construct the canal backfilling increment of the project. If monitoring indicates the need to construct the offshore head.	sign and construct	tion of	\$1,741

The project is scheduled for advertisement in October 2000.

Status:

This project is federally co-sponsored by EPA.

										Actual
PROJECT	BASIN	PARISH	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	.****** ESTIMATES ******** Baseline Current %	*	Obligations/ Expenditures
Upper Oaks River, Freshwater	BRET	PLAQ	339	15-Apr-00	15-Oct-01	30-Apr-02	\$2,500,239	\$2,500,239	100.0	\$18,273
Introduction Siphon	Remarks:	Total projec construction	t cost estimate 1 of the outflow	is \$12,994,800; v channel. Fund	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.	ded \$2,500,000 fo	or completion of en hen engineering ar	gineering and desid design are com	sign and ipleted.	\$1,741
	Status:									
	Total Priority List 8	<b>00</b>	741				\$5,040,195	\$5,040,195	100.0	\$271,594
3 Project(s) 0 Cost Shar 0 Constructi 0 Constructi 0 Project(s)	Project(s) Cost Sharing Agreements Executed Construction Started Construction Completed Project(s) Deferred/Deauthorized	: Executed thorized								,
Priority List 9										
Barataria Basin Landbridge - Ph 3	BARA	JEFF	264				\$332,945	\$332,945	100.0	80
	Remarks:	This is the fi	nal phase of th	Parataria Dagi	This is the final phase of the Barataria Basin I and bridge	;				9

Status:

CEMVN-PM-C	CO⁄ Proj	ASTAL WE	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)	ORATION AC ULTURE (NRC	T. SS		18-Mar-00 Page 55
PROJECT	BASIN	PARISH	ACRES CSA Const Start Const End	Raceline	<b>Z</b>	* *	Actual Obligations/
Black Bayou Bypass Culverts	CA/SB	CAMER	540	\$217,689	Current \$217.680	*   2	Expenditures
	Remarks:					2	08
	Status:						
Little Pecan Bayou Control Structure	MERM	CAMER	144	\$220.087	<b>C320 087</b>	000	;
	Remarks:				/90,022	0.001	\$0 \$0
	Status:						
Perry Ridge #2	CALC	CAMER	83	110 66\$	000	9	
	Remarks:	The Perry Ric the project.	The Perry Ridge project approved on Priority List 4 was the first phase of this project. This is the second and final phase of	roject. This is the s	econd and final p	hase of	\$0 \$0
	Status:		•				
South Lake DeCade/Atch	TERRE	TERRE	201	\$116 592	203 71 <b>3</b>		
Freshwater Intro	Remarks:				760.011	0.001	\$0 \$0
	Status:						

G-	56

43 Project(s)
34 Cost Sharing Agreements Executed
21 Construction Started
15 Construction Completed
3 Project(s) Deferred/Deauthorized

PROJECT	BASIN	PARISH ACRES	ACRES	CSA	CSA Const Start Const En	Const End	Baseline	******** ESTIMATES ************************************	* *	Actual Obligations/
	Total Priority List 9	6	1,232				\$986,324	\$986,324	100.0	expenditures
5 Project(s) 0 Cost Shari 0 Constructi 0 Constructi 0 Project(s) I	5 Project(s) 0 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 0 Project(s) Deferred/Deauthorized	Executed								<b>9</b>
DEPT. OF AGRI RESOURCES CO SERVICE	Total DEPT. OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE	URAL	23,155				\$111,311,755	\$120,946,670	108.7	\$41,731,884 \$25,046,571

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

CEMVN-PM-C

## Notes:

- Expenditures based on Corps of Engineers financial data.
   Date codes: A = Actual date \* = Behind schedule
   Percent codes: ! = 125% of baseline estimate exceeded

CELMN-PM-C	COASTAL	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT Project Status Summary Report - Total All Priority Lists	RESTORATION ACriority Lists	L		18-Mar-00
PROJECT		ACRES	Baseline	******* ESTIMATES ******** Baseline Current **	* *	Actual Obligations/
SUMMARY	Total All Projects	74,981	\$310,736,826	3		105.5 \$157,088,672
111 Pr	111 Project(s)					394,588,698
74 CC	74 Cost Sharing Agreements Executed	uted	Total Available Funds	Funds		
	Su Construction Started		Federal Funds	\$320,972,363		
) i	11 Projection Completed		Non/Federal Funds	\$47,658,338		
-	11 Froject(s) Deferred/Deauthorized		Total Funds	\$368,630,701		

			Proj	ect Status Si	Project Status Summary Report by Basin	t by Basin	Project Status Summary Report by Basin		18-Mar-0() Page 1
	No. of Projects	Acres	CSA	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current	Expenditures To Data
Basin: All Basins in State	State								O Date
Priority List: Cons Plan	lan .	0			-	c			
Basin Total	-	0	-	-	-	0	\$238,871	\$143,855	\$143,855
Basin: Atchafalaya									6143,633
Priority List: 2	2	3,792	7	^	r	c			
Priority List: 9	-	589	0	. 0	٧	<b>-</b>	\$5,043,867	\$10,109,926	\$7,230,868
Basin Total	3	4.381	2	, ,			\$1,041,900	\$1,041,900	80
			,	,	7	0	\$6,085,767	\$11,151,826	\$7,230,868
Basin: Barataria									
Priority List: 1		2,497	۳-	~	•	,			
Priority List: 2		210	· –	n -	→ (	0	89,960,769	\$9,568,996	\$2,771,599
Priority List: 3		1.087	. ~		ο .	0	\$3,398,867	\$4,431,026	\$2,245,402
Priority List: 4	2	696	, ,	- c	- ‹		\$4,160,823	\$6,632,106	\$4,203,628
Priority List: 5	2	1.752	۱ ,	> c	o (	0	\$4,611,094	\$6,098,008	\$344,130
Priority List: 6	_	217	<b>.</b>	> <	0 (	0	\$17,212,815	\$17,195,423	\$472,822
Priority List: 7	2	1,431	. 2	> c	<b>&gt;</b>	o	\$5,019,900	\$6,042,090	\$298,560
Priority List: 9	3	882	0	· 0	> c	<b>o</b>	\$18,443,929	\$18,480,050	\$31,697
Basin Total	11	9.345	14			>	\$1,4/4,042	\$1,474,042	80
			•	n	7		0.0000000		

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No. of Projects	ler				
Jund  2   802   1  4   1   0   1  8   1   339   0  8   1   339   0  8   1   1,141   2  4   1   1,203   1  9   1   540   0  a1   2   1,743   1  1   3   6,407   3  2   4   3,019   4  3   2   3,555   2  4   2   0   2  5   1   247   1  6   1   3,594   1  8   1   993   0	ist. Completed	Projects Deauth.	Baseline C Estimate Es	Current Estimate	Expenditures To Date
2   802   1 4   0   0 8   0   1 8   1   339   0  4   1   1,141   2  4   1   1,203   1 9   540   0  al					
3   1   0   1   8   1   339   0   8   1   339   0   4   1,141   2   4   1,203   1   9   1   540   0   1   3   6,407   3   2   4   3,019   4   3   2   3,555   2   4   2   0   2   5   1   247   1   6   1   3,594   1   8   1   993   0	c	•			
4   1   0   0     8   1   339   0     1   4   1,141   2     4   1   1,203   1     9   1   540   0     1   3   6,407   3     2   4   3,019   4     3   2   3,555   2     4   2   0   2     5   1   247   1     6   1   3,594   1     8   1   993   0				\$2,658,799	\$218,03
8         1         339         0           #         1,141         2           4         1,141         2           9         1         540         0           9         1         540         0           2         1,743         1           2         4         3,019         4           3         2         3,555         2           4         2         0         2           4         2         0         2           5         1         247         1           6         1         3,594         1           8         1         993         0			3/56,134	\$32,862	\$32,86
		- c	\$2,468,908 \$2 \$00 239	\$64,442	\$64.42
4     1     1,203     1       9     1     540     0       9     1     540     0       2     1,743     1       1     3     6,407     3       2     4     3,019     4       3     2     3,555     2       4     2     0     2       4     2     0     2       5     1     247     1       6     1     3,594     1       8     1     993     0	0			52,500,239	\$1,741
4     1     1,203     1       9     1     540     0       1     2     1,743     1       2     4,407     3       2     4     3,019     4       3     2     3,555     2       4     2     0     2       5     1     247     1       6     1     3,594     1       8     1     993     0					
9 1 540 0  1 3 6,407 3  2 4 3,019 4  3 2 3,555 2  4 2 0 2  5 1 247 1  6 1 3,594 1  8 1 993 0	•				
1 3 6,407 3 2 4 3,019 4 3 2 3,555 2 4 2 0 2 5 1 247 1 6 1 3,594 1				\$2,664,613	\$1,736,481
1 3 6,407 3 2 4 3,019 4 3 2 3,555 2 4 2 0 2 5 1 247 1 6 1 3,594 1	0	0	\$217,689	\$217,689	20
1 3 6,407 3 2 4 3,019 4 3 2 3,555 2 4 2 0 2 5 1 247 1 6 1 3,594 1		25 0	\$2,441,207	\$2,882,302	\$1,736,481
1     3     6,407     3       2     4     3,019     4       3     2     3,555     2       4     2     0     2       5     1     247     1       6     1     3,594     1       8     1     993     0					
2       4       3,019       4         3       2       3,555       2         4       2       0       2         5       1       247       1         6       1       3,594       1         8       1       993       0	-	<b>.</b>			
3 2 3,555 2 4 2 0 2 5 1 247 1 6 1 3,594 1				\$2,845,630	\$2,009,079
4     2     0     2       5     1     247     1       6     1     3,594     1       8     1     993     0	n -			\$11,336,809	\$5,292,527
5   247   6   3,594   1   993   0	- <			\$8,265,719	\$1,180,445
6 1 3,594 1 8 1 993 0	· •			\$747,272	\$216,666
8 1 993 0	- <			\$5,010,762	\$1,484,719
	0 6			\$6,382,511	\$122,781
o 0	<b>o</b> c	S\$	<b>~</b> .	\$5,920,248	\$148,485
Basin Total 15 17,898 13 10			110,884	110'66\$	\$0

			Proj	ect Status S	Project Status Summary Report by Basin	t by Basin	roject Status Summary Report by Basin		18-N1ar-00 Page 3
	No. of Projects	Acres	CSA	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current	Expenditures
Basin: Coastal Basins	s							al Rillings	10 Date
Priority List: 6	-	0	_	_	C	c			
Basin Total		0	_	-	0	0	\$2,140,000	\$2,140,000	\$163,21
Basin: Miss. River Delta	elta							32,140,000	\$163,215
Priority List:	-	9,831	<b>C</b>	c	Ć				
Priority List: 3	2	936	·	> -	o •	0	\$8,517,066	\$16,673,000	\$663,353
Priority List: 4	-	0		- c	<del></del> (	_	\$3,666,187	\$1,022,577	\$662.885
Priority List: 6	2	2,386		o	<b>o</b> c	0 6	\$300,000	\$52,909	\$39,48
Basin Total	9	13,153	-	,	-	o   .	\$7,073,934	\$6,372,653	\$296,37.
				,	-	-	\$19,557,187	\$24,121,139	\$1,662,095
Basin: Mermentau		٠							
Priority List:	2	247	^	,	•				
Priority List: 2	-	1.593		<b>4</b> -	7	dang.	\$1,368,671	\$1,492,890	\$1 077 08
Priority List: 3	-	0			<b></b> ·	0	\$2,770,093	\$2,923,123	\$1.558.771
Priority List: 5	~	511			<del>_</del>	-	\$126,062	\$108,803	£01 111 <b>3</b>
Priority List: 7	_	442		- <	<del></del> ,	0	\$3,998,919	\$2,533,882	\$1 940 048
Priority List: 8	_	378	· c	<b>)</b>	0 (	0	\$2,185,900	\$2,223,353	\$24 541
Priority List: 9	2	440	0	0	<b>-</b>	0 6	\$1,526,136	\$1,526,136	\$3,01
Basin Total	6	3,611	9			0	\$309,489	\$309,489	80
			>	^	Ç	ſ			

		Project Status Summary Report by Basin		roject Status S	Project Status Summary Report by Basin	t by Basin			Page 4
	N. Pro	No. of Projects Acres	CSA es Executed	Under 1 Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
Basin: Pontchartrain	rain								
Priority List:	-	2 1,753	3 2	7	2	0	\$6.119.009	000 086 53	PEO 173 F3
Priority List:	7	2 2,320	0 2	_	_	0	\$4,500,424	\$3,280,707	70,500,47 VI Aug 17
Priority List:	3	3 1,002	2 3	2	-	0	\$2.683.636	\$7,503,508	6.1470.1
Priority List:	4	_	0 0	0	0	_	\$5,018,968	678,675,25	185,5874 000 8F3
Priority List:	S	1 7	75 0	0	0	, O	\$2,890,821	\$2,418,904	\$327.880
Priority List:	<b>∞</b>	2 576	0 9	0	0	0	\$5,475,065	\$6 327 874	050 513
Priority List:	6	3 886	0 9	0	0	0	\$410,771	\$410,771	0\$
Basin Total		14 6,612	2 7	\$	7	_	\$27,098,694	\$21,721,559	\$7,226,824
Basin: Teche / Vermilion	rmilion								
Priority List:	_	9	1 59	-		0	\$1,526,000	\$2 046 940	61 776 307
Priority List:	7	1 378	-	-	-	0	\$1,008,634	\$1.008.710	£786.034
Priority List:	e.	1 2,223	3		_	0	\$5,173,062	\$6,109,005	\$4.723.816
Priority List:	S	1 441	_	-		0	\$940,065	\$1,460,196	\$262.036
Priority List:	9	4 2,567	7 3	-	0	0	\$10,130,000	\$11.384.358	\$206 532
Priority List:	œ	1 24	0	0	0	0	\$1,013,820	\$1.013.820	177.13
Priority List:	6	3 994	4 0	0	0	0	\$1,082,604	\$1,082,604	0%
Basin Total		12 6,692	7 7	٠	V	•			9

					S SILEIC 132		T by basin			Page 5
	χΫ́	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current	Expenditures
Basin: Terrebonne									CSUMBIC	To Date
Priority List:		S	٥	4	,	•				
Priority List: 2		۳	958		n	m (	7	\$8,809,393	\$9,489,672	\$6.926.112
Priority List: 3		4	3,958	, 4	n =	m (	0	\$12,831,588	\$20,446,810	\$15,247,383
Priority List: 4	_	2	215	. ~	<b>;</b>	2 °	0	\$15,758,355	\$23,068,527	\$13,542.221
Priority List: 5		3	2,915	, ,		ο .	0	\$6,119,470	\$14,389,346	\$3,276,493
Priority List: 6		4	1.774	ı -	<del>-</del> c	- (	0	\$31,120,343	\$20,744,533	\$3.065.378
Priority List: 7			0	•	> -	0 (	2	\$30,522,757	\$24,692,045	\$275.612
Priority List: 9	•	4	576	- 0	- c	0 0	0	\$460,222	\$542,570	\$36,953
Basin Total	2	26	10,405	17	2 / 2	0	0	\$1,364,877	\$1,364,877	\$0
Desire V						`	,	\$106,987,005	\$114,738,381	\$42,370,152
Dasin: Various Basins	ns									
Priority List: 9		_		0	0	¢	ć			
Basin Total	_			c	,   -		0	\$52,549	\$52,549	80
				·	,	0	0	\$52,549	\$52,549	80
Total All Basins	Ξ		74,981	7.4	90	37	=	\$310 736 826	£137 050 055	

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COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

Project Summary Report by Priority List

P/L	No. of Projects	Acres	CSA Executed	Under Const.	Const.	Federal Const. Funds Available	Non/Fed Const. Funds Available	Baseline Estimate	Current Estimate	Obligations To Date	Expenditures To Date
-	=	20,809	13	2	Ξ	\$28,084,900	\$8,446,848	\$39,933,317	\$47,199,647	\$23,723,285	\$19,533,015
2	15	13,372	15	_	=	\$28,173,110	\$10.080,750	\$40,644,134	\$57,483,711	\$37,503,809	\$34,076,620
m	13	12,761	13	4	7	\$29,939,100	\$8,161,414	\$35,050,606	\$47,632,787	\$29,490,742	\$24,955,557
4	<b>x</b> c	2,387	<b>∞</b>	2	_	\$29,957,533	\$3,643,507	\$13,924,366	\$23,952,148	\$17,444,540	\$5,613,251
٠,	6	5,941	7	0	77	\$33,371,625	\$4,936,370	\$60,962.963	\$49,363,701	\$23,954,688	\$7,552.880
9	=	10,538	∞	3	0	\$39,134,000	\$5,701,366	\$54,614,991	\$56,944,046	\$14,491,579	\$1,793,438
7	4	1,873	7		0	\$42,540,715	\$3,186,896	\$21,090,051	\$21,245,973	\$3,996,775	161'86\$
<b>∞</b>	9	2,310	0	0	0	\$41,864,079	\$2,593,248	\$16,435,508	\$17,288,317	\$5,663,252	\$170,444
6	61	4,990	0	0	0	\$47,907,301	\$907,939	\$6,052,932	\$6,052,932	\$20,000	80
Active Projects	ts 99	74,981	89	53	34	\$320,972,363	\$47,658,338	\$288,708,868	\$327,163,263	\$156,288,669	\$93,788,395

Deauthorized Projects	Ξ	0	, <b>v</b>	0	2			\$21,789,087	\$653,848	\$656,148	\$656,447
Total Projects 110 74,981	011	74,981	73	13	36	\$320,972,363	\$47,658,338	\$310,497,955	\$310,497,955 \$327,817,110	\$156,944,817 \$94,444,843	\$94,444.843
Conservation Plan	_	0	-	0				\$238,871	\$143,855	\$143,855	\$143.855
Total Construction Program	Ξ	74,981	7.4	13	37	\$320,972,363	63 \$47,658,338 \$368,630,701	\$310,736,826	\$327,960,965	\$157,088,672 \$94,588,698	\$94,588,698

## Project Summary Report by Priority List

- NOTES: 1. Total of 111 projects includes 99 active construction projects, 11 deauthorized projects, and the State of Louisiana's Wetlands Conservation Plan.
  - Federal funds for FY 2000 is anticipated to be \$47,907,301.
- Total construction program funds available is \$368,630,701
- The current estimate for closed out deauthorized projects is equal to expenditures to date.
- 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
  - 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.
    - The Task Force approved 8 unfunded projects, totalling \$77,492,000 on Priority 1.ist 7 (not included in totals).
      - Obligations include expenditures and remaining obligations to date.
- Non-Federal Construction Funds Available are estimated using cost share percentages as authorized for before and after approval of Conservation Plan. Baseline and current estimates for PPL 9 (and future project privrity lists) reflect funding utilizing cash flow management principles.