



Coastal Protection and Restoration Authority of Louisiana

Office of Coastal Protection and Restoration

2009 Annual Inspection Report

Barataria Bay Waterway East Bank Protection

State Project Number BA-26
Priority Project List 6

July 1, 2009
Jefferson Parish

Prepared by:

Barry Richard, E.I.
OCPR/Operations Division
New Orleans District Office
CERM, Suit 309
2045 Lakeshore Dr.
New Orleans, La 70122

Table of Contents

I. Introduction.....	1
II. Project Description and History.....	1
III. Inspection Purpose and Procedures	1
IV. Inspection Results	2
V. Conclusions.....	2
VI. Recommendations.....	2
Immediate Repairs	2
Programmed Maintenance	2

Appendices

Appendix A	Project Features Map
Appendix B	Photographs
Appendix C	Three Year Budget Projections
Appendix D	Field Inspection Form

I. Introduction

The Barataria Bay Waterway East Bank Protection Project (BA-26) encompasses 2,790 acres (880 ha) of 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, the Pen, Bayou Dupont, and oil and gas canals to the north and east, and the historic Bayou Barataria ridge to the south (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. The rock foreshore dike consists of two types of construction. One portion of the foreshore dike was constructed totally of rock riprap placed on a geotextile. The other portion of 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 and completely surrounded by rock riprap.. 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 the foreshore rock dike 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, 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 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 September 30, 2009, by Barry Richard of OCPR and Quin Kinler of NRCS. This inspection was prompted by the coastal Louisiana landfall of Hurricanes Gustav and Ike. There was a light wind, clear sky. 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 (Photo #1). Some settlement has been observed. 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 #2).

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. Some settlement has been observed and will continue to be monitored, however, the structure should perform adequately through the next programmed maintenance lift in 2011.

VI. Recommendations

Immediate Repairs

- No immediate repairs are necessary at this time.

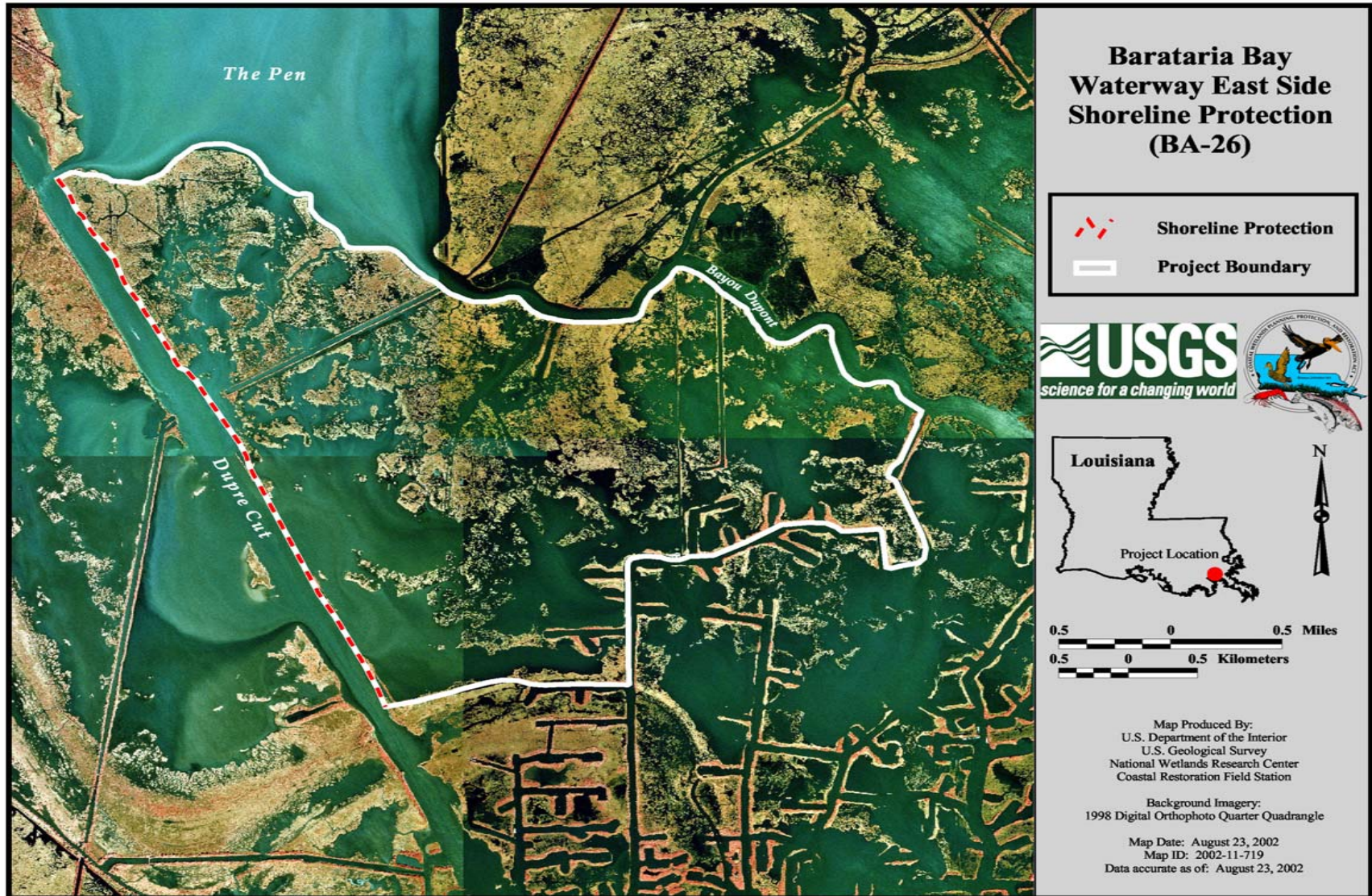
Programmed Maintenance

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

Annual Inspection Report
Barataria Bay Waterway East Bank Protection
State Project No. BA-26

Appendix A

Project Features Map



Annual Inspection Report
Barataria Bay Waterway East Bank Protection
State Project No. BA-26

Appendix B

Photographs



Photo #1 – Shoreline Protection Looking North



Photo # 2 – 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 07/01/2009 - 06/30/2012**

=

Project Manager
 Barry Richard

O & M Manager
 Barry Richard

Federal Sponsor
 NRCS

Prepared By
 Barry Richard

	2009/2010	2010/2011	2011/2012
Maintenance Inspection	\$3,565.00	\$3,658.00	\$3,753.00
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			

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

11/12 Description:

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

	2009/2010	2010/2011	2011/2012
<u>Total O&M Budgets</u>	\$ 3,565.00	\$ 1,158,238.00	\$ 3,753.00

<u>O & M Budget (3 yr Total)</u>	\$ 1,165,556.00
<u>Unexpended O & M Budget</u>	\$ 1,178,665.68
<u>Remaining O & M Budget (Projected)</u>	\$ 13,109.68

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:	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
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:	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
Borings	EACH	0	\$0.00	\$0.00
OTHER				\$0.00
TOTAL GEOTECHNICAL COSTS:				\$0.00

CONSTRUCTION

CONSTRUCTION DESCRIPTION:	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
Rip Rap	LIN FT	0	\$0.00	\$0.00
	TON / FT	0.0	\$0.00	\$0.00
	TONS	0	\$0.00	\$0.00
		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:	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
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:	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
Borings	EACH	0	\$0.00	\$0.00
OTHER				\$0.00
TOTAL GEOTECHNICAL COSTS:				\$0.00

CONSTRUCTION

CONSTRUCTION DESCRIPTION:	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
Rip Rap	LIN FT	0	\$65.00	\$1,009,580.00
	TON / FT	0.0		
	TONS	15,532		
		0	\$0.00	\$0.00
		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	\$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

OPERATION AND MAINTENANCE BUDGET WORKSHEET 2011/2012
 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	\$3,753.00	\$3,753.00
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:	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
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:	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
Borings	EACH	0	\$0.00	\$0.00
OTHER				\$0.00
TOTAL GEOTECHNICAL COSTS:				\$0.00

CONSTRUCTION

CONSTRUCTION DESCRIPTION:	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL	
Rip Rap	LIN FT	TON / FT	TONS	UNIT PRICE	ESTIMATED TOTAL
	0	0.0	15,532	\$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: \$3,753.00

Annual Inspection Report
Barataria Bay Waterway East Bank Protection
State Project No. BA-26

Appendix D

Field Inspection Form

MAINTENANCE INSPECTION REPORT CHECK SHEET

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

Date of Inspection: 9/30/2008

Time: 9:30 am

Structure No. no number assigned

Inspector(s): Richard, Kinler

Structure Description: Foreshore Rock Dike

Water Level

Inside: N/A

Outside: N/A

Type of Inspection: Post Storm

Weather Conditions: Clear Skies, Light Wind

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