CWPPRA

PPL 34 Regional Planning Team (RPT) Meetings

Final Package Region 1

7 February 2024

Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA)
Priority Project List 34
Regional Planning Team Meetings

Region 4 – Lake Charles – January 30, 2024, 9:30 am
Region 3 – Morgan City – January 31, 2024, 9:30 am
Region 1 & 2 – Lacombe – February 1, 2024, 9:00 am

AGENDA

Meeting Purpose: The Regional Planning Teams (RPTs) will accept project and demonstration project nominations for developing the 34th Priority Project List (PPL34). Public comments are welcomed. RPTs will select PPL 34 nominees via electronic voting on February 23, 2024.

1. **Welcome and Introductions**
   RPT Team Leader, Louisiana Coastal Protection and Restoration Authority (CPRA), U.S. Army Corps of Engineers (USACE), CWPPRA Representatives, Parish Representatives, State Representatives, RPT members

2. **Review of CWPPRA Strategy and Criteria for Project Selection (Kaitlyn Richard, USACE)**
   Overview of selection criteria and other considerations utilized to determine most impactful projects.

3. **PPL 34 Selection Process Brief Overview and Ground Rules for Today's PPL 34 Nomination Meeting (RPT Leader)**

4. **Explanation of Coastwide Voting Process (RPT Leader)***

5. **PPL 34 Project Nominations (Entire RPT)**
   Nominees must be consistent with and support the state's 2017 and/or draft 2023 Coastal Master Plan.

6. **Announcements of upcoming PPL 34, Task Force, Technical Committee and Other Program Meetings**

7. **Adjourn**

**Parishes within each basin will be asked to identify who will vote during the coastwide electronic vote by January 29th.*

No additional projects will be nominated after the RPT meetings, nor will any significant changes to projects proposed at these meetings be allowed. Public comments will be heard during the meeting and additional written comments may be forwarded to CWPPRA Project Manager, Terri Von Hoven, by February 16, 2024 for dissemination to the CWPPRA agencies.

Coastal Wetlands Planning, Protection & Restoration Act

34th Priority Project List

Region 1

Regional Planning Team (RPT) Meeting

Lead:
Brandon Champagne, CPRA

February 1, 2024

Kaitlyn Richard, USACE

Strategy and Criteria for Project Selection

Scan Barcode to Access Strategy and Criteria for Project Selection

https://www.mvn.usace.army.mil/Missions/Environmental/CWPPRA

Selection Criteria

- Cost Effectiveness
- Synergy
- Critical Area of Need
- Critical Landscape Feature
- Critical Infrastructure Protection
- Other Considerations

Other Considerations

- Sustainable Borrow Source
- Sustainability of Specific Project Site
- Water Quality
- Excessive Maintenance
- Liability
- Ease of Construction
- Geography - Basin, Political Boundary, Distribution
- Willing Landowners and Stakeholder Support
- Partnerships
- Oysters
- Pipelines/Utilities
- Operations and Maintenance
- Number of Previous Phase 2 (Construction and Operations, Maintenance, and Monitoring) Requests

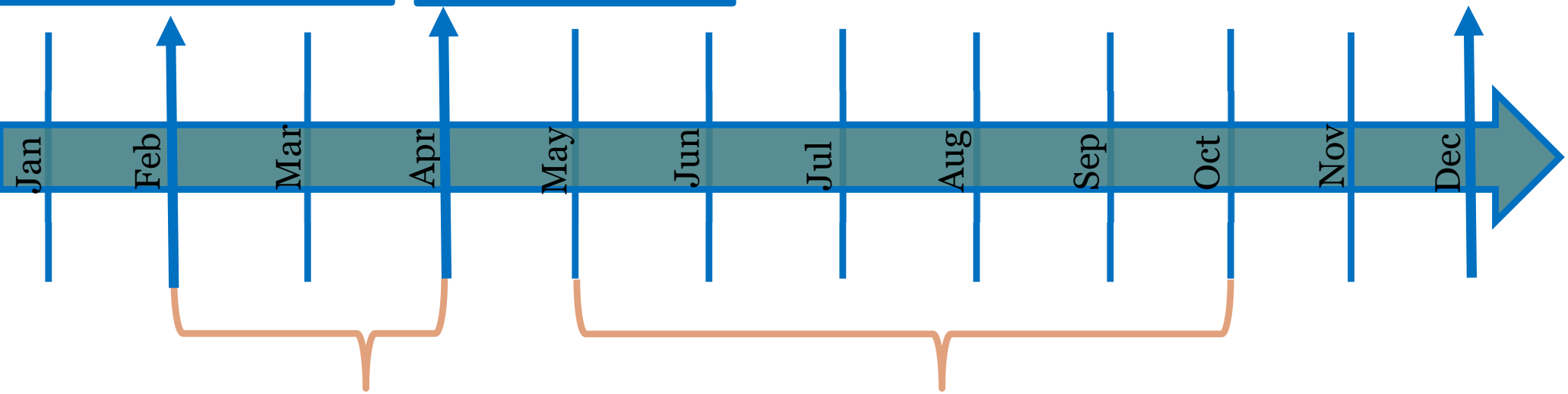
Not all inclusive

PPL Timeline

Coastwide Vote (Feb)
- 21 basin nominees, 1 coastwide, up to 6 demos

TC Mtg (Apr)
- Up to 10 candidates
- up to 3 demos

TC Mtg (Dec)
- Recommend up to 4 projects for Phase 1 funding



Mar - Apr
- Agencies assigned to projects
- Fact sheets developed
- Workgroup review
- Workgroups may recommend no demos move forward

May - Oct
- Site visits
- Workgroup evaluations

REGION 1

Brandon Champagne, CPRA

- PPL 34 RPT meetings to accept project nominees:
  - Region IV - Jan. 30, 2024, 9:30 am
  - Region III – Jan. 31, 2024, 9:30 am
  - Regions II and I - Feb. 1, 2024, 9:30 am

Region 1 Parishes

- Eligible parishes for Pontchartrain Basin:
  - Plaquemines
  - Jefferson
  - Orleans
  - St. Bernard
  - Ascension
  - Livingston
  - St. James
  - St. Charles
  - St. John the Baptist
  - St. Tammany
  - Tangipahoa

RPT Meetings

- Project proposals should be consistent with the state's **2023 Coastal Master Plan**.
- A project can only be nominated in one basin (except for coastwide projects).
  - Proposals that cross multiple basins shall be nominated in the basin with majority area of project influence.
- If similar projects are proposed within the same area, the RPT Lead will call for a break for RPT representatives to discuss and determine the best path forward.

RPT Meetings

- All proposals submitted in advance will go in the order indicated on the agenda.
- A request for other proposals will occur after presentations for proposals submitted in advance.
- Limit project proposal presentations to 5 minutes.
- Public comments on project proposals will be accepted verbally during the RPT meetings and in writing by **February 16, 2024**.
- Limit comments and questions today to PPL 34 proposals and process.

Coastwide Projects

- Proposes a proven technique applicable across the coast (e.g., vegetative planting).
- Can be nominated at any RPT meeting.
- Engineering/Environmental Workgroups will validate that projects fit CWPPRA SOP criteria.
- All coastal parishes & agencies will vote on selection of up to one coastwide nominee.

Demonstration Projects

- Demonstrate a restoration technique or material that can be transferred to other areas of the coastal zone.
- Engineering/Environmental Workgroups will validate that demos fit CWPPRA SOP criteria.
- All coastal parishes & agencies will vote on selection of up to 6 demonstration projects.
- Previous candidates must be ***re-nominated*** for PPL 34.

Coastwide Vote

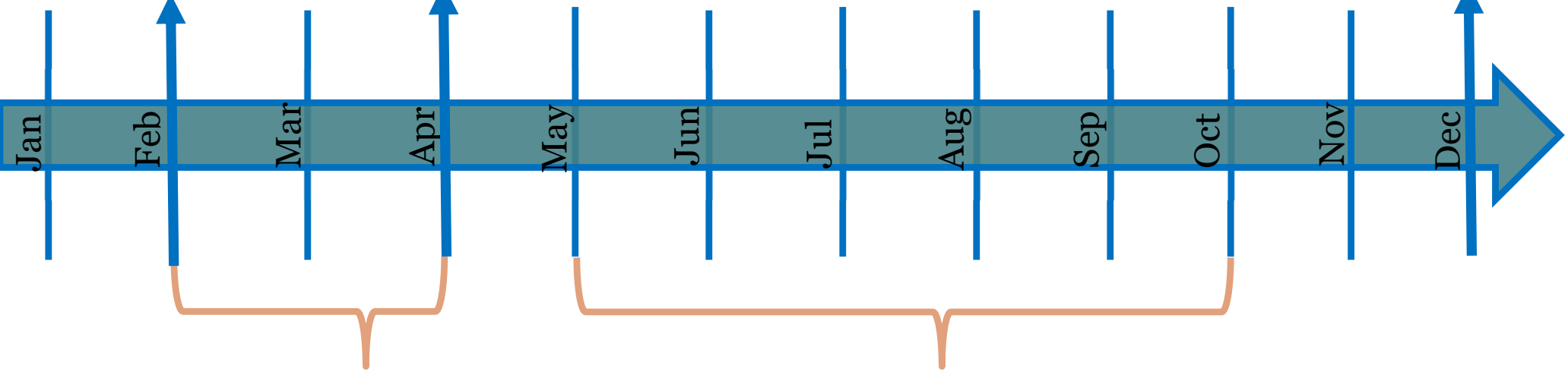
- An electronic vote will be held **23 February** to select projects, with the number of projects per basin determined by loss rate (i.e., basins with the highest loss have the most projects):
  - Barataria: 4
  - Terrebonne: 4
  - Breton Sound: 3
  - Pontchartrain: 3
  - Mermentau: 2
  - Calcasieu/Sabine: 2
  - Teche/Vermilion: 2
  - Atchafalaya: 1
  - Coastwide: 1
  - **22 total nominees** (plus up to 6 demo projects)

PPL Timeline

Coastwide Vote (Feb)
- 21 nominees, 1 coastwide, up to 6 demos

TC Mtg (April)
- Up to 10 candidates
- up to 3 demos

TC Mtg (December)
- Recommend up to 4 projects for Phase 1 funding



March - April
- Agencies assigned to projects
- Fact sheets developed
- Workgroup review
- Workgroups may recommend no demos move forward

May - October
- Site visits
- Workgroup evaluations

Written Comments

Send written comments on proposals presented today to USACE by **16 February 2024**

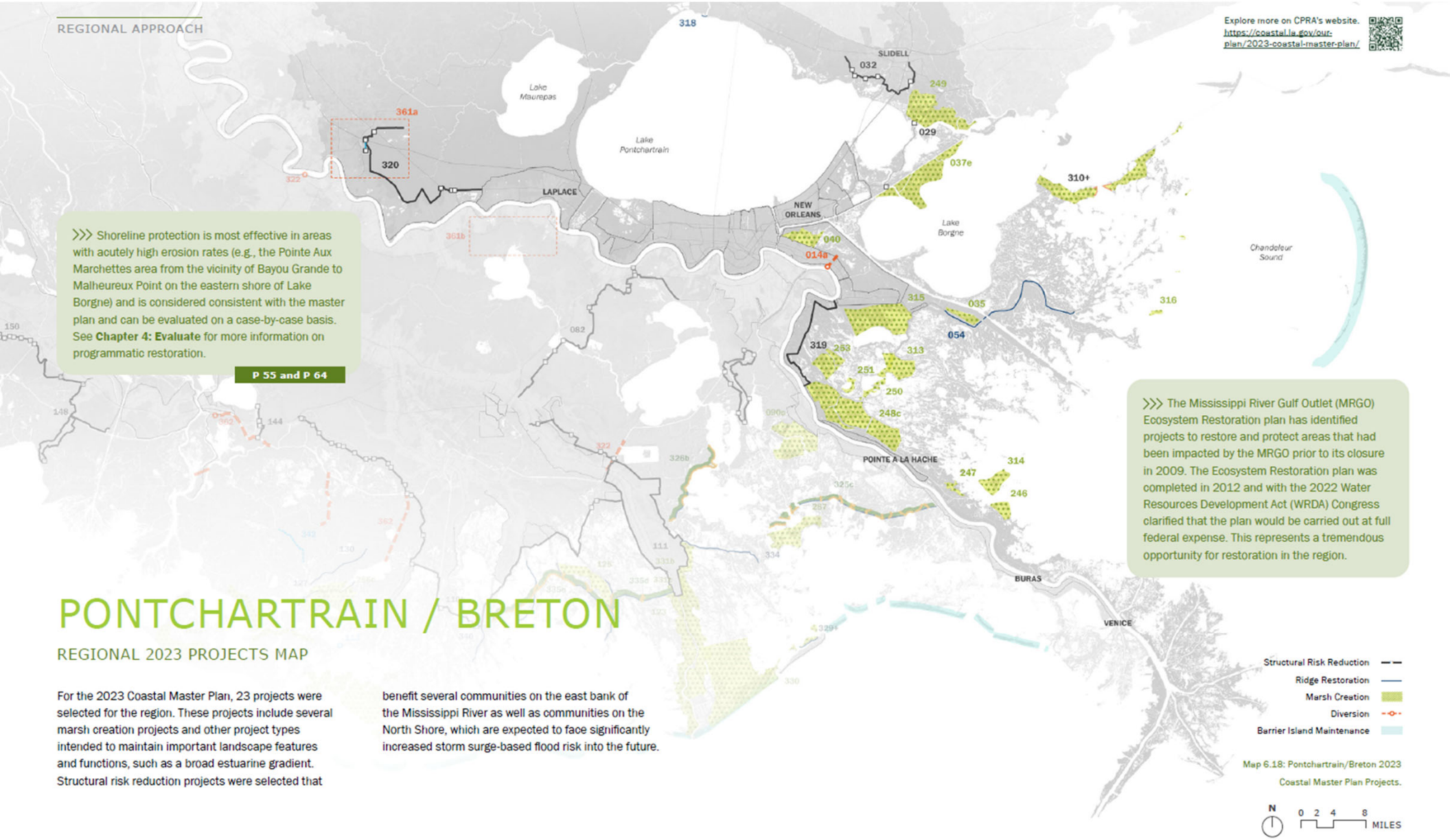
Terri Von Hoven
U.S. Army Corps of Engineers
CEMVN-PMR, RM 331
7400 Leake Avenue
New Orleans, LA 70118

Email: Terri.m.vonhoven@usace.army.mil

(this information has been provided via CWPPRA Newsflash and posted on the USACE CWPPRA webpage)

For more info, please visit lacoast.gov or contact Terri Von Hoven at Terri.m.vonhoven@usace.army.mil

Explore more on CPRA's website. https://coastal.la.gov/our-plan/2023-coastal-master-plan/



>>> Shoreline protection is most effective in areas with acutely high erosion rates (e.g., the Pointe Aux Marchettes area from the vicinity of Bayou Grande to Malheureux Point on the eastern shore of Lake Borgne) and is considered consistent with the master plan and can be evaluated on a case-by-case basis. See **Chapter 4: Evaluate** for more information on programmatic restoration.

P 55 and P 64

>>> The Mississippi River Gulf Outlet (MRGO) Ecosystem Restoration plan has identified projects to restore and protect areas that had been impacted by the MRGO prior to its closure in 2009. The Ecosystem Restoration plan was completed in 2012 and with the 2022 Water Resources Development Act (WRDA) Congress clarified that the plan would be carried out at full federal expense. This represents a tremendous opportunity for restoration in the region.

PONTCHARTRAIN / BRETON

REGIONAL 2023 PROJECTS MAP

For the 2023 Coastal Master Plan, 23 projects were selected for the region. These projects include several marsh creation projects and other project types intended to maintain important landscape features and functions, such as a broad estuarine gradient. Structural risk reduction projects were selected that benefit several communities on the east bank of the Mississippi River as well as communities on the North Shore, which are expected to face significantly increased storm surge-based flood risk into the future.

Structural Risk Reduction
Ridge Restoration
Marsh Creation
Diversion
Barrier Island Maintenance

Map 6.18: Pontchartrain/Breton 2023 Coastal Master Plan Projects.

N
0 2 4 8 MILES

Region 1

Pontchartrain Basin

Project ID	Agency	Project Name
R1, PO-01	EPA	Central Wetlands Marsh Creation
R1, PO-02	EPA	Iles de Lapin et de Cochon Marsh Creation Marsh Creation
R1, PO-03	EPA	Tchefuncte River Restoration
R1, PO-04	FWS	Bayou Sauvage Shoreline Protection and Marsh Creation
R1, PO-05	NOAA	Hopedale Marsh Creation
R1, PO-06	NOAA	North Rigolets Marsh Creation
R1, PO-07	NRCS	Manchac WMA Shoreline Protection
R1, PO-08	FWS	Biloxi Marsh Shoreline Protection

PPL34 Region 1 Nominated Projects

Pontchartrain Basin Project

- R1-PO-01 Central Wetlands Marsh Creation
- R1-PO-02 Iles de Lapin et de Cochon Marsh Creation
- R1-PO-03 Tchefuncte River Restoration
- R1-PO-04 Bayou Sauvage Shoreline Protection and Marsh Creation
- R1-PO-05 Hopedale Marsh Creation
- R1-PO-06 North Rigolets Marsh Creation
- R1-PO-07 Manchac WMA Shoreline Protection
- R1-PO-08 Biloxi Marsh Shoreline Protection

Demonstration Project

DEMO-01 Gulf Shoreline Protection Alternatives Analysis

Louisiana

0 6.5 13 19.5 26 Kilometers

0 6.5 13 19.5 26 Miles

Region 1 PPL 34
Regional Planning Team Meeting
Lacombe, LA
February 01, 2024
Background Image:
ESRI Basemap layer: Earthstar Geographics Imagery

CWPPRA RPT Region 1

Pontchartrain Basin

PPL34 PROJECT FACT SHEET
February 1, 2024

Project Name
Central Wetlands Marsh Creation

Master Plan Strategy
Central Wetlands Marsh Creation (2023 Master Plan ID: 040; Implementation Period 1):
Creation of marsh within a footprint of approximately 3,800 acres in Central Wetlands near Bayou Bienvenue to create new wetland habitat, restore degraded marsh, and reduce wave erosion.

Project Location
Region 1, Pontchartrain Basin, Orleans Parish & St. Bernard Parish

Problem
Over the past decades, the wetlands and wetland function in the area have been lost because of altered hydrology due to impoundment, subsidence, and saltwater intrusion. The area was heavily impacted by the construction of the MRGO in the 1960's. The majority of the area is shallow open water, littered with cypress stumps and snags. The land loss rate is 2.04%/yr, based upon the 2014 Bayou Bienvenue WVA.

Proposed Solution
There are 2 options proposed and will depend upon field measurements and engineering design. The West option create/nourish 350 acres and the East option creates/nourishes 326 acres. Both options use sediment dredged from the Mississippi River. The project would have net positive impact to critical infrastructure by providing addition marsh buffer between Lake Borgne and the City of New Orleans and help protect the New Orleans East Hurricane protection levee.

Project Benefits
Create/nourish West Option 350 acres (create 350 acres and 0 nourish acres) or East option (create 326 acres and 0 nourish acres) of emergent marsh with sediment dredged from the Mississippi River. The visibility of the project, due to its location, lends itself to educational and outreach opportunities. Florida Avenue in the Lower Ninth Ward is south of the project area. Restoration in this area would build New Orleans' defenses against hurricanes and flooding and offer opportunities for recreation and wildlife habitat.

Project Costs
The estimated construction cost including 25% contingency is $25-30M.

Preparer(s) of Fact Sheet:
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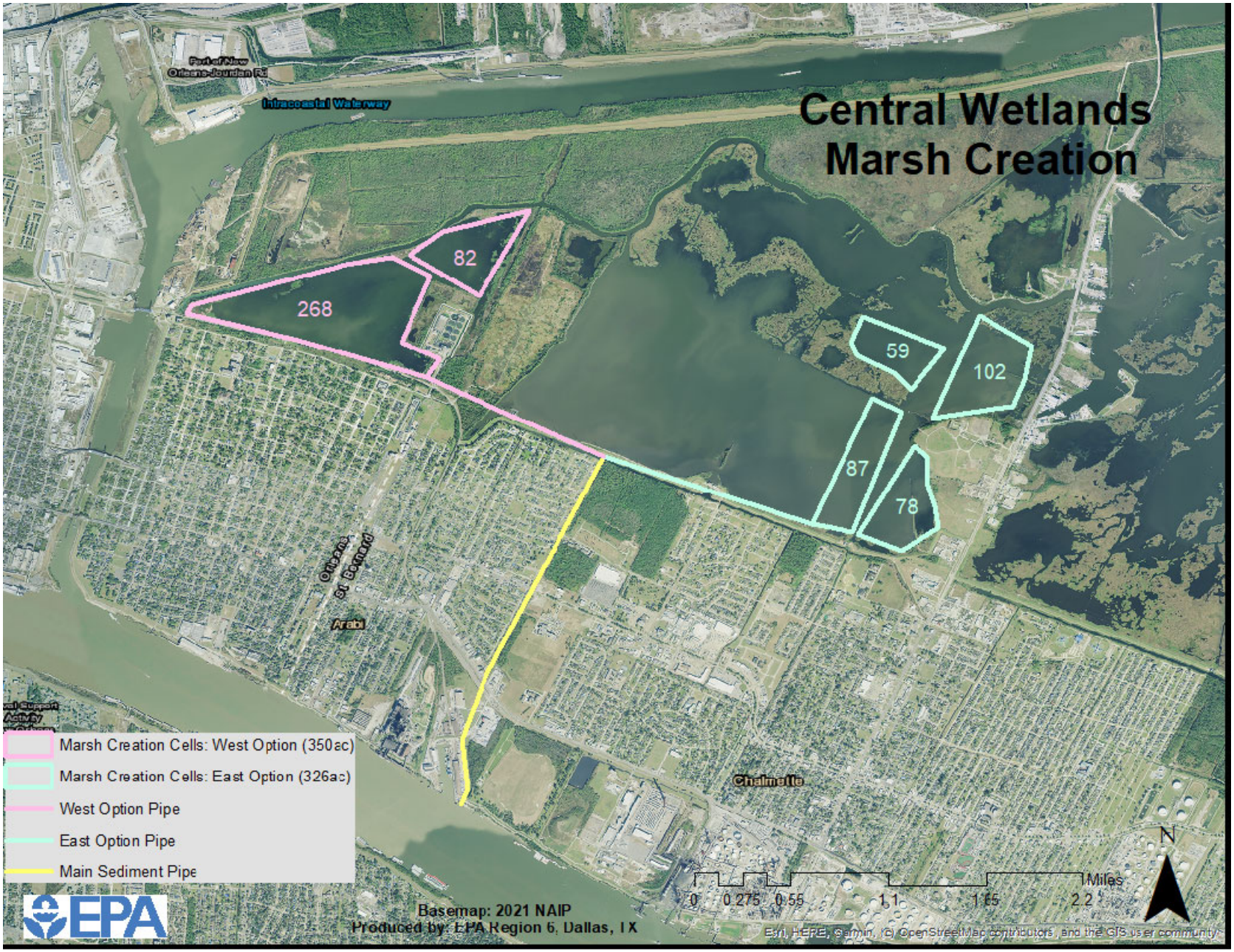
Central Wetlands
Marsh Creation
Intracoastal Waterway
82
268
59
102
87
78
Orleans
St Bernard
Arabi
Chalmette
Marsh Creation Cells: West Option (350ac)
Marsh Creation Cells: East Option (326ac)
West Option Pipe
East Option Pipe
Main Sediment Pipe
EPA
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
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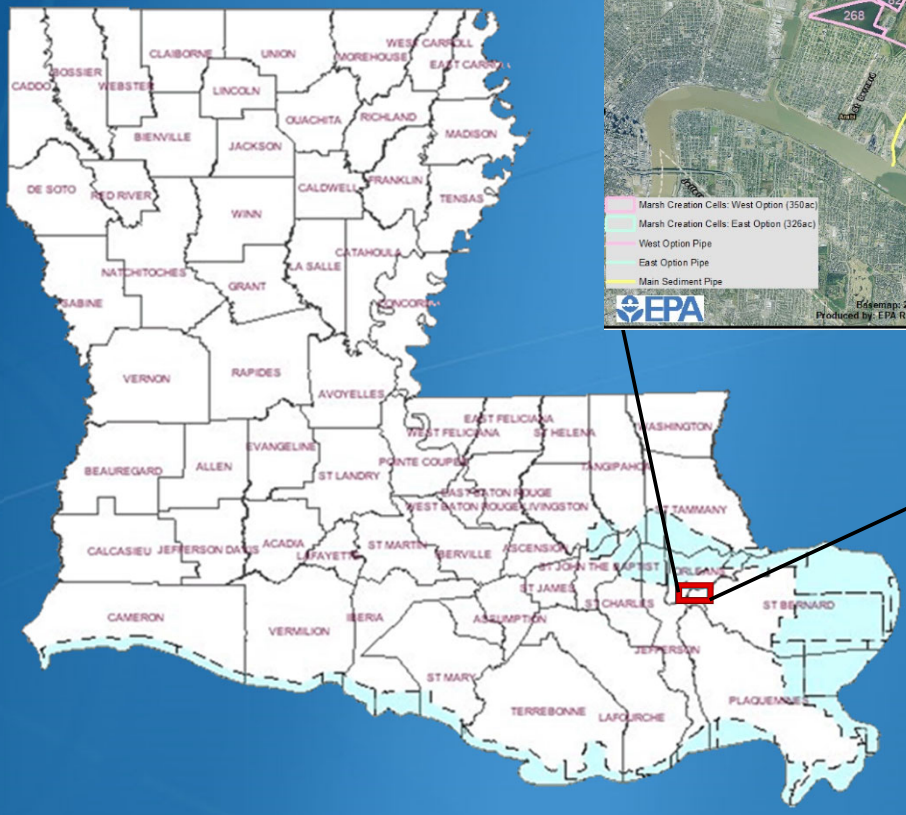
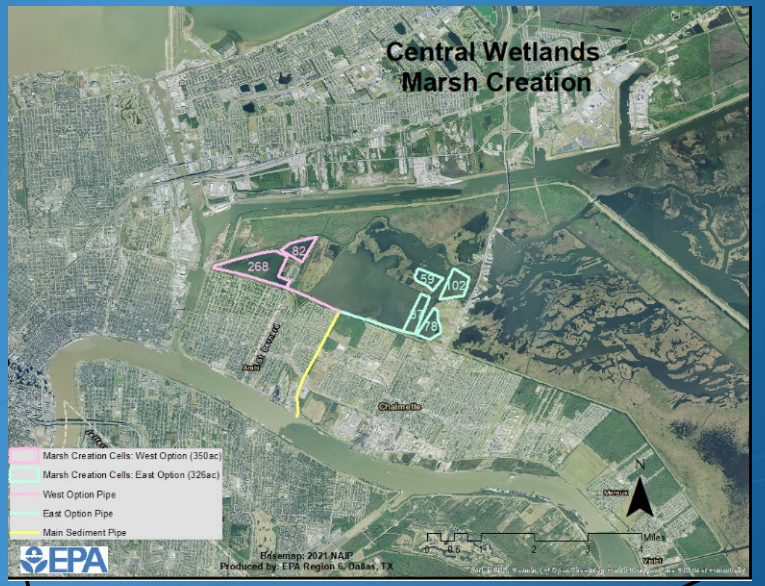
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Central Wetlands Marsh Creation

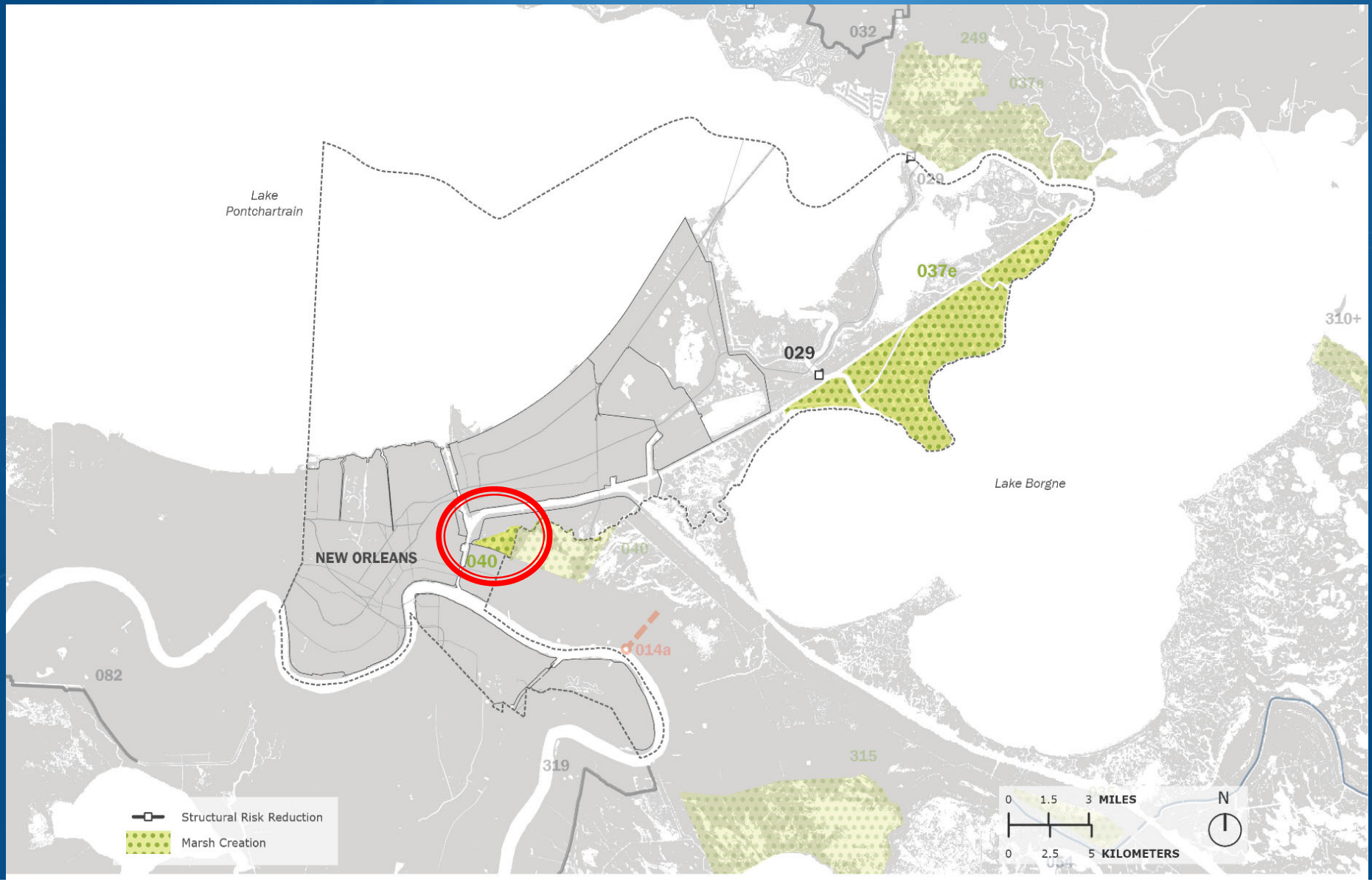




Coastal Wetlands Planning, Protection and Restoration Act

2023 Master Plan Solution

Central Wetlands Marsh Creation (2023 Master Plan ID: 040; Implementation Period 1): Creation of marsh within a footprint of approximately 3,800 acres in Central Wetlands near Bayou Bienvenue to create new wetland habitat, restore degraded marsh, and reduce wave erosion.



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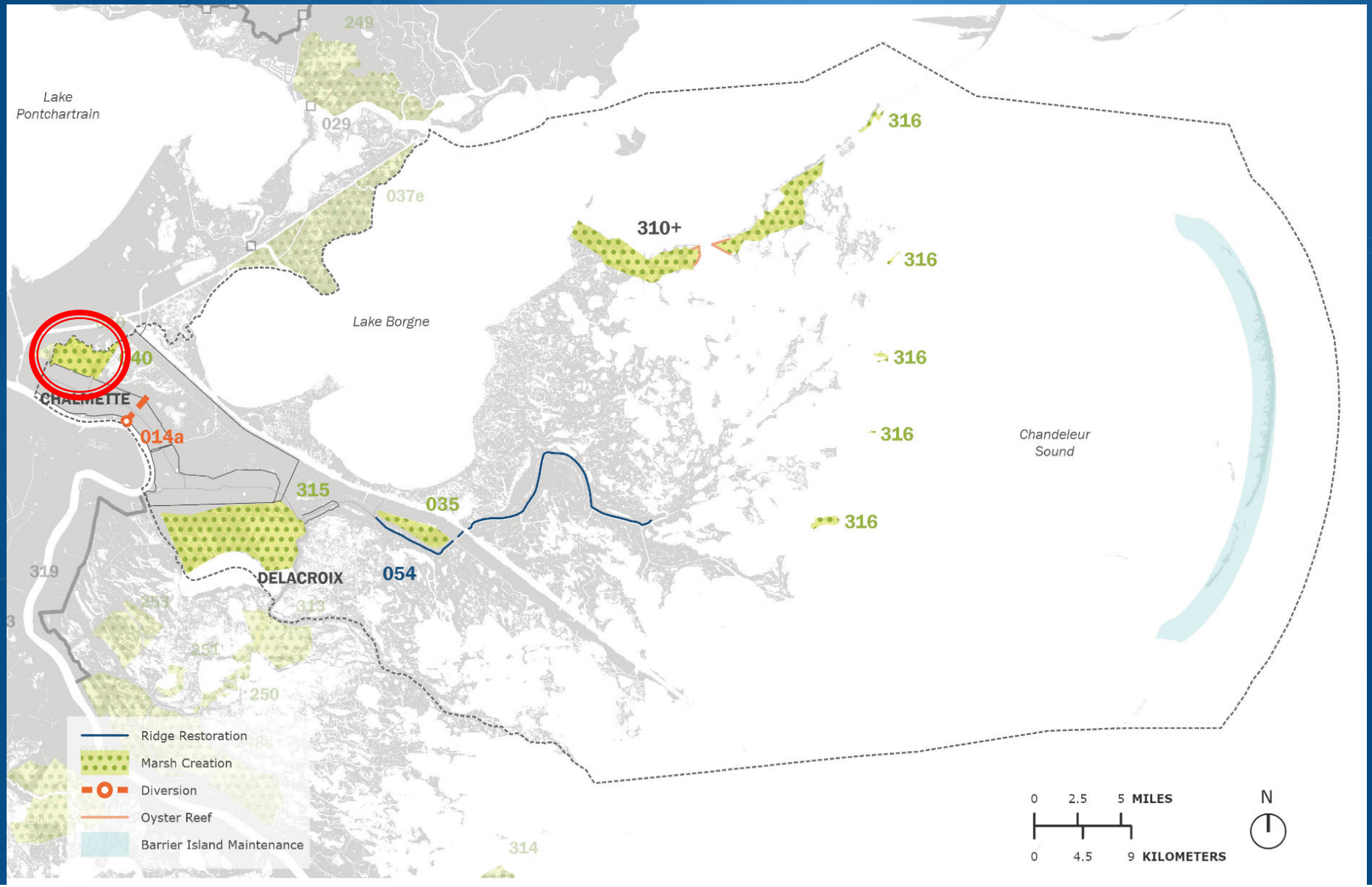
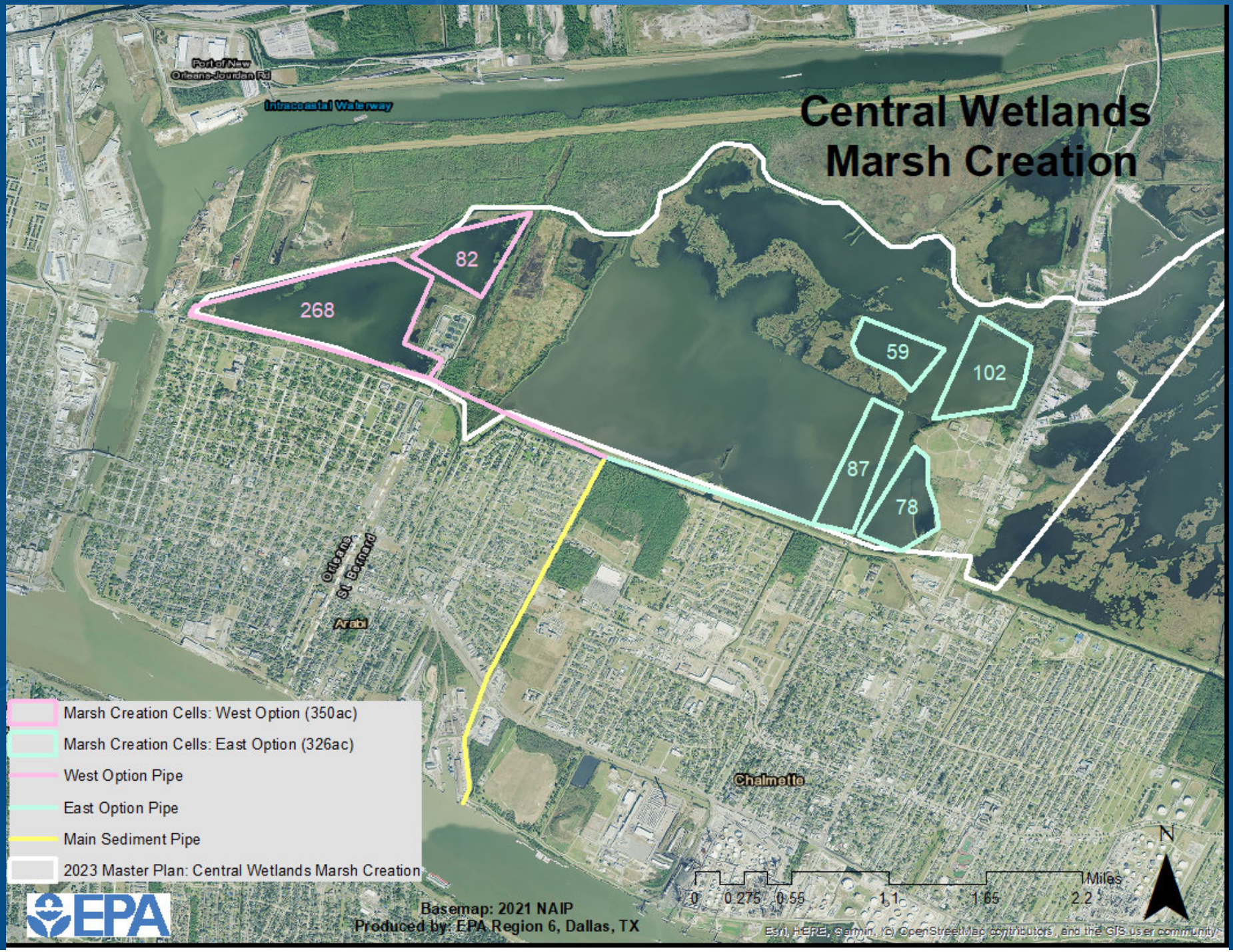
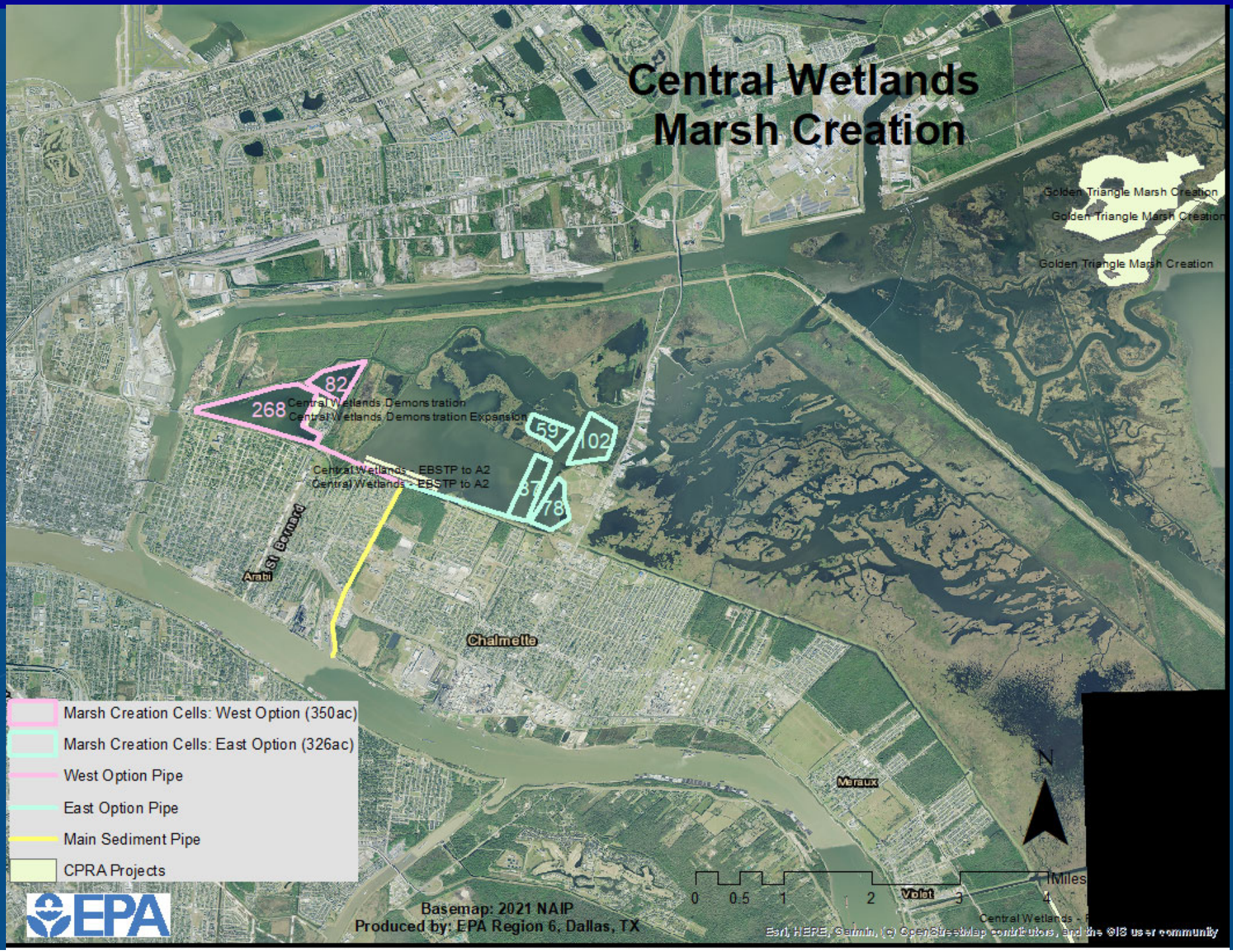


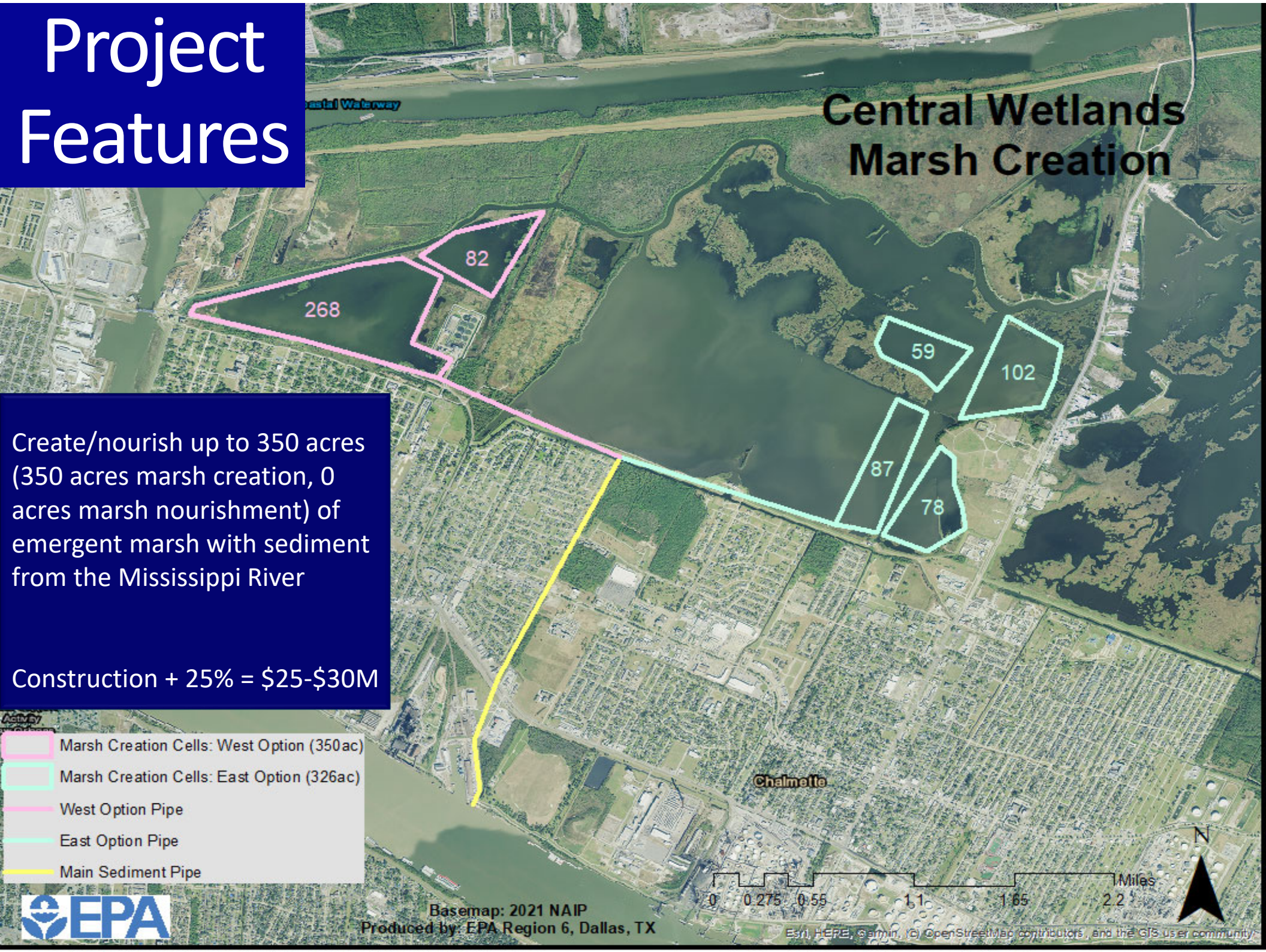
2023 Master Plan Solution



Project Synergy



Project Features



Create/nourish up to 350 acres (350 acres marsh creation, 0 acres marsh nourishment) of emergent marsh with sediment from the Mississippi River

Construction + 25% = $25-$30M

PPL34 PROJECT FACT SHEET
February 1, 2024

Project Name
Iles de Lapin et de Cochon Marsh Creation

Project Location
Region 1, Pontchartrain Basin, Orleans & St. Tammany Parish

Master Plan Strategy
New Orleans East Marsh Creation (2023 Master Plan ID: 037E; Implementation Period 2): Creation of marsh within a footprint of approximately 29,000 acres in a portion of the New Orleans East Landbridge Marsh Creation project to create new wetland habitat, restore degraded marsh, and reduce wave erosion.

Problem
The project area includes fragmented marsh on the New Orleans landbridge in Orleans Parish, and an area in St. Tammany Parish adjacent to The Rigolets. The area has experienced impacts from storm surge and hurricanes as well as subsidence. Without continued sediment input, marshes cannot maintain viable elevations due to ongoing subsidence. Based on the New Orleans Landbridge (PO-169) project, loss rates in the area are estimated to be -0.35% per year; however the loss rate for Fritchie Marsh (PO-173) is -1.09%/yr.

Proposed Solution
The proposed project would create/nourish approximately 349 acres (create 209 acres and nourish 140 acres) of marsh using sediment dredged from nearby Little Lake or Lake Borgne. Restoring the marsh in this area would protect and maintain resources vital to nearby communities in addition to restoring wetland habitat.

Project Benefits
The proposed project will maintain the marshes on the New Orleans landbridge, separating Lake Pontchartrain and Lake Borgne and will maintain marsh on the St. Tammany Parish side of the Rigolets. The landbridge, along with the Biloxi Marsh area and the Chandeleur Islands, provides protection and improves local community resiliency for the New Orleans area. Infrastructure, such as a rail line and US Hwy 90, will indirectly benefit from this project. The proposed project is synergistic with the New Orleans Landbridge Shoreline Stabilization and Marsh Creation (PO-169) and East Orleans Landbridge (PO-191) and compliments PO-06 and PO-173 in St Tammany Parish.

Project Costs
The estimated construction cost including 25% contingency is $20M-$25M.

Preparer(s) of Fact Sheet:
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Jenny Byrd, EPA, (214) 665-7377, byrd.jennifer@epa.gov


Iles de Lapin et de Cochon Marsh Creation
188
47
161
Aternate Cell
Ile du Lapin MC Cell
Ile des Cochons MC Cell
EPA
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
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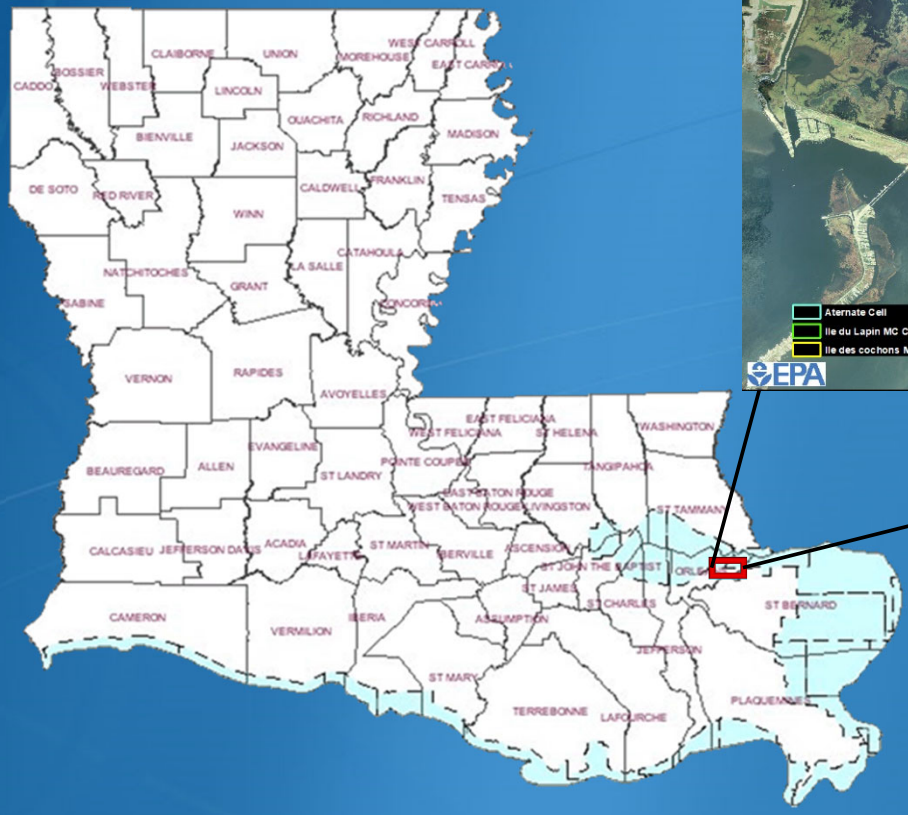
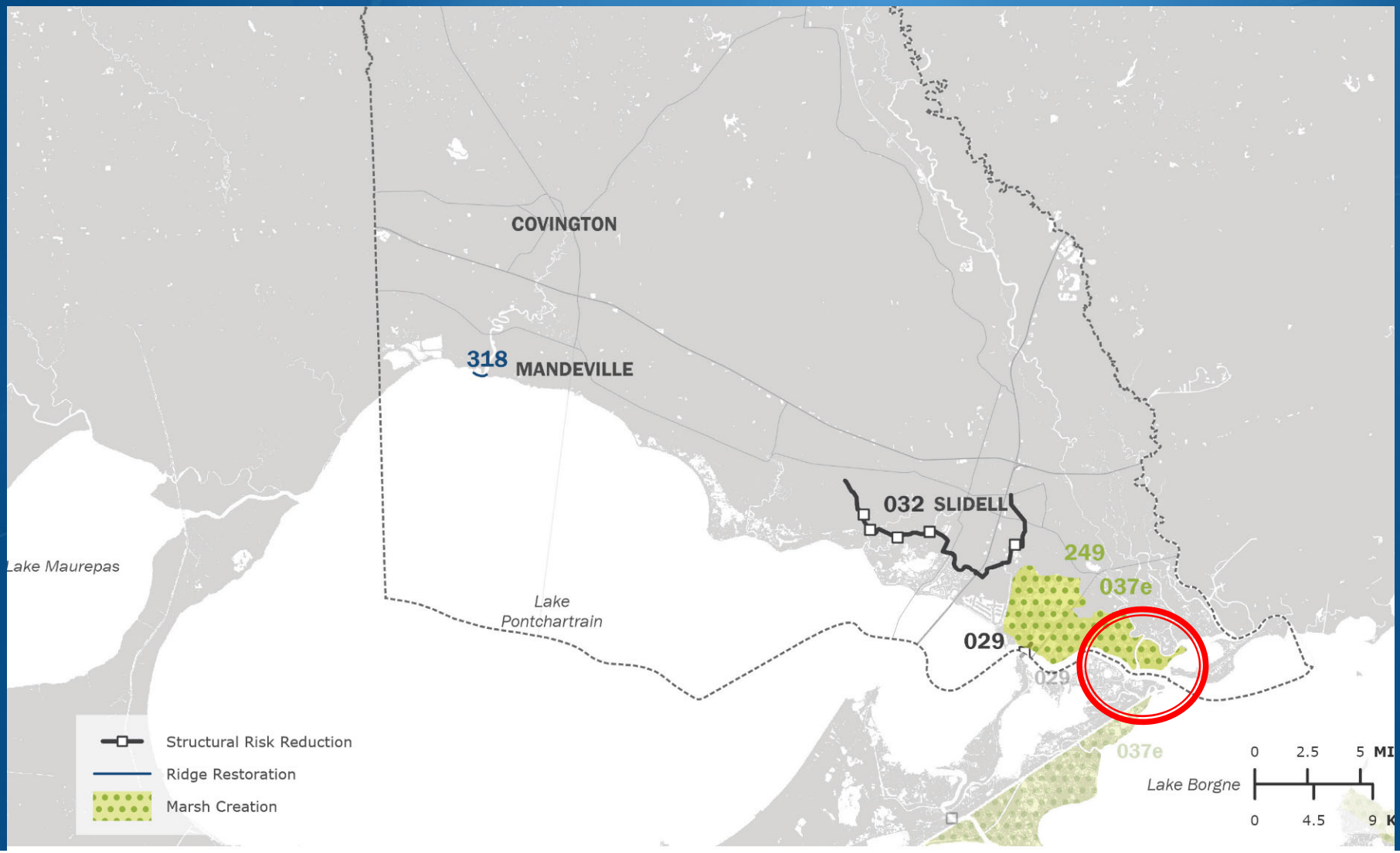
Iles de Lapin et de Cochon Marsh Creation



Coastal Wetlands Planning, Protection and Restoration Act

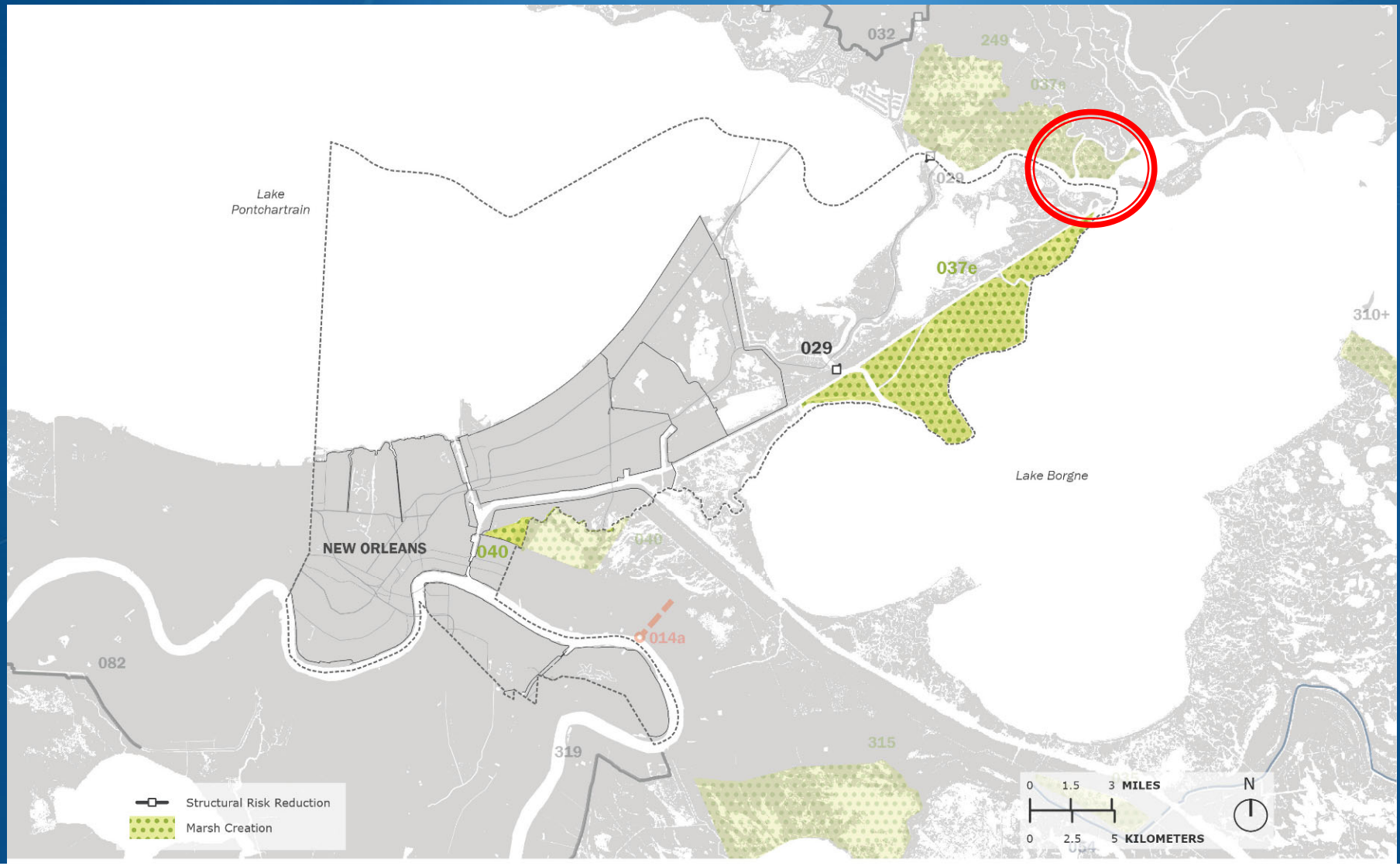
2023 Master Plan Solution

New Orleans East Marsh Creation (2023 Master Plan ID: 037E): Creation of marsh within a footprint of approximately 29,000 acres in a portion of the New Orleans East Landbridge Marsh Creation project to create new wetland habitat, restore degraded marsh, and reduce wave erosion.



2023 Master Plan Solution

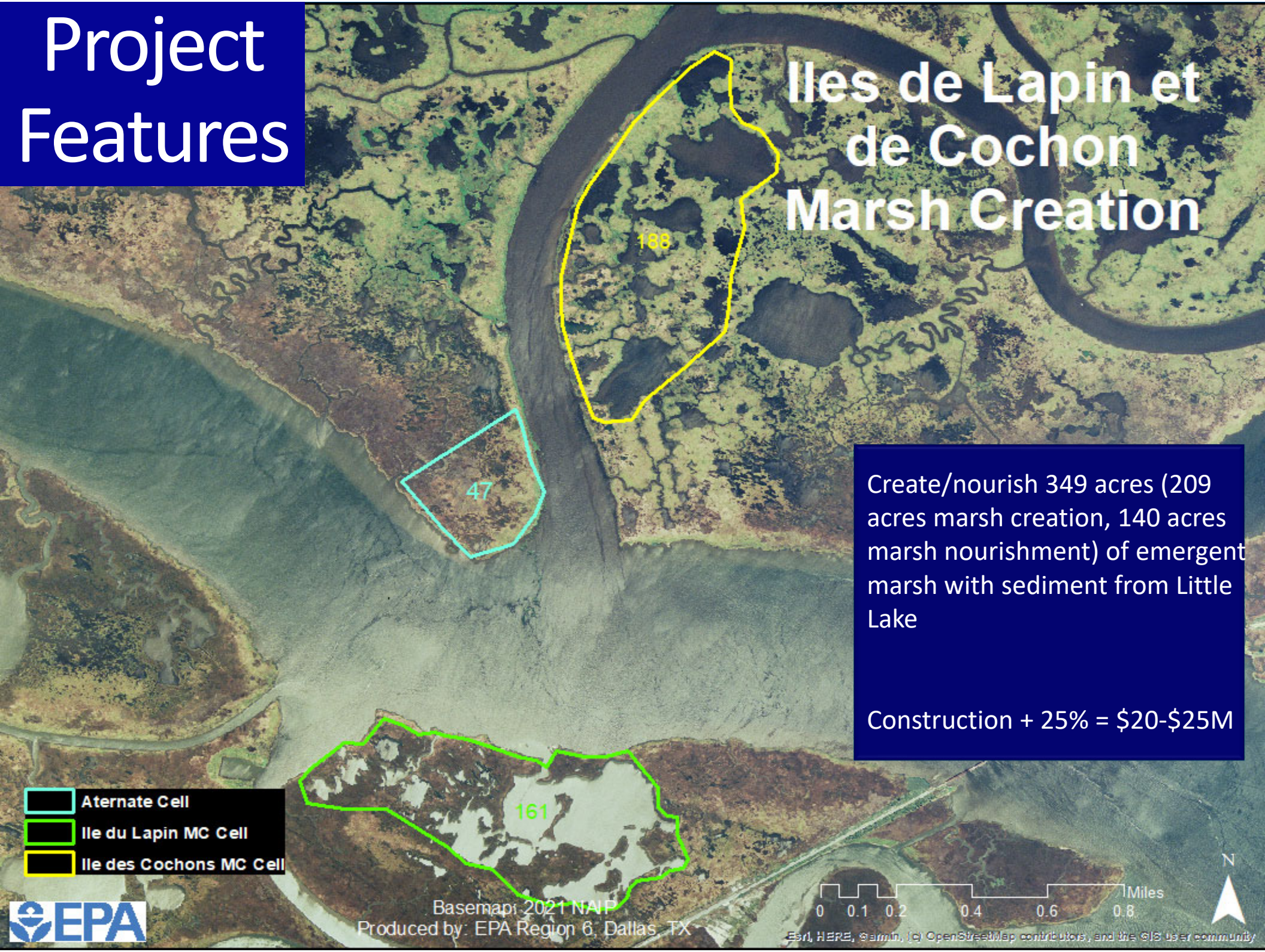
New Orleans East Marsh Creation (2023 Master Plan ID: 037E): Creation of marsh within a footprint of approximately 29,000 acres in a portion of the New Orleans East Landbridge Marsh Creation project to create new wetland habitat, restore degraded marsh, and reduce wave erosion.



2023 Master Plan Solution

Project Synergy

Project Features



PPL34 PROJECT FACT SHEET
February 1, 2024

Project Name
Tchefuncte River Restoration

Master Plan Strategy
Tchefuncte River Restoration (2023 State Master Plan ID: 318, Implementation Period 1):
Restoration of approximately 3,600 feet of historic ridge at the mouth of the Tchefuncte River to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation.

Project Location
Region 1, Pontchartrain Basin, St. Tammany Parish

Problem
With no future action, the southern portion of St. Tammany Parish faces increased future storm surge-based flood risk (2023 Master Plan). Over the next 50 years, 100-year flood depths increase substantially to 7-15 feet and above along the north shore of Lake Pontchartrain and the towns of Mandeville, Lacombe, and Slidell all face increased risk (2023 Master Plan). The project area is the mouth of the Tchefuncte river where erosive forces have scoured the bank to the west of the area where the River meets Lake Pontchartrain. The marsh creation cells are located in the Tchefuncte River Mouth Subunit which shows a land loss rate of -0.01%/yr.

Proposed Solution
The proposed project would create/nourish approximately 69 acres of marsh to counteract the erosion on the west bank of the river opening. A ridge-like feature (approximately 3600 ft) and marsh creation support cells would help reduce erosion, attenuate storm surge, provide ecosystem and recreational benefits, protect critical infrastructure (e.g. Madisonville boat launch) and provide a measure of resilience for the nearby Tchefuncte River Lighthouse. This ridge-like feature will be placed on the interior side of breakwaters that St. Tammany Parish is planning to construct. These breakwaters would also protect the ridge and the habitat created by the ridge (see map) and efficiencies of cost may be realized.

Project Benefits
Create/nourish up to approximately 69 acres (create 69 acres and nourish 0 acres) of emergent marsh and approximately 3600ft of a ridge/river restoration feature using sediment dredged from Lake Pontchartrain.

Project Costs
The estimated construction cost including 25% contingency is $10-15M.

Preparer(s) of Fact Sheet:
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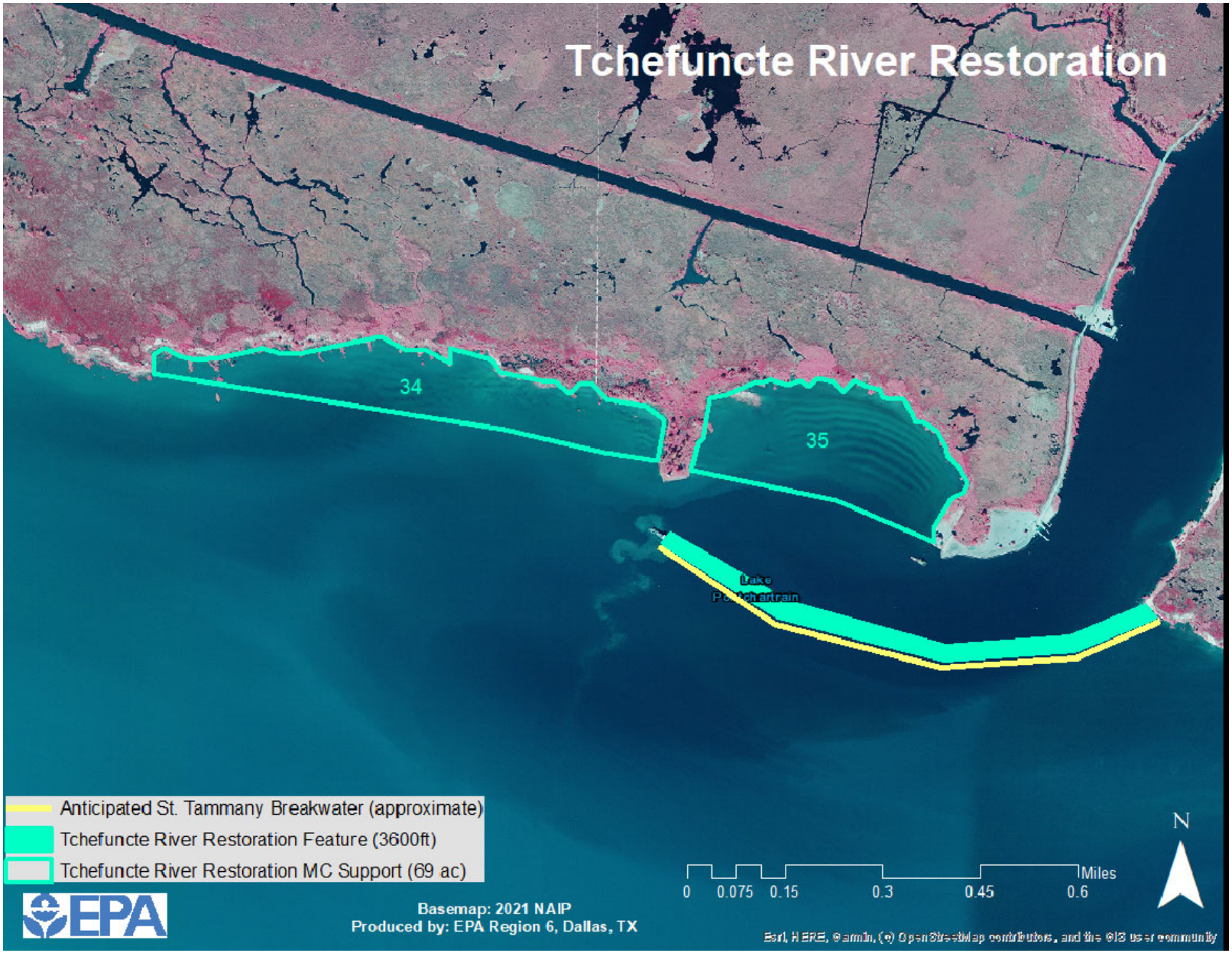
Jenny Byrd, EPA, (214) 665-7377, Byrd.Jennifer@epa.gov


Tchefuncte River Restoration
34
35
Lake
Pontchartrain
Anticipated St. Tammany Breakwater (approximate)
Tchefuncte River Restoration Feature (3600ft)
Tchefuncte River Restoration MC Support (69 ac)
EPA
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
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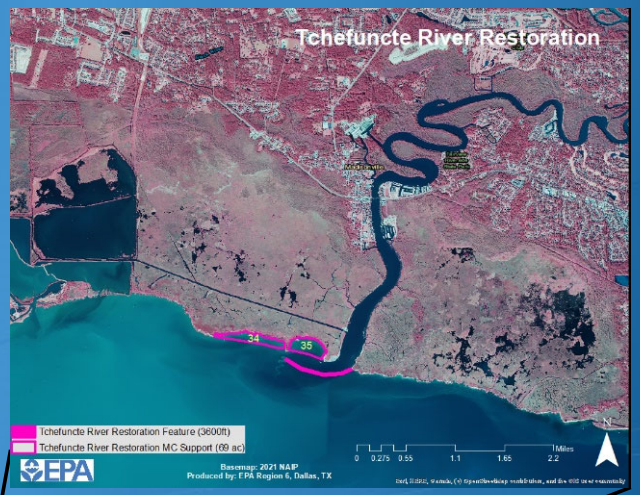
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

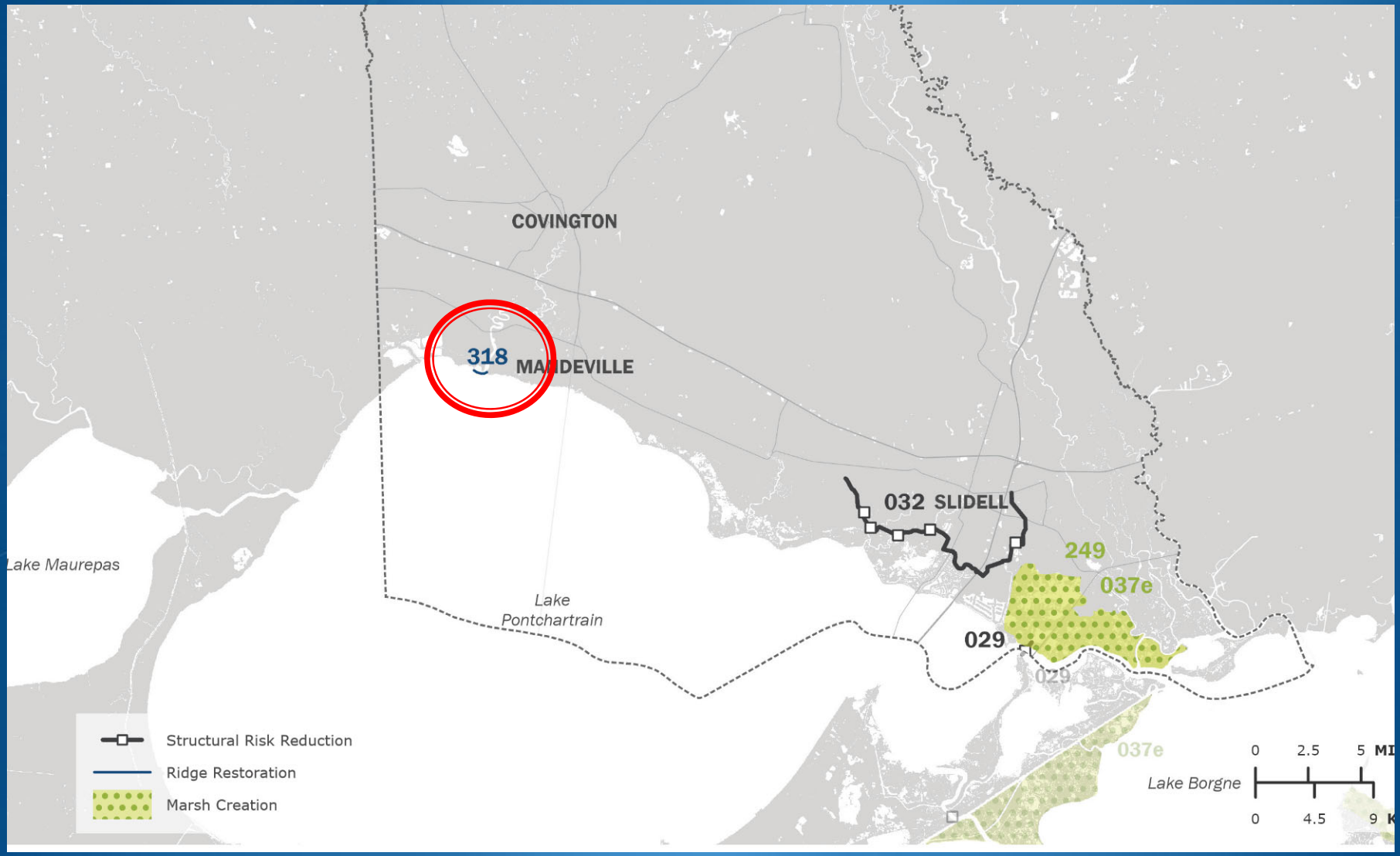
Tchefuncte River Restoration



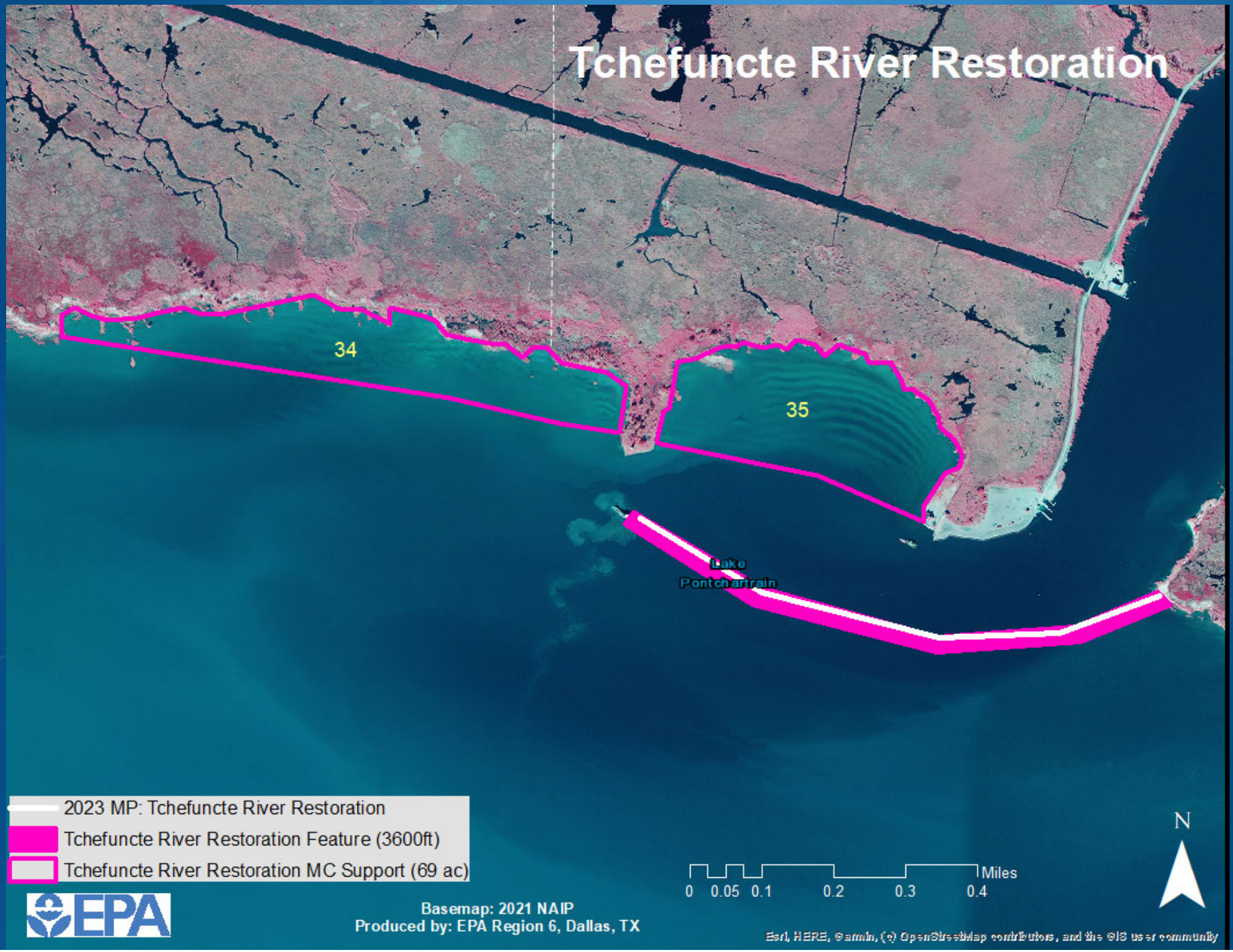
Coastal Wetlands Planning, Protection and Restoration Act

2023 Master Plan Solution

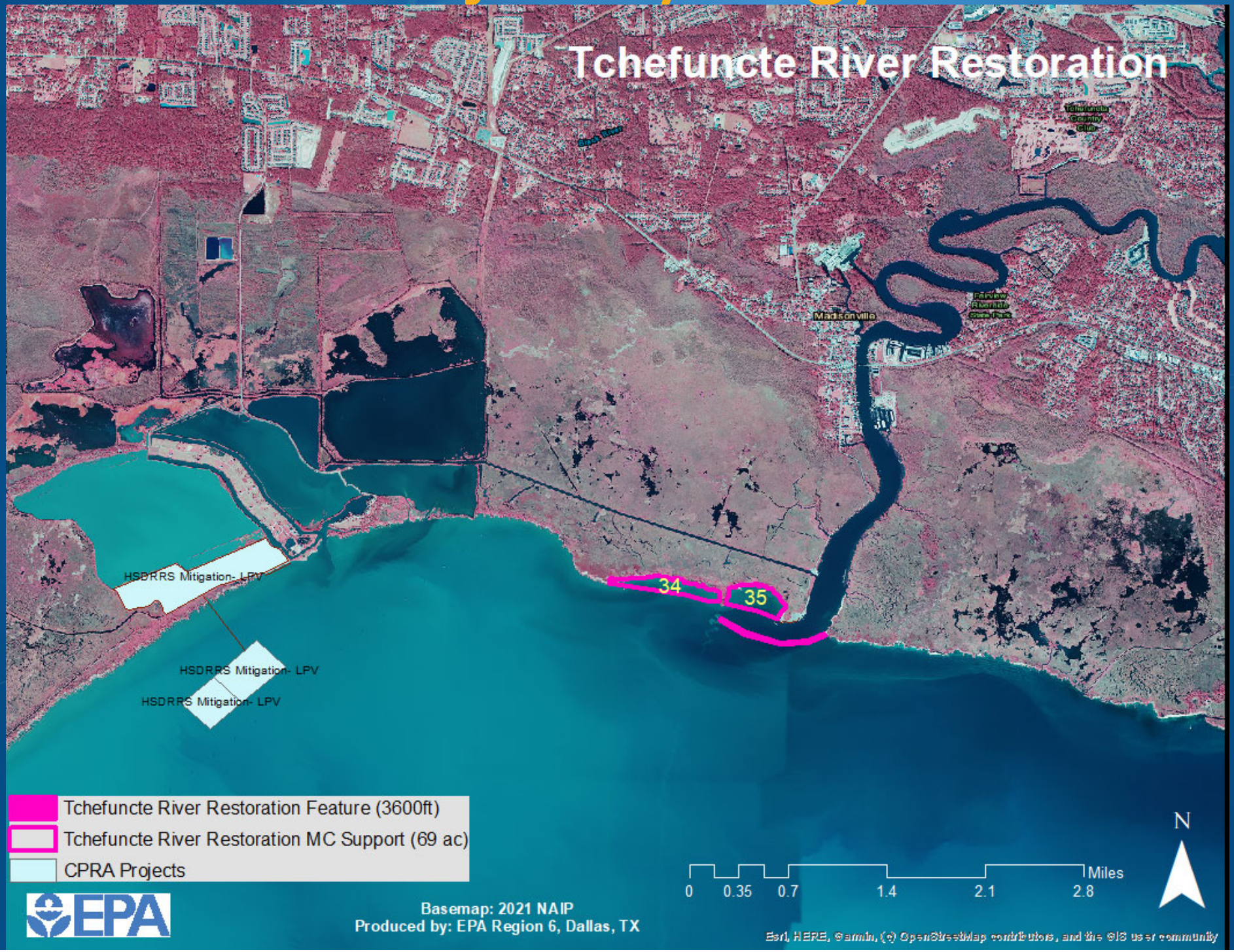
Tchefuncte River Restoration (2023 State Master Plan ID: 318, Implementation Period 1): Restoration of approximately 3,600 feet of historic ridge at the mouth of the Tchefuncte River to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation.



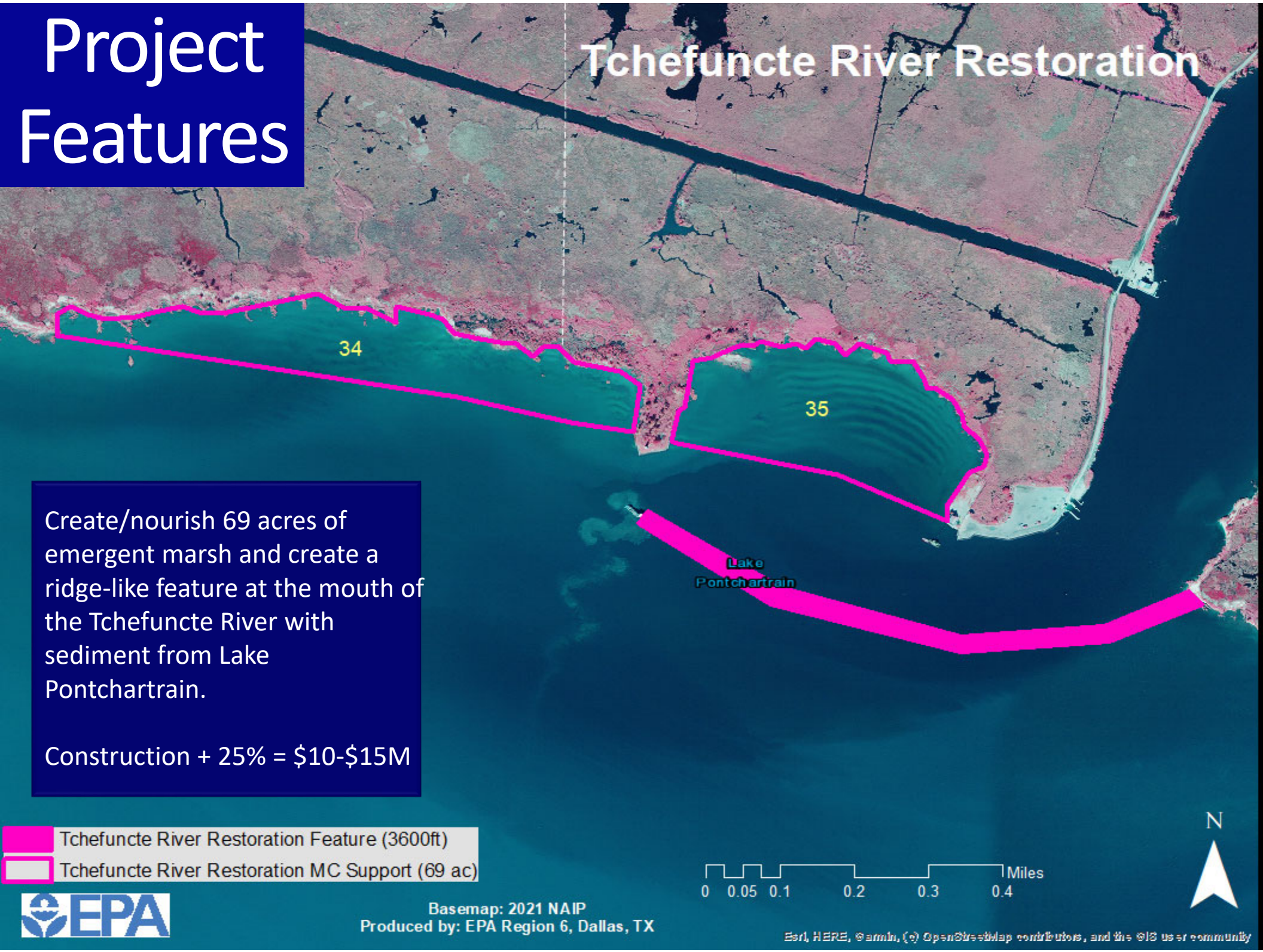
2023 Master Plan Solution



Project Synergy



Project Features



PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name
Bayou Sauvage Shoreline Protection

Project Location:
Region 1, Pontchartrain Basin, Orleans Parish

Problem:
Bayou Sauvage NWR is located along the eastern shoreline of Lake Pontchartrain and is considered one of the few urban refuges as it is located only a short distance from the city of New Orleans. This area experienced extensive loss of interior emergent wetlands and severe damage to the lake shoreline from Hurricanes Katrina (2005) and Ida (2021). Continued loss of the weakened project area shorelines has increased the vulnerability of the New Orleans East Hurricane Protection Levee and several roads and other infrastructure.

Goals:
The primary goals of this project are to protect approximately 3.5 miles of Lake Pontchartrain shoreline, marsh habitat, and shallow open water in an area impacted by Hurricanes Katrina and Ida. The specific project goals are to 1) protect approximately 14,300 LF (3 miles) of Lake Pontchartrain shoreline and marsh habitat through the placement of rock revetment along the shoreline and 2) protect approximately 350 acres of shallow open water and SAV habitat along Lake Pontchartrain shoreline with the placement of 5,500 LF of foreshore rock dike.

Service goals include restoration/protection of habitat for at-risk species. This project would restore habitat potentially utilized by the threatened black rail and other at-risk species such as the seaside sparrow.

Proposed Features
This project would place rock revetment along approximately 14,300 LF of the Lake Pontchartrain shoreline and construct 5,500 LF of foreshore rock dike.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?*
   The total project area is approximately 100 acres.

2) *How many acres of wetlands will be protected/created over the project life?*
   The project would result in approximately 50-100 net acres over the project life.

3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74%, and >75%)?*
   A 50% -74% loss rate reduction is assumed for the marsh creation, marsh nourishment, and shoreline protection.

4) *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?*
This project would restore a portion of the Lake Pontchartrain shoreline.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
This project would help protect the New Orleans East Hurricane Protection Levee, Highway 11, a railroad, Interstate 10, several businesses along Irish Bayou, and several camps and houses, and a major powerline.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project would work synergistically with the constructed Bayou Chevee Shoreline Protection (PO-22), New Orleans Landbridge Shoreline Stabilization and Marsh Creation (PO-169), St. Catherine Shoreline Protection and Marsh Creation, FWS shoreline protection and a nearby Corps mitigation site.

Consideration
This project could have pipeline consideration.

Preliminary Cost
The fully funded cost range is $15M-$20M.

Preparer(s) of Fact Sheet:
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U.S. Fish & Wildlife Service
Louisiana Ecological Services
PO-22 Bayou Chevee
Shoreline Protection
Slidell
Lake Pontchartrain
New Orleans
Project Area
PPL34
Bayou Sauvage
Shoreline Protection
Orleans Parish, Louisiana
0 0.25 0.5 1 Miles
N

PPL34

Bayou Sauvage Shoreline Protection

Region 1, Pontchartrain Basin

Contacts:
Robert Dubois
Fish and Wildlife Biologist
robert_dubois@fws.gov
(337) 291-3127

2023 State Master Plan – Bayou Sauvage Shoreline Protection

PROGRAMMATIC RESTORATION PROJECTS

CPRA implements several types of projects that are not individually identified in the master plan. With the exception of barrier island maintenance, these projects are often smaller scale, designed to address site-specific issues, and typically provide highly localized benefits. While these types of projects are not explicitly listed in the plan, they are consistent with the master plan. More information on programmatic restoration projects can be found on p. 64.

Barrier Island Maintenance

Oyster Reef Restoration

Shoreline Protection

Bank Stabilization

Programmatic Restoration

U.S. Fish & Wildlife Service

Louisiana Ecological Services

PO-22 Bayou Chevee

Shoreline Protection

PPL34
Bayou Sauvage
Shoreline Protection
Orleans Parish, Louisiana

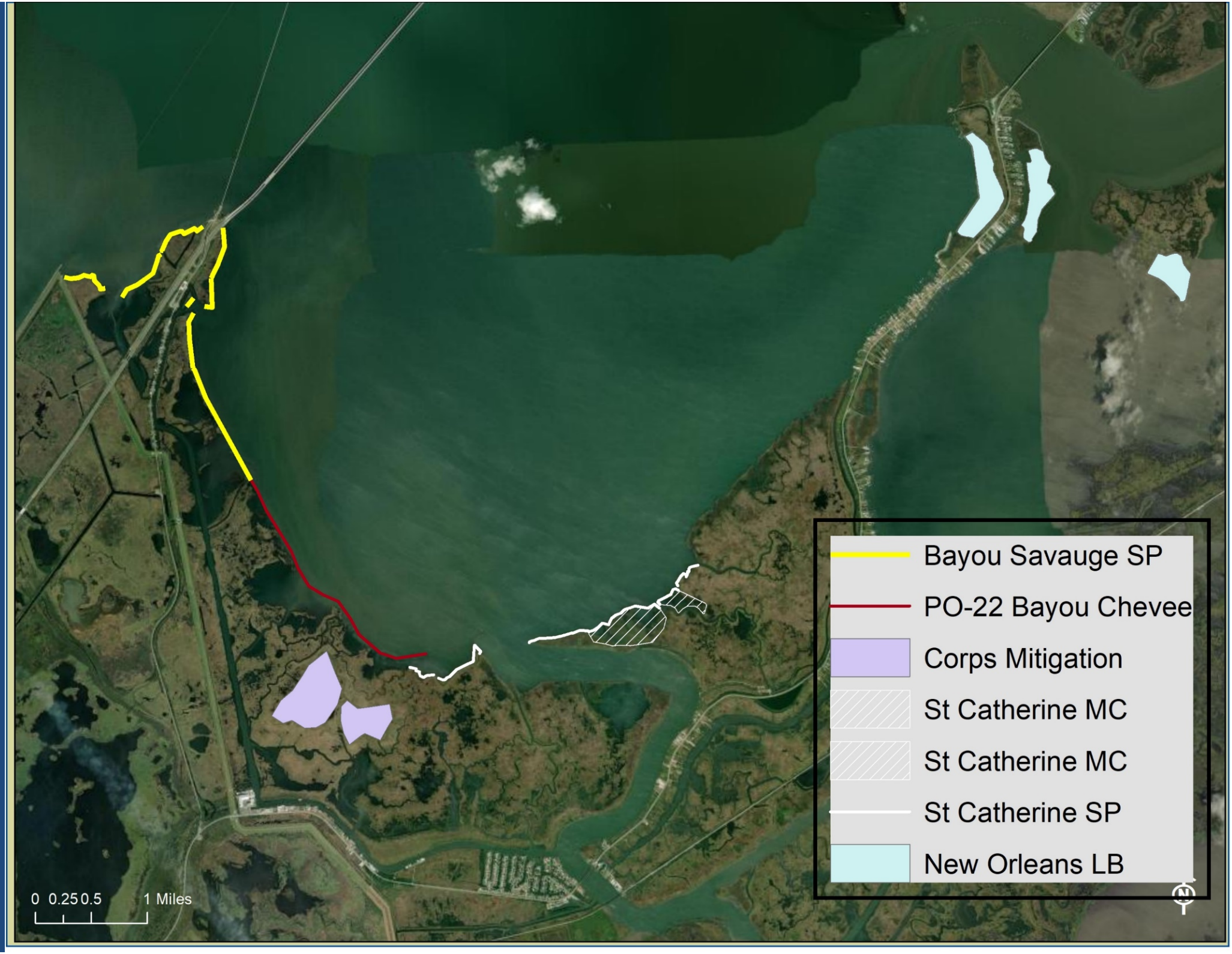
0 0.25 0.5 1 Miles

N

Sources: Esri, Maxar, GeoEye
the GIS User Community

Sources: Esri, Maxar, GeoEye, Earthstar
the GIS User Community


Sources: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


Bayou Savauge SP
PO-22 Bayou Chevee
Corps Mitigation
St Catherine MC
St Catherine MC
St Catherine SP
New Orleans LB
0 0.250.5 1 Miles

Bayou Sauvage Marsh Shoreline Protection

- Protects 50-100 acres of marsh
- Protect 14,300 ft of Lake Pontchartrain Shoreline with Rock Revetment
- Construct 5,500 LF of Foreshore Rock Dike
- Construction plus contingency $15M - $20M
- Project synergy – PO-22, PO-179, PO-169, CORPS Mitigation
- Protects I-10, Hwy 11, Railroad, Hurricane Levee, Powerlines

Species of Concern and Rare Species

- Least Bittern
- Mottled Duck
- King Rail

PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name
Hopedale Marsh Creation

Project Location
Region 1, Pontchartrain Basin, St. Bernard Parish

Problem
Wetlands in the project area have been adversely impacted by increases in flood durations due to the near complete impoundment caused by the construction of LA Highway 624 and the Mississippi River Gulf Outlet (MRGO). During construction of LA Highway 624, four sets of non-gated culverts were installed under the highway. These culverts allowed tidal exchange between Bayou La Loutre and previously impounded wetlands north of the highway. The Hopedale Hydrologic Restoration Project (PO-24) improved hydroperiods within the wetlands beginning in January 2015 when the project was constructed and continues to today. However, hurricanes and subsidence have continued to impact the area and the marshes have not recovered. PO-24 slowed the loss of wetlands in the area but did not result in land creation. Stabilizing the area was the project goal. The USGS land loss rate from 1985-2020 is -0.49%/year.

Proposed Solution
The proposed solution is to create and nourish marsh by hydraulically dredging and pumping sediment from the nearby MRGO, to the eroding and subsiding wetlands. Lake Borgne will also be evaluated as a second option for a borrow source. Temporary containment dikes will be constructed to retain the dredged sediment slurry, and then gapped within three years of construction to allow greater tidal exchange and estuarine organism access. Adding elevation by this method is a proven restoration technique and the preferred alternative for restoring the target area.

Goals
The project goal is to create and nourish approximately 414 acres (ac) of tidal emergent marsh adjacent to the MRGO that remains intertidal for as much of the 20 year project life as possible.

Project Features:
Marsh Creation – 209 ac
Marsh Nourishment – 205 ac

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?*
   The total project area is 414 ac.

2) *How many acres of wetlands will be protected/created over the project life?*
   Approximately 200 – 250 ac of marsh will be protected/created over the project life.

3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
   The anticipated land loss rate reduction throughout the area of direct benefits will be 50% over the project's life.

4) *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?*
The project would add protection to the adjacent Bayou La Loutre Ridge.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would have a net positive impact to critical infrastructure which consists of LA Highway 624, a hurricane evacuation route, and help protect residences and fishing infrastructure in Hopedale, Shell Beach, and Yscloskey. It would add protection to the adjacent MRGO and levee.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have a synergistic effect with PO-24 (constructed), the Lake Borgne Marsh Creation Project (under construction), and PO-178 Bayou La Loutre Ridge and Marsh Creation Project (under construction), and the Yscloskey Marsh Creation Project (funded for engineering and design). These projects work together to provide greater benefits to surrounding infrastructure and communities.

Other Considerations
The proposed project has potential utility/pipeline considerations.

Preliminary Construction Costs
The estimated construction cost plus 25% contingency is $10M - $15M.

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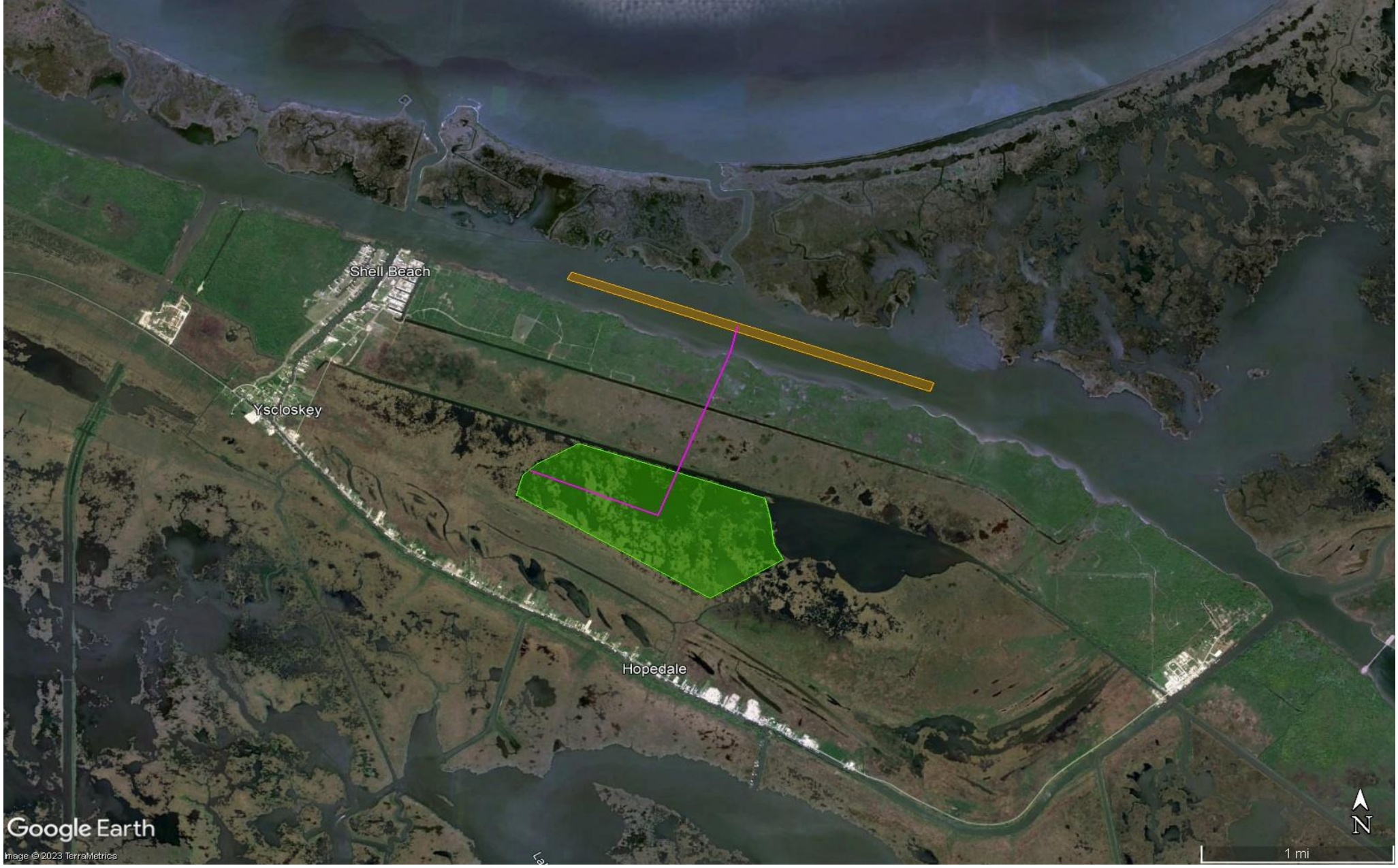
Jason Kroll, NOAA Restoration Center, 225-757-5411, jason.kroll@noaa.gov



PPL34 Hopedale Marsh Creation

209 Acres Marsh Creation
205 Acres Marsh Nourishment

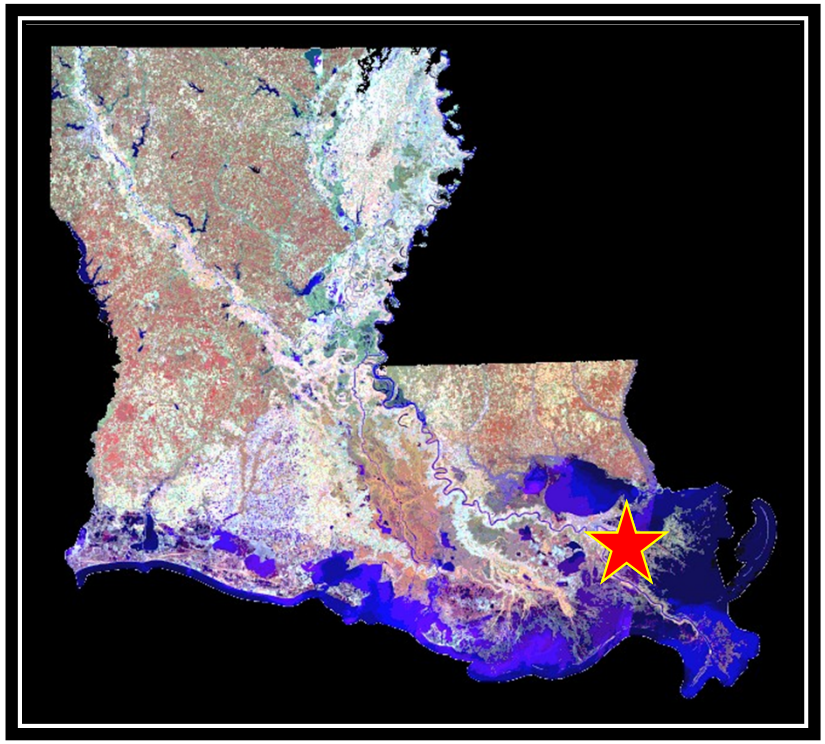
Federal Sponsor: NOAA Fisheries
2021 Aerial Imagery
Map Date 1-22-2024

Legend

- Marsh Creation
- Borrow Area

Hopedale Marsh Creation Project

NOAA FISHERIES



REGION 1 – Pontchartrain Basin

Presenter: Alexis Rixner, Fishery Biologist, NOAA

PPL34 CWPPRA Regional Planning Team Meeting

February 1, 2024

Project Location

- Create marsh protecting the communities of Hopedale, Yscloskey, and Shell Beach

Restoration Solution

- 2023 State Master Plan – Hopedale Marsh Creation - Project ID 035
- PO-24 slowed the loss of marsh in the project area but did not increase marsh acreage
- 414 Acres of Marsh Creation/Nourishment
  - 209 acres of marsh creation & 205 acres of marsh nourishment
  - Hydraulically dredge material from the Mississippi River Gulf Outlet
  - Contained fill areas with dike gapping after construction

Project Map

PPL34 Hopedale Marsh Creation

209 Acres Marsh Creation
205 Acres Marsh Nourishment

Federal Sponsor: NOAA Fisheries
2021 Aerial Imagery
Map Date 1-22-2024

Legend

- Marsh Creation
- Borrow Area

Summary of Features, Cost, and Benefits

- **414 Acres Total**
  - 209 acres Marsh Creation
  - 205 acres Nourishment
- **Construction Cost + 25% Contingency $10M - $15M**
- **Net Benefits: 200 - 250 acres**

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PPL34 PROJECT RPT NOMINEE FACT SHEET
February 1, 2024

Project Name
North Rigolets Marsh Creation

Project Location
Region 1, Pontchartrain Basin, St. Tammany Parish

Problem
Wetland loss in the Pontchartrain Basin is due to erosion of wetlands, saltwater intrusion, subsidence, and hurricane-induced damage. The USGS land change trend from 1985 to 2020 for the Pearl River Marshes subunit (244) is loss rate of -0.14% per year, and the specific project areas are converting to open water according to recent aerial imagery.

Proposed Solution
The proposed solution would be to create and nourish approximately 431 acres of tidal marsh, maintain hydrologic patterns and historic flow paths, along the northern shoreline of the Rigolets. Sediment will be hydraulically pumped from Lake St. Catherine into a fully contained marsh creation cells. Temporary earthen containment dikes will be constructed using internal borrow, and will be gapped within three years of construction to allow tidal exchange and access for estuarine organisms.

Goals
The project goal is to restore approximately 431 acres of tidal marsh along the northern shoreline of the Rigolets and adjacent to Geoghegan Canal that remains intertidal for as much of the 20 year project life as possible.

Project Features:
Marsh Creation – 302 acres
Marsh Nourishment – 129 acres

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?*
   The total project area is approximately 431 acres.

2) *How many acres of wetlands will be protected/created over the project life?*
   The net acre benefit range is 250-300 acres after 20 years.

3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*
   A 50% loss rate reduction is assumed for the marsh creation cells.

4) *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?*
   The project would help maintain the integrity of marshes along the northern Rigolets pass.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project may have moderate net positive impact to critical infrastructure including residences and businesses along Geoghagen Canal, Hwy 90/Chef Menteur Hwy and the intersection of LA 433/Old Spanish Trail, as well as the greater Slidell area.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have synergistic effects with: 1) PO-179 St. Catherine Island Marsh Creation and Shoreline Protection, 2) PO-169 N.O. Land Bridge Shoreline Stabilization and March Creation, 3) PO-22 Bayou Chevee Shoreline Protection, 4) PO-06 Fritchie Marsh Restoration, and 5) New Zydeco and NOV-NFL USACE mitigation projects in the Fritchie Marsh.

Considerations
Gulf sturgeon critical habitat and land ownership.

Preliminary Construction Costs
The estimated construction cost including 25% contingency is $20M-$25M.

Preparer(s) of Fact Sheet:
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Jason Kroll, NOAA Fisheries, 225-335-9659, jason.kroll@noaa.gov

PPL34 North Rigolets Marsh Creation

431 Total Project Acres

302 Acres Marsh Creation

129 Acres Marsh Nourishment

Federal Sponsor: NOAA Fisheries

2022 Google Earth Aerial Imagery

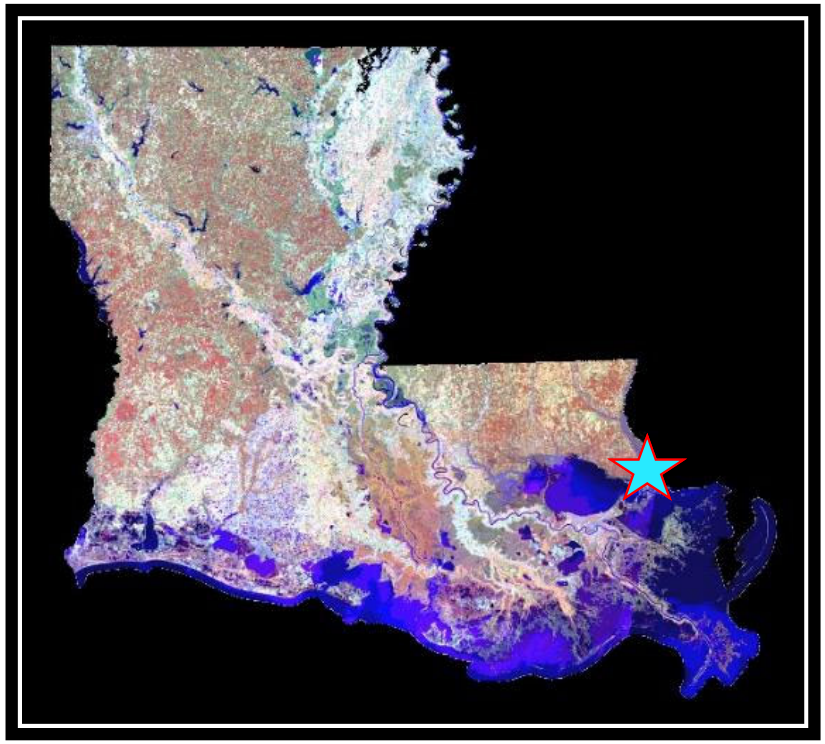
Map Date 01-24-2024

Legend

- Marsh Creation Areas (1-4)
- Borrow Area

North Rigolets
Marsh Creation Project

NOAA FISHERIES



REGION 1: Pontchartrain Basin

Presenter: Craig Gothreaux, Fish Biologist, NOAA

Special Thanks

St. Tammany Parish

PPL 34 CWPPRA Regional Planning Team Meeting

February 1, 2024

Project Vicinity

North Rigolets MC

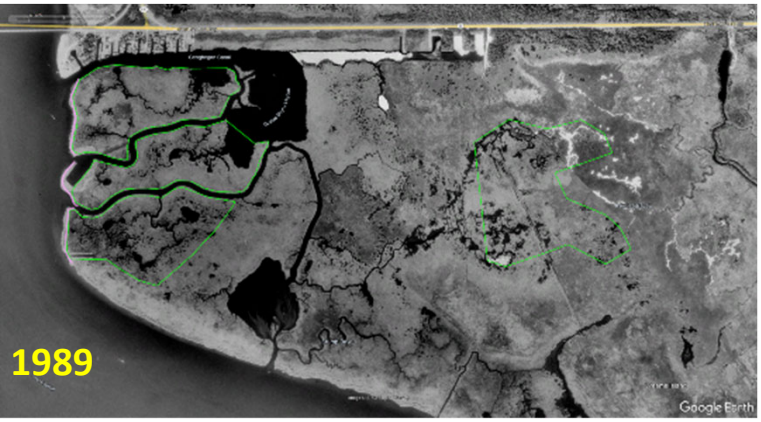
2023 Coastal Master Plan – New Orleans East Marsh Creation Polygon

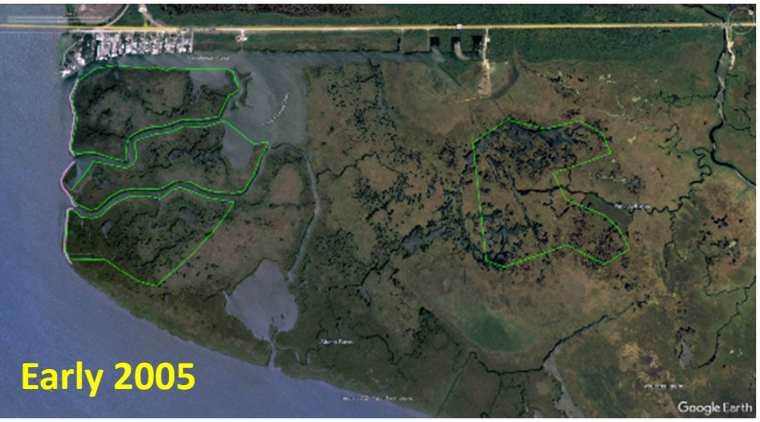
Considerations

North Rigolets MC

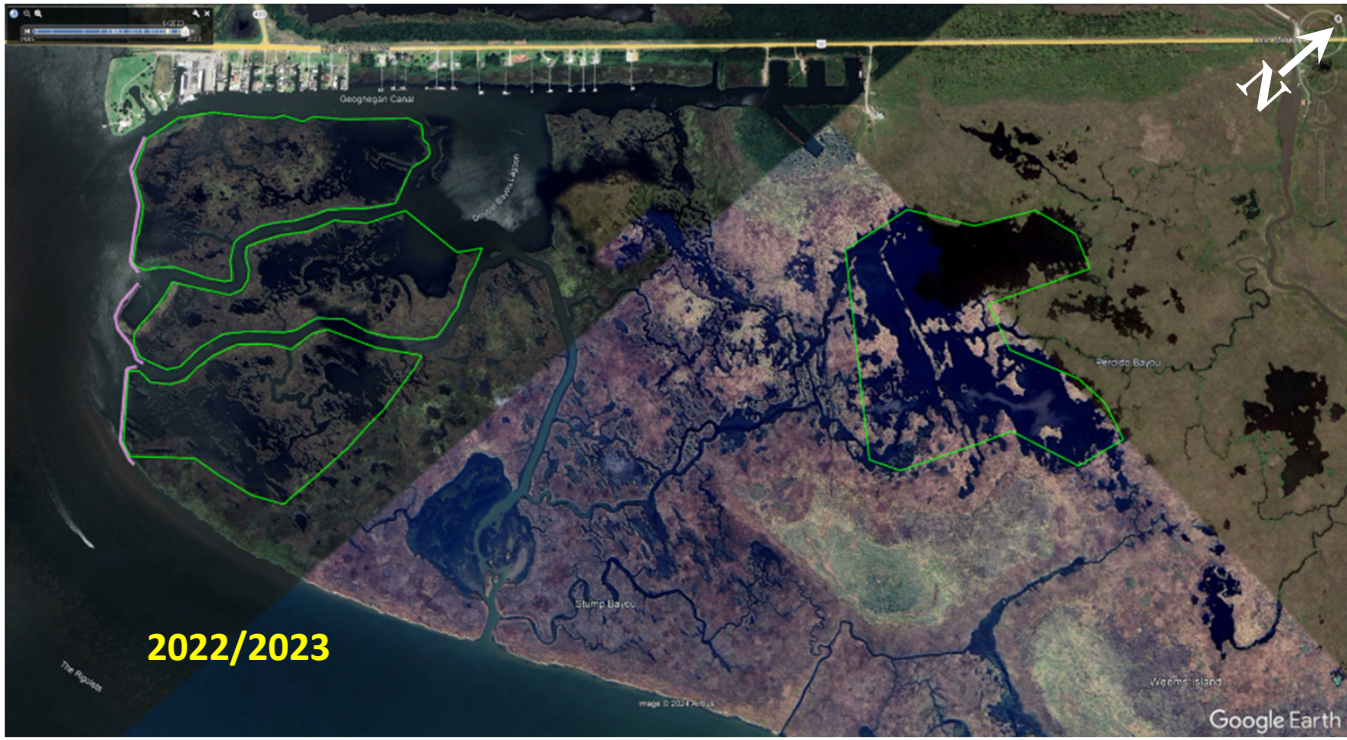
Project Area Problems

North Rigolets MC





Land change rate (1985-2020 USGS data) for the Pearl River Marshes subunit (244) is **-0.14%/yr**



Project Elements

North Rigolets MC

- 431 Total Project Acres
  - Four MCAs
    - 302 ac MC
    - 129 ac MN
- Lake St. Catherine Borrow Area
  - 130 ac
  - 4.3 mile dredge pipeline (max)
- Living Shorelines
  - Three MCAs along Rigolets

Summary

North Rigolets Marsh Creation Project

- **431 Total Project Acres**
  - Four Marsh Creation Areas
    - MCA 1 = 104 ac, MCA 2 = 88 ac, MCA 3 = 92 ac, MCA 4 = 147 ac
  - 302 Acres Marsh Creation, 129 Acres Marsh Nourishment

- **Construction Cost + 25% Contingency: $20M – $25M**

- **Net Benefits: 250 – 300 Acres**

Contact information:
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craig.gothreaux@noaa.gov

PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name: Manchac WMA Shoreline Protection

Project Location:
Region 1, Pontchartrain Basin, St. John the Baptist Parish, Lake Pontchartrain shoreline along the Manchac Wildlife Management Area

Problem:
The Lake Pontchartrain shoreline along this reach has historically been retreating due to factors including historical logging, subsidence, sea level rise, and wind-driven wave impacts. Based on analysis of aerial imagery (2010-2019), the project area shoreline is experiencing shoreline loss at a rate of approximately 20 feet per year. It is estimated that without the project there would be at least 62 acres lost due to shoreline erosion. This shoreline retreat is reducing the Manchac Landbridge between Lake Pontchartrain and Lake Maurepas which is a vital component to the entire ecosystem surrounding the Manchac Landbridge and Lake Maurepas as it limits the amount of brackish water that can enter the lake. The landbridge also plays an important role in the multiple lines of defense against risks from coastal storm impacts to the surrounding communities.

Goals:
The project goals are to 1) protect approximately 6,700 feet of critical shoreline, 2) protect approximately 62 acres of highly productive fresh and intermediate marsh habitat, and 3) protect the landbridge between Lake Pontchartrain and Lake Maurepas.

Proposed Solutions:
The proposed project would: 1) Construct approximately 6,700 LF (1.27 mi) of rock revetment along the Lake Pontchartrain shoreline. Rock would be placed on geocloth and stacked to a settled height of +4.0 ft.

Preliminary Project Benefits:
1) What is the total acreage benefited both directly and indirectly?
The net acre benefit is 62 acres after 20 years.

2) How many acres of wetlands will be protected/created over the project life?
The total project area is approximately 62 acres.

3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%).
Loss rate reduction will be 100%.

4) 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.
Installing this reach of shoreline protection would continue shoreline protection projects previously implemented by the Corps of Engineers to protect the Lake Pontchartrain shoreline along the Manchac Landbridge. The shoreline protection would protect land managed by the Louisiana Department of Wildlife and Fisheries in the Manchac Wildlife Management Area.

5) What is the net impact of the project on critical and non-critical infrastructure?
The proposed project is intended to maintain the marsh as a protective barrier to communities west of Lake Pontchartrain against surge and waves during tropical events.

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

This project would work synergistically with projects implemented by the Corps of Engineers directly south of the proposed project, proposed projects from St. John the Baptist Parish to the south, and projects constructed, and in construction, by Tangipahoa Parish to the north.

Considerations:

Surveys conducted by HDR indicate that there are no known pipelines or major anomalies within the project area. HDR has completed a design for this reach and soil and slope conditions have been included in the opinion of probable costs.

Preliminary Costs:

The construction cost range is $15-20M.

Preparer(s) of Fact Sheet:

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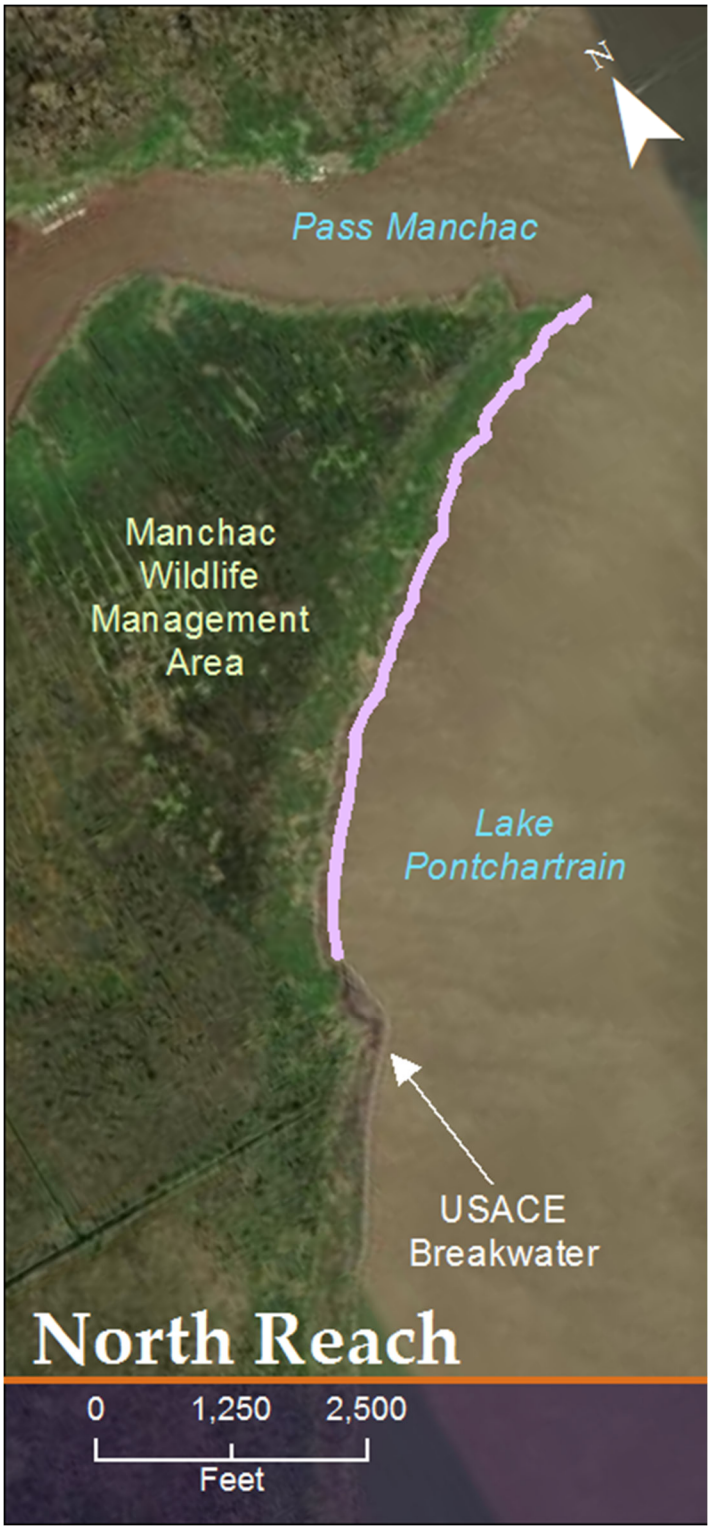
Vincent Palumbo III, USDA-NRCS, (337) 292-6601, vincent.palumboiii@usda.gov


N
Pass Manchac
Manchac
Wildlife
Management
Area
Lake
Pontchartrain
USACE
Breakwater
North Reach
0
1,250
2,500
Feet

PPL34

Manchac WMA Shoreline Protection

Region 1, Pontchartrain Basin

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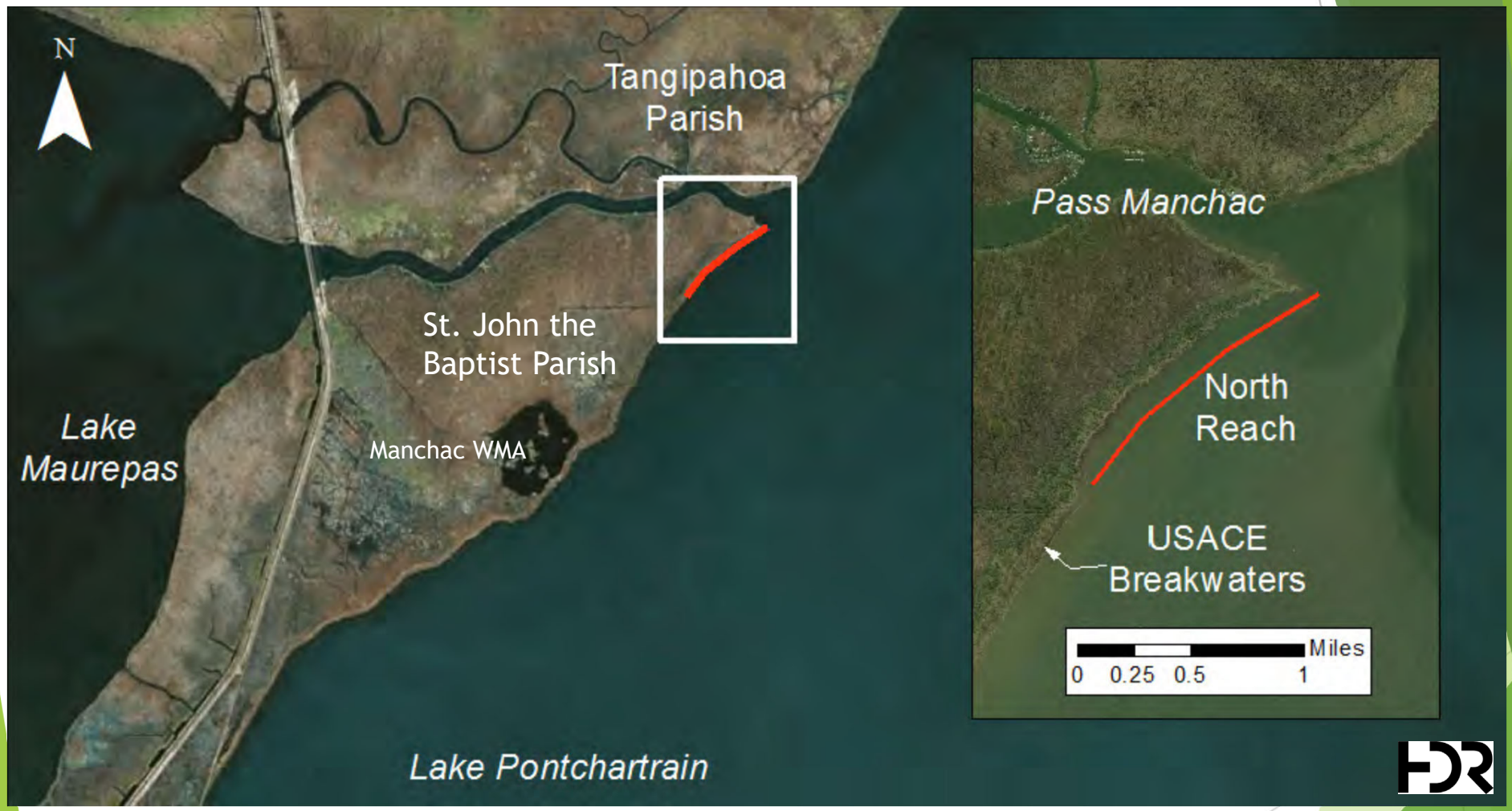
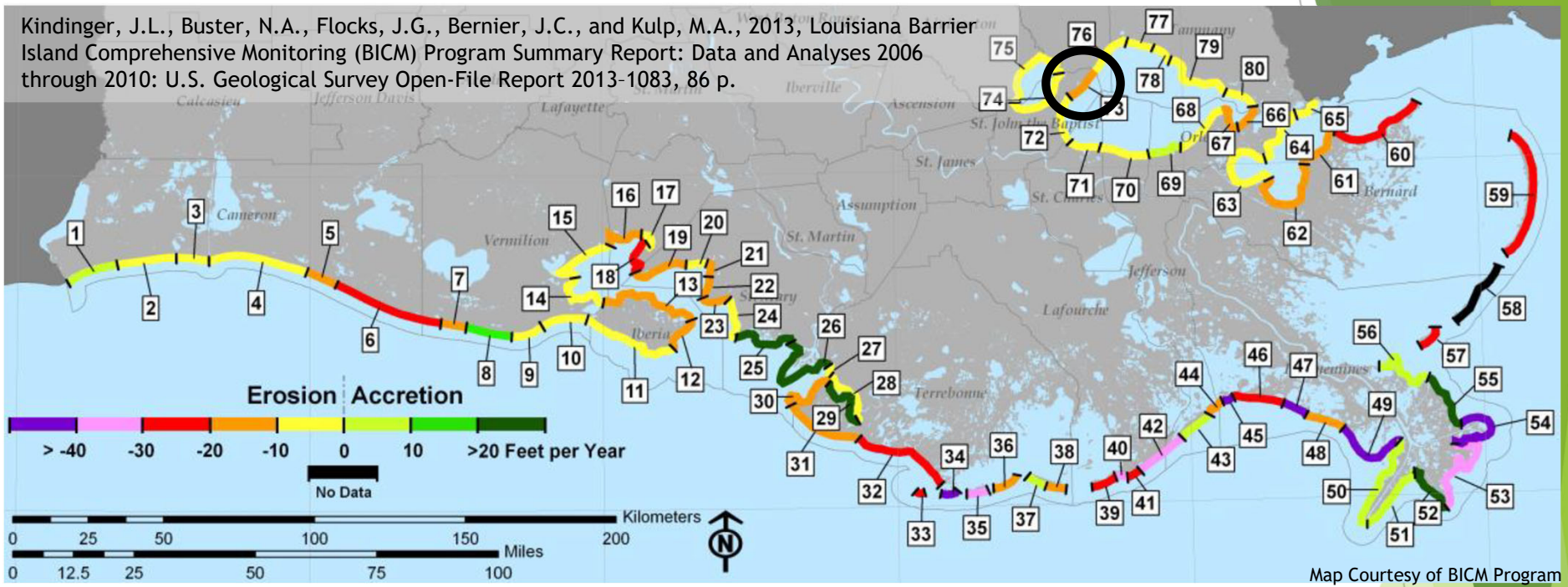
Brett L. Geesey, P.E., HDR Engineering, Inc., brett.geesey@hdrinc.com, 337/347-5598


N
Tangipahoa Parish
St. John the Baptist Parish
Manchac WMA
Lake Maurepas
Lake Pontchartrain
Pass Manchac
North Reach
USACE Breakwaters
Miles
0 0.25 0.5 1

PPL34 – Manchac WMA Shoreline Protection



Map Courtesy of BICM Program

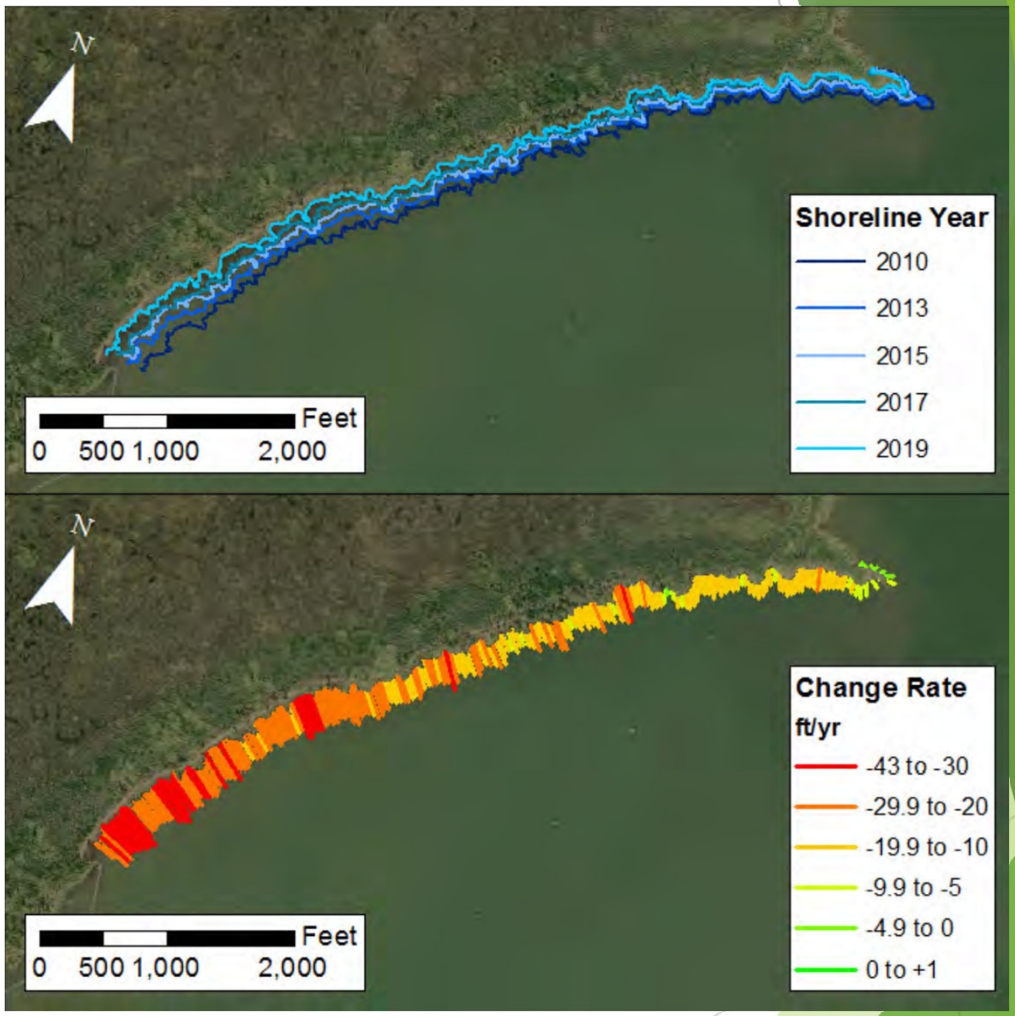
The Lake Pontchartrain shoreline within St. John the Baptist Parish has historically been retreating because of:

- historic logging,
- soft organic soils,
- subsidence,
- sea level rise and
- wind driven wave impacts.

Typical shoreline in North Reach (February 2020)

Shoreline Erosion Rate

Time Period	Erosion Rate (ft/y)	Source
2010-2019	-20	HDR (DSAS)

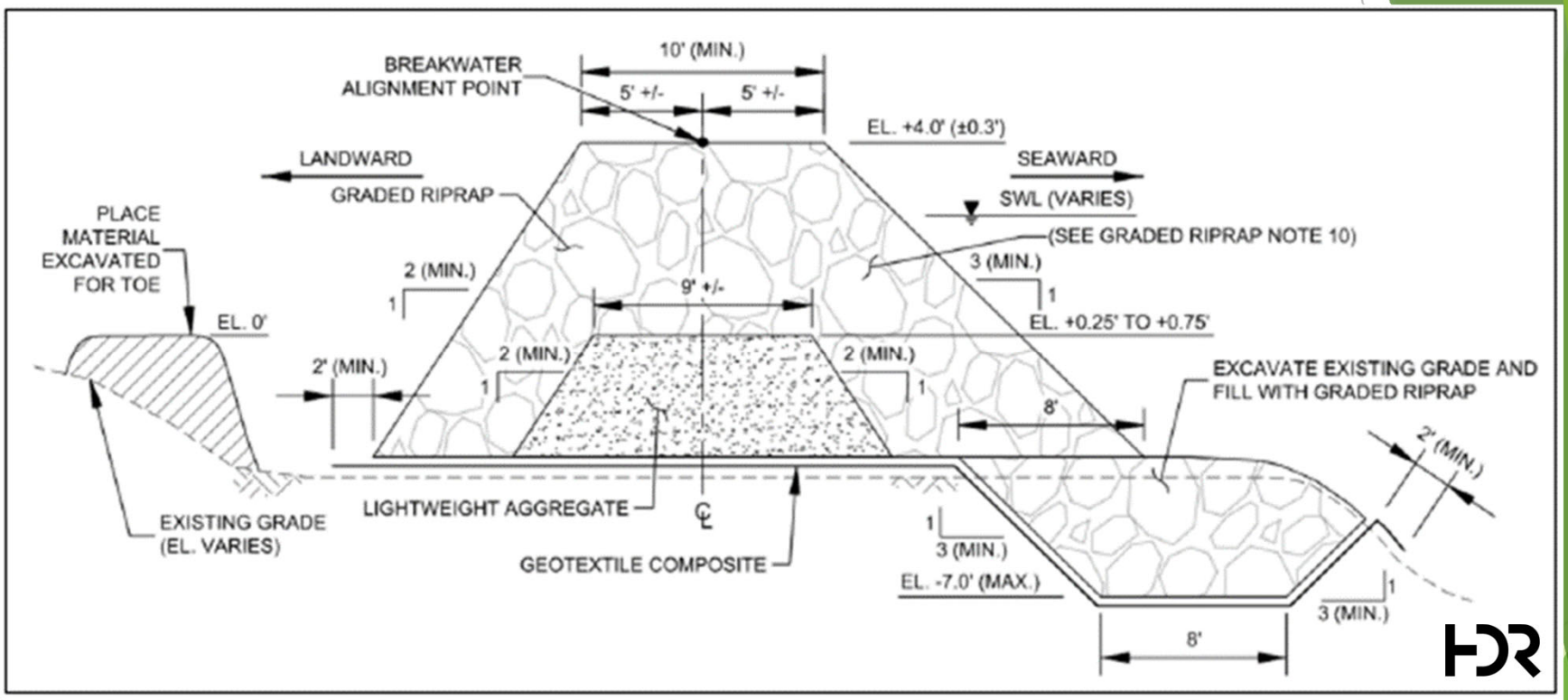


Goal: To reduce the amount of shoreline erosion along the northeastern side of Manchac WMA.

Proposed Solution: ~6,700 LF (1.27 miles) of rock revetment placed on geocloth and stacked to a settled height of +4.0 ft.

Preliminary Project Benefits: ~62 acres protected

Cost Est: total ~$15-20M


BREAKWATER
ALIGNMENT POINT
10' (MIN.)
5' +/-
5' +/-
EL. +4.0' (±0.3')
LANDWARD
SEAWARD
GRADED RIPRAP
SWL (VARIES)
(SEE GRADED RIPRAP NOTE 10)
PLACE
MATERIAL
EXCAVATED
FOR TOE
2 (MIN.)
1
3 (MIN.)
1
9' +/-
EL. 0'
EL. +0.25' TO +0.75'
2' (MIN.)
2 (MIN.)
2 (MIN.)
1
1
EXCAVATE EXISTING GRADE AND
FILL WITH GRADED RIPRAP
8'
2' (MIN.)
EXISTING GRADE
(EL. VARIES)
LIGHTWEIGHT AGGREGATE
℄
1
3 (MIN.)
GEOTEXTILE COMPOSITE
EL. -7.0' (MAX.)
1
3 (MIN.)
8'

PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name
Biloxi Marsh Shoreline Protection

Project Location
Region 1, Pontchartrain Basin, St. Bernard Parish, Lake Borgne and Biloxi Marshes (Biloxi Marsh WMA)

Problem
Historic wetland loss in the area has been primarily due to shoreline erosion caused by seasonal wave action, sediment deprivation, and sea level rise. Additionally, changing salinity patterns from the Mississippi River Gulf Outlet (MRGO) has resulted in the loss of rangia clams that historically acted as natural shoreline buffers. Based on the hyper-temporal analysis conducted by USGS to detect land change trends from 1984 to 2022, the interior loss rate for the Biloxi Marsh area was calculated to be -0.32%/yr. Using maps from 1998 and 2021, Lake Borgne shoreline erosion rates were calculated along the Biloxi Marshes Wildlife Management Area. Shoreline erosion rates in that area ranged from -15 ft./yr. to -31 ft/yr with an average loss of coastal shoreline at a rate of 5.73 acres per year. It is estimated that without the project there would be 126 acres lost due to shoreline erosion.

Goals
The project goals are to 1) protect approximately 15,952 feet of critical shoreline and 2) protect approximately 100-150 acres of highly productive brackish and saline marsh habitat over the 20-year project life.

Proposed Solution
Approximately 15,952 LF of Lake Borgne shoreline would be protected with the construction of a foreshore rock dike with a lightweight aggregate core built along the -3-foot contour. Geotech cloth would be placed on water bottom and rock would be placed on the cloth. The dike would be built to a +4.0 ft. NAVD 88 which is approximately +3.5 ft. above existing marsh (+0.68 ft. NAVD 88 Geoid12A). Existing bayous and waterways would be left open for fisheries and boating access as well as those areas where the rock dike spans small pockets of water.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?*
   The total project area is approximately 150 acres which includes the rock dike and the area between the rock dike and the shoreline) would be directly benefited.

2) *How many acres of wetlands will be protected/created over the project life?*
   Net acres would be between 100-150 acres protected over the 20-yr project life.

3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)? >75%*

4) *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? This project would protect a large portion of the Lake Borgne shoreline as well as numerous interior ridges near that shoreline.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
None.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project would work synergistically with the existing CIAP project, PO-30, PO-72, PO-178, and PO-180 projects.

Considerations
The proposed project has the following potential issues: there may be pipelines in the project area and Lake Borgne is considered Atlantic Sturgeon Critical Habitat.

Preliminary Costs
The estimated construction cost plus contingency is between $25-$30 million. There would be no maintenance cost associated with this project.

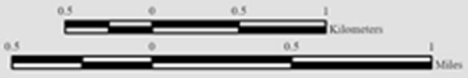
Preparer(s) of Fact Sheet:
Robert Dubois, FWS, 337-291-3127, robert_dubois@fws.gov

Biloxi Marsh Shoreline Protection
(PPL33 Candidate)

Shoreline Protection

Project Boundary

Note: All features are proposed.



Scale: 1:35,000

USGS
science for a changing world

Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
Wetland and Aquatic Research Center
Baton Rouge, LA

Image Source:
2021 NAIP CIR

Map ID: 2023-11-0015
Map Date: June 23, 2023

PPL34

Biloxi Marsh Shoreline Protection

Region 1, Pontchartrain Basin

Contacts:
Robert Dubois
Fish and Wildlife Biologist
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(337) 291-3127

2023 State Master Plan – Biloxi Marsh Shoreline Protection

PROGRAMMATIC RESTORATION PROJECTS

CPRA implements several types of projects that are not individually identified in the master plan. With the exception of barrier island maintenance, these projects are often smaller scale, designed to address site-specific issues, and typically provide highly localized benefits. While these types of projects are not explicitly listed in the plan, they are consistent with the master plan. More information on programmatic restoration projects can be found on p. 64.

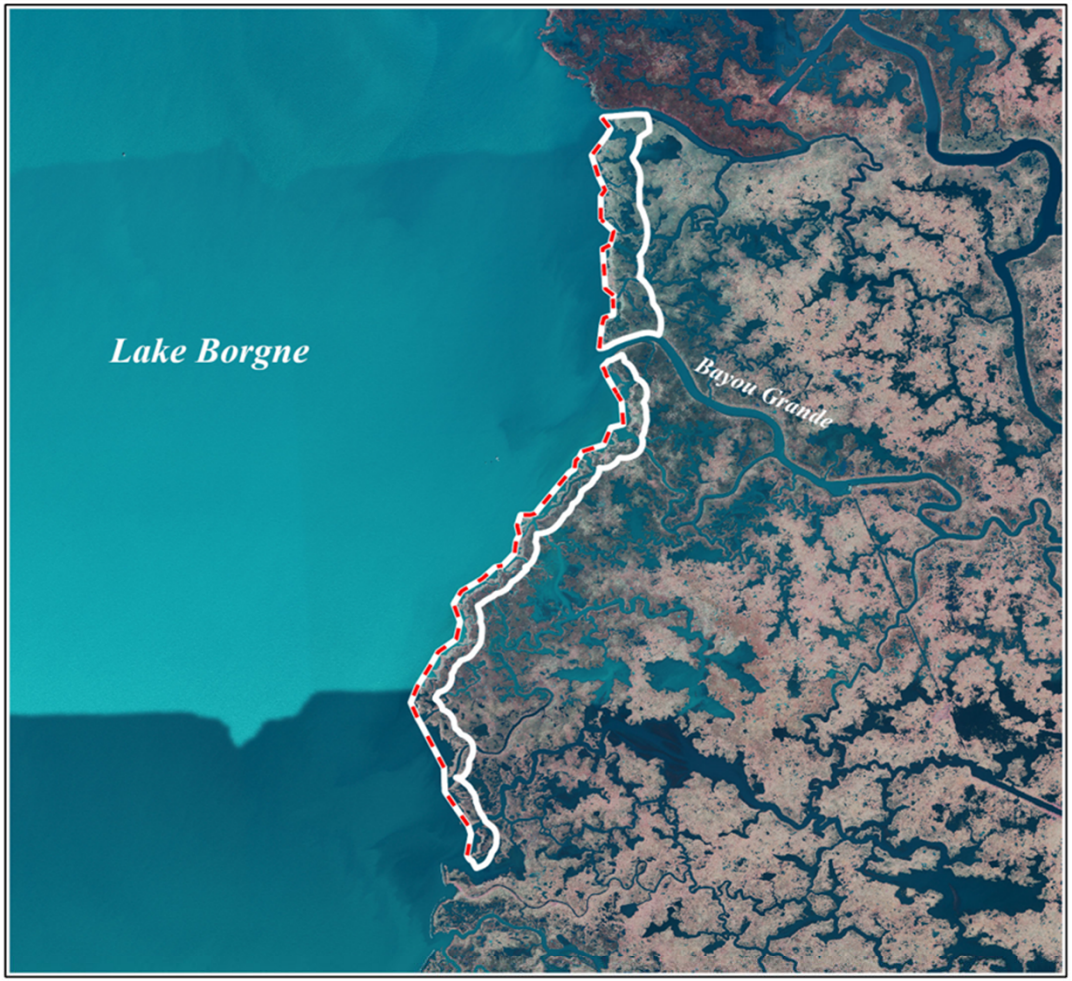
Barrier Island Maintenance

Oyster Reef Restoration

Shoreline Protection

Bank Stabilization

Programmatic Restoration



Biloxi Marsh Shoreline Protection
(PPL33 Candidate)

Shoreline Protection

Project Boundary

Note: All features are proposed.

0.5 0 0.5 1 Kilometers

0.5 0 0.5 1 Miles

Scale: 1:35,000

USGS science for a changing world

Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
Wetland and Aquatic Research Center
Baton Rouge, LA

Image Source:
2021 NAIP CIR

Map ID: 2023-11-0015
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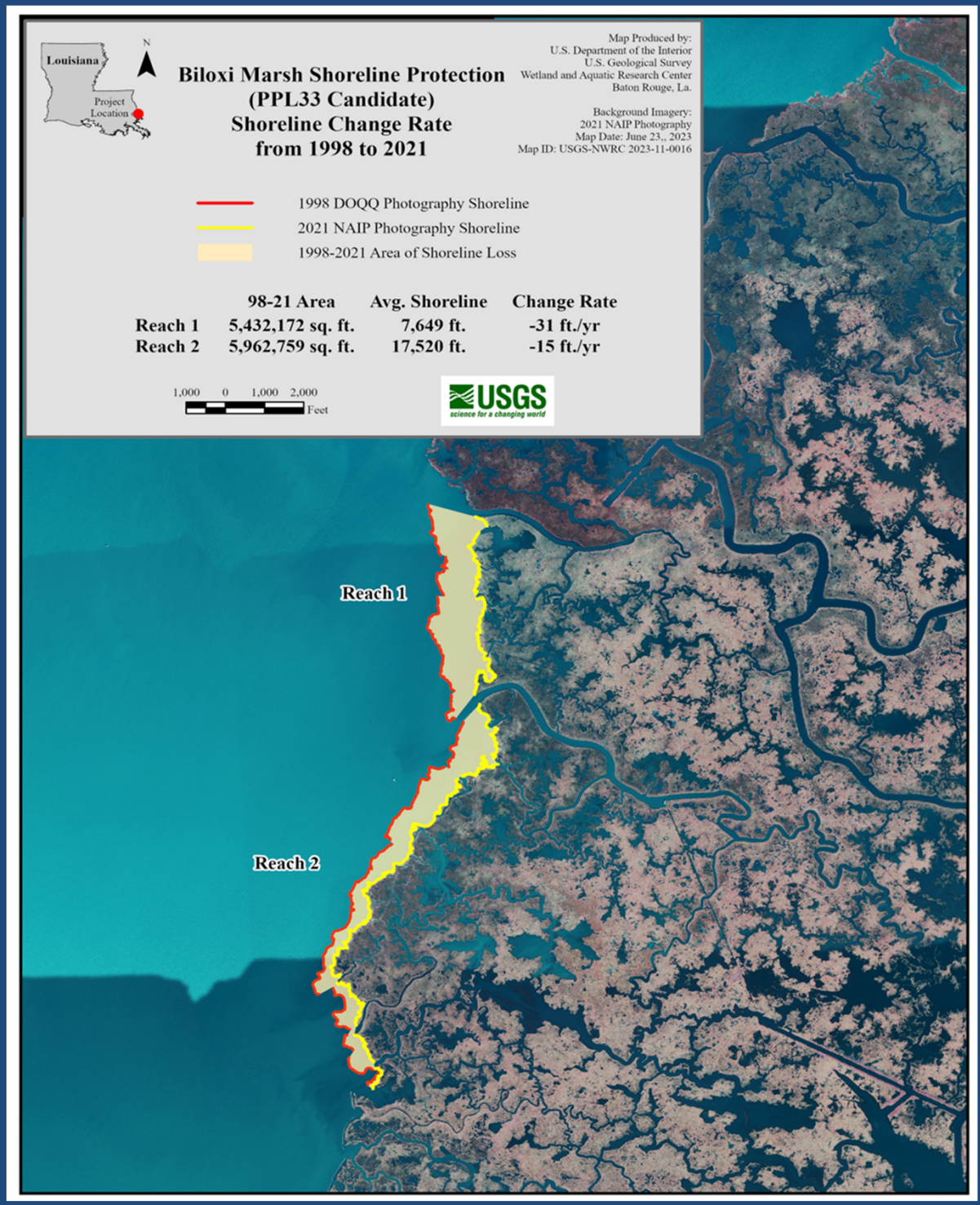
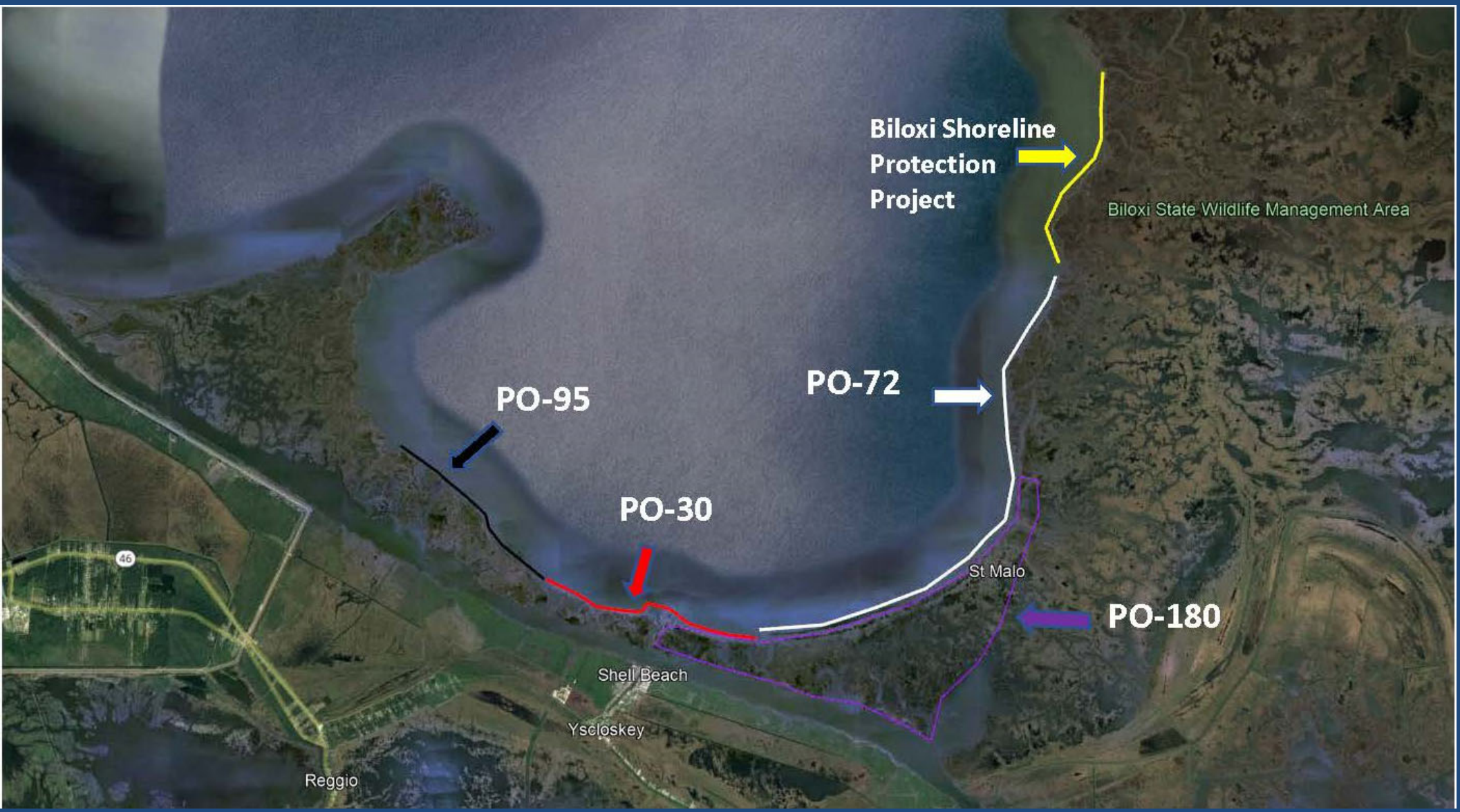
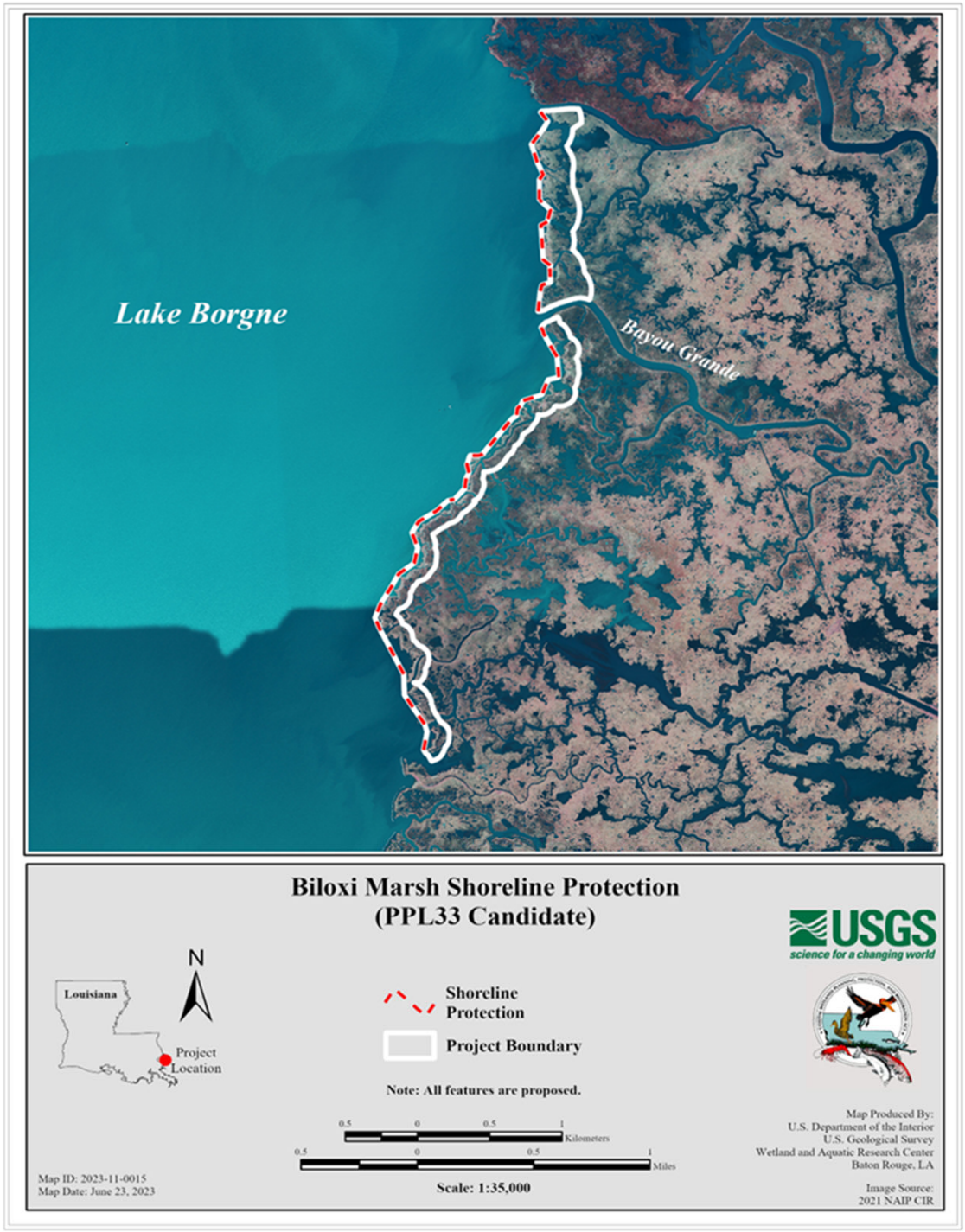

Louisiana
Project Location
N
Biloxi Marsh Shoreline Protection
(PPL33 Candidate)
Shoreline Change Rate
from 1998 to 2021
Map Produced by:
U.S. Department of the Interior
U.S. Geological Survey
Wetland and Aquatic Research Center
Baton Rouge, La.
Background Imagery:
2021 NAIP Photography
Map Date: June 23,, 2023
Map ID: USGS-NWRC 2023-11-0016
1998 DOQQ Photography Shoreline
2021 NAIP Photography Shoreline
1998-2021 Area of Shoreline Loss
98-21 Area
Avg. Shoreline
Change Rate
Reach 1 5,432,172 sq. ft. 7,649 ft. -31 ft./yr
Reach 2 5,962,759 sq. ft. 17,520 ft. -15 ft./yr
1,000 0 1,000 2,000
Feet
USGS
science for a changing world
Reach 1
Reach 2


Biloxi Shoreline Protection Project
Biloxi State Wildlife Management Area
PO-95
PO-72
PO-30
St Malo
PO-180
Shell Beach
Yscloskey
Reggio
46



- Construct 16,000 LF of Foreshore Rock Dike with Light Weight Agg. Core
- 233 acres of marsh protected
- Net acres = 100 - 150
- Construction plus contingency $25M - $30M
- Project synergy – Lake Borgne MC (PO-180), Lake Borgne SP (PO-30), MRGO and Lake Borgne (PO-95), and Biloxi Marsh SP (PO-72).