



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

2017 Annual Inspection Report

for

**Bayou Sauvage Refuge Restoration
Phase I**

State Project Number PO-16
Priority Project List 1

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Orleans Parish

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for
Bayou Sauvage Refuge Restoration Phase I
(PO-16)**

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I. Introduction

The Bayou Sauvage Refuge Restoration Phase I Project (PO-16) is located in eastern Orleans Parish approximately 10 miles northeast of Chalmette, LA (Appendix A). It is bordered by U.S. Highway 90 to the north, the Lake Pontchartrain Hurricane Protection Levee to the east and south, and the Maxent Canal levee to the west. The project area includes approximately 3,800 acres of fresh marsh.

II. Project Description and History

The project is divided into two units (North Unit and South Unit) which are hydrologically separated by a railroad embankment and a weir at Bayou Thomas. A 30-inch diameter (22,000 GPM) water pump was installed in each unit, with each pump having the capability to remove water from the unit.

The project's purpose is to regulate water levels in the marshes of both units throughout the year by pumping excess water from the management areas. Such management during the fall and winter, enhances emergent fresh marsh habitats in the project area for wintering waterfowl. Annually, the water level is intended to be controlled to the range of 0.0 feet to - 0.5 feet below marsh elevation during the spring and summer and to within 0.0 feet to + 0.5 feet above marsh elevation during the fall and winter. The water level control schedule is also intended to preserve black willow habitat in order to maintain wading bird rookeries.

Due to the Hurricane and Storm Damage Risk Reduction System (HSDRRS) work to improve the levee system in this area, the discharge pipes and pumps were replaced by the US Army Corps of Engineers (USACE). The PO-16 project paid \$50,000 toward this work and the USACE paid the remaining costs. These improvements were completed in early 2012 and levee enlargement activities continued through 2014. Operational control of the new pumps was transferred back to the USFWS in August 2015.

The USFWS and CPRA requested a 6-year time extension on the 20-year project life due to the inoperability of the pumps following Hurricane Katrina and during the repair work by the USACE. CWPPRA granted this extension which moves the end of project life to the year 2022.

III. Inspection Purpose and Procedures

The purpose of the annual inspection of the Bayou Sauvage NWR Hydrologic Restoration Project, Phase 1 (PO-16) is to evaluate the constructed project features, to identify any deficiencies, and to prepare a report detailing the condition of project features and recommended corrective actions. Should it be determined that corrective actions are needed, the CPRA shall provide a detailed cost estimate for engineering, design,



supervision, inspection, and construction contingencies, and an assessment of the urgency of such repairs (LDNR 2004).

The most recent inspection of the Bayou Sauvage Refuge Restoration Project, Phase 1 (PO-16) was held on November 13, 2017 by Barry Richard and Clay Worley of CPRA and Pon Dixon and Shelley Stiaes of USFWS. Photographs of that inspection are included in Appendix A of this report.

IV. Inspection Results

Pump #5

Pump #5 is working as designed.

Pump #6

Pump #6 is working as designed.

V. Conclusions

The pumps were down from October 2010 to August 2015 due to HSDRRS levee enlargement by the USACE and, per the USFWS, the pumps were also not operated from August 2015 to October 2017. The pump stations were recently brought back online in November 2017 and are now operable as of the 2017 inspection. It is the intent of the Bayou Sauvage NWR personnel to run the pumps at least once every two weeks to assure they are operable and available to manage the water levels in the refuge as intended. This should keep the pumps operating through the end of the project life in 2022.

VI. Recommendations

At this time only preventative maintenance is needed.

Immediate Repairs

- None at this time.

Programmed Maintenance




- Periodically check pump stations for any maintenance needs.

Appendix A

Project Features Map



Bayou Sauvage National Wildlife Refuge Hydrologic Restoration, Phase 1 (PO-16)

-  Pump
-  Weir
-  Project Boundary



0.5 0 0.5 Miles

0.5 0 0.5 Kilometers

Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle

Map Date: July 1, 2002
Map ID: 2002-11-537
Data accurate as of: July 1, 2002

Appendix B

Photographs



Photo #1 – Pump #5



Photo #2 – Pump #6

Appendix C

Three Year Budget Projection

[illegible]

Appendix D

Field Inspection Form

FIELD INSPECTION CHECK SHEET

Project No. / Name: Bayou Sauvage Refuge - Phase 1 (PO-16)

Date of Inspection: 11/13/2017 Time: 10:00 AM

Structure No. Pump No. 5

Inspector(s): CPRA: Richard, Worley

Structure Description: Pump Platform

USFWS: Dixon, Stiaes

Water Level: Normal Outside: Normal

Type of Inspection: Annual

Weather Conditions: Clear skies, mild

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Platform	Good	None	Light	1	
Trash rack	Good	N/A	None Observed		
Fuel Tank	Good	None	None	1	
Pump Drive Engine	Good	None	Light	1	
Pump Gear Box	Good	None	None	1	
Piping	Good	None	None Observed		
Lake Pont. Inlet System	Good	None	None Observed		

FIELD INSPECTION CHECK SHEET

Project No. / Name: Bayou Sauvage Refuge - Phase 1 (PO-16)

Date of Inspection: 11/13/2017 Time: 10:00 AM

Structure No. Pump No. 6

Inspector(s): CPRA: Richard, Worley

Structure Description: Pump Station

USFWS: Dixon, Stiaes

Water Level: Normal Outside: Normal

Type of Inspection: Annual

Weather Conditions: Clear skies, mild

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Platform	Good	None	Light	2	Vegetation almost blocking the walkway; needs clearing.
Trash rack	Good	N/A	None Observed	2	
Fuel Tank	Good	None	None	2	
Pump Drive Engine	Good	None	Light		
Pump Gear Box	Good	None	None		
Piping	Good	None	None Observed		
Lake Pont. Inlet System	Good	None	None Observed		