State of Louisiana
Department of Natural Resources
Coastal Engineering Division

2005/2006 Annual Inspection Report

for

FRESHWATER BAYOU CANAL BANK STABILIZATION PROJECT (ME-13)

State Project Number ME-13
Priority Project List 5

October 7, 2005
Vermilion Parish

Prepared by:

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I. Introduction

The Freshwater Bayou Canal Bank Stabilization Project (ME-13) is located in the Mermentau Basin on the western bank of the Freshwater Bayou Canal in Vermilion Parish just south of the town of Intracoastal City. Structural components of the project extend from the North Prong/Belle Isle Canal south to the Humble/Acadiana Marina Canal. (See Appendix A).

The Freshwater Bayou Canal Bank Stabilization 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 and approved on the fifth Priority Project List. The Freshwater Bayou Canal Bank Stabilization Project has a twenty –year (20 year) economic life, which began in June 1998.

II. Inspection Purpose and Procedures

The purpose of the annual inspection of the Freshwater Bayou Canal Bank Stabilization Project (ME-13) 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, LDNR 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, 2003). 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 completion of the Freshwater Bayou Canal Bank Stabilization Project are outlined in Section IV.

In 2003, the CWPPRA Task Force determined, due to the fact that LDNR was responsible for the operation and maintenance phase of the vast majority of CWPPRA projects, that LDNR would be the responsible party for all Post Storm/Hurricane Assessments. After Hurricanes Katrina and Rita, every project appeared to have been impacted by the storms; therefore, LDNR determined that all projects should be assessed for damages (Broussard, 2006). With concurrence from the federal sponsor, LDNR has decided to use the information obtained during this post hurricane assessment in this Annual Maintenance Inspection.

An inspection of the Freshwater Bayou Canal Bank Stabilization Project (ME-13) was held on October 7, 2005 under sunny skies and mild temperatures. In attendance were Stan Aucoin, Mel Guidry, Pat Landry, Leigh Anne Sharp, Amanda Phillips, David Burkholder, Whitney Thompson and Ken Duffy of DNR and Brad Sticker representing NRCS.

The field inspection included a complete visual inspection of the entire project site. Staff gauge readings and existing temporary benchmarks were used to determine approximate elevations of water & rock weirs. Field Inspection notes were completed in the field to verify areas requiring repairs. (see Appendix D).

III. Project Description and History

Constructed between 1965 and 1967, the FBC channel extends from the Gulf Intracoastal Waterway (GIWW) at Intracoastal City to the Gulf of Mexico (GOM), providing safe passage for deep-draft vessels of commercial interests from the GOM to the GIWW. The canal includes a lock at the GOM to reduce saltwater intrusion into the fresh water and low salinity interior wetlands along the canal. Between 1979 and 1986, approximately 300,000 tons of cargo was transported along FBC, mostly in oil and gas service and supply vessels and commercial fishing boats (U. S. Army Corps of Engineers [USACE] 1989).

The main cause of wetland loss in the ME-13 project area is boat wake-induced erosion of the canal spoil banks and the fragile organic soils of the adjacent marsh along the west bank of the canal (USACE and Louisiana Department of Natural Resources [LDNR] 1994). The subsequent impact of tidal scour and seasonal salinity spikes entering FBC, mainly from Little Vermilion Bay, exacerbates the loss of shoreline marsh in the project area. When completed in 1967, the average bank width of the original FBC channel was 173 ft. By 1990, the average bank width of the channel had more than tripled to 583 ft (Good et al. 1995). Brown and Root (1992) estimated that between 1968 and 1992, shoreline erosion along FBC averaged 12.5 ft/yr on each bank.

The principal project features include:

- Site 1 - Foreshore Rock Dike (approximately 23,193 linear feet)

The original dike was constructed in 1998. The dike was built to elevation +4.0 (NAVD 88) with a four foot crown width and a 1 on 2 side slopes, using 1,100 lb (max-size) stone.

IV. Summary of Past Operation and Maintenance Projects

General Maintenance: Below is a summary of completed maintenance projects and operation tasks performed since June 1998, the construction completion date of the Freshwater Bayou Canal Bank Stabilization Project (ME-13).

2005 - Freshwater Bayou Canal Bank Stabilization Maintenance Project – LDNR (Luhr Bros. Contractor): This maintenance project included the installation of

approximately 20,987 tons of 1,250 lb gradation stone to repair 9,130 linear feet of bank. Quantity limitations prevented the repair of all sections required. Construction was completed on 12/15/2005. The cost associated with the engineering, design and construction of the Freshwater Bayou Canal Stabilization Maintenance Project is as follows:

Construction:	$464,368.55
Engineering & Design:	$ 2,234.46
Construction Administration:	$ 5,625.00
Construction Oversight/As builts:	$ 15,503.10
Project Total:	**$487,731.11**

2005 Structure Operations: There are no active operations associated with this project.

V. Inspection Results

Site 1—Foreshore rock dike

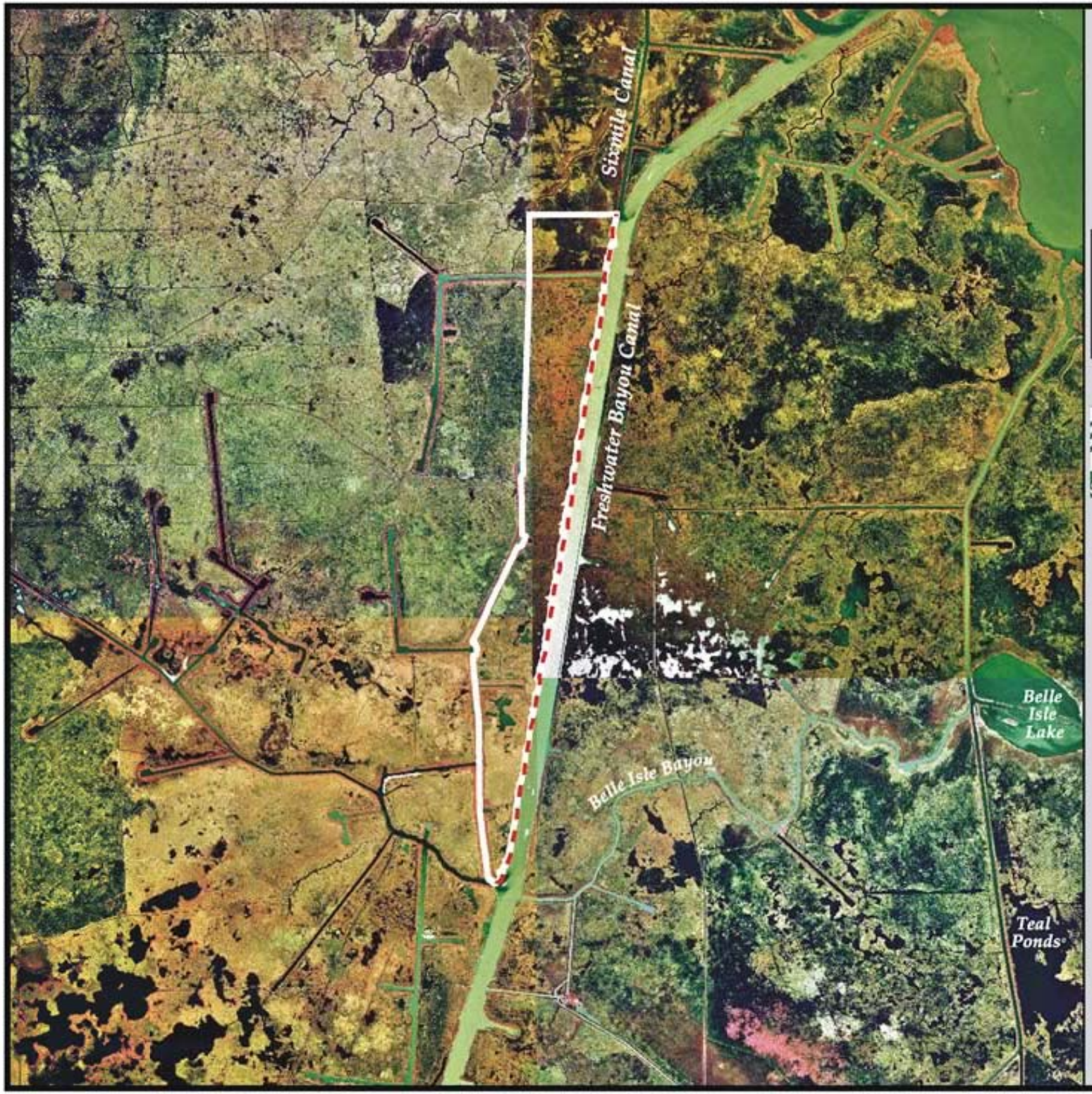
The inspection revealed the rock foreshore dike is in good condition and sustained no damage from the storm surge. The recently completed maintenance project to restore the dike to constructed elevations held up well through high water conditions. (Photos: Appendix B, Photos 1 & 2)

VI. Conclusions and Recommendations

Overall the Freshwater Bayou Canal Bank Stabilization Project is in good condition and sustained no discernable damage from Hurricane RITA. No maintenance is required at this time.

Appendix A

Project Features Map



Freshwater Bayou Bank Stabilization (ME-13)

Shoreline Protection

Project Boundary

USGS science for a changing world

Louisiana

Project Location

N

0.5 0 0.5 1 Miles

0.5 0 0.5 1 Kilometers

Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
1998 Digitial Orthophoto Quarter Quadrangle

Map Date: August 23, 2002
Map ID: 2002-11-709
Data accurate as of: August 23, 2002

Appendix B

Photographs

Photo 1, Typical rock dike

Photo 2, Typical rock dike.

Appendix C

Three Year Budget Projection

FRESHWATER BAYOU CANAL BANK STABILIZATION / ME-13 / PPL5

Three-Year Operations & Maintenance Budgets 07/01/2005 - 06/30/08

Project Manager	O & M Manager	Federal Sponsor	Prepared By
Mel Guidry	*Mel Guidry*	*NRCS*	*Mel Guidry*

	2005/2006	2006/2007	2007/2008
Maintenance Inspection	$ 4,955.00	$ 5,250.00	$ 5,407.00
Structure Operation	$ -	$ -	$ -
Administration	$ 5,625.00	$ -	$ -
Maintenance/Rehabilitation			

05/06 Description:Cap rock dike to constructed elevations.

E&D	$ 2,234.46
Construction	$ 464,368.55
Construction Oversight	$ 15,503.10
Sub Total - Maint. And Rehab.	$ 482,106.11

06/07 Description

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

07/08 Description:

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

	2005/2006	2006/2007	2007/2008
Total O&M Budgets	**$ 492,686.11**	**$ 5,250.00**	**$ 5,407.00**

O &M Budget (3 yr Total)	**$ 503,343.11**
Existing O & M Budget	**$ 16,568.00**
Remaining O & M Budget (Projected)	**$ 486,775.11**

Note: Maintenance Project for 2005/2006 completed, therefore these funds already expended

Appendix D

Field Inspection Form

MAINTENANCE INSPECTION REPORT CHECK SHEET

Project No. / Name: ME-13 Freshwater Bayou

Date of Inspection: October 7, 2005 Time:

Structure No. N/A

Inspector(s):Stan Aucoin, Pat Landry,Leigh Anne Sharp,
Mel Guidry, David Burkholder, Amanda Phillips
Whitney Thompson, & Ken Duffy (LDNR), Brad Sticker (NRCS)

Structure Description: Foreshore Rock Dike

Water Level

Type of Inspection: Annual

Weather Conditions: Sunny and mild

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Steel Bulkhead / Caps	N/A				
Steel Grating	N/A				
Stop Logs	N/A				
Hardware	N/A				
Timber Piles	N/A				
Timber Wales	N/A				
Galv. Pile Caps	N/A				
Cables	N/A				
Signage /Supports	N/A				
Rip Rap (fill) (foreshore dike)	Good			1 & 2	Recent maintenance work to restore dike to constructed elevation sustained no damage from Hurricane RITA.
Earthen Embankment	N/A				

What are the conditions of the existing levees?
Are there any noticeable breaches?
Settlement of rock plugs and rock weirs?
Position of stoplogs at the time of the inspection?
Are there any signs of vandalism?

Appendix E

Locations to be Monitored