

# Coastal Protection and Restoration Authority of Louisiana

## Office of Coastal Protection and Restoration

# 2011 Annual Inspection Report

# **Barataria Bay Waterway East Bank Protection**

State Project Number BA-26 Priority Project List 6

July 26, 2011 Jefferson Parish

#### Prepared by:

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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, 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 April 21, 2011, by Barry Richard of OCPR and Quin Kinler and Mike Trusclair of NRCS. 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). More settlement has been observed in front of the marsh creation portion of the South Shore of the Pen Project (BA-41, Photo #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). Some accretion and vegetation was observed behind the rock structure at the north end of the project.

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

#### VI. Recommendations

#### **Immediate Repairs**

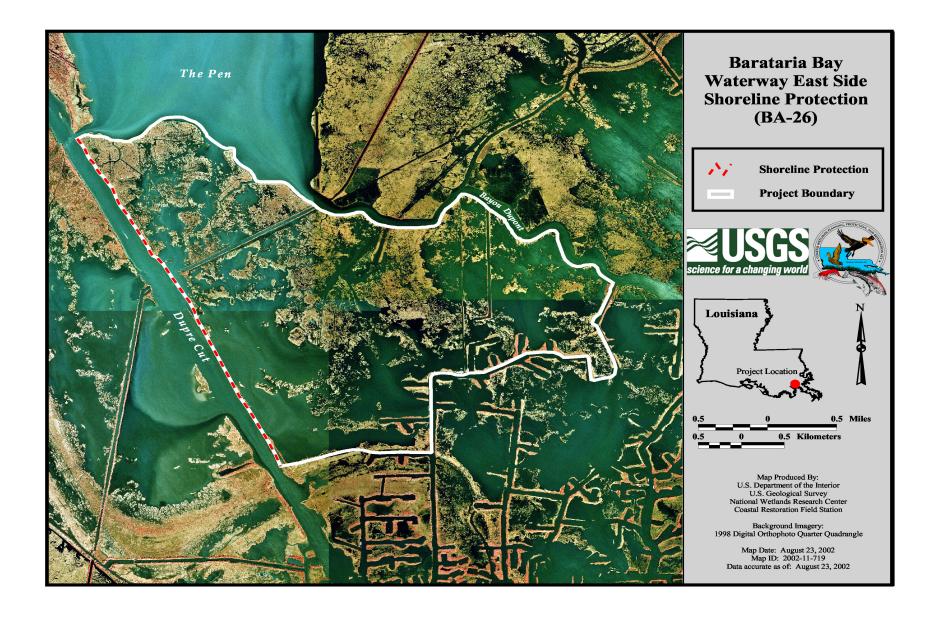
• No immediate repairs are necessary at this time.

#### **Programmed Maintenance**

• Continue to monitor the settlement of the rock structure.

### Appendix A

**Project Features Map** 



**Appendix B** 

**Photographs** 



Photo #1 - Gap.



**Photo #2 – Shoreline Protection.** 



Photo #3 – Accretion.

## **Appendix C**

**Three Year Budget Projection** 

#### Barataria Bay Waterway East Bank Protection (BA-26)

Total Estimated O&M Expenditures (as of April 2010)

\$772,813

Federal Sponsor: NRCS

Construction Completed: 5/2001

PPL 6

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
	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	Budget	Funded
State O&M	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,228,500	\$455,687
Corps Admin	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Federal S&A	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total																					\$1 228 500	\$455 687

Remaining Current 3 year **Projected O&M Expenditures** Project Life Request Maintenance Inspection \$3,753 \$3,851 \$45,899 \$3,658 \$3,951 \$4,054 \$4,159 \$4,267 \$4,378 \$4,492 \$4,609 \$4,728 \$0 General Maintenance \$0 Surveys \$60,000 \$60,000 \$0 \$0 Sign Replacement Federal S&A \$0 \$0 Maintenance/Rehabilitation \$0 E&D \$12,000 \$12,000 \$0 \$300,000 \$300,000 \$0 Construction \$0 Construction Oversight \$75,000 \$75,000 \$63,951 \$391,054 \$492,899 \$3,658 \$3,753 \$3,851 \$4,159 \$4,267 \$4,378 \$4,492 \$4,609 \$4,728 Notes: 1. The year-by-year figures for the current Approved O&M Budget are based on the BEAST approved at the 6/3/09 Task Force meeting. This spreadsheet was a correction to the BEAST submitted for the Fall 2008 funding requests. Current O&M Budget less COE Admin Current Project Life Budget less COE Admin \$1,228,500 \$1,228,500 Remaining Available O&M Budget \$455,687 Total Projected Project Life Budget \$1,265,712 Federal Sponsor MIPRs (if applicable) Incremental Funding Request Amount FY12-FY14 \$37,212 Project Life Budget Request Amount \$37,212

## Appendix D

**Field Inspection Form** 

#### MAINTENANCE INSPECTION REPORT CHECK SHEET

Project No. / Name: BA-26 Barataria Waterway (East) Shoreline Protection Date of Inspection: 4/21/2011 Time: 9:30 am

Structure No. no number assigned Inspector(s): Richard, Kinler, Trusclair

Structure Description: Foreshore Rock Dike Water Level Inside: N/A Outside: 0.80'

Type of Inspection: Annual Weater Conditions: Partly Cloudy, Moderate Wind

Item	Condition	Pysical Damage	Corrosion	Photo #	Observations and Remarks
Foreshore					small gap at approx. coordinates N29.61380, W090.07904
Rock Dike	Good	small gap	None	1, 2, 3	some settlement, no action, continue observing
Settlement Plates	Good	None	None		
Signage					
/Supports	Good	None	None		