



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

2007 Annual Inspection Report

**Barataria Bay Waterway East
Bank Protection**

State Project Number BA-26
Priority Project List 6

April 28, 2008
Jefferson Parish

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I. Introduction

The Barataria Bay Waterway East Bank Protection Project (BA-26) encompasses 2,790 acres (880 ha) brackish marsh and open water habitat on the east bank of the Barataria Bay Waterway located in the Barataria Basin, Jefferson Parish, Louisiana approximately 1.5 miles south of Lafitte. The Project is bounded by the Barataria Bay Waterway to the west, Barataria Bay Shoreline to the east and Bayou Dupont to the north (Appendix A).

II. Project Description and History

The Barataria Bay Waterway East Bank Protection Project includes approximately 17,100 linear feet (3.2 miles) of foreshore rock dike bank line protection and an earthen hydrologic barrier created from dredged material from the Barataria Bay Waterway Channel placed to the East along the rock dike within the project area. The rock structure was constructed with a synthetic clay core to reduce its overall weight. The clay material was encapsulated in geotextile bags and placed along the centerline of the dike. The dike is intended to protect the adjacent marsh, and to re-establish the eastern bank of the Barataria Bay Waterway, from unnatural water exchange and subsequent erosion which is exacerbated by wakes from vessel traffic on the waterway.

Project construction began on February 19, 2001, and was completed on May 21, 2001. Project life is estimated to be 20 years. Annual project inspections are planned.

In December, 2005, a contract to raise these structures was awarded and resulted in the placement of 17,417 tons of rock riprap on the settled sections of the structure. The work was completed on January 24, 2006.

III. Inspection Purpose and Procedures

The purpose of the annual inspection of the Barataria Bay Waterway East Bank Protection Project (BA-26) 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 August 9, 2002). 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 are outlined in Section II.

An inspection of the Barataria Bay Waterway East Bank Protection Project (BA-26) was held on March 27, 2007 by Barry Richard of LDNR and Michael Trusclair of NRCS.

There was a light wind, clear sky, and the tide gage, which is located approximately 0.8 miles north of C&M Marina on the east bank of the Barataria Bay Waterway, read approximately +0.5-ft. NAVD-88. Photographs of that inspection are included in Appendix B of this report.

IV. Inspection Results

Rock Riprap

There are no noticeable damages to the rock structure since the previous inspection (Photos #1 & #2). A small gap in the rock structure was seen at approximate coordinates N29.61380°, W 090.07905°. This gap is probably the result of vandalism and should be monitored (Photo #3).

V. Conclusions

The Barataria Bay Waterway East Protection Project (BA-26) is performing as intended. The rock dike is protecting the existing marsh as designed. The recently completed maintenance lift raised the elevation of the settled sections of foreshore rock dike back to the original designed elevation. This should ensure that the structure performs adequately through the next programmed maintenance lift in 2011.

VI. Recommendations

Immediate Repairs

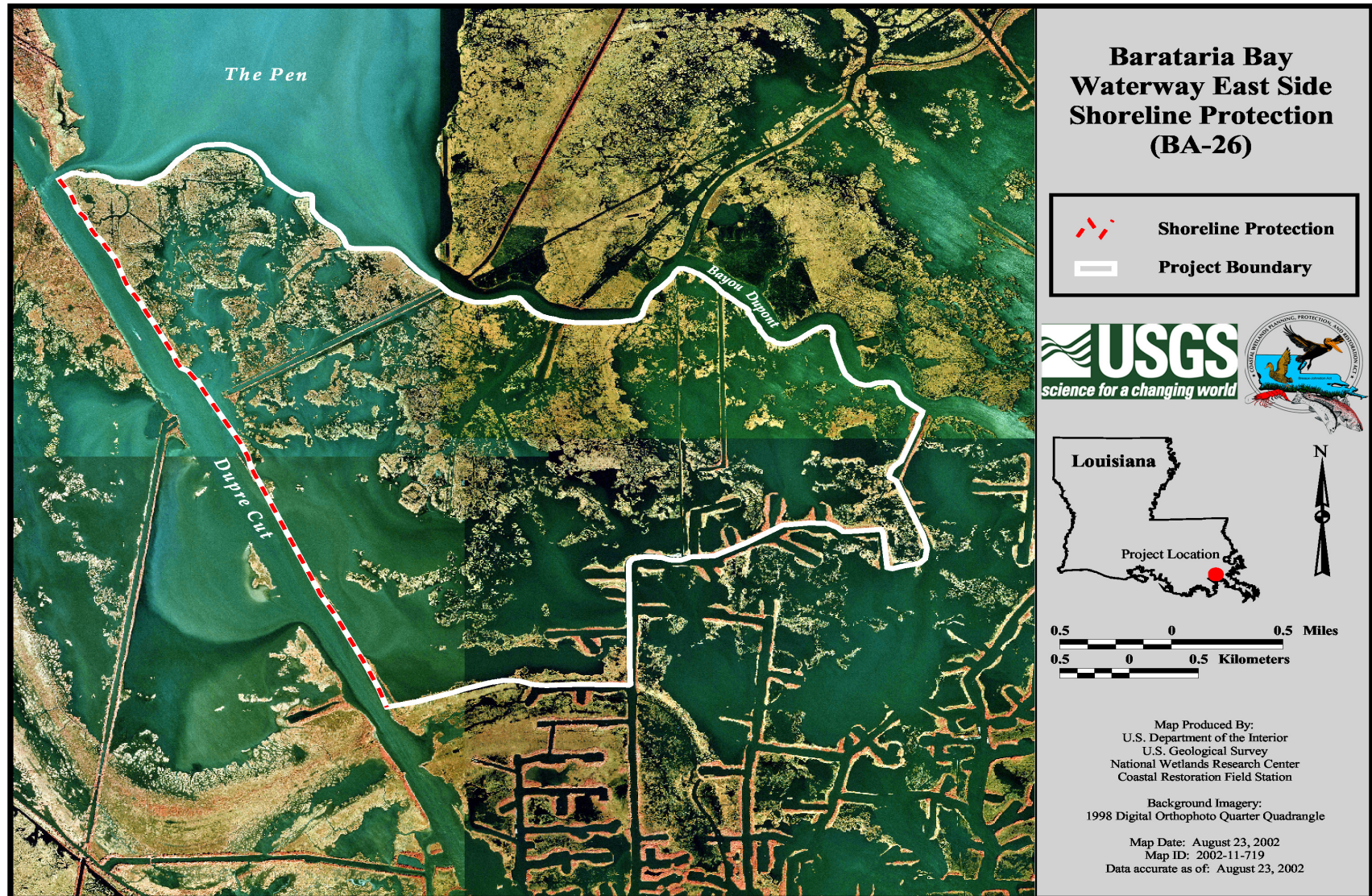
- No immediate repairs are necessary at this time.

Programmed Maintenance

- All maintenance has been completed. The next cycle of programmed maintenance is scheduled for 2011.

Appendix A

Project Features Map



Appendix B

Photographs



Photo #1 – Shoreline Protection Looking South



Photo No. 2 – Shoreline Protection Looking North



Photo No. 3 – Small gap in Shoreline Protection.

Appendix C

Three Year Budget Projection

**Barataria Bay Waterway East Bank Protection / BA-26 / PPL 6
 Three-Year Operations & Maintenance Budgets 07/01/2008 - 06/30/2011**

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Project Manager
 Barry Richard

O & M Manager
 Barry Richard

Federal Sponsor
 NRCS

Prepared By
 Barry Richard

	2008/2009	2009/2010	2010/2011
Maintenance Inspection	\$3,475.00	\$3,565.00	\$3,658.00
General Maintenance	\$0.00	\$0.00	\$0.00
Structure Operation	\$0.00	\$0.00	\$0.00
Administration	\$0.00	\$0.00	\$0.00
Maintenance/Rehabilitation			

08/09 Description:

E&D	\$0.00
Construction	\$0.00
Construction Oversight	\$0.00
Sub Total - Maint. And Rehab.	\$ -

09/10 Description

E&D	\$0.00
Construction	\$0.00
Construction Oversight	\$0.00
Sub Total - Maint. And Rehab.	\$ -

10/11 Description: Scheduled Rock Lift

E&D	\$15,000.00
Construction	\$1,109,580.00
Construction Oversight	\$30,000.00
Sub Total - Maint. And Rehab.	\$ 1,154,580.00

	2008/2009	2009/2010	2010/2011
Total O&M Budgets	\$ 3,475.00	\$ 3,565.00	\$ 1,158,238.00

O & M Budget (3 yr Total)	\$ 1,165,278.00
Unexpended O & M Budget	\$ 1,178,665.68
Remaining O & M Budget (Projected)	\$ 13,387.68

OPERATION AND MAINTENANCE BUDGET WORKSHEET 2008/2009

Barataria Bay Waterway East Bank Protection / BA-26 / PPL 6

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,475.00	\$3,475.00
General Structure Maintenance	LUMP	1	\$0.00	\$0.00
Engineering and Design	LUMP	1	\$0.00	\$0.00
Operations Contract	LUMP	1	\$0.00	\$0.00
Construction Oversight	LUMP	1	\$0.00	\$0.00

ADMINISTRATION

LDNR / CRD Admin.	LUMP	0	\$0.00	\$0.00
FEDERAL SPONSER Admin.	LUMP	0	\$0.00	\$0.00
SURVEY Admin.	LUMP	0	\$0.00	\$0.00
OTHER				\$0.00
TOTAL ADMINISTRATION COSTS:				\$0.00

MAINTENANCE / CONSTRUCTION

SURVEY

SURVEY DESCRIPTION:					
	Secondary Monument	EACH	0	\$0.00	\$0.00
	Staff Gauge / Recorders	EACH	0	\$0.00	\$0.00
	Marsh Elevation / Topography	LUMP	0	\$0.00	\$0.00
	TBM Installation	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
	TOTAL SURVEY COSTS:				\$0.00

GEOTECHNICAL

GEOTECH DESCRIPTION:					
	Borings	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
	TOTAL GEOTECHNICAL COSTS:				\$0.00

CONSTRUCTION

CONSTRUCTION DESCRIPTION:					
Rip Rap	LIN FT	TON / FT	TONS	UNIT PRICE	
	0	0.0	0	\$0.00	\$0.00
	0	0.0	0	\$0.00	\$0.00
	0	0.0	0	\$0.00	\$0.00
Filter Cloth / Geogrid Fabric	SQ YD	0		\$0.00	\$0.00
Navigation Aid	EACH	0		\$0.00	\$0.00
Signage	EACH	0		\$0.00	\$0.00
General Excavation / Fill	CU YD	0		\$0.00	\$0.00
Dredging	CU YD	0		\$0.00	\$0.00
Sheet Piles (Lin Ft or Sq Yds)		0		\$0.00	\$0.00
Timber Piles (each or lump sum)		0		\$0.00	\$0.00
Timber Members (each or lump sum)		0		\$0.00	\$0.00
Hardware	LUMP	1		\$0.00	\$0.00
Materials	LUMP	1		\$0.00	\$0.00
Mob / Demob	LUMP	1		\$0.00	\$0.00
Contingency	LUMP	1		\$0.00	\$0.00
General Structure Maintenance	LUMP	1		\$0.00	\$0.00
OTHER				\$0.00	\$0.00
OTHER				\$0.00	\$0.00
OTHER				\$0.00	\$0.00
TOTAL CONSTRUCTION COSTS:					\$0.00

TOTAL OPERATIONS AND MAINTENANCE BUDGET: \$3,475.00

OPERATION AND MAINTENANCE BUDGET WORKSHEET 2009/2010

Barataria Bay Waterway East Bank Protection / BA-26 / PPL 6

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,565.00	\$3,565.00
General Structure Maintenance	LUMP	1	\$0.00	\$0.00
Engineering and Design	LUMP	1	\$0.00	\$0.00
Operations Contract	LUMP	1	\$0.00	\$0.00
Construction Oversight	LUMP	1	\$0.00	\$0.00

ADMINISTRATION

LDNR / CRD Admin.	LUMP	0	\$0.00	\$0.00
FEDERAL SPONSER Admin.	LUMP	0	\$0.00	\$0.00
SURVEY Admin.	LUMP	0	\$0.00	\$0.00
OTHER				\$0.00
TOTAL ADMINISTRATION COSTS:				\$0.00

MAINTENANCE / CONSTRUCTION

SURVEY

SURVEY DESCRIPTION:					
	Secondary Monument	EACH	0	\$0.00	\$0.00
	Staff Gauge / Recorders	EACH	0	\$0.00	\$0.00
	Marsh Elevation / Topography	LUMP	0	\$0.00	\$0.00
	TBM Installation	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
	TOTAL SURVEY COSTS:				\$0.00

GEOTECHNICAL

GEOTECH DESCRIPTION:					
	Borings	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
	TOTAL GEOTECHNICAL COSTS:				\$0.00

CONSTRUCTION

CONSTRUCTION DESCRIPTION:						
	Rip Rap	LIN FT	TON / FT	TONS	UNIT PRICE	
		0	0.0	0	\$0.00	\$0.00
		0	0.0	0	\$0.00	\$0.00
		0	0.0	0	\$0.00	\$0.00
	Filter Cloth / Geogrid Fabric		SQ YD	0	\$0.00	\$0.00
	Navigation Aid		EACH	0	\$0.00	\$0.00
	Signage		EACH	0	\$0.00	\$0.00
	General Excavation / Fill		CU YD	0	\$0.00	\$0.00
	Dredging		CU YD	0	\$0.00	\$0.00
	Sheet Piles (Lin Ft or Sq Yds)			0	\$0.00	\$0.00
	Timber Piles (each or lump sum)			0	\$0.00	\$0.00
	Timber Members (each or lump sum)			0	\$0.00	\$0.00
	Hardware		LUMP	1	\$0.00	\$0.00
	Materials		LUMP	1	\$0.00	\$0.00
	Mob / Demob		LUMP	1	\$0.00	\$0.00
	Contingency		LUMP	1	\$0.00	\$0.00
General Structure Maintenance		LUMP	1	\$0.00	\$0.00	
OTHER				\$0.00	\$0.00	
OTHER				\$0.00	\$0.00	
OTHER				\$0.00	\$0.00	
TOTAL CONSTRUCTION COSTS:					\$0.00	

TOTAL OPERATIONS AND MAINTENANCE BUDGET: \$3,565.00

OPERATION AND MAINTENANCE BUDGET WORKSHEET 2010/2011

Barataria Bay Waterway East Bank Protection / BA-26 / PPL 6

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,658.00	\$3,658.00
General Structure Maintenance	LUMP	1	\$0.00	\$0.00
Engineering and Design	LUMP	1	\$15,000.00	\$15,000.00
Operations Contract	LUMP	1	\$0.00	\$0.00
Construction Oversight	LUMP	1	\$30,000.00	\$30,000.00

ADMINISTRATION

LDNR / CRD Admin.	LUMP	0	\$5,000.00	\$0.00
FEDERAL SPONSER Admin.	LUMP	0	\$5,000.00	\$0.00
SURVEY Admin.	LUMP	0	\$0.00	\$0.00
OTHER				\$0.00
TOTAL ADMINISTRATION COSTS:				\$0.00

MAINTENANCE / CONSTRUCTION

SURVEY

SURVEY DESCRIPTION:					
	Secondary Monument	EACH	0	\$0.00	\$0.00
	Staff Gauge / Recorders	EACH	0	\$0.00	\$0.00
	Marsh Elevation / Topography	LUMP	0	\$0.00	\$0.00
	TBM Installation	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
	TOTAL SURVEY COSTS:				\$0.00

GEOTECHNICAL

GEOTECH DESCRIPTION:					
	Borings	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
	TOTAL GEOTECHNICAL COSTS:				\$0.00

CONSTRUCTION

CONSTRUCTION DESCRIPTION:						
	Rip Rap	LIN FT	TON / FT	TONS	UNIT PRICE	
		0	0.0	15,532	\$65.00	\$1,009,580.00
		0	0.0	0	\$0.00	\$0.00
		0	0.0	0	\$0.00	\$0.00
	Filter Cloth / Geogrid Fabric		SQ YD	0	\$0.00	\$0.00
	Navagation Aid		EACH	0	\$0.00	\$0.00
	Signage		EACH	0	\$0.00	\$0.00
	General Excavation / Fill		CU YD	0	\$0.00	\$0.00
	Dredging		CU YD	0	\$0.00	\$0.00
	Sheet Piles (Lin Ft or Sq Yds)			0	\$0.00	\$0.00
	Timber Piles (each or lump sum)			0	\$0.00	\$0.00
	Timber Members (each or lump sum)			0	\$0.00	\$0.00
	Hardware		LUMP	1	\$0.00	\$0.00
	Materials		LUMP	1	\$0.00	\$0.00
	Mob / Demob		LUMP	1	\$100,000.00	\$100,000.00
	Contingency		LUMP	1	\$0.00	\$0.00
	General Structure Maintenance		LUMP	1	\$0.00	\$0.00
	OTHER				\$0.00	\$0.00
	OTHER				\$0.00	\$0.00
OTHER				\$0.00	\$0.00	
TOTAL CONSTRUCTION COSTS:					\$1,109,580.00	

TOTAL OPERATIONS AND MAINTENANCE BUDGET: \$1,158,238.00

Appendix D

Field Inspection Form

MAINTENANCE INSPECTION REPORT CHECK SHEET

Project No. / Name: **BA-26 Barataria Waterway (East) Shoreline Protection**

Date of Inspection: 3/27/2008

Time: 9:30 am

Structure No. no number assigned

Inspector(s): Richard, Trusclair

Structure Description: Foreshore Rock Dike

Water Level

Inside: N/A

Outside: Approx. 0.5 ft

Type of Inspection: Annual

Weater Conditions: Clear Skies, Light Wind

Item	Condition	Pysical Damage	Corrosion	Photo #	Observations and Remarks
Foreshore Rock Dike	Good	small gap	None	1,2,3	
					small gap at approx. coordinates N29.61380, W090.07905
Settlement Plates	Good	None	None		
Signage /Supports	Good	None	None		