

CWPPRA RPT Region 4

Mermentau Basin

PPL36 PROJECT NOMINEE FACT SHEET

February 3, 2026

Project Name

Hog Bayou Stabilization and Marsh Creation

Project Location

Region 4, Mermentau Basin, Cameron Parish

Problem

Historically, wetland loss in the Hog Bayou watershed has been caused by storm surge, failed agricultural pump offs, increased water and salinity levels from the Gulf via Hog Bayou, and limited freshwater input; however, the marsh was stable around Hog Bayou in the Beach Prong area. Since Hurricane Barry in 2019, marshes north of the east branch of Hog Bayou have degraded because of increased inundation and salinity stress. This degraded marsh makes the Hog Bayou bank vulnerable to breaching which will lead to increased water and salinity levels exacerbating wetland loss in the area. USGS determined a land change rate of -0.87% per year (1984-2024) for the extended boundary of the PPL 34 Candidate Grand Chenier Marsh Creation project which includes the project area. The regional subsidence rate is 8.136 mm/yr (based on the 2023 Master Plan for Chenier Ridges).

Goals

The project goals are to stabilize the northern bank along the east branch of Hog Bayou and construct marsh to reinforce the enhanced bank line. The marsh creation area will restore critical habitat for wildlife and fisheries, and design goals will consider incorporating habitat into portions of the project area that supports the black rail habitat. The bank stabilization and the marsh creation will work together to limit the water and salinity levels that enter the area via Hog Bayou.

Proposed Solution

The proposed solution is to restore and stabilize 12,526 linear feet (LF) of the northern bankline of the east branch of Hog Bayou and restore 489 acres of marsh north of the bank stabilization utilizing Gulf borrow.

Project Features

Marsh Creation – 389 acres

Marsh Nourishment – 91 acres

Enhanced bankline/ridge feature – 12,526 LF

Preliminary Ranking Criteria:

- 1) *What are the total net acres? 371 acres*
- 2) *What is the estimated construction cost plus 25% contingency and the estimated fully funded cost?*

Construction cost plus 25% contingency – \$25-\$30M
FF Cost estimate = \$40 - 45M

- 3) *What is the project cost effectiveness using fully funded cost/net acres?*

Cost effectiveness – ~ \$108,000 acre

Total fully funded cost (\$40M) / Total Net Acres (371 ac)

- 4) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*

This project will work synergistically with existing water control structures that aim to manage water levels and salinity within the Hog Bayou watershed along with ME-20 South Grand Chenier, ME-32 South Grand Chenier Marsh Creation – Baker Tract which work to stabilize and maintain Hog Bayou bankline a critical landscape feature that defines and maintains this watershed.

It is also synergistic with the Cameron School Board Terraces, Miller 5 Terraces, and ME-0041 SW Coastal Shoreline Protection (USACE SW Coastal Study – E&D), and the ME-42 Grand Chenier Marsh Creation and Terracing (E&D) in stabilizing the Gulf shoreline and protect Louisiana Highway 82, a hurricane evacuation route.

- 5) *What is the interior loss rate and/or shoreline loss rate? And what is the source of the data?* USGS determined a land change rate of -0.87% per year (1984-2024) for the extended boundary of the PPL 34 Candidate Grand Chenier Marsh Creation project which includes the project area.

- 6) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc or is part of a land bridge feature?*

This project indirectly supports the Gulf shoreline and directly restores and stabilizes the Hog Bayou bankline and maintains the watershed.

- 7) *Does any project feature directly or indirectly protect any critical and/or non-critical infrastructure?*

This project works synergistically with the projects mentioned above to protect LA HWY 82, a hurricane evacuation route, and the community of Grand Chenier.

Preliminary Costs: Construction cost plus 25% contingency – \$25-\$30M

Preparer(s) of Fact Sheet:

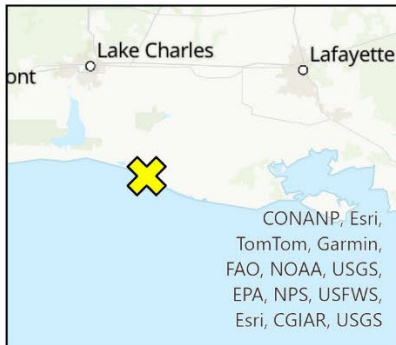
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Map Produced By:
 United States Department of Agriculture
 Natural Resources Conservation Service
 Lafayette, LA



Data Source: MAXAR 2022

Map Date: 1/22/2024



**HOG BAYOU
 STABILIZATION AND
 MARSH CREATION
 Cameron Parish**

LEGEND

-  BANK STABILIZATION
-  MARSH CREATION



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Hog Bayou Bank Stabilization and Marsh Creation

Region 4, Mermentau Basin, Cameron Parish, LA

Hog Bayou Stabilization and Marsh Creation

Location

Mermentau Basin, Hog Bayou Watershed,
Grand Chenier, LA

Problem

A 1/3-mile strip of marsh separates the
Gulf from the continuous open water that
reaches LA Hwy 82

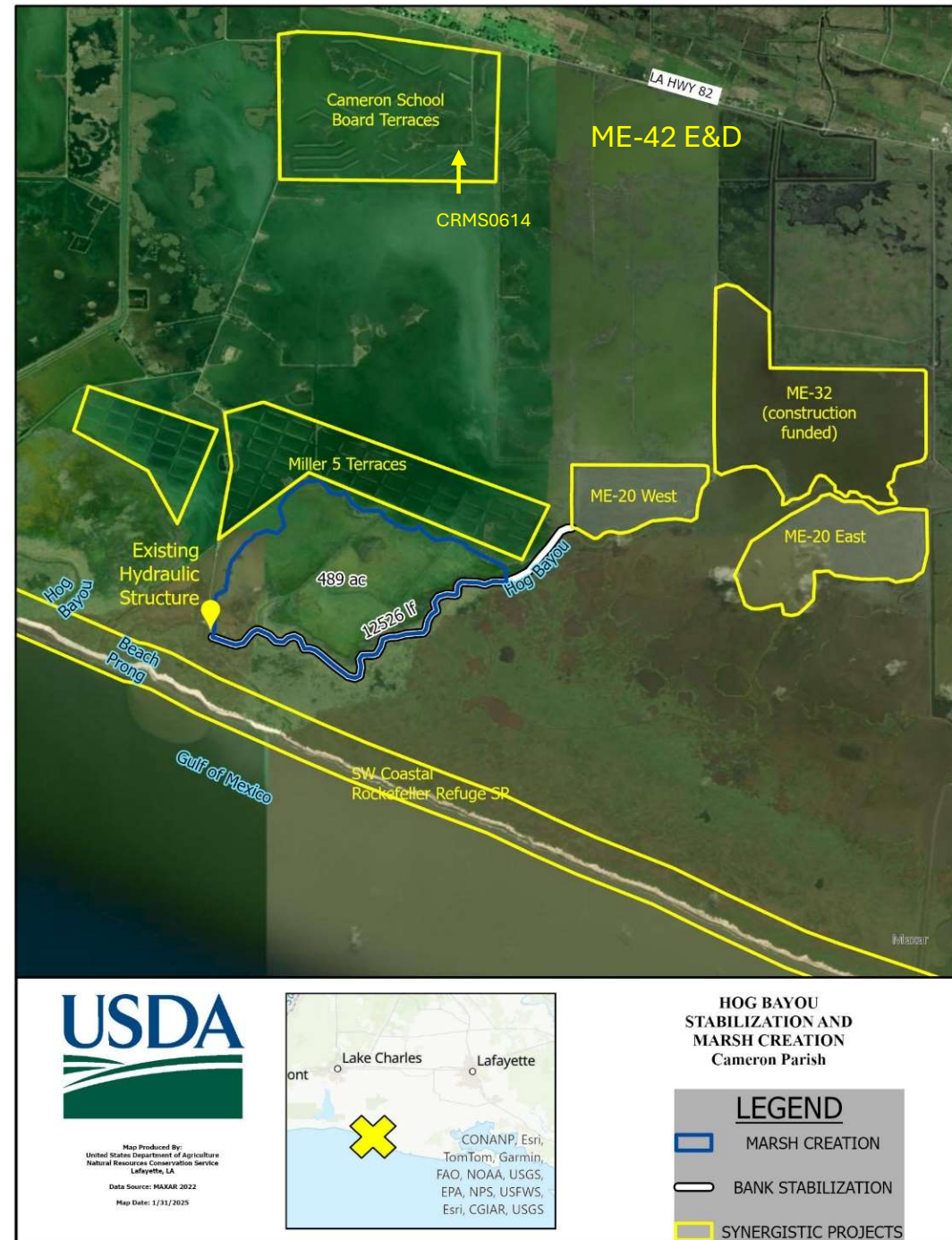
widens the strip of marsh by 2.5 times

Land Change

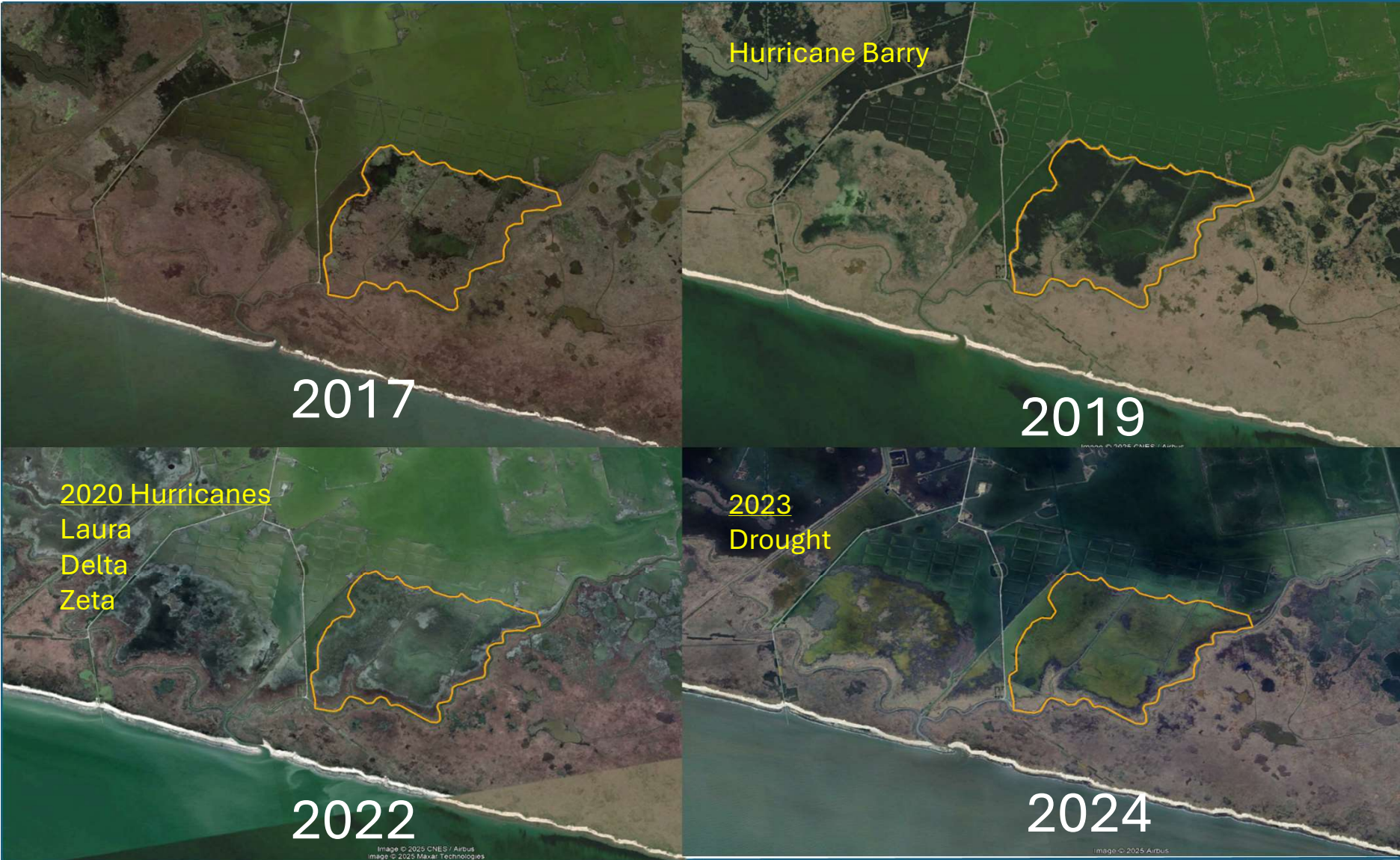
- PPL34 Grand Chenier Marsh Creation
Extended Boundary: -0.87 %/yr (1984-
2024)
- ME-32: -1.04 %/yr (1984-2021)

Caused by:

- Storm surges
- Increased inundation
- Increased salinity levels
- Limited freshwater input

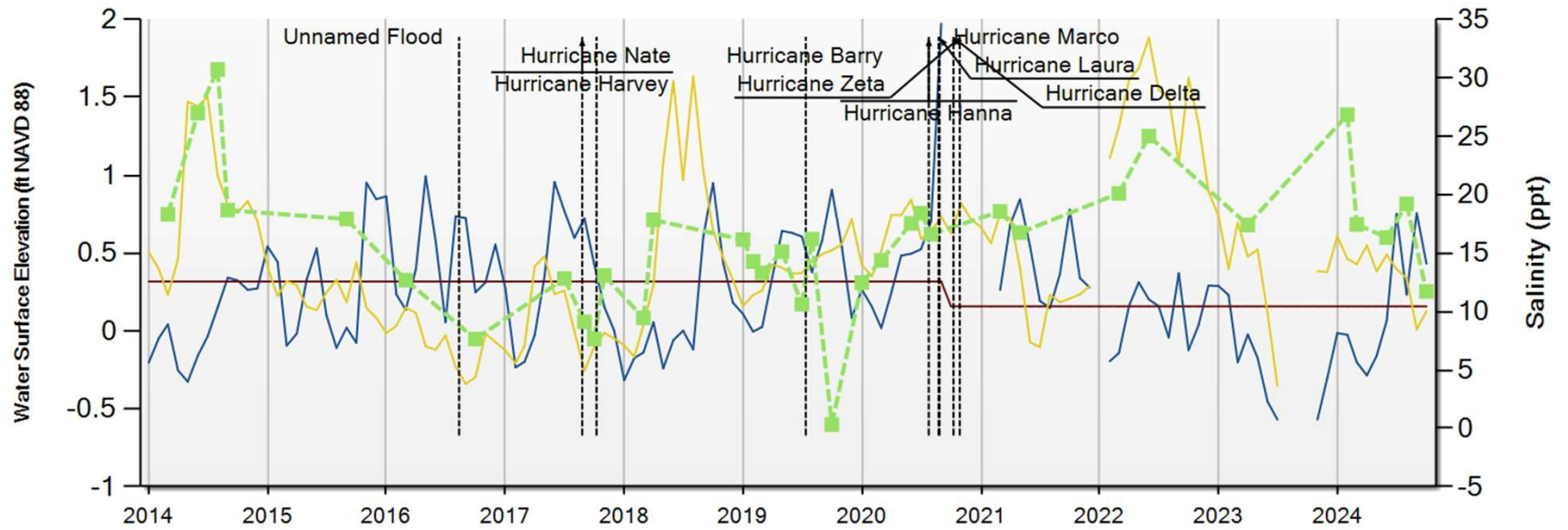


Recent Land Change



Coastwide Reference Monitoring System CRMS0614 - Continuous Hydrographic Data

— Mean Monthly Water Elevation GEOID99
 — Mean Monthly Water Elevation GEOID12B
 — Marsh Elevation GEOID99
 — Marsh Elevation GEOID12B
 — Mean Monthly Salinity
 — Mean Porewater Salinity 10cm



January 2014 - January 2025
Data Source: Monthly Averages



Hog Bayou Stabilization and Marsh Creation

Goals

- Restore degraded marsh
- Stabilize Hog Bayou to reduce inundation and salinity stress

Proposed Solution

- 12526 LF bank stabilization
- 489 acres MC & MN
- Gulf Borrow

Preliminary Project Benefits

371 Net Acres

Construction Cost + Contingency

\$25-30 M

Other Considerations

Landowner supported



Map Produced By:
United States Department of Agriculture
Natural Resources Conservation Service
Lafayette, LA
Data Source: MAXAR 2022
Map Date: 1/22/2024



**HOG BAYOU
STABILIZATION AND
MARSH CREATION
Cameron Parish**

LEGEND

- BANK STABILIZATION
- MARSH CREATION

PPL36 RPT PROJECT FACT SHEET
February 03, 2026

Project Name

South Pecan Island Restoration

Project Location

Region 4, Mermentau Basin – Chenier Subbasin, Southeast of Pecan Island in Vermilion Parish Adjacent to the west of Master Plan 2023 East Pecan Island Marsh Creation (Project ID: 221; Implementation Period 1; deemed consistent with the Master Plan for PPL 36)

Problem

The area south of Pecan Island (PI) within 4 miles south of LA Hwy 82 and Front Ridge Rd is one of the most visible areas of marsh loss on land loss maps along LA Hwy 82 and has been degrading since 1932 (see USGS’s Land Area Change in Coastal Louisiana (1932-2015, [Land Area Change in Coastal Louisiana \(1932 to 2016\)](#)) due to storm surge, failed pasture drawdown impoundments, and petroleum exploration and extraction. Currently, water from the east (Vermilion Bay (VB) and Freshwater Bayou Canal (FBC) via the Humble Canal network) is infiltrating the area through degrading oil-field canal during high tides, storm surges, and sustained east and southeast winds to areas south of Pecan Island and is trapped when water lowers. On an annual average at CRMS sites, water levels are 0.25 – 0.4 ft higher to the west towards Rollover Canal (RC) than east towards FBC. This excess water causes flood and salt stress on the sparse marsh that remains south of PI resulting in decrease marsh health and increased land loss via increased wind fetch and erosion. An interior land change rate of -0.21 %/y was determined from 1985-2020 satellite imagery for the Rockefeller/Pecan Island – 078 Sub-region of the Mermentau Basin by USGS.

Goals

Project goals are to strategically locate:

- (1) a marsh creation area (MCA) to block the excess water from the east and reduce inundation west of the project while replacing/restoring marsh habitat;
- (2) earthen terraces to protect berms along the Humble Canal network from wave energy while creating marsh edge habitat and submerged aquatic vegetation (SAV) habitat; and
- (3) water control structures to increase opportunistic water drainage into the Gulf of America (GoA) via RC and FWB via the Humble Canal network to relieve inundation stress on marsh vegetation and expand marsh in the vast area west of the MCA to RC and north to Hwy 82.

Proposed Solution/Project Features

An integrative project approach would be used to relieve inundation stress and replace/improve marsh habitat while improving existing projects in or near the project area.

Marsh Creation: Sediment would be dredged from White Lake, delivered ~6 miles by a conveyance pipe down Pecan Island Canal (aka Mill Canal), across Highway 82, and placed in a confined area to create and nourish 300 acres of marsh south of Pecan Island.

Terracing: 280 acres of terraces fields with 19,600 linear feet of earthen terraces would be constructed and planted to protect the Humble Canal berms.

Hydrologic: Two water control structures would be installed to increase drainage and relieve inundation stress in the 11,800-acre area between the MCA and RC and Hwy 82:

- fixed-crest weir serving as a barge bay with four 48” diameter flap-gated culverts to drain into Humble Canal
- water control structure draining into RC and, subsequently, to the Gulf of America.

Preliminary Project Benefits

This project would create/nourish ~315 acres of marsh habitat while relieving inundation stress across 11,800 acres to allow additional marsh to reclaim recently lost areas and provide the previous hydrologic distinction between this area and FBC by isolating the Humble Canal network. Healthy marshes are crucial for protecting/maintaining the cheniers (critical landscape feature) and the critical infrastructure of LA Hwy 82 (hurricane evacuation route), communities along Pecan Island (LA Hwy 82 and Front Ridge Road), and petroleum infrastructure in the Humble Canal network. This project would work synergistically with several projects:

- ME-01 Pecan Island Freshwater Introduction – State Only – DNR-CRD
 - Introduces fresher water from the Mermentau Lakes Subbasin to offset saltwater intrusion from Vermilion Bay and Freshwater Bayou Canal via Humble Canal.
- Mermentau Basin Inundation Relief (MBIR) - Louisiana Watershed Initiative
 - Links drainage laterals along LA Hwy 82 to convey water south of the highway and includes other drainage features to divert water into surrounding marshes.
- ME-14 Pecan Island Terraces - CWPPRA
 - Reduces waves from wind fetch in otherwise open-water area closer and parallel to LA Hwy 82.
- Rollover Bayou 9-Pipe Structure - LDWF
 - Drains excess water west of the projects area into Rollover Bayou to reduce inundation stress south of Pecan Island.
- Humble Canal Network Berm Maintenance – Vermilion Corporation/Exxon
 - On-going efforts to stabilize the Humble Canal Network bank lines.

Preliminary Project Costs

The estimated construction cost plus 25% contingency is \$40M - 45M.

Other Considerations

- The largest cost for this project is the dredge distance from White Lake to the project site (6.25 miles) to reach the MCA; however, this MCA location is the linchpin of stress for the entire area northwest of the Humble Canal network to LA Hwy 82.
- A permanent dredge pipeline crossing under LA Hwy 82 for sediment borrow from White Lake could be provided for subsequent projects such as TV-0088 East Rainey Marsh Creation – Pecan Island Component recently engineered and designed by CPRA.
- MCA containment may be provided by elevated canal spoil banks (~3,470 lf) along the southern (~3,000 lf) and northeastern (~470 lf) borders for a potential cost savings.
- Drainage of this area would help the MBIR and ME-01 by increasing retention capacity south of LA Hwy 82.
- Inundation relief over the 11,800 acre project area should increase productivity of the existing marsh (4,130 acres) resulting in marsh expansion. This will be investigated with the Salinity/Inundation Productivity (SIProp) model in candidacy.
- This project is supported by the landowner, Vermilion Corporation.

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Figure 1 - Project Map



Figure 2 - Hydrology Map. Water flowing east to west from Freshwater Bayou Canal and Vermilion Bay enter the area via breaches (blue arrows) in and over topping of the Humble Canal system during times of high water. As water levels lower, water is trapped to the west as the available connections lessen. The 5-year average water level is +0.35 higher to the west (CRMS1965) of the marsh creation area than to the east (CRMS0633).

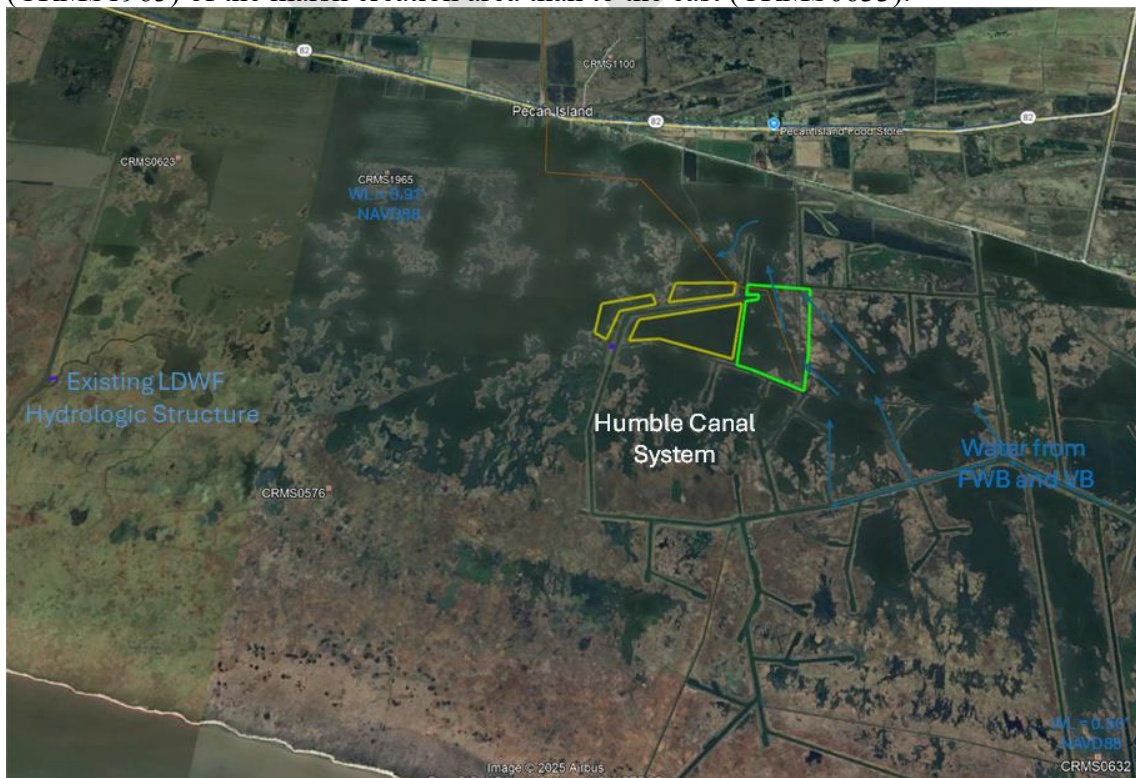


Figure 3 - Site Map with Synergistic Projects. Project Features are a marsh creation unit (green polygon), terraces (gold polygon), and a water control structures (small blue lines). Also included are the synergistic, infrastructure, and landscape features along with the MP 2023 South Pecan Island polygon.



CWPPRA PPL36

South Pecan Island Restoration

Region 4, Mermentau Basin, Vermilion Parish



Contacts:

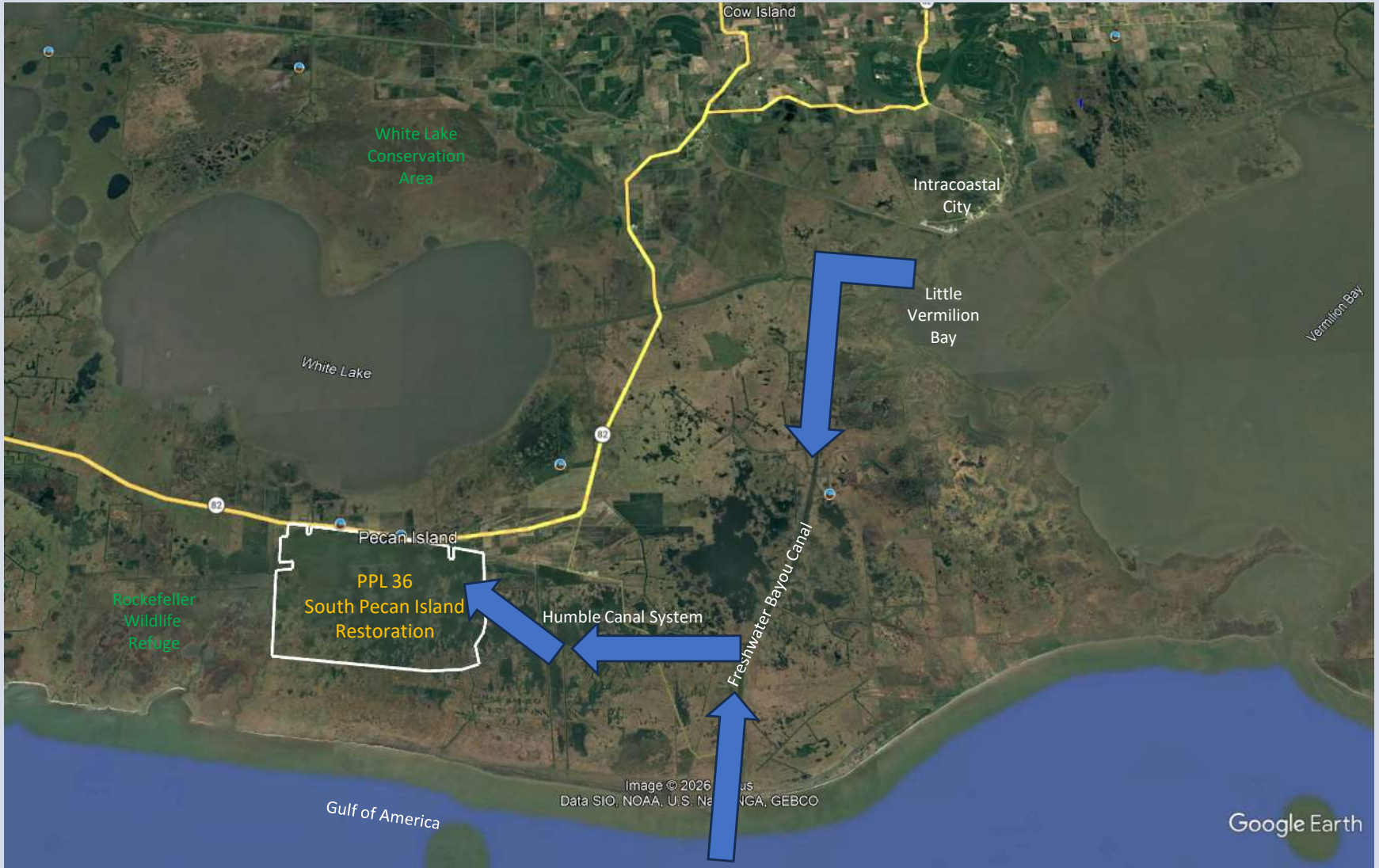
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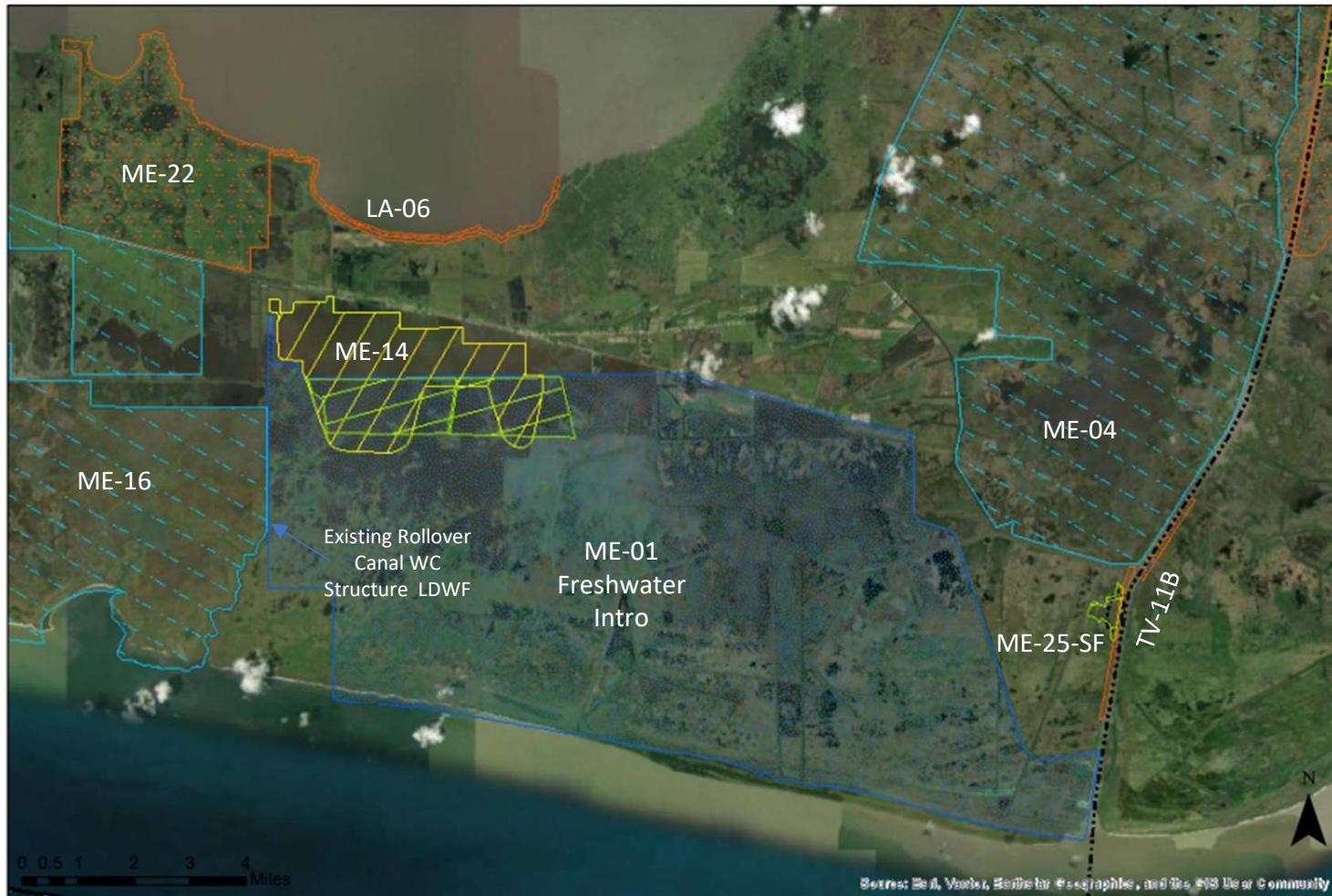
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PPL36 South Pecan Island Restoration - Issues



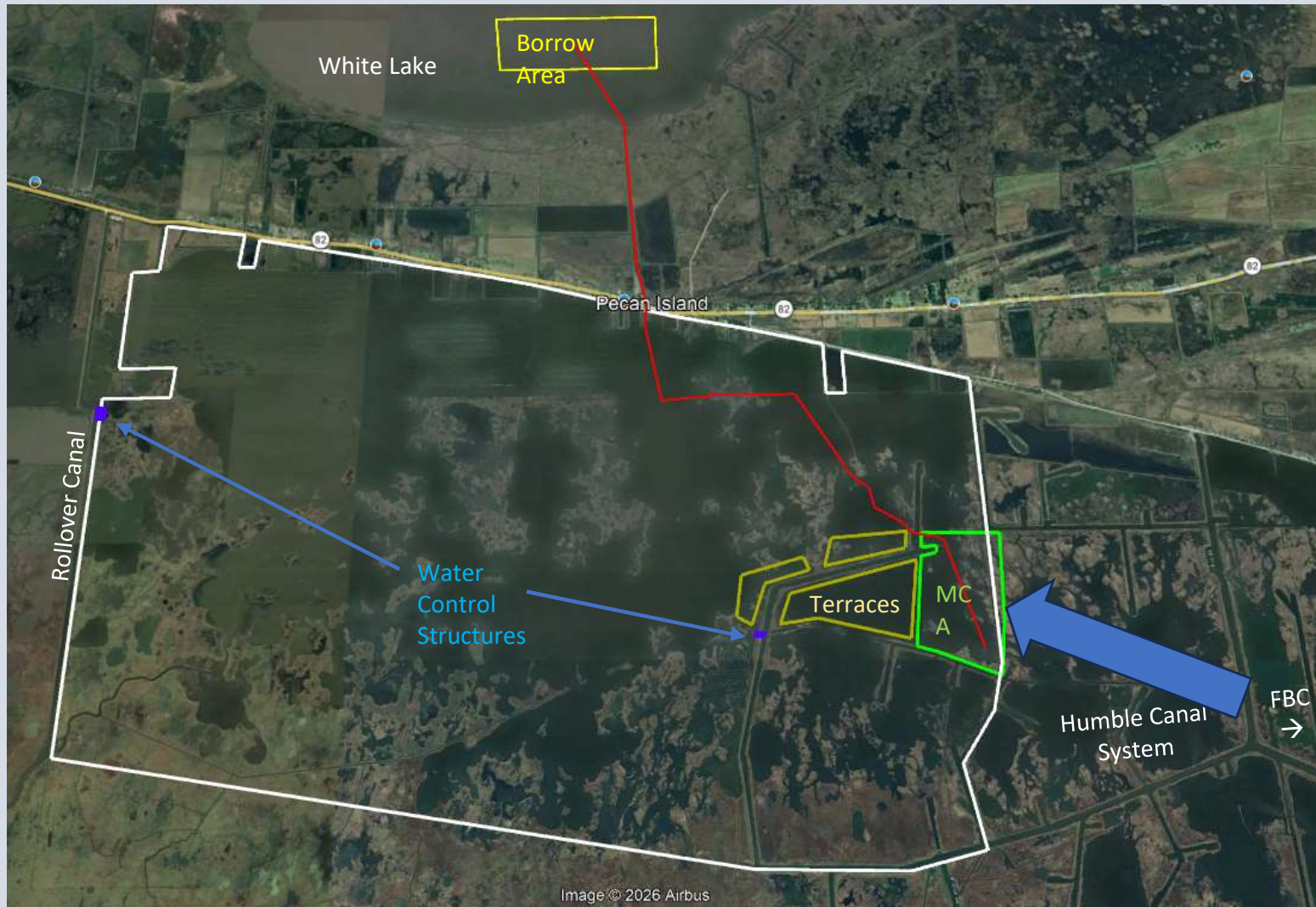


Synergy - South Pecan Island Restoration



Maps for figures provided courtesy of the Coastal Protection and Restoration Authority of Louisiana's Coastal Information Management System (CIMS) Map Viewer interface (<https://cims.coastal.la.gov/MapHome.aspx>).

PPL36 South Pecan Island Restoration - Features



PPL 36 South Pecan Island Restoration

Problem

- Saltier water from the Freshwater Bayou Canal is infiltrating the area via the Humble Canal System through degrading oil-field canal during high tides, storm surges, and sustained east and southeast winds to areas south of Pecan Island and is trapped when water lowers.
- Water levels are 0.25 – 0.4 ft higher in the project area than outside.

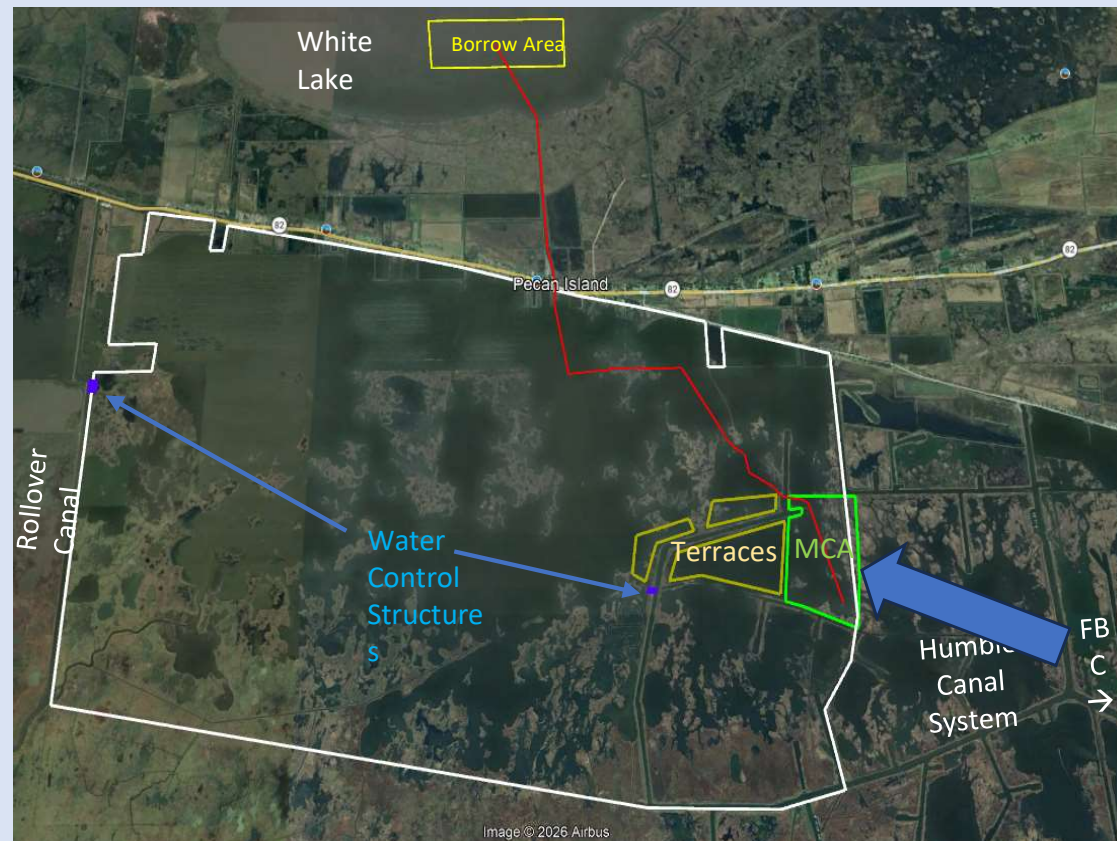
Proposed Solution and Goals

- Marsh Creation: 300 acres to block water from entering from the east. Dredge area in White Lake (~6 miles).
- Terraces: 280 acres of terrace fields to buffer Humble Canal berms.
- Hydrologic: Water Control Structures will be installed to drain into Rollover Canal (6-48" pipes) and Humble Canal (4-48" pipes with a barge bay) to relieve inundation of this 11,800 acre area. Drainage would complement the ME-01 Freshwater Intro which helps relieve inundation north of Hwy 82.
- Provide protection to Hwy 82, critical infrastructure/hurricane evac

Estimated construction cost + 25% contingency
\$40M – \$45M

Estimated net benefits after 20 years

Marsh Creation and Terraces: 250-300 net acres
Hydrologic: To be determined over 4,000+ acres of existing marsh within 11,800 acre area



Other Considerations

- Strong stakeholder/landowner support and participation
- Large cost is dredging infrastructure; however, this project could help reduce cost for future projects such as TV-0088
- Drainage here would benefit LWI's ME Basin Inundation Relief



PPL36 RPT PROJECT FACT SHEET
February 3, 2026

Project Name

Freshwater Bayou Shoreline Protection at Schooner Bayou

Project Location

Region 4, Mermentau Basin, Vermilion Parish; approximately 4 miles southwest of Intracoastal City, Louisiana along the Freshwater Bayou Canal at the junction with Schooner Bayou.

Problem

The western bank of Freshwater Bayou Canal (FBC) between Six Mile Canal and the constructed Freshwater Bayou Bank Stabilization project (TV-11b, CIAP) remains unprotected. This reach, located in very dynamic area at the confluence of FBC and Little Vermilion Bay, continues to experience significant bank erosion due to wakes from marine traffic. The Acadiana Gulf of Mexico Access Channel (AGMAC) Phase II, completed in September 2025, enlarged the FBC navigation channel to increased marine traffic with larger vessels, which will likely worsen erosion and increase the need for protection. If left unprotected, the marsh behind the bank line could begin to experience interior losses as it is exposed to increased wave action and water exchange. The integrity of water level and freshwater regulation in the Mermentau Basin for agricultural by USACE's Schooner Bayou and Leland-Bowman Water Control Structures is also at risk where marsh along the FBC degrades. Many other shoreline protection projects have been successful along the FBC. Based on aerial photography, this reach erodes approximately 5-10 feet per year (1998-2024) and is anticipated to worsen.

Proposed Solution

Approximately 19,409 linear feet (LF) of foreshore rock dike would be constructed along Freshwater Bayou Canal to protect bank lines from erosion. The dike segments would tie into the banks of Schooner Bayou and other spoil banks to maintain hydrology and access to existing oil and gas canals and slips.

Goals

The project goals are to eliminate or reduce shoreline erosion along 19,409 LF of the bank line of FBC.

Project Features

1. 19,409 LF of shoreline protection along Freshwater Bayou Canal.

Preliminary Project Benefits

- 1) *What is the project's estimated total net acres after 20 years?*
Net Acres: 50-100
- 2) *What is the estimated construction cost plus 25% contingency?*
The estimated construction cost + 25% contingency is \$20M - \$25M.
- 3) *What is the project cost effectiveness using fully funded cost/net acres?*
Cost effectiveness - \$300,000 /net acre

Middle of Construction Cost range (\$22,500,000) / Middle of Net Acres range (75 net acres) = Cost effectiveness (\$300,000 /net acre)

- 4) *To what extent does the project provide synergistic effect with other approved and/or constructed restoration projects? (Provide details including proximity, funding/project status, and how the projects collectively contribute to restoration benefits larger than their individual footprints).*

The project provides synergistic effects with the following projects:

- Freshwater Bayou Bank Stabilization (ME-13) – immediately adjacent, funded through CWPPRA. Constructed.
 - Freshwater Bayou Bank Stabilization (TV-11b) – immediately adjacent, funded through Coastal Impact Assistance Program (CIAP). Constructed.
 - Freshwater Bayou Bank Protection (TV-11) – directly across Freshwater Bayou Canal, funded through State of Louisiana Wetland Conservation and Restoration Program Act. Constructed.
 - Schooner Bayou Rehabilitation Project (ME-39) – funded for construction through CIAP. Hydrologic restoration to prevent water bypassing around the USACE Water Control Structures (Locks). Construction anticipated by Sept 2026.
 - Freshwater Bayou Canal Shoreline Protection (TV-79) – directly across Freshwater Bayou Canal, funded through the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act. Constructed.
 - Cole’s Bayou Marsh Restoration (TV-63) – directly across Freshwater Bayou Canal, funded through CWPPRA. Constructed.
 - Freshwater Bayou Shoreline Protection (TV-82) – directly across Freshwater Bayou Canal, funded through State of Louisiana Wetland Conservation and Restoration Program Act. Constructed.
 - Little Vermilion Bay Sediment Trapping (TV-12) – directly across Freshwater Bayou Canal, funded through CWPPRA; also includes plantings by SWC District and LA-39. Constructed.
- 5) *What is the interior loss rate and/or shoreline loss rate? And what is the source of the data?*
The loss rate of the bankline of Freshwater Bayou Canal is estimated to be 5-10 ft/year.
- 6) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc or is it part of a land bridge feature?*
Yes. The Freshwater Bayou is an critical landscape feature that connects to Little Vermilion Bay and the Gulf of America. Schooner Bayou connects FBC to the ME Basin.
- 7) *Does the project have a net positive impact on critical and non-critical infrastructure?*
The project would provide substantial net positive impacts by protecting marsh along the western bank of Freshwater Bayou Canal, an important reach of the AGMAC. This project would stabilize the area containing USACE’s Control Structures (Schooner Bayou and Leland-Bowman Locks).

Other Considerations

This project is supported by the Vermilion Parish Police Jury and is included in their Coastal Master Plan. The proposed project has potential utility/pipeline issues.

Preliminary Construction Costs

The estimated construction cost plus 25% contingency is \$15M - \$20M.

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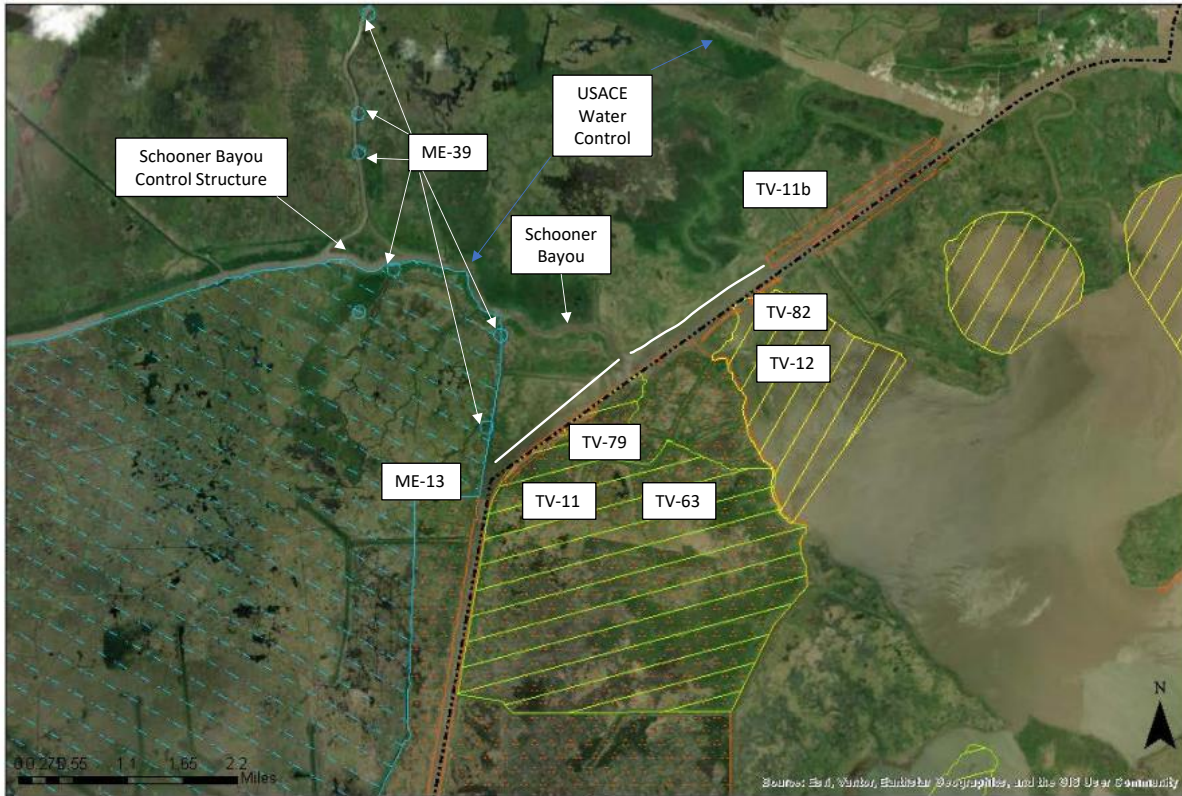
Figure 1. Site Map



Figure 2. Synergy



Existing Projects in the Area (Synergy)



Maps for figures provided courtesy of the Coastal Protection and Restoration Authority of Louisiana's Coastal Information Management System (CIMS) Map Viewer interface (<https://cims.coastal.la.gov/MapHome.aspx>).

CWPPRA PPL36

Freshwater Bayou Shoreline Protection at Schooner Bayou Region 4, Mermentau Basin, Vermilion Parish



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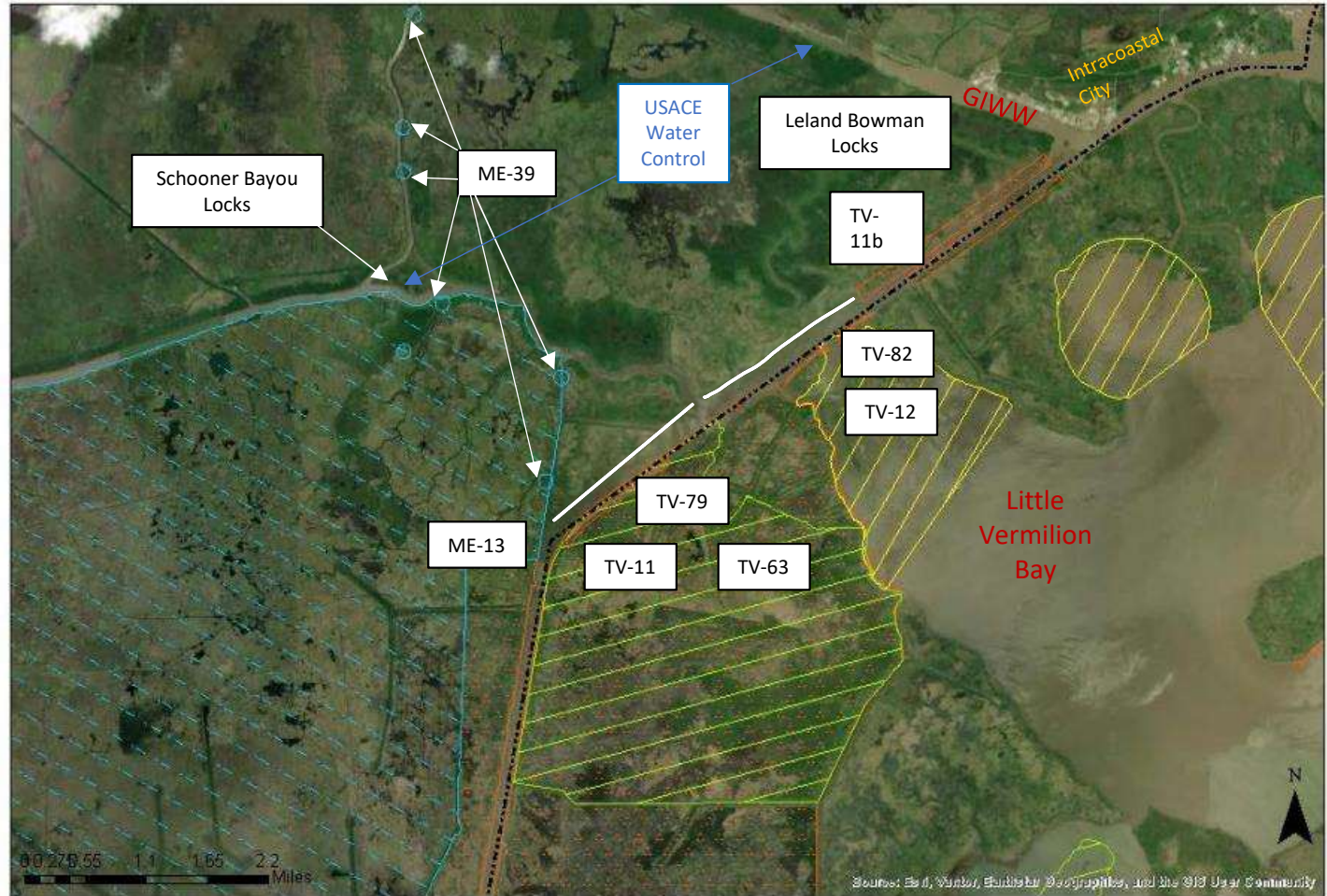
Shannon Neveaux - Vermilion Parish Coastal Restoration and Protection Committee; (337) 652-2484; shanrn@bellsouth.net

Highly synergistic with other projects to provide **comprehensive shoreline protection** along **Freshwater Bayou Canal**

Protection marsh between **USACE's Schooner Bayou and Leland Bowman (GIWW) Locks** to **prevent hydraulic bypass**



Existing Projects in the Area (Synergy)



Maps for figures provided courtesy of the Coastal Protection and Restoration Authority of Louisiana's Coastal Information Management System (CIMS) Map Viewer interface (<https://cims.coastal.la.gov/MapHome.aspx>).



PPL 36

Freshwater Bayou Shoreline Protection at Schooner Bayou

Problem

- This reach is unprotected and experiences significant bank erosion due to wakes from marine traffic and exposure to Little Vermilion Bay.
- With the construction of the AGMAC Phase II, increased marine traffic and larger vessels are anticipated, which increase the need for protection.
- Bank erodes approximately 5-10 ft/year (1998-2024). This is anticipated to worsen with AGMAC.
- Integrity of Schooner Bayou, which holds USACE's Schooner Bayou Control Structure, is also at risk.

Proposed Solution and Goals

- Construct approximately 19,409 LF of foreshore rock dike along Freshwater Bayou Canal to eliminate or reduce bank erosion.
- Dike segments would tie into the banks of Schooner Bayou and other spoil banks to maintain hydrology and access to oil and gas canals.

Estimated construction cost + 25% contingency:

\$20M - \$25M

Estimated net benefits after 20 years:

50 – 100 net acres

PPL36 Freshwater Bayou Shoreline Protection at Schooner Bayou

