

**Coastal Protection and Restoration  
Authority of Louisiana  
New Orleans Regional Office**



**2012 Annual Inspection Report**

for

**GOOSE POINT / POINT PLATTE  
MARSH CREATION PROJECT  
(PO-33)**

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

September, 2012  
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 Goose Point/Point Platte Marsh Creation project was approved on the 13th Priority Project List. A site map showing the project boundary within the Goose Point/Point Platte Marsh Creation project benefit area is shown in Appendix “A” along with a map identifying all of the project features within the project area.

All necessary agreements to allow project construction and operation to proceed have been executed between CPRA and the U.S. Fish and Wildlife Service (USFWS).

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

The purpose of the annual inspection of the Goose Point/Point Platte Marsh Creation Project (PO-33) is to evaluate the constructed project features to identify any deficiencies and prepare a report detailing the condition of the 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 (OM&R Plan February 1, 2012). This annual inspection report also contains a summary of possible 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”. The summary of any past maintenance projects completed since completion of the initial construction of the Goose Point/Point Platte Marsh Creation Project in 2009, if any, will be outlined in Section IV.

This initial annual inspection of the Goose Point/Point Platte Marsh Creation Project was held on August 21, 2012 on a clear to partly cloudy and mild day with winds NW 5 to 10 mph. In attendance were Tom Bernard, Kyle Breaux, Bryan Gossman, and Shane Faust, CPRA; and Danny Breaux, Neil Lalonde, and Megan Blanchard, USFWS. The inspection was made using two air-boats that were furnished by USFWS. The inspection team assembled at the Big Branch Visitors Center in Lacombe to review the planned route for the inspection, and to map the areas that USFWS was interested in having planted this coming spring. Photographs of that inspection are included in Appendix B of this report.

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

The Goose Point/Pointe Platte Marsh Creation Project (PO-33) is located in St. Tammany Parish on the north shore of Lake Pontchartrain, approximately five miles south of Lacombe, Louisiana. The fill and borrow sites are located near the confluence of Lake Pontchartrain and Lacombe Bayou. The approximate coordinates of the project areas are

as follows: Goose Point – 30° 15' 58.43" N latitude and 89° 58' 40.44" W longitude, Point Platte – 30° 15' 11.63" N latitude and 89° 55' 17.25" W longitude.

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 project features include:

1) Hydraulic dredging in Lake Pontchartrain and placement of dredged material in open water areas in the marsh interior.

2) Containment dikes will be constructed where fragmented marsh provides inadequate containment in the marsh interior.

3) Depending on soil stability, sections of the rear/north containment dikes will be breached prior to demobilization to allow the formation of tidal channels into the project 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 areas to be planted will to be determined after allowing for 3 to 4 natural growing seasons.

The work site, including the five marsh fill areas and two dredge borrow sites, is only accessible by boat and air 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 two fill areas, designated as Fill Areas “A” and “B”. The Point Platte Borrow Site was the source of materials being placed into three fill areas designed as 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”. These sheets were placed in weak sections of lake side perimeter dikes that were subject to breach from lake wave action, which could cause a huge lost in the freshly placed marsh fill area. A total of 614 linear feet of vinyl sheet pile were placed in those two areas.

**The principle project features are:**

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.

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

There has been no past maintenance on this Project (PO-33) since construction completion in January 2009.

#### **V. Inspection Results**

See the description of the existing condition of each of the Project Features on the Project Inspection Form at the end of this inspection report.

#### **VI. Conclusions and Recommendations**

As a result of the inspection, the team concluded that all project features are functioning as designed and should continue to do so without any maintenance in the foreseeable future. Therefore; it is recommended that no action be taken for maintenance at this time other than the planned vegetative planting, which was agreed to be scheduled for the spring of 2013.

**APPENDIX “A”**  
**Project Features Map**



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

4000 0 4000 8000 Feet



## **APPENDIX “B”**

### **Photographs**





**Area “A”--East Containment Dike, marsh creation in background.**



**Area “E”--N. Containment Dike, marsh nourishment in background**





**Area “B”--East Containment Dike, marsh creation in background**



**Area “B”--East Dike Borrow pits, previous planting area.**





**Area “B”--East Side Shallow Dike Borrow Pit, Proposed Planting Site**



**Area “B”-- East Side Shallow Dike Borrow Pit, Proposed Planting Site**





**Area “D”**--One of three reaches along lake rim where vinyl sheet pile was placed to prevent lake from encroaching into marsh creation area.



**Area “D”**--Hunters cut notch in vinyl sheet pile for easy boat access from the lake into the new marsh creation areas.

**APPENDIX “C”**  
**O&M Budget**

2012 Annual Inspection Report  
GOOSE POINT/POINT PLATTE MARSH CREATION  
State Project No. PO-33

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

Federal Sponsor: USFWS

Construction Completed :January, 2009

PPL #13

|                               | Baseline<br>Approved<br>Funding | 2011  | Currently<br>Funded |
|-------------------------------|---------------------------------|-------|---------------------|
| Previous O&M Funding Requests |                                 |       |                     |
| State O&M                     | \$577,606                       | \$0   | \$577,606           |
| Corps Admin                   | \$2,334                         | \$811 | \$3,145             |
| Federal S&A                   | \$9,569                         | \$0   | \$9,569             |
| Total                         | \$589,509                       | \$811 | \$590,320           |

| Current Approved O&M Budget | Year 0<br>2009 | Year - 1<br>2010 | Year -2<br>2011 | Year -3<br>2012 | Year -4<br>2013 | Year -5<br>2014 | Year -6<br>2015 | Year -7<br>2016 | Year -8<br>2017 | Year -9<br>2018 | Year -10<br>2019 | Year -11<br>2020 | Year -12<br>2021 | Year -13<br>2022 | Year -14<br>2023 | Year -15<br>2024 | Year -16<br>2025 | Year - 17<br>2026 | Year -18<br>2027 | Year -19<br>2028 | Project Life<br>Budget | Currently<br>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          | \$645,392              | \$584,395           |
| 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               | \$3,973             |
| 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               | \$15,890            |
| Total                       |                |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  | \$736,768              | \$604,257           |

| Projected O&M Expenditures  |         |         |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | Remaining<br>Project Life | Current 3 year<br>Request |
|-----------------------------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------------------------|---------------------------|
| Maintenance Inspection      | \$3,156 | \$3,222 | \$3,290   | \$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  | \$64,427                  | \$10,507                  |
| General Maintenance         |         |         |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | \$0                       | \$0                       |
| Structure Operations        |         |         |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | \$0                       | \$0                       |
| 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  | \$15,551                  | \$2,536                   |
| 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  | \$59,984                  | \$9,782                   |
| State S&A                   |         |         |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | \$0                       | \$0                       |
| Construction:               |         |         | \$567,937 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | \$0                       | \$0                       |
| Professional Services:      |         |         |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | \$0                       | \$0                       |
| E&D                         |         |         |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | \$0                       | \$0                       |
| Surveying                   |         |         |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | \$0                       | \$0                       |
| Construction Administration |         |         |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | \$0                       | \$0                       |
| Inspection                  |         |         |           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | \$0                       | \$0                       |
| 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 | \$139,962                 | \$22,825                  |

|   |          |  |            |  |            |
|---|----------|--|------------|--|------------|
| O&M Expenditures from COE Report                        | \$81,030 | Current O&M Budget less COE Admin            | \$600,285  | Current Project Life Budget less COE Admin | \$718,072  |
| State O&M Expenditures not submitted for in-kind credit | \$0      | Remaining Available O&M Budget               | \$519,255  | Total Projected Project Life Budget        | \$220,991  |
| Total Estimated O&M Expenditures (as of August 2010)    | \$81,030 | Incremental Funding Request Amount FY12-FY14 | -\$496,430 | Project Life Budget Request Amount         | -\$497,080 |

Note: Ignore Cells Highlighted in Orange. Also, Cells in Green are NOT Factored Into the Total Projected Project Life Budget.

|                              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Inflation factors from PPL18 | 1.0883 | 1.1112 | 1.1345 | 1.1583 | 1.1827 | 1.2075 | 1.2329 | 1.2588 | 1.2852 | 1.3122 | 1.3397 | 1.3679 | 1.3966 | 1.4259 | 1.4559 | 1.4864 | 1.5177 | 1.5495 | 1.5821 | 1.6153 |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

**Appendix “D”**  
**Field Inspection Form**

2012 Annual Inspection Report  
GOOSE POINT/POINT PLATTE MARSH CREATION  
State Project No. PO-33

| FIELD INSPECTION CHECK SHEET                     |   |   |                               |                 |   |
|--|---|---|-------------------------------|-----------------|---|
| <b>Project No. / Name:</b>                       | Goose Pt/Pt Platte Marsh Crest. (PO-33) |   |                               |                 | <b>Date of Inspection:</b> 8/21/2012 <b>Time:</b> 8:30 AM to 12:30 PM   |
| <b>Fill Area "A" thru "E"</b>                    | See Report Section III                  |   |                               |                 | <b>Inspector(s):</b> CPRA: Tom Bernard, Kyle Breaux, Bryan Gossman, Shane Faust<br>USFWS: Danny Breaux, Neil Lalonde, Megan Blanchard   |
| <b>Fill Area Description:</b>                    | See Report Section III                  |   |                               |                 | <b>Lake Water Level:</b> +1.8 NAVD88  |
| <b>Type of Inspection:</b>                       | 2012 Initial Annual Inspection          |   |                               |                 | <b>Weather Conditions:</b> Clear-Partly Cloudy, Mild, Wind NW 5-10 mph  |
| Project Features                                 | Overall Condition                       | Physical Damage   | Containment Dikes             | Marsh Fill Area | Observations and Remarks  |
| <u>Fill Area "A"</u>                             | Good                                    | None  | Very Good<br>Gaps Remain Open | Good            | As expected, the interior borrow pit areas used to construct the perimeter retaining dikes, had subsided more than the interior of the units. This gives more diverse land elevations to the marsh creation areas. These low areas normally have an average of less than 1 ft. of water and are the target of the upcoming vegetation contract scheduled for the spring of 2013. The dike areas are approximately 75% vegetated.                            |
| <u>Fill Area "B"</u>                             | Good                                    | None  | Very Good<br>Gaps Remain Open | Good            | As expected, the interior borrow pit areas used to construct the perimeter retaining dikes, had subsided more than the interior of the units. This gives more diverse land elevations to the marsh creation areas. These low areas normally have an average of less than 1 ft. of water and are the target of the upcoming vegetation contract scheduled for the spring of 2013. The dike areas are approximately 75% vegetated.                            |
| <u>Fill Area "C"</u>                             | Very Good                               | None  | Very Good<br>Gaps Remain Open | Very Good       | Some of the interior borrow pit areas used to construct the perimeter retaining dikes, had subsided more than the interior of the units, but have vegetated nicely. Some of these low areas normally have an average of less than 1 ft. of water and are the target of the upcoming vegetation contract scheduled for the spring of 2013. The dike areas are approximately 85% vegetated.   |
| <u>Fill Area "D"</u><br>Vinyl Sheet Pile 504 ft. | Very good                               | 4-foot "boat gap"<br>cut in vinyl sheet pile<br>by hunters to access<br>hunting area in marsh | Very Good                     | Very good       | This unit is much smaller than the others and was harder to fill to the required elevation. However, it remains in very good condition and has vegetated very nicely/thick since completed. The hunters have cut a 4 ft. "boat gap" in the lake rim's vinyl sheet pile, which were placed in areas where the lake was threatening to break through the earthen containment dikes. There are 3 sections of vinyl sheet pile in this unit which total 504 ft. |
| <u>Fill Area "E"</u><br>Vinyl Sheet Pile 110 ft. | Very Good                               | None  | Very Good<br>Gaps Remain Open | Good            | Some of the interior borrow pit areas used to construct the perimeter retaining dikes, had subsided more than the interior of the units, but have vegetated nicely. Some of these low areas normally have an average of less than 1 ft. of water and are the target of the upcoming vegetation contract scheduled for the spring of 2013. The dike areas are approximately 85% vegetated.   |