Coastal Protection and Restoration Authority of Louisiana

Office of Coastal Protection and Restoration

2011 Annual Inspection Report

Hopedale Hydrologic Restoration

State Project Number PO-24
Priority Project List 8

February 1, 2012
St. Bernard Parish

Prepared by:

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I. Introduction

The 3,805 acre Hopedale Hydrologic Restoration Project (PO-24) is located southeast of Yscloskey, in St. Bernard Parish, Louisiana, and is bordered by LA Hwy 46 on the west, the Mississippi River Gulf Outlet (MRGO) spoil deposition area to the north, and Louisiana Highway 624 and Bayou La Loutre to the south and east (Appendix A). The area is predominately brackish marsh (3,086 acres) and open water (719 acres) with a small amount of saline marsh, bottomland hardwoods and bottomland scrub/shrub within the MRGO spoil deposition area.

II. Project Description and History

Wetlands in the Hopedale area have been adversely impacted because of altered hydrology and partial impoundment caused by the construction of LA Hwy 624 and the MRGO. During construction of LA Hwy 624, four sets of non-gated culverts were installed under the highway. These culverts connect Bayou La Loutre with wetlands north of the highway and south of the Bayou La Loutre Ridge, and allow water to enter and exit the general project area.

As part of the construction of the MRGO, a spoil containment dike (back dike) was constructed to allow placement of material from the MRGO dredging operation. The dike almost completely impounded the marsh within the Hopedale project area, with the exception of the back dike borrow canal, which directly connected to Bayou La Loutre. A plug and water control structure were originally placed in the borrow canal approximately 400 ft from its intersection with Bayou La Loutre. This structure, which consisted of three iron culverts with flap gates, provided drainage from the area, while limiting tidal increases in minimal storm events. By the mid 1990s, the plug had settled and the structure had deteriorated and become inoperable. The present project replaced the original structure with a water control structure fitted with three 82” diameter combination gates (flap/sluice gates) and two, 24”x 84” fisheries access slots (fish gates). The project was completed in December 2004.

In 2005, the Hopedale structure suffered minor damage due to Hurricane Katrina. In 2007/2008, the repairs, at a cost of $64,900, were made as follows:

- Repaired and replaced all damaged fence panels.
- Replaced missing gate stem covers.
- Repaired damaged railing.
- Placed riprap into eroded areas.
- Replaced missing mechanical gate operator.
- Added support beam under walkway.

A maintenance contract was initiated this year, 2011, to provide regular maintenance and operations for the structure. Initial clean up details are provided in section IV.
III. Inspection Purpose and Procedures

The purpose of the annual inspection of the Hopedale Hydrologic Restoration Project (PO-24) is to evaluate the constructed project features to identify any deficiencies and prepare a report detailing the condition of project features and recommended corrective actions needed. Should it be determined that corrective actions are needed, OCPR shall provide, in the report, a detailed cost estimate for engineering, design, supervision, inspection, and construction contingencies, and an assessment of the urgency of such repairs (O&M Plan April 21, 2005). The annual inspection report also contains a summary of maintenance projects 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 completion of the project can be found in Section II.

An inspection of the Hopedale Hydrologic Restoration Project (PO-24) was held on September 27, 2011, by Lake Borgne Basin Levee District during the first round of structure operations under the new contract. Photographs and an e-mail report of the operations and inspection are included in Appendix B.

IV. Inspection Results

Water Control Structure

Lake Borgne Basin Levee District personnel performed the first round of operations and routine maintenance on September 27, 2011. Two days were required to fully accomplish all tasks described in this section, but there is an e-mail report with pictures attached in Appendix B.

The unwanted vegetation was cleared and the area was sprayed to prevent more unwanted vegetation in the near future. Debris was cleared from around the structure and the ramp was repaired as it had been dislodged by excess vegetation. The gates were operated for functionality and all passed. The actuator needs to be worked on to improve functionality and the gate stem covers will be replaced this year.

V. Conclusions

The Hopedale Hydrologic Restoration Project (PO-24) is performing as designed. With the new operations contract in place the structure will continue to be maintained throughout the project life.

VI. Recommendations

Perform preventative maintenance on a regular basis.
**Immediate Repairs**

- Replace two vinyl gate stem covers.

**Programmed Maintenance**

- Continue to check gates on structure for operability.
Appendix A

Project Features Map
Appendix B

Operations Report
Barry,

We removed 2 large trees, 1 from the far outside structure and 1 from the far inside structure. We also removed several small trees growing through the rip rap. Let me know if you need more photos. I have them!
Thanks,

Mark Wick
Supervisor of Levees and Canals
Lake Borgne Basin Levee District
P.O. Box 216 (Mailing)
6136 E. St. Bernard Hwy. (Physical)
Violet, Louisiana 70092
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Office: (504) 682-5941
Fax: (504) 682-5942
Cell: (504) 512-0105

From: Mark Wick [mailto:mark@lbldb.com]
Sent: Tuesday, September 27, 2011 4:30 PM
To: Barry Richard (CPRA)
Subject: Hopedale

Barry,

Crews made the initial visit to the Hopedale Hydrologic Project today. We were able to clear the entire area of unwanted vegetation. We sprayed with a 1% RoundUp + 1% Platoon + surfactant mixture. We really soaked the area well. Hopefully this will ease maintaining control of the situation in the future.
Slim fell out after working for about an hour. This event has been thoroughly documented in other reports.

We were only able to exercise 1 of the 3 flap gates, 2 were completely frozen. We greased the screw that we were able to operate.

It was as we were doing this that I recalled our conversation regarding lubricating the screws.

We will go out with PB Blaster and heavy gauge oil next time in hopes of freeing the 2 that were frozen. Once we freed the gate that we exercised we were able to cycle it completely in about 20-25 minutes.

I noticed that there were no grease fittings on any of the screw gearboxes. I will contact the manufacturer for details on O & M.

The studs on the keys to the 2 fish gates were of a completely different size than those on the flap gates. We had no way to operate them. We will have a new connection machined.

We also affected repairs to the grating ramp to the structure which had fallen away from the structure.

I have plenty of photos. If you would care for me to forward any, please inform.

Thanks,

Mark Wick  
Supervisor of Levees and Canals  
Lake Borgne Basin Levee District  
P.O. Box 216 (Mailing)  
6136 E. St. Bernard Hwy. (Physical)  
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Cell: (504) 512-0105
Appendix C

Three Year Budget Projection
## Hopedale Hydrologic Restoration

**State Project No. PO-24**

**Annual Inspection Report**

**Hopedale Hydrologic Restoration**

**Federal Sponsor:** NMFS

**Construction Completed:** January 6, 2005

**PPL 8**

### Current Approved O&M Budget

| Year | Year-1 | Year-2 | Year-3 | Year-4 | Year-5 | Year-6 | Year-7 | Year-8 | Year-9 | Year-10 | Year-11 | Year-12 | Year-13 | Year-14 | Year-15 | Year-16 | Year-17 | Year-18 | Year-19 | Year-20 | Year-21 | Year-22 | Year-23 | Year-24 | Project Life Budget | Currently Funded |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------------|------------------|
| State O&M | $449,209 | $449,209 | Corps Admin | $0 | $0 | Federal S&A | $0 | $0 | Total | $449,209 | $449,209 |

### Projected O&M Expenditures

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<th>Category</th>
<th>Remaining Project Life</th>
<th>Current 3 year Request</th>
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<td>Maintenance Inspection (State)</td>
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<tr>
<td>General Maintenance</td>
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<tr>
<td>Total</td>
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</tbody>
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### O&M Expenditures from COE Report

- **$121,340**

### Current O&M Budget less COE Admin

- **$449,209**

### Current Project Life Budget less COE Admin

- **$449,209**

### Remaining Available O&M Budget

- **$327,869**

### Total Projected Project Life Budget

- **$309,539**

### Incremental Funding Request Amount FY12-FY14

- **$189,124**

### Project Life Budget Request Amount

- **$189,124**

### Total Estimated O&M Expenditures (as of April 2010)

- **$121,340**
Appendix D

Field Inspection Form
(N/A This Year)