

**OPERATION, MAINTENANCE, AND REHABILITATION
PLAN FOR POINT AU FER ISLAND HYDROLOGIC
RESTORATION PROJECT
TE-22**

April 24, 2002

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**OPERATIONS, MAINTENANCE, AND REHABILITATION PLAN
FOR THE
POINT AU FER ISLAND HYDROLOGIC RESTORATION PROJECT
(TE-22)**

The Louisiana Department of Natural Resources (LDNR) and the United States Department of Commerce National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS) agree to carry out the terms of this plan for the Operation, Maintenance, Repair and Rehabilitation Plan (hereinafter referred to as the "Plan") of the accepted completed project features in accordance with the U.S. Department of Commerce NOAA Cooperative Agreement No. NA 47FZ0099 with LDNR awarded January 1, 1994, with amendments effective January 1, 1996 (Amendment No.1), July 1, 1996 (Amendment No.2), January 1, 1997 (Amendment No.3) and February 1, 1997 (Amendment No.4). The Cooperative Agreement No. NA47FZ0099 initiating Phase I and II of the the Point Au Fer Project is shown in Attachment I. Phase III of the Point Au Fer Island Hydrologic Restoration Project was funded under Cooperative Agreement No. NA97FZ0485. This agreement is also included in Attachment I. The Memorandum of Agreement between LDNR, NOAA and the U.S. Corps of Engineers fully executed February 10, 1999 specifies the arrangement between parties to execute and fund long-term project activities, i.e. operation and maintenance, and monitoring is shown in Attachment II.

Construction of Point Au Fer Island Hydrologic Restoration Project was authorized by Section 303(a) of Title III Public Law 101-646, the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) enacted on November 29, 1990 as amended. The Point Au Fer Project was approved on the second (2nd) Priority Project List.

The project features covered by this plan are inclusive of and are identified as the Point Au Fer Island Hydrologic Restoration Project (TE-22). The intention of the provisions of this Plan is to maintain this project in a condition that will generally provide the anticipated benefits that the project was based on. There is no requirement that this project function to any standard beyond the 20-year economic life; except that it is not left as a hazard to navigation or a detriment to the environment.

The property associated with the Point Au Fer Project is owned by the Terrebonne Parish School Board, Point Au Fer L.L.C., and the Roman Catholic Church of the Arch Diocese of New Orleans.

1. **PROJECT DESCRIPTION, PURPOSE, AND LOCATION**

The Point Au Fer Hydrologic Restoration Project encompasses 5,230 acres of intermediate and brackish marsh and open water on Point Au Fer Island approximately 30 miles south of Morgan City, Louisiana, in Terrebonne Parish. Point Au Fer Island lies approximately six(6) miles southeast of the mouth of the Atchafalaya River. The island is bordered by the Gulf of Mexico to the south, Atchafalaya Bay to the west, Four League Bay to the north and northeast and Oyster Bayou tidal pass to the east. The marsh habitat on the island is predominantly brackish marsh with intermediate marsh in the interior of the island. Certain areas of Point Au Fer had become weakened and avenues for saltwater intrusion from the Gulf of Mexico are threatening. The Mobil Canal levee (Area 2) was breached during Hurricane Andrew and the Transco Canal (Area 1) was almost breached into the Gulf of Mexico. This project was constructed to reduce the potential for storm surges and high tides penetrating the canal in Area 1, thereby decreasing the salinities in the surrounding marsh and to prevent the repeat breaching of the shoreline between the Gulf of Mexico and Mobile Canal. A project map showing the project features is included in Attachment III.

The Point Au Fer Island Hydrologic Restoration Project was constructed in three (3) phases. Phase I consisted of seven(7) plugs, five (5) of these plugs were of timber construction and two(2) of the plugs were reef shell construction.

Phase II consisted of rock shoreline protection of Areas 1 and 2 along the Gulf of Mexico adjacent to Mobil Canal and near the end of Locust Bayou.

Phase III consisted of adding an additional lift of rock to the shoreline protection placed in Phase II, extending the rock approximately 3,000 linear feet to the east and 600 linear feet to the west, and reconstruction of Plug #4 using the reef shell remaining in the canal and armoring Plug#4 with prefabricated articulated concrete mats.

The project has a twenty-year (20-year) economic life which began in May 1999.

The principal project features include:

Phase I: Construction of timber and shell plugs in the Hester and Transco pipeline canal.

- Plug No. 1.- Timber pile construction located at the west end of Hester Canal near Mosquito Bay.
- Plug No. 2.-Timber pile construction located in Hester Canal just west of Transco Canal.
- Plug No. 3.- Reef shell construction located in the Transco Canal north of the Hester Canal.
- Plug No. 4.- Reef shell construction located in Transco Canal at the Gulf of Mexico end.
- Plug No. 6.-Timber pile construction located in Transco Canal just south of Hester Canal.

- Plug No. 7.- Timber pile construction located in Hester Canal just east of Transco Canal.
- Plug No. 8.- Timber pile construction located at the east end of Hester Canal Near Bay Castagnier.

(Note: During construction, modifications were made to drawings for the installation of additional piles to plugs No. 1, 2 and 7.)

Phase II: 3,500 LF. of rock shoreline protection of the beach separating the Gulf Of Mexico from the Mobil Canal and Locust Bayou.

- Area 1 - 1,800 LF of rock dike protecting the beach long the Gulf of Mexico separating Mobil Canal and the Gulf.
- Area 2 - 400 LF of rock dike protecting the beach along the Gulf of Mexico near the end of Locust Bayou.
- Between Area 1 and Area 2 - 1,300 LF of rock dike along the shoreline of the Gulf between Area 1 and Area 2 which was constructed with funds provided by Mobil paid directly to the contractor.

Phase III: Modifications/additions to the rock shoreline protection of the beach separating the Gulf of Mexico from the Mobil Canal, including extending the existing rock structure 600 LF on the west end, 3,000 LF on the east end, and adding an additional 16" lift to the existing rock structure placed in Phase II.

Modification/reconstructing shell Plug 4 and armoring the plug with 125 prefabricated, articulated concrete mats.

2. CONSTRUCTION COMPLETION

Project completion reports for the Point Au Fer Island Hydrologic Restoration Project were never completed. However, upon completion of construction, LDNR had prepared a Final Report for the project which is included in Attachment IV. As-built drawings updated with all field changes and modifications that occurred during construction are included in Attachment V.

3. PROJECT PERMITS

Project permit applications were completed and submitted to appropriate agencies and permits were received prior to construction. These permits and permit amendments are included within Attachment VI.

4. **ITEMS REQUIRING MAINTENANCE AND REHABILITATION**

The following completed structural components project features jointly accepted by LDNR and NMFS will require maintenance, repair, and/or rehabilitation throughout the twenty (20) year life of the project.

Phase I: Timber and shell plugs located in the Hester and Transco Pipeline Canals.

- A. Site/Canal Plug No. 1 - 200 LF timber plug across the Hester Canal, consisting of timber piles, timber batter piles, wood walers, and 2" x 8" wood sheet pile, metal bolted components, creosote treated galvanized pile caps, shell backfill, and warning signs.
- B. Site/Canal Plug No. 2 - 270 LF timber plug across the Hester Canal, consisting of timber piles, timber batter piles, wood walers, and 2" x 8" wood sheet piles, metal bolted components, creosote treated galvanized pile caps, shell backfill, and warning signs.
- C. Site/Canal Plug No.3A - 240.5 LF shell plug across the Transco Canal consisting of reef shell construction and warning signs.
- D. Site/Canal Plug No.4 - 136 LF shell plug across the Transco Canal consisting of reef shell construction core armored with 125 prefabricated, articulated concrete mats and warning signs.
- E. Site/Canal Plug No.6 - 180 LF timber plug, across the Transco Canal consisting of timber piles, wood walers and 2"x 8" wood sheet piles, metal bolted components, creosote treated galvanized pile caps, shell backfill, and warning signs.
- F. Site/Canal Plug No.7 - 200 LF timber plug, across the Hester Canal. consisting of timber piles, timber batter piles, wood walers and 2"x 8" wood sheet piles, metal components, creosote treated galvanized pile caps, shell backfill, and warning signs.
- G. Site/Canal Plug No.8 - 180 LF timber plugs, across the Hester Canal, consisting of timber piles, wood walers and 2"x 8" wood sheet piles, metal bolted components, creosote treated galvanized pile caps, shell backfill, and warning signs.

Phase II and Phase III: Shoreline Protection consisting of 7,500 LF of rock structure, 32 inches of 250 lb rip-rap. Armament stone underlain by a woven geotextile fabric approximately 25 feet wide.

Navigational Aids:

Where applicable, project navigation aids and warning signs shall be inspected and maintained for the twenty year (20) project life.

5. OPERATION AND MAINTENANCE BUDGET

Phase I and II - cost associated with the Operation and Maintenance of project features outlined in Section 4 for the twenty year (20) project life were provided for in Cooperative Agreement No. NA47FZ0099 and are shown in Attachment VII.

Phase III - Cooperative Agreement No. NA97FZ0485 initiated for Phase III of the Point Au Fer Island Project does not provide funds for operation and maintenance.

6. RESPONSIBILITIES-MAINTENANCE AND REHABILITATION

A. LDNR will:

1. In accordance with the Cooperative Agreement Nos. NA47FZ0099 and NA97FZ0485, assume all responsibilities for maintenance and rehabilitation of the accepted completed project features identified in Section 4.
2. Conduct joint site inspections with NMFS of the project site at least annually and after major storm events if determined to be necessary by LDNR and/or NMFS. LDNR will submit to NMFS, a report detailing the condition of the project features and recommendations for any corrective action. If LDNR recommends that corrective actions are needed, the report will include the entire estimated cost for engineering and design, supervision and inspection, construction, contingencies, and the urgency of such action.
3. Perform or have performed any corrective actions needed, if such corrective actions have been approved by LDNR or NMFS. NMFS will participate with LDNR, or its appointed representative, in the engineering and design phases of the corrective actions for the project. Oversight engineering and construction of the corrective actions for the project will be the responsibility of LDNR or its appointed representative. At least thirty (30) calendar days prior to the date of formal request for construction bids, LDNR or its appointed representative shall provide NMFS with final copies of all project corrective action designs and specifications for review and concurrence by NMFS. LDNR or its appointed representative shall approve the final designs and specifications prior to proceeding with bid solicitations on all project corrective action construction contracts in coordination with NMFS. Any plan and/or

specification changes both before and after award of construction contracts, shall be approved by LDNR in coordination with NMFS.

4. The DNR and NMFS representatives shall meet as necessary during the periods of construction to address any corrective actions needed and shall make such recommendations as they deem necessary.
5. Facilitate the Federal contribution towards operation and maintenance activities as specified in the Memorandum of Agreement between LDNR, NMFS and the U.S. Corps of Engineers.

B. NMFS will:

1. Conduct joint site inspections with LDNR of the project site at least annually and after major storm events if determined to be necessary by LDNR or NMFS.
2. Provide guidance for the development of plans and implementation of the project, review final copies of any maintenance and rehabilitation project designs and specifications and provide review and approval of all planning and construction details, prior to formal request for construction bids or any corrective actions for the project.
3. Provide a total contribution equal to the amount outlined in the Cooperative Agreement (Cost Sharing Agreement) for the maintenance and rehabilitation cost needed for the twenty (20) year life of the project.
4. Facilitate the Federal contribution towards operation and maintenance activities as specified in the Memorandum of Agreement between LDNR, NMFS and the U.S. Corps of Engineers.

The undersigned parties, acting on behalf of their respective agencies, agree to operate, maintain, and rehabilitate the Point Au Fer Island Hydrologic Restoration Project (TE-22) according to this document, referenced Cooperative Agreement, plans, and all applicable permits and laws.

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERVICE

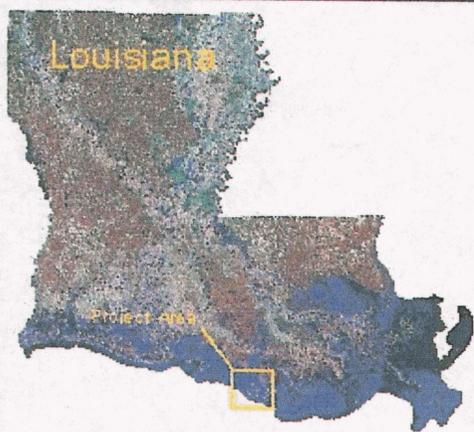
By: Eric C. J. [Signature] Date: 2/13/03

Title: PROGRAM MANAGER

LOUISIANA DEPARTMENT OF NATURAL RESOURCES

By: [Signature] Date: 2/28/03

Title: Deputy Assistant Secretary



Data Source:
 Louisiana Dept. of Natural Resources
 Coastal Restoration Division
 Biological Monitoring Section
 Thibodaux Field Office

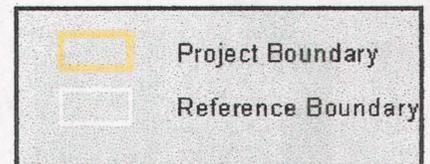
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2 0 2 4 Miles



2 0 2 4 6 Kilometers





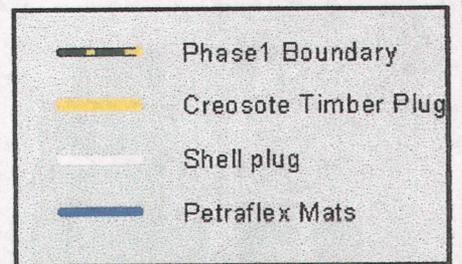
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 Louisiana Dept. of Natural Resources
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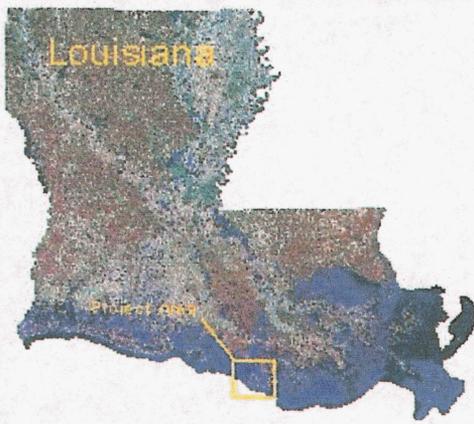
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0.8 0 0.8 1.6 Kilometers





Data Source:
 Louisiana Dept. of Natural Resources
 Coastal Restoration Division
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1998 DOQQ's

Date: May 24, 2001
 Map ID: 2001-TFO-004

