

REGION 1

Coastal Wetlands Planning Protection & Restoration Act

27th Priority Project List



Region 1 Regional Planning Team Meeting

February 2, 2017
Lacombe, LA

CWPPRA

1. Welcome and Introductions



- RPT Region 1 Leader: [Stuart Brown - CPRA](#)

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Announcements

- Copies of the PPL 27 Selection Process & Schedule available at the sign-in table.
- PPL 27 RPT meetings to accept project nominees:
 - Region IV, Vermilion Parish Library, Jan. 31, 2017, 12:30 pm
 - Region III, Port of Morgan City - Office, Feb. 1, 2017, 9:30 am
 - Region II, USFWS SE LA Refuges Complex (Big Branch), Feb. 2, 2017, 10:00 am
 - **Region I, USFWS SE LA Refuges Complex, Feb. 2, 2017, 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 2012 State Master Plan or the DRAFT 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 (March 7th).
 - *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 27 Nomination Sign-Up Sheet for each project nominee (demo projects too).
- Presenters with factsheets, please give a factsheet each to Kaitlyn, Michelle & the minutes taker 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 **March 1, 2017**.
- Limit comments/questions during meeting to PPL 27 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 **March 7, 2017**.
- The Technical Committee may or may not select a coastwide project in April 2017.



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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 **March 7th** Coastwide Electronic Vote.
- The Technical Committee selects up to 3 demos in April 2017.
- Workgroups may recommend that no demos move forward to candidate stage
- Previous demo candidates must be **re-nominated** for PPL 27.



Coastwide Electronic Vote (**Mar. 7th**) 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 **3/1/2017**.



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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 March 7, 2017.



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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 27 criteria.



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PPL 27 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 27 Timeline

- **Coastwide Electronic Vote, Mar. 7, 2017**
 - 21 basin-project nominees, 1 coastwide nominee, and 6 demos selected
- **Technical Committee Mtg, Apr. 27, 2017, New Orleans**
 - Selection of 10 candidates and up to 3 demos
- **Technical Committee Mtg, Dec. 7, 2017, Baton Rouge**
 - Typically recommend up to 4 projects for Phase 1 funding
- **Task Force Mtg, Jan. 2018, 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: March 1, 2017**

Brad Inman
CWPPRA Program Manager
U.S. Army Corps of Engineers
7400 Leake Avenue
New Orleans, Louisiana 70118

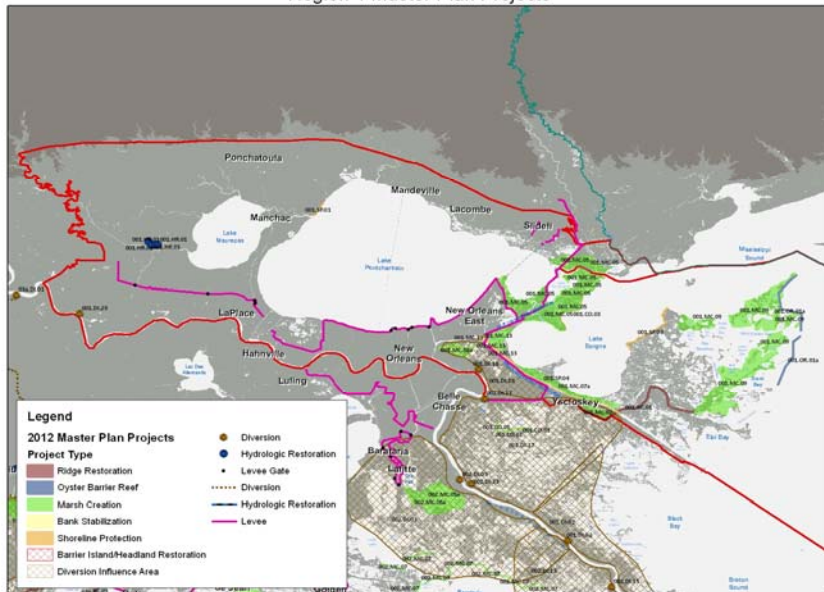
Email: Brad.L.Inman@usace.army.mil

(this information is on the back of the agenda)



CWPPRA

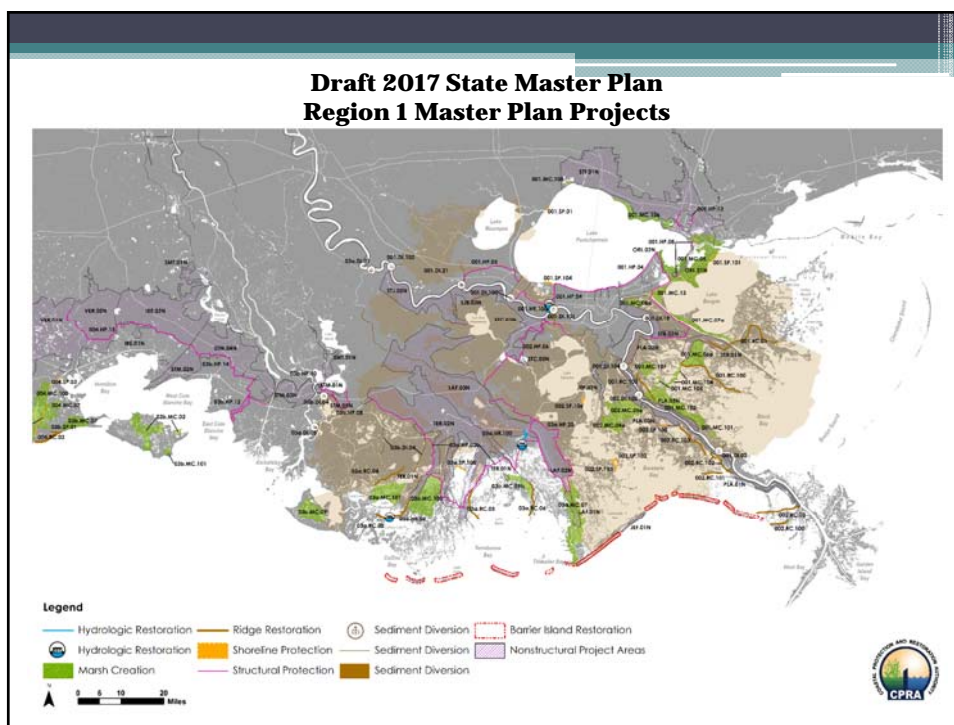
2012 State Master Plan Region 1 Master Plan Projects



CWPPRA			
Project Type	Project Name	Project Costs	Project No.
Hydrologic Restoration	Amite River Diversion Canal: Hydrologic restoration in the western Maurepas Swamp by gapping spoil banks along the Amite River Diversion Canal to eliminate impoundment and restore hydrologic exchange.	\$4M	001.HR.01
Marsh Creation	Hopedale Marsh Creation: Creation of approximately 550 acres of marsh in northern Breton Sound in the vicinity of Hopedale to create new wetland habitat, restore degraded marsh, and reduce wave erosion.	\$147M	001.MC.02
Marsh Creation	New Orleans East Landbridge Restoration (1st Period Increment): Creation of approximately 8,510 acres of marsh in the New Orleans East Landbridge to create new wetland habitat, restore degraded marsh, and reduce wave erosion.	\$473M	001.MC.05
Marsh Creation	New Orleans East Landbridge Restoration (2nd Period Increment): Creation of approximately 8,510 acres of marsh in the New Orleans East Landbridge to create new wetland habitat, restore degraded marsh, and reduce wave erosion.	\$1,890M	001.MC.05
Marsh Creation	Lake Borgne Marsh Creation-Component A: Creation of approximately 2,230 acres of marsh along the south shoreline of Lake Borgne near Proctors Point to create new wetland habitat, restore degraded marsh, and reduce wave erosion.	\$620M	001.MC.07a
Marsh Creation	Central Wetlands Marsh Creation-Component A: Creation of approximately 2,010 acres of marsh in Central Wetlands near Bayou Bienvenue to create new wetland habitat, restore degraded marsh, and reduce wave erosion.	\$234M	001.MC.08a
Marsh Creation	Biloxi Marsh Creation: Creation of approximately 33,280 acres in the western portion of marsh in Biloxi Marsh from Oyster Bay to Drum Bay to create new wetland habitat, restore degraded marsh, and reduce wave erosion.	\$3,046M	001.MC.09

CWPPRA			
Project Type	Project Name	Project Costs	Project No.
Marsh Creation	Golden Triangle Marsh Creation: Creation of approximately 2,440 acres of marsh in the Golden Triangle area to create new wetland habitat, restore degraded marsh, and reduce wave erosion.	\$293M	001.MC.13
Oyster Barrier Reef	Biloxi Marsh Oyster Reef: Creation of approximately 113,000 feet of oyster barrier reef along the eastern shore of Biloxi Marsh to provide oyster habitat, reduce wave erosion, and prevent further marsh degradation.	\$83M	001.OR.01a
Ridge Restoration	Bayou LaLoutre Ridge Restoration: Restoration of approximately 117,000 feet (270 acres) of historic ridge along Bayou LaLoutre to provide coastal upland habitat, restore natural hydrology, and provide wave and storm surge attenuation.	\$61M	001.RC.01
Sediment Diversion	Central Wetlands Diversion (5,000 cfs): Sediment diversion into Central Wetlands in the vicinity of Violet to provide sediment for emergent marsh creation and nutrients to sustain existing wetlands, 5,000 cfs capacity (modeled at 5,000 cfs when Mississippi River flow exceeds 200,000 cfs and no operation for river flows below 200,000 cfs).	\$189M	001.DI.18
Sediment Diversion	West Maurepas Diversion (5,000 cfs): Diversion(s) into western Maurepas Swamp in the vicinity of Convent/Blind River or Hope Canal to sustain existing bald cypress-tupelo swamp habitat, maximum capacity 5,000 cfs (modeled at 5,000 cfs when Mississippi River flow exceeds 600,000 and at 500 cfs for river flows between 200,000-600,000 cfs).	\$127M	001.DI.29
Shoreline Protection	East New Orleans Landbridge Shoreline Protection: Shoreline protection through rock breakwaters of approximately 27,000 feet of coastal marsh on the east side of the New Orleans Landbridge in the vicinity of Alligator Bend to preserve shoreline integrity and reduce wetland degradation from wave erosion.	\$44M	001.CO.03
Shoreline Protection	Manchac Landbridge Shoreline Protection: Protection of approximately 8,000 feet of Lake Pontchartrain shoreline north of Pass Manchac near Sinking Bayou through rock breakwaters to preserve shoreline integrity and reduce wetland degradation from wave erosion.	\$13M	001.SP.01

CWPPRA			
Project Type	Project Name	Project Costs	Project No.
Shoreline Protection	Eastern Lake Borgne Shoreline Protection: Shoreline protection through rock breakwaters of approximately 57,000 feet of the eastern shore of Lake Borgne from Malheureux Point to the vicinity of Point aux Marchettes to preserve shoreline integrity and reduce wetland degradation from wave erosion.	\$85M	001.SP.03
Shoreline Protection	MRGO Shoreline Protection: Shoreline protection through rock breakwaters of approximately 133,000 feet of the north bank of the Mississippi River Gulf Outlet from the Inner Harbor Navigation Canal to Bayou La Loutre to preserve shoreline integrity and reduce wetland degradation from wave erosion.	\$195M	001.SP.04





ATTENDANCE RECORD



DATE	SPONSORING ORGANIZATION	LOCATION
February 2, 2017 10:00 A.M.	COASTAL WETLANDS PLANNING, PROTECTION AND RESTORATION ACT	USFWS SE LA Refuges Complex 61389 Hwy 434 Lacombe, LA 70445
PURPOSE		
MEETING OF THE REGIONAL PLANNING TEAM REGION I & 2		
PARTICIPANT REGISTER		
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
David Brunet	St Tammany Parish	898-2442
Lonnie Fontenot	JESCO (minute-taker)	337-802-7508
ERIC ZOLLINGER	BICOXI MARSH LANDS CORP.	(504) 837-4337
Hope Borne	St. James Parish	(225) 562-2216
Micleg Roussee	" "	225-202-8278
Jason Kroll	NOAA	225 757 5411
Brandon Owens	NOAA FRT	985-351-0353
Robert Spears	Plaquemines Parish CZM	504-491-1607
ACTON James Jo	USDA - NRES	
BARRY HERBERT	LDWF	225.765.0233
Sharon Osowski	EPA	214-665-7506
Michael Bortling	MARINE GARDENS	504 430 8902
Rob DeLaune	Digital Engineering	504-468-6129
Travis Byland	CPRA	225-342-6750
Greg Matten	CPRA	225-342-4496
Wes LeBlanc	CPRA	225 342-4127
Quin Kinkler	NRCS	225-665-4253
Cindy Steyer	NRCS	" xt 111
Don Bowitang	NRCS	337 291-3067
RICHARD LEONHARD	PCS	504-377-9706
Chris Cannon	Living Blanket	504-432-7004
Blaise Petzold	LDAF CRVP	504-264-8125



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PARTICIPANT REGISTER		
NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Charles Sasser	LSU	225 578 6375
Cody Colvin	NRCS	225-278-2732
Tyler Oltay	Coastal Resilience Group	225-372-5520
Robert Dubois	FWS	337-291-3127
Tracy Chastwood	NOAA / NMFS	225 389 0502
Danka Davis	NOAA / NMFS	225 389 0508
Tracy Kuhns	GO Fish Coalition	504-289-7162
JOHN LANG	SBPG Coastal	504 579 - 2173
Capt. George Ricks	SBPG COASTAL CONSULTANT ^{pres.} SLCC	985-670-2923
Terry Graves	consultant, SBPG	(504) 343 4041
Evelyn Campo	St. John the Baptist Planning	(504) 579-6103
Shane Granier	Biologist CDWF	504 284 5264
Annanda Voisin	Lafourche Parish Gov't	985-493-6616
John Boatman	NRCS	985-331-9084
Patrick Wickham	NRCS FISHERIES	225-389-0508
Carol Giardin	LCCA	504 331 5326
KENNETH ROBERTS	PLAQA, PARISH LANDOWNER	504-309-6654
Jason Smith	Jefferson Parish	504 731-4612
Seamus Riley	Jefferson Parish	504-731-4612
Ray HARPER	New Orleans	504-698-4071
Amanda Phillips	Sec. Treas. Edward Wisner Donation	504-210-1152
Kent Billbrass	CRA	225-342-4733



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PURPOSE

MEETING OF THE REGIONAL PLANNING TEAM REGION I & 2

PARTICIPANT REGISTER

NAME	JOB TITLE AND ORGANIZATION	PHONE NUMBER
Adrian Chaverria	EPA	214 665-3103

REGION 1 – PONTCHARTRAIN BASIN

Project Number	Project Proposals
R1-PO-01	Bayou Bienvenue Marsh Creation Increment 1
R1-PO-02	Guste Island Marsh Creation
R1-PO-03	Point aux Marchettes Shoreline Protection and Terracing
R1-PO-04	Cane Bayou Marsh Creation
R1-PO-05	East LaBranche Shoreline Protection
R1-PO	Tchefuncte River Area, Wooded Island Protection, Peninsula Replacement, and Marsh Restoration <i>(Not Consistent with 2012 or draft 2017 State Master Plans)</i>
R1-PO	Southwestern Lake Pontchartrain Shoreline Protection/Marsh Creation <i>(Not Consistent with 2012 or draft 2017 State Master Plans)</i>

R1-PO-01

Bayou Bienvenue Marsh Creation Increment 1

PPL27 PROJECT FACT SHEET

February 2, 2017

Project Name

Bayou Bienvenue Marsh Creation Increment 1

Master Plan Strategy

Central Wetlands Marsh Creation-Component A (2012/2017 Master Plan 001.MC.08a). Creation of approximately 2,010 acres of marsh in Central Wetlands near Bayou Bienvenue, restore degraded marsh, and reduce wave erosion.

Project Location

Region 1, Pontchartrain Basin, Orleans Parish, in the area east of the Inner Harbor Navigation Canal, adjacent to St. Bernard Parish and north of the Lower 9th Ward area of New Orleans.

Problem

Over the past decades, the wetlands and wetland function in the area have been lost because of altered hydrology due to impoundment, subsidence, and saltwater intrusion. The area was heavily impacted by the construction of the MRGO in the 1960's. The majority of the area is shallow open water, littered by cypress snags and stumps.

Goals

The goal of this project is to create/nourish marsh in one of several cells adjacent to Bayou Bienvenue using sediment mined from the Mississippi River. Specific goals include: 1) restoration of approximately 350 acres of open water into emergent marsh; 2) restoration of the historic bankline along Bayou Bienvenue; and 3) planning for the next phase(s) of marsh creation. The preferred initial increment for this project, depending on borrow source, is cell 1 on the attached map, with other increments envisioned for later PPLs.

Proposed Solution

Mississippi River sediment will be used to create/nourish emergent marsh in the triangular-shaped area adjacent to the headwaters of Bayou Bienvenue. The project would benefit 350 acres of wetlands by converting open water into marsh and nourishing existing marsh remnants. A total of 276 net acres of wetlands would be protected and created over the 20-year project life. The visibility of the project, due to its location, lends itself to educational and outreach opportunities. Florida Avenue in the Lower Ninth Ward is south of the project area. A community coalition, restorethebayou.org, is very interested in the area. Restoration in this area would build the area's defenses against hurricanes and flooding and offer opportunities for public recreation and wildlife habitat.

Preliminary Project Benefits

Approximately 276 acres of habitat will be protected/created over the 20-year project life and would help protect and restore a portion of the Bayou Bienvenue Marsh. The proposed project also works synergistically with the approved CIAP Central Wetlands Assimilation Project.

Project Costs

The estimated construction cost including 25% contingency is \$26M. The fully-funded cost range is \$30-\$35 million.

Preparers of Fact Sheet

Adrian Chavarria, EPA; (214) 665-3103, chavarria.adrian@epa.gov

Sharon Osowski, Ph.D., EPA; (214) 665-7506, osowski.sharon@epa.gov



Bayou Bienvenue Marsh Creation

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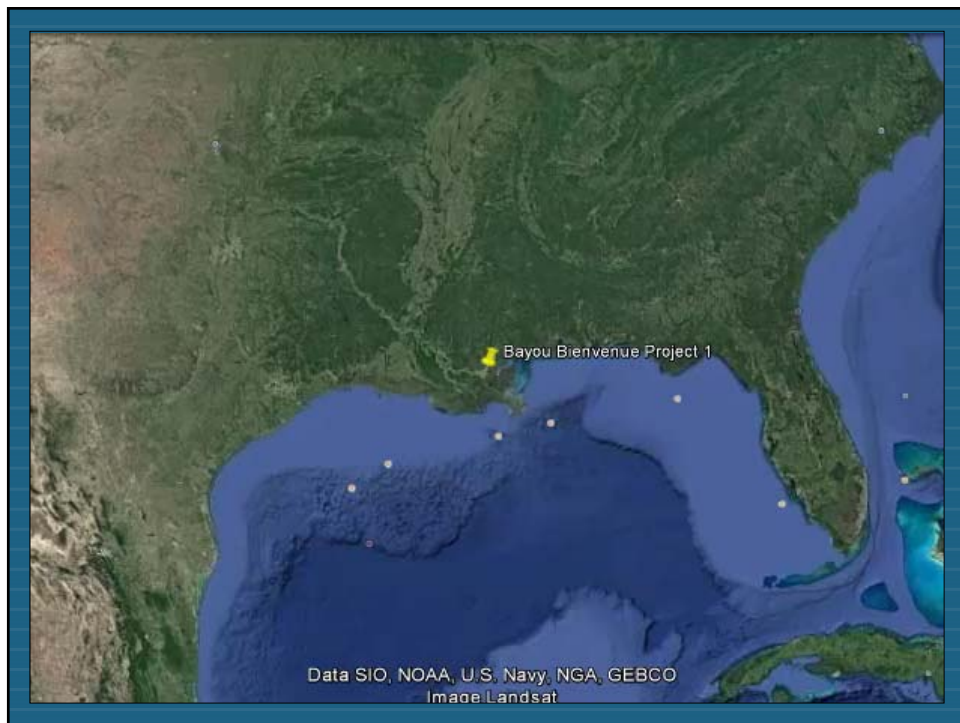
Basemap: 2015 NAIP DOQQ
Produced by: EPA Region 6, Dallas, TX

0 0.2 0.4 0.8 1.2 Miles

Bayou Bienvenue Marsh Creation - Increment #1



The Coastal Wetlands Planning, Protection and Restoration Act

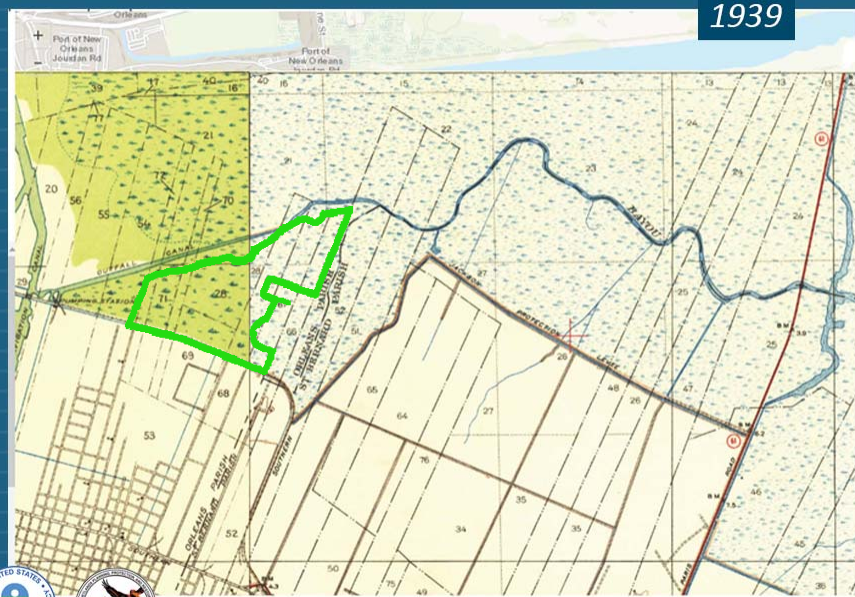


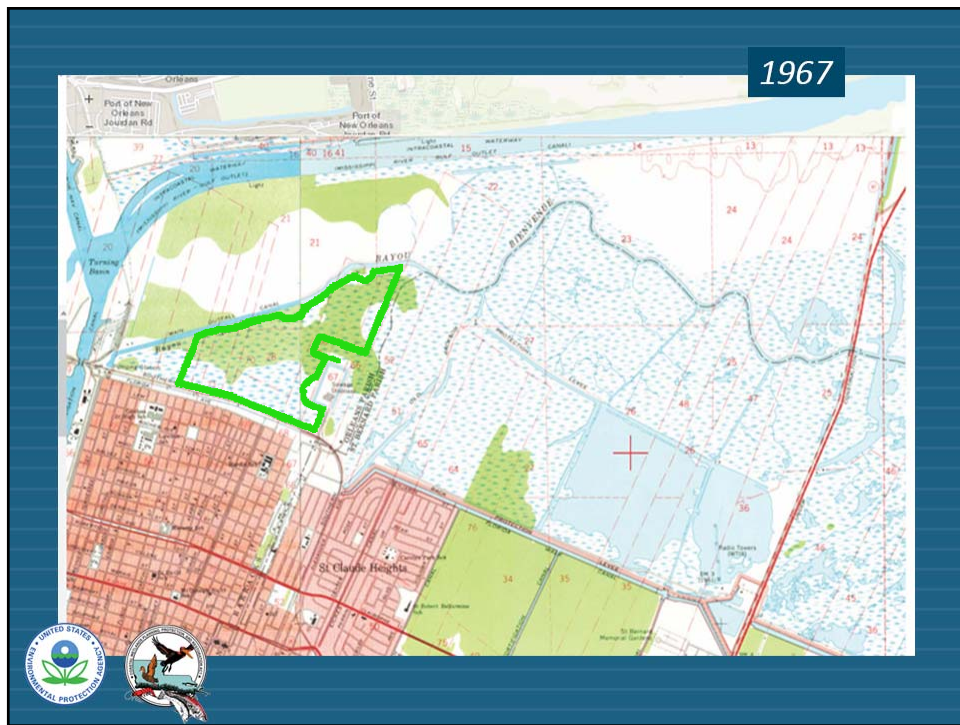
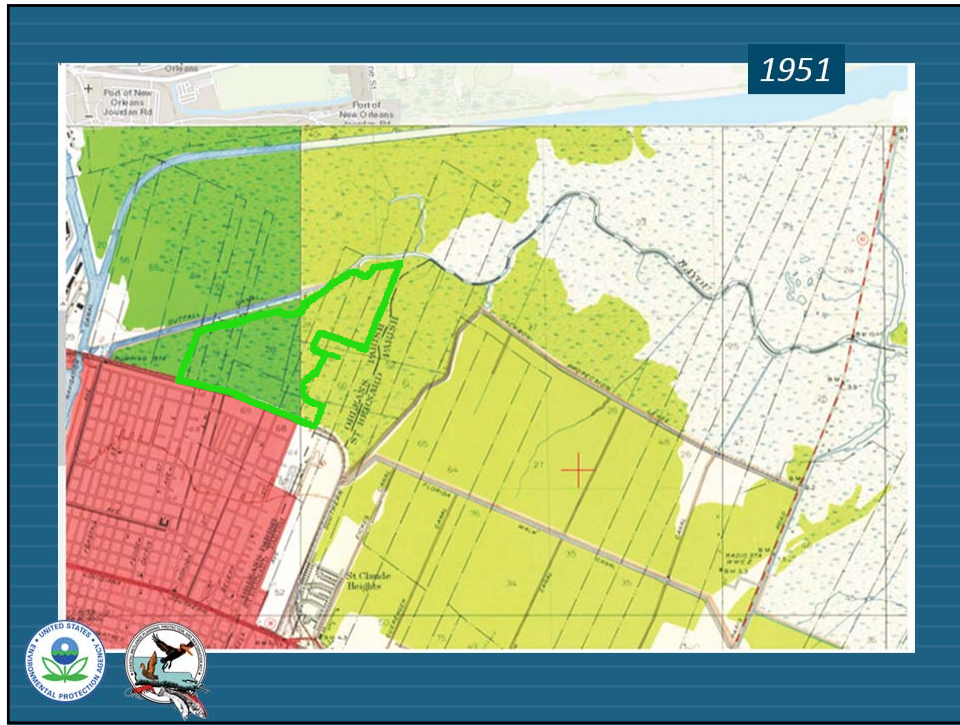
“What is now open water used to be an old-growth swamp that was filled with cypress trees, water lilies, and freshwater wildlife such as fish, alligators, otters, birds, and crawfish...”

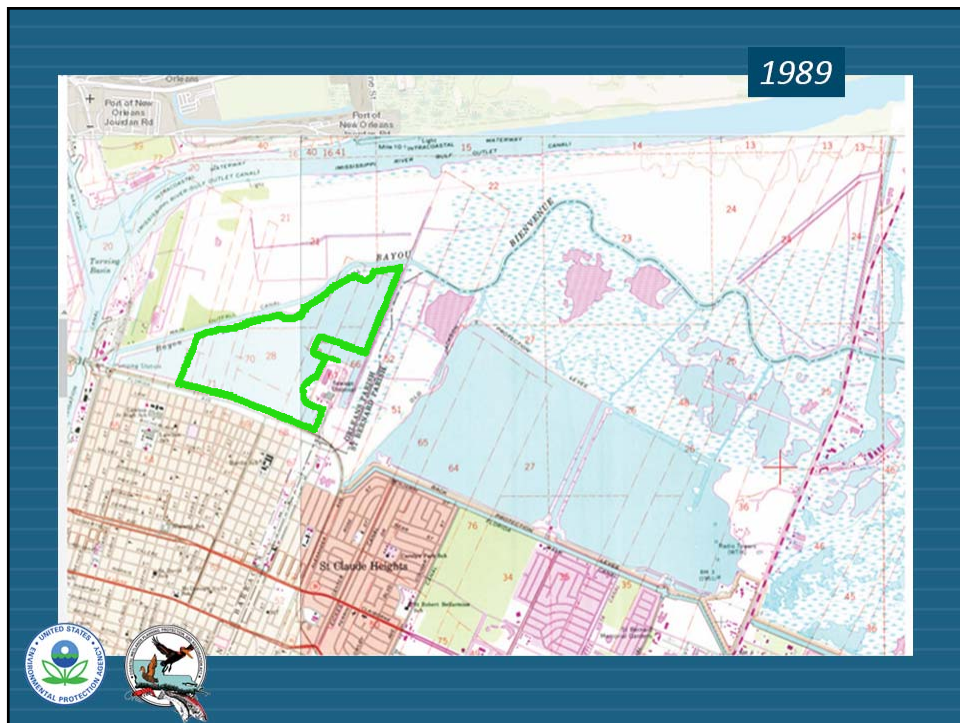
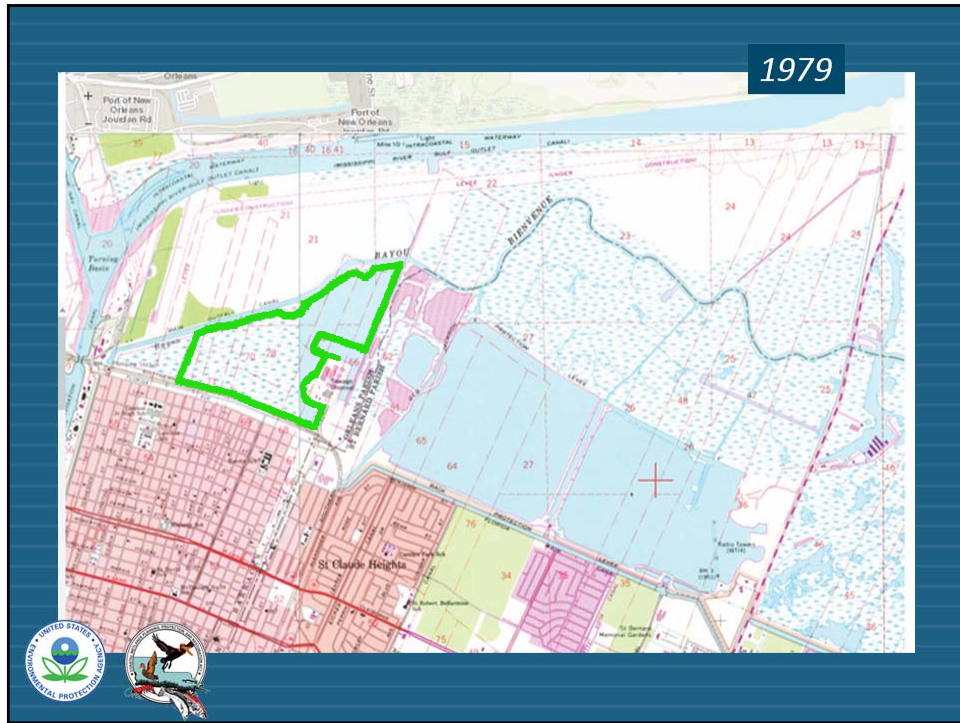
John Taylor
Lifelong resident of the Lower 9th Ward

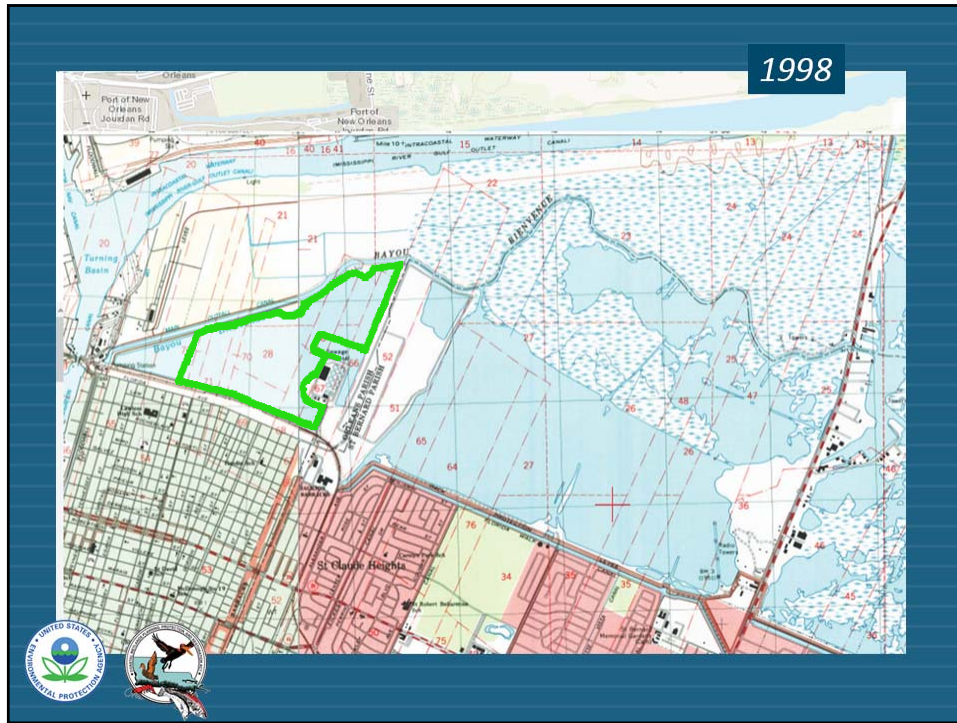
Purpose

To create and nourish 350 acres of intermediate marsh









“For the community of the Lower 9th Ward, the swamp was a place to fish, catch turtles for soups, go crawfishing, and explore as a kid. Many wild foods were harvested from the bayou as was the cypress wood for building materials in the community...” John Taylor, Lifelong resident of the Lower 9th Ward

Changes Over Time



1933



1976



1998



2012 Master Plan Solution

“Creation of approximately 2,010 acres of marsh in Central Wetlands near Bayou Bienvenue to create new wetland habitat, restore degraded marsh, and reduce wave erosion.”

001.MC.08a; Central Wetlands Marsh Creation - Component A



“...restore the wetlands to their natural state, so that future generations will have a place to go that is still wild in the middle of a city.”

John Taylor
Lifelong resident of the Lower 9th Ward



Bayou Bienvenue Marsh Creation



Bayou Bienvenue Marsh Creation Increment 1

- Create/nourish 350 acres of marsh
- Preliminary project benefits:
 - 276 net acres over 20 years
- Several alternatives available
 - Final alignment depends on borrow site and local preference
 - Clean sediment from Mississippi River
 - Preliminary Construction Costs +25% = \$26 million
 - Fully funded range is \$30M-\$35M



Questions?



R1-PO-02

Guste Island Marsh Creation

PPL27 PROJECT FACT SHEET
February 2, 2017

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 of brackish marsh using sediment dredged from the Lake Pontchartrain

Project Costs

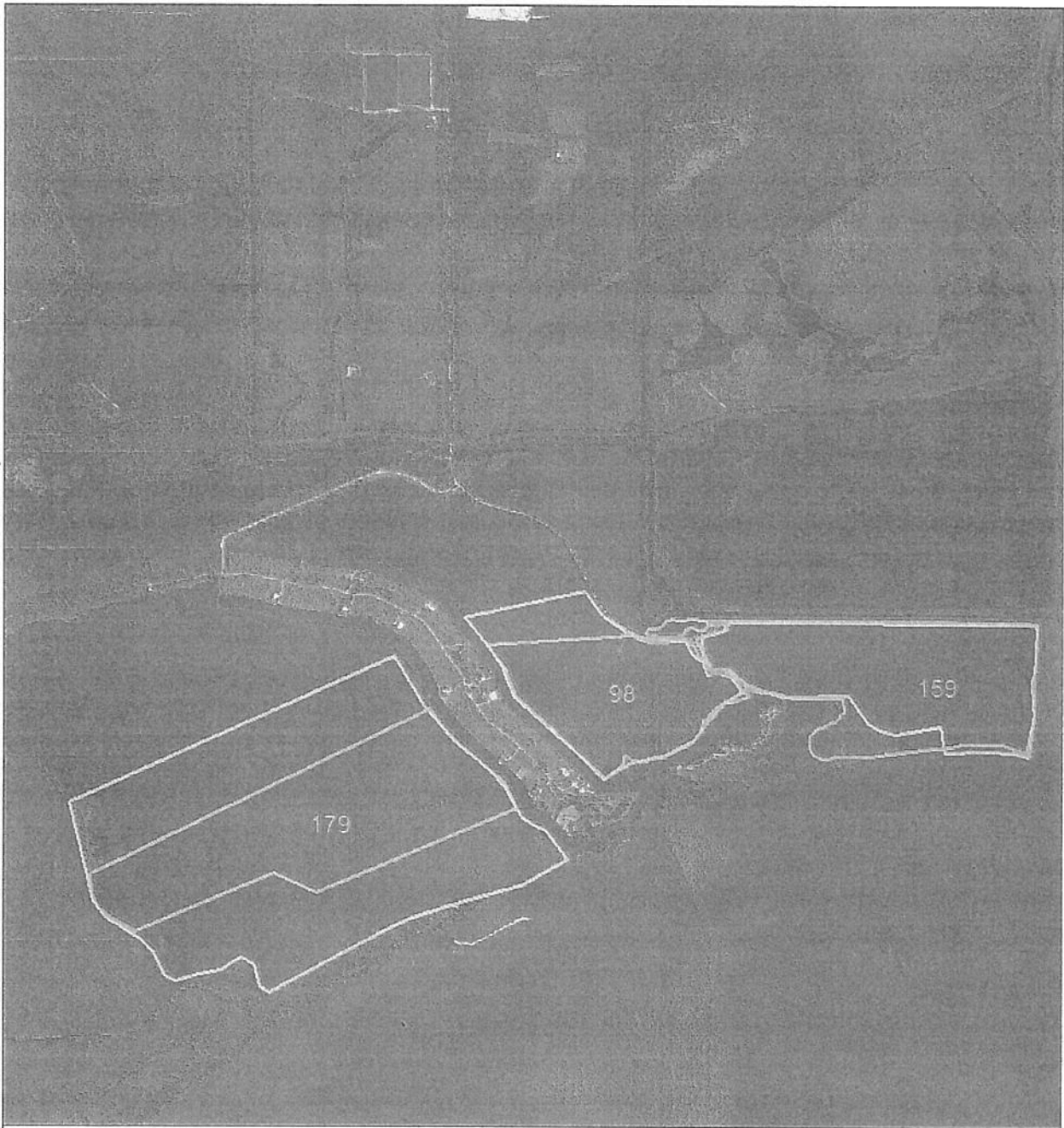
The preliminary project cost estimate with 25% contingency is \$23 million. The fully funded range is \$25M - \$30M.

Preparer(s) of Fact Sheet:

Adrian Chavarria, EPA; (214) 665-3103; chavarria.adrian@epa.gov

Sharon L. Osowski, Ph.D.; EPA; (214) 665-7506; osowski.sharon@epa.gov

David Brunet, St. Tammany Parish; (985) 898-2552; dpbrunet@stpgov.org



Guste Island Marsh Creation

2017 Master Plan
Proposed Marsh Creation



Basemap: 2015 NAIP DOQQ - St. Tammany Parish
Produced by: EPA Region 6, Dallas, TX



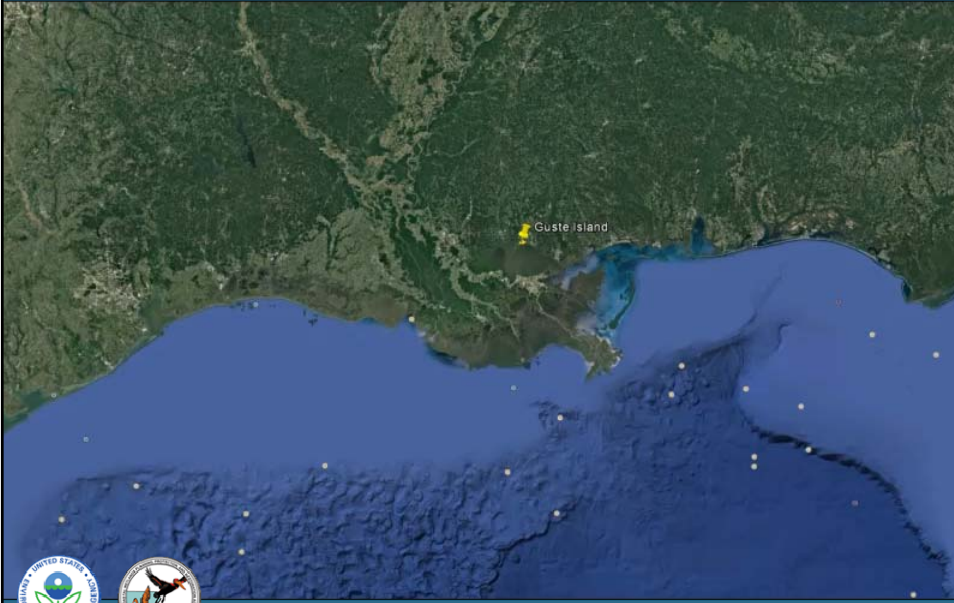
Guste Island Marsh Creation





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



Guste Island



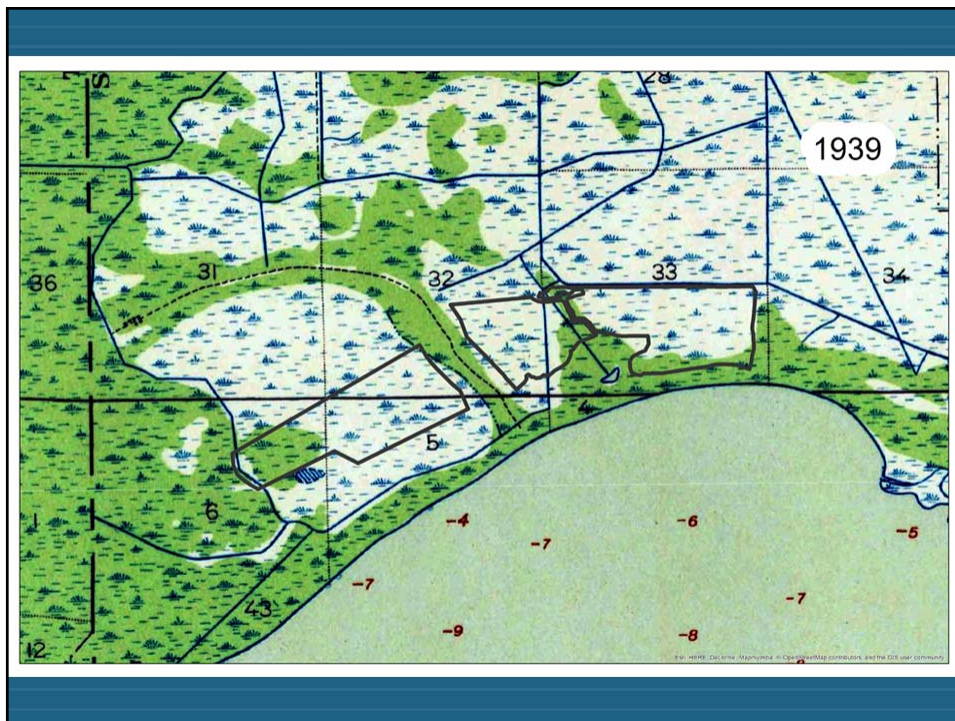
Guste Island Land Loss Issues

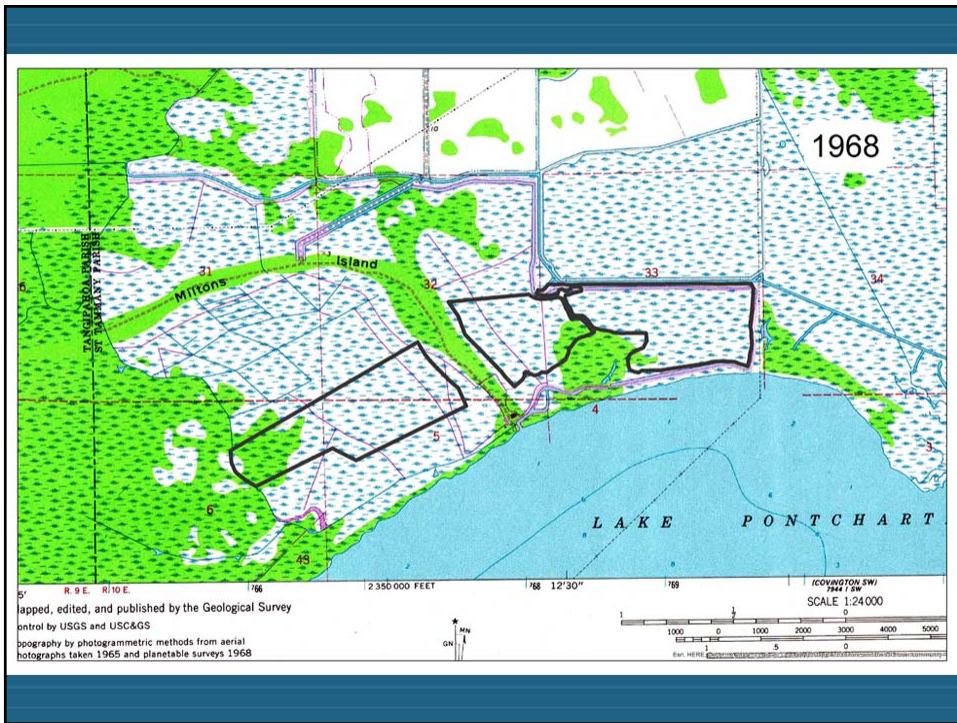
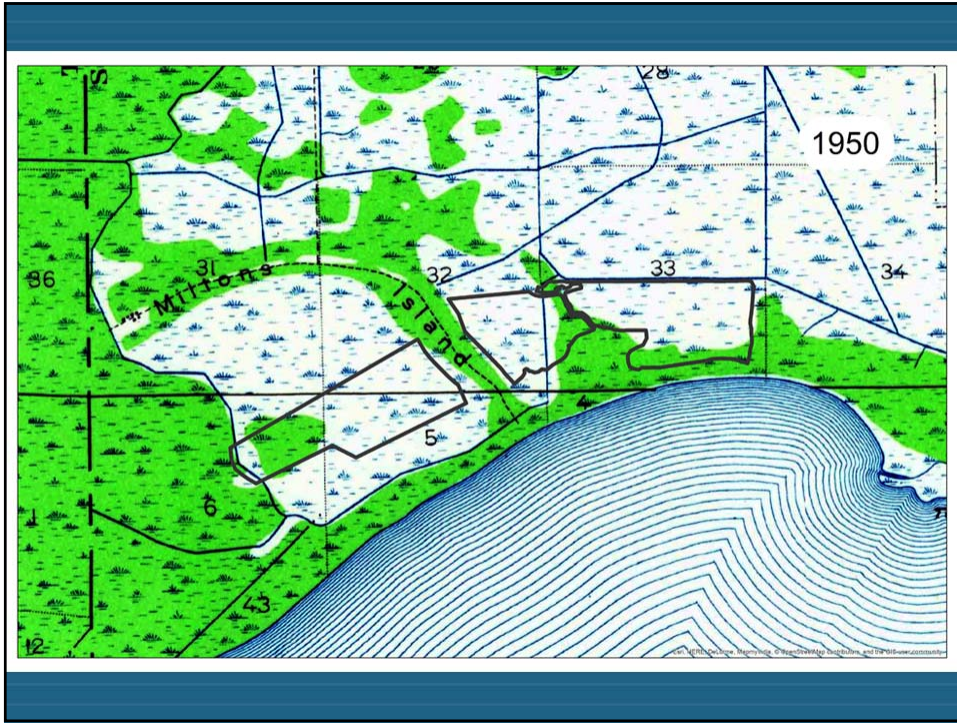


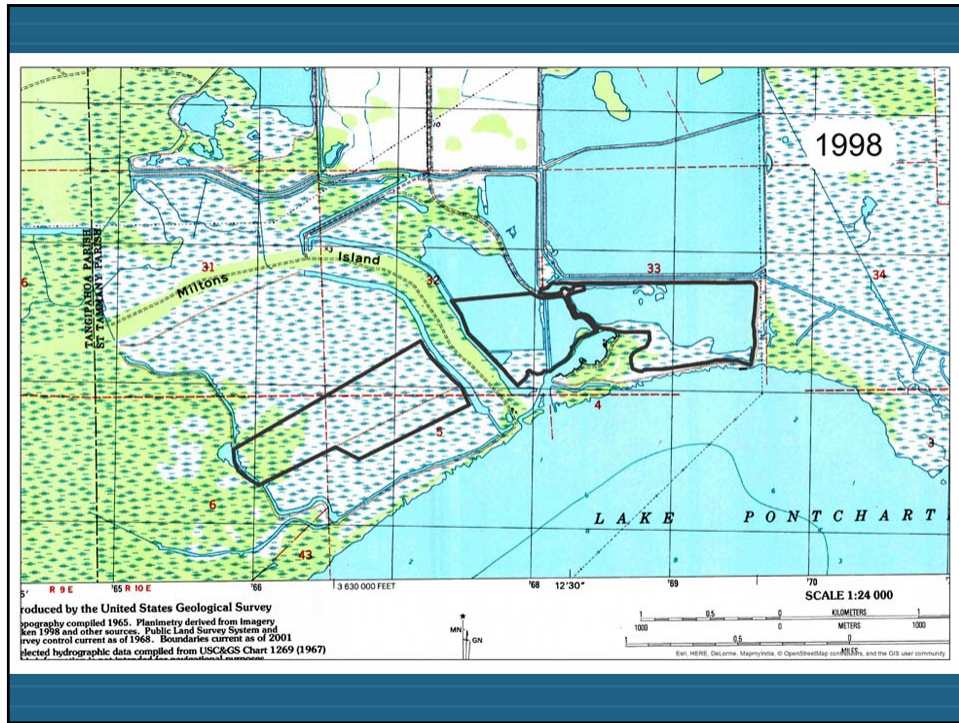
2010 imagery showing land loss developed through impoundment of marsh areas for agricultural activities.



- 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







“The restoration of the Guste Island tract should be emphasized. The protection of the shoreline from further development as well as the restoration in degraded areas is important for the protection of interior habitats and human developments.”

- *Lake Pontchartrain's Northshore: Recommendations for Restoration and Conservation*



Guste Island Marsh Creation Project



- Creates approximately 436 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 Draft Master Plan



Guste Island Marsh Creation Project

- Works synergistically with other projects
- Creates wetland habitat
- Total estimated project costs (with 25% contingency) = \$24M



Questions?



R1-PO-03

Point aux Marchettes Shoreline Protection and Terracing

PPL27 PROJECT NOMINEE FACT SHEET
February 2, 2017

Project Name: Points aux Marchettes 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 2016, the interior loss rate for the Biloxi Marsh area was calculated to be 0.53 %/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 30,000 LF section of shoreline was estimated to have an average erosion rate of 26 ft./yr. It is estimated that without the project there would be over 260 acres lost due to shoreline erosion.

Goals:

The project goals are to 1) protect approximately 30,000 feet of critical shoreline, 2) protect approximately 260 acres of highly productive brackish marsh habitat, and 3) create 7,000 LF of terraces (3 acres of marsh).

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 Silkmoth and Saltwater topminnow.

Proposed Solutions:

The proposed project would: 1) Construct approximately 30,000 LF of rock revetment along the Lake Borgne shoreline. Rock would be placed on geocloth and stacked to a settled height of +2.5. In critical interior areas, 7,000 LF of terraces would be constructed to help slow the erosion along the marsh ponds due to wind induced waves. Hopefully this would also slow the scouring action of the tidal pulses.

Preliminary Project Benefits:

1) *What is the total acreage benefited both directly and indirectly?* Approximately 363 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 263 acres of marsh from shoreline protection and terraces.

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 and CWPPRA PO-30 project.

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:

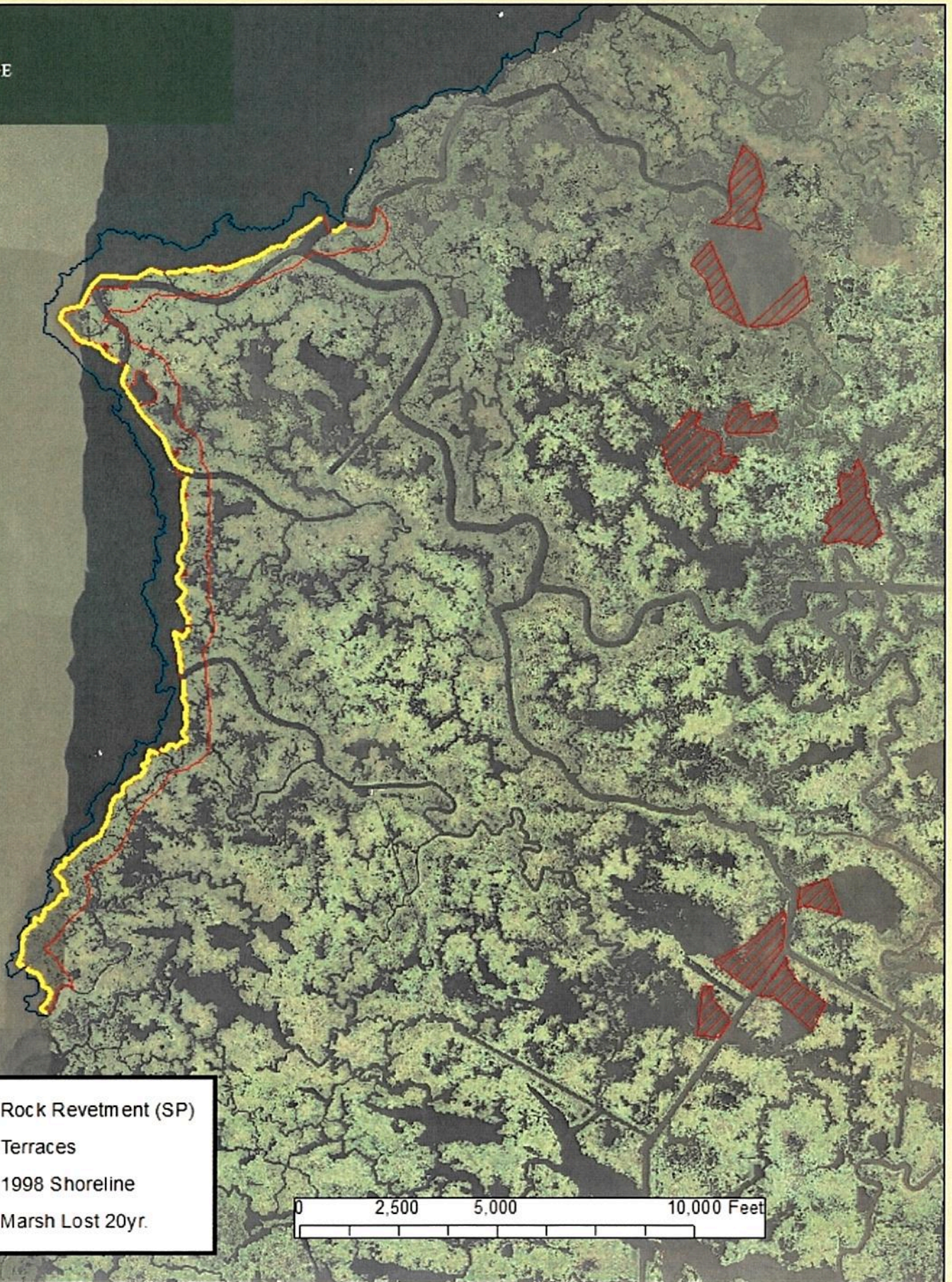
The estimated construction cost including 25% contingency is \$18 M.

Preparer(s) of Fact Sheet:

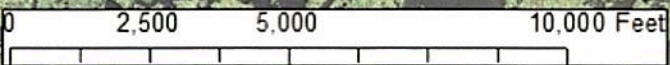
Robert Dubois (337) 291-3127 robert_dubois@fws.gov



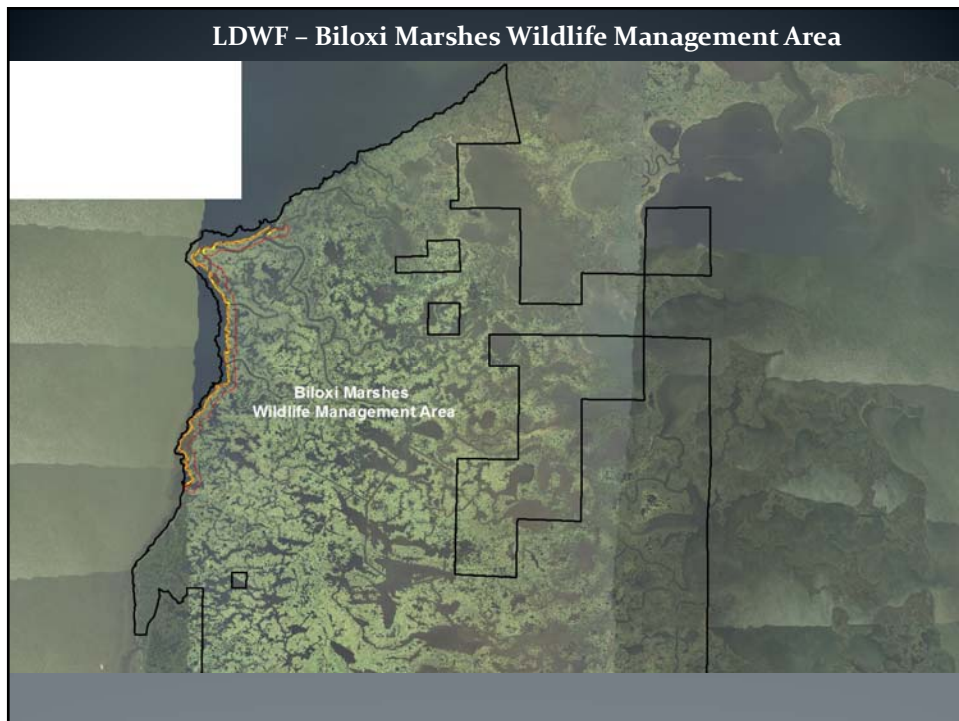
PPL27 Point aux Marshettes Shoreline Protection



	Rock Revetment (SP)
	Terraces
	1998 Shoreline
	Marsh Lost 20yr.



PPL 27 POINT AUX MARCHETTES SHORELINE PROTECTION

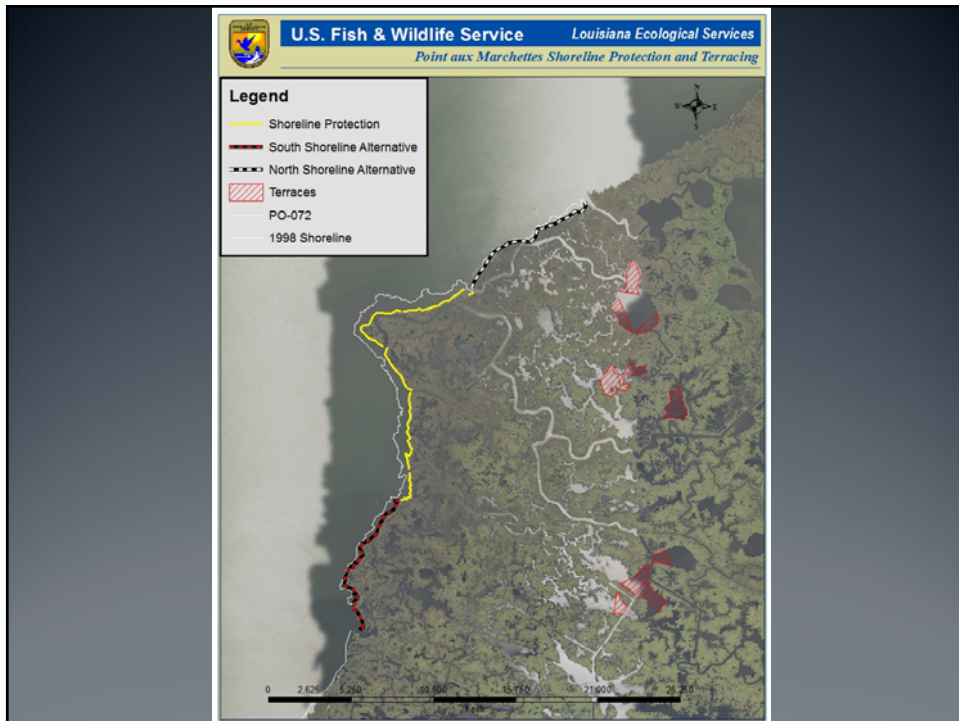


Point aux Marchettes Shoreline Protection

Problem:

- Since 1998, shoreline erosion has destroyed as much as 600 acres along the Lake Borgne shoreline within the project area.
- Project area shoreline erosion rates has been estimated at 26 ft./yr. with erosion rates ranging from 10 ft./yr. to over 90 ft./yr. in several areas.
- There are several natural ridges along several bayous (Lake Shore Bayou and Bayou Grande) that are in jeopardy of being destroyed.
- Since 2005, the interior marshes have been experiencing an increase in marsh loss due to the increase in hydraulic connection with Lake Borgne.
- Project area was included in the 2012 State Master Plan but has been excluded from the 2017 State Master Plan. Potentially limiting this project to be nominated in any future restoration efforts.





POINT AUX MARCHETTES SHORELINE PROTECTION

Solution:

- Construct approximately 30,000 feet of shoreline protection . We are suggesting rock revetment placed on geotech material and stacked to a height of +2.5. This could be articulating concrete mats.
- Construct 7,000 lf or more of terraces (3 acres of marsh) to help protect interior marshes from increased wave action and tidal scouring.

POINT AUX MARCHETTES SHORELINE PROTECTION

Goals:

- Protect nearly 30,000 ft. of critical shoreline with rock revetment along the Lake Borgne shoreline.
- Create 7,000 lf of terraces equaling 3 acres of marsh.

Net Acres:

- The total net acres is **263** acres

Potential Issues:

- Lake Borgne is designated as Atlantic Sturgeon Critical Habitat.

Preliminary Construction Costs

- The estimated construction cost plus 25% contingency \$18.3M.

Species of Concern and Rare Species

- Least Bittern
- Black Rail
- Mottled Duck
- Saltmarsh topminnow
- Brown Pelican
- Louisiana Eyed Silkmoth
- King Rail
- Bald Eagle

R1-PO-04

Bayou Cane Marsh Creation

PPL27 PROJECT NOMINEE FACT SHEET
February 2, 2017

Project Name:

Bayou Cane Marsh Creation Project

Project Location:

This project is located in Region 1, Upper Pontchartrain Basin, St. Tammany Parish, between Mandeville and Lacombe. The majority of the project would be located property owned by either the State of Louisiana (Fontainebleau State Park) or the Big Branch National Wildlife Refuge.

Problem:

In 2005, the marshes in the North Shore Mapping Unit sustained severe damage due to Hurricane Katrina. Hundreds of acres of emergent marsh within this mapping unit lost the top 12-15 inches of material and the result was hundreds of acres of shallow open water. USGS calculated a 1985 – 2016 area loss rate of -0.46 % per year. Currently there is one area along the shoreline that looks as if a breach is forming. This area also has a small pond immediately behind the critical shoreline. If there were a breach in this area it would allow direct connection between the fresher interior marshes and higher salinity waters of Lake Pontchartrain.

Goals:

The overall goal of this project is to restore marshes that were lost and/or damaged due to the effects of Hurricane Katrina. Restoring the marshes should reduce salinity effects on interior emergent marshes.

Specific Project Goals: 1) Create 420 acres of intertidal emergent marsh in shallow open water and nourish and additional 160 acres of fragmented and/or low marsh within the project area.

Proposed Solutions:

The proposed features of this project consists of filling approximately 420 acres of shallow open water and nourish an additional 160 acres with material hydraulically dredged from Lake Pontchartrain. Target settled marsh elevation would be +1.2 NAVD 88, but will ultimately correspond to surrounding healthy marsh.

Temporary containment dikes would be constructed around each marsh creation/nourishment site to retain the dredged slurry. Containment dikes located adjacent to naturally occurring marshes or small interior ponds would be sufficiently gapped within 3 years of construction to allow for greater tidal and estuarine organism access. This project will work synergistically with the recently constructed Goose Point Marsh Creation project and the Bayou Bonfouca project which is currently under construction.

Preliminary Project Benefits:

1) *What is the total acreage benefited both directly and indirectly?* Direct benefits would be the 580 acres created/nourished.

2) *How many acres of wetlands will be protected/created over the project life?*
There would be approximately 545 net acres of marsh at Target Year 20.

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%)?* Interior loss rates would be reduced by 50% to 74%.

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 help maintain portions of the north rim of Lake Pontchartrain.

5) *What is the net impact of the project on critical and non-critical infrastructure?* This project would have a net positive impact on critical infrastructure through the protection of numerous homes and businesses north of the project area.

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 Goose Point project (PO-33) and the Bayou Bonfouca Marsh Creation project (PO-104) currently under construction.

Identification of Potential Issues:

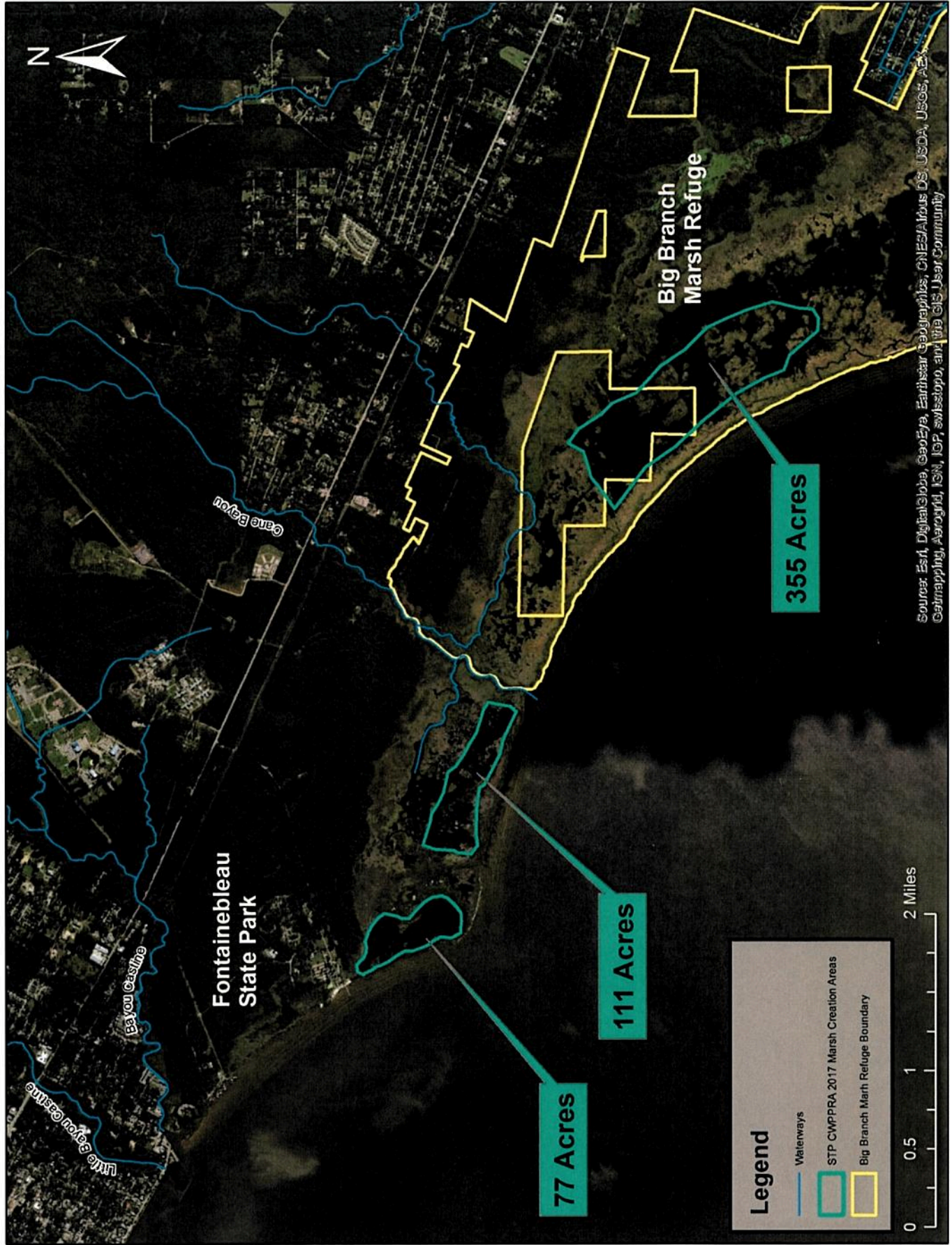
The borrow sites in Lake Pontchartrain are located within Gulf sturgeon critical habitat.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$22 M.

Preparer(s) of Fact Sheet:

Robert Dubois, U.S. Fish and Wildlife Service, 337-291-3127 Robert_Dubois@fws.gov
David Brunet, St. Tammany Parish Coastal Zone Administrator, 985-809-7448
dpbrunet@stpgov.org



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroVIG, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

PPL 27

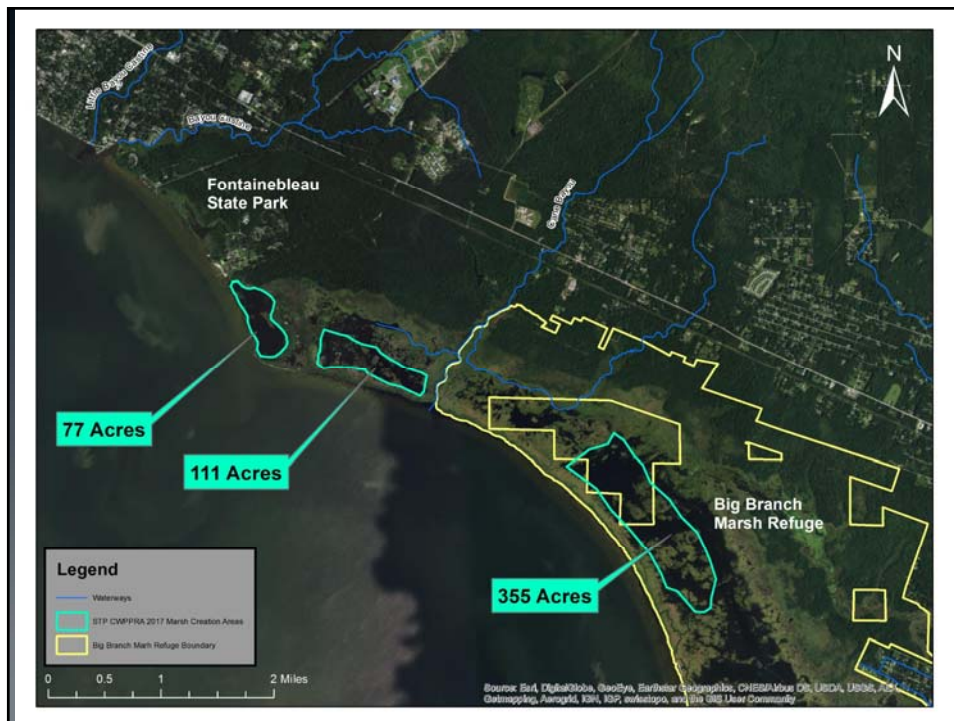
CANE BAYOU MARSH CREATION



CANE BAYOU MARSH CREATION

Problem:

- The project area was relatively stable until 2005 when Hurricane Katrina caused severe damage and accelerated the loss rate.
- Since 2005, the interior marshes have been experiencing an increase in marsh loss due to the increase in hydraulic connection with Lake Pontchartrain
- Imminent breaching on the western cell



CANE BAYOU MARSH CREATION

Solution:

- Create 420 acres of marsh with material hydraulically dredged from Lake Pontchartrain water bottoms. There would also be 160 acres of fragmented marsh that would be nourished in the same manner. The sediment would be contained with existing marsh and earthen containment dikes where necessary. This marsh would be constructed to a height of +1.2 ft. NAVD 88. Containment dikes would be gapped at or before TY3.

CANE BAYOU MARSH CREATION

Goals:

- Create 420 acres of marsh with material dredged from Lake Pontchartrain
- Nourish 160 acres of marsh with material dredged from Lake Pontchartrain.

Net Acres:

- The total net acres is 545 acres

Potential Issues:

- The borrow site would be located in an area of Lake Pontchartrain that is designated as Atlantic Sturgeon Critical Habitat.

Preliminary Construction Costs

- The estimated construction cost plus 25% contingency \$22M.

Species of Concern and Rare Species

- Least Bittern
- Black Rail
- Mottled Duck
- Saltmarsh topminnow
- Brown Pelican
- Louisiana Eyed Silkmoth
- King Rail
- Bald Eagle

R1-PO-05

East LaBranche Shoreline Protection

PPL27 PROJECT FACT SHEET
February 2, 2017

Project Name

East Labranche Shoreline Protection Project

Master Plan Strategy

Master Plan 2017: Project No. 001.SP.104 Labranche Wetlands Shoreline Protection

Project Location

Region 1, 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 Lake Pontchartrain and 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 lf in the last 18 years, which equates to about 130 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 1 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. Use of the access dredged material will create approximately 24 acres of marsh.

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

Preliminary Construction Costs: The estimated construction cost with contingency is approximately \$20 million.

Preparer(s) of Fact Sheet:

Cody Colvin, cody.colvin@la.usda.gov (225) 665-4253



*Soil Water Air
Plants Animals
People Soil
Water Air
Plants Animals*

PPL 27 RPT


East LaBranche Shoreline Protection

Cody Colvin, PE
Civil Engineer
Water Resources Planning Staff



Natural Resources Conservation Service

**Helping
People
Help the
Land**



Project Location

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Plants Animals
People Soil
Water Air
Plants Animals*

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People
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Natural Resources Conservation Service




Master Plan Consistency

LaBranche Wetlands Shoreline Protection
Shoreline Protection
Project ID: 001.SP.104



Natural Resources Conservation Service

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Project Concept

- Project goal is to complete the shoreline protection features from the Bonnet Carre Spillway to the St. Charles Parish line
- Shoreline has eroded from 250-1200 ft and project area has lost 130 acres in the last 18 years
- Goal is to create 12,800 lf of Shoreline Protection using a light weight aggregate and rock riprap

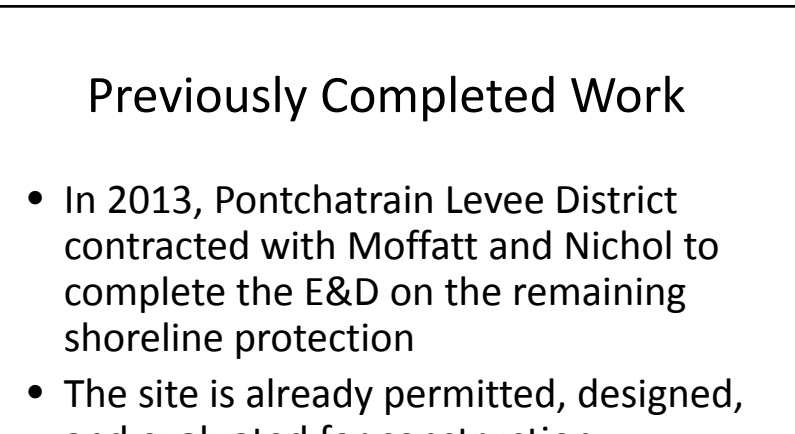
Natural Resources Conservation Service

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Land**



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Plants Animals
People Soil
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Previously Completed Work

- In 2013, Pontchartrain Levee District contracted with Moffatt and Nichol to complete the E&D on the remaining shoreline protection
- The site is already permitted, designed, and evaluated for construction
- Minimum E&D would be required
- Construction Cost with contingency is estimated at \$20 million

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Questions?

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~~R1-PQ~~

**~~Tchefuncte River Area, Wooded Island Protection, Peninsula
Replacement, and Marsh Restoration~~**

(Not Consistent with 2012 or draft 2017 State Master Plans)

Tchefuncte River Area, Wooded Island Protection, Peninsula Replacement, and Marsh Restoration

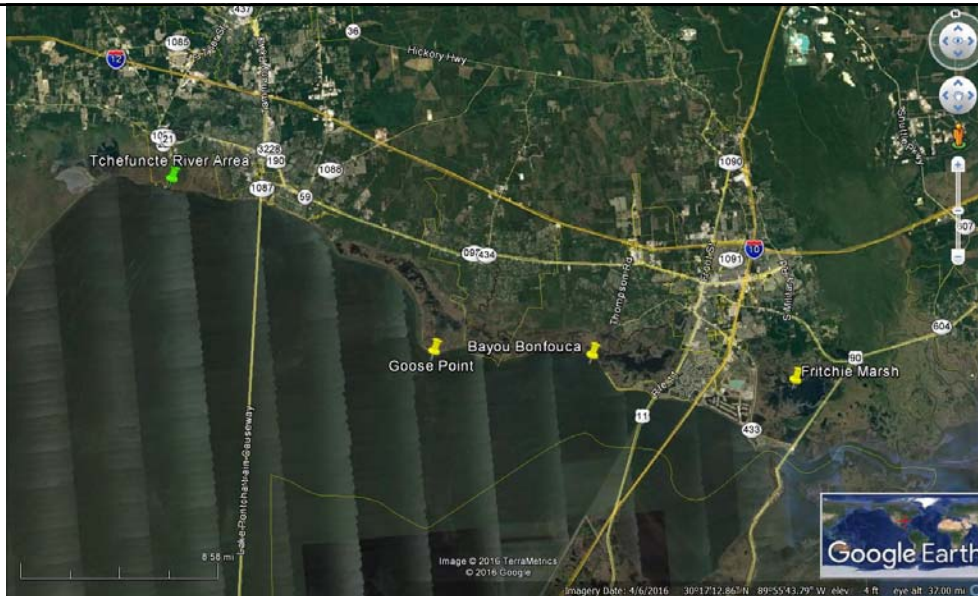
Developed by a coalition of concern citizens associated with the LPBMM and TRF
organized to support the **Town of Madisonville**

Project Facts

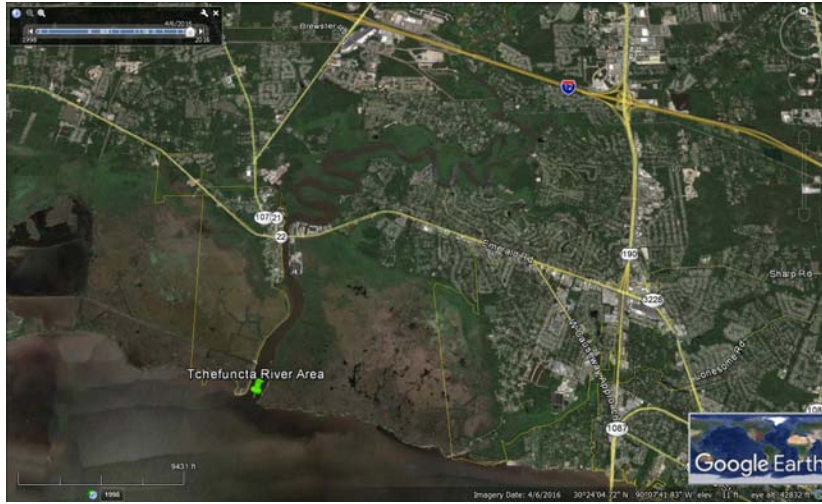
- Land/Marsh Created on Peninsula– 188 Acres
- Marsh Restored/Nourished on east side of river– 35 Acres
- Land Protected in Wooded Area – 7 Acres
- Marsh/Land Accretion on west side of river (on north shoreline) – 37 Acres
- Marsh Protected – 4,000 Acres
- **Restores Peninsula Destroyed by Logging Era Activity**

Project Facts Continued

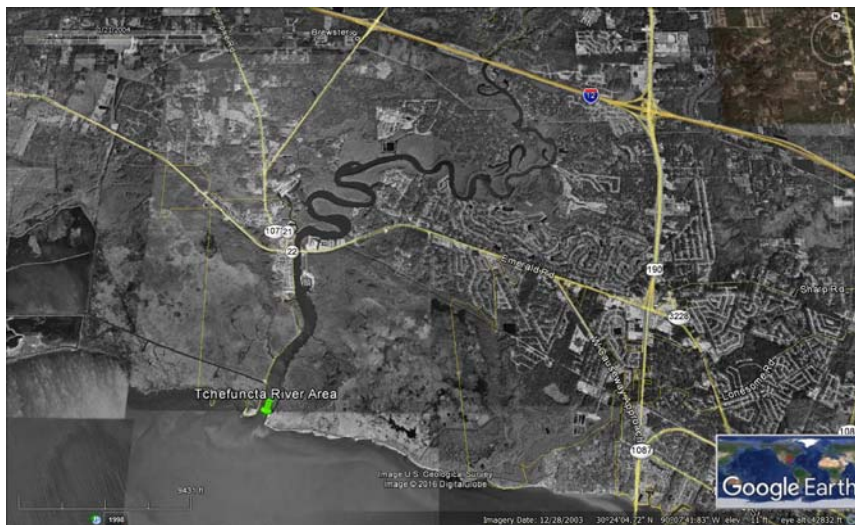
- Affected Area - the entire watershed of the Tchefuncte River
- Corrects the natural hydraulic flow of the Tchefuncte River
- Protects 2 municipality from both prevailing “wind lake surge” and “hurricane surge”
- Reduces the risk of flooding from the lake and from the upriver watershed
- A cooperative group of land owners including LPBMM (501C3), TRF (501C3), one individual land owner, and the Town of Madisonville



Tchefuncte River Area Project will be a “Highly Visible Project” of great value and significance to the community



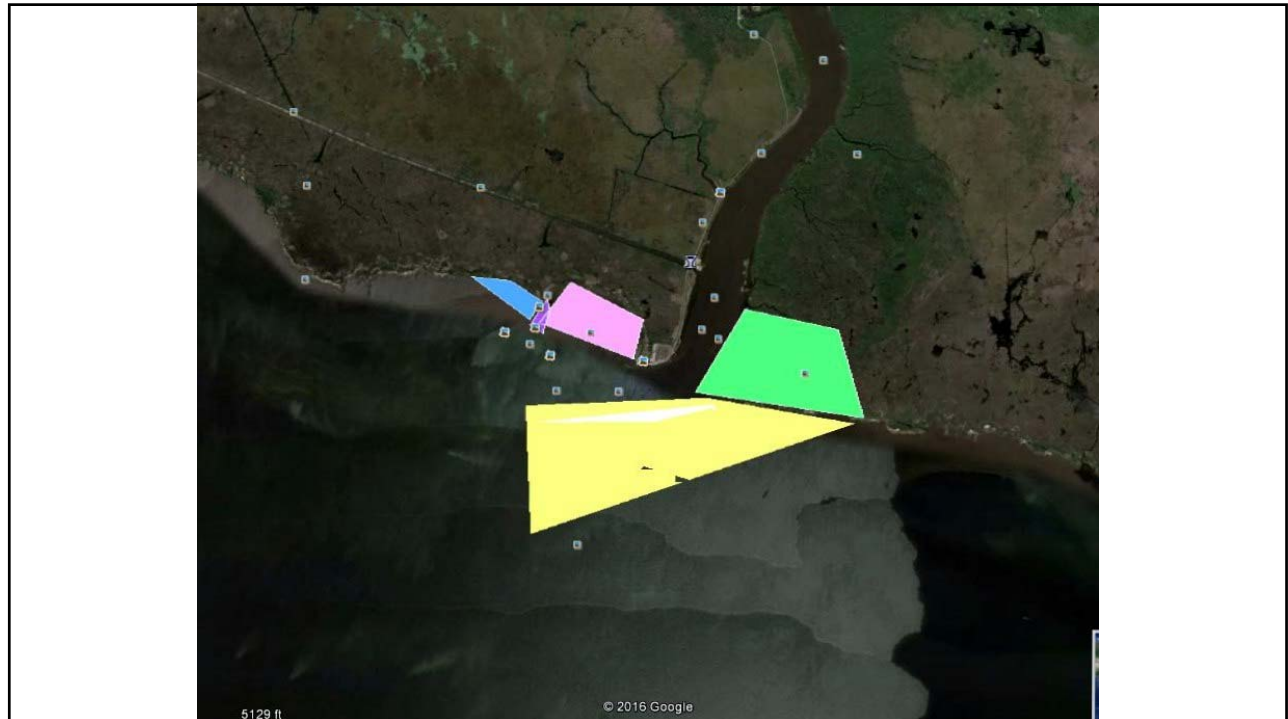
Tchefuncte River Watershed Area
2016



Tchefuncte River Watershed Area 2004



Site with respect to Town of Madisonville

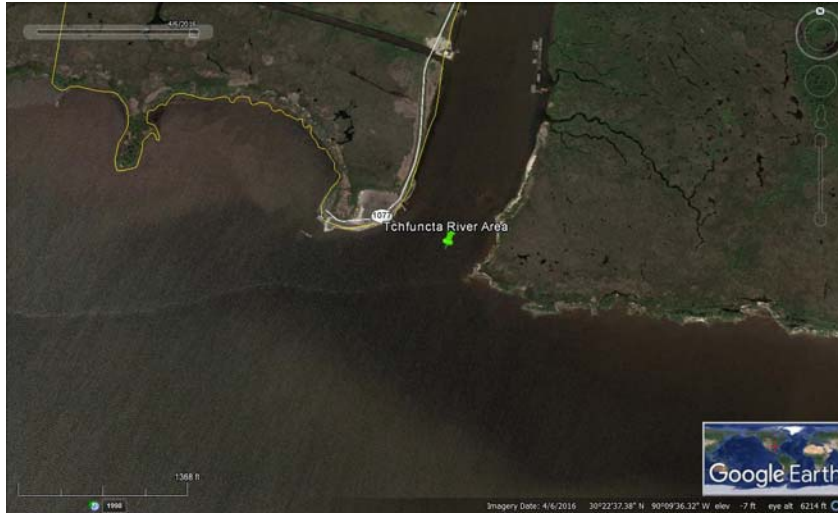


Tchefuncte River Area, Wooded Island Protection, Peninsula Replacement, and Marsh Restoration

- Phase 1 – Wooded Island Protection
 - Perimeter Bulkhead and Access
 - Land Accretion and Breakwater Structure
 - Protects existing marsh, woodlands, and structures from further destruction
- Phase 2 – Peninsula Replacement
 - Emergency Breakwater Rock Installation
 - Peninsula Perimeter Construction with living shoreline protection techniques including fill with available river sediment on lake bottom
 - Construction of Spring-fed Estuary
 - Peninsula Vegetation installation
- Phase 3 – Marsh Restoration – East River Bank Shoreline and Beach
 - Placement of channel area river sediment on existing marsh to elevate and restore segment with beneficial use of dredged spoil
- Phase 4 – Marsh Restoration West River Bank, North Lake Shoreline
 - Placement of Land Accretion Structures according to the flow and sediment changes resulting from previous phases



Site in 1998



Site 2016

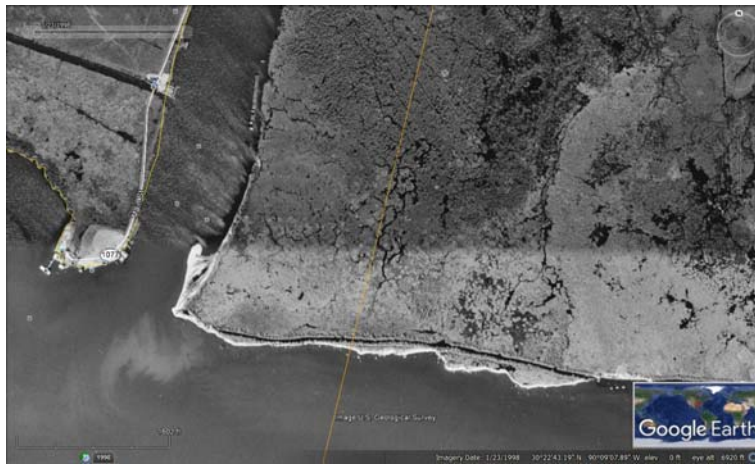


Phase 1 Area 1998 heavily wooded

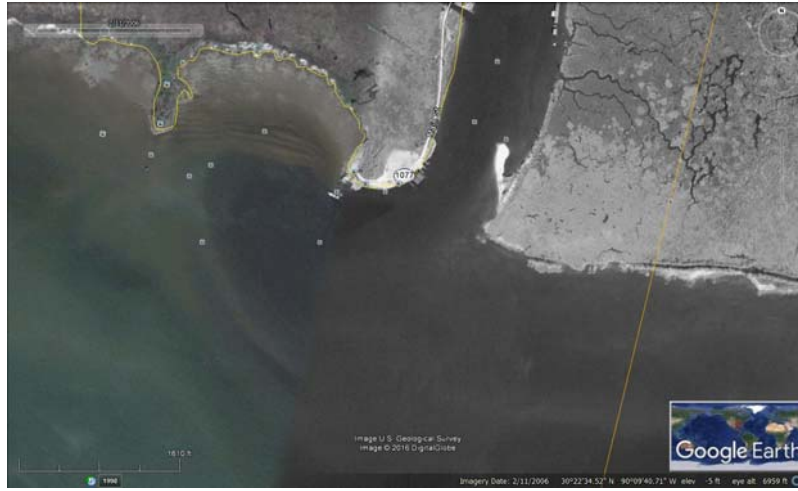


Wooded Island in the Marsh (2016 Photo) and now at peril from unprotected shoreline

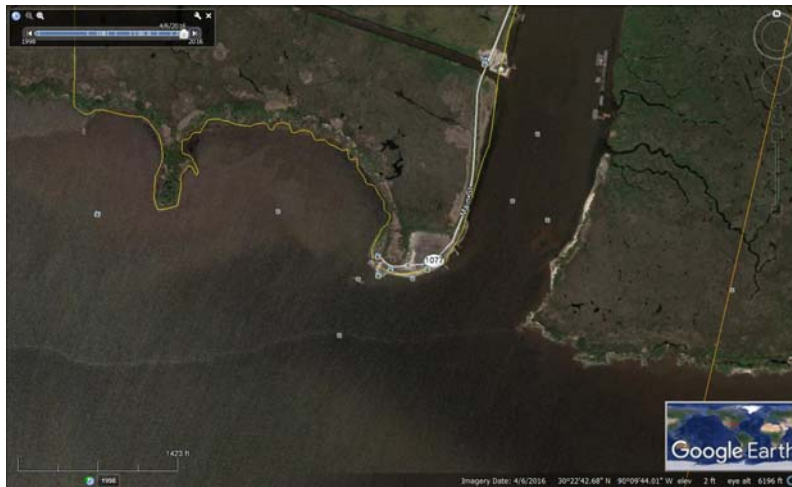
Project already designed and permitted – READY to BID and START.



1998 East River Bank and Lakeshore



2006 Wooded Island on West, East River Bank and Lakeshore



2016 Wooded Area (trees failing), Peninsula Area (underwater), East River Bank Sandbar Beach (underwater) and Lakeshore (eroded back to the old logging canal)



Tchefuncte River Area, Wooded Island Protection, Peninsula Replacement, and Marsh Restoration

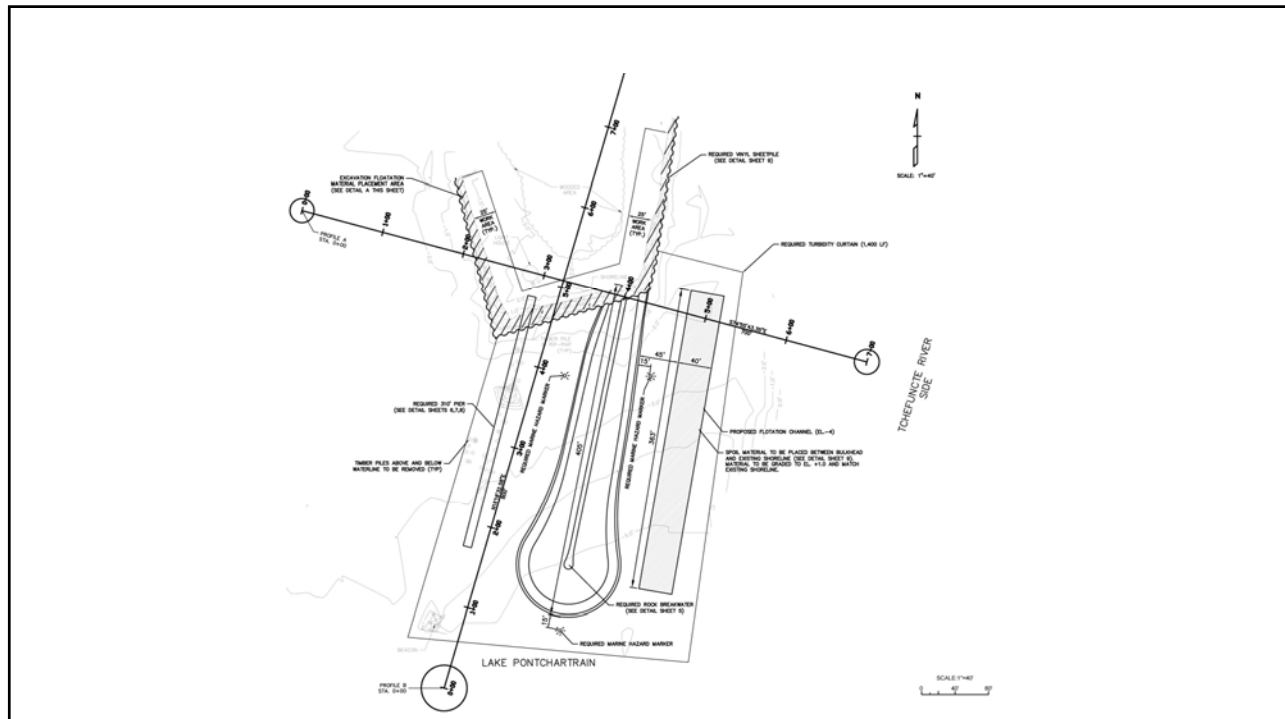
• Phase 1 – Wooded Island Protection -	\$1,500,000
• Phase 2 – Peninsula Replacement -	\$8,000,000
• Phase 3 – Marsh Restoration Spray-	\$1,250,000
• Phase 4 – Marsh Restoration Terracing-	\$1,000,000
• Total all Phases	\$11,750,00

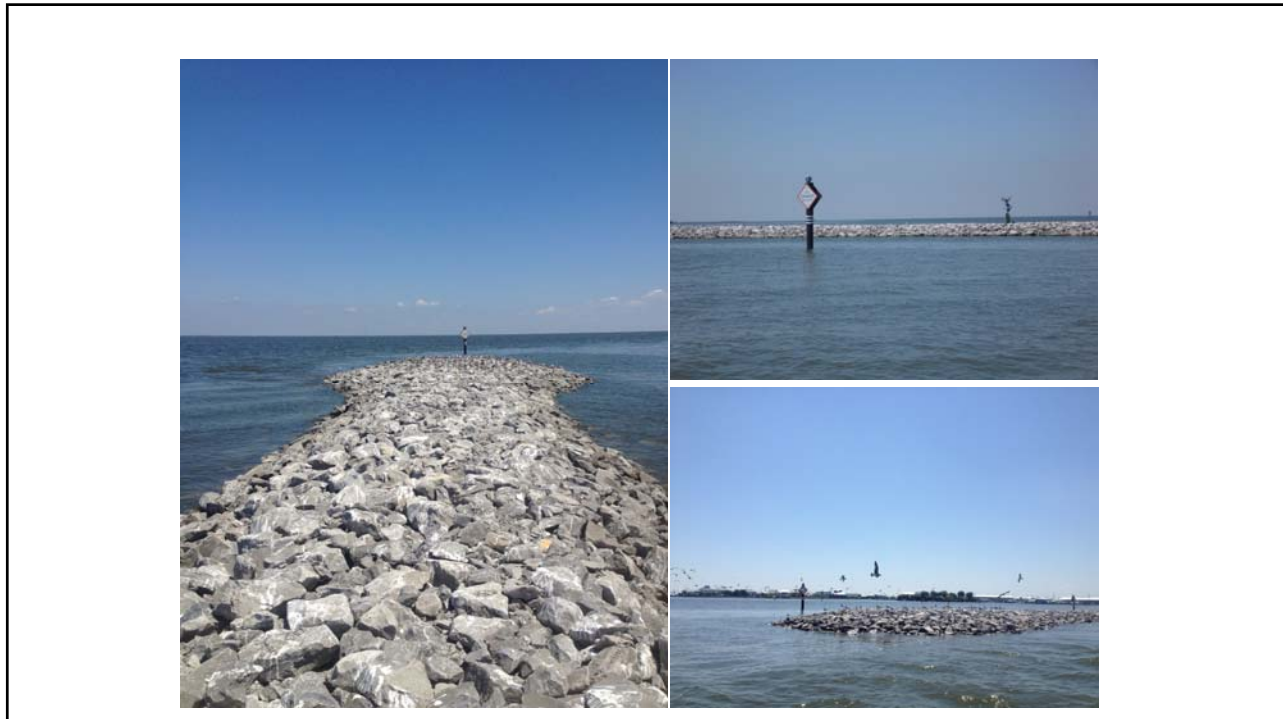
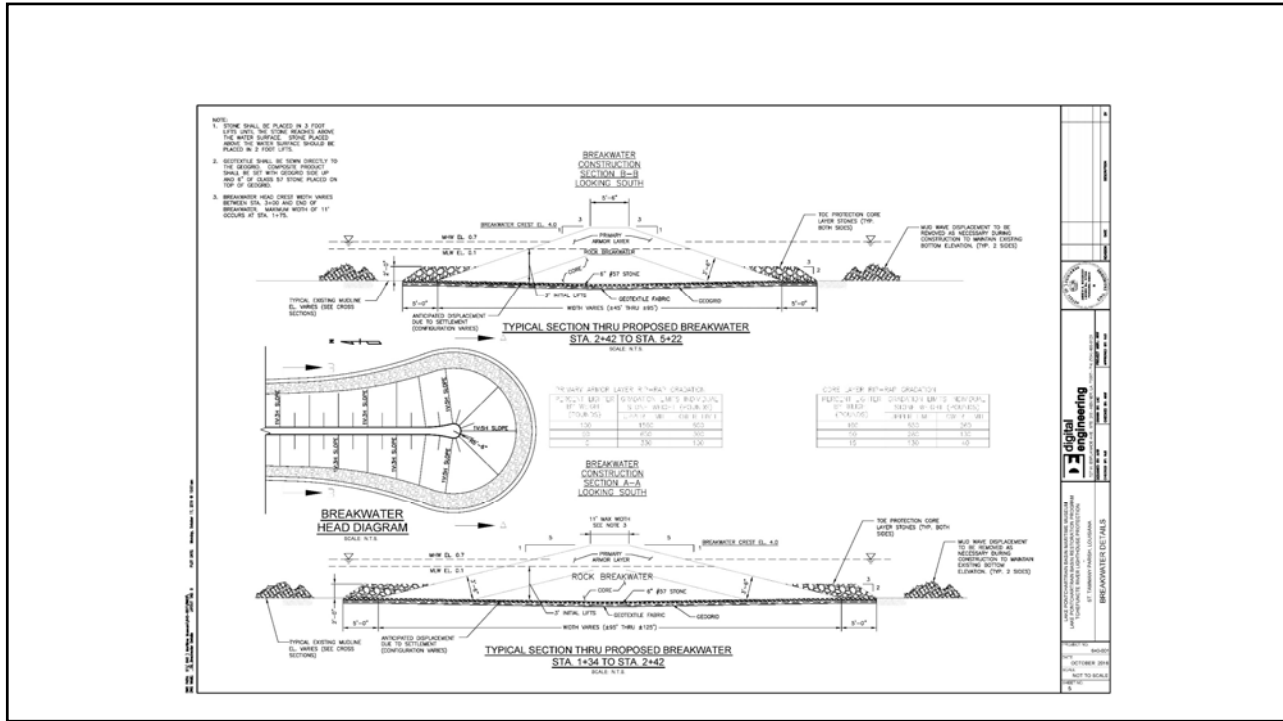
PROJECT GOALS for Phase 1 (Purple)

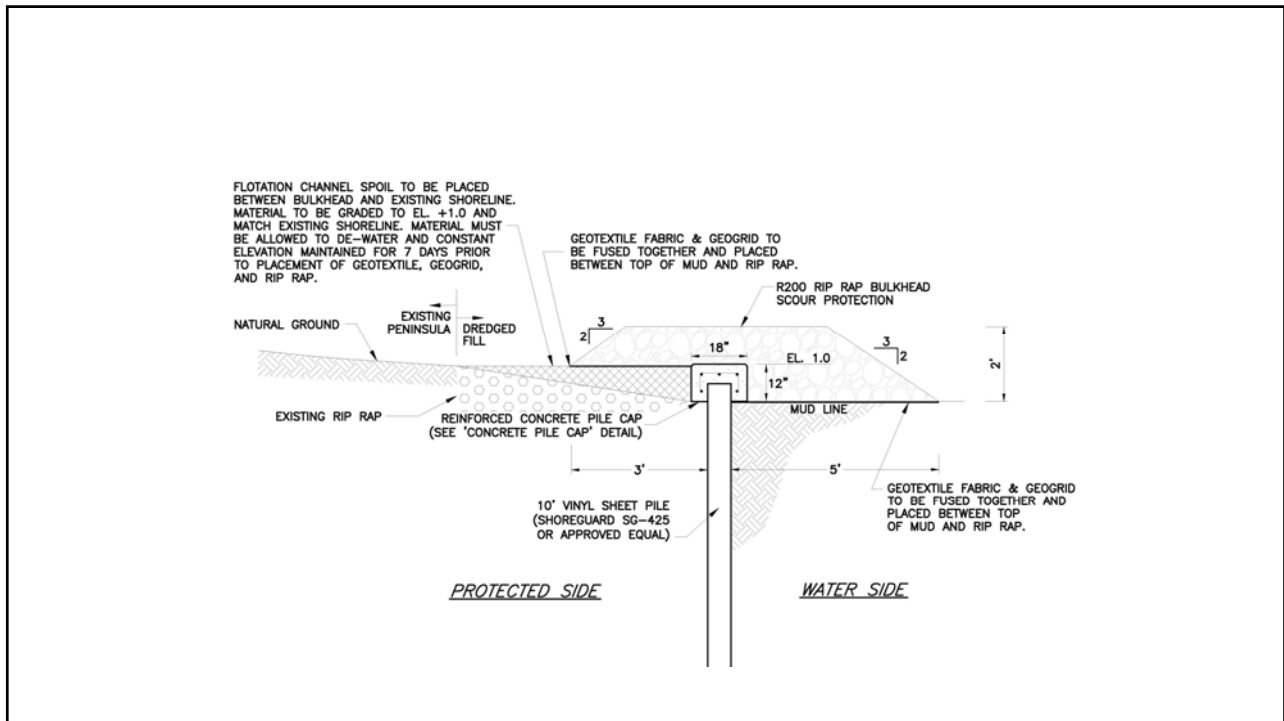
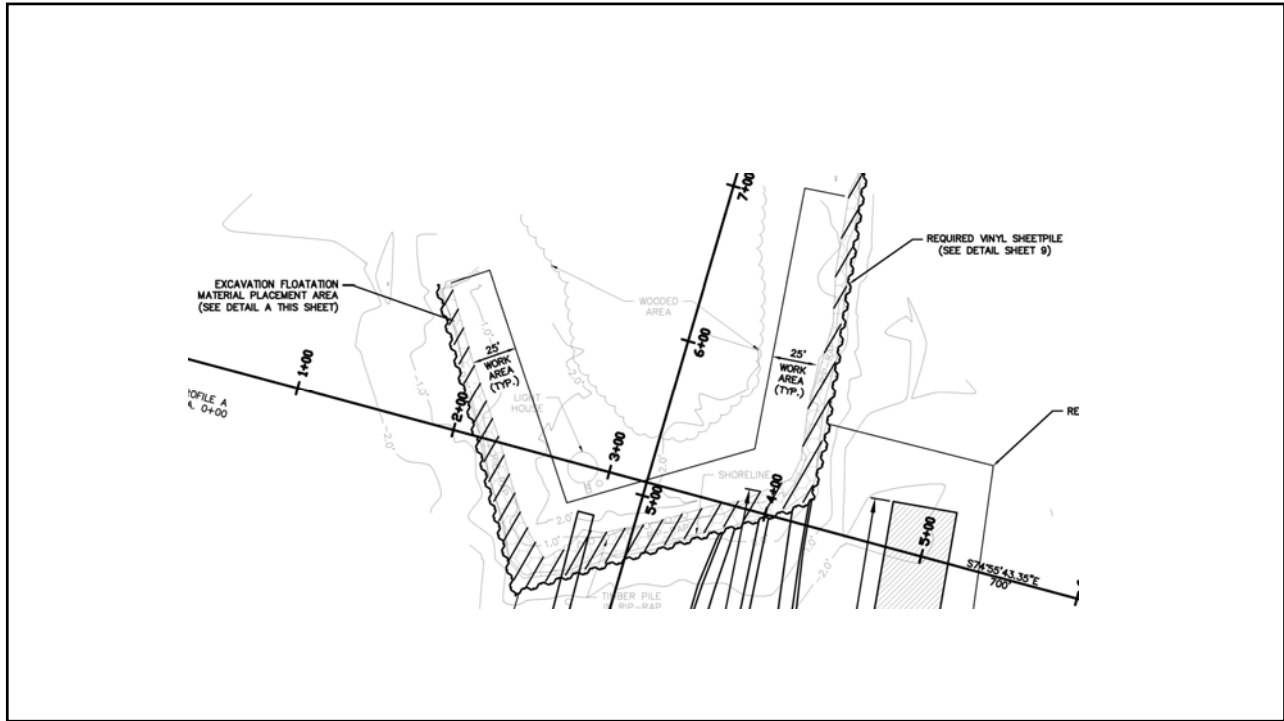
1. Protect and maintain the existing shoreline of the marsh island and contiguous wooded area
 - a. Breakwater
 - b. Bulkhead
2. Construct access to the land and wooded area as necessary

PROJECT BENEFITS

1. Shoreline Protection for wooded area directly protects 7 acres of land, marsh and structure
2. Shoreline protection for 50 acres (north of the shoreline)
3. Breakwater structure for stimulating 37 acres of land accretion

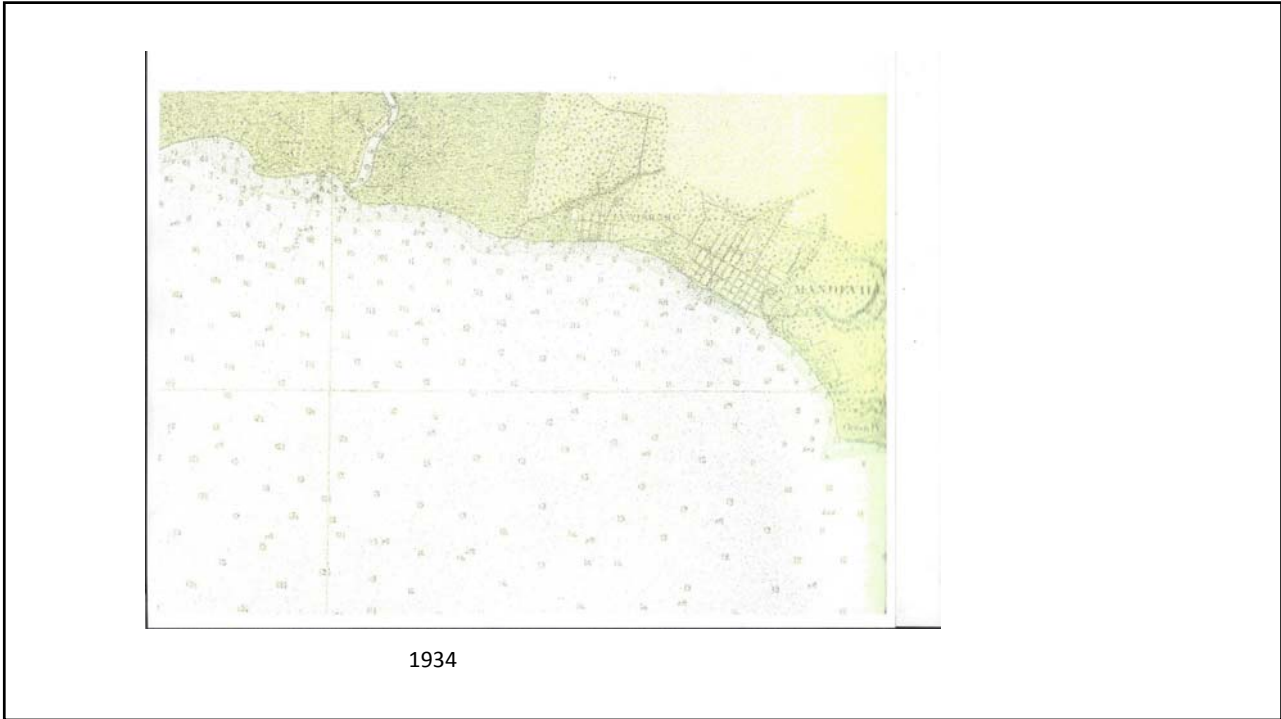
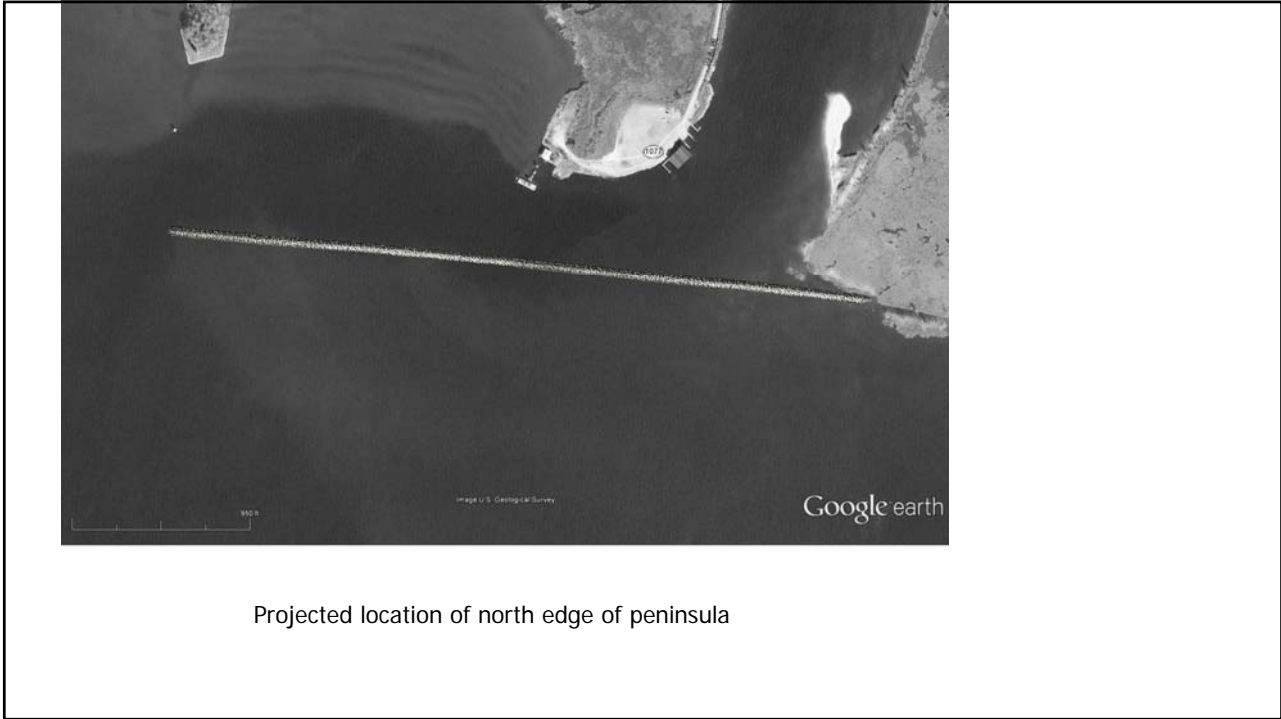






- Phase 2 – Peninsula Replacement Narrative (Yellow)
 - The phase 2 area shown is a general area only. The final area and shape will be determined after further investigation of the shape and foot print of the original peninsula from site information
 - The south and southeast facing shorelines will be shaped both in profile and direction with consideration for wave dampening during prevailing winds
 - Western facing end will also be shaped to prevent wave action from further battering the mainland shoreline

- Phase 2 – Peninsula Replacement Narrative Continued
 - Install the north facing portion of the peninsula (which will parallel the river channel) as an emergency protection measure. The alignment, shaped and elevation will be set in a line where during high river water conditions, the water will be able to flow over the edge thereby providing land/marsh accretion conditions.
 - **BONUS:** Through the middle of the peninsula running generally from the northeast corner to the southwest corner, an estuary creek will be built to allow an **existing spring to flow**. The spring will provide continuous nourishment for the native as well as planted vegetation throughout the created marsh/land peninsula.





WEST end. Which includes THE ROSEWALL TOWER



EAST END OF PENINSULA

- Phase 3 – Marsh Restoration Narrative (Green)
 - Segment of the designated area will be identified to provide the most useful material base for soil deposited on existing vegetation with spray dredged techniques
 - Soil will be selected from the existing river sediments that offer the best alluvial foundation for existing and future vegetation. Several channels near the site have deposited soft soils that can provide the material
 - Additionally, river channel sediment of sand will be located and deposited on the shoreline and beach area to restore the original topography as shown in earlier photos

- Phase 4 – Marsh Restoration West Lake Shoreline (Pink and Blue)
 - Phase 1 will provide the land accretion structure that will protect the wooded island and begin the depositing of sediments on each side of the wooded marsh island
 - Hydraulic flow will be evaluated and structures erected to best utilize the naturally restored river “channel flow” and its interaction with the shoreline protection structure
 - Terracing structures will be considered
 - Future replacement of roadway evaluated

Timeline:

- Phase 1 Designed and Permitted. Immediately available for construction and completion in 2017
- Phase 2 Engineering, design, and permitting commencing upon funding in 2017, Construction 2018
- Phase 3 Engineering, design, and permitting commencing upon funding in 2017, Construction 2019
- Phase 4 Engineering, design and permitting commencing upon funding in 2018, construction 2019-2020

Information disclaimer:

- Phase 1 is complete including engineering and ready for construction.
- All information provided herein is for budget and developmental purposes.
- Pricing, quantities, final construction techniques, and all related aspects are subject to final engineering verification and approval.

In Closing: There Has Been an Evolution of Purpose

“Save the beach” by TRF

- Secured Land
- Attempted beach replacement
- Completed river salvage and clean up
- Focus on shoreline protection hard surface
- Expand to flooding protection
- Adopted living shoreline systems for longevity of the project

“Save the wooded land for lighthouse” by LPBMM (the lighthouse saved the wooded land)

- Armor the shoreline protecting the wooded area for woodlands, marsh and land retention
- Provide emergency protection for existing marsh island
- Commence shoreline area land accretion

Consolidated Projects for common purpose under the Town of Madisonville and Mayor Jean Pelloat

to protect the wooded island, restore peninsula, nourish existing marsh, and correct the hydraulic flow

Recap and Summary

- This project will effectively achieve CWPPRA typical project objectives by addressing shoreline protection, land/marsh creation and restoration, flood protection, and channel hydraulics restoration
- Phases will utilize lessons learned from prior CWPPRA projects
- All Phases will apply living shoreline guidance from 2015 publications
- Benefits will affect the residents of two municipalities by diminishing the chance of tidal or hurricane flooding anywhere along the river watershed.

Recap and Summary Continued

- Phase 1 is permitted and ready for construction as an emergency project with the intent of saving the wooded marsh island.
- Phase 2 will need to be designed further and can be split into 2 parts in order to get the shoreline protection in place to protect the area from immediate threats
- **By applying the techniques developed and presented in the living shoreline protection guidelines, the Tchefuncte River Area can be**

SUSTAINABLY RESTORED

Questions from you?

Our question to you -

What is the path forward?

Mayor Jean Pelloat
P. O. Box 160
Madisonville, LA70447
985 845 3636

Kyle Catalano
TRF
985 373 5908

Stephen Champagne
LPBMM
985 226 1593

Site for historical map 1934
<http://historicalcharts.noaa.gov/historicals/search#mainTitle>

R1-PQ

**Southwestern Lake Pontchartrain Shoreline Protection/Marsh
Creation**

(Not Consistent with 2012 or draft 2017 State Master Plans)

FACT SHEET

SOUTHWESTERN LAKE PONTCHARTRAIN SHORELINE PROTECTION/MARSH CREATION

The objective of this project is to reclaim marsh and restore the southwestern Lake Pontchartrain shoreline to its 1915 location. The shoreline has retreated 1,000 feet from its historical location in 1915. A concept has been developed for shoreline protection and marsh creation on the southwestern shoreline of Lake Pontchartrain in St. John the Baptist Parish. The project includes the design and construction of a rock breakwater along approximately 11,500 feet (2.2 miles) of shoreline from the St. Charles Parish Line to Peavine Road which will harden the shoreline and prevent shoreline retreat; and conversion of 264 acres from open water into marsh using dredged material from a borrow area within Lake Pontchartrain. This project will provide a much needed storm surge buffer between Lake Pontchartrain and LaPlace which was flooded by storm surge during Hurricane Isaac in 2012, which shut down the water distribution system and Interstate 10 for several days.



Project Goals

- Protect and maintain the existing shoreline
- Convert approximately 264 acres of open water to new marsh

Project Location

- Pontchartrain Basin, St. John the Baptist Parish

Project Status

- Planning Phase utilizing RESTORE Act Funding

Project Type

- Shoreline Protection
- Marsh Creation

Project Cost

- \$24,821,021



LAKE PONTCHARTRAIN SHORELINE PROTECTION/ MARSH CREATION



PROJECT GOALS

1. Protect and maintain the existing shoreline through the construction of approximately 11,500 feet of segmented rock breakwaters
2. Convert approximately 264 acres of open water to new marsh

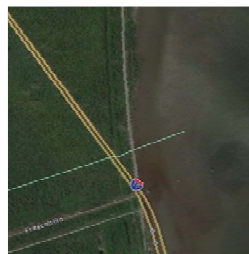


HISTORICAL SHORELINE RETREAT

1915



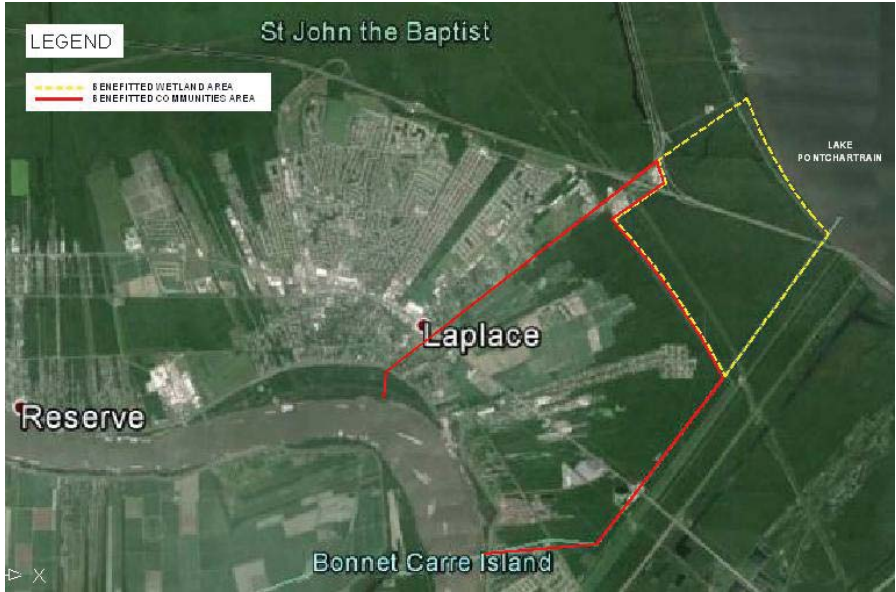
2016



PROPOSED PROJECT



BENEFITTED WETLAND AND COMMUNITIES AREAS



COST ESTIMATE

COST ESTIMATE FOR LAKE PONTCHARTRAIN SHORELINE PROTECTION/MARSH CREATION PROJECT					
REF. NO.	Item Description	Quantity	Unit	Unit Price	Total Price
1	Mobilization and Demobilization	1	LS	\$370,000.00	\$370,000.00
2	Rip-rap R1500	15,137	TON	\$59.00	\$893,083.00
3	Rip-Rap R650	21,020	TON	\$53.00	\$1,114,060.00
4	#57 Stone (6" thick)	2,200	TON	\$55.00	\$121,000.00
5	Geogrid	10,542	SY	\$4.00	\$42,168.00
6	Geotextile	10,542	SY	\$5.00	\$52,710.00
7	Construction Surveys	1	LS	\$300,000.00	\$300,000.00
8	Flotation Channel	69,000	CY	\$10.00	\$690,000.00
9	Marine Hazard Markers (Every 1000 ft)	12	EA	\$4,000.00	\$48,000.00
10	Earthen Containment Dikes	1,200	LF	\$55.00	\$66,000.00
11	Marsh Creation Hydraulic Dredging	264	AC	\$80,000.00	\$21,120,000.00
12	Settlement Plates	6	EA	\$4,000.00	\$24,000.00

Total: \$24,821,021.00