State of Louisiana

Coastal Protection and Restoration Authority of Louisiana (CPRA)

2024/2025 Annual Inspection Report

for

SOUTH WHITE LAKE SHORELINE PROTECTION

State Project Number ME-0022
Priority Project List #12

October 2025
Vermilion Parish

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I. Introduction

The South White Lake Shoreline Protection Project (State Project No. ME-0022) is located in the Mermentau Hydrologic Basin, in Vermilion Parish, approximately 2 miles north of Pecan Island, LA. The primary restoration objective of ME-0022 is to protect critical shoreline and interior marsh, via the implementation of a 12-mile long rock breakwater, along the south shore of White Lake from Will's Point to Bear Lake.

ME-0022 is comprised of 61,500 LF of rip rap shoreline protection, which protects 687 AC of shoreline and interior marsh habitat, situated between White Lake and LA HWY 82. Prior to the project, the south shore of White Lake had been retreating at an estimated average rate of 15 FT/YR as a result of wind-induced wave energy. In a future without action scenario, with continued shoreline erosion affecting the area, low marsh management levees likely would have been breached, which would have increased interior marsh loss rates in the project area.

ME-0022 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 and approved on the tenth Priority Project List (PPL 10). ME-0022 has a twenty year CWPPRA project life, which began in August 2006, bringing the project end-of-life to August 2026.

See **APPENDIX A** for the CWPPRA project features map.

II. Inspection Purpose and Procedures

The purpose of the annual inspection of ME-0022 is to evaluate the constructed project features to identify any deficiencies, and prepare a report detailing the condition of 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.

Typical CPRA annual inspection reports also contain inspection photos, a summary of maintenance projects which were completed since completion of constructed project features, an estimated projected budget for the upcoming three (3) years for operation, maintenance and rehabilitation, and an inspection checklist. For this report, being the final annual inspection for ME-0022 approaching its end of life, a projected budget is included through FY27 in Appendix E. This report does include photographs and an inspection checklist. Also included in Appendix D is a figure produced by CPRA LRO which indicates the location of the missing signage.

An inspection of ME-0022 was held on October 29, 2024 under clear skies and with warm weather. Water levels in and around the project site were +0.9 FT NAVD88, as observed from water level data obtained from Coastwide Reference Monitoring System (CRMS) station CRMS0568, located near the project site. In attendance were Jacques Boudreaux, Ivy Thibodeaux, and Stuart Hebert of CPRA. Also joining were Terri Von-Hoven and Kristen Butcher of USACE.

The team launched at Schooner Bayou Canal at approximately 10:00am, traveling through White Lake from the east. The team rode in open water towards the southern rim of White Lake, arriving at the easternmost extents of the ME-0022 rock breakwater feature. The inspection began at approximately 10:30am, where CPRA and USACE observed the eastern portion of the project site, inspecting the condition of the rip rap, fisheries access gaps, and signage. The crew rode east to west, continuing observations of the project. The team eventually arrived at the area near Bear Lake on the western end of the ME-0022 footprint, to conclude the inspection.

Photographs are included in **APPENDIX B**. The inspection checklist is included in **APPENDIX C**.

III. Project Description and History

ME-0022 consists of one primary restoration feature—rip rap shoreline protection. Construction of ME-0022 was completed in August 2006. The purpose of ME-0022 is to protect the White Lake shoreline and interior marsh from land loss effects if left unattended. The construction of the foreshore rock dike was intended to stop erosion along the southern White Lake shoreline by dampening wind generated waves. Emergent marsh was created through the beneficial use of dredged material from the flotation channel.

Coast 2050 identified wave erosion, high water levels, and altered hydrology as the major factors contributing to the rapid erosion of the southern shore of White Lake (Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority [LCWCRTF & WCRA] 1999).

The Shoreline Protection Foundation Improvement Demonstration (LA-06) project, authorized on the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) 13th priority project list was incorporated into the ME-22 construction contract. The goal of the demonstration project was to determine the feasibility of shoreline protection structures where relatively poor soil foundation exists. The strategy of the Shoreline Protection Foundation Improvements Demonstration was to use sand as a foundation beneath rock dike structures as a means to achieve increased bearing capacity and consolidation settlement design tolerances in a manner that lessens 20-year shoreline protection project costs.

The demonstration project experimental design included two sub-reaches. Each sub-reach was divided into two 900-foot treatment sections and one 900-foot control section. Fish dips were built at approximately 900-foot intervals with a top width of 50 feet. Treatment A was built by placing sand directly on top of soil to +1.0 FT EL and then placing the rock material on top of the sand foundation. Treatment B was built by dredging out the soil foundation, filling the cavity with sand, and then rock was placed on top of the sand foundation. Treatment C was the control reference section and consisted of the typical rock dike cross-section without sand.

The demonstration project was monitored for five years (2006-2011) and found that all three sections were stable and had minimal foundation settlement and lateral movement in the foundation. The remainder of the ME-0022 project foreshore dike was typical construction of stone on geotech fabric.

Principal project features include:

Shoreline Protection:

- Construction of approximately 61,500 LF of shoreline protection, using an estimated 241,329 TONS of 650LB rip rap placed to an elevation of +3.5FT NAVD88 on geotextile fabric. Fisheries access points were included at 1,000 foot intervals. A total of 68 warning signs were placed at all pipeline crossings, fish dips, and navigation openings;

- Excavation of a flotation access channel parallel to the rip rap shoreline protection alignment, with side casting of access spoil material behind rock breakwaters to create approximately 172 AC of marsh substrate via beneficial use approach.

Specific goals of ME-0022 were:

1. Addressing shoreline retreat along the south shore of White Lake, by implementing approximately 12 MI of rip rap shoreline protection with fisheries access gaps.

2. Protecting approximately 687 AC of sensitive interior marsh habitat by minimizing hydrologic impacts and avoiding the detrimental effects of breaching into low-level levees within marsh management area known as the Kaplan Tract.

3. Creating approximately 172 AC of marsh immediately behind the rip rap shoreline protection feature, with direct placement of access channel dredge spoil.

IV. Summary of Past Operation and Maintenance Projects

General Maintenance:

To date, no completed maintenance projects nor operation tasks have been performed since the ME-0022 construction completion date of August 2006.

Structure Operations:

There are no active operations associated with this project.

V. Inspection Results

Rip Rap Shoreline Protection Feature, Fisheries Access Gaps, and Signage

The rock breakwater feature appears to be functioning properly. During the inspection, only a small portion of the breakwater was encountered that appeared to indicate differential settlement, which occurred near fisheries access gaps. These areas appeared indicative of the natural slope down to lower fish access gap elevation, and could be analyzed more closely during future O&M if necessary. Most, if not all, signs were shown to indicate UV damage and

are recommended for replacement. There were six noted locations where signs and piles were missing entirely, possibly indicative of the piling having been snapped at the mudline or otherwise broken. Signage is recommended to be addressed in a final O&M event. **APPENDIX B** shows photographs, with some photographs emphasizing observed differential settlement. **APPENDIX D** contains a figure showing the locations of missing signage issues at ME-0022.

VI. Conclusions and Recommendations

Rip Rap Shoreline Protection Feature, Fisheries Access Gaps, and Signage

The foreshore rock dike is effective in reducing shoreline erosion. The foundation soils in the White Lake area have shown minimal settlement and lateral movement through the test period and have continued to perform well through the course of the project life. From a visual perspective, the rock dike does seem to be holding up well and a survey will not be necessary to close out the project.

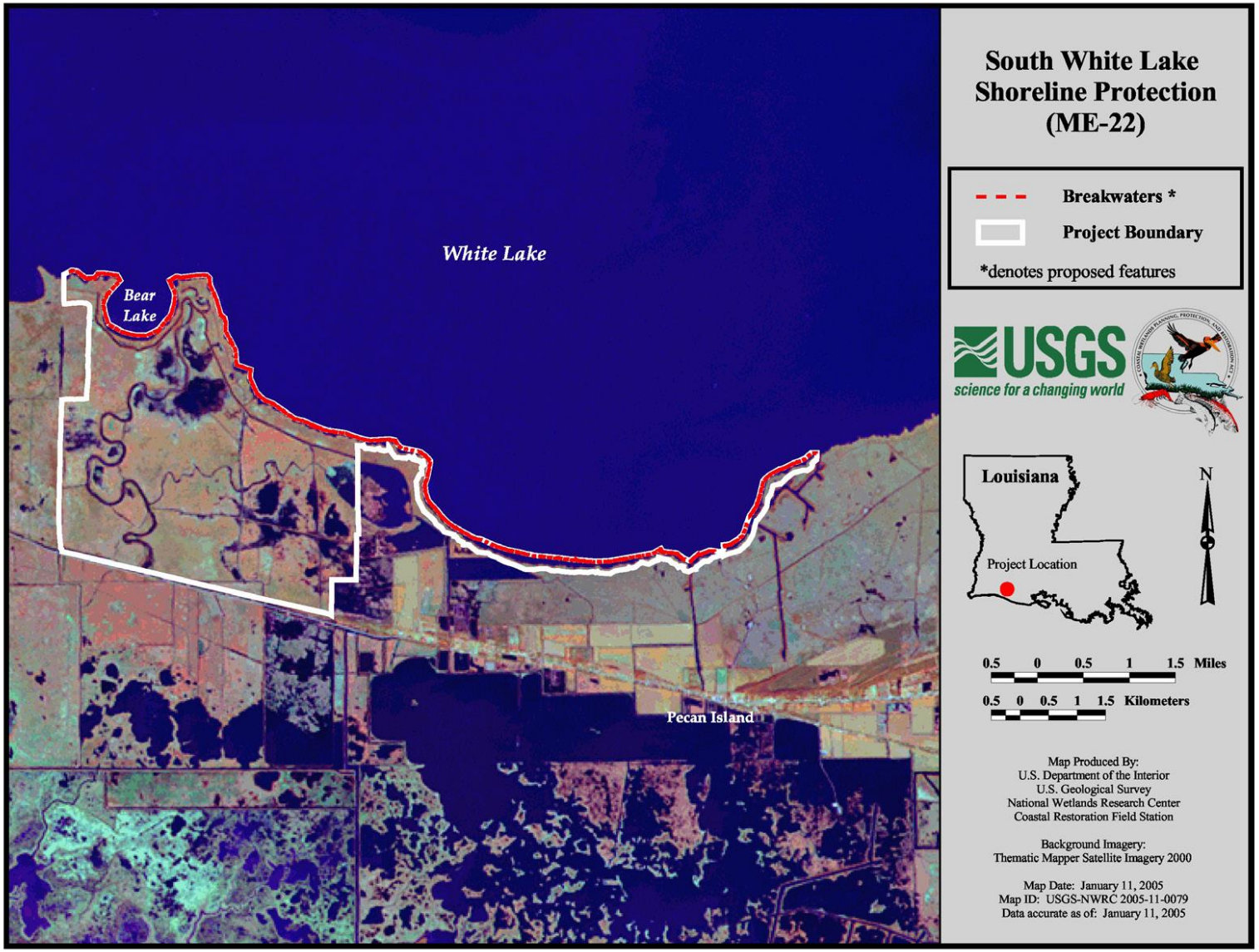
Monitoring observations of shoreline change have shown land gain in areas not impacted by the fish gaps in the foreshore dike. Newer fish gap designs with added protection across the gap, such as the ME-18 Rockefeller Refuge Shoreline Protection project, would be effective in reducing the shoreline erosion occurring on the ME-22 South White Lake project.

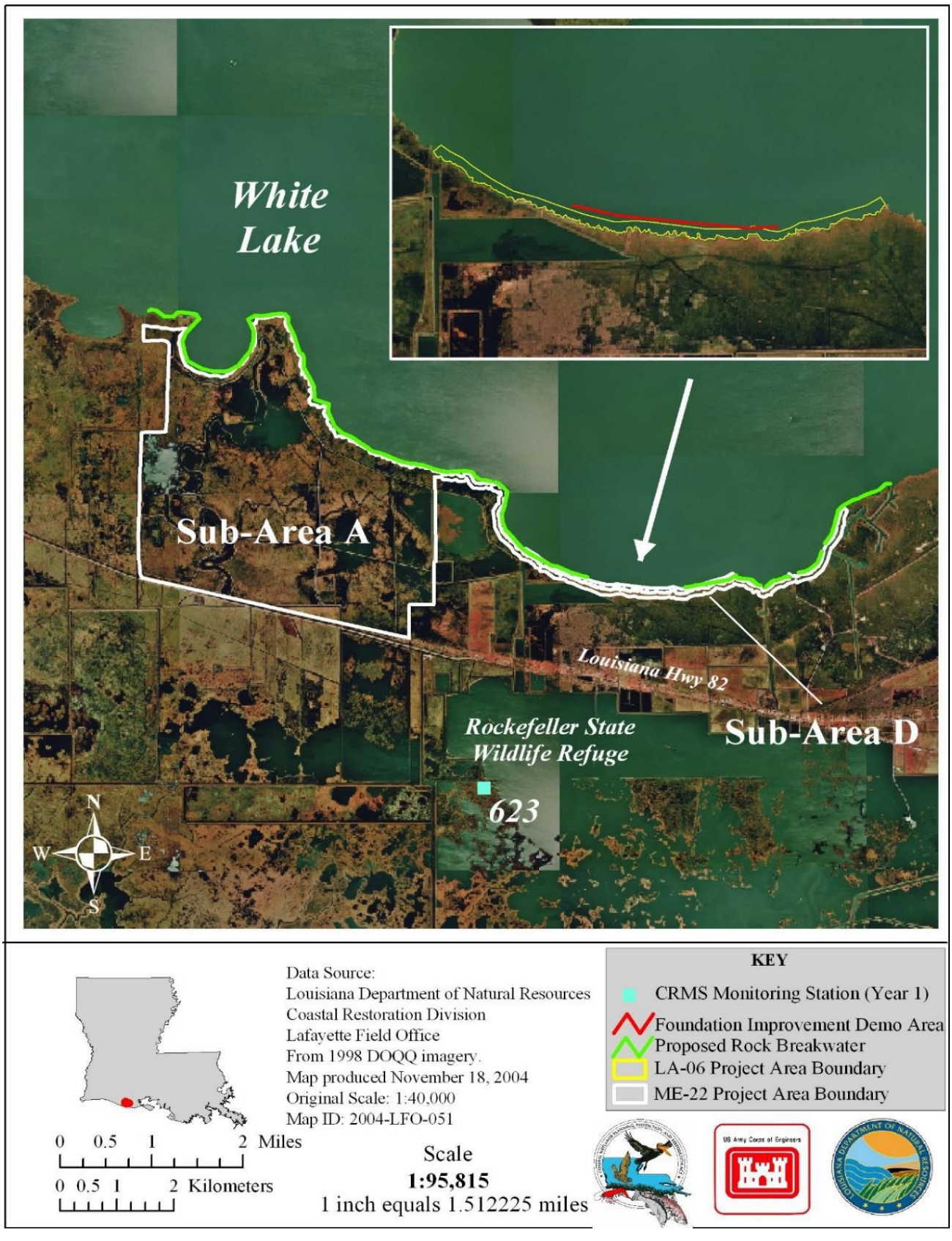
The project has not had any maintenance events in the past; therefore, large incremental requests have not been made. The shortfall shown in Appendix E – Budget is the result of conservative funding requests in previous years. The project does, however, have sufficient funds in the Approved Budget to cover the cost of the final maintenance event, with an incremental request required in Spring 2026 to fully cover it.

As end-of-life approaches, a final O&M event is recommended which should incorporate signage maintenance as a focal point.

APPENDIX A

CWPPRA Project Features Map


White Lake
Bear Lake
Pecan Island
South White Lake Shoreline Protection (ME-22)
Breakwaters *
Project Boundary
*denotes proposed features
USGS
science for a changing world
Louisiana
Project Location
N
0.5 0 0.5 1 1.5 Miles
0.5 0 0.5 1 1.5 Kilometers
Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
Background Imagery:
Thematic Mapper Satellite Imagery 2000
Map Date: January 11, 2005
Map ID: USGS-NWRC 2005-11-0079
Data accurate as of: January 11, 2005


White Lake
Sub-Area A
Louisiana Hwy 82
Rockefeller State Wildlife Refuge
Sub-Area D
623
N
W
E
S
0 0.5 1 2 Miles
0 0.5 1 2 Kilometers
Data Source:
Louisiana Department of Natural Resources
Coastal Restoration Division
Lafayette Field Office
From 1998 DOQQ imagery.
Map produced November 18, 2004
Original Scale: 1:40,000
Map ID: 2004-LFO-051
Scale
1:95,815
1 inch equals 1.512225 miles
KEY
CRMS Monitoring Station (Year 1)
Foundation Improvement Demo Area
Proposed Rock Breakwater
LA-06 Project Area Boundary
ME-22 Project Area Boundary
US Army Corps of Engineers

APPENDIX B

Photographs

Photo 1: View of Stern of CPRA Workboat, White Lake in Background, Pictured From Eastern White Lake While En Route to ME-22 Project Site

Photo 2: View of Bow of CPRA Workboat, White Lake in Background, Pictured From Eastern White Lake While En Route to ME-22 Project Site

Photo 3: Photograph of ME-22 Rock Rip Rap Shoreline Protection Feature, Pictured Near Eastern End of Project Footprint, Warning Sign Shown, Facing South

Photo 4: Photograph of ME-22 Rock Rip Rap Shoreline Protection Feature, Pictured Near Eastern End of Project Footprint, Warning Sign and Fisheries Access Gap Shown, Facing Southwest

Photo 5: Zoomed-In View of ME-22 Rock Rip Rap Shoreline Protection Feature, Facing West

Photo 6: View of Possible Differential Settlement Near Warning Sign and Fisheries Access Gap, Possible Warning Sign Maintenance Needed, Facing West

Photo 7: Photograph of Warning Sign, Warning Sign Maintenance Needed

Photo 8: Photograph of ME-22 Rock Rip Rap Shoreline Protection Feature, Pictured Near Central Portion of Project Footprint, Warning Sign and Fisheries Access Gap Shown, Warning Sign Maintenance Needed, Facing South

Photo 9: Photograph of ME-22 Rock Rip Rap Shoreline Protection Feature, Pictured Near Central Portion of Project Footprint, Facing Southwest

Photo 10: Photograph of ME-22 Rock Rip Rap Shoreline Protection Feature, Pictured Near Central Portion of Project Footprint, Facing Southwest

Photo 11: View of ME-22 Rock Rip Rap Shoreline Protection Feature, Emphasizing Marsh Environment Behind and Likely Indicative of Accretionary Processes, Facing South

Photo 12: View of ME-22 Rock Rip Rap Shoreline Protection Feature, Emphasizing Marsh Environment Behind and Likely Indicative of Accretionary Processes, Facing Southwest

Photo 13: View of Possible Differential Settlement Near Warning Sign and Fisheries Access Gap, Warning Sign Missing with Warning Sign Maintenance Needed, Facing Southeast

Photo 14: Photograph of ME-22 Rock Rip Rap Shoreline Protection Feature, Pictured Near Western End of Project Footprint, Facing West

Photo 15: View of ME-22 Rock Rip Rap Shoreline Protection Feature, Emphasizing Marsh Environment Behind and Likely Indicative of Accretionary Processes, Facing South

Photo 16: View of ME-22 Rock Rip Rap Shoreline Protection Feature, Near Warning Sign and Fisheries Access Gap, Facing Southwest

Photo 17: View of ME-22 Rock Rip Rap Shoreline Protection Feature, Facing Southwest

Photo 18: View of ME-22 Rock Rip Rap Shoreline Protection Feature, Pictured Near Entrance Into Bear Lake, Facing West

Photo 19: View of ME-22 Rock Rip Rap Shoreline Protection Feature, Pictured From Within Bear Lake

Photo 20: View of ME-22 Rock Rip Rap Shoreline Protection Feature, Pictured From Within Bear Lake

Photo 21: Photograph of ME-22 Rock Rip Rap Shoreline Protection Feature, Pictured Near Western End of Project Footprint, Warning Sign Shown, Facing South

APPENDIX C

Field Inspection Notes

MAINTENANCE INSPECTION REPORT CHECK SHEET

Project No. / Name: ME-0022 / South White Lake Shoreline Protection

Date of Inspection: October 29, 2024 Time: 10:00

Type of Inspection: Annual, Pre-maintenance inspection

Inspector(s): Jacques Boudreaux (CPRA), Ivy Thibodeaux (CPRA), Stuart Hebert (CPRA), Terri Von Hoven (USACE), and Kristen Butcher (USACE)

Project Description: SP
Addt'l Info (if applicable)

Water Level +0.88 FT NAVD88

Weather Conditions: Clear, Warm (77°F at time of inspection)

Item	Condition	Pysical Damage	Corrosion	Photo #	Observations and Remarks
Rock Dike	Good	Minimal	N/A		Some spots of possible differential settlement; but in overall very good condition. Do not recommend future O&M.
Signs	Fair	Yes	N/A		Several signs needing replacement, UV light damage occuring. Some signs missing in fish dips, possibly broken at posts. Recommend company be tasked with locating and repairing prior to end of life.

APPENDIX D

Figure


ME-0022 Possible Sign Maintenance Needed
As Determined by 10/29/2024 O&M Inspection
White Lake
Legend
MISSING SIGN
MISSING SIGN
MISSING SIGN
MISSING SIGN
MISSING SIGN
MISSING SIGN
MISSING SIGN
Louisiana Ranch
82
82
82
Google Earth
Image © 2025 Airbus
N
1 mi

APPENDIX E

Budget

26/27 Description: Project Closeout

E&D	$	-
Construction	$	-
Construction Oversight	$	-
Sub Total - Maint. And Rehab.	$	-

E&D		
Construction		
Construction Oversight		
Sub Total - Maint. And Rehab.	$	-

	2025/2026 (-19)	2026/2027 (-20)	0
Total O&M Budgets	$ 347,200.00	$ 21,000.00	$ -

O &M Budget (3 yr Total)	**$ 368,200.00**	
Unexpended O & M Budget (as of Fall 2024 incremental budget increase)	**$ 274,897.70**	*As of September 30, 2025 O&M expenditures*
Remaining O & M Budget (Projected)	**$ (93,302.30)**	*Incremental Request required Spring 2026*

OPERATION AND MAINTENANCE BUDGET WORKSHEET

SOUTH WHITE LAKE SHORELINE PROTECTION/ ME-22 / C.150022.8 / PPL 12 / 2025-2026

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	0		**$0.00**
General Structure Maintenance	LUMP	0	$0.00	**$0.00**
Engineering and Design	LUMP	1	$15,000.00	**$15,000.00**
Operations Contract	LUMP	0	$0.00	**$0.00**
Construction Oversight	LUMP	1	$20,000.00	**$20,000.00**

ADMINISTRATION

State Admin. w/ IDC	LUMP	1	$45,000.00	$45,000.00
FEDERAL SPONSOR Admin.	LUMP	0	$0.00	$0.00
SURVEY Admin.	LUMP	0	$0.00	$0.00
OTHER				$0.00
			TOTAL ADMINISTRATION COSTS:	**$45,000.00**

MAINTENANCE / CONSTRUCTION

SURVEY

SURVEY DESCRIPTION:					
	Secondary Monument	EACH	0	$0.00	$0.00
	Staff Gauge / Recorders	EACH	0	$0.00	$0.00
	Marsh Elevation / Topography	LUMP	0	$0.00	$0.00
	TBM Installation	EACH	0	$0.00	$0.00
	OTHER				$0.00
				TOTAL SURVEY COSTS:	**$0.00**

GEOTECHNICAL

GEOTECH DESCRIPTION:					
	Borings	EACH	0	$0.00	$0.00
	OTHER				$0.00
				TOTAL GEOTECHNICAL COSTS:	**$0.00**

CONSTRUCTION

CONSTRUCTION DESCRIPTION:	Replace Warning Signs (68) & missing piles (6)					
	Rip Rap	LIN FT	TON / FT	TONS	UNIT PRICE	
	Bank Paving	7184	1.9	0	$85.00	$0.00
	Rip Rap - Structures (LUMP)	0	0.0	0	$0.00	$0.00
	Crushed Stone - Breaches	0	0.0	0	$0.00	$0.00
	Mob / Demob			LUMP 1	$50,000.00	$50,000.00
	Warning Sign and Pile Replacement			EACH 6	$30,000.00	$180,000.00
	4' x 4' Warning Sign & Hardware Replacement			EACH 62	$600.00	$37,200.00
					TOTAL CONSTRUCTION COSTS:	**$267,200.00**

TOTAL OPERATIONS AND MAINTENANCE BUDGET: **$347,200.00**

OPERATION AND MAINTENANCE BUDGET WORKSHEET

SOUTH WHITE LAKE SHORELINE PROTECTION/ ME-22 / C.150022.8 / PPL 12 / 2026-2027

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	ESTIMATED TOTAL
O&M Inspection and Report	EACH	0	$15,708.00	**$0.00**
General Structure Maintenance	LUMP	0	$0.00	**$0.00**
Engineering and Design	LUMP	0		**$0.00**
Operations Contract	LUMP	0	$0.00	**$0.00**
Construction Oversight	LUMP	0	$10,000.00	**$0.00**

ADMINISTRATION

State Admin. w/ IDC	LUMP	1	$20,000.00	$20,000.00
FEDERAL SPONSOR Admin.	LUMP	1	$1,000.00	$1,000.00
SURVEY Admin.	LUMP	0	$0.00	$0.00
OTHER				$0.00
			TOTAL ADMINISTRATION COSTS:	**$21,000.00**

MAINTENANCE / CONSTRUCTION

SURVEY

SURVEY DESCRIPTION:					
Secondary Monument	EACH	0	$0.00	$0.00
Staff Gauge / Recorders	EACH	0	$0.00	$0.00
Marsh Elevation / Topography	LUMP	0	$0.00	$0.00
TBM Installation	EACH	0	$0.00	$0.00
OTHER				$0.00
			TOTAL SURVEY COSTS:	**$0.00**

GEOTECHNICAL

GEOTECH DESCRIPTION:					
Borings	EACH	0	$0.00	$0.00
OTHER				$0.00
			TOTAL GEOTECHNICAL COSTS:	**$0.00**

CONSTRUCTION

CONSTRUCTION DESCRIPTION:					
Rip Rap	LIN FT	TON / FT	TONS	UNIT PRICE	
Bank Paving	7184	1.9	0	$85.00	$0.00
Rip Rap - Structures (LUMP)	0	0.0	0	$0.00	$0.00
Crushed Stone - Breaches	0	0.0	0	$0.00	$0.00
Filter Cloth / Geogrid Fabric		SQ YD	0	$9.00	$0.00
Navigation Aid		EACH	0	$0.00	$0.00
Signage & Pile		EACH	0	$0.00	$0.00
General Excavation / Fill		CU YD	0	$0.00	$0.00
Dredging		CU YD	0	$0.00	$0.00
Sheet Piles (Lin Ft or Sq Yds)		SQ FT	0	$0.00	$0.00
Batter Piles (each or lump sum)		LN FT	0	$0.00	$0.00
Timber Members (each or lump sum)			0	$0.00	$0.00
Hardware		LUMP	0	$0.00	$0.00
Materials		LUMP	0	$0.00	$0.00
Mob / Demob		LUMP	0	$0.00	$0.00
Contingency (25%)		LUMP	0	$0.00	$0.00
General Structure Maintenance		LUMP	0	$0.00	$0.00
OTHER				$0.00	$0.00
OTHER				$0.00	$0.00
OTHER				$0.00	$0.00
				TOTAL CONSTRUCTION COSTS:	**$0.00**

TOTAL OPERATIONS AND MAINTENANCE BUDGET: **$21,000.00**