



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

**2022 Annual Inspection Report**

for

**Goose Point / Point Platte Marsh  
Creation Project**

State Project Number PO-33  
Priority Project List PPL-13

July 2022  
St. Tammany Parish

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for  
Goose Point / Point Platte Marsh Creation Project  
(PO-33)**

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## **I. Introduction**

The Goose Point / Point Platte Marsh Creation Project (State Project No. PO-33) was approved on the 13<sup>th</sup> Priority Project List.

The PO-33 project is located on the north shore of Lake Pontchartrain in St. Tammany Parish, within the Big Branch Marsh National Wildlife Refuge. Two marsh creation cells (A & B) are located at Goose Point, and the other three cells (C, D, & E) were built east of Point Platte. The marsh creation cells were constructed using sediment hydraulically dredged from Lake Pontchartrain. All necessary agreements to allow project construction and operation have been executed between the Louisiana Coastal Protection and Restoration Authority (CPRA) and the U.S. Fish and Wildlife Service (USFWS).

A site map showing the project boundaries is included in Appendix A.

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

The purpose of the annual inspection of PO-33 is to evaluate the constructed project features to identify any deficiencies and to prepare a report detailing the condition of project features and recommending corrective actions needed. Should it be determined that corrective actions are needed, CPRA shall provide a detailed cost estimate for engineering, design, supervision, inspection, and construction contingencies, and an assessment of the urgency of such repairs. The annual inspection report also contains a summary of maintenance projects (See Section IV) and an estimated budget (See Appendix B) for the upcoming three (3) years for operation, maintenance and rehabilitation.

This annual inspection of PO-33 was performed on June 9, 2022. Taking part in the inspection were Taylor Chassaignac of CPRA, the non-federal sponsor, and Kevin Roy and Danny Breaux of USFWS, the federal sponsor. Weather on June 9<sup>th</sup> consisted of mostly cloudy skies and a temperature of approximately 90° F. The USGS gage at nearby Bayou Liberty showed a water level of approximately +1' NAVD 88 at the time of the inspection. All five marsh creation cells were visited. Photographs of the inspection are included in Appendix C of this report.

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

There has been a long history of wetland loss in the project area. Interior ponding, and to a lesser extent shoreline erosion, are the major causes of this wetland loss. Interior marsh loss rates for the Goose Point and Point Platte area were highest during the period from 1956 to 1978 and are estimated to be 31.3 acres/year and 10.42 acres/year, respectively during that period (McCarty 2001). Those high loss rates are associated with hydrologic alterations (construction of Lake Road and two large pipeline canals) which allowed saltwater to penetrate the fresher sawgrass marshes. During the transition to a more brackish marsh hay cordgrass (*Spartina patens*) community, large ponds were formed (McCarty 2001). An extensive seismic survey and the associated marsh buggy traffic



conducted in the early 1970's may have worsened the condition of the already stressed marsh (McCarty 2001). The more current loss rates for those same areas from 1978 to 1995 are estimated by McCarty to be 6.42 acres/year and 5.54 acres/year, respectively.

The goal for this project was to recreate marsh habitat in open water behind the existing shoreline. The principal project features as constructed include 620 linear feet of composite sheet pile along the lake rim at Cells D and E, 49,557 linear feet of earthen perimeter containment dikes, 417 acres of marsh creation, and 195 acres of marsh nourishment among five (5) marsh creation cells as distributed below:

**Cell A** – approximately 479,903 cubic yards of dredge material was placed in Cell A creating approximately 64 acres of new marsh and some 23 acres of marsh nourishment.

**Cell B** – approximately 949,700 cubic yards of dredge material was placed in Cell B creating approximately 125 acres of new marsh and some 77 acres of marsh nourishment.

**Cell C** – approximately 863,176 cubic yards of dredge material was placed in Cell C creating approximately 120 acres of new marsh and some 49 acres of marsh nourishment.

**Cell D** – approximately 149,370 cubic yards of dredge material was placed in Cell D creating approximately 13 acres of new marsh and approximately 6 acres of marsh nourishment.

**Cell E** – approximately 658,770 cubic yards of dredge material was placed in Cell E creating approximately 95 acres of new marsh and approximately 40 acres of marsh nourishment.

The project was accepted on February 12, 2009.

Annual project inspections are included in the O&M Plan, but the project team has jointly decided to conduct biannual inspections for this project. The Project has a 20 year economic life, which began at completion of construction in 2009.

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

There are no operable structures in the project.

A marsh grass planting project was completed in the shallow open-water areas in Cells A, B, C, and E. This effort was completed in early 2014 at a cost of \$194,778.50. Several additional volunteer-led plantings have been completed by USFWS in the project area.

In 2020, the Tidal Features Maintenance Project was completed to re-establish hydraulic connections and water flow. This involved the construction of 4,923 linear feet of tidal creeks and the installation of 13 dike gaps for a total cost of \$153,746.78. The tidal features maintenance project was accepted on February 9, 2021.



## **V. Inspection Results**

The marsh creation areas generally appear to be in a good condition. The marsh appears to be healthy, and the recently constructed creeks and gaps appear to be functioning by creating hydraulic connections to areas that were previously impounded. The composite sheet pile along the lake rim appears to be eroding at the ends of each section. See the description of the existing condition of each of the project features on the Field Inspection Form (Appendix D).

## **VI. Conclusions and Recommendations**

### **Project Condition**

CPRA concludes that the Goose Point / Point Platte Marsh Creation Project (PO-33) is achieving the project objective to create and nourish marsh.

### **Immediate Repairs**

USFWS is interested in removing the composite sheet pile along the lake rim at Cells D & E in an effort to stop further erosion at the ends of the sheet pile segments. However, the current project budget does not support this. This may be considered at the project end of life.

### **Programmed Maintenance**

Continue to inspect the project features biannually to document and assess site conditions.

## **VII. References**

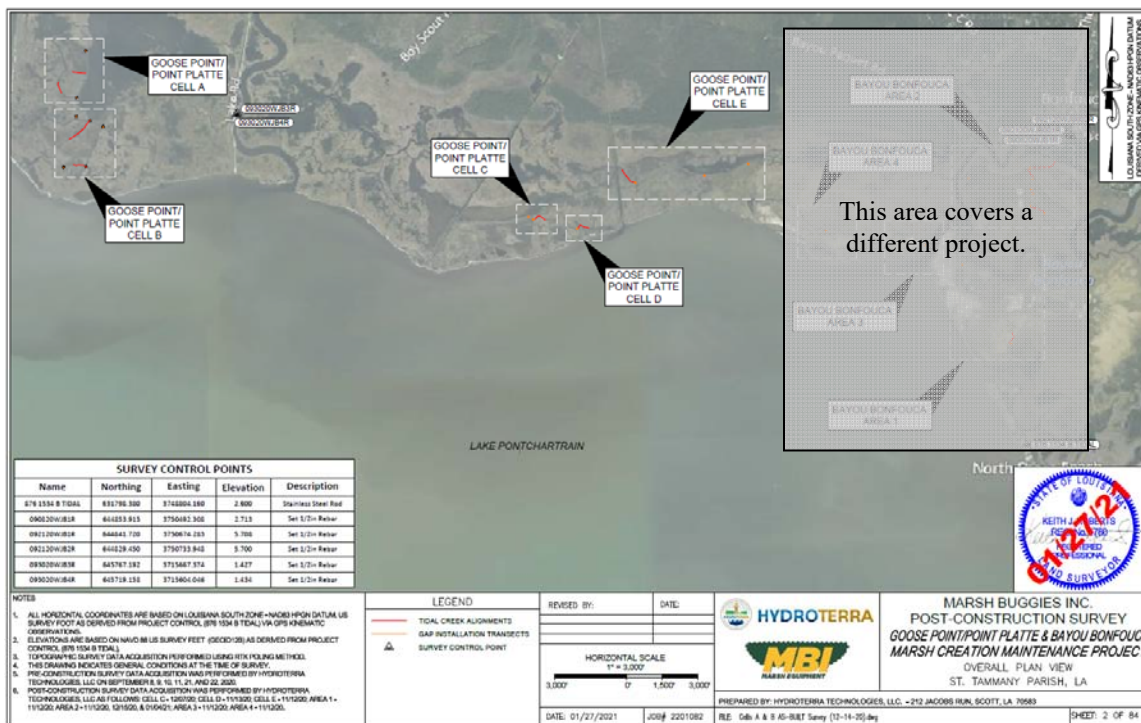
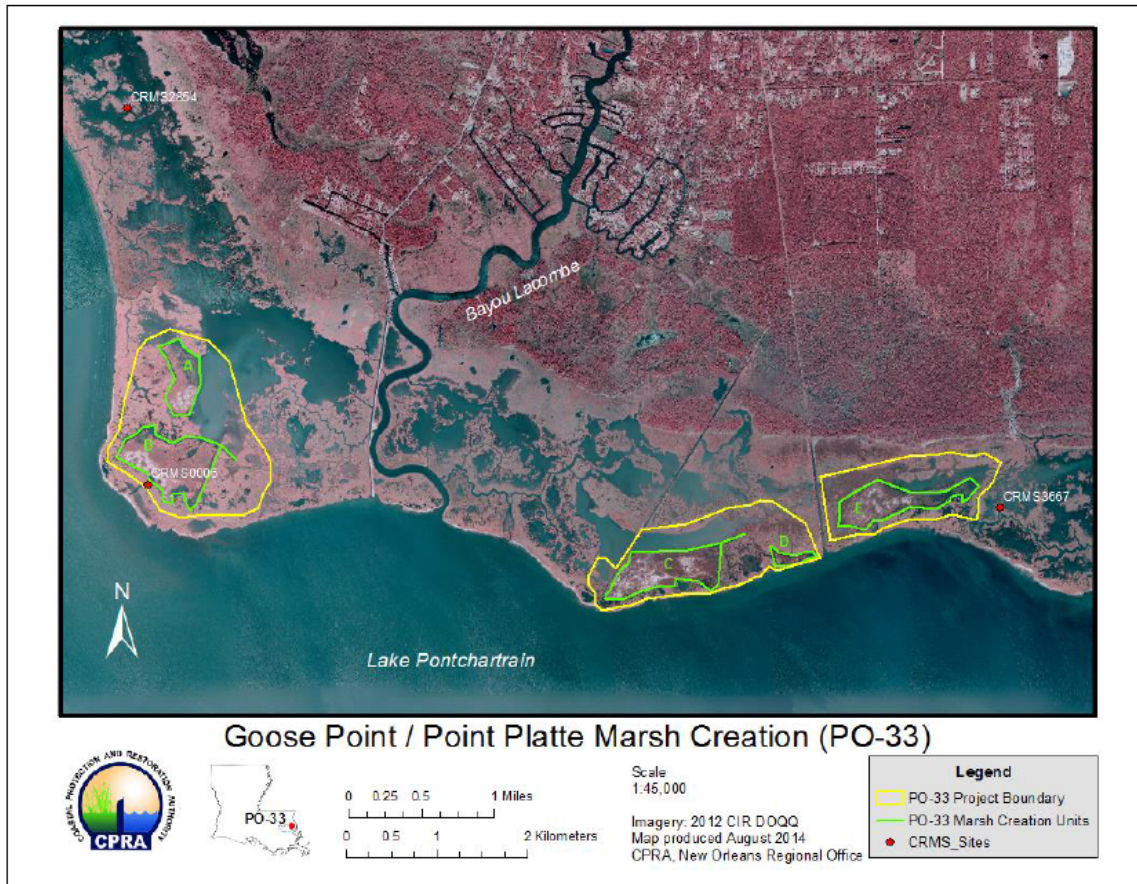
McCarty, P. V. 2001. The Genesis of the Big Branch Coastal Wetlands: The Geologic and Geomorphic Evolution of the Bayou LaCombe Area, Late Pleistocene to the Present. Master's Thesis, Department of Geology, University of New Orleans. New Orleans, Louisiana.



**Appendix A**

**Project Features Map**





Tidal Features Map

## **Appendix B**

### **Three-Year Operations & Maintenance Budget**



Goose Bayou/Point Platte Marsh Creation Project (PO-33)  
Federal Sponsor: USFWS  
Construction Completed: January 2009  
PPL #13

	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	Year 20	Project Life	Currently				
Current Approved O&M Budget	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Budget	Funded				
State O&M	\$3,156	\$3,222	\$571,227	\$3,359	\$3,430	\$3,502	\$3,575	\$3,650	\$3,727	\$3,805	\$3,885	\$3,967	\$4,050	\$4,135	\$4,222	\$4,311	\$4,401	\$4,494	\$4,588	\$4,684	\$645,391					
Corps Admin	\$762	\$778	\$794	\$811	\$828	\$845	\$863	\$881	\$900	\$919	\$938	\$958	\$978	\$998	\$1,019	\$1,041	\$1,062	\$1,085	\$1,107	\$1,131	\$18,696					
Federal S&A	\$2,938	\$3,000	\$3,630	\$3,128	\$3,193	\$3,260	\$3,329	\$3,399	\$3,470	\$3,543	\$3,617	\$3,693	\$3,771	\$3,850	\$3,931	\$4,013	\$4,098	\$4,184	\$4,272	\$4,361	\$72,680					
Total	\$6,856	\$7,000	\$575,652	\$7,298	\$7,451	\$7,607	\$7,767	\$7,930	\$8,097	\$8,267	\$8,440	\$8,618	\$8,799	\$8,983	\$9,172	\$9,365	\$9,561	\$9,762	\$9,967	\$10,176	\$736,767	\$649,797				
																									Remaining	Current 3 year
Projected O&M Expenditures																									Project Life	Budget
Maintenance Inspection															\$6,316			\$10,106			\$6,999		\$23,421		\$16,422	
General Maintenance																							\$0		\$0	
Structure Operations																							\$0		\$0	
Corps Admin																							\$0		\$0	
Federal S&A															\$2,105			\$4,654			\$2,105		\$8,865		\$6,759	
State S&A																							\$12,000		\$12,000	
Construction																							\$0		\$0	
Professional Services:																							\$0		\$0	
E&D																							\$0		\$0	
Engineering Surveying																							\$70,000		\$70,000	
Construction Administration																							\$0		\$0	
Inspection																							\$0		\$0	
Total															\$8,421	\$0	\$96,760	\$0	\$9,104	\$0	\$114,286	\$105,181				

Note: Currently Funded amount is as of the April 2022 LANA report, the most recent LANA report that CPRA has received.

## **Appendix C**

### **Photographs**



**Photo 1: Cell A**

Marsh area (on right side of photo) viewed from southern tidal creek



**Photo 2: Cell B**

Marsh creation area viewed from northern tidal creek





**Photo 3: Cell C**  
Healthy marsh in Cell C



**Photo 4: Cell D**  
Healthy marsh in Cell D with earthen containment dike (ECD) in background





**Photo 5: Cell D**

Western segment of Cell D composite sheet pile on lake rim. One sheet is missing near the middle of the segment. The shoreline is eroding at the eastern extent of the sheet pile (right side of photo) but appears to be solid on the western extent of the sheet pile (left side of photo).



**Photo 6: Cell D**

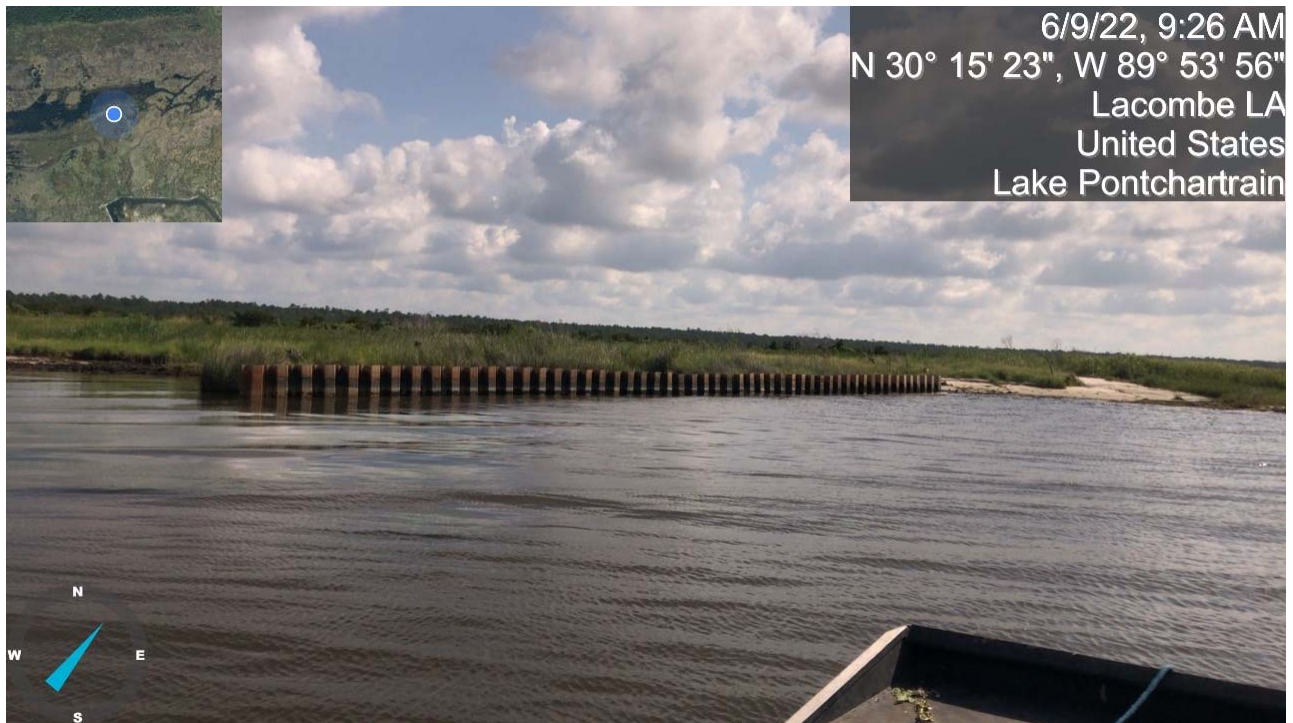
Eastern segment of Cell D composite sheet pile on lake rim. Some damage and erosion is noted here at the western extent of the sheet pile segment.





**Photo 7: Cell D**

Eastern segment of Cell D composite sheet pile on lake rim. Some damage and erosion is noted here at the eastern extent of the sheet pile segment.



**Photo 8: Cell E**

Cell E composite sheet pile on lake rim. The shoreline is erosion at the eastern extents of the sheet pile.



6/9/22, 8:53 AM  
N 30° 15' 35", W 89° 54' 10"  
Lacombe LA 70445  
United States

**Photo 9: Cell E**  
Healthy marsh in Cell E



**Appendix D**

**Field Inspection Form**

### FIELD INSPECTION CHECK SHEET

**Project No. / Name:** Goose Point / Point Platte M.C. (PO-33)

**Date:** 6/9/2022

**Time:** 8:00 AM

**Structure No. :** n/a

**Inspector(s):** Taylor Chassaignac (CPRA), Kevin Roy (USFWS), Danny Breaux (USFWS)

**Description:** Marsh creation fill areas

**Water Level:** +1' NAVD 88 (Bayou Liberty gage)

**Type of Inspection:** Biannual

**Weather Cond:** Mostly cloudy

Project Feature	Condition	Physical Damage	Photo #	Observations and Remarks
<u>Cell A</u>	Good	None	1	The marsh appears to be healthy.
<u>Cell B</u>	Very Good	None	2	The marsh appears to be healthy.
<u>Cell C</u>	Very Good	None	3	The marsh appears to be healthy.
<u>Cell D</u> Vinyl Sheet Pile	Very Good	Minor	4-7	The marsh appears to be healthy. There is some minor damage to the sheet pile. At the extents of some of the sheet pile segments, the shoreline is eroding.
<u>Cell E</u> Vinyl Sheet Pile	Very Good	Minor	8-9	The marsh appears to be healthy. There is some minor damage to the sheet pile. At the extents of sheet pile segments, the shoreline is eroding.