Coastal Wetlands Planning Protection & Restoration Act

29th Priority Project List

Region 1
Regional Planning Team Meeting
February 14, 2019
Lacombe, LA

1. Welcome and Introductions

• RPT Region 1 Leader: Kent Bollfrass CPRA
Announcements

• Copies of the PPL 29 Selection Process & Schedule available at the sign-in table.

• PPL 29 RPT meetings to accept project nominees:
  ▫ Region IV, Port of Lake Charles, Feb. 12, 2019, 10:00 am
  ▫ Region III, Port of Morgan City - Office, Feb. 13, 2019, 9:30 am
  ▫ Region II, USFWS SE LA Refuges Complex (Big Branch), Feb. 14, 2019, 10:00 am
  ▫ Region I, USFWS SE LA Refuges Complex, Feb. 14, 2019, immediately following Region II

• For parishes that do not have a voting registration form filled out already - Parish representatives must identify themselves during the RPT meetings and fill out a voting registration form, including contact information for the primary and secondary voting representatives that will cast votes during the Coastwide Electronic Vote.

Region 1 Parishes

• Eligible parishes for Pontchartrain Basin in Region 1 include:
  ▫ Plaquemines Parish
  ▫ Jefferson Parish
  ▫ Orleans Parish
  ▫ St. Bernard Parish
  ▫ Ascension Parish
  ▫ Livingston Parish
  ▫ St. James Parish
  ▫ St. Charles Parish
  ▫ St. John the Baptist Parish
  ▫ St. Tammany Parish
  ▫ Tangipahoa Parish
RPT Meetings

- Project proposals should be consistent with the 2017 State Master Plan.
- A project can only be nominated in one basin except for coastwide projects.
- Proposals that cross multiple basins, excluding coastwide projects, shall be nominated in one basin only, based on the majority area of project influence.
- If similar projects are proposed within the same area:
  - RPT representatives (CWPPRA agencies and only the parishes located within the project’s basin) will determine if those projects are sufficiently different.
    - If sufficiently different:
      - Each project will move forward.
    - If not sufficiently different:
      - Projects will be combined.
      - Federal sponsor will be determined prior to coastwide vote (February 28th).
  - *This decision will be made at the meeting where the projects are proposed.*

RPT Meetings

- Presenters without factsheets **MUST** complete a PPL 29 Nomination Sign-Up Sheet for each project nominee (demo projects too).
- Presenters with factsheets, please give a factsheet each to Kaitlyn, Michelle & Lonnie before your presentation.
- Limit project proposals to 5 minutes and Powerpoint presentations to 5 slides.
- Public comments on project proposals will be accepted orally during the RPT meetings and in writing by February 21, 2019.
- Limit comments/questions during meeting to PPL 29 subject proposals and processes.
Coastwide Projects

- Proposes a technique applicable across the coast (e.g. vegetative planting)
- Nominated at any RPT meeting
- All coastal parishes & agencies will vote on selection of coastwide nominee
- Only one coastwide nominee may be selected from the coastwide nominee pool during the Electronic Coastwide Vote on **February 28, 2019**.
- The Technical Committee may or may not select a coastwide project in April 2019.

Demonstration Projects

- Demonstrates a technology which can be transferred to other areas in coastal Louisiana
- Engineering/Environmental Workgroups will validate that demos fit CWPPRA Standard Operating Procedures criteria
- The RPTs select up to 6 demos during the **February 28th Coastwide Electronic Vote**.
- The Technical Committee selects up to 3 demos in April 2019.
- Workgroups may recommend that no demos move forward to candidate stage
- Previous demo candidates must be **re-nominated** for PPL 29.
Coastwide Electronic Vote (Feb. 28th) to select:

Projects per Basin
(Determined by loss rates, the highest loss rates have the most projects)

4 Barataria
4 Terrebonne
3 Breton Sound
3 Pontchartrain
2 Mermentau
2 Calcasieu/Sabine
2 Teche/Vermilion
1 Atchafalaya
1 Coastwide
22 Total

& up to 6 demos

Coastwide Electronic Vote

• Each officially designated parish representative, each Federal agency, and the State (CPRA) will have one vote.

• No additional projects can be nominated after the RPTs.

• No significant changes to projects proposed at the first round of RPT meetings will be allowed (this includes combining projects).

• Public comments will be heard today and written comments must be submitted by February 21, 2019.
Coastwide Electronic Voting Process

- USACE will send out voting sheets as both Excel spreadsheet and PDF documents 1 week prior to the Coastwide Electronic Vote. Voters will only receive voting sheets for the basins that they are eligible to vote for & the column that they need to mark their vote will be highlighted. Voting instructions will be provided with the voting sheets.

- Voters must email their voting sheets to kaitlyn.m.carriere@usace.army.mil

All votes must be received by 10:30 am on February 28, 2019.

Nominee Project Evaluations

- Following the Coastwide Electronic Vote, an agency will be assigned to each project to prepare a Nominee Project factsheet (1 page + map).

- CWPPRA Engineering & Environmental Workgroups review draft features and assign preliminary cost and benefit ranges.

- Work groups will also review demo & coastwide projects and verify that they meet PPL 29 criteria.
## PPL 29 Candidate Project Evaluation

Candidates evaluated between May and October

- Workgroups conduct site visits and meetings to identify needs and establish project baselines and boundaries.
- Workgroups determine benefits, project features, and cost estimates

## PPL 29 Timeline

- **Coastwide Electronic Vote, Feb. 28, 2019**
  - 21 basin-project nominees, 1 coastwide nominee, and 6 demos selected
- **Technical Committee Mtg, Apr. 11, 2019, Baton Rouge**
  - Selection of 10 candidates and up to 3 demos
- **Technical Committee Mtg, Dec. 5, 2019, New Orleans**
  - Typically recommend up to 4 projects for Phase 1 funding
- **Task Force Mtg, Jan. 2020, New Orleans**
  - Final Selection of projects for Phase 1 funding
Written Comments

- Send written comments on projects & demos proposed today to the CWPPRA program manager
- **Deadline: February 21, 2019**

Brad Inman  
Projects and Restoration Branch Chief  
U.S. Army Corps of Engineers  
7400 Leake Avenue  
New Orleans, Louisiana 70118  

Email: Brad.L.Inman@usace.army.mil

(this information is on the back of the agenda)
### Southwest Coast Projects

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Project Description</th>
<th>Estimated Cost</th>
<th>Project Status</th>
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<td>Bridge replacement at Saltwater Creek</td>
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### Southeast Coast Projects – continued

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<th>Project Description</th>
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<td>Water treatment plant in Hong Kong</td>
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<td>Renewable energy project in Mexico City</td>
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**Note:** All project costs are in USD.
## Southeast Coast Projects – continued

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Region 1-
Pontchartrain Basin
Region 1 – Pontchartrain Basin

PO-01  St. Catherine’s Pass Marsh Creation and Shoreline Protection
PO-02  Guste Island Marsh Creation
PO-03  East Labranche Shoreline Protection
PO-04  Miller Bayou Marsh Creation
PO-05  Fritchie Marsh Hydrologic Restoration
Project Name
St. Catherine's Pass Marsh Creation and Shoreline Protection

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.

Project Location
Region 1, Pontchartrain Basin, Orleans Parish

Problem
The project area is a fragmented marsh on the New Orleans landbridge adjacent to Lake Catherine. 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.

Proposed Solution
The proposed project would create/nourish approximately 283 acres of marsh using sediment dredged from the Lake Borgne. The dredged material would be fully contained. Containment dikes would be degraded as necessary to reestablish hydrologic connectivity with adjacent wetlands. The created marsh would be planted.

Project Benefits
Create/nourish approximately 283 acres (create 172 acres and nourish 111 acres) of emergent marsh using sediment dredged from Lake St. Catherine.

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

Preparer(s) of Fact Sheet:
Sharon L. Osowski, Ph.D.; EPA; (214) 665-7506; osowskis.sharon@epa.gov
Adrian Chavarria, EPA; (214) 665-3103, chavarria.adrian@epa.gov
Amanda Moore, National Wildlife Federation; (504) 273-4838; MooreA@nwf.org
Coastal Wetlands Planning, Protection and Restoration Act

2/15/2019

St. Catherine’s Pass Marsh Creation

Coastal Wetlands Planning, Protection and Restoration Act

2017 Master Plan Solution

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.
2017 Master Plan Consistency & Project Synergy

- Protect human health and the environment, including water quality, by restoring coastal wetlands
- Improve local community resilience
- Restore wetland habitats and protect critical infrastructure
- Support stakeholder priorities in synergy with EPA’s mission

EPA Region 6 CWPPRA Team Goals
Problems

- Fragmented/degraded wetlands converting to open water
- Subsidence
- Storm events
- Wave energy

Orleans Parish could lose 32% of its land area over the next 50 years and face increased wetland loss and severe storm surge flood risk (2017 MP).

Historical Reference

- 1936
Potential Species & Habitats
Protected or Restored

**T & E Species**
- Atlantic Sturgeon

**Migratory Birds**
- American Golden-plover
- Am Oystercatcher (Breeding)
- Black Skimmer (Breeding)
- Many shorebirds
Project Goals

- Create/nourish 283 acres (create 172 acres and nourish 111 acres) of emergent marsh with sediment from the Lake Borgne
- Provide increased protection from storm surge and flooding
- Restore wetland habitat
- Construction cost + 25% contingency is $15M - $20M.
PPL29 PROJECT FACT SHEET
February 14, 2019

Project Name
Guste Island Marsh Creation Project

Master Plan Strategy
Guste Island Marsh Creation (2017 Master Plan 001.MC.108): Creation of approximately 700 acres of marsh in St. Tammany Parish along the northwest Lake Pontchartrain shoreline to create new wetland habitat and restore degraded marsh.

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

Problem
The project area is a shallow open body of water located east of the Tchefuncte River near the Tangipahoa and St. Tammany Parish border. The property was used for livestock grazing. A levee and canal system with pumps kept the property from flooding. The agricultural activity and construction of levees for drainage resulted in substantial land loss in the Guste Island area. With an increase in tidal exchange due to increased land loss and increased wind driven fetch, land located north of this site is deteriorating quickly.

Proposed Solution
Sediment dredged from Lake Pontchartrain will be used to create emergent marsh in 3 semi-confined cells within the Guste Island area. The project would benefit approximately 436 acres of wetlands by converting open water into marsh and nourishing existing marsh remnants. Restoration in this area would build the area’s defenses against hurricanes and flooding and offer opportunities for public recreation and wildlife habitat.

Project Goals
Create/nourish approximately 436 acres (create 406 acres and nourish 30 acres) of emergent marsh using sediment dredged from the Lake Pontchartrain

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

Preparer(s) of Fact Sheet:
Brad Crawford, P. E., EPA; (214) 665-7255; crawford.brad@epa.gov
Sharon L. Osowski, Ph.D.; EPA; (214) 665-7506; osowski.sharon@epa.gov
Joseph P. Guillory, Duplantis Design Group; (985) 249-6180; jguillory@ddgpc.com
Guste Island Marsh Creation

Guste Island is located east of thechefuncte River near the Tangipahoa and St. Tammany Parish border.

The Coastal Wetlands Planning, Protection and Restoration Act

2017 Master Plan Solution

001.MC.108 Guste Island Marsh Creation: Creation of approximately 700 acres of marsh in St. Tammany Parish along the northwest Lake Pontchartrain shoreline to create new wetland habitat and restore degraded marsh.
2017 Master Plan Consistency & Project Synergy

- Constructed as a result of unavoidable impacts to intermediate marsh habitat as a result of the LPV HSDRRS
- 143 acres of intermediate marsh restoration achieved by dredging borrow material from Lake Pontchartrain
- Phase 1 of construction completed in 2017, Phase 2 of construction scheduled to be complete in 2018
- TNC Tchefuncte Marsh property is adjacent to the Guste Island project polygons
- Voluntary, partnership-based, habitat conservation program located in 24 priority coastal areas
- Guided by a national strategic plan that integrates FWS priorities with the shared conservation goals of conservation partners and stakeholders
- Guste Island Project location is part of the Louisiana Focus area for the FWS Coastal Program
EPA Region 6 CWPPRA Team Goals

• Protect human health and the environment, including water quality, by restoring coastal wetlands
• Improve local community resilience
• Restore wetland habitats and protect critical infrastructure
• Support stakeholder priorities in synergy with EPA’s mission

Guste Island Land Loss Issues

• Large open water areas due to impoundment for agricultural use
  – High rates of land loss since the 1930’s

• Saltwater intrusion/concentration
  – Lake Pontchartrain floods area with high southerly winds and storm surge
  – Saltwater trapped inside impounded areas, salt concentrates
## Guste Island Marsh Creation Project

- Create 406 acres and Nourish
- Approx. 30 acres of marsh
- Protects nearby housing developments and freeway
- Sustainable marsh after 30 years
- Achieves St. Tammany Restoration Goal of 100%
- Project 001.MC.108 in 2017 Master Plan

## Species & Habitats Protected or Restored

### T & E Species

- Red-Cockaded Woodpecker
- Gopher Tortoise
- Ringed Map Turtle
- Atlantic Sturgeon
- Alabama Heelsplitter
- Louisiana Quillwort

### Migratory Birds

- American Golden-plover
- Am Oystercatcher (Breeding)
- Black Skimmer (Breeding)
- Many shorebirds
- Warblers
Guste Island Marsh Creation Project

- Works synergistically with other projects
- Creates wetland habitat
- Construction cost + 25% contingency $20M - $25M
PPL29 PROJECT FACT SHEET
February 14, 2019

Project Name
East Labranche Shoreline Protection

Master Plan Strategy
Master Plan 2017: Project No. 00 I.SP. I 04 Labranche Wetlands Shoreline Protection

Project Location
Region I, Pontchartrain Basin, St. Charles Parish

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 I-10, LA HWY 61, and multiple levee systems. The majority of the Labranche Wetlands has shoreline protection along the lake; however, the eastern portion near the St. Charles line remains unprotected. This shoreline has retreated 200 to 1200 ft in the last 18 years, which equates to about 140 acres of marsh.

Goal: The goal of this project is to establish a protective barrier between the current shoreline and Lake Pontchartrain by installing a foreshore rock dike. Access dredge material would be used beneficially to restore marsh that has been lost.

Proposed Solutions: The project will install 12,800 linear feet of shoreline protection using a rock riprap with a light weight aggregate core. Site evaluations and E&D have already been completed by Moffatt and Nichol for the Pontchartrain Levee District. This information will reduce a large portion of the Phase I E&D costs.

Preliminary Project Benefits: The project will create 12,800 ft of shoreline protection reducing the current loss rate of shoreline which is anywhere from 12 ft/year to 60 ft/year resulting in approximately 140 acres of marsh protected. Use of the access dredged material will create another 24 acres of marsh for a total of 164 acres.

Identification of Potential Issues: There are no potential issues anticipated with this proposed project.

Preliminary Construction Costs: The estimated construction cost with contingency is $10-15 million.

Preparer(s) of Fact Sheet:
Ron Boustany, ron.boustany@la.usda.gov, (337) 291-3067
John Boatman, john.boatman@la.usda.gov, (985) 331-9084
PPL-29
East Labranche Shoreline Protection

Project Objectives:
To protect the last remaining exposed shoreline segment where the shoreline is experiencing significant erosion.

Project Feature and Benefits:
Install 12,000 ft of foreshore protection to protect 140 acres of marsh and create approx. 24 acres from floatation excavation

Project Cost: $10-15 million
PPL29 PROJECT NOMINEE FACT SHEET
February 14, 2019

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 3.4-5.5 mm/year. The 1985 to 2016 USGS land loss rate for this area is -0.30%/year from the East Orleans Landbridge subunit.

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

Proposed Solution
The proposed solution would be to create approximately 296 acres and nourish 197 acres to restore a portion of the Lake Saint Catherine shoreline. 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.

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. (USGS data from 1985 to 2016 shows from -0.30%/year)

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-179 St. Catherine Island Marsh Creation and Shoreline Protection, 2) PO-169 N.O. LandBridge Shoreline Stabilization and March Creation, 3) PO-22 Bayou Chevee Shoreline Protection, and 4) PO-06 Fritchie Marsh Restoration.

**Considerations**
This project could have potential sturgeon considerations.

**Preliminary Construction Costs**
The estimated construction cost is $15M-$20M.

**Preparer(s) of Fact Sheet:**
Dawn Davis, NOAA Fisheries, 225-380-0041, dawn.davis@noaa.gov
Jason Kroll, NOAA Fisheries, 225-757-5411, jason.kroll@noaa.gov
Miller Bayou Marsh Creation Project

REGION 1 – Pontchartrain Basin
Presenter: Jason Kroll, Civil Engineer, NOAA

PPL29 CWPPRA Regional Planning Team Meeting
Lacombe, Louisiana
February 14, 2019

Project Vicinity

- Focus Marsh Creation from Miller Bayou to Unknown Pass
Project Area Problems

- Major loss of wetlands
- Hurricane impacts
- Increased Tidal Fluctuations
- Sea Level Rise and Subsidence

Project Goals

- Marsh Creation and Nourishment
  - Restore intertidal marsh habitat along the Orleans land bridge.
  - Design and construct resilient wetlands to maximize wetland benefits throughout a 20 year project life.
Proposed Project Solution

- 493 Acres of Marsh Creation/Nourishment

- Hydraulically dredge material from Lake Saint Catherine. Pump distance less than 2.0 miles.

- Currently a total of 4 contained fill cells with dike gapping planned after construction

Project Map

- 2017 State Master Plan Polygon 001.MC.05
- Lake Saint Catherine Borrow Area
- 493 Acres TOTAL of Marsh Creation/Nourishment
- Approximately 298 acres Creation and 195 acres Nourishment
Summary

- 493 Acres Marsh Creation/Nourishment
- Construction Cost + 25% Contingency $15M - $20M
- Net Benefits: 250-300 acres

Contact information:
Dawn Davis, 225-389-0508
dawn.davis@noaa.gov
Jason Kroll, 225-757-5411
jason.kroll@noaa.gov
1. Deepening an existing meandering distributary channel connecting the W-14 canal to the center of the marsh
2. Dredging a channel from the W-14 connection and the northeast lake to an existing tributary of Salt Bayou
3. Two additional RCP flap gate culverts in Salt Bayou under Highway 90
4. Increase connectivity between Salt Bayou and marsh center
5. Deepening main stem of Salt Bayou to remove shallow portions surrounding flow divide
6. Four RCP flap gate culverts at Geoghegan Canal
7. Dredging a channel through the southeast lake connecting the new Geoghegan Canal culverts to Salt Bayou
8. Maintaining W-14 Canal weir to promote flow through marsh
## Project Costs

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<th>Item</th>
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FRITCHIE MARSH HYDROLOGIC RESTORATION

DUPLANTIS DESIGN GROUP, PC

FEBRUARY 14, 2019

CONTACT: JOE GUILLORY, PE
JGUILLORY@DDGPC.COM
**PR1** Existing Conditions without New Zydeco Ridge projects

**PR2** Improved conveyance through marsh to Salt Bayou

**PR3** Improved conveyance through marsh to Geoghegan Canal

**PR4** Existing Conditions with New Zydeco Ridge projects

**PR5** Improved conveyance through Salt Bayou & Geoghegan Canal (PR2 + PR3)

**PR6** Improved conveyance Salt Bayou & Geoghegan (PR5) with removal of weir

**PR7** New Zydeco Ridge, CWPPRA marsh and terraces projects only

**PR8** Removal of weir plus connection to canal west of Old Spanish Trail
CONCLUSIONS

- Existing flow patterns show limited circulation
- Existing flow divide in Salt Bayou
- Salt Bayou constrained by Hwy 90 culverts
- Significant impacts to existing flow patterns due to restoration projects
1. Deepening an existing meandering distributary channel connecting the W-14 canal to the center of the marsh
2. Dredging a channel from the W-14 connection and the northeast lake to an existing tributary of Salt Bayou
3. Two additional RCP flap gate culverts in Salt Bayou under Highway 90
4. Increase connectivity between Salt Bayou and marsh center
5. Deepening main stem of Salt Bayou to remove shallow portions surrounding flow divide
6. Four RCP flap gate culverts at Geoghegan Canal
7. Dredging a channel through the southeast lake connecting the new Geoghegan Canal culverts to Salt Bayou
8. Maintaining W-14 Canal weir to promote flow through marsh
# PROJECT COSTS

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Pre- and Post-Hurricane Katrina

FRITCHIE MARSH HYDROLOGIC RESTORATION PRESENTATION

Image U.S. Geological Survey
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7/2005

10/2005

Coastal Wetlands Planning, Protection and Restoration Act RPT Region I & II Meeting
Thursday, February 14, 2019