



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

2019 Annual Inspection Report

for

Hopedale Hydrologic Restoration

State Project Number PO-0024
Priority Project List 8

January 2020
St. Bernard Parish

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(PO-0024)**

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I. Introduction

The Hopedale Hydrologic Restoration Project (State Project No. PO-0024) was approved on the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) 8th Priority Project List. The federal sponsor for the project is the National Marine Fisheries Service (NMFS). The non-federal sponsor for the project is the Coastal Protection and Restoration Authority (CPRA).

The 4,656 acre project area is located southeast of Yscloskey, in St. Bernard Parish, Louisiana, and is bordered by LA Hwy 46 on the west, the Mississippi River Gulf Outlet (MRGO) spoil deposition area to the north, and Louisiana Highway 624 and Bayou La Loutre to the south and east. The area is predominately brackish marsh and open water with a small amount of saline marsh, bottomland hardwoods and bottomland scrub/shrub within the MRGO spoil deposition area.

A map showing the project boundaries and location of the water control structure is shown in Appendix A.

II. Inspection Purpose and Procedures

The purpose of an annual inspection is to evaluate the constructed project features, identify any deficiencies, and 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 past maintenance projects (Section IV – Summary of Past Operations and Maintenance Projects) and an estimated projected budget (Appendix B – Three-Year Budget Projection) for the upcoming three (3) years for operation, maintenance and rehabilitation.

This inspection was performed on November 13, 2019. Weather consisted of partly cloudy skies and a temperature of approximately 46°F. At the time of the inspection, water levels at nearby CRMS stations read +0.6 feet NAVD 88 (CRMS3800 - interior of project area) and +0.48 feet NAVD 88 (CRMS4557 - outside of project area). Taking part in the inspection were Melissa Hymel, Ernest Blanche, Barry Richard, and Taylor Daigle of CPRA; and Brandon Howard of NMFS. Photographs of the inspection are included in Appendix C of this report.

III. Project Description and History

Wetlands in the Hopedale area have been adversely impacted because of altered hydrology and partial impoundment caused by the construction of LA Hwy 624 and the MRGO. During construction of LA Hwy 624, four sets of non-gated culverts were installed under the highway. These culverts connect Bayou La Loutre with wetlands north of the highway and south of the Bayou La Loutre Ridge, and allow water to enter



and exit the general project area.

As part of the construction of the MRGO, a spoil containment dike (back dike) was constructed to allow placement of material from the MRGO dredging operation. The dike almost completely impounded the marsh within the Hopedale project area, with the exception of the back dike borrow canal, which directly connected to Bayou La Loutre. A plug and water control structure were originally placed in the borrow canal approximately 400 ft from its intersection with Bayou La Loutre. This structure, which consisted of three iron culverts with flap gates, provided drainage from the area, while limiting tidal increases during minimal storm events. By the mid 1990s, the plug had settled and the structure had deteriorated and become inoperable. The present project replaced the original structure with a sheet pile water control structure fitted with three 82" diameter combination gates (flap/sluice gates) and two, 24"x 84" fisheries access slots (fish gates). During construction, anodes were installed on both the steel and aluminum portions of the structure to prevent premature saltwater corrosion and deterioration. The project was completed in December 2004.

IV. Summary of Past Operations and Maintenance Projects

In 2005, the Hopedale structure suffered minor damage due to Hurricane Katrina. In 2007/2008, the repairs, at a cost of \$64,900, were made as follows:

- Repaired and replaced all damaged fence panels.
- Replaced missing gate stem covers.
- Repaired damaged railing.
- Placed riprap into eroded areas.
- Replaced missing mechanical gate operator.
- Added support beam under walkway.

Under an Operations and Maintenance contract with CPRA, Lake Borgne Basin Levee District personnel performed the first round of operations and routine maintenance on September 27, 2011. This contract expired, and CPRA replaced it with a new Operations and Maintenance contract with St. Bernard Parish in 2017. This contract expires in June 2020.

V. Inspection Results

Due to damage caused by Hurricanes Isaac (August 2012) and Barry (July 2019), both fish gate stem covers need to be replaced. One is damaged, and the other is missing.

The fish gates were closed at the time of the inspection. The CPRA will coordinate with St. Bernard Parish to ensure that the fish gates are reopened in accordance with the Operations Plan. The gates were visually inspected but not cranked (opened) during the inspection.

Corrosion was observed at joints between sheet piles near the apparent mean water level. The project team attempted to locate anodes on the structure, but they could not be

located. It is likely that they were all under the water surface and that the locations on the as-builts were not exact.

VI. Conclusions and Recommendations

The Hopedale Hydrologic Restoration Project (PO-0024) is performing as intended. Although corrosion of the sheet pile wall and damage to the fish gate stem covers was noted, this is not impacting project performance.

CPRA recommends the replacement of the two vinyl fish gate stem covers. This should be accomplished through the contract with St. Bernard Parish.



CPRA is also currently developing a plan for the End of Life for the project which will occur in 2024. Between now and the End of Life, only one more inspection is required in Year 20 per the O&M Plan. However, due to available budget, annual inspections are planned.

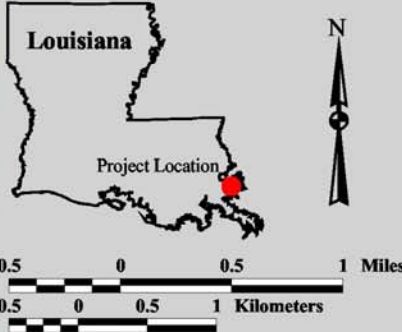
Appendix A

Project Features Map



Hopedale Hydrologic Restoration (PO-24)

-  Water Control Structure
-  Project Boundary



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

Background Imagery:
 2002Thematic Mapper Imagery

Map Date: October 16, 2003
 Map ID: 2002-11-536
 Data accurate as of: March 18, 2003

Appendix B

Three-Year Budget Projection

Hopedale Hydrologic Restoration

Federal Sponsor: NMFS

Construction Completed : January 6, 2005

PPL 8

Current Approved O&M Budget	Year 0	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	Project Life	Currently		
	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	Budget	Funded		
State O&M																						\$449,209	\$449,209	
Corps Admin																								
Federal S&A																								
Total																							\$449,209	\$449,209

Projected O&M Expenditures						Remaining	Current 3 year
						Project Life	Request
Maintenance Inspection						\$6,080	\$18,717
End of Life Admin						\$15,533	\$15,533
Operations						\$7,920	\$23,760
State S&A						\$317	\$950
Maintenance						\$0	\$0
Total						\$29,850	\$58,961

O&M Expenditures from COE Report	\$183,001	Current O&M Budget	\$449,209	Current Project Life Budget	\$449,209
State O&M Expenditures not submitted for in-kind credit	\$10,361	Remaining Available O&M Budget	\$255,847	Total Projected Project Life Budget	\$299,312
Federal Sponsor MIPRs (if applicable)	\$0	Incremental Funding Request Amount for Current 3 Years	-\$196,886	Project Life Budget Request Amount (Negative Equals Surplus)	-\$149,897
Total Estimated O&M Expenditures (as of July 2018 LANA)	\$193,362	(Negative Equals Surplus)			

Appendix C

Photographs



Photo 1: Structure viewed from project exterior (downstream) on southern bank



Photo 2: Structure viewed from project exterior (downstream) on northern bank



Photo 3: Structure viewed from project interior (upstream) northern bank



Photos 4 & 5: Fabricated metal piece was loosely attached to the sheetpile and fell off when touched. This photo is from downstream northeast bank. An identical piece was found at roughly the same location on the upstream northeast bank.

Appendix D

Field Inspection Check Sheet

FIELD INSPECTION CHECK SHEET

Project No. / Name: **Hopedale Hydrologic Restoration Project (PO-24)**

Date of Inspection: 11/13/2019

Time: 1:00 pm

Structure No. N/A

Inspector(s): Melissa Hymel (CPRA), Ernest Blanche (CPRA), Barry Richard (CPRA), Taylor Daigle (CPRA), Brandon Howard (NMFS)

Structure Description: Gated Sheetpile Structure

Water Level Inside: N/A Outside: N/A

Type of Inspection: Annual

Weater Conditions: Partly Cloudy Skies, 46° F

Item	Condition	Physical Damage	Corrosion	Photo #	Observations and Remarks
Swing Gates 84" D	Good	None visible over water surface	None visible over water surface	1-2	Aluminum gates are under water surface. No damage or corrosion visible.
Fish Gates 24" x 84"	Good	None visible over water surface	None visible over water surface	1-2	Gates have not been reopened since Hurricane Barry (July 2019). One stem cover is damaged, and the other is missing.
Sheetpile Structure	Some corrosion noted	Some corrosion	Yes	1-5	Some superficial corrosion observed, especially near the apparent mean water level at joints between sheet piles. Team attempted to find anodes from original construction but could not find any. It is likely that all are under the water surface and that locations do not match as-builts exactly.
Handrails, Grating, Hardware etc.	Good	None	None	1-3	Replaced chain that secures structure as a part of this site visit. Needed a slightly longer chain.
Galv. Pile Caps	Some corrosion noted	Some corrosion	Some	1	Some corrosion observed.
Signage/ Supports	Minor corrosion noted	Minor corrosion	Minor	N/A	Some corrosion observed. This does not impact the integrity or intended use of the structure.
Riprap	Good	None	N/A	1-2	
Silt/Fill	Good	None	N/A	1-2	

Are there any signs of vandalism? No
 Conditions of existing levees? Good
 Noticable breaches? None