



## **Coastal Protection and Restoration Authority of Louisiana**

### **Office of Coastal Protection and Restoration**

# **2011 Annual Inspection Report**

## **Mississippi Sediment Delivery System – Bayou Dupont**

State Project Number BA-39  
Priority Project List 12

July, 2011  
Jefferson Parish &  
Plaquemines Parish

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## **I. Introduction**

The Mississippi Sediment Delivery System - Bayou Dupont Project (BA-39), including Increment 2, created a total of 568 acres of marsh utilizing dredged material from the Mississippi River. This project utilized CWPPRA, State, and Stimulus Grant funds. The project is located adjacent to Bayou Dupont and southeast of Cheniere Traverse Bayou in the vicinity of Ironton in Plaquemines Parish and Lafitte in Jefferson Parish, Louisiana. The general area lies west of Louisiana Highway 23 and just north of the Myrtle Grove Marina within the Barataria Basin (Appendix A).

## **II. Project Description and History**

The Mississippi Sediment Delivery System - Bayou Dupont Project includes approximately 568 acres of marsh fill hydraulically dredged and transported 5 miles from the Mississippi River and 6,241 linear feet (3.2 miles) of containment dikes. A 95 linear foot, 48” diameter casing, was left in place as a crossing under the New Orleans & Gulf Coast Railroad along with a 194 linear foot, 48” diameter casing under Highway 23 for future use. The original CWPPRA project resulted in approximately 484 acres of marsh creation (Marsh Creation Areas 1 & 2). An additional 84 acres (Increment 2) was added to the project utilizing ARRA Stimulus Package Grant along with CWPPRA funds for a total of 568 acres. Project construction began on February 4, 2009, and was completed on May 10, 2010. 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 Mississippi Sediment Delivery System - Bayou Dupont Project (BA-39) 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). 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. An inspection of the Mississippi River Sediment Delivery System – Bayou Dupont Project (BA-39) was conducted on May 13, 2011, by Peter Hopkins and Kyle Breaux of OCPR and Paul Kaspar, Adrian Chavarria, and Chris Llewellyn of EPA. There was a light wind, partly cloudy and thunder showers as the inspection was completed. Photographs of that inspection are included in Appendix B of this report.

## **IV. Inspection Results**

### **Marsh Creation Areas**

The containment dikes and fill areas appeared to be holding up well. The fill areas have varying degrees of vegetation and no further vegetative plantings are planned at this time. The gaps appear to be allowing tidal exchange in their immediate areas and the possibility of additional gapping may be considered in the future. Although not considered to be project features the two (2) landowner maintained crossings between fill areas are also serviceable.

### **Railroad and Highway Crossings**

The casings under the New Orleans & Gulf Coast Railroad and Highway 23 are underground and are not visible for inspection.

## **V. Conclusions**

Mississippi River Sediment Delivery System – Bayou Dupont Project (BA-39) is performing as intended. No additional vegetative plantings are planned at this time. The possibility of additional gapping will continue to be evaluated and considered in the future.

## **VI. Recommendations**

### **Immediate Repairs**

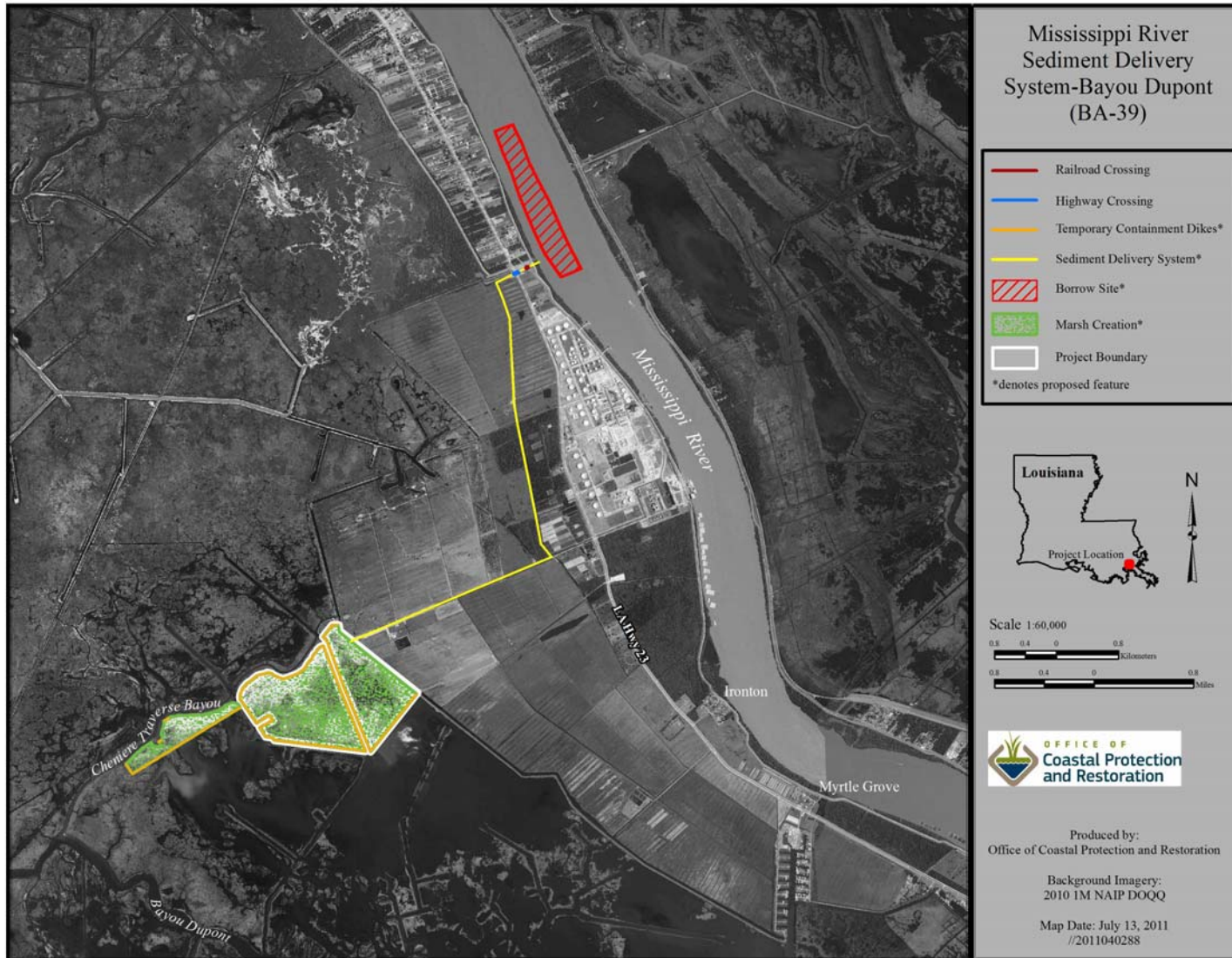
- No immediate repairs are necessary at this time.

### **Programmed Maintenance**

- Continue to monitor the condition of the fill area and crossings of the highway and railroad.

**Appendix A**  
**Project Features Map**

Annual Inspection Report  
 Mississippi Sediment Delivery System – Bayou Dupont  
 State Project No. BA-39



## **Appendix B**

### **Photographs**



**Photo #1 – South Containment Dike Marsh Creation Area 2**



**Photo # 2 – Containment Dike Gap - Marsh Creation Area 2**





**Photo # 3 – Containment Dike Gap - Marsh Creation Area 1**



**Photo # 4 – Marsh Creation Area 1 Looking East**

## **Appendix C**

### **Three Year Budget Projection**

Mississippi River Sediment Delivery System - Bayou Dupont / BA-39 / PPL 12  
**Three-Year Operations & Maintenance Budgets 07/01/2011 - 06/30/2014**

Project Manager <i>Peter Hopkins</i>	O & M Manager <i>Peter Hopkins</i>	Federal Sponsor <i>EPA</i>	Prepared By <i>Peter Hopkins</i>	
		2011/2012	2012/2013	2013/2014
<b>Maintenance Inspection</b>		\$3,161.00	\$3,224.00	\$3,288.00
<b>General Maintenance</b>		\$0.00	\$0.00	\$0.00
<b>Structure Operation</b>		\$0.00	\$0.00	\$0.00
<b>Administration</b>		\$5,058.25	\$0.00	\$0.00
<b>Maintenance/Rehabilitation</b>				

08/09 Description:

<i>E&amp;D</i>	\$101,165.00
<i>Construction</i>	\$0.00
<i>Construction Oversight</i>	\$0.00
<i>Sub Total - Maint. And Rehab.</i>	<u>\$ 101,165.00</u>

09/10 Description:

<i>E&amp;D</i>		\$14,452.00
<i>Construction</i>		\$0.00
<i>Construction Oversight</i>		\$0.00
<i>Sub Total - Maint. And Rehab.</i>		<u>\$ 14,452.00</u>

10/11 Description:

<i>E&amp;D</i>		\$0.00
<i>Construction</i>		\$0.00
<i>Construction Oversight</i>		\$0.00
<i>Sub Total - Maint. And Rehab.</i>		<u>\$ -</u>

	2011/2012	2012/2013	2012/2013
<b>Total O&amp;M Budgets</b>	<u>\$ 109,384.25</u>	<u>\$ 17,676.00</u>	<u>\$ 3,288.00</u>

<b>O &amp;M Budget (3 yr Total)</b>	<u>\$ 130,348.25</u>
<b>Unexpended O &amp; M Budget</b>	<u>\$ 170,730.00</u>
<b>Remaining O &amp; M Budget (Projected)</b>	<u>\$ 40,381.75</u>

**OPERATION AND MAINTENANCE BUDGET WORKSHEET 2011/2012**  
 Mississippi River Sediment Delivery System - Bayou Dupont / BA-39 / PPL 12

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,161.00	\$3,161.00
General Structure Maintenance	LUMP	1	\$0.00	\$0.00
Engineering and Design	LUMP	1	\$0.00	\$0.00
Operations	LUMP	1	\$0.00	\$0.00
Construction Oversight	LUMP	1	\$0.00	\$0.00
<b>ADMINISTRATION</b>				
LDNR / CRD Admin.	LUMP	1	\$0.00	\$0.00
FEDERAL SPONSER Admin.	LUMP	0	\$0.00	\$0.00
SURVEY Admin.	LUMP	1	\$5,058.25	\$5,058.25
OTHER				\$0.00
<b>TOTAL ADMINISTRATION COSTS:</b>				<b>\$5,058.25</b>

**MAINTENANCE / CONSTRUCTION**

<b>SURVEY</b>				
SURVEY DESCRIPTION:				
Secondary Monument	EACH	0	\$0.00	\$0.00
Staff Gauge / Recorders	EACH	0	\$0.00	\$0.00
Marsh Elevation / Topography	LUMP	1	\$96,165.00	\$96,165.00
TBM Installation	EACH	0	\$0.00	\$0.00
OTHER - CRMS survey	LUMP	1	\$5,000.00	\$5,000.00
<b>TOTAL SURVEY COSTS:</b>				<b>\$101,165.00</b>

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

<b>CONSTRUCTION</b>					
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
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
Materials	LUMP		1	\$0.00	\$0.00
Mob / Demob	LUMP		1	\$0.00	\$0.00
Contingency	LUMP		1	\$0.00	\$0.00
Survey	LUMP		1	\$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: \$109,384.25**

**OPERATION AND MAINTENANCE BUDGET WORKSHEET 2012/2013**  
Mississippi River Sediment Delivery System - Bayou Dupont / BA-39 / PPL 12

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,224.00	\$3,224.00
General Structure Maintenance (Radio Equip.)	LUMP	1	\$0.00	\$0.00
Engineering and Design	LUMP	1	\$0.00	\$0.00
Operations	LUMP	1	\$0.00	\$0.00
Construction Oversight	LUMP	1	\$0.00	\$0.00
<b>ADMINISTRATION</b>				
LDNR / CRD Admin.	LUMP	1	\$0.00	\$0.00
FEDERAL SPONSER Admin.	LUMP	1	\$0.00	\$0.00
SURVEY Admin.	LUMP	0	\$2,000.00	\$0.00
OTHER				\$0.00
<b>TOTAL ADMINISTRATION COSTS:</b>				<b>\$0.00</b>

**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	\$55,584.00	\$0.00
TBM Installation	EACH	0	\$0.00	\$0.00
OTHER Aerial Photography		1	\$14,452.00	\$14,452.00
<b>TOTAL SURVEY COSTS:</b>				<b>\$14,452.00</b>

**GEOTECHNICAL**

GEOTECH 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:	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
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
Materials	LUMP	1	\$0.00	\$0.00
Mob / Demob	LUMP	1	\$0.00	\$0.00
Contingency	LUMP	1	\$0.00	\$0.00
Survey	LUMP	1	\$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: \$17,676.00**

**OPERATION AND MAINTENANCE BUDGET WORKSHEET 2013/2014**  
 Mississippi River Sediment Delivery System - Bayou Dupont / BA-39 / PPL 12

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	1	\$3,288.00	\$3,288.00
General Structure Maintenance	LUMP	1	\$0.00	\$0.00
Engineering and Design	LUMP	1	\$0.00	\$0.00
Operations	LUMP	1	\$0.00	\$0.00
Construction Oversight	LUMP	1	\$0.00	\$0.00

**ADMINISTRATION**

LDNR / CRD Admin.	LUMP	1	\$0.00	\$0.00
FEDERAL SPONSER Admin.	LUMP	1	\$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:	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
<b>TOTAL SURVEY COSTS:</b>				<b>\$0.00</b>

**GEOTECHNICAL**

GEOTECH 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:	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
Repair of storm damage to valves, fencing, and embankment. Replacement of storm damaged gate actuator.				
Rip Rap	LIN FT	0	\$0.00	\$0.00
	TON / FT	0	\$0.00	\$0.00
	TONS	0	\$0.00	\$0.00
		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
Materials	LUMP	1	\$0.00	\$0.00
Mob / Demob	LUMP	1	\$0.00	\$0.00
Contingency	LUMP	1	\$0.00	\$0.00
Survey	LUMP	1	\$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: \$3,288.00**

## **Appendix D**

### **Field Inspection Form**

