Coastal Wetlands Planning Protection & Restoration Act

29th Priority Project List

Region 1

Regional Planning Team Meeting

February 14, 2019
Lacombe, LA

CWPPRA

1. Welcome and Introductions

- RPT Region 1 Leader: Kent Bollfrass CPRA

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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.

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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**

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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*

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RPT Meetings

- Presenters without factsheets **MUST** complete a PPL 29 Nomination Sign-Up Sheet for <u>each</u> project nominee (demo projects too).
- Presenters with factsheets, please give a factsheet each to Kaitlyn, Michelle & Lonnie <u>before</u> 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.

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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.

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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

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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.

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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.

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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.

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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

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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

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Written Comments

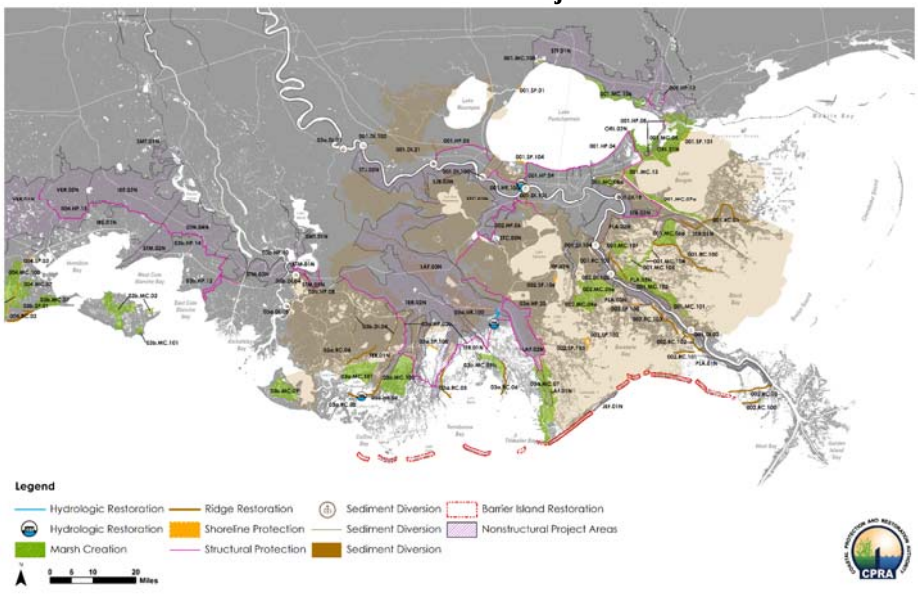
- Send written comments on projects & demos proposed today to the CWPPRA program manager
- **Deadline: February 21, 2019**

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)

Draft 2017 State Master Plan
Southeast Coast Projects



Southeast Coast Projects

Project Type	Project No.	Project Description	Implementation Period	Project Costs
Hydrologic Restoration	001.HR.100	LaBranche Hydrologic Restoration: Construction of a 750 cfs hybrid pump-siphon structure, intake structure, and an approximately 1 mile long conveyance system to LaBranche wetlands via the Mississippi River to restore the historically fresh to intermediate marshes. Features also include a conveyance channel, roadway, and railroad crossings.	Years 1-10	$80,900,000
Marsh Creation	001.MC.05	New Orleans East Landbridge Restoration: Creation of approximately 11,600 acres of marsh in New Orleans East Landbridge to create new wetland habitat and restore degraded marsh.	Years 1-10	$396,500,000
	001.MC.13	Golden Triangle Marsh Creation: Creation of approximately 3,900 acres of marsh in Golden Triangle Marsh between the MRGO and GIWW to create new wetland habitat and restore degraded marsh.	Years 1-10	$273,700,000
	001.MC.108	Ouste 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.	Years 1-10	$64,400,000
Ridge Restoration	001.RC.100	Bayou Terre aux Boeufs Ridge Restoration: Restoration of approximately 91,200 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Bayou Terre aux Boeufs.	Years 1-10	$15,200,000
	001.RC.103	Carlisle Ridge Restoration: Restoration of approximately 38,200 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation near Carlisle.	Years 1-10	$9,300,000
	002.RC.101	Adams Bay Ridge Restoration: Restoration of approximately 31,600 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Adams Bay.	Years 1-10	$7,200,000
	002.RC.102	Bayou Eau Noire Ridge Restoration: Restoration of approximately 34,800 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Bayou Eau Noire.	Years 1-10	$9,800,000
	002.RC.103	Grand Bayou Ridge Restoration: Restoration of approximately 48,100 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Grand Bayou.	Years 1-10	$10,300,000
Sediment Diversion	001.DI.02	Lower Breton Diversion: Sediment diversion of 50,000 cfs into Lower Breton Sound to build and maintain land (modeled at 50,000 cfs for river flows at 1,000,000 cfs; variable flows above 200,000 cfs calculated using a linear function up to 1,000,000 cfs; and open with variable flow rate (larger than 50,000 cfs, estimated using linear extrapolation) for river flow above 1,000,000 cfs. No operation below 200,000 cfs).	Years 1-10	$383,200,000
	001.DI.18	Central Wetlands Diversion: Diversion into Central Wetlands near Violet to provide sediment for emergent marsh creation and freshwater to sustain existing wetlands, 5,000 cfs capacity (modeled at a constant flow of 5,000 cfs, independent of the Mississippi River flow).	Years 1-10	$231,000,000
	001.DI.21	East Maurepas Diversion: Diversion into East Maurepas near Angelina to provide sediment for emergent marsh creation and freshwater to sustain existing wetlands, 2,000 cfs capacity (modeled at a constant flow of 2,000 cfs, independent of the Mississippi River flow).	Years 1-10	$184,900,000
Sediment Diversion (continued)	001.DI.100	Manchac Landbridge Diversion: A structure in the existing western spillway guide levee to divert 2,000 cfs thereby increasing freshwater exchange with adjacent wetlands.	Years 1-10	$148,200,000
	001.DI.102	Union Freshwater Diversion: Diversion into West Maurepas swamp near Burnside to provide sediment for emergent marsh creation and freshwater and fine sediment to sustain existing wetlands, 25,000 cfs capacity (modeled at 25,000 cfs when Mississippi River flow equals 400,000 cfs; closed when river flow is below 200,000 cfs or above 600,000 cfs; a variable flow rate calculated using a linear function from 0 to 25,000 cfs for river flow between 200,000 cfs and 400,000 cfs and held constant at 25,000 cfs for river flow between 400,000 cfs and 600,000 cfs).	Years 1-10	$876,700,000
	001.DI.104	Mid-Breton Sound Diversion: Sediment diversion into Mid-Breton Sound in the vicinity of White's Ditch to build and maintain land, 35,000 cfs capacity (modeled at 35,000 cfs when the Mississippi River flow equals 1,000,000 cfs; flow rate calculated using a linear function for river flow from 250,000 cfs to 1,000,000 cfs; flows variable above 1,000,000 cfs; 5,000 cfs minimum flow maintained when Mississippi River flow is below 200,000 cfs).	Years 1-10	$479,100,000
	002.DI.102	Mid-Barataria Diversion: Sediment diversion into Mid-Barataria near Myrtle Grove to build and maintain land, 75,000 cfs capacity (modeled at 5,000 cfs for Mississippi River flows below 200,000 cfs; variable flows to capacity between 200,000 and 1,250,000 cfs calculated using a linear function; diverts exactly 75,000 cfs when flows are at 1,250,000 cfs).	Years 1-10	$998,800,000
Shoreline Protection	001.SP.01	Manchac Landbridge Shoreline Protection: Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 5,500 feet of the west side of Lake Pontchartrain north of Pass Manchac near Stinking Bayou to preserve shoreline integrity and reduce wetland degradation from wave erosion.	Years 1-10	$11,600,000
	001.SP.101	Unknown Pass to Rigolets Shoreline Protection: Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 2,000 feet of the east side of the New Orleans Landbridge from Unknown Pass to the Rigolets to preserve shoreline integrity and reduce wetland degradation from wave erosion.	Years 1-10	$5,200,000
	001.SP.104	LaBranche Wetlands Shoreline Protection: Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 11,100 feet of the southern shore of Lake Pontchartrain near the LaBranche wetlands to preserve shoreline integrity and reduce wetland degradation from wave erosion.	Years 1-10	$23,100,000
	002.SP.100	Lake Hermitage Shoreline Protection: Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 6,500 feet around the southern shore of Lake Hermitage to preserve shoreline integrity and reduce wetland degradation from wave erosion.	Years 1-10	$14,500,000
	002.SP.102	East Snail Bay Shoreline Protection: Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 7,300 feet of the north-eastern shore of Snail Bay south of Little Lake to preserve shoreline integrity and reduce wetland degradation from wave erosion.	Years 1-10	$15,400,000

Southeast Coast Projects – continued

Project Type	Project No.	Project Description	Implementation Period	Project Costs
Shoreline Protection (continued)	002.SP.106	Bayou Perot Shoreline Protection: Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 5,900 feet of the western shore of Bayou Perot to preserve shoreline integrity and reduce wetland degradation from wave erosion.	Years 1-10	$13,400,000
Nonstructural Risk Reduction	JEF.01N	Jefferson - Grand Isle Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$98,200,000
	JEF.02N	Jefferson - Lafitte/Barataria Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$200,800,000
	LAF.01N	Lafourche - Lower Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$1,700,000
	LAF.02N	Lafourche - Larose/Golden Meadow Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$32,600,000
	LAF.03N	Lafourche - Raceland Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$363,500,000
	ORL.01N	Orleans - Rigolets Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$18,000,000
	ORL.02N	Orleans - Lake Catherine Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$135,600,000
	PLA.01N	Plaquemines - West Bank Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$264,700,000
	PLA.02N	Plaquemines - Braithwaite Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$56,200,000
Nonstructural Risk Reduction (continued)	PLA.03N	Plaquemines - Grand Bayou Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$3,000,000
	PLA.05N	Plaquemines - Phoenix/Pointe A La Hache Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$38,300,000
	STB.01N	St. Bernard - Yscloskey/Delacroix Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$70,400,000
	STB.02N	St. Bernard Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$2,400,000
	STC.05N	St. Charles - Salvador Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$2,200,000
	SJB.03N	St. John the Baptist - Edgard Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$7,800,000
	STT.01N	St. Tammany Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 1-30	$1,611,300,000
Structural Protection	001.HP.05	West Shore Lake Pontchartrain: Construction of a levee to an elevation between 16 and 19 feet NAVD88 in the Laplace area. Project features approximately 91,000 feet of earthen levee, approximately 5,000 feet of T-wall, (1) 18-foot sluice gate, (1) 25-foot sluice gate, (2) 25-foot swing gates, (1) 150-foot roller gate, and (4) pump stations with a total capacity of 2,150 cfs.	Years 1-30	$730,400,000
	001.HP.08	Lake Pontchartrain Barrier: Construction of closure gates and weirs to an elevation of 2 feet NAVD88 across the passes at Chef Menteur and the Rigolets for storm surge risk reduction within the Lake Pontchartrain Basin. Project features approximately 5,200 feet of earthen levee, 630 feet of a comb-wall weir constructed to 2 feet, a 150-foot closure gate at each pass for navigation, and multiple vertical lift gates to maintain tidal exchange through the passes.	Years 1-30	$2,409,600,000
	001.HP.13	Slidell Ring Levees: Construction of a levee to an elevation of 16 feet NAVD88 for storm surge risk reduction around Slidell. Project features approximately 21,000 feet of earthen levee and 14,500 feet of T-wall.	Years 1-30	$181,300,000

Southeast Coast Projects – continued

Project Type	Project No.	Project Description	Implementation Period	Project Costs
Structural Protection (continued)	002.HP.06	Upper Barataria Risk Reduction: Construction of a levee to an elevation between 12.5 and 15 feet NAVD88 along Highway 90 between the West Bank and Larose. Project includes 204,300 feet of earthen levee, 8,200 feet of T-wall, (4) 10-foot sluice gates, (1) 250-foot barge gate, (2) 40-foot swing gates, and (8) pump stations with a total capacity of 6,837 cfs.	Years 1-30	$940,900,000
	03a.HP.20	Larose to Golden Meadow: Improvements to the existing Larose to Golden Meadow levee system, including raising to an elevation between 12 and 21 feet NAVD88. Project features approximately 249,900 feet of earthen levee and approximately 6,700 feet of T-wall.	Years 1-30	$355,500,000
Marsh Creation	001.MC.05	New Orleans East Landbridge Restoration: Creation of approximately 21,800 acres of marsh in New Orleans East Landbridge to create new wetland habitat and restore degraded marsh.	Years 11-30	$1,106,700,000
	001.MC.06a	Breton Marsh Creation - Component A: Creation of approximately 12,000 acres of marsh in the Breton Marsh east of Delacroix Island to create new wetland habitat and restore degraded marsh.	Years 11-30	$982,400,000
	001.MC.07a	Lake Borgne Marsh Creation - Component A: Creation of approximately 5,900 acres of marsh along the south shoreline of Lake Borgne near Proctors Point to create new wetland habitat and restore degraded marsh.	Years 11-30	$271,700,000
	001.MC.08a	Central Wetlands Marsh Creation - Component A: Creation of approximately 2,800 acres of marsh in Central Wetlands near Bayou Bienvenue to create new wetland habitat and restore degraded marsh.	Years 11-30	$122,300,000
	001.MC.102	Pointe a la Hache Marsh Creation: Creation of approximately 12,700 acres of marsh on the eastbank of Plaquemines Parish near Pointe a la Hache to create new wetland habitat and restore degraded marsh.	Years 11-30	$647,800,000
	001.MC.104	East Bank Land Bridge Marsh Creation: Creation of approximately 2,300 acres of marsh in Plaquemines Parish between Grand Lake and Lake Lery to create new wetland habitat and restore degraded marsh.	Years 11-30	$154,200,000
	001.MC.105	Spanish Lake Marsh Creation: Creation of approximately 800 acres of marsh in Plaquemines Parish along the eastern shore of Spanish Lake to create new wetland habitat and restore degraded marsh.	Years 11-30	$59,900,000
	001.MC.106	St. Tammany Marsh Creation: Creation of approximately 6,700 acres of marsh in St. Tammany Parish along the northern shore of Lake Pontchartrain to create new wetland habitat and restore degraded marsh.	Years 11-30	$199,300,000
	001.MC.107	Tiger Ridge/Maple Knoll Marsh Creation: Creation of approximately 4,700 acres of marsh in Plaquemines Parish near Tiger Ridge to create new wetland habitat and restore degraded marsh.	Years 11-30	$214,600,000
	002.MC.05e	Large-Scale Barataria Marsh Creation - Component E: Creation of approximately 12,900 acres of marsh in the Barataria Basin south of the Pen to the Barataria Landbridge to create new wetland habitat and restore degraded marsh.	Years 11-30	$674,500,000
Ridge Restoration	001.RC.01	Bayou LaLoutre Ridge Restoration: Restoration of approximately 108,900 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along Bayou LaLoutre.	Years 11-30	$20,200,000
	002.RC.02	Spanish Pass Ridge Restoration: Restoration of approximately 46,300 feet of historic ridge to an elevation of 5 feet NAVD88 to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation west of Venice along the banks of Spanish Pass.	Years 11-30	$11,600,000

Project Type	Project No.	Project Description	Implementation Period	Project Costs
Ridge Restoration (continued)	002.RC.100	Red Pass Ridge Restoration: Restoration of approximately 23,000 feet of historic ridge southwest of Venice to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation along the banks of Red Pass.	Years 11-30	$3,500,000
Sediment Diversion	001.DI.101	Ama Diversion: Sediment diversion into Upper Barataria near Ama to provide sediment for emergent marsh creation and freshwater to sustain existing wetlands, 50,000 cfs capacity (modeled at 50,000 cfs when the Mississippi River flow equals 1,000,000 cfs; open with a variable flow rate calculated using a linear function from 0 to 50,000 cfs for river flow between 200,000 cfs and 1,000,000 cfs, diverts exactly 50,000 cfs when the Mississippi River flow is 1,000,000 cfs; and open with a variable flow rate (larger than 50,000 cfs, estimated using linear extrapolation) for river flow above 1,000,000 cfs. No operation below 200,000 cfs).	Years 11-30	$882,400,000
Shoreline Protection	002.SP.103	West Snail Bay Shoreline Protection: Shoreline protection through rock breakwaters designed to an elevation of 3.5 feet NAVD88 along approximately 16,600 feet of the western shoreline of Snail Bay south of Little Lake to preserve shoreline integrity and reduce wetland degradation from wave erosion.	Years 11-30	$30,000,000
Nonstructural Risk Reduction	STC.01N	St. Charles - Hahnville/Luling Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 31-50	$829,500,000
	STJ.02N	St. James - Vacherie Nonstructural Risk Reduction: Project includes floodproofing non-residential properties where 100-year flood depths are 1-3 feet, elevating residential properties where 100-year flood depths are 3-14 feet, and acquiring residential properties where 100-year flood depths are greater than 14 feet.	Years 31-50	$3,900,000
Structural Protection	001.HP.04	Greater New Orleans High Level: Improvements of existing Hurricane and Storm Damage Risk Reduction System levees surrounding the East Bank of Greater New Orleans to elevations between 19 and 35 feet NAVD88. Project features approximately 252,000 feet of earthen levee and approximately 242,100 feet of T-wall.	Years 31-50	$2,222,700,000
Marsh Creation	001.MC.101	Uhlan Bay Marsh Creation: Creation of approximately 700 acres of marsh on the east bank of Plaquemines Parish around Uhlan Bay to create new wetland habitat and restore degraded marsh.	Years 31-50	$29,000,000
	001.MC.102	Pointe a la Hache Marsh Creation: Creation of approximately 5, 400 acres of marsh on the east bank of Plaquemines Parish near Pointe a la Hache to create new wetland habitat and restore degraded marsh.	Years 31-50	$353,700,000
	002.MC.04a	Lower Barataria Marsh Creation - Component A: Creation of approximately 7,400 acres of marsh in Jefferson Parish on the east shore of Little Lake and Turtle Bay to create new wetland habitat and restore degraded marsh.	Years 31-50	$709,500,000

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

PO-01

PPL29 PROJECT FACT SHEET
February 14, 2019

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; osowski.sharon@epa.gov
Adrian Chavarria, EPA; (214) 665-3103, chavarria.adrian@epa.gov
Amanda Moore, National Wildlife Federation; (504) 273-4838; MooreA@nwf.org

St Catherine's Pass Marsh Creation

Marsh Creation Feature 283ac

N

Basemap: 2017 NAIP DOQQ Orleans Parish
Produced By: EPA Region 6, Dallas, TX

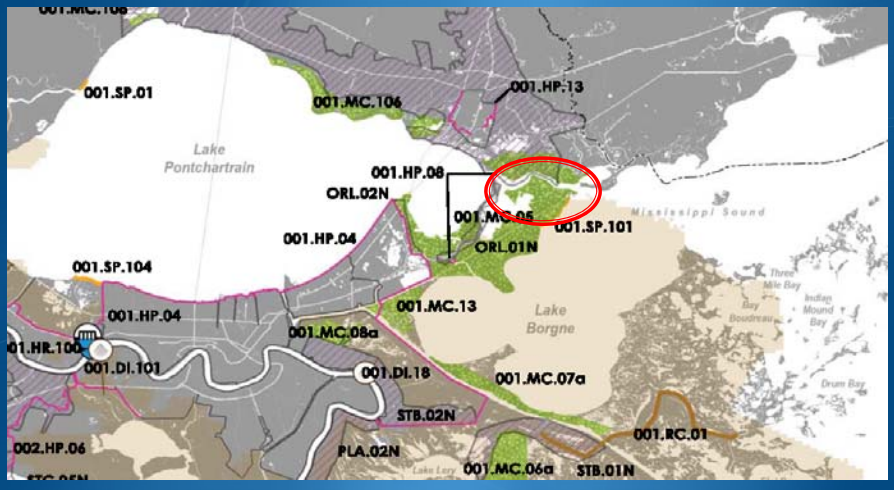
0 0.075 0.15 0.3 0.45 0.6
Miles

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

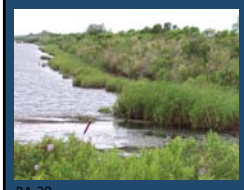
St Catherine's Pass Marsh Creation

St Catherine Pass
Other Projects
2017MP: New Orleans Landbridge

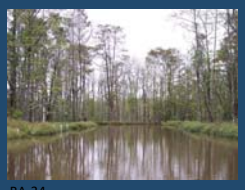
N

Basemap: 2017 NAIP DOQQ Orleans Parish
Produced By: EPA Region 6, Dallas, TX

0 0.25 0.5 1 1.5 2 Miles


BA-39


PO-30


BA-34


TE-40

EPA Region 6 CWPPRA Team Goals

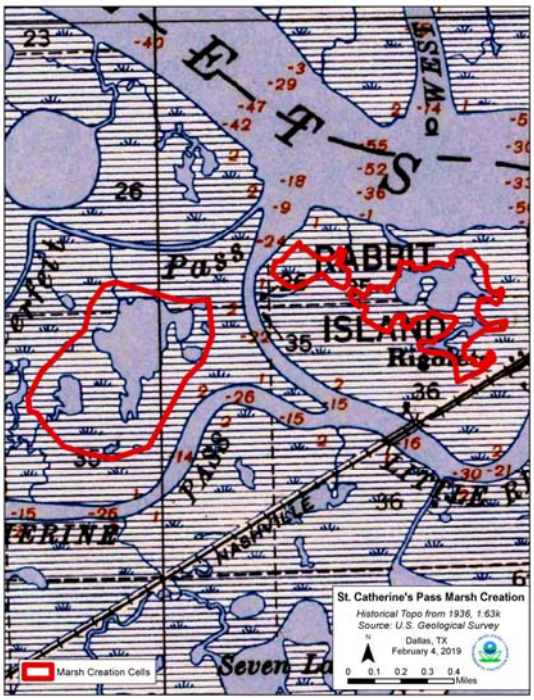
- Protect human health and the environment, including water quality, by restoring coastal wetlands
- Improve local community resilience
- Restore wetland habitats and protect critical infrastructure
- Support stakeholder priorities in synergy with EPA's mission

Problems

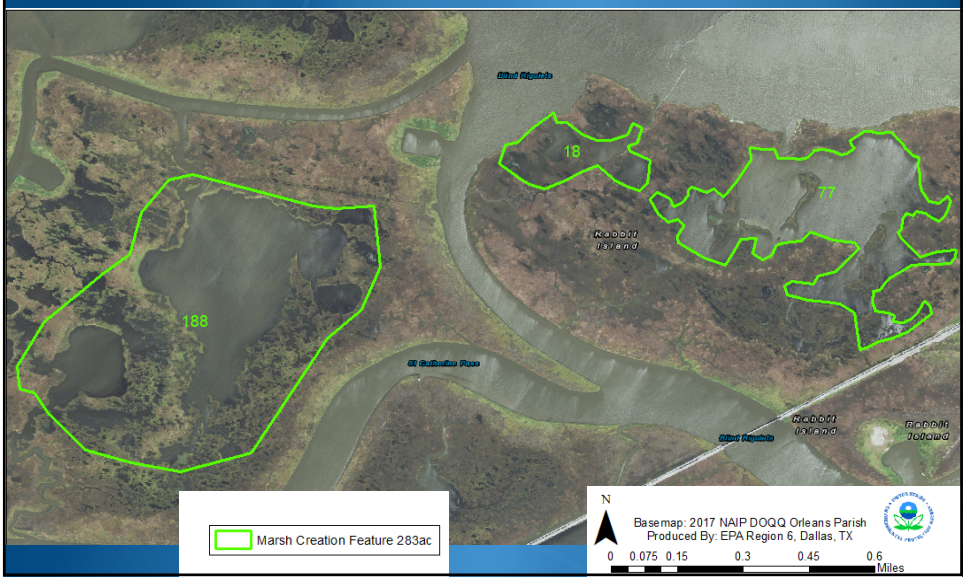
- Fragmented/degraded wetlands converting to open water
- Subsidence
- Storm events
- Wave energy
- Orleans Parish could lose 32% of its land area over the next 50 years and face increased wetland loss and severe storm surge flood risk (2017 MP).

Historical Reference

- 1936



Project Features



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.

PO-02

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:
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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 Marsh Creation 436 ac

N

Basemap: 2017 NAIP DOQQ St. Tammany Parish
Produced by: EPA Region 6, Dallas, TX

0 0.125 0.25 0.5 0.75 1 Miles

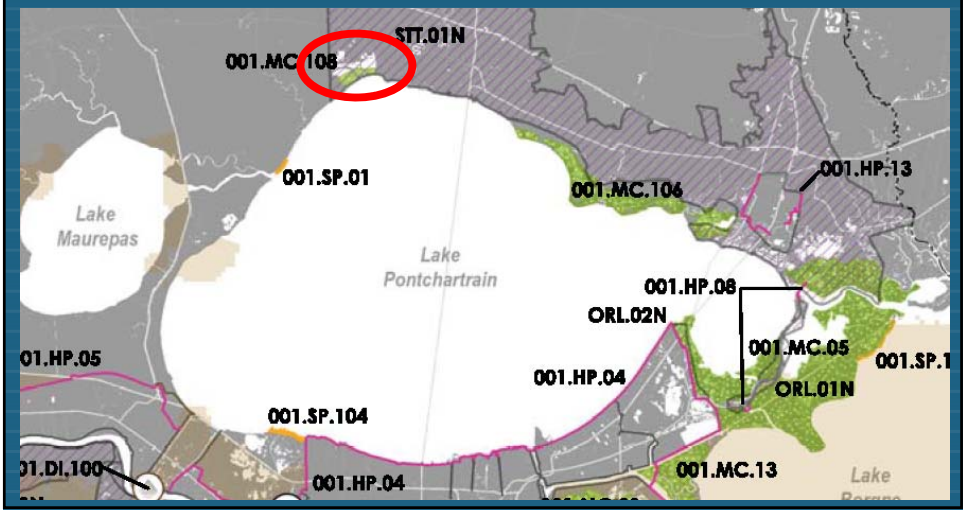
Guste Island Marsh Creation

Guste Island is located east of the Tchefuncte 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

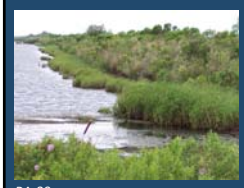
2017 Master Plan Consistency & Project Synergy

US Army Corps of Engineers®

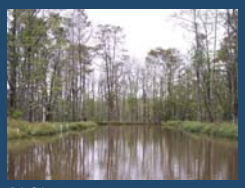
The Nature Conservancy

U.S. Fish and Wildlife Service Coastal Program

- 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


BA-39


PO-30


BA-34


TE-40

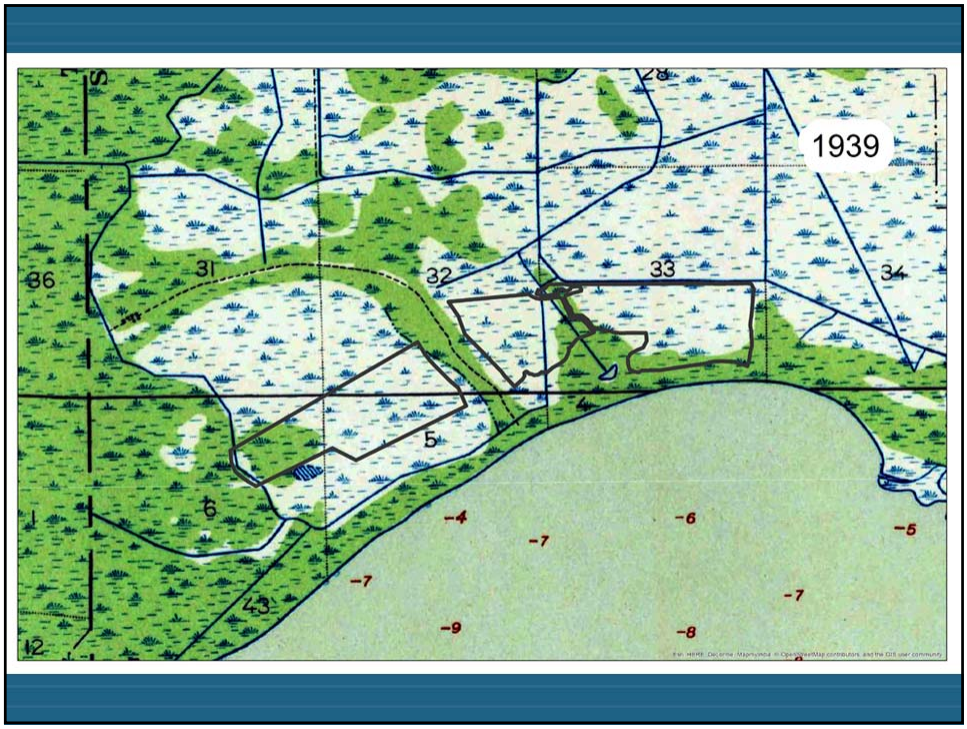
EPA Region 6 CWPPRA Team Goals

- 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


2010 imagery showing land loss developed through impoundment of marsh areas for agricultural activities.

- 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


1939
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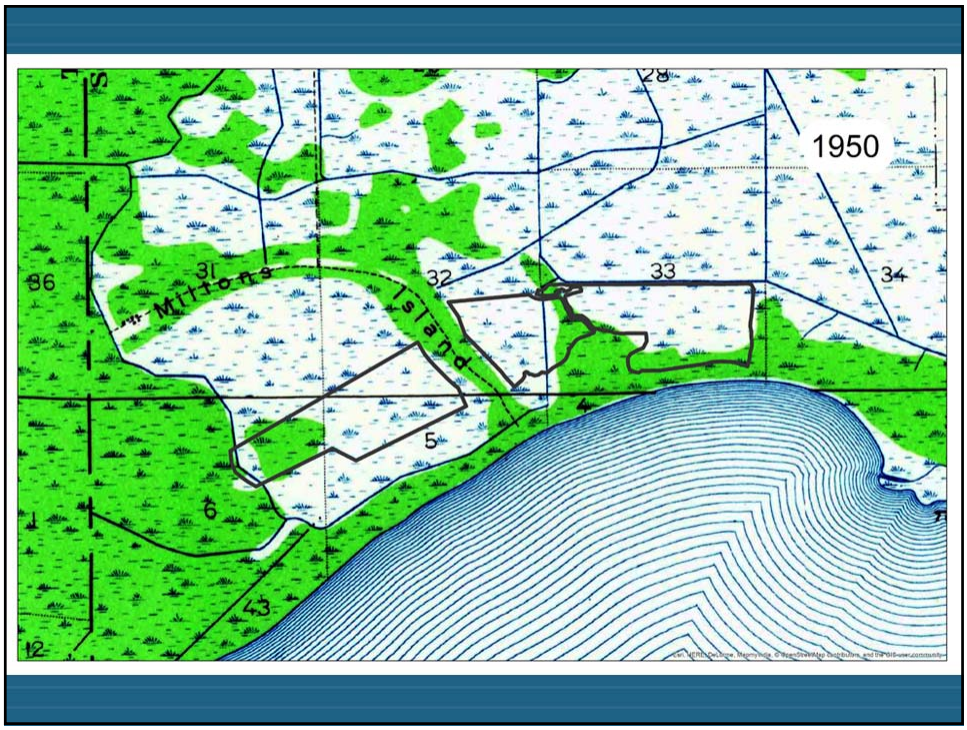
1950
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Mitton's
Island
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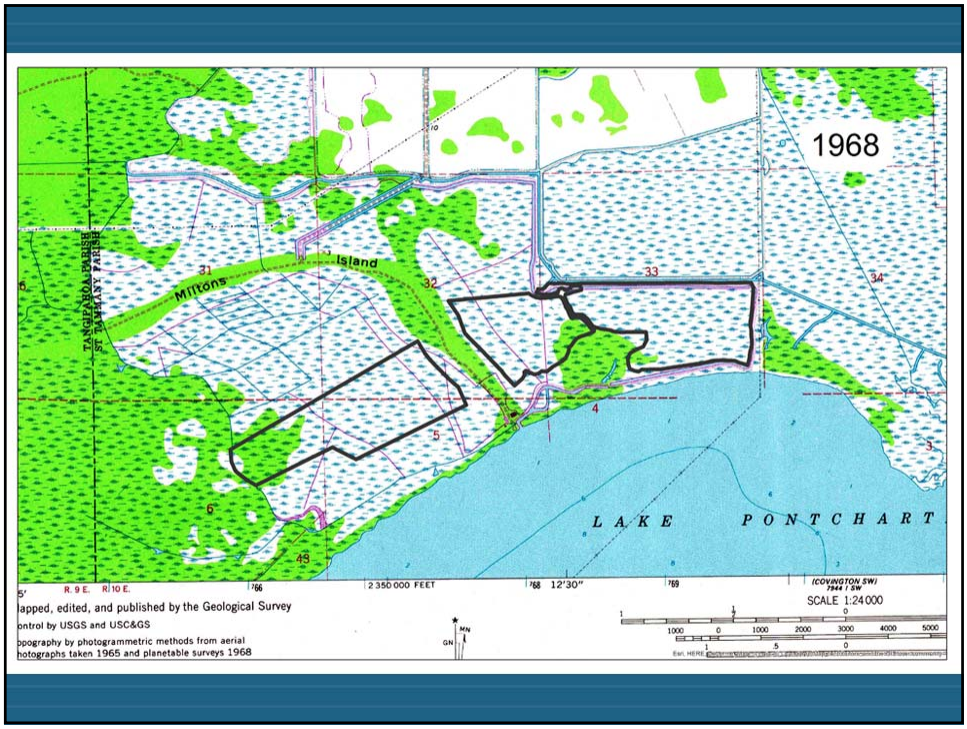
6
43
12


1968
Island
Miltons
TANGIPAHOA PARISH
ST. TAMMANY PARISH
LAKE PONTCHART
R. 9 E.
R. 10 E.
2 350 000 FEET
12'30"
(COVINGTON SW)
1944 / SW
SCALE 1:24 000
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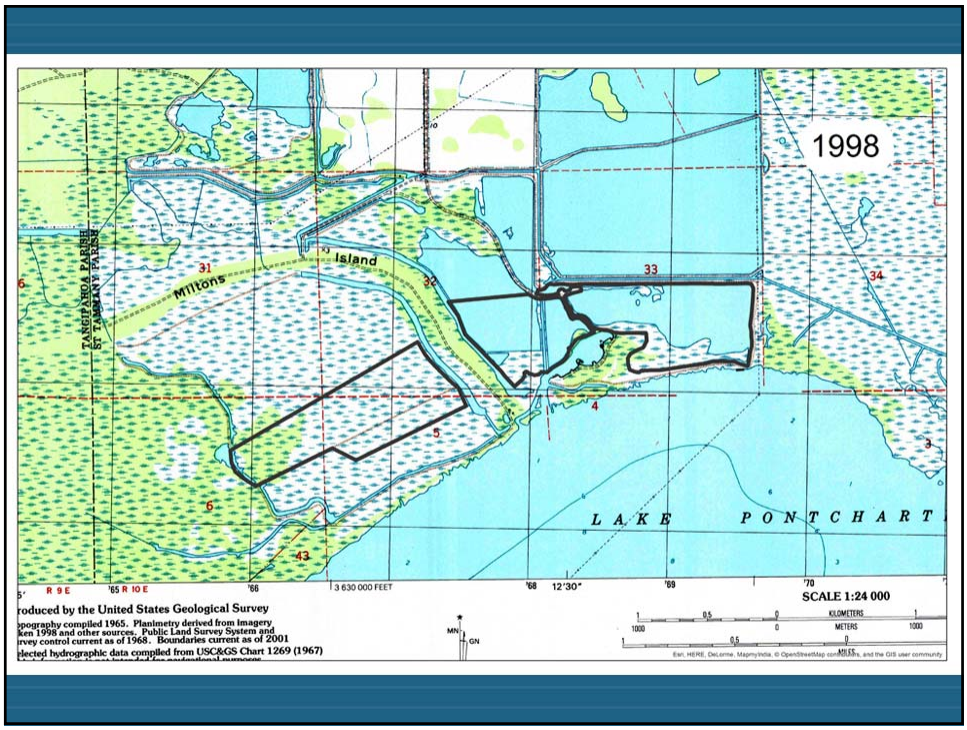
ontrol by USGS and USC&GS
opography by photogrammetric methods from aerial
hotographs taken 1965 and planetable surveys 1968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Miltons
TANGIPAHOA PARISH
ST. TAMMANY PARISH
LAKE PONTCHART
R 9 E
R 10 E
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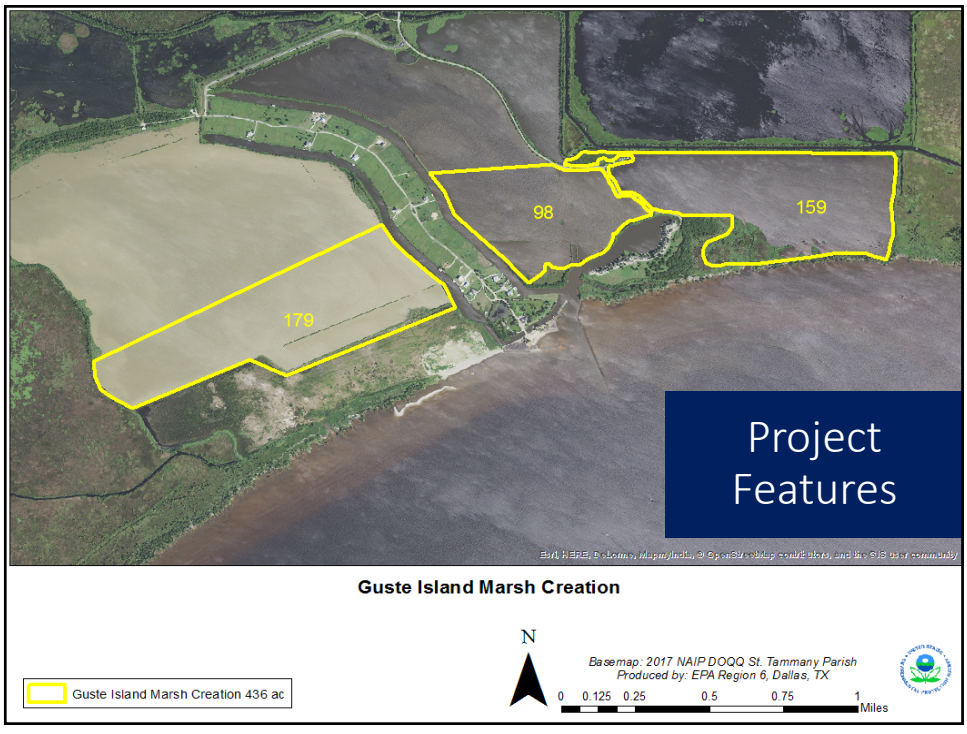
12'30"
SCALE 1:24 000
roduced by the United States Geological Survey
opography compiled 1965. Planimetry derived from imagery
ken 1998 and other sources. Public Land Survey System and
rvey control current as of 1968. Boundaries current as of 2001
lected hydrographic data compiled from USC&GS Chart 1269 (1967)


02-03-1998
Guste Island
N
1 mi


98
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179
Project Features
Guste Island Marsh Creation
Guste Island Marsh Creation 436 ac
N
Basemap: 2017 NAIP DOQQ St. Tammany Parish
Produced by: EPA Region 6, Dallas, TX
0 0.125 0.25 0.5 0.75 1
Miles

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

PO-03

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 l, Pontchatrain 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 1-10, 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 lf 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 lf 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


NE Labranche SP
Legend
12,138 ft
Google Earth
3000 ft
N

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

PO-04

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?*

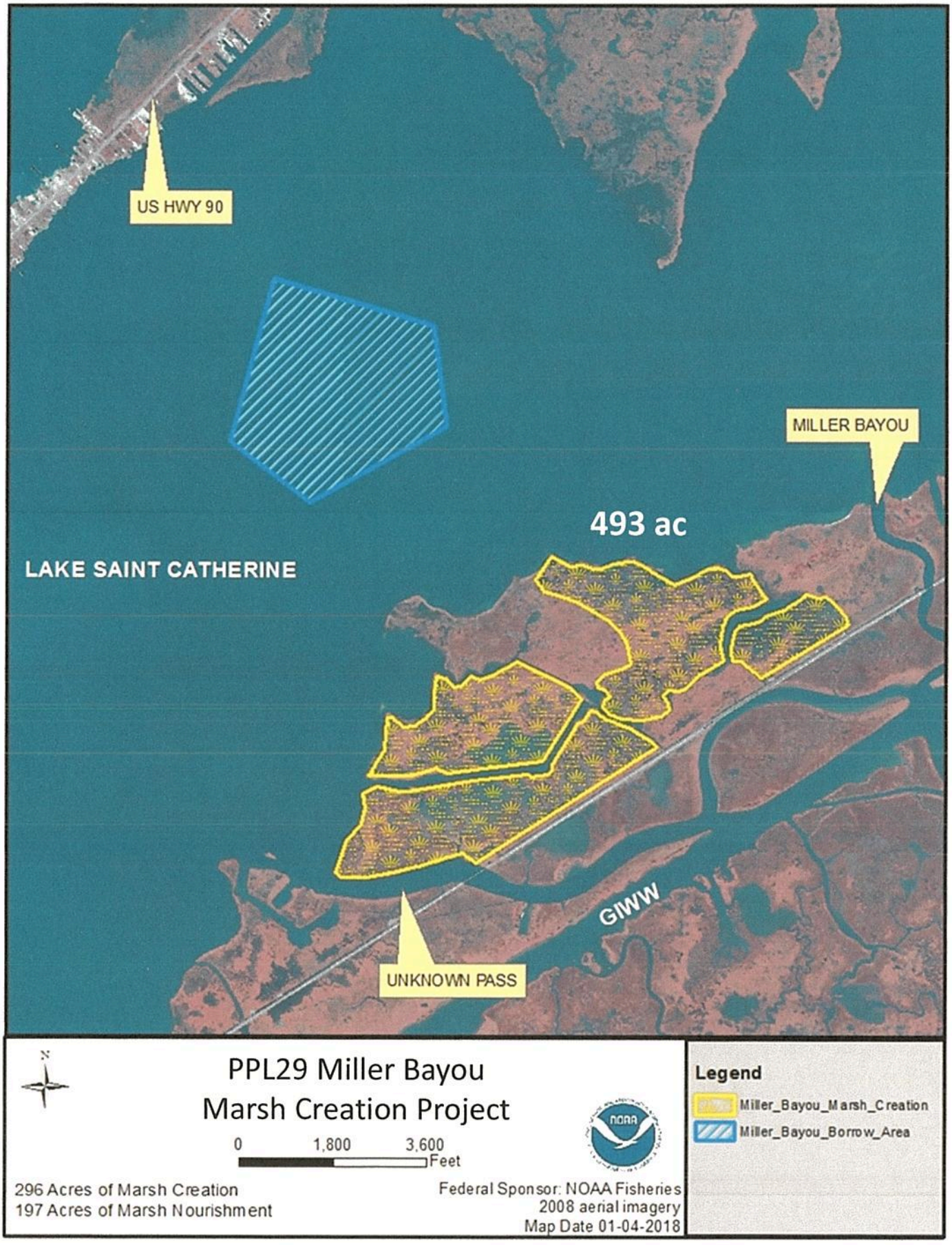
The project may have minor net positive impact to non-critical infrastructure comprised of pipelines and oil and gas wells and camps.

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.

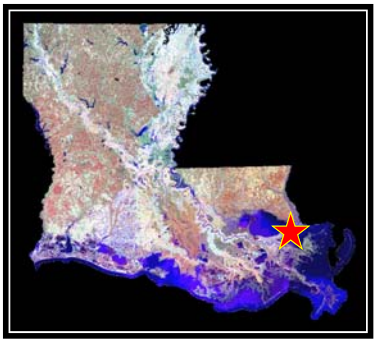
Preliminary Construction Costs
The estimated construction cost is $15M-$20M.

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


US HWY 90
MILLER BAYOU
493 ac
LAKE SAINT CATHERINE
GIWW
UNKNOWN PASS
N
PPL29 Miller Bayou
Marsh Creation Project
0
1,800
3,600
Feet
296 Acres of Marsh Creation
197 Acres of Marsh Nourishment
Federal Sponsor: NOAA Fisheries
2008 aerial imagery
Map Date 01-04-2018
Legend
Miller_Bayou_Marsh_Creation
Miller_Bayou_Borrow_Area

Miller Bayou Marsh Creation Project

NOAA FISHERIES



REGION 1 – Pontchartrain Basin

Presenter: Jason Kroll, Civil Engineer, NOAA

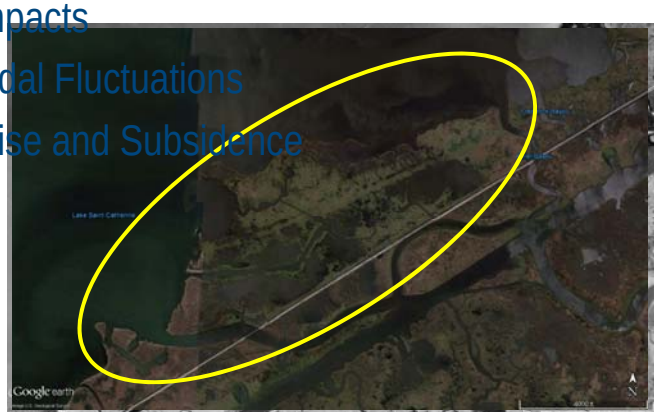
PPL29 CWPPRA Regional Planning Team Meeting
Lacombe, Louisiana
February 14, 2019

Project Vicinity

Project Area Problems

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

2088



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:
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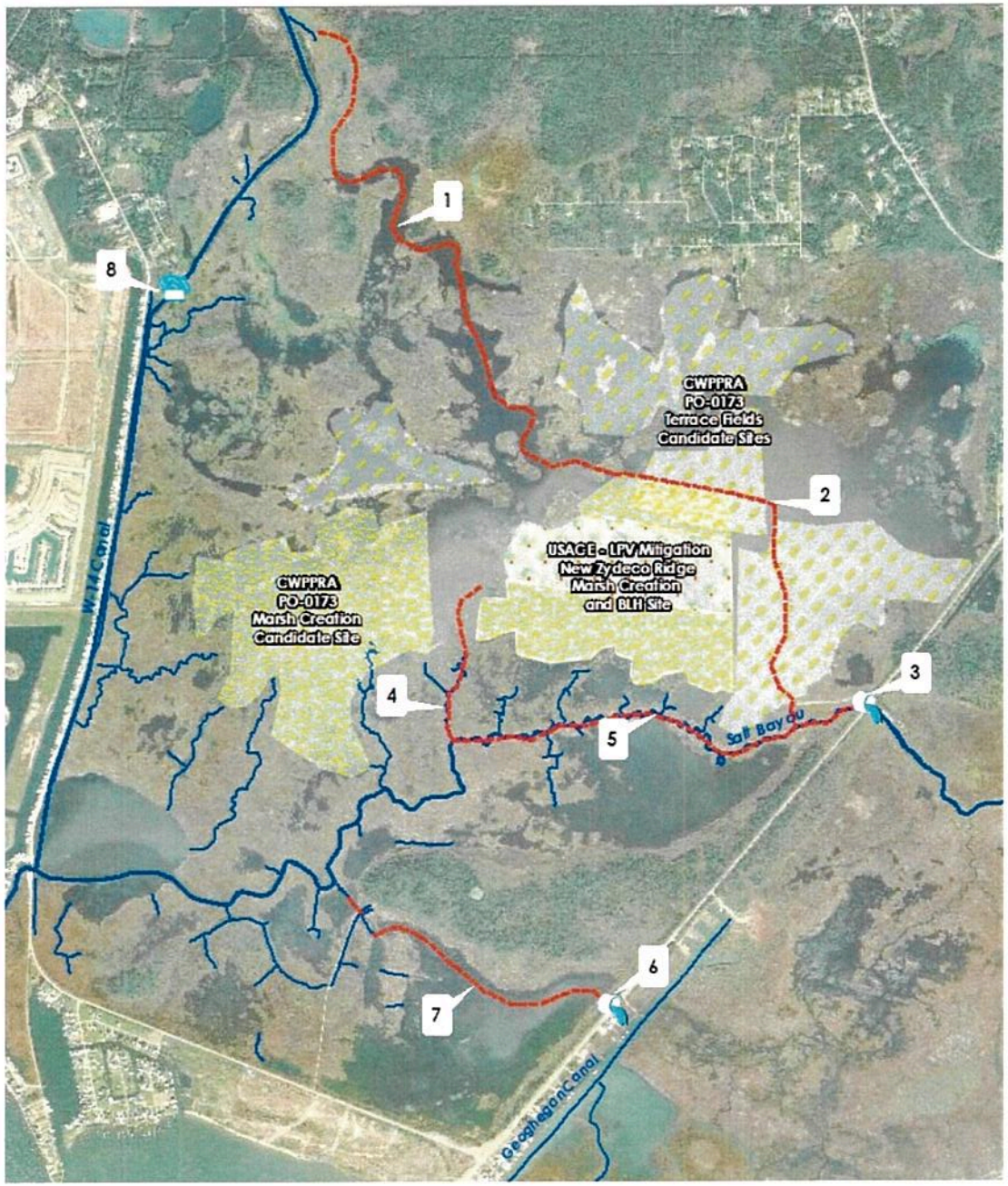
dawn.davis@noaa.gov
Jason Kroll, 225-757-5411
jason.kroll@noaa.gov

PO-05 PO-



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 though marsh

PROJECT COSTS

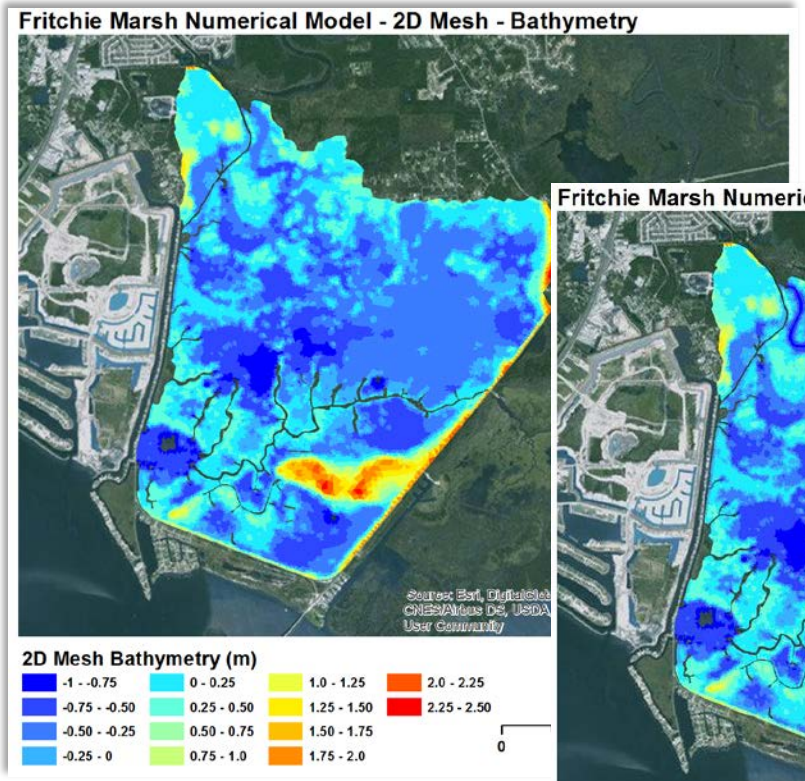
ITEM	UNIT	QUANTITY	RATE ($/UNIT)	
		ENGINEERING AND DESIGN		
Engineering/Design	LS	1	$350,000	$350,000
Survey	LS	1	$120,000	$120,000
Land Aquisistion	LS	1	$150,000	$150,000
			Subtotal	$370,000
		CONSTRUCTION COSTS		
Mobilization	LS	1	$80,000	$80,000
Conveyance Dredging 1,2	CY	152527	$12	$1,830,324
Conveyance Dredging 4,5	CY	41937	$12	$503,244
Conveyance Dredging 7	CY	20250	$12	$243,000
Culverts at Salt Bayou	LF	240	$800	$192,000
Culverts at Goeghegan	LF	2000	$350	$700,000
			Subtotal	$3,548,568
			Contingency (15%)	$532,285
			Total	$4,080,853

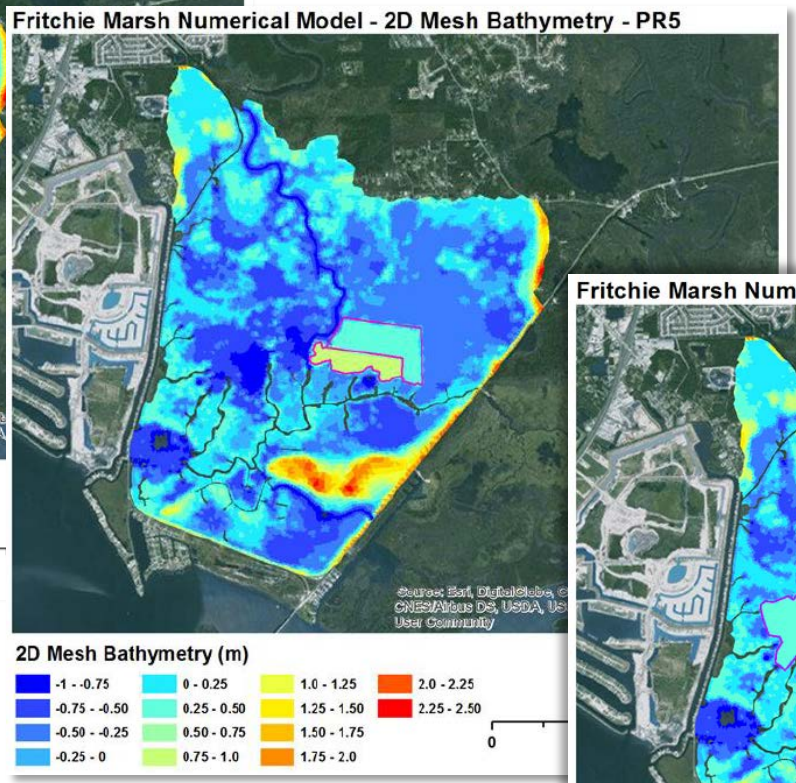
FRITCHIE MARSH HYDROLOGIC RESTORATION

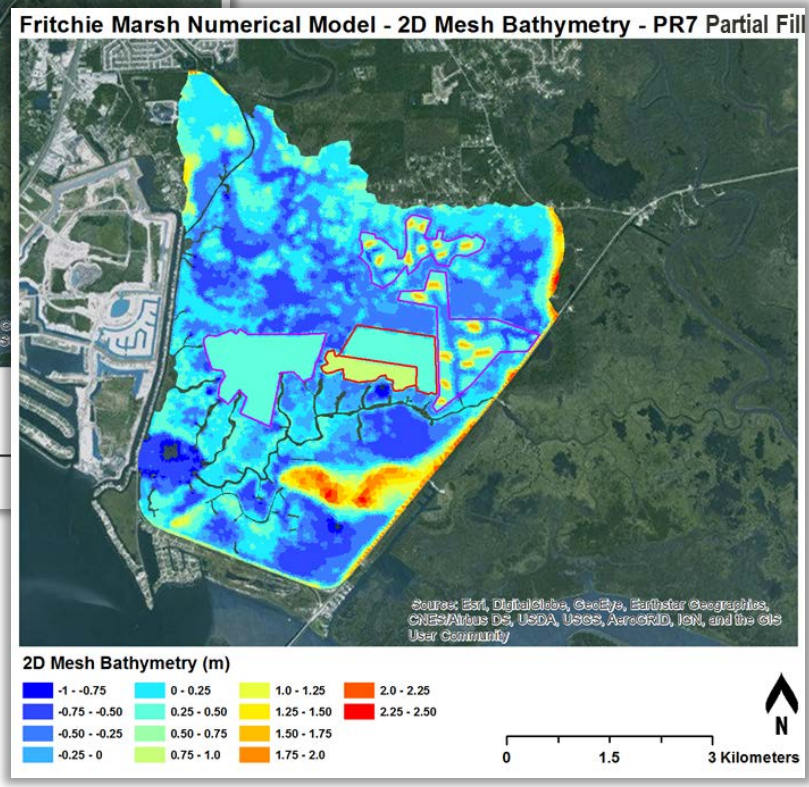
DUPLANTIS DESIGN GROUP, PC

FEBRUARY 14, 2019

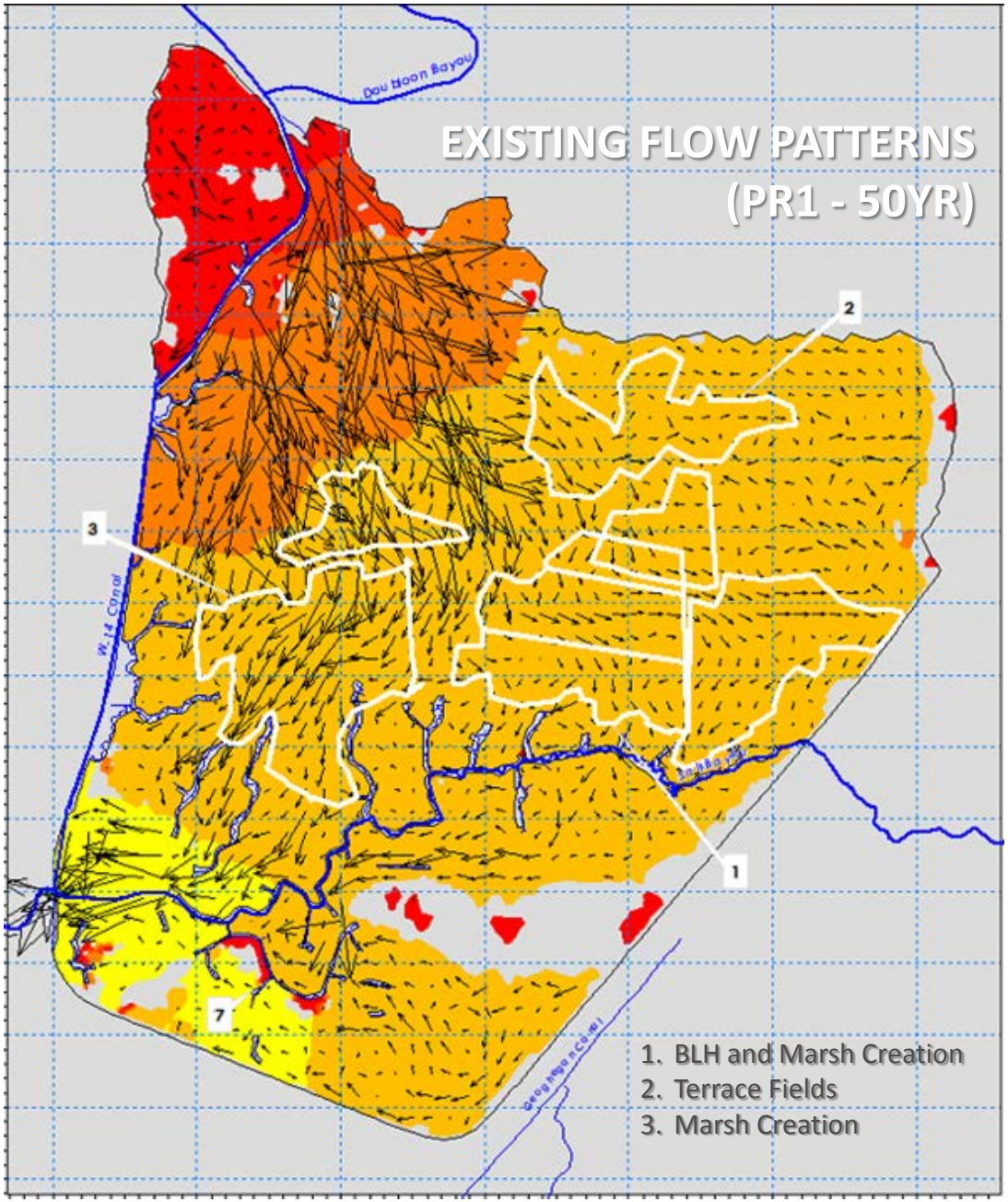
CONTACT: JOE GUILLORY, PE
JGUILLORY@DDGPC.COM





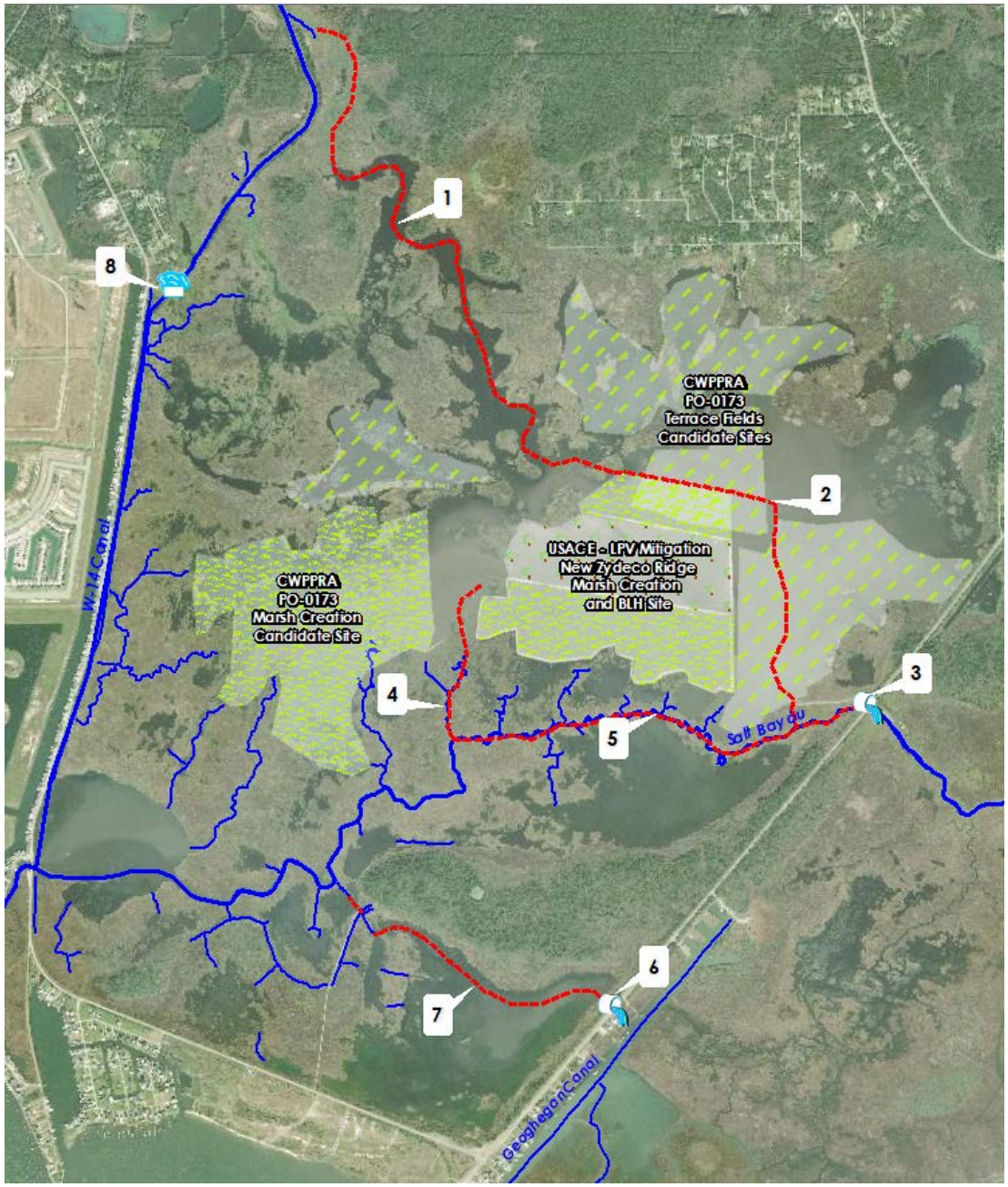


- **PR1** Existing Conditions without New Zydeco Ridge projects
- **PR2** Improved conveyance through marsh to Salt Bayou
- **PR3** Improved conveyance through marsh to Geoghegan Canal
- **PR4** Existing Conditions with New Zydeco Ridge projects
- **PR5** Improved conveyance through Salt Bayou & Geoghegan 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



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Pre- and Post-Hurricane Katrina