



**State of Louisiana
Department of Natural Resources
Coastal Engineering Division**

**2006/2007 Annual Inspection
Report**

for

**POINT AU FER ISLAND
HYDROLOGIC RESTORATION
(TE-22)**

State Project Number TE-22
Priority Project List 2

July 2007
Terrebonne Parish

Prepared by:

Daniel Dearmond, P.E.
LDNR/Coastal Restoration and Management
Thibodaux Field Office
1440 Tiger Drive, Suite B
Thibodaux, LA 70301

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I. Introduction

The Point Au Fer Island Hydrologic Restoration Project encompasses 5,230 acres of intermediate and brackish marsh and open water on Point Au Fer Island located approximately 30 miles south of Morgan City, Louisiana, in Terrebonne Parish. Point Au Fer Island lies approximately 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 (See Appendix A).

Construction of the 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 Project was approved on the second Priority Project List.

The property associated with the Point Au Fer Island Hydrologic Restoration Project is owned by the Terrebonne Parish School Board, Point au Fer LLC, and the Roman Catholic Church - Arch Diocese of New Orleans.

II. Inspection Purpose and Procedures

The purpose of the annual inspection of the Point Au Fer Island Hydrologic Restoration Project (TE-22) is to evaluate the constructed project features in order to identify any deficiencies. The inspection results are used to prepare a report detailing the condition of the project features and recommending any corrective actions considered necessary. Should it be determined that corrective actions are needed, LDNR shall provide, in the report, a detailed cost estimate for engineering, design, supervision, inspection, construction, and contingencies and an assessment of the urgency of such repairs (O&M Plan, 2002). The annual inspection report also contains a summary of maintenance projects which were completed since completion of constructed project features and an estimated projected budget for the upcoming three (3) years for operation, maintenance, and rehabilitation. The three (3) year projected operation and maintenance budget is shown in Appendix C. A summary of past operation and maintenance projects completed since construction of the Point Au Fer Island Hydrologic Restoration Project is outlined in Section IV.

The annual inspection of the Point Au Fer Island Hydrologic Restoration Project (TE-22) took place on two, separate days. The first trip was held on February 7, 2007 to inspect the Phase II and Phase III rock shoreline protection along the Gulf of Mexico. In attendance were Brian Babin, Shane Triche, and Elaine Lear from LDNR. The weather conditions included clear skies, temperatures in the mid to upper 50's F, and moderate winds. The annual inspection began at approximately 10:45 a.m. at the west end of the Phase III rock extension (Area 5) and ended at approximately 11:30 p.m. at the east end of the Phase III rock extension (Area 4).

The second trip was held on June 18, 2007 to inspect the Phase I canal plugs located on the east side of the island. In attendance were Daniel Dearmond and Shane Triche from LDNR.

Weather conditions included partly cloudy skies, temperatures in the mid 80's F, and moderate winds. The inspection began at approximately 11:00 a.m. at Plug No. 4A located at the south end of the Transco Canal at the Gulf of Mexico, continued through Plugs No. 6 and 3, and ended at approximately 12:30 p.m. at Plug No. 8 located in the eastern end of Hester Canal near Bay Castagnier. Plugs No. 1, 2, 3A, and 7 were not visited due to time constraints and access limitations. Plug No. 7 was observed from Plug No. 8.

The field investigation included a visual inspection of the constructed project features. Photographs were taken at each project feature (see Appendix B), and Field Inspection Notes were completed in the field to record the project feature conditions and any deficiencies (see Appendix D).

III. Project Description and History

Approximately 8% of Louisiana's coastal marshes have been converted to open water canals and their associated spoil banks (Neill and Turner 1987). Canal construction likely alters wetland hydrology and contributes to wetland loss in coastal Louisiana (Turner et al. 1984). Similar alterations to the natural drainage pattern at Point au Fer Island have occurred from the dredging of oil and gas access canals through the interior of the island. Strong tidal flows occur between Locust Bayou in the southwest and Four League Bay in the northeast (NMFS n.d.). Point au Fer Island has experienced decreased salinities as sediments and fresh water from Atchafalaya Bay have circulated through the islands' interior marshes. Increased fresh water flow and sediment input have not been effectively utilized due to changes in hydrologic patterns and the presence of artificial levees (NMFS n.d.).

The marsh habitat on Point Au Fer Island is predominately brackish marsh with intermediate marsh in the interior of the island. In the years leading up to construction of the project, certain areas of Point Au Fer Island had become weakened with avenues for saltwater intrusion from the Gulf of Mexico threatening (Monitoring Plan, 1998). The Mobil Canal levee (Phase II area) had been breached during Hurricane Andrew, and the southern end of Transco Canal (Phase I area) had almost been breached by the Gulf of Mexico.

The project was designed and constructed in order to reduce marsh loss and the potential for saltwater intrusion from storm surges and high tides (Phase I), to restore hydrologic circulation close to conditions present before dredging of the pipeline canals (Phase I), and to reduce the chance of breaching of the shoreline between the Gulf of Mexico and Mobil Canal during overwash events (Phase II and III). The specific goals established to evaluate the effectiveness of the project were to (1) reduce the rate of marsh loss (Phase I), (2) reduce the rate of canal widening (Phase I), and (3) maintain or decrease local shoreline erosion rate within the project area (Phase II and III) (Comprehensive Monitoring Report No. 1, 2001).

The Point Au Fer Island Hydrologic Restoration Project was constructed in three (3) phases. Phase I consisted of seven (7) canal plugs located in two pipeline canals. Four (4) timber plugs, Plugs No. 1, 2, 7, and 8, were constructed in Hester Canal (east-west). One (1) timber plug, Plug No. 6, and two (2) reef shell plugs, Plugs No. 3A and 4, were constructed in Transco Canal (north-south). Construction of the Phase I canal plugs was completed in

December 1995. Phase II consisted of approximately 3,600 linear feet of rock shoreline protection of Areas 1, 2, and 3 along the Gulf of Mexico adjacent to the Mobil Canal. Phase II construction was completed in May 1997. Phase III consisted of extending the rock shoreline protection 3,037 linear feet to the east (Area 4) and 625 linear feet to the west (Area 5). Prior to construction, a change order added an additional lift of rock over 388 linear feet of the Phase II shoreline protection to repair a breach area located near the east end of Phase II. Additionally, Phase I Plug No. 4 was rebuilt with dredged material. Also, the existing Transco Canal steel bulkhead/rock plug (Plug No. 4A), located approximately 200 feet south of Plug No. 4, was reinforced by placing Petraflex mats (articulated concrete mats, 8' x 20' x 9") along the Gulf shoreline to the west and east of the existing Plug No. 4A. A total of 67 mats were placed on the west side and 58 mats were placed on the east side of Plug No. 4A. Phase III construction was completed in June 2000 (Phase III Final Report, 2000).

The principle project features include:

Phase I: Construction of timber and shell plugs in Hester and Transco Canals.

- Plug No. 1 – 200 linear feet (LF), Timber bulkhead plug in the Hester Canal located near Mosquito Bay.
- Plug No. 2 – 270 LF, Timber bulkhead plug in Hester Canal just west of Transco Canal.
- Plug No. 3A – 240 LF, Reef shell construction located in the Transco Canal north of Hester Canal.
- Plug No. 4 – 225 LF, Reef shell construction located in Transco Canal near the Gulf of Mexico.
- Plug No. 6 – 180 LF, Timber bulkhead plug located in Transco Canal just south of Hester Canal.
- Plug No. 7 – 200 LF, Timber bulkhead plug located in Hester Canal just east of Transco Canal.
- Plug No. 8 – 180 LF, Timber bulkhead plug located at the east end of Hester Canal near Bay Castagnier.

Phase II: 3,600 linear feet of rock shoreline protection of the beach separating the Gulf of Mexico from the Mobile Canal.

- Area 1 – 1,800 linear feet of rock dike protecting the beach along the Gulf of Mexico separating Mobil Canal and the Gulf.
- Area 2 – 400 linear feet of rock dike protecting the beach along the Gulf of Mexico near the west end of Mobil Canal.
- Area 3 – 1,400 linear feet of rock dike along the shoreline of the Gulf between Area 1 and Area 2, constructed with funds provided by Mobil Oil Company.

Phase III: Modifications/additions to the rock shoreline protection of the beach separating the Gulf of Mexico from the Mobil Canal.

- Area 4 – 3,037 linear feet extension of the Phase II rock structure on the east end.
- Area 5 – 625 linear feet extension of the Phase II rock structure on the west end.
- Additional 16 inch lift of rock placed over 388 feet of the Phase II rock structure near the east end of Phase II.
- Plug No. 4A (Transco Canal steel bulkhead/rock plug) – Petraflex mats (articulated concrete mats, 8' x 20' x 9") placed along the Gulf shoreline to the west (67 mats) and east (58 mats) of the existing steel sheet pile bulkhead (Plug No. 4A).

The Point Au Fer Island Hydrologic Restoration Project (TE-22) has a twenty-year (20 year) economic life which began in December 1995 (Phase I), May 1997 (Phase II), and June 2000 (Phase III). Attached is the three (3) year projected budget for the project (See Appendix C).

IV. Summary of Past Operation and Maintenance Projects

Below is a summary of completed maintenance projects and operation tasks performed since completion of the Point Au Fer Island Hydrologic Restoration Project (TE-22).

June 2000 – Phase I Plug No. 4 was rebuilt with dredged material, and Petraflex mats (articulated concrete mats, 8' x 20' x 9") were placed along the shoreline to the west and east of the existing Transco Canal steel bulkhead/rock plug (Plug No. 4A) at the Gulf. A total of 67 mats were placed on the west side and 58 mats were placed on the east side of Plug No. 4A. This work was performed by Johnny F. Smith Truck & Dragline Service, Inc. of Slidell, LA as part of the Phase III construction contract and funded out of the project O&M budget. The total construction cost for this maintenance event was \$237,874.

August 2005 – The east end of Phase III (Area 4) rock dike was extended approximately 300 linear feet to the shoreline using LaDOTD Class 250 lbs. riprap on geotextile fabric. At Plug No. 4A (Transco Canal steel bulkhead/rock plug) the east mats were capped with LaDOTD Class 250 lbs. riprap. Also, a rock dike (approximately 200 linear feet of 250 lbs riprap on geotextile fabric) was constructed from the east end of the mats to the shoreline. At Plug No. 8 (Phase I) in Hester Canal, in order to close a breach around the south end, the bulkhead was extended approximately 60 linear feet to the south using vinyl sheet pile bulkhead. Also, three Submar mats (articulated concrete mats, 8' x 20' x 4.5") were placed at the end to prevent scour. It should be noted that a small breach repair to Weir No. 3 of the TE-26 Lake Chapeau project, extending the rock to the south bank, was also included in this maintenance activity. This project was surveyed, designed, and inspected by Picciola & Associates, Inc. of Cutoff, Louisiana. The project was constructed by Luhr Bros., Inc. of Alexandria, LA. The total construction cost for this maintenance event was \$391,382.

V. Inspection Results

Plug No. 1 – Timber Bulkhead Plug

Site was not visited due to time constraints and access limitations. No significant changes from last year are expected. No maintenance will be required at Plug No. 1.

Plug No. 2 – Timber Bulkhead Plug

Site was not visited due to time constraints and access limitations. No significant changes from last year are expected. No maintenance will be required at Plug No. 2.

Plug No. 3A – Shell Plug

Site was not visited due to time constraints and access limitations. As noted in previous inspection reports, the shell plug has eroded in the center of the structure (see 2003 and 2004 inspection reports), and no significant changes are expected. At this time repairing the shell plug is not recommended due to construction access constraints; however, this plug should continue to be monitored on future site visits.

Plug No. 4 – Shell Plug

The crest elevation along most of the plug was below water elevation at the time of inspection as it has been for several years. No maintenance is recommended for the reef shell plug; instead, maintenance efforts have been concentrated on Plug 4A (Transco Canal bulkhead) located approximately 200 feet south of Plug No. 4 at the Gulf.

Plug No. 4A – Transco Canal Gulf bulkhead (Photos 7 - 13, Appendix B)

The erosion directly behind the east mats noted in previous inspections appears to have been slowed or halted as a result of the rock lift placed in 2005 (Photos 7 - 13, Appendix A). However, continued shoreline erosion was noted at the east end of the 2005 maintenance rock. Also, the rock dike appears to have settled. There is a small breach in the dike near the east tie-in that was a result of the 2005 hurricanes. The shoreline erosion here should continue to be monitored on future inspections. The western mats are in good condition, although shoreline erosion continues to increase near the end of the mats. There continues to be a small breach behind the existing bulkhead where water is passing behind the bulkhead and over the rocks and into Transco Canal. The steel sheetpile and tie-rods are heavily corroded and should continue to be monitored. No maintenance activities are recommended at this time other than continuing the annual inspections of the site.

Plug No. 6 – Timber Bulkhead Plug (Photos 5 - 6, Appendix B)

The timber bulkhead appears to be in good condition despite the existing deflection of the middle of the structure which occurred during construction. Both tie-ins appear intact with no apparent signs of erosion. The warning signs and supports were also in good condition. At this time no maintenance is recommended at Plug No. 6; however, the condition of the timber bulkhead should continue to be monitored on future site visits.

Plug No. 7 – Timber Bulkhead Plug (Photo 4, Appendix B)

Site was not visited due to time constraints and access limitations; however, the plug was observed from outside of Plug No. 8 and appeared to be in good condition. No significant changes from previous years are expected. No maintenance will be required at Plug No. 7.

Plug No. 8 – Timber Bulkhead Plug (Photos 1 - 3, Appendix B)

The timber bulkhead is in good condition. The breach around the south end noted in previous inspections was closed in 2005 by construction of a vinyl sheet pile bulkhead extension approximately 60' in length. The north tie-in at the canal bank had no apparent signs of erosion. The warning signs and supports were in good condition. No maintenance will be required at Plug No. 8.

Phase II – Areas 1, 2 & 3, Rock Dike

Site was not visited due to time constraints. No significant changes from the 2006 inspection report are expected. No maintenance will be required in Areas 1, 2, and 3.

Phase III – Area 4, Rock Dike (Photos 14 - 19, Appendix B)

The breach around the east end of Area 4 rock dike noted in previous inspections was closed by the 2005 maintenance project with construction of approximately 300' of rock dike to the shoreline. The new rock lift and extension dike appeared to be in good condition; however, continued shoreline erosion was noted at the east end shoreline tie-in and should continue to be monitored on future inspections. Also, the small area of displaced rocks near the east end was due to the 2005 hurricanes as noted in the 2006 inspection report. It appears that some settlement has occurred along sections of the dike and should continue to be monitored on future inspections. No maintenance will be required in Area 4.

Phase III – Area 5, Rock Dike (Photos 20 - 21, Appendix B)

The rock dike along Area 5 of Phase III appeared to be in good condition with no noticeable settlement of the structure. Beyond the west end of the dike, erosion of the beach face was observed and should continue to be monitored on future site visits. No maintenance will be required in Area 5.

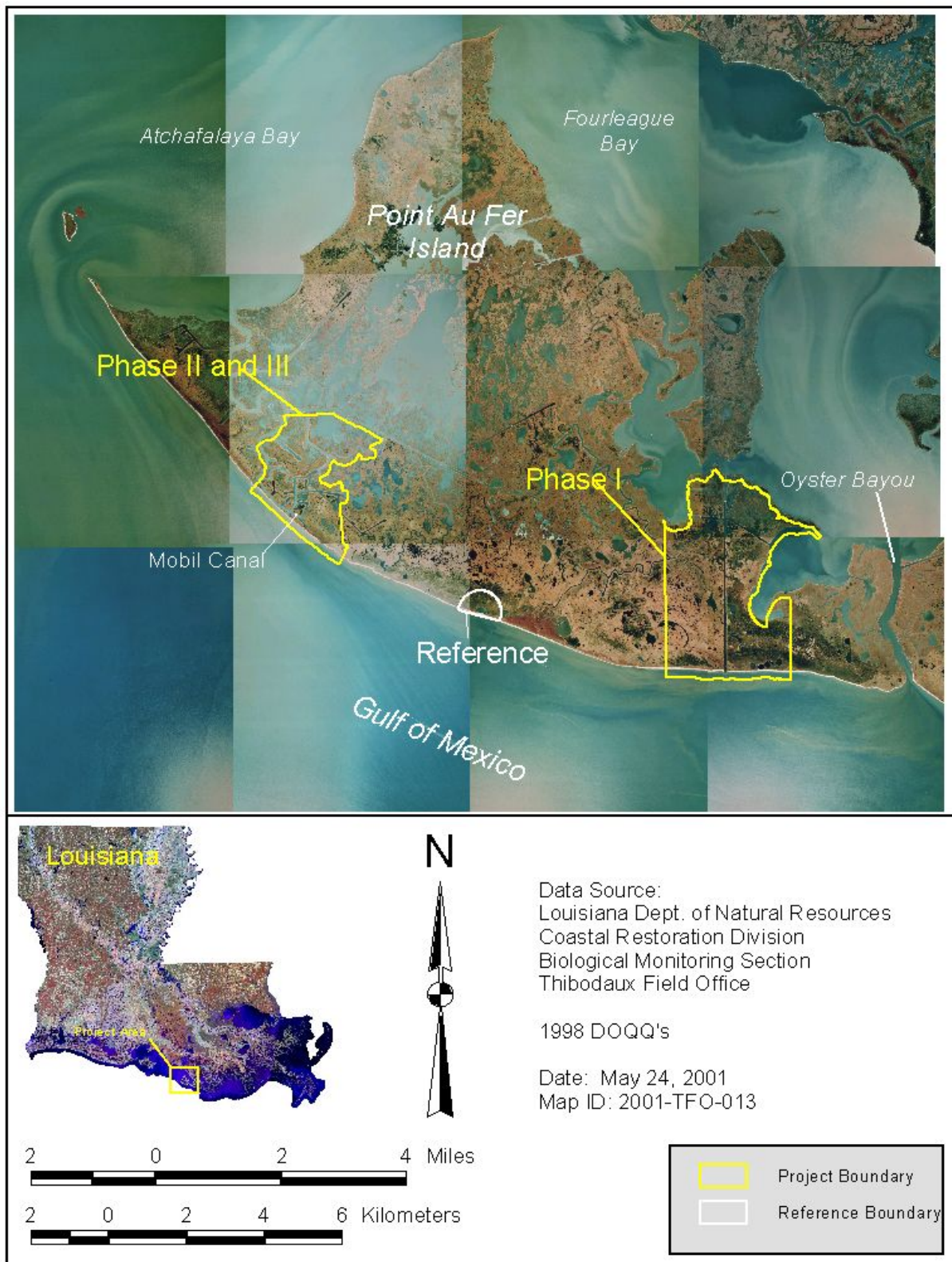
VI. Conclusions and Recommendations

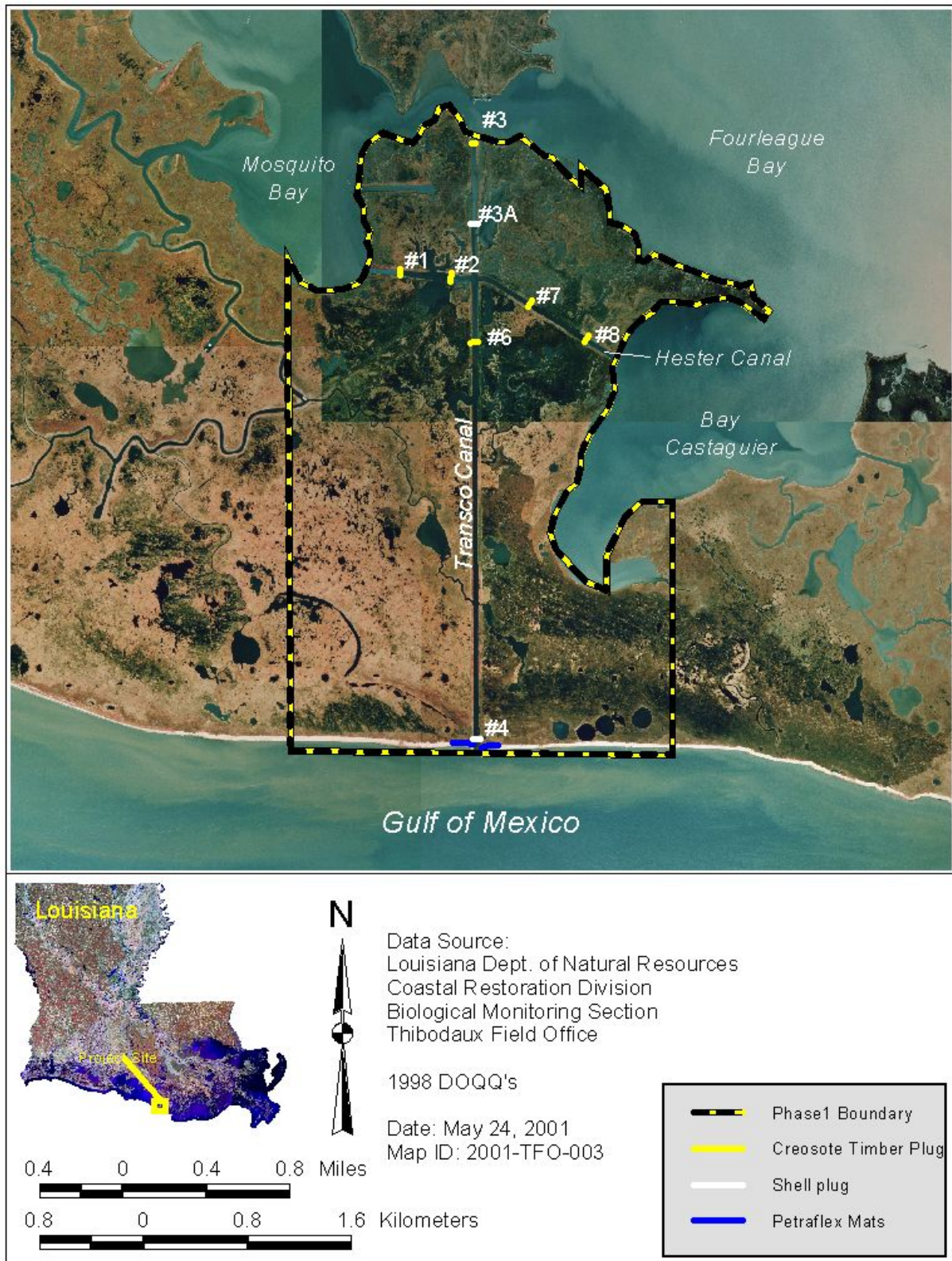
Overall, the Phase I canal plugs were in good condition with the following deficiencies noted in the inspection results. Shell Plugs No. 3A and 4 have been eroded in the center of the plugs since near the end of construction. No maintenance is recommended for Plug No. 3A because of the construction access constraints. No maintenance is recommended for Plug No. 4 as maintenance efforts are being concentrated on Plug No. 4A located to the south. The timber bulkhead Plug No. 6 has been out of alignment in the center of the structure since construction, but the deflection does not appear to be increasing over time. Since the structure is still intact, no maintenance is recommended at this time. The 2005 breach repairs at Plug No. 4A and Plug No. 8 appear to be in good condition other than a small breach of the rock dike at Plug No. 4A near the east end. No maintenance activity is warranted. The rock dikes of Phase II and III are in good condition. In Phase III, the maintenance project of 2005

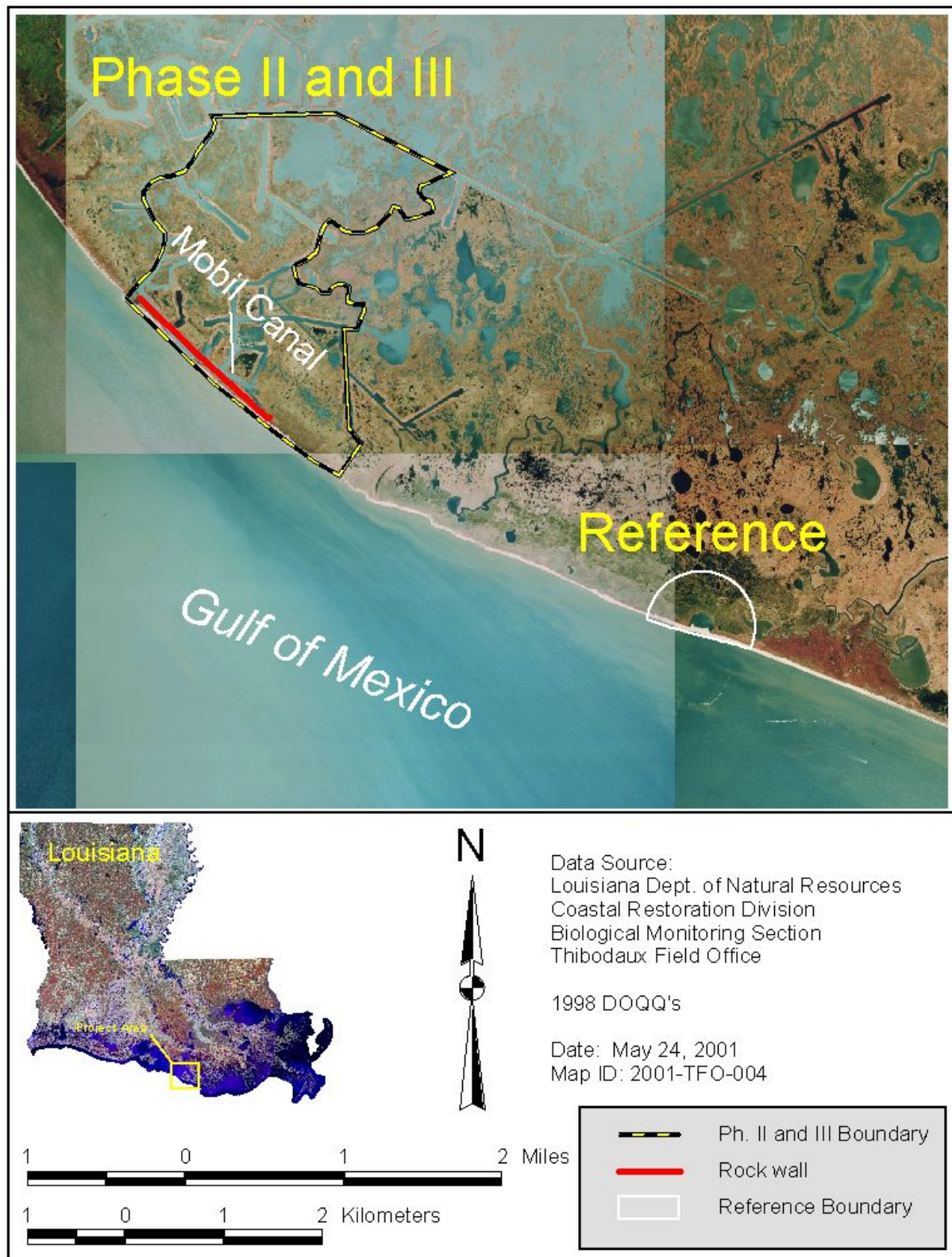
repaired the breach around the east end of the Area 4 rock shoreline protection and continues to be intact. No maintenance is recommended for the Phase II and III rock. It should be noted that the Gulf shoreline continues to erode wherever the project rock terminates. This is true of the Phase III Area 4 and Area 5 rock dike and the Plug No. 4A mats and rock dike. While no maintenance is recommended at this time, the beach and marsh erosion at these locations should continue to be monitored in the coming years for possible breaches into the canals.

Appendix A

Project Features Map







Appendix B

Photographs



Photo 1. *Plug No. 8 – View of plug from outside looking northwest in Hester Canal.*



Photo 2. *Plug No. 8 – View of south bank tie-in and 2005 maintenance extension of sheet pile wall.*



Photo 3. *Plug No. 8 – View of south tie-in at end of 2005 maintenance extension of sheet pile wall. Submar mats can be seen submerged. No new scour or erosion of marsh was noted.*



Photo 4. *Plug No. 7 – View of plug from outside looking west in Hester Canal*



Photo 5. *Plug No. 6 – View of plug deflection from approximate centerline of plug looking east in Transco Canal.*



Photo 6. *Plug No. 6 – View along approximate centerline of plug looking west in Transco Canal.*



Photo 7. *Plug No. 4A – View of east side of plug looking east. This is the additional lift of rock placed over the Petraflex mats as part of the 2005 maintenance project.*



Photo 8. *Plug No. 4A – View of east shoreline tie-in of 2005 maintenance rock. The small breach resulted from the 2005 hurricanes. Continued erosion can be seen at the tie-in.*



Photo 9. *Plug No. 4A – View of east shoreline tie-in of 2005 maintenance rock looking east along shoreline. The small breach resulted from the 2005 hurricanes. Continued shoreline erosion can be seen at the tie-in and beyond.*



Photo 10. *Plug No. 4A – View of steel sheet pile bulkhead at the south end of Transco Canal looking southwest.*



Photo 11. *Plug No. 4A – View of Petraflex mats on west side of plug looking east back toward Transco Canal.*



Photo 12. *Plug No. 4A – View of west end of Petraflex mats and the continued shoreline erosion at the west tie-in looking northwest.*



Photo 13. *Plug No. 4A – View of continued shoreline erosion behind and beyond west end of the Petraflex mats looking northwest.*



Photo 14. *Area 4 Rock Dike – View of east end of 2005 maintenance rock looking southwest from shoreline.*



Photo 15. *Area 4 Rock Dike – View of east end of 2005 maintenance rock looking southeast from shoreline. Continued shoreline erosion can be seen at tie-in and beyond.*



Photo 16. *Area 4 Rock Dike – View of 2005 maintenance rock at east end of Area 4 rock dike looking south from shoreline.*



Photo 17. *Area 4 Rock Dike – View of 2005 maintenance rock at east end of Area 4 rock dike looking south from shoreline. The rock spur plug extending from the dike can be seen in the foreground.*



Photo 18. *Area 4 Rock Dike – View of rock spur plug extending from dike into marsh. The plug was constructed as part of the 2005 maintenance project.*



Photo 19. *Area 4 Rock Dike – View of breach in Mobil Canal bank behind rock dike. Currently, the spur plug constructed as part of the 2005 maintenance project prevents a direct connection to the Gulf.*



Photo 20. *Area 5 Rock Dike – View of west end of rock dike looking northwest. Continued shoreline erosion can be seen just beyond the tie-in.*



Photo 21. *Area 5 Rock Dike – View of rock dike, standing at the west end of dike looking southeast.*

Appendix C

Three Year Budget Projection

POINT AU FER ISLAND HYDROLOGIC RESTORATION / TE22 / PPL2
Three-Year Operations & Maintenance Budgets 07/01/2007 - 06/30/2010

<u>Project Manager</u>	<u>O & M Manager</u>	<u>Federal Sponsor</u>	<u>Prepared By</u>
	Dearmond	NMFS	Dearmond

	2007/2008	2008/2009	2009/2010
Maintenance Inspection	\$ 5,536.00	\$ 5,719.00	\$ 5,908.00
Structure Operation	\$ -	\$ -	\$ -
Administration	\$ -	\$ -	\$ -

Maintenance/Rehabilitation

07/08 Description:	

E&D	\$ -
Construction	\$ -
Construction Oversight	\$ -
Sub Total - Maint. And Rehab.	\$ -

08/09 Description	

E&D	\$ -
Construction	\$ -
Construction Oversight	\$ -
Sub Total - Maint. And Rehab.	\$ -

09/10 Description:	

E&D	\$ -
Construction	\$ -
Construction Oversight	\$ -
Sub Total - Maint. And Rehab.	\$ -

	2007/2008	2008/2009	2009/2010
<u>Total O&M Budgets</u>	\$ 5,536.00	\$ 5,719.00	\$ 5,908.00

<u>O&M Budget (3 yr Total)</u>	<u>\$17,163.00</u>
<u>Unexpended O&M Funds</u>	<u>\$104,816.00</u>
<u>Remaining O&M Budget (Projected)</u>	<u>\$87,653.00</u>

OPERATIONS & MAINTENANCE BUDGET WORKSHEET

Project: TE-22 Point Au Fer Island Hydrologic Restoration

FY 07/08 –

Administration	\$	0
O&M Inspection & Report	\$	5,536
Operation:	\$	0
Maintenance:	\$	0
E&D:	\$	0
Construction:	\$	0
Construction Oversight:	\$	0

Operation and Maintenance Assumptions:

Annual Inspection and Report (\$5,536)

FY 08/09 –

Administration	\$	0
O&M Inspection & Report	\$	5,719
Operation:	\$	0
Maintenance:	\$	0
E&D:	\$	0
Construction:	\$	0
Construction Oversight:	\$	0

Operation and Maintenance Assumptions:

Annual Inspection and Report (\$5,719)

FY 09/10 –

Administration	\$	0
O&M Inspection & Report	\$	5,908
Operation:	\$	0
Maintenance:	\$	0
E&D:	\$	0
Construction:	\$	0
Construction Oversight:	\$	0

Operation and Maintenance Assumptions:

Annual Inspection and Report (\$5,908)

Appendix D

Field Inspection Notes

MAINTENANCE INSPECTION REPORT CHECKSHEET

Project No. / Name:

Point Au Fer Island Hydrologic Restoration

Date of Inspection:

2/7/2007

Time:

N/A

Structure No:

Phase II - Rock

Inspector(s):

S. Triche, B. Babin

Structure Description:

3600 linear ft. of Rock Dike

Water Level:

Inside:

Outside:

Type of Inspection:

Annual

Weather Conditions:

Sunny, Winds 10-15

Temp:

55°

Item	Condition	Pysical Damage	Corrosion	Photo #	Observations and Remarks
Area 1 Rock Dike	Good	None	N/A		Observation: Site was not visited due to time constraints. No significant changes from last year's post hurricane assessment are expected.
Area 2 Rock Dike	Good	None	N/A		
Area 3 Rock Dike	Good	None	N/A		
					Structure Description: Phase II rock dike consists of three Areas: Area 1 - 1800' of 250 pound class on geotextile fabric; 25 - 53 ft wide and 2' high above existing ground; Area 2 - 400' of 250 pound class on geotextile fabric; 33 ft wide and 2' high above existing ground; Area 3 - 1400' of 250 pound class on geotextile fabric; 25 ft wide and 2' high above existing ground.

Are there any signs of vandalism?
Conditions of existing levees?
Settlement of rock plugs and weirs?
Noticable breaches?

MAINTENANCE INSPECTION REPORT CHECKSHEET

Project No. / Name: _____ **Date of Inspection:** 2/7/2007 **Time:** 11:00 AM
Structure No: _____ **Inspector(s):** S. Triche, B. Babin
Structure Description: 3362 linear ft. of Rock Dike
Type of Inspection: Annual

Water Level: _____ **Inside:** _____ **Outside:** _____
Weather Conditions: Sunny, Winds 10-15 **Temp:** 55°

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Area 4 Rock Dike	Good	None	N/A	19-31	<p>Observation: The breach around the east end of Area 4 rock dike was closed by the 2005 maintenance project with construction of an approximately 300' extension of rock dike to the shoreline. Continued shoreline erosion was noted at the east end shoreline tie-in and should continue to be monitored on future inspections. The small region of displaced rocks near the east end was due to the 2005 hurricanes as noted in last year's report. It appears that some settlement has occurred along sections of the dike. At the west end of Area 5 rock dike, shoreline erosion continues at the tie-in and just beyond.</p>
Area 5 Rock Dike	Good	None	N/A	14-18	
					<p>Structure Description: Phase III rock dike consists of two Areas: Area 4 - 3037' of 250 pound class on geotextile fabric, 25 ft wide and 32" high above existing ground; Area 5 - 325' of 250 pound class on geotextile fabric, 25 ft wide and 32" high above existing ground. In 2005, the east end of Area 4 rock dike was extended approximately 300' to the shoreline with a Class 250# rip rap dike on geotextile fabric. A 75' rock plug was also constructed extending from the dike into the marsh to close a connection between Mobil Canal breach and the Gulf.</p>

Are there any signs of vandalism?
 Conditions of existing levees?
 Settlement of rock plugs and weirs?
 Noticable breaches?

MAINTENANCE INSPECTION REPORT CHECKSHEET

Project No. / Name: Point Au Fer Island Hydrologic Restoration **Date of Inspection:** 6/18/2007 **Time:** N/A
Structure No: Plug I - Phase I **Inspector(s):** S. Triche, D. Dearmond
Structure Description: 200 linear ft. timber plug **Water Level:** **Inside:** **Outside:**
Type of Inspection: Annual **Weather Conditions:** P. Cloudy, Winds 15-20 **Temp:** 84°

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Timber Piles	Good	None	N/A		Observation: Site was not visited due to time constraints and access limitations. No significant changes from last year are expected.
Timber Whalers Sheepile	Good	None	N/A		
Galvanized Pile Caps	Good	None	N/A		
Signs/Supports	Good	None	N/A		
Shell Backfill	Good	None	N/A		
Earthen Embankment	Good	None	N/A		
					Structure Description: Approximately 200 linear feet of Creosote-timber bulkhead plug with reef shell tie-ins at both ends and banklines.

Are there any signs of vandalism?
 Conditions of existing levees?
 Settlement of rock plugs and weirs?
 Noticable breaches?

MAINTENANCE INSPECTION REPORT CHECKSHEET

Project No. / Name:

Point Au Fer Island Hydrologic Restoration

Date of Inspection:

6/18/2007

Time:

N/A

Inspector(s):

S. Triche, D. Dearmond

Water Level:

Inside:

Outside:

Weather Conditions:

P. Cloudy, Winds 15-20

Temp:

84°

Structure No:

Plug 2 - Phase I

Structure Description:

270 linear ft. timber plug

Type of Inspection:

Annual

Item	Condition	Pysical Damage	Corrosion	Photo #	Observations and Remarks
Timber Piles	Good	None	N/A		Observation: Site was not visited due to time constraints and access limitations. No significant changes from last year are expected.
Timber Whalers Sheepile	Good	None	N/A		
Galvanized Pile Caps	Good	None	N/A		
Signs/Supports	Good	None	N/A		
Shell Backfill	Good	None	N/A		
Earthen Embankment	Good	None	N/A		
					Structure Description: Approximately 270 linear feet of Creosote-timber bulkhead plug with reef shell tie-ins at both ends and banklines.

Are there any signs of vandalism?
Conditions of existing levees?
Settlement of rock plugs and weirs?
Noticable breaches?

MAINTENANCE INSPECTION REPORT CHECKSHEET

Project No. / Name: Point Au Fer Island Hydrologic Restoration **Date of Inspection:** 6/18/2007 **Time:** N/A
Structure No: Plug 3A - Phase I **Inspector(s):** S. Triche, D. Dearmond
Structure Description: 240 linear ft. shell plug **Water Level:** **Inside:** **Outside:**
Type of Inspection: Annual **Weather Conditions:** P. Cloudy, Winds 15-20 **Temp:** 84°

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Shell Plug	Fair	None	N/A		Observation: Site was not visited due to time constraints and access limitations. No significant changes from last year are expected. It should be noted that much of the shell at the center portion of this plug had been washed away shortly after construction.
Signs/Supports	Good	None	N/A		
Earthen Embankment	Good	None	N/A		
					Structure Description: Approximately 240 linear feet of shell plug on geotextile fabric.

Are there any signs of vandalism?
 Conditions of existing levees?
 Settlement of rock plugs and weirs?
 Noticable breaches?

MAINTENANCE INSPECTION REPORT CHECKSHEET

Project No. / Name: Point Au Fer Island Hydrologic Restoration
Date of Inspection: 6/18/2007
Time: 11:00 AM

Structure No: Plug 4A - Phase I
Inspector(s): S. Triche, D. Dearmond

Structure Description: Existing Bulkhead with Concrete Mats
Water Level:
Outside:

Type of Inspection: Annual
Weather Conditions: P. Cloudy, Winds 15-20
Temp: 84°

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Steel Sheet Piling	Good	None	Yes	4, 13-16	<p>Observation:</p> <p>The erosion directly behind the mats noted in previous inspections appears to have been slowed or halted as a result of the rock lift placed in 2005. However, continued shoreline erosion was noted at the east end of the 2005 maintenance rock. Also, the rock dike appears to have settled. There is a small breach in the dike near the east tie-in that was a result of the 2005 hurricanes. The shoreline erosion should continue to be monitored on future inspections. The western mats are in good condition, although shoreline erosion continues to increase near the end of the mats. There continues to be a small breach behind the existing bulkhead where water is passing behind the bulkhead and over the rocks and into Transco Canal. The steel sheetpile and tie-rods are heavily corroded and should be monitored in the future for additional degradation.</p>
Articulated Concrete Mats (East) w/ '05 Rock Lift & Tie-In	Good	None	N/A	1-3, 5-12	
Articulated Concrete Mats (West)	Good	None	N/A	17-22	
Limestone Rip Rap	Good	None	N/A		
					<p>Structure Description:</p> <p>Existing steel bulkhead lined with rip rap with approximately 536' of articulated concrete mats to the west of the bulkhead and approximately 464' of articulated concrete mats to the east of the bulkhead. East mats were capped in 2005 with LaDOTD Class 250# rip rap. A rock dike (250# rip rap) was extended from the end of the mats to the shoreline approximately 200'.</p>

Are there any signs of vandalism?
 Conditions of existing levees?
 Settlement of rock plugs and weirs?
 Noticable breaches?

MAINTENANCE INSPECTION REPORT CHECKSHEET

Project No. / Name:

Point Au Fer Island Hydrologic Restoration

Date of Inspection:

6/18/2007

Time:

11:30AM

Inspector(s):

S. Triche, D. Dearmond

Water Level:

Inside:

Outside:

Weather Conditions:

P. Cloudy, Winds 15-20

Temp:

84°

Structure No:

Plug 6 - Phase I

Structure Description:

180 linear ft. timber plug

Type of Inspection:

Annual

Item	Condition	Pysical Damage	Corrosion	Photo #	Observations and Remarks
Timber Piles	Good	None	N/A	23-25	Observation: Site in good condition despite the existing deflection of the middle of the structure which occurred during construction. Both tie-ins are in good condition.
Timber Whalers Sheepile	Good	None	N/A		
Galvanized Pile Caps	Good	None	N/A		
Signs/Supports	Good	None	N/A		
Shell Backfill	Good	None	N/A		
Earthen Embankment	Good	None	N/A		
					Structure Description: Approximately 180 linear feet of Creosote-timber bulkhead plug with reef shell tie-ins at both ends and banklines.

Are there any signs of vandalism?
Conditions of existing levees?
Settlement of rock plugs and weirs?
Noticable breaches?

MAINTENANCE INSPECTION REPORT CHECKSHEET

Project No. / Name: Point Au Fer Island Hydrologic Restoration
Date of Inspection: 6/18/2007 **Time:** 12:30 PM
Inspector(s): S. Triche, D. Dearmond
Water Level: **Inside:** **Outside:**
Weather Conditions: P. Cloudy, Winds 15-20 **Temp:** 84°

Item	Condition	Pysical Damage	Corrosion	Photo #	Observations and Remarks
Timber Piles	Good	None	N/A	39, 41	Observation: Site was not visited due to time constraints and access limitations; however, the plug was observed from outside of Plug 8 and appeared to be in good condition. No significant changes from previous years are expected.
Timber Whalers Sheepile	Good	None	N/A		
Galvanized Pile Caps	Good	None	N/A		
Signs/Supports	Good	None	N/A		
Shell Backfill	Good	None	N/A		
Earthen Embankment	Good	None	N/A		
					Structure Description: Approximately 200 linear feet of Creosote-timber bulkhead plug with reef shell tie-ins at both ends and banklines.

Are there any signs of vandalism?
 Conditions of existing levees?
 Settlement of rock plugs and weirs?
 Noticable breaches?

MAINTENANCE INSPECTION REPORT CHECKSHEET

Project No. / Name: _____ **Date of Inspection:** _____ **Time:** _____

Structure No: _____ **Inspector(s):** _____

Structure Description: _____ **Water Level:** _____ **Inside:** _____ **Outside:** _____

Type of Inspection: _____ **Weather Conditions:** _____ **Temp:** _____

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Timber Piles	Good	None	N/A	33-38, 40	Observation: The timber bulkhead is in good condition. The breach around the south end was closed in 2005 by construction of 60' vinyl sheet pile bulkhead. North tie-in is in good condition.
Timber Whalers Sheepile	Good	None	N/A		
Galvanized Pile Caps	Good	None	N/A		
Signs/Supports	Good	None	N/A		
Shell Backfill	Good	None	N/A		
Earthen Embankment	Good	None	N/A		
					Structure Description: Approximately 180 linear feet of Creosote-timber bulkhead plug with reef shell tie-ins at both ends and banklines. In 2005, the bulkhead was extended approximately 60 linear feet to the south with vinyl sheet pile bulkhead. Three submar mats were installed at the south end to prevent scour.

Are there any signs of vandalism?
 Conditions of existing levees?
 Settlement of rock plugs and weirs?
 Noticable breaches?