



## **22nd PRIORITY PROJECT LIST REPORT (APPENDICES)**

**PREPARED BY:**

**LOUISIANA COASTAL WETLANDS CONSERVATION AND RESTORATION  
TASK FORCE**

**October 2013**

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

**Summary and Complete Text of the CWPPRA**

## COASTAL WETLANDS PLANNING, PROTECTION & RESTORATION ACT

Public Law 101-646, Title III

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### **SECTION 303. Priority Louisiana Coastal Wetlands Restoration Projects.**

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

### **SECTION 304. Louisiana Coastal Wetlands Conservation Planning.**

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

### **SECTION 305. National Coastal Wetlands Conservation Grants.**

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

### **SECTION 306. Distribution of Appropriations.**

- 70% of annual appropriations not to exceed (NTE) \$70 million used as follows:
  - NTE \$15 million to fund Task Force completion of Priority List and Restoration Plan—Secretary disburses the funds.

- NTE \$10 million to fund 75% of Louisiana's cost to complete Conservation Plan—Administrator disburses funds.
- Balance to fund wetland restoration projects at 75% Federal/25% Louisiana-Secretary disburses funds.
- 15% of annual appropriations, NTE \$15 million for Wetland Conservation Grants—Director, USFWS disburses funds.
- 15% of annual appropriations, NTE \$15 million for projects authorized by the North American Wetlands Conservation Act—Secretary, Interior disburses funds.

**SECTION 307. Additional Authority for the Corps of Engineers.**

- Section 307a. Secretary authorized to:
  - Carry out projects to protect, restore, and enhance wetlands and aquatic/coastal ecosystems.
- Section 307b. Secretary authorized and directed to study feasibility of modifying MR&T to increase flows and sediment to the Atchafalaya River for land building wetland nourishment.
  - 25% if the state has dedicated trust fund from which principal is not spent.
  - 15% when Louisiana's Conservation Plan is approved.

### TITLE III--WETLANDS

#### Sec. 301. SHORT TITLE.

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

#### Sec. 302. DEFINITIONS.

As used in this title, the term--

- (1) "Secretary" means the Secretary of the Army;
- (2) "Administrator" means the Administrator of the Environmental Protection Agency;
- (3) "development activities" means any activity, including the discharge of dredged or fill material, which results directly in a more than de minimus change in the hydrologic regime, bottom contour, or the type, distribution or diversity of hydrophytic vegetation, or which impairs the flow, reach, or circulation of surface water within wetlands or other waters;
- (4) "State" means the State of Louisiana;
- (5) "coastal State" means a State of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes; for the purposes of this title, the term also includes Puerto Rico, the Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands, and the Trust Territories of the Pacific Islands, and American Samoa;
- (6) "coastal wetlands restoration project" means any technically feasible activity to create, restore, protect, or enhance coastal wetlands through sediment and freshwater diversion, water management, or other measures that the Task Force finds will significantly contribute to the long-term restoration or protection of the physical, chemical and biological integrity of coastal wetlands in the State of Louisiana, and includes any such activity authorized under this title or under any other provision of law, including, but not limited to, new projects, completion or expansion of existing or on-going projects, individual phases, portions, or components of projects and operation, maintenance and rehabilitation of completed projects; the primary purpose of a "coastal wetlands restoration project" shall not be to provide navigation, irrigation or flood control benefits;
- (7) "coastal wetlands conservation project" means--
  - (A) the obtaining of a real property interest in coastal lands or waters, if the obtaining of such interest is subject to terms and conditions that will ensure that the real property will be administered for the long-term conservation of such lands and waters and the hydrology, water quality and fish and wildlife dependent thereon; and
  - (B) the restoration, management, or enhancement of coastal wetlands ecosystems if such restoration, management, or enhancement is conducted on coastal lands and waters that are administered for the long-term conservation of such lands and waters and the hydrology, water quality and fish and wildlife dependent thereon;
- (8) "Governor" means the Governor of Louisiana;
- (9) "Task Force" means the Louisiana Coastal Wetlands Conservation and Restoration Task Force which shall consist of the Secretary, who shall serve as chairman, the Administrator, the Governor, the Secretary of the Interior, the Secretary of Agriculture and the Secretary of Commerce; and

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

### SEC. 303. PRIORITY LOUISIANA COASTAL WETLANDS RESTORATION PROJECTS.

#### (a) PRIORITY PROJECT LIST.--

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

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

(3) TRANSMITTAL OF LIST.--No later than one year after the date of enactment of this title, the Secretary shall transmit to the Congress the list of priority coastal wetlands restoration projects required by paragraph (1) of this subsection. Thereafter, the list shall be updated annually by the Task Force members and transmitted by the Secretary to the Congress as part of the President's annual budget submission. Annual transmittals of the list to the Congress shall include a status report on each project and a statement from the Secretary of the Treasury indicating the amounts available for expenditure to carry out this title.

#### (4) LIST OF CONTENTS.--

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

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

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

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

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

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

(b) FEDERAL AND STATE PROJECT PLANNING.--

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

(2) PURPOSE OF THE PLAN.--The purpose of the restoration plan is to develop a comprehensive approach to restore and prevent the loss of, coastal wetlands in Louisiana. Such plan shall coordinate and integrate coastal wetlands restoration projects in a manner that will ensure the long-term conservation of the coastal wetlands of Louisiana.

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

(f) COST-SHARING.--

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

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

notice of, and opportunity for hearing on, any such determination by the Secretary, the Director, and Administrator, and the State has been given ninety days from such notice or hearing to take corrective action.

(3) FORM OF STATE SHARE.--The share of the cost required of the State shall be from a non-Federal source. Such State share shall consist of a cash contribution of not less than 5 percent of the cost of the project. The balance of such State share may take the form of lands, easements, or right-of-way, or any other form of in-kind contribution determined to be appropriate by the lead Task Force member.

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

#### SEC. 304. LOUISIANA COASTAL WETLANDS CONSERVATION PLANNING.

(a) DEVELOPMENT OF CONSERVATION PLAN.--

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

(2) TERMS OF AGREEMENT.--

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

(B) The agreement shall--

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

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

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

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

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

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

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

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

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

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

- (1) identification of the entire coastal area in the State that contains coastal wetlands;
- (2) designation of a single State agency with the responsibility for implementing and enforcing the plan;
- (3) identification of measures that the State shall take in addition to existing Federal authority to achieve a goal of no net loss of wetlands as a result of development activities, exclusive of any wetlands gains achieved through implementation of the preceding section of this title;
- (4) a system that the State shall implement to account for gains and losses of coastal wetlands within coastal areas for purposes of evaluating the degree to which the goal of no net loss of wetlands as a result of development activities in such wetlands or other waters has been attained;
- (5) satisfactory assurance that the State will have adequate personnel, funding, and authority to implement the plan;
- (6) a program to be carried out by the State for the purpose of educating the public concerning the necessity to conserve wetlands;
- (7) a program to encourage the use of technology by persons engaged in development activities that will result in negligible impact on wetlands; and
- (8) a program for the review, evaluation, and identification of regulatory and nonregulatory options that will be adopted by the State to encourage and assist private owners of wetlands to continue to maintain those lands as wetlands.

(d) APPROVAL OF CONSERVATION PLAN.--

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

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

- (A) the State has adequate authority to fully implement all provisions of such a plan;
- (B) such a plan is adequate to attain the goal of no net loss of coastal wetlands as a result of development activities and complies with the other requirements of this section; and
- (C) the plan was developed in accordance with terms of the agreement set forth in subsection (a) of this section.

(e) MODIFICATION OF CONSERVATION PLAN.--

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

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

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

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

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

(h) FEDERAL OVERSIGHT.--

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

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

#### SEC. 305 NATIONAL COASTAL WETLANDS CONSERVATION GRANTS.

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

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

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

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

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

(d) COST-SHARING.--

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

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

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

(e) PARTIAL PAYMENTS.--

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

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

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

#### SEC. 306. DISTRIBUTION OF APPROPRIATIONS.

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

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

(A) preliminary assessments;

(B) general or site-specific inventories;

(C) reconnaissance, engineering or other studies;

(D) preliminary design work; and

(E) such other studies as may be necessary to identify and evaluate the feasibility of coastal wetlands restoration projects;

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

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

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

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

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

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

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

#### SEC. 307. GENERAL PROVISIONS.

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

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

#### SEC.308. CONFORMING AMENDMENT.

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

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

SENATE REPORTS: No. 101-523 accompanying S. 2244 (Comm. On Environmental and Public Works).

CONGRESSIONAL RECORD, Vol. 136 (1990):

Oct. 1, considered and passed House.

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

Oct. 27, House concurred in Senate amendment.

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

Nov. 29, Presidential statement.

Statement on signing the Bill on Wetland and Coastal Inland Waters Protection and Restoration Programs, November 29, 1990.

Today I am signing H.R. 5390, "An Act to prevent and control infestation of the coastal inland waters of the United States by the zebra mussel and other nonindigenous aquatic species to reauthorize the National Sea Grant College Program, and for other purposes." This Act is designed to minimize, monitor, and control nonindigenous species that

become established in the United States, particularly the zebra mussel; establish wetlands protection and restoration programs in Louisiana and nationally; and promote fish and wildlife conservation in the Great Lakes.

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

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

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

George Bush

The White House,  
November 29, 1990.

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

**22nd 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**

## **Emergent Marsh Community Models**

### **INTRODUCTION**

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

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

### **VARIABLE SELECTION**

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

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

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

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

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

## SUITABILITY INDEX GRAPH DEVELOPMENT

A variety of resources was utilized to construct each SI graph, including the HSI models from which the final list of variables was partially derived, consultation with other professionals and researchers outside the EnvWG, published and unpublished data and studies, and personal knowledge of EnvWG members. An important "non-biological" constraint on SI graph development was the need to insure that graph relationships were not counter to the purpose of the CWPPRA, that is, the long term creation, restoration, protection, or enhancement of coastal vegetated wetlands. That constraint was most operative in defining SI graphs for Variable V<sub>1</sub> (percent emergent marsh). The process of SI graph development was one of constant evolution, feedback, and refinement; the form of each SI graph was decided upon through consensus among EnvWG members.

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

### **Variable V<sub>1</sub> - Percent of wetland area covered by emergent vegetation.**

Persistent emergent vegetation plays an important role in coastal wetlands by providing foraging, resting, and breeding habitat for a variety of fish and wildlife species; and by providing a source of detritus and energy for lower trophic organisms that form the basis of

the food chain. An area with no emergent vegetation (i.e., shallow open water) is assumed to have minimal habitat suitability in terms of this variable, and is assigned an SI of 0.1.

Optimal vegetative coverage is assumed to occur at 100 percent (SI=1.0). That assumption is dictated primarily by the constraint of not having graph relationships conflict with the CWPPRA's purpose of long term creation, restoration, protection, or enhancement of vegetated wetlands. The EnvWG had originally developed a strictly biologically-based graph defining optimal habitat conditions at marsh cover values between 60 and 80 percent, and sub-optimal habitat conditions outside that range. However, application of that graph, in combination with the time analysis used in the evaluation process (i.e., 20-year project life), often reduced project benefits or generated a net loss of habitat quality through time with the project. Those situations arose primarily when: existing (baseline) emergent vegetation cover exceeded the optimum (> 80 percent); the project was predicted to maintain baseline cover values; and without the project the marsh was predicted to degrade, with a concurrent decline in percent emergent vegetation into the optimal range (60-80 percent). The time factor aggravated the situation when the without-project degradation was not rapid enough to reduce marsh cover values significantly below the optimal range, or below the baseline SI, within the 20-year evaluation period. In those cases, the analysis would show net negative benefits for the project, and positive benefits for letting the marsh degrade rather than maintaining the existing marsh. Coupling that situation with the presumption that marsh conditions are not static, and that Louisiana will continue to lose coastal emergent marsh; and taking into account the purpose of the CWPPRA, the EnvWG decided that, all other factors being equal, the models should favor projects that maximize emergent marsh creation, maintenance, and protection. Therefore, the EnvWG agreed to deviate from a strictly biologically-based habitat suitability index graph for V<sub>1</sub> and established optimal habitat conditions at 100 percent marsh cover.

**Variable V<sub>2</sub> - Percent of open water area covered by aquatic vegetation.** Fresh and intermediate marshes often support diverse communities of floating-leaved and submerged aquatic plants that provide important food and cover to a wide variety of fish and wildlife species. A fresh/intermediate open water area with no aquatics is assumed to have low suitability (SI=0.1). Optimal conditions (SI=1.0) are assumed to occur when 100 percent of the open water is dominated by aquatic vegetation. Habitat suitability may be assumed to decrease with aquatic plant coverage approaching 100 percent due to the potential for mats of aquatic vegetation to hinder fish and wildlife utilization; to adversely affect water quality by reducing photosynthesis by phytoplankton and other plant forms due to shading; and contribute to oxygen depletion spurred by warm-season decay of large quantities of aquatic vegetation. The EnvWG recognized, however, that those effects were highly dependent on the dominant aquatic plant species, their growth forms, and their arrangement in the water column; thus, it is possible to have 100 percent cover of a variety of floating and submerged aquatic plants without the above-mentioned problems due to differences in plant growth form and stratification of plants through the water column. Because predictions of which species may dominate at any time in the future would be tenuous, at best, the EnvWG decided to simplify the graph and define optimal conditions at 100 percent aquatic cover.

Brackish marshes also have the potential to support aquatic plants that serve as important sources of food and cover for several species of fish and wildlife. Although brackish marshes generally do not support the amounts and kinds of aquatic plants that

occur in fresh/intermediate marshes, certain species, such as widgeon-grass, and coontail and milfoil in lower salinity brackish marshes, can occur abundantly under certain conditions. Those species, particularly widgeon-grass, provide important food and cover for many species of fish and wildlife. Therefore, the V<sub>2</sub> Suitability Index graph in the brackish marsh model is identical to that in the fresh/intermediate model.

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

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

A relatively high degree of interspersion in the form of stream courses and tidal channels (Interspersation Class 1) is assumed to be optimal (SI=1.0); streams and channels offer interspersion, yet are not indicative of active marsh deterioration. Areas exhibiting a high degree of marsh cover are also ranked as optimal, even though interspersion may be low, to avoid conflicts with the premises underlying the SI graph for variable 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 (Interspersation Class 2) offer a high degree of interspersion, but are also usually indicative of the beginnings of marsh break-up and degradation, and are therefore assigned a more moderate SI of 0.6. Large open water areas (Interspersation Classes 3 and 4) offer lower interspersion values and usually indicate advanced stages of marsh loss, and are thus assigned SI's of 0.4 and 0.2, respectively. The lowest expression of interspersion, Class 5 (i.e., no emergent marsh at all within the project area), is assumed to be least desirable and is assigned an SI=0.1.

**Variable 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. Optimal open water conditions in a fresh/intermediate marsh are assumed to occur when 80 to 90 percent of the open water area is less than or equal to 1.5

feet deep. The value of deeper areas in providing drought refugia for fish, alligators and other marsh life is recognized by assigning an SI=0.6 (i.e., sub-optimal) if all of the open water is less than or equal to 1.5 feet deep.

Shallow water areas in brackish marsh habitat are also important. However, brackish marsh generally exhibits deeper open water areas than fresh marsh due to tidal scouring. Therefore, the SI graph is constructed so that lower percentages of shallow water receive higher SI values relative to fresh/intermediate marsh. Optimal open water conditions in a brackish marsh are assumed to occur when 70 to 80 percent of the open water area is less than or equal to 1.5 feet deep.

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

**Variable V<sub>5</sub>- Salinity.** It is assumed that periods of high salinity are most detrimental in a fresh/intermediate marsh when they occur during the growing season (defined as March through November, based on dates of first and last frost contained in Natural Resource Conservation Service soil surveys for coastal Louisiana). Therefore, mean high salinity is used as the salinity parameter for the fresh/intermediate marsh model. Mean high salinity is defined as the average of the upper 33 percent of salinity readings taken during a specified period of record. Optimal conditions in fresh marsh are assumed to occur when mean high salinity during the growing season is less than 2 parts per thousand (ppt). Optimal conditions in intermediate marsh are assumed to occur when mean high salinity during the growing season is less than 4 ppt.

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

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

**Variable 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 of a given marsh system. Additionally, a marsh with a relatively high degree of access by default also exhibits a relatively high degree of hydrologic connectivity with adjacent systems, and therefore may be considered to contribute more to nutrient exchange than would a marsh exhibiting a lesser degree of access. The SI for 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 aquatic organisms during normal tidal fluctuations, and the type of man-made structures (if any) across identified points of ingress/egress (bayous, canals, etc.). Standardized procedures for calculating the Access Value have been established (Appendix B). It should be noted that access ratings for man-made structures were determined by consensus among EnvWG members and that scientific research has not been conducted to determine the actual access value for each of those structures. Optimal conditions are assumed to exist when all of the study area is accessible and the access points are entirely open and unobstructed.

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

## **HABITAT SUITABILITY INDEX FORMULAS**

In developing the HSI formulas, the EnvWG recognized that the primary focus of the CWPPRA is on vegetated wetlands, and that some marsh protection strategies could have adverse impacts to aquatic organism access. Therefore, the EnvWG made an *a priori* decision to emphasize variables V<sub>1</sub>, V<sub>2</sub>, and V<sub>6</sub> 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<sub>3</sub>, V<sub>4</sub>, and V<sub>5</sub> were grouped to isolate their influence relative to V<sub>1</sub>, V<sub>2</sub>, and V<sub>6</sub>.

For all marsh models, V<sub>1</sub> receives the strongest weighting. The relative weights of V<sub>1</sub>, V<sub>2</sub>, and V<sub>6</sub> differ by marsh model to reflect differing levels of importance for those variables between the marsh types. For example, the amount of aquatic vegetation was deemed more important in a fresh/intermediate marsh than in a saline marsh, due to the relative contributions of aquatic vegetation between the two marsh types in terms of providing food and cover. Therefore, V<sub>2</sub> receives more weight in the fresh/intermediate HSI formula than in the saline HSI formula. Similarly, the degree of aquatic organism access was considered more important in a saline marsh than a fresh/intermediate marsh,

and V<sub>6</sub> receives more weight in the saline HSI formula than in the fresh/intermediate formula. As with the Suitability Index graphs, the Habitat Suitability Index formulas were developed by consensus among the EnvWG members.

For several years, 1991 through 1996, the EnvWG utilized one HSI formula specific to each marsh type. However, it was noted that variables V<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 optimal (i.e., SI = 1.0) and open water comprised a very small portion of the project area. For example, Project Area A contains 90 percent emergent marsh and 10 percent open water. Project Area B contains 10 percent emergent marsh and 90 percent open water. Assume the open water in each project area is completely covered by submerged aquatic vegetation and is entirely less than 1.5 feet in depth. Under those conditions, the Suitability Index values for V<sub>2</sub> and V<sub>4</sub> would equal 1.0 for both project areas even though open water only accounts for 10 percent of Project Area A. The EnvWG has commonly referred to this as a “scaling” problem; the Suitability Index values for V<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 EnvWG acknowledged that the scaling problem presented a flaw in the WVA methodology resulting in unrealistic HSI values for certain project areas and eventually resulting in inflated wetland benefits for those projects. During 1996 and 1997, Dr. Gary Shaffer assisted the EnvWG in developing potential solutions to the scaling problem. After several unsuccessful attempts to develop a single HSI formula for each marsh type which scaled the Suitability Index values for V<sub>2</sub> and V<sub>4</sub> based on the ratio of emergent marsh to open water, the EnvWG decided to develop a “split” model for each marsh type. The split model utilizes two HSI formulas for each marsh type; one HSI formula characterizes the emergent habitat within the project area and another HSI formula characterizes the open water habitat. The HSI formula for the emergent habitat contains only those variables important in assessing habitat quality for emergent marsh (i.e., V<sub>1</sub>, V<sub>3</sub>, V<sub>5</sub>, and V<sub>6</sub>). Likewise, the open water HSI formula contains only those variables important in characterizing the open water habitat (i.e., V<sub>2</sub>, V<sub>3</sub>, V<sub>4</sub>, V<sub>5</sub>, and V<sub>6</sub>). Individual HSI formulas were developed for emergent marsh and open water habitats for each marsh type.

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

## **BENEFIT ASSESSMENT**

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

The primary focus of the CWPPRA is on vegetated wetlands. Therefore, in order to place greater emphasis on wetland benefits to emergent marsh, a weighted average of the net benefits (net AAHUs) for emergent marsh and open water is calculated with the



emergent marsh AAHUs weighted proportionately higher than the open water AAHUs. The weighted formulas to determine net AAHUs for each marsh type are shown below:

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

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

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

## FRESH/INTERMEDIATE MARSH

### Vegetation:

Variable V<sub>1</sub> Percent of wetland area covered by emergent vegetation.

Variable V<sub>2</sub> Percent of open water area covered by aquatic vegetation.

### Interspersion:

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

### Water Depth:

Variable V<sub>4</sub> Percent of open water area  $\square \leq 1.5$  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:

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

### HSI Calculations:

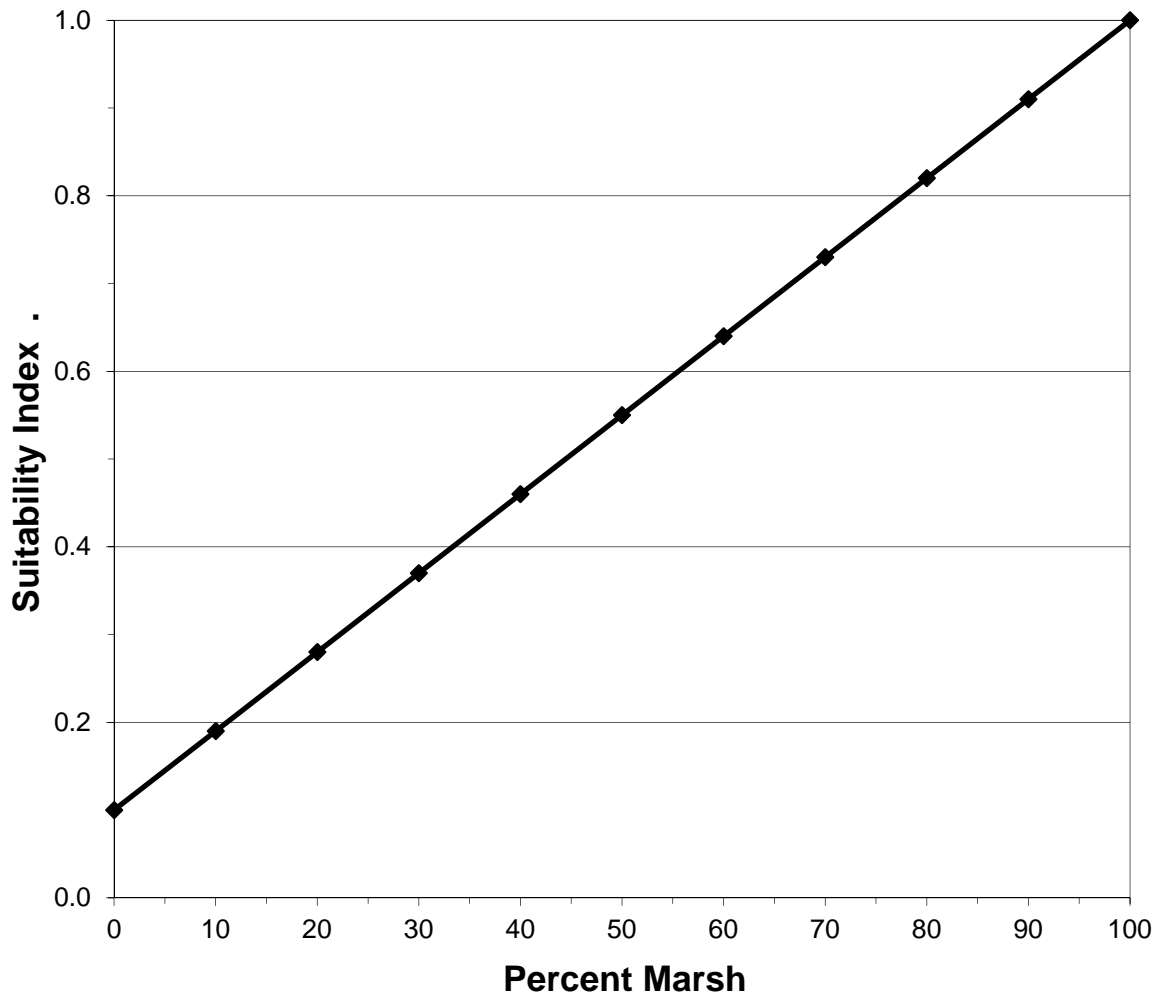
$$\text{Marsh HSI} = \left[ \{ 3.5 \times (SIV_1^5 \times SIV_6)^{(1/6)} \} + (SIV_3 + SIV_5)/2 \right] / 4.5$$

$$\text{Open Water HSI} = \left[ \{ 3.5 \times (SIV_2^3 \times SIV_6)^{(1/4)} \} + (SIV_3 + SIV_4 + SIV_5)/3 \right] / 4.5$$

## FRESH/INTERMEDIATE MARSH

**Variable V<sub>1</sub>** Percent of wetland area covered by emergent vegetation.

### Suitability Graph



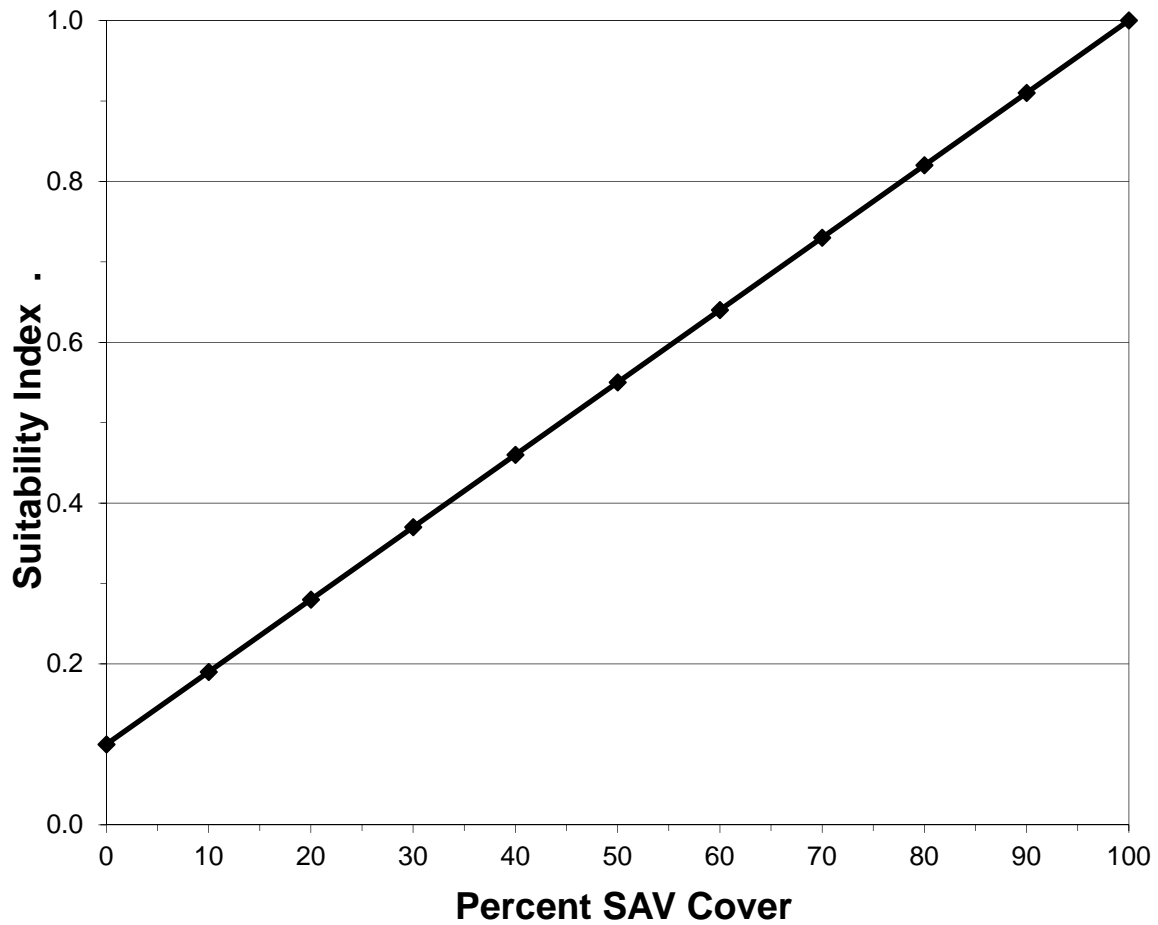
### Line Formula

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

## FRESH/INTERMEDIATE MARSH

**Variable V<sub>2</sub>** Percent of open water area covered by aquatic vegetation.

### Suitability Graph



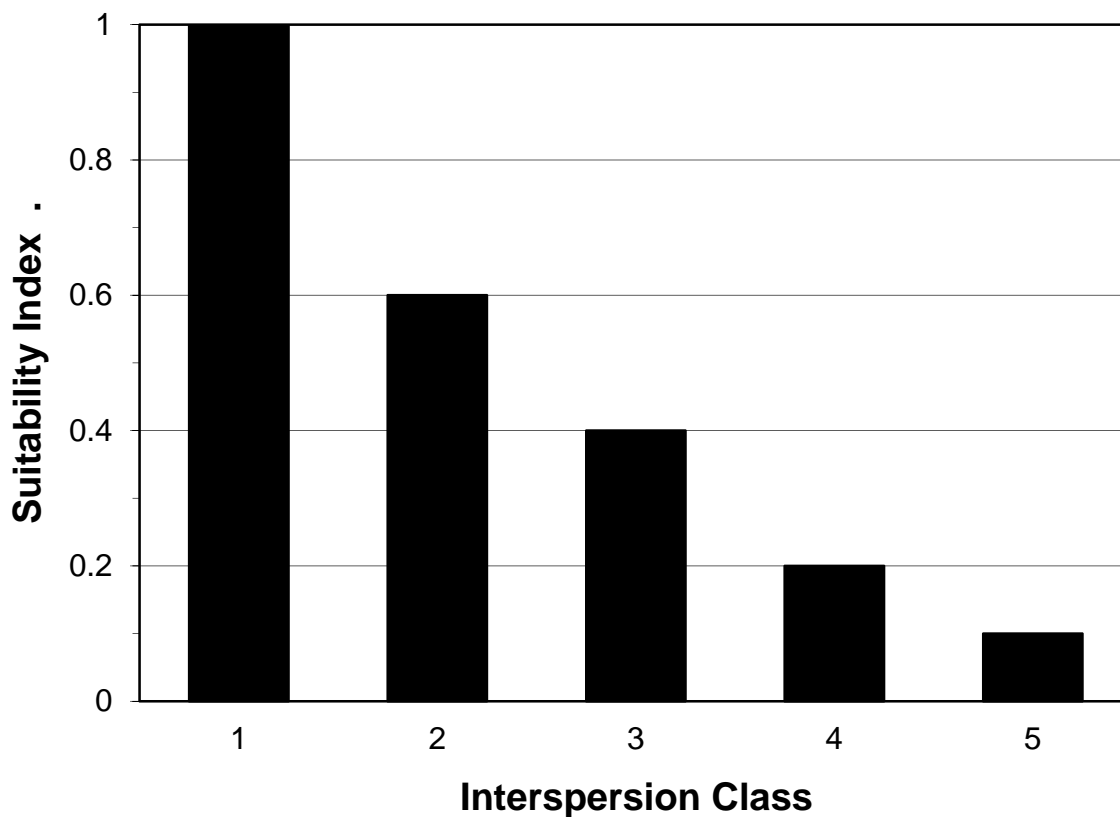
#### Line Formula

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

## FRESH/INTERMEDIATE MARSH

**Variable V<sub>3</sub>** Marsh edge and interspersions.

### Suitability Graph



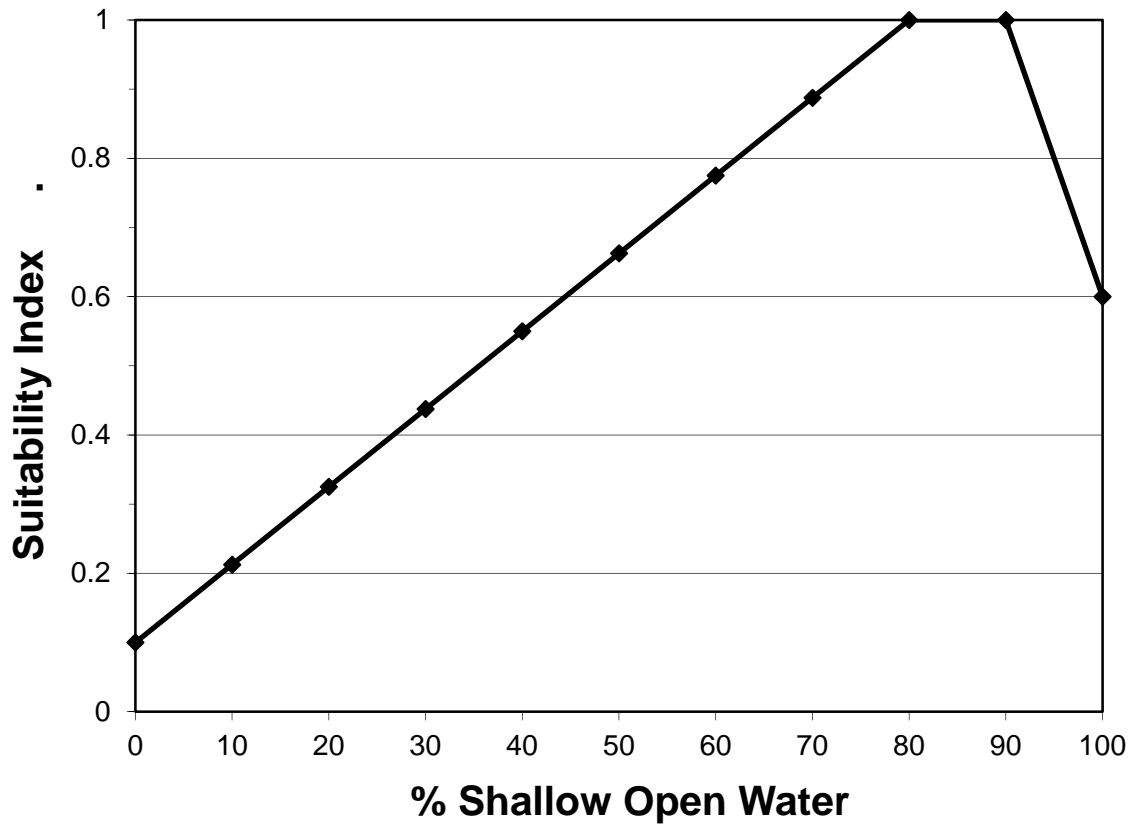
#### Instructions for Calculating the SI for Variable V<sub>3</sub>:

1. Refer to Appendix A for examples of the different interspersion classes.
2. Estimate percent of project area in each class.

## FRESH/INTERMEDIATE MARSH

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

### Suitability Graph



#### Line Formulas

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

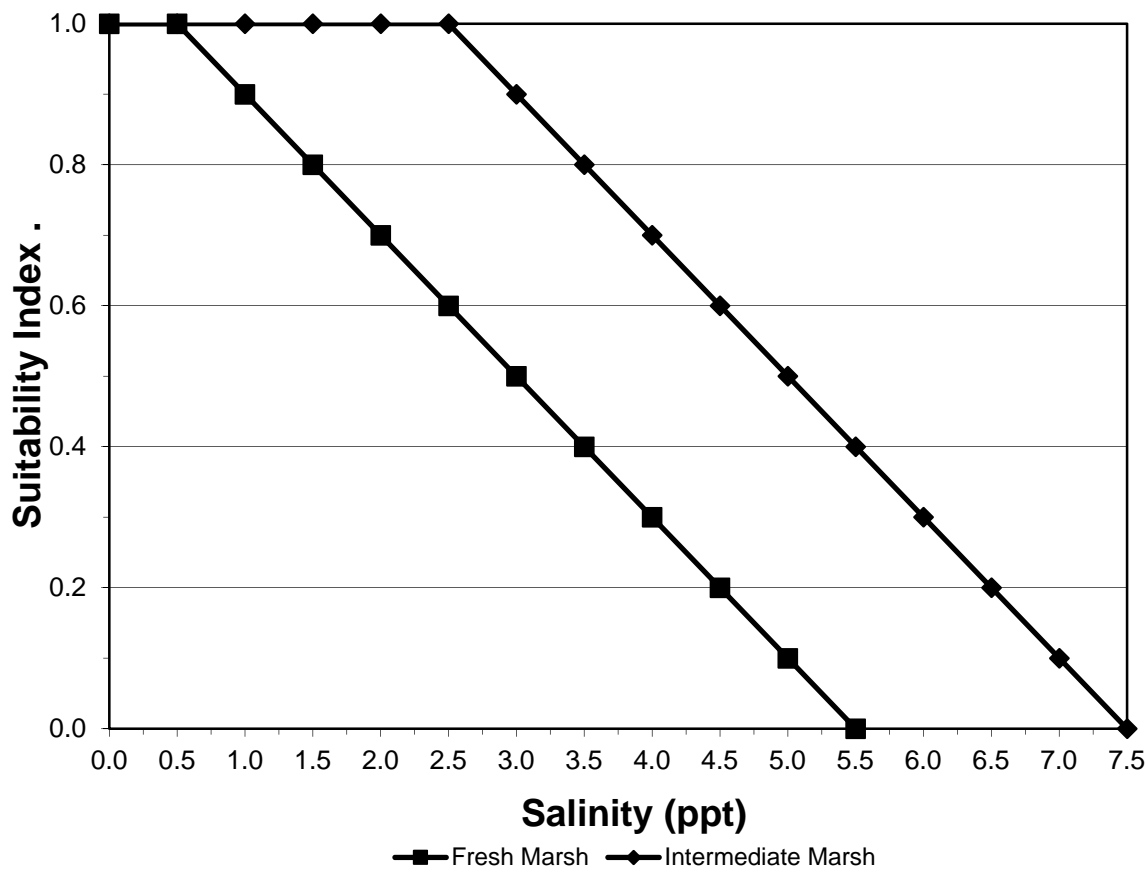
If  $80 \leq \% \leq 90$ , then  $SI = 1.0$

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

## FRESH/INTERMEDIATE MARSH

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

### Suitability Graph



### Line Formulas

#### Fresh Marsh:

If  $0 < \text{ppt} \leq 0.5$ , then  $\text{SI} = 1.0$

If  $\text{ppt} > 0.5$ , then  $\text{SI} = (-0.20 * \text{ppt}) + 1.10$

#### Intermediate Marsh:

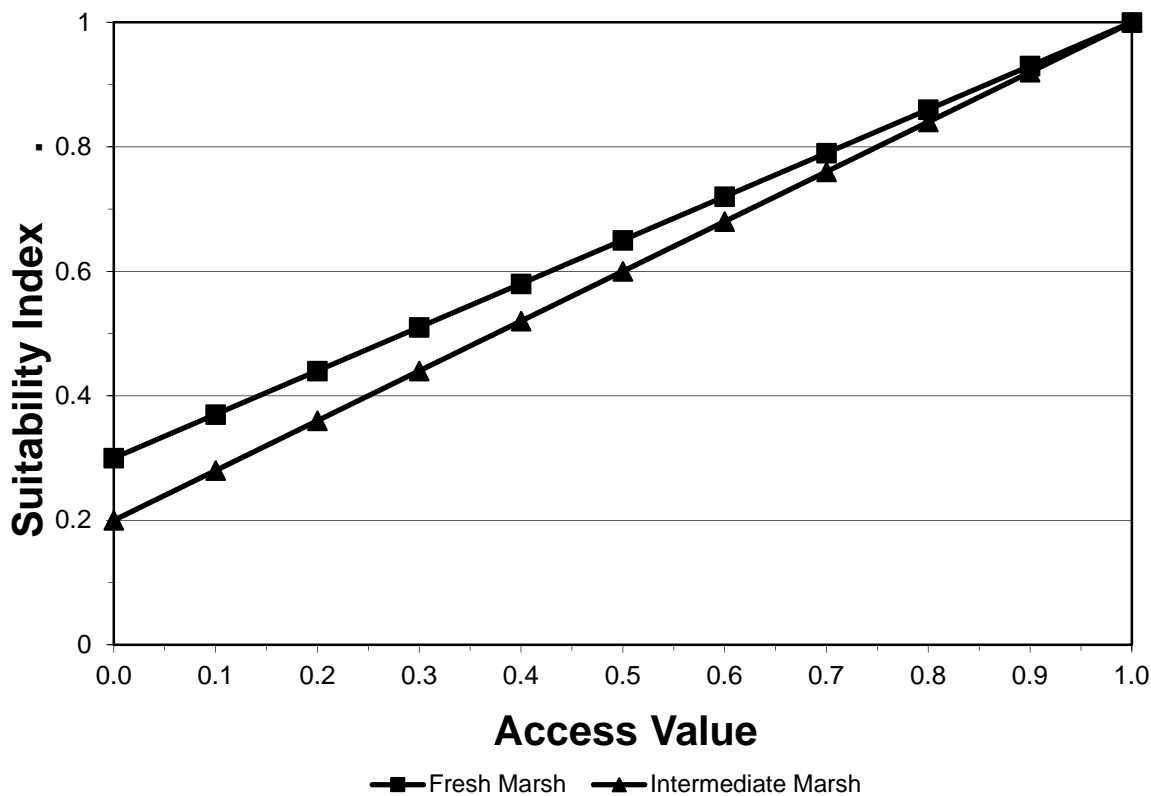
If  $0 < \text{ppt} \leq 2.5$ , then  $\text{SI} = 1.0$

If  $\text{ppt} > 2.5$ , then  $\text{SI} = (-0.20 * \text{ppt}) + 1.50$

## FRESH/INTERMEDIATE MARSH

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

### Suitability Graph



#### Line Formulas

##### Fresh Marsh:

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

##### Intermediate Marsh:

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

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

Refer to Appendix B "Procedure For Calculating Access Value" for complete information on calculating the Access Value.



## BRACKISH MARSH

### Vegetation:

Variable V<sub>1</sub> Percent of wetland area covered by emergent vegetation.

Variable V<sub>2</sub> Percent of open water area covered by aquatic vegetation.

### Interspersion:

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

### Water Depth:

Variable V<sub>4</sub> 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:

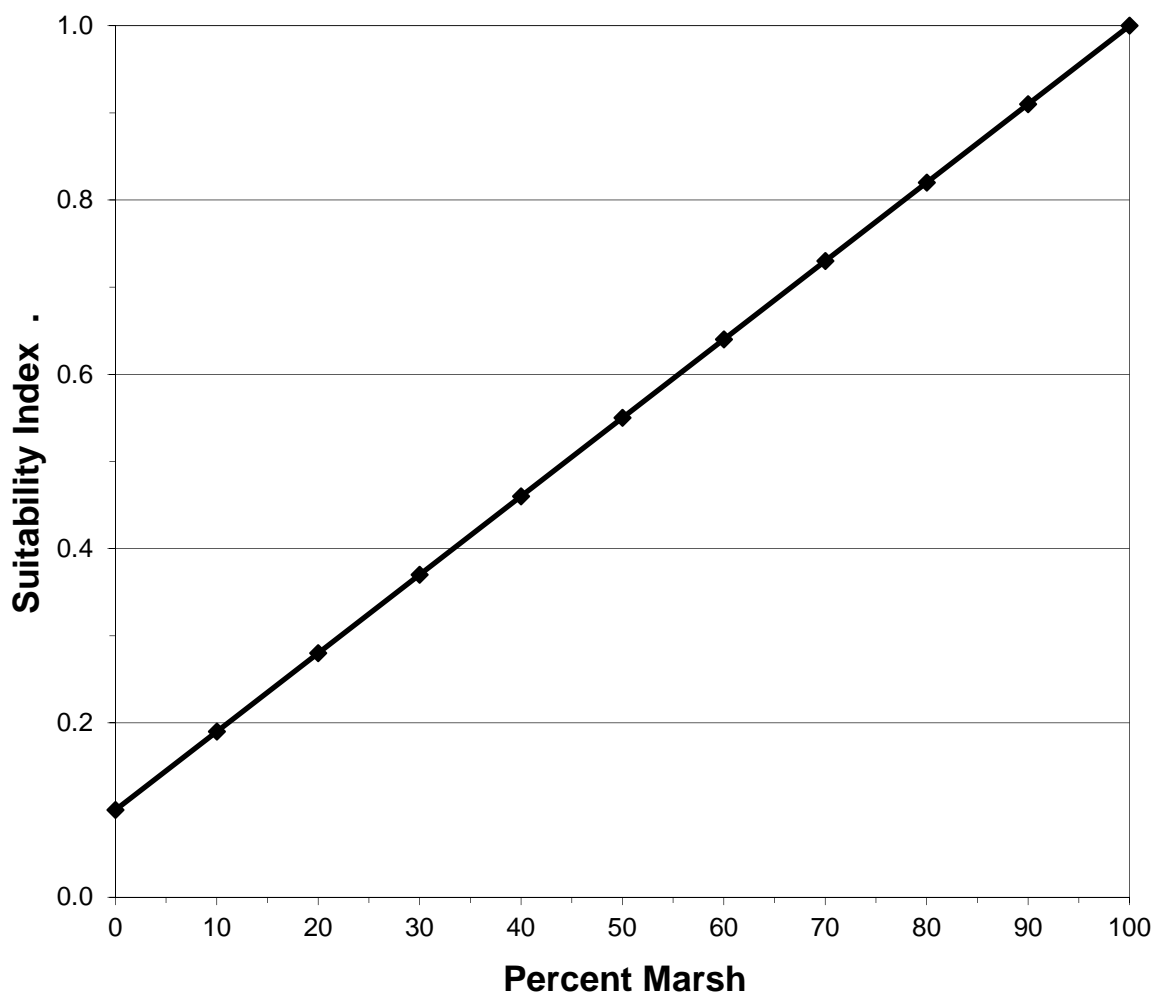
$$\text{Marsh HSI} = \left[ \{3.5 \times (SIV_1^5 \times SIV_6^{1.5})^{(1/6.5)}\} + (SIV_3 + SIV_5)/2 \right] / 4.5$$

$$\text{Open Water HSI} = \left[ \{3.5 \times (SIV_2^3 \times SIV_6^2)^{(1/5)}\} + (SIV_3 + SIV_4 + SIV_5)/3 \right] / 4.5$$

## BRACKISH MARSH

**Variable V<sub>1</sub>** Percent of wetland area covered by emergent vegetation.

### Suitability Graph



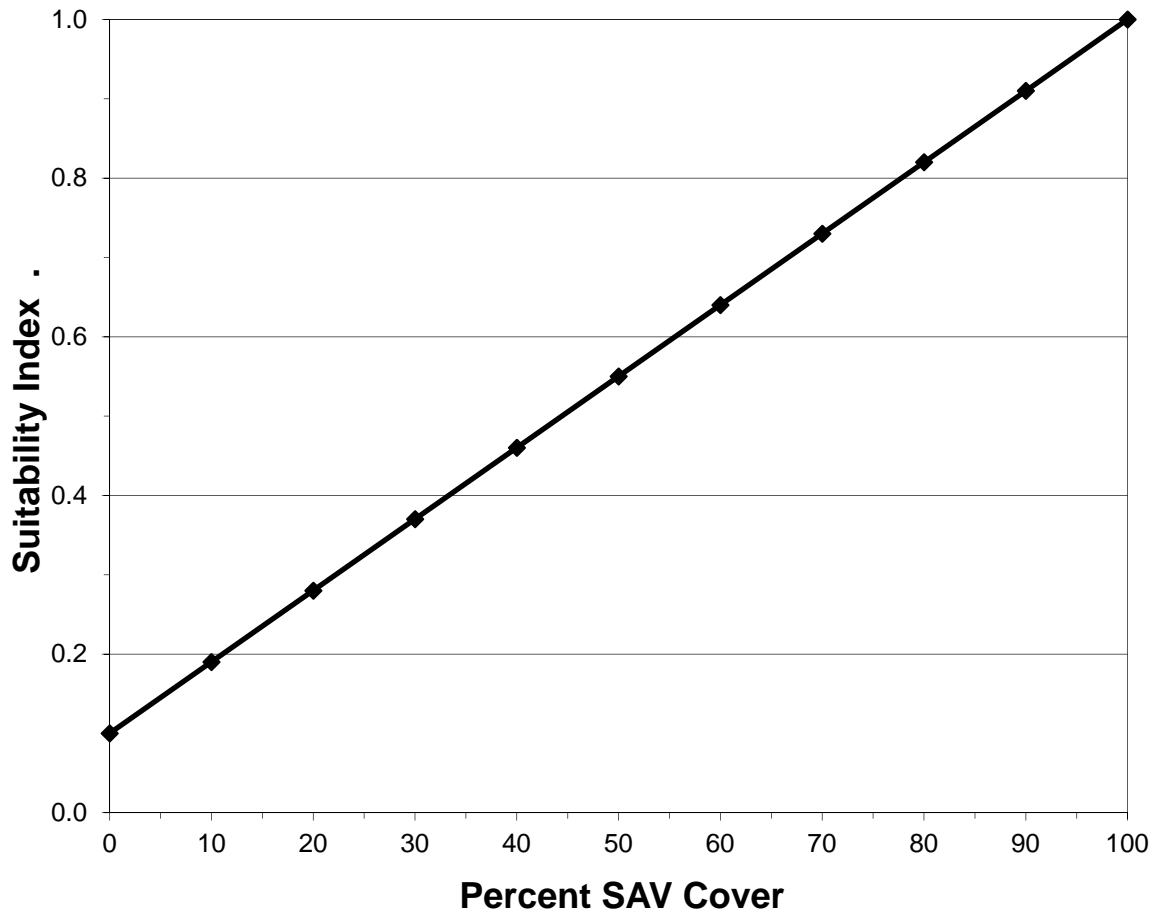
#### Line Formula

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

## BRACKISH MARSH

**Variable V<sub>2</sub>** Percent of open water area covered by aquatic vegetation.

### Suitability Graph



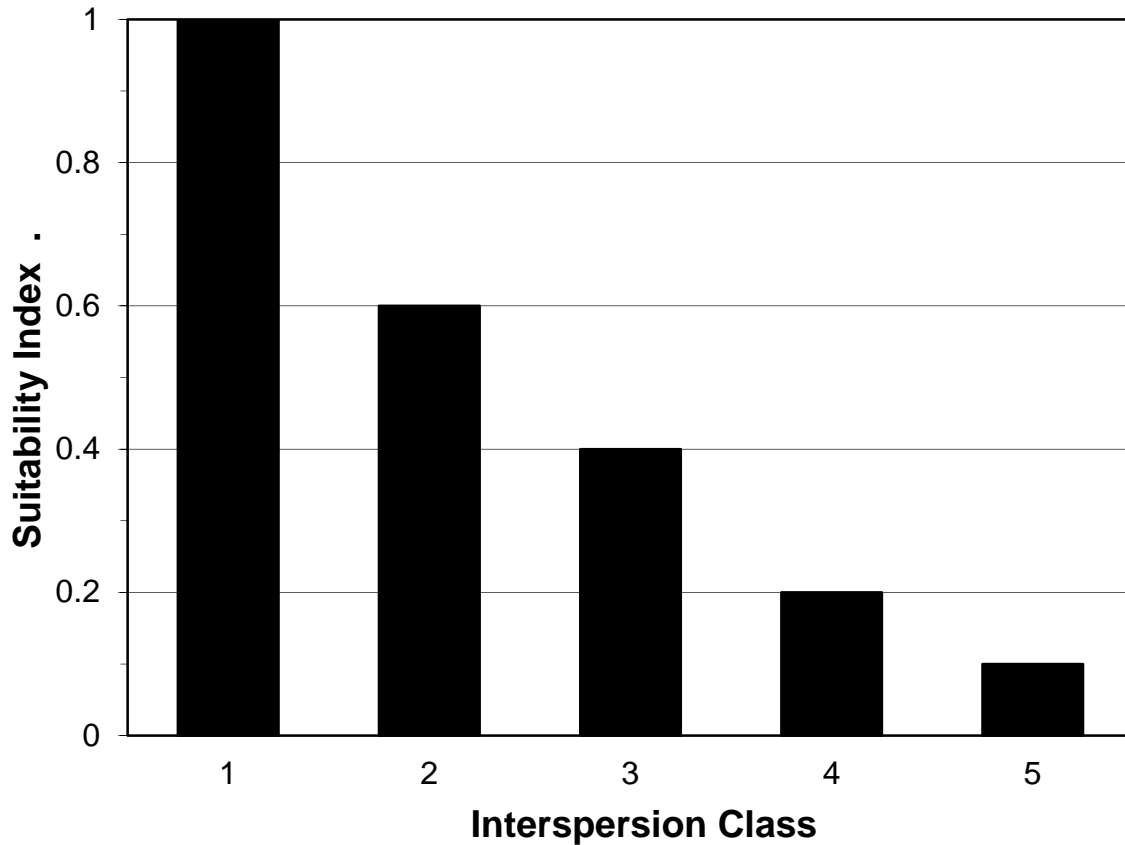
#### Line Formula

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

## BRACKISH MARSH

**Variable V<sub>3</sub>** Marsh edge and interspersions.

### Suitability Graph



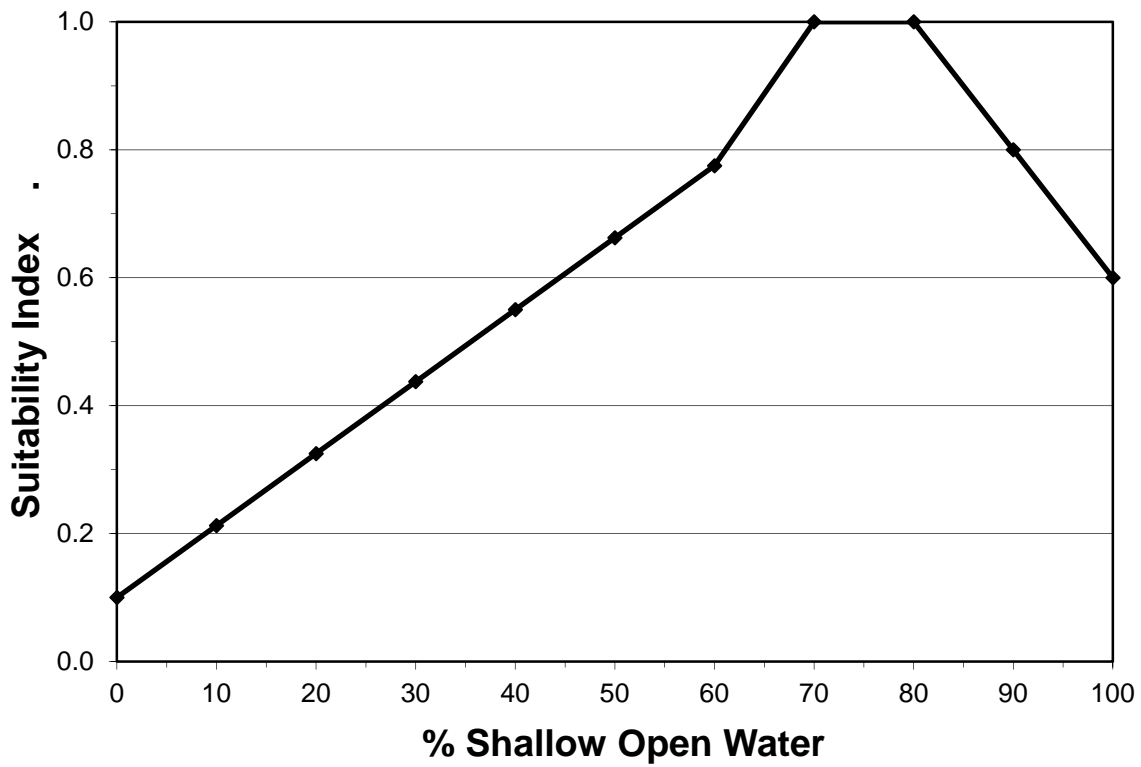
#### Instructions for Calculating SI for Variable V<sub>3</sub>:

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

## BRACKISH MARSH

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

### Suitability Graph



### Line Formulas

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

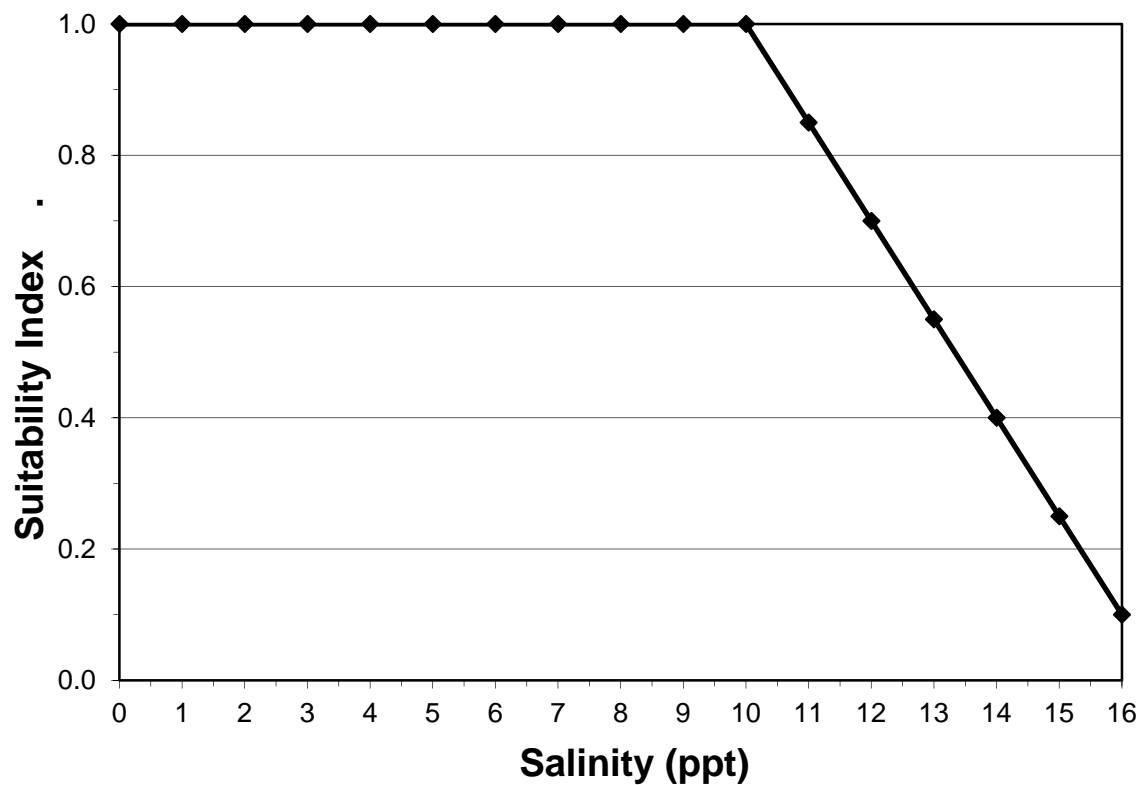
If  $70 \leq \% \leq 80$ , then  $SI = 1.0$

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

## BRACKISH MARSH

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

### Suitability Graph



### Line Formulas

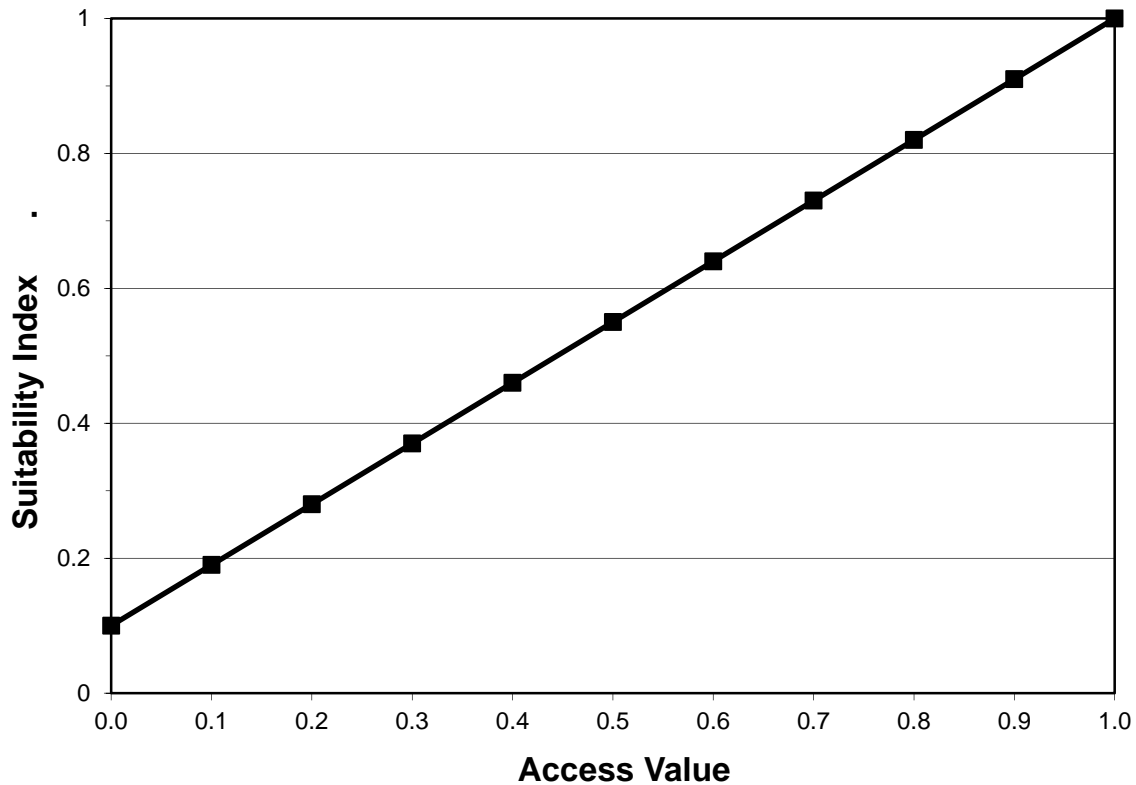
If  $0 \leq \text{ppt} \leq 10$ , then  $\text{SI} = 1.0$

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

## BRACKISH MARSH

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

### Suitability Graph



#### Line Formula

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

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

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

## SALINE MARSH

### Vegetation:

Variable V<sub>1</sub> Percent of wetland area covered by emergent vegetation.

Variable V<sub>2</sub> Percent of open water area covered by aquatic vegetation.

### Interspersion:

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

### Water Depth:

Variable V<sub>4</sub> Percent of open water area  $\square \leq 1.5$  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 Calculation:

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

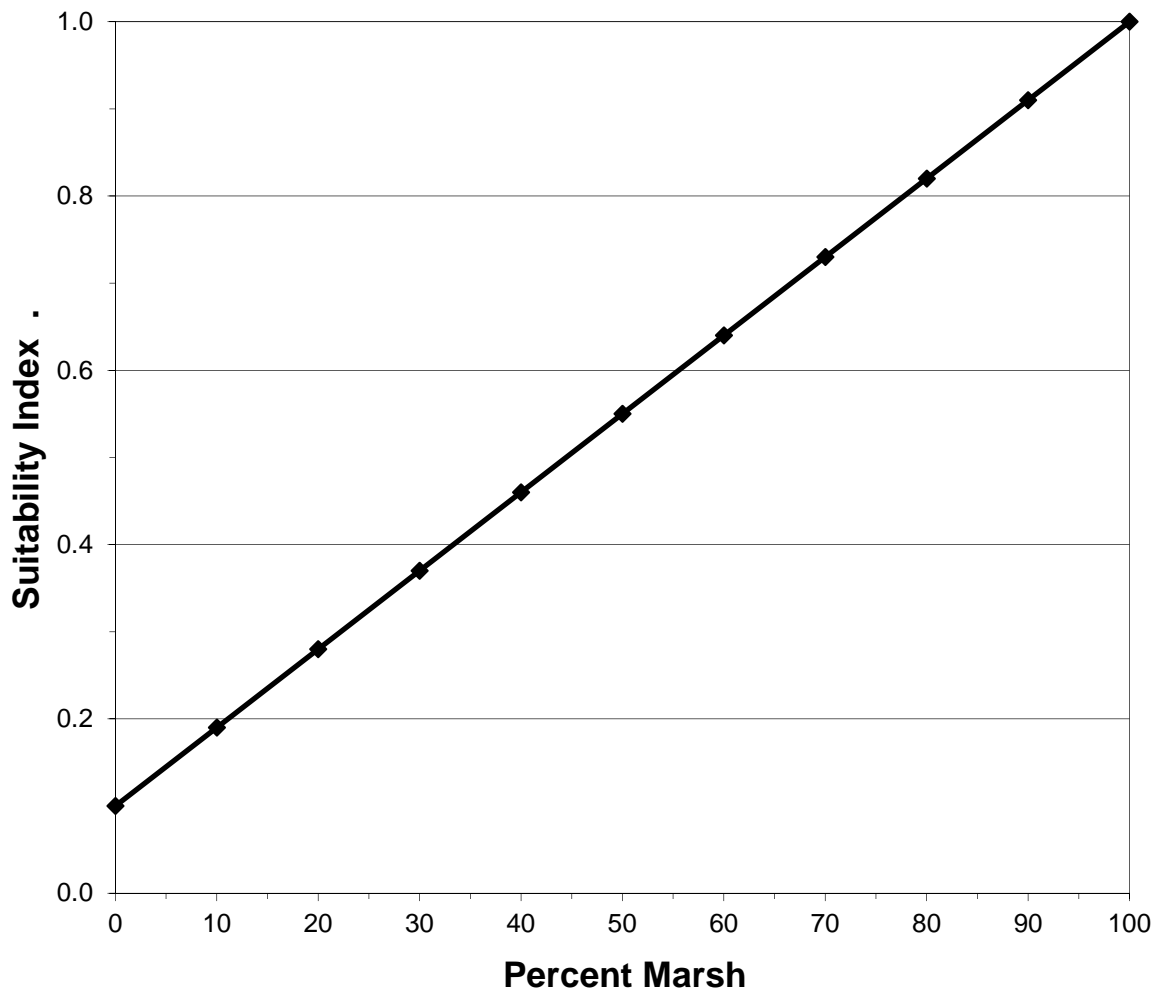
$$\text{Open Water HSI} = \left[ \{3.5 \times (SIV_2 \times SIV_6^{2.5})^{(1/3.5)}\} + (SIV_3 + SIV_4 + SIV_5)/3 \right] / 4.5$$



## SALINE MARSH

**Variable V<sub>1</sub>** Percent of wetland area covered by emergent vegetation.

### Suitability Graph



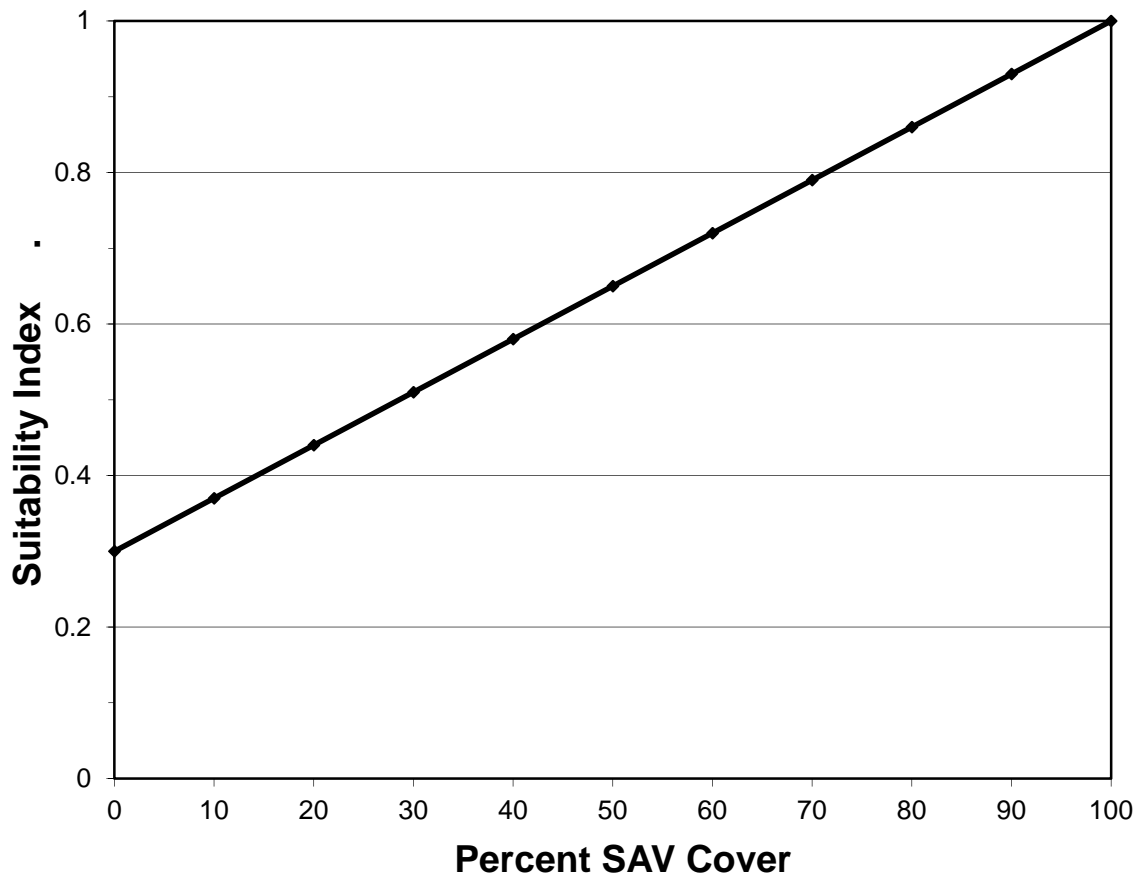
#### Line Formula

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

## SALINE MARSH

**Variable V<sub>2</sub>** Percent of open water area covered by aquatic vegetation.

### Suitability Graph



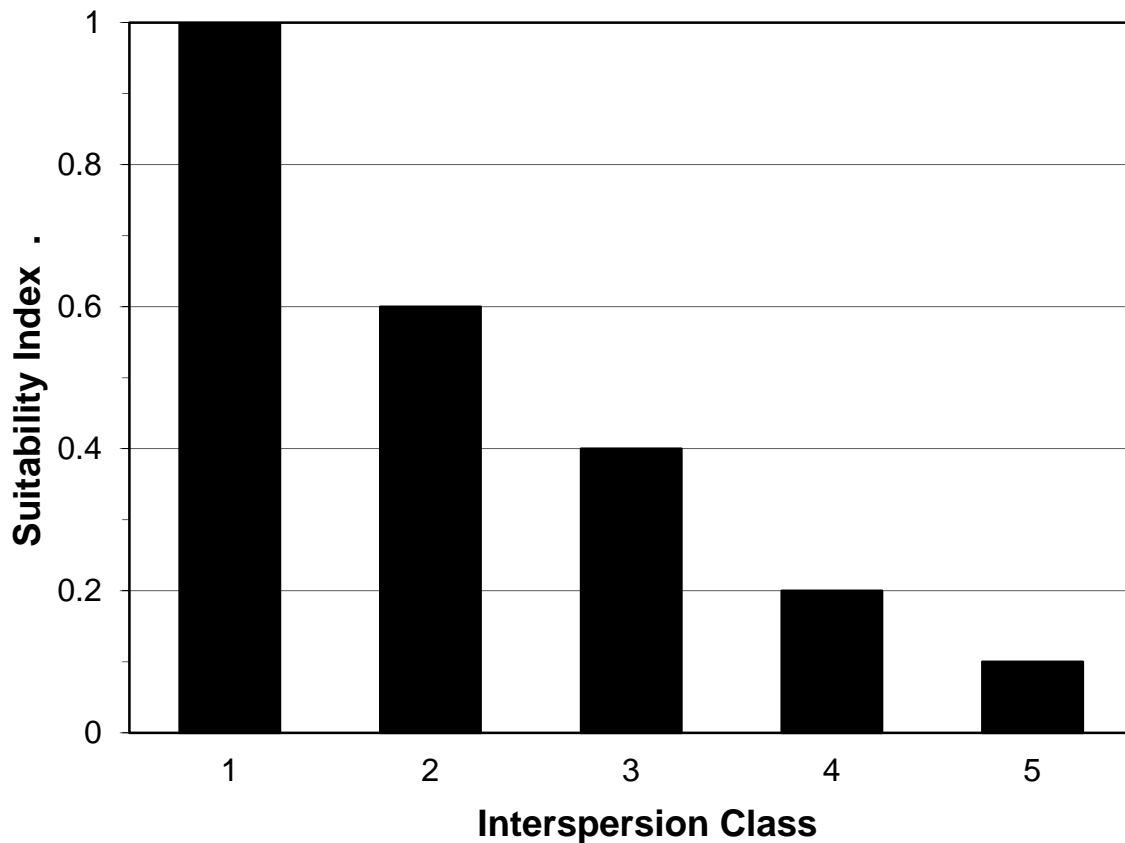
#### Line Formula

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

## SALINE MARSH

**Variable V<sub>3</sub>** Marsh edge and interspersions.

### Suitability Graph



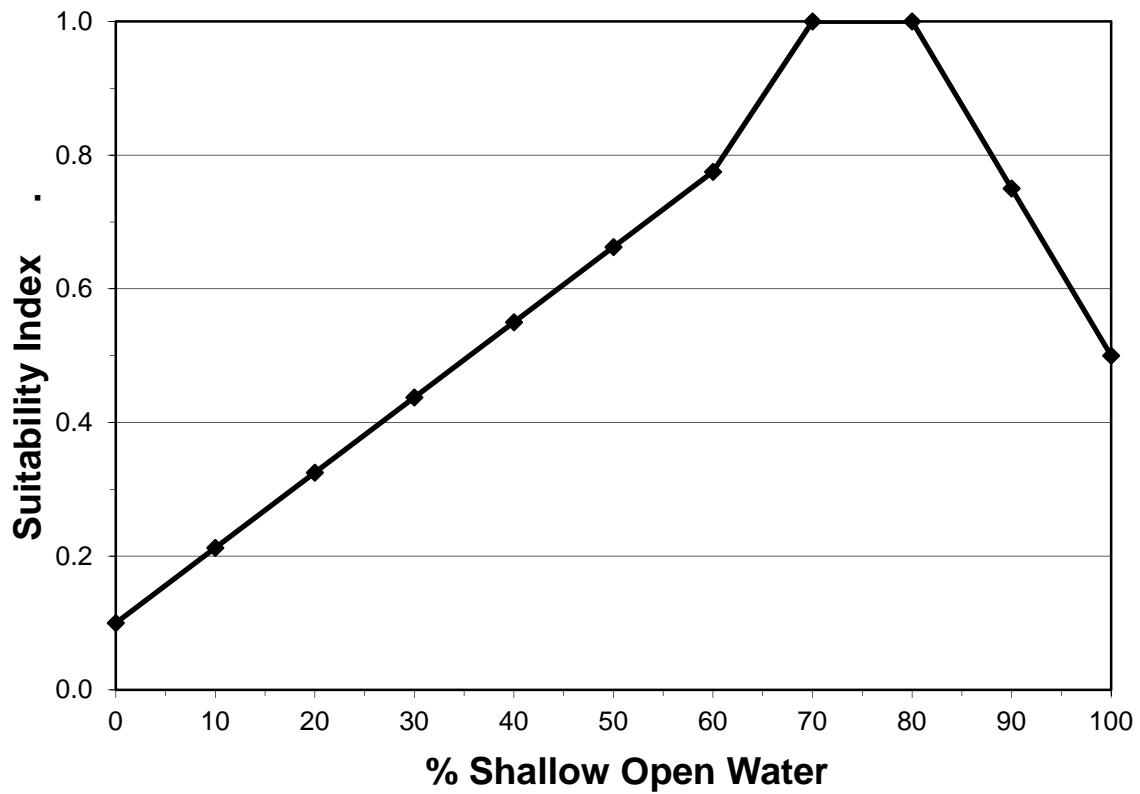
#### Instructions for Calculating SI for Variable V<sub>3</sub>:

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

## SALINE MARSH

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

### Suitability Graph



#### Line Formulas

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

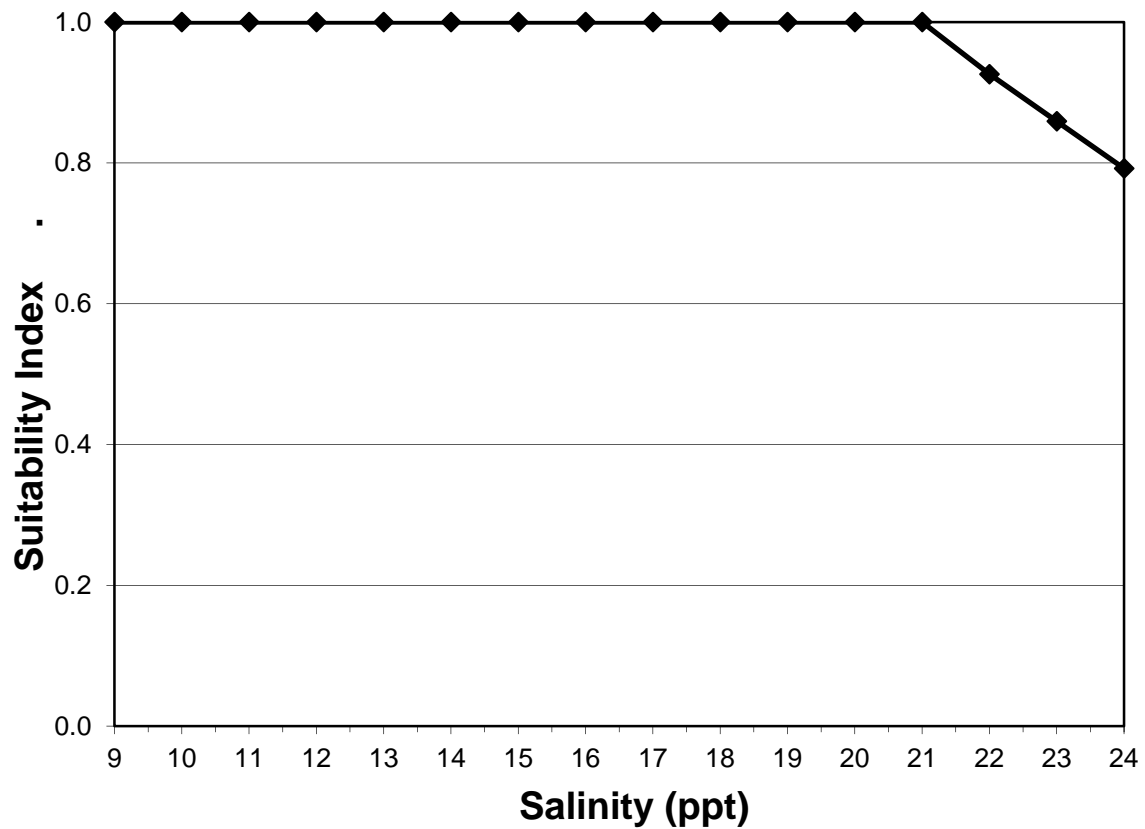
If  $70 \leq \% \leq 80$ , then  $SI = 1.0$

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

## SALINE MARSH

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

### Suitability Graph



#### Line Formulas

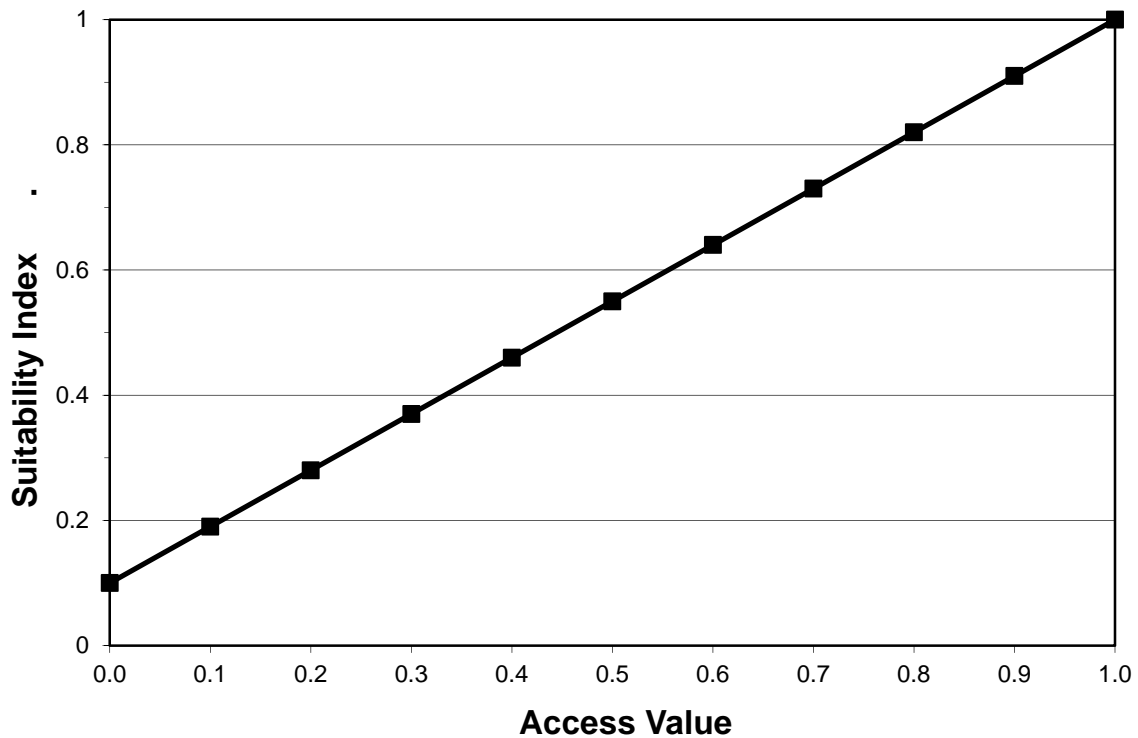
If  $9 \leq \text{ppt} \leq 21$ , then  $\text{SI} = 1.0$

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

## SALINE MARSH

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

### Suitability Graph



### Line Formula

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

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

Refer to Appendix B "Procedure For Calculating Access Value" for complete information on calculating the Access Value.

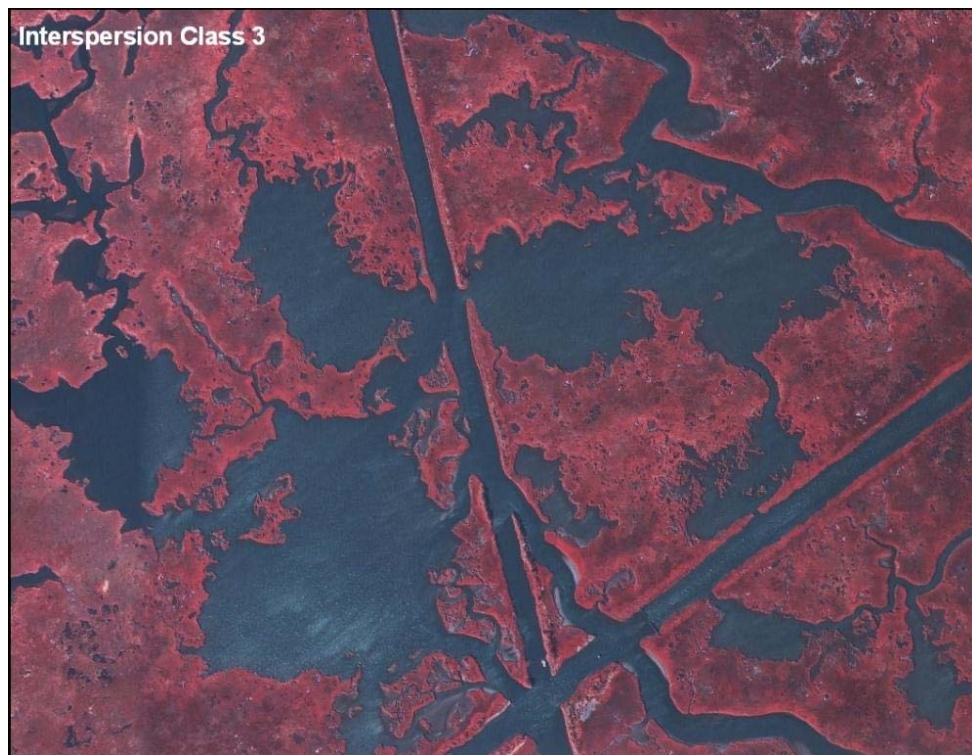
**ATTACHMENT B – EXAMPLES OF MARSH EDGE AND  
INTERSPERSION CLASSES**

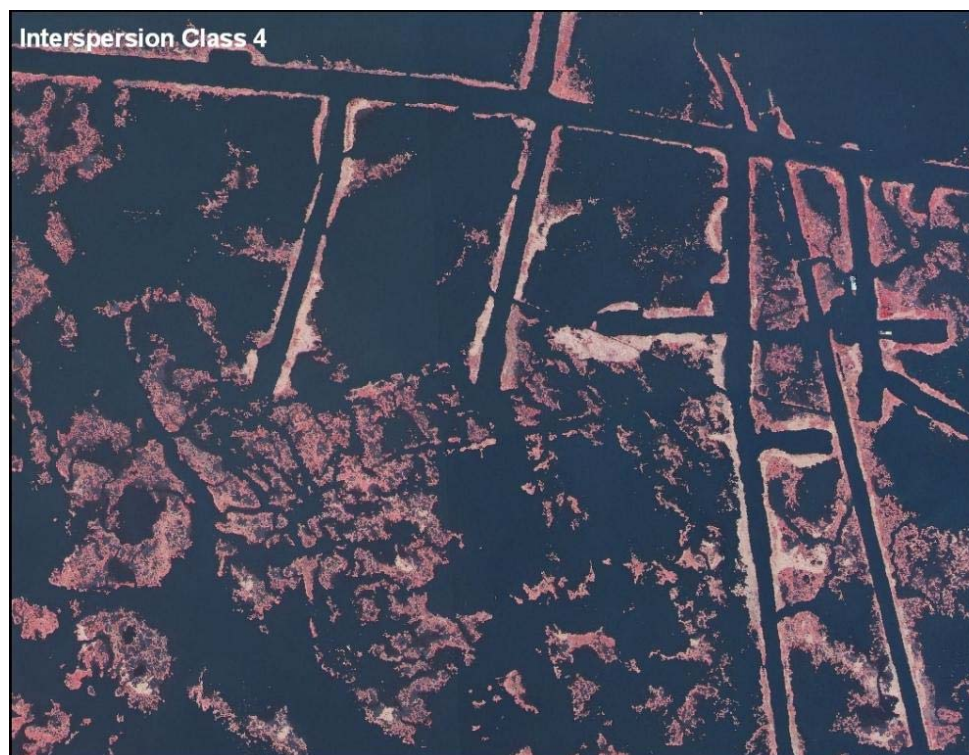




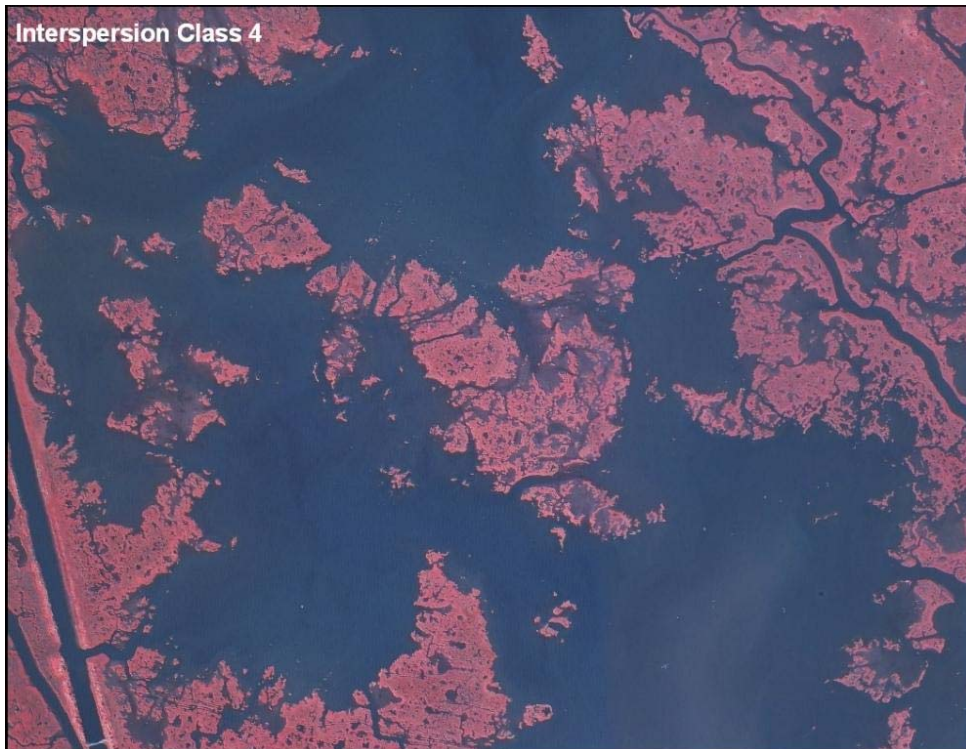


















## ATTACHMENT C - PROCEDURE FOR CALCULATING ACCESS VALUE

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

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

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

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

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

- a. One opening into area; no structure.

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

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

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

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

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

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

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

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

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

- e. Three openings into area, each capable of providing full access to the entire area independent of the others. Opening #3 is determined to be the major access

route relative to openings #1 and #2. Opening #1 is blocked with a solid plug. Opening #2 is fitted with a flap-gated culvert with slotted weir, and opening #3 is left open.

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

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

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

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

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

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

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

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

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



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

**22nd Priority Project List Report**

**Appendix C**

**Wetland Value Assessment for Candidate Projects**

**Appendix C**  
**Wetland Value Assessment for Candidate Projects**  
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# WETLAND VALUE ASSESSMENT

## Benefits Summary Sheet

**Project: Bayou Dupont Sediment Delivery- Marsh Creation 3**

### TOTAL BENEFITS IN AAHUs DUE TO PROJECT

<u>Area</u>	<u>AAHUs</u>
Fresh/Intermediate Marsh	165.96

<b>TOTAL BENEFITS =      166 AAHUS</b>
--

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Bayou Dupont Sediment Delivery-Marsh Creation 3**

Project Area:	415
% Fresh	0
% Intermediate	100

Condition: Future Without Project

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	3	0.13	3	0.13	3	0.13
V2	% Aquatic	30	0.37	30	0.37	30	0.37
V3	Interspersion	%		%		%	
	Class 1	0	0.10	0	0.10	0	0.10
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	0		0		0	
	Class 5	100		100		100	
V4	%OW <= 1.5ft	12	0.24	12	0.24	10	0.21
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	1.5		1.5		1.5	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.0000		1.0000		1.0000	
<b>Emergent Marsh HSI =</b>			<b>0.26</b>	<b>EM HSI =</b>	<b>0.26</b>	<b>EM HSI =</b>	<b>0.26</b>
<b>Open Water HSI =</b>			<b>0.47</b>	<b>OW HSI =</b>	<b>0.47</b>	<b>OW HSI =</b>	<b>0.47</b>

Project: **Bayou Dupont Sediment Delivery-Marsh Creation 3**

FWOP

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

Project: **Bayou Dupont Sediment Delivery-Marsh Creation 3**

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Fresh/Intermediate Marsh

Project: **Bayou Dupont Sediment Delivery-Marsh Creation 3**

Condition: Future With Project

Project Area:	415
% Fresh	0
% Intermediate	100

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	3	0.13	14	0.23	56	0.60
V2	% Aquatic	30	0.37	0	0.10	50	0.55
V3	Interspersion	%		%		%	
	Class 1	0	0.10	0	0.10	0	0.40
	Class 2	0		0		0	
	Class 3	0		0		100	
	Class 4	0		0		0	
	Class 5	100		100		0	
V4	%OW <= 1.5ft	12	0.24	100	0.60	100	0.60
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	1.5		1.5		1.5	
V6	Access Value						
	fresh		1.00		0.20		1.00
	intermediate	1.0000		0.0025		1.0000	
		Emergent Marsh HSI =	0.26	EM HSI =	0.29	EM HSI =	0.67
		Open Water HSI =	0.47	OW HSI =	0.22	OW HSI =	0.64



Project: **Bayou Dupont Sediment Delivery-Marsh Creation 3**

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	99	0.99	95	0.96		
V2	% Aquatic	60	0.64	60	0.64		
V3	Interspersion	%		%		%	
	Class 1	100	1.00	100	1.00		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	90	1.00	90	1.00		
V5	Salinity (ppt)						
	fresh		1.00		1.00		
	intermediate	1.5		1.5			
V6	Access Value						
	fresh		1.00		1.00		
	intermediate	1.0000		1.0000			
EM HSI =		0.99		EM HSI =	0.97	EM HSI =	
OW HSI =		0.78		OW HSI =	0.78	OW HSI =	

Project: **Bayou Dupont Sediment Delivery-Marsh Creation 3**

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Bayou Dupont Sediment Delivery-Marsh Creation 3

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	13	0.26	3.40	
1	13	0.26	3.40	3.40
20	12	0.26	3.14	62.12
Max= 20			AAHUs =	3.28

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	13	0.26	3.40	
1	77	0.29	22.70	12.69
3	232	0.67	154.63	158.12
5	410	0.99	407.61	542.80
20	395	0.97	383.44	5931.93
Max= 20			AAHUs	332.28

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		332.28
B. Future Without Project Emergent Marsh AAHUs	=		3.28
Net Change (FWP - FWOP) =			329.00

## AAHU CALCULATION - OPEN WATER

Project: Bayou Dupont Sediment Delivery-Marsh Creation 3

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	402	0.47	188.08	
1	402	0.47	188.08	188.08
20	403	0.47	187.88	3571.68
Max= 20			AAHUs =	187.99

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	402	0.47	188.08	
1	1	0.22	0.22	77.50
3	3	0.64	1.93	1.87
5	5	0.78	3.89	5.74
20	20	0.78	15.58	146.02
Max= 20			AAHUs	11.56

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	11.56
B. Future Without Project Open Water AAHUs	=	187.99
Net Change (FWP - FWOP)	=	-176.43

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	329.00
B. Open Water Habitat Net AAHUs	=	-176.43
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	165.96

# WETLAND VALUE ASSESSMENT

## Benefits Summary Sheet

**Project: Cameron Meadows Marsh Creation and Terracing**

### TOTAL BENEFITS IN AAHUs DUE TO PROJECT

<u>Area</u>	<u>AAHUs</u>
Marsh Creation- Brackish Marsh	102.67
<u>Area</u>	<u>AAHUs</u>
Terraces- Brackish Marsh	2.98

<b>TOTAL BENEFITS =      106 AAHUS</b>
--

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Brackish Marsh

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area: **334**

**Marsh Creation**

Condition: Future Without Project

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	21	0.29	21	0.29	17	0.25
V2	% Aquatic	70	0.73	70	0.73	70	0.73
V3	Interspersion	%		%		%	
	Class 1	0	0.17	0	0.17	0	0.13
	Class 2	0		0		0	
	Class 3	20		20		0	
	Class 4	10		10		30	
	Class 5	70		70		70	
V4	%OW <= 1.5ft	33	0.52	33	0.52	30	0.49
V5	Salinity (ppt)	7.4	1.00	7.4	1.00	7.4	1.00
V6	Access Value	0.2500	0.33	0.2500	0.33	0.2500	0.33
<b>Emergent Marsh HSI =</b>		<b>0.36</b>		<b>EM HSI =</b>	<b>0.36</b>	<b>EM HSI =</b>	<b>0.33</b>
<b>Open Water HSI =</b>		<b>0.54</b>		<b>OW HSI =</b>	<b>0.54</b>	<b>OW HSI =</b>	<b>0.53</b>

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area: **334**

FWOP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
	Class 5						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
V6	Access Value						
<b>EM HSI =</b>				<b>EM HSI =</b>		<b>EM HSI =</b>	
<b>OW HSI =</b>				<b>OW HSI =</b>		<b>OW HSI =</b>	

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area: 334

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Brackish Marsh

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area: 334

Marsh Creation

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	21	0.29	24	0.32	60	0.64
V2	% Aquatic	70	0.73	0	0.10	70	0.73
V3	Interspersion	%		%		%	
	Class 1	0	0.17	0	0.10	0	0.40
	Class 2	0		0		0	
	Class 3	20		0		100	
	Class 4	10		0		0	
	Class 5	70		100		0	
V4	%OW <= 1.5ft	33	0.52	100	0.60	100	0.60
V5	Salinity (ppt)	7.4	1.00	7.4	1.00	7.4	1.00
V6	Access Value	0.2500	0.33	0.0001	0.10	0.2500	0.33
		Emergent Marsh HSI =		EM HSI =		EM HSI =	
		Open Water HSI =		OW HSI =		OW HSI =	

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area:

334

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	98	0.98	91	0.92		
V2	% Aquatic	70	0.73	70	0.73		
V3	Interspersion	%		%		%	
	Class 1	100	1.00	100	1.00		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	100	0.60	90	0.80		
V5	Salinity (ppt)	7.4	1.00	7.4	1.00		
V6	Access Value	0.2500	0.33	0.2500	0.33		
		EM HSI =	0.81	EM HSI =	0.78	EM HSI =	
		OW HSI =	0.60	OW HSI =	0.62	OW HSI =	

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area:

334

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Cameron Meadows Marsh Creation and Terracing

Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	70	0.36	25.27	
1	69	0.36	24.91	25.09
20	58	0.33	19.37	419.72
Max TY= 20			AAHUs =	22.24

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	70	0.36	25.27	
1	81	0.31	25.17	25.31
3	199	0.58	115.67	130.20
5	326	0.81	265.36	371.18
20	304	0.78	238.51	3777.35
Max TY= 20			AAHUs	215.20

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	215.20
B. Future Without Project Emergent Marsh AAHUs	=	22.24
Net Change (FWP - FWOP)	=	192.96



## AAHU CALCULATION - OPEN WATER

Project: Cameron Meadows Marsh Creation and Terracing

Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	264	0.54	141.58	
1	265	0.54	142.12	141.85
20	276	0.53	146.41	2741.17
Max TY= 20			AAHUs =	144.15

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	264	0.54	141.58	
1	2	0.20	0.41	56.47
3	5	0.56	2.79	2.85
5	8	0.60	4.83	7.58
20	30	0.62	18.55	174.48
Max TY= 20			AAHUs	12.07

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	12.07
B. Future Without Project Open Water AAHUs	=	144.15
Net Change (FWP - FWOP) =		-132.08

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	192.96
B. Open Water Habitat Net AAHUs	=	-132.08
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6		102.67

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Brackish Marsh

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area: **655**

**Terraces**

Condition: Future Without Project

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	6	0.15	6	0.15	5	0.15
V2	% Aquatic	70	0.73	70	0.73	70	0.73
V3	Interspersion	%		%		%	
	Class 1	0	0.10	0	0.10	0	0.10
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	0		0		0	
	Class 5	100		100		100	
V4	%OW <= 1.5ft	13	0.27	13	0.27	11	0.24
V5	Salinity (ppt)	7.4	1.00	7.4	1.00	7.4	1.00
V6	Access Value	0.2500	0.33	0.2500	0.33	0.2500	0.33
		<b>Emergent Marsh HSI</b>	<b>= 0.26</b>	<b>EM HSI</b>	<b>= 0.26</b>	<b>EM HSI</b>	<b>= 0.26</b>
		<b>Open Water HSI</b>	<b>= 0.51</b>	<b>OW HSI</b>	<b>= 0.51</b>	<b>OW HSI</b>	<b>= 0.51</b>

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area: **655**

FWOP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
	Class 5						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
V6	Access Value						
		<b>EM HSI</b>	<b>=</b>	<b>EM HSI</b>	<b>=</b>	<b>EM HSI</b>	<b>=</b>
		<b>OW HSI</b>	<b>=</b>	<b>OW HSI</b>	<b>=</b>	<b>OW HSI</b>	<b>=</b>

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area: 655

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Brackish Marsh

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area: 655

Terraces

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	6	0.15	7	0.16	9	0.18
V2	% Aquatic	70	0.73	0	0.10	70	0.73
V3	Interspersion	%		%		%	
	Class 1	0	0.10	0	0.40	0	0.40
	Class 2	0		0		0	
	Class 3	0		100		100	
	Class 4	0		0		0	
	Class 5	100		0		0	
V4	%OW <= 1.5ft	13	0.27	15	0.29	15	0.29
V5	Salinity (ppt)	7.4	1.00	7.4	1.00	7.4	1.00
V6	Access Value	0.2500	0.33	0.2500	0.33	0.2500	0.33
		Emergent Marsh HSI =		EM HSI =		EM HSI =	
		Open Water HSI =		OW HSI =		OW HSI =	

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area: 655

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	9	0.18	8	0.17		
V2	% Aquatic	70	0.73	70	0.73		
V3	Interspersion	%		%		%	
	Class 1	0	0.40	0	0.40		
	Class 2	0		0			
	Class 3	100		100			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	15	0.29	13	0.27		
V5	Salinity (ppt)	7.4	1.00	7.4	1.00		
V6	Access Value	0.2500	0.33	0.2500	0.33		
		EM HSI =	0.32	EM HSI =	0.31	EM HSI =	
		OW HSI =	0.54	OW HSI =	0.53	OW HSI =	

Project: **Cameron Meadows Marsh Creation and Terracing**

Project Area: 655

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Cameron Meadows Marsh Creation and Terracing

Terraces

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	39	0.26	10.32	
1	39	0.26	10.32	10.32
20	33	0.26	8.52	178.80
Max TY= 20			AAHUs =	9.46

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	39	0.26	10.32	
1	44	0.30	13.39	11.82
3	57	0.32	18.05	31.38
5	56	0.32	17.73	35.79
20	51	0.31	15.84	251.70
Max TY= 20			AAHUs	16.53

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	16.53
B. Future Without Project Emergent Marsh AAHUs	=	9.46
Net Change (FWP - FWOP)	=	7.08

## AAHU CALCULATION - OPEN WATER

Project: Cameron Meadows Marsh Creation and Terracing

Terraces

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	616	0.51	315.42	
1	616	0.51	315.42	315.42
20	622	0.51	317.31	6010.95
Max TY= 20			AAHUs =	316.32

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	616	0.51	315.42	
1	598	0.25	149.52	231.68
3	598	0.54	320.63	470.15
5	599	0.54	321.17	641.80
20	604	0.53	322.70	4829.02
Max TY= 20			AAHUs	308.63

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	308.63
B. Future Without Project Open Water AAHUs	=	316.32
Net Change (FWP - FWOP)	=	-7.69

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	7.08
B. Open Water Habitat Net AAHUs	=	-7.69
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6		2.98

**WETLAND VALUE ASSESSMENT**

**Benefits Summary Sheet**

**Project: Elmer's Island Restoration**

**TOTAL BENEFITS IN AAHUs DUE TO PROJECT**

<u>Area</u>	<u>AAHUs</u>
Barrier Headland	14.92
<u>Area</u>	<u>AAHUs</u>
Saline Marsh	130.69

<b>TOTAL BENEFITS =      146    AAHUS</b>
---

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Barrier Headland

Project: **Elmer's Island Restoration**

Project Area: **158**

Condition: Future Without Project

Variable		TY	0	TY	1	TY	3
		Value		Value	SI	Value	SI
V1	% Dune	5	0.40	2	0.22	2	0.22
V2	% Supratidal	65	0.95	54	0.80	53	0.79
V3	% Vegetative Cover	40	0.62	40	0.62	40	0.62
V4	% Woody Cover	1	0.16	1	0.16	1	0.16
V5	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI	= 0.630	HSI	= 0.555	HSI	= 0.552

Project: **Elmer's Island Restoration**

Acres: 158

FWOP

Variable		TY	5	TY	10	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Dune	1	0.16	1	0.16	1	0.16
V2	% Supratidal	51	0.76	46	0.70	39	0.61
V3	% Vegetative Cover	40	0.62	35	0.56	30	0.49
V4	% Woody Cover	1	0.16	1	0.16	0	0.10
V5	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI	= 0.533	HSI	= 0.506	HSI	= 0.463

Project: **Elmer's Island Restoration**

Acres: 158

FWOP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Dune						
V2	% Supratidal						
V3	% Vegetative Cover						
V4	% Woody Cover						
V5	Beach/surf Zone						
		HSI	=	HSI	=	HSI	=



# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Barrier Headland

Project: **Elmer's Island Restoration**

Acres: 158

Condition: Future With Project

Variable		TY	0	TY	1	TY	3
		Value	SI	Value	SI	Value	SI
V1	% Dune	5	0.40	2	0.22	4	0.34
V2	% Supratidal	65	0.95	90	0.83	68	0.98
V3	% Vegetative Cover	40	0.62	20	0.36	34	0.54
V4	% Woody Cover	1	0.16	1	0.16	1	0.16
V5	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.630		HSI = 0.516		HSI = 0.611	

Project: **Elmer's Island Restoration**

Acres: 158

FWP

Variable		TY	5	TY	10	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Dune	3	0.28	1	0.16	1	0.16
V2	% Supratidal	68	0.98	66	0.96	58	0.85
V3	% Vegetative Cover	42	0.65	42	0.65	42	0.65
V4	% Woody Cover	1	0.16	1	0.16	0	0.10
V5	Beach/surf Zone	1	1.00	1	1.00	1	1.00
		HSI = 0.616		HSI = 0.582		HSI = 0.548	

Project: **Elmer's Island Restoration**

Acres: 158

FWP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Dune						
V2	% Supratidal						
V3	% Vegetative Cover						
V4	% Woody Cover						
V5	Beach/surf Zone						
		HSI =		HSI =		HSI =	

# AAHU CALCULATION

Project: Elmer's Island Restoration

Future Without Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	158	0.630	99.50	
1	166	0.555	92.21	95.95
3	163	0.552	90.05	182.26
5	161	0.533	85.76	175.80
10	153	0.506	77.42	407.79
20	147	0.463	68.00	726.70
Max TY= 20			AAHUs =	79.43

Future With Project			Total	Cummulative
TY	Acres	x HSI	HUs	HUs
0	158	0.630	99.50	
1	444	0.516	229.01	169.69
3	142	0.611	86.74	325.33
5	144	0.616	88.68	175.42
10	142	0.582	82.68	428.32
20	137	0.548	75.01	788.12
Max TY= 20			AAHUs	94.34

NET CHANGE IN AAHU'S DUE TO PROJECT		
A. Future With Project AAHUs	=	94.34
B. Future Without Project AAHUs	=	79.43
Net Change (FWP - FWOP)	=	14.92

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Saline Marsh

Project: **Elmer's Island Restoration**

Project Area: **336**

Condition: Future Without Project

Variable		TY	0	TY	1	TY	3
		Value	SI	Value	SI	Value	SI
V1	% Emergent	15	0.24	11	0.20	10	0.19
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%		%		%	
	Class 1	0	0.32	0	0.32	0	0.32
	Class 2	30		30		30	
	Class 3	0		0		0	
	Class 4	70		70		70	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	15	0.29	15	0.29	15	0.29
V5	Salinity (ppt)	21	1.00	21	1.00	21	1.00
V6	Access Value	0.6700	0.70	0.6700	0.70	0.6700	0.70
		<b>Emergent Marsh HSI</b>	<b>= 0.39</b>	<b>EM HSI</b>	<b>= 0.36</b>	<b>EM HSI</b>	<b>= 0.35</b>
		<b>Open Water HSI</b>	<b>= 0.55</b>	<b>OW HSI</b>	<b>= 0.55</b>	<b>OW HSI</b>	<b>= 0.55</b>

Project: **Elmer's Island Restoration**

Project Area: **336**

FWOP

Variable		TY	5	TY	10	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	10	0.19	10	0.19	9	0.18
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%		%		%	
	Class 1	0	0.32	0	0.30	0	0.28
	Class 2	30		25		20	
	Class 3	0		0		0	
	Class 4	70		75		80	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	15	0.29	15	0.29	8	0.20
V5	Salinity (ppt)	21	1.00	21	1.00	21	1.00
V6	Access Value	0.6700	0.70	0.6700	0.70	0.6700	0.70
		<b>EM HSI</b>	<b>= 0.35</b>	<b>EM HSI</b>	<b>= 0.35</b>	<b>EM HSI</b>	<b>= 0.34</b>
		<b>OW HSI</b>	<b>= 0.55</b>	<b>OW HSI</b>	<b>= 0.55</b>	<b>OW HSI</b>	<b>= 0.54</b>

Project: **Elmer's Island Restoration**  
FWOP

Project Area: **336**

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Saline Marsh

Project: **Elmer's Island Restoration**

Project Area: **336**

Condition: Future With Project

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	15	0.24	41	0.47	46	0.51
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%		%		%	
	Class 1	0	0.32	0	0.60	0	0.43
	Class 2	30		100		16	
	Class 3	0		0		84	
	Class 4	70		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	15	0.29	75	1.00	75	1.00
V5	Salinity (ppt)	21	1.00	21	1.00	21	1.00
V6	Access Value	0.6700	0.70	0.5000	0.55	0.5000	0.55
		Emergent Marsh HSI =		EM HSI =		EM HSI =	
		Open Water HSI =		OW HSI =		OW HSI =	

Project: **Elmer's Island Restoration**  
FWP

Project Area: **336**

Variable		TY 5		TY 10		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	85	0.87	80	0.82	70	0.73
V2	% Aquatic	0	0.30	0	0.30	0	0.30
V3	Interspersion	%		%		%	
	Class 1	82	0.93	77	0.91	68	0.87
	Class 2	18		23		32	
	Class 3	0		0		0	
	Class 4	0		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	75	1.00	75	1.00	75	1.00
V5	Salinity (ppt)	21	1.00	21	1.00	21	1.00
V6	Access Value	0.5000	0.55	0.5000	0.55	0.5000	0.55
		EM HSI =	0.81	EM HSI =	0.79	EM HSI =	0.74
		OW HSI =	0.58	OW HSI =	0.58	OW HSI =	0.57

Project: **Elmer's Island Restoration**  
FWP

Project Area: **336**

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Elmer's Island Restoration

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	51	0.39	19.74	
1	35	0.36	12.56	16.07
3	34	0.35	11.96	24.51
5	34	0.35	11.96	23.91
10	33	0.35	11.53	58.71
20	33	0.34	11.22	113.73
Max= 20			AAHUs =	11.85

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	51	0.39	19.74	
1	22	0.56	12.26	16.82
3	166	0.57	93.91	105.77
5	317	0.81	258.35	339.71
10	317	0.79	250.17	1271.30
20	315	0.74	232.15	2411.41
Max= 20			AAHUs	207.25

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	207.25
B. Future Without Project Emergent Marsh AAHUs	=	11.85
Net Change (FWP - FWOP)	=	195.40

## AAHU CALCULATION - OPEN WATER

Project: Elmer's Island Restoration

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	192	0.55	105.25	
1	196	0.55	107.44	106.34
3	202	0.55	110.73	218.17
5	206	0.55	112.92	223.65
10	230	0.55	125.74	596.68
20	277	0.54	149.17	1375.19
Max= 20			AAHUs =	126.00

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	192	0.55	105.25	
1	8	0.55	4.42	54.96
3	17	0.54	9.18	13.63
5	26	0.58	14.99	24.06
10	48	0.58	27.61	106.53
20	93	0.57	53.24	404.45
Max= 20			AAHUs	30.18

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	30.18
B. Future Without Project Open Water AAHUs	=	126.00
Net Change (FWP - FWOP) =		-95.82

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	195.40
B. Open Water Habitat Net AAHUs	=	-95.82
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5		130.69

# WETLAND VALUE ASSESSMENT

## Benefits Summary Sheet

**Project: Front Ridge Freshwater Introduction and Terracing**

### TOTAL BENEFITS IN AAHUs DUE TO PROJECT

<u>Area</u>	<u>AAHUs</u>
Brackish Marsh	276.66

<b>TOTAL BENEFITS =      277 AAHUS</b>
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# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Brackish Marsh

Project: **Front Ridge Freshwater Introduction and Terracing**

Project Area: **4,083**

Condition: Future Without Project

Variable		TY	0	TY	1	TY	3
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	38	0.44	37	0.43
V2	% Aquatic	5	0.15	5	0.15	5	0.15
V3	Interspersion	%		%		%	
	Class 1	0	0.28	0	0.28	0	0.28
	Class 2	0		0		0	
	Class 3	40		40		40	
	Class 4	60		60		60	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	25	0.42	25	0.42	25	0.42
V5	Salinity (ppt)	5.8	1.00	5.8	1.00	5.8	1.00
V6	Access Value	1.0000	1.00	1.0000	1.00	1.0000	1.00
Emergent Marsh HSI =			0.56	EM HSI =	0.56	EM HSI =	0.55
Open Water HSI =			0.37	OW HSI =	0.37	OW HSI =	0.37

Project: **Front Ridge Freshwater Introduction and Terracing**

Project Area: **4083**

FWOP

Variable		TY	5	TY	10	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	37	0.43	36	0.42	34	0.41
V2	% Aquatic	5	0.15	5	0.15	5	0.15
V3	Interspersion	%		%		%	
	Class 1	0	0.28	0	0.28	0	0.28
	Class 2	0		0		0	
	Class 3	40		40		40	
	Class 4	60		60		60	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	25	0.42	25	0.42	23	0.40
V5	Salinity (ppt)	5.8	1.00	5.8	1.00	5.8	1.00
V6	Access Value	1.0000	1.00	1.0000	1.00	1.0000	1.00
EM HSI =			0.55	EM HSI =	0.54	EM HSI =	0.53
OW HSI =			0.37	OW HSI =	0.37	OW HSI =	0.37

Project: **Front Ridge Freshwater Introduction and Terracing**

Project Area: 4083

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Brackish Marsh

Project: **Front Ridge Freshwater Introduction and Terracing**

Project Area: 4083

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	38	0.44	40	0.46
V2	% Aquatic	5	0.15	50	0.55	50	0.55
V3	Interspersion	%		%		%	
	Class 1	0	0.28	0	0.40	0	0.40
	Class 2	0		0		0	
	Class 3	40		100		100	
	Class 4	60		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	25	0.42	27	0.45	27	0.45
V5	Salinity (ppt)	5.8	1.00	5.4	1.00	5.4	1.00
V6	Access Value	1.0000	1.00	1.0000	1.00	1.0000	1.00
		Emergent Marsh HSI =		EM HSI =		EM HSI =	
		Open Water HSI =		OW HSI =		OW HSI =	

Project: **Front Ridge Freshwater Introduction and Terracing**

Project Area: 4083

FWP

Variable		TY 5		TY 10		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	40	0.46	39	0.45	37	0.43
V2	% Aquatic	50	0.55	50	0.55	50	0.55
V3	Interspersion	%		%		%	
	Class 1	0	0.40	0	0.40	0	0.40
	Class 2	0		0		0	
	Class 3	100		100		100	
	Class 4	0		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	27	0.45	27	0.45	26	0.43
V5	Salinity (ppt)	5.4	1.00	5.4	1.00	5.4	1.00
V6	Access Value	1.0000	1.00	1.0000	1.00	1.0000	1.00
		EM HSI =	0.58	EM HSI =	0.58	EM HSI =	0.56
		OW HSI =	0.68	OW HSI =	0.68	OW HSI =	0.68

Project: **Front Ridge Freshwater Introduction and Terracing**

Project Area: 4083

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Front Ridge Freshwater Introduction and Terracing

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	1545	0.56	860.99	
1	1536	0.56	855.97	858.48
3	1519	0.55	836.60	1692.54
5	1503	0.55	827.79	1664.39
10	1462	0.54	795.64	4058.34
20	1383	0.53	734.40	7648.44
Max TY= 20			AAHUs =	796.11

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	1545	0.56	860.99	
1	1564	0.57	892.43	876.67
3	1630	0.58	951.19	1843.33
5	1616	0.58	943.02	1894.20
10	1582	0.58	912.96	4639.77
20	1516	0.56	855.16	8839.20
Max TY= 20			AAHUs	904.66

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		904.66
B. Future Without Project Emergent Marsh AAHUs	=		796.11
Net Change (FWP - FWOP) =			108.55

## AAHU CALCULATION - OPEN WATER

Project: Front Ridge Freshwater Introduction and Terracing

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	2538	0.37	939.56	
1	2547	0.37	942.89	941.23
3	2564	0.37	949.19	1892.08
5	2580	0.37	955.11	1904.30
10	2621	0.37	970.29	4813.50
20	2700	0.37	994.39	9823.65
Max TY= 20			AAHUs =	968.74

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	2538	0.37	939.56	
1	2439	0.68	1658.94	1304.37
3	2453	0.68	1668.46	3327.41
5	2467	0.68	1677.99	3346.45
10	2501	0.68	1701.11	8447.75
20	2567	0.68	1743.56	17223.46
Max TY= 20			AAHUs	1682.47

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	1682.47
B. Future Without Project Open Water AAHUs	=	968.74
Net Change (FWP - FWOP) =		713.73

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	108.55
B. Open Water Habitat Net AAHUs	=	713.73
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6		276.66

# WETLAND VALUE ASSESSMENT

## Benefits Summary Sheet

**Project: Grand Bayou Freshwater Enhancement and Terracing**

### TOTAL BENEFITS IN AAHUs DUE TO PROJECT

Area 1- West- Brackish Marsh	$\frac{\text{Area}}{\text{AAHUs}}$ 80.05
Area 1- West- Fresh Marsh	$\frac{\text{Area}}{\text{AAHUs}}$ 11.59
Area 1- West- Intermediate Marsh	$\frac{\text{Area}}{\text{AAHUs}}$ 48.61
Area 2- East- Brackish Marsh	$\frac{\text{Area}}{\text{AAHUs}}$ 313.08
Area 2- East- Intermediate Marsh	$\frac{\text{Area}}{\text{AAHUs}}$ 106.83
Marsh Creation- Fresh/Intermediate Marsh	$\frac{\text{Area}}{\text{AAHUs}}$ 46.98

<b>TOTAL BENEFITS = 607 AAHUS</b>
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# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Brackish Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: **5,158**

**Area 1 - West - Brackish**

Condition: Future Without Project

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	33	0.40	33	0.40	31	0.38
V2	% Aquatic	35	0.42	35	0.42	35	0.42
V3	Interspersion	%		%		%	
	Class 1	0	0.30	0	0.30	0	0.30
	Class 2	0		0		0	
	Class 3	50		50		50	
	Class 4	50		50		50	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	10	0.23	10	0.23	5	0.16
V5	Salinity (ppt)	7	1.00	7	1.00	7	1.00
V6	Access Value	0.2800	0.35	0.2800	0.35	0.2800	0.35
Emergent Marsh HSI =			0.44	EM HSI =	0.44	EM HSI =	0.43
Open Water HSI =			0.42	OW HSI =	0.42	OW HSI =	0.41

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: 5158

FWOP

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

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: 5158

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Brackish Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: 5158

Area 1 - West - Brackish

Condition: Future With Project

Variable		TY 0		TY 1		TY 20	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	33	0.40	33	0.40	32	0.39
V2	% Aquatic	35	0.42	50	0.55	50	0.55
V3	Interspersion	%		%		%	
	Class 1	0	0.30	0	0.30	0	0.30
	Class 2	0		0		0	
	Class 3	50		50		50	
	Class 4	50		50		50	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	10	0.23	10	0.23	6	0.18
V5	Salinity (ppt)	7	1.00	5	1.00	5	1.00
V6	Access Value	0.2800	0.35	0.3100	0.38	0.3100	0.38
		Emergent Marsh HSI =		EM HSI =		EM HSI =	
		Open Water HSI =		OW HSI =		OW HSI =	



Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: 5158

FWP

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

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: 5158

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

**Project:** Grand Bayou Freshwater Enhancement and Terracing  
Area 1 - West - Brackish

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	1693	0.44	752.99	
1	1687	0.44	750.32	751.66
20	1585	0.43	688.27	13663.20
Max TY= 20			AAHUs =	720.74

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	1693	0.44	752.99	
1	1691	0.45	760.84	756.92
20	1664	0.44	739.80	14255.61
Max TY= 20			AAHUs	750.63

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		750.63
B. Future Without Project Emergent Marsh AAHUs	=		720.74
Net Change (FWP - FWOP) =			29.88

## AAHU CALCULATION - OPEN WATER

**Project:** Grand Bayou Freshwater Enhancement and Terracing  
Area 1 - West - Brackish

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	3465	0.42	1439.48	
1	3471	0.42	1441.97	1440.73
20	3573	0.41	1467.33	27639.91
Max TY= 20			AAHUs =	1454.03

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	3465	0.42	1439.48	
1	3467	0.48	1670.43	1554.93
20	3494	0.48	1670.12	31735.51
Max TY= 20			AAHUs	1664.52

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	1664.52
B. Future Without Project Open Water AAHUs	=	1454.03
Net Change (FWP - FWOP)	=	210.49

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	29.88
B. Open Water Habitat Net AAHUs	=	210.49
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6		80.05

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Area 1 - West - Fresh

Condition: Future Without Project

Project Area:	633
% Fresh	100
% Intermediate	0

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	71	0.74	71	0.74	66	0.69
V2	% Aquatic	80	0.82	80	0.82	80	0.82
V3	Interspersion	%		%		%	
	Class 1	50	0.70	50	0.70	45	0.67
	Class 2	0		0		0	
	Class 3	50		50		55	
	Class 4	0		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	98	0.68	98	0.68	98	0.68
V5	Salinity (ppt)						
	fresh	2	0.70	2	0.70	2	0.70
V6	Access Value						
	fresh	0.6600	0.76	0.6600	0.76	0.6600	0.76
		<b>Emergent Marsh HSI =</b>	<b>0.73</b>	<b>EM HSI =</b>	<b>0.73</b>	<b>EM HSI =</b>	<b>0.70</b>
		<b>Open Water HSI =</b>	<b>0.78</b>	<b>OW HSI =</b>	<b>0.78</b>	<b>OW HSI =</b>	<b>0.78</b>

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWOP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
	Class 5						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
	fresh						
V6	Access Value						
	fresh						
		<b>EM HSI =</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
		<b>OW HSI =</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Fresh/Intermediate Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Area 1 - West - Fresh

Condition: Future With Project

Project Area:	633
% Fresh	100
% Intermediate	0

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	71	0.74	71	0.74	70	0.73
V2	% Aquatic	80	0.82	85	0.87	85	0.87
V3	Interspersion	%		%		%	
	Class 1	50	0.70	50	0.70	50	0.70
	Class 2	0		0		0	
	Class 3	50		50		50	
	Class 4	0		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	98	0.68	98	0.68	98	0.68
V5	Salinity (ppt)						
	fresh	2	0.70	1.4	0.82	1.4	0.82
	intermediate						
V6	Access Value						
	fresh	0.6600	0.76	0.6400	0.75	0.6400	0.75
	intermediate						
		<b>Emergent Marsh HSI =</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
		<b>Open Water HSI =</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	

## FWP

FWPC-41

## AAHU CALCULATION - EMERGENT MARSH

Project: Grand Bayou Freshwater Enhancement and Terracing

Area 1 - West - Fresh

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	449	0.73	329.24	
1	448	0.73	328.51	328.87
20	420	0.70	294.20	5912.81
Max= 20			AAHUs =	312.08

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	449	0.73	329.24	
1	449	0.74	334.43	331.83
20	441	0.74	325.89	6272.85
Max= 20			AAHUs	330.23

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		330.23
B. Future Without Project Emergent Marsh AAHUs	=		312.08
Net Change (FWP - FWOP) =			18.15

## AAHU CALCULATION - OPEN WATER

Project: Grand Bayou Freshwater Enhancement and Terracing  
Area 1 - West - Fresh

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	184	0.78	143.57	
1	185	0.78	144.35	143.96
20	213	0.78	165.72	2945.87
Max= 20			AAHUs =	154.49

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	184	0.78	143.57	
1	184	0.81	149.36	146.46
20	192	0.81	155.85	2899.52
Max= 20			AAHUs	152.30

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	152.30
B. Future Without Project Open Water AAHUs	=	154.49
Net Change (FWP - FWOP)	=	-2.19

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	18.15
B. Open Water Habitat Net AAHUs	=	-2.19
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	11.59



# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Area 1 - West - Intermediate

Condition: Future Without Project

Project Area:	2,131
% Fresh	0
% Intermediate	100

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	66	0.69	66	0.69	62	0.66
V2	% Aquatic	80	0.82	80	0.82	80	0.82
V3	Interspersion	%		%		%	
	Class 1	50	0.70	50	0.70	45	0.67
	Class 2	0		0		0	
	Class 3	50		50		55	
	Class 4	0		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	98	0.68	98	0.68	98	0.68
V5	Salinity (ppt)						
	fresh		0.70		0.70		0.70
	intermediate	4		4		4	
V6	Access Value						
	fresh		0.73		0.73		0.73
	intermediate	0.6600		0.6600		0.6600	
<b>Emergent Marsh HSI =</b>		<b>0.70</b>		<b>EM HSI =</b>	<b>0.70</b>	<b>EM HSI =</b>	<b>0.67</b>
<b>Open Water HSI =</b>		<b>0.77</b>		<b>OW HSI =</b>	<b>0.77</b>	<b>OW HSI =</b>	<b>0.77</b>

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWOP

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

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Fresh/Intermediate Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Area 1 - West - Intermediate

Condition: Future With Project

Project Area:	633
% Fresh	100
% Intermediate	0

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	66	0.69	66	0.69	65	0.69
V2	% Aquatic	80	0.82	85	0.87	85	0.87
V3	Interspersion	%		%		%	
	Class 1	50	0.70	50	0.70	50	0.70
	Class 2	0		0		0	
	Class 3	50		50		50	
	Class 4	0		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	98	0.68	98	0.68	98	0.68
V5	Salinity (ppt)						
	fresh		0.70		0.94		0.94
	intermediate	4		2.8		2.8	
V6	Access Value						
	fresh		0.73		0.71		0.71
	intermediate	0.66		0.6400		0.6400	
		<b>Emergent Marsh HSI =</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
		<b>0.70</b>		<b>0.72</b>		<b>0.72</b>	
		<b>Open Water HSI =</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	
		<b>0.77</b>		<b>0.81</b>		<b>0.81</b>	

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWP

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

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Grand Bayou Freshwater Enhancement and Terracing

Area 1 - West - Intermediate

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	1413	0.70	988.61	
1	1408	0.70	985.11	986.86
20	1323	0.67	889.98	17806.09
Max=		20	AAHUs =	939.65

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	1413	0.70	988.61	
1	1411	0.72	1022.00	1005.31
20	1389	0.72	997.92	19188.81
Max=		20	AAHUs	1009.71

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		1009.71
B. Future Without Project Emergent Marsh AAHUs	=		939.65
Net Change (FWP - FWOP) =			70.06

## AAHU CALCULATION - OPEN WATER

Project: Grand Bayou Freshwater Enhancement and Terracing  
Area 1 - West - Intermediate

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	718	0.77	555.13	
1	723	0.77	558.99	557.06
20	808	0.77	622.92	11228.72
Max= 20			AAHUs =	589.29

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	718	0.77	555.13	
1	720	0.81	585.13	570.11
20	742	0.81	603.00	11287.23
Max= 20			AAHUs	592.87

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	592.87
B. Future Without Project Open Water AAHUs	=	589.29
Net Change (FWP - FWOP)	=	3.58

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	70.06
B. Open Water Habitat Net AAHUs	=	3.58
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	48.61

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Brackish Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: **15,428**

**Area 2 - East - Brackish**

Condition: Future Without Project

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	27	0.34	27	0.34	24	0.32
V2	% Aquatic	5	0.15	5	0.15	3	0.13
V3	Interspersion	%		%		%	
	Class 1	5	0.26	5	0.26	0	0.24
	Class 2	5		5		10	
	Class 3	0		0		0	
	Class 4	90		90		90	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	5	0.16	5	0.16	4	0.15
V5	Salinity (ppt)	10	1.00	10	1.00	12	0.70
V6	Access Value	1.0000	1.00	1.0000	1.00	1.0000	1.00
		<b>Emergent Marsh HSI</b>	<b>= 0.48</b>	<b>EM HSI</b>	<b>= 0.48</b>	<b>EM HSI</b>	<b>= 0.43</b>
		<b>Open Water HSI</b>	<b>= 0.35</b>	<b>OW HSI</b>	<b>= 0.35</b>	<b>OW HSI</b>	<b>= 0.31</b>

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: **15428**

FWOP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
	Class 5						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
V6	Access Value						
		<b>EM HSI</b>	<b>=</b>	<b>EM HSI</b>	<b>=</b>	<b>EM HSI</b>	<b>=</b>
		<b>OW HSI</b>	<b>=</b>	<b>OW HSI</b>	<b>=</b>	<b>OW HSI</b>	<b>=</b>

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: 15428

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Brackish Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: 15428

Area 2 - East - Brackish

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	27	0.34	27	0.34	27	0.34
V2	% Aquatic	5	0.15	5	0.15	10	0.19
V3	Interspersion	%		%		%	
	Class 1	5	0.26	5	0.30	5	0.30
	Class 2	5		5		5	
	Class 3	0		18		18	
	Class 4	90		72		72	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	5	0.16	5	0.16	5	0.16
V5	Salinity (ppt)	10	1.00	8	1.00	8	1.00
V6	Access Value	1.0000	1.00	1.0000	1.00	1.0000	1.00
		Emergent Marsh HSI =		EM HSI =		EM HSI =	
		Open Water HSI =		OW HSI =		OW HSI =	

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: 15428

FWP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	26	0.33				
V2	% Aquatic	10	0.19				
V3	Interspersion	%		%		%	
	Class 1	0	0.28				
	Class 2	10					
	Class 3	18					
	Class 4	72					
	Class 5	0					
V4	%OW <= 1.5ft	4	0.15				
V5	Salinity (ppt)	8	1.00				
V6	Access Value	1.0000	1.00				
		EM HSI =	0.48	EM HSI =		EM HSI =	
		OW HSI =	0.39	OW HSI =		OW HSI =	

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Project Area: 15428

FWP

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



## AAHU CALCULATION - EMERGENT MARSH

Project: Grand Bayou Freshwater Enhancement and Terracing  
Area 2 - East - Brackish

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	4179	0.48	2012.18	
1	4154	0.48	2000.15	2006.17
20	3718	0.43	1580.41	33937.42
Max TY= 20			AAHUs =	1797.18

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	4179	0.48	2012.18	
1	4188	0.49	2033.27	2022.72
3	4231	0.49	2054.15	4087.42
20	3985	0.48	1898.31	33589.48
Max TY= 20			AAHUs	1984.98

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		1984.98
B. Future Without Project Emergent Marsh AAHUs	=		1797.18
Net Change (FWP - FWOP) =			187.80

## AAHU CALCULATION - OPEN WATER

Project: Grand Bayou Freshwater Enhancement and Terracing  
Area 2 - East - Brackish

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	11249	0.35	3933.38	
1	11274	0.35	3942.12	3937.75
20	11710	0.31	3587.27	71589.06
Max TY= 20			AAHUs =	3776.34

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	11249	0.35	3933.38	
1	11190	0.35	3942.59	3938.01
3	11219	0.40	4435.09	8377.26
20	11465	0.39	4504.43	75987.65
Max TY= 20			AAHUs	4415.15

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	4415.15
B. Future Without Project Open Water AAHUs	=	3776.34
Net Change (FWP - FWOP) =		638.81

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	187.80
B. Open Water Habitat Net AAHUs	=	638.81
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6		313.08

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

**Area 2 - East - Intermediate**

Condition: Future Without Project

Project Area:	2,984
% Fresh	0
% Intermediate	100

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	72	0.75	72	0.75	64	0.68
V2	% Aquatic	40	0.46	40	0.46	35	0.42
V3	Interspersion	%		%		%	
	Class 1	70	0.85	70	0.85	68	0.84
	Class 2	15		15		15	
	Class 3	15		15		17	
	Class 4	0		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	20	0.33	20	0.33	20	0.33
V5	Salinity (ppt)						
	fresh		0.30		0.30		0.10
	intermediate	6		6		7	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.0000		1.0000		1.0000	
<b>Emergent Marsh HSI =</b>			<b>0.74</b>	<b>EM HSI =</b>	<b>0.74</b>	<b>EM HSI =</b>	<b>0.67</b>
<b>Open Water HSI =</b>			<b>0.54</b>	<b>OW HSI =</b>	<b>0.54</b>	<b>OW HSI =</b>	<b>0.50</b>

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWOP

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

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Fresh/Intermediate Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

Area 2 - East - Intermediate

Condition: Future With Project

Project Area:	2,984
% Fresh	0
% Intermediate	100

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	72	0.75	72	0.75	67	0.70
V2	% Aquatic	40	0.46	50	0.55	50	0.55
V3	Interspersion	%		%		%	
	Class 1	70	0.85	70	0.85	68	0.84
	Class 2	15		15		15	
	Class 3	15		15		17	
	Class 4	0		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	20	0.33	20	0.33	20	0.33
V5	Salinity (ppt)						
	fresh		0.30		0.54		0.54
	intermediate	6		4.8		4.8	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1		1.0000		1.0000	
		<b>Emergent Marsh HSI =</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
		<b>Open Water HSI =</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWP

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

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Grand Bayou Freshwater Enhancement and Terracing

Area 2 - East - Intermediate

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	2148	0.74	1586.09	
1	2135	0.74	1576.49	1581.29
20	1911	0.67	1271.69	27005.92
Max=		20	AAHUs =	1429.36

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	2148	0.74	1586.09	
1	2140	0.77	1637.25	1611.70
20	2001	0.73	1466.66	29472.99
Max=		20	AAHUs	1554.23

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		1554.23
B. Future Without Project Emergent Marsh AAHUs	=		1429.36
Net Change (FWP - FWOP) =			124.87

## AAHU CALCULATION - OPEN WATER

Project: Grand Bayou Freshwater Enhancement and Terracing  
Area 2 - East - Intermediate

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	836	0.54	454.53	
1	849	0.54	461.60	458.06
20	1073	0.50	531.90	9472.20
Max= 20			AAHUs =	496.51

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	836	0.54	454.53	
1	844	0.62	526.47	490.39
20	983	0.62	612.30	10818.65
Max= 20			AAHUs	565.45

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	565.45
B. Future Without Project Open Water AAHUs	=	496.51
Net Change (FWP - FWOP)	=	68.94

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	124.87
B. Open Water Habitat Net AAHUs	=	68.94
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	106.83

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

**Marsh Creation Area**

Condition: Future Without Project

Project Area:	176
% Fresh	0
% Intermediate	100

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	23	0.31	23	0.31	22	0.30
V2	% Aquatic	80	0.82	80	0.82	80	0.82
V3	Interspersion	%		%		%	
	Class 1	0	0.20	0	0.20	0	0.20
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	100		100		100	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	100	0.60	100	0.60	100	0.60
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	2		2		2	
V6	Access Value						
	fresh		0.36		0.36		0.36
	intermediate	0.2000		0.2000		0.2000	
<b>Emergent Marsh HSI =</b>			<b>0.38</b>	<b>EM HSI =</b>	<b>0.38</b>	<b>EM HSI =</b>	<b>0.37</b>
<b>Open Water HSI =</b>			<b>0.65</b>	<b>OW HSI =</b>	<b>0.65</b>	<b>OW HSI =</b>	<b>0.65</b>

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWOP

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



Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Fresh/Intermediate Marsh

Project: **Grand Bayou Freshwater Enhancement and Terracing**

**Marsh Creation Area**

Condition: Future With Project

Project Area:	176
% Fresh	0
% Intermediate	100

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	23	0.31	19	0.27	46	0.51
V2	% Aquatic	80	0.82	0	0.10	40	0.46
V3	Interspersion	%		%		%	
	Class 1	0	0.20	0	0.10	0	0.40
	Class 2	0		0		0	
	Class 3	0		0		100	
	Class 4	100		0		0	
	Class 5	0		100		0	
V4	%OW <= 1.5ft	100	0.60	0	0.10	100	0.60
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	2		2		2	
V6	Access Value						
	fresh		0.36		0.36		0.36
	intermediate	0.2		0.2000		0.2000	
		<b>Emergent Marsh HSI =</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
		<b>0.38</b>		<b>0.34</b>		<b>0.53</b>	
		<b>Open Water HSI =</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	
		<b>0.65</b>		<b>0.20</b>		<b>0.48</b>	

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	99	0.99	97	0.97		
V2	% Aquatic	80	0.82	80	0.82		
V3	Interspersion	%		%		%	
	Class 1	100	1.00	100	1.00		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	100	0.60	100	0.60		
V5	Salinity (ppt)						
	fresh		1.00		1.00		
	intermediate	2		2			
V6	Access Value						
	fresh		0.36		0.36		
	intermediate	0.2000		0.2000			
		<b>EM HSI =</b>	<b>0.87</b>	<b>EM HSI =</b>	<b>0.86</b>	<b>EM HSI =</b>	
		<b>OW HSI =</b>	<b>0.71</b>	<b>OW HSI =</b>	<b>0.71</b>	<b>OW HSI =</b>	

Project: **Grand Bayou Freshwater Enhancement and Terracing**

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Grand Bayou Freshwater Enhancement and Terracing

Marsh Creation Area

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	41	0.38	15.52	
1	41	0.38	15.52	15.52
20	38	0.37	14.16	281.86
Max= 20			AAHUs =	14.87

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	41	0.38	15.52	
1	34	0.34	11.67	13.55
3	81	0.53	43.12	51.82
5	175	0.87	152.83	185.26
20	170	0.86	146.78	2246.96
Max= 20			AAHUs	124.88

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	124.88
B. Future Without Project Emergent Marsh AAHUs	=	14.87
Net Change (FWP - FWOP)	=	110.01

## AAHU CALCULATION - OPEN WATER

Project: Grand Bayou Freshwater Enhancement and Terracing  
Marsh Creation Area

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	135	0.65	88.09	
1	135	0.65	88.09	88.09
20	138	0.65	90.04	1692.21
Max= 20			AAHUs =	89.01

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	135	0.65	88.09	
1	0	0.20	0.00	33.77
3	1	0.48	0.48	0.39
5	1	0.71	0.71	1.20
20	6	0.71	4.27	37.37
Max= 20			AAHUs	3.64

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	3.64
B. Future Without Project Open Water AAHUs	=	89.01
Net Change (FWP - FWOP)	=	-85.38

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	110.01
B. Open Water Habitat Net AAHUs	=	-85.38
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	46.98

**WETLAND VALUE ASSESSMENT**

**Benefits Summary Sheet**

**Project: Lake Lery Shoreline Marsh Creation and Terracing**

**TOTAL BENEFITS IN AAHUs DUE TO PROJECT**

	<u>Area</u>	<u>AAHUs</u>
Marsh Creation- Fresh/Intermediate Marsh		173.7
	<u>Area</u>	<u>AAHUs</u>
Terraces- Fresh/Intermediate Marsh		3.8

<b>TOTAL BENEFITS =        178 AAHUS</b>
--

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

**Marsh Creation**

Condition: Future Without Project

Project Area:	560
% Fresh	0
% Intermediate	100

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	25	0.33	24	0.32	19	0.27
V2	% Aquatic	47	0.52	47	0.52	47	0.52
V3	Interspersion	%		%		%	
	Class 1	0	0.31	0	0.31	0	0.20
	Class 2	0		0		0	
	Class 3	55		55		0	
	Class 4	45		45		100	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	18	0.30	18	0.30	12	0.24
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	1.3		1.3		1.3	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.0000		1.0000		1.0000	
<b>Emergent Marsh HSI =</b>		<b>0.45</b>		<b>EM HSI =</b>	<b>0.44</b>	<b>EM HSI =</b>	<b>0.40</b>
<b>Open Water HSI =</b>		<b>0.60</b>		<b>OW HSI =</b>	<b>0.60</b>	<b>OW HSI =</b>	<b>0.58</b>

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

FWOP

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

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Fresh/Intermediate Marsh

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

**Marsh Creation**

Condition: Future With Project

Project Area:	560
% Fresh	0
% Intermediate	100

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	25	0.33	20	0.28	46	0.51
V2	% Aquatic	47	0.52	0	0.10	23	0.31
V3	Interspersion	%		%		%	
	Class 1	0	0.31	0	0.10	0	0.40
	Class 2	0		0		0	
	Class 3	55		0		100	
	Class 4	45		0		0	
	Class 5	0		100		0	
V4	%OW <= 1.5ft	18	0.30	100	0.60	100	0.60
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	1.3		1.3		1.3	
V6	Access Value						
	fresh		1.00		0.20		1.00
	intermediate	1		0.0001		1.0000	
		<b>Emergent Marsh HSI =</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
		<b>Open Water HSI =</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	97	0.97	89	0.90		
V2	% Aquatic	47	0.52	47	0.52		
V3	Interspersion	%		%		%	
	Class 1	100	1.00	100	1.00		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	100	0.60	90	1.00		
V5	Salinity (ppt)						
	fresh		1.00		1.00		
	intermediate	1.3		1.3			
V6	Access Value						
	fresh		1.00		1.00		
	intermediate	1.0000		1.0000			
		<b>EM HSI =</b>	<b>0.98</b>	<b>EM HSI =</b>	<b>0.94</b>	<b>EM HSI =</b>	
		<b>OW HSI =</b>	<b>0.67</b>	<b>OW HSI =</b>	<b>0.70</b>	<b>OW HSI =</b>	

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

FWP

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



## AAHU CALCULATION - EMERGENT MARSH

Project: Lake Lery Shoreline Marsh Creation and Terracing

Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	138	0.45	62.16	
1	136	0.44	60.30	61.22
20	109	0.40	43.09	978.10
Max= 20			AAHUs =	51.97

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	138	0.45	62.16	
1	110	0.33	36.10	48.56
3	260	0.60	156.58	178.97
5	544	0.98	534.46	655.04
20	498	0.94	465.77	7496.29
Max= 20			AAHUs	418.94

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		418.94
B. Future Without Project Emergent Marsh AAHUs	=		51.97
Net Change (FWP - FWOP) =			366.98

## AAHU CALCULATION - OPEN WATER

Project: Lake Lery Shoreline Marsh Creation and Terracing  
Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	422	0.60	252.26	
1	424	0.60	253.46	252.86
20	451	0.58	263.67	4913.83
Max= 20			AAHUs =	258.33

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	422	0.60	252.26	
1	4	0.22	0.87	100.14
3	10	0.47	4.69	5.06
5	16	0.67	10.73	15.02
20	62	0.70	43.43	402.86
Max= 20			AAHUs	26.15

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	26.15
B. Future Without Project Open Water AAHUs	=	258.33
Net Change (FWP - FWOP)	=	-232.18

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	366.98
B. Open Water Habitat Net AAHUs	=	-232.18
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	173.70

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

**Terraces**

Condition: Future Without Project

Project Area:	299
% Fresh	0
% Intermediate	100

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	5	0.15	5	0.15	4	0.14
V2	% Aquatic	37	0.43	37	0.43	37	0.43
V3	Interspersion	%		%		%	
	Class 1	0	0.10	0	0.10	0	0.10
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	0		0		0	
	Class 5	100		100		100	
V4	%OW <= 1.5ft	20	0.33	20	0.33	12	0.24
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	1.3		1.3		1.3	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.0000		1.0000		1.0000	
<b>Emergent Marsh HSI =</b>		<b>0.28</b>		<b>EM HSI =</b>	<b>0.28</b>	<b>EM HSI =</b>	<b>0.27</b>
<b>Open Water HSI =</b>		<b>0.52</b>		<b>OW HSI =</b>	<b>0.52</b>	<b>OW HSI =</b>	<b>0.51</b>

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

FWOP

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

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Fresh/Intermediate Marsh

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

**Terraces**

Condition: Future With Project

Project Area:	859
% Fresh	0
% Intermediate	100

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	5	0.15	6	0.15	10	0.19
V2	% Aquatic	37	0.43	0	0.10	37	0.43
V3	Interspersion	%		%		%	
	Class 1	0	0.10	0	0.40	0	0.40
	Class 2	0		0		0	
	Class 3	0		100		100	
	Class 4	0		0		0	
	Class 5	100		0		0	
V4	%OW <= 1.5ft	20	0.33	22	0.35	22	0.35
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	1.3		1.3		1.3	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1		1.0000		1.0000	
		<b>Emergent Marsh HSI =</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
		<b>0.28</b>		<b>0.32</b>		<b>0.35</b>	
		<b>Open Water HSI =</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	
		<b>0.52</b>		<b>0.27</b>		<b>0.54</b>	

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	10	0.19	9	0.18		
V2	% Aquatic	37	0.43	47	0.52		
V3	Interspersion	%		%		%	
	Class 1	0	0.40	0	0.40		
	Class 2	0		0			
	Class 3	100		100			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	22	0.35	14	0.26		
V5	Salinity (ppt)						
	fresh		1.00		1.00		
	intermediate	1.3		1.3			
V6	Access Value						
	fresh		1.00		1.00		
	intermediate	1.0000		1.0000			
		<b>EM HSI =</b>	<b>0.35</b>	<b>EM HSI =</b>	<b>0.34</b>	<b>EM HSI =</b>	
		<b>OW HSI =</b>	<b>0.54</b>	<b>OW HSI =</b>	<b>0.60</b>	<b>OW HSI =</b>	

Project: **Lake Lery Shoreline Marsh Creation and Terracing**

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Lake Lery Shoreline Marsh Creation and Terracing

Terraces

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	16	0.28	4.45	
1	15	0.28	4.17	4.31
20	12	0.27	3.24	70.26
Max= 20			AAHUs =	3.73

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	16	0.28	4.45	
1	19	0.32	6.06	5.23
3	30	0.35	10.51	16.46
5	30	0.35	10.51	21.03
20	27	0.34	9.25	148.20
Max= 20			AAHUs	9.55

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	9.55
B. Future Without Project Emergent Marsh AAHUs	=	3.73
Net Change (FWP - FWOP)	=	5.82

## AAHU CALCULATION - OPEN WATER

Project: Lake Lery Shoreline Marsh Creation and Terracing

Terraces

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	283	0.52	147.36	
1	284	0.52	147.88	147.62
20	287	0.51	147.53	2806.54
Max= 20			AAHUs =	147.71

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	283	0.52	147.36	
1	269	0.27	72.03	109.10
3	269	0.54	146.50	218.53
5	269	0.54	146.50	293.00
20	272	0.60	163.50	2324.60
Max= 20			AAHUs	147.26

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	147.26
B. Future Without Project Open Water AAHUs	=	147.71
Net Change (FWP - FWOP)	=	-0.45

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	5.82
B. Open Water Habitat Net AAHUs	=	-0.45
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	3.80

# WETLAND VALUE ASSESSMENT

## Benefits Summary Sheet

**Project: North Catfish Lake Marsh Creation**

### TOTAL BENEFITS IN AAHUs DUE TO PROJECT

<u>Area</u>	<u>AAHUs</u>
Saline Marsh	255.8

<b>TOTAL BENEFITS =            256 AAHUS</b>
--



# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Saline Marsh

Project: **North Catfish Lake Marsh Creation**

Project Area: **666**

Condition: Future Without Project

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	37	0.43	32	0.39
V2	% Aquatic	1	0.31	1	0.31	1	0.31
V3	Interspersion	%		%		%	
	Class 1	0	0.33	0	0.33	0	0.32
	Class 2	20		20		20	
	Class 3	27		27		22	
	Class 4	53		53		58	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	45	0.68	45	0.68	30	0.49
V5	Salinity (ppt)	14.9	1.00	14.9	1.00	14.9	1.00
V6	Access Value	1.0000	1.00	1.0000	1.00	1.0000	1.00
<b>Emergent Marsh HSI =</b>		<b>0.57</b>		<b>EM HSI =</b>	<b>0.56</b>	<b>EM HSI =</b>	<b>0.53</b>
<b>Open Water HSI =</b>		<b>0.70</b>		<b>OW HSI =</b>	<b>0.70</b>	<b>OW HSI =</b>	<b>0.69</b>

Project: **North Catfish Lake Marsh Creation**

Project Area: **666**

FWOP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
	Class 5						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
V6	Access Value						
<b>EM HSI =</b>				<b>EM HSI =</b>		<b>EM HSI =</b>	
<b>OW HSI =</b>				<b>OW HSI =</b>		<b>OW HSI =</b>	

Project: **North Catfish Lake Marsh Creation**  
FWOP

Project Area: **666**

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Saline Marsh

Project: **North Catfish Lake Marsh Creation**

Project Area: **666**

Condition: Future With Project

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	38	0.44	30	0.37	68	0.71
V2	% Aquatic	1	0.31	1	0.31	2	0.31
V3	Interspersion	%		%		%	
	Class 1	0	0.33	0	0.10	0	0.40
	Class 2	20		0		0	
	Class 3	27		0		100	
	Class 4	53		0		0	
	Class 5	0		100		0	
V4	%OW <= 1.5ft	45	0.68	100	0.50	100	0.50
V5	Salinity (ppt)	14.9	1.00	14.9	1.00	14.9	1.00
V6	Access Value	1.0000	1.00	0.0001	0.10	1.0000	1.00
		Emergent Marsh HSI =		EM HSI =		EM HSI =	
		=		=		=	
		0.57		0.33		0.76	
		Open Water HSI =		OW HSI =		OW HSI =	
		=		=		=	
		0.70		0.23		0.70	

Project: **North Catfish Lake Marsh Creation**  
FWP

Project Area: **666**

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	98	0.98	92	0.93		
V2	% Aquatic	5	0.34	5	0.34		
V3	Interspersion	%		%		%	
	Class 1	100	1.00	100	1.00		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	100	0.50	90	0.75		
V5	Salinity (ppt)	14.9	1.00	14.9	1.00		
V6	Access Value	1.0000	1.00	1.0000	1.00		
		EM HSI =	0.99	EM HSI =	0.96	EM HSI =	
		OW HSI =	0.75	OW HSI =	0.77	OW HSI =	

Project: **North Catfish Lake Marsh Creation**  
FWP

Project Area: **666**

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

## AAHU CALCULATION - EMERGENT MARSH

Project: North Catfish Lake Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	251	0.57	143.03	
1	249	0.56	140.28	141.65
20	214	0.53	113.31	2405.36
Max= 20			AAHUs =	127.35

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	251	0.57	143.03	
1	197	0.33	64.96	101.84
3	453	0.76	343.56	371.95
5	653	0.99	646.13	974.29
20	615	0.96	588.93	9259.91
Max= 20			AAHUs	535.40

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	535.40
B. Future Without Project Emergent Marsh AAHUs	=	127.35
Net Change (FWP - FWOP)	=	408.05

## AAHU CALCULATION - OPEN WATER

Project: North Catfish Lake Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	415	0.70	292.21	
1	417	0.70	293.62	292.92
20	452	0.69	311.47	5750.06
Max= 20			AAHUs =	302.15

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	415	0.70	292.21	
1	3	0.23	0.68	113.60
3	8	0.70	5.59	5.48
5	13	0.75	9.81	15.31
20	51	0.77	39.41	367.36
Max= 20			AAHUs	25.09

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	25.09
B. Future Without Project Open Water AAHUs	=	302.15
Net Change (FWP - FWOP) =		-277.06

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	408.05
B. Open Water Habitat Net AAHUs	=	-277.06
Net Benefits= (3.5xEMAAHUs+OWAAHUs)/4.5		255.80

# WETLAND VALUE ASSESSMENT

## Benefits Summary Sheet

**Project: Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection**

### TOTAL BENEFITS IN AAHUs DUE TO PROJECT

	<u>Area</u>	<u>AAHUs</u>
Fully Contained Marsh Creation- Brackish Marsh		251.96
	<u>Area</u>	<u>AAHUs</u>
Semi Contained Marsh Creation- Fresh/Intermediate Marsh		28.64
	<u>Area</u>	<u>AAHUs</u>
Shoreline Protection- Fresh/Intermediate Marsh		1.74

<b>TOTAL BENEFITS =      282 AAHUS</b>
--

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Brackish Marsh

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection - Fully Contained Marsh Creation**

Project Area: 602

Condition: Future Without Project

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	24	0.32	24	0.32	21	0.29
V2	% Aquatic	10	0.19	10	0.19	10	0.19
V3	Interspersion	%		%		%	
	Class 1	0	0.22	0	0.22	0	0.22
	Class 2	0		0		0	
	Class 3	9		9		9	
	Class 4	91		91		91	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	2	0.13	2	0.13	4	0.15
V5	Salinity (ppt)	3	1.00	3	1.00	3	1.00
V6	Access Value	1.0000	1.00	1.0000	1.00	1.0000	1.00
Emergent Marsh HSI =			0.46	EM HSI =		0.46	0.43
Open Water HSI =			0.39	OW HSI =		0.39	0.39

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection - Fully Contained Marsh Creation**

Project Area: 602

FWOP

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

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline**

Project Area: 602

FWOP

**Protection - Fully Contained Marsh Creation**

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Brackish Marsh

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline**

Project Area: 602

**Protection - Fully Contained Marsh Creation**

Condition: Future With Project

Variable		TY 0		TY 1		TY 3	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	24	0.32	20	0.28	47	0.52
V2	% Aquatic	10	0.19	0	0.10	5	0.15
V3	Interspersion	%		%		%	
	Class 1	0	0.22	0	0.10	0	0.40
	Class 2	0		0		0	
	Class 3	9		0		100	
	Class 4	91		0		0	
	Class 5	0		100		0	
V4	%OW <= 1.5ft	2	0.13	100	0.60	100	0.60
V5	Salinity (ppt)	3	1.00	3	1.00	3	1.00
V6	Access Value	1.0000	1.00	0.0001	0.10	1.0000	1.00
		Emergent Marsh HSI =		EM HSI =		EM HSI =	
		Open Water HSI =		OW HSI =		OW HSI =	



Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline**

Project Area: 602

FWP

**Protection - Fully Contained Marsh Creation**

Variable		TY	5	TY	20	TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	98	0.98	94	0.95		
V2	% Aquatic	20	0.28	40	0.46		
V3	Interspersion	%		%		%	
	Class 1	100	1.00	100	1.00		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	100	0.60	80	1.00		
V5	Salinity (ppt)	3	1.00	3	1.00		
V6	Access Value	1.0000	1.00	1.0000	1.00		
		EM HSI =	0.99	EM HSI =	0.97	EM HSI =	
		OW HSI =	0.55	OW HSI =	0.71	OW HSI =	

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline**

Project Area: 602

FWP

**Protection - Fully Contained Marsh Creation**

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection -  
Fully Contained Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	146	0.46	66.57	
1	145	0.46	66.11	66.34
20	129	0.43	56.07	1159.70
Max TY= 20			AAHUs =	61.30

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	146	0.46	66.57	
1	118	0.29	34.69	49.87
3	280	0.63	175.83	192.48
5	593	0.99	586.60	724.74
20	566	0.97	547.60	8505.02
Max TY= 20			AAHUs	473.61

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		473.61
B. Future Without Project Emergent Marsh AAHUs	=		61.30
Net Change (FWP - FWOP) =			412.30

## AAHU CALCULATION - OPEN WATER

Project: Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection -  
Fully Contained Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	456	0.39	176.33	
1	457	0.39	176.71	176.52
20	473	0.39	183.80	3424.82
Max TY= 20			AAHUs =	180.07

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	456	0.39	176.33	
1	2	0.20	0.41	74.52
3	6	0.39	2.35	2.51
5	9	0.55	4.99	7.19
20	36	0.71	25.57	218.76
Max TY= 20			AAHUs	15.15

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	15.15
B. Future Without Project Open Water AAHUs	=	180.07
Net Change (FWP - FWOP) =		-164.92

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	412.30
B. Open Water Habitat Net AAHUs	=	-164.92
Net Benefits= (2.6xEMAAHUs+OWAAHUs)/3.6		251.96

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Semi Contained Marsh Creation**

Condition: Future Without Project

Project Area:	162
% Fresh	0
% Intermediate	100

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	67	0.70	66	0.69	59	0.63
V2	% Aquatic	30	0.37	30	0.37	20	0.28
V3	Interspersion	%		%		%	
	Class 1	0	0.60	0	0.60	0	0.60
	Class 2	100		100		100	
	Class 3	0		0		0	
	Class 4	0		0		0	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	33	0.47	33	0.47	19	0.31
V5	Salinity (ppt)						
	fresh		0.90		0.90		0.90
	intermediate	3		3		3	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.0000		1.0000		1.0000	
<b>Emergent Marsh HSI =</b>		<b>0.75</b>		<b>EM HSI =</b>	<b>0.74</b>	<b>EM HSI =</b>	<b>0.70</b>
<b>Open Water HSI =</b>		<b>0.52</b>		<b>OW HSI =</b>	<b>0.52</b>	<b>OW HSI =</b>	<b>0.43</b>

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Semi Contained Marsh Creation**

FWOP

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

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Semi Contained Marsh Creation**

FWOP

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

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

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Semi Contained Marsh Creation**

Condition: Future With Project

Project Area:	162
% Fresh	0
% Intermediate	100

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	67	0.70	36	0.42	75	0.78
V2	% Aquatic	30	0.37	0	0.10	10	0.19
V3	Interspersion	%		%		%	
	Class 1	0	0.60	0	0.10	0	0.40
	Class 2	100		0		0	
	Class 3	0		0		100	
	Class 4	0		0		0	
	Class 5	0		100		0	
V4	%OW <= 1.5ft	33	0.47	100	0.60	100	0.60
V5	Salinity (ppt)						
	fresh		0.90		0.90		0.90
	intermediate	3		3		3	
V6	Access Value						
	fresh		1.00		0.20		1.00
	intermediate	1		0.0001		1.0000	
Emergent Marsh HSI =		0.75		EM HSI =	0.40	EM HSI =	0.77
Open Water HSI =		0.52		OW HSI =	0.21	OW HSI =	0.36

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Semi Contained Marsh Creation**

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	95	0.96	90	0.91		
V2	% Aquatic	20	0.28	40	0.46		
V3	Interspersion	%		%		%	
	Class 1	100	1.00	100	1.00		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	100	0.60	90	1.00		
V5	Salinity (ppt)						
	fresh intermediate	3	0.90	3	0.90		
V6	Access Value						
	fresh intermediate	1.0000	1.00	1.0000	1.00		
		<b>EM HSI =</b>	<b>0.96</b>	<b>EM HSI =</b>	<b>0.93</b>	<b>EM HSI =</b>	
		<b>OW HSI =</b>	<b>0.48</b>	<b>OW HSI =</b>	<b>0.65</b>	<b>OW HSI =</b>	

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Semi Contained Marsh Creation**

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-  
Semi Contained Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	108	0.75	80.62	
1	107	0.74	79.22	79.92
20	95	0.70	66.18	1379.55
Max=		20	AAHUs =	72.97

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	108	0.75	80.62	
1	59	0.40	23.72	49.36
3	121	0.77	93.58	109.63
5	154	0.96	147.78	239.31
20	145	0.93	134.86	2119.17
Max=		20	AAHUs	125.87

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		125.87
B. Future Without Project Emergent Marsh AAHUs	=		72.97
Net Change (FWP - FWOP) =			52.90

## AAHU CALCULATION - OPEN WATER

Project: Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-  
Semi Contained Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	54	0.52	27.81	
1	55	0.52	28.33	28.07
20	67	0.43	29.06	548.25
Max= 20			AAHUs =	28.82

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	54	0.52	27.81	
1	6	0.21	1.27	12.11
3	7	0.36	2.55	3.77
5	8	0.48	3.88	6.39
20	17	0.65	11.04	108.15
Max= 20			AAHUs	6.52

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	6.52
B. Future Without Project Open Water AAHUs	=	28.82
Net Change (FWP - FWOP)	=	-22.30

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	52.90
B. Open Water Habitat Net AAHUs	=	-22.30
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	28.64



# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Shoreline Protection**

Condition: Future Without Project

Project Area:	5.4
% Fresh	0
% Intermediate	100

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	69	0.72	65	0.69	0	0.10
V2	% Aquatic	0	0.10	0	0.10	0	0.10
V3	Interspersion	%		%		%	
	Class 1	69	0.72	65	0.69	0	0.10
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	0		0		0	
	Class 5	31		35		100	
V4	%OW <= 1.5ft	20	0.33	20	0.33	5	0.16
V5	Salinity (ppt)						
	fresh		0.90		0.90		0.90
	intermediate	3		3		3	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.0000		1.0000		1.0000	
<b>Emergent Marsh HSI =</b>		<b>0.77</b>		<b>EM HSI =</b>	<b>0.74</b>	<b>EM HSI =</b>	<b>0.23</b>
<b>Open Water HSI =</b>		<b>0.28</b>		<b>OW HSI =</b>	<b>0.28</b>	<b>OW HSI =</b>	<b>0.22</b>

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Shoreline Protection**

FWOP

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

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Shoreline Protection**

FWOP

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

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

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Shoreline Protection**

Condition: Future With Project

Project Area:	162
% Fresh	0
% Intermediate	100

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	69	0.72	69	0.72	83	0.85
V2	% Aquatic	0	0.10	0	0.10	30	0.37
V3	Interspersion	%		%		%	
	Class 1	69	0.72	69	0.72	100	1.00
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	0		0		0	
	Class 5	31		31		0	
V4	%OW <= 1.5ft	20	0.33	20	0.33	50	0.66
V5	Salinity (ppt)						
	fresh		0.90		0.90		0.90
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.0000		1.0000		1.0000	
		Emergent Marsh HSI =	0.77	EM HSI =	0.77	EM HSI =	0.89
		Open Water HSI =	0.28	OW HSI =	0.28	OW HSI =	0.56

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Shoreline Protection**

FWP

Variable		TY 20		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	93	0.94				
V2	% Aquatic	30	0.37				
V3	Interspersion	%		%		%	
	Class 1	100	1.00				
	Class 2	0					
	Class 3	0					
	Class 4	0					
	Class 5	0					
V4	%OW <= 1.5ft	100	0.60				
V5	Salinity (ppt)						
	fresh		0.90				
	intermediate	3					
V6	Access Value						
	fresh		1.00				
	intermediate	1.0000					
EM HSI =		0.95		EM HSI =		EM HSI =	
OW HSI =		0.55		OW HSI =		OW HSI =	

Project: **Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Shoreline Protection**

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-  
Shoreline Protection

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	3.7	0.77	2.86	
1	3.5	0.74	2.60	2.73
20	0	0.23	0.00	18.98
Max=		20	AAHUs =	1.09

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	3.7	0.77	2.86	
1	3.7	0.77	2.86	2.86
10	4.5	0.89	4.00	30.71
20	5	0.95	4.74	43.63
Max=		20	AAHUs	3.86

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		3.86
B. Future Without Project Emergent Marsh AAHUs	=		1.09
Net Change (FWP - FWOP) =			2.77

## AAHU CALCULATION - OPEN WATER

Project: Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection-Shoreline Protection

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	1.7	0.28	0.48	
1	1.9	0.28	0.53	0.51
20	5.4	0.22	1.21	17.16
Max= 20			AAHUs =	0.88

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	1.7	0.28	0.48	
1	1.7	0.28	0.48	0.48
10	0.9	0.56	0.50	4.76
20	0.4	0.55	0.22	3.62
Max= 20			AAHUs	0.44

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Open Water AAHUs	=		0.44
B. Future Without Project Open Water AAHUs	=		0.88
Net Change (FWP - FWOP) =			-0.44

TOTAL BENEFITS IN AAHUs DUE TO PROJECT			
A. Emergent Marsh Habitat Net AAHUs	=		2.77
B. Open Water Habitat Net AAHUs	=		-0.44
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1			1.74

**WETLAND VALUE ASSESSMENT**

**Benefits Summary Sheet**

**Project: South Little Vermillion Bay Plantings and Terracing**

**TOTAL BENEFITS IN AAHUs DUE TO PROJECT**

<u>Area</u>	<u>AAHUs</u>
Fresh/Intermediate Marsh	16.92

<b>TOTAL BENEFITS =            17 AAHUS</b>
---

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **South Little Vermilion Bay Plantings and Terracing**

Project Area:	392
% Fresh	0
% Intermediate	100

Condition: Future Without Project

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	16	0.24	15	0.24	0	0.10
V2	% Aquatic	5	0.15	5	0.15	5	0.15
V3	Interspersion	%		%		%	
	Class 1	17	0.25	17	0.25	0	0.10
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	0		0		0	
	Class 5	83		83		100	
V4	%OW <= 1.5ft	14	0.26	14	0.26	36	0.51
V5	Salinity (ppt)						
	fresh		0.72		0.72		0.72
	intermediate	3.9		3.9		3.9	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.0000		1.0000		1.0000	
<b>Emergent Marsh HSI =</b>		<b>0.35</b>		<b>EM HSI =</b>	<b>0.34</b>	<b>EM HSI =</b>	<b>0.21</b>
<b>Open Water HSI =</b>		<b>0.27</b>		<b>OW HSI =</b>	<b>0.27</b>	<b>OW HSI =</b>	<b>0.28</b>

Project: **South Little Vermilion Bay Plantings and Terracing**

FWOP

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent						
V2	% Aquatic						
V3	Interspersion	%		%		%	
	Class 1						
	Class 2						
	Class 3						
	Class 4						
V4	%OW <= 1.5ft						
V5	Salinity (ppt)						
	fresh						
	intermediate						
V6	Access Value						
	fresh						
	intermediate						
<b>EM HSI =</b>				<b>EM HSI =</b>		<b>EM HSI =</b>	
<b>OW HSI =</b>				<b>OW HSI =</b>		<b>OW HSI =</b>	

Project: **South Little Vermilion Bay Plantings and Terracing**

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Fresh/Intermediate Marsh

Project: **South Little Vermilion Bay Plantings and Terracing**

Project Area:	392
% Fresh	0
% Intermediate	100

Condition: Future With Project

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	16	0.24	18	0.26	22	0.30
V2	% Aquatic	5	0.15	0	0.10	10	0.19
V3	Interspersion	%		%		%	
	Class 1	17	0.25	21	0.37	21	0.37
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	0		79		79	
	Class 5	83		0		0	
V4	%OW <= 1.5ft	14	0.26	15	0.27	15	0.27
V5	Salinity (ppt)						
	fresh		0.72		0.72		0.72
	intermediate	3.9		3.9		3.9	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1		1.0000		1.0000	
		<b>Emergent Marsh HSI =</b>		<b>EM HSI =</b>		<b>EM HSI =</b>	
		<b>Open Water HSI =</b>		<b>OW HSI =</b>		<b>OW HSI =</b>	



Project: **South Little Vermilion Bay Plantings and Terracing**

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	24	0.32	24	0.32		
V2	% Aquatic	10	0.19	10	0.19		
V3	Interspersion	%		%		%	
	Class 1	21	0.37	21	0.37		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	79		79			
	Class 5	0		0			
V4	%OW <= 1.5ft	12	0.24	7	0.18		
V5	Salinity (ppt)						
	fresh		0.72		0.72		
	intermediate	3.9		3.9			
V6	Access Value						
	fresh		1.00		1.00		
	intermediate	1.0000		1.0000			
		EM HSI =	0.42	EM HSI =	0.42	EM HSI =	
		OW HSI =	0.32	OW HSI =	0.32	OW HSI =	

Project: **South Little Vermilion Bay Plantings and Terracing**

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: South Little Vermilion Bay Plantings and Terracing

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	63	0.35	21.94	
1	60	0.34	20.45	21.19
20	0	0.21	0.00	168.50
Max= 20			AAHUs =	9.48

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	63	0.35	21.94	
1	70	0.38	26.29	24.08
3	88	0.40	35.59	61.72
5	93	0.42	38.94	74.51
20	93	0.42	38.94	584.07
Max= 20			AAHUs	37.22

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	37.22
B. Future Without Project Emergent Marsh AAHUs	=	9.48
Net Change (FWP - FWOP)	=	27.73

## AAHU CALCULATION - OPEN WATER

Project: South Little Vermilion Bay Plantings and Terracing

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	329	0.27	90.12	
1	332	0.27	90.94	90.53
20	392	0.28	110.12	1908.68
Max= 20			AAHUs =	99.96

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	329	0.27	90.12	
1	310	0.24	74.03	81.96
3	304	0.32	98.60	172.80
5	299	0.32	96.23	194.82
20	299	0.32	94.98	1434.07
Max= 20			AAHUs	94.18

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	94.18
B. Future Without Project Open Water AAHUs	=	99.96
Net Change (FWP - FWOP)	=	-5.78

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	27.73
B. Open Water Habitat Net AAHUs	=	-5.78
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	16.92

**WETLAND VALUE ASSESSMENT**

**Benefits Summary Sheet**

**Project: Terracing and Marsh Creation South of Big Mar**

**TOTAL BENEFITS IN AAHUs DUE TO PROJECT**

	<u>Area</u>	<u>AAHUs</u>
Subarea 1- Terraces- Fresh/Intermediate Marsh		3.82
	<u>Area</u>	<u>AAHUs</u>
Subarea 2- Marsh Creation- Fresh/Intermediate Marsh		82.55

<b>TOTAL BENEFITS =            86 AAHUS</b>
---

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Terracing and Marsh Creation South of Big Mar**

[Subarea 1 - Terraces](#)

Condition: Future Without Project

Project Area:	1,062
% Fresh	0
% Intermediate	100

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	9	0.18	9	0.18	7	0.16
V2	% Aquatic	80	0.82	80	0.82	80	0.82
V3	Interspersion	%		%		%	
	Class 1	0	0.10	0	0.10	0	0.10
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	0		0		0	
	Class 5	100		100		100	
V4	%OW <= 1.5ft	3	0.13	3	0.13	5	0.16
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	1.3		1.3		1.3	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.0000		1.0000		1.0000	
<b>Emergent Marsh HSI =</b>		<b>0.31</b>		<b>EM HSI =</b>	<b>0.31</b>	<b>EM HSI =</b>	<b>0.29</b>
<b>Open Water HSI =</b>		<b>0.76</b>		<b>OW HSI =</b>	<b>0.76</b>	<b>OW HSI =</b>	<b>0.76</b>

Project: **Terracing and Marsh Creation South of Big Mar**

FWOP

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

## FWOP

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Fresh/Intermediate Marsh

### Subarea 1 - Terraces

Project Area:	1,062
% Fresh	0
% Intermediate	100

C-105

Project: Terracing and Marsh Creation South of Big Mar

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	12	0.21	11	0.20		
V2	% Aquatic	80	0.82	89	0.90		
V3	Interspersion	%		%		%	
	Class 1	0	0.20	0	0.20		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	100		100			
	Class 5	0		0			
V4	%OW <= 1.5ft	5	0.16	6	0.17		
V5	Salinity (ppt)						
	fresh		1.00		1.00		
	intermediate	1.3		1.3			
V6	Access Value						
	fresh		1.00		1.00		
	intermediate	1.0000		1.0000			
		EM HSI =	0.34	EM HSI =	0.34	EM HSI =	
		OW HSI =	0.77	OW HSI =	0.82	OW HSI =	

Project: Terracing and Marsh Creation South of Big Mar

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Terracing and Marsh Creation South of Big Mar

Subarea 1 - Terraces

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	93	0.31	28.77	
1	92	0.31	28.46	28.62
20	76	0.29	22.33	481.71
Max= 20			AAHUs =	25.52

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	93	0.31	28.77	
1	102	0.33	33.48	31.10
3	128	0.34	43.97	77.32
5	126	0.34	43.28	87.25
20	115	0.34	38.63	614.12
Max= 20			AAHUs	40.49

NET CHANGE IN AAHUs DUE TO PROJECT			
A. Future With Project Emergent Marsh AAHUs	=		40.49
B. Future Without Project Emergent Marsh AAHUs	=		25.52
Net Change (FWP - FWOP)	=		14.97



## AAHU CALCULATION - OPEN WATER

Project: Terracing and Marsh Creation South of Big Mar  
Subarea 1 - Terraces

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	969	0.76	738.00	
1	970	0.76	738.76	738.38
20	986	0.76	752.59	14167.70
Max= 20			AAHUs =	745.30

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	969	0.76	738.00	
1	933	0.53	499.06	617.17
3	934	0.77	719.82	1218.80
5	936	0.77	721.36	1441.17
20	947	0.82	777.09	11236.96
Max= 20			AAHUs	725.70

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	725.70
B. Future Without Project Open Water AAHUs	=	745.30
Net Change (FWP - FWOP)	=	-19.60

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	14.97
B. Open Water Habitat Net AAHUs	=	-19.60
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	3.82

# WETLAND VALUE ASSESSMENT COMMUNITY MODEL

## Fresh/Intermediate Marsh

Project: **Terracing and Marsh Creation South of Big Mar**

**Subarea 2 - Marsh Creation**

Condition: Future Without Project

Project Area:	334
% Fresh	0
% Intermediate	100

Variable		TY	0	TY	1	TY	20
		Value	SI	Value	SI	Value	SI
V1	% Emergent	14	0.23	14	0.23	12	0.21
V2	% Aquatic	100	1.00	100	1.00	100	1.00
V3	Interspersion	%		%		%	
	Class 1	0	0.20	0	0.20	0	0.20
	Class 2	0		0		0	
	Class 3	0		0		0	
	Class 4	100		100		100	
	Class 5	0		0		0	
V4	%OW <= 1.5ft	17	0.29	17	0.29	17	0.29
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	1.3		1.3		1.3	
V6	Access Value						
	fresh		1.00		1.00		1.00
	intermediate	1.0000		1.0000		1.0000	
<b>Emergent Marsh HSI =</b>			<b>0.36</b>	<b>EM HSI =</b>	<b>0.36</b>	<b>EM HSI =</b>	<b>0.34</b>
<b>Open Water HSI =</b>			<b>0.89</b>	<b>OW HSI =</b>	<b>0.89</b>	<b>OW HSI =</b>	<b>0.89</b>

Project: **Terracing and Marsh Creation South of Big Mar**

FWOP

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

Project: **Terracing and Marsh Creation South of Big Mar**

FWOP

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

## WETLAND VALUE ASSESSMENT COMMUNITY MODEL

### Fresh/Intermediate Marsh

Project: **Terracing and Marsh Creation South of Big Mar**

Subarea 2 - Marsh Creation

Condition: Future With Project

Project Area:	334
% Fresh	0
% Intermediate	100

Variable		TY		TY		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	14	0.23	16	0.24	39	0.45
V2	% Aquatic	100	1.00	0	0.10	50	0.55
V3	Interspersion	%		%		%	
	Class 1	0	0.20	0	0.10	0	0.40
	Class 2	0		0		0	
	Class 3	0		0		100	
	Class 4	100		0		0	
	Class 5	0		100		0	
V4	%OW <= 1.5ft	17	0.29	100	0.60	100	0.60
V5	Salinity (ppt)						
	fresh		1.00		1.00		1.00
	intermediate	1.3		1.3		1.3	
V6	Access Value						
	fresh		1.00		0.20		1.00
	intermediate	1.0000		0.0001		1.0000	
		Emergent Marsh HSI =	0.36	EM HSI =	0.31	EM HSI =	0.56
		Open Water HSI =	0.89	OW HSI =	0.22	OW HSI =	0.64

Project: Terracing and Marsh Creation South of Big Mar

FWP

Variable		TY 5		TY 20		TY	
		Value	SI	Value	SI	Value	SI
V1	% Emergent	98	0.98	90	0.91		
V2	% Aquatic	100	1.00	100	1.00		
V3	Interspersion	%		%		%	
	Class 1	100	1.00	100	1.00		
	Class 2	0		0			
	Class 3	0		0			
	Class 4	0		0			
	Class 5	0		0			
V4	%OW <= 1.5ft	100	0.60	100	0.60		
V5	Salinity (ppt)						
	fresh		1.00		1.00		
	intermediate	1.3		1.3			
V6	Access Value						
	fresh		1.00		1.00		
	intermediate	1.0000		1.0000			
		EM HSI =	0.99	EM HSI =	0.94	EM HSI =	
		OW HSI =	0.97	OW HSI =	0.97	OW HSI =	

Project: Terracing and Marsh Creation South of Big Mar

FWP

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

## AAHU CALCULATION - EMERGENT MARSH

Project: Terracing and Marsh Creation South of Big Mar

Subarea 2 - Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	47	0.36	16.85	
1	47	0.36	16.85	16.85
20	38	0.34	13.05	283.67
Max=		20	AAHUs =	15.03

Future With Project			Total HUs	Cummulative HUs
TY	Marsh Acres	x HSI		
0	47	0.36	16.85	
1	52	0.31	15.90	16.42
3	131	0.56	72.85	82.16
5	326	0.99	322.19	366.95
20	302	0.94	284.25	4545.45
Max=		20	AAHUs	250.55

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Emergent Marsh AAHUs	=	250.55
B. Future Without Project Emergent Marsh AAHUs	=	15.03
Net Change (FWP - FWOP)	=	235.52

## AAHU CALCULATION - OPEN WATER

Project: Terracing and Marsh Creation South of Big Mar  
Subarea 2 - Marsh Creation

Future Without Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	287	0.89	254.93	
1	287	0.89	254.93	254.93
20	296	0.89	262.92	4919.52
Max= 20			AAHUs =	258.72

Future With Project			Total HUs	Cummulative HUs
TY	Water Acres	x HSI		
0	287	0.89	254.93	
1	2	0.22	0.44	95.86
3	5	0.64	3.22	3.23
5	8	0.97	7.76	10.66
20	32	0.97	31.05	291.11
Max= 20			AAHUs	20.04

NET CHANGE IN AAHUs DUE TO PROJECT		
A. Future With Project Open Water AAHUs	=	20.04
B. Future Without Project Open Water AAHUs	=	258.72
Net Change (FWP - FWOP)	=	-238.68

TOTAL BENEFITS IN AAHUs DUE TO PROJECT		
A. Emergent Marsh Habitat Net AAHUs	=	235.52
B. Open Water Habitat Net AAHUs	=	-238.68
Net Benefits=(2.1xEMAAHUs+OWAAHUs)/3.1	=	82.55

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

**22nd Priority Project List Report**

**Appendix D**

**Economic Analyses for Candidate Projects**

**Appendix D**  
**Economic Analyses for Candidate Projects**  
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**Coastal Wetlands Conservation and Restoration Plan**  
**Bayou Dupont #3**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" Total Project Years "43"

Interest Rate	4.000%	Amortization Factor	0.07358
Fully Funded First Costs	\$37,057,275	Total Fully Funded Costs	\$38,279,163

D-1

	<div style="border-bottom: 1px solid black; display: inline-block; padding-bottom: 2px;">Present Worth</div>	<div style="border-bottom: 1px solid black; display: inline-block; padding-bottom: 2px;">Average Annual</div>
Total Charges		
First Costs	\$36,452,361	\$2,682,229
Monitoring	\$212,009	\$15,600
State O & M Costs	\$426,469	\$31,380
Other Federal Costs	<div style="border-bottom: 1px solid black; display: inline-block; padding-bottom: 2px;">\$89,892</div>	<div style="border-bottom: 1px solid black; display: inline-block; padding-bottom: 2px;">\$6,614</div>
Average Annual Cost	\$2,735,823	\$2,735,823
Average Annual Habitat Units	166	
Cost Per Habitat Unit	\$16,481	
Total Net Acres	"5: 5"	

## D-2

Fully Funded First Costs	\$26,685,983	Total Fully Funded Costs	\$27,685,820
--------------------------	--------------	--------------------------	--------------

	Present Worth	Average Annual
Total Charges		
First Costs	\$26,179,739	\$1,926,351
Monitoring	\$130,975	\$9,637
State O & M Costs	\$429,416	\$31,597
Other Federal Costs	\$90,996	\$6,696
Average Annual Cost	\$1,974,281	\$1,974,281
Average Annual Habitat Units	106	
Cost Per Habitat Unit	\$18,625	
Total Net Acres	487	

**Coastal Wetlands Conservation and Restoration Plan**  
**Elmer's Island Restoration Project**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" "Total Project Years" "43"

Interest Rate	4.000%	Amortization Factor	0.07358
Fully Funded First Costs	\$34,599,236	Total Fully Funded Costs	\$35,745,200

D-3

	<div style="border-bottom: 1px solid black; display: inline-block; padding: 0 5px;">Present Worth</div>	<div style="border-bottom: 1px solid black; display: inline-block; padding: 0 5px;">Average Annual</div>
Total Charges		
First Costs	\$33,904,475	\$2,494,751
Monitoring	\$134,598	\$9,904
State O & M Costs	\$517,951	\$38,112
Other Federal Costs	<div style="border-bottom: 1px solid black; display: inline-block; padding: 0 5px;">\$96,244</div>	<div style="border-bottom: 1px solid black; display: inline-block; padding: 0 5px;">\$7,082</div>
Average Annual Cost	\$2,549,848	\$2,549,848
Average Annual Habitat Units	146	
Cost Per Habitat Unit	\$17,465	
Total Net Acres "494"		

**Coastal Wetlands Conservation and Restoration Plan**  
**Front Ridge Terracing and FWI**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" Vqtal Project Years "43"

Interest Rate 4.000% Amortization Factor 0.07358

Fully Funded First Costs \$11,024,166 Total Fully Funded Costs \$13,622,423

D-4

	Present Worth	Average Annual
Total Charges		
First Costs	\$10,971,962	\$807,336
Monitoring	\$0	\$0
State O & M Costs	\$1,407,002	\$103,530
Other Federal Costs	\$125,634	\$9,244
Average Annual Cost	\$920,110	\$920,110
Average Annual Habitat Units	277	
Cost Per Habitat Unit	\$3,322	
Total Net Acres "356"		

**Coastal Wetlands Conservation and Restoration Plan**  
**Grand Bayou Freshwater Enhancement & Terracing**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" Total Project Years "43"

Interest Rate	4.000%	Amortization Factor	0.07358
Fully Funded First Costs	\$27,078,323	Total Fully Funded Costs	\$30,344,992

D-5

	Present Worth	Average Annual
Total Charges		
First Costs	\$26,446,126	\$1,945,952
Monitoring	\$150,229	\$11,054
State O & M Costs	\$1,519,883	\$111,836
Other Federal Costs	\$133,800	\$9,845
Average Annual Cost	\$2,078,687	\$2,078,687
Average Annual Habitat Units	607	
Cost Per Habitat Unit	\$3,425	
Total Net Acres "877"		

**Coastal Wetlands Conservation and Restoration Plan**  
**Lake Lery Shoreline Marsh Creation and Terracing**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" Votal Project Years "43"

Interest Rate 4.000% Amortization Factor 0.07358

Fully Funded First Costs \$30,259,913 Total Fully Funded Costs \$31,377,030

D-6

	Present Worth	Average Annual
Total Charges		
First Costs	\$30,004,457	\$2,207,780
Monitoring	\$121,687	\$8,954
State O & M Costs	\$534,127	\$39,302
Other Federal Costs	\$95,022	\$6,992
Average Annual Cost	\$2,263,028	\$2,263,028
Average Annual Habitat Units	178	
Cost Per Habitat Unit	\$12,714	
Total Net Acres "625"		

**Coastal Wetlands Conservation and Restoration Plan**  
**North Catfish Lake Marsh Creation**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" Votal Project Years "43"

Interest Rate	4.000%	Amortization Factor	0.07358
Fully Funded First Costs	\$29,075,016	Total Fully Funded Costs	\$30,385,887

D-7

	<div style="border-bottom: 1px solid black;">Present Worth</div>	<div style="border-bottom: 1px solid black;">Average Annual</div>
Total Charges		
First Costs	\$28,995,393	\$2,133,532
Monitoring	\$0	\$0
State O & M Costs	\$816,067	\$60,048
Other Federal Costs	<div style="border-bottom: 1px solid black;">\$100,914</div>	<div style="border-bottom: 1px solid black;">\$7,425</div>
Average Annual Cost	\$2,201,005	\$2,201,005
Average Annual Habitat Units	256	
Cost Per Habitat Unit	\$8,598	
Total Net Acres "623"		

**Coastal Wetlands Conservation and Restoration Plan**  
**Northeast Turtle Bay Marsh Creation**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" Total Project Years "43"

Interest Rate 4.000% Amortization Factor 0.07358

Fully Funded First Costs \$37,355,591 Total Fully Funded Costs \$40,494,122

D-8

Total Charges	Present Worth	Average Annual
First Costs	\$37,108,714	\$2,730,524
Monitoring	\$0	\$0
State O & M Costs	\$2,111,887	\$155,396
Other Federal Costs	\$154,286	\$11,353
Average Annual Cost	\$2,897,273	\$2,897,273
Average Annual Habitat Units	282	
Cost Per Habitat Unit	\$10,274	
Total Net Acres "6; 4"		



**Coastal Wetlands Conservation and Restoration Plan**  
**South Little Vermillion Bay Terrace and Planting Project**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" Total Project Years "43"

Interest Rate	4.000%	Amortization Factor	0.07358
Fully Funded First Costs	\$4,497,065	Total Fully Funded Costs	\$6,506,921

D-9

	Present Worth	Average Annual
Total Charges		
First Costs	\$4,512,925	\$332,069
Monitoring	\$127,477	\$9,380
State O & M Costs	\$1,175,568	\$86,500
Other Federal Costs	\$121,070	\$8,909
Average Annual Cost	\$436,858	\$436,858
Average Annual Habitat Units	17	
Cost Per Habitat Unit	\$25,698	
Total Net Acres "5"		

**Coastal Wetlands Conservation and Restoration Plan**  
**Terracing and Marsh Creation South of Big Mar**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" Votal Project Years "43"

Interest Rate	4.000%	Amortization Factor	0.07358
Fully Funded First Costs	\$22,805,065	Total Fully Funded Costs	\$23,692,705

D-10

	Present Worth	Average Annual
Total Charges		
First Costs	\$22,774,597	\$1,675,795
Monitoring	\$0	\$0
State O & M Costs	\$476,211	\$35,040
Other Federal Costs	\$87,756	\$6,457
Average Annual Cost	\$1,717,292	\$1,717,292
Average Annual Habitat Units	86	
Cost Per Habitat Unit	\$19,969	
Total Net Acres "525"		

**Coastal Wetlands Conservation and Restoration Plan**  
**Bioengineering of Shorelines/Canal Banks**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" "Votal Project Years" "43"

Interest Rate	4.000%	Amortization Factor	0.07358
Fully Funded First Costs	\$2,433,605	Total Fully Funded Costs	\$2,562,494

D-11

	Present Worth	Average Annual
Total Charges		
First Costs	\$2,439,722	\$179,519
Monitoring	\$0	\$0
State O & M Costs	\$84,969	\$6,252
Other Federal Costs	\$20,896	\$1,538
Average Annual Cost	\$187,309	\$187,309
Average Annual Habitat Units	NA	
Cost Per Habitat Unit	\$0	
Total Net Acres	NA	

**Coastal Wetlands Conservation and Restoration Plan**  
**CREPS Demo Project**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" Votal Project Years "43"

Interest Rate	4.000%	Amortization Factor	0.07358
Fully Funded First Costs	\$2,779,289	Total Fully Funded Costs	\$3,357,745

D-12

	Present Worth	Average Annual
Total Charges		
First Costs	\$2,851,342	\$209,807
Monitoring	\$0	\$0
State O & M Costs	\$423,738	\$31,179
Other Federal Costs	\$51,536	\$3,792
Average Annual Cost	\$244,778	\$244,778
Average Annual Habitat Units	NA	
Cost Per Habitat Unit	\$0	
Total Net Acres	NA	

**Coastal Wetlands Conservation and Restoration Plan**  
**Hay Bale DEMO - PPL22 Candidate**  
**Project Priority List 22 (ver.071012)**

Project Construction Years: "3" "Votal Project Years" "43"

Interest Rate	4.000%	Amortization Factor	0.07358
Fully Funded First Costs	\$2,027,909	Total Fully Funded Costs	\$2,126,843

D-13

	Present Worth	Average Annual
Total Charges		
First Costs	\$2,035,953	\$149,809
Monitoring	\$0	\$0
State O & M Costs	\$59,971	\$4,413
Other Federal Costs	\$20,896	\$1,538
Average Annual Cost	\$155,759	\$155,759
Average Annual Habitat Units	NA	
Cost Per Habitat Unit	\$0	
Total Net Acres	NA	

**Coastal Wetlands Conservation and Restoration Plan**  
**DEMO Reconnect Wetlands**  
**Project Priority List 22 (ver.070711)**

Project Construction Years:	1	Total Project Years	21
Interest Rate	4.000%	Amortization Factor	0.07358
Fully Funded First Costs	\$503,686	Total Fully Funded Costs	\$1,724,012

D-14

	Present Worth	Average Annual
Total Charges		
First Costs	\$514,173	\$37,834
Monitoring	\$646,224	\$47,550
State O & M Costs	\$479,583	\$35,289
Other Federal Costs	\$54,253	\$3,992
Average Annual Cost	\$124,665	\$124,665
Average Annual Habitat Units	NA	
Cost Per Habitat Unit	\$0	
Total Net Acres	NA	

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

**22nd Priority Project List Report**

**Appendix E**

**Public Support for Candidate Projects**

## **22nd Priority Project List**

### **Public Support for Candidate Projects**

#### **Bayou Dupont Sediment Marsh Creation #3**

- Alfred W. Brown, Landowner, Wildlife Lands, LLC
- Julian D. Kelly, Landowner, Wildlife Lands, LLC
- Christian T. Brown, Landowner, Wildlife Lands, LLC
- Michael Jeansonne, Landowner, River Rest, LLC
- Shawn S. Killeen, Landowner, Wildlife Lands, LLC
- Rufus M. Brown, Landowner

#### **Cameron Meadows Marsh Creation and Wetland Restoration Project**

No written comments submitted for this project

#### **Elmer's Island Restoration Project**

No written comments submitted for this project

#### **Front Ridge Terracing and FWI**

- Michael S. Albritton, Manager, ASA Properties, L.P.
- Carol Albritton Biedenharn, Landowner
- Charles Boustany Jr., MD, Member of Congress
- Wayne Henderson, Land Manager, MLAL Enterprises, LLC

#### **Grand Bayou Freshwater Enhancement and Terracing**

- Timothy J. Allen, General Manager, Apache Louisiana Minerals, LLC
- Michel H. Claudet, Terrebonne Parish President
- Simone Theriot Maloz, Executive Director, Restore or Retreat

#### **Lake Lery Shoreline Marsh Creation and Terracing**

- Michael Farizo, Land Manager, Delacroix Corp.

#### **North Catfish Lake Marsh Creation**

- Simone Theriot Maloz, Executive Director, Restore or Retreat

#### **Northeast Turtle Bay Marsh Creation**

No written comments submitted for this project

#### **South Little Vermillion Bay Terrace and Planting Project**

No written comments submitted for this project

#### **Terracing and Marsh Creation South of Big Mar**

No written comments submitted for this project



## **Public Support for Candidate Demonstration Projects**

### **Bioengineering of Shorelines/Canal Banks**

No written comments submitted for this project

### **CREPS Demo Project**

No written comments submitted for this project

### **Hay Bale DEMO**

No written comments submitted for this project

### **DEMO Reconnect Wetlands**

No written comments submitted for this project

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

**22nd Priority Project List Report**

**Appendix F**

**Project Status Summary Report from 1<sup>st</sup> through 22<sup>nd</sup> Priority Project Lists**

**by Lead Agency, Priority List, and Basin**

## Appendix F

### Project Status Summary Report from 1st through 22nd Priority Project Lists by Lead Agency, Priority List, and Basin

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# COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## PROJECT STATUS SUMMARY REPORT

21 May 2013

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

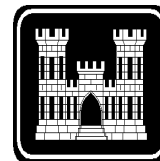
Project Summary by Basin

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  
Projects Branch  
U.S. Army Corps of Engineers  
New Orleans District  
P.O. Box 60267  
New Orleans, LA 70160-0267



**Actual**

Obligations/  
Expenditures

				***** SCHEDULES *****			***** ESTIMATES *****			*****
PROJECT	BASIN	PARISH	ACRES	CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures

**Lead Agency:** DEPT. OF THE ARMY, CORPS OF ENGINEERS

## Priority List 1

Barataria Bay Waterway Wetland Creation	BARA	JEFF	445	24-Apr-1995 A	22-Jul-1996 A	15-Oct-1996 A	\$1,759,257	\$1,167,832	66.4	\$1,167,832
	<b>Status:</b>	The enlargement of Queen Bess Island was incorporated into the project and the construction of a 9-acre cell was completed in October 1996, at a cost of \$945,678. Remaining funds may be used to clear marsh creation sites of oyster leases. If oyster-related conflicts are removed from the remaining marsh creation sites, these areas will be incorporated into the Corp's O&M disposal plan for the next three maintenance cycles. The USACE, LADNR, and LDWF are currently pursuing an administrative process to identify and prioritize beneficial use sites along the BBWW. Additional monitoring of the Queen Bess site was discontinued in 2002 on the recommendation of the local sponsor and monitoring team. There is no operations and maintenance plan for this project. The 20-year life for this CWPPRA project expires on 15 Oct 2016.								
Bayou Labranche Wetland Creation	PONT	STCHA	203	17-Apr-1993 A	06-Jan-1994 A	07-Apr-1994 A	\$4,461,301	\$3,817,929	85.6	\$3,817,929
	<b>Status:</b>	Contract awarded to T. L. James Co. (Dredge "Tom James") for dredging approximately 2,500,000 cy of Lake Pontchartrain sediments and placing in marsh creation area. Contract final inspection was performed on April 7, 1994. Site visit by Task Force took place on April 13, 1994. The project is being monitored; the majority of the monitoring has already been completed and is proceeding in accordance as originally planned for this project. The goal of creating a shallow water habitat conducive to the natural establishment of wetland vegetation seems to have been partially met. As sediment continues to consolidate and water is maintained in the area, upland vegetation is expected to be supplanted by more obligate wetland species. One project goal is to increase the marsh:open water ratio in the project area to a minimum of 70% emergent marsh to 30% open water after 5 years following project completion. As of 1997, the project area contained about 82% land and 18% water, which is higher than the minimum goal. The consolidation of dredged material over time has reached an elevation that appears to sustain the 70% (land and marsh) component of the project area. The soil properties and the vegetation community of the project have developed into characteristic wetland habitat for the region. The project will be monitored for 20 years. There is no O&M plan for this project: the project's 20 year life expires on 7 Apr 2014.								

# COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

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## Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

**Actual**

Obligations/  
Expenditures

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Lake Salvador Shoreline Protection at Jean Lafitte NHP&P	BARA	JEFF		29-Oct-1996 A	01-Jun-1995 A	21-Mar-1996 A	\$60,000	\$60,375	100.6	\$60,375
	<b>Status:</b>	This project was added to Priority List 1 at the March 1995 Task Force meeting. The Task Force approved the expenditure of up to \$45,000 in Federal funds and non-Federal funds of \$15,000 (25%) for the design of the project.								
		A design review meeting was held with Jean Lafitte Park personnel in May 1996 to resolve design comments prior to advertisement for the construction contract. The contract was awarded December 4, 1996 for \$610,000 to Bertucci Contracting Corp. The contract was completed in March 1997.								
		Complete. This project was design only.								
Vermilion River Cutoff Bank Protection	TECHE	VERMI	65	17-Apr-1993 A	10-Jan-1996 A	11-Feb-1996 A	\$1,526,000	\$2,022,987	132.6 !	\$2,018,454
	<b>Status:</b>	The project was modified by moving the dike from the west to the east bank of the cutoff to better protect the wetlands. The need for the sediment retention fence on the west bank is still undetermined.								
		The Task Force approved a revised project estimate of \$2,500,000; however, current estimate is less.								
		The Task Force approved a revised project estimate of \$2,500,000; however, current estimate is less.								
		Condemnation of real estate easements was required because of unclear ownership titles and significantly lengthened the project schedule. Construction was completed in February 1996.								
		Complete.								

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

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## Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
West Bay Sediment Diversion	DELTA	PLAQ	9,831	29-Aug-2002 A	10-Sep-2003 A	28-Nov-2003 A	\$8,517,066	\$50,863,503	597.2 !	\$44,132,394 \$31,622,702
<p><b>Status:</b> Flow measurements taken in May 2008 recorded a discharge of 51,270 cubic feet per second of Mississippi River water through the project diversion channel. Since constructed in 2003 the diversion project discharge has averaged 19,188 cfs. Initial construction of the project was designed to allow the discharge of 20,000 cfs at the 50% exceedence stage. Discharge measurements are taken roughly monthly using an accoustic doppler profiler as part of project surveillance and performance monitoring. At this point there is no evidence in the project area of marsh accretion from the deposition of diverted river sediment.</p> <p>In 2006 the USACE performed maintenance dredging in the Pilottown Anchorage Area to remove induced shoal material in accordance with the project operations plan. Material from the dredging work was used benefcially for marsh creation in West Bay. The dredging event was performed using a hopper dredge linked to a pump out system - a first of its kind use of this technology in Louisiana wetlands restoration. To date approximately 225 acres of marsh have been created through the beneficial use of dredged material from the channel construction and maintaining the anchorage area.</p> <p>Project construction began in September 2003 and construction was completed in November 2003. An advertisement for construction of the project opened 08 July 2003 and bids were opened on 11 August 2003. Chevron-Texaco relocated a major oil pipeline in May 2003 under a reimbursable construction agreement. A real estate plan for the project was completed in October 2002 and execution of the plan will be completed in July 2003. The project Cost Sharing Agreement was signed August 29, 2002. A 95% design review was held May 17, 2002. A Record of Decision finalizing the EIS was signed on March 18, 2002. The Task Force, by fax vote, approved a revised project description and reauthorized the project to comply with CWPPRA Section 3952 in April 2002. At the January 10, 2001 Task Force meeting, approval was granted to proceed with the project at the current price of \$22 million due to the increased costs of maintaining the anchorage area. A VE study on the project was undertaken in August 2000.</p>										
Total Priority List				1	10,544		\$16,323,624	\$57,932,625	354.9	\$51,196,983 \$38,662,083
5 Project(s) 5 Cost Sharing Agreements Executed 5 Construction Started 5 Construction Completed 0 Project(s) Deferred/Deauthorized										

Project Status Summary Report - Louisiana: DELTA OF THE MISSISSIPPI (C02)										
PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Clear Marais Bank Protection	CA/SB	CALCA	1,067	29-Apr-1996 A	29-Aug-1996 A	03-Mar-1997 A	\$1,741,310	\$3,696,088	212.3 !	\$3,015,665
	<b>Status:</b>	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.								
	Complete.									
West Belle Pass Headland Restoration	TERRE	LAFOU	474	27-Dec-1996 A	10-Feb-1998 A	15-Aug-2007 A	\$4,854,102	\$6,751,441	139.1 !	\$6,718,010
	<b>Status:</b>	Status: Original project construction completed July 1998. Supplemental disposal for wetland creation anticipated September 2006.								
	Problems: Construction of the original project started in February 1998, and pumping of dredged material into the project area for wetland creation began in May 1998. Project area conditions were sub-optimal at the time of disposal due to unforeseen weather patterns. In 1998, the area experienced frequent storm activity with sustained winds, high-energy waves, and large amounts of rainfall. Southerly winds heightened tides and raised water levels in the project area to such an extent that dewatering of the dredged material was greatly inhibited. Slurry heights were difficult to determine and therefore, estimates of the amount and height of the material placed in the project area were uncertain at best. In addition, winds from the west battered the project area making the integrity of dike between Timbalier Bay and Bay Toulouse extremely difficult to maintain. The material for the dike had to be layered in geotextile to hold it together and, shortly after disposal was discontinued, the dike breached from the high water and waves affecting the project area. As a result, once the project's disposal areas dewatered and settled shallow open water still remained in much of the project area where emergent wetlands were anticipated. Therefore, with the 2006 scheduled maintenance of the inland portion of Bayou Lafourche and Belle Pass upcoming, CEMVN plans to once again deposit maintenance material from these channels into the West Belle Pass project area in an effort to complete the wetland restoration anticipated under the original project.									
All the dredged material containment features and rock protection of the project were constructed during the original construction. However, refurbishment of the westernmost retainment dike and reconstruction of the closure between Timberlier Bay and Bay Toulouse would be necessary to achieve a second disposal into the project area.										
Restoration Strategy: Dredged material from Bayou Lafourche and Belle Pass would be deposited in the bays and canals of the project area to an elevation between +3.5 to +4.0 feet (ft) MLG, so that the settled elevation would be approximately the same as nearby healthy marsh, which occurs between +2.0 and +2.5 ft MLG.										
Progress to Date: Supplemental Environmental Assessment # 271B is currently out on public review. Construction of the project is anticipated to begin in mid September.										

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

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## Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

**Actual**

### Obligations/ Expenditures

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
	Total Priority List	2	1,541				\$6,595,412	\$10,447,529	158.4	\$9,733,675 \$9,559,759

- 2 Project(s)  
2 Cost Sharing Agreements Executed  
2 Construction Started  
2 Construction Completed  
0 Project(s) Deferred/Deauthorized

### Priority List 3

Channel Armor Gap Crevasse	DELTA	PLAQ	936	13-Jan-1997 A	22-Sep-1997 A	02-Nov-1997 A	\$808,397	\$888,985	110.0	\$860,564
	<b>Status:</b>	Cost increase was due to additional project management costs, by both Federal and Local Sponsor.								\$758,524
		Surveys identified a pipeline in the crevasse area which would be negatively impacted by the project. US Fish & Wildlife Service reviewed their permit for the pipeline and determined that Shell Pipeline was required to lower it at their own cost. USFWS requested a modification to the alignment on USFWS-owned lands.								
		Construction complete.								
MRGO Disposal Area Marsh Protection	PONT	STBER	755	17-Jan-1997 A	25-Jan-1999 A	29-Jan-1999 A	\$512,198	\$318,445	62.2	\$318,445
	<b>Status:</b>	Completed scope of work greatly reduced. Work was to be performed via a simplified acquisition contract as estimated construction cost is under \$100,000. Bids received were higher than Government estimate by 25%. Subsequently received an in-house labor estimate from Vicksburg District. Vicksburg District completed construction on 29 January 1999.								\$318,445
		Cost increase was due to additional project management costs, environmental investigations and local sponsor activities not included in the baseline estimate. Further title research indicates that private ownership titles are unclear, requiring condemnation. This accounts for the long period between CSA execution and project construction.								

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

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## Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

**Actual**

Obligations/  
Expenditures[illegible]

- 3 Project(s)  
2 Cost Sharing Agreements Executed  
2 Construction Started  
2 Construction Completed  
1 Project(s) Deferred/Deauthorized

## Priority List 4

Beneficial Use of Hopper Dredge Material DEMO [DEAUTHORIZED]	DELTA	PLAQ	30-Jun-1997 A	\$300,000	\$58,310	19.4	\$58,310
	<b>Status:</b>	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.					
	Project deauthorized October 4, 2000.						

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

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## Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

**Actual**

Obligations/  
Expenditures

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Grand Bay Crevasse [DEAUTHORIZED]	BRET	PLAQ					\$2,468,908	\$65,747	2.7	\$65,747
	<b>Status:</b>	The major landowner has indicated non-support of the project and has withheld ROE because of concern about sedimentation negatively impacting oil and gas interests within the deposition area.								
	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.									
Total Priority List		4					\$2,768,908	\$124,057	4.5	\$124,057

- 2 Project(s)  
1 Cost Sharing Agreements Executed  
0 Construction Started  
0 Construction Completed  
2 Project(s) Deferred/Deauthorized

## Priority List 5

Bayou Chevee Shoreline Protection	PONT	ORL	75	01-Feb-2001 A	25-Aug-2001 A	17-Dec-2001 A	\$2,555,029	\$2,580,476	101.0	\$2,335,884
	<b>Status:</b>	Approval of model CSA for PPL 5, 6, and 8 projects granted on November 13, 2000. Construction began August 2001 and completed December 2001.								\$2,291,135
		Revised project consisted of constructing a 2,870-foot rock dike across the mouth of the north cove and a 2,820-foot rock dike tying into and extending an existing USFWS rock dike, across the south cove. Approximately 75 acres of brackish marsh will be protected by the project.								



**Actual**

Obligations/  
Expenditures

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
	Total Priority List	5	75				\$2,555,029	\$2,580,476	101.0	\$2,335,884 \$2,291,135

- |   |                                  |
|---|----------------------------------|
| 1 | Project(s)                       |
| 1 | Cost Sharing Agreements Executed |
| 1 | Construction Started             |
| 1 | Construction Completed           |
| 0 | Project(s) Deferred/Deauthorized |

## Priority List 6

Flexible Dustpan Demo at Head of Passes DEMO	DELTA	PLAQ	0	31-May-2002 A	03-Jun-2002 A	21-Jun-2002 A	\$1,600,000	\$1,909,020	119.3	\$1,907,634
	\$1,894,695									
	Status:	CSA executed May 31, 2002. Construction completed June 21, 2002.								
	The Dustpan/Cutterhead Marsh Creation Demonstration project as originally approved, no longer involves the use of a cutterhead dredge. At the October 25, 2001 Task Force meeting, it was approved the motion to use the authorized funds for a "flexible dustpan" demonstration project and approved changing the name of the project to "Flexible Dustpan Demo at Head of Passes".  The project was completed as an operations and maintenance task order through an ERDC research and development IDC contract. The project identified some minor areas of concern with regard to the dredge plants effectiveness as a maintenance tool. The dredge was effective in its performance for the beneficial placement of material. The final surveys and quantities have not yet been reported.									
Marsh Creation East of the Atchafalaya River-Avoca Island [DEAUTHORIZED]	TERRE	STMRY					\$6,438,400	\$66,869	1.0	\$66,869
	Status:	A draft memorandum dated December 5, 1997 was sent to the Technical Committee Chairman requesting the Task Force to deauthorize the project. COE requested deauthorization at the January 16, 1998 Task Force meeting.								
	Project deauthorized July 23, 1998.									

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## Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

**Actual**

Obligations/  
Expenditures

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Marsh Island Hydrologic Restoration	TECHE	IBERI	408	01-Feb-2001 A	25-Jul-2001 A	12-Dec-2001 A	\$4,094,900	\$5,143,323	125.6 !	\$5,094,629
	<b>Status:</b>	Approval of model CSA for PPL 5, 6 and 8 projects granted on November 13, 2000. CSA executed on February 1, 2001. Advertised as 100% small business set-aside. Construction began July 2001 and completed December 2001.								\$4,400,145
		Revised design of closures from earthen to rock because soil borings indicate highly organic material in borrow area.								
Total Priority List		6	408				\$12,133,300	\$7,119,212	58.7	\$7,069,131
										\$6,361,708

- 3 Project(s)  
2 Cost Sharing Agreements Executed  
2 Construction Started  
2 Construction Completed  
1 Project(s) Deferred/Deauthorized

## Priority List 8

Sabine Refuge Marsh Creation, Cycle 1	CA/SB	CAMER	214	09-Mar-2001 A	15-Aug-2001 A	26-Feb-2002 A	\$15,724,965	\$3,422,433	21.8	\$3,430,704
	<b>Status:</b>	This project was approved by the Task Force as a part of Priority Project List 8. The project consists of constructing 5 marsh creation sites within the Sabine National Wildlife Refuge using material dredged out of the Calcasieu River Ship Channel. The current estimated project cost to construct all cycles is approximately \$21.4 million.								
		The first cycle was completed on February 26, 2002. The total project cost for dredging cycle 1 was \$3,412,415. The project was advertised for bid as a component of the Calcasieu River and Pass Maintenance Dredging contract on February 16, 2001. Construction initiation was advanced in conjunction with an accelerated maintenance dredging schedule for the Calcasieu River.								
		On January 28, 2004 the CWPPRA Task Force provided additional funding and construction approval for Cycles 2 and 3. Cycle 2 is currently scheduled to be constructed in 2005. Cycle 3 would be constructed in 2006.								

Project Status Summary Report - Louisiana Department of Transportation and Development (DOTD)										
PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Sabine Refuge Marsh Creation, Cycle 2	CA/SB	CAMER	261	17-Feb-2005 A	28-Apr-2009 A		\$9,266,842	\$16,583,553	179.0 !	\$11,102,437
	<b>Status:</b>	This project was approved by the Task Force as a part of Priority Project List 8. The project consists of constructing 5 marsh creation sites within the Sabine National Wildlife Refuge using material dredged out of the Calcasieu River Ship Channel. The current estimated project cost to construct all cycles is approximately \$21.4 million.								
	<p>The first cycle was completed on February 26, 2002. The total project cost for dredging cycle 1 was \$3,412,415. The project was advertised for bid as a component of the Calcasieu River and Pass Maintenance Dredging contract on February 16, 2001. Construction initiation was advanced in conjunction with an accelerated maintenance dredging schedule for the Calcasieu River.</p> <p>On January 28, 2004, the CWPPRA Task Force provided additional funding and construction approval for Cycles 2 and 3. Cycle 2 is currently scheduled to be constructed at the beginning of 2008. Acquisition of the land rights required for the pipeline corridor is underway. The placement of dredged material in Cycle 3 is completed, and upon settlement, the dikes will be degraded to mimic natural hydrologic conditions. Upon completion of Cycle 2, the COE and DNR will ask the Task Force for construction approval for Cycles 4 and 5.</p>									
Sabine Refuge Marsh Creation, Cycle 3	CA/SB	CAMER	187	28-Mar-2005 A	25-Oct-2006 A	30-Sep-2010 A	\$3,629,333	\$4,777,246	131.6 !	\$2,792,962
	<b>Status:</b>	This project was approved by the Task Force as a part of Priority Project List 8. The project consists of constructing 5 marsh creation sites within the Sabine National Wildlife Refuge using material dredged out of the Calcasieu River Ship Channel. The current estimated project cost to construct all cycles is approximately \$21.4 million. The first cycle was completed on February 26, 2002. The total project cost for dredging cycle 1 was \$3,412,415. The project was advertised for bid as a component of the Calcasieu River and Pass Maintenance Dredging contract on February 16, 2001. Construction initiation was advanced in conjunction with an accelerated maintenance dredging schedule for the Calcasieu River. On January 28, 2004, the CWPPRA Task Force provided additional funding and construction approval for Cycles 2 and 3. Construction of Cycle 2 was completed in 2009. Cycle 3 consists of the creation of 232 acres of marsh platform using material dredged from the Calcasieu River Ship Channel. Between February 12 and March 31, 2007, 828,767 cubic yards of dredged sediment material were placed into the Sabine Refuge Cycle 3 marsh creation area. Lower level earthen overflow weirs were constructed to assist in the dewatering of the marsh creation disposal area and to create fringe marsh with the overflow. The dredged slurry was placed between elevations 2.03 NAVD 88 and 2.71 NAVD 88. Construction of low level weirs along north and west boundary of Cycle 3 allowed 10 to 20 percent of the dredged material to splay into the surrounding area. Containment along the South and East border was breached in Fall of 2010 to complete all construction items.								

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## Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

**Actual**

Obligations/  
Expenditures

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		8	662				\$28,621,140	\$24,783,232	86.6	\$17,326,102
\$17,207,055										
3	Project(s)									
3	Cost Sharing Agreements Executed									
3	Construction Started									
2	Construction Completed									
0	Project(s) Deferred/Deauthorized									

## Priority List 9

Freshwater Bayou Bank Stabilization - Belle Isle Canal to Lock [DEAUTHORIZED]	TECHE	VERMI	\$1,498,967	\$1,101,738	73.5	\$1,101,738
	<b>Status:</b>	A site visit was held in January 2001 with the Local Sponsor and landowner. Right of entry for surveys and borings was obtained March 14, 2001, and data collection followed. The USACE team met with LDNR staff after survey data was processed and obtained consensus on cross-sections and depth contours. A 30% design review was held in June 2002. The project was revised to include Area A - shoreline protection work only dropping a hydrologic restoration feature. A 95% design review was completed in January 2004. Phase II authorization will be sought again in January 2007.				
Opportunistic Use of the Bonnet Carre Spillway [DEAUTHORIZED]	PONT	STCHA	\$150,706	\$83,932	55.7	\$83,932
	<b>Status:</b>	At the June 27, 2007 CWPPRA Task Force meeting, the Task Force voted to begin the deauthorization process for this project. In accordance with the CWPPRA Project Standard Operating Procedures Manual, notices were sent out in July 2007 to all interested parties requesting their comments and advising them that, at the next CWPPRA Task Force meeting (currently scheduled for October 25, 2007), a final decision on deauthorization will be made.				
Periodic Intro of Sediment and Nutrients at Selected Diversion Sites Demo (DEMO) [DEAUTHORIZED]	COAST	VARY	\$1,502,817	\$83,556	5.6	\$83,556
	<b>Status:</b>	In August 2005, project was stalled due to Katrina workload. In November 2006 team began coordinating with 4th Supplemental project, Modification to Caenarvon, to ensure consistency. Currently the team needs to fully develop Preliminary Design Report. Team is working on updating costs to reflect post-Katrina price levels. Also, the team is working on developing benefits of a thin layer of sediment versus marsh creation.				

**Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)**

**Actual**

Obligations/  
Expenditures

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Weeks Bay MC and SP/Commercial Canal/Freshwater Redirection [DEAUTHORIZED]	TECHE	IBERI	278				\$1,229,337	\$1,229,337	100.0	\$534,057
	Status:	An alternatives analysis performed by SHAW corp was submitted to the Technical Committee in September 2011. Further review of the alternatives analysis and recommended alternative was conducted by USACE and CPRA. Upon further review, the project was deemed infeasible for construction and recommended for deauthorization at the December 2011 Technical Committee meeting. A Task Force decision to postpone deauthorization remains current status of project.								\$534,057
Total Priority List	9		278				\$4,381,827	\$2,498,563	57.0	\$1,803,283 \$1,803,283

- |   |                                  |
|---|----------------------------------|
| 4 | Project(s)                       |
| 0 | Cost Sharing Agreements Executed |
| 0 | Construction Started             |
| 0 | Construction Completed           |
| 3 | Project(s) Deferred/Deauthorized |

## Priority List 10

Benneys Bay Diversion [DEAUTHORIZED]	DELTA	PLAQ	\$1,076,328	\$976,581	90.7	\$976,581
	<b>Status:</b>	This project was approved for Phase I design on PPL9 in January 1999. The project work plan for Phase I was submitted to the P&E Subcommittee in May 2001. Right of Entry to perform surveys and geotechnical borings was received in August 2001. Site surveys were performed in October 2001 and geotechnical borings were collected in June 2002. A 30% design review was completed in September 2002. At the design review meeting agreement was reached to proceed further with the proposed design except for one feature (SREDs - sediment retention enhancement devices) which were removed at the request of the local sponsor. A Final Design Report has been developed and is being reviewed by the LDNR. A revised WVA and design cost estimate are in preparation for review at the CWPRA working groups. The project is scheduled to complete all design work in 2006 in preparation for a Phase II funding request.				

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Delta Building Diversion at Myrtle Grove [DEAUTHORIZED]	BARA	JEFF					\$3,002,114	\$2,543,325	84.7	\$2,543,325 \$2,543,325
	<b>Status:</b>	The proposed NMFS/UNO fisheries modeling effort, and its relationship to required EIS input, has been discussed by the principal agencies involved with this project. The current view within the management team is that additional fisheries data collection and analysis will be required over and above the proposed modeling. At this time, it has been decided to begin assembling an inter-agency EIS team and allow them to outline major data and analytic requirements for the NEPA document. The required NEPA scoping meetings have been held and the scoping document is being compiled. An initial Value Engineering study is scheduled for the week of July 22, 2002.								
		WRDA may fund Phase 2.								
Delta Building Diversion North of Fort St. Philip [DEAUTHORIZED]	BRET	PLAQ					\$1,155,200	\$1,178,640	102.0	\$1,178,640 \$1,178,640
	<b>Status:</b>	95% desgin review anticipated July 25, 2007.								
Total Priority List		10					\$5,233,642	\$4,698,546	89.8	\$4,698,546 \$4,698,546

- 3 Project(s)
- 0 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 3 Project(s) Deferred/Deauthorized

# COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

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**Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)**

**Actual**

Obligations/  
Expenditures[illegible]

## Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

**Actual**

### Obligations/ Expenditures

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Mississippi River Sediment Trap [DEAUTHORIZED]	DELTA	PLAQ					\$1,880,376	\$354,791	18.9	\$354,791
	Status:	This complex project was approved for Phase I design activities in August 2002. A kickoff meeting was held in September 2002. The project work plan is under development pending a plan reformulation meeting with the LA Dept. of Natural Resources and Corps of Engineers design teams.								\$354,791
South White Lake Shoreline Protection	MERM	VERMI	844	24-Mar-2005 A	01-Nov-2005 A	29-Aug-2006 A	\$19,673,929	\$10,518,943	53.5	\$10,503,524
	Status:	Due to inclement weather, the annual site inspection is currently in process of being re-scheduled from 20 Mar 2012 to new date.								\$10,462,844
Total Priority List			12	844			\$25,132,526	\$13,679,875	54.4	\$13,664,455
										\$13,623,776

- 4 Project(s)  
1 Cost Sharing Agreements Executed  
1 Construction Started  
1 Construction Completed  
3 Project(s) Deferred/Deauthorized

## Priority List 13

Shoreline Protection	COAST	COAST	0	24-Mar-2005 A	01-Nov-2005 A	29-Aug-2006 A	\$1,000,000	\$1,055,000	105.5	\$691,475
Foundation Improvements										\$691,471
DEMO	<b>Status:</b>	Last data collection occurred in October, 2010. Demo analysis report is tentatively scheduled for completion by 31 Jul 2012.								



Project Status Summary Report - Lead Agency: DELTA OF THE PLANT (COP)										Actual
PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Spanish Pass Diversion [DEAUTHORIZED]	DELTA	PLAQ			01-Oct-2015	01-Oct-2016	\$1,137,344	\$310,152	27.3	\$310,152
	<b>Status:</b>	The Task Force gave Phase 1 approval on January 28, 2004. The project delivery team has been assembled. A kickoff meeting and field trip were held on March 29, 2004. The work plan was developed and submitted to the P&E Subcommittee prior to April 30, 2004. The project delivery team has obtained rights of entry to install gages and conduct surveys in the project area. Gages were installed on November 18, 2004 and the survey work is completed. Hydraulic modeling work was completed and a Dec 2006 progress report revealed that the project as proposed would not attain originally anticipated wetland benefits. The New Orleans District Corps of Engineers (MVN) met with Parish officials and LDNR on 1 May 07. MVN later met with Plaquemines Parish on 19 Sep 2007, and again on 28 Feb 08, to discuss future direction for this project. Efforts addressing the Cost Share Agreement (CSA) issue are ongoing between CPRA (formerly identified as LDNR) and the New Orleans District COE; resolution of the CSA issue will enable further progress such as development of various alternatives to revise the project scope in conjunction with Plaquemines Parish officials and CPRA.								\$310,152
Total Priority List			13	0			\$2,137,344	\$1,365,152	63.9	\$1,001,627 \$1,001,623

- 2 Project(s)  
1 Cost Sharing Agreements Executed  
1 Construction Started  
1 Construction Completed  
1 Project(s) Deferred/Deauthorized

## Priority List 16

Southwest LA Gulf Shoreline Nourishment and Protection	MERM	CAMER	888	02-Jul-2015	08-Jul-2016	\$1,266,842	\$10,155	0.8	\$10,155
	Status:	This project was approved for Phase 1 design in Oct 2006. The COE internal project delivery team (PDT) has been assembled. Upon attainment of a Cost Share Agreement with CPRA, a Phase 1 work plan will be developed and a kickoff meeting/site visit scheduled. In Mar 2009, a project Fact Sheet and map was approved by the New Orleans District for placement on the LaCoast website. Efforts addressing the Cost Share Agreemement issue are ongoing between the CPRA and the COE; the project is unable to be further developed until the CSA issue is resolved.							

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: DEPT. OF THE ARMY (COE)

				***** SCHEDULES *****			***** ESTIMATES *****			Actual
PROJECT	BASIN	PARISH	ACRES	CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
Total Priority List				16	888		\$1,266,842	\$10,155	0.8	\$10,155
1 Project(s)										
0 Cost Sharing Agreements Executed										
0 Construction Started										
0 Construction Completed										
0 Project(s) Deferred/Deauthorized										
Total	DEPT. OF THE ARMY, CORPS OF ENGINEERS		16,931				\$111,327,979	\$126,566,686	113.7	\$110,262,743 \$96,539,983
33 Project(s)										
18 Cost Sharing Agreements Executed										
17 Construction Started										
16 Construction Completed										
14 Project(s) Deferred/Deauthorized										

Notes:

- 1. Expenditures based on Corps of Engineers financial data.
- 2. Date codes: A = Actual date \* = Behind schedule
- 3. Percent codes: != 125% of baseline estimate exceeded

**Lead Agency:** ENVIRONMENTAL PROTECTION AGENCY, REGION 6

## Priority List    Conservation Plan

Total Priority List	Cons Plan	\$238,871	\$191,807	80.3	\$143,855
					\$143,855

## Priority List 1

Isles Dernieres Restoration East Island	TERRE	TERRE	9	17-Apr-1993 A	16-Jan-1998 A	15-Jun-1999 A	\$6,345,468	\$8,762,416	138.1 !	\$8,663,947
	<b>Status:</b>	This phase of the Isles Dernieres restoration project was combined with Isles Dernieres, Phase I (Trinity Island), a priority list 2 project. Additional funds to cover the increased construction cost on lowest bid received were approved at the January 16, 1998 Task Force meeting.								\$8,663,947
		Construction start was January 16, 1998. Hydraulic dredging was completed September 1998. Vegetation planting was completed June 1999.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

				***** SCHEDULES *****			***** ESTIMATES *****			Actual
PROJECT	BASIN	PARISH	ACRES	CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
Total Priority List		1	9				\$6,345,468	\$8,762,416	138.1	\$8,663,947 \$8,663,947
1 Project(s)										
1 Cost Sharing Agreements Executed										
1 Construction Started										
1 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 2

Isles Dernieres Restoration Trinity Island	TERRE	TERRE	109	17-Apr-1993 A	27-Jan-1998 A	15-Jun-1999 A	\$6,907,897	\$10,774,974	156.0 !	\$10,799,102 \$10,800,134
<b>Status:</b> Costs increased due to construction bids significantly greater than projected in plans and specifications. Additional funds to cover the increased project construction/dredging cost were approved at the January 16, 1998 Task Force meeting.										
The 30' hydraulic dredge, the Tom James, mobilized at East Island on about January 27, 1998. Dredging was completed in September 1998. Vegetation plantings was completed June 1999.										
Total Priority List		2	109				\$6,907,897	\$10,774,974	156.0	\$10,799,102 \$10,800,134
1 Project(s)										
1 Cost Sharing Agreements Executed										
1 Construction Started										
1 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 3

**COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT**  
**Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)**

**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			
				CSA	Const Start	Const End	Baseline	Current	%	
Red Mud DEMO [DEAUTHORIZED]	PONT	STJON		03-Nov-1994 A			\$350,000	\$520,129	148.6 !	\$520,129
	<b>Status:</b>	Facility construction is essentially complete; project was put on hold pending resolution of cell contamination by saltwater before planting occurred and has subsequently been deauthorized. Demonstration cells completed; no vegetation installed.								\$520,129
		The Task Force approved the deauthorization of the project on August 7, 2001. Escrowed funds will be returned to Kaiser Aluminum and Chemical Corp.								
Whiskey Island Restoration	TERRE	TERRE	1,239	06-Apr-1995 A	13-Feb-1998 A	15-Jun-2000 A	\$4,844,274	\$7,037,560	145.3 !	\$7,037,560
	<b>Status:</b>	At the January 16, 1998 meeting, the Task Force approved additional funds to cover the increased construction cost on lowest bid received.								\$7,037,560
		Work was initiated on February 13, 1998. Dredging completed July 1998. Initial vegetation with spartina on bay shore, July 1998. Additional vegetation seeding/planting was carried out in spring 2000.								
Total Priority List		3	1,239				\$5,194,274	\$7,557,689	145.5	\$7,557,689

- 2 Project(s)
- 2 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 1 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: ENVIRONMENTAL PROTECTION AGENCY (EPA)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Compost DEMO [DEAUTHORIZED]	CA/SB	CAMER		22-Jul-1996	A		\$370,594	\$232,326	62.7	\$232,326
	<b>Status:</b>	Plans and specifications have been finalized. All permits and construction approvals have been obtained.								\$232,326
		The amount of compost vegetation needed has not yet been supplied. A smaller sized demonstration has been designed. Advertisement for construction bids has been made.								
		The Task Force approved deauthorization on January 16, 2002.								
Total Priority List		4					\$370,594	\$232,326	62.7	\$232,326

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 5

Bayou Lafourche Siphon [DEAUTHORIZED]	TERRE	IBERV		19-Feb-1997	A		\$24,487,337	\$1,500,000	6.1	\$1,432,041
	<b>Status:</b>	Project was deauthorized by the Task Force on October 25, 2007.								\$1,432,041
Total Priority List		5					\$24,487,337	\$1,500,000	6.1	\$1,432,041

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Actual  
Obligations/  
Expenditures

## Priority List 6

Bayou Boeuf Pump Station	TERRE	STMAR	\$150,000	\$3,452	2.3	\$3,452
[DEAUTHORIZED]	<b>Status:</b>	This was a 3-phased project. Priority List 6 authorized funding of \$150,000; Priority List 7 was scheduled to fund \$250,000; and Priority List 8 was scheduled to fund \$100,000. Total project cost was estimated to be \$500,000. By letter dated November 18, 1997, EPA notified the Technical Committee that they and LA DNR agree to deauthorize the project.				
		Deauthorization was approved at the July 23, 1998 Task Force meeting.				

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
	Total Priority List	6					\$150,000	\$3,452	2.3	\$3,452

LA Highway 1 Marsh Creation [DEAUTHORIZED]	BARA	LAFOU		05-Oct-2000 A			\$1,151,484	\$250,257	21.7	\$250,257
	<b>Status:</b>	The project was deauthorized at the February 17, 2005 Task Force meeting.								
New Cut Dune and Marsh Restoration	TERRE	TERRE	102	01-Sep-2000 A	01-Oct-2006 A	30-Sep-2008 A	\$7,393,626	\$10,605,194	143.4 !	\$10,474,589
	<b>Status:</b>	Lessoned learned meeting was held on April 23, 2008. LDNR grant for Phase II construction activities was closed-out on September 30, 2008. Remaining Phase II increment activities included on-going annual inspections.								
Timbalier Island Dune and Marsh Restoration	TERRE	TERRE	273	05-Oct-2000 A	01-Jun-2004 A	19-Mar-2009 A	\$16,234,679	\$15,161,291	93.4	\$15,152,860
	<b>Status:</b>	Lessoned learned meeting was held on April 23, 2008. LDNR grant for Phase II construction activities was closed-out on March 19, 2009. Remaining Phase II increment activities included on-going annual inspections.								



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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual
				CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
	Total Priority List	9	375				\$24,779,789	\$26,016,742	105.0	\$25,877,707 \$25,592,291
3	Project(s)									
3	Cost Sharing Agreements Executed									
2	Construction Started									
2	Construction Completed									
1	Project(s) Deferred/Deauthorized									

Priority List 10

Lake Borgne Shoreline Protection	PONT	STBER	165	02-Oct-2001 A	01-Aug-2007 A	12-Apr-2010 A	\$18,378,900	\$28,548,045	155.3 !	\$20,760,580 \$19,420,455
	<b>Status:</b> Construction grant has expired and final Phase 1 activities in the process of being closed-out.									
Small Freshwater Diversion to the Northwestern Barataria Basin	BARA	STJAM	941	08-Oct-2001 A	01-May-2014	13-May-2015	\$1,899,834	\$2,362,687	124.4	\$2,017,536 \$676,592
	<b>Status:</b> Efforts to prepare scope change request underway. Boundary meeting (conference call) held 1/17/2013. Fact sheet and map revised.									
Total Priority List		10	1,106				\$20,278,734	\$30,910,732	152.4	\$22,778,116 \$20,097,047
2 Project(s)										
2 Cost Sharing Agreements Executed										
1 Construction Started										
1 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 11

Project Status Summary Report - Priority List - Total Priority List - Total Priority List - Total Priority List (11)										Actual
PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****	Const Start	Const End	***** ESTIMATES *****	Current	%	Obligations/ Expenditures
River Reintroduction into Maurepas Swamp	PONT	STJON	5,438	04-Apr-2002 A	01-Feb-2014	01-Feb-2017	\$5,434,288	\$6,780,307	124.8	\$6,655,948 \$5,991,279
	<b>Status:</b>	CPRA has decided to pursue permitting and construction of the project as a "state-only" project. CPRA continues to work with COE to resolve known engineering and design issues, primarily with the coffer dam. EPA continues to provide limited support. CPRA held a 404 "pre-application" meeting on 01/16/2013. Plans are to complete design by April, 2013, then seek transfer from CWPPRA to CPRA. Note that the CWPPRA database requires that certain dates be input whether or not there is an intent to complete those milestones, such as in this case. For this reason, we put dates in for 95% Design (12/1/2013) and for Phase 2 approval (1/23/2014) even though the intent is to transfer the project out of CWPPRA before meeting these milestones. This was done simply to satisfy the database.								
Ship Shoal: Whiskey West Flank Restoration	TERRE	TERRE	195	17-Mar-2003 A	15-Jan-2014	01-Oct-2014	\$2,998,960	\$3,717,855	124.0	\$2,008,205 \$2,008,205
	<b>Status:</b>	Phase 2 funding was requested, but not recommended, at the December 2012 Technical Committee Meeting. Sponsors will determine whether future Phase 2 requests will be made.								
Total Priority List	11		5,633				\$8,433,248	\$10,498,162	124.5	\$8,664,153 \$7,999,485

- 2 Project(s)  
2 Cost Sharing Agreements Executed  
0 Construction Started  
0 Construction Completed  
0 Project(s) Deferred/Deauthorized

## Priority List 12

Bayou Dupont Sediment Delivery System	BARA	PLAQ	326	21-Mar-2004 A	04-Feb-2009 A	31-Dec-2012 *	\$28,342,879	\$27,135,617	95.7	\$25,071,401
	<b>Status:</b>	Additional post-primary construction activities will not be pursued. Sponsors will be proceeding with construction grant close-out activities.								
										\$21,724,232

Bayou Lamoque Freshwater Diversion [TRANSFER]	BRET	PLAQ	\$1,205,354	\$9,510	0.8	\$9,510
	<b>Status:</b>	Project was deauthorized by the Task Force on October 25, 2007.				

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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Venice Ponds Marsh Creation and Crevasses	DELTA	PLAQ	318	19-Jun-2009 A	01-Sep-2013	01-Sep-2014	\$1,074,522	\$1,074,522	100.0	\$922,576 \$490,532
<b>Status:</b> Phase 2 funding was requested, but not recommended, at the December 2012 Technical Committee Meeting. Sponsors will determine whether future Phase 2 requests will be made.										
<hr/>										
Total Priority List		15	318				\$2,279,876	\$1,084,032	47.5	\$932,086 \$500,042

- 2 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 16

Enhancement of Barrier Island Vegetation DEMO	COAST	COAST	0	27-Jul-2007 A	14-Jun-2010 A	31-Dec-2010 A	\$919,599	\$919,599	100.0	\$1,056,577 \$670,520
<b>Status:</b> A draft final report was received and reviewed, with minimal comments. Subsequently, a final report was completed.										
<hr/>										
Total Priority List		16	0				\$919,599	\$919,599	100.0	\$1,056,577 \$670,520

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 1 Construction Started
- 1 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 17

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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Bohemia Mississippi River Reintroduction	BRET	PLAQ		16-Jul-2008 A	01-Jun-2014	01-Jun-2015	\$1,359,699	\$1,359,699	100.0	\$1,355,978
	<b>Status:</b>	Project delayed due to considerations of State Master Plan consistency. Project deauthorization process to be initiated pending direction of Task Force vote.								\$556,703
Total Priority List 17							\$1,359,699	\$1,359,699	100.0	\$1,355,978 \$556,703

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 1 Project(s) Deferred/Deauthorized

Priority List 18

Bertrandville Siphon	BRET	PLAQ	1,613	15-Jun-2011 A	01-Jun-2015	01-Jun-2016	\$2,129,816	\$2,129,816	100.0	\$1,819,047
<b>Status:</b>		Project delays due to considerations of State Master Plan consistency and pursuit of landowner support.								\$340,670
Total Priority List 18							\$2,129,816	\$2,129,816	100.0	\$1,819,047 \$340,670

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 22

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				***** SCHEDULES *****			***** ESTIMATES *****			Actual
PROJECT	BASIN	PARISH	ACRES	CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
Bayou Dupont Sediment Delivery-Marsh Creation 3		PLAQ	383				\$38,279,163	\$3,415,930	8.9	
Status:										
Total Priority List		22	383				\$38,279,163	\$3,415,930	8.9	
1 Project(s)										
0 Cost Sharing Agreements Executed										
0 Construction Started										
0 Construction Completed										
0 Project(s) Deferred/Deauthorized										
Total ENVIRONMENTAL PROTECTION AGENCY, REGION 6			11,383				\$207,650,334	\$172,343,214	83.0	\$152,121,089 \$139,066,026
23 Project(s)										
20 Cost Sharing Agreements Executed										
9 Construction Started										
7 Construction Completed										
8 Project(s) Deferred/Deauthorized										

Notes:

- 1. Expenditures based on Corps of Engineers financial data.
- 2. Date codes: A = Actual date \* = Behind schedule
- 3. Percent codes: ! = 125% of baseline estimate exceeded

**Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)**

**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Lead Agency: DEPT. OF THE INTERIOR, FISH & WILDLIFE SERVICE										
Priority List 1										
Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1	PONT	ORL	1,550	17-Apr-1993 A	01-Jun-1995 A	30-May-1996 A	\$1,657,708	\$1,680,193	101.4	\$1,632,928 \$1,398,017
<p><b>Status:</b> Construction was completed in May 1996. The Operation and Maintenance Plan was approved in October 2004. The FWS is the lead O&amp;M agency for this project in coordination with the State Coastal Protection and Restoration Authority (CPRA).</p> <p>The Corps of Engineers removed the two 30-inch diameter CWPPRA-constructed pumping stations in 2010 and replaced them in December 2011. This was done because larger pumps were needed to accommodate the larger hurricane protection levees modified in 2011.</p>										
Cameron Creole Plugs	CA/SB	CAMER	865	17-Apr-1993 A	01-Oct-1996 A	28-Jan-1997 A	\$660,460	\$1,146,585	173.6 !	\$1,061,551 \$1,073,949
<p><b>Status:</b> The Cameron-Creole Plugs project was constructed on February 1, 1997. The Fish and Wildlife Service and the State Coastal Protection and Restoration Authority (CPRA) finalized an Operation and Maintenance Plan in 2002. The CPRA will be responsible for project maintenance.</p>										
Cameron Prairie National Wildlife Refuge Shoreline Protection	MERM	CAMER	247	17-Apr-1993 A	19-May-1994 A	09-Aug-1994 A	\$1,177,668	\$1,227,123	104.2	\$1,061,279 \$1,051,154
<p><b>Status:</b> The 20-year project end date is August 9, 2014. A decision will be made in the near future concerning project close-out. To date no maintenance has been needed and \$39,963 expended on O&amp;M inspections. The Corps installed warning signs in 2001 due to navigation complaints the rock was obscured by vegetation. The rock dike is not within the GIWW navigation channel. Those signs are not a project feature for maintenance. The 2012 O&amp;M inspection reported that the rock dike is in good condition.</p> <p>Two small sections of lower rock allowing water exchange were noted during the March 2012 O&amp;M inspection, but there was no need of maintenance at that time. Those low areas were noted in previous inspections.</p>										
Sabine National Wildlife Refuge Erosion Protection	CA/SB	CAMER	5,542	17-Apr-1993 A	24-Oct-1994 A	01-Mar-1995 A	\$4,895,780	\$1,602,656	32.7	\$1,555,390 \$1,309,987
<p><b>Status:</b> The Fish and Wildlife Service and the LA Dept.of Natural Resources are finalizing a draft Operation and Maintenance Plan. The LDNR will be responsible for project maintenance</p>										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual
				CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
	Total Priority List	1	8,204				\$8,391,616	\$5,656,557	67.4	\$5,311,149 \$4,833,107
4	Project(s)									
4	Cost Sharing Agreements Executed									
4	Construction Started									
4	Construction Completed									
0	Project(s) Deferred/Deauthorized									

Priority List 2

Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 2	PONT	ORL	1,280	30-Jun-1994 A	15-Apr-1996 A	28-May-1997 A	\$1,452,035	\$1,692,552	116.6	\$1,556,588 \$1,441,639
<b>Status:</b> Construction was completed on March 18, 1997 and accepted at a final inspection on May 28, 1997. The Operation and Maintenance Plan was approved in October 2004. The FWS is the lead O&M agency for this project. The Corps of Engineers removed the two 33-inch diameter CWPPRA-constructed pumping stations in 2010 and replaced them in December 2011. This was done because larger pumps were needed to accommodate the larger hurricane protection levees modified in 2011.										
<hr/>										
Total Priority List		2	1,280				\$1,452,035	\$1,692,552	116.6	\$1,556,588 \$1,441,639
1 Project(s)										
1 Cost Sharing Agreements Executed										
1 Construction Started										
1 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 3



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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Sabine Refuge Structure Replacement (Hog Island)	CA/SB	CAMER	953	26-Oct-1996 A	01-Nov-1999 A	10-Sep-2003 A	\$4,581,454	\$5,564,258	121.5	\$5,179,989
	<b>Status:</b>	Sabine Refuge Structure Replacement Project								\$4,182,575
		Status January 2008								
		Construction began the week of November 1, 1999, dedicated in December 2000, and completed June 2001. The structures were installed and semi-operational by the following dates: Headquarters Canal structure - February 9, 2000; Hog Island Gully structure - August 2000; and the West Cove structure - June 2001.								
		Initially electrical problems were caused because the 3-Phase electrical service to the structures was not the proper 3-Phase. Transformers and filters were added to the structures in December 2001. Problems continued with motors running in reverse until 2002. The structures continued to operate incorrectly in the automatic mode because the correct "3-Phase" electricity was not available.								
		Rotary phase converters, installed in September 2003, eliminated motor reversal and other problems for an estimated cost of \$20,000 for the Hog Island Gully and West Cove structure sites.								
		Continued Problems at the Hog Island Gully Structure during 2004								
		All structures, except for one bay of the Hog Island Gully structure, were fully operational until late October 2004. But since that time, both the Hog Island Gully and the West Cove structures have been having operation problems.								
		The Monitoring Plan was approved on June 17, 1999.								
		The Operation and Maintenance Plan was approved by the FWS and DNR in June 23, 2004. The Service will be responsible for all structure operations and minor maintenance and DNR will be responsible for the larger maintenance items.								
		Current Structure Operations and Repair Post Hurricane Rita								
		Hurricane Rita in October 2005 overtopped the structures and damaged the electric motors, guard rails and other equipment. The structures have been operated in the partially open mode until repairs can be made. Some FEMA funds have been received by DNR for repair of Hurricane Rita damage. Other funds from the Fish and Wildlife Service are also being used for structure repair and upgrade. Repair and upgrading is currently in contracting with the TVA handling contract administration for the Service.								

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**Actual  
Obligations/  
Expenditures**

[illegible]

## Priority List 5

Grand Bayou Hydrologic Restoration [DEAUTHORIZED]	TERRE	LAFOU	28-May-2004 A	\$5,135,468	\$1,452,357	28.3	\$1,452,357
	<b>Status:</b>	Based on hydrologic modeling results, the project would result in net salinity increases rather than decreases. Staff of the Pointe au Chene Wildlife Management Area, DNR, and USFWS have agreed to begin pursuing project de-authorization.					
Total Priority List		5		\$5,135,468	\$1,452,357	28.3	\$1,452,357
1 Project(s) 1 Cost Sharing Agreements Executed 0 Construction Started 0 Construction Completed 1 Project(s) Deferred/Deauthorized							

## Priority List 6

[illegible]

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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Nutria Harvest for Wetland Restoration DEMO	COAST	COAST	0	27-Oct-1998 A	20-Sep-1998 A	30-Oct-2003 A	\$2,140,000	\$806,220	37.7	\$806,220
	Status:									
	Nutria Harvest Demonstration Project									
	Status July 2005									
	From April through June 2003 the following activities were completed: Promotional Events: 1) Chef Parola demonstrated nutria meat preparation and organized judging for the U. S. Army Corps of Engineers annual “Earth Day Celebration” in New Orleans, 2) LDWF assisted Chef Kevin Diez by providing nutria meat for the Baton Rouge Family Fun Fair, and 3) LDWF provided nutria sausage to the Opelousas Chamber of Commerce for a national cycling event.									
LDWF contracted with Firefly Digital to upgrade the Nutria Website “www.nutria.com” to be completed in September 2003. The upgrade will provide easier site navigational access and more accurate and rapid user information.										
This project was completed in October 2003. The project sponsors have completed project close-out activities.										
Total Priority List		6	266				\$11,971,306	\$20,854,372	174.2	\$3,945,759 \$3,597,752
2 Project(s)										
2 Cost Sharing Agreements Executed										
1 Construction Started										
1 Construction Completed										
0 Project(s) Deferred/Deauthorized										

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Sabine Refuge Marsh Creation, Cycles 4 and 5	CA/SB	CAMER	331		01-Aug-2014		\$8,111,705	\$7,952,795	98.0	\$0 \$0
<p><b>Status:</b> This project was approved by the Task Force as a part of Priority Project List 8. The project consists of constructing 5 marsh creation sites within the Sabine National Wildlife Refuge using material dredged out of the Calcasieu River Ship Channel. The current estimated project cost to construct all cycles is approximately \$21.4 million.</p> <p>The first cycle was completed on February 26, 2002. The total project cost for dredging cycle 1 was \$3,412,415. The project was advertised for bid as a component of the Calcasieu River and Pass Maintenance Dredging contract on February 16, 2001. Construction initiation was advanced in conjunction with an accelerated maintenance dredging schedule for the Calcasieu River.</p> <p>On January 28, 2004, the CWPPRA Task Force provided additional funding and construction approval for Cycles 2 and 3. Cycle 2 is scheduled for constructed at the beginning of 2008. Cycle 3 is currently under construction. Upon completion of Cycle 2, the COE and LDNR will ask the Task Force for construction approval for Cycles 4 and 5.</p>										
<hr/>										
Total Priority List		8	331				\$8,111,705	\$7,952,795	98.0	\$0 \$0

- 1 Project(s)
- 0 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Freshwater Introduction South of Highway 82	MERM	CAMER	296	12-Sep-2000 A	01-Sep-2005 A	13-Dec-2006 A	\$6,051,325	\$5,157,843	85.2	\$5,077,079 \$5,014,655
<p><b>Status:</b></p> <p>Highway 82 Freshwater Introduction</p> <p>Status July 2005</p> <p>The project was approved for Phase I engineering and design on January 11, 2000. An initial implementation meeting was held in April 2000; field trips were held in May and June 2000. The FWS/DNR Cost Share Agreement was signed on September 12, 2000. Elevational surveys of marsh levels and existing water monitoring stations and control points were completed by Lonnie Harper and Associates on October 26, 2000.</p> <p>A hydrologic study of the project area entitled, "Analysis of Water Level Data from Rockefeller Refuge and the Grand and White Lakes Basin" was submitted by Erick Swenson (LSU Coastal Ecology Institute) in October 2001. That report concluded that a "precipitation-induced" water level gradient (0.6 feet or greater 50% of the time) existed between marshes north of Highway 82 and the target marshes in the Rockefeller Refuge south of that highway. That gradient was 1.5 feet or greater 30% of the time. Marsh levels varied from 1.0 to 1.2 feet NAVD88 north and to 1.0 to 1.4 feet NAVD88 south of Highway 82. The project hydrology has been modeled by Fenstermaker and Associates as described below.</p> <p>Hydrodynamic Modeling Study</p> <p>Fenstermaker and Associates began a hydrodynamic modeling study of the project on January 28, 2002. A model set-up interagency meeting was held May 24, 2002. The one-dimensional "Mike 11" model was used for the analysis. Model calibration and verification were completed November 21, 2002, and December 12, 2002 respectively. A draft modeling report was presented in April 2003, and a final report was presented in September 2003.</p> <p>Model Results</p> <p>The model indicated that the project, with a number of original features removed or reduced, would significantly flow freshwater south of Hwy 82 to reduce salinities in the project area. The model results suggested the following modifications to the conceptual project; 1) removal of the Boundary Line borrow canal plug, 2) removal of the northeastern north-south canal, 3) removal of 2 of the recommended four 3-48 inch-diameter-culverted structures along the boundary canal, 4) relocate the new Dyson structure to the north, and 5) removal of the Big Constance structure modification feature. The incorporation of these recommendations would significantly reduce project costs.</p> <p>30% Design Review Meeting</p> <p>A favorable 30% Design Review meeting was held on May 14, 2003 with USFWS concurrence to proceed to final design. On July 10, 2003 the LA Department of Natural Resources gave concurrence to proceed with project construction.</p> <p>NEPA Review</p>										

**Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (FWS)**

**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
				***** SCHEDULES *****						
				***** ESTIMATES *****						
				The Corps and LA Dept of Natural Resources permit and consistency applications were submitted on January 30, 2004. DNR's initial and modified Consistency Determinations were received on March 11, 2004, and June 3, 2004 respectively. The modified Corps permit applications were submitted May 27, 2004. The Corps public notices were issued on June 18, 2004. LA Dept. of Transportation letters of no objection were received on October 2, 2003, February 2, 2004, and April 19, 2004. The Corps Section 404 permits were received on March 10 and March 18, 2005. The draft Environmental Assessment was submitted for agency review on September 10, 2004, and the Final Environmental Assessment and Finding of No Significant Impact was distributed on April 12, 2005.						
				Phase II Construction Items						
				A successful 95% Design Review Meeting was held on August 11, 2004. The NRCS Overgrazing Determination was received December 1, 2003. The Corps Section 303(e) Determination received from the Corps on May 6, 2004. Landrights were certified by the LA DNR as completed on May 10, 2004.						
				Phase II construction funding approval was received at the October 2004 Task Force meeting.						
				Construction bids were received by June 21, 2005. Construction is anticipated to begin by July 15, 2005.						
Mandalay Bank Protection DEMO	TERRE	TERRE	0	06-Dec-2000 A	25-Apr-2003 A	01-Sep-2003 A	\$1,194,495	\$1,732,498	145.0 !	\$1,732,498 \$1,732,498
	Status:	Construction was completed 9/1/2003.								
	Total Priority List	9	296				\$7,245,820	\$6,890,341	95.1	\$6,809,577 \$6,747,153

- 2 Project(s)  
2 Cost Sharing Agreements Executed  
2 Construction Started  
2 Construction Completed  
0 Project(s) Deferred/Deauthorized

## Priority List 10

[illegible]

**COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT**  
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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
East Sabine Lake Hydrologic Restoration	CA/SB	CAMER	225	17-Jul-2001 A	01-Dec-2004 A	11-Aug-2009 A	\$6,490,751	\$4,944,870	76.2	\$4,669,780 \$4,633,332
<p><b>Status:</b></p> <p>East Sabine Lake Hydrologic Restoration Project</p> <p>Status January 2008</p> <p>A joint FWS- NRCS-DNR cost-share agreement was completed on July 17, 2001. Phase I E&amp;D funding and Phase II construction funding were approved by the Task Force on January 10, 2001, and November 2003 respectively.</p> <p>Hydrodynamic Modeling Study</p> <p>FTN completed hydrodynamic modeling for the proposed water control structures at Right Prong, Greens, Three and Willow Bayous. Phase I hydrodynamic modeling consisted of reconnaissance, data acquisition, model selection, and model geometry establishment. Nine data recorders were deployed for a 16-month period (February 2002 to June 2003) for modeling purposes. Surveys were completed by May 2002.</p> <p>The "East Sabine Lake Hydrologic Restoration Hydrodynamic Modeling Study Phase II: Calibration and Verification Report," "Historical Data Review Modeling Phase III Data and Final Report," and the "Phase III Determination of Boundary Conditions for Evaluating Project Alternatives" were completed October 5, 2004. With-project model runs that included modeling of fixed crest weirs with boat bays (10 feet wide by 4 feet deep) at Willow, Three, Greens and Right Prong Black Bayous were completed.</p> <p>Hydrodynamic modeling results predicted that the proposed structures would have very little effects in reducing project area salinities.</p> <p>Construction</p> <p>The construction contract was awarded in December 2004, and the first portion of Construction Unit 1 was completed in October 2006. The following project features have been constructed: 1) Pines Ridge Bayou weir, 2) Bridge Bayou culverts, 3) 171,000 linear feet of earthen terraces in the Greens Lake area, 4) 3,000 linear feet of rock breakwater, with 50-foot wide gaps, at the eastern Sabine Lake shoreline beginning at Willow Bayou, and, 5) a rock weir in SE Section 16.</p> <p>Project Modifications</p> <p>11 miles (58,100 linear feet) of planned Sabine Lake shoreline plantings were removed and more earthen terraces were added using vegetative planting funds because of an unsuccessful 7,500 linear foot test planting along the Sabine Lake shoreline conducted by the State Soil and Water Conservation District and the NRCS.</p> <p>The CWPPRA Task Force approved adding 50,000 linear feet of terraces, constructing 4, 50-foot-wide gaps in the rock breakwater, and deleting Construction Unit 2 components in October 2006. Discontinuing further CU 2 design was based on recent hydrodynamic modeling results, an examination of historic salinity data, and possible structure negative impacts.</p>										

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**Actual  
Obligations/  
Expenditures**

[illegible]



**Actual  
Obligations/  
Expenditures**

Dedicated Dredging on the Barataria Basin	BARA	JEFF	242	03-Apr-2002 A	11-Sep-2008 A	15-Apr-2010 A	\$17,672,811	\$15,796,426	89.4	\$16,564,564
Landbridge	<b>Status:</b>	The project was inspected during a coastal flight in August 2011. The marsh creation sites are well vegetated with 90-100 percent cover.								

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
South Grand Chenier Hydrologic Restoration	MERM	CAMER	427	03-Apr-2002 A	01-Dec-2013	01-Dec-2014	\$2,358,420	\$2,358,420	100.0	\$1,771,751 \$1,726,657
	<b>Status:</b>	The project was approved for Engineering and Design (E&D) by the CWPPRA Task Force in January 2002. An implementation meeting and field trip was held on March 13, 2002 attended by agencies, landowner representatives, and consulting engineers. The final hydrodynamic modeling report, entitled "Hydrodynamic Modeling of the ME-29 South Grand Chenier Hydrologic Restoration Project" was completed in September 2004. In September 2005, Hurricane Rita heavily impacted area landowners; in March 2006 a modeling results and project feature landowner meeting was held. Design surveying was completed September 2007. A wave analysis model, to determine the effects of the Gulf of Mexico borrow area on the Gulf shoreline, was completed in January 2008. Geotechnical investigations were completed in 2008.								
		Hydrodynamic Modeling - The model results, conducted by Fenstermaker and Associates, indicated that the project's freshwater introduction component would be successful in flowing freshwater across Highway 82, at Grand Chenier, to reduce higher salinities in marshes south of the highway in the Hog Bayou Watershed without impact of creating high water levels.								
		Landrights Landrights meetings were held between project sponsors and the major landowners on October 17, 2002, in New Orleans, on January 16, 2003, at Rockefeller Refuge, and in March 2006, at Cameron Prairie National Wildlife Refuge to present modeling results and project features.								
		Successful preliminary design (30%) and 95% Design Review meetings were held on August 6, 2009, and November 3, 2009 respectively. Phase II construction approval was recommended by the Technical Committee in December 2009 and approved at the January 20, 2010, Task Force meeting. Due to the inability to receive landrights approvals from two of the seven major landowners, project construction funds were returned to the CWPPRA Program at the January 19, 2012, Task Force meeting. Landrights were finalized in 2012 and construction approval was again requested in December 2012. A project scope change to remove the freshwater introduction feature was approved in December 2012. Construction approval will again be requested in December 2013.								
West Lake Boudreaux Shoreline Protection and Marsh Creation	TERRE	TERRE	277	03-Apr-2002 A	24-Jul-2007 A	04-Apr-2011 A	\$17,519,731	\$17,949,754	102.5	\$15,901,937 \$15,892,984
	<b>Status:</b>	Construction of this project is complete. TE-46 is now in the Operation and Maintenance phase.								

**Actual**

**Status:** Construction is well underway. Dredging in the Mississippi River borrow site began in August 2012. The scheduled completion date is January 24, 2014.

Priority List 17Priority List 19

Lost Lake Marsh Creation and Hydrologic Restoration	<b>TERRE</b>	<b>TERRE</b>	452	22-Apr-2010 A	01-Aug-2013	01-Mar-2014	\$34,626,728	\$34,626,728	100.0	\$682,369 \$365,101
	<b>Status:</b>	A 30% design review meeting was held on June 19, 2012. Design is proceeding as expected with a Phase 2 request anticipated in January 2013.								

Project Status Summary Report - Local Agency: DEPT OF THE INTERIOR (DWS)										
PROJECT	BASIN	PARISH	ACRES	***** CSA *****	SCHEDULES Const Start	***** Const End *****	***** ESTIMATES ***** Baseline	***** Current *****	***** % *****	Actual Obligations/ Expenditures
	Total Priority List	19	452				\$34,626,728	\$34,626,728	100.0	\$682,369 \$365,101
1	Project(s)									
1	Cost Sharing Agreements Executed									
0	Construction Started									
0	Construction Completed									
0	Project(s) Deferred/Deauthorized									
Priority List 20										
Bayou Bonfouca Marsh Creation	PONT	STTAM	478				\$28,023,984	\$28,023,984	100.0	\$92,040 \$65,844
	Status:	All geotechnical and bathymetry survey field data have been completed and reports submitted to CPRA. A 30% design conference date has been set for April 25, 2012. Special issues concerning endangered species are undergoing review.								
Cameron-Creole Watershed Grand Bayou Marsh Creation	CA/SB	CAMER	534				\$2,376,789	\$2,376,789	100.0	\$114,224 \$24,225
	Status:	Survey work and geotechnical investigations are complete, and prelimianry reports have been submitted to CPRA. A 30% design conference has not been scheduled but is expected sometime in July or August. A meeting is scheduled with the Corps on April 24th to discuss the feasibility of using material dredged from the Calcasieu Ship Channel during a maintenance event.								
Terrebonne Bay Marsh Creation-Nourishment	TERRE	TERRE	353				\$2,901,750	\$2,901,750	100.0	\$116,746 \$17,504
	Status:									

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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		20	1,365				\$33,302,523	\$33,302,523	100.0	\$323,009
\$107,574										
3	Project(s)									
0	Cost Sharing Agreements Executed									
0	Construction Started									
0	Construction Completed									
0	Project(s) Deferred/Deauthorized									

## Priority List 21

Northwest Turtle Bay Marsh Creation	BARA	JEFF	407	10-May-2012 A	\$2,354,788	\$2,354,788	100.0	\$1,322,171
	<b>Status:</b>	Surveys for the project are complete. The geotechnical investigation is anticipated to begin in February 2013.						\$157,002
Total Priority List	21		407		\$2,354,788	\$2,354,788	100.0	\$1,322,171
								\$157,002
1 Project(s)								
1 Cost Sharing Agreements Executed								
0 Construction Started								
0 Construction Completed								
0 Project(s) Deferred/Deauthorized								

## Priority List 22

Terracing and Marsh Creation South of Big Mar	BARA	PLAQ	303		\$23,692,705	\$23,692,705	100.0
<b>Status:</b>							

**COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT**  
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				***** SCHEDULES *****			***** ESTIMATES *****			Actual
PROJECT	BASIN	PARISH	ACRES	CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
Total Priority List		22	303				\$23,692,705	\$23,692,705	100.0	
1	Project(s)									
0	Cost Sharing Agreements Executed									
0	Construction Started									
0	Construction Completed									
0	Project(s) Deferred/Deauthorized									
Total	DEPT. OF THE INTERIOR, FISH & WILDLIFE SERVICE		17,404				\$323,036,288	\$318,485,837	98.6	\$154,924,958 \$120,846,052
29	Project(s)									
24	Cost Sharing Agreements Executed									
18	Construction Started									
17	Construction Completed									
1	Project(s) Deferred/Deauthorized									

## Notes:

- Expenditures based on Corps of Engineers financial data.
- Date codes: A = Actual date \* = Behind schedule
- Percent codes: ! = 125% of baseline estimate exceeded

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	

Lead Agency: DEPT. OF COMMERCE, NATIONAL MARINE FISHERIES SERVICE

Priority List 1

Fourchon Hydrologic Restoration [DEAUTHORIZED]	TERRE	LAFOU					\$252,036	\$7,703	3.1	\$7,703 \$7,703
	<b>Status:</b> In a meeting on October 7, 1993, Port Fourchon conveyed to NMFS personnel that any additional work in the project area could be conducted by the Port and they did not wish to see the project pursued because they question its benefits and are concerned that undesired Government / general public involvement would result after implementation.  Deauthorized.									
Lower Bayou LaCache Hydrologic Restoration [DEAUTHORIZED]	TERRE	TERRE		17-Apr-1993 A			\$1,694,739	\$99,625	5.9	\$99,625 \$99,625
	<b>Status:</b> In a public hearing on September 22, 1993, with landowners in the project area, users strenuously objected to the proposed closure of the two east-west connections between Bayou Petit Caillou and Bayou Terrebonne. NMFS received a letter from LA DNR, dated February 6, 1995, recommending deauthorization of the project. NMFS forwarded the letter to COE for Task Force approval.  Deauthorized.									
Total Priority List 1							\$1,946,775	\$107,328	5.5	\$107,328 \$107,328

- 2 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 2 Project(s) Deferred/Deauthorized

Priority List 2



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Atchafalaya Sediment Delivery	ATCH	STMRY	2,232	01-Aug-1994 A	25-Jan-1998 A	21-Mar-1998 A	\$907,810	\$2,532,147	278.9 !	\$2,123,212
	<b>Status:</b> Annual O&M inspections are conducted on the Project. Project goals to increase the distributary potential of Natal Pass and Castille Pass has partially been met. Limited bathymetric data is suggesting partial shoaling at the head of Natal Pass and Castille Pass. More extensive bathymetric survey is currently being discussed for both AT-02 and AT-03. The creation of delta lobe islands with beneficially using dredge material channel excavation has also been met. The creation and enlargement of the delta lobes at these locations indicates that the delta is growing within the project boundaries.									\$2,123,212
Big Island Mining	ATCH	STMRY	1,560	01-Aug-1994 A	25-Jan-1998 A	08-Oct-1998 A	\$4,136,057	\$7,077,404	171.1 !	\$6,712,992
	<b>Status:</b> Project cost increase was approved by the Task Force at the January 16, 1998 meeting.  Construction project complete. First costs accounting underway.									\$6,712,992
Point Au Fer Canal Plugs	TERRE	TERRE	375	01-Jan-1994 A	01-Oct-1995 A	08-May-1997 A	\$1,069,589	\$5,514,248	515.5 !	\$3,299,084
	<b>Status:</b> Project / Gulf of Mexico shoreline surveys are underway to assist with maintenance recommendations to conduct a rock lift along low areas of PH 2 & 3 and the possible extension of the ends back into the shoreline. This construction activity would likely occur before the Fall of 20112.									\$3,263,089
Total Priority List				2	4,167		\$6,113,456	\$15,123,799	247.4	\$12,135,288
										\$12,099,293

- 3 Project(s)
- 3 Cost Sharing Agreements Executed
- 3 Construction Started
- 3 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Project Status Summary Report - Louisiana Department of Commerce (DNR)										
PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Bayou Perot/Bayou Rigolettes Marsh Restoration [DEAUTHORIZED]	BARA	JEFF		03-Mar-1995 A			\$1,835,047	\$20,963	1.1	\$20,963
	<b>Status:</b>	A feasibility study conducted by LA DNR indicated that possible wetlands benefits from construction of this project are questionable. LA DNR has indicated a willingness to deauthorize the project. In April 1996, LA DNR had asked to reconsider the project with potential of combining this with two other projects in the watershed. Project deauthorized at January 16, 1998 Task Force meeting.								
		Deauthorized.								
East Timbalier Island Sediment Restoration, Phase 1	TERRE	LAFOU	1,913	01-Feb-1995 A	01-May-1999 A	01-May-2001 A	\$2,046,971	\$3,720,721	181.8 !	\$3,688,527
	<b>Status:</b>	Construction completed in December 1999. Aerial seeding of the dune platform was achieved in spring 2000, and the installation of sand fencing was completed September 30, 2000. Vegetative dune plantings were completed May 1, 2001.								
Lake Chapeau Sediment Input and Hydrologic Restoration	TERRE	TERRE	509	01-Mar-1995 A	14-Sep-1998 A	18-May-1999 A	\$4,149,182	\$6,792,226	163.7 !	\$5,371,514
	<b>Status:</b>	Maintenance event to degrade the project feature identified as Weir 3 began on 4/27/2011, and the work was accepted on 6/24/2011.								
Lake Salvador Shore Protection DEMO	BARA	STCHA	0	01-Mar-1995 A	02-Jul-1997 A	30-Jun-1998 A	\$1,444,628	\$2,801,782	193.9 !	\$2,801,782
	<b>Status:</b>	Phase 1 was completed September 1997. Phase 2 is shoreline protection between Bayou desAllemnands and Lake Salvador. Construction began in April 1998 and completed in June 1998. Final first costs have been finalized.								
		Closed out cooperative agreement between NOAA and LADNR. First costs accounting undersay.								
		Project has served its demonstration purpose and is being removed by DNR with O&M funds, summer of 2002.								

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**Actual**

Obligations/  
Expenditures

				***** SCHEDULES *****	***** ESTIMATES *****	Obligations/ Expenditures
PROJECT	BASIN	PARISH	ACRES	CSA Const Start	Const End	Baseline Current %
Total Priority List	3	2,422				\$9,475,828 \$13,335,692 140.7 \$11,882,787 \$11,841,696
4 Project(s)						
4 Cost Sharing Agreements Executed						
3 Construction Started						
3 Construction Completed						
1 Project(s) Deferred/Deauthorized						

## Priority List 4

East Timbalier Island Sediment Restoration, Phase 2	TERRE	LAFOU	215	08-Jun-1995 A	01-May-1999 A	15-Jan-2000 A	\$5,752,404	\$7,600,150	132.1 !	\$7,542,022
	<b>Status:</b>	NOAA and DNR is currently closing out the cooperative agreements for East Tinbalier Island Phase 1 and 2. Considering the damage invoked on the island as a result of Hurricane Lily and Tropical Storm Isadore, future construction will be reassessed pursuant to engineering feasibility and the Phase 2 prioritization process.								
Eden Isles East Marsh Restoration [DEAUTHORIZED]	PONT	STTAM					\$5,018,968	\$39,025	0.8	\$39,025
	<b>Status:</b>	NMFS letter of September 8, 1997 requested the CWPPRA Task Force to move forward with deauthorization of this project. Bids were placed twice to acquire the land; both times they were rejected due to higher bids by private developers. Project deauthorized at January 16, 1998 Task Force meeting.								
		Deauthorized.								

Project Status Summary Report - Lead Agency: DEPARTMENT OF COMMERCE (ANDS)										Actual
PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****		***** ESTIMATES *****			Actual Obligations/Expenditures	
				CSA	Const Start	Const End	Baseline	Current		%
Total Priority List		4	215				\$10,771,372	\$7,639,176	70.9	\$7,581,047
\$7,581,047										
2 Project(s)										
1 Cost Sharing Agreements Executed										
1 Construction Started										
1 Construction Completed										
1 Project(s) Deferred/Deauthorized										

## Priority List 5

Little Vermilion Bay Sediment Trapping	TECHE	VERMI	441	22-May-1997 A	10-May-1999 A	20-Aug-1999 A	\$940,065	\$886,030	94.3	\$901,700
										\$735,195
	<b>Status:</b>	An O&M inspection was conducted by OCPR on 2-22-11. It was reported that the terraces and vegetation appear to be in good condition. Emergent vegetation was noted to be colonizing in some locations between terraces. The Freshwater Bayou canal bank continues to erode and retreat along the northern edge of the project resulting in some erosion on the ends of those terraces closest to Freshwater Bayou. Near term options to address this issue are currently being considered.								
Myrtle Grove Siphon [DEAUTHORIZED]	BARA	PLAQ		20-Mar-1997 A			\$15,525,950	\$481,803	3.1	\$481,803
	<b>Status:</b>	The 5th Priority List authorized funding in the amount of \$4,500,000 for the FY 96 Phase 1 of this project. Priority List 6 authorized funding in the amount of \$6,000,000 for FY 97. Priority List 8 is authorized to fund the remaining \$5,000,000. Total project cost is estimated to be \$15,525,950.								
		NOAA and LADNR are closing out the cooperative agreement and returning remaining project funds to the CWPPRA program. Project will remain active as authorized.								

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**Actual  
Obligations/  
Expenditures**

[illegible]

## Priority List 6

Black Bayou Hydrologic Restoration	CA/SB	CAMER	3,594	28-May-1998 A	01-Jul-2001 A	03-Nov-2003 A	\$6,316,806	\$6,168,284	97.6	\$5,916,156 \$5,903,823
	Status:	An O&M inspection is scheduled for 5-04-11.								
Delta Wide Crevasses	DELTA	PLAQ	2,386	28-May-1998 A	21-Jun-1999 A	01-May-2005 A	\$5,473,934	\$4,728,319	86.4	\$4,491,886 \$2,101,372
	Status:	High River stages delayed Project O&M annual inspections until July 19. All crevasses were in good shape. Project design team are in discussions with both USFWS and LDWF to identify the new, and final list of crevasse splays for construction (Phase 3 of 3). It is anticipated that the work could be underway by the end of 2012.								
Sediment Trapping at The Jaws	TECHE	STMAR	1,999	28-May-1998 A	14-Jul-2004 A	19-May-2005 A	\$3,167,400	\$1,653,792	52.2	\$1,375,132 \$1,375,132
	Status:	An O&M inspection was conducted on 4-05-11. The overall condition of the terraces is good. Evidence of recovery from herbivory was noted, as was colonization of mud flats between terraces and bay shoreline.								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
	Total Priority List	6	7,979				\$14,958,140	\$12,550,395	83.9	\$11,783,175 \$9,380,328
3	Project(s)									
3	Cost Sharing Agreements Executed									
3	Construction Started									
3	Construction Completed									
0	Project(s) Deferred/Deauthorized									

Priority List 7

Grand Terre Vegetative Plantings	BARA	JEFF	127	23-Dec-1998 A	01-May-2001 A	01-Jul-2001 A	\$928,895	\$346,246	37.3	\$346,246
	Status:	Planting of 3,100 units each of bitter panicum, gulf cordgrass, and marshhay cordgrass on beach nourishment/dune area, and installation of approximately 35,000 smooth cordgrass and 800 black mangrove was completed in June 2001. Monitoring is underway. Project area is being evaluated for additional plantings in 2003/2004.								
Pecan Island Terracing	MERM	VERMI	442	01-Apr-1999 A	15-Dec-2002 A	10-Sep-2003 A	\$2,185,900	\$2,211,223	101.2	\$2,211,223
	Status:	An O&M inspection is planned for May 2011.								
<hr/>										
Total Priority List		7	569				\$3,114,795	\$2,557,469	82.1	\$2,557,469
<hr/>										
2 Project(s)										
2 Cost Sharing Agreements Executed										
2 Construction Started										
2 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 8



## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Chandeleur Islands Marsh Restoration	PONT	STBER	220	10-Sep-2000 A	01-Jun-2001 A	31-Jul-2001 A	\$1,435,066	\$839,927	58.5	\$839,927 \$839,927
	<b>Status:</b>	Cooperative Agreement was awarded September 10, 2000. Vegetative planting is scheduled for spring, 2001, and are phased over two years.  Pilot planting project completed in June, 2000. First phase of vegetative plantings completed July 2001 with installation of approximately 80,000 smooth cordgrass plants along 6.6 miles of overwash fan perimeters. Project area is being evaluated for additional plantings in 2003.								
East Grand Terre Island Restoration [TRANSFER]	BARA	JEFF		21-Sep-2000 A			\$1,856,203	\$2,211,739	119.2	\$2,211,739 \$2,211,739
	<b>Status:</b>	The project is anticipated to be transfered to the CIAP program for construction.								
Four Mile Canal Terracing and Sediment Trapping	TECHE	VERMI	167	25-Sep-2000 A	10-Jun-2003 A	23-May-2004 A	\$5,086,511	\$2,113,831	41.6	\$2,107,787 \$2,097,797
	<b>Status:</b>	An O&M inspection was conducted by OCPR on 2-22-11. OCPR reported the project is showing signs of continued erosion along the 4-Mile canal side of the project on the ends of the terraces. However, at this time an O&M does not appear to be warranted.								
LaBranche Wetlands Terracing, Planting, and Shoreline Protection [DEAUTHORIZED]	PONT	STCHA		21-Sep-2000 A			\$821,752	\$306,836	37.3	\$306,836 \$306,836
	<b>Status:</b>	Cooperative Agreement was awarded September 21, 2000. Engineering and design complete. Construction is scheduled for 2002.  Task Force approved Phase 2 funding at January 10, 2001 meeting. In a letter dated September 7, 2001, NMFS returned Phase 2 funding because of waning landowner support. Deauthorization is not requested at this time.								
Total Priority List		9	387				\$10,684,165	\$7,190,216	67.3	\$7,184,172 \$7,174,182

- 5 Project(s)
- 5 Cost Sharing Agreements Executed
- 2 Construction Started
- 2 Construction Completed
- 3 Project(s) Deferred/Deauthorized



**Actual**

\*\*\*\*\* ESTIMATES \*\*\*\*\*

## Expenditures

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Pass Chaland to Grand Bayou Pass Barrier Shoreline Restoration	BARA	PLAQ	263	06-Aug-2002 A	06-Jun-2008 A	25-Aug-2009 A	\$29,753,880	\$39,772,550	133.7 !	\$39,204,222 \$37,494,168
<b>Status:</b> Annual site inspection conducted June 27, 2012. Sand fencing appears largely intact and functional. Sand accretion around fencing and dune plantings observed. The marsh creation area and associated containment dikes were also inspected. Major portions of the marsh platform appear to be regularly flooded by tides and has about 50% to 60% vegetative cover. Marsh fill containment dikes were inspected to determine need for mechanical gapping to provide tidal exchange. Based on observed settlement and formation of natural gaps, it was determined that dike gapping/degradation is not required.										
<hr/>										
Total Priority List		11	1,310				\$127,744,361	\$137,648,756	107.8	\$134,199,426 \$126,875,710

- 3 Project(s)
- 3 Cost Sharing Agreements Executed
- 3 Construction Started
- 2 Construction Completed
- 0 Project(s) Deferred/Deauthorized

## Priority List 14

Riverine Sand Mining/Scofield Island Restoration [DEAUTHORIZED]	BARA	PLAQ		04-Oct-2005 A			\$3,221,887	\$3,039,062	94.3	\$3,039,062 \$3,039,062
<b>Status:</b> State of Louisiana planning to construct the project using state-only funds. Final CWPPRA deauthorization was approved by the Task Force at its 19 January 2012 meeting.										
<hr/>										
Total Priority List		14					\$3,221,887	\$3,039,062	94.3	\$3,039,062 \$3,039,062

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 1 Project(s) Deferred/Deauthorized

**Actual  
Obligations/  
Expenditures**

Madison Bay Marsh Creation and Terracing	TERRE	TERRE	372	31-May-2007 A			\$3,002,171	\$3,002,171	100.0	\$2,637,554
	<b>Status:</b>	The project design team is scheduled to make a recommendation to the CWPPRA Technical Committee that the project area should be relocated east approximately 4 miles.								\$1,100,025
West Belle Pass Barrier Headland Restoration Project	TERRE	LAFOU	305	31-May-2007 A	09-Sep-2011 A	31-Dec-2012 *	\$42,250,417	\$41,569,090	98.4	\$36,744,964
	<b>Status:</b>	Weeks Marine completed dredging activities on October 23, 2012, and the dredge was demobilized from the site on October 31, 2012. The final inspection of the project site was conducted on November 26, 2012. Project borrow quantities are: beach/sand fill = 2.7 MCY, and marsh fill = 1.4 MCY.								\$12,914,857

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual
				CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
Total Priority List		16	677				\$45,252,588	\$44,571,261	98.5	\$39,382,518 \$14,014,882
2 Project(s)										
2 Cost Sharing Agreements Executed										
1 Construction Started										
0 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 17

Bayou Dupont Ridge Creation and Marsh Restoration	BARA	JEFF	186	17-Jul-2008 A	01-Oct-2012 *	01-Oct-2013	\$38,539,615	\$37,984,593	98.6	\$32,496,080 \$1,413,357
<b>Status:</b> Comments and issues related to the borrow area have been addressed between CPRA and USACE. CPRA, DOTD, and NOAA have signed (or will sign) the proffered permit. Bid documents will be finalized for advertisement.										
Bio-Engineered Oyster Reef DEMO	MERM	MULTI	0		02-Aug-2011 A	17-Feb-2012 A	\$1,981,822	\$2,316,692	116.9	\$1,960,821 \$1,860,388
<b>Status:</b> Project construction was completed in early February 2012. Biological and structural monitoring are underway.										
Total Priority List		17	186				\$40,521,437	\$40,301,285	99.5	\$34,456,901 \$3,273,746
2 Project(s)										
1 Cost Sharing Agreements Executed										
1 Construction Started										
1 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 18

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Grand Liard Marsh and Ridge Restoration	BARA	PLAQ	370		11-Mar-2013 *	01-Jul-2014	\$42,579,616	\$42,095,162	98.9	\$35,642,328 \$1,855,233
<b>Status:</b>										
<hr/>										
Total Priority List		18	370				\$42,579,616	\$42,095,162	98.9	\$35,642,328 \$1,855,233

- 1 Project(s)
- 0 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 19

Chenier Ronquille Barrier Island Restoration	BARA	PLAQ	308	18-Aug-2010 A	01-Oct-2013	01-Jul-2014	\$3,419,263	\$3,419,263	100.0	\$3,077,602 \$1,102,816
<b>Status:</b> Project did not receive construction funding/Phase 2 approval. State and federal sponsors continuing to finalize environmental clearances that have already been initiated. The sponsors may elect to re-compete for Phase 2 authorization in December 2012.										
<hr/>										
Total Priority List		19	308				\$3,419,263	\$3,419,263	100.0	\$3,077,602 \$1,102,816

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 21

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Coles Bayou Marsh Restoration	TECHE	VERMI	398				\$3,136,805	\$3,136,805	100.0	\$2,666,285
	Status:									\$12,026
Oyster Bayou Marsh Restoration	CA/SB	CAMER	489				\$3,165,322	\$3,165,322	100.0	\$2,109,951
	Status:									\$0
<hr/>										
Total Priority List		21	887				\$6,302,127	\$6,302,127	100.0	\$4,776,236
\$12,026										

- 2 Project(s)
- 0 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 22

Cameron Meadows Marsh Creation	CA/SB	CAMER	264				\$27,685,820	\$3,108,025	11.2
	<b>Status:</b>								
<hr/>									
	Total Priority List	22	264				\$27,685,820	\$3,108,025	11.2

- 1 Project(s)
- 0 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: DEPT. OF COMMERCE (NMFS)

				***** SCHEDULES *****			***** ESTIMATES *****			Actual
PROJECT	BASIN	PARISH	ACRES	CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
Total	DEPT. OF COMMERCE, NATIONAL		21,236				\$378,764,641	\$346,038,188	91.4	\$313,423,835
	MARINE FISHERIES SERVICE									\$206,355,873
	40 Project(s)									
	33 Cost Sharing Agreements Executed									
	21 Construction Started									
	19 Construction Completed									
	11 Project(s) Deferred/Deauthorized									

- Notes:
- 1. Expenditures based on Corps of Engineers financial data.
  - 2. Date codes: A = Actual date \* = Behind schedule
  - 3. Percent codes: ! = 125% of baseline estimate exceeded

**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Lead Agency: DEPT. OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE										
Priority List 1										
GIWW to Clovelly Hydrologic Restoration	BARA	LAFOU	175	17-Apr-1993 A	21-Apr-1997 A	31-Oct-2000 A	\$8,141,512	\$11,032,397	135.5 !	\$10,197,412
	<b>Status:</b>	The project was divided into two contracts in order to expedite implementation. The first contract to install most of the weir structures, began May 1, 1997 and completed November 30, 1997, at a cost of \$646,691. The second contract to install bank protection, one weir and one plug, began January 1, 2000 and completed October 31, 2000, at a cost of \$3,400,000. All project construction is complete. O&M Plan signed September 16, 2002.								\$10,150,726
Vegetative Plantings - Dewitt-Rollover Planting Demonstration (DEMO) [DEAUTHORIZED]	MERM	VERMI		17-Apr-1993 A	11-Jul-1994 A	26-Aug-1994 A	\$191,003	\$92,147	48.2	\$92,147
	<b>Status:</b>	Sub-project of the Vegetative Plantings project.  Complete and deauthorized.								\$92,147
Vegetative Plantings - Falgout Canal Planting Demonstration(DEMO)	TERRE	TERRE	0	17-Apr-1993 A	30-Aug-1996 A	30-Dec-1996 A	\$144,561	\$206,523	142.9 !	\$206,523
	<b>Status:</b>	Sub-project of the Vegetative Plantings project. Wave-stilling devices are in place. Vegetative plantings are in place.  Complete.								\$206,523
Vegetative Plantings - Timbalier Island Planting Demonstration (DEMO)	TERRE	TERRE	0	17-Apr-1993 A	15-Mar-1995 A	30-Jul-1996 A	\$372,589	\$300,492	80.6	\$300,492
	<b>Status:</b>	Sub-project of the Vegetative Plantings project.  Complete.								\$300,492
Vegetative Plantings - West Hackberry Planting Demonstration (DEMO)	CA/SB	CAMER	0	17-Apr-1993 A	15-Apr-1993 A	30-Mar-1994 A	\$213,947	\$256,251	119.8	\$257,181
	<b>Status:</b>	Sub-project of the Vegetative Plantings project.  Complete.								\$256,251



Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (AKAS)										
PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		1	175				\$9,063,612	\$11,887,810	131.2	\$11,053,755
										\$11,006,139
5	Project(s)									
5	Cost Sharing Agreements Executed									
5	Construction Started									
5	Construction Completed									
1	Project(s) Deferred/Deauthorized									

## Priority List 2

Brown Lake Hydrologic Restoration [DEAUTHORIZED]	CA/SB	CAMER		28-Mar-1994 A			\$3,222,800	\$1,097,828	34.1	\$1,097,828
	Status:	Landowner support for the project has been withdrawn due to changes in project features therefore project team moved to deauthorize project. Task Force voted to approve deauthorization in Fall 2009.								
Caernarvon Diversion Outfall Management	BRET	PLAQ	802	13-Oct-1994 A	01-Jun-2001 A	19-Jun-2002 A	\$2,522,199	\$4,536,000	179.8 !	\$3,907,298
	Status:	This project was proposed for deauthorization in December 1996, but was referred for revisions at the request of the landowners and DNR. The project was modified. The final plan/EA has been prepared. Bids were opened 23 February 2001. The low bid exceeded the funds available. Task Force approved additional funds. Construction complete June 19, 2002.								
East Mud Lake Marsh Management	CA/SB	CAMER	1,520	24-Mar-1994 A	01-Oct-1995 A	15-Jun-1996 A	\$2,903,635	\$5,219,019	179.7 !	\$4,835,567
	Status:	Bid opening was August 8, 1995 and contract awarded to Crain Bros. Construction started in early October 1995. Water control structures are installed and the vegetation installed in the summer of 1996.								
		Construction complete. O&M plan executed. Maintenance needs on a water control structure is being evaluated.								

Project Status Summary Report - Local Agency: DEPT OF AGRICULTURE (AKAS)										
PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****	***** ESTIMATES *****			Actual Obligations/Expenditures		
				CSA	Const Start	Const End	Baseline	Current	%	
Freshwater Bayou Wetland Protection	MERM	VERMI	1,593	17-Aug-1994 A	29-Aug-1994 A	15-Aug-1998 A	\$2,770,093	\$6,035,583	217.9 !	\$3,372,023
	<b>Status:</b>	The project was expedited in order to allow the use of stone removed from the Wax Lake Outlet Weir at a substantial cost savings. Construction is included as an option in the Corps of Engineers contract for the Wax Lake Outlet Weir removal. Option was exercised on September 2, 1994.								\$3,308,526
		Project construction is complete. Maintenance contract underway to repair rock dike.								
Fritchie Marsh Restoration	PONT	STTAM	1,040	21-Feb-1995 A	01-Nov-2000 A	01-Mar-2001 A	\$3,048,389	\$2,201,674	72.2	\$1,831,971
	<b>Status:</b>	O&M plan executed January 29, 2003.								\$1,811,560
Highway 384 Hydrologic Restoration	CA/SB	CAMER	150	13-Oct-1994 A	01-Oct-1999 A	07-Jan-2000 A	\$700,717	\$1,308,137	186.7 !	\$1,264,384
	<b>Status:</b>	Construction start slipped from November 1997 to July 1999 because of landright issues. All landright agreements signed. Construction complete January 7, 2000.								\$1,240,434
		O&M plan executed. Maintenance contract complete. Minor damage from Hurricane Lili to be repaired. Contract in preparation.								
Jonathan Davis Wetland Restoration	BARA	JEFF	510	05-Jan-1995 A	22-Jun-1998 A	12-Jan-2012 A	\$3,398,867	\$28,875,616	849.6 !	\$22,754,449
	<b>Status:</b>	Construction has begun to repair vandalism to the concrete walls. Work is anticipated to be completed by October 2012.								\$22,619,277
Vermilion Bay/Boston Canal Shore Protection	TECHE	VERMI	378	24-Mar-1994 A	13-Sep-1994 A	30-Nov-1995 A	\$1,008,634	\$1,043,748	103.5	\$885,768
	<b>Status:</b>	Complete.								\$883,630

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)

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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		2	5,993				\$19,575,334	\$50,317,606	257.0	\$39,949,288 \$39,601,962
8	Project(s)									
8	Cost Sharing Agreements Executed									
7	Construction Started									
7	Construction Completed									
1	Project(s) Deferred/Deauthorized									

### Priority List 3

Brady Canal Hydrologic Restoration	TERRE	TERRE	297	15-May-1998 A	01-May-1999 A	22-May-2000 A	\$4,717,928	\$7,593,752	161.0 !	\$5,064,906 \$5,007,636
	Status:	Project delayed because of landowner concerns about permit conditions regarding monitoring, and objection from a pipeline company in the area. In addition, CSA revisions were needed to accommodate the landowner's interest in providing non-Federal funding. Permitting and design conditions have resulted in the CSA being modified to also include Fina Oil Co. and LL&E. Both will help cost share the project. The revised CSA is complete.								
		Construction project is complete. O&M plan signed July 16, 2002.								
Cameron-Creole Maintenance	CA/SB	CAMER	2,602	09-Jan-1997 A	30-Sep-1997 A	30-Sep-1997 A	\$3,719,926	\$4,262,525	114.6	\$1,956,344 \$1,847,715
	Status:	The first three contracts for maintenance work are complete. The project provides for maintenance on an as-needed basis.								
Cote Blanche Hydrologic Restoration	TECHE	STMRY	2,223	01-Jul-1996 A	25-Mar-1998 A	15-Dec-1998 A	\$5,173,062	\$10,036,640	194.0 !	\$8,222,441 \$8,211,330
	Status:	Construction start date slipped from November 1997 to March 1998 because of concern about the source of shell to construct the project. Site inspection for bidder was held January 12, 1998. Concern for a source of shell may require budget modifications. Contract awarded February 1998; notice to proceed March 1998. Construction was completed December 1998.								
		O&M plan executed. Maintenance contract complete.								

**COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT**  
**Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Southwest Shore White Lake DEMO [DEAUTHORIZED]	MERM	VERMI		11-Jan-1995 A	30-Apr-1996 A	31-Jul-1996 A	\$126,062	\$103,468	82.1	\$103,468 \$103,468
	<b>Status:</b>	Complete. Project deauthorized.								
Violet Freshwater Distribution [DEAUTHORIZED]	PONT	STBER		13-Oct-1994 A			\$1,821,438	\$128,627	7.1	\$128,627 \$128,627
	<b>Status:</b>	Rights-of-way to gain access to the site was a problem due to multiple landowner coordination, and additional questions have arisen about rights to operate existing siphon.								
		Project deauthorized, October 4, 2000.								
West Pointe a la Hache Outfall Management	BARA	PLAQ	646	05-Jan-1995 A	01-Sep-2013	01-Jan-2014	\$881,148	\$4,269,295	484.5 !	\$1,061,065 \$985,240
	<b>Status:</b>	A 30% review meeting was held on October 3, 2012. Project Team is currently resolving concerns raised during the meeting regarding ownership and operation of the siphon. A 95% review meeting is anticipated for September 2013.								
White's Ditch Outfall Management [DEAUTHORIZED]	BRET	PLAQ		13-Oct-1994 A			\$756,134	\$32,862	4.3	\$32,862 \$32,862
	<b>Status:</b>	LA DNR concurred with NRCS to deauthorize the project. Project deauthorized at the January 16, 1998 Task Force meeting.								
		Deauthorized.								
Total Priority List			3				\$17,195,698	\$26,427,169	153.7	\$16,569,715 \$16,316,879

- 7 Project(s)
- 7 Cost Sharing Agreements Executed
- 4 Construction Started
- 4 Construction Completed
- 3 Project(s) Deferred/Deauthorized

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (NRCS)

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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Barataria Bay Waterway West Side Shoreline Protection	BARA	JEFF	232	23-Jun-1997 A	01-Jun-2000 A	01-Nov-2000 A	\$2,192,418	\$3,013,365	137.4 !	\$2,802,938 \$2,792,344
	<b>Status:</b>	The project is being coordinated with the COE dredging program. Contract advertised December 1999.  Construction complete. Dedication ceremony held October 20, 2000. O&M plan signed July 15, 2002.								
Bayou L'Ours Ridge Hydrologic Restoration [DEAUTHORIZED]	BARA	LAFOU		23-Jun-1997 A			\$2,418,676	\$371,232	15.3	\$371,232 \$371,232
	<b>Status:</b>	The initial step of deauthorization was taken at the January Task Force meeting. The process will be finalized at the April Task Force meeting.								
Flotant Marsh Fencing DEMO [DEAUTHORIZED]	TERRE	TERRE		16-Jul-1999 A			\$367,066	\$106,960	29.1	\$106,960 \$106,960
	<b>Status:</b>	Difficulty in locating an appropriate site for demonstration and difficulty in addressing engineering constraints.  Project deauthorized, October 4, 2000.								
Perry Ridge Shore Protection	CA/SB	CALCA	1,203	23-Jun-1997 A	15-Dec-1998 A	15-Feb-1999 A	\$2,223,518	\$2,289,090	102.9	\$1,888,219 \$1,872,795
	<b>Status:</b>	Project complete.								
Plowed Terraces DEMO	CA/SB	CAMER	0	22-Oct-1998 A	30-Apr-1999 A	31-Aug-2000 A	\$299,690	\$325,641	108.7	\$325,162 \$324,970
	<b>Status:</b>	Project initially put on hold pending results of an earlier terraces demonstration project being paid for by the Gulf of Mexico program. The first attempt to plow the terraces in the summer of 1999 was not successful. A second contract was advertised in January 2000 to try again. Construction is complete.								

## Priority List 5

Freshwater Bayou Bank Stabilization	MERM	VERMI	511	01-Jul-1997 A	15-Feb-1998 A	15-Jun-1998 A	\$3,998,919	\$5,609,593	140.3 !	\$2,572,532
	<b>Status:</b>	The local cost share is being paid by Acadian Gas Company.								\$2,547,262
	Contract was awarded January 14, 1998. Construction is complete.									
Naomi Outfall Management	BARA	JEFF	633	12-May-1999 A	01-Jun-2002 A	15-Jul-2002 A	\$1,743,805	\$2,221,505	127.4 !	\$1,967,287
	<b>Status:</b>	This project was combined with the BBWW "Dupre Cut" East project for planning and design; construction will be separate.								\$1,940,038
	The operation of the siphon is being reviewed by DNR. Hydraulic analysis is complete; results concurred in by both agencies. Construction contract advertised in March 2002. Construction began June 2002 and completed in July 2002.									
	O&M plan in draft.									
Raccoon Island Breakwaters DEMO	TERRE	TERRE	0	03-Sep-1996 A	21-Apr-1997 A	31-Jul-1997 A	\$1,497,538	\$1,751,046	116.9	\$1,751,046
	<b>Status:</b>	Complete.								\$1,751,046

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Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Sweet Lake/Willow Lake Hydrologic Restoration	CA/SB	CAMER	247	23-Jun-1997 A	01-Nov-1999 A	02-Oct-2002 A	\$4,800,000	\$3,929,152	81.9	\$3,435,211
	Status:	The rock bank protection feature of the project is complete.								\$3,409,697
	The second contract has been awarded; terrace construction and vegetative planting will be finished by October 1, 2002. Contractor was unable to complete the construction. Contract terminated; remaining work was advertised December 2001. Contract awarded, and construction completed October 2, 2002.									
Total Priority List		5	1,391				\$12,040,262	\$13,511,296	112.2	\$9,726,077
										\$9,648,043

- |   |                                  |
|---|----------------------------------|
| 4 | Project(s)                       |
| 4 | Cost Sharing Agreements Executed |
| 4 | Construction Started             |
| 4 | Construction Completed           |
| 0 | Project(s) Deferred/Deauthorized |

## Priority List 6

Barataria Bay Waterway East Side Shoreline Protection	BARA	JEFF	217	12-May-1999 A	01-Dec-2000 A	31-May-2001 A	\$5,019,900	\$5,224,477	104.1	\$4,834,337
	<b>Status:</b>	This project was combined with the Naomi Outfall Management project for planning and design; construction was separate.								\$4,771,892
		Project construction complete.								
		O&M plan signed October 2, 2002.								
Cheniere au Tigre Sediment Trapping DEMO	TECHE	VERMI	0	20-Jul-1999 A	01-Sep-2001 A	02-Nov-2001 A	\$500,000	\$624,999	125.0	\$599,471
	<b>Status:</b>	A request for proposals was advertised in Feb 2000. No valid proposals received. Proceeding with design of a rock structure. Project advertised for bid. Bid came in over estimate. LDNR and NRCS shifted funds from monitoring to construction. Delay in getting new obligation due to internal COE procedures. Government order received July 13, 2001. Construction complete.								\$596,781

Project Status Summary Report - Louisiana Agency: DEPT. OF TRANSPORTATION (ARCS)										
PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Oaks/Avery Canal Hydrologic Restoration, Increment 1	TECHE	VERMI	160	22-Oct-1998 A	15-Apr-1999 A	11-Oct-2002 A	\$2,367,700	\$2,925,216	123.5	\$2,311,841
	<b>Status:</b>	O&M plan was finalized on 2/11/04.								\$2,311,841
Penchant Basin Natural Resources Plan, Increment 1	TERRE	TERRE	675	23-Apr-2002 A	25-May-2010 A	24-Aug-2011 A	\$14,103,051	\$17,628,814	125.0 !	\$14,910,594
	<b>Status:</b>	Project construction was completed on August 24, 2011.								\$12,621,614
Total Priority List		6	1,052				\$21,990,651	\$26,403,506	120.1	\$22,656,244
										\$20,302,128

- |   |                                  |
|---|----------------------------------|
| 4 | Project(s)                       |
| 4 | Cost Sharing Agreements Executed |
| 4 | Construction Started             |
| 4 | Construction Completed           |
| 0 | Project(s) Deferred/Deauthorized |

## Priority List 7

Barataria Basin Landbridge Shoreline Protection, Phase 1 and 2	BARA	JEFF	1,304	16-Jul-1999 A	01-Dec-2000 A	05-Mar-2009 A	\$17,515,029	\$27,852,111	159.0 !	\$26,509,490
	<b>Status:</b>	Construction Unit #4 was completed on May 4th, 2009.								\$26,392,087
		Construction Unit #5 was completed on March 5th, 2009.								
Thin Mat Floating Marsh Enhancement DEMO	TERRE	TERRE	0	16-Oct-1998 A	15-Jun-1999 A	10-May-2000 A	\$460,222	\$538,101	116.9	\$538,101
	<b>Status:</b>	Construction complete. Monitoring ongoing.								\$538,101



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Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		7	1,304				\$17,975,251	\$28,390,212	157.9	\$27,047,591
\$26,930,188										
2	Project(s)									
2	Cost Sharing Agreements Executed									
2	Construction Started									
2	Construction Completed									
0	Project(s) Deferred/Deauthorized									

## Priority List 8

Humble Canal Hydrologic Restoration	MERM	CAMER	378	21-Mar-2000 A	01-Jul-2002 A	01-Mar-2003 A	\$1,526,136	\$1,574,926	103.2	\$1,090,070
	Status:	Construction complete March 2003.								\$1,078,687
Lake Portage Land Bridge	TECHE	VERMI	24	07-Apr-2000 A	15-Feb-2003 A	15-May-2004 A	\$1,013,820	\$1,181,129	116.5	\$1,096,518
	Status:	Project construction was completed on May 15, 2004. Monitoring Plan was finalized on July 19, 2004								\$1,092,183
Upper Oak River Freshwater Siphon [DEAUTHORIZED]	BRET	PLAQ					\$2,500,239	\$56,476	2.3	\$56,476
	Status:	Total project cost estimate is \$12,994,800; Priority List 8 funded \$2,500,000 for completion of engineering and design and construction of the outflow channel. Funding of the siphon will be requested when engineering and design are completed.								\$56,476
		Project feasibility being evaluated. DNR has solicited a cost estimate from one of their engineering firms to perform a feasibility study. Target dates will be established if project is deemed feasible.								
		Deauthorization procedures initiated.								

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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		8	402				\$5,040,195	\$2,812,531	55.8	\$2,243,064
										\$2,227,346
3	Project(s)									
2	Cost Sharing Agreements Executed									
2	Construction Started									
2	Construction Completed									
1	Project(s) Deferred/Deauthorized									

## Priority List 9

Barataria Basin Landbridge Shoreline Protection, Phase 3	BARA	JEFF	264	25-Jul-2000 A	20-Oct-2003 A	30-Apr-2014	\$46,542,450	\$37,205,013	79.9	\$35,606,709 \$9,319,413
	Status:	Pipeline removal in project area is nearing completion. Construction on Units#7 & #8 is anticipated to begin in August 2013.								
Black Bayou Culverts Hydrologic Restoration	CA/SB	CAMER	540	25-Jul-2000 A	25-May-2005 A	26-Jan-2010 A	\$5,900,387	\$7,088,644	120.1	\$6,315,764 \$6,278,593
	Status:	Project is currently protected by coffer dams installed to dewater structures to assess extent of leakage under structure. A corrective design is being evaluated. Project is scheduled to request funding for repairs at the Winter 2012 Task Force meeting.								
Little Pecan Bayou Hydrologic Restoration [DEAUTHORIZED]	MERM	CAMER		25-Jul-2000 A			\$1,245,278	\$1,556,598	125.0 !	\$1,365,305 \$1,300,597
	Status:	Project was deauthorized at Spring 2012 Task Force meeting for the following reasons:								
		•The current ME-17 project features do not yield sufficient wetland benefits to warrant a Phase II request for construction and twenty years of maintenance. •Within the current project scope, the CPRA has concerns over public vandalism.								

Project Status Summary Report - Lead Agency: DEPT. OF AGRICULTURE (PACOS)										Actual
PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****	Const Start	Const End	***** ESTIMATES *****	Current	%	Obligations/ Expenditures
Perry Ridge West Bank Stabilization	CA/SB	CAMER	83	25-Jul-2000 A	01-Nov-2001 A	31-Jul-2002 A	\$3,742,451	\$1,778,016	47.5	\$1,694,852
	Status:	The Perry Ridge project approved on Priority List 4 was the first phase of this project. This is the second and final phase of the project.								\$1,685,077
	Task Force approved Phase 2 construction funding January 10, 2001. The rock bank protection is installed. The contract for the terraces and vegetation has been completed.									
South Lake Decade Freshwater Introduction	TERRE	TERRE	202	25-Jul-2000 A	24-Jan-2011 A	30-Aug-2013	\$4,949,684	\$3,711,462	75.0	\$3,503,667
	Status:	Construction Unit #1 was completed on July 12, 2011. CPRA did not agree to proceed with 2nd construction unit, therefore project was considered completed and closed out.								\$3,241,675
Total Priority List		9	1,089				\$62,380,250	\$51,339,733	82.3	\$48,486,296
										\$21,825.355

- 5 Project(s)  
5 Cost Sharing Agreements Executed  
4 Construction Started  
2 Construction Completed  
1 Project(s) Deferred/Deauthorized

## Priority List 10

GIWW Bank Restoration of Critical Areas in Terrebonne	TERRE	TERRE	65	16-May-2001 A	01-Dec-2012 *	30-Oct-2013	\$13,022,246	\$11,258,135	86.5	\$9,461,400
	<b>Status:</b>	CPRA assigned land rights to NRCS in April 2012. Project re-surveyed to verify design was still current. Project is scheduled for construction in December 2012.								\$1,602,039

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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		10	65				\$13,022,246	\$11,258,135	86.5	\$9,461,400
\$1,602,039										
1	Project(s)									
1	Cost Sharing Agreements Executed									
0	Construction Started									
0	Construction Completed									
0	Project(s) Deferred/Deauthorized									

## Priority List 11

Barataria Basin Landbridge Shoreline Protection, Phase 4	BARA	JEFF	256	09-May-2002 A	27-Apr-2005 A	26-Apr-2006 A	\$22,787,951	\$13,178,492	57.8	\$12,177,226 \$6,559,088
	Status:	Construction Unit #6 was completed on April 26, 2006.								
Coastwide Nutria Control Program	COAST	COAST	14,963	26-Feb-2002 A	20-Nov-2002 A	15-Jul-2003 A	\$68,864,870	\$33,857,821	49.2	\$20,158,343 \$20,151,501
	Status:	In Year 9 (2010-11) Trapping Season, 338,512 nutria tails were collected.								
Grand Lake Shoreline Protection	MERM	CAMER	45	20-Sep-2011 A	01-May-2013 *	30-Aug-2013	\$12,792,013	\$10,055,616	78.6	\$950,862 \$782,877
	Status:	Project received funding MIPR for Engineering and Design in August 2012. Surveying and Geotechnical Investigation has begun. Project is scheduled to request Construction approval at the September 2013 Technicial Committee meeting.								
Raccoon Island Shoreline Protection/Marsh Creation	TERRE	TERRE	71	23-Apr-2002 A	13-Dec-2005 A	01-Jan-2013 *	\$17,167,810	\$19,608,966	114.2	\$18,228,758 \$6,195,461
	Status:	Notice to Proceed for construction of Phase B was given on September 27,2012.								

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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual
				CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
Total Priority List		11	15,335				\$121,612,644	\$76,700,895	63.1	\$51,515,189 \$33,688,926
4 Project(s)										
4 Cost Sharing Agreements Executed										
3 Construction Started										
2 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 11.1

Holly Beach Sand Management	CA/SB	CALCA	330	09-May-2002 A	01-Aug-2002 A	31-Mar-2003 A	\$19,252,500	\$14,130,233	73.4	\$13,968,822
	Status:	The placement of the sand material on to the beach was completed on Saturday, March 1, 2003. Required work that is now in progress consist of demobilization of the pipeline segments, dressing the completed beach work,erection of the Sand Fencing and installation of the vegetation.								\$13,967,845
<hr/>										
	Total Priority List	11.1	330				\$19,252,500	\$14,130,233	73.4	\$13,968,822
										\$13,967,845
1	Project(s)									
1	Cost Sharing Agreements Executed									
1	Construction Started									
1	Construction Completed									
0	Project(s) Deferred/Deauthorized									

Priority List 12

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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	SCHEDULES Const Start Const End	ESTIMATES Baseline Current %	Obligations/ Expenditures
Freshwater Floating Marsh Creation DEMO	COAST	COAST	0	12-Jun-2003 A 01-Jul-2004 A 01-Jun-2006 A	\$1,080,891 \$1,058,770 98.0	\$1,068,531 \$1,068,531
<b>Status:</b> The deployed vegetated structures at the Mandalay field site have been in place since Spring 2006, and are functioning as designed. By the end of 2008 (the third growing season in the field), vegetation in the floating structures has spread significantly from their mother structures and are beginning to interweave with plants from adjacent structures, and the belowground plant material was generating an increasingly extensive network of the fibrous roots and rhizomes necessary to establish the foundation of a sustainable organic marsh mat.						
Some of the deployed structures at Mandalay were damaged, but overall the project structures and associated vegetation weathered the storms well with less than 5% of the structures damaged or lost. In this project, the P. hemitomon plants established in the floating structures performed extremely well in the areas not impacted by increases in water salinity from storm induced high water, and when protected from nutria grazing.						
Total Priority List	12		0		\$1,080,891 \$1,058,770 98.0	\$1,068,531 \$1,068,531
1 Project(s)						
1 Cost Sharing Agreements Executed						
1 Construction Started						
1 Construction Completed						
0 Project(s) Deferred/Deauthorized						

## Priority List 13

Bayou Sale Shoreline Protection	TECHE	STMRY	329	16-Jun-2004 A	01-Sep-2014	30-Aug-2015	\$2,254,912	\$2,254,912	100.0	\$1,845,819 \$1,762,166
	<b>Status:</b>	Project scope change did not get approved by Technical Committee. Project team reviewing option suggested by Parish to allow a test section of an alternative shoreline protection product, funded by Parish. Project Team currently assessing viability.								

**Actual  
Obligations/  
Expenditures**

3	Project(s)
3	Cost Sharing Agreements Executed
2	Construction Started
2	Construction Completed
0	Project(s) Deferred/Deauthorized

**Actual  
Obligations/  
Expenditures**

Sediment Containment System for Marsh Creation Demonstration (DEMO)	COAST	COAST	0	28-Jan-2008 A	01-Feb-2013 *	01-Apr-2014	\$1,163,343	\$1,163,343	100.0	\$1,003,502
	<b>Status:</b>	LA-9 Demo Project was included with the PO-75 Pilot Study. Project was awarded on January 7, 2013.								\$173,986
West Pointe a la Hache Marsh Creation	BARA	PLAQ	203	24-Jan-2008 A	01-Sep-2014	30-Aug-2015	\$1,620,740	\$1,620,740	100.0	\$1,304,138
	<b>Status:</b>	Project Team is waiting on results from BA-42 project regarding borrow site. Geotechnical Investigation and Surveying of fill placement area has begun. A 30% review meeting is anticipated for May 2013.								\$489,609



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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		17	203				\$2,784,083	\$2,784,083	100.0	\$2,307,640
\$663,595										
2	Project(s)									
2	Cost Sharing Agreements Executed									
0	Construction Started									
0	Construction Completed									
0	Project(s) Deferred/Deauthorized									

## Priority List 18

[illegible]

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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Non-Rock Alternatives to Shoreline Protection DEMO	COAST	COAST	0	04-May-2009 A	27-May-2013	24-Apr-2017	\$1,906,237	\$1,906,237	100.0	\$1,672,086
	<b>Status:</b>	Projected Timelines								
		Project was advertised on Nov. 15, 2011								
		Site Visits Nov. 16 & 17, 2011								
		Proposals Due on RFP Mar. 15, 2012)								
		< Phase I >								
		Review of Proposals May 14, 2012)								
		Interview Process June 28, 2012)								
		< Phase 2 >								
		Notice of Selection (for Phase 2 design) (July 13, 2012)								
		Draft Design Schedule from NRCS (Aug. 3, 2012)								
		Phase 2 Contract Award (Aug. 13, 2012)								
		Final Design Schedule from NRCS (Aug. 17, 2012)								
		Begin Surveys and Prepare P&S for advertisement (Sep. 19, 2012)								
		Final Product Selection and Develop Phase III Budget (Nov. 26, 2012)								
		Submit Budget Increase Request to Technical Committee (TC) (Nov. 27, 2012)								
		Request Task Force Approval and Budget January 17, 2013								
		< Phase 3 >								
		Notice of Selection (for Phase III) (Jan. 25, 2013)								
		Advertise NRCS Dredging Contract (Mar. 18, 2013)								
		Finalize NRCS Plans & Specifications (May 25, 2013)								
		Phase 3 Contract Award (May 27, 2013)								

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
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**Actual  
Obligations/  
Expenditures**

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES ***** CSA Const Start Const End	***** ESTIMATES ***** Baseline Current %	Obligations/ Expenditures
		NTP on NRCS Dredging Contract(May 31, 2013)				
		Construction of Shoreline Protection Systems(Jan. 22, 2014)				
		Construction Report(Feb. 21, 2014)				
		Monitoring Period(Jan. 23, 2017)				
		Completion Report and Project Closeout(Apr. 24, 2017)				
Total Priority List	18	929			\$6,929,454 \$6,772,556 97.7	\$4,963,285 \$3,674,454
3 Project(s)						
3 Cost Sharing Agreements Executed						
1 Construction Started						
0 Construction Completed						
0 Project(s) Deferred/Deauthorized						

## Priority List 19

Freshwater Bayou Marsh Creation	MERM	VERMI	279	01-Apr-2010 A	01-Sep-2014	01-Aug-2015	\$2,425,997	\$2,425,997	100.0	\$2,039,704
	<b>Status:</b>	Project design has been halted due to landowner requirements for extensive borrow site testing. Project Team is currently evaluating options. A 30% review is anticipated for June 2014.								
LaBranche East Marsh Creation	PONT	STCHA	715	01-Apr-2010 A	01-Sep-2015	30-Aug-2016	\$2,571,273	\$2,571,273	100.0	\$2,229,096
	<b>Status:</b>	Pilot study was awarded on January 7, 2013.								

## Priority List 20

Coastwide Vegetative Planting	COAST	COAST	779	20-Sep-2011 A	27-Jul-2012 A	01-Jun-2013	\$12,689,725	\$5,773,823	45.5	\$1,151,144 \$221,133
	Status:	In Year 1 the project selected three locations for planting contracts: 1) South Lake DeCade has been advertised and is scheduled to be awarded in August 2012.  2)Marsh Island is scheduled to be advertised in September 2012 and will be planted in Spring 2013.  3)Cameron Creole is scheduled to be advertised in October 2012 and will be planted in Spring 2013.								
Kelso Bayou Marsh Creation	CA/SB	CAMER	274	20-Sep-2011 A	01-Sep-2014	30-Aug-2015	\$2,360,609	\$2,360,609	100.0	\$2,150,207 \$611,556
	Status:	Planning and Design is ongoing. Surveying of fill placement area is completed. Location and subsequent investigation of proposed borrow site is currently under review.								

**Status:**

**COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT**  
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PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual Obligations/ Expenditures
				CSA	Const Start	Const End	Baseline	Current	%	
Total Priority List		22	401				\$30,385,887	\$3,216,194	10.6	
1 Project(s)										
0 Cost Sharing Agreements Executed										
0 Construction Started										
0 Construction Completed										
0 Project(s) Deferred/Deauthorized										
Total	DEPT. OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE		39,635				\$441,939,827	\$397,509,302	89.9	\$315,003,286 \$244,852,499
66 Project(s)										
64 Cost Sharing Agreements Executed										
44 Construction Started										
39 Construction Completed										
9 Project(s) Deferred/Deauthorized										

## Notes:

1. Expenditures based on Corps of Engineers financial data.
2. Date codes: A = Actual date \* = Behind schedule
3. Percent codes: ! = 125% of baseline estimate exceeded

[illegible]

**Lead Agency:** DEPT. OF THE INTERIOR, U.S. Geological Survey

## Priority List 0.1

Coastwide Reference Monitoring System - Wetlands	COAST	COAST	08-Jun-2004 A	14-Aug-2003 A	\$114,607,082	\$75,846,538	66.2	\$42,282,608
	<b>Status:</b>	The status of the CRMS network and data collection is as follows: all sites (391) have approved landrights and are fully constructed. Data collection is occurring at all sites. All data are posted within the DNR SONRIS database. Available data includes hydrologic, vegetation, elevation/accretion, and soil properties and coastwide aerial photography and satellite imagery. Ten CRMS sites were equipped with real time continuous hydrologic gages in September 2010. A CRMS website has been established as an offshoot of LaCoast.gov ( <a href="http://www.lacoast.gov/crms2/Home.aspx">http://www.lacoast.gov/crms2/Home.aspx</a> ). The CRMS website provides graphing, visualizations, and data download functionality. The website is designed to facilitate easy access to data and products.						
		CRMS analytical teams, including agency and academic personnel, were established for landscape, hydrology, vegetation, soils, and data delivery. The teams have developed ecological indices in consultation with the CWPPRA Monitoring Work Group. The ecological indices are incorporated in the CRMS report card which was released in 2011 and is accessed through the CRMS website. The website continues to evolve to support the data and tools that are developed through the CRMS program.						
		CRMS data are being used in the Operations, Maintenance, and Monitoring Reports for CWPPRA projects and will be incorporated into the 2012 CWPPRA Report to U.S. Congress to evaluate project effectiveness. Several articles have been submitted for publication and are in peer review, but the following documents have been published:						
		Coastwide Reference Monitoring System (CRMS): U.S. Geological Survey Fact Sheet 2010-3018, 2 p. <a href="http://pubs.usgs.gov/fs/2010/3018/">http://pubs.usgs.gov/fs/2010/3018/</a> .						
		Cretini, K.F., and Steyer, G.D. 2011, Floristic Quality Index -- An assessment tool for restoration projects and monitoring sites in coastal Louisiana: U.S. Geological Survey Fact Sheet 2011-3044, 4 p. <a href="http://pubs.usgs.gov/fs/2011/3044/">http://pubs.usgs.gov/fs/2011/3044/</a> .						
		Cretini, K.F, Visser, J.M., Krauss, K.W., and Steyer, G.D. 2012. Development and use of a floristic quality index for coastal Louisiana marshes. Environmental Monitoring and Assessment. 184(4):2389-2403.						

COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (USGS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****			***** ESTIMATES *****			Actual
				CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
Total Priority List		0.1					\$114,607,082	\$75,846,538	66.2	\$42,282,608 \$36,639,568
1 Project(s)										
1 Cost Sharing Agreements Executed										
1 Construction Started										
0 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 0.2

Monitoring Contingency Fund	COAST	COAST		22-Sep-2004 A	08-Dec-1999 A		\$1,500,000	\$1,500,000	100.0	\$869,356 \$666,704
	<b>Status:</b> On July 10, 2009 USGS approved the backlog of previously approved (by P&E) contingency fund requests that were never invoiced (i.e., multiple projects, CRMS implementation plan and landrights) in the amount of \$334,562.53 and a resurveying of Atchafalaya and Big Island projects \$70,894.21 (June 4, 2007).									
	On October 9, 2008, the CWPPRA Task Force approved \$320,000 for 4 tasks associated with Hurricanes Gustav and Ike. A new land water survey (USGS), elevation re-survey (CPRA), helicopter salinity survey (USGS) and retrofit of sondes (CPRA).									
Total Priority List		0.2					\$1,500,000	\$1,500,000	100.0	\$869,356 \$666,704
1 Project(s)										
1 Cost Sharing Agreements Executed										
1 Construction Started										
0 Construction Completed										
0 Project(s) Deferred/Deauthorized										

Priority List 0.3



COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT  
Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (USGS)

PROJECT	BASIN	PARISH	ACRES	***** SCHEDULES *****		***** ESTIMATES *****			Actual Obligations/ Expenditures	
				CSA	Const Start	Const End	Baseline	Current		%
Storm Recovery Assessment Fund	COAST	COAST		21-Aug-2007 A	18-Oct-2006 A		\$569,586	\$569,586	100.0	\$426,056
	<b>Status:</b>	On November 5, 2008, the CWPPRA Task Force approved an additional \$266,227.00 to cover assessments associated with Hurricanes Gustav and Ike. Amendment #1 to the original cooperative agreement was submitted by USGS to the Louisiana CPRA in October 2011. Awaiting signature from Director's of CPRA and USGS.								\$426,056
Total Priority List		0.3					\$569,586	\$569,586	100.0	\$426,056

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 1 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

Priority List 0.4

Construction Program	COAST	COAST	0	19-Oct-2011 A			\$372,036	\$372,036	100.0	\$248,015
Technical Support										\$0
Services Fund	<b>Status:</b>									
Total Priority List	0.4		0				\$372,036	\$372,036	100.0	\$248,015
										\$0

- 1 Project(s)
- 1 Cost Sharing Agreements Executed
- 0 Construction Started
- 0 Construction Completed
- 0 Project(s) Deferred/Deauthorized

**COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT**  
**Project Status Summary Report - Lead Agency: DEPT. OF THE INTERIOR (USGS)**

				***** SCHEDULES *****			***** ESTIMATES *****			Actual
PROJECT	BASIN	PARISH	ACRES	CSA	Const Start	Const End	Baseline	Current	%	Obligations/ Expenditures
<b>Total</b>	<b>DEPT. OF THE INTERIOR, U.S.</b>		<b>0</b>				<b>\$117,048,704</b>	<b>\$78,288,160</b>	<b>66.9</b>	<b>\$43,826,036</b>
	Geological Survey									<b>\$37,732,328</b>
4	Project(s)									
4	Cost Sharing Agreements Executed									
3	Construction Started									
0	Construction Completed									
0	Project(s) Deferred/Deauthorized									

## Notes:

1. Expenditures based on Corps of Engineers financial data.
2. Date codes: A = Actual date \* = Behind schedule
3. Percent codes: ! = 125% of baseline estimate exceeded

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report by Basin

		No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
<b>Basin:</b>										
Priority List:	22	1	383	0	0	0	0	\$38,279,163	\$3,415,930	
Basin Total		1	383	0	0	0	0	\$38,279,163	\$3,415,930	
<b>Basin: Atchafalaya</b>										
Priority List:	2	2	3,792	2	2	2	0	\$5,043,867	\$9,609,551	\$8,836,204
Priority List:	9	1		1	0	0	1	\$1,484,633	\$1,717,883	\$1,717,883
Basin Total		3	3,792	3	2	2	1	\$6,528,500	\$11,327,433	\$10,554,087

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report by Basin

		No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
<b>Basin: Barataria</b>										
Priority List:	1	3	620	3	3	3	0	\$9,960,769	\$12,260,604	\$11,378,933
Priority List:	2	1	510	1	1	1	0	\$3,398,867	\$28,875,616	\$22,619,277
Priority List:	3	3	646	3	1	1	1	\$4,160,823	\$7,092,040	\$3,807,986
Priority List:	4	2	232	2	1	1	1	\$4,611,094	\$3,384,598	\$3,163,576
Priority List:	5	2	633	2	1	1	1	\$17,269,755	\$2,703,308	\$2,421,841
Priority List:	6	1	217	1	1	1	0	\$5,019,900	\$5,224,477	\$4,771,892
Priority List:	7	2	1,431	2	2	2	0	\$18,443,924	\$28,198,357	\$26,738,333
Priority List:	9	3	264	3	1	0	2	\$49,550,137	\$39,667,010	\$11,781,409
Priority List:	10	2	941	1	0	0	1	\$4,901,948	\$4,906,012	\$3,219,916
Priority List:	11	5	1,808	5	5	4	0	\$168,205,123	\$166,623,674	\$149,971,653
Priority List:	12	1	326	1	1	0	0	\$28,342,879	\$27,135,617	\$21,724,232
Priority List:	14	2	106	2	1	1	1	\$24,861,461	\$22,890,466	\$17,870,300
Priority List:	15	1	447	1	1	0	0	\$38,040,158	\$37,937,871	\$476,330
Priority List:	17	2	389	2	0	0	0	\$40,160,355	\$39,605,333	\$1,902,967
Priority List:	18	1	370	0	0	0	0	\$42,579,616	\$42,095,162	\$1,855,233
Priority List:	19	1	308	1	0	0	0	\$3,419,263	\$3,419,263	\$1,102,816
Priority List:	21	1	407	1	0	0	0	\$2,354,788	\$2,354,788	\$157,002
Priority List:	22	1	303	0	0	0	0	\$23,692,705	\$23,692,705	
<b>Basin Total</b>		34	9,958	31	19	15	7	\$488,973,565	\$498,066,899	\$284,963,697

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
<b>Basin: Breton Sound</b>									
Priority List: 2	1	802	1	1	1	0	\$2,522,199	\$4,536,000	\$3,828,776
Priority List: 3	1		1	0	0	1	\$756,134	\$32,862	\$32,862
Priority List: 4	1		0	0	0	1	\$2,468,908	\$65,747	\$65,747
Priority List: 8	1		0	0	0	1	\$2,500,239	\$56,476	\$56,476
Priority List: 10	2	267	1	1	1	1	\$4,339,140	\$3,805,946	\$2,791,895
Priority List: 14	1	189	1	0	0	0	\$1,595,677	\$994,899	\$1,019,968
Priority List: 15	1		0	0	0	1	\$1,205,354	\$9,510	\$9,510
Priority List: 17	2	409	2	0	0	1	\$33,826,686	\$33,597,959	\$2,198,191
Priority List: 18	1	1,613	1	0	0	0	\$2,129,816	\$2,129,816	\$340,670
<b>Basin Total</b>	<b>11</b>	<b>3,280</b>	<b>7</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>\$51,344,153</b>	<b>\$45,229,215</b>	<b>\$10,344,095</b>

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
<b>Basin: Calcasieu/Sabine</b>									
Priority List: 1	3	6,407	3	3	3	0	\$5,770,187	\$3,005,492	\$2,640,187
Priority List: 2	4	2,737	4	3	3	1	\$8,568,462	\$11,321,073	\$10,078,211
Priority List: 3	2	3,555	2	2	2	0	\$8,301,380	\$9,826,783	\$6,030,290
Priority List: 4	3	1,203	3	2	2	1	\$2,893,802	\$2,847,057	\$2,430,091
Priority List: 5	1	247	1	1	1	0	\$4,800,000	\$3,929,152	\$3,409,697
Priority List: 6	1	3,594	1	1	1	0	\$6,316,806	\$6,168,284	\$5,903,823
Priority List: 8	4	993	3	3	2	0	\$36,732,845	\$32,736,027	\$17,207,055
Priority List: 9	2	623	2	2	2	0	\$9,642,838	\$8,866,660	\$7,963,670
Priority List: 10	1	225	1	1	1	0	\$6,490,751	\$4,944,870	\$4,633,332
Priority List: 11.1	1	330	1	1	1	0	\$19,252,500	\$14,130,233	\$13,967,845
Priority List: 18	1	473	1	1	0	0	\$2,696,928	\$2,540,030	\$1,421,816
Priority List: 20	2	808	1	0	0	0	\$4,737,398	\$4,737,398	\$635,781
Priority List: 21	1	489	0	0	0	0	\$3,165,322	\$3,165,322	\$0
Priority List: 22	1	264	0	0	0	0	\$27,685,820	\$3,108,025	
<b>Basin Total</b>	<b>27</b>	<b>21,948</b>	<b>23</b>	<b>20</b>	<b>18</b>	<b>2</b>	<b>\$147,055,039</b>	<b>\$111,326,404</b>	<b>\$76,321,798</b>

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
<b>Basin: Coastal Basins</b>									
Priority List: Cons Plan	1		1	1	1	0	\$238,871	\$191,807	\$143,855
Priority List: 0.1	1		1	1	0	0	\$114,607,082	\$75,846,538	\$36,639,568
Priority List: 0.2	1		1	1	0	0	\$1,500,000	\$1,500,000	\$666,704
Priority List: 0.3	1		1	1	0	0	\$569,586	\$569,586	\$426,056
Priority List: 0.4	1	0	1	0	0	0	\$372,036	\$372,036	\$0
Priority List: 6	1	0	1	1	1	0	\$2,140,000	\$806,220	\$806,220
Priority List: 9	1		0	0	0	1	\$1,502,817	\$83,556	\$83,556
Priority List: 10	1	0	1	1	1	0	\$2,006,424	\$2,747,094	\$2,438,111
Priority List: 11	1	14,963	1	1	1	0	\$68,864,870	\$33,857,821	\$20,151,501
Priority List: 12	1	0	1	1	1	0	\$1,080,891	\$1,058,770	\$1,068,531
Priority List: 13	1	0	1	1	1	0	\$1,000,000	\$1,055,000	\$691,471
Priority List: 16	1	0	1	1	1	0	\$919,599	\$919,599	\$670,520
Priority List: 17	1	0	1	0	0	0	\$1,163,343	\$1,163,343	\$173,986
Priority List: 18	1	0	1	0	0	0	\$1,906,237	\$1,906,237	\$1,211,476
Priority List: 20	1	779	1	1	0	0	\$12,689,725	\$5,773,823	\$221,133
<b>Basin Total</b>	<b>15</b>	<b>15,742</b>	<b>14</b>	<b>11</b>	<b>7</b>	<b>1</b>	<b>\$210,561,481</b>	<b>\$127,851,430</b>	<b>\$65,392,687</b>

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
<b>Basin: Miss. River Delta</b>									
Priority List: 1	1	9,831	1	1	1	0	\$8,517,066	\$50,863,503	\$31,622,702
Priority List: 3	2	936	1	1	1	1	\$3,666,187	\$1,008,820	\$878,359
Priority List: 4	1		1	0	0	1	\$300,000	\$58,310	\$58,310
Priority List: 6	2	2,386	2	2	2	0	\$7,073,934	\$6,637,339	\$3,996,067
Priority List: 10	1		0	0	0	1	\$1,076,328	\$976,581	\$976,581
Priority List: 12	1		0	0	0	1	\$1,880,376	\$354,791	\$354,791
Priority List: 13	1		0	0	0	1	\$1,137,344	\$310,152	\$310,152
Priority List: 15	1	318	1	0	0	0	\$1,074,522	\$1,074,522	\$490,532
<b>Basin Total</b>	<b>10</b>	<b>13,471</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>\$24,725,757</b>	<b>\$61,284,017</b>	<b>\$38,687,493</b>



## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
<b>Basin: Mermentau</b>									
Priority List: 1	2	247	2	2	2	1	\$1,368,671	\$1,319,270	\$1,143,301
Priority List: 2	1	1,593	1	1	1	0	\$2,770,093	\$6,035,583	\$3,308,526
Priority List: 3	1		1	1	1	1	\$126,062	\$103,468	\$103,468
Priority List: 5	1	511	1	1	1	0	\$3,998,919	\$5,609,593	\$2,547,262
Priority List: 7	1	442	1	1	1	0	\$2,185,900	\$2,211,223	\$2,211,223
Priority List: 8	1	378	1	1	1	0	\$1,526,136	\$1,574,926	\$1,078,687
Priority List: 9	2	296	2	1	1	1	\$7,296,603	\$6,714,441	\$6,315,252
Priority List: 10	2	1,133	2	1	1	0	\$11,565,112	\$7,194,104	\$5,013,908
Priority List: 11	2	472	2	0	0	0	\$15,150,433	\$12,414,036	\$2,509,534
Priority List: 12	1	844	1	1	1	0	\$19,673,929	\$10,518,943	\$10,462,844
Priority List: 15	1		1	0	0	1	\$1,102,043	\$779,422	\$779,422
Priority List: 16	1	888	0	0	0	0	\$1,266,842	\$10,155	\$10,155
Priority List: 17	1	0	0	1	1	0	\$1,981,822	\$2,316,692	\$1,860,388
Priority List: 19	1	279	1	0	0	0	\$2,425,997	\$2,425,997	\$561,766
<b>Basin Total</b>	<b>18</b>	<b>7,083</b>	<b>16</b>	<b>11</b>	<b>11</b>	<b>4</b>	<b>\$72,438,562</b>	<b>\$59,227,853</b>	<b>\$37,905,736</b>

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
<b>Basin: Pontchartrain</b>									
Priority List: 1	2	1,753	2	2	2	0	\$6,119,009	\$5,498,122	\$5,210,809
Priority List: 2	2	2,320	2	2	2	0	\$4,500,424	\$3,894,225	\$3,253,199
Priority List: 3	3	755	3	1	1	2	\$2,683,636	\$967,201	\$967,201
Priority List: 4	1		0	0	0	1	\$5,018,968	\$39,025	\$39,025
Priority List: 5	1	75	1	1	1	0	\$2,555,029	\$2,580,476	\$2,291,135
Priority List: 8	2	134	2	1	1	1	\$5,475,065	\$2,493,439	\$2,109,524
Priority List: 9	3	220	2	1	1	2	\$2,407,524	\$1,230,695	\$1,230,695
Priority List: 10	1	165	1	1	1	0	\$18,378,900	\$28,548,045	\$19,420,455
Priority List: 11	1	5,438	1	0	0	0	\$5,434,288	\$6,780,307	\$5,991,279
Priority List: 12	1		0	0	0	1	\$1,348,345	\$1,089,193	\$1,089,193
Priority List: 13	1	436	1	1	1	0	\$21,067,777	\$15,991,552	\$13,711,250
Priority List: 16	1	192	1	0	0	0	\$1,660,985	\$1,660,985	\$1,360,735
Priority List: 19	1	715	1	0	0	0	\$2,571,273	\$2,571,273	\$960,116
Priority List: 20	1	478	0	0	0	0	\$28,023,984	\$28,023,984	\$65,844
Priority List: 21	1	731	1	0	0	0	\$3,885,298	\$3,885,298	\$200,613
<b>Basin Total</b>	<b>22</b>	<b>13,412</b>	<b>18</b>	<b>10</b>	<b>10</b>	<b>7</b>	<b>\$111,130,505</b>	<b>\$105,253,821</b>	<b>\$57,901,073</b>

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report by Basin

	No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
<b>Basin: Teche / Vermilion</b>									
Priority List: 1	1	65	1	1	1	0	\$1,526,000	\$2,022,987	\$1,998,382
Priority List: 2	1	378	1	1	1	0	\$1,008,634	\$1,043,748	\$883,630
Priority List: 3	1	2,223	1	1	1	0	\$5,173,062	\$10,036,640	\$8,211,330
Priority List: 5	1	441	1	1	1	0	\$940,065	\$886,030	\$735,195
Priority List: 6	4	2,567	4	4	4	0	\$10,130,000	\$10,347,331	\$8,683,899
Priority List: 8	1	24	1	1	1	0	\$1,013,820	\$1,181,129	\$1,092,183
Priority List: 9	3	445	1	1	1	1	\$7,814,815	\$4,444,906	\$3,733,592
Priority List: 13	1	329	1	0	0	0	\$2,254,912	\$2,254,912	\$1,762,166
Priority List: 14	1	169	1	1	1	0	\$23,025,451	\$22,613,085	\$15,331,475
Priority List: 21	1	398	0	0	0	0	\$3,136,805	\$3,136,805	\$12,026
<b>Basin Total</b>	15	7,039	12	11	11	1	\$56,023,564	\$57,967,572	\$42,443,879

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

## Project Status Summary Report by Basin

		No. of Projects	Acres	CSA Executed	Under Const.	Completed	Projects Deauth.	Baseline Estimate	Current Estimate	Expenditures To Date
<b>Basin: Terrebonne</b>										
Priority List:	1	5	9	4	3	3	2	\$8,809,393	\$9,376,760	\$9,278,290
Priority List:	2	3	958	3	3	3	0	\$12,831,588	\$23,040,663	\$20,694,965
Priority List:	3	4	3,958	4	4	4	0	\$15,758,355	\$25,144,258	\$21,064,147
Priority List:	4	2	215	2	1	1	1	\$6,119,470	\$7,707,111	\$7,648,982
Priority List:	5	3	0	3	1	1	2	\$31,120,343	\$4,703,403	\$4,635,443
Priority List:	5.1	1		1	0	0	1	\$9,700,000	\$9,700,000	\$3,432,749
Priority List:	6	4	941	2	1	1	2	\$30,522,757	\$37,747,287	\$15,483,466
Priority List:	7	1	0	1	1	1	0	\$460,222	\$538,101	\$538,101
Priority List:	9	4	577	4	4	3	0	\$29,772,484	\$31,210,445	\$30,316,207
Priority List:	10	2	669	2	1	1	0	\$44,750,163	\$48,326,819	\$37,214,772
Priority List:	11	3	543	3	2	1	0	\$37,686,501	\$41,276,575	\$24,096,650
Priority List:	12	1		0	0	0	1	\$2,229,876	\$1,716,949	\$1,716,949
Priority List:	13	1	272	1	1	0	0	\$27,453,090	\$30,150,222	\$29,318,844
Priority List:	16	2	677	2	1	0	0	\$45,252,588	\$44,571,261	\$14,014,882
Priority List:	18	1	456	1	0	0	0	\$2,326,289	\$2,326,289	\$1,041,162
Priority List:	19	1	452	1	0	0	0	\$34,626,728	\$34,626,728	\$365,101
Priority List:	20	1	353	0	0	0	0	\$2,901,750	\$2,901,750	\$17,504
Priority List:	22	1	401	0	0	0	0	\$30,385,887	\$3,216,194	
<b>Basin Total</b>		40	10,481	34	23	19	9	\$372,707,484	\$358,280,814	\$220,878,215
<b>Total All Basins</b>		196	106,589	164	113	99	43	\$1,579,767,773	\$1,439,231,388	\$845,392,760

## COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT

21-May-2013

## Project Summary Report by Priority List

P/L	No. of Projects	Acres	CSA Executed	Under Const.	Const. Completed	Federal Const. Funds Available	Non/Fed Const. Funds Matching Share	Baseline Estimate	Current/Approved Funded Estimate	Obligations To Date	Expenditures To Date
1	14	18,932	14	0	14	\$28,084,900	\$11,341,314	\$39,933,317	\$84,147,262	\$76,133,687	\$63,073,129
2	14	13,090	14	0	14	\$28,173,110	\$14,081,363	\$37,421,334	\$87,258,631	\$73,076,113	\$72,404,959
3	11	12,073	11	0	10	\$29,939,100	\$8,256,219	\$32,879,168	\$53,286,189	\$41,563,141	\$40,169,759
4	4	1,650	4	0	4	\$29,957,533	\$2,155,295	\$10,468,030	\$13,228,247	\$12,558,341	\$12,532,131
5	6	1,907	6	0	6	\$33,371,625	\$1,743,667	\$15,535,356	\$16,977,801	\$12,963,661	\$12,674,373
6	11	9,705	11	0	10	\$39,134,000	\$6,692,951	\$54,614,997	\$66,860,617	\$45,387,440	\$39,575,046
7	4	1,873	4	0	4	\$42,540,715	\$5,120,539	\$21,090,046	\$30,947,681	\$29,605,060	\$29,487,657
8	7	1,529	6	1	5	\$41,864,079	\$5,663,481	\$41,452,292	\$37,773,369	\$21,420,999	\$21,275,296
9	11	2,425	10	2	8	\$47,907,300	\$14,674,717	\$99,760,011	\$86,623,056	\$83,039,789	\$56,085,726
10	9	3,400	9	0	6	\$47,659,220	\$15,286,662	\$88,275,124	\$96,750,924	\$82,839,520	\$71,010,424
11	12	23,224	12	2	6	\$57,332,369	\$38,796,229	\$295,341,215	\$260,952,413	\$228,617,021	\$202,720,618
11.1	1	330	1	0	1	\$0	\$7,065,116	\$19,252,500	\$14,130,233	\$13,968,822	\$13,967,845
12	3	1,170	3	1	2	\$51,938,097	\$6,349,999	\$49,097,699	\$38,713,329	\$36,643,456	\$33,255,607
13	4	1,037	4	1	2	\$54,023,130	\$7,593,392	\$51,775,779	\$49,451,686	\$48,519,833	\$45,483,732
14	3	464	3	0	2	\$53,054,804	\$7,052,065	\$46,260,702	\$43,459,388	\$34,335,657	\$31,182,682
15	2	765	2	1	0	\$58,059,645	\$5,970,199	\$39,114,680	\$39,012,393	\$1,448,607	\$966,862
16	5	1,757	4	1	1	\$71,402,872	\$7,262,803	\$49,100,014	\$47,162,000	\$41,819,827	\$16,056,291
17	5	798	4	0	1	\$83,286,685	\$11,503,826	\$75,772,507	\$75,323,628	\$67,355,762	\$5,578,829
18	5	2,912	4	1	0	\$84,916,489	\$7,649,630	\$51,638,886	\$50,997,534	\$42,424,660	\$5,870,358
19	4	1,754	4	0	0	\$79,566,889	\$1,610,512	\$43,043,261	\$43,043,261	\$8,028,771	\$2,989,799
20	5	2,418	2	1	0	\$77,389,442	\$2,219,558	\$48,352,857	\$41,436,955	\$3,624,360	\$940,263
21	4	2,025	2	0	0	\$74,239,647	\$1,881,332	\$12,542,213	\$12,542,213	\$9,468,079	\$369,641
22	4	1,351	0	0	0	\$79,626,177	\$1,807,312	\$120,043,575	\$33,432,854		
Active Projects	148	106,589	134	11	96	\$1,193,467,828	\$196,683,987	\$1,342,765,563	\$1,323,511,663	\$1,014,842,603	\$777,671,026
Deauthorized	43		25	0	2			\$119,714,635	\$37,239,757	\$30,749,453	\$29,845,550
Total Projects	191	106,589	159	11	98	\$1,193,467,828	\$196,683,987	\$1,462,480,198	\$1,360,751,421	\$1,045,592,056	\$807,516,576
Cons Plan	1		1	0	1	\$0	\$41,091	\$238,871	\$191,807	\$143,855	\$143,855
CPSSF	1	0	1	0	0	\$0	\$55,805	\$372,036	\$372,036	\$248,015	\$0
CRMS	1		1	1	0	\$0	\$9,956,326	\$114,607,082	\$75,846,538	\$42,282,608	\$36,639,568
MCF	1		1	1	0	\$0	\$225,000	\$1,500,000	\$1,500,000	\$869,356	\$666,704
SRAF	1		1	1	0	\$0	\$85,438	\$569,586	\$569,586	\$426,056	\$426,056

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Total Construction Program	196	106,589	164	14	99	\$1,193,467,828	\$206,991,843	\$1,579,767,773	\$1,439,231,388	\$1,089,561,947	\$845,392,760
						\$1,400,459,670					