State of Louisiana
Coastal Protection and Restoration Authority

2016 Annual Inspection Report

for

GOOSE POINT / POINT PLATTE MARSH CREATION PROJECT

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

April 28, 2016
St. Tammany Parish

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I. Introduction

The Goose Point/Point Platte Marsh Creation Project (PO-33) 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. The PO-33 project was approved on the 13th 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 approximate coordinates of the project areas are: Goose Point – 30° 15’ 58.43” N latitude, 89° 58’ 40.44” W longitude; Point Platte – 30° 15’ 11.63” N latitude, 89° 55’ 17.25” W longitude. 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 CPRA and the U.S. Fish and Wildlife Service (FWS). A site map included in Appendix A shows the project boundary and all project features.

II. Inspection Purpose and Procedures

The purpose of the annual inspection is to evaluate the constructed project features, to identify any deficiencies, and to prepare a report detailing the condition of the features and recommended corrective actions needed. Should it be determined that corrective actions are required, 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 (OM&R Plan February 1, 2012). This annual inspection report also contains a summary of possible maintenance projects and an estimated 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. The summary of any past maintenance projects completed since the initial construction of the Goose Point/Point Platte Marsh Creation Project in 2009, if any, will be outlined in Section IV.

This annual inspection of the PO-33 project was held on April 11, 2016 on a mostly cloudy day with winds out of the south-southeast at 17 mph. In attendance were Luke Prendergast and Bryan Gossman (CPRA), along with Danny Breaux (FWS). The inspection was made using an airboat furnished by FWS. Photographs of that inspection are included in Appendix B 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 marshhay 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.

Goals: 1) Create 437 acres of emergent marsh through the deposition of dredged material into open water areas.

2) Nourish/enhance 114 acres of emergent marsh by adding a layer of sediment to the existing marsh surface.

The Project has a twenty-year (20 year) economic life, which began upon completion of construction in 2009.

The principal project features include:

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

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

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

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

**Fill Area E** – approximately 658,770 cubic yards of dredge material was placed in Fill Area E creating approximately 95 acres of new marsh, not including the marsh nourishment area.

The proposed design was to stack dredged material 1.0 ft. above average marsh elevation. Final target elevations depended on the results of geotechnical investigations. Dewatering and compaction of dredged sediments should produce marsh elevations conducive to establishment of emergent marsh and within the intertidal range. It was expected, if necessary, that the created marsh platform could be planted with a combination of marshhay cordgrass and smooth cordgrass (*Spartina alterniflora*).

The work site, including the five marsh fill areas and two dredge borrow sites, is only accessible by boat. A public launch is located on Lake Road (an extension of LA 434)
along Bayou Lacombe, approximately 0.5 miles from Lake Pontchartrain and two miles from the marsh areas.

This project created approximately 566 acres of new marshland areas by dredging material from Lake Pontchartrain and disposing into designated on-shore fill areas along the Lake Pontchartrain shore at Goose Point and east of Point Platte. The Goose Point borrow site was the source of materials being placed into Fill Areas A and B. The Point Platte Borrow Site was the source of materials being placed into Fill Areas C, D, and E. A total of 49,557 linear feet of earthen perimeter containment dikes were constructed with adjacent material from inside the perimeters of the five marsh creation areas. These perimeter dikes were constructed with long reach marsh buggy backhoes casting from one to three lifts. The contract was later amended to include three sections of vinyl sheet pile on the lake rim of Fill Area D and one section on the lake rim of Fill Area E. A total of 614 linear feet of vinyl sheet pile was placed in weak sections of lake side perimeter dikes that were subject to breach from wave action.

IV. Summary of Past Maintenance Projects

Shallow open-water areas in Fill Areas A, B, C, and E were selected for a marsh grass planting project. This effort was completed in early 2014 at a cost of $194,778.50. Observations of the project results are documented on the Field Inspection Form included in Appendix D.

V. Inspection Results

See the description of the existing condition of each of the Project Features on the Field Inspection Form at the end of this inspection report (Appendix D).

VI. Conclusions and Recommendations

The goal for this project was to recreate marsh habitat in open water behind the existing shoreline. Based on findings from this inspection, the design goal of the project is being met. Recommendation: Continue to inspect the project features annually to document and assess site conditions. If a maintenance need is identified on a future inspection, the project team will determine the necessary corrective action(s) at that time.
APPENDIX A
Project Features Map

Goose Point/Point Platte Marsh Creation Project
CWPPRA PPL 13 Candidate Project

Total Acres Created Marsh: 437
Total Acres Nourished Marsh: 114
Linear Feet of Containment: 17,500
APPENDIX B
Photographs
Area A – Marsh grass plantings with vegetated fill area beyond

Area A – Shrubs observed within the fill area and along the containment rim
Area B – Shallow water in containment borrow area with healthy marsh beyond

Area B – Interior of fill cell is well-vegetated
Area C – Oak tree growing on northern containment berm

Area C – Interior of marsh creation area viewed from north containment rim
Area D — Vinyl sheet pile wall at Lake Pontchartrain shoreline

Area D — Interior of marsh creation area as viewed from lake shore containment
Area E – Vegetated containment berm at north side of fill cell

Area E – Interior of marsh creation area showing healthy vegetation
APPENDIX C
O&M Budget
Goose Bayou/Point Platte Marsh Creation Project (PO‐33)

Federal Sponsor: USFWS

Construction Completed: January, 2009

PPL #13

| Current Approved O&M Budget | 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 Budget | Currently Funded |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------|---------------|
| Corps Admin               | $762   | $778   | $794   | $811   | $845   | $863   | $881   | $900   | $919   | $938   | $958   | $978   | $998   | $1,019 | $1,041 | $1,062 | $1,085 | $1,107 | $1,131 | $18,696 | $9,318  |

Projected O&M Expenditures

| General Maintenance      | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     |
| Structure Operations     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     |
| Corps Admin              | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     |
| State S&A               | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 | $3,000 |
| Construction             | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     |
| Professional Services:  | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     |
| E&D                     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     |
| Engineering Surveying   | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     |
| Construction Administration | $0   | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     |
| Inspection              | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     | $0     |
| Total                   | $7,197 | $7,042 | $7,503 | $7,660 | $7,821 | $7,985 | $8,153 | $8,324 | $8,499 | $8,677 | $8,860 | $9,953 | $10,047 | $10,141 | $10,235 | $10,330 | $10,425 | $10,520 | $259,479 | $99,742 |

Estimated O&M Expenditures to-date: $280,384

Current O&M Budget less COE Admin: $624,599

Current Project Life Budget less COE Admin: $718,072

Remaining Available O&M Budget: $344,215

State O&M Expenditures not submitted for in-kind credit: $0

Total Projected Project Life Budget: $539,863

Incremental Funding Request Amount FY17‐FY19 ($250,473)

Project Life Budget Request Amount ($178,208)
Appendix D
Field Inspection Form
**FIELD INSPECTION CHECK SHEET**

<table>
<thead>
<tr>
<th>Project No. / Name:</th>
<th>Goose Point / Point Platte M.C. (PO-33)</th>
<th>Date:</th>
<th>4/11/2016</th>
<th>Time:</th>
<th>9:00 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure No.:</td>
<td>n/a</td>
<td>Inspector(s):</td>
<td>Prendergast, Gossman, Breaux</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description:</td>
<td>Marsh creation fill areas</td>
<td>Water Level:</td>
<td>0.95' NAVD88 (USACE Mandeville gage)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Inspection:</td>
<td>Annual</td>
<td>Weather Cond:</td>
<td>Mostly cloudy, wind from the SSE at 17 mph</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Features</th>
<th>Overall Condition</th>
<th>Physical Damage</th>
<th>Containment Dikes</th>
<th>Marsh Fill Area</th>
<th>Observations and Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fill Area &quot;A&quot;</td>
<td>Good</td>
<td>None</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Much of the interior containment borrow area remains below the water surface elevation; this condition was anticipated prior to construction. Marsh plantings looked very good, and significant waterfowl activity was observed in this fill area.</td>
</tr>
<tr>
<td>Fill Area &quot;B&quot;</td>
<td>Very Good</td>
<td>None</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Some of the interior containment borrow area remains subsided below the water surface elevation; this condition was anticipated prior to construction and is acceptable. Marsh plantings within the fill cell were well-established.</td>
</tr>
<tr>
<td>Fill Area &quot;C&quot;</td>
<td>Very Good</td>
<td>None</td>
<td>Very Good</td>
<td>Very Good</td>
<td>No open water areas were visible within the perimeter containment borrow area. This marsh creation area and the containment berms are nearly 100% vegetated.</td>
</tr>
<tr>
<td>Fill Area &quot;D&quot;</td>
<td>Good</td>
<td>See Remarks</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Vinyl sheet piles along the lake shore have experienced some additional minor damage/deterioration; however the condition of the marsh behind the sheet pile wall was very good.</td>
</tr>
<tr>
<td>Fill Area &quot;E&quot;</td>
<td>Very Good</td>
<td>None</td>
<td>Very Good</td>
<td>Very Good</td>
<td>Similar to Areas A &amp; B, much of the containment borrow area remains shallow open water. However, the containment berm and the fill cell appeared to be well-vegetated with marsh grass and shrub species.</td>
</tr>
</tbody>
</table>