



Coastal Protection and Restoration Authority of Louisiana

Office of Coastal Protection and Restoration

2011 Annual Inspection Report

Bayou Chevee Shoreline Protection

State Project Number PO-22
Priority Project List 5

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Orleans Parish

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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 Bayou Chevee Shoreline Protection Project (PO-22) is located within the northern section of the Bayou Sauvage National Wildlife Refuge, approximately 2 miles west of Chef Pass. Project features are located entirely in Orleans Parish and the project area encompasses 212 acres. The site was inspected on January 15, 2009, by representatives of OCPR.

II. Project Description and History

On December 7, 2001, construction of the Bayou Chevee project, located on the southern shoreline of Lake Pontchartrain, was completed. The project is divided into two areas, the North Cove area and the South Cove area (Appendix A). The rock dike protects both areas from shoreline erosion.

High wave energies associated with Lake Pontchartrain and Chef Pass have caused extensive erosion along the southern Lake Pontchartrain shoreline that has been estimated to average 15 feet per year. Thus, without the project, the shoreline erosion would have amounted to 300 feet in 20 years. The project was intended to alleviate this problem through the construction of 8,875 feet (extended from the originally planned 5,690 feet by contract modification) of new rock dike that extends across both the North and South Coves. A pre-existing U.S. Fish and Wildlife Service rock dike located between the North Cove and the South Cove serves to link the dike sections into one continuous rock structure.

The principal project features include:

1. Rock dike – North Cove. Dike length = 4,825 feet.
2. Rock dike – South Cove. Dike length = 4,050 feet.
3. Both dikes were constructed with following dimensions:
 - a. Height – 3.6 feet.
 - b. Crown width – 4.9 feet.
 - c. Two fish dips on each of North Cove and South Cove dikes.
 - d. Settling plate on east-southeast side of each fish dip
4. Flotation channels were constructed along the length of the dikes. The Channels were constructed a minimum of 82 feet from the center of the dike and silted in shortly after construction.

III. Inspection Purpose and Procedures

The purpose of the annual inspection of the Bayou Chevee Shoreline Protection Project (PO-22) 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 September 3, 2003). 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 Bayou Chevee Shoreline Protection Project (PO-22) was held on May 2, 2011, by representatives of OCPR Barry Richard and Kyle Breaux, and Billy Hicks of the USACE. At the time of the inspection the water level at the Chef Pass Gauge was 1.2 feet NAVD88. Photographs from an inspection are included in Appendix B of this report.

IV. Inspection Results

Rock Rip Rap

There was no visible damage to the dikes. The southern reach and the southern portion of the northern reach are showing noticeable signs of settlement. The northern portion of the northern reach is still at an acceptable grade.

V. Conclusions

While the water level was higher than normal, the settlement of approximately 70% of the project feature was evident. At some points it was below the water level and at most it was just above. The northern section of the project is still at an acceptable elevation to provide shoreline protection, however the majority of the project is low enough that it is providing little or no protection to the shoreline from normal and abnormal tidal actions.

VI. Recommendations

It is recommended that a lift be conducted for the portions of the project that are no longer performing as designed.

Immediate Repairs

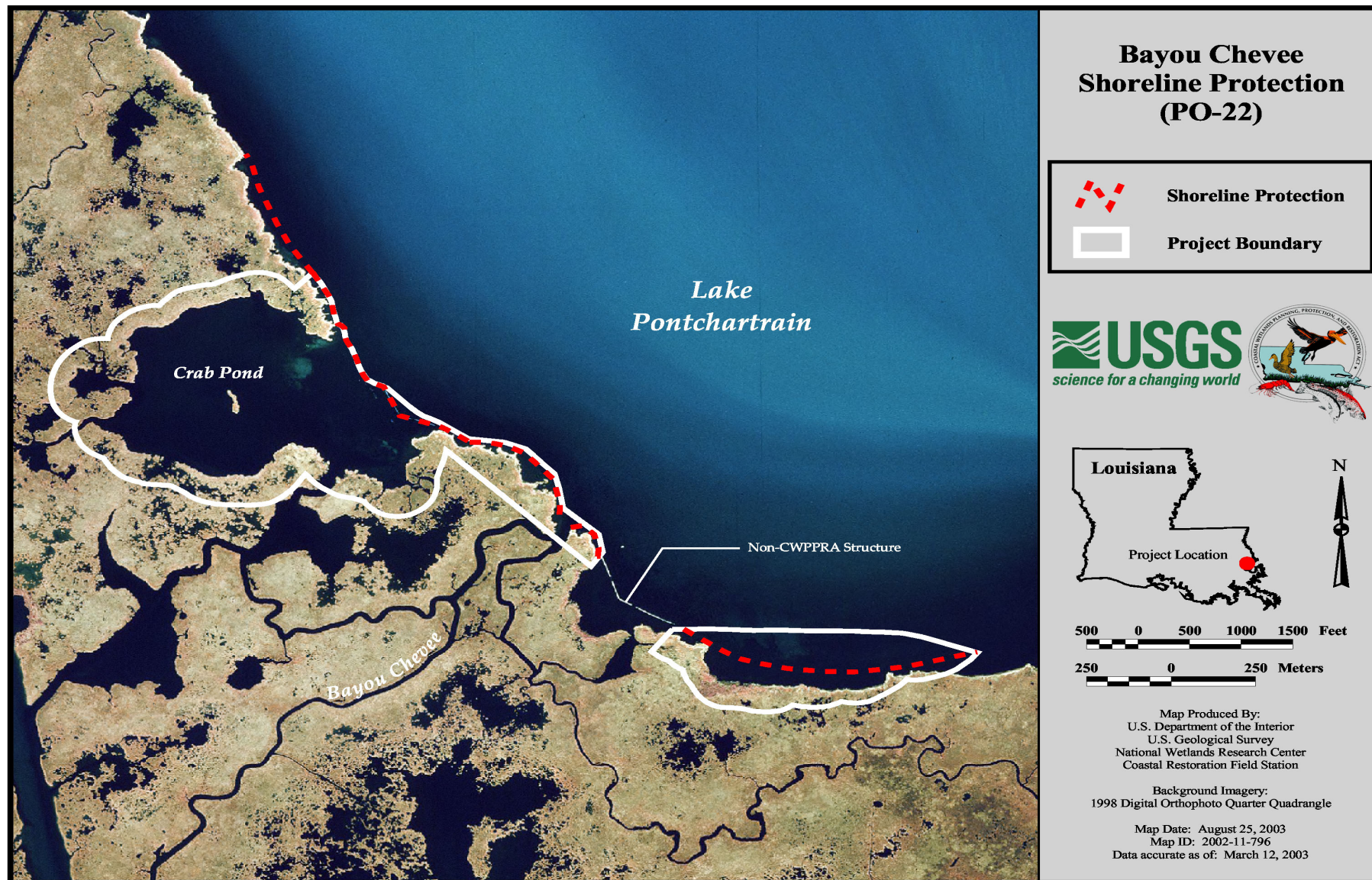
- Add rock to low sections of dike.

Programmed Maintenance

- None at this time.

Appendix A

Project Features Map



Appendix B

Photographs



Photo #1 – A low portion of Southern Reach.



Photo #2 – Acceptable portion of Northern Reach.

Appendix C

Budget

Annual Inspection Report
Bayou Chevee Shoreline Protection
State Project No. PO-22

Bayou Chevee Shoreline Protection Project (PO-22)

Federal Sponsor: USACE

Construction Completed : December 7, 2001

PPL 5

Current Approved O&M Budget June 2009	Year 0 FY03	Year - 1 FY04	Year -2 FY05	Year -3 FY06	Year -4 FY07	Year -5 FY08	Year -6 FY09	Year -7 FY10	Year -8 FY11	Year -9 FY12	Year -10 FY13	Year -11 FY14	Year -12 FY15	Year -13 FY16	Year -14 FY17	Year -15 FY18	Year -16 FY19	Year - 17 FY20	Year -18 FY21	Year -19 FY22	Project Life Budget	Currently Funded
State O&M	\$0	\$3,940	\$0	\$0	\$4,255	\$0	\$206,911	\$4,596	\$0	\$0	\$0	\$5,093	\$0	\$0	\$0	\$5,644	\$0	\$0	\$0	\$6,254	\$236,693	\$236,693
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																					\$236,693	\$236,693

Projected O&M Expenditures																					Remaining Project Life	Current 3 year Request
Maintenance Inspection		\$3,940			\$4,255			\$4,596				\$5,093				\$5,644				\$6,254	\$16,991	\$5,093
General Maintenance																					\$0	\$0
Surveys																					\$0	\$0
Sign Replacement																					\$0	\$0
Federal S&A																					\$0	\$0
Maintenance/Rehabilitation																					\$0	\$0
E&D							\$11,711														\$0	\$0
Construction							\$166,666														\$0	\$0
Construction Oversight							\$28,534														\$0	\$0
Total					\$4,255	\$0	\$206,911	\$4,596	\$0	\$0	\$0	\$5,093	\$0	\$0	\$0	\$5,644	\$0	\$0	\$0	\$6,254	\$16,991	\$5,093

O&M Expenditures from COE Report	\$30,866	Current O&M Budget less COE Admin	\$236,693	Current Project Life Budget less COE Admin	\$236,693
State O&M Expenditures not submitted for in-kind credit	\$0	Remaining Available O&M Budget	\$205,827	Total Projected Project Life Budget	\$47,857
Federal Sponsor MIPRs (if applicable)	\$0	Incremental Funding Request Amount FY12-FY14	-\$200,734	Project Life Budget Request Amount	-\$188,836
Total Estimated O&M Expenditures (as of April 2010)	\$30,866				

Appendix D

Field Inspection Form

MAINTENANCE INSPECTION REPORT CHECK SHEET

Project No. / Name: **PO-22 Bayou Chevee Shoreline Protection**

Date of Inspection: 5/2/11

Time: 9:30 am

Structure No. no number assigned

Inspector(s): Richard, Breaux, Hicks

Structure Description: Foreshore Rock Dike

Water Level

Inside: 1.2'

Outside: 1.2'

Type of Inspection: Bi-Annual

Weather Conditions: Cloudy, medium wind

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Foreshore Rock Dike North Cove	Fair	Settling	None		
					North end looking good. South end settling below acceptable grade.
Foreshore Rock Dike South Cove	Poor	Settling	None		
					Settling below acceptable grade.
USFWS Dike Segment	Poor	Settling	None		
					Settled below acceptable grade.
Exposed Shore South of Dike	Poor	Inundated/ Washed Away	N/A		
					This is recovering, but the process is slow. Needs protection.
					Remarks: Project needs maintenance lift.