CWPPRA

PPL 34 Regional Planning Team (RPT) Meetings

Final Package Region 2

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 2

Regional Planning Team Meeting

Lead:
Terri Von Hoven, USACE

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

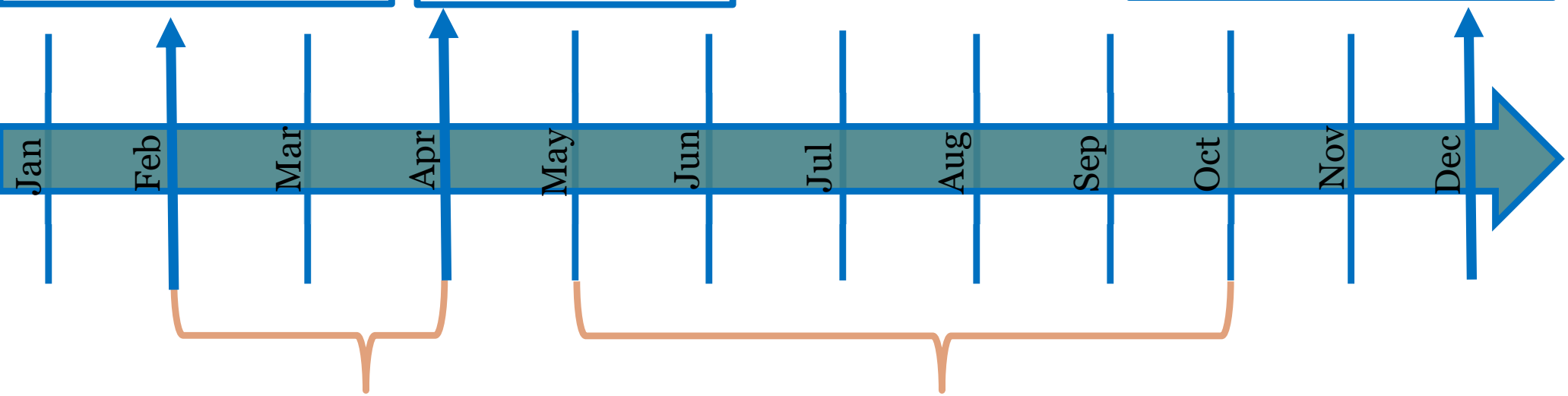
Not all inclusive

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 2

Terri Von Hoven, USACE

Announcements

- 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 I and II - Feb. 1, 2024, 9:00 am

Region 2 Parishes

- Eligible parishes for basins in Region 2 include:
- Barataria Basin
  - **Plaquemines**
  - **Jefferson**
  - **Orleans**
  - **Ascension**
  - **Assumption**
  - **St. James**
  - **St. Charles**
  - **Lafourche**
  - **St. John the Baptist**
- Breton Sound Basin
  - **Plaquemines**
  - **St. Bernard**

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

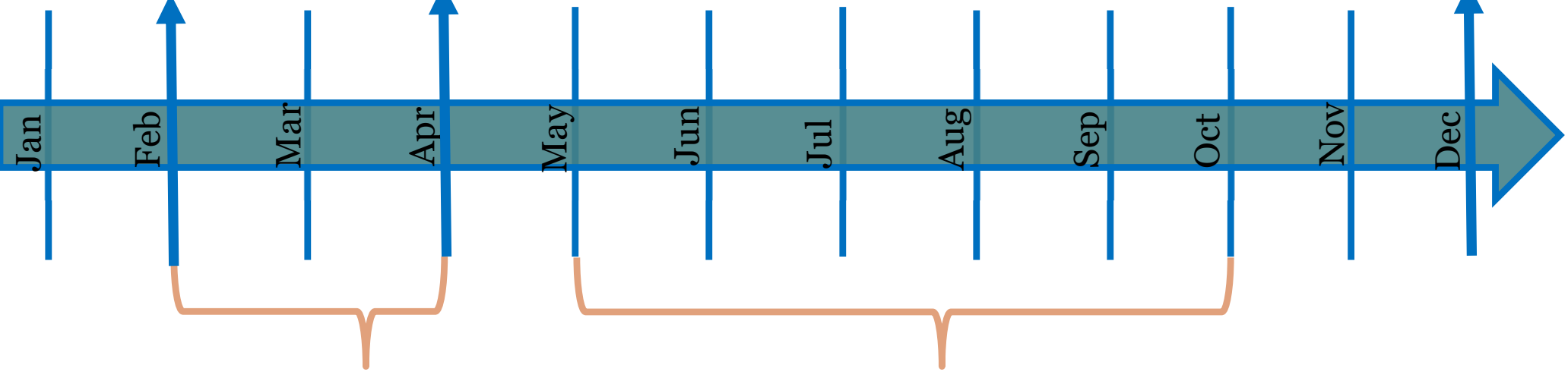
- An electronic vote will be held **23 February** to select projects, with the number of projects per basin determined by loss rate (i.e., basins with the highest loss have the most projects):
  - Barataria: 4
  - Terrebonne: 4
  - Breton Sound: 3
  - Pontchartrain: 3
  - Mermentau: 2
  - Calcasieu/Sabine: 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

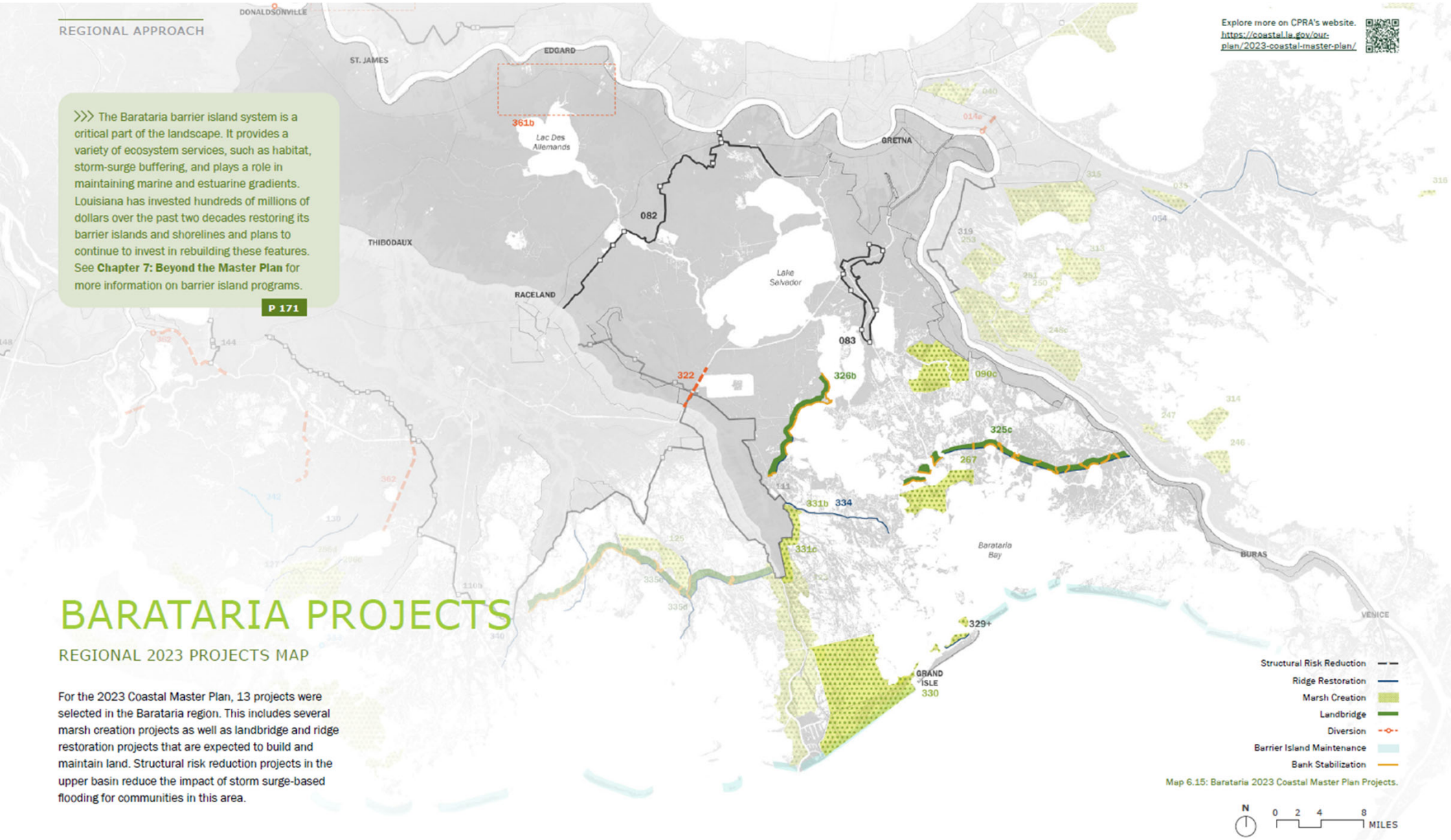
Send written comments on proposals presented today to USACE by **16 February 2024**

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



Map 6.15: Barataria 2023 Coastal Master Plan Projects.

>>> The Barataria barrier island system is a critical part of the landscape. It provides a variety of ecosystem services, such as habitat, storm-surge buffering, and plays a role in maintaining marine and estuarine gradients. Louisiana has invested hundreds of millions of dollars over the past two decades restoring its barrier islands and shorelines and plans to continue to invest in rebuilding these features. See **Chapter 7: Beyond the Master Plan** for more information on barrier island programs.

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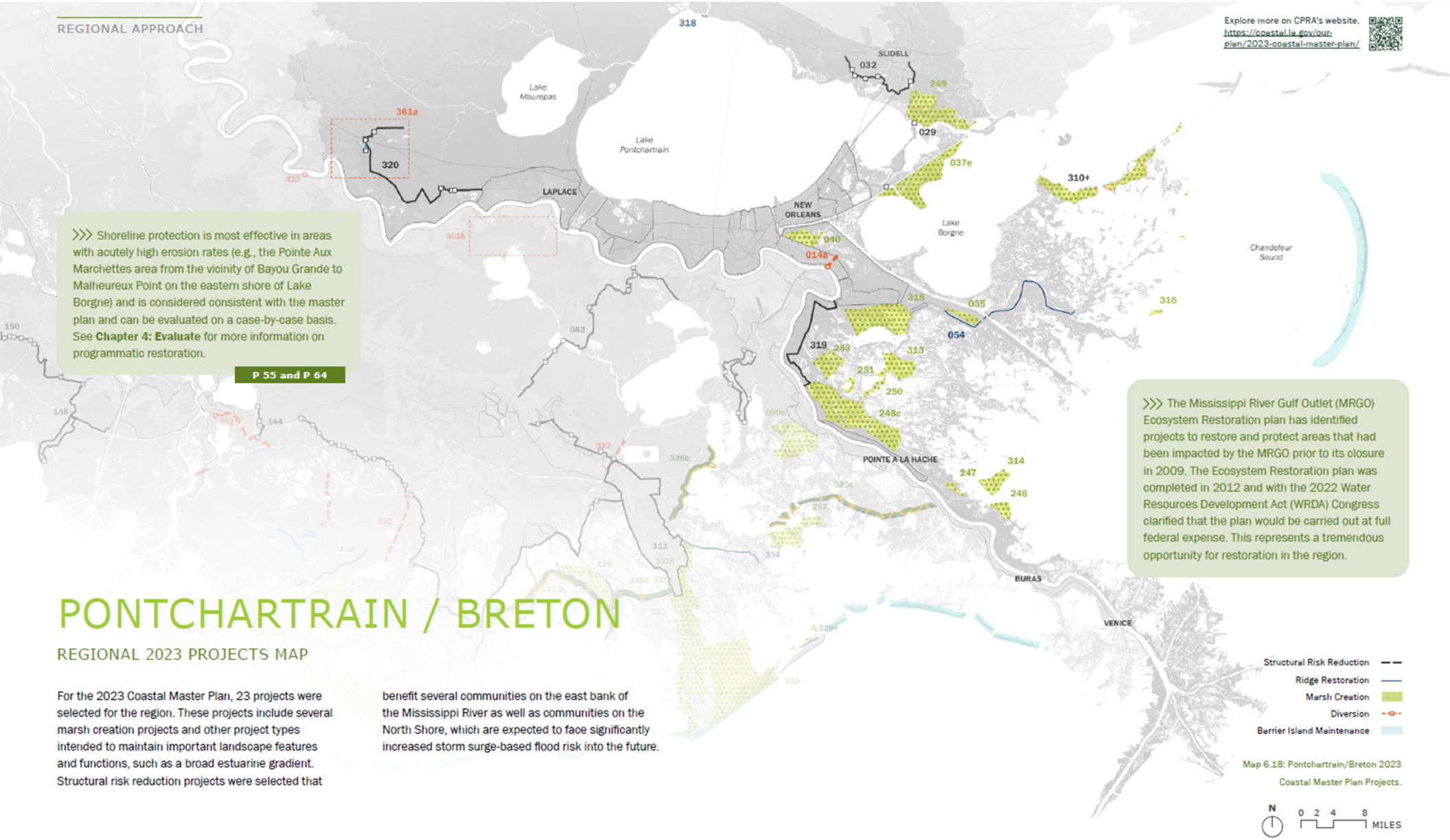
BARATARIA PROJECTS

REGIONAL 2023 PROJECTS MAP

For the 2023 Coastal Master Plan, 13 projects were selected in the Barataria region. This includes several marsh creation projects as well as landbridge and ridge restoration projects that are expected to build and maintain land. Structural risk reduction projects in the upper basin reduce the impact of storm surge-based flooding for communities in this area.

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.

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

Region 2

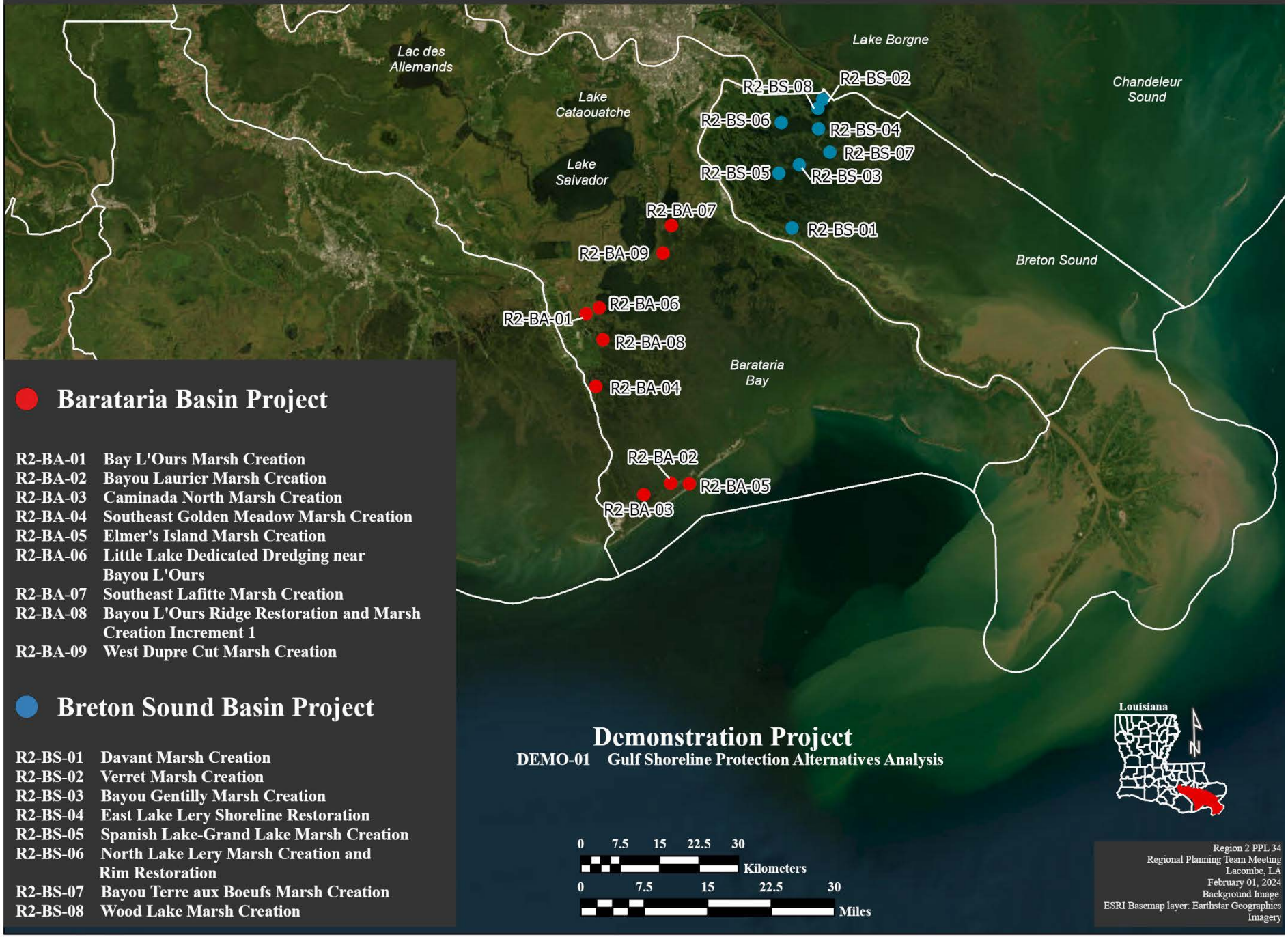
Barataria Basin

Project ID	Agency	Project Name
R2, BA-01	EPA	Bay L'Ours Marsh Creation
R2, BA-02	EPA	Bayou Laurier Marsh Creation
R2, BA-03	EPA	Caminada North Marsh Creation
R2, BA-04	FWS	Southeast Golden Meadow Marsh Creation
R2, BA-05	NOAA	Elmer's Island Restoration
R2, BA-06	NOAA	Little Lake Dedicated Dredging near Bayou L'Ours
R2, BA-07	NOAA	Southeast Lafitte Marsh Creation
R2, BA-08	NRCS	Bayou L'Ours Ridge Restoration and Marsh Creation Increment 1
R2, BA-09	NRCS	West Dupre Cut Marsh Creation

Breton Sound Basin

Project ID	Agency	Project Name
R2, BS-01	EPA	Davant Marsh Creation
R2, BS-02	EPA	Verret Marsh Creation
R2, BS-03	FWS	Bayou Gentilly Marsh Creation
R2, BS-04	FWS	East Lake Lery Shoreline Restoration
R2, BS-05	FWS	Spanish Lake-Grand Lake Marsh Creation
R2, BS-06	FWS	*Wood Lake Marsh Creation WITHDRAWN*
R2, BS-07	NOAA	North Lake Lery Marsh Creation and Rim Restoration
R2, BS-08	NRCS	Bayou Terre aux Boeufs Marsh Creation
R2, BS-09	NRCS	Wood Lake Marsh Creation

PPL34 Region 2 Nominated Projects



Barataria Basin Project

R2-BA-01	Bay L'Ours Marsh Creation
R2-BA-02	Bayou Laurier Marsh Creation
R2-BA-03	Caminada North Marsh Creation
R2-BA-04	Southeast Golden Meadow Marsh Creation
R2-BA-05	Elmer's Island Marsh Creation
R2-BA-06	Little Lake Dedicated Dredging near Bayou L'Ours
R2-BA-07	Southeast Lafitte Marsh Creation
R2-BA-08	Bayou L'Ours Ridge Restoration and Marsh Creation Increment 1
R2-BA-09	West Dupre Cut Marsh Creation

Breton Sound Basin Project

R2-BS-01	Davant Marsh Creation
R2-BS-02	Verret Marsh Creation
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R2-BS-06	North Lake Lery Marsh Creation and Rim Restoration
R2-BS-07	Bayou Terre aux Boeufs Marsh Creation
R2-BS-08	Wood Lake Marsh Creation

Demonstration Project

DEMO-01 Gulf Shoreline Protection Alternatives Analysis

0 7.5 15 22.5 30 Kilometers

0 7.5 15 22.5 30 Miles

Region 2 PPL 34
Regional Planning Team Meeting
Lacombe, LA
February 01, 2024
Background Image:
ESRI Basemap layer: Earthstar Geographics Imagery

CWPPRA RPT Region 2

Barataria Basin

PPL34 PROJECT FACT SHEET
February 1, 2024

Project Name
Bay L'Ours Marsh Creation

Master Plan Strategy
Mid-Barataria Landbridge – West (2023 Master Plan Project ID: 326B; Implementation Period 2):
Creation of marsh within a footprint of approximately 3,800 acres including filling areas deeper than 2.5 feet, from Galliano to Bayou Perot. 63,000 feet of shoreline revetment to limit erosion in exposed areas and channel armoring to maintain channels at two canals in the Clovelly Oil Field to reduce the tidal prism and to create new wetland habitat, restore degraded marsh, and reduce wave erosion.

Project Location
Region 2, Barataria Basin, Lafourche Parish

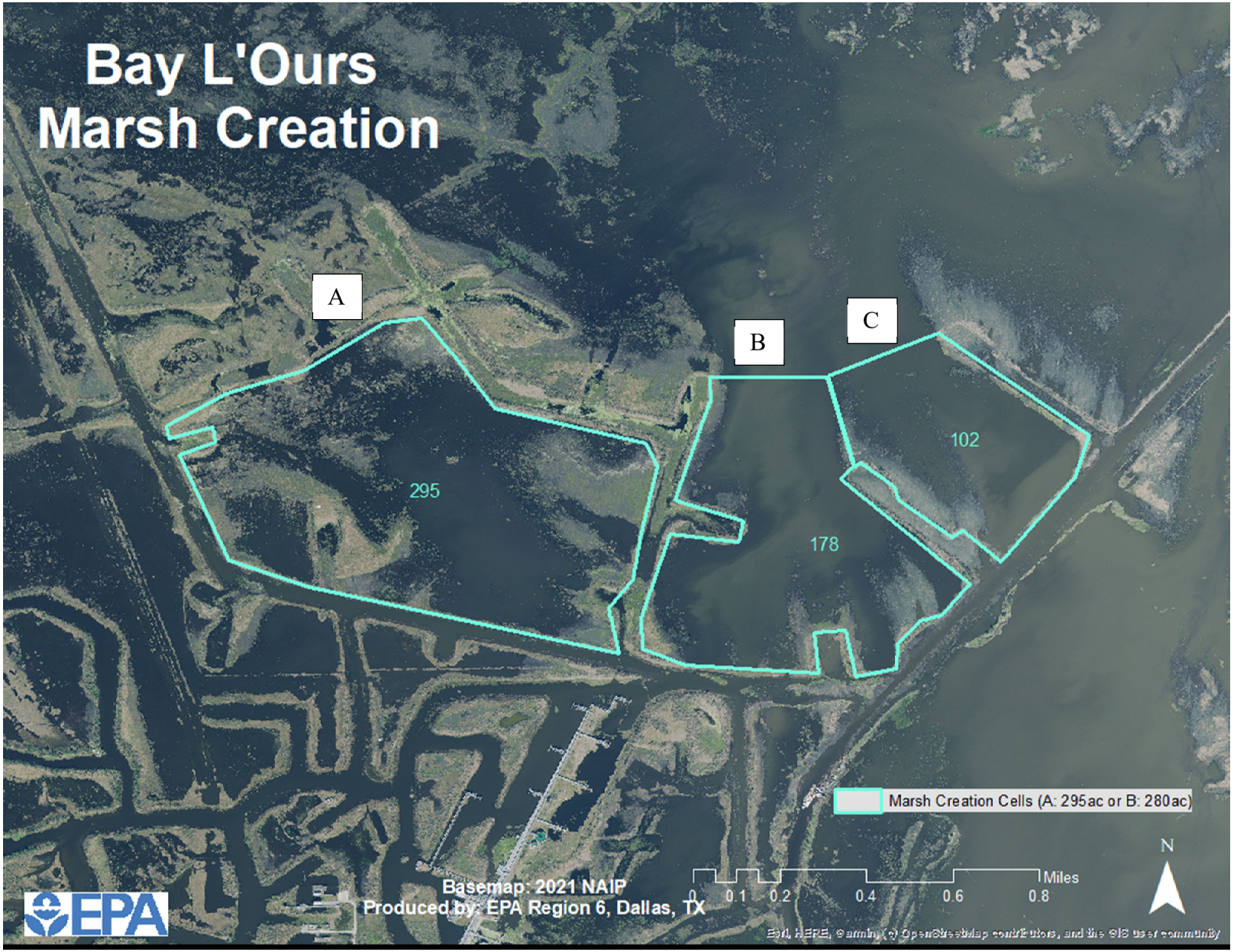
Problem
Lafourche Parish faces potentially severe increased wetland loss across most of the parish in the next 50 years without further action (2023 State Master Plan). Over the next 50 years communities face significant flood risk (2023 State Master Plan). The project area has been relatively stable until August 2021 when this portion of the Barataria Basin experienced enormous land loss due to Hurricane Ida, in particular, Northwest Little Lake, Bay L'Ours and Brusle Lake. The land loss rate for the nearby NW Little Lake Extension MC project is -1.76%/yr.

Proposed Solution
The proposed project would create/nourish up to approximately 294 acres of marsh using sediment dredged from Little Lake. Three polygons have been identified for marsh creation. Field data will determine which cells will be selected (cell A or a combination of cells B and C) should this concept move forward. Cell A will be prioritized based upon Lafourche Parish priorities. Bank stabilization on the eastern edge of the marsh creation polygons will be included to be consistent with the land bridge Master Plan concept.

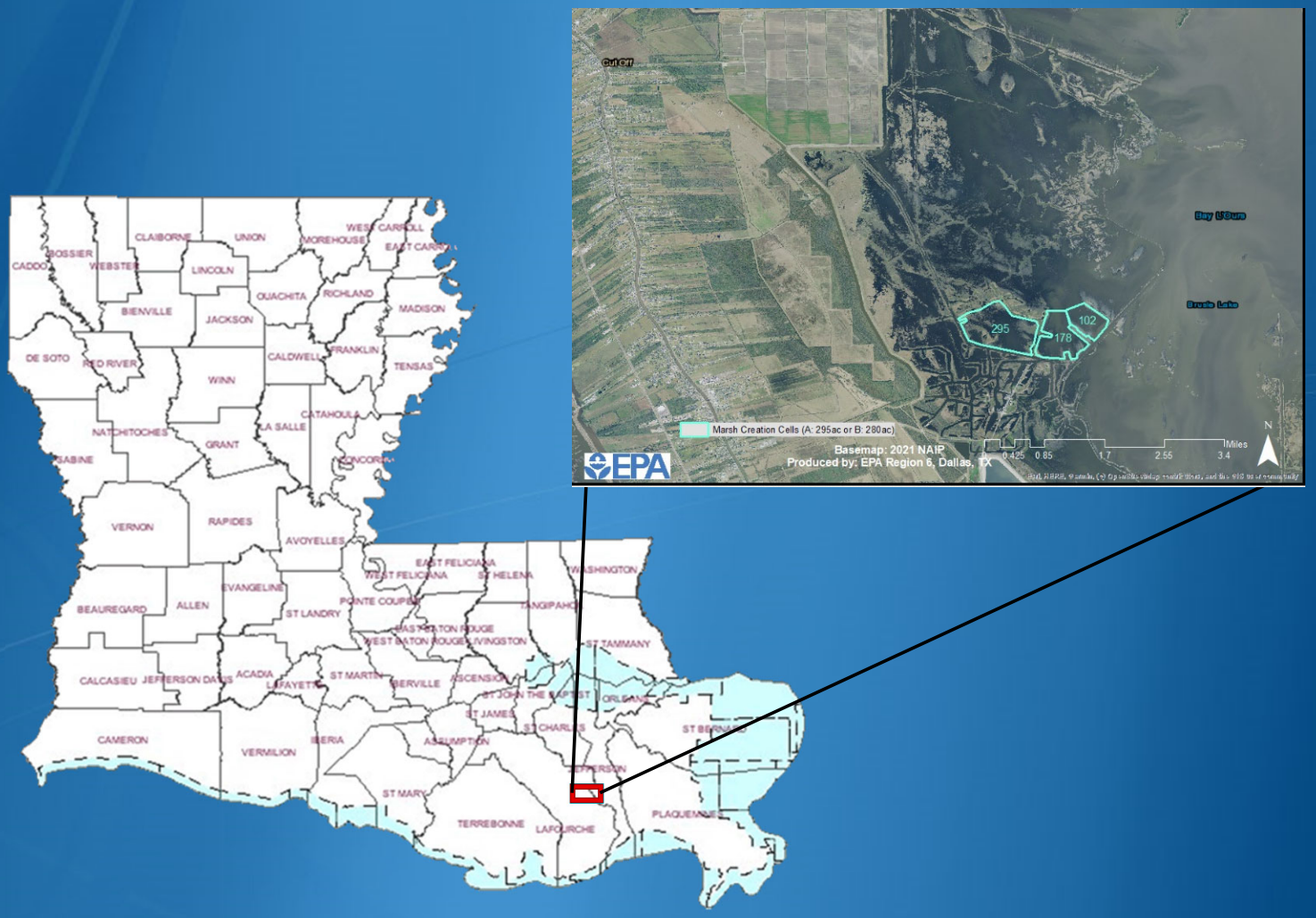
Project Benefits
Create/nourish up to approximately 294 acres (create 265 acres and nourish 29 acres) of emergent marsh using sediment dredged from Little Lake.

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

Preparer(s) of Fact Sheet:
Sharon L. Osowski, Ph.D.; EPA; (214) 665-7506; osowski.sharon@epa.gov
Jenny Byrd; EPA; (214) 665-7377; byrd.jennifer@epa.gov


Bay L'Ours
Marsh Creation
A
B
C
295
178
102
Marsh Creation Cells (A: 295ac or B: 280ac)
N
0 0.1 0.2 0.4 0.6 0.8
Miles
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
EPA
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

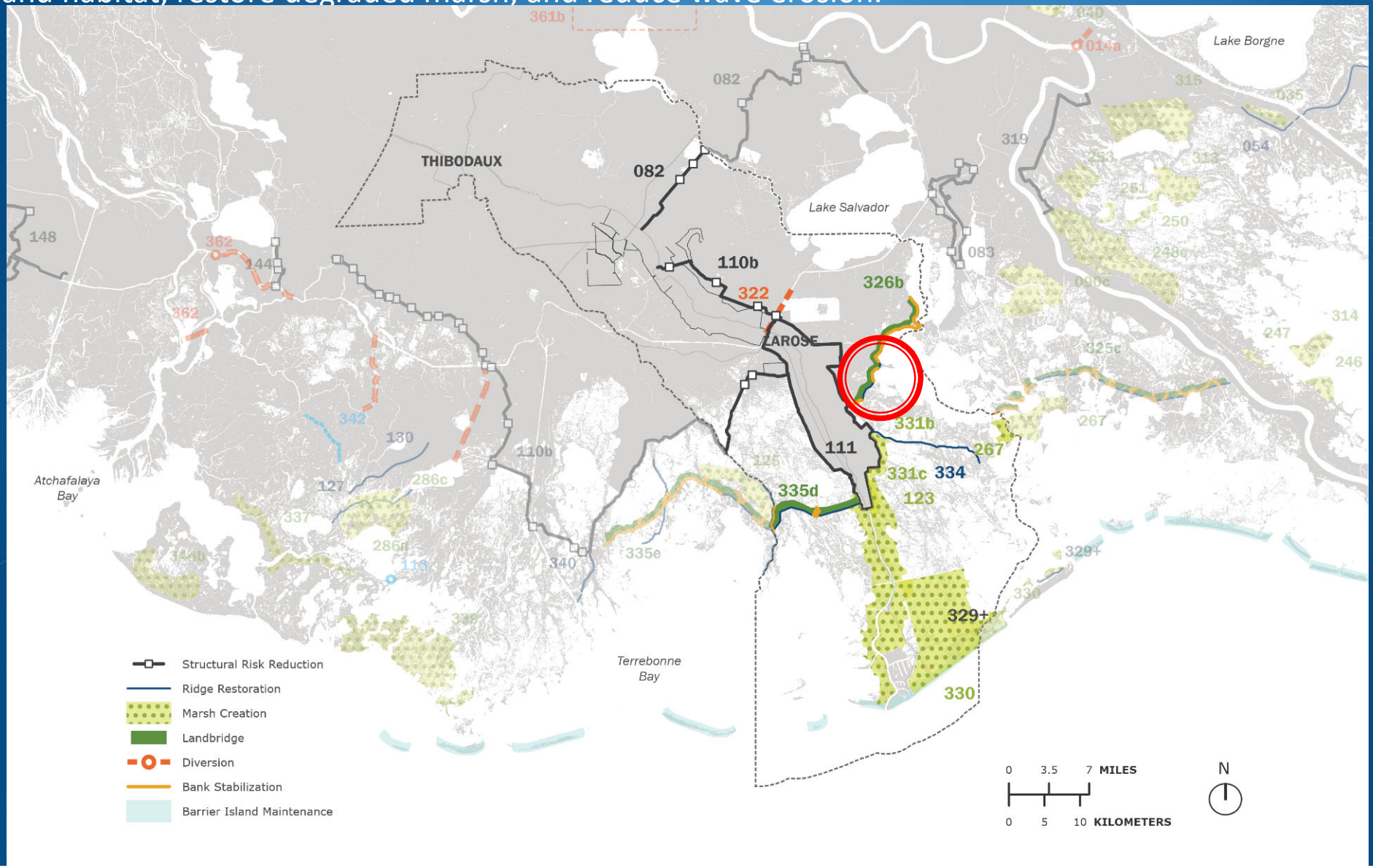
Bay L'Ours Marsh Creation



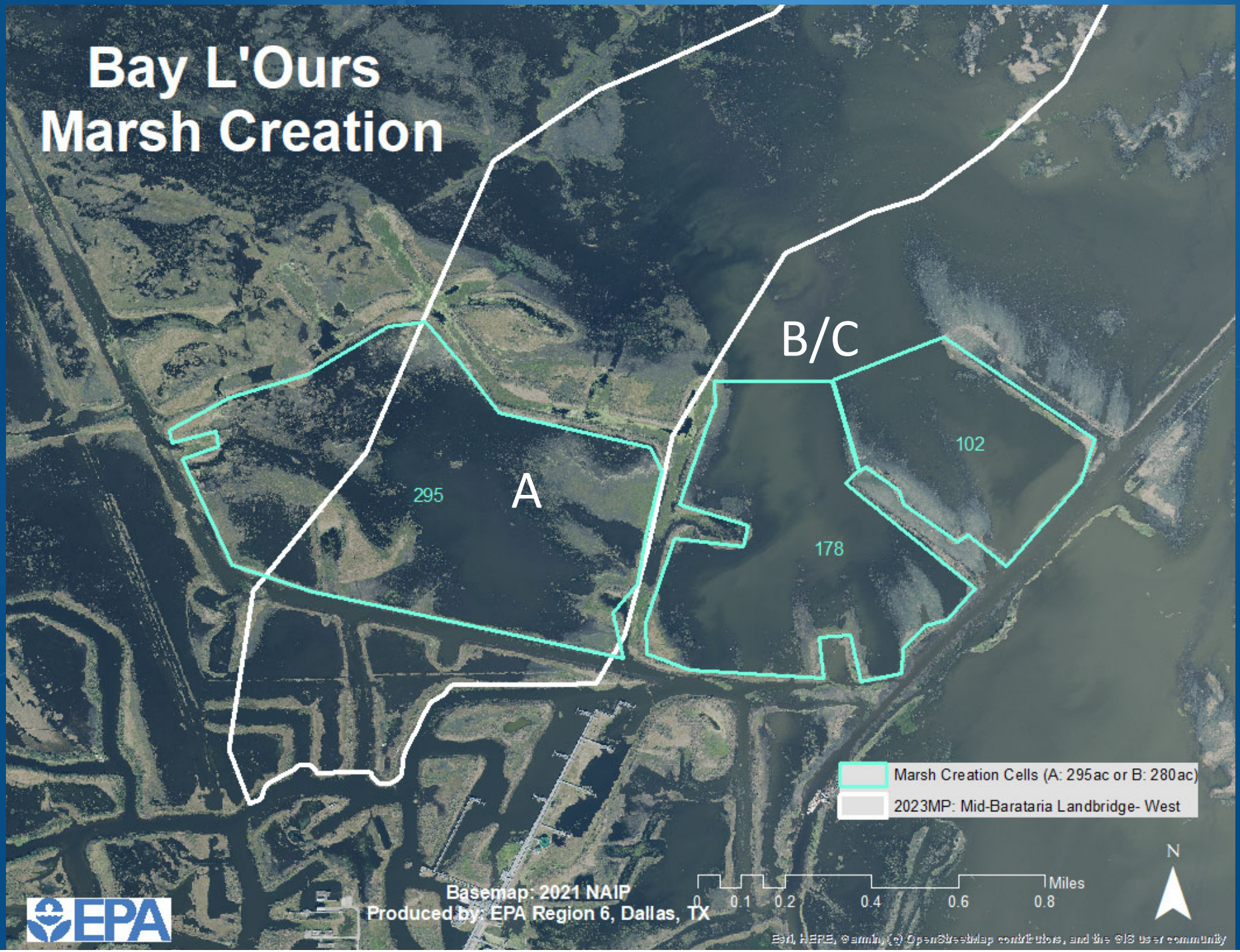
Coastal Wetlands Planning, Protection and Restoration Act

2023 Master Plan Solution

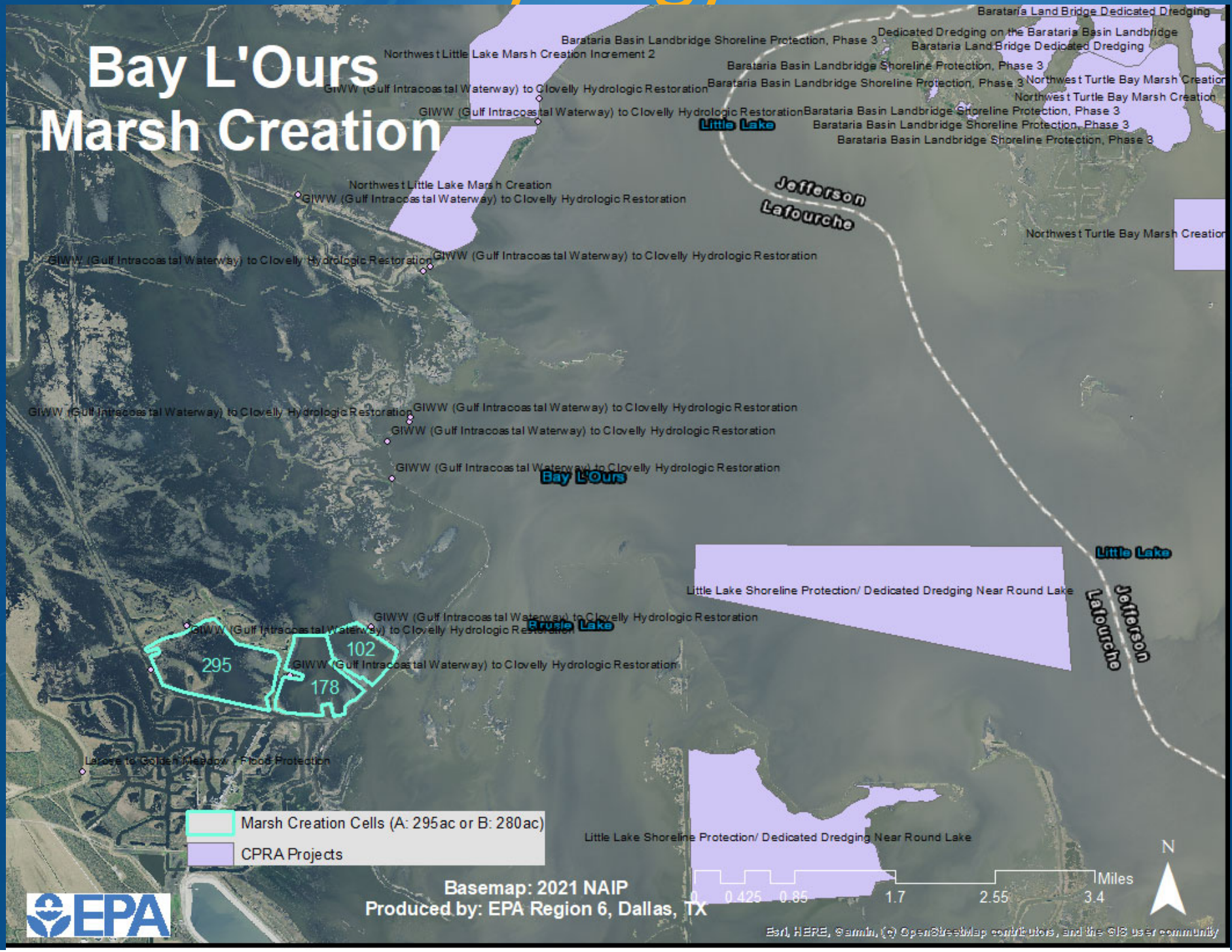
Mid-Barataria Landbridge – West (2023 Master Plan: Project ID 326B): Creation of marsh within a footprint of approximately 3,800 acres including filling areas deeper than 2.5 feet, from Galliano to Bayou Perot. 63,000 feet of shoreline revetment to limit erosion in exposed areas and channel armoring to maintain channels at two canals in the Clovelly Oil Field to reduce the tidal prism and to create new wetland habitat, restore degraded marsh, and reduce wave erosion.



2023 Master Plan Solution



Synergy


Bay L'Ours Marsh Creation
Barataria Land Bridge Dedicated Dredging
Barataria Basin Landbridge Shoreline Protection, Phase 3
Dedicated Dredging on the Barataria Basin Landbridge
Barataria Land Bridge Dedicated Dredging
Northwest Little Lake Marsh Creation Increment 2
Barataria Basin Landbridge Shoreline Protection, Phase 3
GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration
Barataria Basin Landbridge Shoreline Protection, Phase 3
Northwest Turtle Bay Marsh Creation
GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration
Northwest Turtle Bay Marsh Creation
Barataria Basin Landbridge Shoreline Protection, Phase 3
Little Lake
Barataria Basin Landbridge Shoreline Protection, Phase 3
Barataria Basin Landbridge Shoreline Protection, Phase 3
Jefferson
Lafourche
Northwest Little Lake Marsh Creation
GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration
Northwest Turtle Bay Marsh Creation
GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration
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GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration
Bay L'Ours
Little Lake
Little Lake Shoreline Protection/ Dedicated Dredging Near Round Lake
Jefferson
Lafourche
GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration
GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration
Bruslé Lake
295
102
178
GIWW (Gulf Intracoastal Waterway) to Clovelly Hydrologic Restoration
Larose to Golden Meadow Flood Protection
Marsh Creation Cells (A: 295ac or B: 280ac)
CPRA Projects
Little Lake Shoreline Protection/ Dedicated Dredging Near Round Lake
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
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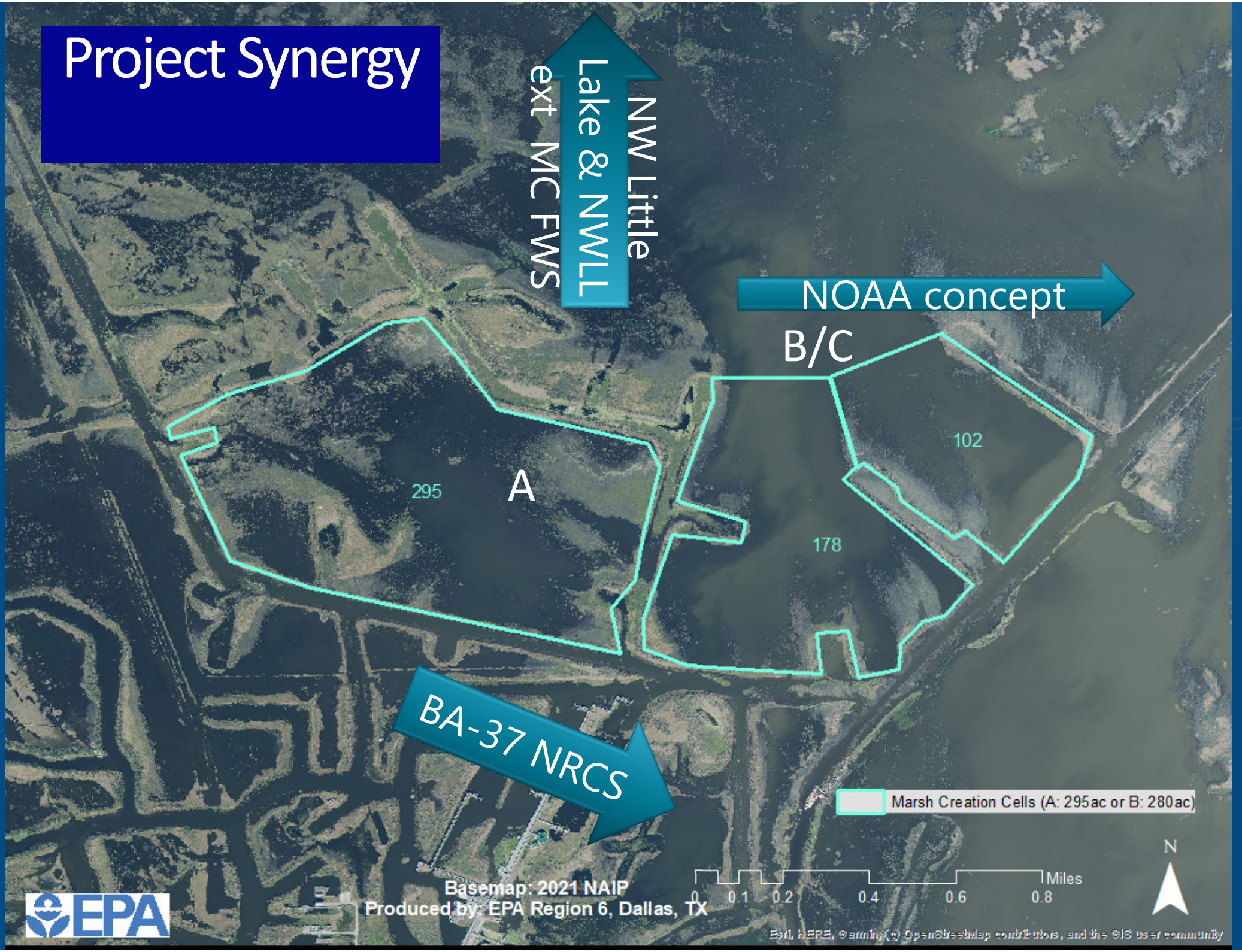
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

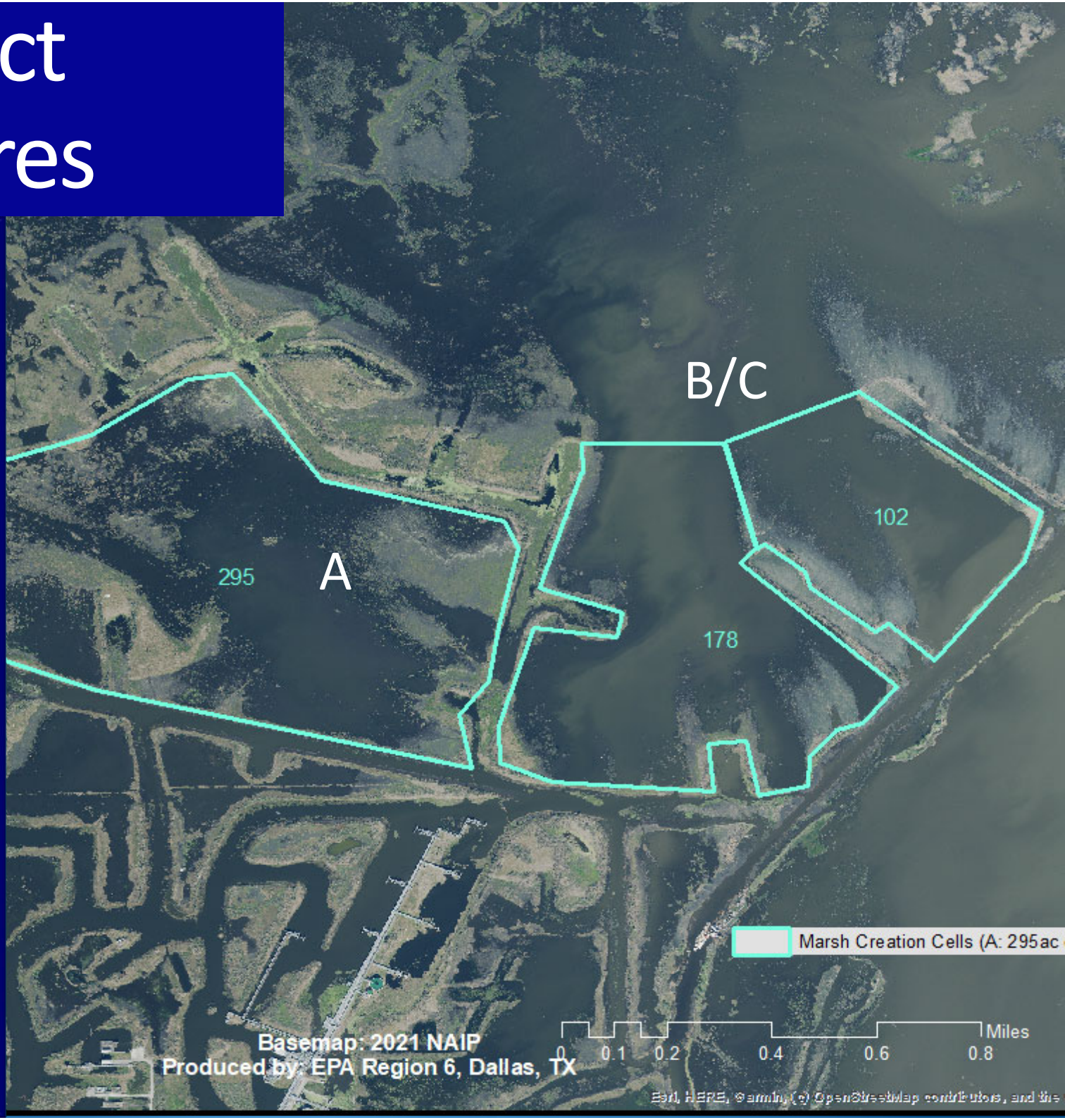

Project Synergy
NW Little Lake & NWLL ext MC FWS
NOAA concept
B/C
102
295
A
178
BA-37 NRCS
Marsh Creation Cells (A: 295ac or B: 280ac)
N
Miles
0 0.1 0.2 0.4 0.6 0.8
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
EPA
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Project Features

Create/nourish up to 294 acres (265 ac marsh creation, 29 ac marsh nourishment) of emergent marsh with sediment from the Little Lake

Shoreline Protection/Bank Stabilization will be included along the eastern edge of marsh creation cells

Construction + 25% = $25-$30M



PPL34 PROJECT FACT SHEET
February 1, 2024

Project Name
Bayou Laurier Marsh Creation

Master Plan Strategy
East Bayou Lafourche Marsh Creation (2023 State Master Plan ID: 330, Implementation Period 1): Creation of marsh within a footprint of approximately 33,000 acres east of Bayou LaFourche and along the Caminada Headland to create new wetland habitat, restore degraded marsh, and reduce wave erosion.

Project Location
Region 2, Barataria Basin, Lafourche Parish

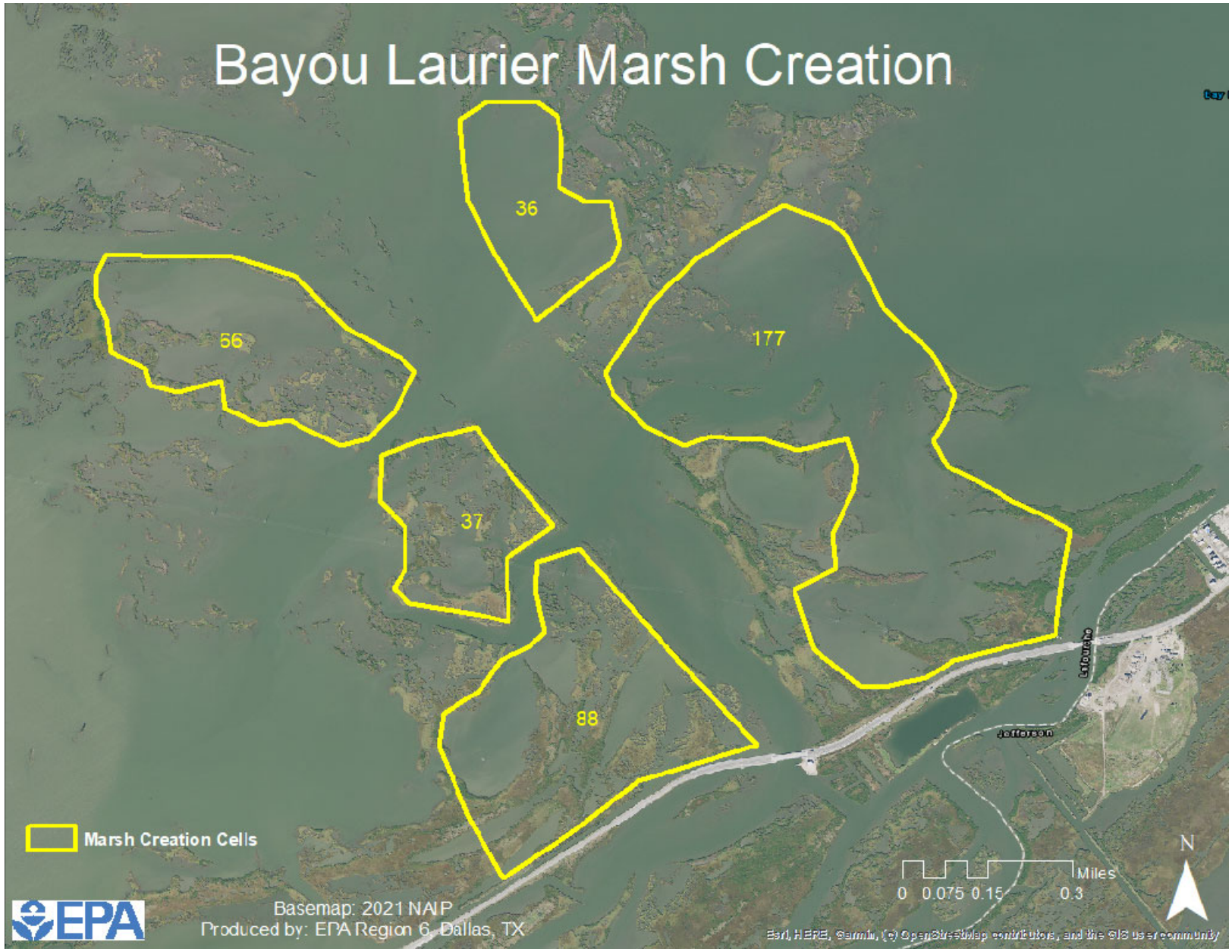
Problem
The project area is an open water body northeast of Grande Isle, LA and adjacent to LA Highway 1. Historic reasons for wetland loss in this area include subsidence, oil and gas activity, and wave erosion. Lafourche Parish faces potentially severe increased wetland loss across most of the parish in the next 50 years without further action (2023 State Master Plan). Over the next 50 years communities face significant flood risk (2023 State Master Plan). The marsh creation cell is located in the Lake Palourde Subunit which shows a land loss rate of -1.19%/yr.

Proposed Solution
The proposed project would create/nourish approximately 404 acres of marsh and reestablishing portions of the lake rims of Lake Laurier and Bay Ronfleur using sediment dredged from Bay Macoin or Caminada Bay. This project would help reduce land loss, provide ecosystem benefits, protect critical infrastructure (e.g. LA Hwy 1) and provide a measure of community resilience for nearby Grande Isle and Elmers Island refuge.

Project Benefits
Create/nourish up to approximately 404 acres (create 303 acres and nourish 101 acres) of emergent marsh using sediment dredged from Bay Macoin or Caminada Bay.

Project Costs
The estimated construction cost including 25% contingency is $30-35M.

Preparer(s) of Fact Sheet:
Sharon L. Osowski, Ph.D.; EPA; (214) 665-7506; osowski.sharon@epa.gov
Jenny Byrd, EPA, (214) 665-7377, Byrd.Jennifer@epa.gov


Bayou Laurier Marsh Creation
36
56
177
37
88
Marsh Creation Cells
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
0 0.075 0.15 0.3
Miles
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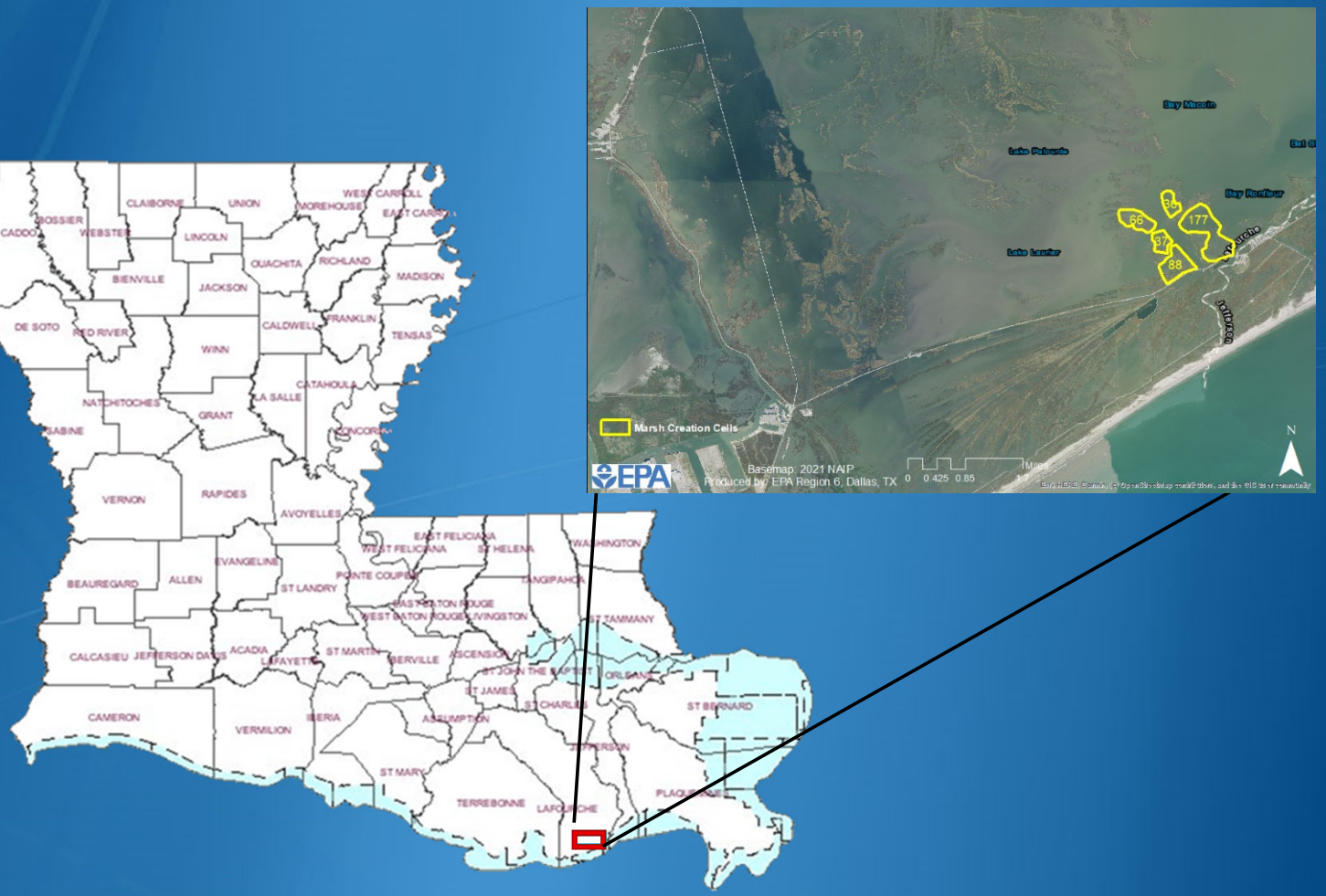
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

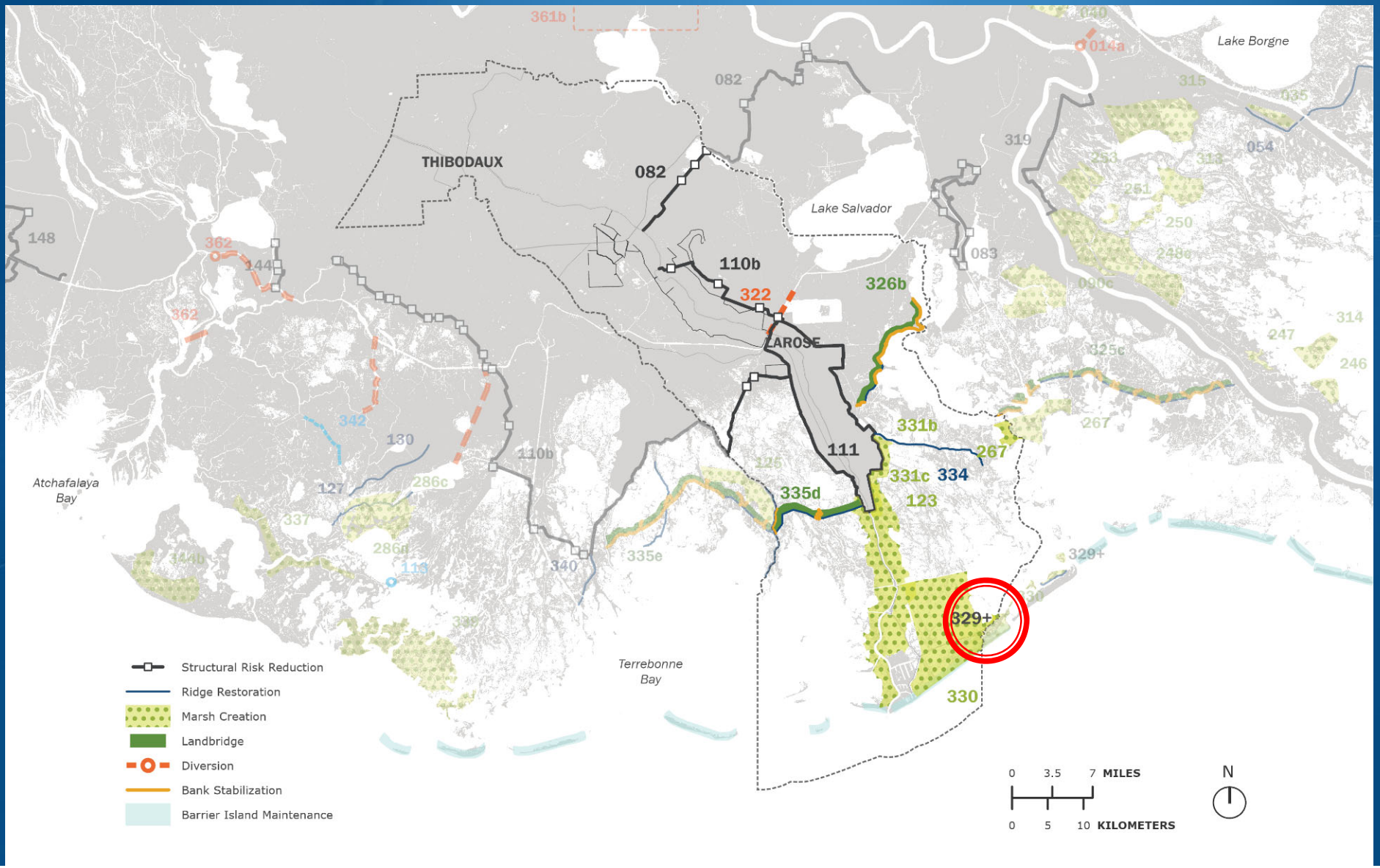
Bayou Laurier Marsh Creation



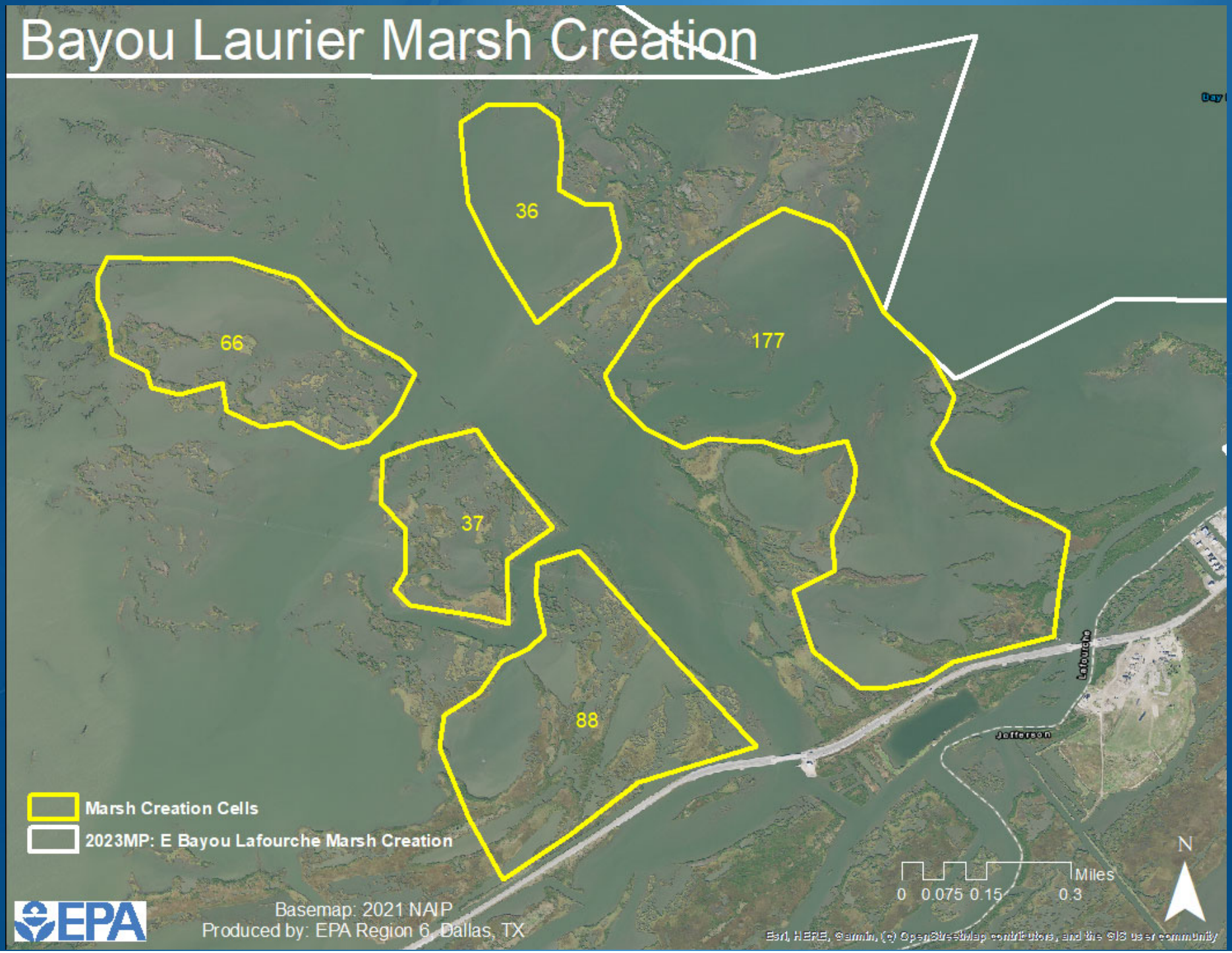
Coastal Wetlands Planning, Protection and Restoration Act

2023 Master Plan Solution

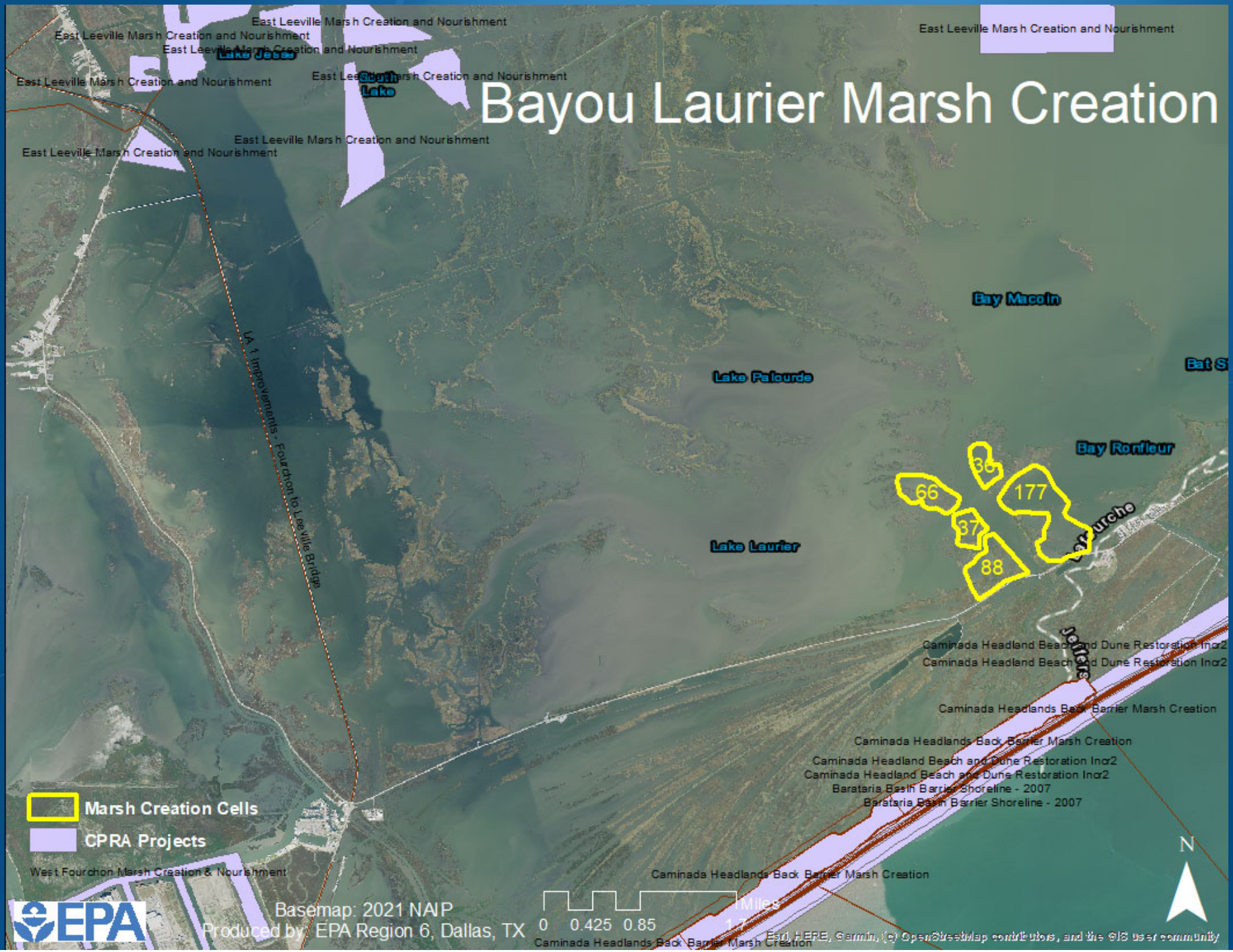
East Bayou Lafourche Marsh Creation (2023 State Master Plan ID: 330, Implementation Period 1): Creation of marsh within a footprint of approximately 33,000 acres east of Bayou LaFourche and along the Caminada Headland to create new wetland habitat, restore degraded marsh, and reduce wave erosion.



2023 Master Plan Solution



Synergy


Bayou Laurier Marsh Creation
East Leeville Marsh Creation and Nourishment
East Leeville Marsh Creation and Nourishment
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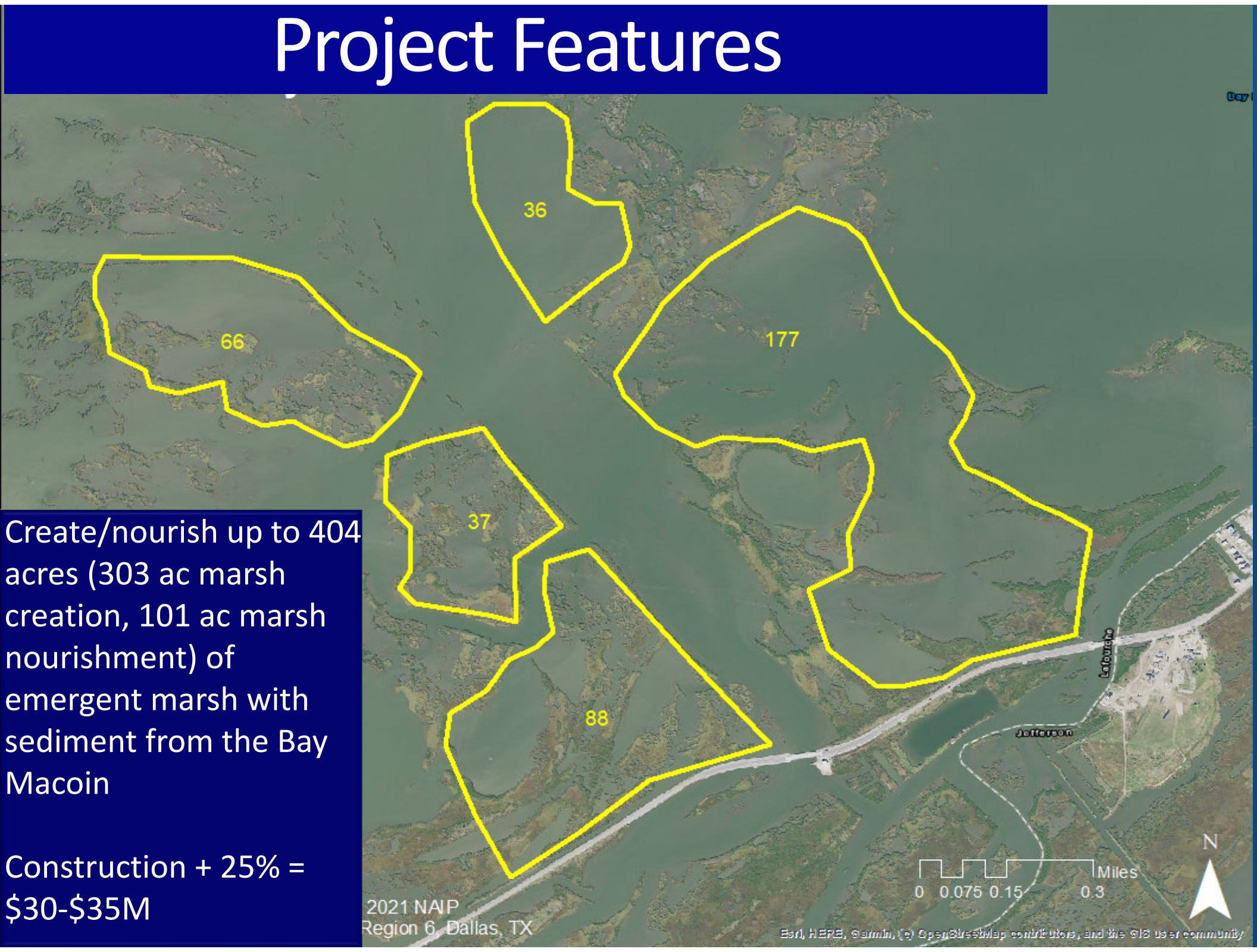
East Leeville Marsh Creation and Nourishment
East Leeville Marsh Creation and Nourishment
Lake Jesse
Lake
Bay Macoin
Lake Palourde
Bay Ronfleur
Lake Laurier
LA 1 Improvements - Fourchon to Leeville Bridge
36
66
177
37
88
Caminada Headland Beach and Dune Restoration Incr2
Caminada Headland Beach and Dune Restoration Incr2
Caminada Headlands Back Barrier Marsh Creation
Caminada Headlands Back Barrier Marsh Creation
Caminada Headland Beach and Dune Restoration Incr2
Caminada Headland Beach and Dune Restoration Incr2
Barataria Basin Barrier Shoreline - 2007
Barataria Basin Barrier Shoreline - 2007
Caminada Headlands Back Barrier Marsh Creation
West Fourchon Marsh Creation & Nourishment
Marsh Creation Cells
CPRA Projects
N
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
0 0.425 0.85
1 Miles
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Project Features



Create/nourish up to 404 acres (303 ac marsh creation, 101 ac marsh nourishment) of emergent marsh with sediment from the Bay Macoin

Construction + 25% = $30-$35M

PPL34 PROJECT FACT SHEET
February 1, 2024

Project Name
Caminada North Marsh Creation

Master Plan Strategy
East Bayou Lafourche Marsh Creation (2023 State Master Plan ID: 330, Implementation Period 1): Creation of marsh within a footprint of approximately 33,000 acres east of Bayou LaFourche and along the Caminada Headland to create new wetland habitat, restore degraded marsh, and reduce wave erosion.

Project Location
Region 2, Barataria Basin, Lafourche Parish

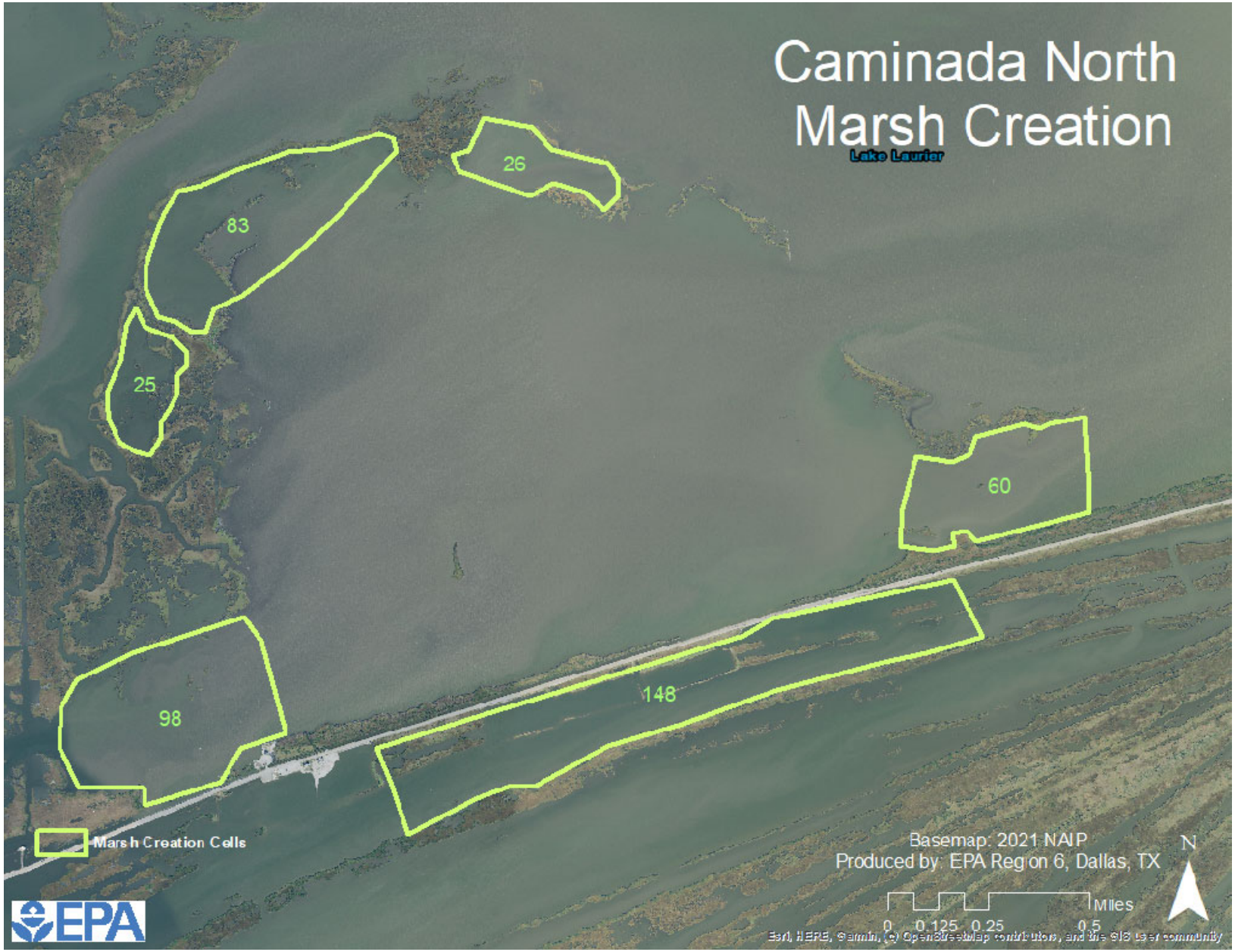
Problem
Lafourche Parish faces potentially severe increased wetland loss across most of the parish in the next 50 years without further action (2023 State Master Plan). Over the next 50 years communities face significant flood risk (2023 State Master Plan). The project area is an open water body north of the Caminada Headland and immediately adjacent to Highway 1. Historic reasons for wetland loss in this area include subsidence, oil and gas activity, and wave erosion. The marsh creation cell is located in the Lake Palourde Subunit which shows a land loss rate of -1.19%/yr.

Proposed Solution (or address the criteria here)
The proposed project would create/nourish approximately 440 acres of marsh using sediment dredged from the Gulf of Mexico. This project would help reduce land loss, provide ecosystem benefits, protect critical infrastructure and provide a measure of community resilience for nearby terracing projects.

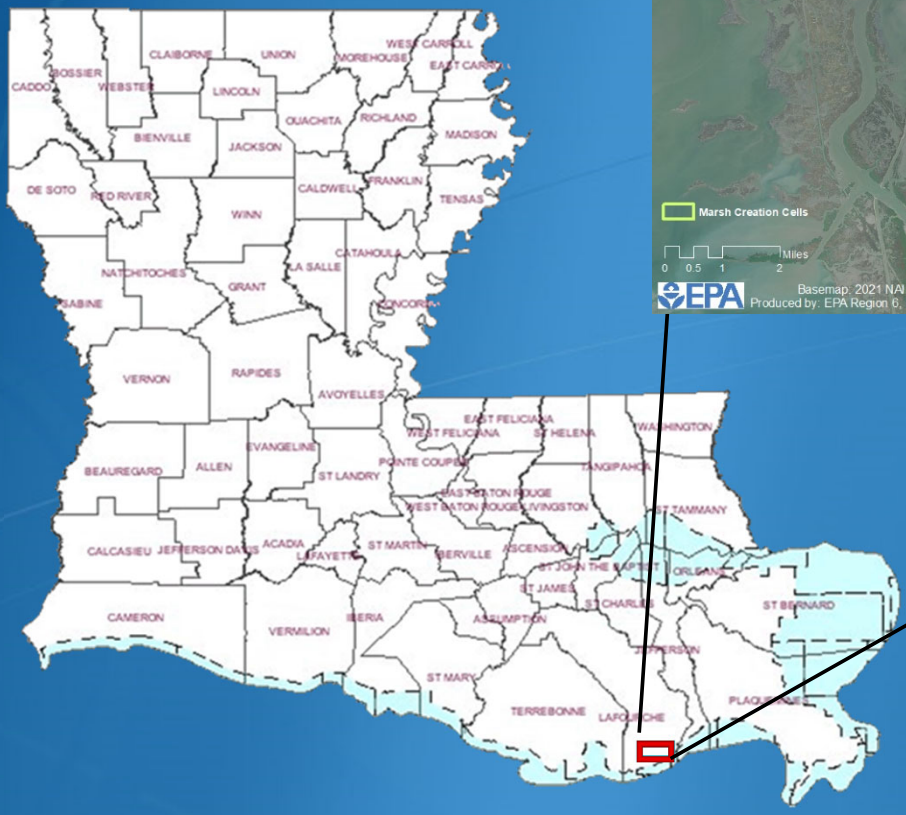
Project Benefits
Create/nourish up to approximately 440 acres (create 396 acres and nourish 44 acres) of emergent marsh using sediment dredged from the Gulf of Mexico.

Project Costs
The estimated construction cost including 25% contingency is $30-35M.

Preparer(s) of Fact Sheet:
Sharon L. Osowski, Ph.D.; EPA; (214) 665-7506; osowski.sharon@epa.gov
Jenny Byrd, EPA, (214) 665-7377, Byrd.Jennifer@epa.gov
Amanda Phillips, Edward Wisner Donation, (504) 210-1152, aphillips@wisnerdonation.com


Caminada North
Marsh Creation
Lake Laurier
26
83
25
60
148
98
Marsh Creation Cells
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
N
Miles
0 0.125 0.25 0.5
EPA

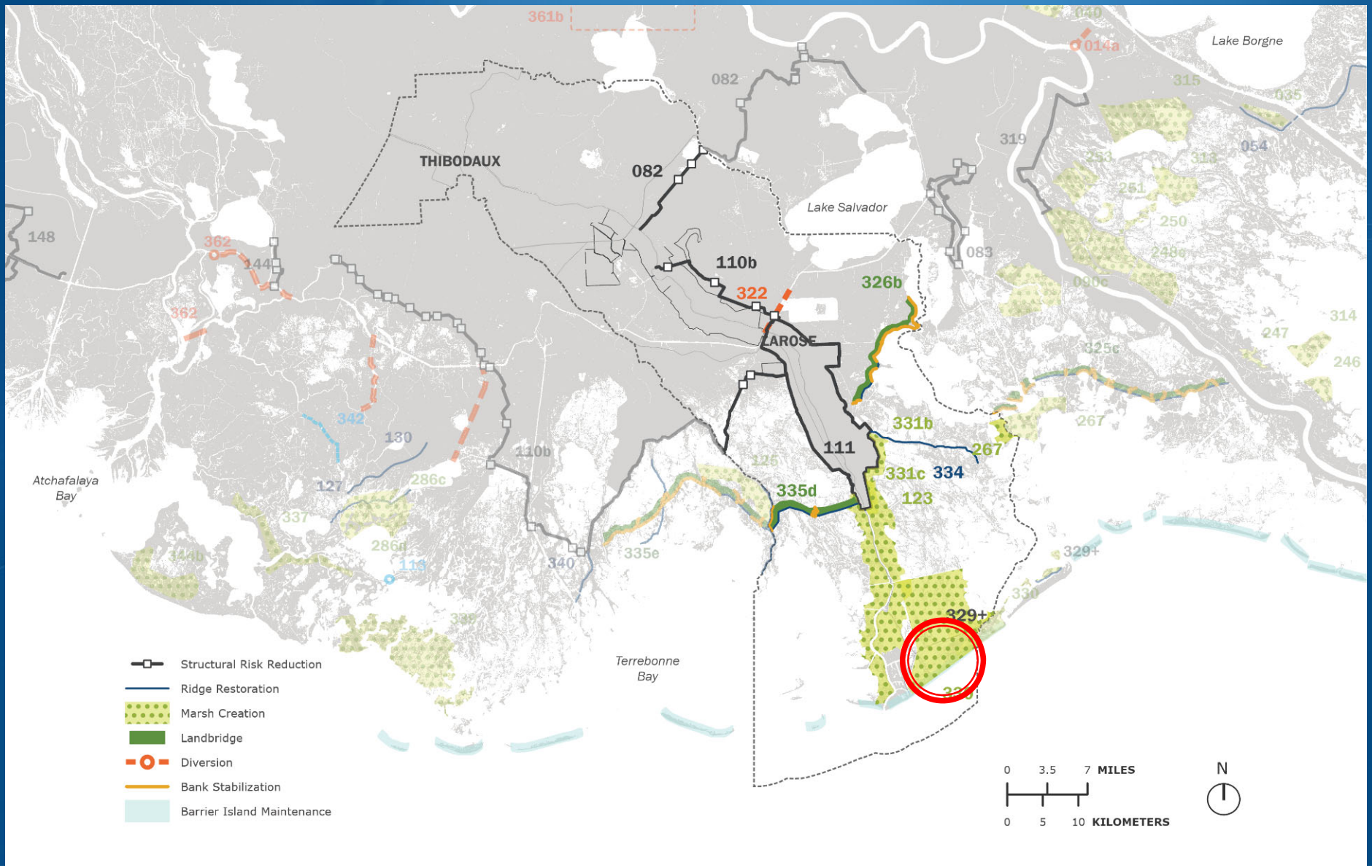
Caminada North Marsh Creation



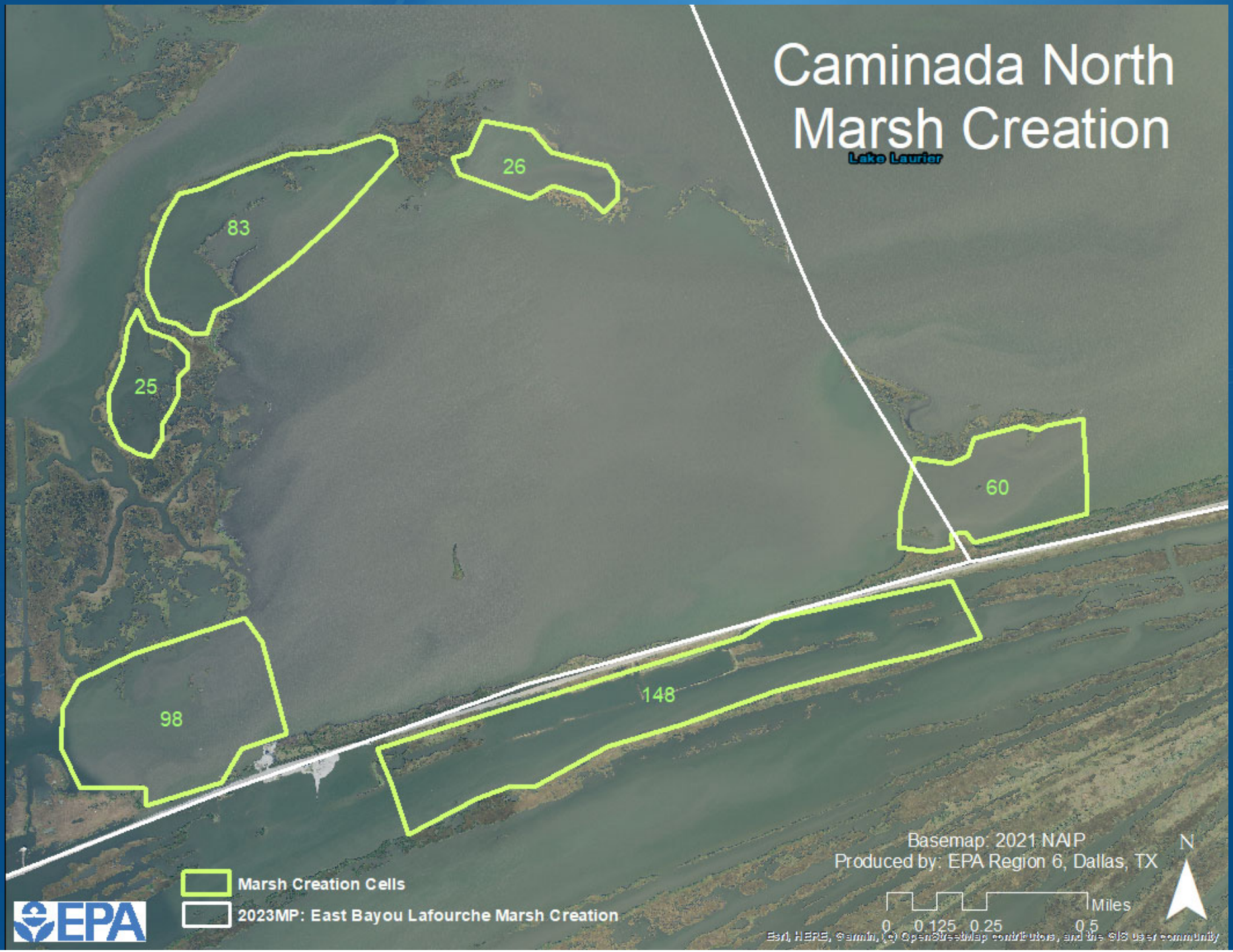
Coastal Wetlands Planning, Protection and Restoration Act

2023 Master Plan Solution

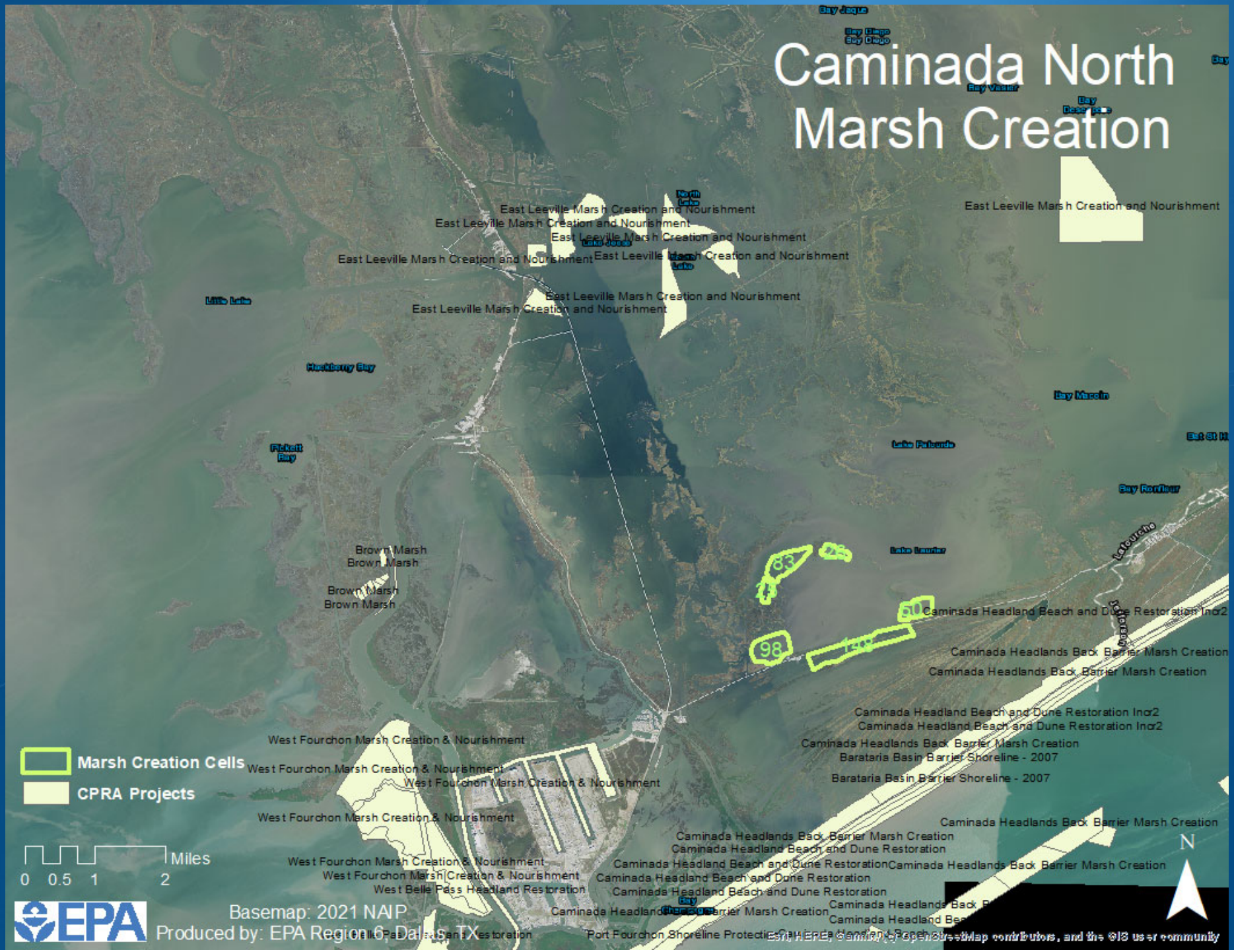
East Bayou Lafourche Marsh Creation (2023 State Master Plan ID: 330, Implementation Period 1): Creation of marsh within a footprint of approximately 33,000 acres east of Bayou LaFourche and along the Caminada Headland to create new wetland habitat, restore degraded marsh, and reduce wave erosion.



2023 Master Plan Solution



Synergy


Caminada North Marsh Creation
East Leeville Marsh Creation and Nourishment
East Leeville Marsh Creation and Nourishment
East Leeville Marsh Creation and Nourishment
East Leeville Marsh Creation and Nourishment
East Leeville Marsh Creation and Nourishment
East Leeville Marsh Creation and Nourishment
East Leeville Marsh Creation and Nourishment
East Leeville Marsh Creation and Nourishment
Brown Marsh
Brown Marsh
Brown Marsh
Brown Marsh
Caminada Headland Beach and Dune Restoration Incr2
Caminada Headlands Back Barrier Marsh Creation
Caminada Headlands Back Barrier Marsh Creation
Caminada Headland Beach and Dune Restoration Incr2
Caminada Headland Beach and Dune Restoration Incr2
Caminada Headlands Back Barrier Marsh Creation
Barataria Basin Barrier Shoreline - 2007
Barataria Basin Barrier Shoreline - 2007
West Fourchon Marsh Creation & Nourishment
West Fourchon Marsh Creation & Nourishment
West Fourchon Marsh Creation & Nourishment
West Fourchon Marsh Creation & Nourishment
Caminada Headlands Back Barrier Marsh Creation
Caminada Headland Beach and Dune Restoration
Caminada Headland Beach and Dune Restoration
Caminada Headlands Back Barrier Marsh Creation
Caminada Headland Beach and Dune Restoration
Caminada Headland Beach and Dune Restoration
West Fourchon Marsh Creation & Nourishment
West Fourchon Marsh Creation & Nourishment
West Belle Pass Headland Restoration
Caminada Headlands Back Barrier Marsh Creation
Port Fourchon Shoreline Protection
Marsh Creation Cells
CPRA Projects
Miles
0 0.5 1 2
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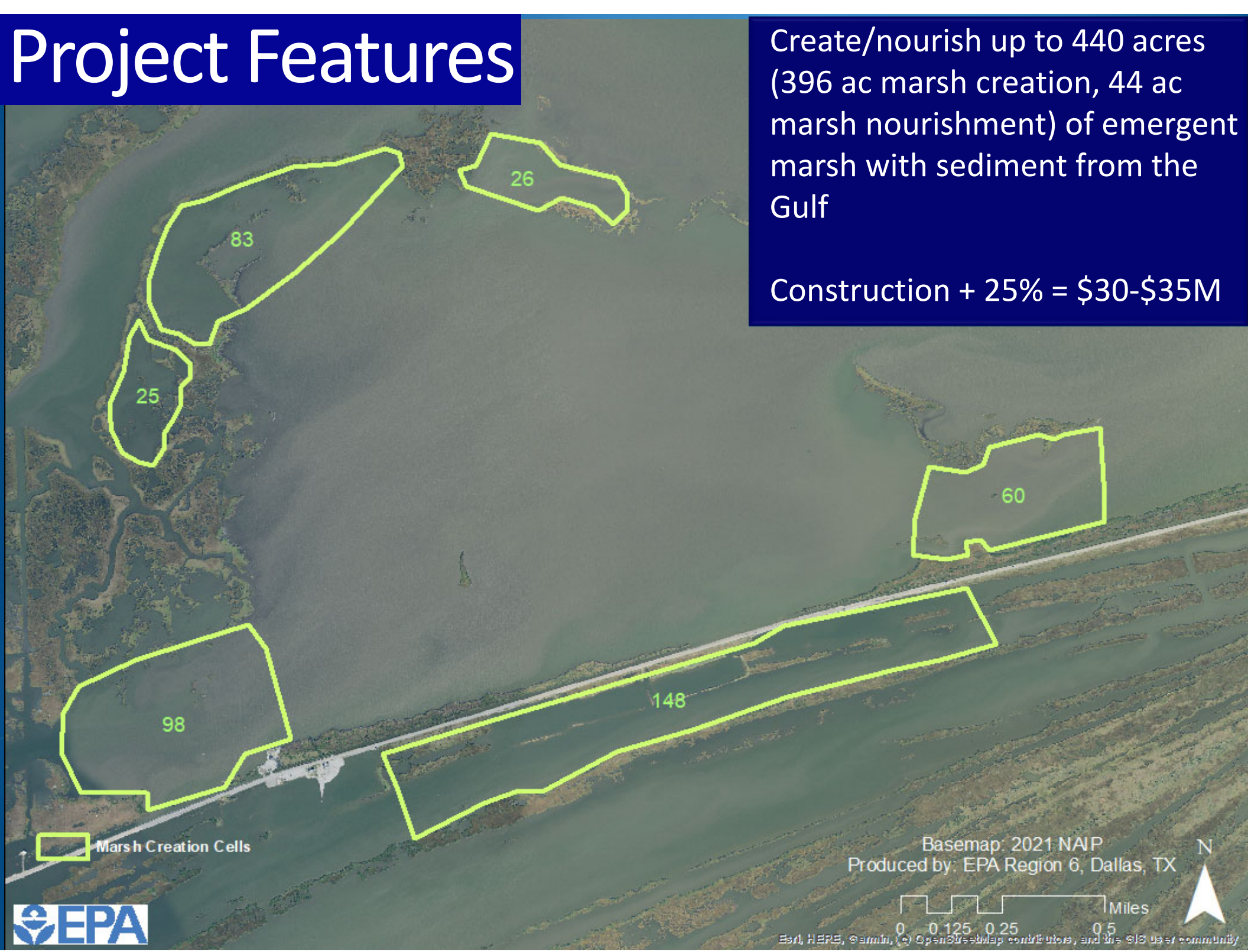
EPA
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
Esri, HERE, Garmin, OpenStreetMap contributors, and the GIS user community

Project Features

Create/nourish up to 440 acres (396 ac marsh creation, 44 ac marsh nourishment) of emergent marsh with sediment from the Gulf

Construction + 25% = $30-$35M



PPL34 PROJECT NOMINEE FACT SHEET
January 26, 2024

Project Name:
Southeast Golden Meadow Marsh Creation

Project Location:
Region 2, Barataria Basin, Lafourche Parish, Southeast of Golden Meadow

Problem:
The project area has experienced extensive loss of emergent wetlands from subsidence, storms, canal dredging, and altered hydrology. Wetland loss has increased the vulnerability of the South Lafourche Hurricane Protection Levee to damage from tropical storms and hurricanes. Hurricane Ida, in August 2021, was particularly devastating to the area. At present, very little marsh remains for several miles east of the protection levee. The remaining emergent land consists of canal spoil banks and isolated stands of fragmented marsh. Based on the land-water analysis conducted by USGS for the PPL33 candidate project evaluation, the land loss rate in the project area was -1.82% per year for the period 1984 to 2021.

Goals:
The primary goal of this project is to restore marsh southeast of Golden Meadow along the alignment of the South Lafourche Hurricane Protection Levee. The specific goal of the project is to create approximately 333 acres (293 acres of marsh creation and 40 acres of marsh nourishment) of marsh with dredged material from Bayou Lafourche.

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 and saltmarsh topminnow.

Project Features:
Marsh Creation – 293 acres
Marsh Nourishment – 40 acres

Proposed Solution
Sediments will be hydraulically dredged from a series of borrow sites in Bayou Lafourche and pumped via pipeline to create/nourish approximately 333 acres of marsh. Full containment would be utilized. Containment dikes will be gapped at the end of construction or no later than three years post construction. Vegetative plantings are proposed along the eastern containment dike which is exposed to wave energy. Dewatering and compaction of dredged sediments should produce elevations conducive to the establishment of emergent marsh and within the intertidal range.

Preliminary Ranking Criteria:

1) *What is the projects total net acres?*
   Net Acres- 251

2) *What is the total project construction cost plus 25% contingency?*
Construction cost plus 25% contingency - $27,107,662

3) *What is the project cost effectiveness using total net acres/project construction cost?*
Cost effectiveness - $107,998/acre

4) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project is synergistic with the Ducks Unlimited Southwest Golden Meadow Terracing Project.

5) *What is the interior loss rate and/or shoreline loss rate?*
Interior loss rate – (-1.82%/yr)

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?*
The Project does not contribute to a critical landscape feature.

7) *Does any project feature directly or indirectly protect any critical and/or non-critical infrastructure?*
This project would directly protect approximately 1.86 miles of the Lafourche Parish Hurricane Protection Levee and provide protection to the community of Golden Meadow and Bayou Lafourche, a major navigation channel.

Preparer(s) of Fact Sheet and Contact Information:
John Savell, USFWS, (337) 291-3144, john_savell@fws.gov


U.S. Fish & Wildlife Service
Louisiana Ecological Services
Marsh Creation
Golden Meadow
Project Area
PPL34
Southeast Golden Meadow MC
Lafourche Parish, Louisiana
Golden Meadow
Bayou Lafourche
LA 1
0
2000 Feet

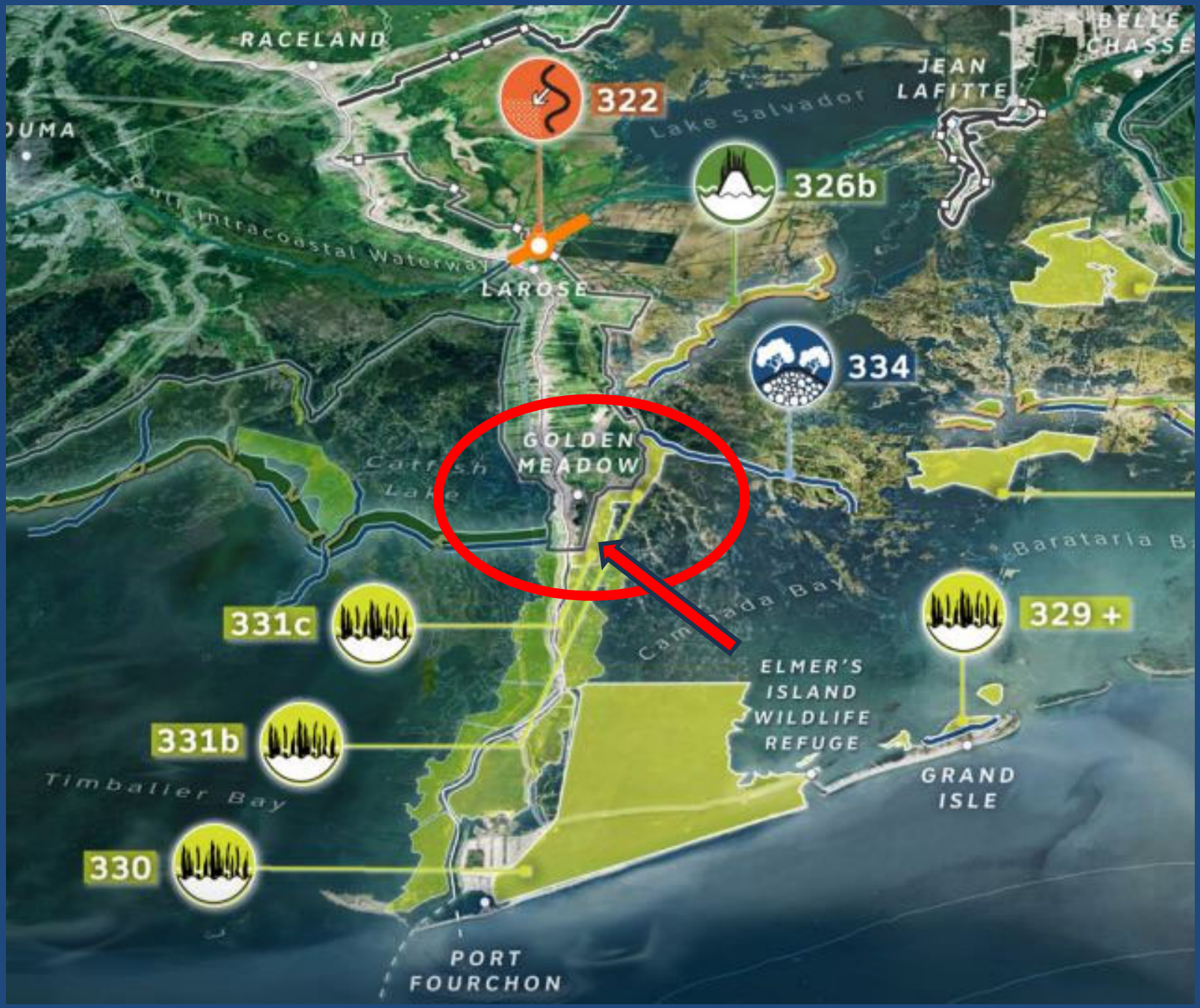
PPL34

Southeast Golden Meadow Marsh Creation

Region 2, Barataria Basin, Lafourche Parish

Contact:
John Savell
Fish and Wildlife Biologist
john_savell@fws.gov
(337) 291-3144

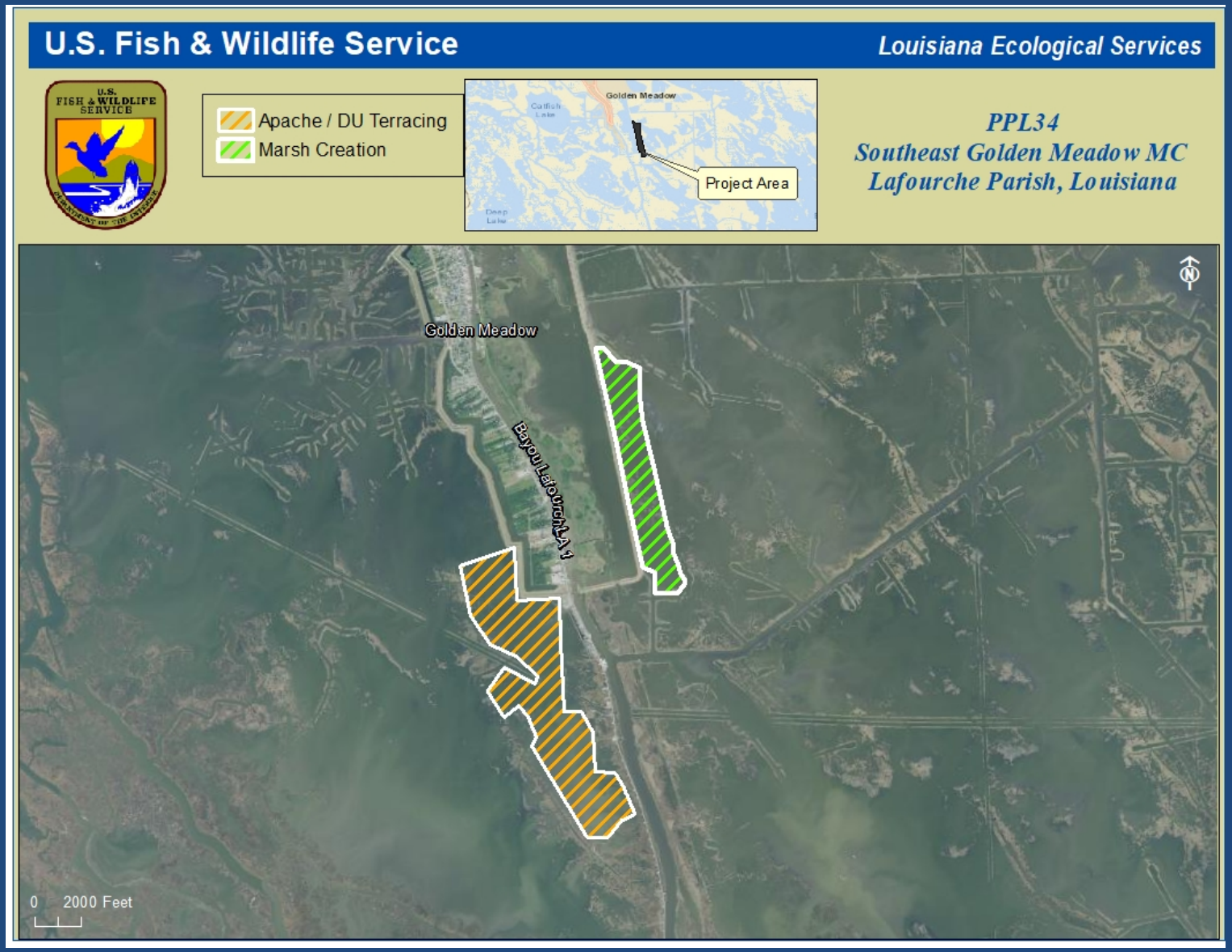
2023 State Master Plan – Southeast Golden Meadow
Marsh Creation (331c) – Legacy Project Number (03a.MC.07)



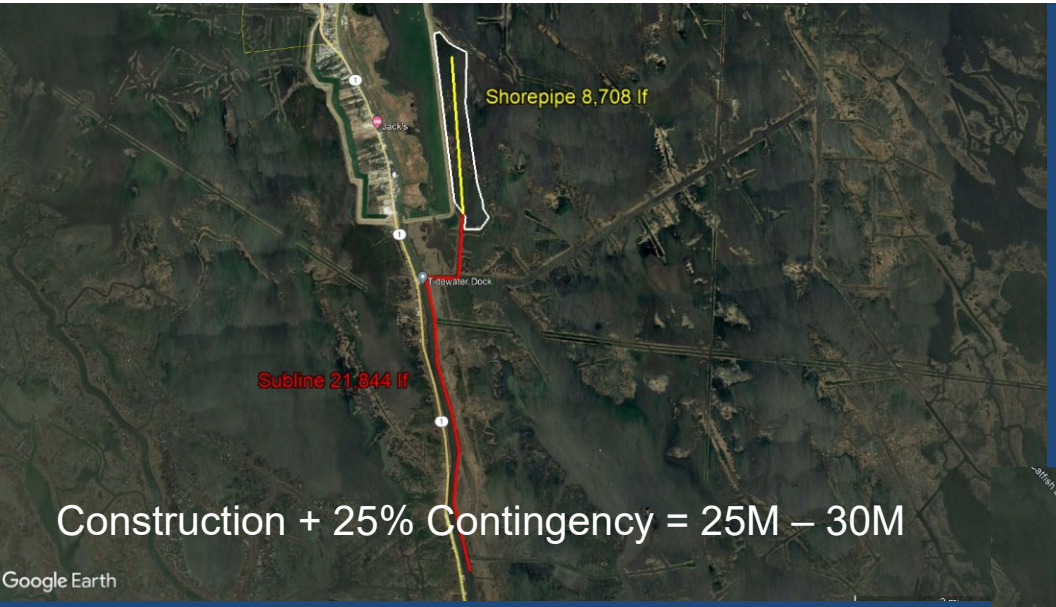
Southeast Golden Meadow Marsh Creation

- 293 acres of marsh creation
- 40 acres of marsh nourishment
- Bayou Lafourche borrow
- Net acres = 250 – 300
- Construction plus contingency $25M - $30M

CWPPRA Strategy and Criteria for Project Selection



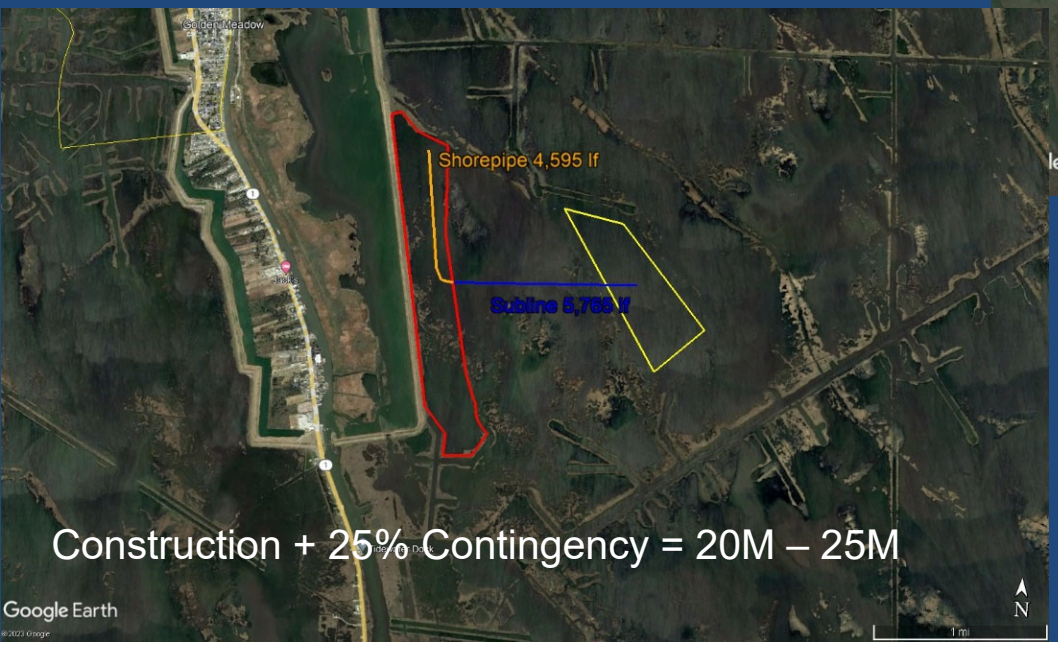
- Critical Area of Need
  - High ≥ -0.91 %
  - -1.82%
- Critical Infrastructure Protection
  - Golden Meadow Community
  - Hurricane Protection Levee
- Synergy
  - ~740 acres of terracing < mile SW of project



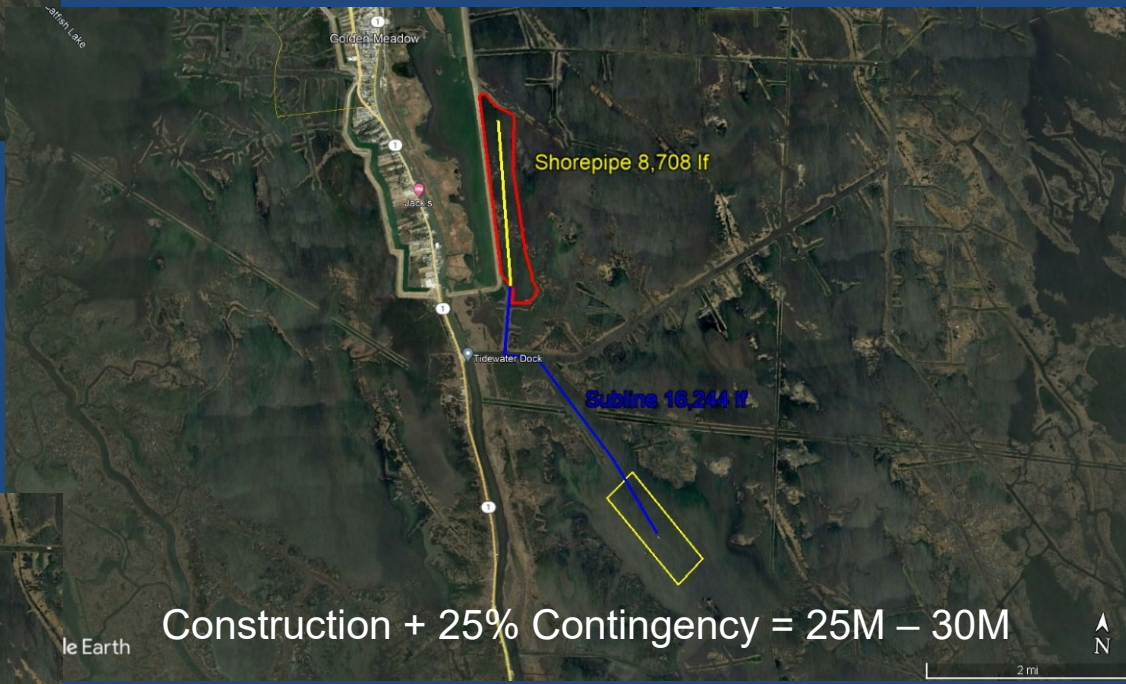
- Proposed Borrow

Construction + 25% Contingency = 25M – 30M

- Borrow Alternative-South



Construction + 25% Contingency = 20M – 25M



Construction + 25% Contingency = 25M – 30M

- Borrow Alternative-East

Questions?

PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name
Elmer's Island Restoration

Project Location
Region 2, Barataria Basin, Jefferson Parish, within the Elmer's Island Wildlife Refuge

Problem
As part of an erosional headland, Elmer's Island is dominated by coastal processes including overwash, longshore and offshore transport, and inlet dynamics. Longshore transport is from west to east along Elmer's Island historically supporting decreasing shoreline erosion rates in the same direction. However, inlet dynamics, prevailing southeasterly winds, and synoptic storms contribute to substantial erosion and elevation losses along Elmer's spit and Caminada Pass. The eastern end of the island has narrowed increasing the risk of breaching. Substantial sediment volume and acreage losses occurred with shoreline recession and breaching along the spit during the 2020 and 2021 storms. Although the spit is dynamic, it has not exhibited recovery after these storms. Thusly, the lagoon, mainland marsh and infrastructure have increasing vulnerability to habitat loss and impact to critical and non-critical infrastructure. Resiliency to wind and waves is related the sediment budget and height and width of the headland and spit. The expanded project area loss rate is -0.79%/year based on USGS hyper temporal data from 1984 to 2016 and the 1985 to 2020 mapping unit loss rate is -0.54%/year. However, the most recent sediment budget (Applied Coastal 2020[1] and Coast and Harbor 2012[2]) and these USGS loss rates predate the 2020 and 2021 storms. The state is in the process of updating operational sediment budget.

Goals
The project goal is to create/nourish 140 acres of back-barrier marsh and 27 acres of beach and dune to create intertidal habitat, prevent headland breaching, maintain the lagoon functions, and reduce shoreline erosion of the mainland marshes.

Proposed Solution
The techniques proposed to offset or reduce habitat losses include sediment fill placement by mining sediment from offshore to create and nourish marsh and construct a dune and beach extending previous restoration. Fill for back-barrier marsh creation would be mined from a borrow site sited to avoid negative impacts to sediment budget for Elmer's Island or Grand Isle. Material would be placed to elevation to provide benefits for 20 years. The marsh creation would consist of confined disposal with the dike along the lagoon gapped no later than three years after construction. Sand mined from an appropriate site that avoids adverse impacts to coastal processes and would be delivered to the restoration site by truck, dredge barge, and/or pipeline. The cost estimate assumes the Barataria Pass ebb shoal as the sand source (Coast and Harbor 2012[2]). The project features consist of 140 acres of back-barrier marsh creation and 27 acres of beach/dune construction.

Preliminary Project Benefits
1) *What is the total acreage benefited both directly and indirectly?*
   This total project area is 167 ac.

2) *How many acres of wetlands will be protected/created over the project life?*
The project would result in approximately 100 to 150 net acres over the 20-year project life. To be conservative at this time, this assumes no benefits to existing marsh or swale habitat located between the proposed beach/dune and the back-barrier marsh creation features or benefits to mainland marsh.

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 50-75% over the project 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 will help maintain barrier headland and Gulf beach rim.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would have moderate net positive impact to critical infrastructures which consists of LA1, a hurricane evacuation route, and residence of Chenier Caminada due to reducing the rate or frequency of flooding from south/southeast winds.

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 the Caminada Beach and Dune Restoration Increment 2 Project (BA-143) and the Deepwater Horizon spill response rock along Caminada Pass.

Considerations
The proposed project has potential oyster, piping plover, red knot, and utility/pipeline considerations.

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

Preparer(s) of Fact Sheet:
Dawn Davis, NOAA Fisheries, (601) 890-1338, dawn.davis@noaa.gov
Patrick Williams, NOAA Fisheries, (225) 400-5943, patrick.williams@noaa.gov
Craig Gothreaux, NOAA Fisheries, (337) 280-0544, craig.gothreaux@noaa.gov

[1]Applied Coastal Research and Engineering (ACRE), 2020. Louisiana Operational Sediment Budget: Raccoon Point to Sandy Point, 1985-89 to 2013-16. Final Report prepared for Louisiana Coastal Protection and Restoration Authority, Contract 4400009020, Task 5, 118 p. plus appendices.

[2] Coast & Harbor Engineering, Inc. 2012. Elmer's Island Restoration Project Planning and Evaluation Support. Final Report prepared for Tetra Tech EM Inc. and the National Oceanographic and Atmospheric Administration. 62 p.

Elmer's Island Restoration

140 acres Marsh Creation
27 acres Beach and Dune

2022 Aerial Imagery
Map Date 01-18-2023

Legend

- Marsh Creation
- Dune

Elmer's Island Restoration

REGION 2 – Barataria Basin

Presenter: Dawn Davis, Fishery Biologist

Special Thanks:

Restore or Retreat

Jefferson Parish

GIILD/GIS Engineering, Inc

PPL34 CWPPRA Regional Planning Team

Virtual Meeting

February 1, 2024

Priority Project Planning

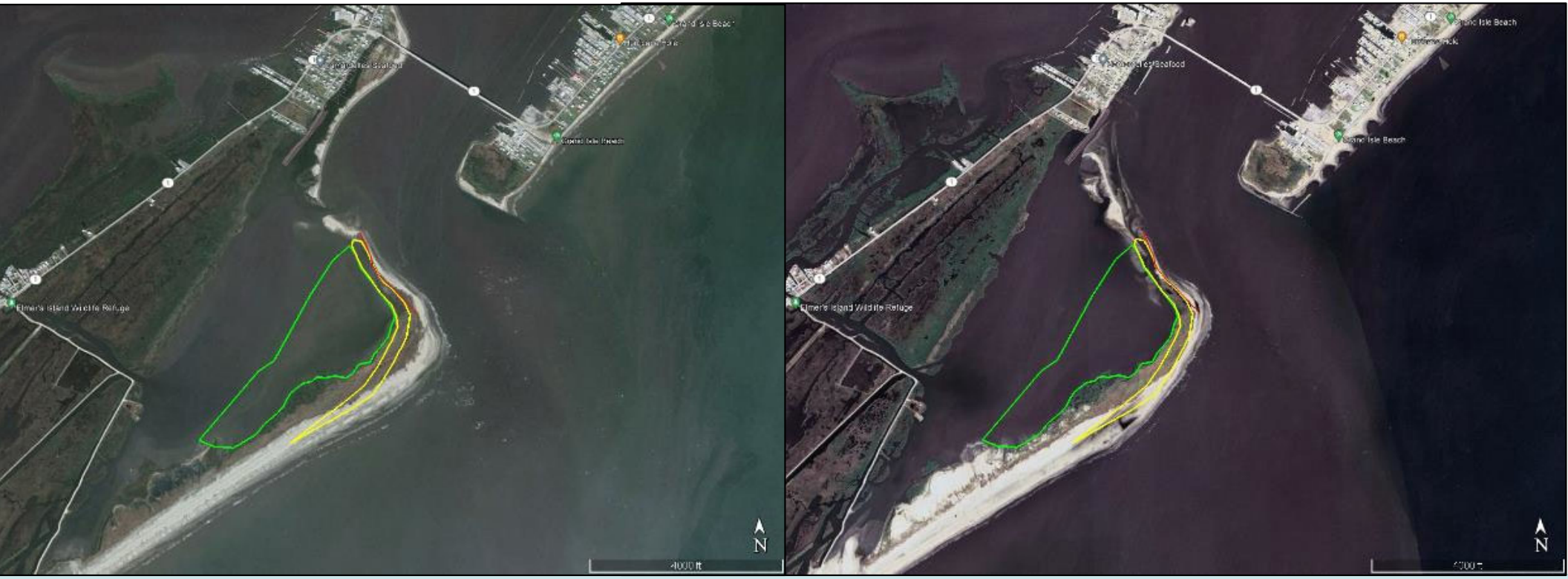
- Areas of Need within Barataria Basin
- Synergy with other Restoration Efforts
- Develop Solutions with Preferred Project Features

Areas of Need Within Basin

- Elmer's Island spit: Shoreline recession and breaching
- Land loss rate: -0.54% per year

2019

2022



Synergy with Other Restoration Efforts

- Caminada Beach and Dune Restoration Increment 2 Project (BA-143)
- Deepwater Horizon spill response rock along Caminada Pass

Priority Project Planning Summary

- Marsh Creation/ Nourishment: 140 Acres
- Beach and Dune: 27 acres
- Dredge material from offshore
- Full containment with dike gapping after construction
- Construction Cost + 25% Contingency: $20M - 25M
- Net Benefits: 100-150 acres

Elmer's Island Restoration

Open Discussion

Key Points:	
Criteria	
Cost	$20 - $25M construction cost + 25% contingency Estimated FFC: $29.7 M
Net acres	135 net acres
Synergy	Two projects near Elmer's Island
Critical Area of Need	-0.79%/yr interior loss
Critical Landscape Feature	Maintain barrier headland and Gulf beach rim
Critical Infrastructure Protection	Moderate positive impact to LA1, a hurricane evacuation route, and residence of Chenier Caminada

Contact information:
Dawn Davis, 601-890-1338
dawn.davis@noaa.gov
Patrick Williams, 225-400-5943
patrick.williams@noaa.gov

PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name
Little Lake Dedicated Dredging near Bay L'Ours

Project Location
Region 2, Barataria Basin, Lafourche Parish

Problem

The land on the western side of Little Lake experienced devastating losses after Hurricane Ida struck the Barataria Basin in August 2021. There was an estimated 160 km^2 of land loss in Barataria Basin, particularly on its western side (Couvillion 2021, CPRA Board Meeting, 11/17/21). Prior to the hurricane, this area was one of the most stable in terms of land change with a rate of +0.09% per year (USGS Analysis, Delta Farms Subunit, 1985-2020). The marsh that was a buffer between Little Lake and the town of Cut Off and the South Lafourche Hurricane Protection Levee is now gone. Based on the nearby Northwest Little Lake Marsh Creation Extension project, which includes Hurricane Ida marsh loss and shoreline erosion, the loss rate is now estimated at -1.76% per year (USGS Analysis, 1984 to 2022).

Project Goals

The project goal is to rebuild the western shoreline of Little Lake in order to reduce the tidal prism and wave erosion from the lake. The project will apply marsh creation for intertidal marsh with the design to build new resilient wetlands and restore degraded marsh that maximize wetland benefits for the twenty year project life. This will restore approximately 2.0 miles of lake shoreline. This project concept is part of the Mid-Barataria Landbridge – West polygon in the Louisiana Coastal Master Plan 2023 and is working synergistically with other CWPPRA projects that are currently in development.

Proposed Solution
The proposed project's primary feature is to create and nourish approximately 417 acres of emergent marsh (359 acres of marsh creation and 58 acres of marsh nourishment). The marsh creation area will be protected by an existing shoreline protection feature along the western rim of Bay L'Ours. Sediment will be hydraulically pumped from a borrow source in Bay L'Ours. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. The containment dikes will be degraded and/or gapped no later than three years post construction to allow greater tidal exchange and fisheries access.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?*
   This total project area is approximately 417 acres.

2) *How many acres of wetlands will be protected/created over the project life?*
   The net acre benefit range is 300-350 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 and nourishment.

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 will restore the southwestern rim of Little Lake near Bay L'Ours.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will provide some protection to the South Lafourche Hurricane Protection Levee near Galliano, LA (about 2.4 miles away) as it will reduce the tidal prism and wave erosion from Little Lake.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project works synergistically with Northwest Little Lake March Creation (BA-268), Northwest Little Lake Marsh Creation: Increment 2 Project (BA-260, partial construction funding available), Northwest Little Lake March Creation Extension (PPL33 Phase 1 funding recipient), GIWW to Clovelly Hydrologic Restoration (BA-02), and Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake (BA-37).

Considerations
The proposed project has potential pipeline and oyster issues.

Preliminary Construction Costs
The estimated construction cost plus 25% contingency is $15M - $20M.

Preparer(s) of Fact Sheet:

Dawn Davis, NOAA Fisheries, 601-890-1338, dawn.davis@noaa.gov

PPL34 Little Lake Dedicated Dredging near Bay L'Ours

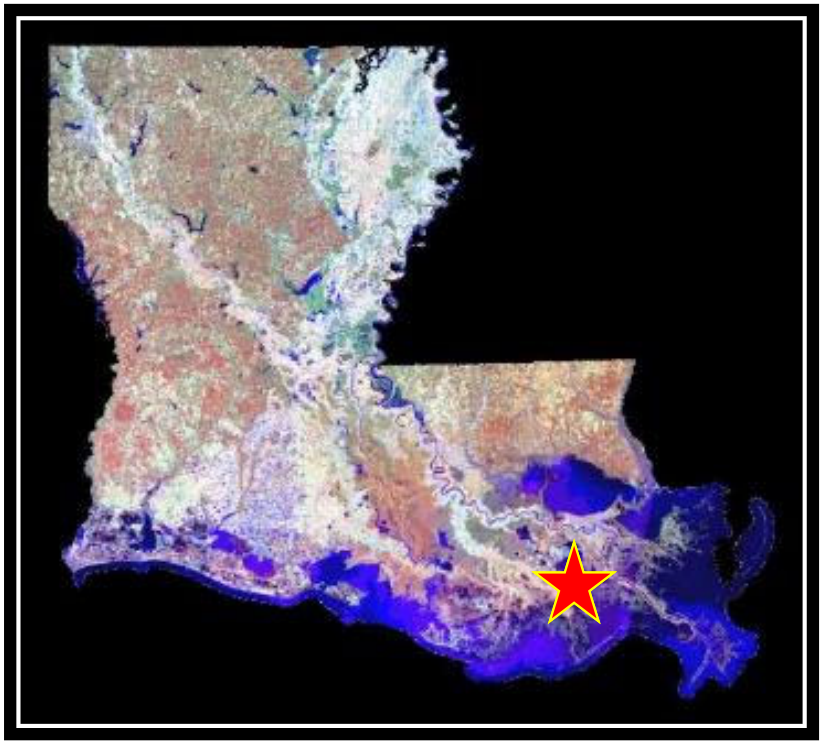
417 Acres Marsh Creation and Marsh Nourishment

Federal Sponsor: NOAA Fisheries
2022 Aerial Imagery
Map Date 01-26-2023

Legend

- Marsh Creation
- Borrow

Little Lake Dedicated Dredging near Bay L'Ours



REGION 2 – Barataria Basin

Presenter: Dawn Davis, Fishery Biologist

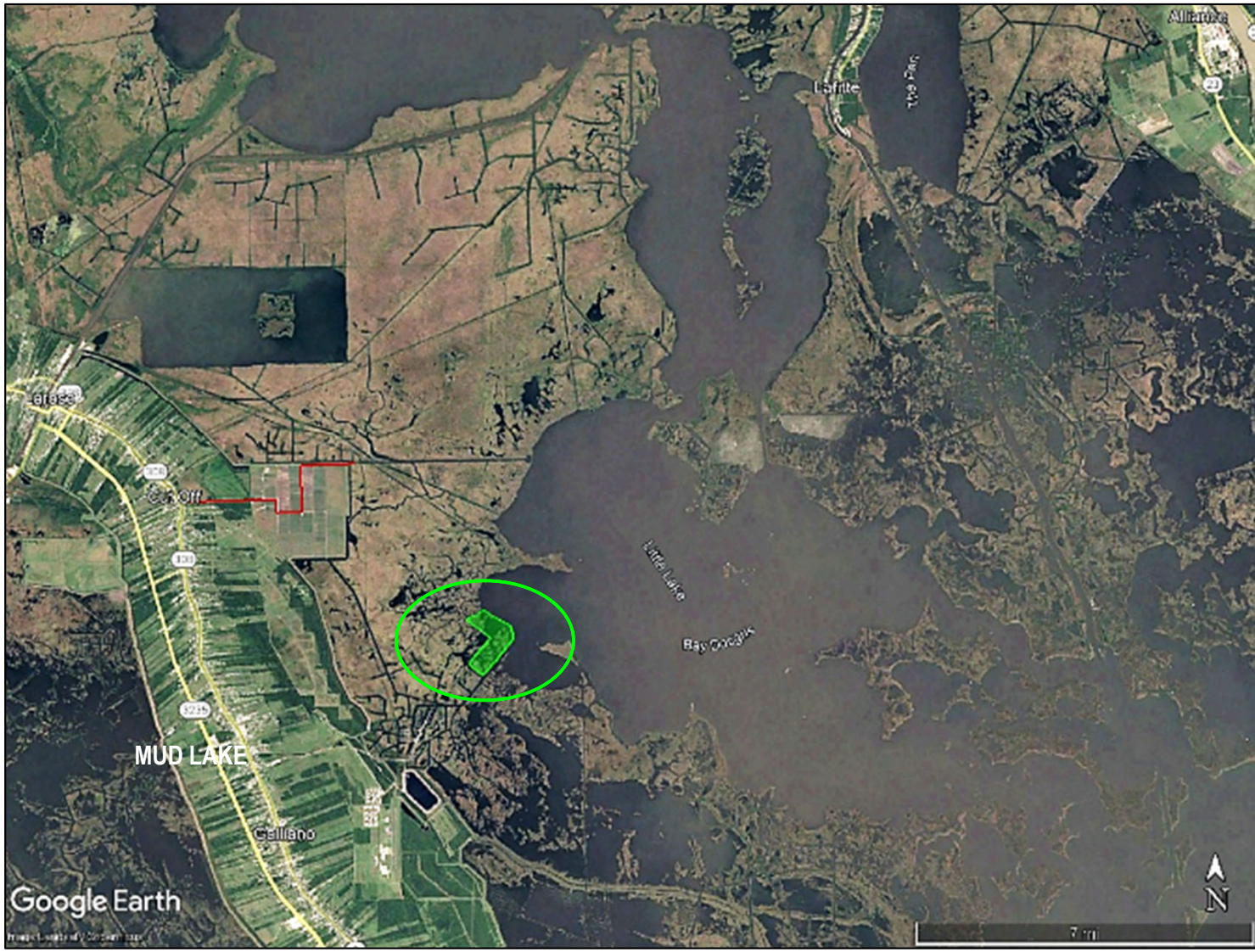
PPL34 CWPPRA Regional Planning Team

Virtual Meeting

February 1, 2024

Priority Project Planning

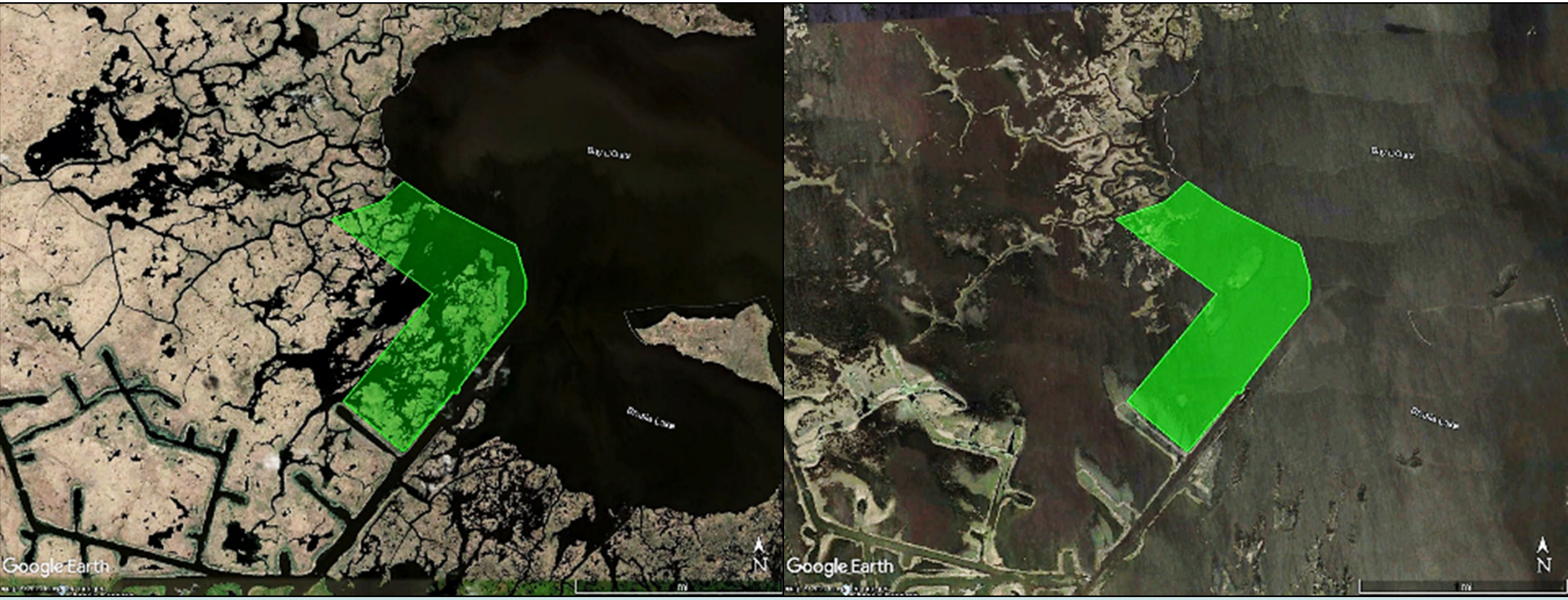
- Areas of Need within Barataria Basin
- Synergy with other Restoration Efforts
- Develop Solutions with Preferred Project Features



Areas of Need Within Basin

- Land loss from Hurricane Ida
- Land loss rate: -1.75% per year

2020 2022



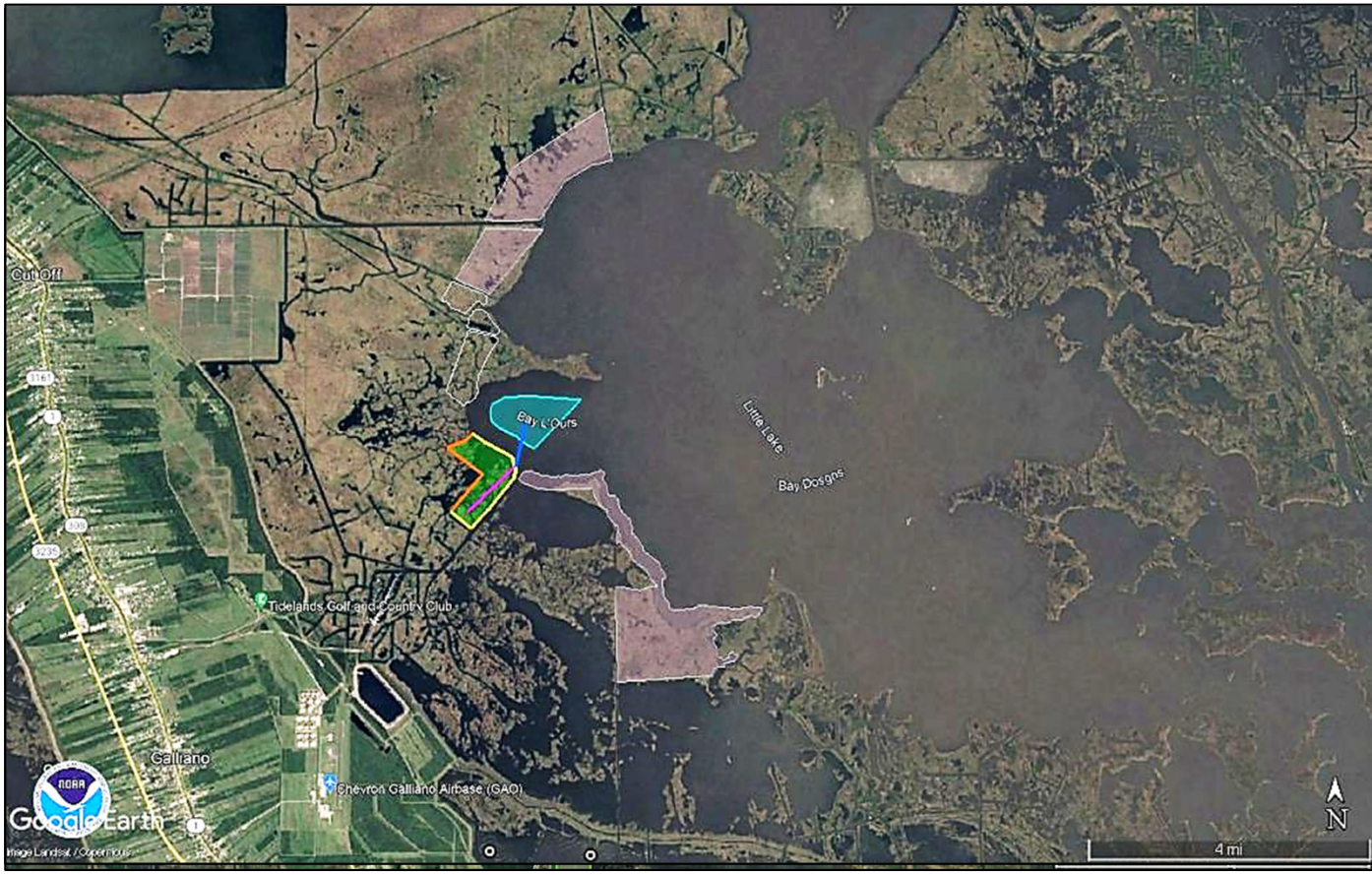
Synergy with Other Restoration Efforts

Master Plan:

Mid-Barataria Landbridge – West

Synergy:

- GIWW to Clovelly Hydrologic Restoration (BA-02)
- Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake (BA-37).
- Northwest Little Lake March Creation (BA-268)
- Northwest Little Lake Marsh Creation: Increment 2 Project (BA-260)
- Northwest Little Lake March Creation Extension



Priority Project Planning Summary

- Marsh Creation/ Nourishment: 417 Acres
  - 359 acres MC and 58 acres MN
  - Dredge material from the Little Lake
  - Full containment with dike gapping after construction
- Construction Cost + 25% Contingency: $15M - 20M
- Net Benefits: 300-350 acres

Little Lake Dedicated Dredging near Bay L'Ours

Key Points:	
Criteria	
Cost Effectiveness	$15 - $20M construction cost + 25% contingency Estimated FFC: $27.9 M
Net Acres	309 net acres
Synergy	Two constructed projects along the lake rim
Critical Area of Need	-1.76%/yr interior loss
Critical Landscape Feature	Restore lake rim
Critical Infrastructure Protection	Moderate positive impact to South Lafourche Hurricane Protection Levee near Galliano, LA

Open Dialogue

Contact information:
Dawn Davis, 601-890-1338
dawn.davis@noaa.gov
Jason Kroll, 225-335-9659
jason.kroll@noaa.gov

PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name
Southeast Lafitte Marsh Creation

Project Location
Region 2, Barataria Basin, Jefferson Parish

Problem
The Barataria Land Bridge consists of 3000 acres of degraded marsh and open water in the Upper Barataria Basin. Historically, sea level rise, saltwater intrusion, and construction of oil and gas canals and pipelines, along with sediment deprivation from the construction of levees along the Mississippi River have contributed significantly to wetland losses. The Barataria Basin has the second highest land loss rate of the ten coastal basins in the state, having lost approximately 29% of its wetlands (Couvillion et al 2017). An additional impact to the wetlands occurred when Hurricane Ida struck Louisiana in 2021. It caused an estimated 160 km^2 of land loss in Barataria Basin (Couvillion 2021, CPRA Board Meeting, 11/17/21). The marshes along the southern shore of the Pen need to be restored as they serve as one of the lines of defense to help protect the town of Lafitte from future storm impacts. The Southeast Lafitte Marsh Creation Project would work synergistically with the other Barataria Land Bridge restoration projects.

Goals
The project goals are to create and/or nourish up to 375 acres of intertidal marsh and to design the project to build resilient wetlands that maximize wetland benefits for the twenty year project life.

Proposed Solution
The proposed project's primary feature is to create and/or nourish approximately 375 acres of emergent intermediate marsh (208 acres of marsh creation and 167 acres of marsh nourishment). Sediment will be hydraulically pumped from a borrow source in the Pen. Containment dikes will be constructed around the marsh creation area to retain sediment during pumping. The containment dikes will be degraded and/or gapped no later than three years post construction.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?*
   This total project area is approximately 375 acres (approximately 208 acres of marsh creation and 167 acres of marsh nourishment).

2) *How many acres of wetlands will be protected/created over the project life?*
   The net acre benefit range is 200-250 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 and nourishment.

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 will help restore the southern rim of the Pen.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will provide additional protection to the town of Lafitte.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project works synergistically with Large Scale Barataria Marsh Creation: Upper Barataria Component (BA-207), South Shore of the Pen (BA-41), Bayou Dupont Marsh and Ridge Creation (BA-48) and Bayou Dupont Sediment Delivery - Marsh Creation #3 and Terracing (BA-164) in rebuilding the Barataria Land Bridge.

Considerations
The proposed project has potential pipeline issues.

Preliminary Construction Costs
The estimated construction cost plus 25% contingency is $15M - $20M.

Preparer(s) of Fact Sheet:
Dawn Davis, NOAA Fisheries, 601-890-1338, dawn.davis@noaa.gov

PPL34 Southeast Lafitte Marsh Creation

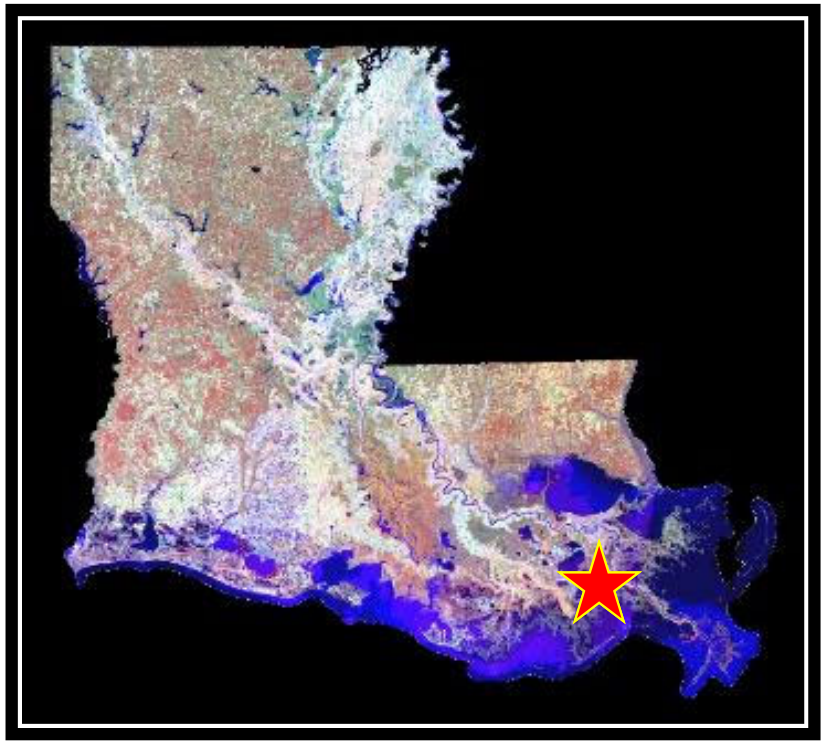
375 acres of Marsh Creation and Nourishment

Federal Sponsor: NOAA Fisheries
2021 Aerial Imagery
Map Date 02-10-2022

Legend

- Marsh Creation
- Borrow

Southeast Lafitte Marsh Creation



REGION 2 – Barataria Basin

Presenter: Dawn Davis, Fishery Biologist

Special Thanks:
NRCS
USACE
Jefferson Parish

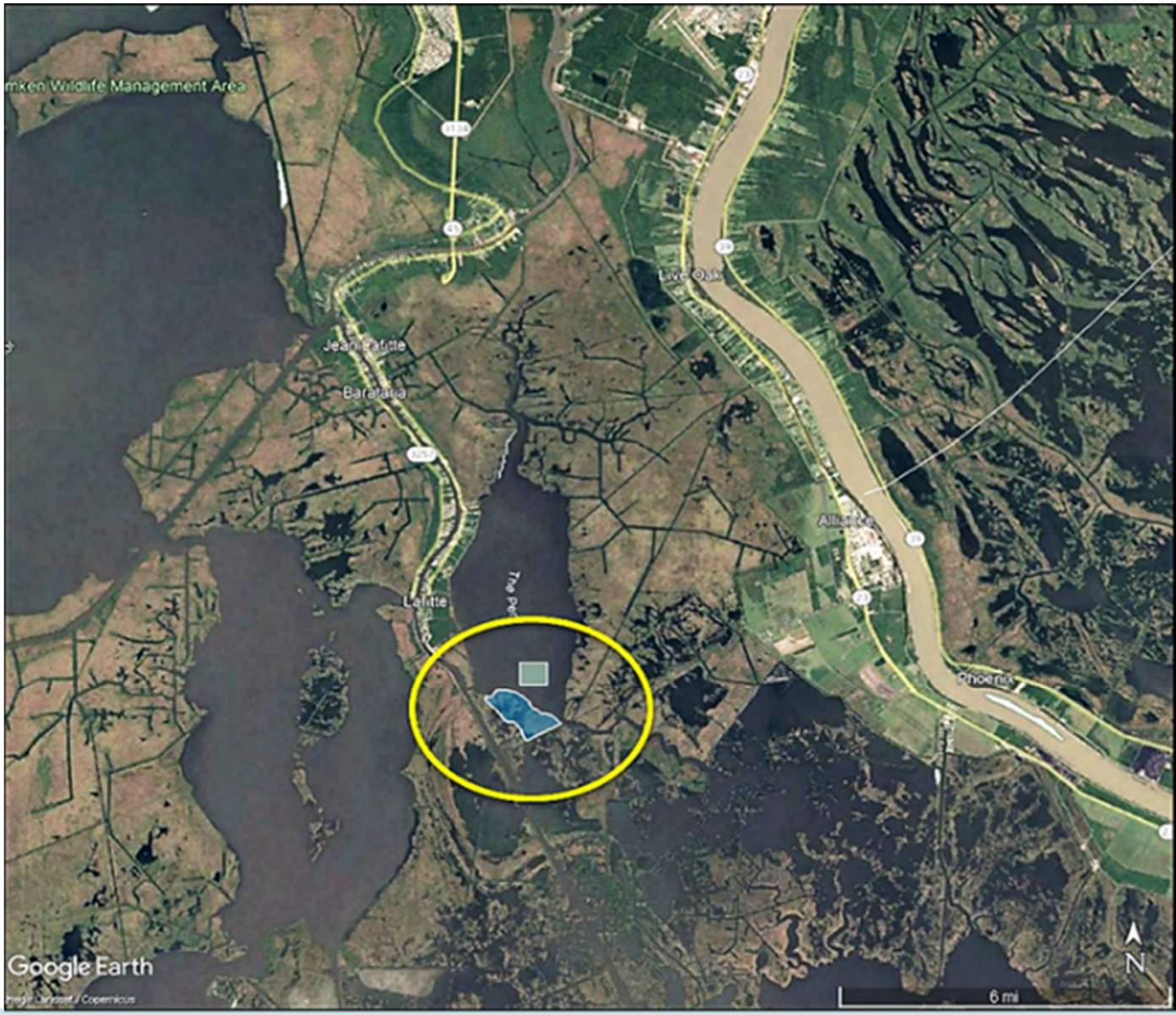
PPL34 CWPPRA Regional Planning Team

Virtual Meeting

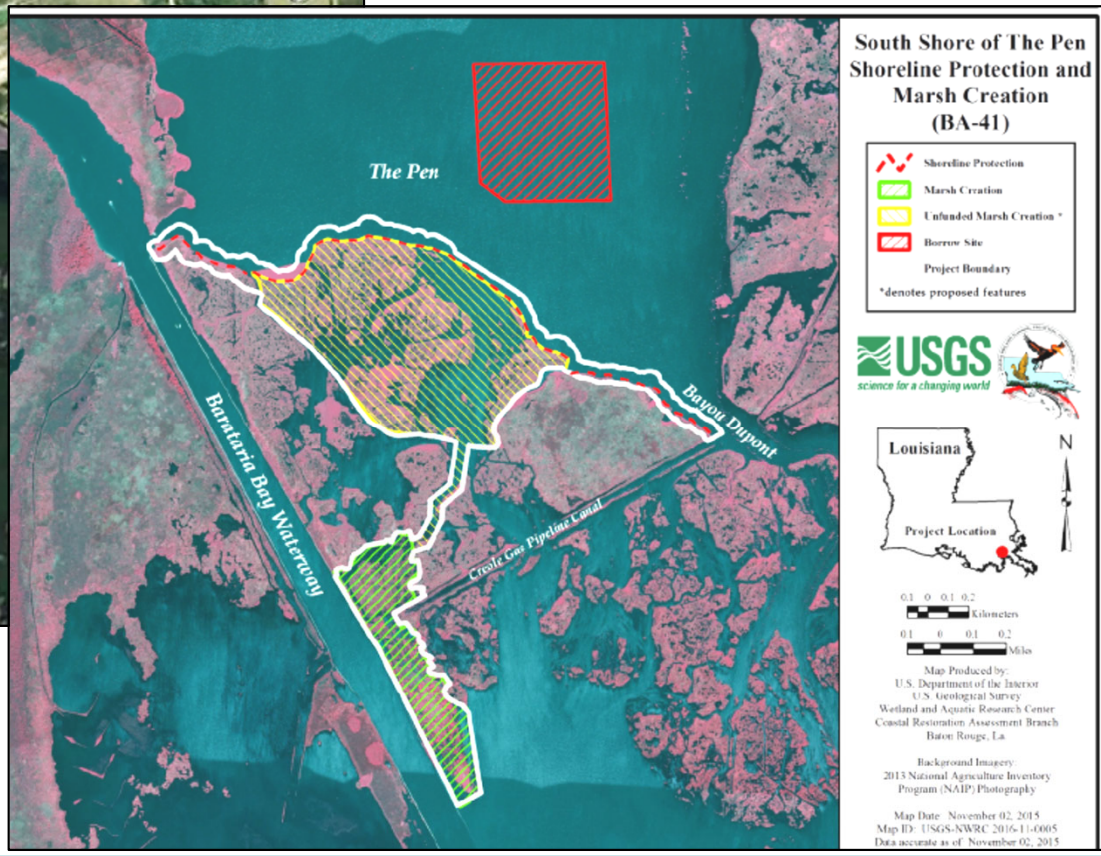
February 1, 2024

Priority Project Planning

- Areas of Need within Barataria Basin
- Synergy with other Restoration Efforts
- Develop Solutions with Preferred Project Features

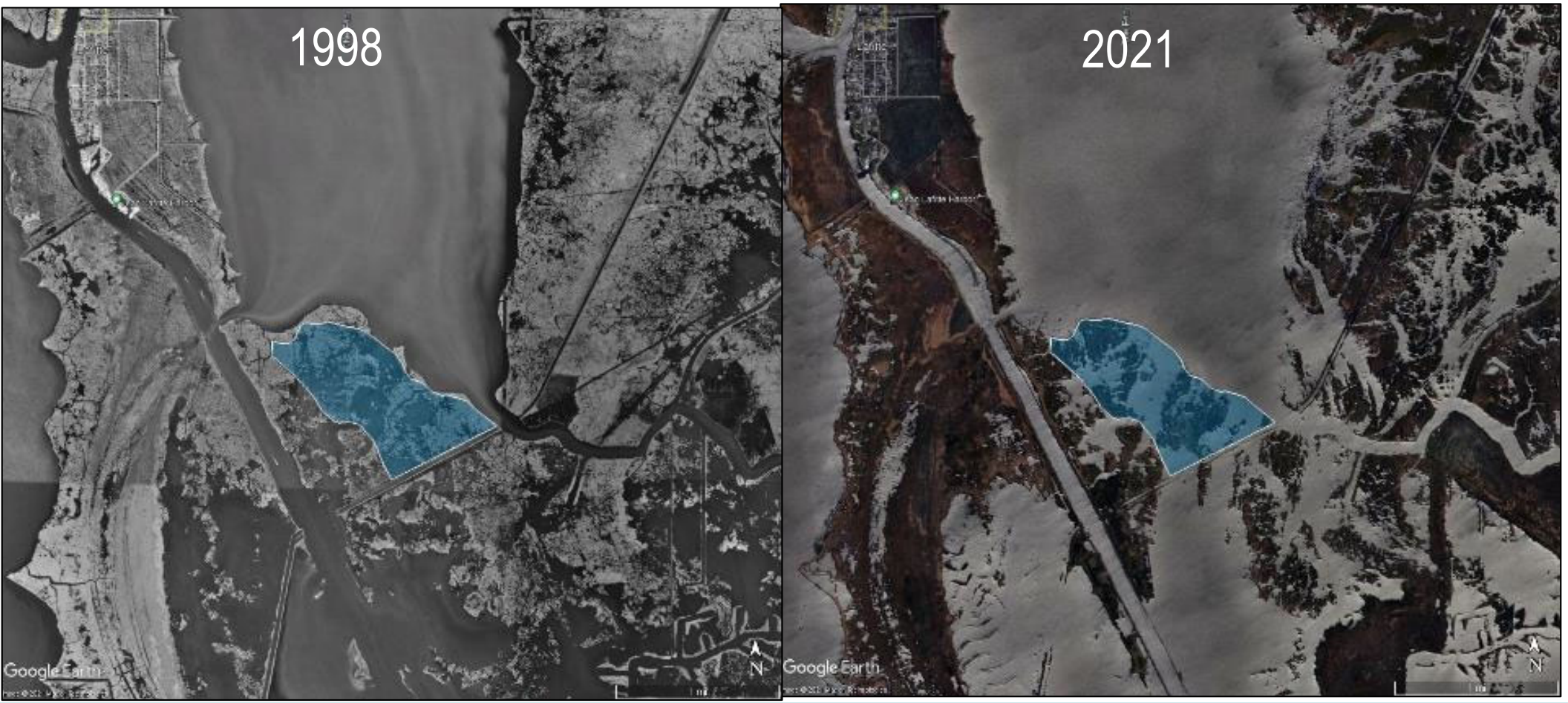


Project Synergy



Areas of Need Within Basin

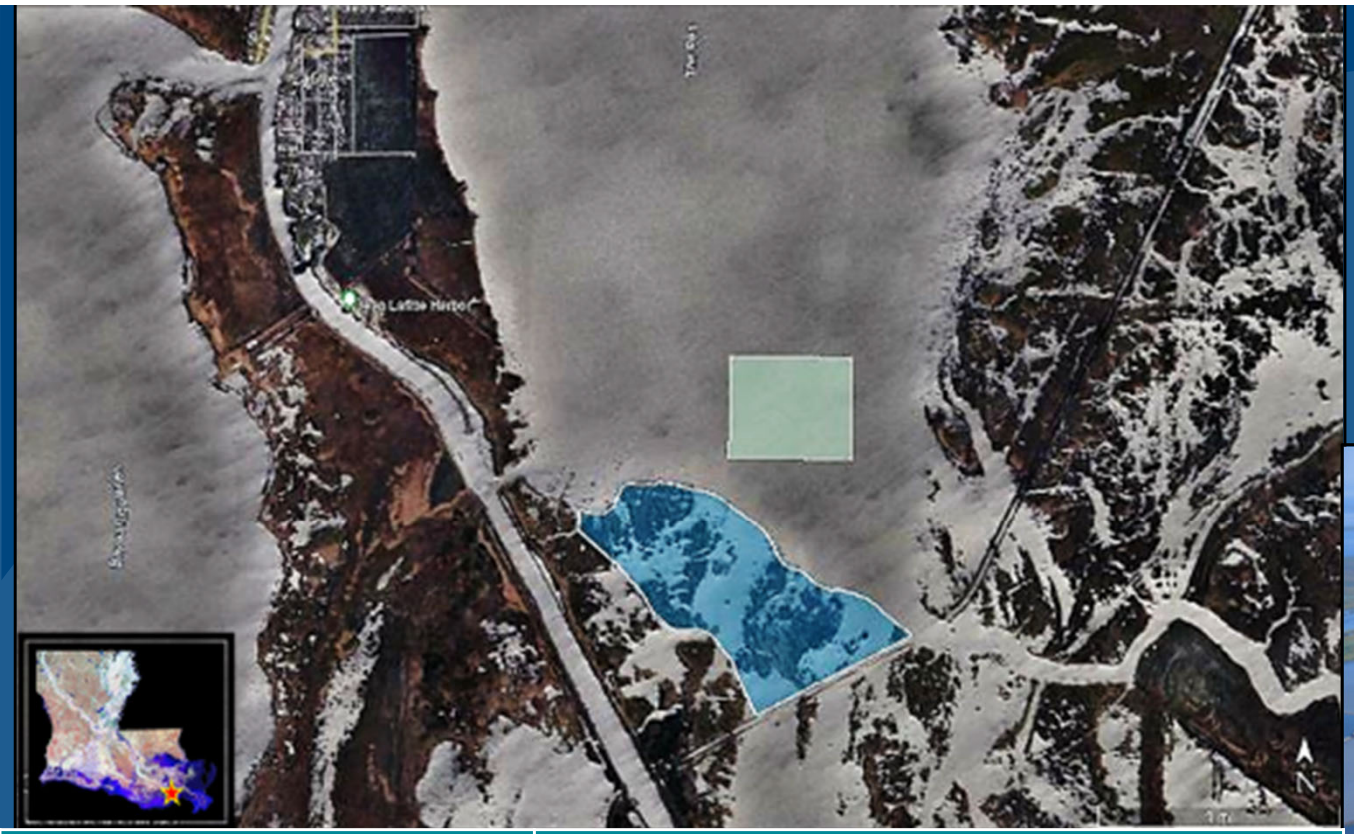
- Land loss from Hurricane Ida
- Land loss rate: -1.25% per year



Southeast Lafitte Marsh Creation

Priority Project Planning Summary

- Marsh Creation/ Nourishment: 375 Acres
  - 208 acres MC and 167 acres MN
  - Dredge material from the Pen
  - Full containment with dike gapping after construction
- Construction Cost + 25% Contingency: $15M - $20M
- Net Benefits: 200-250 acres



Southeast Lafitte Marsh Creation

Open Dialogue

Key Points:	
Criteria	
Cost Effectiveness	$15 - $20M construction cost + 25% contingency Estimated FFC: $23.2 M
Net acres	203 net acres
Synergy	Four projects completing the Barataria Land Bridge
Critical Area of Need	-1.25%/yr interior loss
Critical Landscape Feature	Maintain lake rim of the Pen
Critical Infrastructure Protection	High positive impact to provide protection to the town of Lafitte

Contact information:

Dawn Davis, 601-890-1338

dawn.davis@noaa.gov

Jason Kroll, 225-335-9659

jason.kroll@noaa.gov

PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name
Bayou L'Ours Ridge Restoration and Marsh Creation

Project Location
Region 2, Barataria Basin, Lafourche Parish

Problem
Historically, wetland loss in the marshes near Little Lake was caused mainly by altered hydrology from canals and levees, wind erosion on the shoreline of Little Lake, and natural subsidence. Hurricanes have contributed to significant loss in recent years. Restoration of the Bayou L'Ours Ridge has been identified as a measure to reduce saltwater intrusion and wetland loss in the basin. Total subsidence rates are estimated around 9.5 mm/yr. USGS calculated a loss rate for two PPL33 projects in west Barataria Basin using a period of analysis from 1984 to 2022. The NW Little Lake MC Extension project, located north of the project area was calculated at -1.76%/yr, and the Golden Meadow MC project, located south of the project area was calculated at 1.82%/yr.

Goals
The project goal is to restore 13,674 linear feet of ridge habitat (benefiting 12 acres of ridge habitat and 4 acres of marsh nourishment) and restore 407 acres (312 acres creation and 95 acres of nourishment) of marsh north of the ridge to restore natural hydrology and reduce saltwater intrusion, provide wave and storm surge attenuation, and provide coastal upland habitat.

Proposed Solution
The proposed solution would be to restore the northern reach of the Bayou L'Ours ridge and restore marsh to the north to add additional protection to the ridge. The ridge would be construction to a 5-foot (ft) crown elevation, 15-ft crown width, 5:1 slope on the bayou side, 3:1 slope on the marsh side. The ridge would act as containment for the marsh restoration. Temporary containment dikes will be constructed around the remaining marsh creation area and gapped within three years of construction to allow greater tidal exchange and estuarine organism access. Borrow for the marsh creation area is proposed from Bay L'Ours/Little Lake.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?*
   The total project area is approximately 423 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 and marsh nourishment.

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 will be the first increment to restore the northern reach of the Bayou L'Ours ridge.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project will support and protect the Larose to Golden Meadow Hurricane Protection Project, and the facilities and communities within the levee system such as Galliano and the South Lafourche Airport. Also depending on its configuration, this project could offer protection to the LA Offshore Oil Port (LOOP) Clovelly Dome Storage Terminal, a major oil and gas infrastructure project to the northwest.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
Historically, there have been several restoration projects in the area. BA-22 included canal plugs and water control structures along the ridge and in access canals to restore the hydrologic integrity of the ridge. This project will be the first increment to protect and restore the Bayou L'Ours Ridge habitat. Several terracing projects have been implemented in the area by Ducks Unlimited to offer protection to the ridge and keep the area intact. Lafourche Parish has a grant proposal for 267 acres of marsh creation and 3,000 LF of terracing south of the ridge, and it is synergistic with the BA-37 Little Lake Shoreline Protection/ Dedicated Dredging Near Round Lake which restored a portion of the Little Lake shoreline to the north..

Considerations
This project could have oil/gas pipeline considerations.

Preliminary Costs
The construction cost with 25% contingency is estimated between $25-30 million.

Preparer(s) of Fact Sheet:
Angela Trahan, USDA-NRCS, (337) 291-3142, angela.trahan@usda.gov

Optional
Terrace field
439 ac

Primary MC /N
407 ac

BAYOU L'OURS

Ridge = 13,674 LF

Alt MC/N
246 ac

GALLIANO

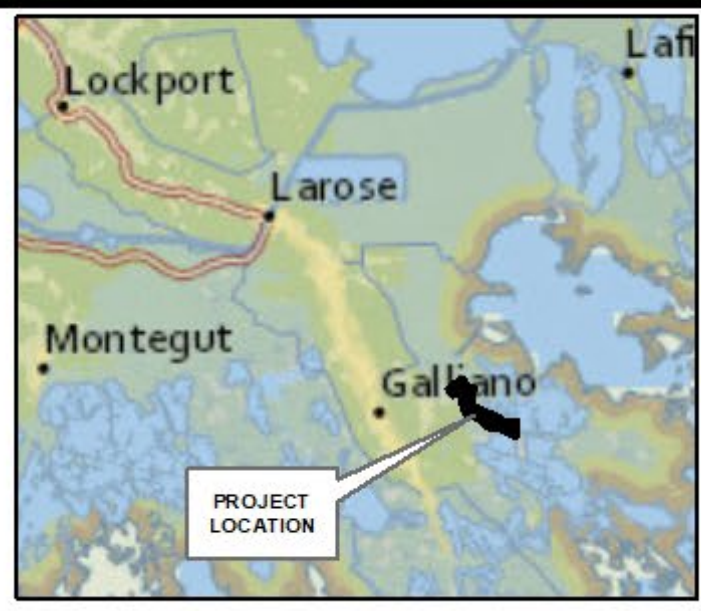
0 5,000 10,000 Feet

USDA

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

Data Source: ESRI 2023

Map Date: JANUARY 22, 2024



PPL 34
BAYOU L'OURS RIDGE AND MARSH CREATION INCREMENT 1
LAFOURCHE PARISH, LA

N
W E
S

Legend

- RIDGE_RESTORATION_40_FT
- MARSH_CREATION
- TERRACE_FIELD

PPL34

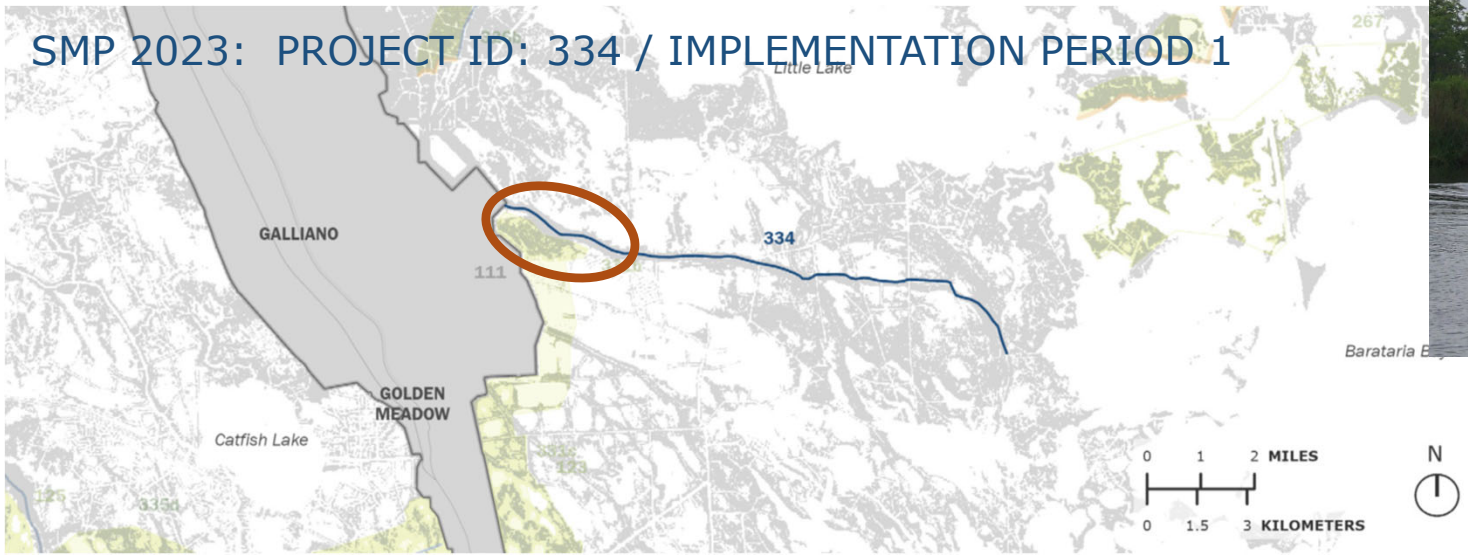
Bayou L'Ours Ridge Restoration and Marsh Creation

Region 2, Barataria Basin

Contact:
Angela Trahan, Project Manager, Angela.Trahan@USDA.gov, 337/291-3142

Region 2, Barataria Basin, Lafourche Parish

SMP 2023: PROJECT ID: 334 / IMPLEMENTATION PERIOD 1



Bayou L'Ours was historically a distributary of Bayou Lafourche. Access and pipeline canal breaches have increased tidal exchange, reduced freshwater retention, and increased salinities in the marshes within the upper subbasin.

BA-22 - Plugs placed on six canals, and water control structures containing boat bays constructed to accommodate small boat traffic installed on two others to restore the hydrologic integrity of the ridge.


Kings Canal
Yankee Canal

PPL34 – Bayou L'Ours Ridge Restoration

Ridge

- 13,674 LF of Ridge Restoration

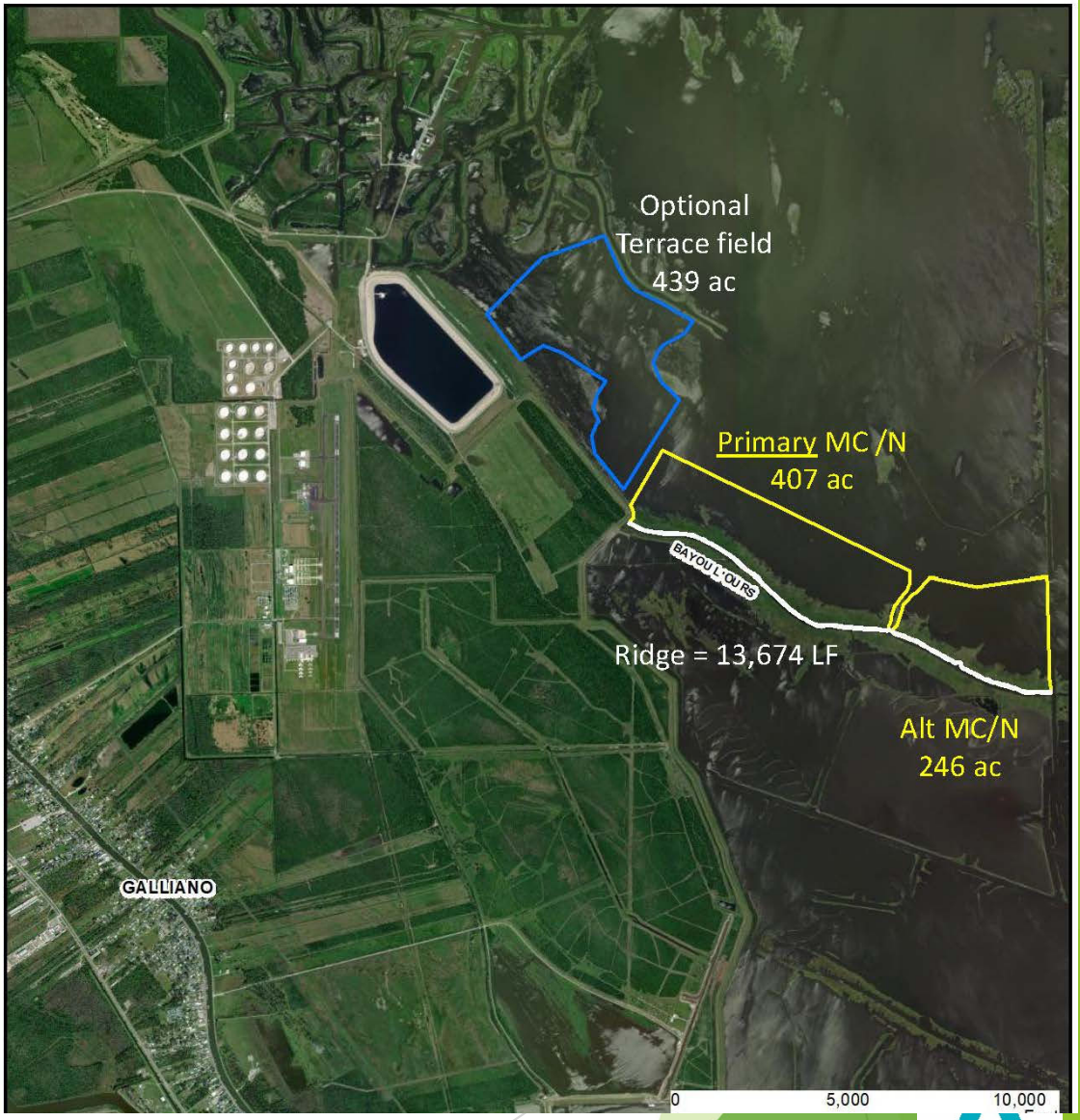
  (12 ac ridge habitat + 4 ac marsh nourishment)

Marsh Restoration

- Bay L'Ours/Little LakeBorrow Area
- **312** acres Marsh Creation
- **95** acres Marsh Nourishment
- 407 acre Total

290 net acres

Construction Costs + 25% Continency = **$25-30M**



*Special thanks to Lafourche Parish, Ducks Unlimited and Dixie Moertle representing Clovelly Property

PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name
West Dupre Cut Marsh Creation

Project Location
Region 2, Barataria Basin, Jefferson Parish, north of Three Bayou Bay and east of Bayou Rigolettes

Problem
Historic wetland loss in the Perot/Rigolettes mapping unit of the Barataria Basin has been caused by subsidence, sediment deprivation, and construction of access and pipeline canals. The Barataria Bay Waterway has also allowed salt water and higher tidal energies to enter the area causing marsh loss. Interior ponds have expanded and coalesced because of subsidence and increased tidal energies. As ponds expand increased wave fetch exacerbates interior shoreline erosion. More recently, the passage of Hurricane Ida further scoured the marshes increasing tidal exchange through the area. USGS determined a land change rate of -1.25% per year (1984-2022) for the extended boundary of the project area.

Goals
The goal is to create and nourish 556 acres of intermediate to brackish marsh in two marsh creation areas (MCA). The East MCA totals 467 acres and the West MCA totals 89 acres. The project has been modified from PPL32 to include restoration of marsh along the Bayou Rigolettes shoreline. Restoration of this marsh will maintain the structural integrity of the shoreline and reduce the increased exchange through the interior marshes caused by H. Ida.

Proposed Solution
The proposed solution would be to create approximately 479 acres and nourish 77 acres of estuarine marsh along the Central Barataria Basin Landbridge. The MCAs will be fully contained, and containment dikes will be degraded as necessary to establish hydrologic connectivity with adjacent wetlands no later than year three. Approximately 3.5 million cubic yards of sediment will be hydraulically pumped from a borrow area in Bayou Rigolettes to restore the marsh platform and backfill containment dike borrow areas. If the area does not re-vegetate on its own, the maintenance cost estimate includes funds to plant 15% of the created marsh in year three.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?*
   The total project area is approximately 556 acres.

2) *How many acres of wetlands will be protected/created over the project life?*
   The net acre benefit range is 400-450 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 and marsh nourishment.

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 will restore a portion of the Bayou Rigolettes shoreline and help restore historic marsh that is a critical component of the Barataria Basin Landbridge.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project may have minor net positive impacts to non-critical infrastructure comprised of the Barataria Waterway, pipelines, oil and gas wells, and camps.

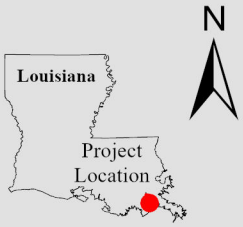
6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
The project will have synergistic effects with a number of projects that contribute to the protection of the Central Barataria Basin Landbridge, including: 1) BA-27 Barataria Landbridge Shoreline Protection Project, 2) BA-125 Northwest Turtle Bay Marsh Creation, 3) BA-206 Northeast Turtle Bay Marsh Creation and Critical Shoreline Protection, 4) BA-258 Northeast Turtle Bay Marsh Creation Extension, and 5) BA-36 Dedicated Dredging on the Barataria Basin Landbridge.

Considerations
This project could have oil/gas pipeline considerations.

Preliminary Costs
The construction cost with 25% contingency is estimated at $31,405,527
The fully funded cost range is $40M-$45M.

Preparer(s) of Fact Sheet:
Angela Trahan, USDA-NRCS, (337) 291-3142, angela.trahan@usda.gov
Vincent Palumbo III, USDA-NRCS, vincent.palumboiii@usda.gov

West Dupre Cut Marsh Creation
(PPL33 Candidate)



N

Marsh Creation

Project Boundary

Note: All features are proposed.

0.5 0 0.5 1 Kilometers

0.5 0 0.5 1 Miles

Scale: 1:40,000

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: 2023-11-0022
Map Date: July 05, 2023

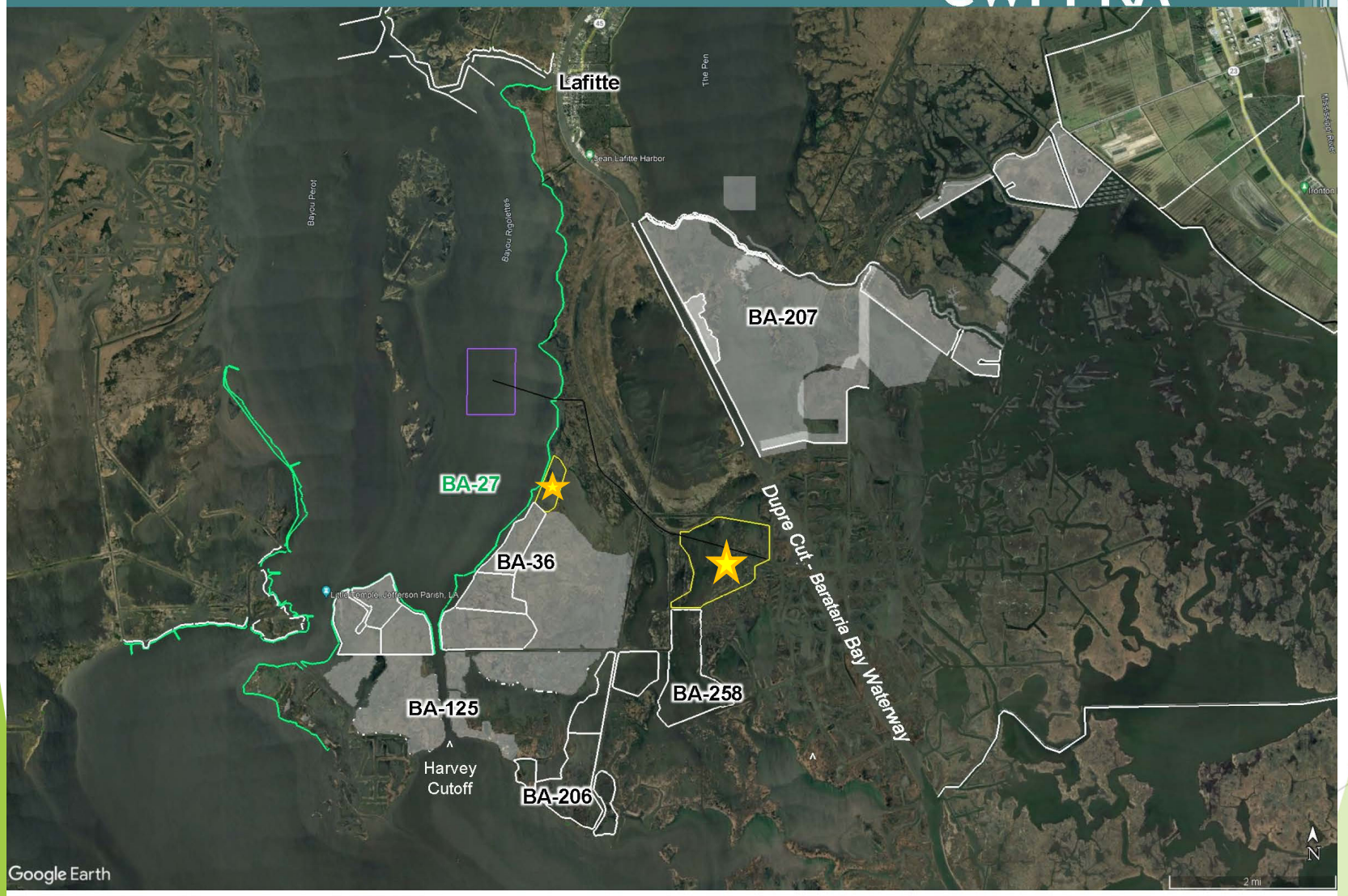
PPL34

West Dupre Cut Marsh Creation

Region 2, Barataria Basin

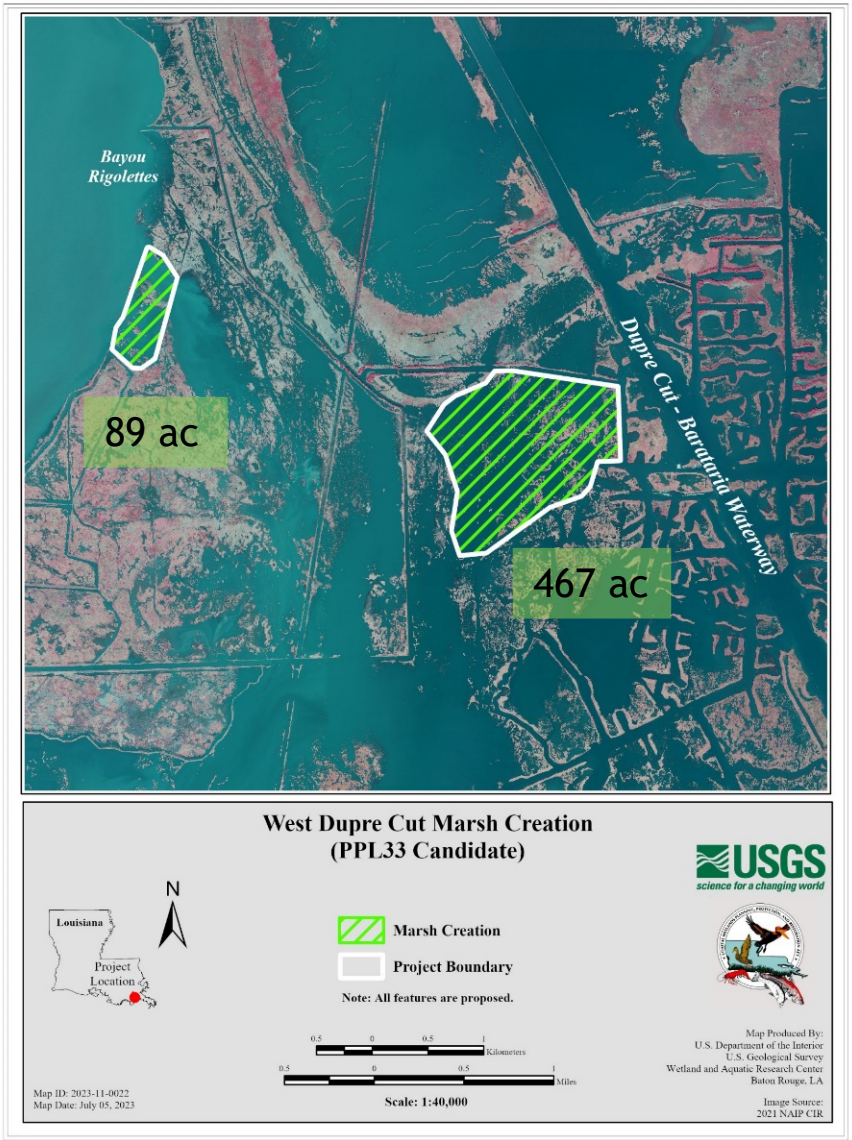
Contact:
Angela Trahan, Project Manager, Angela.Trahan@USDA.gov, 337/291-3142
Vincent Palumbo, Planning Engineer, Vincent.Palumboiii@usda.gov, 337/292-6601

CWPPRA


Lafitte
Bayou Perot
Bayou Rigolettes
The Pen
Jean Lafitte Harbor
Ironton
BA-207
BA-27
BA-36
Little Temple, Jefferson Parish, LA
Dupre Cut - Barataria Bay Waterway
BA-258
BA-125
Harvey
Cutoff
BA-206
Google Earth
N
2 mi

PPL34 – West Dupre Cut Marsh Creation

- Bayou Rigolettes Borrow Area
  - 3.5 M Cyds
- **479** acres Marsh Creation
- **77** acres Marsh Nourishment
- **556** acres Total/ **430** net acres
- Construction Costs + 25% Continency = **$30-35M**
- Fully Funded Cost (PPL33) = **$42.9M**



West Dupre Cut Marsh Creation

Selection Criteria

Cost Effectiveness (high)

- $99,914/ac ($40-45M for 430 net acres)

Critical Area of Need (high)

- -1.25 %/year (1984-2022)

Landbridge Function/ Structural Framework

- Restores a portion of the Bayou Rigolettes shoreline that was washed out due to Hurricane Ida causing increased exchange through the Central Barataria Basin landbridge
- Restores historic marsh that is a critical component of the Central Barataria Basin Landbridge (BBL)

Selection Criteria - continued

Critical Infrastructure Protection (Low)

- works in concert with other projects to restore and enhance the landbridge, protecting freshwater marshes and swamps in the mid to upper reaches of the Basin and protecting nearby coastal communities from storm surge and tidal flooding (e.g. Lafitte – outside of the Federal Levee Syst).
- Restores marshes west of Dupre Cut of the Barataria Bay Waterway, a major navigation channel; and restores marshes around the Lafitte O & G Field (Non-Critical Infrastructure).

Synergy (*High)

1) BA-27 Barataria Landbridge Shoreline Protection Project,
2) BA-36 Dedicated Dredging on the Barataria Basin Landbridge,
3) BA-125 Northwest Turtle Bay Marsh Creation (MC),
4) BA-206 Northeast Turtle Bay MC & Critical Shoreline Protection,
5) BA-258 Northeast Turtle Bay MC Extension, and
6) *BA-207 Large Scale Barataria MC (NOAA Restore), and others*

CWPPRA RPT Region 2

Breton Sound Basin

PPL34 PROJECT FACT SHEET
February 1, 2024

Project Name
Davant Marsh Creation

Master Plan Strategy
Pointe a la Hache and Carlisle Marsh Creation (2023 Master Plan ID: 248c; Implementation Period 1): Creation of marsh along the east side of the Mississippi River from White Ditch to Bohemia to create wetland habitat, restore degraded marsh, and reduce wave erosion.

Project Location
Region 2, Breton Sound Basin, Plaquemines Parish

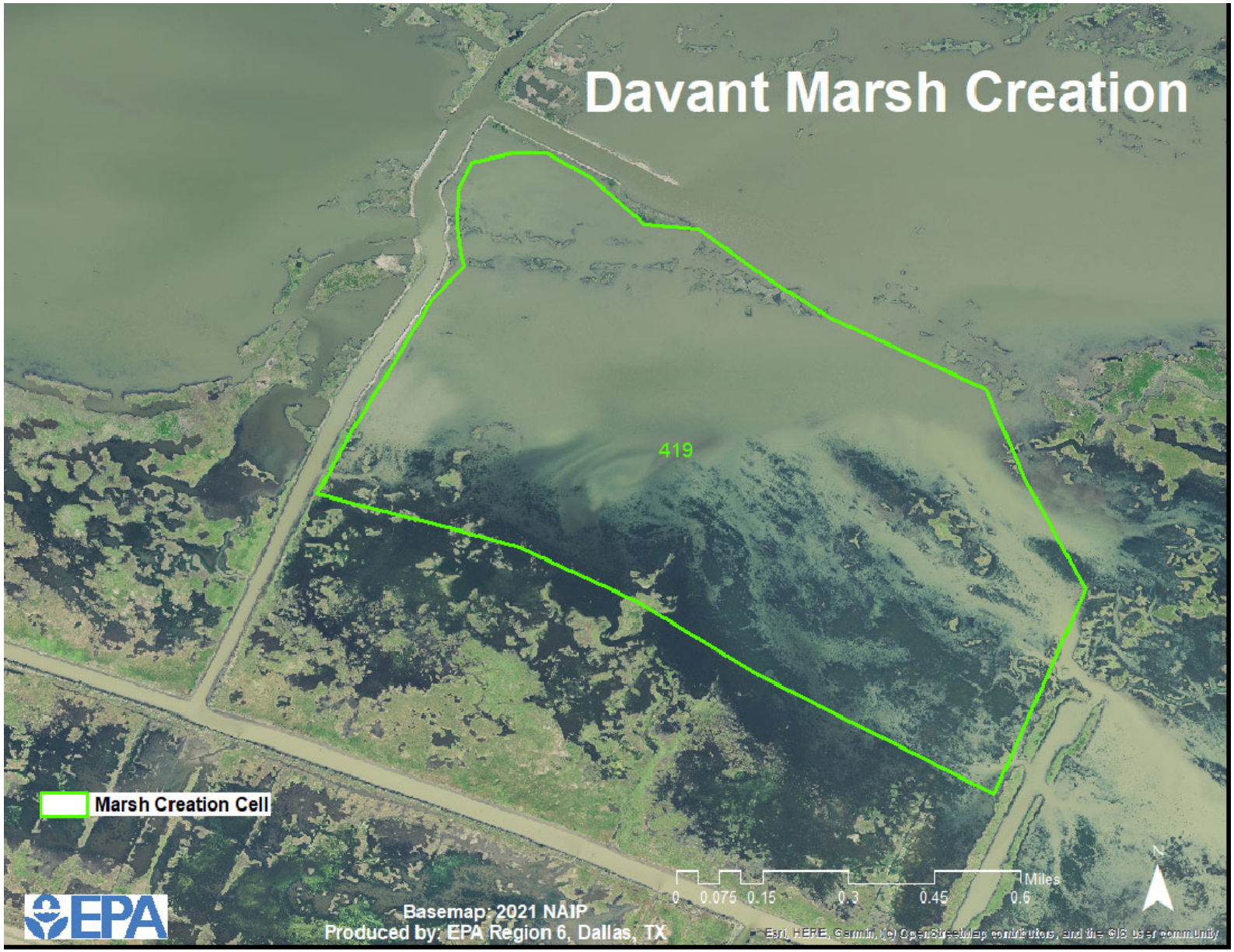
Problem
Without further action, Plaquemines Parish faces extensive wetland loss over the next 50 years and most areas of the parish outside the levee system face severe future storm surge-based flood risk (2023 Master Plan). The greatest flood depths are seen on the east bank of the Mississippi River, where 100-year flood depths are projected to cause overtopping of the existing Braithwaite back levee (2023 Master Plan). The project area is an open water body immediately adjacent to the east bank of the Mississippi River levee. As a result of leveeing the Mississippi River for navigation and flood control, the Pointe a la Hache wetlands were cut off from the historic overbank flooding of the river. Without continued sediment input, marshes could not maintain viable elevations due to ongoing subsidence. In addition, oil and gas canals disrupted hydrology and facilitated saltwater intrusion further degrading the marsh. The land loss rate for the nearby BS-42 and BS-44 Phoenix CWPPRA projects is -1.17%/yr.

Proposed Solution
The proposed project would create/nourish approximately 419 acres of marsh using sediment dredged from the Mississippi River.

Project Benefits
Create/nourish approximately 419 acres (create 361 acres and nourish 58 acres) of emergent marsh using sediment dredged from the Mississippi River.

Project Costs
The estimated construction cost including 25% contingency is $35M - $40M.

Preparer(s) of Fact Sheet:
Sharon L. Osowski, Ph.D.; EPA; (214) 665-7506; osowski.sharon@epa.gov
Jenny Byrd, EPA, (214) 665-7377, Byrd.Jennifer@epa.gov

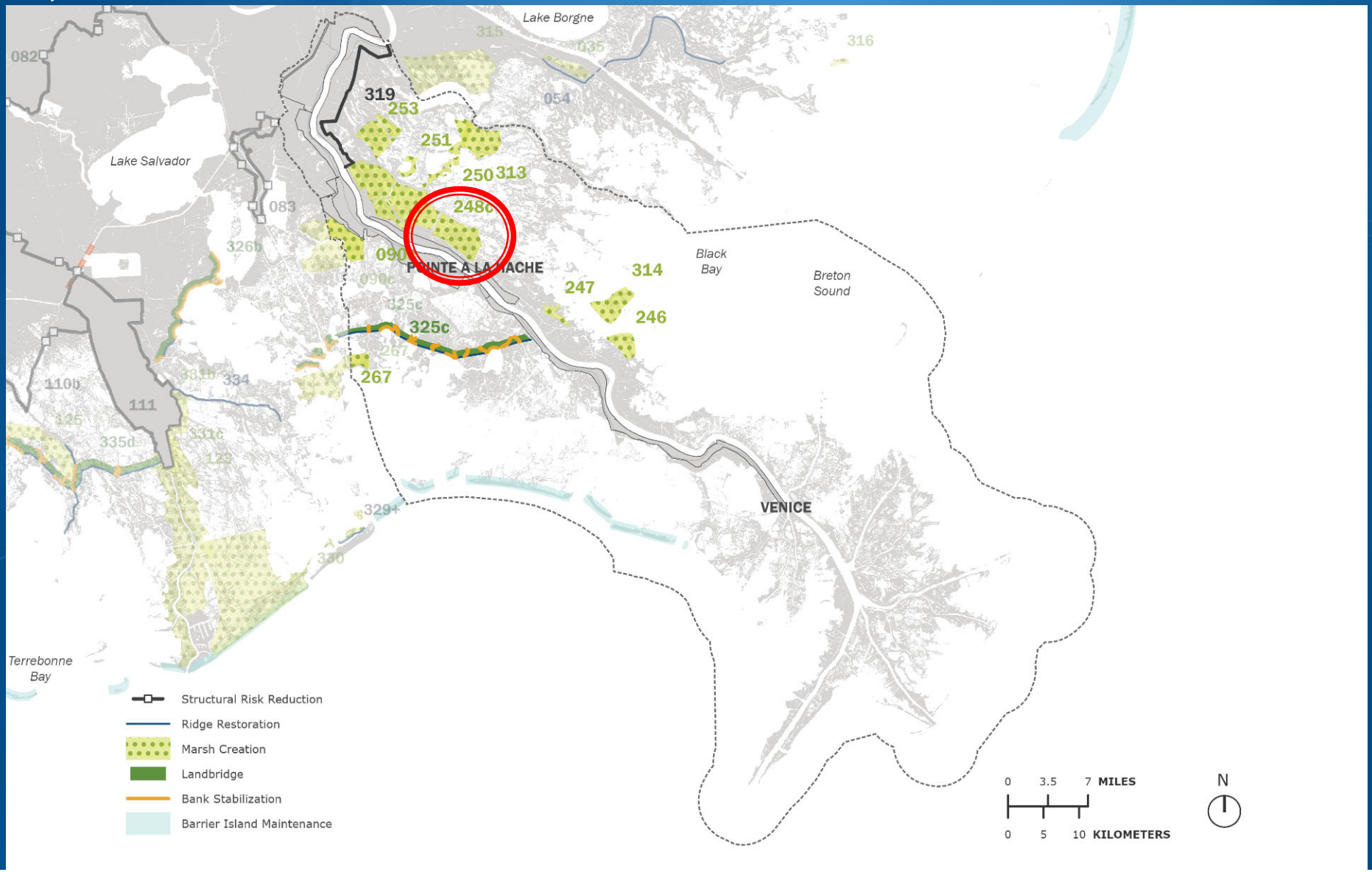

Davant Marsh Creation
419
Marsh Creation Cell
EPA
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
0 0.075 0.15 0.3 0.45 0.6
Miles
N
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Davant Marsh Creation

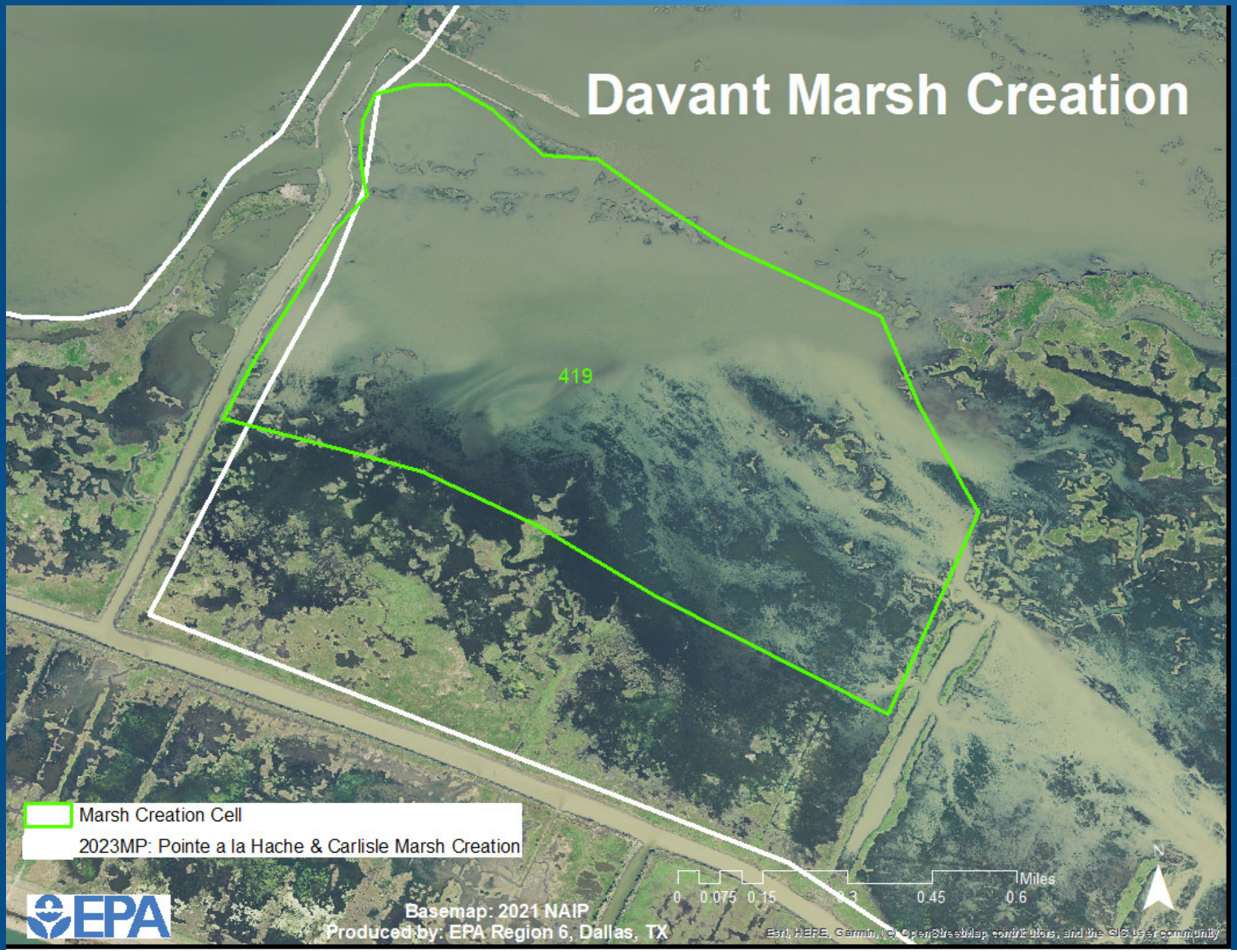
Coastal Wetlands Planning, Protection and Restoration Act

2023 Master Plan Solution

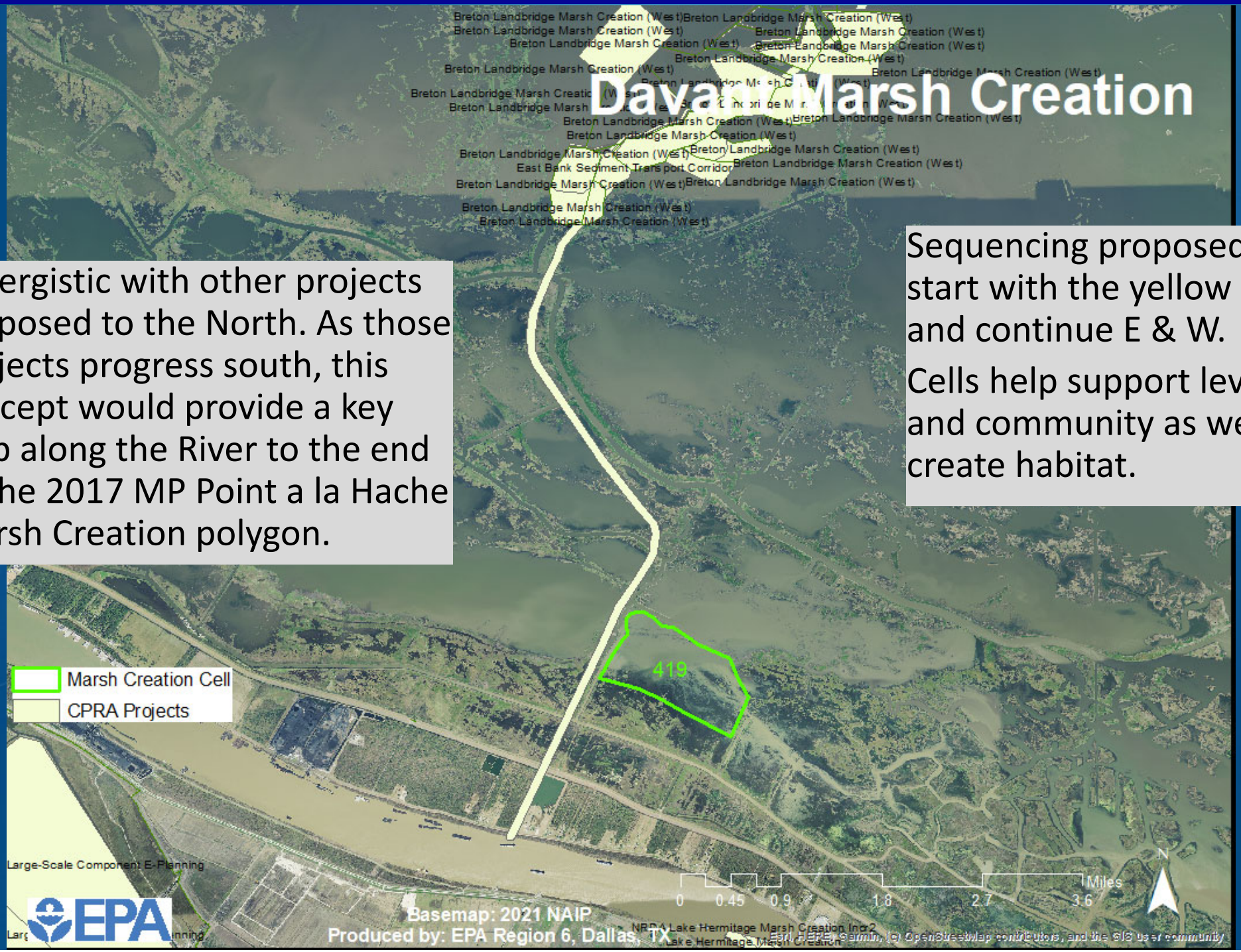
Pointe a la Hache and Carlisle Marsh Creation (2023 Master Plan ID: 248c; Implementation Period 1): Creation of marsh along the east side of the Mississippi River from White Ditch to Bohemia to create wetland habitat, restore degraded marsh, and reduce wave erosion.



2023 Master Plan Solution



Project Synergy

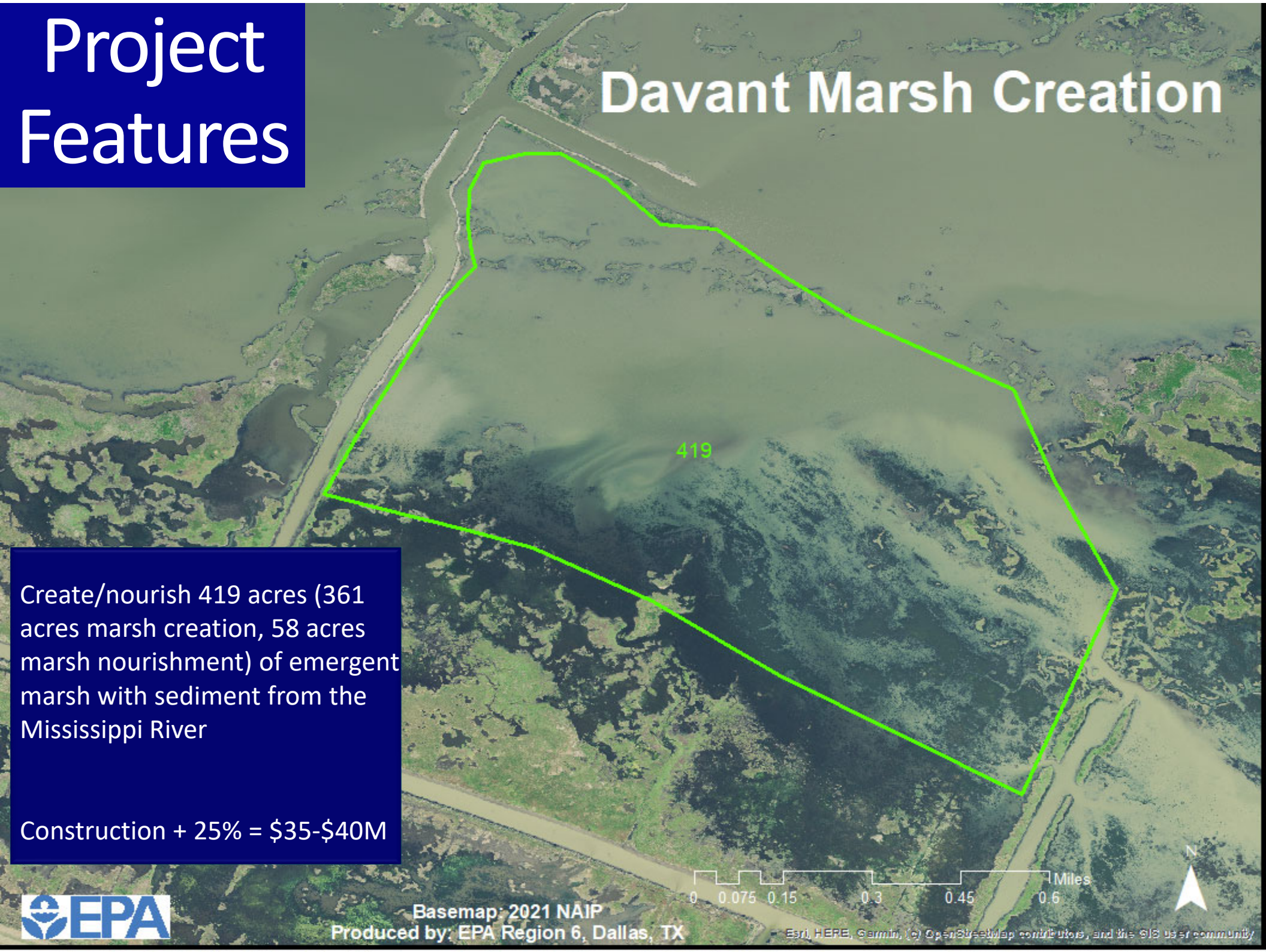


Synergistic with other projects proposed to the North. As those projects progress south, this concept would provide a key stop along the River to the end of the 2017 MP Point a la Hache Marsh Creation polygon.

Sequencing proposed to start with the yellow cell and continue E & W.

Cells help support levees and community as well as create habitat.

Project Features



PPL34 PROJECT FACT SHEET
February 1, 2024

Project Name
Verret Marsh Creation

Master Plan Strategy
North & East Lake Lery Marsh Creation (2023 Master Plan ID: 315): Creation of marsh within a footprint of approximately 14,000 acres in north and east Lake Lery to create new wetland habitat, restore degraded marsh, and reduce wave erosion.

Project Location
Region 2, Breton Sound Basin, St. Bernard Parish

Problem
This project area has experienced wetland loss due to a variety of factors including subsidence, saltwater intrusion, and storm damage. St. Bernard Parish will see continued wetland loss and without further restoration, most areas of the parish outside the levee system face severe future storm surge-based flood risk (2023 State Master Plan). Hurricane Katrina devastated the area resulting in substantial marsh loss which has exposed infrastructure to open water conditions. Most recently, the area experienced impacts due to Hurricane Zeta in 2020 and Ida in 2021. Land loss rate for the 213 N. Lake Lery subunit is -0.81%/yr.

Proposed Solution
Create/nourish 434 acres of wetlands with sediment hydraulically dredged from a borrow source in Lake Lery. This project would provide a buffer to mature Live Oak/Hackberry ridge ecosystems that are critical habitat for Trans-Gulf Migratory birds. It would also buffer the New Orleans HSDRRS levee system that protects the underserved community of Verret La. Restoration in this shallow water environment could reduce fetch lengths and edge erosion. Additionally, it would provide synergy between North Delacroix Marsh Creation and Terracing (BS-41) and Reggio Marsh Creation and Hydrologic Restoration (BS-43).

Project Benefits
Create/nourish 434 acres (create 412 acres and 22 nourish acres) of emergent marsh with sediment dredged from Lake Lery.

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

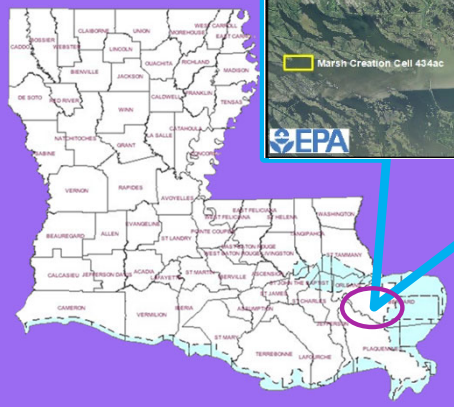
Preparer(s) of Fact Sheet:
Blaise Pezold, Meraux Foundation, 504-264-8125; Blaise@merauxfoundation.org
Sharon L. Osowski, Ph.D.; EPA; (214) 665-7506; osowski.sharon@epa.gov
Jenny Byrd, EPA, (214) 665-7377, Byrd.Jennifer@epa.gov


Verret Marsh Creation
434
Marsh Creation Cell 434ac
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
EPA
N
0 0.15 0.3 0.6
Miles
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

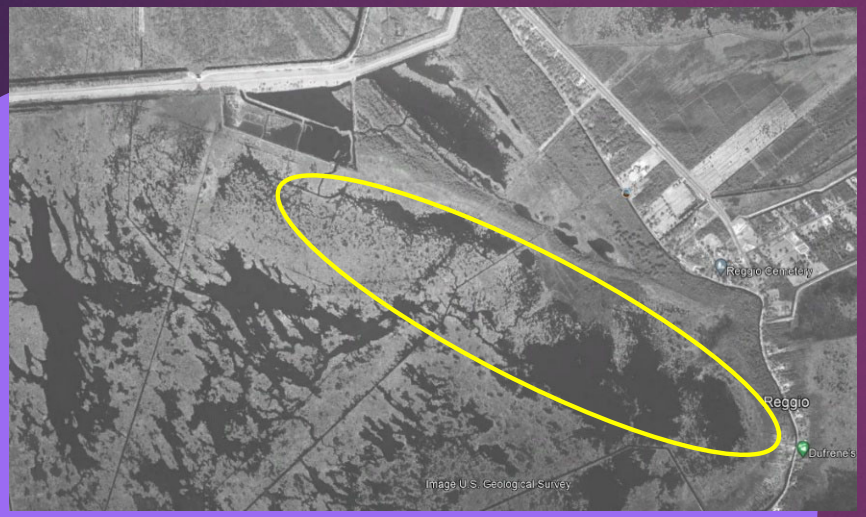
Verret Marsh Creation

EPA/MERAUX FOUNDATION

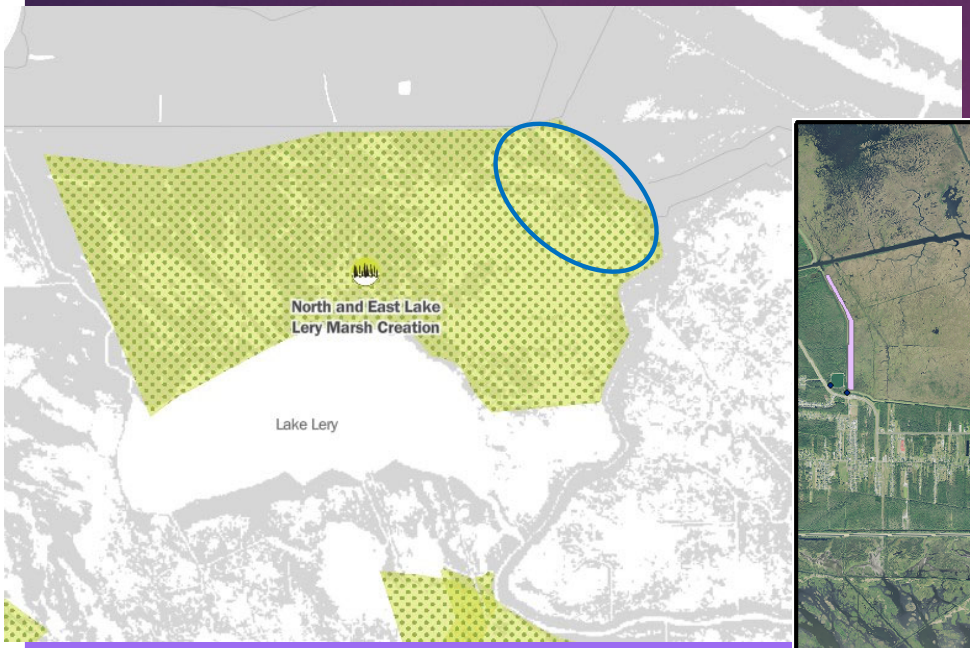
PROJECT BACKGROUND:

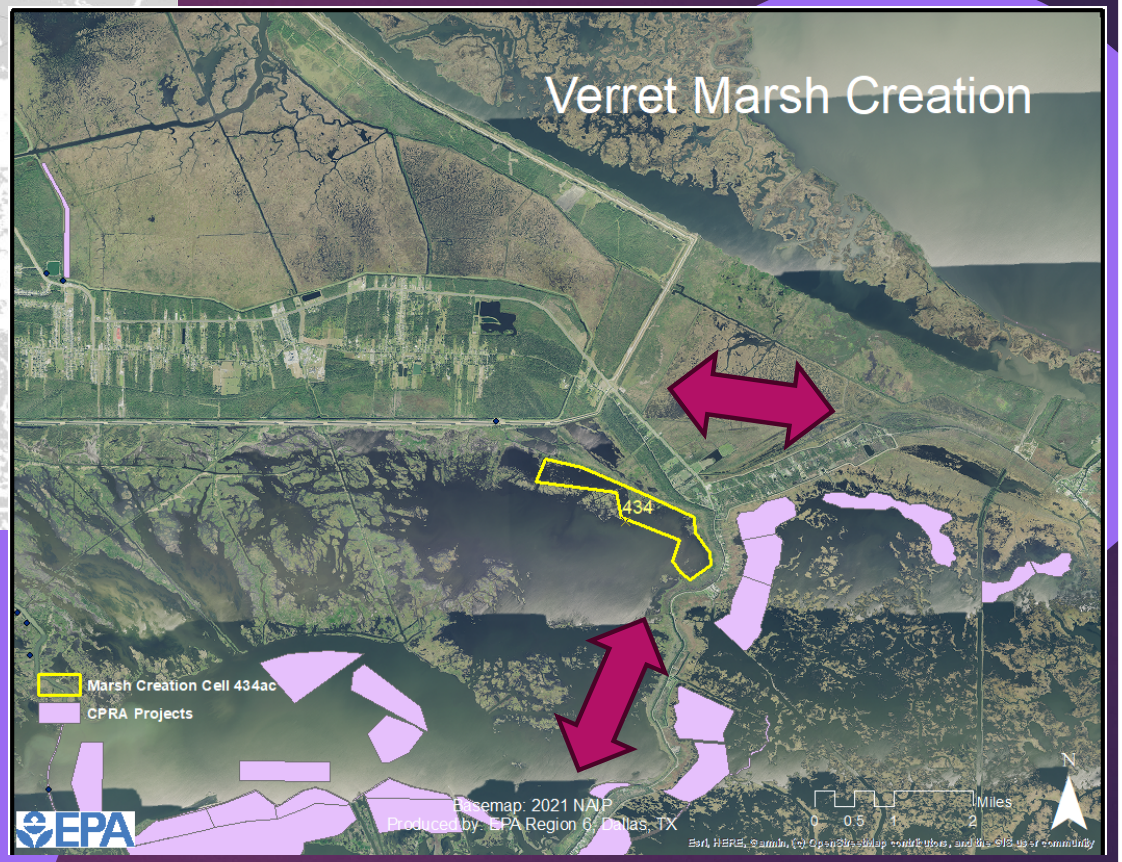


KATRINA MARSH LOSS:



SYNERGY:


North and East Lake
Lery Marsh Creation
Lake Lery


Verret Marsh Creation
434
Marsh Creation Cell 434ac
CPRA Projects
EPA
Basemap: 2021 NAIP
Produced by: EPA Region 6, Dallas, TX
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PROJECT FEATURES:

- 434 total acres, Create 412 and Nourish 22 acres of emergent marsh with sediment from Lake Lery
- Reduce impacts of storm surge on vulnerable ridge ecosystems and surrounding underserved communities
- 25-30 Million range

PPL34 PROJECT NOMINEE FACT SHEET
January 29, 2024

Project Name
Bayou Gentilly Marsh Creation

Project Location
Region 2, Breton Sound Basin, Plaquemines Parish

Problem
The major cause of wetland loss has been from storm activity, causing storm-induced scouring and erosion. In 2005 Hurricane Katrina devastated the area resulting in substantial marsh loss. Altered hydrology and oil/gas development have exacerbated this loss. Natural lakes and bays increase in size due to coalescence with marsh lost to water and increased wave fetch. A land change analysis conducted by USGS for 254 coastal subunits indicates a 1985-2020 land change rate of -0.96%/yr for the Caernarvon Outfall Subunit, which includes the project site. A land change analysis conducted by USGS for the PPL33 Phase 0 Wetland Value Assessment of the South Delacroix Marsh Creation indicates a loss rate of -1.71%/yr. (1985 to year 2022) for the extended project boundary.

Goals
The primary goal of the project is to restore intertidal marshes along the western bank of the historic Bayou Gentilly. The specific project goals are: 1) create 289 acres of marsh, 2) nourish 26 acres of marsh, 3) construct approximately 22,000 linear feet of terraces will be constructed adjacent to the marsh creation areas.

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 and saltmarsh topminnow.

Project Features:
Marsh Creation – 289 acres
Marsh Nourishment – 26 acres
Terraces – 22,000 LF (32 ac)

Proposed Solution
Sediments from Petit Lake will be hydraulically dredged and pumped via pipeline to create/nourish approximately 315 acres of marsh. Approximately 22,000 LF of terraces would be constructed to an elevation of +3.0 feet. A full containment system will be utilized with containment dikes gapped at the end of construction or no later than three years post-construction. Dewatering and compaction of dredged sediments should produce elevations conducive to the establishment of emergent marsh and within the intertidal range.

Preliminary Ranking Criteria:

1) *What is the projects total net acres?*
   Net Acres- 293 acres

2) *What is the total project construction cost plus 25% contingency?*
Construction cost plus 25% contingency - $24,121,382

3) *What is the project cost effectiveness using total net acres/project construction cost?*
Cost effectiveness - $82,325/net acre

4) *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) BS-16 South Lake Lery Shoreline and Marsh Restoration, 2) BS-32 Mid Breton Land Bridge Marsh Creation and Terracing, 3) BS-37 East Delacroix Marsh Creation and Terracing, 4) BS-38 Breton Landbridge Marsh Creation (West) River aux Chenes to Grand Lake, and 5) St. Bernard Parish placed rock armoring along portions of BTAB Ridge adjacent to the project. This project would be one of the final pieces in the overall Breton Land Bridge concept from the Coastal Protection and Restoration Authority's (CPRA) 2023 Coastal Master Plan. The project would work, in a substantial way, with BS-32 and BS-38 in spanning the southeastern Breton Sound.

5) *What is the interior loss rate and/or shoreline loss rate?*
A land change analysis conducted by USGS determined that the land change rate for the Caernarvon Outfall Subunit is -0.96% per year (1985-2020).

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?*
The project will restore a portion of the Breton Landbridge and Petit Lake rim. The project also provides some indirect support for the structural framework of the community of Delacroix.

7) *Does any project feature directly or indirectly protect any critical and/or non-critical infrastructure?*
The project will have a direct protective effect to the Delacroix Highway, BTAB Ridge, Delacroix Tidal Levee, and community of Delacroix.

Considerations
This project could have potential land rights considerations.

Preliminary Costs
The fully funded cost range is $20M-$25M.

Preparer(s) of Fact Sheet:
Kristen Ramsey, FWS, (337) 291-3137, Kristen_Ramsey@fws.gov

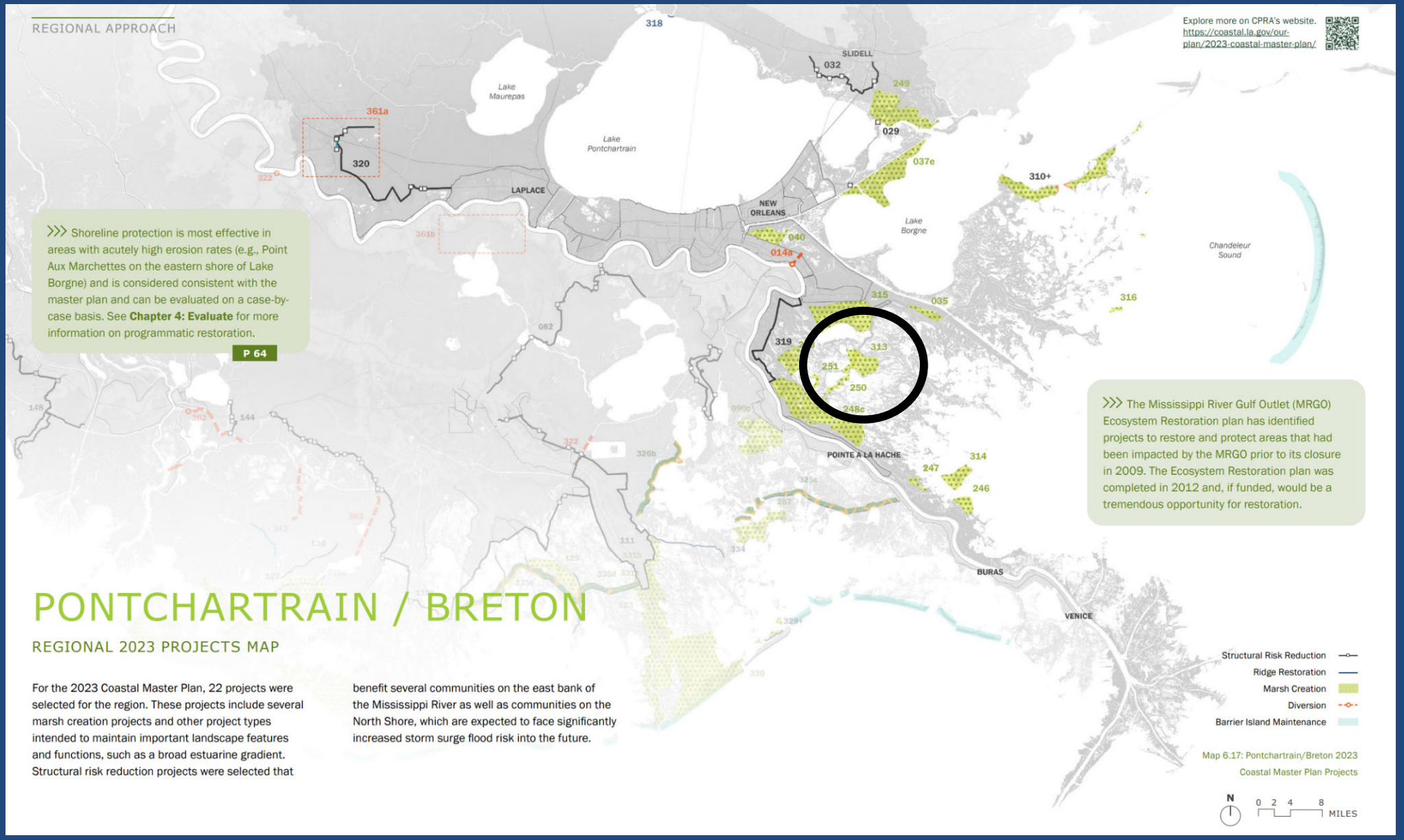
PPL34

Bayou Gentilly Marsh Creation

Region 2, Breton Sound Basin

Contacts:
Kristen Ramsey
Fish and Wildlife Biologist
Kristen_ramsey@fws.gov
(337) 291-3137

2023 State Master Plan – West Delacroix Marsh Creation (313) and Oak River to Delacroix Marsh Creation (250)

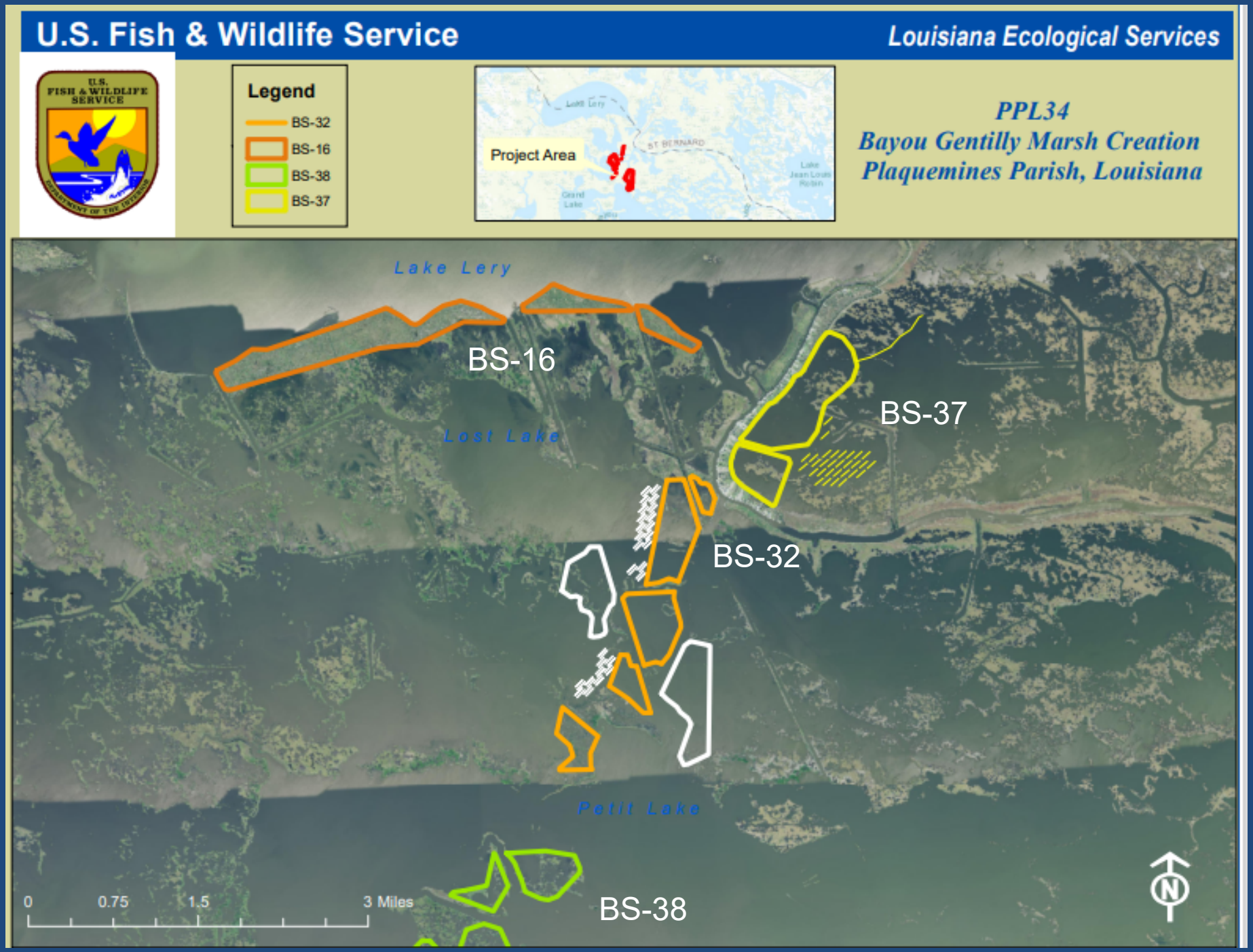


PONTCHARTRAIN / BRETON

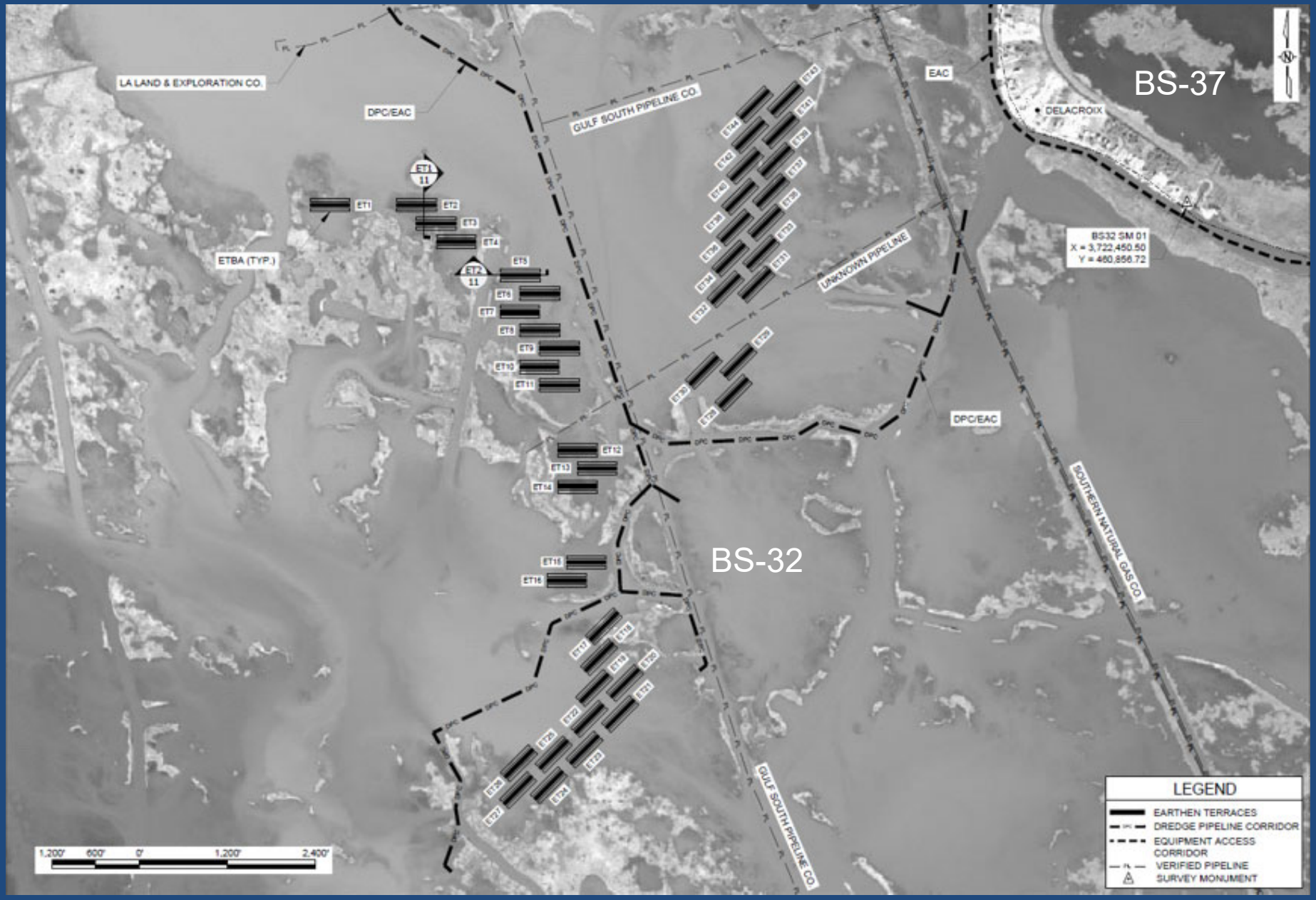
REGIONAL 2023 PROJECTS MAP

For the 2023 Coastal Master Plan, 22 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 flood risk into the future.

Synergy with Other Restoration Projects in the Southeastern Breton Sound Basin

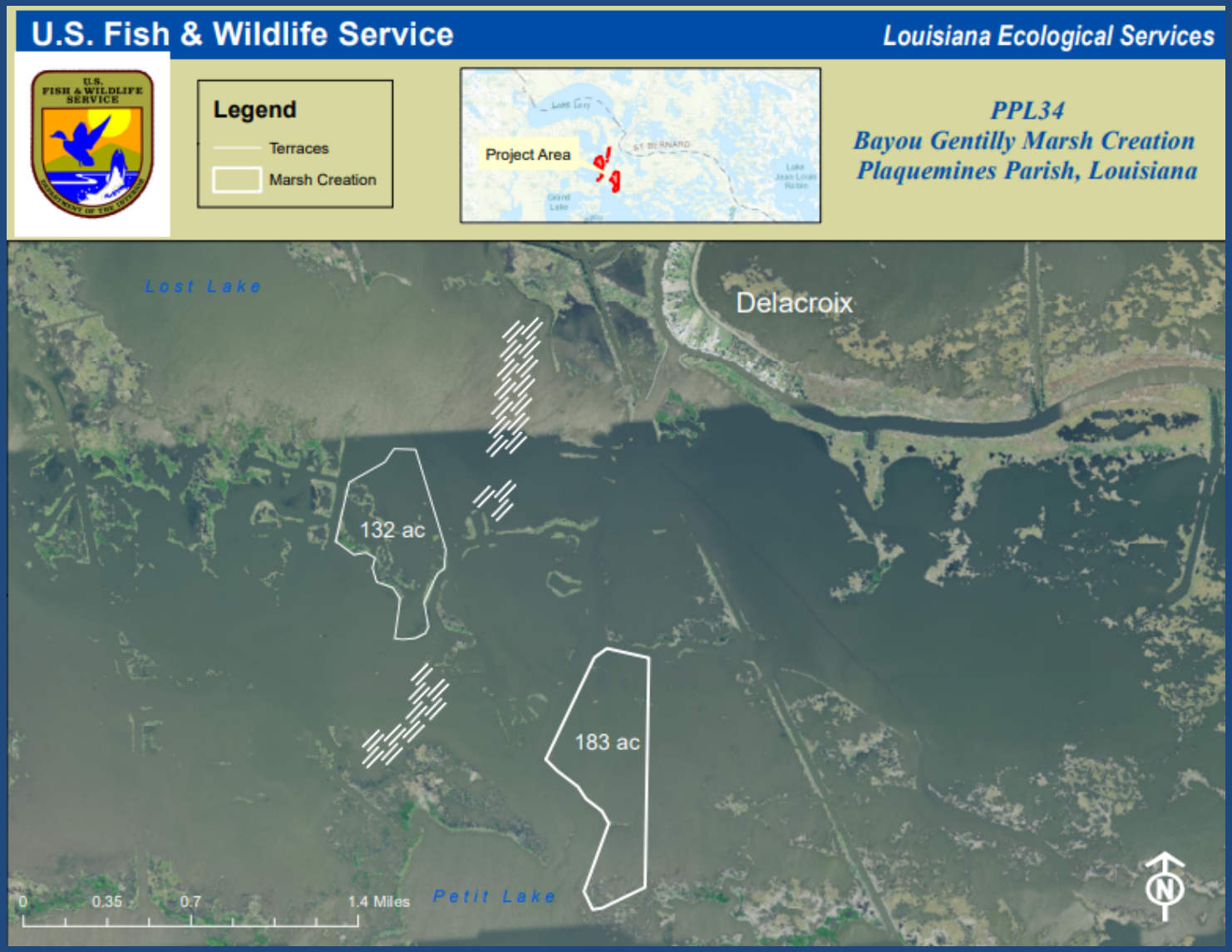


Synergy with Other Restoration Projects in the Southeastern Breton Sound Basin



Southeast Breton Sound
2004 to 2024

Bayou Gentilly Marsh Creation



- 289 acres of marsh creation
- 26 acres of marsh nourishment
- Petit Lake borrow
- Net acres = 250 - 300
- Construction plus contingency: $20M - $25M
- Project synergy – Mid Breton Land Bridge Marsh Creation and Terracing (BS-32), East Delacroix Marsh Creation and Terracing (BS-37), and Breton Landbridge Marsh Creation (West) River aux Chenes to Grand Lake (BS-38)

PPL34 PROJECT NOMINEE FACT SHEET
January 29, 2024

Project Name:
East Lake Lery Shoreline Restoration

Project Location:
Region 2, Breton Sound Basin, St. Bernard Parish

Problem:
The eastern Lake Lery shoreline and surrounding wetlands were severely damaged in 2005 by Hurricane Katrina. In the years following this storm, fetch from the lake further eroded the lake's shoreline and interior marshes. Currently the area has become so degraded that there is no longer an eastern shoreline of the lake, and the lake has opened up into the large open water to west of the Bayou Terre aux Boeufs Ridge and Delacroix Highway. A land change analysis conducted by USGS for 254 coastal subunits indicates a 1985-2020 land change rate of -0.81% per year for the North Lake Lery Subunit, which encompasses the project site.

Goals:
The primary goals of the project are to restore and stabilize approximately 1.35 miles of Lake Lery shoreline. The specific project goals are: 1) create 357 acres of marsh, 2) nourish 26 acres of marsh, and 3) restore approximately 7,113 LF (1.35 mi) of eastern Lake Lery shoreline through the construction of a large earthen berm.

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 and saltmarsh topminnow.

Project Features:
Marsh Creation – 357 acres
Marsh Nourishment – 26 acres
Shoreline Restoration/ Bank Stabilization – 7,113 LF (1.35 mi)

Proposed Solution
Sediments from Lake Lery will be hydraulically dredged and pumped via pipeline to create/nourish approximately 383 acres of marsh. A full containment system will be utilized with containment dikes gapped at the end of construction or no later than three years post-construction. Dewatering and compaction of dredged sediments should produce elevations conducive to the establishment of emergent marsh and within the intertidal range. Bank restoration is also proposed. A large earthen berm will be constructed along 7,113 LF of the lakeshore containment dike.

Preliminary Ranking Criteria:

1) *What is the projects total net acres?*
   Net Acres- 331

2) *What is the total project construction cost plus 25% contingency?*
Construction cost plus 25% contingency - $21,690,247

3) *What is the project cost effectiveness using total net acres/project construction cost?*
Cost effectiveness - $65,521/acre

4) *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) BS-32 Mid Breton Land Bridge Marsh Creation and Terracing, 2) BS-41 North Delacroix Marsh Creation and Terracing, Marsh Creation, 3) BS-16 South Lake Lery Shoreline and Marsh Restoration, and 4) Coastal Impact Assistance Program (CIAP) and St. Bernard Parish funded marsh creation projects.

5) *What is the interior loss rate and/or shoreline loss rate?*
A land change analysis conducted by USGS determined that the land change rate for the North Lake Lery Subunit is -0.81% per year (1985-2020).

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?*
The project will help restore a portion of the Lake Lery rim.

7) *Does any project feature directly or indirectly protect any critical and/or non-critical infrastructure?*
This project will provide a net positive direct benefit to critical infrastructure.
The Delacroix Highway is a critical evacuation route for the residents of Delacroix Island. The project would provide a buffer between open water and the road. The project will also add support and help protect the levee that prevents flooding on Delacroix Island and the roadway.

Considerations/potential issues?
This project could have potential land rights and utility considerations.

Preparer(s) of Fact Sheet and Contact Information:
Kristen Ramsey, FWS, (337) 291-3137, Kristen_Ramsey@fws.gov

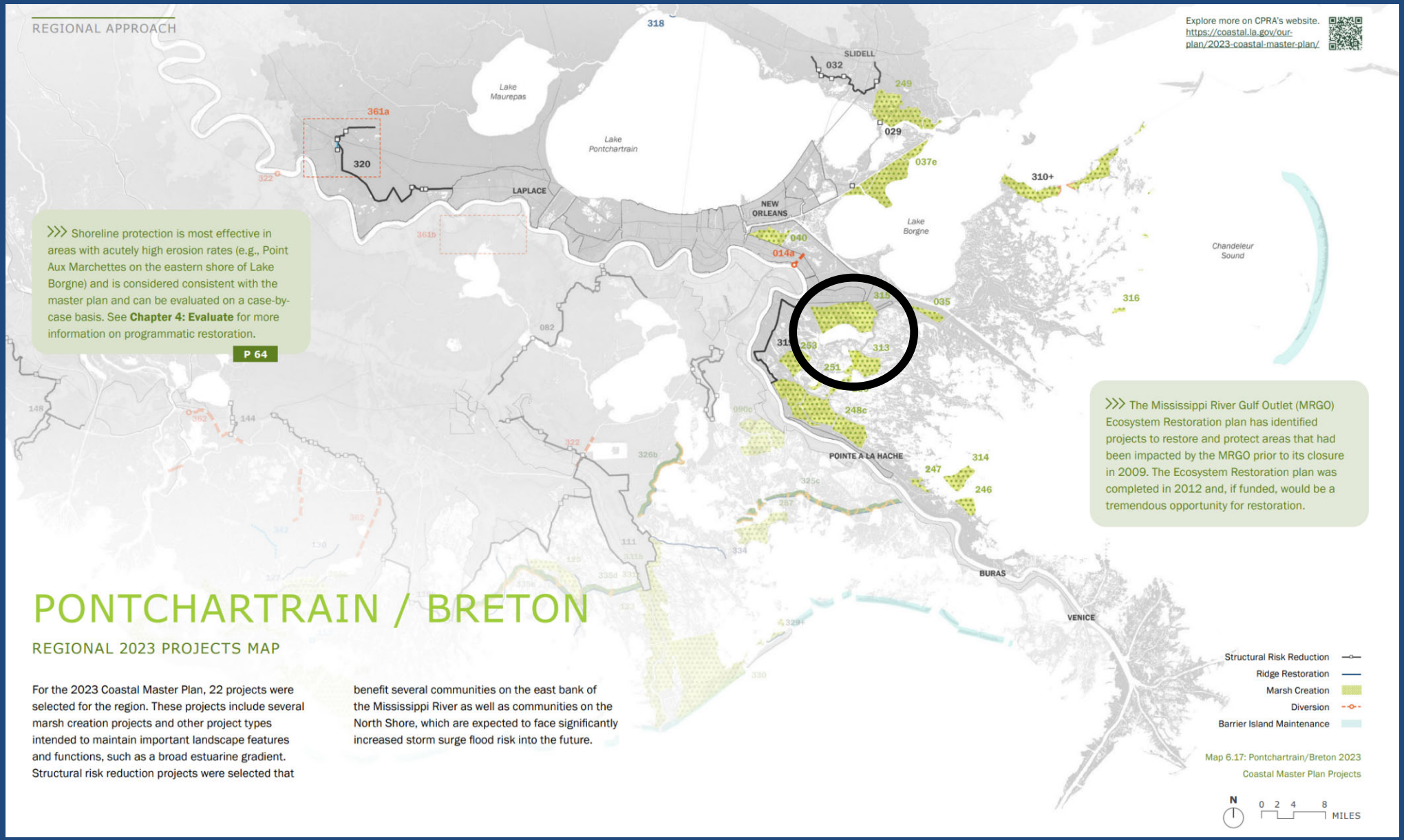
PPL34

East Lake Lery Shoreline Restoration

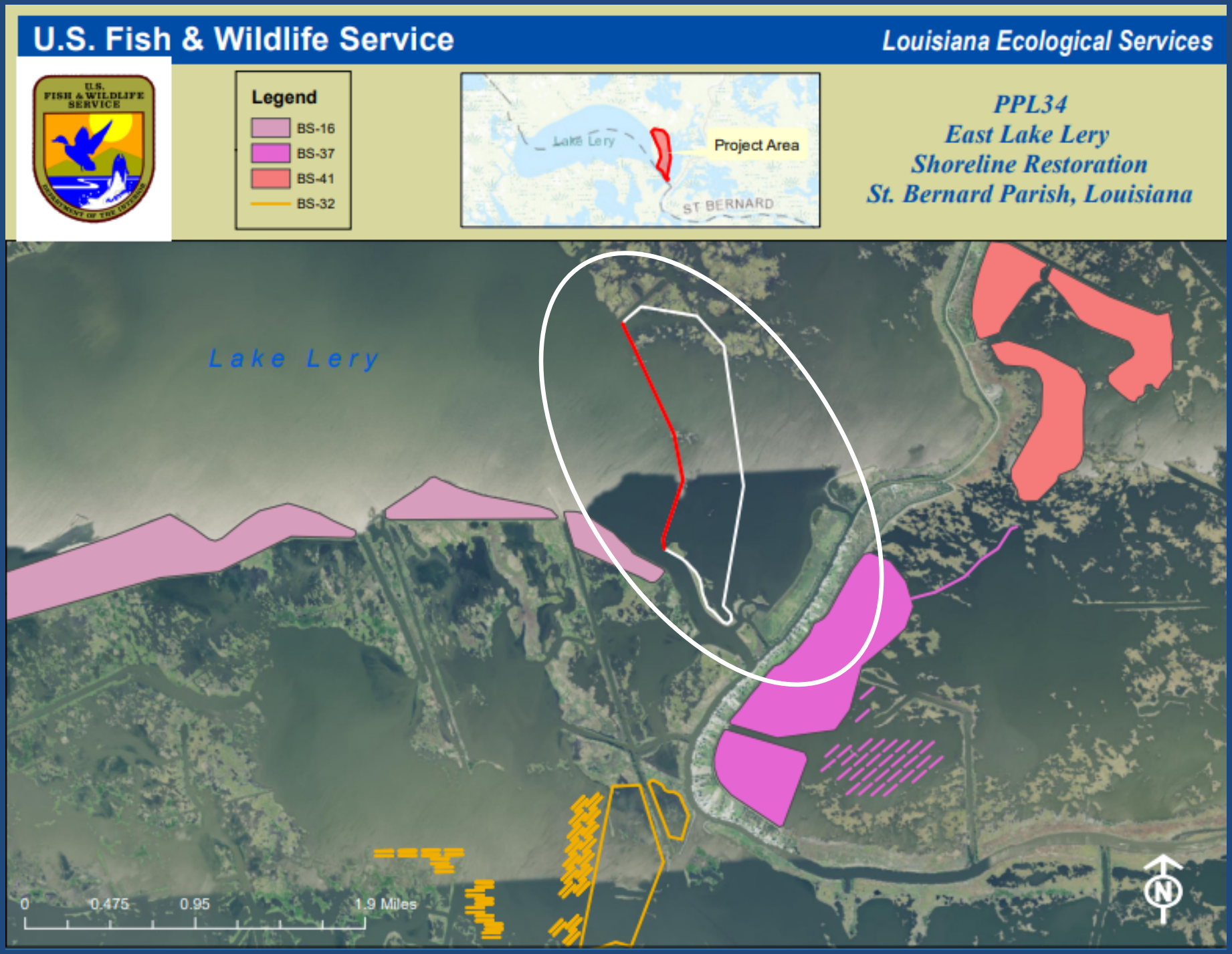
Region 2, Breton Sound Basin

Contacts:
Kristen Ramsey
Fish and Wildlife Biologist
Kristen_ramsey@fws.gov
(337) 291-3137

2023 State Master Plan – North and East Lake Lery Marsh Creation (315)



Synergy with Other Restoration Projects in the Upper Breton Sound Basin



Eastern Lake Lery - 2004 to 2024

East Lake Lery Shoreline Restoration

- 357 acres of marsh creation
- 26 acres of marsh nourishment
- Bank Stabilization – 1.35 mi.
- Lake Lery borrow
- Net acres = 300 - 350
- Construction plus contingency: $20M - $25M
- Project synergy – Mid Breton Land Bridge Marsh Creation and Terracing (BS-32), North Delacroix Marsh Creation and Terracing (BS-41), CIAP and St. Bernard Parish funded marsh creation, and South Lake Lery Shoreline and Marsh Restoration (BS-16)

PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name
Spanish Lake-Grand Lake Marsh Creation

Project Location
Region 2, Breton Basin, Plaquemines Parish, west of Grand Lake and east of Spanish Lake.

Problem
From 1932 to 1990, the Caernarvon Mapping Unit lost 14,240 acres of its marsh. Prior to Hurricane Katrina, the greatest lost documented occurred between 1956 and 1974 and coincided with Hurricane Betsy and extensive canal building. Hurricane Katrina in 2005 devastated the area resulting in substantial marsh loss. According to USGS Open File Report (2006-1274), approximately 39 square miles of marsh around the upper and central portions of Breton Sound were converted to open water by mechanical removal of the marsh or by marsh submergence. Based on the hyper-temporal analysis conducted by USGS from 1985-2020, the loss rate in the project area is estimated to be –0.961 %/year.

Goals
The goal of this project is to halt the coalescence of Grand Lake and Spanish Lake by restoring the broken marshes west of the Grand Lake shoreline to a more typical and healthy intertidal marsh.

Specific goals: 1) Create approximately 310 acres and nourish approximately 190 acres of intermediate marsh west of the western shoreline of Grand Lake.

Proposed Solution
Sediment will be dredged from a borrow site in Grand Lake and pumped via pipeline to create/nourish approximately 500 acres of marsh. Dewatering and compaction of dredged sediments should produce elevations conducive to the establishment of emergent marsh within the intertidal range. Earthen containment dikes will be constructed around the perimeter of marsh creation cells. Containment dikes will be gapped at the end of construction or by target year 3.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?*
   This total project area is 500 ac.

2) *How many acres of wetlands will be protected/created over the project life?*
   Approximately 300 – 350 net 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 (<25%, 25-49%, 50-74%, and >75%)?*
   The anticipated land loss rate reduction throughout the area of direct benefits is approximately 50% to 74% over the project life.

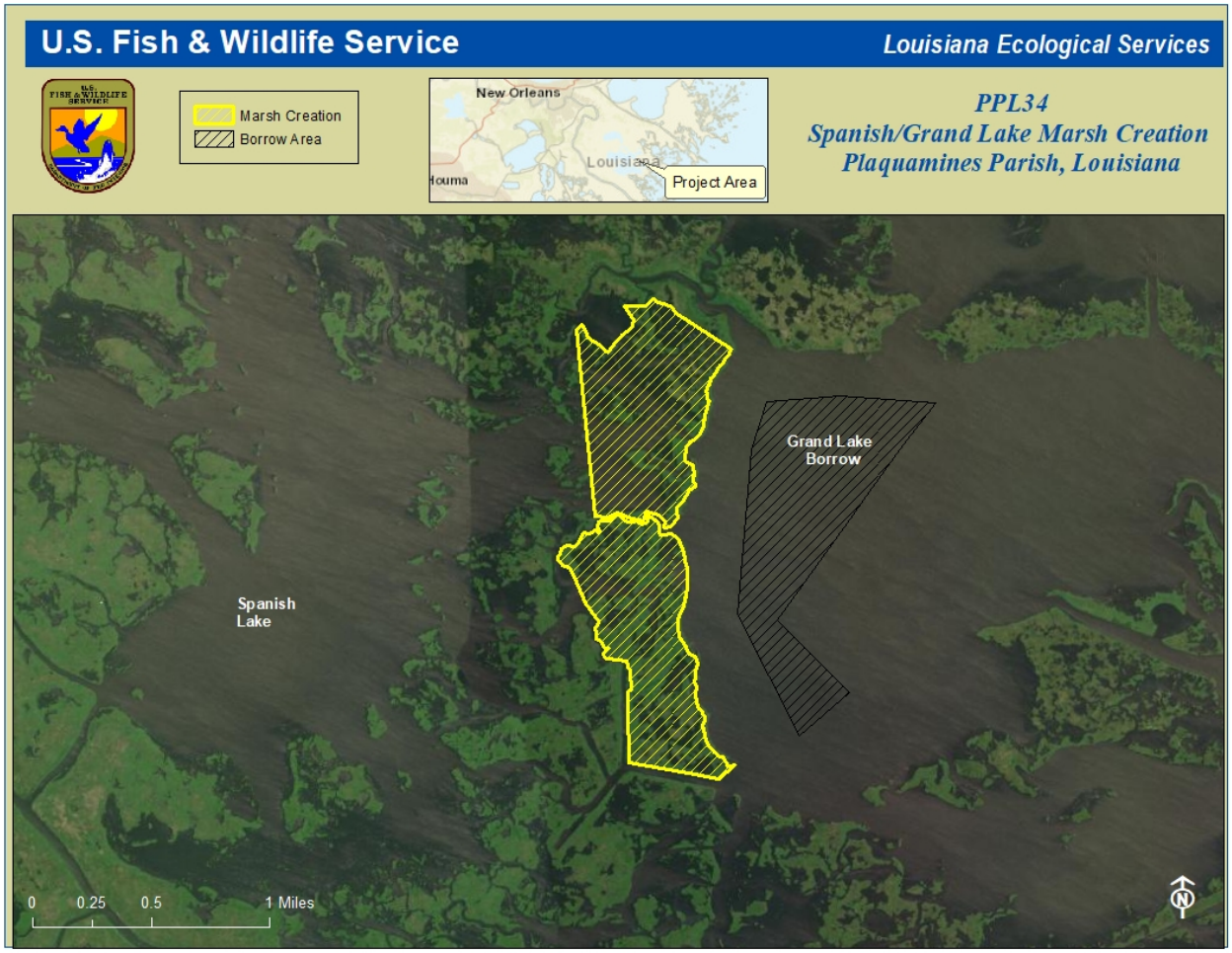
4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*
This project would restore the marshes directly west of the Grand Lake halting the possibility of a breach between Grand Lake and open water west of that shoreline.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
This project would protect several small camps.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*
This project would work synergistically BS-16, BS-24, BS-32, BS-38, BS-42 and BS-44 projects.

Preliminary Cost
The estimated construction cost plus 25% is between $20 and $25M.

Preparer(s) of Fact Sheet:
Robert Dubois, Fish and Wildlife Service, 337-291-3127 Robert_Dubois@fws.gov


U.S. Fish & Wildlife Service
Louisiana Ecological Services
Marsh Creation
Borrow Area
New Orleans
Louisiana
Houma
Project Area
PPL34
Spanish/Grand Lake Marsh Creation
Plaquamines Parish, Louisiana
Grand Lake
Borrow
Spanish
Lake
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0.25
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1 Miles
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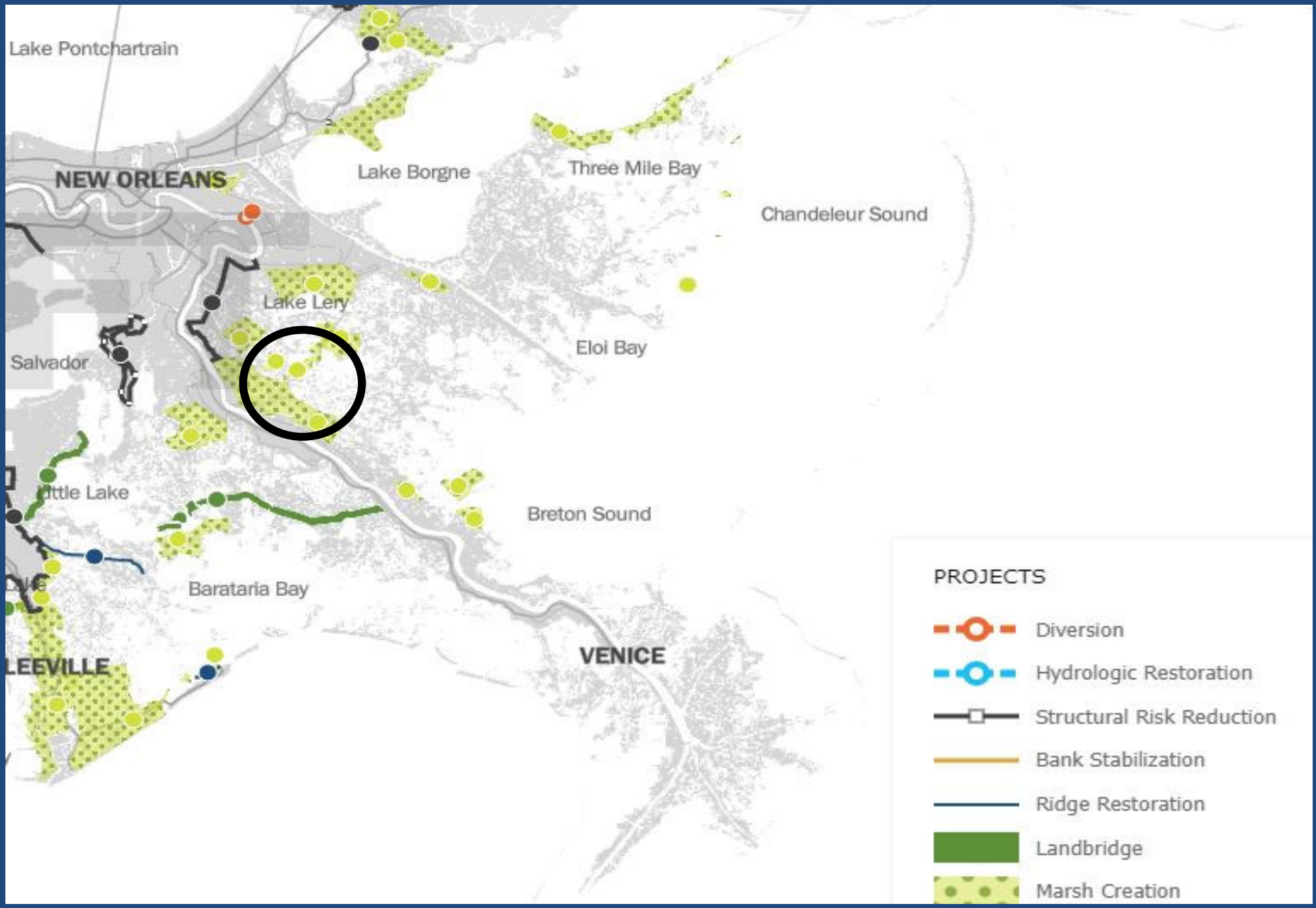
PPL34

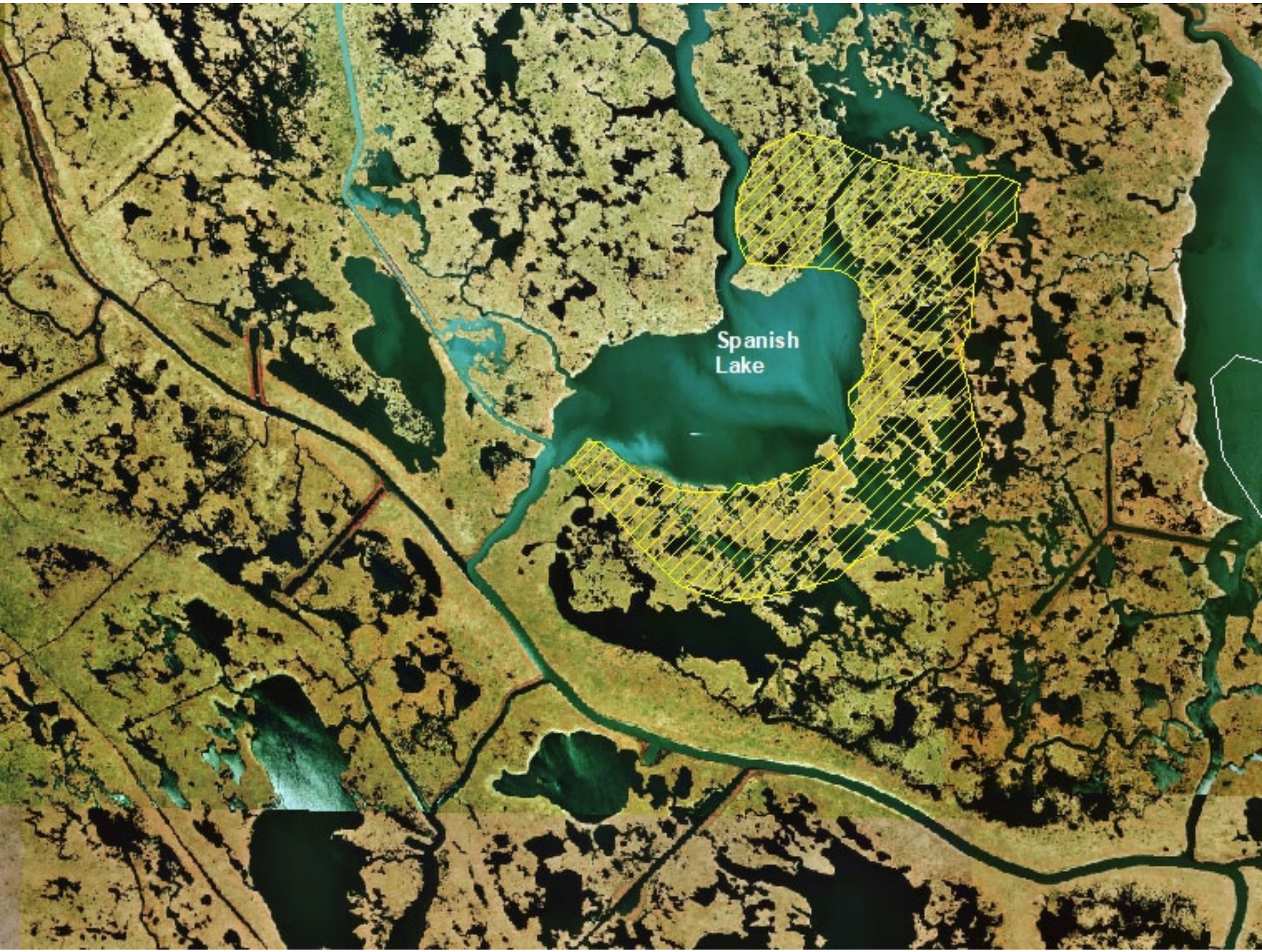
Spanish Lake – Grand Lake Marsh Creation

Region 2, Breton Basin

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

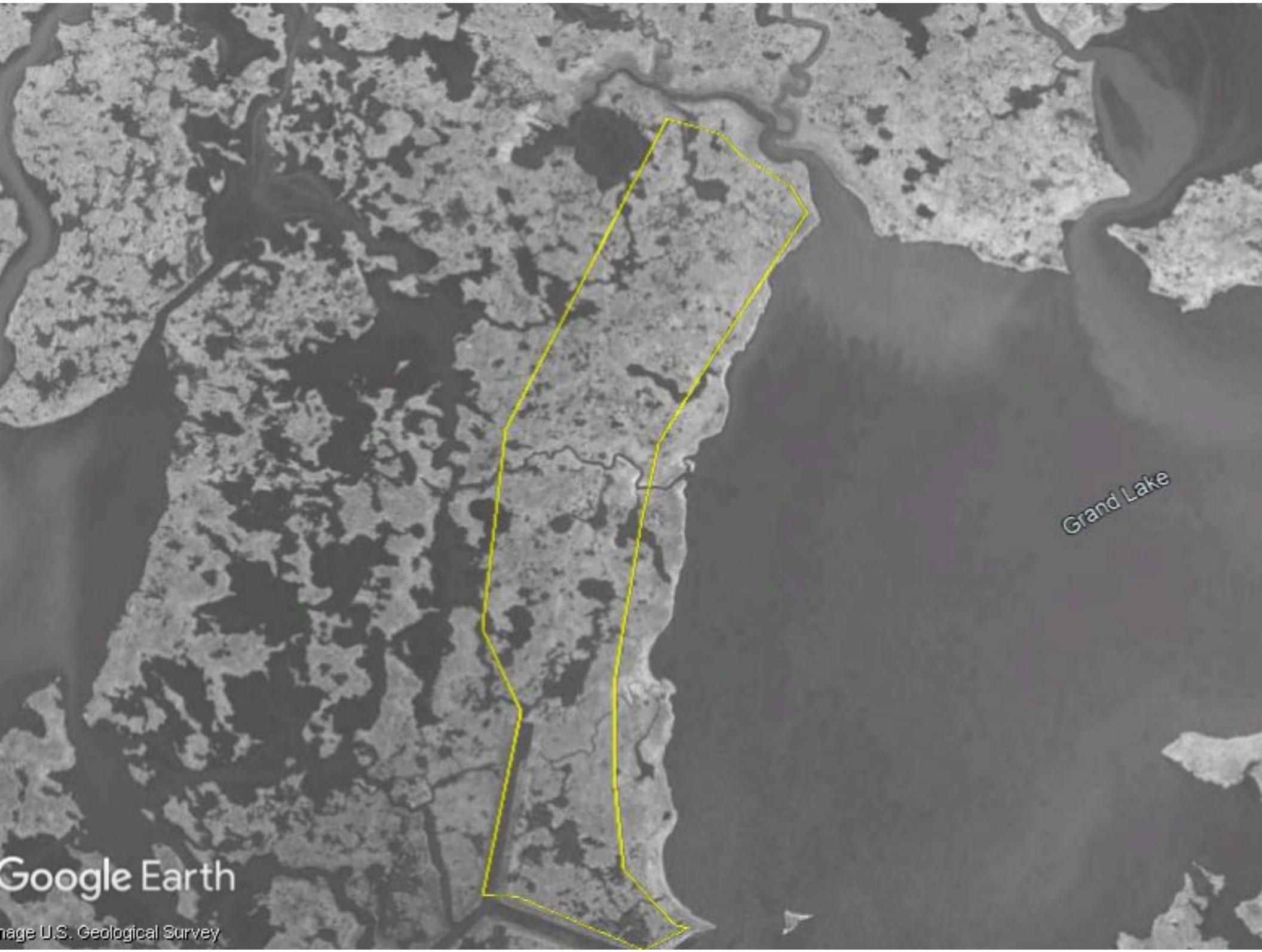
2023 State Master Plan - Breton Marsh Creation




Spanish
Lake

U.S. Fish & Wildlife Service

Louisiana Ecological Services


Grand Lake
Google Earth
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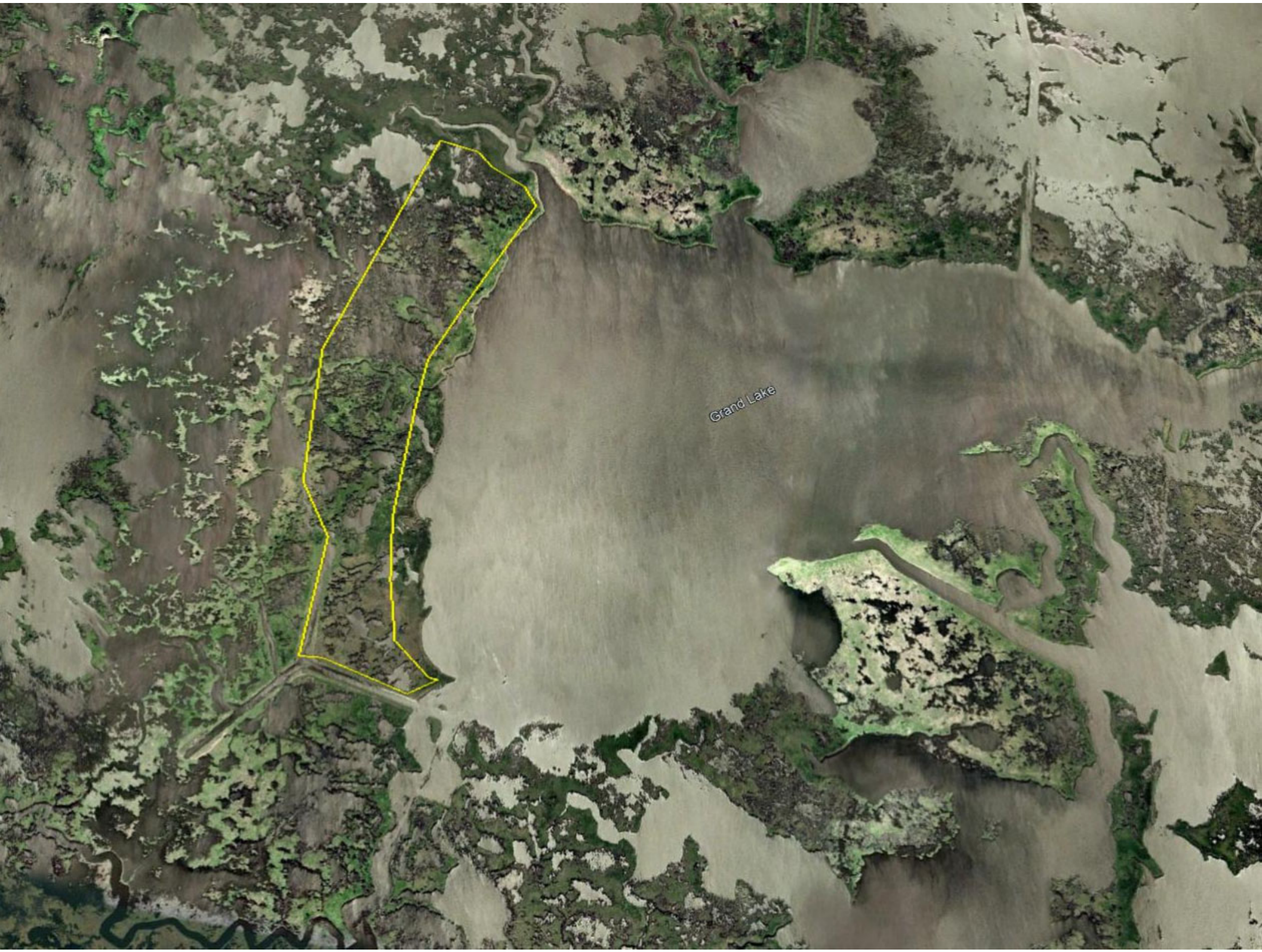
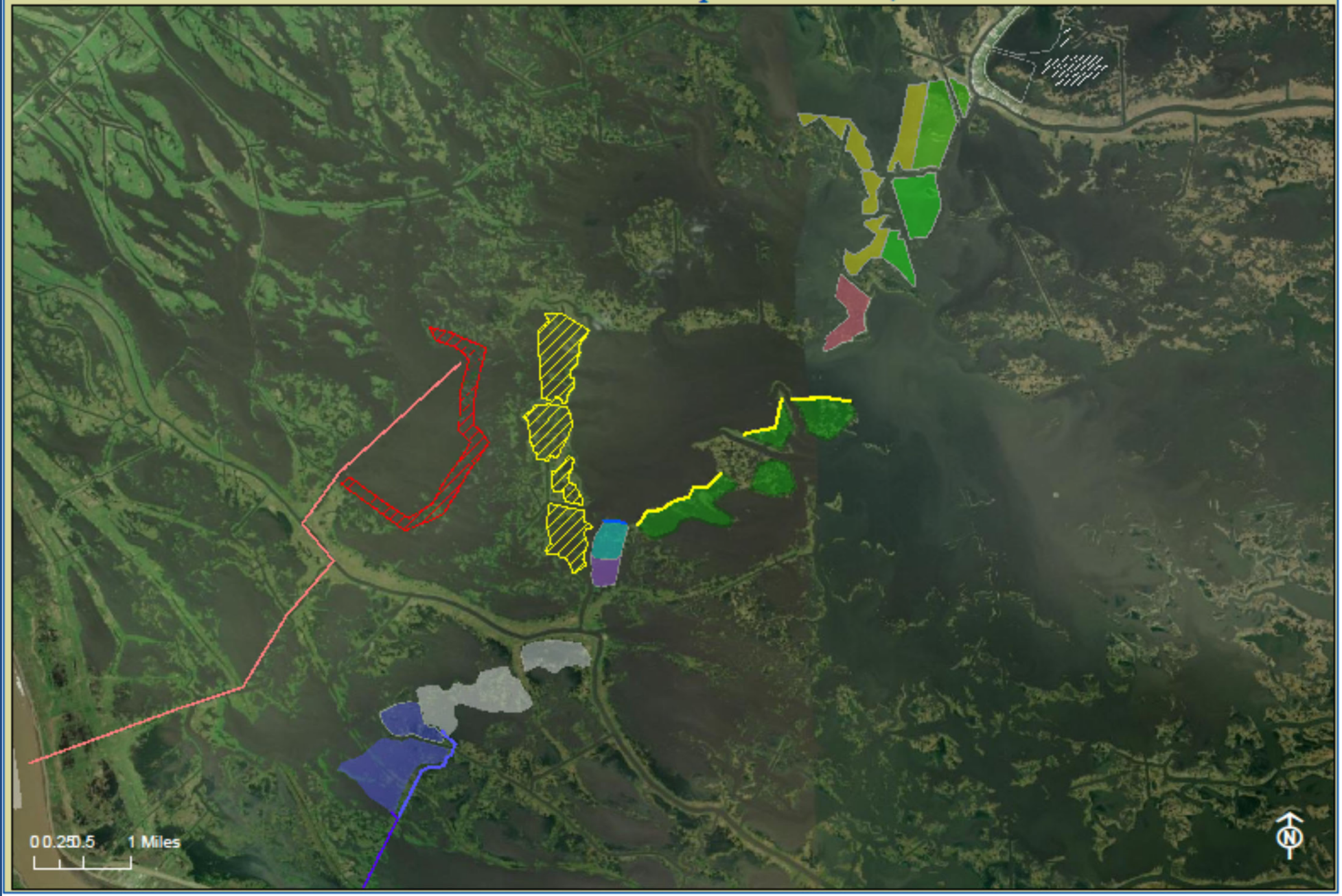

Grand Lake


Spanish Lake
Grand Lake
Google Earth
Image © 2024 Airbus

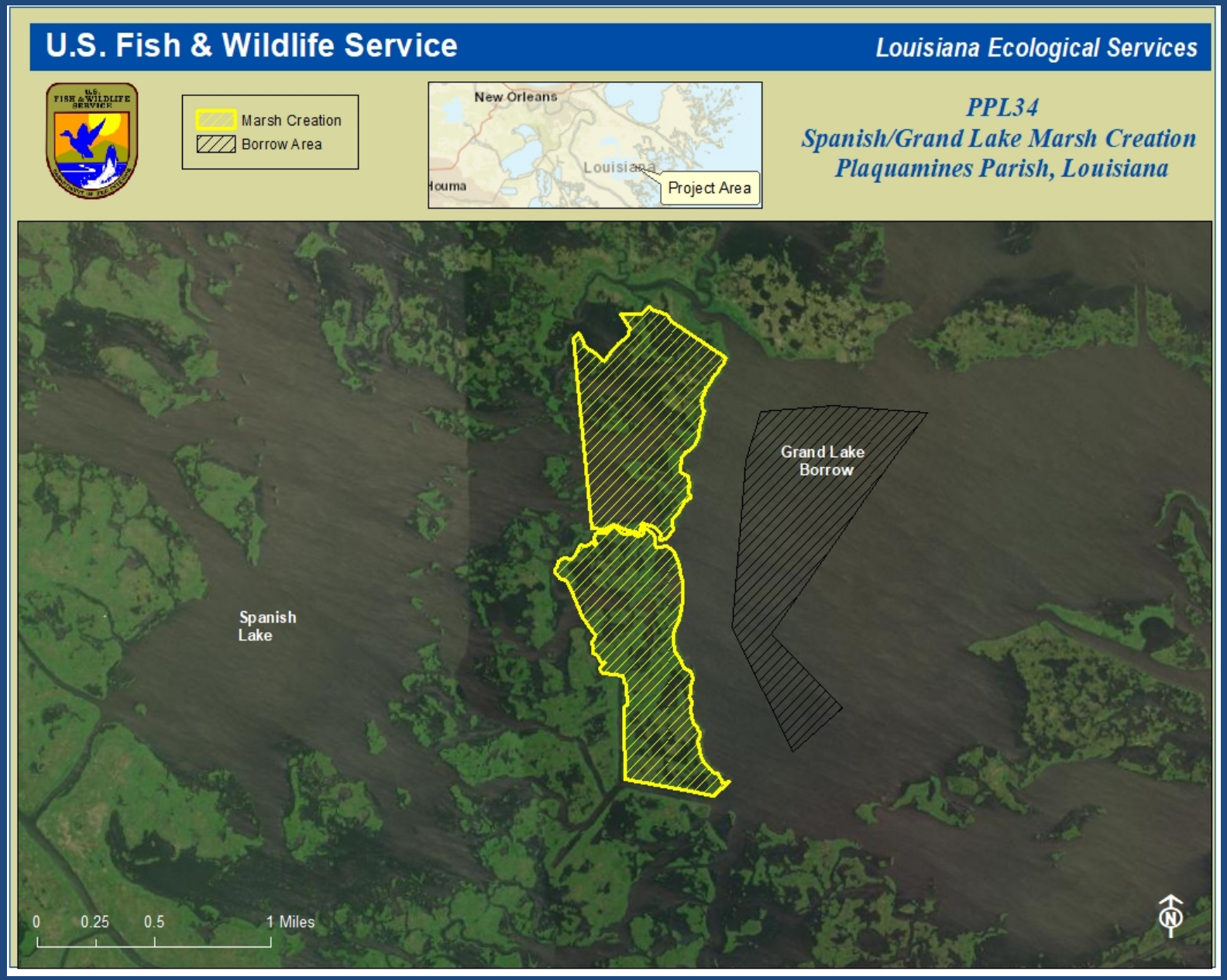
U.S. Fish & Wildlife Service

Louisiana Ecological Services

PPL33 Spanish Lake Shoreline Restoration and Marsh Creation
Plaquemines Parish, Louisiana



Spanish Lake Shoreline Restoration and Marsh Creation



- 310 acres of marsh creation
- 190 acres of marsh nourishment
- Grand Lake Borrow
- Net acres = 300 - 350
- Construction plus contingency $20M - $25M
- Project synergy – BS-43, BS-32, BS-38, BS-42, BS-44, BS-16

PPL34 PROJECT NOMINEE FACT SHEET
February 1, 2024

Project Name
North Lake Lery Marsh Creation and Rim Restoration Project

Project Location
Region 2, Breton Basin, St. Bernard Parish

Problem
The marshes forming the shoreline of Lake Lery were severely damaged by Hurricane Katrina. Wind-induced waves within Lake Lery could further damage the shoreline and cause accelerated interior marsh loss. Without directly rebuilding these marshes, the lake will continue to grow and potentially coalesce with newly open waters north of the lake. The northwestern portion of the lake has the greatest rate of shoreline loss leading St. Bernard Parish Government (SBPG) to choose this as a high priority area for restoration (SBPG Coastal Strategy Document 2018). The estimated loss rate for the area is -0.95% per year (Terracing and Marsh Creation South of Big Mar project**,** BS-24, 1984 to 2021).

Goals
The primary goals of the project are to create/nourish 437 acres of intertidal marsh through dedicated dredging and to protect 2.4 miles (12,665 linear feet) of the Lake Lery shoreline with shoreline stabilization. The project will be designed to build resilient wetlands that maximize wetland benefits for the twenty year project life. The goal of the shoreline stabilization is to ensure constructability of the project and provide resilience to the newly created marsh shortly after construction to allow marsh to vegetate.

Proposed Solution
The project would create 217 acres and nourish 220 acres of marsh along the northern shore of Lake Lery using material dredged from Lake Lery. The shoreline stabilization will be placed along the southern shoreline of the marsh creation area. Temporary containment dikes will be constructed and gapped within three years of construction to allow greater tidal exchange and fishery access.

Preliminary Project Benefits

1) *What is the total acreage benefited both directly and indirectly?*
   This total project area is 437 acres.

2) *How many acres of wetlands will be protected/created over the project life?*
   Approximately 200-250 net acres of marsh will be protected/created over the twenty year 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 will reestablish the northern rim of Lake Lery.

5) *What is the net impact of the project on critical and non-critical infrastructure?*
The project would have moderate net positive impact to non-critical infrastructure comprised of pipelines. The project will provide some protection to the St Bernard Levee System (about 2.5 miles away) as it will reduce the tidal prism and wave erosion from Lake Lery.

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) BS-16 South Lake Lery Shoreline and Marsh Restoration, 2) CIAP project constructed west of Delacroix.

Considerations
The proposed project has utility/pipeline considerations.

Preliminary Construction Costs
The construction cost plus 25% contingency is $30M-$35M.

Preparer(s) of Fact Sheet:
Dawn Davis, NOAA Fisheries, 601-890-1338, Dawn.Davis@noaa.gov

PPL34 North Lake Lery Marsh Creation and Rim Restoration

437 Acres Marsh Creation and Marsh Nourishment
12,665 LF Shoreline Stabilization

Federal Sponsor: NOAA Fisheries
2021 Aerial Imagery
Map Date 01-26-2023

Legend

- Marsh Creation
- Shoreline Stabilization
- Borrow

North Lake Lery Marsh Creation and Rim Restoration

NOAA FISHERIES

REGION 2 – Breton Basin

Presenter: Dawn Davis, Fishery Biologist

Special Thanks:

St. Bernard Parish

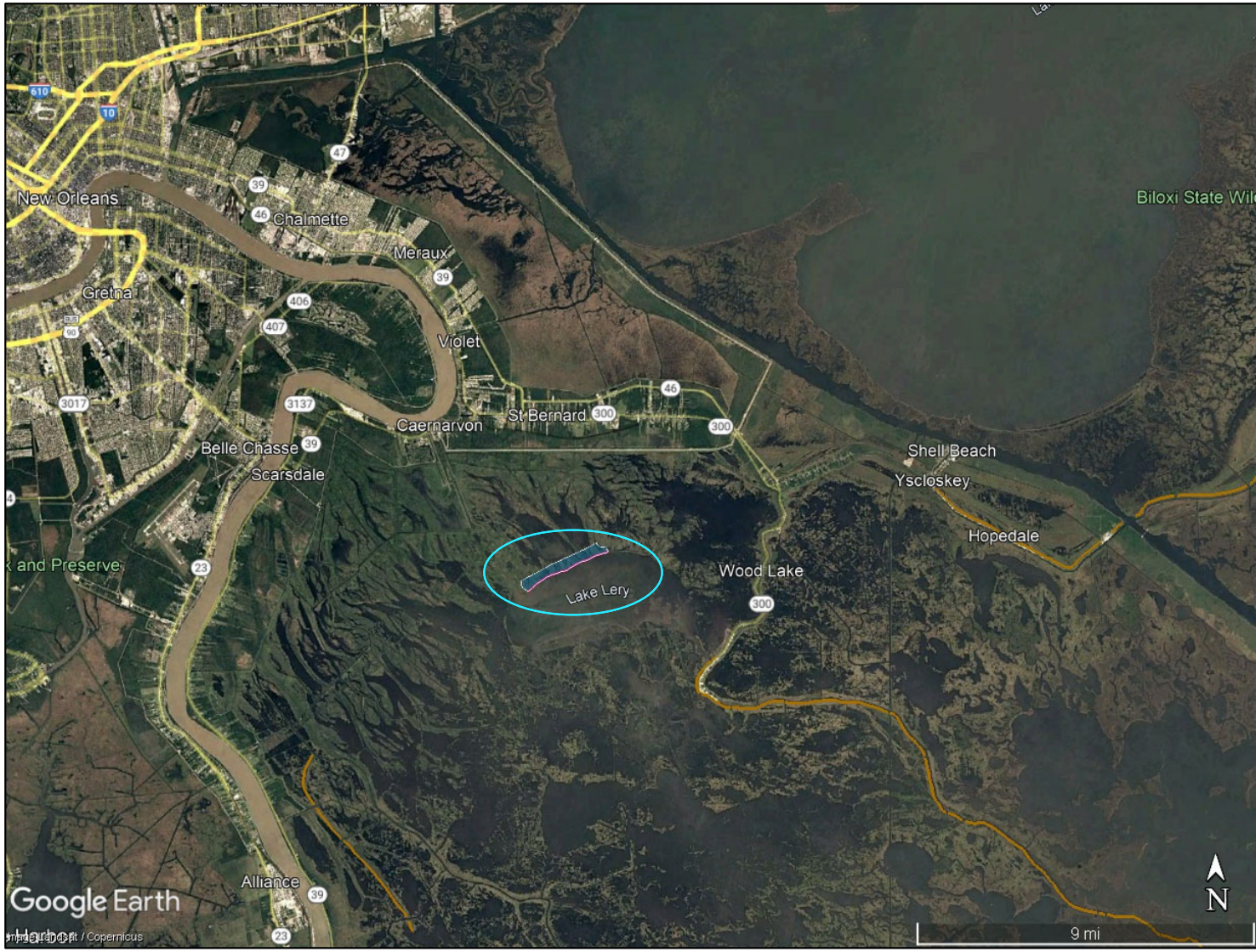
PPL34 CWPPRA Regional Planning Team

Virtual Meeting

February 1, 2024

Priority Project Planning

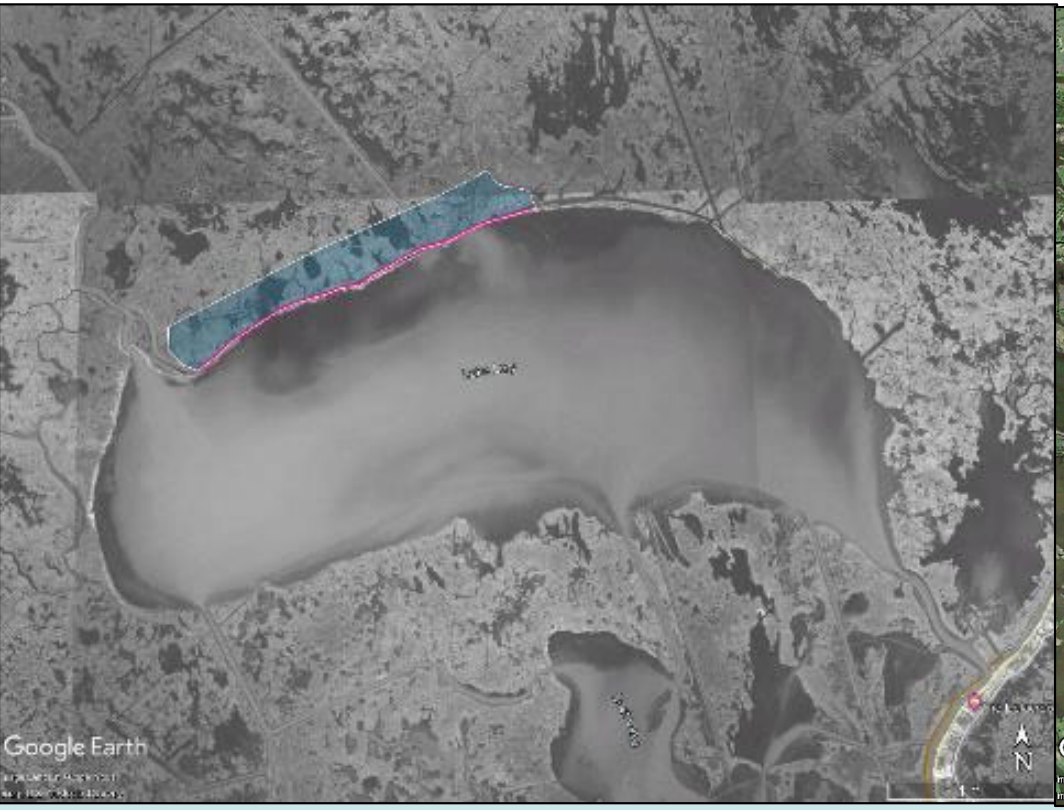
- Areas of Need within Breton Basin
- Synergy with other Restoration Efforts
- Develop Solutions with Preferred Project Features



Areas of Need Within Basin

- Land loss from Hurricane Katrina
- Land loss rate: -0.95% per year

2004



2022

Priority Area

Synergy:

- BS-16 South Lake Lery Shoreline and Marsh Restoration
- CIAP project

Master Plan 2023:

North and East Lake Lery Marsh Creation

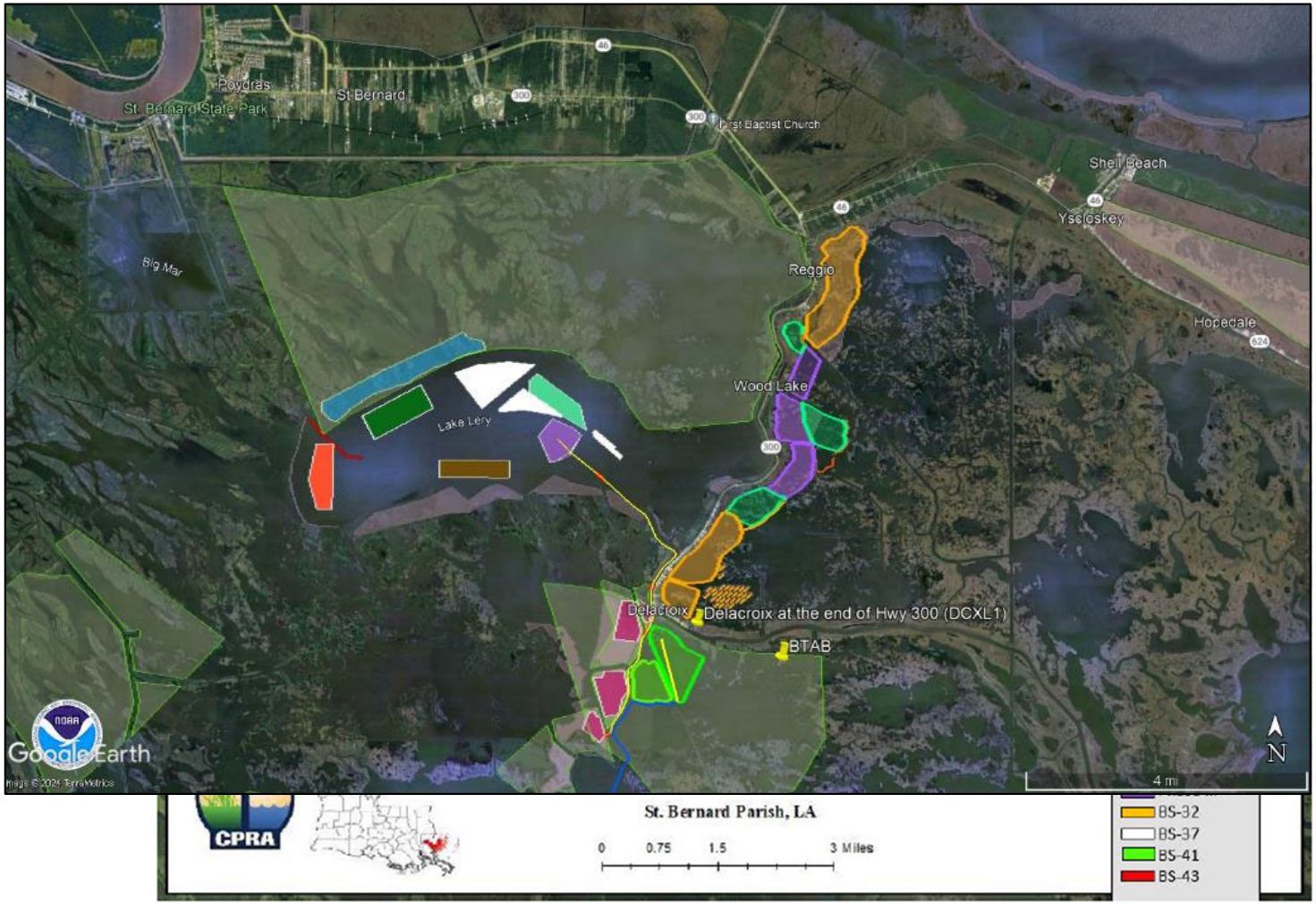
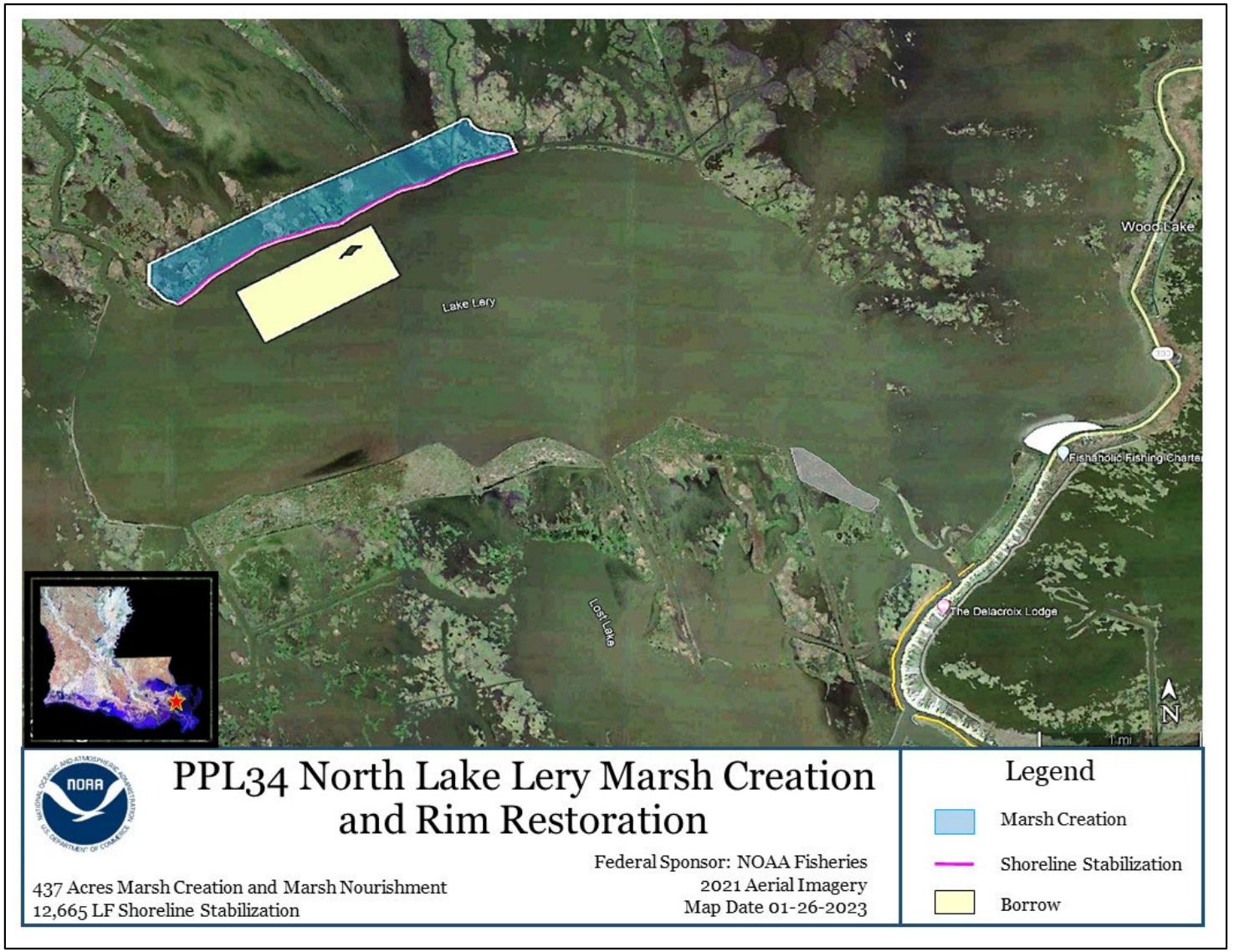


Figure 5: Map of the Marsh Restoration Projects and Borrow Areas in the Breton Sound Basin

Source: Reggio Marsh Creation (BS-43) 95% Design Report 2023

Priority Project Planning Summary

- Marsh Creation/ Nourishment: 437 Acres
  - 217 acres MC and 219 acres MN
  - Dredge material from the Lake Lery
  - Full containment with dike gapping after construction
- Shoreline Stabilization: 12,665 LF
- Construction Cost + 25% Contingency: $30M - 35M
- Net Benefits: 200-250 acres



North Lake Lery Marsh Creation and Rim Restoration

Key Points:	
Criteria	
Cost Effectiveness	$30 - $35M construction cost + 25% contingency Estimated FFC: $45.9 M
Net acres	217 net acres
Synergy	Two projects around Lake Lery
Critical Area of Need	-0.95%/yr interior loss
Critical Landscape Feature	Maintain lake rim of Lake Lery
Critical Infrastructure Protection	Moderate positive impact to the St Bernard Levee System

Open Dialogue

Contact information:
Dawn Davis, 601-890-1338
dawn.davis@noaa.gov
Jason Kroll, 225-335-9659
jason.kroll@noaa.gov

PPL34 PROJECT FACT SHEET
February 1, 2024

Project Name
Bayou Terre aux Boeufs Marsh Creation

Master Plan Strategy
Bayou Terre aux Boeufs (BTaB) marsh creation will, restore natural hydrology, and provide wave and storm surge attenuation along Bayou Terre aux Boeufs.

Project Location
Region 2, Breton Sound Basin, Plaquemines Parish

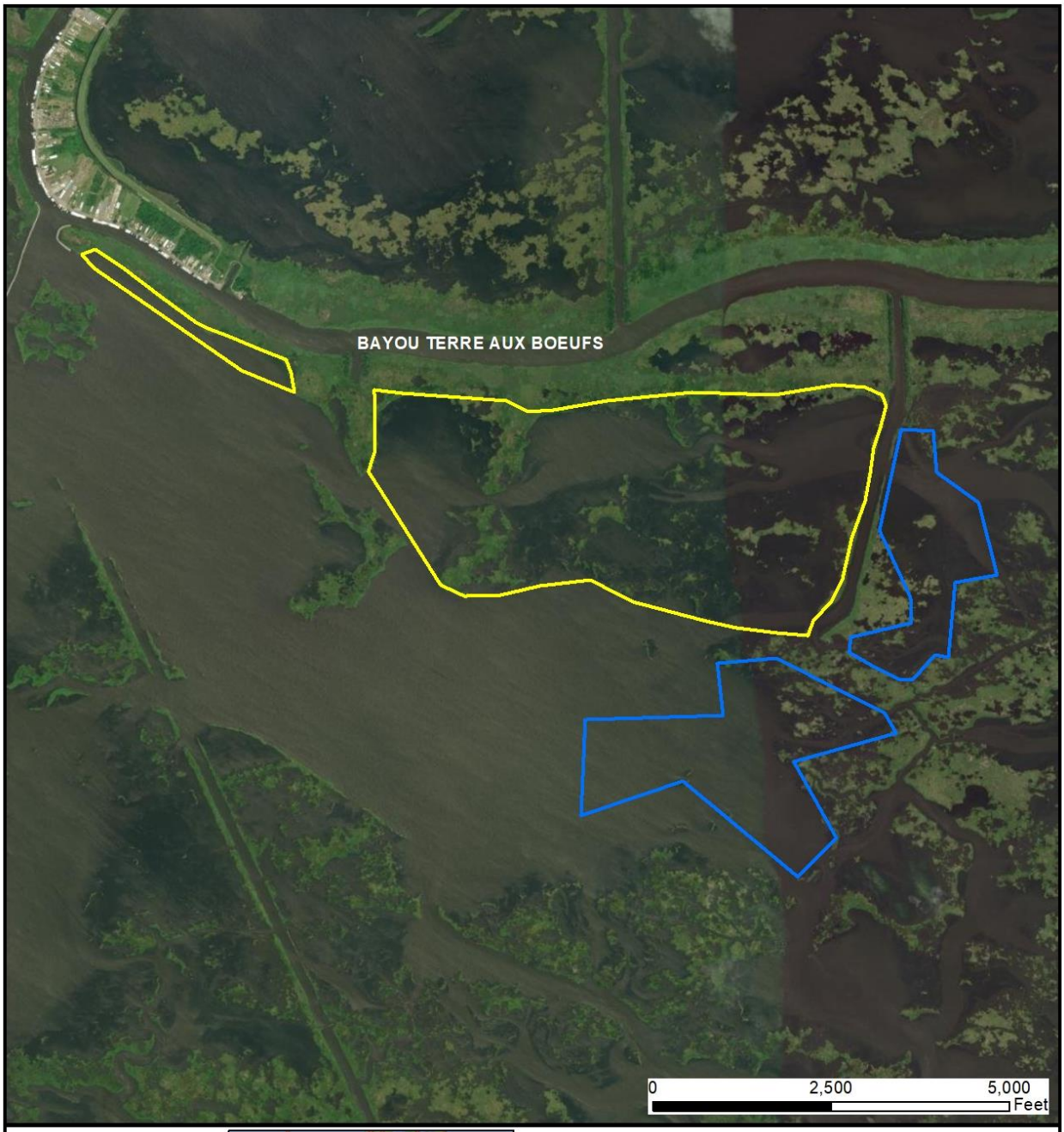
Problem
As a result of storm events, subsidence, and sea level rise, among other factors, the marsh has degraded south of BTaB. As the marsh adjacent to the ridge continues to degrade the water bodies on each side merge creating a much larger open water area, bringing increased wave fetch, storm surge, and conversion of the remaining fragmented wetlands into open water areas. The area remains vulnerable to future hurricane damage and subsidence. The marsh creation cell is located within the Caernarvon Outfall Subunit which shows a land loss rate of -0.96%/yr.

Proposed Solution
The BTaB marsh creation will impact 685 acres by providing coastal habitat, restore natural hydrology, provide storm surge attenuation, and improve local community resilience. Sediment sourced from Lake Petit will create 400 acres and nourish 60 of emergent marsh. In situ borrow will be utilized to build two terrace fields totaling 225 acres.

Project Benefits
Create/nourish 460 acres of emergent marsh and 225 acres of terrace field.

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

Preparer(s) of Fact Sheet:
Jackie Jones, USDA NRCS; (225) 964-8719; Jacqueline.Jones@usda.gov
Blaise Pezold, Meraux Foundation; (504) 264-8125; blaise@merauxfoundation.org

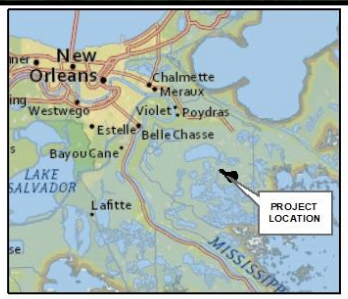


USDA

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

Data Source: ESRI 2023 IMAGERY

Map Date: JANUARY 29, 2024



PPL 34
BAYOU TERRE AUX BOEUFS MARSH CREATION
PLAQUEMINES PARISH, LA

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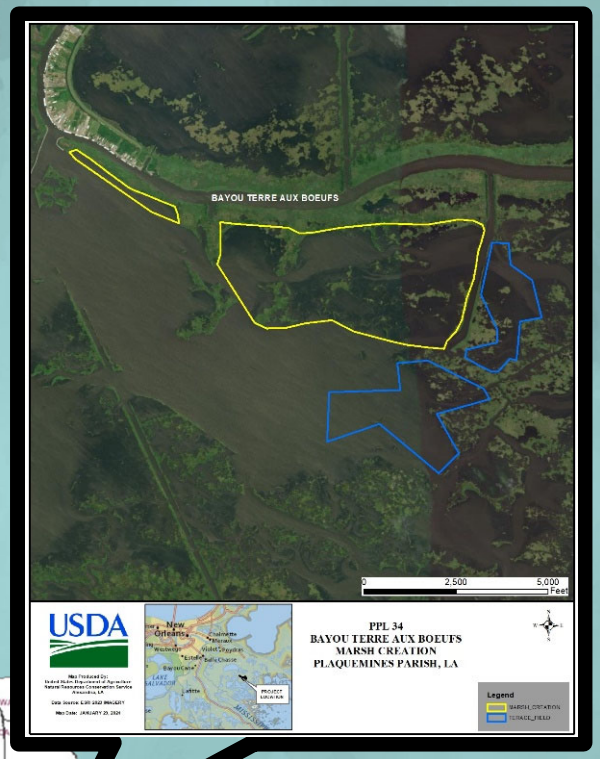
Legend

- MARSH_CREATION
- TERACE_FIELD

Bayou Terre aux Boeufs Marsh Creation

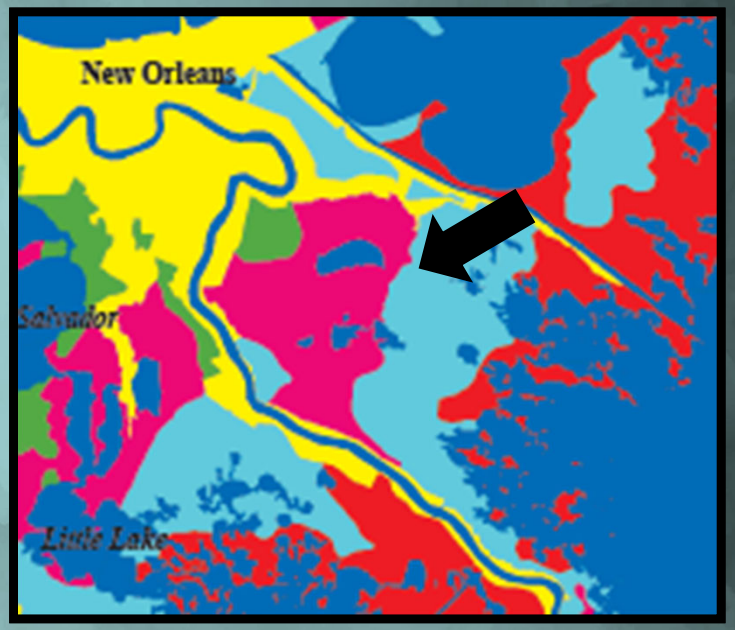
NRCS/MERAUX FOUNDATION

Project Background:



Breton Basin

Ecosystem:



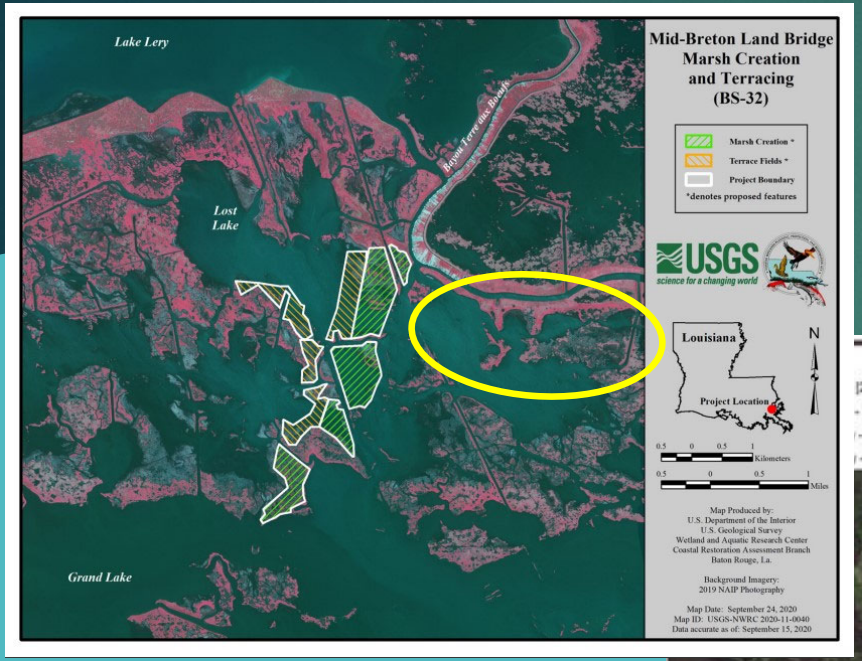
Impacts our community faces:

- Historic marsh is degrading between the water bodies on both sides which may cause them to merge creating additional impacts due to increased fetch lengths
- Canals increase salinity
- Subsidence
- Storm surge events
- Both Plaquemines (55%) and St. Bernard (72%) Parishes could lose extensive land area over the next 50 years and experience severe storm surge flood risk (2017 MP)

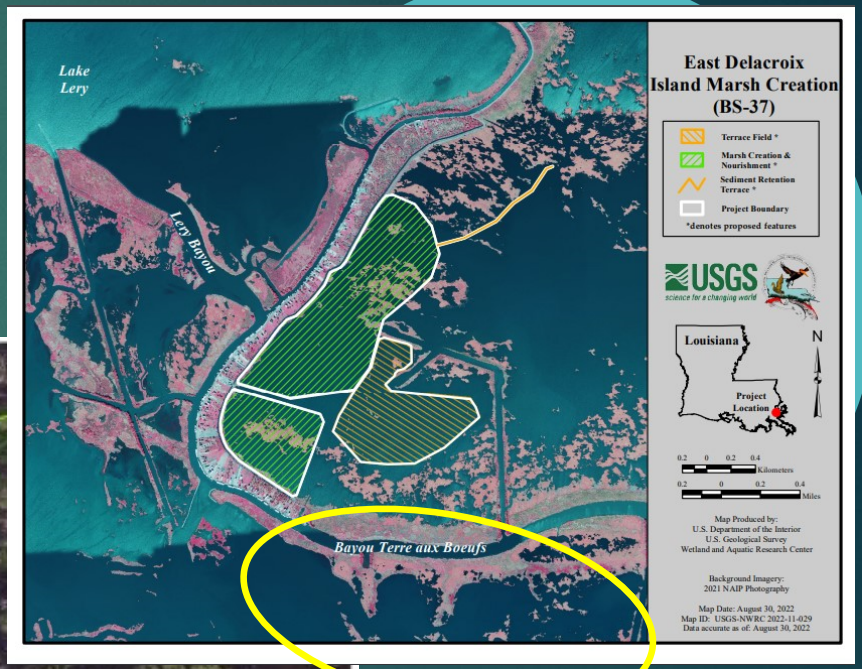
2023 Master Plan Compliant:

St. Bernard Parish Plan:
Priority Tier 1

Alignment:


Lake Lery
Lost Lake
Grand Lake
Bayou Terre aux Boeufs
Mid-Breton Land Bridge Marsh Creation and Terracing (BS-32)
Marsh Creation *
Terrace Fields *
Project Boundary
*denotes proposed features
USGS
science for a changing world
Louisiana
Project Location
N
Kilometers
Miles
Map Produced by:
U.S. Department of the Interior
U.S. Geological Survey
Wetland and Aquatic Research Center
Coastal Restoration Assessment Branch
Baton Rouge, La.
Background Imagery:
2019 NAIP Photography
Map Date: September 24, 2020
Map ID: USGS-NWRC 2020-11-0040
Data accurate as of: September 15, 2020


ST. BERNARD PARISH GOVERNMENT
BAYOU TERRE AUX BOEFS ARMORING
PROPOSED PHASING


Lake Lery
Lery Bayou
Bayou Terre aux Boeufs
East Delacroix Island Marsh Creation (BS-37)
Terrace Field *
Marsh Creation & Nourishment *
Sediment Retention Terrace *
Project Boundary
*denotes proposed features
USGS
science for a changing world
Louisiana
Project Location
N
Kilometers
Miles
Map Produced by:
U.S. Department of the Interior
U.S. Geological Survey
Wetland and Aquatic Research Center
Background Imagery:
2021 NAIP Photography
Map Date: August 30, 2022
Map ID: USGS-NWRC 2022-11-029
Data accurate as of: August 30, 2022

Questions?

- Create 400 acres of emergent marsh
- Nourish 60 acres of emergent marsh
- Create 225 acres of terracing
- Construction + Contingency = $25-30M

PPL 34 RPT Project Fact Sheet
January 29, 2024

Project Name
Wood Lake Marsh Creation

Project Location
Region 2, Breton Sound (BS) Basin, bounded by eastern Lake Lery, Howard's Ditch and Bayou Terre aux Boeufs

Master Plan Consistency
Master Plan 2023, North and East Lake Lery Marsh Creation

Problem
Hurricanes Katrina (2005) instantaneously removed a large swath of the southern portion of the project area creating a narrow strip of marsh/ridge along Bayou Terre aux Boeufs (BTaB), and subsequent hurricanes (Gustave in 2008 and Isaac in 2012) thinned marsh between Lake Lery and BTaB. These marshes continued to open, aided by Hurr Ida in 2021, such that deteriorated marshes to the north are now hydrologically connected to Lake Lery, exposing these vulnerable marshes and soils to more disruptive energy. From 1985 to 2020, North Lake Lery, which includes the project area, experienced a land change rate of -0.81%/yr. based on a USGS hyper-temporal analysis of satellite imagery.

Goals
Directly, the project would create and nourish 431 acres of emergent marsh between Lake Lery and BTaB and would buffer the BTaB Ridge. Indirectly, this project would reduce hydrologic exchange between Lake Lery and marshes to the north to reduce further internal bank erosion.

Proposed Solution
Filling the west-to-east gap between Lake Lery and BTaB ridge marshes and running north along the ridge will create (346 acres) and nourish (85 acres) approximately 431 acres of marsh. Creating a terrace field of 109 acres heading northeast from the marsh creation will further solidify the existing marsh. Lake Lery is currently considered as the dredge borrow source.

Preliminary Project Benefits

This project would work synergistically with BS-0017 Lake Lery Marsh Creation (Phases I and II, Constructed - CIAP/St. Bernard Parish), BS-37 East Delacroix MC and Terracing (CWPPRA – Construction Funded), BS-0041 North Delacroix MC and Terracing (CWPPRA – E&D) to directly protect BTaB ridge. The BTAB Ridge is a critical landscape feature which protects Bayou Terre Aux Beoufs and critical infrastructure including the community of Wood Lake and LA Hwy 300 which is the only hurricane evacuation route.

By filling the gap between Lake Lery marshes and BTaB, the west-to-east reach could indirectly provide protection to the community of Reggio and LA Hwy 46 from tropical storm surges and would be synergistic with BS-0043 Reggio Marsh Creation Project (CWPPRA – Construction Funded).

Project Costs
The estimated construction cost plus 25% contingency is $30-35 M based on comparable projects in Engineering and Design along BTaB. Opportunities for cost savings by using outside containment along the southern open-water areas and self-containment along the BTaB ridge will be investigated during PPL34 candidacy if selected as a nominee.

Considerations
Internal training dikes may be required for linear layout.

Preparers of Fact Sheet
Blaise Pezold; Meraux Foundation; blaise@merauxfoundation.org
Thomas McGinnis, II; USDA-NRCS; Thomas.mcginnis2@usda.gov
Vincent Palumbo, III; USDA-NRCS; vincent.palumboIII@usda.gov

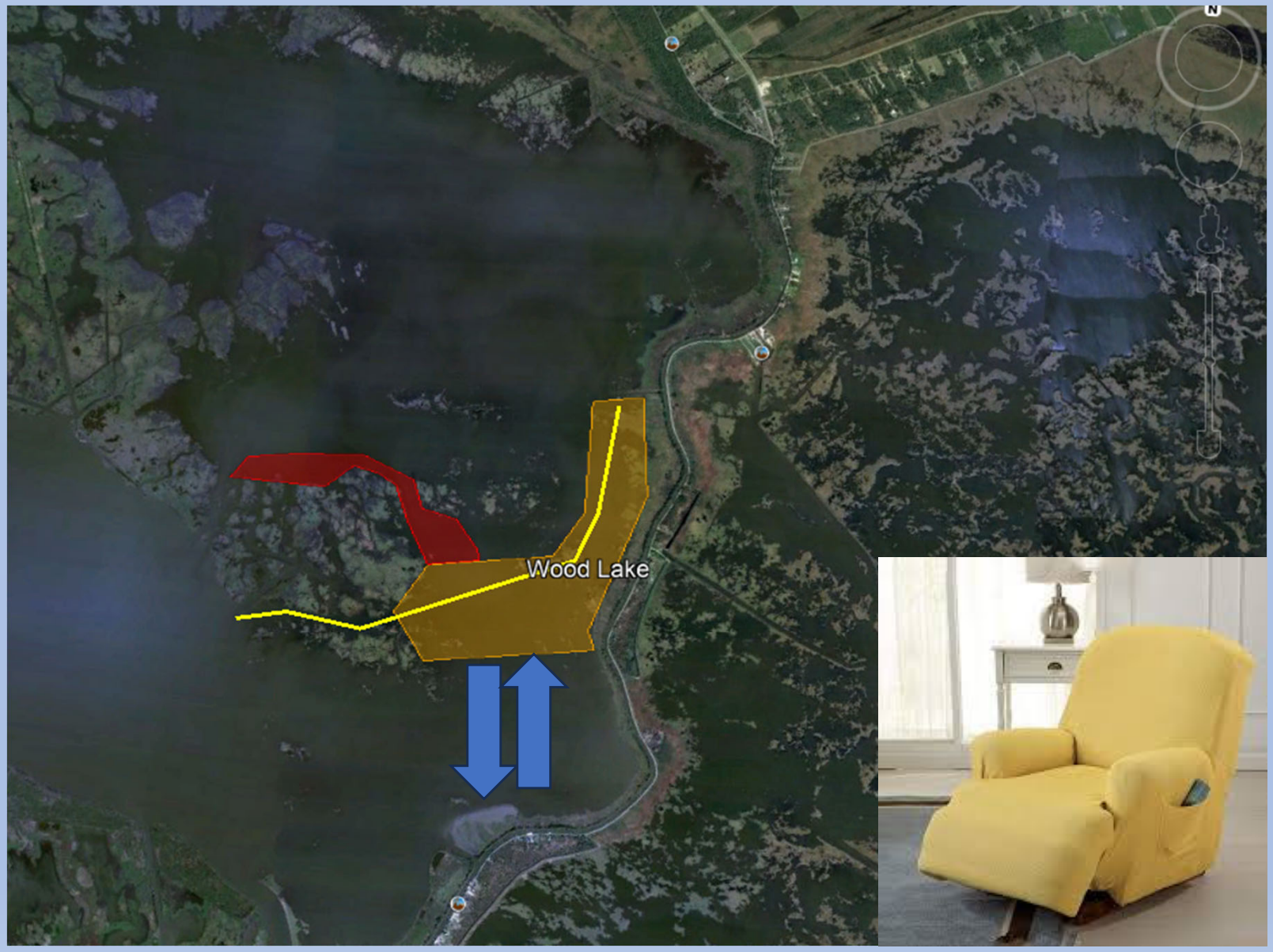
Project Map. Wood Lake Marsh Creation and Nourishment.

Wood Lake Marsh Creation and Nourishment

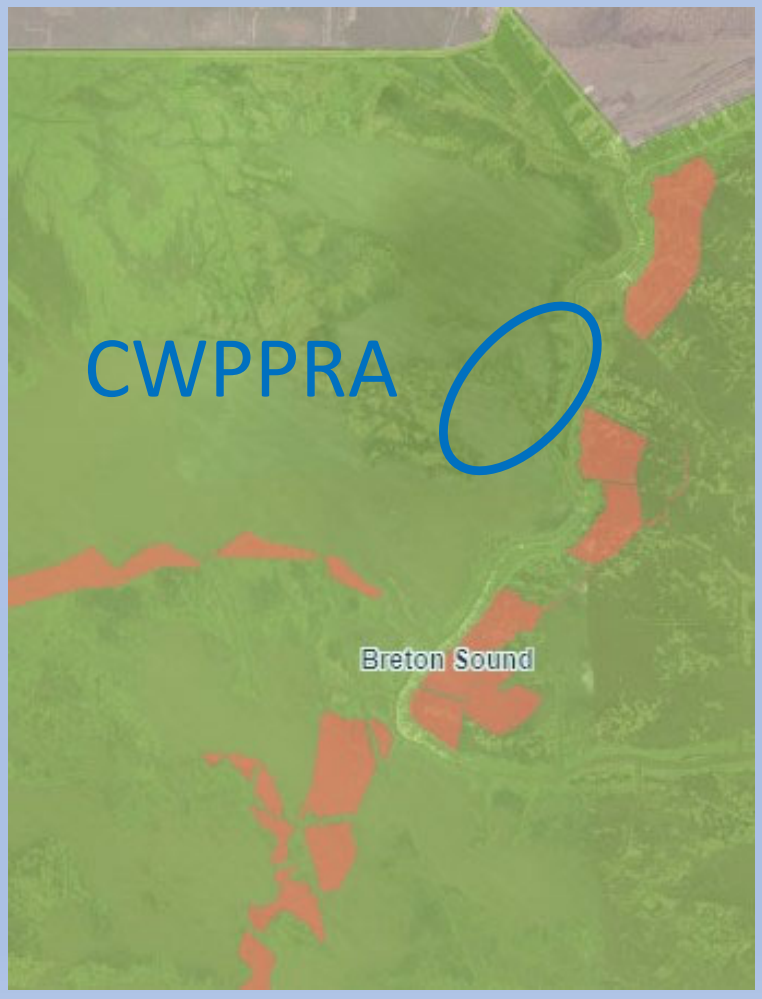
USDA NRCS/Meraux Foundation

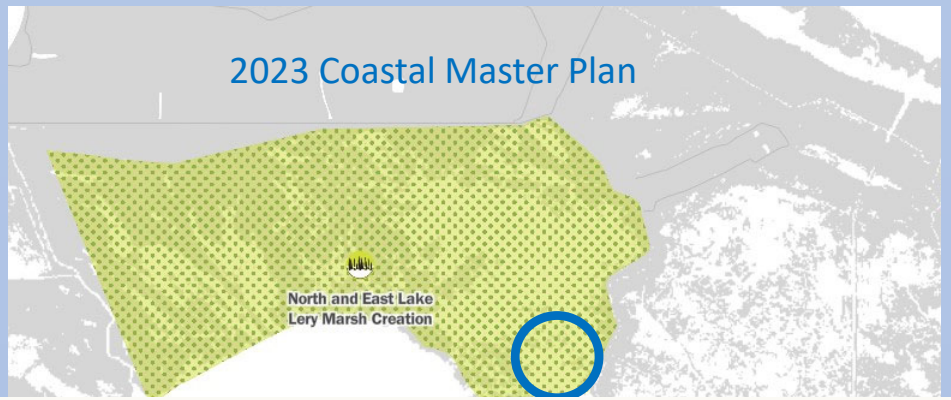
Blaise Pezold

Critical landscape feature and land loss:


Wood Lake

Synergy with other plans and projects:





Marsh Creation

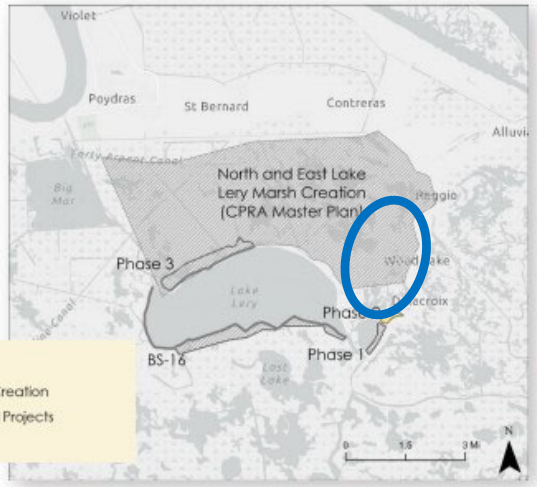
Phase 2 Lake Lery Marsh Creation and Rim Restoration

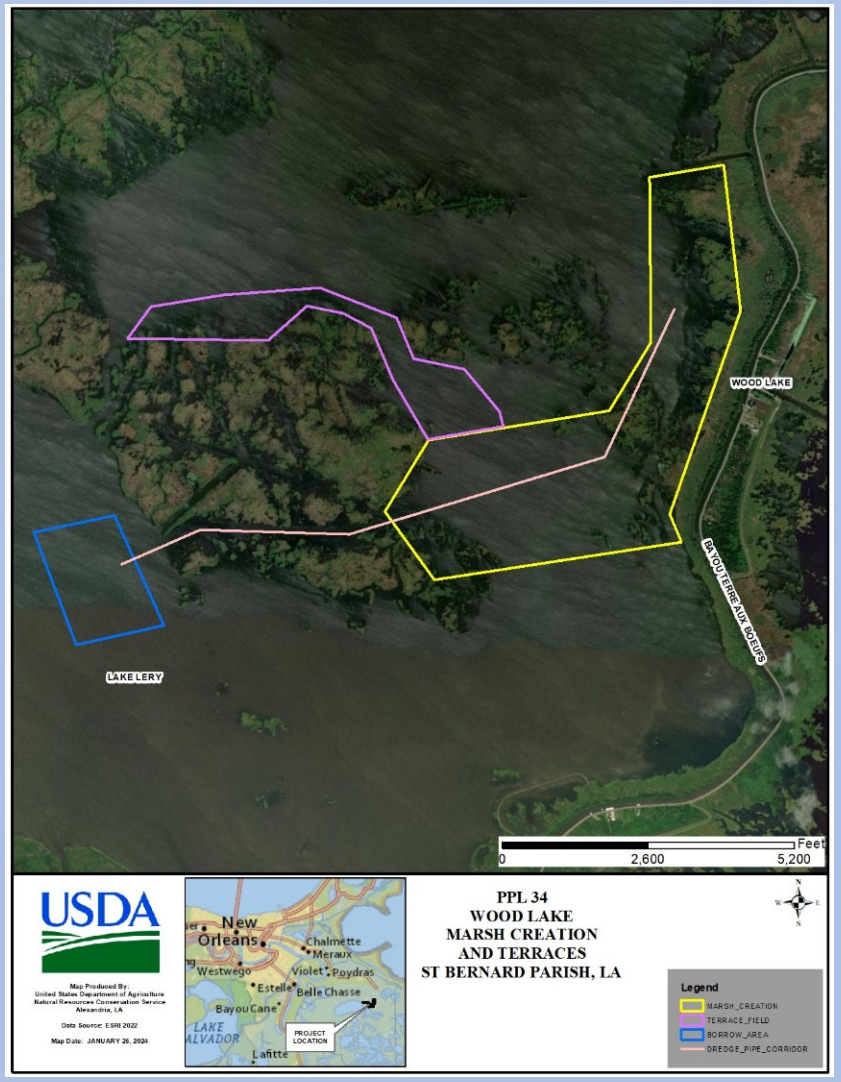
Project ID: SBBS.06

PROBLEM

In 2005, Hurricane Katrina severely damaged the shoreline and marsh surrounding Lake Lery. Subsidence, sea-level rise, tropical weather events, and erosion have continued to cause land and habitat loss in the area, particularly near the southeastern quadrant of the lake near Bayou Terre aux Boeufs.

PRIORITY





431 total acres Creation/Nourishment

Marsh Creation: 346 acres

Marsh Nourishment: 85 acres

Terrace field: 109

Total Cost + contingency = 30-35 million