



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

**2006 Annual Inspection Report**

**Barataria Bay Waterway East  
Bank Protection**

State Project Number BA-26  
Priority Project List 6

August 10, 2006  
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.

## **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 October 4, 2005 by George Boddie, Barry Richard, Tom Bernard, and Melissa Kaintz from LDNR; Quin Kinler of NRCS. There was a southeast wind at approximately 15 mph, 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 +1.9-ft NAVD-88. Photographs of that inspection are included in Appendix B of this report.

## **IV. Inspection Results**

### **Rock Riprap**

There was no noticeable damage to the rock structure due to the Hurricanes Katrina and/or Rita (Photo #1). Prior to the Hurricanes, some settlement had been noticed in the structure which was still present at the time of the inspection. 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 (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. 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.

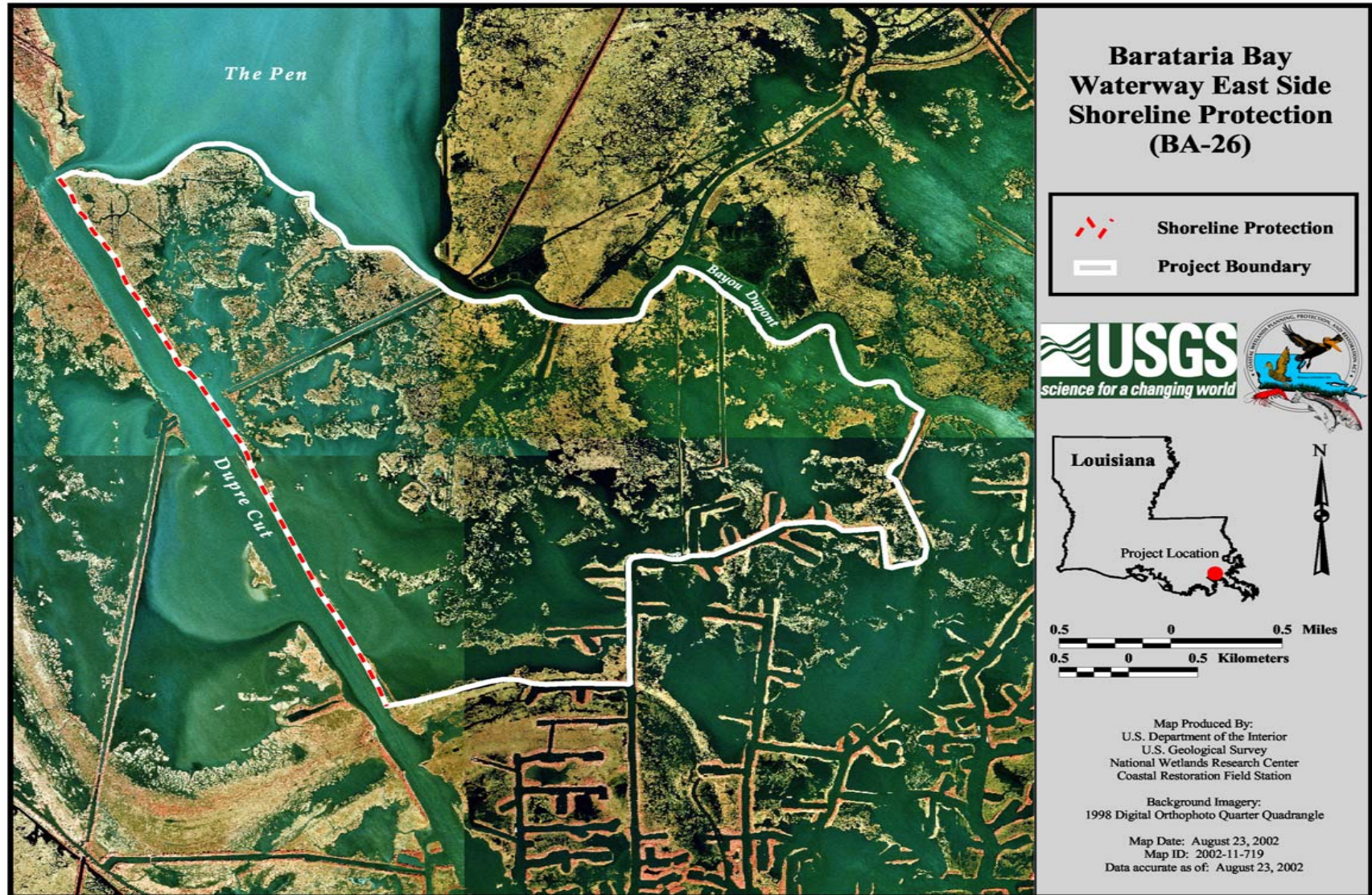
### **Programmed Maintenance**

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

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## **Appendix A**

### **Project Features Map**



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## **Appendix B**

### **Photographs**



**Photo #1 – Shoreline Protection.** Before Maintenance Project.





**Photo No. 2 – Shoreline Protection.** After Maintenance Project.

## **Appendix C**

### **Three Year Budget Projection**

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Three-Year Operations & Maintenance Budgets 07/01/2006 - 06/30/2009				
<u>Project Manager</u>	<u>O &amp; M Manager</u>	<u>Federal Sponsor</u>	<u>Prepared By</u>	
<i>Barry Richard</i>	<i>Barry Richard</i>	NRCS	<i>Barry Richard</i>	
	<b>2006/2007</b>	<b>2007/2008</b>	<b>2008/2009</b>	
<b>Maintenance Inspection</b>	\$3,257.00	\$3,341.00	\$3,428.00	
<b>Structure Operation</b>	\$-	\$-	\$-	
<b>Administration</b>	\$-	\$-	\$-	
<b>Maintenance/Rehabilitation</b>				
06/07 Description:				
<i>E&amp;D</i>	\$-			
<i>Construction</i>	\$-			
<i>Construction Oversight</i>	\$-			
<i>Sub Total - Maint. And Rehab.</i>	\$-			
07/08 Description:				
<i>E&amp;D</i>		\$-		
<i>Construction</i>		\$-		
<i>Construction Oversight</i>		\$-		
	<i>Sub Total - Maint. And Rehab.</i>	\$-		
08/09 Description:				
<i>E&amp;D</i>				\$-
<i>Construction</i>				\$-
<i>Construction Oversight</i>				\$-
		<i>Sub Total - Maint. And Rehab.</i>		\$-
	<b>2006/2007</b>	<b>2007/2008</b>	<b>2008/2009</b>	
<b><u>Annual O&amp;M Budgets</u></b>	<b>\$3,257.00</b>	<b>\$3,341.00</b>	<b>\$3,428.00</b>	
<b><u>O &amp; M Budget (3 yr Total)</u></b>			<b>\$10,026.00</b>	
<b><u>Existing O &amp; M Budget</u></b>			<b>\$463,885.03</b>	
<b><u>Remaining O &amp; M Budget (Projected)</u></b>			<b>\$453,859.03</b>	

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**OPERATION AND MAINTENANCE BUDGET WORKSHEET 2006/2007**  
 Barataria Bay Waterway East Restoration Project / BA-26 / PPL 6

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,257.00	\$3,257.00
General Structure Maintenance	LUMP	0	\$0.00	\$0.00
Engineering and Design	LUMP	0	\$0.00	\$0.00
Operations Contract	LUMP	0	\$0.00	\$0.00
Construction Oversight	LUMP	0	\$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
<b>TOTAL ADMINISTRATION COSTS:</b>				<b>\$0.00</b>

**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	EACH	0	\$0.00	\$0.00	
<b>TOTAL SURVEY COSTS:</b>				<b>\$0.00</b>	

**GEOTECHNICAL**

GEOTECH DESCRIPTION:					
Borings	EACH	0	\$0.00	\$0.00	
OTHER				\$0.00	
<b>TOTAL GEOTECHNICAL COSTS:</b>				<b>\$0.00</b>	

**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		0	\$0.00	\$0.00	
Materials	LUMP		0	\$0.00	\$0.00	
Mob / Demob	LUMP		0	\$0.00	\$0.00	
Contingency	LUMP		0	\$0.00	\$0.00	
General Structure Maintenance	LUMP		0	\$0.00	\$0.00	
OTHER				\$0.00	\$0.00	
OTHER				\$0.00	\$0.00	
OTHER				\$0.00	\$0.00	
<b>TOTAL CONSTRUCTION COSTS:</b>						<b>\$0.00</b>

**TOTAL OPERATIONS AND MAINTENANCE BUDGET:** \$3,257.00

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**OPERATION AND MAINTENANCE BUDGET WORKSHEET 2007/2008**  
 Barataria Bay Waterway East Restoration Project / BA-26 / PPL 6

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,341.00	\$3,341.00
General Structure Maintenance	LUMP	0	\$0.00	\$0.00
Engineering and Design	LUMP	0	\$0.00	\$0.00
Operations Contract	LUMP	0	\$0.00	\$0.00
Construction Oversight	LUMP	0	\$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
<b>TOTAL ADMINISTRATION COSTS:</b>				<b>\$0.00</b>

**MAINTENANCE / CONSTRUCTION**

**SURVEY**

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

**GEOTECHNICAL**

GEOTECH DESCRIPTION:					
Borings	EACH	0	\$0.00	\$0.00	\$0.00
OTHER					\$0.00
<b>TOTAL GEOTECHNICAL COSTS:</b>					<b>\$0.00</b>

**CONSTRUCTION**

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

**TOTAL OPERATIONS AND MAINTENANCE BUDGET:** \$3,341.00

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**OPERATION AND MAINTENANCE BUDGET WORKSHEET 2008/2009**  
 Barataria Bay Waterway East Restoration Project / BA-26 / PPL 6

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,428.00	\$3,428.00
General Structure Maintenance	LUMP	0	\$0.00	\$0.00
Engineering and Design	LUMP	0	\$0.00	\$0.00
Operations Contract	LUMP	0	\$0.00	\$0.00
Construction Oversight	LUMP	0	\$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
<b>TOTAL ADMINISTRATION COSTS:</b>				<b>\$0.00</b>

**MAINTENANCE / CONSTRUCTION**

**SURVEY**

SURVEY DESCRIPTION:	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	EACH	0	\$0.00	\$0.00
<b>TOTAL SURVEY COSTS:</b>					<b>\$0.00</b>

**GEOTECHNICAL**

GEOTECH DESCRIPTION:	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
	Borings	EACH	0	\$0.00	\$0.00
	OTHER				\$0.00
<b>TOTAL GEOTECHNICAL COSTS:</b>					<b>\$0.00</b>

**CONSTRUCTION**

CONSTRUCTION DESCRIPTION:	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
	Rip Rap	LIN FT	TON / FT	TONS	UNIT PRICE
		0	0.0	0	\$0.00
		0	0.0	0	\$0.00
		0	0.0	0	\$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	0	\$0.00	\$0.00
	Materials	LUMP	0	\$0.00	\$0.00
	Mob / Demob	LUMP	0	\$0.00	\$0.00
	Contingency	LUMP	0	\$0.00	\$0.00
	General Structure Maintenance	LUMP	0	\$0.00	\$0.00
	OTHER			\$0.00	\$0.00
	OTHER			\$0.00	\$0.00
	OTHER			\$0.00	\$0.00
<b>TOTAL CONSTRUCTION COSTS:</b>					<b>\$0.00</b>

**TOTAL OPERATIONS AND MAINTENANCE BUDGET:** \$3,428.00

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**Appendix D**  
**Field Inspection Form**

