



**State of Louisiana**

**Coastal Protection and Restoration  
Authority of Louisiana (CPRA)**

**2011/2012 Annual Inspection  
Report**

for

**VERMILION RIVER CUT-OFF  
BANK EROSION PROTECTION  
PROJECT (TV-03)**

State Project Number TV-03  
Priority Project List 1

April 12, 2012  
Vermilion Parish

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## **I. Introduction**

The Vermilion River Cut-Off Project (State Project No. TV-03) is located in the Teche-Vermilion Basin on the eastern bank of the Vermilion River Cut-Off in Vermilion Parish just south of the town of Intracoastal City. (See Appendix A).

The Vermilion River Cut-Off Project was authorized by Section 303(a) of Title III Public Law 101-646, the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) enacted on November 29, 1990 as amended and approved on the first Priority Project List. The Vermilion River Cut-Off Project has a twenty –year (20 year) economic life, which began in March 1996.

## **II. Inspection Purpose and Procedures**

The purpose of the annual inspection of the Vermilion River Cut-Off Project (TV-03) 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, 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, 2003). The annual inspection report also contains a summary of maintenance projects which were completed since completion of constructed project features 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 Vermilion River Cut-Off Project are outlined in Section IV.

An inspection of the Vermilion River Cut-Off Project (TV-03) was held on April 12, 2012 under partly cloudy skies and warm temperatures. In attendance were Stan Aucoin and Jody White from CPRA, and John Foret from NOAA for other projects. All parties met at the Lafayette Field Office of CPRA and proceeded to the public boat launch in Intracoastal City in Vermilion Parish, LA. The annual inspection began at approximately 12:00 pm at the southern end of the rock dike on the Vermilion River Cut-Off.

The field inspection included a complete visual inspection of the entire project site. Staff gauge readings were used, when available, to determine approximate elevations of water and rock weirs. Photographs were taken at each project feature (see Appendix B) and Field Inspection notes were completed in the field to record measurements and deficiencies (see Appendix D).

## **III. Project Description and History**

Wetlands in their natural state are among the most productive areas on earth, and they are central to the culture and development of south Louisiana. The Coastal Wetlands Planning, Protection and Restoration Act provides a substantial federal commitment to

help Louisiana save its coastal wetlands. The wetlands are a fragile environment, which is disappearing at a rate of over 25 square miles of marsh a year in Louisiana, which is 80 percent of the nation's annual coastal wetland loss. The wetlands provide many benefits including commercial and recreational value, wildlife habitat, wintering habitat for millions of the continent's migratory ducks and geese, nursery habitat for one of America's largest fish and shellfish harvests, erosion control, flood protection and acting as storm buffers. Additionally the wetlands help maintain water quality.

The Vermilion River Cutoff, near Intracoastal City, La., was constructed in 1944 to connect the Vermilion River and the Gulf Intracoastal Waterway (GIWW) with Vermilion Bay for navigational purposes. It is located in the Teche-Vermilion Basin in Vermilion Parish. The Vermilion River Cutoff Bank Erosion Protection Project (T/V-03) consists of approximately 6,200 linear feet of rock breakwater along the eastern embankment of the Vermilion River Cutoff Channel in the vicinity of Onion Lake and Onion Bayou. The project has a twenty-year economic life, which began in March of 1996.

In the time period since the construction of the Vermilion River Cutoff in 1944, a large section of the west bank of the cutoff has eroded as a result of both bay-side wave action and boat wakes within the cutoff. Erosion of the west bank of the Vermilion River Cutoff, (estimated at 23.3 ft/yr from comparisons of 1955-1985 aerial photography), has occurred to the extent that the land bridge between the cutoff and Vermilion Bay, to the west, is breached in several places. The breaches were allowing wind driven waves from the bay to cross the cutoff and attack the east bank. Thus, erosion on the east bank was also occurring at an accelerated rate. The erosion on the east bank threatened to breach the land bridge between the cutoff and Onion Lake. The purpose of the project was to take action to protect the east bank and prevent the scale of deterioration that has occurred on the west bank. The specific plan objectives were:

- 1) Maintain and protect approximately 54 acres of brackish marsh along the eastern side of the Vermilion River Cutoff that will contribute to protecting the integrity of several thousand acres of the Onion Lake wetland complex.
- 2) Prevent the Vermilion River Cutoff from widening into adjacent marshes.

The principal project features include:

- Site 1 - Foreshore Rock Dike (approximately 6,200 linear feet)

#### **IV. Summary of Past Operation and Maintenance Projects**

**General Maintenance:** Below is a summary of completed maintenance projects and operation tasks performed since March 1996, the construction completion date of the Vermilion River Cut-Off Project.

**September 2005 - Luhr Brothers, Inc.:**

Luhr provided labor and materials to restore the rock dike to original constructed elevations. Approximately 5,573 tons of rock was placed over the sections of dike that were below permitted elevation of +3.5 NAVD88. The project was completed in September, 2005.

**Total Construction Cost                      \$130,655.45**

**December 2011 Staff Gauge:**

Installed a staff gauge in Vermilion River Cutoff near Onion Lake at N 29° 46'21.73", W 92° 07' 55.95".

**Structure Operations:** There are no active operations associated with this project.

## **V. Inspection Results**

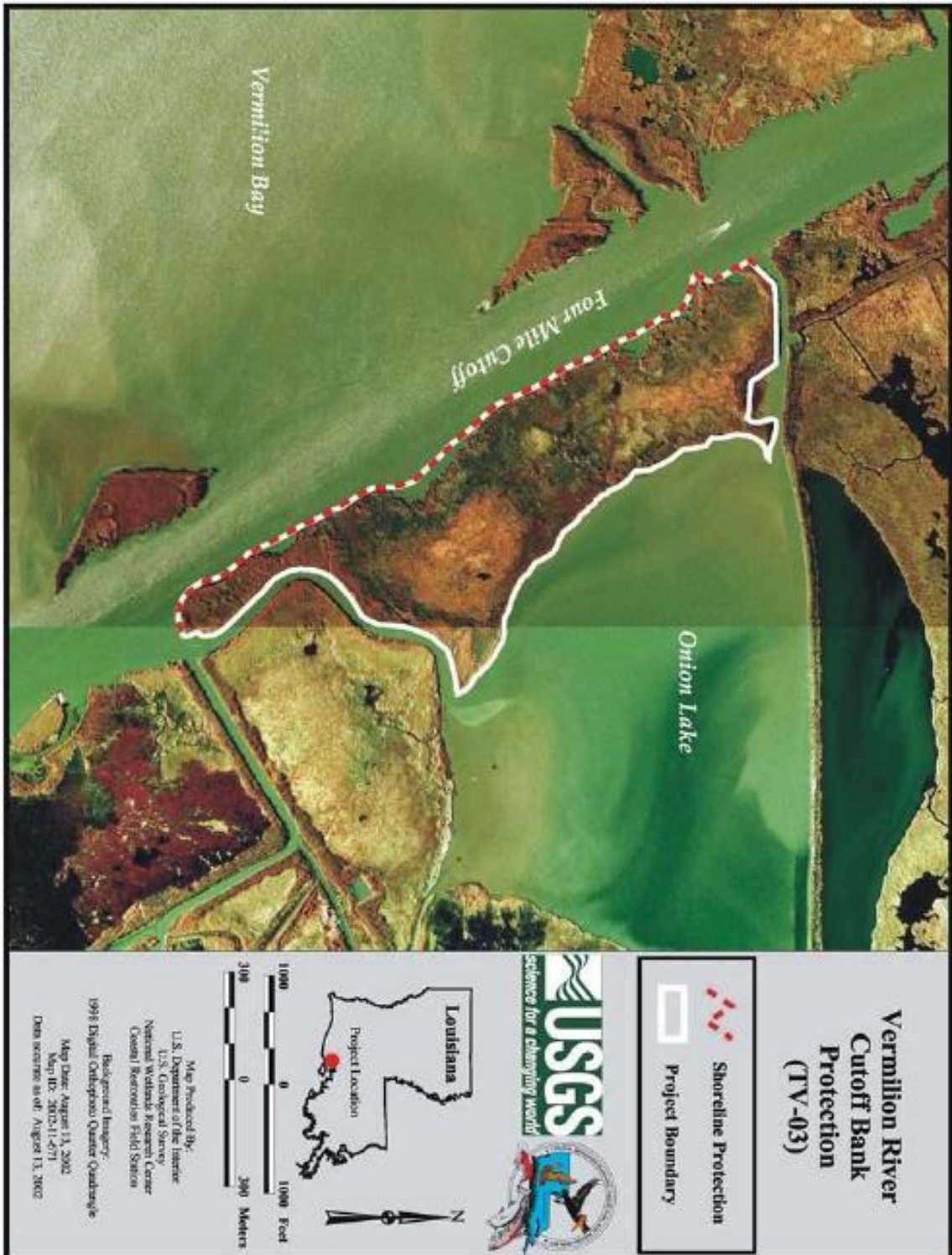
### **Site 1—Foreshore rock dike**

The foreshore dike is in excellent condition with no maintenance required or foreseen. A staff gauge has been installed on the northern end of the rock dike. Water level at the time of this inspection was +1.2 NAVD. (Photos, Appendix B, Photos 1-2).

## **VI. Conclusions and Recommendations**

The Vermilion River Cut-Off Project is in very good condition and functioning as designed. There is no need for any maintenance at this time.

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



**Appendix B**  
**Photographs**





**Photo No. 1**—south end of dike



**Photo No. 2**—north end of dike

**Appendix C**  
**Three Year Budget Projection**

**VERMILION RIVER CUT OFF/ TV-03 / PPL 1**  
**Three-Year Operations & Maintenance Budgets 07/01/2012 - 06/30/2015**

<u>Project Manager</u> Pat Landry	<u>O &amp; M Manager</u> Stan Aucoin	<u>Federal Sponsor</u> COE	<u>Prepared By</u> Stan Aucoin
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	2012/2013 (-17)	2013/2014 (-18)	2014/2015 (-19)
<i>Maintenance Inspection</i>	\$ 6,269.00	\$ 6,457.00	\$ 6,651.00
<i>Structure Operation</i>			
<i>State Administration</i>		\$ -	\$ -
<i>Federal Administration</i>		\$ -	\$ -

**Maintenance/Rehabilitation**

12/13 Description:

E&D	
Construction	
Construction Oversight	
Sub Total - Maint. And Rehab.	\$ -

13/14 Description:

E&D	\$ -
Construction	\$ -
Construction Oversight	\$ -
Sub Total - Maint. And Rehab.	\$ -

14/15 Description:

E&D	\$ -
Construction	\$ -
Construction Oversight	\$ -
Sub Total - Maint. And Rehab.	\$ -

	2012/2013 (-17)	2013/2014 (-18)	2014/2015 (-19)
<b><u>Total O&amp;M Budgets</u></b>	<b>\$ 6,269.00</b>	<b>\$ 6,457.00</b>	<b>\$ 6,651.00</b>

<b><u>O &amp; M Budget (3 yr Total)</u></b>	<b>\$ 19,377.00</b>
<b><u>Unexpended O &amp; M Budget</u></b>	<b>\$ 22,774.00</b>
<b><u>Remaining O &amp; M Budget (Projected)</u></b>	<b>\$ 3,397.00</b>

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

Annual Inspection Report  
 VERMILION RIVER CUT-OFF PROJECT  
 State Project No. TV-03

MAINTENANCE INSPECTION REPORT CHECK SHEET

Project No. / Name: TV-03 Vermilion River Cut-Off

Date of Inspection: April 12, 2012 Time: 12:10pm

Structure No. N/A

Inspector(s): Stan Aucoin, Jody White (CPRA)  
 John Foret (NMFS)

Structure Description: Foreshore Rock Dike

Water Level - 1.2ft  
 Weather Conditions: sunny & mild

Type of Inspection: Annual

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Steel Bulkhead / Caps	N/A				
Steel Grating	N/A				
Stop Logs	N/A				
Hardware	N/A				
Timber Piles	N/A				
Timber Wales	N/A				
Galv. Pile Caps	N/A				
Cables	N/A				
Signage / Supports	N/A				
Rip Rap (fill) (foreshore dike)	Good			1,2	The foreshore dike was just recently elevated to original permitted height.
Earthen Embankment	N/A				

What are the conditions of the existing levees?  
 Are there any noticeable breaches?  
 Settlement of rock plugs and rock weirs?  
 Position of stoplogs at the time of the inspection?  
 Are there any signs of vandalism?