Coastal Protection and Restoration Authority of Louisiana

Office of Coastal Protection and Restoration

2013 Annual Inspection Report

Mississippi Sediment Delivery System – Bayou Dupont

State Project Number BA-39
Priority Project List 12

July, 2013
Jefferson Parish &
Plaquemines Parish

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Appendices

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 32,176 linear feet (6.1 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. The inspection procedure consists of a site visit by land or water as appropriate with a visual inspection of the project features. Should it be determined that corrective actions are needed, CPRA 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 2, 2013, by Peter Hopkins, Danielle Richardi, and Erin Plitsch of CPRA. The originally scheduled inspection was rained out on April 3, 2013 and EPA was unable to reschedule. There was a light wind,

partly cloudy skies during the inspection. 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. Although not considered to be project features the two (2) landowner maintained crossings between fill areas have been severely damaged by Hurricane Isaac and are no longer serviceable and approximately 1,000 feet of the relic canal on the south side of Area 1 has partially silted in.

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.

VI. Recommendations

Immediate Repairs

- No immediate repairs are necessary at this time.

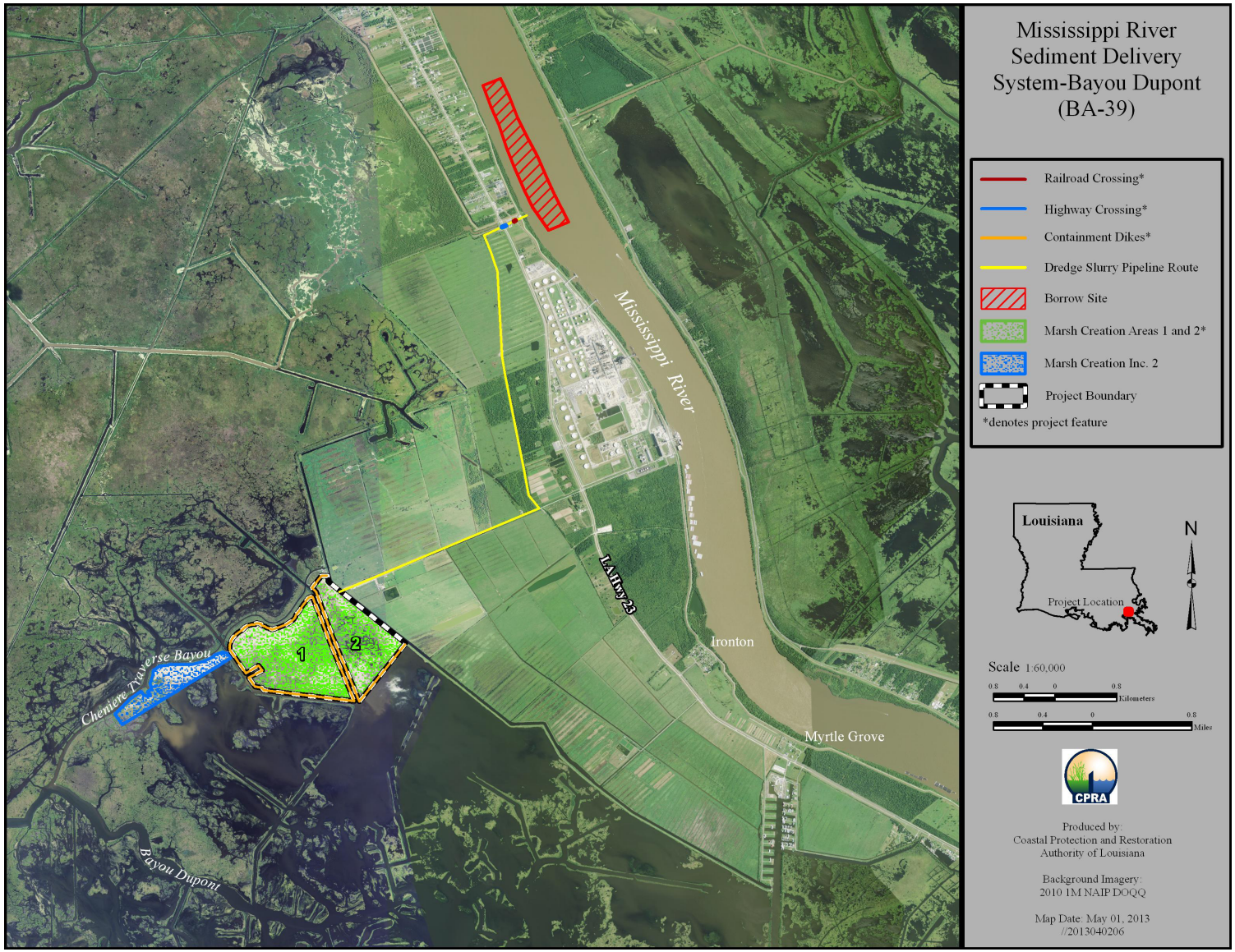
Programmed Maintenance

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

Appendix A

Project Features Map

2013 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 at junction with canal looking northeast

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

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

Photo # 4 – Marsh Creation Area 2 Looking West from back levee

Appendix C

Three Year Budget Projection

Mississippi River Sediment Delivery System - Bayou Dupont BA-39																					
Federal Sponsor: EPA																					
Construction Completed : 2010																					
PPL 12																					
Current Approved O&M Budget	Year 0	Year - 1	Year -2	Year -3	Year -4	Year -5	Year -6	Year -7	Year -8	Year -9	Year -10	Year -11	Year -12	Year -13	Year -14	Year -15	Year -16	Year - 17	Year -18	Year -19	Project Life	Currently
	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	Budget	Funded
State O&M	$6,809	$3,197	$5,612	$3,326	$5,267	$3,726	$3,529	$3,600	$4,442	$3,900	$3,777	$4,152	$3,930	$4,008	$4,089	$4,170	$4,254	$4,339	$4,426	$4,514	$85,067	$85,067
Corps Admin	$785	$801	$817	$834	$850	$867	$885	$902	$921	$939	$958	$977	$996	$1,016	$1,037	$1,057	$1,079	$1,100	$1,122	$1,145	$19,088	$19,088
Federal S&A	$6,809	$3,197	$5,612	$3,326	$5,267	$3,726	$3,529	$3,600	$4,442	$3,900	$3,777	$4,152	$3,930	$4,008	$4,089	$4,170	$4,254	$4,339	$4,426	$4,514	$85,067	$85,067
Total O&M	$14,403	$7,195	$12,041	$7,486	$11,384	$8,319	$7,943	$8,102	$9,805	$8,739	$8,512	$9,281	$8,856	$9,032	$9,215	$9,397	$9,587	$9,778	$9,974	$10,173	$189,222	$189,222
Engineering Monitoring																						
Aerial Photography			$14,167						$15,957												$30,124	$30,124
Survey - Project Area and Settlement Plates	$52,325		$54,495		$56,700																$163,520	$163,520
Survey - Borrow Area	$41,860																				$41,860	$41,860
Geotechncial Instrumentation for Monitoring Hydraulically Dredged Fill Material	$37,608																				$37,608	$37,608
Monitoring Site Installation, Construction, and Survey O&M	$36,628																				$36,628	$36,628
Vegetation	$7,849		$8,174			$8,674			$9,205			$9,769									$43,671	$43,671
Soil Samples	$4,252				$4,602					$5,086											$13,940	$13,940
RSET	$1,125	$1,149	$1,172	$1,195	$1,219	$1,243	$1,268	$1,294	$1,319	$1,346											$12,330	$12,330
Total Engineering Monitoring	$181,647	$1,149	$78,008	$1,195	$62,521	$9,917	$1,268	$1,294	$26,481	$6,432	$0	$9,769	$0	$0	$0	$0	$0	$0	$0	$0	$379,681	$379,681
Total OM&M	$196,050	$8,344	$90,049	$8,681	$73,905	$18,236	$9,211	$9,396	$36,286	$15,171	$8,512	$19,050	$8,856	$9,032	$9,215	$9,397	$9,587	$9,778	$9,974	$10,173	$568,903	$568,903
STATE Task Force Approved O&M Funding			$15,618																			
FEDERAL Task Force Approved O&M Funding			$15,618																			
COE Task Force Approved O&M Funding			$4,087																			
ENGR MONIT State Current Project-Life Budget			$260,804																			
TOTAL Task Force Approved O&M Funding			$296,127																			
																					Remaining	
Projected OM&M Expenditures																					Project Life	
Maintenance Inspection	$6,809	$3,197	$5,612	$3,326	$5,267	$3,726	$3,529	$3,600	$4,442	$3,900	$3,777	$4,152	$3,930	$4,008	$4,089	$4,170	$4,254	$4,339	$4,426	$4,514	$85,067	$85,067
Federal S&A	$6,809	$3,197	$5,612	$3,326	$5,267	$3,726	$3,529	$3,600	$4,442	$3,900	$3,777	$4,152	$3,930	$4,008	$4,089	$4,170	$4,254	$4,339	$4,426	$4,514	$85,067	$85,067
Engineering Monitoring																						
Aerial Photography			$14,169						$15,957												$30,126	$30,126
Survey - Project Area and Settlement Plates	$52,325		$54,495		$56,638																$163,458	$163,458
Survey - Borrow Area	$41,860																				$41,860	$41,860
Geotechncial Instrumentation for Monitoring Hydraulically Dredged Fill Material	$37,608																				$37,608	$37,608
Monitoring Site Installation, Construction, and Survey O&M	$36,628																				$36,628	$36,628
Vegetation	$7,849		$8,174			$8,674			$9,205			$9,769									$43,671	$43,671
Soil Samples	$4,252				$4,602					$5,086											$13,940	$13,940
RSET	$1,125	$1,149	$1,172	$1,195	$1,219	$1,243	$1,268	$1,294	$1,319	$1,346											$12,330	$12,330
																					$0	$0
Total	$195,265	$7,543	$89,234	$7,847	$72,993	$17,369	$8,326	$8,494	$35,365	$14,232	$7,554	$18,073	$7,860	$8,016	$8,178	$8,340	$8,508	$8,678	$8,852	$9,028	$549,755	$549,755

Appendix D

Field Inspection Form

MAINTENANCE INSPECTION REPORT CHECK SHEET

Project No. / Name: **BA-39 Mississippi River Sediment Delivery System - Bayou Dupont**

Date of Inspection: 5/2/2013 Time: 9:30 am

Structure No. N/A

Inspector(s): Hopkins, Richardi, Plitsch

Structure Description: N/A

Water Level Inside: 1.5' Staff Gage Outside: N/A

Type of Inspection: Annual

Weather Conditions: Partly Cloudy, Light Wind

Item	Condition	Pysical Damage	Corrosion	Photo #	Observations and Remarks
Containment dikes	Good	None	N/A	1 - 3	
Marsh Creation Areas	Good	None	N/A	4	
Highway Casing					Casing not visible, buried.
Railroad Casing					Casing not visible, buried.