

# CWPPRA

PPL 33 Regional Planning Team (RPT)  
Meetings

Region 1 - Final Proposal Package



# Coastal Wetlands Planning Protection & Restoration Act

## 33<sup>rd</sup> Priority Project List



**Region 1**

**Regional Planning  
Team Meeting**

**Lead:  
Kent Bollfrass, CPRA**

**February 9, 2023**

# Program Updates

- **Great News!** - 2022 budget reconciliation, return of funds, and annual Sport Fish Trust Fund accruals resulted in approximately **\$212M** available for Phase 1 and 2 authorizations in December/January
- CWPPRA Agencies worked collaboratively to identify the **most impactful projects** and reduce project backlog
- In January, the CWPPRA Task Force approved:
  - 4 projects for Phase 2
    - Bayou Cane Marsh Creation (PO-181)
    - East Delacroix Marsh Creation and Terracing (BS-37)
    - Grand Bayou Ridge and Marsh Restoration (BA-217)
    - Island Road Marsh Creation and Nourishment (TE-117)
  - 2 projects for Phase 1
    - Yscloskey Marsh Creation
    - Northwest Little Lake Marsh Creation
- A portion of the total available funds were retained for future priority projects and consideration of potential bid overruns to construct Phase 2-approved projects



# Program Updates

- Criteria Considered for Selecting Impactful Projects:
  - **Cost Effectiveness** - benefit/cost
  - **Synergy** - interaction with other restoration projects
  - **Critical Area of Need** - land loss (current, synoptic, historic)
  - **Landbridge Function or Structural Framework**
  - **Critical Infrastructure**
  - Geography - Basin, Political Boundary, Distribution
  - Borrow Area
  - Threatened or Endangered Species
  - Willing Landowners and Stakeholder Support
  - Partnerships
  - Other considerations - e.g., Oysters, Pipelines/Utilities, O&M, etc.

# Announcements

- PPL 33 RPT meetings to accept project nominees:
  - Region IV - Feb. 7, 2023, 9:30 am
  - Region III - Feb. 8, 2023, 9:30 am
  - Regions II and I - Feb. 9, 2023, 9:30 am



# Region 1 Parishes

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



# RPT Meetings

- Project proposals should be consistent with the state's **2017 and/or 2023 (draft) 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, 2023**.
- Limit comments and questions today to PPL 33 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 33



# 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)

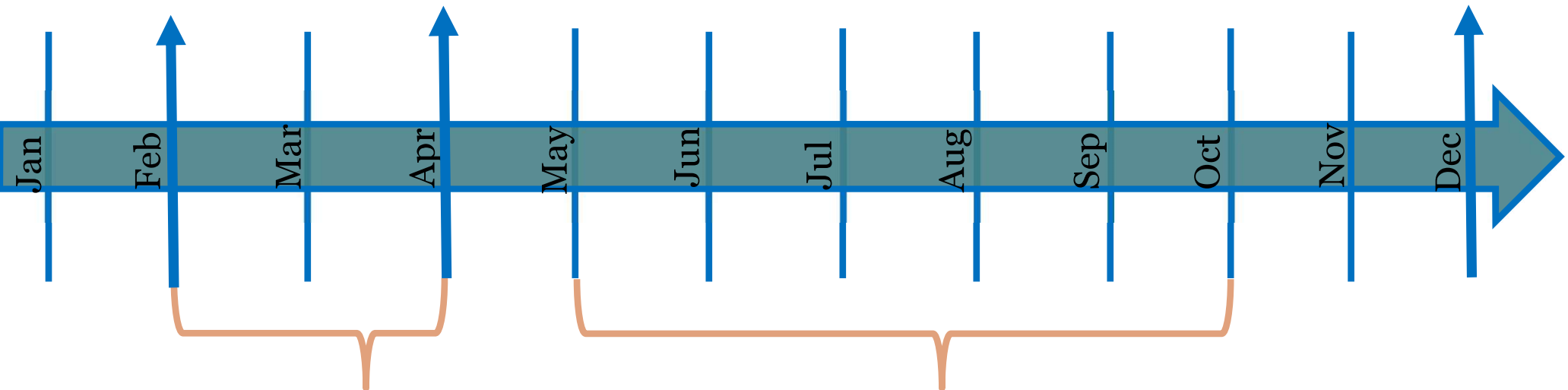
- 22 nominees, up to 6 demos

## TC Mtg (April)

- 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 the CWPPRA program manager by **16 February 2023**

**Kaitlyn Richard**  
**U.S. Army Corps of Engineers**  
**CEMVN-PM-R, RM 331**  
**7400 Leake Avenue**  
**New Orleans, LA 70118**

**Email: [Kaitlyn.M.Carriere@usace.army.mil](mailto:Kaitlyn.M.Carriere@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](http://lacoast.gov) or contact Elizabeth Jarrell at [Elizabeth.Jarrell@usace.army.mil](mailto:Elizabeth.Jarrell@usace.army.mil)

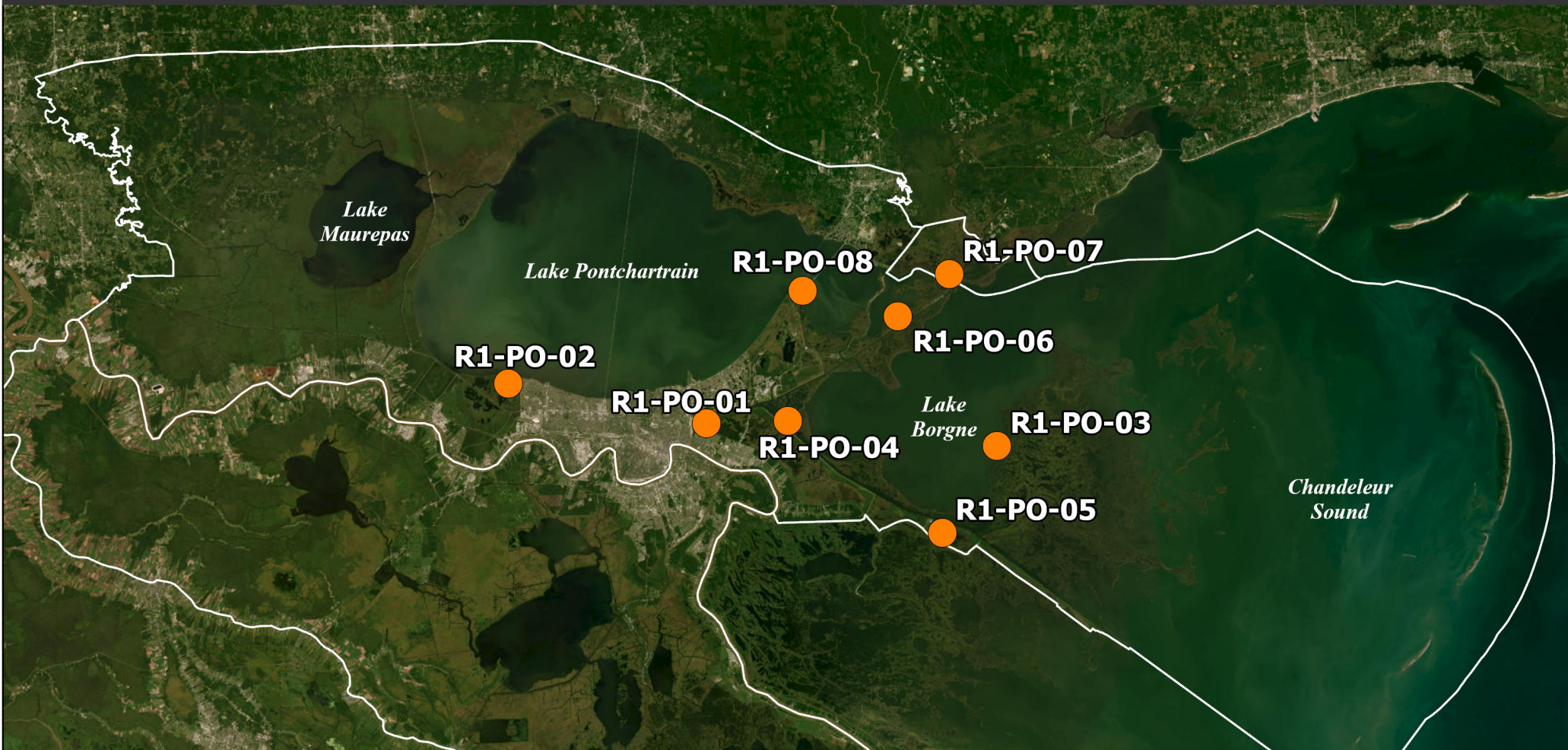


## Region 1

### Pontchartrain Basin

Project ID	Agency	Project Name
R1, PO-01	NRCS	Bayou Bienvenue Wetland Triangle Restoration
R1, PO-02	NRCS	Duncan Canal Marsh Creation
R1, PO-03	NRCS	Biloxi Marsh Shoreline Protection
R1, PO-04	NRCS	Bayou Ducros Marsh Creation
R1, PO-05	NMFS	Hopedale Marsh Creation
R1, PO-06	NMFS	Miller Bayou Marsh Creation
R1, PO-07	EPA	Rabbit and Hog Islands Marsh Creation
R1, PO-08	FWS	Bayou Sauvage Marsh Creation

# PPL33 Region 1 Nominated Projects



## ● Pontchartrain Basin Project

- R1-PO-01 Bayou Bienvenue Wetland Triangle Restoration
- R1-PO-02 Duncan Canal Marsh
- R1-PO-03 Biloxi Marsh Shoreline Protection
- R1-PO-04 Bayou Ducros Marsh Creation
- R1-PO-05 Hopedale Marsh Creation
- R1-PO-06 Miller Bayou Marsh Creation
- R1-PO-07 Rabbit and Hog Islands Marsh Creation
- R1-PO-08 Bayou Sauvage Marsh Creation

## Coastwide Project

- CW-01 Marsh Creation Containment
- CW-02 Coastwide Small/Micro Dredge Project

## Demonstration Project

- DEMO-01 Louisiana Coastal Restoration  
2023 Reefbud Project
- DEMO-02 AquaRockBags





## **PPL33 PROJECT FACT SHEET**

### **February 9, 2023**

#### **Project Name**

Bayou Bienvenue Wetland Triangle Restoration

#### **Master Plan Strategy**

2023 Draft State Master Plan has this project listed within the Central Wetlands Marsh Creation #040.

#### **Project Location**

Region 1, Pontchartrain Basin, Orleans Parish, at Bayou Bienvenue Triangle wetland area.

#### **Problem**

The Bayou Bienvenue Wetland Triangle was once a thriving baldcypress swamp. The swamp was destroyed by saltwater intrusion resulting from the construction of the Mississippi River Gulf Outlet (MRGO) in 1963, which increased regional salinities and coincided with the death of much of the forested wetlands. With the closure of the MRGO in 2009, salinities in the Bayou Bienvenue Wetland Triangle have decreased to levels that are conducive to baldcypress and water tupelo survival and growth. The 2023 Louisiana State Master Plan includes the Bayou Bienvenue wetland area for restoration. The regional loss rate for the Central Wetlands is estimated at 0.09%/yr but the PPL24 WVA calculation for loss in the specific area of this project was -2.04%/yr and the project area currently consists of almost all open water.

#### **Goals**

We propose to create several small islands within the 400-acre complex using clean sediment from either a land source, such as the Bonnet Carré Spillway, or from dredged sediments from the Mississippi River.

#### **Proposed Solution**

Approximately 103 acres of wetlands will be created in the 400-acre Wetland Triangle. The average depth of the Wetland Triangle is 3 ft. Thus, the total amount of fill needed will be approximately 500,000 cubic yards:  $103 \text{ acres} = 4,486,680 \text{ ft}^2 \times 3 \text{ ft depth} = 13,460,040 \text{ ft}^3 = 498,520 \text{ yards}^3$ . Islands will be planted with baldcypress (*Taxodium distichum*) and water tupelo (*Nyssa aquatica*) seedlings and interspersed with giant bullwhip (*Schoenoplectus californicus*). Various methods of construction will be investigated to determine the most feasible approach including trucking in material as well as by small dredge.

#### **Preliminary Project Benefits**

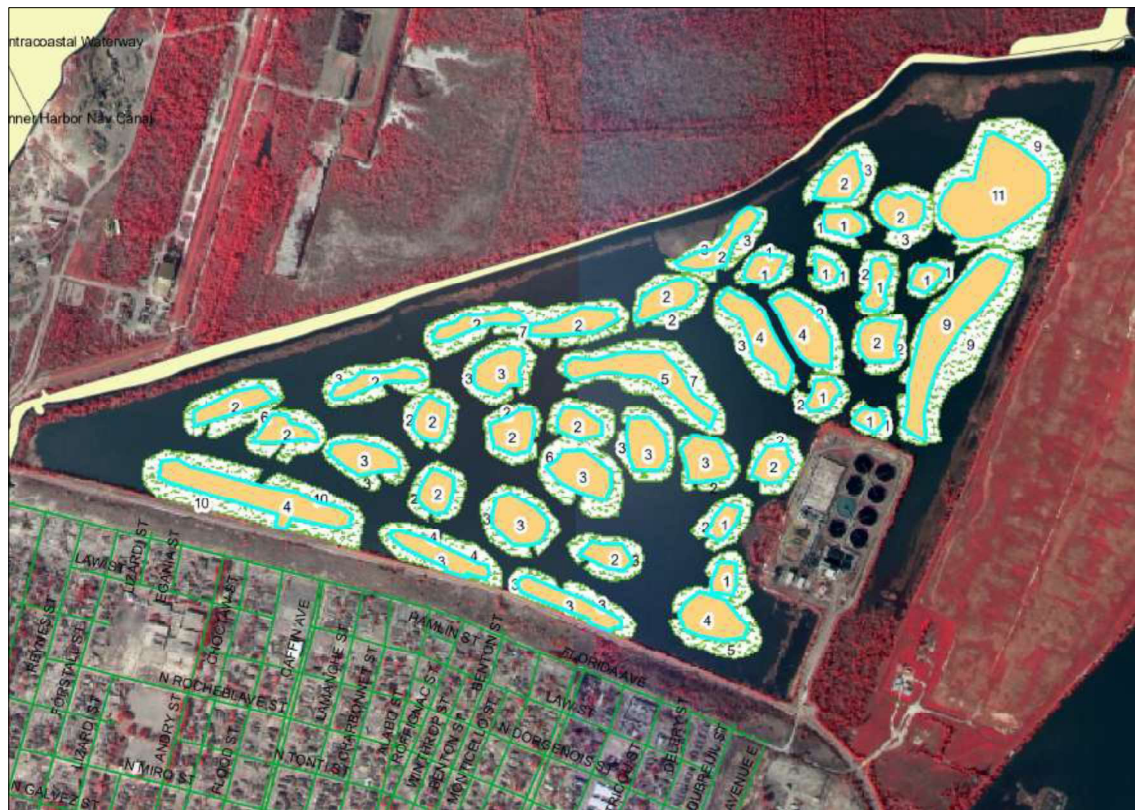
This project will restore approximately 103 acres of forested wetland swamp and marsh that offer important wildlife, fish, and shellfish habitat and recreational opportunities as well as provide as a structural line of defense for communities in St. Bernard and the greater New Orleans area from highly destructive storm surge events.

#### **Preliminary Construction Costs**

The estimated construction cost with 25% contingency is approximately \$10-15 million.


#### **Preparer of Fact Sheet:**

Rashida Ferdinand, Sankofa Community Development Corp., (504) 872-9214; [Rashida@sankofanola.org](mailto:Rashida@sankofanola.org).  
Robert Lane, Comite Resources, (225) 247-3917; [rlane@comitres.com](mailto:rlane@comitres.com),  
Ron Boustany, USDA-NRCS, (225) 291-3067; [ron.boustany@usda.gov](mailto:ron.boustany@usda.gov)




Conceptual design of the proposed wetland islands in the Bayou Bienvenue Wetland Triangle.


## Bayou Bienvenue Wetland Triangle Restoration Project



1933



1976





1998


- Once was a thriving baldcypress swamp
- Used extensively by ninth ward residents
- Killed by saltwater intrusion from MRGO
- Since closure of the MRGO in 2009, salinities have decreased to allow freshwater vegetation

July 14, 2022





Site	Water Depth (cm)	Soil salinity (ppt)
Tr1	60	0.64
Tr2	78	2.39
Tr3	68	1.18
Tr4	76	0.42

## Goals



- We propose to create forty 1 to 11 acre islands using clean sediment from either a land source or from dredged sediments.
- Islands planted with baldcypress and water tupelo seedlings and interspersed with giant bullwhip.
- Terracing carried out to create SAV habitat.











## Methods

- 103 acres of wetlands will be created in the 400-acre Wetland Triangle.
- The average depth is 3 ft.
- Thus, the total amount of fill needed will be approximately 500,000 cubic yards
- If sediment is trucked in, a winding road can be built in the triangle and then islands formed as machinery is backed out and gaps between islands created
- Estimated costs: \$5-10 million
  - \$7.5 million for fill @ \$15 cubic yard (high est.)
  - Balance to mob/demob, planting, equipment, etc.

## Benefits

- Will provide habitat for birds, fish and other wildlife
- Will provide protection to levees from fetch during storms
- Will complement the Sankofa wetland park located on southern border
- The Wetland Triangle is listed in the 2023 Coastal Masterplan for Marsh Creation
- Supported by EPA, NRCS, the City of New Orleans, and CPRA







# Bayou Bienvenue Wetland Triangle Restoration



1933



1976



1998

- Once was a thriving baldcypress swamp
- Used extensively by ninth ward residents
- Killed by saltwater intrusion from MRGO
- Since closure of the MRGO in 2009, salinities have decreased to allow freshwater vegetation



July 14, 2022

Site	Water Depth (cm)	Soil salinity (ppt)
Tr1	60	0.64
Tr2	78	2.39
Tr3	68	1.18
Tr4	76	0.43



## Goals

- We propose to create forty 1 to 11 acre islands using clean sediment from either a land source or from dredged sediments.
- Islands planted with baldcypress and water tupelo seedlings and interspersed with giant bullwhip.
- Terracing carried out to create SAV habitat.



## Methods

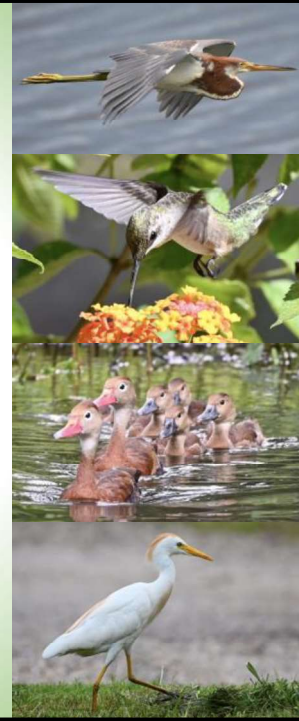
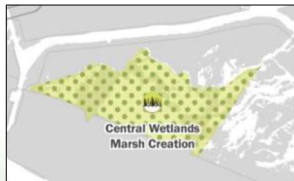
- 103 acres of wetlands will be created in the 400-acre Wetland Triangle.
- The average depth is 3 ft.
- Thus, the total amount of fill needed will be approximately 500,000 cubic yards
- If sediment is trucked in, a winding road can be built in the triangle and then islands formed as machinery is backed out and gaps between islands created
- Estimated costs: \$5-10 million
  - \$7.5 million for fill @ \$15 cubic yard (high est.)
  - Balance to mob/demob, planting, equipment, etc.





## Benefits

- Will provide habitat for birds, fish and other wildlife
- Will provide protection to levees from fetch during storms
- Will complement the Sankofa wetland park located on southern border
- The Wetland Triangle is listed in the 2023 Coastal Masterplan for Marsh Creation
- Supported by EPA, NRCS, the City of New Orleans, and CPRA



### Bayou Bienvenue Wetland Triangle Restoration Project



- Once was a thriving baldcypress swamp
- Used extensively by ninth ward residents
- Killed by saltwater intrusion from MRGO
- Since closure of the MRGO in 2009, salinities have decreased to allow freshwater vegetation



July 14, 2022

Site	Water Depth (cm)	Soil salinity (ppt)
Tr1	60	0.64
Tr2	78	2.39
Tr3	68	1.18
Tr4	76	0.43



### Goals

- We propose to create forty 1 to 11 acre islands using clean sediment from either a land source or from dredged sediments.
- Islands planted with baldcypress and water tupelo seedlings and interspersed with giant bullwhip.
- Terracing carried out to create SAV habitat.



### Methods

- 103 acres of wetlands will be created in the 400-acre Wetland Triangle.
- The average depth is 3 ft.
- Thus, the total amount of fill needed will be approximately 500,000 cubic yards
- If sediment is trucked in, a winding road can be built in the triangle and then islands formed as machinery is backed out and gaps between islands created
- Estimated costs: \$5-10 million
  - \$7.5 million for fill @ \$15 cubic yard (high est.)
  - Balance to mob/demob, planting, equipment, etc.



### Benefits

- Will provide habitat for birds, fish and other wildlife
- Will provide protection to levees from fetch during storms
- Will complement the Sankofa wetland park located on southern border
- The Wetland Triangle is listed in the 2023 Coastal Masterplan for Marsh Creation
- Supported by EPA, NRCS, the City of New Orleans, and CPRA



**PPL33 PROJECT NOMINEE FACT SHEET**  
**February 9, 2023**

**Project Name**

Duncan Canal Marsh Creation

**Project Location**

Region 1, Pontchartrain Basin, St. Charles Parish, south shoreline of Lake Pontchartrain

**Problem**

The Labranche Wetlands serve as not only a crucial coastal marsh wetland in St. Charles Parish, but also as a protective barrier from Lake Pontchartrain to crucial infrastructure in the Parish including U.S. Interstate 10, La. Highway 61, and multiple levee systems. The State is investing in shoreline protection along the eastern portion of the shoreline near the St. Charles Parish line. This is the last reach of the Labranche Wetlands shoreline protection. Restoration of the interior marsh behind the shoreline will support those efforts and provide synergistic benefits. Despite positive land change rates estimated for the Labranche Wetlands Unit (+0.17 %/year, 1985-2020 USGS Land Change Trends Unit 234), the organic marshes were severely impacted by Hurricane Ida in 2021, resulting in increased loss.

**Goals**

The goal of this project is to restore interior marsh lost as a result of Hurricane Ida through dedicated dredging of sediments from Lake Pontchartrain.

**Proposed Solution**

The project will create approximately 372 acres of marsh and nourish approximately 21 acres of marsh using hydraulically dredged material from Lake Pontchartrain.

**Preliminary Project Benefits**

The net acre benefit range is 350-400 acres after 20 years.

The project will have synergistic effects with the following CWPPRA projects: 1) PO-17 Bayou Labranche Wetland Creation, 2) PO-75 Labranche East Marsh Creation, and 3) PO-133 Labranche Central Marsh Creation, as well as the Labranche Shoreline Protection Project (PO-0003b) and the State's East Labranche Shoreline Protection Project (PO-194).

**Considerations**

Although not within designated critical habitat, there may be potential Atlantic sturgeon considerations, as well as pipeline and transmission line considerations.

**Preliminary Costs**

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

**Preparer(s) of Fact Sheet:**

Eric Whitney, NRCS, (337) 291-3069, [eric.whitney@usda.gov](mailto:eric.whitney@usda.gov)

Angela Trahan, NRCS, (337) 291-3142, [Angela.Trahan@usda.gov](mailto:Angela.Trahan@usda.gov)



LAKE PONTCHARTRAIN

ACRES = 392.7  
CONTAINMENT DIKE = 17,421.7 LF

DUNCAN CANAL

KENNER



Source: Esri, Max 0 2,640 5,280 Feet



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

Data Source: ESRI 2022 IMAGERY

Map Date: JANUARY 30, 2023



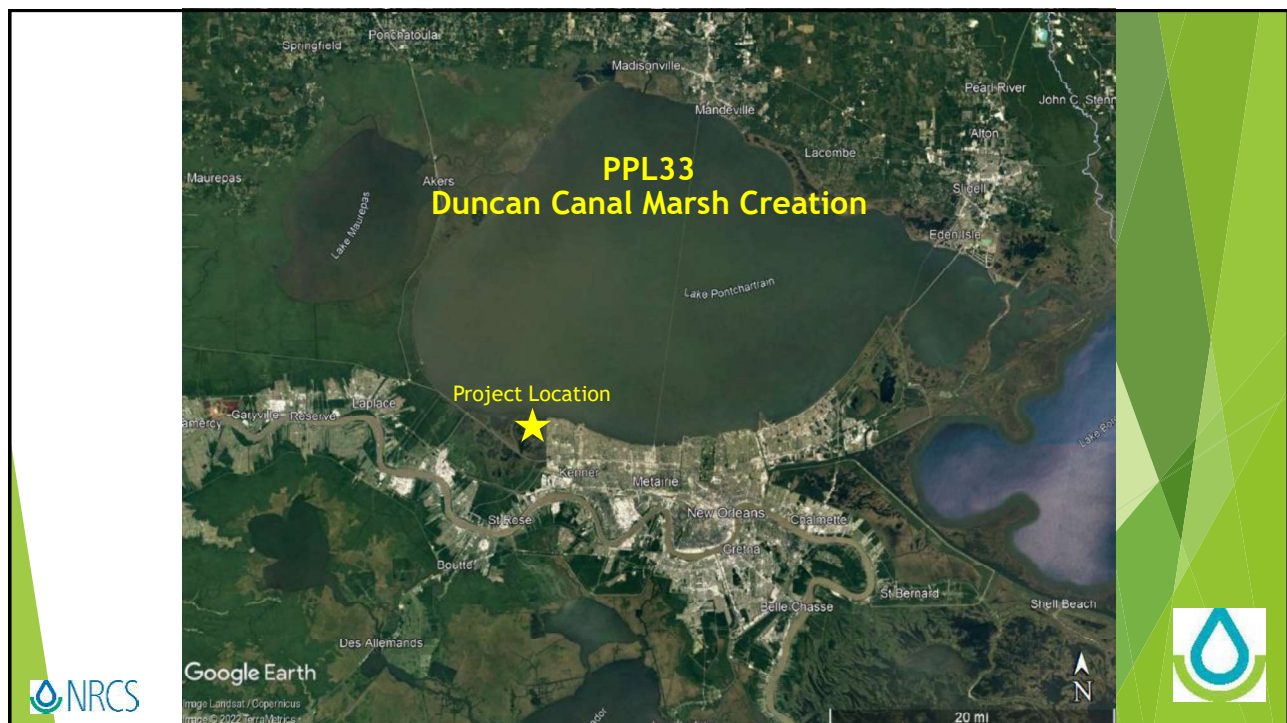
*PPL 33*  
**DUNCAN CANAL MARSH CREATION**  
**ST CHARLES PARISH, LA**



Legend

 MARSH\_CREATION



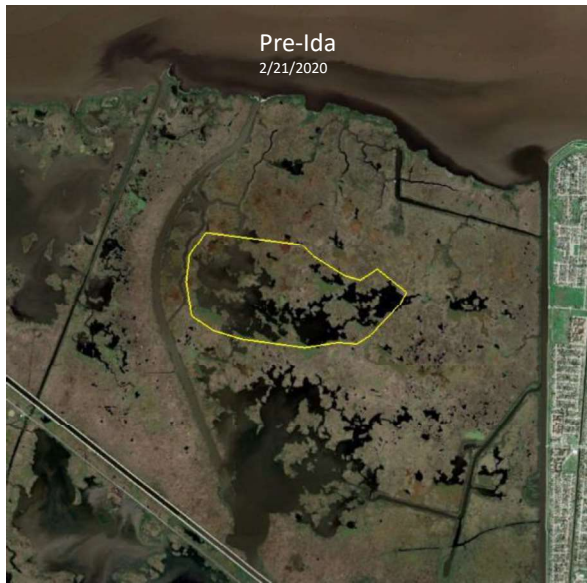


**2017 State Master Plan:  
001.SP.104: Labranche Wetlands Shoreline Protection**



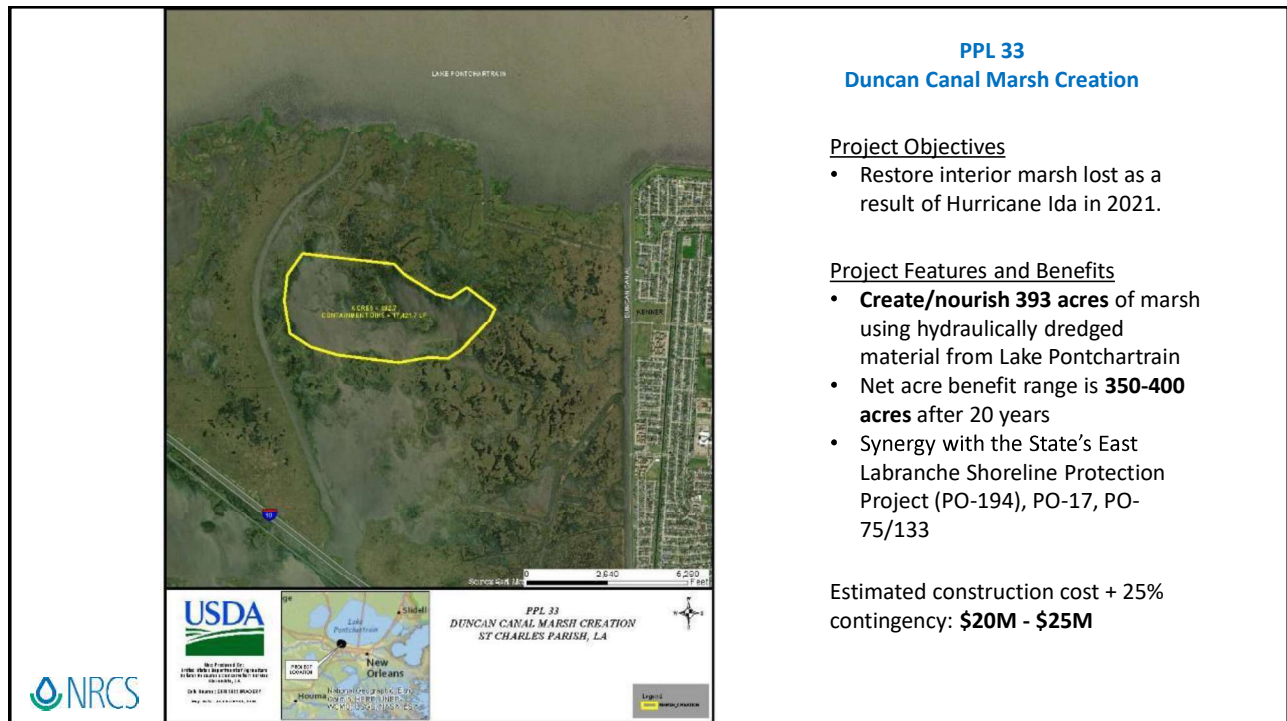
**Impacts from Hurricane Ida**

Pre-Ida  
2/21/2020



Post-Ida  
4/18/2022





### PPL 33 Duncan Canal Marsh Creation

#### Project Objectives

- Restore interior marsh lost as a result of Hurricane Ida in 2021.

#### Project Features and Benefits

- **Create/nourish 393 acres** of marsh using hydraulically dredged material from Lake Pontchartrain
- Net acre benefit range is **350-400 acres** after 20 years
- Synergy with the State's East Labranche Shoreline Protection Project (PO-194), PO-17, PO-75/133

**PPL33 PROJECT NOMINEE FACT SHEET**  
**FEBRUARY 9, 2023**

**Project Name:** Biloxi Marsh Shoreline Protection

**Project Location:**

Region 1, Pontchartrain Basin, St. Bernard Parish, Lake Borgne and Biloxi Marshes

**Problem:**

Historic wetland loss in the area was caused mainly by shoreline erosion. Based on the hyper-temporal analysis conducted by USGS to detect land change trends from 1985 to 2020, the interior loss rate for the Biloxi Marsh area was calculated to be 0.36%/yr. Using maps from 1998 and 2013, Lake Borgne shoreline erosion rates were calculated along the Biloxi Marshes Wildlife Management Area (specifically in the vicinity of Point aux Marchettes). Shoreline erosion rates in that area ranged from 10 ft./yr. to 90 ft./yr. A 12,900 LF section of shoreline was estimated to have an average erosion rate of 19 ft./yr. It is estimated that without the project there would be over 112 acres lost due to shoreline erosion.

**Goals:**

The project goals are to 1) protect approximately 12,900 feet of critical shoreline and 2) protect approximately 112 acres of highly productive saline marsh habitat.

Service goals include the creation of habitat or improvement of habitat for rare species, species of concern, and threatened and endangered species. The creation of brackish intertidal marsh habitat would be beneficial to several species that are currently on the lists of rare species and species of concern. These include, but are not limited to Least Bittern, Black Rail, Mottled Duck, Brown Pelican, King Rail, Louisiana Eyed Silk moth, and Saltwater topminnow.

**Proposed Solutions:**

The proposed project would: 1) Construct approximately 12,900 LF of rock revetment along the Lake Borgne shoreline. Rock would be placed on geocloth and stacked to a settled height of +2.5.

**Preliminary Project Benefits:**

1) *What is the total acreage benefited both directly and indirectly?* Approximately 112 acres would be benefited directly.

2) *How many acres of wetlands will be protected/created over the project life?* The total net acres protected/created over the project life would be approximately 100 to 150 acres of marsh from shoreline protection.

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

4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.*

Installing shoreline protection would protect much of the Lake Borgne shoreline abutting the Biloxi Marshes Wildlife Management Area. The shoreline protection would also protect the natural ridges along a portion of Lake Shore Bayou, Bayou Grande as well as other smaller bayou ridges in the area.

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



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

**Identification of Potential Issues:**

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

**Preliminary Construction Costs:**

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

**Preparer(s) of Fact Sheet:**

Jessica Converse (225) 342-4467, [Jessica.converse@la.gov](mailto:Jessica.converse@la.gov); Robert Dubois (337) 291-3127, [Robert\\_dubois@fws.gov](mailto:Robert_dubois@fws.gov).



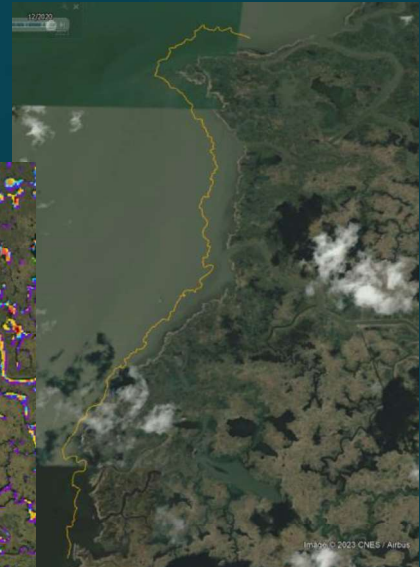
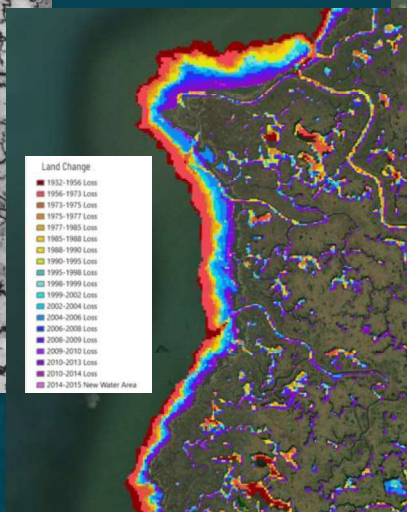
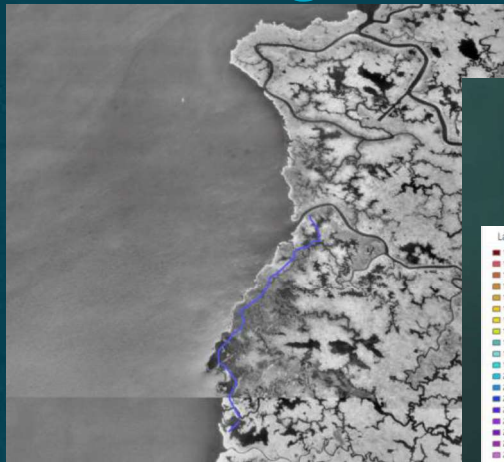
**This Project Rocks:**  
*Biloxi Marsh Shoreline  
Protection  
CWPPRA PPL33 RPT  
Meeting  
Region 1*



JESSICA CONVERSE/BRANDON CHAMPAGNE, PLANNING & RESEARCH



## Land Change 1985 to Present



Sources: CRMS 31 January, 2023, [lacoast.gov](http://lacoast.gov); Google Earth

# Project Proposal

Shoreline Protection: 12,900 LF  
~2.4 miles

112 acres protected

Estimated cost: \$15-20M



COASTAL PROTECTION AND RESTORATION AUTHORITY

## Project Synergy

- Continues the shoreline protection and marsh restoration efforts of PO-30, PO-72, PO-178, and PO-180
- USFWS Point aux Marchettes proposal to continue



COASTAL PROTECTION AND RESTORATION AUTHORITY

4

# Project Proposal

Shoreline Protection: 12,900 LF  
~2.4 miles

112 acres protected

Estimated cost: \$15-20M

For more information, contact:

Jessica Converse, CPRA, (225) 342-4467

Robert Dubois, FWS, (337) 291-3127

COASTAL PROTECTION AND RESTORATION AUTHORITY



**PPL 33 PROJECT FACT SHEET**  
**February 9, 2023**

**Project Name**

Bayou Ducros Marsh Creation

**Master Plan Strategy**

Master Plan 2017: Marsh creation .06a concepts

**Project Location**

Region 1, Pontchartrain Basin, St. Bernard Parish

**Problem:** Marsh loss near Bayou Ducros is due to manipulation of the tidal prism from multiple canals and lack of sediment input from the Mississippi River. The Mississippi River Gulf Outlet (MRGO) was completed in 1968. Construction of this ship channel combined with oil exploration and conveyance canals have increased the tidal prism of local waterways. The increase in the tidal prism lead to salinity spikes as high as 35 ppt that destroyed the freshwater and brackish marsh environments along Bayou Ducros. The MRGO was officially closed in 2008 and salinities have stabilized to around 3-4 ppt, but the area still suffers from lack of sediment input from the Mississippi River. The land area change rate determined by Couvillion et al (2017) between 1932-2016 is -0.53%/year. The subsidence in the area is estimated to be 4.4 mm/yr. in a moderate scenario.

**Goal:** Restore 371 acres of estuarine marsh within the Golden Triangle marsh. Approximately 175 acres (45%) will be created, and 196 acres (51%) will be nourished.

**Proposed Solutions:** Approximately 175 acres of marsh will be created and approximately 196 acres of marsh will be nourished (371 acres total) using sediment dredged from Lake Borgne. Portions of the MRGO shoreline along the project area include riprap. However, earthen containment is proposed for the entire area. Upon completion earthen containment will be degraded as necessary to re-establish hydrologic connectivity with adjacent wetlands.

**Preliminary Project Benefits:** This project will restore approximately 371 acres of brackish marsh that serves as a natural buffer within the Golden Triangle area, an area identified by several restoration plans as a priority for restoration. These marshes offer important wildlife, fish, and shellfish habitat and recreational opportunities. The proposed project will have significant synergistic effects with the Golden Triangle Marsh Creation, NRDA Lake Borgne Phase 3 and institutes components of the MRGO Ecosystem Restoration Plan. The Bayou Ducros Marsh Creation project also serves as a structural line of defense for the Hurricane Storm Damage Risk Reduction System that protects communities in the greater New Orleans area from highly destructive storm surge events.

**Identification of Potential Issues:** The proposed project has the following potential issues: pipelines bisect the project site and oyster leases exist adjacent to the potential borrow site.

**Preliminary Construction Costs:** The estimated construction cost with 25% contingency is approximately \$15-\$20 million.

**Preparer of Fact Sheet:**

Blaise Pezold, Meraux Foundation, 504-264-8125, [Blaise@merauxfoundation.org](mailto:Blaise@merauxfoundation.org)





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

Data Source: ESRI - 2022 MASTERY

Map Date: JANUARY 30, 2023



**PPL 33  
BAYOU DUCROS  
MARSH CREATION  
ST BERNARD PARISH, LA**



**Legend**

- MARSH\_CREATION\_1\_30\_23
- BORROW\_AREA\_1\_30\_23
- DREDGE\_PIPE\_1\_30\_23 = 10,202 LP

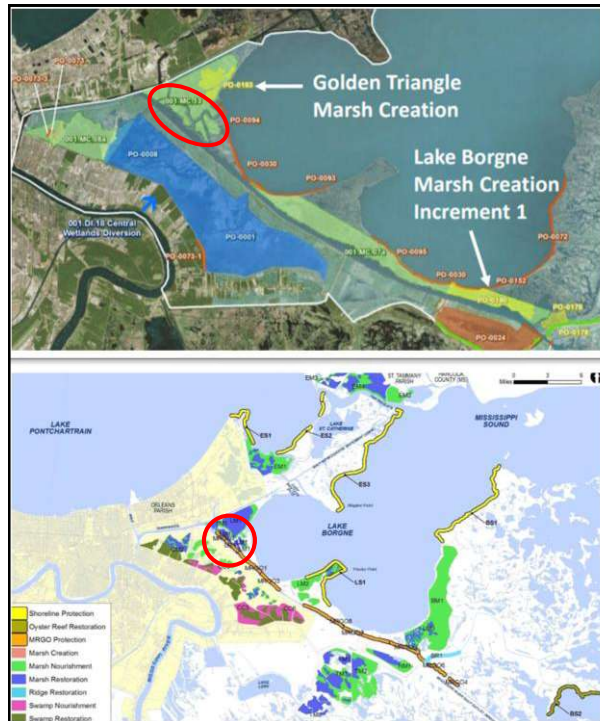
# Bayou Ducros Marsh Creation and Nourishment

USDA NRCS/Meraux Foundation

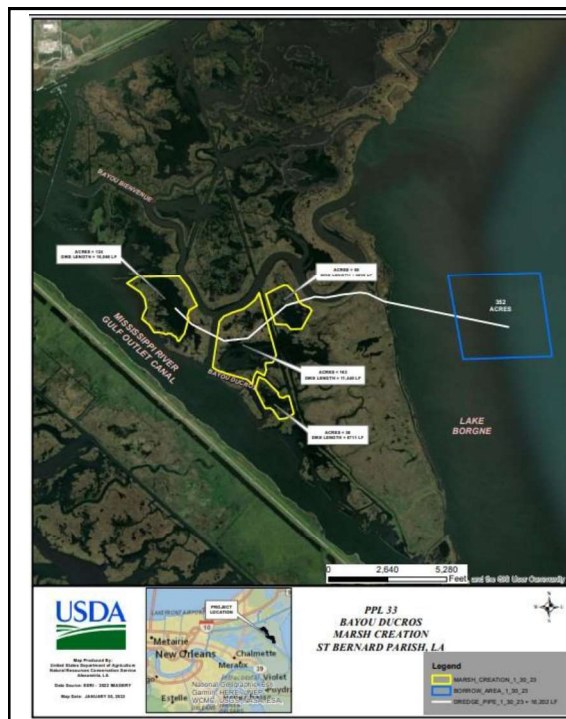
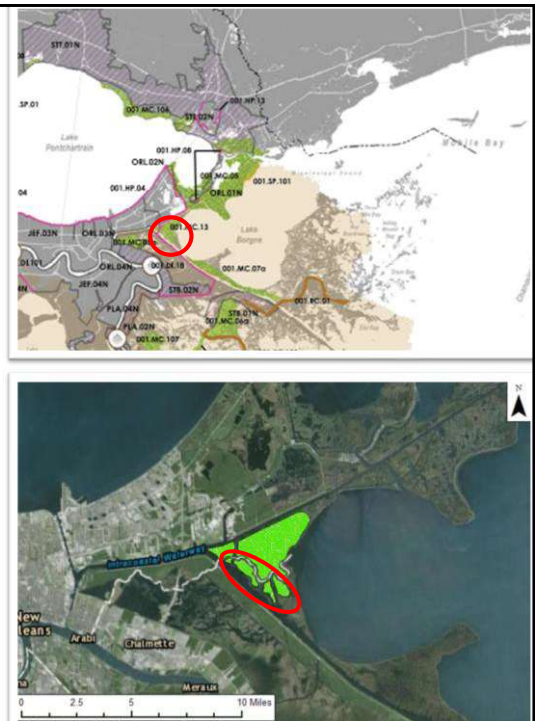
Blaise Pezold







S  
Y  
N  
E  
R  
G  
Y



371 total acres Creation/Nourishment

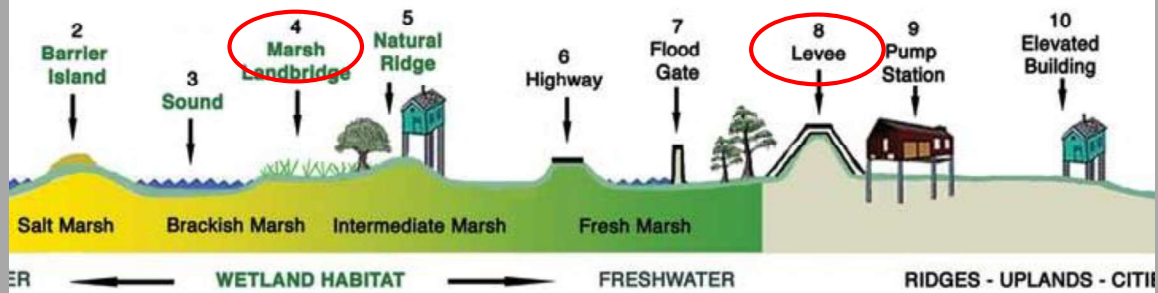
Marsh Creation: 175 acres total

Marsh Nourishment: 196 acres total

Total Cost + contingency =

\$15-20 million

Any questions?





**PPL33 PROJECT NOMINEE FACT SHEET**  
**February 9, 2023**

**Project Name**

Hopedale Marsh Creation

**Project Location**

Region 1, Pontchartrain Basin, St. Bernard Parish

**Problem**

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

**Goals**

The project goal is to create and nourish approximately 414 acres (ac) of tidal emergent marsh.

**Proposed Solution**

The solution is to create and nourish approximately 414 ac of marsh (209 ac creation 205 ac nourishment). Sediment would be mined from the nearby MRGO as the first option, with Lake Borgne as a second option. The material would be placed via pipeline. The borrow area would be designed to avoid adverse impacts to the existing shorelines. Containment dikes would be gapped post construction to allow fisheries access.

**Preliminary Project Benefits**

- 1) *What is the total acreage benefited both directly and indirectly?*  
This total project area is 414 ac.
- 2) *How many acres of wetlands will be protected/created over the project life?*  
Approximately 200 – 250 ac of marsh will be protected/created over the project life.
- 3) *What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (e.g., 50% reduction in the background loss rate)?*  
The anticipated land loss rate reduction throughout the area of direct benefits will be 50% over the projects life.
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*  
The project would add protection to the adjacent Bayou La Loutre Ridge.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*

The project would have a net positive impact to critical infrastructure which consists of LA Highway 624, a hurricane evacuation route, and help protect residences and fishing infrastructure in Hopedale, Shell Beach, and Yscloskey.

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

The project will have a synergistic effect with PO-24, the Lake Borgne Marsh Creation Project, and the Yscloskey Marsh Creation Project.

### **Considerations**

The proposed project has potential utility/pipeline considerations.

### **Preliminary Construction Costs**

The estimated construction cost plus 25% contingency is \$10M - \$15M.

### **Preparer(s) of Fact Sheet:**

Brandon Howard, NOAA Fisheries, 225-380-0056, [brandon.howard@noaa.gov](mailto:brandon.howard@noaa.gov)

Jason Kroll, NOAA Restoration Center, 225-757-5411, [jason.kroll@noaa.gov](mailto:jason.kroll@noaa.gov)



# PPL33 Hopedale Marsh Creation

209 Acres Marsh Creation  
205 Acres Marsh Nourishment

Federal Sponsor: NOAA Fisheries  
2021 Aerial Imagery  
Map Date 1-28-2023

## Legend

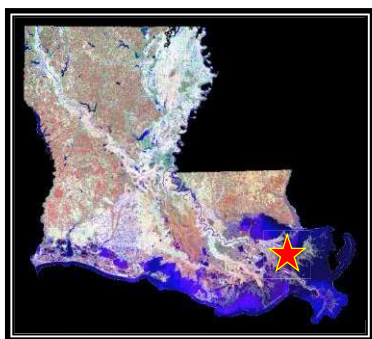
-  Marsh Creation
-  Borrow Area





**NOAA**  
**FISHERIES**

# Hopedale Marsh Creation Project



REGION 1 – Pontchartrain Basin

Presenter: Brandon Howard, Fishery Biologist, NOAA

PPL33 CWPPRA Regional Planning Team Meeting  
February 9, 2023

Hopedale Marsh Creation Project

## Project Location



## Restoration Solution

- 2023 State Master Plan – Hopedale Marsh Creation - Project ID 035
- 414 Acres of Marsh Creation/Nourishment
  - 209 acres of marsh creation & 205 acres of marsh nourishment
  - Hydraulically dredge material from the Mississippi River Gulf Outlet
  - Contained fill areas with dike gapping after construction

## Project Map



### PPL33 Hopedale Marsh Creation

209 Acres Marsh Creation  
205 Acres Marsh Nourishment

Federal Sponsor: NOAA Fisheries  
2021 Aerial Imagery  
Map Date: 08/2023

#### Legend

-  Marsh Creation
-  Borrow Area

## Summary of Features, Cost, and Benefits

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

Contact information:

Brandon Howard, 225-380-0056

[brandon.howard@noaa.gov](mailto:brandon.howard@noaa.gov)

Jason Kroll, 225-757-5411

[jason.kroll@noaa.gov](mailto:jason.kroll@noaa.gov)



NOAA FISHERIES



**PPL33 PROJECT RPT FACT SHEET**  
**February 9, 2023**

**Project Name**

Miller Bayou Marsh Creation

**Project Location**

Region 1, Pontchartrain Basin, Orleans Parish

**Problem**

Wetland loss in Pontchartrain Basin from erosion of wetlands, saltwater intrusion, subsidence, and river levee and oil/gas construction has caused large impacts to this region in recent decades. Lakes Pontchartrain and Borgne continue to increase in size due to Borgne Land Bridge marshes disappearing because of severe shoreline retreat and increased tidal fluctuations. High subsidence rates range from 3.4 to 5.5 mm/year. The 1985 to 2020 USGS land loss rate for this area is -0.39%/year from the East Orleans Landbridge subunit. The East Orleans landbridge is a critically important landscape feature to restore and maintain as it provides important habitat and storm buffer to critical infrastructure and highly populated communities nearby.

**Goals**

The project goal is to create and nourish approximately 493 acres of marsh along the southeastern bank of Lake Saint Catherine. 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 soils to gain strength and marsh to vegetate.

**Proposed Solution**

The proposed solution would be to create approximately 299 acres and nourish 194 acres to restore a portion of the Lake Saint Catherine shoreline. It is planned to provide approximately 8,500 linear feet of shoreline stabilization to the newly created marsh. Sediment will be hydraulically pumped from Lake Saint Catherine. Temporary containment dikes will be constructed and gapped within three years of construction to allow greater tidal exchange and estuarine organism access. The newly created marsh will be designed and constructed to remain within the preferred inundation range for as long as possible throughout the 20 year project life.

**Preliminary Project Benefits**

- 1) *What is the total acreage benefited both directly and indirectly?*  
The total project area is approximately 493 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 help restore portions of Lake Saint Catherine shoreline which is part of the Borgne Landbridge.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*  
The project may have minor net positive impact to non-critical infrastructure comprised of pipelines and 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: 1) PO-191 East Orleans Landbridge (Design) 2) PO-179 St. Catherine Island Marsh Creation and Shoreline Protection (Design), 3) PO-169 N.O. Land Bridge Shoreline Stabilization and March Creation (Construction), 4) PO-22 Bayou Chevee Shoreline Protection (Constructed), and 4) PO-06 Fritchie Marsh Restoration (Constructed).

### **Considerations**

This project could have potential sturgeon and oil/gas pipeline considerations.

### **Preliminary Costs**

The construction cost range is \$25M-\$30M plus 25% contingency.

### **Preparer(s) of Fact Sheet:**

Dawn Davis, NOAA Fisheries, 225-380-0041, [dawn.davis@noaa.gov](mailto:dawn.davis@noaa.gov)

Jason Kroll, NOAA Fisheries, 225-757-5411, [jason.kroll@noaa.gov](mailto:jason.kroll@noaa.gov)






# PPL33 Miller Bayou Marsh Creation

299 Acres Marsh Creation  
194 Acres Marsh Nourishment  
8,500 LF Shoreline Stabilization  
*Acreages and lengths are approximate*

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

## Legend

-  Marsh Creation
-  Borrow Area
-  Shoreline Stabilization



**NOAA**  
**FISHERIES**

# PPL33 Miller Bayou Marsh Creation Project



REGION 1 – Pontchartrain Basin

Presenter: Jason Kroll, NOAA

PPL33 CWPPRA Regional Planning Team Meeting  
February 9, 2023

Miller Bayou Marsh Creation Project

## Priority Project Planning

- Areas of Need Within Basin
- Synergy With Other Restoration Efforts
- Applicability Within the CWPPRA Program
- Develop Solutions with Preferred Project Features

## Areas of Need Within Basin

Tough decisions... Many areas across the coast need restoration.  
Focus... on critical landscape features to restore and maintain. Two shown below.



### ✓ Areas of Need Within Basin

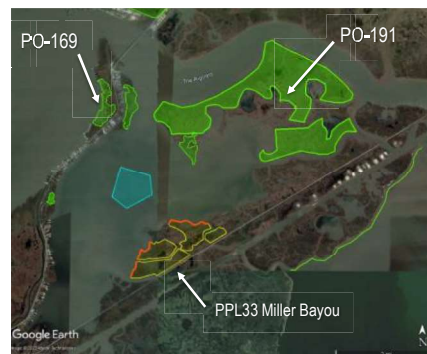
#### Synergy With Other Restoration Efforts



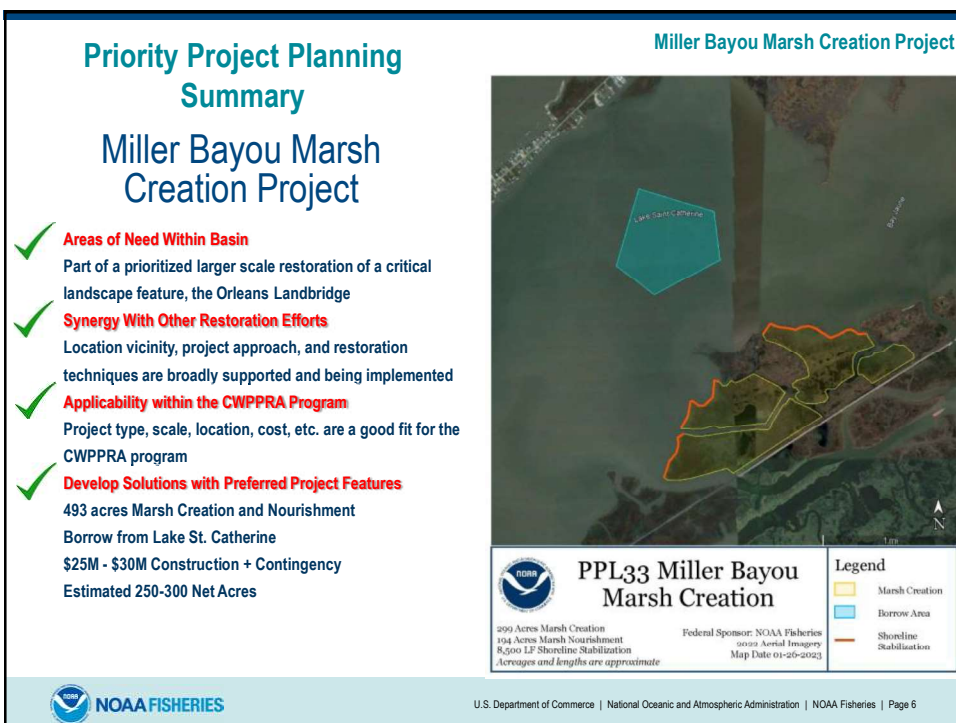
Multi-program focus area  
Multi-agency focus area

#### Applicability within the CWPPRA Program

- Plan a project that fits within the program.
- Formulate features that are consistent with what the program has funded.
- Provide project solutions that marry well with adjacent restoration efforts.
- Cost conscious











**NOAA**  
**FISHERIES**

## Open Dialogue

Jason Kroll, Civil Engineer, NOAA

[jason.kroll@noaa.gov](mailto:jason.kroll@noaa.gov)

225-335-9659



### PPL33 Miller Bayou Marsh Creation

299 Acres Marsh Creation  
194 Acres Marsh Nourishment  
8,500 LF Shoreline Stabilization  
*Acres and lengths are approximate*

Federal Sponsor: NOAA Fisheries  
2022 Aerial Imagery  
Map Date 01-25-2023

#### Legend

- Marsh Creation
- Borrow Area
- Shoreline Stabilization

**PPL33 PROJECT FACT SHEET**  
**February 9, 2023**

**Project Name**

Rabbit and Hog Islands Marsh Creation

**Project Location**

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

**Master Plan Strategy**

New Orleans Landbridge Restoration (2017 Master Plan 001.MC.05): Creation of approximately 33,400 acres of marsh in the New Orleans East Landbridge to create new wetland habitat and restore degraded marsh. New Orleans East Marsh Creation (2023 Draft Master Plan): Creation of marsh within a footprint of approximately 29,000 acres in a portion of the New Orleans East Landbridge Marsh Creation project to create new wetland habitat, restore degraded marsh, and reduce wave erosion.

**Problem**

The project area includes fragmented marsh on the New Orleans landbridge in Orleans Parish, and an area in St. Tammany Parish adjacent to The Rigolets. The area has experienced impacts from storm surge and hurricanes as well as subsidence. Without continued sediment input, marshes cannot maintain viable elevations due to ongoing subsidence. Restoring the marsh in this area would protect and maintain resources vital to nearby communities. Based on the PO-169 New Orleans Landbridge project, loss rates in the area are estimated to be -0.35% per year.

**Proposed Solution**

The proposed project would create/nourish approximately 362 acres (create 219 acres and nourish 143 acres) of marsh using sediment dredged from nearby Lake Borgne or Little Lake.

**Project Benefits**

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

**Project Costs**

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

**Preparer(s) of Fact Sheet:**

Sharon L. Osowski, Ph.D.; EPA; (214) 665-7506; osowski.sharon@epa.gov  
Patty Taylor, P.E., Ph.D.; EPA, (214) 665-6403, taylor.patricia-a@epa.gov  
Jenny Byrd, EPA, (214) 665-7377, byrd.jennifer@epa.gov

# Rabbit & Hog Islands MC





# Rabbit and Hog Islands Marsh Creation



Coastal Wetlands Planning, Protection and Restoration Act

## Master Plan Solution



2017

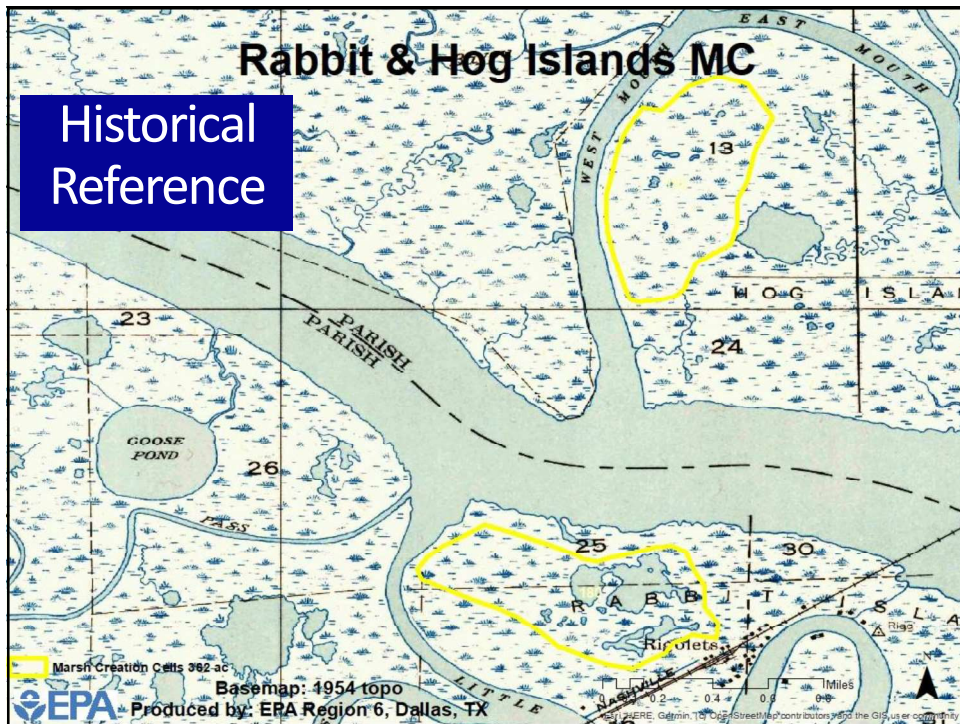
**001.MC.05 New Orleans Landbridge**  
**Restoration:** Creation of approximately 33,400 acres of marsh in the New Orleans East Landbridge to create new wetland habitat and restore degraded marsh.

2023

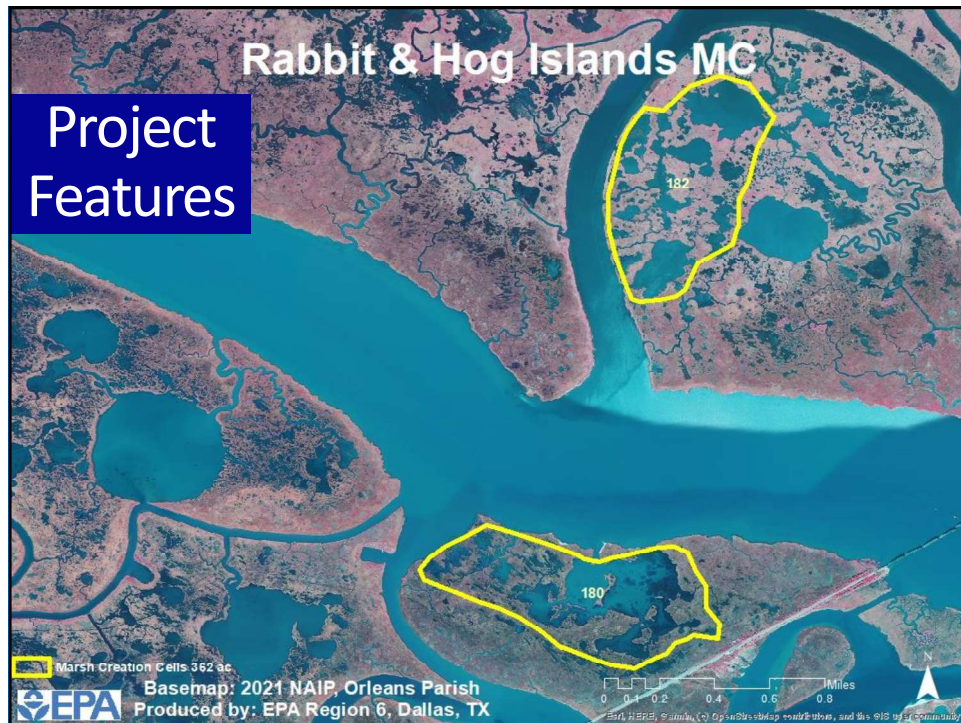
**New Orleans East Marsh Creation (2023 Draft Master Plan):** Creation of marsh within a footprint of approximately 29,000 acres in a portion of the New Orleans East Landbridge Marsh Creation project to create new wetland habitat, restore degraded marsh, and reduce wave erosion.



Coastal Wetlands Planning, Protection and Restoration Act







## Project Goals

- Create/nourish 362 acres (create 219 acres and nourish 143 acres) of emergent marsh with sediment from the Lake Borgne or Little Lake
- Restore wetland habitat
- Maintain the separation between Lake Borgne and Lake Pontchartrain
- Construction cost + 25% contingency is \$20M - \$25M.

## PPL32 PROJECT NOMINEE FACT SHEET

### February 9, 2023

#### **Project Name**

Bayou Sauvage Marsh Creation

#### **Project Location:**

Region 1, Pontchartrain Basin, Orleans Parish

#### **Problem:**

Bayou Sauvage is located along the eastern shoreline of Lake Pontchartrain and is considered one of the few urban refuges as it is located only a short distance from the city of New Orleans. This area has experienced extensive loss of interior emergent wetlands and severe damage to the lake shorelines from Hurricanes Katrina and Ida passing directly over the area in 2005 and 2021 respectively. Continued loss of the weakened project area shorelines has increased the vulnerability of the New Orleans East Hurricane Protection Levee and several roads and other infrastructure. Based on LA Land Change Trends 1985-2020 analysis conducted by USGS, loss rates near the project area are estimated to be -0.39% per year.

#### **Goals:**

The primary goals of this project are to create interior low salinity marsh with placement of material hydraulically dredged from Lake Pontchartrain and restore and protect a portion of the Lake Pontchartrain shoreline.

*Specific Goals:* 1) Create approximately 182 acres of marsh and nourish an additional 10 acres of marsh with material dredged from Lake Pontchartrain, 2) restore 2,000 LF of Lake Pontchartrain shoreline, and 3) protect 13,500 LF of Lake Pontchartrain shoreline with articulated concrete mats.

#### **Proposed Features**

Hydraulically dredge material from Lake Pontchartrain and pumped via pipeline to create/nourish approximately 192 acres of marsh. The proposed design is to place the dredged material to a height suitable for intertidal marsh after adjusting for dewatering and compaction of dredged sediments. Containment dikes will be constructed to fully contain material. Containment dikes will be gapped/degraded after 3 years. This project would also place articulated concrete mats along 13,500 LF of the Lake Pontchartrain shoreline.

#### **Preliminary Project Benefits**

- 1) *What is the total acreage benefited both directly and indirectly?*  
This total project area is 192 ac (192 mc + 50 sp).
- 2) *How many acres of wetlands will be protected/created over the project life?*  
Approximately 225 (175 mc + 50 sp) net acres would result after the 20-year 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 50% to 74% over the project life.

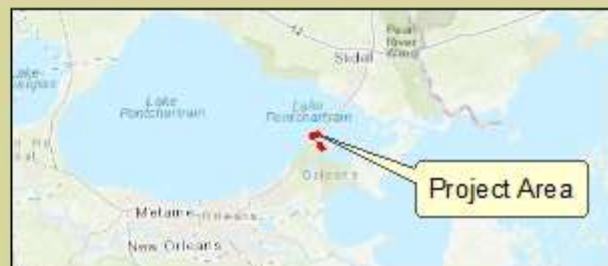
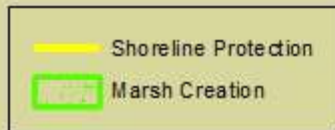
- 4) *Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc?*  
This project would restore a portion of the eastern shoreline of Lake Pontchartrain as-well-as a portion of the Irish Bayou bankline.
- 5) *What is the net impact of the project on critical and non-critical infrastructure?*  
This project would help protect a portion of the New Orleans East Hurricane Protection Levee, Highway 11, railroad, Interstate 10, several businesses along Irish Bayou, and several camps and houses.
- 6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?*  
This project would work synergistically with the constructed PO-22 (Bayou Chevee), PO-169 (obtained Phase II construction funding), PO-179 (completed Phase I E& D), and a nearby Corps mitigation site.

**Preliminary Cost**

The construction cost plus 25% contingency is estimated to be between \$25 and \$30M.

**Preparer(s) of Fact Sheet:**

Robert Dubois, U.S. Fish and Wildlife Service, 337-291-3127, [Robert\\_Dubois@fws.gov](mailto:Robert_Dubois@fws.gov)



## *PPL33 Bayou Sauvage Marsh Creation and Shoreline Protection Orleans Parish, Louisiana*





PPL33

# Bayou Sauvage Marsh Creation and Shoreline Protection

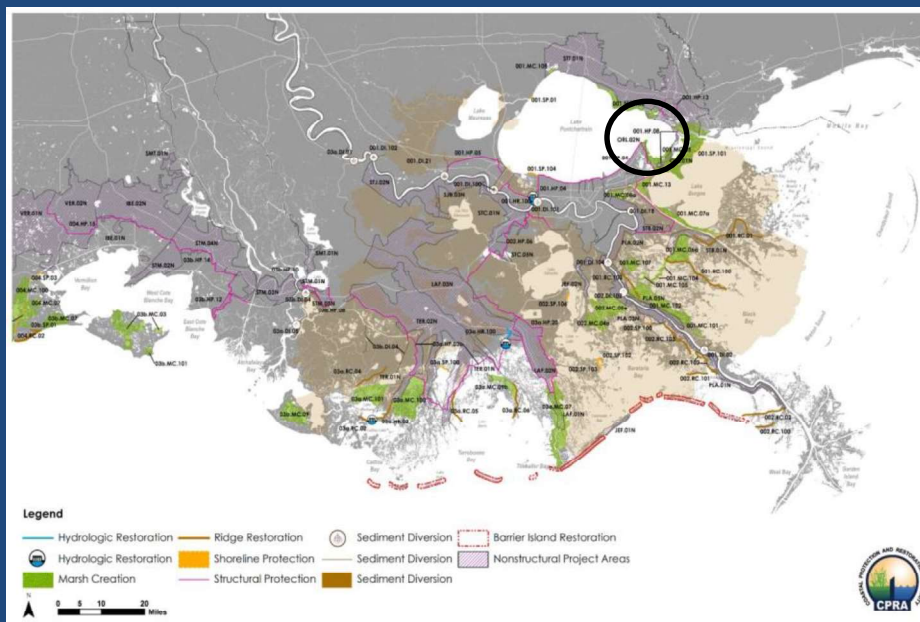
Region 1, Pontchartrain Basin

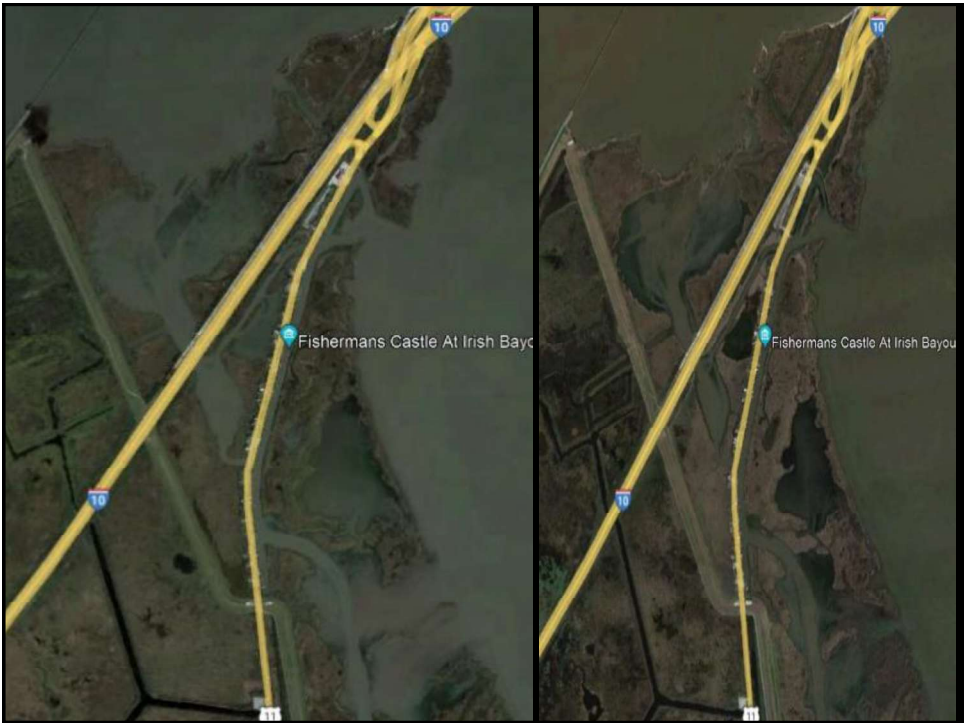


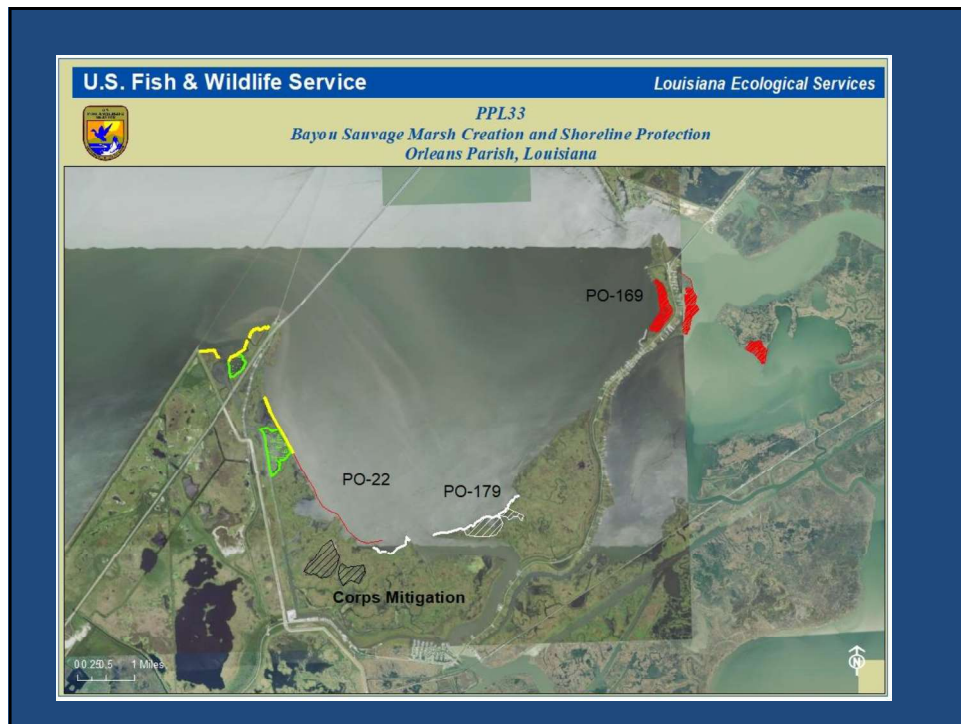
Contacts:  
Robert Dubois  
Fish and Wildlife Biologist  
robert\_dubois@fws.gov  
(337) 291-3127



## 2017 State Master Plan – Bayou Sauvage Marsh Creation and Shoreline Protection







## Bayou Sauvage Marsh Creation and Shoreline Protection



- 192 acres of marsh creation/nourishment
- Restore 2,000 LF Lk. Pontchartrain Shore
- Protect 13,500 ft
- Net acres = 200 - 250
- Construction plus contingency \$25M - \$30M
- Project synergy – PO-22, PO-179, CORPS Mitigation
- Protects I-10, Hwy 11, Railroad, Hurricane Levee, Powerlines

## Species of Concern and Rare Species



- Least Bittern
- Mottled Duck
- King Rail